APPENDIX A

HISTORICAL FLOOD EVENTS/DAMAGES SUMMARY

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Flood #	Storm #	Start Year	Start Month	Start Day	Season	Region	LGP#	Water Bodies	Type of Event	Rainfall (mm)	Damage Estimate by Community (if known)	Description
Petty Harbour River												
221	140	1987	2	26	Winter	Eastern	4400	Ryan's River	Ice Jam			explosives was used to remove an ice jam behind Avalon Raceway after it caused some basement flooding
222	141	1987	3	17	Winter	Eastern	4400		Rainfall	74		Record snowfalls over the winter left the river channels filled with snow and ice,. During melt period it caused the bands to overflow .
224	143	1988	2	26	Winter	Eastern	4400	Ryan's River	Ice Jam			Ice Jam on Ryan's river caused flooding to some basements.
228	147	1989	1	9	Winter	Eastern	4400	Raymond River	Ice Jam			Raymond River had overflowed its banks for a week and had flooded one residents septic tank.
233	151	1990	3	4	Winter	Eastern	4400		Rainfall			Melting snow and rainfall caused flooding of one barn at the Avalon Raceway and several feet of water across the parking lot.
238	154	1991	2	15	Winter	Eastern	4400	Doyle's River	Rainfall	40		MR: Heavy rains combined with snowmelt caused damages to several residences. Rain combined with snowmelt caused flooding conditions; water flowed over the highway and overtopped the river banks. Snowmelt and rainfall caused flooding in many areas in the Gould's. Doyles River flooded its banks.

Source: AMEC, 2012

		2009	10	17	Fall	Eastern	4400	Cochrane Pond Brook and Raymond Brook	Rainfall	50		Telegram: Hard and fast rains overnight drove flooding in the metro area today. . In the Goulds, the horse racetrack also flooded, and horses in one barn had to be moved to other barns and farms in the area. The general manager of the racetrack said that this was the third time in a week they have been flooded. Western Star: According to Environment Canada, 52 millimetres of rain fell between 8 p.m. Friday evening and 7 a.m. Saturday. Wind forecasts for Saturday were in the 100-120 kilometre per hour range

Sources: http://www.thetelegram.com/Arts---Life/Environment/2009-10-17/article-1454294/Goulds,-Mount-Pearl-face-flooding/1
http://www.thewesternstar.com/Arts-Life/Environment/2009-10-19/article-1479643/East-coast-drenched-by-another-fall-storm/1

		2010	9	17	Fall	Eastern	4400		Rainfall	50		Hurricane Igor - It was requested, by the City, that Hurricane Igor (September 22, 2010) be added to the overall list of known flood events in the study area as this storm was noted as having caused extensive flooding in all the rivers in the Goulds.

Source: City of St. John’s

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CANADA-NEWFOUNDLAND
AGREEMENT RESPECTING
WATER RESOURCE MANAGEMENT

Flood Risk Mapping Study

Goulds, Petty Harbour and Ferryland

Volume I - Main Report

GOVERNMENT OF
NEWFOUNDLAND
AND LABRADOR

Department of
Environment

Environment
Canada

Environnement
Canada

3.0 OVERVIEW OF HISTORICAL FLOODING

3.1 Introduction

The history of flooding at Goulds, Petty Harbour and Ferryland has been drawn together from a variety of sources for this study. Principal use was made of:

- a comprehensive review of "*Flooding Events in Newfoundland and Labrador - An Historical Perspective*", prepared by the Water Planning and Management Branch, Environment Canada (Kindervater, 1980). This report gives the causes and effects of floods in the area from 1934 to 1979;

- a listing of similar information for flood events from 1985 to 1994 prepared by the Technical Committee as part of the Terms of Reference of this study;

- newspaper reports giving additional details of flood events from 1985 to 1991. These and earlier reports are archived on microfiche at Memorial University;

- recollections of recent flood events compiled from interviews of local residents during August 1994.

3.2 Historical Flooding - Goulds

It is evident from review of the literature and local reports that flooding in the Goulds area has been frequent and, to some degree, is an annual occurrence. Although flooding is regular, its effects appear limited to periodic roadway overtopping, some basement flooding, and regular flooding of the barns and parking lot at the Avalon Raceway. There has also been loss of life at Goulds when a young child drowned (in April 1964) after she fell into a swollen stream.

Table 3.1 provides a historical overview of potential flooding conditions in the Goulds area (1934 to 1982). The table references "potential" flooding occasions based on historical reports of flooding on the neighbouring Waterford River and in areas adjacent to St. John's (Kindervater, 1980). Table 3.2 provides a listing of confirmed flooding occasions (or high flow conditions) in 1964 and 1982 to 1994. It is surmised that the recent urban development in the Goulds area would have been affected by flooding conditions reported in Table 3.1 had the present urban development been in place during the earlier flood conditions.

TABLE 3.1
Flooding Potential - Goulds

Date	
Oct. 12-14, 1934	heavy rains in the Southside Hills and over the Avalon Peninsula (93.5 mm in 60 hours at Cape Race)
Aug. 2-4, 1941	torrential rains from St. John's area to Burin Peninsula (93.3 mm at Grand Banks)
Jan. 29-30, 1942	heavy rain with snowmelt caused flooding throughout St. John's with St. John's rainfall totalling 127.8 mm over 2 days
Oct. 4, 1942	rainfall and gale caused flooding of ponds and rivers in the suburbs. Torbay Airport reported 100.8 mm rainfall in one day
Dec. 2-3, 1942	suburban St. John's watercourses flooded roads and fields, resulting from 71.4 mm rainfall on 2nd (perhaps 63.5 mm in 3.5 hours)
July 23-24, 1945	heavy flood damage reported in outskirts of St. John's where fields and roads everywhere were inundated (99.8 mm rain in 2 days)
July 27-29, 1946	rainstorm (~14 hr duration) over entire Avalon Peninsula caused numerous washouts/ general flooding (129 mm at Torbay Airport)
Dec. 1-2, 1946	rainstorm over entire Avalon Peninsula caused highest flows since Jan. 1942 (yet only 68.5 mm rain in 2 days)
Sept. 14-15, 1948	torrential rain (117.1 mm in 2 days) which followed a tropical storm two weeks earlier
Apr. 10-12, 1951	3-day rainfall of 170 mm (Torbay) raised local lakes to remarkably high elevations
Feb. 12-13, 1955	flooding reported at Mobile and on Waterford and Rennie's River, St. John's, caused by rain (at this time) which followed 2 to 3 other heavy rainfalls in January
Nov. 10-11, 1959	intense rainfall (70.1 mm over 2 days) followed 83.6 mm on 1-2 November and caused overbank flows and flooding in low lying areas on the Avalon Peninsula
Jan. 1-3, 1963	rain, melting snow and ice jams caused significant flooding in St. John's (e.g., Waterford River) and at many locations along the coastline from the Avalon Peninsula to Notre Dame Bay
Dec. 20-21, 1966	rainfall (102.8 mm) over 2 days caused widespread high flows, road flooding and washouts - likely including the Goulds area
Feb. 27-Mar. 2, 1970	4-day rainfall (114 mm) resulted in general flooding in the St. John's area
Jan. 31-Feb. 1, 1971	melting snow and rain (48.8 mm) caused flooding at many locations on the Avalon Peninsula (including St. John's)
Dec. 27-29, 1977	snowmelt and rain caused brooks and ponds to rise "far above normal" across the province
Jan. 28-30, 1979	91 mm rainfall over 6 days caused local flooding and high water levels on adjacent rivers

TABLE 3.1 (continued)
Historical Flooding Potential - Goulds

Date	
Oct. 10-11, 1981	over 121 mm rainfall in 2.5 days resulted in serious flooding in the Southside Hills area
Nov. 26, 1981	76 mm rainfall in one day caused overbank flooding in a number of areas in St. John's (e.g., Southside Roads)
Oct. 3-5, 1982	over 100 m rainfall reported on one day during severe storm and high winds, but little or no flooding was reported

references: Kindervater (1980)
Fenco Newfoundland (1988)

TABLE 3.2
Historical Flooding - Goulds

Date	
Apr. 16-17, 1964	rainfall increased streamflows at Goulds where a 2-year old child fell into a stream and drowned
May 24-25, 1985	84.8 mm rainfall in 33 hours caused flooding in St. John's and localized flooding in a number of areas around the Town of Goulds. The parking lot and entrance to the Avalon Raceway were blocked by high water.
Winter 1985/86	ice jams formed at the outlets of the rivers into Third Pond following a rainstorm. A house near Raymond's brook was flooded and the water flowed across the Avalon Raceway at Goulds.
Apr. 11, 1986	rainfall on frozen soil led to flooding in many areas in and around St. John's. Rainfall amounts from 70 to 109.6 mm (over a 22-hr. period) were recorded at climate stations in the St. John's area. Many areas in the Goulds reported flooding. A culvert crossing at Bishops Lane caused water to back up and flood a property. Other culvert blockages resulted in further flooding. Again, the Avalon Raceway was hit by flooding and it was reported that 30 horses were evacuated.
Feb. 26-27, 1987	an ice jam on Ryan's River behind the Avalon Raceway was removed by explosives after causing some basement flooding and ice pieces to jam up against some nearby houses.
Mar. 17-20, 1987	Record snowfalls over the winter left the river channels filled with snow and ice. During this melt period, there was also over 74 mm of rainfall and runoff quickly overtopped the riverbanks in the Goulds area. Again, the Avalon Raceway was flooded but there were only a few flooded basements
Feb. 26-Mar. 2, 1988	blasting was used on the Ryan's River behind the Avalon Raceway in Goulds to break up an ice jam which caused some basement flooding in nearby homes and precautionary evacuation of horses from the raceway. Problems were attributed to obstructions in the river, including remnants of a partially removed dam at the lower end of the Third Pond.
Jan. 9, 1989	Raymond's River, which flows into Third Pond, had overflowed its banks for a week (because of ice build-up) and had flooded one resident's septic tank. The Emergency Measures Division ice demolition team was called in to alleviate potential problems.
Mar. 4, 1990	melting snow and rainfall caused flooding of one barn at the Avalon Raceway and several feet of water across the parking lot
Feb. 15-16, 1991	Snowmelt combined with 40 mm of rainfall on frozen ground caused flooding in many areas of the Goulds. Doyle's River near a service station overflowed its banks and flooded the property. Many culverts and bridges were flowing at or near capacity. The Avalon Raceway was again hit by flooding from the Ryan's River and four barns were flooded.
Spring 1993	roadway overtopping at Doyles River reported to cause flow over the gasoline station each year

TABLE 3.2 (continued)
Historical Flooding - Goulds

Date	
Spring 1994	roadway flooding and a bridge was overtopped (or nearly overtopped) as a result of snow beneath it or debris and rafting ice. Water was 2.5 ft. deep at entrance to main barn at the raceway. ** Raceway staff indicate that the predominant source of flooding is the southern Raymond's Brook and not the more northern Ryan's Brook (which affects the back barn)

references:
- newspaper reports (i.e., Evening Telegram)
- local residents
- study Terms of Reference

It is possible to draw several preliminary conclusions from review of Table 3.1 and Table 3.2. Generally, flooding problems may be anticipated to result from synoptic rainfall events with durations of about two days. A rainfall total of about 70 mm appears to be the threshold value which will initiate flooding in adjacent areas. In addition, regular flooding can be anticipated because of natural accumulation of ice in the local rivers and culvert blockages by debris, snow and ice. As noted in a 1987 newspaper report, "flooding has been going on for many years but there was never any real need for concern before the Avalon Raceway was constructed".

It is also interesting to note that early references to flooding on the "outskirts of St. John's" have more recently been replaced by specific references to Goulds and other industrial and residential areas which have grown in these areas. In view of this urban growth, the frequency of previous flooding, and the possibility of damaging floods in the future, it is appropriate that the Technical Committee has initiated the flood risk mapping component of this study.

3.3 Historical Flooding - Petty Harbour

It is noted in the Terms of Reference for this study that, "the most severe flooding to occur in Petty Harbour occurred in April 1986. Prior to 1986 there were reports of high flows but no severe flooding. The flooding occurs along the lower sections of the river upstream of the bridge near the outlet into the harbour. The river channel is downstream of the forebay dam for the hydroelectric plant at Petty Harbour".

Interviews with local residents (August 1994) and the work by Kindervater (1980) provide supporting and additional information given below.

TABLE 3.3
Historical Flooding - Petty Harbour

Date	
~ 1940	local residents report that the worst riverine flood in recent memory is from an event which occurred prior to 1945 (estimated ~ 1940) when there was 3 to 4 feet of flow over the old upstream dam
Oct. 22, 1955	high winds, waves and water levels generated by a "nameless" hurricane damaged stages at Petty Harbour (Kindervater, 1980)
Jan. 20-21, 1977	high winds and heavy seas damaged wharves at St. John's and Placentia (and potentially at Petty Harbour) (Kindervater, 1980)
Apr. 11, 1986	this flooding event followed a rainstorm in which 71 mm of rain fell on the area in 11 hours. Snowmelt combined with frozen ground increased the severity of the flooding. The reservoir at Second Pond upstream of the town was also full at the time. Several residences, a council building and a senior citizens home were flooded. The position of grading material around the council building was considered the cause of this flooding rather than the river. Flood levels reached within several inches of the underside of the railing at the culvert crossing on the main road or 3 feet below the obvert of the old bridge.

Overall, there is confirmed riverine flooding from rainfall or snowmelt-with-rainfall events in the early 1940s and in 1986 and flood damage from heavy seas in 1955 and possibly in 1977. There is also information from local residents that there is minimal flood damage observed each year from small channels which become filled with snow and ice and cause some basement flooding.

In that this picturesque locale is undoubtedly a location where new residences may be proposed along the river, it is timely that the Province has launched this study to identify the limits of the riverine flood risk.

APPENDIX B

WATERCOURSE CROSSING SUMMARIES

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PETTY HARBOUR RIVER (and TRIBUTARIES) WATERCOURSE CROSSINGS

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WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3101
Watershed: Petty Harbour River
Watercourse: Petty Harbour River

Road Name: Main Road
Road Name Alias: Main Road

Structure Type: Bridge

Observer(s): Stephen Cutter

Organization(s): AMEC

Info Source(s): Survey/Mapping

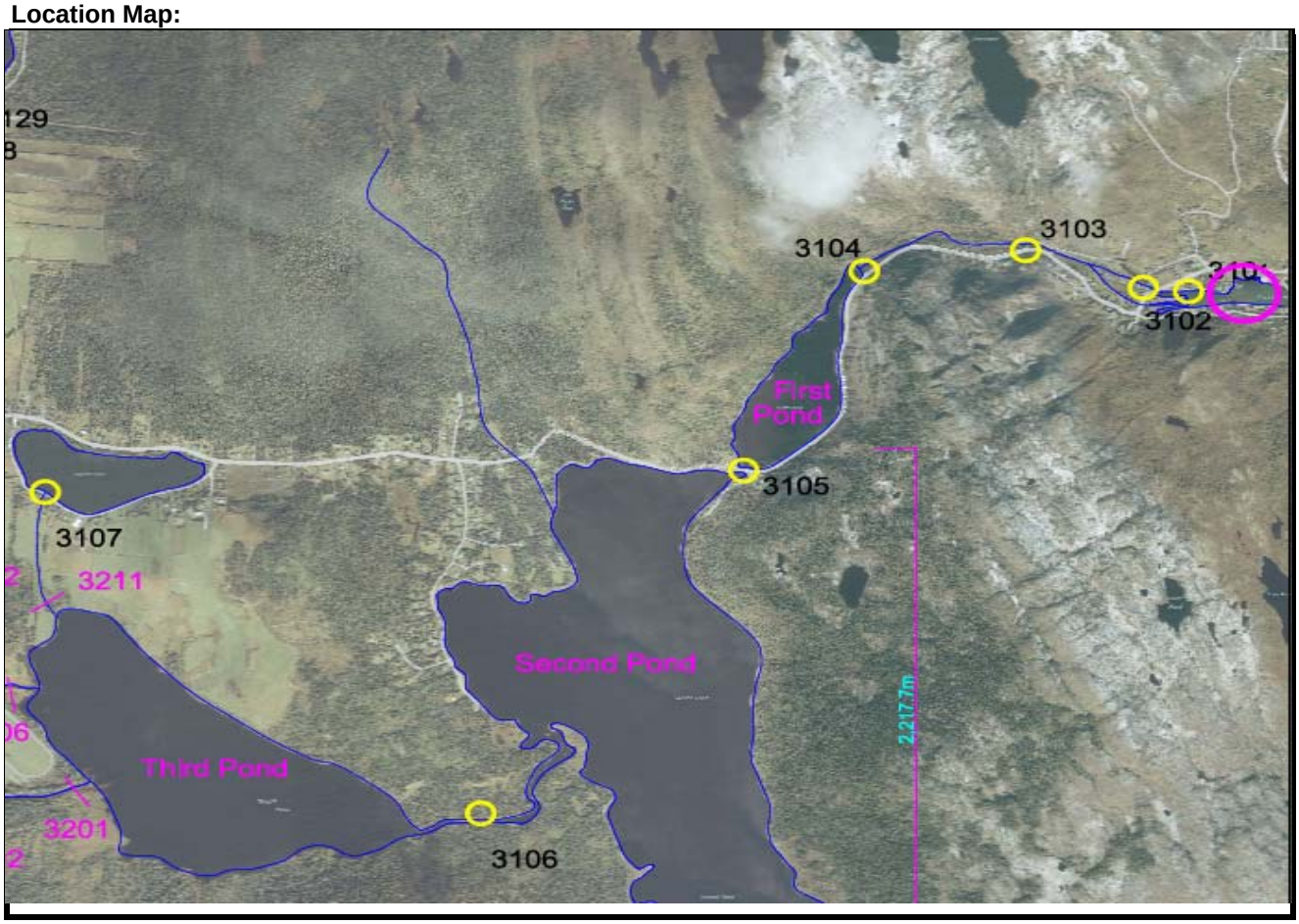
Date(s): 17/12/2011

Map Sheet(s): 1
Location: **Latitude** 52º43'26.8"
Longitude 47º27'53."
Control NAD83
Projection MTM Zone 1

Deck: Paved

Photos: 100-477 to 484

Location Map:



Notes:

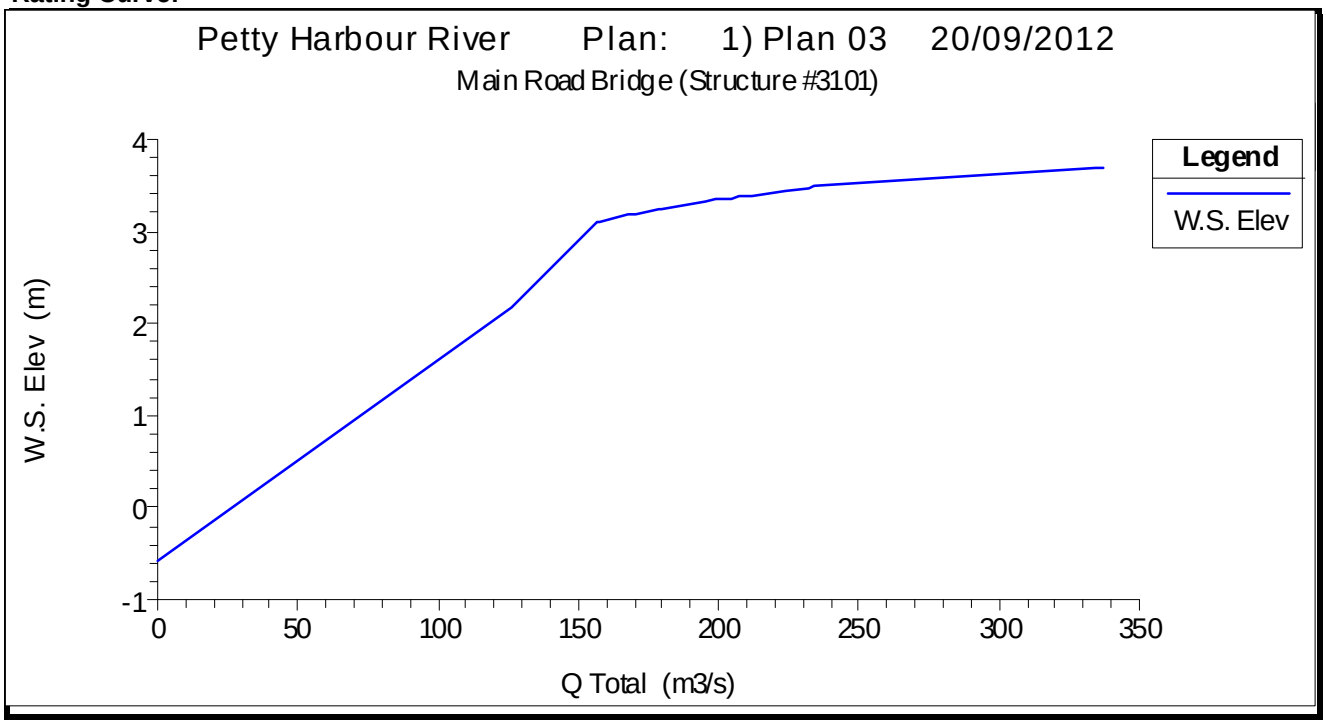
WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3101**
Road Name: Main Road

# of Bridge Piers or Arches:	0
Skewed to Road?	N
Road Width:	10.00 m
Span:	26.67 m
Deck Thickness:	1.87 m
Top of Deck:	4.00 m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**	-0.59						
	d/s:	-1.92						
Type:		Bridge						
Material:		Concrete						
Opening:	**B**	3.01						
	W	26.67						
Length:		10.00						
Slope:		0.133						

Rating Curve:



HEC-RAS Data

Tributary :	PettyHR-M001
Structure # :	485
Modeled as :	Bridge
Data from :	Survey/Mapping

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3101
Road Name: Main Road

Description: Downstream face of bridge



Description: Upstream face of bridge



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3101**
Road Name: Main Road

Description: Petty Harbour River looking upstream from bridge



Description: Top of road looking south



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3102
Watershed: Petty Harbour River
Watercourse: Petty Harbour River

Road Name: Main Road
Road Name Alias: Main Road

Structure Type: Bridge

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): Survey/Mapping

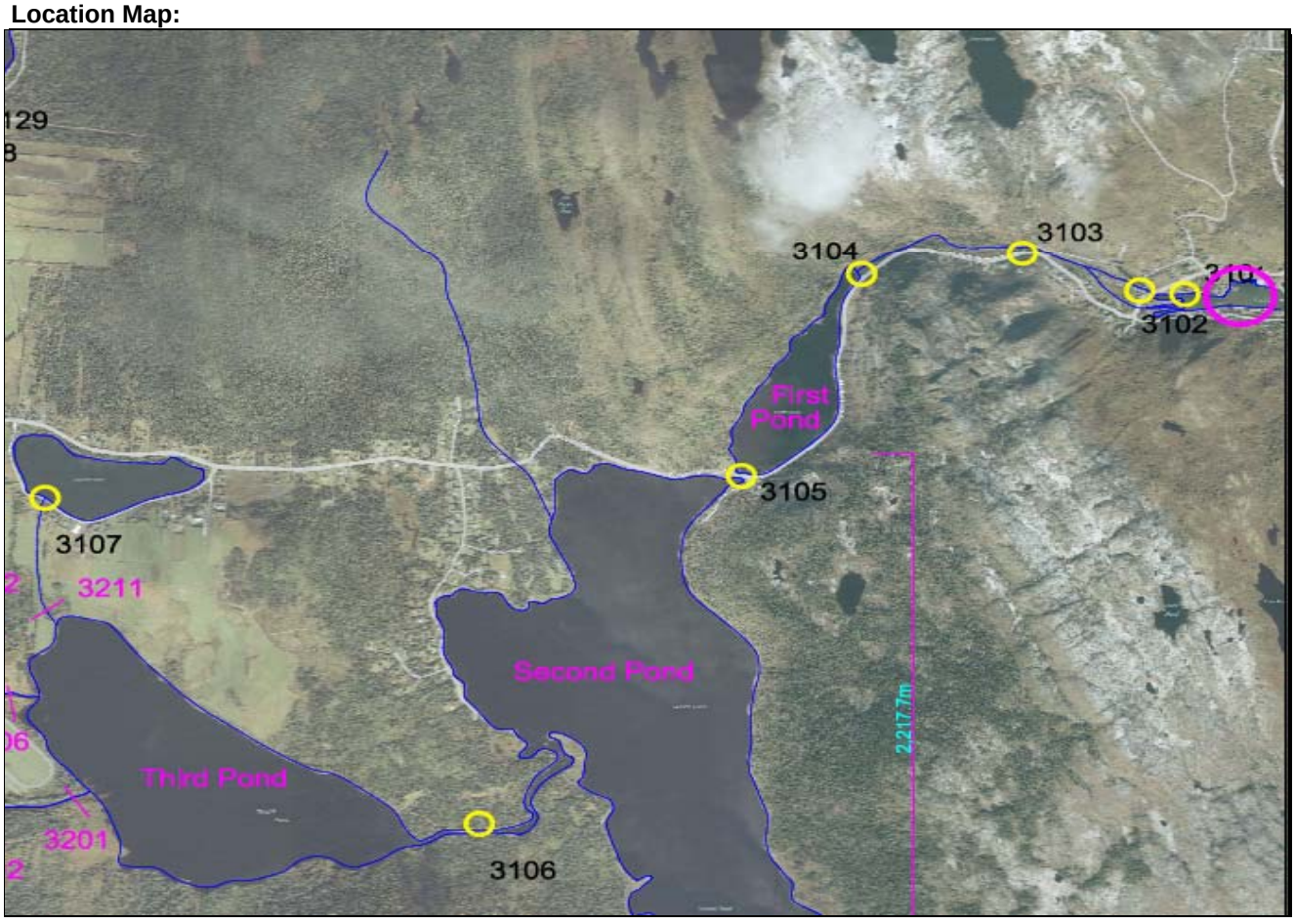
Date(s): 17/11/2011

Map Sheet(s): 1
Location: **Latitude** 52º42'38.5"
Longitude 47º27'52."
Control NAD83
Projection MTM Zone 1

Deck: Paved

Photos: -

Location Map:



Notes: opening not modelled in favour of 3101

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3102**
Road Name: Main Road

# of Bridge Piers or Arches:	0
Skewed to Road?	N
Road Width:	10.00 m
Span:	4.50 m
Deck Thickness:	0.62 m
Top of Deck:	2.50 m

Number of Structures:		**1**	**2**	**3**	**4**	**5**	**6**	**7**
Invert Elev:	**u/s:**	0.86						
	d/s:	0.84						
Type:		Bridge						
Material:		Concrete						
Opening:	**B**	1.34						
	W	4.5						
Length:		10.00						
Slope:		0.002						

Rating Curve:

Structure integrated with 3101 in HEC-RAS model

HEC-RAS Data

Tributary :	PettyHR-M001
Structure # :	485
Modeled as :	Bridge
Data from :	Survey/Mapping

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3102
Road Name: Main Road

Description: Looking downstream towards harbour (from Google Streetview)



Description: Looking upstream from bridge (from Google Streetview)



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3102

Road Name: Main Road

Description: Top of road looking south (from Google Streetview)



Description:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3102a
Watershed: Petty Harbour River
Watercourse: Petty Harbour River

Road Name: Main Road
Road Name Alias: Main Road

Structure Type: Bridge

Observer(s): Stephen Cutter

Organization(s): AMEC

Info Source(s): Survey/Mapping

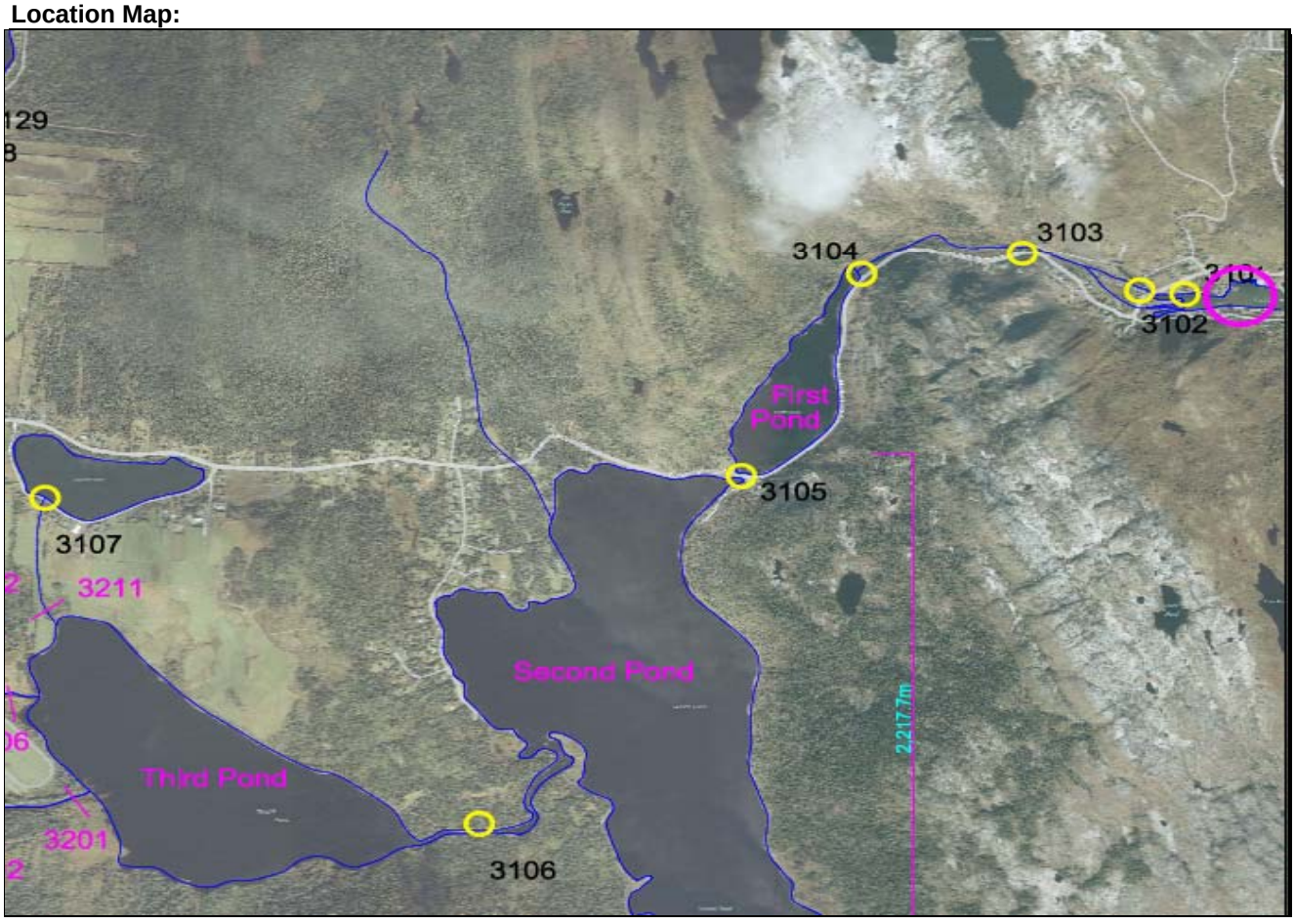
Date(s): 17/12/2011

Map Sheet(s): 1
Location: **Latitude** 52º42'41.4"
Longitude 47º27'48.8"
Control NAD83
Projection MTM Zone 1

Deck: Paved

Photos: 100-485 to 493

Location Map:



Notes: opening not modelled in favour of 3101

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3102a**
Road Name: Main Road

# of Bridge Piers or Arches:	0	
Skewed to Road?	N	
Road Width:	10.00	m
Span:	4.50	m
Deck Thickness:	0.62	m
Top of Deck:	2.50	m

Number of Structures:		**1**	**2**	**3**	**4**	**5**	**6**	**7**
Invert Elev:	**u/s:**	1.5						
	d/s:	0.94						
Type:		Bridge						
Material:		Concrete						
Opening:	**B**	0.68						
	W	4.5						
Length:		10.00						
Slope:		0.056						

Rating Curve:

Structure integrated with 3101 in HEC-RAS model

HEC-RAS Data

Tributary :	PettyHR-M001
Structure # :	485
Modeled as :	Bridge
Data from :	Survey/Mapping

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3102a
Road Name: Main Road

Description: Looking downstream towards harbour (from Google Streetview)



Description: Looking upstream from bridge (from Google Streetview)



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3102a**
Road Name: Main Road

Description: Top of road looking south (from Google Streetview)



Description: Upstream face of structure



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3103
Watershed: Petty Harbour River
Watercourse: Petty Harbour River

Road Name: Power Plant Access Road
Road Name Alias: Power Plant Access Road

Structure Type: Bridge

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): Survey/Mapping

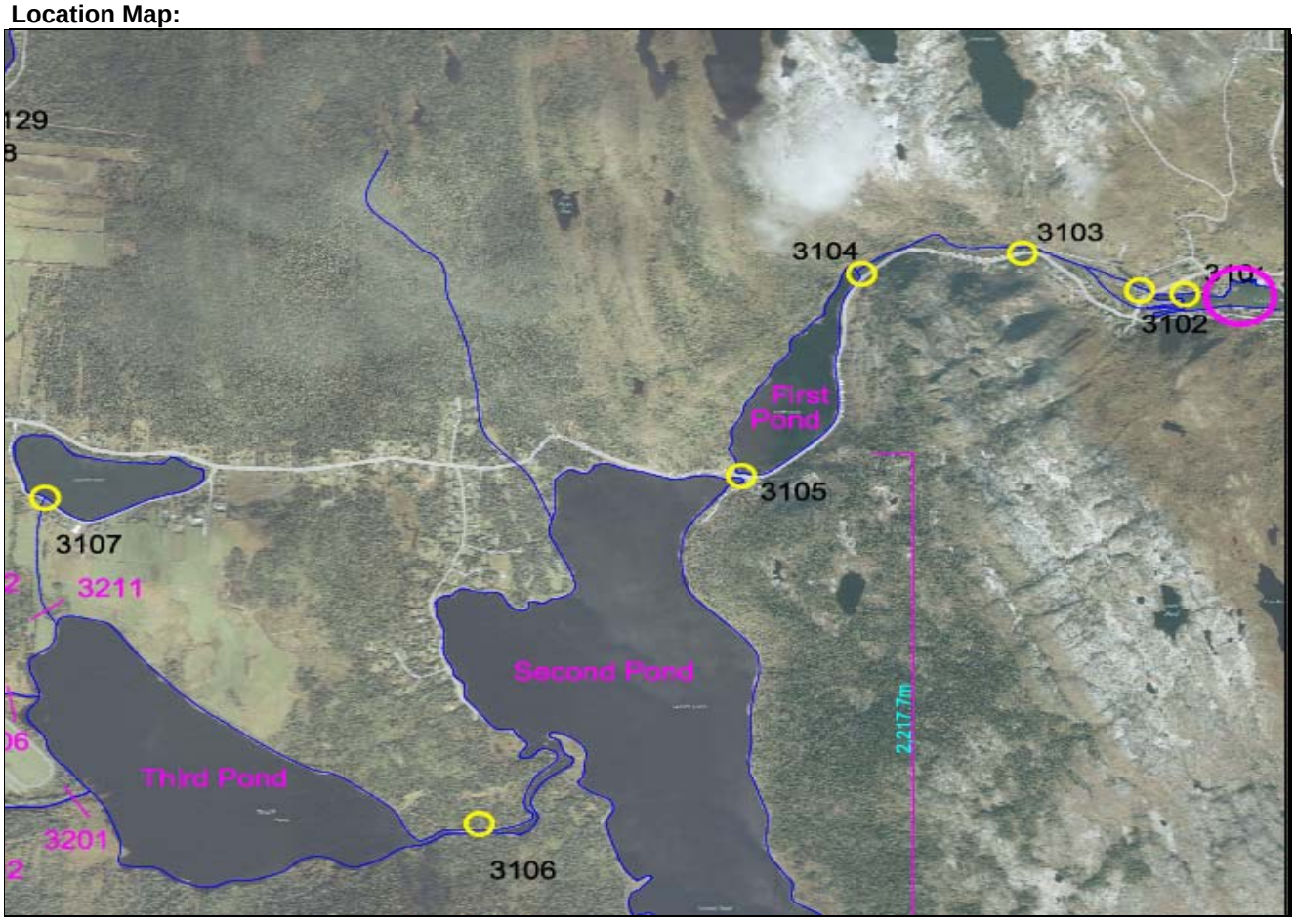
Date(s): 17/11/2011

Map Sheet(s): 1
Location:
Latitude 52º42'56.1"
Longitude 47º27'56.6"
Control NAD83
Projection MTM Zone 1

Deck: Wood

Photos: 100-494 to 501

Location Map:



Notes:

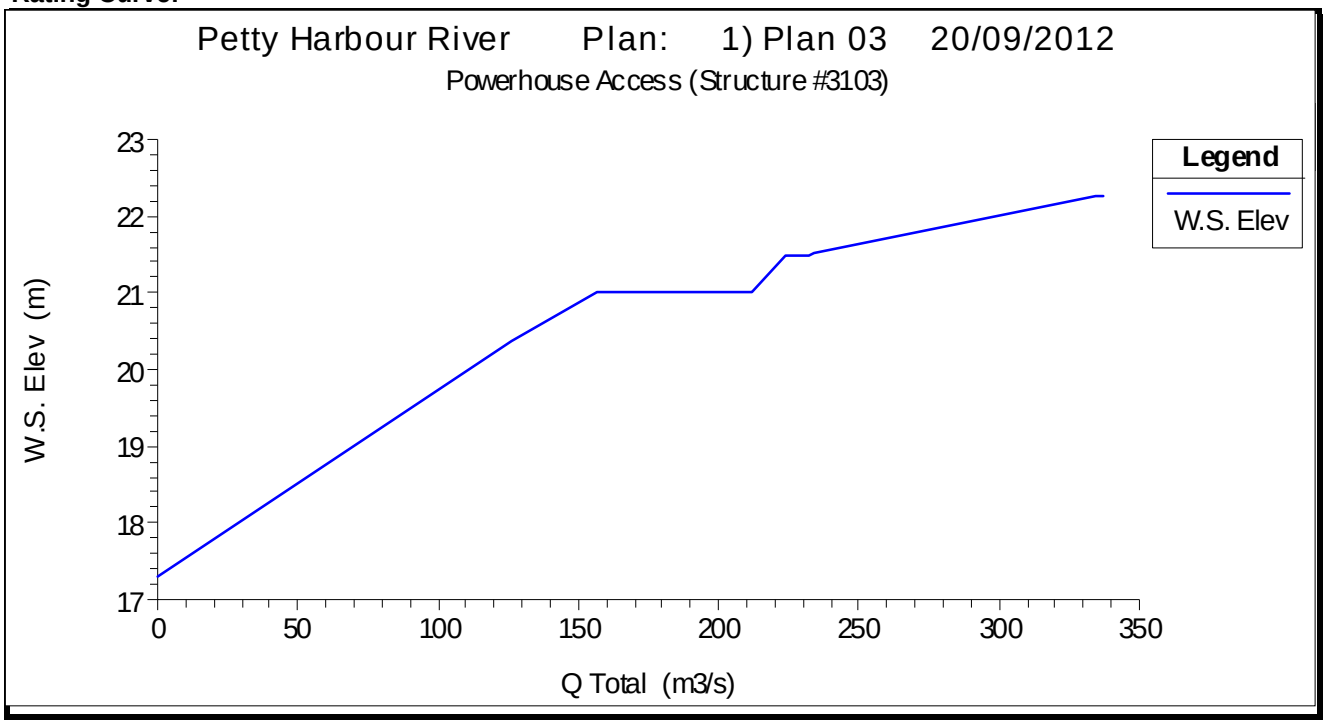
WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3103**
Road Name: Power Plant Access Road

# of Bridge Piers or Arches:	2
Skewed to Road?	N
Road Width:	5.50 m
Span:	19.17 m
Deck Thickness:	0.44 m
Top of Deck:	20.68 m

Number of Structures:		**1**	**2**	**3**	**4**	**5**	**6**	**7**
Invert Elev:	**u/s:**	17.29						
	d/s:	17.25						
Type:		Bridge						
Material:		Concrete/Wood						
Opening:	**B**	3.51						
	W	19.17						
Length:		5.50						
Slope:		0.007273						

Rating Curve:



HEC-RAS Data

Tributary :	PettyHR-M001
Structure # :	875
Modeled as :	Bridge
Data from :	Survey/Mapping

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3103
Road Name: Power Plant Access Road

Description: Upstream face of bridge



Description: Downstream face of bridge



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3103**

Road Name: Power Plant Access Road

Description: Looking upstream from bridge



Description:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3104
Watershed: Petty Harbour River
Watercourse: Petty Harbour River

Road Name: Petty Harbour Dam
Road Name Alias: Petty Harbour Dam

Structure Type: Dam

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): Survey/Mapping

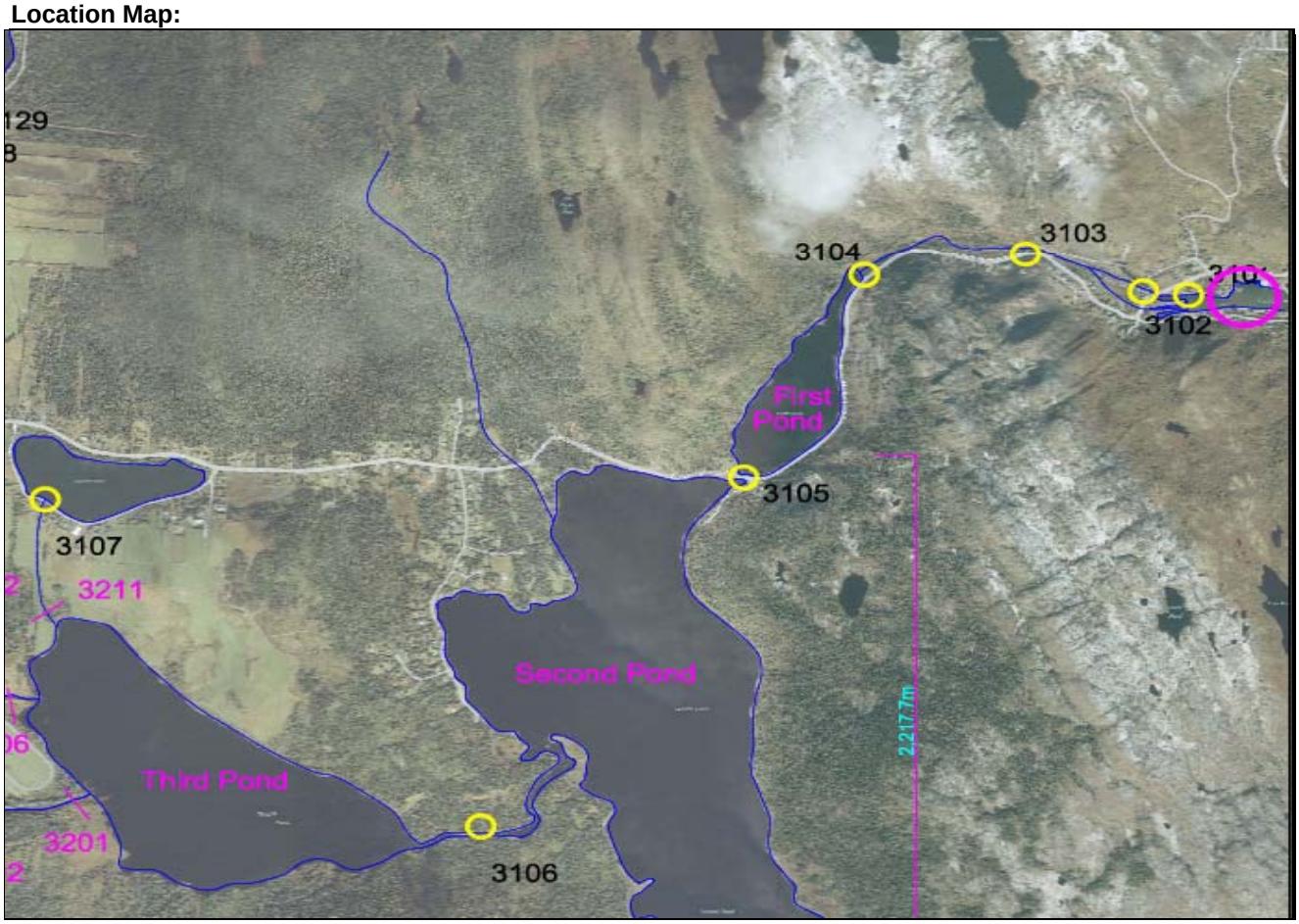
Date(s): 17/11/2011

Map Sheet(s): 2
Location: **Latitude** 52º43'26.8"
Longitude 47º27'53."
Control NAD83
Projection MTM Zone 1

Deck: Concrete

Photos: 100-509 to 513

Location Map:



Notes:

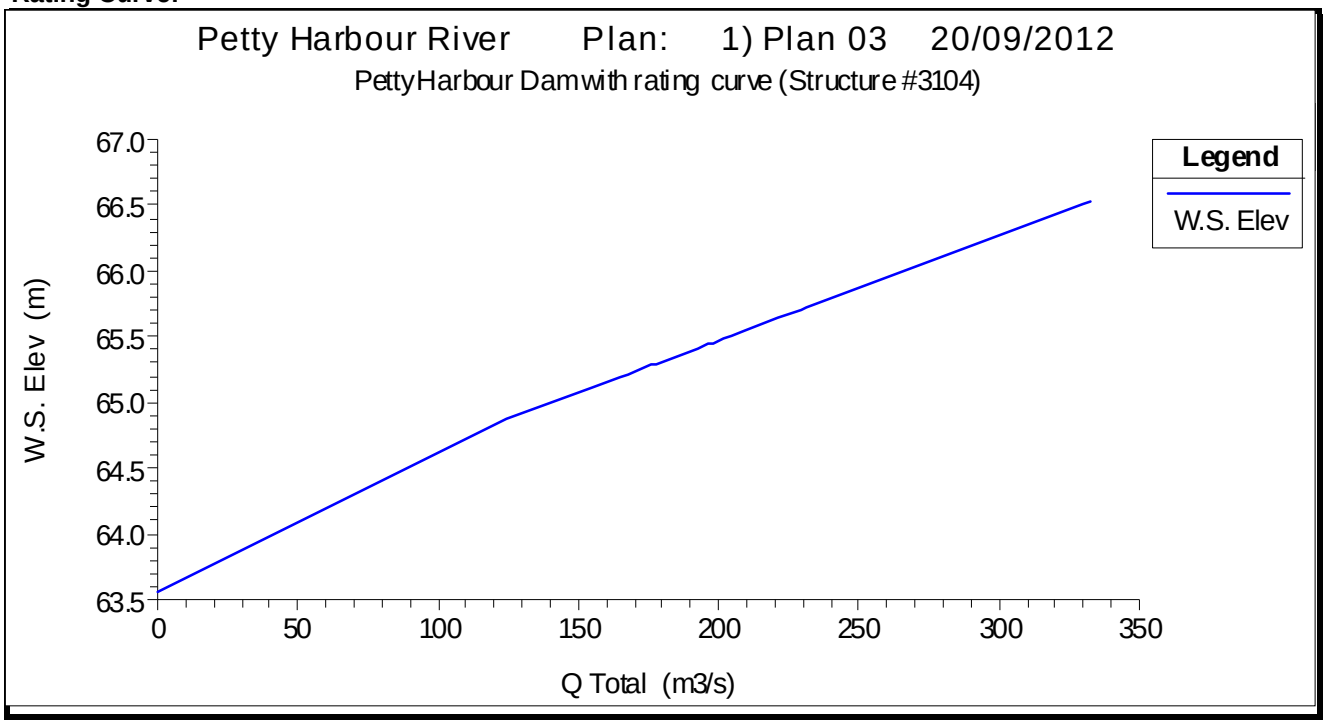
WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3104**
Road Name: Petty Harbour Dam

# of Bridge Piers or Arches:	0	
Skewed to Road?	N	
Road Width:	n/a	m
Span:	n/a	m
Deck Thickness:	n/a	m
Top of Deck:	n/a	m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**	n/a						
	d/s:	n/a						
Type:		Dam						
Material:		Concrete						
Opening:	**B**							
	W							
Length:								
Slope:								

Rating Curve:



HEC-RAS Data

Tributary :	PettyHR-M001
Structure # :	1,632
Modeled as :	Rating Curve
Data from :	Survey/Mapping

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3104
Road Name: Petty Harbour Dam

Description: Upstream face of dam



Description: Downstream face of dam



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3104**

Road Name: Petty Harbour Dam

Description: Looking upstream from dam across First Pond (from Google Streetview)



Description: Looking downstream from dam



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3105
Watershed: Petty Harbour River
Watercourse: Petty Harbour River
Road Name: Petty Harbour Road (btw 1st and 2nd Pond)
Road Name Alias: Petty Harbour Road (btw 1st and 2nd Pond)

Map Sheet(s): 3
Location: **Latitude** 52º43'49.7"
Longitude 47º27'27.4"
Control NAD83
Projection MTM Zone 1

Structure Type: Bridge
Deck: Paved

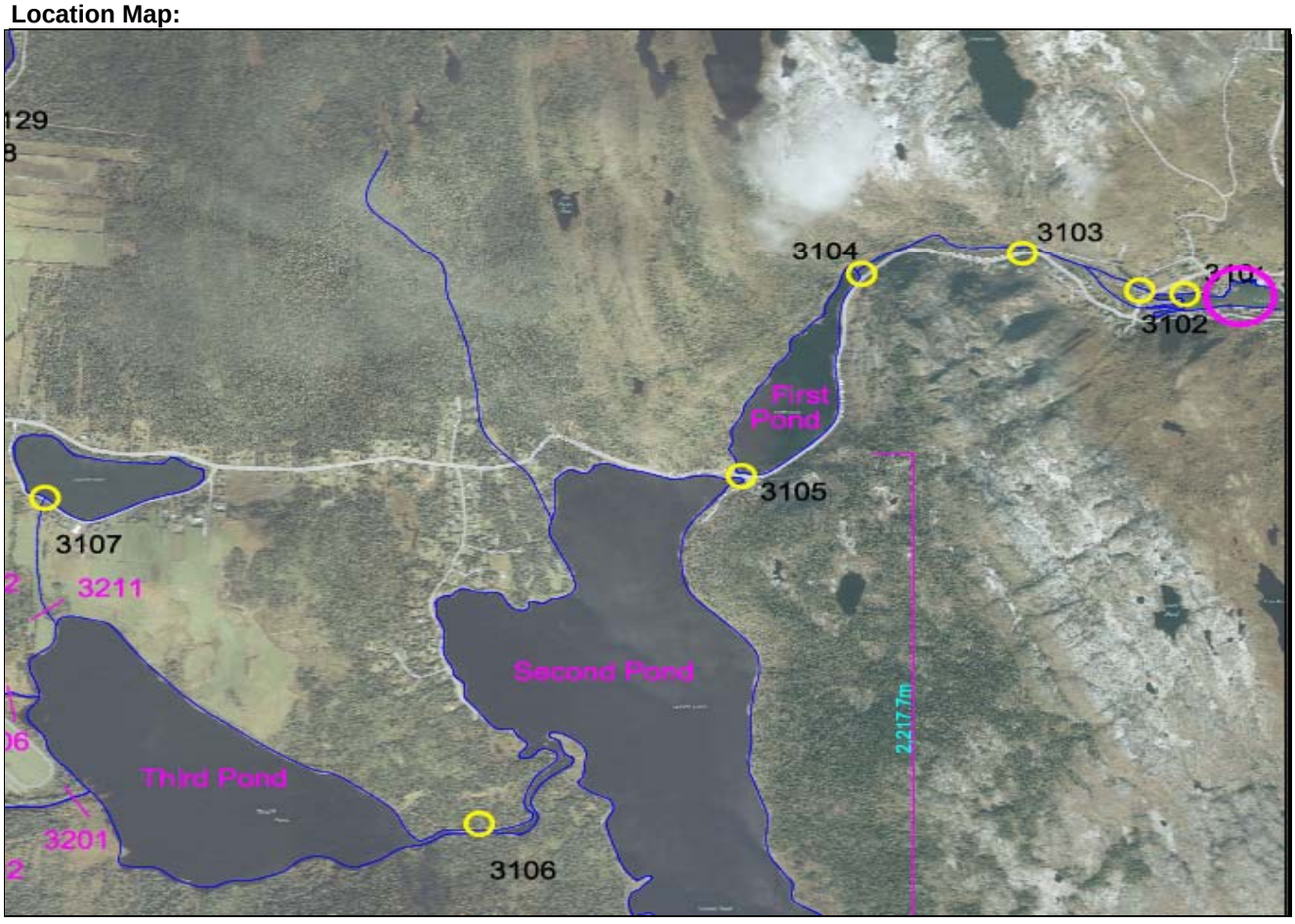
Observer(s): M. McComiskey & M. Gosse
Photos: 100-514 to 519

Organization(s): AMEC

Info Source(s): Survey/Mapping

Date(s): 17/11/2011

Location Map:



Notes:

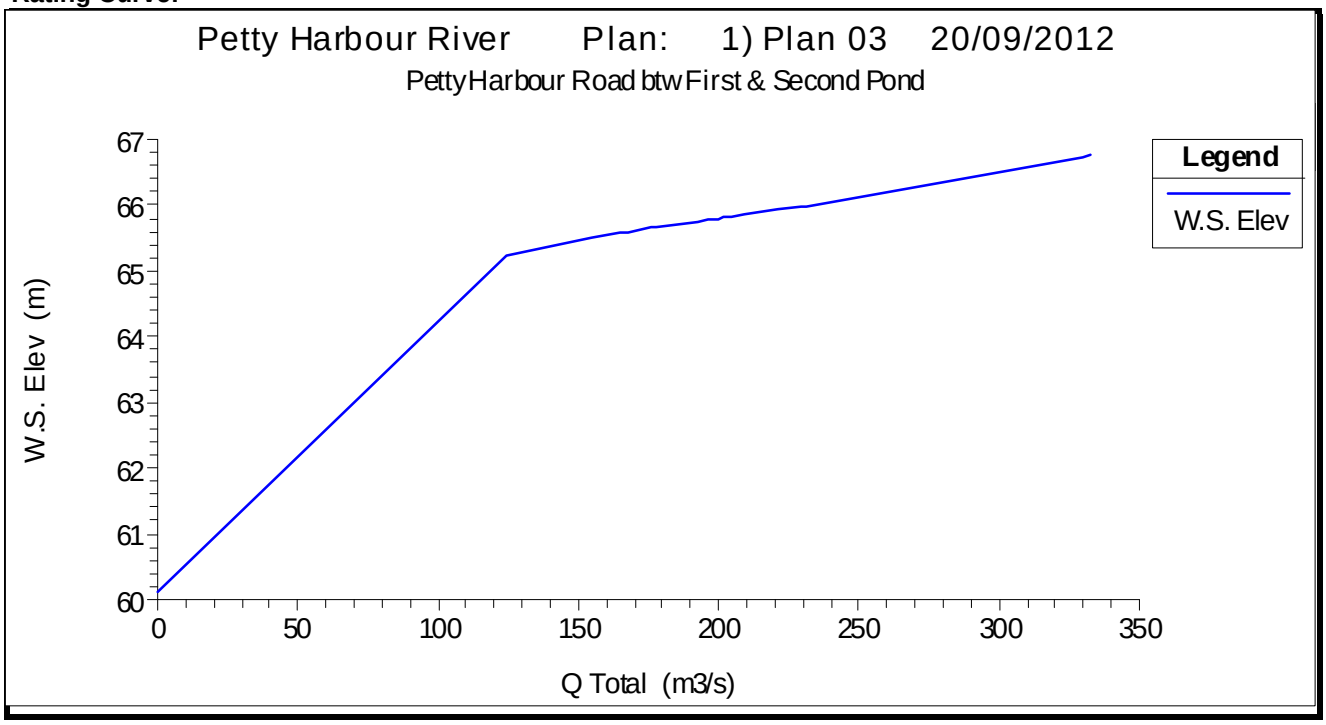
WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3105**
Road Name: Petty Harbour Road (btw 1st and 2nd Pond)

# of Bridge Piers or Arches:	0
Skewed to Road?	N
Road Width:	10.10 m
Span:	15.62 m
Deck Thickness:	1.40 m
Top of Deck:	64.50 m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**	60.1						
	d/s:	60						
Type:		Bridge						
Material:		Concrete						
Opening:	**B**	3.5						
	W	15.62						
Length:		10.10						
Slope:		0.009901						

Rating Curve:



HEC-RAS Data

Tributary :	PettyHR-M001
Structure # :	2,580
Modeled as :	Bridge
Data from :	Survey/Mapping

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3105
Road Name: Petty Harbour Road (btw 1st and 2nd Pond)

Description: Upstream face of structure



Description: Downstream face of structure



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3105

Road Name: Petty Harbour Road (btw 1st and 2nd Pond)

Description: Looking downstream from structure



Description: Top of road looking north



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3106
Watershed: Petty Harbour River
Watercourse: Petty Harbour River

Map Sheet(s): 4, 6
Location: **Latitude** 52º44'25.3"
Longitude 47º26'38.9"
Control NAD83
Projection MTM Zone 1

Road Name: Donovan's Road (btw 2nd and 3rd Pond)
Road Name Alias: Donovan's Road (btw 2nd and 3rd Pond)

Structure Type: no structure at this location

Deck: n/a

Observer(s): M. McComiskey & M. Gosse

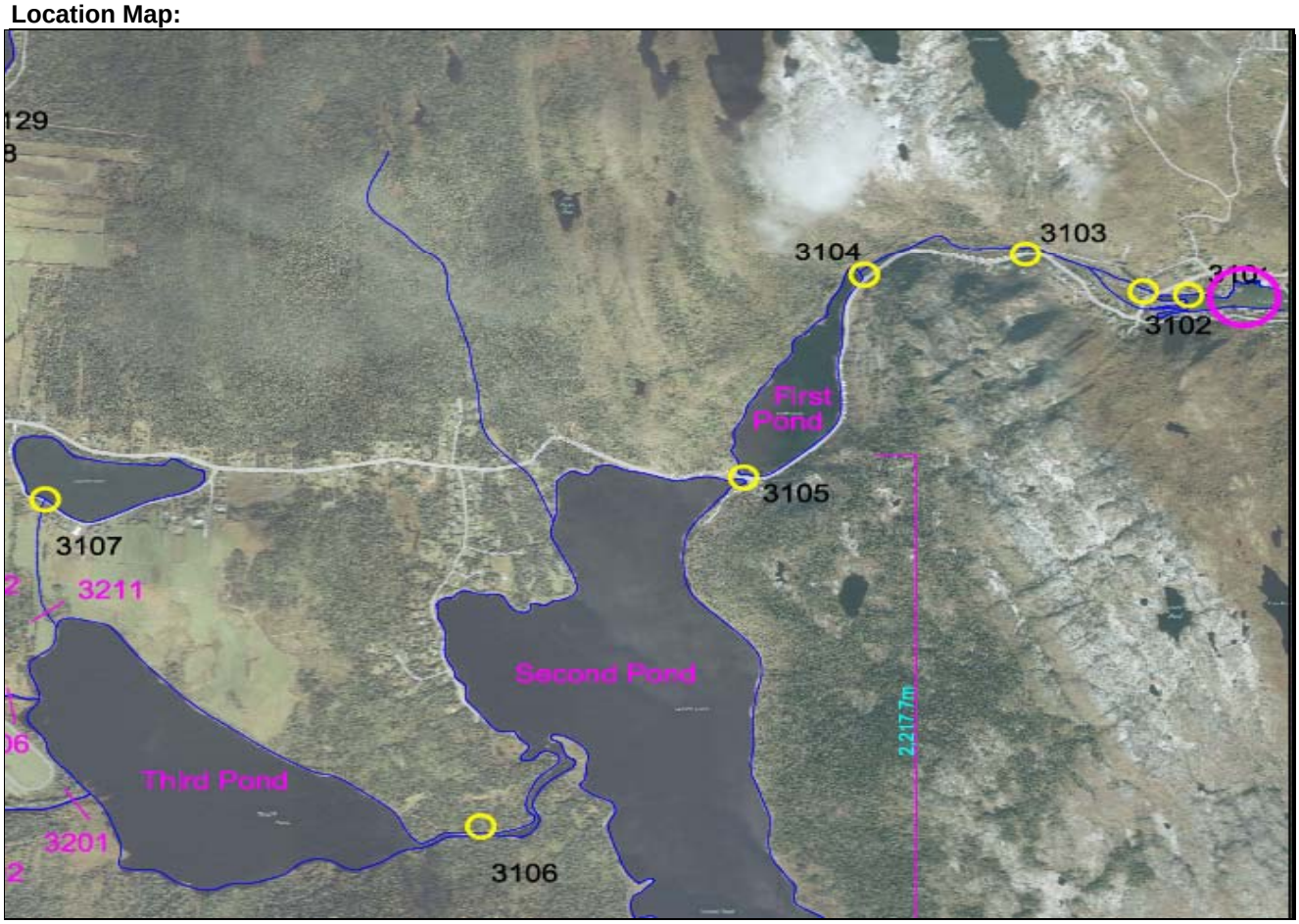
Photos: -

Organization(s): AMEC

Info Source(s): n/a

Date(s): 17/11/2011

Location Map:



Notes: no structure at this location

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3106**
Road Name: Donovan's Road (btw 2nd and 3rd Pond)

# of Bridge Piers or Arches:	n/a	
Skewed to Road?	n/a	
Road Width:	n/a	m
Span:	n/a	m
Deck Thickness:	n/a	m
Top of Deck:	n/a	m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**							
	d/s:							
Type:								
Material:								
Opening:	**B**							
	W							
Length:								
Slope:								

Rating Curve:

HEC-RAS Data

Tributary :	n/a
Structure # :	n/a
Modeled as :	n/a
Data from :	n/a

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3106
Road Name: Donovan's Road (btw 2nd and 3rd Pond)

Description:

Description:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3106

Road Name: Donovan's Road (btw 2nd and 3rd Pond)

Description:

Description:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3107
Watershed: Petty Harbour River
Watercourse: Petty Harbour River

Road Name: Forest Pond Road
Road Name Alias: Forest Pond Road

Structure Type: Circular Culvert

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): Survey/Mapping

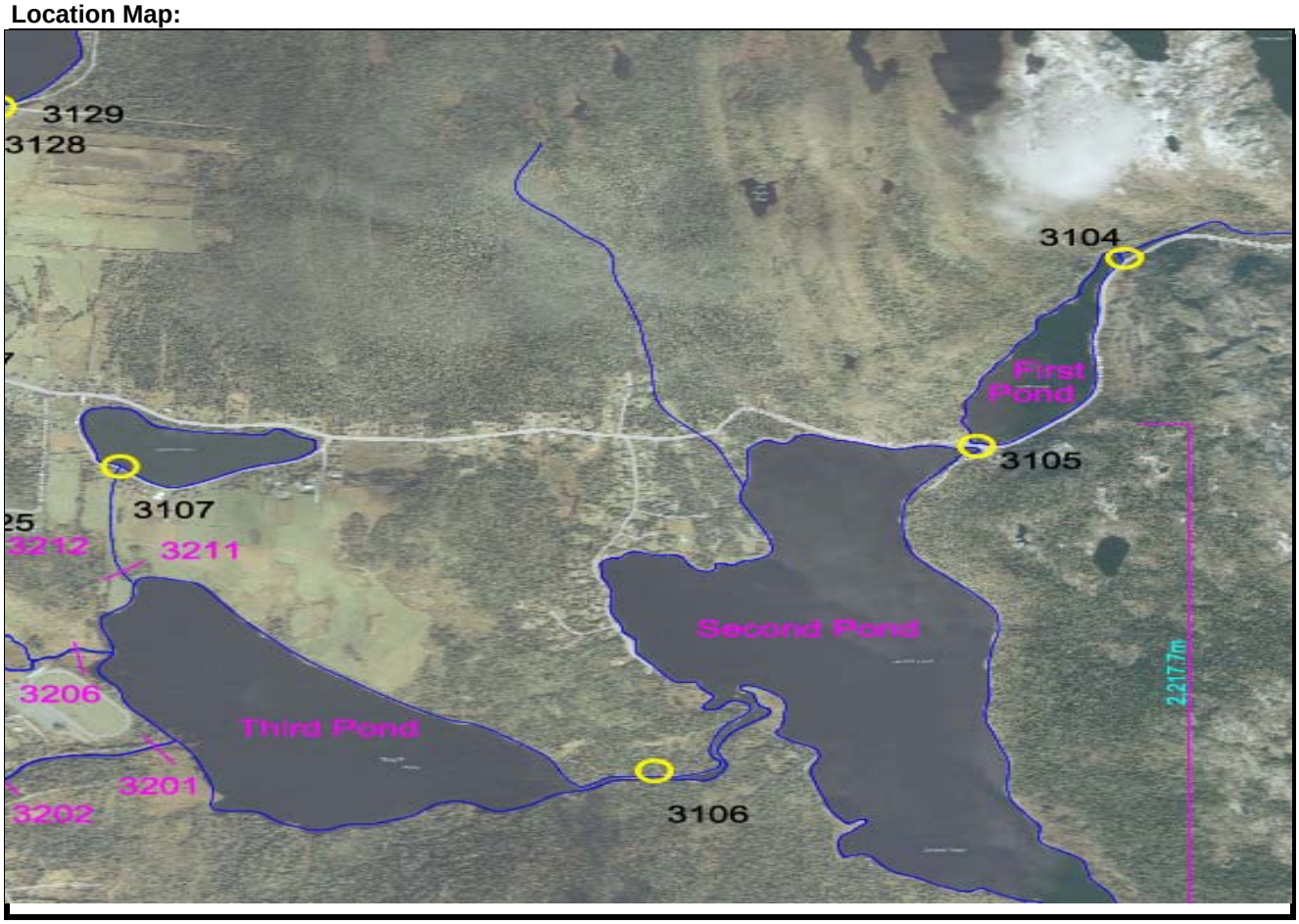
Date(s): 17/11/2011

Map Sheet(s): 8
Location: **Latitude** 52º45'44."
Longitude 47º27'23.8"
Control NAD83
Projection MTM Zone 1

Deck: Paved

Photos: 100-523 to 526

Location Map:



Notes:

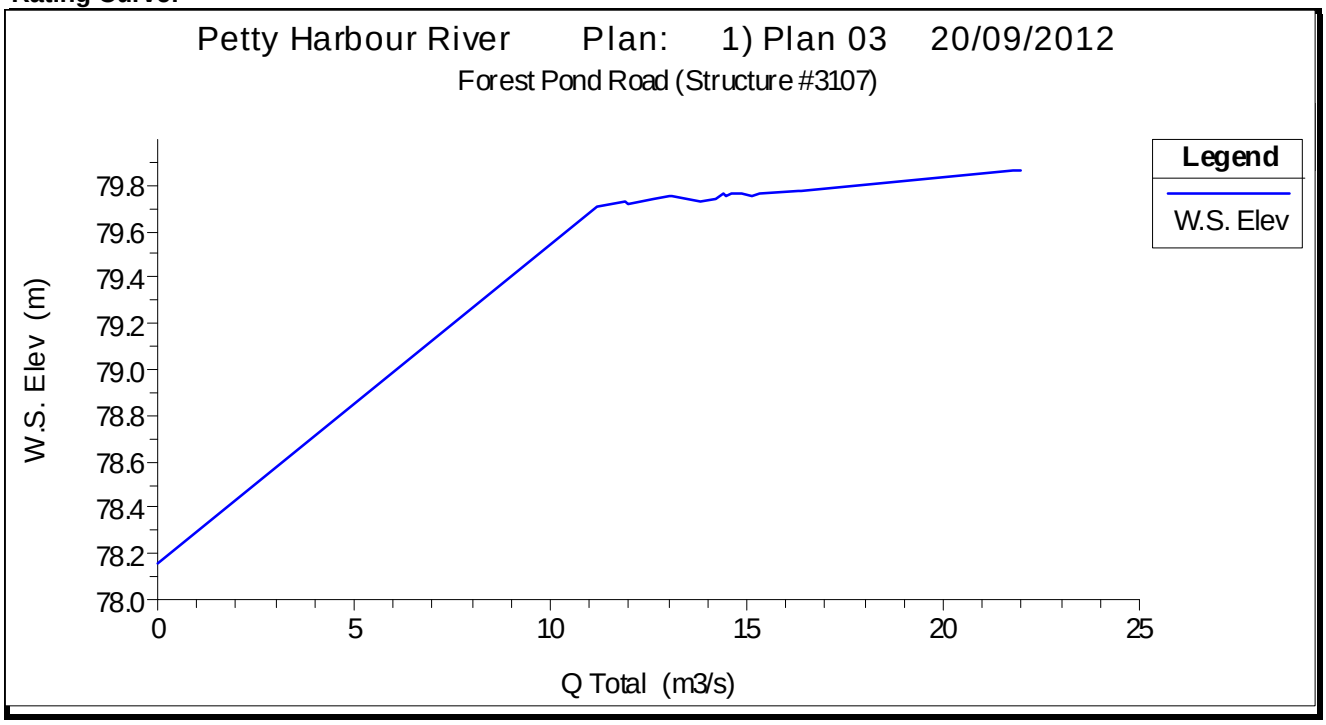
WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3107**
Road Name: Forest Pond Road

# of Bridge Piers or Arches:	0
Skewed to Road?	N
Road Width:	5.90 m
Span:	1.50 m
Deck Thickness:	0.01 m
Top of Deck:	79.67 m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**	78.16						
	d/s:	77.76						
Type:		Culvert						
Material:		CSP						
Opening:	**B**	0						
	W	1.5						
Length:		14.10						
Slope:		0.028369						

Rating Curve:



HEC-RAS Data

Tributary :	ForestP-M001
Structure # :	955
Modeled as :	Culvert
Data from :	Survey/Mapping

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3107
Road Name: Forest Pond Road

Description: Downstream face of culvert



Description: Looking downstream from culvert



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3107**

Road Name: Forest Pond Road

Description: Upstream face of culvert



Description: Looking upstream from culvert across Forest Pond



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3108
Watershed: Petty Harbour River
Watercourse: Raymond Brook

Road Name: Main Road
Road Name Alias: Main Road

Structure Type: Bridge

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): Survey/Mapping

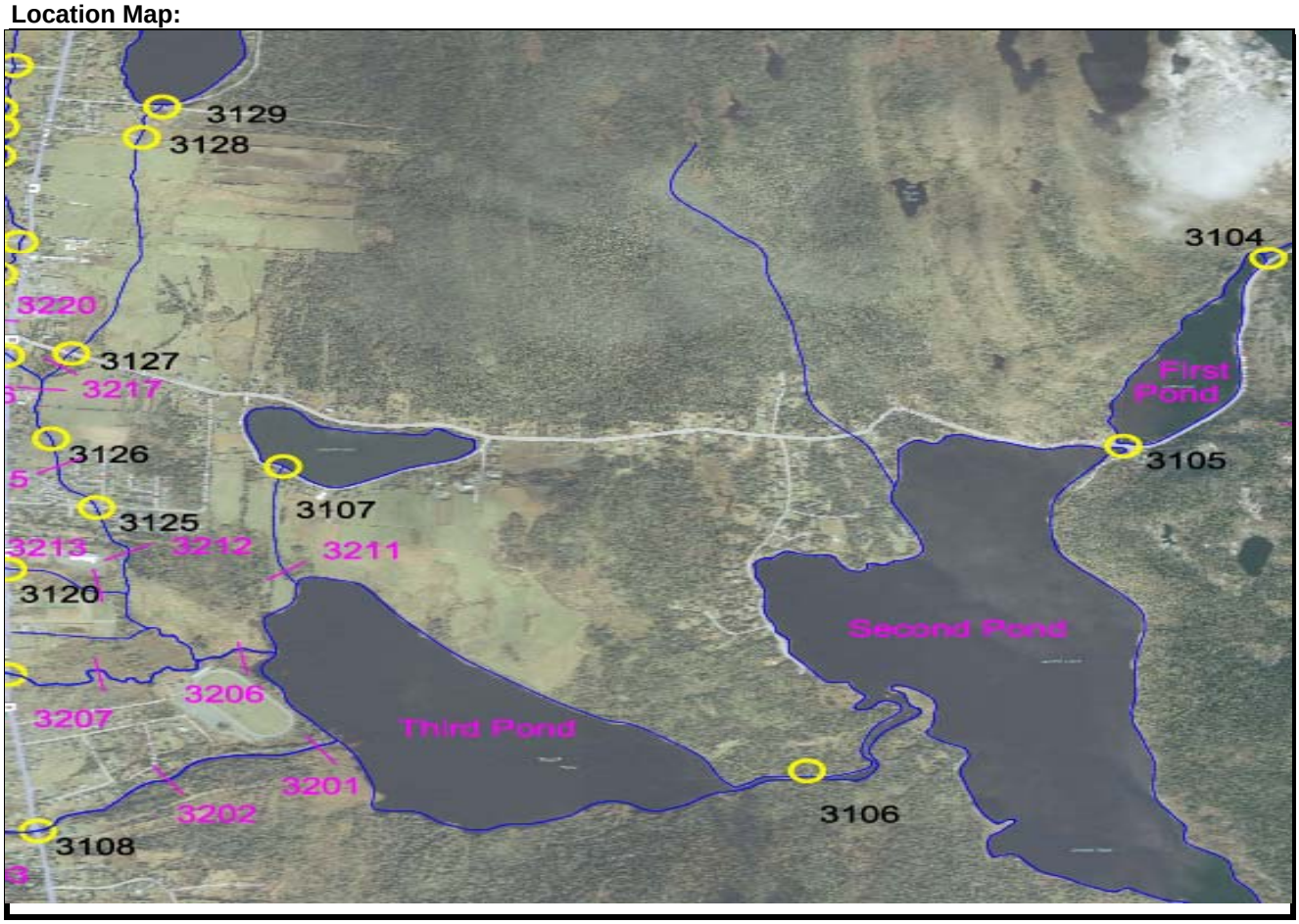
Date(s): 16/11/2011

Map Sheet(s): 9
Location: **Latitude** 52º46'14.1"
Longitude 47º26'30.9"
Control NAD83
Projection MTM Zone 1

Deck: Paved

Photos: 100-417 to 421

Location Map:



Notes:

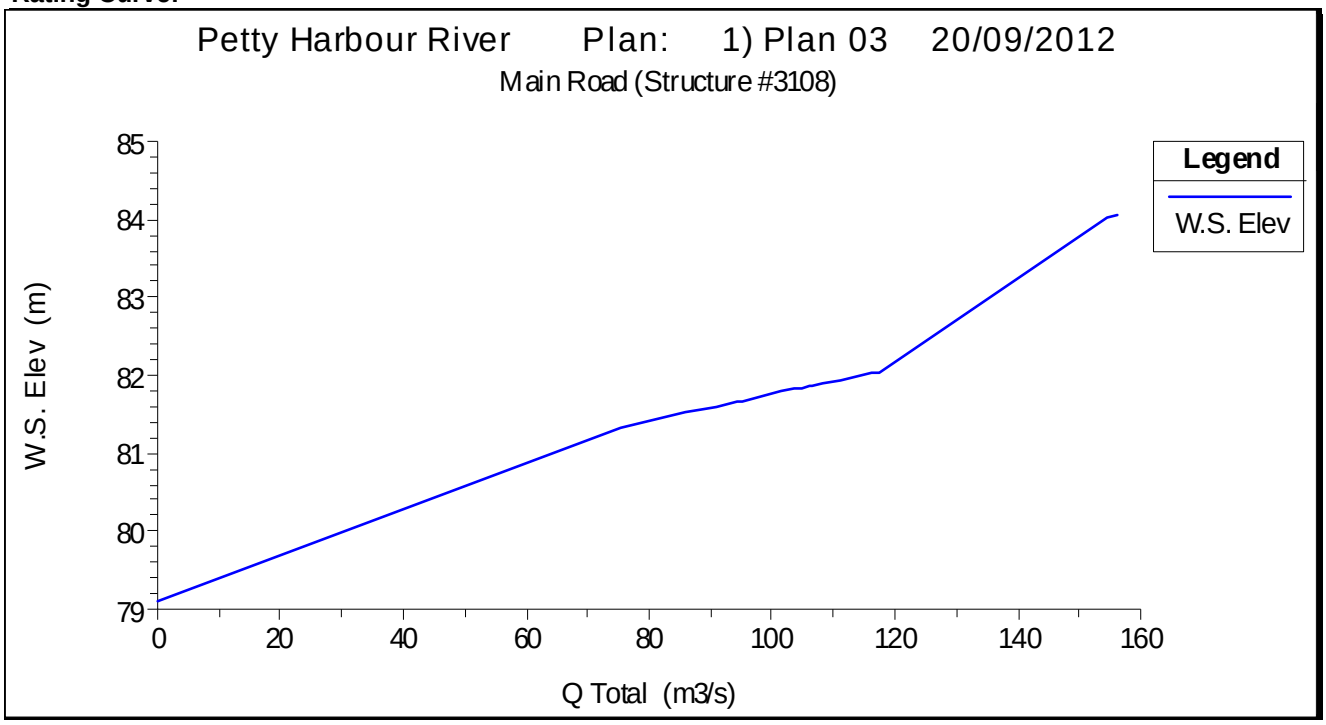
WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3108**
Road Name: Main Road

# of Bridge Piers or Arches:	0
Skewed to Road?	N
Road Width:	11.70 m
Span:	8.06 m
Deck Thickness:	0.41 m
Top of Deck:	82.63 m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**	79.11						
	d/s:	78.01						
Type:		Bridge						
Material:		Concrete						
Opening:	**B**	3.11						
	W	8.06						
Length:		11.70						
Slope:		0.094017						

Rating Curve:



HEC-RAS Data

Tributary :	RaymondB-M001
Structure # :	1,315
Modeled as :	Bridge
Data from :	Survey/Mapping

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3108
Road Name: Main Road

Description: Upstream face of structure



Description: Top of road looking south



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3108
Road Name: Main Road

Description: Looking downstream from bridge



Description: Looking upstream from bridge (from Google Streetview)



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3109
Watershed: Petty Harbour River
Watercourse: Raymond Brook

Road Name: Robert E Howlett Mermorial Drive
Road Name Alias: Robert E Howlett Mermorial Drive

Structure Type: Bridge

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): Survey/Mapping

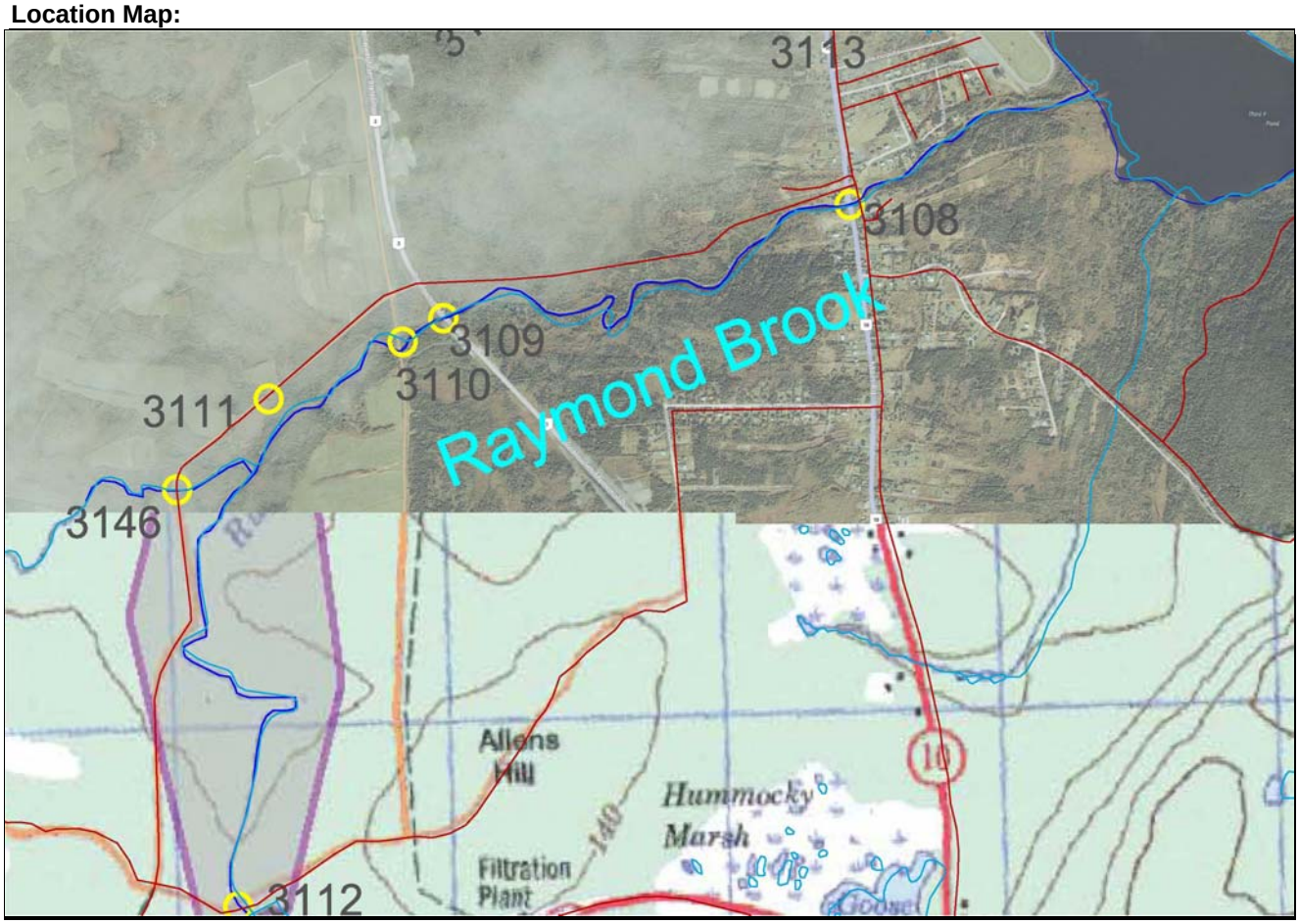
Date(s): 16/11/2011

Map Sheet(s): 10, 11
Location: **Latitude** 52º47'22.6"
Longitude 47º26'17.1"
Control NAD83
Projection MTM Zone 1

Deck: Paved

Photos: 100-411 to 416

Location Map:



Notes:

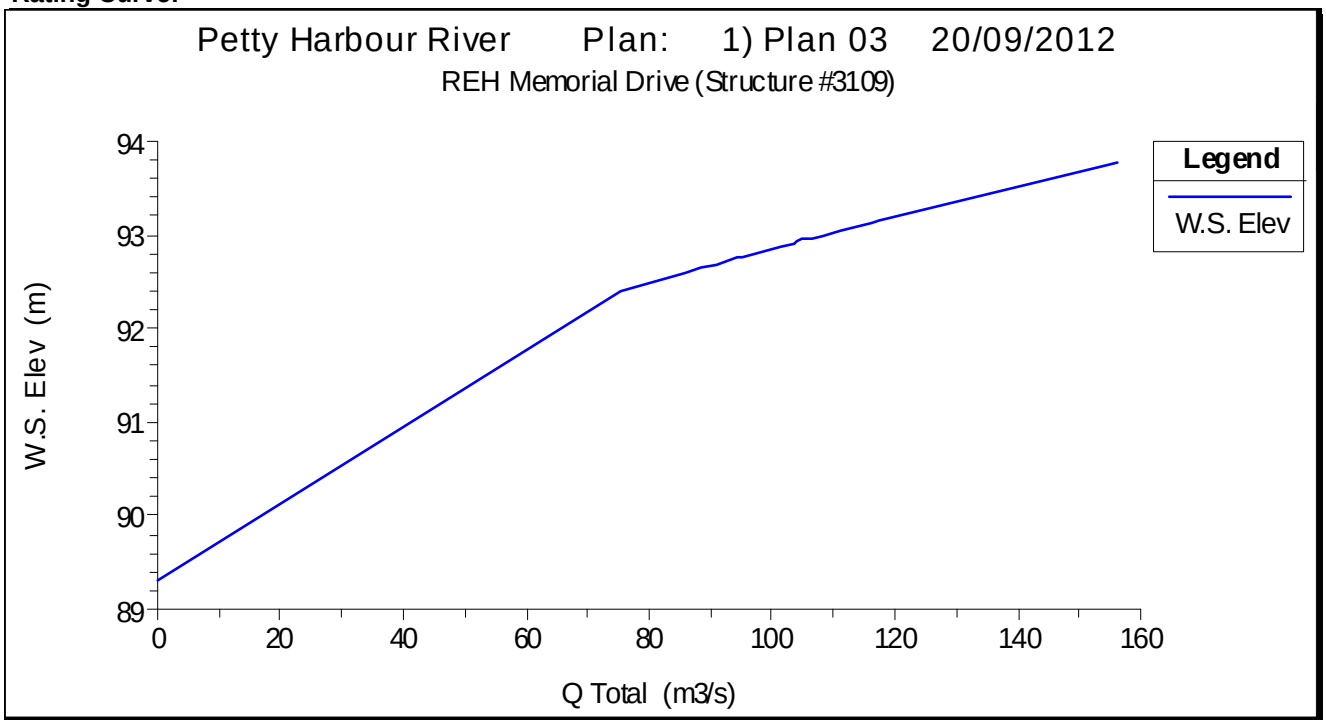
WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3109**
Road Name: Robert E Howlett Mermorial Drive

# of Bridge Piers or Arches:	0
Skewed to Road?	N
Road Width:	13.75 m
Span:	12.02 m
Deck Thickness:	0.78 m
Top of Deck:	93.95 m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**	89.31						
	d/s:	89.3						
Type:		Bridge						
Material:		Concrete						
Opening:	**B**	4.4						
	W	12.02						
Length:		13.75						
Slope:		0.000727						

Rating Curve:



HEC-RAS Data

Tributary :	RaymondB-M001
Structure # :	3,200
Modeled as :	Bridge
Data from :	Survey/Mapping

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3109
Road Name: Robert E Howlett Mermorial Drive

Description: Downstream face of structure



Description: Upstream face of structure



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3109

Road Name: Robert E Howlett Mermorial Drive

Description: Looking upstream from structure



Description: Top of road looking north



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3110
Watershed: Petty Harbour River
Watercourse: Raymond Brook

Road Name: Unnamed Road
Road Name Alias: Unnamed Road

Structure Type: Bridge

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): Survey/Mapping

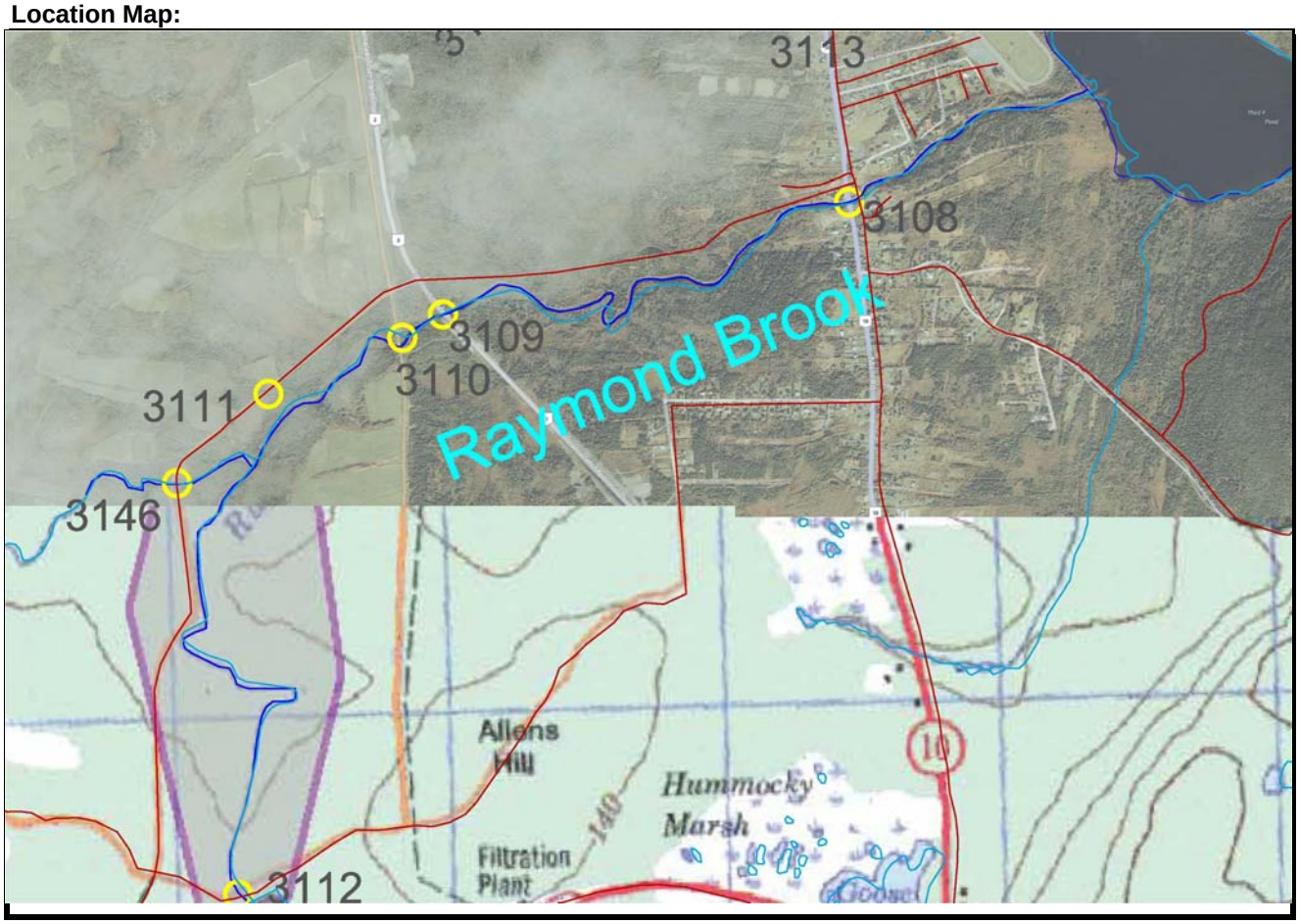
Date(s): 16/11/2011

Map Sheet(s): 10, 11
Location: **Latitude** 52º47'31.9"
Longitude 47º26'14.4"
Control NAD83
Projection MTM Zone 1

Deck: Wood

Photos: 100-384 to 388

Location Map:



Notes:

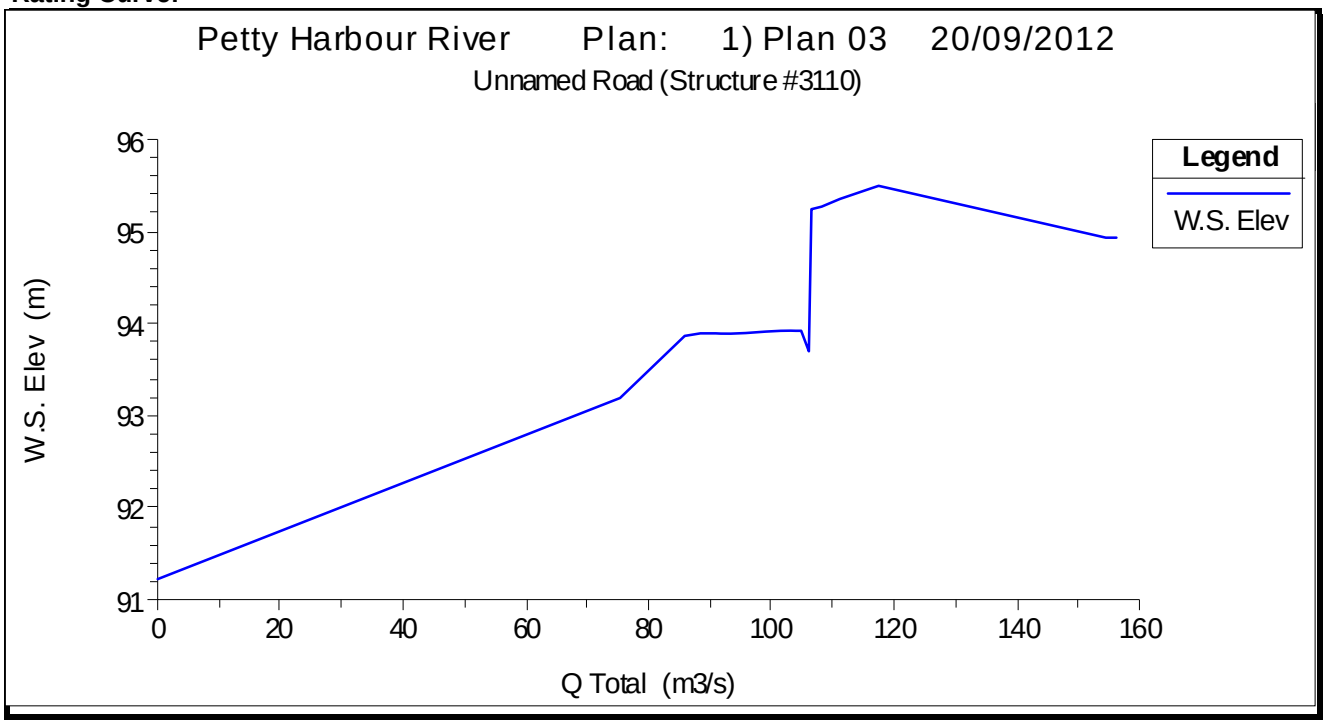
WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3110**
Road Name: Unnamed Road

# of Bridge Piers or Arches:	0
Skewed to Road?	N
Road Width:	4.70 m
Span:	9.37 m
Deck Thickness:	1.00 m
Top of Deck:	94.50 m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**	91.23						
	d/s:	91.23						
Type:		Bridge						
Material:		Wood						
Opening:	**B**	2.53						
	W	9.37						
Length:		4.70						
Slope:		0						

Rating Curve:



HEC-RAS Data

Tributary :	RaymondB-M001
Structure # :	3,410
Modeled as :	Bridge
Data from :	Survey/Mapping

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3110
Road Name: Unnamed Road

Description: Upstream face of structure



Description: Downstream face of structure



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3110

Road Name: Unnamed Road

Description: Looking downstream from structure



Description: Top of road looking north



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3111
Watershed: Petty Harbour River
Watercourse: Raymond Brook

Road Name: Unnamed Road
Road Name Alias: Unnamed Road

Structure Type: Circular Culvert

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): n/a

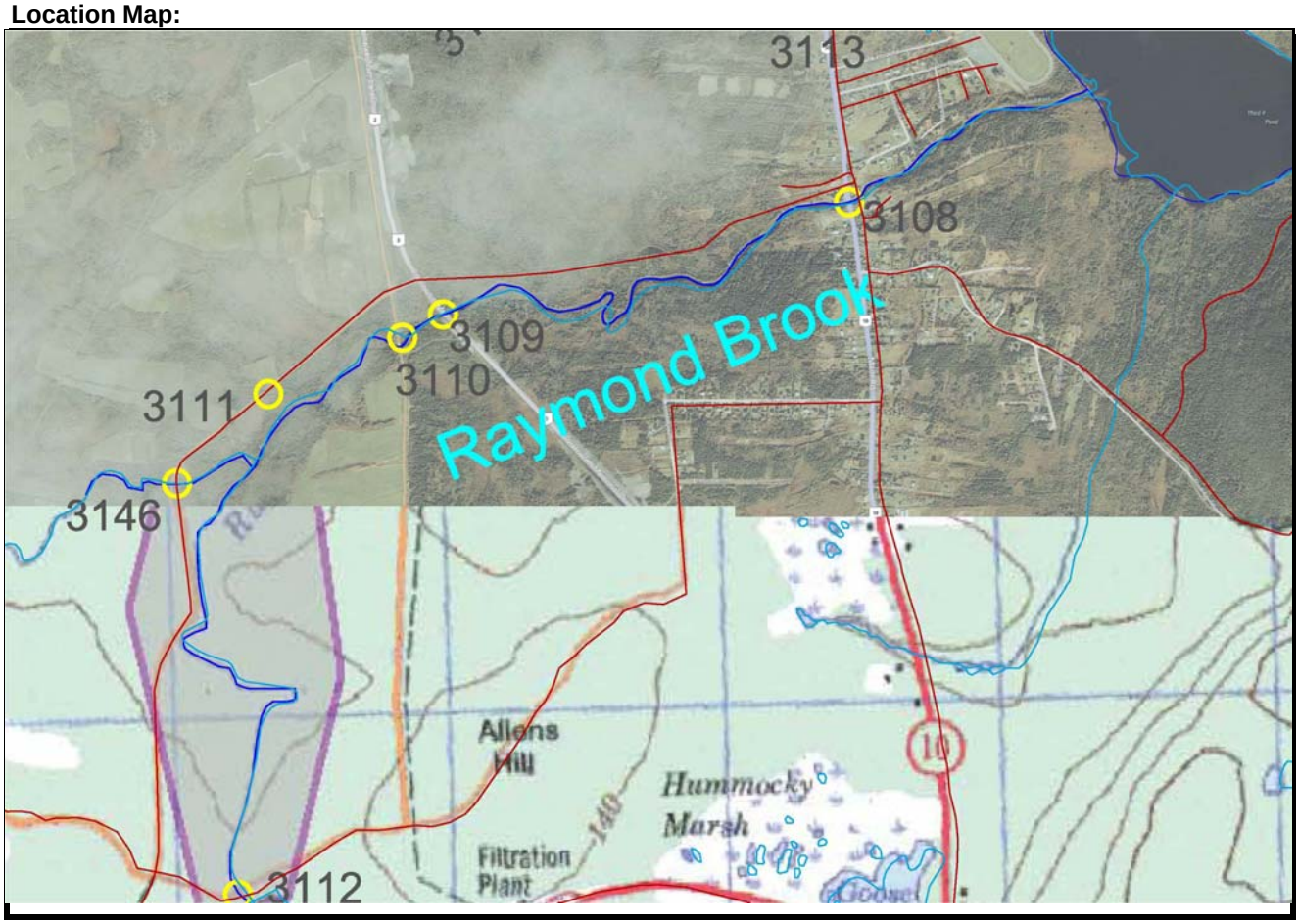
Date(s): 16/11/2011

Map Sheet(s): 11
Location: **Latitude** 52º47'54.9"
Longitude 47º26'09.4"
Control NAD83
Projection MTM Zone 1

Deck: Gravel

Photos: 100-389 to 398

Location Map:



Notes: not on watercourse - wrong culvert located

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3111**
Road Name: Unnamed Road

# of Bridge Piers or Arches:	n/a	
Skewed to Road?	n/a	
Road Width:	n/a	m
Span:	n/a	m
Deck Thickness:	n/a	m
Top of Deck:	n/a	m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**							
	d/s:							
Type:								
Material:								
Opening:	**B**							
	W							
Length:								
Slope:								

Rating Curve:

HEC-RAS Data

Tributary :	not modelled
Structure # :	n/a
Modeled as :	n/a
Data from :	n/a

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3111
Road Name: Unnamed Road

Description: Upstream face of structure



Description: Downstream side of structure



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3111

Road Name: Unnamed Road

Description: Looking downstream from structure



Description:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3112
Watershed: Petty Harbour River
Watercourse: Raymond Brook

Road Name: Howlett's Line
Road Name Alias: Bay Bulls Big Pond Dam

Structure Type: Dam

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): Survey/Mapping

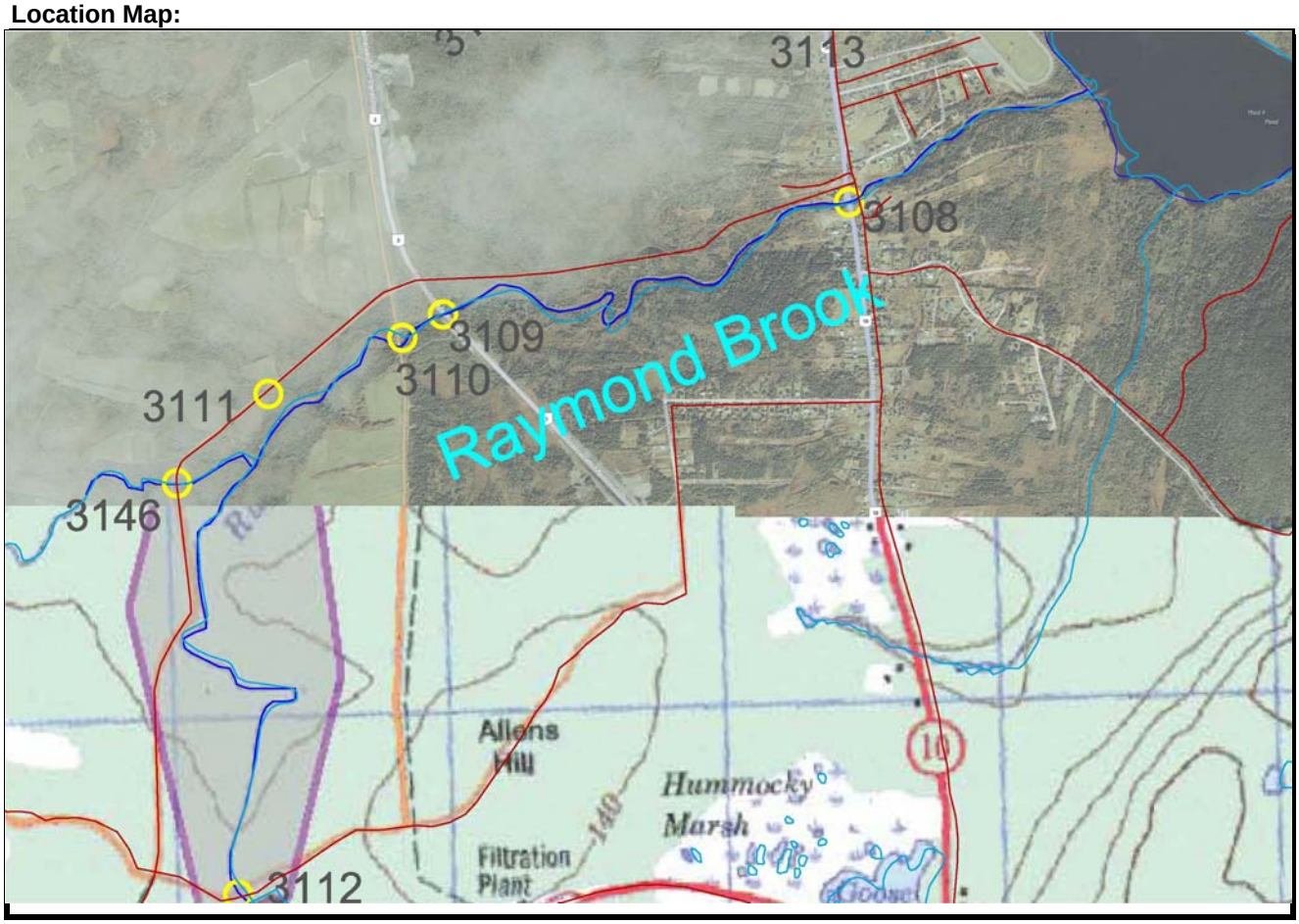
Date(s): 16/11/2011

Map Sheet(s): 13
Location: **Latitude** 52º48'00.5"
Longitude 47º25'11.6"
Control NAD83
Projection MTM Zone 1

Deck: Gravel

Photos: 100-399 to 403

Location Map:



Notes:

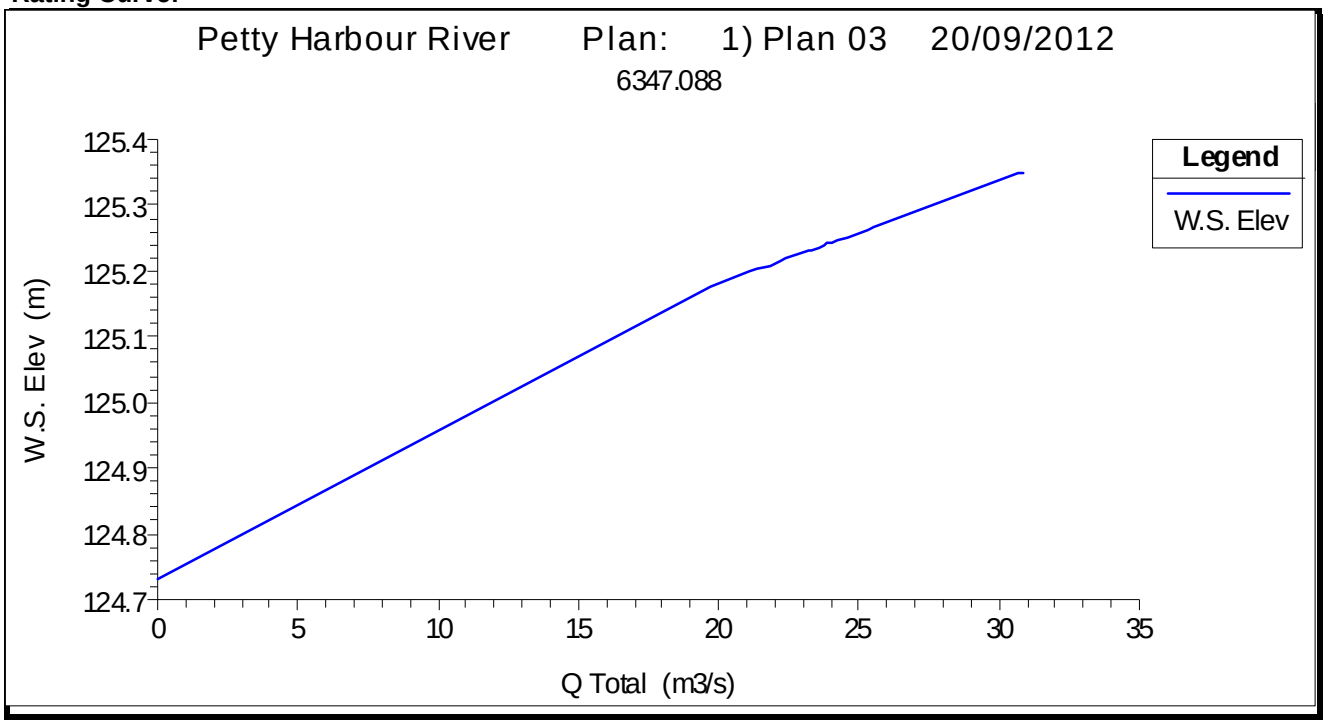
WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3112**
Road Name: Howlett's Line

# of Bridge Piers or Arches:	0	
Skewed to Road?	N	
Road Width:	n/a	m
Span:	n/a	m
Deck Thickness:	n/a	m
Top of Deck:	n/a	m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**							
	d/s:							
Type:		Dam						
Material:		Earthen Dam						
Opening:	**B**							
	W							
Length:								
Slope:								

Rating Curve:



HEC-RAS Data

Tributary :	RaymondB-M002
Structure # :	6,347
Modeled as :	Rating Curve
Data from :	Survey/Mapping

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3112
Road Name: Howlett's Line

Description: Downstream face of dam



Description:



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3112

Road Name: Howlett's Line

Description:



Description:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3113
Watershed: Petty Harbour River
Watercourse: Cochrane Pond Brook

Road Name: Main Road
Road Name Alias: Main Road

Structure Type: Bridge

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): Survey/Mapping

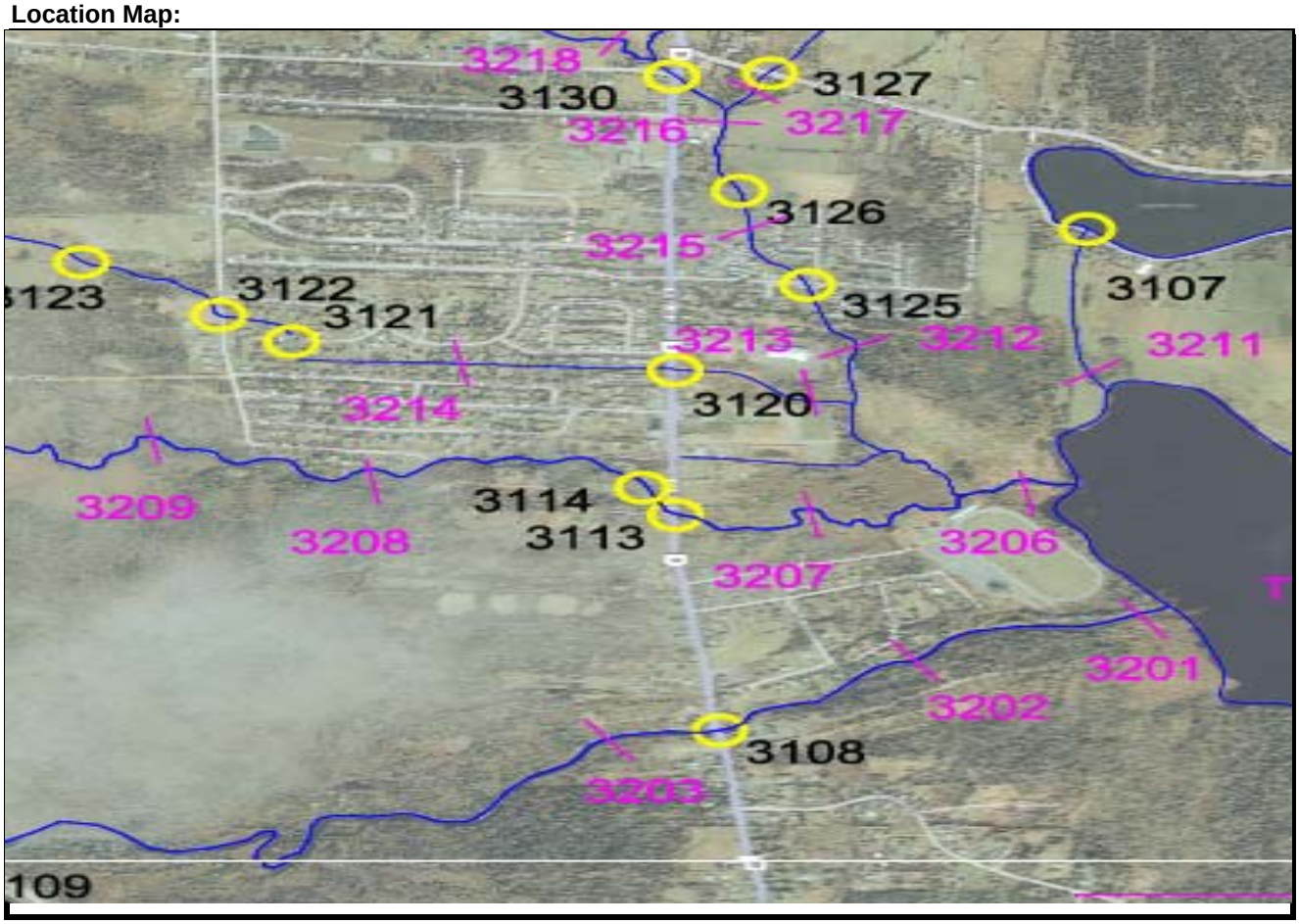
Date(s): 16/11/2011

Map Sheet(s): 14
Location: **Latitude** 52º46'18.2"
Longitude 47º26'52.6"
Control NAD83
Projection MTM Zone 1

Deck: Paved

Photos: 100-427 to 434

Location Map:



Notes:

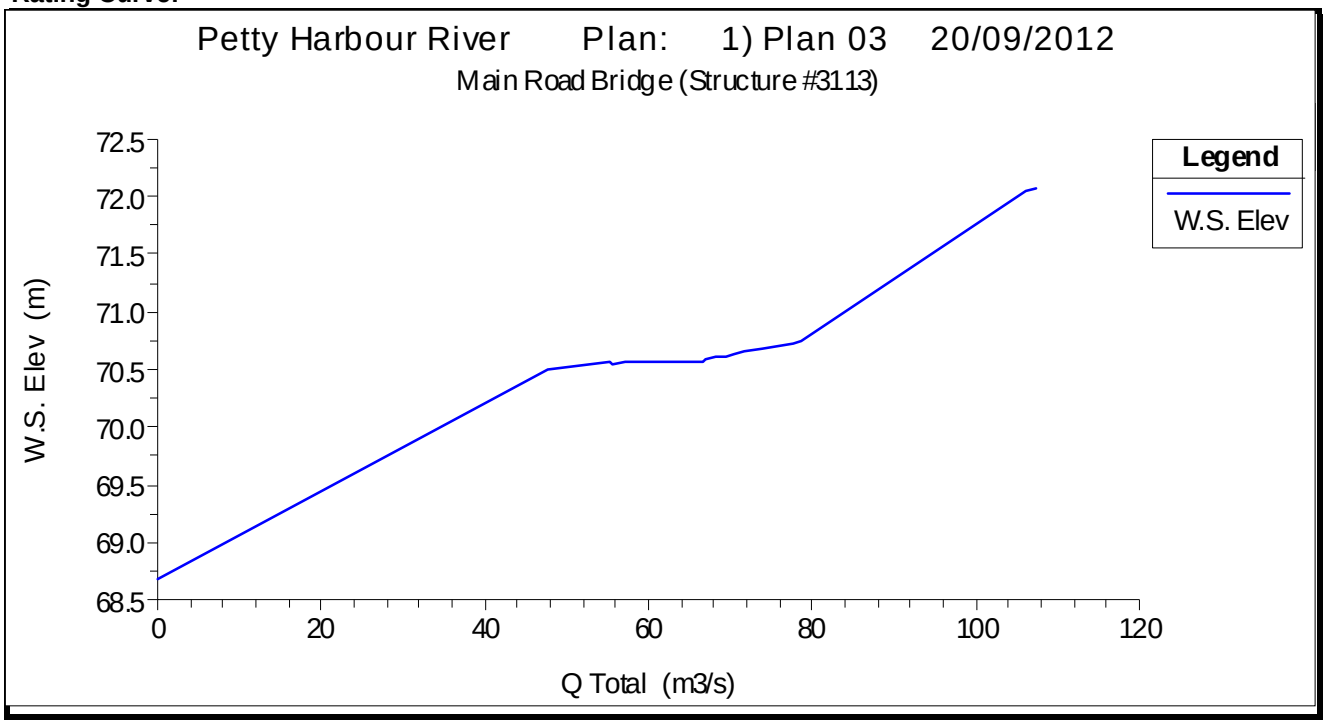
WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3113**
Road Name: Main Road

# of Bridge Piers or Arches:	0
Skewed to Road?	N
Road Width:	9.10 m
Span:	12.87 m
Deck Thickness:	0.39 m
Top of Deck:	71.52 m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**	68.69						
	d/s:	68.46						
Type:		Bridge						
Material:		Concrete						
Opening:	**B**	2.64						
	W	12.87						
Length:		9.10						
Slope:		0.025275						

Rating Curve:



HEC-RAS Data

Tributary :	CochraneP-M002
Structure # :	1,190
Modeled as :	Bridge
Data from :	Survey/Mapping

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3113
Road Name: Main Road

Description: Downstream face of structure



Description: Upstream face of structure



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3113
Road Name: Main Road

Description: Looking downstream from structure



Description: Top of road looking north



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3114
Watershed: Petty Harbour River
Watercourse: Cochrane Pond Brook

Road Name: Ryans Place
Road Name Alias: Ryans Place

Map Sheet(s): 14
Location: **Latitude** 52º46'22.3"
Longitude 47º26'56.7"
Control NAD83
Projection MTM Zone 1

Structure Type: no structure at this location

Deck: n/a

Observer(s): M. McComiskey & M. Gosse

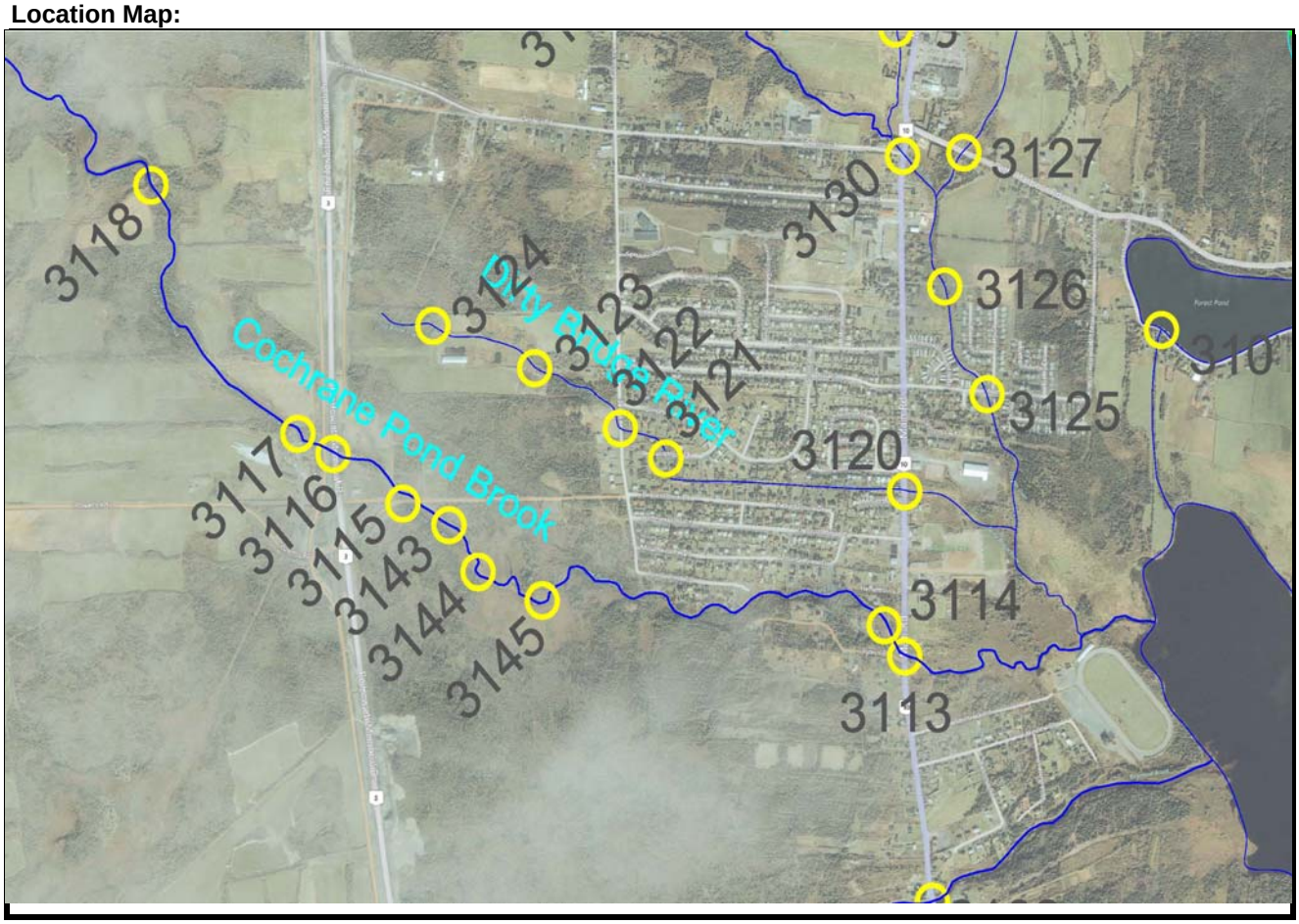
Photos: -

Organization(s): AMEC

Info Source(s): n/a

Date(s): 16/11/2011

Location Map:



Notes: no structure at this location

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3114**
Road Name: Ryans Place

# of Bridge Piers or Arches:	n/a	
Skewed to Road?	n/a	
Road Width:	n/a	m
Span:	n/a	m
Deck Thickness:	n/a	m
Top of Deck:	n/a	m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**							
	d/s:							
Type:								
Material:								
Opening:	**B**							
	W							
Length:								
Slope:								

Rating Curve:

HEC-RAS Data

Tributary :	n/a
Structure # :	n/a
Modeled as :	n/a
Data from :	n/a

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3114
Road Name: Ryans Place

Description:

Description:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3114

Road Name: Ryans Place

Description:

Description:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3115
Watershed: Petty Harbour River
Watercourse: Cochrane Pond Brook

Road Name: Powers Road
Road Name Alias: Powers Road

Structure Type: Bridge

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): Survey/Mapping

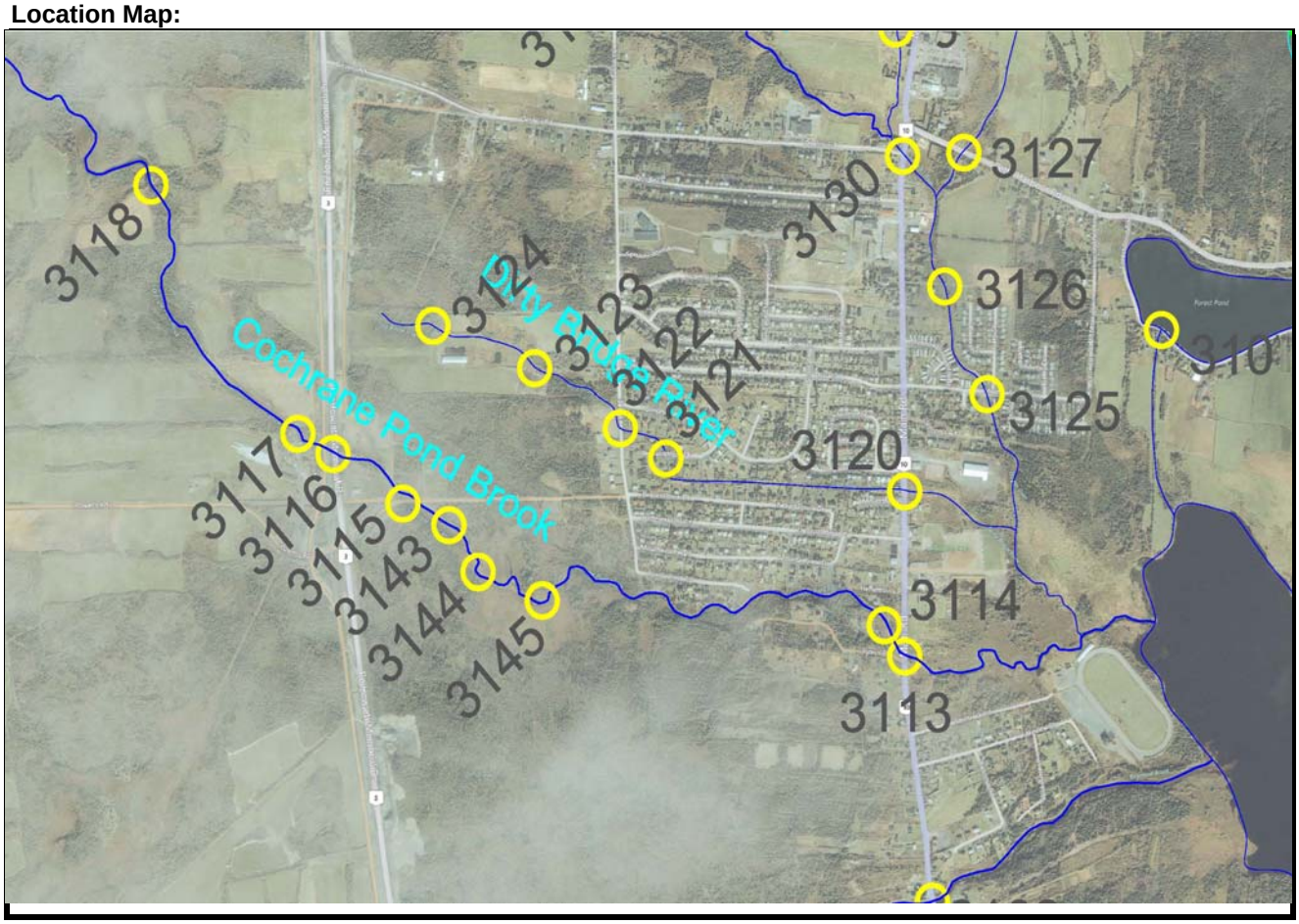
Date(s): 16/11/2011

Map Sheet(s): 15, 20
Location: **Latitude** 52º47'30.7"
Longitude 47º27'08.4"
Control NAD83
Projection MTM Zone 1

Deck: Wood

Photos: 100-353 to 361

Location Map:



Notes:

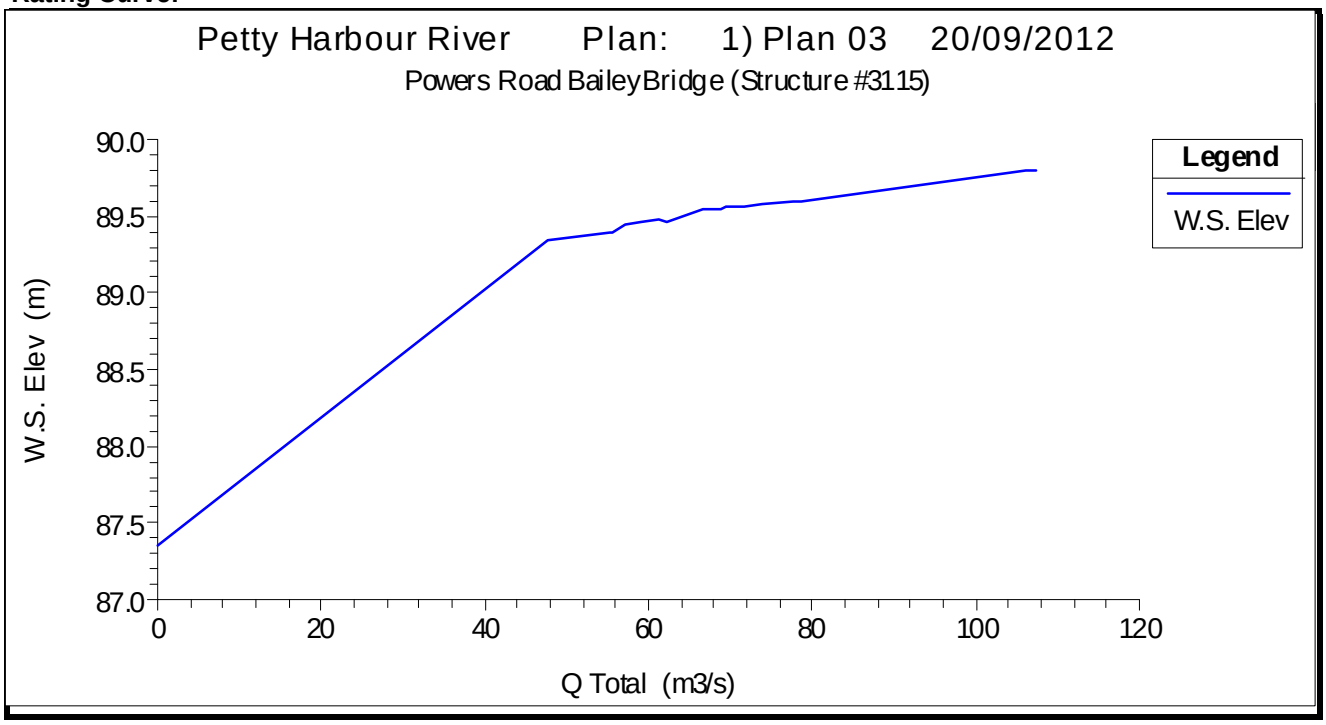
WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3115**
Road Name: Powers Road

# of Bridge Piers or Arches:	0
Skewed to Road?	N
Road Width:	6.80 m
Span:	19.23 m
Deck Thickness:	0.15 m
Top of Deck:	90.13 m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**	87.36						
	d/s:	87.5						
Type:		Bridge						
Material:		Wood/Steel						
Opening:	**B**	2.62						
	W	19.23						
Length:		6.80						
Slope:		-0.02059						

Rating Curve:



HEC-RAS Data

Tributary :	CochraneP-M002
Structure # :	3,165
Modeled as :	Bridge
Data from :	Survey/Mapping

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3115
Road Name: Powers Road

Description: Bridge deck



Description: Upstream face of structure



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3115
Road Name: Powers Road

Description: Bridge deck



Description: Looking downstream from structure (note structure #3143 in distance)



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3116
Watershed: Petty Harbour River
Watercourse: Cochrane Pond Brook

Road Name: Robert E Howlett Mermorial Drive
Road Name Alias: Robert E Howlett Mermorial Drive

Structure Type: Bridge

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): Survey/Mapping

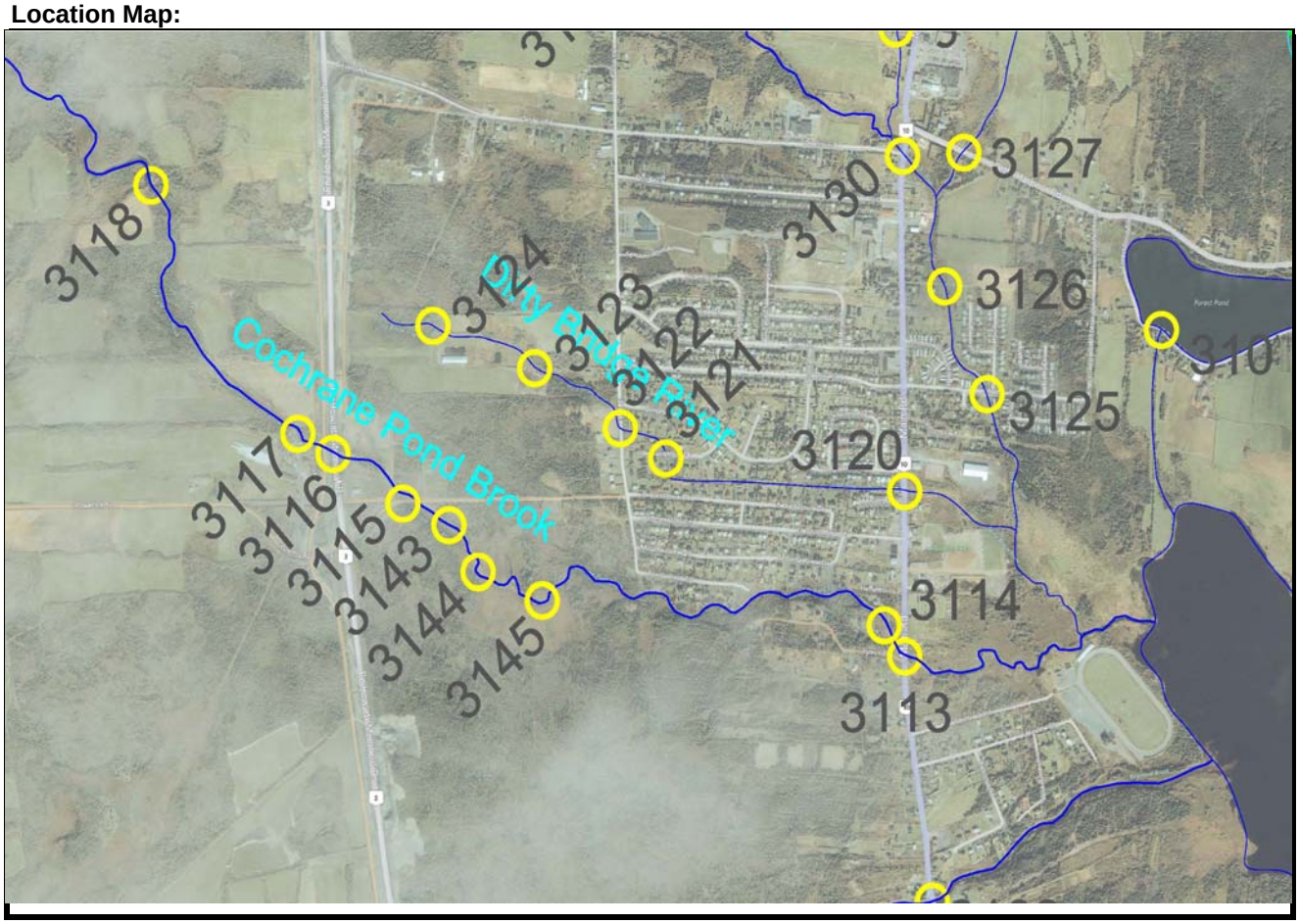
Date(s): 16/11/2011

Map Sheet(s): 15, 16, 20
Location: **Latitude** 52º47'42.1"
Longitude 47º27'13."
Control NAD83
Projection MTM Zone 1

Deck: Paved

Photos: 100-333 to 339

Location Map:



Notes:

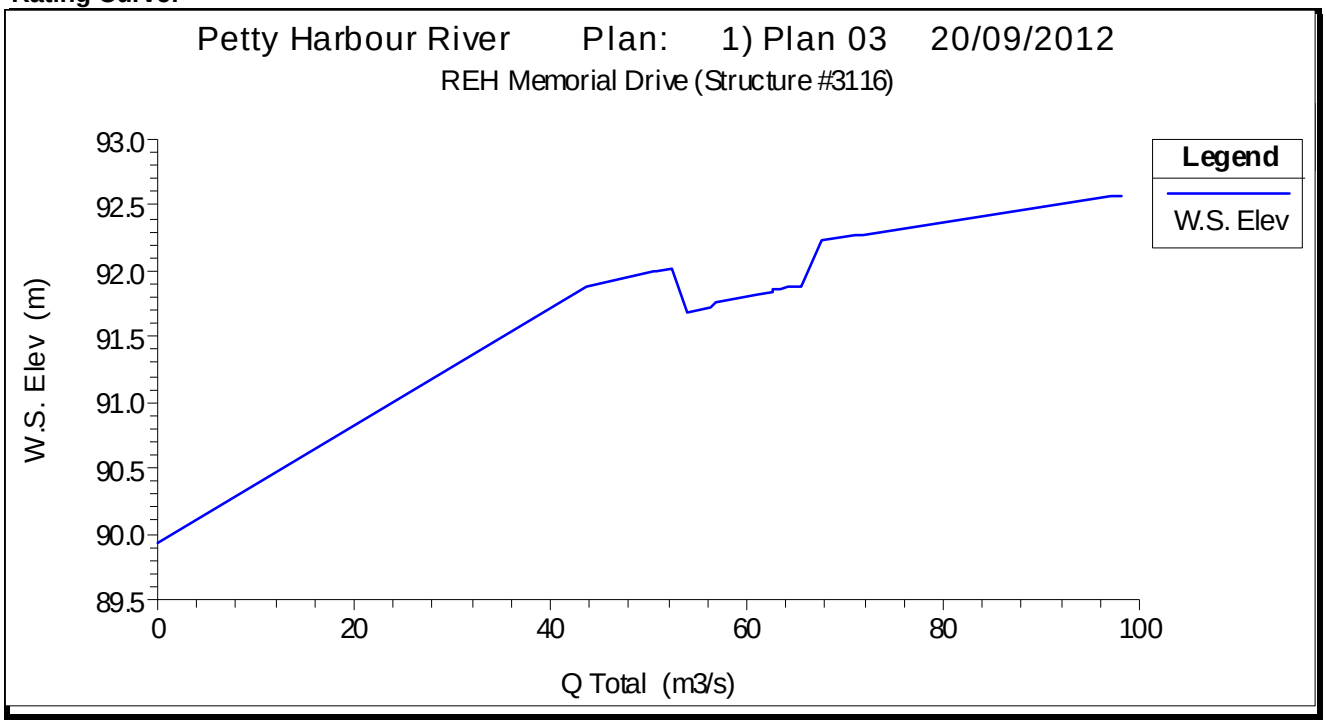
WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3116**
Road Name: Robert E Howlett Mermorial Drive

# of Bridge Piers or Arches:	0
Skewed to Road?	N
Road Width:	13.70 m
Span:	16.11 m
Deck Thickness:	1.39 m
Top of Deck:	94.50 m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**	89.94						
	d/s:	90.36						
Type:		Bridge						
Material:		Concrete						
Opening:	**B**	4.14						
	W	16.11						
Length:		13.70						
Slope:		-0.031						

Rating Curve:



HEC-RAS Data

Tributary :	CochraneP-M002
Structure # :	3,450
Modeled as :	Bridge
Data from :	Survey/Mapping

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3116
Road Name: Robert E Howlett Mermorial Drive

Description: Downstream face of structure



Description: Upstream face of structure



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3116

Road Name: Robert E Howlett Mermorial Drive

Description: Looking downstream from structure



Description: Looking upstream from structure (note structure 3117 in photo)



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3117
Watershed: Petty Harbour River
Watercourse: Cochrane Pond Brook

Road Name: Unnamed Road
Road Name Alias: Unnamed Road

Structure Type: Bridge

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): Survey/Mapping

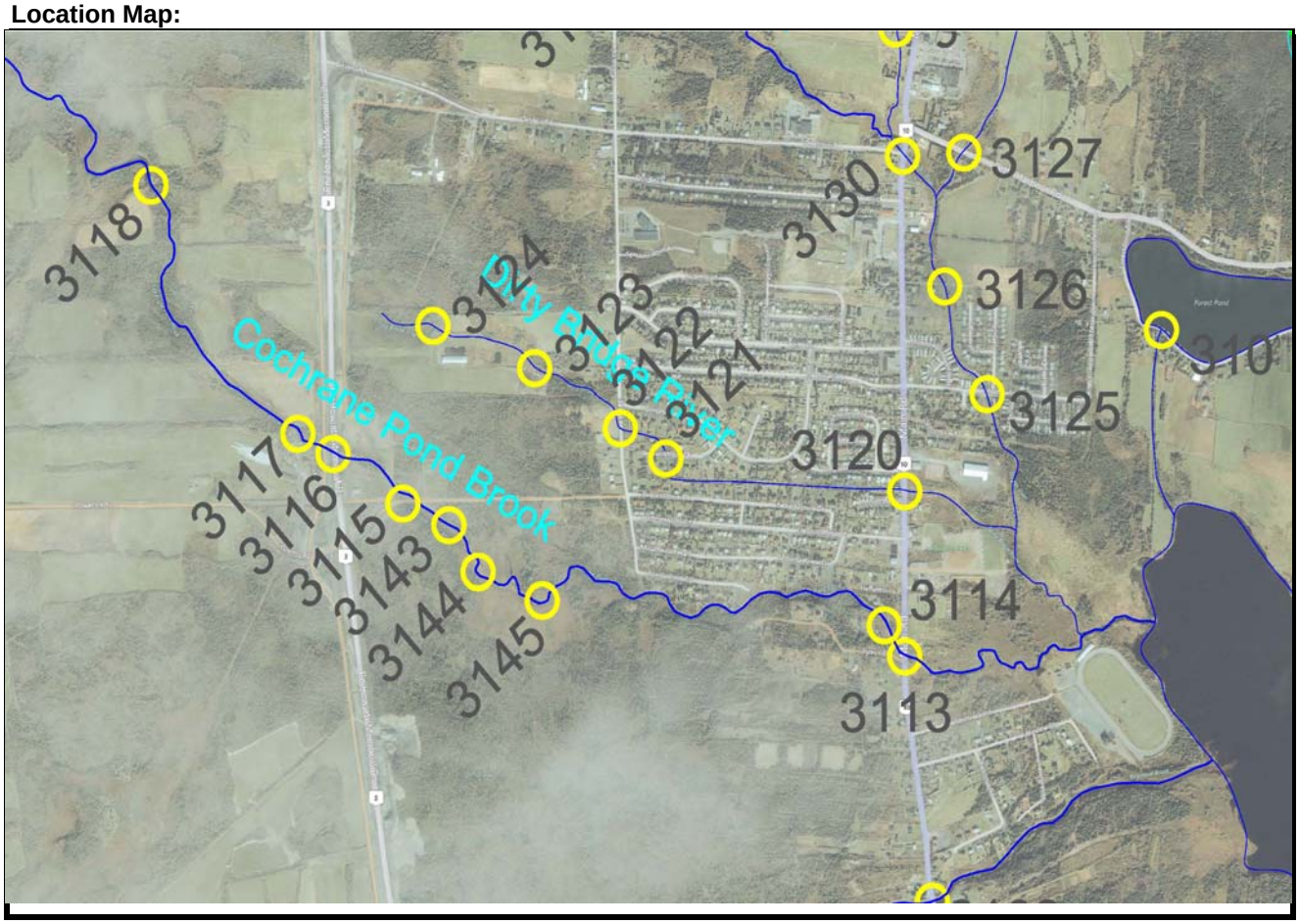
Date(s): 16/11/2011

Map Sheet(s): 15, 16
Location: **Latitude** 52º47'44."
Longitude 47º27'13.4"
Control NAD83
Projection MTM Zone 1

Deck: Wood

Photos: 100-328 to 332

Location Map:



Notes:

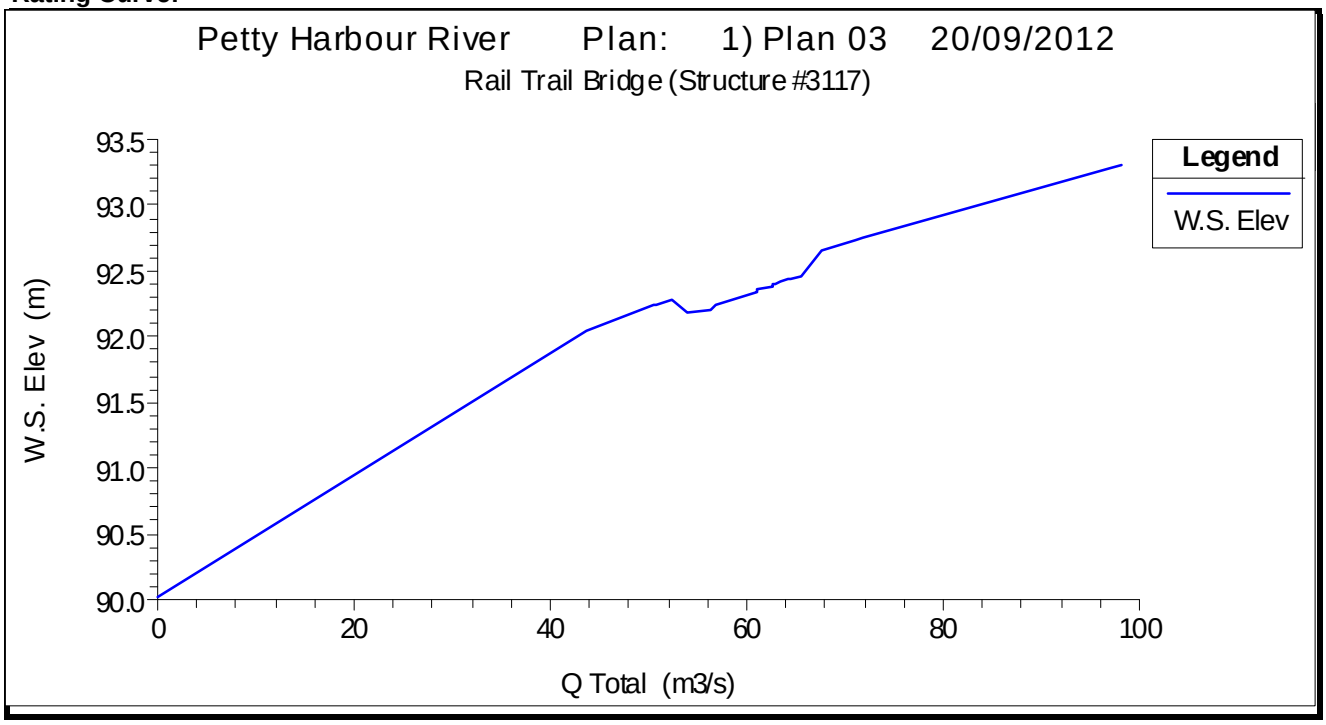
WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3117**
Road Name: Unnamed Road

# of Bridge Piers or Arches:	0
Skewed to Road?	N
Road Width:	6.90 m
Span:	16.20 m
Deck Thickness:	0.15 m
Top of Deck:	94.26 m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**	90.02						
	d/s:	89.91						
Type:		Bridge						
Material:		Wood/Steel						
Opening:	**B**	4.09						
	W	16.2						
Length:		6.90						
Slope:		0.016						

Rating Curve:



HEC-RAS Data

Tributary :	CochraneP-M002
Structure # :	3,480
Modeled as :	Bridge
Data from :	Survey/Mapping

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3117
Road Name: Unnamed Road

Description: Upstream face of structure



Description: Looking downstream from structure (note structure 3116 in photo)



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3117**

Road Name: Unnamed Road

Description: Downstream face of structure



Description:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3118
Watershed: Petty Harbour River
Watercourse: Cochrane Pond Brook

Road Name: Trail
Road Name Alias: Trail

Map Sheet(s): 16
Location: **Latitude** 52º48'09.8"
Longitude 47º27'37.5"
Control NAD83
Projection MTM Zone 1

Structure Type: no structure at this location

Deck: n/a

Observer(s): M. McComiskey & M. Gosse

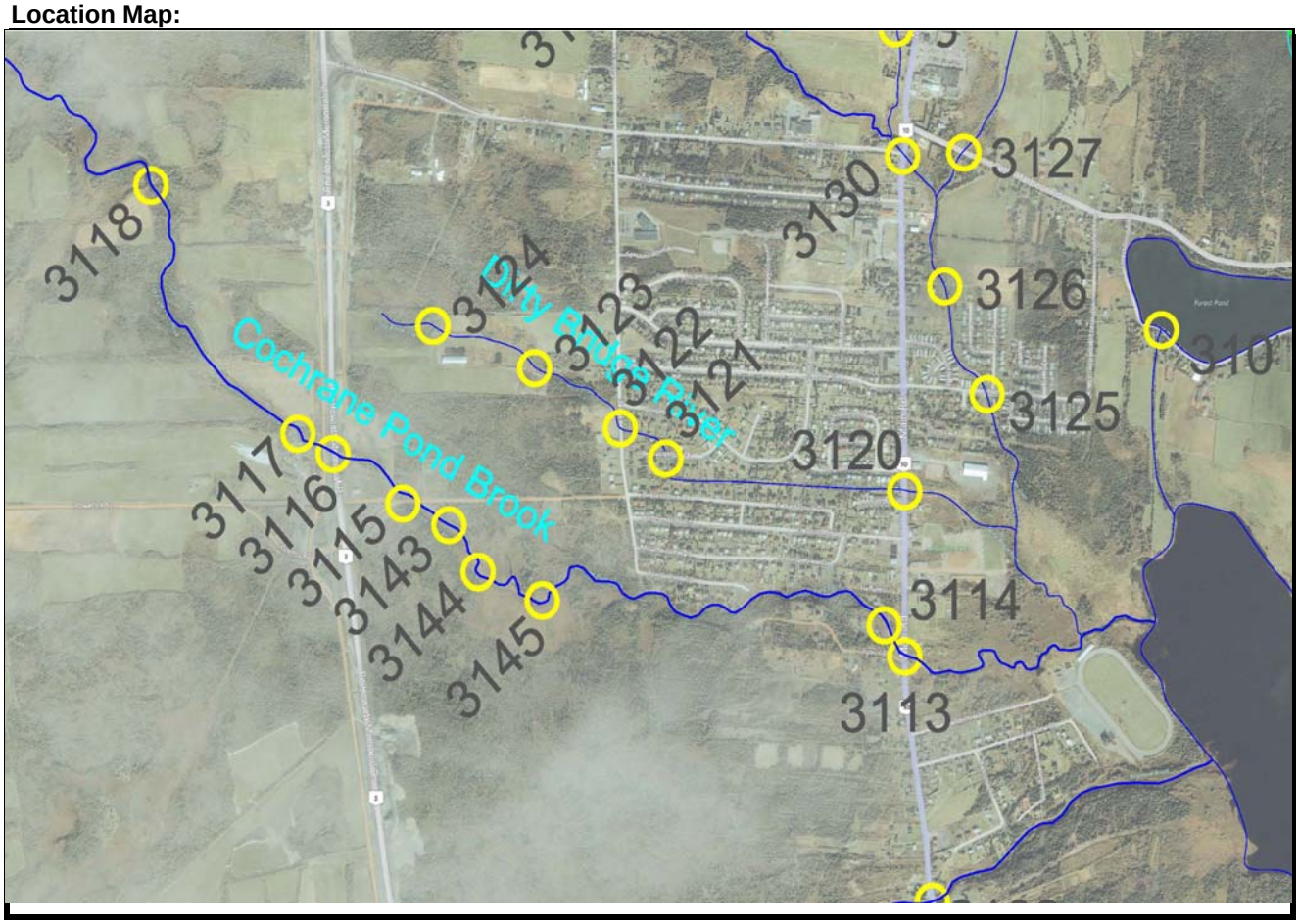
Photos: -

Organization(s): AMEC

Info Source(s): n/a

Date(s): 16/11/2011

Location Map:



Notes: no structure at this location

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3118**
Road Name: Trail

# of Bridge Piers or Arches:	n/a	
Skewed to Road?	n/a	
Road Width:	n/a	m
Span:	n/a	m
Deck Thickness:	n/a	m
Top of Deck:	n/a	m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**							
	d/s:							
Type:								
Material:								
Opening:	**B**							
	W							
Length:								
Slope:								

Rating Curve:

HEC-RAS Data

Tributary :	n/a
Structure # :	n/a
Modeled as :	n/a
Data from :	n/a

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3118
Road Name: Trail

Description:

Description:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3118

Road Name: Trail

Description:

Description:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3119
Watershed: Petty Harbour River
Watercourse: Cochrane Pond Brook

Road Name: Cochrane's Pond Road
Road Name Alias: Cochrane's Pond Road

Structure Type: Circular Culvert

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): Survey/Mapping

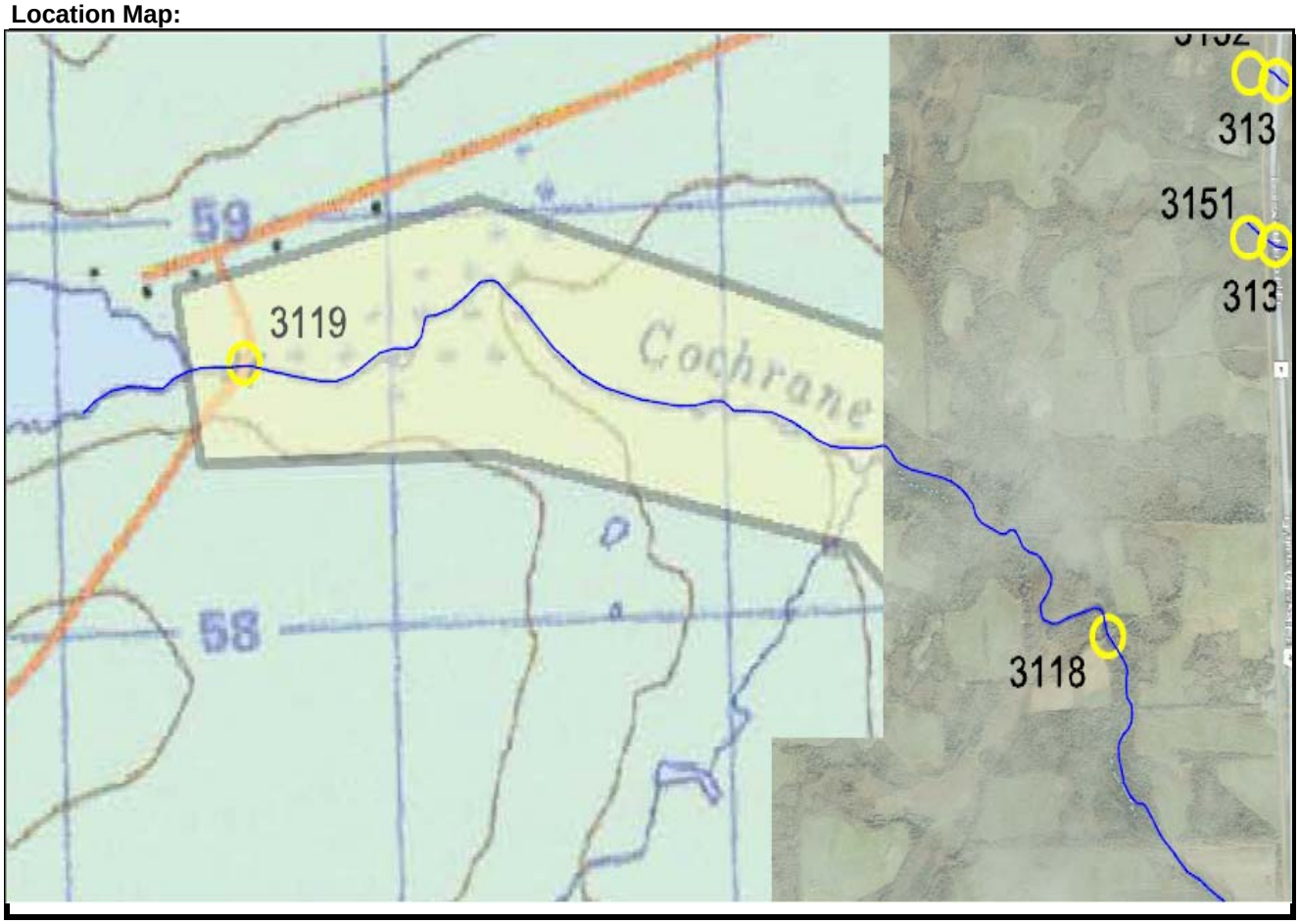
Date(s): 16/11/2011

Map Sheet(s): 18
Location: **Latitude** 52º50'15.5"
Longitude 47º27'57.8"
Control NAD83
Projection MTM Zone 1

Deck: Gravel

Photos: 100-323 to 327

Location Map:



Notes:

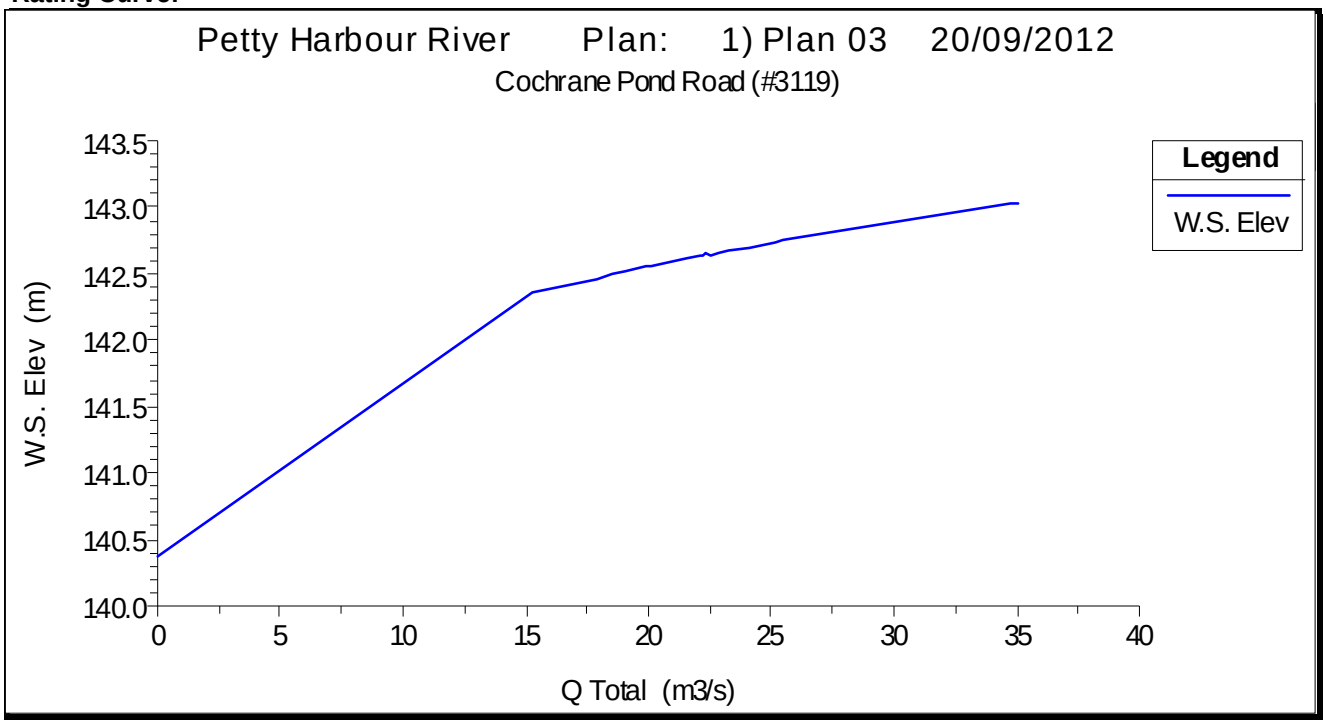
WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3119**
Road Name: Cochrane's Pond Road

# of Bridge Piers or Arches:	0
Skewed to Road?	N
Road Width:	3.00 m
Span:	1.20 m
Deck Thickness:	0.22 m
Top of Deck:	141.80 m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**	140.38						
	d/s:	140.37						
Type:		Culvert						
Material:		CSP						
Opening:	**B**	0						
	W	1.2						
Length:		5.30						
Slope:		0.002						

Rating Curve:



HEC-RAS Data

Tributary :	CochraneP-M002
Structure # :	8,000
Modeled as :	Culvert
Data from :	Survey/Mapping

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3119
Road Name: Cochrane's Pond Road

Description: Downstream face of structure



Description: Upstream face of structure



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3119

Road Name: Cochrane's Pond Road

Description: Looking upstream from structure



Description: Looking downstream from structure



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3120
Watershed: Petty Harbour River
Watercourse: Dirty Bridge River

Road Name: Main Road
Road Name Alias: Main Road

Structure Type: Circular Culvert

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): Survey/Mapping

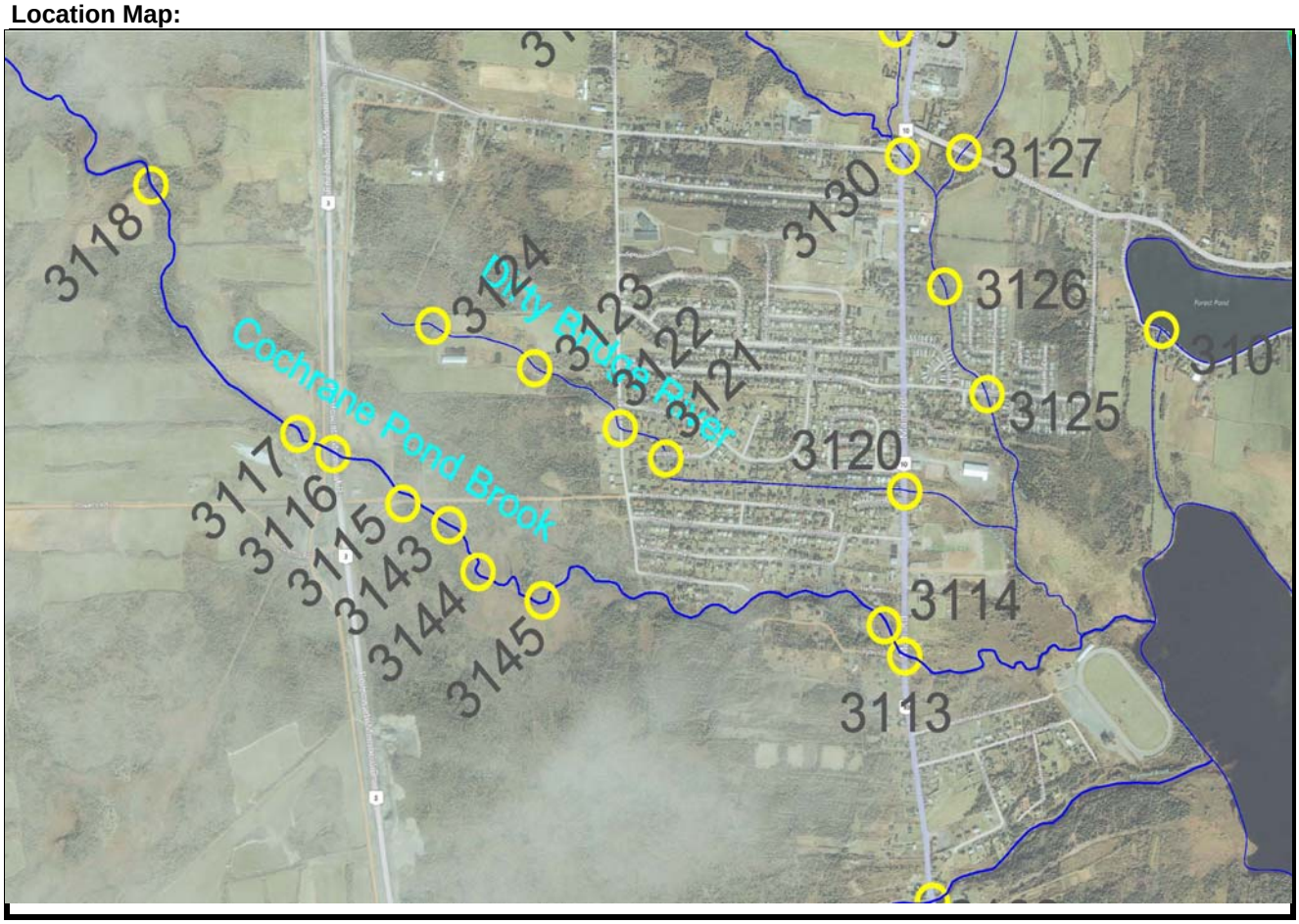
Date(s): 16/11/2011

Map Sheet(s): 14, 19
Location: **Latitude** 52º46'19."
Longitude 47º27'08.6"
Control NAD83
Projection MTM Zone 1

Deck: Paved

Photos: 100-448 to 452

Location Map:



Notes:

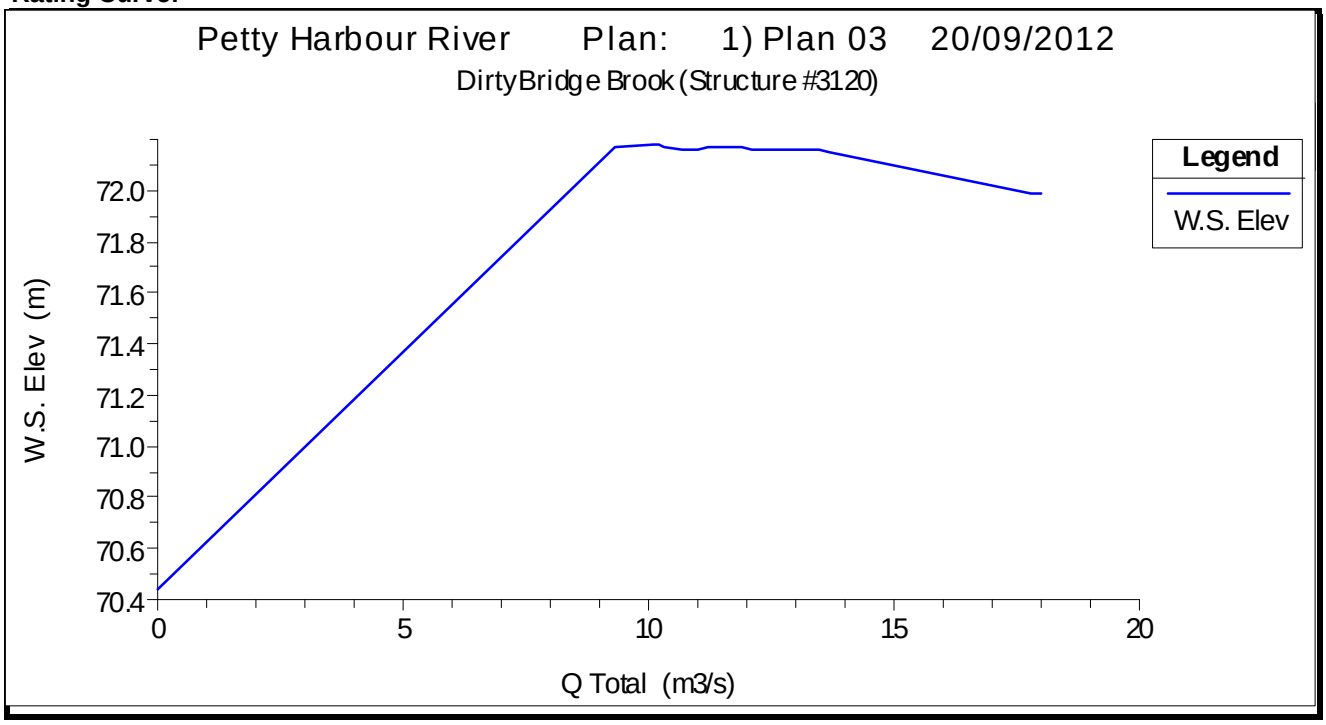
WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3120
Road Name: Main Road

# of Bridge Piers or Arches:	0
Skewed to Road?	N
Road Width:	6.50 m
Span:	1.20 m
Deck Thickness:	0.27 m
Top of Deck:	71.91 m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**	70.44						
	d/s:	70.32						
Type:		Culvert						
Material:		CSP						
Opening:	**B**	0						
	W	1.2						
Length:		12.20						
Slope:		0.010						

Rating Curve:



HEC-RAS Data

Tributary :	DoylesR-TR013
Structure # :	360
Modeled as :	Culvert
Data from :	Survey/Mapping

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3120
Road Name: Main Road

Description: Upstream face of structure



Description: Downstream face of structure



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3120

Road Name: Main Road

Description: Looking downstream from structure



Description: Looking upstream from structure



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3121
Watershed: Petty Harbour River
Watercourse: Dirty Bridge River

Road Name: Hannaford Place
Road Name Alias: Hannaford Place

Structure Type: Circular Culvert

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): Survey/Mapping

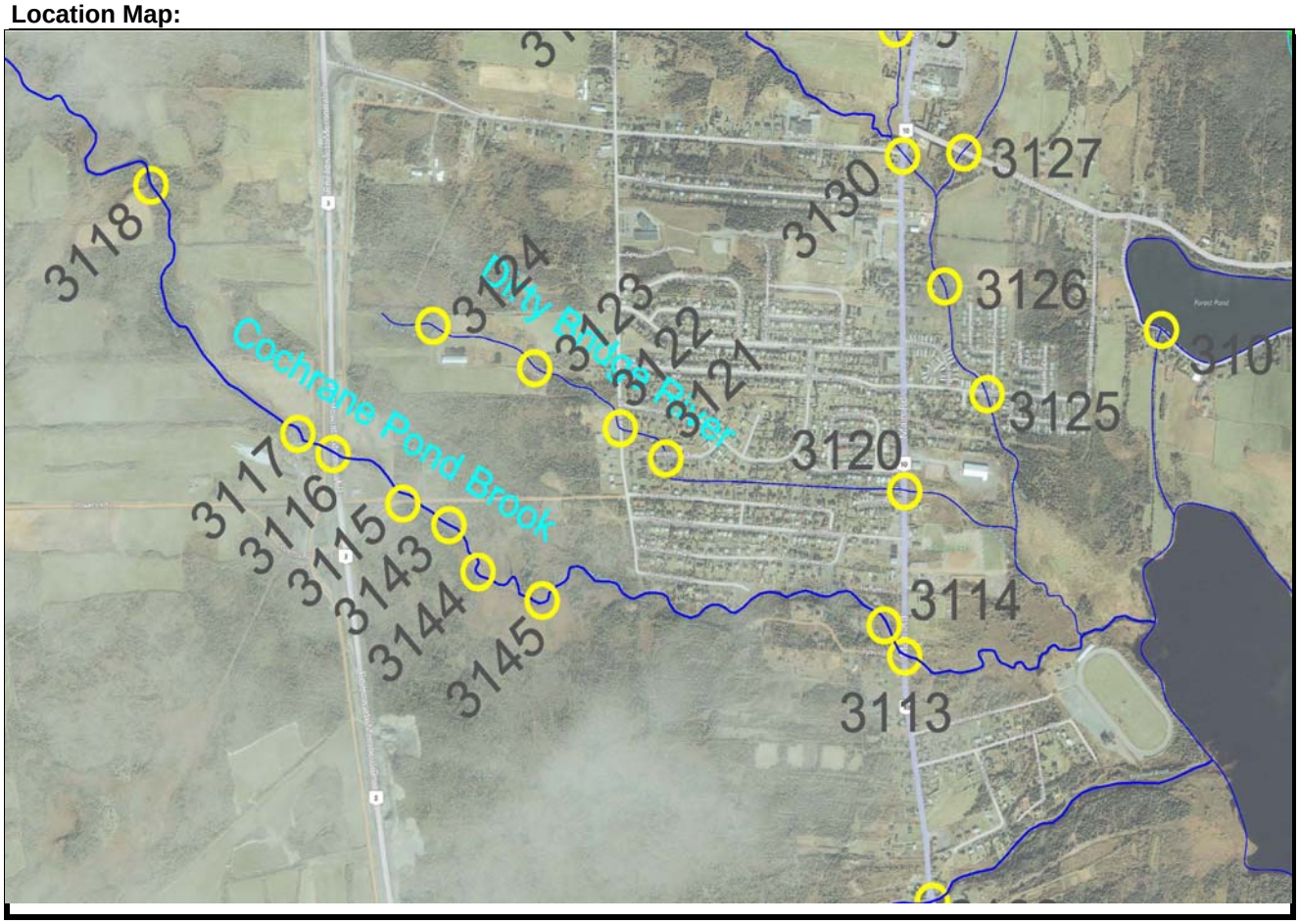
Date(s): 16/11/2011

Map Sheet(s): 15, 19, 20
Location: **Latitude** 5º46'48.5"
Longitude 47º27'12.1"
Control NAD83
Projection MTM Zone 1

Deck: Paved

Photos: 100-435 to 439

Location Map:



Notes:

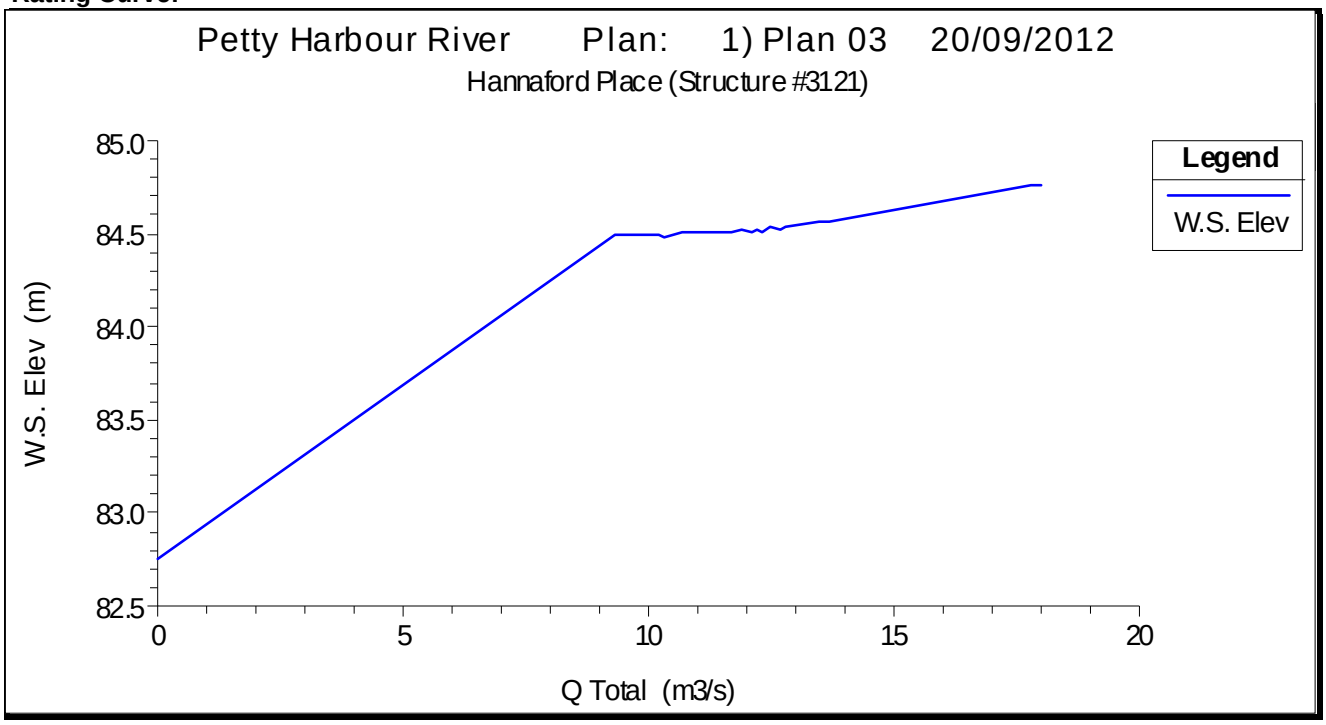
WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3121**
Road Name: Hannaford Place

# of Bridge Piers or Arches:	0
Skewed to Road?	N
Road Width:	5.55 m
Span:	3.07 m
Deck Thickness:	0.81 m
Top of Deck:	84.55 m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**	82.84	82.75	82.84				
	d/s:	82.43	82.53	82.57				
Type:		Culvert	Culvert	Culvert				
Material:		CSP	CSP	CSP				
Opening:	**B**	0	0	0				
	W	0.9	0.9	0.9				
Length:		17.20	16.70	16.50				
Slope:		0.024	0.016	0.016				

Rating Curve:



HEC-RAS Data

Tributary :	DoylesR-TR013
Structure # :	1,050
Modeled as :	Culvert
Data from :	Survey/Mapping

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3121
Road Name: Hannaford Place

Description: Upstream face of structure



Description: Looking upstream from structure



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3121

Road Name: Hannaford Place

Description: Downstream face of structure



Description: Looking downstream from structure



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3122
Watershed: Petty Harbour River
Watercourse: Dirty Bridge River

Road Name: Back Line
Road Name Alias: Back Line

Structure Type: Circular Culvert

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): Survey/Mapping

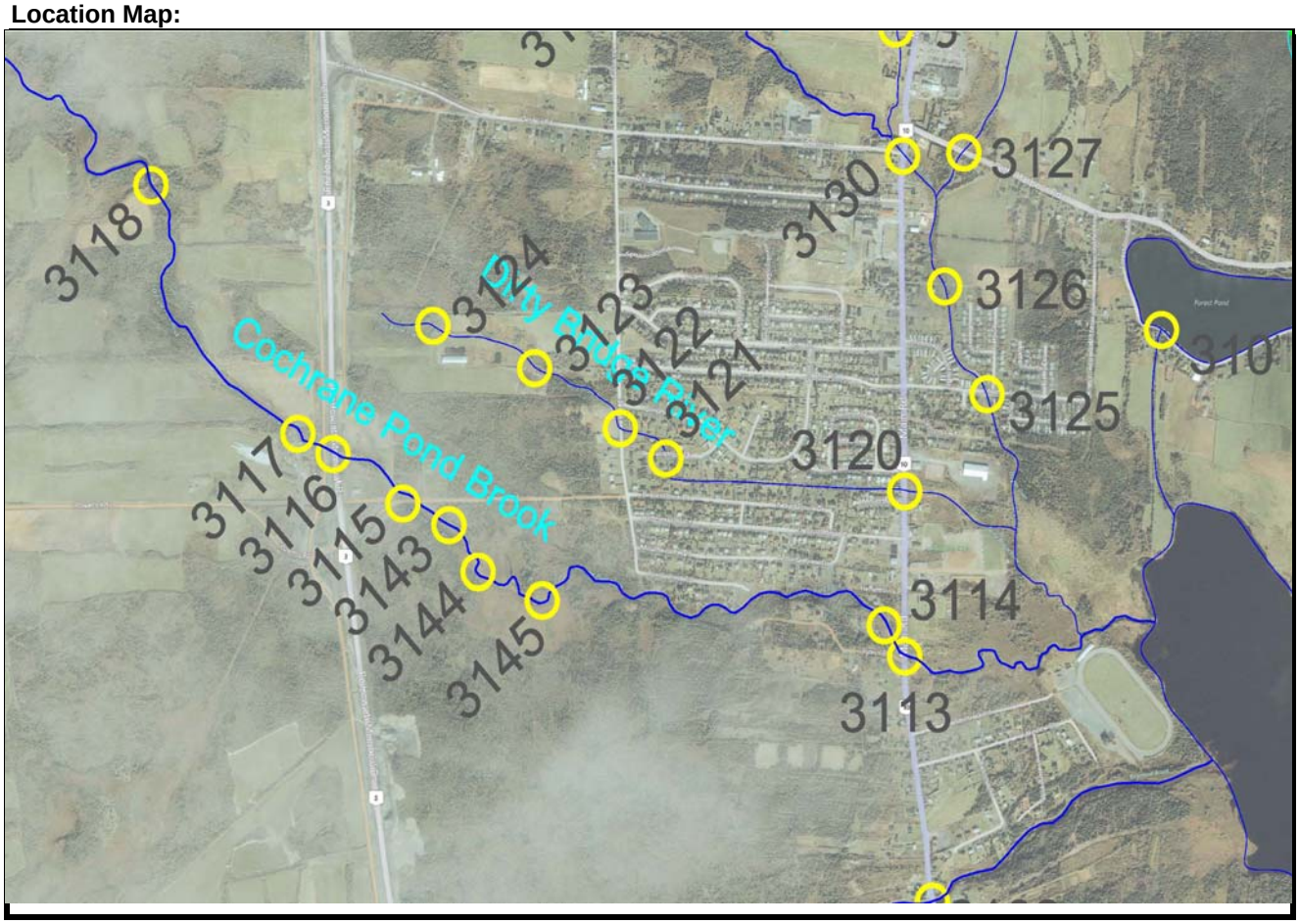
Date(s): 16/11/2011

Map Sheet(s): 15, 19, 20
Location: **Latitude** 52º47'00.7"
Longitude 47º27'16.3"
Control NAD83
Projection MTM Zone 1

Deck: Paved

Photos: 100-440 to 447

Location Map:



Notes:

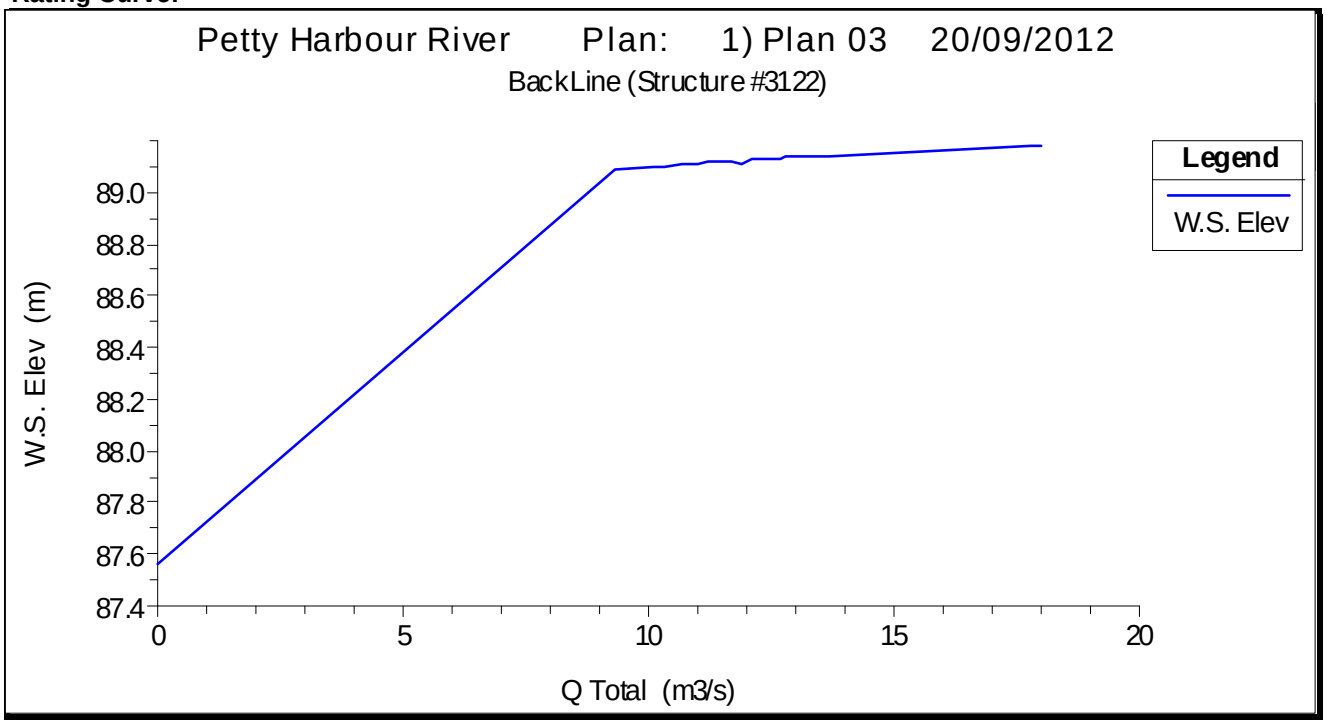
WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3122
Road Name: Back Line

# of Bridge Piers or Arches:	0
Skewed to Road?	N
Road Width:	5.60 m
Span:	1.45 m
Deck Thickness:	0.53 m
Top of Deck:	88.81 m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**	87.56	87.58					
	d/s:	87.44	87.34					
Type:		Culvert	Culvert					
Material:		CSP	CSP					
Opening:	**B**	0	0					
	W	0.7	0.7					
Length:		12.40	12.50					
Slope:		0.010	0.019					

Rating Curve:



HEC-RAS Data

Tributary :	DoylesR-TR013
Structure # :	1,375
Modeled as :	Culvert
Data from :	Survey/Mapping

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3122
Road Name: Back Line

Description: Upstream face of structure



Description: Downstream face of structure



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3122
Road Name: Back Line

Description: Looking upstream from structure



Description: Looking downstream from structure (from Google Streetview)



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3123
Watershed: Petty Harbour River
Watercourse: Dirty Bridge River

Road Name: Accessway
Road Name Alias: Accessway

Structure Type: n/a

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): n/a

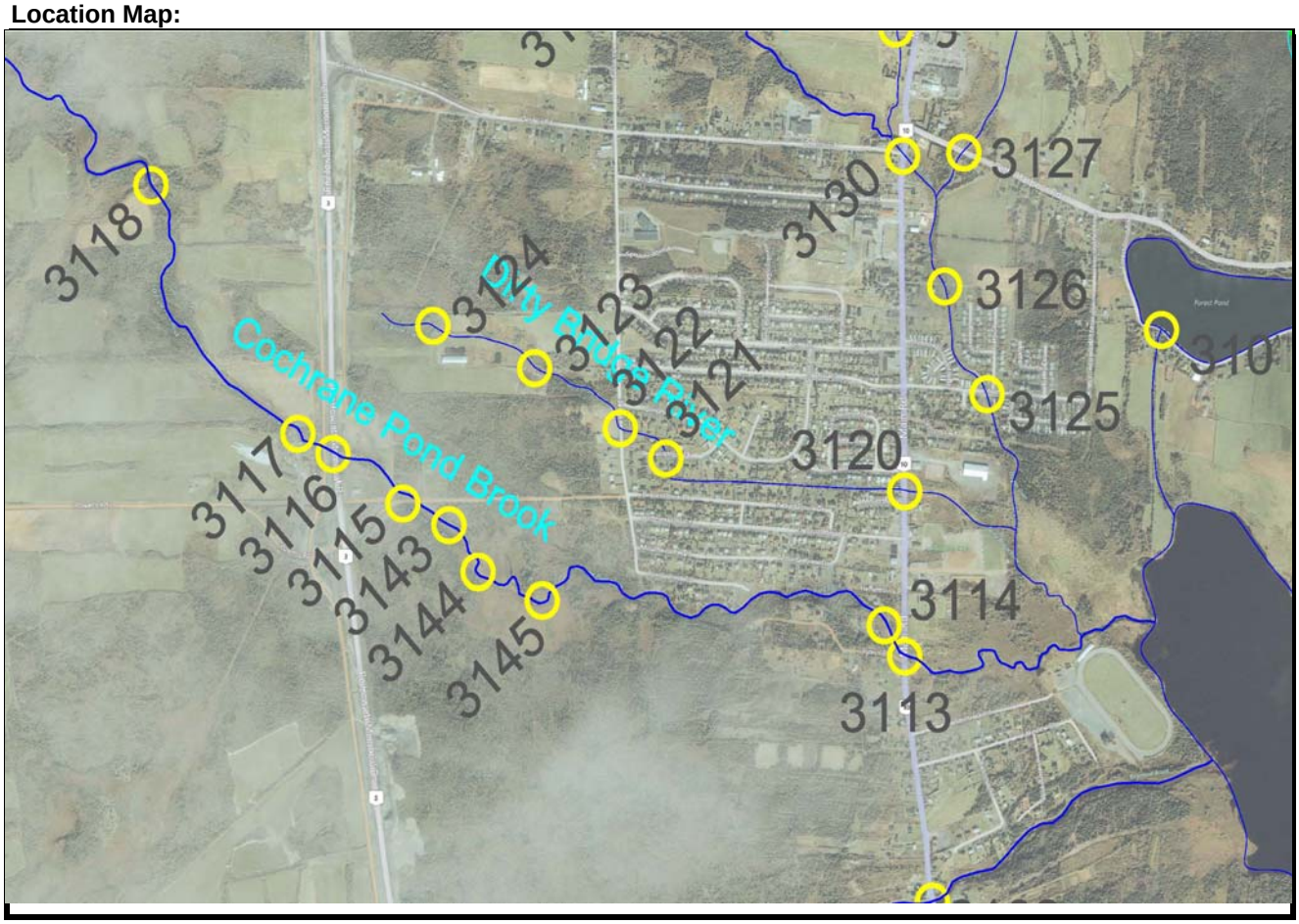
Date(s): 16/11/2011

Map Sheet(s): 15, 20
Location: **Latitude** 52º47'13.4"
Longitude 47º27'20.6"
Control NAD83
Projection MTM Zone 1

Deck: n/a

Photos: -

Location Map:



Notes: Private property no access - no survey available

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3123**
Road Name: Accessway

# of Bridge Piers or Arches:	n/a	
Skewed to Road?	n/a	
Road Width:	n/a	m
Span:	n/a	m
Deck Thickness:	n/a	m
Top of Deck:	n/a	m

Number of Structures:		**1**	**2**	**3**	**4**	**5**	**6**	**7**
Invert Elev:	**u/s:**							
	d/s:							
Type:		n/a						
Material:								
Opening:	**B**							
	W							
Length:								
Slope:								

Rating Curve:

HEC-RAS Data

Tributary :	not modelled
Structure # :	n/a
Modeled as :	n/a
Data from :	n/a

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3123
Road Name: Accessway

Description:

Description:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3123

Road Name: Accessway

Description:

Description:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3124
Watershed: Petty Harbour River
Watercourse: Dirty Bridge River

Road Name: Accessway
Road Name Alias: Accessway

Structure Type: n/a

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): n/a

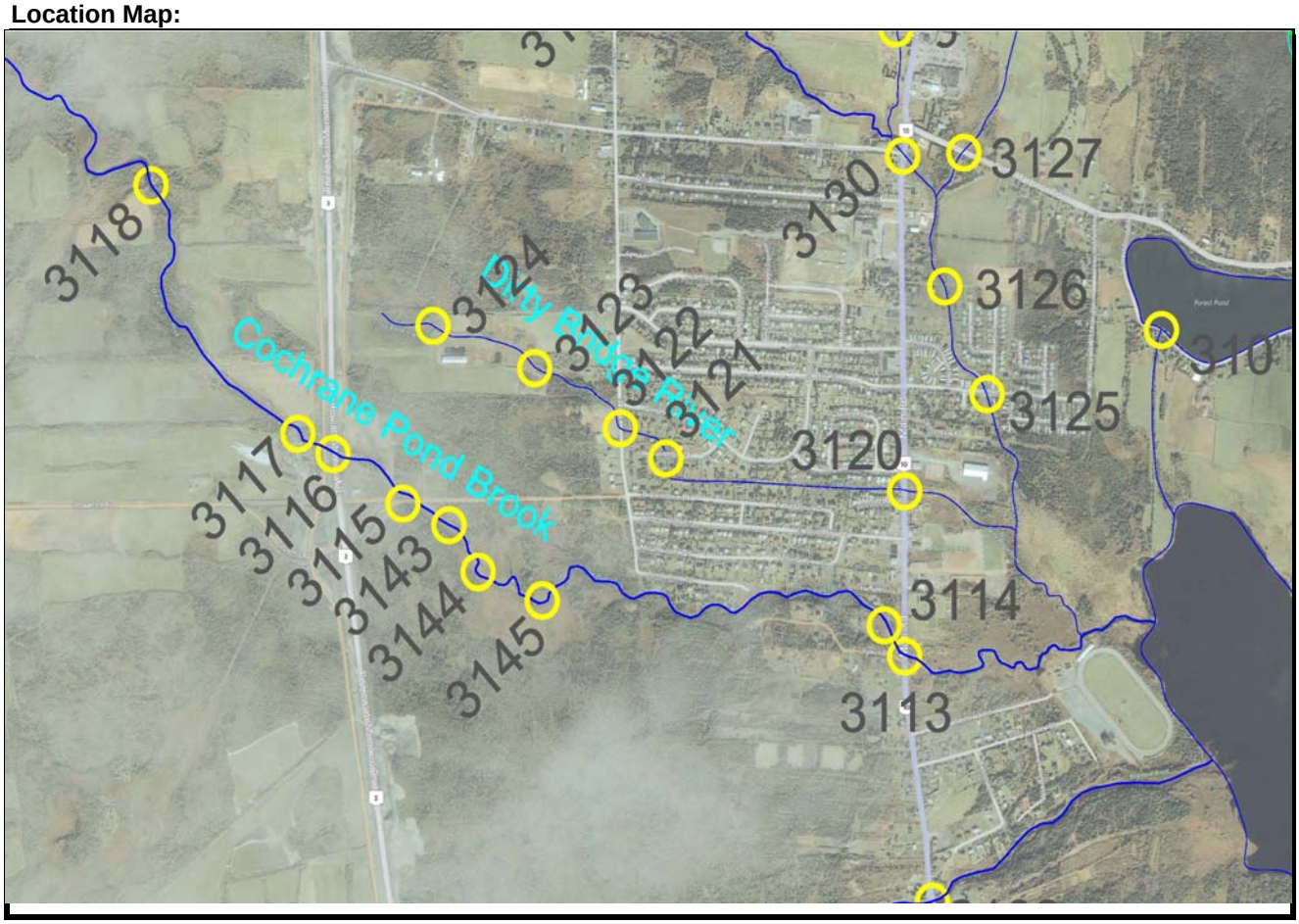
Date(s): 16/11/2011

Map Sheet(s): 20
Location:
Latitude 52º47'28.5"
Longitude 47º27'24.4"
Control NAD83
Projection MTM Zone 1

Deck: n/a

Photos: -

Location Map:



Notes: Private property no access - no survey available

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3124**
Road Name: Accessway

# of Bridge Piers or Arches:	n/a	
Skewed to Road?	n/a	
Road Width:	n/a	m
Span:	n/a	m
Deck Thickness:	n/a	m
Top of Deck:	n/a	m

Number of Structures:		**1**	**2**	**3**	**4**	**5**	**6**	**7**
Invert Elev:	**u/s:**							
	d/s:							
Type:		n/a						
Material:								
Opening:	**B**							
	W							
Length:								
Slope:								

Rating Curve:

HEC-RAS Data

Tributary :	not modelled
Structure # :	n/a
Modeled as :	n/a
Data from :	n/a

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3124
Road Name: Accessway

Description:

Description:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3124

Road Name: Accessway

Description:

Description:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3125
Watershed: Petty Harbour River
Watercourse: Fourth Pond Brook

Road Name: Meadowbrook Drive
Road Name Alias: Meadowbrook Drive

Structure Type: Bridge

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): Survey/Mapping

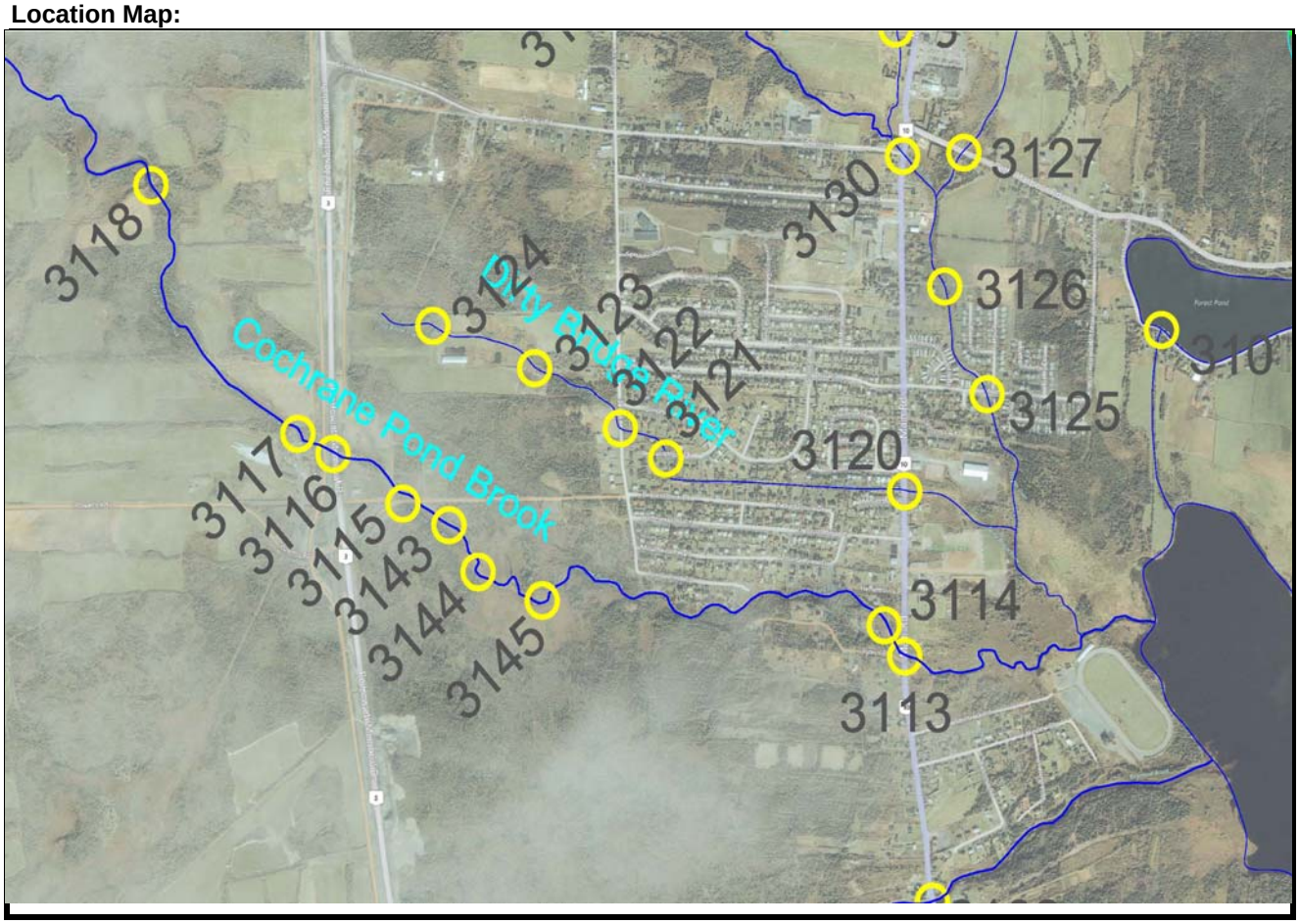
Date(s): 16/11/2011

Map Sheet(s): 19
Location: **Latitude** 52º46'07."
Longitude 47º27'17.7"
Control NAD83
Projection MTM Zone 1

Deck: Paved

Photos: 100-347 to 352

Location Map:



Notes:

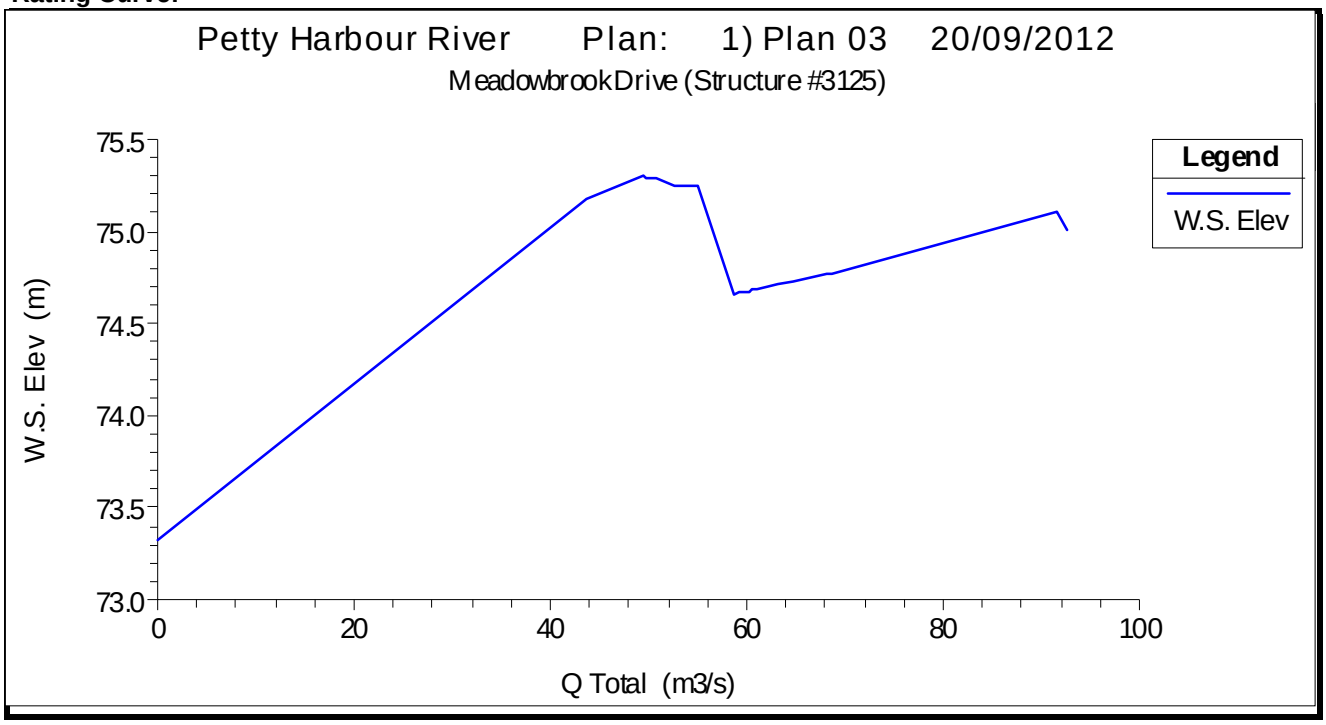
WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3125**
Road Name: Meadowbrook Drive

# of Bridge Piers or Arches:	0
Skewed to Road?	N
Road Width:	19.50 m
Span:	10.43 m
Deck Thickness:	0.80 m
Top of Deck:	76.50 m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**	73.35						
	d/s:	73.08						
Type:		Bridge						
Material:		Concrete						
Opening:	**B**	2.1						
	W	10.43						
Length:		19.50						
Slope:		0.014						

Rating Curve:



HEC-RAS Data

Tributary :	DoylesR-TR011
Structure # :	960
Modeled as :	Bridge
Data from :	Survey/Mapping

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3125
Road Name: Meadowbrook Drive

Description: Upstream face of structure



Description: Downstream face of structure



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3125

Road Name: Meadowbrook Drive

Description: Looking upstream from structure



Description: Looking downstream from structure



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3126
Watershed: Petty Harbour River
Watercourse: Fourth Pond Brook

Road Name: Unnamed Road
Road Name Alias: Unnamed Road

Structure Type: n/a

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): n/a

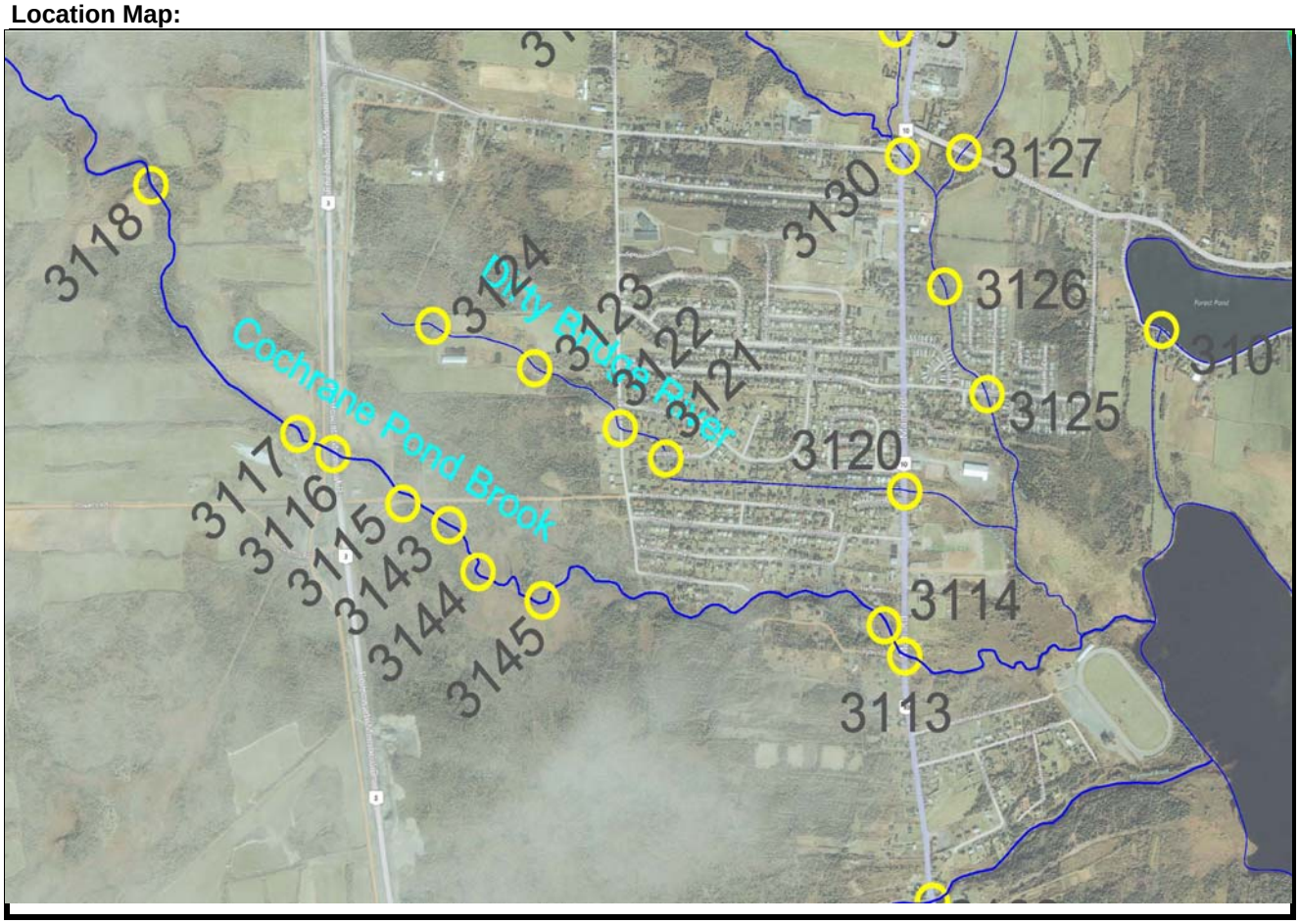
Date(s): 16/11/2011

Map Sheet(s): 19
Location:
Latitude 52º46'13.1"
Longitude 47º27'27.9"
Control NAD83
Projection MTM Zone 1

Deck: Earthen

Photos: -

Location Map:



Notes: Field crossing on private property - no survey available

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3126**
Road Name: Unnamed Road

# of Bridge Piers or Arches:	n/a	
Skewed to Road?	n/a	
Road Width:	n/a	m
Span:	n/a	m
Deck Thickness:	n/a	m
Top of Deck:	n/a	m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**							
	d/s:							
Type:		n/a						
Material:								
Opening:	**B**							
	W							
Length:								
Slope:								

Rating Curve:

HEC-RAS Data

Tributary :	not modelled
Structure # :	n/a
Modeled as :	n/a
Data from :	n/a

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3126
Road Name: Unnamed Road

Description:

Description:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3126

Road Name: Unnamed Road

Description:

Description:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3127
Watershed: Petty Harbour River
Watercourse: Fourth Pond Brook

Road Name: Petty Harbour Road
Road Name Alias: Petty Harbour Road

Structure Type: Circular Culvert

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): Survey/Mapping

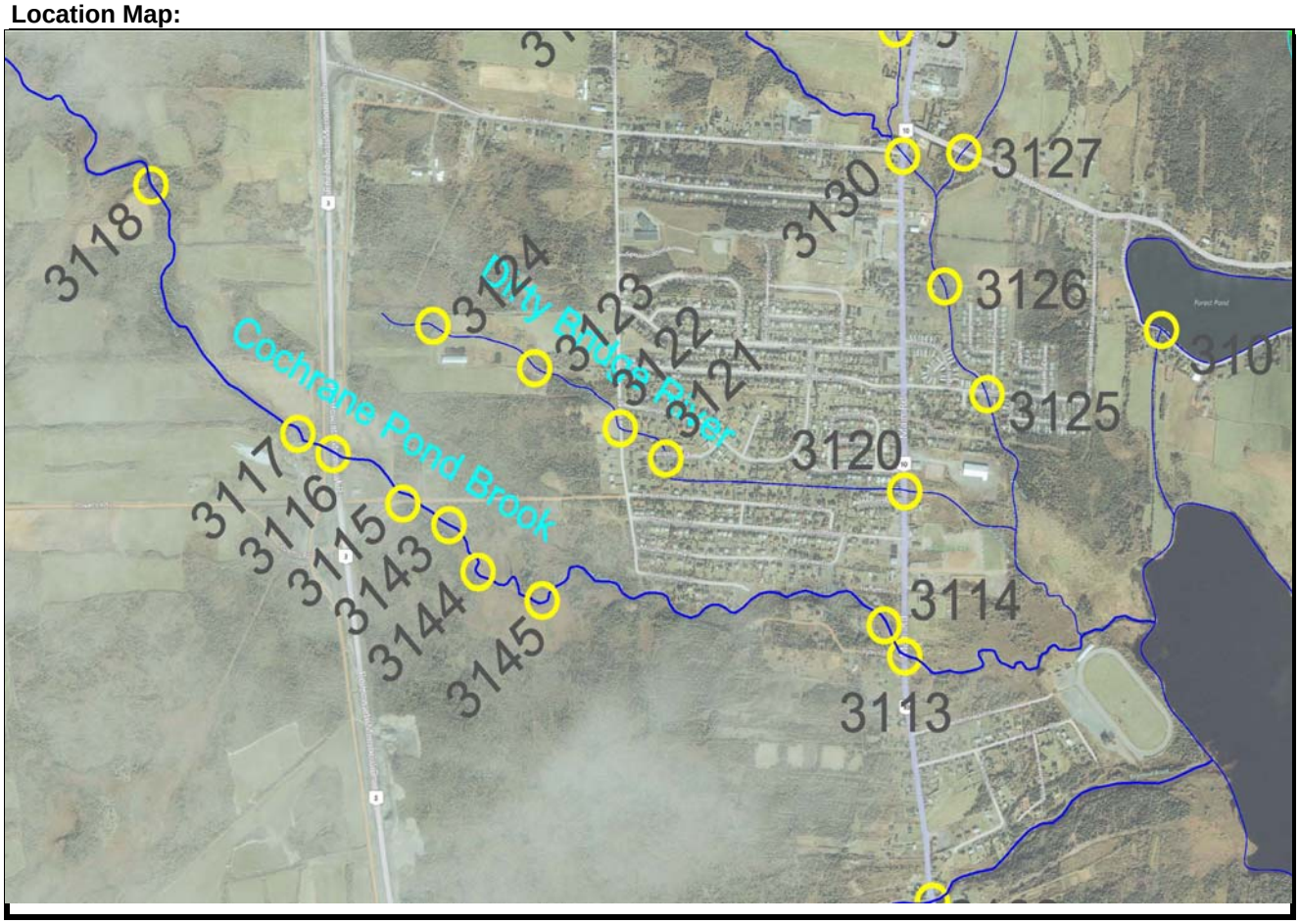
Date(s): 17/11/2011

Map Sheet(s): 19, 21, 23
Location: **Latitude** 52º46'09.8"
Longitude 47º27'40."
Control NAD83
Projection MTM Zone 1

Deck: Paved

Photos: 100-558 to 562

Location Map:



Notes:

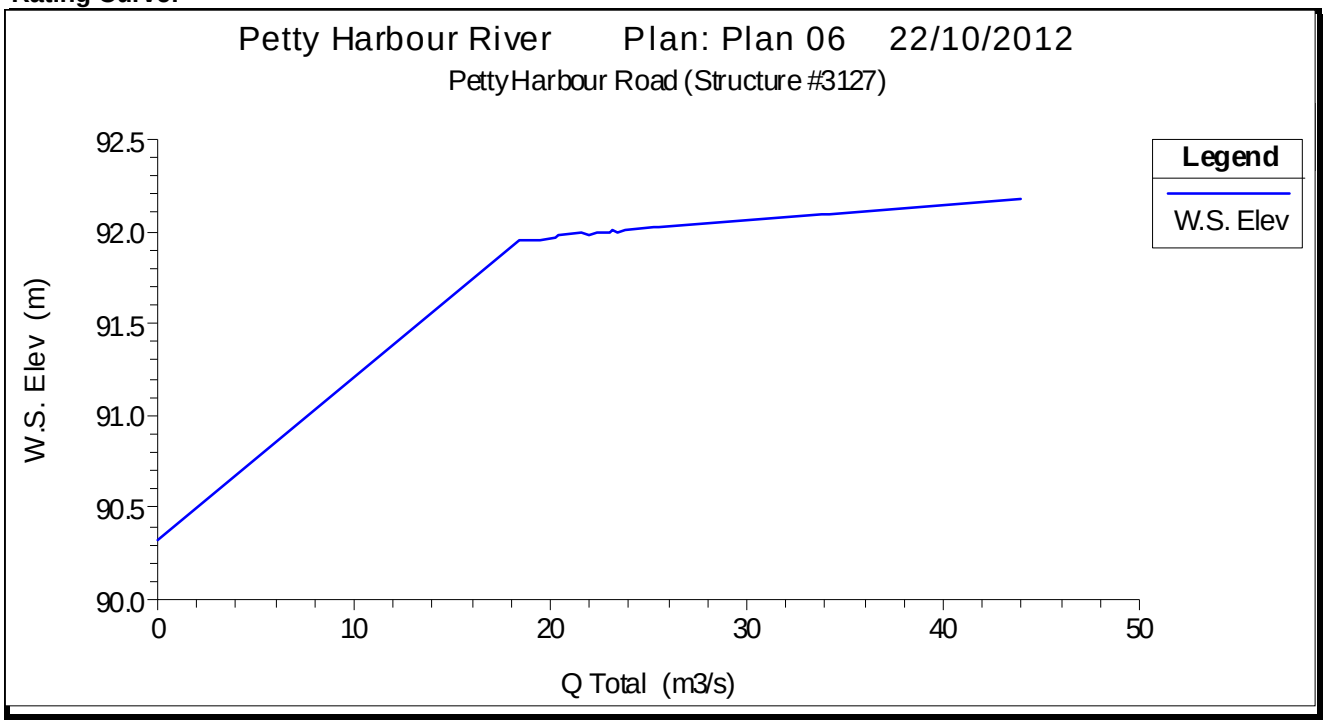
WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3127**
Road Name: Petty Harbour Road

# of Bridge Piers or Arches:	0
Skewed to Road?	N
Road Width:	6.50 m
Span:	9.61 m
Deck Thickness:	0.23 m
Top of Deck:	91.67 m

Number of Structures:		**1**	**2**	**3**	**4**	**5**	**6**	**7**
Invert Elev:	**u/s:**	90.45	90.47	90.34	90.33	90.42	90.43	
	d/s:	90.32	90.32	90.13	90.14	90.22	90.33	
Type:		Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	
Material:		CSP	CSP	CSP	CSP	CSP	CSP	
Diameter		1	1	1	1	1	1	
Length:		12.10	12.20	12.10	12.00	12.00	12.00	
Slope:		0.011	0.012	0.017	0.016	0.017	0.008	

Rating Curve:



HEC-RAS Data

Tributary :	ForthP-M001
Structure # :	150
Modeled as :	Culvert
Data from :	Survey/Mapping

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3127
Road Name: Petty Harbour Road

Description: Upstream face of structure



Description: Looking upstream from structure



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3127**

Road Name: Petty Harbour Road

Description: Downstream face of structure



Description: Looking downstream from structure



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3128
Watershed: Petty Harbour River
Watercourse: Fourth Pond Brook

Road Name: Cox's Road
Road Name Alias: Cox's Road

Structure Type: no structure at this location

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): n/a

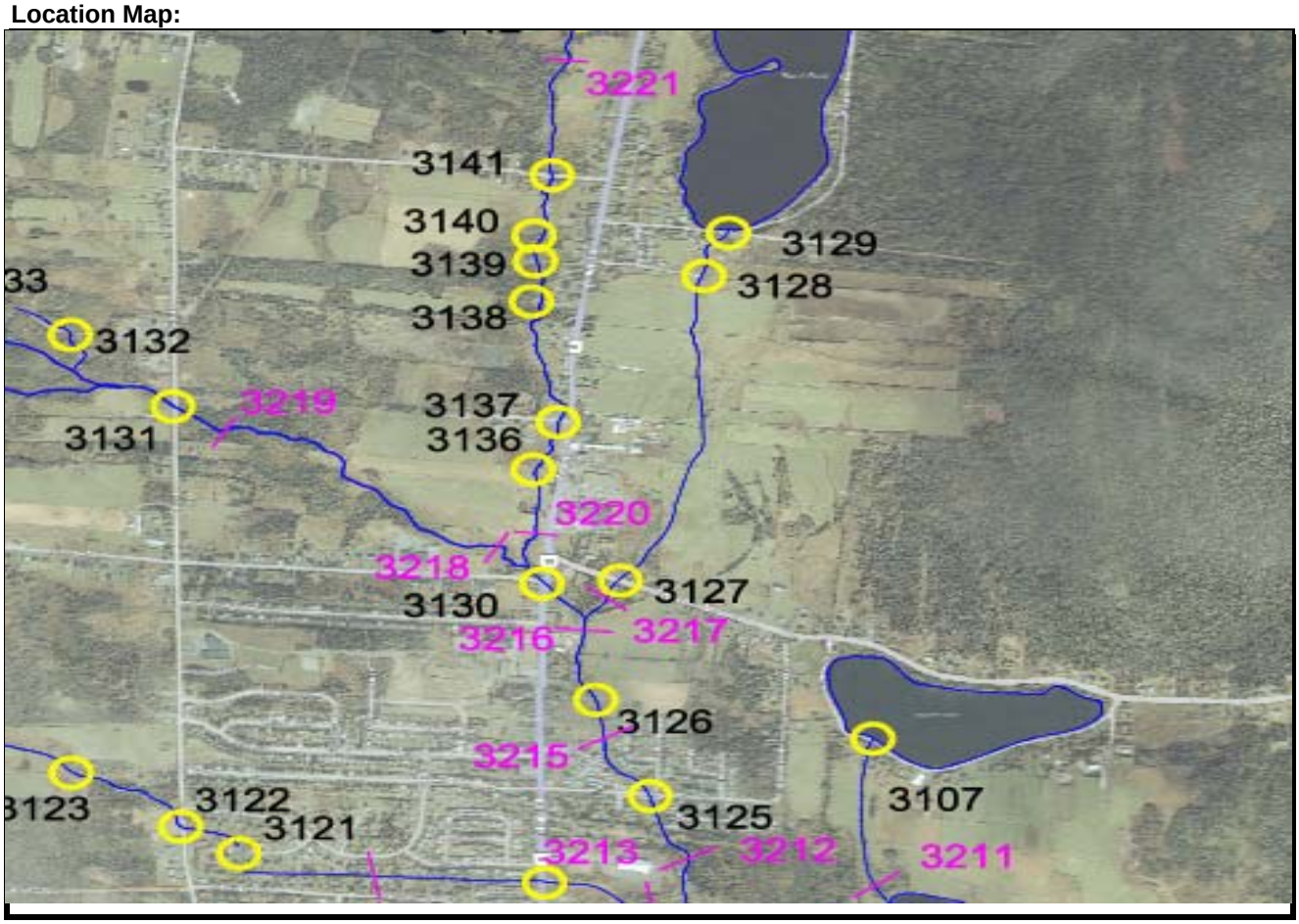
Date(s): 17/11/2011

Map Sheet(s): 24
Location:
Latitude 52º46'00.9"
Longitude 47º28'11.9"
Control NAD83
Projection MTM Zone 1

Deck: n/a

Photos: -

Location Map:



Notes: no structure at this location

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3128**
Road Name: Cox's Road

# of Bridge Piers or Arches:	n/a	
Skewed to Road?	n/a	
Road Width:	n/a	m
Span:	n/a	m
Deck Thickness:	n/a	m
Top of Deck:	n/a	m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**							
	d/s:							
Type:								
Material:								
Opening:	**B**							
	W							
Length:								
Slope:								

Rating Curve:

HEC-RAS Data

Tributary :	n/a
Structure # :	n/a
Modeled as :	n/a
Data from :	n/a

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3128
Road Name: Cox's Road

Description:

Description:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3128

Road Name: Cox's Road

Description:

Description:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3129
Watershed: Petty Harbour River
Watercourse: Fourth Pond Brook

Road Name: 4th Pond Road
Road Name Alias: 4th Pond Road

Structure Type: Pipe Arch

Observer(s): M. Follett & M. Gosse

Organization(s): AMEC

Info Source(s): Survey/Mapping

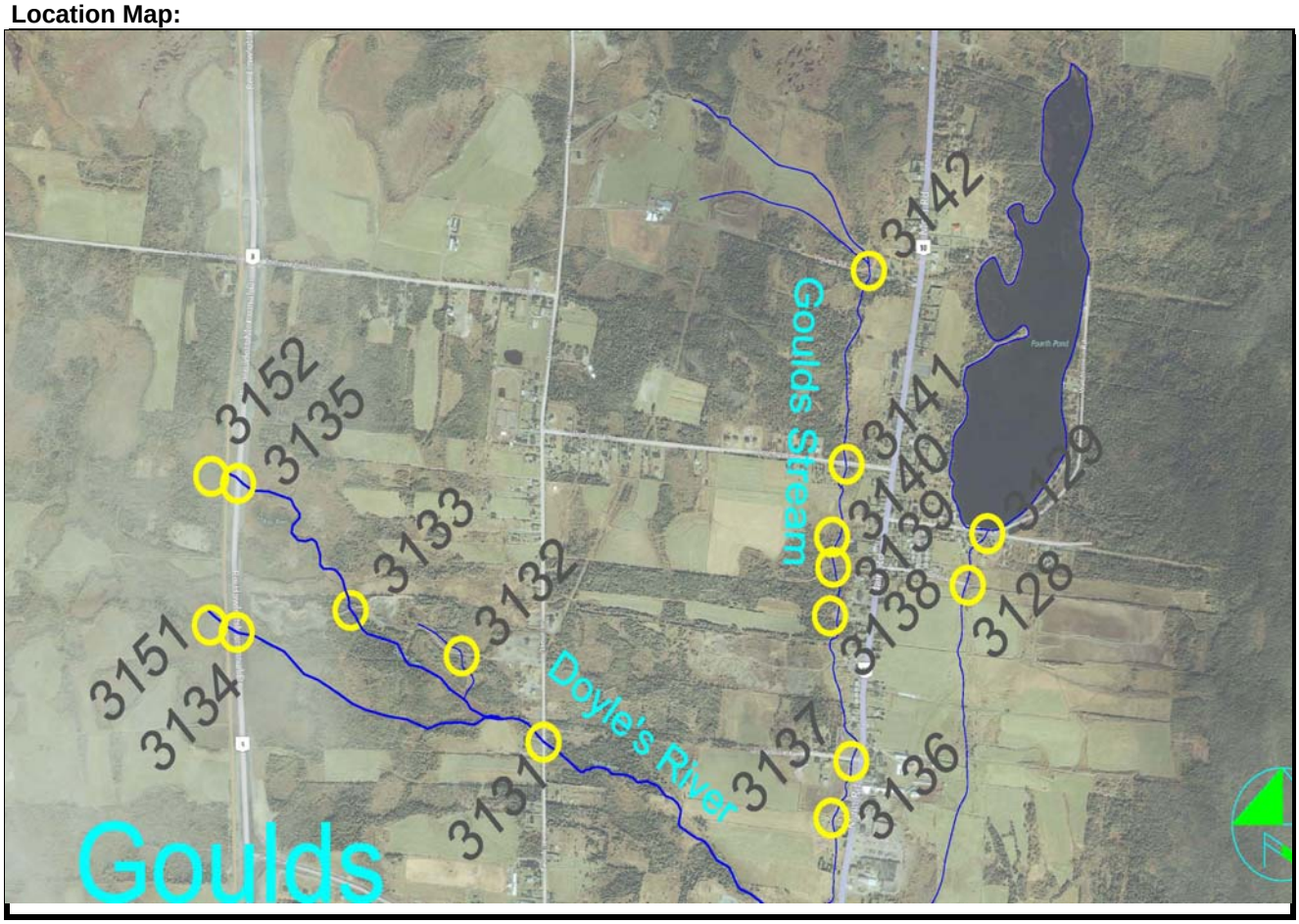
Date(s): 30/11/2011

Map Sheet(s): 24
Location: **Latitude** 52º45'57.9"
Longitude 47º28'16."
Control NAD83
Projection MTM Zone 1

Deck: Paved

Photos: 100-527 to 530

Location Map:



Notes:

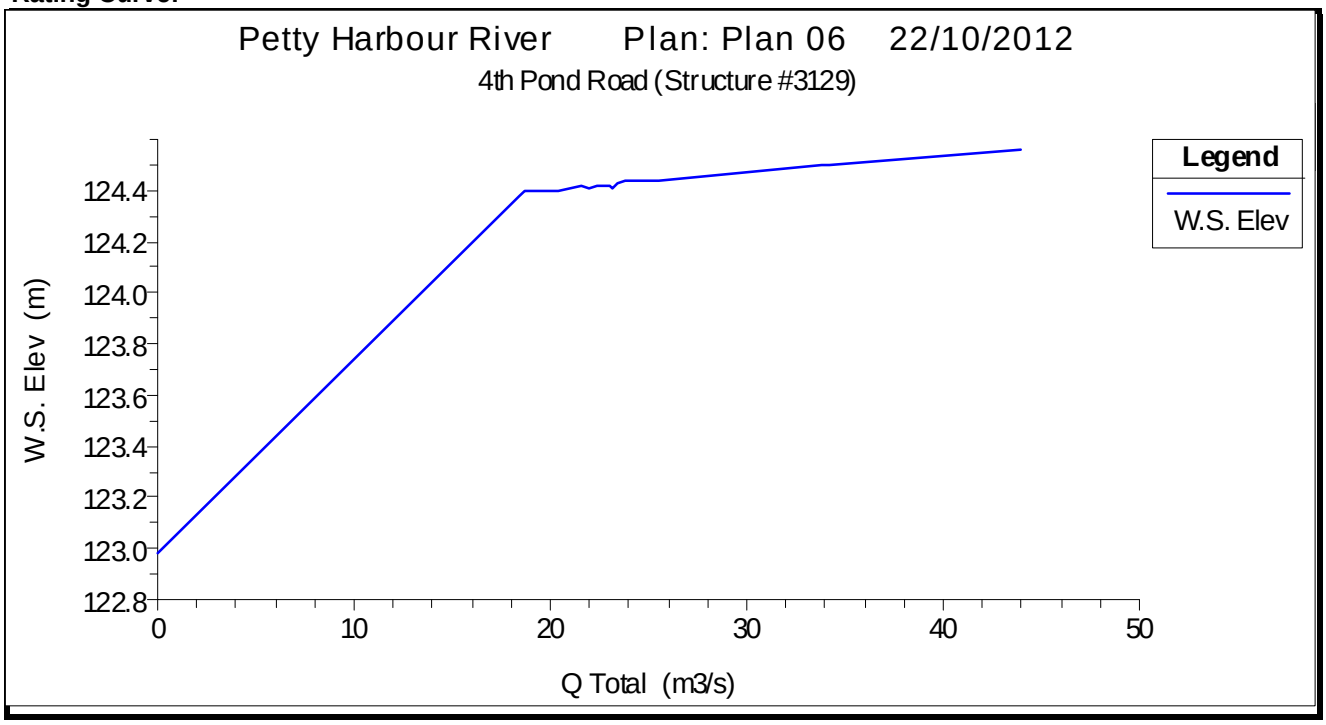
WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3129
Road Name: 4th Pond Road

# of Bridge Piers or Arches:	0
Skewed to Road?	N
Road Width:	6.40 m
Span:	1.46 m
Deck Thickness:	0.27 m
Top of Deck:	124.15 m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**	122.98						
	d/s:	122.98						
Type:		Pipe Arch						
Material:		CSP						
Opening:	**B**	0.9						
	W	1.46						
Length:		6.40						
Slope:		0.000						

Rating Curve:



HEC-RAS Data

Tributary :	ForthP-M001
Structure # :	1,390
Modeled as :	Culvert
Data from :	Survey/Mapping

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3129
Road Name: 4th Pond Road

Description: Downstream face of structure



Description: Looking downstream from structure



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3129

Road Name: 4th Pond Road

Description: Upstream face of structure



Description: Looking upstream from structure



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3130
Watershed: Petty Harbour River
Watercourse: Doyles River

Road Name: Doyles Road
Road Name Alias: Doyles Road

Structure Type: Bridge

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): Survey/Mapping

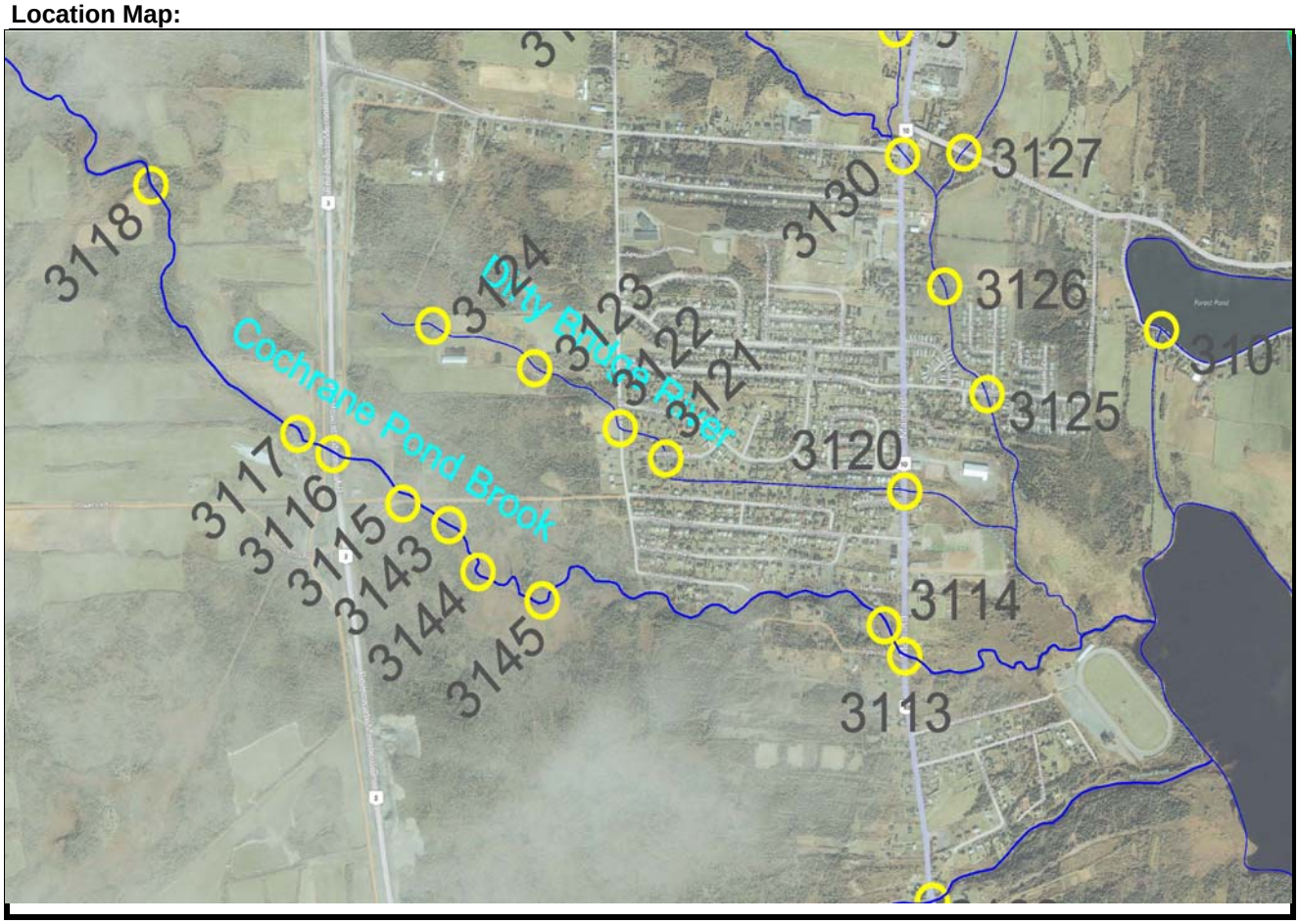
Date(s): 17/11/2011

Map Sheet(s): 19, 21, 23
Location: **Latitude** 52º46'18.6"
Longitude 47º27'39.7"
Control NAD83
Projection MTM Zone 1

Deck: Paved

Photos: 100-340 to 346

Location Map:



Notes:

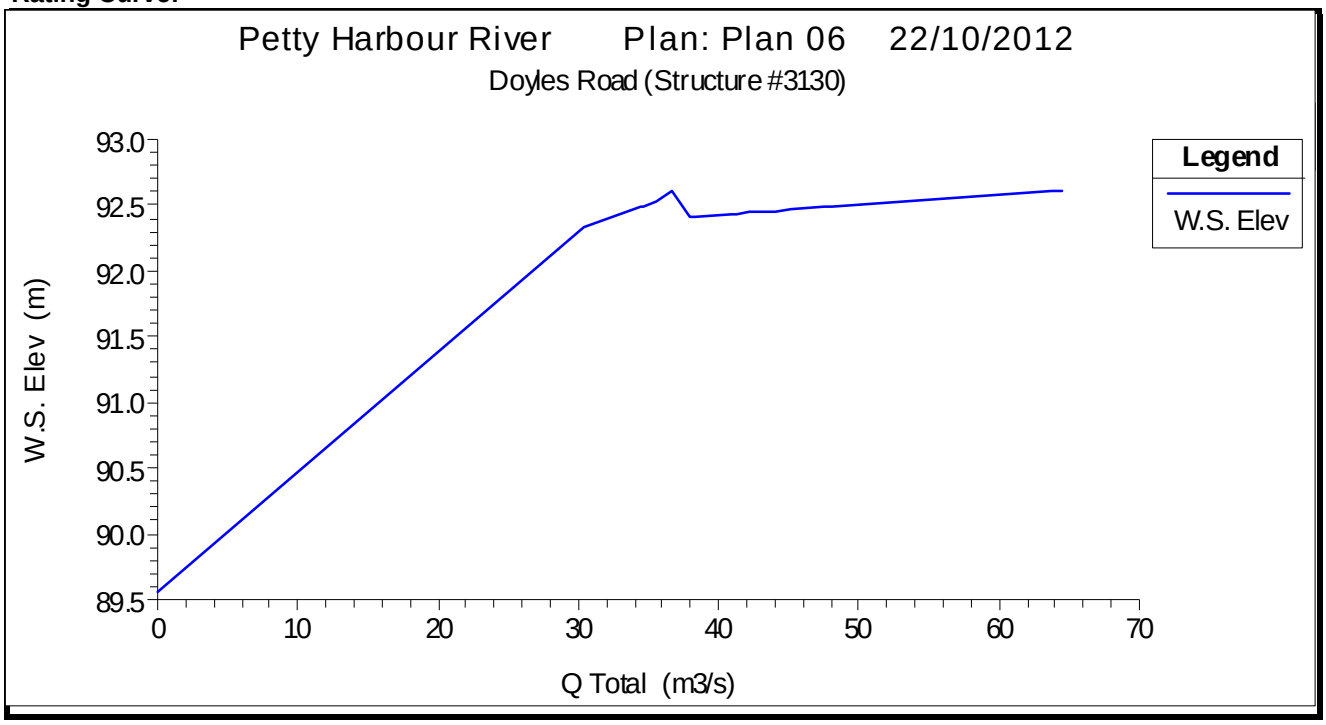
WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3130**
Road Name: Doyles Road

# of Bridge Piers or Arches:	0
Skewed to Road?	N
Road Width:	22.50 m
Span:	4.50 m
Deck Thickness:	0.69 m
Top of Deck:	91.59 m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**	89.56						
	d/s:	89.1						
Type:		Bridge						
Material:		Concrete						
Opening:	**B**	1.34						
	W	4.5						
Length:		22.50						
Slope:		0.017						

Rating Curve:



HEC-RAS Data

Tributary :	DoylesR-TR012
Structure # :	1,745
Modeled as :	Bridge
Data from :	Survey/Mapping

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3130
Road Name: Doyles Road

Description: Upstream side of bridge



Description: Upstream face of bridge



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3130

Road Name: Doyles Road

Description: Looking downstream from bridge



Description: Downstream face of bridge and top of road



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3131
Watershed: Petty Harbour River
Watercourse: Doyles River

Road Name: Back Line
Road Name Alias: Back Line

Structure Type: Circular Culvert

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): Survey/Mapping

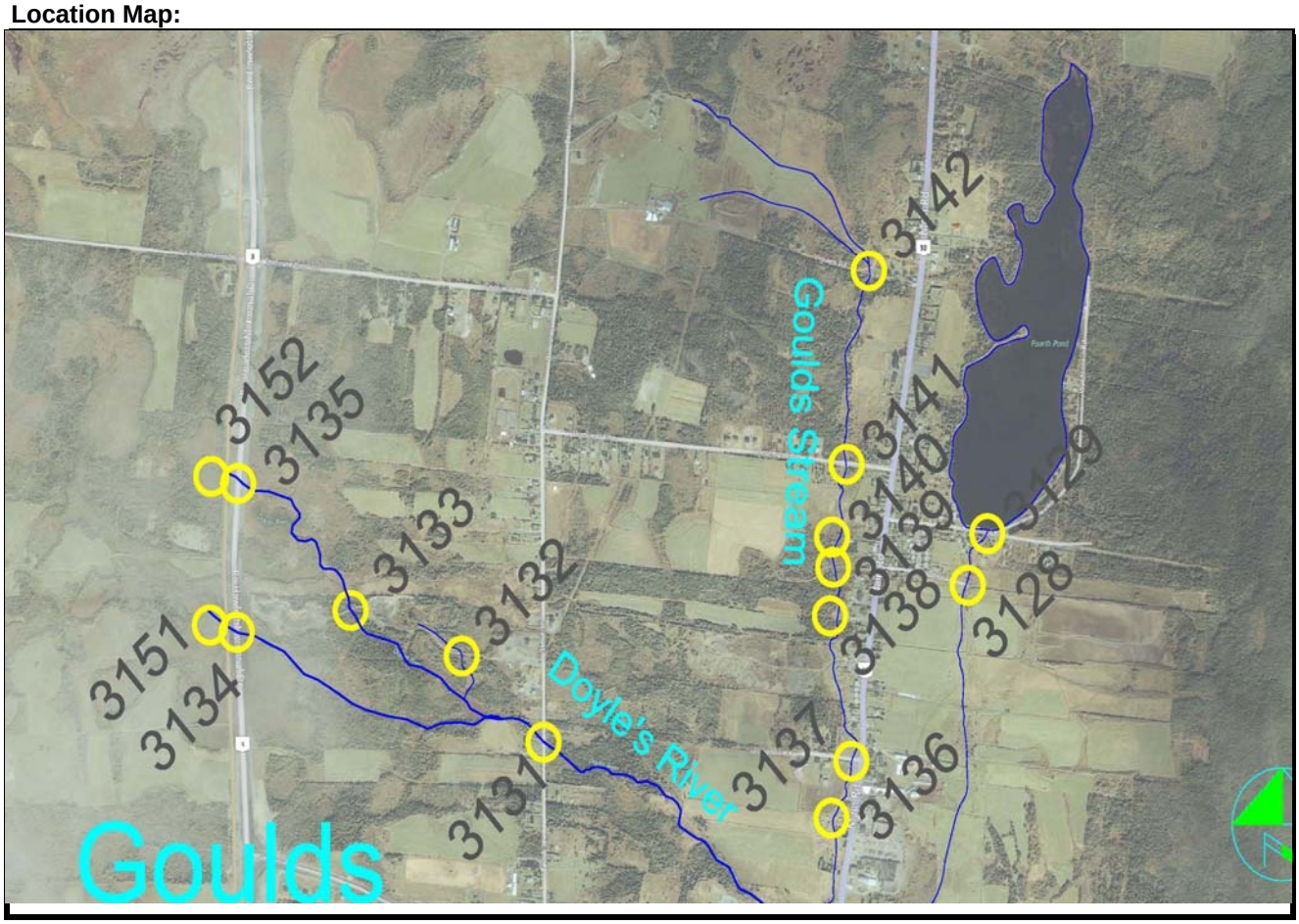
Date(s): 17/11/2011

Map Sheet(s): 21, 22
Location: **Latitude** 52º47'01.6"
Longitude 47º27'58.5"
Control NAD83
Projection MTM Zone 1

Deck: Paved

Photos: 100-545 to 549

Location Map:



Notes:

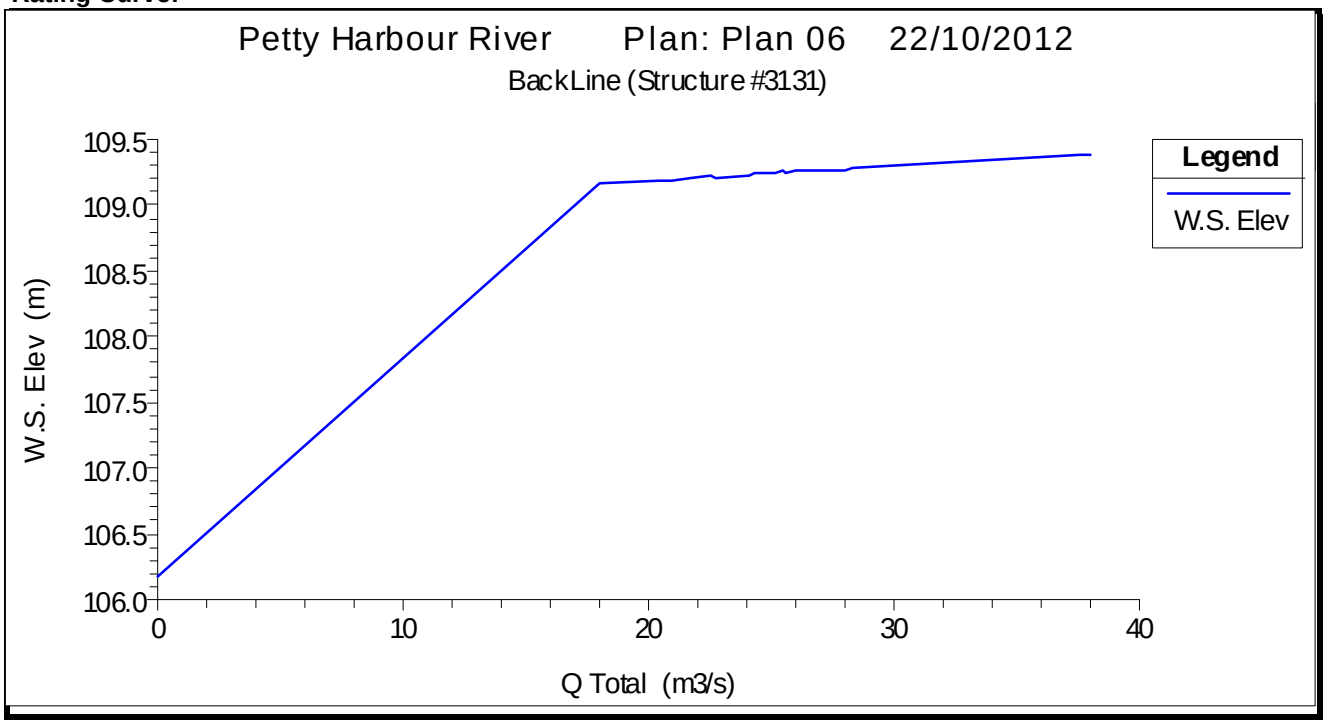
WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3131**
Road Name: Back Line

# of Bridge Piers or Arches:	0
Skewed to Road?	N
Road Width:	7.40 m
Span:	1.81 m
Deck Thickness:	1.42 m
Top of Deck:	108.65 m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**	106.17	106.48					
	d/s:	106.1	106.40					
Type:		Culvert	Culvert					
Material:		Plastic	CSP					
Opening:	**B**							
	W	0.75	0.75					
Length:		14.20	13.90					
Slope:		0.005	0.006					

Rating Curve:



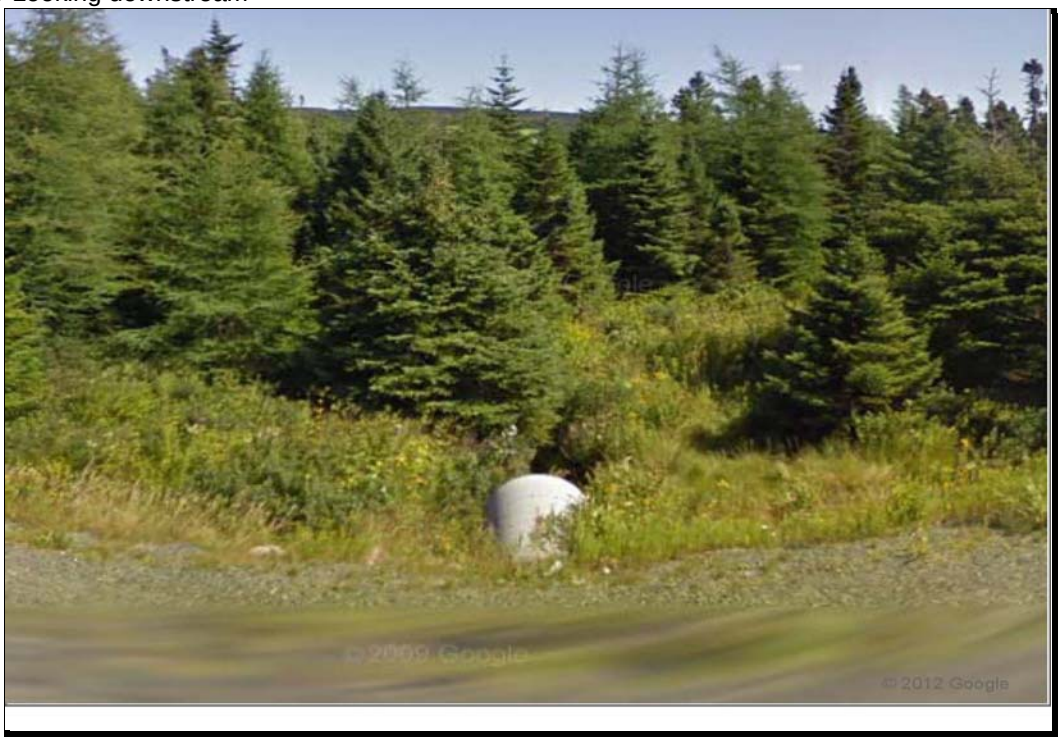
HEC-RAS Data

Tributary :	DoylesR-TR015
Structure # :	3,000
Modeled as :	Culvert
Data from :	Survey/Mapping

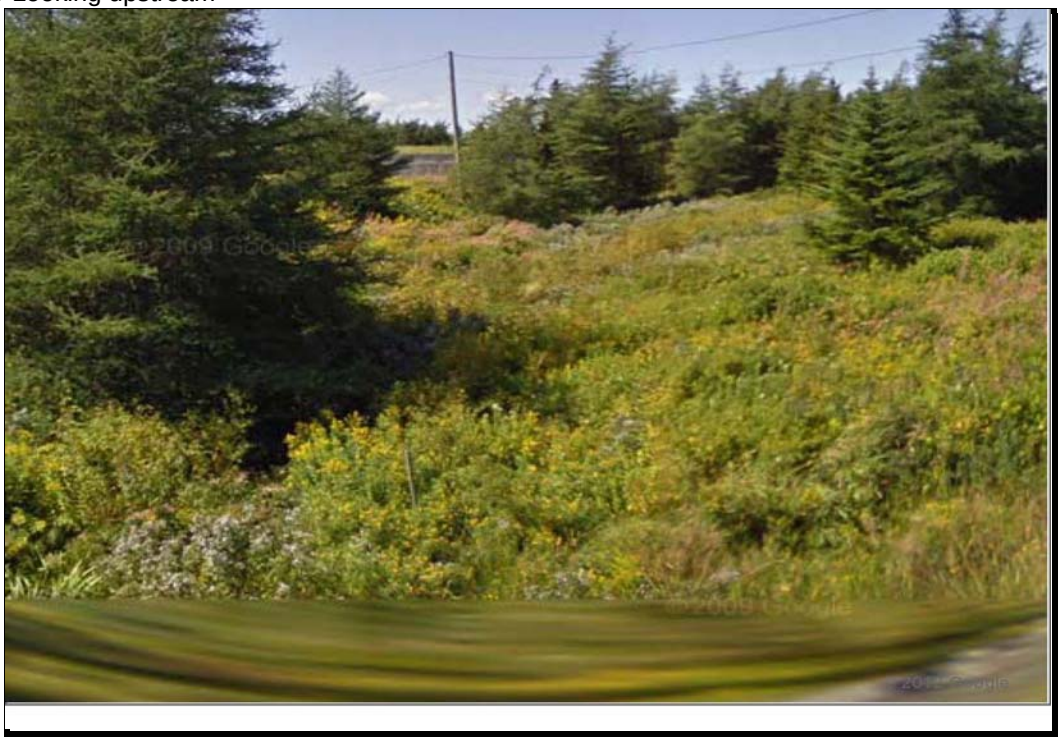
WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3131
Road Name: Back Line

Description: Looking downstream



Description: Looking upstream



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3131**

Road Name: Back Line

Description: Top of road looking south



Description:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3132
Watershed: Petty Harbour River
Watercourse: Doyles River

Road Name: Trail
Road Name Alias: Trail

Structure Type: n/a

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): n/a

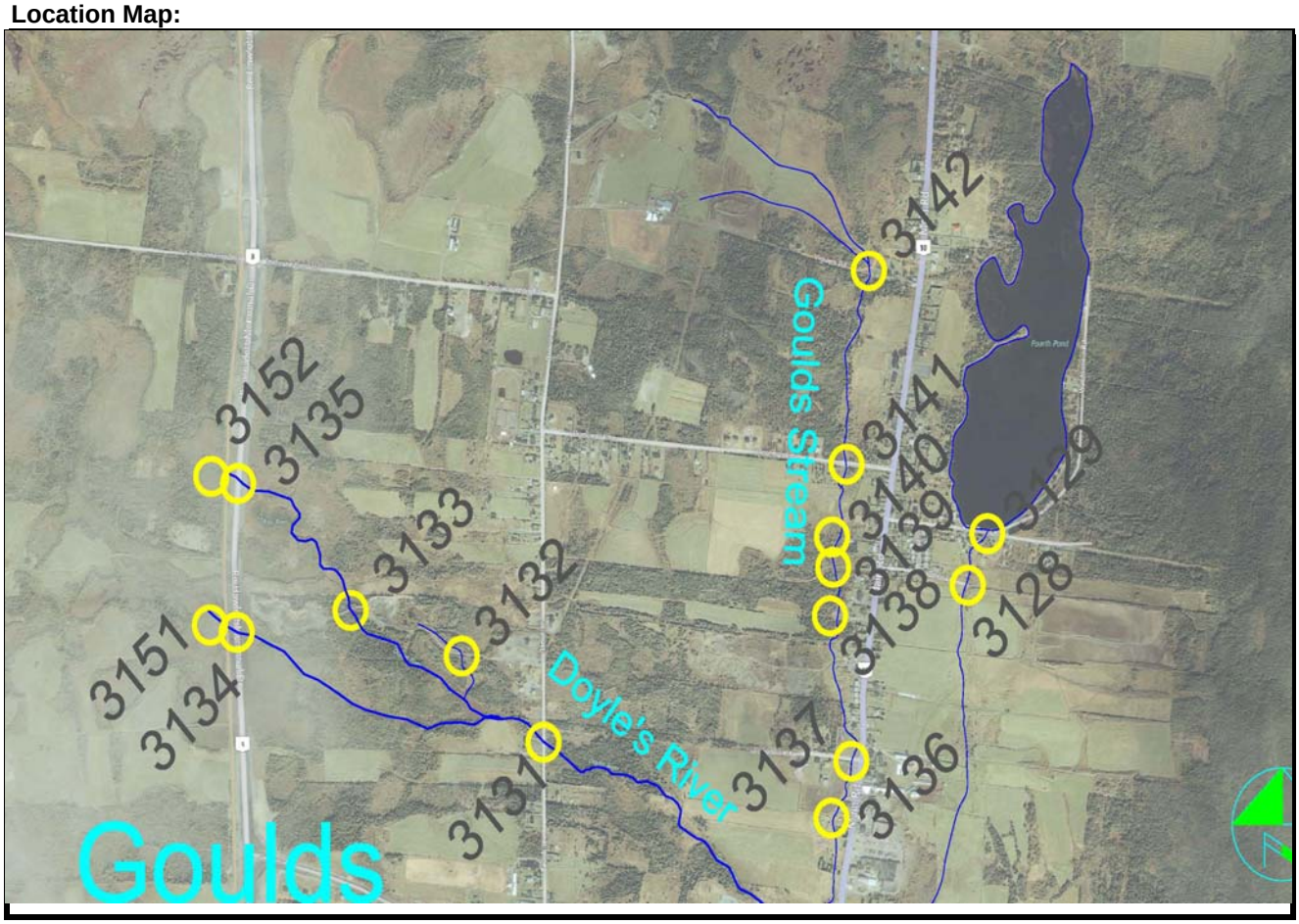
Date(s): 17/11/2011

Map Sheet(s): 22
Location:
Latitude 52º47'13.1"
Longitude 47º28'05.8"
Control NAD83
Projection MTM Zone 1

Deck: n/a

Photos: -

Location Map:



Notes: Private property no access - no survey available

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3132**
Road Name: Trail

# of Bridge Piers or Arches:	n/a	
Skewed to Road?	n/a	
Road Width:	n/a	m
Span:	n/a	m
Deck Thickness:	n/a	m
Top of Deck:	n/a	m

Number of Structures:		**1**	**2**	**3**	**4**	**5**	**6**	**7**
Invert Elev:	**u/s:**							
	d/s:							
Type:		n/a						
Material:								
Opening:	**B**							
	W							
Length:								
Slope:								

Rating Curve:

HEC-RAS Data

Tributary :	not modelled
Structure # :	n/a
Modeled as :	n/a
Data from :	n/a

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3132
Road Name: Trail

Description:

Description:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3132

Road Name: Trail

Description:

Description:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3133
Watershed: Petty Harbour River
Watercourse: Doyles River

Road Name: Trail
Road Name Alias: Trail

Structure Type: n/a

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): n/a

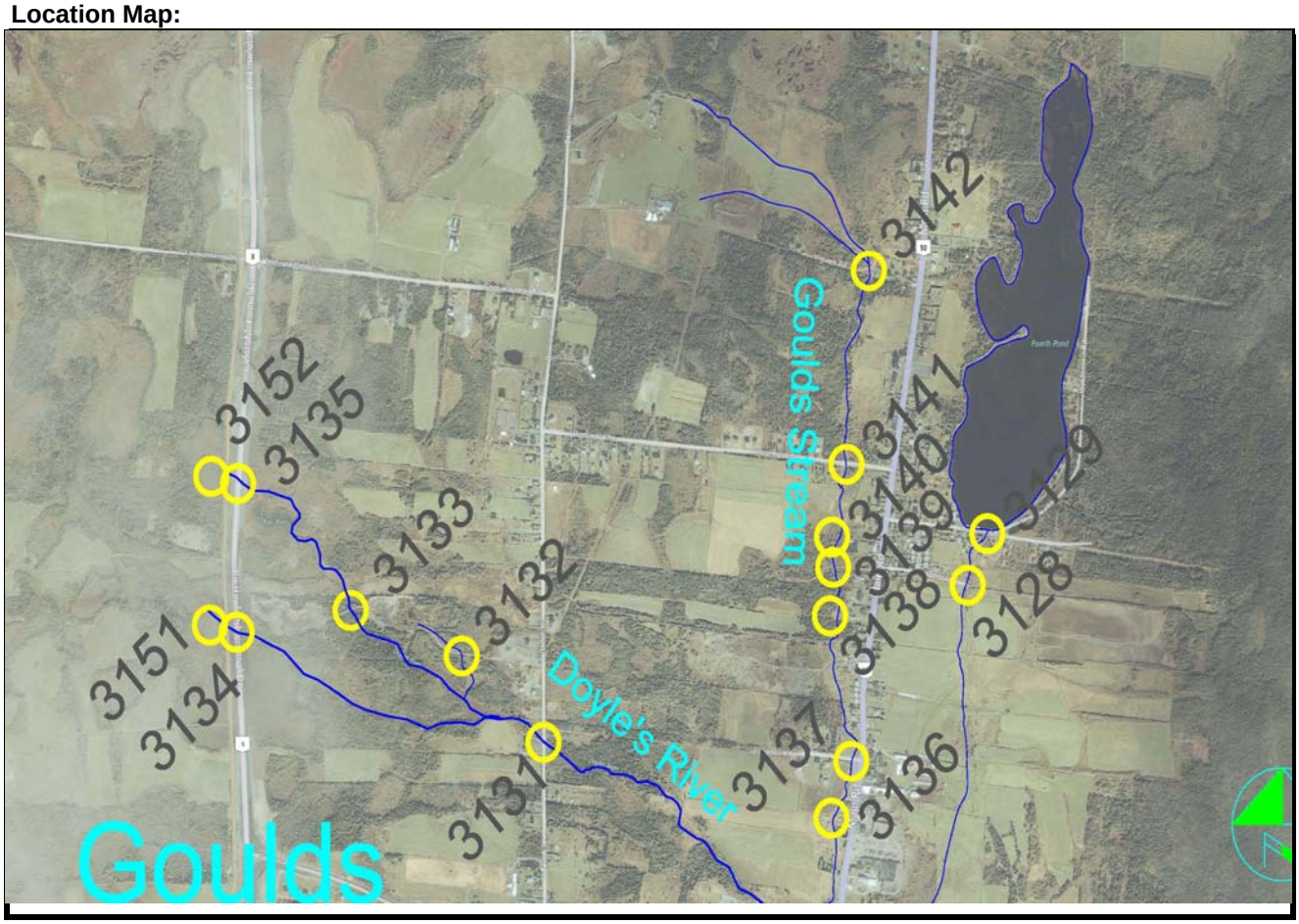
Date(s): 17/11/2011

Map Sheet(s): 22
Location:
Latitude 52º47'29."
Longitude 47º28'09.9"
Control NAD83
Projection MTM Zone 1

Deck: n/a

Photos: -

Location Map:



Notes: Private property no access - no survey available

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3133**
Road Name: Trail

# of Bridge Piers or Arches:	n/a	
Skewed to Road?	n/a	
Road Width:	n/a	m
Span:	n/a	m
Deck Thickness:	n/a	m
Top of Deck:	n/a	m

Number of Structures:		**1**	**2**	**3**	**4**	**5**	**6**	**7**
Invert Elev:	**u/s:**							
	d/s:							
Type:		n/a						
Material:								
Opening:	**B**							
	W							
Length:								
Slope:								

Rating Curve:

HEC-RAS Data

Tributary :	not modelled
Structure # :	n/a
Modeled as :	n/a
Data from :	n/a

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3133
Road Name: Trail

Description:

Description:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3133

Road Name: Trail

Description:

Description:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3134
Watershed: Petty Harbour River
Watercourse: Doyles River

Road Name: Robert E Howlett Mermorial Drive
Road Name Alias: Robert E Howlett Mermorial Drive

Structure Type: Circular Culvert

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): Survey/Mapping

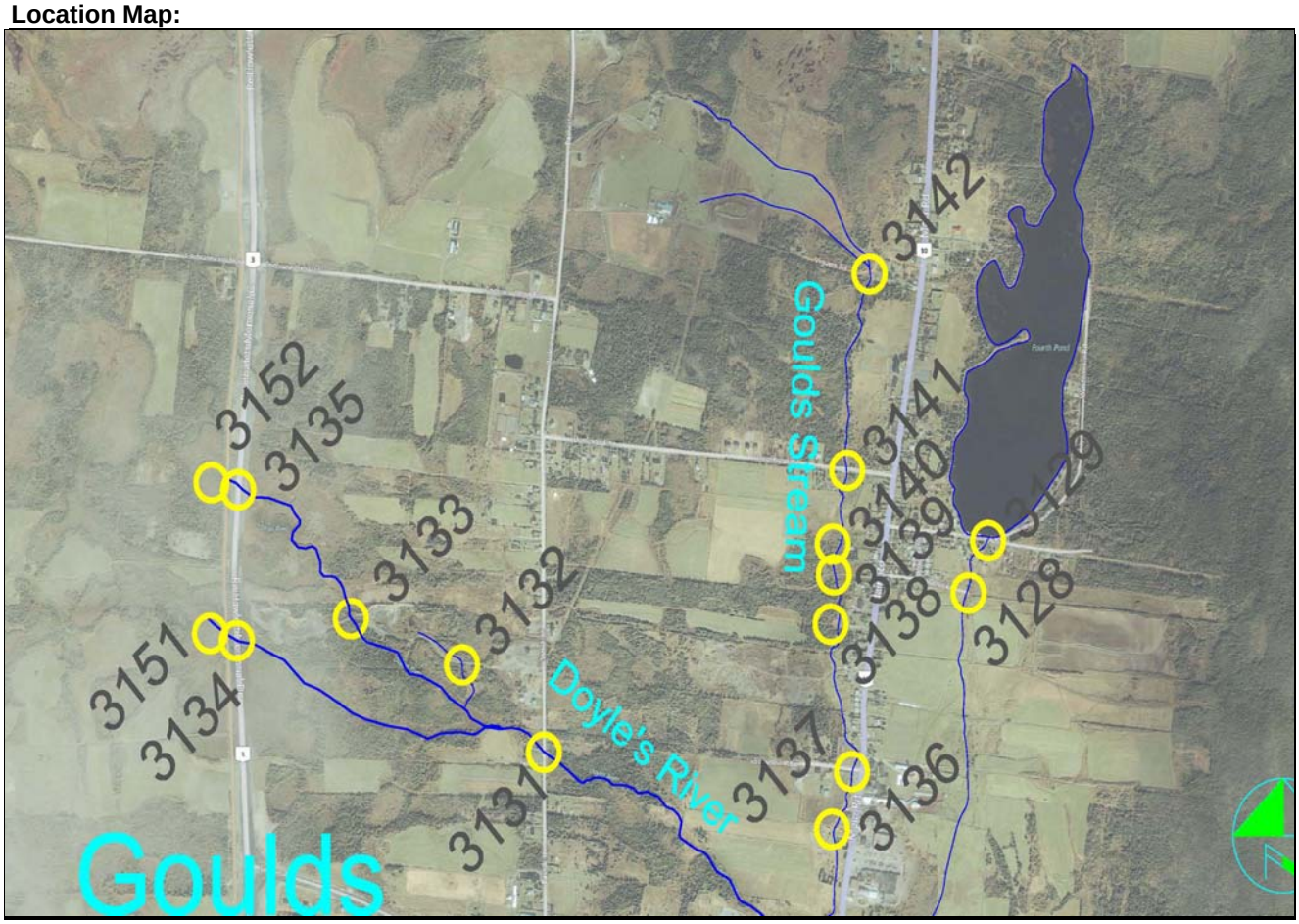
Date(s): 17/11/2011

Map Sheet(s): 22
Location: **Latitude** 52º47'41.5"
Longitude 47º28'06.9"
Control NAD83
Projection MTM Zone 1

Deck: Paved

Photos: 100-567 to 571

Location Map:



Notes:

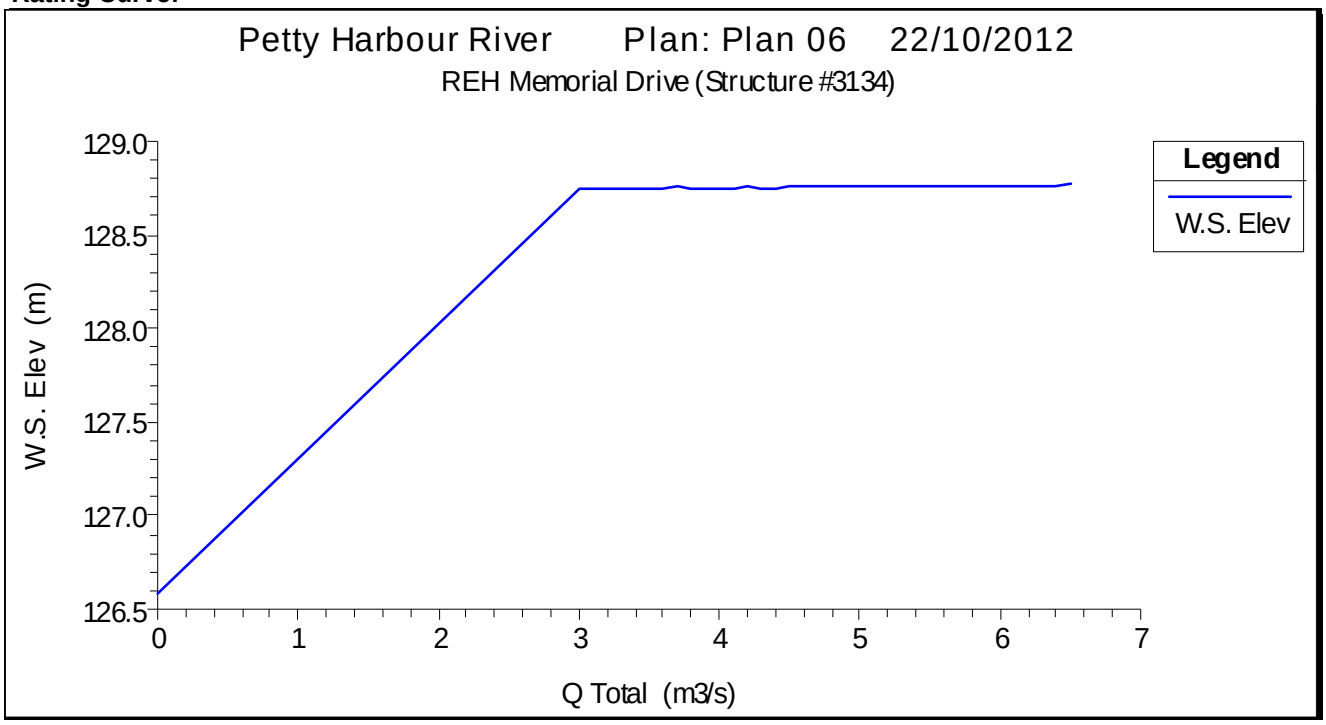
WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3134**
Road Name: Robert E Howlett Mermorial Drive

# of Bridge Piers or Arches:	0
Skewed to Road?	N
Road Width:	8.80 m
Span:	0.80 m
Deck Thickness:	1.32 m
Top of Deck:	128.70 m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**	126.58						
	d/s:	126.41						
Type:		Culvert						
Material:		CSP						
Opening:	**B**	0						
	W	0.8						
Length:		24.60						
Slope:		0.007						

Rating Curve:



HEC-RAS Data

Tributary :	DoylesR-TR-16
Structure # :	850
Modeled as :	Culvert
Data from :	Survey/Mapping

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3134
Road Name: Robert E Howlett Mermorial Drive

Description: Downstream side of structure



Description: Looking upstream from structure



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3134

Road Name: Robert E Howlett Mermorial Drive

Description: Upstream face of structure



Description: Downstream side of crossing



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3135
Watershed: Petty Harbour River
Watercourse: Doyles River

Road Name: Robert E Howlett Mermorial Drive
Road Name Alias: Robert E Howlett Mermorial Drive

Structure Type: Circular Culvert

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): Survey/Mapping

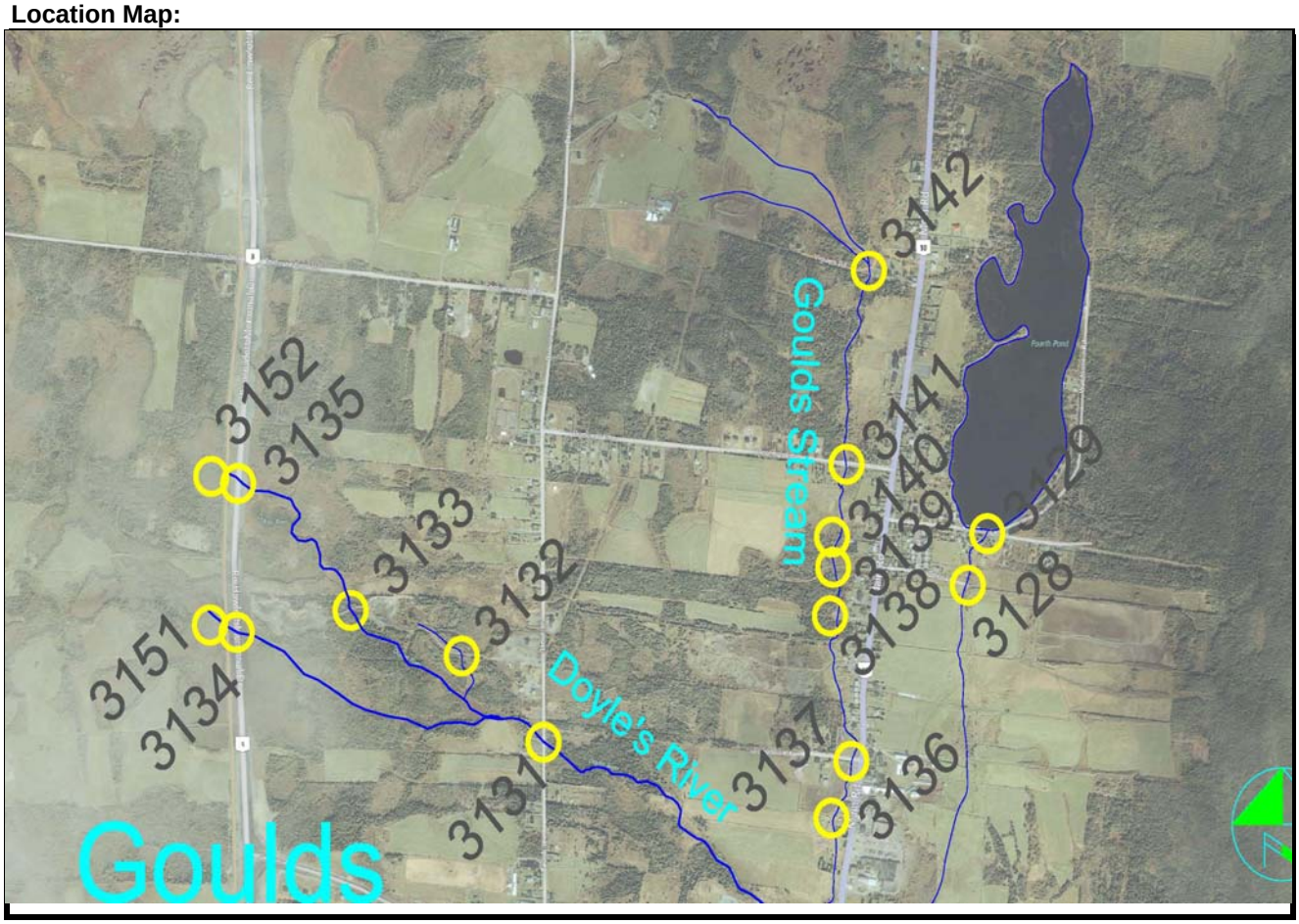
Date(s): 17/11/2011

Map Sheet(s): 22
Location: **Latitude** 52º47'45.4"
Longitude 47º28'15.5"
Control NAD83
Projection MTM Zone 1

Deck: Paved

Photos: 100-576 to 582

Location Map:



Notes:

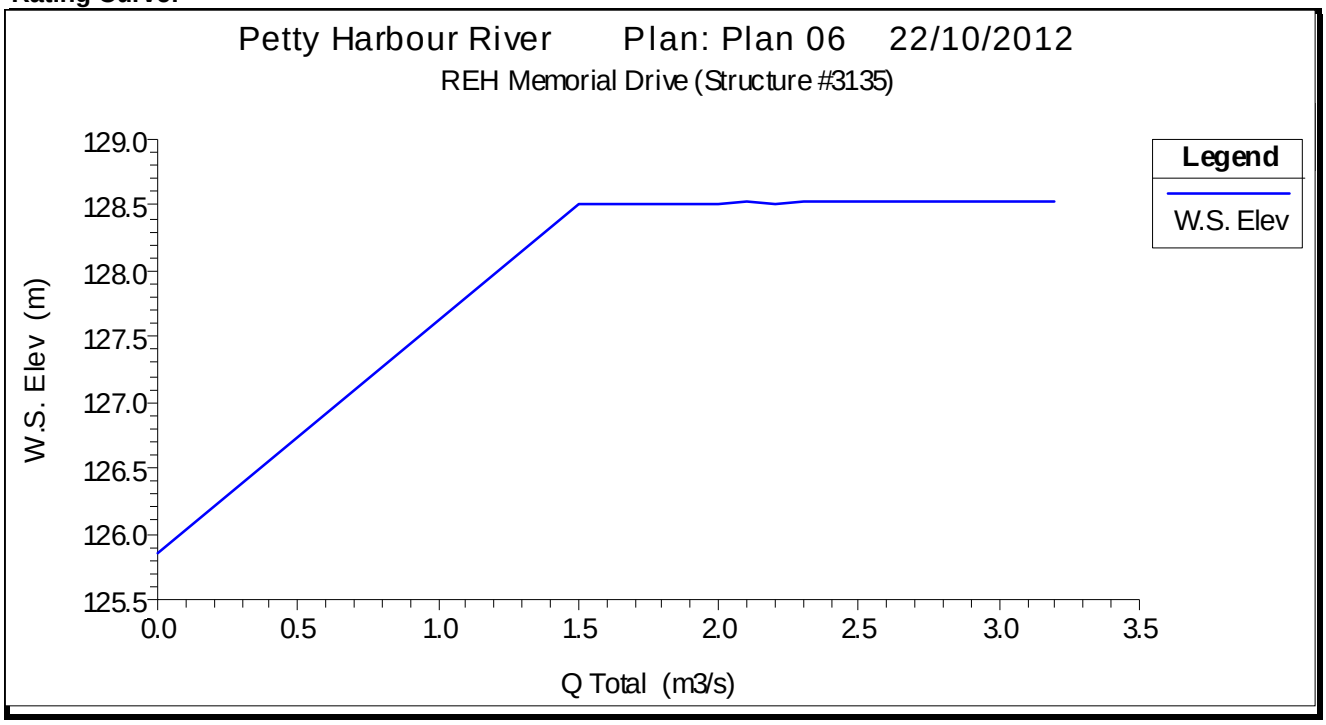
WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3135**
Road Name: Robert E Howlett Mermorial Drive

# of Bridge Piers or Arches:	0
Skewed to Road?	N
Road Width:	8.60 m
Span:	0.80 m
Deck Thickness:	1.84 m
Top of Deck:	128.50 m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**	125.86						
	d/s:	125.6						
Type:		Culvert						
Material:		CSP						
Opening:	**B**	0						
	W	0.8						
Length:		24.30						
Slope:		0.011						

Rating Curve:



HEC-RAS Data

Tributary :	DoylesR-TR018
Structure # :	200
Modeled as :	Culvert
Data from :	Survey/Mapping

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3135
Road Name: Robert E Howlett Mermorial Drive

Description: Downstream face of structure



Description: Lookinng downstream from structure



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3135

Road Name: Robert E Howlett Mermorial Drive

Description: Upstream face of structure



Description: Looking downstream from structure



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3136
Watershed: Petty Harbour River
Watercourse: Goulds Stream

Road Name: Driveway to commerical property
Road Name Alias: Driveway to commerical property

Structure Type: Bridge

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): Survey/Mapping

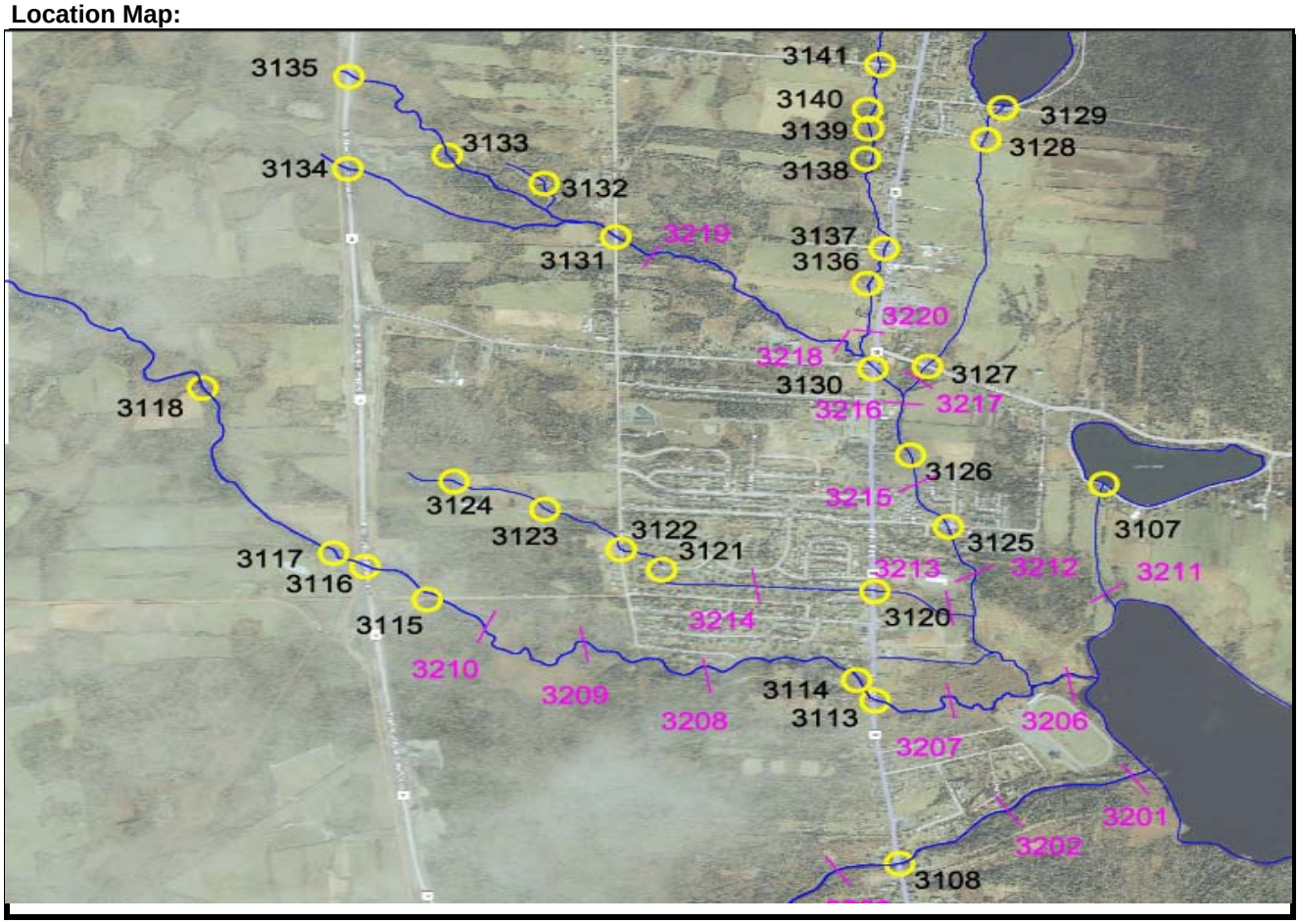
Date(s): 17/11/2011

Map Sheet(s): 21, 23
Location:
Latitude 52º46'19.7"
Longitude 47º27'51.6"
Control NAD83
Projection MTM Zone 1

Deck: Paved

Photos: 100-554 to 557

Location Map:



Notes: Driveway to commerical property

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3136**
Road Name: Driveway to commerical property

# of Bridge Piers or Arches:	0	
Skewed to Road?	N	
Road Width:	6.85	m
Span:	14.14	m
Deck Thickness:	0.50	m
Top of Deck:	98.80	m

Number of Structures:		**1**	**2**	**3**	**4**	**5**	**6**	**7**
Invert Elev:	**u/s:**	96.78						
	d/s:	96.63						
Type:		Bridge						
Material:		Concrete						
Opening:	**B**	1.52						
	W	14.14						
Length:		6.85						
Slope:		0.014						

Rating Curve:

HEC-RAS Data

Tributary :	DoylesR-TR014
Structure # :	335
Modeled as :	Bridge
Data from :	Survey/Mapping

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3136
Road Name: Driveway to commerical property

Description: Upstream face of structure



Description: Looking Upstream from structure



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3136

Road Name: Driveway to commerical property

Description: Downstream face of structure



Description: Looking downstream from structure



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3137
Watershed: Petty Harbour River
Watercourse: Goulds Stream

Road Name: Unnamed Road
Road Name Alias: Unnamed Road

Map Sheet(s): 21, 23
Location: **Latitude** 52º46'16.7"
Longitude 47º27'56.1"
Control NAD83
Projection MTM Zone 1

Structure Type: Bridge

Deck: Paved

Observer(s): M. McComiskey & M. Gosse

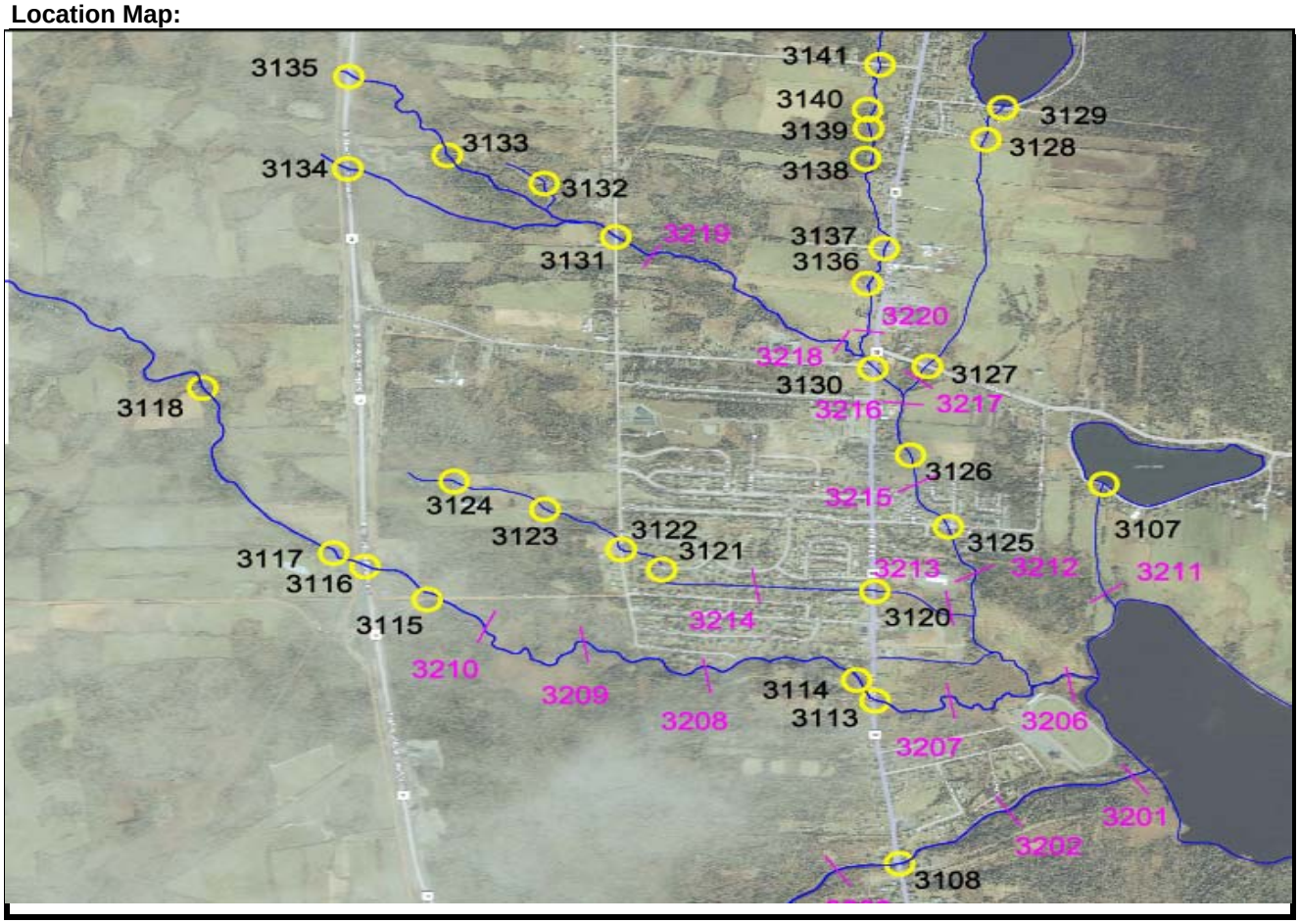
Photos: 100-550 to 553

Organization(s): AMEC

Info Source(s): Survey/Mapping

Date(s): 17/11/2011

Location Map:



Notes: Private drive

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3137**
Road Name: Unnamed Road

# of Bridge Piers or Arches:	0
Skewed to Road?	N
Road Width:	6.20 m
Span:	1.50 m
Deck Thickness:	0.23 m
Top of Deck:	101.61 m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**	99.88						
	d/s:	99.87						
Type:		Bridge						
Material:		CSP						
Opening:	**B**	0						
	W	0						
Length:		9.60						
Slope:		0.001						

Rating Curve:

HEC-RAS Data

Tributary :	DoylesR-TR014
Structure # :	510
Modeled as :	Culvert
Data from :	Survey/Mapping

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3137
Road Name: Unnamed Road

Description: Looking upstream from structure



Description: Upstream face of structure



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3137

Road Name: Unnamed Road

Description: Looking downstream from structure



Description: Top of road - looking east (from Google Streetview)



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3138
Watershed: Petty Harbour River
Watercourse: Goulds Stream

Road Name: Trail
Road Name Alias: Trail

Structure Type: n/a

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): n/a

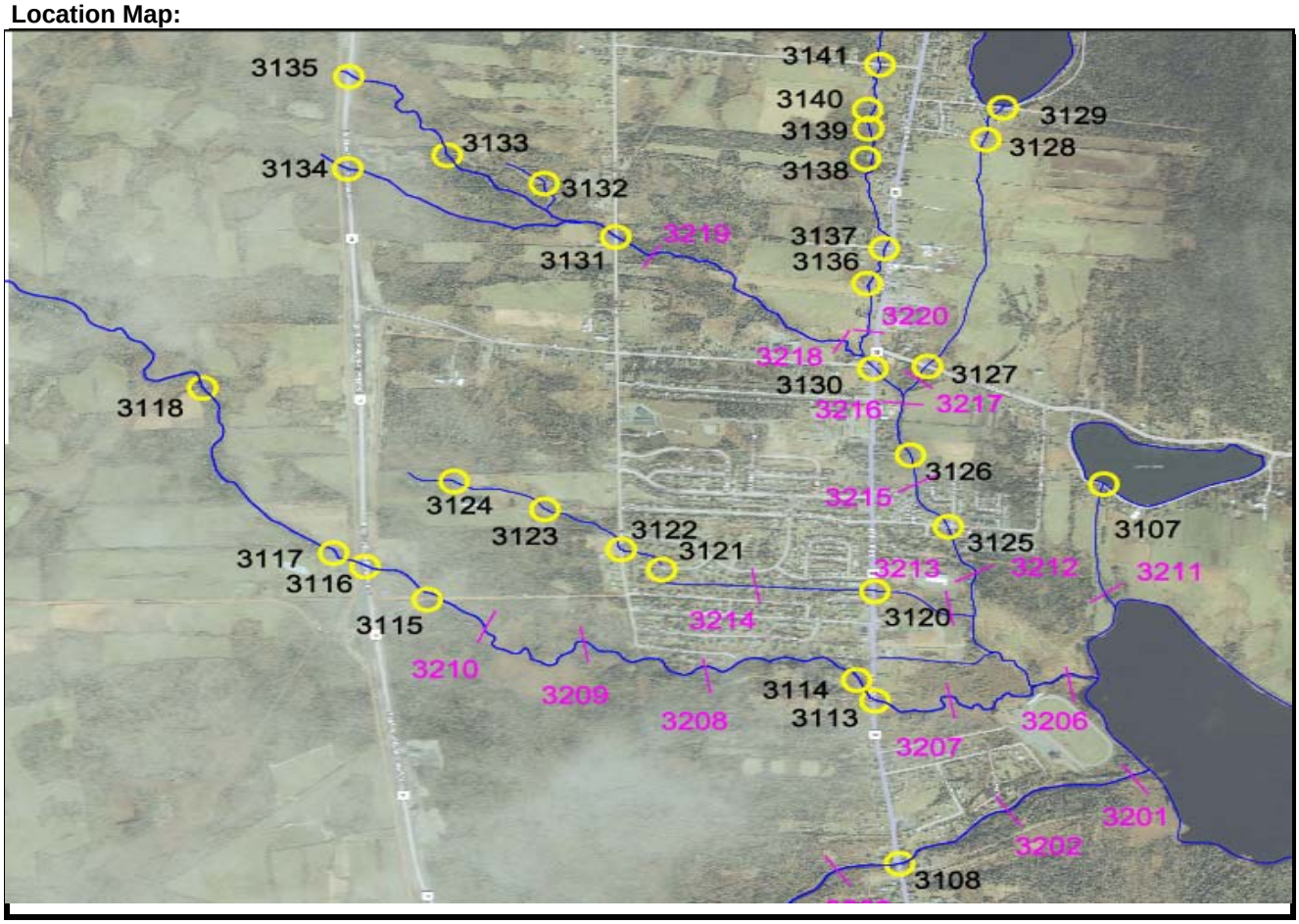
Date(s): 17/11/2011

Map Sheet(s): 24
Location: **Latitude** 52º46'19.5"
Longitude 47º28'09.3"
Control NAD83
Projection MTM Zone 1

Deck: n/a

Photos: -

Location Map:



Notes: Field crossing on private property - no survey available

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3138**
Road Name: Trail

# of Bridge Piers or Arches:	n/a	
Skewed to Road?	n/a	
Road Width:	n/a	m
Span:	n/a	m
Deck Thickness:	n/a	m
Top of Deck:	n/a	m

Number of Structures:		**1**	**2**	**3**	**4**	**5**	**6**	**7**
Invert Elev:	**u/s:**							
	d/s:							
Type:		n/a						
Material:								
Opening:	**B**							
	W							
Length:								
Slope:								

Rating Curve:

HEC-RAS Data

Tributary :	not modelled
Structure # :	n/a
Modeled as :	n/a
Data from :	n/a

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3138
Road Name: Trail

Description:

Description:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3138

Road Name: Trail

Description:

Description:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3139
Watershed: Petty Harbour River
Watercourse: Goulds Stream

Road Name: Trail
Road Name Alias: Trail

Structure Type: n/a

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): n/a

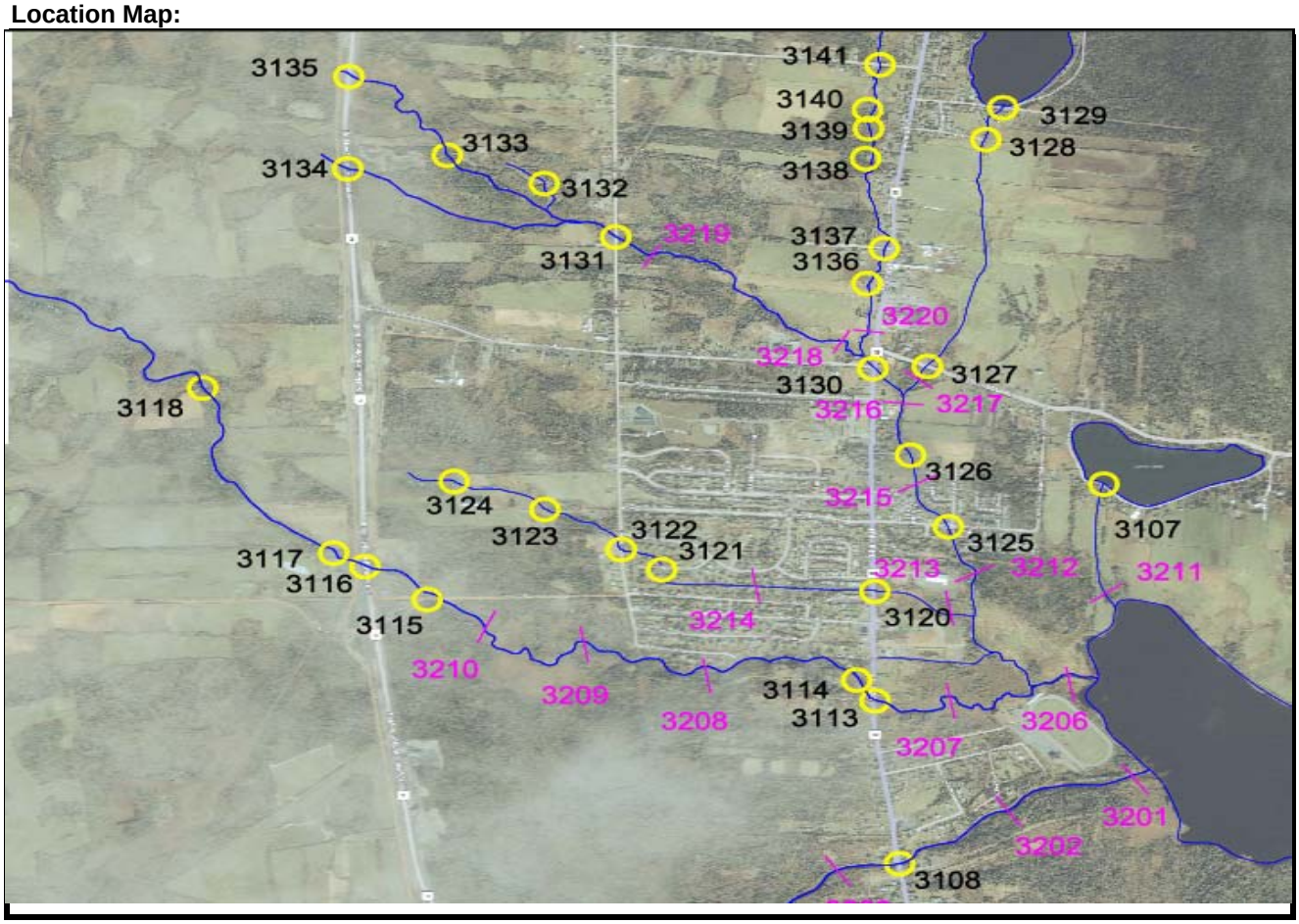
Date(s): 17/11/2011

Map Sheet(s): 24
Location: **Latitude** 52º46'19.9"
Longitude 47º28'13.3"
Control NAD83
Projection MTM Zone 1

Deck: n/a

Photos: -

Location Map:



Notes: Field crossing on private property - no survey available

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3139**
Road Name: Trail

# of Bridge Piers or Arches:	n/a	
Skewed to Road?	n/a	
Road Width:	n/a	m
Span:	n/a	m
Deck Thickness:	n/a	m
Top of Deck:	n/a	m

Number of Structures:		**1**	**2**	**3**	**4**	**5**	**6**	**7**
Invert Elev:	**u/s:**							
	d/s:							
Type:		n/a						
Material:								
Opening:	**B**							
	W							
Length:								
Slope:								

Rating Curve:

HEC-RAS Data

Tributary :	not modelled
Structure # :	n/a
Modeled as :	n/a
Data from :	n/a

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3139
Road Name: Trail

Description:

Description:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3139

Road Name: Trail

Description:

Description:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3140
Watershed: Petty Harbour River
Watercourse: Goulds Stream

Road Name: Trail
Road Name Alias: Trail

Map Sheet(s): 24
Location: **Latitude** 52º46'19.3"
Longitude 47º28'16.1"
Control NAD83
Projection MTM Zone 1

Structure Type: n/a

Deck: n/a

Observer(s): M. McComiskey & M. Gosse

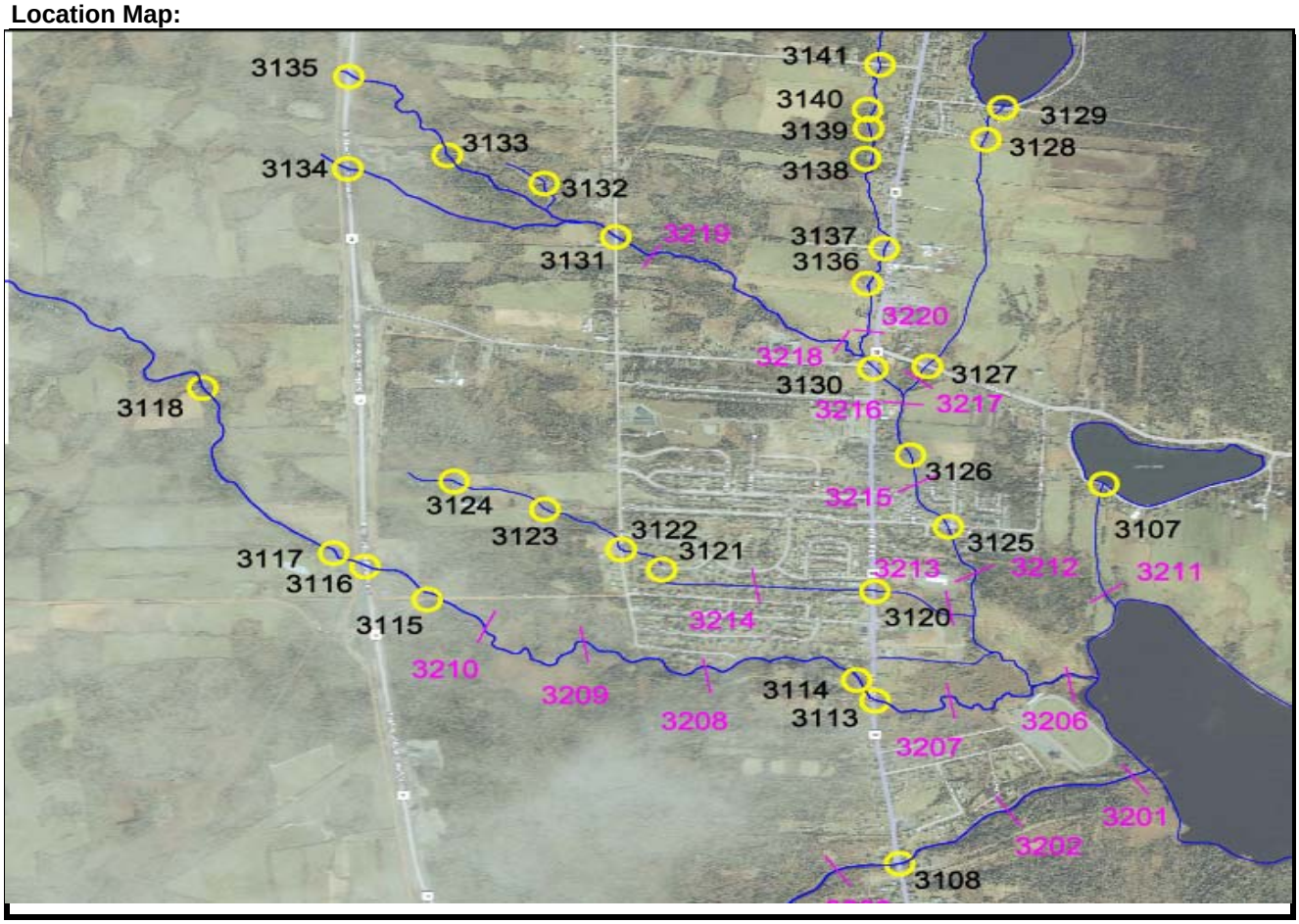
Photos: -

Organization(s): AMEC

Info Source(s): n/a

Date(s): 17/11/2011

Location Map:



Notes: Field crossing on private property - no survey available

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3140**
Road Name: Trail

# of Bridge Piers or Arches:	n/a	
Skewed to Road?	n/a	
Road Width:	n/a	m
Span:	n/a	m
Deck Thickness:	n/a	m
Top of Deck:	n/a	m

Number of Structures:		**1**	**2**	**3**	**4**	**5**	**6**	**7**
Invert Elev:	**u/s:**							
	d/s:							
Type:		n/a						
Material:								
Opening:	**B**							
	W							
Length:								
Slope:								

Rating Curve:

HEC-RAS Data

Tributary :	not modelled
Structure # :	n/a
Modeled as :	n/a
Data from :	n/a

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3140
Road Name: Trail

Description:

Description:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3140

Road Name: Trail

Description:

Description:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3141
Watershed: Petty Harbour River
Watercourse: Goulds Stream

Road Name: Doolings Line
Road Name Alias: Doolings Line

Structure Type: Bridge

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): Survey/Mapping

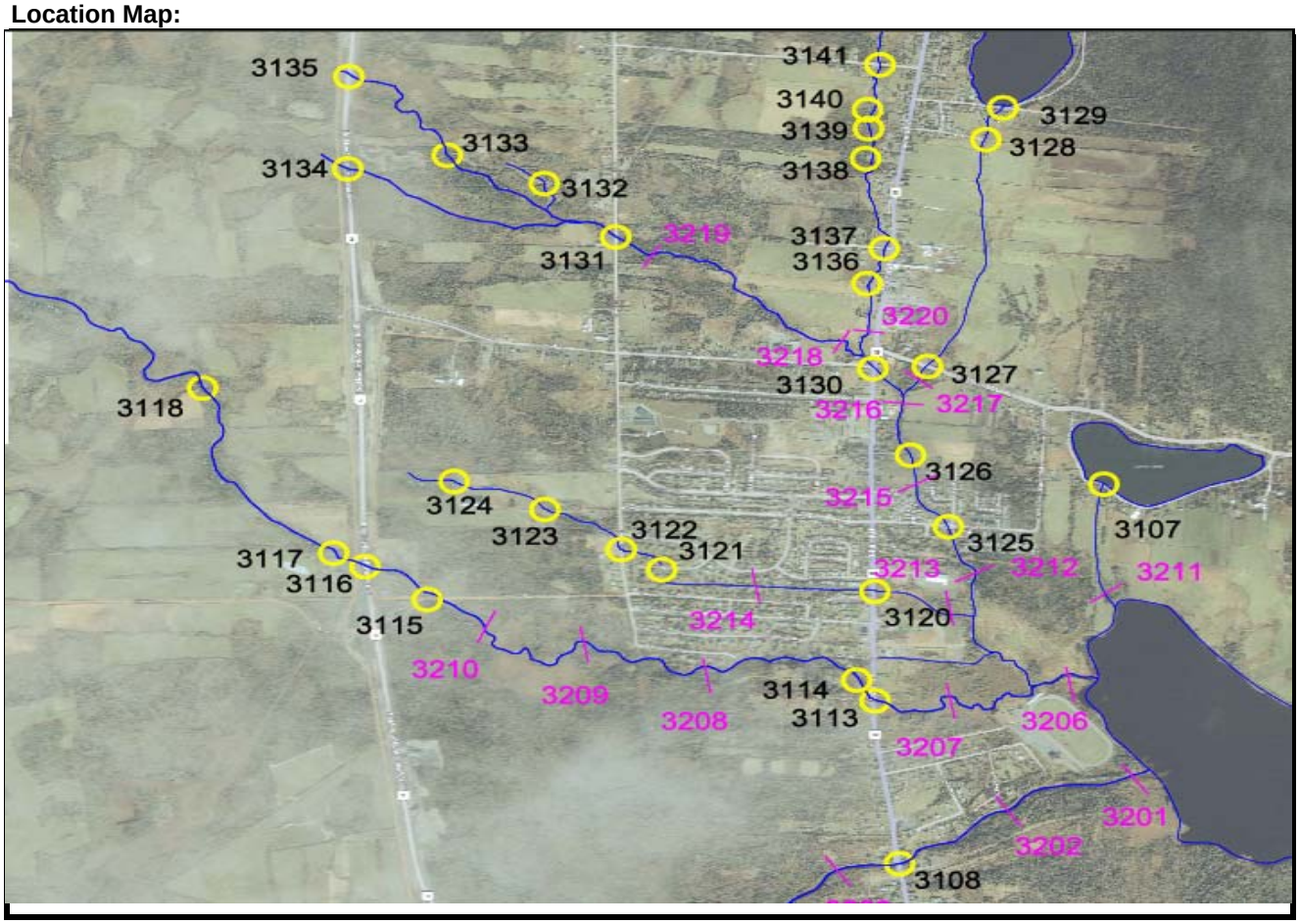
Date(s): 17/11/2011

Map Sheet(s): 24
Location:
Latitude 52º46'18.5"
Longitude 47º28'22.2"
Control NAD83
Projection MTM Zone 1

Deck: Paved

Photos: 100-533 to 541

Location Map:



Notes:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3141**
Road Name: Doolings Line

# of Bridge Piers or Arches:	0
Skewed to Road?	N
Road Width:	7.10 m
Span:	7.21 m
Deck Thickness:	1.09 m
Top of Deck:	119.50 m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**	117.04	-	-				
	d/s:	116.71	-	-				
Type:		Bridge	-	-				
Material:		Concrete	-	-				
Opening:	**B**	1.37	-	-				
	W	7.21	-	-				
Length:		7.10	-	-				
Slope:		0.012	-	-				

Rating Curve:

HEC-RAS Data

Tributary :	DoylesR-TR014
Structure # :	1,400
Modeled as :	Bridge
Data from :	Survey/Mapping

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3141
Road Name: Doolings Line

Description: Looking upstream from structure



Description: Looking downstream from structure



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3141**

Road Name: Doolings Line

Description: Upstream face of structure



Description: Downstream face of structure



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3142
Watershed: Petty Harbour River
Watercourse: Goulds Stream

Road Name: Viquers Road
Road Name Alias: Viquers Road

Structure Type: Circular Culvert

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): Survey/Mapping

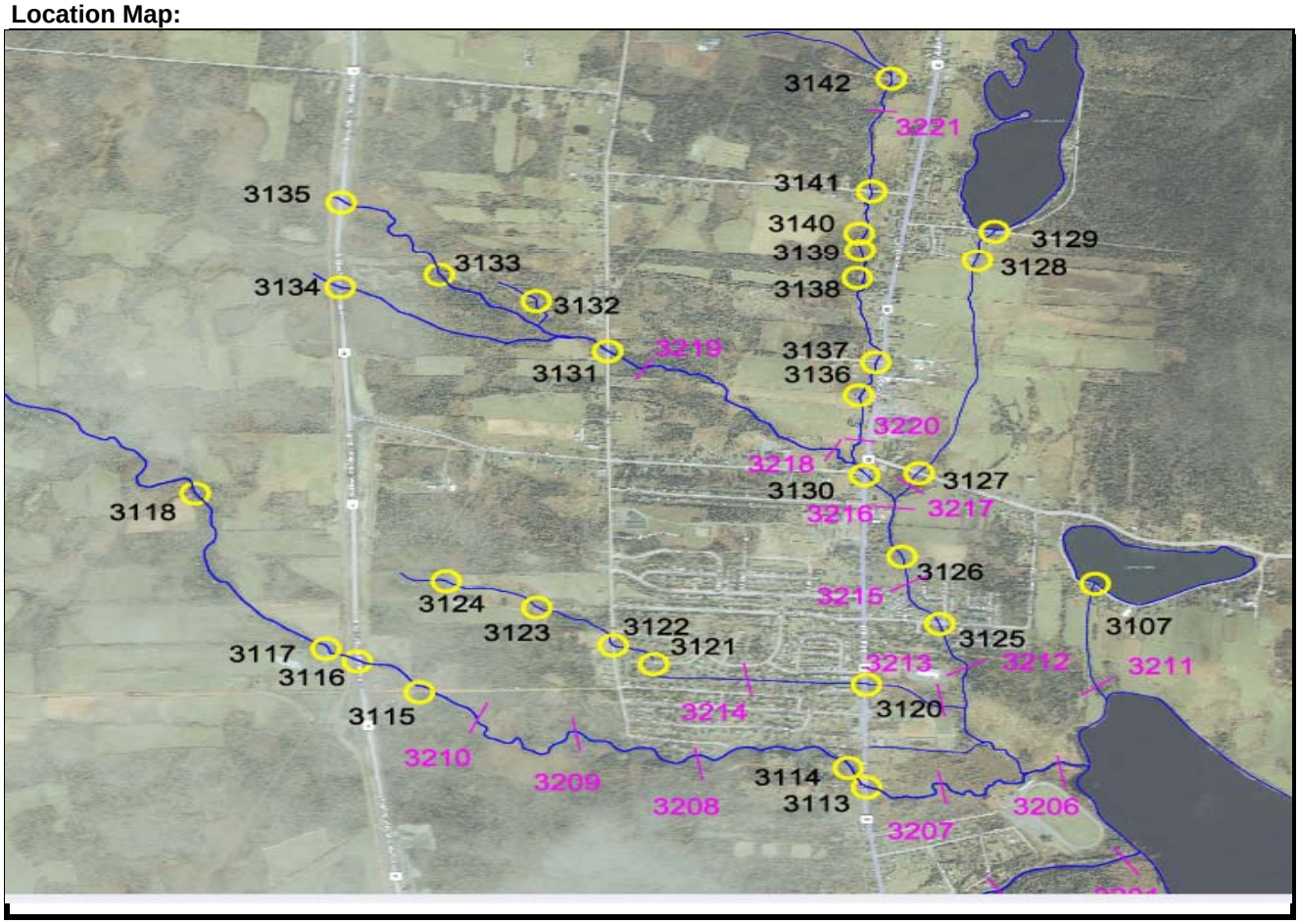
Date(s): 17/11/2011

Map Sheet(s): 25
Location:
Latitude 52º47'13.6"
Longitude 47º28'38.9"
Control NAD83
Projection MTM Zone 1

Deck: Gravel

Photos: 100-542 to 545

Location Map:



Notes:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3142**
Road Name: Viquers Road

# of Bridge Piers or Arches:	0	
Skewed to Road?	N	
Road Width:	2.80	m
Span:	2.50	m
Deck Thickness:	0.06	m
Top of Deck:	126.27	m

Number of Structures:		**1**	**2**	**3**	**4**	**5**	**6**	**7**
Invert Elev:	**u/s:**	124.71						
	d/s:	124.46						
Type:		Culvert						
Material:		CSP						
Opening:	**B**	0						
	W	2.5						
Length:		4.40						
Slope:		0.057						

Rating Curve:

HEC-RAS Data

Tributary :	DoylesR-TR014
Structure # :	1,980
Modeled as :	Culvert
Data from :	Survey/Mapping

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3142
Road Name: Viquers Road

Description: Looking downstream from structure



Description: Downstream face of structure



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3142

Road Name: Viquers Road

Description: Looking upstream from structure



Description: Upstream face of structure



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3143
Watershed: Petty Harbour River
Watercourse: Cochrane Pond Brook

Road Name: Walking Trail
Road Name Alias: Walking Trail

Structure Type: Bridge

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): Survey/Mapping

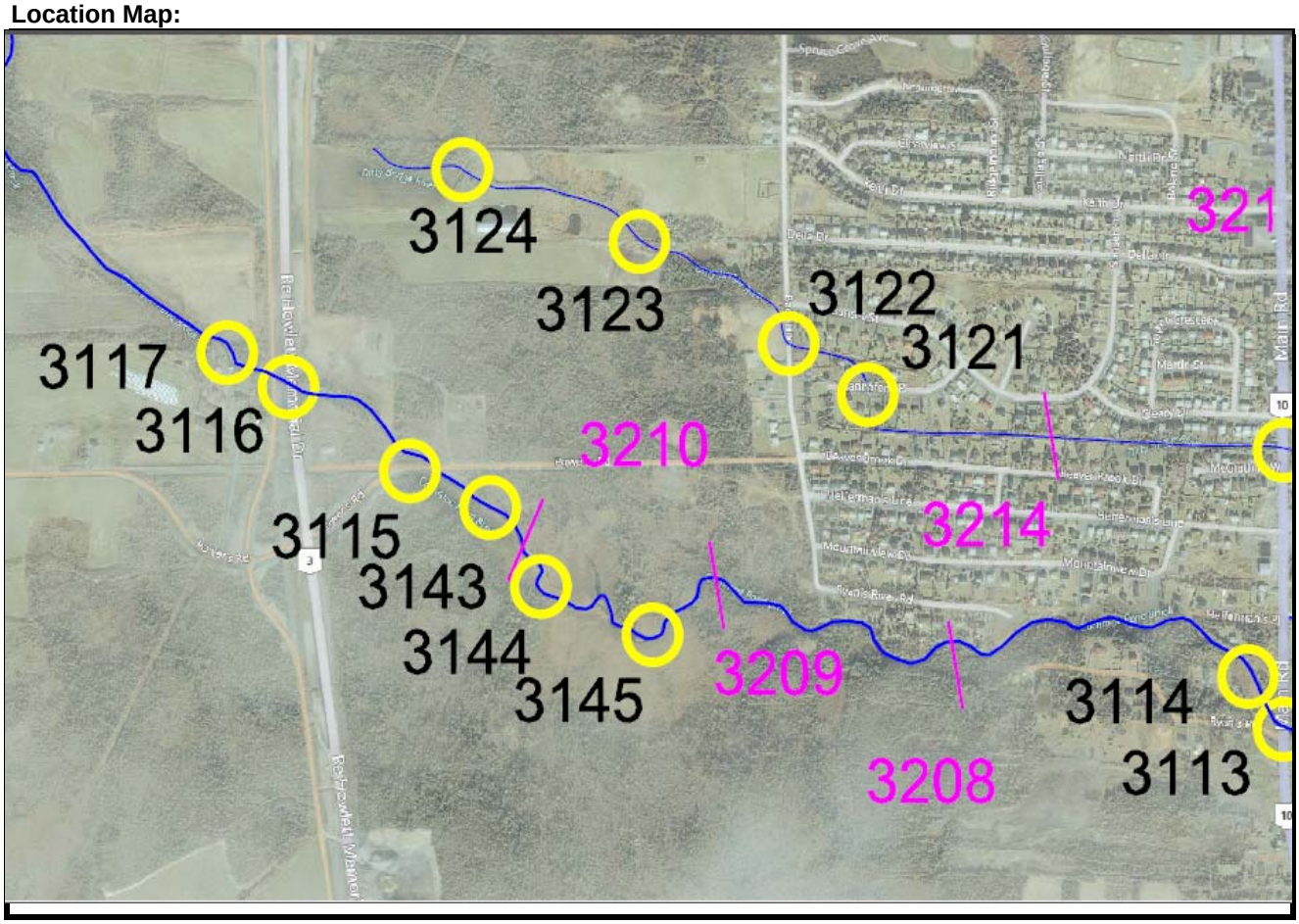
Date(s): 16/11/2011

Map Sheet(s): 15, 20
Location: **Latitude** 52º47'28.2"
Longitude 47º27'06.1"
Control NAD83
Projection MTM Zone 1

Deck: Wood

Photos: 100-362 to 365

Location Map:



Notes:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3143**
Road Name: Walking Trail

# of Bridge Piers or Arches:	0
Skewed to Road?	N
Road Width:	2.60 m
Span:	12.99 m
Deck Thickness:	0.44 m
Top of Deck:	88.46 m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**	86.84						
	d/s:	86.74						
Type:		Bridge						
Material:		Wood						
Opening:	**B**	1.21						
	W	12.99						
Length:		2.60						
Slope:		0.038						

Rating Curve:

HEC-RAS Data

Tributary :	CochraneP-M002
Structure # :	3,080
Modeled as :	Bridge
Data from :	Survey/Mapping

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3143
Road Name: Walking Trail

Description: Upstream face of bridge



Description: Looking upstream from bridge (note structure 3115 in photo)



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3143
Road Name: Walking Trail

Description: Downstream face of bridge



Description: Looking downstream from bridge



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3144
Watershed: Petty Harbour River
Watercourse: Cochrane Pond Brook

Road Name: Walking Trail
Road Name Alias: Walking Trail

Structure Type: Bridge

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): Survey/Mapping

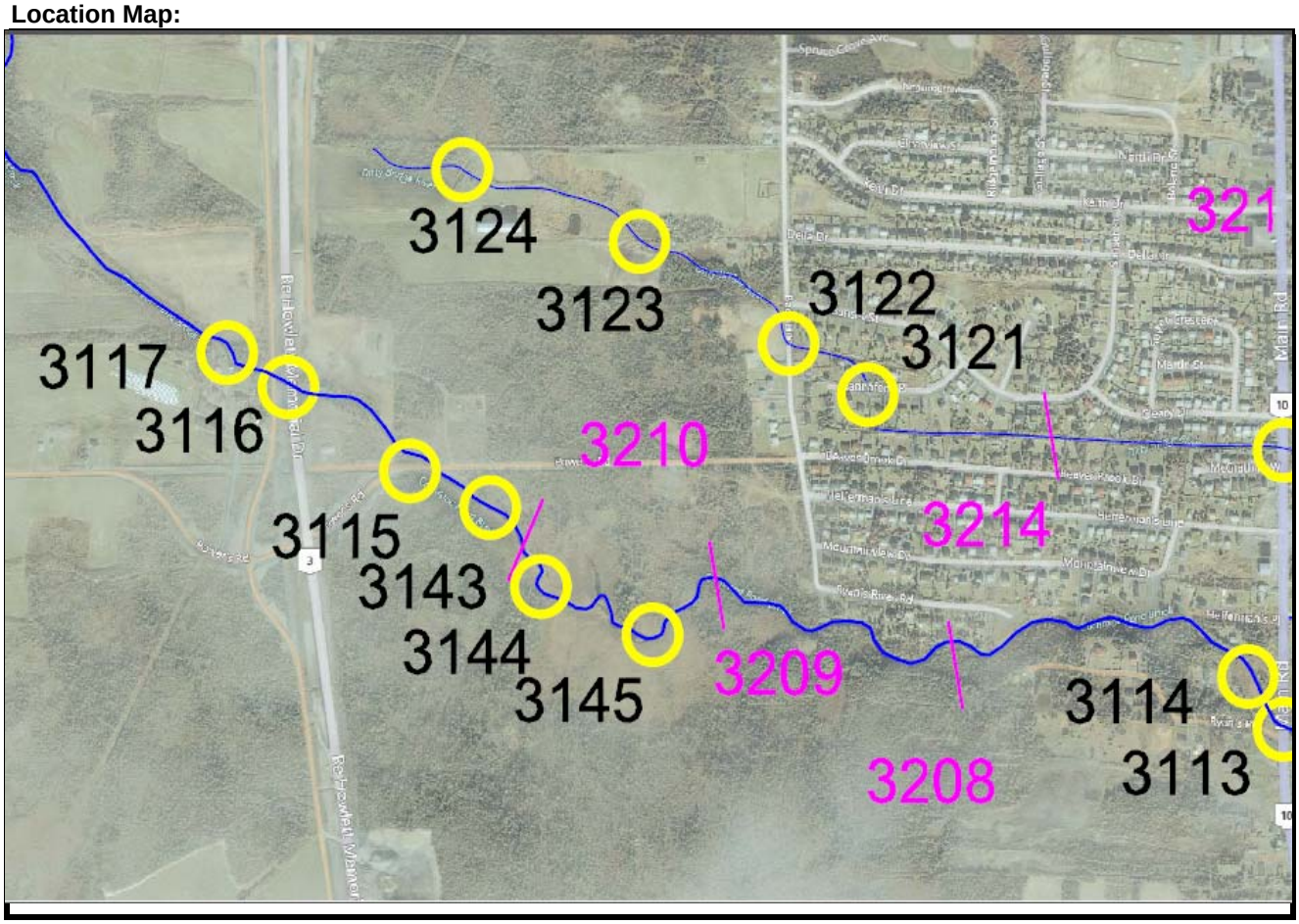
Date(s): 16/11/2011

Map Sheet(s): 15
Location: **Latitude** 52º47'27.8"
Longitude 47º27'03.4"
Control NAD83
Projection MTM Zone 1

Deck: Wood

Photos: 100-372 to 383

Location Map:



Notes:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3144**
Road Name: Walking Trail

# of Bridge Piers or Arches:	0	
Skewed to Road?	N	
Road Width:	2.60	m
Span:	4.08	m
Deck Thickness:	0.30	m
Top of Deck:	87.87	m

Number of Structures:		**1**	**2**	**3**	**4**	**5**	**6**	**7**
Invert Elev:	**u/s:**	86.74						
	d/s:	86.97						
Type:		Bridge						
Material:		Wood						
Opening:	**B**	0.95						
	W	4.08						
Length:		2.60						
Slope:		-0.088						

Rating Curve:

HEC-RAS Data

Tributary :	CochraneP-M002
Structure # :	2,915
Modeled as :	Bridge
Data from :	Survey/Mapping

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3144
Road Name: Walking Trail

Description: Downstream side of bridge



Description: Looking downstream from bridge



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3144
Road Name: Walking Trail

Description: Upstream side of bridge



Description: Looking upstream from structure (note structure 3143 in photo)



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3145
Watershed: Petty Harbour River
Watercourse: Cochrane Pond Brook

Road Name: Walking Trail
Road Name Alias: Walking Trail

Map Sheet(s): 15
Location: **Latitude** 52º47'17.1"
Longitude 47º27'03."
Control NAD83
Projection MTM Zone 1

Structure Type: Bridge

Deck: Wood

Observer(s): M. McComiskey & M. Gosse

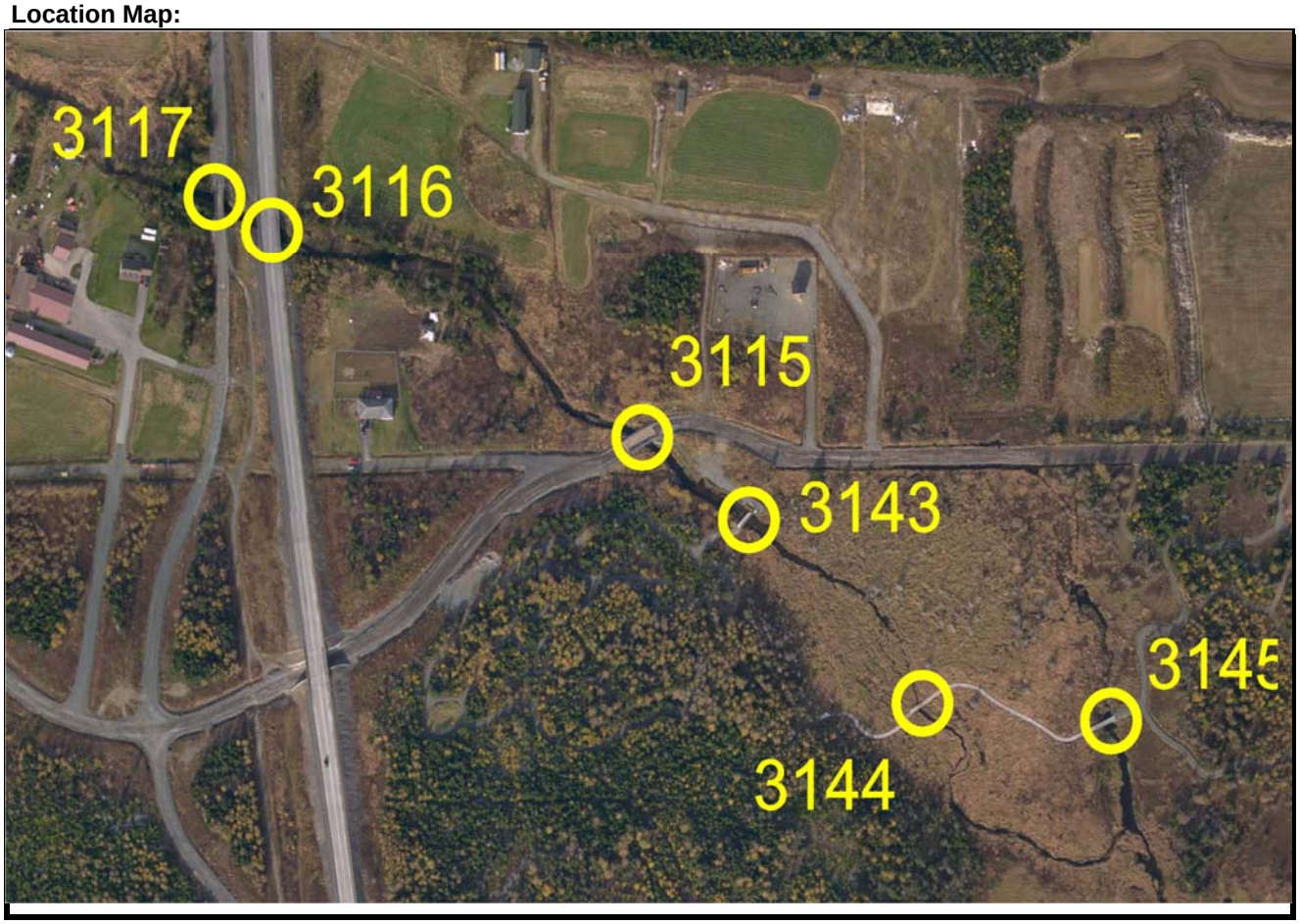
Photos: 100-366 to 371

Organization(s): AMEC

Info Source(s): n/a

Date(s): 16/11/2011

Location Map:



Notes: not on watercourse for modelling

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3145**
Road Name: Walking Trail

# of Bridge Piers or Arches:	n/a	
Skewed to Road?	n/a	
Road Width:	n/a	m
Span:	n/a	m
Deck Thickness:	n/a	m
Top of Deck:	n/a	m

Number of Structures:		**1**	**2**	**3**	**4**	**5**	**6**	**7**
Invert Elev:	**u/s:**							
	d/s:							
Type:		Bridge						
Material:		Wood						
Opening:	**B**	0						
	W	0						
Length:		0.00						
Slope:		0.000						

Rating Curve:

HEC-RAS Data

Tributary :	n/a
Structure # :	n/a
Modeled as :	n/a
Data from :	n/a

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3145
Road Name: Walking Trail

Description:



Description:



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3145

Road Name: Walking Trail

Description:



Description:



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3146
Watershed: Petty Harbour River
Watercourse: Raymond Brook

Road Name: Walking Trail
Road Name Alias: Walking Trail

Structure Type: Bridge

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): Survey/Mapping

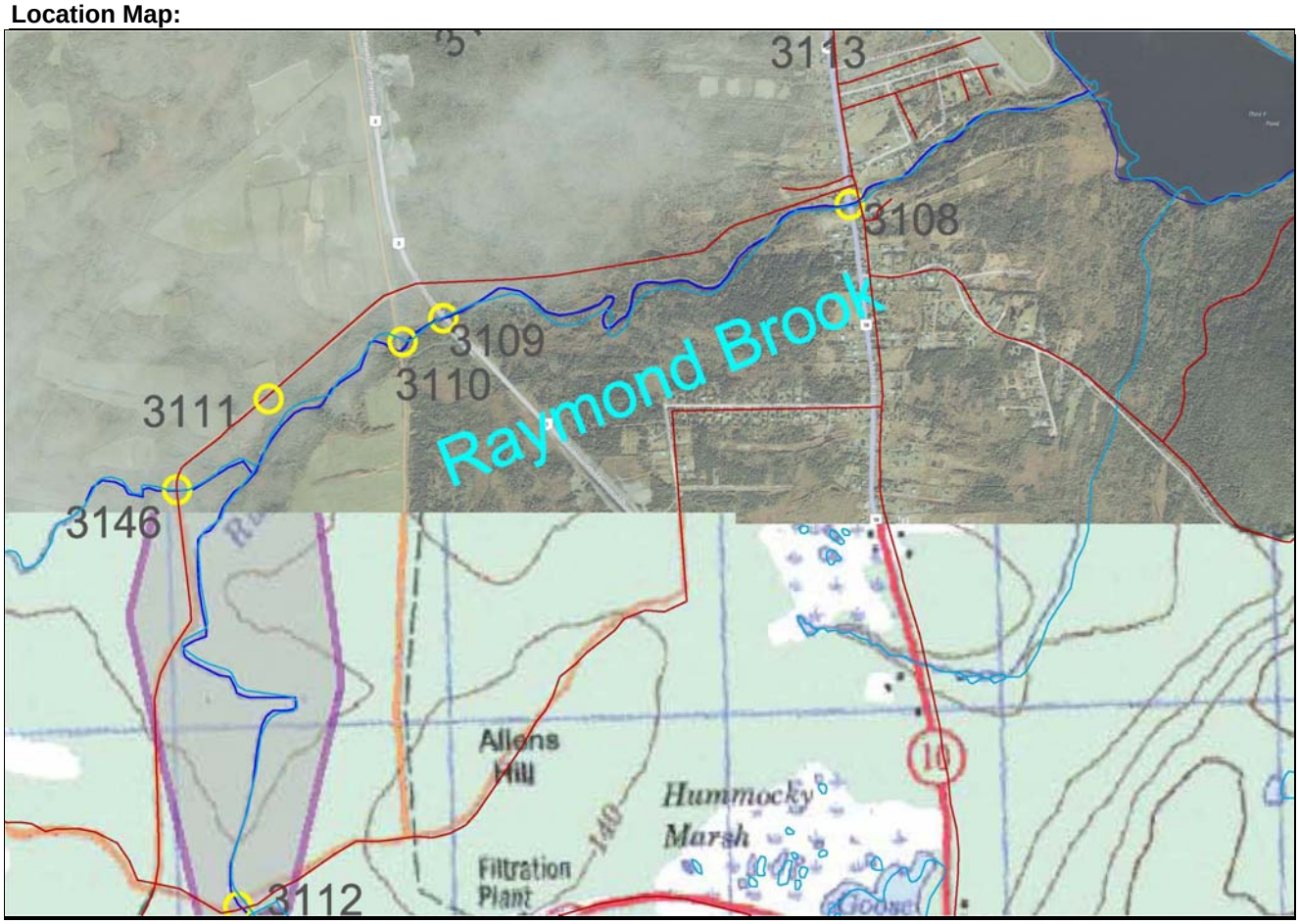
Date(s): 16/11/2011

Map Sheet(s): 12
Location: **Latitude** 52º48'11.5"
Longitude 47º25'57.6"
Control NAD83
Projection MTM Zone 1

Deck: Wood

Photos: 100-404 to 410

Location Map:



Notes: originally location 3111

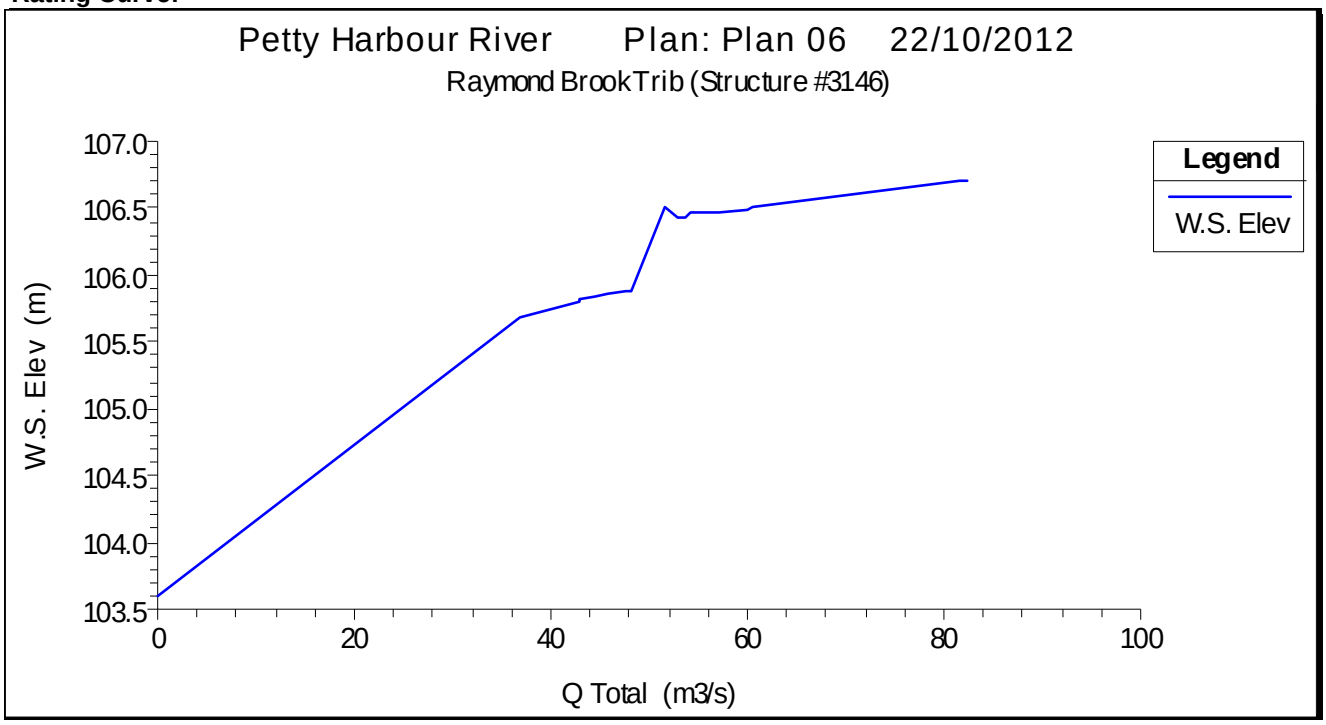
WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3146**
Road Name: Walking Trail

# of Bridge Piers or Arches:	0
Skewed to Road?	N
Road Width:	4.40 m
Span:	6.80 m
Deck Thickness:	1.00 m
Top of Deck:	106.33 m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**	103.6						
	d/s:	103.3						
Type:		Bridge						
Material:		Wood						
Opening:	**B**	2.29						
	W	6.8						
Length:		4.40						
Slope:		0.068						

Rating Curve:



HEC-RAS Data

Tributary :	RaymondB-TR001
Structure # :	350
Modeled as :	Bridge
Data from :	Survey/Mapping

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3146
Road Name: Walking Trail

Description: Upstream face of structure



Description: Looking upstream from structure



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3146
Road Name: Walking Trail

Description: Downstream face of structure



Description: Looking downstream from structure



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3147
Watershed: Petty Harbour River
Watercourse: Petty Harbour River

Road Name: Entrance to Harbour
Road Name Alias: Entrance to Harbour

Structure Type: Harbour entrance

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): Survey/Mapping

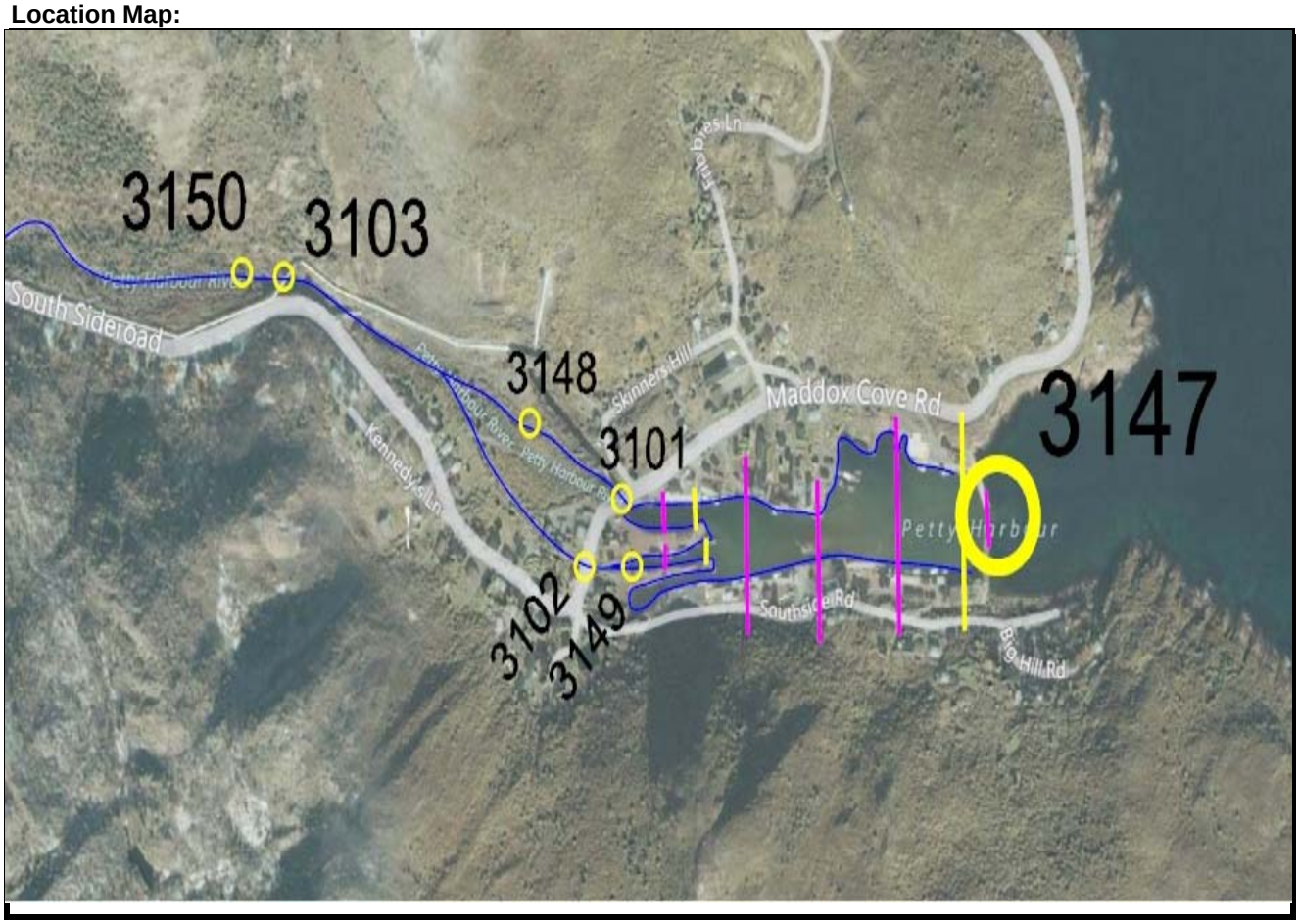
Date(s): 17/11/2011

Map Sheet(s): 1
Location: **Latitude** 52º42'17.6"
Longitude 47º27'52.5"
Control NAD83
Projection MTM Zone 1

Deck: Concrete

Photos: 100-453 to 468

Location Map:



Notes:

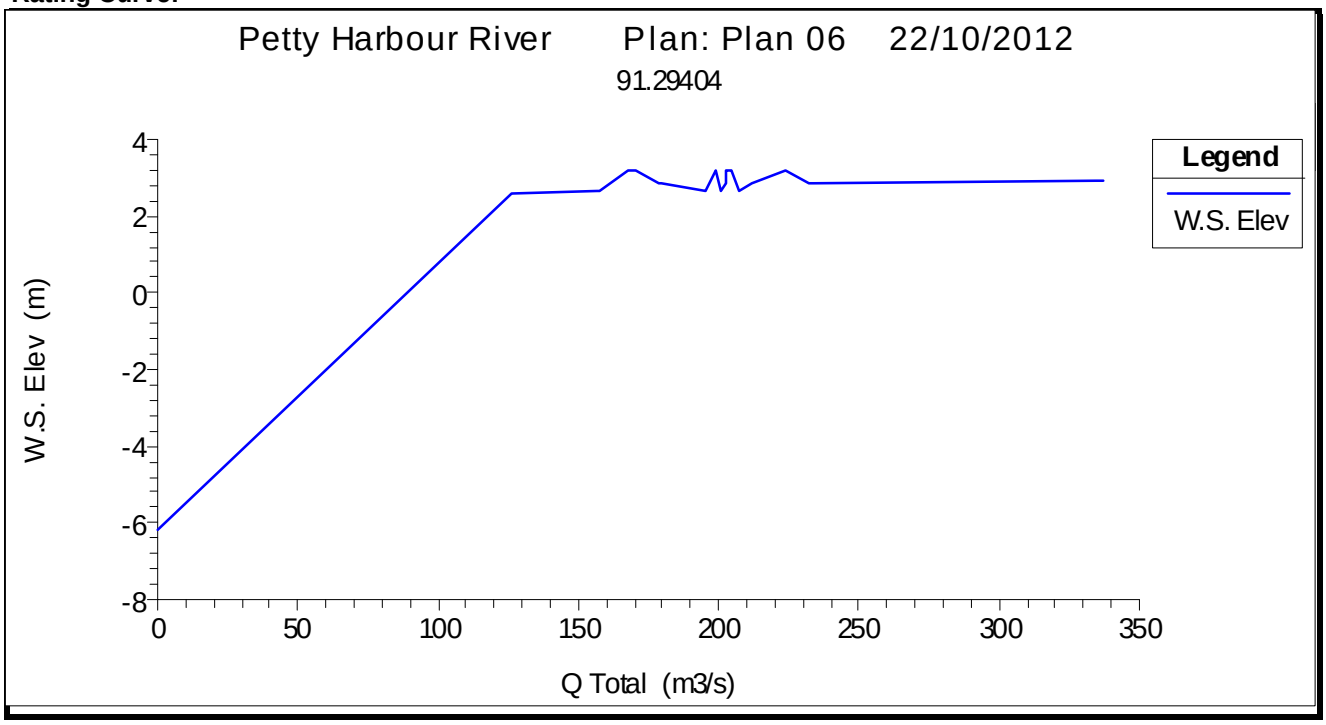
WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3147**
Road Name: Entrance to Harbour

# of Bridge Piers or Arches:	0
Skewed to Road?	N
Road Width:	m
Span:	m
Deck Thickness:	m
Top of Deck:	m

Number of Structures:		**1**	**2**	**3**	**4**	**5**	**6**	**7**
Invert Elev:	**u/s:**	-6.19						
	d/s:	-6.19						
Type:		Harbour						
Material:		Wood/Concrete						
Opening:	**B**							
	W							
Length:								
Slope:								

Rating Curve:



HEC-RAS Data

Tributary :	PettyHR-M001
Structure # :	12.04/20.04
Modeled as :	Section
Data from :	Survey/Mapping

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3147
Road Name: Entrance to Harbour

Description: Looking south



Description: Looking south



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3147

Road Name: Entrance to Harbour

Description: Looking south



Description: detail of wooden wall on ocean side of harbour entrance



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3148
Watershed: Petty Harbour River
Watercourse: Petty Harbour River

Road Name: Hydroplant Discharge
Road Name Alias: Hydroplant Discharge

Structure Type: Hydroplant Discharge

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): n/a

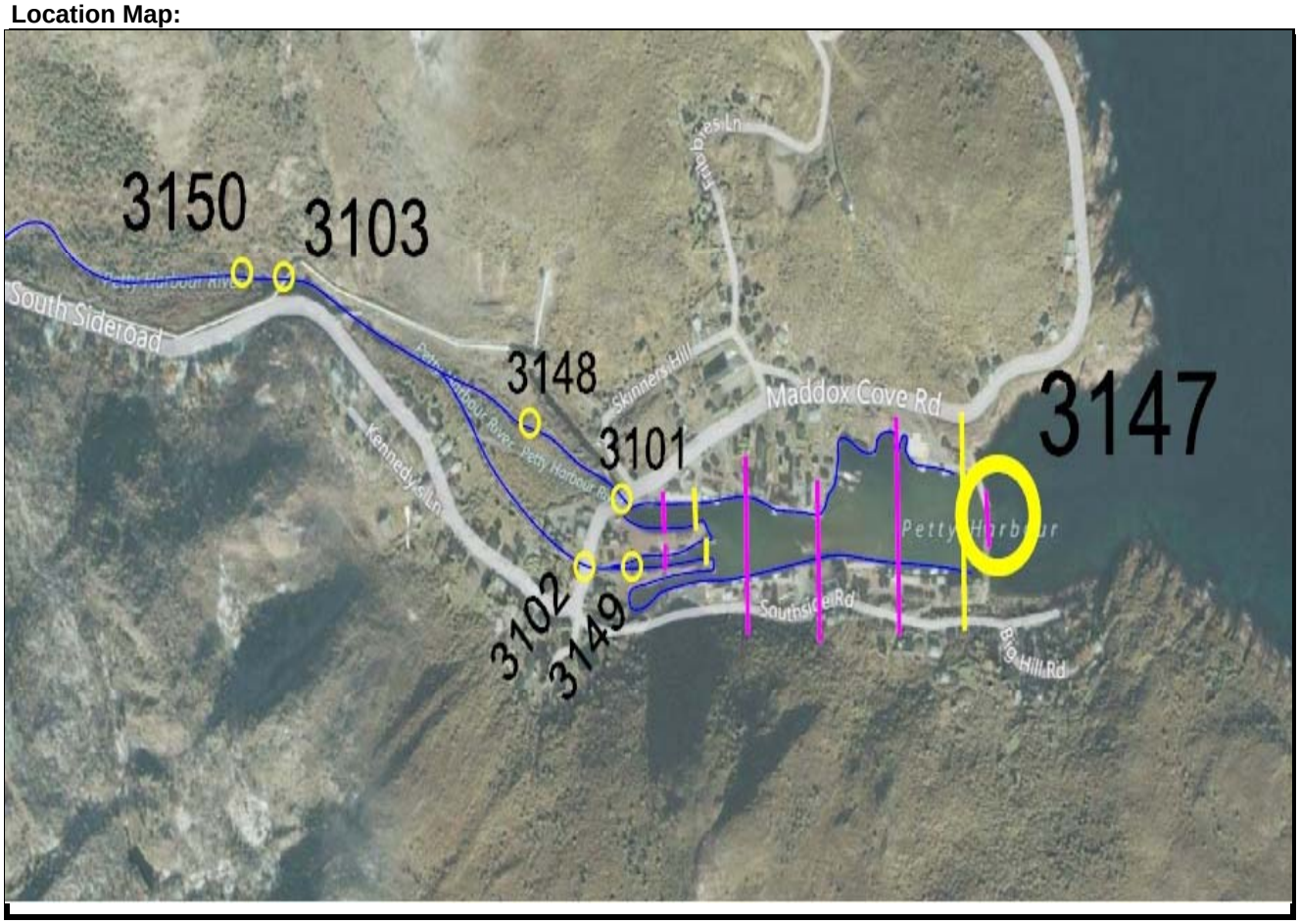
Date(s): 17/11/2011

Map Sheet(s): 1
Location: **Latitude** 52º42'42.6"
Longitude 47º27'55."
Control NAD83
Projection MTM Zone 1

Deck: n/a

Photos: 100-469 to 476

Location Map:



Notes: Hydroplant Discharge

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3148**
Road Name: Hydroplant Discharge

# of Bridge Piers or Arches:	n/a	
Skewed to Road?	n/a	
Road Width:	n/a	m
Span:	n/a	m
Deck Thickness:	n/a	m
Top of Deck:	n/a	m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**							
	d/s:							
Type:		Tailrace						
Material:								
Opening:	**B**							
	W							
Length:								
Slope:								

Rating Curve:

HEC-RAS Data

Tributary :	n/a
Structure # :	n/a
Modeled as :	n/a
Data from :	n/a

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3148
Road Name: Hydroplant Discharge

Description:



Description: Looking downstream to harbour



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3148

Road Name: Hydroplant Discharge

Description: Tailrace



Description: Tailrace



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3149
Watershed: Petty Harbour River
Watercourse: Petty Harbour River

Road Name: downstream of Main Road
Road Name Alias: downstream of Main Road

Structure Type: no structure at this location

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): n/a

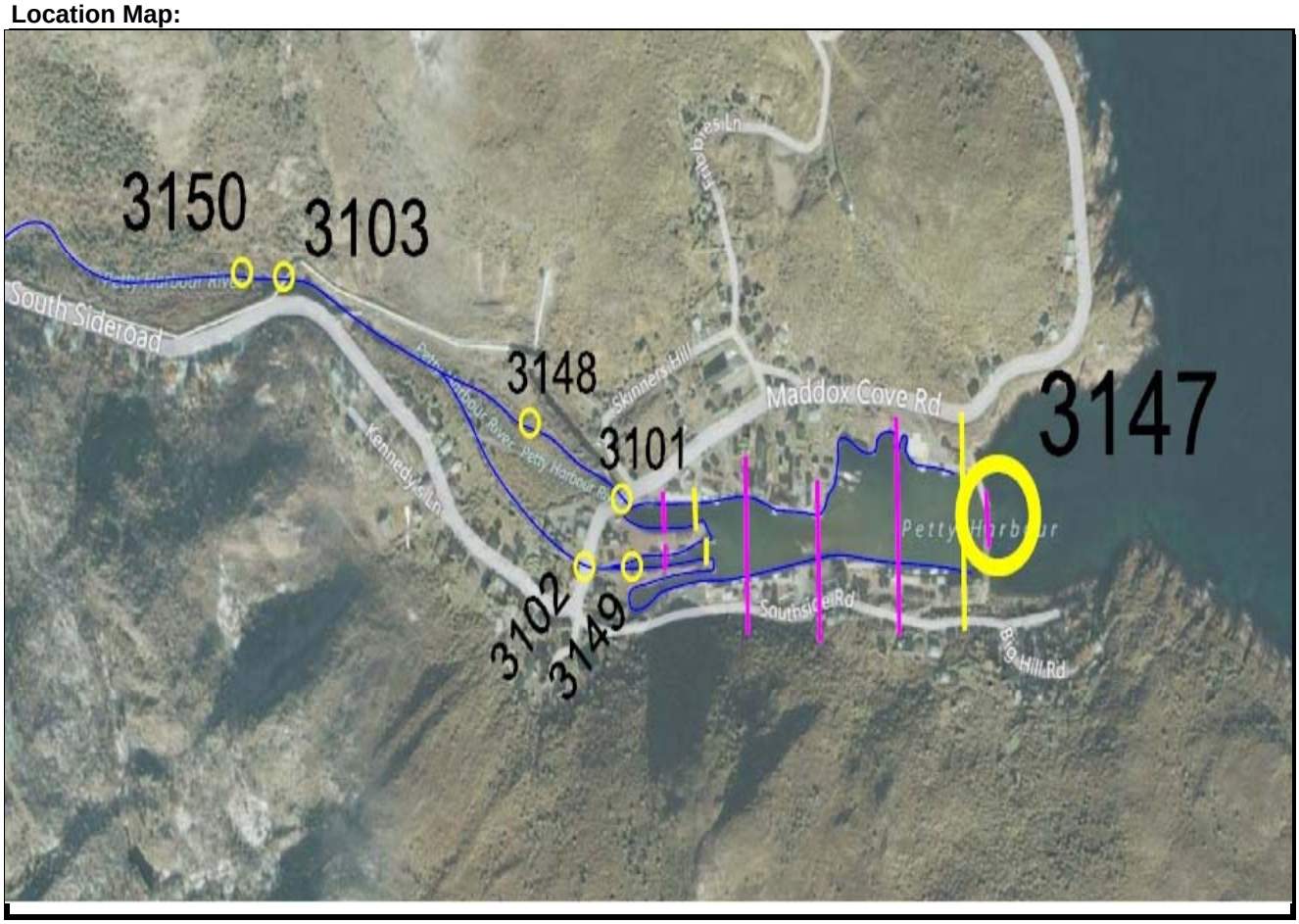
Date(s): 17/11/2011

Map Sheet(s): 1
Location: **Latitude** 52º42'37.6"
Longitude 47º27'49.2"
Control NAD83
Projection MTM Zone 1

Deck: n/a

Photos: -

Location Map:



Notes: no structure at this location

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3149**
Road Name: downstream of Main Road

# of Bridge Piers or Arches:	n/a	
Skewed to Road?	n/a	
Road Width:	n/a	m
Span:	n/a	m
Deck Thickness:	n/a	m
Top of Deck:	n/a	m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**							
	d/s:							
Type:								
Material:		Concrete						
Opening:	**B**							
	W							
Length:								
Slope:								

Rating Curve:

HEC-RAS Data

Tributary :	n/a
Structure # :	n/a
Modeled as :	n/a
Data from :	n/a

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3149
Road Name: downstream of Main Road

Description:

Description:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3149

Road Name: downstream of Main Road

Description:

Description:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3150
Watershed: Petty Harbour River
Watercourse: Petty Harbour River

Road Name: Pipecrossing for hydroplant
Road Name Alias: Pipecrossing for hydroplant

Structure Type: Pipecrossing for hydroplant

Observer(s): M. McComiskey & M. Gosse

Organization(s): AMEC

Info Source(s): n/a

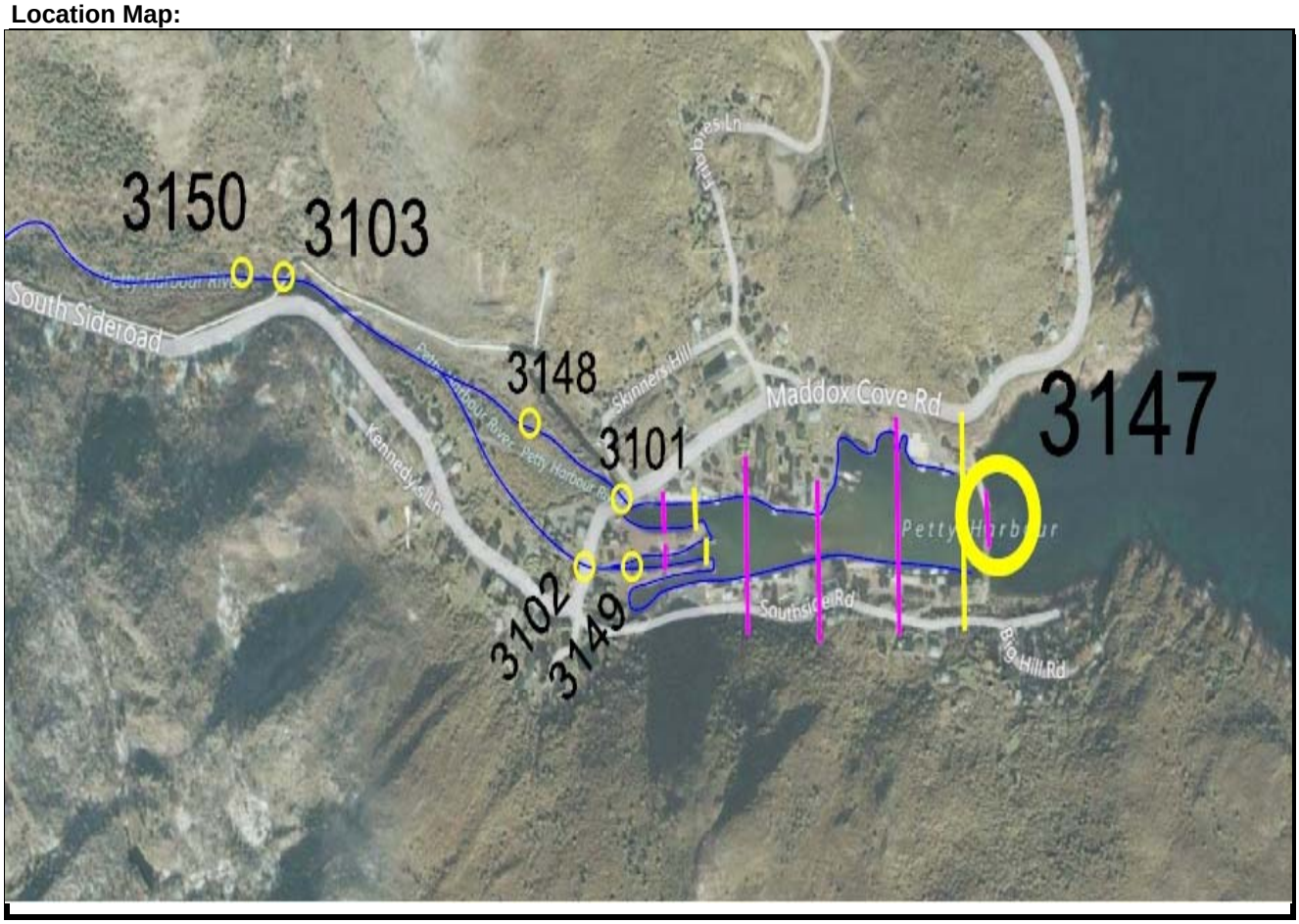
Date(s): 17/11/2011

Map Sheet(s): 1
Location: **Latitude** 52º43'00.1"
Longitude 47º27'57."
Control NAD83
Projection MTM Zone 1

Deck: Pipe

Photos: 100-502 to 508

Location Map:



Notes:

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3150**
Road Name: Pipecrossing for hydroplant

# of Bridge Piers or Arches:	n/a	
Skewed to Road?	n/a	
Road Width:	n/a	m
Span:	n/a	m
Deck Thickness:	n/a	m
Top of Deck:	n/a	m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**							
	d/s:							
Type:		Pipe						
Material:		Steel						
Opening:	**B**							
	W							
Length:								
Slope:								

Rating Curve:

HEC-RAS Data

Tributary :	not modelled
Structure # :	n/a
Modeled as :	n/a
Data from :	n/a

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3150
Road Name: Pipecrossing for hydroplant

Description:



Description:



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3150

Road Name: Pipecrossing for hydroplant

Description:



Description:



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3151
Watershed: Petty Harbour River
Watercourse: Doyles River

Map Sheet(s): 22
Location: **Latitude** 52º47'46.3"
Longitude 47º28'06.7"
Control NAD83
Projection MTM Zone 1

Road Name: Unnamed Road (west of REH Mermorial Drive)
Road Name Alias: Unnamed Road (west of REH Mermorial Drive)

Structure Type: Circular culvert
Deck: Gravel

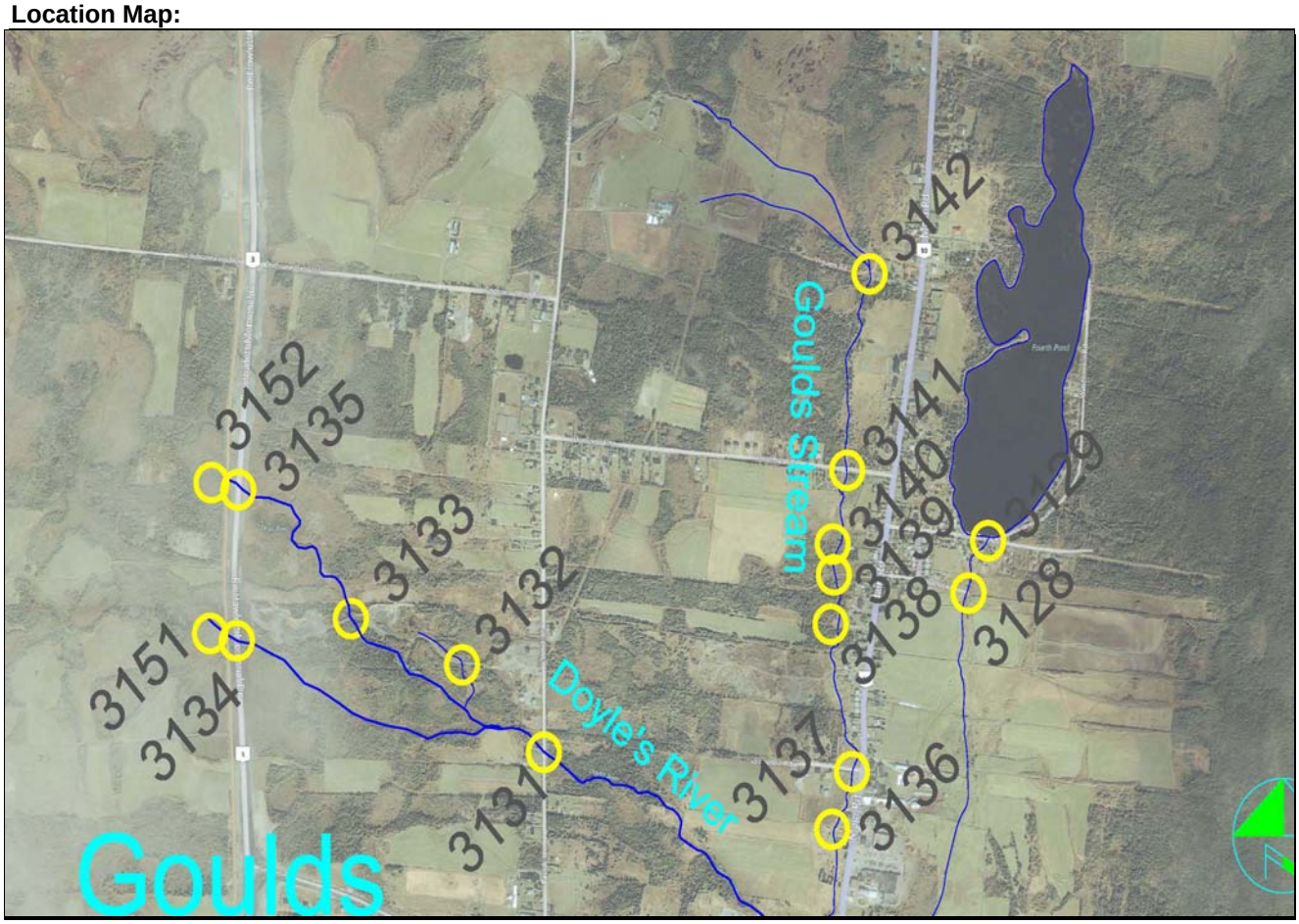
Observer(s): M. McComiskey & M. Gosse
Photos: 100-563 to 567

Organization(s): AMEC

Info Source(s): Survey/Mapping

Date(s): 17/11/2011

Location Map:



Notes:

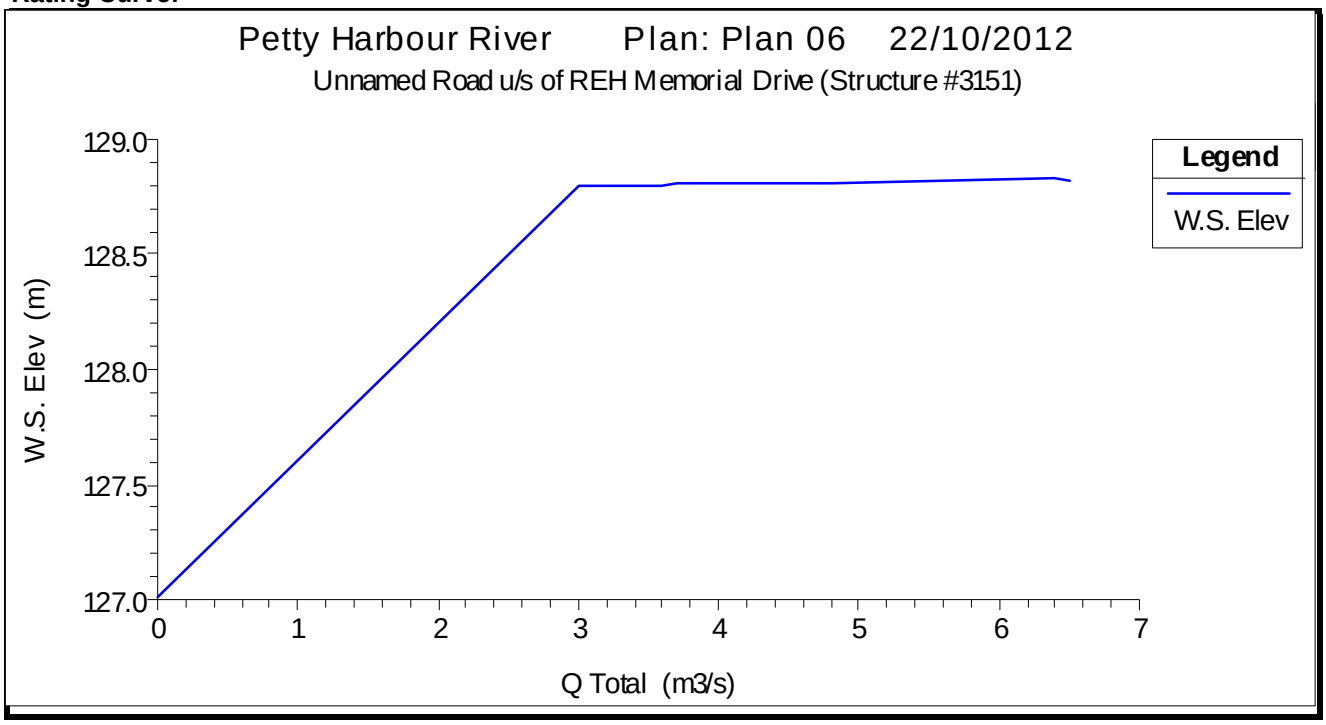
WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3151**
Road Name: Unnamed Road (west of REH Mermorial Drive)

# of Bridge Piers or Arches:	0
Skewed to Road?	N
Road Width:	6.20 m
Span:	0.80 m
Deck Thickness:	0.95 m
Top of Deck:	128.76 m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**	127.01						
	d/s:	126.9						
Type:		Culvert						
Material:		CSP						
Opening:	**B**	0						
	W	0.8						
Length:		11.20						
Slope:		0.010						

Rating Curve:



HEC-RAS Data

Tributary :	DoylesR-TR016
Structure # :	890
Modeled as :	Culvert
Data from :	Survey/Mapping

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3151
Road Name: Unnamed Road (west of REH Mermorial Drive)

Description: Downstream face of structure



Description: Upstream face of structure



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3151

Road Name: Unnamed Road (west of REH Mermorial Drive)

Description: Looking upstream from structure (from Google Streetview)



Description: Looking upstream from structure (November 2011)



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3152
Watershed: Petty Harbour River
Watercourse: Doyles River

Map Sheet(s): 22
Location: **Latitude** 52º47'46.9"
Longitude 47º28'15.3"
Control NAD83
Projection MTM Zone 1

Road Name: Unnamed Road (west of REH Mermorial Drive)
Road Name Alias: Unnamed Road (west of REH Mermorial Drive)

Structure Type: Circular culvert
Deck: Gravel

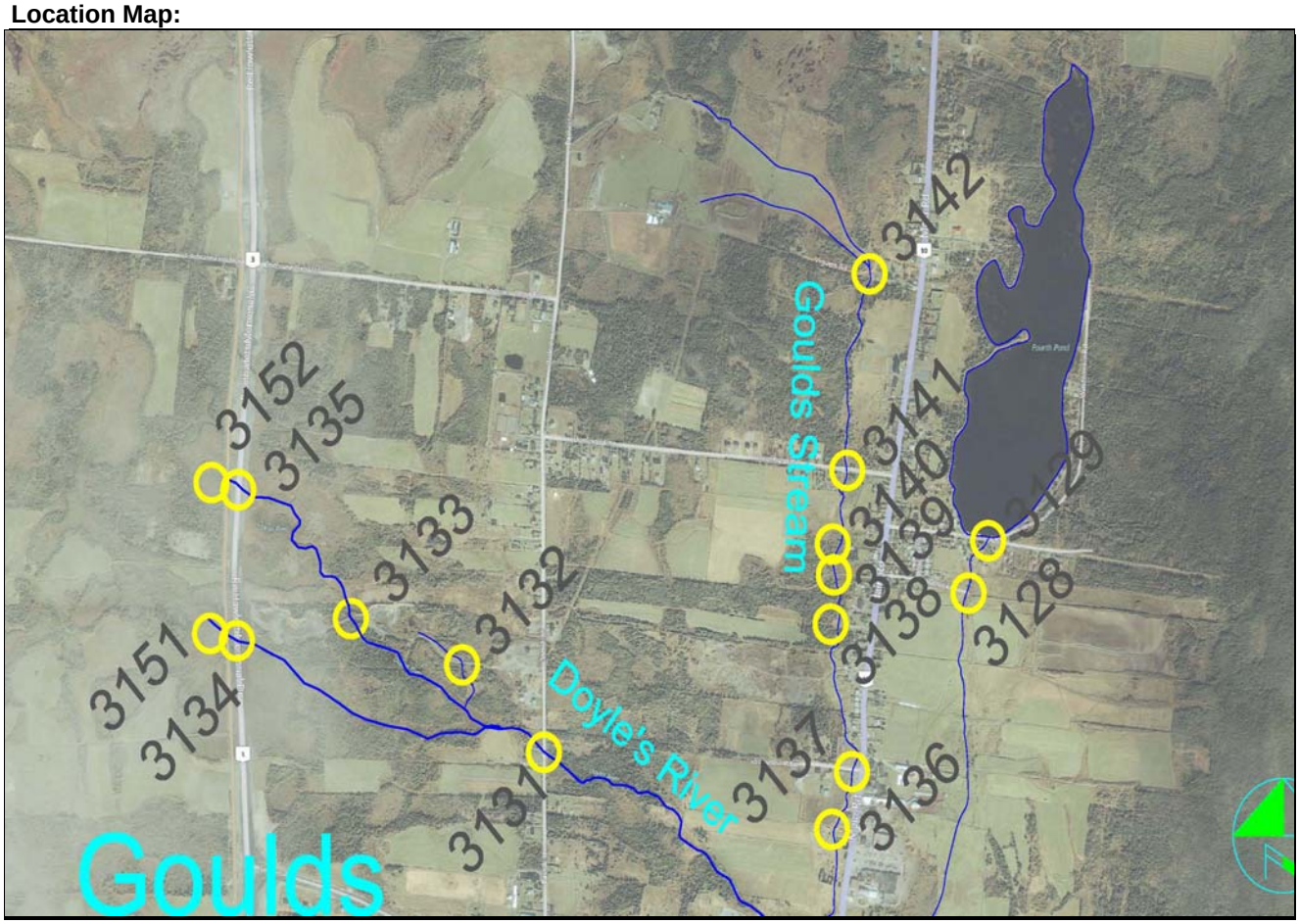
Observer(s): M. McComiskey & M. Gosse
Photos: 100-572 to 575

Organization(s): AMEC

Info Source(s): Survey/Mapping

Date(s): 17/11/2011

Location Map:



Notes:

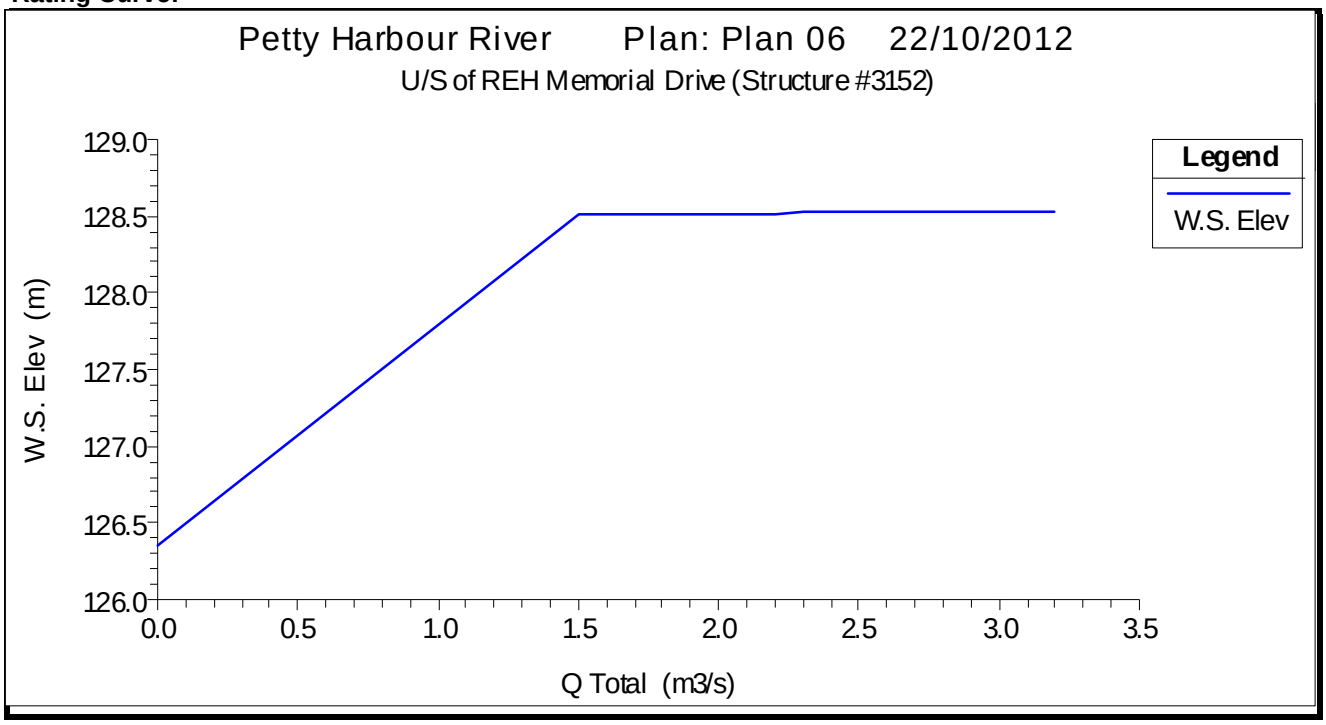
WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: **3152**
Road Name: Unnamed Road (west of REH Mermorial Drive)

# of Bridge Piers or Arches:	0
Skewed to Road?	N
Road Width:	6.20 m
Span:	0.80 m
Deck Thickness:	0.84 m
Top of Deck:	128.00 m

Number of Structures:		1	2	3	4	5	6	7
Invert Elev:	**u/s:**	126.36						
	d/s:	126.26						
Type:		Culvert						
Material:		CSP						
Opening:	**B**	0						
	W	0.8						
Length:		12.90						
Slope:		0.008						

Rating Curve:



HEC-RAS Data

Tributary :	DoylesR-TR018
Structure # :	260
Modeled as :	Culvert
Data from :	Survey/Mapping

WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3152
Road Name: Unnamed Road (west of REH Mermorial Drive)

Description: Upstream face of structure



Description: Downstream face of structure



WATERCOURSE STRUCTURE INVENTORY FORM

Structure #: 3152

Road Name: Unnamed Road (west of REH Mermorial Drive)

Description: View in upstream direction from REH Memorial Drive (from Google Streetview)



Description:

APPENDIX C

LAND CLASSIFICATION REPORT

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GOVERNMENT OF
NEWFOUNDLAND AND LABRADOR

FLOOD RISK MAPPING PROJECT
CORNER BROOK AND GOULDS AND PETTY HARBOUR

Land Cover Classification

Submitted to:

Water Resources Management Division
Department of Environment and Conservation
Government of Newfoundland and Labrador

Submitted by:
AMEC Environment & Infrastructure,
a Division of AMEC Americas Limited
2000 S. Colorado Blvd, Ste 2-1000,
Denver, CO 80222

March 2012
TA1112735

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1.0 INTRODUCTION

To support modeling of hydrologic responses from development and to assess flood vulnerability, a land cover classification was conducted in 3 community flood watersheds on the island of Newfoundland and Labrador, Canada. Six (6) land cover classes were classified from 10-meter resolution, 4-band multispectral SPOT imagery captured between 2009 and 2011. The classes included forest, development, water, bare soil, non-forest vegetation, and wetland/marsh. Non-forest vegetation was then classified as open space in areas within municipal boundaries and as fields/pastures in areas outside municipal boundaries. The resulting areas of these 7 classes of land cover were summarized for each of the 3 watersheds. The data were used as an input to hydrologic models described in the main body of this report. This appendix documents the imagery and data sources provided to AMEC, the imagery classification methods, results, and provides recommendations for future similar studies.

2.0 IMAGERY AND DATA SOURCES

The inputs to the land cover classification were SPOT satellite imagery (2009 – 2011) and ancillary GIS data including watershed and municipal boundaries. Higher resolution QuickBird satellite was originally proposed but was not able to be provided to AMEC during the project, therefore available SPOT imagery was utilized. Western watershed data (Corner Brook and Petrie's Brook) were in UTM zone 22, while the eastern watershed (Petty Harbour) was within UTM zone 21. Vector data provided in the MTM projection and re-projected to corresponding UTM zone to match SPOT imagery.

2.1. Community Flood Watersheds

The delineation of community flood watershed boundaries is described in the main body of this report. The three (3) drainage basins analyzed in this study represent exclusive geographic areas (no overlap between watershed boundaries). Watersheds boundaries were buffered by 100 meters or more to ensure land cover classification data provided full coverage for computation of land cover metrics. Basin names and associated land cover metrics are presented in the Results section of this Appendix.

2.2. SPOT Satellite Imagery

All SPOT imagery was provided to AMEC by the Government of Newfoundland and Labrador, Department of Environment and Conservation, Water Resources Management Division with assistance from Iunctus Geomatics Corp. The SPOT images were delivered as previously ortho-rectified datasets and with a combination of clipped and/or full scenes that included 2.5-meter panchromatic, 2.5-meter fused natural color (3-band), and 10-meter resolution multispectral (4-band). Fused (panchromatic sharpened) natural color images were used for training and verification purposes while the 10-meter multispectral imagery was used for classification. Four image acquisition dates were included; one in 2009, one in 2010, and two in 2011. Exact dates were not readily available. Most SPOT imagery was provided by hard drive with supplemental images needed to fill gaps in coverage provided by Iunctus via FTP.

Recommendations at the end of this Appendix offer suggestions for improved data management of imagery ordering, tracking and delivery to vendors on future projects as well as other general best practices for leveraging remotely sensed imagery.

Additionally, the following description was provided by Iunctus to describe their image preprocessing methods and accuracies:

> *"The data set is derived from SPOT5 2.5m panchromatic and 10m multispectral raw image level 1A. It has been processed to Level 3A orthorectified dataset using the most accurate control available. This includes (in order of priority) 1) NRN from GeoBase; and 2) LANDSAT 7 ortho-imagery from GeoBase. The methodology ensures adequate distribution of the control points within the image. The parametric model was developed by Dr. Thierry Toutin at the Canada Centre for Remote Sensing (CCRS), Natural Resources Canada. This model is based on principles related to orbitography, photogrammetry, geodesy, and cartography. It reflects the physical reality of the complete viewing geometry and corrects distortions that occur due to platform, sensor, Earth, and cartography projection. The Digital Elevation Model (DEM) is the most accurate source available from GeoBase as of the date of orthorectification. This is the Canadian Digital Elevation Data (CDED). The CDED can be a combination of data at the 1:50 000 or 1:250 000 scale. Level 3A orthorectified images are resampled using an 8-point SinX method. The preprocessing applied to level 1A data for SPOT satellites is minimal. Only detector equalization is performed: it consists of compensating for the differences of sensitivities between the elementary detectors of the CCD (Charged Coupled Device) arrays, using a linear model. Absolute calibration coefficients posted in the ancillary data can be used to convert the pixel counts into irradiance values. No geometric corrections are performed, and, when displayed, the SPOT Scene image in level 1A is a square. Ancillary data (coordinates of the scene center as well as the four corners) describe the image location with an accuracy better than 500m (rms) for SPOT4 and an accuracy better than 30m (rms) for SPOT5."*

1.0 LAND COVER CLASSIFICATION

Land cover classification was performed through a multi-step process detailed below. General steps include; (1) image preprocessing and mosaicing, (2) ISODATA unsupervised classification and aggregation, (3) classification corrections and manual edits, (4) land cover tabulations by watershed, and (5) accuracy assessment. Accuracy assessment results are presented in the Results section.

3.1 Image Pre-processing

For the Petty Harbour watershed, one image dated in 2011 provided full coverage for classification and no additional imagery was required. For Corner Brook and Petrie's Brook, three imagery datasets were classified individually due to temporal variation between datasets. The pixel value variation between these datasets was significant enough that performing an

atmospheric correction process to apparent reflectance values would not have provided any benefit (see additional information in Recommendations).

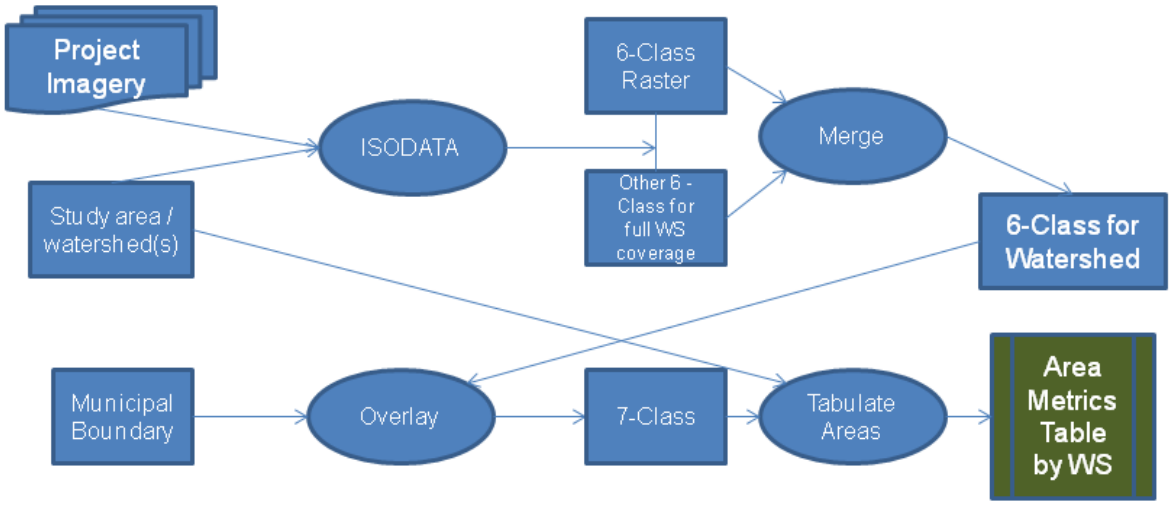

Figure 1
Graphical model of land cover/land use classification methods used in this study.

3.2. ISODATA Classification and Aggregation

Images and image groups with similar visual characteristics were then classified using the ISODATA (Iterative Self Organizing Data Analysis Techniques) algorithm within the software ERDAS Imagine. The ISODATA algorithm is an unsupervised classification that generates statistically significant clusters of similar pixels based on values within each band and the user-defined number of clusters to generate. The number of clusters selected for a particular classification was dependent on the overall size of the image or image group but ranged from 20 for small images to 100 for large images (the larger the image, the greater number of pixels, the greater number of clusters selected). Clusters are then manually assigned to each of the land cover classes using higher resolution aerial imagery. ISODATA is very similar to the Fuzzy K Means unsupervised classification used in the Stephenville, Newfoundland and Labrador land cover classification study. To create the 7th land cover class for current conditions, municipal area boundaries[1] were then used to separate non-forest vegetation into open space (municipal green space) vs. fields/pasture (agricultural land outside municipal boundaries). The classification at this point takes on more of a land cover / land use data set with the influence of supporting GIS data.

[1] Municipal boundaries provided by Charmaine Winter, Computer Programmer 1 (GIS), NL Dept. of Municipal Affairs, (709) 729-6666, cwinter@gov.nl.ca.

Table 1.
Final land cover classes for the Flood Risk study. Non-forest vegetation from the original classification is separated into Fields/Pastures or Open Space relative to municipal boundaries.

Class #	Final Land Cover Classes Descriptions
1	Forest
2	Developed
3	*Fields/Pastures
4	Wetland
5	Water
6	Barren
7	**Open Space
* Fields/Pastures = vegetation land cover outside municipal areas. **Open Space = vegetation land cover within municipal areas.	

3.3. Manual Corrections

Primary edits required to improve consistency across land cover mosaics involved fixes to shadows, clouds, and seamlines due to abrupt seasonal changes in adjacent images (for the western watershed), and additional classifications between confused ISODATA clusters (cluster confusion occurs when a single cluster represents more than one desired land cover class). Some seamlines were corrected manually by hand editing vector data, converting vector to raster, and merging into new mosaics, while other areas were corrected by adjusting ISODATA cluster values or increasing ISODATA cluster outputs generated. Results were verified against the original land cover mosaics for any potential seamline issues and then the data was merged into final mosaic land cover data sets. Minimal additional corrections to the data were performed.

3.4. Land Cover Tabulations by Watershed

The final 7-class land cover data set was then intersected with the 3 community flood watersheds to tabulate total area (in square kilometers) and percent coverage of each class by basin name. For Quality Assurance / Quality Control purposes, one watershed was selected and land cover metrics were calculated by hand then checked against automated metrics. These tables were then used as direct inputs to the HEC models and flood vulnerability assessment.

4.0 RESULTS

Results are presented for the overall classification and for each community flood watershed delineation boundary in Table 2. Accuracy assessment results detail the effectiveness of the classification methods employed in this study. Table 2 lists the three watersheds in the top row

by alphabetical order, while land cover area and percents occupy each row. Figures 2 and 3 illustrate data inputs and land cover classification maps for each watershed.

Table 2
Land cover metrics (area in square kilometres and percent of watershed area) per community flood watershed

Description	Land Cover (km^2) by Watershed		
	Petrie's Brook	**Corner Brook Stream**	**Petty Harbour River**
Total Area	*6.23*	*157.98*	*132.68*
Forest	3.42	72.00	74.80
Developed	0.21	5.40	4.06
Field/Pasture	0	31.35	0.16
Wetland	0.09	3.03	5.95
Water	0.27	17.39	11.71
Barren	0.29	5.50	1.29
Open Space	1.95	23.31	34.71

	Land Cover (% of total Area) by Watershed		
Forest	54.8	45.57	56.37
Developed	3.46	3.42	3.06
Field/Pasture	0	19.85	0.12
Wetland	1.4	1.92	4.48
Water	4.34	11.01	8.83
Barren	4.72	3.48	0.98
Open Space	31.28	14.75	26.16

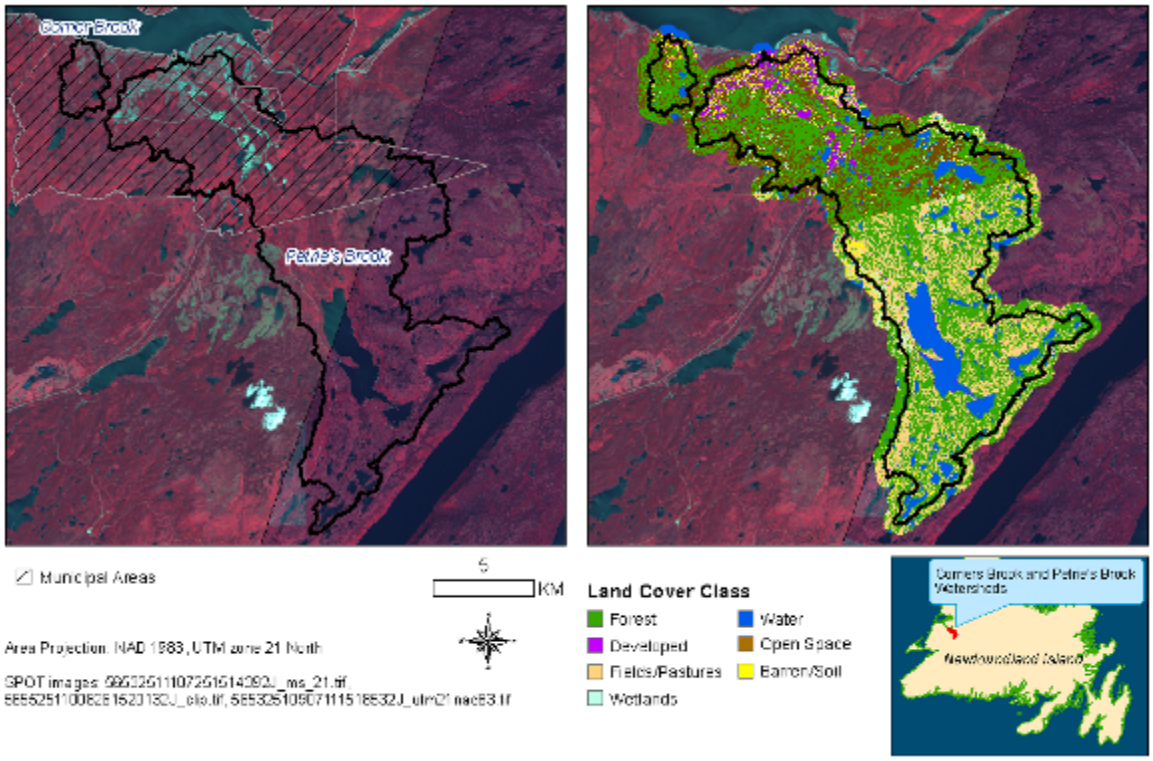

Figure 2: Data inputs and land cover classification for Corner Brook and Petrie's Brook watersheds.

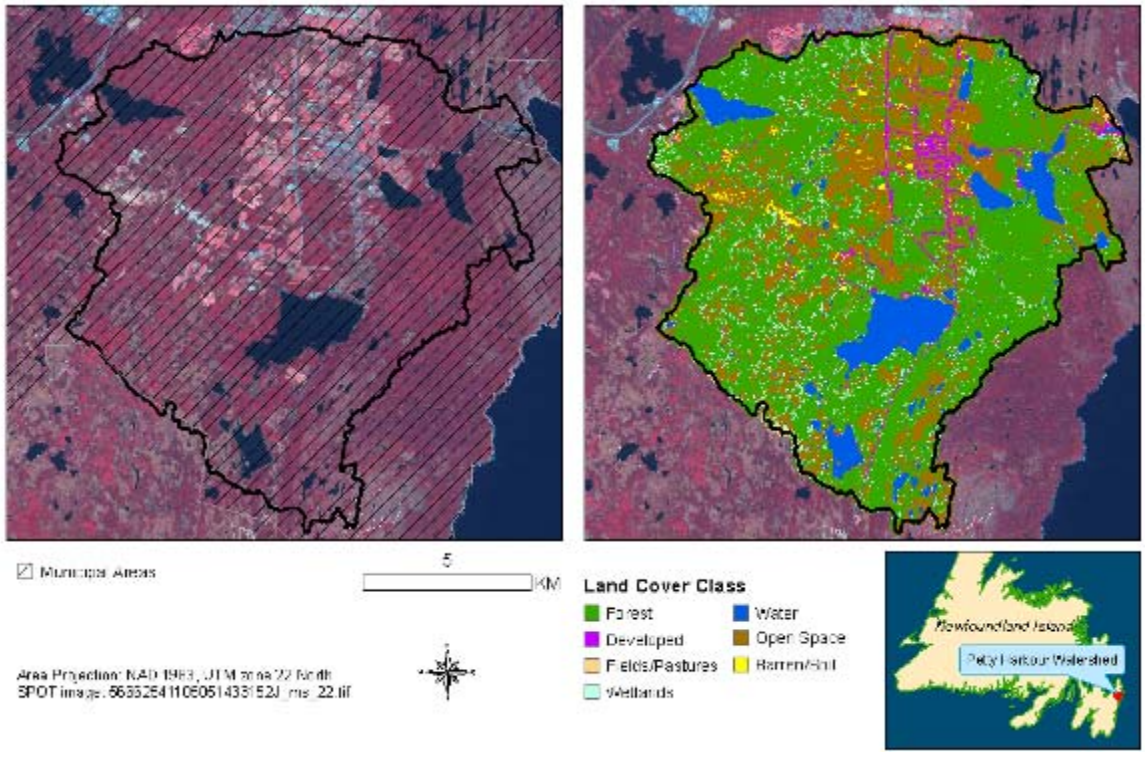

Figure 3: Data inputs and land cover classification for Petty Harbour watershed.

4.1. Accuracy Assessment

An accuracy assessment was completed to measure the effectiveness of classifying six classes of land cover derived from the 10-meter SPOT imagery. Classification accuracy was assessed by comparing ground truth (from 2.5 meter resolution, natural color, pan-sharpened SPOT images) to the classified land cover at each assessment point. When interpreting the accuracy assessment table (Table 2 below) a number of important precautions should be considered:

1. Ground truth data (2.5 m) used to assess the accuracy is of a higher spatial resolution than the data used in the classification (10 m). The difference in resolution and spatial shift can lead to exaggerated errors, since the larger pixels used in the classification can be a combination of a number of land cover classes (See Figure 3).
2. Ground truth data in some cases may be from a time period that differs from the time period of the classified imagery. While image dates are generally from the same period, not all 10-meter imagery used for classification had 2.5-meter imagery and vice versa. Spatial shifts and land cover change may have occurred between the ground truth image and classification image.
3. Ground truth data are natural color 3-band images, while the classification data use 4-bands. In natural color, wetlands and barren ground look very similar. Because of this, surrounding areas were also evaluated during the accuracy assessment to determine the probable ground class.
4. See Recommendations section for improved training and verification data and processes

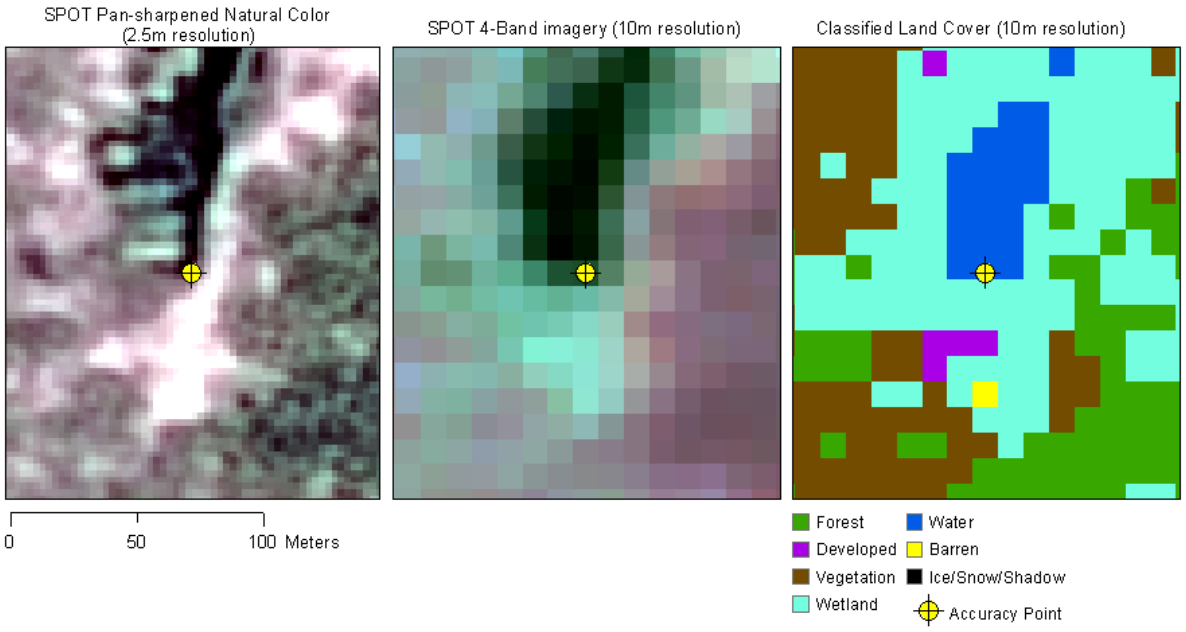

Figure 4
Pan-sharpened natural color, multi-spectral, and classified land cover example. Classified land cover is based on 10m resolution, multi-spectral imagery (center) while the 2.5m natural color imagery (left) was used to assess classification accuracy.

4.2. Procedures

A grid of 3,000 points was distributed randomly throughout the study area. Thirty (30) points per class were randomly selected and assessed for true on-the-ground land cover using the 2.5 meter pan-sharpened imagery (see Figure 4). Points falling on pixel edges, and points where interpretation of true land cover was obscured or difficult to discern were excluded.

Table 3
The error matrix (a) and accuracy statistics (b) for the accuracy assessment of the land cover classification of community watersheds in Newfoundland, Canada. Diagonal counts (in green) represent agreement between classified and ground truth data.

	Forest	Developed	Vegetation	Wetland	Water	Barren	Total (i)	Accuracy (ii)
Forest	33	0	1	1	0	1	36	91.70%
Developed	1	38	0	0	0	1	40	95.00%
N.F. Vegetation	1	0	41	0	0	1	43	95.30%
Wetland	0	0	2	20	0	0	22	90.90%
Water	0	0	0	1	31	0	32	96.90%
Barren	0	1	0	0	0	16	17	94.10%
Column Total	35	39	44	22	31	19	190	94.00%
Column Multiples	1260	1560	1892	484	992	323	179	
Sum of Diagonals (corrects)		179						
N (Total Points Assessed)		190						
Overall Accuracy		94.21%						

	Omission (iii)	Commission (iv)	Low Limit	Upper Limit
Forest	3	2	62.50%	100.00%
Developed	2	1	65.80%	100.00%
N.F. Vegetation	2	3	66.10%	100.00%
Wetland	2	2	61.70%	100.00%
Water	1	0	67.70%	100.00%
Barren	1	3	64.90%	100.00%

Column Definitions
i: Row totals: Points assessed per class.
ii: Percent accuracy by class.
iii: Points falsely omitted from the row class.
iv: Points falsely committed to column class.

4.3 Interpretation

Table 3a (top matrix) is referred to as a “standard error” or “confusion matrix” in a traditional accuracy assessment based on land cover at the location of each point. Data columns represent actual ground classes manually determined using 2.5 m pan-sharpened imagery. For example, 36 points were manually determined (by visually looking at the 2.5m pan-sharpened imagery) to be located on forest. Rows represent the classified land cover at the location of each point. For example, 35 points fell on land cover classified as forest. The values along the diagonals (in green) represent agreement between the ground truth and classified values. Percent correct for each class is presented in the Accuracy (ii) column and is calculated by dividing the number of correct points by the total number of points in the corresponding class (for example, the forest class accuracy is 33/36 = 91.7%). The average correct percentage across all six land cover classes is 94.0%. A total of 190 points were evaluated with 179 correct responses (overall accuracy of 94.21%).

Additional accuracy assessment metrics are presented in Table 3b (bottom matrix). The omission (iii) column represents points that were identified as the row class in the ground-truth data, but were classified as some other land cover class. The commission (iv) column represent points that were classified as the row class, but identified as another class in the ground-truth data. The upper and lower limit columns represent the 95% confidence intervals for each class. Intervals represent the range of accuracy percents expected through the random selection of another set of points. Out of 1,000 randomly selected set of points, 950 sets will generate accuracy percents within these value ranges.

Overall accuracy indicates that more than 9 out of 10 locations randomly checked by a user will be classified correctly. *Water* and non-forest *vegetation* have the highest accuracy, while *forests* and *wetland* classes have the lowest. Of the 22 accuracy assessment points falling on areas classified as *wetland*, 20 were verified as wetland, and 2 were non-forest *vegetation* (90.9% correct). Of the 36 accuracy assessment points falling on areas classified as *forest 33* were verified as *forests*, 1 was actually non-forest *vegetation*, 1 *wetland*, and 1 *barren*.

Table 3b indicates that barren land is likely overestimated in the classification (1 accuracy point should have been barren but was another class, and 3 points were classified as barren but should have been classified as something else). Forest is likely underestimated slightly.

5.0 RECOMMENDATIONS

The following general recommendations are offered to assist the Government of Newfoundland and Labrador in designing and implementing future studies that involve remote sensing and land cover classification.

1. Types of imagery for different scale classifications – unlike the Stephenville land cover study which used high-resolution QuickBird satellite imagery, this project utilized 10-meter resolution SPOT imagery. With coarser resolution, spectral mixing exists meaning some pixels contain a mixture of different features and cover types, compared to higher resolution images where individual pixel values represent more homogenous materials. Traditional spectral based classification techniques are adequate for medium resolution imagery, while object-based image analysis (OBIA) techniques are also an established method for higher resolution land cover classification. Given the relatively small geographic area of this project, using higher resolution imagery was feasible. This should be used as a guide for future studies with different resolution imagery and land use / land cover classes.

2. Image Quality and Specifications – remote sensing is more cost-effective when larger areas can be classified as a single process, or at least fewer processes. Satellite images from a single season and/or single year provide for a better product and greater efficiency. Additionally, the majority of multispectral 10-meter SPOT imagery used in the classification was clipped to watershed boundaries. Full SPOT scenes ortho-rectified in a mosaic specifically for classification study would yield better results.

3. Atmospheric Correction – this step is most useful when trying to separate features in imagery that have similar spectral signatures/responses or removing noise such as haze. It does not mitigate issues from different seasonal conditions in imagery and it was determined for this study that atmospheric correction would not provide a benefit across such varying seasons and years of imagery acquisition. It should be considered on a case-by-case, or project-by-project basis.

4. Training and Verification Samples – known features types from ground measurements or photographs assist in both training remote sensing software during classification as well as in verifying accuracy. The Stephenville land cover study used only 10 accuracy assessment points per land cover class (100 per class were used in this study) in part due to a lack of available ground truth samples, but that does not yield a statistically significant confidence level. Generally speaking, 2.5-meter, 3-band natural color SPOT imagery proved useful for the accuracy assessment for this study and could be used in others, however ground samples from the same time period as the image acquisition is more ideal. Now online imagery (Google, Bing) also provide additional resources.

5. Ancillary data from other mapping initiatives can be incorporated into land use / land cover data to improve accuracy and minimize QA/QC. Examples include building footprints generated from LiDAR or manual digitizing, forest industry stand delineations, and transportation data (street center lines) to name a few. Also consider implementing an island-wide impervious surface mapping initiative with the cost shared by numerous entities. This could be used as a mask during land cover classification projects to avoid confusion between bare soil, ice, snow and other bright features in satellite imagery.

APPENDIX D

DEVELOPMENT OF PROJECTED INTENSITY-DURATION-FREQUENCY CURVES

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GOVERNMENT OF
NEWFOUNDLAND AND LABRADOR

FLOOD RISK MAPPING PROJECT
CORNER BROOK AND GOULDS/PETTY HARBOUR

Development of Projected Intensity-Duration-Frequency Curves

Submitted to:

Water Resources Management Division
Department of Environment and Conservation
Government of Newfoundland and Labrador

Submitted by:
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1.0 INTRODUCTION

This report provides an overview of the development of projected intensity-duration-frequency curves (IDF curves) for two areas of Newfoundland, Canada, Corner Brook and Goulds/Petty Harbour. The objective of the work described here is to develop IDF curves that reflect the changes in the characteristics of precipitation that might be caused by projected changes in climate. Three time frames were adopted for projections: 2020, 2050 and 2080.

Over the last four decades climate scientists have developed a theoretical framework and observational evidence to indicate that the average temperature of the Earth is increasing and that part of this increase can be attributed to emissions of greenhouse gases generated by human activities (IPCC, 2007). Modern climate simulation models, referred to as global climate models (GCMs, also referred to as general circulation models), have been used to develop quantitative projections of future changes in temperature, precipitation and other climate variables based on estimates of future emissions of greenhouse gases. These models show a consensus that global average temperature will increase, though the amount of projected temperature increase varies with latitude and is not evenly distributed seasonally. Because increases in global average temperature will cause increased evaporation, global average precipitation will also increase, although there is a high degree of uncertainty regarding the spatial and temporal distribution of those changes in precipitation, and precipitation in some areas of the globe will decrease.

Theory, and analysis of GCM outputs, indicates that warmer temperatures will change the characteristics of precipitation extremes (Kharin, et al., 2007). This scientific information along with recent flood events have motivated infrastructure planners to undertake efforts, like that described herein, to quantify the impact of projected climate change on the IDF curves used as one basis for design of drainage and flood infrastructure.

This work focused on two areas, Corner Brook and Goulds/Petty Harbour, in Newfoundland. Newfoundland is the island portion of the easternmost Canadian province, Newfoundland and Labrador, and is located between the Gulf of St. Lawrence and the Atlantic Ocean, one hundred kilometers northeast of Cape Breton Island of Nova Scotia. The climate in Newfoundland has been characterized by observations at a number of weather stations. The climates in the regions of Corner Brook and Petty Harbour were based on the Deer Lake station and the St. John's A weather station, respectively. Although climate measurements from a third station at Stephenville were studied, Deer Lake and St. John's A were determined to have the climate that best represented the sites in question.

In 2010, Environment Canada developed updated IDF curves based on historical observations from the stations at Deer Lake (data from 1966 through 2002), St. John's A (data from 1949 through 1996), and Stephenville A(data from 1967 through 2007). The documentation for these historical IDF curves included the record of the intensity of annual extreme precipitation events for nine event durations ranging from five minutes to 24 hours. Another historical IDF curve was developed by CBCL Limited based on a combination of data from the St. John's A station and a second station at Windsor Lake, nearby (data provided by WRMD). To obtain projected IDF curves, the precipitation intensities in the historical IDF curves were adjusted to reflect projected changes in climate using a statistical modeling technique that is described briefly in the following paragraph, and in more detail in the following sections of this report.

The approach selected for this work uses a statistical model that derives the sensitivity of extreme precipitation to climate conditions from the historical climate information for a site. In this case the historical climate was characterized by observations of monthly average temperature and monthly total precipitation at the Deer Lake, St. John's A and Stephenville weather stations. The statistical model, which is described in more detail below, was fitted to the local climate data and the historical monthly precipitation maxima using a form of regression. Information about future monthly average temperature and monthly total precipitation was obtained from the output of 48 runs of GCMs. Each GCM run was compared internally to establish a projected future *change* in temperature and precipitation. These changes were used to adjust the historical record of temperature and precipitation to reflect future conditions, which resulted in 48 future climate scenarios that were based on the historical record but which reflected the projected future change in climate. This approach, which is referred to as the *delta* approach, is used to reduce some of the inevitable bias inherent in projections of future climate.

The statistical model of extreme precipitation was then run against each of these adjusted records to obtain estimates of climate-impacted extreme precipitation intensities for each of the nine durations and six return intervals. These estimates reflect the bias in the statistical model, so one more run of the statistical model was made against the average historical climate conditions to provide a baseline set of extreme precipitation intensities. This set of baseline intensities were compared against each of the 48 estimates of climate-impacted intensities to determine the *change* in intensity attributable to the change in climate. These changes were then used to adjust the values in the historical IDF curve to obtain the final projected values of precipitation intensity. (This is another application of the delta approach.)

The 48 projections used to characterize future climate conditions produced an equal number of estimates of projected precipitation intensities for each duration and return interval. For reporting purposes, these results were aggregated into the mean,

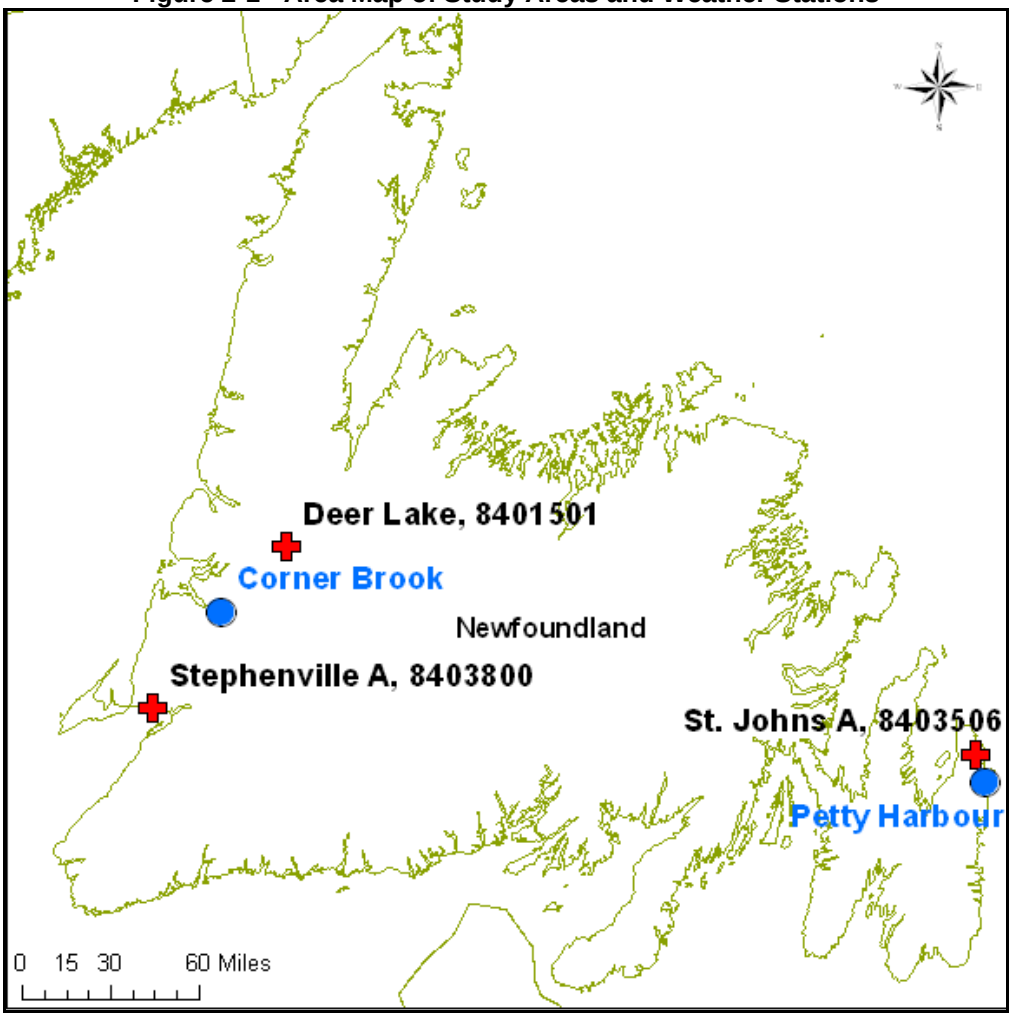
maximum and 90th percentile non-exceedance value of precipitation intensity for each duration and return interval.

This report also includes projected precipitation intensities developed by Lines et al. (2008) and Finnis (data provided by WRMD).

2.0 DATA

This section describes the three data sets used in this work; the local extreme precipitation event data, local monthly climate data and future projected data from the GCMs. The local conditions were characterized with three weather stations: Deer Lake (8401501), St. John's A (8403506) and Stephenville A (8403800). Figure 2-1 shows the location of the weather stations with respect to the study areas.

Figure 2-1 - Area Map of Study Areas and Weather Stations



2.1 Historical IDF curves

The historical IDF curve and underlying precipitation data were obtained from Environment Canada. Figure 2-2, Figure 2-3 and Figure 2-4 show the historical IDF curves for each of the three stations. Table 2-1, Table 2-3 and Table 2-5 show the historic IDF data in tabular form. Table 2-6 shows the values for the updated version of the historical IDF for the St. John's A station; this table was developed by combining data from the St. John's A station with data from a nearby station at Windsor Lake operated by the City of St. John's (data provided by WRMD). This station is referred to as the St. John's Composite record. Table 2-2, Table 2-4 and Table 2-7 show the underlying annual maximum precipitation values for the three Environment Canada stations; data for the St. John's Composite record were not available.

Figure 2-2 - Historical IDF Curve, Deer Lake Station, 8401501

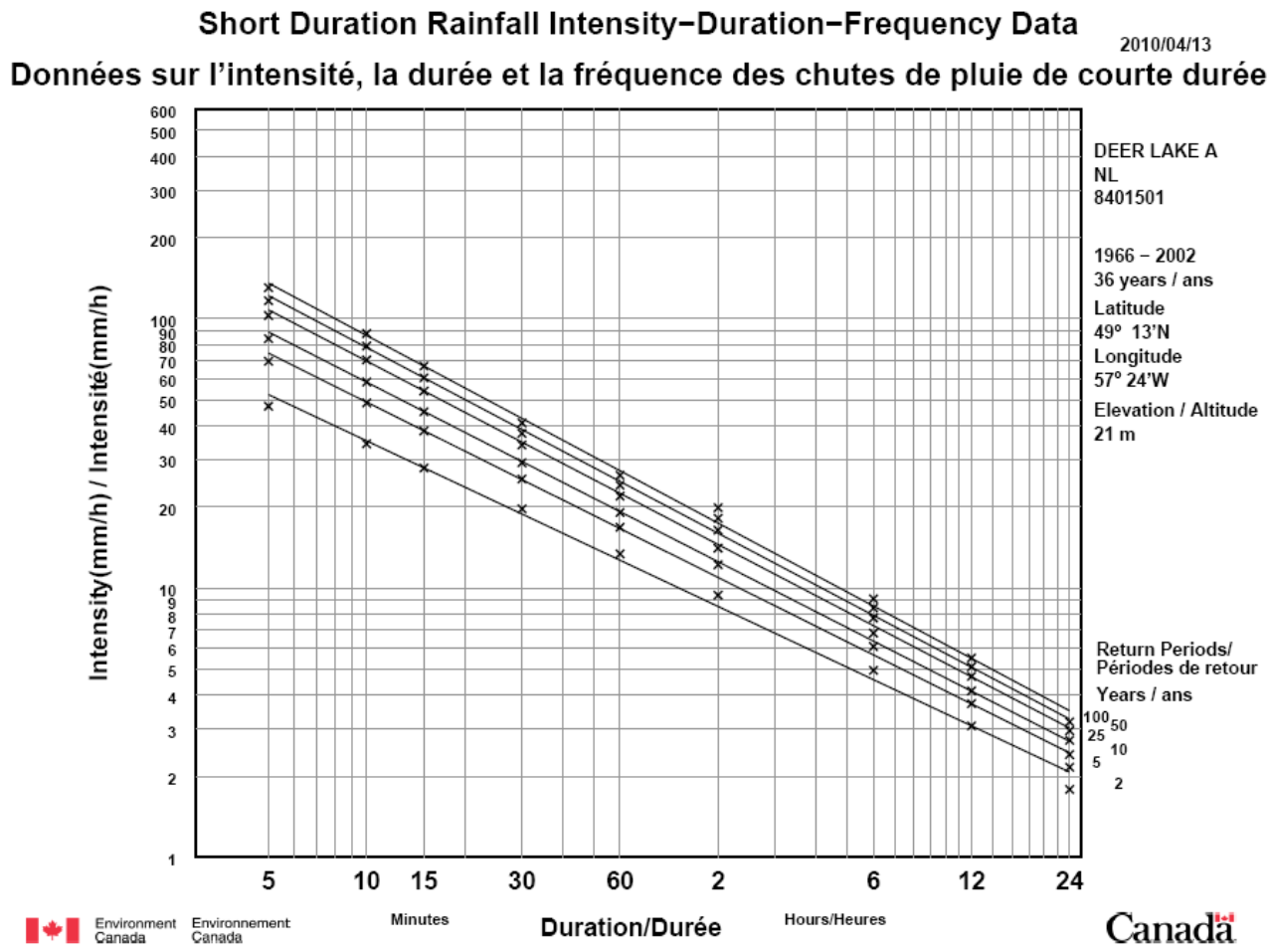


Table 2-1 - Historical IDF Table, Deer Lake Station, 8401501, Precipitation intensities over the specified duration, mm/hr

		Return period (years)						
		2	5	10	20	25	50	100
Storm Duration	5 min	47.3	69.5	84.1	98.2	102.7	116.4	130.0
	10 min	34.3	48.6	58.2	67.3	70.2	79.1	87.9
	15 min	27.9	38.3	45.1	51.7	53.8	60.2	66.6
	30 min	19.7	25.4	29.2	32.8	33.9	37.5	41.0
	1 hr	13.4	16.8	19.1	21.3	21.9	24.1	26.2
	2 hr	9.4	12.2	14.1	15.8	16.4	18.1	19.9
	6 hr	5.0	6.1	6.8	7.5	7.7	8.4	9.1
	12 hr	3.1	3.7	4.2	4.6	4.7	5.1	5.5
	24 hr	1.8	2.2	2.4	2.6	2.7	3.0	3.2

Table 2-2 - Historical Annual Maximum Precipitation Events Deer Lake Station, 8401501, mm

Year	5 min	10 min	15 min	30 min	1 h	2 h	6 h	12 h	24 h
1966	2.8	3	4.6	6.3	9.9	13.7	21.8	25.9	29.2
1967	5.1	5.8	7.1	10.9	14.2	19.3	31.7	37.6	38.6
1968	4.1	6.1	8.9	12.2	13.2	21.3	41.1	52.1	64
1969	3	4.8	6.1	7.4	10.7	14.7	25.9	31	37.8
1970	2.8	3	4.1	6.9	13.2	23.4	38.1	39.6	40.1
1971	3.6	5.6	6.6	8.9	11.2	12.4	22.9	27.7	29.2
1972	4.6	4.8	5.3	7.4	9.7	15.7	27.4	36.6	45
1973	7.1	12.4	13.5	15.2	15.7	23.1	36.6	47	50.3
1974	2.8	5.3	7.4	9.1	13.7	16.8	28.2	32	43.9
1975	7.1	8.9	11.2	15.7	23.9	39.9	44.7	50.8	66.5
1976	3.8	3.8	4.3	6.9	9.7	13.2	25.7	39.1	42.4
1977	3.8	7.4	7.6	15	18.3	18.5	34.3	46.7	47.5
1978	6.9	10.8	13.9	16.5	19.6	36.1	36.1	36.1	45.9
1979	4	6.5	7.7	9.6	9.8	11.9	24.2	33.3	41.2
1980	3.1	4.9	5.8	7.1	10.1	15.3	34.3	55.7	62.7
1981	3.4	4.4	5.1	8.3	14.1	15	24.3	37.9	43.8
1982	1.9	3	4	6.4	12.7	21.5	30	30.2	38.3
1983	4	6.5	7.4	12.1	19.8	28.1	34	36.8	46.3
1984	11.6	12.8	12.8	12.8	12.8	17.8	31.1	33.8	43.3
1985	3.3	4.6	4.8	7.6	10.6	13	18.2	25.7	32.7
1986	2.2	4.3	5.4	7.3	10	13	21.5	28.2	39.9
1987	4	5.7	6.7	10.2	10.9	15.5	25.2	25.7	26.7
1988	8.3	10	11.9	14.1	16.2	18.9	31	39.8	39.8
1989	4	5	6.2	8.5	11.6	17.2	26.4	34.4	40.8
1990	6.2	9.2	11.2	12.5	16	21.9	22.8	37.3	38
1991	2.3	3.7	3.9	6.4	11.2	18.5	38.2	40.4	43
1993	1.8	3.2	4.8	6.7	9.7	17.8	28.7	31.9	40.8
1994	4.7	9.4	10.1	13.5	19.9	25.8	33.9	39.7	51.3
1995	2.8	3.6	4.7	9.2	13.5	23.1	44.9	54	70.1
1996	2.5	3.9	5.1	7.2	10.9	20.1	44.6	59	59.1
1997	3.6	5.1	6.6	10.1	12.4	13.4	21.1	30	35.6
1998	2.6	3.8	4.8	9.6	13.4	19.6	29.4	42.3	53.6
1999	3.3	5	7.5	14.8	21	24.3	25.2	39	41.4
2000	7.8	10.4	10.4	11.5	16.5	28.7	46.9	48.3	48.3
2001	5.2	7.5	9.7	13.3	18.3	24.2	27	31.5	38.2
2002	4.2	7.5	11.1	15.8	19.8	21.5	36.5	44.2	49.2

Figure 2-3 - Historical IDF Curve, Stephenville A Station, 8403800

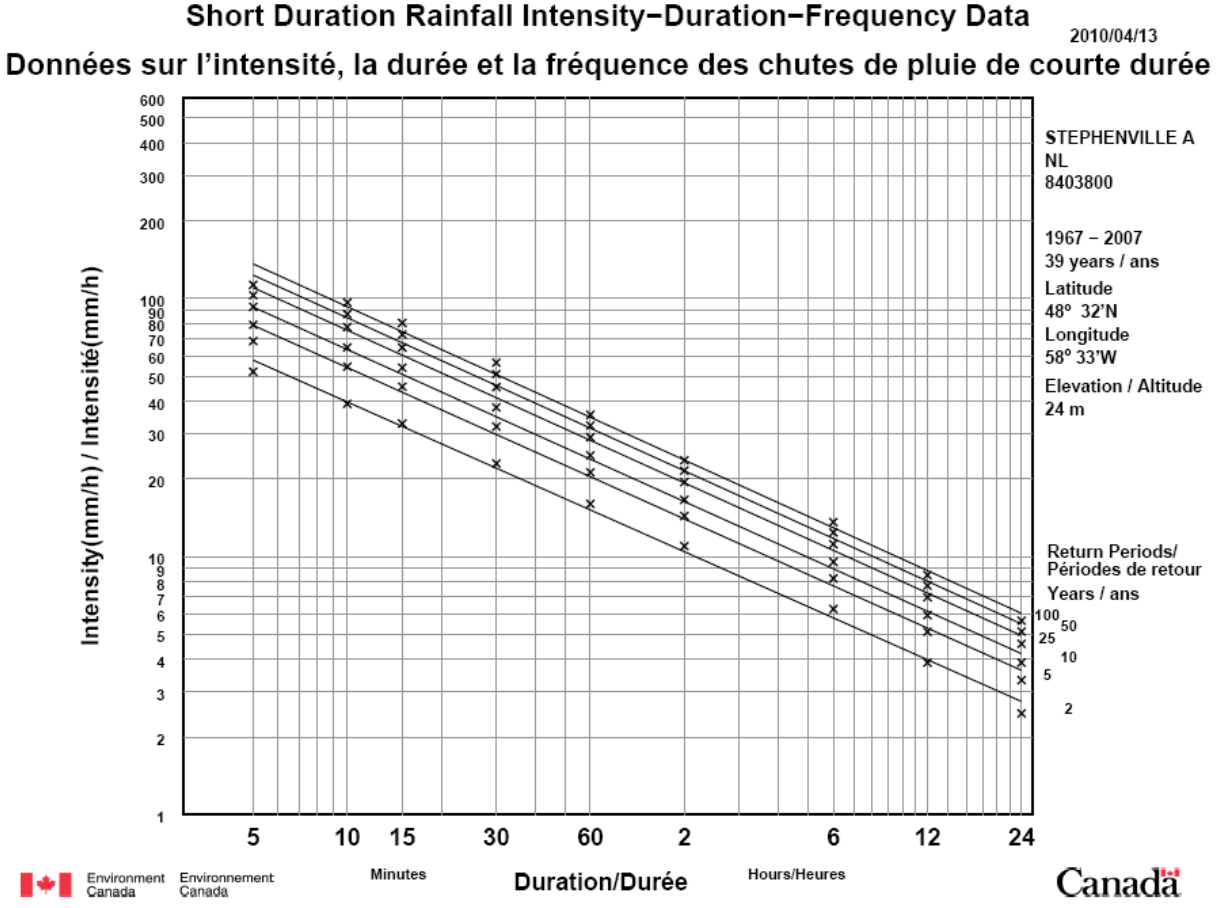


Table 2-3 - Historical IDF Table, Stephenville A Station, 8403800, Precipitation intensities over the specified duration, mm/hr

		Return period (years)						
		2	5	10	20	25	50	100
Storm Duration	5 min	52.0	68.3	79.1	89.4	92.7	102.8	112.8
	10 min	39.0	54.4	64.5	74.3	77.4	86.9	96.4
	15 min	32.8	45.5	53.9	62.0	64.5	72.4	80.3
	30 min	22.9	31.9	37.8	43.5	45.3	50.9	56.4
	1 hr	16.0	21.2	24.6	27.9	29.0	32.2	35.4
	2 hr	11.0	14.4	16.6	18.7	19.4	21.5	23.6
	6 hr	6.3	8.2	9.5	10.8	11.2	12.4	13.6
	12 hr	3.9	5.1	5.9	6.7	7.0	7.7	8.5
	24 hr	2.5	3.3	3.9	4.4	4.6	5.1	5.6

Table 2-4 - Historical Annual Maximum Precipitation Events Stephenville A Station, 8403800, mm

Year	5 min	10 min	15 min	30 min	1 h	2 h	6 h	12 h	24 h
1967	4.3	7.9	8.9	14	18	18.5	25.4	38.6	51.8
1968	4.1	6.9	8.1	8.6	14	17	36.6	52.8	70.6
1969	2.3	3.3	4.1	5.8	7.6	14.5	29.7	48.3	58.4
1970	4.8	8.6	8.6	9.1	14	21.6	39.6	41.4	54.9
1971	3.8	5.6	7.9	11.2	16.8	21.6	37.6	47.5	57.4
1972	6.1	7.4	9.1	12.7	15.7	25.1	40.9	43.4	48.8
1973	2.8	5.3	7.1	10.7	20.6	37.6	49	52.8	89.7
1974	3.3	4.3	6.6	11.4	18.5	25.7	47	60.5	63
1975	5.6	8.6	9.4	9.9	14.5	16.3	32.8	36.3	41.1
1976	3	5.3	6.6	7.9	10.4	13.5	22.9	33.8	36.6
1978	2.3	3.3	4.6	7.9	11.2	17.3	23.5	34.3	42
1979	5.1	10.1	13.6	16.7	22.6	33.5	74.4	87.5	98
1980	4.6	6.4	7.8	11.4	18	19.6	36.3	44.4	59.4
1981	3.1	5	5.5	7.3	10.4	16	31.1	34	52.1
1982	3.3	4	5.4	6.6	11.1	14.2	30	35.7	44.8
1983	3.8	6	7.4	10	14.6	20.9	45.3	52.2	82.4
1984	4.5	5.5	6.8	10.2	13.8	18.2	28.1	41.1	63.2
1985	2.9	5.5	6.4	8	9.9	13.3	23	31.8	32.6
1986	3.6	6.2	7.3	10.4	16.8	22.3	23.7	33.8	46.1
1987	4.6	7.8	9.4	14	18	27.4	41	44	49.9
1988	6.5	10.8	14.2	21.7	22.2	22.4	53.1	56	56
1989	4.4	7.9	9.7	11.5	17.7	29.6	47.1	59.5	97.5
1990	9.4	18.7	23.2	33.2	41.5	46.3	51.5	54.6	88.9
1991	3.8	5.9	6.8	8.8	13.4	23.6	46.4	52.8	55.9
1993	6.8	11.7	14.8	20.7	21.6	25.4	32.4	42.2	56.5
1994	3.8	6.2	6.4	10.6	17.1	18.1	31.5	54.8	69.4
1995	7.9	8.8	10.8	14	26	45.3	82.5	97.6	134.5
1996	3.4	6.4	9.3	17.7	23.1	30.1	47.8	67.1	68.4
1997	6.1	8.8	9.9	13.8	14.5	17.1	24.7	31.4	46
1998	6.8	12.9	16.3	19.9	24.6	30.3	38.2	41.6	52.5
1999	5.1	5.1	6.5	10.8	18.2	25.1	32.8	37.9	40.4
2000	4.2	6.1	8.1	12	14.2	24.2	45.5	48.7	58.8
2001	3.5	4	5	8.5	12.7	18.3	33.5	40.4	57.9
2002	4.4	6.2	8.6	13.8	19.6	25.2	58	59.4	60.5
2003	6.1	7.1	10.7	14.7	16	19.9	36.6	41	52.7
2004	3.4	4.8	6	8.5	13.5	21.8	33.6	39.9	65.3
2005	4.8	6.2	9	13.2	14.6	24.4	60.3	106.6	138.4
2006	5.1	5.9	8.1	11.4	21.2	24.1	35.8	50.6	55.5
2007	5.4	5.8	8.4	11.2	13.6	20.6	43.3	47.9	62.6

Figure 2-4 - Historical IDF Curve, St. John's A Station, 8403506

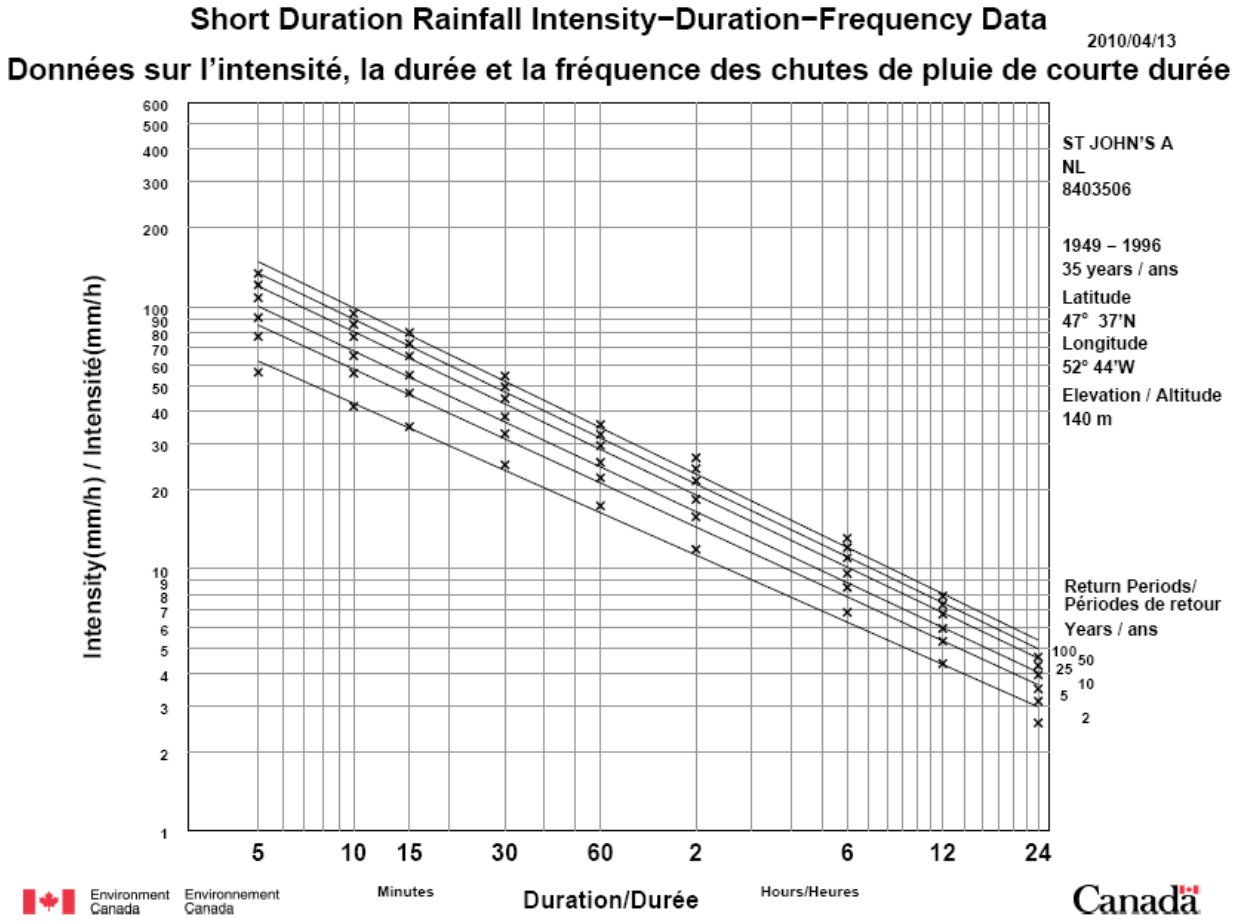


Table 2-5 - Historical IDF Table, St. John's A Station, 8403506, Precipitation intensities over the specified duration, mm/hr

		Return period (years)						
		2	5	10	20	25	50	100
Storm Duration	5 min	56.2	77.0	90.8	104.0	108.2	121.1	133.9
	10 min	41.6	55.7	65.0	74.0	76.8	85.6	94.2
	15 min	34.9	46.9	54.8	62.4	64.9	72.3	79.7
	30 min	24.9	32.8	38.0	43.0	44.6	49.5	54.4
	1 hr	17.4	22.3	25.5	28.6	29.5	32.5	35.5
	2 hr	11.9	15.8	18.4	20.9	21.7	24.1	26.5
	6 hr	6.8	8.5	9.6	10.7	11.0	12.0	13.1
	12 hr	4.4	5.3	5.9	6.5	6.7	7.3	7.9
	24 hr	2.6	3.1	3.5	3.8	3.9	4.3	4.6

Table 2-6 - Historical IDF Table, St. John's Composite Record, Updated March 2012, Precipitation intensities over the specified duration, mm/hr

		Return period (years)					
		2	5	10	20	50	100
Storm Duration	5 min	55.0	73.7	86.0	97.9	113.3	124.8
	10 min	41.6	54.6	63.0	71.4	82.2	90.0
	15 min	35.7	46.8	54.0	60.8	70.0	76.8
	30 min	26.2	34.4	39.8	45.2	51.8	57.0
	1 hr	18.7	24.7	28.6	32.4	37.3	40.9
	2 hr	12.9	17.5	20.5	23.4	27.1	29.9
	6 hr	7.4	9.6	11.1	12.5	14.3	15.7
	12 hr	4.7	6.1	7.1	8.0	9.2	10.1
	24 hr	2.8	3.6	4.1	4.6	5.2	5.7

Table 2-7 - Historical Annual Maximum Precipitation Events St. John's A Station, 8403506, mm

Year	5 min	10 min	15 min	30 min	1 h	2 h	6 h	12 h	24 h
1949	8.9	8.9	10.2	17.5	28.2	52.6	61.7	62	63.5
1961	3	4.3	5.3	6.9	8.6	13.5	25.7	35.6	38.6
1962	2.8	4.6	4.6	8.1	13	20.6	33.8	54.9	59.7
1963	10.2	11.2	11.7	13.7	18.5	23.6	40.9	52.3	57.9
1964	4.3	6.9	7.9	11.2	19.3	28.2	54.9	72.6	77.5
1965	5.3	7.4	9.9	13	17.8	19.6	32.3	51.8	59.7
1966	8.4	13.2	17	25.4	29.7	43.7	48.5	64.5	85.3
1967	2.3	3.8	5.3	9.9	10.9	16.3	29.5	44.4	58.4
1968	6.3	12.7	13.7	14.7	17.5	22.4	41.9	55.1	61.7
1969	5.6	7.1	8.4	8.6	11.7	19	30.7	34.5	48.3
1970	5.6	7.1	10.7	15.2	16.3	19.6	42.4	62.5	87.4
1971	6.3	10.4	14.5	16	19	22.1	34.3	41.1	77.7
1972	4.8	5.3	6.6	10.9	15	20.6	47.8	72.6	89.2
1973	5.3	6.9	7.9	10.4	16.5	30	49.5	65.8	67.1
1974	3.6	5.6	6.3	9.9	16.3	22.4	42.4	53.3	72.9
1975	8.1	10.4	12.2	17.8	19	19.6	46.5	71.9	82.3
1976	3.6	4.8	6.1	8.4	12.7	19	33.8	42.2	53.6
1977	3.8	5.6	7.6	11.7	17.5	23.4	38.6	40.4	41.4
1978	4	5.9	7.4	7.6	12.9	13.1	27.1	37.6	43
1979	3.2	4.2	5.9	10.2	16.2	18.1	29.3	41.9	49.2
1980	3.2	6.1	7.4	12.2	17.4	23.9	33.6	41.6	69.8
1981	N/A	N/A	N/A	N/A	15	22.4	46.7	72.5	82.6
1982	5.1	9	12.9	17.1	24.5	35.9	80.3	82.4	84
1983	1.6	3.2	4.8	9.6	19.2	26.5	47.3	52.8	54.7
1984	5	9.9	13	21.5	27.1	36.6	61	74	75.3
1985	5.2	7.1	9.8	11.3	14.1	18.5	36	54.9	82.9
1986	3.1	4.8	7.2	14.3	23.3	27.9	40.2	58.9	70.6
1987	5.1	7.3	8.6	16.2	23.5	24.2	30.6	36.6	46.8
1988	6.6	10.6	13.2	17.4	23.4	25.9	44.8	45.8	49
1989	2.9	4.5	6.2	8	10.9	19.7	43.4	51.6	51.6
1990	3.7	5.9	6.5	12.6	19.2	28.5	48.1	68.7	85.2
1991	7.8	11.4	15.9	23.3	28.8	29.5	51.2	52.2	59.7
1993	4.4	7	7.6	11.5	20	31.3	47.6	49.4	55.3
1994	6.2	9.1	10.3	12.6	12.8	14.9	N/A	N/A	67.5
1995	5.2	9.8	14.5	16.6	27.6	46.7	55.9	58.8	61.6
1996	4.8	6.2	7.4	10.2	15.4	27.2	40.2	44	48.4

2.2 Local Climate Data

Local climate data were required to establish the sensitivity of extreme precipitation to monthly average precipitation and temperature. Local climate data were obtained from Environment Canada for the 11 elements shown in Table 2-8.

Table 2-8 - Historical Climate Data Elements

Element Description
Mean Max Daily Temp (°C)
Mean Daily Temp (°C)
Mean Min Daily Temp (°C)
Extreme Monthly Max Temp (°C)
Extreme Monthly Min Temp (°C)
Monthly Total Rain (mm)
Monthly Total Snow (cm)
Monthly Total Precip (mm)
Snow on Ground Last Day (cm)
Direction of Max Gust (10's deg)
Speed of Max Gust (km/h)

Data for all elements were available on a daily timestep. Table 2-9 summarizes the period of record, monthly total precipitation and monthly average temperature for the three stations.

Table 2-9 - Summary of Availability of Historic Monthly Data

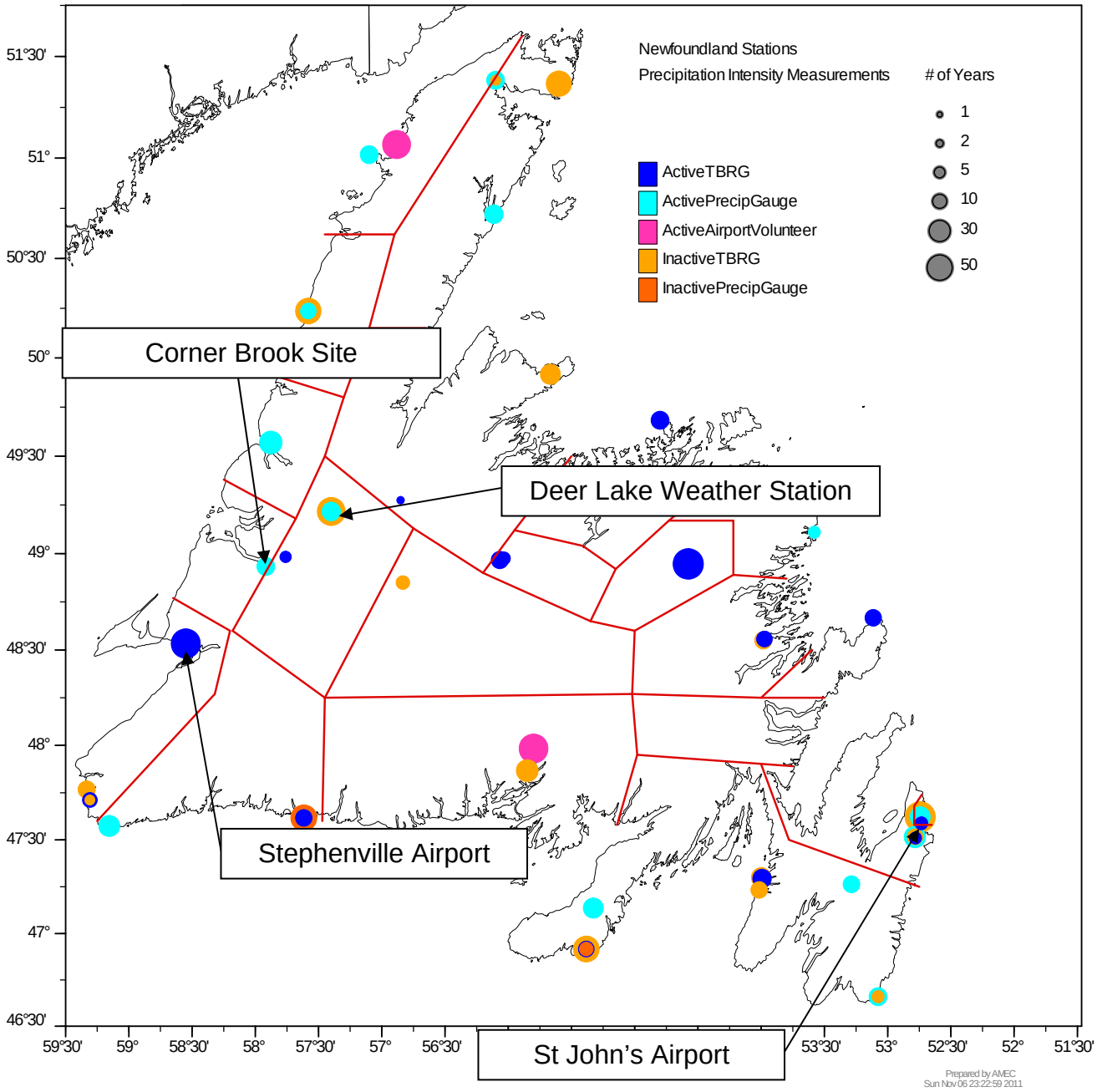
Month	Deer Lake, 8401501		Stephenville A, 8403800		St John's A, 8403506	
	Total Precip (count)	Mean Temp (count)	Total Precip (count)	Mean Temp (count)	Total Precip (count)	Mean Temp (count)
Jan	69	72	69	69	70	70
Feb	71	73	69	70	70	70
Mar	71	72	70	70	70	70
Apr	70	72	67	70	69	69
May	**70**	**70**	**67**	**69**	**70**	**70**
Jun	**70**	**72**	**68**	**69**	**69**	**69**
Jul	**72**	**72**	**69**	**69**	**69**	**69**
Aug	**68**	**70**	**69**	**69**	**69**	**69**
Sep	**70**	**70**	**68**	**69**	**69**	**69**
Oct	**69**	**71**	**68**	**69**	**69**	**69**
Nov	70	71	68	69	69	69
Dec	70	73	69	69	69	69
First Year of Data	1933	1933	1942	1942	1942	1942
Last Year of Data	2005	2005	2010	2010	2010	2010

Note: While datapoints are shown for all months, correspondence with Environment Canada staff indicated precipitation data for these stations are only valid from May to October. The stations have not been equipped with heating elements to allow them to measure snowfall water equivalent accurately.

Figure 2-1 shows the Deer Lake and Stephenville A stations to be approximately equidistant from the Corner Brook site. Further detailed meteorological analysis suggests that the Deer Lake site is considered more representative of the rainfall patterns over the Corner Brook watersheds. As shown in Figure 2-5, the Public Forecast Warning Areas used by Environment Canada place the Deer Lake station

within the same Warning Area as Corner Brook while the Stephenville A station falls into another Warning Area. Therefore the Deer Lake station is more representative of precipitation that contributes to flows at Corner Brook. Accordingly, projected IDF curves have been developed only for the Deer Lake and St. John's A Stations.

Figure 2-5 – Public Forecast Warning Areas and Project Sites
Government of Newfoundland and Labrador, (2011)



2.3 Projected Climate Data

The objective of this study is to estimate the sensitivity of extreme precipitation events at the two weather stations of interest (Deer Lake and St. John's A) to projected climate change. Development of information about projected climate conditions involves the following three elements, which are common to most climate impact studies:

- *Emissions scenarios.* Projections of future changes in climate attributed to human activity rely on projections of future concentrations of greenhouse gases (GHG), which in turn depend on current concentrations and future rates of GHG emissions. GHG emissions depend, in complex ways, on socio-economic development, technology, demographics and politics. The Intergovernmental Panel on Climate Change (IPCC) has developed a number of "storylines" of future global conditions, that are used as the basis for estimates of future GHG emissions. These storylines are documented in the Special Report on Emissions Scenarios (SRES) (Nakicenovic et al., 2000) and are often referred to as SRES scenarios. The IPCC did not assign a likelihood to the SRES scenarios—all are considered equally probable "alternative images of how the future might unfold" (Nakicenovic et al., 2000, Technical Summary). From the four SRES scenario "families" (A1, A2, B1, B2), only the B1, A1B (a member of the A1 family) and A2 scenarios have been used as the basis for projections on many GCMs. These have come to be known, respectively, as the "low", "medium" and "high" emissions scenarios, based on their impact on climate conditions in the year 2100.

- *Global Climate Simulation.* More than 20 GCMs are currently being developed, operated and maintained by national meteorological services, climate research centers and universities around the world. These models have been used to develop quantitative projections of future changes in climate variables, including temperature and precipitation, based on the SRES emissions scenarios. Each GCM is different, but many contain similarities in their conceptual approach and may even share simulation methods and codes. A single GCM will be used to generate many projections, each of which differ by the SRES scenario used to force the GCM, but also by the way in which the model run is initialized and constrained.

- *Downscaled Climate Projections.* GCMs operate on a grid that may range in scale from 100 to 200 miles on a side, and their output is provided at this same resolution. While each GCM grid cell covers from 10,000 to 40,000 square miles, a substantial watershed might cover a few hundred to a several thousand square miles, and many tributaries drain considerably smaller areas. Before GCM output can be used for analysis of local conditions, or for local hydrologic modeling, it must go through a process called downscaling, which relates the large scale GCM data to detailed

terrain and observed climate conditions. In addition, GCM projections contain bias, which is exhibited as systematic error in replicating observed conditions. These biases are usually reduced during downscaling with an *ex post* calibration process referred to as *bias correction*.

This project used a set of readily-available downscaled projections from the World Climate Research Programme's (WCRP's) Coupled Model Intercomparison Project Phase 3 (CMIP3) multi-model dataset (Meehl et al., 2007) that have been bias-corrected and spatially downscaled and archived by Maurer (2011). These data were downscaled as described by Maurer et al. (2009) using the bias-correction/spatial downscaling method (Wood et al., 2004) to a 0.5 degree grid, based on the 1950-1999 gridded observations of Adam and Lettenmaier (2003). The archive contains output from 48 model runs, or projections, of monthly precipitation and temperature, with each projection consisting of an overlap period from 1950 through 1999 and a projection period from 2000 through 2099. Each projection is the output from a run of one of 16 GCMs using one of the B1, A1B or A2 emissions scenarios. The GCMs in the archive are listed in Table 2-10.

Table 2-10 - GCMs in Maurer Archive
(after Maurer et al., 2009)

	Modeling Group, Country	IPCC Model I.D.
1	Bjerknes Centre for Climate Research	BCCR-BCM2.0
2	Canadian Centre for Climate Modeling and Analysis	CGCM3.1 (T47)
3	Météo-France/Centre National de Recherches Météorologiques, France	CNRM-CM3
4	CSIRO Atmospheric Research, Australia	CSIRO-Mk3.0
5	US Dept. of Commerce/NOAA/Geophysical Fluid Dynamics Laboratory, USA	GFDL-CM2.0
6	US Dept. of Commerce/NOAA/Geophysical Fluid Dynamics Laboratory, USA	GFDL-CM2.1
7	NASA/Goddard Institute for Space Studies, USA	GISS-ER
8	Institute for Numerical Mathematics, Russia	INM-CM3.0
9	Institut Pierre Simon Laplace, France	IPSL-CM4
10	Center for Climate System Research (The University of Tokyo), National Institute for Environmental Studies and Frontier Research Center for Global Change (JAMSTEC), Japan	MIROC3.2 (medres)
11	Meteorological Institute of the University of Bonn, Meteorological Research Institute of KMA	ECHO-G
12	Max Planck Institute for Meteorology, Germany	ECHAM5/MPI-OM
13	Meteorological Research Institute, Japan	MRI-CGCM2.3.2
14	National Center for Atmospheric Research, USA	PCM
15	National Center for Atmospheric Research, USA	CCSM3
16	Hadley Centre for Climate Prediction and Research/Met Office	UK UKMO-HadCM3

3.0 TIME FRAMES

Time frames adopted for this work are summarized in Table 3-1.

Table 3-1 - Project Time Frames

Description	Time Frame
Climate simulation overlap period	1950-1999
Climate simulation projection period	2000-2099
2020 projection averaging period	2005-2034
2050 projection averaging period	2035-2064
2080 projection averaging period	2065-2094

4.0 APPROACH

4.1 Candidate Approaches

The Canadian Standards Association (CSA) has published the *Technical Guide, Development interpretation and use of rainfall intensity-duration-frequency information: Guideline for Canadian water resources practitioners* (Technical Guide) (CSA, 2010), which provides background about the methodologies used to develop IDF curves based on current climate, and a discussion about methodologies that are potentially applicable to the development of IDF curves that reflect projected future climate conditions. Appendix 8 of the Technical Guide provides a review of several approaches that at the time it was compiled had been applied to estimate the sensitivity of extreme precipitation to projected climate change. For detail on the available methods, the reader is directed to the Technical Guide and the references therein. The methods are summarized below in several categories:

- *Extrapolation of trends.* Linear regression is applied to observed historical data to characterize the trend in short-term precipitation extremes and these statistical models are then used to extend the trend to future periods.

- *Direct interpretation of GCM output.* GCMs provide output at a daily time step and at a grid scale that can range from about 1 to 4 degrees (approximately 100 to 400 km on a side at the equator, with the longitudinal dimension decreasing with increasing latitude). Some studies (e.g. Kharin et al, 2007) have used daily GCM output to characterize daily precipitation extremes. These methods cannot directly address time steps shorter than the time step of the GCM.

- *Direct interpretation of Regional Climate Model Output.* Regional climate models (RCMs) use a finer grid scale than is used by a GCM (e.g. 25 km for an RCM versus 100-400 km for a GCM). Because RCMs are usually “nested”, that is their spatial

scope is relatively local and their boundary conditions are set by the results of a GCM run, use of an RCM is sometimes referred to as "dynamical downscaling." RCMs also run at a finer temporal resolution than GCMs and some RCMs can produce output at 1-hour time steps. These data have been used directly to characterize short-term precipitation, but cannot directly address time steps shorter than the time step of the RCM. Because RCMs are computationally expensive to run and their spatial extent is limited, there are fewer runs available. The results of an RCM run will reflect any biases in the GCM run on which it is based.

- *Applying scale factors to climate model output.* Scale factors relate short-term precipitation to longer-term precipitation, e.g. monthly average or total precipitation.

- *Applying statistical models to climate model output.* Statistical models can be developed to represent a functional relationship between short-term precipitation and a predictor variable, usually at a larger temporal and spatial scale (e.g. monthly total precipitation at a GCM or RCM resolution). The most common statistical model is a linear model developed using regression. Linear models of the parameters of extreme value distributions (e.g. Gumbel, Weibull) have also been used.

- *Conditional weather generators applied to climate model output.* Weather generators are stochastic models that generate time series of weather conditions. These models may be parametric (they rely on classical statistical distributions described by parameters) or they can be non-parametric (they rely on re-sampling analogs of weather from the historical data) or a combination of the two. When applied to investigating climate change impacts, weather generators are usually conditioned on large-scale weather variables using statistical models as described above or using non-parametric techniques like the K-nearest neighbor technique.

In the approaches described above, climate model output may be "raw" output at the native grid scale of the climate model (either a GCM or a RCM) or downscaled output.

Despite the remarkable improvements in the scientific state of knowledge about the processes that drive weather, and ultimately climate, there is considerable uncertainty about the sensitivity of climate to increasing greenhouse gas concentrations. Because of that uncertainty, and because of practical constraints, each of the methods described above have shortcomings. It is fair to say that all of the methods described above rely to some degree on an assumption that the relationships between large-scale and small-scale processes, both in time and space, will continue unchanged into the future. This is true of all approaches that use downscaling, scale factors and statistical models, including weather generators. Climate models simulate climate sensitivity, but even these models contain statistical sub-models and are limited in spatial and temporal resolution. In short, there is no perfect method to project climate impacts, there will be

considerable uncertainty regarding those projections, and this uncertainty should always be considered when making long-term decisions about investment, policy or infrastructure.

4.2 Selected Approach

Based on a review of available methods, and considering the objectives and constraints of the current work, an approach employing extreme value statistics was judged to be the best approach for estimating the sensitivity of short-term precipitation to projected climate. This approach, described in Towler, et al., (2010) (published after compilation of the Technical Guide), involves fitting linear models of the parameters of an extreme value distribution of a short-term variable to predictor variables, usually long term variables, referred to as "covariates". We refer to this statistical model as the "intensity model". The method, which is sometimes referred to as generalized linear models (GLM) (Furrer and Kaatz, 2007), allows modeling of variables that do not have a normal distribution as well as discrete variables, such as precipitation occurrence.

In the approach described below the climate predictor variables used to force the GLM model of climate sensitivity are developed using a *delta* approach and the final adjusted values of precipitation intensity are in turn calculated by a second application of the delta approach to the output of the GLM model. The delta approach and its application are described below.

4.3 Data Diagnostics

A diagnostic analysis was conducted to determine the strength of available long-term climate variables for predicting short-term precipitation. The available projected climate variables were monthly precipitation depth and monthly average temperature. These variables could also be calculated from the local historical climate record. Three variables, monthly total precipitation, monthly average temperature and the product of those two variables were tested for their strength as a predictor of extreme precipitation. The strength of a predictor was assessed using the coefficient of determination estimated using linear regression. These analyses were made using the statistical package "R" (http://www.r-project.org/).

The results of this analysis revealed that statistically significant predictors could not be found for annual precipitation extremes. However, significant predictors were found for many durations for many months. Table 4-1 and Table 4-2 show the occurrence of extreme precipitation at Deer Lake and St. John's A respectively: shaded cells indicate a month and duration for which snow was a possibility and, due to the lack of accurate snowfall recording at the stations, extreme precipitation data could not be verified. On this basis we elected to model the occurrence of monthly extremes between May and October, the maximum of which would represent the annual extreme.

In addition, in the set of extreme event data, there were a number of months where more missing values were reported for the 24-hour storm duration than for the other storm durations. For a given month and parameter, if more than 4 days data were missing, that month's data for the 24-hour storm duration were deemed unusable and were not used for the fitting and projection process.

Table 4-1 - Occurrence of Annual Extreme Precipitation, Deer Lake Station

		Occurrence of Annual Extreme Precipitation Event, Deer Lake Station													
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	multiple	SUM
Event Duration	5 Minutes	1	1	-	-	1	-	12	15	4	1	-	-	3	38
	10 Minutes	-	-	-	-	-	2	12	15	4	1	1	-	3	38
	15 Minutes	-	-	-	-	1	4	14	16	1	1	1	-	-	38
	30 Minutes	-	-	-	-	1	5	15	15	1	-	-	-	1	38
	1 Hours	-	-	-	-	1	3	15	14	1	2	1	1	-	38
	2 Hours	-	-	-	-	2	3	11	12	3	3	4	-	-	38
	6 Hours	-	-	-	-	1	5	6	11	5	6	3	1	-	38
	12 Hours	-	-	-	-	1	4	6	7	9	7	2	1	1	38
	24 hours	-	-	1	-	1	6	5	6	7	8	3	1	-	38
SUM		1	1	1	-	9	32	96	111	35	29	15	4	8	342
%		0.3%	0.3%	0.3%	0.0%	2.6%	9.4%	28.1%	32.5%	10.2%	8.5%	4.4%	1.2%	2.3%	100.0%

Table 4-2 - Occurrence of Annual Extreme Precipitation, St. John's A Station

		Occurrence of Annual Extreme Precipitation Event, St. John's A Station													
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	multiple	SUM
Event Duration	5Minutes	2	-	-	-	-	1	9	12	7	3	2	1	-	37
	10Minutes	1	-	-	-	-	1	10	13	7	1	2	1	1	37
	15Minutes	1	-	-	-	-	2	10	11	7	3	1	2	-	37
	30Minutes	1	-	-	-	-	2	9	11	6	3	3	1	1	37
	1Hours	1	-	-	-	-	2	10	13	6	3	1	-	1	37
	2Hours	2	-	-	-	-	3	9	9	4	6	2	1	1	37
	6Hours	2	-	-	-	1	3	4	7	5	3	7	4	1	37
	12Hours	1	1	-	2	2	2	3	7	5	3	7	4	-	37
	24hours	1	1	1	2	4	1	2	7	6	5	3	3	1	37
SUM		12	2	1	4	7	17	66	90	53	30	28	17	6	333
%		3.6%	0.6%	0.3%	1.2%	2.1%	5.1%	19.8%	27.0%	15.9%	9.0%	8.4%	5.1%	1.8%	100.0%

4.4 Use of Composite Historical IDF for St. John's Area

A second set of historical IDF curves were used to project IDF values for the St. John's area. This was done to account for a large precipitation event that took place in 2002, after the St. John's A station was taken offline. In order to include the effect of this storm, data from the St. John's A station with data was combined from a station at Windsor Lake, approximately 1.6 kilometer from the St. John's A station (updated data provided by WRMD). The record for the St. John's A station runs from 1949 through 1996, and the record for the Windsor Lake station runs from 1999 through 2010. The combined record from these two stations is referred to as the St. John's Composite.

It is important for any analysis of extreme events that all large storms are taken into account, though any analyst should exercise caution combining data from multiple stations. Without a significant period of overlap in the data record for two gauges, no accurate assumptions can be made about the homogeneity of the data recorded by the gauges. There are a number of reasons that a single gauge with a long record provides much higher-quality data than a composite dataset from multiple gauges:

- If two gauges are placed in separate climatic zones, different elevations or regions with varying land cover, they may not experience the same storms.
- Even if two stations are in close proximity they may return very different results for the same storm because, during precipitation events, rainfall is not deposited in a spatially uniform manner.
- There are many environmental factors that can impact the measurements taken by a precipitation gauge including proximity to buildings, localized wind patterns, and local obstructions.
- Gauges of the same type may not be calibrated in an identical way or maintained to the same standard of operation.

The projected IDFs in this report are developed based on the baseline historical IDFs at both the Environment Canada St. John's A site and for the St. John's Composite record.

4.5 Fitting Models

For this work the generalized extreme value (GEV) distribution was fit to the historical monthly precipitation maxima using potential predictor variables. The GEV distribution can assume three possible distribution types, known as the Gumbel, Fréchet and Weibull. The Gumbel is the distribution used by Environment Canada to estimate IDF curves and it is a relatively "light-tailed" distribution with a fixed shape. Using the

Frechet variant of the GEV would allow a model to be fit to the shape parameter, which would affect the “weight” of the tail, which is of the most interest in modeling extreme values. The strength of predictors was evaluated to condition the shape parameter of the Frechet distribution explicitly, but no variables showed appreciable strength. This may be because there are not a sufficiently large number of annual values to derive a significant relationship. Accordingly, the Gumbel distribution was adopted.

The GEV models were fitted using the extRemes package (http://cran.r-project.org/web/packages/estRemes/extRemes.pdf) in the statistical package “R” (http://www.r-project.org/). To allow for possible seasonal shifts in extreme event occurrence, seasonal models were fit for each storm duration. In the seasonal model fitting process, all predictor data across May to October were fit against all the data for each individual storm duration. For each duration, models for three principal predictors were evaluated: average precipitation, average temperature and the product of average temperature and average precipitation. For each duration, models based on different predictors were accepted based on statistical significance at a criterion of 0.05 and the best model was selected based on the Akaike Information Criterion (AIC) (explained in Towler, et al., 2010; referenced from Akaike 1974).

For the 9 different durations, statistically significant models were found for each station. Of these, the best predictor for 5 of the models was total monthly precipitation, for 11 models the best predictor was the product of monthly precipitation and temperature, and for the remaining 2 models the best predictor was average monthly temperature. The final model predictors are provided in Appendix A. The parameter selected as the best predictor for each of the month/duration combinations is shown in Table 4-3.

Table 4-3 - Best Predictor Variables

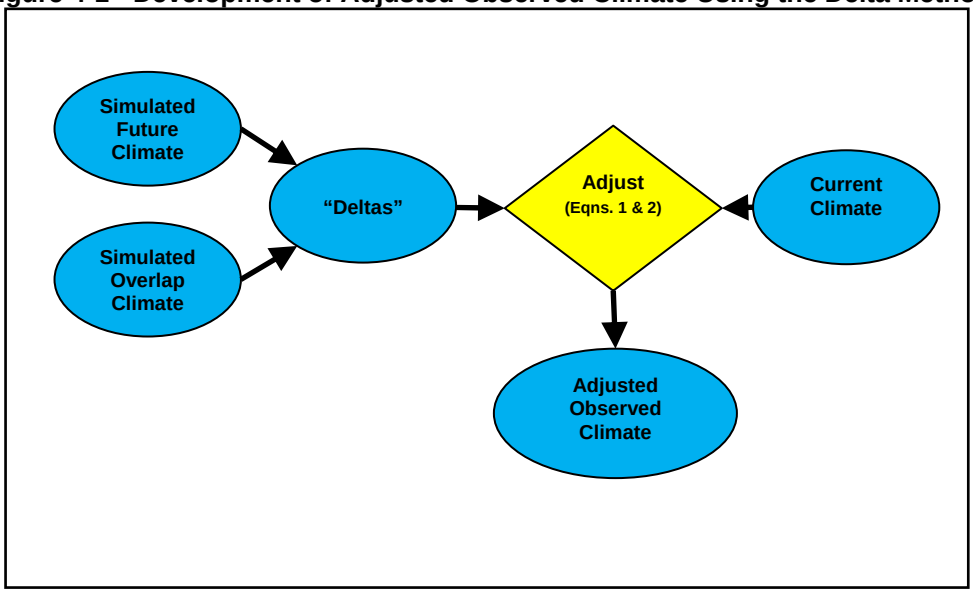
Best Models Chosen (Seasonal Fitting)		
Event Duration	Deer Lake	St John's A
5 min	PxT	T
10 min	T	PxT
15 min	PxT	PxT
30 min	PxT	PxT
1 h	PxT	PxT
2 h	PxT	PxT
6 h	PxT	P
12 h	P	P
24 h	P	P

T = Average Monthly Temperature
P = Total Monthly Precipitation
PxT = Product of P and T

4.6 Developing Projected Precipitation Intensity Values

The projected values of precipitation intensity, which make up the IDF curve, were developed using three applications of the "delta" method (Hamlet and Lettenmaier, 1999; Miller, et al., 2003). In this application the delta approach is preferred over using climate projections directly because the delta method reduces the bias inherent in climate simulations. In the delta method, climate projections are used to estimate the *change* in climate variables and this change is then used to adjust the observed record. The projected change is determined for each climate projection by comparing the climate condition during the overlap period from the climate condition at some future point in time. The overlap period is the period of time where the model simulation overlaps the observed climate. In the projections used in this work the overlap period is 1950 through 1999. In this work, the climate condition during the overlap period is represented as the average for the period 1950 through 1999 and the climate condition at the future point in time is represented as a 30-year average centered on that point in time. The projected IDF curves were based on three future time periods, 2020, 2050 and 2080. The method for adjusting climate variables is illustrated in Figure 4-1.

Figure 4-1 - Development of Adjusted Observed Climate Using the Delta Method



In adjusting precipitation the "delta" is in the form of a ratio as shown in Equation 1.

$$P_p = P_c \frac{P_{sf}}{P_{so}} \quad (1)$$

Where: P_{sf} is the simulated future precipitation, P_{so} is the simulated overlap precipitation, P_c is the current observed precipitation and P_p is the projected future precipitation.

In adjusting temperature, the "delta" was in the form of an offset, as shown in Equation 2.

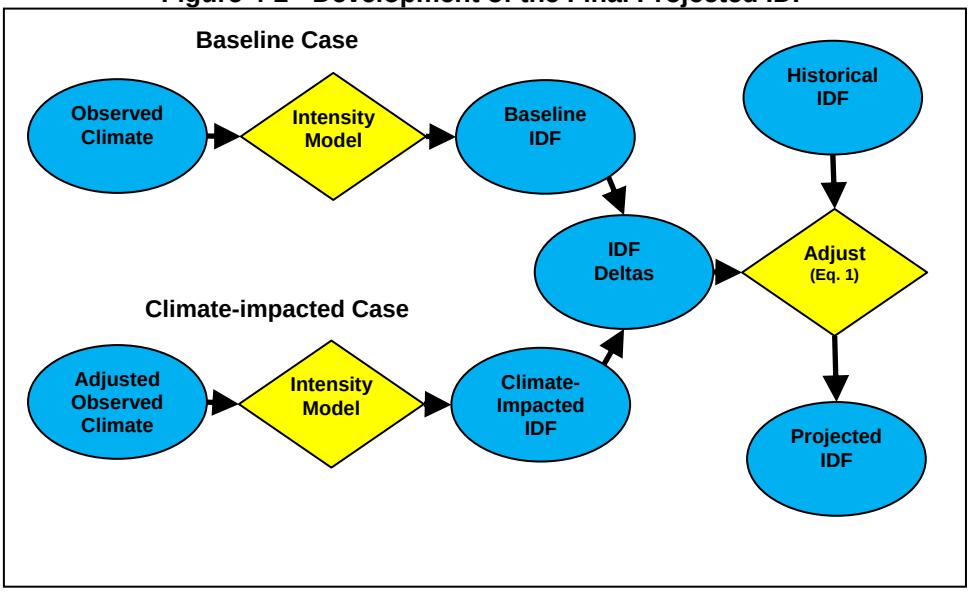
$$T_p = T_c + \left(T_{sf} - T_{so}\right) \quad (2)$$

Where: T_{sf} is the simulated future temperature, T_{so} is the simulated overlap temperature, T_c is the current observed temperature and T_p is the projected future temperature.

The GLM also exhibits inherent bias. In principal every aspect of the method Environment Canada uses to develop IDF curves could be duplicated which would allow for exact replication of the historical precipitation intensities. However, once the distributions are modified in the GLM framework to include covariates the method and results would deviate from those of Environment Canada. Further, the available GLM fitting routines use different statistical packages and a different method of fitting (maximum likelihood rather than the method of moments) than is used by Environment Canada. Because these differences will introduce bias into the estimates of precipitation intensities, a second application of the delta method was applied to adjust

the historical IDF curve. The calculation is done in the same manner as shown in Equations 1 and 2. The method is illustrated in Figure 4-2.

Figure 4-2 - Development of the Final Projected IDF



For each precipitation duration the intensity model is run once against the observed climate to generate a *baseline* intensity distribution. This distribution is used to develop estimates of baseline intensity for each return interval. The intensity model is then run again for each climate projection, this time using the adjusted observed climate value developed from that projection. This generates, for each projection, a *climate-impacted* probability distribution from which *climate impacted* precipitation intensities are generated for each return interval. The final projected precipitation intensities for each return interval are calculated using Equation 1.

The intensity models are estimated on a seasonal basis, that is by pooling all data for the months of May through October. This results in a model that captures the sensitivity of precipitation extremes to covariates (temperature, precipitation and the product of precipitation and temperature) exhibited over that season. This is done to increase the size of the data set used to estimate the statistical models, which increases their significance. The models are applied to estimate projected intensities on a monthly basis in order to capture shifts in extreme precipitation caused by projected seasonal shifts in temperature and precipitation.

Projected and observed intensities are first estimated for each month, each duration and each frequency. Then, for each GCM, duration and frequency, the maximum of the monthly intensities is taken as the annual maximum. This process is completed for each duration for both the baseline and the projected case to determine an annual maximum for each case. Then, the ratio of the calculated baseline annual maximum

and the calculated projected annual maximum is used as an estimate of the climate sensitivity of the annual extreme precipitation. This calculated climate sensitivity is then used to adjust the historical precipitation intensities in the same manner as is shown in Equation 1.

4.7 Treatment of Uncertainty

All measurements contain uncertainty, and estimates of future conditions are more uncertain than measurements. Each element of a climate impact analysis contains its own degree of uncertainty. These individual uncertainties do not add up in a straightforward way, but they do interact and each added element does increase the overall uncertainty of the final estimate of impact. The approach adopted for this work is intended to make the uncertainty arising from climate models as apparent as possible, so as to allow well-informed judgments regarding future water resources planning.

In North America, the available projections from GCMs show that temperature is highly likely to increase. However, projections of future precipitation are more uncertain; e.g. in some parts of North America model projections disagree on both the sign and magnitude of changes in precipitation. The sources of this uncertainty include the data and structure of the GCMs, the methods used to relate GCM projections to points or small areas on the earth's surface (downscaling), and the projections of future greenhouse gas emissions. Regardless of its source, uncertainty should at least be recognized and ideally should be quantified when climate projections are used for planning purposes.

As a practical matter, uncertainty in climate projections manifests in disagreement between individual projections of future climate conditions and impacts. There are 48 statistically downscaled projections of future climate conditions (monthly average temperature and precipitation) that are readily available for the study area. The most comprehensive picture of uncertainty in future conditions can be obtained by analyzing a large ensemble of projections, as recommended in the CSA Technical Guidelines. Accordingly, all of the available projections have been used to produce, for each duration period and frequency, an ensemble containing 48 estimates of precipitation intensity.

Neither the climate projections nor the results have been broken down according to the SRES emission scenarios because the intention was to represent the uncertainty in climate projections collectively, regardless of source.

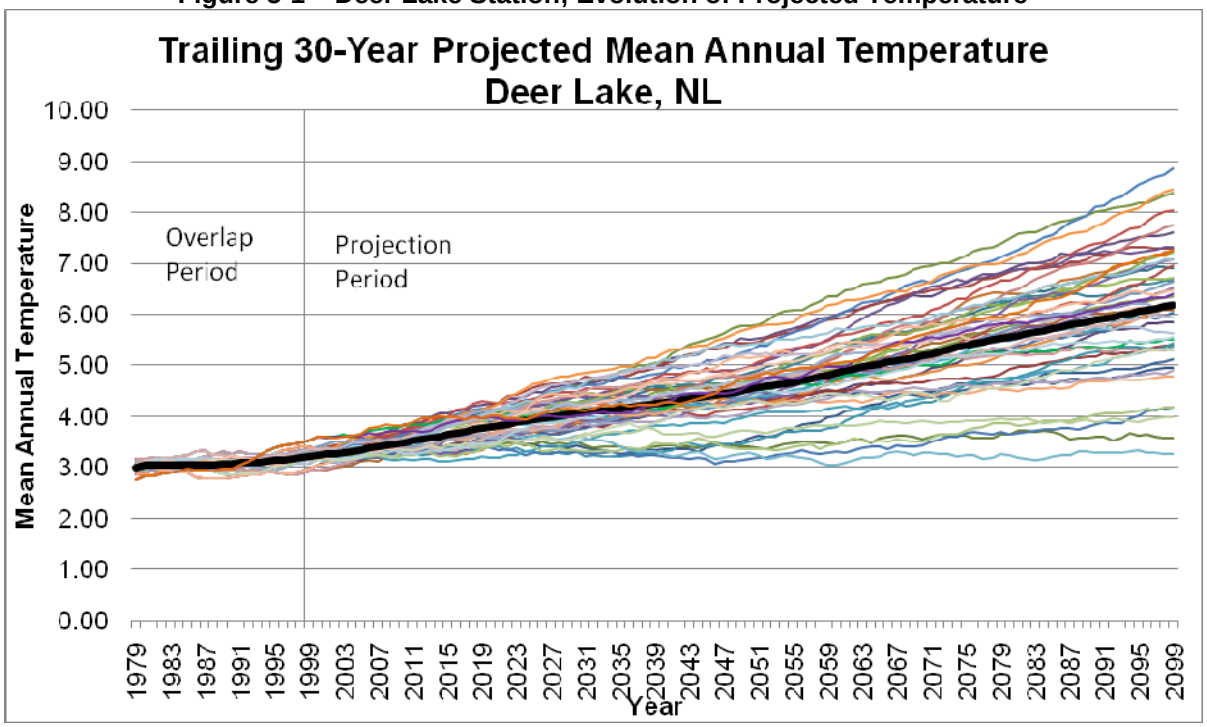
The overall results report the ensemble mean, the ensemble maximum and the 90th percentile non-exceedance value for each intensity estimate. How to interpret the range of projected results is a policy decision; some additional discussion regarding the interpretation of uncertainty is provided in Section 5.3.

5.0 RESULTS AND DISCUSSION

5.1 GCM Projections of Precipitation and Temperature

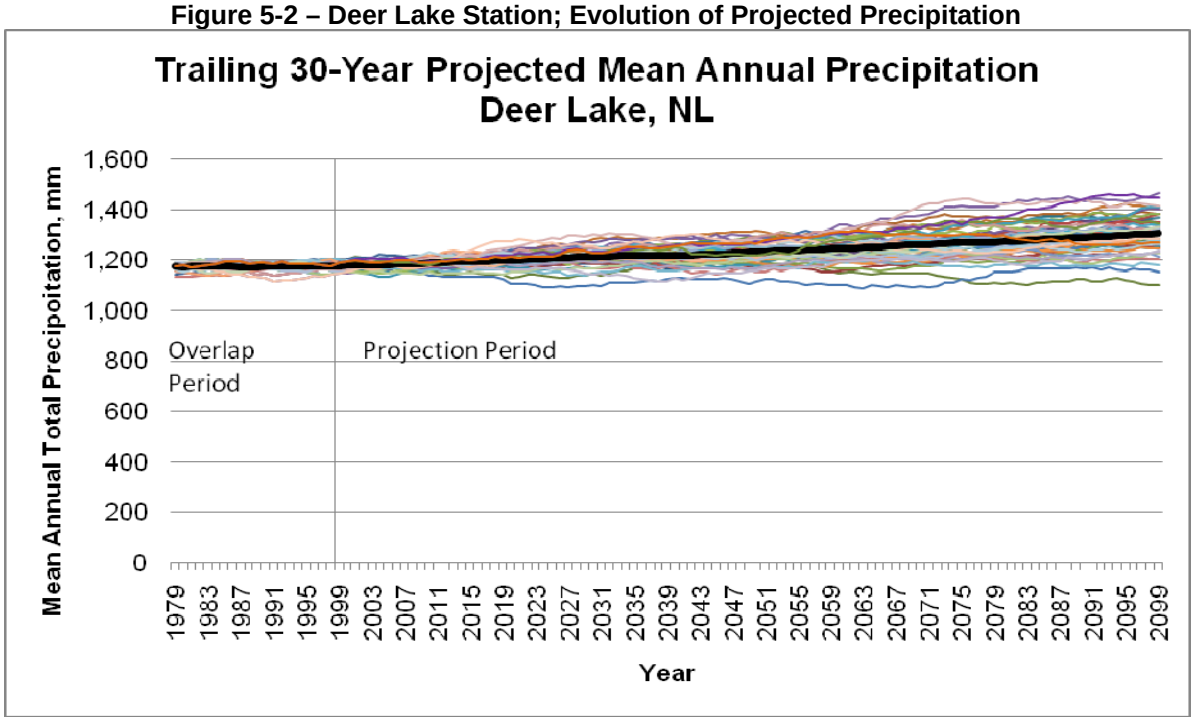
The evolution over time of projected precipitation, temperature and the product of precipitation and temperature for all 48 projections available in the Maurer archive for Deer Lake and St. John's A are shown as 30-year rolling mean values in Figure 5-1 through Figure 5-4.

Figure 5-1 – Deer Lake Station; Evolution of Projected Temperature



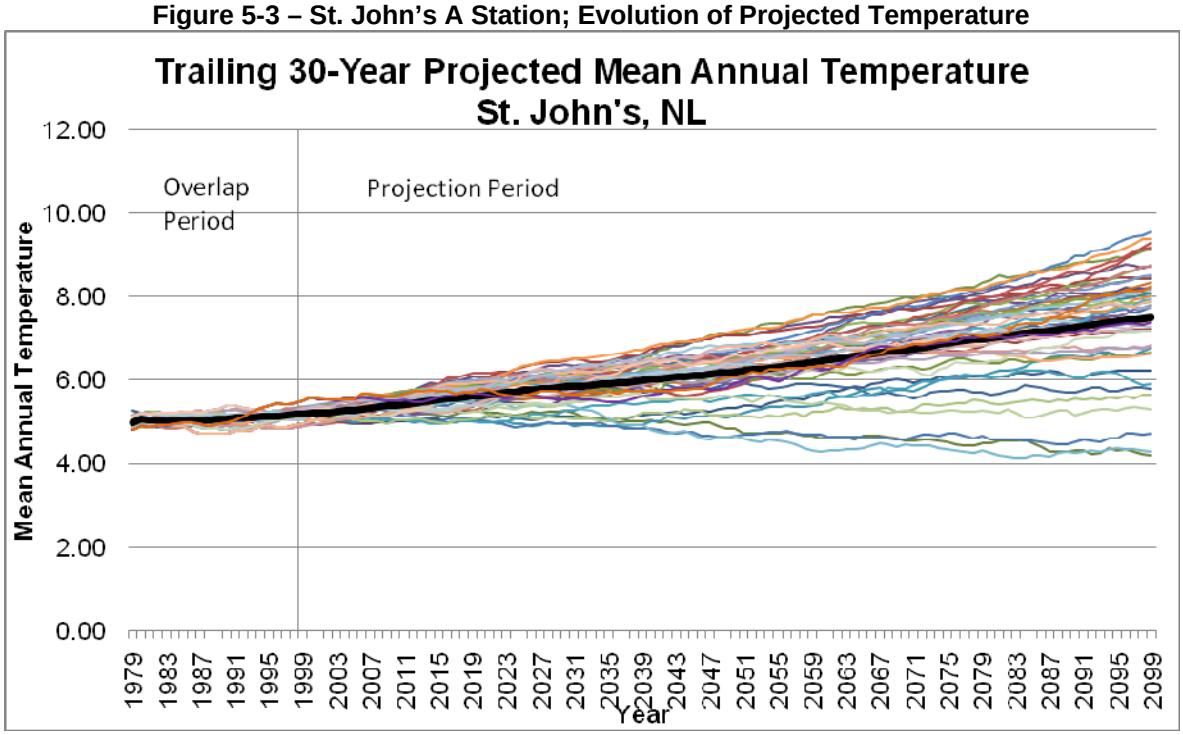
Vertical bar denotes end of overlap period and beginning of projection period. Thin, colored lines represent individual projections. Black line represents mean of all projections.

Figure 5-2 – Deer Lake Station; Evolution of Projected Precipitation



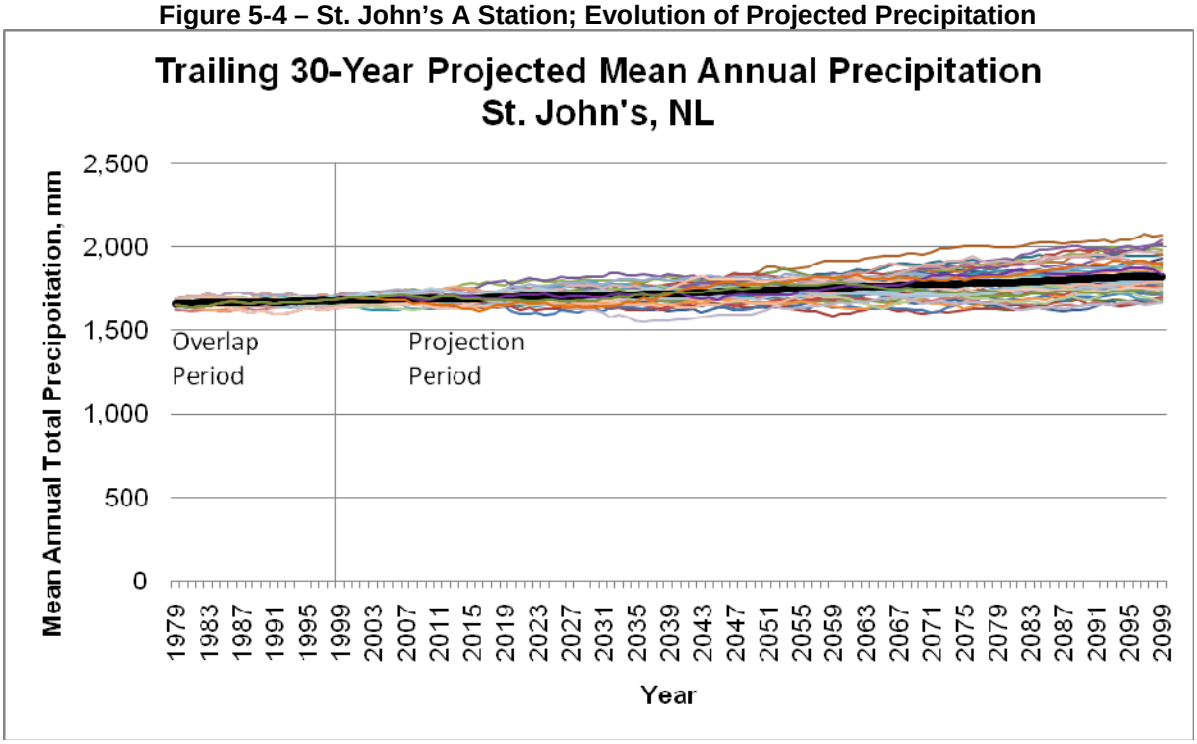
Vertical bar denotes end of overlap period and beginning of projection period. Thin, colored lines represent individual projections. Black line represents mean of all projections.

Figure 5-3 – St. John's A Station; Evolution of Projected Temperature



Vertical bar denotes end of overlap period and beginning of projection period. Thin, colored lines represent individual projections. Black line represents mean of all projections.

Figure 5-4 – St. John's A Station; Evolution of Projected Precipitation



Vertical bar denotes end of overlap period and beginning of projection period. Thin, colored lines represent individual projections. Black line represents mean of all projections.

Table 5-1 - Range of Projected Climate Variables, Deer Lake Site

		Deer Lake Site			
		Timeperiods			
		1999	2030	2050	2080
30-Year Average Annual Precipitation (mm)	Average	1177	1213	1231	1274
	Min	1148	1103	1117	1105
	Max	1205	1301	1317	1427
30-Year Average Annual Temperature (deg C)	Average	3.22	4.06	4.53	5.55
	Min	2.92	3.30	3.16	3.24
	Max	3.53	4.82	5.76	7.47

Table 5-2 - Range of Projected Climate Variables, St. John's A Site

		St. John's A Site			
		Timeperiods			
		1999	2030	2050	2080
30-Year Average Annual Precipitation (mm)	Average	1681	1681	1681	1681
	Min	1642	1642	1642	1642
	Max	1716	1716	1716	1716
30-Year Average Annual Temperature (deg C)	Average	5.20	5.84	6.21	7.01
	Min	4.90	4.96	4.66	4.27
	Max	5.49	6.48	7.19	8.41

5.2 Projections of Precipitation Intensities

Table 5-3 through Table 5-5 show the precipitation intensities from the historical IDF curves from Environment Canada for the Deer Lake, St. John's A, and the St. John's Composite record, respectively. These precipitation intensities were adjusted by the projected change, as described in Section 4.6, to obtain the projected precipitation intensities. These are shown for the Deer Lake Station in Table 5-6 to Table 5-8, for the St. John's A station in Tables 5-9 to 5-11 and for the St. John's Composite record in Tables 5-12 to 5-14. Projected precipitation intensities are reported as the maximum, mean and 90th percentile of the 48 values estimated.

In addition to the projections performed using the methodology outlined above, projections from other researchers for St. John's were compiled as well. Table 5-15 presents data for the 2020, 2050 and 2080 timeframes for modeling done by Finnis (as provided by WRMD), HadCM3 Global Climate Modeling downscaling (Lines 2008), and CGCM2 Global Climate Modeling downscaling (Lines 2008). All data are presented as precipitation intensities (mm/hr). Not all sources provided estimates for every time frame and return interval.

Table 5-3 - Historical IDF Table, Deer Lake Station, Precipitation intensities over the specified duration, mm/hr

		Return period (years)						
		2	5	10	20	25	50	100
Storm Duration	5 min	47.3	69.5	84.1	98.2	102.7	116.4	130.0
	10 min	34.3	48.6	58.2	67.3	70.2	79.1	87.9
	15 min	27.9	38.3	45.1	51.7	53.8	60.2	66.6
	30 min	19.7	25.4	29.2	32.8	33.9	37.5	41.0
	1 hr	13.4	16.8	19.1	21.3	21.9	24.1	26.2
	2 hr	9.4	12.2	14.1	15.8	16.4	18.1	19.9
	6 hr	5.0	6.1	6.8	7.5	7.7	8.4	9.1
	12 hr	3.1	3.7	4.2	4.6	4.7	5.1	5.5
	24 hr	1.8	2.2	2.4	2.6	2.7	3.0	3.2

Table 5-4 - Historical IDF Table, St. John's A Station, Precipitation intensities over the specified duration, mm/hr

		Return period (years)						
		2	5	10	20	25	50	100
Storm Duration	5 min	56.2	77.0	90.8	104.0	108.2	121.1	133.9
	10 min	41.6	55.7	65.0	74.0	76.8	85.6	94.2
	15 min	34.9	46.9	54.8	62.4	64.9	72.3	79.7
	30 min	24.9	32.8	38.0	43.0	44.6	49.5	54.4
	1 hr	17.4	22.3	25.5	28.6	29.5	32.5	35.5
	2 hr	11.9	15.8	18.4	20.9	21.7	24.1	26.5
	6 hr	6.8	8.5	9.6	10.7	11.0	12.0	13.1
	12 hr	4.4	5.3	5.9	6.5	6.7	7.3	7.9
	24 hr	2.6	3.1	3.5	3.8	3.9	4.3	4.6

Table 5-5 - St. John's Composite Record, Updated March 2012, Precipitation intensities over the specified duration, mm/hr

		Return period (years)					
		2	5	10	20	50	100
Storm Duration	5 min	55.0	73.7	86.0	97.9	113.3	124.8
	10 min	41.6	54.6	63.0	71.4	82.2	90.0
	15 min	35.7	46.8	54.0	60.8	70.0	76.8
	30 min	26.2	34.4	39.8	45.2	51.8	57.0
	1 hr	18.7	24.7	28.6	32.4	37.3	40.9
	2 hr	12.9	17.5	20.5	23.4	27.1	29.9
	6 hr	7.4	9.6	11.1	12.5	14.3	15.7
	12 hr	4.7	6.1	7.1	8.0	9.2	10.1
	24 hr	2.8	3.6	4.1	4.6	5.2	5.7

Table 5-6 - Deer Lake Projected IDF Tables, 2020 Time Period, Precipitation intensities over the specified duration, mm/hr

		Maximum, 2020 timeframe						
		Return period (years)						
		2	5	10	20	25	50	100
Storm Duration	5 min	51.8	73.9	88.1	101.9	106.3	119.6	132.9
	10 min	36.5	50.8	60.3	69.3	72.2	81.0	89.6
	15 min	29.9	40.2	46.9	53.4	55.4	61.7	68.0
	30 min	23.0	28.5	32.2	35.7	36.8	40.2	43.6
	1 hr	15.7	19.0	21.3	23.3	24.0	26.1	28.1
	2 hr	11.1	14.0	16.0	17.7	18.3	20.0	21.9
	6 hr	5.8	6.9	7.6	8.3	8.5	9.2	9.9
	12 hr	3.6	4.2	4.7	5.0	5.2	5.6	6.0
	24 hr	2.1	2.5	2.7	2.9	3.0	3.3	3.5

		90th Percentile, 2020 Time Period						
		Return period (years)						
		2	5	10	20	25	50	100
Storm Duration	5 min	50.3	72.4	86.8	100.6	105.1	118.6	131.9
	10 min	36.1	50.4	59.9	68.9	71.8	80.6	89.3
	15 min	29.3	39.6	46.3	52.8	54.9	61.2	67.5
	30 min	21.9	27.5	31.2	34.7	35.8	39.3	42.8
	1 hr	14.9	18.3	20.6	22.7	23.3	25.4	27.5
	2 hr	10.6	13.4	15.4	17.1	17.7	19.4	21.2
	6 hr	5.6	6.6	7.3	8.0	8.2	8.9	9.6
	12 hr	3.5	4.0	4.5	4.9	5.0	5.4	5.8
	24 hr	2.0	2.4	2.6	2.8	2.9	3.2	3.4

		Mean, 2020 Time Period						
		Return period (years)						
		2	5	10	20	25	50	100
Storm Duration	5 min	48.7	70.8	85.3	99.3	103.8	117.4	130.9
	10 min	35.3	49.6	59.2	68.2	71.1	79.9	88.7
	15 min	28.5	38.9	45.6	52.2	54.3	60.6	67.0
	30 min	20.7	26.3	30.1	33.7	34.8	38.3	41.8
	1 hr	14.1	17.5	19.8	21.9	22.5	24.7	26.8
	2 hr	9.9	12.7	14.7	16.4	17.0	18.7	20.5
	6 hr	5.3	6.3	7.0	7.7	7.9	8.6	9.3
	12 hr	3.2	3.8	4.3	4.7	4.8	5.2	5.6
	24 hr	1.9	2.3	2.5	2.7	2.8	3.1	3.3

Table 5-7 - Deer Lake Projected IDF Tables, 2050 Time Period, Precipitation intensities over the specified duration, mm/hr

		Maximum, 2050 timeframe						
		Return period (years)						
		2	5	10	20	25	50	100
Storm Duration	5 min	52.5	74.5	88.7	102.4	106.8	120.1	133.3
	10 min	38.3	52.5	62.0	70.8	73.7	82.4	91.0
	15 min	30.2	40.5	47.1	53.6	55.6	61.9	68.1
	30 min	23.4	29.0	32.7	36.1	37.2	40.6	44.0
	1 hr	16.0	19.3	21.6	23.6	24.3	26.4	28.4
	2 hr	11.4	14.3	16.2	18.0	18.6	20.3	22.1
	6 hr	6.0	7.0	7.7	8.4	8.6	9.3	10.0
	12 hr	3.7	4.3	4.8	5.1	5.3	5.7	6.1
	24 hr	2.2	2.6	2.7	3.0	3.0	3.3	3.5

		90th Percentile, 2050 Time Period						
		Return period (years)						
		2	5	10	20	25	50	100
Storm Duration	5 min	51.4	73.4	87.8	101.5	105.9	119.3	132.6
	10 min	37.7	51.9	61.4	70.3	73.1	81.9	90.5
	15 min	29.8	40.0	46.7	53.2	55.3	61.5	67.8
	30 min	22.6	28.2	31.9	35.4	36.5	40.0	43.4
	1 hr	15.4	18.8	21.1	23.1	23.8	25.9	27.9
	2 hr	11.0	13.8	15.8	17.5	18.1	19.8	21.7
	6 hr	5.8	6.8	7.5	8.2	8.4	9.1	9.8
	12 hr	3.5	4.1	4.6	4.9	5.1	5.5	5.9
	24 hr	2.0	2.4	2.6	2.9	2.9	3.2	3.4

		Mean, 2050 Time Period						
		Return period (years)						
		2	5	10	20	25	50	100
Storm Duration	5 min	49.4	71.5	85.9	99.8	104.3	117.9	131.3
	10 min	36.4	50.6	60.1	69.1	72.0	80.8	89.5
	15 min	28.8	39.2	45.9	52.5	54.5	60.9	67.2
	30 min	21.2	26.8	30.6	34.1	35.2	38.8	42.2
	1 hr	14.4	17.8	20.1	22.2	22.8	25.0	27.1
	2 hr	10.2	13.0	15.0	16.7	17.3	19.0	20.8
	6 hr	5.4	6.5	7.2	7.9	8.1	8.8	9.5
	12 hr	3.3	3.9	4.4	4.7	4.9	5.3	5.7
	24 hr	1.9	2.3	2.5	2.7	2.8	3.1	3.3

Table 5-8 - Deer Lake Projected IDF Tables, 2080 Time Period, Precipitation intensities over the specified duration, mm/hr

		Maximum, 2080 timeframe						
		Return period (years)						
		2	5	10	20	25	50	100
Storm Duration	5 min	55.8	77.7	91.7	105.1	109.4	122.4	135.4
	10 min	40.8	55.0	64.3	73.1	75.9	84.5	92.9
	15 min	31.8	41.9	48.5	54.8	56.8	63.0	69.1
	30 min	25.8	31.3	34.9	38.3	39.3	42.7	45.9
	1 hr	17.7	21.0	23.2	25.2	25.8	27.8	29.8
	2 hr	12.6	15.6	17.6	19.4	20.0	21.7	23.6
	6 hr	6.6	7.6	8.3	9.0	9.2	9.9	10.6
	12 hr	3.8	4.3	4.8	5.2	5.3	5.7	6.1
	24 hr	2.2	2.6	2.8	3.0	3.1	3.4	3.6

		90th Percentile, 2080 Time Period						
		Return period (years)						
		2	5	10	20	25	50	100
Storm Duration	5 min	53.2	75.2	89.4	103.0	107.4	120.6	133.7
	10 min	39.8	54.0	63.4	72.2	75.0	83.6	92.2
	15 min	30.6	40.8	47.4	53.9	55.9	62.1	68.4
	30 min	24.0	29.5	33.2	36.6	37.6	41.1	44.4
	1 hr	16.3	19.7	21.9	24.0	24.6	26.7	28.7
	2 hr	11.6	14.6	16.5	18.3	18.9	20.6	22.5
	6 hr	6.1	7.2	7.8	8.5	8.7	9.4	10.1
	12 hr	3.6	4.2	4.7	5.0	5.1	5.5	6.0
	24 hr	2.1	2.5	2.7	2.9	3.0	3.3	3.5

		Mean, 2080 Time Period						
		Return period (years)						
		2	5	10	20	25	50	100
Storm Duration	5 min	50.4	72.5	86.9	100.7	105.2	118.6	132.0
	10 min	37.5	51.7	61.2	70.1	73.0	81.7	90.4
	15 min	29.3	39.6	46.3	52.9	54.9	61.2	67.5
	30 min	22.0	27.6	31.3	34.8	35.9	39.4	42.8
	1 hr	15.0	18.3	20.6	22.7	23.3	25.5	27.5
	2 hr	10.6	13.5	15.4	17.1	17.7	19.4	21.3
	6 hr	5.6	6.7	7.4	8.1	8.3	9.0	9.7
	12 hr	3.3	3.9	4.4	4.8	4.9	5.3	5.7
	24 hr	1.9	2.3	2.5	2.8	2.8	3.1	3.3

Table 5-9 - St. John's A Projected IDF Tables, 2020 Time Period, Precipitation intensities over the specified duration, mm/hr

		Maximum, 2020 timeframe						
		Return period (years)						
		2	5	10	20	25	50	100
Storm Duration	5 min	59.1	79.7	93.3	106.4	110.5	123.2	135.9
	10 min	45.5	59.3	68.4	77.2	79.9	88.6	97.0
	15 min	38.3	50.1	57.9	65.5	67.9	75.2	82.5
	30 min	28.2	36.0	41.0	45.9	47.5	52.2	57.0
	1 hr	20.2	25.0	28.1	31.1	32.0	35.0	37.9
	2 hr	13.8	17.7	20.3	22.8	23.6	26.0	28.4
	6 hr	7.6	9.3	10.4	11.4	11.7	12.7	13.8
	12 hr	5.0	5.8	6.4	7.1	7.2	7.8	8.4
	24 hr	3.0	3.5	3.9	4.2	4.2	4.6	4.9

		90th Percentile, 2020 Time Period						
		Return period (years)						
		2	5	10	20	25	50	100
Storm Duration	5 min	58.3	79.0	92.6	105.7	109.9	122.6	135.3
	10 min	44.6	58.5	67.7	76.5	79.3	87.9	96.4
	15 min	37.6	49.5	57.3	64.8	67.3	74.6	81.9
	30 min	27.5	35.3	40.4	45.3	46.9	51.7	56.5
	1 hr	19.6	24.4	27.6	30.6	31.5	34.4	37.4
	2 hr	13.4	17.3	19.9	22.4	23.2	25.6	28.0
	6 hr	7.4	9.0	10.1	11.2	11.5	12.5	13.6
	12 hr	4.8	5.7	6.3	6.9	7.1	7.7	8.3
	24 hr	2.9	3.3	3.7	4.1	4.1	4.5	4.8

		Mean, 2020 Time Period						
		Return period (years)						
		2	5	10	20	25	50	100
Storm Duration	5 min	57.5	78.2	91.9	105.1	109.2	122.0	134.7
	10 min	42.6	56.6	65.9	74.8	77.6	86.4	94.9
	15 min	35.8	47.8	55.6	63.2	65.7	73.1	80.4
	30 min	25.8	33.6	38.8	43.8	45.4	50.2	55.1
	1 hr	18.1	23.0	26.2	29.2	30.2	33.2	36.1
	2 hr	12.4	16.3	18.9	21.4	22.2	24.6	27.0
	6 hr	6.9	8.6	9.7	10.7	11.1	12.1	13.2
	12 hr	4.4	5.3	5.9	6.6	6.7	7.3	7.9
	24 hr	2.6	3.1	3.5	3.9	3.9	4.3	4.6

Table 5-10 - St. John's A Projected IDF Tables, 2050 Time Period, Precipitation intensities over the specified duration, mm/hr

		Maximum, 2050 timeframe						
		Return period (years)						
		2	5	10	20	25	50	100
Storm Duration	5 min	60.9	81.3	94.8	107.8	111.9	124.5	137.0
	10 min	47.2	60.9	69.9	78.6	81.4	89.9	98.3
	15 min	39.9	51.6	59.3	66.8	69.3	76.5	83.8
	30 min	29.7	37.4	42.4	47.2	48.8	53.5	58.2
	1 hr	21.5	26.2	29.3	32.3	33.2	36.1	39.0
	2 hr	14.6	18.5	21.2	23.6	24.5	26.9	29.3
	6 hr	8.0	9.7	10.8	11.8	12.2	13.2	14.3
	12 hr	5.3	6.2	6.7	7.3	7.5	8.1	8.7
	24 hr	3.2	3.6	4.0	4.4	4.4	4.8	5.1

		90th Percentile, 2050 Time Period						
		Return period (years)						
		2	5	10	20	25	50	100
Storm Duration	5 min	60.2	80.7	94.2	107.2	111.3	124.0	136.6
	10 min	45.0	58.9	68.0	76.8	79.6	88.2	96.7
	15 min	37.9	49.8	57.6	65.1	67.6	74.9	82.2
	30 min	27.8	35.6	40.7	45.6	47.1	51.9	56.7
	1 hr	19.9	24.7	27.8	30.8	31.7	34.7	37.6
	2 hr	13.6	17.5	20.1	22.6	23.4	25.8	28.2
	6 hr	7.7	9.3	10.4	11.5	11.8	12.8	13.9
	12 hr	5.0	5.9	6.5	7.1	7.3	7.9	8.5
	24 hr	3.0	3.5	3.9	4.2	4.3	4.7	5.0

		Mean, 2050 Time Period						
		Return period (years)						
		2	5	10	20	25	50	100
Storm Duration	5 min	58.7	79.3	92.9	106.0	110.1	122.9	135.6
	10 min	43.2	57.2	66.4	75.3	78.1	86.8	95.4
	15 min	36.3	48.2	56.1	63.7	66.1	73.5	80.9
	30 min	26.3	34.1	39.3	44.2	45.8	50.6	55.5
	1 hr	18.6	23.4	26.6	29.6	30.6	33.5	36.5
	2 hr	12.7	16.6	19.2	21.7	22.5	24.9	27.3
	6 hr	7.0	8.7	9.8	10.8	11.2	12.2	13.3
	12 hr	4.5	5.4	6.0	6.6	6.8	7.4	8.0
	24 hr	2.7	3.2	3.6	3.9	4.0	4.4	4.7

Table 5-11 - St. John's A Projected IDF Tables, 2080 Time Period, Precipitation intensities over the specified duration, mm/hr

		Maximum, 2080 timeframe						
		Return period (years)						
		2	5	10	20	25	50	100
Storm Duration	5 min	63.7	83.9	97.3	110.1	114.1	126.6	139.0
	10 min	47.4	61.1	70.1	78.8	81.5	90.1	98.4
	15 min	40.0	51.8	59.5	67.0	69.4	76.7	83.9
	30 min	29.8	37.5	42.6	47.4	48.9	53.6	58.3
	1 hr	21.6	26.4	29.5	32.4	33.3	36.2	39.1
	2 hr	14.7	18.6	21.3	23.7	24.6	27.0	29.4
	6 hr	8.6	10.2	11.3	12.4	12.7	13.7	14.8
	12 hr	5.7	6.5	7.1	7.7	7.9	8.5	9.1
	24 hr	3.4	3.9	4.3	4.6	4.7	5.1	5.4

		90th Percentile, 2080 Time Period						
		Return period (years)						
		2	5	10	20	25	50	100
Storm Duration	5 min	62.3	82.6	96.1	109.0	113.0	125.5	138.0
	10 min	46.0	59.8	68.9	77.6	80.4	89.0	97.4
	15 min	38.8	50.6	58.4	65.9	68.3	75.6	82.9
	30 min	28.7	36.4	41.5	46.4	47.9	52.6	57.4
	1 hr	20.6	25.4	28.5	31.5	32.4	35.3	38.2
	2 hr	14.0	18.0	20.6	23.1	23.9	26.3	28.7
	6 hr	7.7	9.4	10.4	11.5	11.8	12.8	13.9
	12 hr	5.0	5.9	6.5	7.1	7.3	7.9	8.5
	24 hr	3.0	3.5	3.9	4.2	4.3	4.7	5.0

		Mean, 2080 Time Period						
		Return period (years)						
		2	5	10	20	25	50	100
Storm Duration	5 min	60.0	80.5	94.0	107.0	111.1	123.8	136.4
	10 min	43.5	57.5	66.7	75.6	78.4	87.1	95.6
	15 min	36.6	48.5	56.4	64.0	66.4	73.8	81.1
	30 min	26.5	34.4	39.5	44.5	46.0	50.9	55.7
	1 hr	18.8	23.7	26.8	29.8	30.8	33.7	36.7
	2 hr	12.8	16.7	19.4	21.8	22.7	25.1	27.5
	6 hr	7.0	8.7	9.8	10.9	11.2	12.2	13.3
	12 hr	4.5	5.4	6.0	6.7	6.8	7.4	8.0
	24 hr	2.7	3.2	3.6	3.9	4.0	4.4	4.7

Table 5-12 - St. John's Composite Record, Updated March 2012 Projected IDF Tables, 2020 Time Period, Precipitation intensities over the specified duration, mm/hr

		Maximum, 2020 timeframe					
		Return period (years)					
		2	5	10	20	50	100
Storm Duration	5 min	57.9	76.3	88.4	100.1	115.3	126.6
	10 min	45.5	58.1	66.3	74.5	85.1	92.7
	15 min	39.2	50.0	57.1	63.7	72.8	79.5
	30 min	29.7	37.7	43.0	48.3	54.7	59.7
	1 hr	21.7	27.7	31.6	35.3	40.1	43.6
	2 hr	14.9	19.6	22.6	25.5	29.2	32.1
	6 hr	8.3	10.5	12.0	13.4	15.2	16.6
	12 hr	5.3	6.7	7.7	8.7	9.9	10.8
	24 hr	3.2	4.0	4.5	5.0	5.6	6.1

		90th Percentile, 2020 Time Period					
		Return period (years)					
		2	5	10	20	50	100
Storm Duration	5 min	57.1	75.6	87.7	99.5	114.7	126.1
	10 min	44.6	57.4	65.6	73.8	84.5	92.1
	15 min	38.5	49.4	56.4	63.1	72.2	78.9
	30 min	28.9	37.0	42.3	47.6	54.1	59.2
	1 hr	21.1	27.1	30.9	34.7	39.5	43.1
	2 hr	14.5	19.1	22.2	25.1	28.8	31.6
	6 hr	8.0	10.2	11.7	13.1	14.9	16.3
	12 hr	5.1	6.5	7.6	8.5	9.7	10.6
	24 hr	3.1	3.9	4.4	4.9	5.5	6.0

		Mean, 2020 Time Period					
		Return period (years)					
		2	5	10	20	50	100
Storm Duration	5 min	56.2	74.8	87.0	98.9	114.2	125.6
	10 min	42.6	55.5	63.9	72.2	83.0	90.7
	15 min	36.6	47.7	54.8	61.6	70.7	77.5
	30 min	27.1	35.3	40.6	46.0	52.6	57.7
	1 hr	19.5	25.5	29.4	33.2	38.0	41.6
	2 hr	13.4	18.1	21.1	24.0	27.7	30.5
	6 hr	7.5	9.7	11.2	12.6	14.4	15.8
	12 hr	4.7	6.1	7.1	8.0	9.3	10.2
	24 hr	2.8	3.6	4.1	4.6	5.2	5.7

Table 5-13 - St. John's Composite Record, Updated March 2012 Projected IDF Tables, 2050 Time Period, Precipitation intensities over the specified duration, mm/hr

		Maximum, 2050 timeframe					
		Return period (years)					
		2	5	10	20	50	100
Storm Duration	5 min	59.6	77.8	89.8	101.4	116.5	127.7
	10 min	47.2	59.7	67.8	75.9	86.3	93.9
	15 min	40.8	51.5	58.5	65.1	74.1	80.7
	30 min	31.2	39.2	44.4	49.6	56.0	61.0
	1 hr	23.1	29.1	32.9	36.6	41.4	44.9
	2 hr	15.8	20.5	23.6	26.5	30.2	33.0
	6 hr	8.7	10.9	12.5	13.9	15.7	17.1
	12 hr	5.7	7.1	8.1	9.0	10.2	11.1
	24 hr	3.4	4.2	4.7	5.2	5.8	6.4

		90th Percentile, 2050 Time Period					
		Return period (years)					
		2	5	10	20	50	100
Storm Duration	5 min	58.9	77.2	89.2	100.9	116.0	127.3
	10 min	45.0	57.7	65.9	74.1	84.7	92.4
	15 min	38.8	49.7	56.7	63.4	72.5	79.2
	30 min	29.3	37.3	42.6	47.9	54.3	59.4
	1 hr	21.4	27.4	31.2	35.0	39.8	43.3
	2 hr	14.7	19.4	22.4	25.3	29.0	31.8
	6 hr	8.3	10.5	12.1	13.5	15.3	16.7
	12 hr	5.4	6.8	7.8	8.7	9.9	10.8
	24 hr	3.2	4.0	4.5	5.1	5.7	6.2

		Mean, 2050 Time Period					
		Return period (years)					
		2	5	10	20	50	100
Storm Duration	5 min	57.4	75.9	88.0	99.8	115.0	126.3
	10 min	43.2	56.1	64.4	72.7	83.4	91.1
	15 min	37.1	48.1	55.3	62.0	71.2	77.9
	30 min	27.6	35.8	41.1	46.5	53.0	58.1
	1 hr	19.9	25.9	29.8	33.6	38.5	42.0
	2 hr	13.7	18.4	21.4	24.3	28.0	30.8
	6 hr	7.6	9.8	11.3	12.7	14.5	15.9
	12 hr	4.8	6.2	7.2	8.1	9.4	10.3
	24 hr	2.9	3.7	4.2	4.7	5.3	5.8

Table 5-14 - St. John's Composite Record, Updated March 2012 Projected IDF Tables, 2080 Time Period, Precipitation intensities over the specified duration, mm/hr

		Maximum, 2080 timeframe					
		Return period (years)					
		2	5	10	20	50	100
Storm Duration	5 min	62.4	80.3	92.1	103.6	118.4	129.5
	10 min	47.4	59.9	67.9	76.0	86.5	94.0
	15 min	40.9	51.7	58.6	65.2	74.2	80.9
	30 min	31.4	39.4	44.6	49.8	56.1	61.1
	1 hr	23.2	29.2	33.0	36.8	41.5	45.0
	2 hr	15.9	20.6	23.7	26.6	30.3	33.1
	6 hr	9.3	11.5	13.1	14.5	16.3	17.7
	12 hr	6.1	7.5	8.6	9.5	10.7	11.6
	24 hr	3.7	4.5	5.0	5.5	6.1	6.7

		90th Percentile, 2080 Time Period					
		Return period (years)					
		2	5	10	20	50	100
Storm Duration	5 min	61.0	79.1	91.0	102.5	117.5	128.6
	10 min	46.0	58.6	66.8	74.9	85.5	93.1
	15 min	39.7	50.5	57.5	64.2	73.2	79.9
	30 min	30.2	38.2	43.4	48.7	55.1	60.1
	1 hr	22.1	28.1	32.0	35.7	40.5	44.1
	2 hr	15.2	19.9	22.9	25.8	29.6	32.4
	6 hr	8.4	10.6	12.1	13.5	15.3	16.7
	12 hr	5.4	6.8	7.8	8.7	9.9	10.9
	24 hr	3.2	4.1	4.6	5.1	5.7	6.2

		Mean, 2080 Time Period					
		Return period (years)					
		2	5	10	20	50	100
Storm Duration	5 min	58.7	77.0	89.1	100.7	115.8	127.2
	10 min	43.5	56.4	64.6	72.9	83.6	91.3
	15 min	37.5	48.4	55.5	62.3	71.4	78.2
	30 min	27.9	36.1	41.4	46.7	53.2	58.4
	1 hr	20.2	26.2	30.1	33.9	38.7	42.3
	2 hr	13.9	18.5	21.6	24.5	28.2	31.0
	6 hr	7.6	9.8	11.3	12.7	14.5	15.9
	12 hr	4.9	6.3	7.3	8.2	9.4	10.3
	24 hr	2.9	3.7	4.2	4.7	5.3	5.8

Table 5-15 - St. John's A Projected IDF Tables, values from Other Researchers, 2020, 2050, 2080 timeframes, Precipitation Intensities, mm/hr

Historical Baseline							
		Return Interval					
Model Source	Storm Duration	2 yr	5 yr	10 yr	20 yr	50 yr	100 yr
Finnis	24hr						
Lines (CGCM2)	24hr			3.2		3.8	4.1
Lines (HadCM3)	24hr			3.2		3.8	4.1
Finnis	12hr						

2020 Timeframe							
		Return Interval					
Model Source	Storm Duration	2 yr	5 yr	10 yr	20 yr	50 yr	100 yr
Finnis	24hr						
Lines (CGCM2)	24hr			4.7	5.4	6.2	6.9
Lines (HadCM3)	24hr			4.3	4.8	5.4	5.8
Finnis	12hr						

2050 Timeframe							
		Return Interval					
Model Source	Storm Duration	2 yr	5 yr	10 yr	20 yr	50 yr	100 yr
Finnis	24hr	3.2	3.9	4.5	5.0	5.7	6.3
Lines (CGCM2)	24hr			4.9	5.7	6.7	7.4
Lines (HadCM3)	24hr			5.8	6.9	8.3	9.3
Finnis	12hr	5.6	6.9	7.9	8.9	10.2	11.2

2080 Timeframe							
		Return Interval					
Model Source	Storm Duration	2 yr	5 yr	10 yr	20 yr	50 yr	100 yr
Finnis	24hr						
Lines (CGCM2)	24hr			4.5	5.0	5.6	6.1
Lines (HadCM3)	24hr			4.6	5.3	6.1	6.8
Finnis	12hr						

5.3 Interpreting Uncertainty

Uncertainty reflects imperfection in our state of knowledge, as distinguished from variability, which is the effect of random processes. In practice, such a distinction is not as clear cut, for example, the variability in atmospheric processes leads to considerable uncertainty about tomorrow's weather. Nevertheless, it is important to respect the distinction, because while variability can be addressed in quantitative ways, uncertainty must be addressed, at least in part, by subjective judgment (Vick, 2002). Accordingly, deciding how to use the results of this work in the face of uncertainty will be a policy decision. Some background on the sources of uncertainty and suggestions on how to consider the results herein are provided in the following paragraphs.

Barsugli, et al. (2009) identified the following sources of uncertainty in projections of future climate conditions:

Climate Drivers—The anthropogenic component of climate drivers is greenhouse gas emissions which are formally quantified in emission scenarios. These scenarios in turn depend on projections of future socio-economic, demographic and technical factors.

Climate Sensitivity—This is represented by the climate models themselves. The imperfections in climate models arise from coarse resolution, limitations in simulation of feedback mechanisms, limited knowledge of initial conditions and a number of other factors.

Downscaling—This is required because of the coarse resolution of climate models and the local nature of impact assessments. All downscaling techniques introduce uncertainty.

In addition, there is uncertainty in the models used to assess impact. These can include hydrologic models, statistical models (as is the case in this work), hydraulic models and operations models.

Wilby and Harris (2006) found that the greatest uncertainty in climate impact studies arose from the climate models themselves, followed, in order, by the downscaling method, the hydrology model structure, hydrology model parameters (i.e. the calibration of the model) and finally by the uncertainty in future emissions scenarios.

Uncertainty in climate drivers and climate sensitivity can be represented by using a large number (an *ensemble*) of climate projections. Fortunately, reasonably large ensembles of climate projections are available and can be obtained with a relatively low effort. However, the readily available projections of climate conditions are derived using one downscaling technique, so the uncertainty inherent in downscaling is not represented in the projection ensemble. This uncertainty may be considerable.

The additional uncertainty arising from impact models is not ordinarily evaluated in impact studies, as using multiple hydrologic models, each with multiple calibrations along with multiple hydraulic or operations models, is simply too costly for most agencies. However, it is important to recognize that decision-makers have routinely relied on the results of impact models as the basis for planning and operational decisions, and thus have implicitly accepted the uncertainties in those models.

This work involves a statistical model that, strictly speaking, serves as a second downscaling method. The model takes as inputs projections of climate conditions, downscaled to average conditions over a 1/2 degree grid cell and further downscales those conditions to a single point, in this case the Deer Lake and St. John's A Stations. The model also relates monthly average conditions to monthly, and eventually annual, extreme events. The model assumes that there is a causal relationship between monthly values of the predictor variables (total precipitation and average temperature) and monthly and annual maximum precipitation intensities, and that that relationship will remain unchanged as climate evolves. It can be safely assumed that in strict terms this assumption will not hold up, but it is the basis, at some level, of all estimates of future conditions.

The results presented herein represent one estimate of the range of future extreme precipitation intensity. That range is informed by the range of future projections of monthly average climate conditions, which themselves reflect the range of emissions scenarios and the different degrees of climate sensitivity among the GCMs. However, it is exceedingly important to recognize that an ensemble of projections, such as the one used in this study, may not capture the full range of uncertainty. That is, there is some unknown and unknowable probability that the actual future conditions are not contained in the range of projections in any given ensemble. Further, as noted above, there is additional uncertainty inherent in the downscaling technique and the statistical model that are not reflected in the currently-available ensembles.

Accordingly, the results of this work should be used in combination with all relevant sources of information, including recent experience, and with careful professional judgment.

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Appendix A. Model Parameters

Table A1. Model Parameter Descriptions

Parameter	Description	Parameter	Description	Parameter	Description	Parameter	Description
Mu0	Location parameter	Xi	Shape parameter	Sigma SE	Standard error sigma	AIC	Akaike Information Criterion
Mu1	Slope of Mu	MU0 SE	Standard Error Mu0	Xi SE	Standard error Xi	p.val	P-value
Sigma	Scale parameter	MU1 SE	Standard Error Mu1	llh	Log likelihood		

Table A2. Deer Lake Model Parameter Values (Seasonal Fitted Model; 5 min, 10 min, 15 min, 30 min, 1 hr, 2 hr, 6 hr, 12 hr, 24 hr)

5_min	No Cov.	P	T	PxT
Mu0	1.41	1.00	0.58	1.06
Mu1		4.27E-03	0.08	3.65E-04
Sigma	0.79	0.75	0.75	0.68
Xi	0.27	0.29	0.16	0.31
MU0 SE	0.06	0.11	0.15	0.06
MU1 SE		1.07E-03	0.01	2.00E-06
Sigma SE	0.05	0.07	0.05	0.07
Xi SE	0.07	0.05	0.05	0.05
llh	-310.99	-304.25	-287.79	-285.04
AIC	623.99	610.51	577.59	572.08
p.val		0.02%	0.00%	0.00%

10_min	No Cov.	P	T	PxT
Mu0	2.08	1.47	0.99	2.03
Mu1		6.37E-03	0.10	4.78E-05
Sigma	1.14	1.07	1.07	1.18
Xi	0.25	0.28	0.18	0.27
MU0 SE	0.09	0.16	0.21	0.09
MU1 SE		1.47E-03	0.02	2.00E-06
Sigma SE	0.07	0.07	0.06	0.07
Xi SE	0.06	0.07	0.07	0.08
llh	-384.70	-376.29	-363.89	-382.56
AIC	771.41	754.58	729.78	767.12
p.val		0.00%	0.00%	3.83%

15_min	No Cov.	P	T	PxT
Mu0	2.67	1.80	1.37	2.20
Mu1		9.33E-03	0.12	5.06E-04
Sigma	1.37	1.28	1.28	1.19
Xi	0.22	0.25	0.18	0.23
MU0 SE	0.11	0.20	0.24	0.10
MU1 SE		1.87E-03	0.02	2.01E-06
Sigma SE	0.09	0.06	0.06	0.06
Xi SE	0.06	0.08	0.08	0.08
llh	-420.16	-409.05	-399.93	-396.36
AIC	842.31	820.11	801.85	794.73
p.val		0.00%	0.00%	0.00%

30_min	No Cov.	P	T	PxT
Mu0	3.95	2.37	2.21	2.11
Mu1		0.02	0.16	2.02E-03
Sigma	1.90	1.69	1.79	1.64
Xi	0.17	0.21	0.12	0.14
MU0 SE	0.15	0.26	0.36	0.12
MU1 SE		2.46E-03	0.03	NA
Sigma SE	0.12	0.06	0.06	NA
Xi SE	0.06	0.11	0.11	0.05
llh	-481.55	-462.75	-464.72	-429.08
AIC	965.10	927.50	931.44	860.16
p.val		0.00%	0.00%	0.00%

1_hr	No Cov.	P	T	PxT
Mu0	5.86	3.24	3.44	3.01
Mu1		0.03	0.22	2.88E-03
Sigma	2.64	2.33	2.54	1.90
Xi	0.09	0.10	0.04	0.14
MU0 SE	0.21	0.39	0.53	0.15
MU1 SE		3.77E-03	0.05	NA
Sigma SE	0.16	0.06	0.05	NA
Xi SE	0.05	0.14	0.15	NA
llh	-541.22	-516.50	-527.04	-479.07
AIC	1084.44	1035.00	1056.07	960.15
p.val		0.00%	0.00%	0.00%

2_hr	No Cov.	P	T	PxT
Mu0	8.46	3.66	5.61	3.91
Mu1		0.05	0.26	4.69E-03
Sigma	3.78	3.28	3.73	2.73
Xi	0.03	-0.03	-0.02	-7.16E-03
MU0 SE	0.30	0.61	0.79	0.39
MU1 SE		6.19E-03	0.07	3.46E-04
Sigma SE	0.22	0.05	0.05	0.07
Xi SE	0.05	0.18	0.21	0.17
llh	-608.40	-571.01	-599.72	-537.11
AIC	1218.80	1144.03	1201.44	1076.23
p.val		0.00%	0.00%	0.00%

6_hr	No Cov.	P	T	PxT
Mu0	14.09	4.62	11.99	7.24
Mu1		0.11	0.19	6.86E-03
Sigma	6.43	5.30	6.44	5.01
Xi	-0.02	-0.09	-0.04	-0.04
MU0 SE	0.50	1.01	1.29	0.70
MU1 SE		0.01	0.11	5.69E-04
Sigma SE	0.36	0.04	0.05	0.05
Xi SE	0.05	0.28	0.37	0.28
llh	-713.12	-662.34	-711.50	-659.46
AIC	1428.24	1326.68	1425.01	1320.93
p.val		0.00%	7.21%	0.00%

12_hr	No Cov.	P	T	PxT
Mu0	17.06	4.34	15.35	8.57
Mu1		0.15	0.15	8.33E-03
Sigma	8.17	6.54	8.17	6.48
Xi	-0.05	-0.12	-0.06	-0.05
MU0 SE	0.63	1.25	1.64	0.91
MU1 SE		0.01	0.13	7.07E-04
Sigma SE	0.45	0.04	0.05	0.04
Xi SE	0.05	0.33	0.45	0.35
llh	-758.95	-702.20	-758.31	-710.28
AIC	1519.91	1406.40	1518.61	1422.56
p.val		0.00%	25.52%	0.00%

24_hr	No Cov.	P	T	PxT
Mu0	19.09	4.97	18.78	10.08
Mu1		0.16	0.03	8.86E-03
Sigma	8.79	6.54	8.79	7.03
Xi	-0.04	-0.08	-0.04	-0.04
MU0 SE	0.68	1.24	1.75	0.98
MU1 SE		0.01	0.14	7.69E-04
Sigma SE	0.49	0.04	0.05	0.04
Xi SE	0.05	0.34	0.49	0.39
llh	-775.59	-706.72	-775.57	-728.59
AIC	1553.17	1415.44	1553.13	1459.18
p.val		0.00%	84.53%	0.00%

**Highlighted p.val cells indicate that the model was found to be statistically significant for that predictor variable. Yellow variable highlights indicate the minimum AIC of the three predictor variables and statistical significance*

Table A3. St John's Model Parameter Values (Seasonal Fitted Model; 5 min, 10 min, 15 min, 30 min, 1 hr, 2 hr, 6 hr, 12 hr, 24 hr)

5_min	No Cov.	P	T	PxT
Mu0	1.86	1.40	1.11	1.93
Mu1		4.10E-03	0.07	-1.95E-19
Sigma	0.97	0.92	0.93	1.26
Xi	0.21	0.24	0.20	0.10
MU0 SE	0.08	0.13	0.18	0.09
MU1 SE		9.55E-04	0.02	5.27E-06
Sigma SE	0.06	0.07	0.07	0.09
Xi SE	0.06	0.06	0.06	0.12
llh	-341.24	-333.34	-329.88	-349.68
AIC	684.49	668.69	661.77	701.36
p.val		0.01%	0.00%	0.00%

10_min	No Cov.	P	T	PxT
Mu0	2.82	2.01	1.55	2.16
Mu1		7.15E-03	0.12	4.28E-04
Sigma	1.44	1.33	1.38	1.16
Xi	0.15	0.21	0.12	0.14
MU0 SE	0.12	0.18	0.28	0.10
MU1 SE		1.37E-03	0.03	3.18E-06
Sigma SE	0.09	0.07	0.06	0.08
Xi SE	0.06	0.09	0.09	0.10
llh	-415.18	-404.73	-401.49	-400.75
AIC	832.35	811.47	804.98	803.51
p.val		0.00%	0.00%	0.00%

15_min	No Cov.	P	T	PxT
Mu0	3.65	2.51	2.09	2.98
Mu1		0.01	0.15	6.33E-04
Sigma	1.80	1.64	1.70	1.60
Xi	0.14	0.20	0.12	0.09
MU0 SE	0.14	0.23	0.33	0.13
MU1 SE		1.76E-03	0.03	7.12E-06
Sigma SE	0.11	0.06	0.05	0.05
Xi SE	0.06	0.10	0.10	0.11
llh	-458.28	-445.89	-444.13	-438.02
AIC	918.55	893.78	890.26	878.04
p.val		0.00%	0.00%	0.00%

30_min	No Cov.	P	T	PxT
Mu0	5.55	3.58	3.51	4.26
Mu1		0.02	0.20	1.37E-03
Sigma	2.56	2.25	2.44	2.18
Xi	0.11	0.18	0.10	0.14
MU0 SE	0.20	0.33	0.48	0.17
MU1 SE		2.50E-03	0.04	5.77E-06
Sigma SE	0.15	0.06	0.05	0.05
Xi SE	0.05	0.14	0.14	0.14
llh	-526.93	-509.23	-516.02	-495.65
AIC	1055.85	1020.46	1034.05	993.31
p.val		0.00%	0.00%	0.00%

1_hr	No Cov.	P	T	PxT
Mu0	8.16	5.08	5.37	5.60
Mu1		0.03	0.26	2.45E-03
Sigma	3.72	3.29	3.57	2.88
Xi	0.06	0.10	0.05	0.09
MU0 SE	0.29	0.50	0.72	0.23
MU1 SE		3.94E-03	0.06	7.39E-05
Sigma SE	0.21	0.05	0.05	0.05
Xi SE	0.05	0.19	0.21	0.16
llh	-596.66	-576.18	-587.73	-559.33
AIC	1195.32	1154.37	1177.47	1120.65
p.val		0.00%	0.00%	0.00%

2_hr	No Cov.	P	T	PxT
Mu0	11.75	6.53	8.76	8.14
Mu1		0.05	0.28	3.44E-03
Sigma	5.40	4.52	5.30	4.38
Xi	-0.01	0.03	-0.01	7.20E-03
MU0 SE	0.42	0.66	1.09	0.42
MU1 SE		5.18E-03	0.09	2.77E-04
Sigma SE	0.30	0.04	0.04	0.05
Xi SE	0.04	0.25	0.29	0.25
llh	-664.00	-632.21	-659.54	-624.97
AIC	1330.01	1266.42	1321.07	1251.94
p.val		0.00%	0.28%	0.00%

6_hr	No Cov.	P	T	PxT
Mu0	18.78	7.39	17.09	10.63
Mu1		0.11	0.15	7.68E-03
Sigma	9.15	6.75	9.12	7.13
Xi	-0.04	-0.01	-0.04	-0.03
MU0 SE	0.71	1.02	1.89	0.80
MU1 SE		8.23E-03	0.16	5.61E-04
Sigma SE	0.50	0.04	0.04	0.05
Xi SE	0.04	0.37	0.50	0.40
llh	-767.45	-709.19	-766.98	-718.62
AIC	1536.90	1420.38	1535.97	1439.24
p.val		0.00%	33.38%	0.00%

12_hr	No Cov.	P	T	PxT
Mu0	22.01	6.40	21.76	11.11
Mu1		0.15	0.02	0.01
Sigma	11.27	7.96	11.26	9.00
Xi	-0.04	-0.02	-0.04	-0.06
MU0 SE	0.88	1.28	2.34	1.15
MU1 SE		0.01	0.19	8.78E-04
Sigma SE	0.63	0.05	0.05	0.06
Xi SE	0.05	0.44	0.63	0.53
llh	-811.37	-741.87	-811.36	-764.36
AIC	1624.74	1485.73	1624.73	1530.73
p.val		0.00%	91.07%	0.00%

24_hr	No Cov.	P	T	PxT
Mu0	24.49	5.63	25.24	10.92
Mu1		0.19	-0.07	0.01
Sigma	12.37	7.96	12.38	9.14
Xi	-0.03	-1.24E-03	-0.03	-2.41E-03
MU0 SE	0.98	1.34	2.58	1.13
MU1 SE		0.01	0.21	8.21E-04
Sigma SE	0.72	0.06	0.05	0.06
Xi SE	0.06	0.48	0.72	0.56
llh	-832.60	-745.43	-832.55	-774.26
AIC	1667.20	1492.86	1667.10	1550.52
p.val		0.00%	75.24%	0.00%

**Highlighted p.val cells indicate that the model was found to be statistically significant for that predictor variable. Yellow variable highlights indicate the minimum AIC of the three predictor variables and statistical significance*

APPENDIX E

1:20 AND 1:100 AEP FLOOD RISK MAPPING – 2012 – EXISTING CONDITIONS

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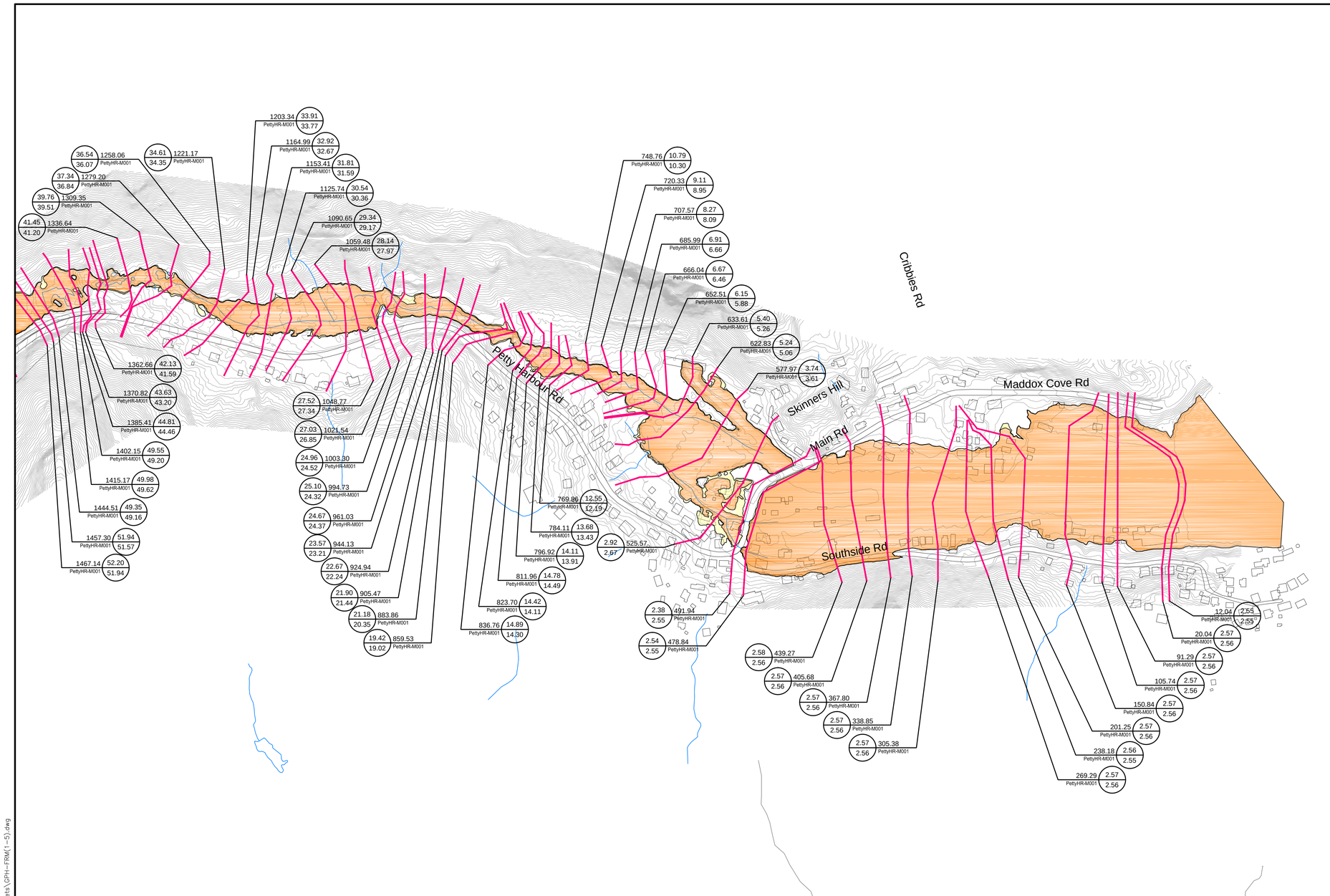

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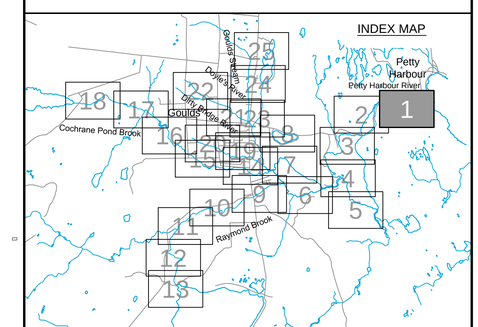
Flood Risk Map
Goulds\Petty Harbour

Existing Conditions - 2012

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream



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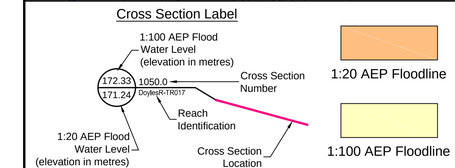

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Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

Sheet 1 of 25

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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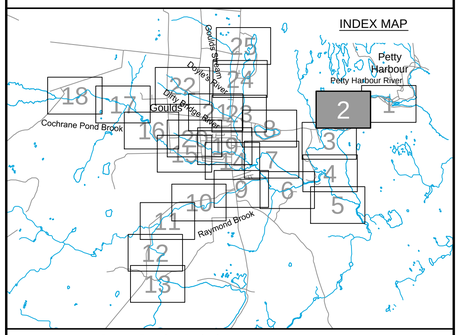
and Goulds Stream

INDEX MAP



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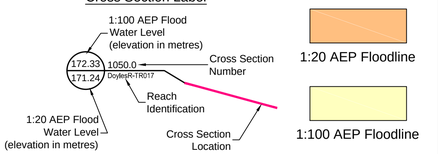

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REVISIONS

No.	Description	BY	DATE

Sheet 2 of 25

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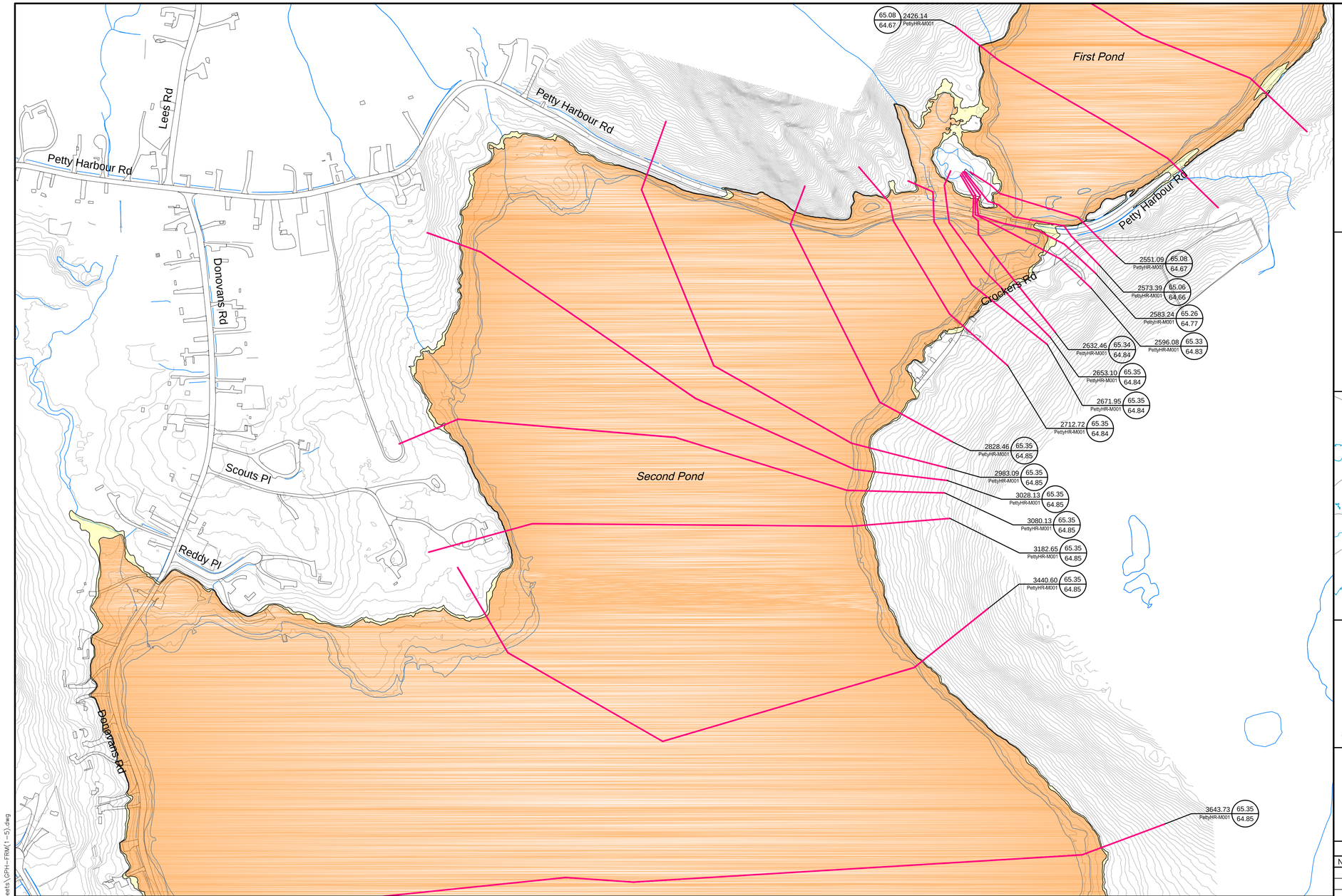

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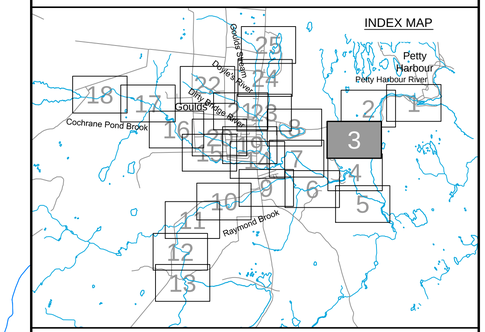
INDEX MAP



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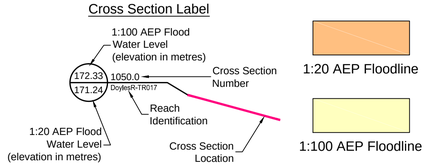

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REVISIONS

No.	Description	BY	DATE

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Scale 1:2500

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Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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Sheet 3 of 25

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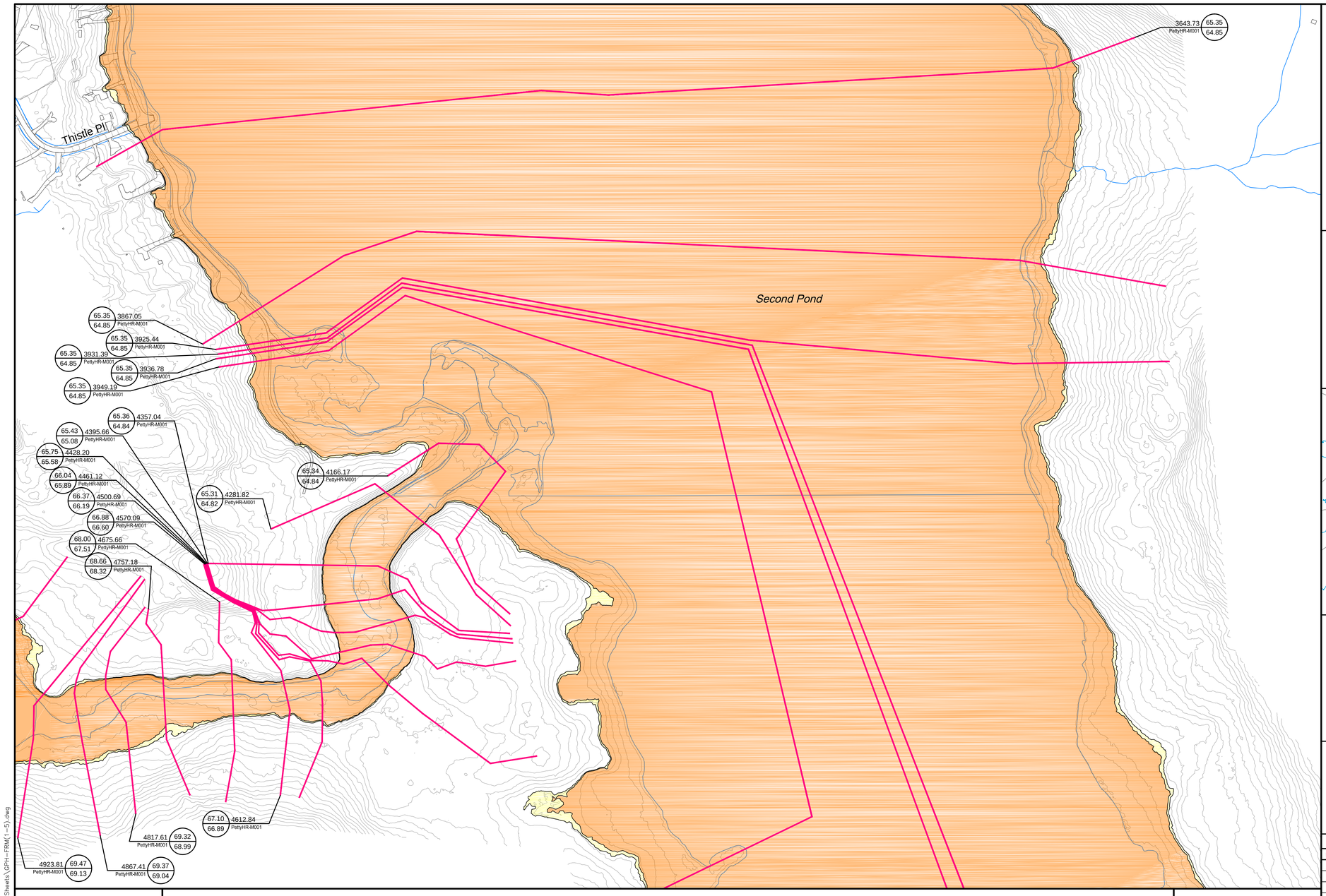

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150
Metres Metres
300 0 300 600 900
Feet Feet

CONTOUR INTERVAL: 1.0 METRES

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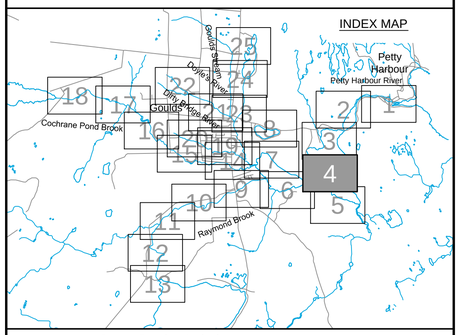
INDEX MAP



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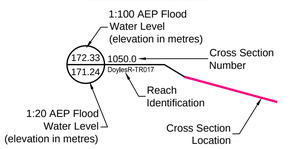

1:20 AEP Floodline

1:100 AEP Floodline

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REVISIONS

No.	Description	BY	DATE

Sheet 4 of 25

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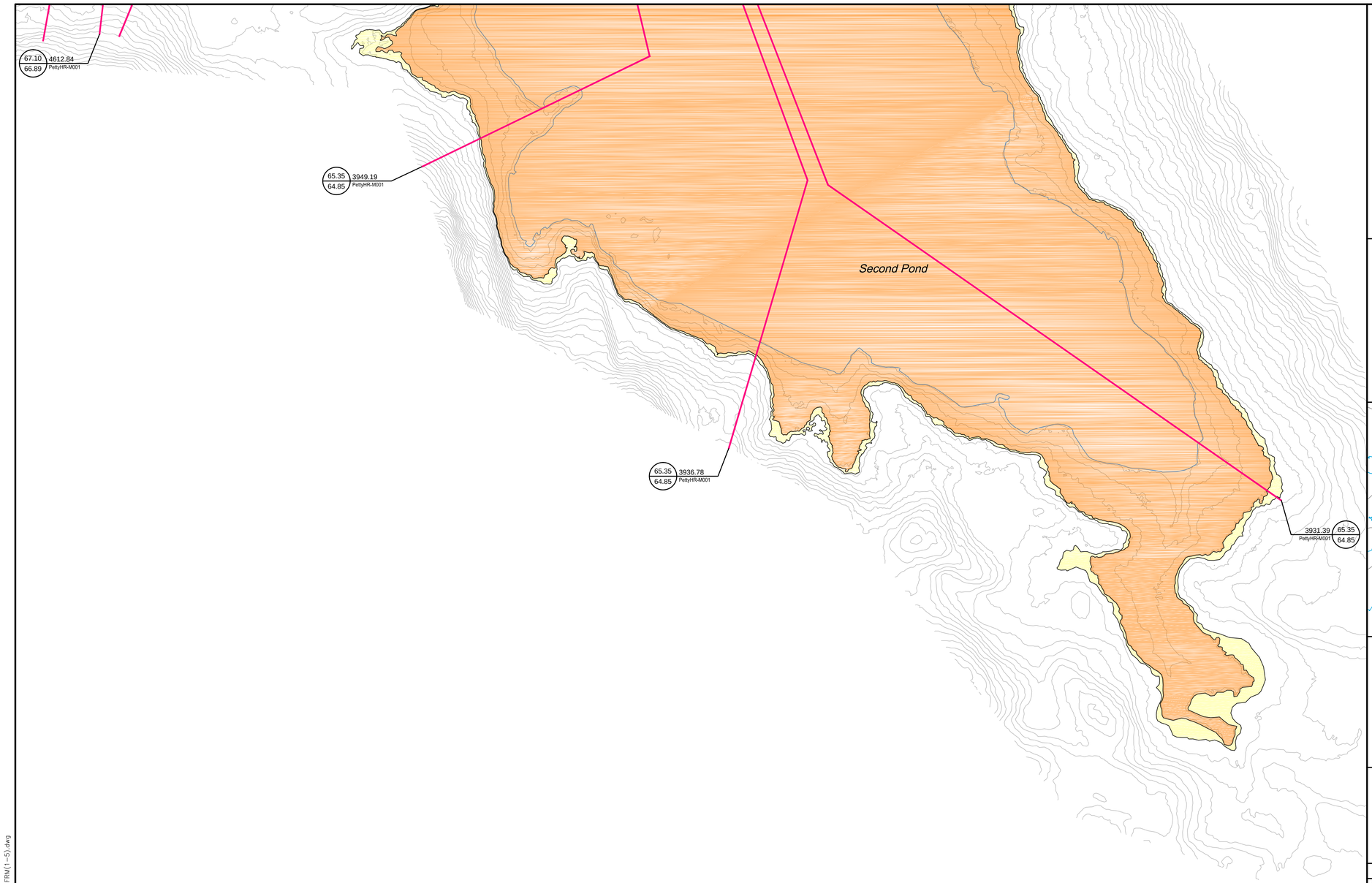

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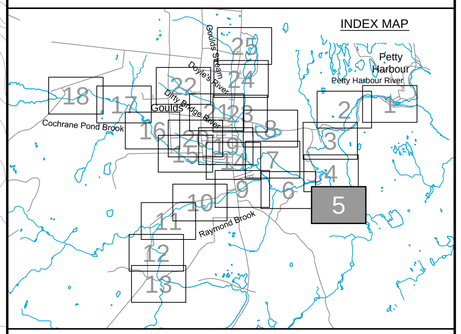

Cross Section Label

1:100 AEP Flood Water Level (elevation in metres)

172.33
171.24
1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

1:20 AEP Flood Water Level (elevation in metres)

Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

Sheet 5 of 25

C:\Work\WFLD\GouldsSheets\GPH-FRM(1-5).dwg

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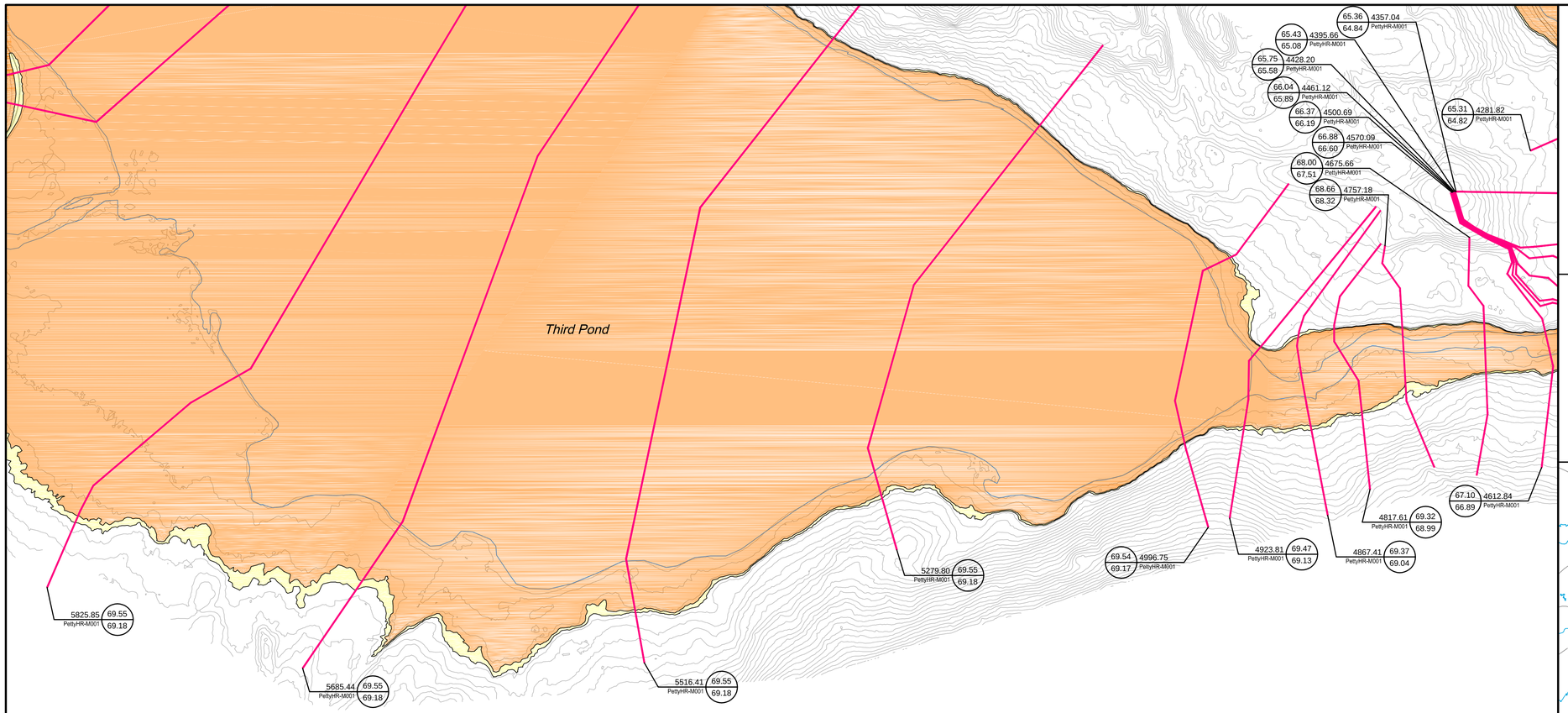


Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

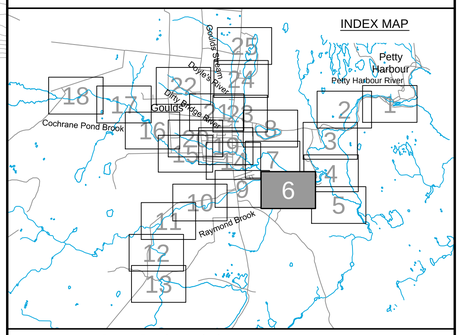
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

Flood Risk Map
Goulds\Petty Harbour

Existing Conditions - 2012

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



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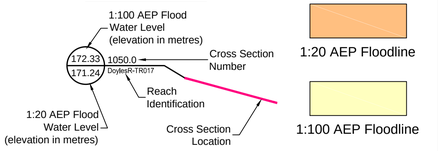

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

Sheet 6 of 25

C:\Work\NFLD\GouldsSheets\GPH-FRM(6-8).dwg

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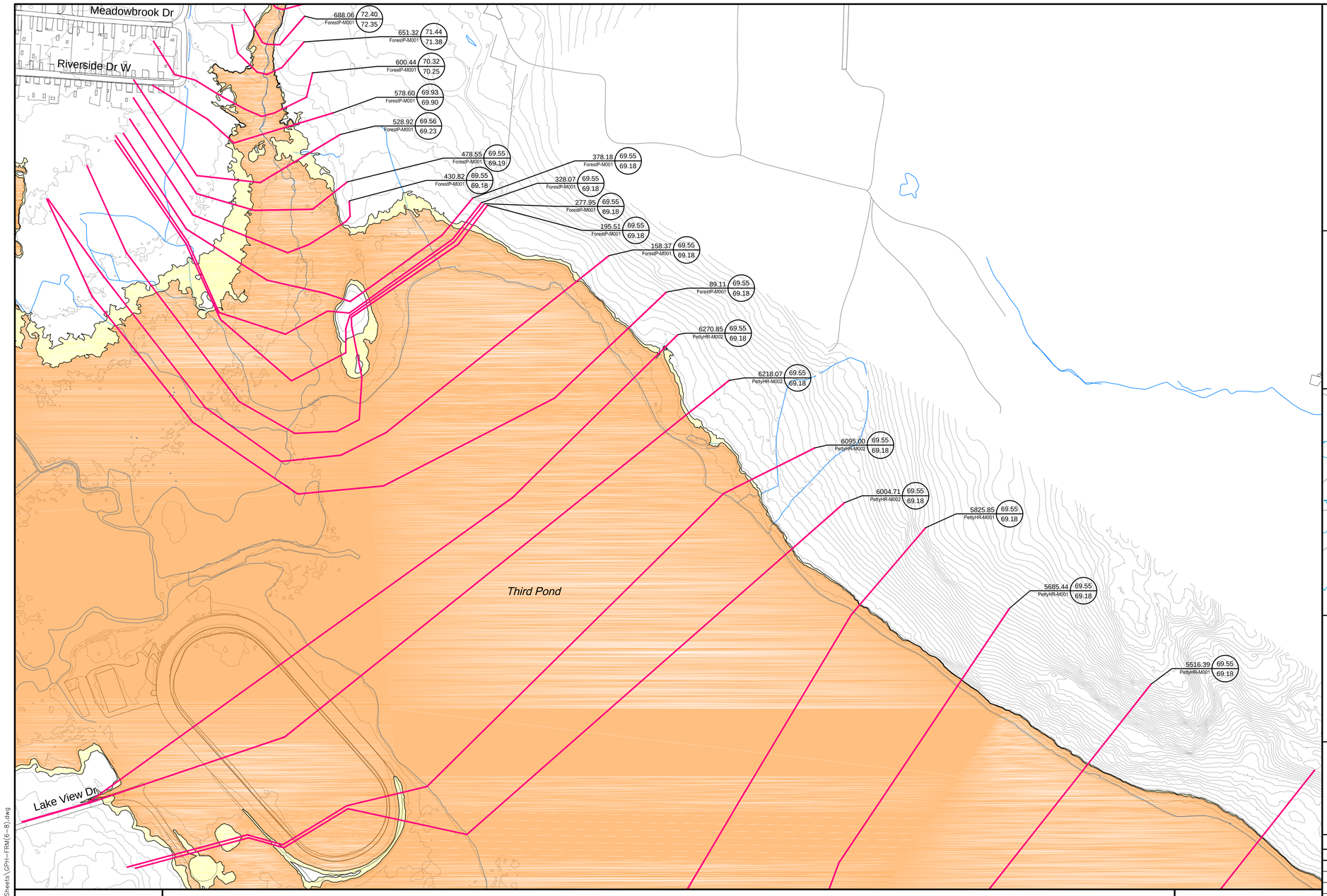

Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

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Existing Conditions - 2012

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and Goulds Stream

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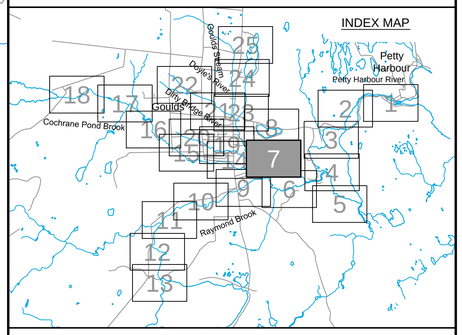
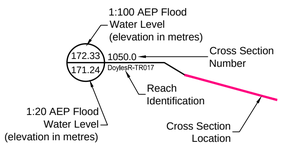


Cross Section Label



1:20 AEP Floodline

1:100 AEP Floodline

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

Sheet 7 of 25

C:\Work\WFLD\GouldsSheets\GPH-FRM(6-8).dwg

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Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

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Goulds\Petty Harbour

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Doyles, Dirty Bridge and
Petty Harbour Rivers,
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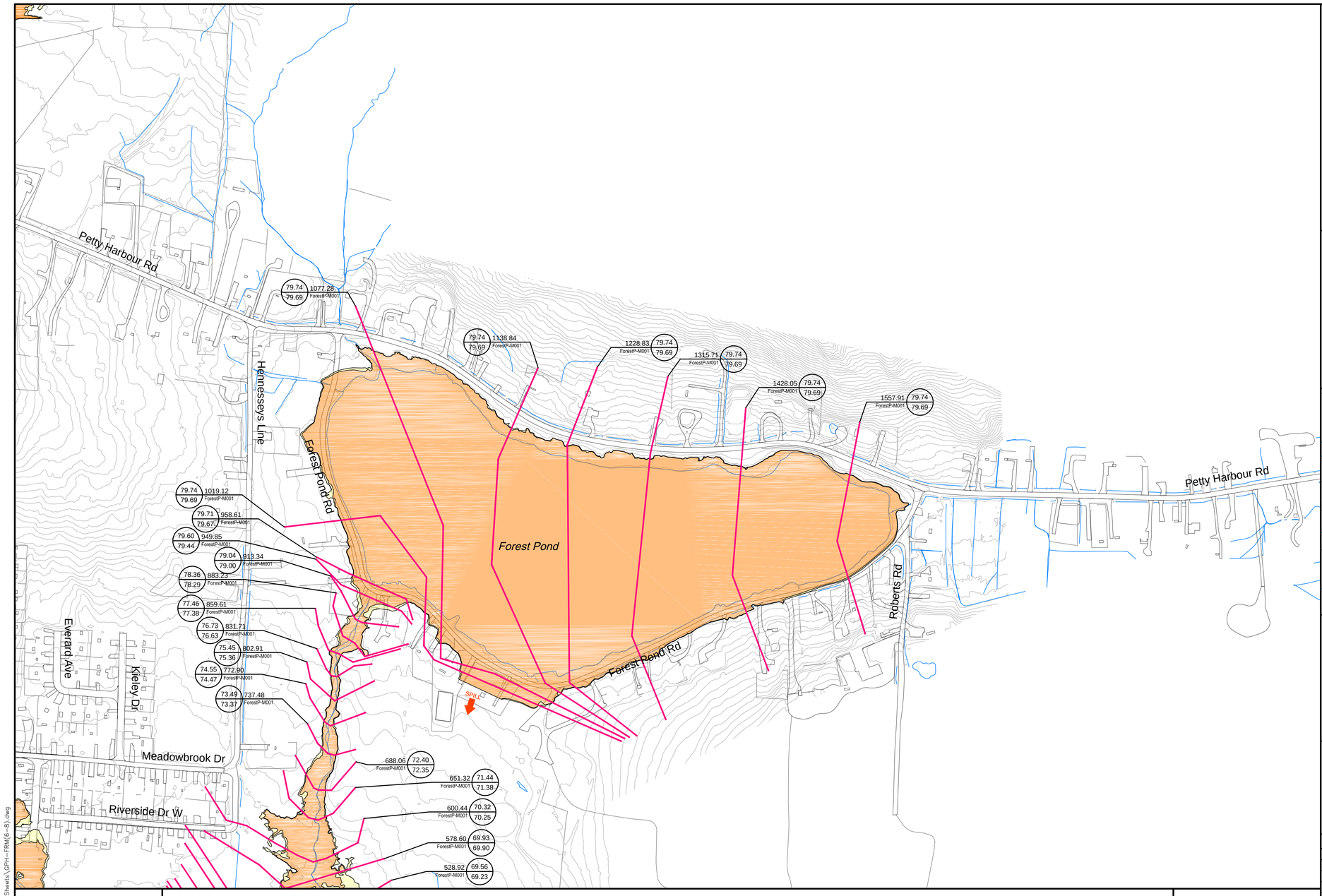
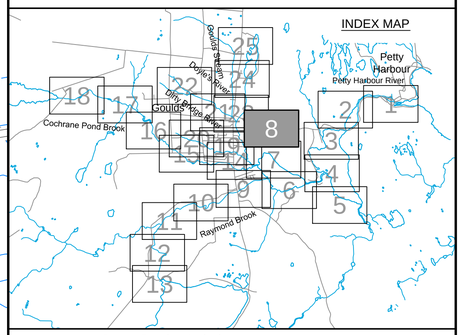
and Goulds Stream



INDEX MAP



Cross Section Label

1:100 AEP Flood Water Level (elevation in metres)
172.33
171.24
1050.0
DoylesR-TR017
Cross Section Number
Reach Identification
1:20 AEP Flood Water Level (elevation in metres)
Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

N

Sheet 8 of 25

C:\Work\NFLD\GouldsSheets\GPH-FRM(6-8).dwg

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Third Pond

Lake View Dr

Main Rd

Shoal Bay Rd

Alexis Pl

71.35 / 71.19 — 816.68 — RaymondB-M001
71.55 / 71.39 — 841.89 — RaymondB-M001
71.81 / 71.60 — 866.25 — RaymondB-M001
71.75 / 71.53 — 892.34 — RaymondB-M001
72.13 / 72.00 — 916.70 — RaymondB-M001
73.22 / 73.10 — 942.15 — RaymondB-M001
74.49 / 74.35 — 976.73 — RaymondB-M001
74.63 / 74.41 — 999.99 — RaymondB-M001
77.12 / 76.95 — 1116.25 — RaymondB-M001
78.00 / 77.89 — 1148.70 — RaymondB-M001
78.20 / 78.08 — 1166.20 — RaymondB-M001
79.04 / 78.90 — 1189.75 — RaymondB-M001
79.72 / 79.60 — 1216.25 — RaymondB-M001
80.38 / 80.05 — 1252.39 — RaymondB-M001
76.76 / 76.47 — 1066.09 — RaymondB-M001
76.27 / 76.10 — 1035.68 — RaymondB-M001
1303.54 — 80.49 / 80.32 — RaymondB-M001
1323.54 — 81.65 / 81.21 — RaymondB-M001
1372.05 — 82.36 / 81.80 — RaymondB-M001
1425.99 — 82.52 / 82.30 — RaymondB-M001
1477.96 — 82.79 / 82.59 — RaymondB-M001
69.86 / 69.70 — 716.25 — RaymondB-M001
70.03 / 69.93 — 766.25 — RaymondB-M001
69.65 / 69.45 — 675.00 — RaymondB-M001
69.59 / 69.25 — 615.86 — RaymondB-M001
69.55 / 69.18 — 565.77 — RaymondB-M001
69.55 / 69.18 — 520.15 — RaymondB-M001
69.55 / 69.18 — 468.54 — RaymondB-M001
69.55 / 69.18 — 429.18 — RaymondB-M001
69.55 / 69.18 — 366.25 — RaymondB-M001
69.55 / 69.18 — 341.79 — RaymondB-M001
5825.85 — 69.55 / 69.18 — PettyHR-M001
83.21 / 83.00 — 1536.01 — RaymondB-M001
83.68 / 83.44 — 1584.49 — RaymondB-M001
83.89 / 83.64 — 1630.92 — RaymondB-M001
84.40 / 84.16 — 1682.15 — RaymondB-M001
84.77 / 84.50 — 1733.38 — RaymondB-M001
1784.61 — 85.26 / 85.18 — RaymondB-M001
1835.84 — 86.44 / 86.17 — RaymondB-M001
1885.73 — 87.05 / 86.86 — RaymondB-M001
1950.22 — 87.45 / 87.35 — RaymondB-M001
1989.18 — 88.25 / 87.79 — RaymondB-M001

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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Newfoundland Labrador
Department of Environment and Conservation
Water Resource Management Division

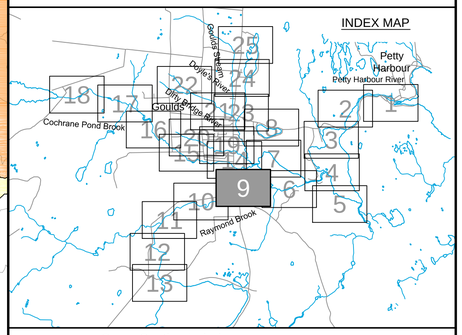
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

Flood Risk Map
Goulds\Petty Harbour

Existing Conditions - 2012

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1:100 AEP Flood Water Level (elevation in metres)
172.33 / 171.24
1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
1:20 AEP Flood Water Level (elevation in metres)
Cross Section Location

1:20 AEP Floodline
1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 9 of 25

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Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

Flood Risk Map
Goulds\Petty Harbour

Existing Conditions - 2012

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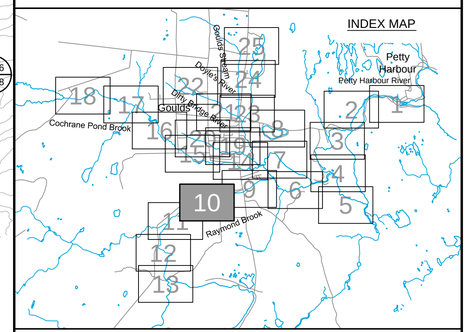

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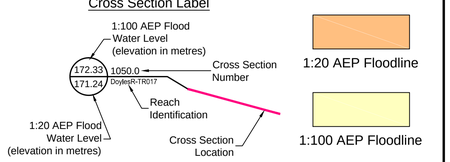

amec

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REVISIONS

No.	Description	BY	DATE

Sheet 10 of 25

Robert E. Howlett Memorial Dr

Howletts Line

94.02 / 93.64 — 3446.51 RaymondB-M001
90.80 / 90.60 — 3015.18 RaymondB-M001
90.20 / 90.08 — 2876.32 RaymondB-M001
90.00 / 89.87 — 2789.37 RaymondB-M001
88.71 / 88.43 — 2194.47 RaymondB-M001
88.63 / 88.37 — 2245.72 RaymondB-M001
84.77 / 84.50 — 1733.38 RaymondB-M001
84.40 / 84.16 — 1682.15 RaymondB-M001
83.89 / 83.64 — 1630.92 RaymondB-M001
83.68 / 83.44 — 1584.49 RaymondB-M001
83.21 / 83.00 — 1536.01 RaymondB-M001
3308.92 — 92.46 / 92.10 RaymondB-M001
3380.48 — 92.85 / 92.67 RaymondB-M001
93.40 / 93.28 — 3421.64 RaymondB-M001
93.03 / 92.71 — 3404.11 RaymondB-M001
3527.64 — 94.05 / 93.67 RaymondB-M001
92.25 / 91.80 — 3216.73 RaymondB-M001
91.46 / 91.22 — 3188.78 RaymondB-M001
2681.85 — 89.47 / 89.39 RaymondB-M001
2604.32 — 89.30 / 89.15 RaymondB-M001
2531.57 — 89.27 / 89.11 RaymondB-M001
2385.34 — 89.19 / 89.00 RaymondB-M001
2140.67 — 88.60 / 88.27 RaymondB-M001
2087.60 — 88.46 / 88.15 RaymondB-M001
2069.54 — 88.41 / 88.11 RaymondB-M001
2040.77 — 88.35 / 88.04 RaymondB-M001
1989.18 — 88.25 / 87.79 RaymondB-M001
1950.22 — 87.45 / 87.35 RaymondB-M001
1885.73 — 87.05 / 86.86 RaymondB-M001
1835.84 — 86.44 / 86.17 RaymondB-M001
1784.61 — 85.26 / 85.18 RaymondB-M001

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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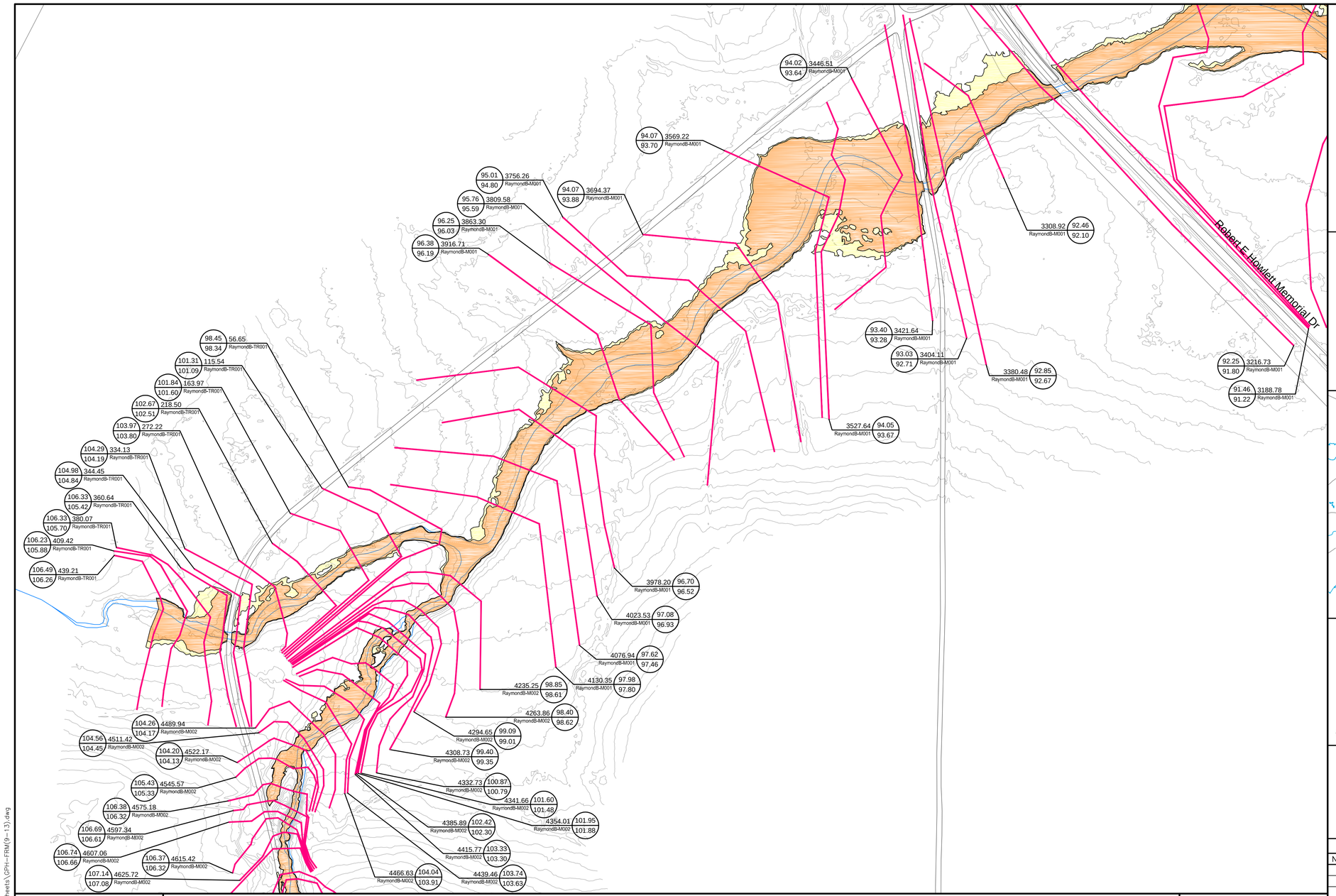
Mar 23/13 – richard.bartolo



MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

Flood Risk Map
Goulds\Petty Harbour

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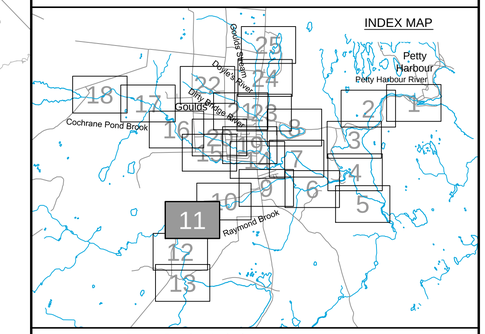

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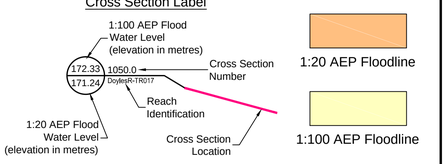

amec

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REVISIONS

No.	Description	BY	DATE

Sheet 11 of 25

C:\Work\NFLD\GouldsSheets\GPH-FRM(9-13).dwg

Mar 23/13 – richard.bartolo

105.43 / 105.33 — 4545.57 RaymondB-M002
106.38 / 106.32 — 4575.18 RaymondB-M002
106.69 / 106.61 — 4597.34 RaymondB-M002
106.74 / 106.66 — 4607.06 RaymondB-M002
106.37 / 106.32 — 4615.42 RaymondB-M002
107.14 / 107.08 — 4625.72 RaymondB-M002
111.13 / 111.07 — 4644.78 RaymondB-M002
112.36 / 112.27 — 4673.96 RaymondB-M002
113.04 / 112.94 — 4681.76 RaymondB-M002
113.72 / 113.65 — 4732.68 RaymondB-M002
114.69 / 114.59 — 4943.43 RaymondB-M002
114.80 / 114.70 — 4967.43 RaymondB-M002
115.06 / 114.96 — 5017.13 RaymondB-M002
115.17 / 115.07 — 5077.48 RaymondB-M002
115.19 / 115.09 — 5111.50 RaymondB-M002
115.22 / 115.12 — 5171.66 RaymondB-M002
116.19 / 116.10 — 5732.44 RaymondB-M002
116.50 / 116.41 — 5785.15 RaymondB-M002
116.93 / 116.84 — 5883.92 RaymondB-M002
117.47 / 117.38 — 6026.35 RaymondB-M002

4332.73 / 100.87 / 100.79 — RaymondB-M002
4341.66 / 101.60 / 101.48 — RaymondB-M002
4354.01 / 101.95 / 101.88 — RaymondB-M002
4385.89 / 102.42 / 102.30 — RaymondB-M002
4415.77 / 103.33 / 103.30 — RaymondB-M002
4439.46 / 103.74 / 103.63 — RaymondB-M002
4466.63 / 104.04 / 103.91 — RaymondB-M002
4783.73 / 114.02 / 113.96 — RaymondB-M002
4851.17 / 114.29 / 114.22 — RaymondB-M002
4910.95 / 114.55 / 114.45 — RaymondB-M002
5226.60 / 115.23 / 115.14 — RaymondB-M002
5278.93 / 115.24 / 115.15 — RaymondB-M002
5338.54 / 115.25 / 115.15 — RaymondB-M002
5411.19 / 115.25 / 115.15 — RaymondB-M002
5485.46 / 115.35 / 115.27 — RaymondB-M002
5500.15 / 115.36 / 115.28 — RaymondB-M002
5631.37 / 115.56 / 115.53 — RaymondB-M002
5933.71 / 117.15 / 117.05 — RaymondB-M002

Howletts Line

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

C:\Work\NFLD\GouldsSheets\GPH-FRM(9-13).dwg

Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

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Goulds\Petty Harbour

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and Goulds Stream

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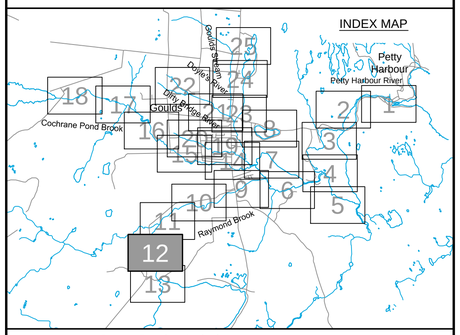

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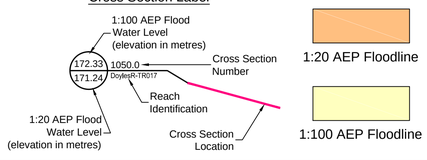

amec

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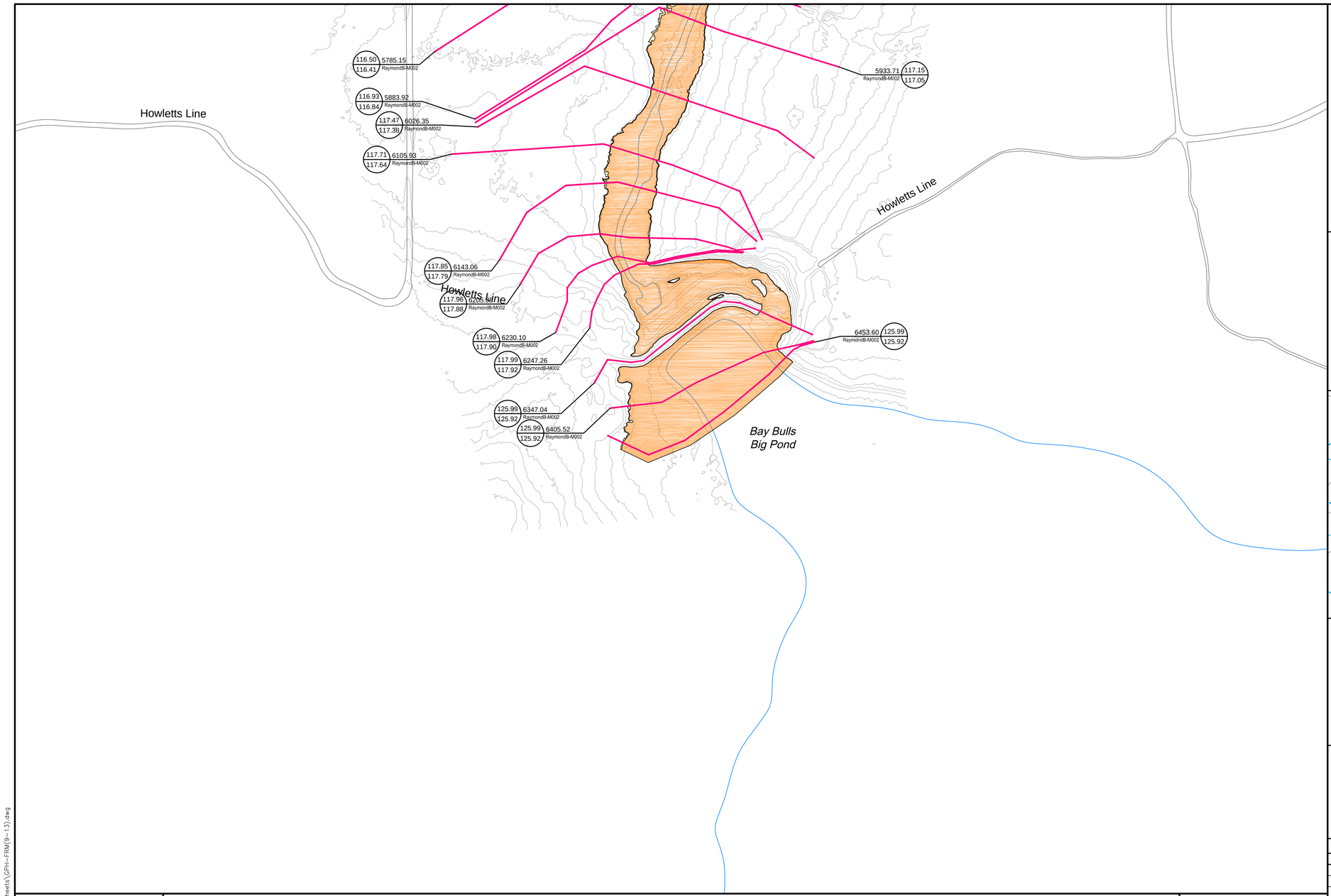
REVISIONS

No.	Description	BY	DATE

Sheet 12 of 25

Mar 23/13 – richard.bartolo



Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

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Goulds\Petty Harbour

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and Goulds Stream

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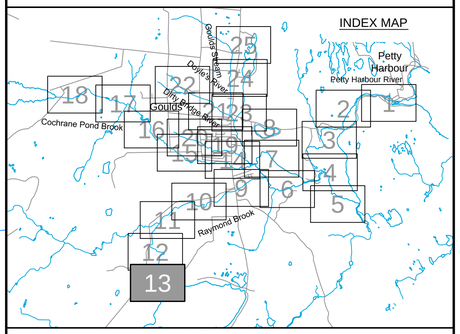

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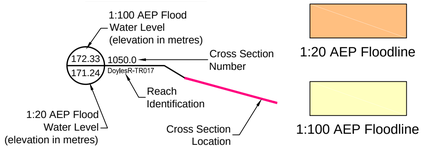

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

Sheet 13 of 25

C:\Work\WFLD\GouldsSheets\GPH-FRM(9-13).dwg

Mar 23/13 – richard.bartolo

Soper Cres
McConnell Pl
Sunset St
Martin St
Hannaford Pl
Cleary Dr
Beaver Brook Dr
Heffernans Line
Mountainview Dr
Ryans River Rd
Ryans Pl
Main Rd
Fleming Pl
Riverside Dr W
Third Pond
Lake View Dr

81.94 1990.76 81.82 CochranePB-M002
81.63 1945.20 81.44 CochranePB-M002
81.47 1916.67 81.30 CochranePB-M002
81.32 1871.48 81.16 CochranePB-M002
81.27 1836.03 81.11 CochranePB-M002
80.85 1788.63 80.51 CochranePB-M002
80.12 1768.08 79.94 CochranePB-M002
79.99 1733.19 79.86 CochranePB-M002
79.32 1685.79 79.09 CochranePB-M002
79.38 1694.89 79.15 CochranePB-M002
78.81 1640.51 78.58 CochranePB-M002
76.52 1602.99 76.35 CochranePB-M002
75.35 1585.52 75.26 CochranePB-M002
75.03 1569.47 74.96 CochranePB-M002
74.16 1541.97 73.97 CochranePB-M002
73.06 1495.27 72.90 CochranePB-M002
72.57 1510.83 72.48 CochranePB-M002
72.06 1419.61 71.86 CochranePB-M002
71.92 1384.56 71.75 CochranePB-M002
71.67 1351.51 71.64 CochranePB-M002
71.41 1311.78 71.29 CochranePB-M002
71.02 1291.19 70.91 CochranePB-M002
70.99 1217.75 70.71 CochranePB-M002
70.63 1200.39 70.50 CochranePB-M002
70.52 1185.68 70.48 CochranePB-M002
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2103.01 83.25 83.14 CochranePB-M002
2046.85 82.74 82.50 CochranePB-M002
2014.35 81.96 81.88 CochranePB-M002

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

C:\Work\WFLD\GouldsSheets\GPH-FRM(14-18).dwg

Newfoundland Labrador

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Goulds\Petty Harbour

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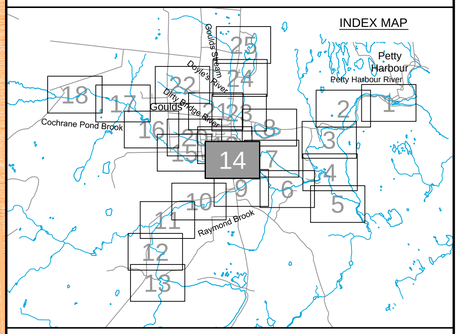
Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1:100 AEP Flood Water Level (elevation in metres)
172.33 1050.0 171.24
Cross Section Number
DoylesR-TR017
Reach Identification
1:20 AEP Flood Water Level (elevation in metres)
Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

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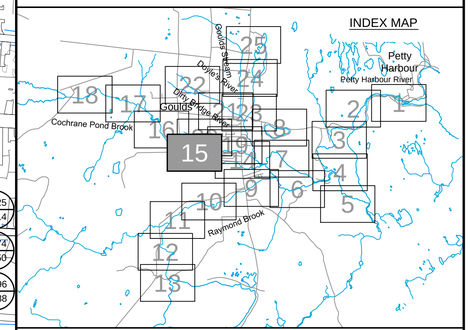

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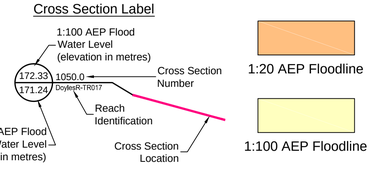

amec

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REVISIONS

No.	Description	BY	DATE

Sheet 15 of 25

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

N

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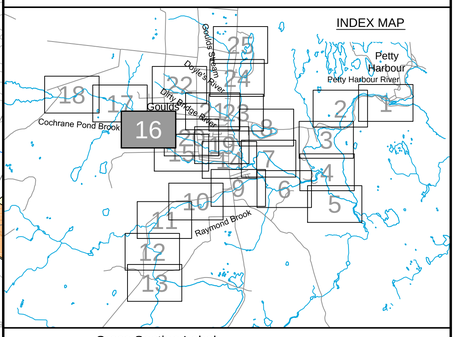

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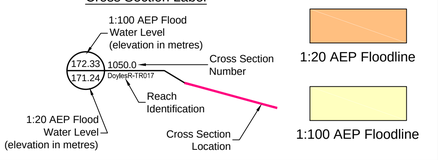

amec

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REVISIONS

No.	Description	BY	DATE

Sheet 16 of 25

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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and Goulds Stream

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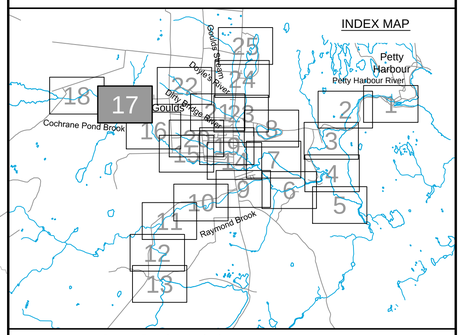

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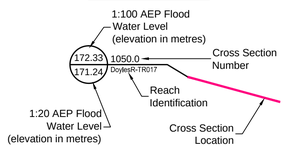

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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Cochrane Pond Rd

135.67 / 135.47 — 6985.71 CochranePB-M002
136.11 / 136.07 — 7041.67 CochranePB-M002
136.53 / 136.43 — 7108.13 CochranePB-M002
137.03 / 136.95 — 7208.54 CochranePB-M002
137.13 / 137.05 — 7253.62 CochranePB-M002
137.30 / 137.22 — 7329.89 CochranePB-M002
6955.25 — 134.71 / 134.61 CochranePB-M002
6863.52 — 132.88 / 132.81 CochranePB-M002
6840.09 — 132.15 / 132.09 CochranePB-M002
6808.25 — 131.41 / 131.41 CochranePB-M002
6534.50 — 127.30 / 127.24 CochranePB-M002
6507.97 — 126.58 / 126.53 CochranePB-M002
130.36 / 130.26 — 6767.75 CochranePB-M002
129.48 / 129.43 — 6727.78 CochranePB-M002
129.07 / 128.99 — 6691.71 CochranePB-M002
128.67 / 128.61 — 6651.54 CochranePB-M002
128.44 / 128.35 — 6630.83 CochranePB-M002
7450.86 — 137.59 / 137.51 CochranePB-M002
7476.72 — 137.63 / 137.54 CochranePB-M002
7515.77 — 137.65 / 137.56 CochranePB-M002
7609.21 — 137.79 / 137.69 CochranePB-M002
7695.32 — 138.63 / 138.56 CochranePB-M002
7738.34 — 138.96 / 138.88 CochranePB-M002
7812.33 — 139.35 / 139.30 CochranePB-M002
7847.08 — 139.82 / 139.74 CochranePB-M002
141.89 / 141.70 — 7964.49 CochranePB-M002
140.76 / 140.64 — 7901.64 CochranePB-M002
142.47 / 142.20 — 8105.53 CochranePB-M002
142.46 / 142.18 — 8065.47 CochranePB-M002
142.45 / 142.18 — 8050.98 CochranePB-M002
142.45 / 142.18 — 8024.09 CochranePB-M002
142.45 / 142.17 — 8013.06 CochranePB-M002
142.45 / 142.17 — 8004.70 CochranePB-M002
142.44 / 142.17 — 7995.14 CochranePB-M002
6364.18 — 124.62 / 124.50 CochranePB-M002
6400.96 — 124.61 / 124.50 CochranePB-M002
6433.33 — 125.07 / 125.01 CochranePB-M002
6480.50 — 125.93 / 125.87 CochranePB-M002

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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Newfoundland Labrador

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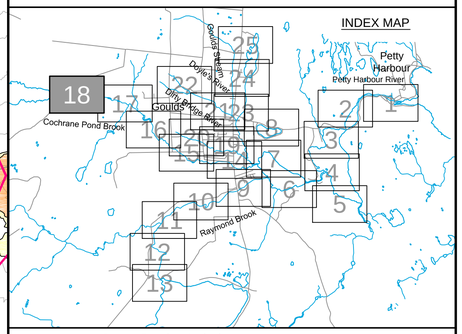
INDEX MAP



Cross Section Label

1:100 AEP Flood
Water Level
(elevation in metres)

172.33 / 171.24 — 1050.0 — Doyles_R-TR017

Cross Section Number

Reach Identification

1:20 AEP Flood
Water Level
(elevation in metres)

Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

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Ridgemount St
Clearview St
Gulliage St
North Dr
Keith Dr
Della Dr
Sunset St
Hannaford Pl
McConnell Pl
Sunset St
Soper Crescent
Martin St
Cleary Dr
Fleming Pl
Main Rd
Meadowbrook Park Rd
Bonnie Dr
Gray Dr
Everard Ave
Kielley Dr
Meadowbrook Dr
Riverside Dr W
Hennesseys Line
Beaver Brook Dr
Heffernans Line
SPILL

1506.66 89.46 89.41
1478.12 89.28 89.22
1433.61 89.08 89.04
1388.58 88.96 88.95
1373.88 88.63 88.50
1301.72 87.90 87.71
1246.99 86.58 86.53
1192.26 85.83 85.78
1137.53 85.17 85.04
1082.80 84.38 84.40
1064.90 84.49 84.46
1042.53 84.29 84.10
1022.06 83.98 83.84
867.93 82.82 82.66
809.27 82.59 82.37
756.07 81.93 81.77
543.29 76.01 75.92
489.08 74.85 74.76
70.20 256.50 70.12
70.29 256.30 70.22
70.87 324.16 70.84
71.70 344.87 71.70
72.65 383.70 72.38
83.92 1370.10 83.83
82.93 1316.51 82.59
81.02 1262.92 80.85
80.22 1209.33 79.95
78.67 1155.74 78.43
75.13 949.62 74.83
74.54 929.53 74.28
74.00 872.05 74.00
1107.39 77.84 77.69
1057.82 77.23 76.94
971.36 74.19 74.07
816.76 73.03 72.81
760.16 72.44 72.33
712.26 71.81 71.81
663.11 71.42 71.36
484.12 69.75 69.59
429.44 69.62 69.37
388.93 69.57 69.21
344.78 69.56 69.19
216.64 69.55 69.19
77.13 69.55 69.19
83.38 969.32 83.25
80.91 702.82 80.80
78.89 651.60 78.79
76.78 588.74 76.70
73.01 436.90 72.92
71.90 363.75 71.90
70.16 133.14 70.05
70.14 66.14 70.04
70.17 162.98 70.07
82.92 915.66 82.80

Doyles-TR011
Doyles-TR013
Doyles-TR017
Doyles-M001

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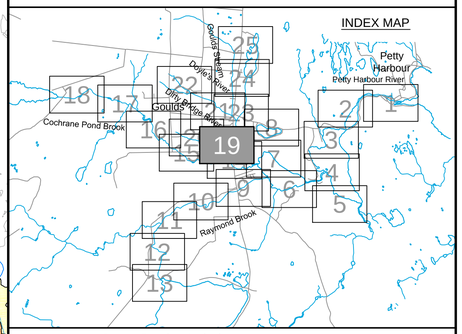
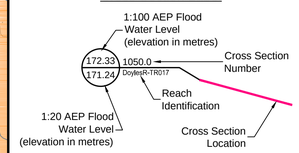
and Goulds Stream

INDEX MAP



Cross Section Label



1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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C:\Work\NFLD\GouldsSheets\GPH-FRM(19-22).dwg

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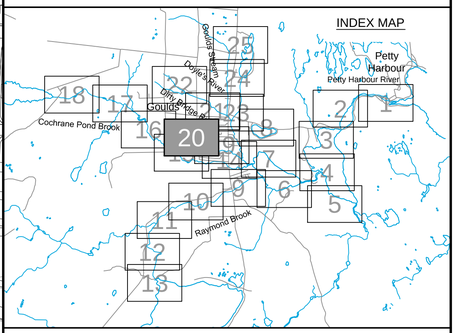

Cross Section Label

1:100 AEP Flood Water Level (elevation in metres)
172.33
171.24
1050.0
DoylesR-TR017
Cross Section Number
Reach Identification
1:20 AEP Flood Water Level (elevation in metres)
Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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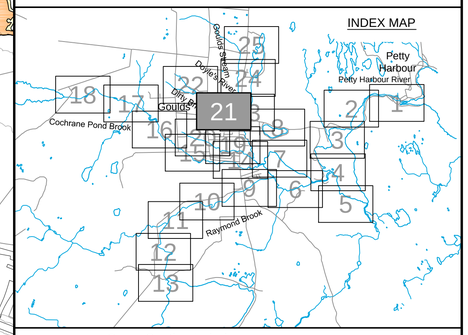
INDEX MAP



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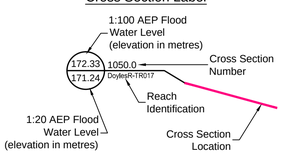

1:20 AEP Floodline

1:100 AEP Floodline

amec

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REVISIONS

No.	Description	BY	DATE

Sheet 21of 25

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres

300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

C:\Work\NFLD\GouldsSheets\GPH-FRM(19-22).dwg

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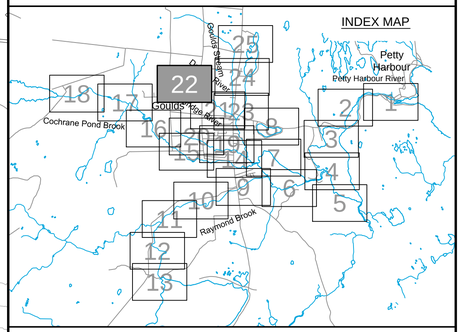

Cross Section Label

1:100 AEP Flood Water Level (elevation in metres)
172.33
171.24
1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

1:20 AEP Flood Water Level (elevation in metres)

Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

N

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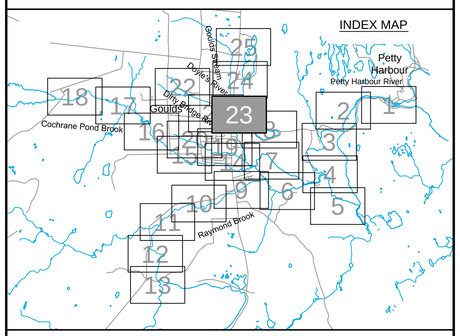

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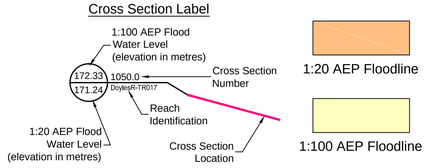

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REVISIONS

No.	Description	BY	DATE

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MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres

300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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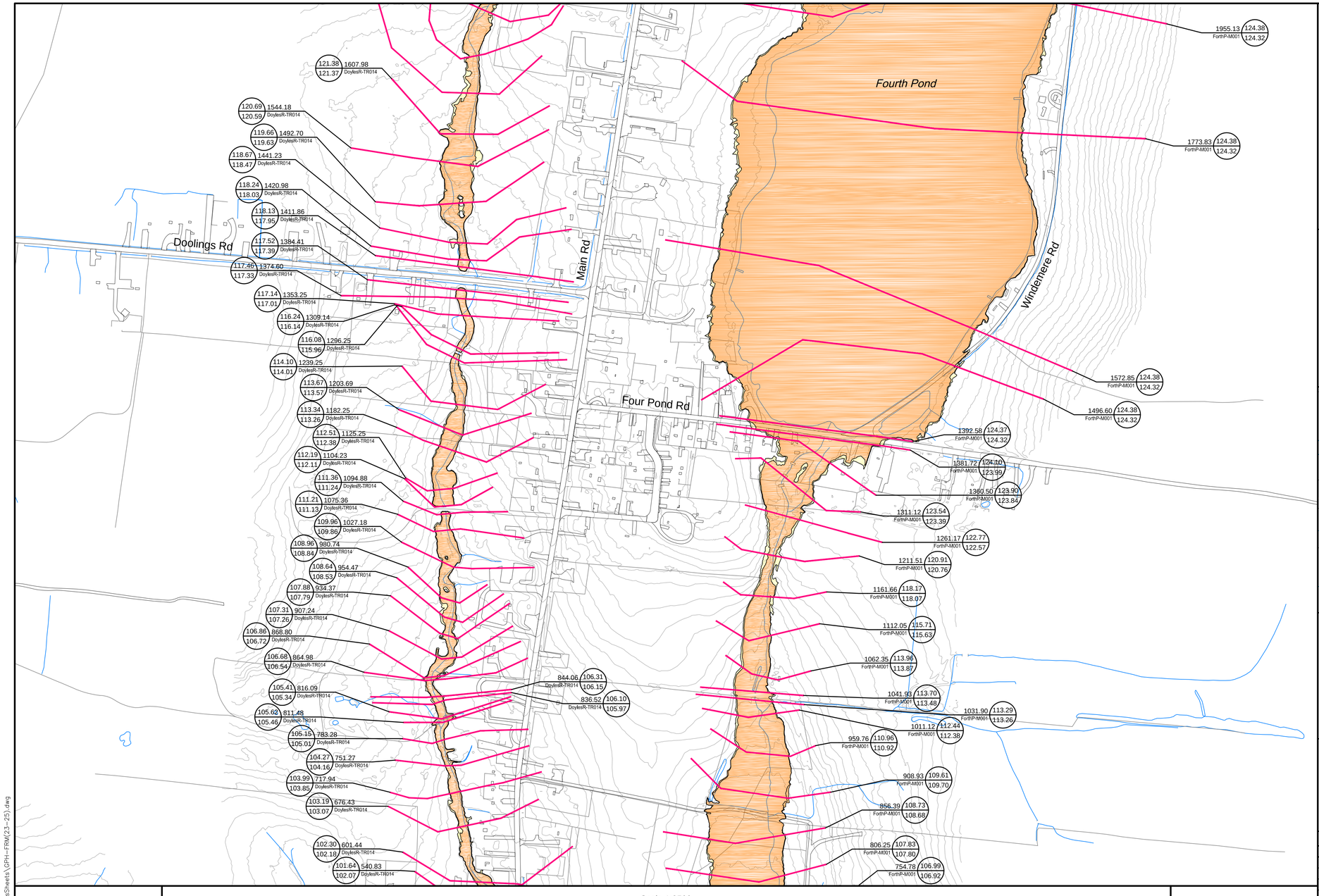

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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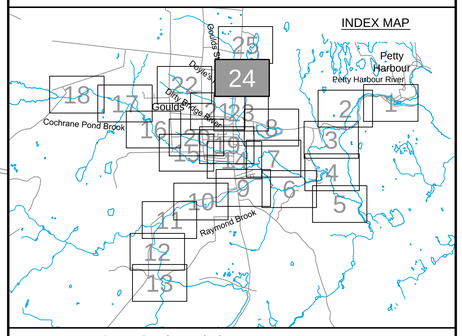

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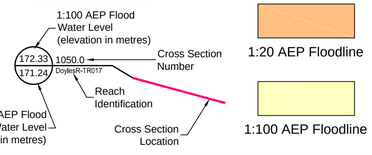

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Main Rd

Viquers Rd

Fourth Pond

Fourth Pond

2616.90 124.38 124.32 FortHP-M001

2528.45 124.38 124.32 FortHP-M001

2324.32 124.38 124.32 FortHP-M001

2187.52 124.38 124.32 FortHP-M001

1955.13 124.38 124.32 FortHP-M001

2057.49 126.56 126.45 DoylesR-TR014

2037.89 126.56 126.45 DoylesR-TR014

126.46 1988.88 126.38 DoylesR-TR014

126.40 1975.46 126.21 DoylesR-TR014

126.16 1936.56 126.02 DoylesR-TR014

125.84 1904.43 125.71 DoylesR-TR014

125.62 1867.03 125.49 DoylesR-TR014

125.00 1801.50 124.89 DoylesR-TR014

123.73 1765.57 123.66 DoylesR-TR014

122.61 1703.29 122.57 DoylesR-TR014

122.07 1657.91 121.92 DoylesR-TR014

121.38 1607.98 121.37 DoylesR-TR014

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres

300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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and Goulds Stream

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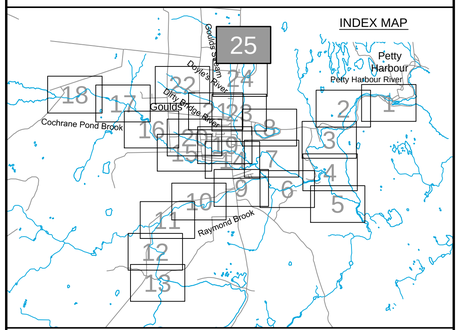
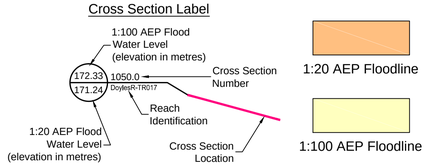


Cross Section Label



amec

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REVISIONS

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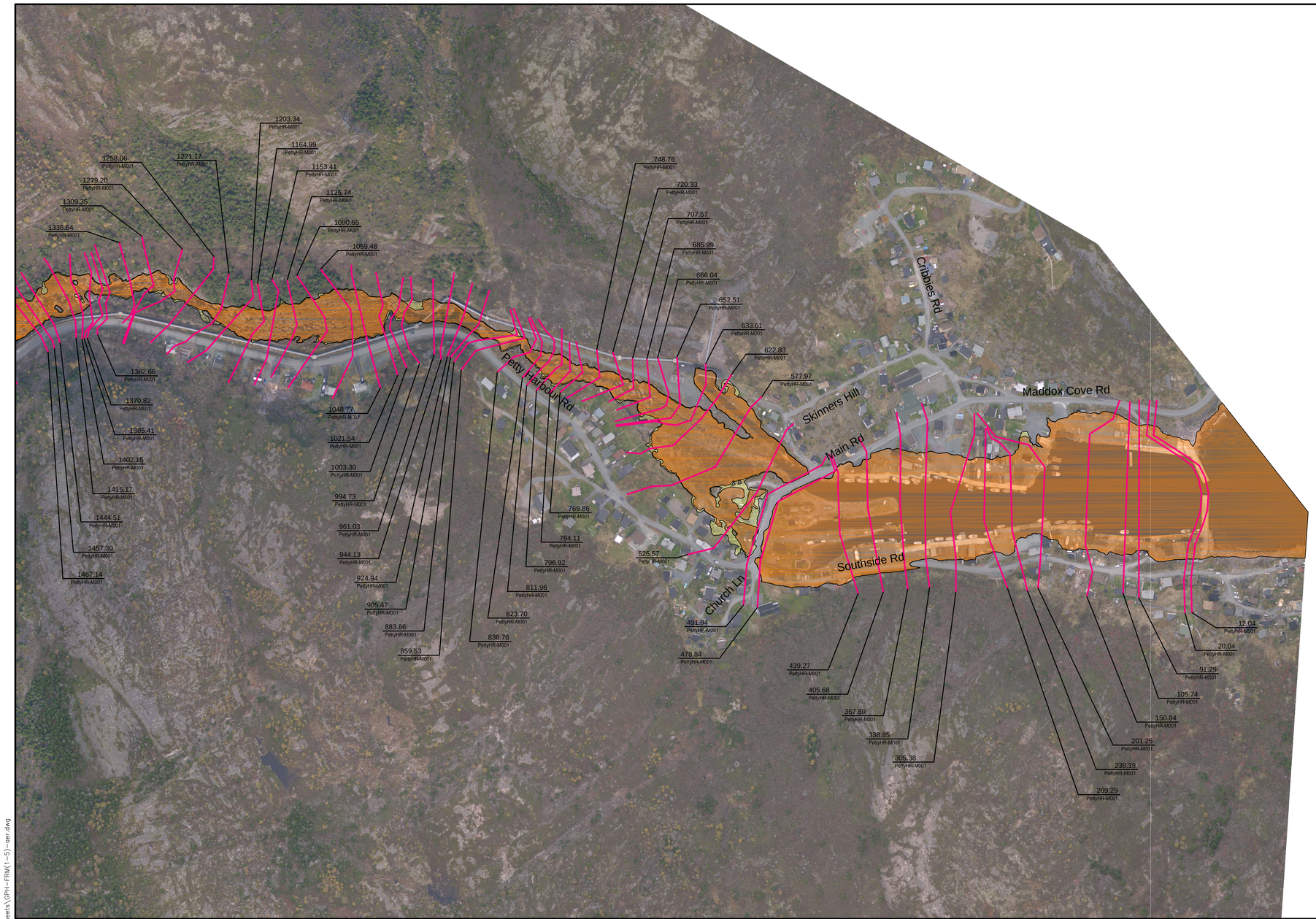

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

Newfoundland Labrador

Department of Environment and Conservation
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Goulds\Petty Harbour

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Petty Harbour Rivers,
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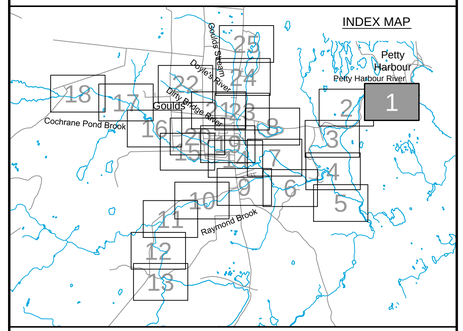
INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 1 of 25

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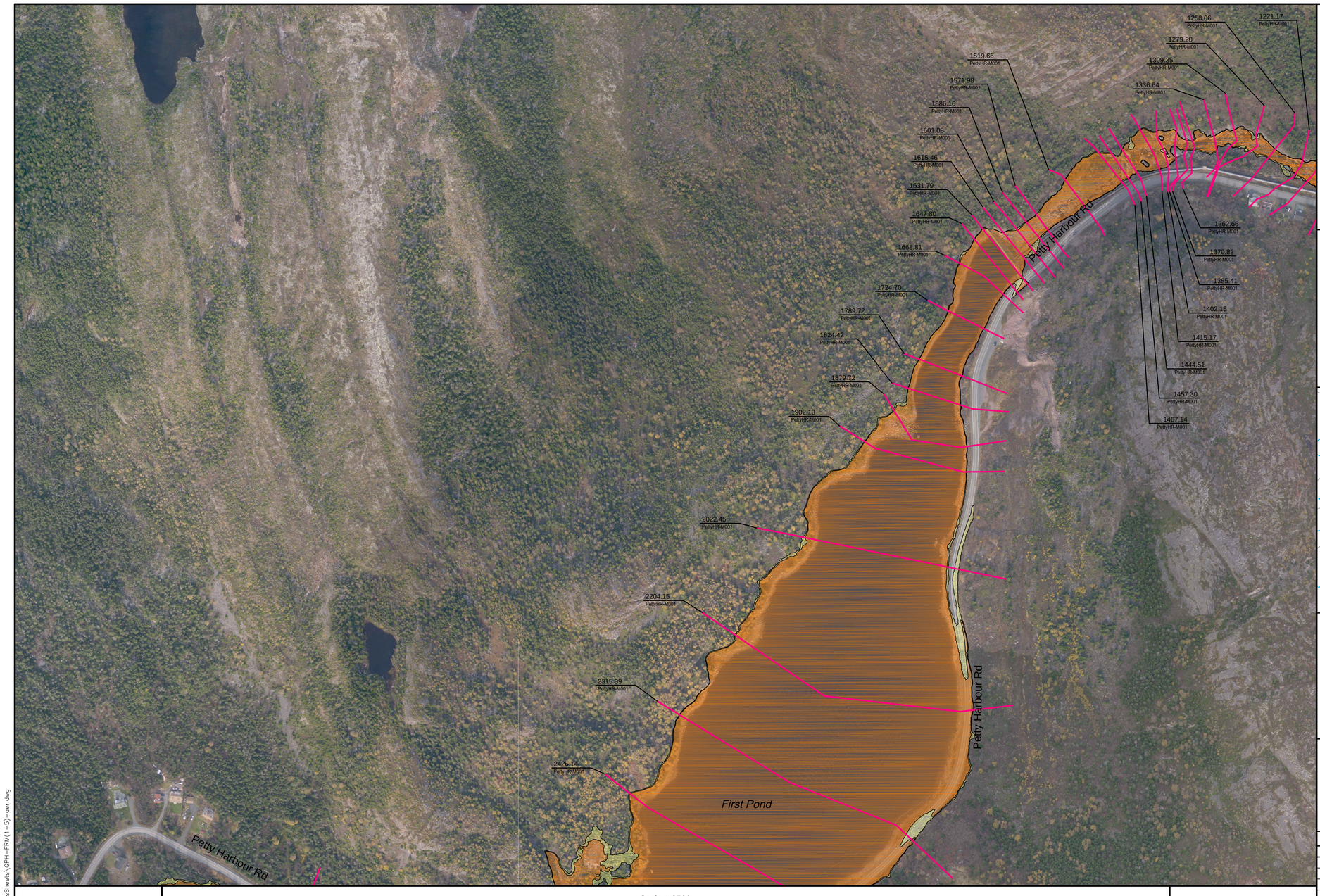
Mar 23/13 – richard.bartolo



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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

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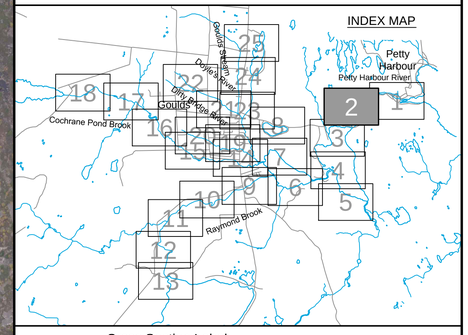

Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

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REVISIONS

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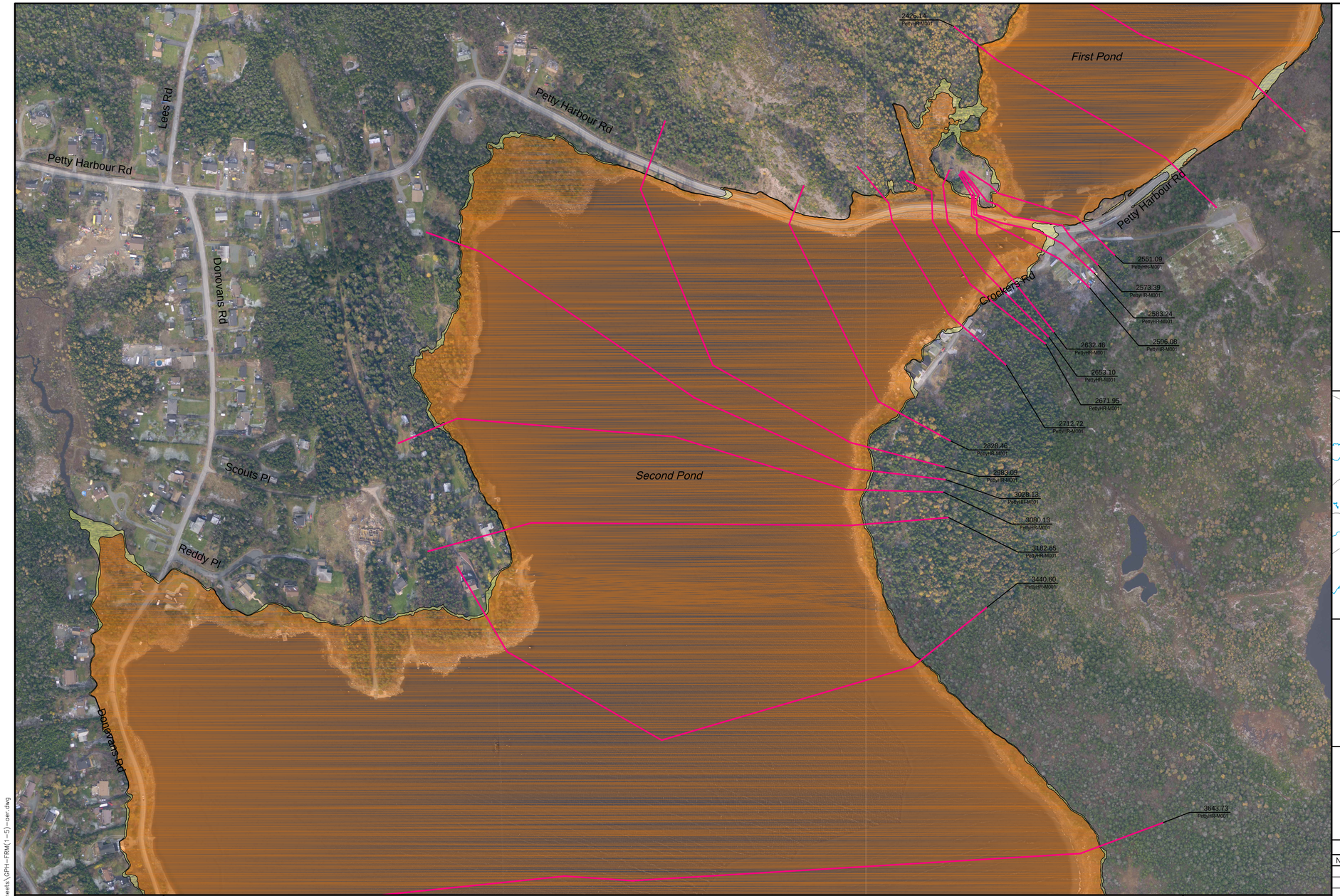
Mar 23/13 – richard.bartolo



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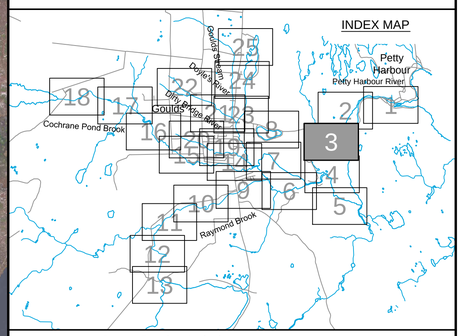

Cross Section Label

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DoylesR-TR017

Cross Section Number

Reach Identification

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MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

Sheet 3 of 25

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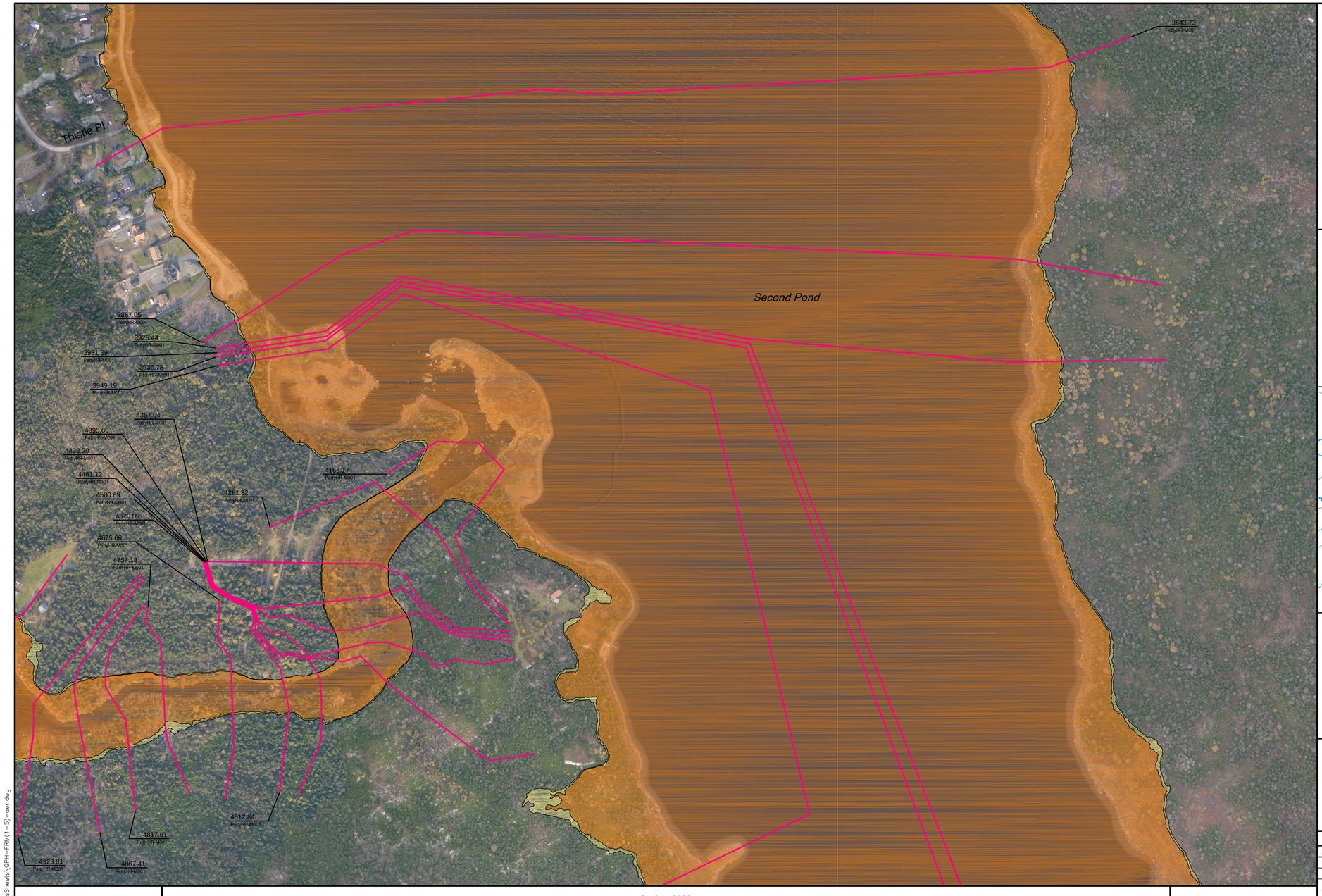

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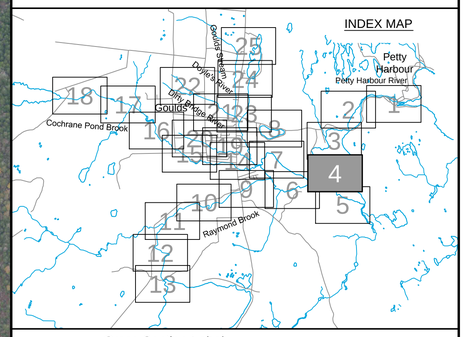

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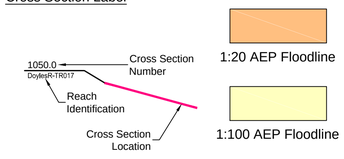

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

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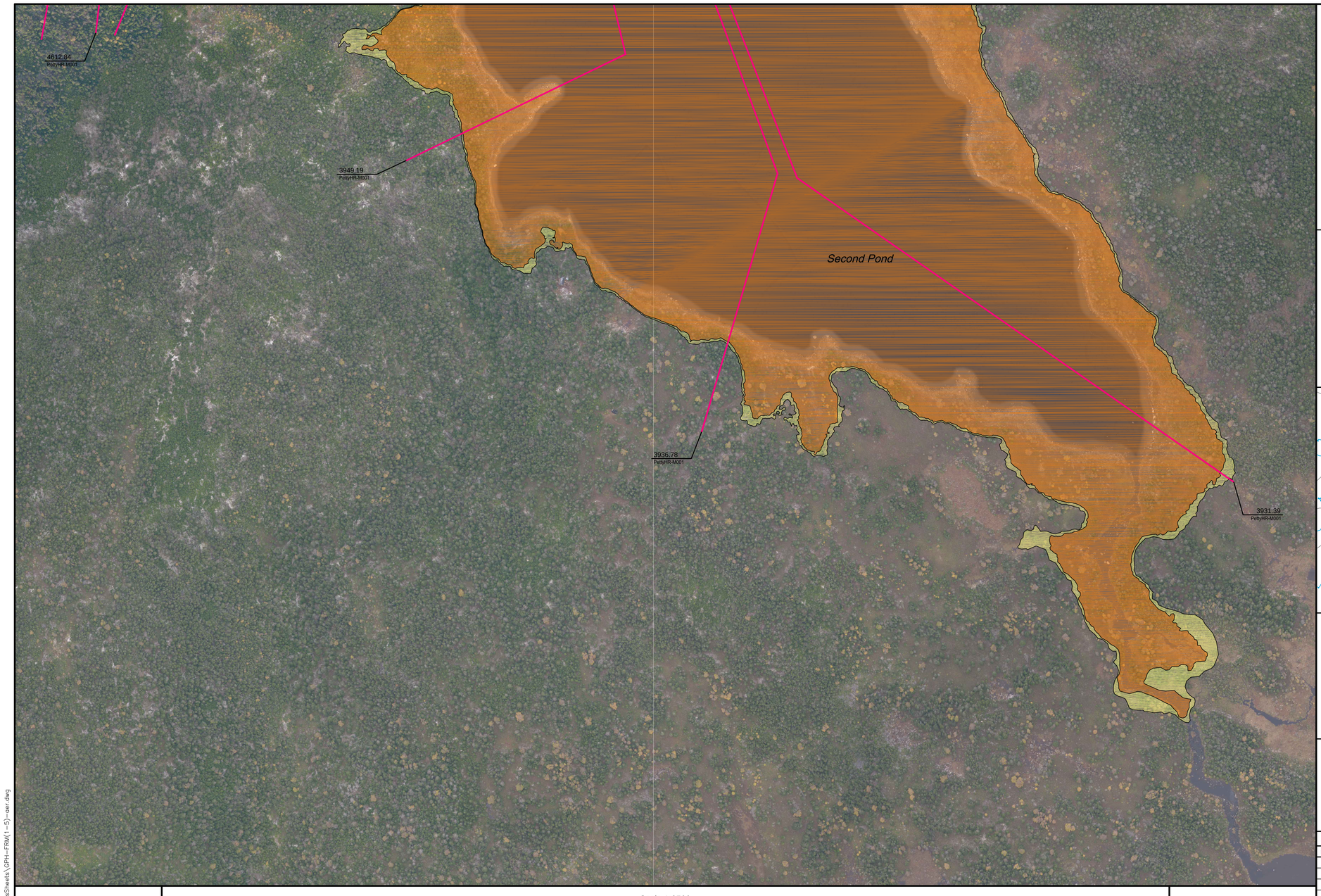

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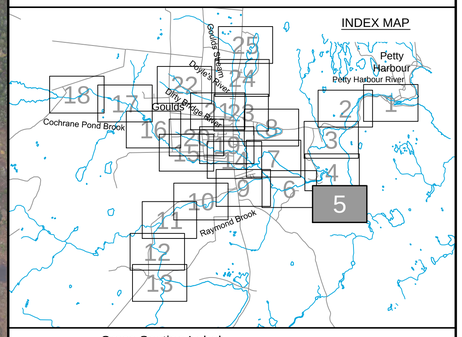

Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

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1:100 AEP Floodline

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ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

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Third Pond

4357.04 PettyHR-M001
4395.66 PettyHR-M001
4428.20 PettyHR-M001
4461.12 PettyHR-M001
4500.69 PettyHR-M001
4520.09 PettyHR-M001
4675.66 PettyHR-M001
4757.18 PettyHR-M001
4291.82 PettyHR-M001
4612.84 PettyHR-M001
4817.61 PettyHR-M001
4867.41 PettyHR-M001
4923.81 PettyHR-M001
4996.75 PettyHR-M001
5279.80 PettyHR-M001
5516.41 PettyHR-M001
5685.44 PettyHR-M001
5825.85 PettyHR-M001

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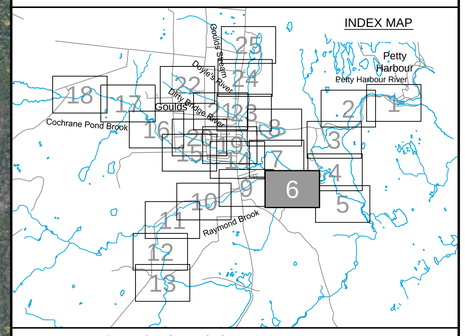

Cross Section Label

1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

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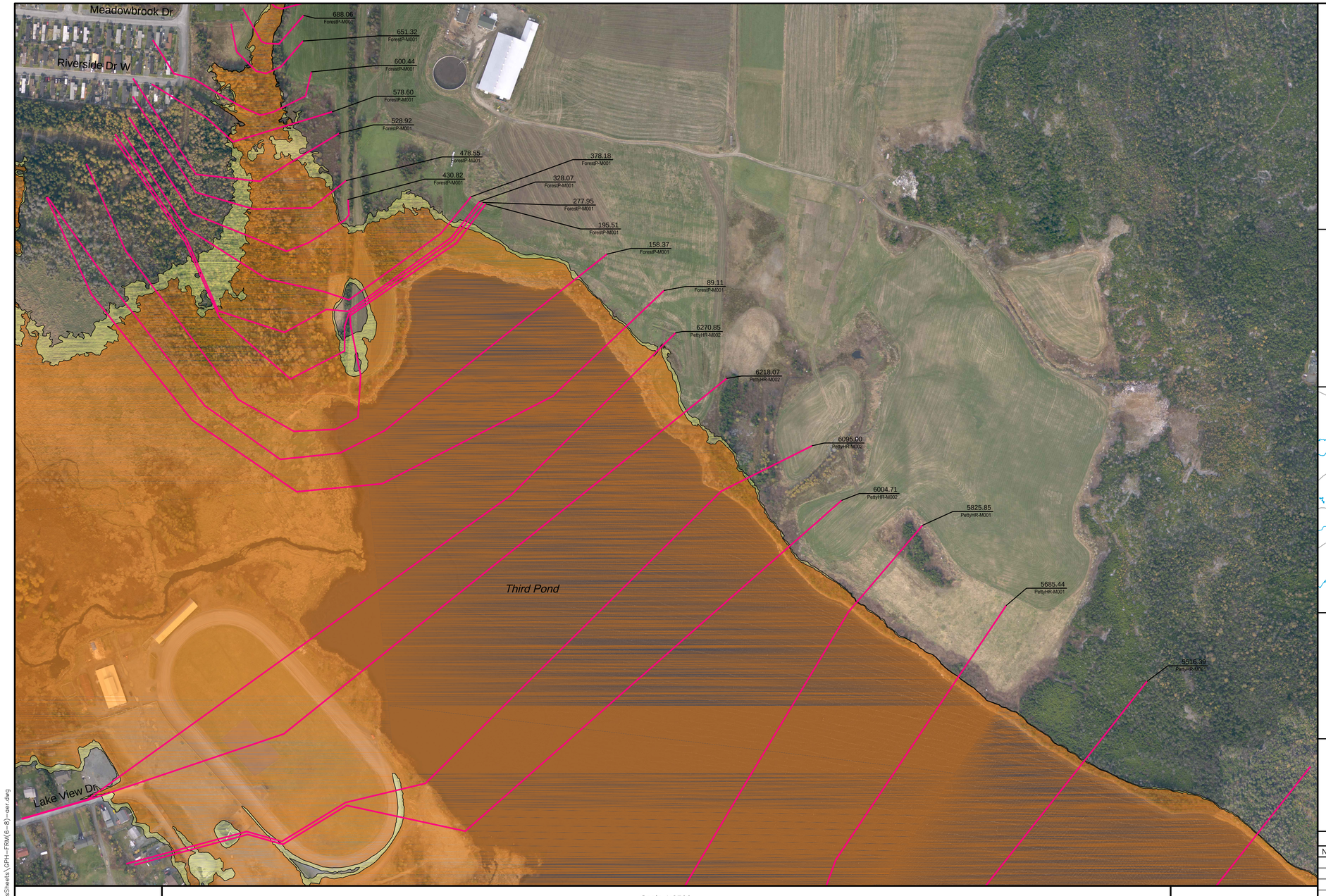

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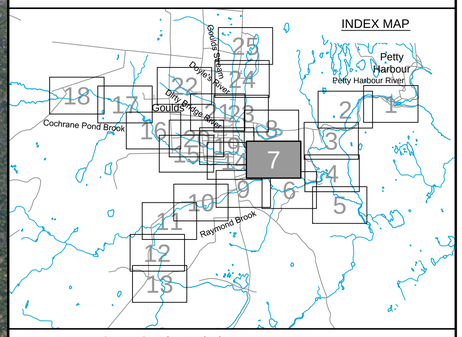

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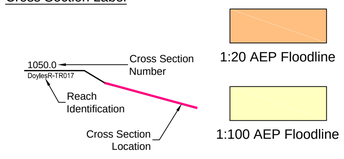

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

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Petty Harbour Rd
Hennessey's Line
Forest Pond Rd
Forest Pond
Petty Harbour Rd
Roberts Rd
Forest Pond Rd
Everard Ave
Kiely Dr
Meadowbrook Dr
Riverside Dr W

1077.28 ForestP-M001
1138.84 ForestP-M001
1228.33 ForestP-M001
1315.71 ForestP-M001
1428.05 ForestP-M001
1557.91 ForestP-M001
1019.12 ForestP-M001
959.61 ForestP-M001
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913.34 ForestP-M001
883.23 ForestP-M001
859.61 ForestP-M001
831.71 ForestP-M001
802.91 ForestP-M001
772.90 ForestP-M001
737.48 ForestP-M001
688.06 ForestP-M001
651.32 ForestP-M001
600.44 ForestP-M001
578.60 ForestP-M001
528.92 ForestP-M001

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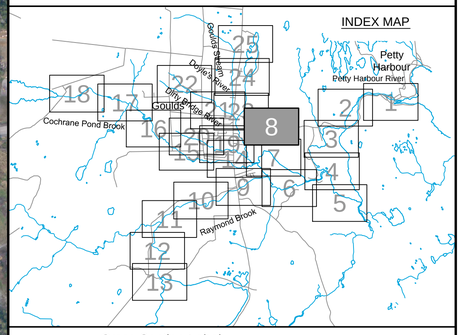

Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Floodline
1:100 AEP Floodline

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

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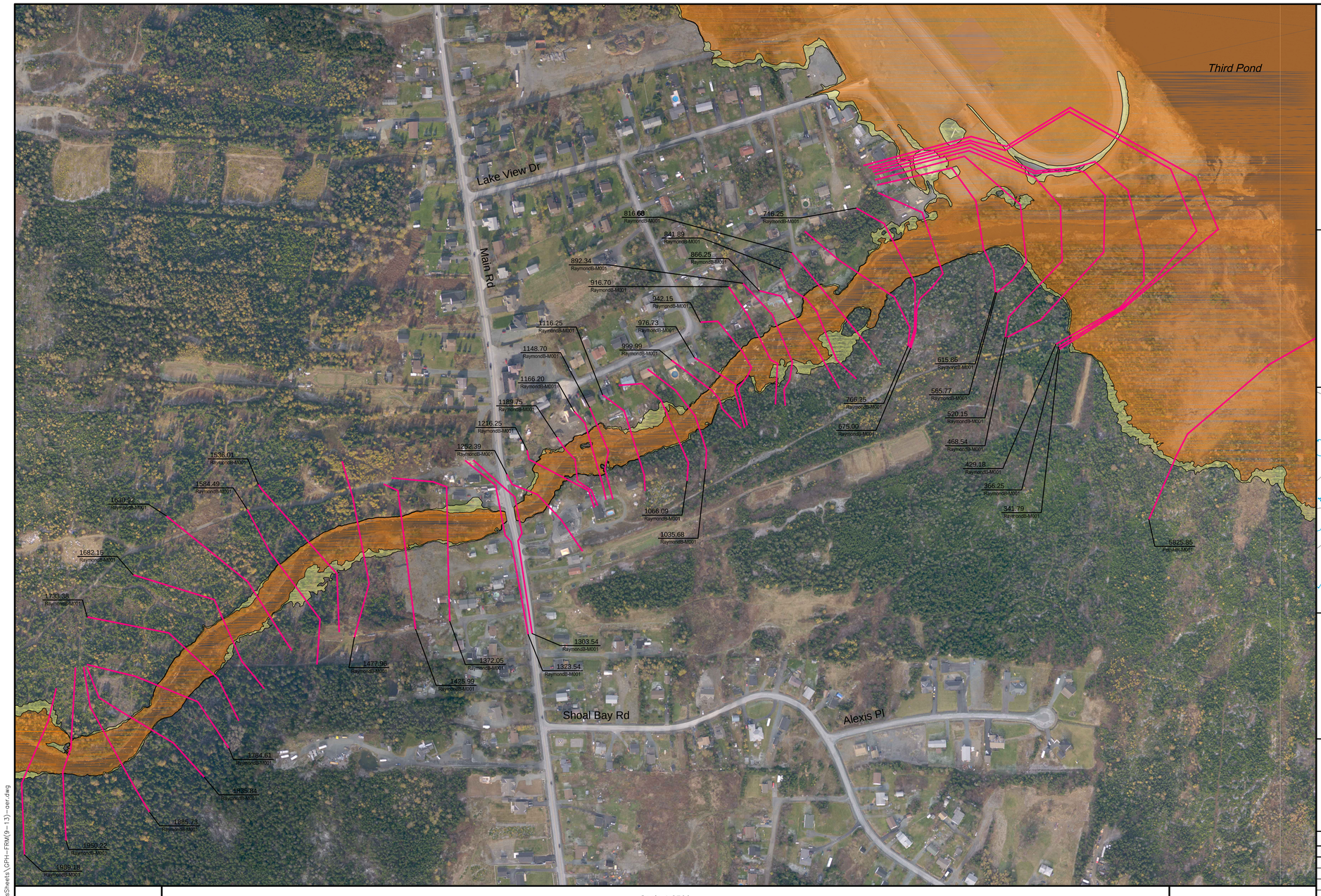

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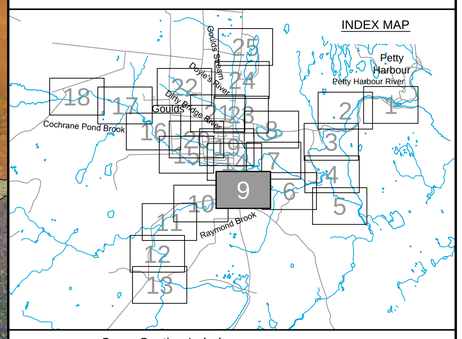

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ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

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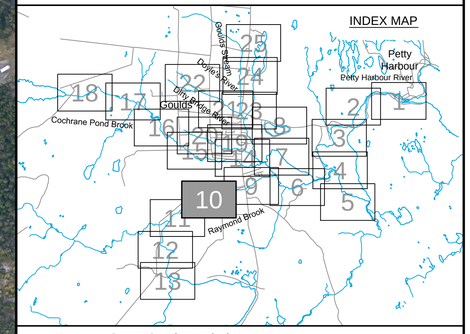

Cross Section Label

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amec

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

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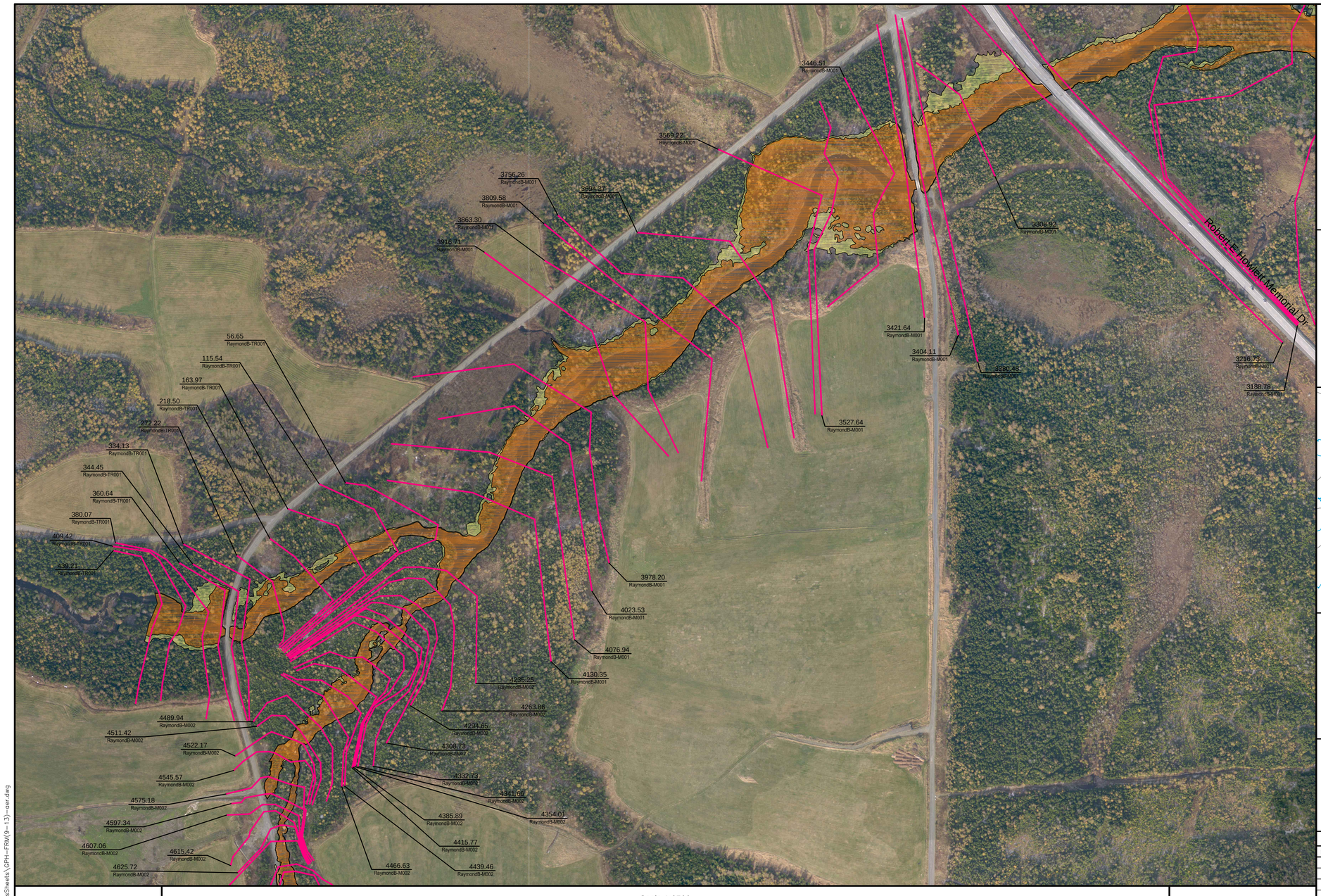

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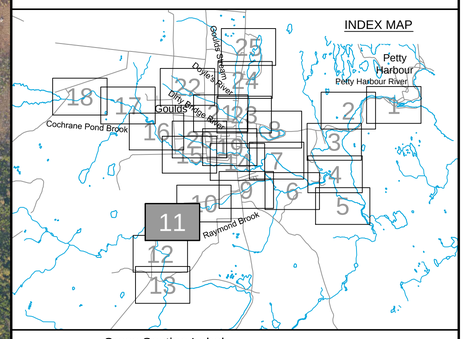

Cross Section Label

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DoylesR-TR017 — Reach Identification
Cross Section Location

1:20 AEP Floodline

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ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

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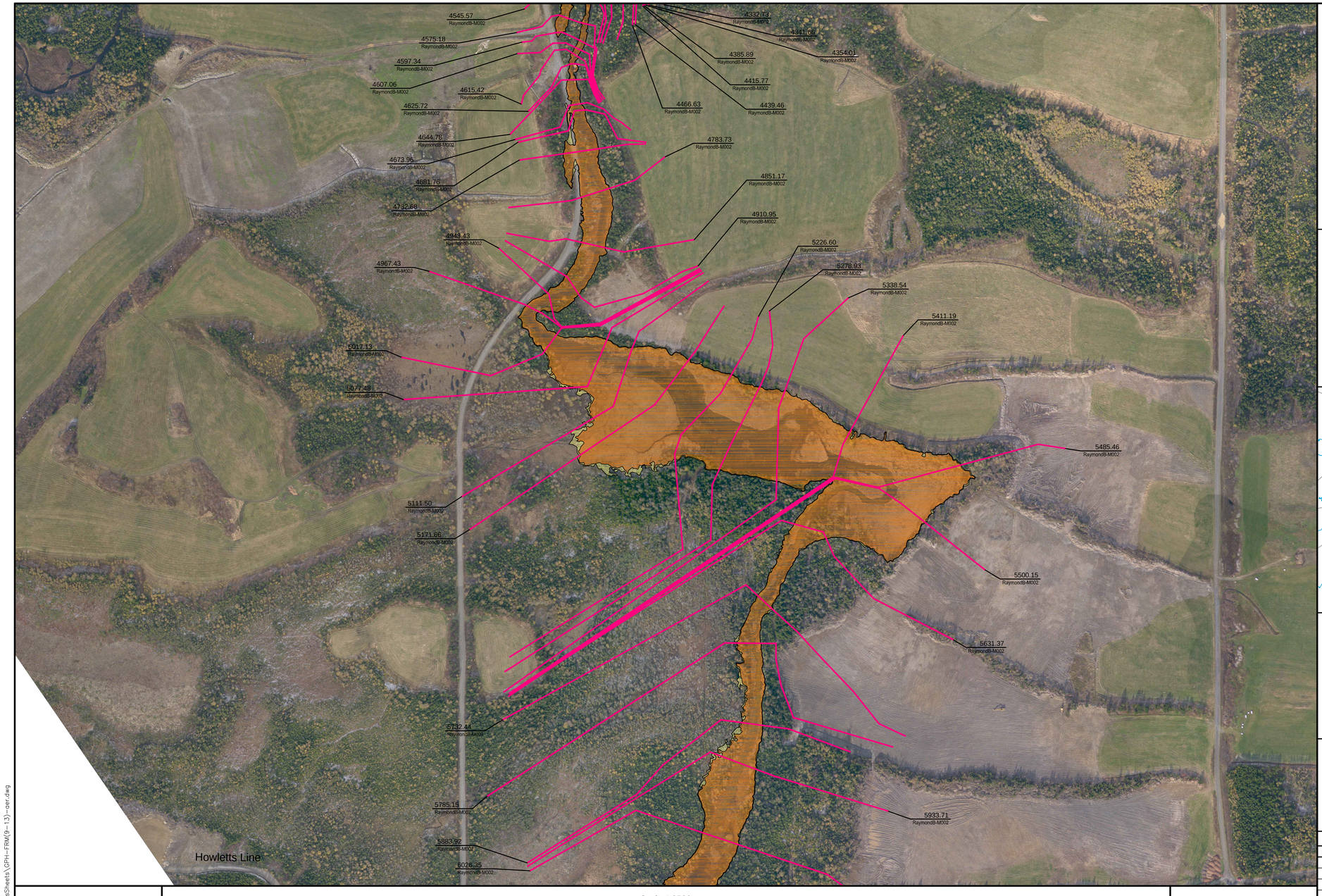

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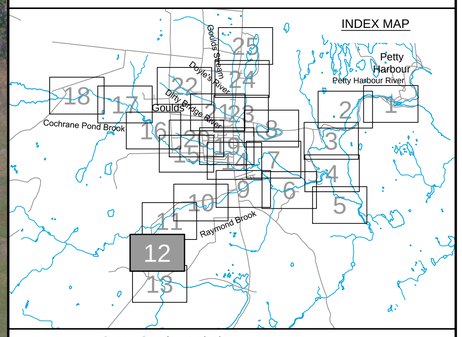

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ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

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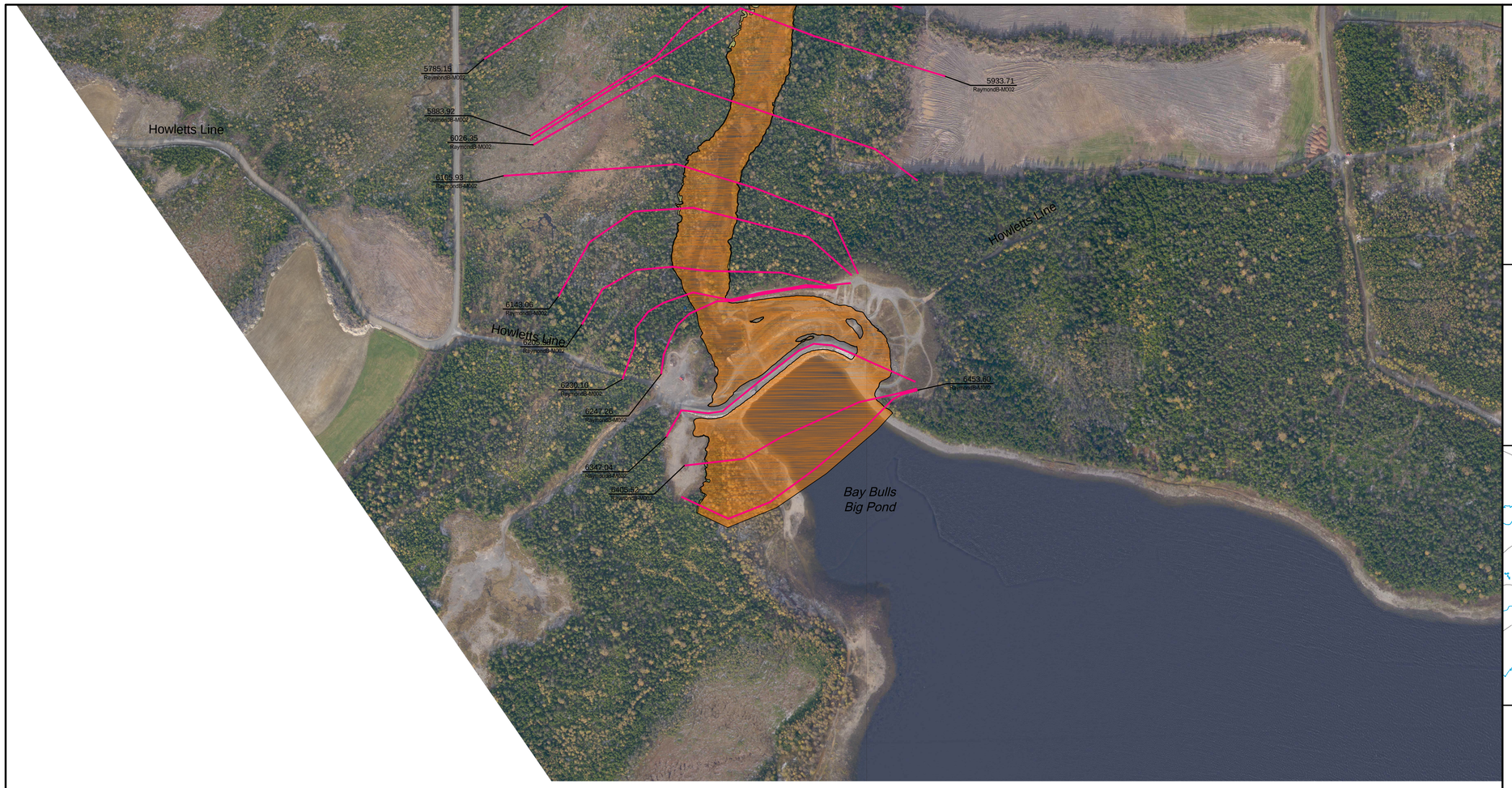

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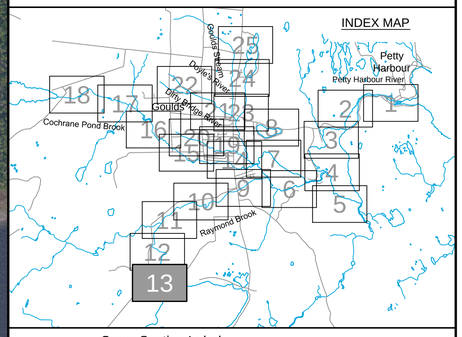

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ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

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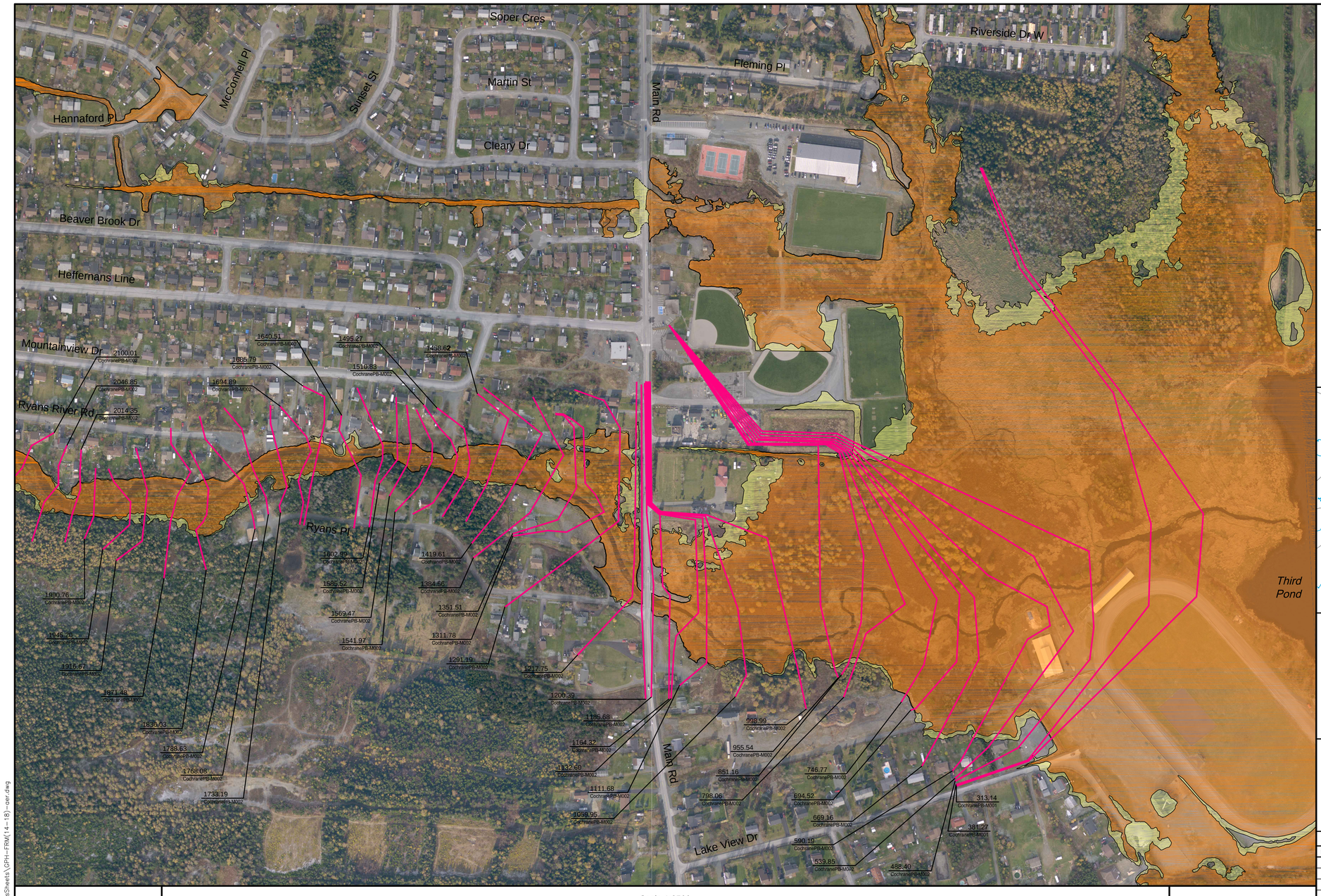

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and Goulds Stream

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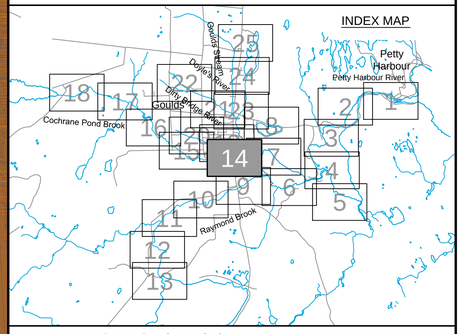

Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

Sheet 14 of 25

C:\Work\NFLD\GouldsSheets\GPH-FRM(14-18)-ser.dwg

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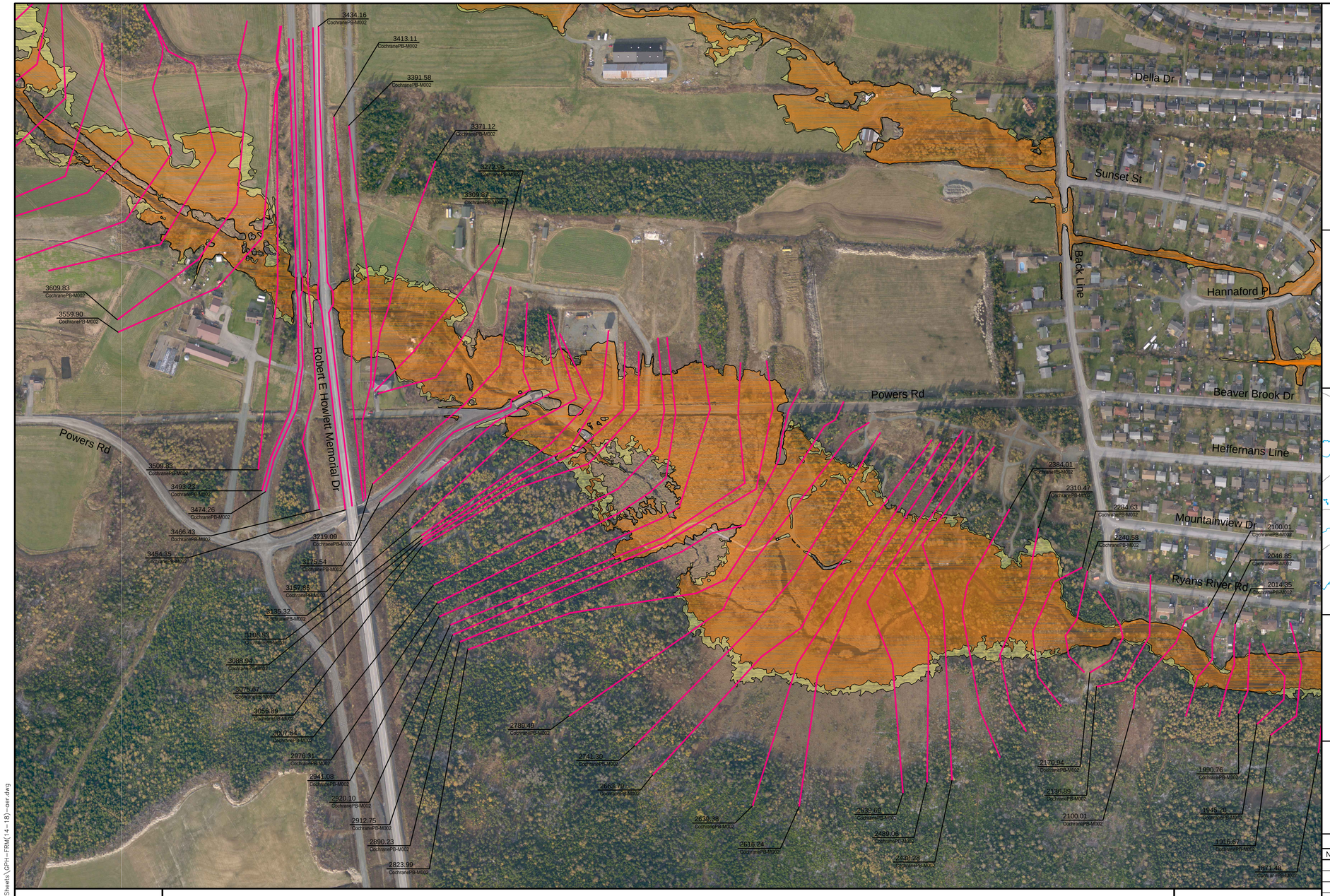


Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

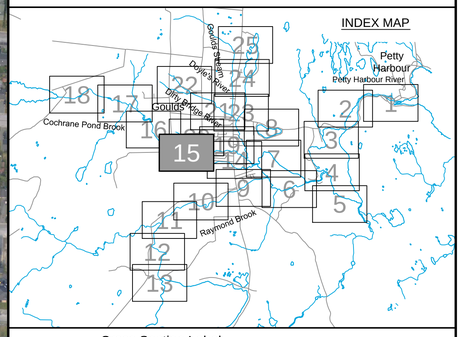
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

Flood Risk Map
Goulds\Petty Harbour

Existing Conditions - 2012

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

Sheet 15 of 25

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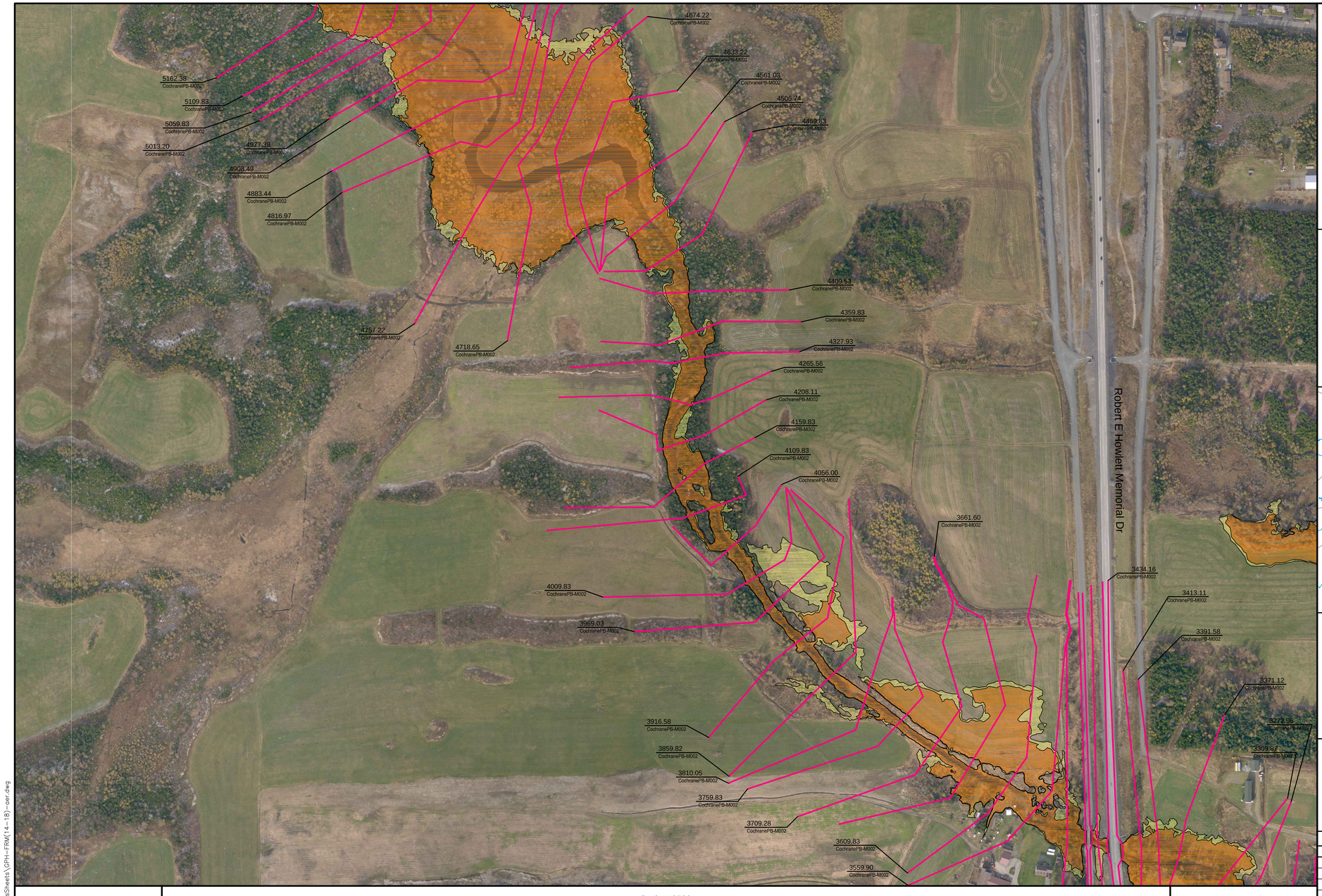

Newfoundland Labrador

Department of Environment and Conservation
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Goulds\Petty Harbour

Existing Conditions - 2012

Doyles, Dirty Bridge and
Petty Harbour Rivers,
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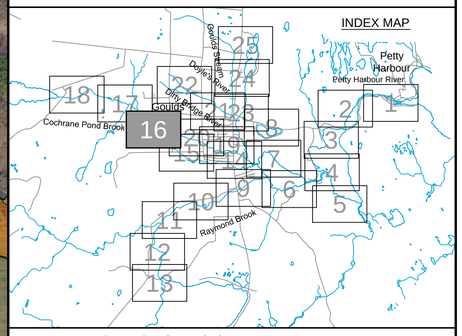
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

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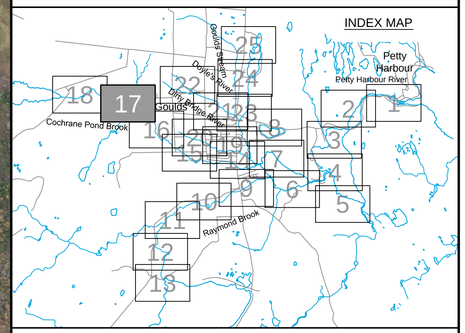
Goulds\Petty Harbour

Existing Conditions - 2012

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 17 of 25

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

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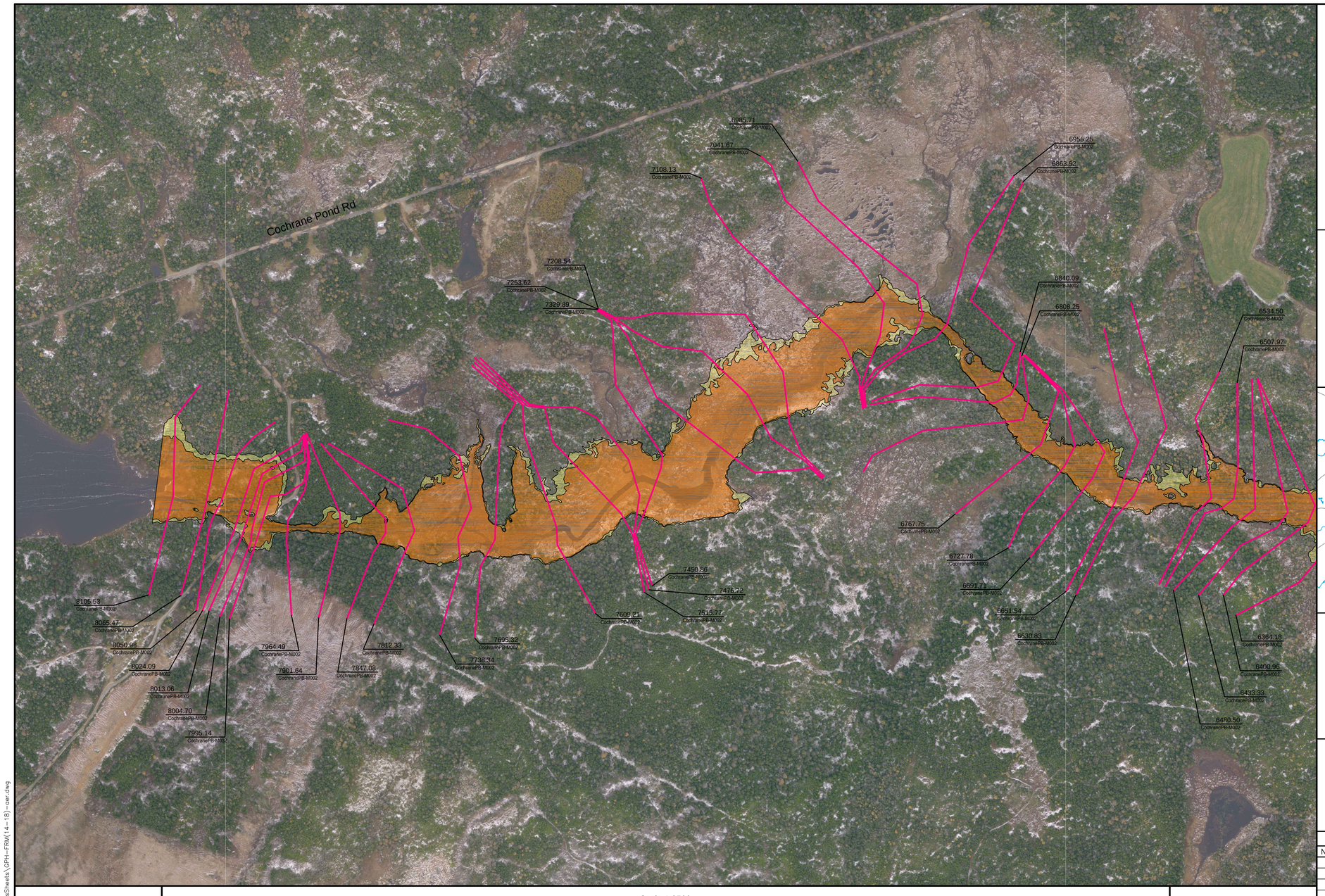

Newfoundland Labrador

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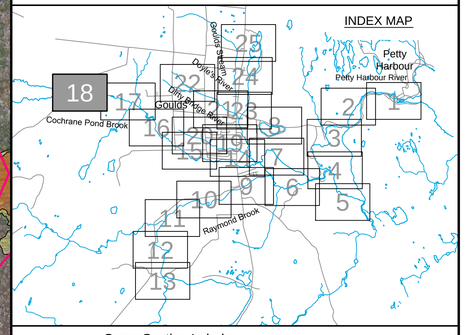
Goulds\Petty Harbour

Existing Conditions - 2012

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

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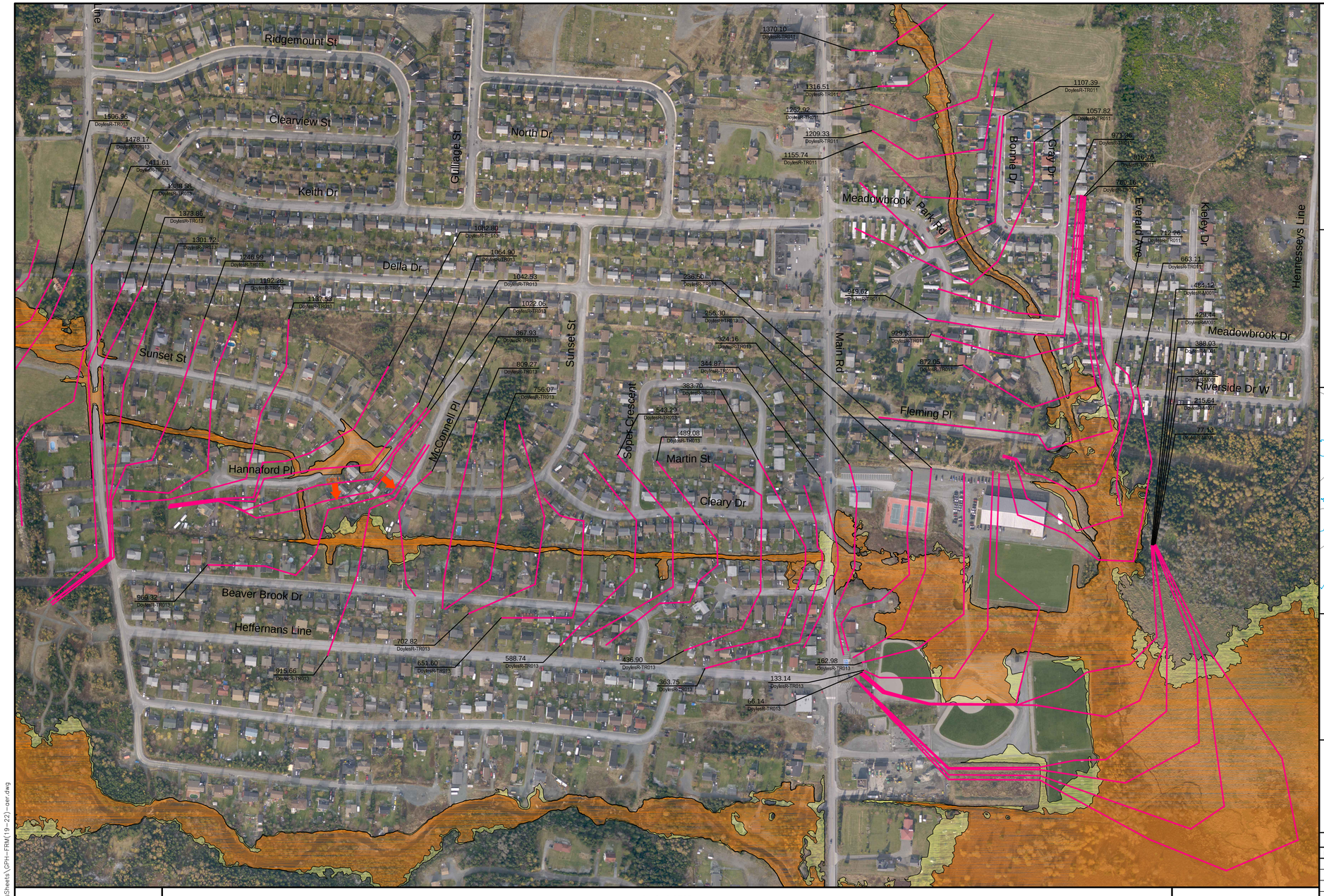
C:\Work\NFLD\GoudsSheets\GPH-FRM(14-18)-ser.dwg

Mar 23/13 – richard.bartolo



Newfoundland Labrador

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Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

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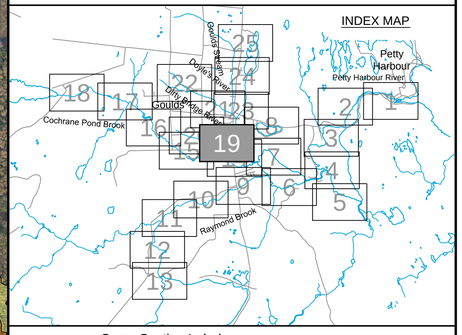
Goulds\Petty Harbour

Existing Conditions - 2012

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

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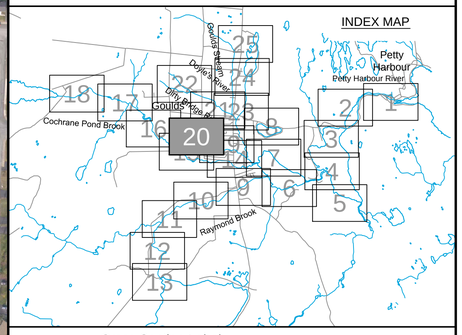
Existing Conditions - 2012

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



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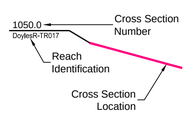

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

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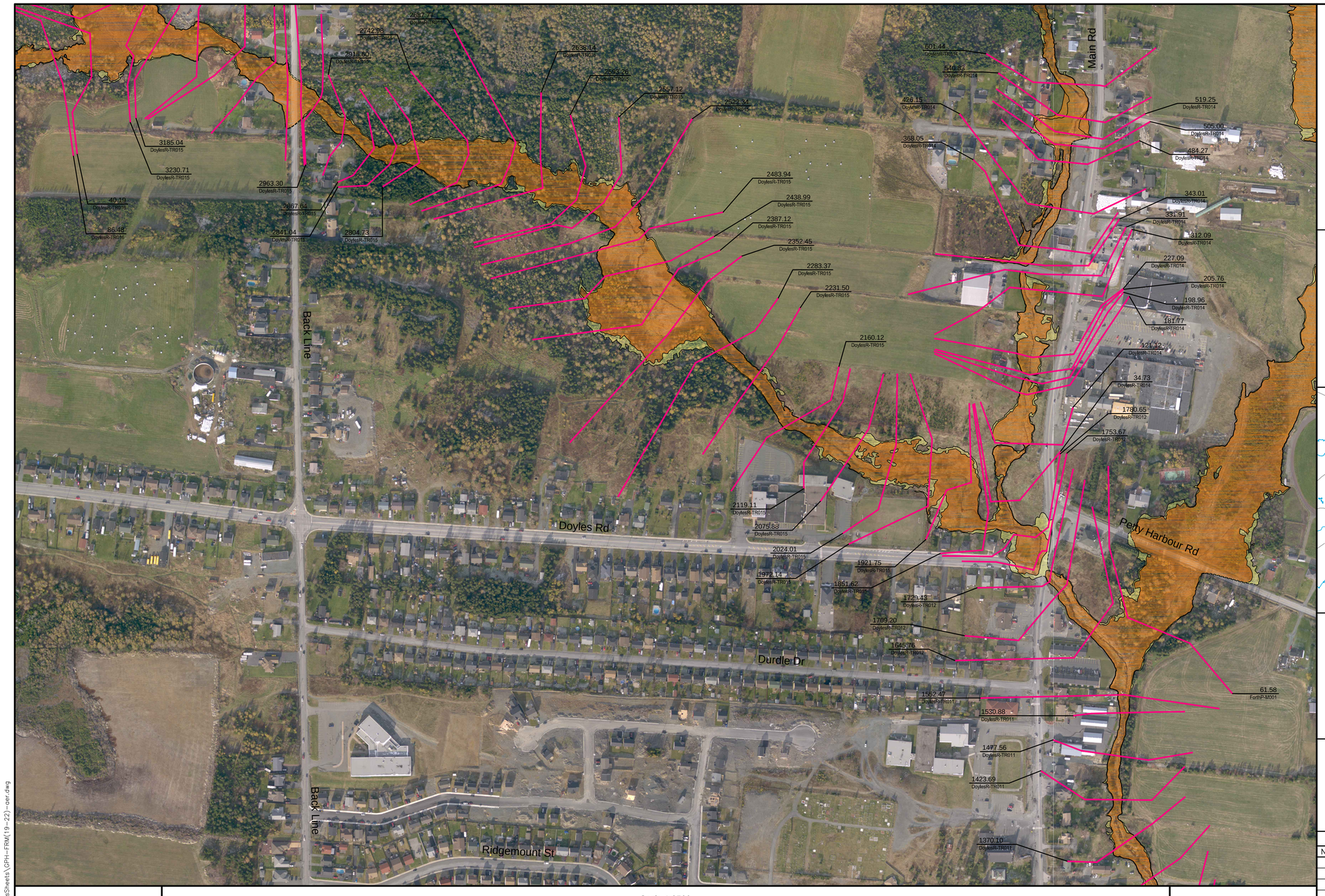

Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

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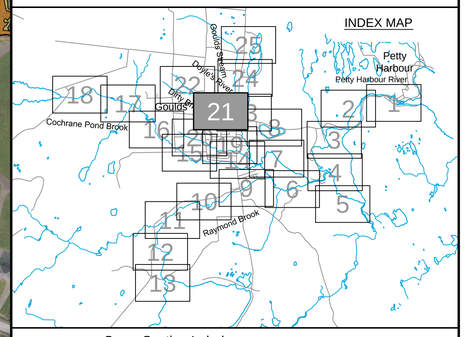
Goulds\Petty Harbour

Existing Conditions - 2012

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

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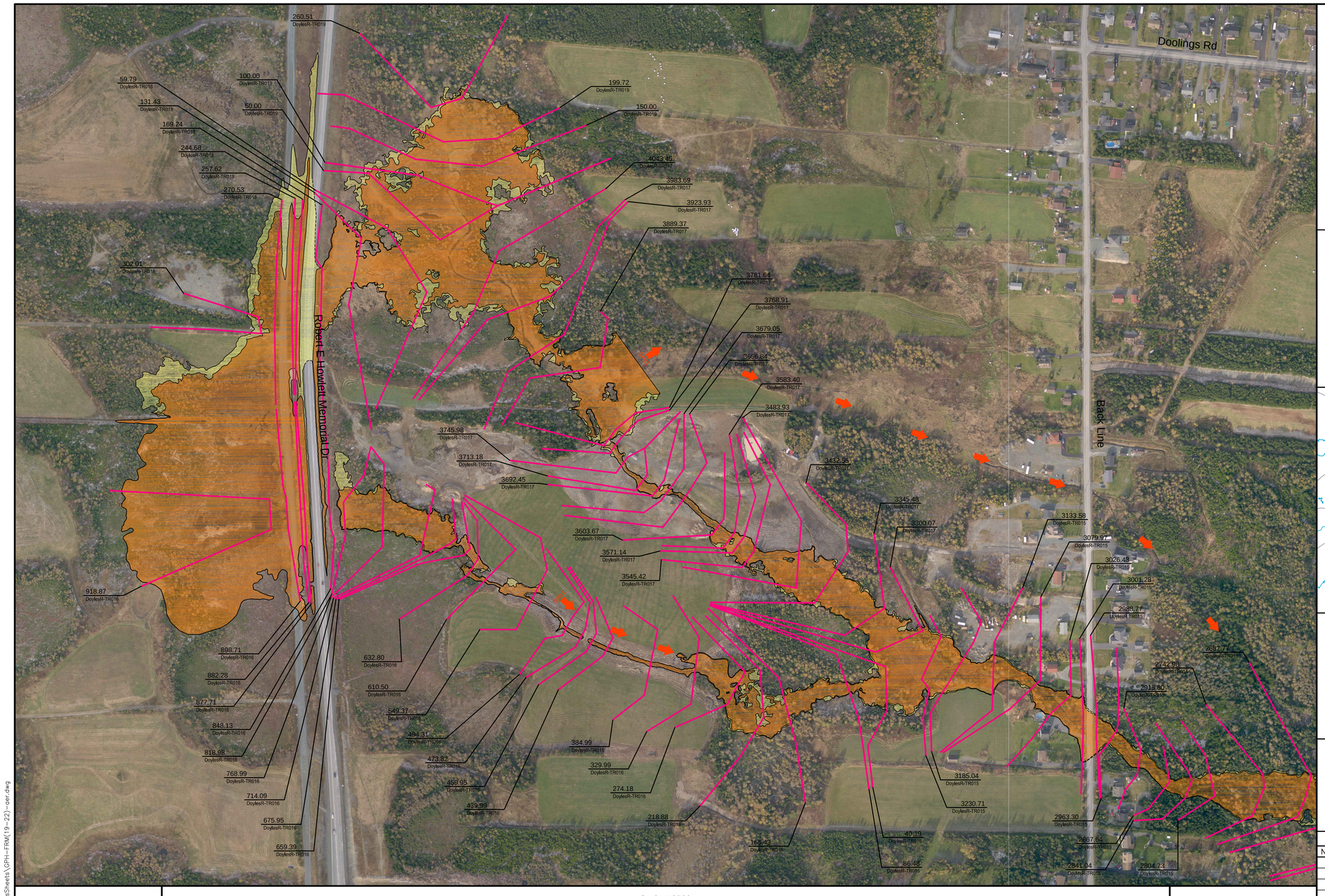

Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

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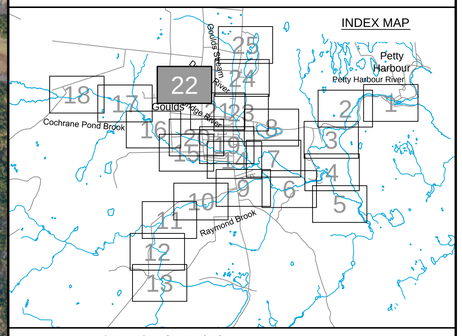
Goulds\Petty Harbour

Existing Conditions - 2012

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

Sheet 22 of 25

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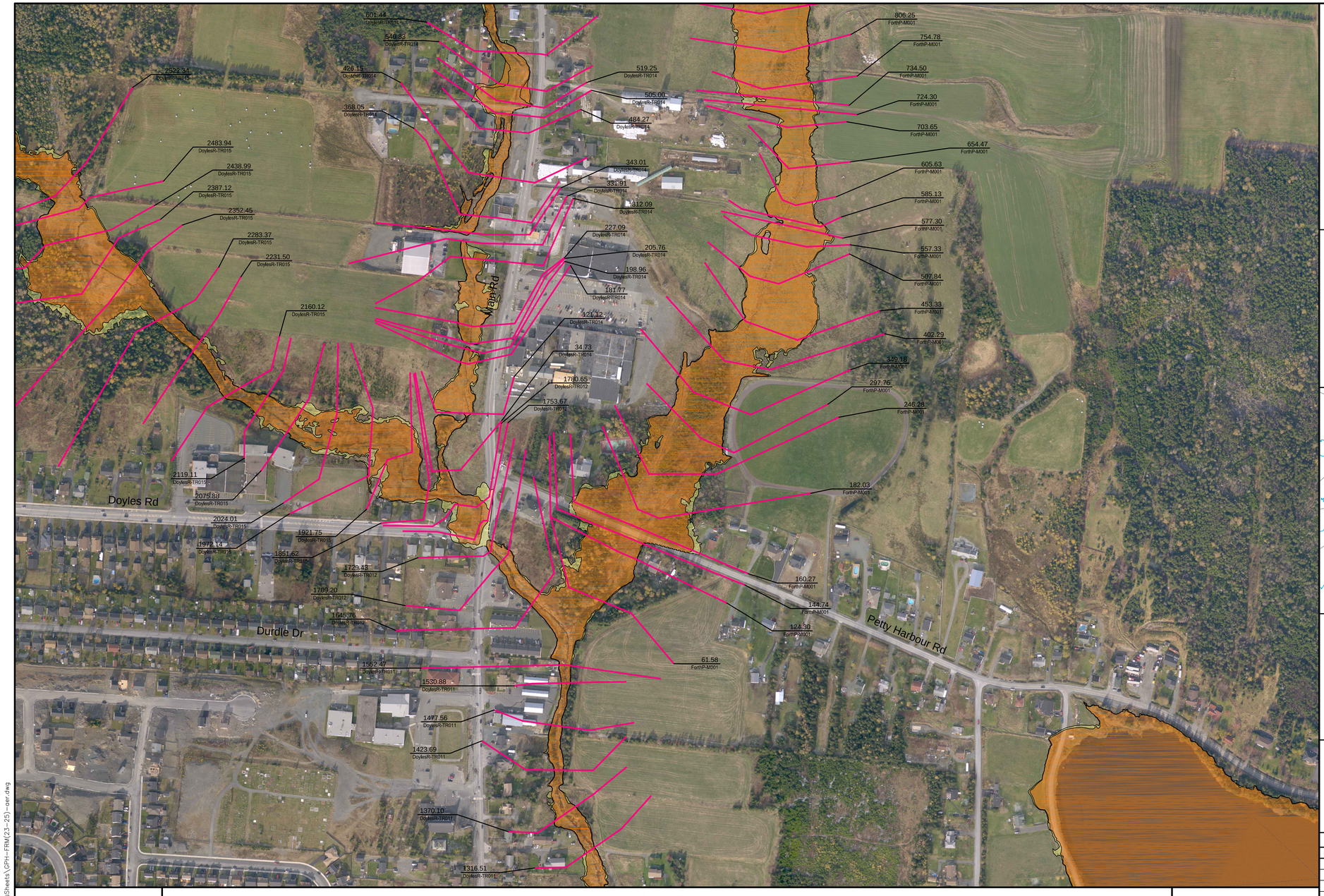
Mar 23/13 – richard.bartolo



MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

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Goulds\Petty Harbour

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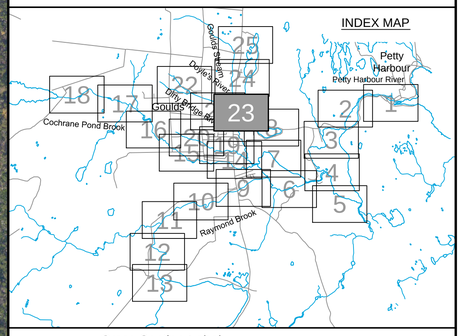
Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

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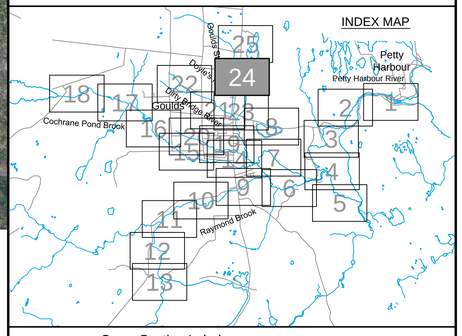
Existing Conditions - 2012

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017 — Cross Section Number; Reach Identification; Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

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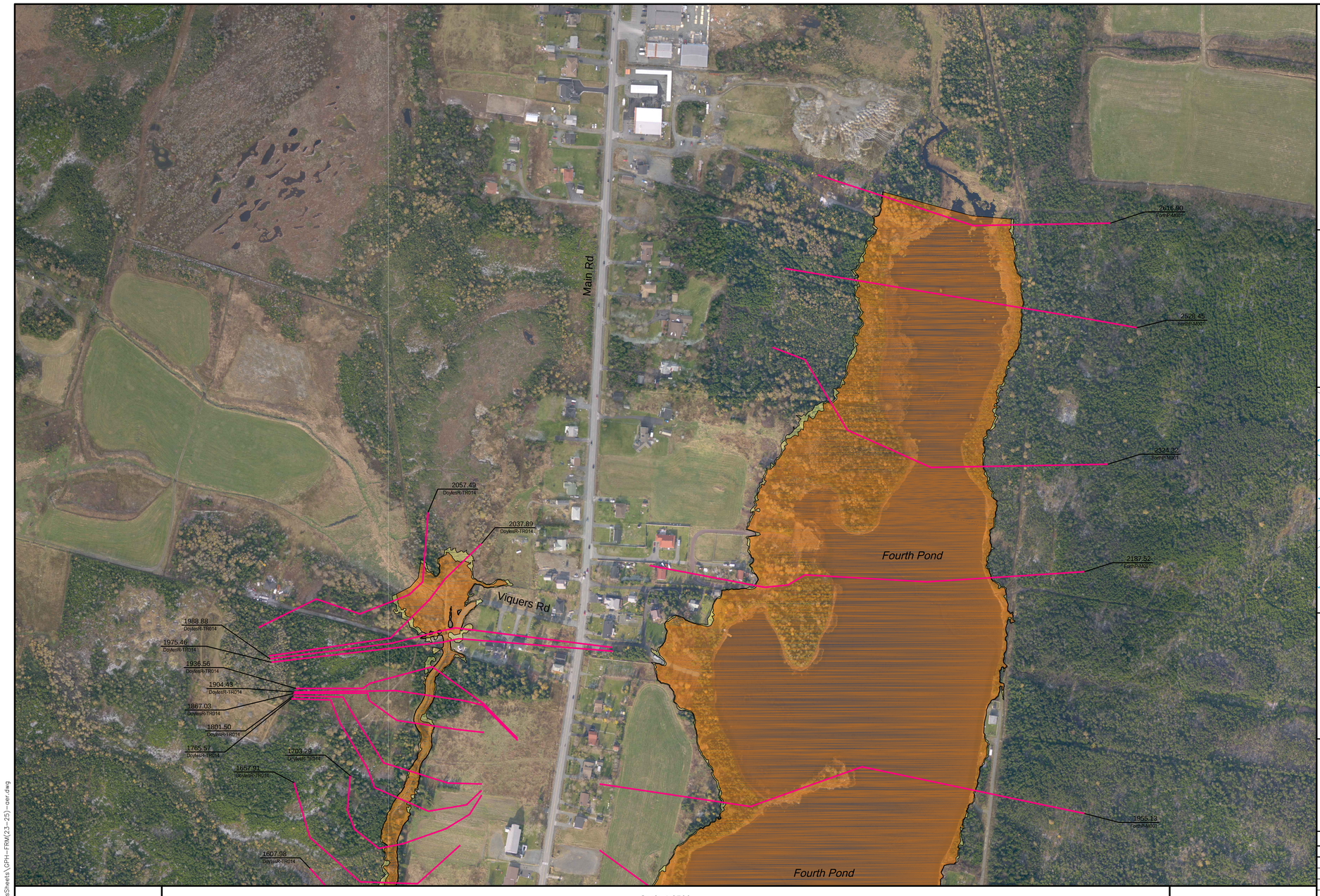
Mar 23/13 – richard.bartolo



Newfoundland Labrador

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Water Resource Management Division

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Goulds\Petty Harbour

Existing Conditions - 2012

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Petty Harbour Rivers,
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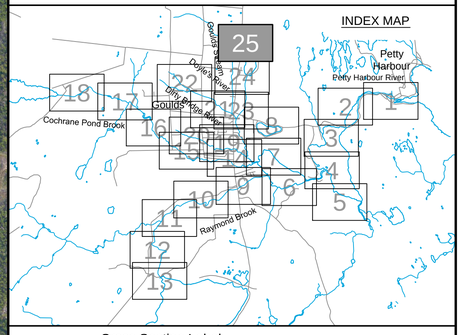
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

Sheet 25 of 25

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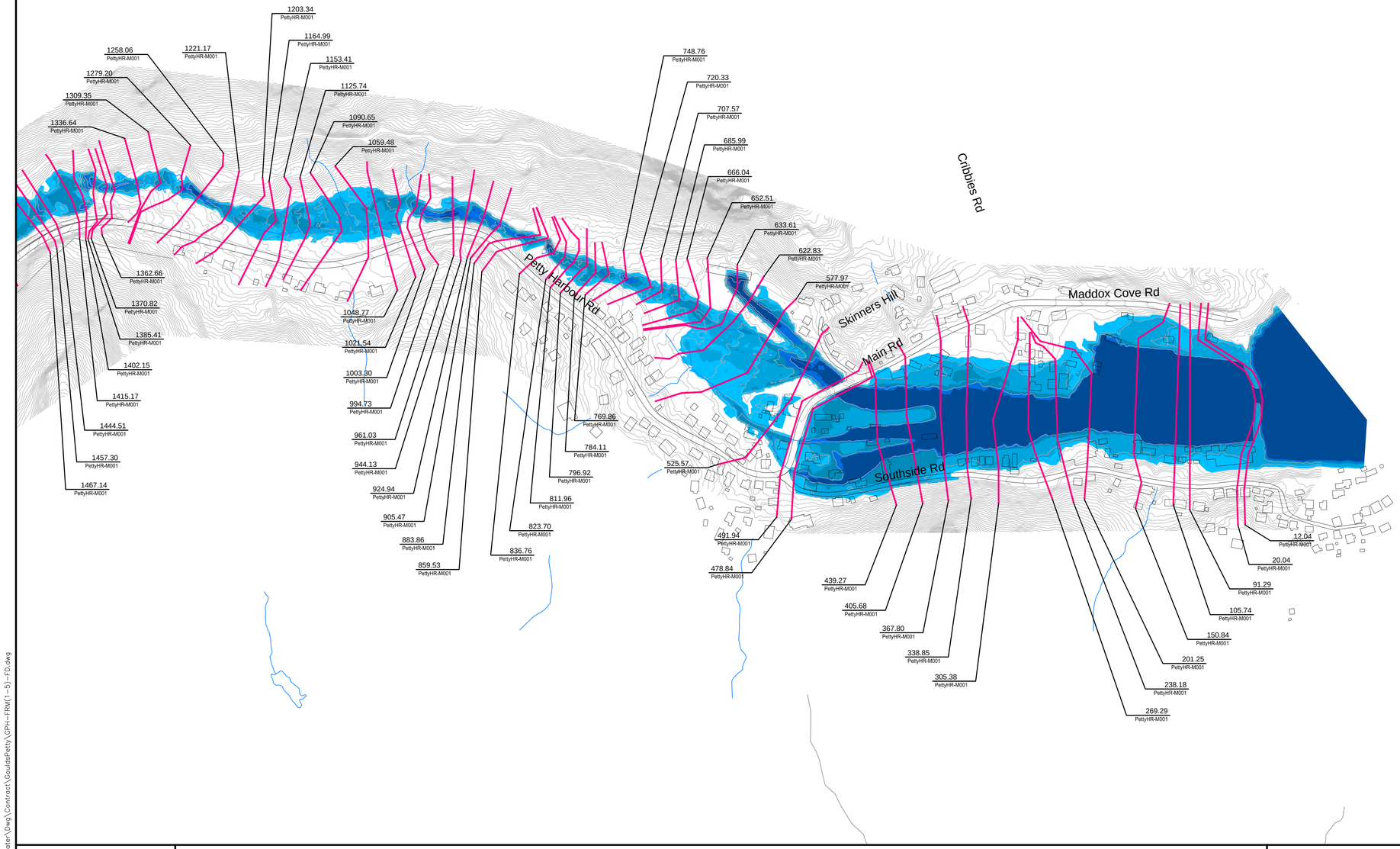


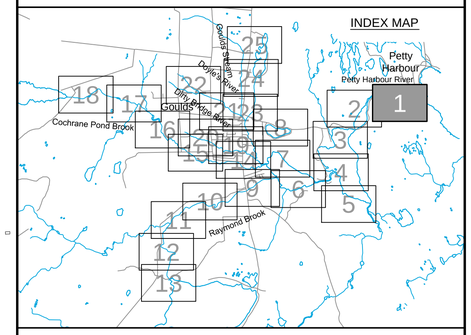
Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Existing Conditions - 2012

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream



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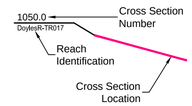


1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

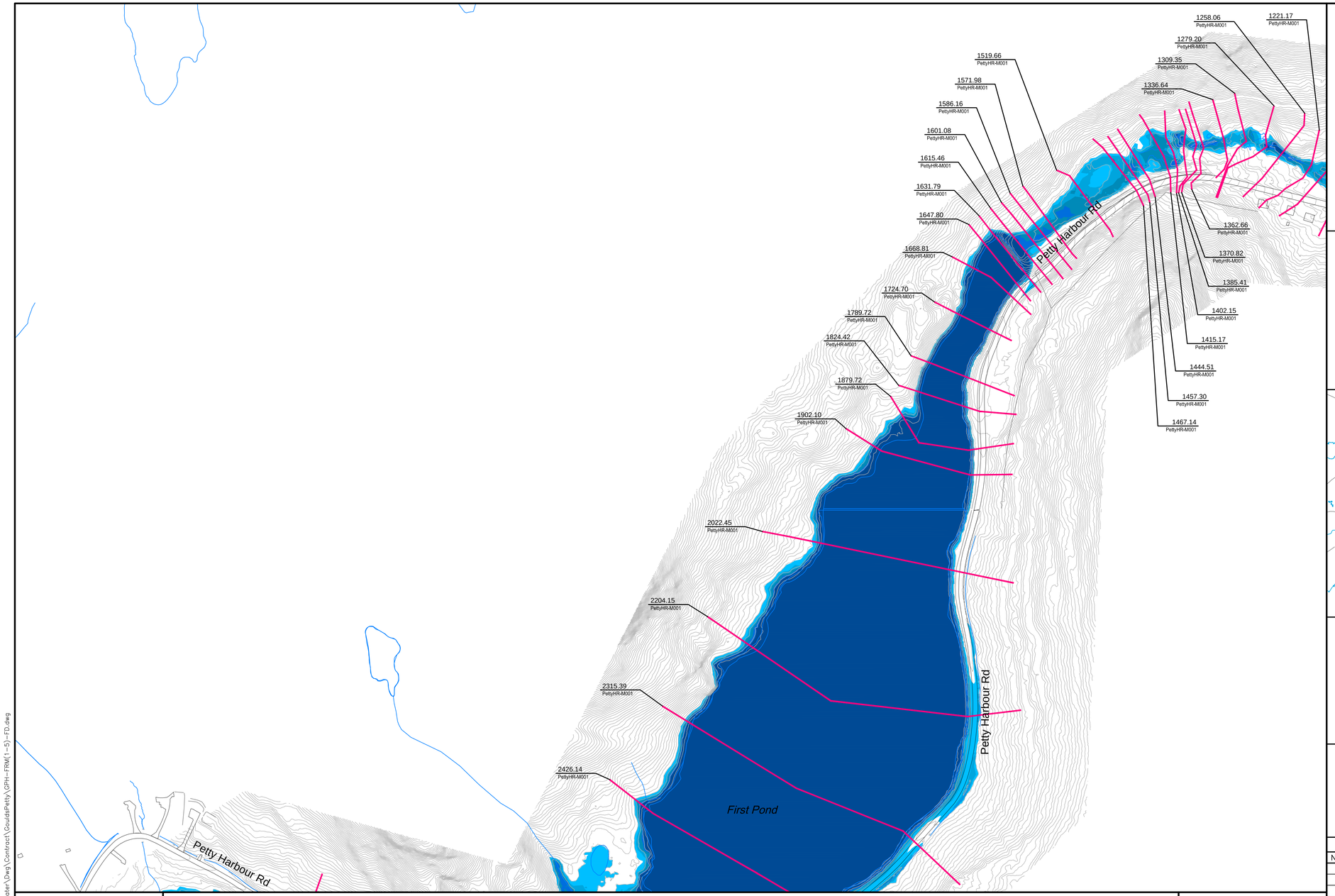
CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 1 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(1-5)-FD.dwg

Mar 25/13 – richard.bartolo



Newfoundland Labrador

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1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Existing Conditions - 2012

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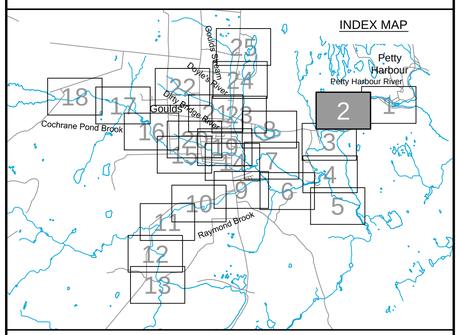
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

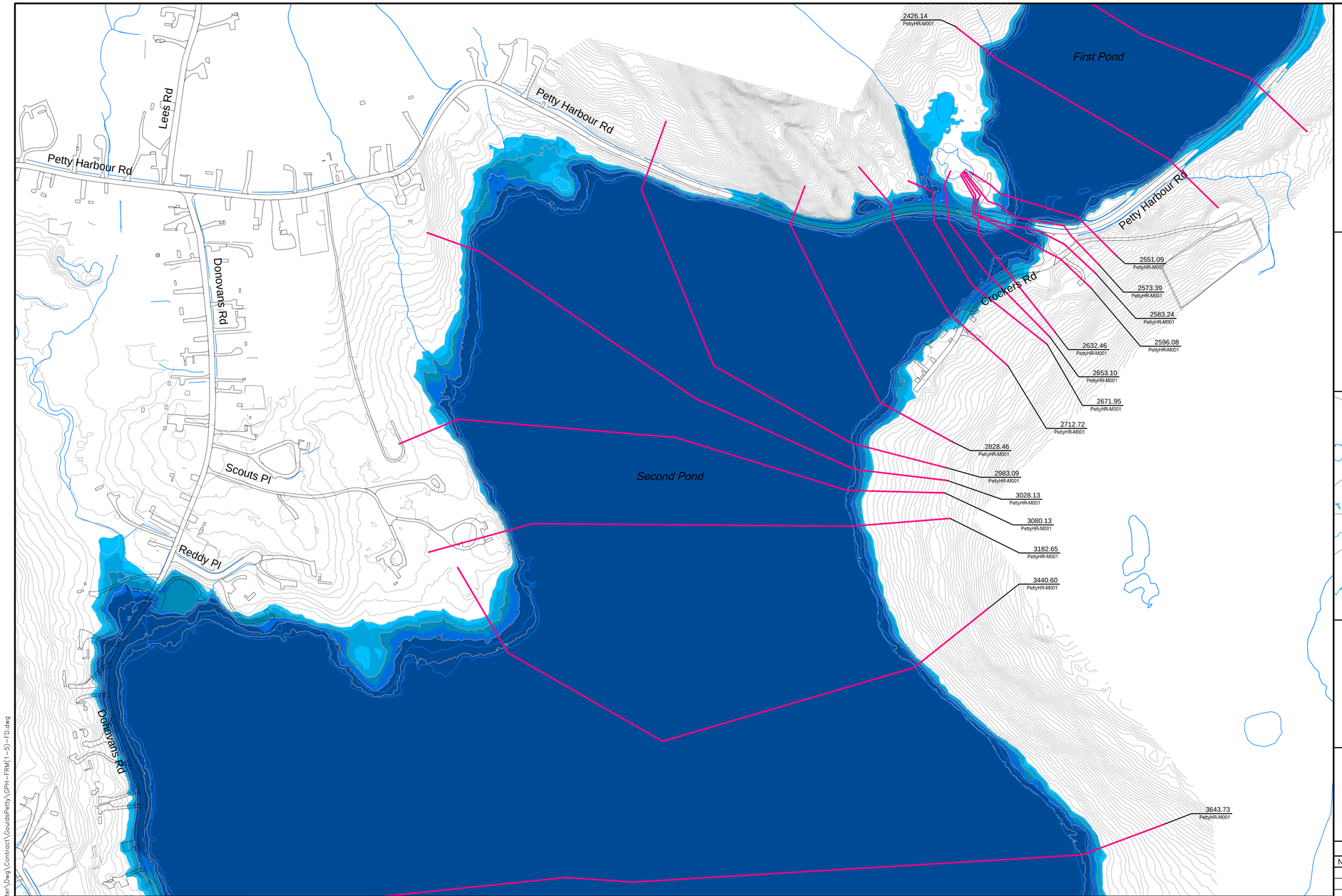
CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 2 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(1-5)-FD.dwg

Mar 25/13 – richard.bartolo



P:\Work\TA1112735\Water\Dwg\Contract\Goulds&Petty\DPH+FRM(1-5)-FD.dwg

Newfoundland Labrador

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Water Resource Management Division

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1:20 AEP Inundation Depth Mapping
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Existing Conditions - 2012

Doyles, Dirty Bridge and
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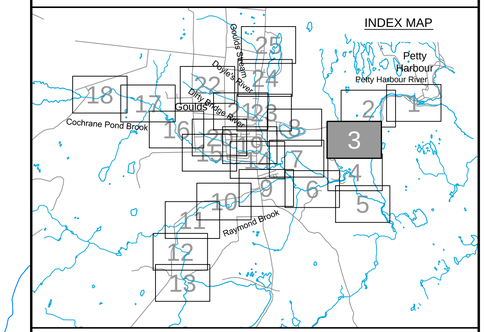
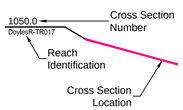
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label



1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

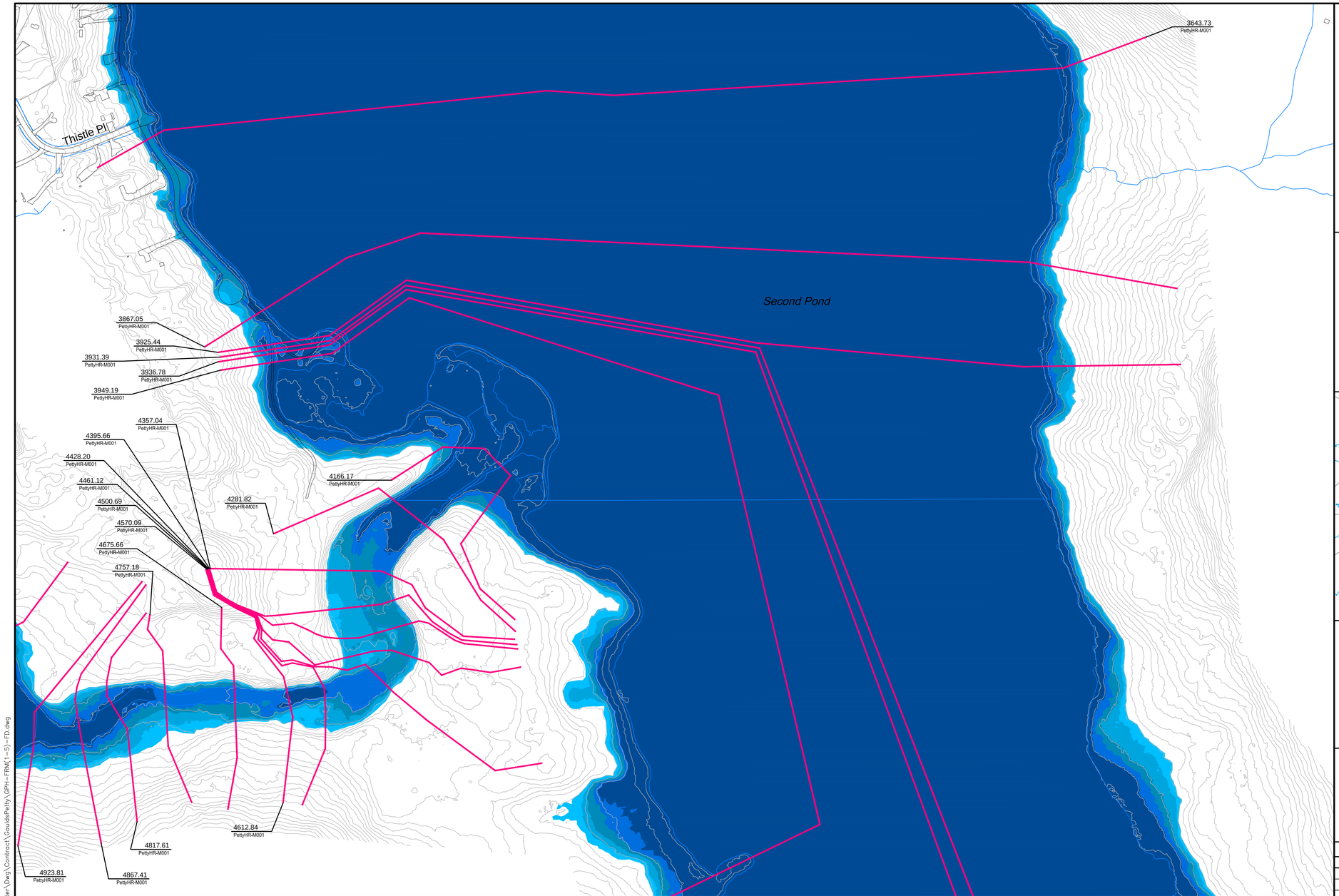
CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 3 of 25

Mar 25/13 – richard.bartolo



Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

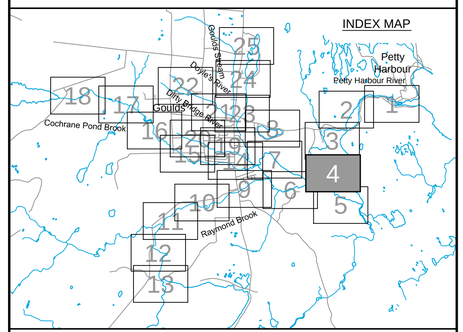
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Existing Conditions - 2012

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

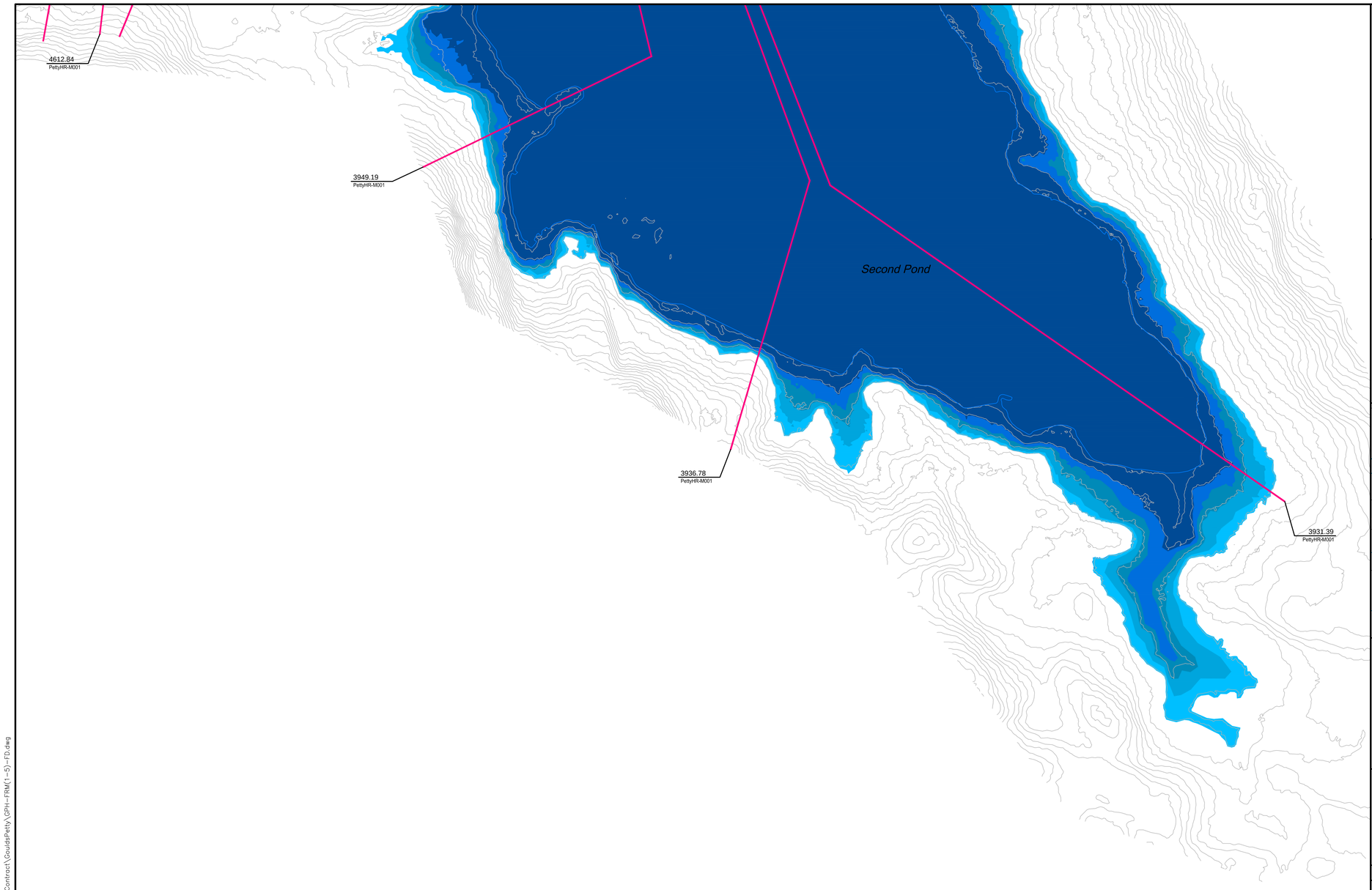
NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 4 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(1-5)-FD.dwg

Mar 25/13 – richard.bartolo



Newfoundland Labrador

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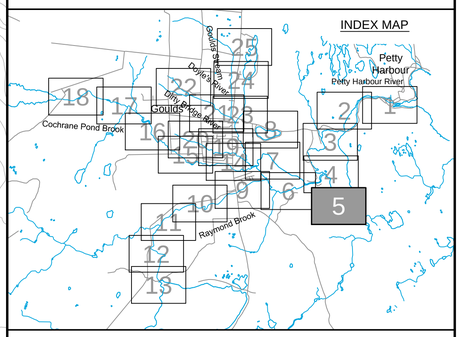
INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

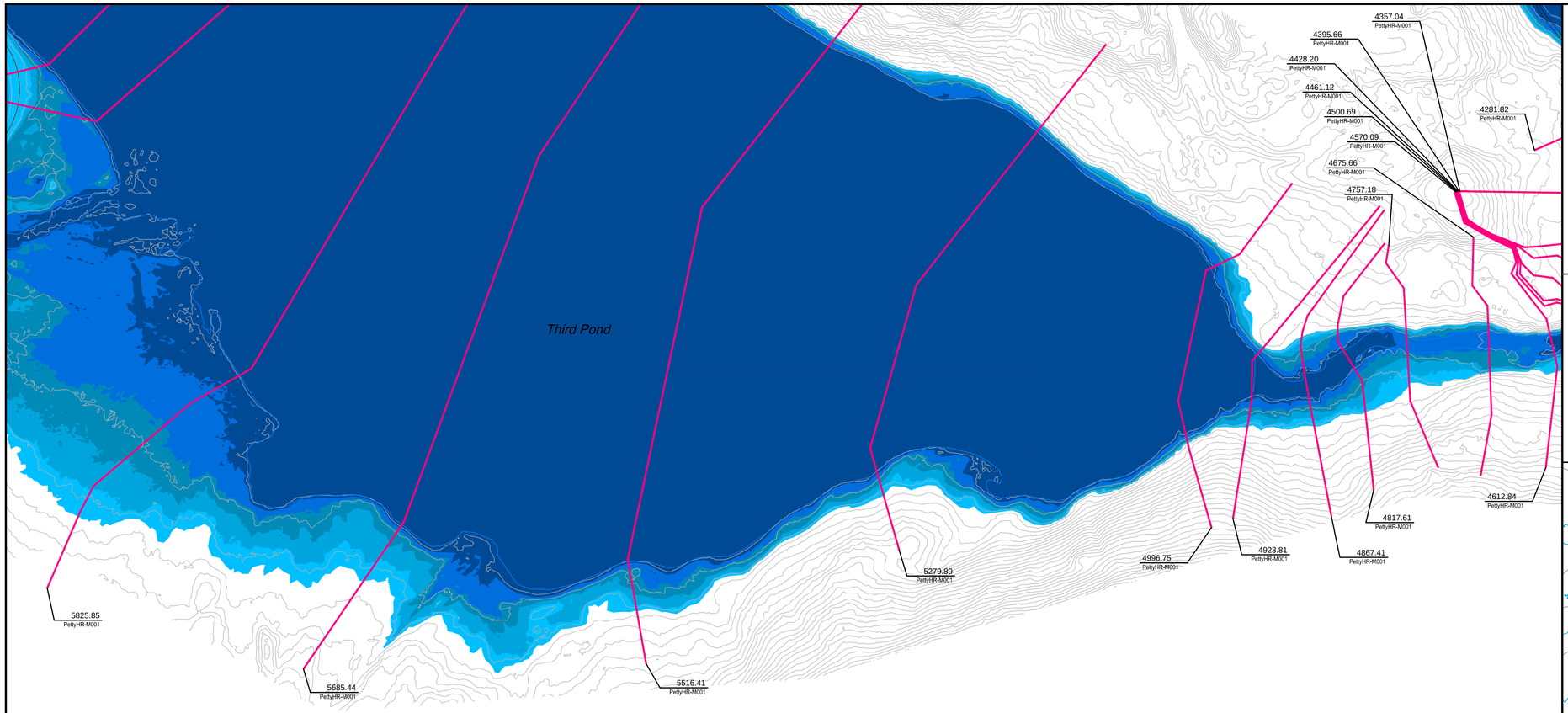
NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 5 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(1--5)-FD.dwg

Mar 25/13 – richard.bartolo



Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Existing Conditions - 2012

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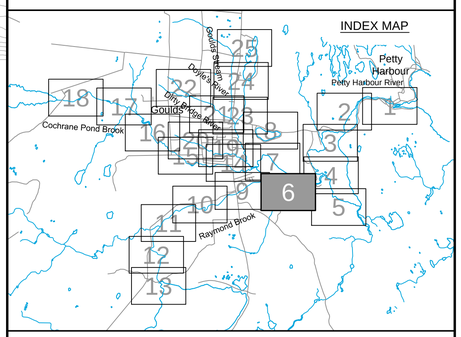
INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 6 of 25

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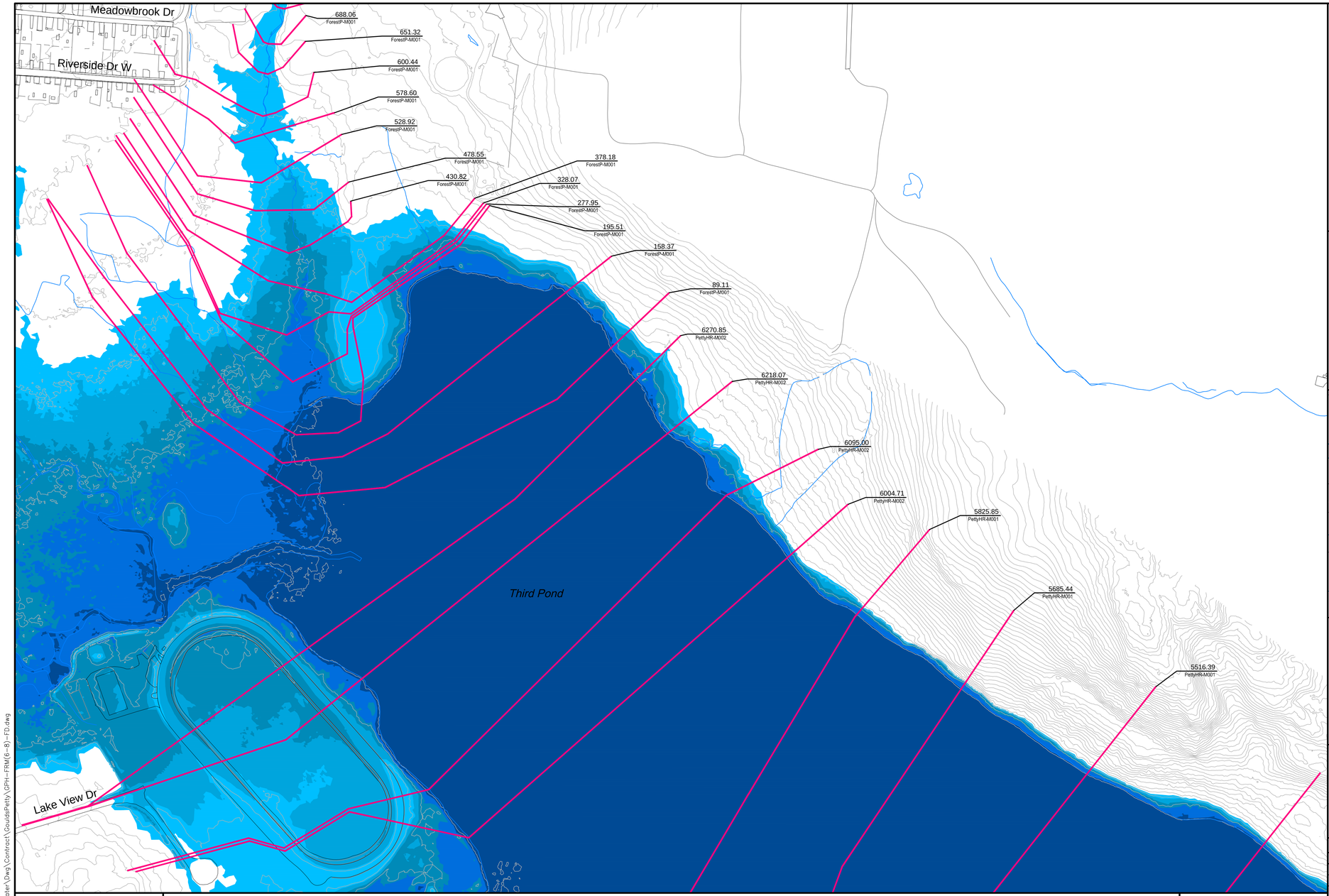

Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
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Existing Conditions - 2012

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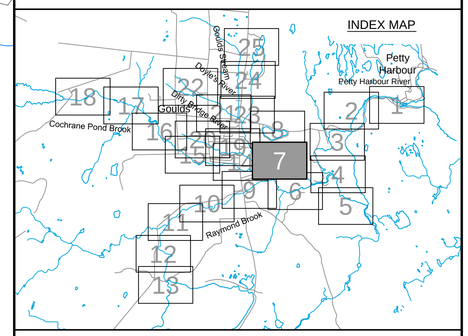
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

Sheet 7 of 25

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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Petty Harbour Rd

Hennessey's Line

Forest Pond Rd

Forest Pond

Roberts' Rd

Petty Harbour Rd

Forest Pond Rd

Everard Ave

Kielley Dr

Meadowbrook Dr

Riverside Dr W

SPILL

1077.28 ForestP-M001

1138.84 ForestP-M001

1228.83 ForestP-M001

1315.71 ForestP-M001

1428.05 ForestP-M001

1557.91 ForestP-M001

1019.12 ForestP-M001

958.61 ForestP-M001

949.85 ForestP-M001

913.34 ForestP-M001

883.23 ForestP-M001

859.61 ForestP-M001

831.71 ForestP-M001

802.91 ForestP-M001

772.90 ForestP-M001

737.48 ForestP-M001

688.06 ForestP-M001

651.32 ForestP-M001

600.44 ForestP-M001

578.60 ForestP-M001

528.92 ForestP-M001

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
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Newfoundland Labrador

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Water Resource Management Division

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Existing Conditions - 2012

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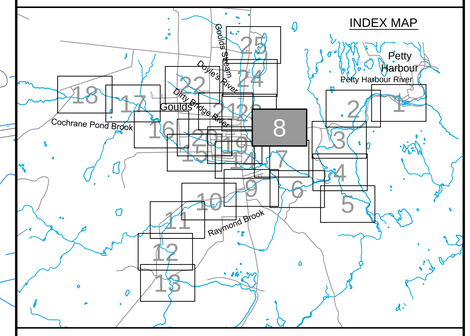
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

Sheet 8 of 25

Mar 25/13 – richard.bartolo

Third Pond

Lake View Dr

Main Rd

Shoal Bay Rd

Alexis Pl

816.68 RaymondB-M001
841.89 RaymondB-M001
866.25 RaymondB-M001
892.34 RaymondB-M001
916.70 RaymondB-M001
942.15 RaymondB-M001
976.73 RaymondB-M001
999.99 RaymondB-M001
1066.09 RaymondB-M001
1035.68 RaymondB-M001
1116.25 RaymondB-M001
1148.70 RaymondB-M001
1166.20 RaymondB-M001
1189.75 RaymondB-M001
1216.25 RaymondB-M001
1252.39 RaymondB-M001
1536.01 RaymondB-M001
1584.49 RaymondB-M001
1630.92 RaymondB-M001
1682.15 RaymondB-M001
1733.38 RaymondB-M001
1784.61 RaymondB-M001
1835.84 RaymondB-M001
1885.73 RaymondB-M001
1950.22 RaymondB-M001
1989.18 RaymondB-M001
716.25 RaymondB-M001
615.86 RaymondB-M001
565.77 RaymondB-M001
520.15 RaymondB-M001
468.54 RaymondB-M001
429.18 RaymondB-M001
366.25 RaymondB-M001
341.79 RaymondB-M001
766.25 RaymondB-M001
675.00 RaymondB-M001
5825.85 PettyHR-M001
1303.54 RaymondB-M001
1323.54 RaymondB-M001
1372.05 RaymondB-M001
1425.99 RaymondB-M001
1477.96 RaymondB-M001

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Newfoundland Labrador

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Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

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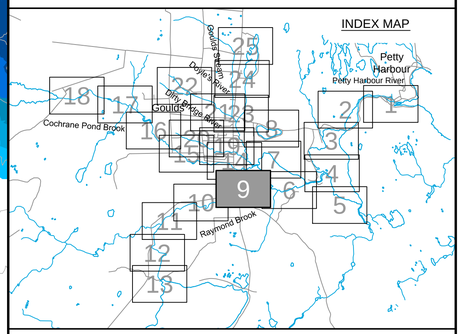
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
- Cross Section Number
- Reach Identification
- Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5 - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 9 of 25

Mar 25/13 – richard.bartolo

Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Existing Conditions - 2012

Doyles, Dirty Bridge and
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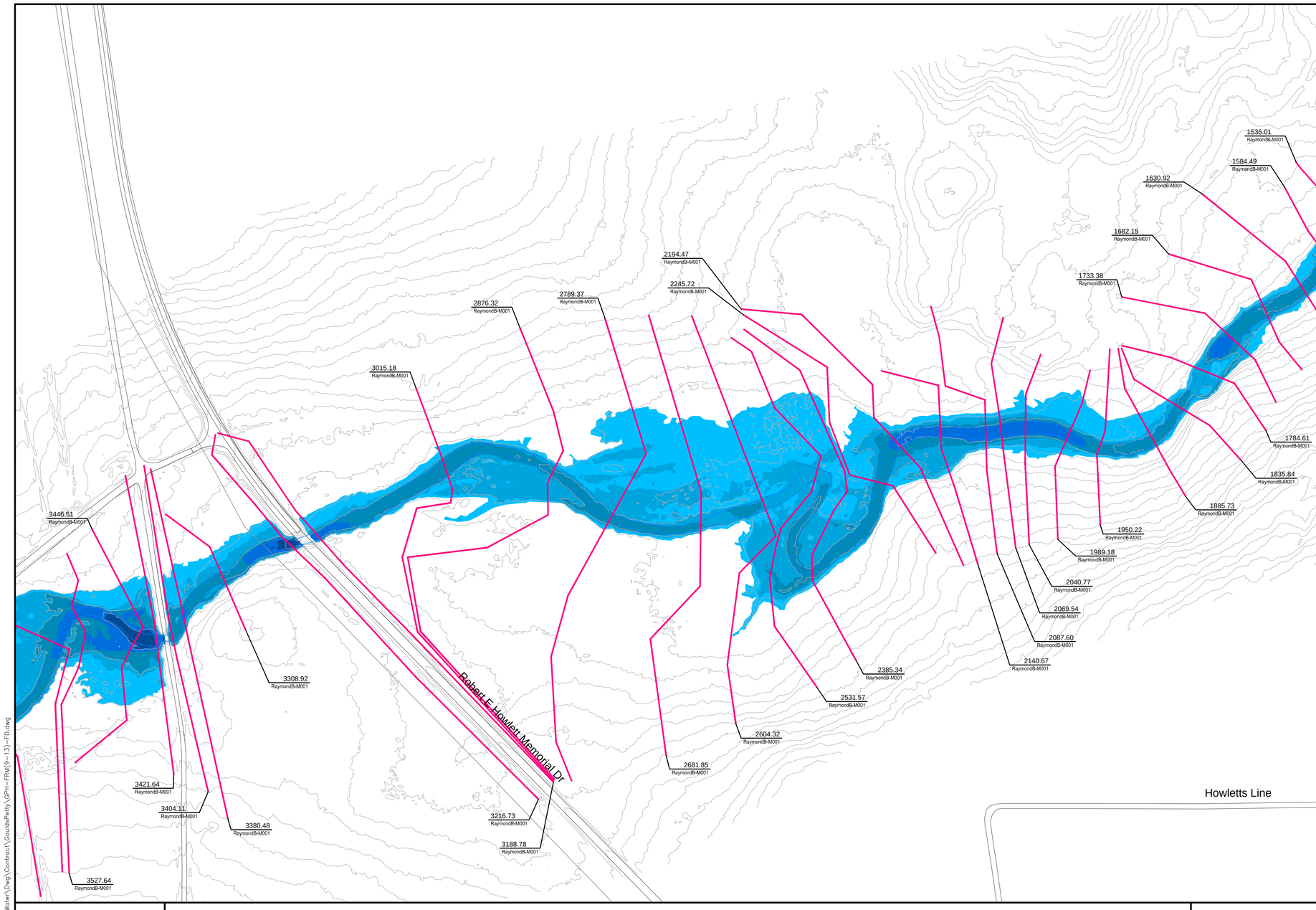
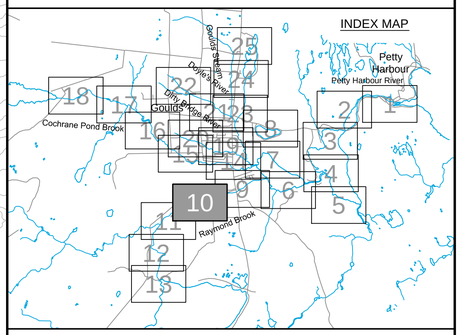


INDEX MAP



Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
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- 1.0m - 1.5m
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amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

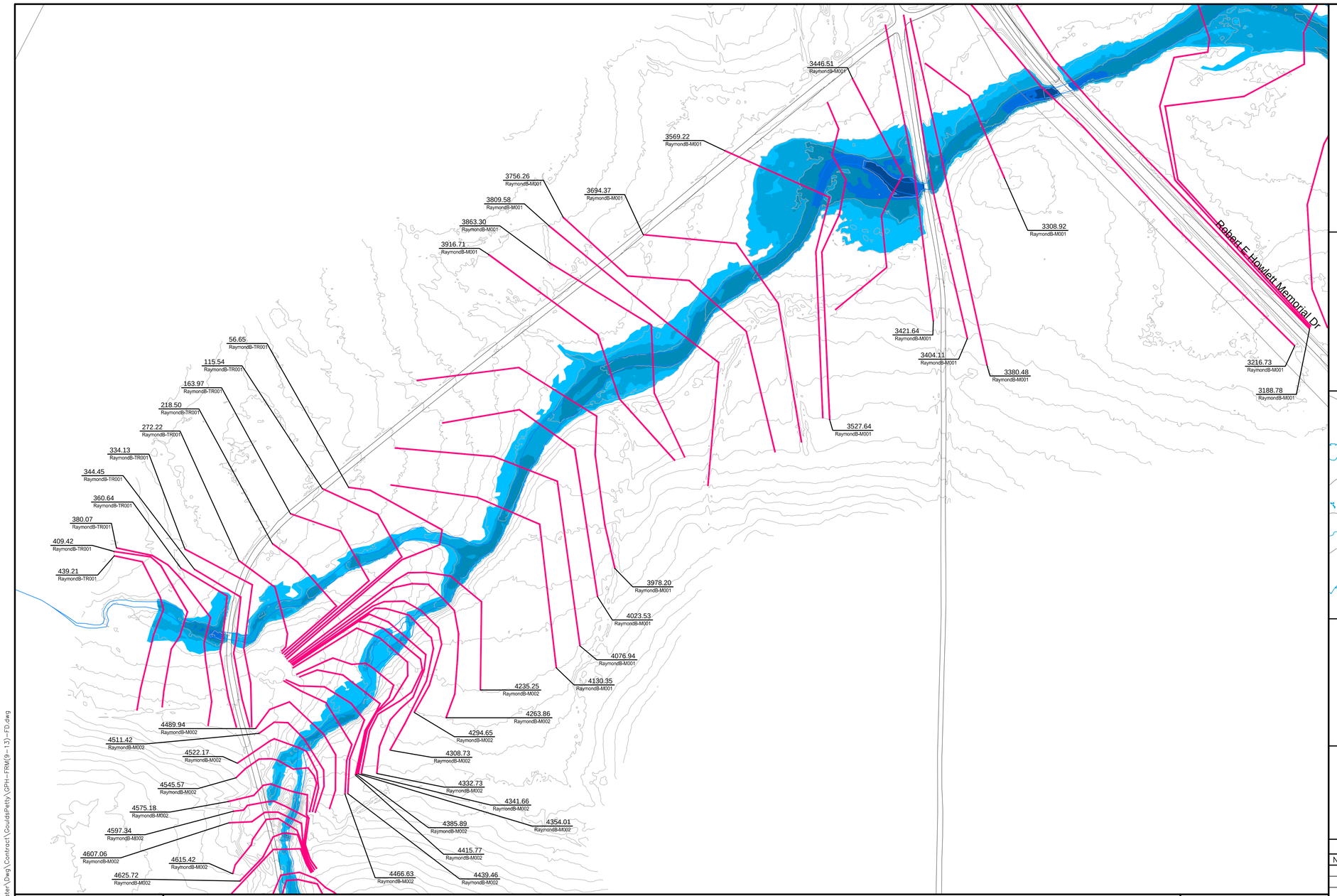
CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 10 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(9-13)-FD.dwg

Mar 25/13 – richard.bartolo



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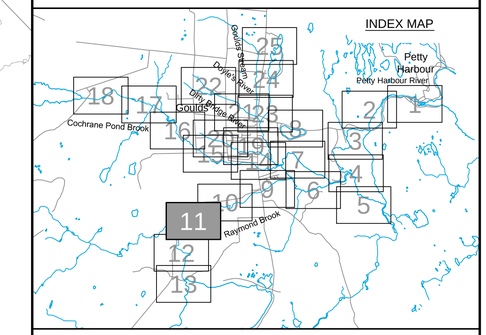

Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
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- 1.0m - 1.5m
- 1.5m - 2.0m
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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
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N

Sheet 11 of 25

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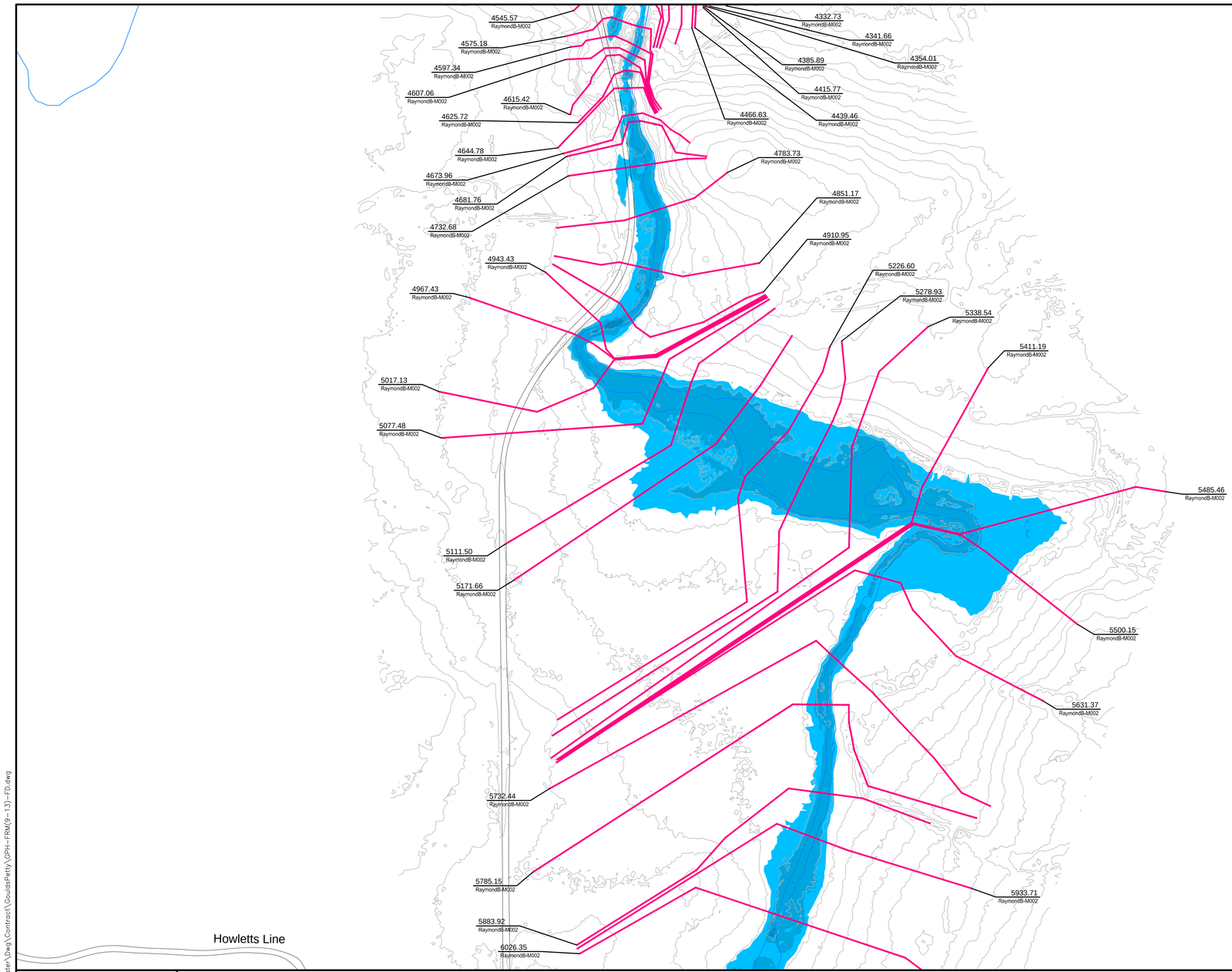
Mar 25/13 – richard.bartolo



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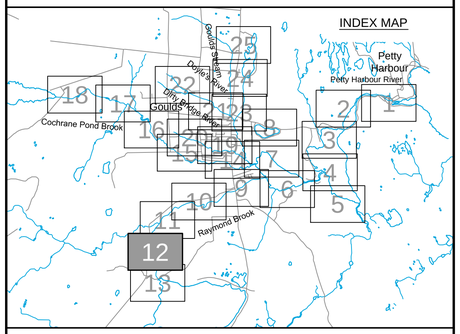
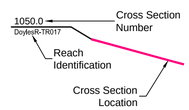


Cross Section Label



1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

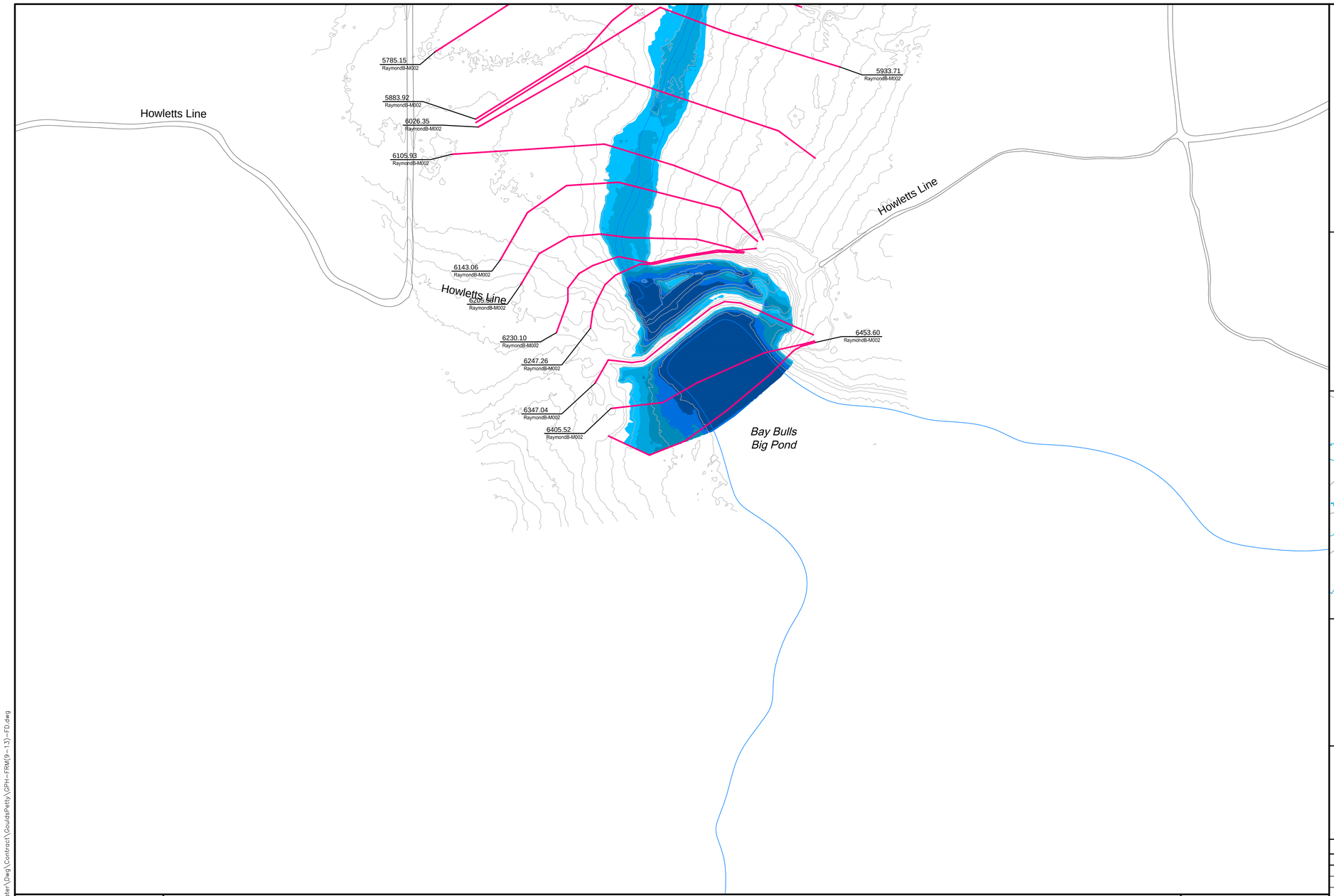
CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 12 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(9-13)-FD.dwg

Mar 25/13 – richard.bartolo



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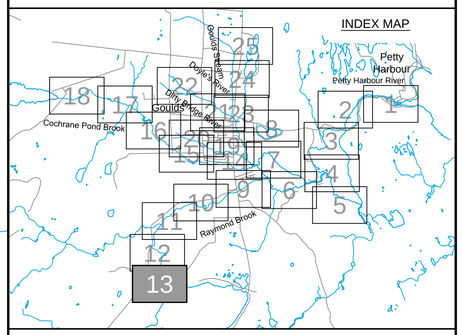

Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 13 of 25

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Mar 25/13 – richard.bartolo

Soper Cres
Martin St
Cleary Dr
McConnell Pl
Sunset St
Hannaford Pl
Beaver Brook Dr
Heffernans Line
Mountainview Dr
Ryans River Rd
Ryans Pl
Main Rd
Fleming Pl
Riverside Dr W
Lake View Dr
Third Pond

1990.76 CochranePB-M002
1945.20 CochranePB-M002
1916.67 CochranePB-M002
1871.48 CochranePB-M002
2103.01 CochranePB-M002
2046.85 CochranePB-M002
2014.35 CochranePB-M002
1836.03 CochranePB-M002
1788.63 CochranePB-M002
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1733.19 CochranePB-M002
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1384.56 CochranePB-M002
1351.51 CochranePB-M002
1311.78 CochranePB-M002
1291.19 CochranePB-M002
1458.62 CochranePB-M002
1217.75 CochranePB-M002
1200.39 CochranePB-M002
1185.68 CochranePB-M002
1164.32 CochranePB-M002
1132.60 CochranePB-M002
1111.68 CochranePB-M002
1059.95 CochranePB-M002
998.99 CochranePB-M002
955.54 CochranePB-M002
851.16 CochranePB-M002
798.06 CochranePB-M002
746.77 CochranePB-M002
694.52 CochranePB-M002
669.16 CochranePB-M002
590.19 CochranePB-M002
539.85 CochranePB-M002
488.40 CochranePB-M002
313.14 CochranePB-M001
381.27 CochranePB-M001

Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

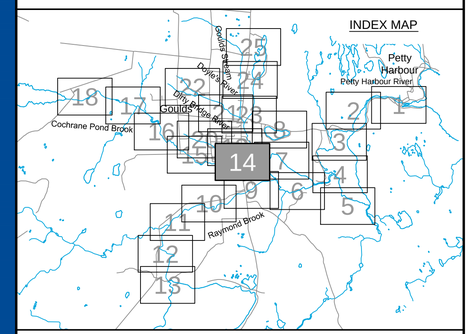
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Existing Conditions - 2012

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 Doyles8-TR017
- Cross Section Number
- Reach Identification
- Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 14 of 25

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(14-18)-FD.dwg

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Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

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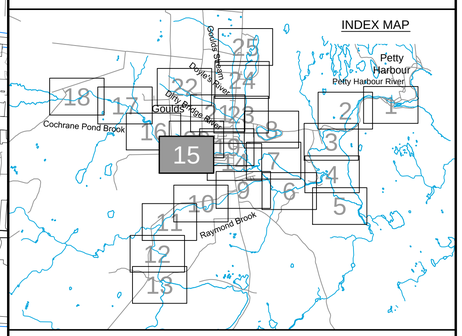
INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 15 of 25

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Powers Rd
Robert E Howlett Memorial Dr
Della Dr
Sunset St
Back Line
Hannaford Pl
Beaver Brook Dr
Heffernans Line
Mountainview Dr
Ryans River Rd

3434.16 CochranePB-M002
3413.11 CochranePB-M002
3391.58 CochranePB-M002
3371.12 CochranePB-M002
3272.96 CochranePB-M002
3309.87 CochranePB-M002
3609.83 CochranePB-M002
3559.90 CochranePB-M002
3509.83 CochranePB-M002
3493.23 CochranePB-M002
3474.26 CochranePB-M002
3466.43 CochranePB-M002
3454.35 CochranePB-M002
3219.09 CochranePB-M002
3175.54 CochranePB-M002
3157.85 CochranePB-M002
3139.32 CochranePB-M002
3106.53 CochranePB-M002
3088.94 CochranePB-M002
3075.67 CochranePB-M002
3056.89 CochranePB-M002
3007.54 CochranePB-M002
2976.31 CochranePB-M002
2941.08 CochranePB-M002
2920.10 CochranePB-M002
2912.75 CochranePB-M002
2890.23 CochranePB-M002
2823.99 CochranePB-M002
2789.49 CochranePB-M002
2741.30 CochranePB-M002
2663.79 CochranePB-M002
2639.38 CochranePB-M002
2616.24 CochranePB-M002
2539.69 CochranePB-M002
2489.06 CochranePB-M002
2438.28 CochranePB-M002
2384.01 CochranePB-M002
2310.47 CochranePB-M002
2284.63 CochranePB-M002
2240.58 CochranePB-M002
2100.01 CochranePB-M002
2046.85 CochranePB-M002
2014.35 CochranePB-M002
2170.94 CochranePB-M002
2136.89 CochranePB-M002
2100.01 CochranePB-M002
1990.76 CochranePB-M002
1945.20 CochranePB-M002
1916.67 CochranePB-M002
1871.48 CochranePB-M002

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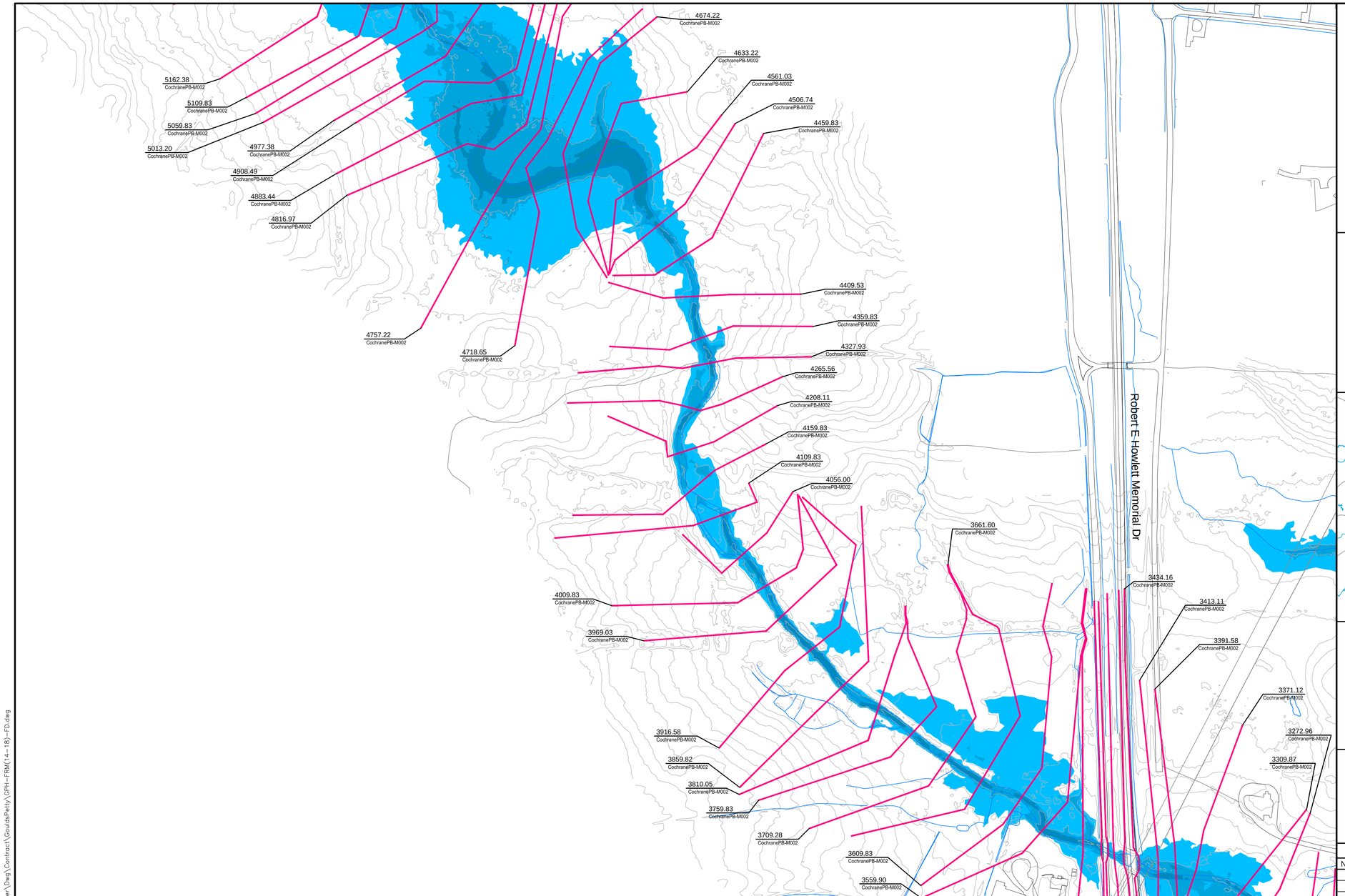

Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
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Existing Conditions - 2012

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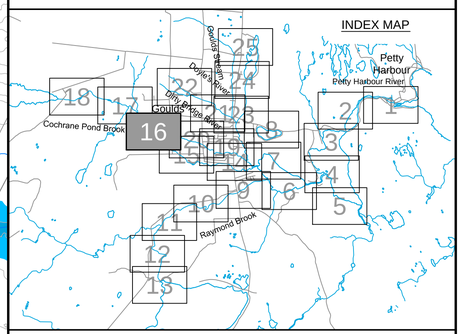
INDEX MAP



Cross Section Label

1050.0 — Cross Section Number
Doyles8-TR017 — Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 16 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(14-18)-FD.dwg

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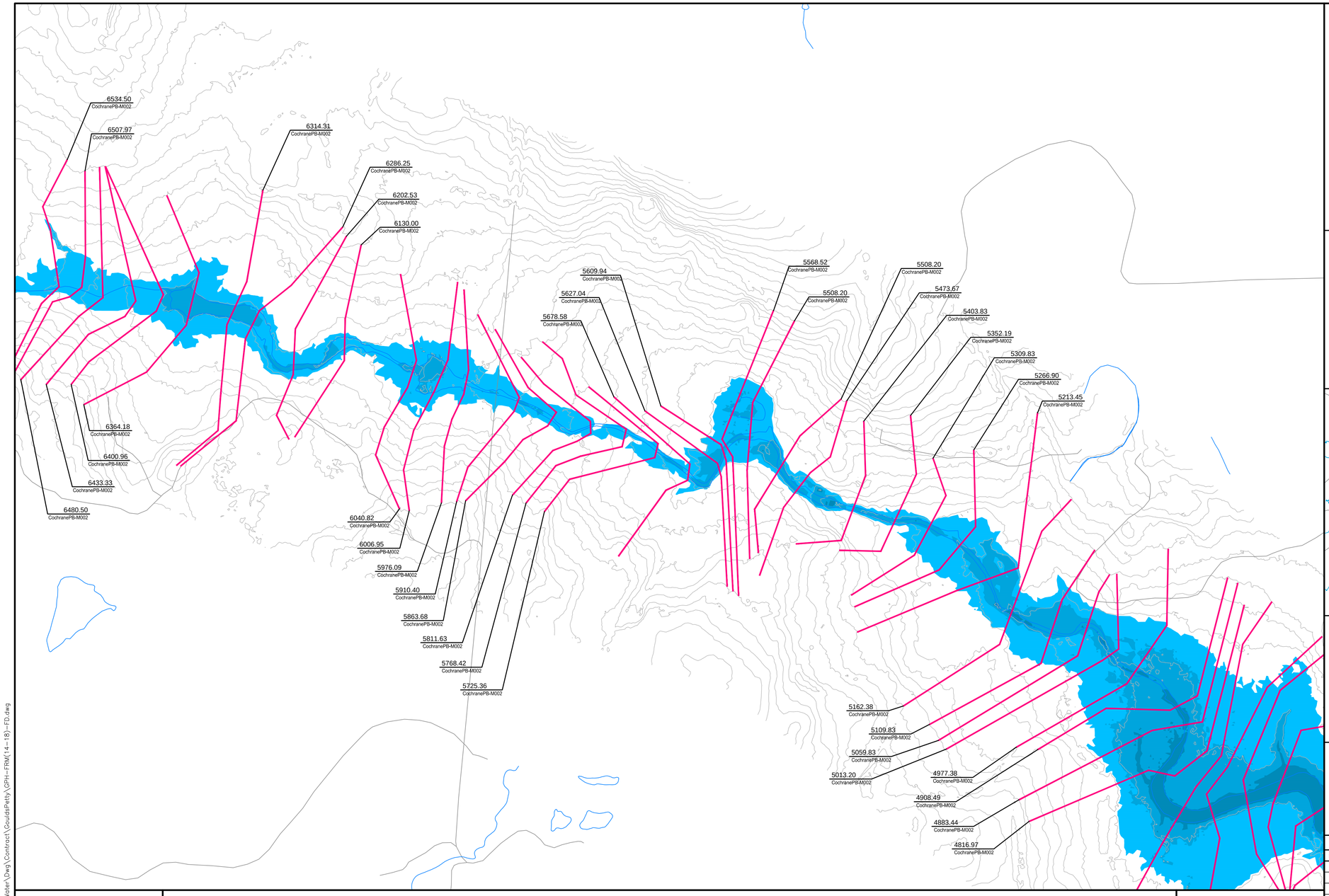

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Existing Conditions - 2012

Doyles, Dirty Bridge and
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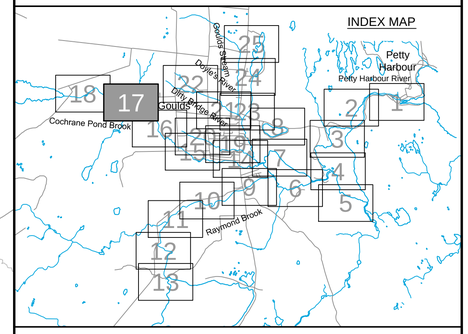

Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 17 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(14-18)-FD.dwg

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Cochrane Pond Rd

6985.71 CochranePB-M002
7041.67 CochranePB-M002
7108.13 CochranePB-M002
6955.25 CochranePB-M002
6863.52 CochranePB-M002
7208.54 CochranePB-M002
7253.62 CochranePB-M002
7329.89 CochranePB-M002
6840.09 CochranePB-M002
6808.25 CochranePB-M002
6534.50 CochranePB-M002
6507.97 CochranePB-M002
6767.75 CochranePB-M002
6727.78 CochranePB-M002
6691.71 CochranePB-M002
6651.54 CochranePB-M002
6630.83 CochranePB-M002
6364.18 CochranePB-M002
6400.96 CochranePB-M002
6433.33 CochranePB-M002
6480.50 CochranePB-M002
7450.86 CochranePB-M002
7476.72 CochranePB-M002
7609.21 CochranePB-M002
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7738.34 CochranePB-M002
7964.49 CochranePB-M002
7901.64 CochranePB-M002
7812.33 CochranePB-M002
7847.08 CochranePB-M002
8105.53 CochranePB-M002
8065.47 CochranePB-M002
8050.98 CochranePB-M002
8024.09 CochranePB-M002
8013.06 CochranePB-M002
8004.70 CochranePB-M002
7995.14 CochranePB-M002

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
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Newfoundland Labrador

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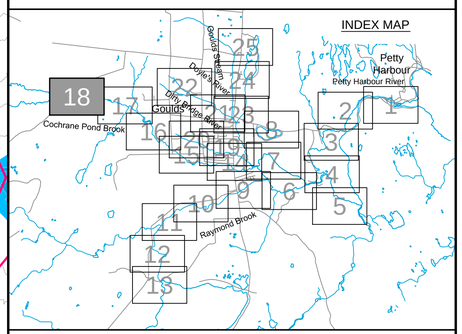
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 Doyles8-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 18 of 25

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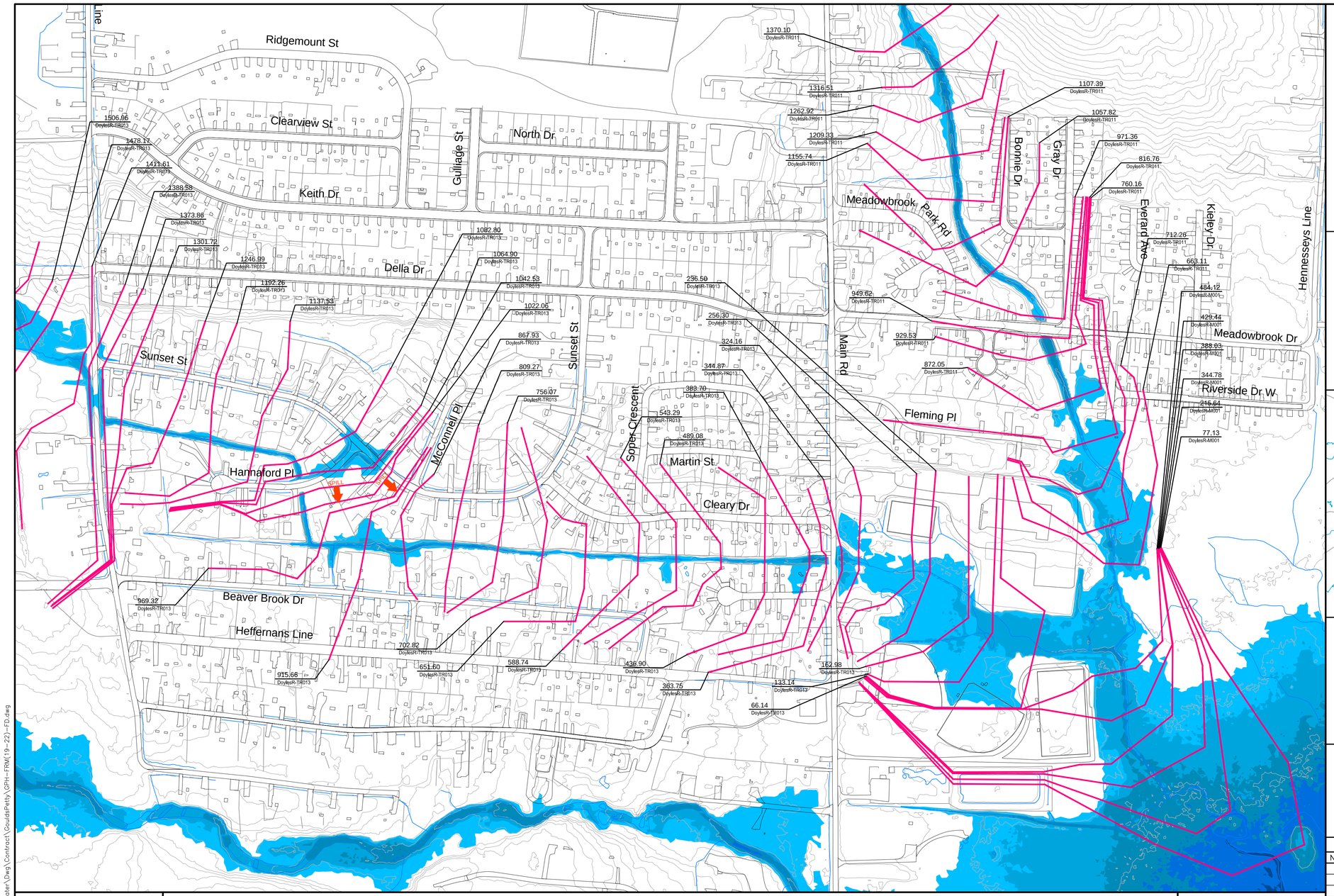

Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Existing Conditions - 2012

Doyles, Dirty Bridge and
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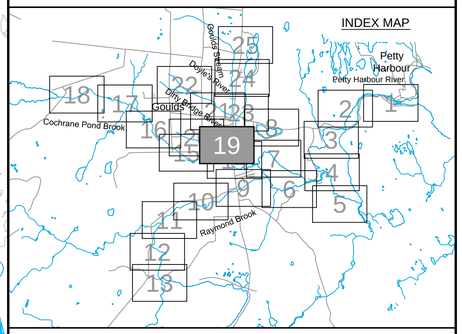
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017 — Cross Section Number; Reach Identification; Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5 - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 19 of 25

P:\Work\TA11127235\Water\Dwg\Contract\GouldsPetty\GPH-FRM(19-22)-FD.dwg

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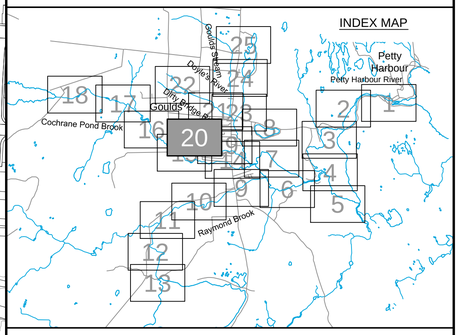
Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Existing Conditions - 2012

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream



Cross Section Label

1050.0 DoylesR-TR017 — Cross Section Number; Reach Identification; Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 20 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-ITRM(19-22)-FD.dwg

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Newfoundland Labrador

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Water Resource Management Division

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1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Existing Conditions - 2012

Doyles, Dirty Bridge and
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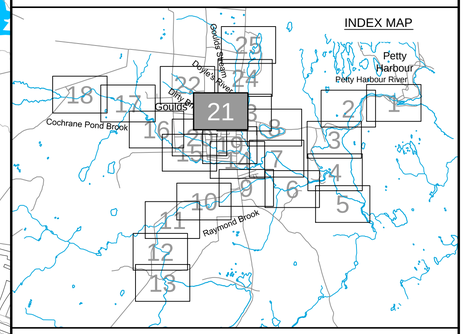
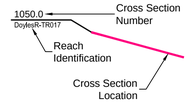
and Goulds Stream

INDEX MAP



Cross Section Label



1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

Sheet 21of 25

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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Newfoundland Labrador

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Goulds\Petty Harbour

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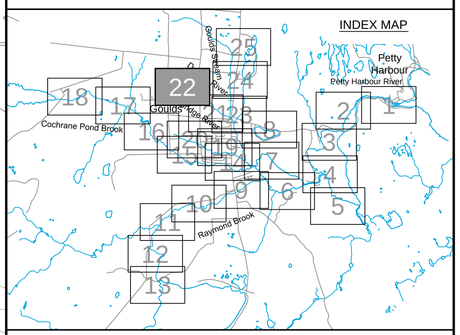
INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
- Cross Section Number
- Reach Identification
- Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 22 of 25

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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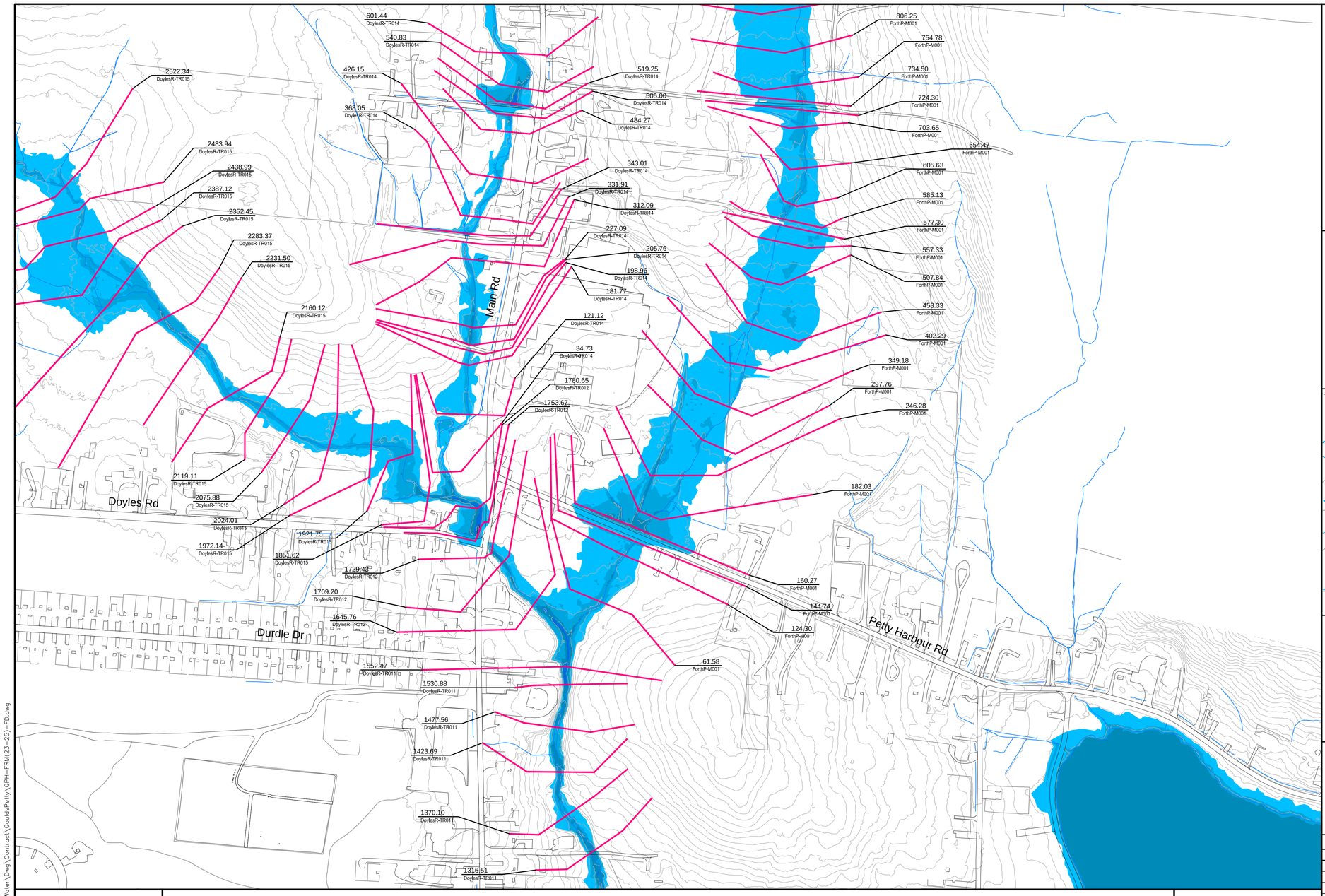
Mar 25/13 – richard.bartolo



Newfoundland Labrador

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1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

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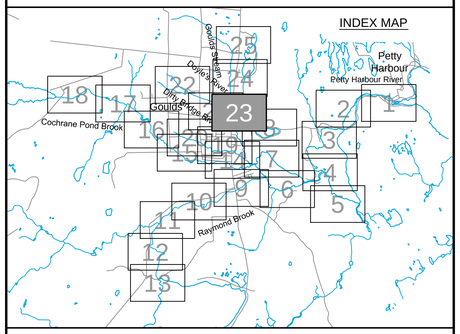
INDEX MAP



Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 23 of 25

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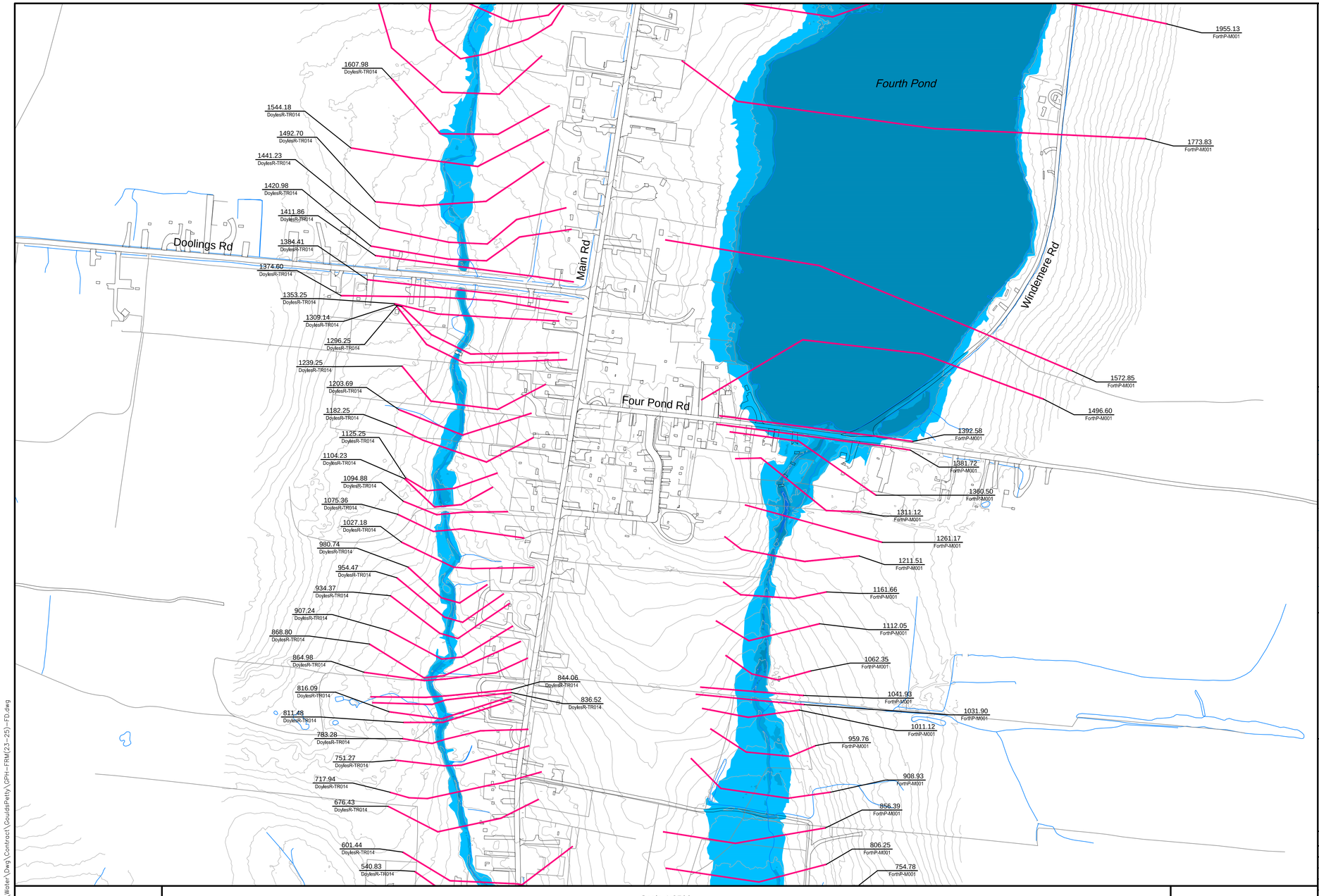
Mar 25/13 – richard.bartolo



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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Newfoundland Labrador
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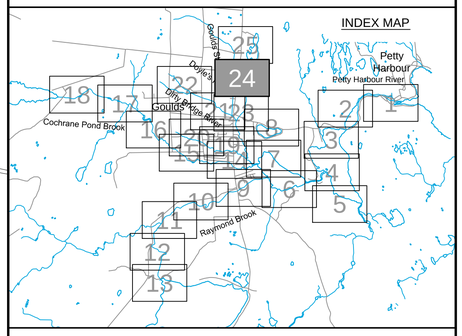


Cross Section Label

1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

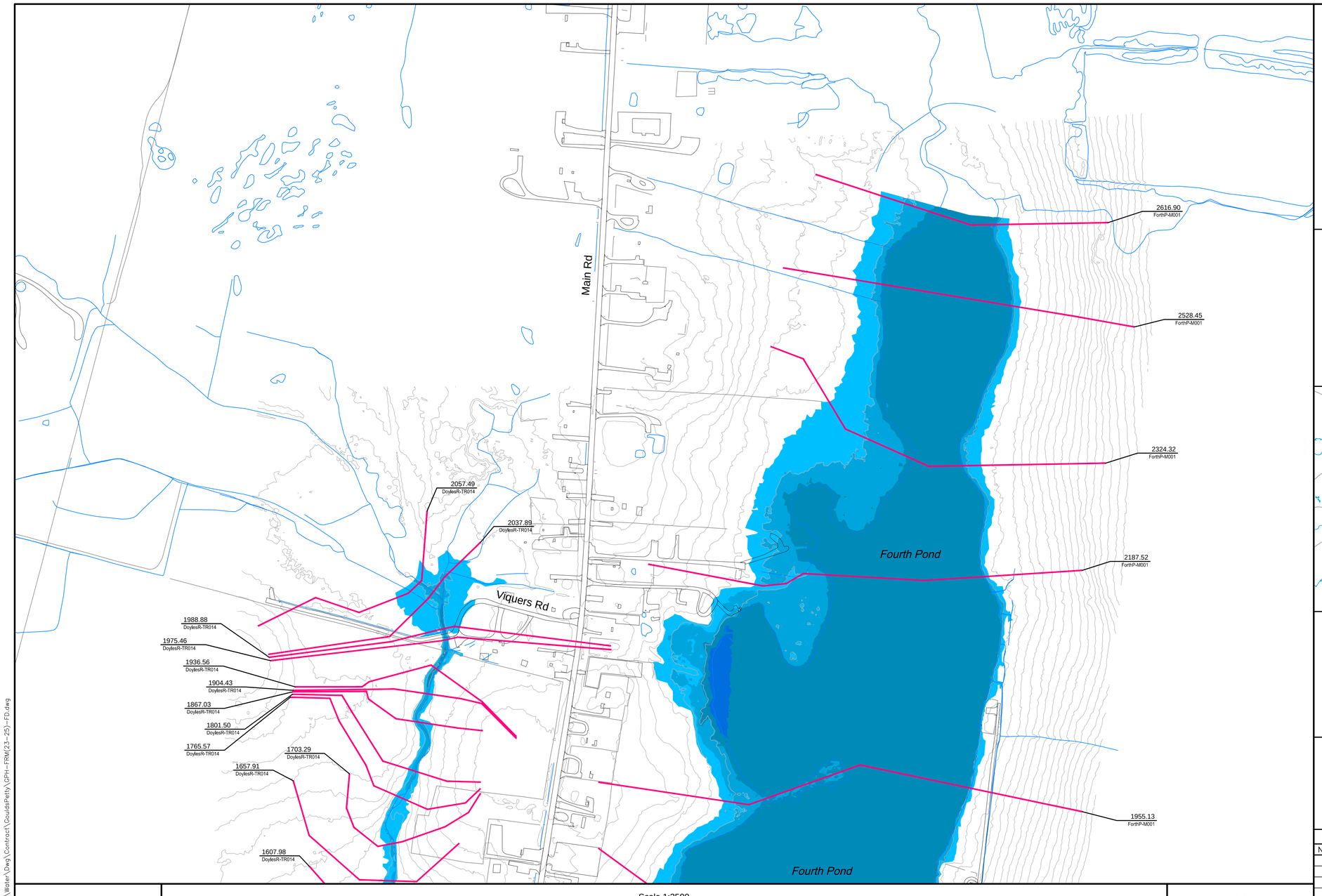
Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 24 of 25

Mar 25/13 – richard.bartolo



Newfoundland Labrador

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Water Resource Management Division

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Goulds\Petty Harbour

Existing Conditions - 2012

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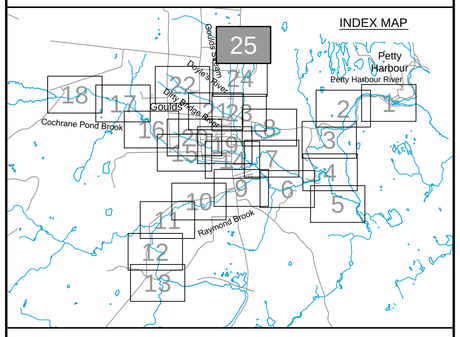
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

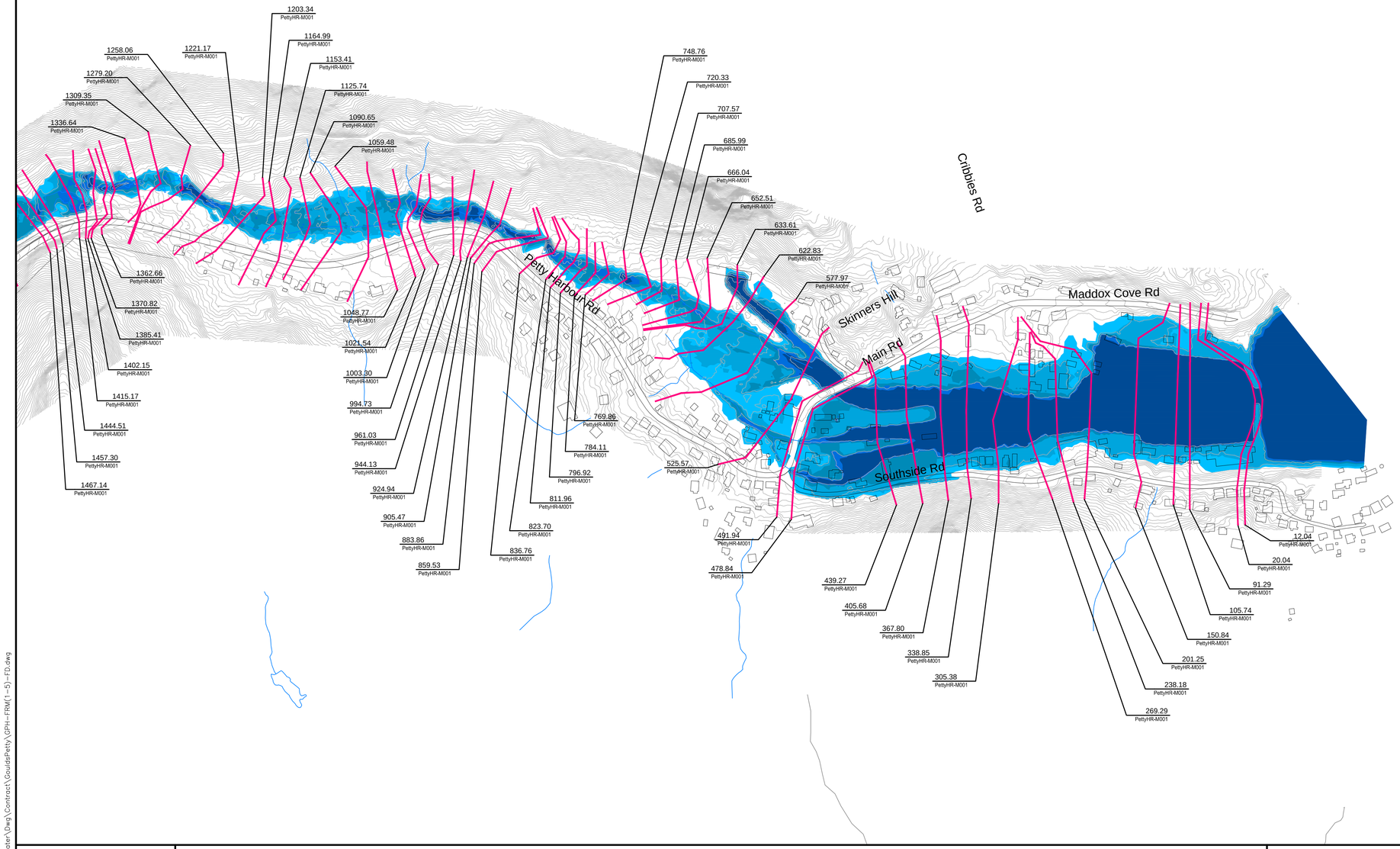
CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 25 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(23-25)-FD.dwg

Mar 25/13 – richard.bartolo



Department of Environment and Conservation
Water Resource Management Division

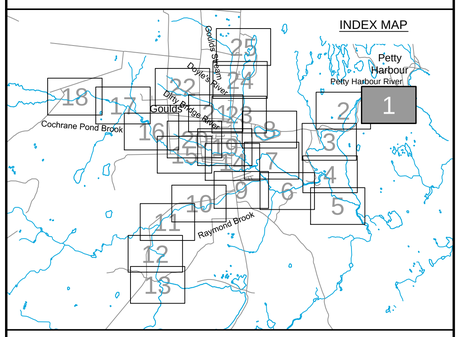
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Existing Conditions - 2012

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesHR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5 - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

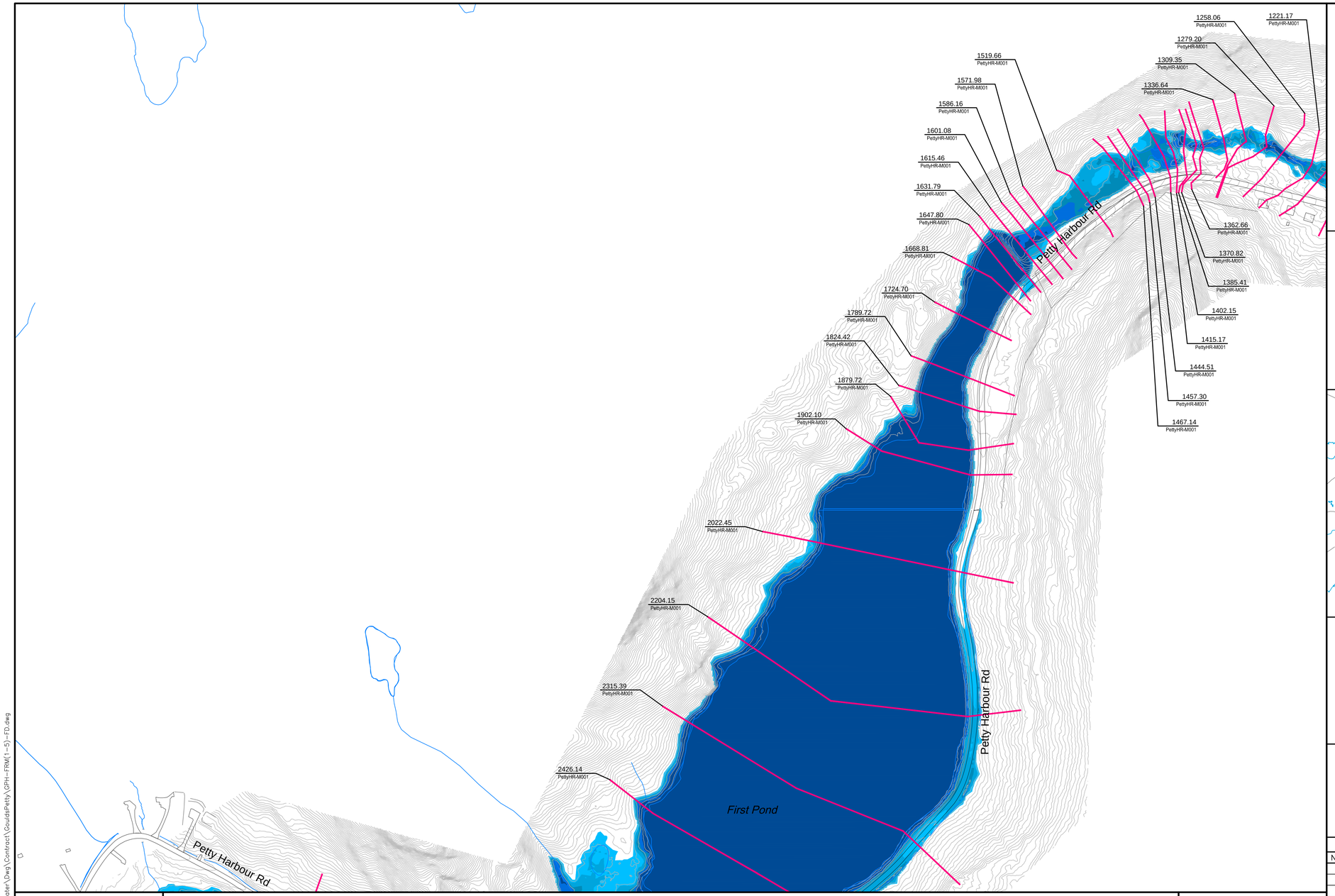
NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 1 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(1-5)-FD.dwg

Mar 25/13 – richard.bartolo



MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
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Newfoundland Labrador
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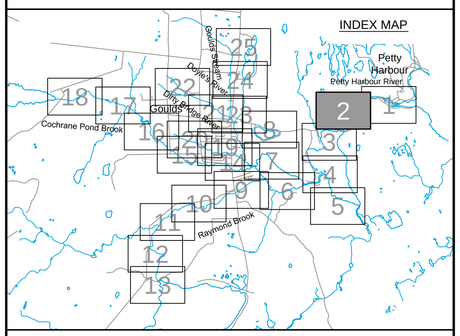
INDEX MAP



Cross Section Label

1050.0 — Cross Section Number
Doyles8-TR017 — Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

Sheet 2 of 25

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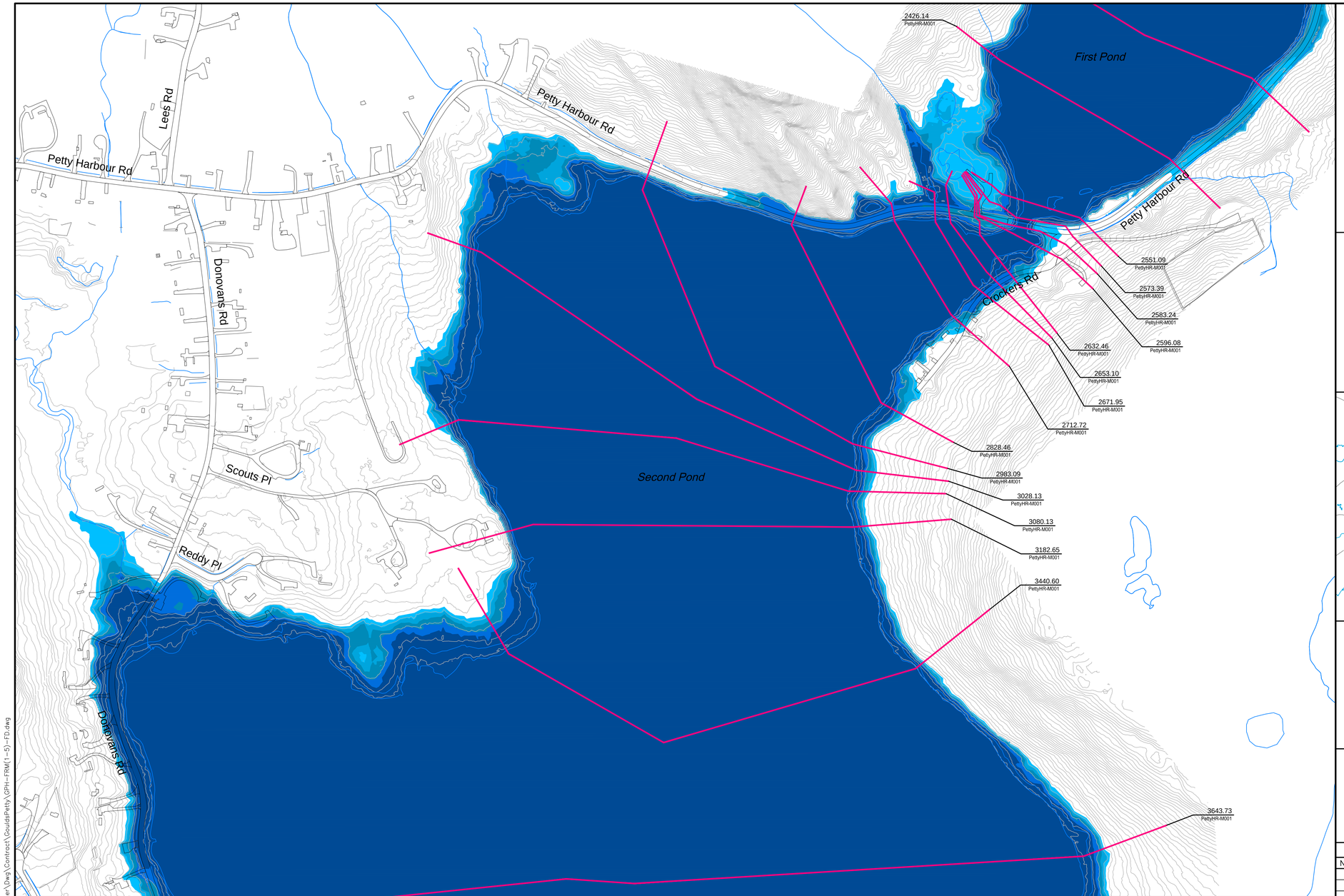
Mar 25/13 – richard.bartolo



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Existing Conditions - 2012

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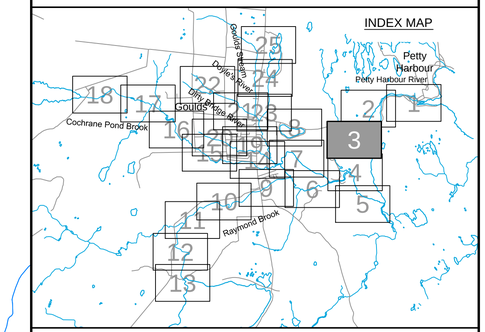
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 — Cross Section Number
DoylesHR-TR017 — Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 3 of 25

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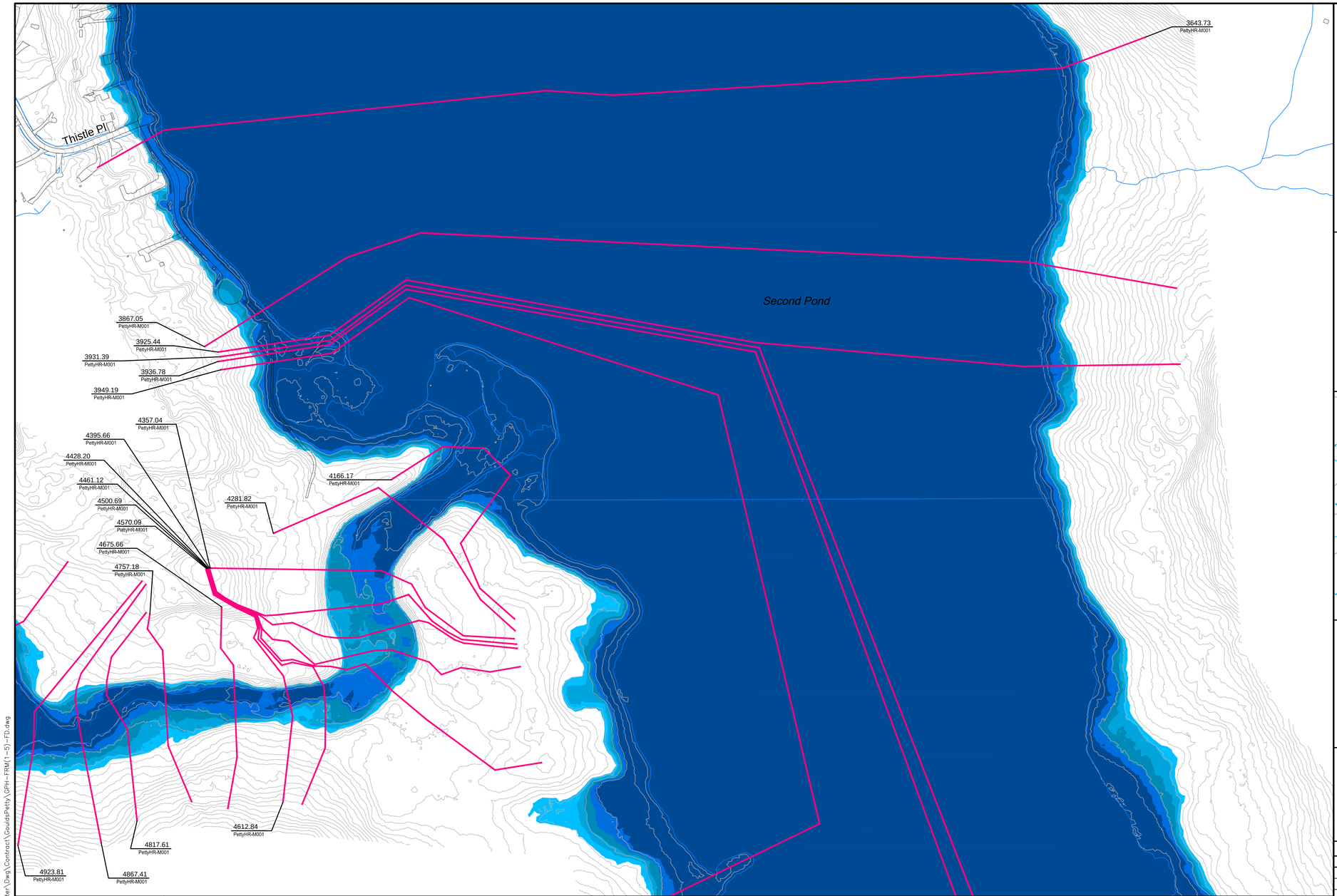
Mar 25/13 – richard.bartolo



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Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

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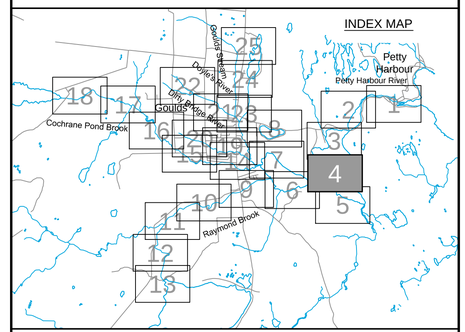
Existing Conditions - 2012

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream



Cross Section Label

1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

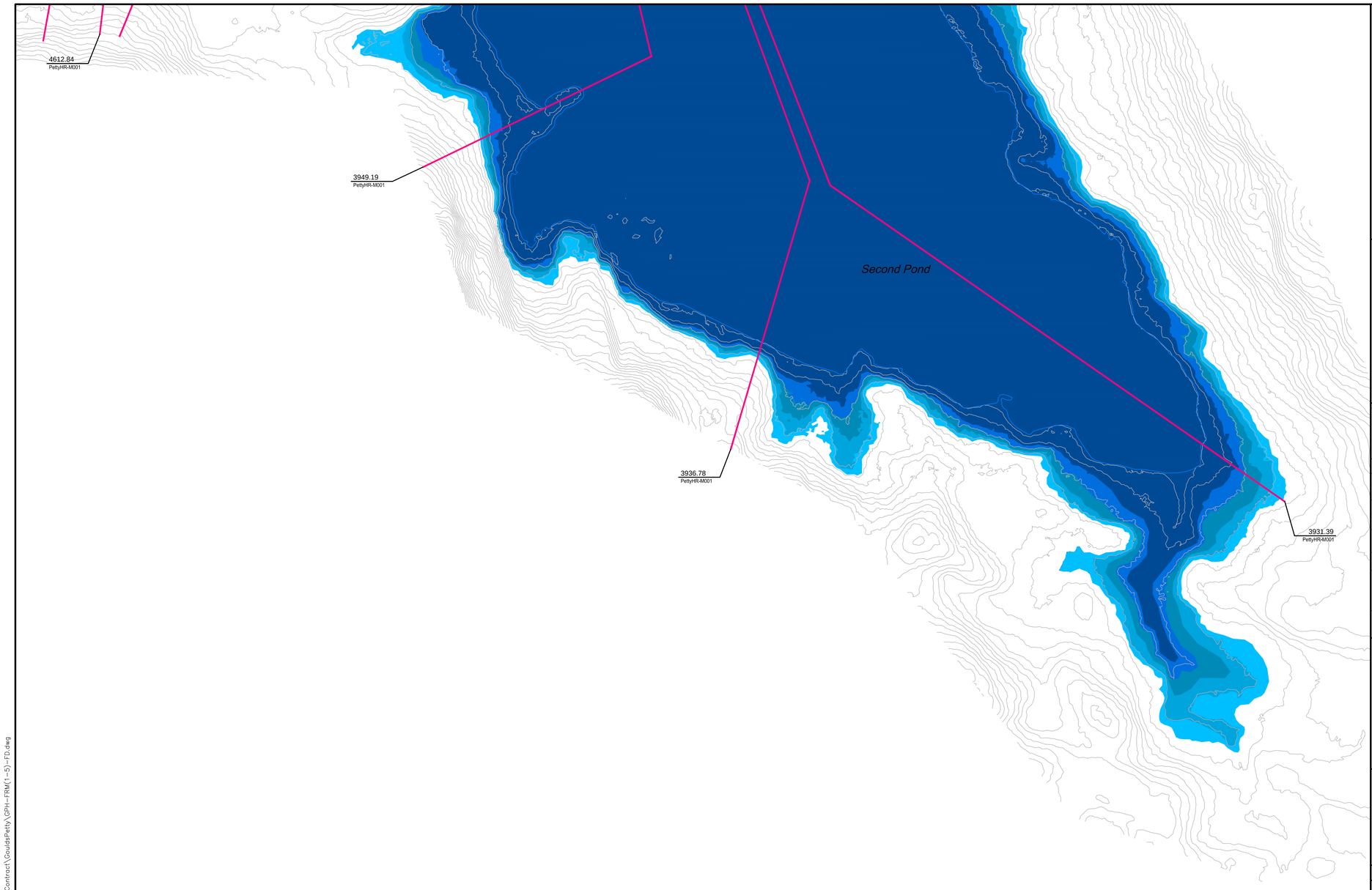
CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 4 of 25

Mar 25/13 – richard.bartolo



Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Existing Conditions - 2012

Doyles, Dirty Bridge and
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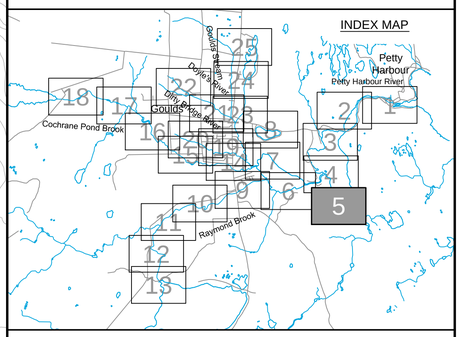
INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

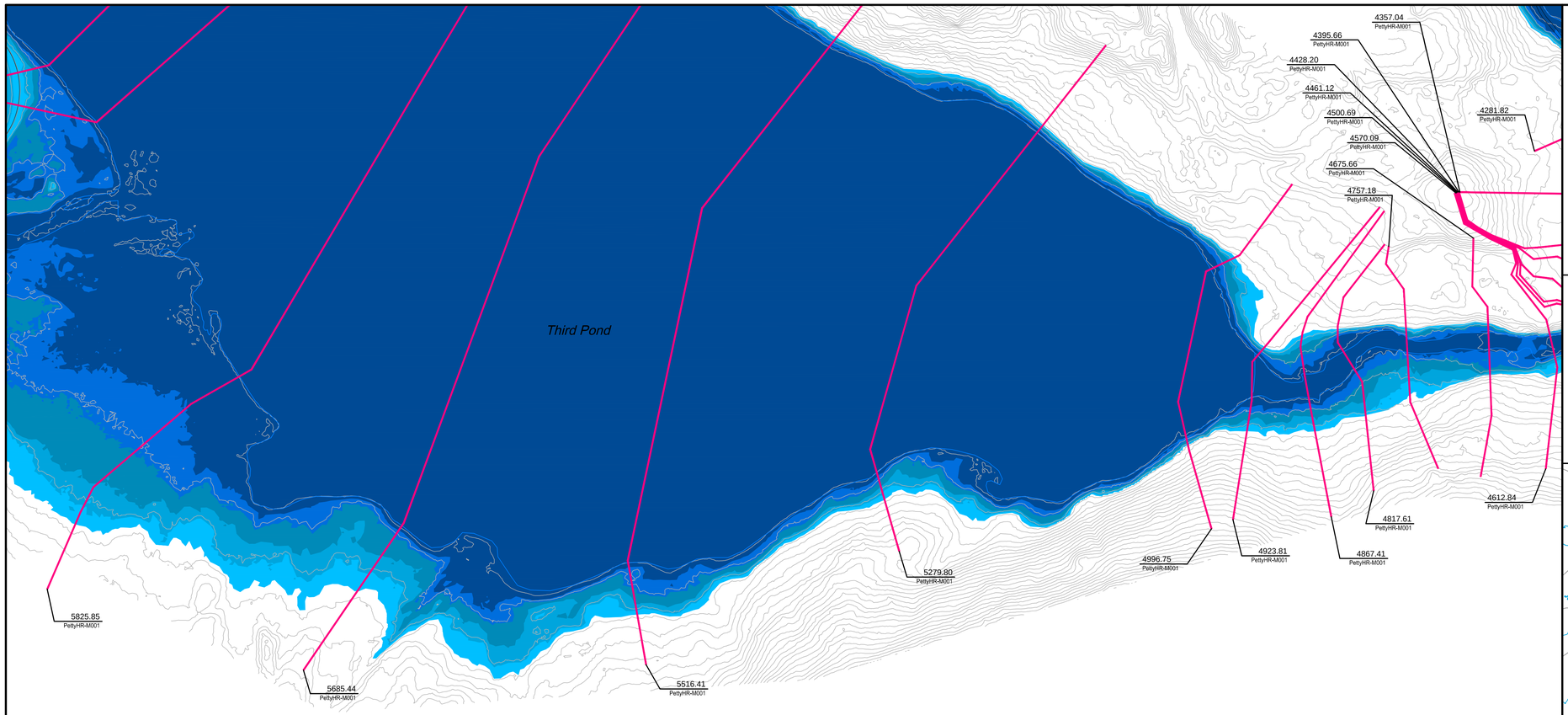
CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 5 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(1--5)-FD.dwg

Mar 25/13 – richard.bartolo



Newfoundland Labrador

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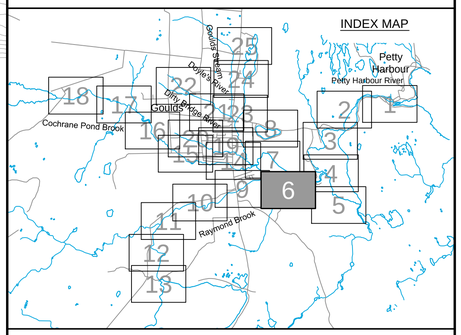
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Existing Conditions - 2012

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

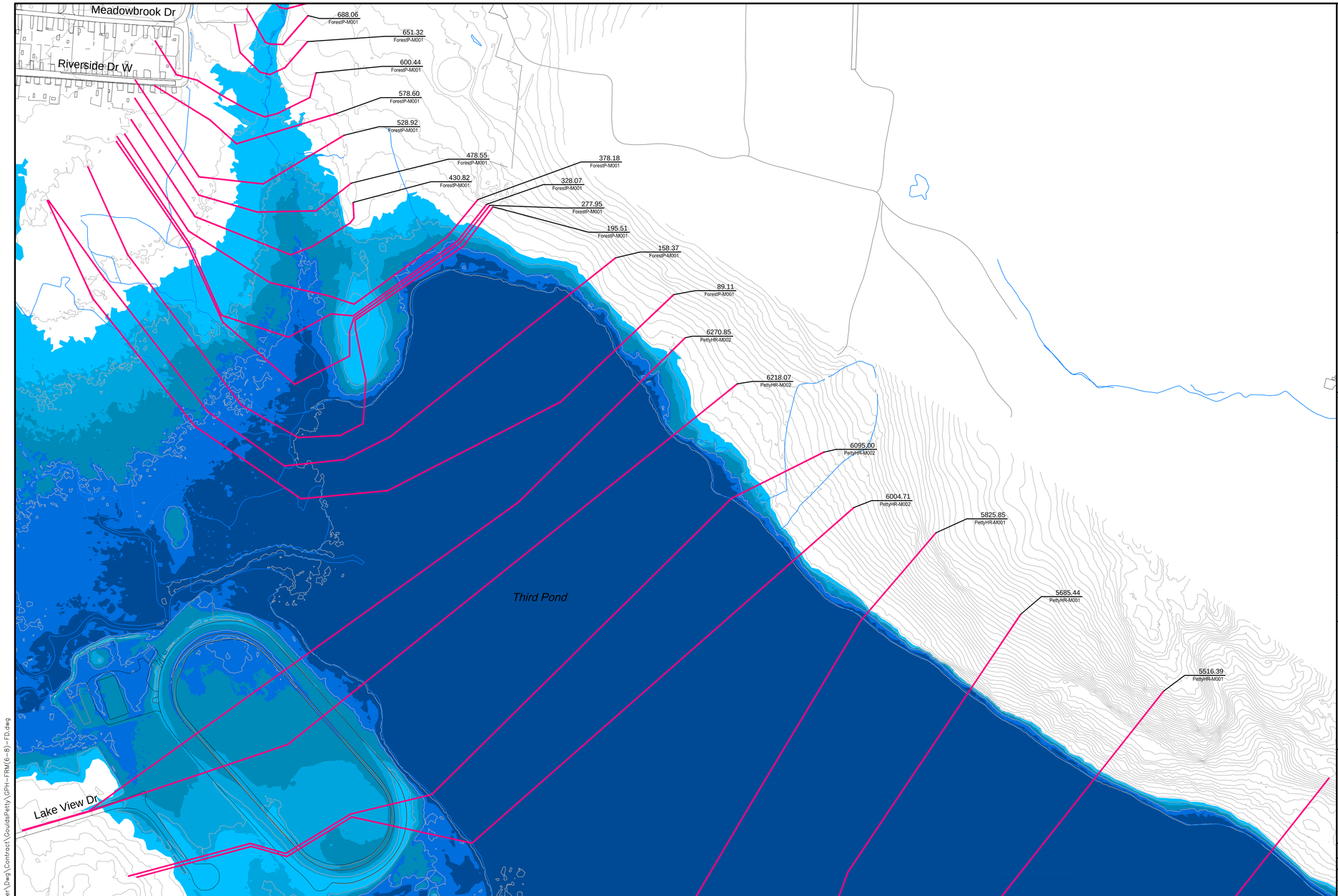
CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 6 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(6-8)-FD.dwg

Mar 25/13 – richard.bartolo



Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Existing Conditions - 2012

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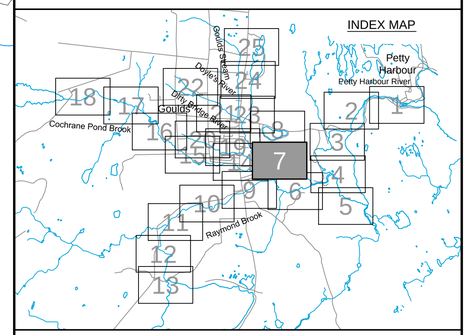
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

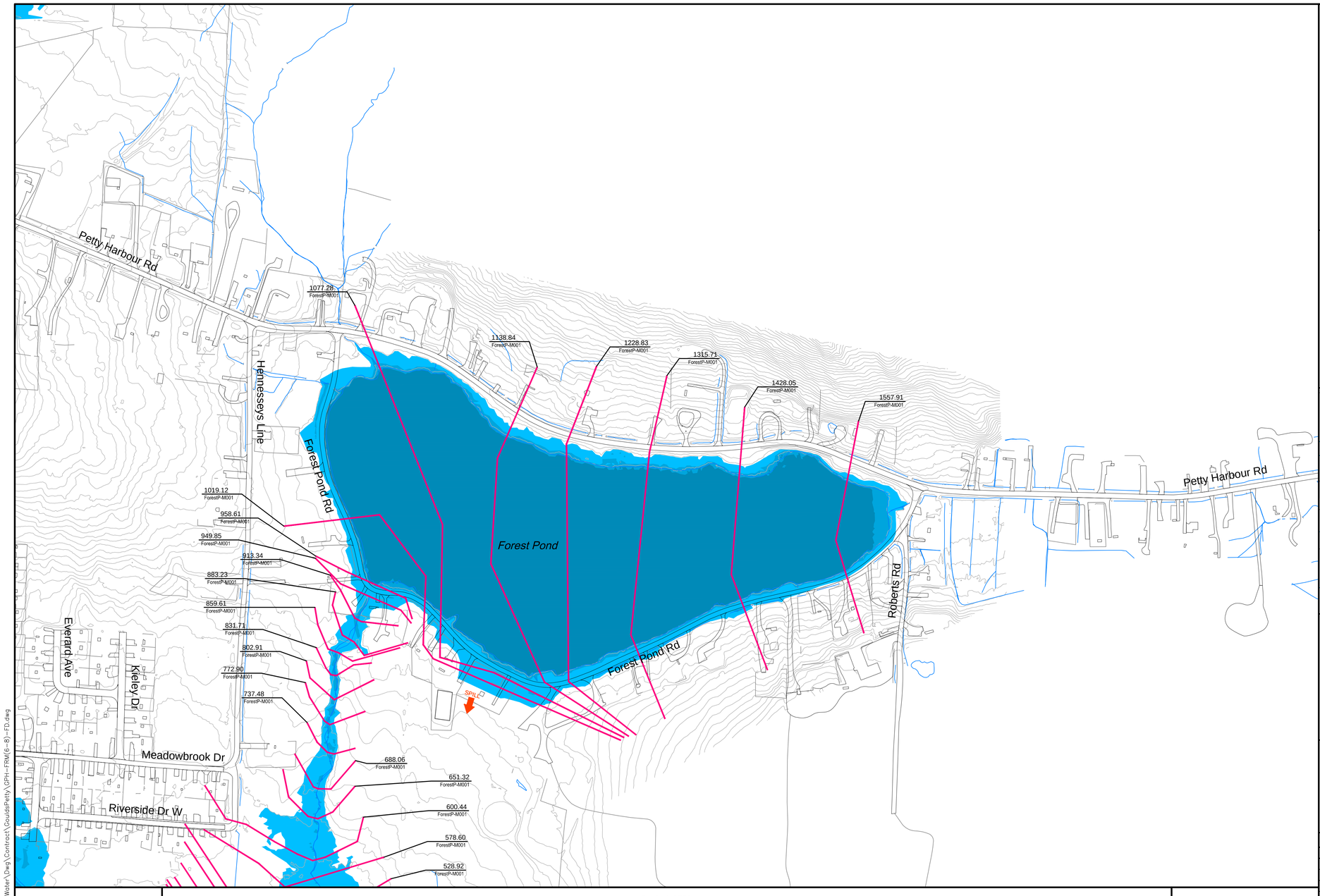
CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 7 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(6-8)-FD.dwg

Mar 25/13 – richard.bartolo



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Department of Environment and Conservation
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Goulds\Petty Harbour

Existing Conditions - 2012

Doyles, Dirty Bridge and
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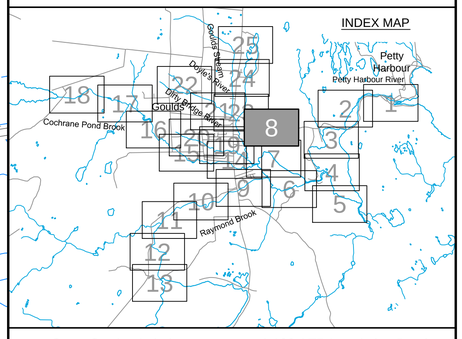
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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Third Pond

Lake View Dr

Main Rd

Shoal Bay Rd

Alexis Pl

816.68 RaymondB-M001
841.89 RaymondB-M001
892.34 RaymondB-M001
916.70 RaymondB-M001
942.15 RaymondB-M001
976.73 RaymondB-M001
999.99 RaymondB-M001
1066.09 RaymondB-M001
1035.68 RaymondB-M001
1116.25 RaymondB-M001
1148.70 RaymondB-M001
1166.20 RaymondB-M001
1189.75 RaymondB-M001
1216.25 RaymondB-M001
1252.39 RaymondB-M001
1303.54 RaymondB-M001
1323.54 RaymondB-M001
1372.05 RaymondB-M001
1425.99 RaymondB-M001
1477.96 RaymondB-M001
1536.01 RaymondB-M001
1584.49 RaymondB-M001
1630.92 RaymondB-M001
1682.15 RaymondB-M001
1733.38 RaymondB-M001
1784.61 RaymondB-M001
1835.84 RaymondB-M001
1885.73 RaymondB-M001
1950.22 RaymondB-M001
1989.18 RaymondB-M001
716.25 RaymondB-M001
766.25 RaymondB-M001
675.00 RaymondB-M001
615.86 RaymondB-M001
565.77 RaymondB-M001
520.15 RaymondB-M001
468.54 RaymondB-M001
429.18 RaymondB-M001
366.25 RaymondB-M001
341.79 RaymondB-M001
5825.85 PettyHR-M001

P:\Work\TA11112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(9-13)-FD.dwg

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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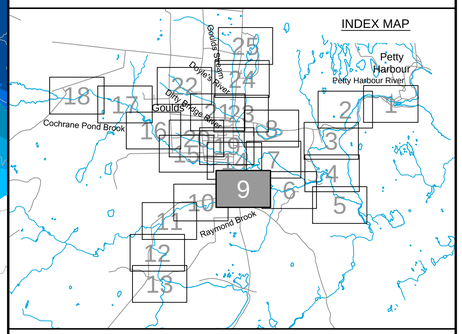
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5 - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

Sheet 9 of 25

Mar 25/13 – richard.bartolo

Newfoundland Labrador

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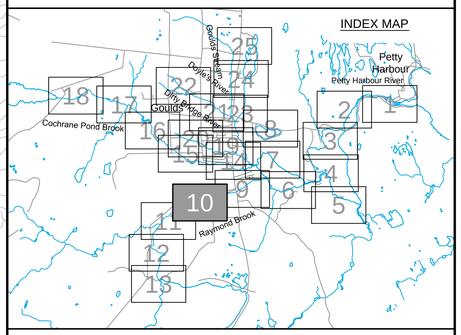


Cross Section Label

1050.0 DoylesR-TR017

- Cross Section Number
- Reach Identification
- Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 10 of 25

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

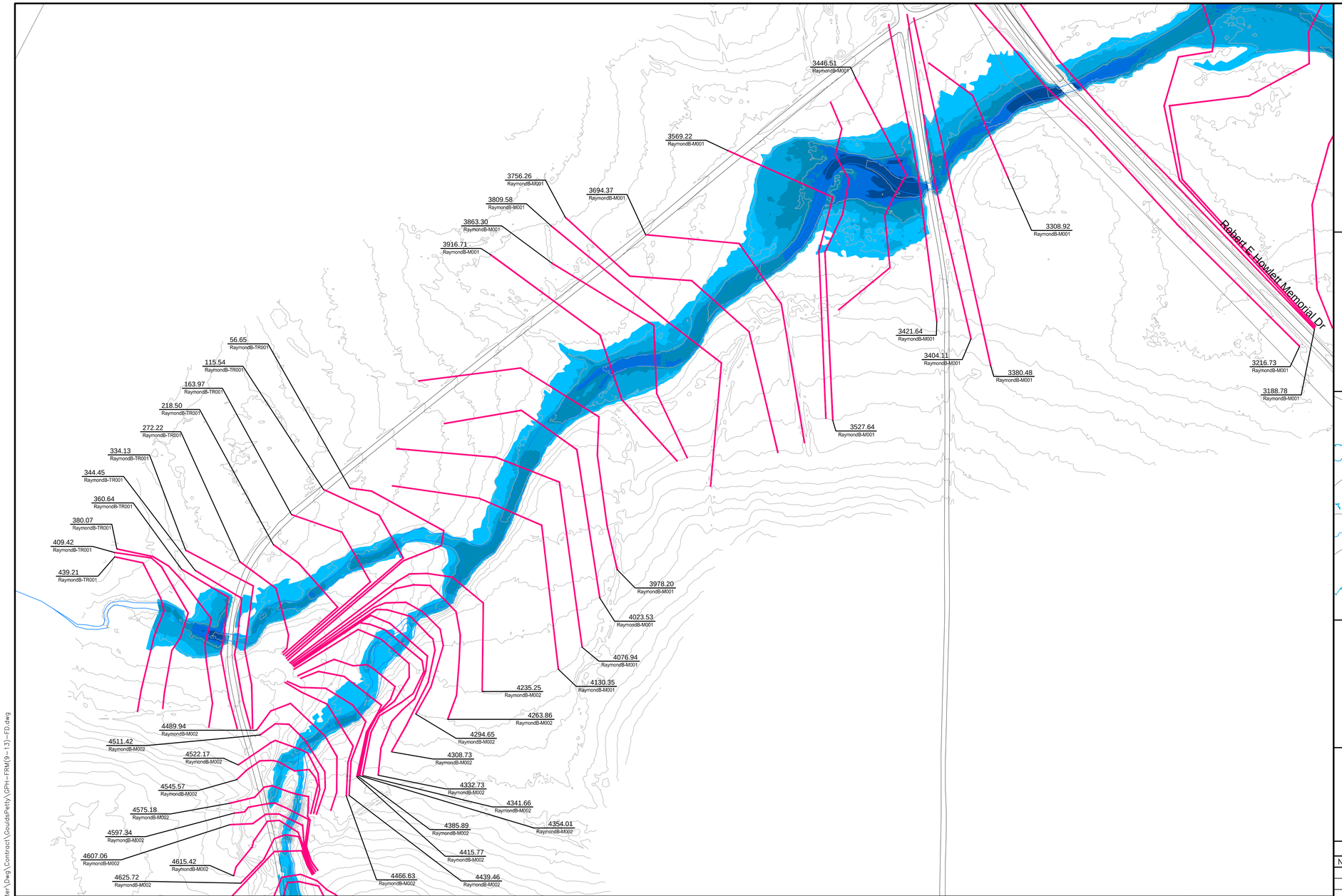
Howletts Line

Robert E. Howlett Memorial Dr

3446.51 RaymondB-M001
3421.64 RaymondB-M001
3404.11 RaymondB-M001
3380.48 RaymondB-M001
3527.64 RaymondB-M001
3015.18 RaymondB-M001
2876.32 RaymondB-M001
3308.92 RaymondB-M001
2789.37 RaymondB-M001
2194.47 RaymondB-M001
2245.72 RaymondB-M001
3216.73 RaymondB-M001
3188.78 RaymondB-M001
2681.85 RaymondB-M001
2604.32 RaymondB-M001
2531.57 RaymondB-M001
2385.34 RaymondB-M001
2140.67 RaymondB-M001
2087.60 RaymondB-M001
2069.54 RaymondB-M001
2040.77 RaymondB-M001
1989.18 RaymondB-M001
1950.22 RaymondB-M001
1885.73 RaymondB-M001
1835.84 RaymondB-M001
1784.61 RaymondB-M001
1733.38 RaymondB-M001
1682.15 RaymondB-M001
1630.92 RaymondB-M001
1584.49 RaymondB-M001
1536.01 RaymondB-M001

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(9-13)-FD.dwg

Mar 25/13 – richard.bartolo



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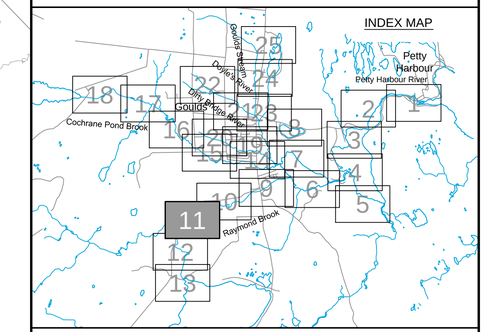
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesB-TR017

- Cross Section Number
- Reach Identification
- Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

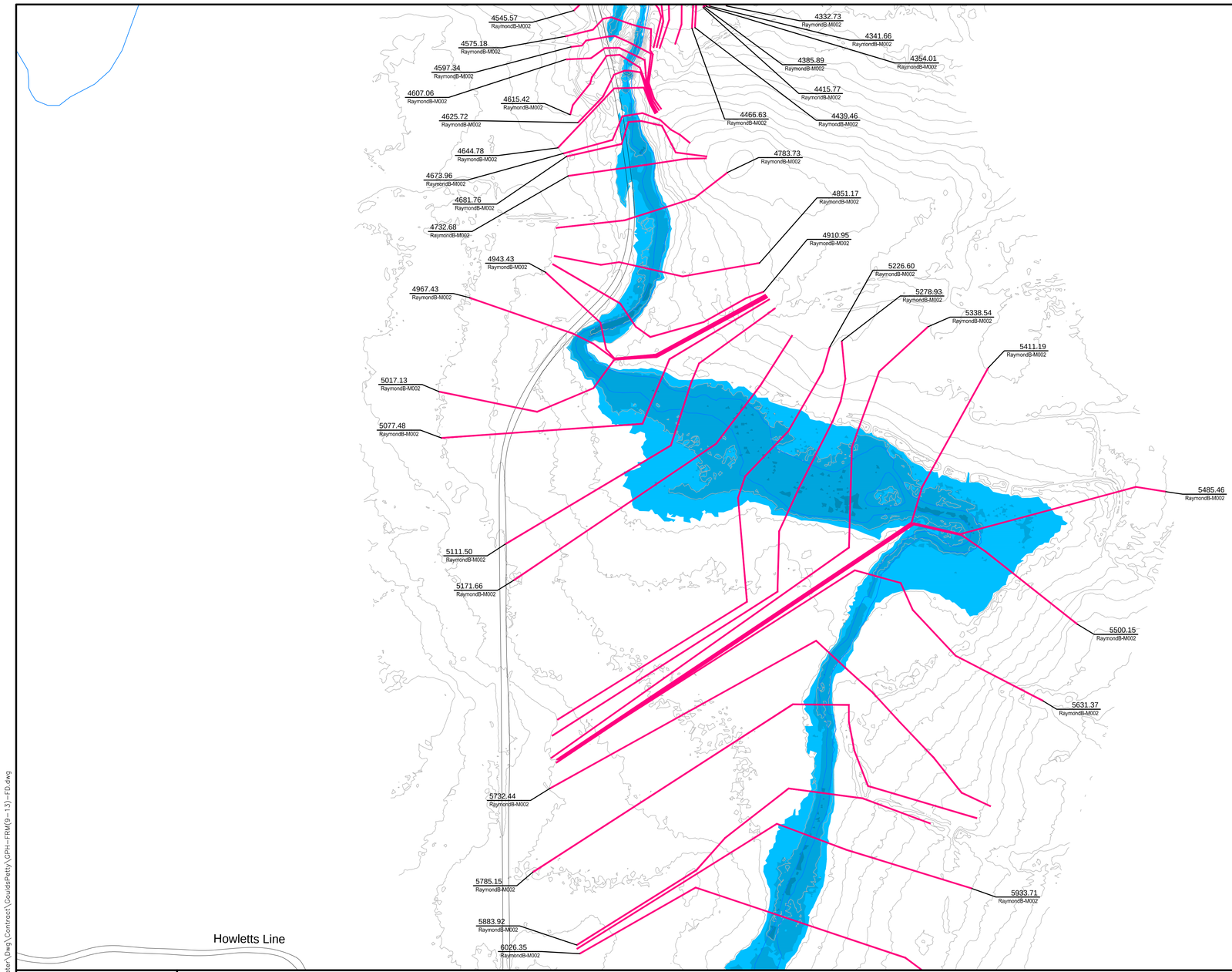
NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 11 of 25

P:\Work\TA11127335\Water\Dwg\Contract\GouldsPetty\GPH-FRM(9-13)-FD.dwg

Mar 25/13 – richard.bartolo



Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

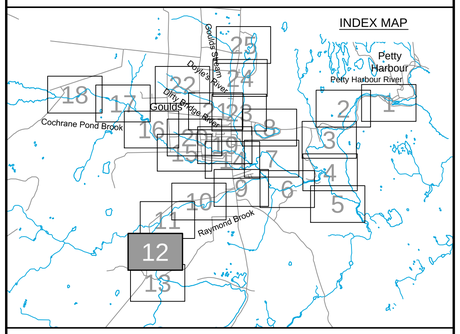
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Existing Conditions - 2012

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
- Cross Section Number
- Reach Identification
- Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

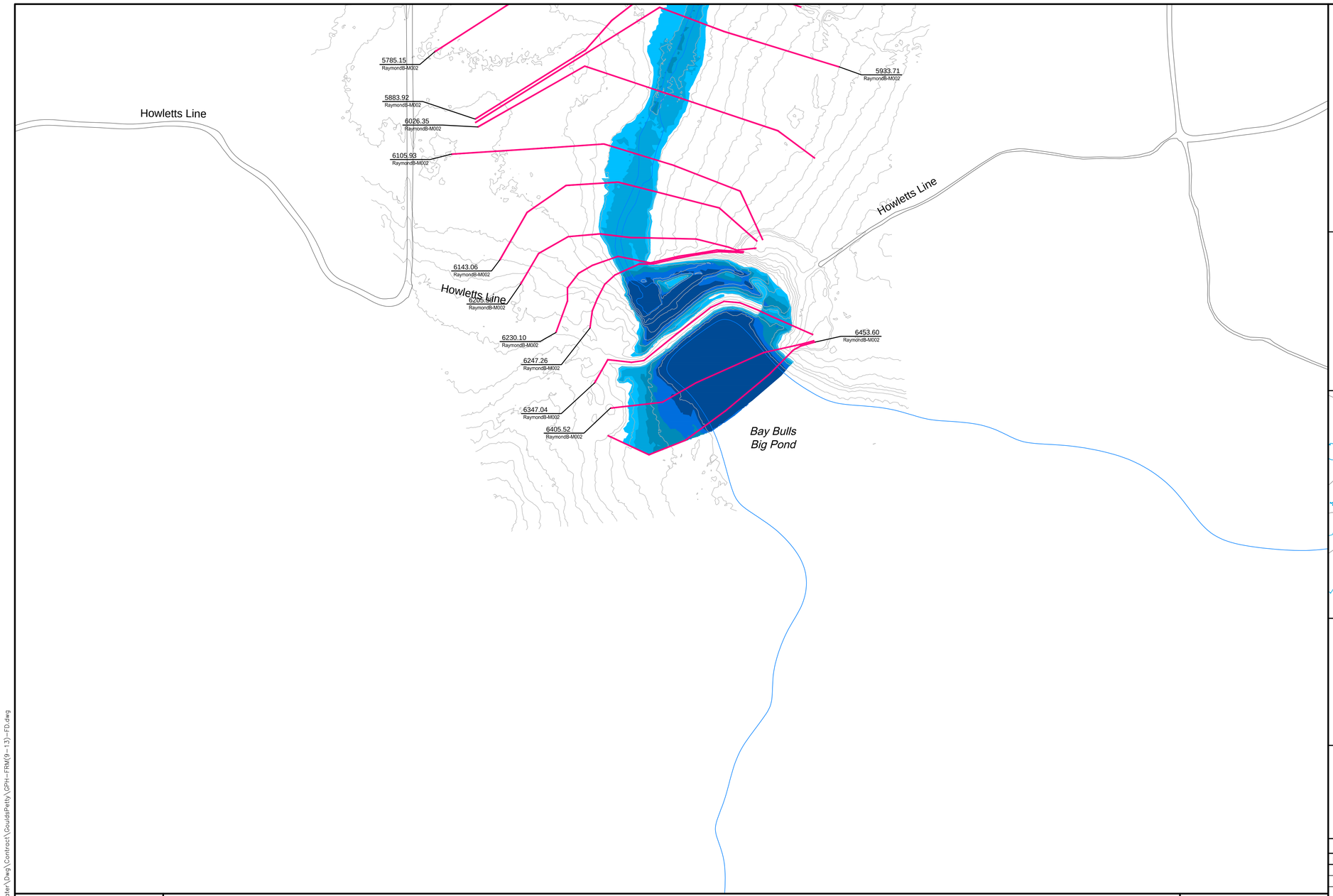
CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 12 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(9-13)-FD.dwg

Mar 25/13 – richard.bartolo



Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Existing Conditions - 2012

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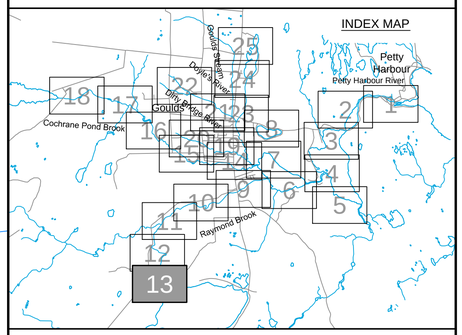
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 13 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(9-13)-FD.dwg

Mar 25/13 - richard.bartolo

Soper Cres
Martin St
Cleary Dr
McConnell Pl
Sunset St
Hannaford Pl
Beaver Brook Dr
Heffernans Line
Mountainview Dr
Ryans River Rd
Ryans Pl
Main Rd
Fleming Pl
Riverside Dr W
Third Pond
Lake View Dr

1990.76 CochranePB-M002
1945.20 CochranePB-M002
1916.67 CochranePB-M002
1871.48 CochranePB-M002
1836.03 CochranePB-M002
1788.63 CochranePB-M002
1768.08 CochranePB-M002
1733.19 CochranePB-M002
2103.01 CochranePB-M002
2046.85 CochranePB-M002
2014.35 CochranePB-M002
1640.51 CochranePB-M002
1685.79 CochranePB-M002
1694.89 CochranePB-M002
1602.99 CochranePB-M002
1585.52 CochranePB-M002
1569.47 CochranePB-M002
1541.97 CochranePB-M002
1495.27 CochranePB-M002
1510.83 CochranePB-M002
1458.62 CochranePB-M002
1419.61 CochranePB-M002
1384.56 CochranePB-M002
1351.51 CochranePB-M002
1311.78 CochranePB-M002
1291.19 CochranePB-M002
1217.75 CochranePB-M002
1200.39 CochranePB-M002
1185.68 CochranePB-M002
1164.32 CochranePB-M002
1132.60 CochranePB-M002
1111.68 CochranePB-M002
1059.95 CochranePB-M002
998.99 CochranePB-M002
955.54 CochranePB-M002
851.16 CochranePB-M002
798.06 CochranePB-M002
746.77 CochranePB-M002
694.52 CochranePB-M002
669.16 CochranePB-M002
590.19 CochranePB-M002
539.85 CochranePB-M002
488.40 CochranePB-M002
313.14 CochranePB-M001
381.27 CochranePB-M001

Newfoundland Labrador

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Goulds\Petty Harbour

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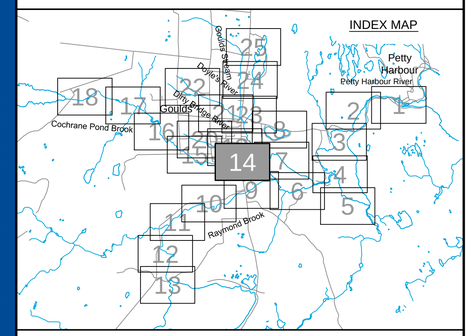
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 Doyles8-TR017
- Cross Section Number
- Reach Identification
- Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

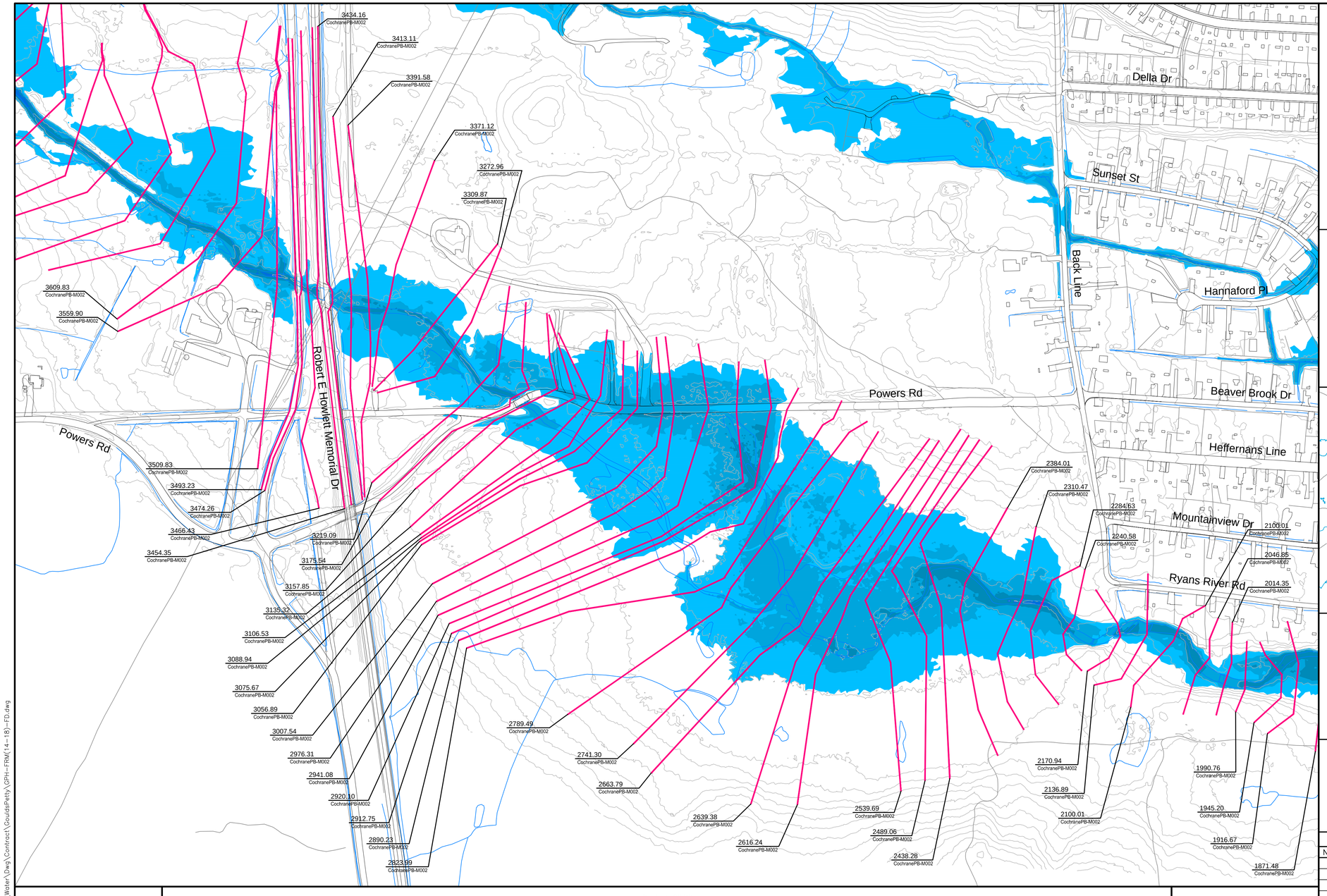
CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 14 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(14-18)-FD.dwg

Mar 25/13 – richard.bartolo



Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Existing Conditions - 2012

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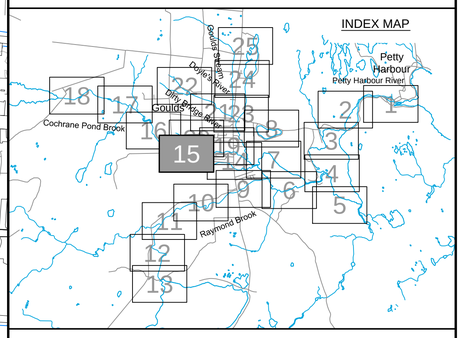
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

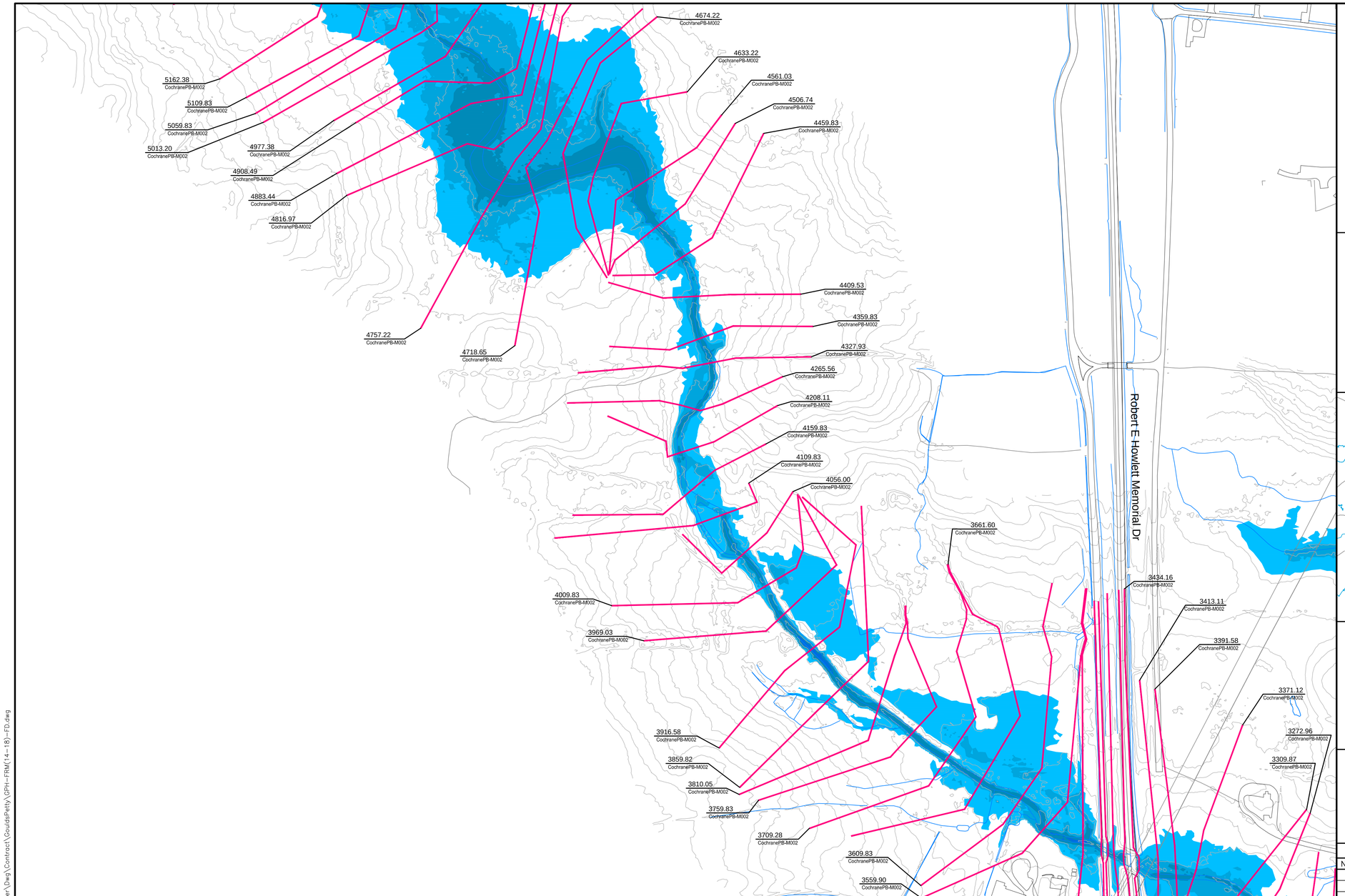
NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 15 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(14-18)-FD.dwg

Mar 25/13 – richard.bartolo



Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

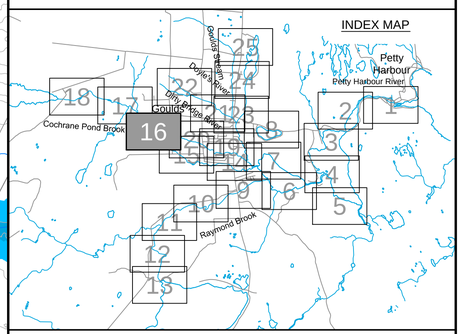
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Existing Conditions - 2012

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 16 of 25

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

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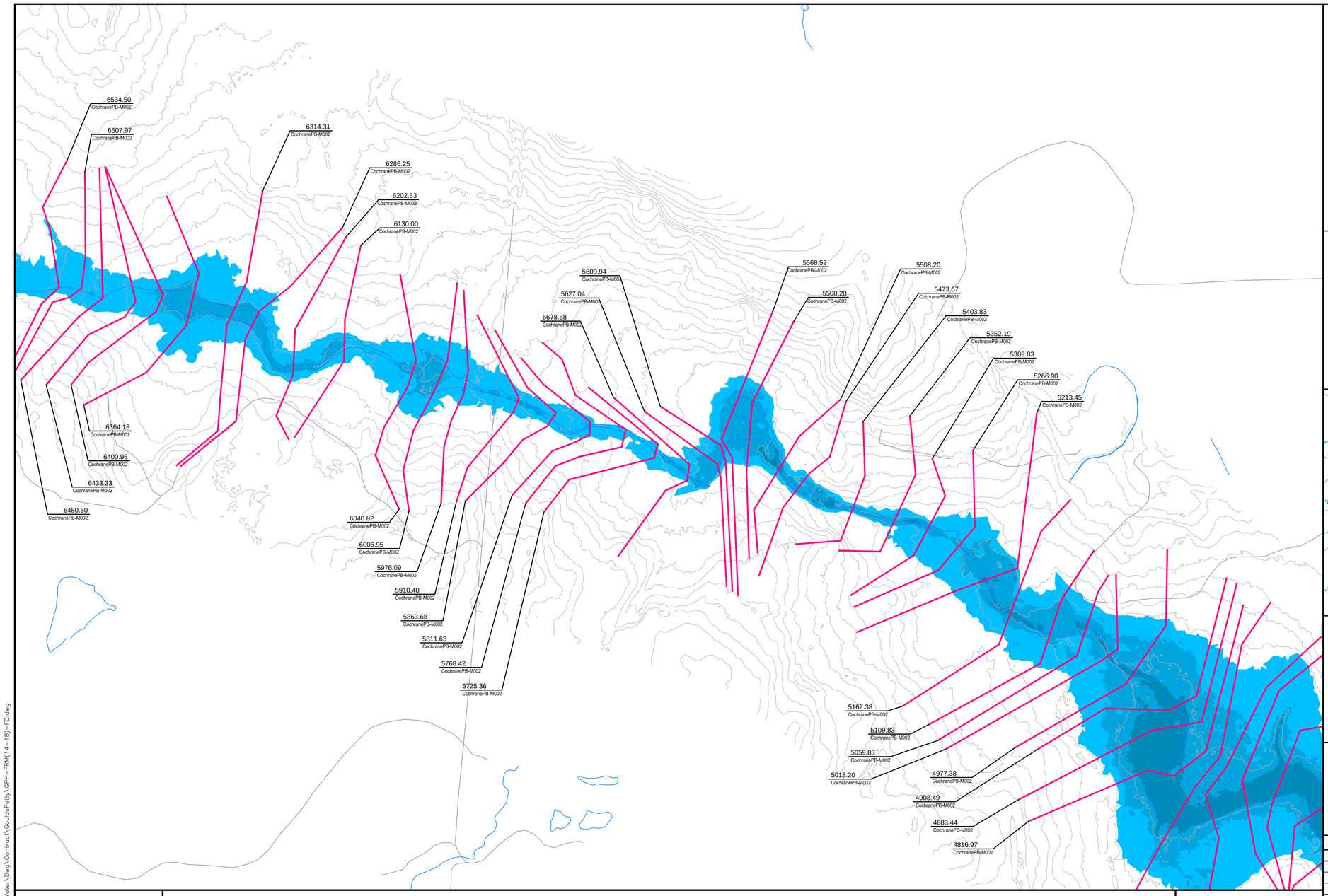
Mar 25/13 – richard.bartolo



Newfoundland Labrador

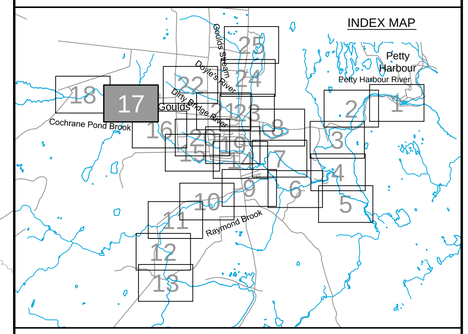
Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Existing Conditions - 2012

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream



Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

Sheet 17 of 25

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(14-18)-FD.dwg

Mar 25/13 – richard.bartolo

Cochrane Pond Rd

6985.71 CochranePB-M002
7041.67 CochranePB-M002
7108.13 CochranePB-M002
6955.25 CochranePB-M002
6863.52 CochranePB-M002
7208.54 CochranePB-M002
7253.62 CochranePB-M002
7329.89 CochranePB-M002
6840.09 CochranePB-M002
6808.25 CochranePB-M002
6534.50 CochranePB-M002
6507.97 CochranePB-M002
6767.75 CochranePB-M002
6727.78 CochranePB-M002
6691.71 CochranePB-M002
6651.54 CochranePB-M002
6630.83 CochranePB-M002
6364.18 CochranePB-M002
6400.96 CochranePB-M002
6433.33 CochranePB-M002
6480.50 CochranePB-M002
7450.86 CochranePB-M002
7476.72 CochranePB-M002
7609.21 CochranePB-M002
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7738.34 CochranePB-M002
7812.33 CochranePB-M002
7847.08 CochranePB-M002
7964.49 CochranePB-M002
7901.64 CochranePB-M002
8105.53 CochranePB-M002
8065.47 CochranePB-M002
8050.98 CochranePB-M002
8024.09 CochranePB-M002
8013.06 CochranePB-M002
8004.70 CochranePB-M002
7995.14 CochranePB-M002

Newfoundland Labrador

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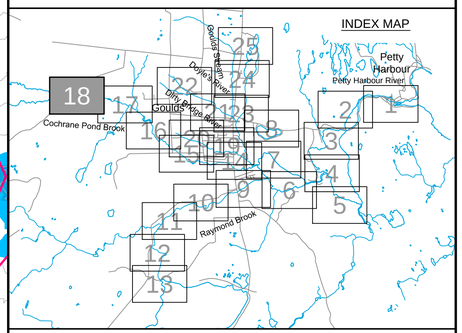
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Existing Conditions - 2012

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 Doyles8-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 18 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(14-18)-FD.dwg

Mar 25/13 – richard.bartolo

Ridgemount St
Clearview St
Keith Dr
Gulliage St
North Dr
Della Dr
Sunset St
McConnell Pl
Hannaford Pl
Martin St
Cleary Dr
Soper Crescent
Fleming Pl
Main Rd
Meadowbrook Park Rd
Bonnie Dr
Gray Dr
Everard Ave
Kieley Dr
Meadowbrook Dr
Riverside Dr W
Hennesseys Line
Beaver Brook Dr
Heffernans Line
SPILL

1506.66 DoylesR-TR013
1478.17 DoylesR-TR013
1433.61 DoylesR-TR013
1388.58 DoylesR-TR013
1373.88 DoylesR-TR013
1301.72 DoylesR-TR013
1246.99 DoylesR-TR013
1192.26 DoylesR-TR013
1137.53 DoylesR-TR013
1082.80 DoylesR-TR013
1064.90 DoylesR-TR013
1042.53 DoylesR-TR013
1022.06 DoylesR-TR013
867.93 DoylesR-TR013
809.27 DoylesR-TR013
756.07 DoylesR-TR013
543.29 DoylesR-TR013
489.08 DoylesR-TR013
383.70 DoylesR-TR013
324.16 DoylesR-TR013
344.87 DoylesR-TR013
256.50 DoylesR-TR013
256.30 DoylesR-TR013
969.32 DoylesR-TR013
915.66 DoylesR-TR013
702.82 DoylesR-TR013
651.60 DoylesR-TR013
588.74 DoylesR-TR013
436.90 DoylesR-TR013
363.75 DoylesR-TR013
66.14 DoylesR-TR013
133.14 DoylesR-TR013
162.98 DoylesR-TR013
1370.10 DoylesR-TR011
1316.51 DoylesR-TR011
1262.92 DoylesR-TR011
1209.33 DoylesR-TR011
1155.74 DoylesR-TR011
1107.39 DoylesR-TR011
1057.82 DoylesR-TR011
971.36 DoylesR-TR011
816.76 DoylesR-TR011
760.16 DoylesR-TR011
712.26 DoylesR-TR011
663.11 DoylesR-TR011
949.62 DoylesR-TR011
929.53 DoylesR-TR011
872.05 DoylesR-TR011
484.12 DoylesR-M001
429.44 DoylesR-M001
388.93 DoylesR-M001
344.78 DoylesR-M001
216.64 DoylesR-M001
77.13 DoylesR-M001

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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Newfoundland Labrador
Department of Environment and Conservation
Water Resource Management Division

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Goulds\Petty Harbour

Existing Conditions - 2012

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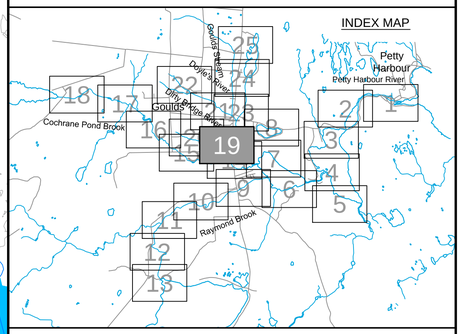
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5 - 2.0m
- Greater than 2.0m

amec

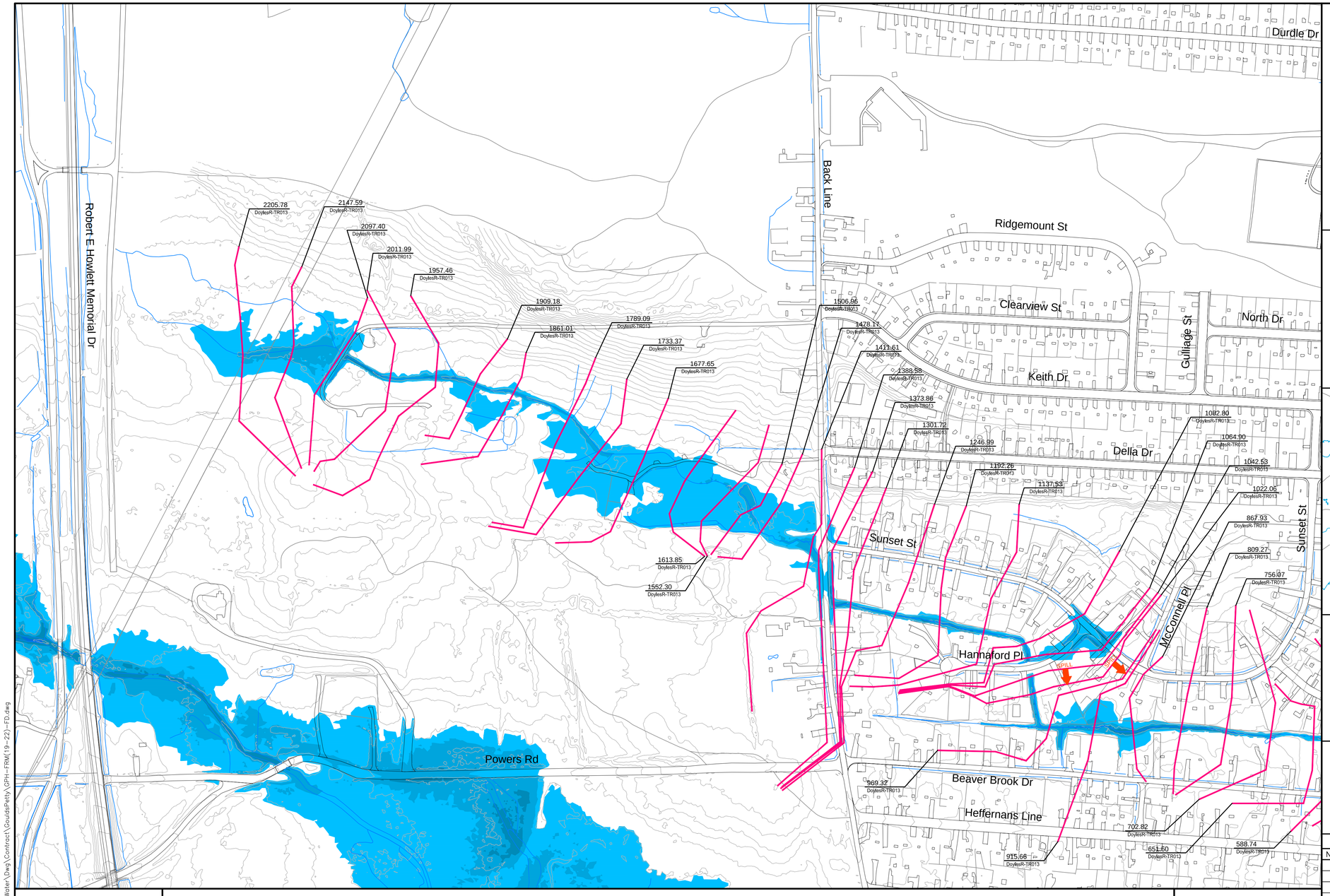
Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 19 of 25

Mar 25/13 – richard.bartolo



Newfoundland Labrador

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Cochrane Pond and Raymond Brooks,
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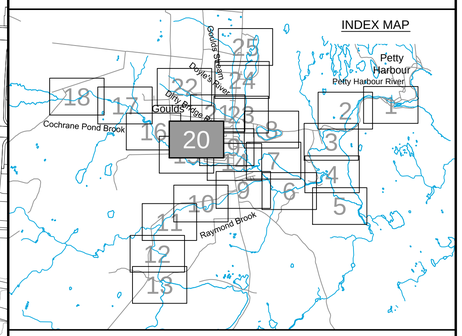
INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
- Cross Section Number
- Reach Identification
- Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 20 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-ITRM(19-22)-FD.dwg

Mar 25/13 – richard.bartolo

Newfoundland Labrador

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Water Resource Management Division

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Goulds\Petty Harbour

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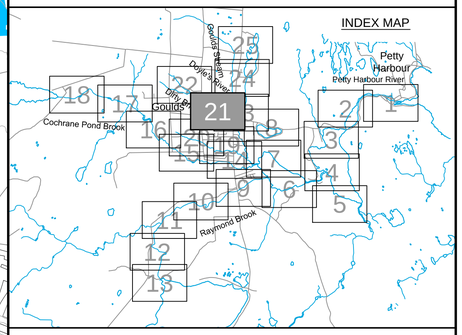
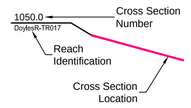
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label



1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 21of 25

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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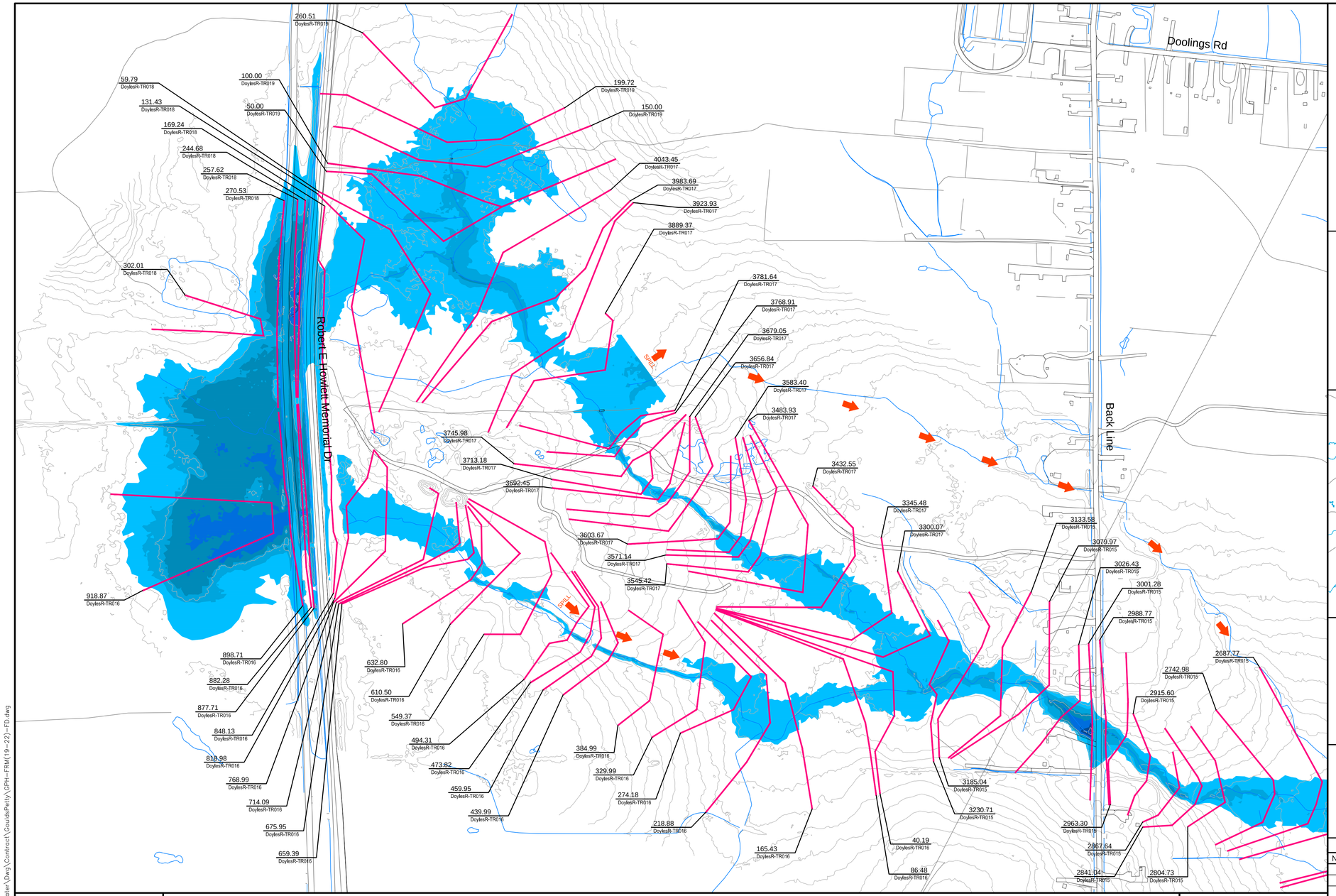
Mar 25/13 – richard.bartolo



Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

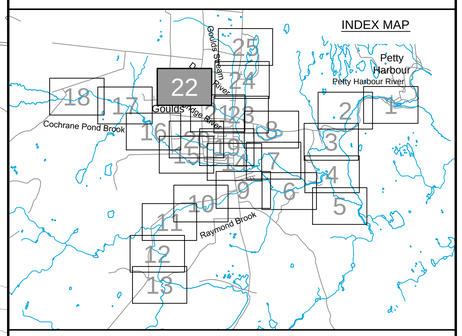
Department of Environment and Conservation
Water Resource Management Division

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Existing Conditions - 2012

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
- Cross Section Number
- Reach Identification
- Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 22 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(19-22)-FD.dwg

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Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

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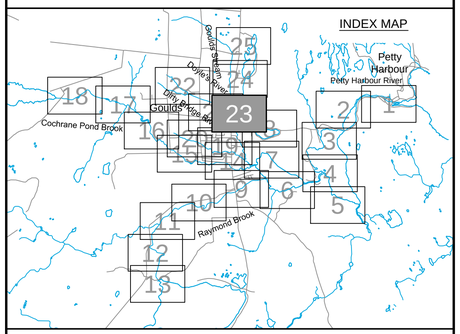
INDEX MAP



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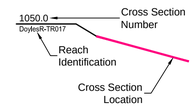

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 23 of 25

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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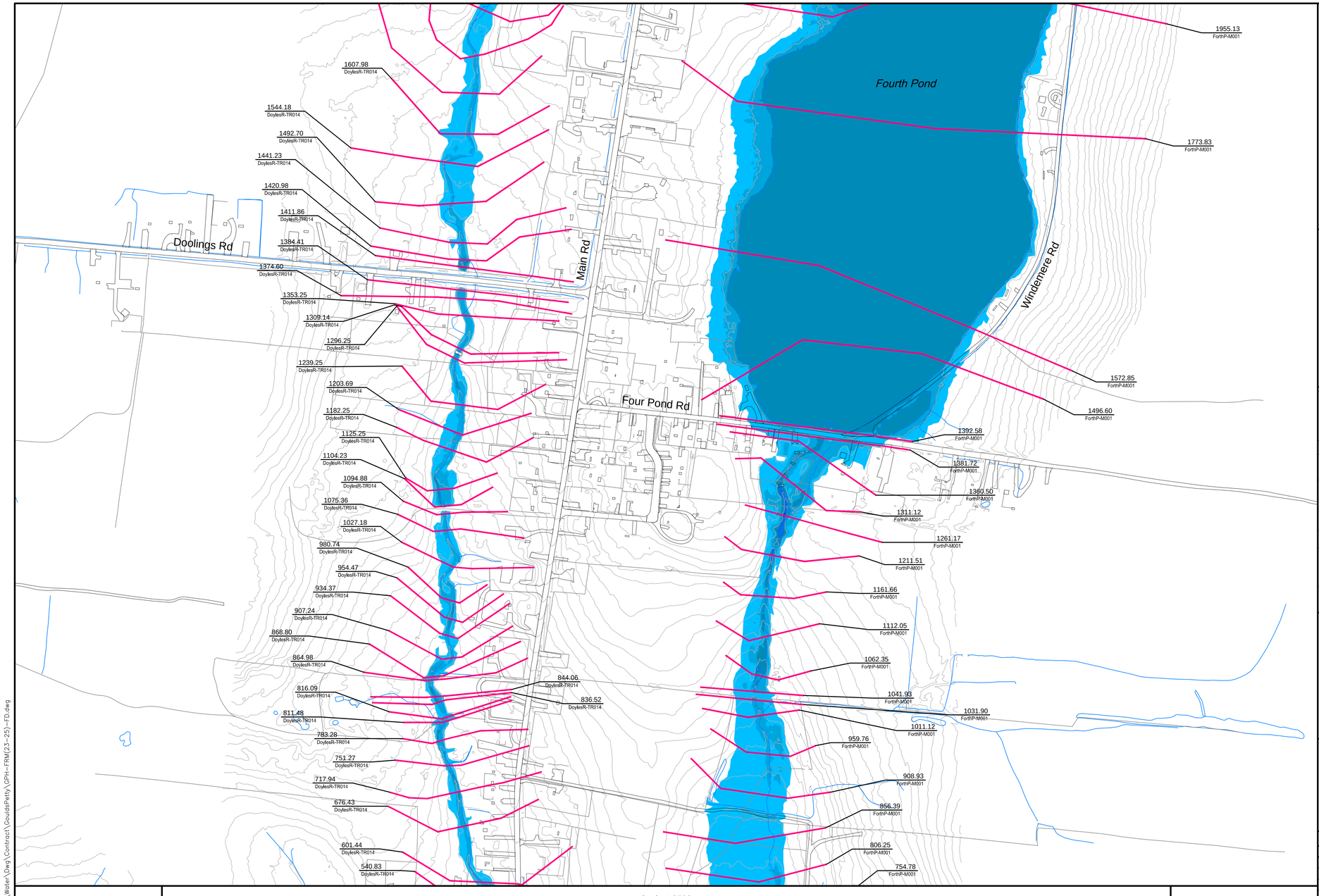

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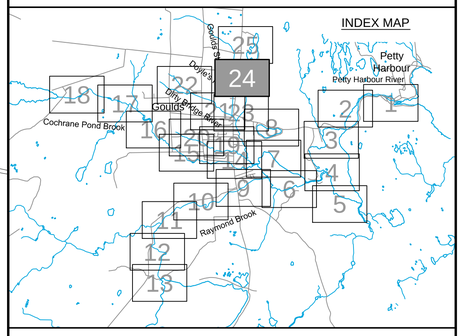

Cross Section Label

1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 24 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(23-25)-FD.dwg

Mar 25/13 – richard.bartolo

Main Rd

Viquers Rd

Fourth Pond

Fourth Pond

2616.90
FortnP-M001

2528.45
FortnP-M001

2324.32
FortnP-M001

2187.52
FortnP-M001

1955.13
FortnP-M001

2057.49
DoylesR-TR014

2037.89
DoylesR-TR014

1988.88
DoylesR-TR014

1975.46
DoylesR-TR014

1936.56
DoylesR-TR014

1904.43
DoylesR-TR014

1867.03
DoylesR-TR014

1801.50
DoylesR-TR014

1765.57
DoylesR-TR014

1703.29
DoylesR-TR014

1657.91
DoylesR-TR014

1607.98
DoylesR-TR014

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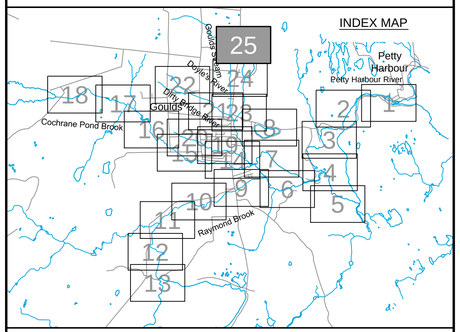

Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 25 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(23-25)-FD.dwg

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APPENDIX F

1:20 AND 1:100 AEP FLOOD RISK MAPPING – 2020

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Petty Harbour Rd
Cribbies Rd
Skinners Hill
Main Rd
Maddox Cove Rd
Southside Rd

1203.34 PettyHR-M001 — 33.96 / 33.83
1164.99 PettyHR-M001 — 33.01 / 32.77
1153.41 PettyHR-M001 — 31.89 / 31.67
1125.74 PettyHR-M001 — 30.61 / 30.43
1090.65 PettyHR-M001 — 29.40 / 29.24
1059.48 PettyHR-M001 — 28.20 / 28.03
1048.77 PettyHR-M001 — 27.59 / 27.40
1021.54 PettyHR-M001 — 27.13 / 26.93
1003.30 PettyHR-M001 — 25.13 / 24.68
994.73 PettyHR-M001 — 25.60 / 24.55
961.03 PettyHR-M001 — 24.71 / 24.58
944.13 PettyHR-M001 — 23.69 / 23.35
924.94 PettyHR-M001 — 22.83 / 22.40
905.47 PettyHR-M001 — 22.07 / 21.61
883.86 PettyHR-M001 — 21.51 / 20.67
859.53 PettyHR-M001 — 19.58 / 19.19
836.76 PettyHR-M001 — 15.12 / 14.52
823.70 PettyHR-M001 — 14.52 / 14.23
811.96 PettyHR-M001 — 14.84 / 14.57
796.92 PettyHR-M001 — 14.17 / 14.00
784.11 PettyHR-M001 — 13.80 / 13.53
769.96 PettyHR-M001 — 12.68 / 12.33
525.57 PettyHR-M001 — 3.13 / 2.81
491.94 PettyHR-M001 — 2.37 / 2.65
478.84 PettyHR-M001 — 2.60 / 2.61
439.27 PettyHR-M001 — 2.64 / 2.62
405.68 PettyHR-M001 — 2.63 / 2.62
367.80 PettyHR-M001 — 2.64 / 2.62
338.85 PettyHR-M001 — 2.64 / 2.62
305.38 PettyHR-M001 — 2.63 / 2.62
269.29 PettyHR-M001 — 2.63 / 2.62
238.18 PettyHR-M001 — 2.62 / 2.62
201.25 PettyHR-M001 — 2.63 / 2.62
150.84 PettyHR-M001 — 2.63 / 2.62
105.74 PettyHR-M001 — 2.63 / 2.62
91.29 PettyHR-M001 — 2.63 / 2.62
20.04 PettyHR-M001 — 2.63 / 2.62
12.04 PettyHR-M001 — 2.61 / 2.61
748.76 PettyHR-M001 — 10.94 / 10.51
720.33 PettyHR-M001 — 9.18 / 9.01
707.57 PettyHR-M001 — 8.34 / 8.16
685.99 PettyHR-M001 — 7.01 / 6.76
666.04 PettyHR-M001 — 6.74 / 6.55
652.51 PettyHR-M001 — 6.34 / 5.98
633.61 PettyHR-M001 — 5.44 / 5.31
622.83 PettyHR-M001 — 5.32 / 5.13
577.97 PettyHR-M001 — 3.80 / 3.66
1362.66 PettyHR-M001 — 42.34 / 41.80
1370.82 PettyHR-M001 — 43.79 / 43.37
1385.41 PettyHR-M001 — 44.93 / 44.60
1402.15 PettyHR-M001 — 49.65 / 49.32
1415.17 PettyHR-M001 — 50.10 / 49.76
1444.51 PettyHR-M001 — 49.43 / 49.24
1457.30 PettyHR-M001 — 52.07 / 51.70
1467.14 PettyHR-M001 — 52.37 / 52.05
1221.17 PettyHR-M001 — 34.71 / 34.45
1258.06 PettyHR-M001 — 36.73 / 36.24
1279.20 PettyHR-M001 — 37.47 / 37.05
1309.35 PettyHR-M001 — 39.85 / 39.61
1336.64 PettyHR-M001 — 41.54 / 41.29

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

Flood Risk Map
Goulds\Petty Harbour

Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
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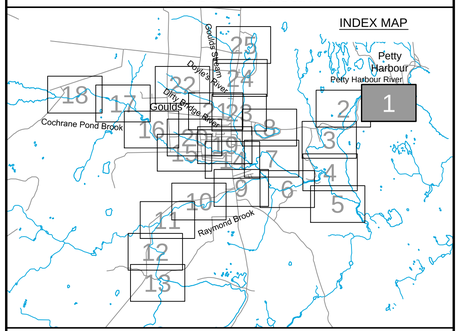
and Goulds Stream

INDEX MAP



Cross Section Label

1:100 AEP Flood Water Level (elevation in metres)
172.33
171.24
1:20 AEP Flood Water Level (elevation in metres)
1050.0
DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Floodline
1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 1 of 25

Mar 23/13 – richard.bartolo



MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

Newfoundland Labrador

Department of Environment and Conservation
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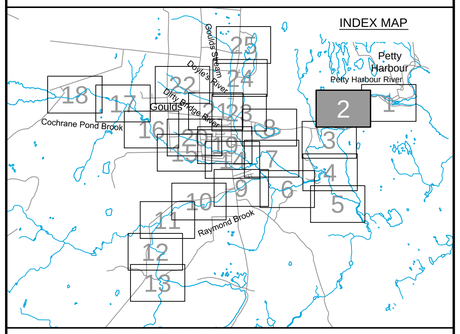

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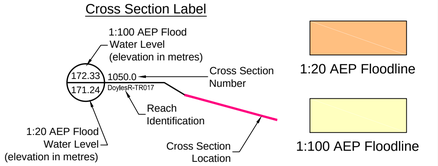

amec

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REVISIONS

No.	Description	BY	DATE

Sheet 2 of 25

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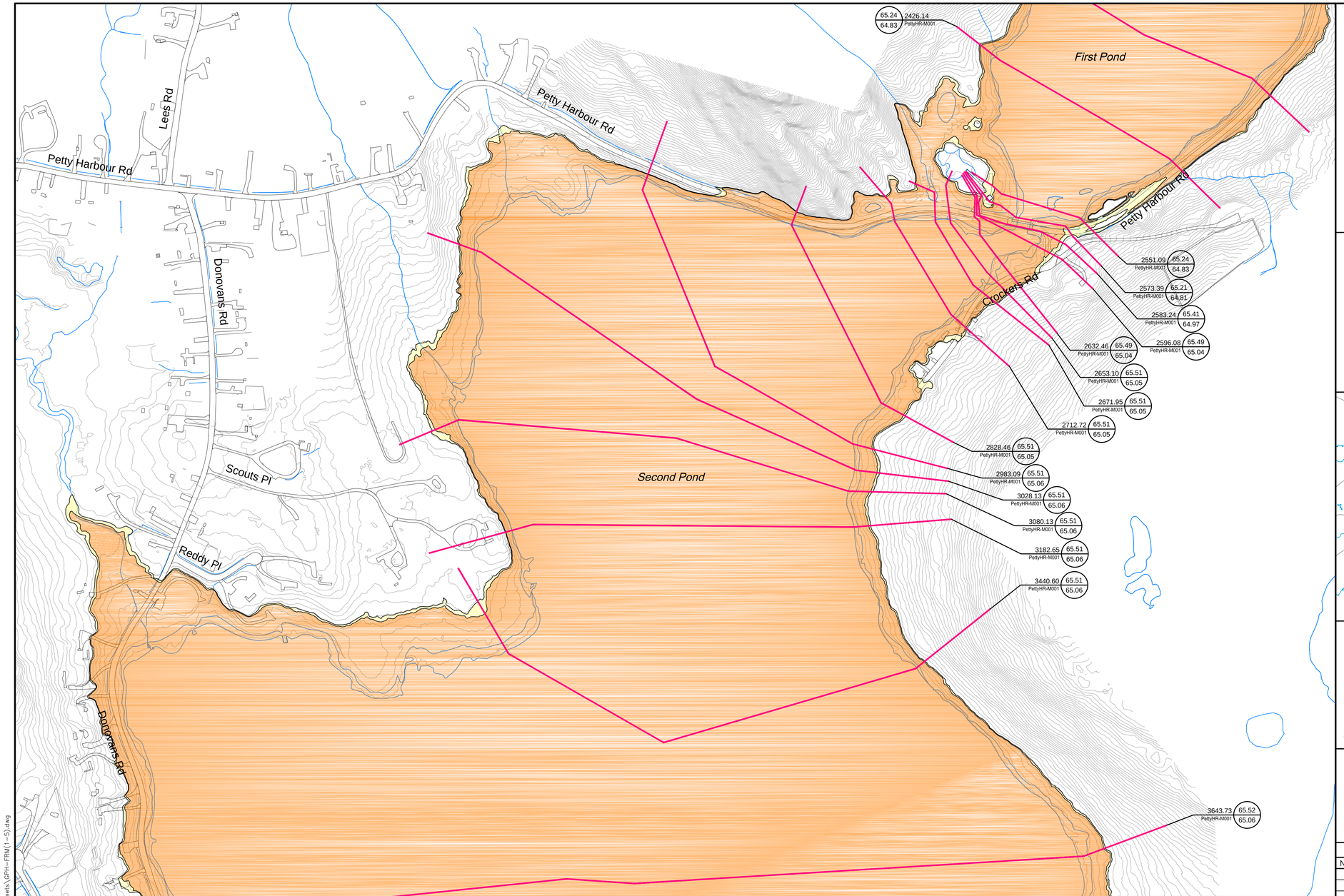
Mar 23/13 – richard.bartolo



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Water Resource Management Division

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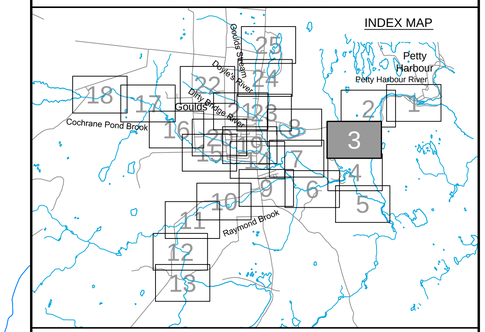

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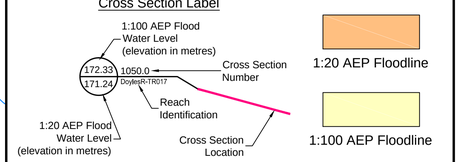

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres

300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

N

Sheet 3 of 25

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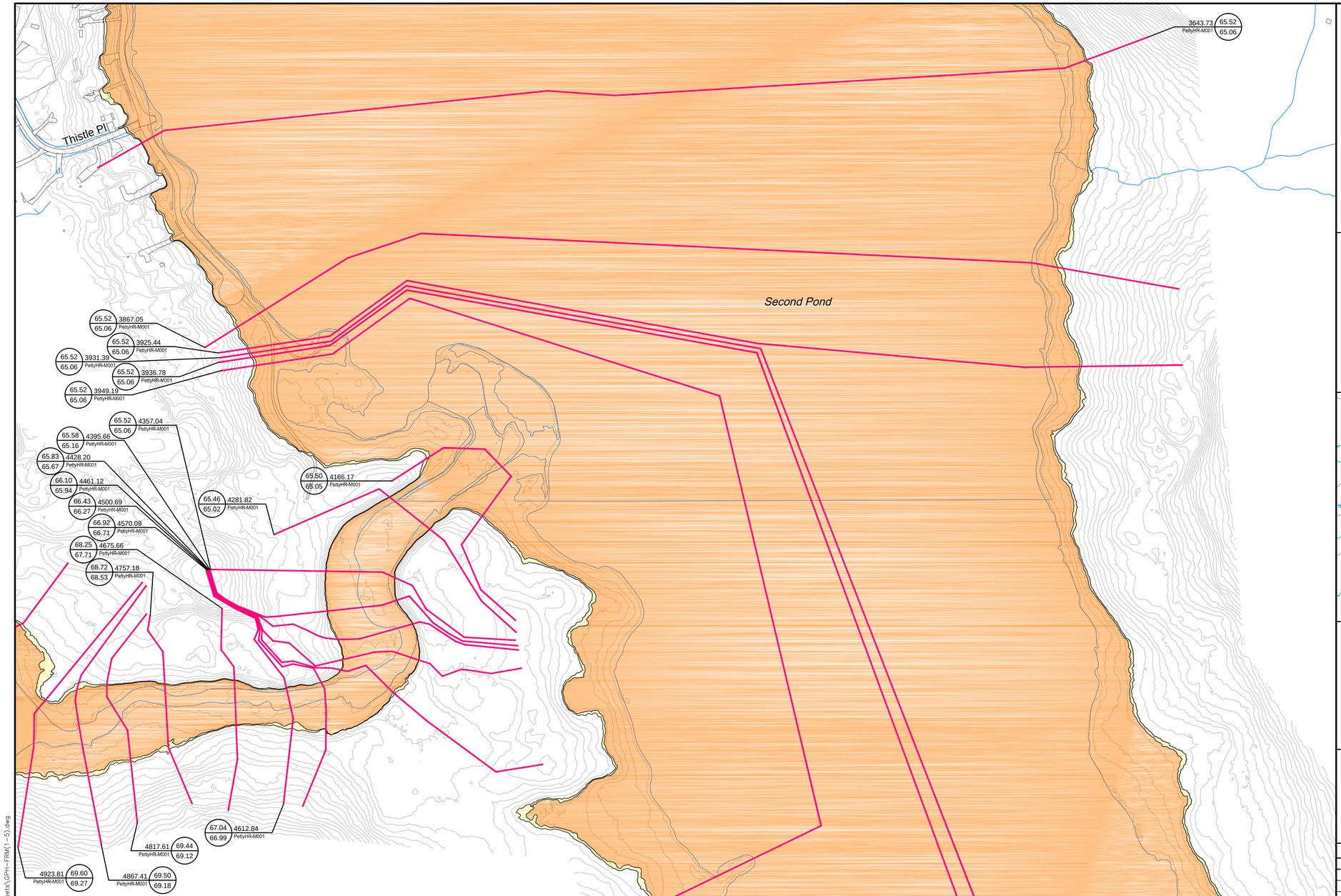
Mar 23/13 – richard.bartolo



MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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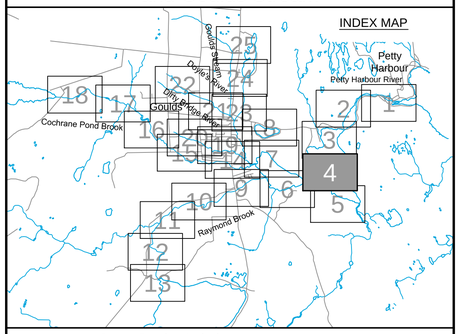


Cross Section Label

1:100 AEP Flood Water Level (elevation in metres)
172.33 / 171.24
1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
1:20 AEP Flood Water Level (elevation in metres)
Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

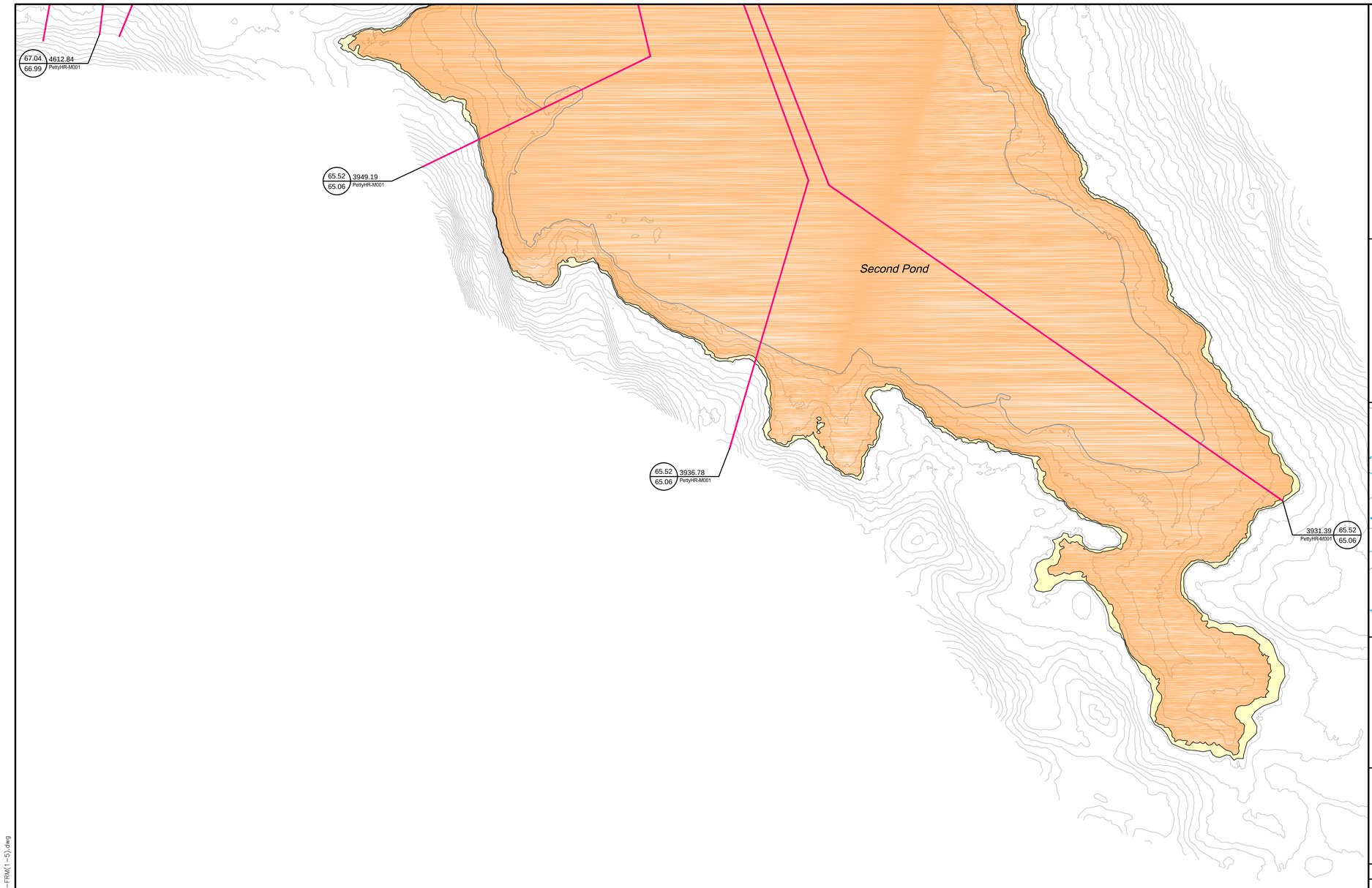
Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 4 of 25

Mar 23/13 – richard.bartolo



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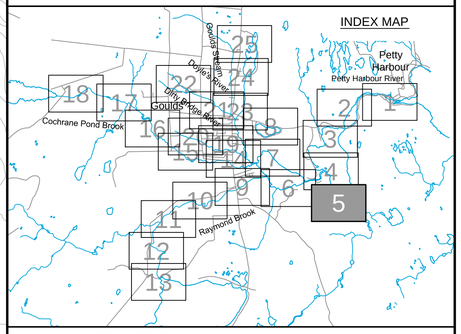

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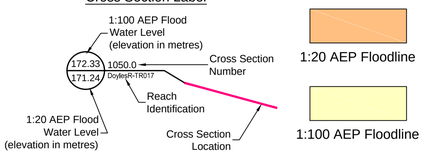

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
Metres

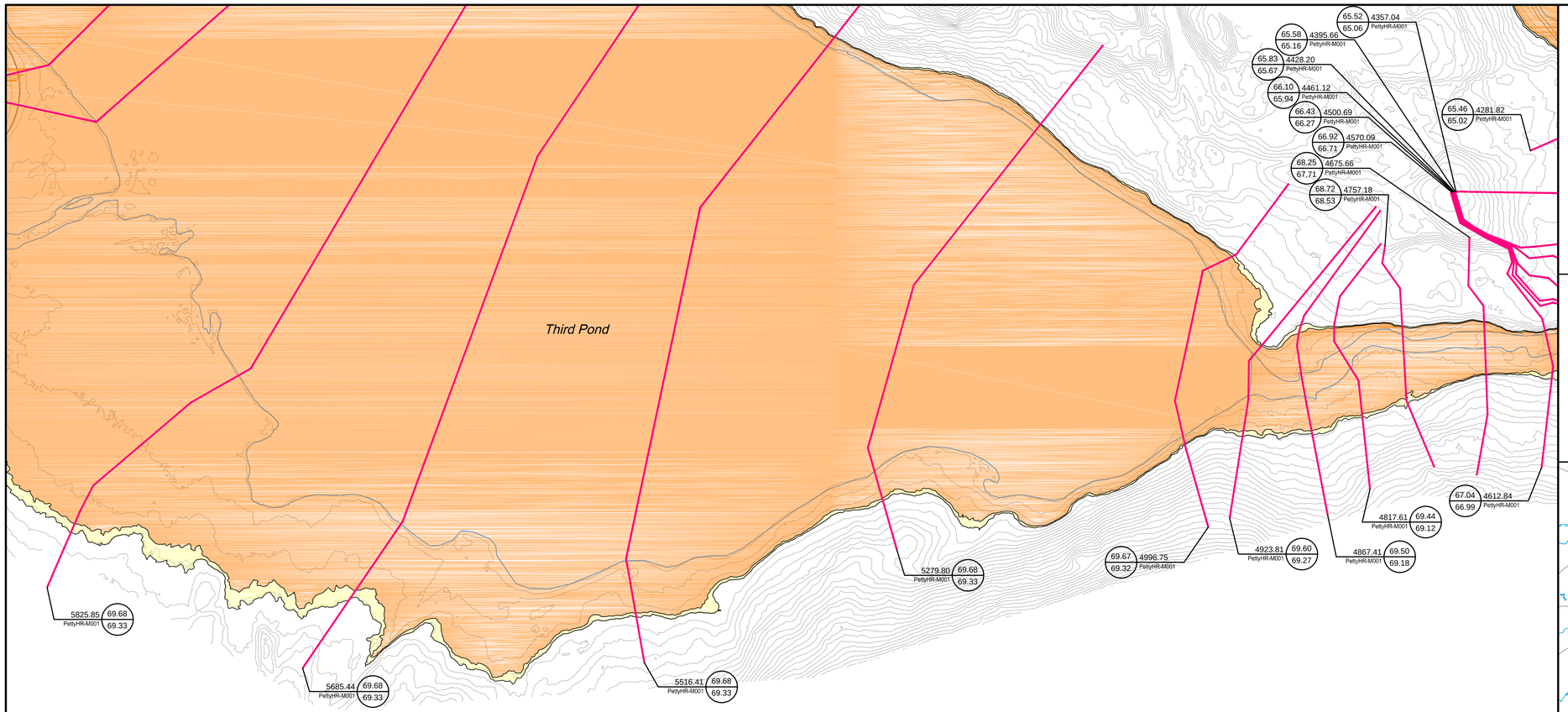
300 0 300 600 900 Feet
Feet

CONTOUR INTERVAL: 1.0 METRES

Sheet 5 of 25

C:\Work\NFLD\GouldsSheets\GPH-FRM(1-5).dwg

Mar 23/13 – richard.bartolo



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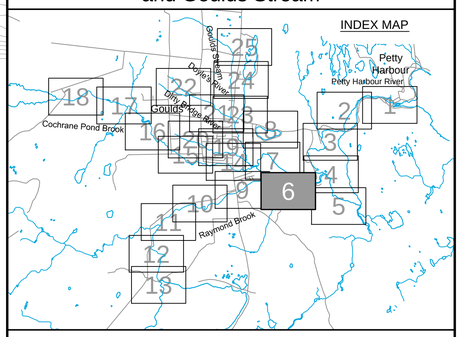

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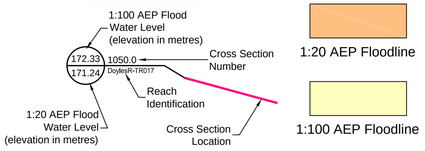

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

Sheet 6 of 25

C:\Work\NFLD\GouldsSheets\GPH-FRM(6-8).dwg

Mar 23/13 – richard.bartolo

Meadowbrook Dr

Riverside Dr W

Lake View Dr

Third Pond

688.06 ForestP-M001 72.43 72.37
651.32 ForestP-M001 71.44 71.40
600.44 ForestP-M001 70.35 70.30
578.60 ForestP-M001 69.92 69.90
528.92 ForestP-M001 69.69 69.34
478.55 ForestP-M001 69.69 69.33
430.82 ForestP-M001 69.69 69.33
378.18 ForestP-M001 69.69 69.33
328.07 ForestP-M001 69.69 69.33
277.95 ForestP-M001 69.69 69.33
195.51 ForestP-M001 69.69 69.33
158.37 ForestP-M001 69.69 69.33
89.11 ForestP-M001 69.69 69.33
6270.85 PettyHR-M002 69.69 69.33
6218.07 PettyHR-M002 69.69 69.33
6095.00 PettyHR-M002 69.69 69.33
6004.71 PettyHR-M002 69.69 69.33
5825.85 PettyHR-M001 69.68 69.33
5685.44 PettyHR-M001 69.68 69.33
5516.39 PettyHR-M001 69.68 69.33

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

MTMNAD83
ZONE 1

C:\Work\WFLD\GouldsSheets\GPH-FRM(6-8).dwg

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Water Resource Management Division

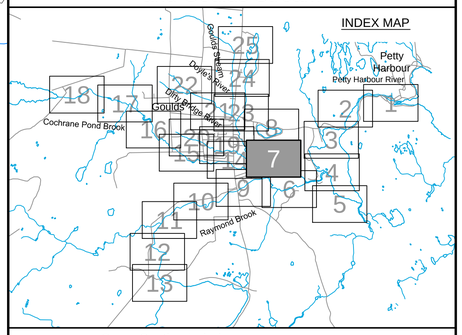
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

Flood Risk Map
Goulds\Petty Harbour

Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1:100 AEP Flood Water Level (elevation in metres)

172.33 / 171.24 — 1:20 AEP Flood Water Level (elevation in metres)

1050.0 — Cross Section Number

DoylesR-TR017 — Reach Identification

Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

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Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

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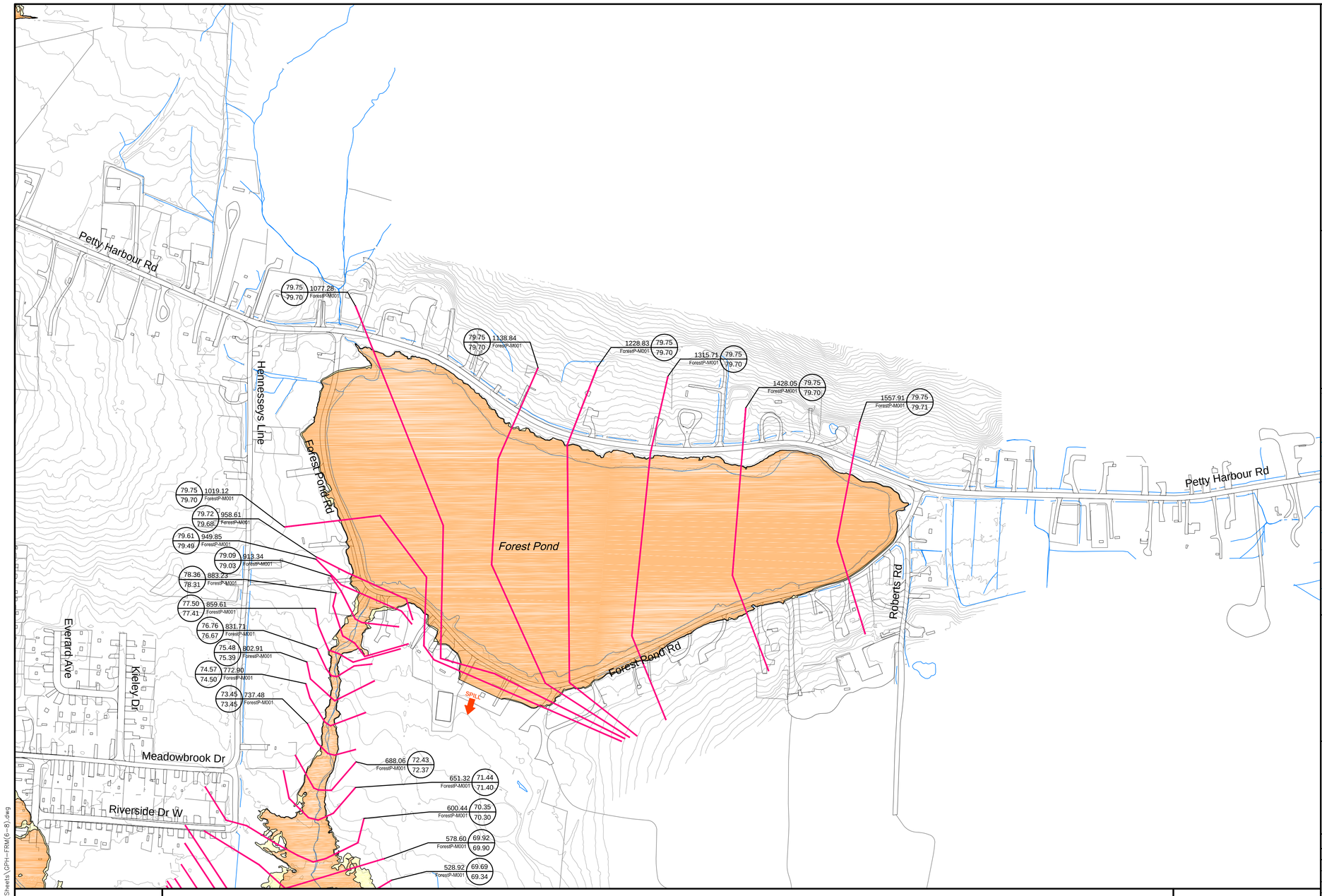
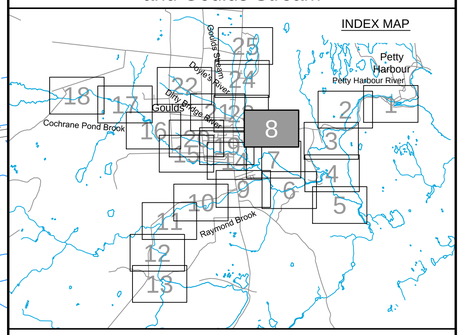


INDEX MAP



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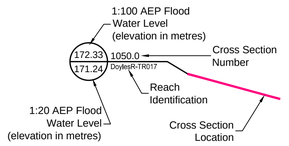

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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C:\Work\NFLD\GouldsSheets\GPH-FRM(6-8).dwg

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Third Pond

Lake View Dr

Main Rd

Shoal Bay Rd

Alexis Pl

71.40 / 71.27 — 816.68 — RaymondB-M001
71.62 / 71.43 — 841.89 — RaymondB-M001
71.88 / 71.70 — 866.25 — RaymondB-M001
71.85 / 71.61 — 892.34 — RaymondB-M001
72.17 / 72.06 — 916.70 — RaymondB-M001
73.26 / 73.15 — 942.15 — RaymondB-M001
74.56 / 74.41 — 976.73 — RaymondB-M001
74.73 / 74.50 — 999.99 — RaymondB-M001
77.18 / 77.02 — 1116.25 — RaymondB-M001
78.04 / 77.94 — 1148.70 — RaymondB-M001
78.24 / 78.13 — 1166.20 — RaymondB-M001
79.09 / 78.95 — 1189.75 — RaymondB-M001
79.76 / 79.71 — 1216.25 — RaymondB-M001
80.45 / 80.07 — 1252.39 — RaymondB-M001
83.29 / 83.08 — 1536.01 — RaymondB-M001
83.75 / 83.56 — 1584.49 — RaymondB-M001
83.97 / 83.71 — 1630.92 — RaymondB-M001
84.47 / 84.28 — 1682.15 — RaymondB-M001
84.87 / 84.61 — 1733.38 — RaymondB-M001
69.93 / 69.77 — 716.25 — RaymondB-M001
69.72 / 69.39 — 615.86 — RaymondB-M001
69.69 / 69.33 — 565.77 — RaymondB-M001
69.69 / 69.33 — 520.15 — RaymondB-M001
69.69 / 69.33 — 468.54 — RaymondB-M001
69.69 / 69.33 — 429.18 — RaymondB-M001
69.69 / 69.33 — 366.25 — RaymondB-M001
69.69 / 69.33 — 341.79 — RaymondB-M001
70.08 / 69.97 — 766.25 — RaymondB-M001
69.75 / 69.52 — 675.00 — RaymondB-M001
76.97 / 76.55 — 1066.09 — RaymondB-M001
76.23 / 76.17 — 1035.68 — RaymondB-M001
1303.54 — 80.52 / 80.41 — RaymondB-M001
1323.54 — 81.82 / 81.39 — RaymondB-M001
1372.05 — 82.57 / 82.01 — RaymondB-M001
1425.99 — 82.69 / 82.32 — RaymondB-M001
1477.96 — 82.86 / 82.69 — RaymondB-M001
1784.61 — 85.29 / 85.22 — RaymondB-M001
1835.84 — 86.53 / 86.28 — RaymondB-M001
1885.73 — 87.14 / 86.94 — RaymondB-M001
1950.22 — 87.44 / 87.41 — RaymondB-M001
1989.18 — 88.46 / 87.92 — RaymondB-M001
5825.85 — 69.68 / 69.33 — PettyHR-M001

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

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Goulds\Petty Harbour

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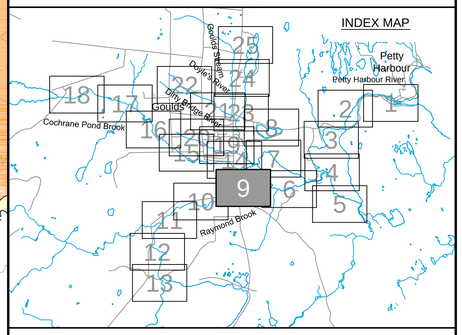
INDEX MAP



Cross Section Label

1:100 AEP Flood
Water Level
(elevation in metres)

172.33 / 171.24 — 1050.0 — DoylesR-TR017

Cross Section Number

Reach Identification

1:20 AEP Flood
Water Level
(elevation in metres)

Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

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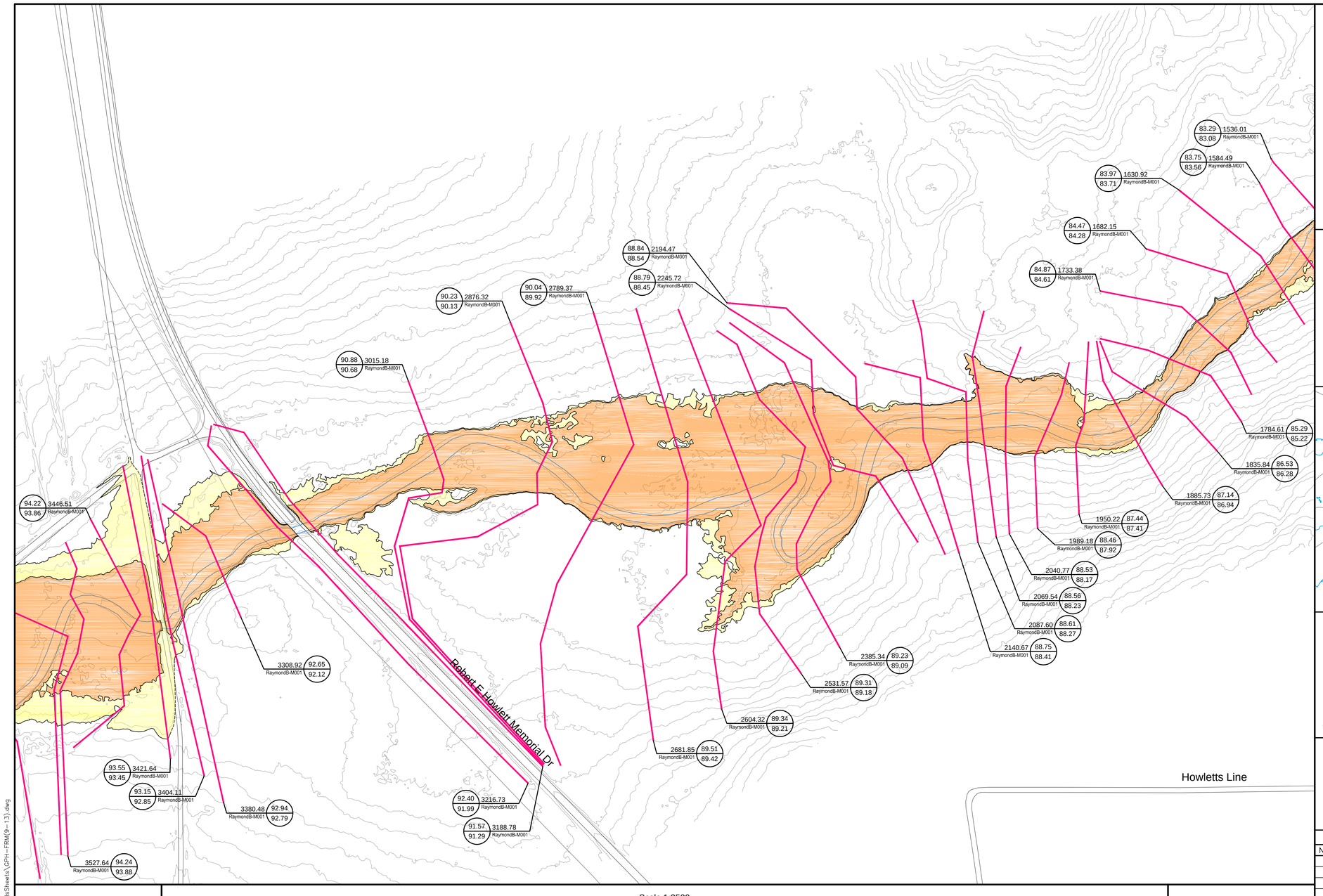
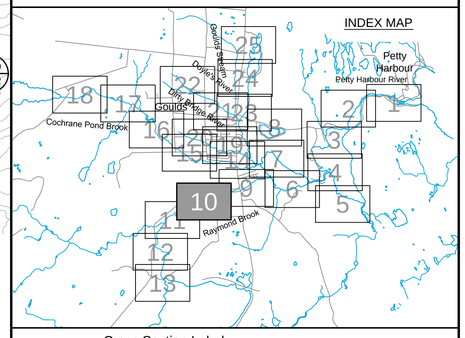
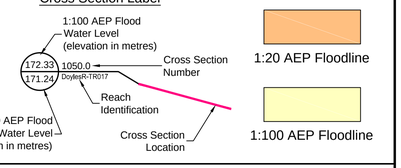


INDEX MAP



Cross Section Label



amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

Sheet 10 of 25

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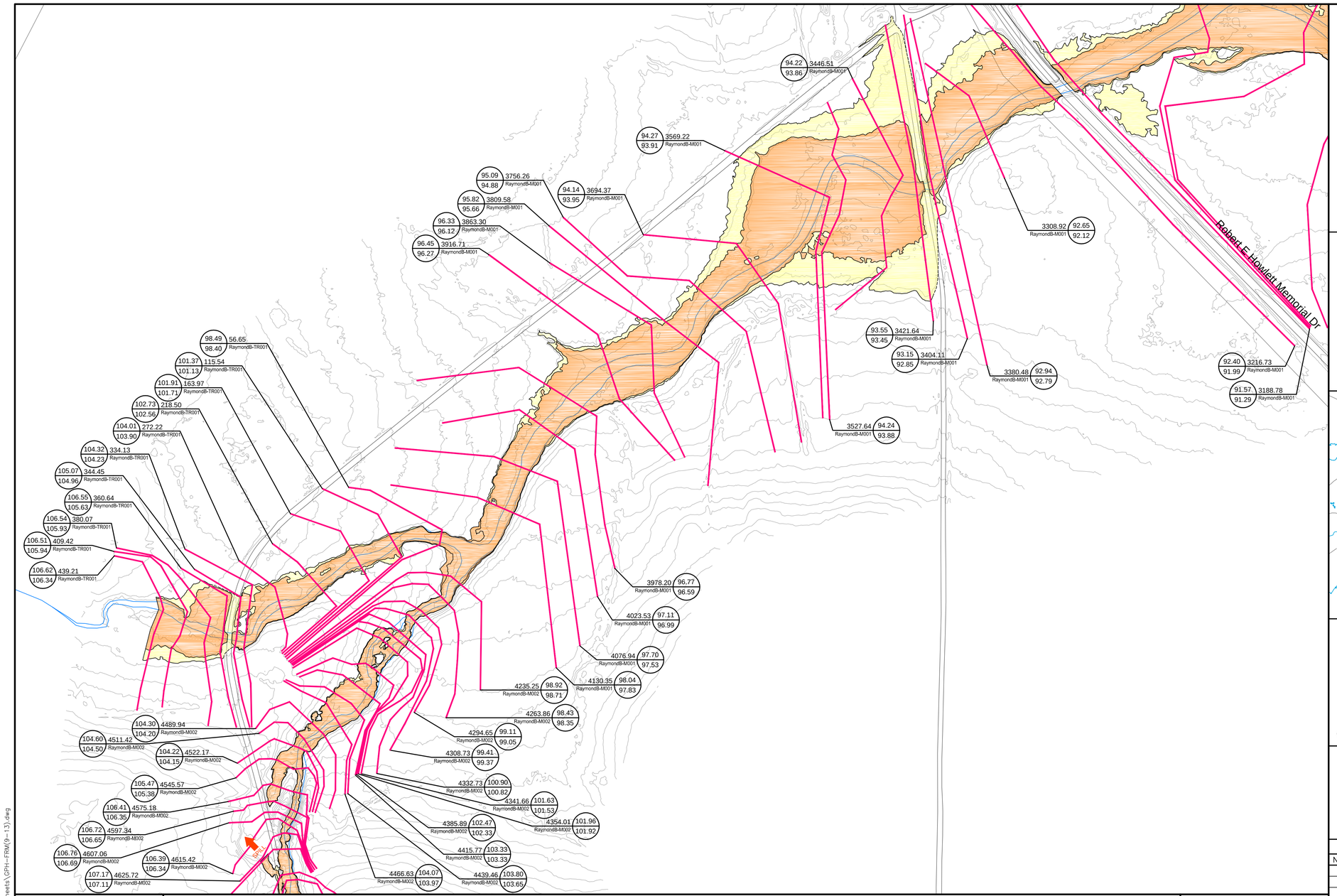

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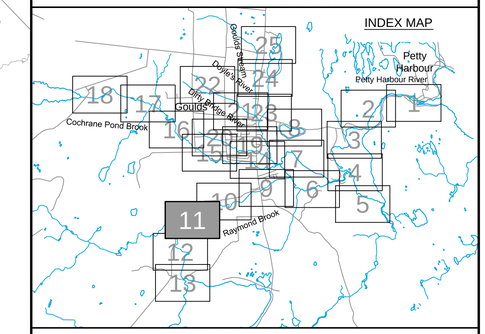

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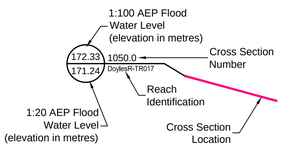

1:20 AEP Floodline

1:100 AEP Floodline

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

Sheet 11 of 25

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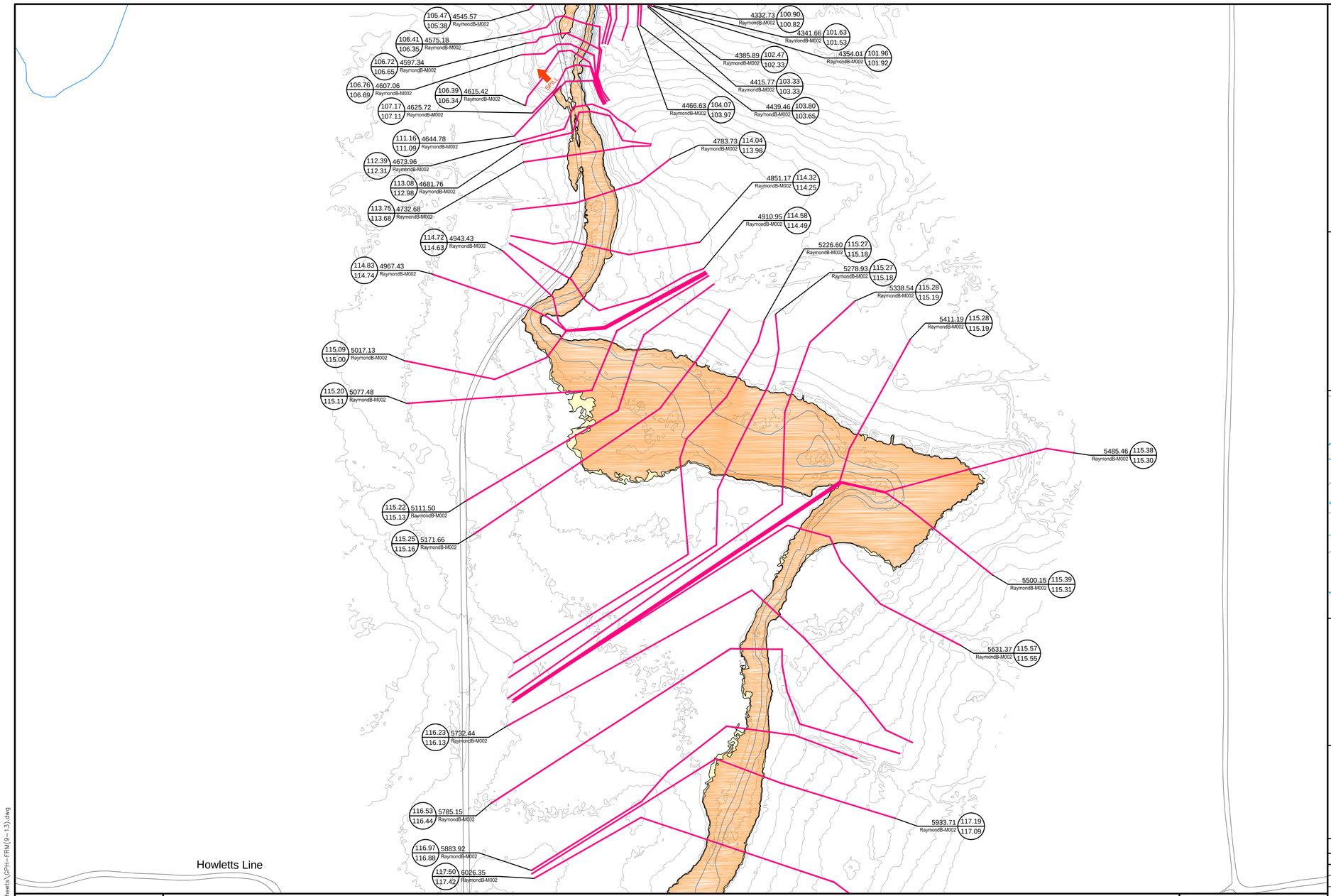

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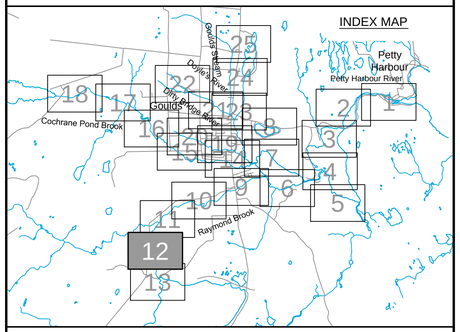

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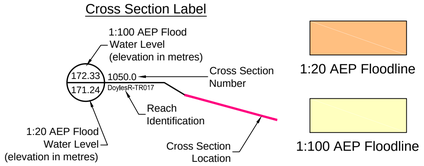

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

Sheet 12 of 25

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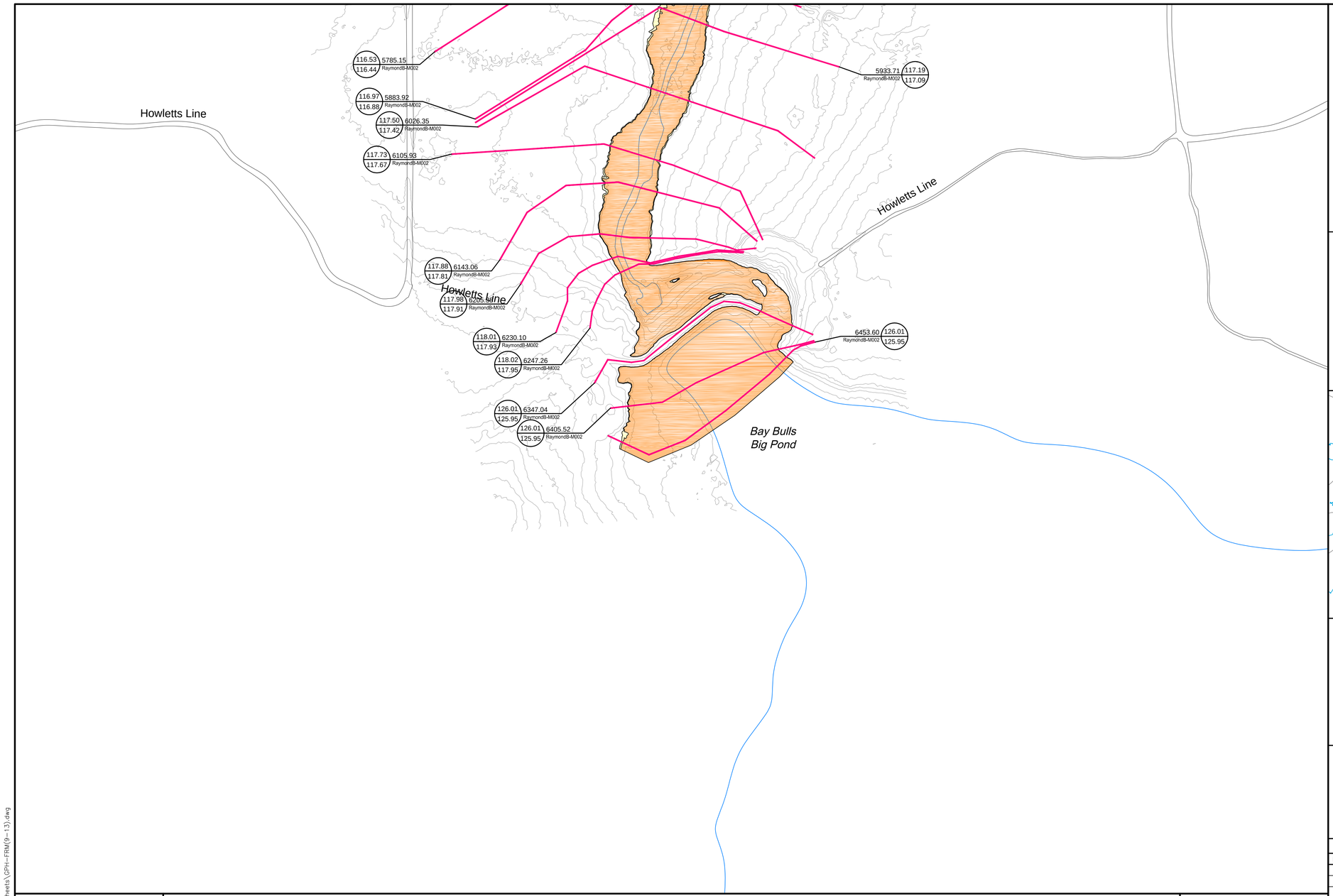

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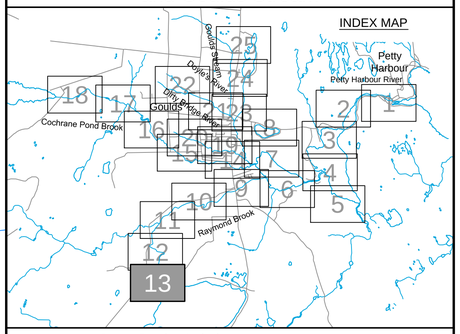

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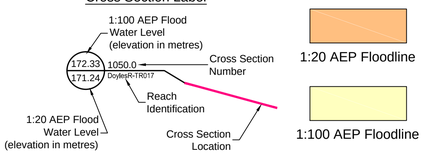

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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Soper Cres
McConnell Pl
Sunset St
Martin St
Hannaford Pl
Cleary Dr
Main Rd
Fleming Pl
Riverside Dr W
Beaver Brook Dr
Heffernans Line
Mountainview Dr
Ryans River Rd
Ryans Pl
Third Pond
Lake View Dr
Main Rd

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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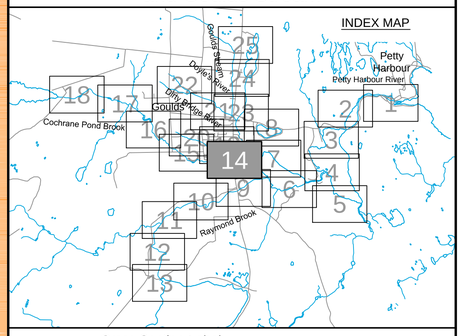

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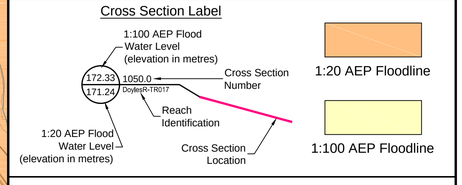

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REVISIONS

No.	Description	BY	DATE

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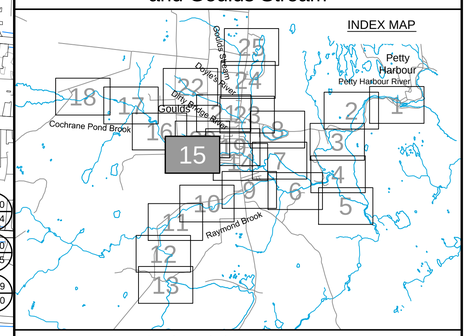

Cross Section Label

1:100 AEP Flood Water Level (elevation in metres)

172.33 / 171.24 — 1050.0 — DoylesR-TR017

Cross Section Number

Reach Identification

1:20 AEP Flood Water Level (elevation in metres)

Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

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MTMNAD83
ZONE 1

Scale 1:2500

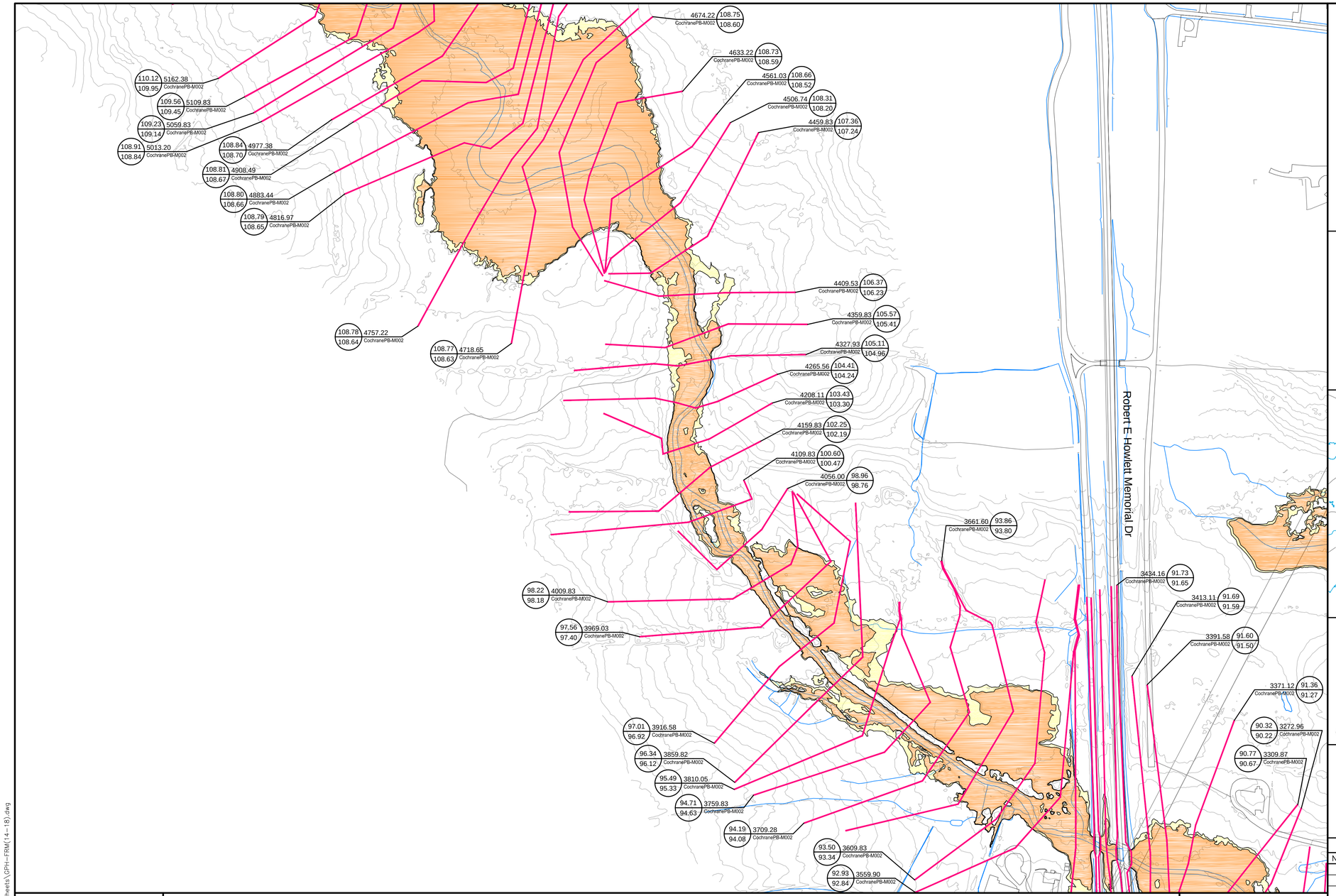
Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

C:\Work\WFLD\GoudsSheets\GPH-FRM(14-18).dwg

Mar 23/13 – richard.bartolo



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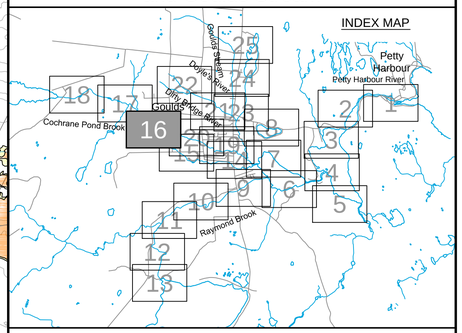

Cross Section Label

1:100 AEP Flood Water Level (elevation in metres)

172.33 / 171.24 — 1050.0 — Cross Section Number — DoylesR-TR017 — Reach Identification

1:20 AEP Flood Water Level (elevation in metres)

Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

N

Sheet 16 of 25

C:\Work\WFLD\GoudsSheets\GPH-FRM(14-18).dwg

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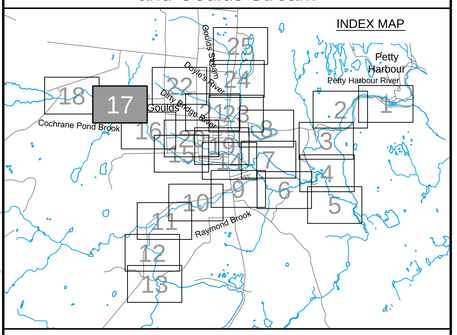

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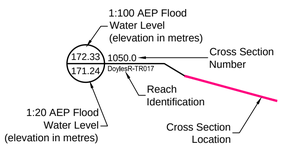

1:20 AEP Floodline

1:100 AEP Floodline

amec

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No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

N

Sheet 17 of 25

C:\Work\NFLD\GouldsSheets\GPH-FRM(14-18).dwg

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Cochrane Pond Rd

135.69 / 135.64 — 6985.71 CochranePB-M002
136.14 / 136.05 — 7041.67 CochranePB-M002
136.54 / 136.51 — 7108.13 CochranePB-M002
137.06 / 136.97 — 7208.54 CochranePB-M002
137.16 / 137.08 — 7253.62 CochranePB-M002
137.32 / 137.25 — 7329.89 CochranePB-M002
142.54 / 142.31 — 8105.53 CochranePB-M002
142.53 / 142.29 — 8065.47 CochranePB-M002
142.52 / 142.26 — 8050.98 CochranePB-M002
142.52 / 142.28 — 8024.09 CochranePB-M002
142.52 / 142.28 — 8013.06 CochranePB-M002
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142.51 / 142.28 — 7995.14 CochranePB-M002
142.01 / 141.78 — 7964.49 CochranePB-M002
140.77 / 140.71 — 7901.64 CochranePB-M002
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7847.08 / 139.85 / 139.79 CochranePB-M002
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7738.34 / 138.98 / 138.91 CochranePB-M002
7609.21 / 137.82 / 137.73 CochranePB-M002
7450.86 / 137.62 / 137.56 CochranePB-M002
7476.72 / 137.66 / 137.59 CochranePB-M002
7515.77 / 137.68 / 137.61 CochranePB-M002
130.37 / 130.33 — 6767.75 CochranePB-M002
129.52 / 129.43 — 6727.78 CochranePB-M002
129.10 / 129.03 — 6691.71 CochranePB-M002
128.70 / 128.64 — 6651.54 CochranePB-M002
128.47 / 128.39 — 6630.83 CochranePB-M002
6955.25 / 134.77 / 134.60 CochranePB-M002
6863.52 / 132.89 / 132.85 CochranePB-M002
6840.09 / 132.18 / 132.11 CochranePB-M002
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6433.33 / 125.09 / 125.03 CochranePB-M002
6480.50 / 125.95 / 125.90 CochranePB-M002

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

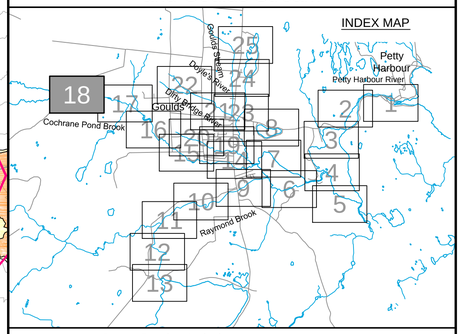
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

Flood Risk Map
Goulds\Petty Harbour

Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1:100 AEP Flood Water Level (elevation in metres)
172.33 / 171.24
1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
1:20 AEP Flood Water Level (elevation in metres)
Cross Section Location

1:20 AEP Floodline
1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

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Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

Flood Risk Map
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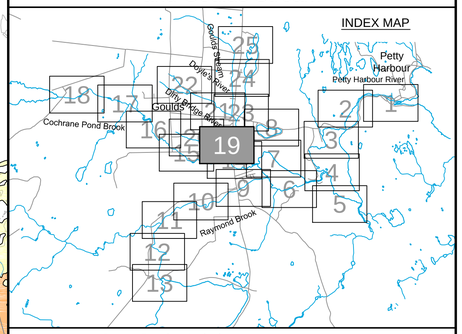
Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



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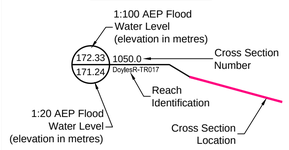

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
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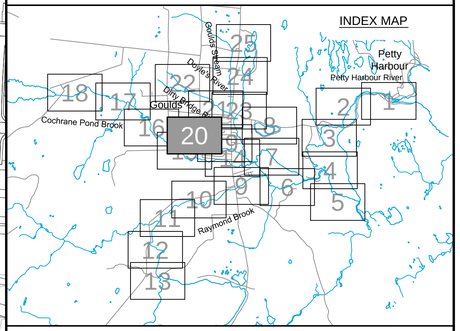
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



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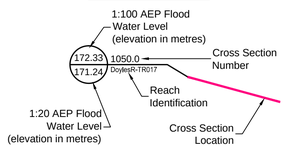

1:20 AEP Floodline

1:100 AEP Floodline

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres

300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

Sheet 20 of 25

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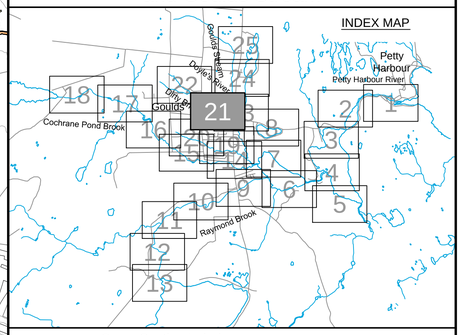
Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



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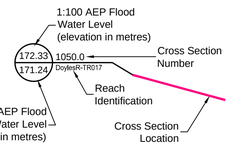

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 21of 25

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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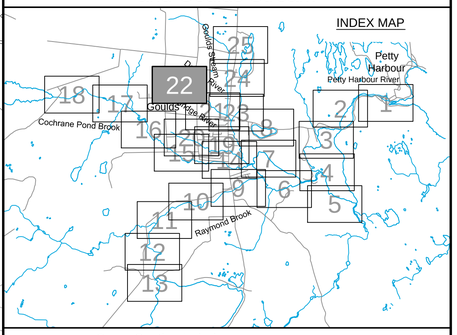
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream



Cross Section Label

1:100 AEP Flood
Water Level
(elevation in metres)

172.33
171.24

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:20 AEP Flood
Water Level
(elevation in metres)

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

Sheet 22 of 25

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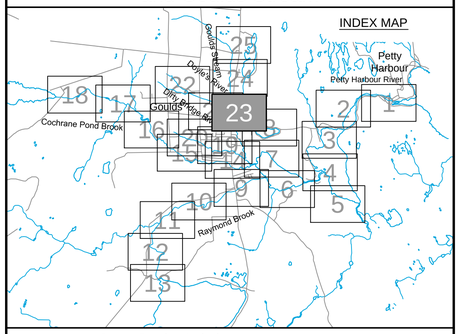
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1:100 AEP Flood Water Level (elevation in metres)
172.33
171.24
1050.0
DoylesR-TR017
Cross Section Number
Reach Identification
1:20 AEP Flood Water Level (elevation in metres)
Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 23 of 25

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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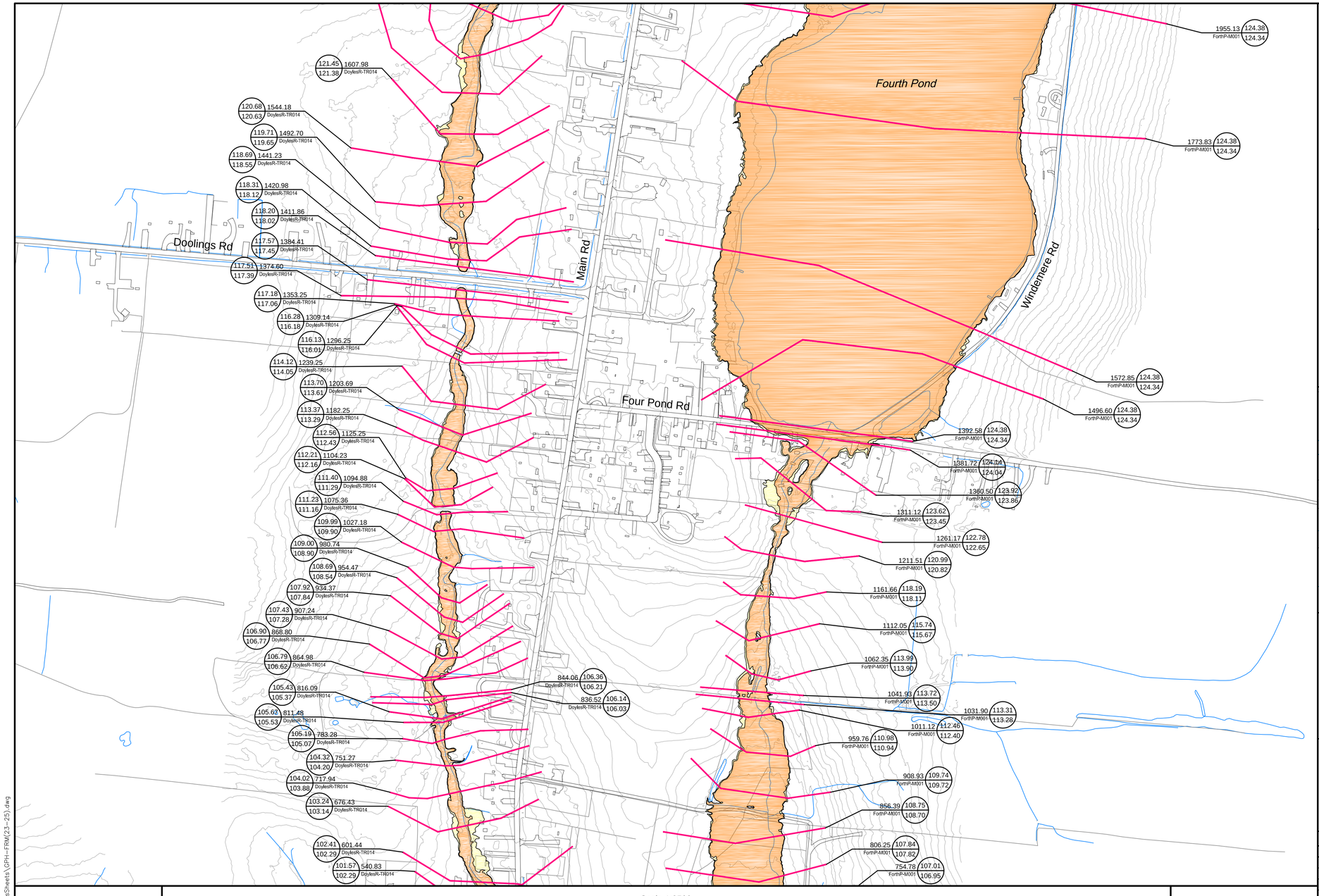

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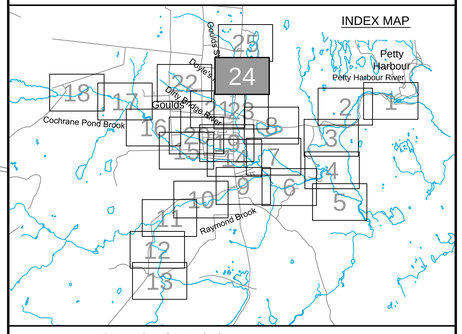
Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



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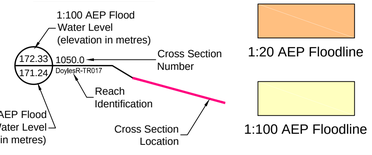

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

Sheet 24 of 25

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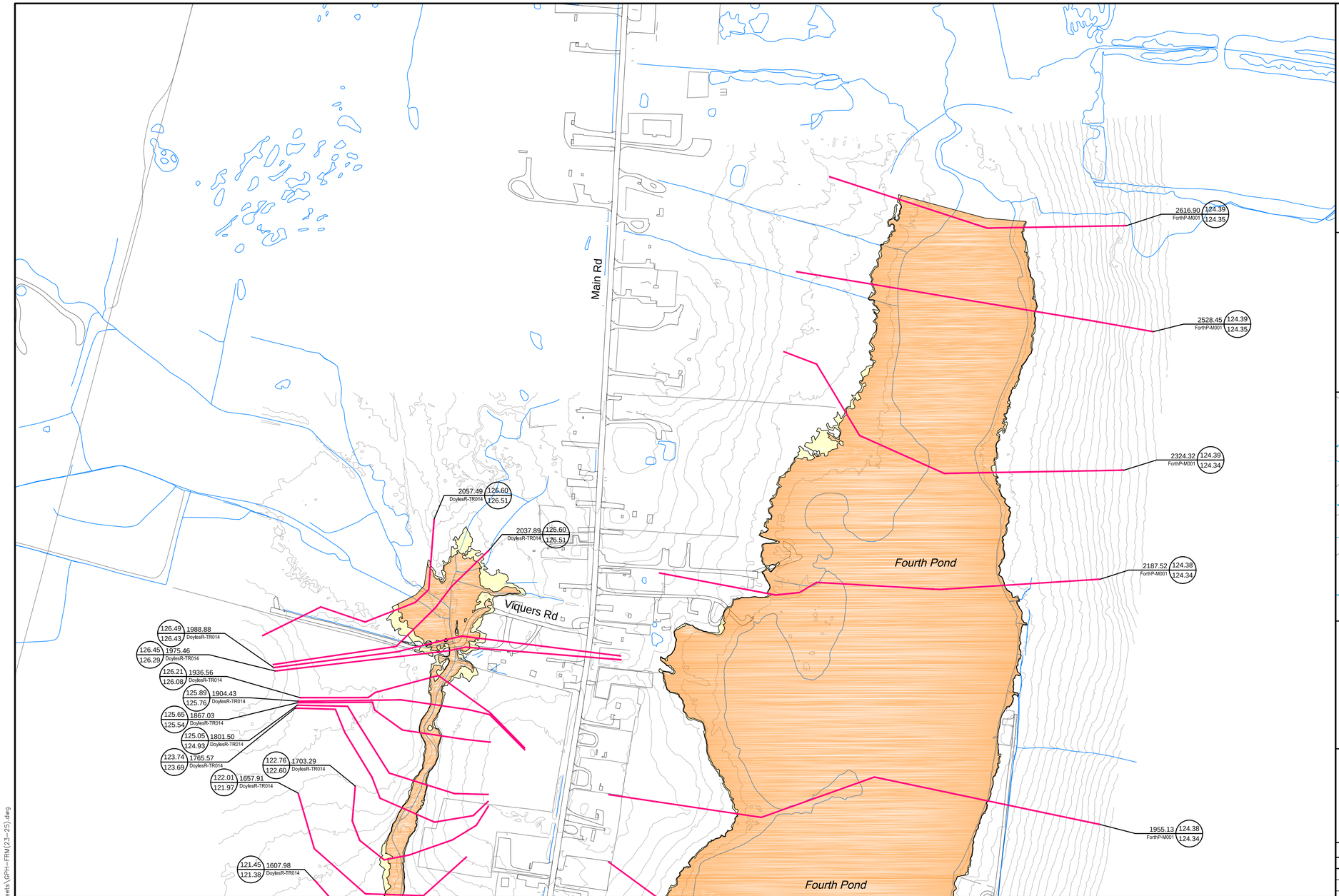
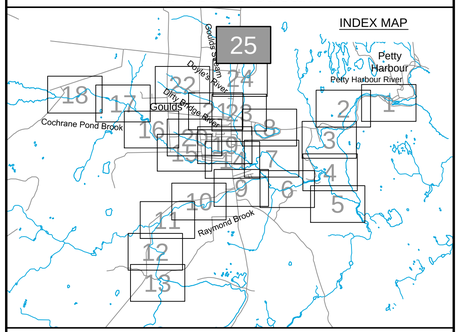
Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream



INDEX MAP



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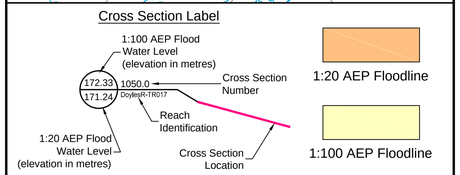

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

N

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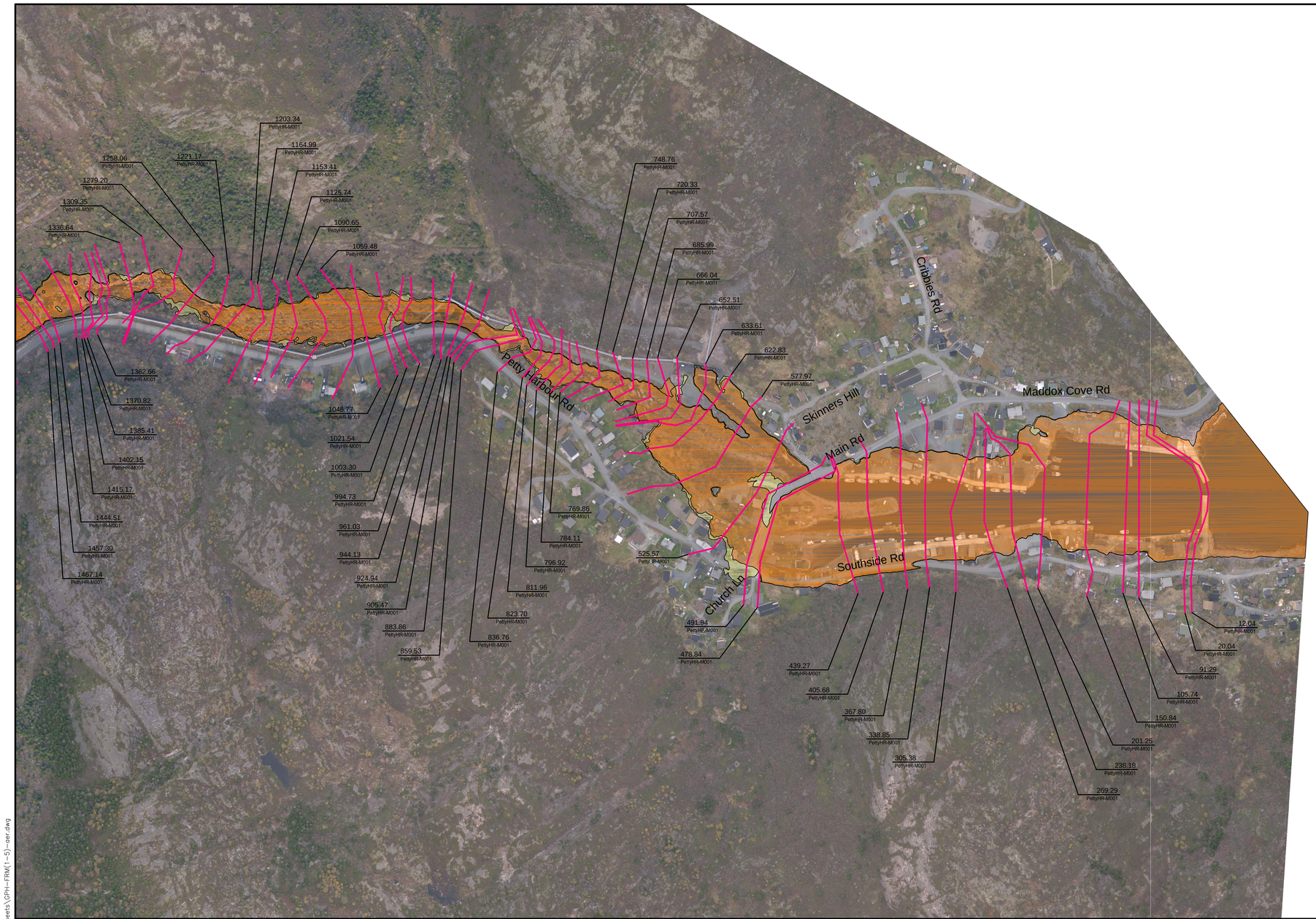

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres

300 0 300 600 900 Feet

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Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

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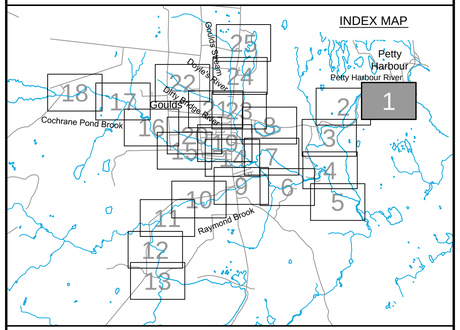
Goulds\Petty Harbour

Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



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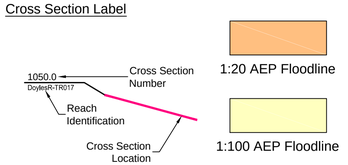

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Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 1 of 25

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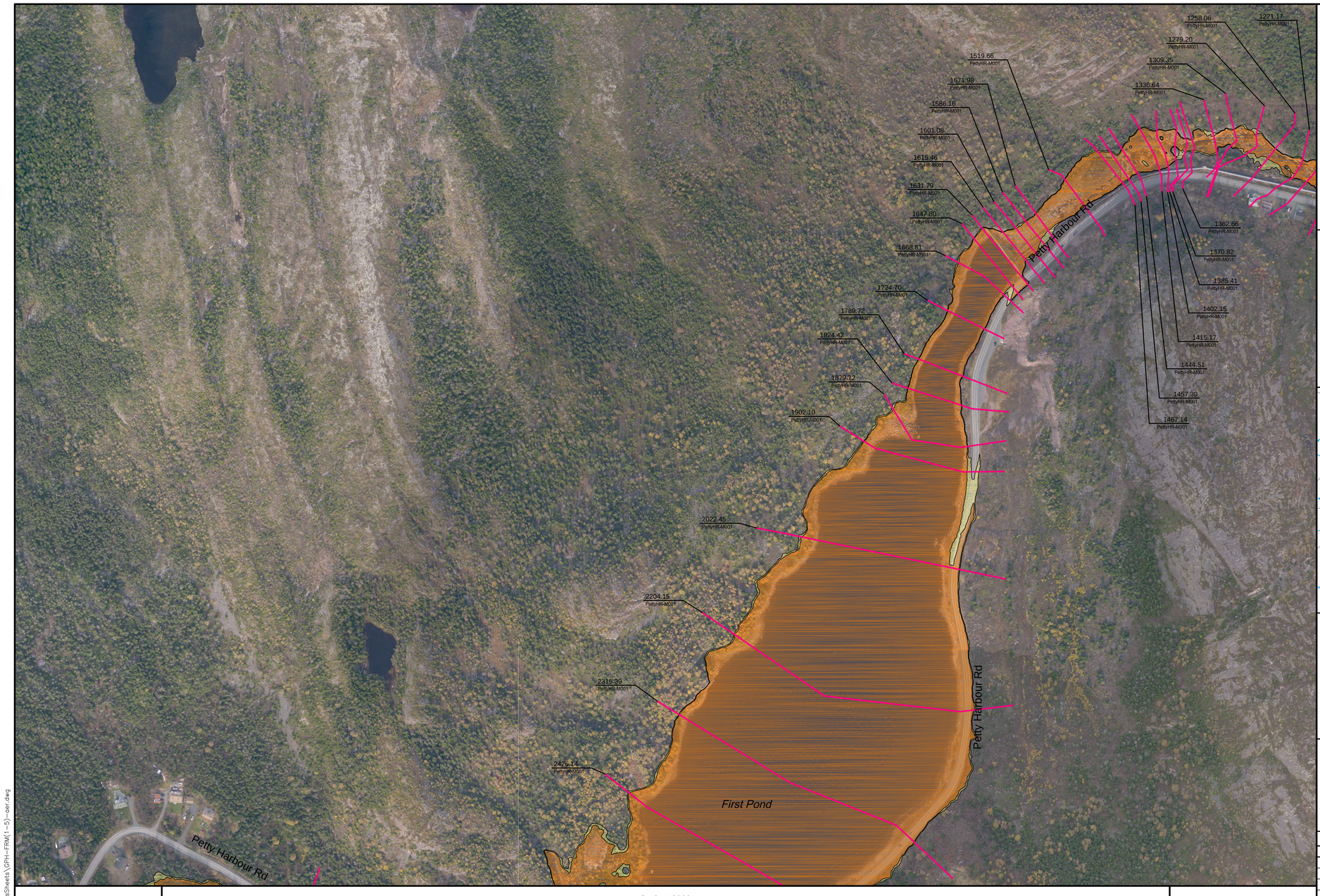

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

Department of Environment and Conservation
Water Resource Management Division

Flood Risk Map
Goulds\Petty Harbour

Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
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Cochrane Pond and Raymond Brooks,
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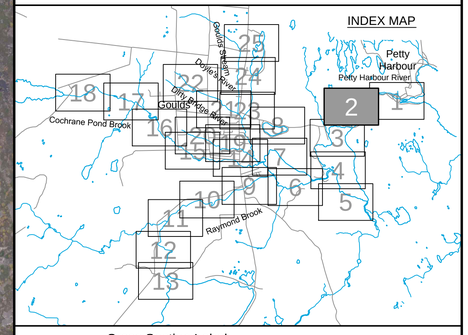
INDEX MAP



Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

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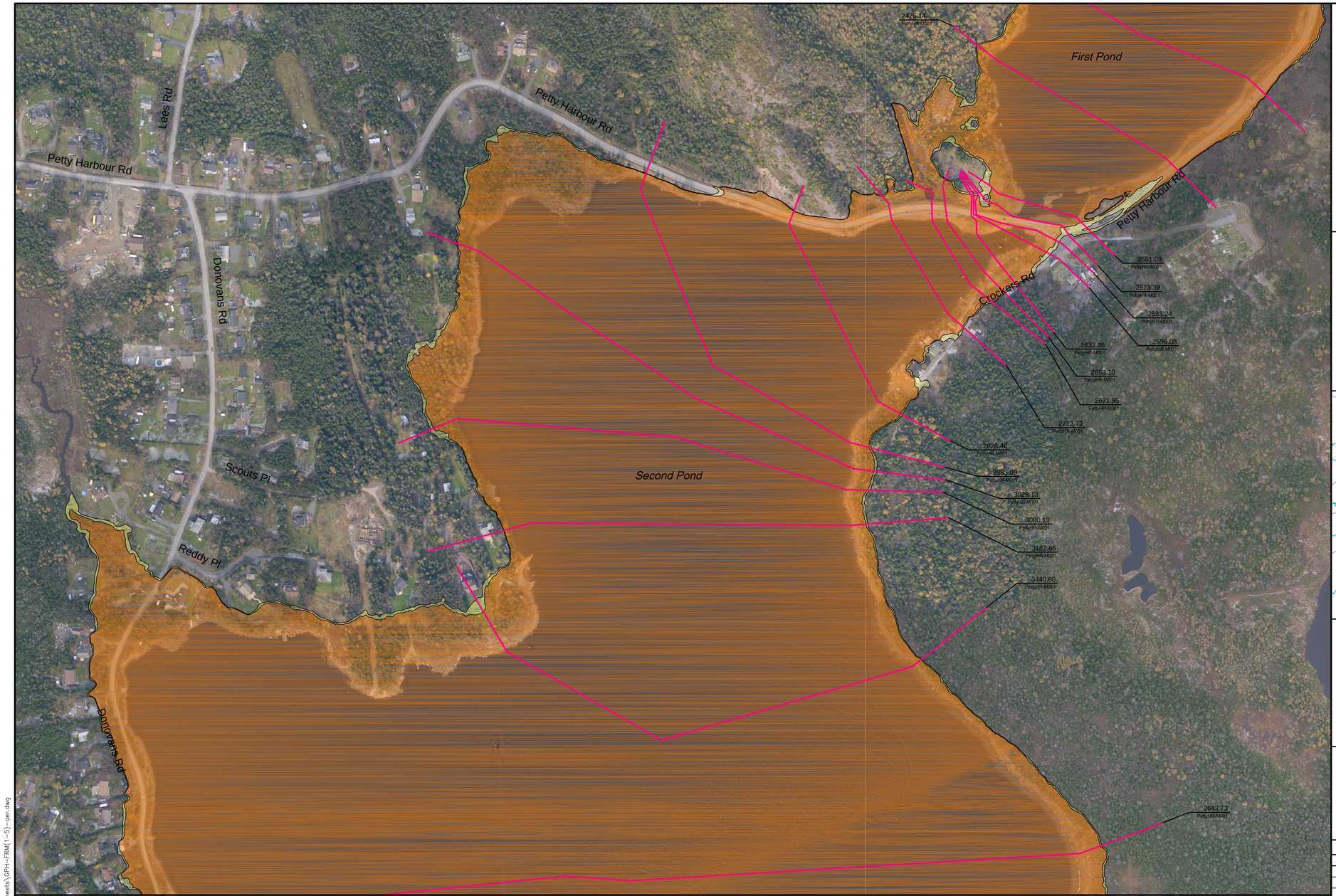

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Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

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Goulds\Petty Harbour

Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

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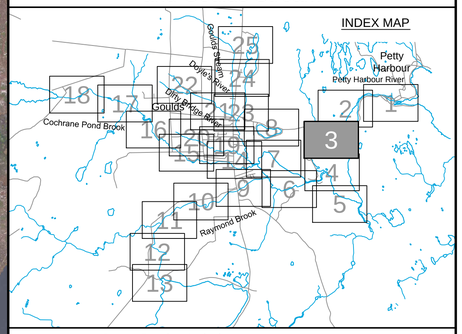
and Goulds Stream

INDEX MAP



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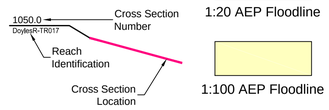

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

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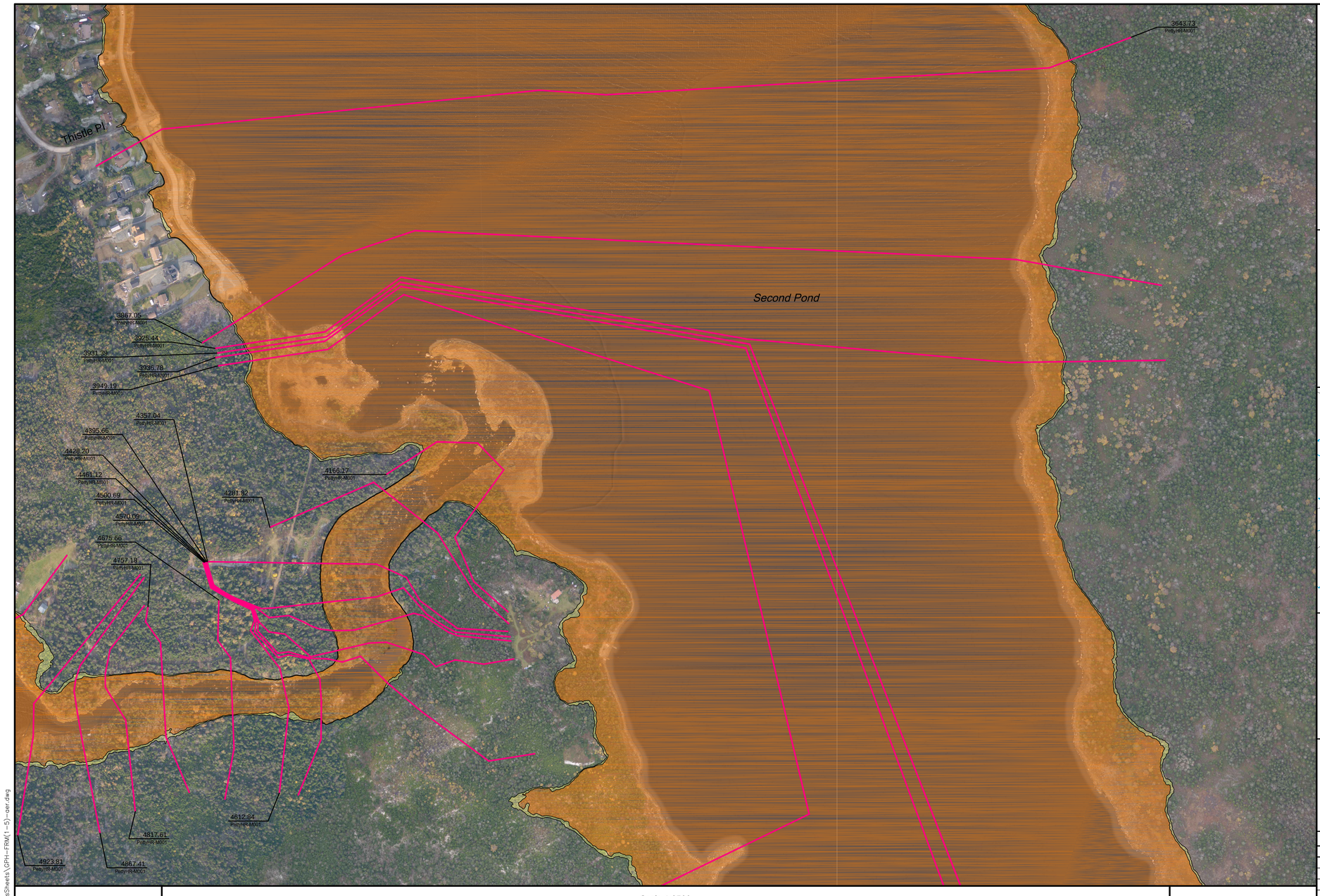

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Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

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and Goulds Stream

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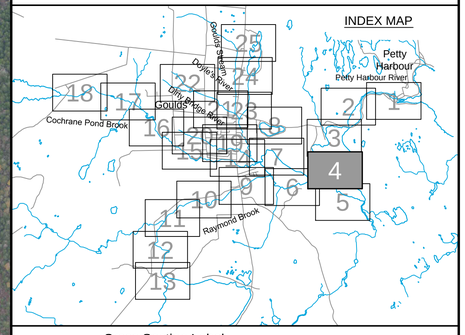

Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Floodline
1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

Sheet 4 of 25

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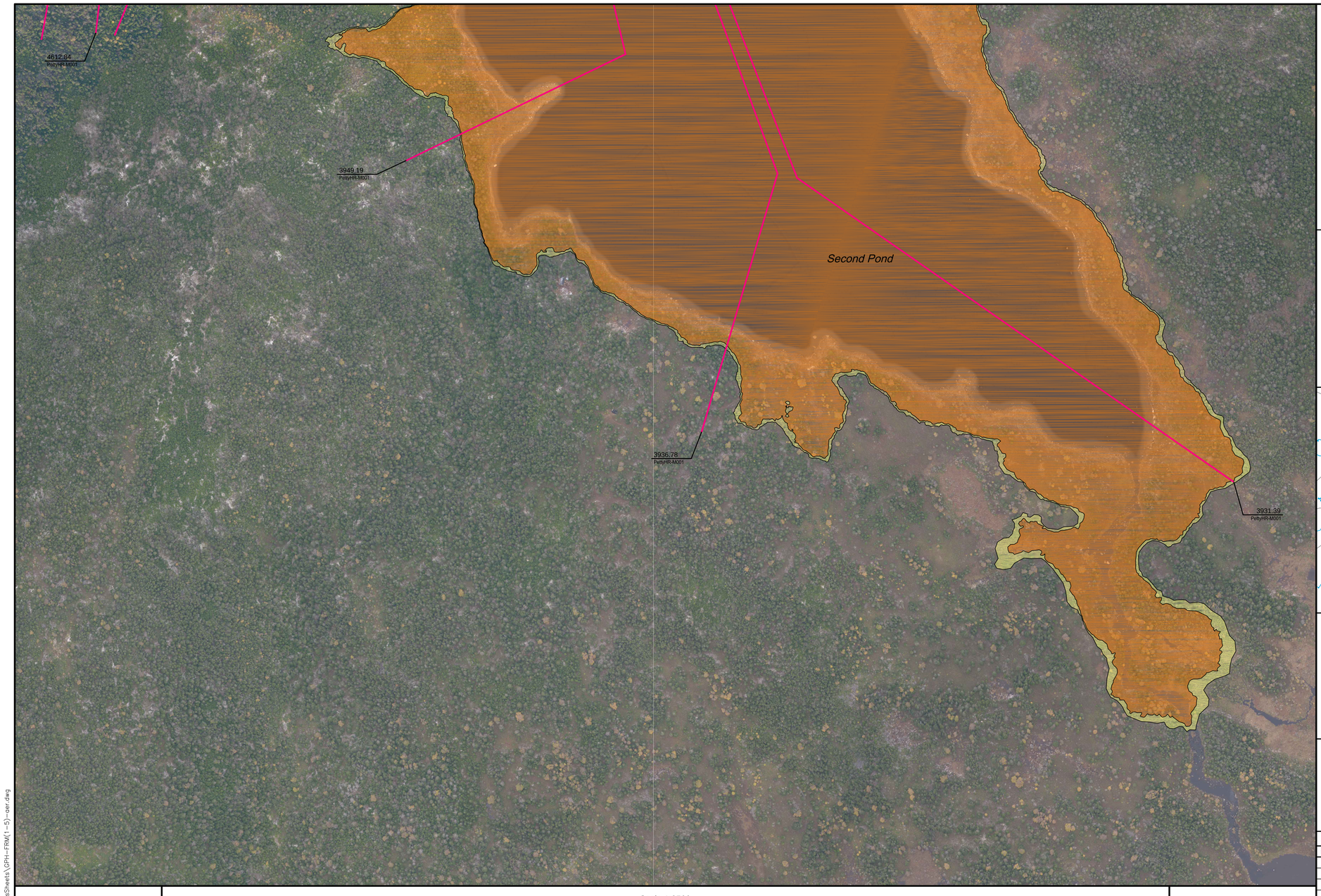

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and Goulds Stream

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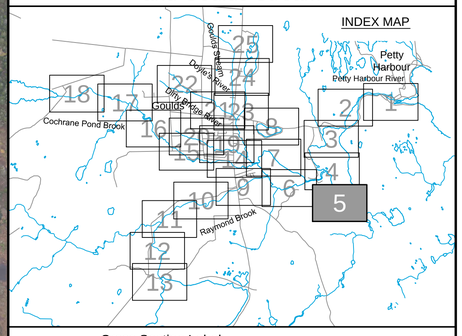

Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

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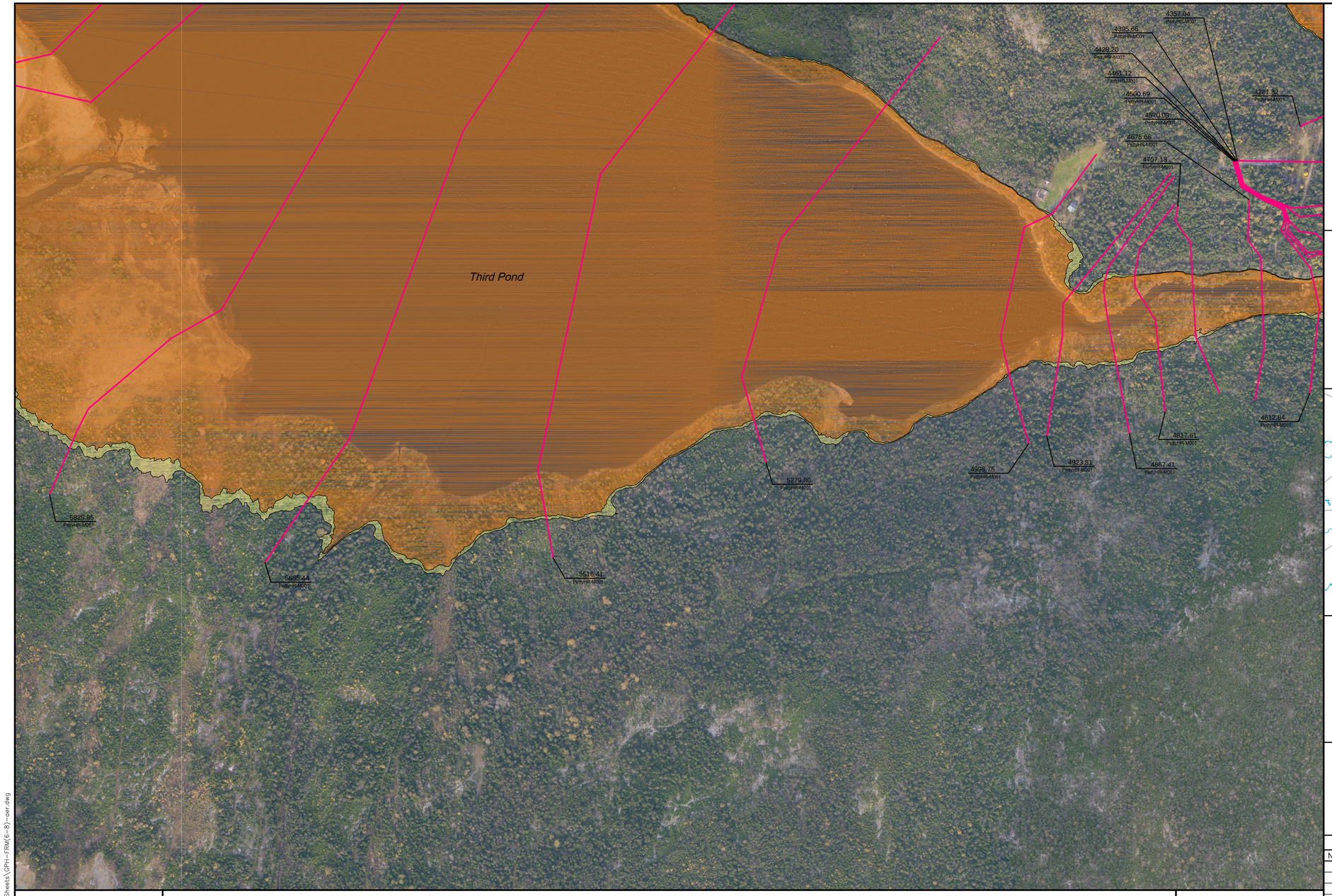

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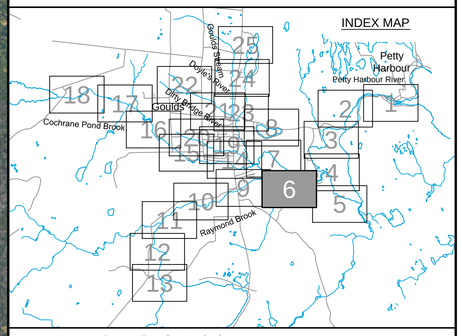
Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

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Meadowbrook Dr

Riverside Dr W

688.06 ForestP-M001

651.32 ForestP-M001

600.44 ForestP-M001

578.60 ForestP-M001

528.92 ForestP-M001

476.55 ForestP-M001

430.82 ForestP-M001

378.18 ForestP-M001

328.07 ForestP-M001

277.95 ForestP-M001

195.51 ForestP-M001

158.37 ForestP-M001

89.11 ForestP-M001

6270.85 PettyHR-M002

6218.07 PettyHR-M002

6095.00 PettyHR-M002

6004.71 PettyHR-M002

5825.85 PettyHR-M001

5685.44 PettyHR-M001

5516.39 PettyHR-M001

Third Pond

Lake View Dr

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Newfoundland Labrador

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Goulds\Petty Harbour

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AMEC (Maximum IDF Relationship)

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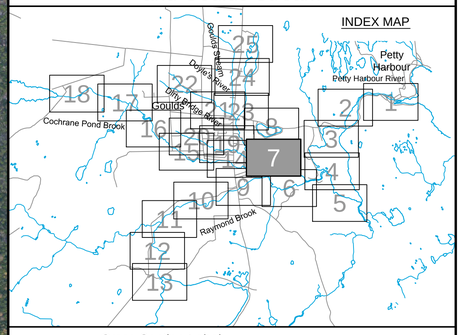
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

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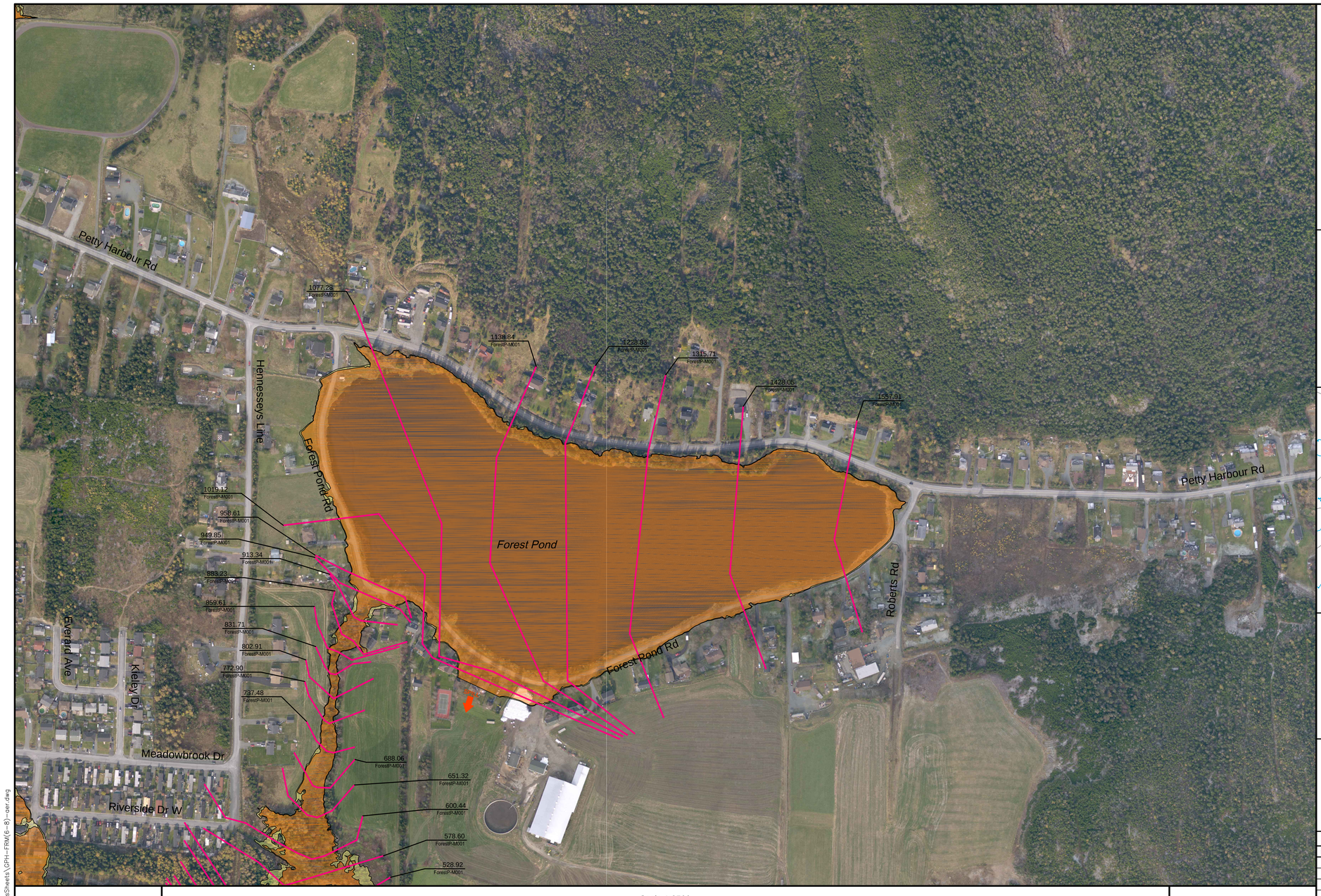

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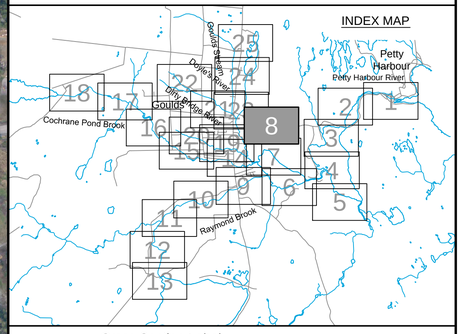

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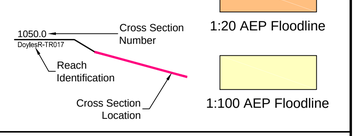

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ZONE 1

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Feet 300 0 300 600 900 Feet

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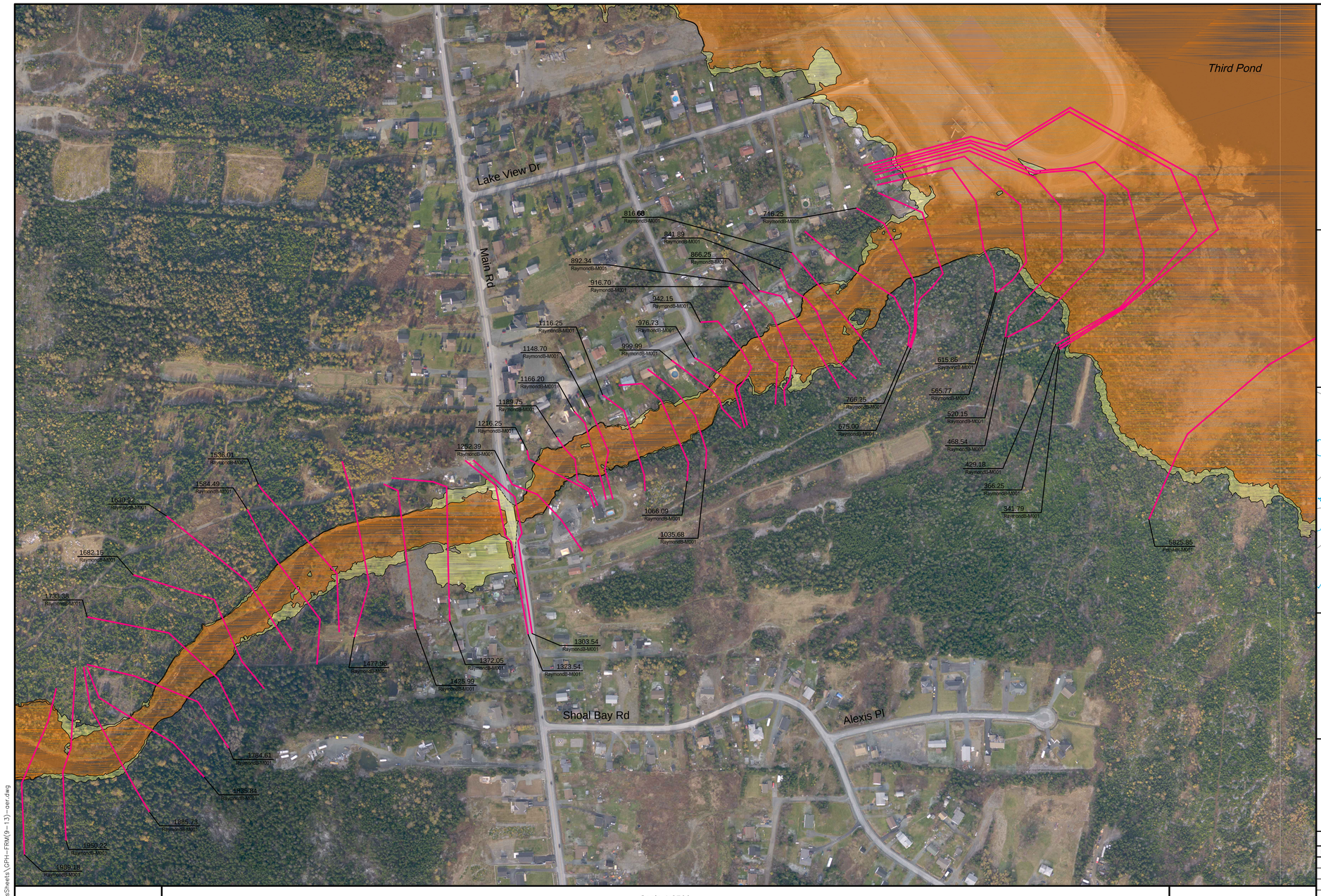

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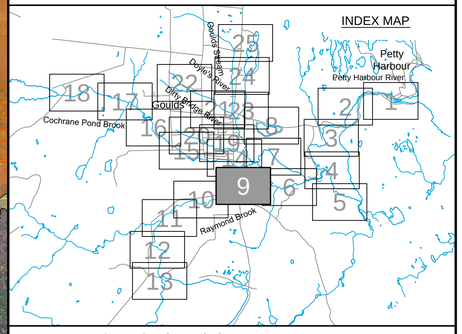

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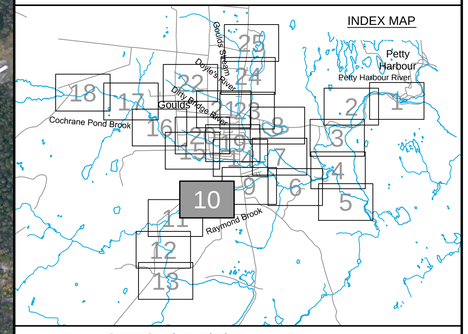

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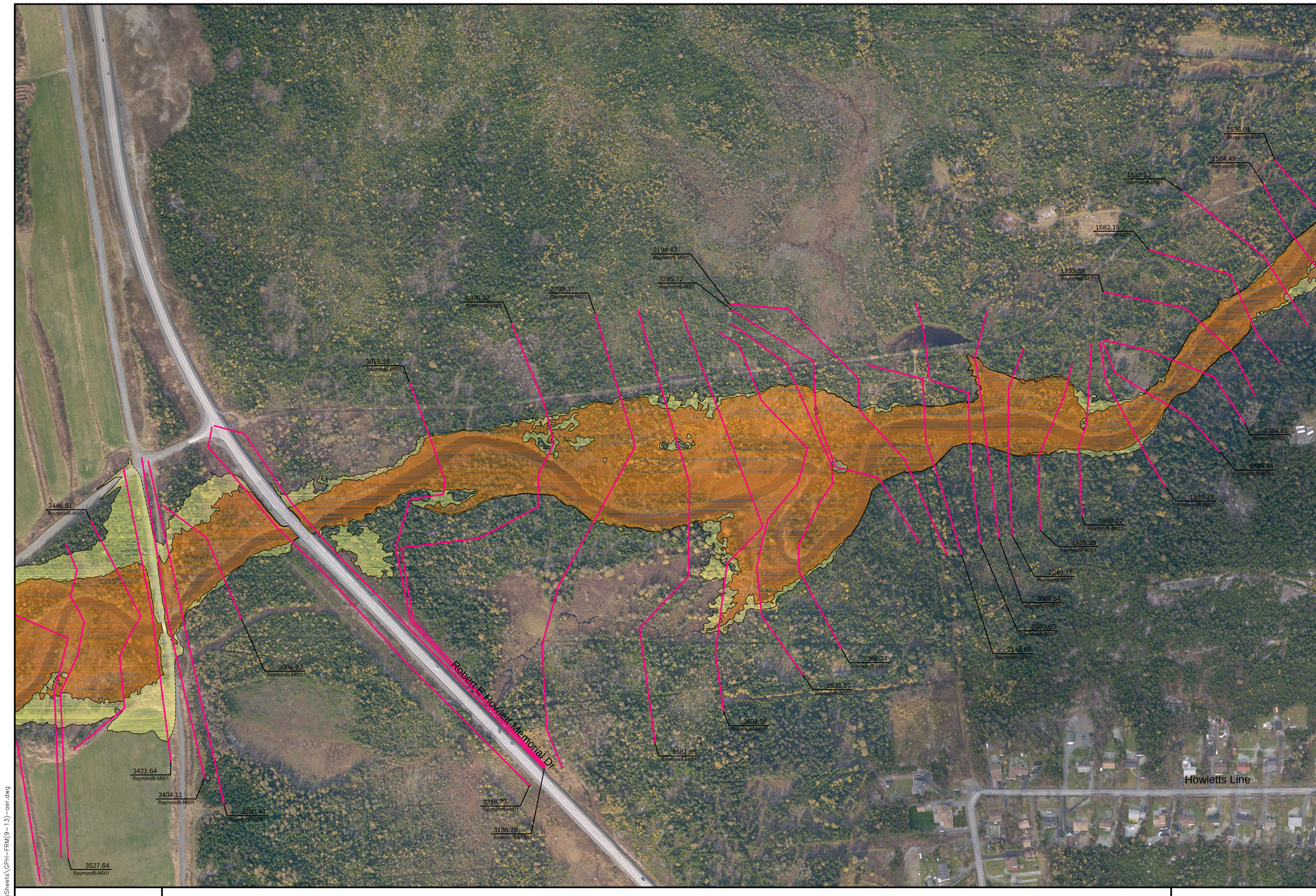

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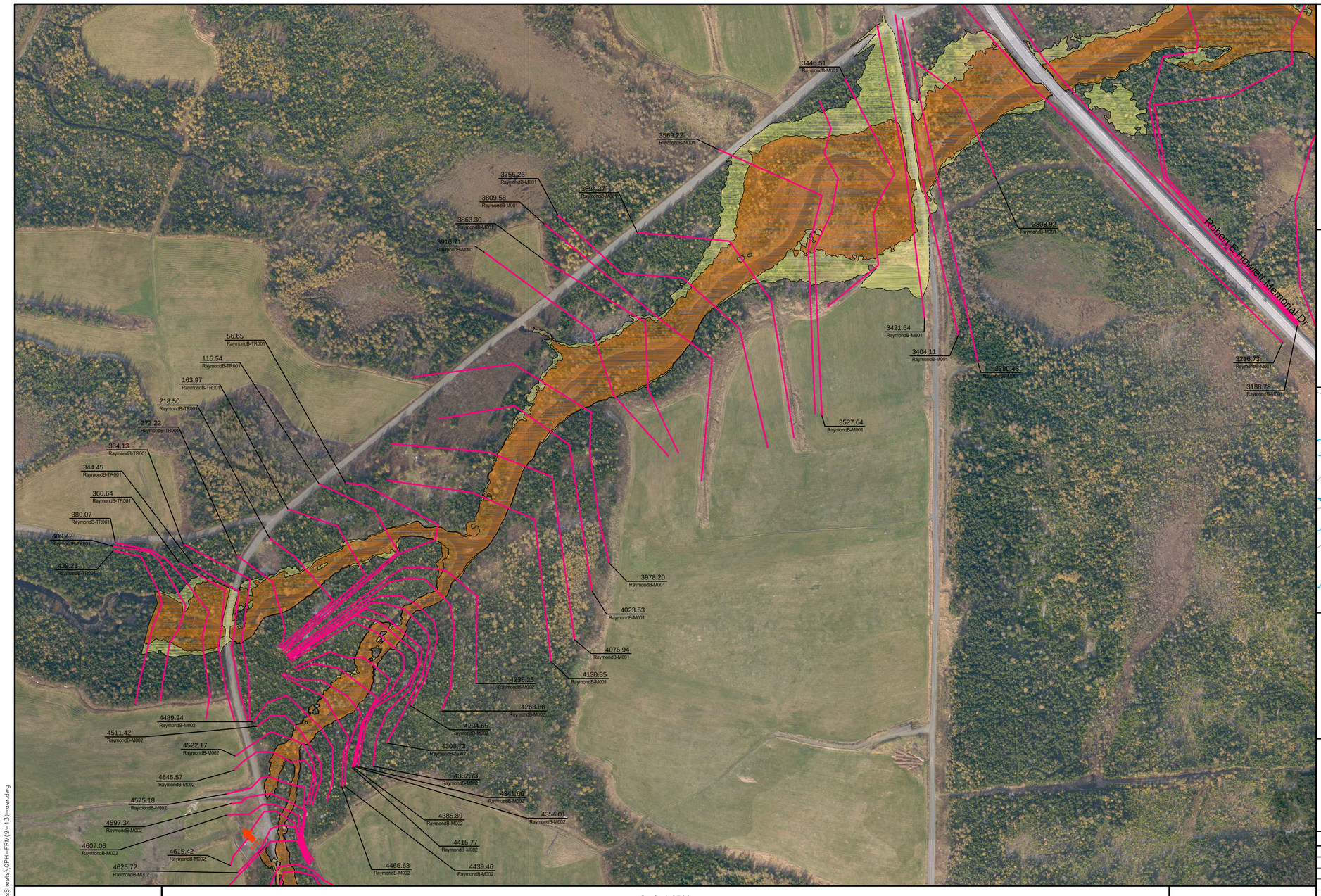

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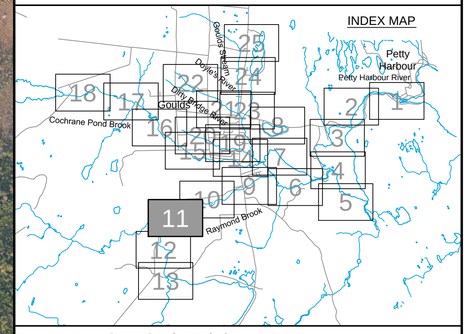

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Cross Section Location

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1:100 AEP Floodline

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

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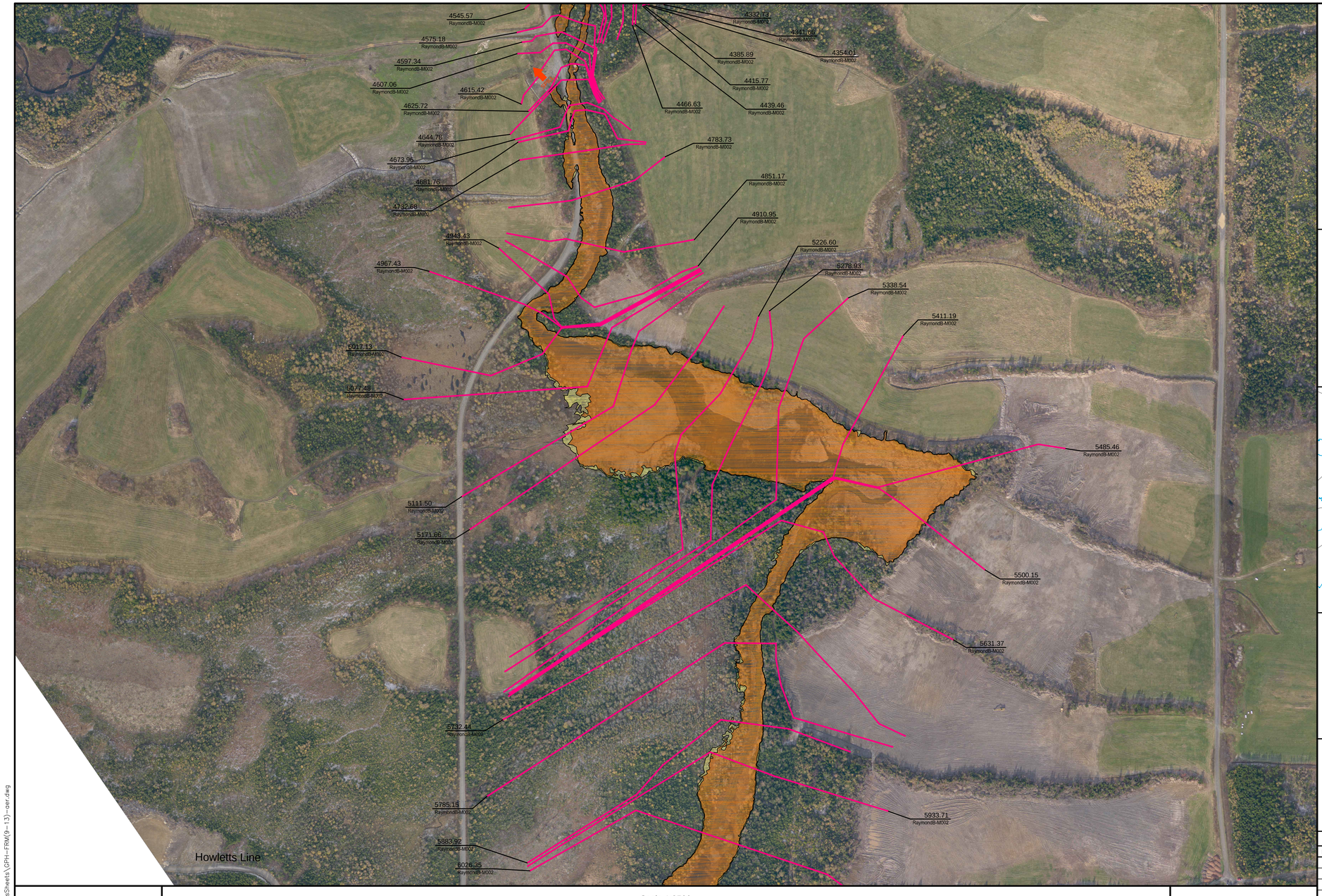

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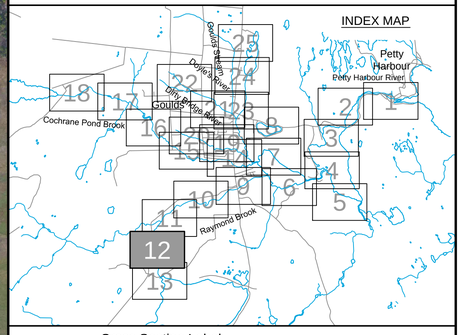

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DoylesR-TR017

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Reach Identification

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1:100 AEP Floodline

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

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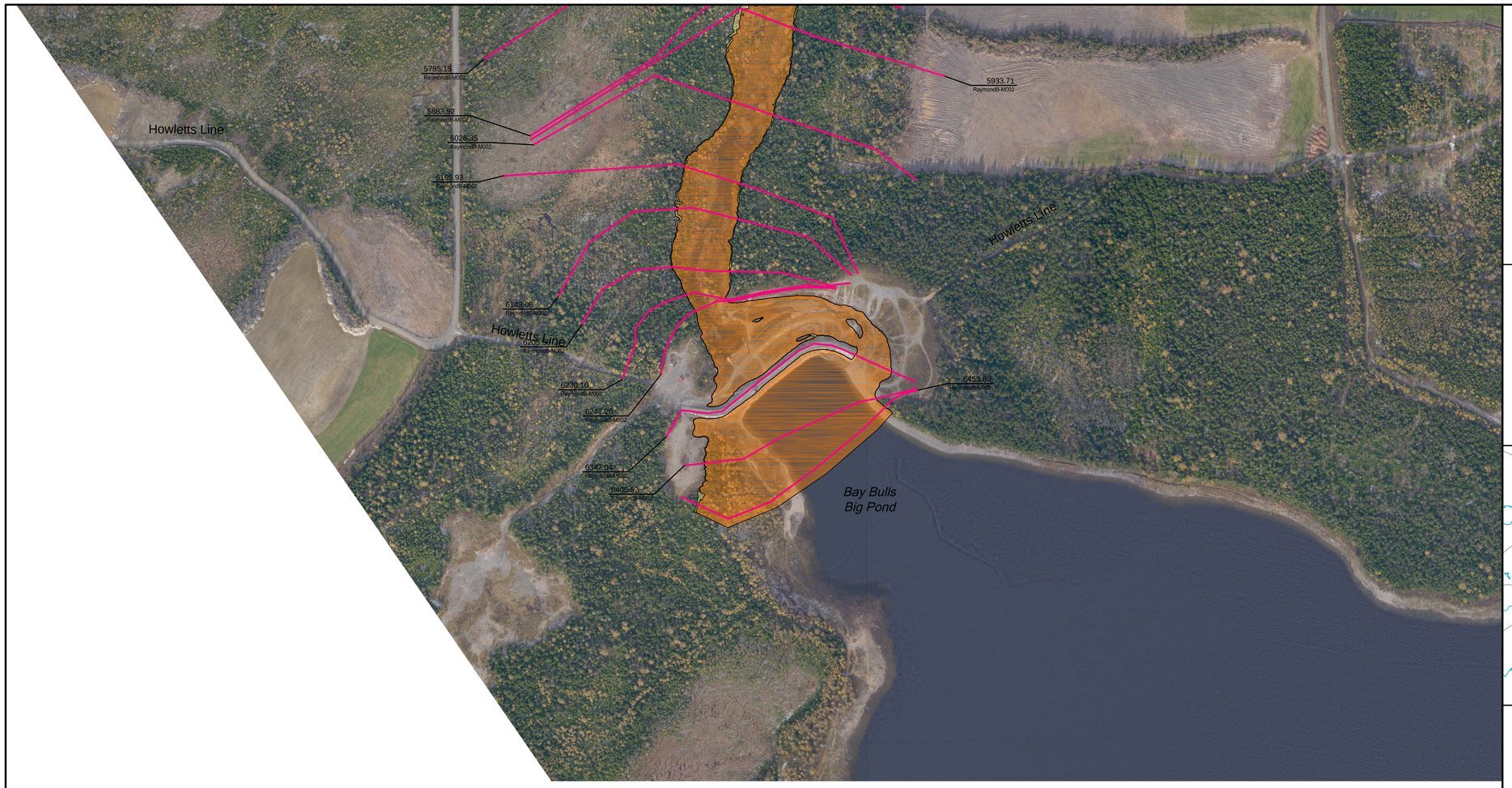

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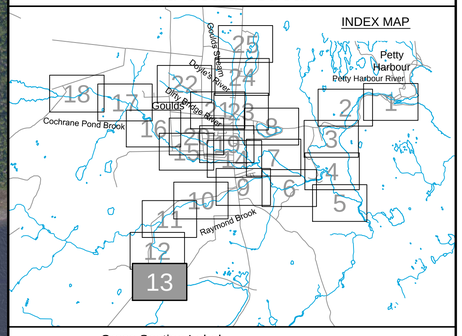

Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

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amec

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REVISIONS

No.	Description	BY	DATE

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

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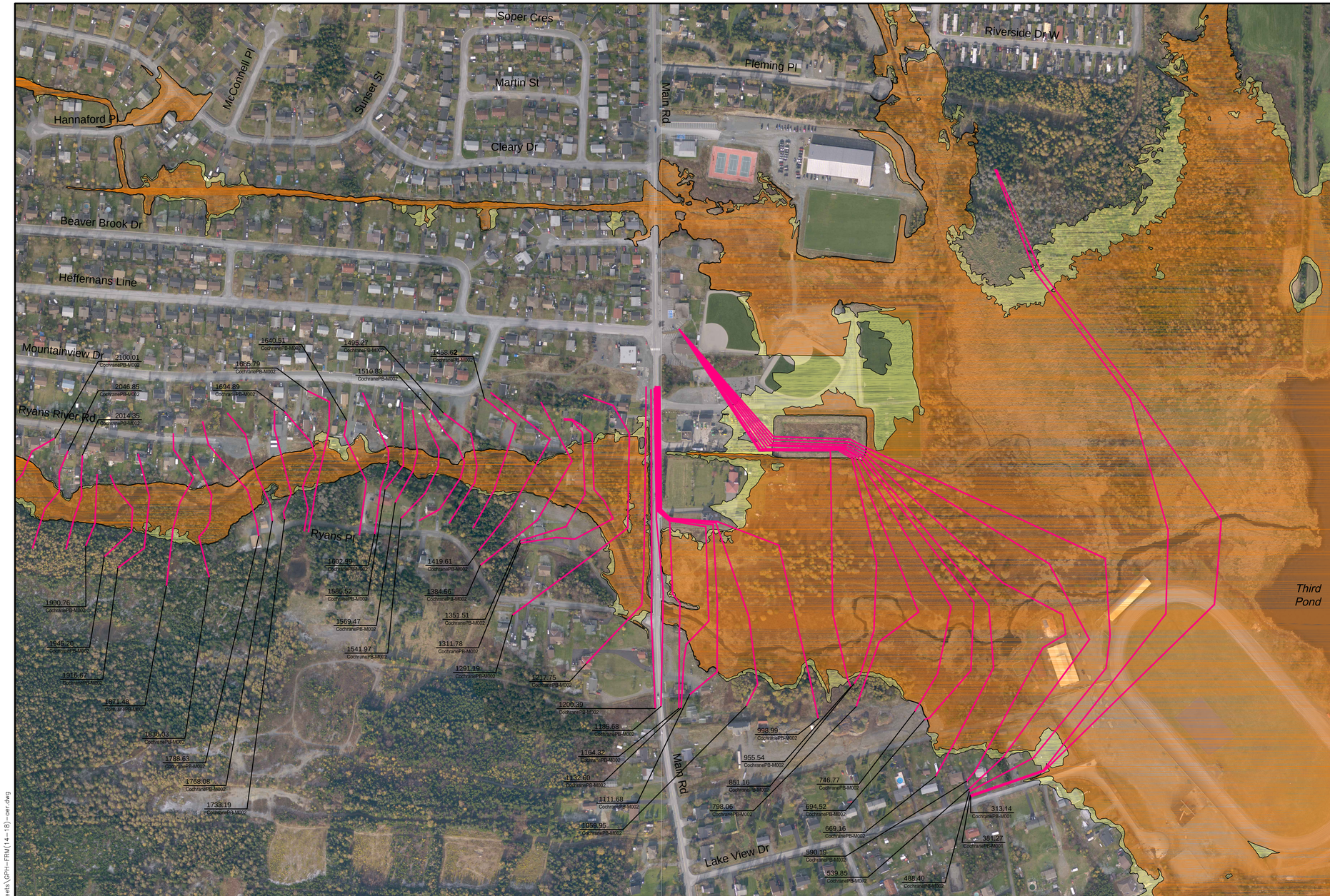

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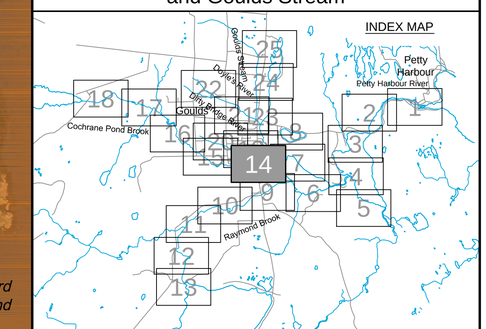

Cross Section Label

1050.0 DoylesR-TR017 — Cross Section Number — Reach Identification — Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

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No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

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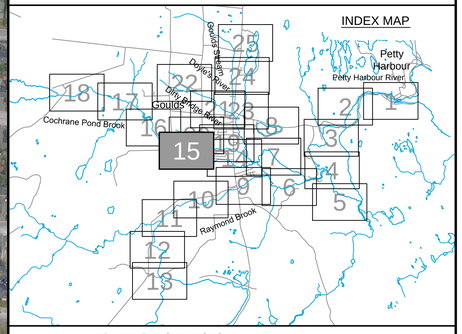

Cross Section Label

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Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

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REVISIONS

No.	Description	BY	DATE

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

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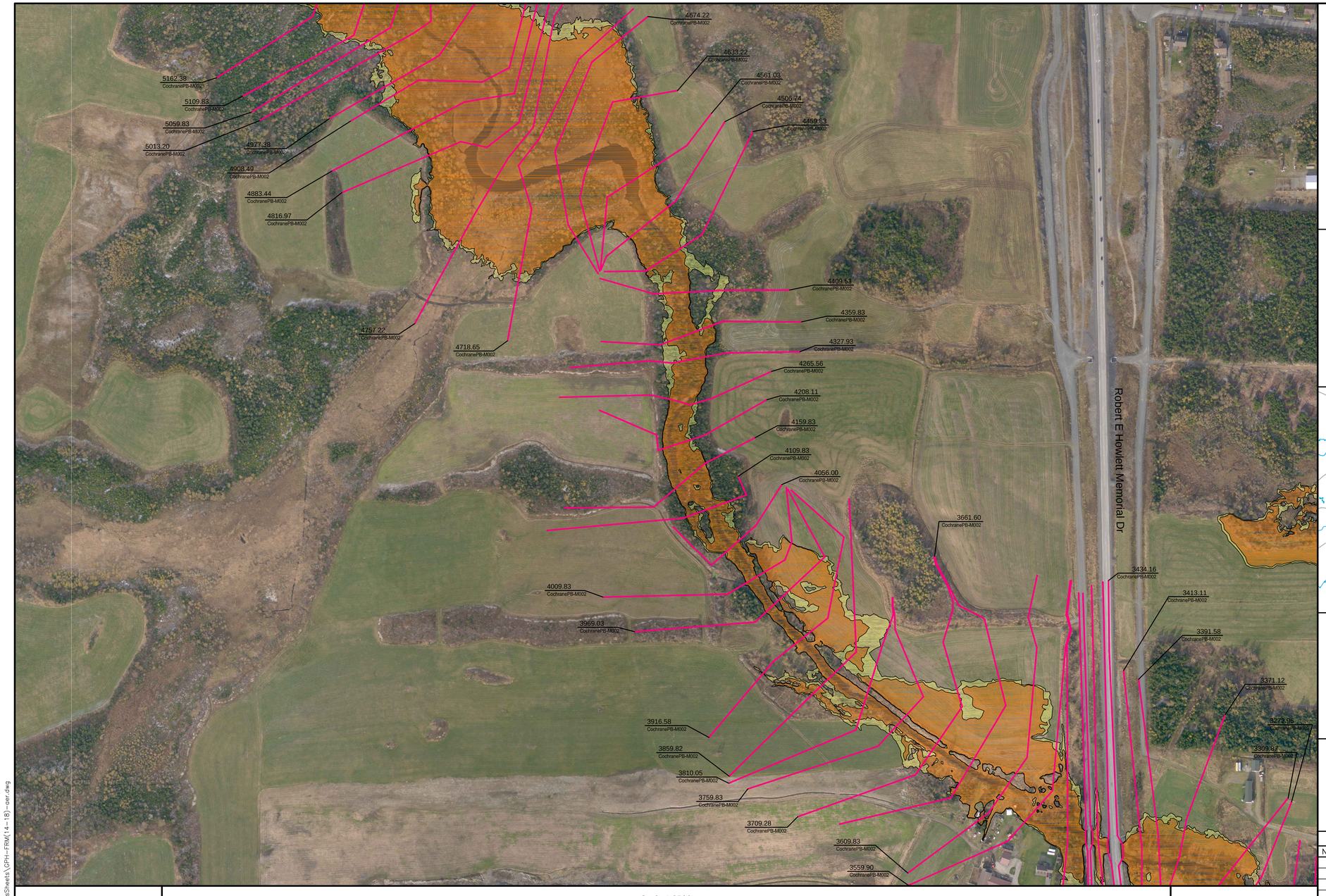

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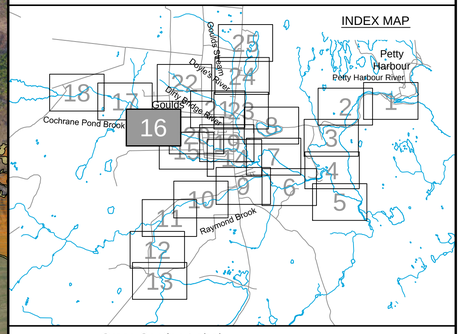

Cross Section Label

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DoylesR-TR017 — Reach Identification
Cross Section Location

1:20 AEP Floodline

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

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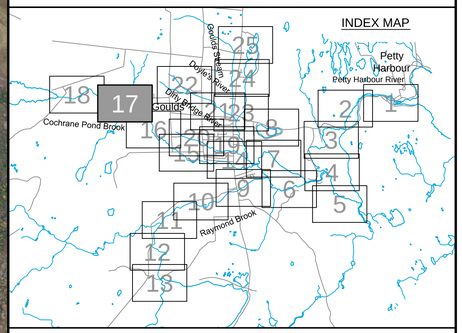

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

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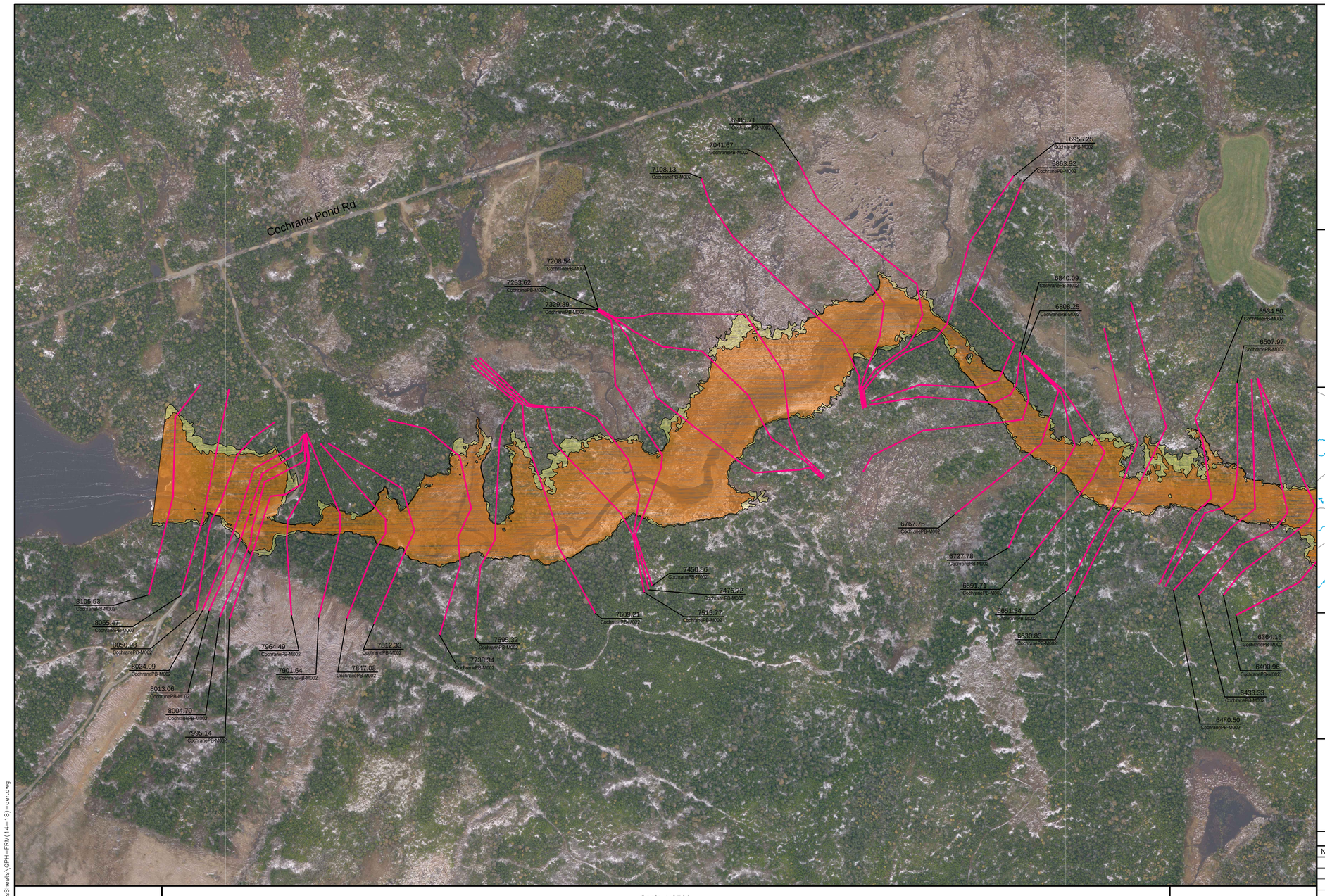

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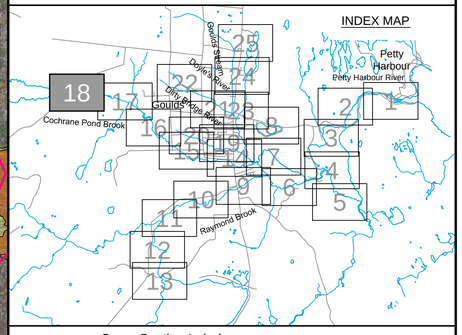

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Metres 150 0 150 Metres

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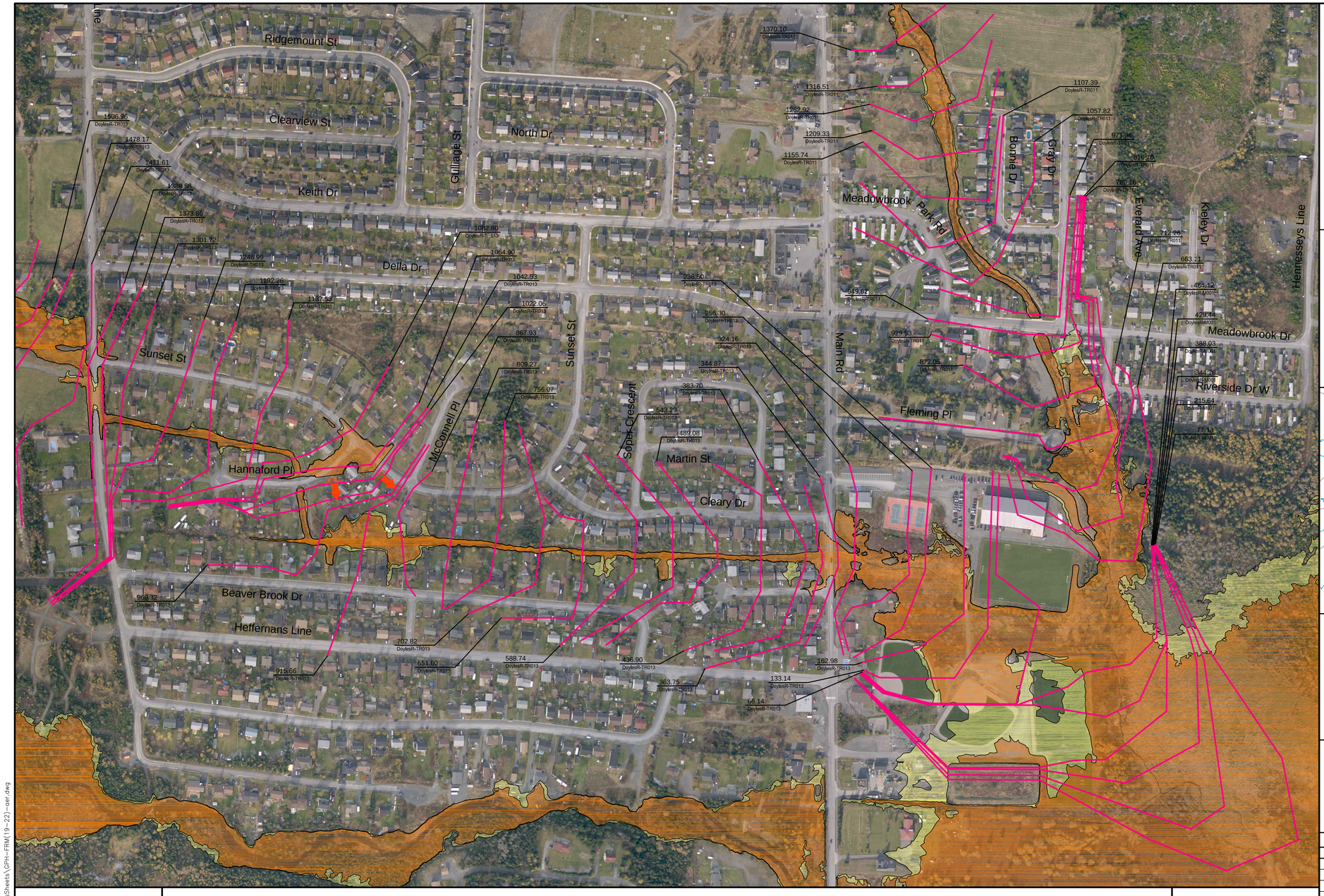

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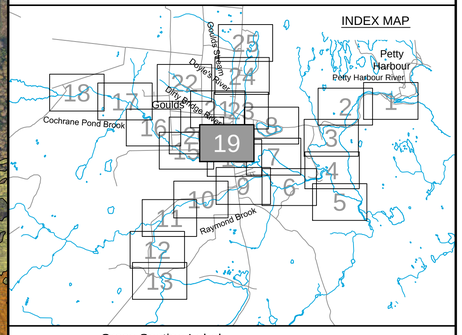

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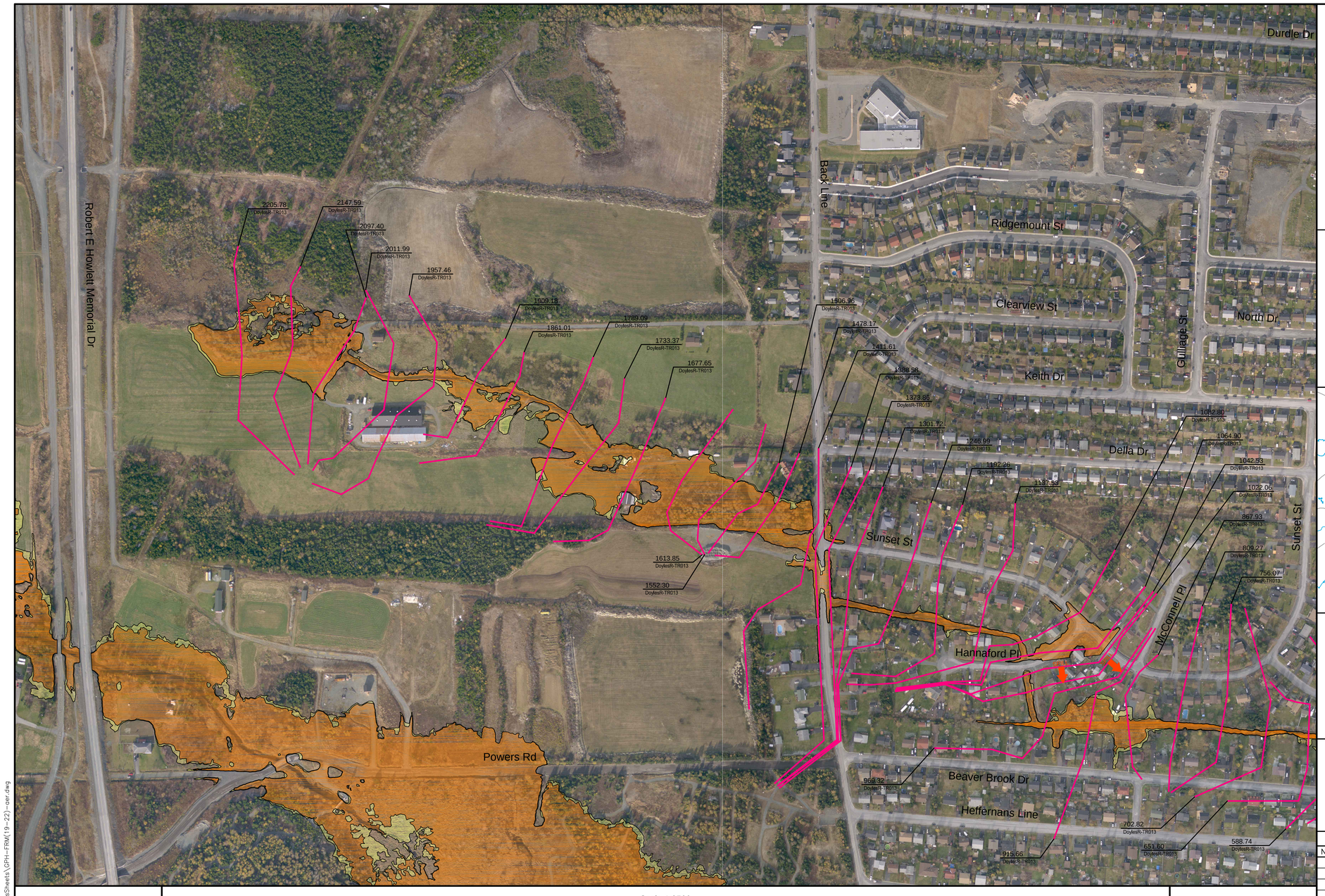

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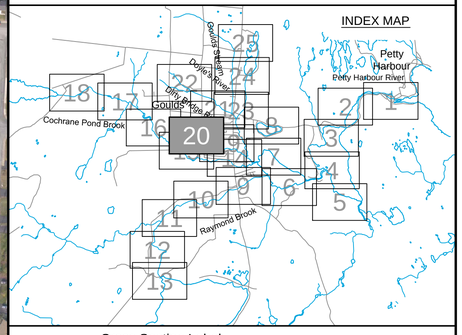

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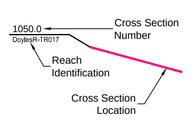

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

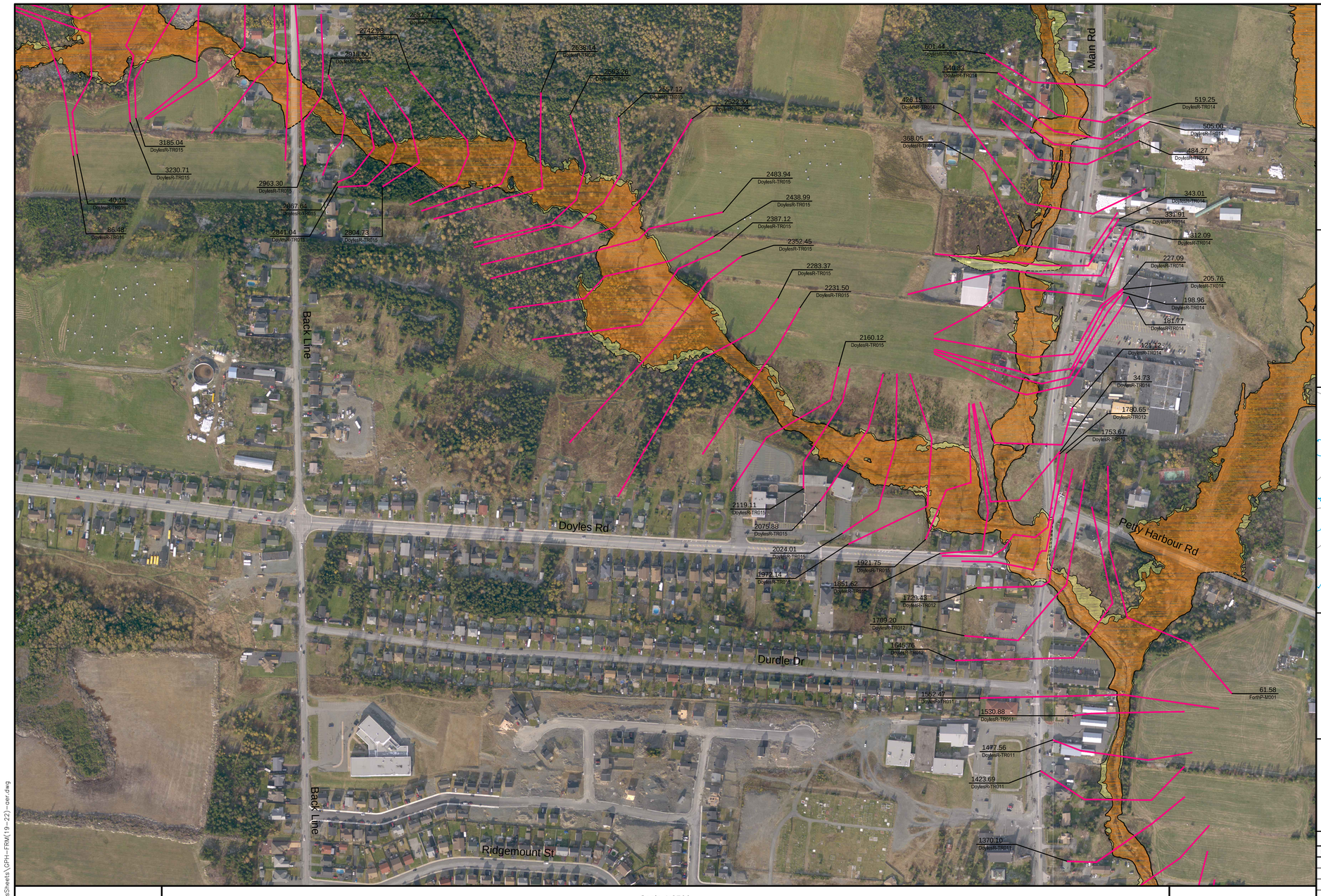
Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

Sheet 20 of 25

C:\Work\NFLD\GouldsSheets\GPH-FRM(19-22)-ser.dwg

Mar 23/13 – richard.bartolo



Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

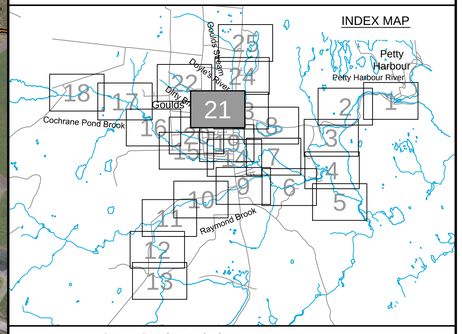
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

Flood Risk Map
Goulds\Petty Harbour

Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

Sheet 21of 25

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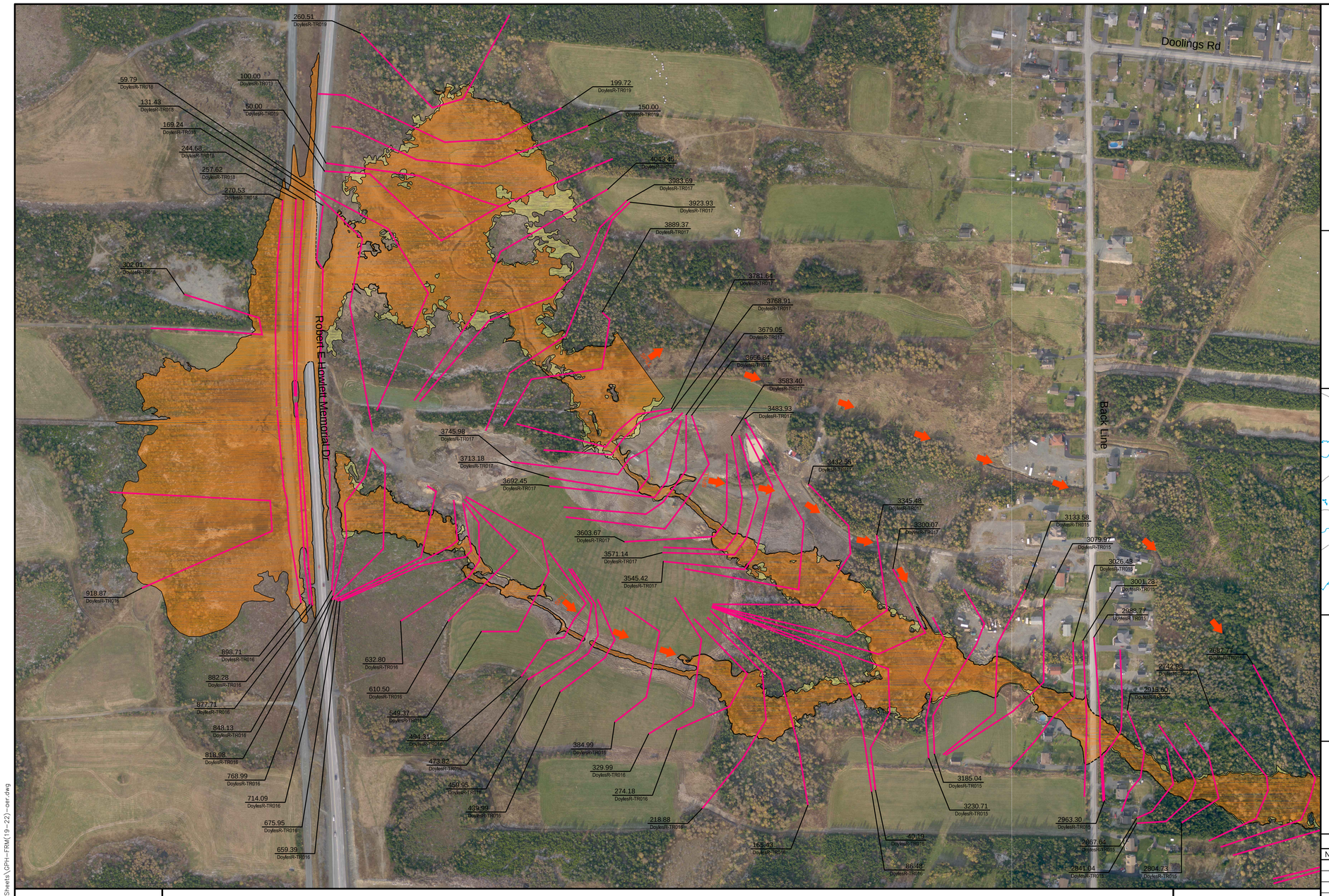
Mar 23/13 – richard.bartolo



Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

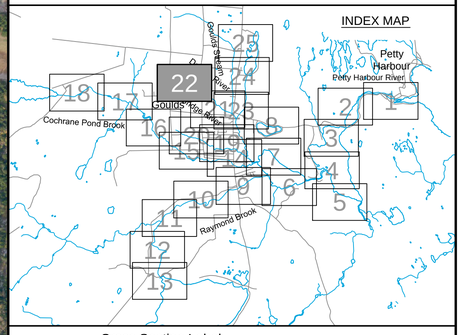
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

Flood Risk Map
Goulds\Petty Harbour

Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
- Cross Section Number
- Reach Identification
- Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

Sheet 22 of 25

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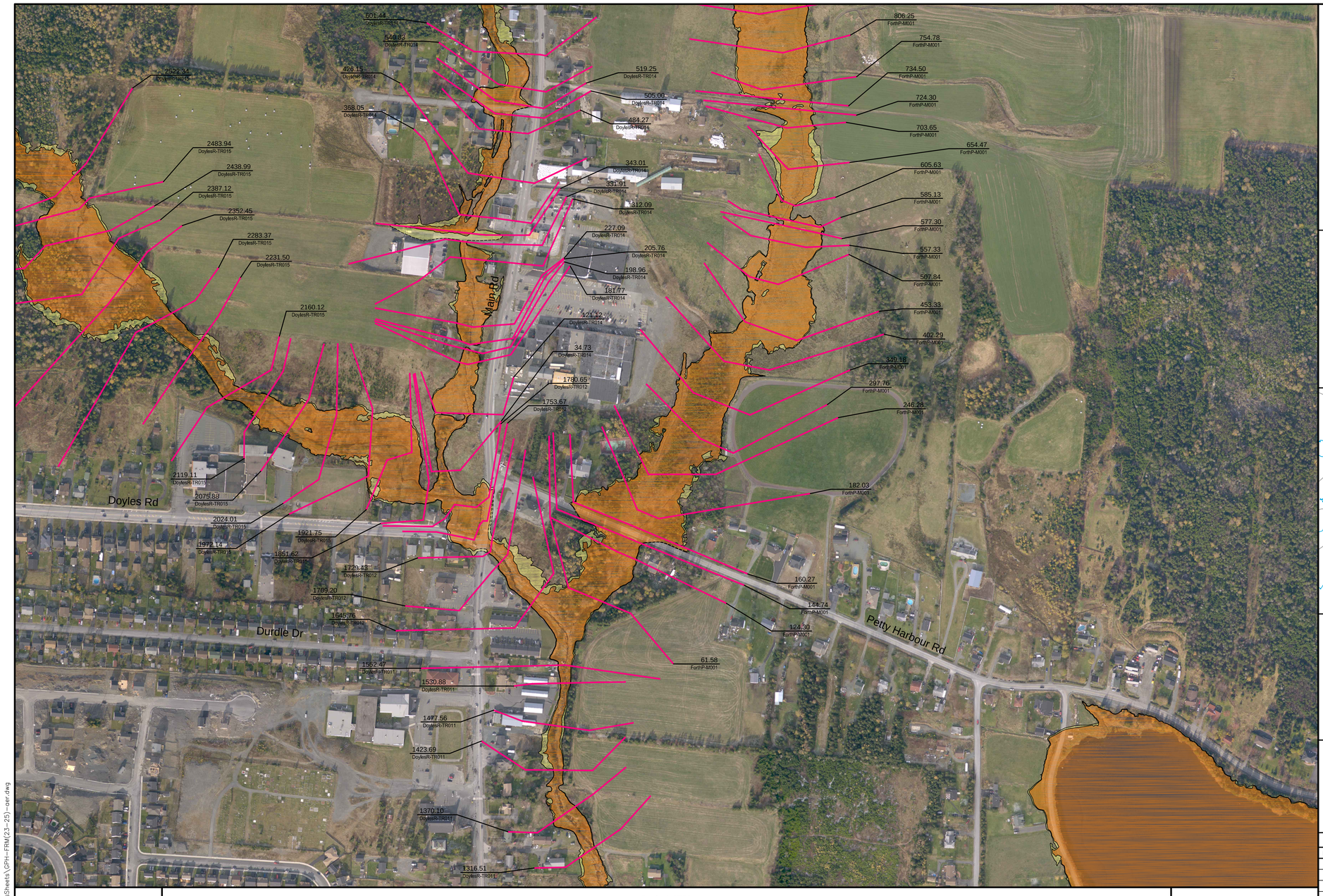
Mar 23/13 – richard.bartolo



Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

MTMNAD83
ZONE 1

Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

Flood Risk Map
Goulds\Petty Harbour

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AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
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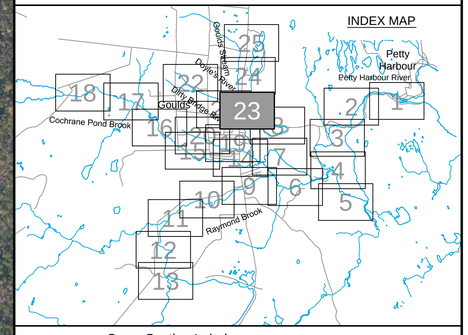
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

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Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

Flood Risk Map
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Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
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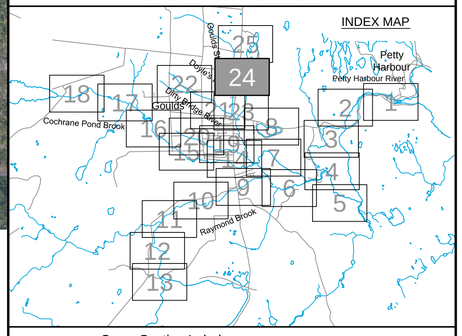
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017 — Cross Section Number; Reach Identification; Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 24 of 25

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

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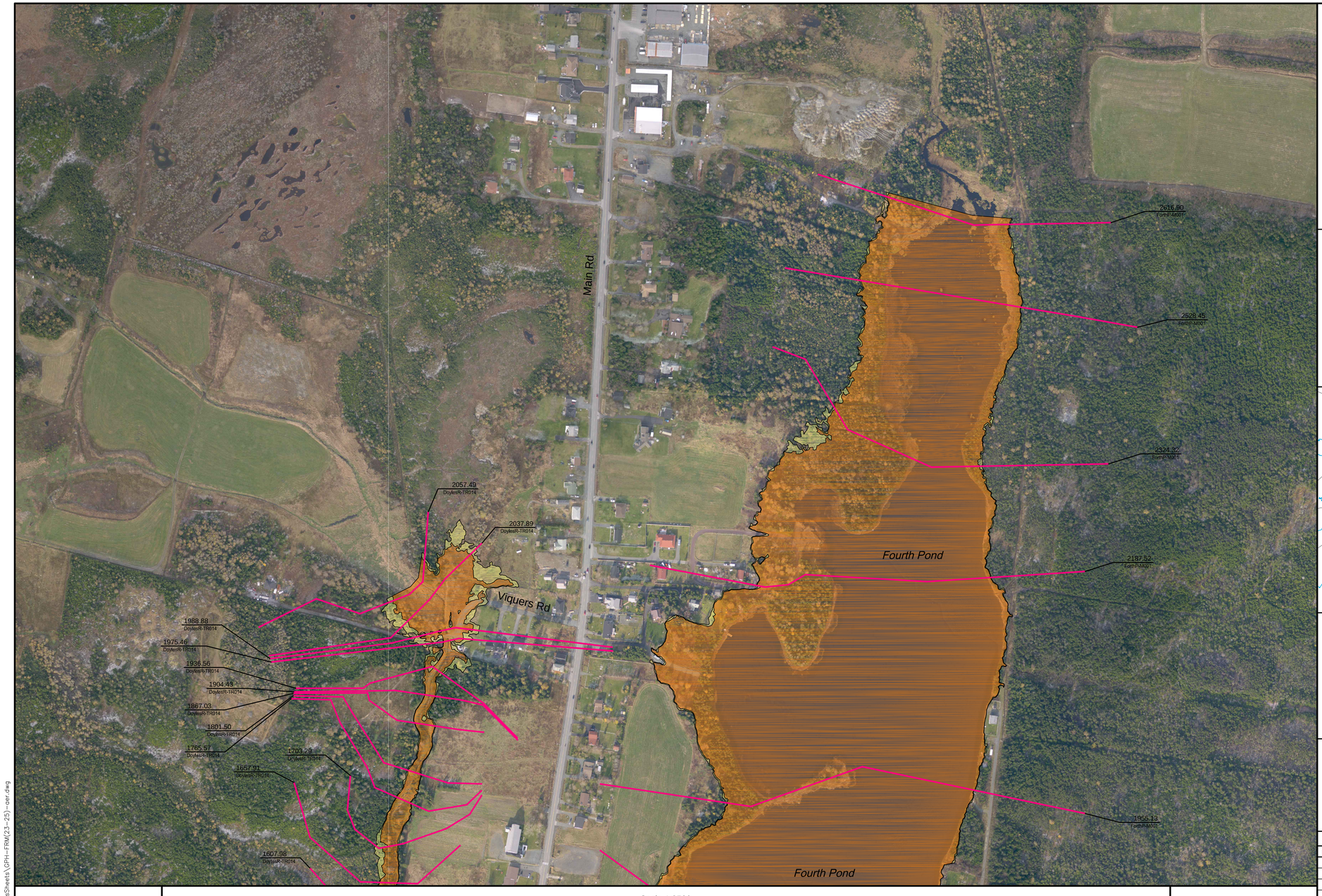
Mar 23/13 – richard.bartolo



Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

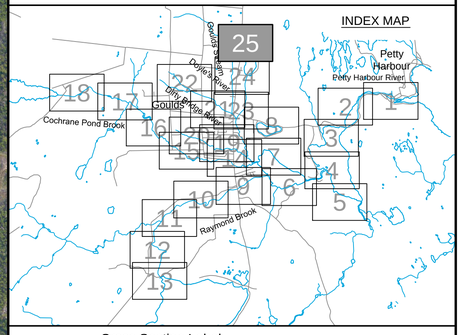
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

Flood Risk Map
Goulds\Petty Harbour

Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

Sheet 25 of 25

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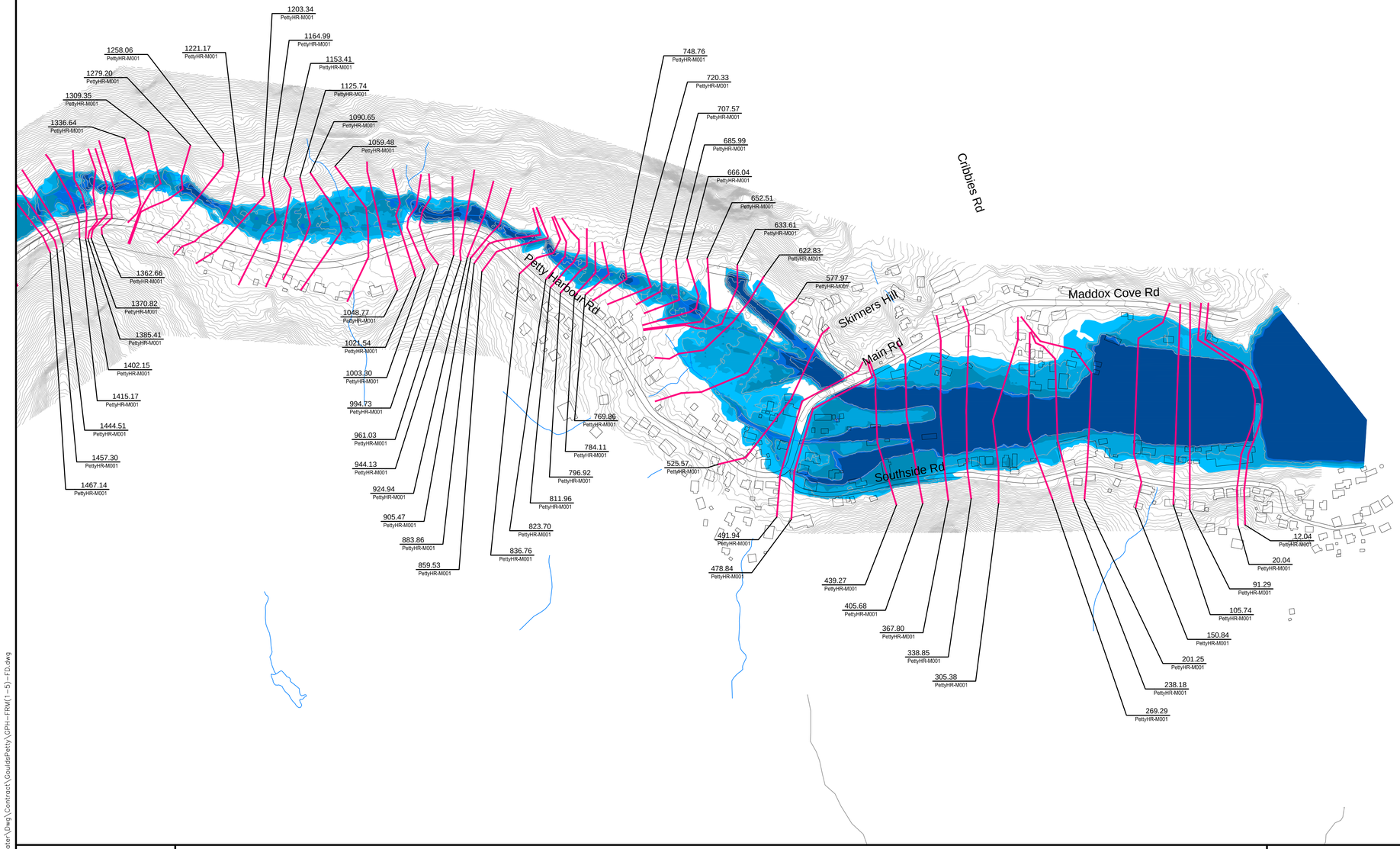
Mar 23/13 – richard.bartolo



Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

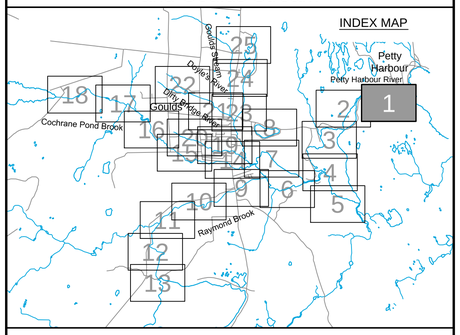
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesHR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5 - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 1 of 25

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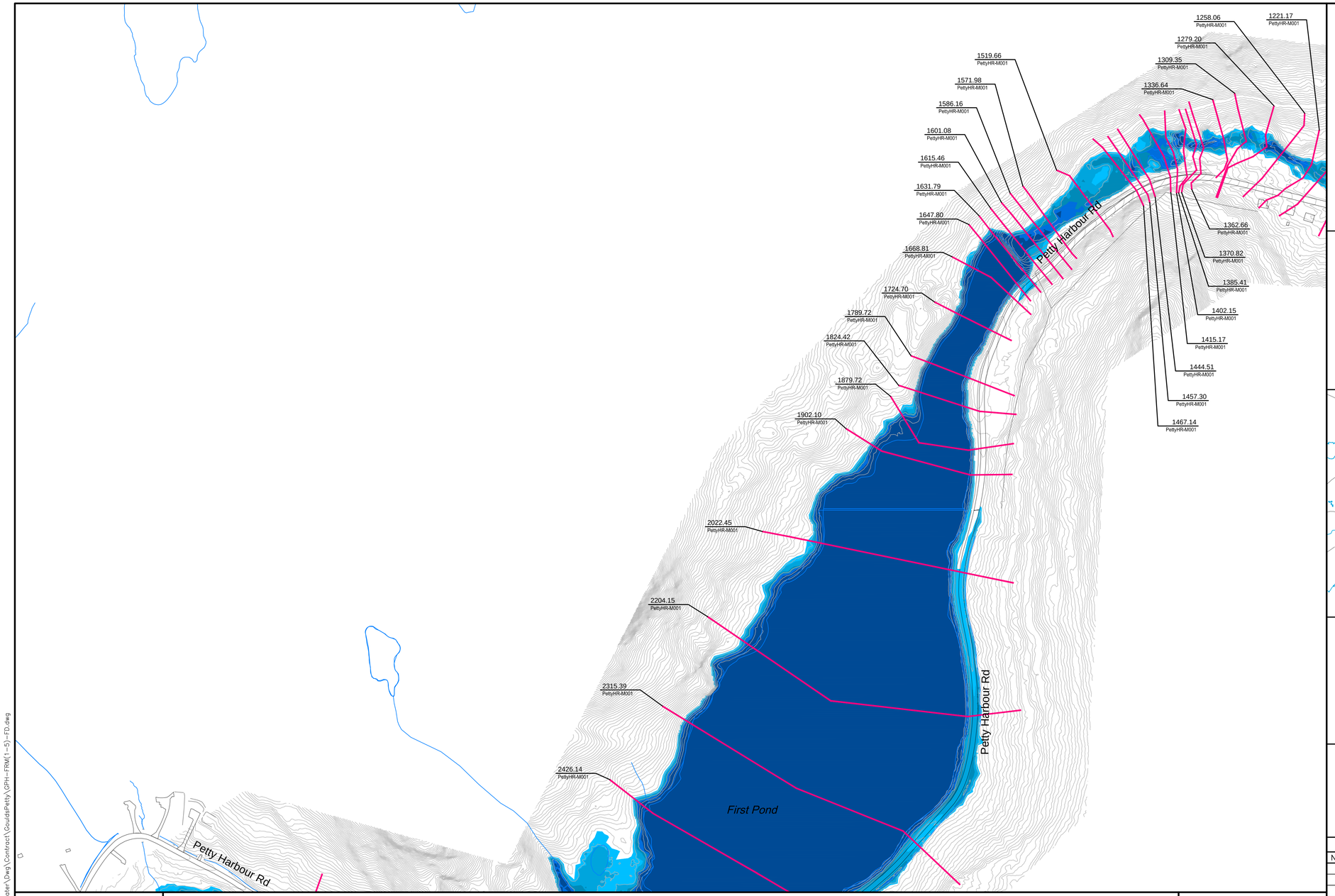


Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

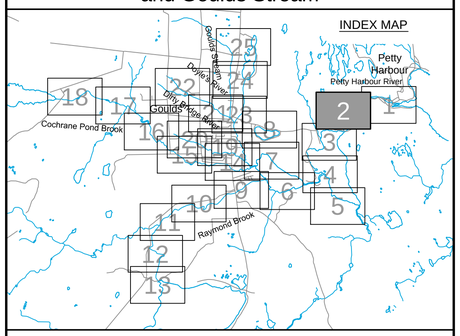
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

- Cross Section Number
- Reach Identification
- Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 2 of 25

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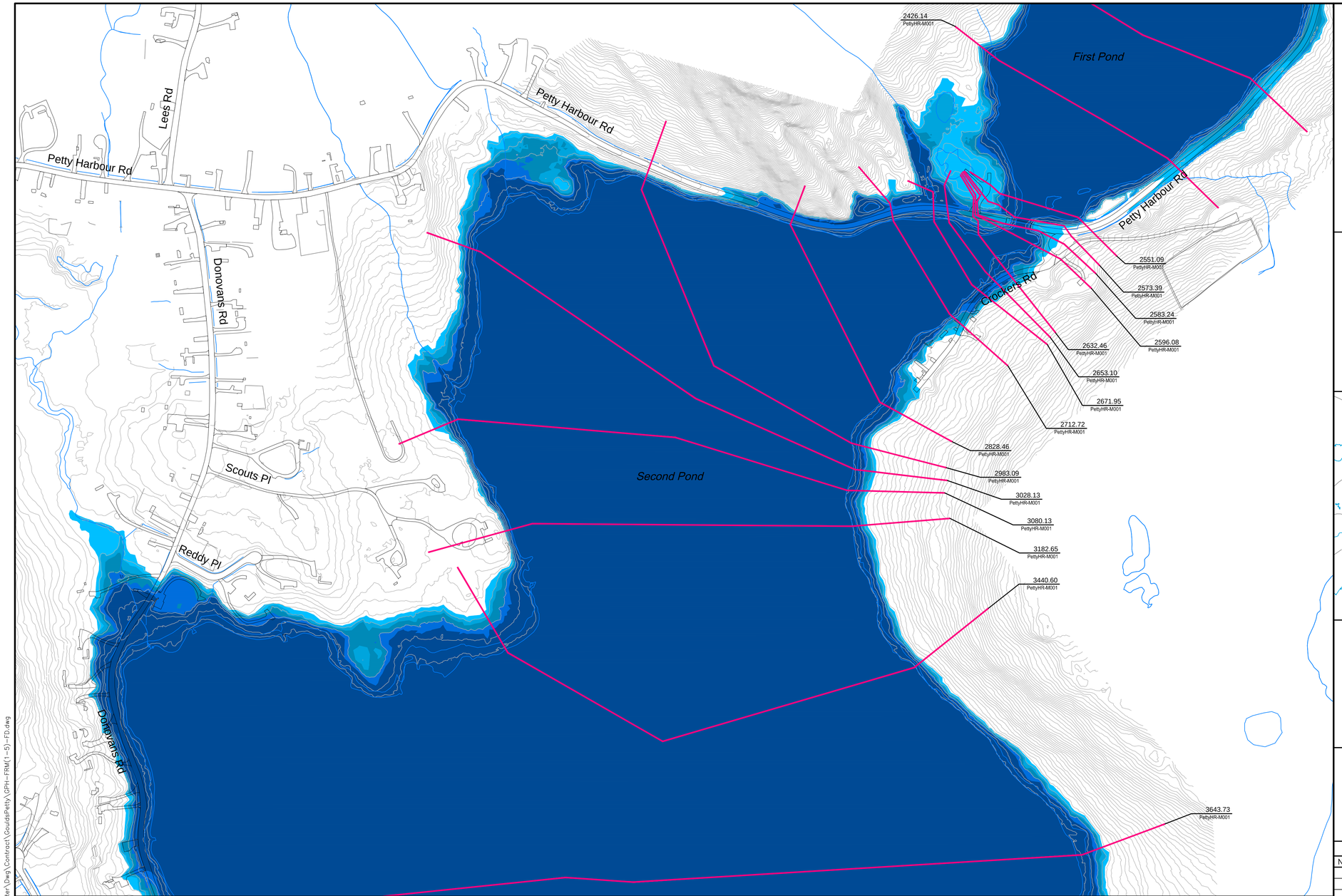


Department of Environment and Conservation
Water Resource Management Division

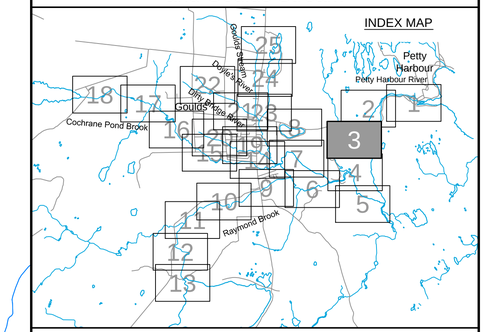
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesHR-TR017

Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 3 of 25

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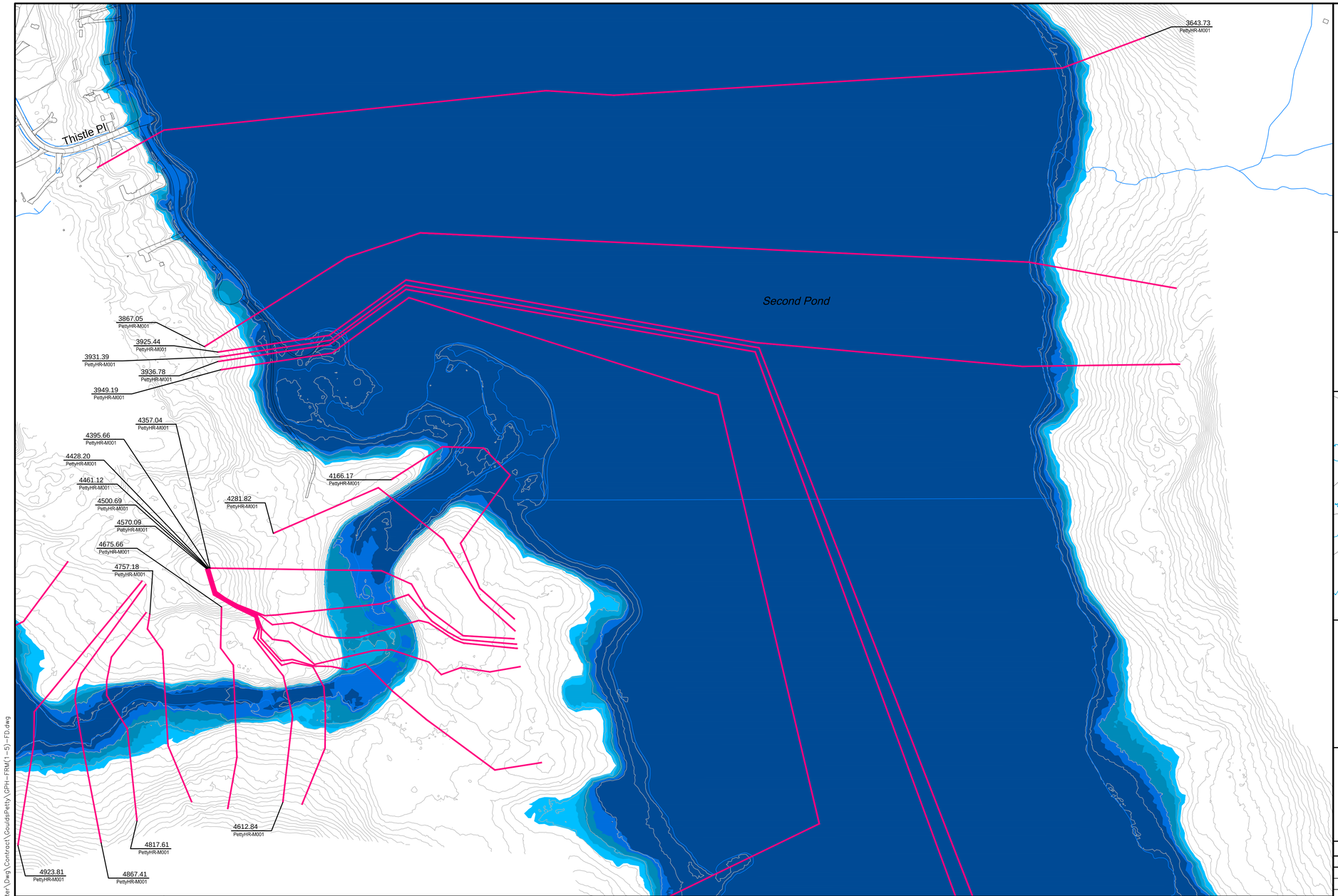

Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
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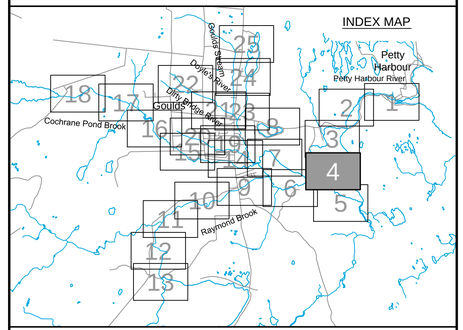
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 4 of 25

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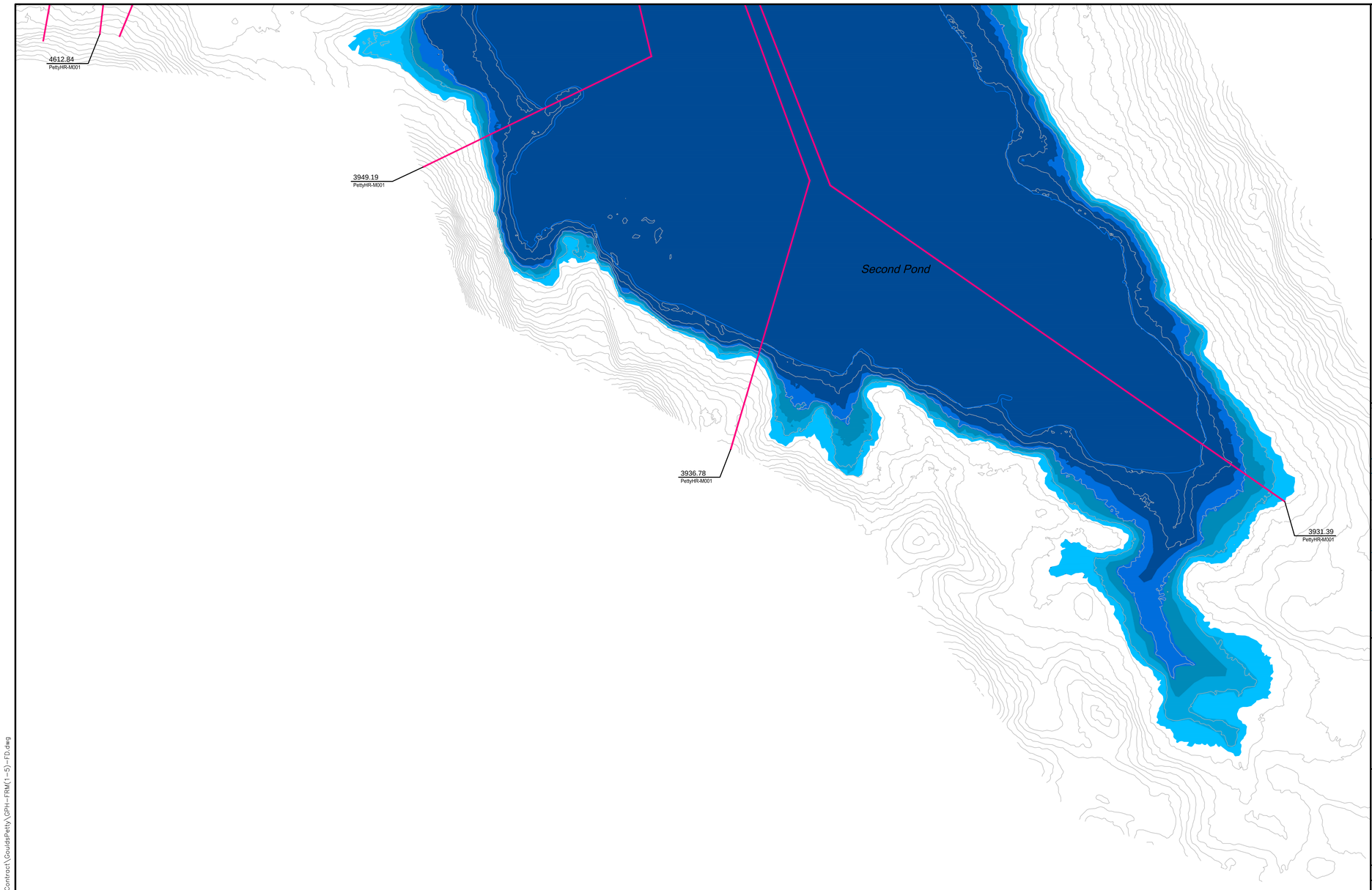


Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

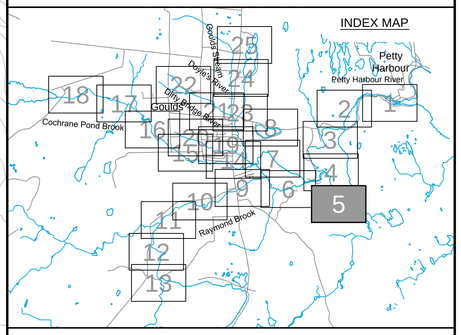
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 5 of 25

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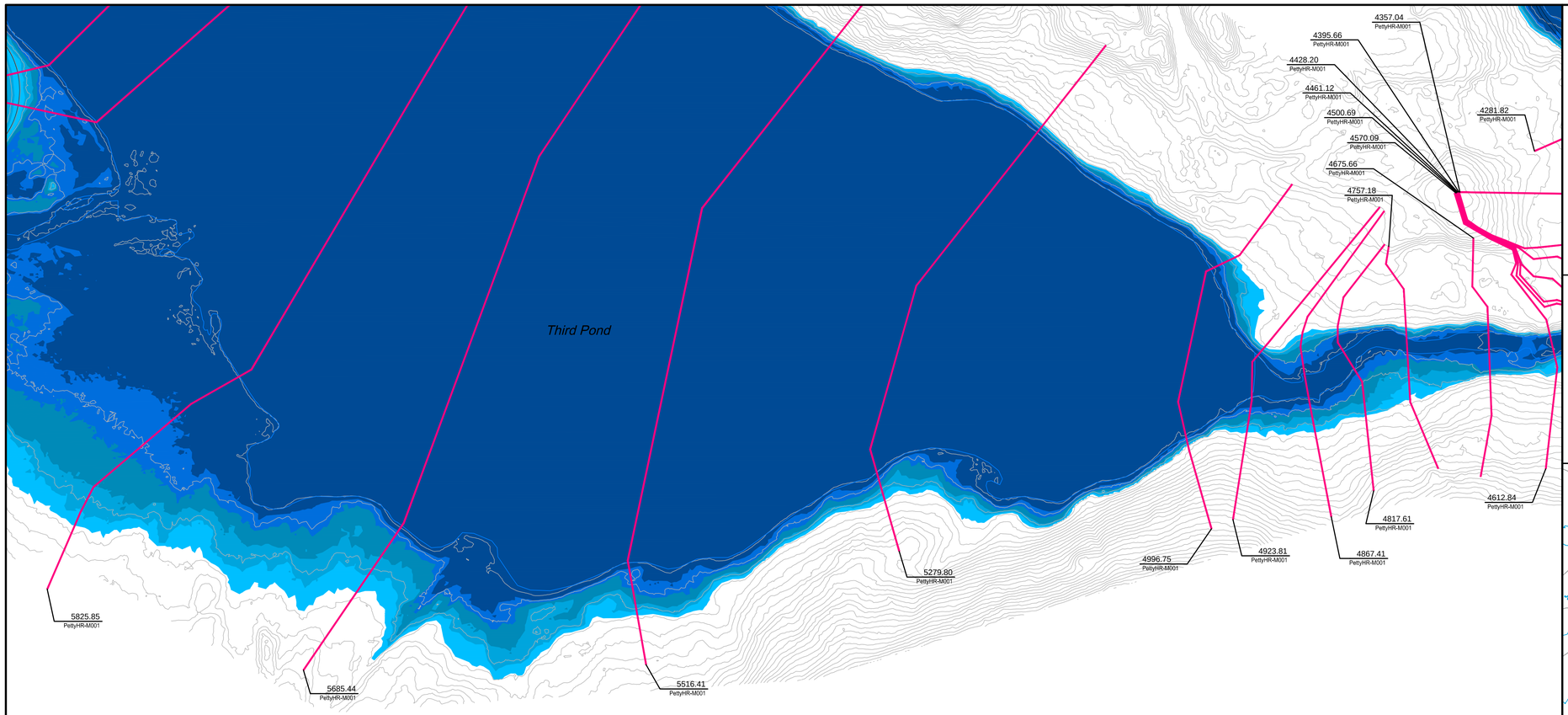

Newfoundland Labrador

Department of Environment and Conservation
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Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
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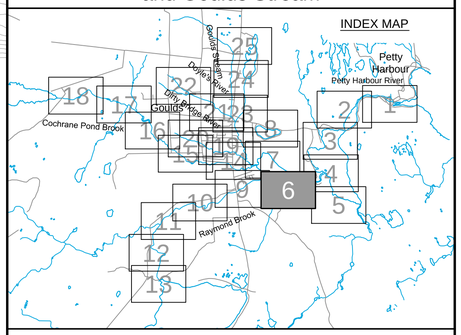
INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 6 of 25

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
Metres
300 0 300 600 900 Feet
Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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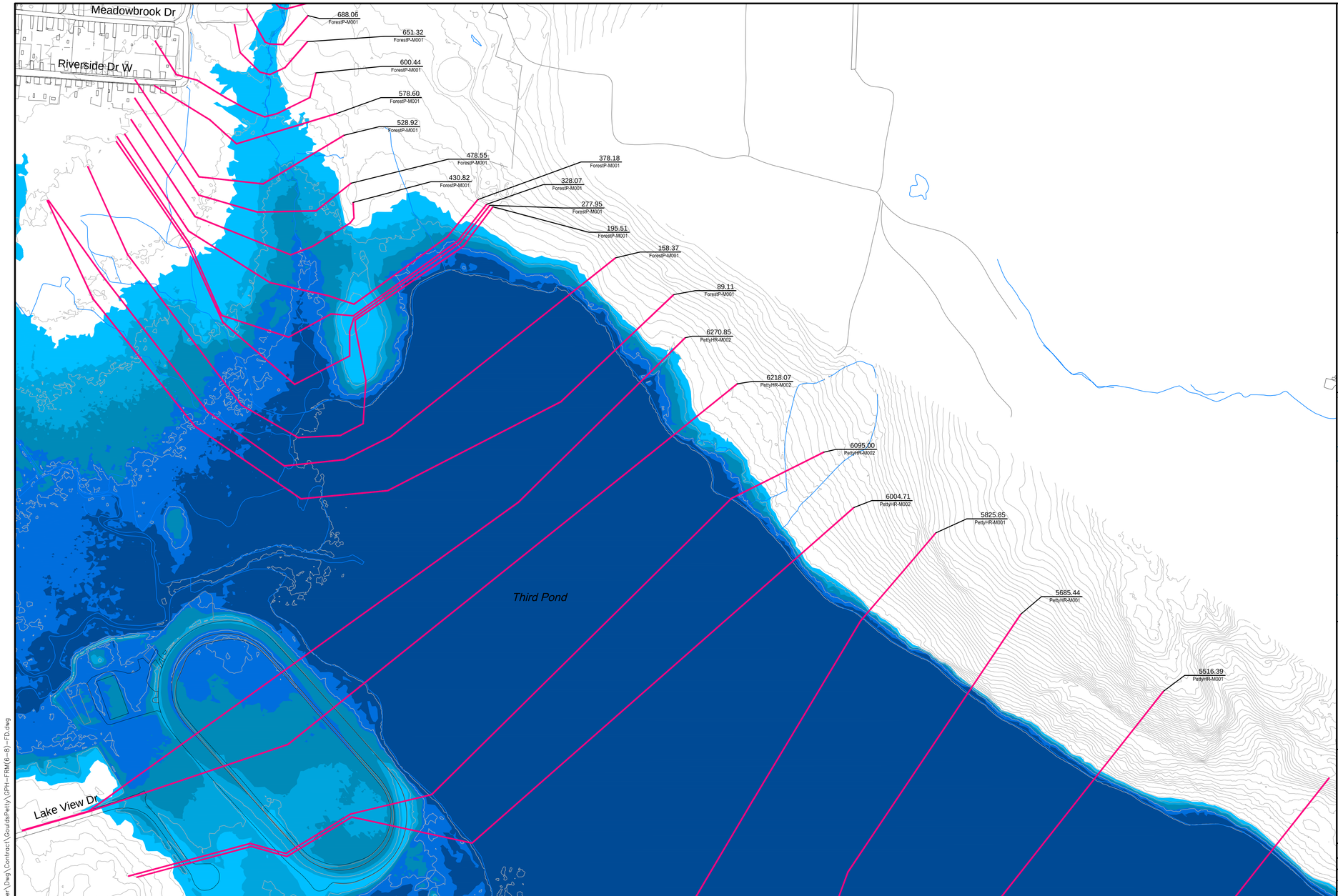
Mar 25/13 – richard.bartolo



Newfoundland Labrador

Department of Environment and Conservation
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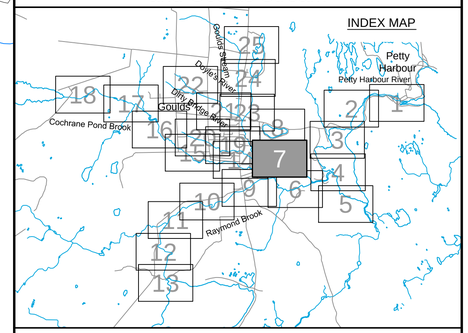
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



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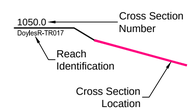

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 7 of 25

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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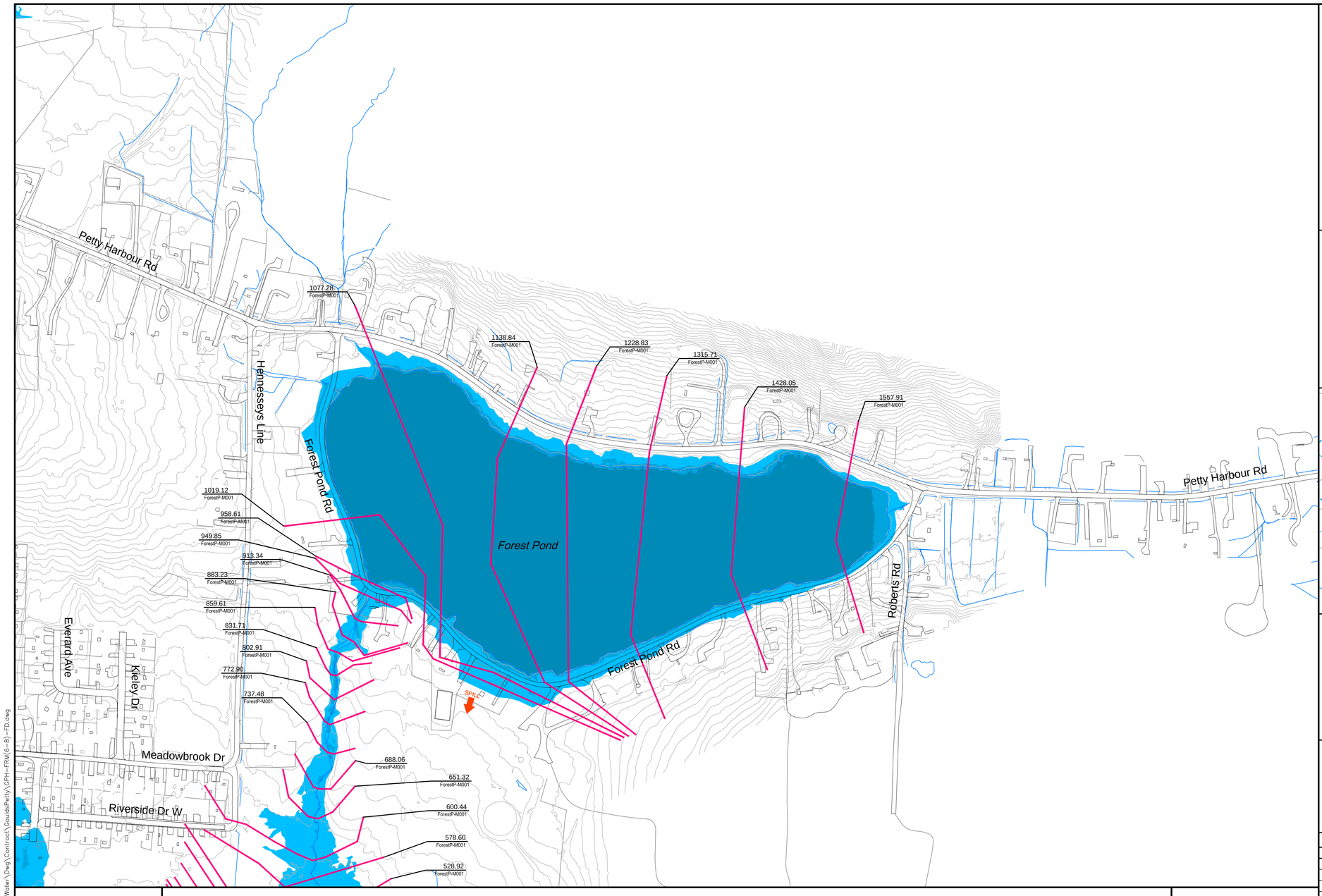
Mar 25/13 – richard.bartolo



Department of Environment and Conservation
Water Resource Management Division

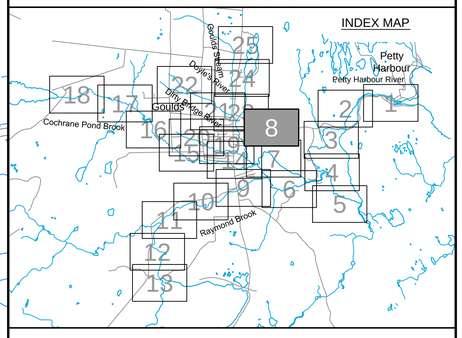
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 8 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(6-8)-FD.dwg

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Third Pond

Lake View Dr

Main Rd

Shoal Bay Rd

Alexis Pl

816.68 RaymondB-M001
841.89 RaymondB-M001
892.34 RaymondB-M001
916.70 RaymondB-M001
942.15 RaymondB-M001
976.73 RaymondB-M001
999.99 RaymondB-M001
1066.09 RaymondB-M001
1035.68 RaymondB-M001
1116.25 RaymondB-M001
1148.70 RaymondB-M001
1166.20 RaymondB-M001
1189.75 RaymondB-M001
1216.25 RaymondB-M001
1252.39 RaymondB-M001
1303.54 RaymondB-M001
1323.54 RaymondB-M001
1372.05 RaymondB-M001
1425.99 RaymondB-M001
1477.96 RaymondB-M001
1536.01 RaymondB-M001
1584.49 RaymondB-M001
1630.92 RaymondB-M001
1682.15 RaymondB-M001
1733.38 RaymondB-M001
1784.61 RaymondB-M001
1835.84 RaymondB-M001
1885.73 RaymondB-M001
1950.22 RaymondB-M001
1989.18 RaymondB-M001
716.25 RaymondB-M001
615.86 RaymondB-M001
565.77 RaymondB-M001
766.25 RaymondB-M001
675.00 RaymondB-M001
520.15 RaymondB-M001
468.54 RaymondB-M001
429.18 RaymondB-M001
366.25 RaymondB-M001
341.79 RaymondB-M001
5825.85 PettyHR-M001

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Department of Environment and Conservation
Water Resource Management Division

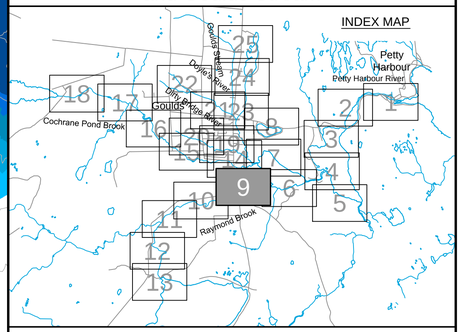
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
- Cross Section Number
- Reach Identification
- Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5 - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 9 of 25

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Newfoundland Labrador

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Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
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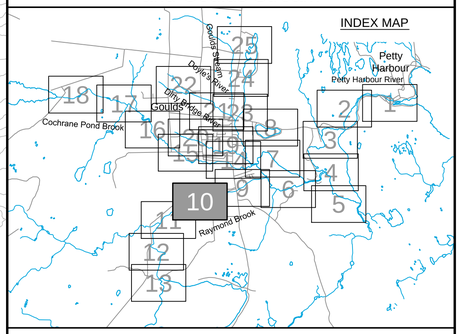
and Goulds Stream

INDEX MAP



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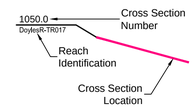

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

Sheet 10 of 25

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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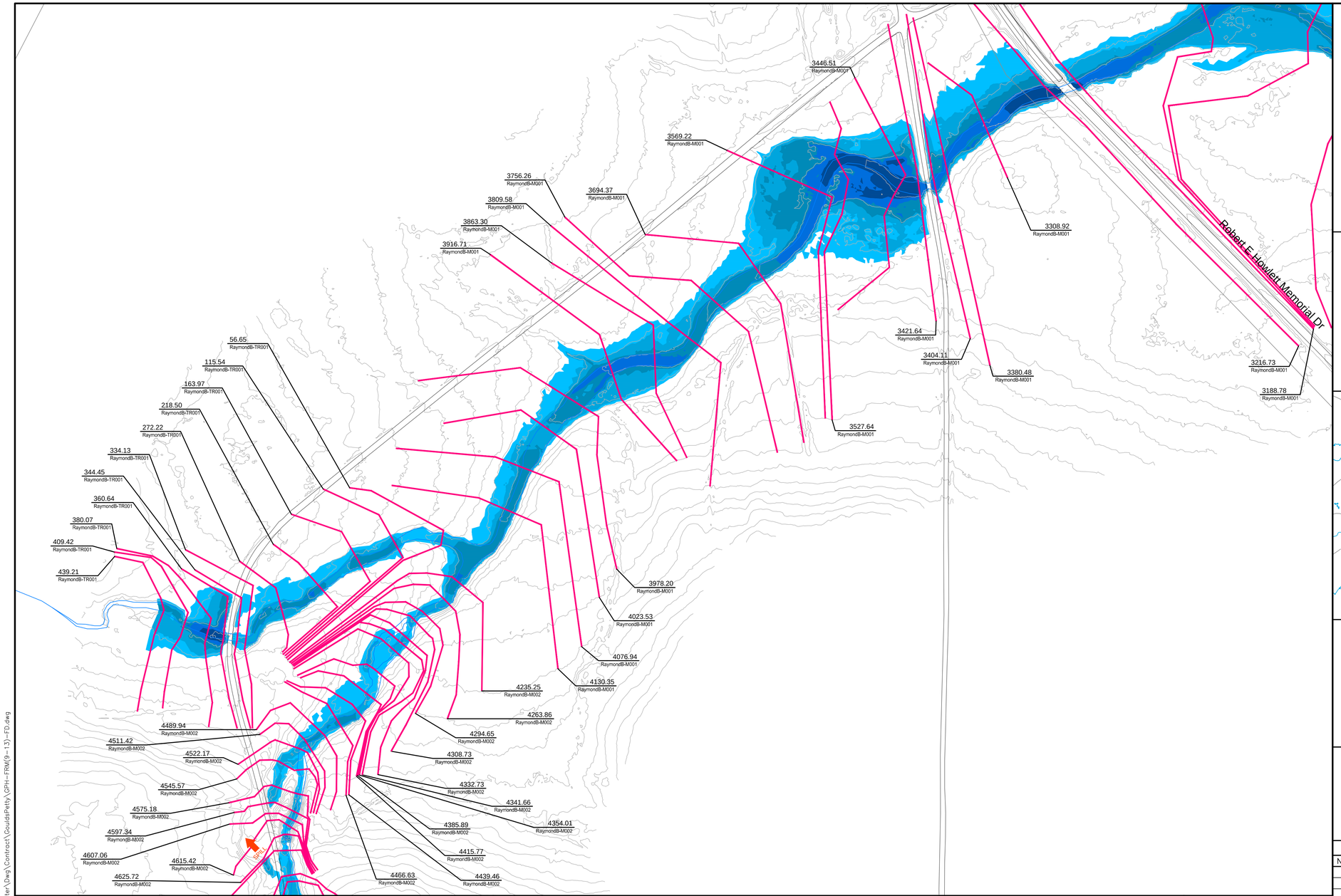

Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

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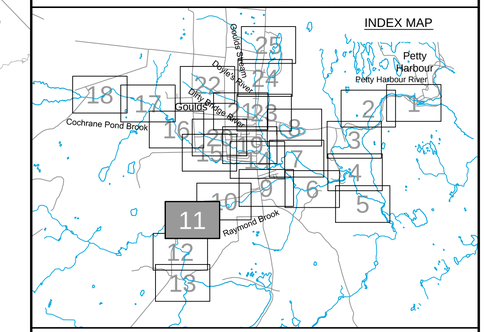
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 — Cross Section Number
DoylesB-TR017 — Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres: 150 0 150 Metres
Feet: 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 11 of 25

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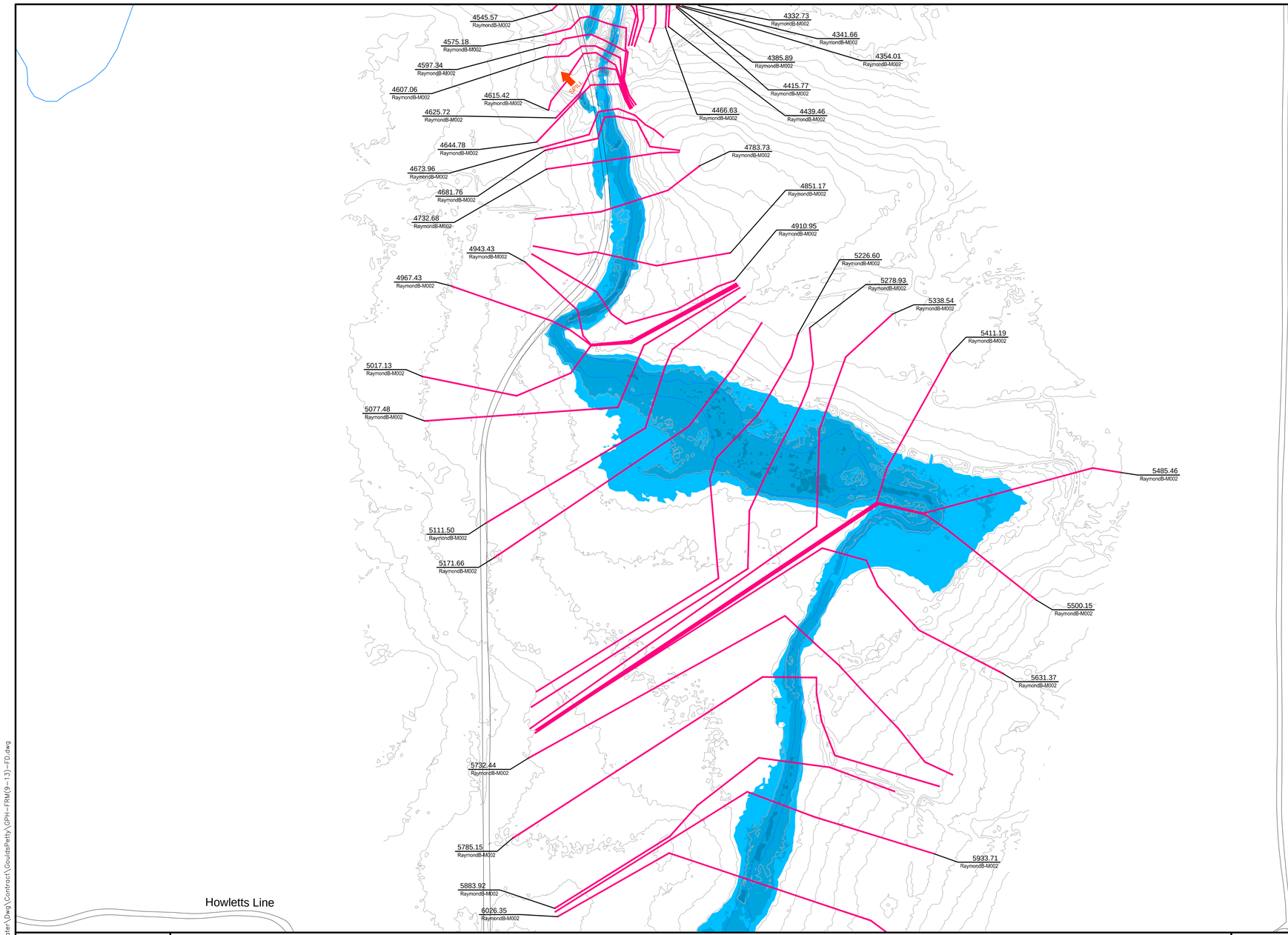


Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

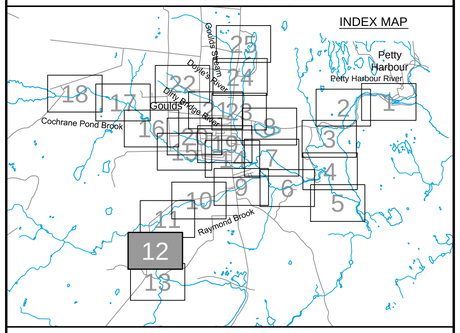
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

- Cross Section Number
- Reach Identification
- Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 12 of 25

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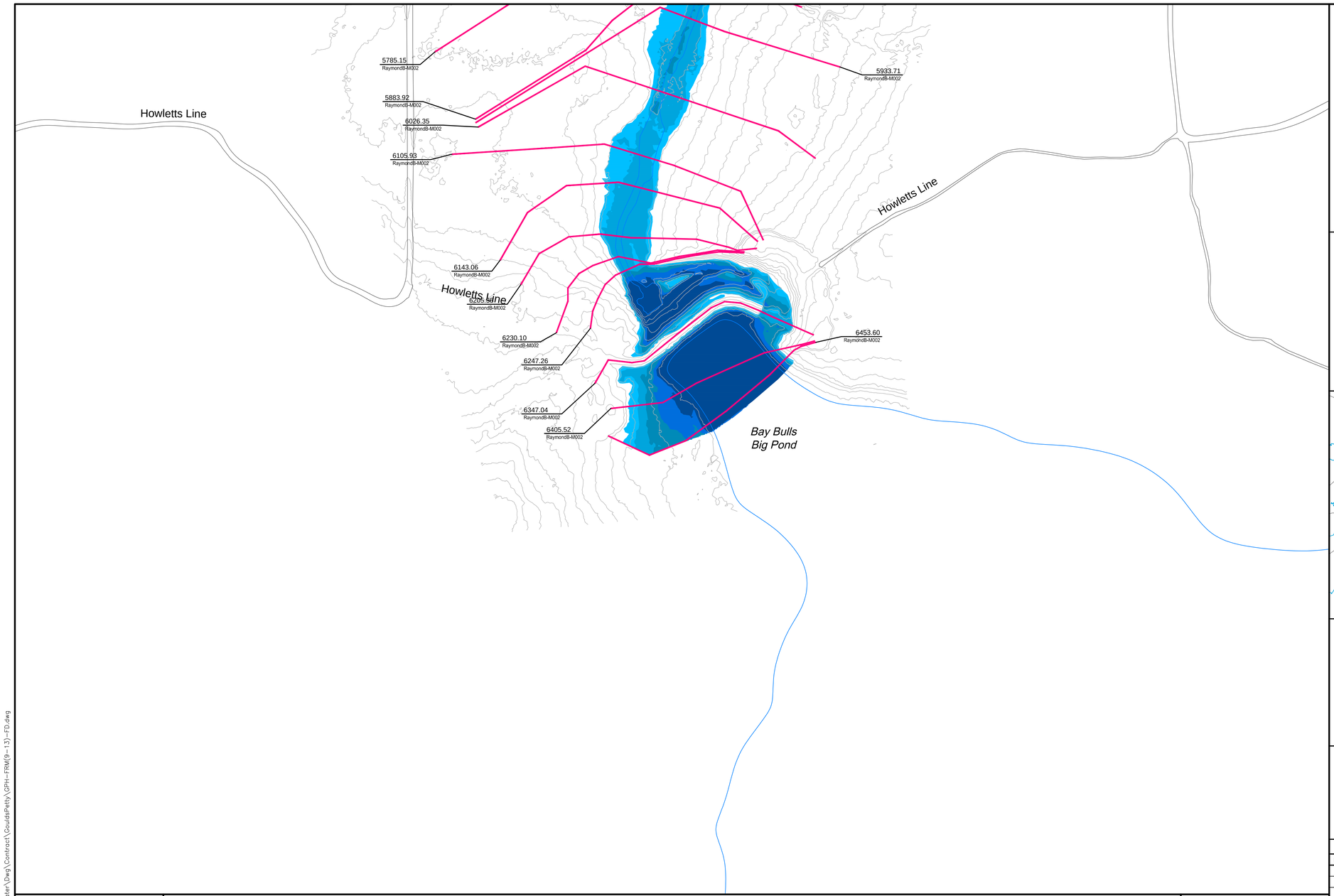

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Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
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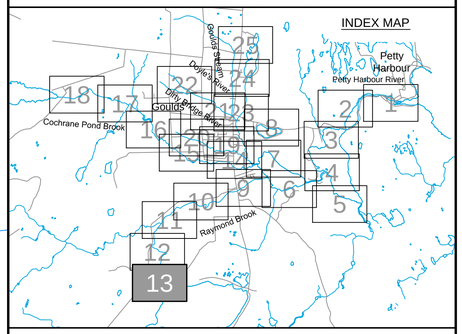
Cochrane Pond and Raymond Brooks,
and Goulds Stream



Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 13 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(9-13)-FD.dwg

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Soper Cres
McConnell Pl
Sunset St
Martin St
Cleary Dr
Hannaford Pl
Beaver Brook Dr
Heffernans Line
Mountainview Dr
Ryans River Rd
Ryans Pl
Main Rd
Fleming Pl
Riverside Dr W
Third Pond
Lake View Dr

1990.76 CochranePB-M002
1945.20 CochranePB-M002
1916.67 CochranePB-M002
1871.48 CochranePB-M002
1836.03 CochranePB-M002
1788.63 CochranePB-M002
1768.08 CochranePB-M002
1733.19 CochranePB-M002
2103.01 CochranePB-M002
2046.85 CochranePB-M002
2014.35 CochranePB-M002
1640.51 CochranePB-M002
1685.79 CochranePB-M002
1694.89 CochranePB-M002
1602.99 CochranePB-M002
1585.52 CochranePB-M002
1569.47 CochranePB-M002
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1510.83 CochranePB-M002
1458.62 CochranePB-M002
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1164.32 CochranePB-M002
1132.60 CochranePB-M002
1111.68 CochranePB-M002
1059.95 CochranePB-M002
998.99 CochranePB-M002
955.54 CochranePB-M002
851.16 CochranePB-M002
798.06 CochranePB-M002
746.77 CochranePB-M002
694.52 CochranePB-M002
669.16 CochranePB-M002
590.19 CochranePB-M002
539.85 CochranePB-M002
488.40 CochranePB-M002
313.14 CochranePB-M001
381.27 CochranePB-M001

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

Newfoundland Labrador

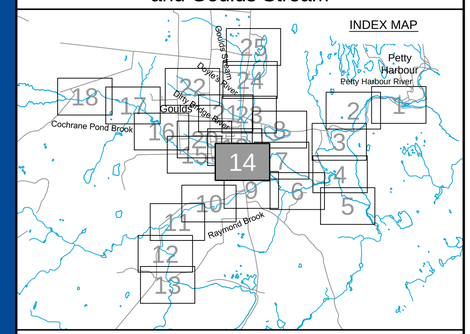
Department of Environment and Conservation
Water Resource Management Division

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 Doyles8-TR017
- Cross Section Number
- Reach Identification
- Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 14 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(14-18)-FD.dwg

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Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

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AMEC (Maximum IDF Relationship)

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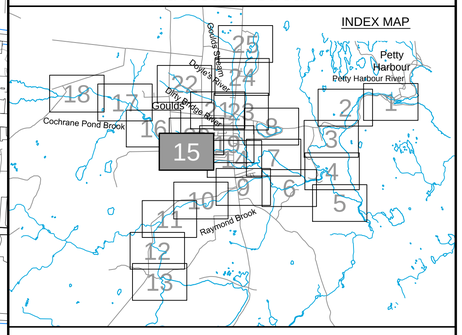
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

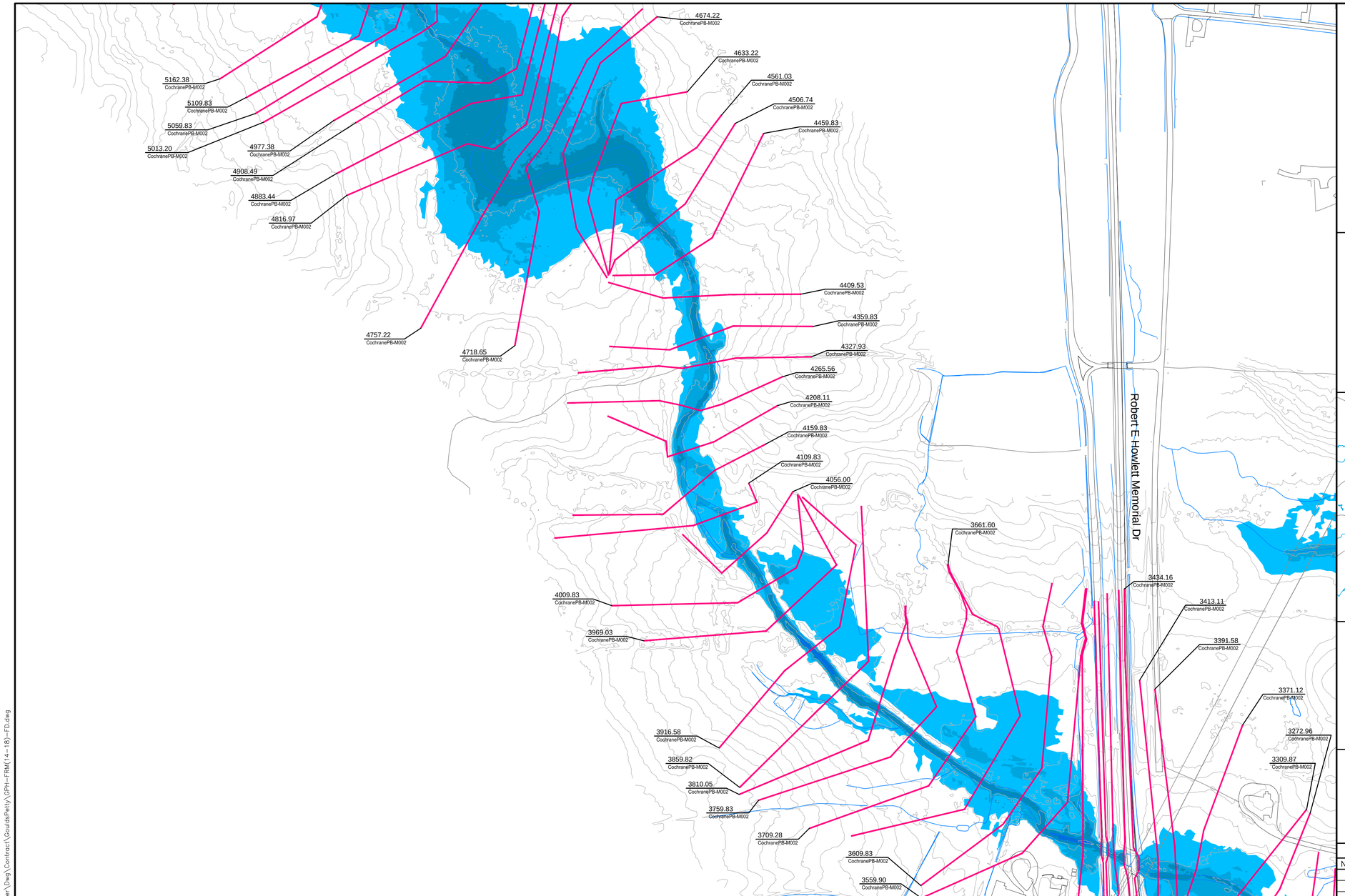
CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 15 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(14-18)-FD.dwg

Mar 25/13 – richard.bartolo



Newfoundland Labrador

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Water Resource Management Division

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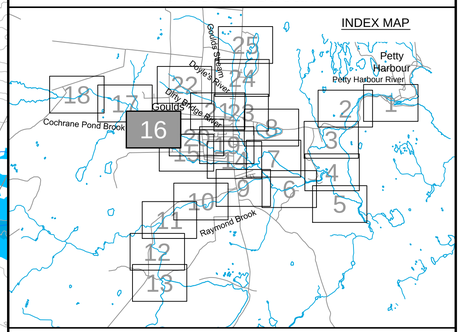
INDEX MAP



Cross Section Label

1050.0 — Cross Section Number
Doyles8-TR017 — Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

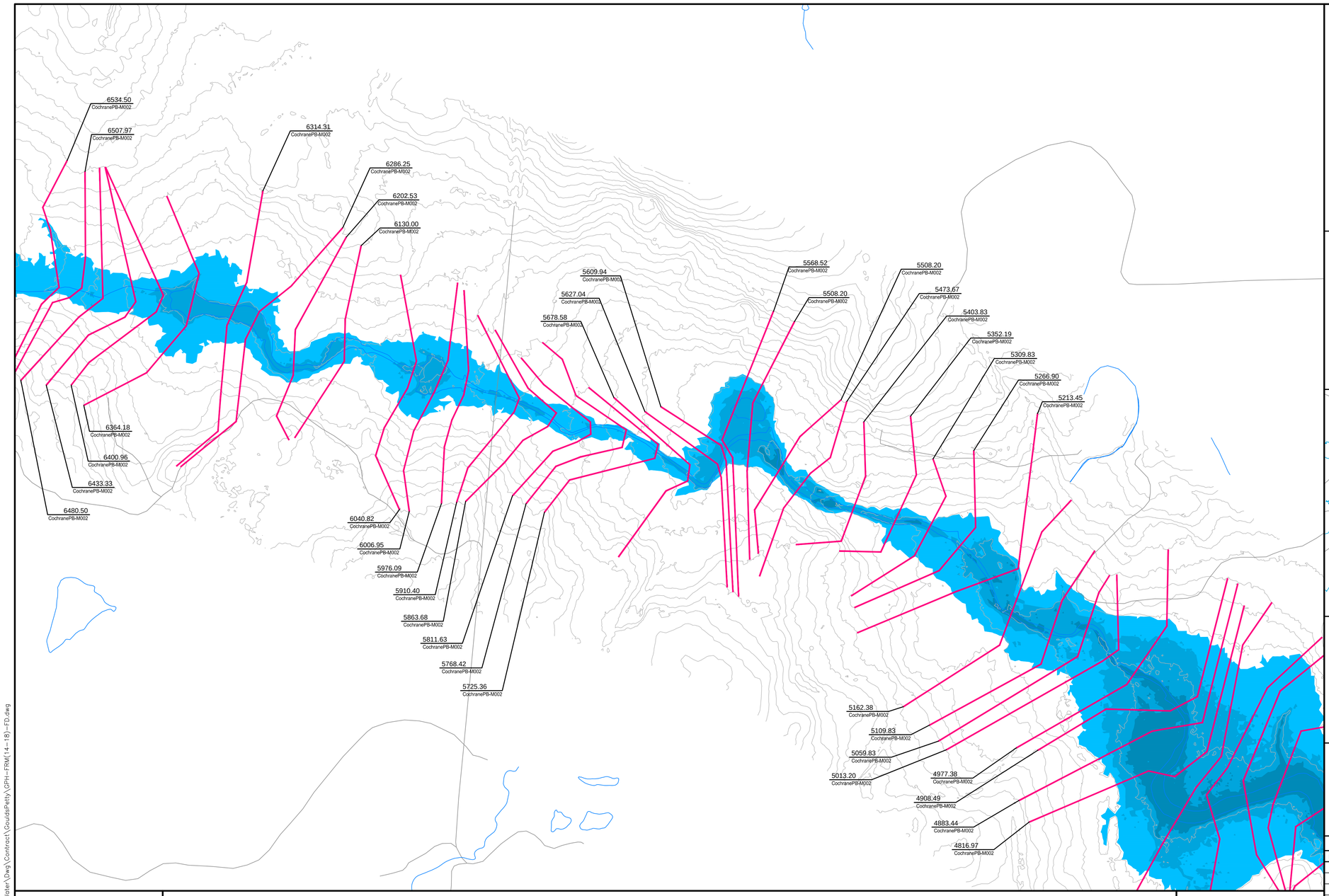
NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 16 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(14-18)-FD.dwg

Mar 25/13 – richard.bartolo



Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

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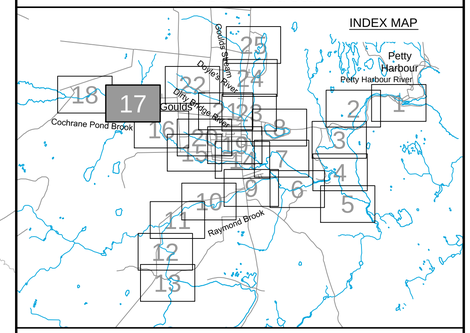
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

Sheet 17 of 25

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(14-18)-FD.dwg

Mar 25/13 – richard.bartolo

Cochrane Pond Rd

6985.71 CochranePB-M002
7041.67 CochranePB-M002
7108.13 CochranePB-M002
6955.25 CochranePB-M002
6863.52 CochranePB-M002
7208.54 CochranePB-M002
7253.62 CochranePB-M002
7329.89 CochranePB-M002
6840.09 CochranePB-M002
6808.25 CochranePB-M002
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6767.75 CochranePB-M002
6727.78 CochranePB-M002
6691.71 CochranePB-M002
6651.54 CochranePB-M002
6630.83 CochranePB-M002
6364.18 CochranePB-M002
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7609.21 CochranePB-M002
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8024.09 CochranePB-M002
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8004.70 CochranePB-M002
7995.14 CochranePB-M002

Newfoundland Labrador

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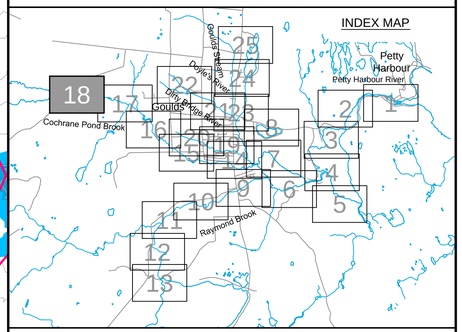
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 Doyles8-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

Sheet 18 of 25

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

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Mar 25/13 – richard.bartolo

Ridgemount St
Clearview St
Keith Dr
Gulliage St
North Dr
Della Dr
Sunset St
Sunset St
McConnell Pl
Soper Crescent
Hannaford Pl
Martin St
Cleary Dr
Fleming Pl
Main Rd
Meadowbrook Park Rd
Bonnie Dr
Gray Dr
Everard Ave
Kieley Dr
Meadowbrook Dr
Riverside Dr W
Hennesseys Line
Beaver Brook Dr
Heffernans Line
SPILL
SPILL

1506.66 DoylesR-TR013
1478.17 DoylesR-TR013
1411.61 DoylesR-TR013
1388.58 DoylesR-TR013
1373.88 DoylesR-TR013
1301.72 DoylesR-TR013
1246.99 DoylesR-TR013
1192.26 DoylesR-TR013
1137.53 DoylesR-TR013
1082.80 DoylesR-TR013
1064.90 DoylesR-TR013
1042.53 DoylesR-TR013
1022.06 DoylesR-TR013
867.93 DoylesR-TR013
809.27 DoylesR-TR013
756.07 DoylesR-TR013
543.29 DoylesR-TR013
489.08 DoylesR-TR013
383.70 DoylesR-TR013
324.16 DoylesR-TR013
344.87 DoylesR-TR013
256.30 DoylesR-TR013
256.50 DoylesR-TR013
1370.10 DoylesR-TR011
1316.51 DoylesR-TR011
1262.92 DoylesR-TR011
1209.33 DoylesR-TR011
1155.74 DoylesR-TR011
1107.39 DoylesR-TR011
1057.82 DoylesR-TR011
971.36 DoylesR-TR011
816.76 DoylesR-TR011
760.16 DoylesR-TR011
712.26 DoylesR-TR011
663.11 DoylesR-TR011
949.62 DoylesR-TR011
929.53 DoylesR-TR011
872.05 DoylesR-TR011
484.12 DoylesR-M001
429.44 DoylesR-M001
388.93 DoylesR-M001
344.78 DoylesR-M001
216.64 DoylesR-M001
77.13 DoylesR-M001
969.32 DoylesR-TR013
915.66 DoylesR-TR013
702.82 DoylesR-TR013
651.60 DoylesR-TR013
588.74 DoylesR-TR013
436.90 DoylesR-TR013
363.75 DoylesR-TR013
162.98 DoylesR-TR013
133.14 DoylesR-TR013
66.14 DoylesR-TR013

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Newfoundland Labrador
Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP
Petty Harbour
Petty Harbour River
Goulds
Goulds Stream
Doyles River
Dirty Bridge Brook
Cochrane Pond Brook
Raymond Brook
19

Cross Section Label
1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Inundation Depth
0.0m - 0.5m
0.5m - 1.0m
1.0m - 1.5m
1.5m - 2.0m
Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 19 of 25

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Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
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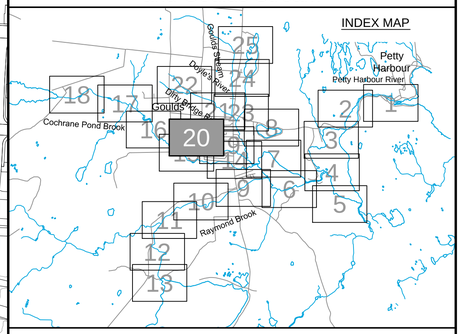
Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



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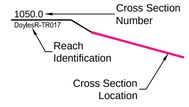

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

Sheet 20 of 25

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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Water Resource Management Division

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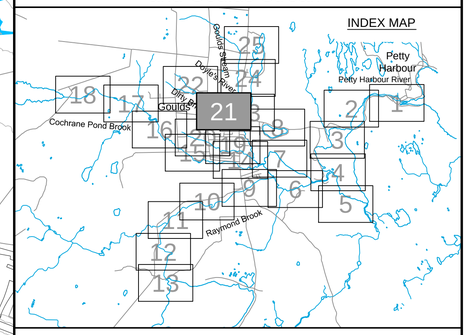
Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



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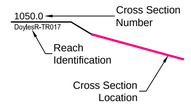

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

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REVISIONS

No.	Description	BY	DATE

Sheet 21of 25

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

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Goulds\Petty Harbour

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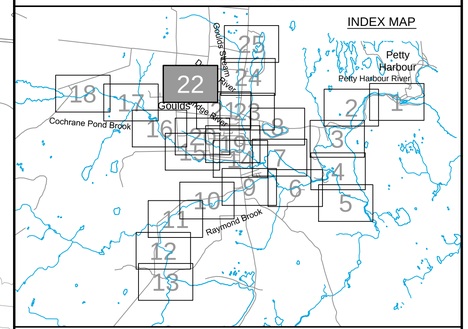
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
- Cross Section Number
- Reach Identification
- Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 22 of 25

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

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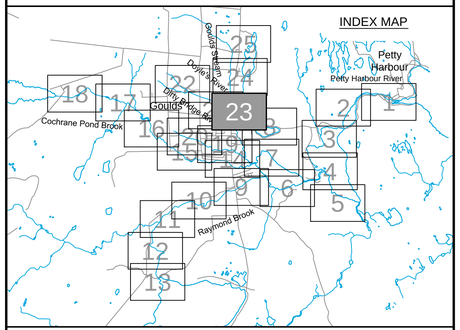
Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



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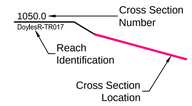

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

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REVISIONS

No.	Description	BY	DATE

Sheet 23 of 25

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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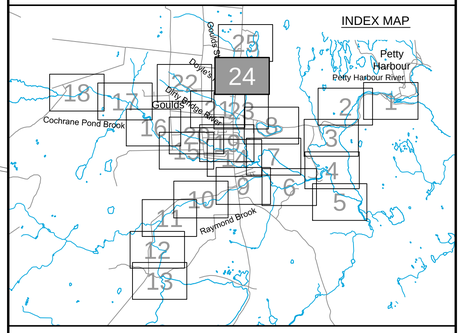
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



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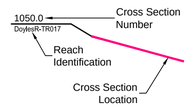

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 24 of 25

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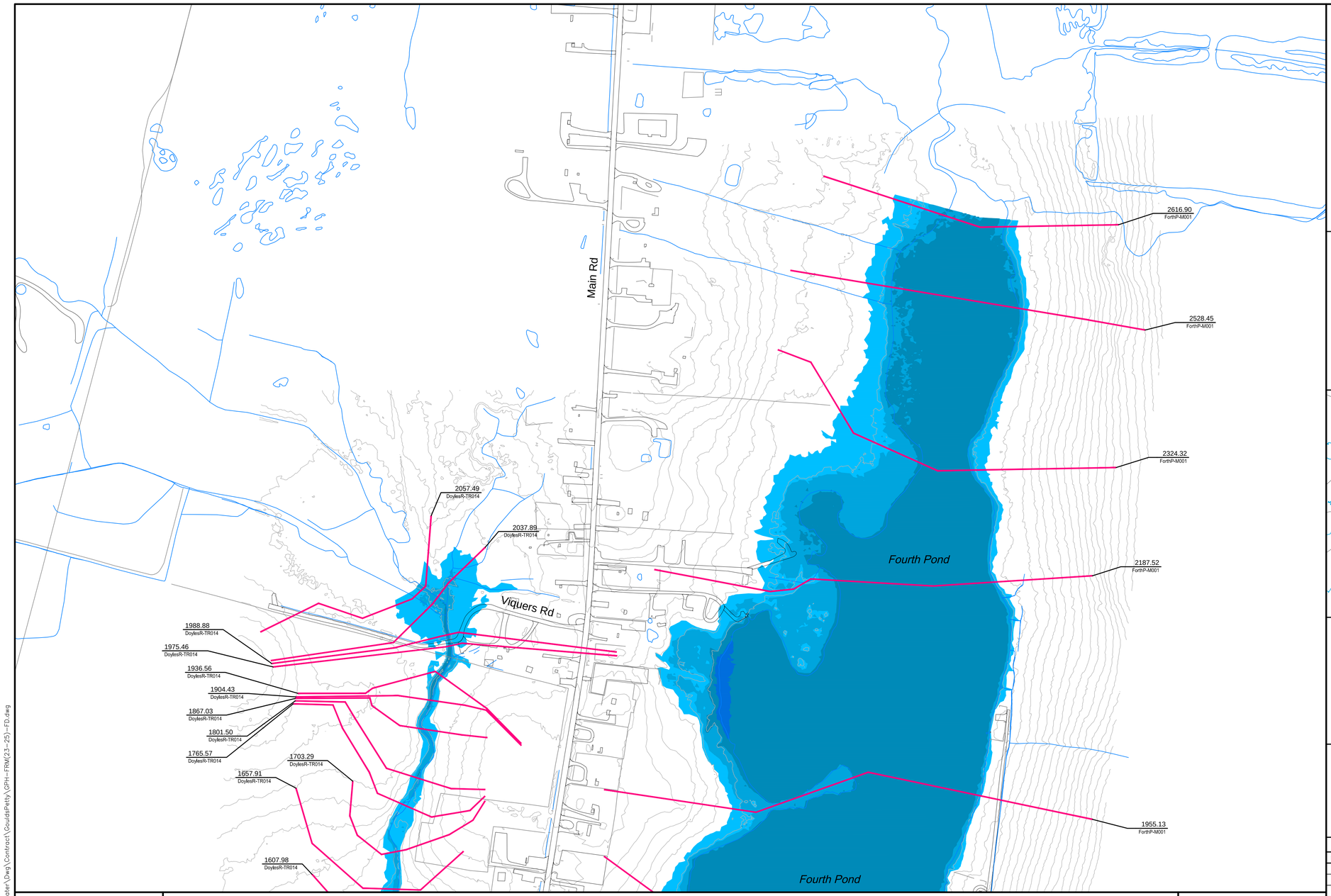

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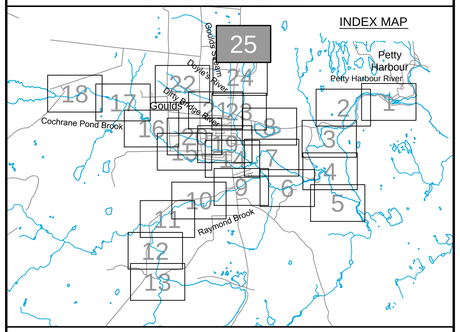
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 — DoylesR-TR017
- Cross Section Number
- Reach Identification
- Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 25 of 25

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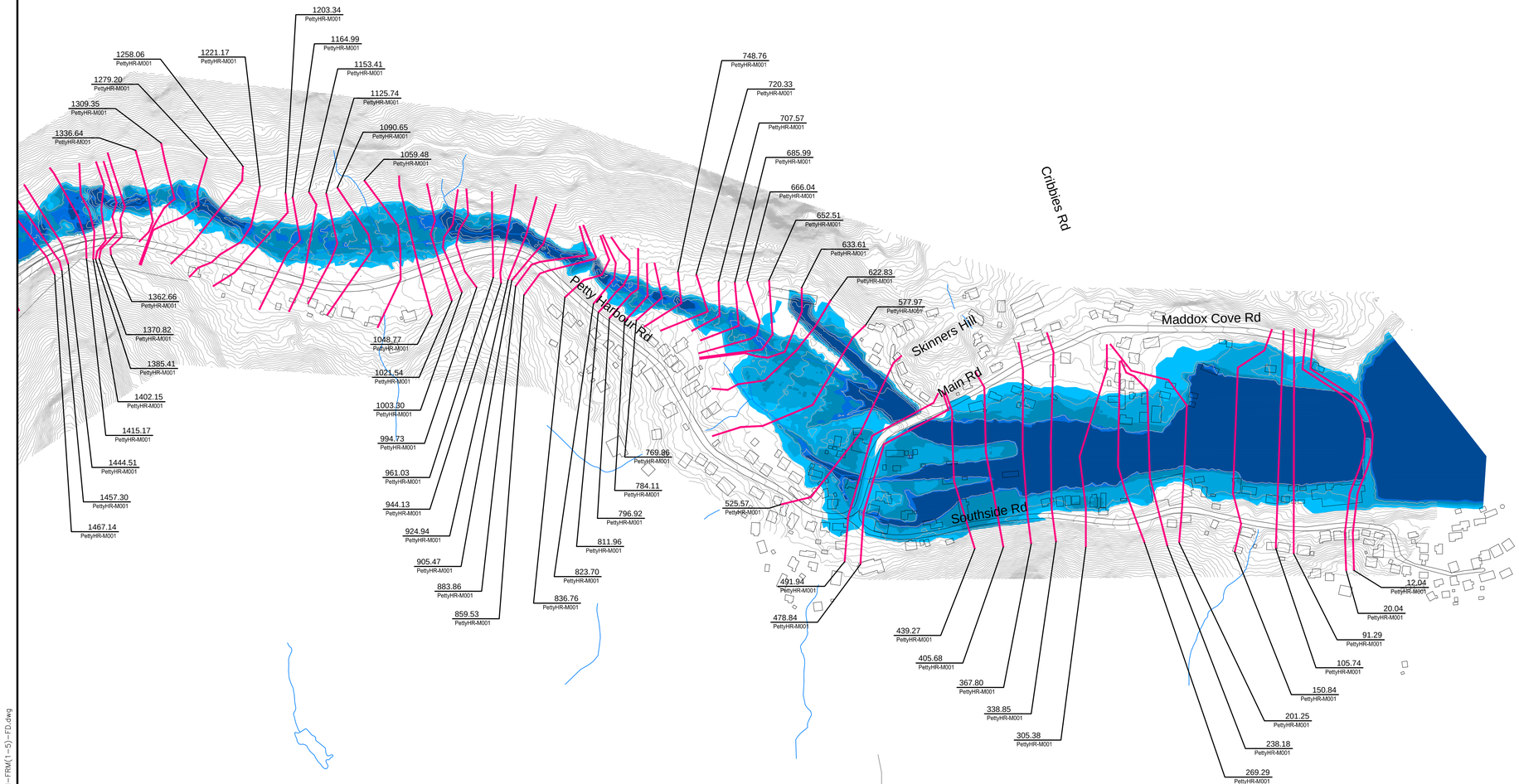
Department of Environment and Conservation
Water Resource Management Division

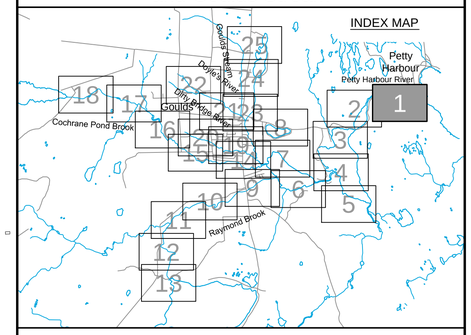
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream





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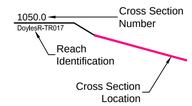

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

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Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 1 of 25

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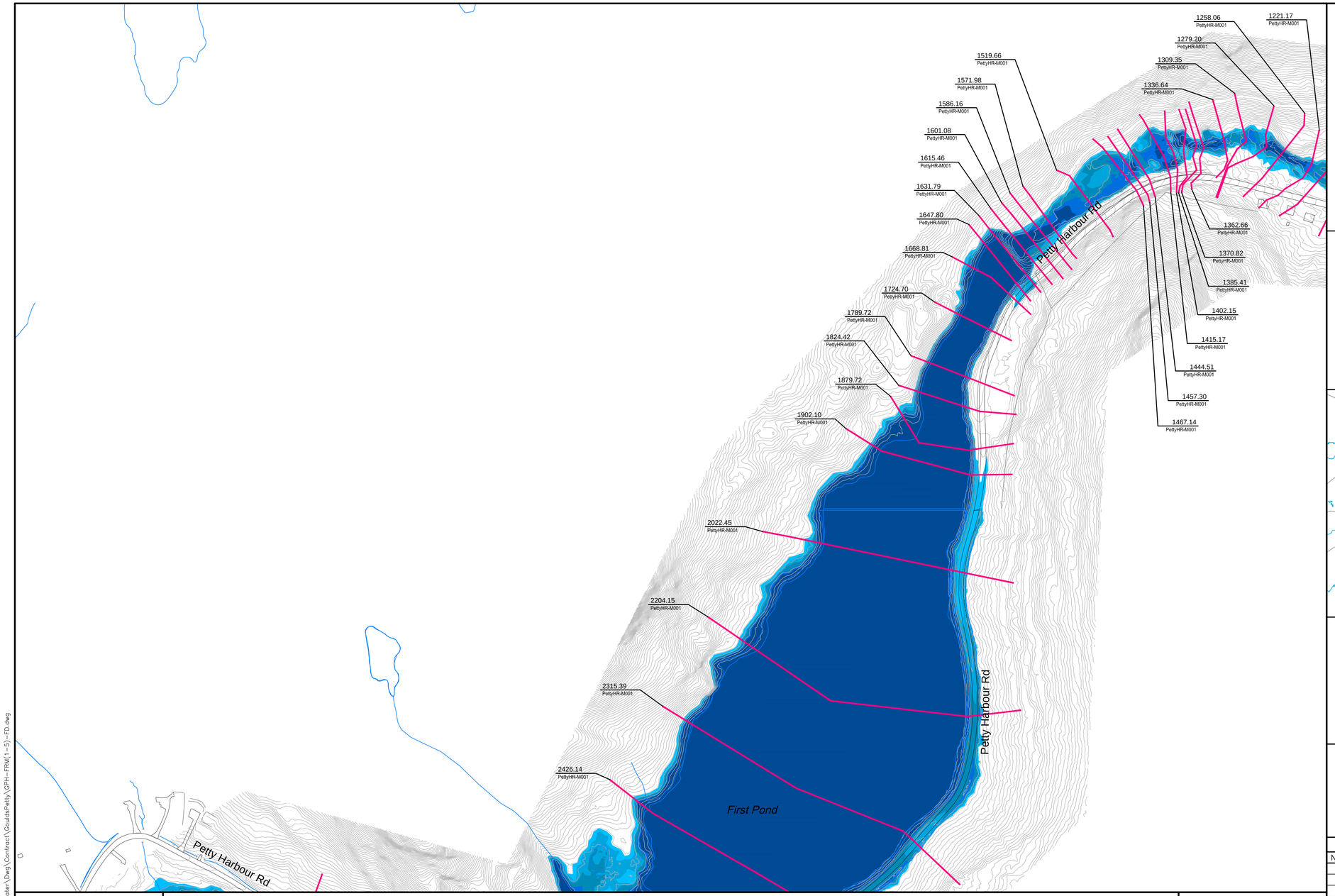

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Water Resource Management Division

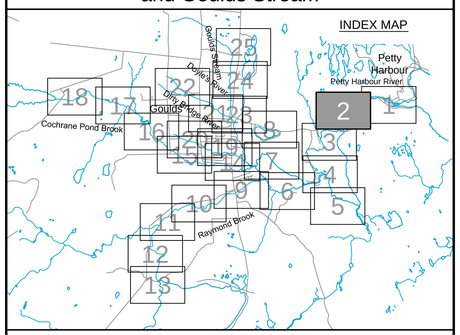
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number
Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

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REVISIONS

No.	Description	BY	DATE

Sheet 2 of 25

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

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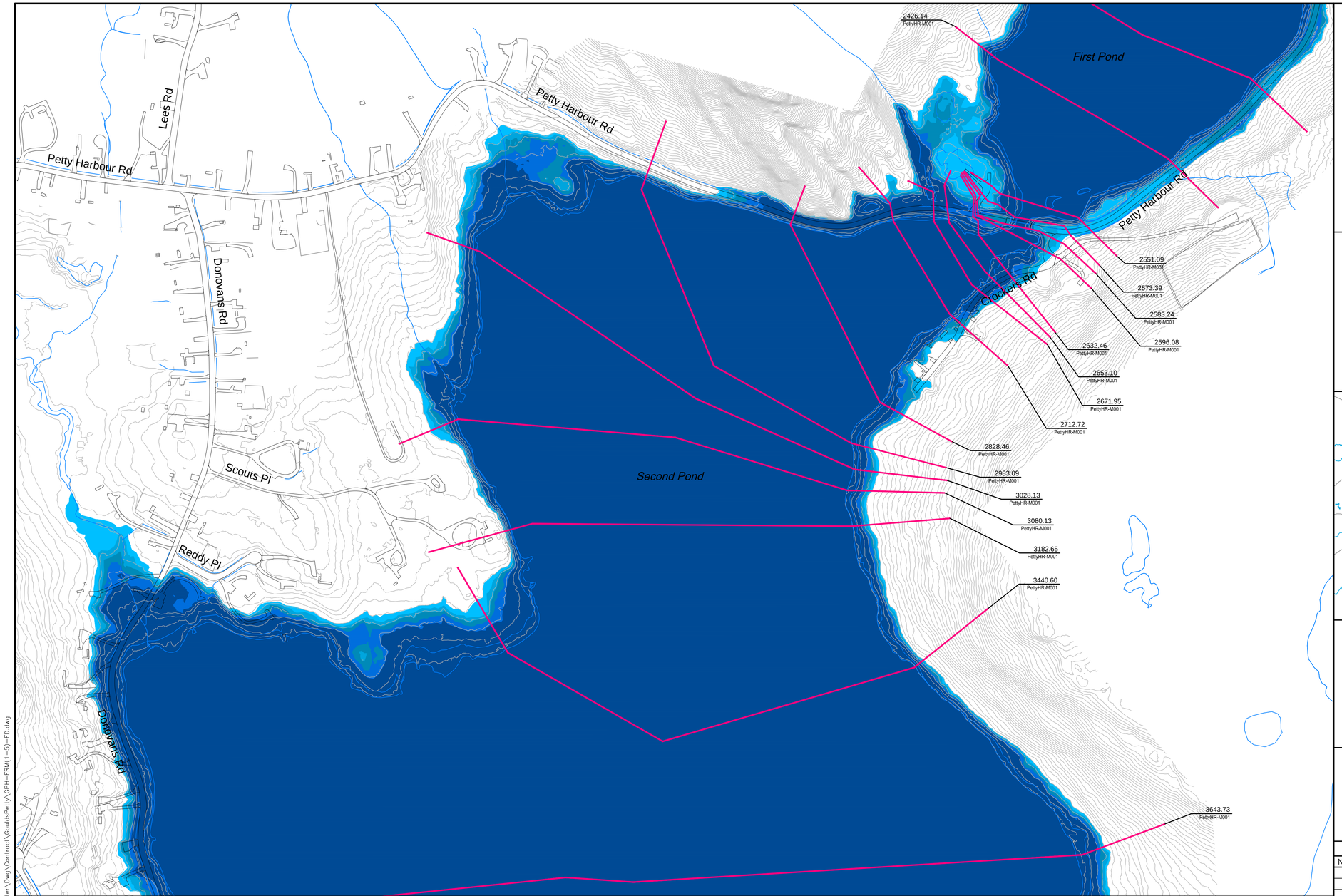

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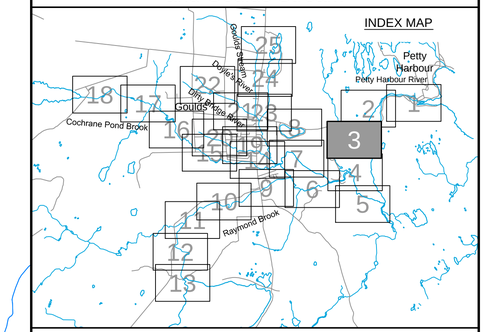
1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesHR-TR017

Cross Section Number
Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 3 of 25

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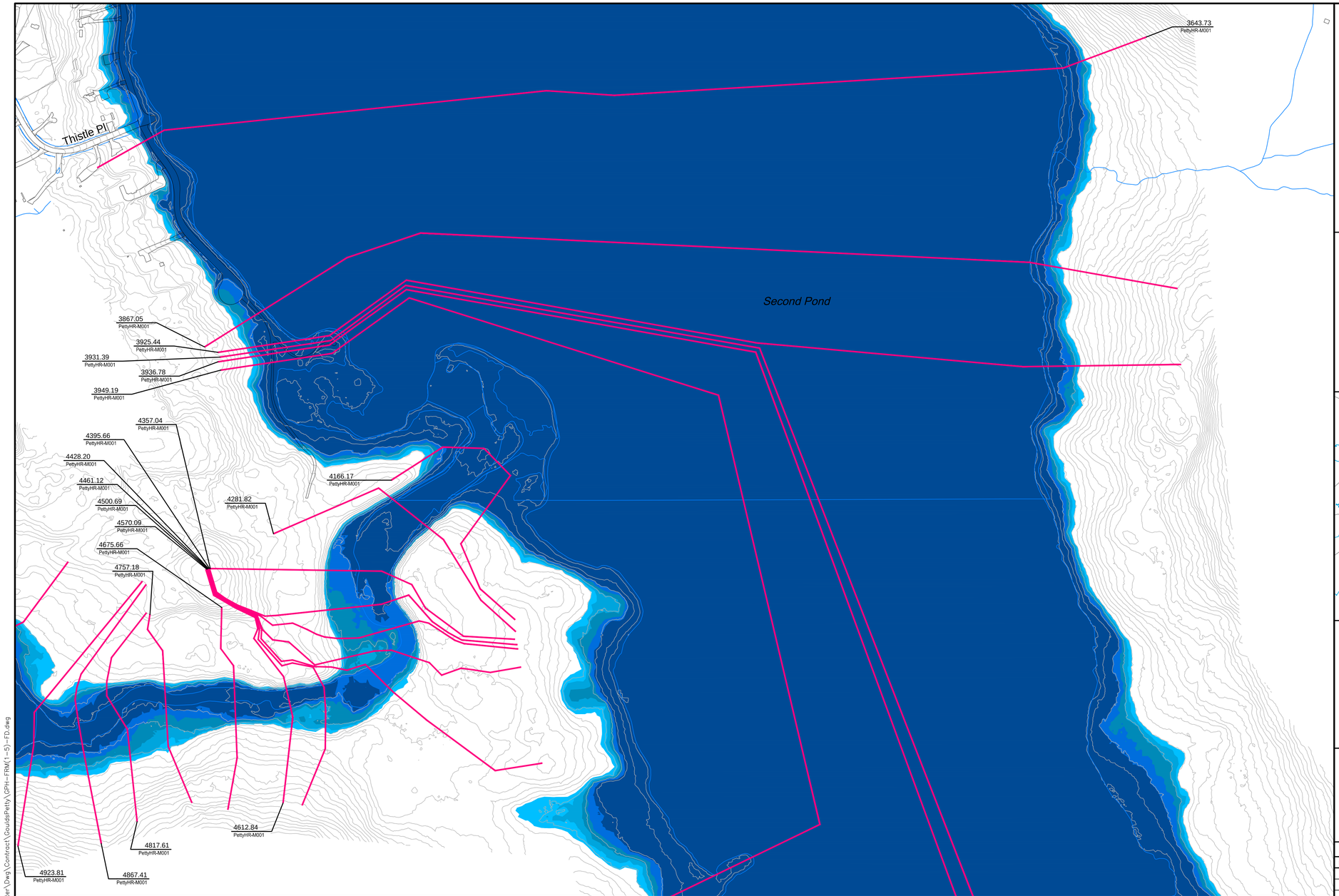

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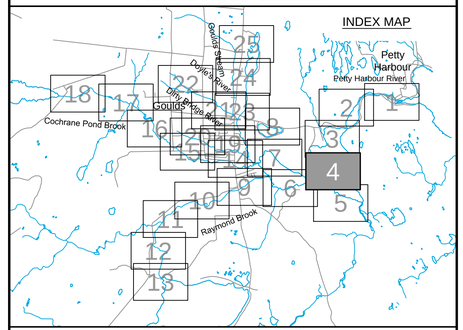

Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

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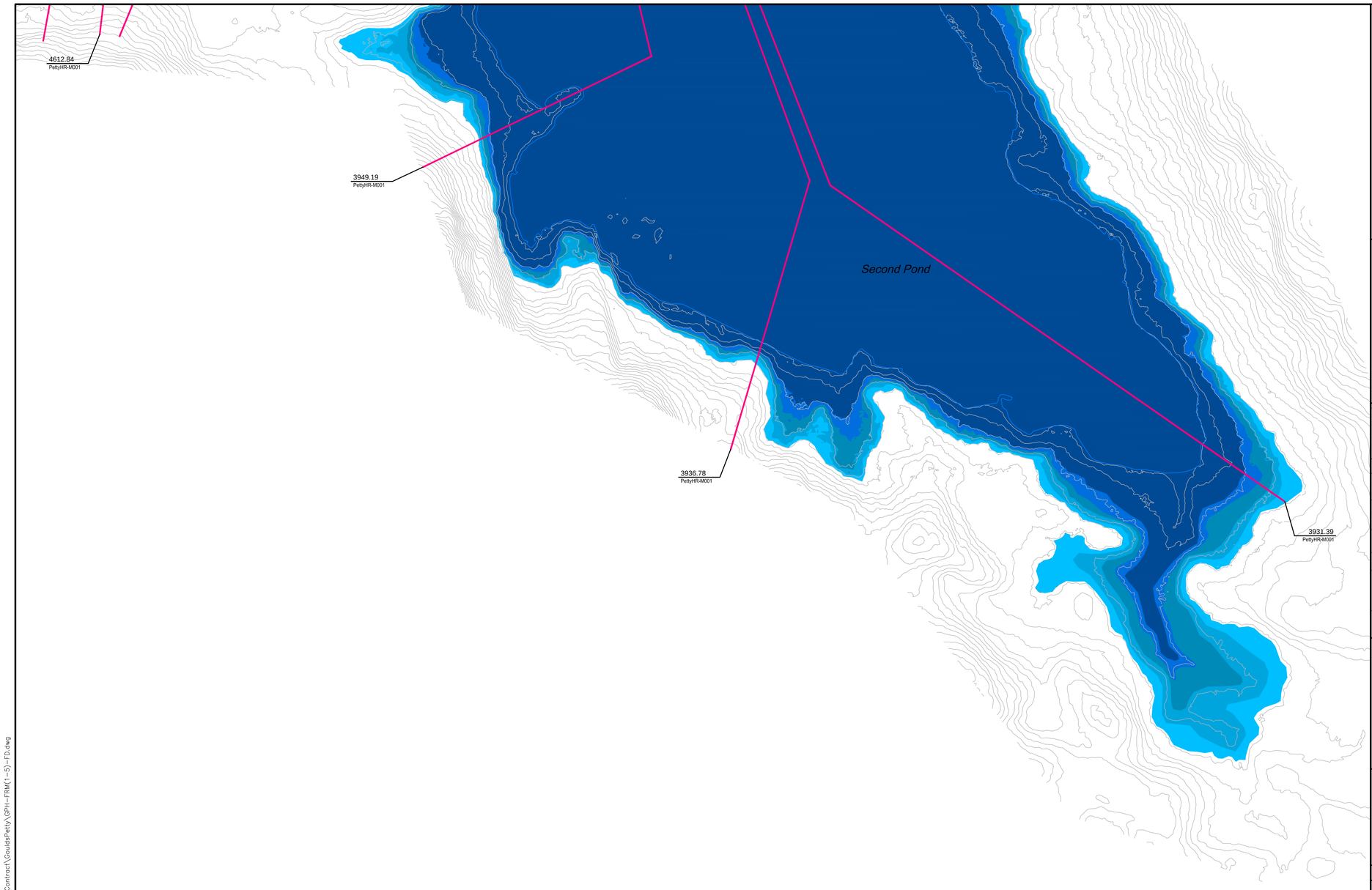

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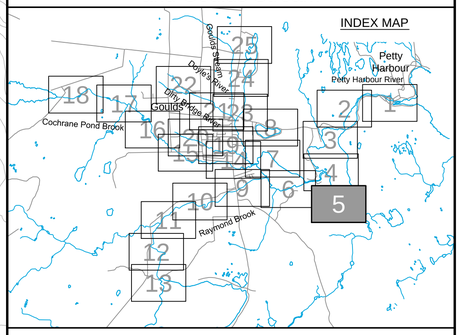
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



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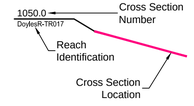


1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

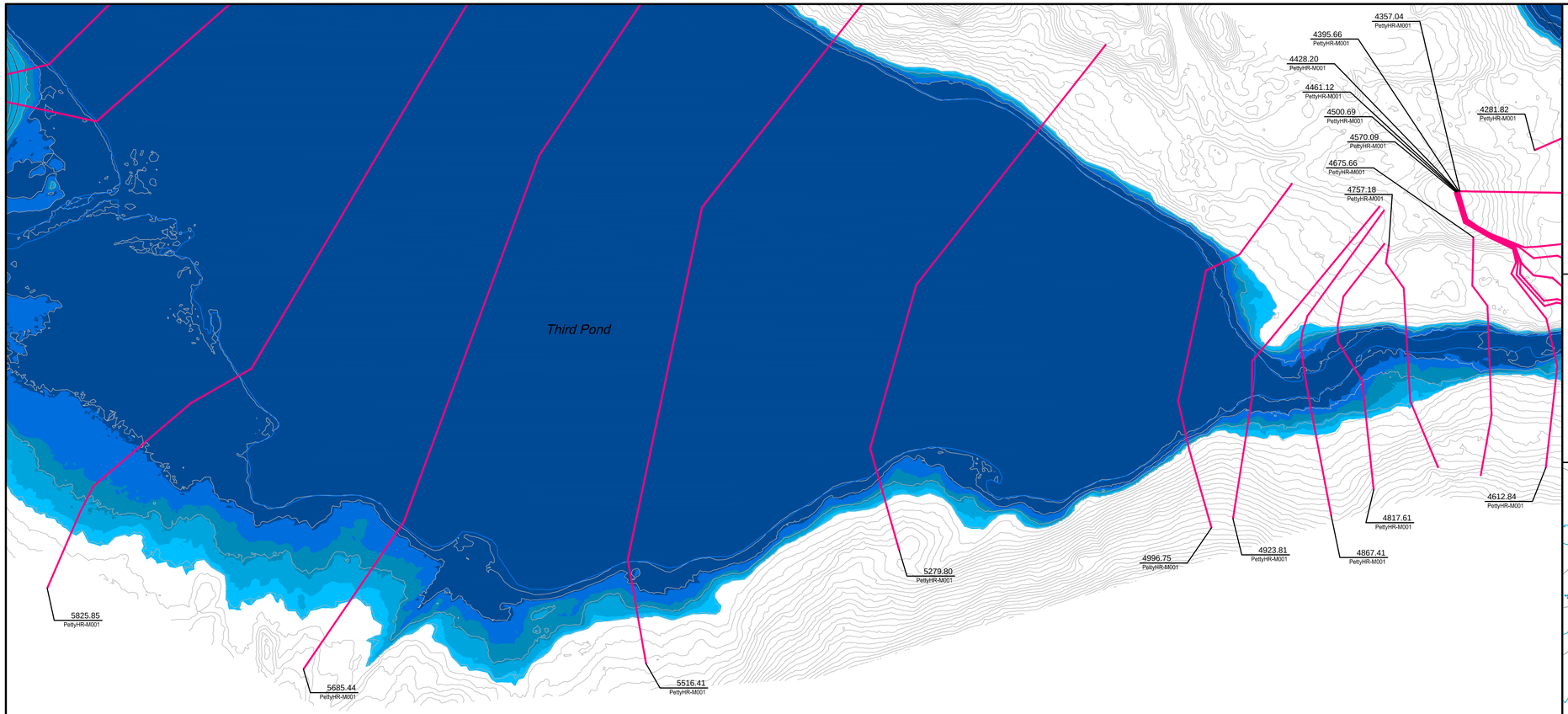
CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 5 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(1--5)-FD.dwg

Mar 25/13 – richard.bartolo



Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

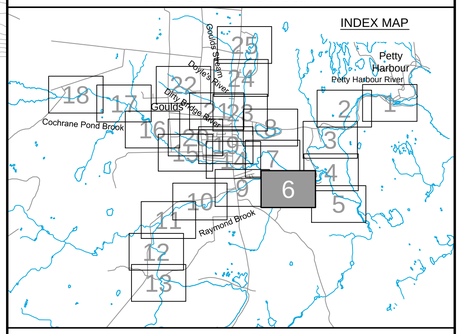
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number
Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 6 of 25

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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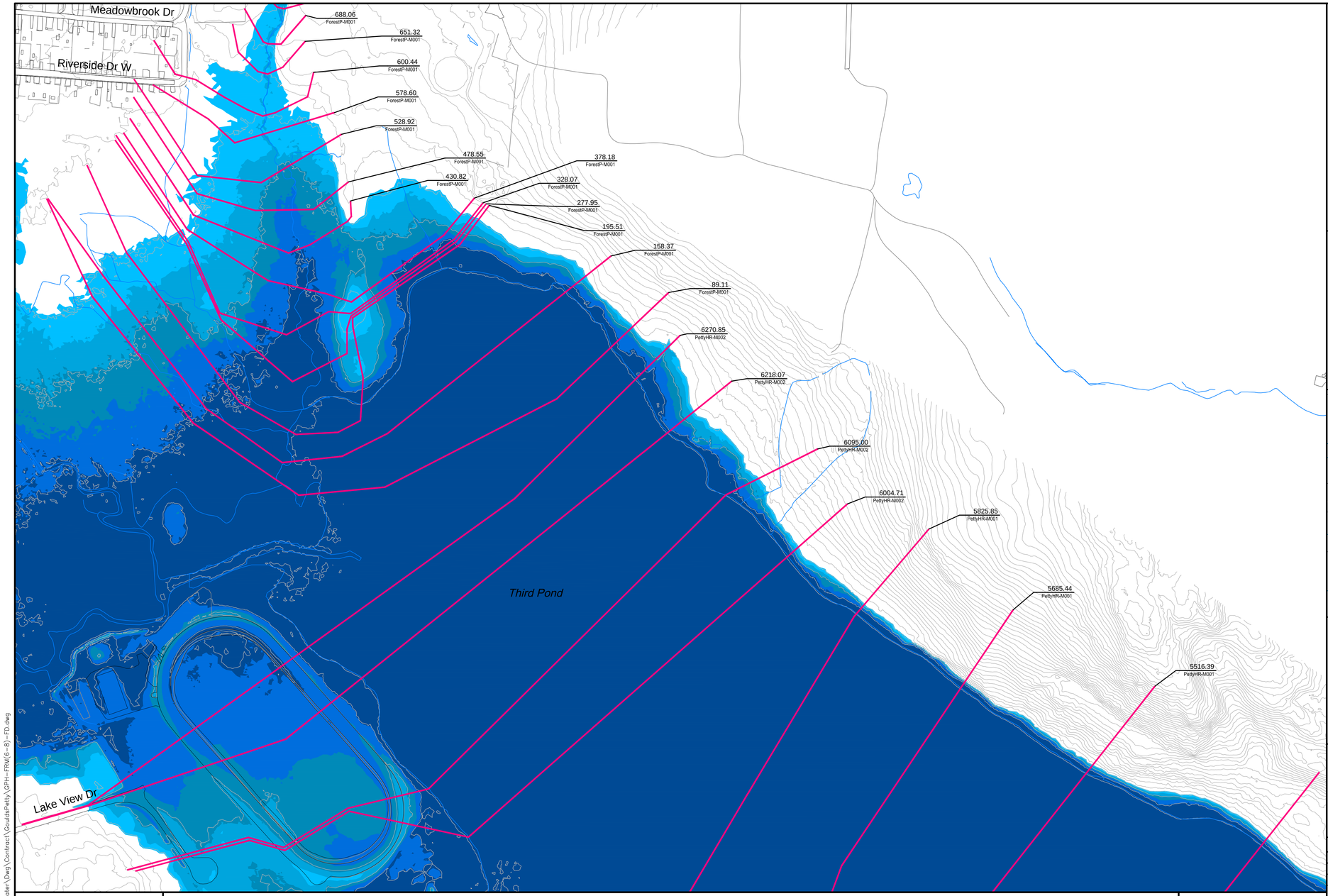
Mar 25/13 – richard.bartolo



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1:100 AEP Inundation Depth Mapping
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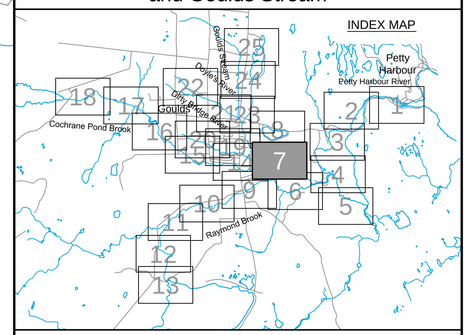
INDEX MAP



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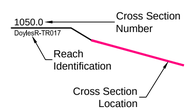

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 7 of 25

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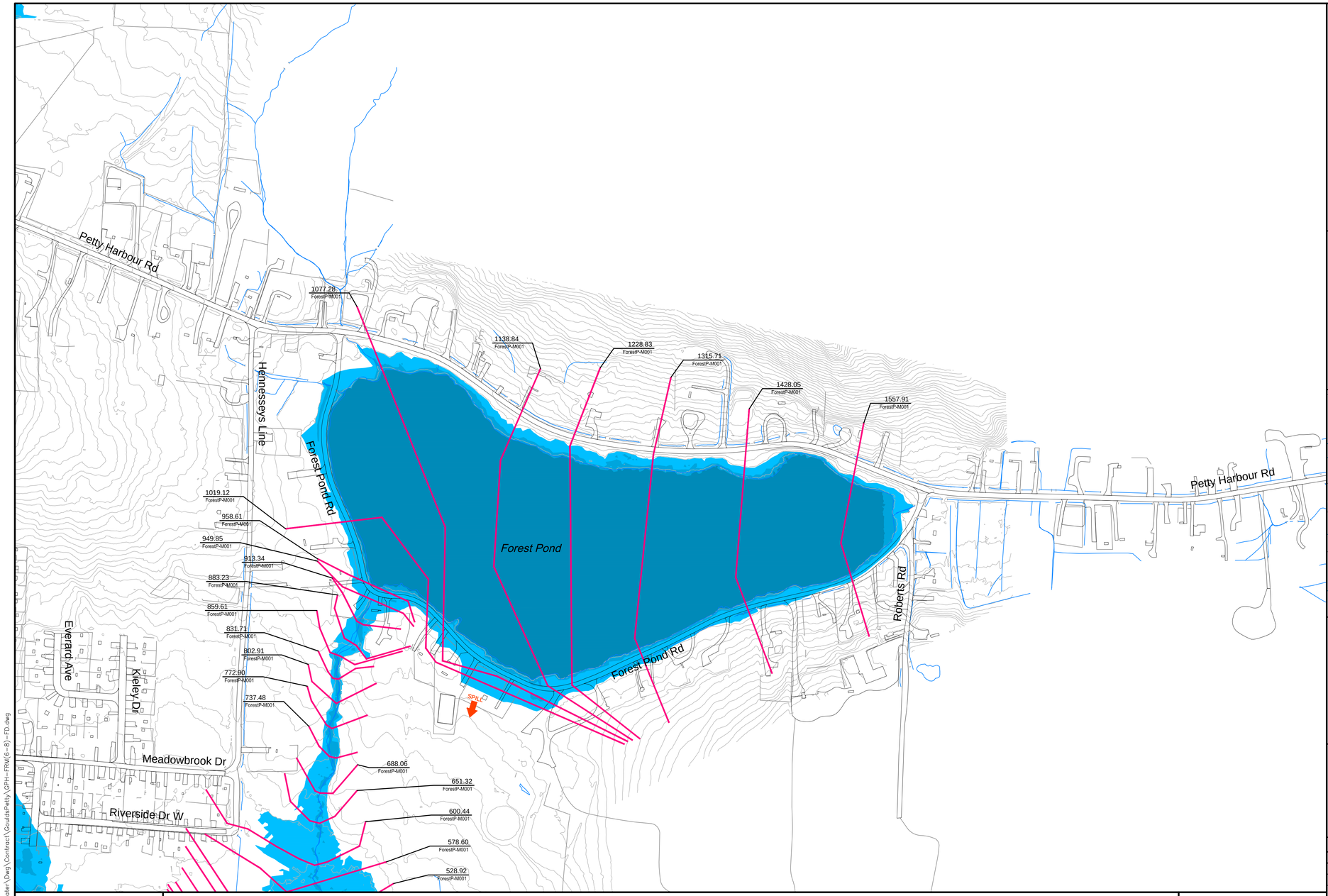

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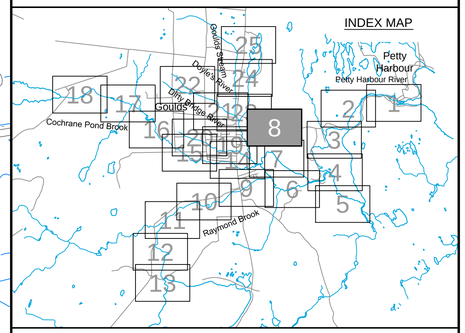
INDEX MAP



Cross Section Label

1050.0 Doyles8-TR017
- Cross Section Number
- Reach Identification
- Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

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REVISIONS

No.	Description	BY	DATE

Sheet 8 of 25

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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Third Pond

Lake View Dr

Main Rd

Shoal Bay Rd

Alexis Pl

816.68 RaymondB-M001
841.89 RaymondB-M001
892.34 RaymondB-M001
866.25 RaymondB-M001
916.70 RaymondB-M001
942.15 RaymondB-M001
976.73 RaymondB-M001
999.99 RaymondB-M001
1116.25 RaymondB-M001
1148.70 RaymondB-M001
1166.20 RaymondB-M001
1189.75 RaymondB-M001
1216.25 RaymondB-M001
1252.39 RaymondB-M001
1066.09 RaymondB-M001
1035.68 RaymondB-M001
716.25 RaymondB-M001
615.86 RaymondB-M001
565.77 RaymondB-M001
766.25 RaymondB-M001
520.15 RaymondB-M001
675.00 RaymondB-M001
468.54 RaymondB-M001
429.18 RaymondB-M001
366.25 RaymondB-M001
341.79 RaymondB-M001
5825.85 PettyHR-M001
1536.01 RaymondB-M001
1584.49 RaymondB-M001
1630.92 RaymondB-M001
1682.15 RaymondB-M001
1733.38 RaymondB-M001
1784.61 RaymondB-M001
1835.84 RaymondB-M001
1885.73 RaymondB-M001
1950.22 RaymondB-M001
1989.18 RaymondB-M001
1303.54 RaymondB-M001
1323.54 RaymondB-M001
1372.05 RaymondB-M001
1425.99 RaymondB-M001
1477.96 RaymondB-M001

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Department of Environment and Conservation
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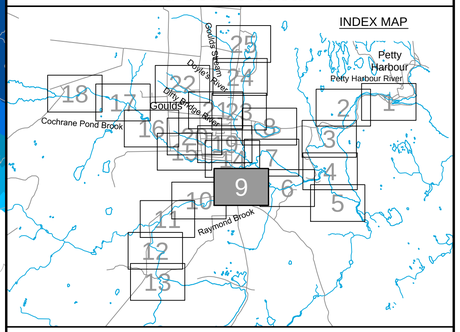
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5 - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 9 of 25

Mar 25/13 – richard.bartolo

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Goulds\Petty Harbour

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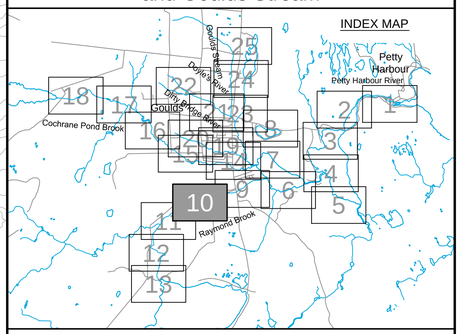
INDEX MAP



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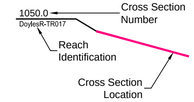

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

Sheet 10 of 25

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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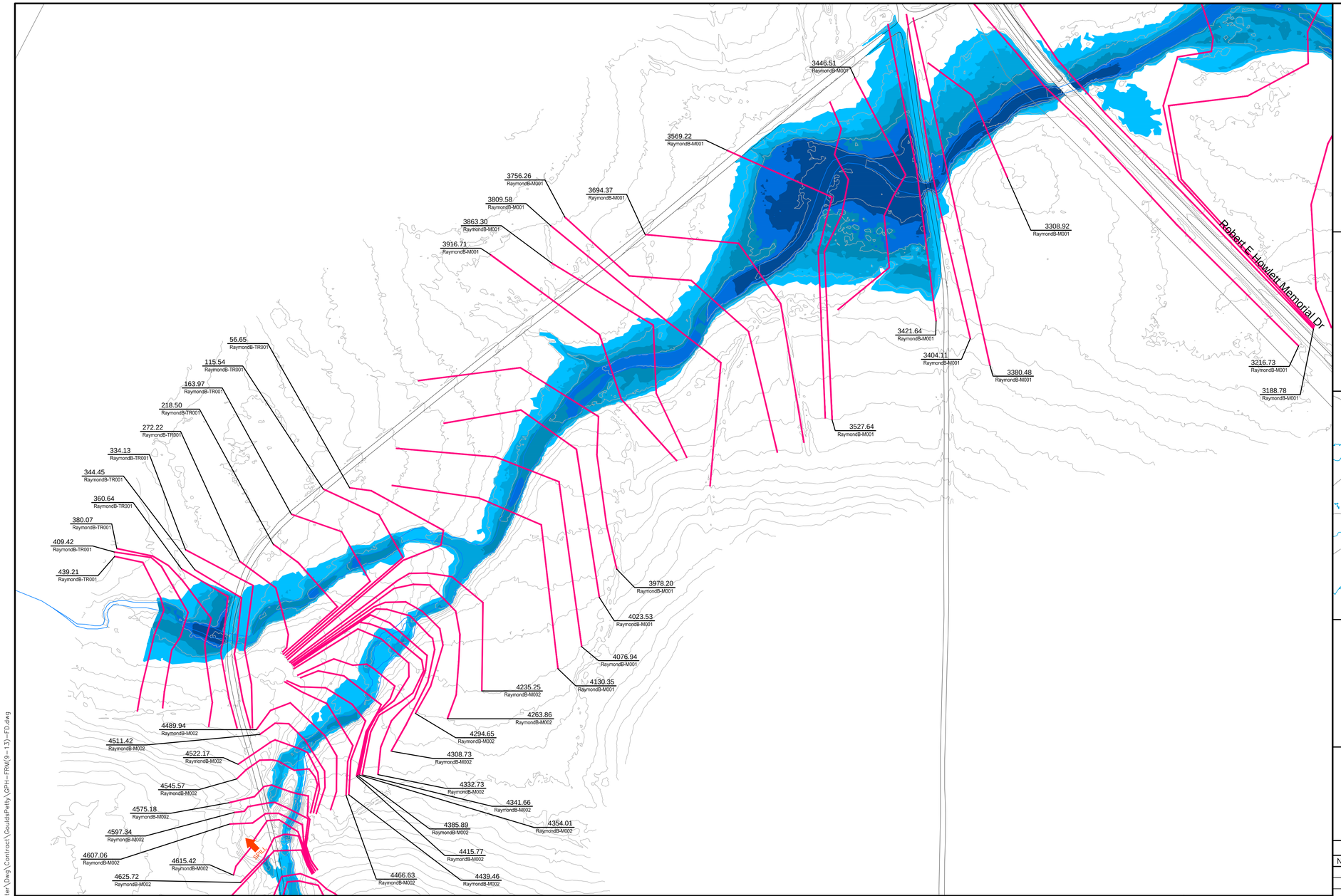
Mar 25/13 – richard.bartolo



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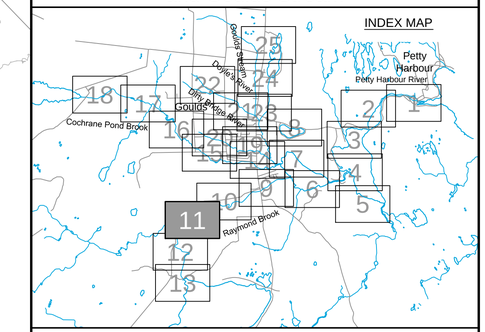

Cross Section Label

1050.0 — Cross Section Number
DoylesB-TR017 — Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 11 of 25

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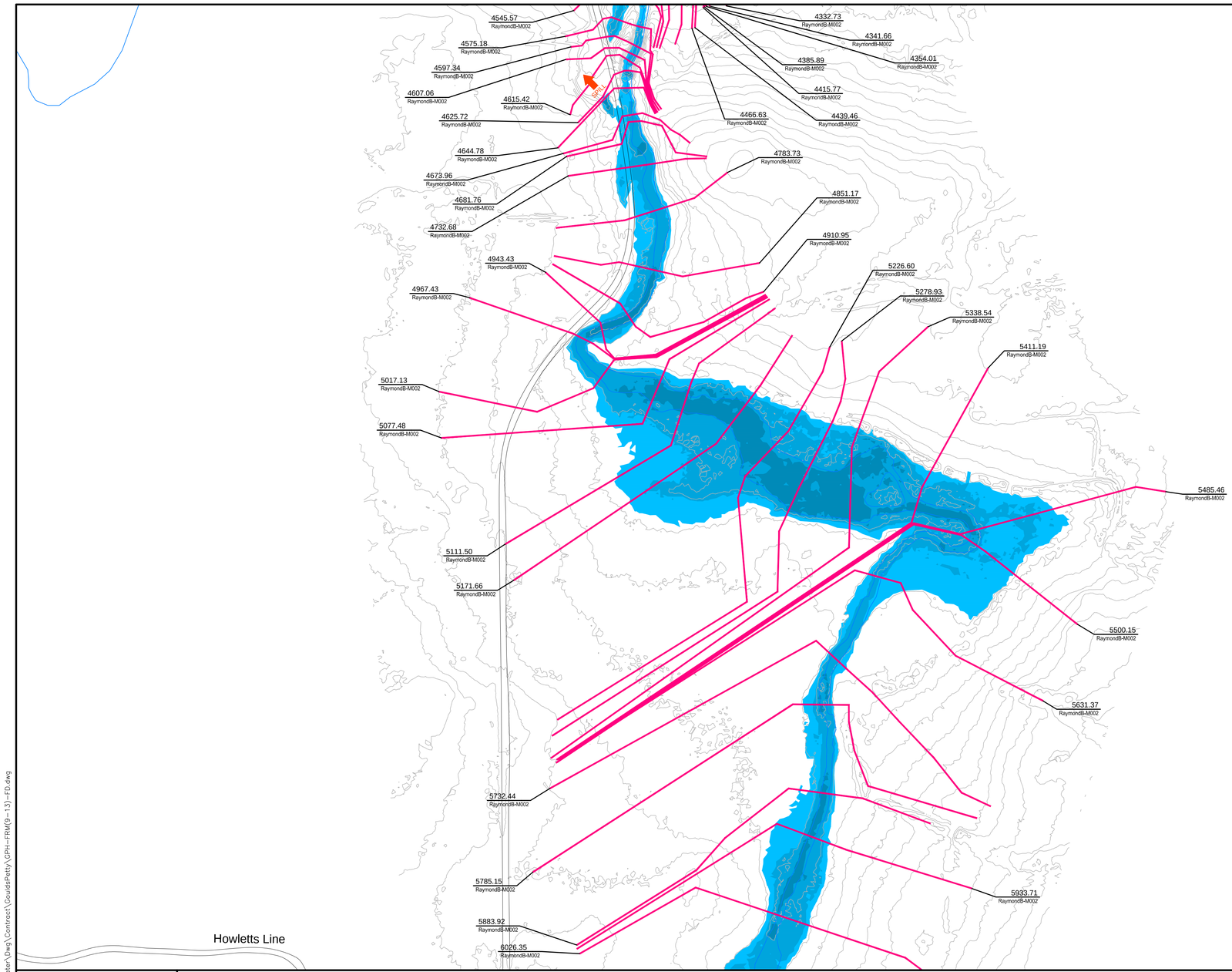
Mar 25/13 – richard.bartolo



Newfoundland Labrador

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and Goulds Stream

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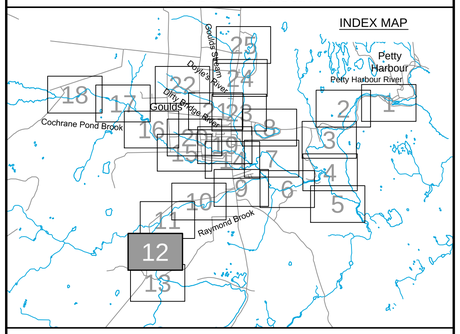

Cross Section Label

1050.0
DoylesR-TR017

- Cross Section Number
- Reach Identification
- Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 12 of 25

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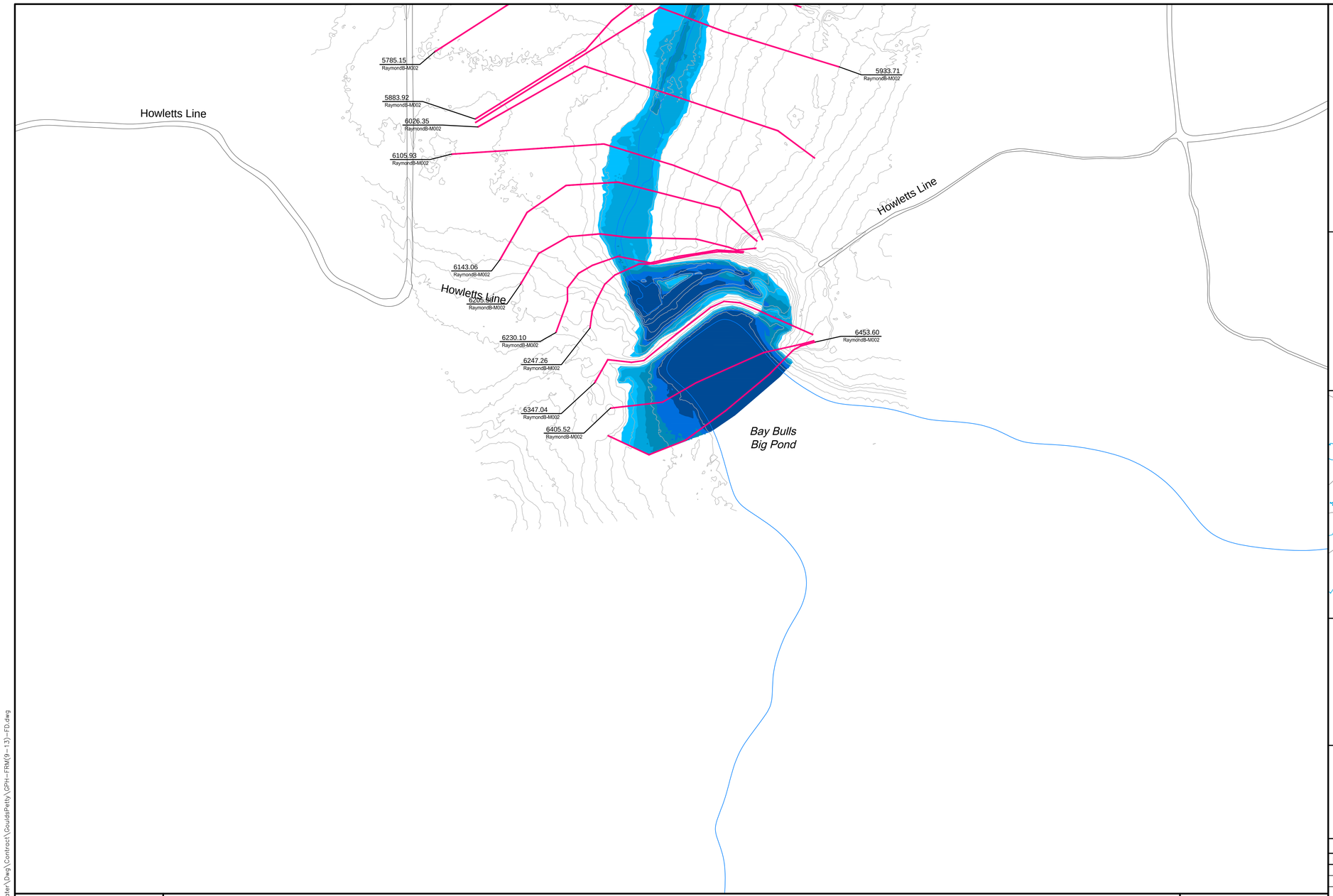

Newfoundland Labrador

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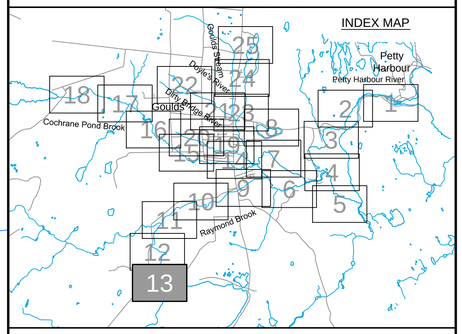

Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 13 of 25

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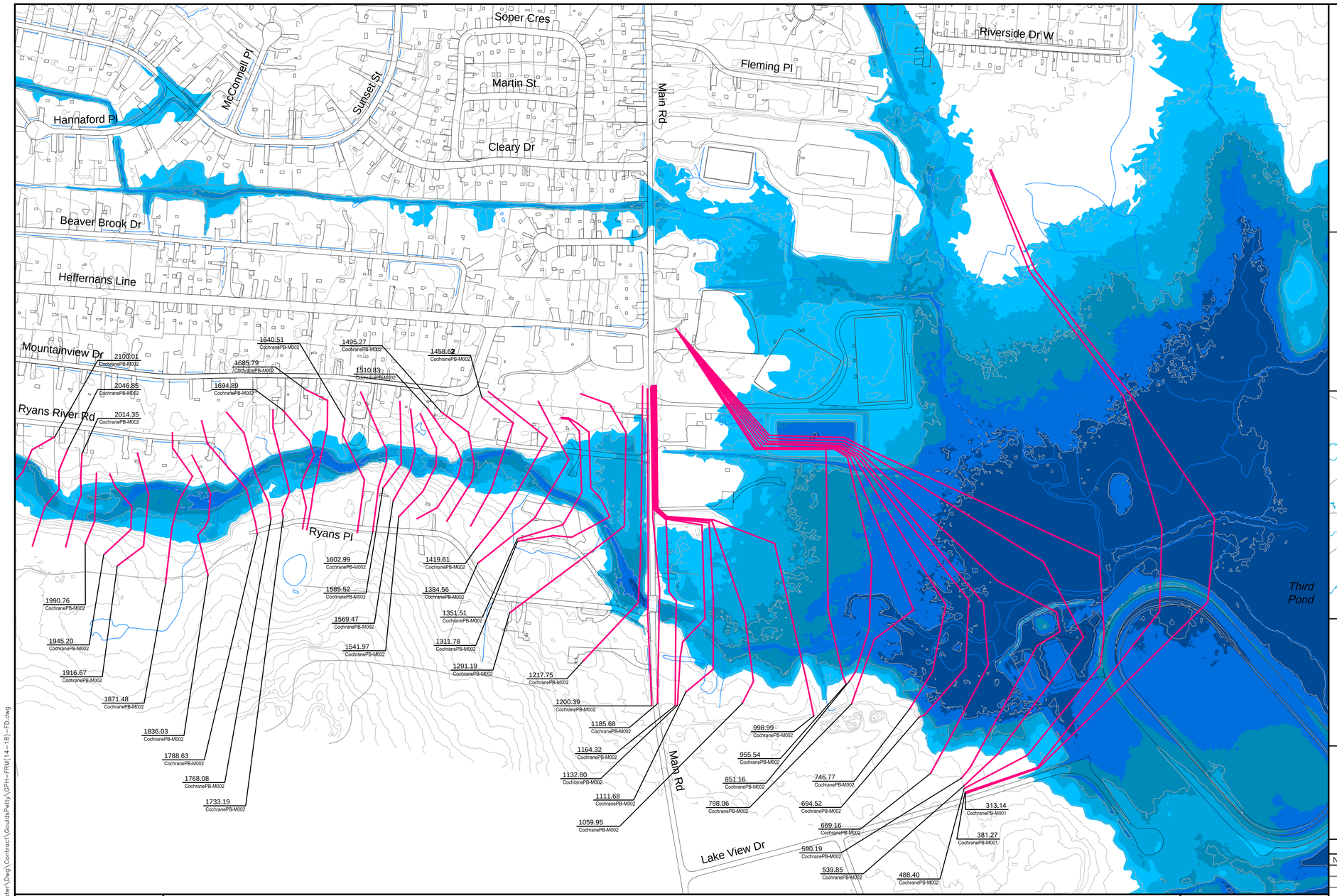
Mar 25/13 – richard.bartolo



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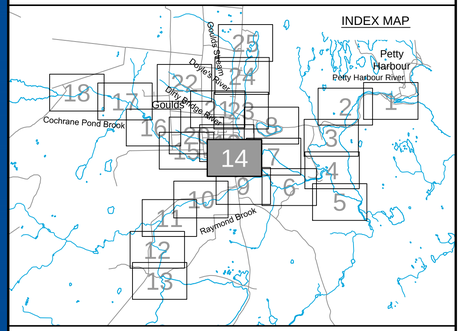
INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
- Cross Section Number
- Reach Identification
- Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

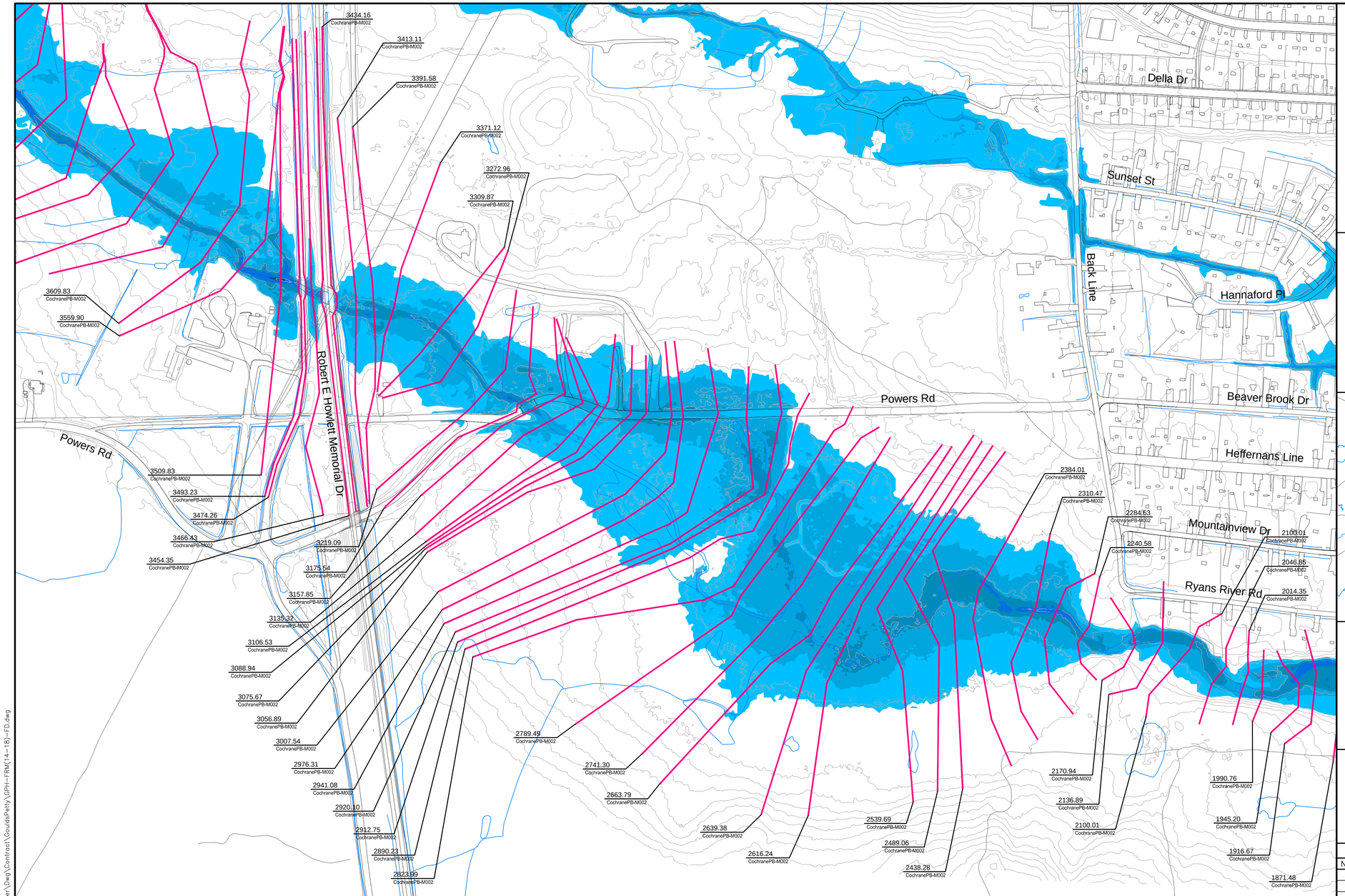
CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 14 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(14-18)-FD.dwg

Mar 25/13 – richard.bartolo



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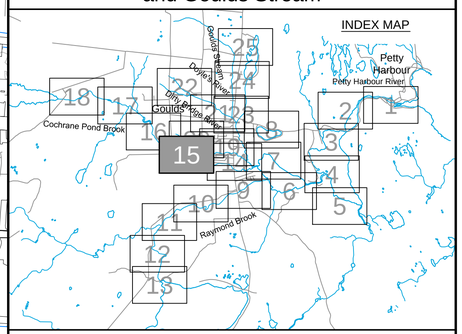

Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

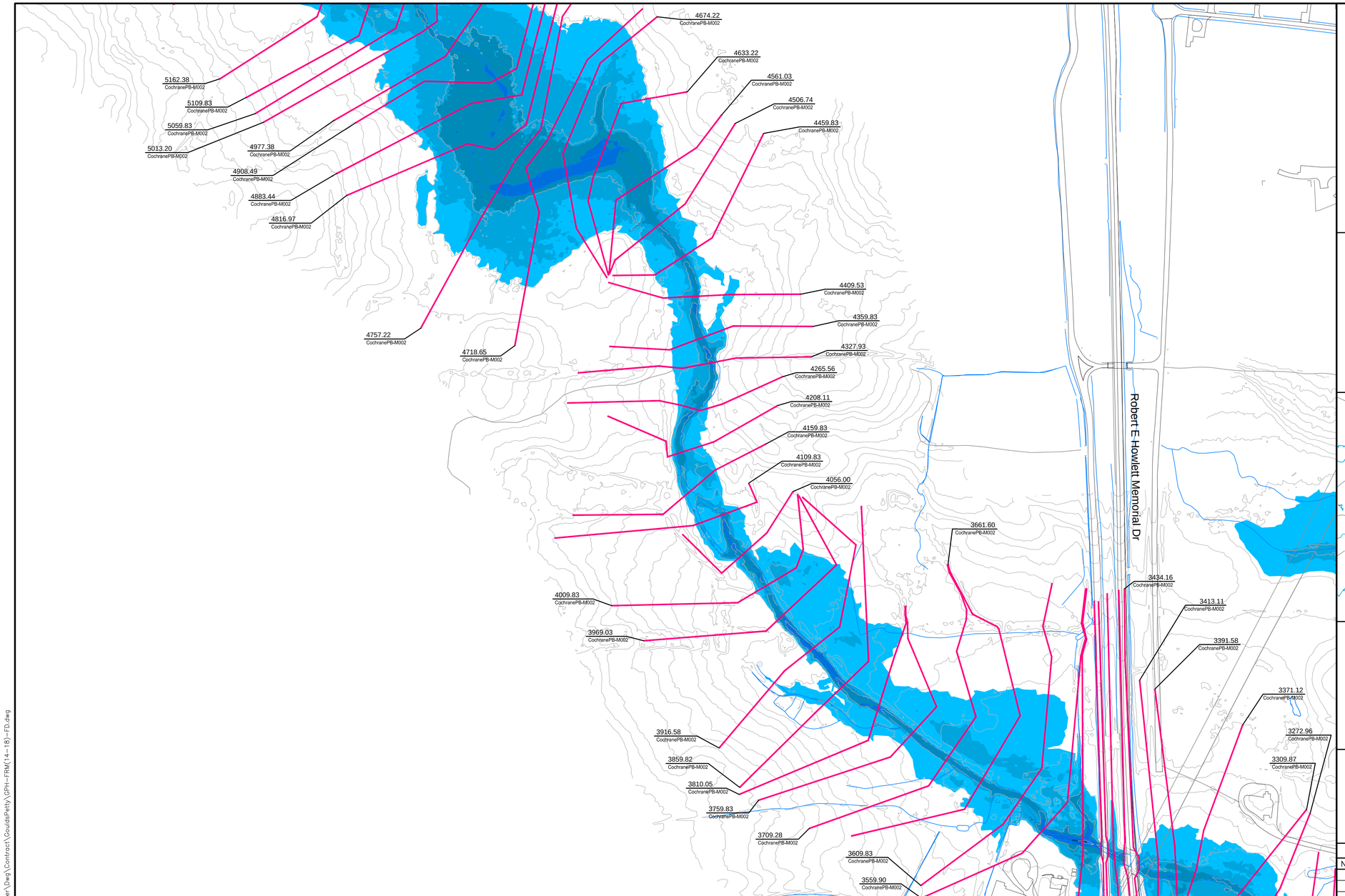
CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 15 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(14-18)-FD.dwg

Mar 25/13 – richard.bartolo



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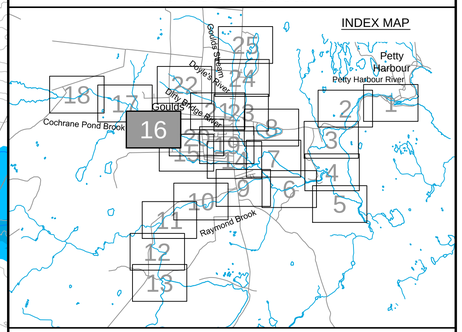
INDEX MAP



Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

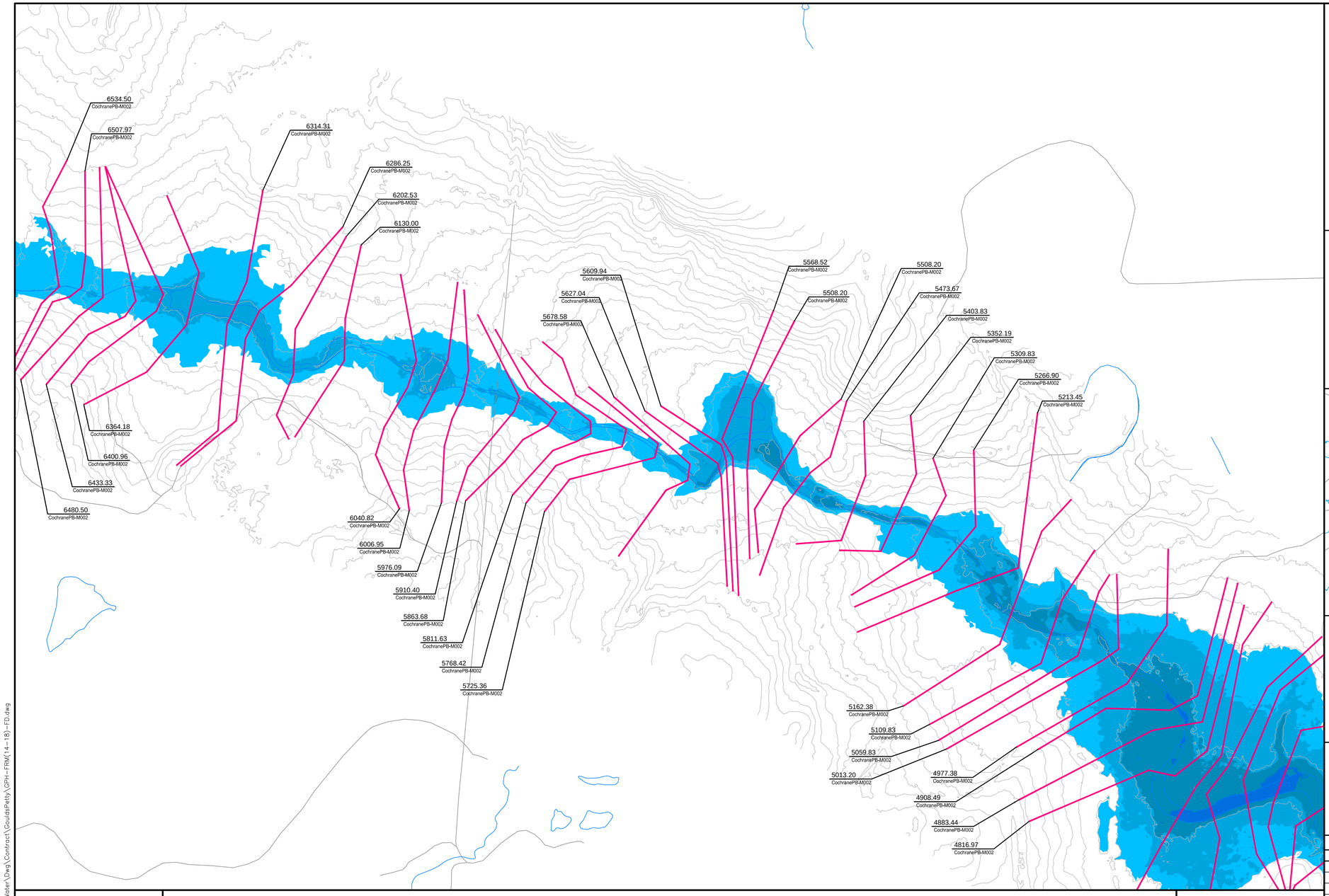
NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 16 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(14-18)-FD.dwg

Mar 25/13 – richard.bartolo



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Water Resource Management Division

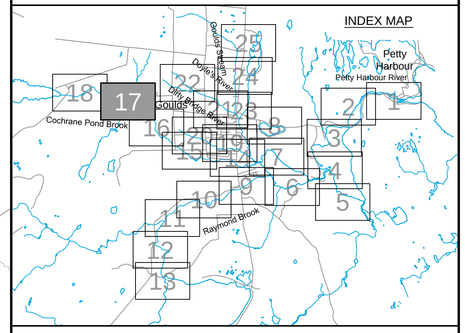
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 17 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(14-18)-FD.dwg

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Cochrane Pond Rd

6985.71 CochranePB-M002
7041.67 CochranePB-M002
7108.13 CochranePB-M002
6955.25 CochranePB-M002
6863.52 CochranePB-M002
7208.54 CochranePB-M002
7253.62 CochranePB-M002
7329.89 CochranePB-M002
6840.09 CochranePB-M002
6808.25 CochranePB-M002
6534.50 CochranePB-M002
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6630.83 CochranePB-M002
7450.86 CochranePB-M002
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7515.77 CochranePB-M002
7609.21 CochranePB-M002
7695.32 CochranePB-M002
7738.34 CochranePB-M002
7812.33 CochranePB-M002
7847.08 CochranePB-M002
7964.49 CochranePB-M002
7901.64 CochranePB-M002
8105.53 CochranePB-M002
8065.47 CochranePB-M002
8050.98 CochranePB-M002
8024.09 CochranePB-M002
8013.06 CochranePB-M002
8004.70 CochranePB-M002
7995.14 CochranePB-M002
6364.18 CochranePB-M002
6400.96 CochranePB-M002
6433.33 CochranePB-M002
6480.50 CochranePB-M002

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Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

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Climate Change Scenario - 2020
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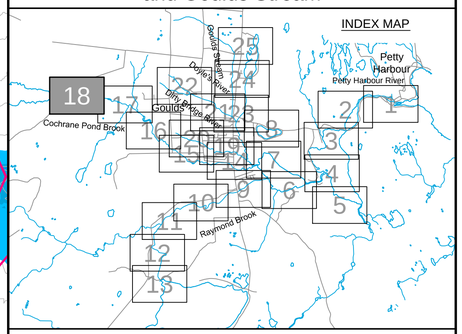
Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 18 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(14-18)-FD.dwg

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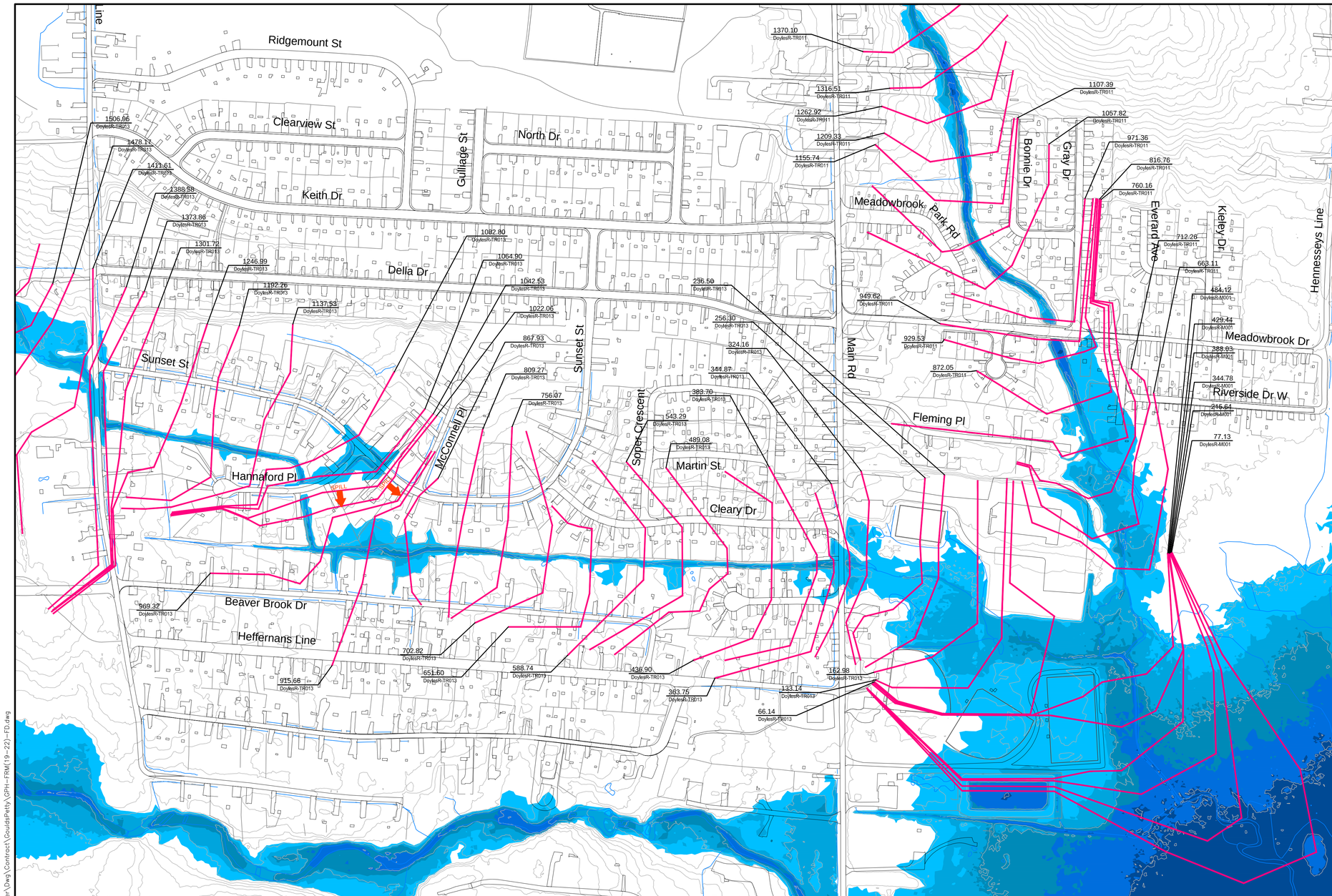

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Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

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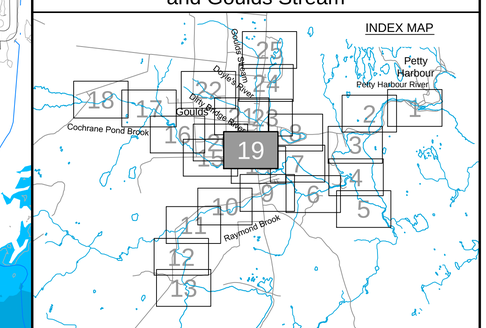
Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream



Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

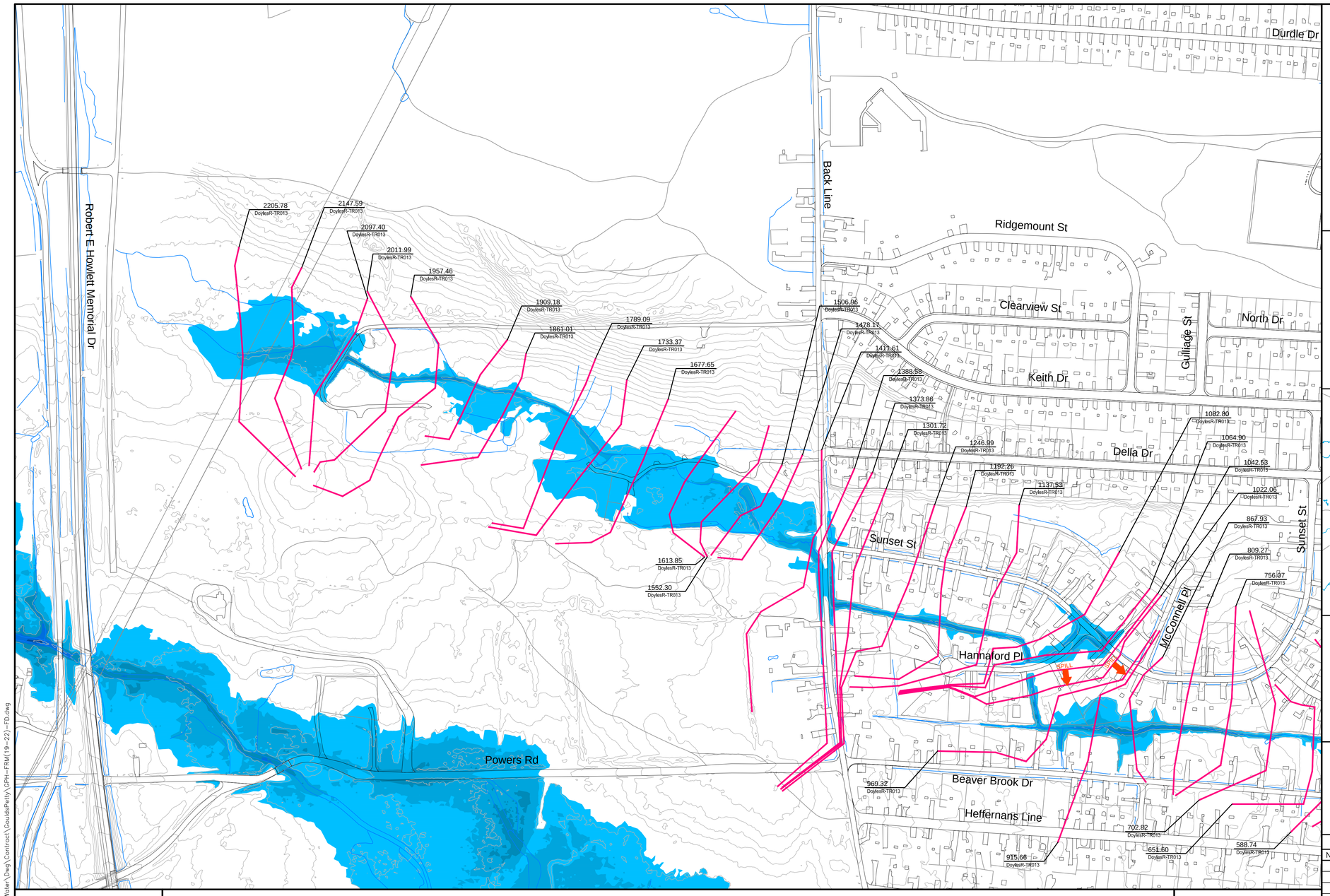
CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 19 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(19-22)-FD.dwg

Mar 25/13 – richard.bartolo



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Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

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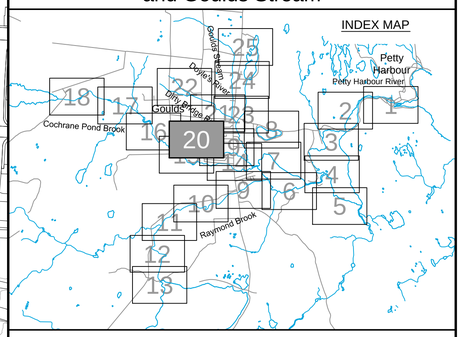
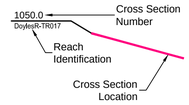
Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label



1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 20 of 25

P:\Work\TA11127335\Water\Dwg\Contract\Goulds\Petty\GPH-FRM(19-22)-FD.dwg

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Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

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AMEC (Maximum IDF Relationship)

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Petty Harbour Rivers,
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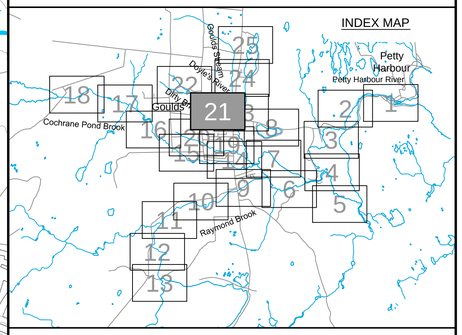
and Goulds Stream

INDEX MAP



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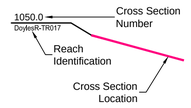

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

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Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 21of 25

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

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AMEC (Maximum IDF Relationship)

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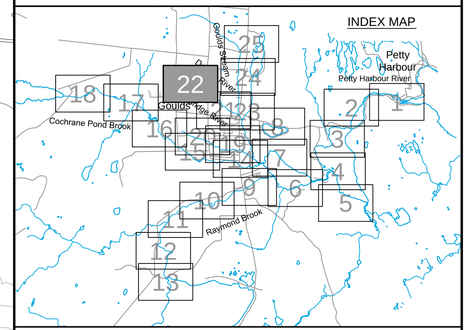
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
- Cross Section Number
- Reach Identification
- Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 22 of 25

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(19-22)-FD.dwg

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AMEC (Maximum IDF Relationship)

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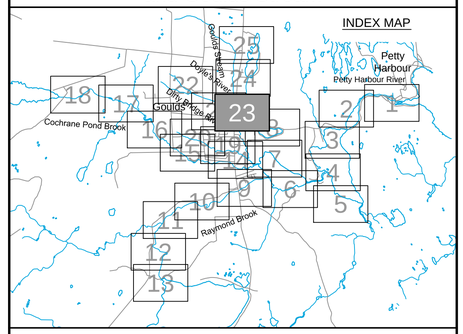
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 — DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 23 of 25

MTMNAD83
ZONE 1

Scale 1:2500

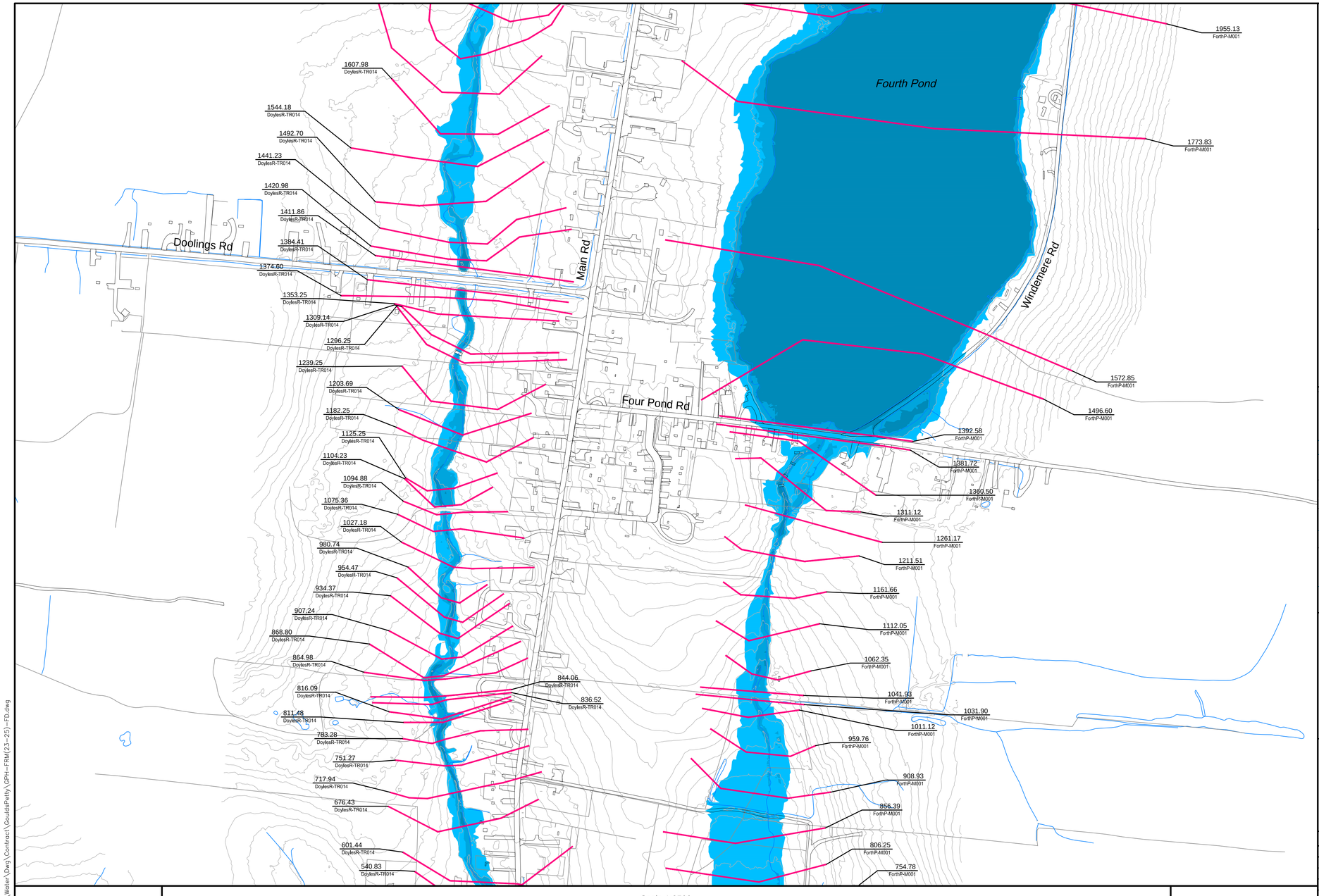
Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(23-25)-FD.dwg

Mar 25/13 – richard.bartolo



Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

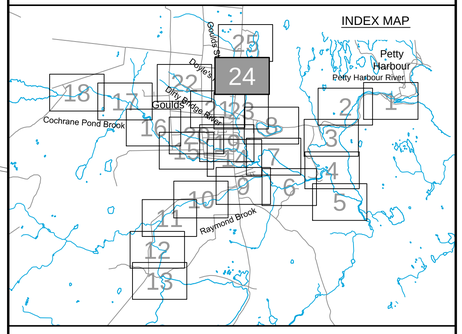
Department of Environment and Conservation
Water Resource Management Division

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
- Cross Section Number
- Reach Identification
- Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 24 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(23-25)-FD.dwg

Mar 25/13 – richard.bartolo

Main Rd

Viquers Rd

Fourth Pond

Fourth Pond

2616.90
FortnP-M001

2528.45
FortnP-M001

2324.32
FortnP-M001

2187.52
FortnP-M001

1955.13
FortnP-M001

2057.49
DoylesR-TR014

2037.89
DoylesR-TR014

1988.88
DoylesR-TR014

1975.46
DoylesR-TR014

1936.56
DoylesR-TR014

1904.43
DoylesR-TR014

1867.03
DoylesR-TR014

1801.50
DoylesR-TR014

1765.57
DoylesR-TR014

1703.29
DoylesR-TR014

1657.91
DoylesR-TR014

1607.98
DoylesR-TR014

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Newfoundland Labrador

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Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

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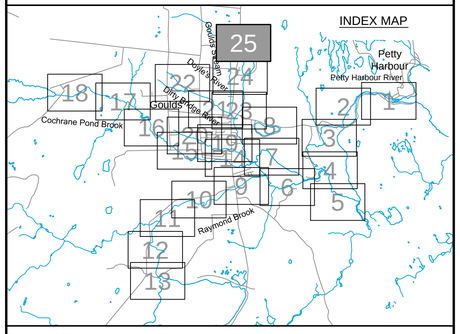
Climate Change Scenario - 2020
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

Sheet 25 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(23-25)-FD.dwg

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APPENDIX G

1:20 AND 1:100 AEP FLOOD RISK MAPPING – 2050

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Petty Harbour Rd
Cribbies Rd
Skinners Hill
Main Rd
Maddox Cove Rd
Southside Rd

1203.34 PettyHR-M001 — 33.99 / 33.86
1164.99 PettyHR-M001 — 33.05 / 32.82
1153.41 PettyHR-M001 — 31.93 / 31.72
1125.74 PettyHR-M001 — 30.64 / 30.47
1090.65 PettyHR-M001 — 29.44 / 29.27
1059.48 PettyHR-M001 — 28.23 / 28.08
1048.77 PettyHR-M001 — 27.63 / 27.45
1021.54 PettyHR-M001 — 27.16 / 26.96
1003.30 PettyHR-M001 — 25.23 / 24.78
994.73 PettyHR-M001 — 25.70 / 24.69
961.03 PettyHR-M001 — 24.78 / 24.70
944.13 PettyHR-M001 — 23.77 / 23.42
924.94 PettyHR-M001 — 22.91 / 22.50
905.47 PettyHR-M001 — 22.16 / 21.71
883.86 PettyHR-M001 — 21.42 / 20.85
859.53 PettyHR-M001 — 19.65 / 19.27
836.76 PettyHR-M001 — 15.23 / 14.65
823.70 PettyHR-M001 — 14.58 / 14.30
811.96 PettyHR-M001 — 14.87 / 14.61
796.92 PettyHR-M001 — 14.21 / 14.05
784.11 PettyHR-M001 — 13.84 / 13.58
769.96 PettyHR-M001 — 12.75 / 12.41
748.76 PettyHR-M001 — 11.01 / 10.62
720.33 PettyHR-M001 — 9.22 / 9.04
707.57 PettyHR-M001 — 8.37 / 8.20
685.99 PettyHR-M001 — 7.05 / 6.81
666.04 PettyHR-M001 — 7.65 / 6.59
652.51 PettyHR-M001 — 6.19 / 6.04
633.61 PettyHR-M001 — 5.49 / 5.35
622.83 PettyHR-M001 — 5.35 / 5.17
577.97 PettyHR-M001 — 3.82 / 3.68
525.57 PettyHR-M001 — 3.45 / 3.05
491.94 PettyHR-M001 — 3.34 / 2.94
478.84 PettyHR-M001 — 2.82 / 2.82
439.27 PettyHR-M001 — 2.85 / 2.83
405.68 PettyHR-M001 — 2.84 / 2.83
367.80 PettyHR-M001 — 2.85 / 2.83
338.85 PettyHR-M001 — 2.85 / 2.83
305.38 PettyHR-M001 — 2.84 / 2.83
269.29 PettyHR-M001 — 2.84 / 2.83
238.18 PettyHR-M001 — 2.83 / 2.83
201.25 PettyHR-M001 — 2.84 / 2.83
150.84 PettyHR-M001 — 2.84 / 2.83
105.74 PettyHR-M001 — 2.84 / 2.83
91.29 PettyHR-M001 — 2.84 / 2.83
20.04 PettyHR-M001 — 2.84 / 2.83
12.04 PettyHR-M001 — 2.82 / 2.82
1467.14 PettyHR-M001 — 52.44 / 52.10
1457.30 PettyHR-M001 — 52.13 / 51.79
1444.51 PettyHR-M001 — 49.47 / 49.28
1415.17 PettyHR-M001 — 50.16 / 49.86
1402.15 PettyHR-M001 — 49.69 / 49.34
1385.41 PettyHR-M001 — 45.00 / 44.68
1370.82 PettyHR-M001 — 43.87 / 43.46
1362.66 PettyHR-M001 — 42.45 / 41.92
1336.64 PettyHR-M001 — 41.60 / 41.35
1309.35 PettyHR-M001 — 39.89 / 39.66
1279.20 PettyHR-M001 — 37.54 / 37.18
1258.06 PettyHR-M001 — 36.83 / 36.34
1221.17 PettyHR-M001 — 34.76 / 34.51

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Water Resource Management Division

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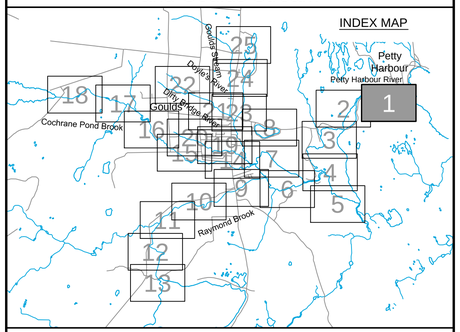
Flood Risk Map
Goulds\Petty Harbour

Climate Change Scenario - 2050
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1:100 AEP Flood Water Level (elevation in metres)
172.33 / 171.24
1050.0
DoylesR-TR017
Cross Section Number
Reach Identification
1:20 AEP Flood Water Level (elevation in metres)
Cross Section Location

1:20 AEP Floodline
1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 1 of 25

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

C:\Work\NFLD\GouldsSheets\GPH-FRM(1-5).dwg

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MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres

300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

C:\Work\NFLD\GouldsSheets\GPH-FRM(1-5).dwg

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Petty Harbour Rivers,
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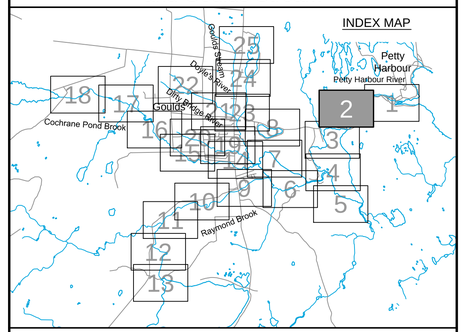

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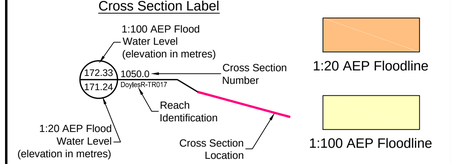

amec

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REVISIONS

No.	Description	BY	DATE

Sheet 2 of 25

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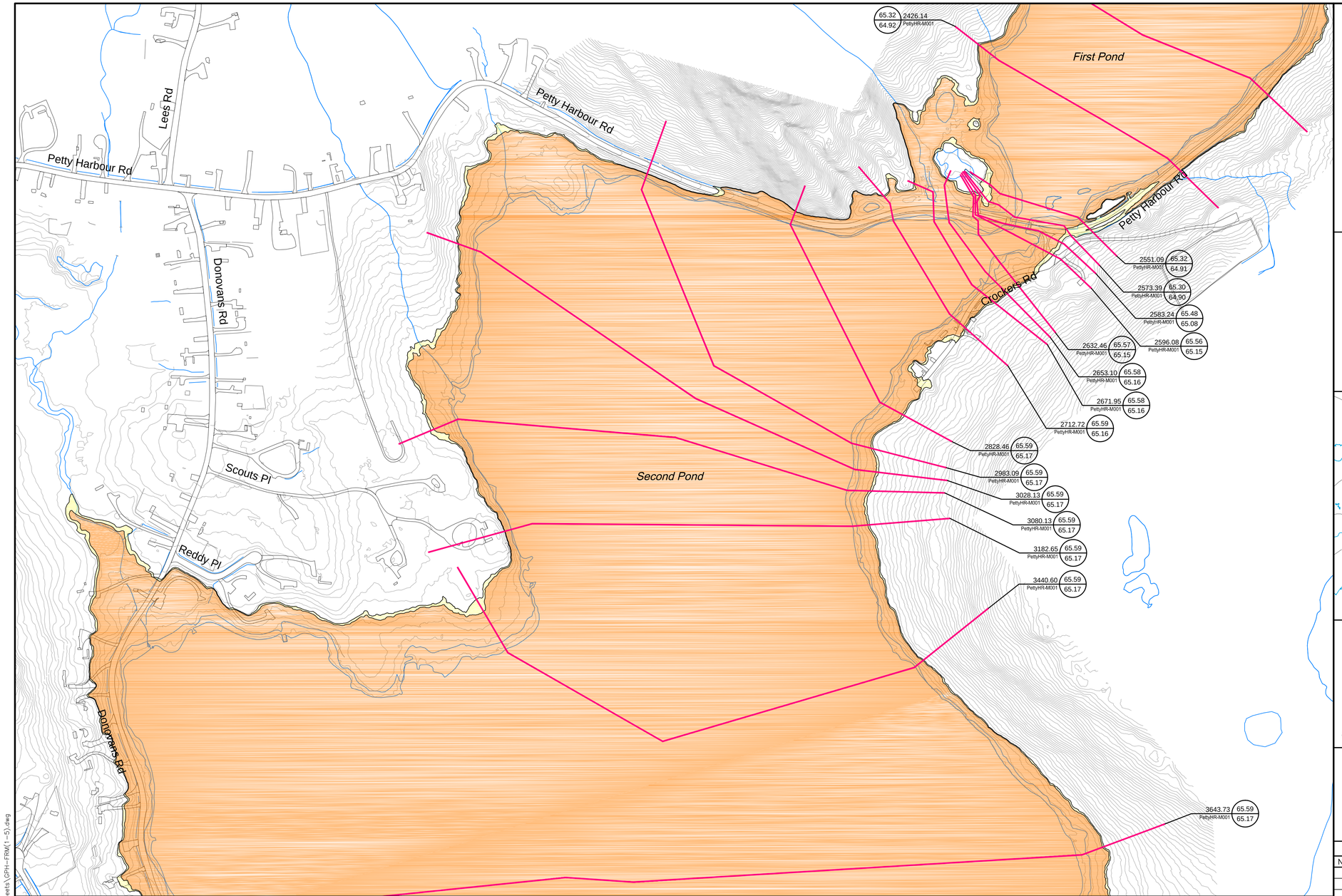

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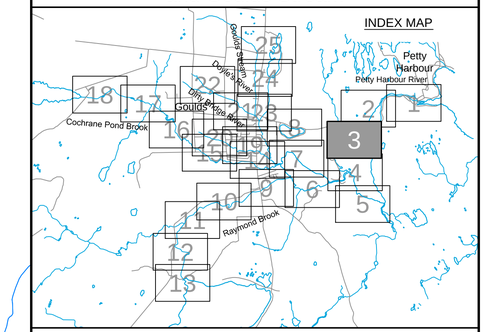

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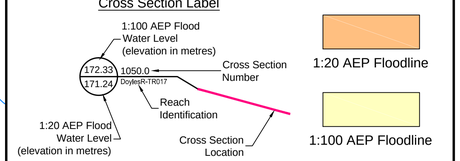

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

N

Sheet 3 of 25

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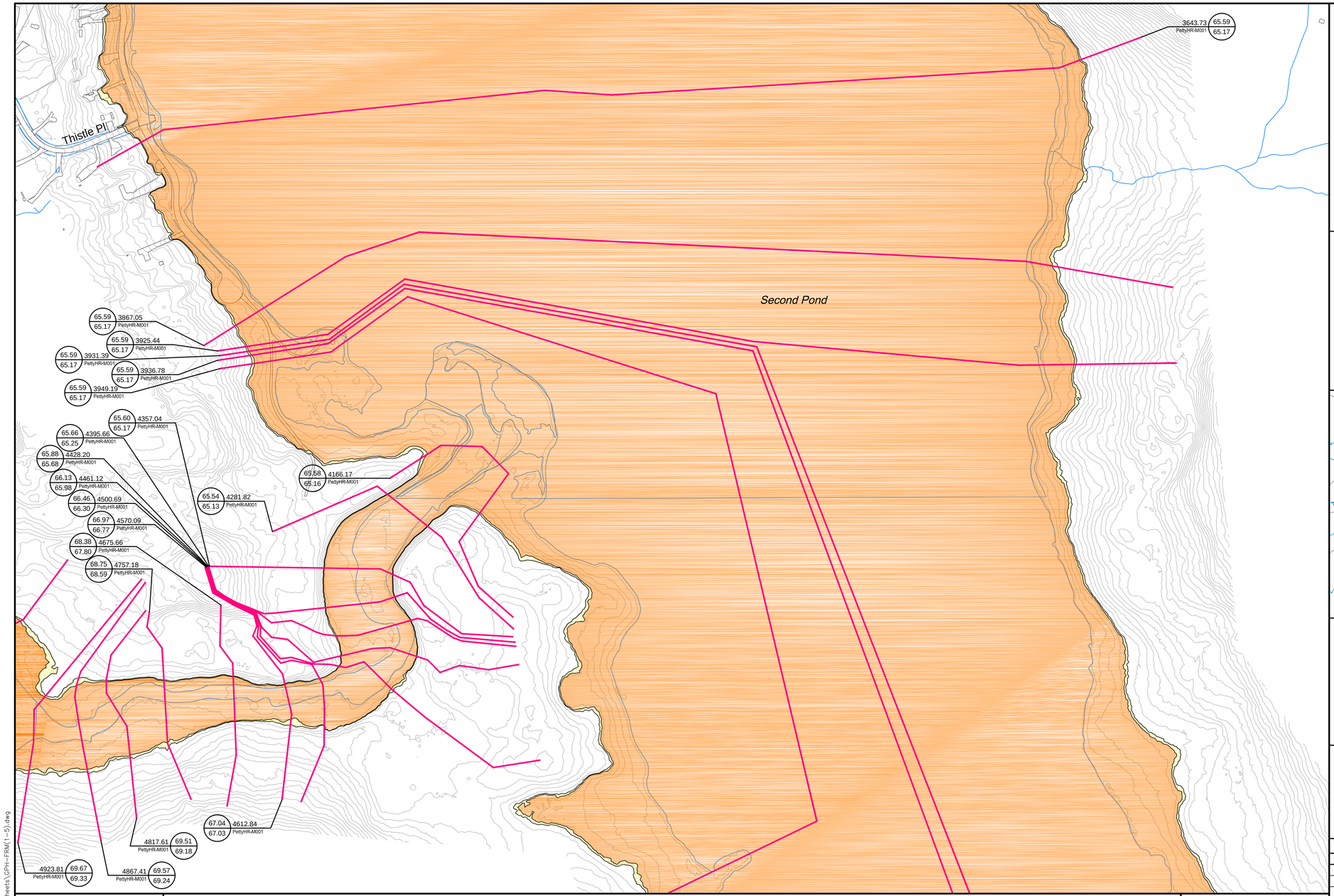

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

C:\Work\WFLD\GouldsSheets\GPH-FRM(1-5).dwg

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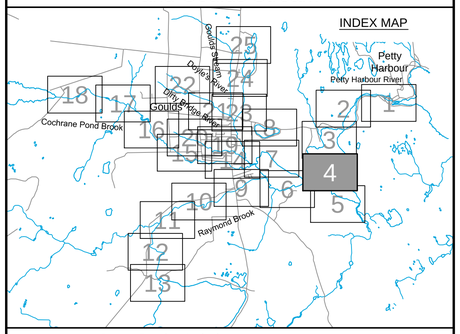

Cross Section Label

1:100 AEP Flood Water Level (elevation in metres)
172.33 / 171.24
1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location
1:20 AEP Flood Water Level (elevation in metres)

1:20 AEP Floodline
1:100 AEP Floodline

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

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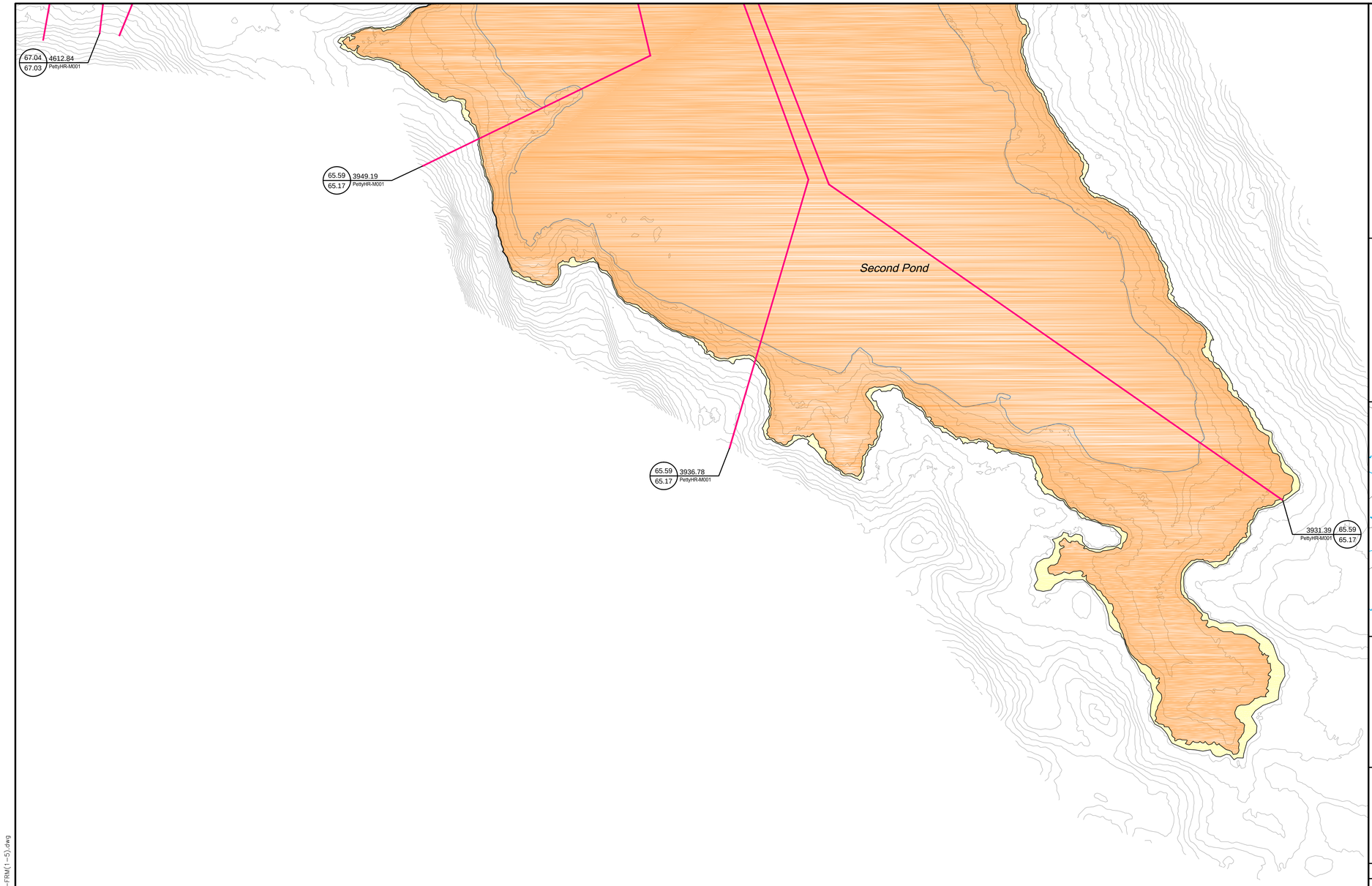

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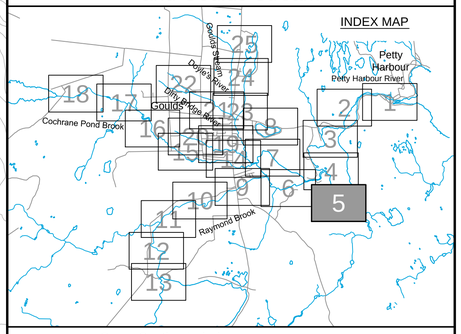
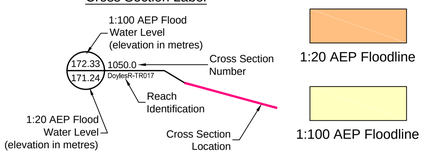


Cross Section Label



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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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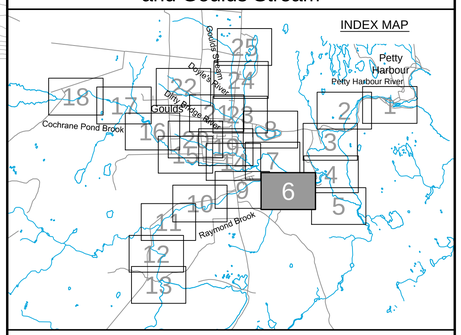
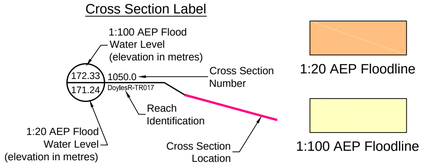


Cross Section Label



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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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Meadowbrook Dr

Riverside Dr W

Third Pond

Lake View Dr

688.06 ForestP-M001 72.43 72.38
651.32 ForestP-M001 71.45 71.41
600.44 ForestP-M001 70.36 70.27
578.60 ForestP-M001 69.93 69.85
528.92 ForestP-M001 69.77 69.41
478.55 ForestP-M001 69.76 69.41
430.82 ForestP-M001 69.76 69.40
378.18 ForestP-M001 69.76 69.40
328.07 ForestP-M001 69.76 69.40
277.95 ForestP-M001 69.76 69.40
195.51 ForestP-M001 69.76 69.40
158.37 ForestP-M001 69.76 69.40
89.11 ForestP-M001 69.76 69.40
6270.85 PettyHR-M002 69.76 69.40
6218.07 PettyHR-M002 69.76 69.40
6095.00 PettyHR-M002 69.76 69.40
6004.71 PettyHR-M002 69.76 69.40
5825.85 PettyHR-M001 69.76 69.40
5685.44 PettyHR-M001 69.76 69.40
5516.39 PettyHR-M001 69.76 69.40

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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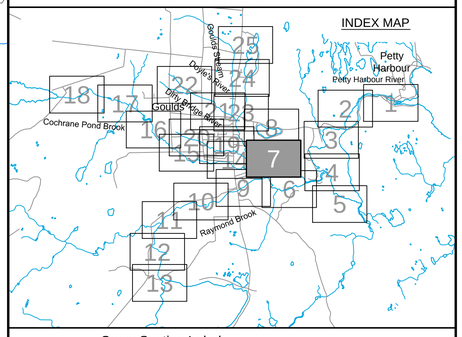

Cross Section Label

1:100 AEP Flood Water Level (elevation in metres)
172.33 / 171.24
1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
1:20 AEP Flood Water Level (elevation in metres)
Cross Section Location

1:20 AEP Floodline
1:100 AEP Floodline

amec

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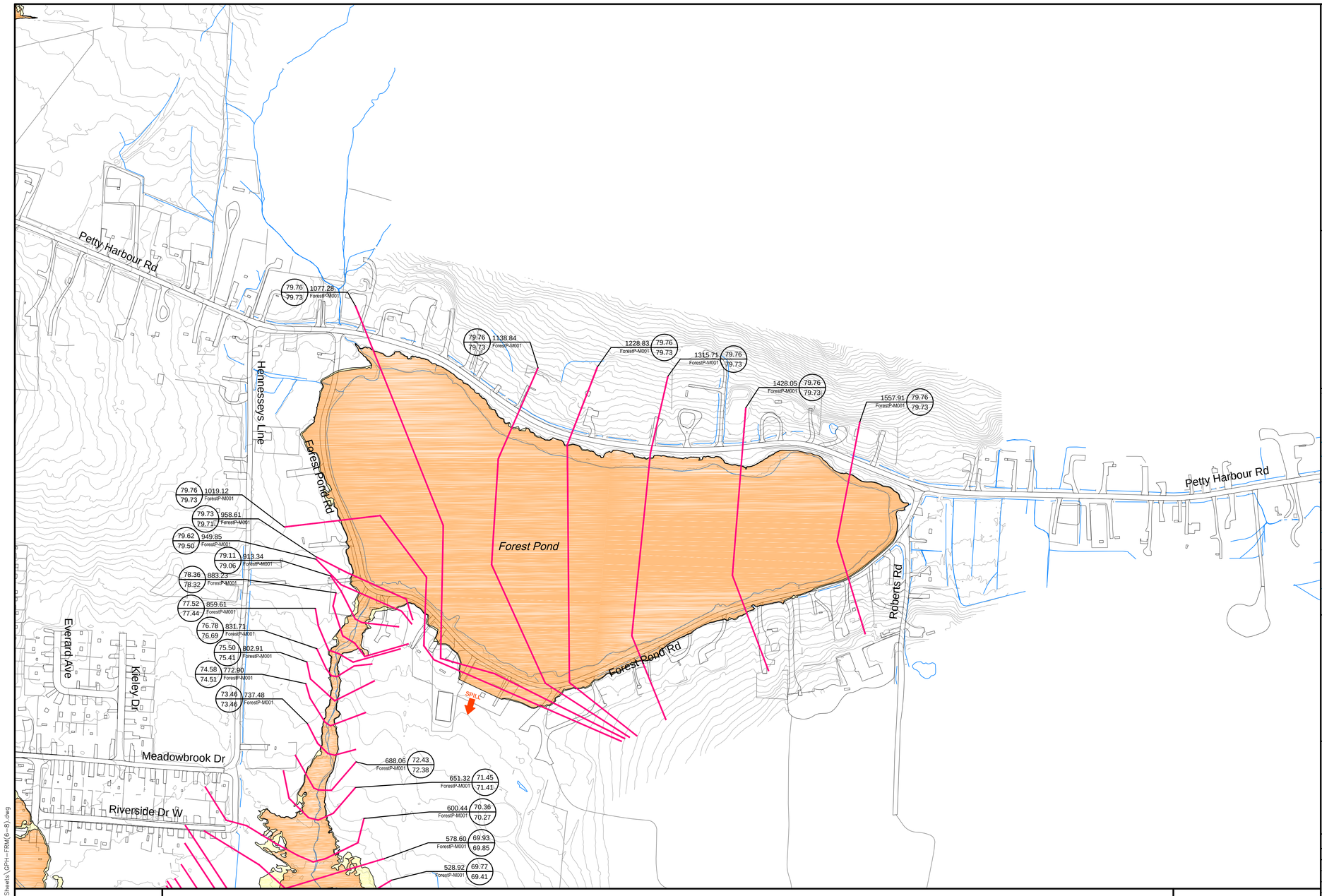
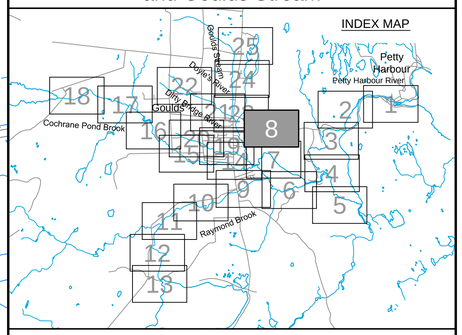


INDEX MAP



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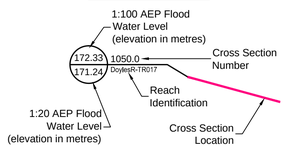

1:20 AEP Floodline

1:100 AEP Floodline

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

N

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Third Pond

Lake View Dr

Main Rd

Shoal Bay Rd

Alexis Pl

71.47 / 71.30 816.68 RaymondB-M001
71.68 / 71.46 841.89 RaymondB-M001
71.89 / 71.74 866.25 RaymondB-M001
71.88 / 71.65 892.34 RaymondB-M001
72.18 / 72.09 916.70 RaymondB-M001
73.29 / 73.17 942.15 RaymondB-M001
74.56 / 74.45 976.73 RaymondB-M001
74.71 / 74.54 999.99 RaymondB-M001
77.21 / 77.06 1116.25 RaymondB-M001
78.06 / 77.95 1148.70 RaymondB-M001
78.27 / 78.16 1166.20 RaymondB-M001
79.12 / 78.98 1189.75 RaymondB-M001
79.81 / 79.75 1216.25 RaymondB-M001
80.33 / 80.09 1252.39 RaymondB-M001
83.34 / 83.12 1536.01 RaymondB-M001
83.79 / 83.61 1584.49 RaymondB-M001
84.01 / 83.74 1630.92 RaymondB-M001
84.51 / 84.34 1682.15 RaymondB-M001
84.92 / 84.67 1733.38 RaymondB-M001
69.97 / 69.80 716.25 RaymondB-M001
70.08 / 69.99 766.25 RaymondB-M001
69.80 / 69.58 675.00 RaymondB-M001
69.79 / 69.45 615.86 RaymondB-M001
69.76 / 69.40 565.77 RaymondB-M001
69.76 / 69.40 520.15 RaymondB-M001
69.76 / 69.40 468.54 RaymondB-M001
69.76 / 69.40 429.18 RaymondB-M001
69.76 / 69.40 366.25 RaymondB-M001
69.76 / 69.40 341.79 RaymondB-M001
5825.85 / PettyHR-M001 69.76 / 69.40
76.85 / 76.60 1066.09 RaymondB-M001
76.49 / 76.22 1035.68 RaymondB-M001
1303.54 RaymondB-M001 80.56 / 80.45
1323.54 RaymondB-M001 81.91 / 81.48
1372.05 RaymondB-M001 82.68 / 82.13
1425.99 RaymondB-M001 82.78 / 82.37
1477.96 RaymondB-M001 82.92 / 82.72
1784.61 RaymondB-M001 85.31 / 85.22
1835.84 RaymondB-M001 86.58 / 86.35
1885.73 RaymondB-M001 87.18 / 86.95
1950.22 RaymondB-M001 87.37 / 87.44
1989.18 RaymondB-M001 88.55 / 88.08

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

C:\Work\NFLD\GouldsSheets\GPH-FRM(9-13).dwg

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and Goulds Stream

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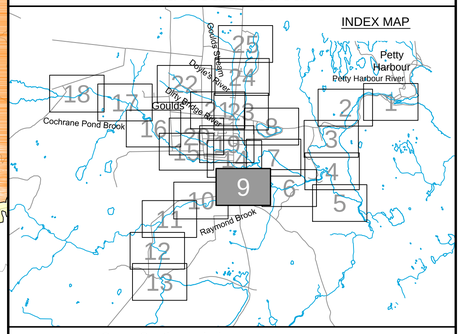

Cross Section Label

1:100 AEP Flood Water Level (elevation in metres)
172.33 / 171.24
1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
1:20 AEP Flood Water Level (elevation in metres)
Cross Section Location

1:20 AEP Floodline
1:100 AEP Floodline

amec

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REVISIONS

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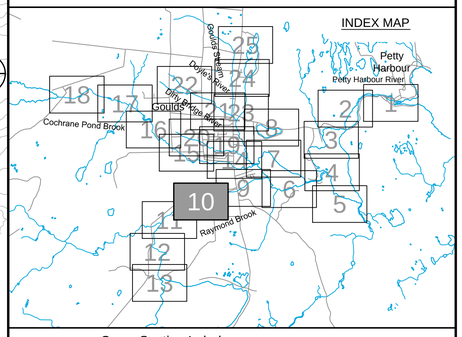

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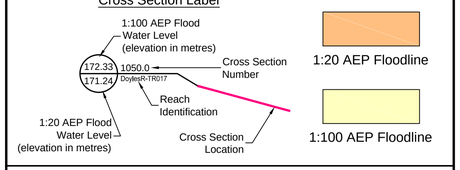

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REVISIONS

No.	Description	BY	DATE

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Robert E Howlett Memorial Dr

Howletts Line

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

C:\Work\NFLD\GouldsSheets\GPH-FRM(9-13).dwg

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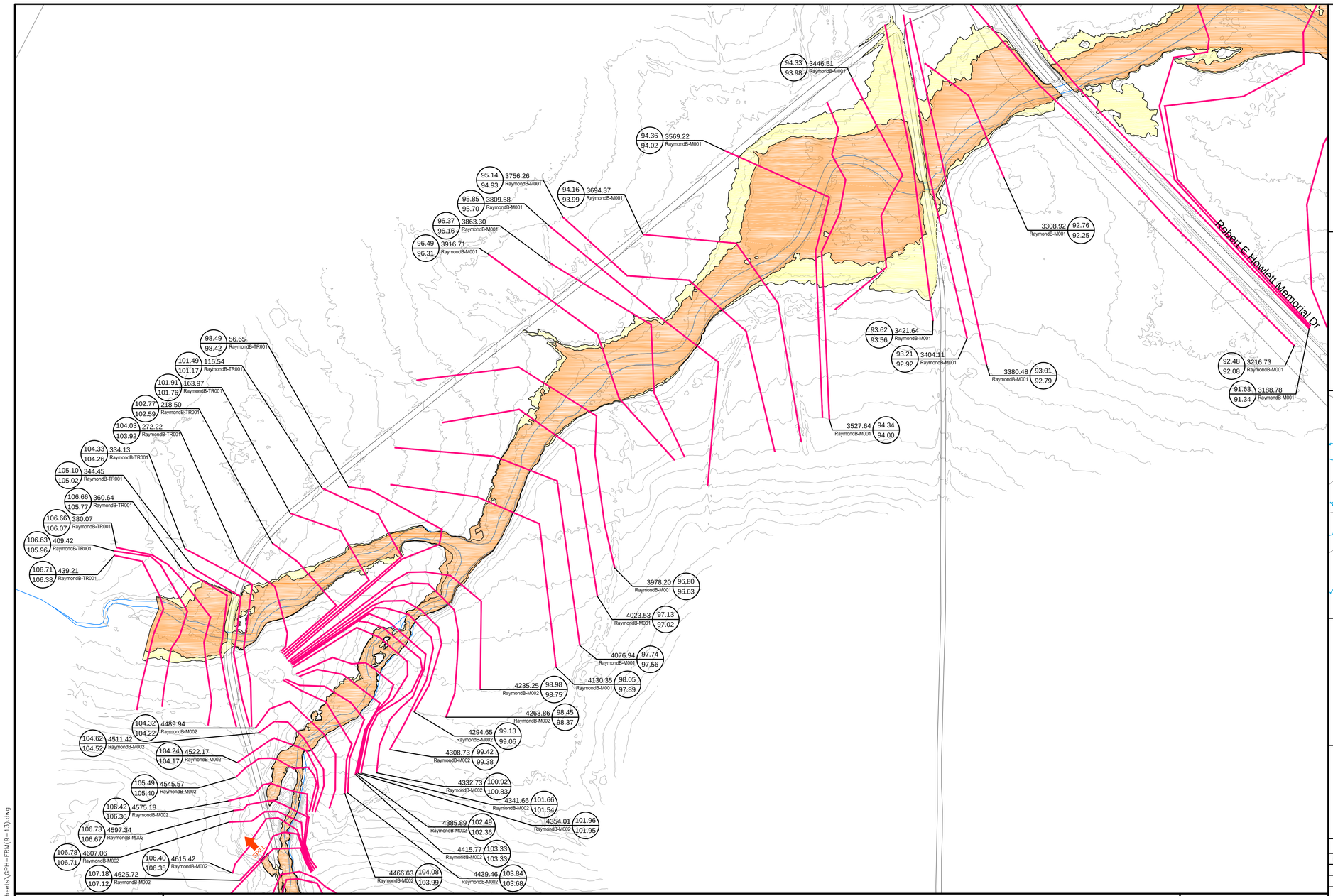
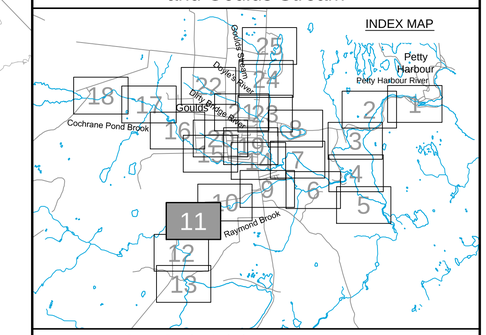


INDEX MAP



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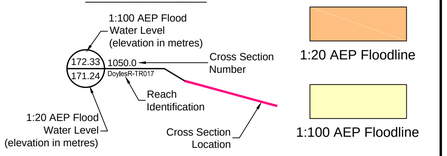

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No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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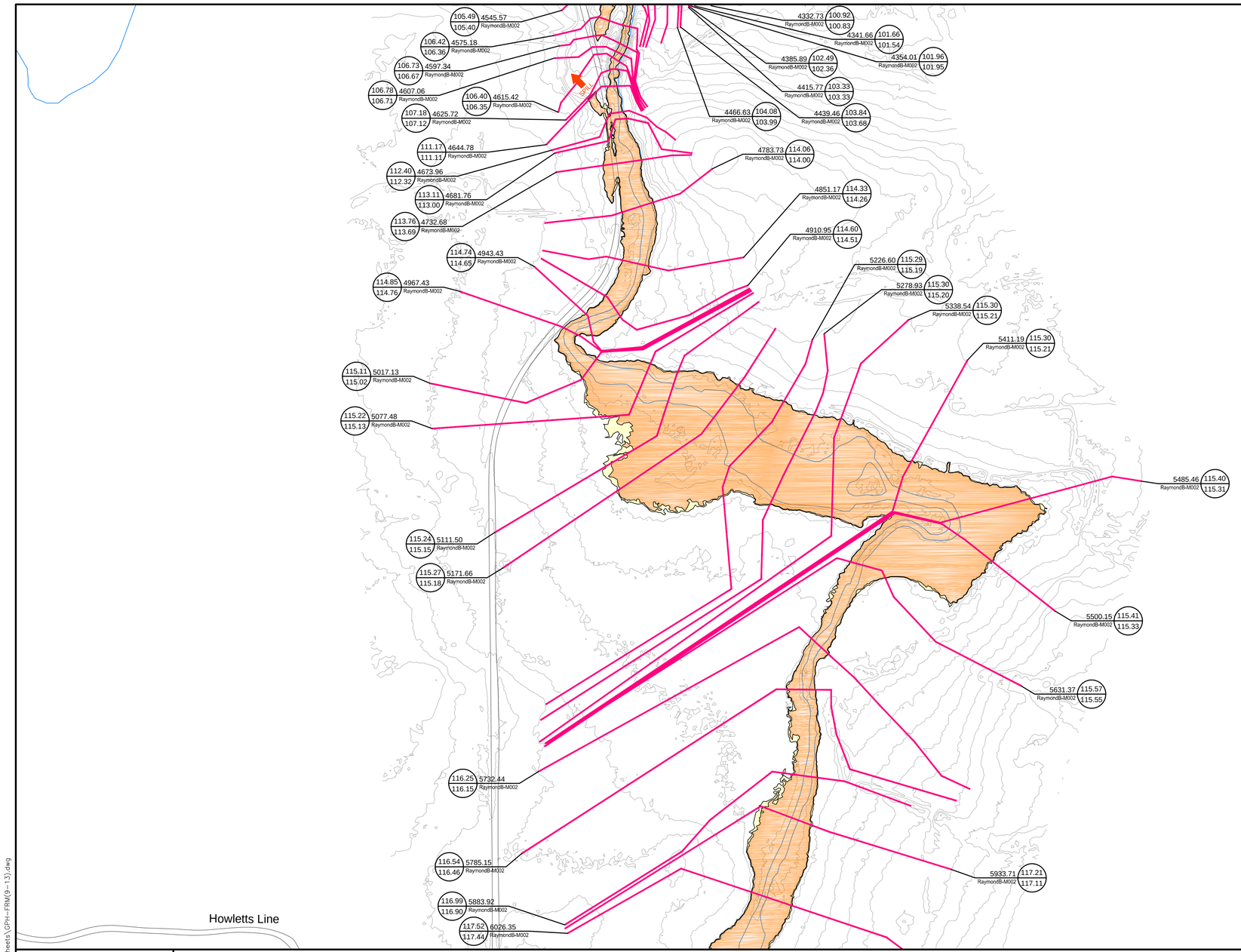

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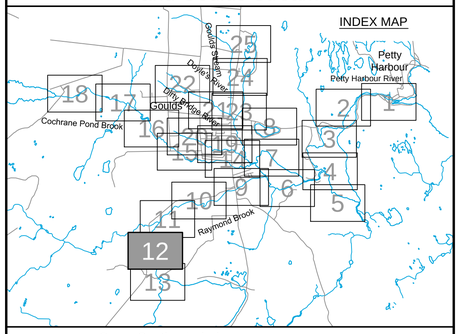

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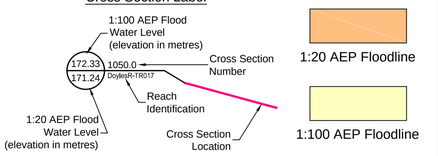

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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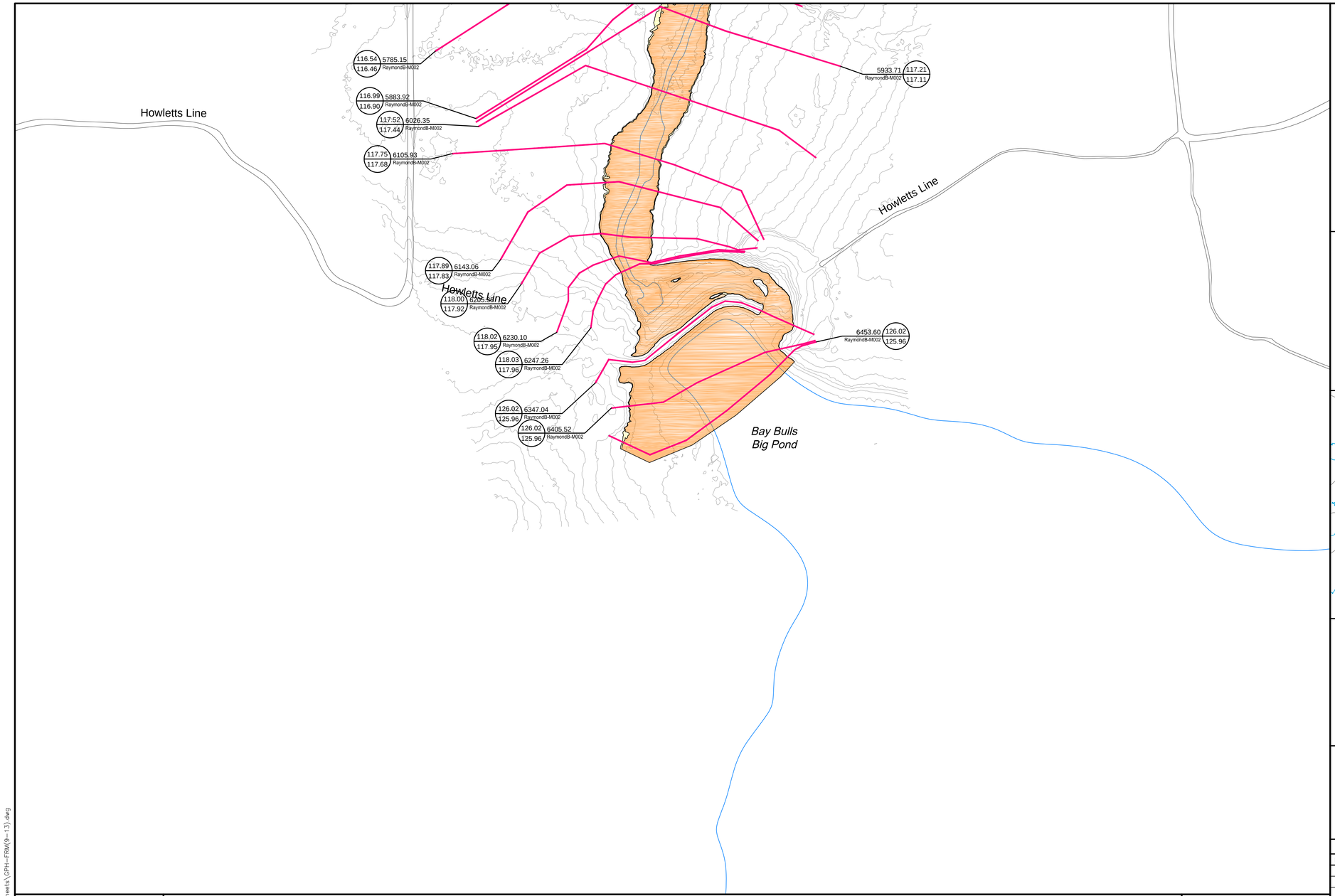
C:\Work\NFLD\GoudaSheets\GPH-TRM(9-13).dwg

Mar 23/13 – richard.bartolo



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Climate Change Scenario - 2050
AMEC (Maximum IDF Relationship)

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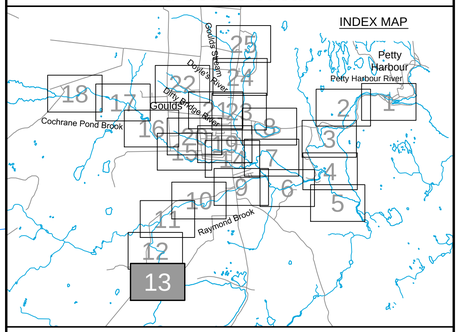
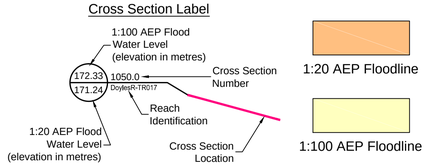
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label



amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

N

Sheet 13 of 25

C:\Work\WFLD\GouldsSheets\GPH-FRM(9-13).dwg

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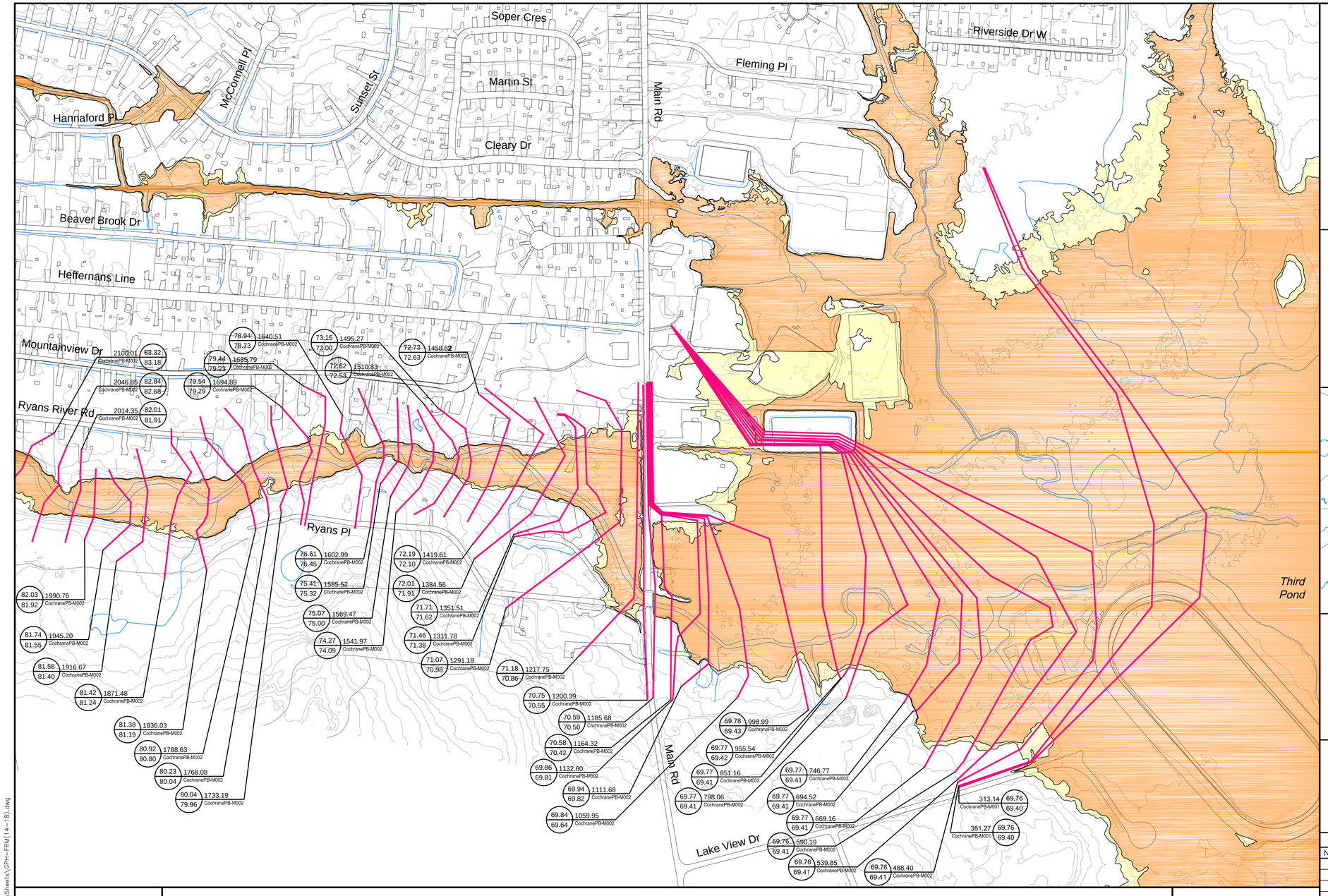

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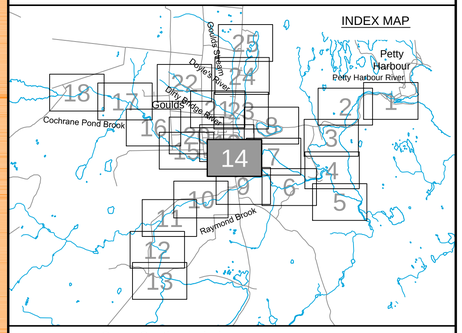

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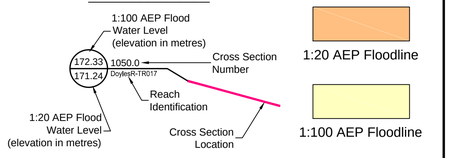

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

N

Sheet 14 of 25

C:\Work\NFLD\GouldsSheets\GPH-FRM(14-18).dwg

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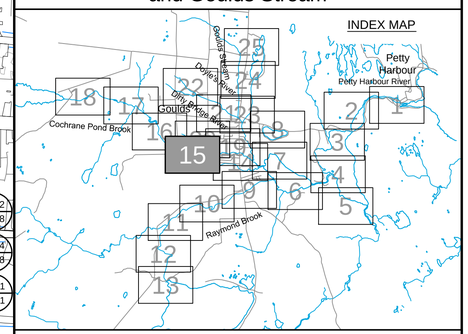

Cross Section Label

1:100 AEP Flood Water Level (elevation in metres)

172.33 / 171.24 — 1050.0 DoylesR-TR017

- 1050.0 — Cross Section Number
- DoylesR-TR017 — Reach Identification
- 1:20 AEP Flood Water Level (elevation in metres)
- Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 15 of 25

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

C:\Work\WFLD\GouldsSheets\GPH-FRM(14-18).dwg

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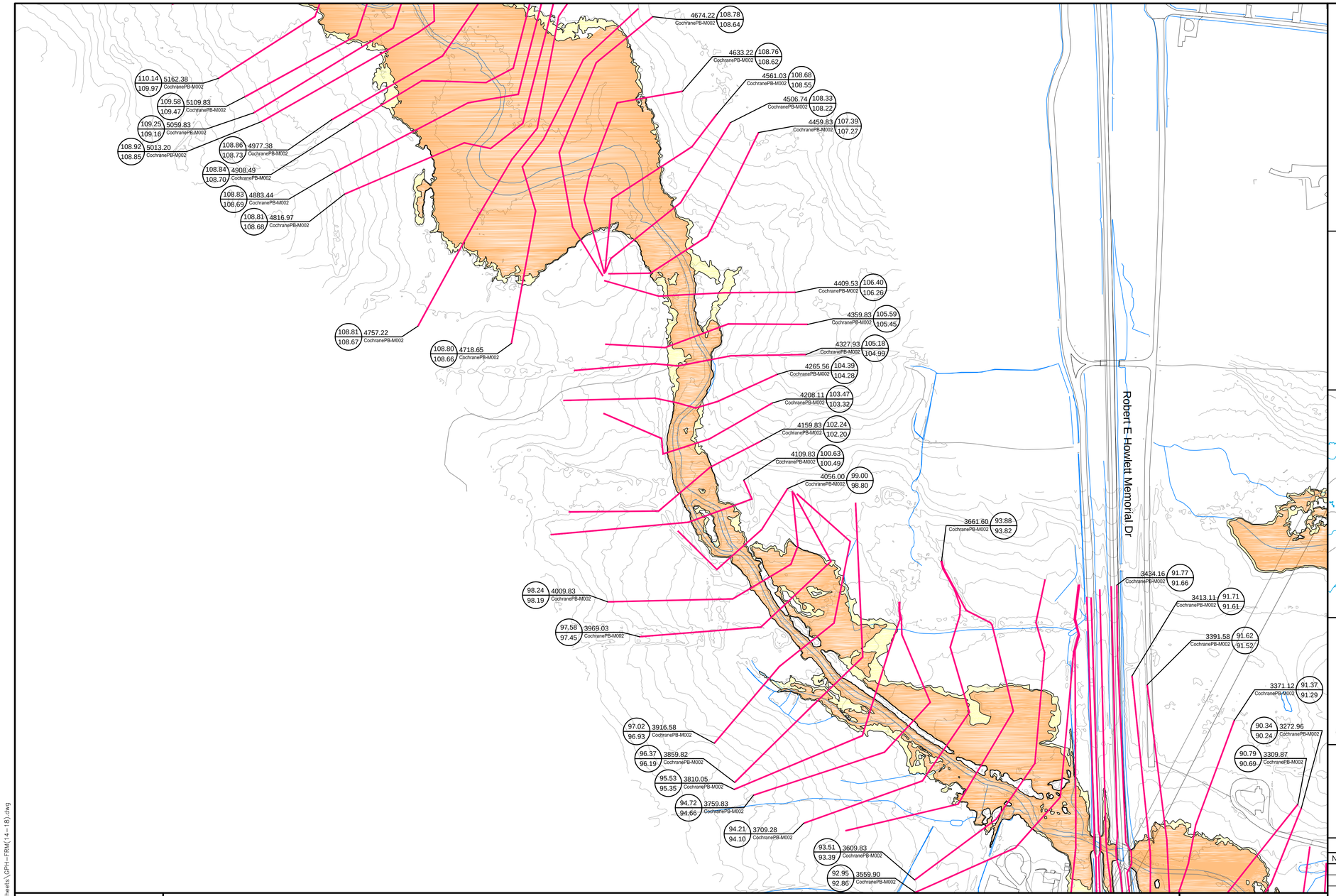

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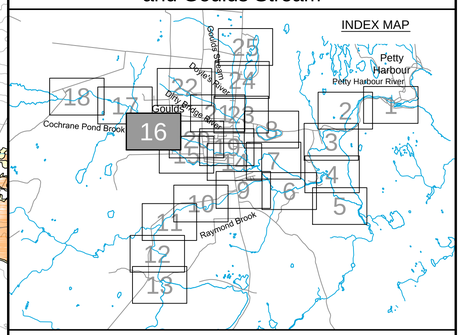

Cross Section Label

1:100 AEP Flood Water Level (elevation in metres)
172.33 / 171.24
1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
1:20 AEP Flood Water Level (elevation in metres)
Cross Section Location

1:20 AEP Floodline
1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

N

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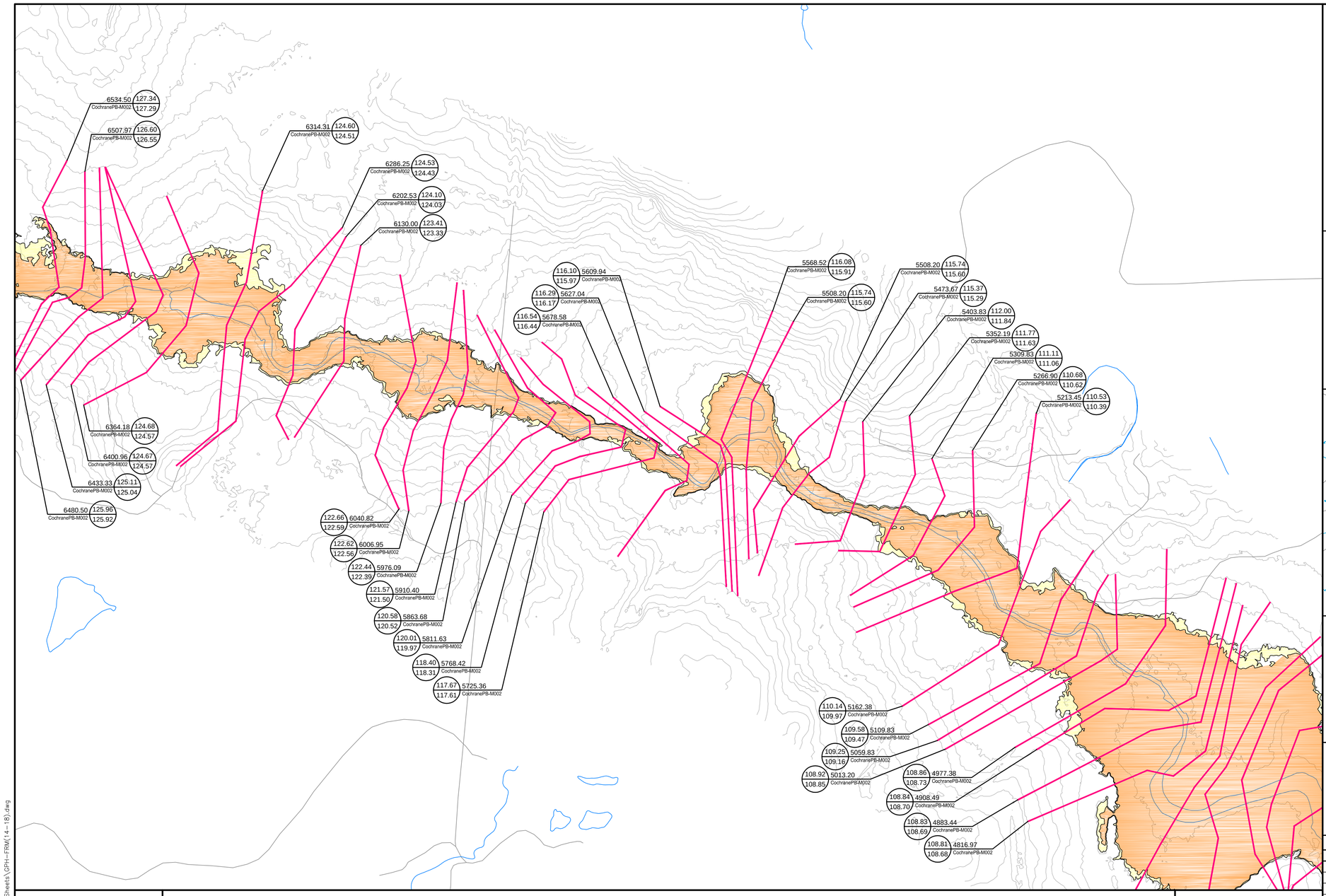
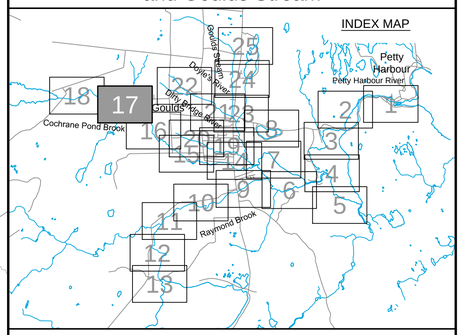


INDEX MAP



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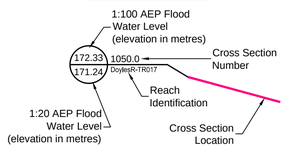

1:20 AEP Floodline

1:100 AEP Floodline

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

N

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Cochrane Pond Rd

135.71 / 135.64 — 6985.71 CochranePB-M002
136.16 / 136.08 — 7041.67 CochranePB-M002
136.54 / 136.51 — 7108.13 CochranePB-M002
137.07 / 136.99 — 7208.54 CochranePB-M002
137.17 / 137.10 — 7253.62 CochranePB-M002
137.34 / 137.27 — 7329.89 CochranePB-M002
6955.25 CochranePB-M002 — 134.81 / 134.64
6863.52 CochranePB-M002 — 132.90 / 132.82
6840.09 CochranePB-M002 — 132.19 / 132.14
6808.25 CochranePB-M002 — 131.45 / 131.44
6534.50 CochranePB-M002 — 127.34 / 127.29
6507.97 CochranePB-M002 — 126.60 / 126.55
130.38 / 130.30 — 6767.75 CochranePB-M002
129.53 / 129.48 — 6727.78 CochranePB-M002
129.12 / 129.04 — 6691.71 CochranePB-M002
128.71 / 128.66 — 6651.54 CochranePB-M002
128.48 / 128.40 — 6630.83 CochranePB-M002
6364.18 CochranePB-M002 — 124.68 / 124.57
6400.96 CochranePB-M002 — 124.67 / 124.57
6433.33 CochranePB-M002 — 125.11 / 125.04
6480.50 CochranePB-M002 — 125.96 / 125.92
7450.86 CochranePB-M002 — 137.64 / 137.57
7476.72 CochranePB-M002 — 137.67 / 137.64
7515.77 CochranePB-M002 — 137.70 / 137.63
7609.21 CochranePB-M002 — 137.84 / 137.75
7695.32 CochranePB-M002 — 138.66 / 138.60
7738.34 CochranePB-M002 — 139.00 / 138.93
7812.33 CochranePB-M002 — 139.37 / 139.32
7847.08 CochranePB-M002 — 139.87 / 139.80
142.06 / 141.82 — 7964.49 CochranePB-M002
140.78 / 140.73 — 7901.64 CochranePB-M002
142.58 / 142.36 — 8105.53 CochranePB-M002
142.57 / 142.35 — 8065.47 CochranePB-M002
142.56 / 142.34 — 8050.98 CochranePB-M002
142.56 / 142.34 — 8024.09 CochranePB-M002
142.56 / 142.34 — 8013.06 CochranePB-M002
142.56 / 142.34 — 8004.70 CochranePB-M002
142.55 / 142.33 — 7995.14 CochranePB-M002

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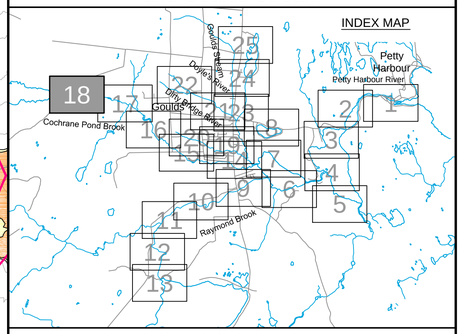

Cross Section Label

1:100 AEP Flood Water Level (elevation in metres)
172.33 / 171.24
1050.0
DoylesR-TR017
Cross Section Number
Reach Identification
1:20 AEP Flood Water Level (elevation in metres)
Cross Section Location

1:20 AEP Floodline
1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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Ridgemount St
Clearview St
North Dr
Gulliage St
Keith Dr
Della Dr
Sunset St
Hannaford Pl
McConnell Pl
Sopet Crescent
Martin St
Cleary Dr
Fleming Pl
Main Rd
Meadowbrook Park Rd
Bonnie Dr
Gray Dr
Everard Ave
Kielley Dr
Meadowbrook Dr
Riverside Dr W
Hennesseys Line
Beaver Brook Dr
Heffernans Line
SPILL
SPILL

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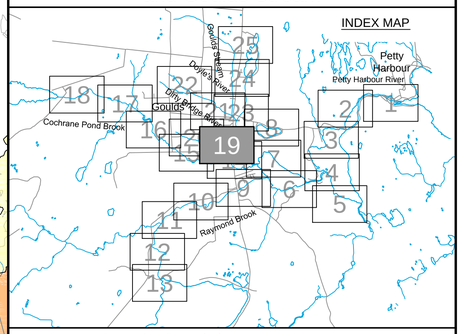

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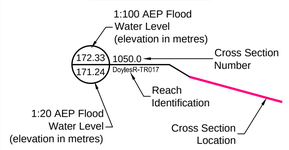

1:20 AEP Floodline

1:100 AEP Floodline

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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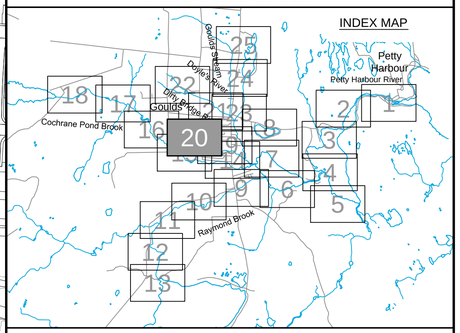

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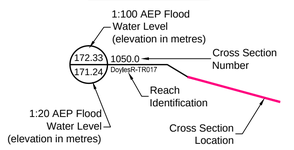

1:20 AEP Floodline

1:100 AEP Floodline

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres

300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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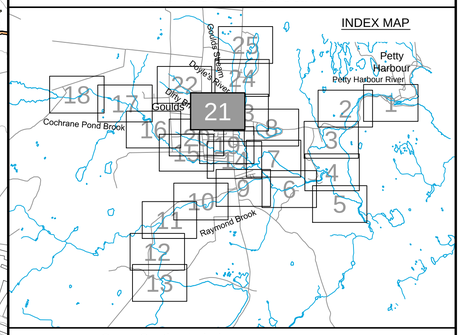

Cross Section Label

1:100 AEP Flood Water Level (elevation in metres)
172.33
171.24
1050.0
DoylesR-TR017
Cross Section Number
Reach Identification
1:20 AEP Flood Water Level (elevation in metres)
Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

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MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

N

C:\Work\NFLD\GouldsSheets\GPH-FRM(19-22).dwg

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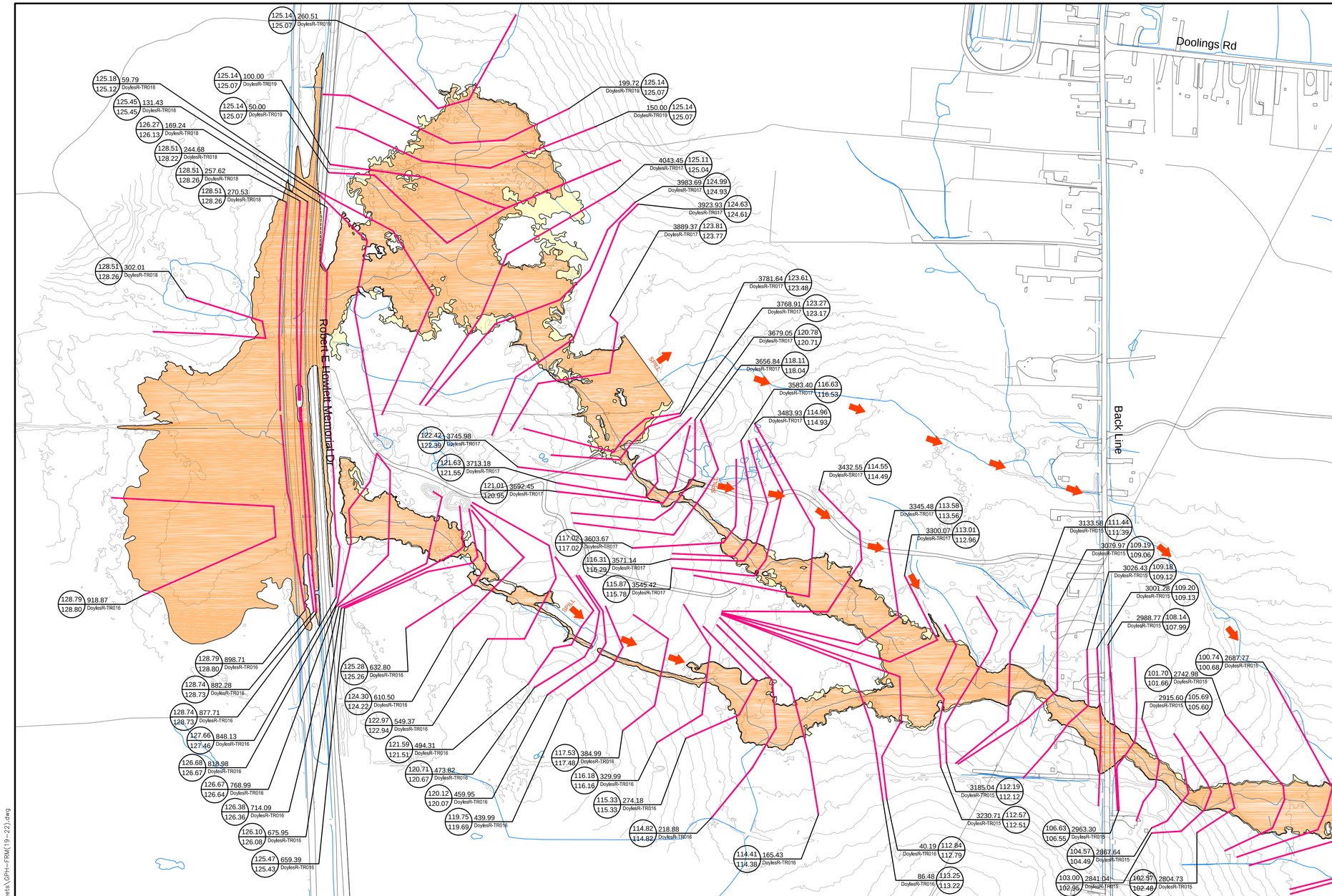

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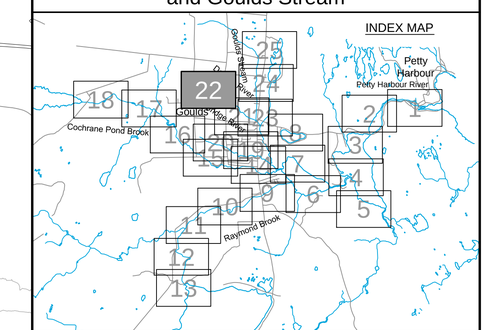

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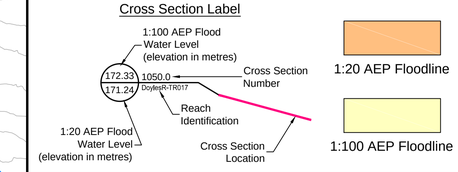

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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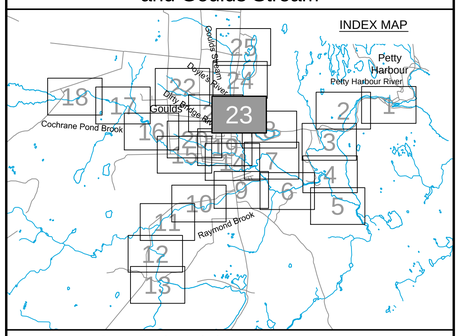

Cross Section Label

1:100 AEP Flood Water Level (elevation in metres)

172.33 / 171.24 — 1050.0 — DoylesR-TR017

Cross Section Number

Reach Identification

1:20 AEP Flood Water Level (elevation in metres)

Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

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REVISIONS

No.	Description	BY	DATE

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

C:\Work\WFLD\GoudsSheets\GPH-FRM(23-25).dwg

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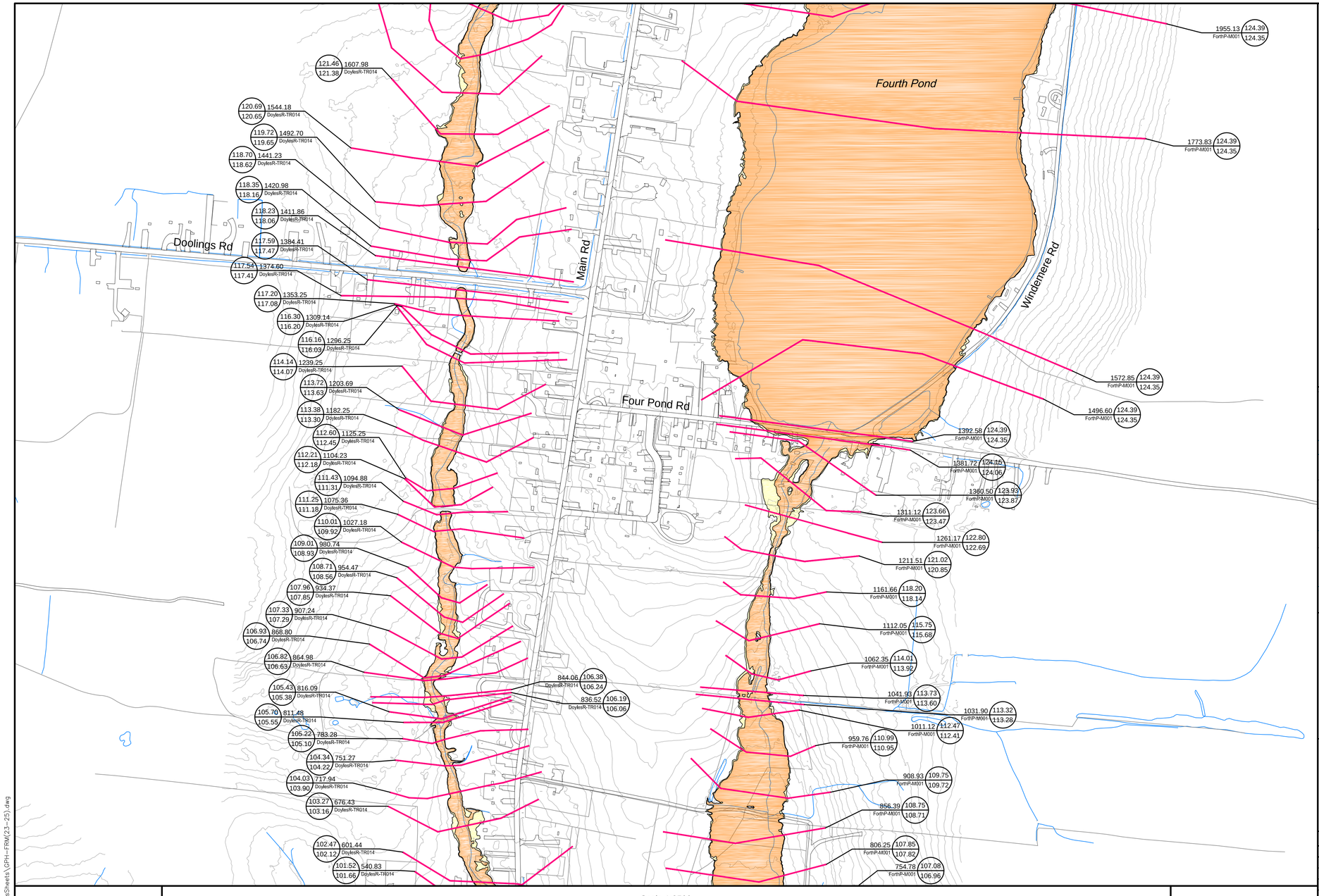

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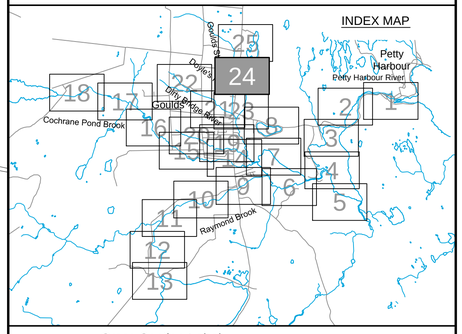
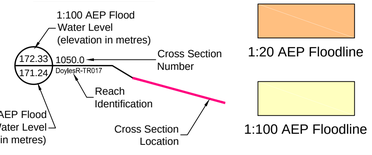


Cross Section Label



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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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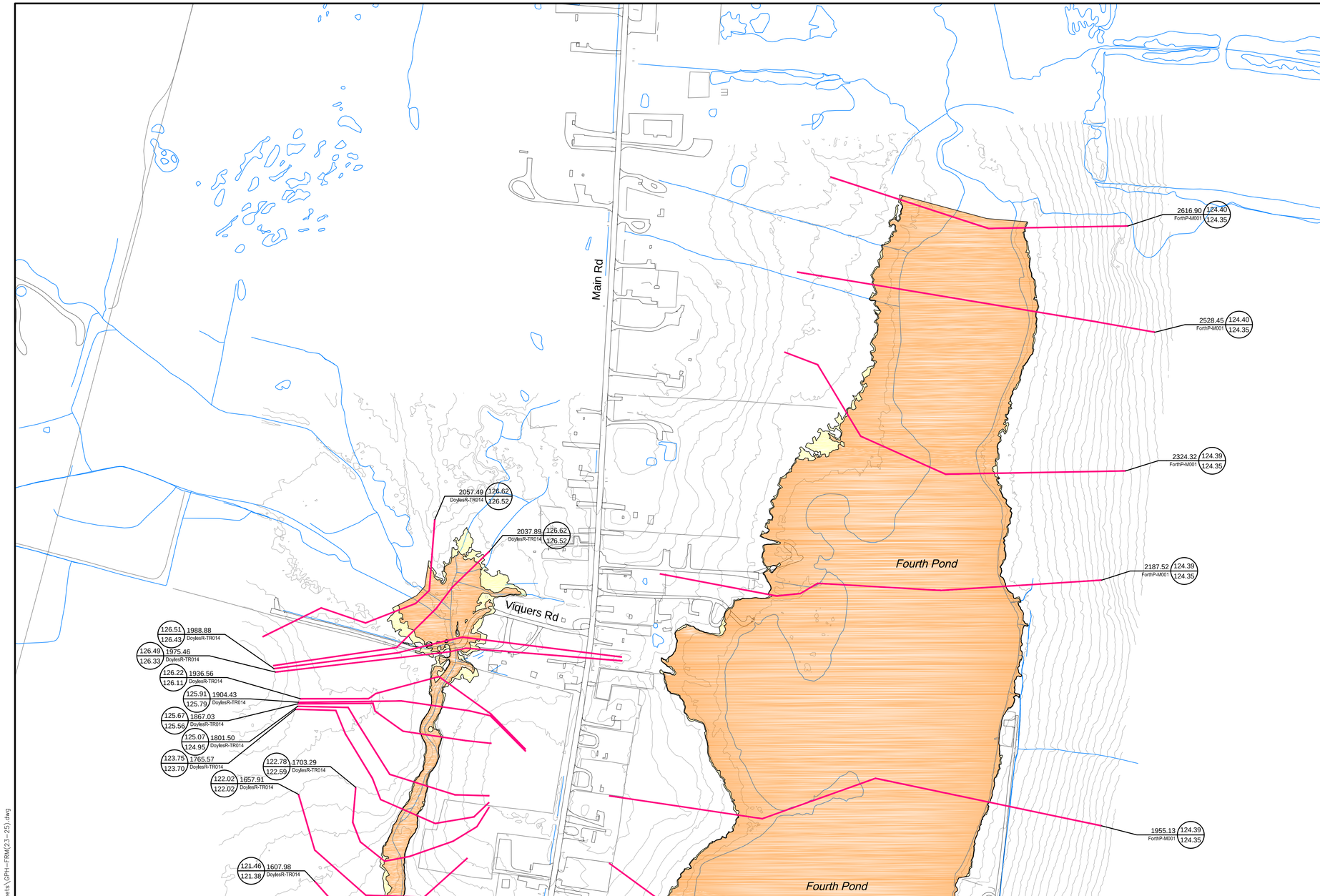
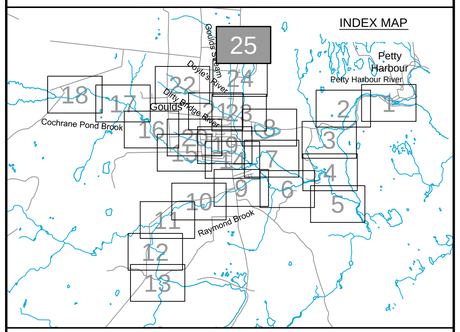


INDEX MAP



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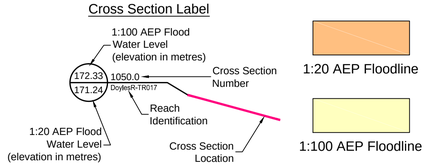

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

Sheet 25 of 25

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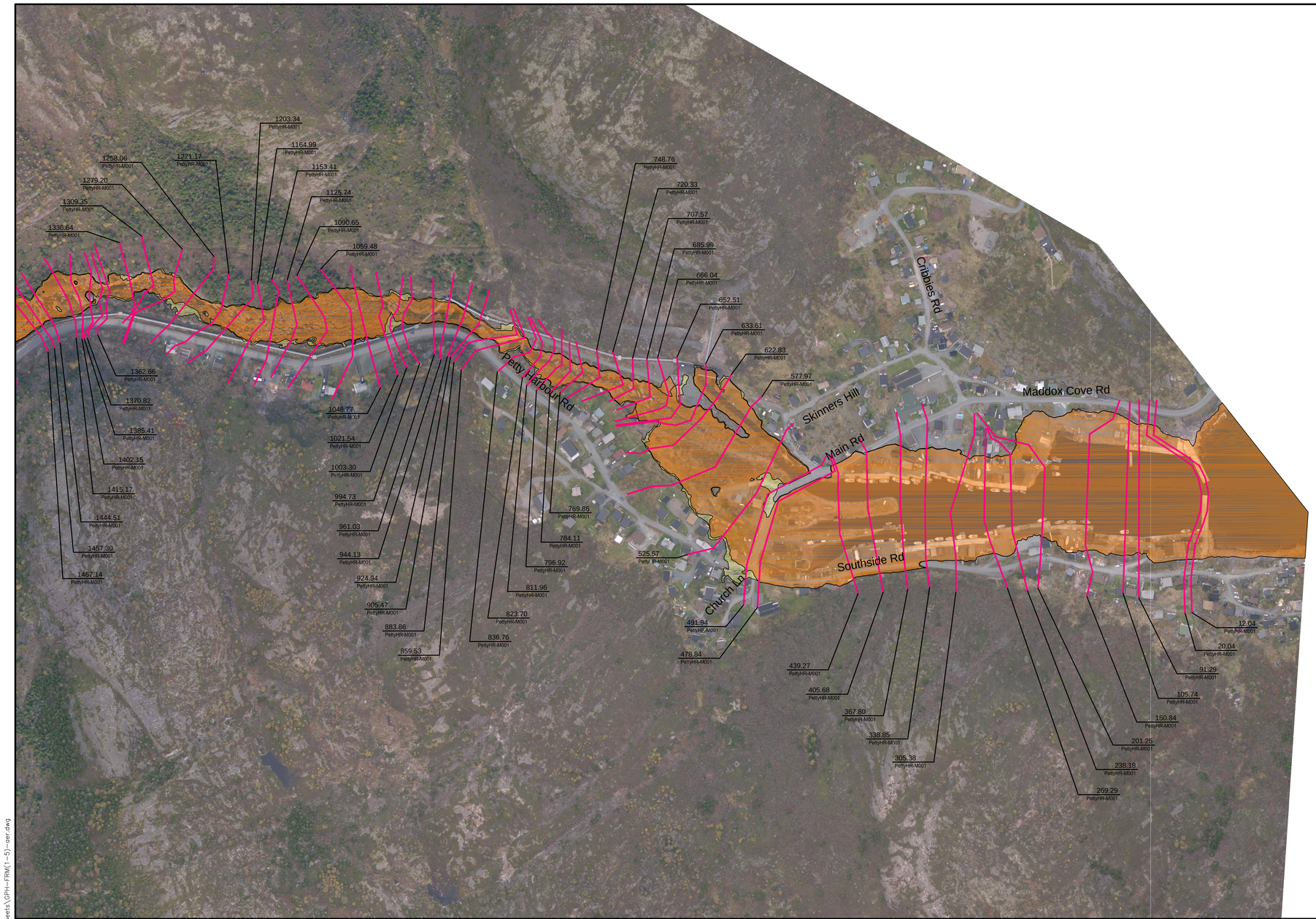

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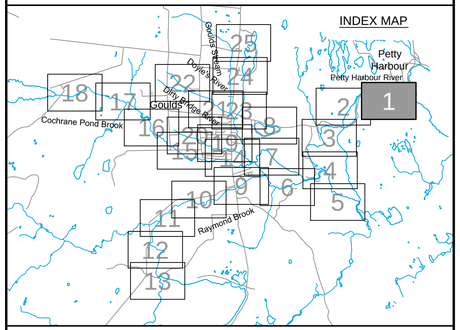
Goulds\Petty Harbour

Climate Change Scenario - 2050
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



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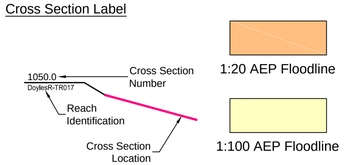

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REVISIONS

No.	Description	BY	DATE

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

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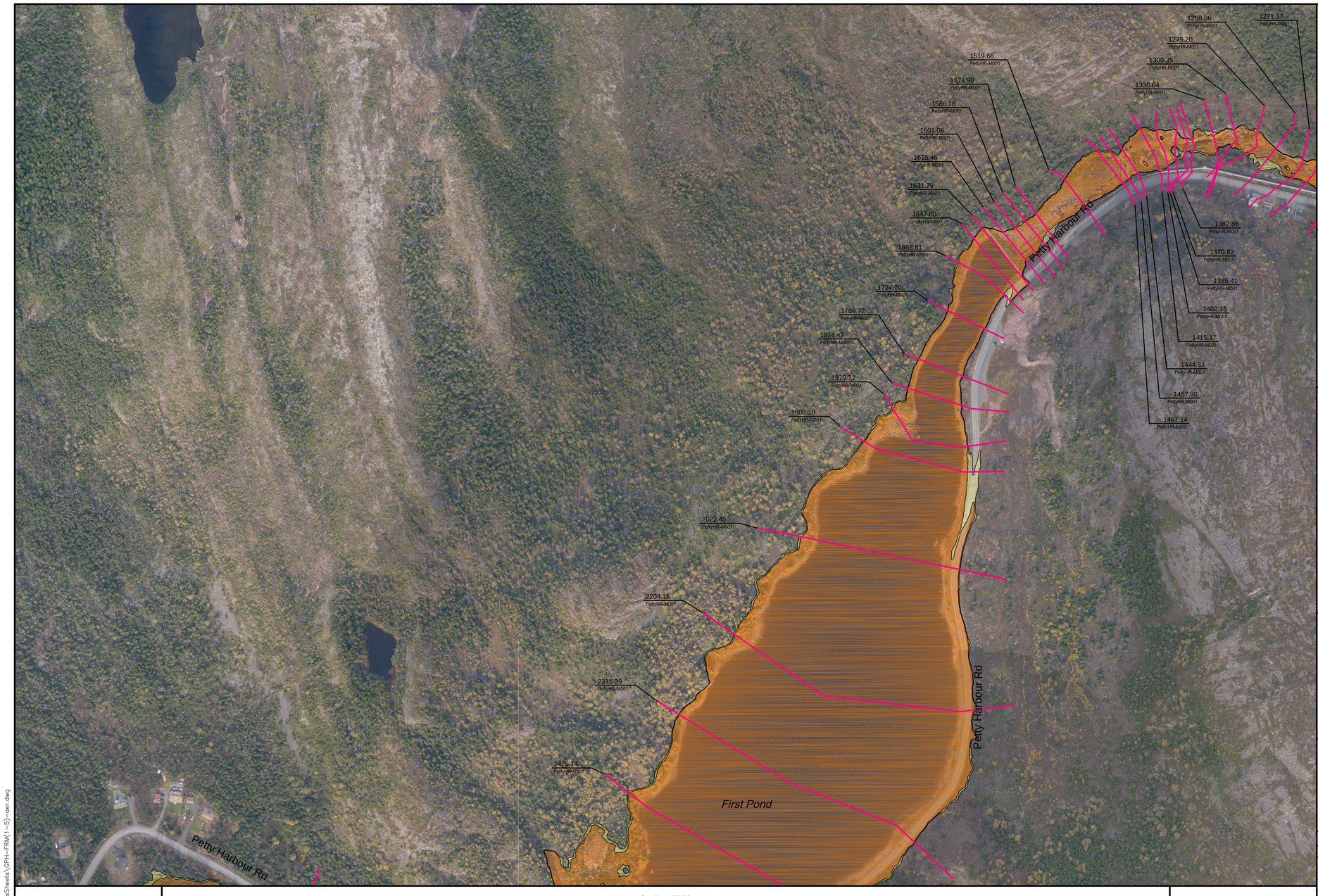

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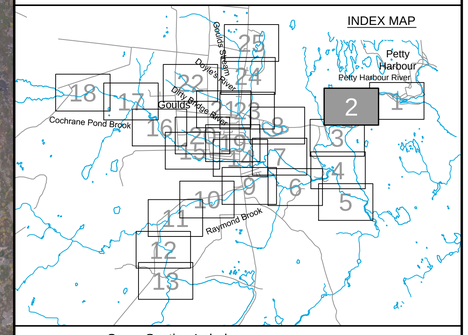

Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

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REVISIONS

No.	Description	BY	DATE

Sheet 2 of 25

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

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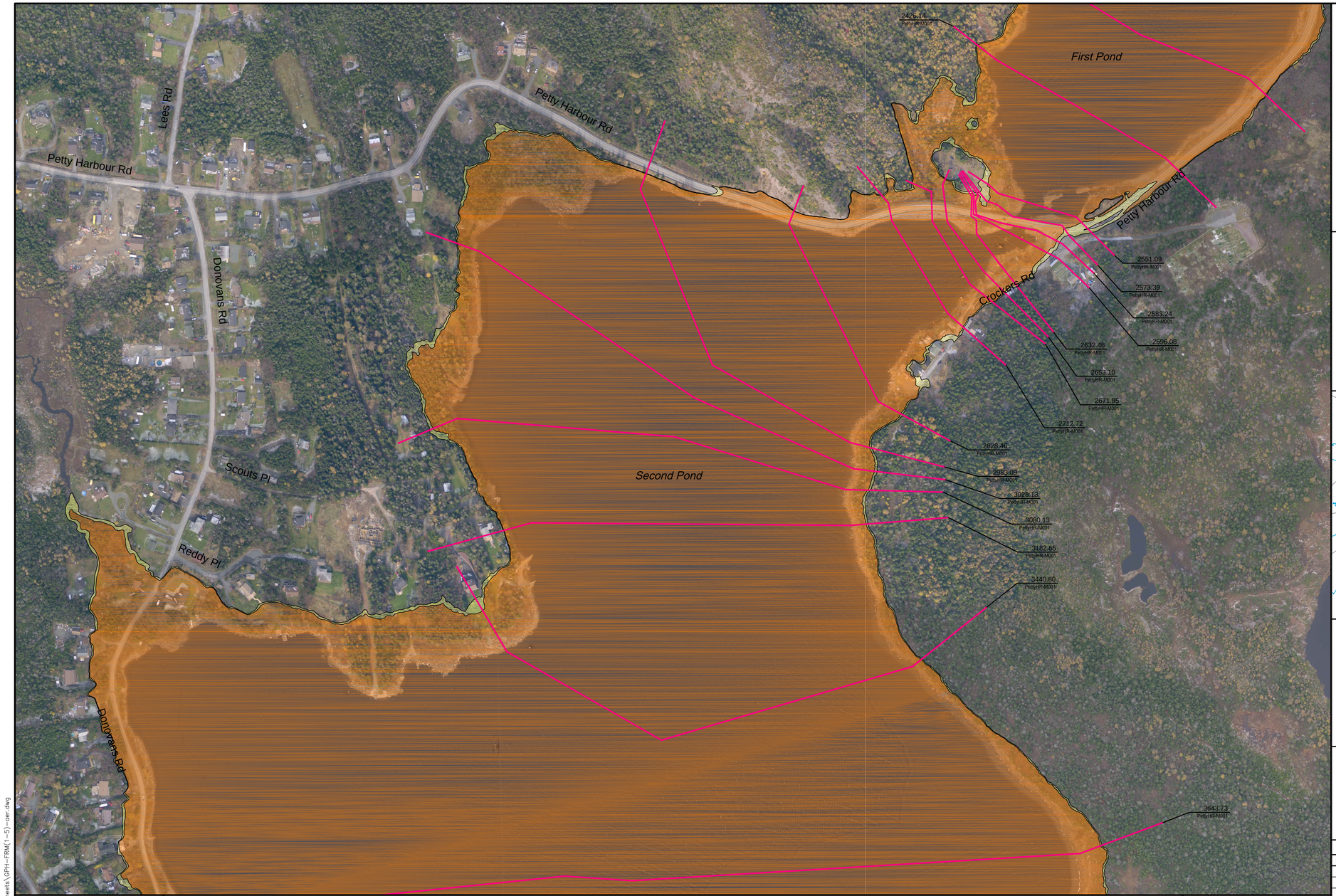

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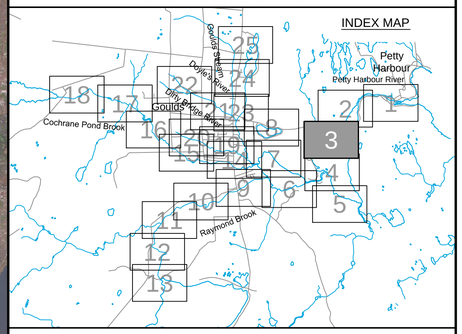

Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

Sheet 3 of 25

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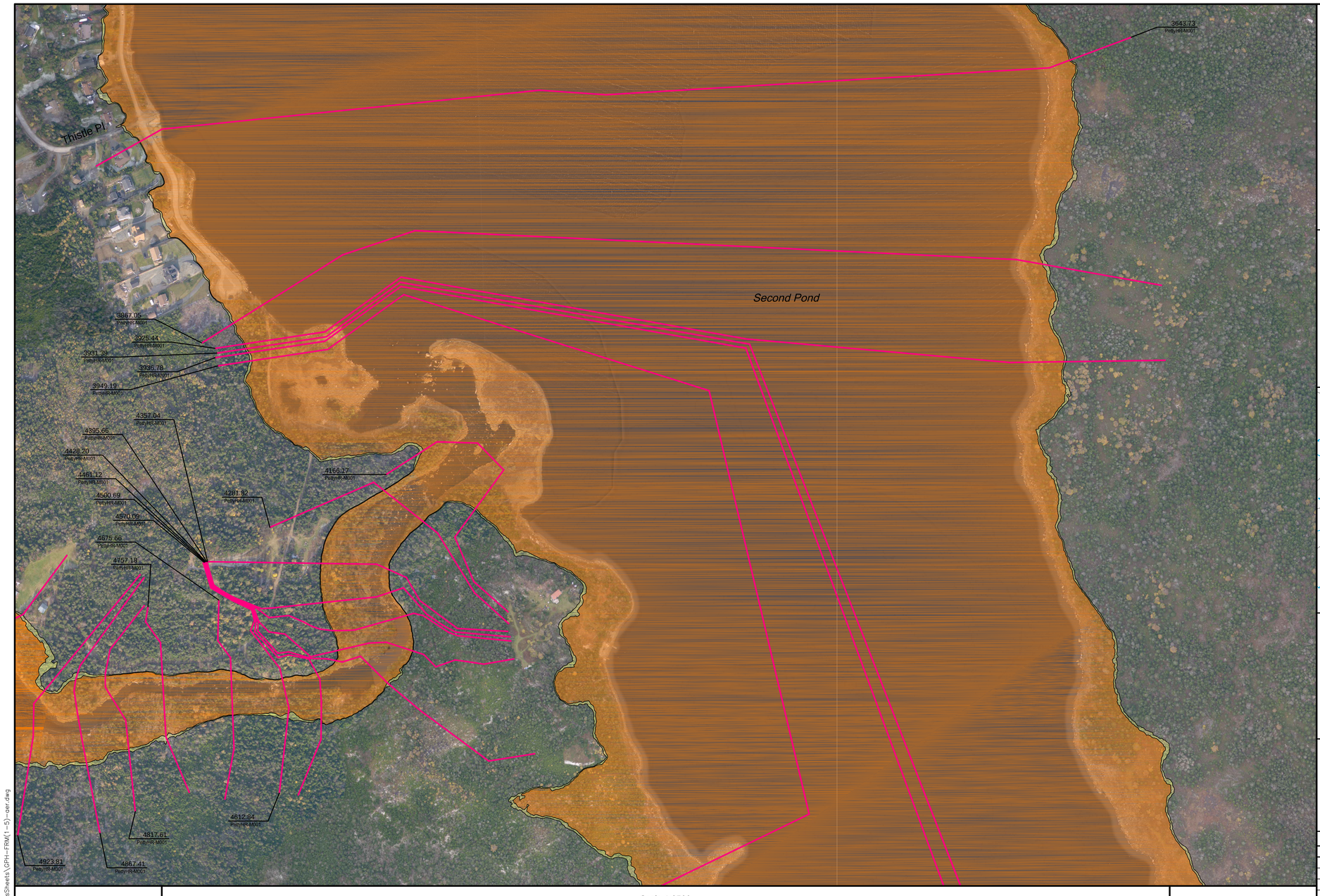

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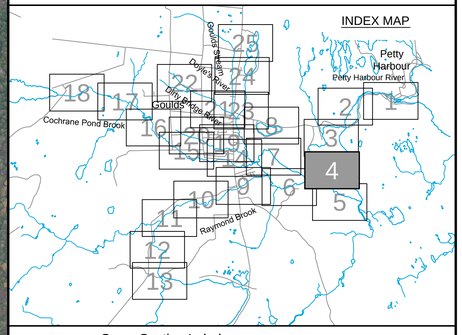

Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

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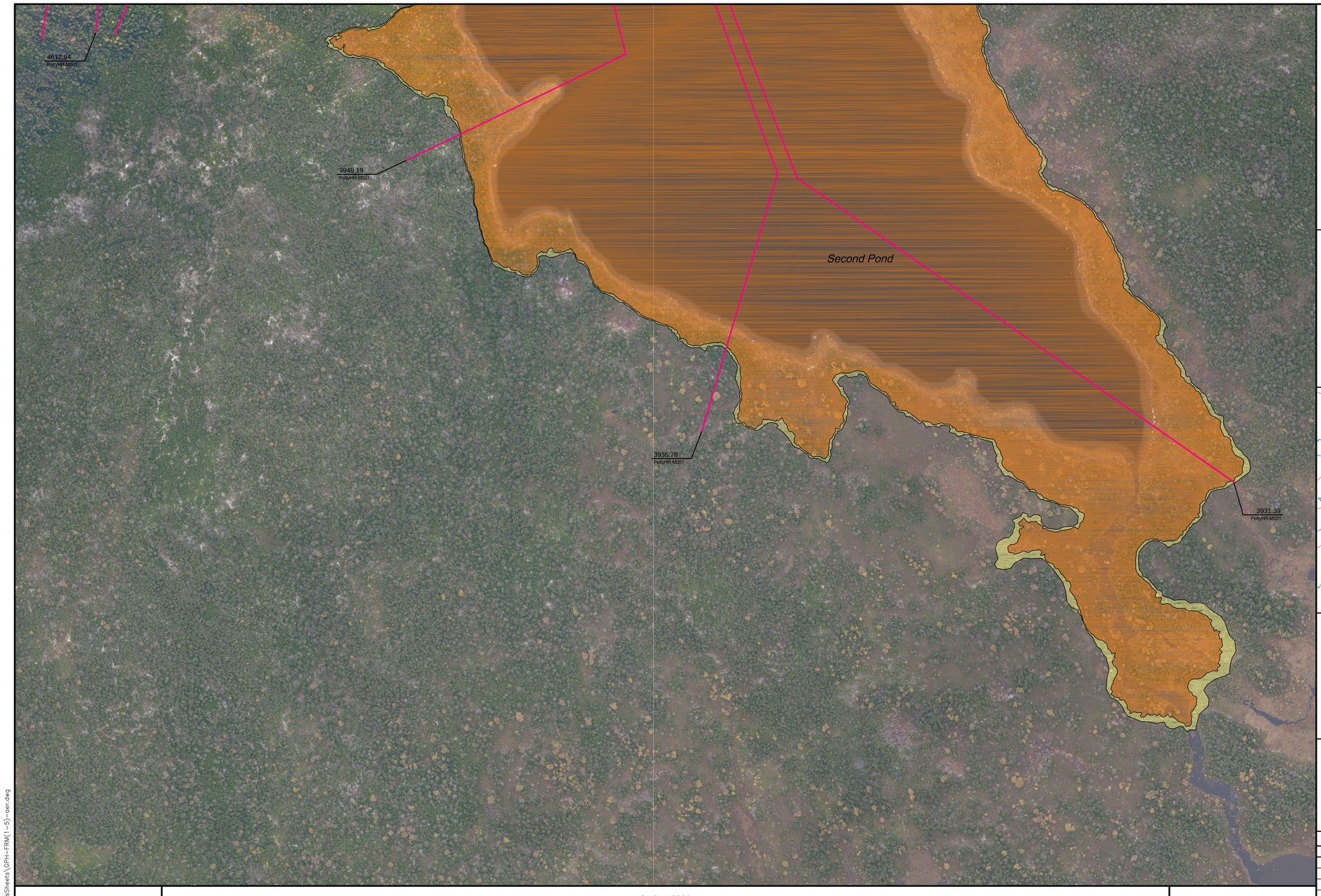

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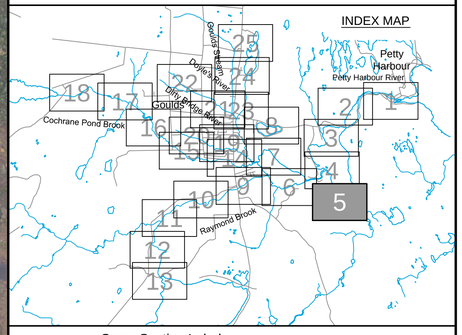

Cross Section Label

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DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

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No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

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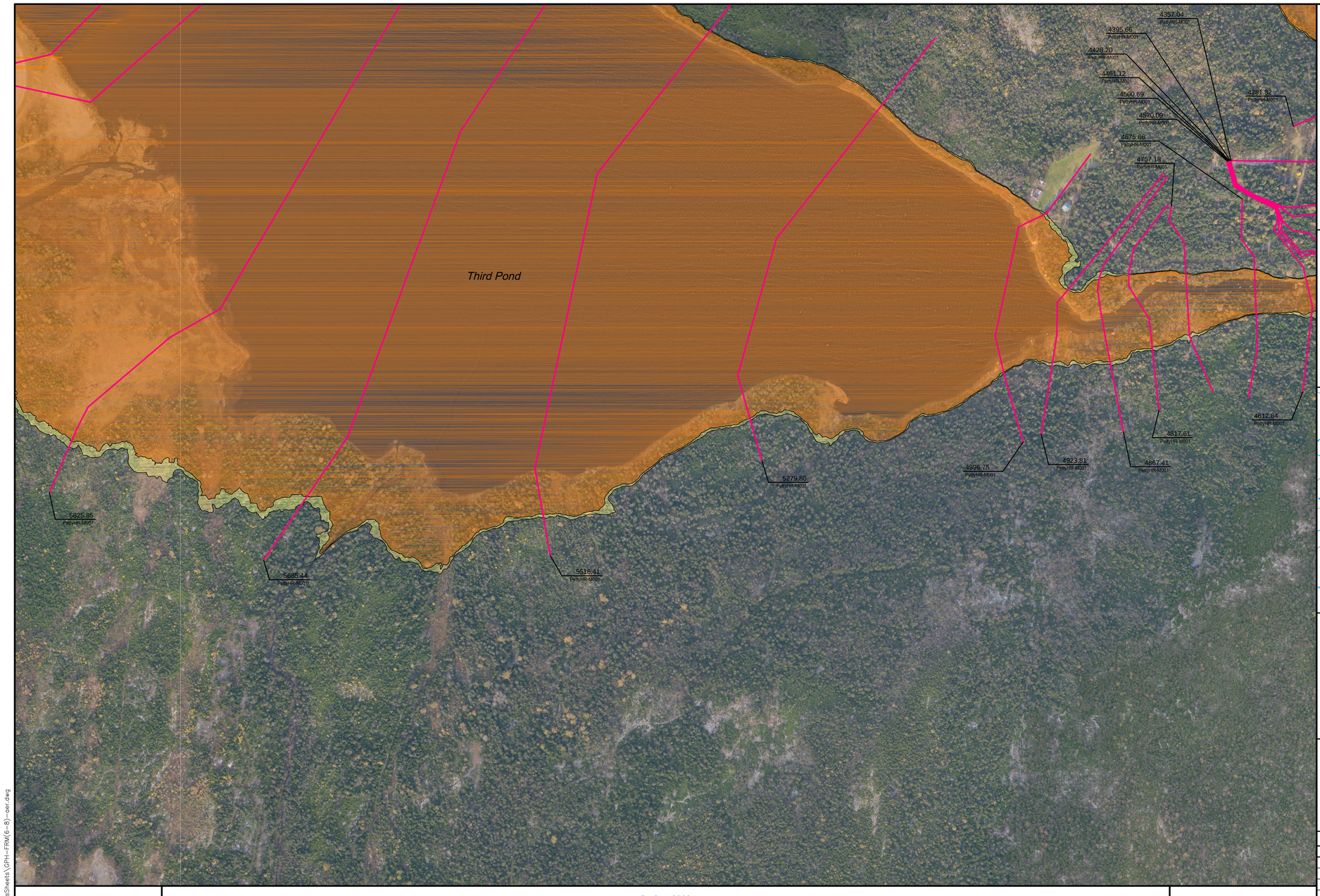

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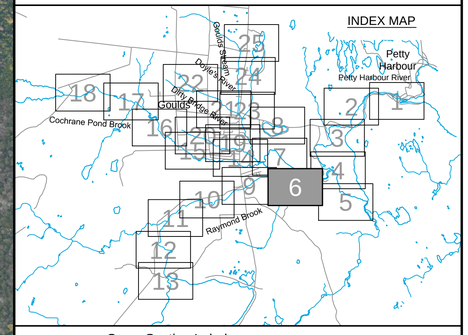

Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

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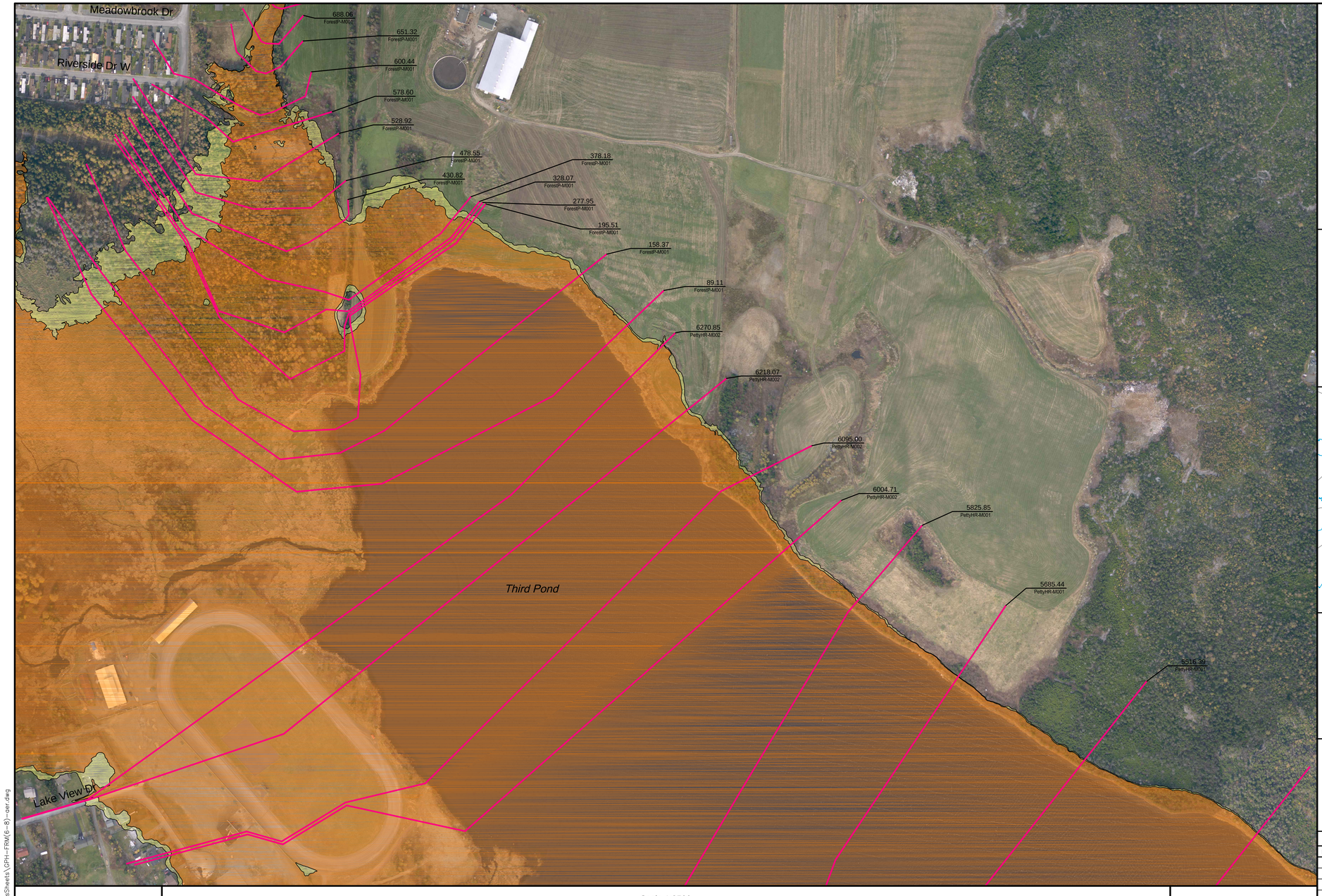

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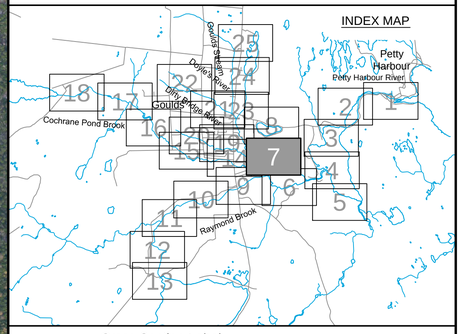
INDEX MAP



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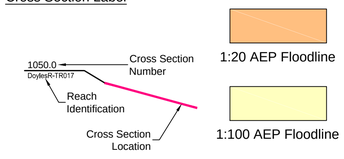

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

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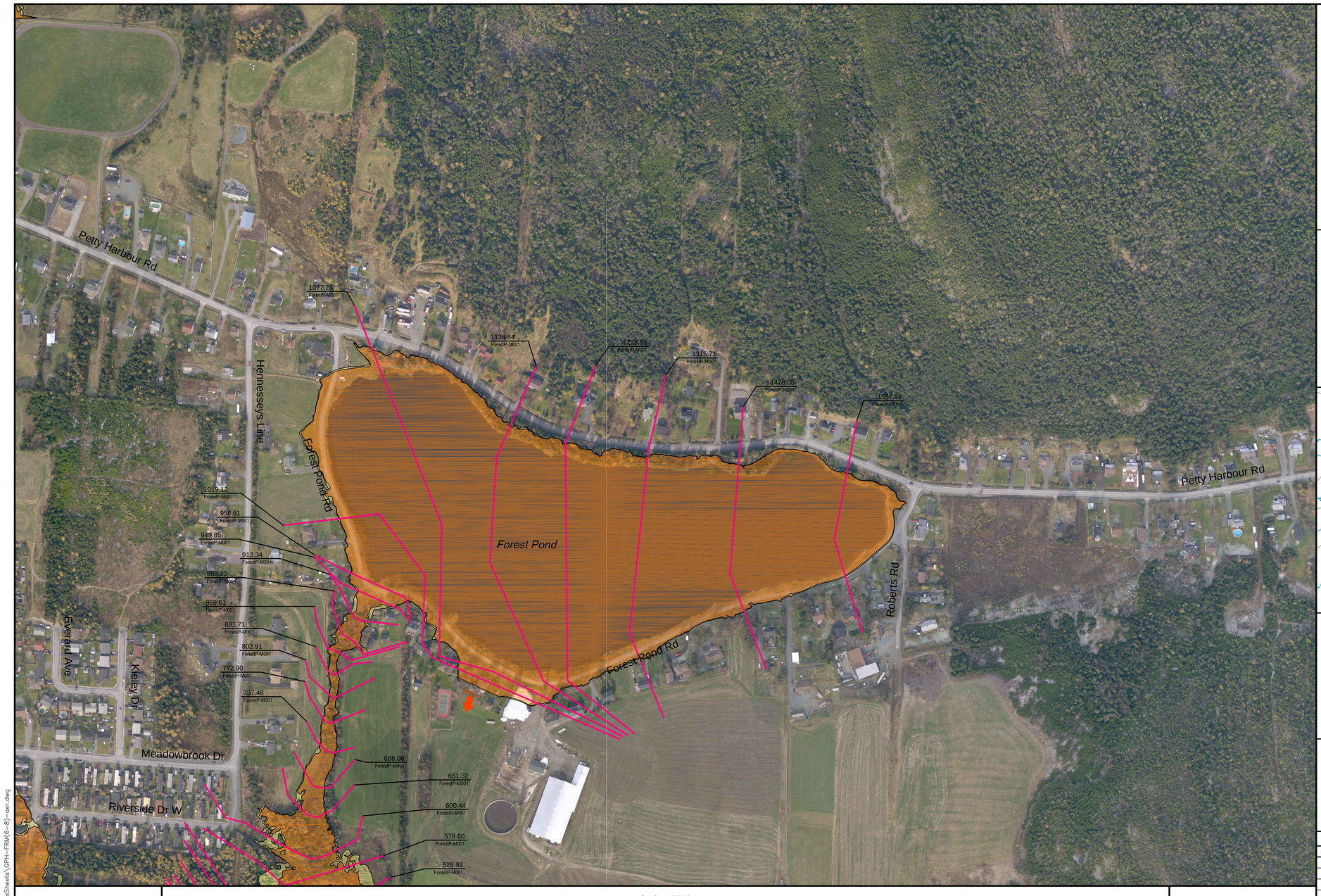

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and Goulds Stream

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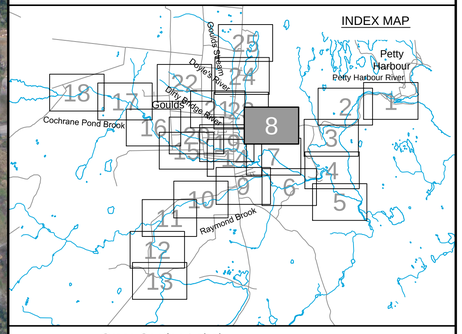

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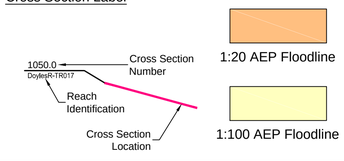

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

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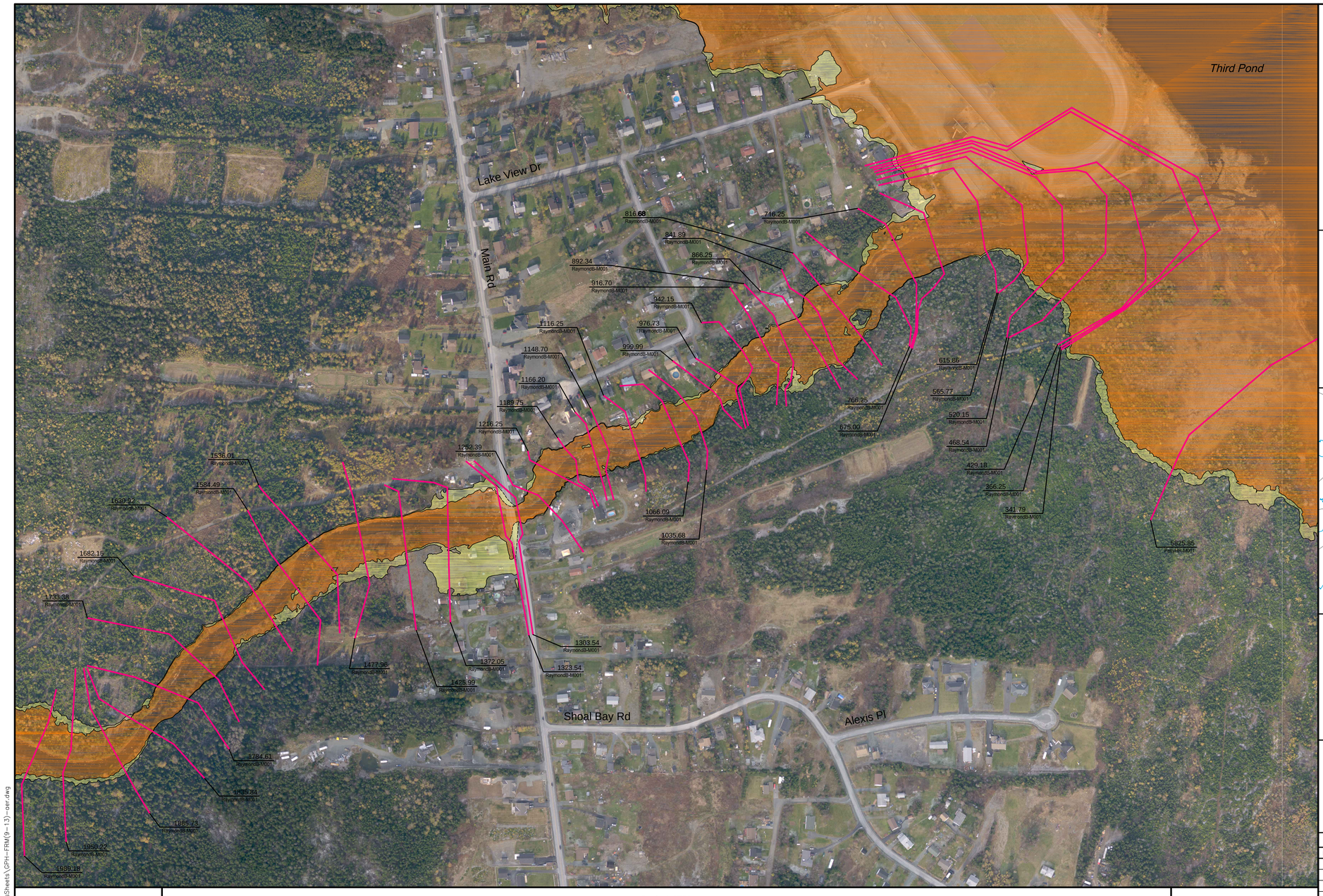

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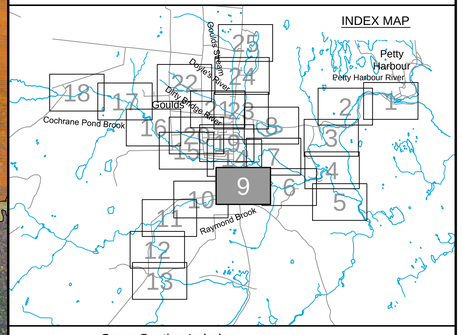

Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

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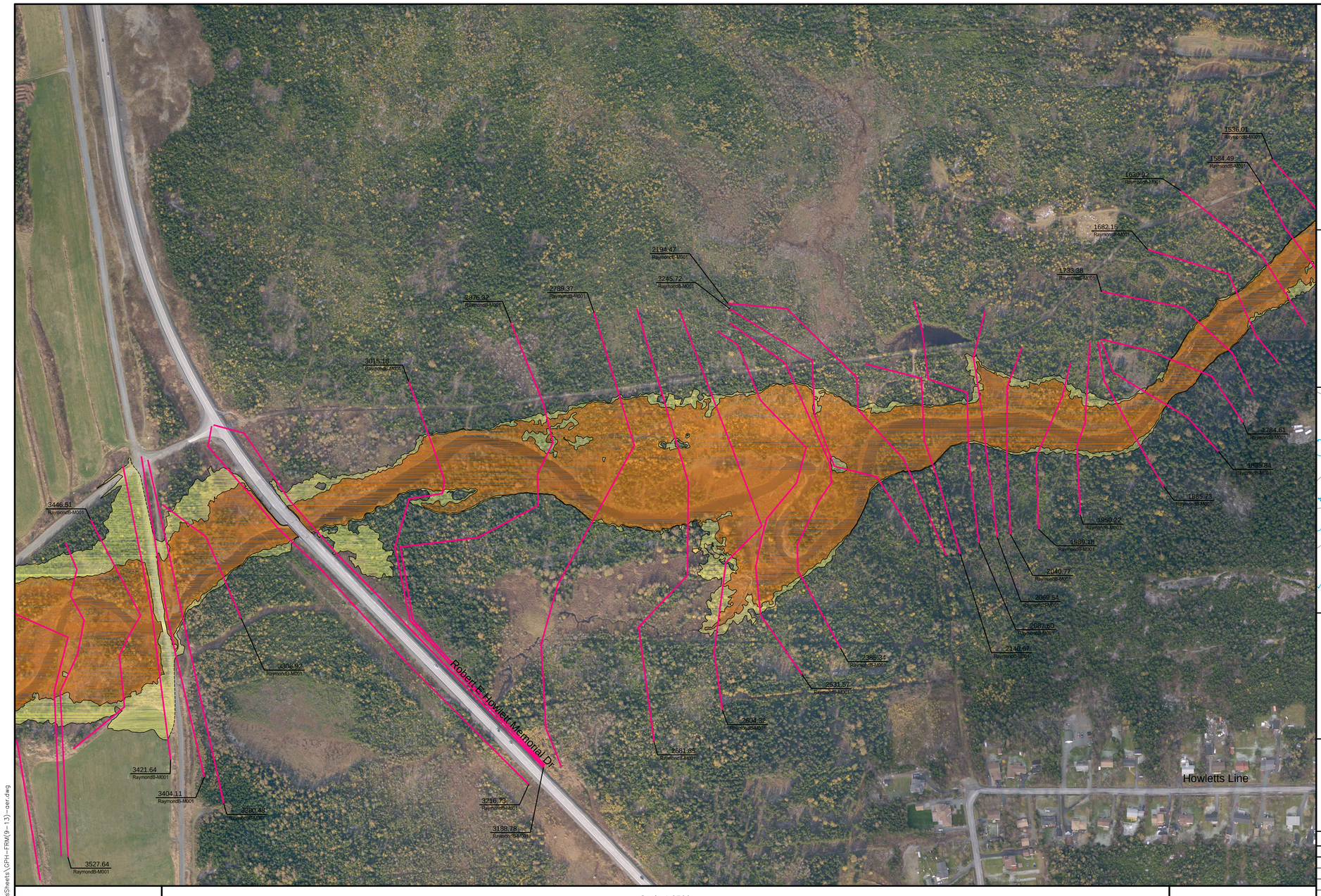

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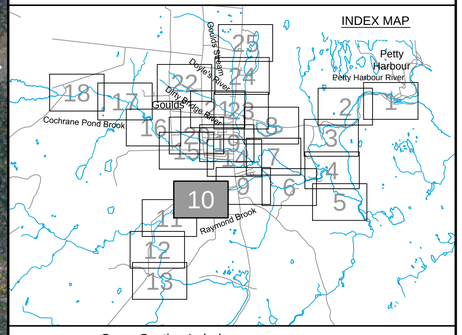

Cross Section Label

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DoylesR-TR017

Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Floodline
1:100 AEP Floodline

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ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

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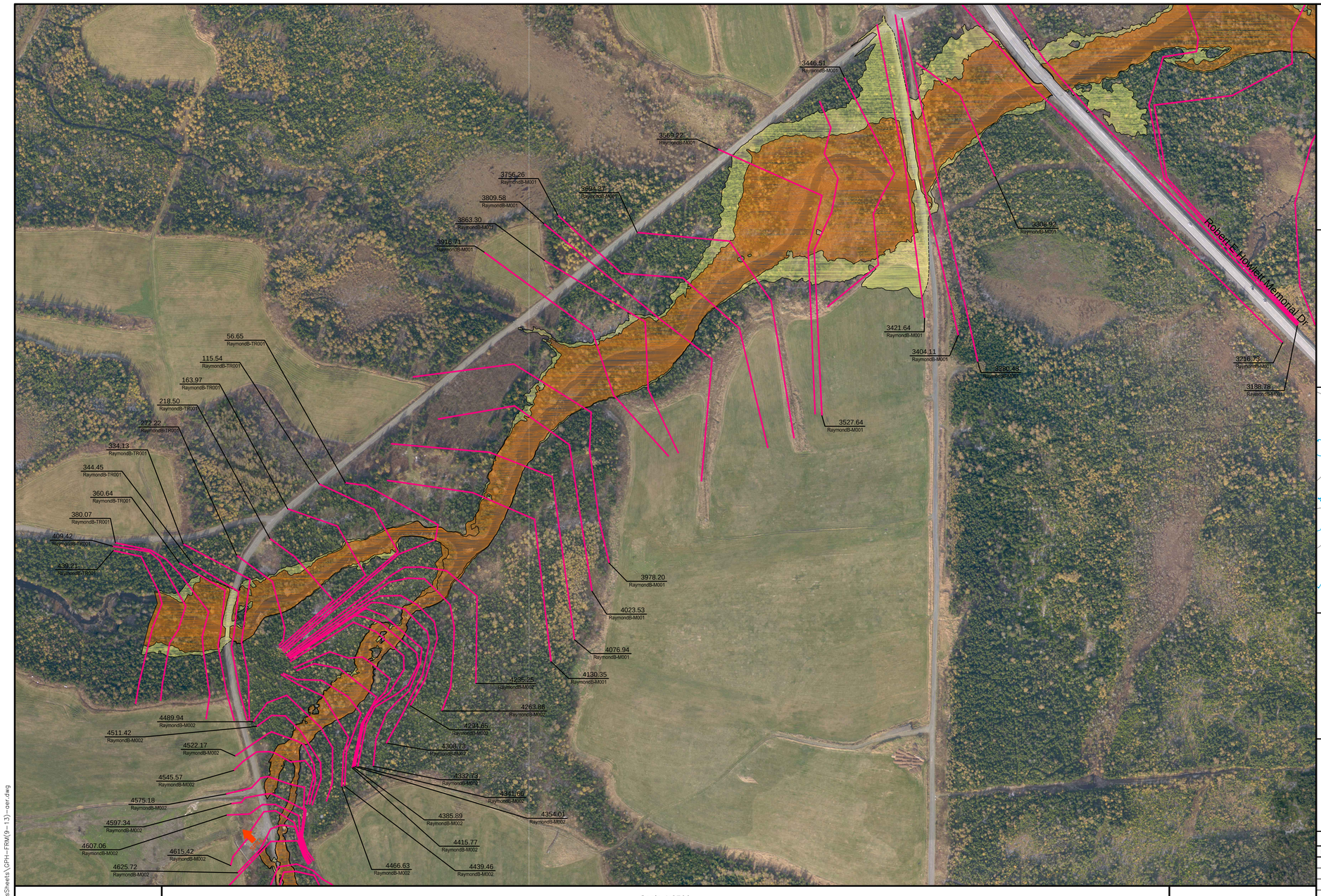

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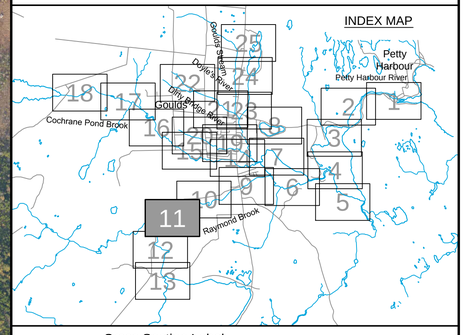

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ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

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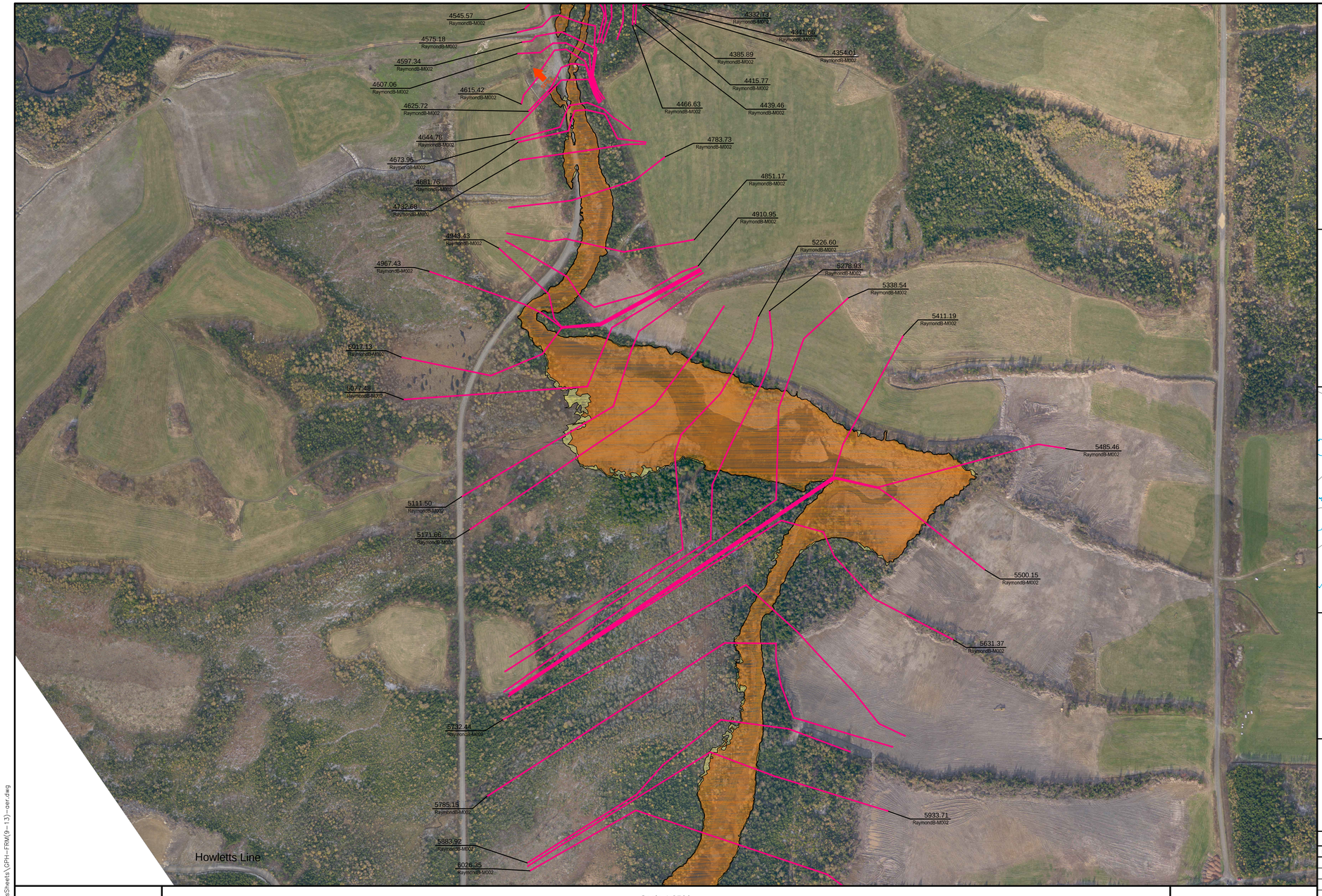

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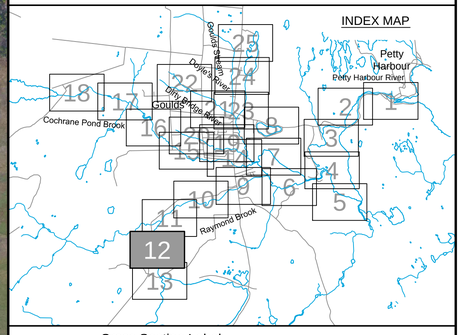

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DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

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amec

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MTMNAD83
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Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

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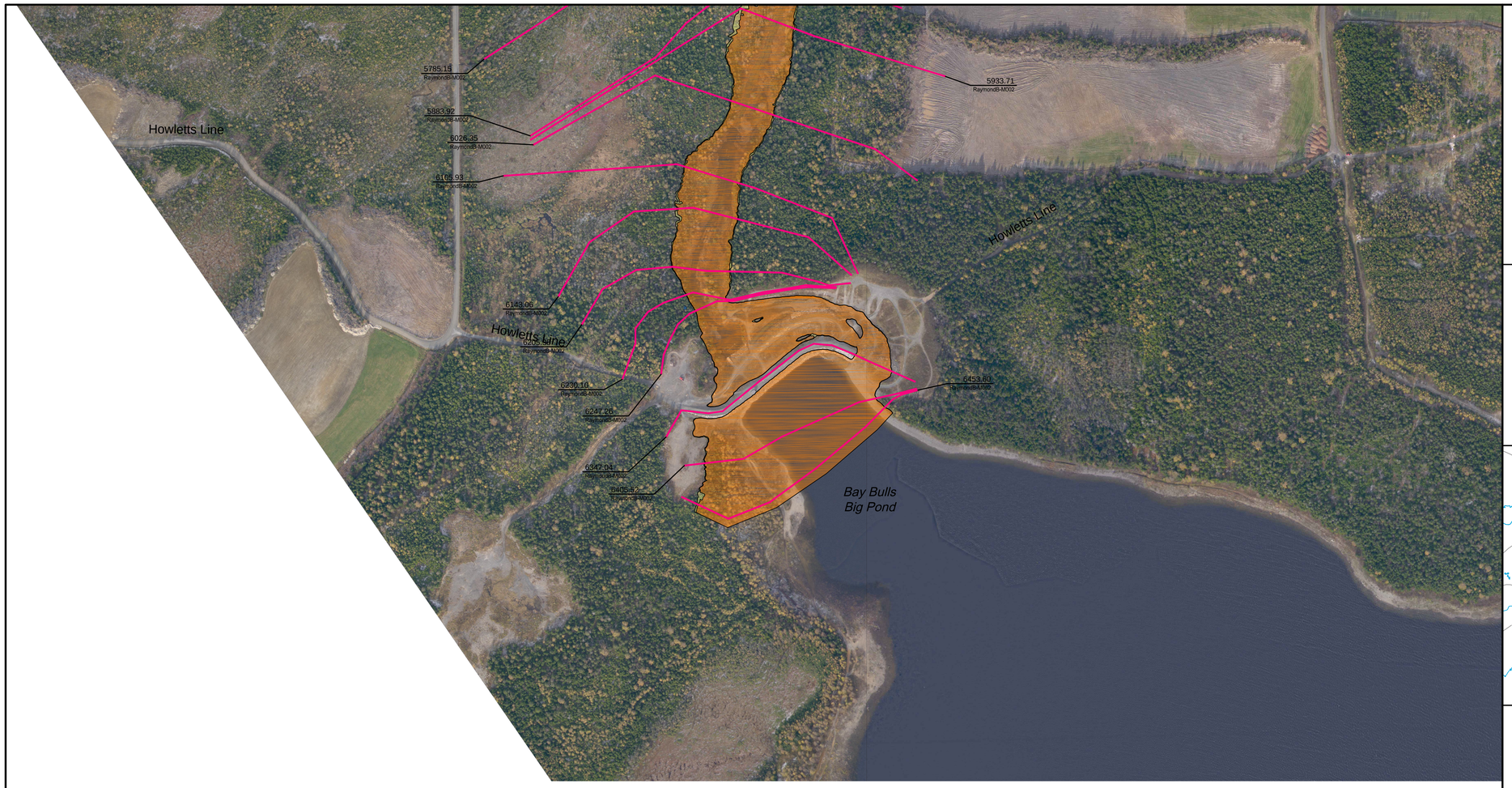

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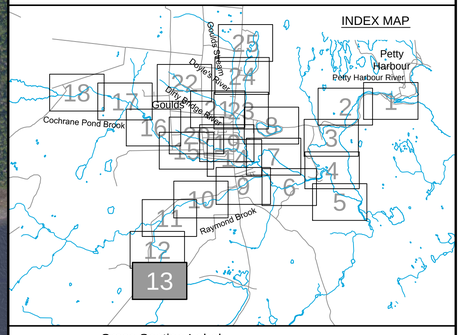
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

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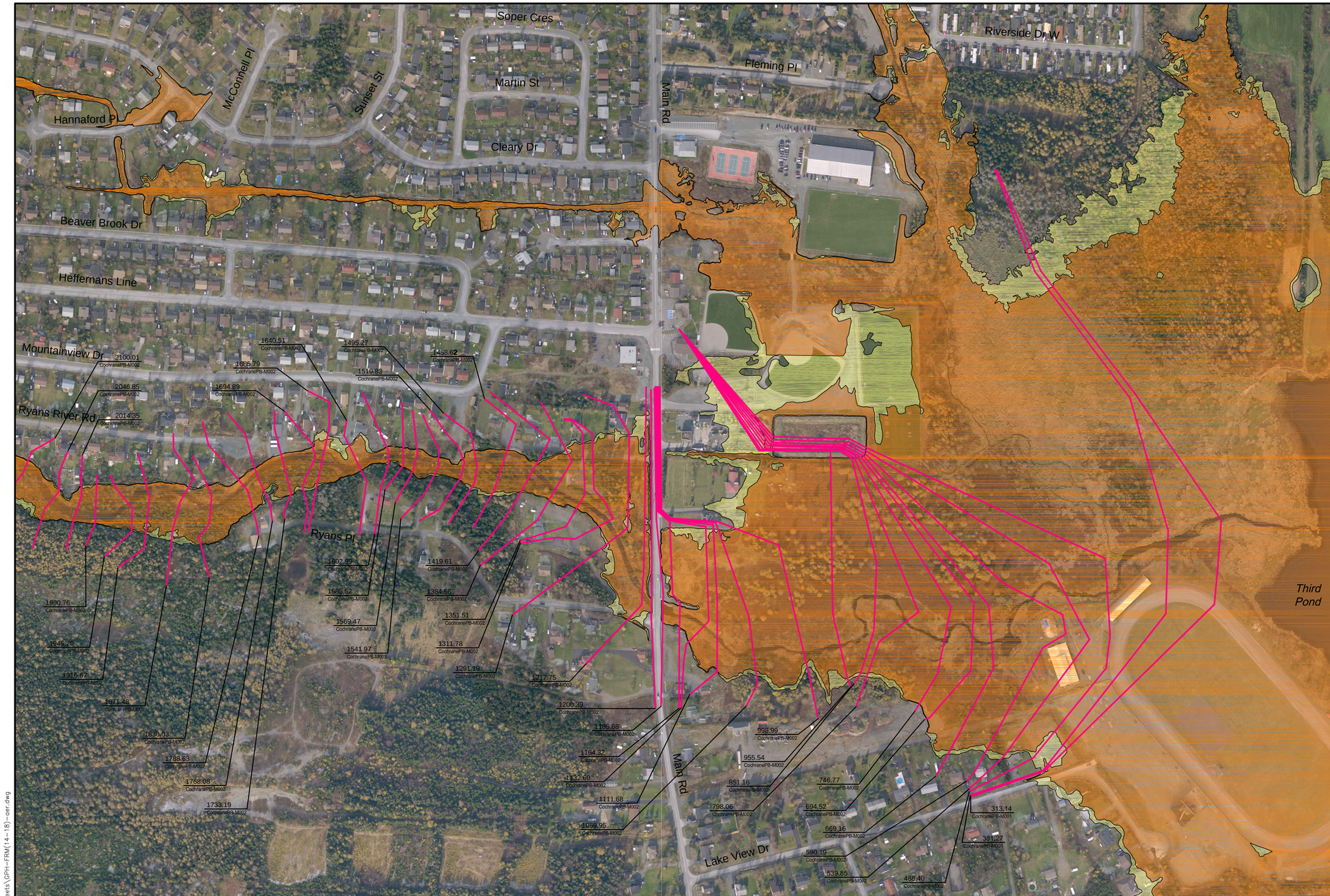

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Goulds\Petty Harbour

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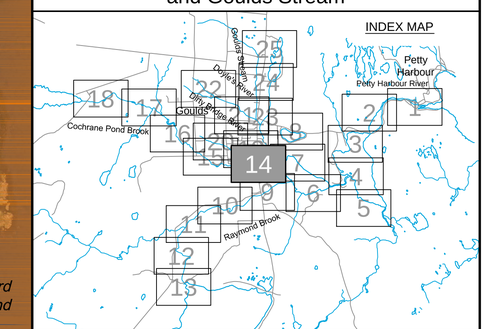

Cross Section Label

1050.0 DoylesR-TR017 — Cross Section Number — Reach Identification — Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

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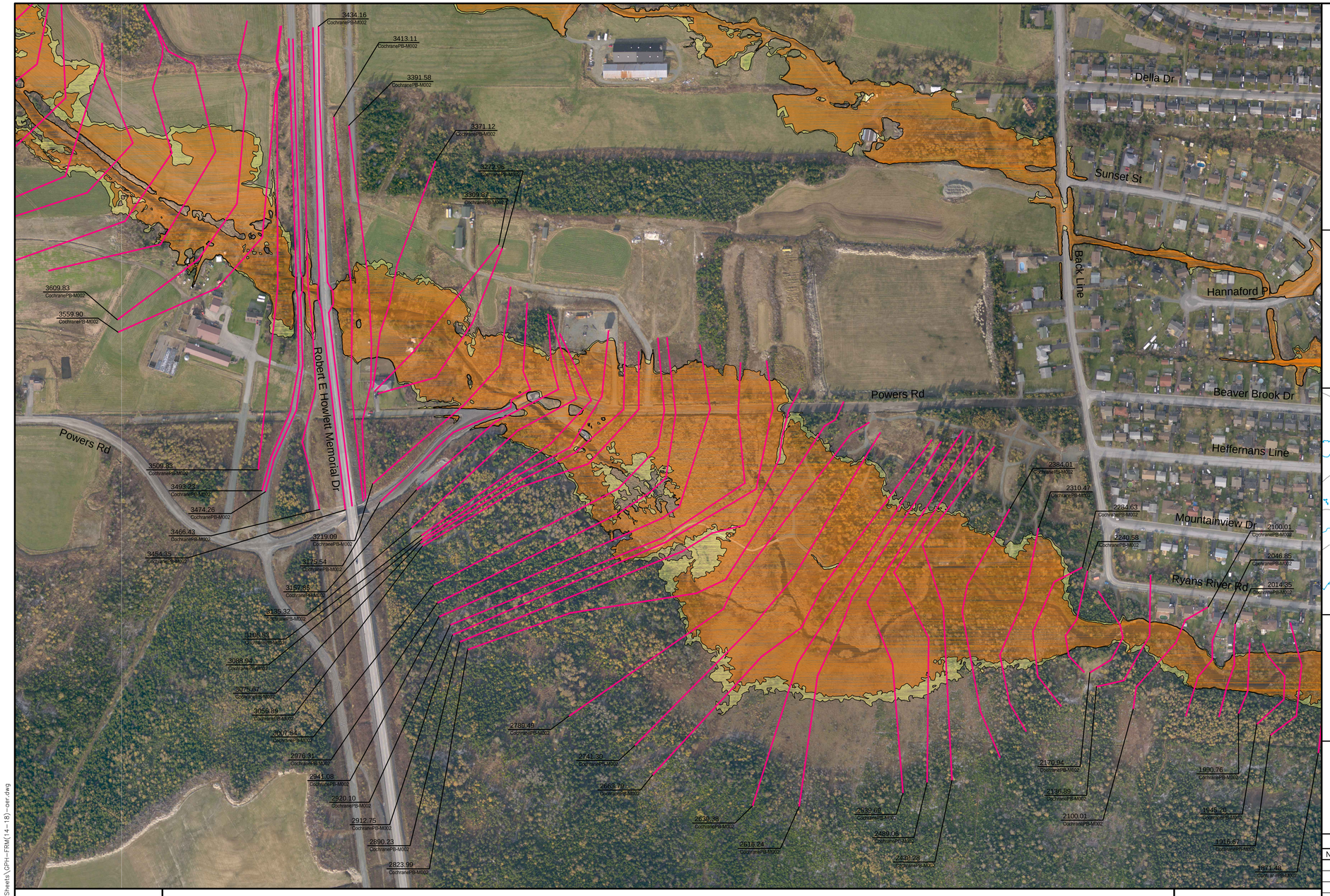

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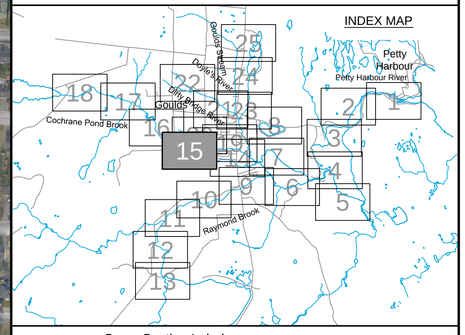

Cross Section Label

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DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

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1:100 AEP Floodline

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

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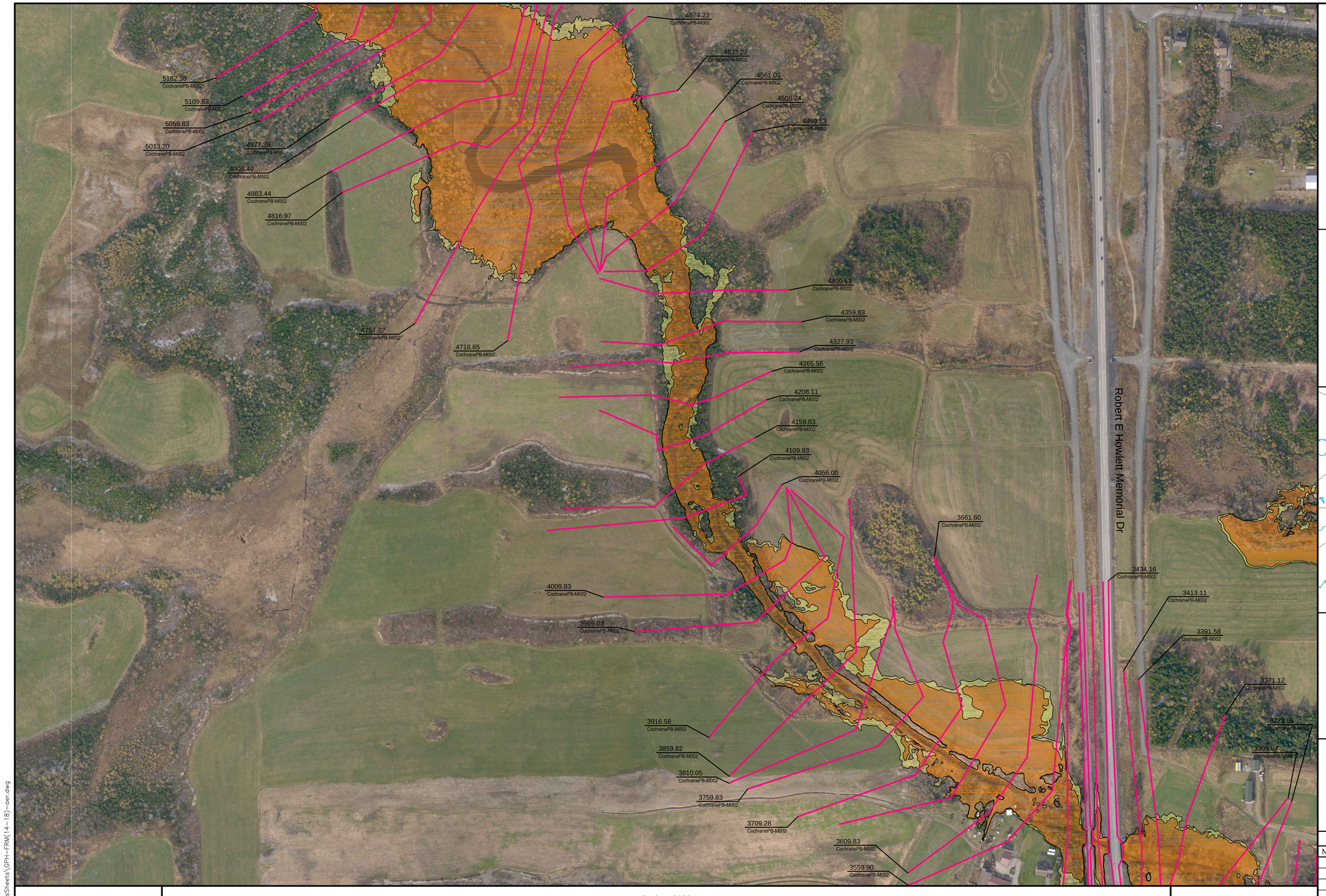

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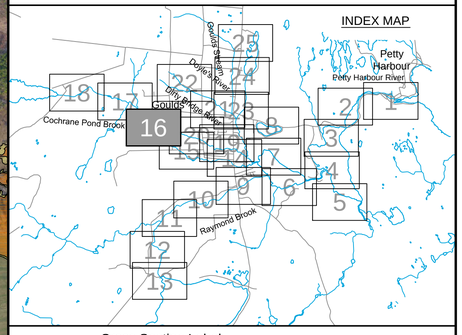

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1:100 AEP Floodline

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

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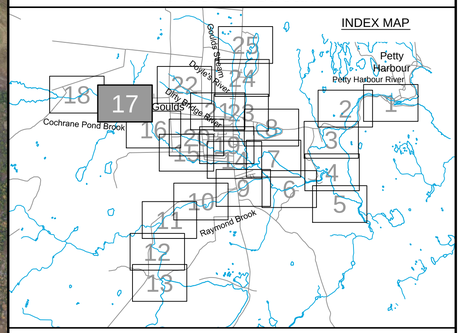

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DoylesR-TR017

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Reach Identification

Cross Section Location

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1:100 AEP Floodline

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ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

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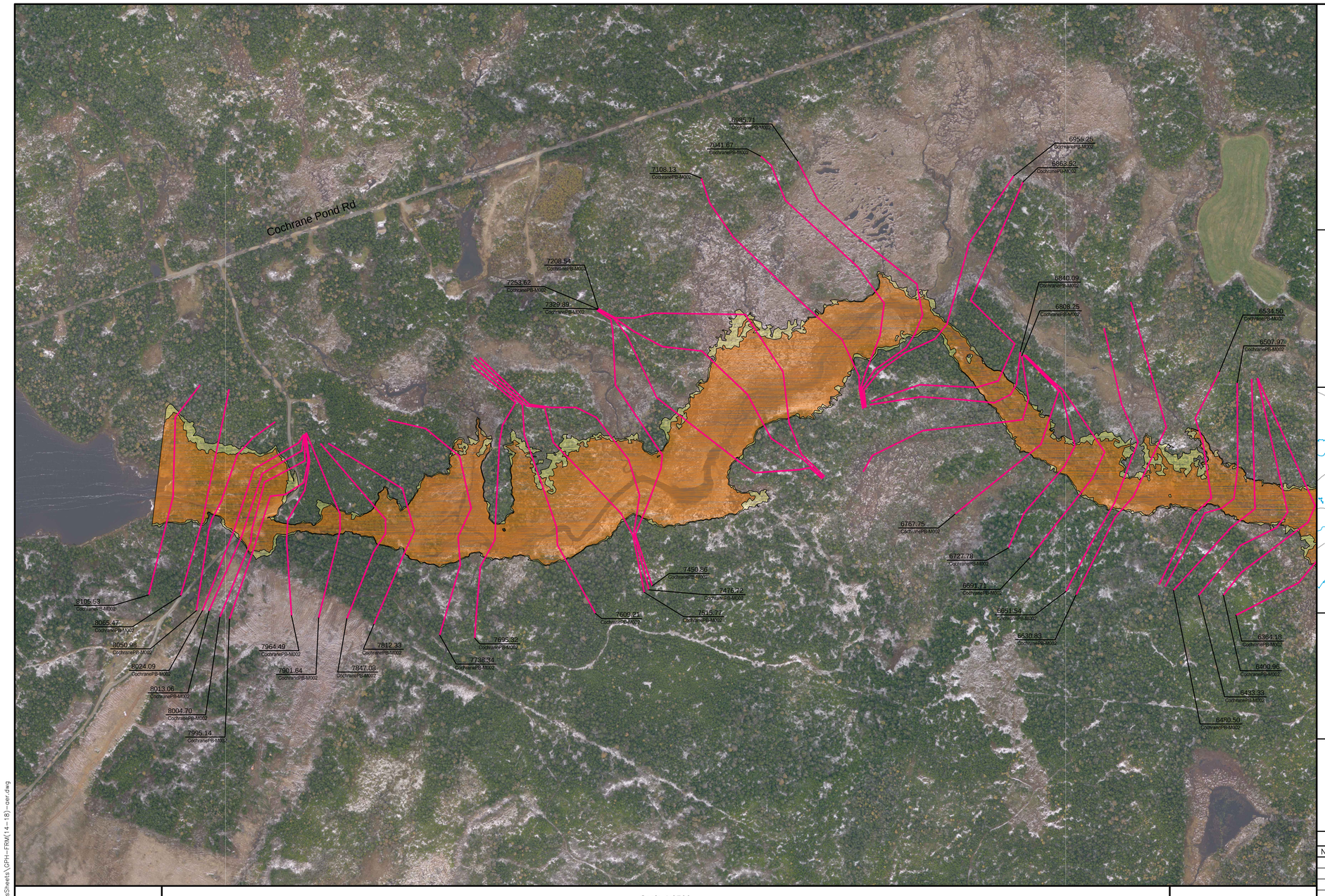

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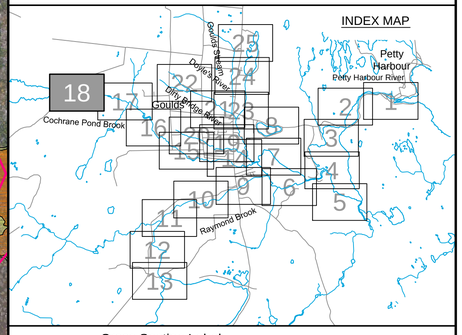

Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Floodline
1:100 AEP Floodline

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

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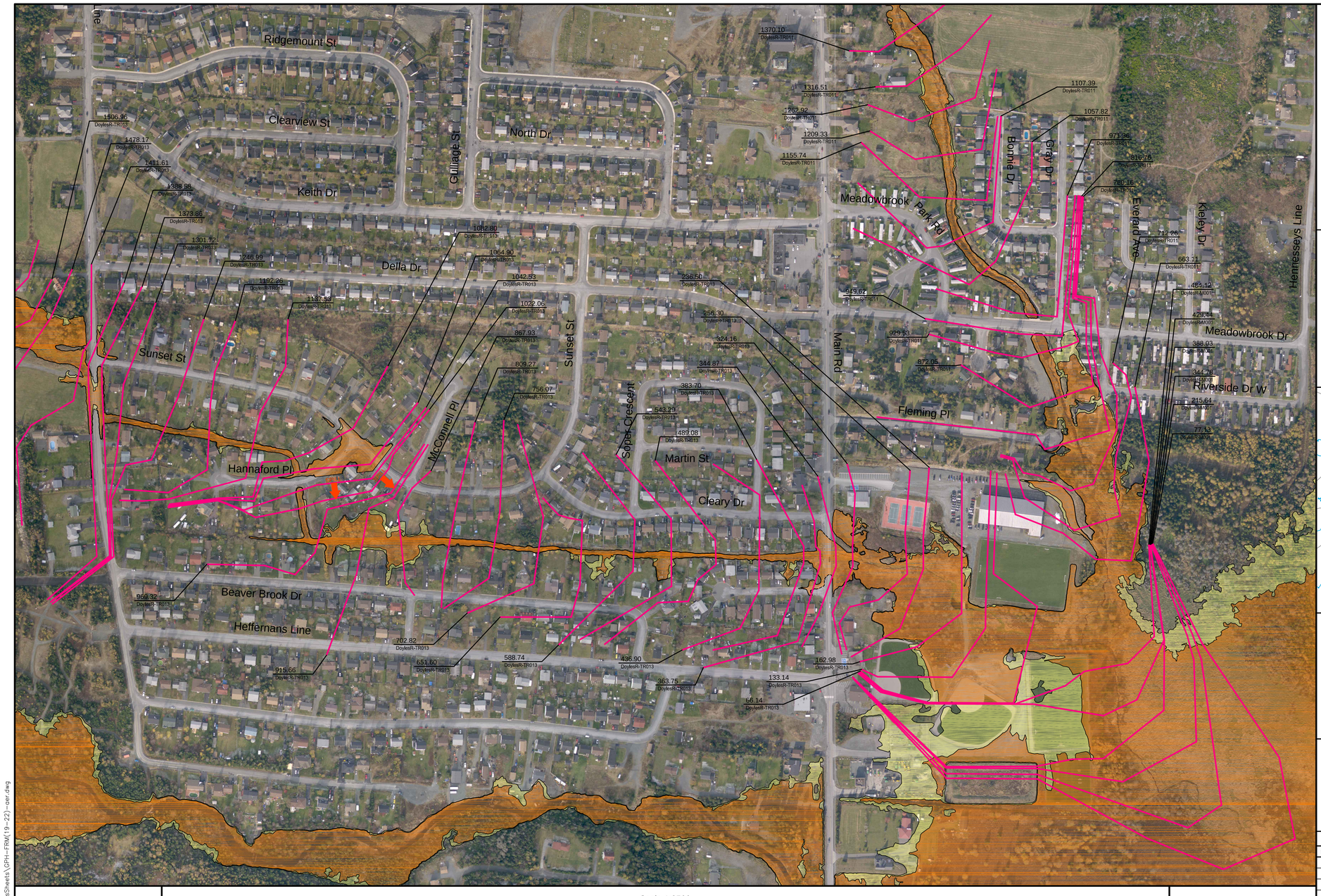

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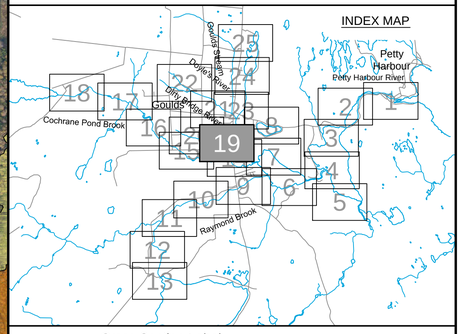

Cross Section Label

1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

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No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

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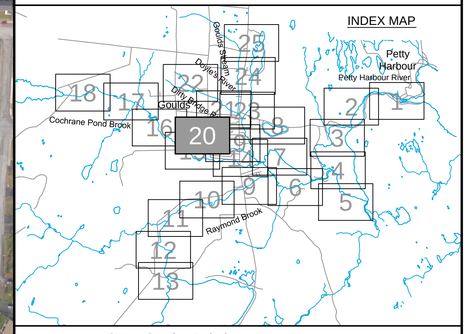

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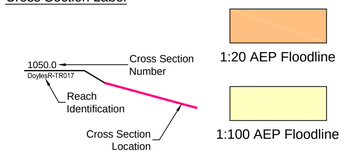

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REVISIONS

No.	Description	BY	DATE

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

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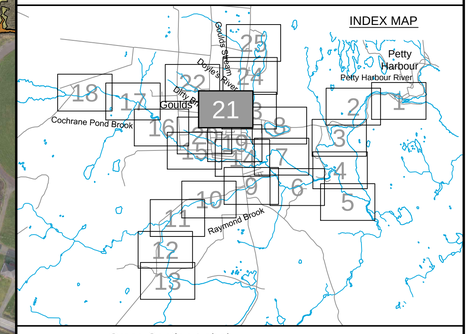

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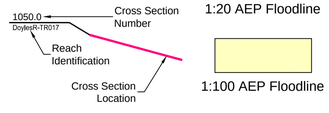

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REVISIONS

No.	Description	BY	DATE

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

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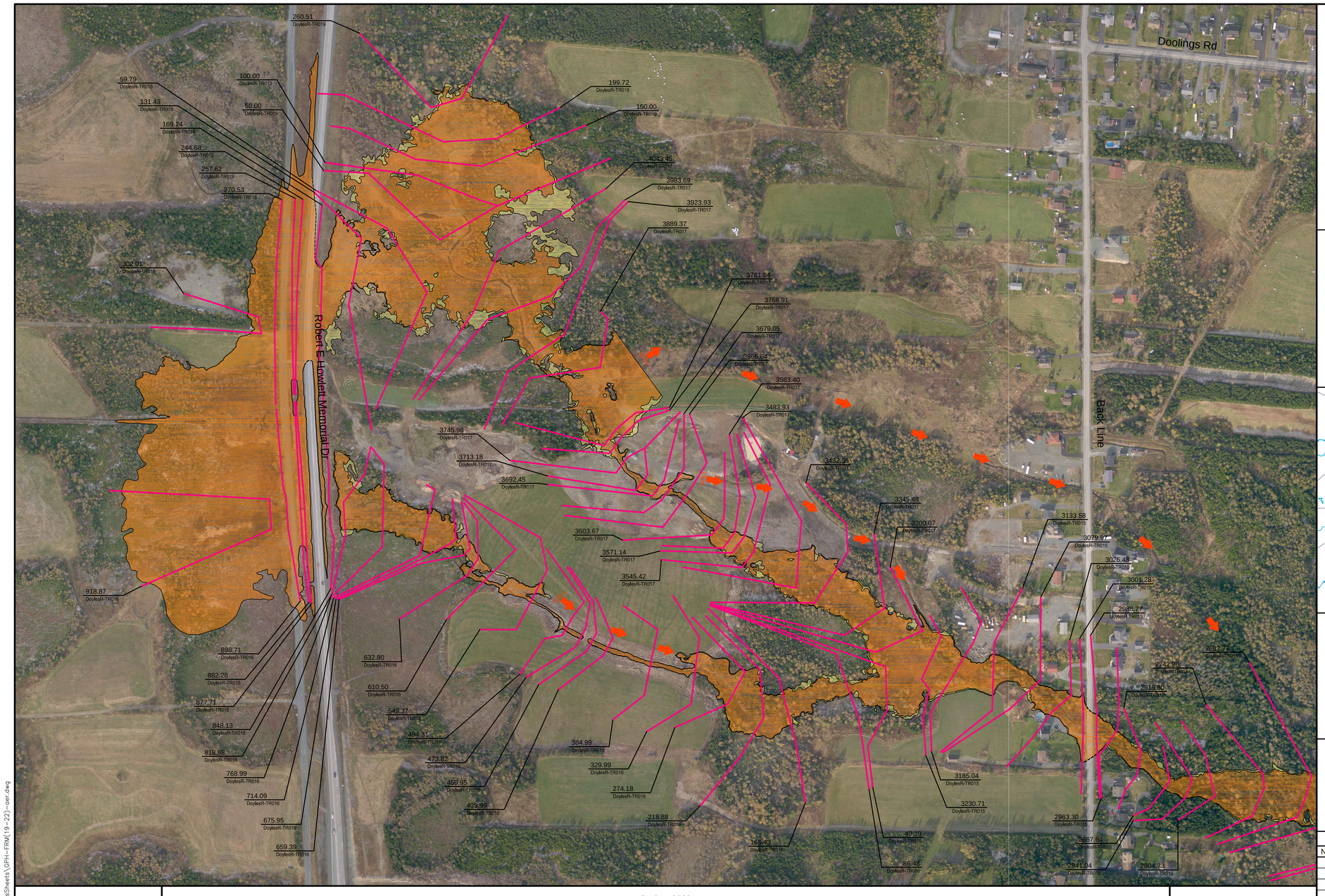

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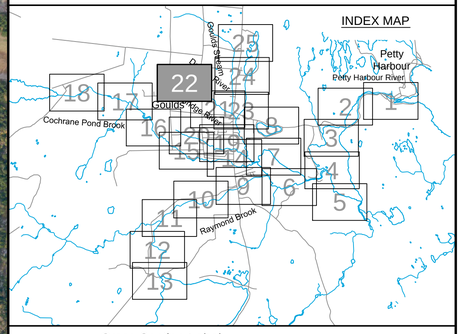

Cross Section Label

1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

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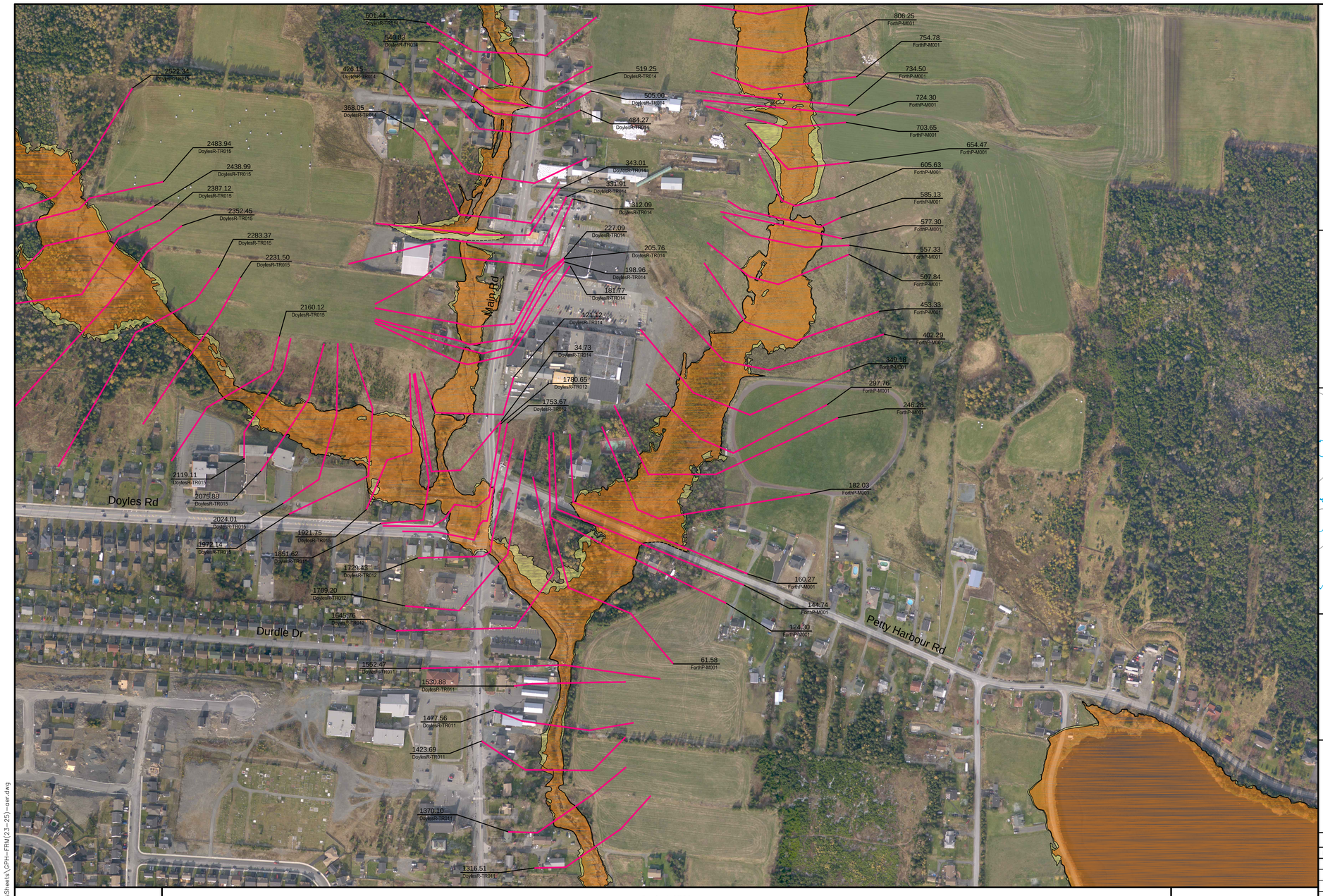

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

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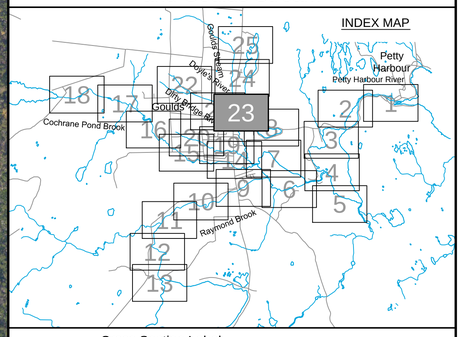

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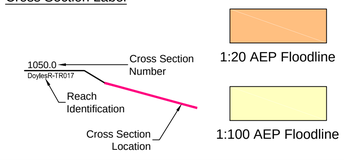

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REVISIONS

No.	Description	BY	DATE

Sheet 23 of 25

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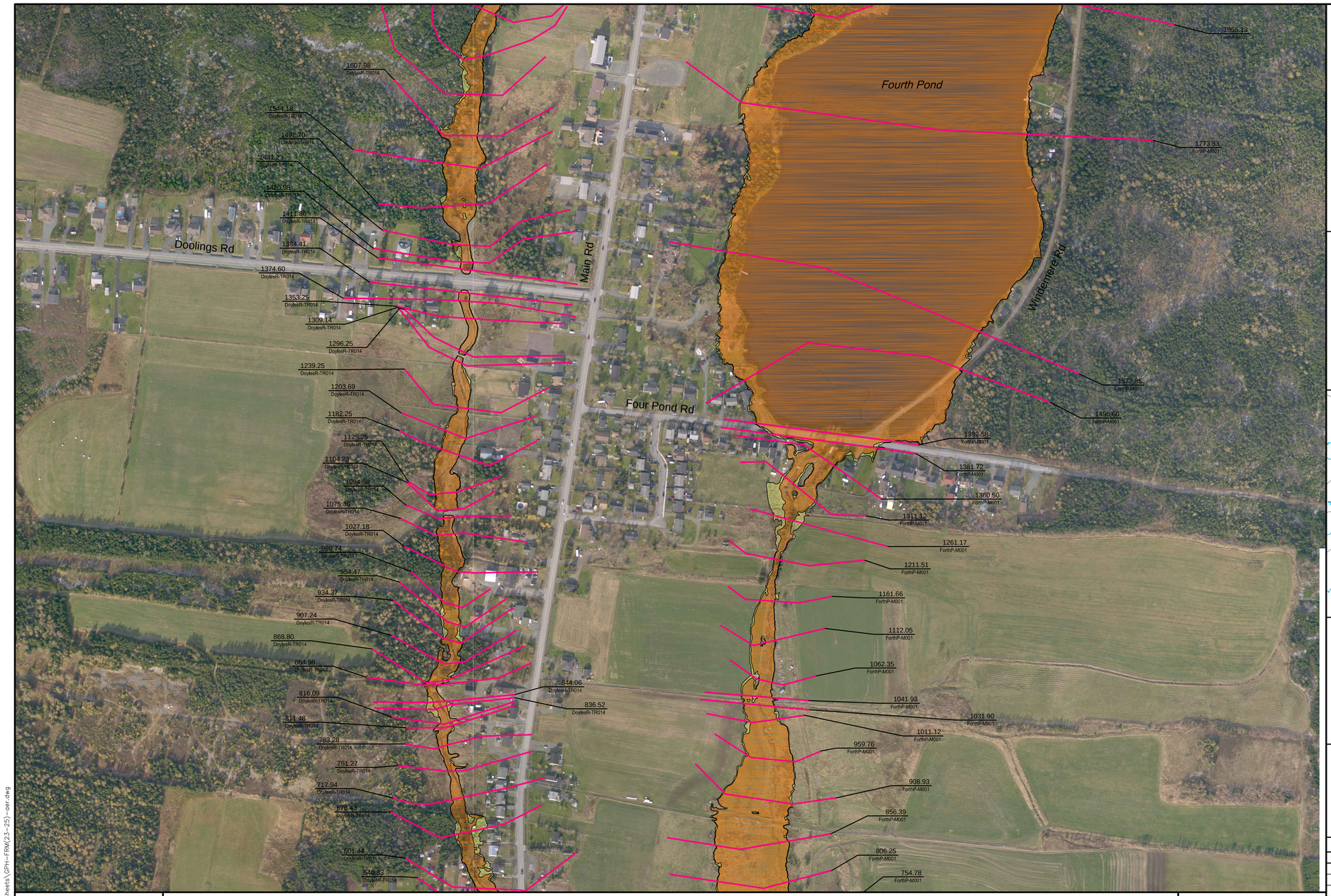

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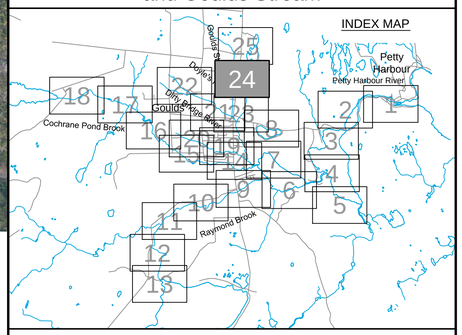

Cross Section Label

1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

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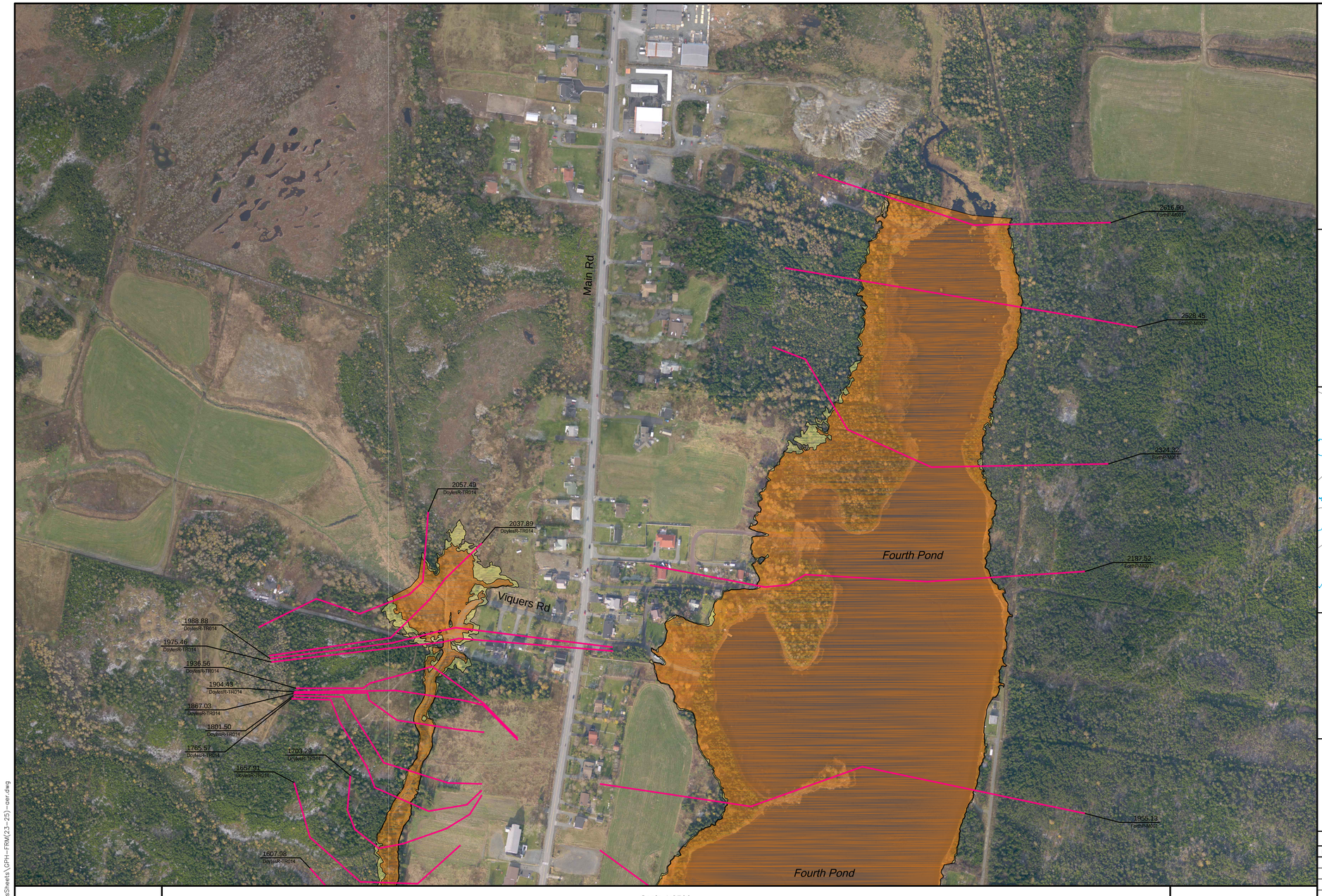

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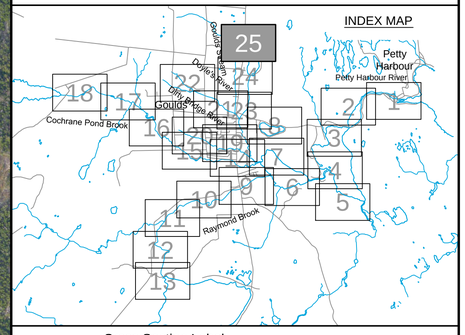

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DoylesR-TR017

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Reach Identification

Cross Section Location

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1:100 AEP Floodline

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ZONE 1

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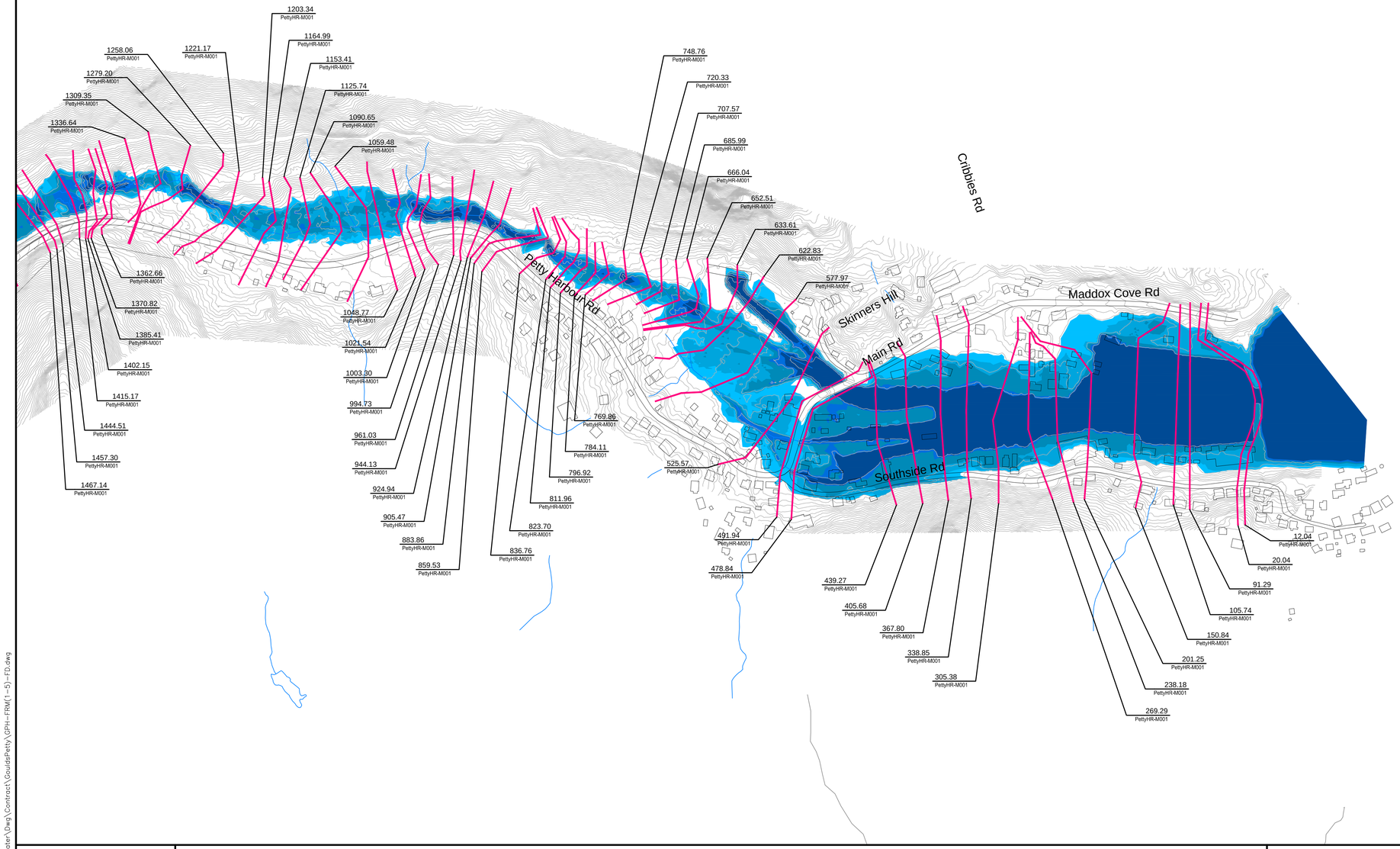

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

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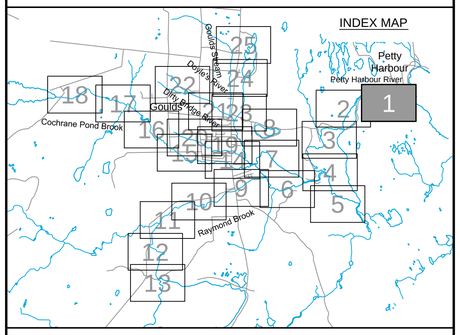

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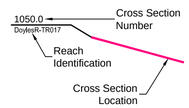

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

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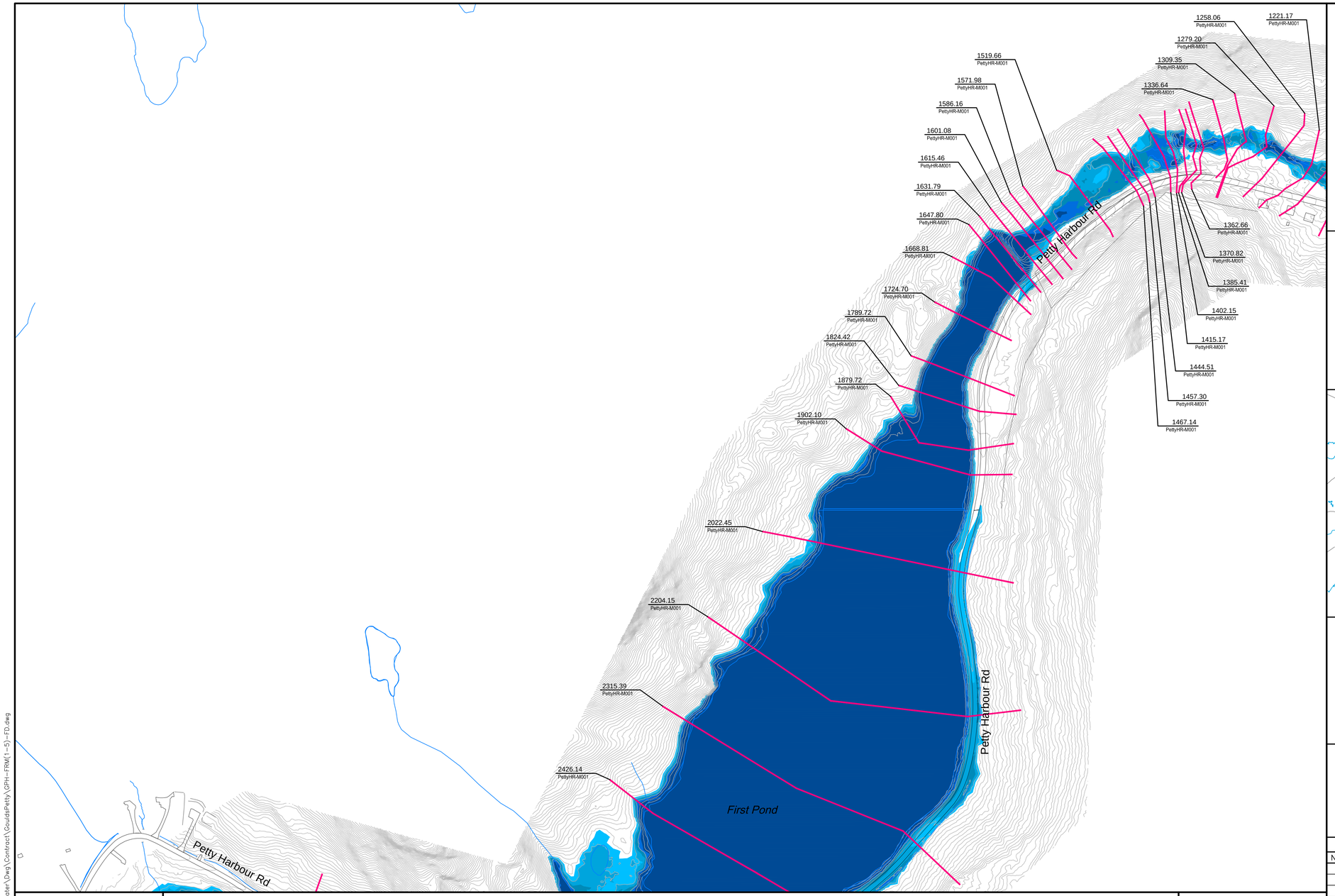


Department of Environment and Conservation
Water Resource Management Division

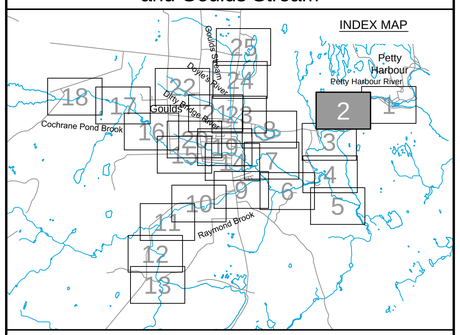
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2050
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 2 of 25

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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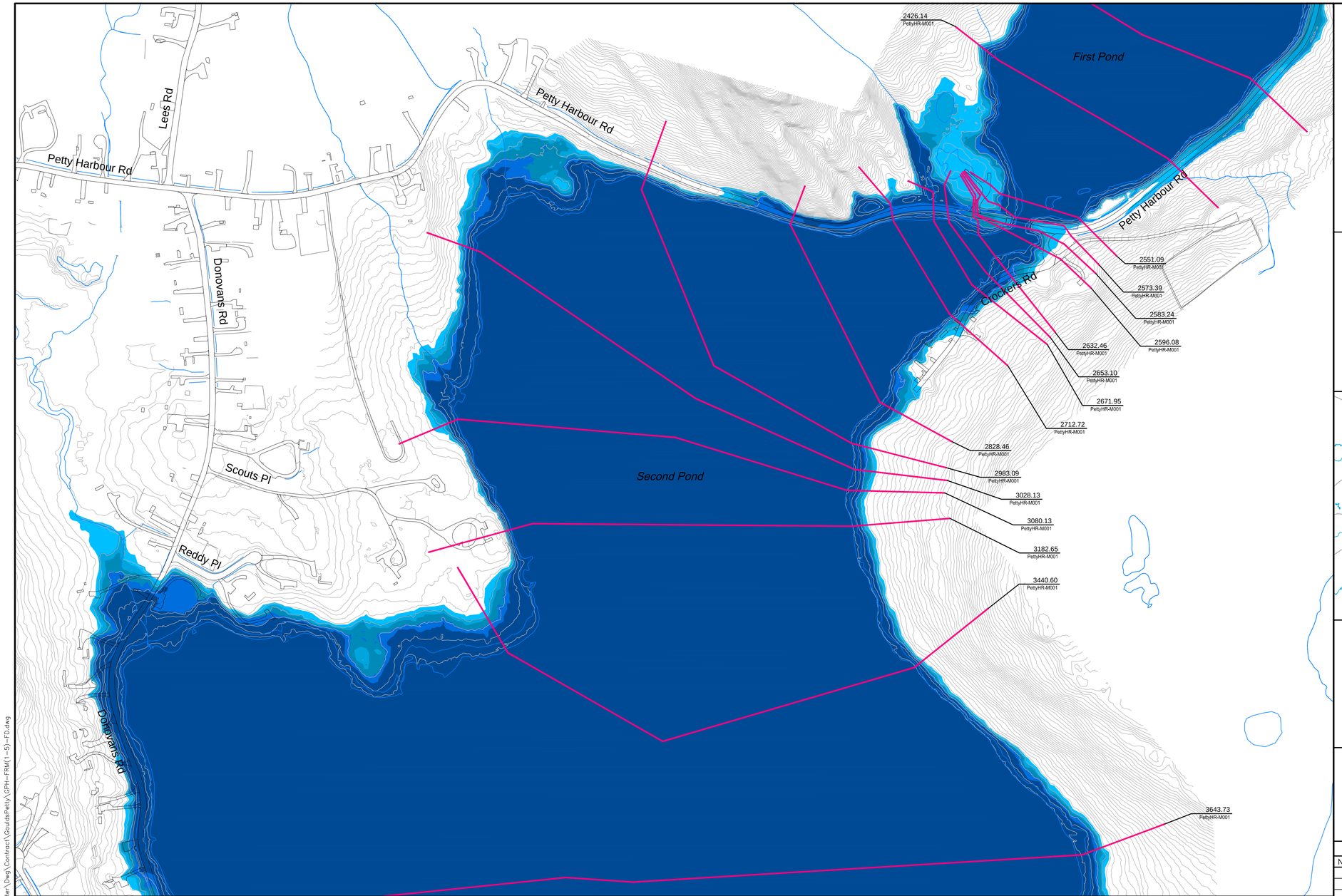
Mar 25/13 – richard.bartolo



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Department of Environment and Conservation
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Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

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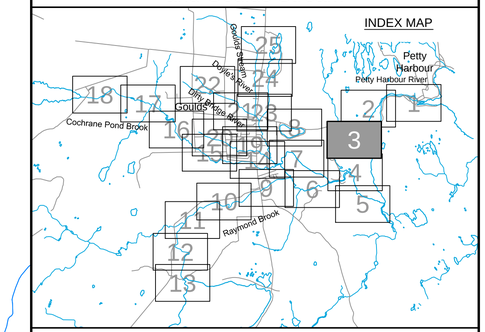
INDEX MAP



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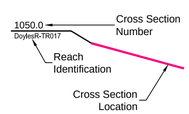

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

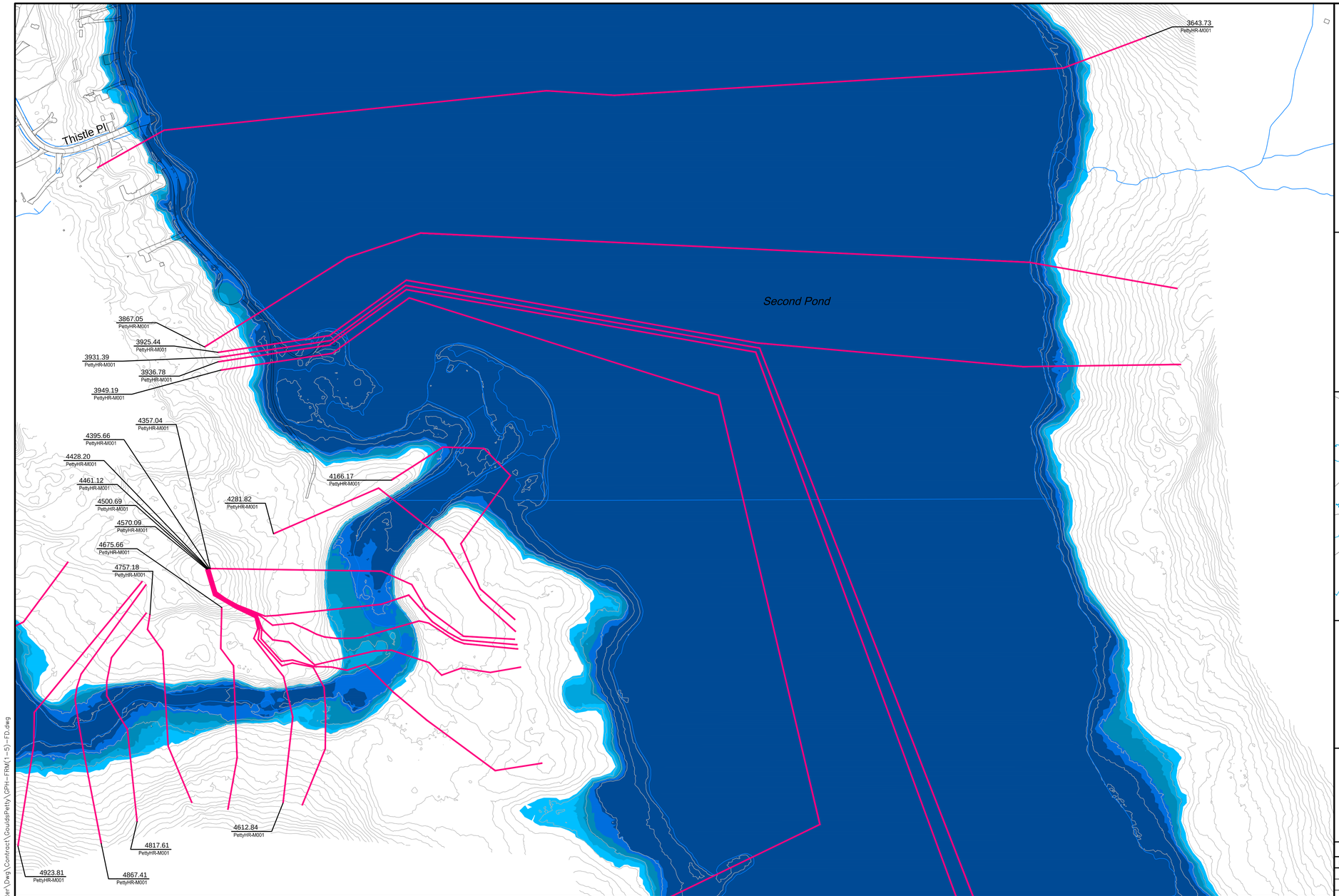
Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 3 of 25

Mar 25/13 – richard.bartolo



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Newfoundland Labrador

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Water Resource Management Division

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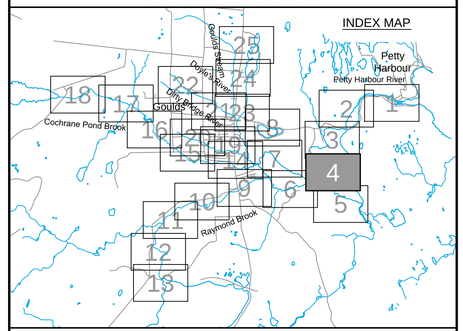

Cross Section Label

1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

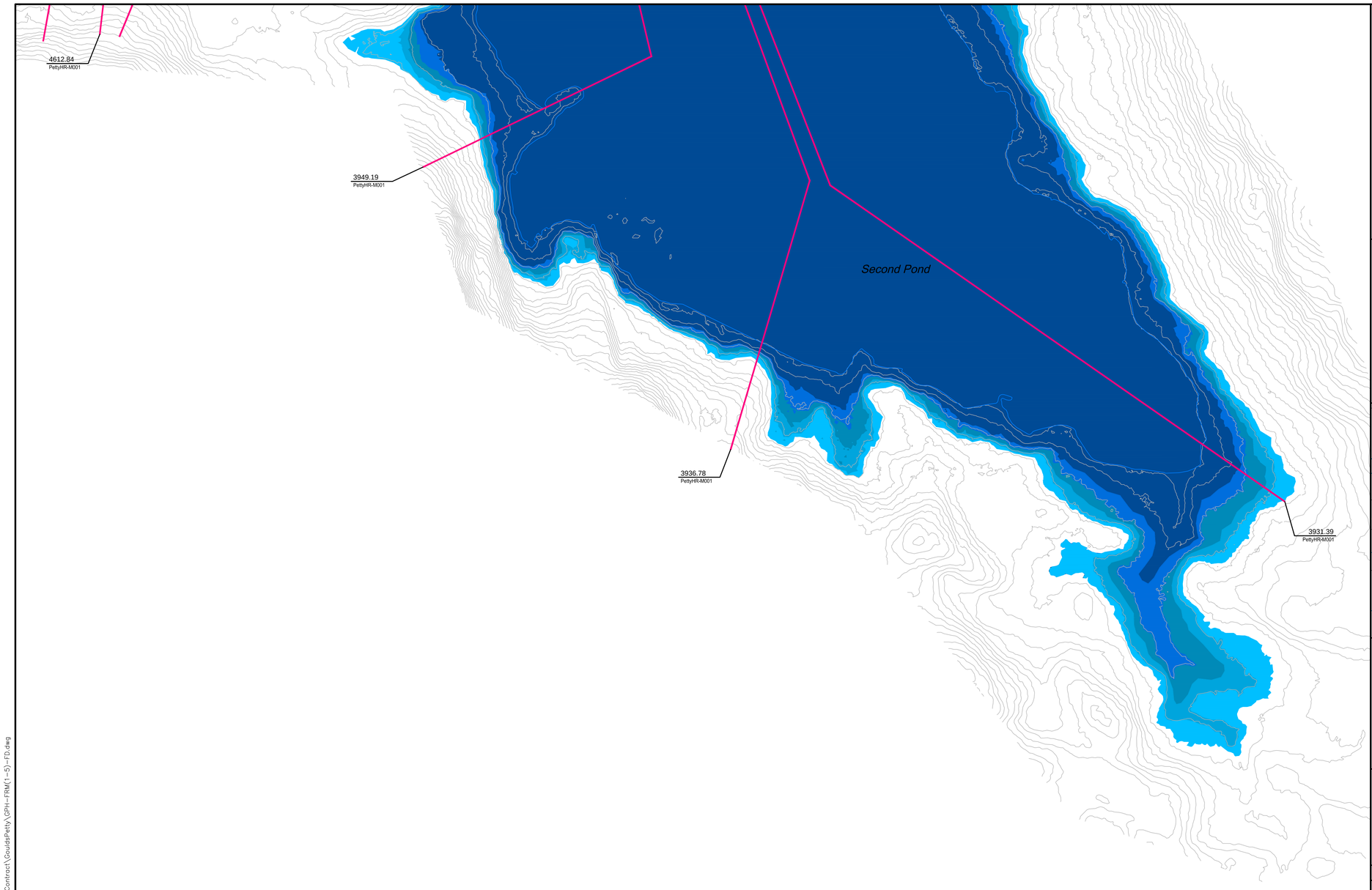
CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 4 of 25

Mar 25/13 – richard.bartolo



Newfoundland Labrador

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Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

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Goulds\Petty Harbour

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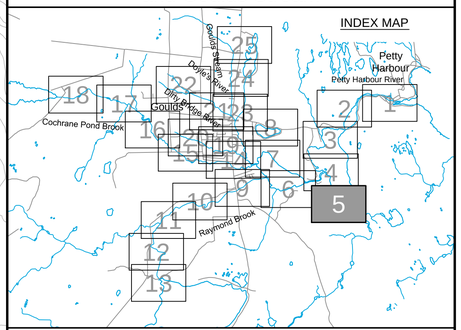

Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 5 of 25

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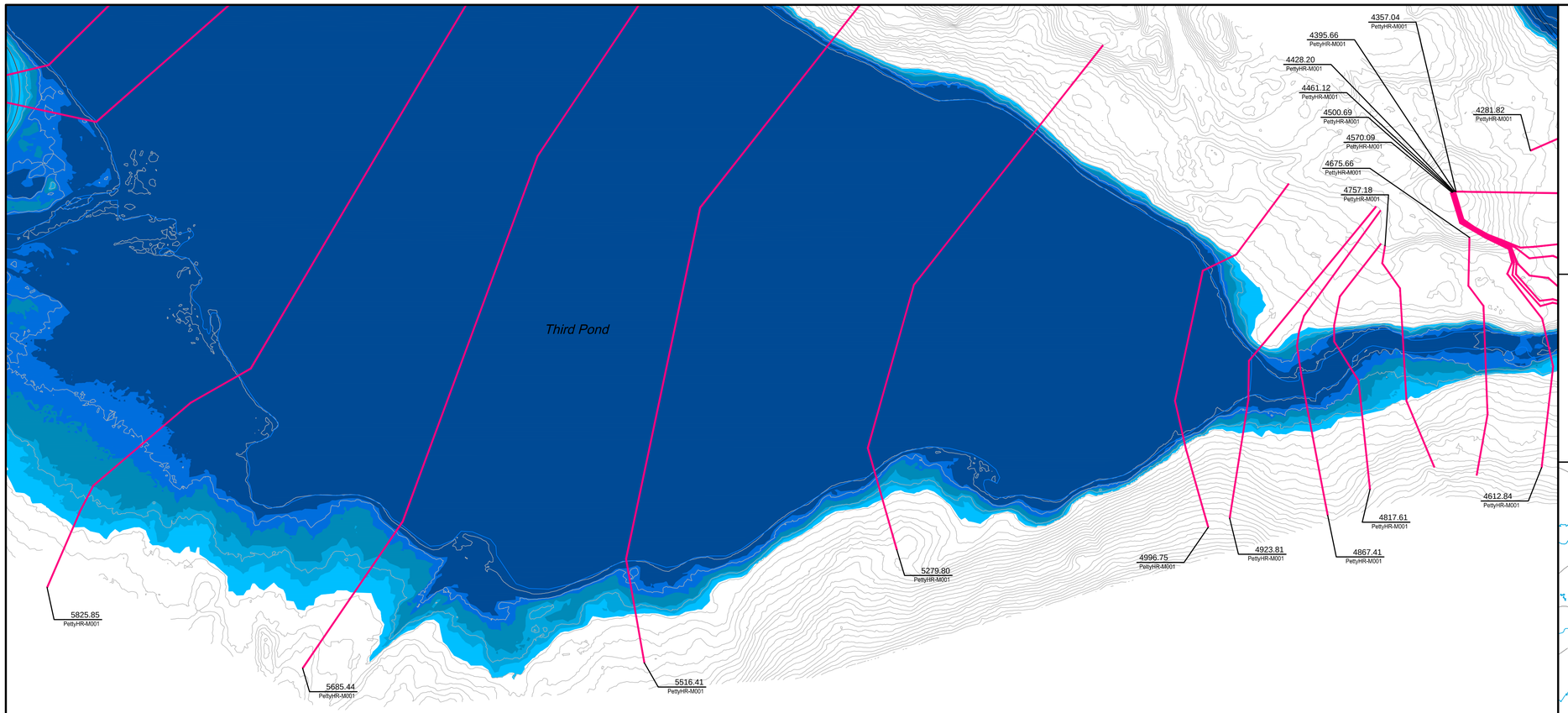
Mar 25/13 – richard.bartolo



Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

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AMEC (Maximum IDF Relationship)

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and Goulds Stream

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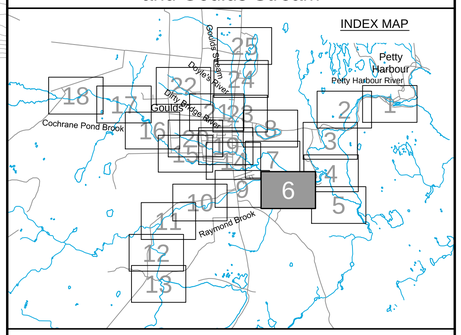

Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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Meadowbrook Dr

Riverside Dr W

688.06 ForestP-M001
651.32 ForestP-M001
600.44 ForestP-M001
578.60 ForestP-M001
528.92 ForestP-M001
478.55 ForestP-M001
430.82 ForestP-M001
378.18 ForestP-M001
328.07 ForestP-M001
277.95 ForestP-M001
195.51 ForestP-M001
158.37 ForestP-M001
89.11 ForestP-M001
6270.85 PettyHR-M002
6218.07 PettyHR-M002
6095.00 PettyHR-M002
6004.71 PettyHR-M002
5825.85 PettyHR-M001
5685.44 PettyHR-M001
5516.39 PettyHR-M001

Third Pond

Lake View Dr

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(6-8)-FD.dwg

Newfoundland Labrador

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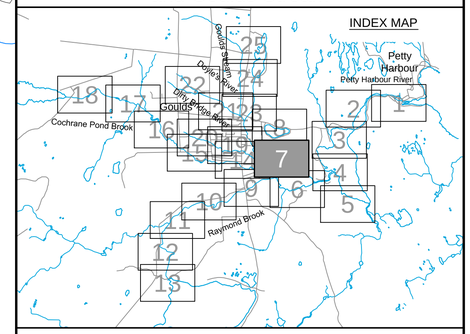

Cross Section Label

1050.0 DoylesR-TR017
- Cross Section Number
- Reach Identification
- Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

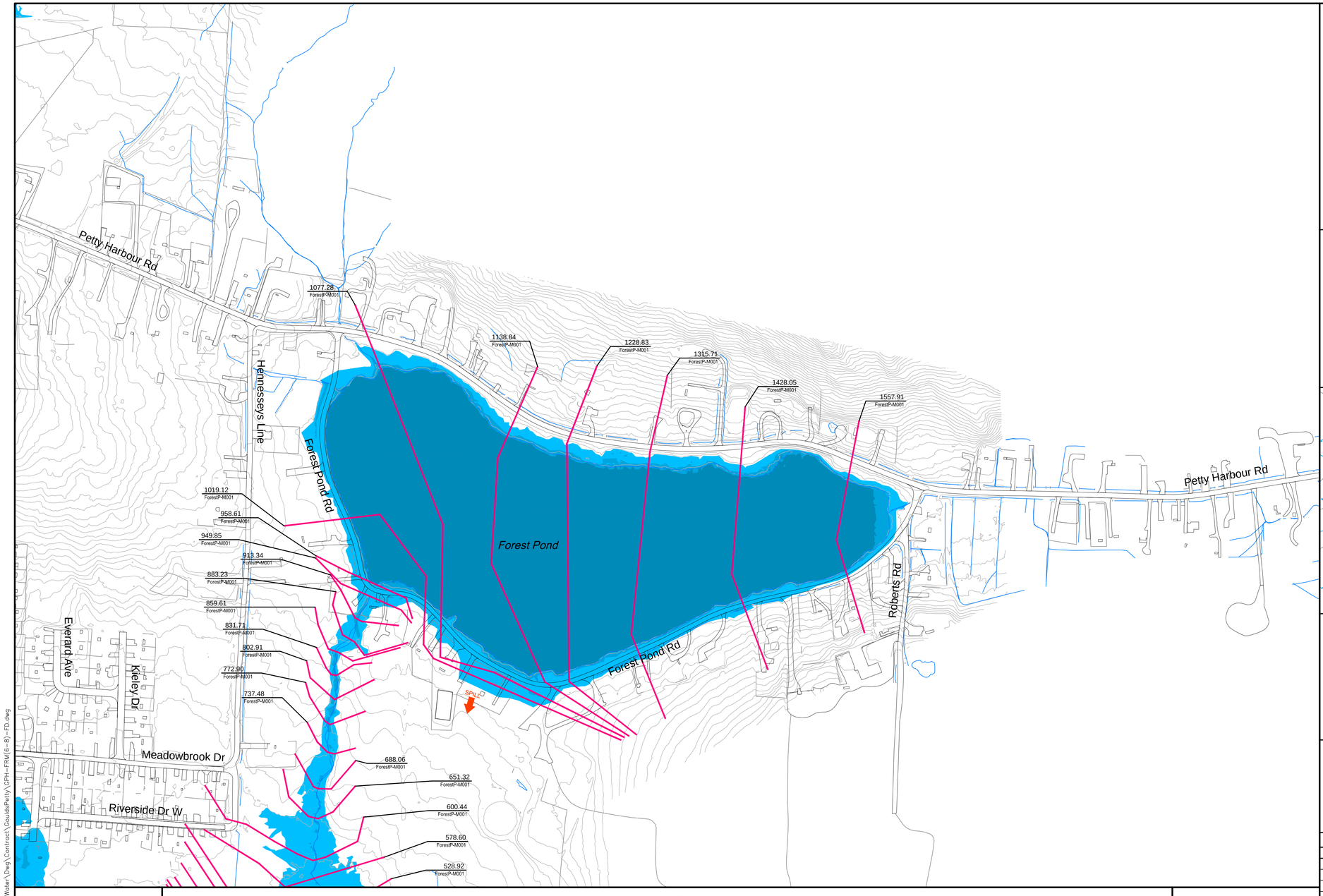
150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 7 of 25

Mar 25/13 – richard.bartolo



Newfoundland Labrador

Department of Environment and Conservation
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and Goulds Stream

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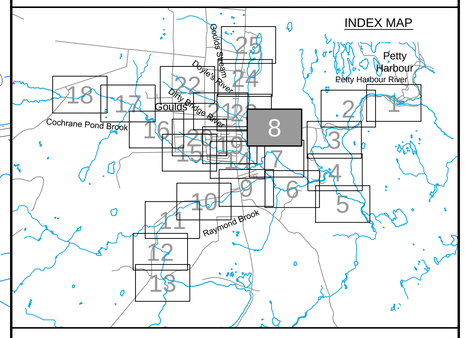

Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 8 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(6-8)-FD.dwg

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Third Pond

Lake View Dr

Main Rd

Shoal Bay Rd

Alexis Pl

816.68 RaymondB-M001
841.89 RaymondB-M001
892.34 RaymondB-M001
866.25 RaymondB-M001
916.70 RaymondB-M001
942.15 RaymondB-M001
976.73 RaymondB-M001
999.99 RaymondB-M001
1116.25 RaymondB-M001
1148.70 RaymondB-M001
1166.20 RaymondB-M001
1189.75 RaymondB-M001
1216.25 RaymondB-M001
1252.39 RaymondB-M001
1066.09 RaymondB-M001
1035.68 RaymondB-M001
716.25 RaymondB-M001
615.86 RaymondB-M001
565.77 RaymondB-M001
766.25 RaymondB-M001
520.15 RaymondB-M001
675.00 RaymondB-M001
468.54 RaymondB-M001
429.18 RaymondB-M001
366.25 RaymondB-M001
341.79 RaymondB-M001
5825.85 PettyHR-M001
1536.01 RaymondB-M001
1584.49 RaymondB-M001
1630.92 RaymondB-M001
1682.15 RaymondB-M001
1733.38 RaymondB-M001
1784.61 RaymondB-M001
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1989.18 RaymondB-M001
1303.54 RaymondB-M001
1323.54 RaymondB-M001
1372.05 RaymondB-M001
1425.99 RaymondB-M001
1477.96 RaymondB-M001

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Newfoundland Labrador

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Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
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AMEC (Maximum IDF Relationship)

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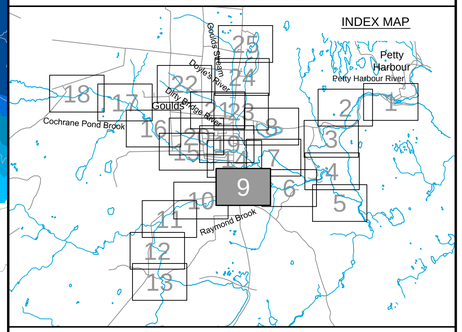

Cross Section Label

1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5 - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 9 of 25

Mar 25/13 – richard.bartolo

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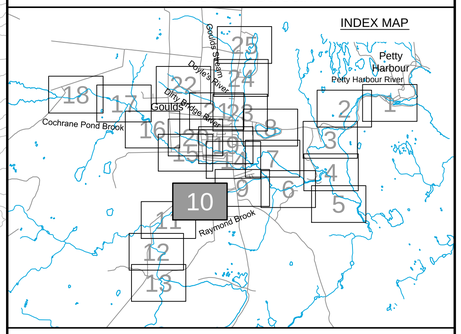
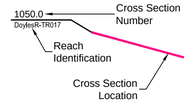


Cross Section Label



1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

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MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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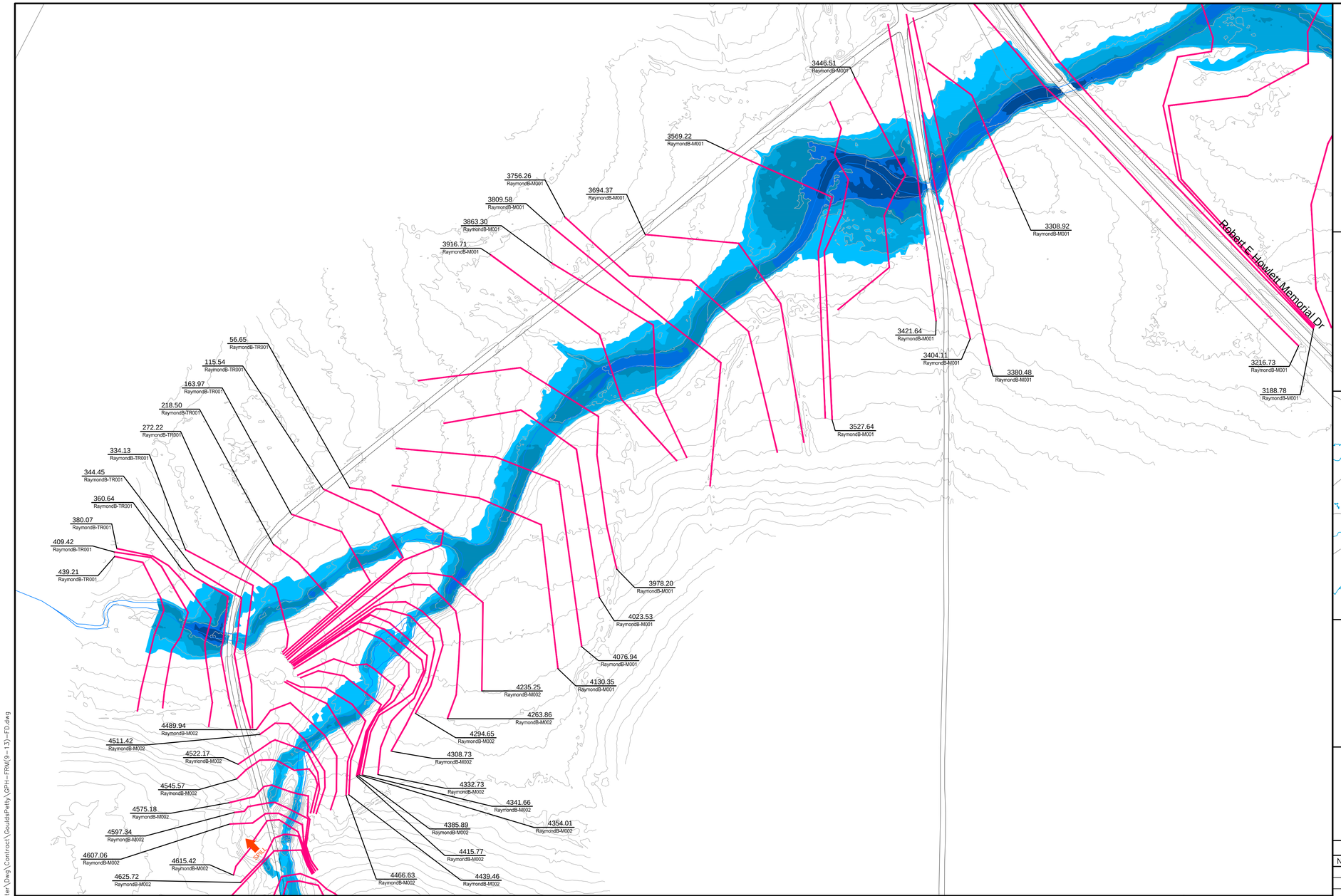
Mar 25/13 – richard.bartolo



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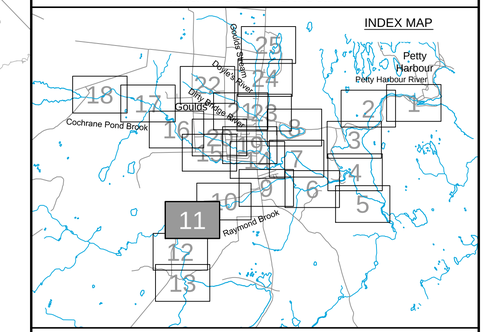

Cross Section Label

1050.0 — Cross Section Number
DoylesB-TR017 — Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres: 150 0 150
Feet: 300 0 300 600 900

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 11 of 25

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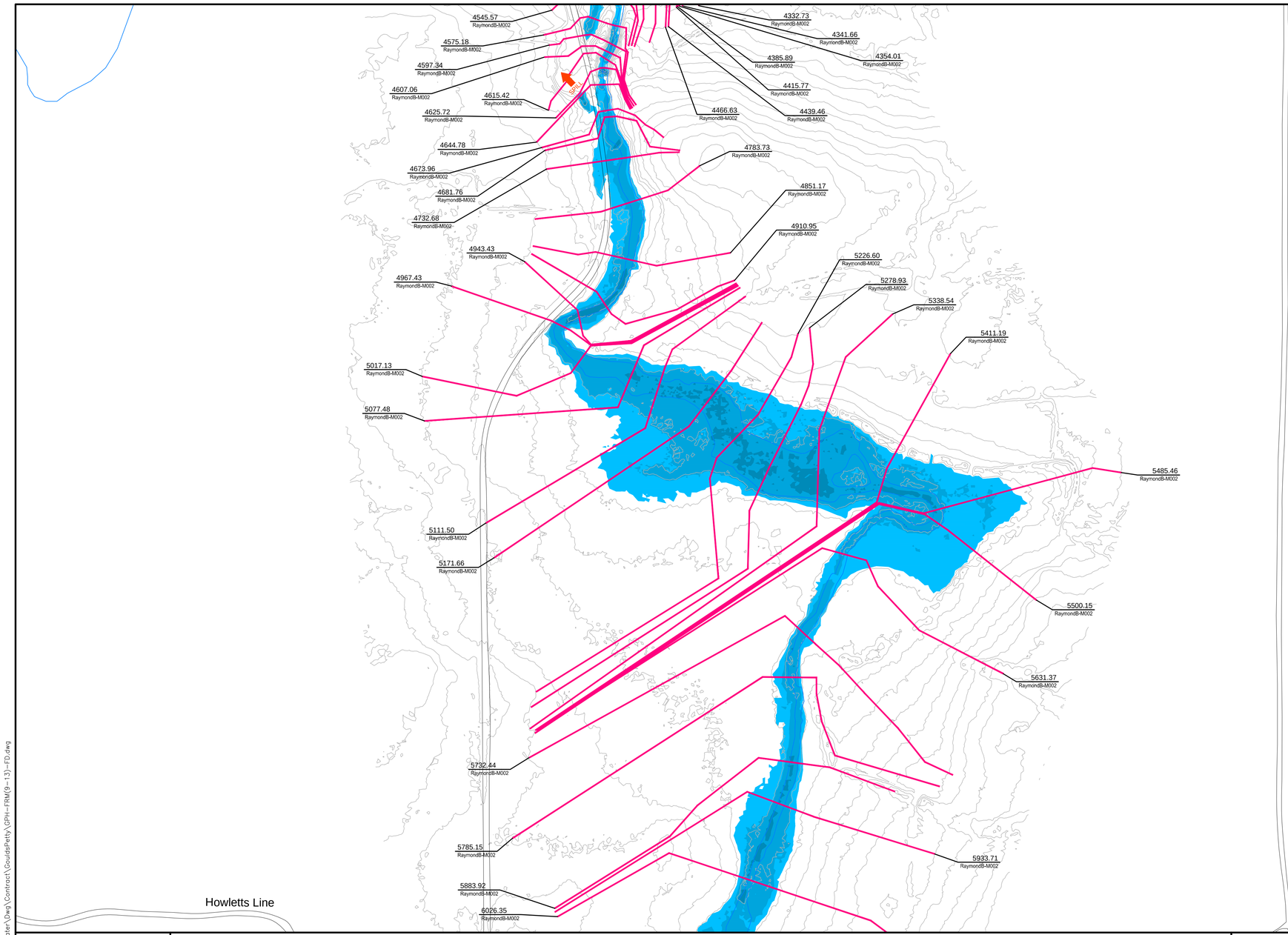
Mar 25/13 – richard.bartolo



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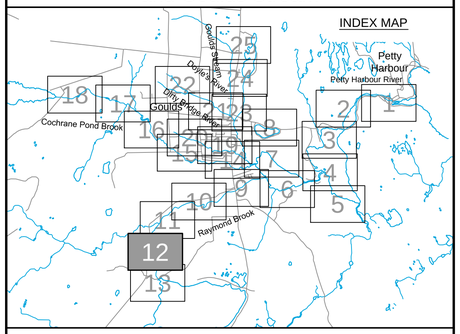

Cross Section Label

1050.0
DoylesR-TR017

- Cross Section Number
- Reach Identification
- Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
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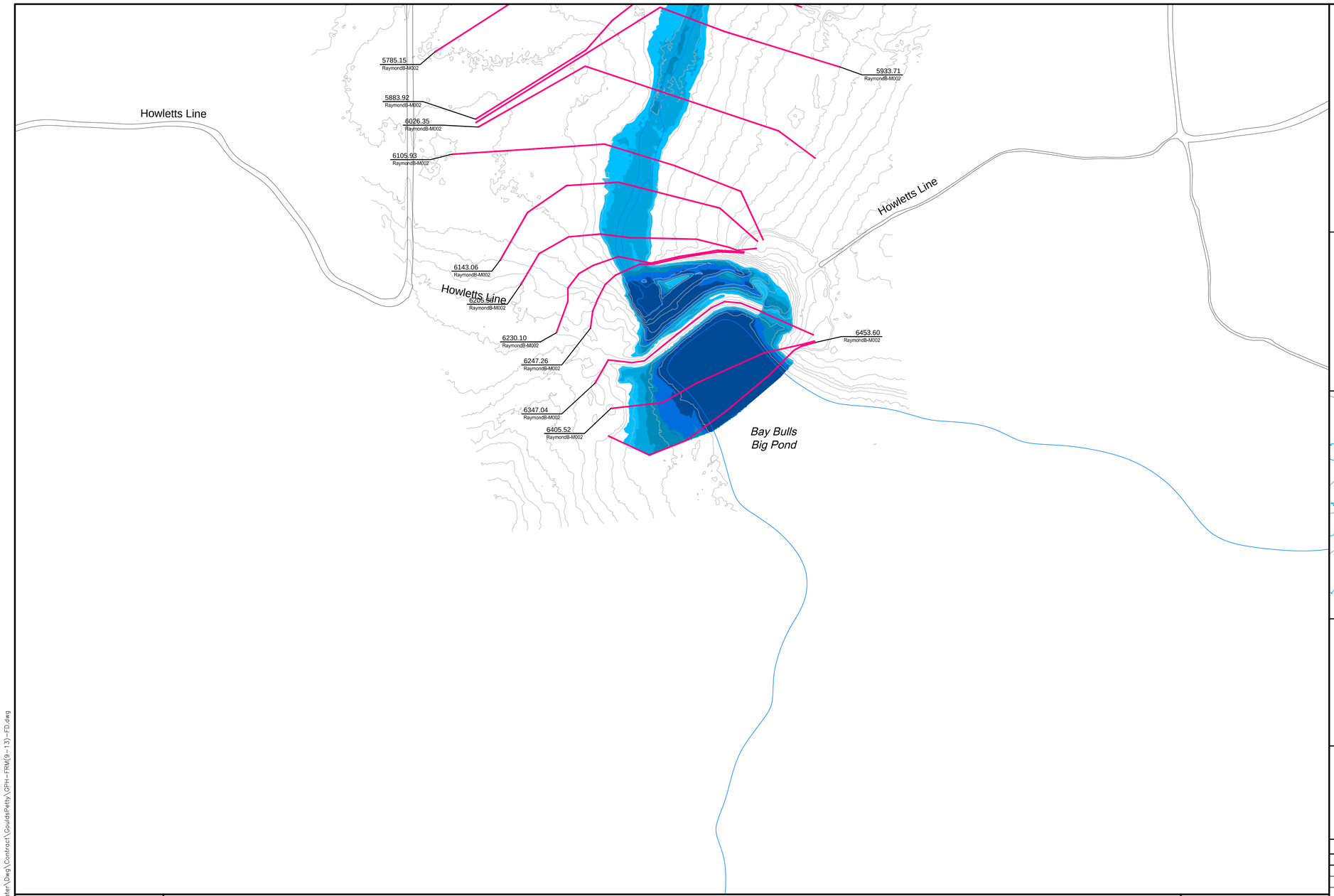
Mar 25/13 – richard.bartolo



Newfoundland Labrador

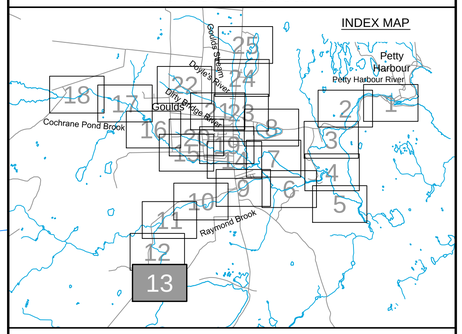
Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2050
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream



Cross Section Label

1050.0 DoylesR-TR017
- Cross Section Number
- Reach Identification
- Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 13 of 25

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Soper Cres
McConnell Pl
Sunset St
Martin St
Hannaford Pl
Cleary Dr
Beaver Brook Dr
Heffernans Line
Mountainview Dr
Ryans River Rd
Ryans Pl
Main Rd
Fleming Pl
Riverside Dr W
Third Pond
Lake View Dr

1640.51 CochranePB-M002
1495.27 CochranePB-M002
1458.62 CochranePB-M002
1685.79 CochranePB-M002
1510.83 CochranePB-M002
2103.01 CochranePB-M002
1694.89 CochranePB-M002
2046.85 CochranePB-M002
2014.35 CochranePB-M002
1602.99 CochranePB-M002
1419.61 CochranePB-M002
1585.52 CochranePB-M002
1384.56 CochranePB-M002
1569.47 CochranePB-M002
1351.51 CochranePB-M002
1541.97 CochranePB-M002
1311.78 CochranePB-M002
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1217.75 CochranePB-M002
1990.76 CochranePB-M002
1945.20 CochranePB-M002
1916.67 CochranePB-M002
1871.48 CochranePB-M002
1200.39 CochranePB-M002
1185.68 CochranePB-M002
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998.99 CochranePB-M002
955.54 CochranePB-M002
851.16 CochranePB-M002
798.06 CochranePB-M002
746.77 CochranePB-M003
694.52 CochranePB-M002
669.16 CochranePB-M002
590.19 CochranePB-M002
539.85 CochranePB-M002
488.40 CochranePB-M002
313.14 CochranePB-M001
381.27 CochranePB-M001

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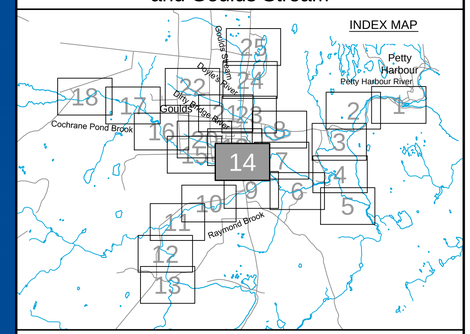
Climate Change Scenario - 2050
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 ← Cross Section Number
Doyles8-TR017
Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 14 of 25

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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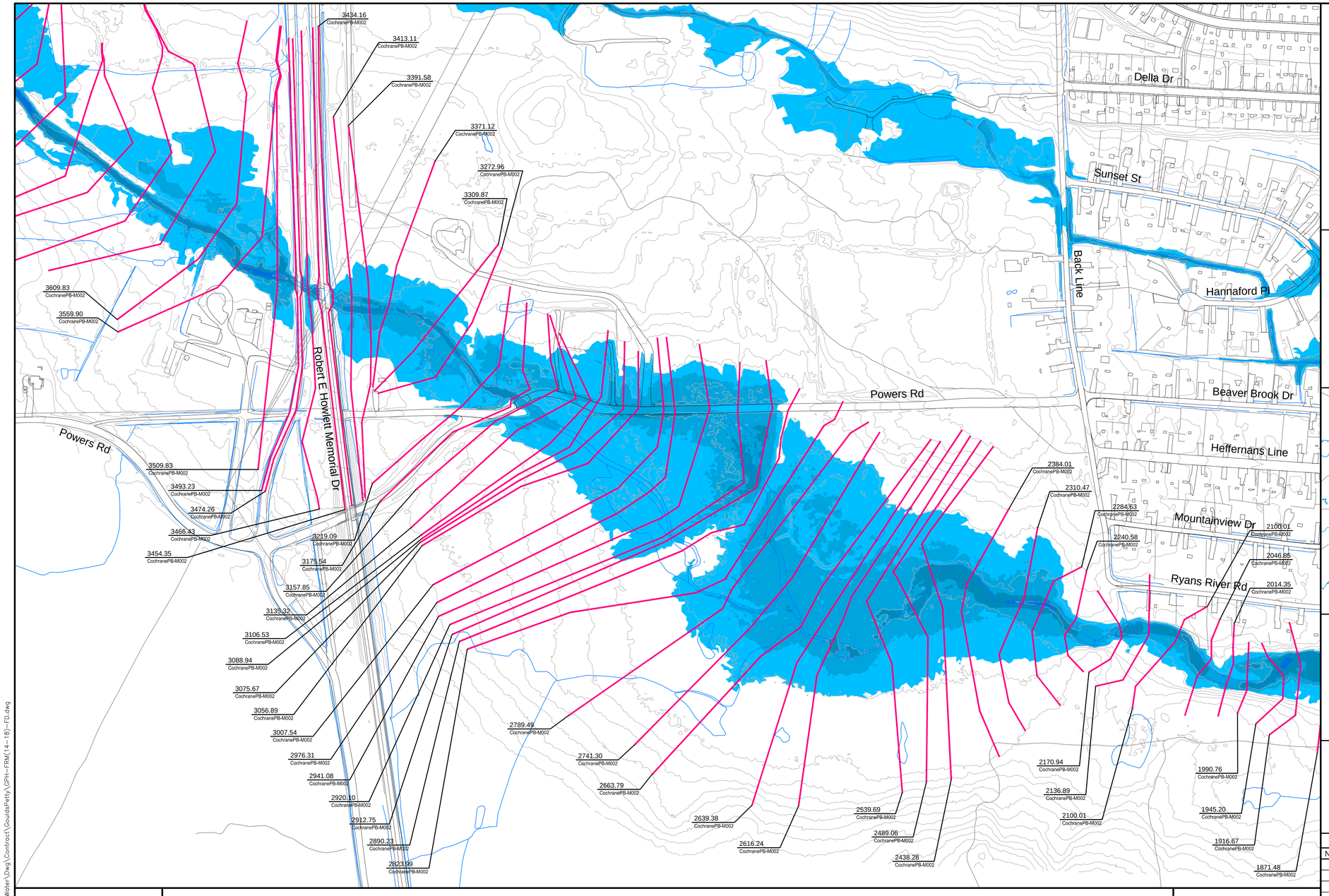

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Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2050
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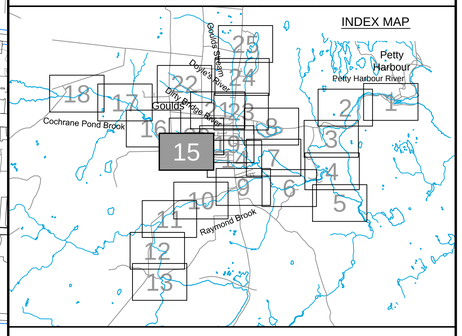
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 — DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5 - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 15 of 25

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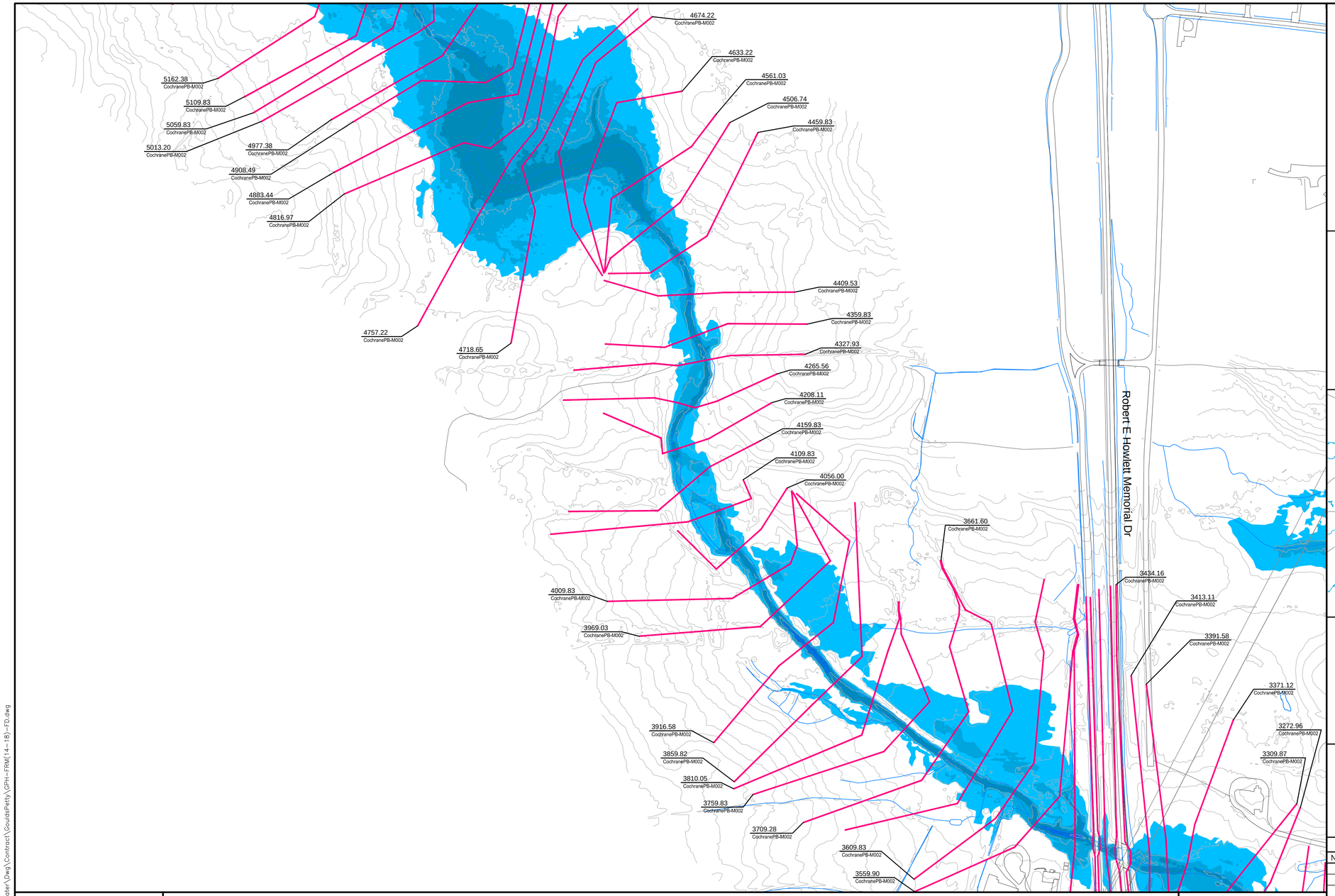

Newfoundland Labrador

Department of Environment and Conservation
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Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2050
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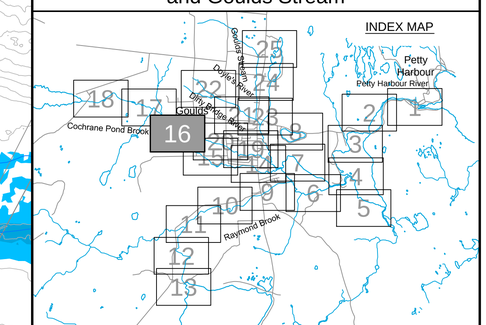
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 16 of 25

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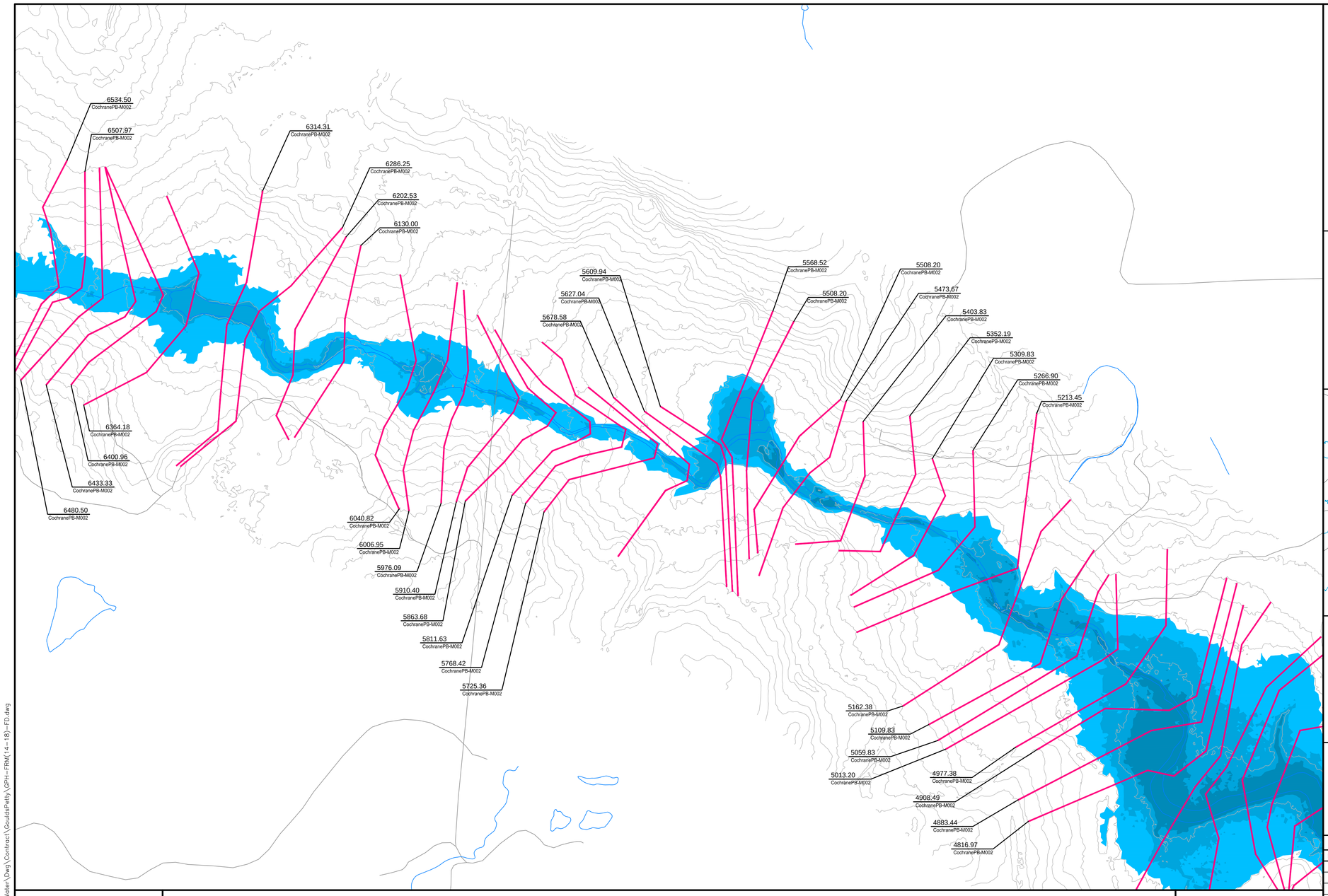


Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

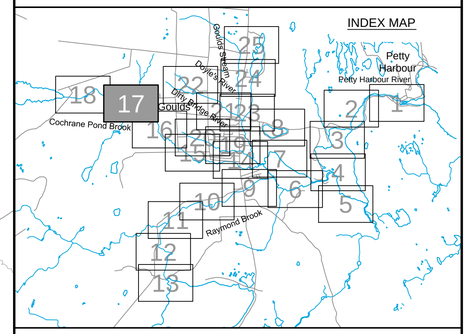
Department of Environment and Conservation
Water Resource Management Division

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2050
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

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REVISIONS

No.	Description	BY	DATE

Sheet 17 of 25

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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Cochrane Pond Rd

6985.71 CochranePB-M002
7041.67 CochranePB-M002
7108.13 CochranePB-M002
6955.25 CochranePB-M002
6863.52 CochranePB-M002
7208.54 CochranePB-M002
7253.62 CochranePB-M002
7329.89 CochranePB-M002
6840.09 CochranePB-M002
6808.25 CochranePB-M002
6534.50 CochranePB-M002
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6767.75 CochranePB-M002
6727.78 CochranePB-M002
6691.71 CochranePB-M002
6651.54 CochranePB-M002
6630.83 CochranePB-M002
6364.18 CochranePB-M002
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6433.33 CochranePB-M002
6480.50 CochranePB-M002
7450.86 CochranePB-M002
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Newfoundland Labrador

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Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2050
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
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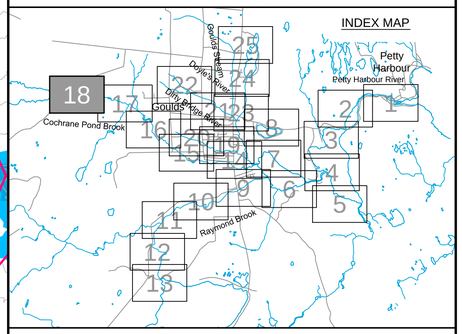
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 18 of 25

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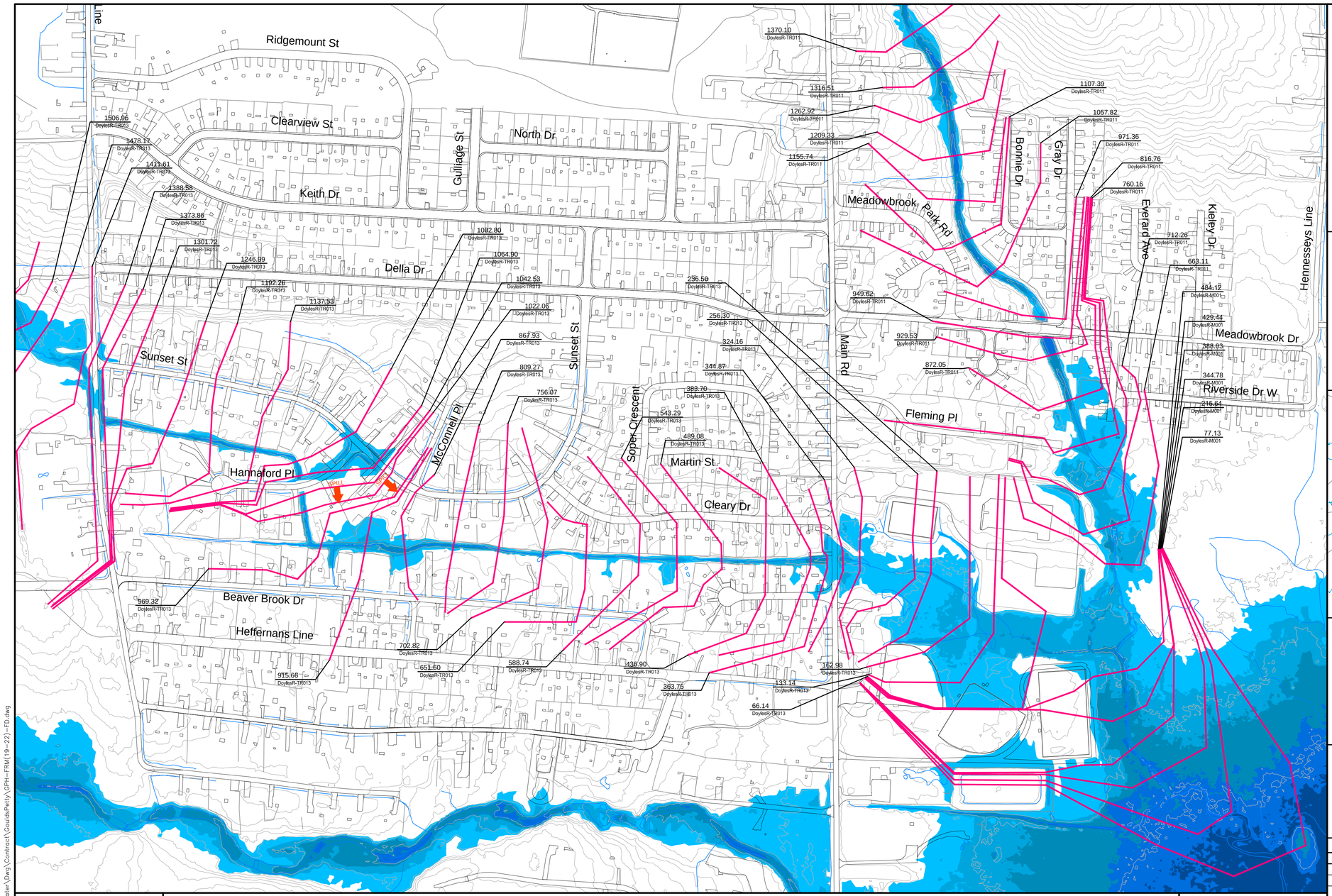

Newfoundland Labrador

Department of Environment and Conservation
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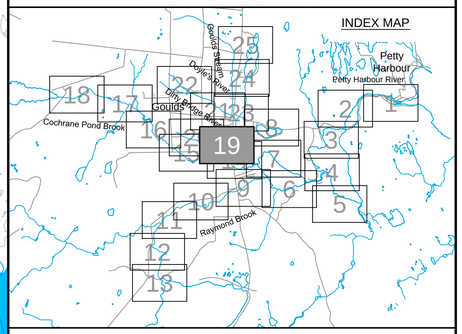
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

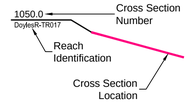
Climate Change Scenario - 2050
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label



1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 Metres 0 150 Metres
300 Feet 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

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Newfoundland Labrador

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Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

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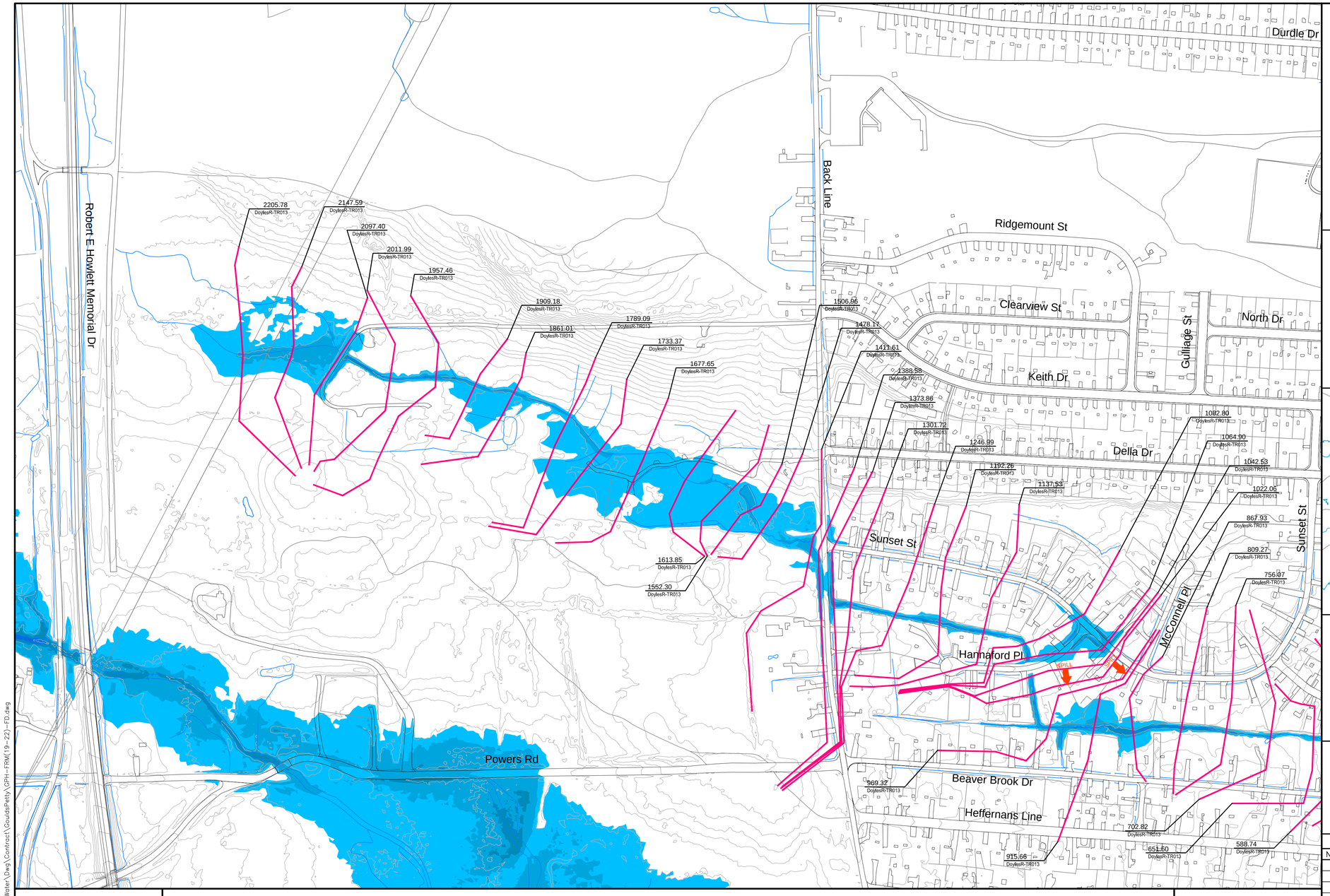
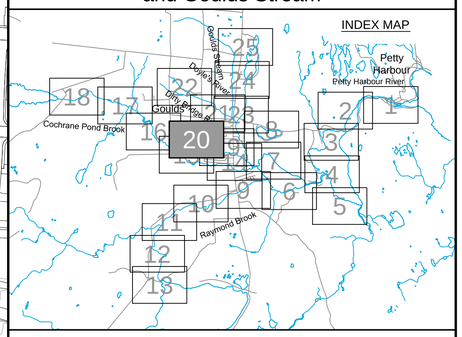
Goulds\Petty Harbour

Climate Change Scenario - 2050
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream



INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
- Cross Section Number
- Reach Identification
- Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

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Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 20 of 25

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AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
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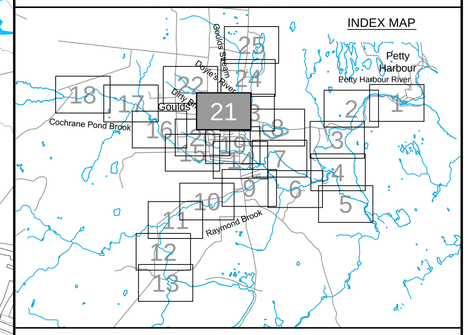
and Goulds Stream

INDEX MAP



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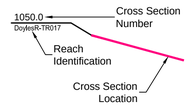

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

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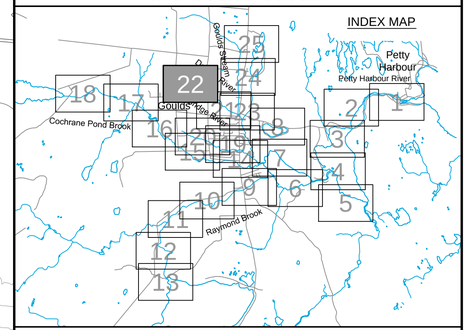

Cross Section Label

1050.0 DoylesR-TR017
- Cross Section Number
- Reach Identification
- Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 22 of 25

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

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Petty Harbour Rivers,
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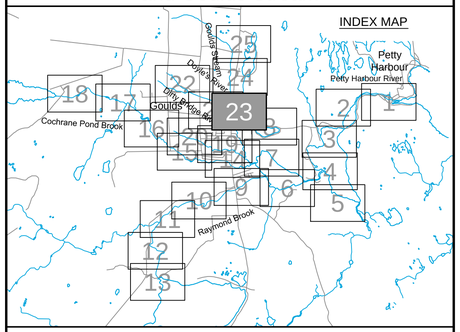
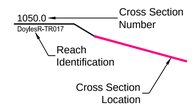
and Goulds Stream

INDEX MAP



Cross Section Label



1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 23 of 25

MTMNAD83
ZONE 1

Scale 1:2500

150 Metres 0 150 Metres
300 Feet 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(23-25)-FD.dwg

Mar 25/13 – richard.bartolo



MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

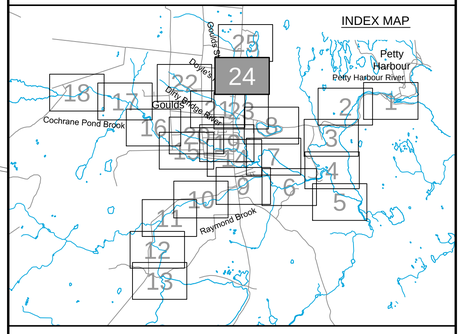
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2050
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 24 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(23-25)-FD.dwg

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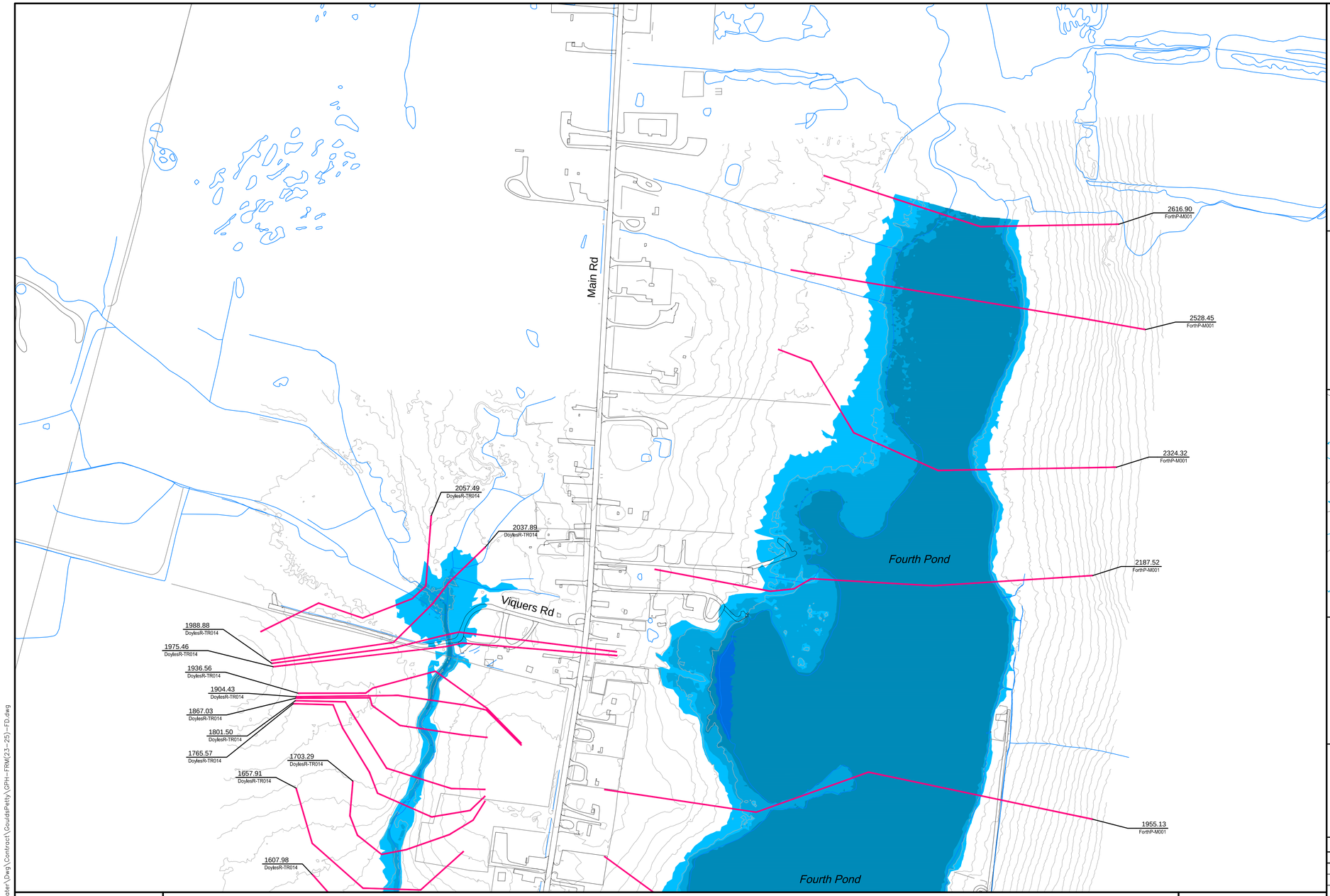
Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

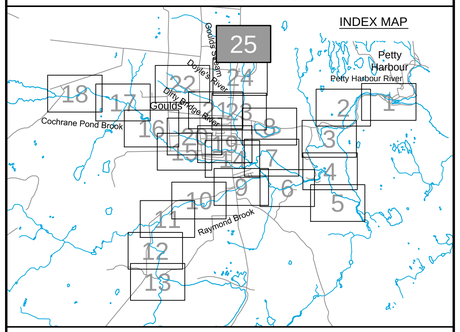
1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2050
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream



INDEX MAP



Cross Section Label

1050.0 — DoylesR-TR017
- Cross Section Number
- Reach Identification
- Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
Metres
300 0 300 600 900 Feet
Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 25 of 25

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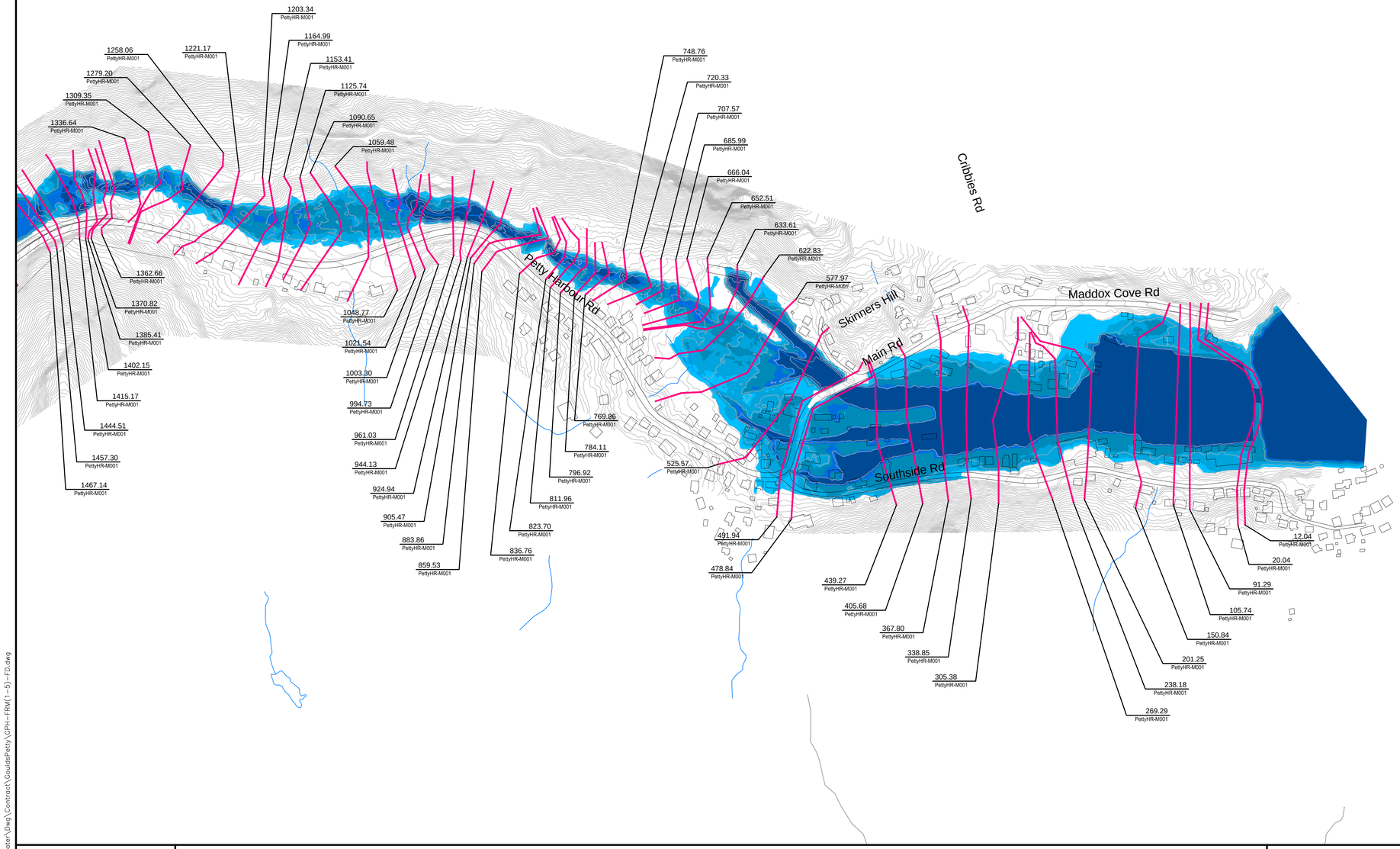

Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2050
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
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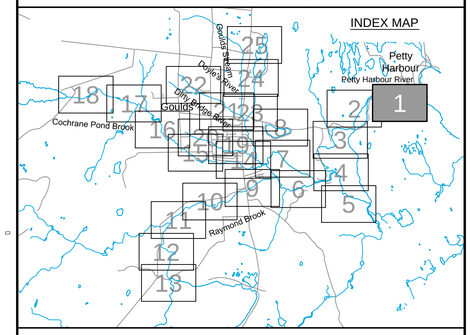
and Goulds Stream

INDEX MAP



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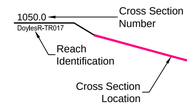

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 1 of 25

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

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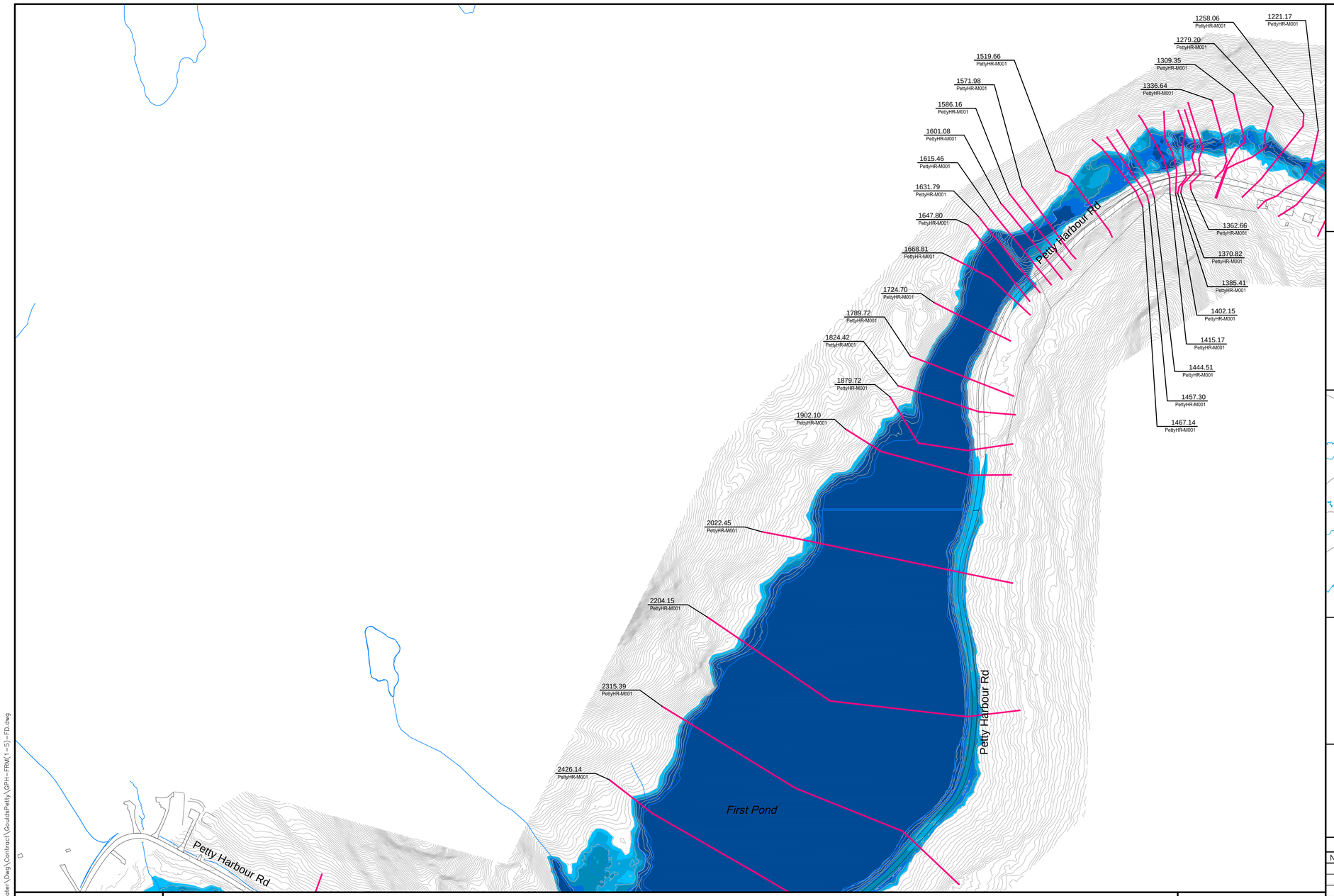
Mar 25/13 – richard.bartolo



MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

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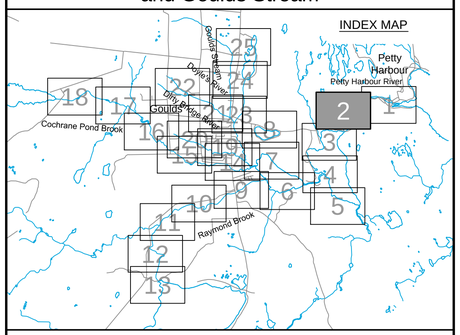
INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number
Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 2 of 25

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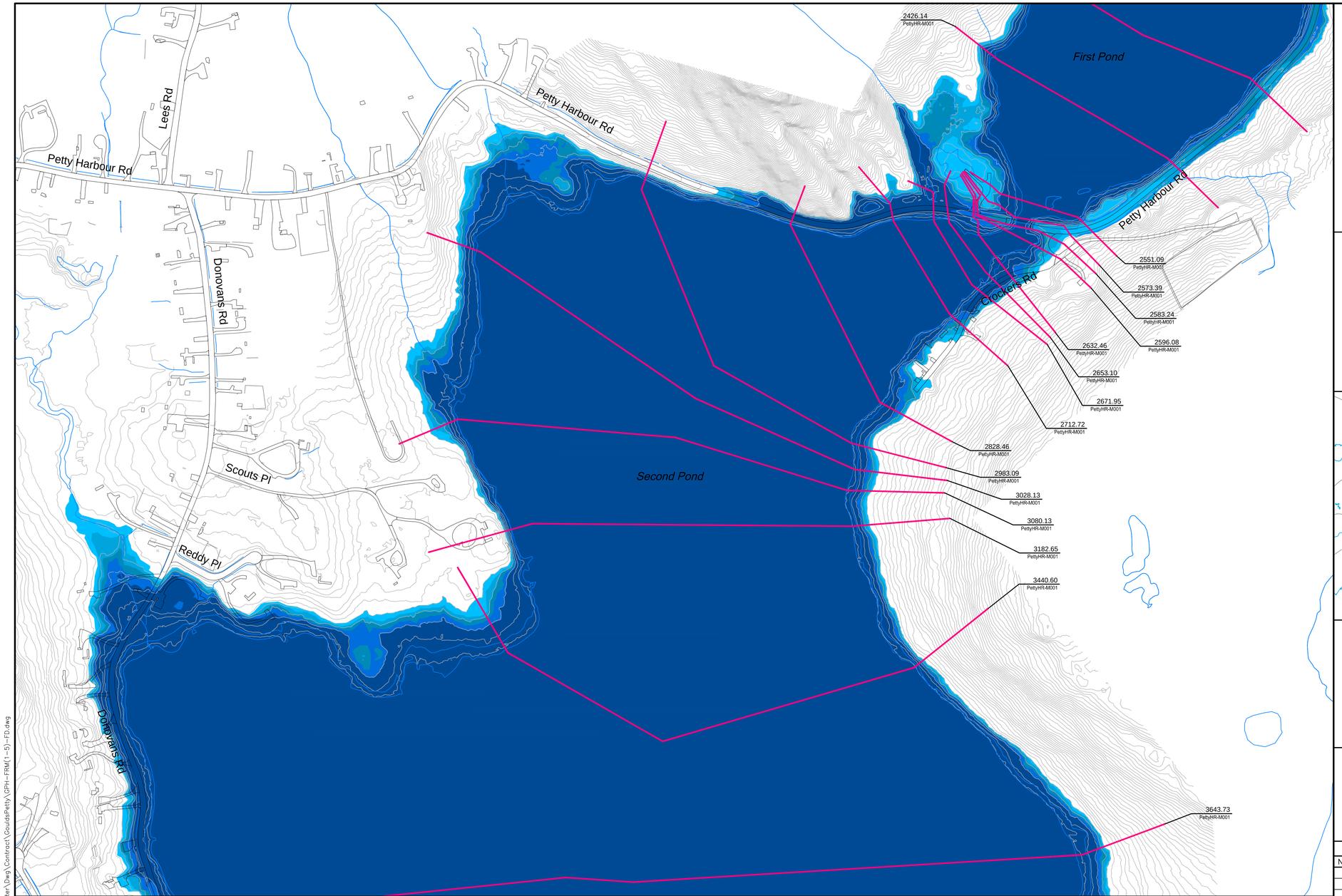

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Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

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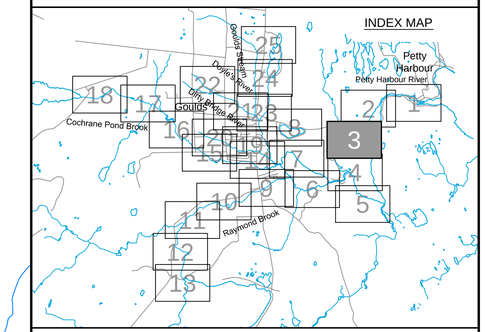
INDEX MAP



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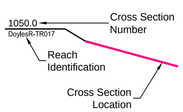

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 3 of 25

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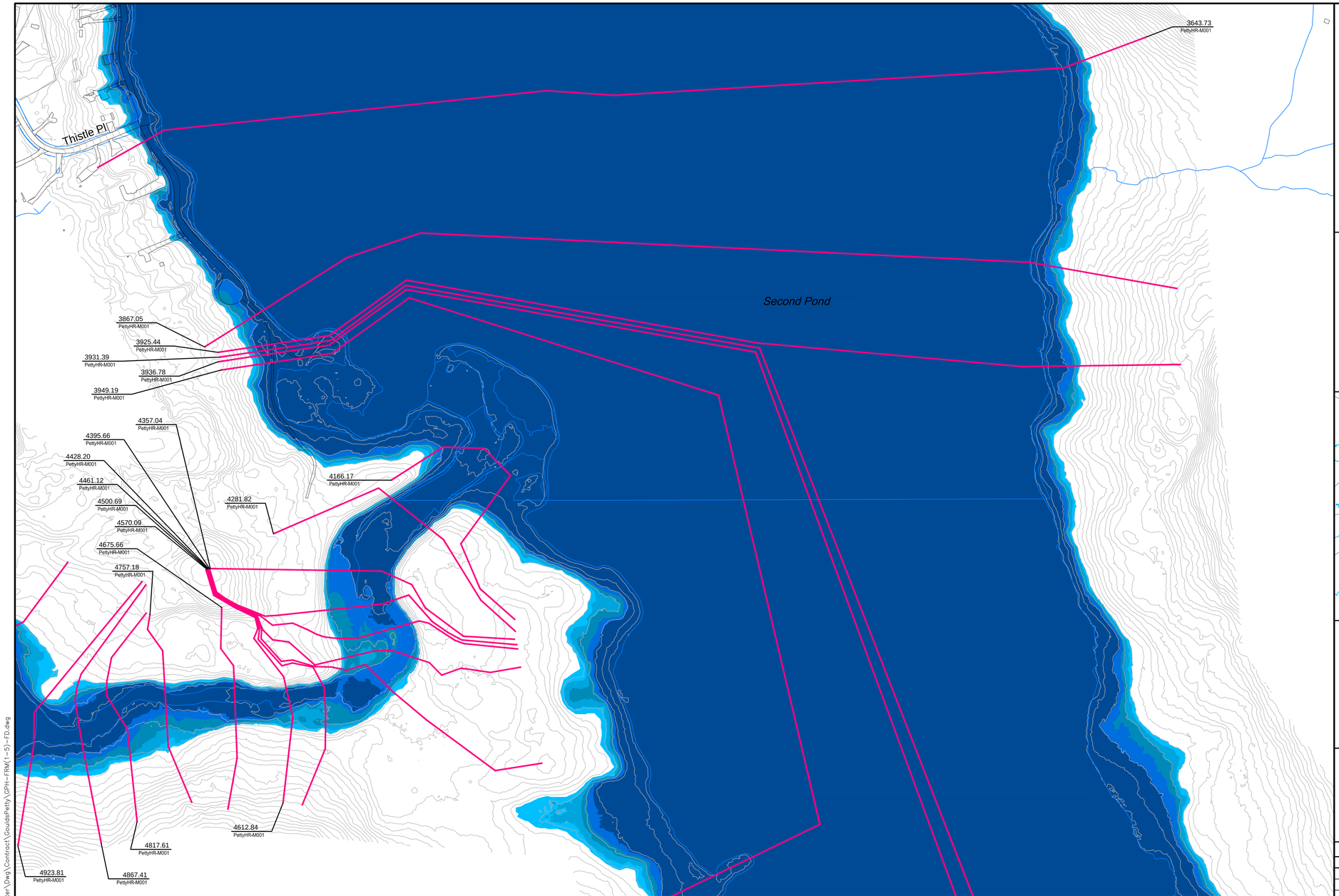
Mar 25/13 – richard.bartolo



Department of Environment and Conservation
Water Resource Management Division

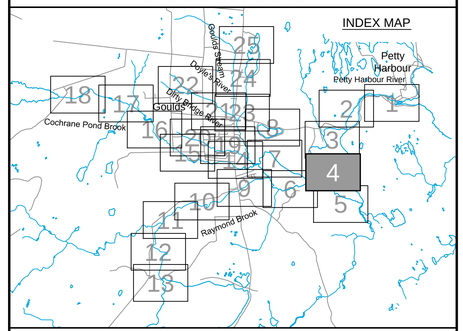
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2050
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

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Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 4 of 25

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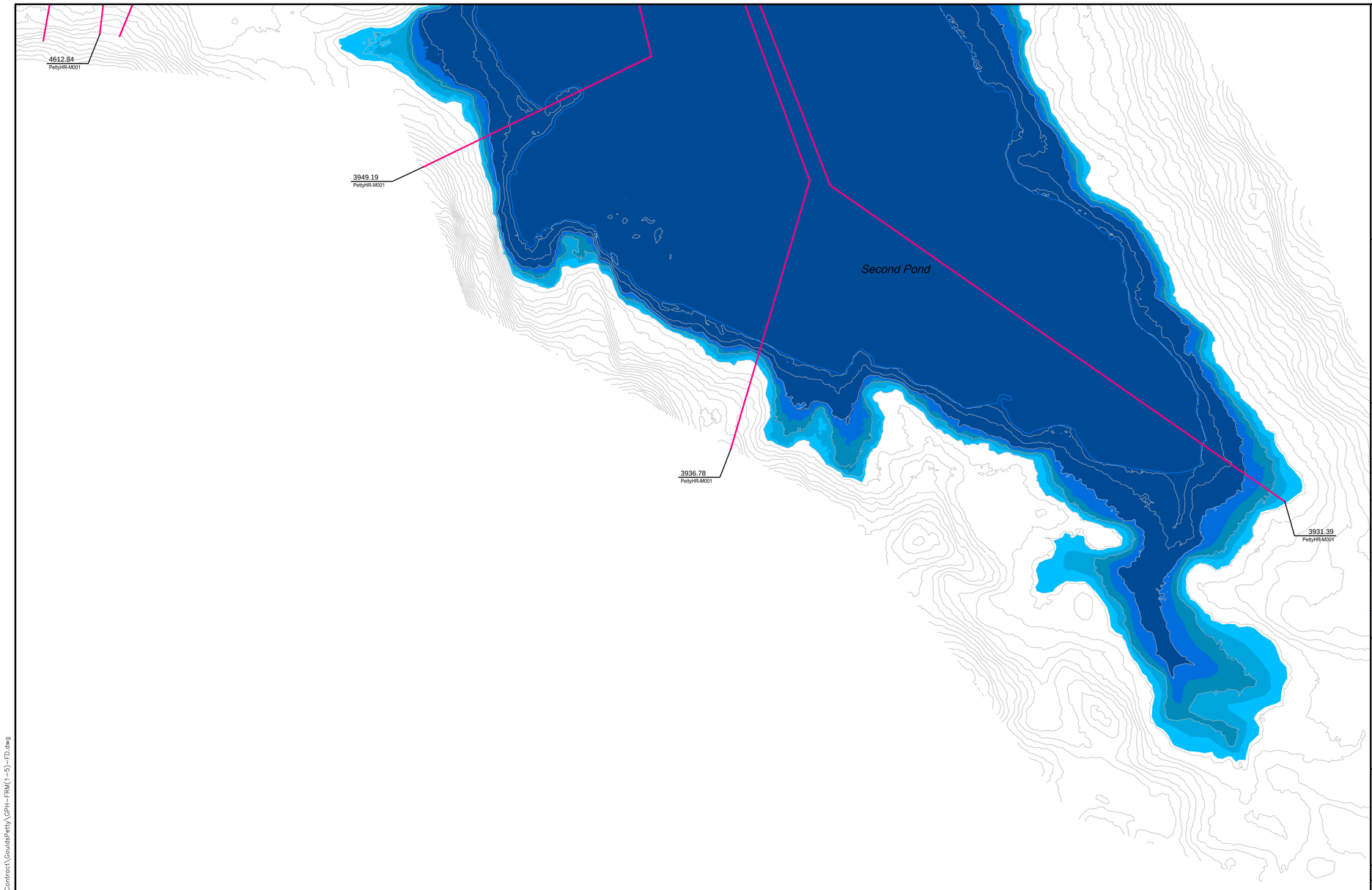
Mar 25/13 – richard.bartolo



Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

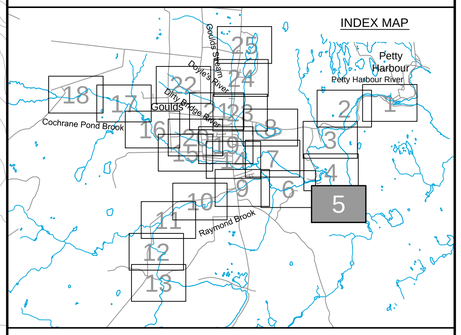
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2050
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



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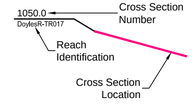

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.



Sheet 5 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(1--5)-FD.dwg

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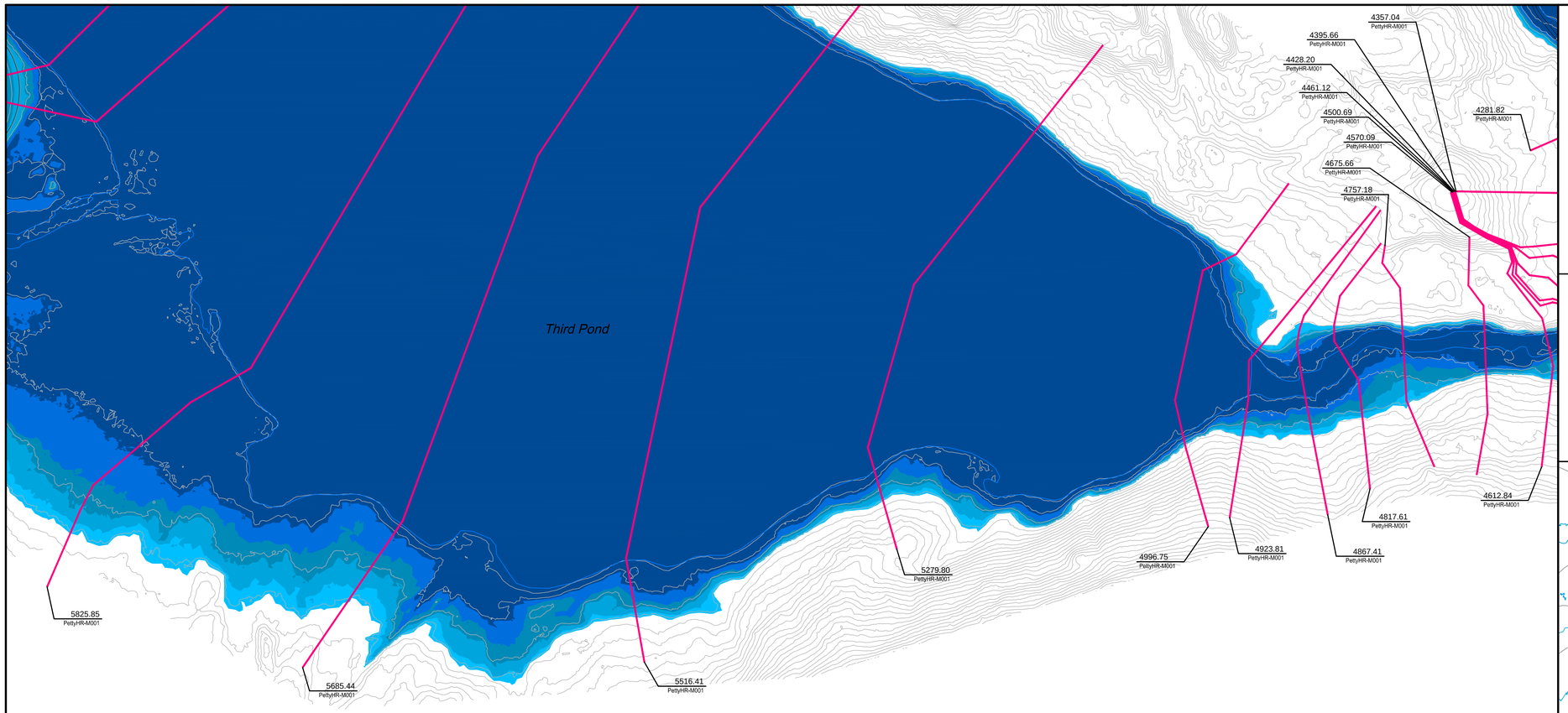

Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2050
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
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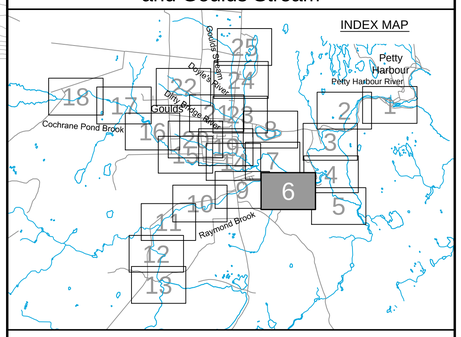
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

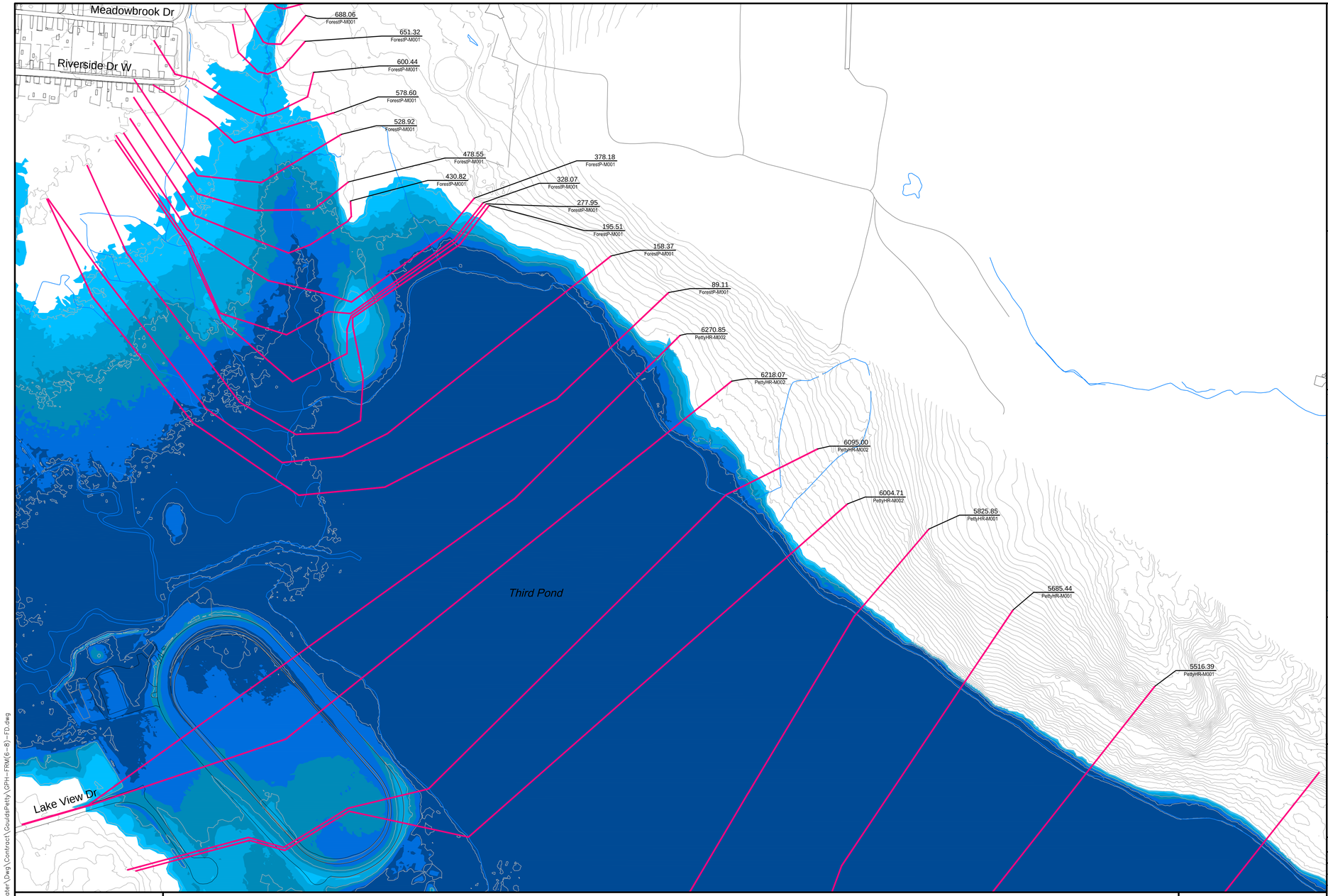
CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 6 of 25

P:\Work\TA11127235\Water\Dwg\Contract\GouldsPetty\GPH-FRM(6-8)-FD.dwg

Mar 25/13 – richard.bartolo



Department of Environment and Conservation
Water Resource Management Division

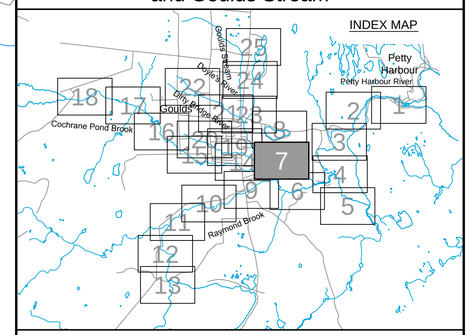
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2050
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 7 of 25

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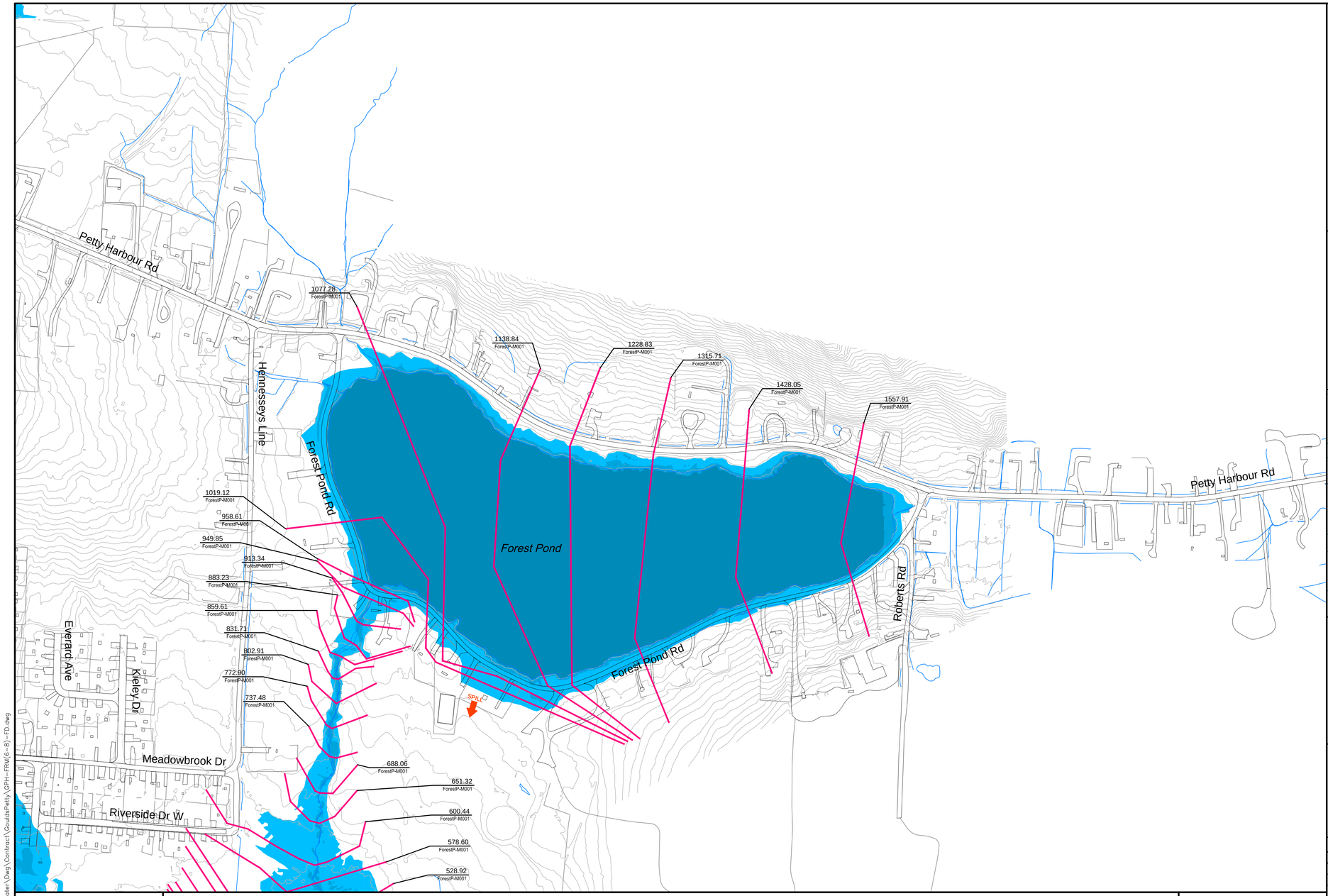
Mar 25/13 – richard.bartolo



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Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

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AMEC (Maximum IDF Relationship)

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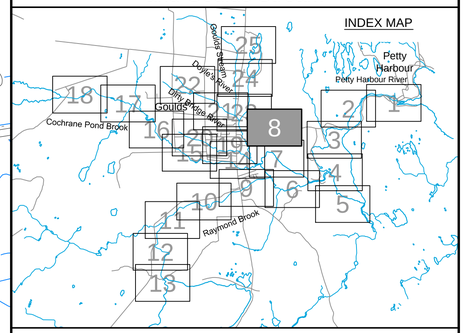
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
Doyles8-TR017

Cross Section Number
Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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Third Pond

Lake View Dr

Main Rd

Shoal Bay Rd

Alexis Pl

816.68 RaymondB-M001
841.89 RaymondB-M001
892.34 RaymondB-M001
866.25 RaymondB-M001
916.70 RaymondB-M001
942.15 RaymondB-M001
976.73 RaymondB-M001
1116.25 RaymondB-M001
999.99 RaymondB-M001
1148.70 RaymondB-M001
1166.20 RaymondB-M001
1189.75 RaymondB-M001
1216.25 RaymondB-M001
1252.39 RaymondB-M001
1066.09 RaymondB-M001
1035.68 RaymondB-M001
716.25 RaymondB-M001
615.86 RaymondB-M001
565.77 RaymondB-M001
766.25 RaymondB-M001
520.15 RaymondB-M001
675.00 RaymondB-M001
468.54 RaymondB-M001
429.18 RaymondB-M001
366.25 RaymondB-M001
341.79 RaymondB-M001
5825.85 PettyHR-M001
1536.01 RaymondB-M001
1584.49 RaymondB-M001
1630.92 RaymondB-M001
1682.15 RaymondB-M001
1733.38 RaymondB-M001
1303.54 RaymondB-M001
1323.54 RaymondB-M001
1372.05 RaymondB-M001
1425.99 RaymondB-M001
1477.96 RaymondB-M001
1784.61 RaymondB-M001
1835.84 RaymondB-M001
1885.73 RaymondB-M001
1950.22 RaymondB-M001
1989.18 RaymondB-M001

Newfoundland Labrador

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Goulds\Petty Harbour

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AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
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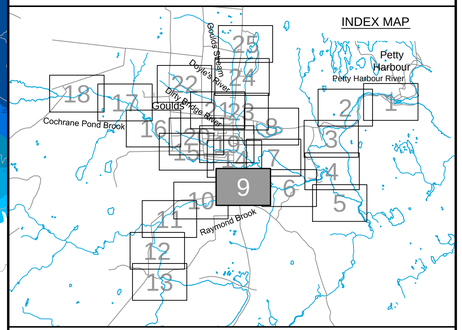
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
- Cross Section Number
- Reach Identification
- Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5 - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

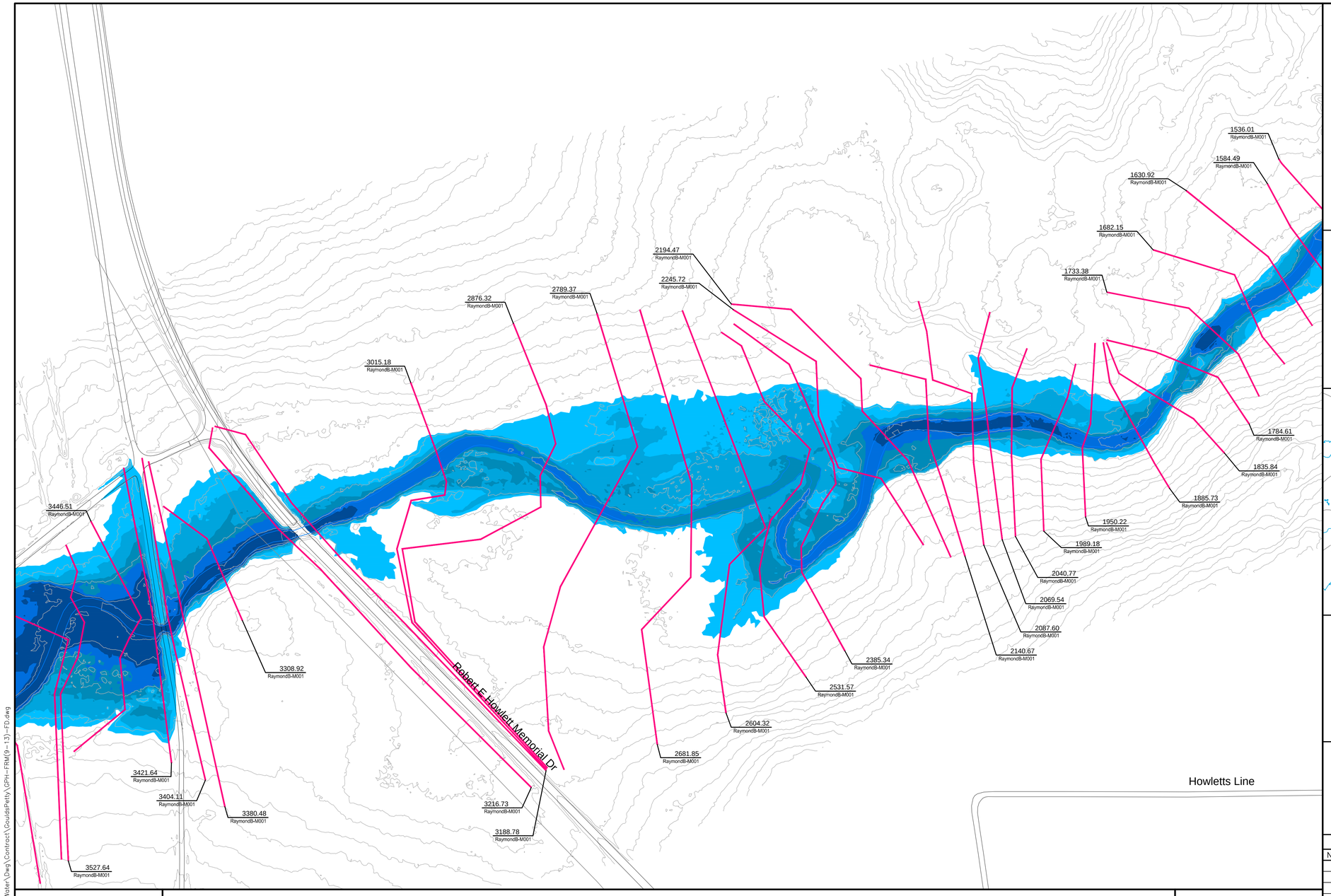
CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 9 of 25

P:\Work\TA11112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(9-13)-FD.dwg

Mar 25/13 - richard.bartolo



Department of Environment and Conservation
Water Resource Management Division

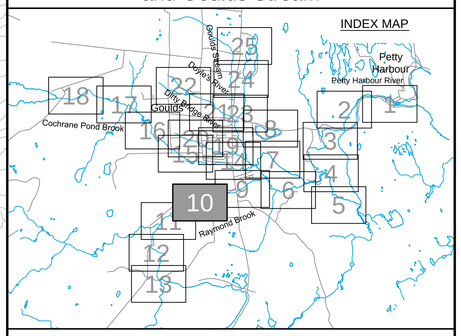
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2050
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 10 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(9-13)-FD.dwg

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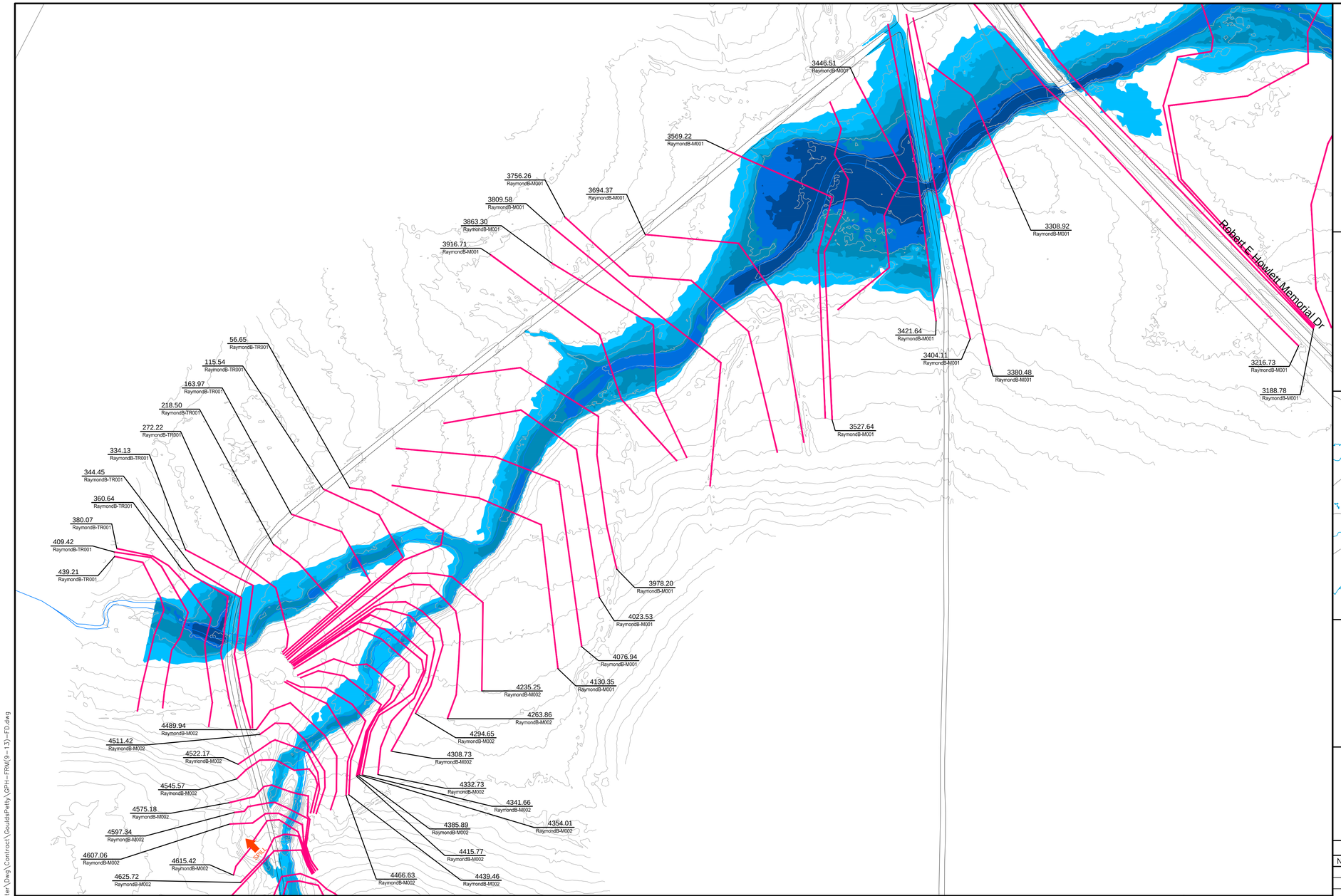

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Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

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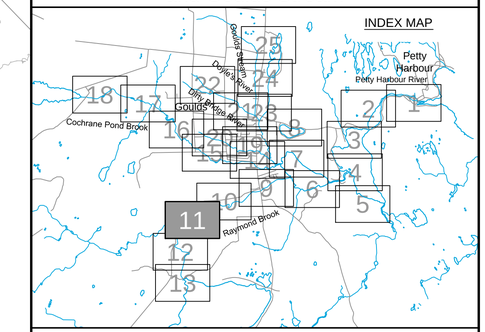
INDEX MAP



Cross Section Label

1050.0 — Cross Section Number
DoylesB-TR017 — Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

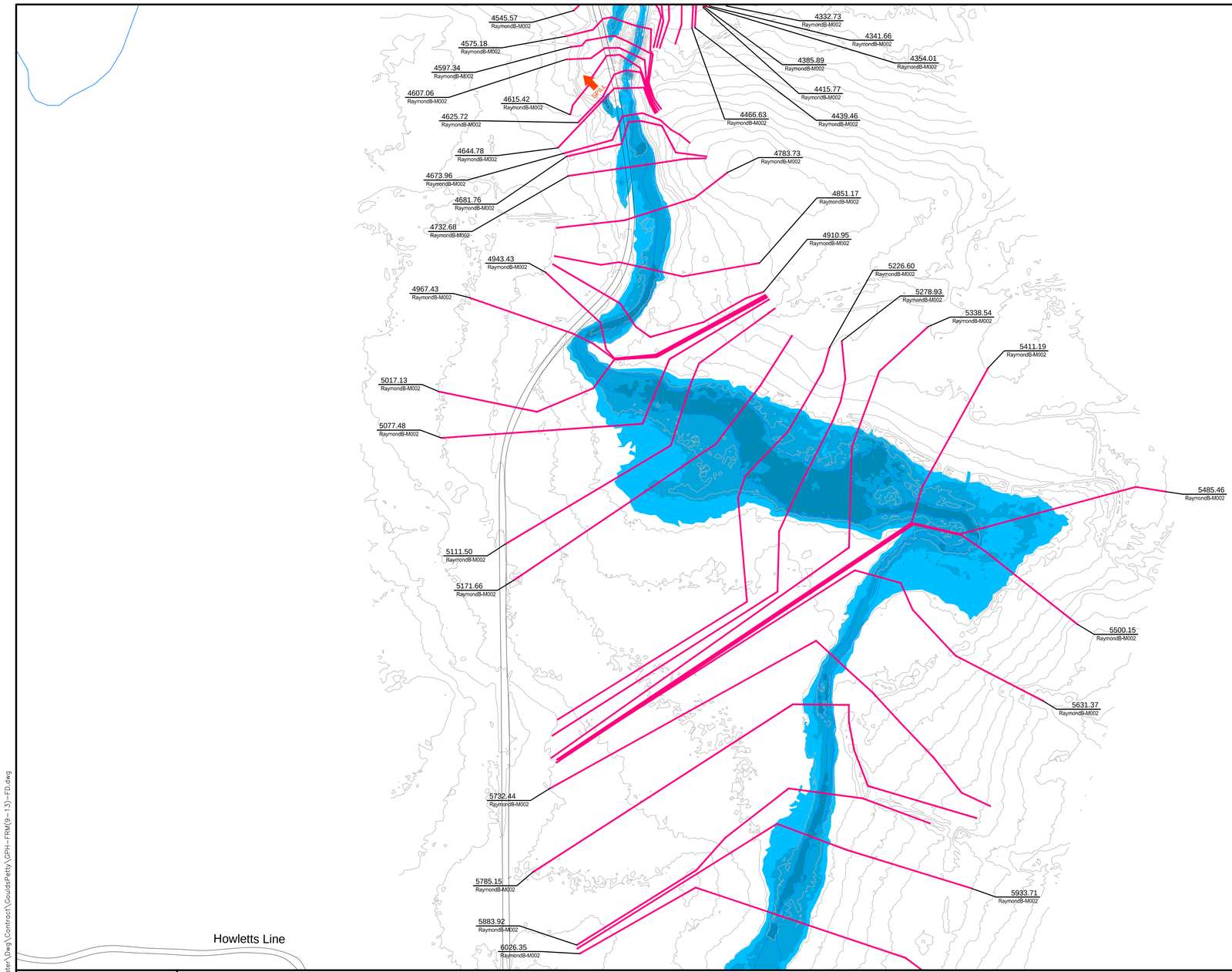
NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 11 of 25

P:\Work\TA11127335\Water\Dwg\Contract\GouldsPetty\GPH-FRM(9-13)-FD.dwg

Mar 25/13 – richard.bartolo



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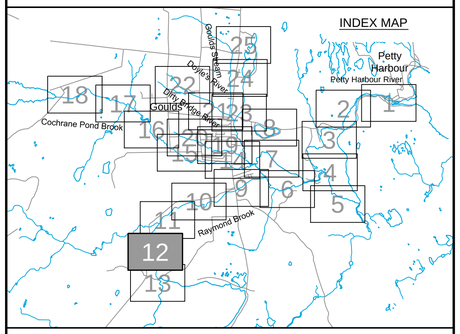

Cross Section Label

1050.0 DoylesR-TR017
- Cross Section Number
- Reach Identification
- Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 12 of 25

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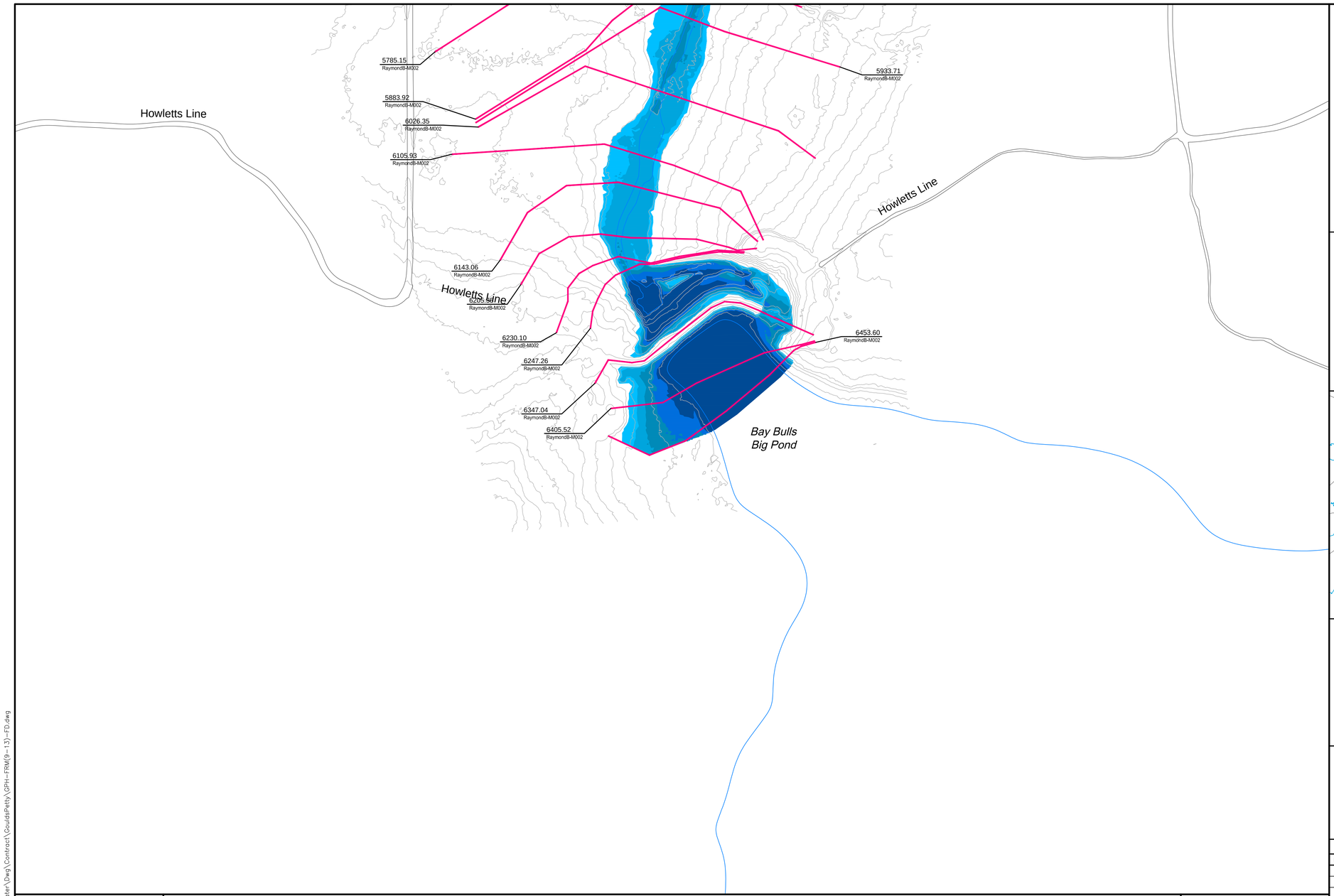

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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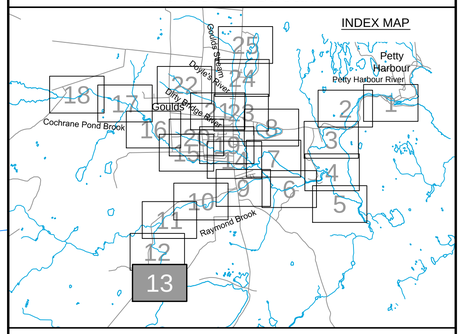
INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 13 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(9-13)-FD.dwg

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Soper Cres
McConnell Pl
Sunset St
Martin St
Cleary Dr
Hannaford Pl
Beaver Brook Dr
Heffernans Line
Mountainview Dr
Ryans River Rd
Ryans Pl
Main Rd
Fleming Pl
Riverside Dr W
Third Pond
Lake View Dr

1990.76 CochranePB-M002
1945.20 CochranePB-M002
1916.67 CochranePB-M002
1871.48 CochranePB-M002
1836.03 CochranePB-M002
1788.63 CochranePB-M002
1768.08 CochranePB-M002
1733.19 CochranePB-M002
2103.01 CochranePB-M002
2046.85 CochranePB-M002
2014.35 CochranePB-M002
1640.51 CochranePB-M002
1685.79 CochranePB-M002
1694.89 CochranePB-M002
1495.27 CochranePB-M002
1510.83 CochranePB-M002
1458.62 CochranePB-M002
1602.99 CochranePB-M002
1585.52 CochranePB-M002
1569.47 CochranePB-M002
1541.97 CochranePB-M002
1419.61 CochranePB-M002
1384.56 CochranePB-M002
1351.51 CochranePB-M002
1311.78 CochranePB-M002
1291.19 CochranePB-M002
1217.75 CochranePB-M002
1200.39 CochranePB-M002
1185.68 CochranePB-M002
1164.32 CochranePB-M002
1132.60 CochranePB-M002
1111.68 CochranePB-M002
1059.95 CochranePB-M002
998.99 CochranePB-M002
955.54 CochranePB-M002
851.16 CochranePB-M002
798.06 CochranePB-M002
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694.52 CochranePB-M002
669.16 CochranePB-M002
590.19 CochranePB-M002
539.85 CochranePB-M002
488.40 CochranePB-M002
313.14 CochranePB-M001
381.27 CochranePB-M001

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MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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AMEC (Maximum IDF Relationship)

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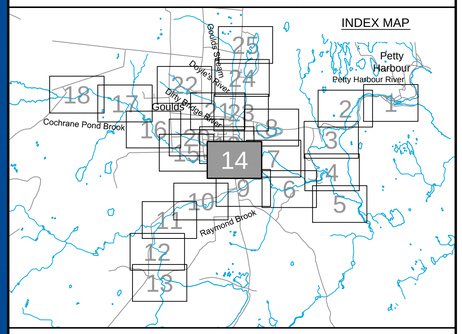
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

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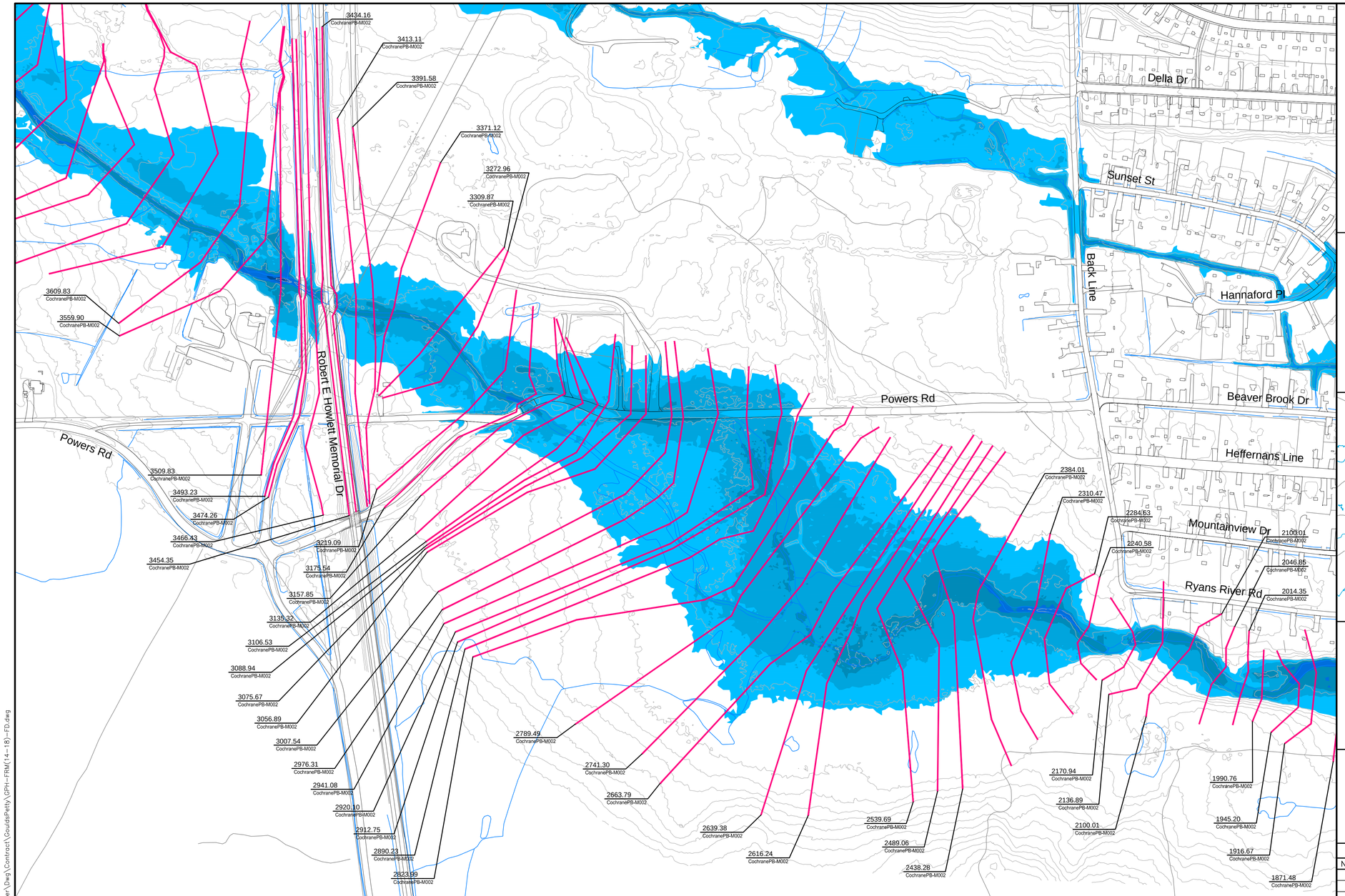
REVISIONS

No.	Description	BY	DATE

Sheet 14 of 25

Mar 25/13 – richard.bartolo



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and Goulds Stream

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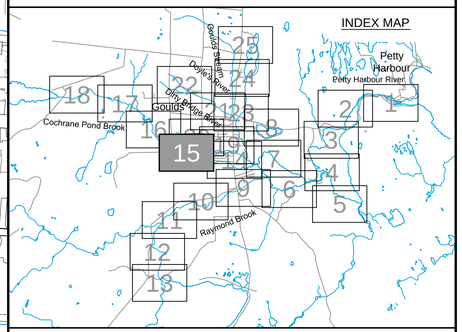

Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

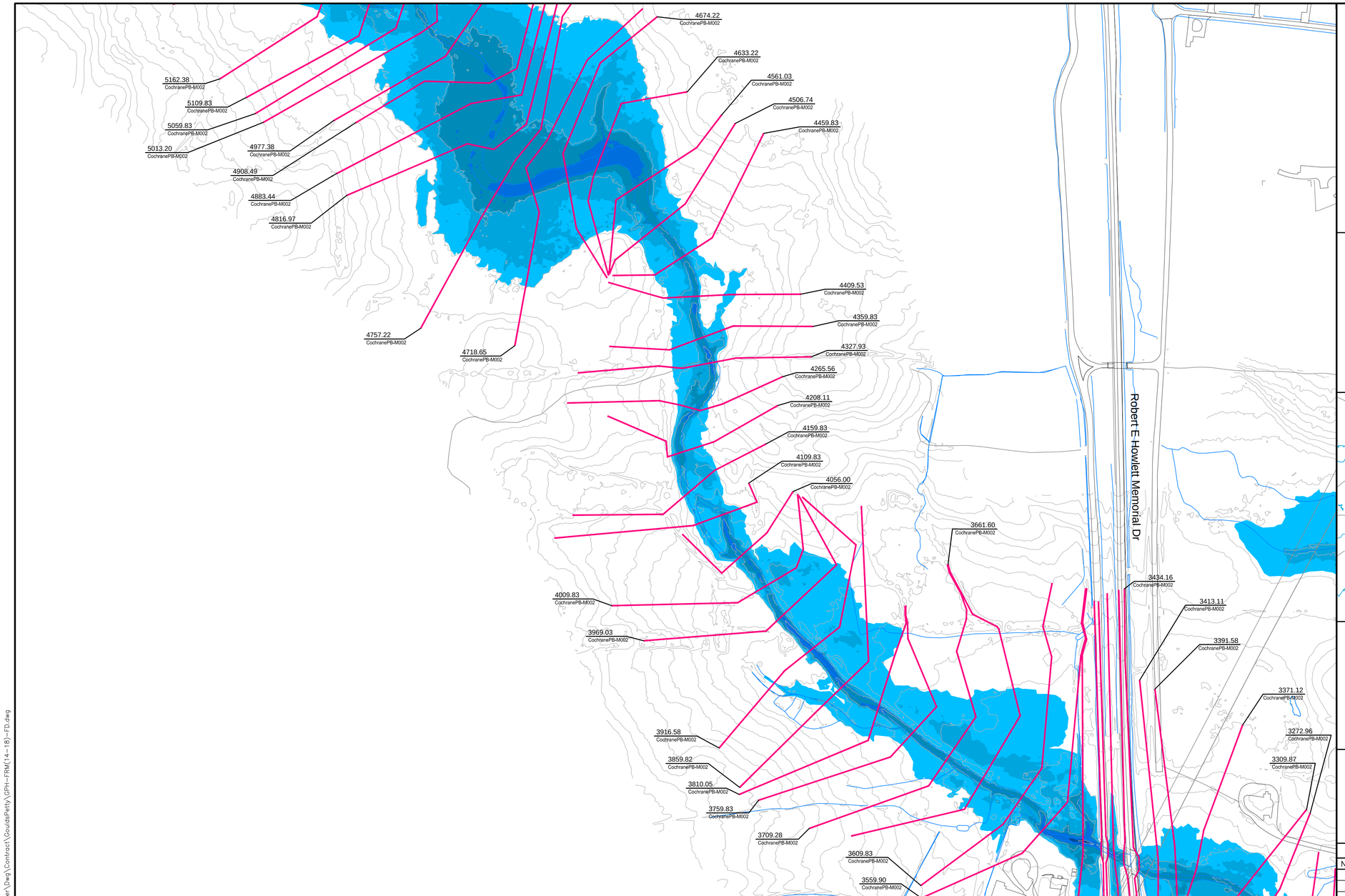
CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 15 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(14-18)-FD.dwg

Mar 25/13 – richard.bartolo



Newfoundland Labrador

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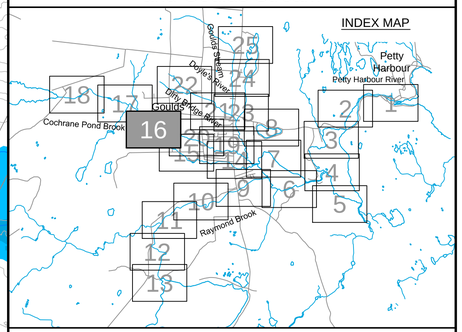

Cross Section Label

1050.0 — Cross Section Number
Doyles8-TR017 — Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

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Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 16 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(14-18)-FD.dwg

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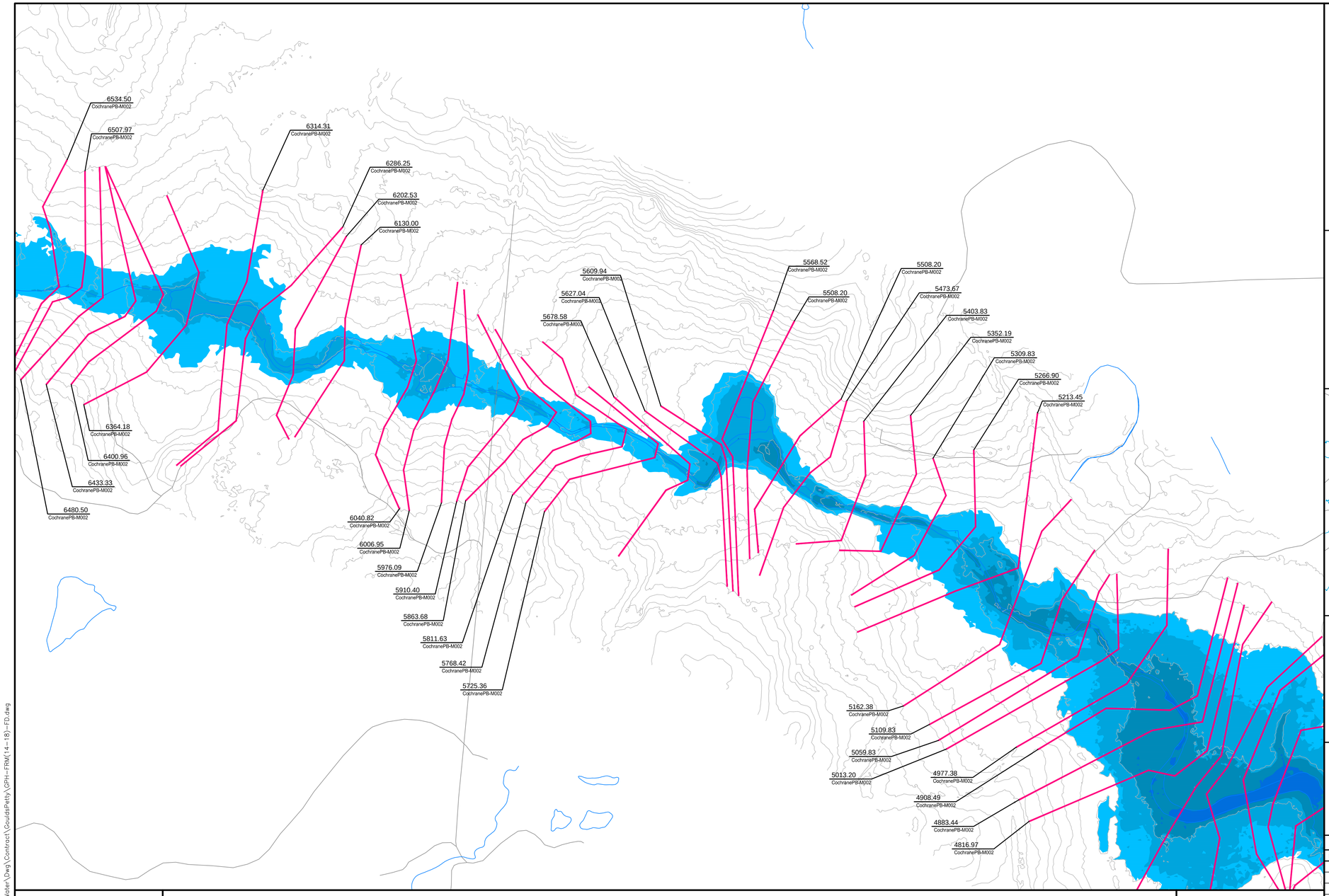

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Climate Change Scenario - 2050
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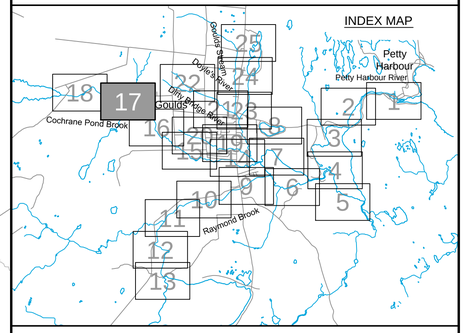

Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

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Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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Cochrane Pond Rd

6985.71 CochranePB-M002
7041.67 CochranePB-M002
7108.13 CochranePB-M002
6955.25 CochranePB-M002
6863.52 CochranePB-M002
7208.54 CochranePB-M002
7253.62 CochranePB-M002
7329.89 CochranePB-M002
6840.09 CochranePB-M002
6808.25 CochranePB-M002
6534.50 CochranePB-M002
6507.97 CochranePB-M002
6767.75 CochranePB-M002
6727.78 CochranePB-M002
6691.71 CochranePB-M002
6651.54 CochranePB-M002
6630.83 CochranePB-M002
6364.18 CochranePB-M002
6400.96 CochranePB-M002
6433.33 CochranePB-M002
6480.50 CochranePB-M002
7450.86 CochranePB-M002
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8024.09 CochranePB-M002
8013.06 CochranePB-M002
8004.70 CochranePB-M002
7995.14 CochranePB-M002

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and Goulds Stream

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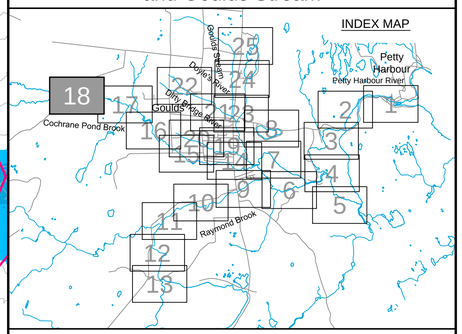

Cross Section Label

1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5 - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 18 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(14-18)-FD.dwg

Mar 25/13 – richard.bartolo

Ridgemount St
Clearview St
Keith Dr
Gulliage St
North Dr
Della Dr
Sunset St
McConnell Pl
Hannaford Pl
Martin St
Cleary Dr
Fleming Pl
Meadowbrook Park Rd
Bonnie Dr
Gray Dr
Everard Ave
Kieley Dr
Meadowbrook Dr
Riverside Dr W
Main Rd
Hennesseys Line
Beaver Brook Dr
Heffernans Line
SPILL
SPILL

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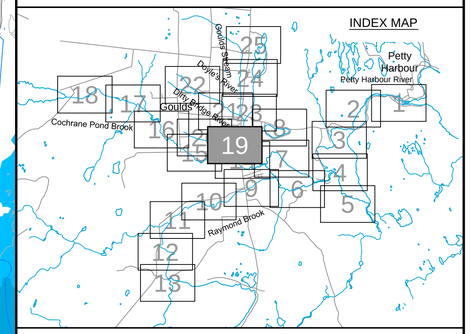

Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(19-22)-FD.dwg

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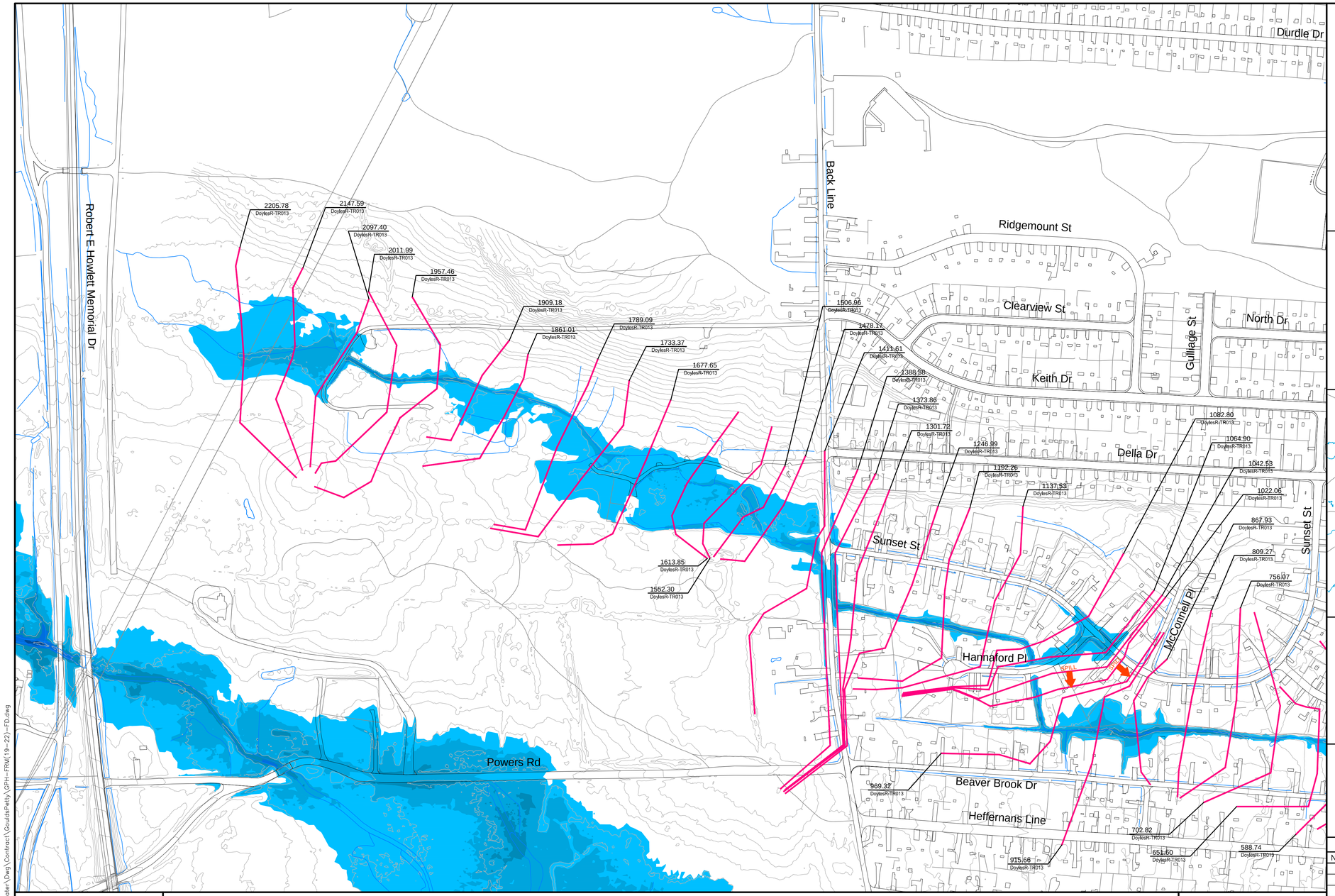
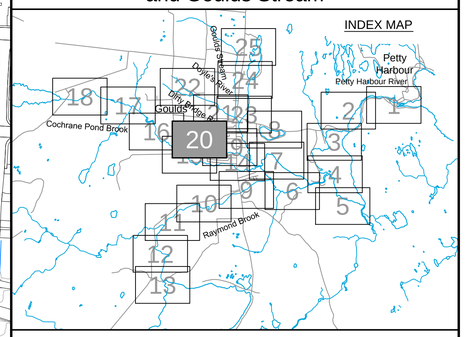
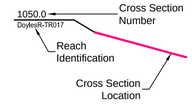
and Goulds Stream



INDEX MAP



Cross Section Label



1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 20 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(19-22)-FD.dwg

Mar 25/13 – richard.bartolo

Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

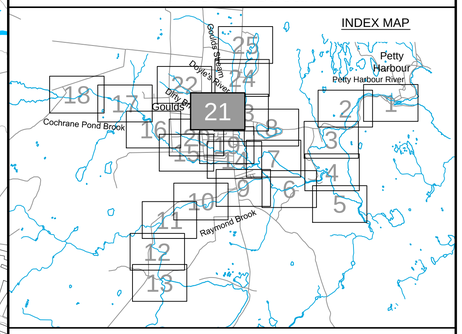
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2050
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



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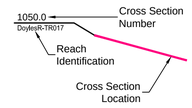

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 21of 25

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(19-22)-FD.dwg

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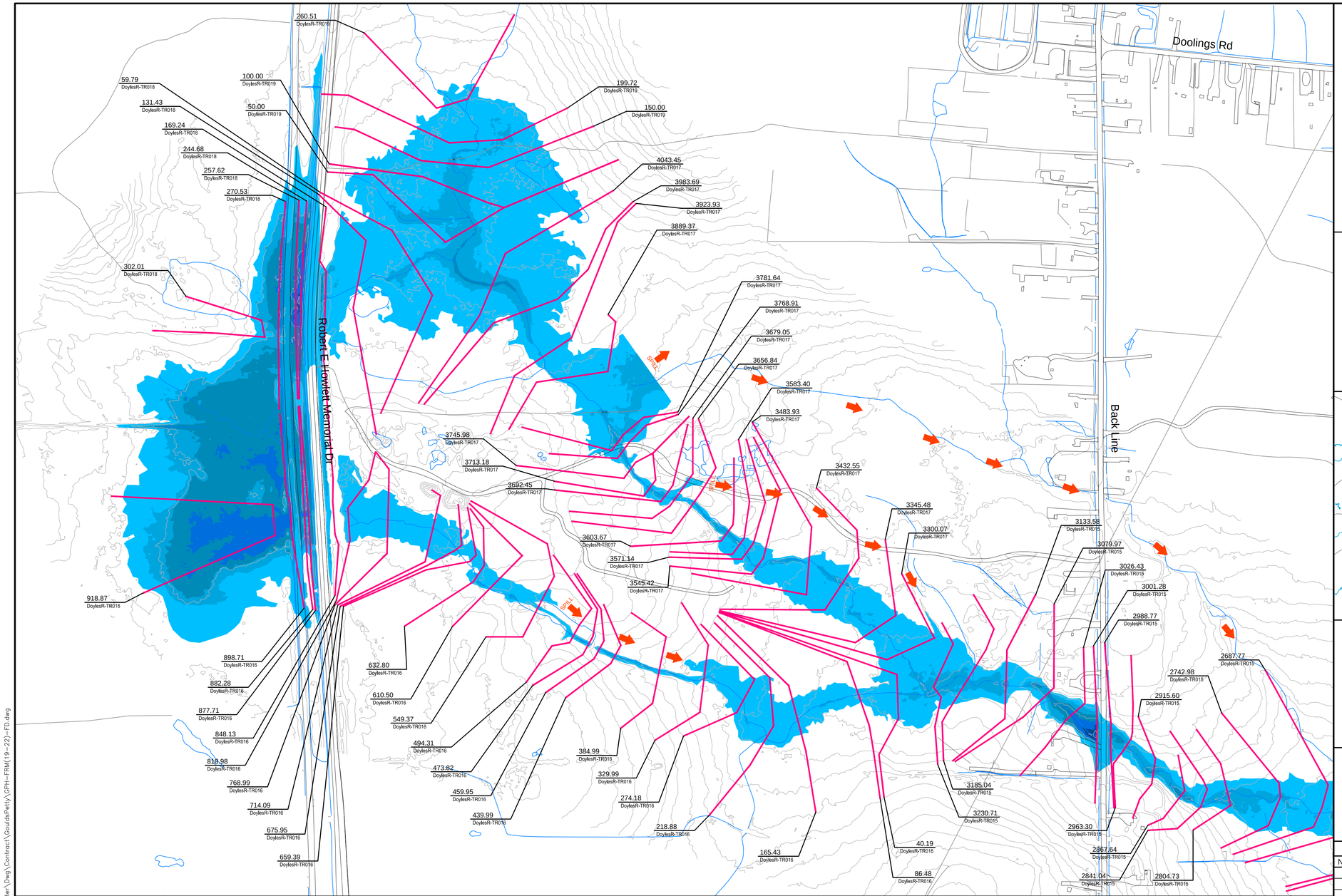
Robert E. Howlett Memorial Dr
Doolings Rd
Back Line
Goulds Stream
Petty Harbour River
Cochrane Pond Brook
Raymond Brook
260.51 DoylesR-TR018
59.79 DoylesR-TR018
131.43 DoylesR-TR018
169.24 DoylesR-TR018
244.68 DoylesR-TR018
257.62 DoylesR-TR018
270.53 DoylesR-TR018
302.01 DoylesR-TR018
100.00 DoylesR-TR019
50.00 DoylesR-TR019
199.72 DoylesR-TR019
150.00 DoylesR-TR019
4043.45 DoylesR-TR017
3983.69 DoylesR-TR017
3923.93 DoylesR-TR017
3889.37 DoylesR-TR017
3781.64 DoylesR-TR017
3768.91 DoylesR-TR017
3679.05 DoylesR-TR017
3656.84 DoylesR-TR017
3583.40 DoylesR-TR017
3483.93 DoylesR-TR017
3745.98 DoylesR-TR017
3713.18 DoylesR-TR017
3692.45 DoylesR-TR017
3432.55 DoylesR-TR017
3345.48 DoylesR-TR017
3300.07 DoylesR-TR017
3603.67 DoylesR-TR017
3571.14 DoylesR-TR017
3545.42 DoylesR-TR017
3133.58 DoylesR-TR015
3079.97 DoylesR-TR015
3026.43 DoylesR-TR015
3001.28 DoylesR-TR015
2988.77 DoylesR-TR015
2687.77 DoylesR-TR015
2742.98 DoylesR-TR015
2915.60 DoylesR-TR015
3185.04 DoylesR-TR015
3230.71 DoylesR-TR015
2963.30 DoylesR-TR015
2867.64 DoylesR-TR015
2841.04 DoylesR-TR015
2804.73 DoylesR-TR015
918.87 DoylesR-TR016
898.71 DoylesR-TR016
882.28 DoylesR-TR016
877.71 DoylesR-TR016
848.13 DoylesR-TR016
818.98 DoylesR-TR016
768.99 DoylesR-TR016
714.09 DoylesR-TR016
675.95 DoylesR-TR016
659.39 DoylesR-TR016
632.80 DoylesR-TR016
610.50 DoylesR-TR016
549.37 DoylesR-TR016
494.31 DoylesR-TR016
473.82 DoylesR-TR016
459.95 DoylesR-TR016
439.99 DoylesR-TR016
384.99 DoylesR-TR016
329.99 DoylesR-TR016
274.18 DoylesR-TR016
218.88 DoylesR-TR016
165.43 DoylesR-TR016
40.19 DoylesR-TR016
86.48 DoylesR-TR016
Spur1
Spur2
Spur3
Spur4
Spur5
Spur6
Spur7
Spur8
Spur9
Spur10
Spur11
Spur12
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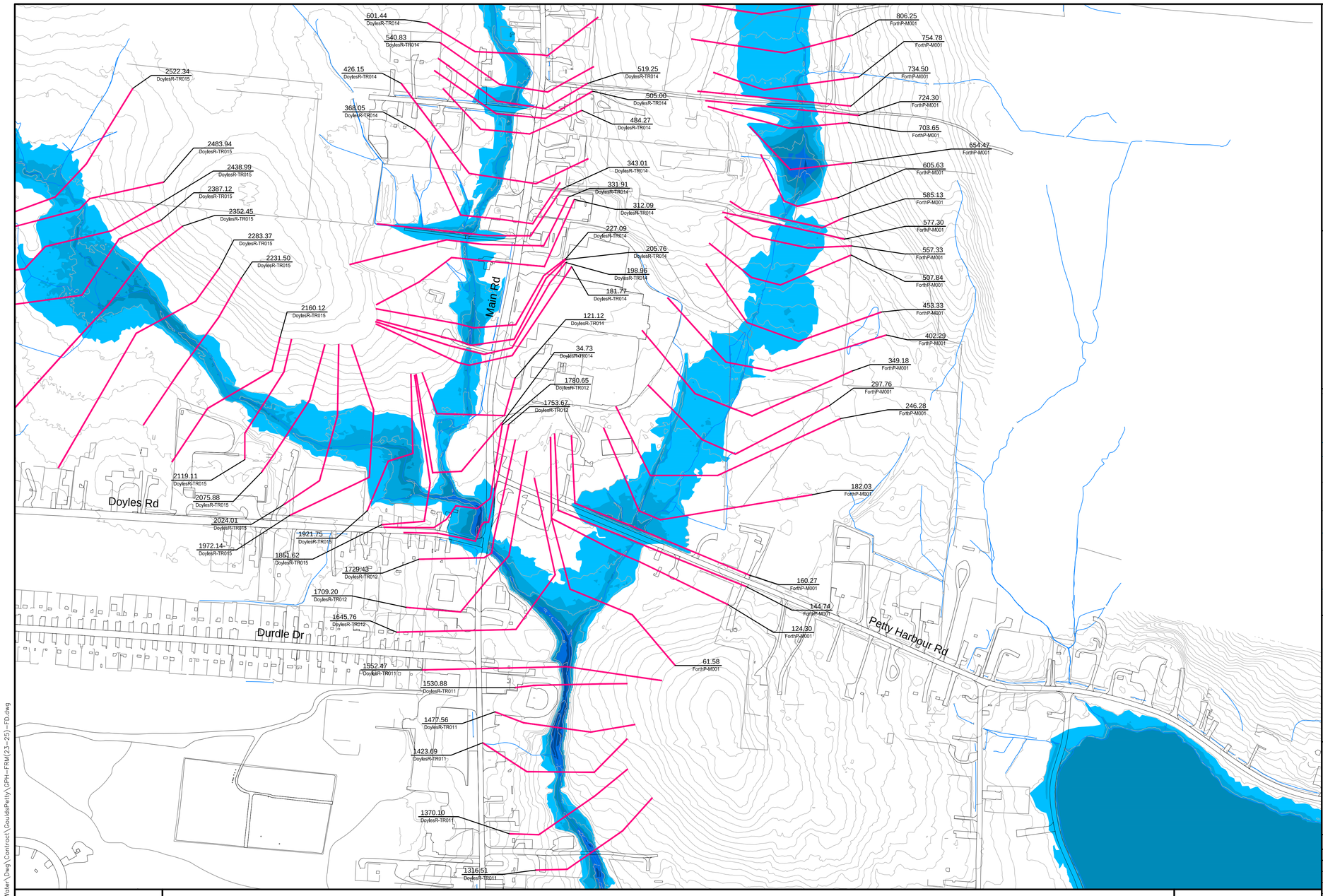

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Water Resource Management Division

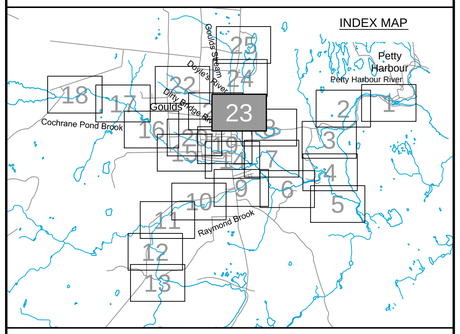
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2050
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 — DoylesR-TR017

- Cross Section Number
- Reach Identification
- Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 23 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(23-25)-FD.dwg

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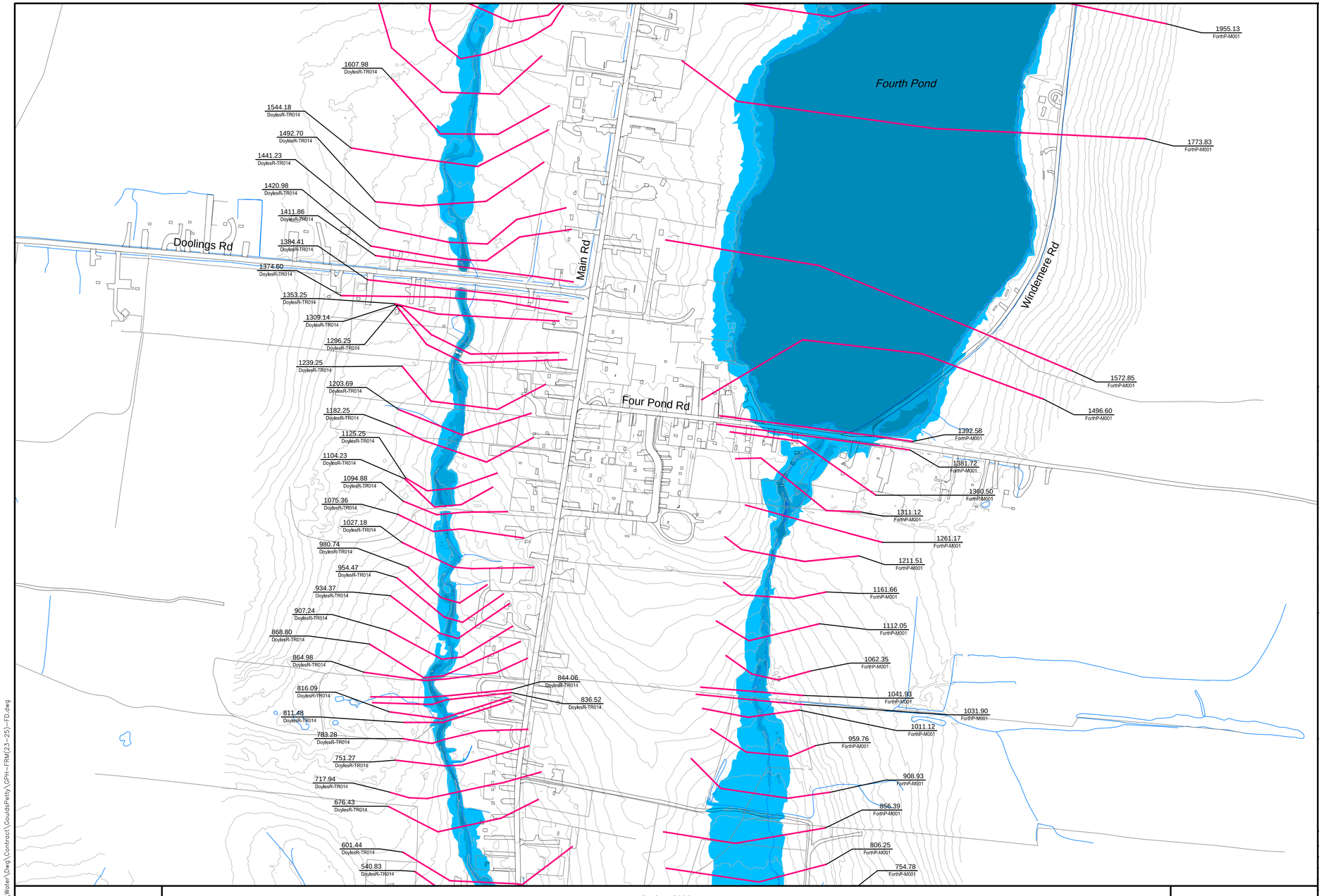


Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

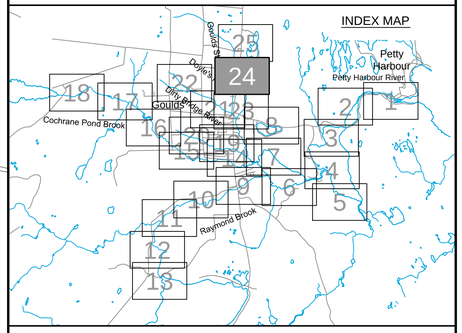
Department of Environment and Conservation
Water Resource Management Division

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2050
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
- Cross Section Number
- Reach Identification
- Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 24 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(23-25)-FD.dwg

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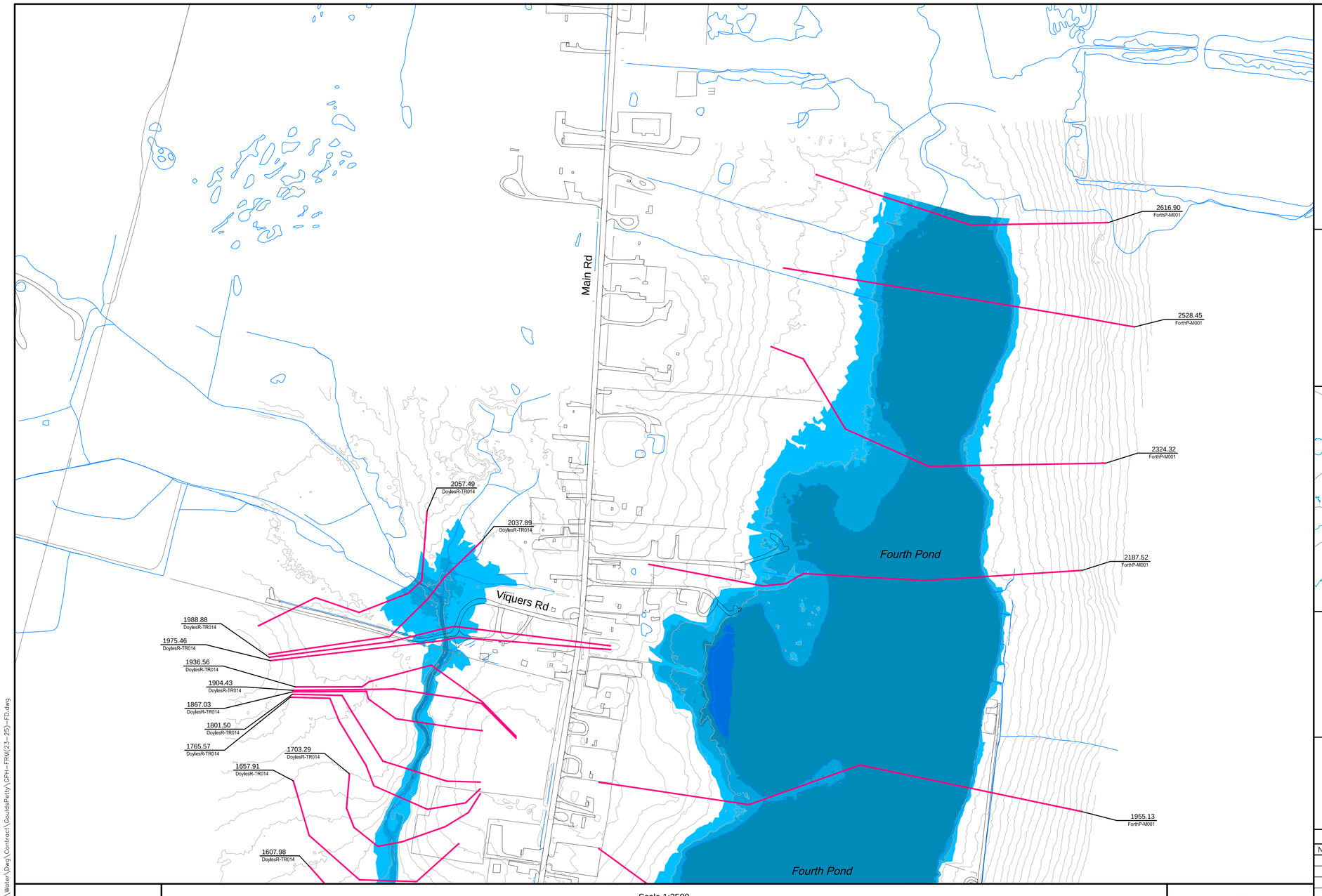


Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

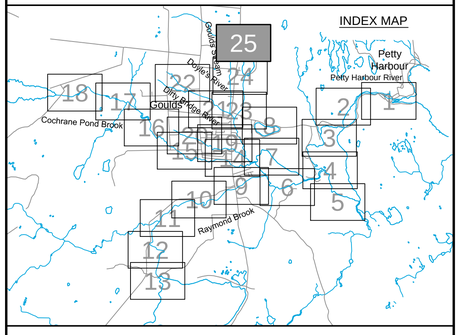
Department of Environment and Conservation
Water Resource Management Division

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2050
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

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Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 25 of 25

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APPENDIX H

1:20 AND 1:100 AEP FLOOD RISK MAPPING – 2080

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Newfoundland Labrador

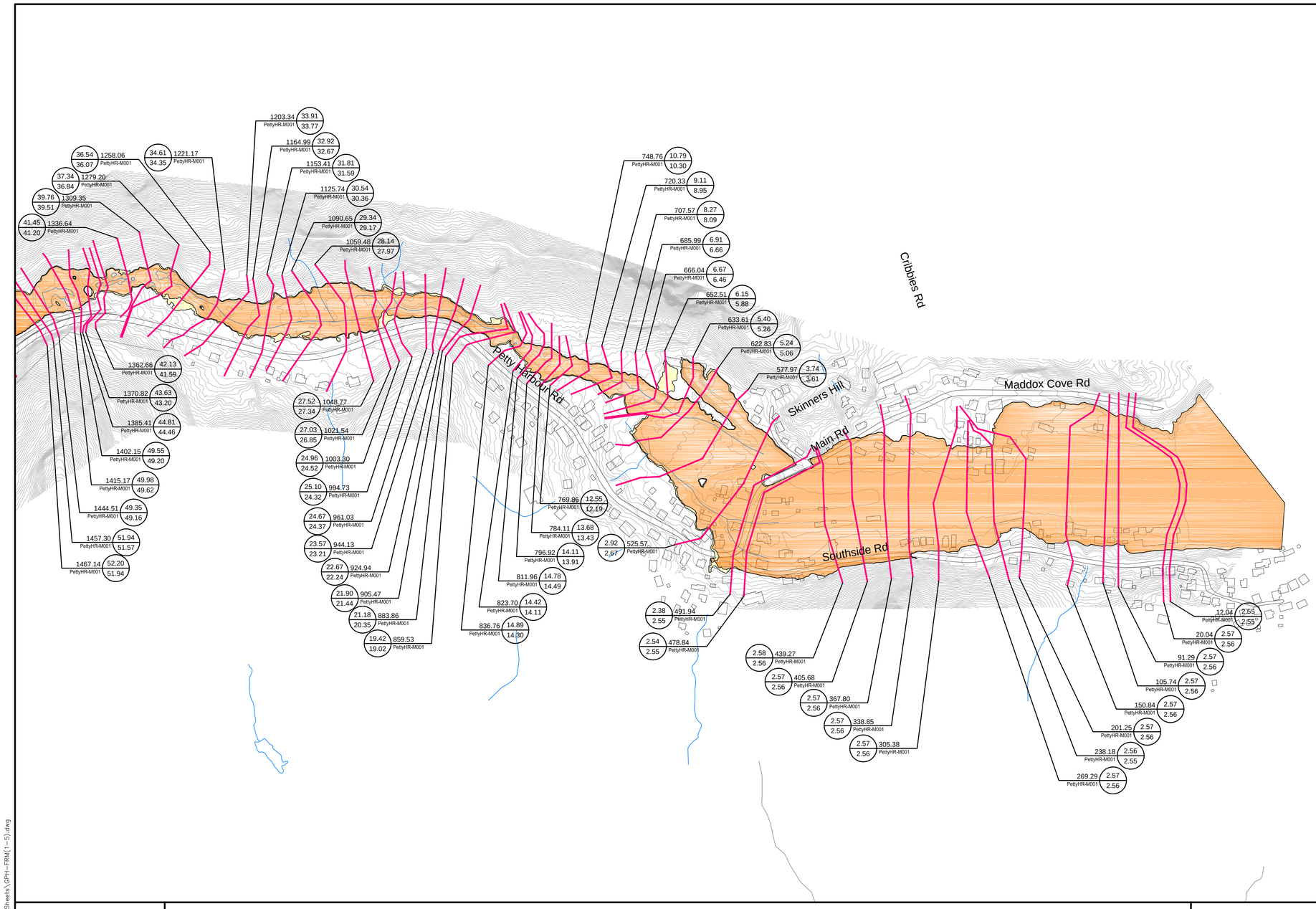
Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

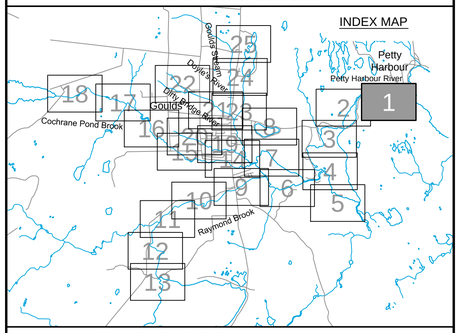
Flood Risk Map
Goulds\Petty Harbour

Climate Change Scenario - 2080
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream



INDEX MAP



Cross Section Label

1:100 AEP Flood Water Level (elevation in metres)
172.33
171.24
1050.0
DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location
1:20 AEP Flood Water Level (elevation in metres)

1:20 AEP Floodline

1:100 AEP Floodline

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

Sheet 1 of 25

C:\Work\NFLD\GouldsSheets\GPH-FRM(1-5).dwg

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Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

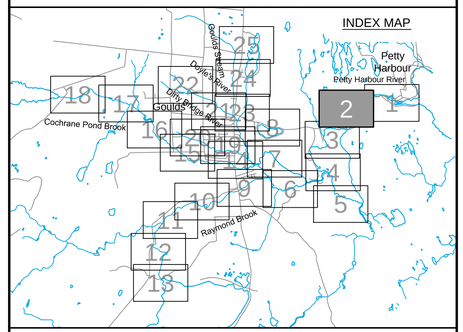
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

Flood Risk Map
Goulds\Petty Harbour

Climate Change Scenario - 2080
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



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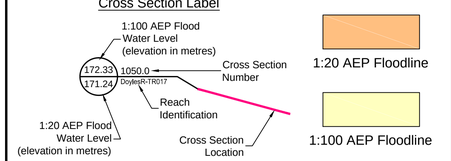

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

Sheet 2 of 25

C:\Work\NFLD\GouldsSheets\GPH-FRM(1-5).dwg

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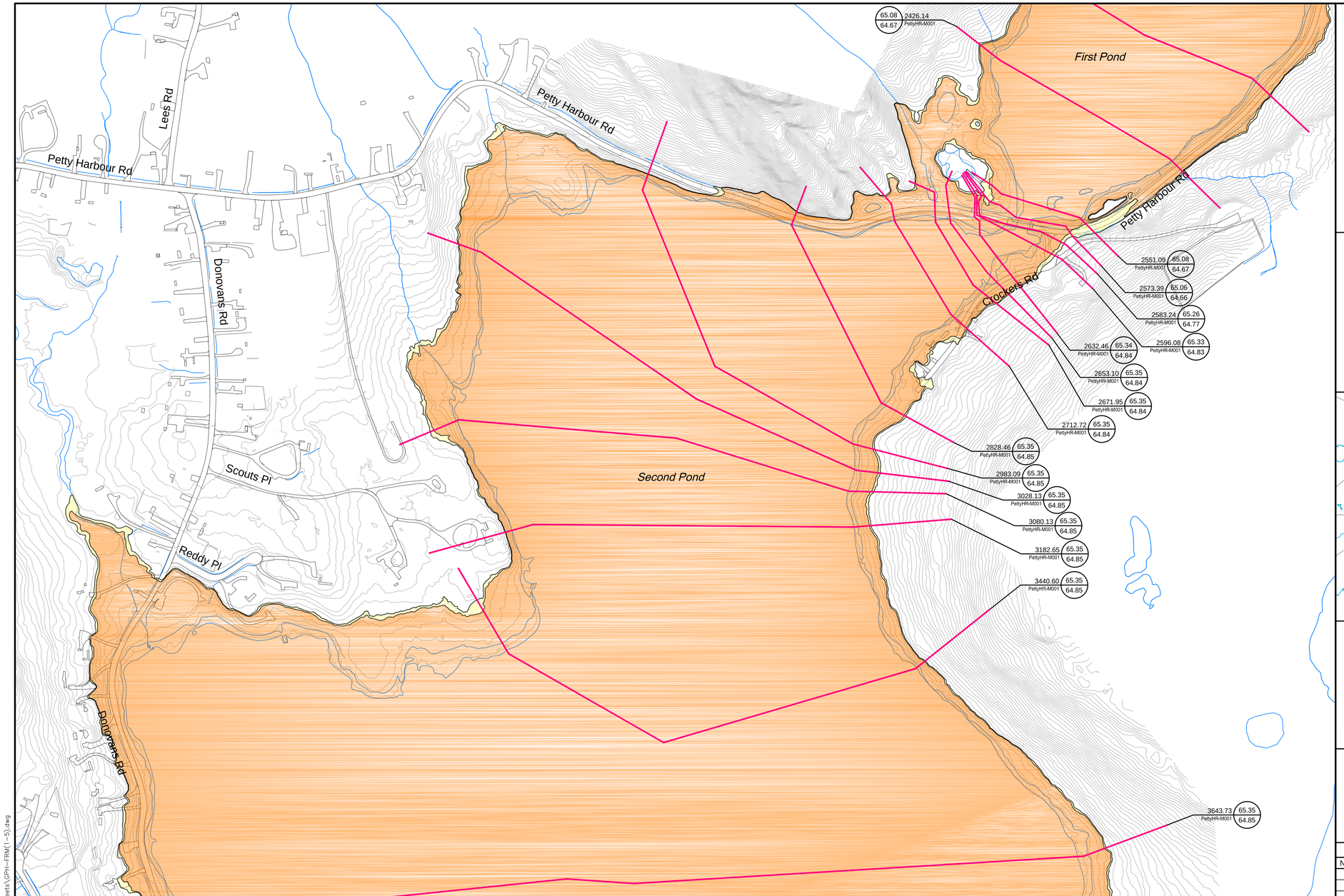

Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

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Flood Risk Map
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Climate Change Scenario - 2080
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
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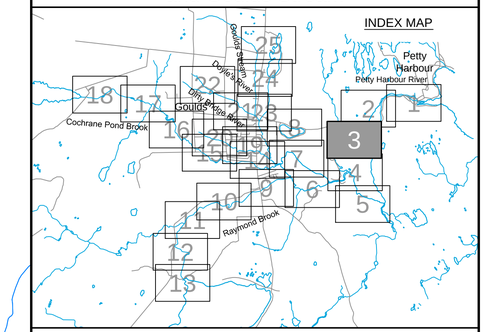
and Goulds Stream

INDEX MAP



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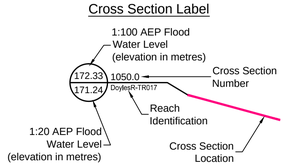

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

N

Sheet 3 of 25

C:\Work\NFLD\GouldsSheets\GPH-FRM(1-5).dwg

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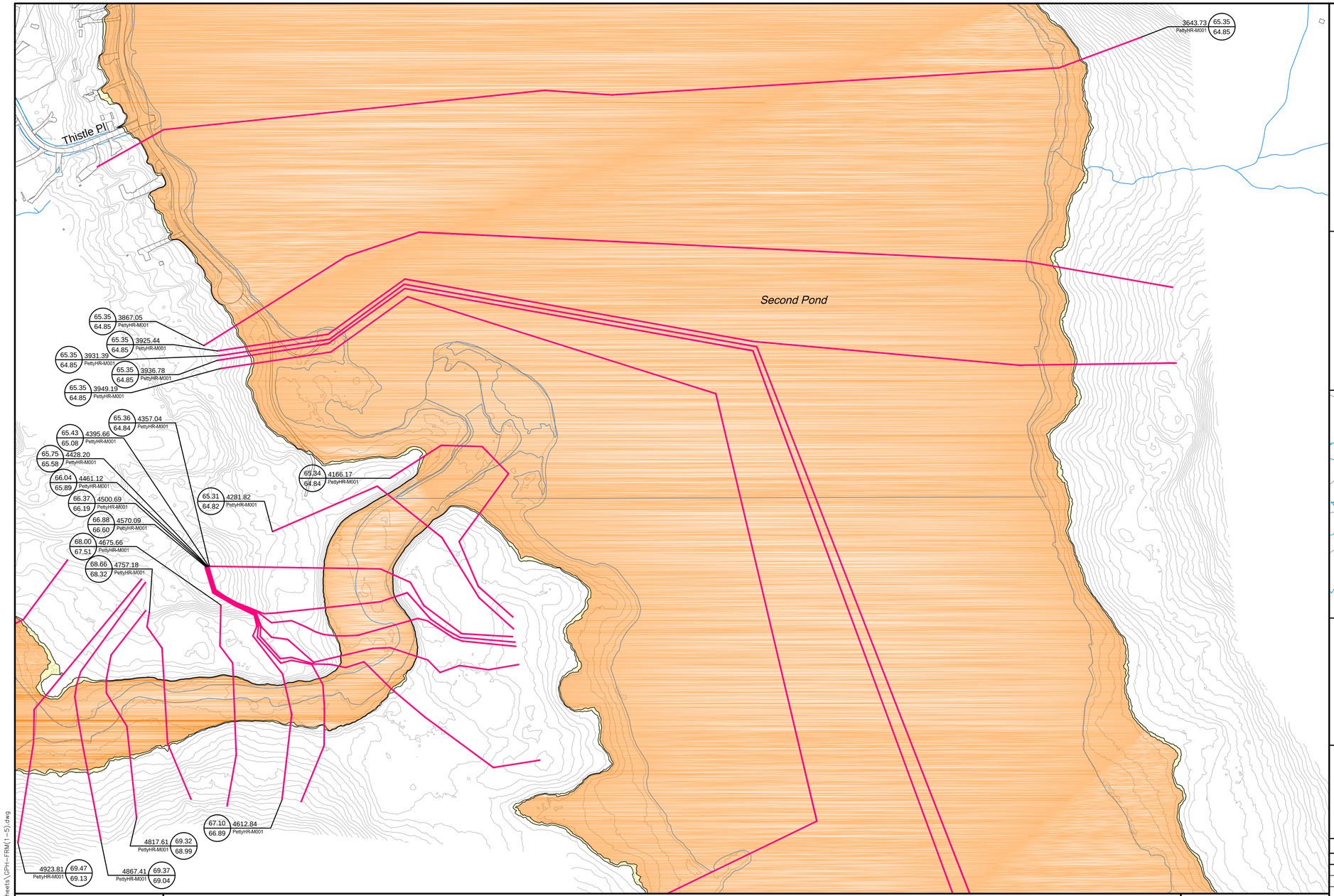

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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Goulds\Petty Harbour

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AMEC (Maximum IDF Relationship)

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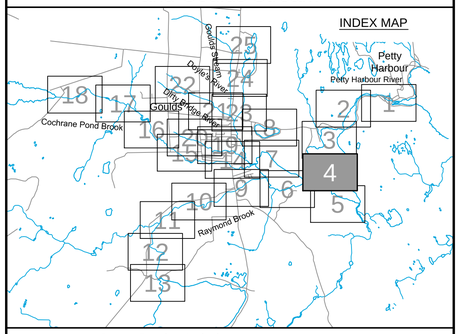
INDEX MAP



Cross Section Label

1:100 AEP Flood Water Level (elevation in metres)
172.33
171.24
1050.0
DoylesR-TR017
Cross Section Number
Reach Identification
1:20 AEP Flood Water Level (elevation in metres)
Cross Section Location

1:20 AEP Floodline
1:100 AEP Floodline

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 4 of 25

C:\Work\NFLD\GouldsSheets\GPH-FRM(1-5).dwg

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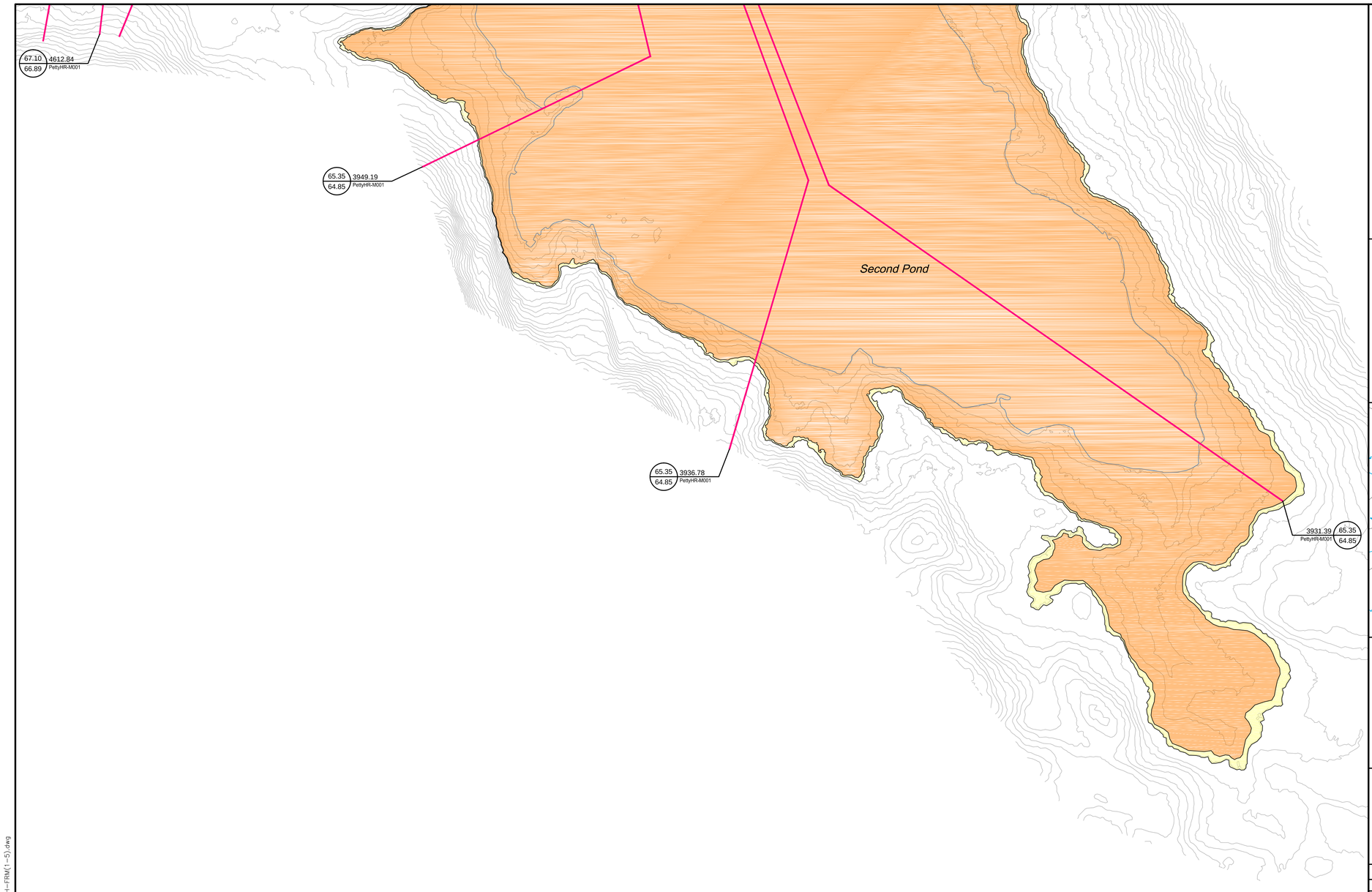

Department of Environment and Conservation
Water Resource Management Division

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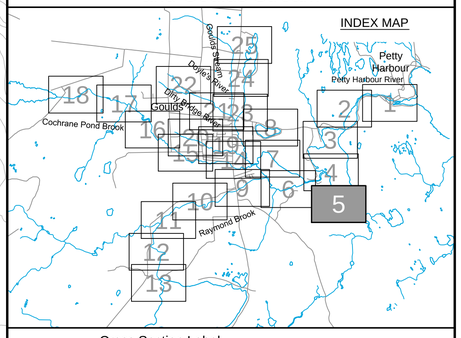
Flood Risk Map
Goulds\Petty Harbour

Climate Change Scenario - 2080
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



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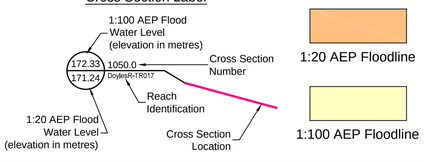


Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

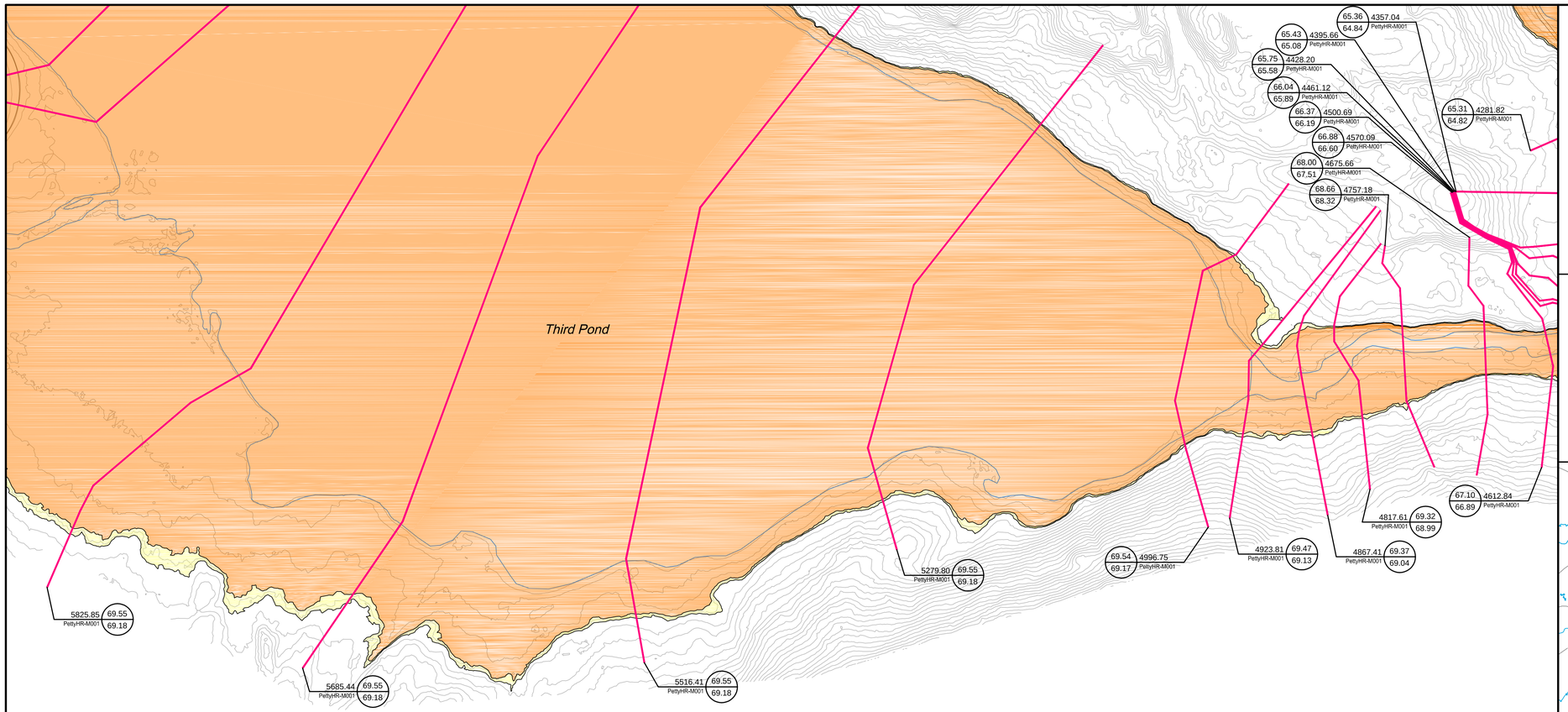
Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

Sheet 5 of 25

C:\Work\NFLD\GoudaSheets\GPH-FRM(1-5).dwg

Mar 23/13 – richard.bartolo



Newfoundland Labrador

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Goulds\Petty Harbour

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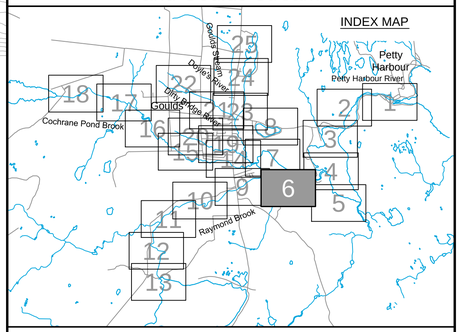
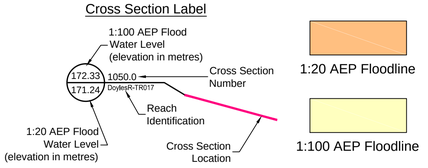
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label



amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

Sheet 6 of 25

C:\Work\NFLD\GouldsSheets\GPH-FRM(6-8).dwg

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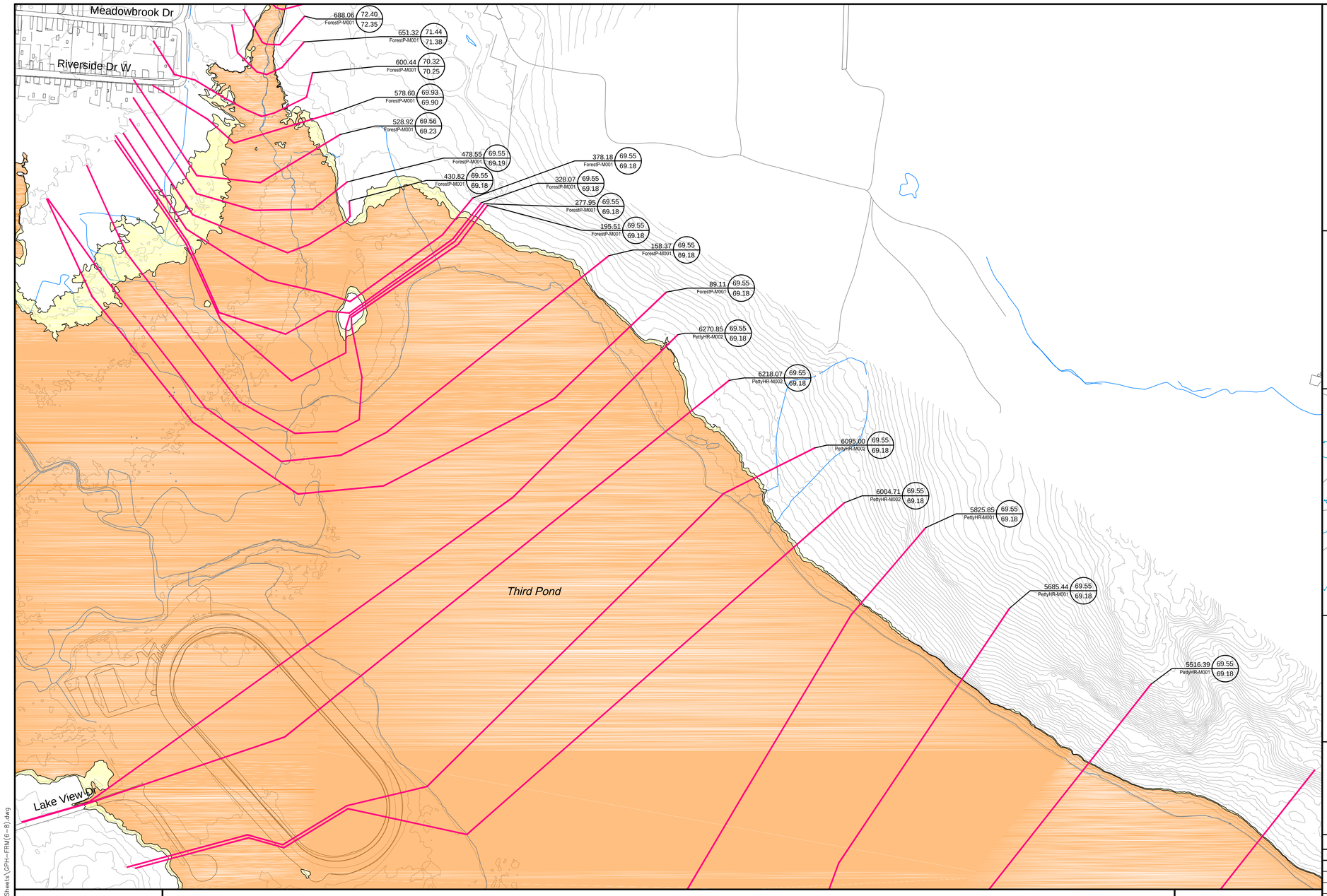

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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Department of Environment and Conservation
Water Resource Management Division

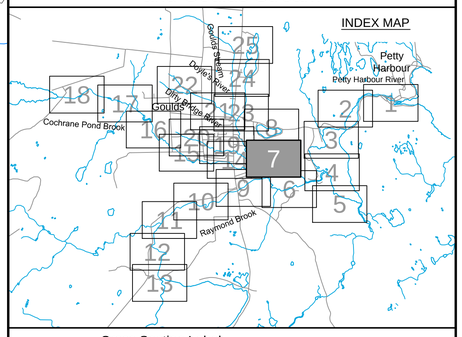
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

Flood Risk Map
Goulds\Petty Harbour

Climate Change Scenario - 2080
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



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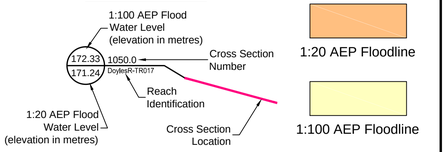

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

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Newfoundland Labrador

Department of Environment and Conservation
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Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

Flood Risk Map
Goulds\Petty Harbour

Climate Change Scenario - 2080
AMEC (Maximum IDF Relationship)

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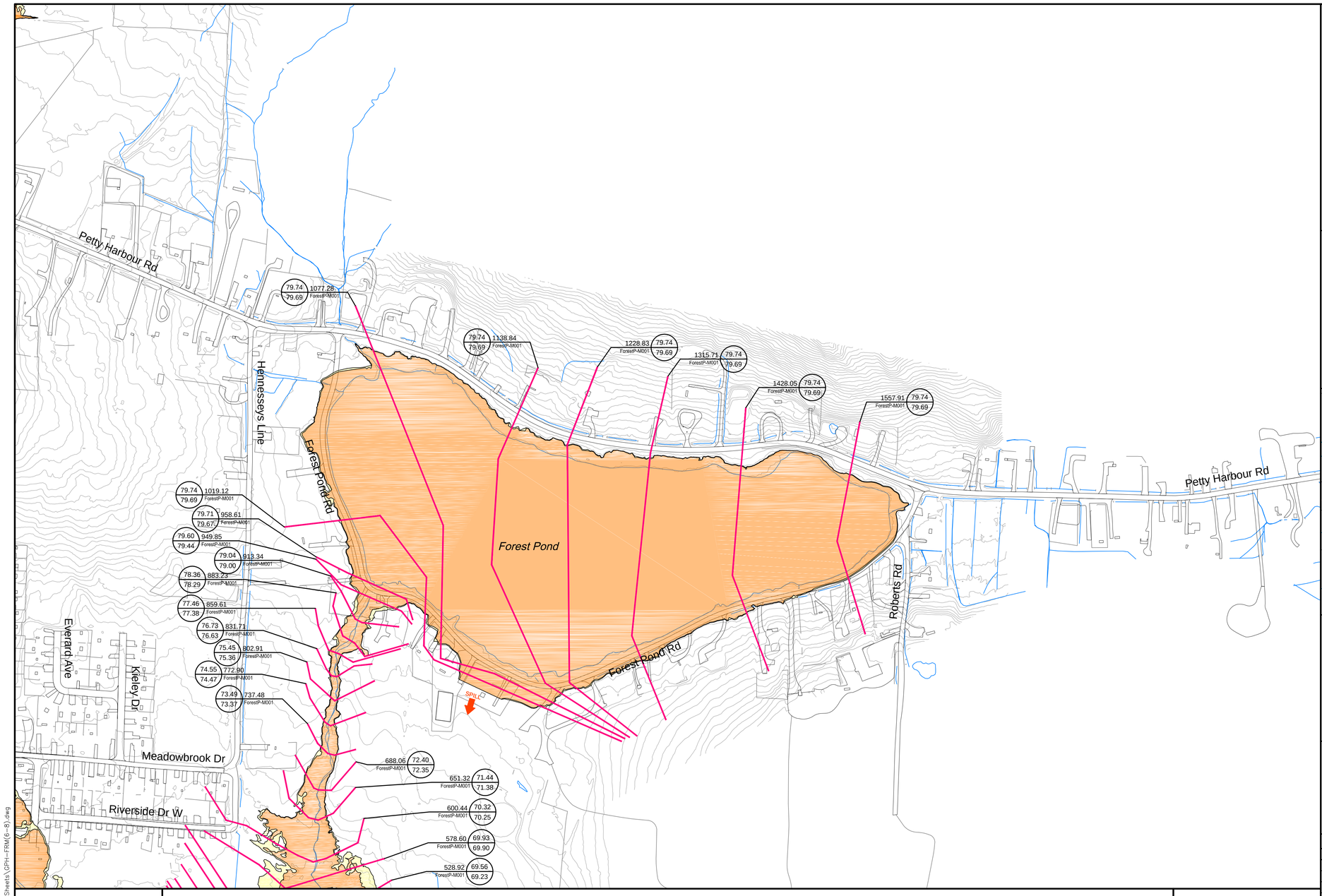
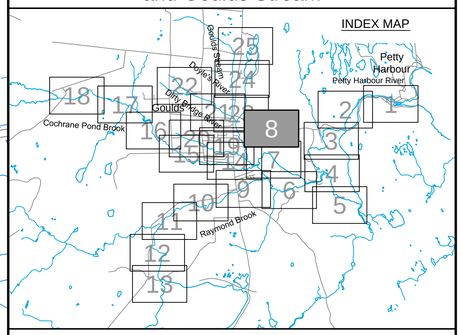


INDEX MAP



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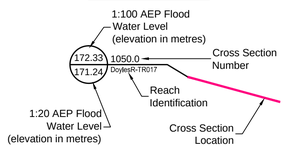

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

N

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C:\Work\NFLD\GouldsSheets\GPH-FRM(6-8).dwg

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Third Pond

Lake View Dr

Main Rd

Shoal Bay Rd

Alexis Pl

71.35 / 71.19 816.68 RaymondB-M001
71.55 / 71.39 841.89 RaymondB-M001
71.81 / 71.60 866.25 RaymondB-M001
71.75 / 71.53 892.34 RaymondB-M001
72.13 / 72.00 916.70 RaymondB-M001
73.22 / 73.10 942.15 RaymondB-M001
74.49 / 74.35 976.73 RaymondB-M001
74.63 / 74.41 999.99 RaymondB-M001
77.12 / 76.95 1116.25 RaymondB-M001
78.00 / 77.89 1148.70 RaymondB-M001
78.20 / 78.08 1166.20 RaymondB-M001
79.04 / 78.90 1189.75 RaymondB-M001
79.72 / 79.60 1216.25 RaymondB-M001
80.38 / 80.05 1252.39 RaymondB-M001
83.21 / 83.00 1536.01 RaymondB-M001
83.68 / 83.44 1584.49 RaymondB-M001
83.89 / 83.64 1630.92 RaymondB-M001
84.40 / 84.16 1682.15 RaymondB-M001
84.77 / 84.50 1733.38 RaymondB-M001
69.86 / 69.70 716.25 RaymondB-M001
70.03 / 69.93 766.25 RaymondB-M001
69.65 / 69.45 675.00 RaymondB-M001
69.59 / 69.25 615.86 RaymondB-M001
69.55 / 69.18 565.77 RaymondB-M001
69.55 / 69.18 520.15 RaymondB-M001
69.55 / 69.18 468.54 RaymondB-M001
69.55 / 69.18 429.18 RaymondB-M001
69.55 / 69.18 366.25 RaymondB-M001
69.55 / 69.18 341.79 RaymondB-M001
76.76 / 76.47 1066.09 RaymondB-M001
76.27 / 76.10 1035.68 RaymondB-M001
1303.54 80.49 / 80.32 RaymondB-M001
1323.54 81.65 / 81.21 RaymondB-M001
1372.05 82.36 / 81.80 RaymondB-M001
1425.99 82.52 / 82.30 RaymondB-M001
1477.96 82.79 / 82.59 RaymondB-M001
1784.61 85.26 / 85.18 RaymondB-M001
1835.84 86.44 / 86.17 RaymondB-M001
1885.73 87.05 / 86.86 RaymondB-M001
1950.22 87.45 / 87.35 RaymondB-M001
1989.18 88.25 / 87.79 RaymondB-M001
5825.85 69.55 / 69.18 PettyHR-M001

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

C:\Work\WFLD\GouldsSheets\GPH-FRM(9-13).dwg

Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

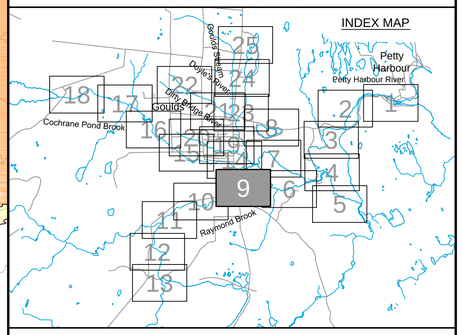
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

Flood Risk Map
Goulds\Petty Harbour

Climate Change Scenario - 2080
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1:100 AEP Flood
Water Level
(elevation in metres)

172.33 / 171.24 1050.0 DoylesR-TR017

Cross Section Number

Reach Identification

1:20 AEP Flood
Water Level
(elevation in metres)

Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

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REVISIONS

No.	Description	BY	DATE

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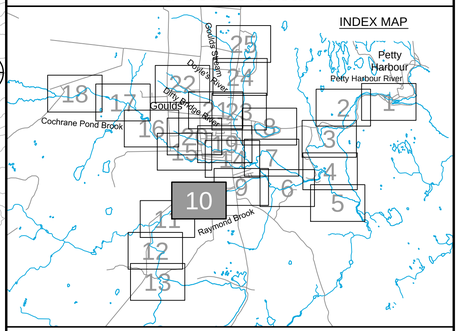

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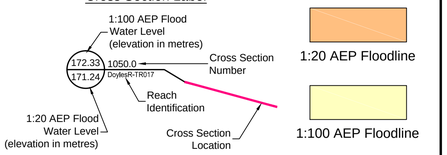

amec

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REVISIONS

No.	Description	BY	DATE

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

C:\Work\WFLD\GouldsSheets\GPH-FRM(9-13).dwg

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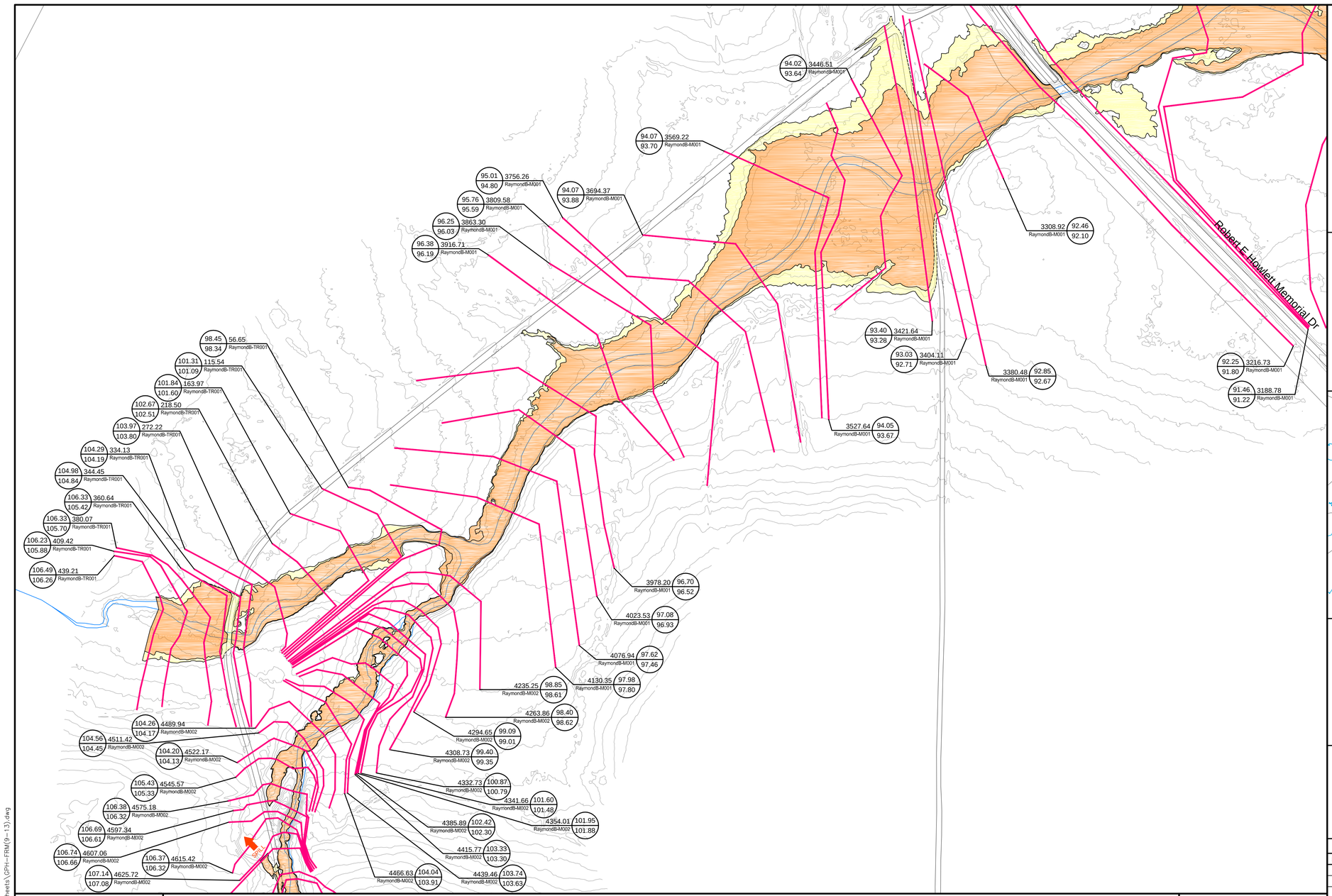
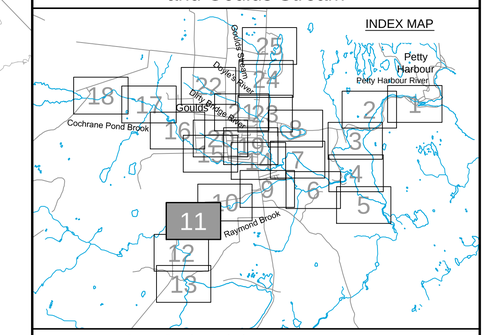


INDEX MAP



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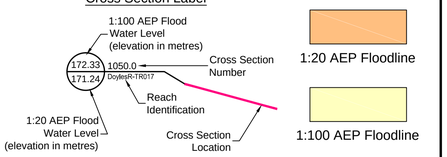

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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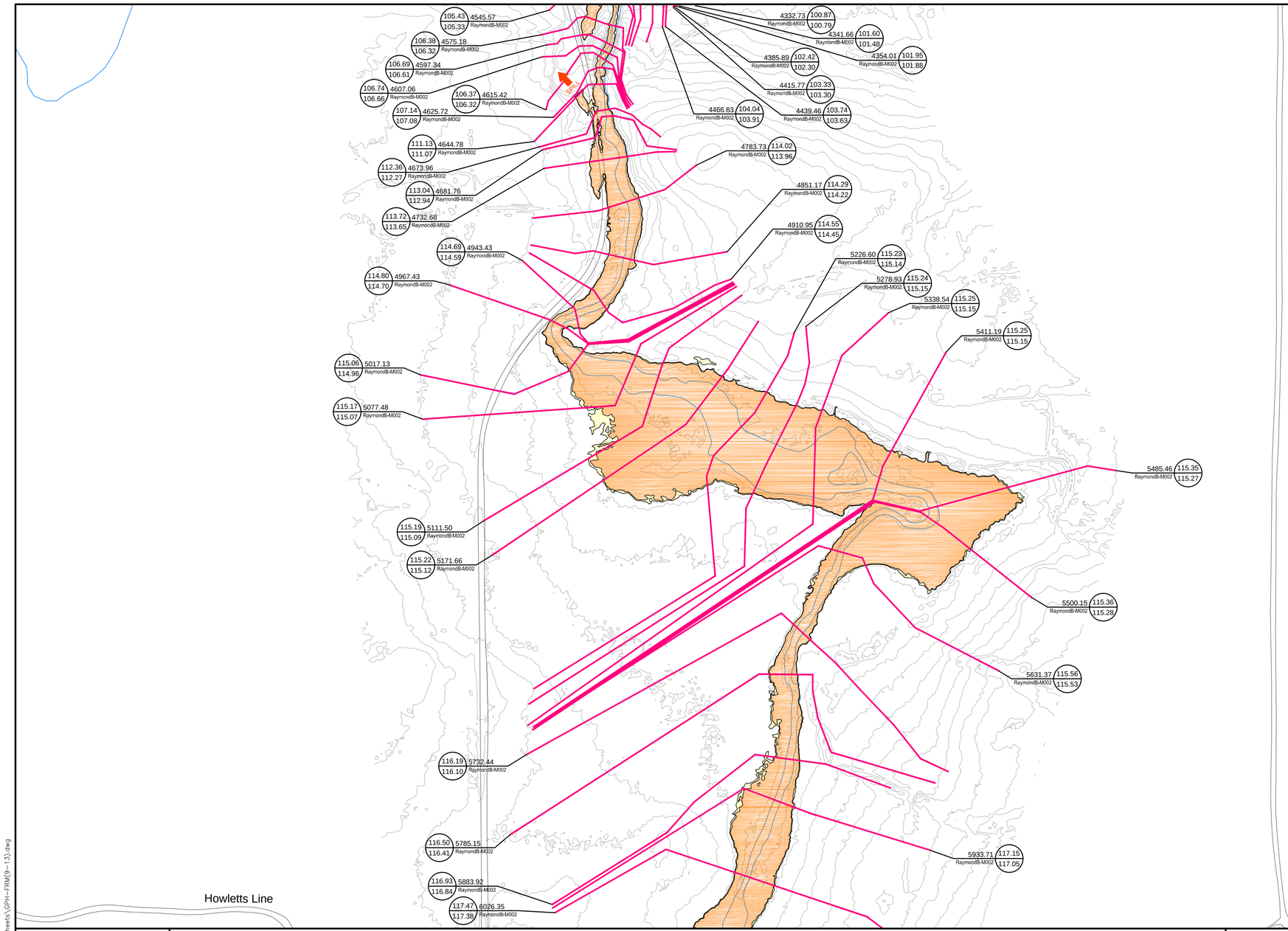

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

Newfoundland Labrador

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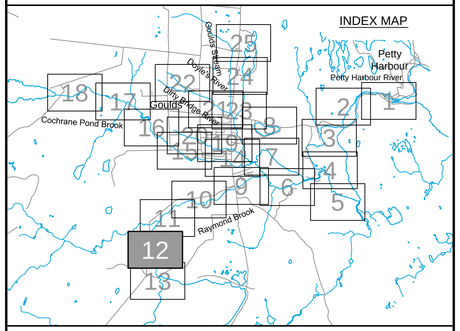

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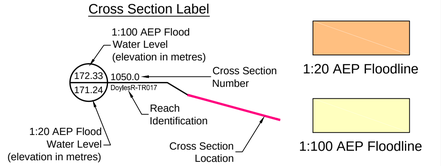

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REVISIONS

No.	Description	BY	DATE

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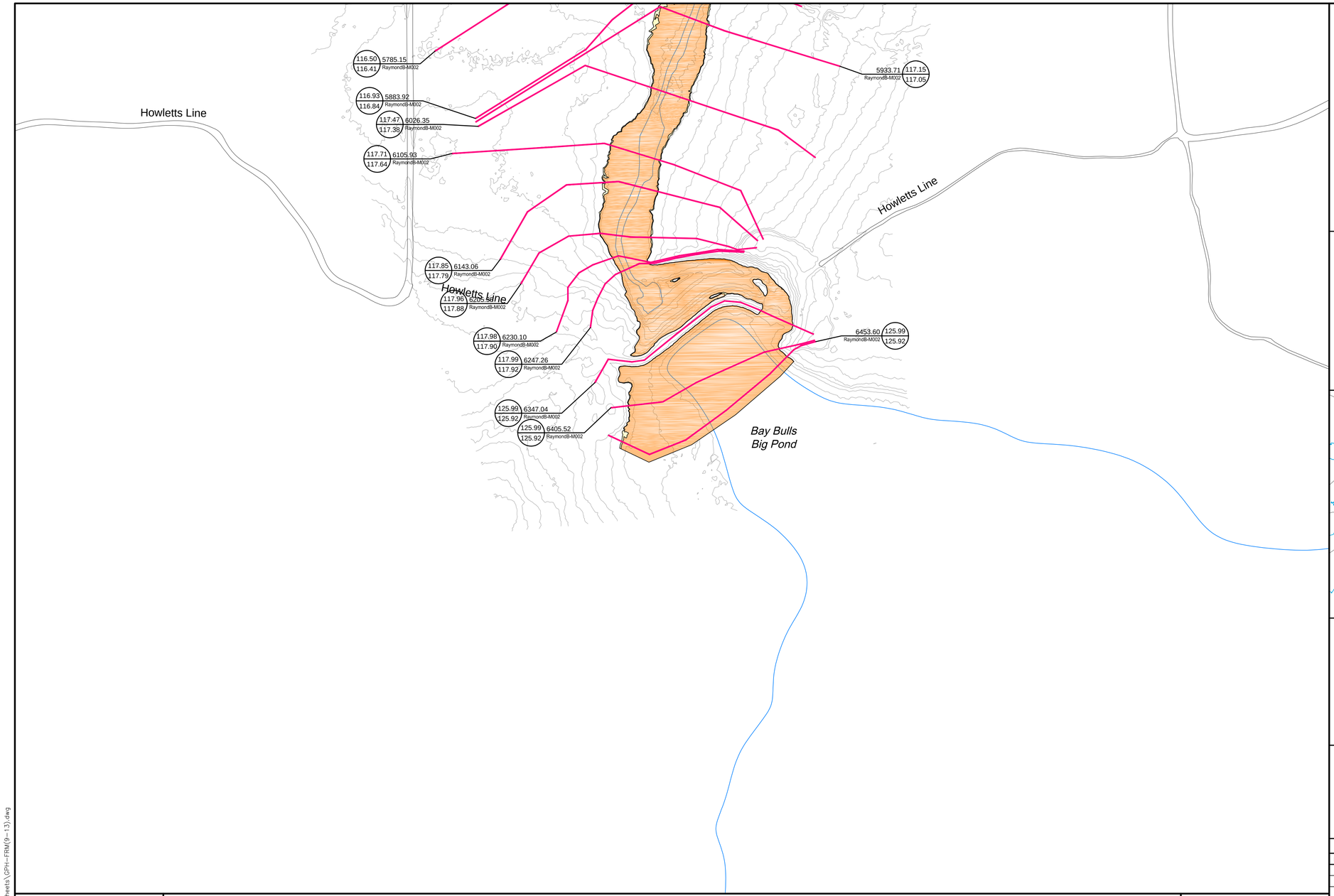

Newfoundland Labrador

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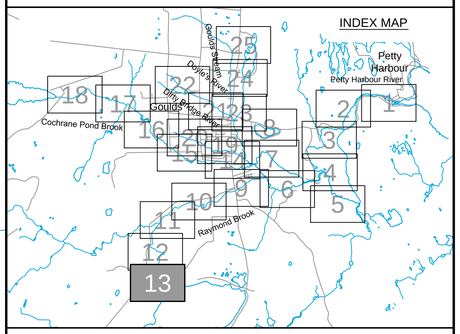

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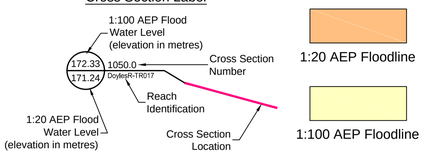

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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C:\Work\NFLD\GouldsSheets\GPH-FRM(9-13).dwg

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Soper Cres
McConnell Pl
Sunset St
Martin St
Main Rd
Fleming Pl
Riverside Dr W
Hannaford Pl
Cleary Dr
Beaver Brook Dr
Heffernans Line
Mountainview Dr
Ryans River Rd
Ryans Pl
Lake View Dr
Third Pond

81.94 1990.76 81.82 CochranePB-M002
81.63 1945.20 81.44 CochranePB-M002
81.47 1916.67 81.30 CochranePB-M002
81.32 1871.48 81.16 CochranePB-M002
81.27 1836.03 81.11 CochranePB-M002
80.85 1788.63 80.51 CochranePB-M002
80.12 1768.08 79.94 CochranePB-M002
79.99 1733.19 79.86 CochranePB-M002
2103.01 83.25 83.14 CochranePB-M002
2046.85 82.74 82.50 CochranePB-M002
2014.35 81.96 81.88 CochranePB-M002
78.81 1640.51 78.58 CochranePB-M002
79.32 1685.79 79.09 CochranePB-M002
79.38 1694.89 79.15 CochranePB-M002
76.52 1602.99 76.35 CochranePB-M002
75.35 1585.52 75.26 CochranePB-M002
75.03 1569.47 74.96 CochranePB-M002
74.16 1541.97 73.97 CochranePB-M002
73.06 1495.27 72.90 CochranePB-M002
72.57 1510.83 72.48 CochranePB-M002
72.06 1419.61 71.86 CochranePB-M002
71.92 1384.56 71.75 CochranePB-M002
71.67 1351.51 71.64 CochranePB-M002
71.41 1311.78 71.29 CochranePB-M002
71.02 1291.19 70.91 CochranePB-M002
72.68 1458.62 72.56 CochranePB-M002
70.99 1217.75 70.71 CochranePB-M002
70.63 1200.39 70.50 CochranePB-M002
70.52 1185.68 70.48 CochranePB-M002
70.45 1164.32 70.33 CochranePB-M002
69.84 1132.60 69.77 CochranePB-M002
69.87 1111.68 69.75 CochranePB-M002
69.69 1059.95 69.60 CochranePB-M002
69.57 998.99 69.22 CochranePB-M002
69.57 955.54 69.21 CochranePB-M002
69.56 851.16 69.19 CochranePB-M002
69.56 798.06 69.19 CochranePB-M002
69.55 746.77 69.19 CochranePB-M002
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69.55 669.16 69.19 CochranePB-M002
69.55 590.19 69.19 CochranePB-M002
69.55 539.85 69.19 CochranePB-M002
69.55 488.40 69.19 CochranePB-M002
313.14 69.55 CochranePB-M001 69.18
381.27 69.55 CochranePB-M001 69.18

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

C:\Work\WFLD\GouldsSheets\GPH-FRM(14-18).dwg

Newfoundland Labrador
Department of Environment and Conservation
Water Resource Management Division

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Flood Risk Map
Goulds\Petty Harbour

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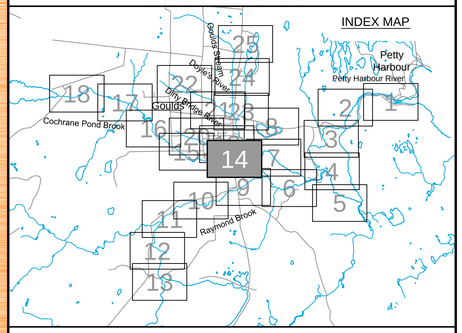
and Goulds Stream

INDEX MAP



Cross Section Label

1:100 AEP Flood Water Level (elevation in metres)
172.33 1050.0 171.24 DoylesR-TR017
Cross Section Number
Reach Identification
1:20 AEP Flood Water Level (elevation in metres)
Cross Section Location

1:20 AEP Floodline
1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

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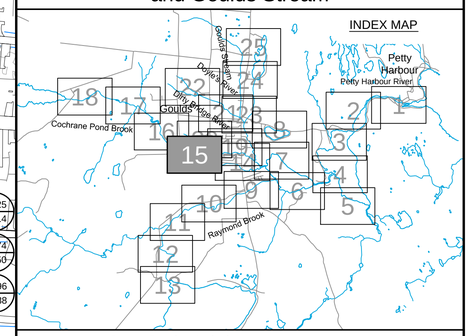

Cross Section Label

1:100 AEP Flood Water Level (elevation in metres)

172.33
171.24
1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

1:20 AEP Flood Water Level (elevation in metres)

Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

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REVISIONS

No.	Description	BY	DATE

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

C:\Work\WFLD\GoudsSheets\GPH-FRM(14-18).dwg

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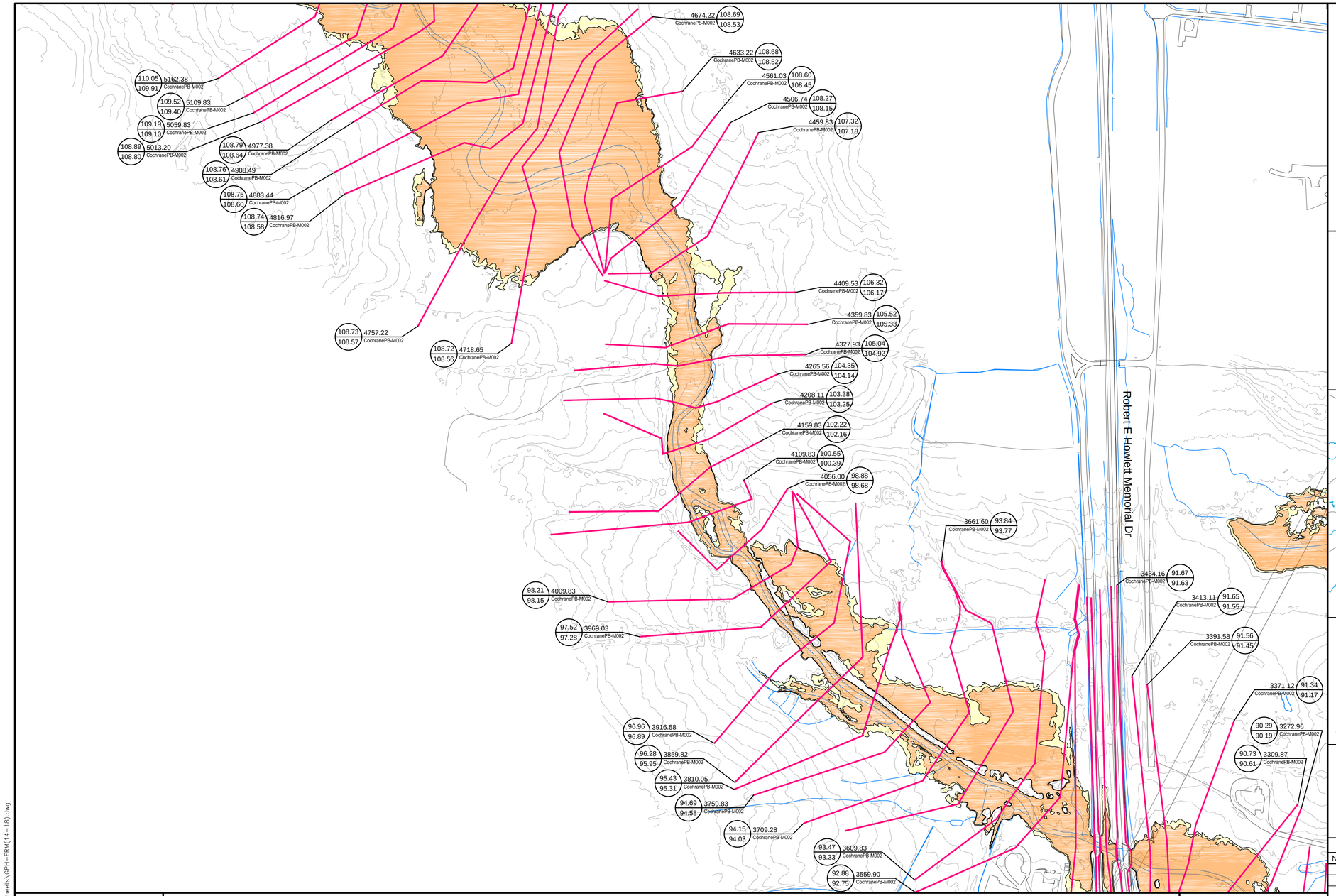

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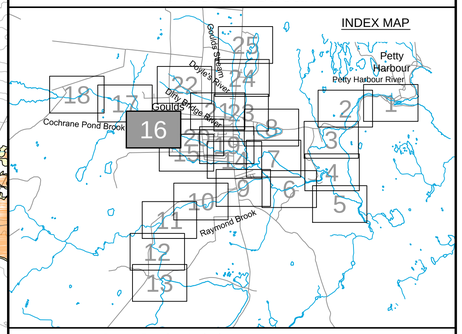

Cross Section Label

1:100 AEP Flood Water Level (elevation in metres)

172.33 / 171.24 — 1050.0 — DoylesR-TR017

- 1050.0: Cross Section Number
- DoylesR-TR017: Reach Identification
- 1:20 AEP Flood Water Level (elevation in metres)
- Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

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MTMNAD83
ZONE 1

Scale 1:2500

Metres: 150 0 150 Metres
Feet: 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

N

C:\Work\WFLD\GouldsSheets\GPH-FRM(14-18).dwg

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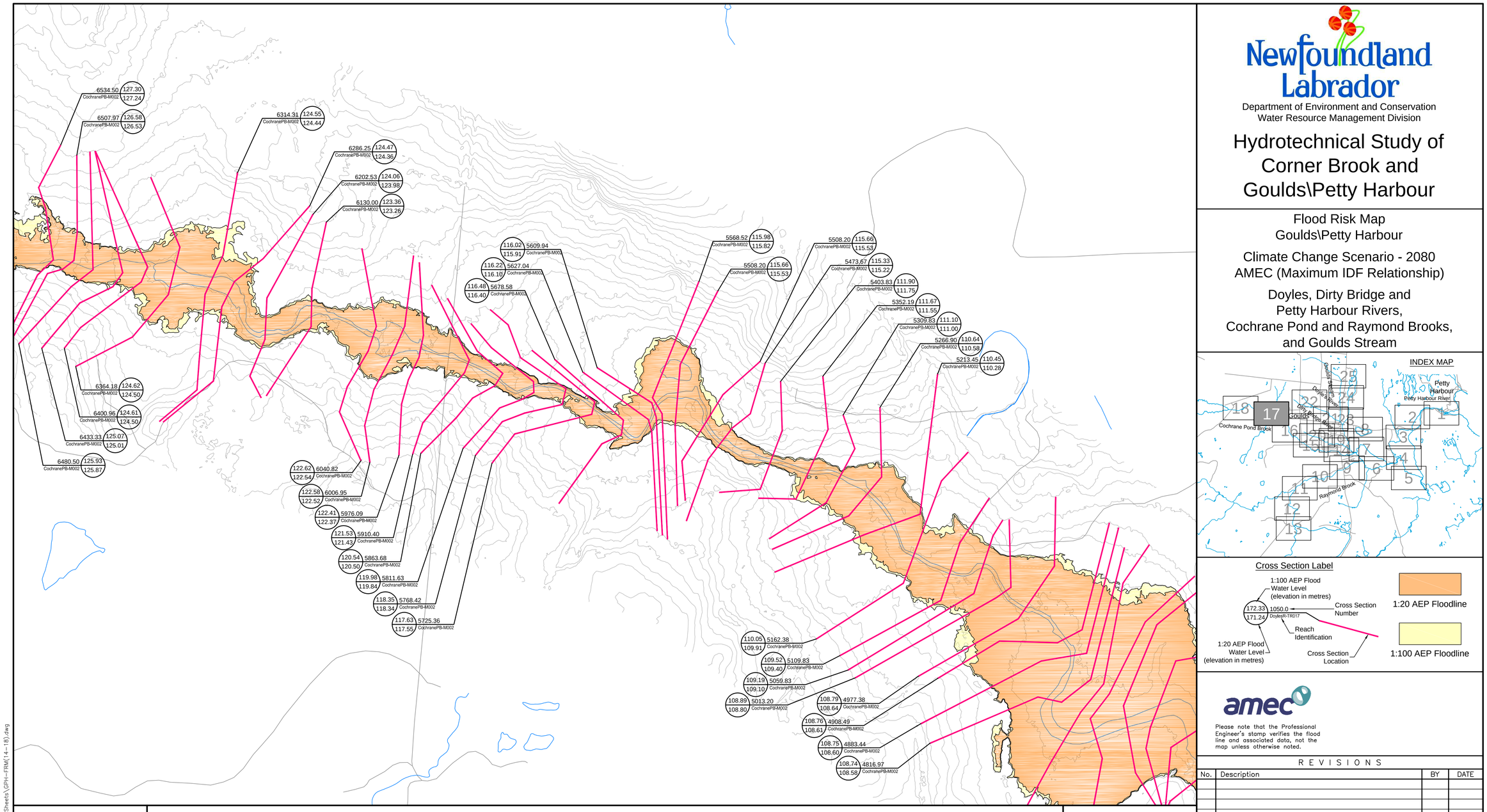

INDEX MAP

Cross Section Label

1:20 AEP Floodline

1:100 AEP Floodline

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

N

Sheet 17 of 25

C:\Work\NFLD\GouldsSheets\GPH-FRM(14-18).dwg

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Cochrane Pond Rd

135.67 / 135.47 — 6985.71 CochranePB-M002
136.11 / 136.07 — 7041.67 CochranePB-M002
136.53 / 136.43 — 7108.13 CochranePB-M002
137.03 / 136.95 — 7208.54 CochranePB-M002
137.13 / 137.05 — 7253.62 CochranePB-M002
137.30 / 137.22 — 7329.89 CochranePB-M002
142.47 / 142.20 — 8105.53 CochranePB-M002
142.46 / 142.18 — 8065.47 CochranePB-M002
142.45 / 142.18 — 8050.98 CochranePB-M002
142.45 / 142.18 — 8024.09 CochranePB-M002
142.45 / 142.17 — 8013.06 CochranePB-M002
142.45 / 142.17 — 8004.70 CochranePB-M002
142.44 / 142.17 — 7995.14 CochranePB-M002
141.89 / 141.70 — 7964.49 CochranePB-M002
140.76 / 140.64 — 7901.64 CochranePB-M002
7812.33 — 139.35 / 139.30
7847.08 — 139.82 / 139.74
7695.32 — 138.63 / 138.56
7738.34 — 138.96 / 138.88
7609.21 — 137.79 / 137.69
7450.86 — 137.59 / 137.51
7476.72 — 137.63 / 137.54
7515.77 — 137.65 / 137.56
6955.25 — 134.71 / 134.61
6863.52 — 132.88 / 132.81
6840.09 — 132.15 / 132.09
6808.25 — 131.41 / 131.41
6534.50 — 127.30 / 127.24
6507.97 — 126.58 / 126.53
130.36 / 130.26 — 6767.75 CochranePB-M002
129.48 / 129.43 — 6727.78 CochranePB-M002
129.07 / 128.99 — 6691.71 CochranePB-M002
128.67 / 128.61 — 6651.54 CochranePB-M002
128.44 / 128.35 — 6630.83 CochranePB-M002
6364.18 — 124.62 / 124.50
6400.96 — 124.61 / 124.50
6433.33 — 125.07 / 125.01
6480.50 — 125.93 / 125.87

Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

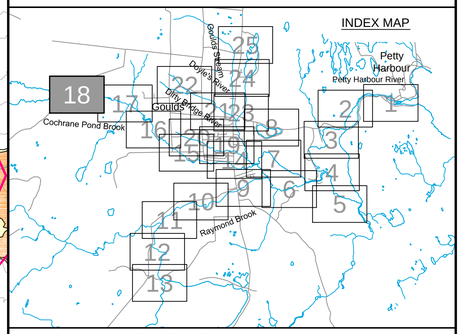
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

Flood Risk Map
Goulds\Petty Harbour

Climate Change Scenario - 2080
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1:100 AEP Flood
Water Level
(elevation in metres)

172.33 / 171.24 — 1050.0 — DoylesR-TR017

Cross Section Number

Reach Identification

1:20 AEP Flood
Water Level
(elevation in metres)

Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

Sheet 18 of 25

C:\Work\WFLD\GouldsSheets\GPH-FRM(14-18).dwg

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Ridgemount St
Clearview St
Gulliage St
North Dr
Keith Dr
Della Dr
Sunset St
Hannaford Pl
McConnell Pl
Sopet Crescent
Martin St
Cleary Dr
Fleming Pl
Main Rd
Meadowbrook Park Rd
Bonnie Dr
Gray Dr
Everard Ave
Kielley Dr
Meadowbrook Dr
Riverside Dr W
Hennesseys Line
Beaver Brook Dr
Heffernans Line
SPILL
SPILL

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and Goulds Stream

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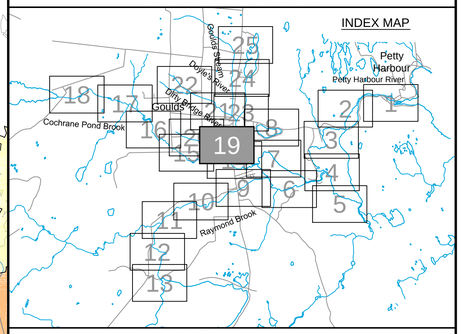

Cross Section Label

1:100 AEP Flood Water Level (elevation in metres)
172.33
171.24
1050.0
DoylesR-TR017
Cross Section Number
Reach Identification
1:20 AEP Flood Water Level (elevation in metres)
Cross Section Location

1:20 AEP Floodline
1:100 AEP Floodline

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

Sheet 19 of 25

C:\Work\NFLD\GouldsSheets\GPH-FRM(19-22).dwg

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Newfoundland Labrador

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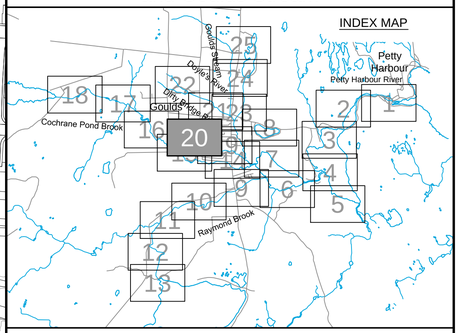
INDEX MAP



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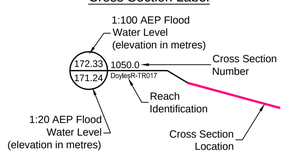

1:20 AEP Floodline

1:100 AEP Floodline

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

Sheet 20 of 25

C:\Work\NFLD\GouldsSheets\GPH-FRM(19-22).dwg

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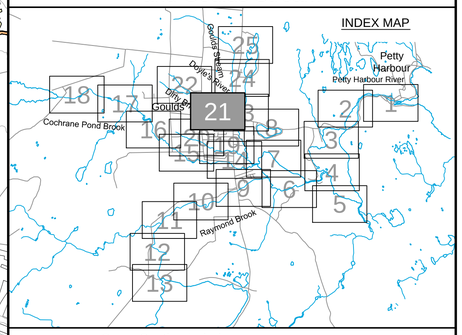

Cross Section Label

1:100 AEP Flood Water Level (elevation in metres)
172.33 / 171.24
1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
1:20 AEP Flood Water Level (elevation in metres)
Cross Section Location

1:20 AEP Floodline
1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 21 of 25

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

C:\Work\NFLD\GouldsSheets\GPH-FRM(19-22).dwg

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and Goulds Stream

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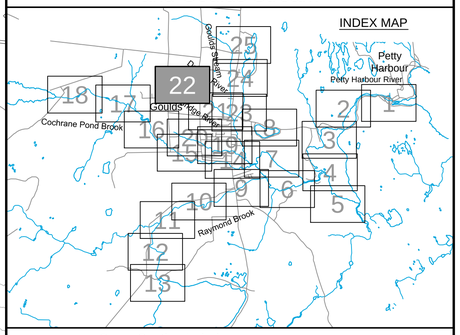

Cross Section Label

1:100 AEP Flood Water Level (elevation in metres)

172.33 / 171.24 — 1050.0 DoylesR-TR017

Cross Section Number

Reach Identification

1:20 AEP Flood Water Level (elevation in metres)

Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 22 of 25

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

C:\Work\WFLD\GouldsSheets\GPH-FRM(19-22).dwg

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Newfoundland Labrador

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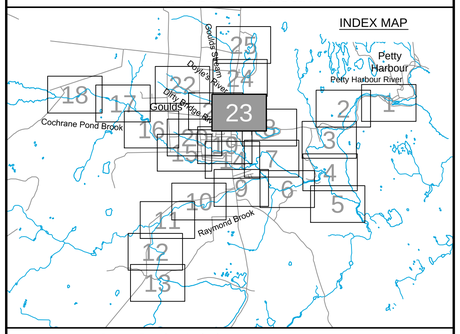

Cross Section Label

1:100 AEP Flood Water Level (elevation in metres)
172.33
171.24
1050.0
DoylesR-TR017
Cross Section Number
Reach Identification
1:20 AEP Flood Water Level (elevation in metres)
Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

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REVISIONS

No.	Description	BY	DATE

Sheet 23 of 25

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

C:\Work\WFLD\GoudsSheets\GPH-FRM(23-25).dwg

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Fourth Pond

Doolings Rd

Main Rd

Four Pond Rd

Windemere Rd

121.38	1607.98	DoylesR-TR014	
121.37			
120.69	1544.18	DoylesR-TR014	
120.59			
119.66	1492.70	DoylesR-TR014	
119.63			
118.67	1441.23	DoylesR-TR014	
118.47			
118.24	1420.98	DoylesR-TR014	
118.03			
118.13	1411.86	DoylesR-TR014	
117.95			
117.52	1384.41	DoylesR-TR014	
117.39			
117.46	1374.60	DoylesR-TR014	
117.33			
117.14	1353.25	DoylesR-TR014	
117.01			
116.24	1309.14	DoylesR-TR014	
116.14			
116.08	1296.25	DoylesR-TR014	
115.96			
114.10	1239.25	DoylesR-TR014	
114.01			
113.67	1203.69	DoylesR-TR014	
113.57			
113.34	1182.25	DoylesR-TR014	
113.26			
112.51	1125.25	DoylesR-TR014	
112.38			
112.19	1104.23	DoylesR-TR014	
112.11			
111.36	1094.88	DoylesR-TR014	
111.24			
111.21	1075.36	DoylesR-TR014	
111.13			
109.96	1027.18	DoylesR-TR014	
109.86			
108.96	980.74	DoylesR-TR014	
108.84			
108.64	954.47	DoylesR-TR014	
108.53			
107.88	934.37	DoylesR-TR014	
107.79			
107.31	907.24	DoylesR-TR014	
107.26			
106.86	868.80	DoylesR-TR014	
106.72			
106.68	864.98	DoylesR-TR014	
106.54			
105.41	816.09	DoylesR-TR014	
105.34			
105.62	811.48	DoylesR-TR014	
105.46			
105.15	783.28	DoylesR-TR014	
105.01			
104.27	751.27	DoylesR-TR014	
104.16			
103.99	717.94	DoylesR-TR014	
103.85			
103.19	676.43	DoylesR-TR014	
103.07			
102.30	601.44	DoylesR-TR014	
102.18			
101.64	540.83	DoylesR-TR014	
102.07			
844.06	106.31	DoylesR-TR014	
106.15			
836.52	106.10	DoylesR-TR014	
105.97			

1955.13	124.38	ForthP-M001	
124.32			
1773.83	124.38	ForthP-M001	
124.32			
1572.85	124.38	ForthP-M001	
124.32			
1496.60	124.38	ForthP-M001	
124.32			
1392.58	124.37	ForthP-M001	
124.32			
1381.72	124.00	ForthP-M001	
123.96			
1360.50	123.90	ForthP-M001	
123.84			
1311.12	123.54	ForthP-M001	
123.39			
1261.17	122.77	ForthP-M001	
122.57			
1211.51	120.91	ForthP-M001	
120.76			
1161.66	118.17	ForthP-M001	
118.07			
1112.05	115.71	ForthP-M001	
115.63			
1062.35	113.96	ForthP-M001	
113.87			
1041.93	113.70	ForthP-M001	
113.48			
1031.90	113.29	ForthP-M001	
113.26			
1011.12	112.44	ForthP-M001	
112.38			
959.76	110.96	ForthP-M001	
110.92			
908.93	109.61	ForthP-M001	
109.70			
856.39	108.73	ForthP-M001	
108.68			
806.25	107.83	ForthP-M001	
107.80			
754.78	106.99	ForthP-M001	
106.92			

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

C:\Work\NFLD\GouldsSheets\GPH-FRM(23-25).dwg

Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

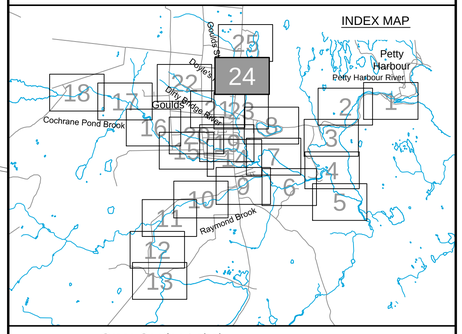
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

Flood Risk Map
Goulds\Petty Harbour

Climate Change Scenario - 2080
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



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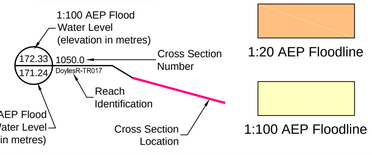

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REVISIONS

No.	Description	BY	DATE

Sheet 24 of 25

Mar 23/13 – richard.bartolo

Main Rd

Viquers Rd

Fourth Pond

Fourth Pond

2616.90 124.38 124.32 FortHP-M001

2528.45 124.38 124.32 FortHP-M001

2324.32 124.38 124.32 FortHP-M001

2187.52 124.38 124.32 FortHP-M001

1955.13 124.38 124.32 FortHP-M001

2057.49 126.56 126.45 DoylesR-TR014

2037.89 126.56 126.45 DoylesR-TR014

126.46 1988.88 126.38 DoylesR-TR014

126.40 1975.46 126.21 DoylesR-TR014

126.16 1936.56 126.02 DoylesR-TR014

125.84 1904.43 125.71 DoylesR-TR014

125.62 1867.03 125.49 DoylesR-TR014

125.00 1801.50 124.89 DoylesR-TR014

123.73 1765.57 123.66 DoylesR-TR014

122.61 1703.29 122.57 DoylesR-TR014

122.07 1657.91 121.92 DoylesR-TR014

121.38 1607.98 121.37 DoylesR-TR014

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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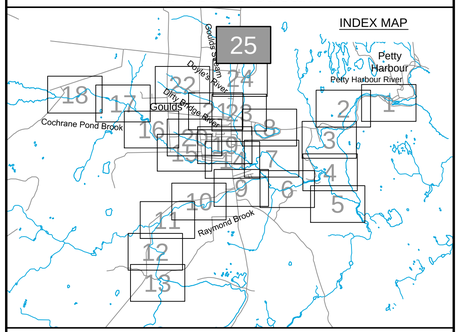

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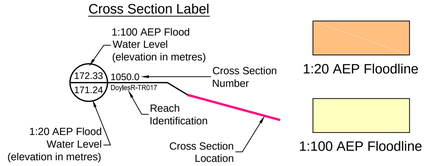

amec

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REVISIONS

No.	Description	BY	DATE

Sheet 25 of 25

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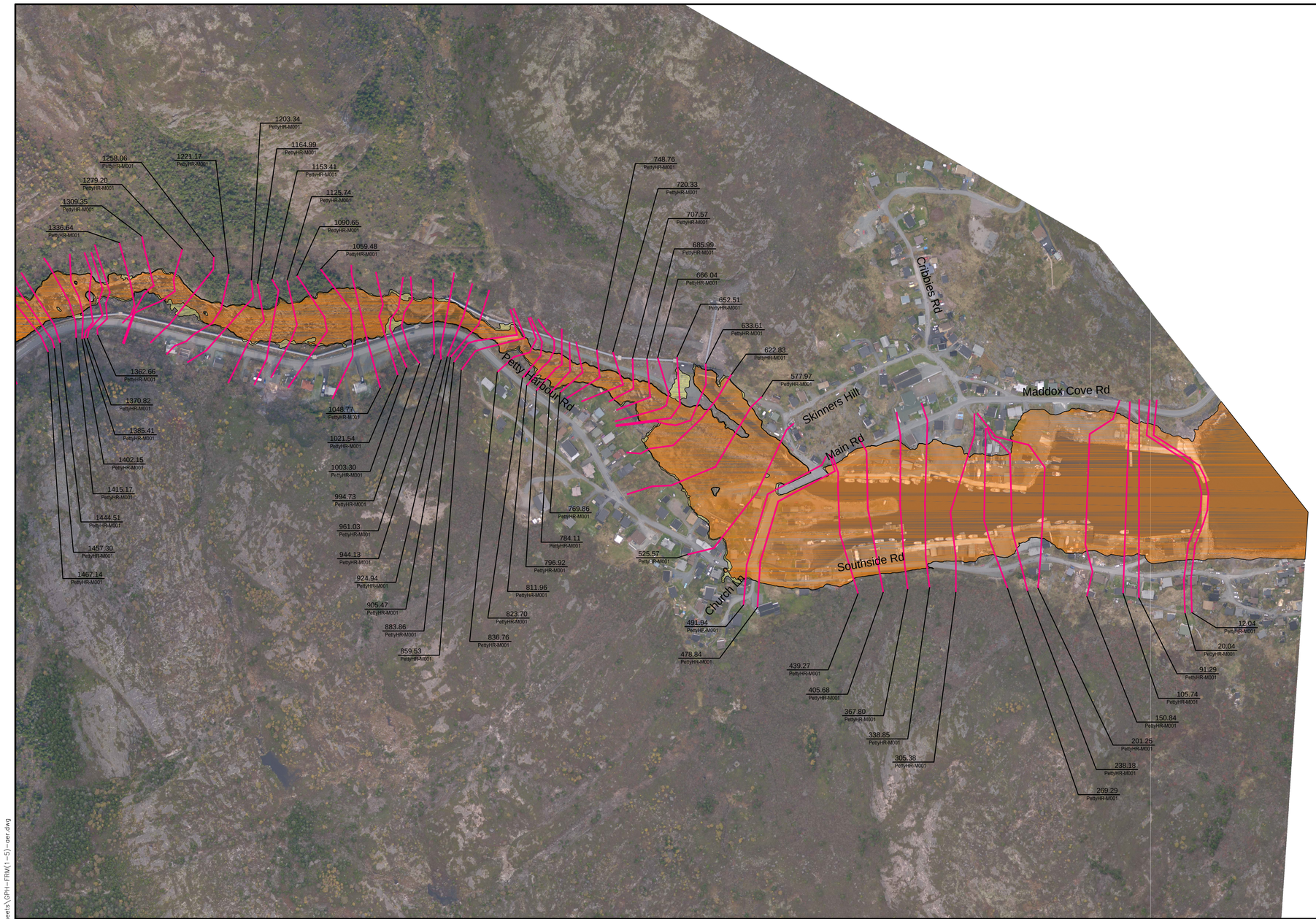
Mar 23/13 – richard.bartolo



MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

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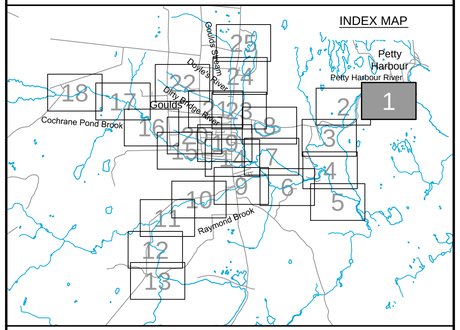

Cross Section Label

1050.0 DoylesR-TR017 — Cross Section Number; Reach Identification; Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

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REVISIONS

No.	Description	BY	DATE

Sheet 1 of 25

C:\Work\NFLD\GouldsSheets\GPH-FRM(1-5)-aer.dwg

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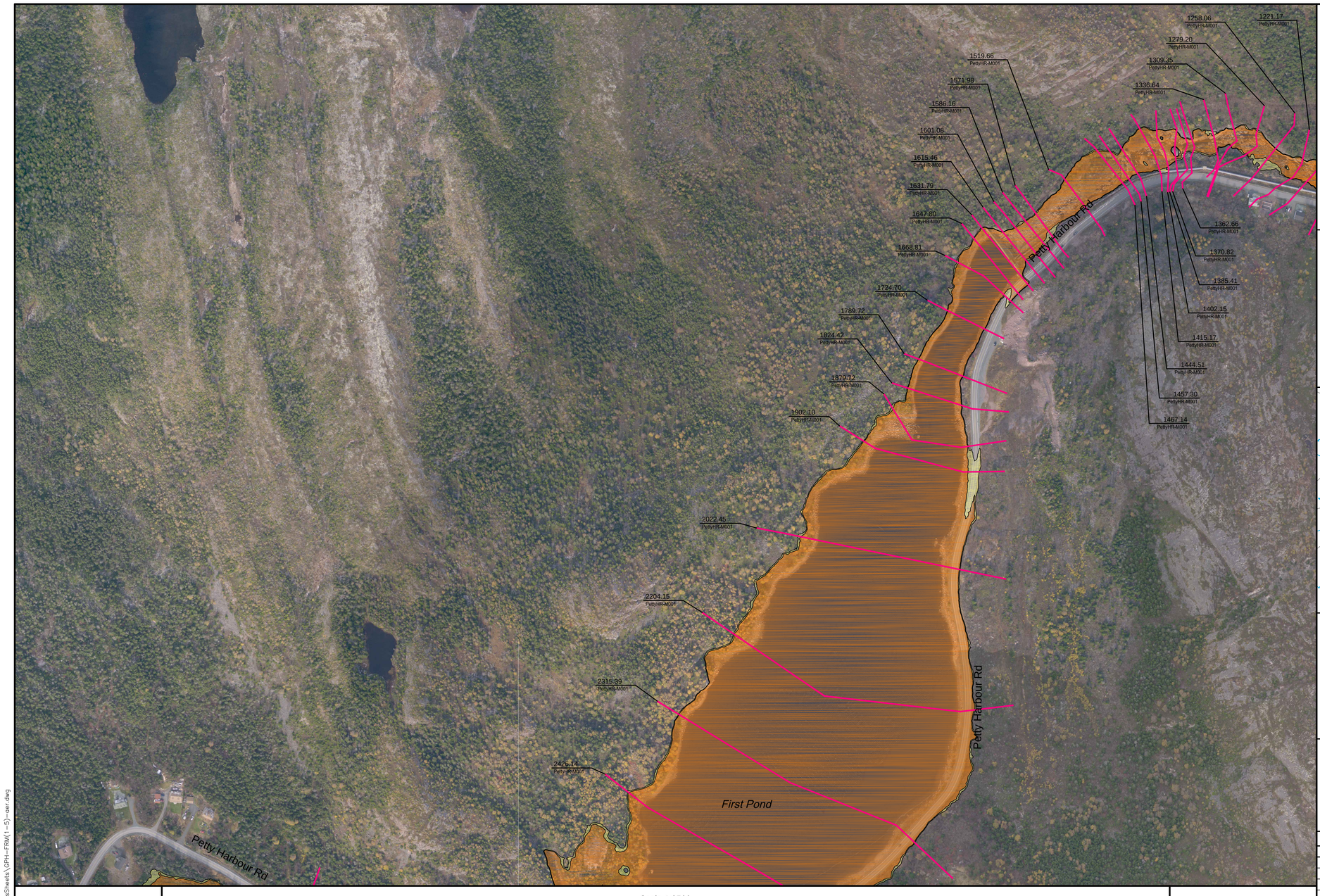

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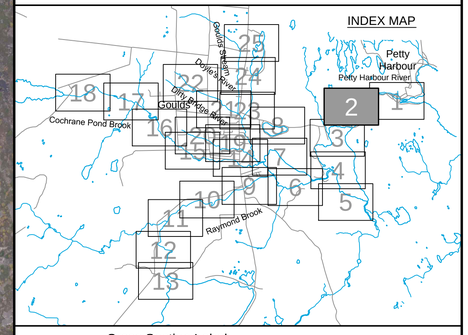

Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

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REVISIONS

No.	Description	BY	DATE

Sheet 2 of 25

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

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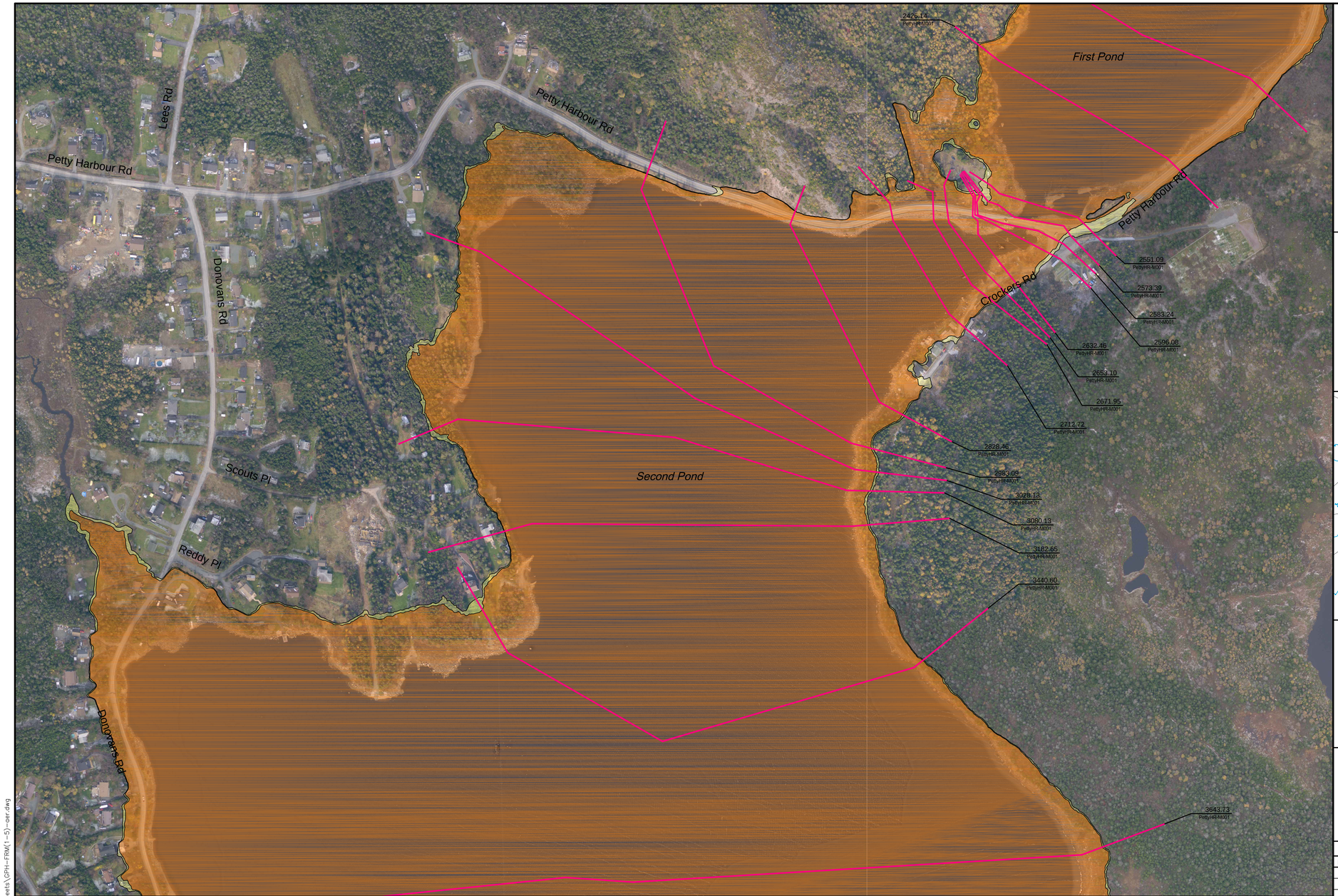

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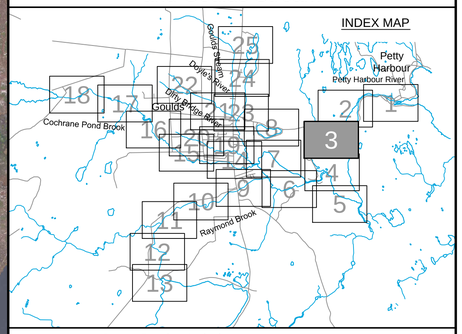

Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

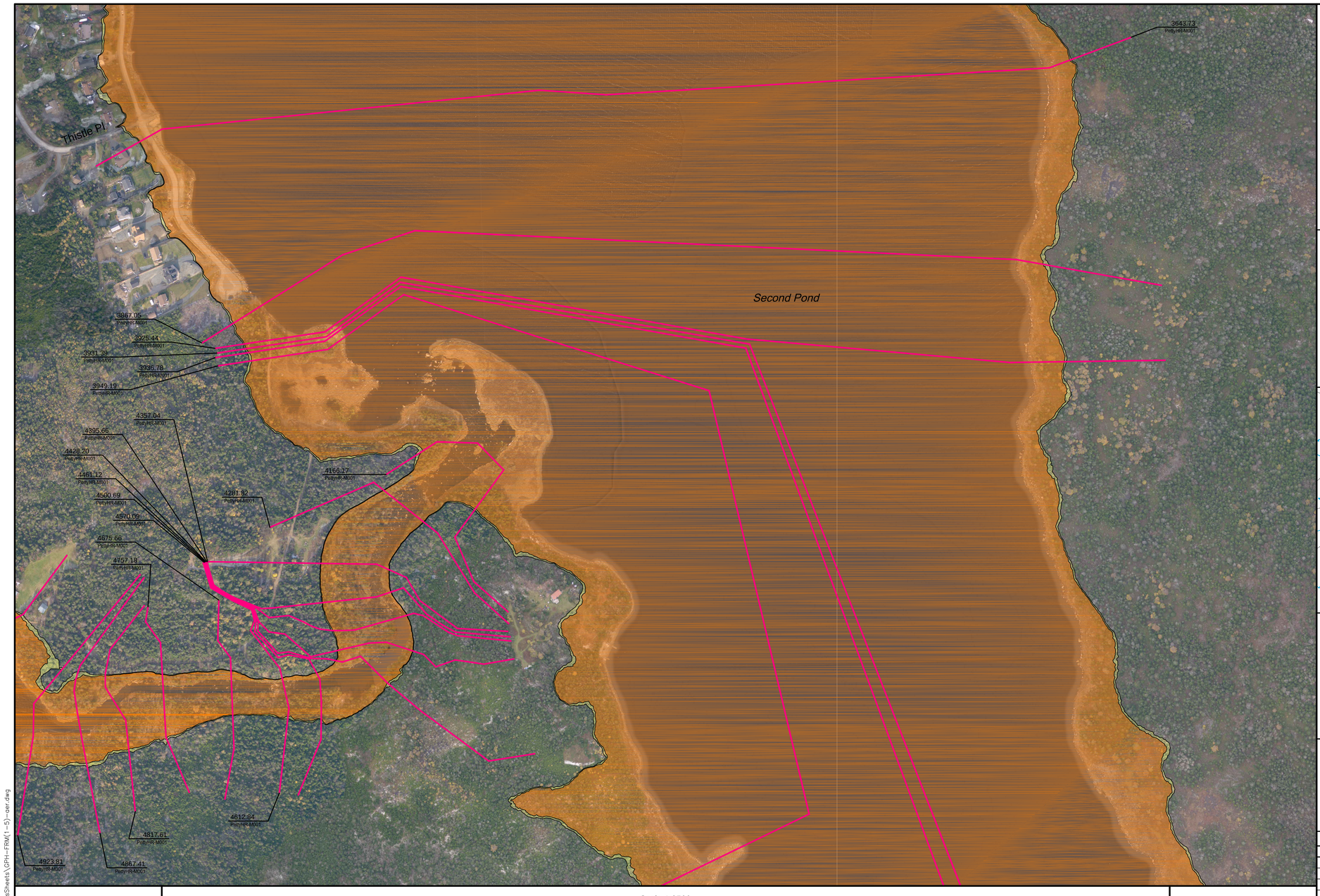
150 0 150 Metres
300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

Sheet 3 of 25

C:\Work\WFLD\GouldsSheets\GPH-FRM(1-5)-oer.dwg

Mar 23/13 – richard.bartolo



MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

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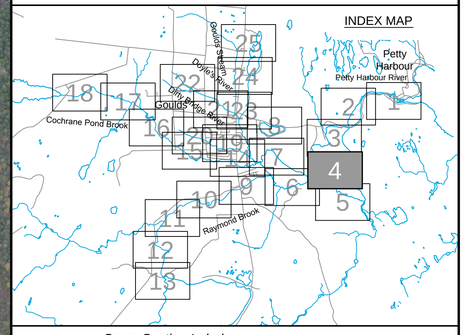
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

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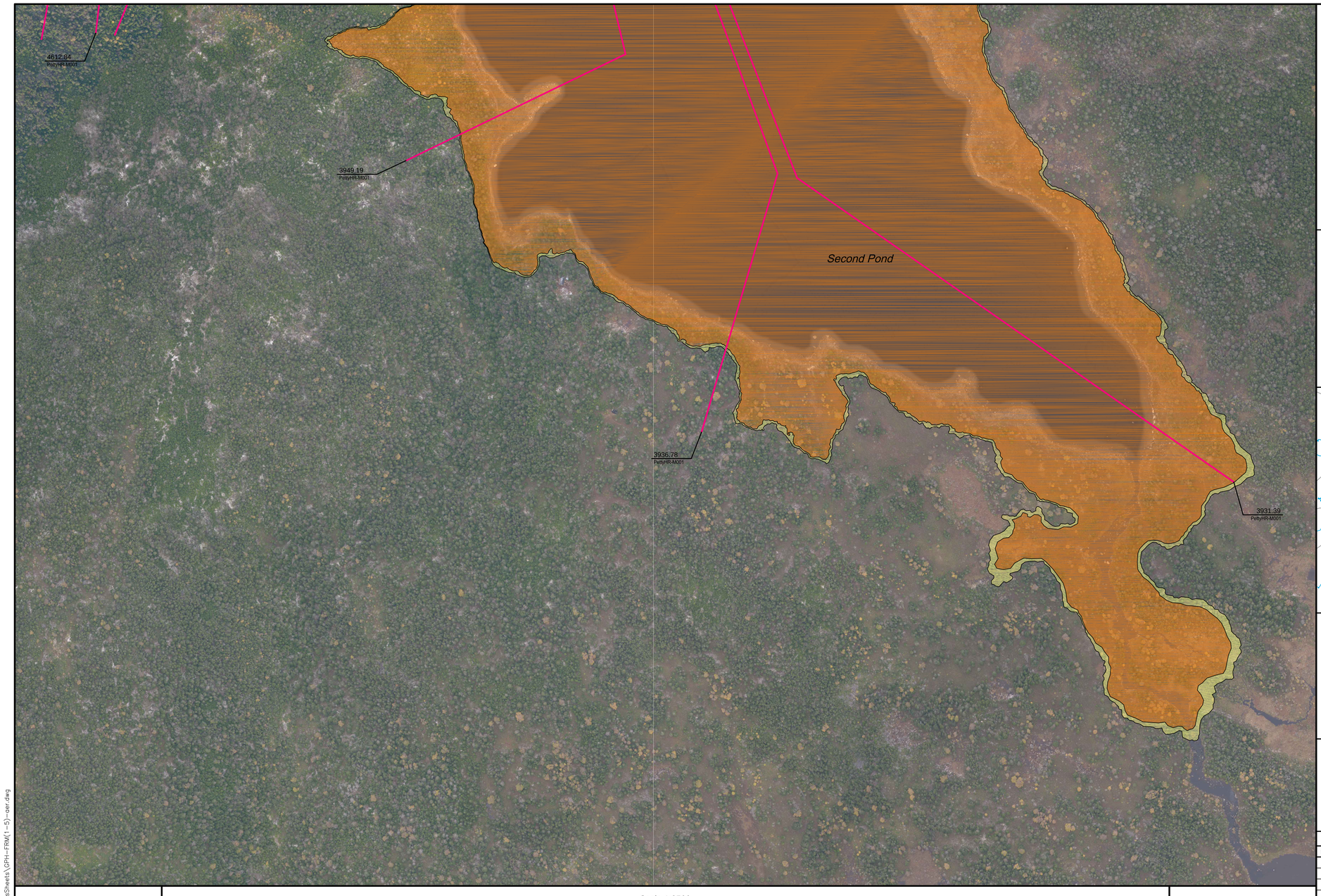

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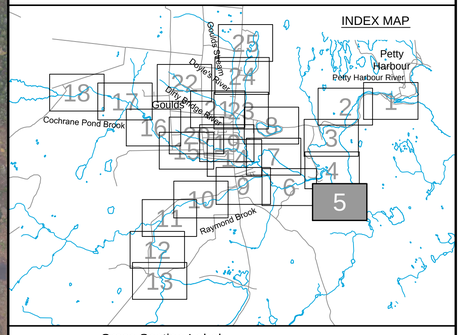

Cross Section Label

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DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

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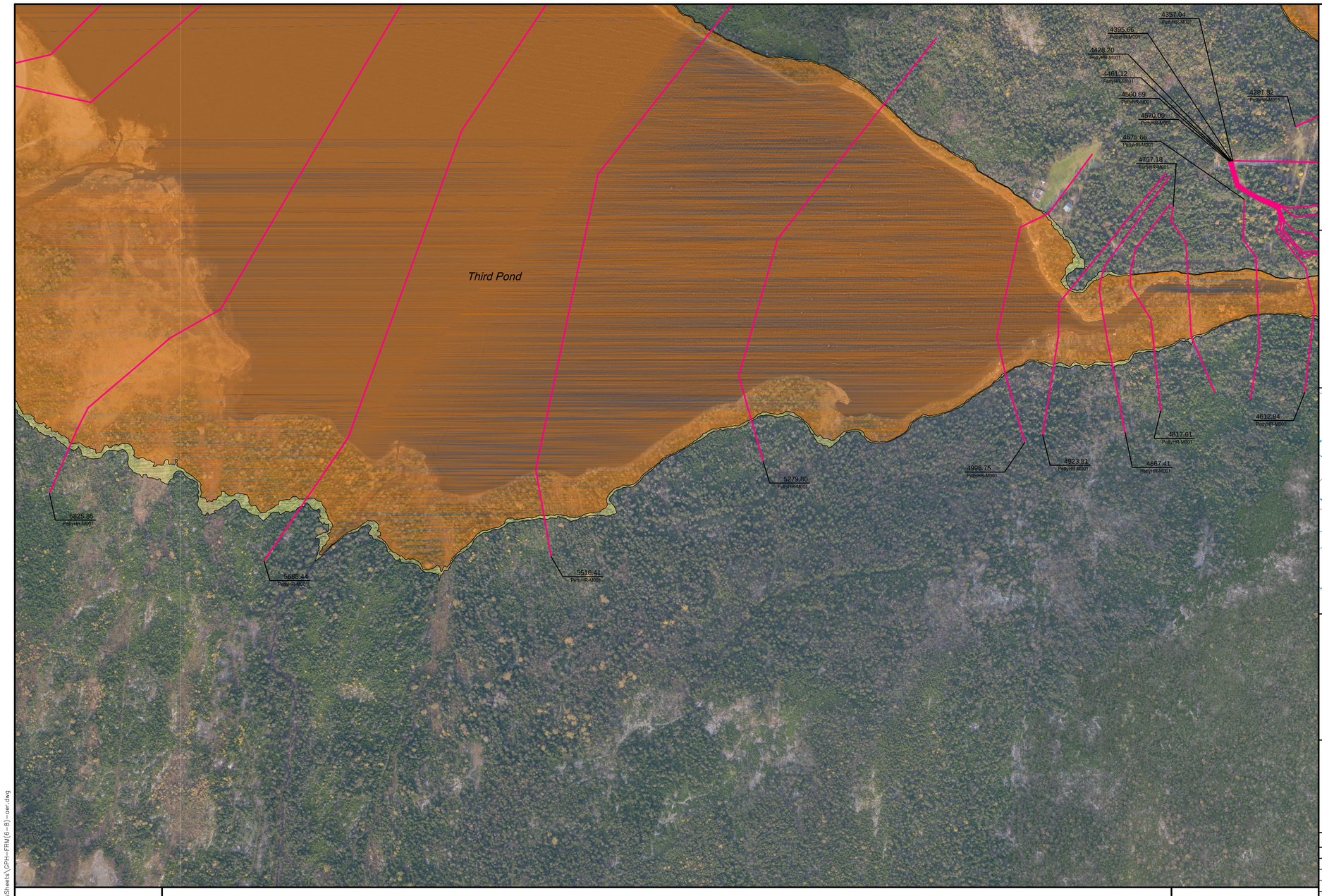

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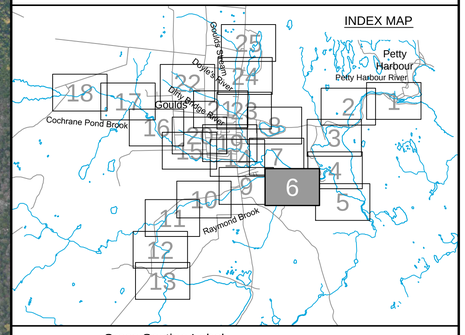

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DoylesR-TR017

Cross Section Number

Reach Identification

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

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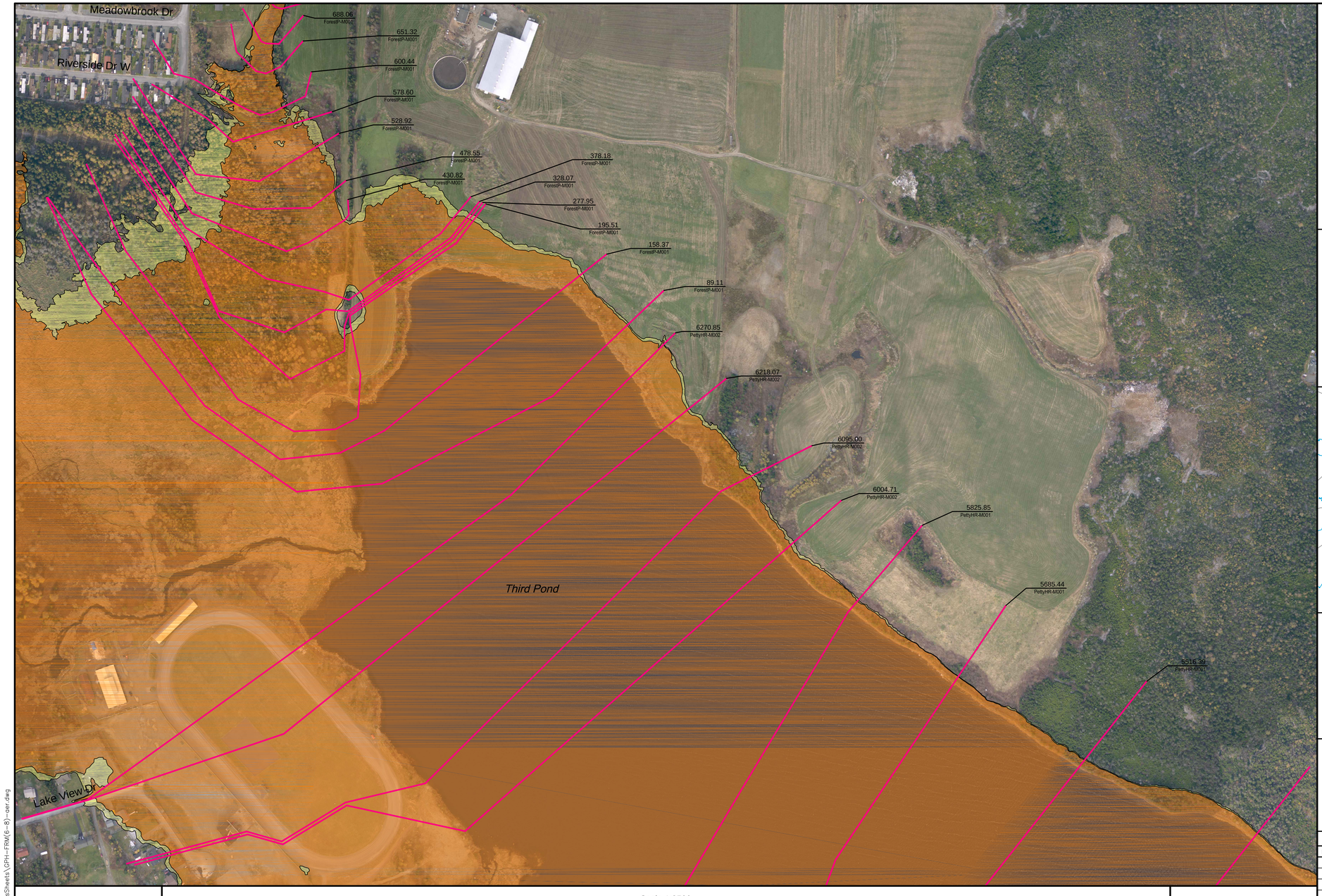

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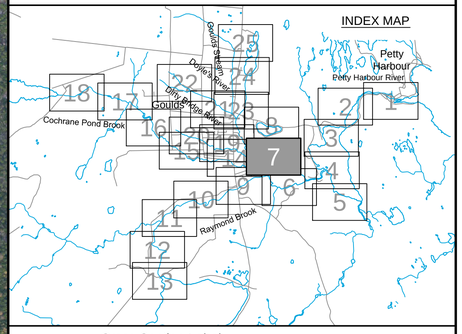

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

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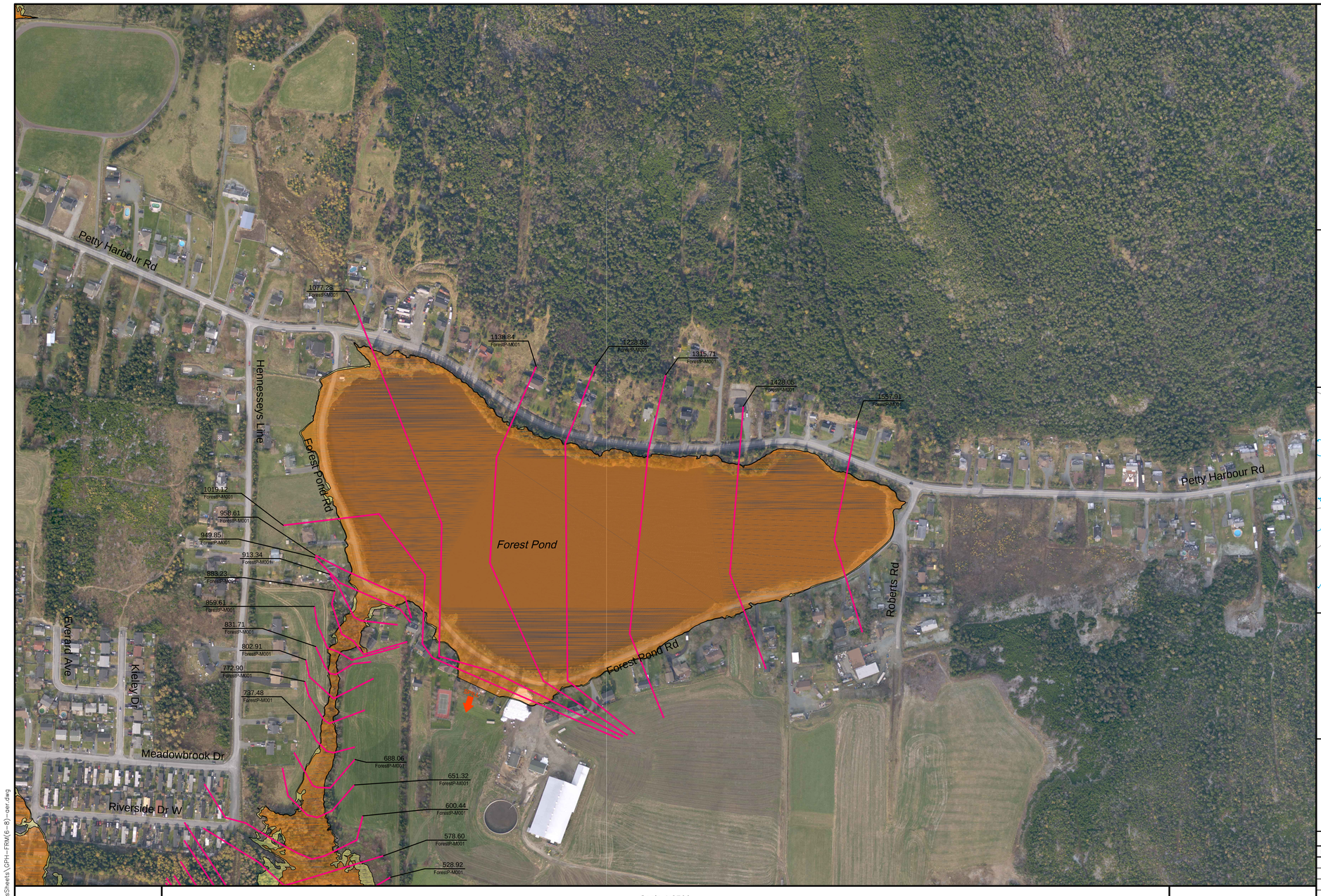

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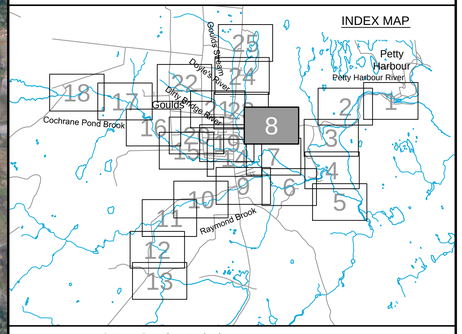

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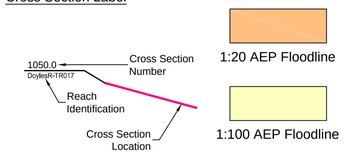

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

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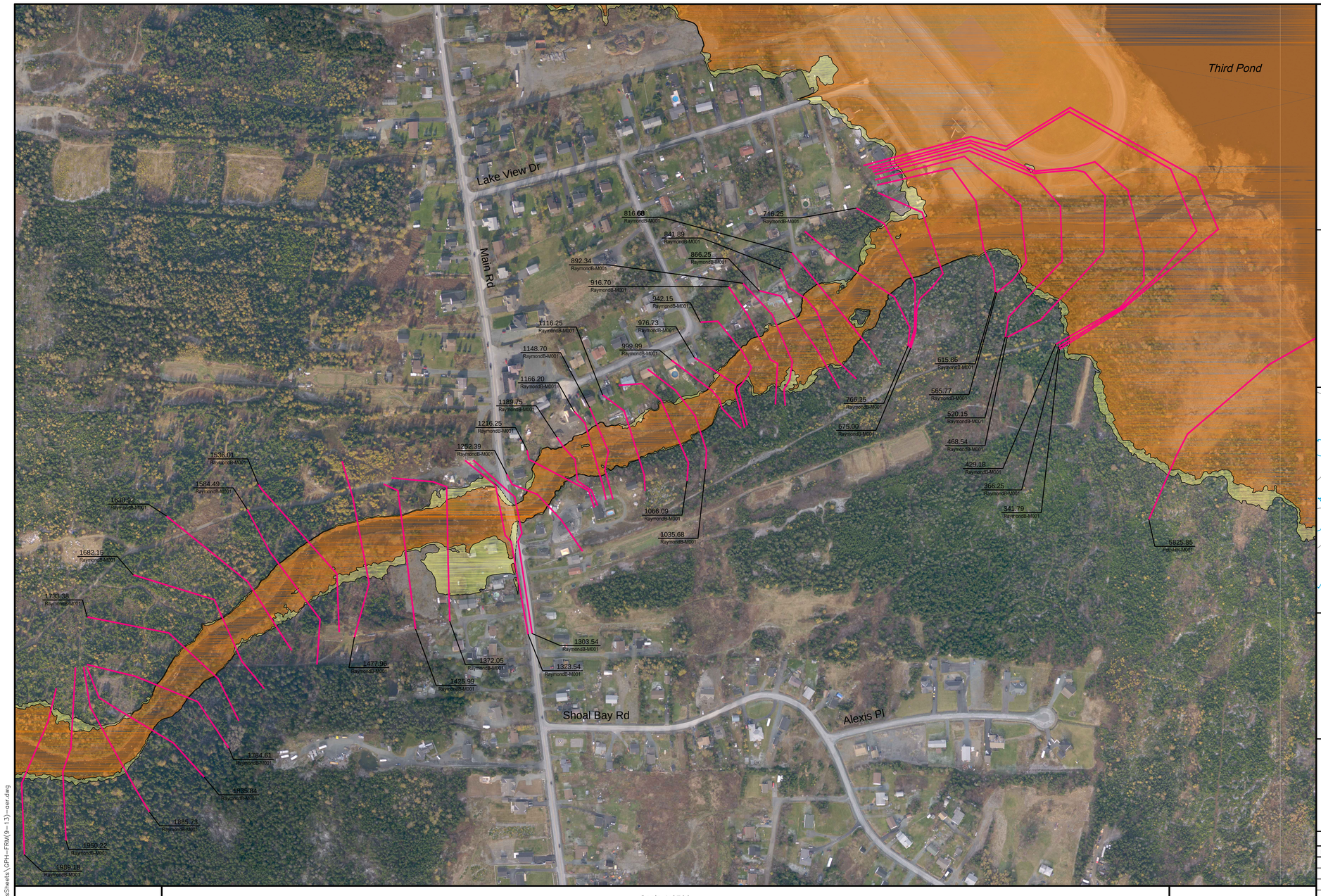

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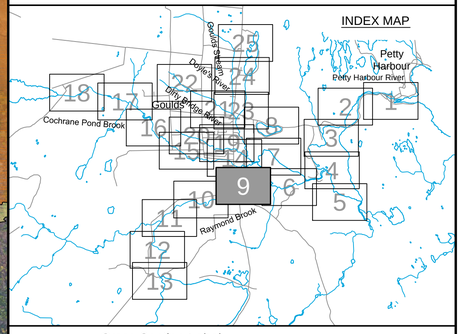

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1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

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ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

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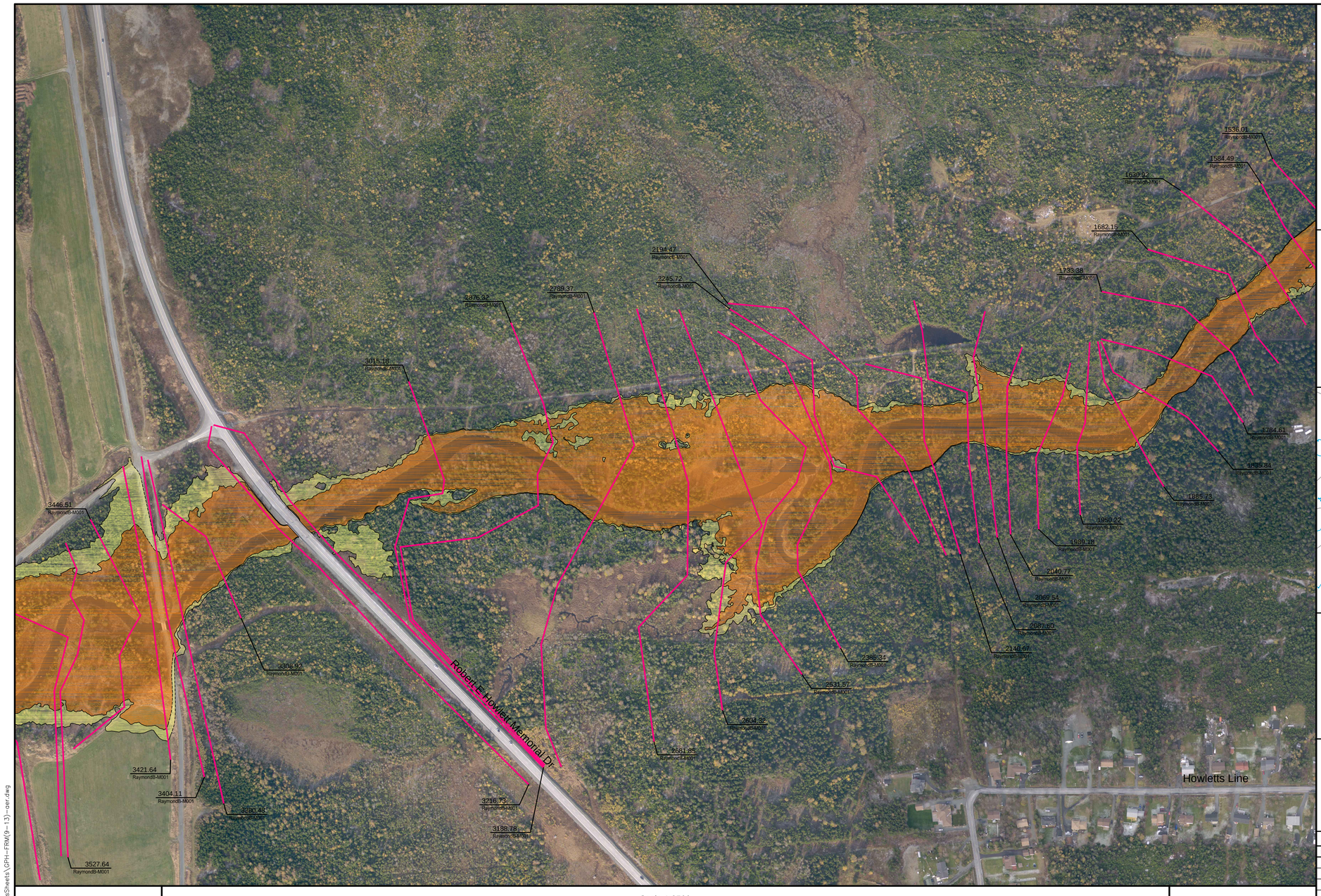

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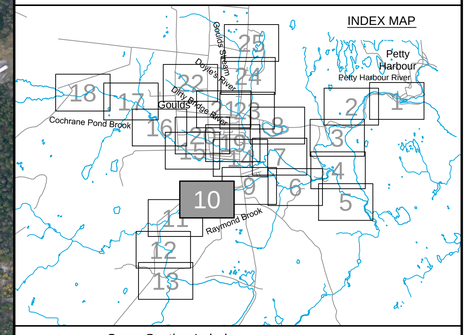

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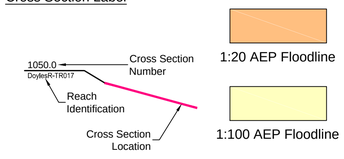

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

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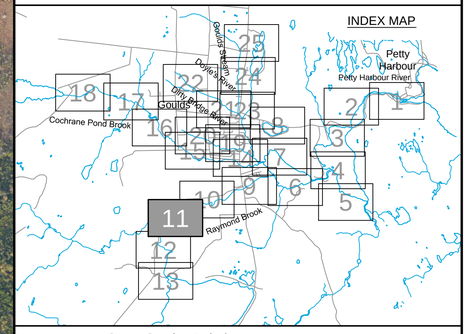

Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

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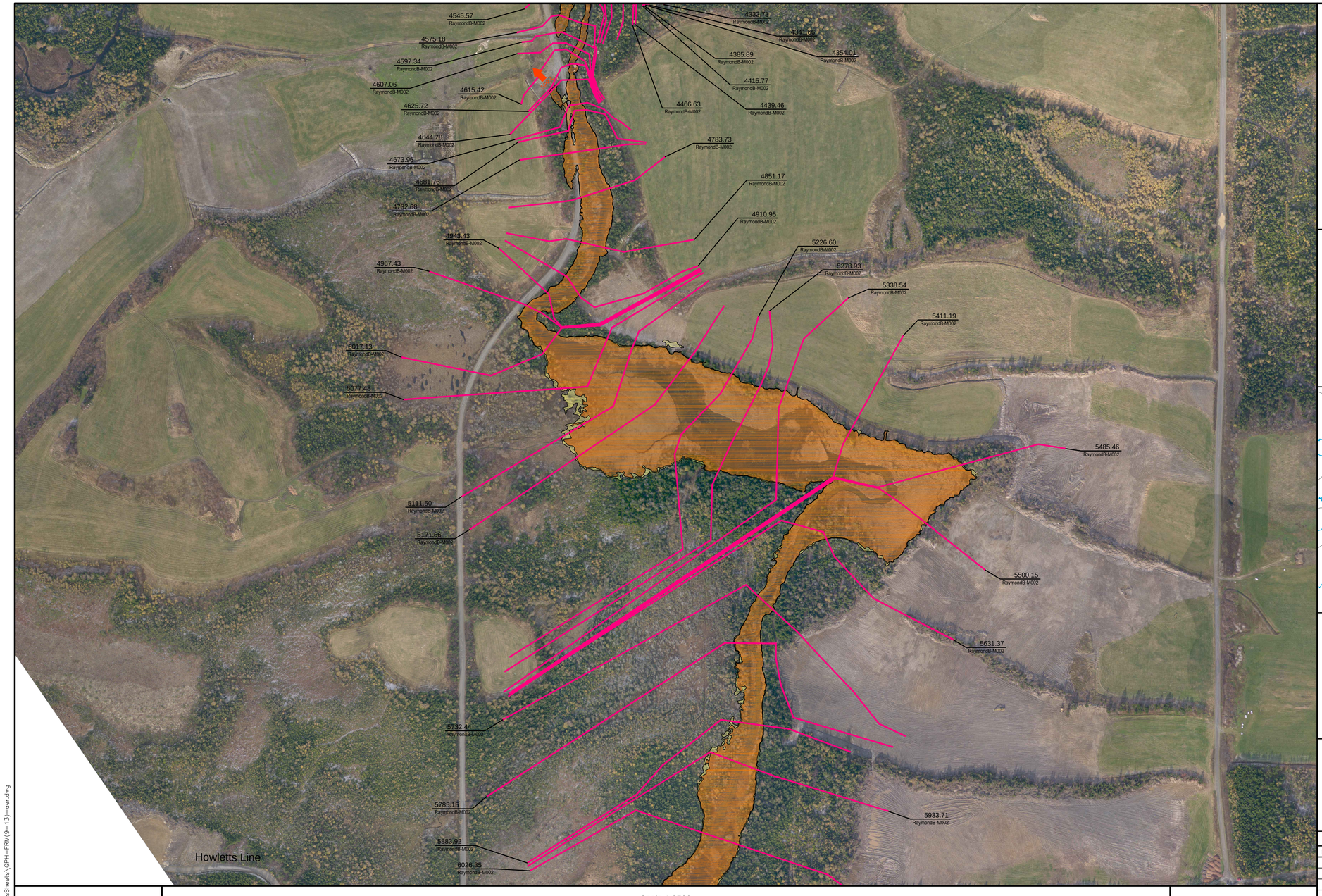

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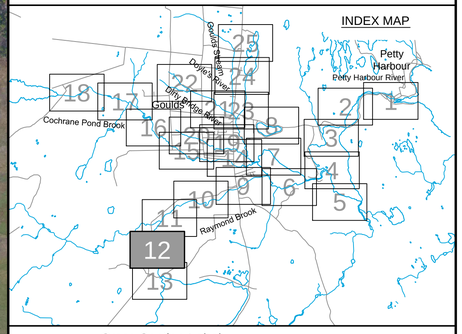

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DoylesR-TR017

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Reach Identification

Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

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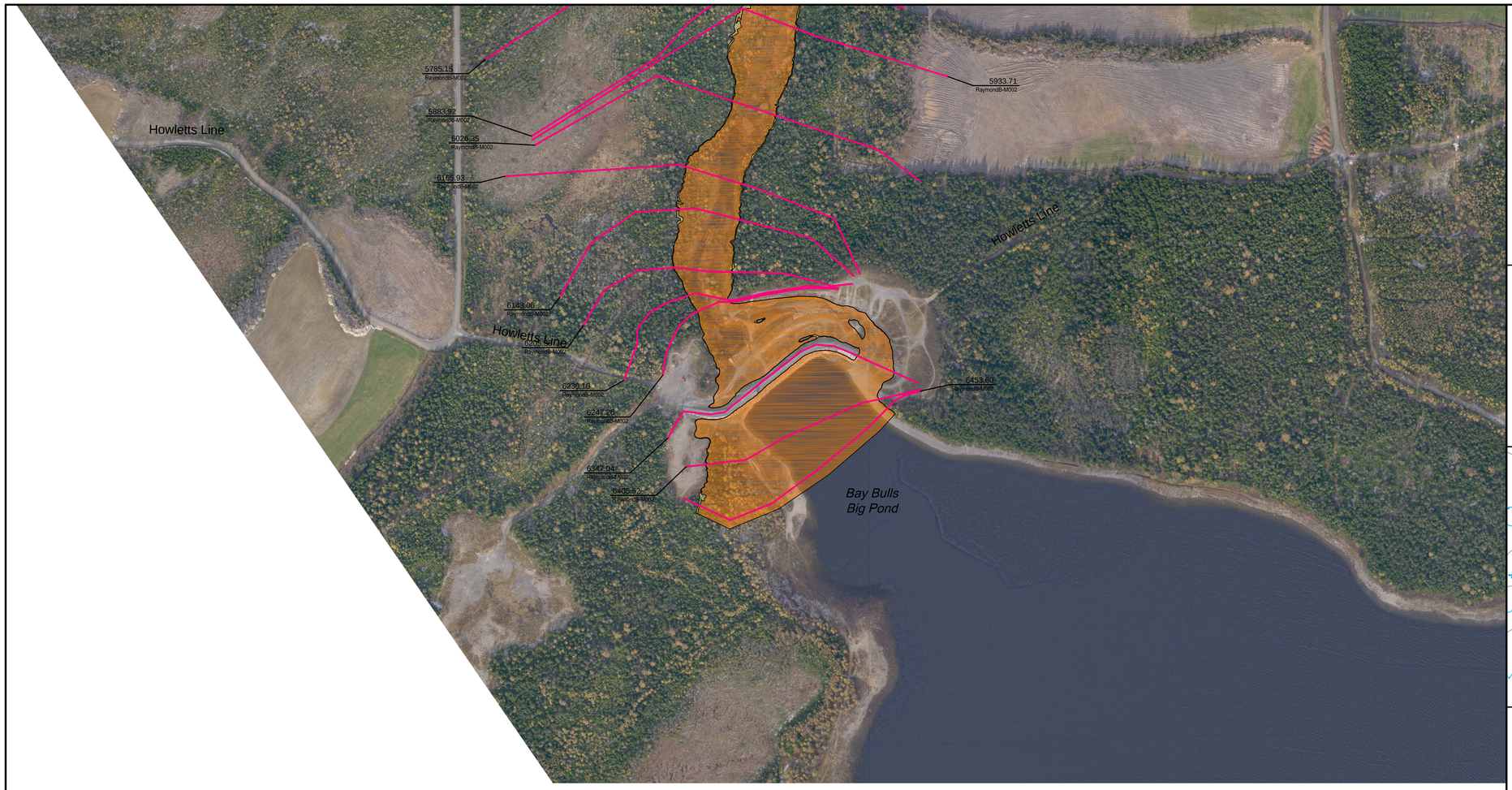

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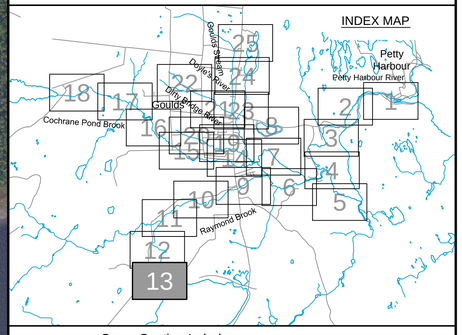

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1:20 AEP Floodline

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

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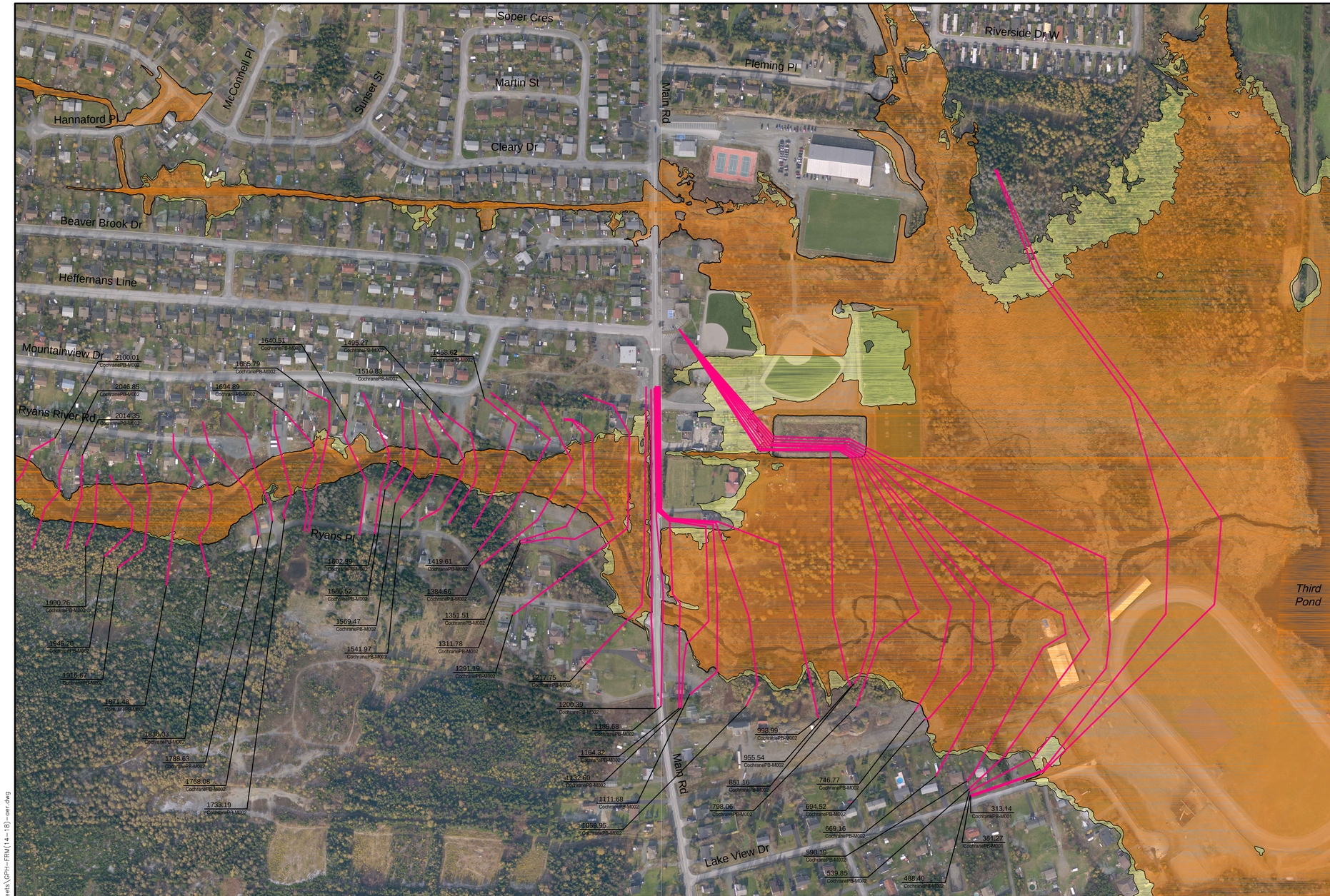

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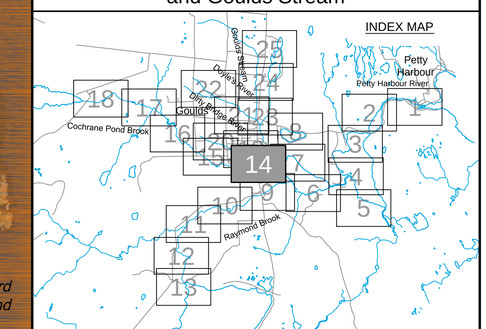

Cross Section Label

1050.0 DoylesR-TR017 — Cross Section Number — Reach Identification — Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

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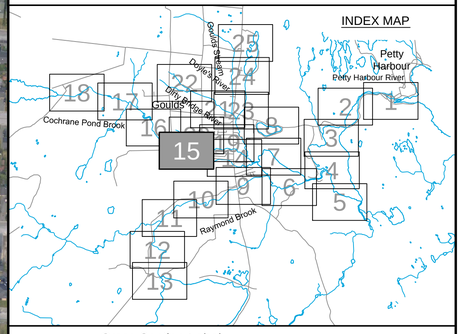

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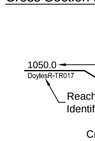

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Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

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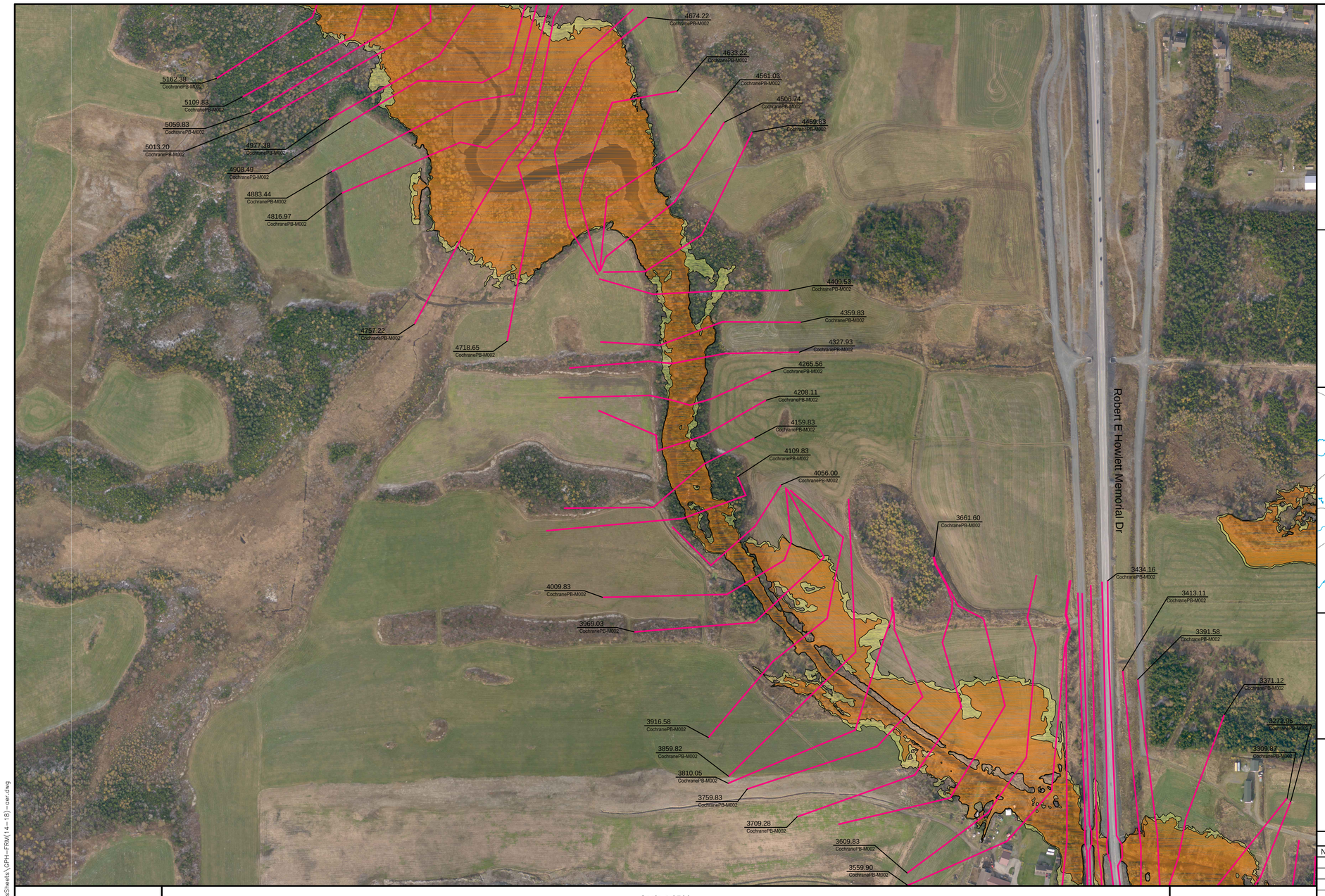

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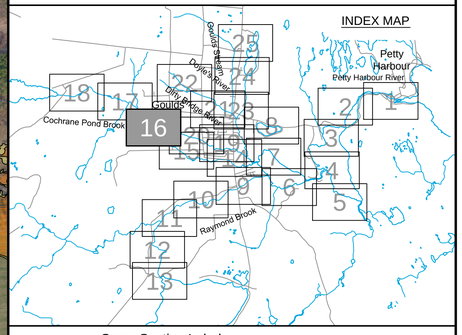

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Cross Section Location

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ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

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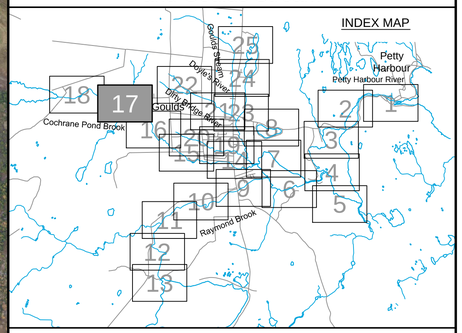

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1:100 AEP Floodline

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REVISIONS

No.	Description	BY	DATE

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

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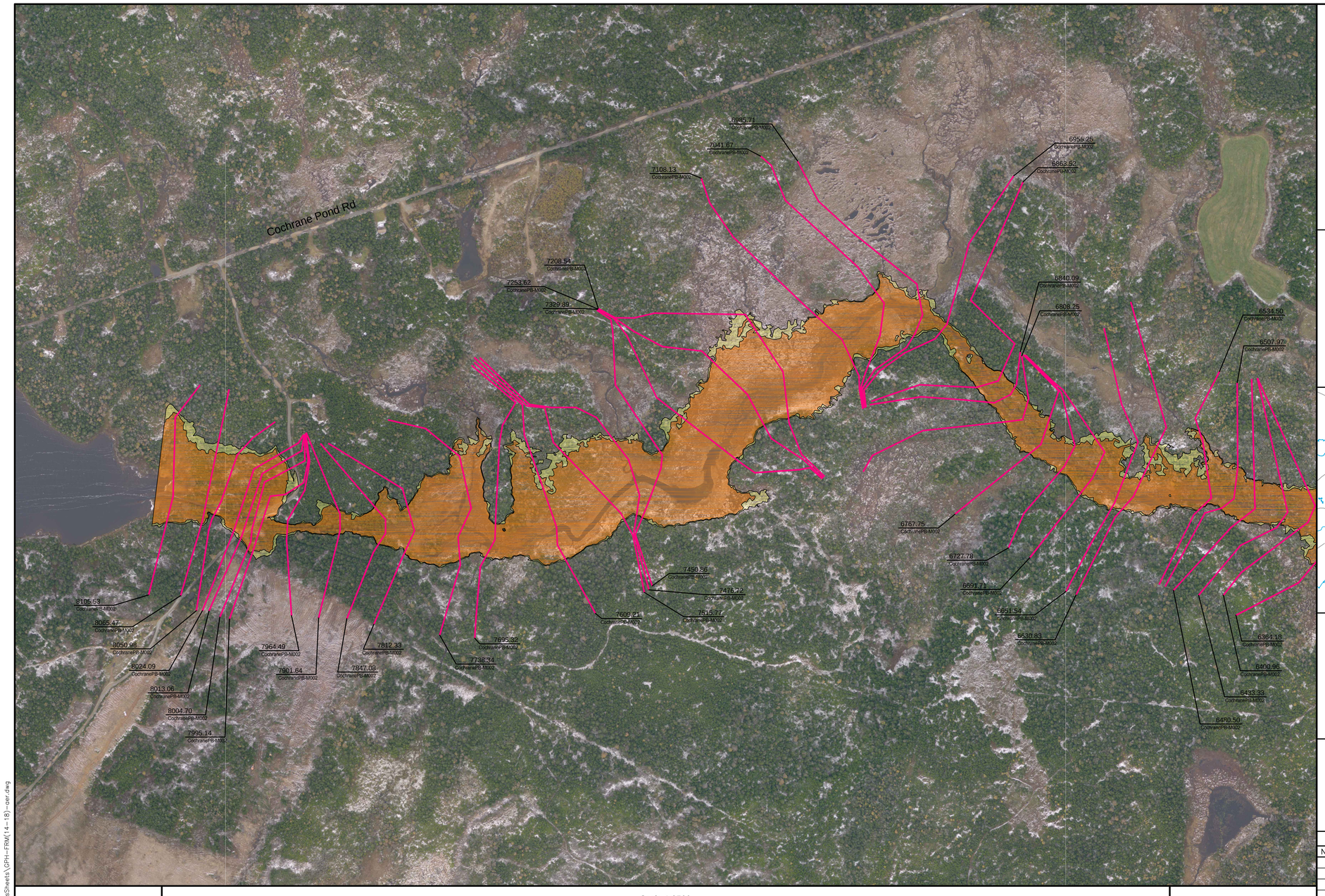

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Doyles, Dirty Bridge and
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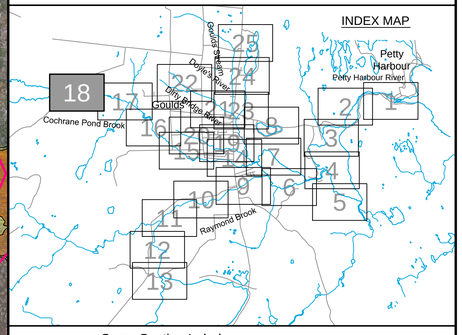
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

N

Sheet 18 of 25

C:\Work\NFLD\GouldsSheets\GPH-FRM(14-18)-ser.dwg

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Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

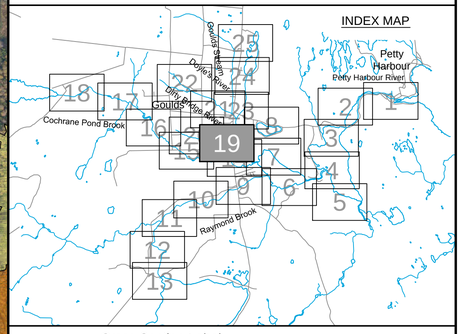
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

Flood Risk Map
Goulds\Petty Harbour

Climate Change Scenario - 2080
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 19 of 25

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

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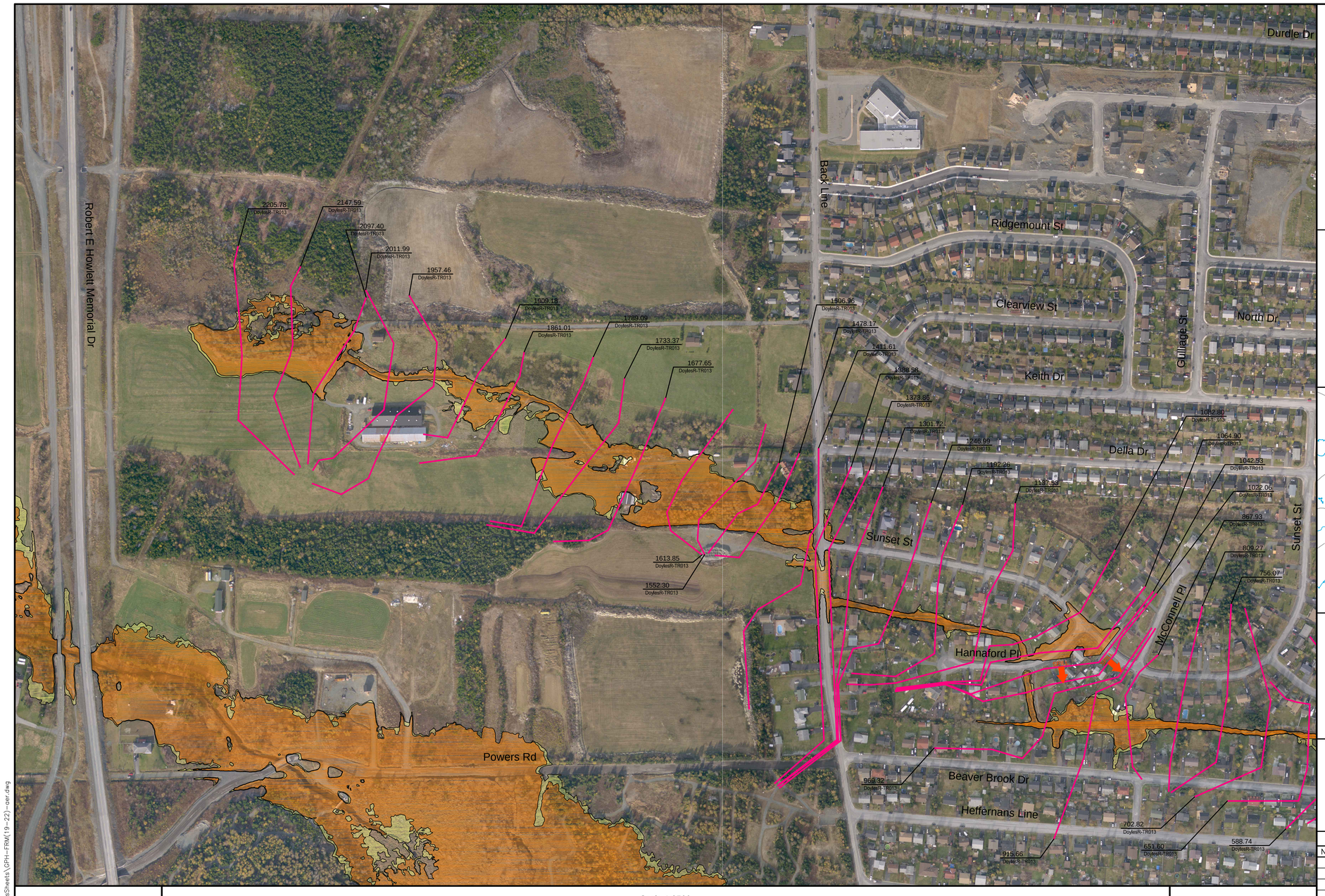


Newfoundland Labrador

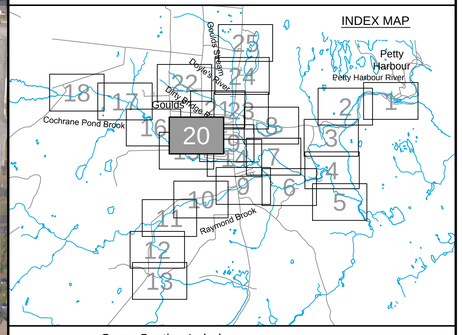
Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

Flood Risk Map
Goulds\Petty Harbour

Climate Change Scenario - 2080
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream



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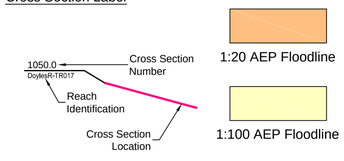

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

Sheet 20 of 25

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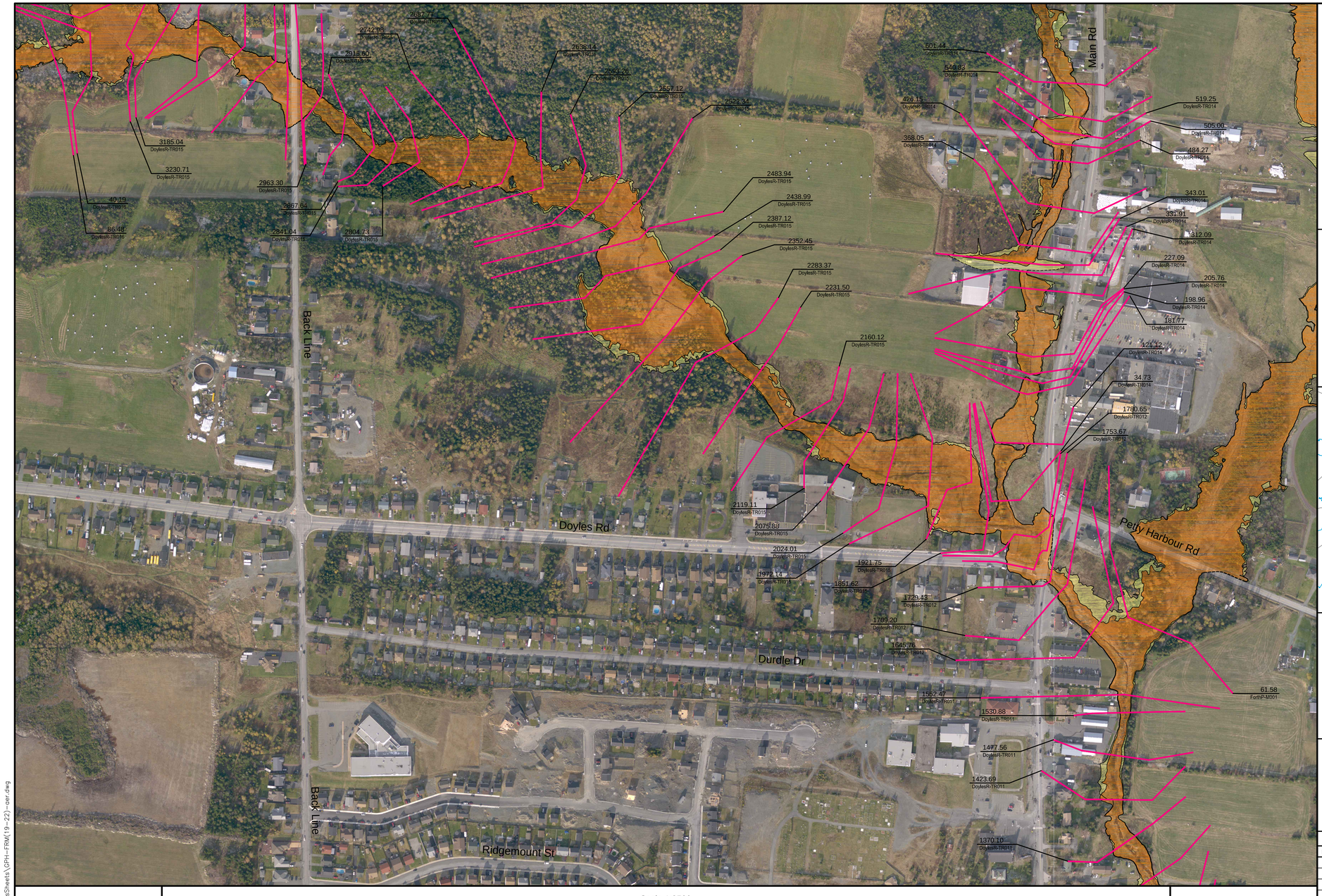

Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

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Goulds\Petty Harbour

Climate Change Scenario - 2080
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Doyles, Dirty Bridge and
Petty Harbour Rivers,
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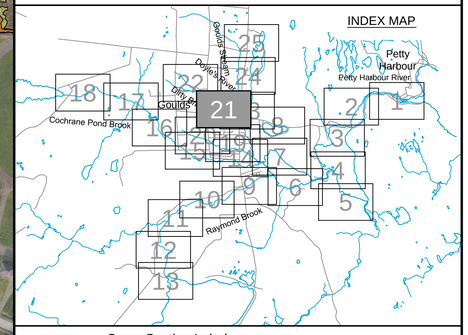
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

Sheet 21 of 25

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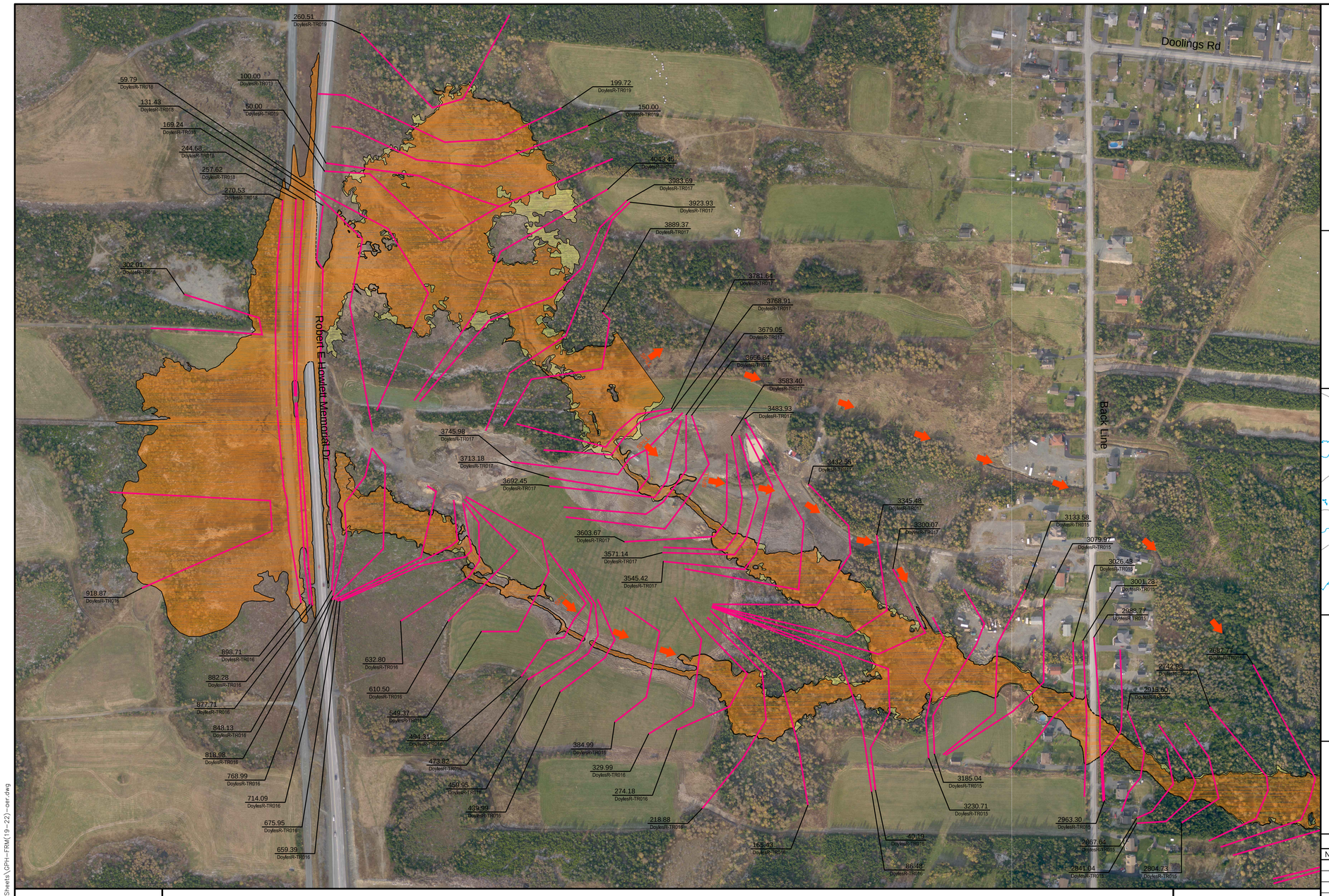

Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

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Goulds\Petty Harbour

Climate Change Scenario - 2080
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Petty Harbour Rivers,
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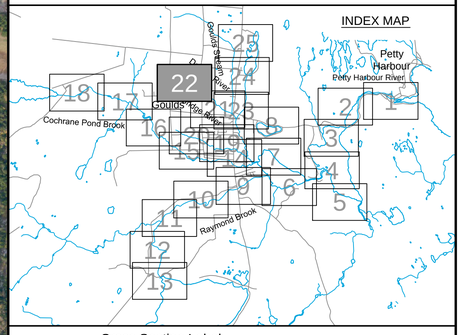
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

Sheet 22 of 25

C:\Work\NFLD\GouldsSheets\GPH-FRM(19-22)-ser.dwg

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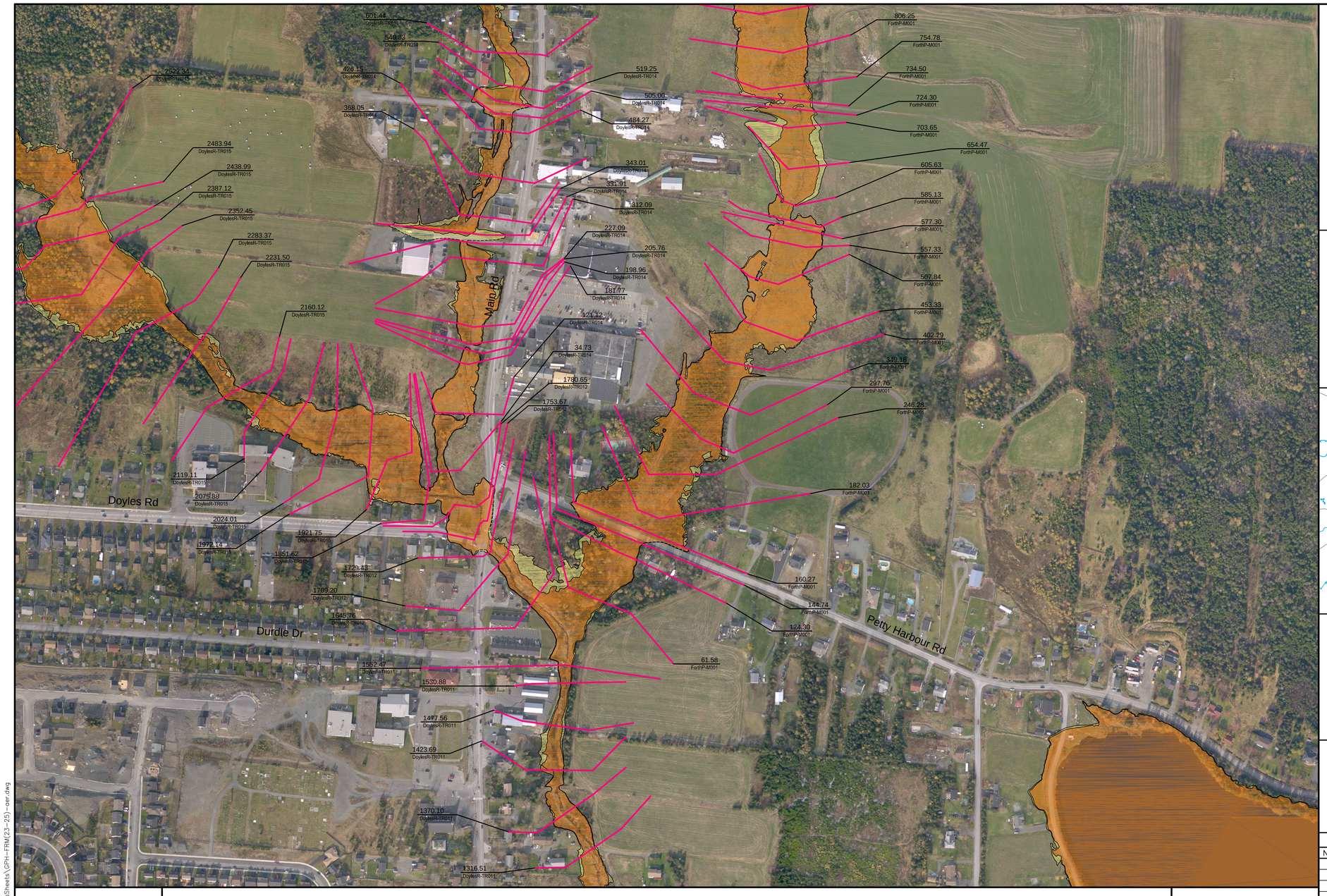

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

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Goulds\Petty Harbour

Climate Change Scenario - 2080
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
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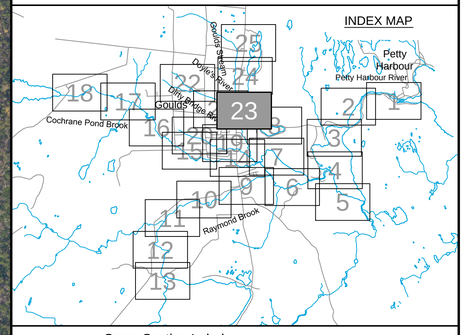
and Goulds Stream

INDEX MAP



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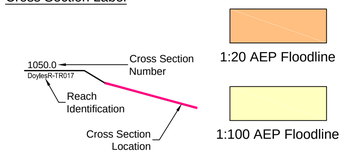

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 23 of 25

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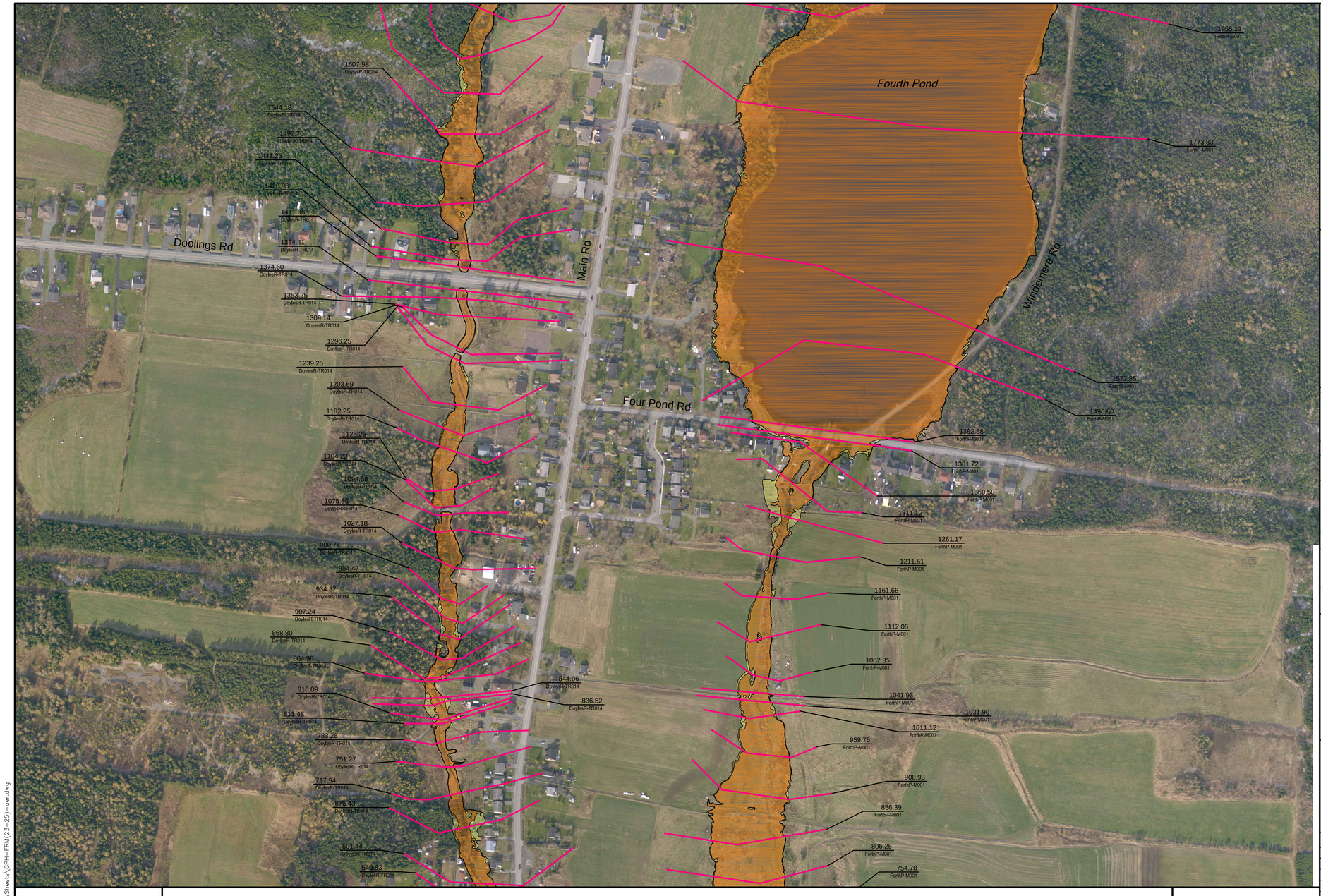

Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

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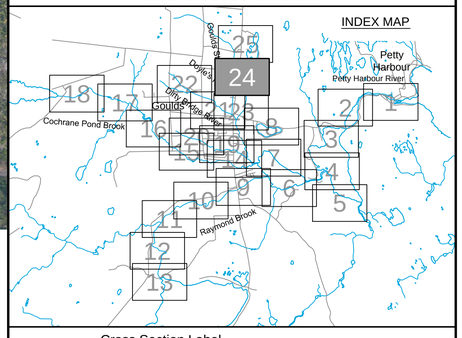
Goulds\Petty Harbour

Climate Change Scenario - 2080
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

Sheet 24 of 25

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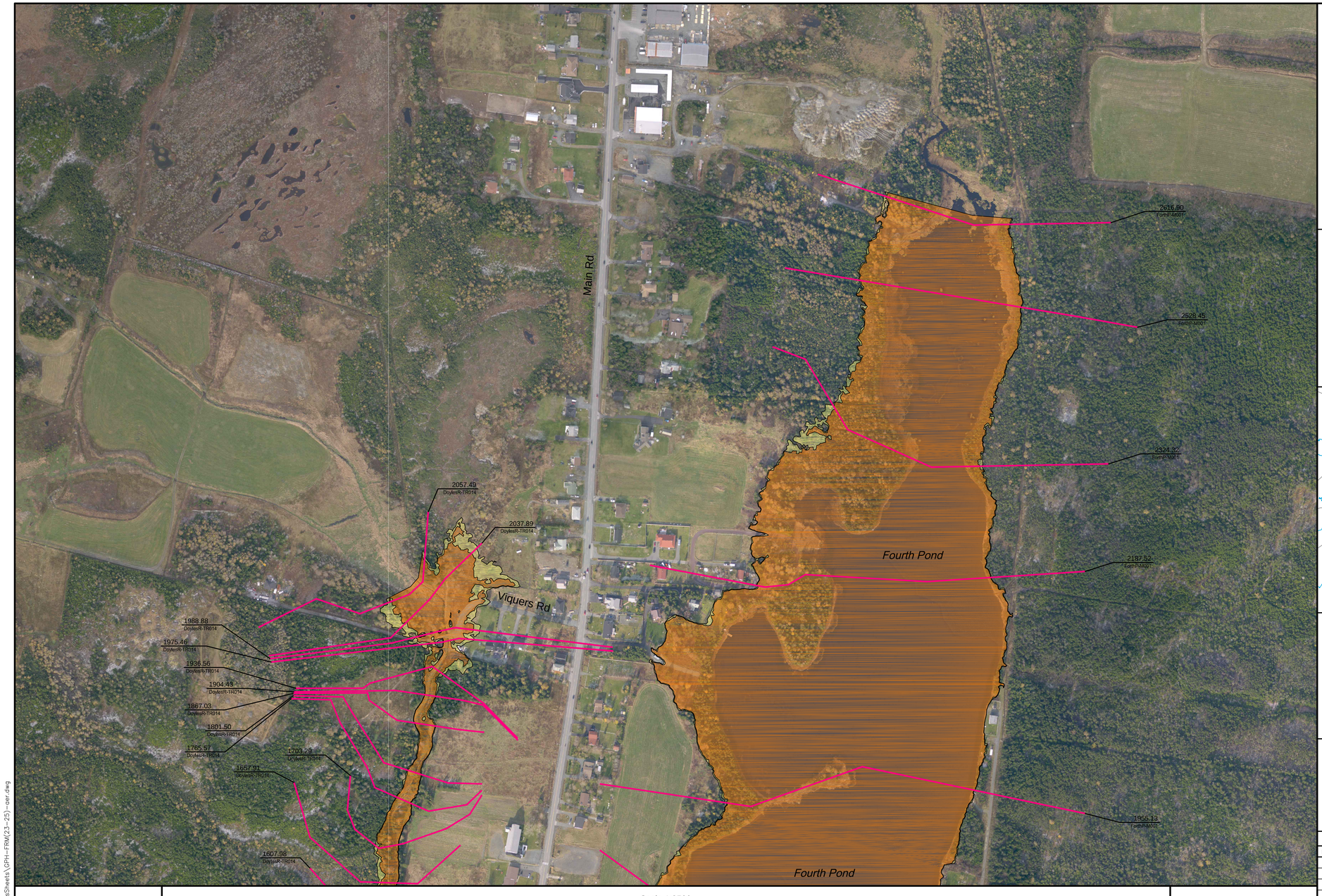
Mar 23/13 – richard.bartolo



Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

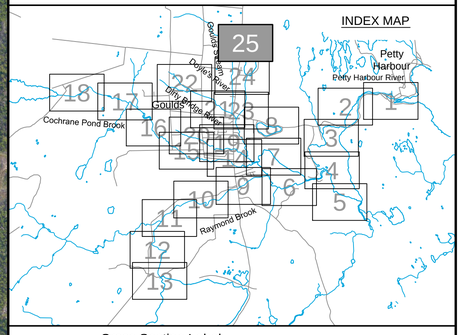
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

Flood Risk Map
Goulds\Petty Harbour

Climate Change Scenario - 2080
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:20 AEP Floodline

1:100 AEP Floodline

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

AERIAL PHOTOGRAPHY BY LEADING EDGE GEOMATICS, NOVEMBER 2011

Sheet 25 of 25

C:\Work\NFLD\GouldsSheets\GPH-FRM(23-25)-ver.dwg

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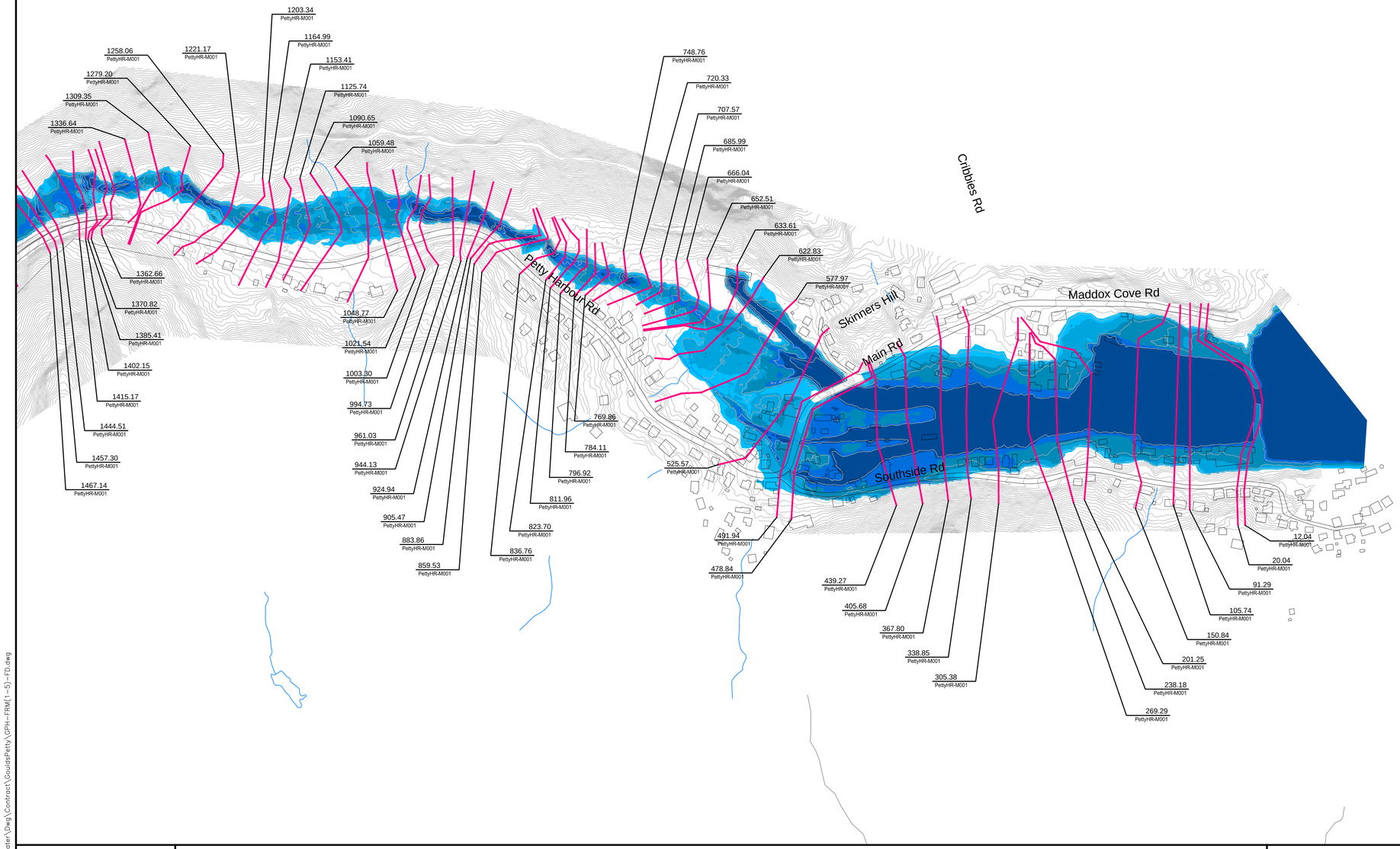


Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

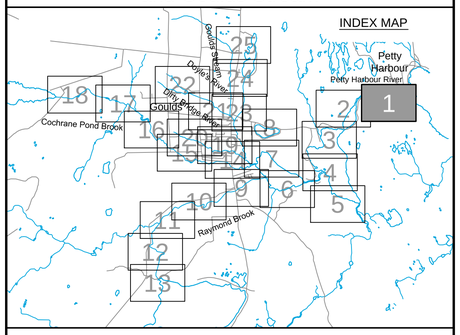
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2080
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



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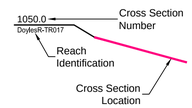

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

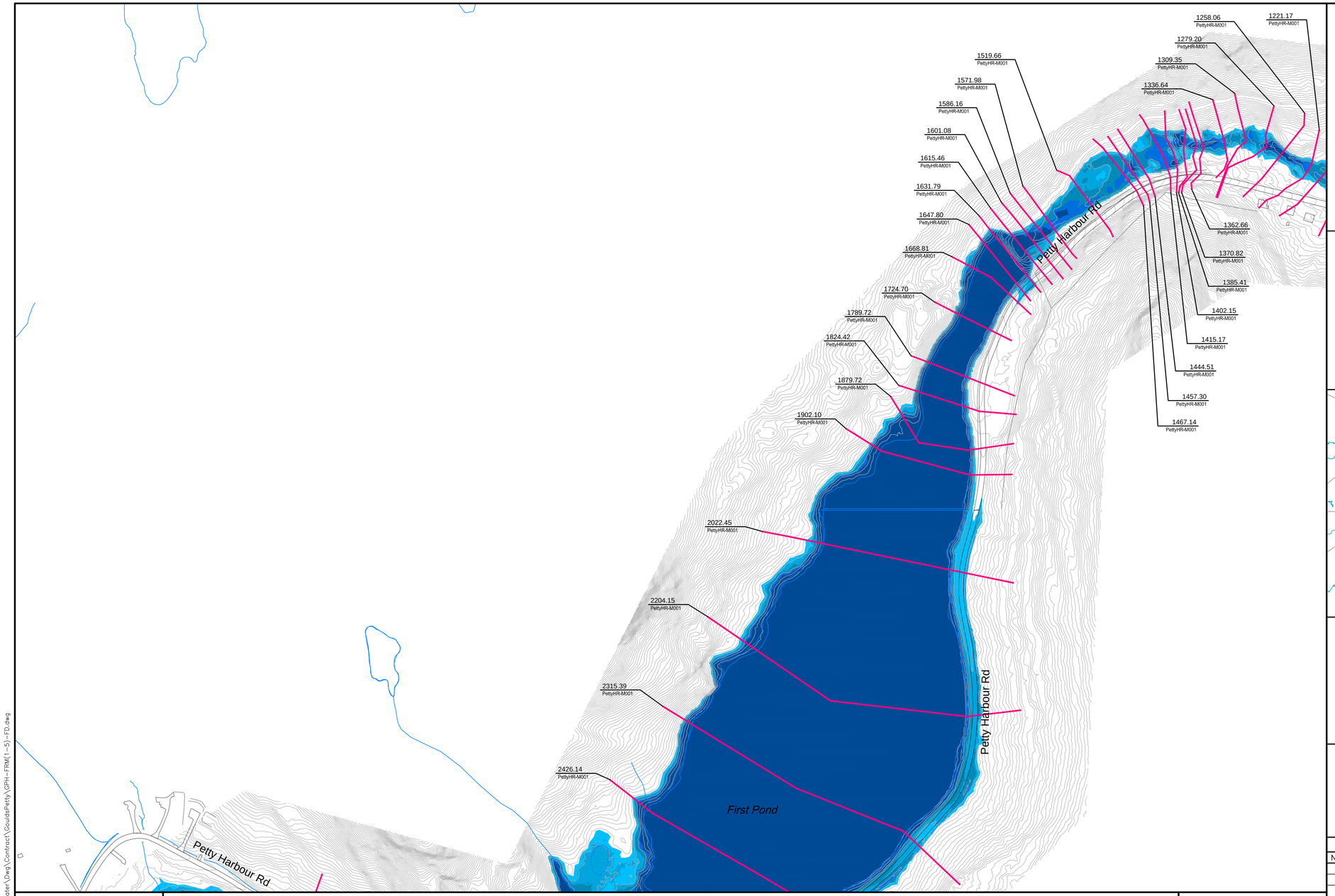
NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 1 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(1-5)-FD.dwg

Mar 25/13 – richard.bartolo



Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2080
AMEC (Maximum IDF Relationship)

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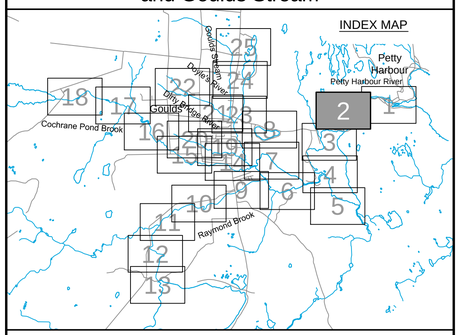
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 2 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(1-5)-FD.dwg

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Petty Harbour Rd
Lees Rd
Petty Harbour Rd
Donovans Rd
Scouts Pl
Reddy Pl
Donovans Rd
First Pond
Second Pond
Petty Harbour Rd
Crockers Rd
2426.14 PettyHR-M001
2551.09 PettyHR-M001
2573.39 PettyHR-M001
2583.24 PettyHR-M001
2596.08 PettyHR-M001
2632.46 PettyHR-M001
2653.10 PettyHR-M001
2671.95 PettyHR-M001
2712.72 PettyHR-M001
2828.46 PettyHR-M001
2983.09 PettyHR-M001
3028.13 PettyHR-M001
3080.13 PettyHR-M001
3182.65 PettyHR-M001
3440.60 PettyHR-M001
3643.73 PettyHR-M001

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

P:\Work\TA1112735\Water\Dwg\Contract\Goulds&Petty\DPH+FRM(1-5)-FD.dwg

Newfoundland Labrador
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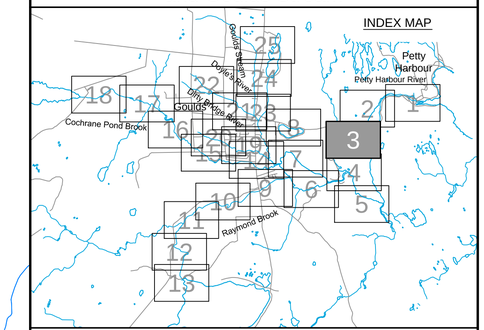
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2080
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

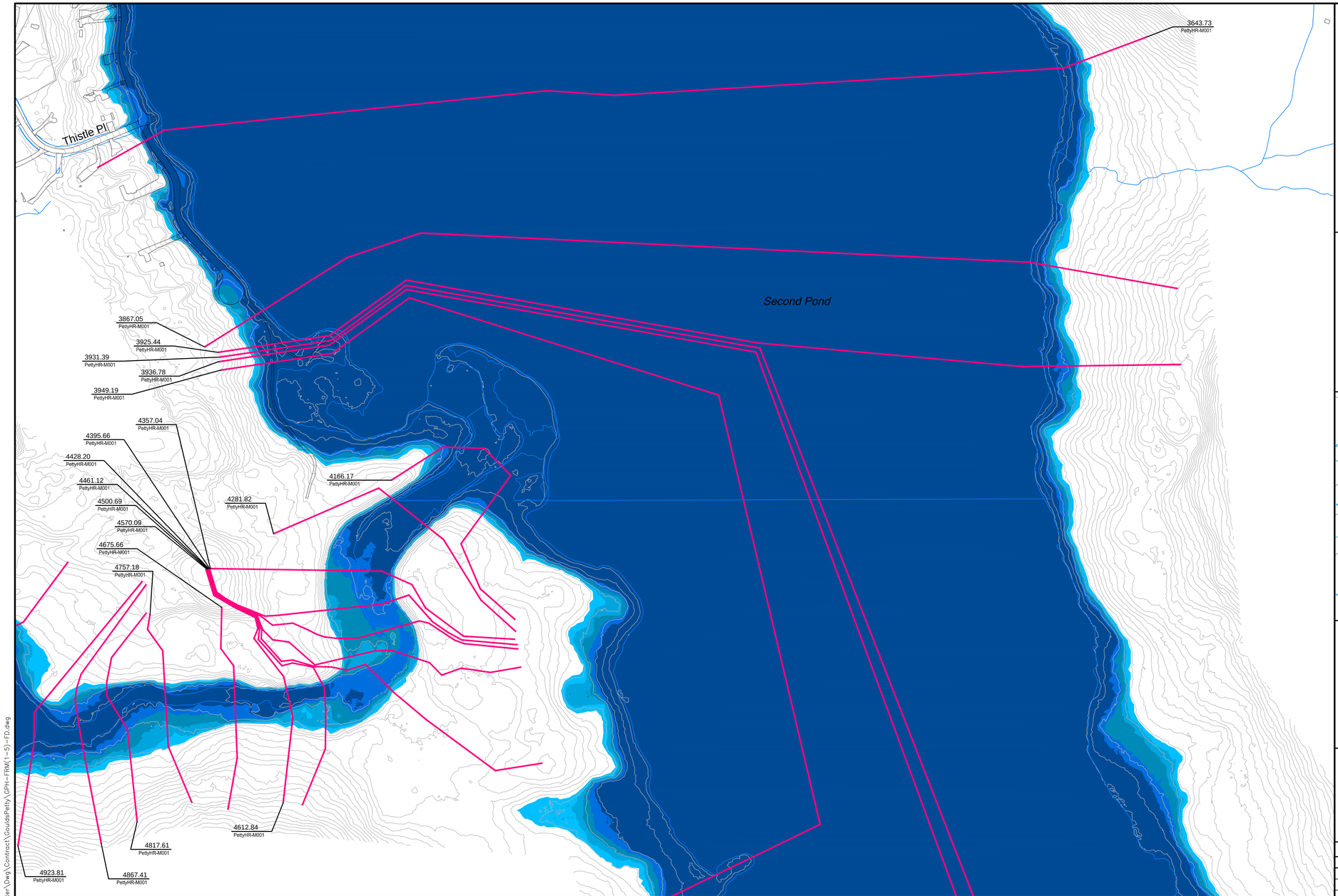
Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 3 of 25

Mar 25/13 – richard.bartolo



Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2080
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Doyles, Dirty Bridge and
Petty Harbour Rivers,
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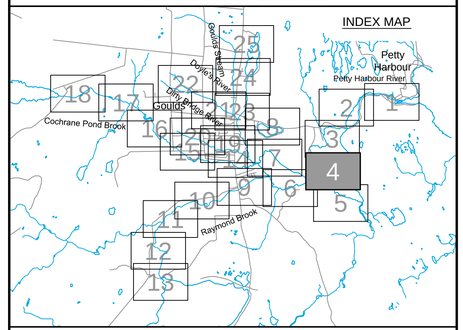
and Goulds Stream



Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

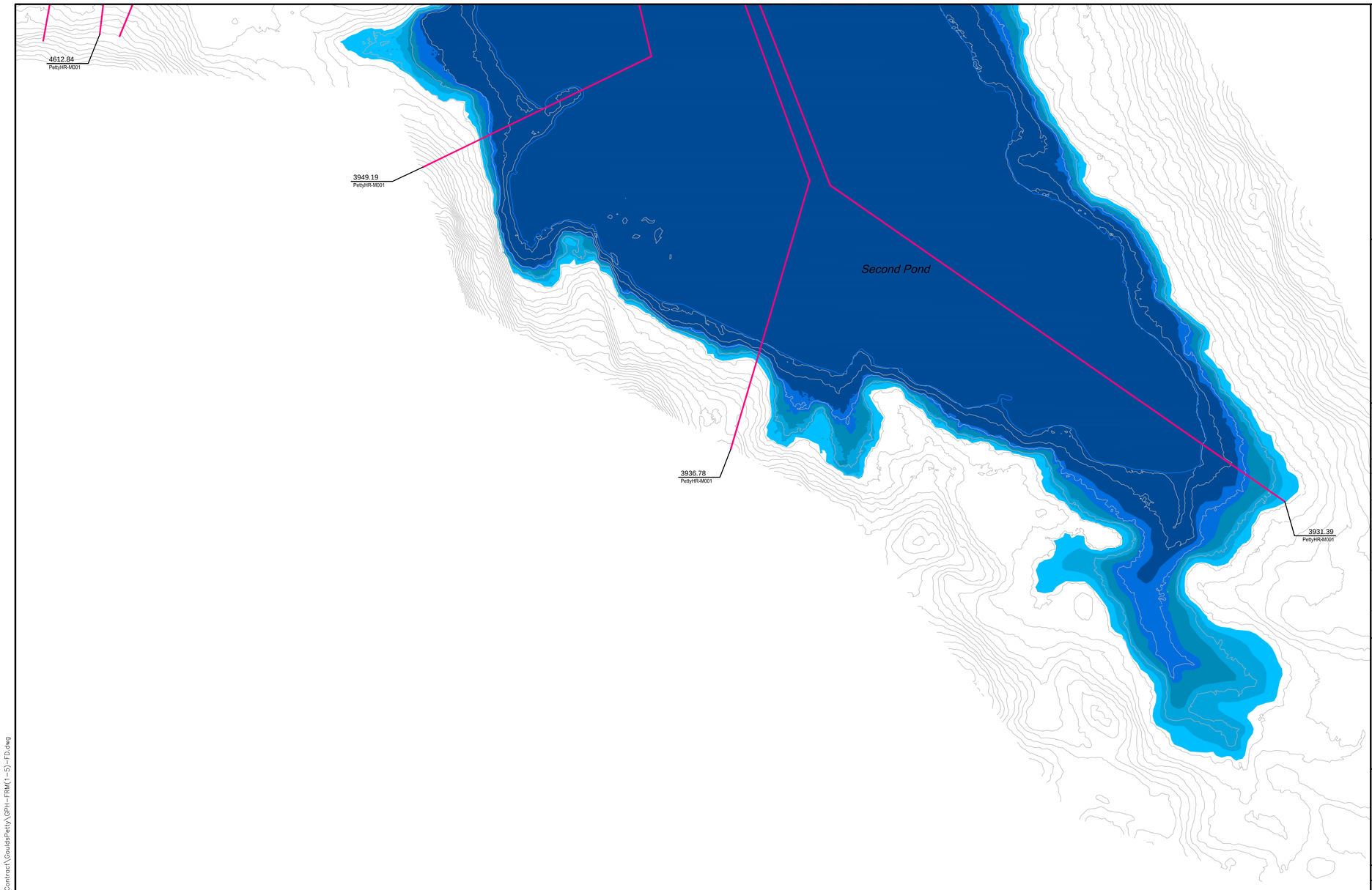
NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 4 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(1-5)-FD.dwg

Mar 25/13 – richard.bartolo



Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2080
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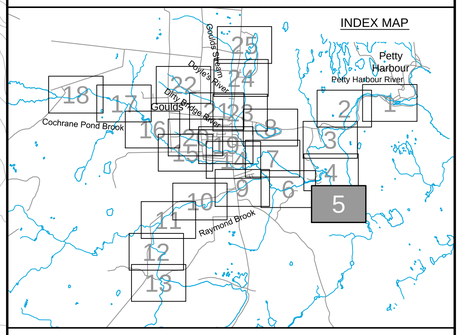
and Goulds Stream

INDEX MAP



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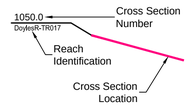

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 5 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(1--5)-FD.dwg

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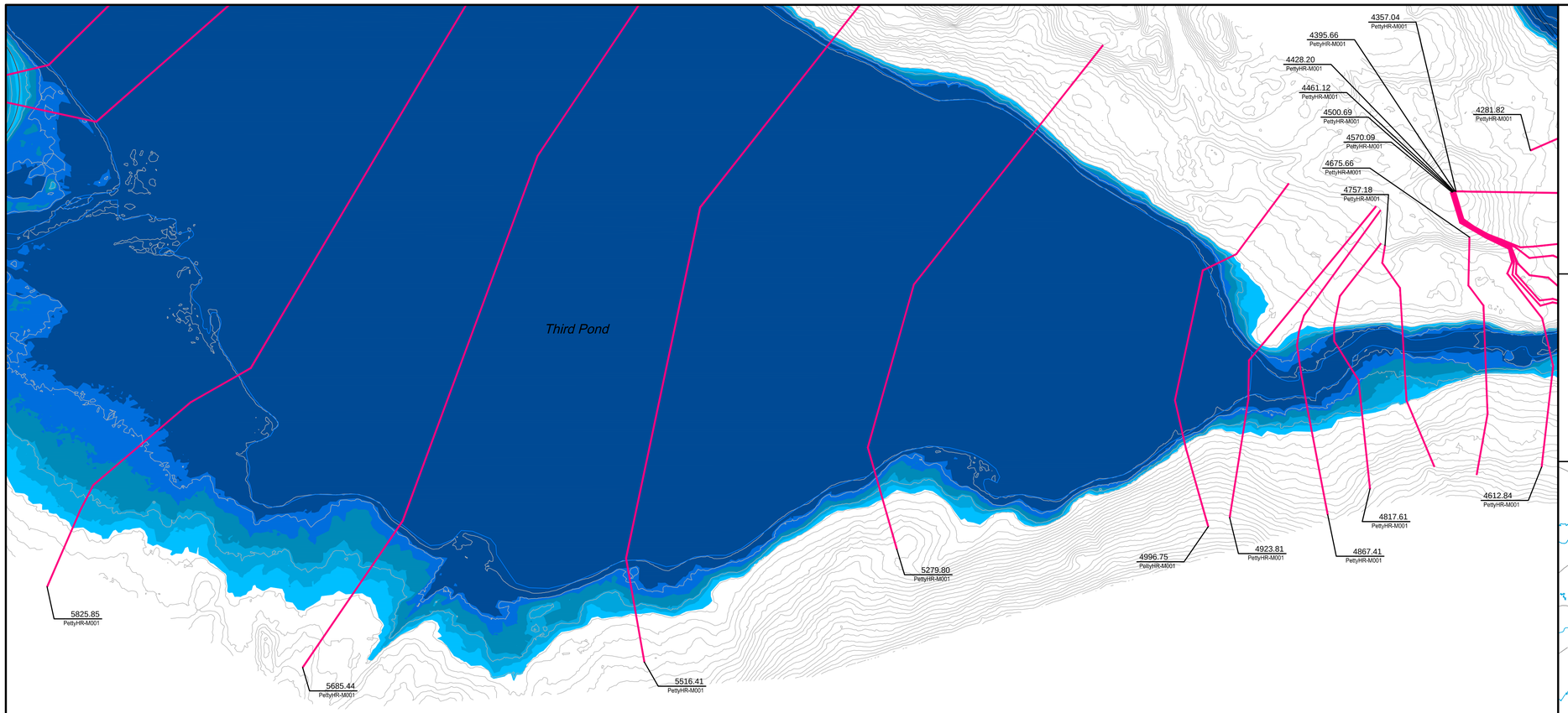

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Water Resource Management Division

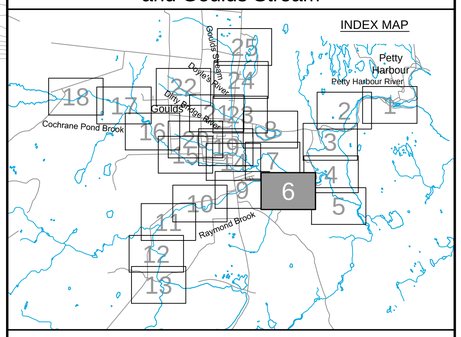
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2080
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

Sheet 6 of 25

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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Meadowbrook Dr

Riverside Dr W

688.06 ForestP-M001
651.32 ForestP-M001
600.44 ForestP-M001
578.60 ForestP-M001
528.92 ForestP-M001
478.55 ForestP-M001
430.82 ForestP-M001
378.18 ForestP-M001
328.07 ForestP-M001
277.95 ForestP-M001
195.51 ForestP-M001
158.37 ForestP-M001
89.11 ForestP-M001
6270.85 PettyHR-M002
6218.07 PettyHR-M002
6095.00 PettyHR-M002
6004.71 PettyHR-M002
5825.85 PettyHR-M001
5685.44 PettyHR-M001
5516.39 PettyHR-M001

Third Pond

Lake View Dr

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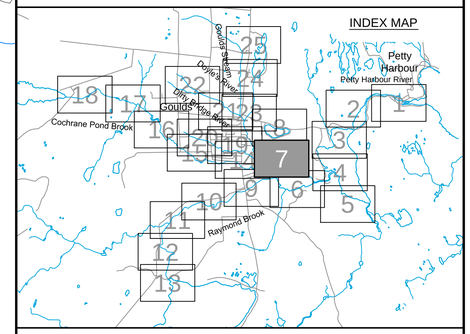
INDEX MAP



Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

Sheet 7 of 25

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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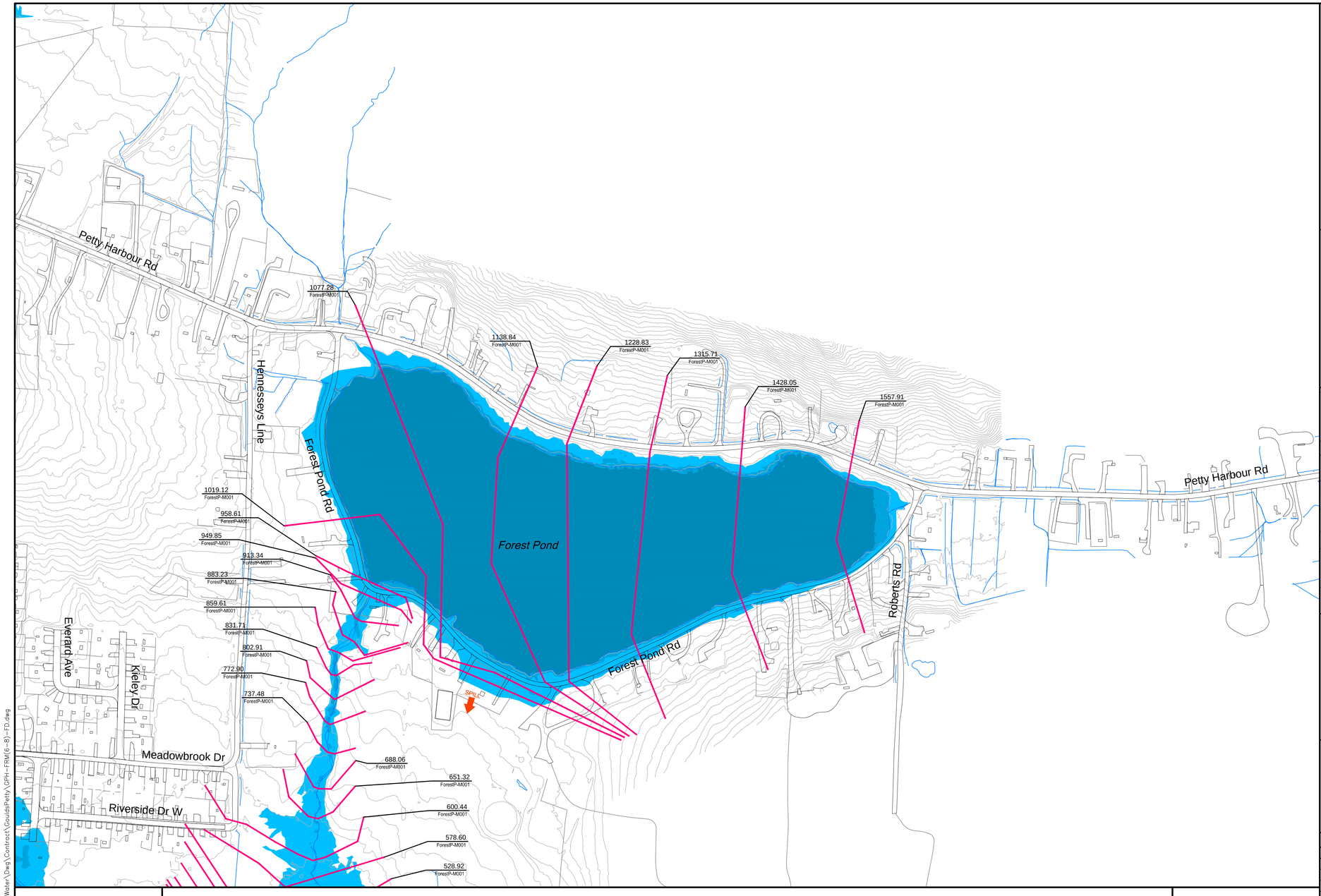

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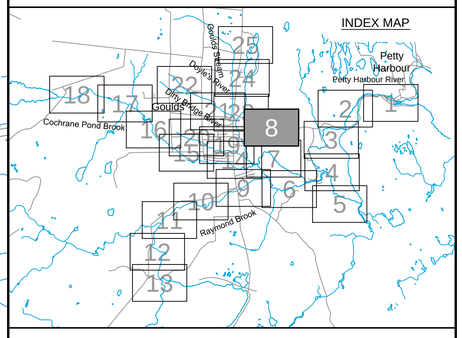

Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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Third Pond

Lake View Dr

Main Rd

Shoal Bay Rd

Alexis Pl

816.68 RaymondB-M001
841.89 RaymondB-M001
866.25 RaymondB-M001
892.34 RaymondB-M001
916.70 RaymondB-M001
942.15 RaymondB-M001
976.73 RaymondB-M001
999.99 RaymondB-M001
1066.09 RaymondB-M001
1035.68 RaymondB-M001
1116.25 RaymondB-M001
1148.70 RaymondB-M001
1166.20 RaymondB-M001
1189.75 RaymondB-M001
1216.25 RaymondB-M001
1252.39 RaymondB-M001
1536.01 RaymondB-M001
1584.49 RaymondB-M001
1630.92 RaymondB-M001
1682.15 RaymondB-M001
1733.38 RaymondB-M001
1784.61 RaymondB-M001
1835.84 RaymondB-M001
1885.73 RaymondB-M001
1950.22 RaymondB-M001
1989.18 RaymondB-M001
716.25 RaymondB-M001
615.86 RaymondB-M001
565.77 RaymondB-M001
520.15 RaymondB-M001
468.54 RaymondB-M001
429.18 RaymondB-M001
366.25 RaymondB-M001
341.79 RaymondB-M001
766.25 RaymondB-M001
675.00 RaymondB-M001
5825.85 PettyHR-M001
1303.54 RaymondB-M001
1323.54 RaymondB-M001
1372.05 RaymondB-M001
1425.99 RaymondB-M001
1477.96 RaymondB-M001

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
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AMEC (Maximum IDF Relationship)

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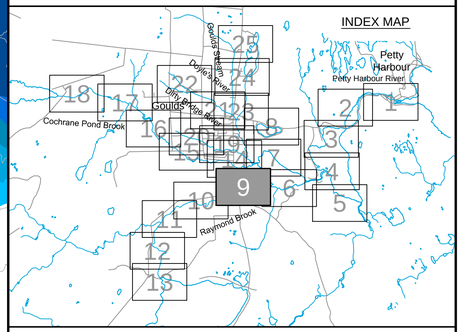
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5 - 2.0m
- Greater than 2.0m

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REVISIONS

No.	Description	BY	DATE

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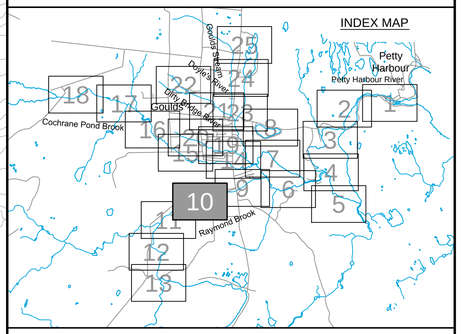
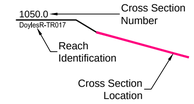
INDEX MAP



Cross Section Label



1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

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REVISIONS

No.	Description	BY	DATE

Sheet 10 of 25

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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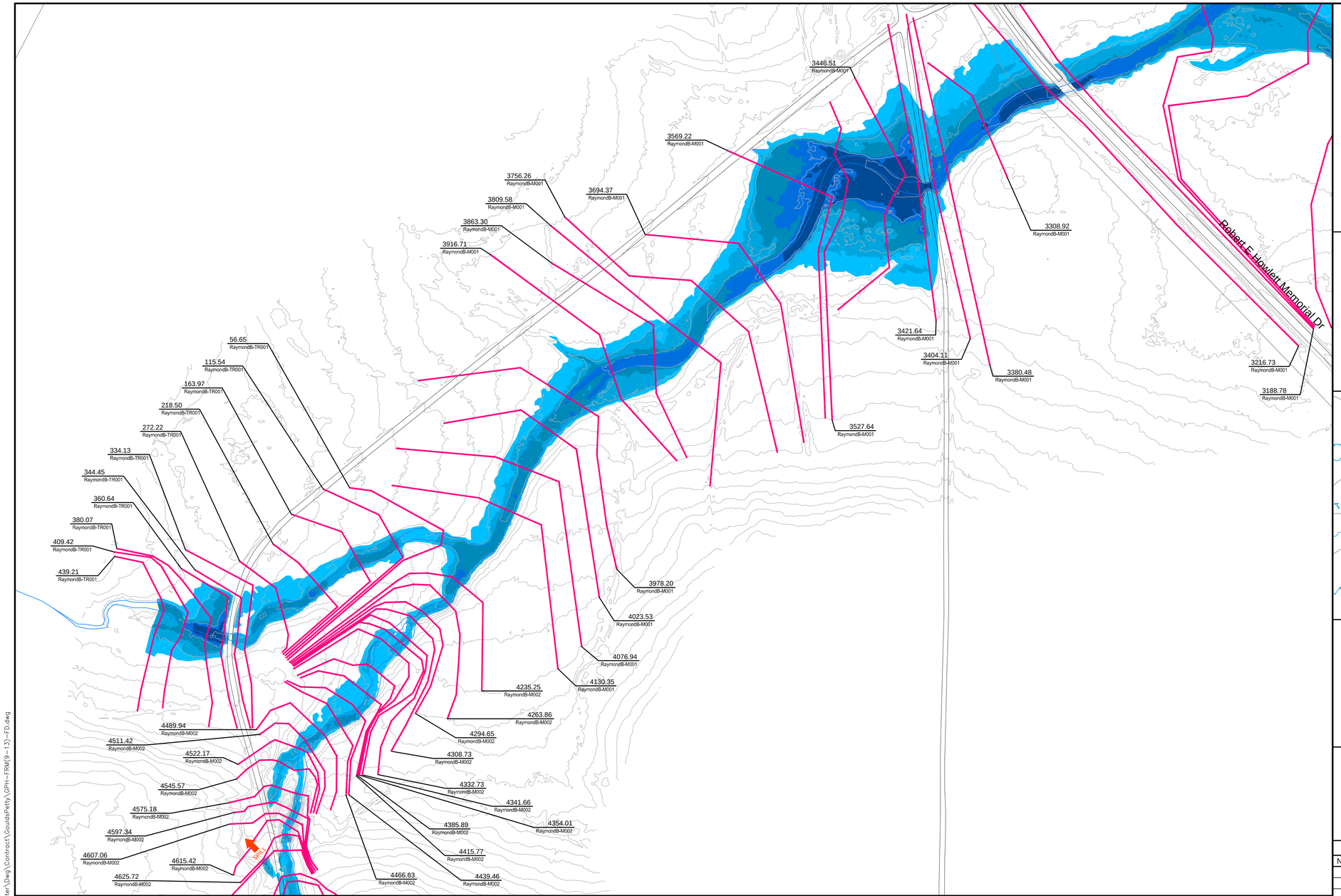

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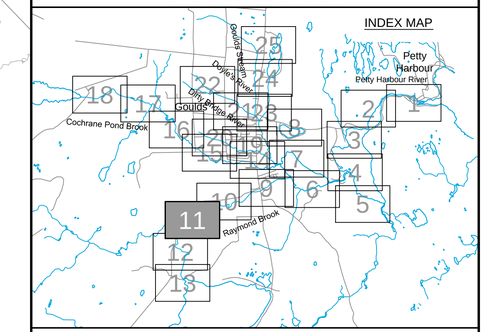

Cross Section Label

1050.0
DoylesB-TR017

Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

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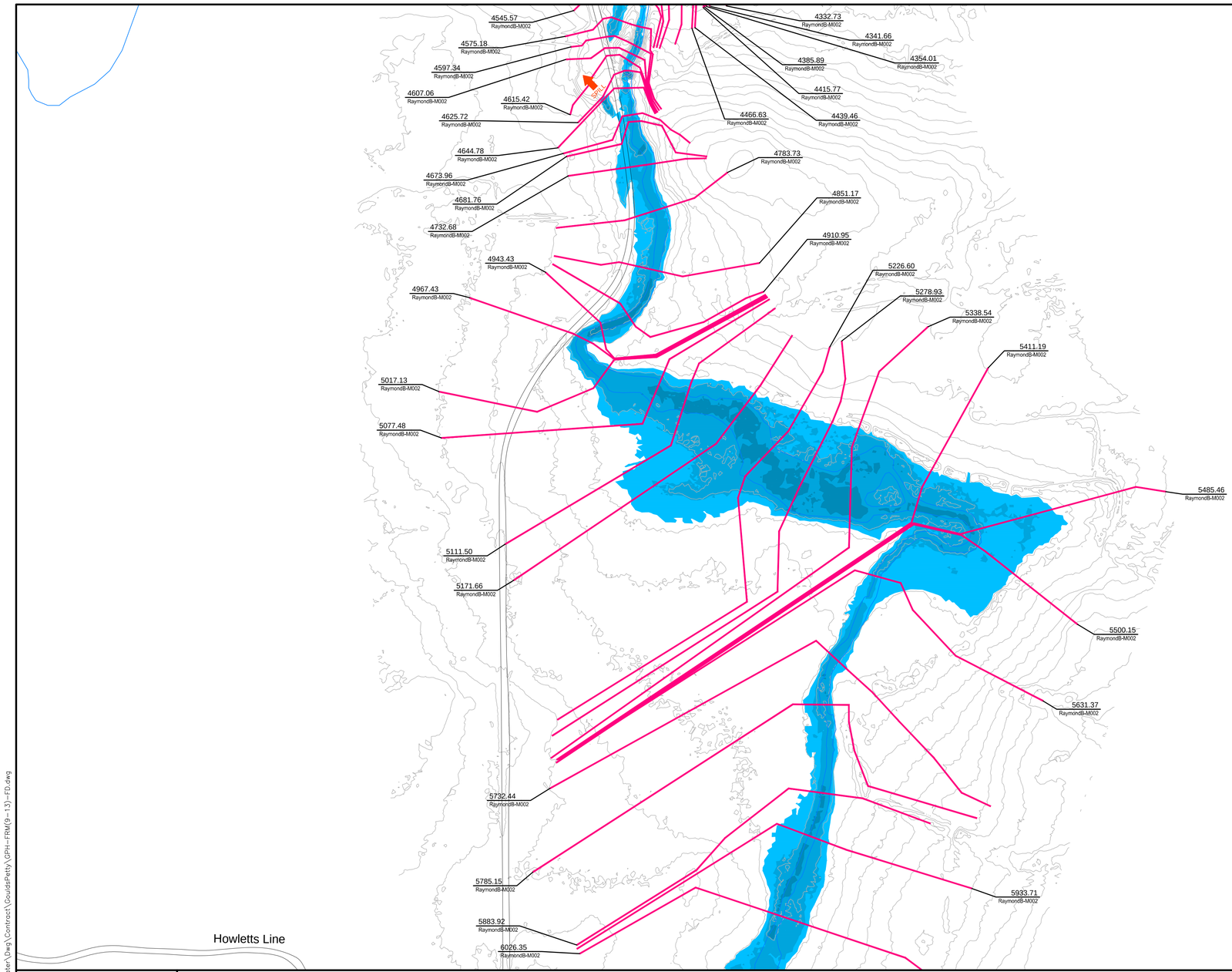

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1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

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AMEC (Maximum IDF Relationship)

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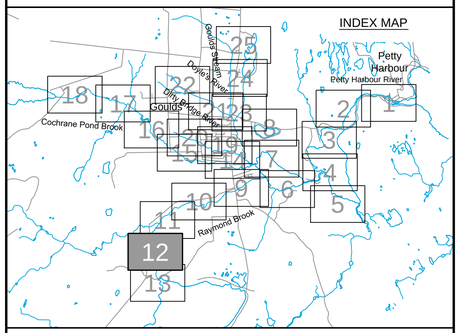
INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
- Cross Section Number
- Reach Identification
- Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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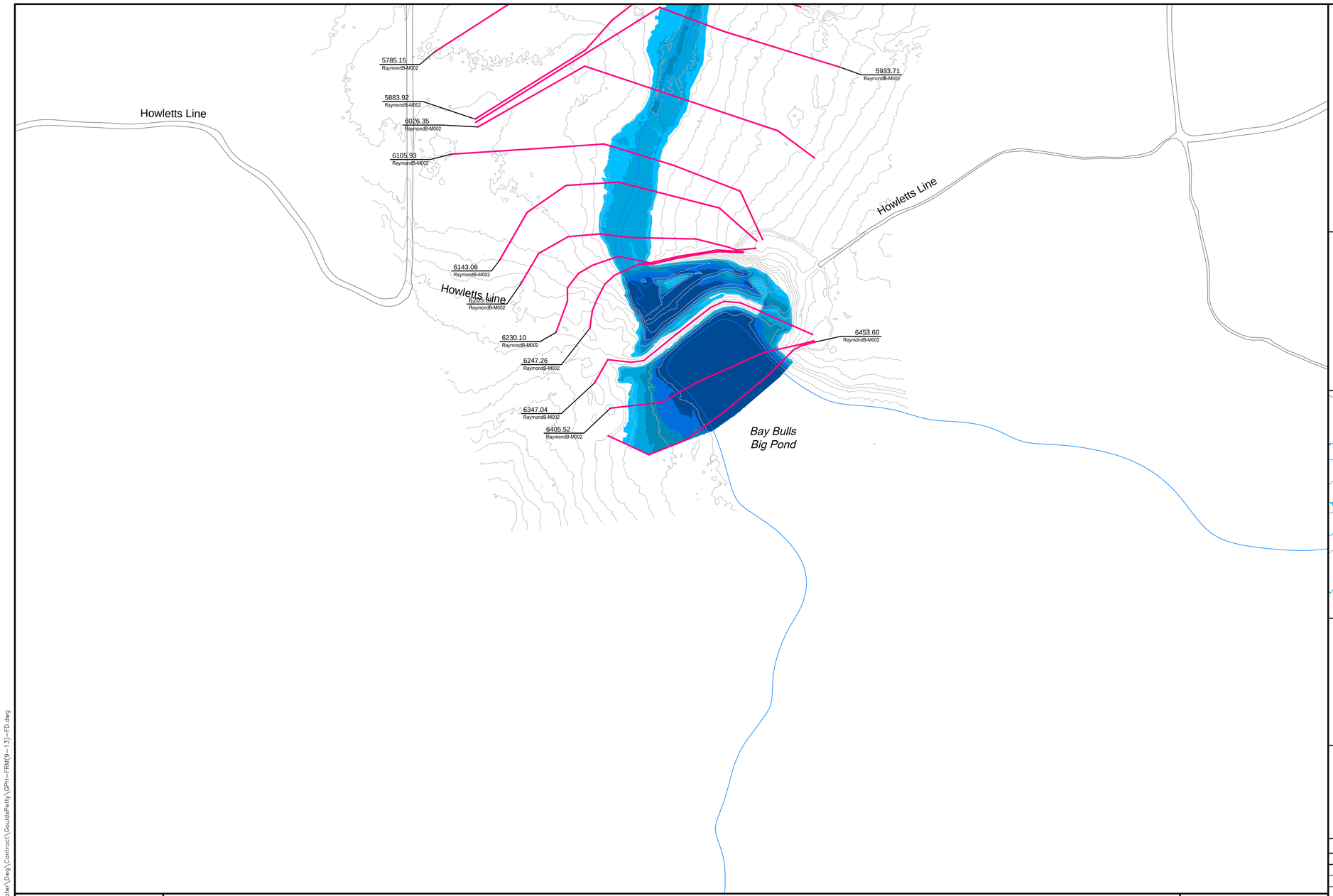

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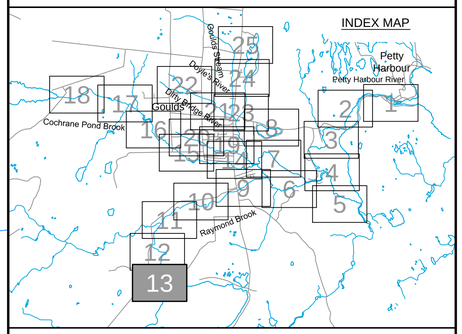

Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

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Soper Cres
Martin St
Cleary Dr
McConnell Pl
Sunset St
Hannaford Pl
Beaver Brook Dr
Heffernans Line
Mountainview Dr
Ryans River Rd
Ryans Pl
Main Rd
Fleming Pl
Riverside Dr W
Third Pond
Lake View Dr

1990.76 CochranePB-M002
1945.20 CochranePB-M002
1916.67 CochranePB-M002
1871.48 CochranePB-M002
1836.03 CochranePB-M002
1788.63 CochranePB-M002
1768.08 CochranePB-M002
1733.19 CochranePB-M002
2103.01 CochranePB-M002
2046.85 CochranePB-M002
2014.35 CochranePB-M002
1640.51 CochranePB-M002
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1694.89 CochranePB-M002
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1585.52 CochranePB-M002
1569.47 CochranePB-M002
1541.97 CochranePB-M002
1495.27 CochranePB-M002
1510.83 CochranePB-M002
1458.62 CochranePB-M002
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1111.68 CochranePB-M002
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998.99 CochranePB-M002
955.54 CochranePB-M002
851.16 CochranePB-M002
798.06 CochranePB-M002
746.77 CochranePB-M002
694.52 CochranePB-M002
669.16 CochranePB-M002
590.19 CochranePB-M002
539.85 CochranePB-M002
488.40 CochranePB-M002
313.14 CochranePB-M001
381.27 CochranePB-M001

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AMEC (Maximum IDF Relationship)

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and Goulds Stream

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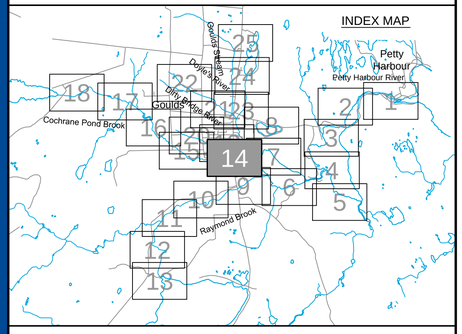

Cross Section Label

1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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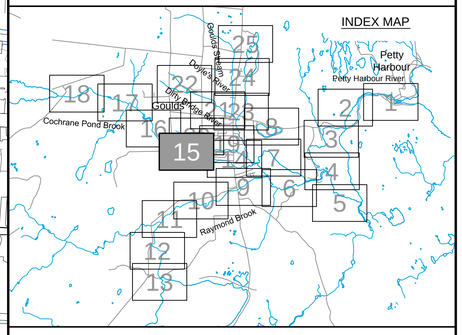

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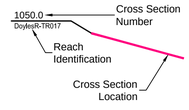

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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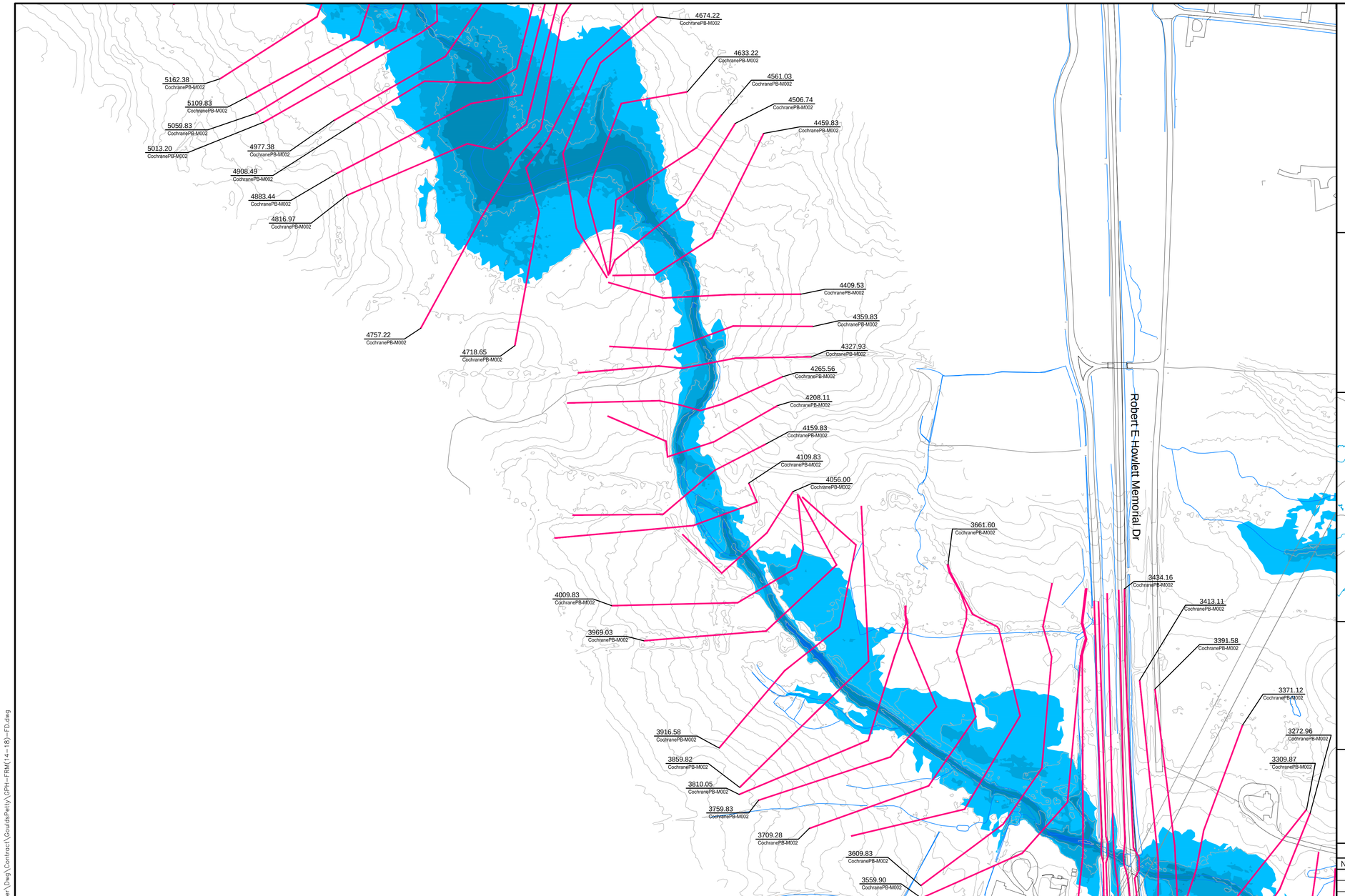

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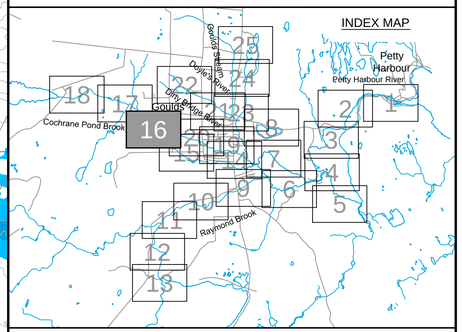
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

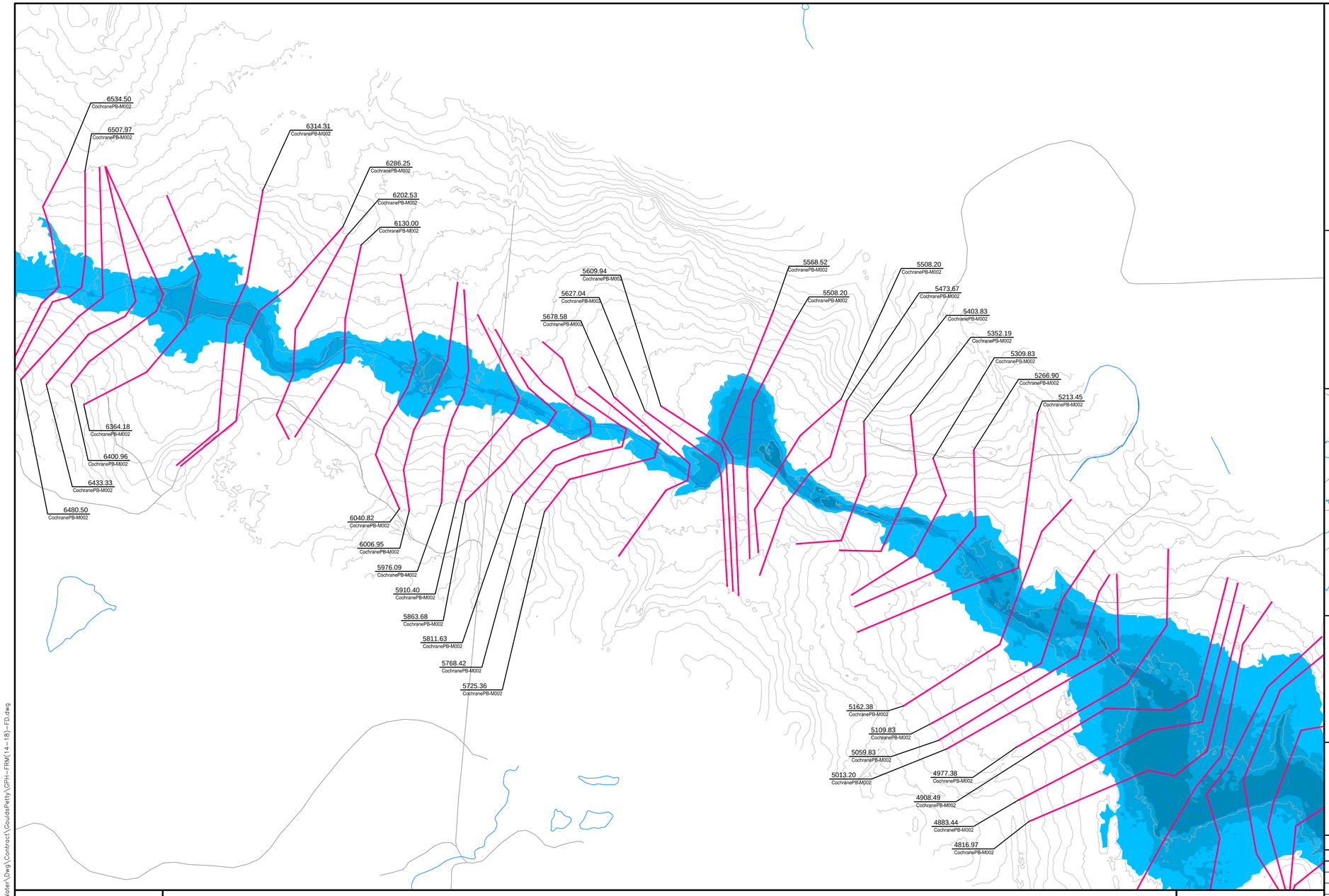
CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 16 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(14-18)-FD.dwg

Mar 25/13 – richard.bartolo



Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

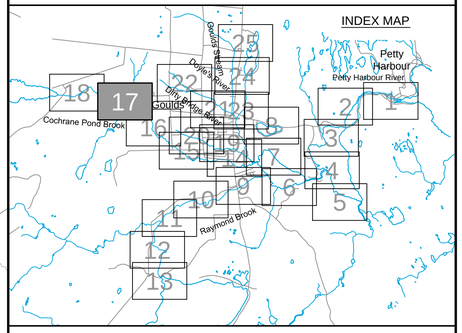
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2080
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

- Cross Section Number
- Reach Identification
- Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5 - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 17 of 25

P:\Work\TA11127235\Water\Dwg\Contract\GouldsPetty\GPH-FRM(14-18)-FD.dwg

Mar 25/13 – richard.bartolo

Cochrane Pond Rd

6985.71 CochranePB-M002
7041.67 CochranePB-M002
7108.13 CochranePB-M002
6955.25 CochranePB-M002
6863.52 CochranePB-M002
7208.54 CochranePB-M002
7253.62 CochranePB-M002
7329.89 CochranePB-M002
6840.09 CochranePB-M002
6808.25 CochranePB-M002
6534.50 CochranePB-M002
6507.97 CochranePB-M002
6767.75 CochranePB-M002
6727.78 CochranePB-M002
6691.71 CochranePB-M002
6651.54 CochranePB-M002
6630.83 CochranePB-M002
6364.18 CochranePB-M002
6400.96 CochranePB-M002
6433.33 CochranePB-M002
6480.50 CochranePB-M002
7450.86 CochranePB-M002
7476.72 CochranePB-M002
7515.77 CochranePB-M002
7609.21 CochranePB-M002
7695.32 CochranePB-M002
7738.34 CochranePB-M002
7812.33 CochranePB-M002
7847.08 CochranePB-M002
7964.49 CochranePB-M002
7901.64 CochranePB-M002
8105.53 CochranePB-M002
8065.47 CochranePB-M002
8050.98 CochranePB-M002
8024.09 CochranePB-M002
8013.06 CochranePB-M002
8004.70 CochranePB-M002
7995.14 CochranePB-M002

Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

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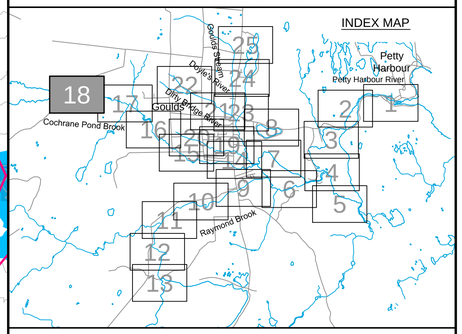
1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2080
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

Sheet 18 of 25

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

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Ridgemount St
Clearview St
Keith Dr
Gulliage St
North Dr
Della Dr
Sunset St
McConnell Pl
Hannaford Pl
Martin St
Cleary Dr
Soper Crescent
Main Rd
Fleming Pl
Meadowbrook Park Rd
Bonnie Dr
Gray Dr
Everard Ave
Kieley Dr
Meadowbrook Dr
Riverside Dr W
Hennesseys Line
Beaver Brook Dr
Heffernans Line
SPILL

1506.66 DoylesR-TR013
1478.17 DoylesR-TR013
1433.61 DoylesR-TR013
1388.58 DoylesR-TR013
1373.88 DoylesR-TR013
1301.72 DoylesR-TR013
1246.99 DoylesR-TR013
1192.26 DoylesR-TR013
1137.53 DoylesR-TR013
1082.80 DoylesR-TR013
1064.90 DoylesR-TR013
1042.53 DoylesR-TR013
1022.06 DoylesR-TR013
867.93 DoylesR-TR013
809.27 DoylesR-TR013
756.07 DoylesR-TR013
543.29 DoylesR-TR013
489.08 DoylesR-TR013
383.70 DoylesR-TR013
324.16 DoylesR-TR013
344.87 DoylesR-TR013
256.50 DoylesR-TR013
256.30 DoylesR-TR013
969.32 DoylesR-TR013
915.66 DoylesR-TR013
702.82 DoylesR-TR013
651.60 DoylesR-TR013
588.74 DoylesR-TR013
436.90 DoylesR-TR013
363.75 DoylesR-TR013
133.14 DoylesR-TR013
66.14 DoylesR-TR013
162.98 DoylesR-TR013
1370.10 DoylesR-TR011
1316.51 DoylesR-TR011
1262.92 DoylesR-TR011
1209.33 DoylesR-TR011
1155.74 DoylesR-TR011
1107.39 DoylesR-TR011
1057.82 DoylesR-TR011
971.36 DoylesR-TR011
816.76 DoylesR-TR011
760.16 DoylesR-TR011
712.26 DoylesR-TR011
663.11 DoylesR-TR011
949.62 DoylesR-TR011
929.53 DoylesR-TR011
872.05 DoylesR-TR011
484.12 DoylesR-M001
429.44 DoylesR-M001
388.93 DoylesR-M001
344.78 DoylesR-M001
216.64 DoylesR-M001
77.13 DoylesR-M001

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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
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Newfoundland Labrador
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Water Resource Management Division

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Goulds\Petty Harbour

Climate Change Scenario - 2080
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP
Petty Harbour
Petty Harbour River
Goulds
Cochrane Pond Brook
Raymond Brook
19

Cross Section Label
1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Inundation Depth
0.0m - 0.5m
0.5m - 1.0m
1.0m - 1.5m
1.5m - 2.0m
Greater than 2.0m

amec
Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 19 of 25

Mar 25/13 – richard.bartolo

Robert E Howlett Memorial Dr

Back Line

Durdle Dr

Ridgemount St

Clearview St

North Dr

Gulliage St

Keith Dr

Della Dr

Sunset St

McConnell Pl

Hannaford Pl

Powers Rd

Beaver Brook Dr

Heffernans Line

2205.78 DoylesR-TR013
2147.59 DoylesR-TR013
2097.40 DoylesR-TR013
2011.99 DoylesR-TR013
1957.46 DoylesR-TR013
1909.18 DoylesR-TR013
1861.01 DoylesR-TR013
1789.09 DoylesR-TR013
1733.37 DoylesR-TR013
1677.65 DoylesR-TR013
1613.85 DoylesR-TR013
1552.30 DoylesR-TR013
1506.96 DoylesR-TR013
1478.17 DoylesR-TR013
1411.61 DoylesR-TR013
1388.58 DoylesR-TR013
1373.88 DoylesR-TR013
1301.72 DoylesR-TR013
1246.99 DoylesR-TR013
1192.26 DoylesR-TR013
1137.53 DoylesR-TR013
1082.80 DoylesR-TR013
1064.90 DoylesR-TR013
1042.53 DoylesR-TR013
1022.06 DoylesR-TR013
867.93 DoylesR-TR013
809.27 DoylesR-TR013
756.07 DoylesR-TR013
702.82 DoylesR-TR013
651.60 DoylesR-TR013
588.74 DoylesR-TR013
969.32 DoylesR-TR013
915.66 DoylesR-TR013

FILL

CUT

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Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
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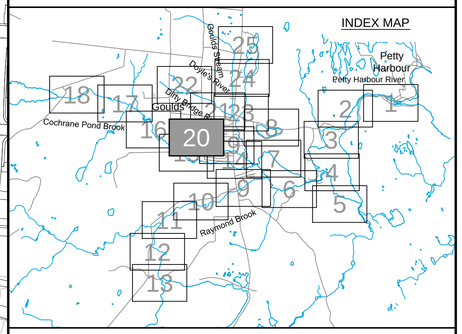
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 20 of 25

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Mar 25/13 – richard.bartolo

Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

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AMEC (Maximum IDF Relationship)

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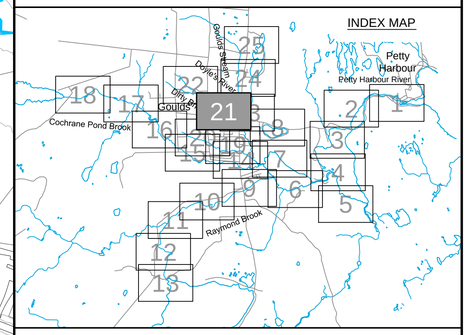
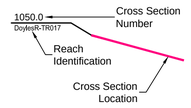
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label



1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

Sheet 21of 25

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

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Mar 25/13 – richard.bartolo

Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

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AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
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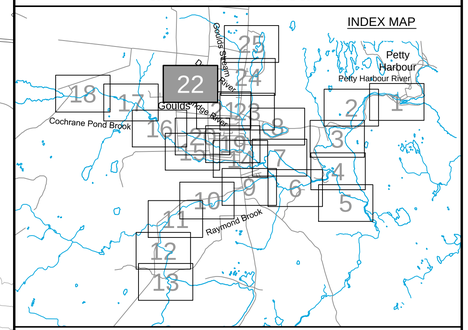
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
- Cross Section Number
- Reach Identification
- Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

Sheet 22 of 25

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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Mar 25/13 – richard.bartolo

Department of Environment and Conservation
Water Resource Management Division

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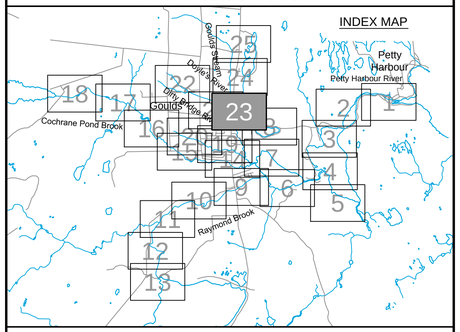
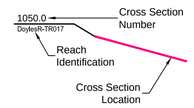
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label



1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

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REVISIONS

No.	Description	BY	DATE

Sheet 23 of 25

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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Mar 25/13 – richard.bartolo



MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres

Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
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Newfoundland Labrador

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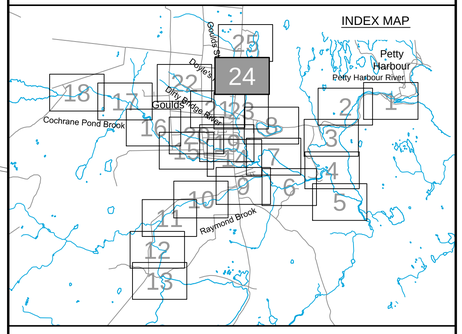
1:20 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2080
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

Sheet 24 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(23-25)-FD.dwg

Mar 25/13 – richard.bartolo

Main Rd

Viquers Rd

Fourth Pond

Fourth Pond

2616.90
FortHP-M001

2528.45
FortHP-M001

2324.32
FortHP-M001

2187.52
FortHP-M001

1955.13
FortHP-M001

2057.49
DoylesR-TR014

2037.89
DoylesR-TR014

1988.88
DoylesR-TR014

1975.46
DoylesR-TR014

1936.56
DoylesR-TR014

1904.43
DoylesR-TR014

1867.03
DoylesR-TR014

1801.50
DoylesR-TR014

1765.57
DoylesR-TR014

1703.29
DoylesR-TR014

1657.91
DoylesR-TR014

1607.98
DoylesR-TR014

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres

300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
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Newfoundland Labrador

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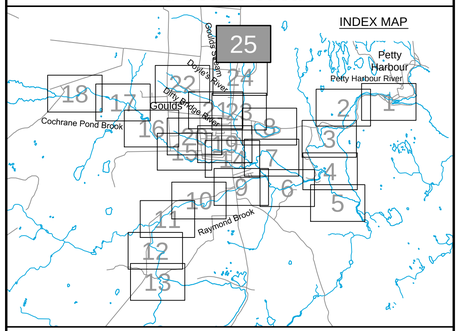
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:20 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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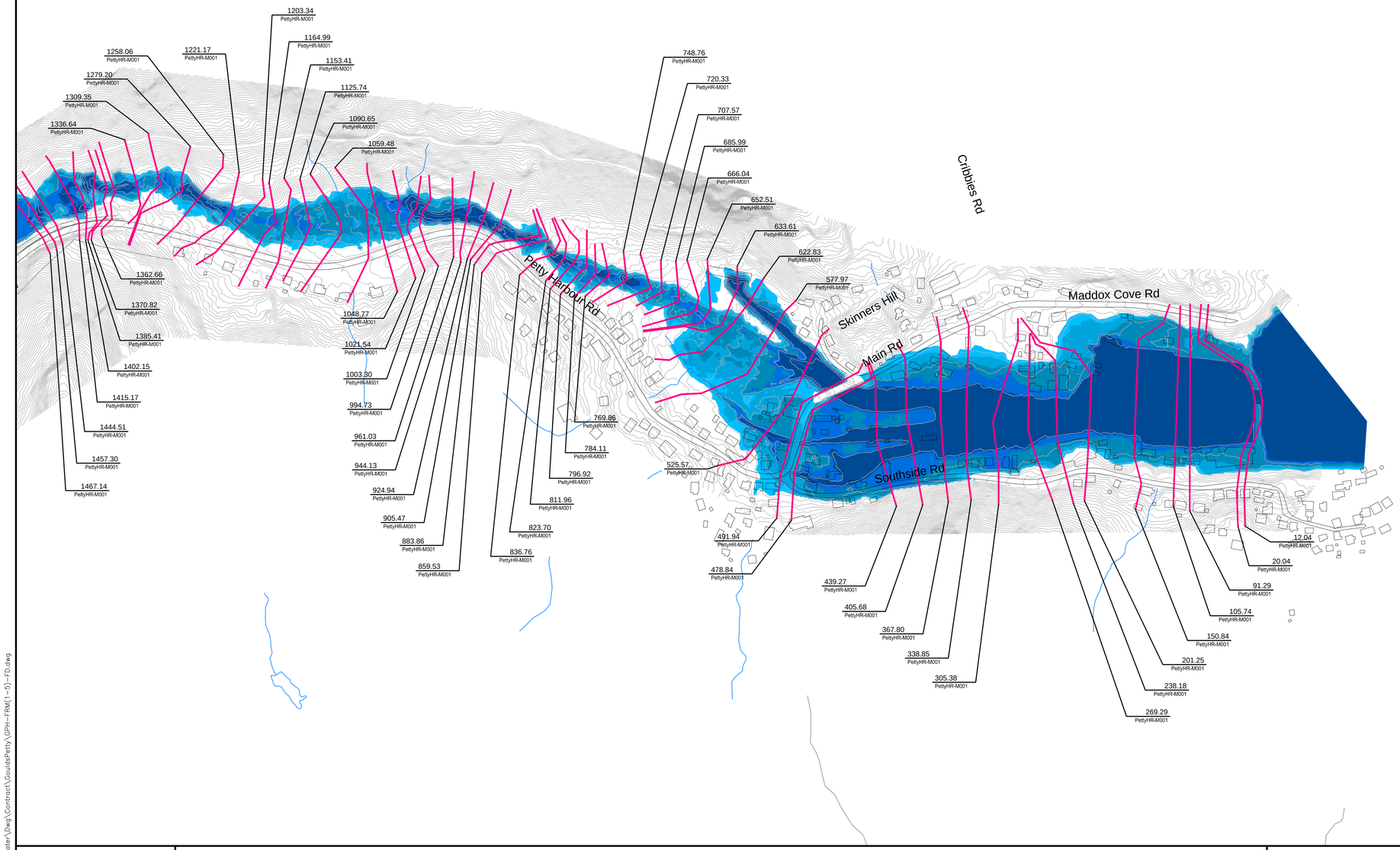
REVISIONS

No.	Description	BY	DATE

Sheet 25 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(23-25)-FD.dwg

Mar 25/13 – richard.bartolo



Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

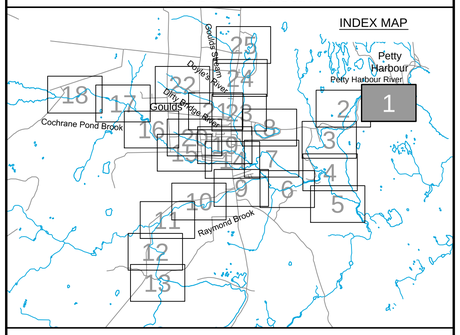
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2080
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesHR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5 - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

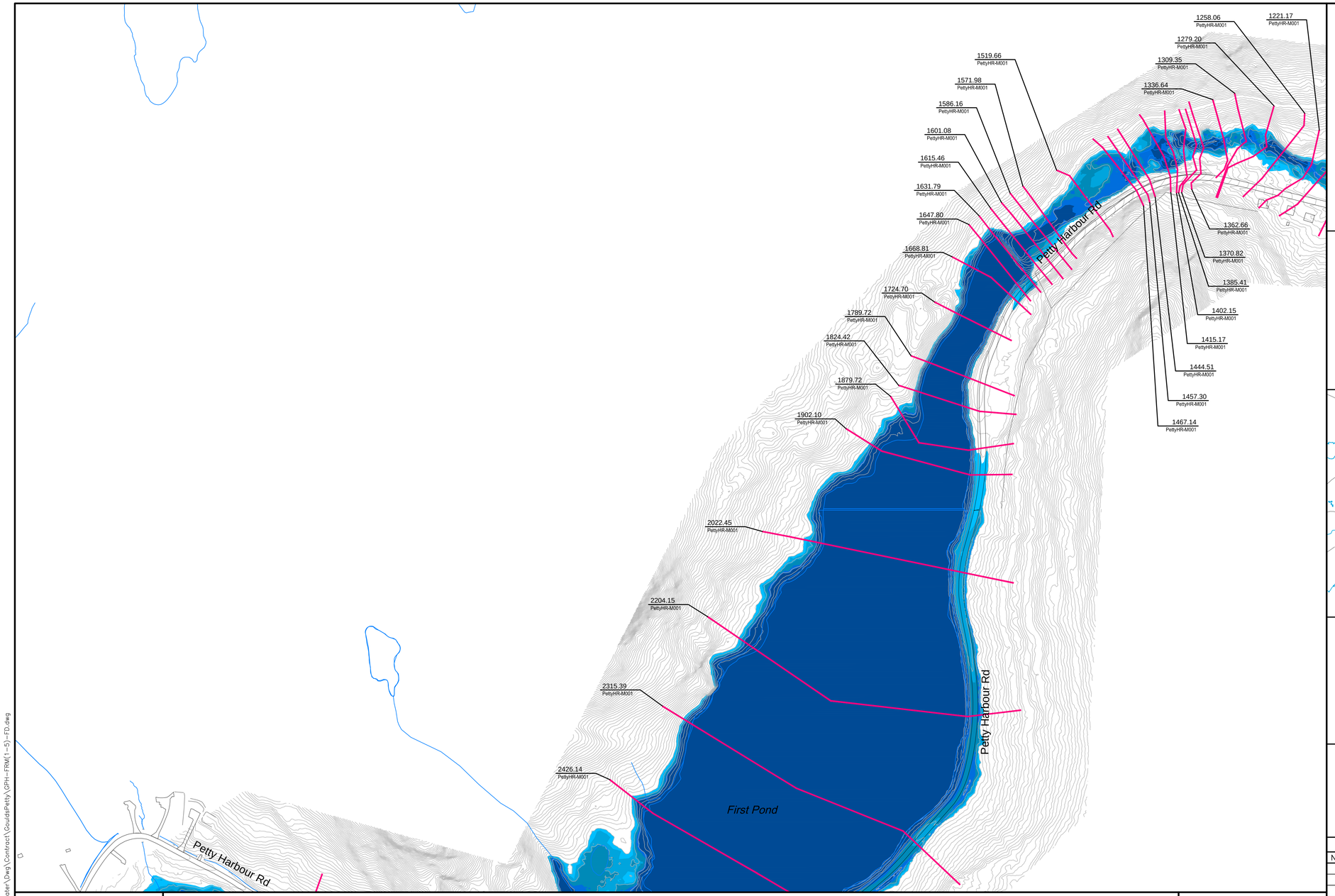
NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 1 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(1-5)-FD.dwg

Mar 25/13 – richard.bartolo



Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

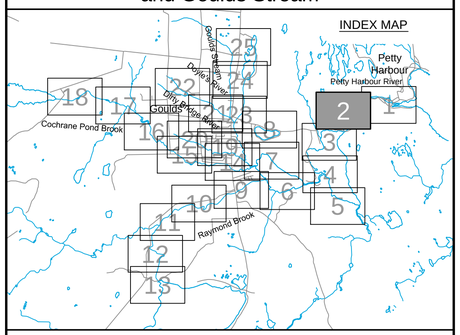
Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2080
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



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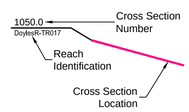

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 2 of 25

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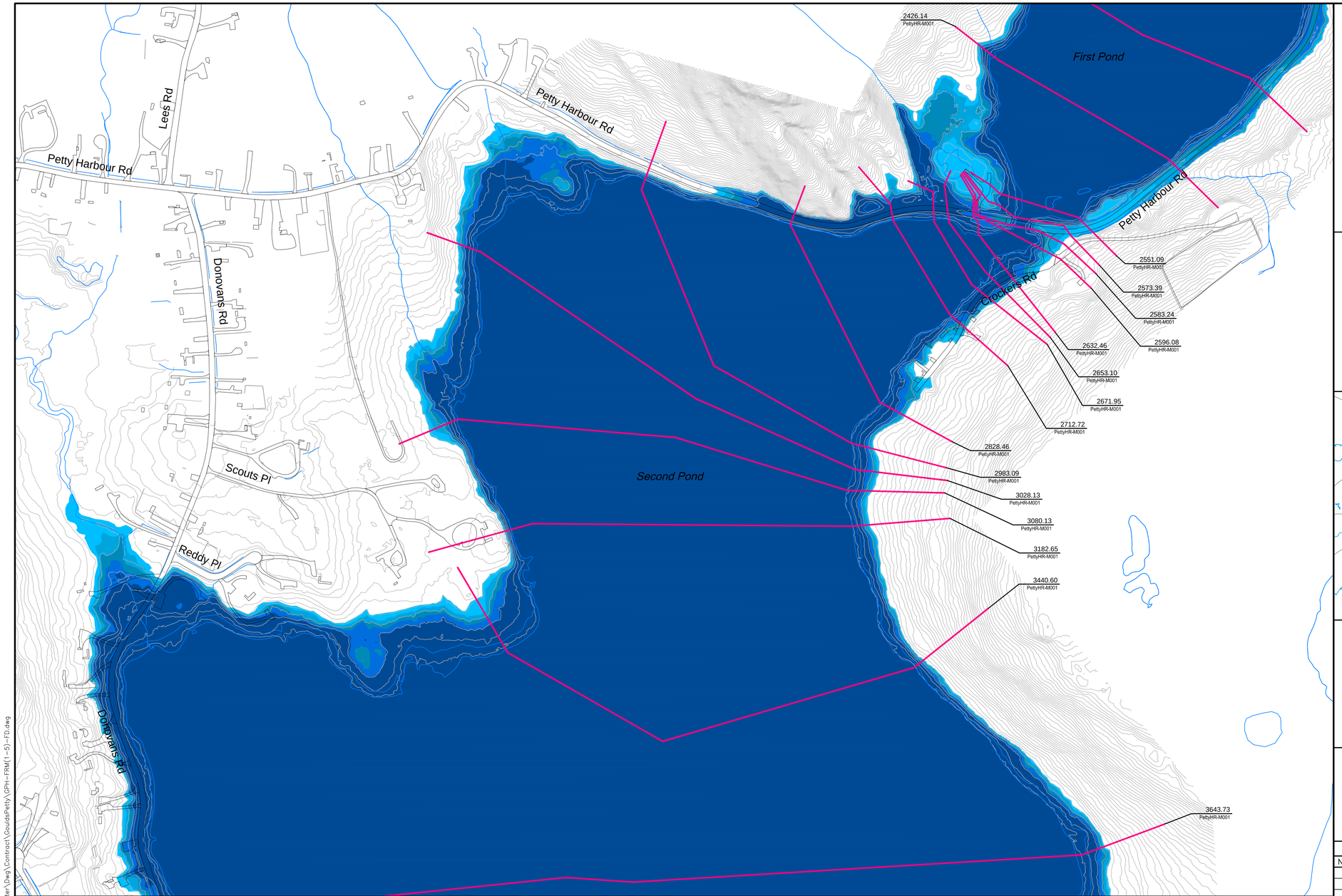
Mar 25/13 – richard.bartolo



Department of Environment and Conservation
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Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

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Goulds\Petty Harbour

Climate Change Scenario - 2080
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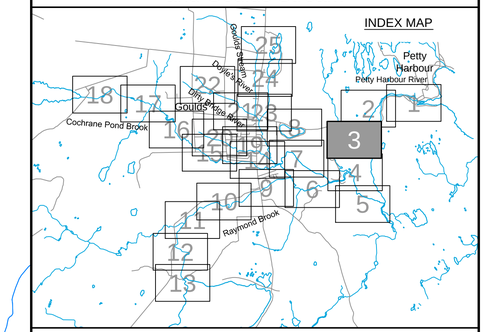
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesHR-TR017

Cross Section Number
Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 3 of 25

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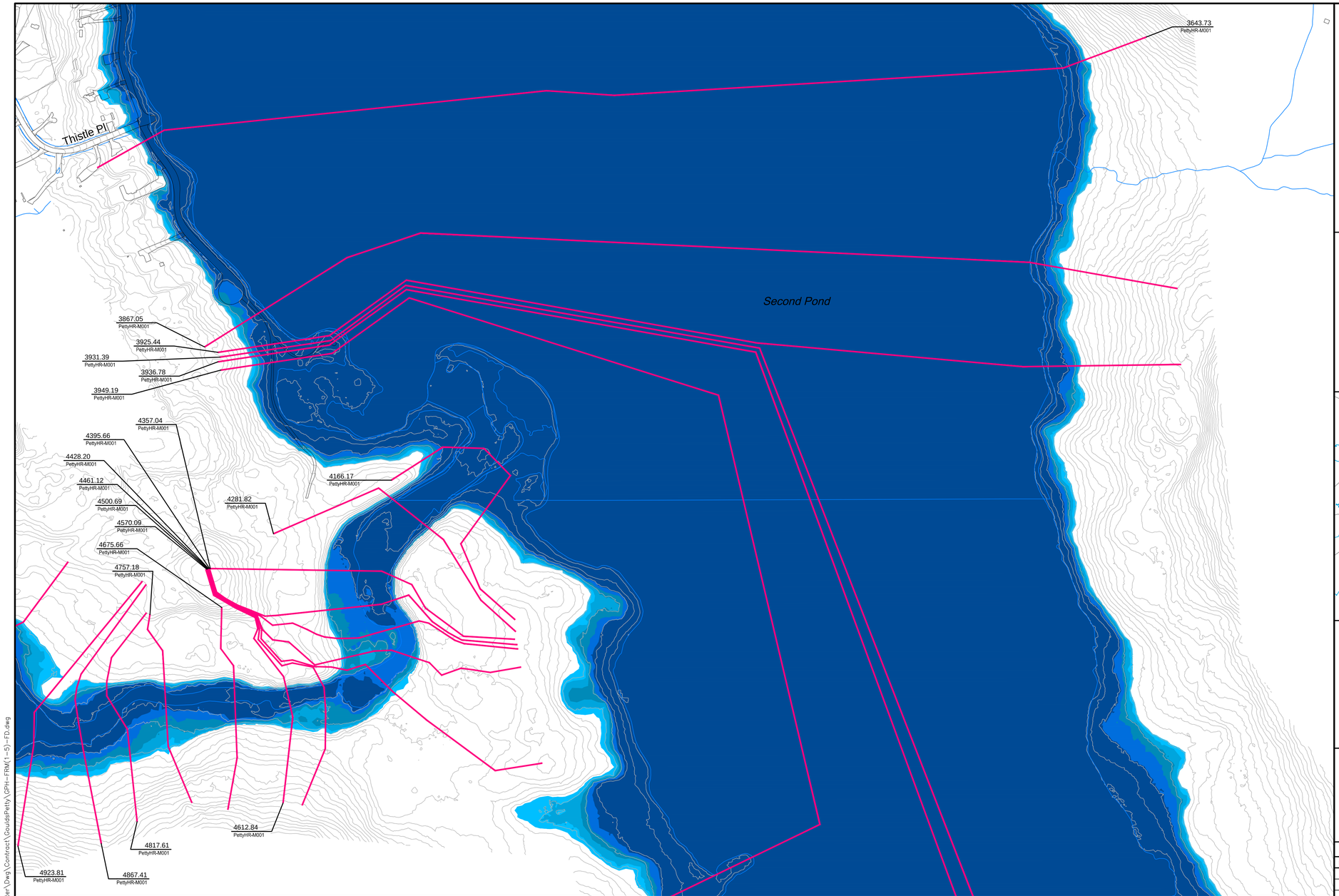
Mar 25/13 – richard.bartolo



Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2080
AMEC (Maximum IDF Relationship)

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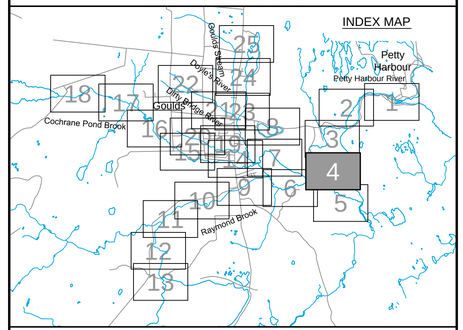

Cross Section Label

1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 4 of 25

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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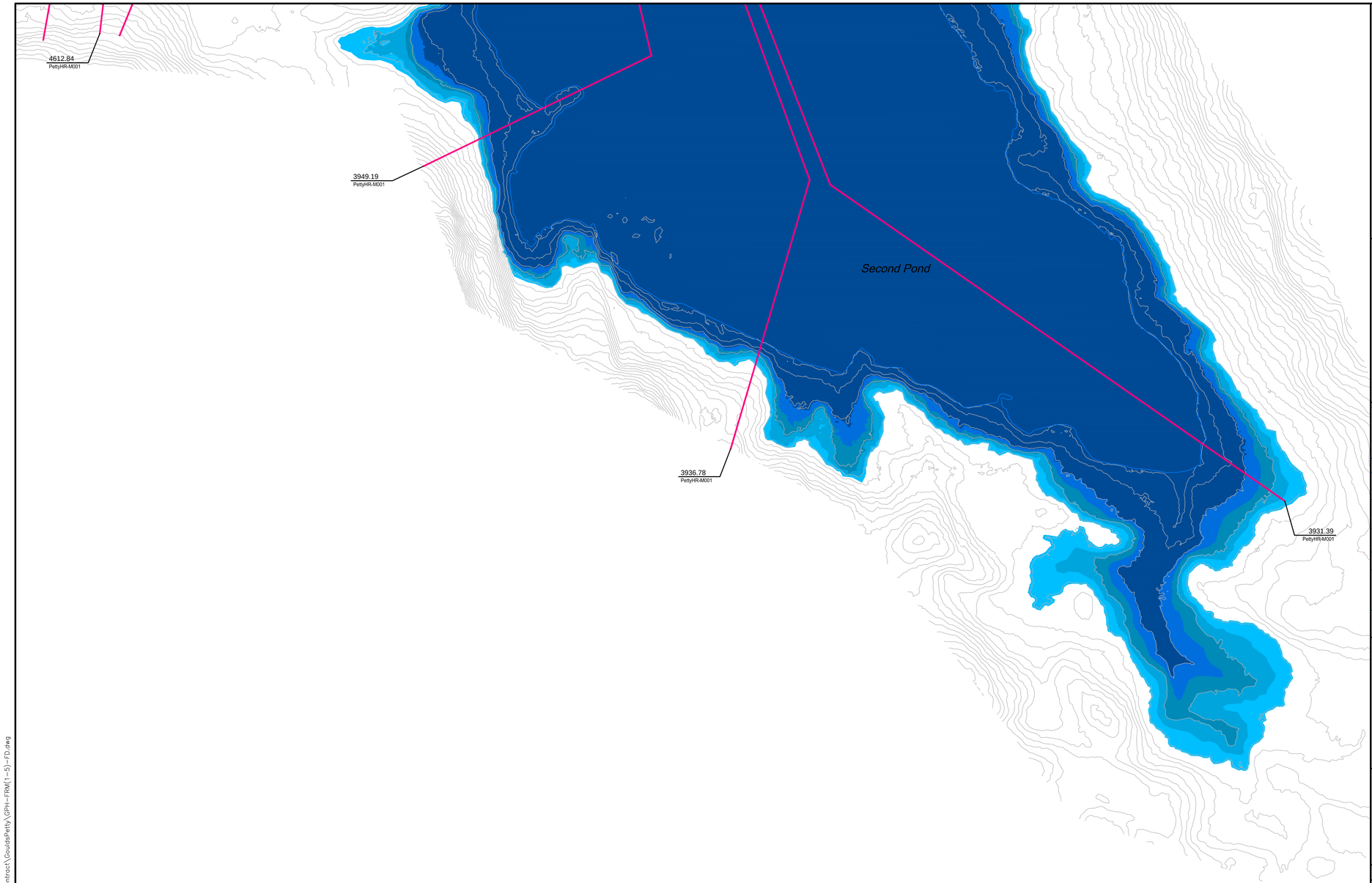
Mar 25/13 – richard.bartolo



Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:100 AEP Inundation Depth Mapping
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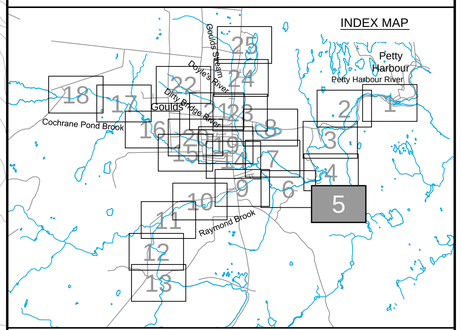

Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 5 of 25

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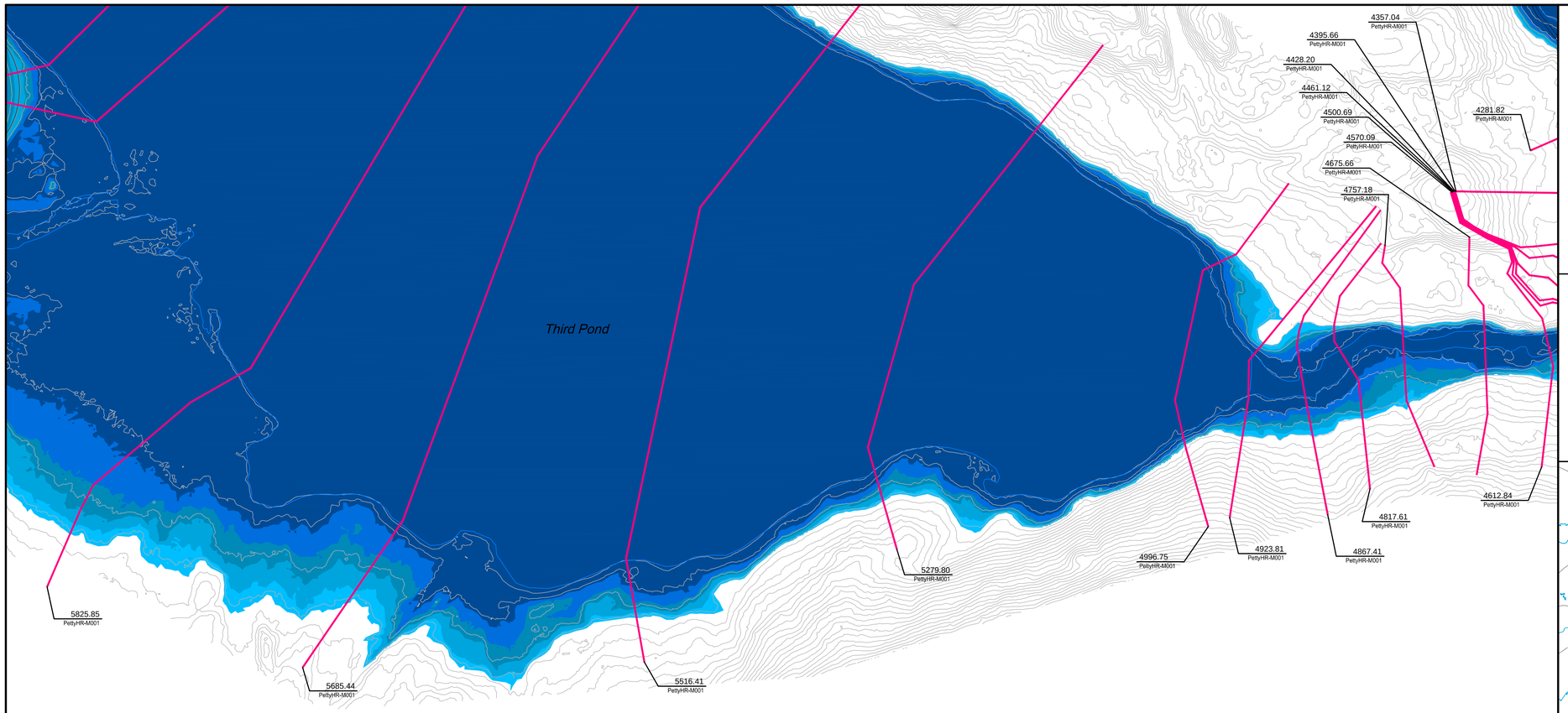
Mar 25/13 – richard.bartolo



Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

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Petty Harbour Rivers,
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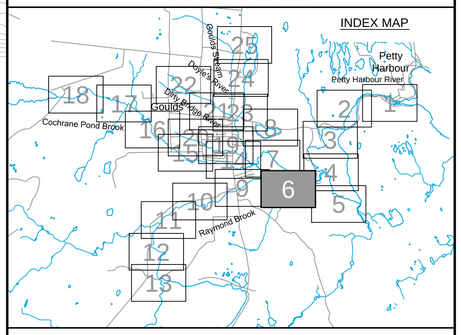
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
Metres

300 0 300 600 900 Feet
Feet

CONTOUR INTERVAL: 1.0 METRES

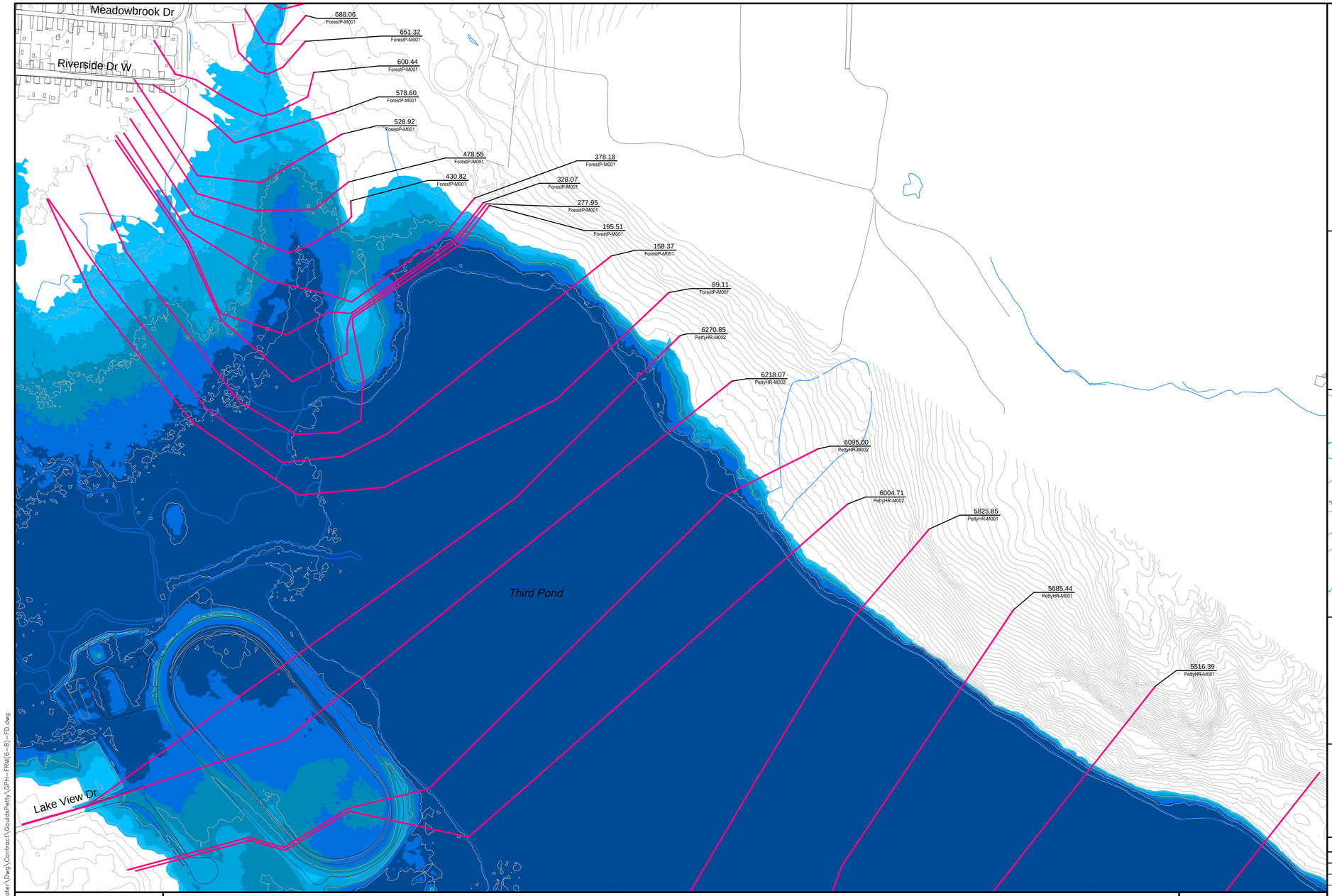
NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 6 of 25

P:\Work\TA11127235\Water\Dwg\Contract\GouldsPetty\GPH-FRM(6-8)-FD.dwg

Mar 25/13 – richard.bartolo



Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

Department of Environment and Conservation
Water Resource Management Division

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

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AMEC (Maximum IDF Relationship)

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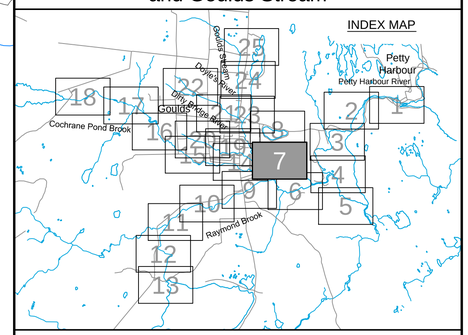
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 7 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(6-8)-FD.dwg

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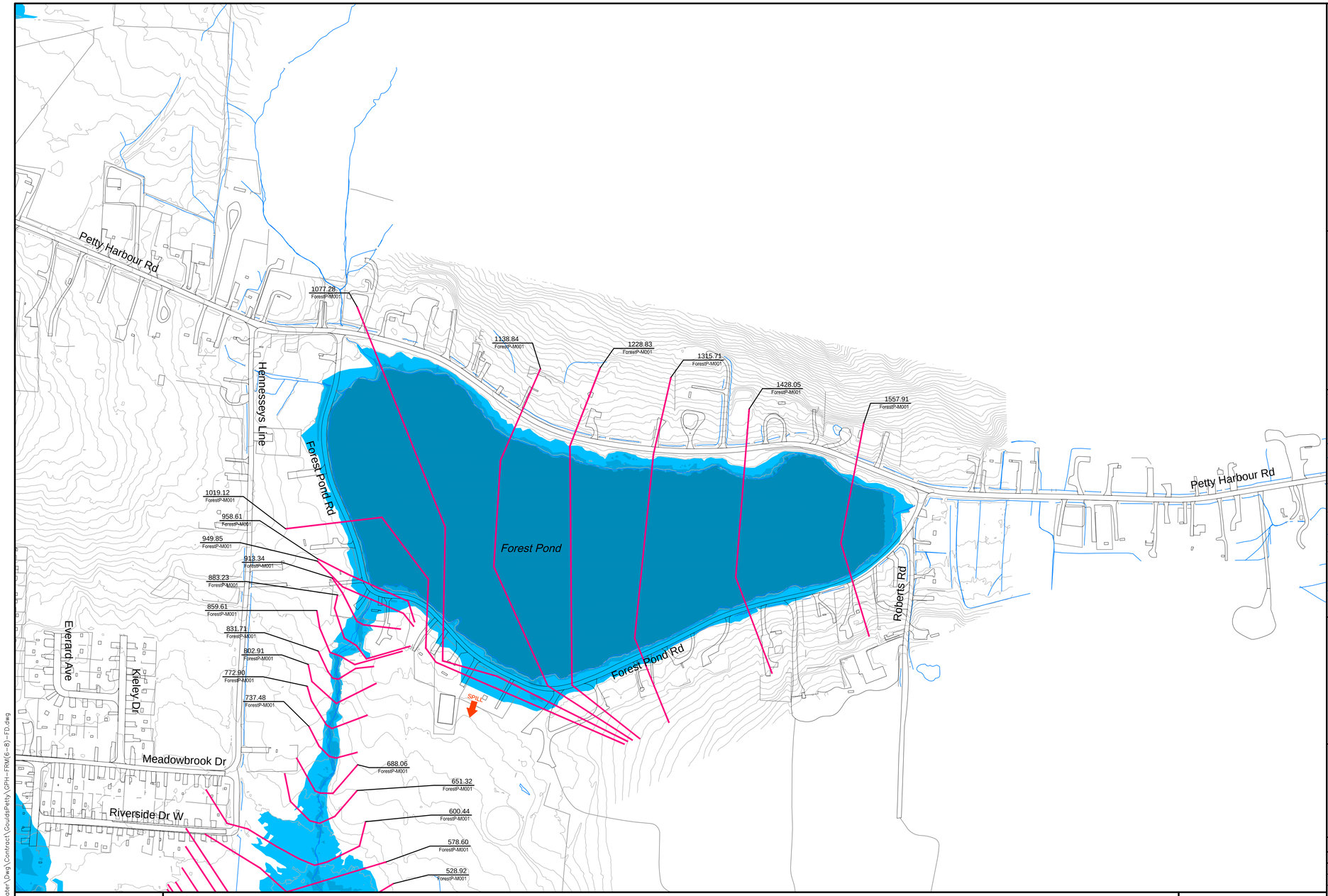

Department of Environment and Conservation
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Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

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and Goulds Stream

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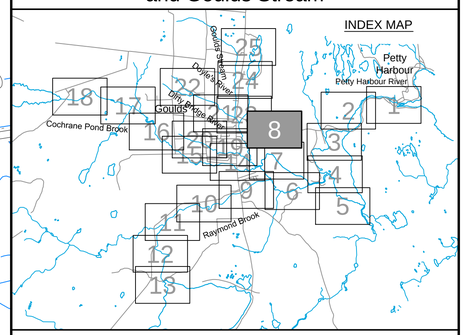

Cross Section Label

1050.0 Doyles8-TR017
- Cross Section Number
- Reach Identification
- Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

Sheet 8 of 25

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(6-8)-FD.dwg

Mar 25/13 – richard.bartolo

Third Pond

Lake View Dr

Main Rd

Shoal Bay Rd

Alexis Pl

816.68 RaymondB-M001
841.89 RaymondB-M001
892.34 RaymondB-M001
866.25 RaymondB-M001
916.70 RaymondB-M001
942.15 RaymondB-M001
976.73 RaymondB-M001
1116.25 RaymondB-M001
999.99 RaymondB-M001
1148.70 RaymondB-M001
1166.20 RaymondB-M001
1189.75 RaymondB-M001
1216.25 RaymondB-M001
1252.39 RaymondB-M001
1066.09 RaymondB-M001
1035.68 RaymondB-M001
1303.54 RaymondB-M001
1323.54 RaymondB-M001
1372.05 RaymondB-M001
1425.99 RaymondB-M001
1477.96 RaymondB-M001
716.25 RaymondB-M001
615.86 RaymondB-M001
565.77 RaymondB-M001
766.25 RaymondB-M001
520.15 RaymondB-M001
675.00 RaymondB-M001
468.54 RaymondB-M001
429.18 RaymondB-M001
366.25 RaymondB-M001
341.79 RaymondB-M001
5825.85 PettyHR-M001
1536.01 RaymondB-M001
1584.49 RaymondB-M001
1630.92 RaymondB-M001
1682.15 RaymondB-M001
1733.38 RaymondB-M001
1784.61 RaymondB-M001
1835.84 RaymondB-M001
1885.73 RaymondB-M001
1950.22 RaymondB-M001
1989.18 RaymondB-M001

Department of Environment and Conservation
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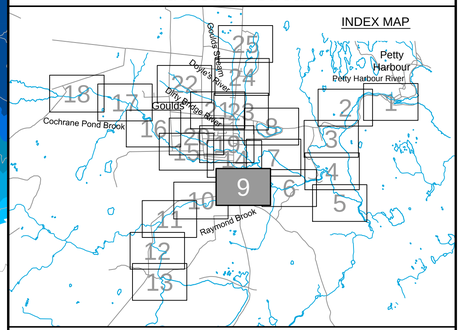
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
- Cross Section Number
- Reach Identification
- Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

Sheet 9 of 25

MTMNAD83
ZONE 1

Scale 1:2500

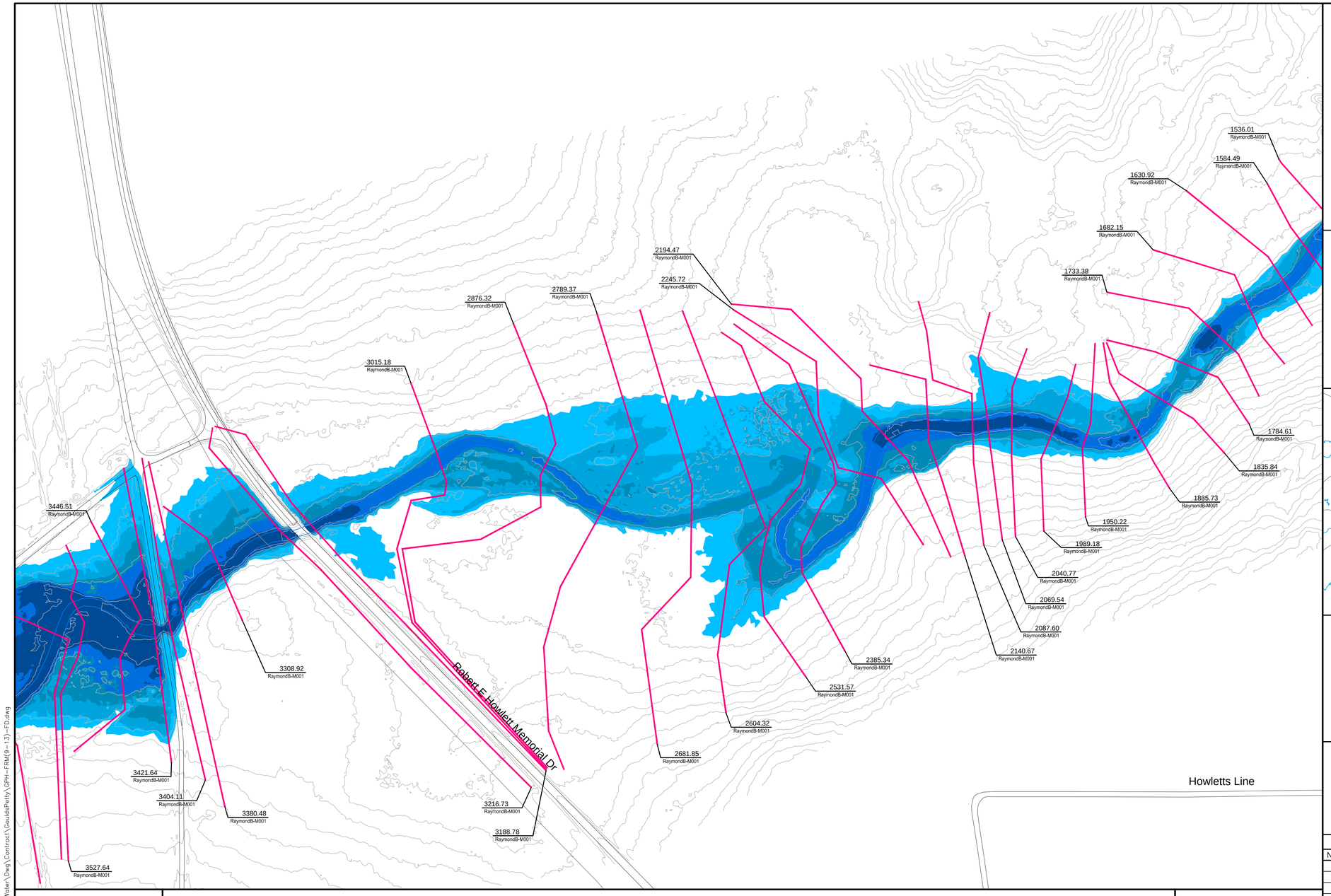
Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

P:\Work\TA11112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(9-13)-FD.dwg

Mar 25/13 - richard.bartolo



MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(9-13)-FD.dwg

Newfoundland Labrador

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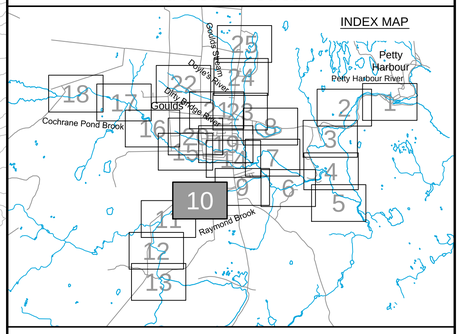
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

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Mar 25/13 – richard.bartolo

Newfoundland Labrador

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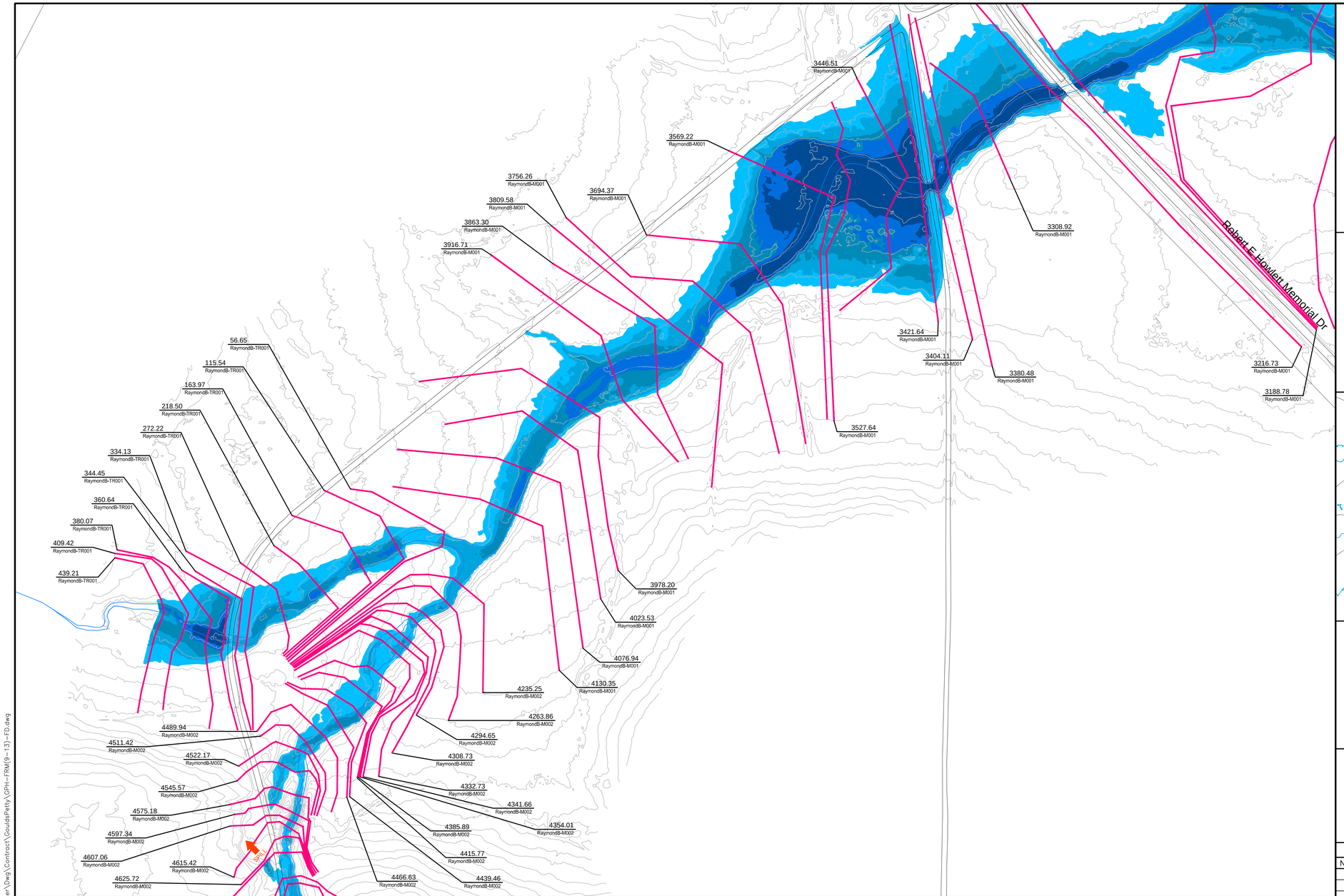
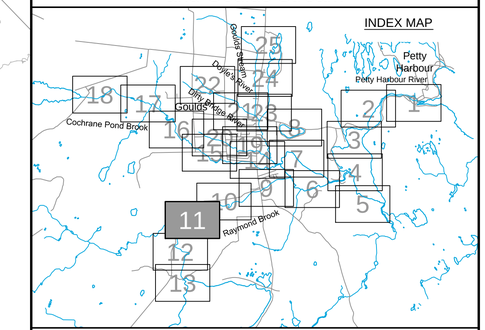


INDEX MAP



Cross Section Label

1050.0
DoylesB-TR017

Cross Section Number
Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

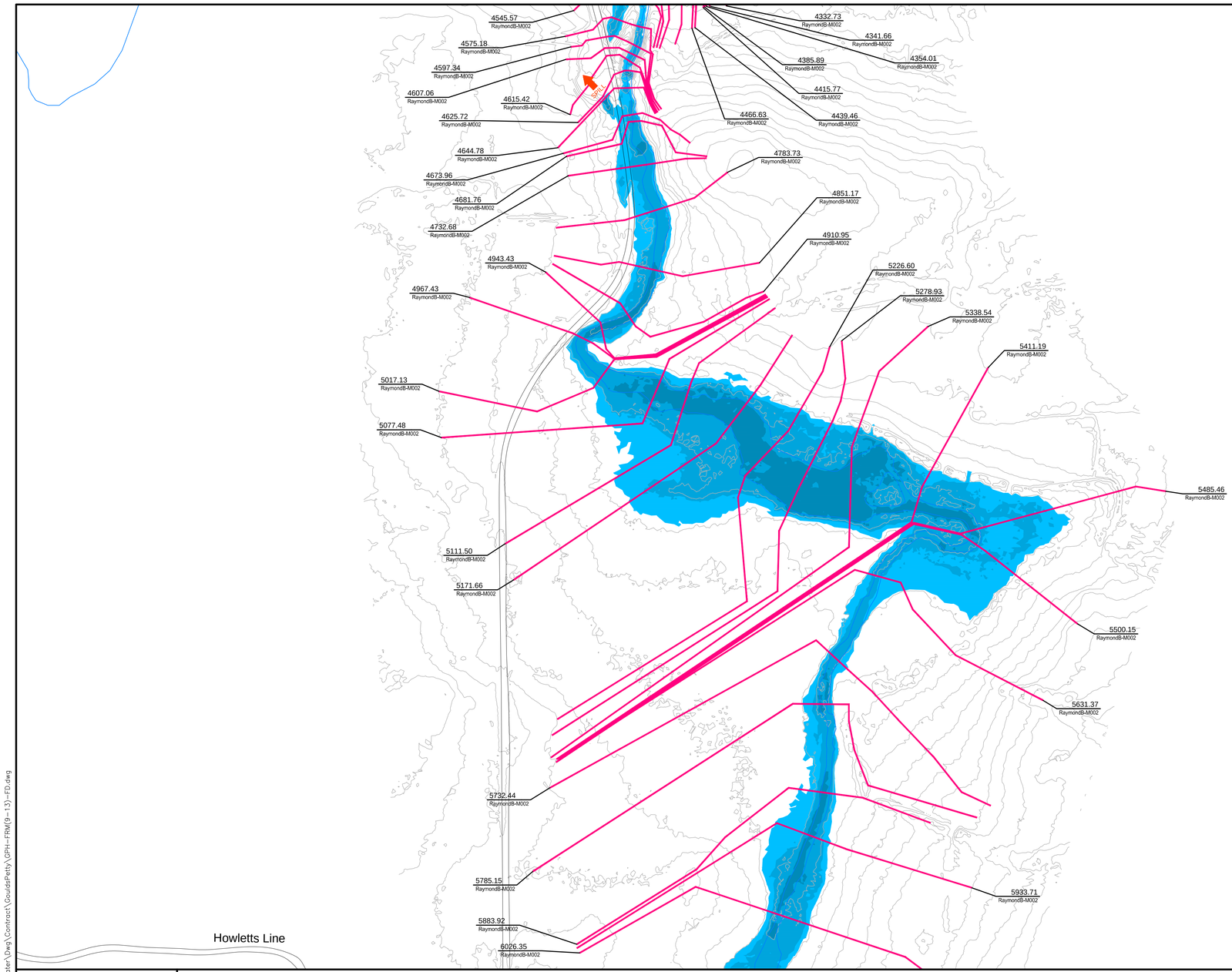
NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 11 of 25

P:\Work\TA11127335\Water\Dwg\Contract\GouldsPetty\GPH-FRM(9-13)-FD.dwg

Mar 25/13 – richard.bartolo



MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

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and Goulds Stream

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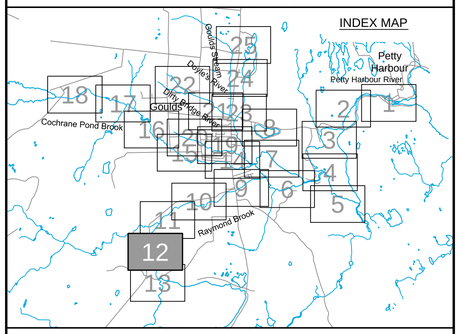

Cross Section Label

1050.0 DoylesR-TR017
- Cross Section Number
- Reach Identification
- Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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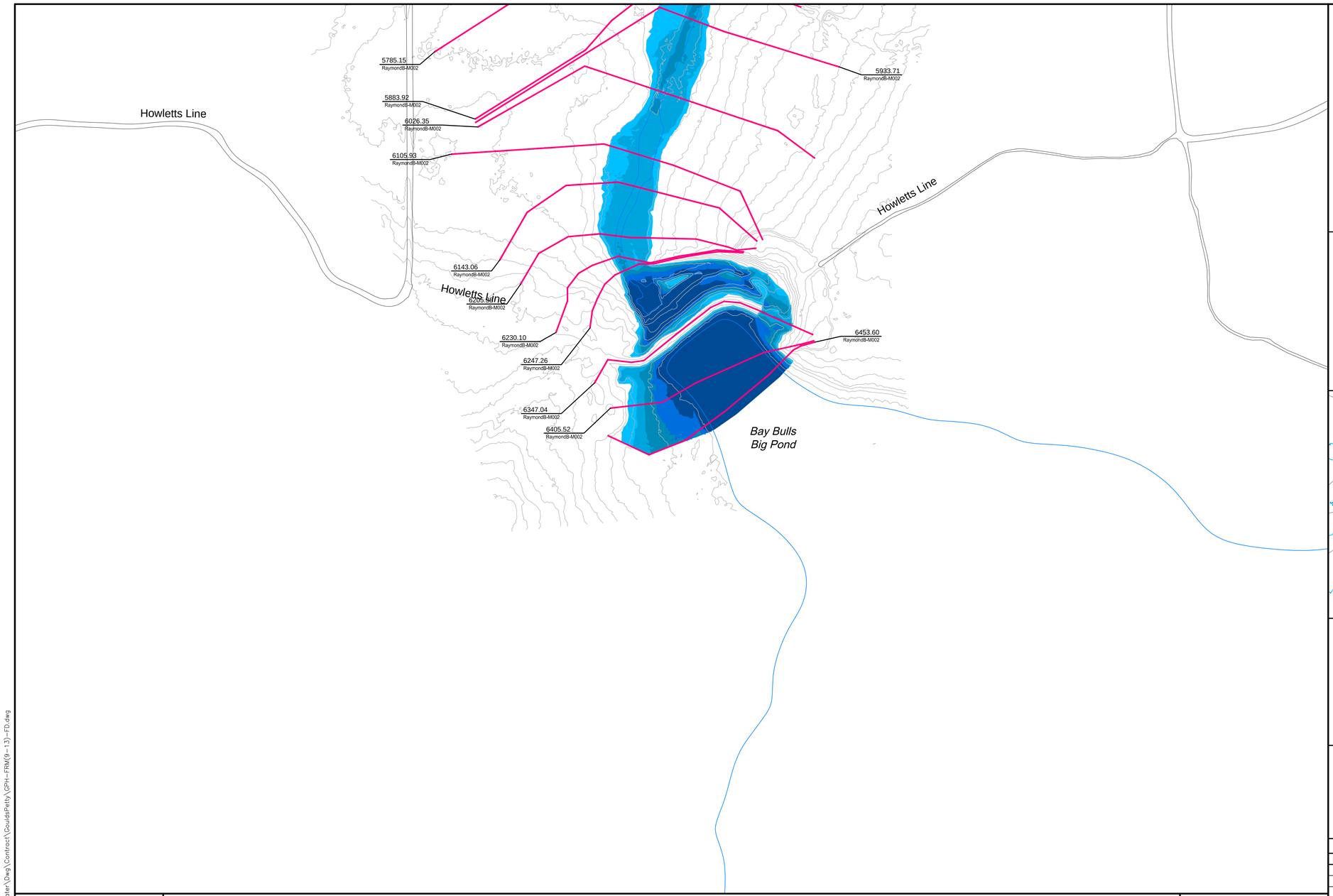
REVISIONS

No.	Description	BY	DATE

Sheet 12 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(9-13)-FD.dwg

Mar 25/13 - richard.bartolo



Newfoundland Labrador

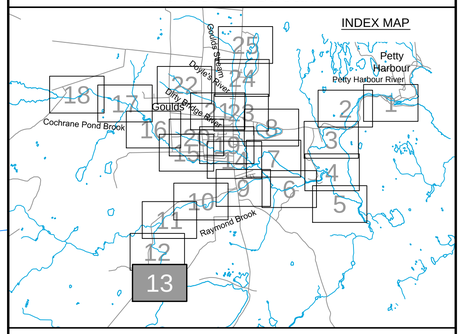
Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2080
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream



Cross Section Label

1050.0 DoylesR-TR017
- Cross Section Number
- Reach Identification
- Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 13 of 25

P:\Work\TA11127735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(9-13)-FD.dwg

Mar 25/13 – richard.bartolo

Soper Cres
Martin St
Cleary Dr
McConnell Pl
Sunset St
Hannaford Pl
Beaver Brook Dr
Heffernans Line
Mountainview Dr
Ryans River Rd
Ryans Pl
Fleming Pl
Riverside Dr W
Main Rd
Lake View Dr
Third Pond

1990.76 CochranePB-M002
1945.20 CochranePB-M002
1916.67 CochranePB-M002
1871.48 CochranePB-M002
1836.03 CochranePB-M002
1788.63 CochranePB-M002
1768.08 CochranePB-M002
1733.19 CochranePB-M002
2103.01 CochranePB-M002
2046.85 CochranePB-M002
2014.35 CochranePB-M002
1640.51 CochranePB-M002
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1495.27 CochranePB-M002
1510.83 CochranePB-M002
1458.62 CochranePB-M002
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1585.52 CochranePB-M002
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1217.75 CochranePB-M002
1200.39 CochranePB-M002
1185.68 CochranePB-M002
1164.32 CochranePB-M002
1132.60 CochranePB-M002
1111.68 CochranePB-M002
1059.95 CochranePB-M002
998.99 CochranePB-M002
955.54 CochranePB-M002
851.16 CochranePB-M002
798.06 CochranePB-M002
746.77 CochranePB-M002
694.52 CochranePB-M002
669.16 CochranePB-M002
590.19 CochranePB-M002
539.85 CochranePB-M002
488.40 CochranePB-M002
313.14 CochranePB-M001
381.27 CochranePB-M001

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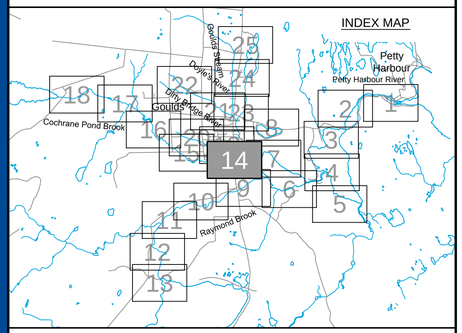

Cross Section Label

1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
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Sheet 14 of 25

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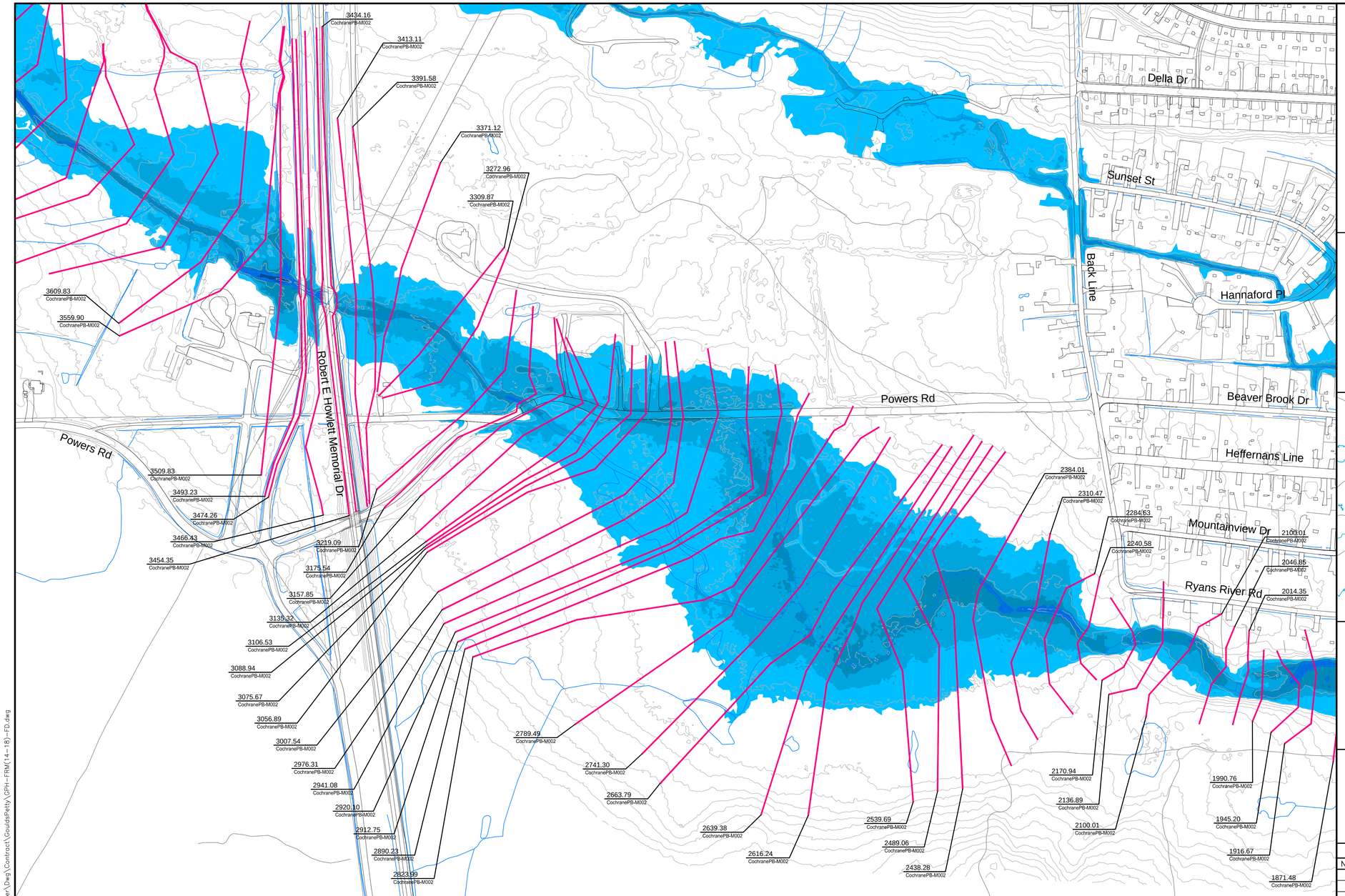

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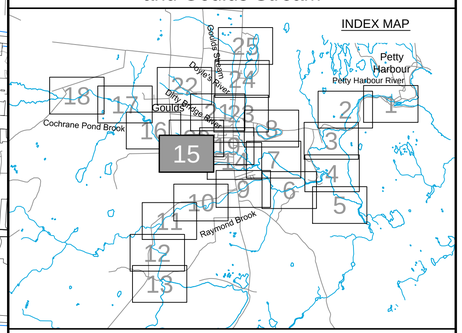

Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 15 of 25

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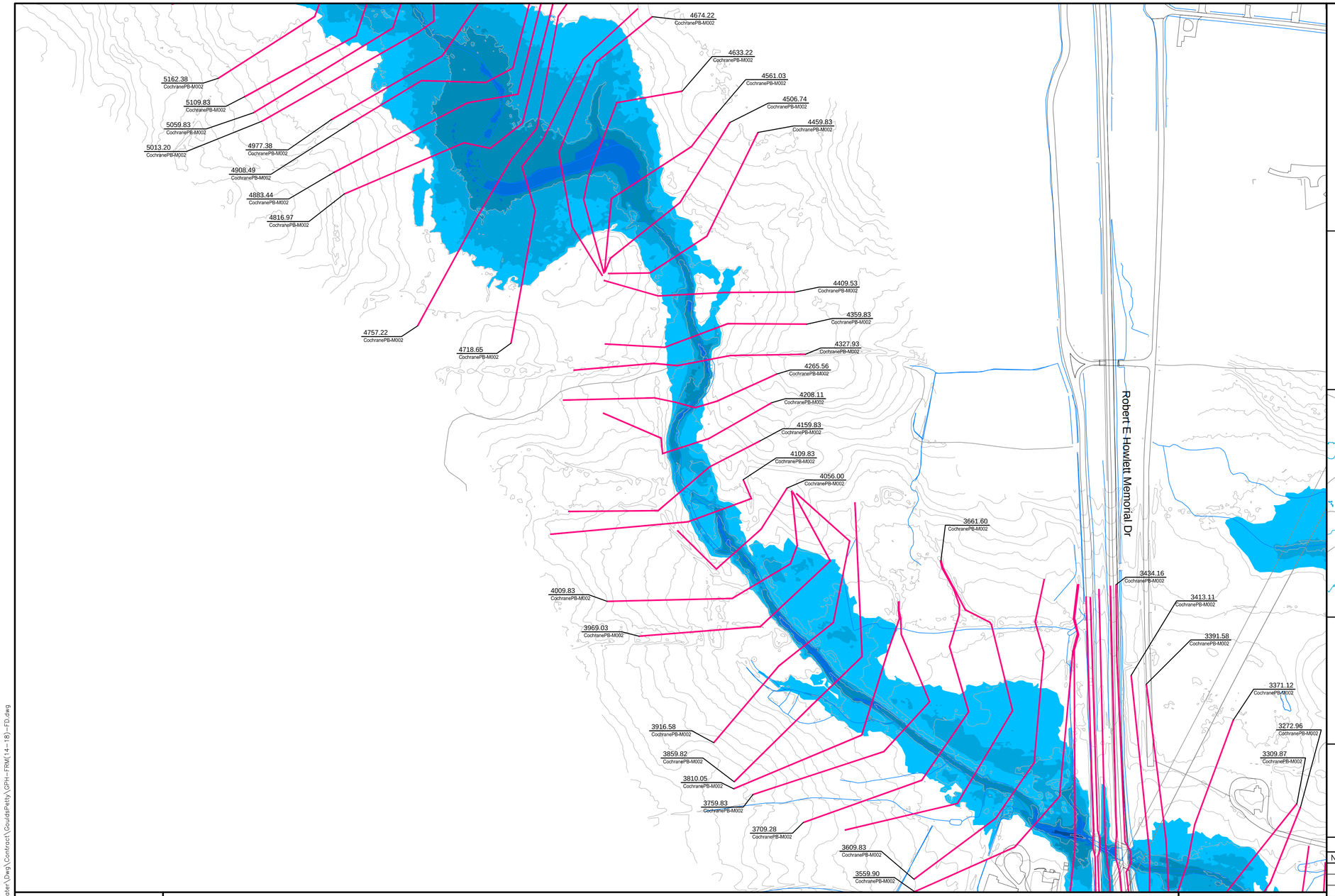
Mar 25/13 – richard.bartolo



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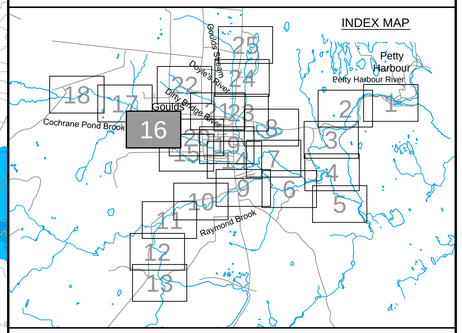

Cross Section Label

1050.0 — Cross Section Number
DoylesR-TR017 — Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
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amec

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REVISIONS

No.	Description	BY	DATE

Sheet 16 of 25

MTMNAD83
ZONE 1

Scale 1:2500

150 0 150 Metres
300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
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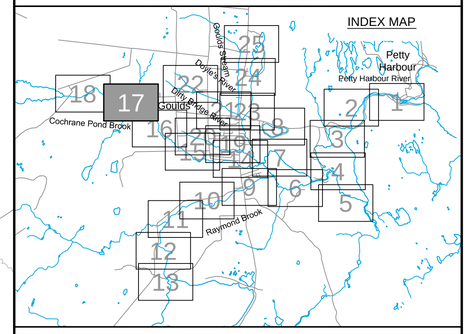

Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
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MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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Sheet 17 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(14-18)-FD.dwg

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Cochrane Pond Rd

6985.71 CochranePB-M002
7041.67 CochranePB-M002
7108.13 CochranePB-M002
6955.25 CochranePB-M002
6863.52 CochranePB-M002
7208.54 CochranePB-M002
7253.62 CochranePB-M002
7329.89 CochranePB-M002
6840.09 CochranePB-M002
6808.25 CochranePB-M002
6534.50 CochranePB-M002
6507.97 CochranePB-M002
6767.75 CochranePB-M002
6727.78 CochranePB-M002
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6651.54 CochranePB-M002
6630.83 CochranePB-M002
6364.18 CochranePB-M002
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6480.50 CochranePB-M002
7450.86 CochranePB-M002
7476.72 CochranePB-M002
7515.77 CochranePB-M002
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7738.34 CochranePB-M002
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8024.09 CochranePB-M002
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8004.70 CochranePB-M002
7995.14 CochranePB-M002

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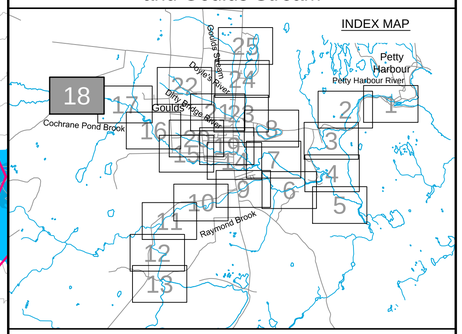

Cross Section Label

1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5 - 2.0m
- Greater than 2.0m

amec

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REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

N

Sheet 18 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(14-18)-FD.dwg

Mar 25/13 – richard.bartolo

Ridgemount St
Clearview St
Keith Dr
Gulliage St
North Dr
Della Dr
Sunset St
Sunset St
McConnell Pl
Soper Crescent
Martin St
Cleary Dr
Hannaford Pl
Beaver Brook Dr
Heffernans Line
Meadowbrook Park Rd
Bonnie Dr
Gray Dr
Main Rd
Fleming Pl
Everard Ave
Kieley Dr
Meadowbrook Dr
Riverside Dr W
Hennesseys Line
SPILL
SPILL

1506.66 DoylesR-TR013
1478.17 DoylesR-TR013
1411.61 DoylesR-TR013
1388.58 DoylesR-TR013
1373.88 DoylesR-TR013
1301.72 DoylesR-TR013
1246.99 DoylesR-TR013
1192.26 DoylesR-TR013
1137.53 DoylesR-TR013
1082.80 DoylesR-TR013
1064.90 DoylesR-TR013
1042.53 DoylesR-TR013
1022.06 DoylesR-TR013
867.93 DoylesR-TR013
809.27 DoylesR-TR013
756.07 DoylesR-TR013
543.29 DoylesR-TR013
489.08 DoylesR-TR013
383.70 DoylesA-TR013
344.87 DoylesR-TR013
324.16 DoylesR-TR013
256.30 DoylesR-TR013
256.50 DoylesR-TR013
969.32 DoylesR-TR013
915.66 DoylesR-TR013
702.82 DoylesR-TR013
651.60 DoylesR-TR013
588.74 DoylesR-TR013
436.90 DoylesR-TR013
383.75 DoylesA-TR013
162.98 DoylesR-TR013
133.14 DoylesR-TR013
66.14 DoylesR-TR013
1370.10 DoylesR-TR011
1316.51 DoylesR-TR011
1262.92 DoylesR-TR011
1209.33 DoylesR-TR011
1155.74 DoylesR-TR011
1107.39 DoylesR-TR011
1057.82 DoylesR-TR011
971.36 DoylesR-TR011
816.76 DoylesR-TR011
760.16 DoylesR-TR011
712.26 DoylesR-TR011
663.11 DoylesR-TR011
949.62 DoylesR-TR011
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872.05 DoylesR-TR011
484.12 DoylesA-M001
429.44 DoylesR-M001
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344.78 DoylesR-M001
216.64 DoylesR-M001
77.13 DoylesR-M001

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AMEC (Maximum IDF Relationship)

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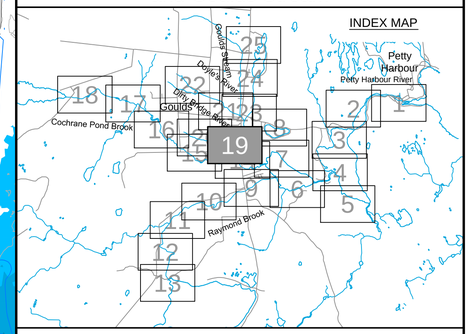

Cross Section Label

1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
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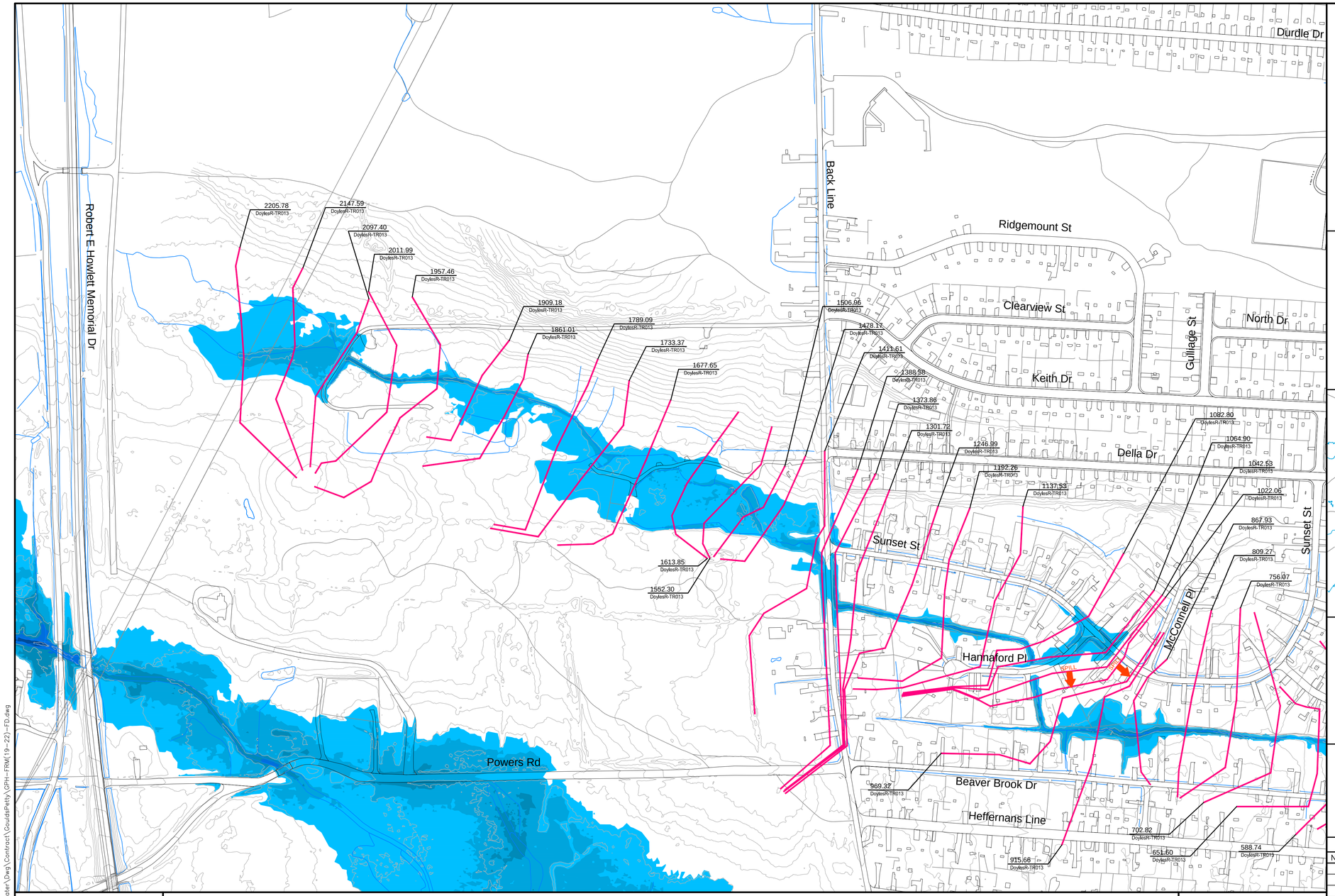
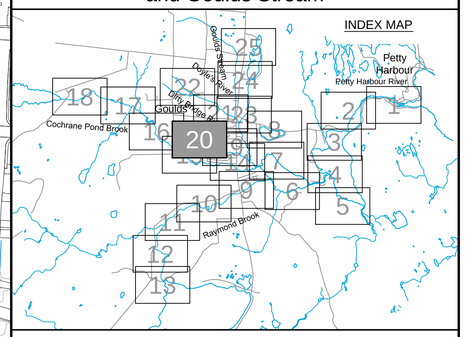
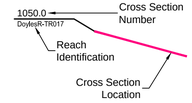


INDEX MAP



Cross Section Label



1:100 AEP Inundation Depth

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ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
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N

Sheet 20 of 25

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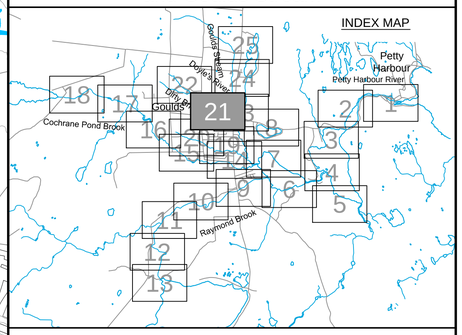

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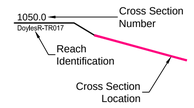

1:100 AEP Inundation Depth

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REVISIONS

No.	Description	BY	DATE

Sheet 21of 25

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
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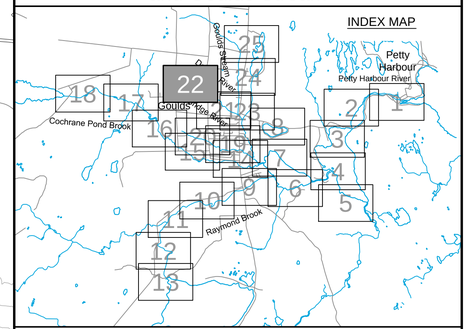

Cross Section Label

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1:100 AEP Inundation Depth

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REVISIONS

No.	Description	BY	DATE

Sheet 22 of 25

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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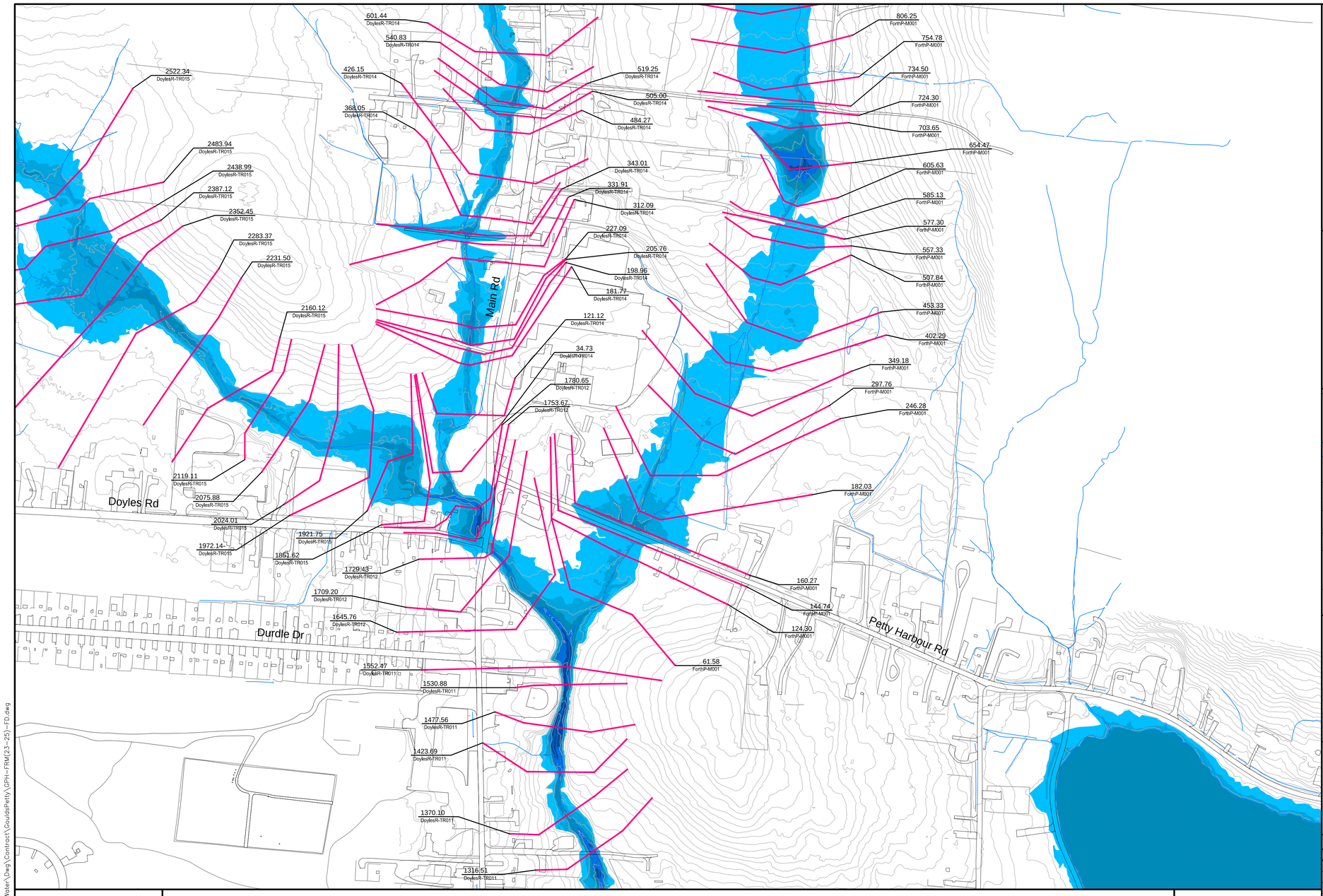

MTMNAD83
ZONE 1

Scale 1:2500

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Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

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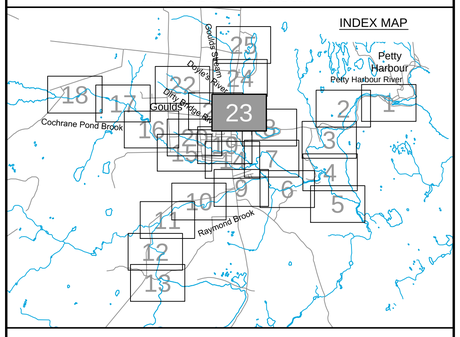
Goulds\Petty Harbour

Climate Change Scenario - 2080
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

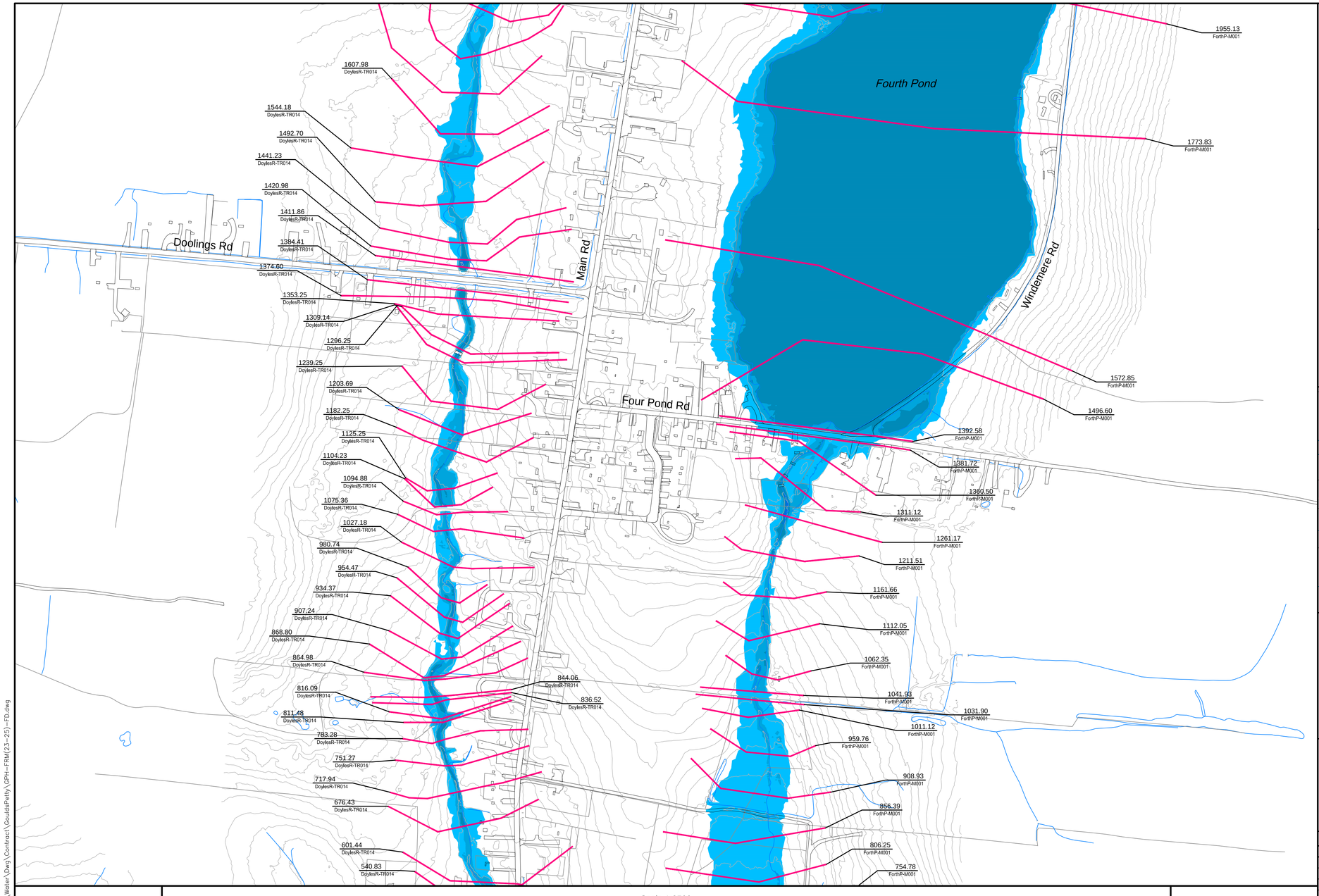
REVISIONS

No.	Description	BY	DATE

Sheet 23 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(23-25)-FD.dwg

Mar 25/13 – richard.bartolo



Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

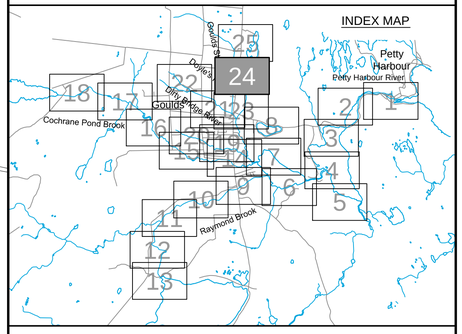
Department of Environment and Conservation
Water Resource Management Division

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2080
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

INDEX MAP



Cross Section Label

1050.0 DoylesR-TR017
Cross Section Number
Reach Identification
Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

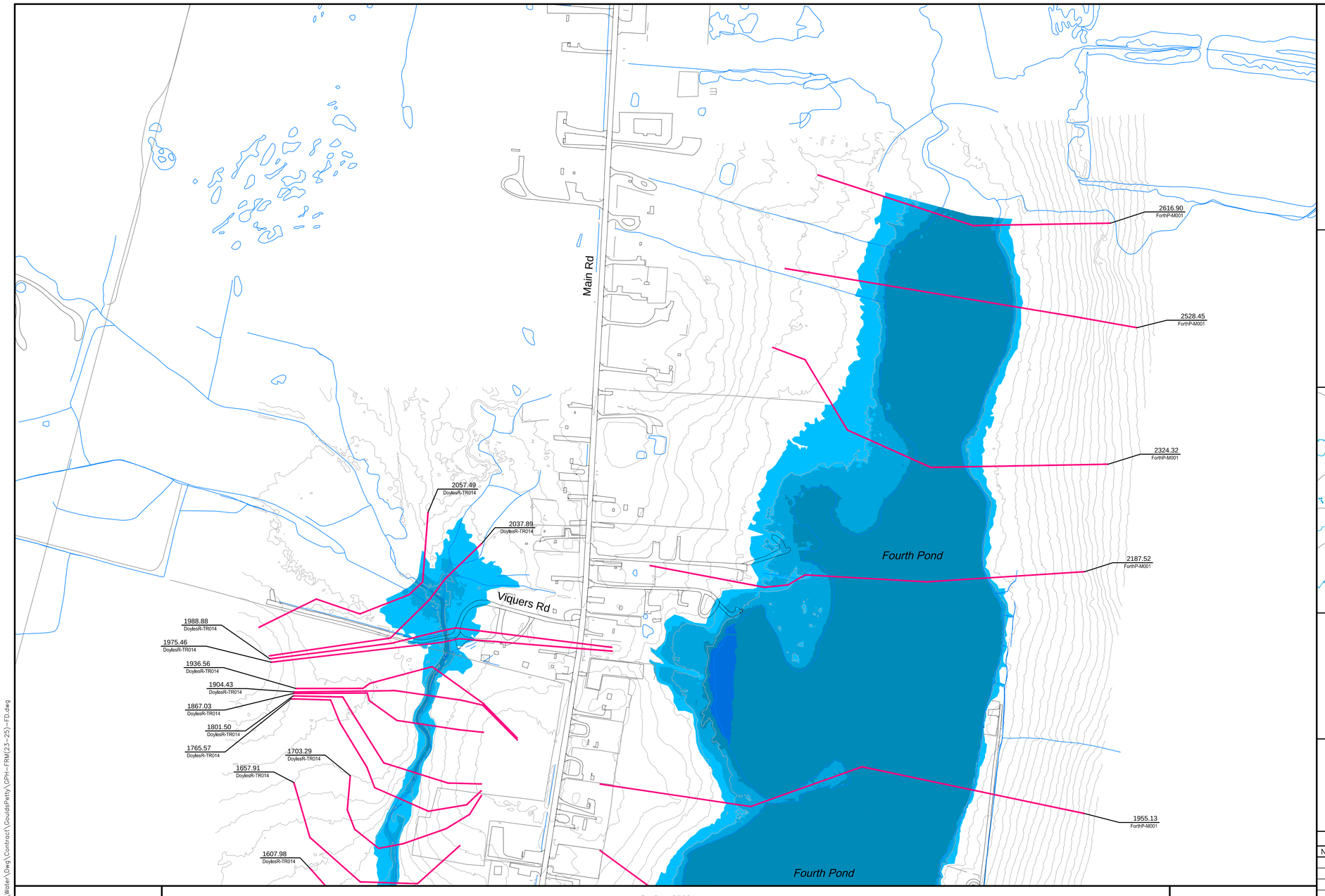
CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 24 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(23-25)-FD.dwg

Mar 25/13 – richard.bartolo



Newfoundland Labrador

Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

1:100 AEP Inundation Depth Mapping
Goulds\Petty Harbour

Climate Change Scenario - 2080
AMEC (Maximum IDF Relationship)

Doyles, Dirty Bridge and
Petty Harbour Rivers,
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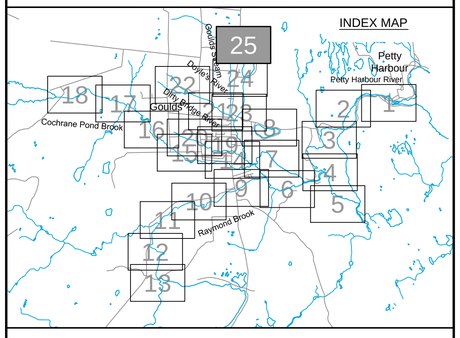
INDEX MAP



Cross Section Label

1050.0
DoylesR-TR017

Cross Section Number

Reach Identification

Cross Section Location

1:100 AEP Inundation Depth

- 0.0m - 0.5m
- 0.5m - 1.0m
- 1.0m - 1.5m
- 1.5m - 2.0m
- Greater than 2.0m

amec

Please note that the Professional Engineer's stamp verifies the flood line and associated data, not the map unless otherwise noted.

REVISIONS

No.	Description	BY	DATE

MTMNAD83
ZONE 1

Scale 1:2500

Metres 150 0 150 Metres
Feet 300 0 300 600 900 Feet

CONTOUR INTERVAL: 1.0 METRES

NOTE:
Flood depths in ponds and lakes represent depth over the water surface elevation in the facilities at the time of LiDAR data capture.

Sheet 25 of 25

P:\Work\TA1112735\Water\Dwg\Contract\GouldsPetty\GPH-FRM(23-25)-FD.dwg

Mar 25/13 – richard.bartolo

APPENDIX I

TECHNICAL METHODS SUMMARY

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STATISTICAL ANALYSIS – DATA SCREENING SUMMARIES

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02ZM001 Petty Harbour at Second Pond

Screen captures from CFA_3 processing …

--- SPEARMAN TEST FOR INDEPENDENCE ---

02ZM001 Petty Harbour at Second Pond
ANNUAL MAXIMUM DAILY FLOW SERIES 1962 TO 2009 DRAINAGE AREA = 127.0000

SPEARMAN RANK ORDER SERIAL CORRELATION COEFF = -.225 D.F.= 45
CORRESPONDS TO STUDENTS T =-1.547
CRITICAL T VALUE AT 5% LEVEL = 1.681 NOT SIGNIFICANT
- - - - 1% - = 2.415 NOT SIGNIFICANT

Interpretation: The null hypothesis is that the correlation is zero.

At the 5% level of significance, the correlation is not significantly different from zero. That is, the data do not display significant serial dependence.

Press <RETURN> to continue , <CTRL> P to obtain hard copy

--- SPEARMAN TEST FOR TREND ---

02ZM001 Petty Harbour at Second Pond
ANNUAL MAXIMUM DAILY FLOW SERIES 1962 TO 2009 DRAINAGE AREA = 127.0000

SPEARMAN RANK ORDER CORRELATION COEFF = -.072 D.F.= 46
CORRESPONDS TO STUDENTS T = -.489
CRITICAL T VALUE AT 5% LEVEL =-2.015 NOT SIGNIFICANT
- - - - 1% - =-2.691 NOT SIGNIFICANT

Interpretation: The null hypothesis is that the serial(lag-one) correlation is zero.

At the 5% level of significance, the correlation is not significantly different from zero. That is, the data do not display significant trend.

Press <RETURN> to continue , <CTRL> P to obtain hard copy

--- RUN TEST FOR GENERAL RANDOMNESS ---

02ZM001 Petty Harbour at Second Pond
ANNUAL MAXIMUM DAILY FLOW SERIES 1962 TO 2009 DRAINAGE AREA = 127.0000

THE NUMBER OF RUNS ABOVE AND BELOW THE MEDIAN (RUNAB) = 31
THE NUMBER OF OBSERVATIONS ABOVE THE MEDIAN(N1) = 24
THE NUMBER OF OBSERVATIONS BELOW THE MEDIAN(N2) = 24

(NOTE: Z IS THE STANDARD NORMAL VARIATE.)

For this test, Z = 1.751
Critical Z value at the 5% level = 1.960 NOT SIGNIFICANT

Interpretation: The null hypothesis is that the data are random.

At the 5% level of significance, the null hypothesis cannot be rejected. That is, the sample is significantly random.

Press <RETURN> to continue , <CTRL> P to obtain hard copy

--- MANN-WHITNEY SPLIT SAMPLE TEST FOR HOMOGENEITY ---

02ZM001 Petty Harbour at Second Pond
ANNUAL MAXIMUM FLOW SERIES 1962 TO 2009 DRAINAGE AREA= 127.0000

Data sample split by : time spans

You have chosen to test the homogeneity of two samples
defined by time. Each sample must contain a minimum
of 5 observations.

Enter the first time span (1913 to 1943 would be 1913,1943) : 1962,1985

Is the second time span the remainder of the sample? [Y/N] : Y

--- MANN-WHITNEY SPLIT SAMPLE TEST FOR HOMOGENEITY ---

02ZM001 Petty Harbour at Second Pond
ANNUAL MAXIMUM FLOW SERIES 1962 TO 2009 DRAINAGE AREA= 127.0000

SPLIT BY TIME SPAN, SUBSAMPLE 1 SAMPLE SIZE= 24
SUBSAMPLE 2 SAMPLE SIZE= 24

(NOTE: Z IS THE STANDARD NORMAL VARIATE.)
For this test, Z = -.052
CRITICAL Z VALUE AT 5% SIGNIFICANT LEVEL = -1.645 NOT SIGNIFICANT
- - - - 1% - - = -2.326 NOT SIGNIFICANT

Interpretation: The null hypothesis is that there is no
location difference between the two samples.

At the 5% level of significance, there is no significant
location difference between the two samples. That is, they
appear to be from the same population.

Press <RETURN> to continue , <CTRL> P to obtain hard copy

*** FREQUENCY ANALYSIS PROGRAM ***
--- SAMPLE STATISTICS ---

WSC STATION NO.=02ZM001
WSC STATION NAME=Petty Harbour at Second Pond
DRAINAGE AREA= 127.00
NUMBER OF OBSERVATIONS= 48

	X series	lnX series
MEAN	40.895	3.5926
S.D.	18.793	.5503
C.V.	.4596	.1532
C.S.	1.2637	-1.7663
C.K.	7.1820	9.9765

You should always check :
> that the data are accurate
> for historic information
> that the data and historic information are up to date

Press <RETURN> to continue

*** FREQUENCY ANALYSIS PROGRAM ***

WSC STATION NO = 02ZM001
WSC STATION NAME = Petty Harbour at Second Pond

NUMBER OF OBSERVATIONS = 48

C.S. of lnX series = -1.7663
LOWER OUTLIER LIMIT of X = 7.990
UPPER OUTLIER LIMIT of X = 123.590
NOTE: 1 LOW OUTLIER(S) DETECTED.
0 HIGH OUTLIER(S) DETECTED.

Do you want to alter the number of low outliers? : N

FREQUENCY ANALYSIS - THREE-PARAMETER LOGNORMAL DISTRIBUTION
02ZM001 Petty Harbour at Second Pond

SAMPLE STATISTICS

	MEAN	S.D.	C.V	C.S.	C.K.
X SERIES	40.895	18.793	.460	1.264	7.182
LN X SERIES	3.593	.550	.153	-1.766	9.977

X(MIN)= 3.340 TOTAL SAMPLE SIZE= 48
X(MAX)= 115.000 NO. OF LOW OUTLIERS= 1
LOWER OUTLIER LIMIT OF X= 7.990 NO. OF ZERO FLOWS= 0

AFTER REMOVAL OF ZEROES AND/OR LOW OUTLIERS

	MEAN	S.D.	C.V.	C.S.	C.K.
X SERIES	41.694	18.154	.435	1.497	7.697
LN X SERIES	3.643	.428	.117	-.276	4.041
LN(X-A) SERIES	3.891	.332	.085	.081	3.871

Press <RETURN> to continue , <CTRL> P to obtain hard copy

SOLUTION OBTAINED VIA MAXIMUM LIKELIHOOD
PARAMETERS OF THE 3LN WHICH DUPLICATES THE CONDITIONAL FUNCTION:
A= -9.998 M= 3.880 S= .338

FLOOD FREQUENCY REGIME

RETURN PERIOD	EXCEEDANCE PROBABILITY	FLOOD
1.003	.997	9.15
1.050	.952	17.6
1.250	.800	26.5
2.000	.500	38.4
5.000	.200	54.4
10.000	.100	64.7
20.000	.050	74.4
50.000	.020	86.9
100.000	.010	96.3
200.000	.005	106
500.000	.002	118

Press <RETURN> to continue , <CTRL> P to obtain hard copy

Low outlier removed from time series

*** FREQUENCY ANALYSIS PROGRAM ***
--- SAMPLE STATISTICS ---

WSC STATION NO.=02ZM001
WSC STATION NAME=Petty Harbour at Second Pond
DRAINAGE AREA= 127.00
NUMBER OF OBSERVATIONS= 47

	X series	lnX series
MEAN	41.694	3.6434
S.D.	18.154	.4277
C.V.	.4354	.1174
C.S.	1.4968	-.2760
C.K.	7.6974	4.0405

You should always check :
> that the data are accurate
> for historic information
> that the data and historic information are up to date

Press <RETURN> to continue

*** FREQUENCY ANALYSIS PROGRAM ***

WSC STATION NO = 02ZM001
WSC STATION NAME = Petty Harbour at Second Pond

NUMBER OF OBSERVATIONS = 47

C.S. of lnX series = -.2760
LOWER OUTLIER LIMIT of X = 11.819
UPPER OUTLIER LIMIT of X = 123.590
NOTE: 0 LOW OUTLIER(S) DETECTED.
0 HIGH OUTLIER(S) DETECTED.

Do you want to alter the number of low outliers? : N

FREQUENCY ANALYSIS - THREE-PARAMETER LOGNORMAL DISTRIBUTION

02ZM001 Petty Harbour at Second Pond

SAMPLE STATISTICS

	MEAN	S.D.	C.V	C.S.	C.K.
X SERIES	41.694	18.154	.435	1.497	7.697
LN X SERIES	3.643	.428	.117	-.276	4.041
LN(X-A) SERIES	3.862	.341	.088	.047	3.867

X(MIN)= 12.200 TOTAL SAMPLE SIZE= 47
X(MAX)= 115.000 NO. OF LOW OUTLIERS= 0
LOWER OUTLIER LIMIT OF X= 11.819 NO. OF ZERO FLOWS= 0

Press <RETURN> to continue , <CTRL> P to obtain hard copy

SOLUTION OBTAINED VIA MAXIMUM LIKELIHOOD
3LN PARAMETERS: A= -8.708 M= 3.862 S= .341

FLOOD FREQUENCY REGIME

RETURN PERIOD	EXCEEDANCE PROBABILITY	FLOOD
1.003	.997	9.92
1.050	.952	18.2
1.250	.800	27.0
2.000	.500	38.9
5.000	.200	54.7
10.000	.100	65.0
20.000	.050	74.7
50.000	.020	87.2
100.000	.010	96.6
200.000	.005	106
500.000	.002	118

Press <RETURN> to continue , <CTRL> P to obtain hard copy

02ZM022 Raymond Brook at outlet of Bay Bulls Big Pond

--- SPEARMAN TEST FOR INDEPENDENCE ---

02ZM022 Raymond Brook at outlet of Bay Bulls Big Pond
ANNUAL MAXIMUM DAILY FLOW SERIES 1988 TO 2010 DRAINAGE AREA = 38.00000

SPEARMAN RANK ORDER SERIAL CORRELATION COEFF = .602 D.F.= 17
CORRESPONDS TO STUDENTS T = 3.106
CRITICAL T VALUE AT 5% LEVEL = 1.740 SIGNIFICANT
- - - - 1% - = 2.567 SIGNIFICANT

Interpretation: The null hypothesis is that the correlation is zero.

At the 1% level of significance, the correlation is significantly different from zero. That is, the data display highly significant serial dependence.

Press <RETURN> to continue , <CTRL> P to obtain hard copy

--- SPEARMAN TEST FOR TREND ---

02ZM022 Raymond Brook at outlet of Bay Bulls Big Pond
ANNUAL MAXIMUM DAILY FLOW SERIES 1988 TO 2010 DRAINAGE AREA = 38.00000

SPEARMAN RANK ORDER CORRELATION COEFF = -.658 D.F.= 19
CORRESPONDS TO STUDENTS T =-3.813
CRITICAL T VALUE AT 5% LEVEL =-2.093 SIGNIFICANT
- - - - 1% - =-2.861 SIGNIFICANT

Interpretation: The null hypothesis is that the serial(lag-one) correlation is zero.

At the 1% level of significance, the correlation is significantly different from zero. That is, the data display highly significant trend.

Press <RETURN> to continue , <CTRL> P to obtain hard copy

--- RUN TEST FOR GENERAL RANDOMNESS ---

02ZM022 Raymond Brook at outlet of Bay Bulls Big Pond
ANNUAL MAXIMUM DAILY FLOW SERIES 1988 TO 2010 DRAINAGE AREA = 38.00000

THE NUMBER OF RUNS ABOVE AND BELOW THE MEDIAN (RUNAB) = 6
THE NUMBER OF OBSERVATIONS ABOVE THE MEDIAN(N1) = 10
THE NUMBER OF OBSERVATIONS BELOW THE MEDIAN(N2) = 10
Range at 5% level of significance: 7. to 15. SIGNIFICANT

Interpretation: The null hypothesis is that the data are random.

At the 5% level of significance, the null hypothesis can be rejected.
That is, the sample is not significantly random.

Press <RETURN> to continue , <CTRL> P to obtain hard copy

--- MANN-WHITNEY SPLIT SAMPLE TEST FOR HOMOGENEITY ---

02ZM022 Raymond Brook at outlet of Bay Bulls Big Pond
ANNUAL MAXIMUM FLOW SERIES 1988 TO 2010 DRAINAGE AREA= 38.00000

Data sample split by : time spans

You have chosen to test the homogeneity of two samples
defined by time. Each sample must contain a minimum
of 5 observations.

Enter the first time span (1913 to 1943 would be 1913,1943) : 1988,1997

Is the second time span the remainder of the sample? [Y/N] : Y

--- MANN-WHITNEY SPLIT SAMPLE TEST FOR HOMOGENEITY ---

02ZM022 Raymond Brook at outlet of Bay Bulls Big Pond
ANNUAL MAXIMUM FLOW SERIES 1988 TO 2010 DRAINAGE AREA= 38.00000

SPLIT BY TIME SPAN, SUBSAMPLE 1 SAMPLE SIZE= 10
SUBSAMPLE 2 SAMPLE SIZE= 11

MANN-WHITNEY U = 14.0
CRITICAL U VALUE AT 5% SIGNIFICANT LEVEL = 31.0 SIGNIFICANT
- - - - - 1% - - = 22.0 SIGNIFICANT

Interpretation: The null hypothesis is that there is no
location difference between the two samples.

At the 1% level of significance, the hypothesis of no location
difference between the samples is rejected.

Press <RETURN> to continue , <CTRL> P to obtain hard copy

*** FREQUENCY ANALYSIS PROGRAM ***
--- SAMPLE STATISTICS ---

WSC STATION NO.=02ZM022
WSC STATION NAME=Raymond Brook at outlet of Bay Bulls Big Pond
DRAINAGE AREA= 38.00
NUMBER OF OBSERVATIONS= 21

	X series	lnX series
MEAN	7.431	1.9066
S.D.	2.982	.4914
C.V.	.4012	.2577
C.S.	-.1925	-.9268
C.K.	2.8658	3.3337

You should always check :
> that the data are accurate
> for historic information
> that the data and historic information are up to date

Press <RETURN> to continue

*** FREQUENCY ANALYSIS PROGRAM ***

WSC STATION NO = 02ZM022
WSC STATION NAME = Raymond Brook at outlet of Bay Bulls Big Pond

NUMBER OF OBSERVATIONS = 21

C.S. of lnX series = -.9268
LOWER OUTLIER LIMIT of X = 2.062
UPPER OUTLIER LIMIT of X = 21.962
NOTE: 0 LOW OUTLIER(S) DETECTED.
0 HIGH OUTLIER(S) DETECTED.

Do you want to alter the number of low outliers? : N

FREQUENCY ANALYSIS - THREE-PARAMETER LOGNORMAL DISTRIBUTION
02ZM022 Raymond Brook at outlet of Bay Bulls Big Pond

SAMPLE STATISTICS

	MEAN	S.D.	C.V	C.S.	C.K.
X SERIES	7.431	2.982	.401	-.193	2.866
LN X SERIES	1.907	.491	.258	-.927	3.334
LN(A-X) SERIES	3.313	.108	.033	-.025	3.002

X(MIN)= 2.340 TOTAL SAMPLE SIZE= 21
X(MAX)= 12.700 NO. OF LOW OUTLIERS= 0
LOWER OUTLIER LIMIT OF X= 2.062 NO. OF ZERO FLOWS= 0

Press <RETURN> to continue , <CTRL> P to obtain hard copy

SOLUTION OBTAINED VIA MAXIMUM LIKELIHOOD
DISTRIBUTION IS UPPER BOUNDED AT A= .3505E+02
3LN PARAMETERS: A= 35.048 M= 3.313 S= .108

FLOOD FREQUENCY REGIME

RETURN PERIOD	EXCEEDANCE PROBABILITY	FLOOD
1.003	.997	-
1.050	.952	2.16
1.250	.800	4.97
2.000	.500	7.58
5.000	.200	9.97
10.000	.100	11.1
20.000	.050	12.1
50.000	.020	13.1
100.000	.010	13.7
200.000	.005	14.3
500.000	.002	14.9

Press <RETURN> to continue , <CTRL> P to obtain hard copy

STATISTICAL ANALYSIS – WATER SURVEY OF CANADA FLOW DATA

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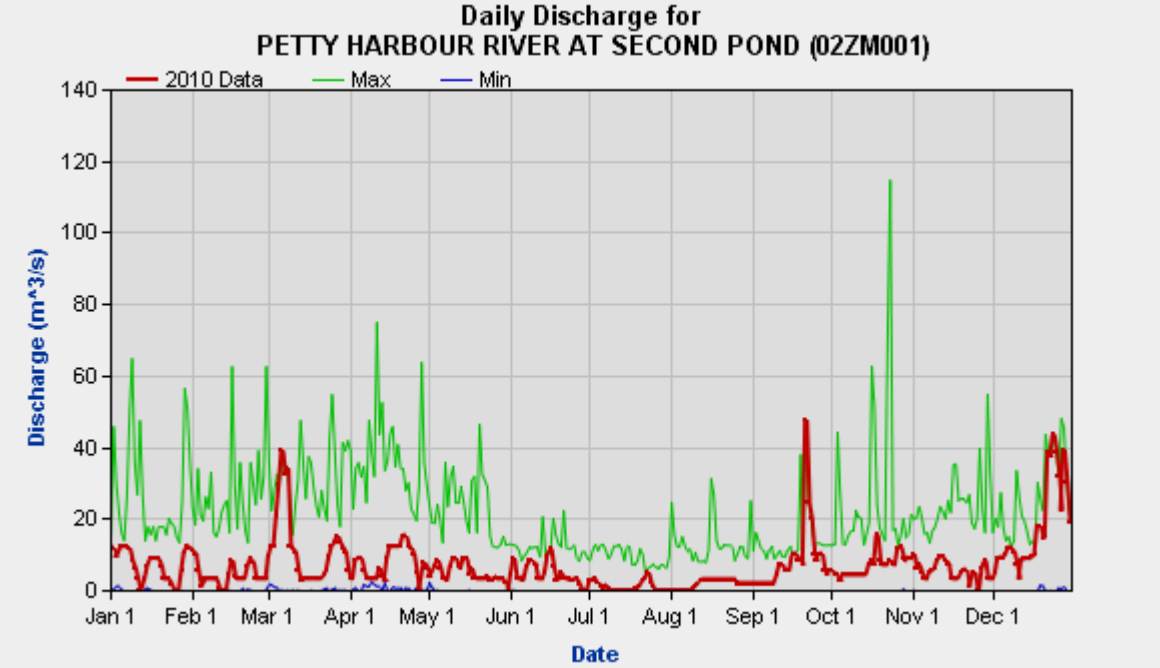
Environment Canada Environnement Canada

Canada

PETTY HARBOUR RIVER AT SECOND POND (02ZM001)

Station: 02ZM001 Report Type: Daily Flow for 2010

Refresh Table View



Statistics corresponding to 49 years of data recorded from 1962 to 2010.*

Statistics for period of record
- [x] Max
- [ ] Mean
- [ ] Upper quartile
- [x] Min
- [ ] Median
- [ ] Lower quartile

Scale
- ( ) Log
- (•) Normal

Redraw Graph

Station Information

Active or discontinued	Discontinued	**Province / Territory**	Newfoundland and Labrador
Latitude	47°27'27" N	**Longitude**	52°43'47" W
Gross drainage area	134 km^2		
Record length	49 years	**Period of record**	1962 - 2010
Regulation type	Regulated		

Period of record	Hydrometric measurement type	Operational schedule	Gauge type
1962 - 2010	Flow	Continuous	Power Plant

Real-time data available	No	**Sediment data available**	No
Type of water body	River	**RHBN**	No
EC regional office	DARTMOUTH		
Data contributed by	NEWFOUNDLAND LIGHT AND POWER COMPANY LIMITED		
Datum of published data	ASSUMED DATUM		

** Station Discontinued (No Longer Published) based on Water Survey Canada National Hydrometric Program Contributed Data Policy (qPOL-PA001-02-2008 Revision: 1A Commencing Jan 01 2011)

* Note: If n<10, percentiles are not calculated. Click here for further information.

Date Modified: 2010-04-30

Environment Canada Environnement Canada

Canada

PETTY HARBOUR RIVER AT SECOND POND (02ZM001)

Station: 02ZM001 Report Type: Peak Flow for 2010

Refresh Graph View

Peak Discharges (m^3/s)

Year	Maximum Instantaneous Discharge (m^3/s)	Minimum Instantaneous Discharge (m^3/s)	Maximum Daily Discharge (m^3/s)	Minimum Daily Discharge (m^3/s)
1962	----	----	----	----
1963	----	----	46.2 on Jan 02	0.000 on Mar 10
1964	----	----	46.2 on Apr 18	0.000 on Jun 21
1965	----	----	25.7 on Nov 20	0.000 on Jun 19
1966	----	----	43.6 on Dec 22	0.000 on Jun 28
1967	----	----	25.8 on Jan 07	0.000 on Jun 04
1968	----	----	25.7 on Nov 27	0.000 on Apr 14
1969	----	----	62.9 on Feb 16	0.000 on Jul 05
1970	----	----	62.9 on Mar 01	0.000 on Feb 05
1971	----	----	34.0 on Feb 03	0.000 on Jun 08
1972	----	----	23.6 on Nov 12	0.000 on May 07
1973	----	----	36.0 on Feb 23	0.000 on May 16
1974	----	----	33.7 on Dec 11	0.000 on Jan 01
1975	----	----	36.0 on May 08	0.000 on Feb 26
1976	----	----	36.2 on Jan 10	0.000 on Jun 17
1977	----	----	48.1 on Dec 28	0.000 on Feb 27
1978	----	----	27.3 on May 01	0.000 on Jul 27
1979	----	----	56.4 on Jan 29	0.000 on Jun 04
1980	----	----	31.1 on Aug 17	0.000 on Jun 24
1981	----	----	39.6 on Nov 27	0.000 on May 06
1982	----	----	44.5 on Oct 04	0.000 on Apr 01
1983	----	----	115 on Oct 24	0.000 on Jan 01
1984	----	----	33.1 on Feb 08	0.000 on Jan 01
1985	----	----	12.2 on May 05	0.000 on Jan 01
1986	----	----	74.8 on Apr 12	0.000 on Jan 01
1987	----	----	36.2 on Apr 10	0.000 on Jun 15
1988	----	----	39.1 on Feb 26	0.053 on Aug 29
1989	----	----	30.0 on Feb 24	0.000 on May 16
1990	----	----	46.7 on May 21	0.000 on Jul 18
1991	----	----	22.4 on Apr 02	0.000 on Jun 27
1992	----	----	54.9 on Mar 26	0.000 on Jan 01

Year	Maximum Instantaneous Discharge (m^3/s)	Minimum Instantaneous Discharge (m^3/s)	Maximum Daily Discharge (m^3/s)	Minimum Daily Discharge (m^3/s)
1993	----	----	13.5 on Feb 21	0.000 on Apr 06
1994	----	----	26.4 on Apr 09	0.000 on Feb 21
1995	----	----	65.0 on Jan 09	0.000 on Feb 05
1996	----	----	35.5 on Nov 18	0.000 on Feb 01
1997	----	----	20.1 on Oct 18	0.000 on Jan 10
1998	----	----	62.6 on Oct 17	0.000 on Jan 10
1999	----	----	64.0 on Apr 29	0.000 on May 14
2000	----	----	28.7 on Mar 19	0.000 on Feb 09
2001	----	----	38.3 on Sep 20	0.000 on Jan 06
2002	----	----	3.34 on Jan 01	0.000 on Jan 22
2003	----	----	41.8 on Apr 01	0.000 on Jan 06
2004	----	----	34.8 on Apr 07	0.100 on May 12
2005	----	----	59.5 on Apr 12	0.093 on May 07
2006	----	----	41.0 on Apr 20	0.000 on Nov 09
2007	----	----	24.5 on Aug 02	0.001 on Jan 01
2008	----	----	55.0 on Nov 30	0.001 on Jan 01
2009	----	----	51.4 on Oct 18	0.000 on May 25
2010	----	----	47.6 on Sep 22	0.000 on Jan 12

In no event shall Environment Canada be liable for damages whatsoever (including, without limitation, damages for loss of business profits, business interruption, loss of business information, or other pecuniary loss) arising out of the use of, or inability to use this Environment Canada product, even if Environment Canada has been advised of the possibility of such damages.

Date Modified: 2010-04-30

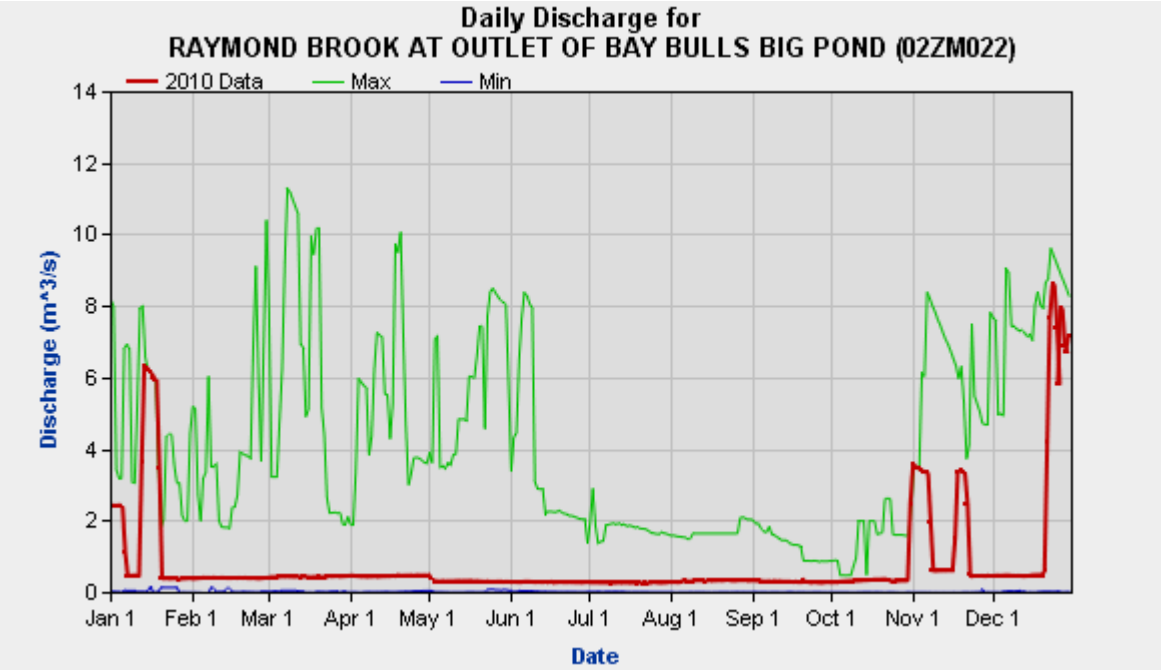
Environment Canada Environnement Canada

Canada

RAYMOND BROOK AT OUTLET OF BAY BULLS BIG POND (02ZM022)

Station: 02ZM022 Report Type: Daily Flow for 2010

Refresh Table View



Statistics corresponding to 22 years of data recorded from 1988 to 2010.*

Statistics for period of record
- [x] Max
- [ ] Mean
- [ ] Upper quartile
- [x] Min
- [ ] Median
- [ ] Lower quartile

Scale
- ( ) Log
- (•) Normal

Redraw Graph

Station Information

Active or discontinued	Active	**Province / Territory**	Newfoundland and Labrador
Latitude	47°25'12" N	**Longitude**	52°48'2" W
Gross drainage area			
Record length	22 years	**Period of record**	1988 - 2010
Regulation type	Regulated		

Period of record	Hydrometric measurement type	Operational schedule	Gauge type
1988 - 2013	Flow	Continuous	Recorder

Real-time data available	Yes	**Sediment data available**	No
Type of water body	River	**RHBN**	No
EC regional office	DARTMOUTH		
Datum of published data	ASSUMED DATUM		

** THE "E" FOR DISCHARGES ABOVE 8.54 AND BELOW 0.271 M3/S IS DUE TO CURVE EXTENSION.
** THE "E" FOR DISCHARGES ABOVE 3.18 M3/S IS DUE TO CURVE EXTENSION.
** DISCHARGES BELOW 0.068 M3/S ARE DUE TO CURVE EXTENSION.

* Note: If n<10, percentiles are not calculated. Click here for further information.

Date Modified: 2010-04-30

Environment Canada Environnement Canada

Canada

RAYMOND BROOK AT OUTLET OF BAY BULLS BIG POND (02ZM022)

Station: 02ZM022 Report Type: Peak Flow for 2010

Refresh Graph View

Peak Discharges (m^3/s)

Year	Maximum Instantaneous Discharge (m^3/s)	Minimum Instantaneous Discharge (m^3/s)	Maximum Daily Discharge (m^3/s)	Minimum Daily Discharge (m^3/s)
1988	6.87 at 08:12 NST on Jul 13	----	4.67 on May 18	0.004 on Feb 05
1989	2.99 at 13:53 NST on Dec 10	----	2.06 on Jan 27	0.011 on Oct 28
1990	4.25 at 08:32 NST on Dec 21	----	4.24 on Dec 21	0.016 on May 10
1991	4.90 at 10:50 NST on Nov 20	----	3.75 on Jan 02	0.014 on Oct 09
1992	2.75 at 15:46 NST on May 14	----	2.54 on May 15	0.018 on Aug 24
1993	2.34 at 12:46 NST on Mar 23	----	2.30 on Mar 10	0.024 on Feb 19
1994	3.80 at 01:06 NST on Apr 27	----	3.78 on Apr 27	0.014 on Oct 10
1995	6.89 at 10:53 NST on Dec 15	----	6.41 on Dec 16	0.038 on Aug 22
1996	10.1 E at 16:00 NST on Dec 18	----	9.63 on Dec 24	0.047 on Jun 23
1997	8.72 E at 11:00 NST on Nov 06	----	8.42 on Nov 07	0.028 E on Dec 19
1998	----	----	----	----
2000	8.21 at 11:00 NST on Dec 28	----	6.65 on Dec 29	0.009 E on Nov 18
2001	12.7 at 12:25 NST on Feb 28	----	8.52 on May 26	0.129 on Mar 16
2002	10.3 at 01:35 NST on Dec 23	----	8.66 on Dec 22	0.168 on Jul 26
2003	8.09 at 01:55 NST on May 23	----	7.47 on May 22	0.105 on Oct 11
2004	8.07 at 17:52 NST on Nov 23	----	7.50 on Nov 24	0.073 on Sep 17
2005	12.3 at 05:52 NST on Mar 02	----	11.3 on Mar 09	0.206 on May 08
2006	7.20 at 11:52 NST on Jan 24	----	6.06 on Feb 07	0.203 on Apr 02
2007	9.83 A at 17:52 NST on Dec 06	----	9.06 on Dec 07	0.185 on Aug 30
2008	8.59 at 17:52 NST on Dec 18	----	8.19 on Dec 19	0.394 on Feb 16
2009	8.26 at 17:52 NST on Nov 30	----	7.85 on Dec 01	0.019 on Aug 10
2010	8.90 at 17:52 NST on Dec 24	----	8.60 on Dec 25	0.247 on Jul 22

In no event shall Environment Canada be liable for damages whatsoever (including, without limitation, damages for loss of business profits, business interruption, loss of business information, or other pecuniary loss) arising out of the use of, or inability to use this Environment Canada product, even if Environment Canada has been advised of the possibility of such damages.

Date Modified: 2010-04-30

LAND USE CLASS COVERAGE BY HMS MODEL SUBCATCHMENT

Petty Harbour River Watershed

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Sub #	Area For Each Landuse Class (ha)								Total
	Barren/ Soil	Deforested	Developed	Fields/ Pastures	Forest	Open Space	Water	Wetlands	
W1040	2.13	4.11	37.48		35.25	75.74	0.09	1.73	156.53
W1050	3.42	66.54	18.73		120.44	106.46	0.69	11.61	327.89
W1090	0.25	66.51	0.08		443.96	21.75	2.14	28.4	563.09
W1140	1.05	3.13	5.75		16.48	54.04	0.38	0.22	81.05
W1150	1.18	24.01	7.16		120.25	44.31	30.4	3.96	231.27
W1240	0.87	46.67	1.17		90.82	32.83	0.42	9.23	182.01
W1250	0.03	19.41	0.14		127.71	1.91	2.17	5.42	156.79
W1390	1.24	2.9	10.1		6.64	37.69		0.13	58.7
W1400	5.05	41.26	16.79		101.69	125.22	0.03	5.57	295.61
W1450	1.32	20.11	14.39		212.27	74.78	3.8	10.86	337.53
W1490	0.68	18.44	13.62		71.13	27	0.58	4.69	136.14
W1500	7.2	59.85	9.11		104.99	177.7	0.3	5.04	364.19
W1540	1.31	64.1	10.54		85.67	47.83	4.02	10.04	223.51
W1590	0.36	108.35	11.58		688.58	40.16	164.86	21.54	1035.43
W1690	0.36	61.67	5.17		132.69	59.67	3.34	13.64	276.54
W1760	1.32	2.92	7.1		56.74	37.09	13.11	0.82	119.1
W1810		42.51	11.47		286.52	37.54	11.77	21.38	411.19
W1860	0.83	14.96	20.19		73.29	41.49	5.87	4.01	160.64
W2000		83.88	0.09		867.47	71.19	35.17	36.45	1094.25
W2010	0.02	30.2	0.05		94.62	45.25	14.72	3.83	188.69
W2050	0.27	3.06	0.42		86.13	31.99	70.53	1.55	193.95
W2060	0.79	0.87	3.76		5.78	22.06	0.04	0.19	33.49
W2180	3.51	14.01	47.71		23.18	71.24		1.03	160.68
W2330	2.24	4.21	8.77		16.21	20.32	0.01	0.31	52.07
W2370	0.2	0.18	0.6		3.54	3.2	0.53	0.39	8.64
W2380	0.24	4.04	3.12		3.65	6.59		0.26	17.9
W600	9.71	128.43	5.32		621.15	65.61	136.14	42.41	1008.77
W640	0.47	50.57	0.16		175.45	19.61	8.82	13.64	268.72
W830	0.99	69.89	0.43		201.19	52.85	13	20.4	358.75
W840	6.94	77.71	0.84		255.49	61.88	0.91	22.97	426.74
W880	5.1	119.79	4.34		260.55	90.76	2.49	23.67	506.7
W920	0.55	84.56	0.55		279.56	21.81	5.34	24.13	416.5
W940	1.76	367.55	9.85	11.29	1982.07	295.97	630.34	183.14	3481.97

Sub #	Area For Each Landuse Class (ha)								Total
	Barren/ Soil	Deforested	Developed	Fields/ Pastures	Forest	Open Space	Water	Wetlands	
W1040	1.4%	2.6%	23.9%		22.5%	48.4%	0.1%	1.1%	100%
W1050	1.0%	20.3%	5.7%		36.7%	32.5%	0.2%	3.5%	100%
W1090	0.0%	11.8%	0.0%		78.8%	3.9%	0.4%	5.0%	100%
W1140	1.3%	3.9%	7.1%		20.3%	66.7%	0.5%	0.3%	100%
W1150	0.5%	10.4%	3.1%		52.0%	19.2%	13.1%	1.7%	100%
W1240	0.5%	25.6%	0.6%		49.9%	18.0%	0.2%	5.1%	100%
W1250	0.0%	12.4%	0.1%		81.5%	1.2%	1.4%	3.5%	100%
W1390	2.1%	4.9%	17.2%		11.3%	64.2%		0.2%	100%
W1400	1.7%	14.0%	5.7%		34.4%	42.4%	0.0%	1.9%	100%
W1450	0.4%	6.0%	4.3%		62.9%	22.2%	1.1%	3.2%	100%
W1490	0.5%	13.5%	10.0%		52.2%	19.8%	0.4%	3.4%	100%
W1500	2.0%	16.4%	2.5%		28.8%	48.8%	0.1%	1.4%	100%
W1540	0.6%	28.7%	4.7%		38.3%	21.4%	1.8%	4.5%	100%
W1590	0.0%	10.5%	1.1%		66.5%	3.9%	15.9%	2.1%	100%
W1690	0.1%	22.3%	1.9%		48.0%	21.6%	1.2%	4.9%	100%
W1760	1.1%	2.5%	6.0%		47.6%	31.1%	11.0%	0.7%	100%
W1810		10.3%	2.8%		69.7%	9.1%	2.9%	5.2%	100%
W1860	0.5%	9.3%	12.6%		45.6%	25.8%	3.7%	2.5%	100%
W2000		7.7%	0.0%		79.3%	6.5%	3.2%	3.3%	100%
W2010	0.0%	16.0%	0.0%		50.1%	24.0%	7.8%	2.0%	100%
W2050	0.1%	1.6%	0.2%		44.4%	16.5%	36.4%	0.8%	100%
W2060	2.4%	2.6%	11.2%		17.3%	65.9%	0.1%	0.6%	100%
W2180	2.2%	8.7%	29.7%		14.4%	44.3%		0.6%	100%
W2330	4.3%	8.1%	16.8%		31.1%	39.0%	0.0%	0.6%	100%
W2370	2.3%	2.1%	6.9%		41.0%	37.0%	6.1%	4.5%	100%
W2380	1.3%	22.6%	17.4%		20.4%	36.8%		1.5%	100%
W600	1.0%	12.7%	0.5%		61.6%	6.5%	13.5%	4.2%	100%
W640	0.2%	18.8%	0.1%		65.3%	7.3%	3.3%	5.1%	100%
W830	0.3%	19.5%	0.1%		56.1%	14.7%	3.6%	5.7%	100%
W840	1.6%	18.2%	0.2%		59.9%	14.5%	0.2%	5.4%	100%
W880	1.0%	23.6%	0.9%		51.4%	17.9%	0.5%	4.7%	100%
W920	0.1%	20.3%	0.1%		67.1%	5.2%	1.3%	5.8%	100%
W940	0.1%	10.6%	0.3%	0.3%	56.9%	8.5%	18.1%	5.3%	100%

APPENDIX J

HEC-RAS REPORTS

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PETTY HARBOUR RIVER (and TRIBUTARIES)

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HEC-RAS Plan:

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	TR001	439.21	20-Existing-CBCL	26.600000	105.110	106.256000	106.1406	106.3899	0.00547	2.13	25.331	53.76	0.67
RaymondB	TR001	409.42	20-Existing-CBCL	26.600000	104.680	105.881700	105.8817	106.1627	0.00987	2.95	16.393	28.93	0.91
RaymondB	TR001	380.07	20-Existing-CBCL	26.600000	104.050	105.695500	105.0453	105.7601	0.00129	1.35	35.178	50.18	0.35
RaymondB	TR001	360.64	20-Existing-CBCL	26.600000	103.600	105.418300	104.9064	105.6993	0.00355	2.36	11.438	61.23	0.58
RaymondB	TR001	350		Bridge									
RaymondB	TR001	344.45	20-Existing-CBCL	26.600000	103.300	104.837900	104.8379	105.4501	0.01217	3.85	8.636	61.74	1.03
RaymondB	TR001	334.13	20-Existing-CBCL	26.600000	103.400	104.188500	104.5699	105.1350	0.04261	4.46	7.179	16.66	1.74
RaymondB	TR001	272.22	20-Existing-CBCL	26.600000	102.830	103.802000	103.8020	104.0603	0.01269	2.87	16.390	36.81	1.00
RaymondB	TR001	218.50	20-Existing-CBCL	26.600000	101.420	102.510200	102.7239	103.1806	0.01992	3.85	9.619	22.60	1.27
RaymondB	TR001	163.97	20-Existing-CBCL	26.600000	100.320	101.603800	101.2398	101.7497	0.00338	1.78	18.248	23.06	0.54
RaymondB	TR001	115.54	20-Existing-CBCL	26.600000	100.000	101.085900	101.0859	101.4461	0.01226	3.16	12.923	19.85	1.01
RaymondB	TR001	56.65	20-Existing-CBCL	26.600000	97.730	98.335630	98.7118	99.7537	0.10096	5.59	5.708	14.65	2.56
RaymondB	M002	6453.60	20-Existing-CBCL	7.200000	118.100	125.920400	118.6132	125.9204	0.00000	0.01	832.493	249.77	0.00
RaymondB	M002	6405.52	20-Existing-CBCL	7.200000	118.000	125.920400		125.9204	0.00000	0.01	836.825	234.55	0.00
RaymondB	M002	6347.04	20-Existing-CBCL	7.200000	124.730	125.919200		125.9203	0.00002	0.15	49.871	43.84	0.04
RaymondB	M002	6247.26	20-Existing-CBCL	7.200000	117.210	117.915200		117.9554	0.00324	1.13	11.258	32.88	0.47
RaymondB	M002	6230.10	20-Existing-CBCL	7.200000	117.200	117.903100		117.9226	0.00124	0.68	14.469	39.41	0.29
RaymondB	M002	6205.35	20-Existing-CBCL	7.200000	117.280	117.879600		117.8875	0.00116	0.59	20.753	51.79	0.27
RaymondB	M002	6143.06	20-Existing-CBCL	7.200000	117.180	117.785200		117.7988	0.00179	0.73	17.531	52.34	0.34
RaymondB	M002	6105.93	20-Existing-CBCL	7.200000	117.170	117.643600		117.6869	0.00487	0.97	9.319	44.39	0.53
RaymondB	M002	6026.35	20-Existing-CBCL	7.200000	116.810	117.382600		117.4037	0.00255	0.82	13.729	40.99	0.40
RaymondB	M002	5933.71	20-Existing-CBCL	7.200000	116.420	117.050000		117.1092	0.00418	1.16	7.919	22.15	0.52
RaymondB	M002	5883.92	20-Existing-CBCL	7.200000	116.120	116.843700		116.9123	0.00379	1.20	7.010	17.75	0.51
RaymondB	M002	5785.15	20-Existing-CBCL	7.200000	115.750	116.408700		116.4743	0.00517	1.24	7.343	19.66	0.57
RaymondB	M002	5732.44	20-Existing-CBCL	7.200000	115.460	116.099700		116.1802	0.00569	1.27	6.030	16.63	0.60
RaymondB	M002	5631.37	20-Existing-CBCL	7.200000	114.850	115.527700		115.5911	0.00581	1.27	9.163	42.46	0.60
RaymondB	M002	5500.15	20-Existing-CBCL	7.200000	114.620	115.284800		115.2991	0.00168	0.72	20.122	102.68	0.33
RaymondB	M002	5485.46	20-Existing-CBCL	7.200000	114.530	115.268000		115.2802	0.00108	0.67	23.534	122.87	0.28
RaymondB	M002	5411.19	20-Existing-CBCL	7.200000	114.480	115.151400	114.9404	115.1819	0.00216	0.81	11.141	42.04	0.37
RaymondB	M002	5338.54	20-Existing-CBCL	7.200000	114.410	115.154600	114.6884	115.1561	0.00008	0.18	44.087	101.92	0.08
RaymondB	M002	5278.93	20-Existing-CBCL	7.200000	114.440	115.147400	114.7177	115.1498	0.00014	0.22	35.000	87.19	0.10
RaymondB	M002	5226.60	20-Existing-CBCL	7.200000	114.420	115.138400		115.1414	0.00019	0.26	34.815	107.64	0.11
RaymondB	M002	5171.66	20-Existing-CBCL	7.200000	114.420	115.123200		115.1281	0.00030	0.34	30.087	127.57	0.14
RaymondB	M002	5111.50	20-Existing-CBCL	7.200000	114.420	115.088400		115.1004	0.00080	0.54	18.551	60.90	0.23
RaymondB	M002	5077.48	20-Existing-CBCL	7.200000	114.380	115.069500		115.0778	0.00051	0.43	20.070	48.82	0.19
RaymondB	M002	5017.13	20-Existing-CBCL	7.200000	114.400	114.960500		115.0058	0.00376	0.95	7.776	21.21	0.48
RaymondB	M002	4967.43	20-Existing-CBCL	7.200000	114.070	114.702700		114.7815	0.00539	1.25	5.882	14.00	0.59
RaymondB	M002	4943.43	20-Existing-CBCL	7.200000	113.820	114.594100		114.6711	0.00396	1.27	6.726	17.79	0.52
RaymondB	M002	4910.95	20-Existing-CBCL	7.200000	113.670	114.452900		114.5383	0.00419	1.33	6.516	21.22	0.54
RaymondB	M002	4851.17	20-Existing-CBCL	7.200000	113.470	114.216100		114.2925	0.00406	1.27	6.966	23.58	0.53
RaymondB	M002	4783.73	20-Existing-CBCL	7.200000	113.300	113.959200		114.0074	0.00407	1.00	8.350	32.04	0.50
RaymondB	M002	4732.68	20-Existing-CBCL	7.200000	113.070	113.648200		113.7133	0.00887	1.33	7.668	31.92	0.72
RaymondB	M002	4681.76	20-Existing-CBCL	7.200000	112.350	112.942800	112.9428	113.1397	0.01445	2.01	3.972	11.15	0.96
RaymondB	M002	4673.96	20-Existing-CBCL	7.200000	111.740	112.269000	112.4667	112.8948	0.06405	3.53	2.154	7.89	1.92
RaymondB	M002	4644.78	20-Existing-CBCL	7.200000	110.490	111.066400	111.1930	111.4943	0.03453	2.93	2.614	17.74	1.45
RaymondB	M002	4625.72	20-Existing-CBCL	7.200000	106.750	107.084100	107.4402	109.5908	0.57133	7.01	1.026	5.48	5.17
RaymondB	M002	4615.42	20-Existing-CBCL	7.200000	105.830	106.315700	106.5245	107.0566	0.09678	3.85	1.961	7.69	2.29
RaymondB	M002	4607.06	20-Existing-CBCL	7.200000	105.790	106.658100	106.4814	106.7832	0.00512	1.61	5.037	8.74	0.61
RaymondB	M002	4597.34	20-Existing-CBCL	7.200000	105.760	106.613400		106.7276	0.00576	1.56	5.598	13.21	0.63
RaymondB	M002	4575.18	20-Existing-CBCL	7.200000	105.980	106.320900	106.3209	106.4601	0.04067	1.89	4.431	17.12	1.38
RaymondB	M002	4545.57	20-Existing-CBCL	7.200000	104.650	105.334700	105.4001	105.6300	0.02033	2.47	3.352	10.02	1.14
RaymondB	M002	4522.17	20-Existing-CBCL	7.200000	103.670	104.126500	104.3384	104.7804	0.07254	3.63	2.138	7.96	2.03
RaymondB	M002	4511.42	20-Existing-CBCL	7.200000	103.620	104.451300	104.2864	104.5159	0.00385	1.29	8.074	19.06	0.52
RaymondB	M002	4489.94	20-Existing-CBCL	7.200000	103.590	104.170500	104.1705	104.3568	0.01516	2.03	4.329	12.81	0.98
RaymondB	M002	4466.63	20-Existing-CBCL	7.200000	103.030	103.911600	103.6192	103.9611	0.00215	1.03	8.251	15.31	0.40
RaymondB	M002	4439.46	20-Existing-CBCL	7.200000	103.000	103.634800	103.6219	103.8260	0.01376	2.07	4.309	11.34	0.94
RaymondB	M002	4415.77	20-Existing-CBCL	7.200000	102.780	103.298400	103.2984	103.4553	0.01620	1.83	4.606	16.28	0.98
RaymondB	M002	4385.89	20-Existing-CBCL	7.200000	101.800	102.304200	102.4225	102.7070	0.03894	2.85	2.744	9.46	1.51
RaymondB	M002	4354.01	20-Existing-CBCL	7.200000	101.270	101.877900	101.9126	102.0469	0.01629	2.27	5.961	25.33	1.03
RaymondB	M002	4341.66	20-Existing-CBCL	7.200000	100.840	101.484700	101.5883	101.7991	0.02316	2.55	3.307	13.23	1.21
RaymondB	M002	4332.73	20-Existing-CBCL	7.200000	100.320	100.788000	100.9808	101.4282	0.07195	3.61	2.185	8.40	2.02
RaymondB	M002	4308.73	20-Existing-CBCL	7.200000	98.870	99.347310	99.4996	99.8511	0.05722	3.28	2.629	10.79	1.80
RaymondB	M002	4294.65	20-Existing-CBCL	7.200000	98.450	99.014950	99.0756	99.2967	0.02344	2.47	3.518	10.78	1.20
RaymondB	M002	4263.86	20-Existing-CBCL	7.200000	97.590	98.619460	98.1710	98.6556	0.00117	0.90	9.994	14.82	0.31
RaymondB	M002	4235.25	20-Existing-CBCL	7.200000	97.470	98.614450		98.6300	0.00044	0.59	15.231	20.99	0.19
RaymondB	M001	4130.35	20-Existing-CBCL	33.000000	96.570	97.804320	97.8043	98.1863	0.01203	2.77	12.736	18.90	0.96
RaymondB	M001	4076.94	20-Existing-CBCL	33.000000	96.040	97.462590	97.3058	97.6681	0.00526	2.09	18.984	29.57	0.66
RaymondB	M001	4023.53	20-Existing-CBCL	33.000000	95.940	96.929020	96.9290	97.2298	0.01355	2.48	14.342	26.04	0.98
RaymondB	M001	3978.20	20-Existing-CBCL	33.000000	94.640	96.515320	96.0296	96.5913	0.00183	1.25	29.774	38.72	0.39
RaymondB	M001	3916.71	20-Existing-CBCL	47.300010	94.640	96.192150		96.3963	0.00466	2.25	33.550	58.06	0.64
RaymondB	M001	3863.30	20-Existing-CBCL	47.300010	94.410	96.029590		96.1726	0.00321	1.97	41.844	70.47	0.54
RaymondB	M001	3809.58	20-Existing-CBCL	47.300010	94.090	95.591990	95.5920	95.9115	0.00749	2.79	25.501	42.71	0.81
RaymondB	M001	3756.26	20-Existing-CBCL	47.300010	93.530	94.795800	94.9364	95.3460	0.01507	3.46	17.579	31.16	1.11
RaymondB	M001	3694.37	20-Existing-CBCL	47.300010	92.660	93.884390	93.9503	94.3915	0.01528	3.27	16.273	21.84	1.10
RaymondB	M001	3569.22	20-Existing-CBCL	47.300010	92.150	93.696900	93.3613	93.7552	0.00195	1.45	60.221	101.81	0.42
RaymondB	M001	3527.64	20-Existing-CBCL	47.300010	91.850	93.667720		93.6958	0.00078	1.05	75.018	79.81	0.27
RaymondB	M001	3446.51	20-Existing-CBCL	47.300010	91.140	93.643170		93.6610	0.00027	0.74	107.987	99.37	0.17
RaymondB	M001	3421.64	20-Existing-CBCL	47.300010	91.230	93.282360	92.6616	93.6129	0.00319	2.57	18.778	114.78	0.58
RaymondB	M001	3410		Bridge									
RaymondB	M001	3404.11	20-Existing-CBCL	47.300010	91.230	92.710100	92.7101	93.4058	0.01092	3.72	12.934	60.06	1.01
RaymondB	M001	3380.48	20-Existing-CBCL	47.300010	90.960	92.665790	92.2188	92.8088	0.00274	1.85	35.758	46.52	0.50
RaymondB	M001	3308.92	20-Existing-CBCL	47.300010	90.800	92.096440	92.0964	92.4488	0.00976	2.95	23.095	36.68	0.91
RaymondB	M001	3216.73	20-Existing-CBCL	47.300010	89.310	91.804490	90.7798	91.9734	0.00143	1.85	26.471	42.72	0.39
RaymondB	M001	3200		Bridge									
RaymondB	M001	3188.78	20-Existing-CBCL	47.300010	89.300	91.215530	91.1436	91.7680	0.00751	3.49	15.987	32.75	0.85
RaymondB	M001	3015.18	20-Existing-CBCL	47.300010	89.180	90.596470		90.7352	0.00329	1.83	36.893	53.81	0.54
RaymondB	M001	2876.32	20-Existing-CBCL	47.300010	88.660	90.078750		90.2353	0.00456	2.03	33.856	47.46	0.62

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	M001	2789.37	20-Existing-CBCL	47.300010	88.240	89.866900		89.9449	0.00224	1.60	64.779	149.62	0.45
RaymondB	M001	2681.85	20-Existing-CBCL	47.300010	88.140	89.389720	89.3897	89.5489	0.00786	2.37	40.040	110.46	0.79
RaymondB	M001	2604.32	20-Existing-CBCL	47.300010	87.970	89.146000	88.9150	89.1824	0.00212	1.24	70.461	162.40	0.41
RaymondB	M001	2531.57	20-Existing-CBCL	47.300010	87.970	89.105450		89.1147	0.00071	0.66	124.446	265.61	0.23
RaymondB	M001	2385.34	20-Existing-CBCL	47.300010	87.430	89.002720		89.0432	0.00164	1.36	84.987	213.12	0.38
RaymondB	M001	2245.72	20-Existing-CBCL	47.300010	86.990	88.370860	88.3140	88.7127	0.00834	2.71	21.508	33.60	0.84
RaymondB	M001	2194.47	20-Existing-CBCL	47.300010	86.680	88.428100		88.4867	0.00133	1.32	62.942	83.79	0.35
RaymondB	M001	2140.67	20-Existing-CBCL	47.300010	86.590	88.273960		88.3854	0.00262	1.78	46.059	66.43	0.49
RaymondB	M001	2087.60	20-Existing-CBCL	47.300010	86.380	88.146030		88.2618	0.00206	1.64	37.993	38.54	0.44
RaymondB	M001	2069.54	20-Existing-CBCL	47.300010	86.350	88.106980		88.2237	0.00214	1.69	38.292	37.99	0.45
RaymondB	M001	2040.77	20-Existing-CBCL	47.300010	86.250	88.038410		88.1606	0.00220	1.68	38.867	47.10	0.45
RaymondB	M001	1989.18	20-Existing-CBCL	47.300010	86.020	87.794980		88.0042	0.00387	2.23	30.461	47.76	0.60
RaymondB	M001	1950.22	20-Existing-CBCL	47.300010	85.790	87.347610	87.3067	87.7602	0.00940	3.08	19.710	26.85	0.90
RaymondB	M001	1885.73	20-Existing-CBCL	47.300010	85.340	86.860270	86.8603	87.1699	0.00816	2.75	25.451	42.83	0.83
RaymondB	M001	1835.84	20-Existing-CBCL	47.300010	84.640	86.170220	86.2382	86.6492	0.01312	3.52	19.484	26.07	1.05
RaymondB	M001	1784.61	20-Existing-CBCL	47.300010	84.100	85.183270	85.3252	85.7012	0.02750	3.67	18.667	38.88	1.41
RaymondB	M001	1733.38	20-Existing-CBCL	47.300010	82.790	84.500010	84.1374	84.6285	0.00270	1.78	37.963	44.35	0.49
RaymondB	M001	1682.15	20-Existing-CBCL	47.300010	82.600	84.158720		84.4202	0.00585	2.38	23.739	27.99	0.71
RaymondB	M001	1630.92	20-Existing-CBCL	47.300010	82.120	83.637810	83.5777	84.0364	0.00916	2.86	18.453	22.37	0.88
RaymondB	M001	1584.49	20-Existing-CBCL	47.300010	81.770	83.444900		83.6718	0.00516	2.33	26.993	31.52	0.67
RaymondB	M001	1536.01	20-Existing-CBCL	47.300010	81.310	82.998000	82.9235	83.3572	0.00765	2.85	21.696	32.21	0.81
RaymondB	M001	1477.96	20-Existing-CBCL	47.300010	80.960	82.585650	82.4388	82.9137	0.00734	2.70	22.681	32.37	0.79
RaymondB	M001	1425.99	20-Existing-CBCL	47.300010	80.580	82.298110	82.1145	82.5705	0.00544	2.46	24.650	34.30	0.69
RaymondB	M001	1372.05	20-Existing-CBCL	47.300010	80.250	81.799840	81.7998	82.1595	0.01082	3.06	21.548	31.34	0.94
RaymondB	M001	1323.54	20-Existing-CBCL	47.300010	79.110	81.208920	80.7707	81.6698	0.00467	3.01	15.727	14.06	0.69
RaymondB	M001	1315		Bridge									
RaymondB	M001	1303.54	20-Existing-CBCL	47.300010	78.010	80.321040	79.9778	80.8272	0.00560	3.15	15.006	19.12	0.74
RaymondB	M001	1252.39	20-Existing-CBCL	49.799990	78.450	80.045750	80.0458	80.5344	0.01342	3.48	18.869	23.95	1.04
RaymondB	M001	1216.25	20-Existing-CBCL	49.799990	77.860	79.595290	79.7532	80.1017	0.01123	3.57	21.418	37.62	0.99
RaymondB	M001	1189.75	20-Existing-CBCL	49.799990	77.610	78.899990	79.1256	79.6285	0.02873	4.08	15.896	34.28	1.46
RaymondB	M001	1166.20	20-Existing-CBCL	49.799990	76.740	78.075460	78.3640	78.9114	0.02967	4.54	16.771	42.75	1.52
RaymondB	M001	1148.70	20-Existing-CBCL	49.799990	76.500	77.890880	78.0363	78.4109	0.01991	3.67	21.104	50.27	1.24
RaymondB	M001	1116.25	20-Existing-CBCL	49.799990	75.830	76.951140	77.1538	77.5975	0.03097	3.65	15.093	30.76	1.47
RaymondB	M001	1066.09	20-Existing-CBCL	49.799990	75.160	76.468830	76.4174	76.8362	0.01090	2.82	21.431	33.31	0.93
RaymondB	M001	1035.68	20-Existing-CBCL	49.799990	74.730	76.104020	76.1040	76.5001	0.01100	2.98	20.369	27.33	0.95
RaymondB	M001	999.99	20-Existing-CBCL	49.799990	73.320	74.413870	74.8114	75.6881	0.04798	5.13	10.696	17.59	1.89
RaymondB	M001	976.73	20-Existing-CBCL	49.799990	73.030	74.354000	74.4915	74.9137	0.01451	3.46	17.811	29.21	1.10
RaymondB	M001	942.15	20-Existing-CBCL	49.799990	72.180	73.095740	73.2977	73.9134	0.07169	5.45	14.779	32.91	2.22
RaymondB	M001	916.70	20-Existing-CBCL	49.799990	70.820	72.003590	72.2504	72.6860	0.03171	4.61	17.958	37.87	1.57
RaymondB	M001	892.34	20-Existing-CBCL	49.799990	70.360	71.525140	71.6383	72.0741	0.01787	3.50	17.064	25.95	1.19
RaymondB	M001	866.25	20-Existing-CBCL	49.799990	70.040	71.600520	71.1521	71.7582	0.00294	1.81	33.379	53.80	0.51
RaymondB	M001	841.89	20-Existing-CBCL	49.799990	69.920	71.392090	71.2327	71.6539	0.00533	2.40	27.791	47.81	0.69
RaymondB	M001	816.68	20-Existing-CBCL	49.799990	69.740	71.190480	71.1905	71.4949	0.00705	2.73	28.150	49.46	0.79
RaymondB	M001	766.25	20-Existing-CBCL	49.799990	69.160	69.931570	70.1409	70.6552	0.06586	4.68	15.617	43.57	2.08
RaymondB	M001	716.25	20-Existing-CBCL	49.799990	68.390	69.702650	69.5197	69.8742	0.00473	2.07	33.672	48.21	0.63
RaymondB	M001	675.00	20-Existing-CBCL	49.799990	68.140	69.445880		69.6509	0.00609	2.32	32.516	55.28	0.72
RaymondB	M001	615.86	20-Existing-CBCL	49.799990	67.750	69.251120		69.3809	0.00304	1.87	45.195	92.12	0.52
RaymondB	M001	565.77	20-Existing-CBCL	49.799990	67.440	69.184940		69.2623	0.00147	1.44	56.377	109.35	0.37
RaymondB	M001	520.15	20-Existing-CBCL	49.799990	67.260	69.182080		69.2070	0.00056	0.94	106.080	211.67	0.23
RaymondB	M001	468.54	20-Existing-CBCL	49.799990	66.980	69.183360		69.1882	0.00013	0.52	197.785	252.37	0.12
RaymondB	M001	429.18	20-Existing-CBCL	49.799990	66.800	69.183240		69.1847	0.00004	0.30	331.188	349.68	0.07
RaymondB	M001	366.25	20-Existing-CBCL	49.799990	66.650	69.182850		69.1834	0.00002	0.20	536.143	554.64	0.04
RaymondB	M001	341.79	20-Existing-CBCL	49.799990	66.630	69.182850		69.1832	0.00001	0.16	621.082	599.09	0.03
PettyHR	M002	6270.85	20-Existing-CBCL	73.099990	66.230	69.182690		69.1828	0.00000	0.05	1678.219	816.40	0.01
PettyHR	M002	6218.07	20-Existing-CBCL	73.099990	66.230	69.182610		69.1828	0.00000	0.06	1545.436	821.18	0.01
PettyHR	M002	6095.00	20-Existing-CBCL	73.099990	66.230	69.182500		69.1826	0.00000	0.05	1485.268	775.25	0.01
PettyHR	M002	6004.71	20-Existing-CBCL	73.099990	66.230	69.182430		69.1826	0.00000	0.05	1525.371	796.28	0.01
PettyHR	M001	5825.85	20-Existing-CBCL	117.200000	66.230	69.182080		69.1823	0.00000	0.07	1838.780	827.19	0.01
PettyHR	M001	5685.44	20-Existing-CBCL	117.200000	66.230	69.181870		69.1821	0.00000	0.07	1816.153	713.05	0.01
PettyHR	M001	5516.39	20-Existing-CBCL	130.500000	66.230	69.181410		69.1818	0.00000	0.08	1588.621	623.11	0.02
PettyHR	M001	5279.80	20-Existing-CBCL	130.500000	66.230	69.180180		69.1810	0.00001	0.12	1074.815	419.60	0.02
PettyHR	M001	4996.75	20-Existing-CBCL	130.500000	66.230	69.174330		69.1780	0.00002	0.27	505.269	204.69	0.05
PettyHR	M001	4923.81	20-Existing-CBCL	130.500000	66.230	69.125690		69.1696	0.00033	0.98	160.193	81.41	0.19
PettyHR	M001	4867.41	20-Existing-CBCL	130.500000	66.230	69.041400		69.1353	0.00093	1.64	128.569	87.59	0.33
PettyHR	M001	4817.61	20-Existing-CBCL	130.500000	66.580	68.986670		69.0815	0.00125	1.81	124.891	88.99	0.37
PettyHR	M001	4757.18	20-Existing-CBCL	130.500000	66.430	68.321290	68.3213	68.8781	0.00867	3.98	53.991	55.36	0.94
PettyHR	M001	4675.66	20-Existing-CBCL	130.500000	65.880	67.514980	67.3421	67.8903	0.00679	3.22	57.900	48.26	0.81
PettyHR	M001	4612.84	20-Existing-CBCL	130.500000	64.880	66.894400		67.4234	0.00736	3.86	49.028	35.15	0.88
PettyHR	M001	4570.09	20-Existing-CBCL	130.500000	64.620	66.596240	66.5962	67.1230	0.00685	3.58	53.290	53.75	0.84
PettyHR	M001	4500.69	20-Existing-CBCL	130.500000	64.620	66.186200	65.9322	66.4197	0.00397	2.34	73.726	73.25	0.61
PettyHR	M001	4461.12	20-Existing-CBCL	130.500000	64.550	65.889790	65.8898	66.2107	0.00953	3.26	68.550	90.37	0.93
PettyHR	M001	4428.20	20-Existing-CBCL	130.500000	64.410	65.577910	65.4164	65.7849	0.00930	2.85	73.961	88.06	0.88
PettyHR	M001	4395.66	20-Existing-CBCL	130.500000	63.810	65.082700	65.0827	65.4490	0.00958	3.18	62.021	79.62	0.92
PettyHR	M001	4357.04	20-Existing-CBCL	130.500000	63.340	64.836780	64.6646	65.0733	0.00570	2.78	76.598	78.94	0.73
PettyHR	M001	4281.82	20-Existing-CBCL	130.500000	62.500	64.815960		64.8954	0.00076	1.35	114.591	57.45	0.29
PettyHR	M001	4166.17	20-Existing-CBCL	130.500000	61.820	64.838130		64.8504	0.00010	0.58	323.156	157.92	0.11
PettyHR	M001	3949.19	20-Existing-CBCL	130.500000	61.310	64.846440		64.8465	0.00000	0.03	4296.043	1310.68	0.01
PettyHR	M001	3936.78	20-Existing-CBCL	130.500000	61.310	64.846450		64.8465	0.00000	0.03	5322.143	1565.51	0.00
PettyHR	M001	3931.39	20-Existing-CBCL	68.900010	61.310	64.846470		64.8465	0.00000	0.01	6674.135	1992.57	0.00
PettyHR	M001	3925.44	20-Existing-CBCL	68.900010	61.310	64.846440		64.8465	0.00000	0.02	3299.404	997.66	0.00
PettyHR	M001	3867.05	20-Existing-CBCL	68.900010	61.310	64.846440		64.8465	0.00000	0.02	3338.359	974.97	0.00
PettyHR	M001	3643.73	20-Existing-CBCL	68.900010	61.310	64.846420		64.8464	0.00000	0.02	3840.241	1111.66	0.00
PettyHR	M001	3440.60	20-Existing-CBCL	68.900010	61.310	64.846340		64.8464	0.00000	0.04	1942.057	577.49	0.01
PettyHR	M001	3182.65	20-Existing-CBCL	68.900010	61.310	64.846180		64.8463	0.00000	0.05	1459.216	422.54	0.01
PettyHR	M001	3080.13	20-Existing-CBCL	68.900010	61.310	64.846160		64.8462	0.00000	0.04	1719.885	503.89	0.01
PettyHR	M001	3028.13	20-Existing-CBCL	68.900010	61.310	64.846150		64.8462	0.00000	0.04	1880.245	555.22	0.01
PettyHR	M001	2983.09	20-Existing-CBCL	68.900010	61.310	64.846090		64.8462	0.00000	0.05	1533.584	448.77	0.01

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	2828.46	20-Existing-CBCL	68.900010	61.310	64.845730		64.8461	0.00000	0.08	896.178	276.77	0.01
PettyHR	M001	2712.72	20-Existing-CBCL	68.900010	61.310	64.844640		64.8457	0.00000	0.15	506.171	174.09	0.02
PettyHR	M001	2671.95	20-Existing-CBCL	68.900010	61.310	64.843840		64.8454	0.00001	0.19	452.475	170.83	0.03
PettyHR	M001	2653.10	20-Existing-CBCL	68.900010	61.310	64.842950		64.8452	0.00001	0.22	385.352	152.64	0.04
PettyHR	M001	2632.46	20-Existing-CBCL	68.900010	61.310	64.836040		64.8441	0.00005	0.45	223.348	111.17	0.08
PettyHR	M001	2596.08	20-Existing-CBCL	68.900010	61.310	64.831740		64.8420	0.00005	0.49	196.318	107.00	0.08
PettyHR	M001	2583.24	20-Existing-CBCL	68.900010	60.100	64.770390	62.4166	64.8350	0.00032	1.26	99.412	94.22	0.20
PettyHR	M001	2580		Bridge									
PettyHR	M001	2573.39	20-Existing-CBCL	68.900010	60.000	64.658580	62.0036	64.6850	0.00014	0.83	135.758	75.35	0.13
PettyHR	M001	2551.09	20-Existing-CBCL	68.900010	59.890	64.669880		64.6724	0.00001	0.24	342.403	104.07	0.04
PettyHR	M001	2426.14	20-Existing-CBCL	68.900010	59.270	64.671280		64.6715	0.00000	0.07	1093.861	264.73	0.01
PettyHR	M001	2315.39	20-Existing-CBCL	68.900010	58.720	64.671270		64.6714	0.00000	0.05	1347.700	303.52	0.01
PettyHR	M001	2204.15	20-Existing-CBCL	68.900010	58.160	64.671230		64.6714	0.00000	0.05	1359.427	304.38	0.01
PettyHR	M001	2022.45	20-Existing-CBCL	68.900010	57.260	64.670860		64.6712	0.00000	0.09	829.477	169.70	0.01
PettyHR	M001	1902.10	20-Existing-CBCL	68.900010	56.660	64.670430		64.6711	0.00000	0.11	644.408	126.18	0.02
PettyHR	M001	1879.72	20-Existing-CBCL	68.900010	56.550	64.669510		64.6709	0.00000	0.18	467.756	106.60	0.02
PettyHR	M001	1824.42	20-Existing-CBCL	68.900010	56.280	64.667850		64.6705	0.00001	0.23	317.166	64.65	0.03
PettyHR	M001	1789.72	20-Existing-CBCL	68.900010	56.100	64.666440		64.6702	0.00001	0.27	268.631	54.14	0.04
PettyHR	M001	1724.70	20-Existing-CBCL	68.900010	55.780	64.664510		64.6694	0.00001	0.31	235.328	46.73	0.04
PettyHR	M001	1668.81	20-Existing-CBCL	68.900010	55.500	64.665480	57.7415	64.6683	0.00001	0.24	312.083	63.67	0.03
PettyHR	M001	1647.80	20-Existing-CBCL	68.900010	55.400	64.665930	57.4756	64.6679	0.00000	0.20	366.193	68.18	0.03
PettyHR	M001	1631.79	20-Existing-CBCL	68.900010	63.550	64.481290		64.6509	0.00475	1.82	37.761	40.58	0.60
PettyHR	M001	1615.46	20-Existing-CBCL	70.100000	54.380	56.234530		56.4093	0.00523	2.99	41.532	35.29	0.72
PettyHR	M001	1601.08	20-Existing-CBCL	70.100000	54.000	55.692810	55.6928	56.2474	0.01658	5.00	24.149	23.84	1.26
PettyHR	M001	1586.16	20-Existing-CBCL	70.100000	53.360	54.900550	55.1941	55.8733	0.03264	6.66	19.504	23.07	1.75
PettyHR	M001	1571.98	20-Existing-CBCL	70.100000	52.870	54.225430	54.5548	55.3214	0.04337	6.93	17.716	22.38	1.96
PettyHR	M001	1519.66	20-Existing-CBCL	70.100000	51.620	53.042290	53.1338	53.5258	0.02302	5.12	26.844	37.63	1.43
PettyHR	M001	1467.14	20-Existing-CBCL	70.100000	50.860	51.940880	51.9600	52.3008	0.02236	4.33	28.612	41.34	1.36
PettyHR	M001	1457.30	20-Existing-CBCL	70.100000	50.230	51.568530	51.6494	52.0660	0.02285	5.09	25.680	33.15	1.43
PettyHR	M001	1444.51	20-Existing-CBCL	70.100000	48.300	49.162560	49.6389	51.2728	0.17612	10.20	12.931	28.57	3.66
PettyHR	M001	1415.17	20-Existing-CBCL	70.100000	48.280	49.617090	49.2432	49.7329	0.00502	2.37	49.044	51.33	0.67
PettyHR	M001	1402.15	20-Existing-CBCL	70.100000	47.790	49.198950	49.1990	49.5939	0.01772	4.47	28.527	36.69	1.25
PettyHR	M001	1385.41	20-Existing-CBCL	70.100000	43.100	44.460830	45.3248	48.6051	0.12060	11.20	9.992	14.34	3.24
PettyHR	M001	1370.82	20-Existing-CBCL	70.100000	41.750	43.196060	44.0823	46.8574	0.10007	11.16	10.159	11.42	3.03
PettyHR	M001	1362.66	20-Existing-CBCL	70.100000	39.880	41.594730	42.7632	45.9980	0.09233	11.69	9.319	8.73	2.95
PettyHR	M001	1336.64	20-Existing-CBCL	70.100000	39.870	41.200320	41.7467	43.1493	0.07237	8.88	13.385	16.38	2.53
PettyHR	M001	1309.35	20-Existing-CBCL	70.100000	38.400	39.513720	39.9479	40.9805	0.07594	7.98	14.637	20.20	2.51
PettyHR	M001	1279.20	20-Existing-CBCL	70.100000	35.020	36.842570	37.7860	39.1608	0.04641	8.80	13.248	12.92	2.13
PettyHR	M001	1258.06	20-Existing-CBCL	70.100000	34.010	36.067870	36.7371	38.2368	0.03680	8.60	14.038	12.27	1.95
PettyHR	M001	1221.17	20-Existing-CBCL	70.100000	33.210	34.346620	34.7961	36.1150	0.08845	8.37	13.042	16.87	2.66
PettyHR	M001	1203.34	20-Existing-CBCL	70.100000	32.610	33.771100	34.0345	34.6525	0.05196	6.75	19.814	32.67	2.08
PettyHR	M001	1164.99	20-Existing-CBCL	70.100000	31.370	32.668130	32.8009	33.2140	0.02500	4.99	25.424	38.71	1.47
PettyHR	M001	1153.41	20-Existing-CBCL	70.100000	30.700	31.591710	31.9055	32.6736	0.08848	7.50	17.298	34.07	2.62
PettyHR	M001	1125.74	20-Existing-CBCL	70.100000	29.270	30.355560	30.5324	30.9826	0.03909	5.58	23.360	40.21	1.79
PettyHR	M001	1090.65	20-Existing-CBCL	70.100000	28.120	29.166940	29.3038	29.6450	0.03536	5.01	27.253	55.89	1.67
PettyHR	M001	1059.48	20-Existing-CBCL	70.100000	26.840	27.968270	28.1286	28.4945	0.03830	5.65	26.891	58.23	1.77
PettyHR	M001	1048.77	20-Existing-CBCL	70.100000	26.290	27.335270	27.5316	28.0158	0.04877	5.92	23.711	51.74	1.97
PettyHR	M001	1021.54	20-Existing-CBCL	70.100000	25.470	26.847650	26.8531	27.1943	0.01756	4.42	30.670	41.76	1.24
PettyHR	M001	1003.30	20-Existing-CBCL	70.100000	23.420	24.523050	25.0666	26.4333	0.08958	8.75	12.827	16.75	2.74
PettyHR	M001	994.73	20-Existing-CBCL	70.100000	22.700	24.322280	24.7632	25.7999	0.03939	7.50	15.092	13.81	1.93
PettyHR	M001	961.03	20-Existing-CBCL	70.100000	22.070	24.370850	24.4373	25.0064	0.01154	5.13	25.450	22.73	1.10
PettyHR	M001	944.13	20-Existing-CBCL	70.100000	21.890	23.211720	23.6269	24.5772	0.04707	7.11	16.113	19.58	2.04
PettyHR	M001	924.94	20-Existing-CBCL	70.100000	20.780	22.243700	22.6820	23.6802	0.04615	7.53	15.091	15.42	2.05
PettyHR	M001	905.47	20-Existing-CBCL	70.100000	19.730	21.443620	21.8861	22.9111	0.03531	7.42	15.510	14.10	1.85
PettyHR	M001	883.86	20-Existing-CBCL	70.100000	17.290	20.347880	19.5535	20.5322	0.00176	2.46	44.510	30.30	0.46
PettyHR	M001	875		Bridge									
PettyHR	M001	859.53	20-Existing-CBCL	70.100000	17.250	19.018290	19.0183	19.5626	0.01514	4.80	24.089	27.66	1.19
PettyHR	M001	836.76	20-Existing-CBCL	70.100000	12.800	14.298970	15.2806	17.9639	0.08276	10.31	9.857	9.49	2.77
PettyHR	M001	823.70	20-Existing-CBCL	70.100000	12.860	14.111750	14.7918	16.3968	0.08941	9.39	12.068	14.74	2.77
PettyHR	M001	811.96	20-Existing-CBCL	70.100000	12.850	14.491560	14.6737	15.4788	0.02868	6.51	19.408	21.02	1.66
PettyHR	M001	796.92	20-Existing-CBCL	70.100000	12.740	13.908500	14.2384	14.9028	0.05663	7.24	18.303	28.16	2.19
PettyHR	M001	784.11	20-Existing-CBCL	70.100000	11.820	13.434820	13.7606	14.3652	0.02907	6.41	21.756	30.09	1.66
PettyHR	M001	769.86	20-Existing-CBCL	70.100000	10.940	12.191500	12.6594	13.7348	0.05808	7.61	15.116	19.82	2.25
PettyHR	M001	748.76	20-Existing-CBCL	70.100000	8.370	10.301520	11.0582	12.6781	0.03833	8.25	13.598	13.95	1.95
PettyHR	M001	720.33	20-Existing-CBCL	70.100000	8.080	8.952314	9.4072	10.6793	0.13415	8.47	13.563	26.25	3.14
PettyHR	M001	707.57	20-Existing-CBCL	70.100000	6.850	8.089499	8.4628	9.4301	0.05898	7.56	17.536	31.05	2.25
PettyHR	M001	685.99	20-Existing-CBCL	70.100000	5.310	6.663176	7.1090	8.1395	0.05936	7.89	16.758	26.44	2.27
PettyHR	M001	666.04	20-Existing-CBCL	70.100000	5.030	6.464997	6.6683	7.1649	0.02382	5.25	25.095	39.72	1.46
PettyHR	M001	652.51	20-Existing-CBCL	70.100000	4.660	5.879298	6.1438	6.7308	0.03966	5.99	20.483	31.44	1.82
PettyHR	M001	633.61	20-Existing-CBCL	70.100000	4.400	5.264173	5.4432	5.8761	0.04549	5.06	23.565	74.53	1.85
PettyHR	M001	622.83	20-Existing-CBCL	70.100000	4.090	5.056231	5.0562	5.2862	0.01727	3.36	38.168	89.89	1.16
PettyHR	M001	577.97	20-Existing-CBCL	70.100000	2.480	3.607332	3.7494	4.0760	0.04447	6.02	29.165	99.50	1.90
PettyHR	M001	525.57	20-Existing-CBCL	70.100000	0.510	2.669182	1.9708	2.7477	0.00187	2.02	61.408	76.20	0.44
PettyHR	M001	491.94	20-Existing-CBCL	70.100000	-0.590	2.546532	1.5704	2.6893	0.00129	1.90	53.646	61.65	0.38
PettyHR	M001	485		Bridge									
PettyHR	M001	478.84	20-Existing-CBCL	70.100000	-1.920	2.546689	0.1404	2.5889	0.00022	0.95	104.532	141.59	0.16
PettyHR	M001	439.27	20-Existing-CBCL	70.100000	-1.890	2.559732		2.5669	0.00006	0.51	235.673	128.53	0.08
PettyHR	M001	405.68	20-Existing-CBCL	70.100000	-2.130	2.557448		2.5649	0.00005	0.49	233.429	131.82	0.08
PettyHR	M001	367.80	20-Existing-CBCL	70.100000	-2.020	2.558529		2.5620	0.00002	0.27	298.401	139.14	0.05
PettyHR	M001	338.85	20-Existing-CBCL	70.100000	-2.890	2.558787		2.5614	0.00001	0.23	337.944	121.91	0.04
PettyHR	M001	305.38	20-Existing-CBCL	70.100000	-2.460	2.557649		2.5610	0.00001	0.26	305.206	119.83	0.04
PettyHR	M001	269.29	20-Existing-CBCL	70.100000	-3.520	2.556655		2.5605	0.00001	0.28	286.433	110.06	0.04
PettyHR	M001	238.18	20-Existing-CBCL	70.100000	-3.500	2.554401		2.5599	0.00002	0.34	247.910	102.38	0.05
PettyHR	M001	201.25	20-Existing-CBCL	70.100000	-4.430	2.556388		2.5585	0.00001	0.21	366.743	119.83	0.03
PettyHR	M001	150.84	20-Existing-CBCL	70.100000	-3.340	2.556933		2.5580	0.00000	0.15	524.013	171.46	0.02
PettyHR	M001	105.74	20-Existing-CBCL	70.100000	-2.910	2.556777		2.5579	0.00000	0.15	506.583	154.11	0.02
PettyHR	M001	91.29	20-Existing-CBCL	70.100000	-3.360	2.556798		2.5578	0.00000	0.14	523.092	143.56	0.02

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	20.04	20-Existing-CBCL	70.100000	-6.190	2.556950		2.5575	0.00000	0.11	704.546	185.17	0.01
PettyHR	M001	12.04	20-Existing-CBCL	70.100000	-6.190	2.549957	-4.1137	2.5569	0.00003	0.40	267.307	185.14	0.05
ForthP	M001	2616.90	20-Existing-CBCL	8.599998	123.090	124.320400	123.3331	124.3208	0.00001	0.11	107.469	144.69	0.03
ForthP	M001	2528.45	20-Existing-CBCL	8.599998	123.090	124.320100		124.3203	0.00000	0.05	180.793	183.88	0.02
ForthP	M001	2324.32	20-Existing-CBCL	8.599998	123.090	124.318800		124.3192	0.00001	0.10	118.298	186.51	0.03
ForthP	M001	2187.52	20-Existing-CBCL	8.599998	123.090	124.318500		124.3186	0.00000	0.04	237.890	277.30	0.01
ForthP	M001	1955.13	20-Existing-CBCL	8.599998	123.090	124.318100		124.3181	0.00000	0.04	276.809	305.07	0.01
ForthP	M001	1773.83	20-Existing-CBCL	8.599998	123.090	124.317900		124.3179	0.00000	0.03	345.960	338.72	0.01
ForthP	M001	1572.85	20-Existing-CBCL	8.599998	123.090	124.317700		124.3178	0.00000	0.03	332.785	312.98	0.01
ForthP	M001	1496.60	20-Existing-CBCL	8.599998	123.090	124.317700		124.3177	0.00000	0.03	279.386	268.94	0.01
ForthP	M001	1392.58	20-Existing-CBCL	11.800000	122.980	124.315600	124.0064	124.3170	0.00012	0.37	81.312	160.06	0.10
ForthP	M001	1390		Culvert									
ForthP	M001	1381.72	20-Existing-CBCL	11.800000	122.950	123.994800	123.9800	124.0561	0.00563	1.95	18.884	106.12	0.63
ForthP	M001	1360.50	20-Existing-CBCL	11.800000	122.870	123.838000		123.9256	0.00582	1.84	12.259	33.33	0.66
ForthP	M001	1311.12	20-Existing-CBCL	11.800000	122.520	123.394100	123.3800	123.5197	0.01209	2.37	10.088	33.29	0.92
ForthP	M001	1261.17	20-Existing-CBCL	11.800000	121.360	122.572000	122.5720	122.9270	0.01090	2.96	5.485	8.73	0.94
ForthP	M001	1211.51	20-Existing-CBCL	11.800000	119.830	120.761700	121.1007	121.8426	0.05080	5.09	3.012	5.87	1.89
ForthP	M001	1161.66	20-Existing-CBCL	11.800000	117.250	118.074800	118.3462	119.1106	0.05855	4.97	3.202	9.44	2.00
ForthP	M001	1112.05	20-Existing-CBCL	11.800000	114.880	115.634400	115.8444	116.2901	0.05099	4.68	4.401	19.10	1.87
ForthP	M001	1062.35	20-Existing-CBCL	11.800000	113.160	113.865600	113.9292	114.1600	0.03339	3.30	5.513	14.38	1.43
ForthP	M001	1041.93	20-Existing-CBCL	11.800000	112.620	113.482500	113.5585	113.7876	0.02698	3.42	6.034	16.59	1.33
ForthP	M001	1031.90	20-Existing-CBCL	11.800000	112.310	113.261000	113.3310	113.5402	0.02069	3.31	7.823	34.32	1.20
ForthP	M001	1011.12	20-Existing-CBCL	11.800000	111.620	112.375200	112.4999	112.8869	0.04902	4.44	5.829	28.35	1.81
ForthP	M001	959.76	20-Existing-CBCL	11.800000	110.310	110.920200	110.9419	111.0492	0.02550	2.51	9.584	50.36	1.24
ForthP	M001	908.93	20-Existing-CBCL	11.800000	109.250	109.701800	109.6531	109.7365	0.01152	1.40	15.535	78.99	0.80
ForthP	M001	856.39	20-Existing-CBCL	11.800000	108.380	108.680000	108.6658	108.7258	0.02581	1.14	12.643	84.91	1.02
ForthP	M001	806.25	20-Existing-CBCL	11.800000	107.090	107.802000	107.8020	107.8728	0.01360	2.18	14.234	81.87	0.93
ForthP	M001	754.78	20-Existing-CBCL	11.800000	106.120	106.916500	106.9836	107.0988	0.01980	3.03	10.629	71.42	1.18
ForthP	M001	734.50	20-Existing-CBCL	11.800000	105.470	106.305700	106.4068	106.6701	0.02706	3.39	5.988	19.44	1.35
ForthP	M001	724.30	20-Existing-CBCL	11.800000	105.280	106.241300	106.2413	106.4472	0.01272	2.64	8.339	32.92	0.96
ForthP	M001	703.65	20-Existing-CBCL	11.800000	105.020	105.807400	105.8873	106.0557	0.02983	3.60	7.732	33.46	1.41
ForthP	M001	654.47	20-Existing-CBCL	11.800000	103.900	104.631000	104.5767	104.6957	0.00949	1.95	12.897	45.63	0.80
ForthP	M001	605.63	20-Existing-CBCL	11.800000	102.270	103.046800	103.0468	103.7780	0.05229	4.48	4.067	13.13	1.87
ForthP	M001	585.13	20-Existing-CBCL	11.800000	101.550	102.243300	102.3596	102.6603	0.04958	3.91	6.818	49.19	1.77
ForthP	M001	577.30	20-Existing-CBCL	11.800000	101.520	102.010300	102.0545	102.1853	0.05640	3.18	8.036	54.07	1.76
ForthP	M001	557.33	20-Existing-CBCL	11.800000	100.670	101.143100	101.1632	101.2519	0.03881	2.40	9.461	60.22	1.43
ForthP	M001	507.84	20-Existing-CBCL	11.800000	98.920	99.431470	99.4464	99.5246	0.03116	2.27	10.377	67.28	1.30
ForthP	M001	453.33	20-Existing-CBCL	11.800000	96.280	96.793050	96.8607	97.0689	0.06686	3.39	7.628	70.07	1.92
ForthP	M001	402.29	20-Existing-CBCL	11.800000	94.960	95.403570	95.4036	95.5021	0.03529	2.45	9.412	45.85	1.38
ForthP	M001	349.18	20-Existing-CBCL	11.800000	93.640	94.003860	93.9261	94.0406	0.01678	1.19	14.058	68.25	0.88
ForthP	M001	297.76	20-Existing-CBCL	11.800000	92.550	93.310920	93.3109	93.3923	0.01170	2.06	13.408	72.78	0.88
ForthP	M001	246.28	20-Existing-CBCL	11.800000	91.710	92.292370	92.2924	92.3480	0.01318	1.65	14.046	70.06	0.87
ForthP	M001	182.03	20-Existing-CBCL	11.800000	90.940	91.824200	91.5027	91.8370	0.00197	0.98	27.854	80.63	0.37
ForthP	M001	160.27	20-Existing-CBCL	11.800000	90.130	91.829960	90.8476	91.8310	0.00004	0.22	106.588	128.61	0.06
ForthP	M001	150		Culvert									
ForthP	M001	144.74	20-Existing-CBCL	11.800000	89.900	90.748410	90.5473	90.9002	0.00525	1.74	6.967	70.92	0.63
ForthP	M001	124.30	20-Existing-CBCL	11.800000	89.740	90.600760	90.6008	90.7301	0.01290	2.37	11.342	45.57	0.94
ForthP	M001	61.58	20-Existing-CBCL	11.800000	88.750	89.642230	89.6971	89.8298	0.01560	2.68	10.051	43.17	1.04
ForestP	M001	1557.91	20-Existing-CBCL	6.100001	78.250	79.690050	78.4402	79.6901	0.00000	0.04	145.310	121.12	0.01
ForestP	M001	1428.05	20-Existing-CBCL	6.100001	78.250	79.689920		79.6900	0.00000	0.03	198.013	175.97	0.01
ForestP	M001	1315.71	20-Existing-CBCL	6.100001	78.250	79.689870		79.6899	0.00000	0.02	278.761	241.91	0.01
ForestP	M001	1228.83	20-Existing-CBCL	6.100001	78.250	79.689840		79.6899	0.00000	0.02	333.387	287.08	0.01
ForestP	M001	1138.84	20-Existing-CBCL	6.100001	78.250	79.689830		79.6898	0.00000	0.02	390.420	339.59	0.00
ForestP	M001	1077.28	20-Existing-CBCL	6.100001	78.250	79.689800		79.6898	0.00000	0.02	430.157	479.01	0.00
ForestP	M001	1019.12	20-Existing-CBCL	6.100001	78.250	79.689740		79.6898	0.00000	0.03	216.336	278.89	0.01
ForestP	M001	958.61	20-Existing-CBCL	7.900001	78.150	79.673040	79.5024	79.6880	0.00050	0.64	23.410	67.78	0.19
ForestP	M001	955		Culvert									
ForestP	M001	949.85	20-Existing-CBCL	7.900001	77.760	79.443330	79.4433	79.6147	0.00837	2.03	6.392	24.32	0.56
ForestP	M001	913.34	20-Existing-CBCL	7.900001	78.160	79.000480	79.0329	79.1922	0.02480	3.18	5.291	16.92	1.21
ForestP	M001	883.23	20-Existing-CBCL	7.900001	77.540	78.291490	78.3525	78.5070	0.02091	2.83	6.508	35.06	1.18
ForestP	M001	859.61	20-Existing-CBCL	7.900001	76.750	77.380940	77.5022	77.7752	0.04772	3.78	3.711	13.08	1.72
ForestP	M001	831.71	20-Existing-CBCL	7.900001	75.740	76.625930	76.6882	76.9058	0.02125	3.13	4.334	10.36	1.19
ForestP	M001	802.91	20-Existing-CBCL	7.900001	74.660	75.359930	75.5512	75.9855	0.05012	4.23	2.974	9.18	1.81
ForestP	M001	772.90	20-Existing-CBCL	7.900001	73.770	74.466740	74.5247	74.7258	0.02998	3.28	4.388	12.94	1.38
ForestP	M001	737.48	20-Existing-CBCL	7.900001	72.770	73.367270	73.4272	73.5841	0.03331	3.07	5.024	20.18	1.43
ForestP	M001	688.06	20-Existing-CBCL	7.900001	71.800	72.349500	72.3495	72.4495	0.02835	2.54	6.703	31.86	1.24
ForestP	M001	651.32	20-Existing-CBCL	7.900001	70.810	71.380000	71.3966	71.5070	0.02336	2.59	6.707	29.87	1.21
ForestP	M001	600.44	20-Existing-CBCL	7.900001	69.800	70.250880	70.2850	70.3785	0.04151	2.79	7.021	48.28	1.53
ForestP	M001	578.60	20-Existing-CBCL	7.900001	69.310	69.900830	69.8958	69.9528	0.01169	1.83	12.544	85.09	0.86
ForestP	M001	528.92	20-Existing-CBCL	7.900001	68.580	69.230610	69.2306	69.3130	0.01409	2.12	9.544	50.47	0.95
ForestP	M001	478.55	20-Existing-CBCL	7.900001	68.210	69.187770	68.7601	69.1917	0.00039	0.49	38.231	99.78	0.17
ForestP	M001	430.82	20-Existing-CBCL	7.900001	67.770	69.183450		69.1845	0.00007	0.27	70.396	116.12	0.08
ForestP	M001	378.18	20-Existing-CBCL	7.900001	67.480	69.183100		69.1832	0.00001	0.11	178.735	248.38	0.03
ForestP	M001	328.07	20-Existing-CBCL	7.900001	67.340	69.182940		69.1830	0.00000	0.06	269.866	273.55	0.02
ForestP	M001	277.95	20-Existing-CBCL	7.900001	67.070	69.182850		69.1829	0.00000	0.05	337.987	307.30	0.01
ForestP	M001	195.51	20-Existing-CBCL	7.900001	66.230	69.182840		69.1829	0.00000	0.03	663.522	502.35	0.00
ForestP	M001	158.37	20-Existing-CBCL	7.900001	66.230	69.182840		69.1829	0.00000	0.01	1325.413	661.70	0.00
ForestP	M001	89.11	20-Existing-CBCL	7.900001	66.230	69.182850		69.1829	0.00000	0.01	1468.852	724.33	0.00
DoylesR	TR019	260.51	20-Existing-CBCL	0.300000	124.740	125.018900	124.9295	125.0215	0.00093	0.28	1.852	22.06	0.21
DoylesR	TR019	199.72	20-Existing-CBCL	0.300000	124.550	125.019400		125.0194	0.00000	0.02	24.691	123.29	0.01
DoylesR	TR019	150.00	20-Existing-CBCL	0.300000	124.370	125.019000		125.0190	0.00000	0.03	27.055	130.75	0.01
DoylesR	TR019	100.00	20-Existing-CBCL	0.300000	124.160	125.018800		125.0188	0.00000	0.03	22.683	91.02	0.01
DoylesR	TR019	50.00	20-Existing-CBCL	0.300000	124.180	125.018700		125.0187	0.00000	0.02	43.143	189.72	0.01
DoylesR	TR018	302.01	20-Existing-CBCL	1.100000	127.900	128.052300	128.0523	128.0818	0.01728	0.82	1.736	23.95	0.82
DoylesR	TR018	270.53	20-Existing-CBCL	1.100000	126.190	128.012300	126.7730	128.0123	0.00000	0.02	140.470	244.89	0.01
DoylesR	TR018	260		Culvert									
DoylesR	TR018	257.62	20-Existing-CBCL	1.100000	126.190	127.688400	126.8018	127.6884	0.00000	0.03	98.235	183.61	0.01

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR018	244.68	20-Existing-CBCL	1.100000	125.640	127.637400	126.4919	127.6766	0.00060	0.95	1.414	183.95	0.22
DoylesR	TR018	200		Culvert									
DoylesR	TR018	169.24	20-Existing-CBCL	1.100000	125.400	126.116300	126.0614	126.3720	0.01383	2.58	0.530	72.87	1.00
DoylesR	TR018	131.43	20-Existing-CBCL	1.100000	125.240	125.435000	125.4350	125.4613	0.02715	1.01	2.009	41.68	1.02
DoylesR	TR018	59.79	20-Existing-CBCL	1.100000	124.570	125.073900	124.8700	125.0765	0.00047	0.32	7.951	67.40	0.16
DoylesR	TR017	4043.45	20-Existing-CBCL	5.899999	124.050	124.989700		125.0096	0.00134	0.98	15.586	53.40	0.33
DoylesR	TR017	3983.69	20-Existing-CBCL	5.899999	124.040	124.882900		124.9130	0.00211	1.02	12.294	58.38	0.39
DoylesR	TR017	3923.93	20-Existing-CBCL	5.899999	124.030	124.585400	124.5854	124.6601	0.01457	1.65	6.908	42.00	0.91
DoylesR	TR017	3889.37	20-Existing-CBCL	5.899999	123.600	123.754400	123.6101	123.7667	0.00528	0.25	12.050	56.71	0.39
DoylesR	TR017	3781.64	20-Existing-CBCL	5.899999	122.550	123.387300	123.1677	123.4421	0.00468	1.52	9.481	40.54	0.57
DoylesR	TR017	3768.91	20-Existing-CBCL	5.899999	122.350	123.097700	123.0977	123.3219	0.01322	2.22	3.256	8.46	0.92
DoylesR	TR017	3745.98	20-Existing-CBCL	5.899999	121.860	122.372100	122.4511	122.6238	0.05597	2.84	3.541	25.75	1.70
DoylesR	TR017	3713.18	20-Existing-CBCL	5.899999	120.990	121.502500	121.5401	121.7071	0.02056	2.11	3.321	12.29	1.11
DoylesR	TR017	3692.45	20-Existing-CBCL	5.899999	120.340	120.912100	120.9924	121.1895	0.02836	2.54	3.006	12.01	1.30
DoylesR	TR017	3679.05	20-Existing-CBCL	5.899999	119.970	120.645600	120.7170	120.9002	0.01702	2.44	3.105	10.49	1.06
DoylesR	TR017	3656.84	20-Existing-CBCL	5.899999	117.590	118.004600	118.3266	119.7796	0.28641	5.97	1.050	5.32	3.83
DoylesR	TR017	3603.67	20-Existing-CBCL	5.899999	116.290	116.936600	116.9808	117.1071	0.01574	2.26	4.285	19.72	1.01
DoylesR	TR017	3583.40	20-Existing-CBCL	5.899999	115.960	116.525100	116.5548	116.7173	0.02584	2.51	3.944	20.56	1.25
DoylesR	TR017	3571.14	20-Existing-CBCL	5.899999	115.760	116.256800	116.2699	116.3786	0.02429	2.36	5.118	29.54	1.20
DoylesR	TR017	3545.42	20-Existing-CBCL	5.899999	115.220	115.742900	115.7691	115.8951	0.02376	2.19	4.208	18.56	1.16
DoylesR	TR017	3483.93	20-Existing-CBCL	5.899999	114.350	114.903000	114.8857	114.9542	0.01223	1.76	9.240	66.09	0.86
DoylesR	TR017	3432.55	20-Existing-CBCL	5.899999	113.790	114.473800	114.4109	114.5274	0.00800	1.65	8.847	55.83	0.71
DoylesR	TR017	3345.48	20-Existing-CBCL	5.899999	113.030	113.514600	113.5146	113.6042	0.02440	2.02	5.816	36.74	1.16
DoylesR	TR017	3300.07	20-Existing-CBCL	5.899999	112.420	112.923600	112.8510	112.9388	0.00514	0.95	12.902	73.76	0.53
DoylesR	TR016	918.87	20-Existing-CBCL	2.200000	127.080	128.789200	127.2470	128.7892	0.00000	0.01	400.460	360.52	0.00
DoylesR	TR016	898.71	20-Existing-CBCL	2.200000	126.900	128.789100	127.8212	128.7892	0.00000	0.02	193.778	225.03	0.01
DoylesR	TR016	890		Culvert									
DoylesR	TR016	882.28	20-Existing-CBCL	2.200000	126.880	128.725400	127.8390	128.7254	0.00000	0.05	104.194	157.83	0.01
DoylesR	TR016	877.71	20-Existing-CBCL	2.200000	126.240	128.725400	127.2267	128.7254	0.00000	0.06	123.064	188.57	0.01
DoylesR	TR016	850		Culvert									
DoylesR	TR016	848.13	20-Existing-CBCL	2.200000	126.370	127.330900	127.3309	127.7891	0.01322	3.00	0.734	4.36	1.00
DoylesR	TR016	818.98	20-Existing-CBCL	2.200000	126.360	126.812300	126.7700	126.8315	0.00377	0.83	5.758	50.10	0.46
DoylesR	TR016	768.99	20-Existing-CBCL	2.200000	126.300	126.617800	126.5720	126.6297	0.00464	0.71	6.052	49.66	0.48
DoylesR	TR016	714.09	20-Existing-CBCL	2.200000	125.960	126.334700	126.2634	126.3518	0.00532	0.81	4.975	34.67	0.52
DoylesR	TR016	675.95	20-Existing-CBCL	2.200000	125.740	126.062700	126.0627	126.1054	0.01384	1.17	3.481	38.02	0.82
DoylesR	TR016	659.39	20-Existing-CBCL	2.200000	125.100	125.404800	125.4838	125.6480	0.06441	2.53	1.327	12.62	1.77
DoylesR	TR016	632.80	20-Existing-CBCL	2.200000	124.780	125.230600	125.2306	125.2922	0.00966	1.29	2.961	25.62	0.73
DoylesR	TR016	610.50	20-Existing-CBCL	2.200000	123.780	124.181200	124.3403	124.7398	0.08215	3.49	0.772	4.24	2.08
DoylesR	TR016	549.37	20-Existing-CBCL	2.200000	122.300	122.883200	122.8832	123.0147	0.01588	1.89	1.881	10.53	0.95
DoylesR	TR016	494.31	20-Existing-CBCL	2.200000	120.930	121.475500	121.5537	121.7588	0.03444	2.37	0.956	3.60	1.34
DoylesR	TR016	473.82	20-Existing-CBCL	2.200000	120.180	120.635000	120.7327	120.9555	0.04488	2.56	0.942	4.36	1.54
DoylesR	TR016	459.95	20-Existing-CBCL	2.200000	119.620	120.043500	120.1322	120.3303	0.04438	2.40	0.977	4.70	1.51
DoylesR	TR016	439.99	20-Existing-CBCL	2.200000	119.050	119.609700	119.6466	119.8218	0.02478	2.05	1.110	4.06	1.15
DoylesR	TR016	384.99	20-Existing-CBCL	2.200000	117.070	117.491700	117.5874	117.8080	0.05871	2.49	0.888	4.34	1.70
DoylesR	TR016	329.99	20-Existing-CBCL	2.200000	115.670	116.131500	116.1541	116.2239	0.01617	1.48	2.273	22.43	0.92
DoylesR	TR016	274.18	20-Existing-CBCL	2.200000	114.930	115.298000	115.3079	115.3518	0.01477	1.25	3.295	42.49	0.86
DoylesR	TR016	218.88	20-Existing-CBCL	2.200000	114.350	114.706900	114.8032	115.0781	0.11870	2.77	0.970	13.57	2.27
DoylesR	TR016	165.43	20-Existing-CBCL	2.200000	113.830	114.334400	114.3226	114.4089	0.01080	1.35	2.750	28.96	0.77
DoylesR	TR016	86.48	20-Existing-CBCL	2.200000	112.800	113.214600	113.2146	113.3024	0.01878	1.44	1.988	12.36	0.96
DoylesR	TR016	40.19	20-Existing-CBCL	2.200000	112.210	112.747800	112.6768	112.7643	0.00324	0.81	5.999	46.63	0.43
DoylesR	TR015	3230.71	20-Existing-CBCL	13.000000	111.600	112.478800		112.5301	0.00631	1.83	18.151	70.84	0.68
DoylesR	TR015	3185.04	20-Existing-CBCL	13.000000	111.220	112.059200	112.0585	112.2025	0.01549	2.53	11.307	43.65	1.02
DoylesR	TR015	3133.58	20-Existing-CBCL	13.000000	110.570	111.367000	111.3670	111.4744	0.01297	2.37	12.698	46.21	0.95
DoylesR	TR015	3079.97	20-Existing-CBCL	13.000000	108.170	108.945300	109.2998	110.0264	0.06947	5.05	3.416	9.05	2.15
DoylesR	TR015	3026.43	20-Existing-CBCL	13.000000	107.300	109.080600	108.2212	109.0968	0.00036	0.72	30.412	33.69	0.18
DoylesR	TR015	3001.28	20-Existing-CBCL	13.000000	106.170	109.087600	108.0507	109.0896	0.00005	0.36	84.708	77.50	0.07
DoylesR	TR015	3000		Culvert									
DoylesR	TR015	2988.77	20-Existing-CBCL	13.000000	106.030	107.830800	107.8308	108.1110	0.00466	2.72	10.345	29.76	0.67
DoylesR	TR015	2963.30	20-Existing-CBCL	13.000000	105.690	106.494000	106.7812	107.5779	0.06409	5.43	4.357	15.75	2.08
DoylesR	TR015	2915.60	20-Existing-CBCL	13.000000	104.530	105.526500	105.6372	105.8730	0.01929	3.27	7.265	19.09	1.18
DoylesR	TR015	2867.64	20-Existing-CBCL	13.000000	103.370	104.398600	104.5677	104.8562	0.02723	4.00	6.366	15.39	1.39
DoylesR	TR015	2841.04	20-Existing-CBCL	13.000000	102.400	102.924000	103.0675	103.4460	0.11597	4.57	5.385	26.44	2.54
DoylesR	TR015	2804.73	20-Existing-CBCL	13.000000	101.670	102.439900	102.3979	102.5511	0.01335	2.33	11.612	33.98	0.95
DoylesR	TR015	2742.98	20-Existing-CBCL	13.000000	100.870	101.620200	101.6202	101.7208	0.01548	2.54	14.398	62.42	1.03
DoylesR	TR015	2687.77	20-Existing-CBCL	13.000000	100.070	100.652400	100.6603	100.7550	0.02203	2.42	12.636	61.33	1.17
DoylesR	TR015	2638.14	20-Existing-CBCL	13.000000	98.950	99.686940	99.7546	99.9067	0.02715	3.36	9.974	42.69	1.36
DoylesR	TR015	2593.26	20-Existing-CBCL	13.000000	97.750	98.737790	98.7584	98.9043	0.01326	2.78	10.875	33.78	0.98
DoylesR	TR015	2557.12	20-Existing-CBCL	13.000000	97.530	98.479270	98.4314	98.5731	0.00819	2.23	13.620	39.00	0.78
DoylesR	TR015	2522.34	20-Existing-CBCL	13.000000	97.260	98.135490	98.1355	98.2712	0.01153	2.25	11.451	38.92	0.89
DoylesR	TR015	2483.94	20-Existing-CBCL	13.000000	96.950	97.643170	97.6072	97.7057	0.01303	1.98	14.572	59.06	0.90
DoylesR	TR015	2438.99	20-Existing-CBCL	13.000000	96.350	97.347210	97.3165	97.4064	0.00505	1.74	19.579	80.13	0.62
DoylesR	TR015	2387.12	20-Existing-CBCL	13.000000	96.390	97.224780		97.2384	0.00248	1.01	31.393	117.26	0.41
DoylesR	TR015	2352.45	20-Existing-CBCL	13.000000	96.400	97.186840		97.1922	0.00077	0.56	42.299	96.77	0.23
DoylesR	TR015	2283.37	20-Existing-CBCL	13.000000	95.750	97.024890		97.0967	0.00292	1.63	13.877	21.23	0.49
DoylesR	TR015	2231.50	20-Existing-CBCL	13.000000	95.540	96.566450	96.5536	96.8088	0.01268	2.79	7.672	15.35	0.98
DoylesR	TR015	2160.12	20-Existing-CBCL	13.000000	94.930	95.858090		96.0005	0.00920	2.18	9.692	21.17	0.82
DoylesR	TR015	2119.11	20-Existing-CBCL	13.000000	94.440	95.422740	95.4227	95.6084	0.01172	2.59	9.614	25.36	0.93
DoylesR	TR015	2075.88	20-Existing-CBCL	13.000000	93.860	94.719640	94.7520	94.9858	0.01785	2.88	8.436	32.21	1.13
DoylesR	TR015	2024.01	20-Existing-CBCL	13.000000	93.190	94.170720	94.1698	94.3203	0.01084	2.42	10.996	41.72	0.89
DoylesR	TR015	1972.14	20-Existing-CBCL	13.000000	92.710	93.666180	93.6662	93.7835	0.01077	2.46	12.476	59.08	0.88
DoylesR	TR015	1921.75	20-Existing-CBCL	13.000000	92.350	93.320270	93.0494	93.3433	0.00249	1.21	23.291	63.06	0.43
DoylesR	TR015	1851.62	20-Existing-CBCL	13.000000	91.240	92.642560	92.6426	93.0497	0.01168	3.21	5.891	10.35	0.95
DoylesR	TR014	2057.49	20-Existing-CBCL	7.800000	125.480	126.451200	126.3106	126.4898	0.00318	1.23	13.860	55.67	0.47
DoylesR	TR014	2037.89	20-Existing-CBCL	7.800000	125.570	126.452400		126.4573	0.00056	0.54	32.573	91.83	0.20
DoylesR	TR014	1988.88	20-Existing-CBCL	7.800000	124.710	126.380000	125.7108	126.4227	0.00070	0.95	11.696	34.90	0.25
DoylesR	TR014	1980		Culvert									
DoylesR	TR014	1975.46	20-Existing-CBCL	7.800000	124.460	126.208600	125.4598	126.2566	0.00070	0.99	8.826	8.07	0.25

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR014	1936.56	20-Existing-CBCL	7.800000	124.860	126.019100		126.1700	0.00446	1.94	5.926	9.47	0.61
DoylesR	TR014	1904.43	20-Existing-CBCL	7.800000	124.720	125.705800	125.7058	125.9589	0.00942	2.47	4.712	10.65	0.85
DoylesR	TR014	1867.03	20-Existing-CBCL	7.800000	124.610	125.486400	125.3270	125.5805	0.00493	1.65	8.177	22.38	0.61
DoylesR	TR014	1801.50	20-Existing-CBCL	7.800000	124.000	124.893300	124.8933	125.0989	0.01097	2.48	5.376	13.34	0.90
DoylesR	TR014	1765.57	20-Existing-CBCL	7.800000	123.200	123.661800	123.8391	124.2477	0.07116	3.71	2.870	14.58	2.03
DoylesR	TR014	1703.29	20-Existing-CBCL	7.800000	121.820	122.565400	122.5654	122.7927	0.01233	2.37	4.665	11.53	0.94
DoylesR	TR014	1657.91	20-Existing-CBCL	7.800000	121.270	121.922700	121.9809	122.1602	0.01617	2.30	4.431	14.44	1.03
DoylesR	TR014	1607.98	20-Existing-CBCL	7.800000	120.590	121.365500	121.3862	121.5026	0.01019	2.10	8.197	41.39	0.84
DoylesR	TR014	1544.18	20-Existing-CBCL	7.800000	119.810	120.585500	120.6336	120.7689	0.01278	2.40	7.089	34.90	0.95
DoylesR	TR014	1492.70	20-Existing-CBCL	7.800000	119.060	119.634900	119.7181	119.8713	0.02431	2.66	5.804	34.69	1.25
DoylesR	TR014	1441.23	20-Existing-CBCL	7.800000	117.590	118.474300	118.5271	118.8200	0.01734	3.16	4.050	8.81	1.14
DoylesR	TR014	1420.98	20-Existing-CBCL	7.800000	116.980	118.033700	117.6566	118.0883	0.00226	1.31	9.107	12.78	0.43
DoylesR	TR014	1411.86	20-Existing-CBCL	7.800000	117.030	117.950500	117.6436	118.0527	0.00390	1.67	6.085	11.75	0.56
DoylesR	TR014	1400		Bridge									
DoylesR	TR014	1384.41	20-Existing-CBCL	9.000000	116.710	117.394500	117.3945	117.6732	0.01509	2.51	4.071	9.55	1.03
DoylesR	TR014	1374.60	20-Existing-CBCL	9.000000	116.540	117.330200	117.2447	117.4956	0.00834	1.98	5.681	11.07	0.78
DoylesR	TR014	1353.25	20-Existing-CBCL	9.000000	116.210	117.007000	117.0070	117.2654	0.01318	2.50	4.629	9.47	0.97
DoylesR	TR014	1309.14	20-Existing-CBCL	9.000000	115.500	116.138900	116.2099	116.5011	0.02321	2.67	3.405	7.46	1.22
DoylesR	TR014	1296.25	20-Existing-CBCL	9.000000	115.120	115.959000	116.0299	116.3331	0.01830	3.06	3.900	7.60	1.16
DoylesR	TR014	1239.25	20-Existing-CBCL	9.000000	113.430	114.014500	114.2126	114.6377	0.05004	3.84	3.073	10.05	1.79
DoylesR	TR014	1203.69	20-Existing-CBCL	9.000000	112.840	113.566500	113.5286	113.6717	0.01085	2.20	7.884	23.46	0.87
DoylesR	TR014	1182.25	20-Existing-CBCL	9.000000	112.530	113.262300	113.2623	113.4210	0.01207	2.27	6.936	20.18	0.92
DoylesR	TR014	1125.25	20-Existing-CBCL	9.000000	111.300	112.382700	112.2044	112.4436	0.00365	1.64	11.037	22.30	0.54
DoylesR	TR014	1104.23	20-Existing-CBCL	9.000000	111.160	112.107300	112.1073	112.3065	0.01072	2.43	6.337	16.17	0.89
DoylesR	TR014	1094.88	20-Existing-CBCL	9.000000	110.550	111.240100	111.4970	112.0485	0.05903	4.84	2.993	8.73	2.01
DoylesR	TR014	1075.36	20-Existing-CBCL	9.000000	110.170	111.129800	111.1931	111.3846	0.01441	3.01	6.377	18.19	1.04
DoylesR	TR014	1027.18	20-Existing-CBCL	9.000000	109.150	109.860400	110.0049	110.3281	0.03622	3.62	4.257	15.03	1.55
DoylesR	TR014	980.74	20-Existing-CBCL	9.000000	107.890	108.839000	108.5605	108.8927	0.00339	1.49	10.987	19.61	0.51
DoylesR	TR014	954.47	20-Existing-CBCL	9.000000	107.680	108.528400	108.5284	108.7256	0.01247	2.49	6.532	18.05	0.95
DoylesR	TR014	934.37	20-Existing-CBCL	9.000000	106.990	107.792800	107.9114	108.2700	0.03009	3.54	4.261	14.31	1.43
DoylesR	TR014	907.24	20-Existing-CBCL	9.000000	106.520	107.257400	107.3164	107.4956	0.02265	3.09	6.601	24.74	1.25
DoylesR	TR014	868.80	20-Existing-CBCL	9.000000	105.880	106.715700	106.7157	106.9429	0.01315	2.51	5.930	15.69	0.97
DoylesR	TR014	864.98	20-Existing-CBCL	9.000000	105.700	106.535800	106.6149	106.8742	0.01836	2.72	4.095	10.25	1.12
DoylesR	TR014	844.06	20-Existing-CBCL	9.000000	105.100	106.146600	106.0578	106.3183	0.00713	2.19	6.385	11.90	0.74
DoylesR	TR014	836.52	20-Existing-CBCL	9.000000	104.970	105.974200	105.9742	106.2391	0.01233	2.61	5.009	10.48	0.94
DoylesR	TR014	816.09	20-Existing-CBCL	9.000000	104.780	105.342500	105.4976	105.7681	0.05087	3.48	3.875	14.47	1.75
DoylesR	TR014	811.48	20-Existing-CBCL	9.000000	104.640	105.463900	105.3287	105.5503	0.00662	1.80	8.674	19.44	0.69
DoylesR	TR014	783.28	20-Existing-CBCL	9.000000	103.980	105.013300	105.0133	105.2829	0.01220	2.88	5.158	9.61	0.97
DoylesR	TR014	751.27	20-Existing-CBCL	9.000000	103.310	104.157100	104.3062	104.6701	0.03027	3.21	3.047	7.96	1.40
DoylesR	TR014	717.94	20-Existing-CBCL	9.000000	102.630	103.848900	103.8734	104.1052	0.01016	2.92	5.993	12.88	0.89
DoylesR	TR014	676.43	20-Existing-CBCL	9.000000	102.180	103.067600	103.2086	103.4862	0.02155	3.12	3.987	10.31	1.23
DoylesR	TR014	601.44	20-Existing-CBCL	9.000000	101.390	102.178300	102.1783	102.3378	0.01289	2.33	6.534	19.25	0.94
DoylesR	TR014	540.83	20-Existing-CBCL	9.000000	100.490	102.065800	101.3967	102.0945	0.00073	0.95	18.186	34.83	0.26
DoylesR	TR014	519.25	20-Existing-CBCL	9.000000	99.690	102.080500	101.3511	102.0827	0.00008	0.37	56.044	73.65	0.08
DoylesR	TR014	510		Culvert									
DoylesR	TR014	505.00	20-Existing-CBCL	9.000000	99.620	101.297300	101.2973	102.0796	0.01249	3.98	2.350	24.63	1.00
DoylesR	TR014	484.27	20-Existing-CBCL	9.000000	99.790	100.489500	100.7583	101.4622	0.09958	5.14	2.483	7.60	2.42
DoylesR	TR014	426.15	20-Existing-CBCL	9.000000	98.710	99.713580	99.7136	99.9839	0.01257	2.42	4.468	9.61	0.94
DoylesR	TR014	368.05	20-Existing-CBCL	9.000000	97.300	98.327500	98.5241	98.8856	0.03109	3.66	3.578	11.99	1.42
DoylesR	TR014	343.01	20-Existing-CBCL	9.000000	96.780	98.084620	97.6259	98.1926	0.00235	1.51	6.625	62.00	0.44
DoylesR	TR014	335		Bridge									
DoylesR	TR014	331.91	20-Existing-CBCL	9.000000	96.630	97.729900	97.7299	98.0792	0.01149	2.71	3.813	6.53	0.93
DoylesR	TR014	312.09	20-Existing-CBCL	9.000000	96.260	97.435160	97.5640	97.7860	0.02015	2.88	4.927	25.53	1.12
DoylesR	TR014	227.09	20-Existing-CBCL	9.000000	94.660	96.311680	95.9724	96.3639	0.00223	1.46	13.097	25.48	0.40
DoylesR	TR014	205.76	20-Existing-CBCL	9.000000	94.510	96.028500	96.0285	96.2670	0.00737	2.44	6.194	16.12	0.72
DoylesR	TR014	198.96	20-Existing-CBCL	9.000000	94.450	95.070190	95.3526	96.0623	0.10123	4.42	2.090	7.68	2.40
DoylesR	TR014	181.77	20-Existing-CBCL	9.000000	94.010	95.090610	95.1140	95.3010	0.01080	2.47	6.638	20.21	0.88
DoylesR	TR014	121.12	20-Existing-CBCL	9.000000	92.990	94.037830	94.1951	94.4231	0.01776	3.06	4.613	25.55	1.12
DoylesR	TR014	34.73	20-Existing-CBCL	9.000000	91.600	92.372260	92.4680	92.7417	0.02314	2.88	3.902	10.06	1.24
DoylesR	TR012	1780.65	20-Existing-CBCL	21.900000	90.300	92.051020	91.4794	92.1442	0.00173	1.47	20.859	31.32	0.39
DoylesR	TR012	1753.67	20-Existing-CBCL	21.900000	89.560	92.087710	90.9454	92.1096	0.00026	0.83	51.782	59.53	0.17
DoylesR	TR012	1745		Bridge									
DoylesR	TR012	1729.43	20-Existing-CBCL	21.900000	89.100	90.726160	90.7881	91.4724	0.01258	3.90	5.934	11.59	1.03
DoylesR	TR012	1709.20	20-Existing-CBCL	21.900000	88.930	90.368680	90.6051	91.1426	0.02126	4.49	8.064	19.05	1.31
DoylesR	TR012	1645.76	20-Existing-CBCL	21.900000	88.200	89.207730	89.3098	89.6557	0.02067	3.45	8.811	16.46	1.24
DoylesR	TR011	1552.47	20-Existing-CBCL	31.399980	86.480	88.389150	88.1023	88.7226	0.00510	2.79	14.810	13.07	0.70
DoylesR	TR011	1530.88	20-Existing-CBCL	31.399980	86.190	87.962300	87.9623	88.5439	0.01027	3.81	11.442	10.58	0.98
DoylesR	TR011	1477.56	20-Existing-CBCL	31.399980	84.430	85.605920	86.0788	87.3287	0.06053	6.44	6.801	12.38	2.16
DoylesR	TR011	1423.69	20-Existing-CBCL	31.399980	83.560	85.256170	85.2637	85.8582	0.01069	3.70	10.815	10.31	0.99
DoylesR	TR011	1370.10	20-Existing-CBCL	31.399980	82.660	83.831360	84.1119	84.8211	0.04044	5.45	10.514	28.28	1.79
DoylesR	TR011	1316.51	20-Existing-CBCL	31.399980	81.170	82.591870	82.7279	83.3393	0.01857	4.23	9.550	11.41	1.26
DoylesR	TR011	1262.92	20-Existing-CBCL	31.399980	79.360	80.845560	81.2033	82.0645	0.02902	5.35	7.924	11.50	1.56
DoylesR	TR011	1209.33	20-Existing-CBCL	31.399980	78.140	79.945520	80.1516	80.8103	0.01648	4.49	9.124	9.99	1.20
DoylesR	TR011	1155.74	20-Existing-CBCL	31.399980	76.810	78.433080	78.8078	79.6405	0.02798	5.28	7.513	8.78	1.51
DoylesR	TR011	1107.39	20-Existing-CBCL	31.399980	76.340	77.692690	77.8488	78.3782	0.01903	3.79	9.318	12.19	1.23
DoylesR	TR011	1057.82	20-Existing-CBCL	31.399980	75.160	76.940860	77.0521	77.5938	0.01326	3.82	10.207	11.53	1.06
DoylesR	TR011	971.36	20-Existing-CBCL	31.399980	73.330	74.070620	74.4488	75.3698	0.06329	5.05	6.218	17.43	2.09
DoylesR	TR011	960		Bridge									
DoylesR	TR011	949.62	20-Existing-CBCL	31.399980	73.080	74.825960	74.1342	74.9915	0.00202	1.80	17.419	14.10	0.45
DoylesR	TR011	929.53	20-Existing-CBCL	31.399980	72.740	74.283350	74.2944	74.8076	0.01144	3.39	10.924	11.64	0.99
DoylesR	TR011	872.05	20-Existing-CBCL	31.399980	72.260	74.004710	74.0047	74.2286	0.00678	2.83	23.564	53.97	0.77
DoylesR	TR011	816.76	20-Existing-CBCL	31.399980	72.000	72.811780	72.9370	73.2957	0.08255	5.42	14.857	81.22	2.29
DoylesR	TR011	760.16	20-Existing-CBCL	31.399980	71.250	72.334040	72.2923	72.4349	0.01021	2.65	28.542	78.91	0.88
DoylesR	TR011	712.26	20-Existing-CBCL	31.399980	70.340	71.641430	71.6414	71.8546	0.01231	3.17	20.844	52.00	0.99
DoylesR	TR011	663.11	20-Existing-CBCL	31.399980	70.080	71.357580	71.2582	71.4071	0.00580	2.06	41.785	120.16	0.65
DoylesR	TR013	2205.78	20-Existing-CBCL	6.700001	95.880	96.572280	96.3771	96.5814	0.00132	0.80	21.138	88.57	0.31
DoylesR	TR013	2147.59	20-Existing-CBCL	6.700001	95.870	96.479160		96.4927	0.00170	0.76	15.068	40.32	0.34

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR013	2097.40	20-Existing-CBCL	6.700001	95.860	96.216870	96.2169	96.2817	0.02047	1.71	8.048	62.24	1.05
DoylesR	TR013	2011.99	20-Existing-CBCL	6.700001	93.670	94.528350	94.4761	94.7135	0.00870	2.05	4.165	9.49	0.79
DoylesR	TR013	1957.46	20-Existing-CBCL	6.700001	93.050	93.952180	93.9522	94.1893	0.01107	2.60	4.095	9.47	0.92
DoylesR	TR013	1909.18	20-Existing-CBCL	6.700001	92.330	93.129780	93.2387	93.4851	0.01867	2.89	3.970	23.87	1.14
DoylesR	TR013	1861.01	20-Existing-CBCL	6.700001	91.270	92.131190	92.3264	92.5510	0.02012	3.02	2.882	13.23	1.18
DoylesR	TR013	1789.09	20-Existing-CBCL	6.700001	90.000	90.502150	90.5757	90.7078	0.03077	2.59	5.468	47.78	1.35
DoylesR	TR013	1733.37	20-Existing-CBCL	6.700001	89.530	90.194020	90.1016	90.2193	0.00340	1.02	13.449	68.54	0.47
DoylesR	TR013	1677.65	20-Existing-CBCL	6.700001	89.420	89.775280	89.7535	89.8303	0.01954	1.60	7.490	48.11	1.01
DoylesR	TR013	1613.85	20-Existing-CBCL	6.700001	89.110	89.566260		89.5729	0.00178	0.59	20.788	91.55	0.32
DoylesR	TR013	1552.30	20-Existing-CBCL	6.700001	88.820	89.472200		89.4845	0.00170	0.80	18.247	66.75	0.34
DoylesR	TR013	1506.96	20-Existing-CBCL	6.700001	88.810	89.411610		89.4229	0.00150	0.72	18.565	63.89	0.32
DoylesR	TR013	1478.17	20-Existing-CBCL	6.700001	88.800	89.220260	89.2203	89.3022	0.02391	1.95	6.805	40.69	1.14
DoylesR	TR013	1411.61	20-Existing-CBCL	6.700001	88.110	89.040950	88.6768	89.0585	0.00096	0.74	13.401	28.68	0.27
DoylesR	TR013	1388.58	20-Existing-CBCL	6.700001	87.450	89.047380	88.8024	89.0499	0.00007	0.29	53.715	151.52	0.08
DoylesR	TR013	1375		Culvert									
DoylesR	TR013	1373.86	20-Existing-CBCL	6.700001	87.320	88.502190	88.5022	88.5919	0.00385	1.78	6.565	11.48	0.54
DoylesR	TR013	1301.72	20-Existing-CBCL	6.700001	86.820	87.710530	87.7524	88.0384	0.01524	2.73	3.074	6.37	1.04
DoylesR	TR013	1246.99	20-Existing-CBCL	6.700001	85.790	86.528820	86.6470	86.9682	0.02568	3.00	2.448	5.74	1.30
DoylesR	TR013	1192.26	20-Existing-CBCL	6.700001	84.790	85.703610	85.6219	85.8843	0.00851	2.09	4.259	8.96	0.78
DoylesR	TR013	1137.53	20-Existing-CBCL	6.700001	84.030	85.040630	85.0406	85.3315	0.01182	2.53	3.240	6.49	0.92
DoylesR	TR013	1082.80	20-Existing-CBCL	6.700001	83.550	84.403700	84.2965	84.5268	0.01065	1.95	5.852	21.51	0.83
DoylesR	TR013	1064.90	20-Existing-CBCL	6.700001	82.570	84.457410	83.5300	84.4739	0.00033	0.65	22.817	103.76	0.17
DoylesR	TR013	1050		Culvert									
DoylesR	TR013	1042.53	20-Existing-CBCL	6.700001	82.410	84.098280	83.2891	84.1113	0.00032	0.61	22.381	61.24	0.16
DoylesR	TR013	1022.06	20-Existing-CBCL	6.700001	82.710	83.842050	83.7219	84.0388	0.00682	2.25	4.205	6.91	0.73
DoylesR	TR013	969.32	20-Existing-CBCL	6.700001	82.400	83.250260	83.2503	83.5262	0.01414	2.72	3.414	6.55	1.02
DoylesR	TR013	915.66	20-Existing-CBCL	6.700001	81.800	82.795050	82.4879	82.8147	0.00134	0.96	14.293	34.71	0.32
DoylesR	TR013	867.93	20-Existing-CBCL	6.700001	81.400	82.658340		82.7237	0.00255	1.52	9.483	27.10	0.46
DoylesR	TR013	809.27	20-Existing-CBCL	6.700001	81.320	82.367390		82.5113	0.00506	1.77	4.603	8.28	0.62
DoylesR	TR013	756.07	20-Existing-CBCL	6.700001	80.750	81.773850	81.7739	82.1002	0.01164	2.83	3.215	5.38	0.95
DoylesR	TR013	702.82	20-Existing-CBCL	6.700001	79.910	80.796820	80.9221	81.2614	0.02148	3.32	2.671	5.69	1.23
DoylesR	TR013	651.60	20-Existing-CBCL	6.700001	78.060	78.788230	78.9714	79.5793	0.05383	4.09	1.896	5.21	1.83
DoylesR	TR013	588.74	20-Existing-CBCL	6.700001	75.890	76.701400	76.8095	77.1008	0.02763	2.82	2.488	6.44	1.30
DoylesR	TR013	543.29	20-Existing-CBCL	6.700001	75.200	75.918030	75.9238	76.1561	0.01491	2.18	3.226	7.65	0.98
DoylesR	TR013	489.08	20-Existing-CBCL	6.700001	73.770	74.699830	74.8183	75.1850	0.02089	3.39	2.589	4.94	1.22
DoylesR	TR013	436.90	20-Existing-CBCL	6.700001	72.110	72.916350	73.2763	73.6185	0.04563	3.73	1.867	4.41	1.67
DoylesR	TR013	383.70	20-Existing-CBCL	6.700001	70.970	72.321820	71.8011	72.3399	0.00064	0.77	18.321	61.07	0.23
DoylesR	TR013	363.75	20-Existing-CBCL	6.700001	70.360	71.901640	71.9016	72.2750	0.00615	2.90	3.242	9.00	0.76
DoylesR	TR013	360		Culvert									
DoylesR	TR013	344.87	20-Existing-CBCL	6.700001	70.320	71.702220	71.7022	71.7085	0.00037	0.59	24.340	48.31	0.17
DoylesR	TR013	324.16	20-Existing-CBCL	6.700001	70.290	70.836680	70.9678	71.4937	0.11311	4.43	2.834	28.56	2.48
DoylesR	TR013	256.30	20-Existing-CBCL	6.700001	69.360	70.266640	70.2666	70.3389	0.00991	1.94	8.451	44.10	0.76
DoylesR	TR013	236.50	20-Existing-CBCL	6.700001	69.350	70.118550	69.9613	70.1228	0.00106	0.51	25.910	114.84	0.25
DoylesR	TR013	162.98	20-Existing-CBCL	6.700001	68.940	70.066310		70.0739	0.00089	0.64	22.407	98.89	0.24
DoylesR	TR013	133.14	20-Existing-CBCL	6.700001	68.760	70.052890		70.0547	0.00023	0.34	40.651	110.89	0.12
DoylesR	TR013	66.14	20-Existing-CBCL	6.700001	68.460	70.037590		70.0405	0.00021	0.38	31.274	76.98	0.12
DoylesR	M001	484.12	20-Existing-CBCL	38.300010	68.080	69.593620	69.5936	69.8075	0.01354	3.07	23.960	63.78	0.98
DoylesR	M001	429.44	20-Existing-CBCL	38.300010	67.720	69.372000	69.0742	69.4220	0.00337	1.68	47.834	111.26	0.49
DoylesR	M001	388.03	20-Existing-CBCL	38.300010	67.530	69.212140		69.2665	0.00428	1.94	49.775	122.45	0.56
DoylesR	M001	344.78	20-Existing-CBCL	38.300010	67.390	69.191230		69.1987	0.00058	0.77	112.533	193.20	0.21
DoylesR	M001	215.64	20-Existing-CBCL	38.300010	67.210	69.186560		69.1876	0.00004	0.23	290.786	313.43	0.06
DoylesR	M001	77.13	20-Existing-CBCL	38.300010	66.620	69.185870		69.1862	0.00001	0.15	533.994	485.93	0.03
CochranePB	M002	8105.53	20-Existing-CBCL	11.100000	140.650	142.200400	141.3148	142.2022	0.00011	0.33	72.860	102.83	0.09
CochranePB	M002	8065.47	20-Existing-CBCL	11.100000	140.640	142.182900		142.1929	0.00057	0.69	36.473	74.90	0.21
CochranePB	M002	8050.98	20-Existing-CBCL	11.100000	139.200	142.176700		142.1908	0.00005	0.55	37.071	62.69	0.12
CochranePB	M002	8024.09	20-Existing-CBCL	11.100000	140.620	142.176700		142.1882	0.00067	0.73	36.560	91.81	0.23
CochranePB	M002	8013.06	20-Existing-CBCL	11.100000	140.420	142.173500		142.1816	0.00039	0.62	41.467	84.49	0.18
CochranePB	M002	8004.70	20-Existing-CBCL	11.100000	140.250	142.173800	141.8023	142.1780	0.00023	0.63	56.422	106.76	0.15
CochranePB	M002	8000		Culvert									
CochranePB	M002	7995.14	20-Existing-CBCL	11.100000	140.370	142.172500	141.4634	142.1773	0.00015	0.49	53.110	78.24	0.12
CochranePB	M002	7964.49	20-Existing-CBCL	11.100000	140.140	141.700100	141.7001	142.0567	0.01165	3.12	5.791	9.34	0.90
CochranePB	M002	7901.64	20-Existing-CBCL	11.100000	139.300	140.643800	140.8083	141.0682	0.02169	3.12	4.834	12.82	1.14
CochranePB	M002	7847.08	20-Existing-CBCL	11.100000	138.680	139.743700	139.6435	139.8015	0.00748	1.59	13.984	44.58	0.66
CochranePB	M002	7812.33	20-Existing-CBCL	11.100000	138.520	139.304300	139.3043	139.3955	0.02196	2.04	10.981	53.86	1.10
CochranePB	M002	7738.34	20-Existing-CBCL	11.100000	137.940	138.879500	138.6906	138.8904	0.00221	0.79	29.855	113.31	0.37
CochranePB	M002	7695.32	20-Existing-CBCL	11.100000	137.670	138.562400	138.5624	138.6885	0.01615	1.97	9.641	39.88	0.98
CochranePB	M002	7609.21	20-Existing-CBCL	11.100000	136.290	137.686000	137.3151	137.7022	0.00080	0.75	28.979	70.22	0.25
CochranePB	M002	7515.77	20-Existing-CBCL	11.100000	136.280	137.562900		137.5957	0.00218	1.14	21.285	78.89	0.40
CochranePB	M002	7476.72	20-Existing-CBCL	11.100000	136.260	137.541600		137.5510	0.00061	0.60	34.548	88.98	0.21
CochranePB	M002	7450.86	20-Existing-CBCL	11.100000	136.250	137.511200		137.5297	0.00116	0.79	25.025	76.40	0.29
CochranePB	M002	7329.89	20-Existing-CBCL	11.100000	136.230	137.224600		137.2765	0.00536	1.36	15.527	72.23	0.59
CochranePB	M002	7253.62	20-Existing-CBCL	11.100000	136.050	137.054200		137.0701	0.00201	0.90	24.134	89.45	0.36
CochranePB	M002	7208.54	20-Existing-CBCL	11.100000	135.880	136.954400		136.9755	0.00247	1.03	23.414	87.69	0.41
CochranePB	M002	7108.13	20-Existing-CBCL	11.100000	135.540	136.433800	136.4338	136.5251	0.01504	2.19	11.696	55.12	0.94
CochranePB	M002	7041.67	20-Existing-CBCL	11.100000	134.910	136.071000	136.0017	136.1259	0.00357	1.24	16.809	75.51	0.50
CochranePB	M002	6985.71	20-Existing-CBCL	11.100000	134.290	135.473300	135.4733	135.7584	0.01404	2.70	6.817	22.56	0.98
CochranePB	M002	6955.25	20-Existing-CBCL	11.100000	133.480	134.611200	134.7626	135.1076	0.03158	3.20	3.956	10.47	1.39
CochranePB	M002	6863.52	20-Existing-CBCL	11.100000	131.820	132.814400	132.8291	132.9574	0.01627	2.34	9.775	36.84	1.00
CochranePB	M002	6840.09	20-Existing-CBCL	11.100000	131.190	132.089200	132.1687	132.3847	0.03865	2.95	6.798	35.24	1.49
CochranePB	M002	6808.25	20-Existing-CBCL	11.100000	130.510	131.405300	131.4304	131.5479	0.02437	2.34	9.128	40.33	1.16
CochranePB	M002	6767.75	20-Existing-CBCL	11.100000	129.310	130.257700	130.3413	130.5007	0.02651	2.61	7.583	40.97	1.26
CochranePB	M002	6727.78	20-Existing-CBCL	11.100000	128.360	129.434300	129.4740	129.6261	0.01788	2.41	8.141	32.36	1.04
CochranePB	M002	6691.71	20-Existing-CBCL	11.100000	127.960	128.993800	128.9167	129.0580	0.00725	1.55	14.708	67.21	0.67
CochranePB	M002	6651.54	20-Existing-CBCL	11.100000	127.680	128.607700		128.7050	0.01109	1.50	9.438	36.18	0.80
CochranePB	M002	6630.83	20-Existing-CBCL	11.100000	127.190	128.351800	128.3518	128.4964	0.00895	1.90	9.406	38.86	0.77
CochranePB	M002	6534.50	20-Existing-CBCL	11.100000	126.300	127.237500	127.2498	127.3774	0.01598	2.03	9.395	46.51	0.98
CochranePB	M002	6507.97	20-Existing-CBCL	11.100000	125.650	126.531800	126.5961	126.7391	0.03617	2.66	8.212	53.17	1.40

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	6480.50	20-Existing-CBCL	11.100000	124.970	125.866700	125.9141	125.9999	0.02248	2.27	9.253	50.21	1.13
CochranePB	M002	6433.33	20-Existing-CBCL	11.100000	124.090	125.009800	125.0292	125.1662	0.01833	1.95	7.951	35.33	1.03
CochranePB	M002	6400.96	20-Existing-CBCL	11.100000	123.400	124.496000	124.3409	124.5488	0.00533	1.34	13.767	42.00	0.57
CochranePB	M002	6364.18	20-Existing-CBCL	11.100000	123.280	124.498100		124.5040	0.00027	0.37	40.246	100.74	0.14
CochranePB	M002	6314.31	20-Existing-CBCL	11.100000	123.270	124.437900		124.4708	0.00198	0.94	18.223	49.57	0.37
CochranePB	M002	6286.25	20-Existing-CBCL	11.100000	123.260	124.355800		124.4025	0.00308	1.10	15.205	50.22	0.46
CochranePB	M002	6202.53	20-Existing-CBCL	11.100000	122.810	123.981500	123.8934	124.0829	0.00598	1.64	10.701	31.17	0.64
CochranePB	M002	6130.00	20-Existing-CBCL	11.100000	122.300	123.259700	123.2597	123.4253	0.01599	1.83	6.683	24.79	0.96
CochranePB	M002	6040.82	20-Existing-CBCL	11.100000	121.410	122.543300	122.4301	122.5848	0.00293	1.16	18.892	70.68	0.45
CochranePB	M002	6006.95	20-Existing-CBCL	11.100000	121.400	122.515100		122.5265	0.00084	0.51	27.821	87.55	0.23
CochranePB	M002	5976.09	20-Existing-CBCL	11.100000	121.390	122.368700	122.3687	122.4537	0.01228	1.67	12.449	67.97	0.85
CochranePB	M002	5910.40	20-Existing-CBCL	11.100000	120.290	121.425300	121.4678	121.6307	0.01555	2.41	8.405	36.52	1.00
CochranePB	M002	5863.68	20-Existing-CBCL	11.100000	119.620	120.503700	120.5846	120.7521	0.03137	2.45	6.392	31.89	1.32
CochranePB	M002	5811.63	20-Existing-CBCL	11.100000	118.870	119.835500	119.9301	120.1079	0.02805	2.79	7.121	38.47	1.30
CochranePB	M002	5768.42	20-Existing-CBCL	11.100000	117.380	118.344300	118.4578	118.7153	0.03944	2.73	4.421	19.51	1.49
CochranePB	M002	5725.36	20-Existing-CBCL	11.100000	116.480	117.547100	117.5723	117.7168	0.01397	2.09	8.154	34.36	0.93
CochranePB	M002	5678.58	20-Existing-CBCL	11.100000	115.390	116.396000	116.4875	116.7338	0.03040	2.60	4.646	18.21	1.33
CochranePB	M002	5627.04	20-Existing-CBCL	11.100000	114.790	116.097600	115.7945	116.1323	0.00203	1.06	17.346	37.08	0.38
CochranePB	M002	5609.94	20-Existing-CBCL	16.600000	114.770	115.908300		116.0190	0.00751	1.74	14.474	40.38	0.71
CochranePB	M002	5601.00	20-Existing-CBCL	16.600000	114.760	115.863900		115.8768	0.00194	0.87	38.016	106.62	0.35
CochranePB	M002	5568.52	20-Existing-CBCL	16.600000	114.750	115.817600		115.8291	0.00143	0.72	38.245	92.55	0.31
CochranePB	M002	5508.20	20-Existing-CBCL	16.600000	114.040	115.528500		115.6686	0.00437	1.73	11.546	19.85	0.58
CochranePB	M002	5473.67	20-Existing-CBCL	16.600000	113.900	115.218700	115.2187	115.4370	0.01061	2.36	10.923	26.53	0.87
CochranePB	M002	5403.83	20-Existing-CBCL	16.600000	110.690	111.749600	112.1908	113.5037	0.12422	5.91	2.957	7.82	2.73
CochranePB	M002	5352.19	20-Existing-CBCL	16.600000	110.270	111.550300	111.5503	111.8078	0.01364	2.48	9.095	20.01	0.97
CochranePB	M002	5309.83	20-Existing-CBCL	16.600000	109.640	111.004900	111.0856	111.2616	0.01253	2.52	11.233	40.25	0.94
CochranePB	M002	5266.90	20-Existing-CBCL	16.600000	109.300	110.580500	110.6240	110.7449	0.01089	2.29	16.544	76.25	0.87
CochranePB	M002	5213.45	20-Existing-CBCL	16.600000	108.810	110.279600	109.8395	110.2965	0.00100	0.79	37.207	78.12	0.27
CochranePB	M002	5162.38	20-Existing-CBCL	31.399980	108.180	109.911700	109.9117	110.1456	0.00837	2.88	24.045	50.57	0.82
CochranePB	M002	5109.83	20-Existing-CBCL	31.399980	108.020	109.399200	109.1145	109.4389	0.00366	1.35	43.701	96.36	0.50
CochranePB	M002	5059.83	20-Existing-CBCL	31.399980	107.540	109.097900		109.2343	0.00652	2.19	31.442	83.07	0.71
CochranePB	M002	5013.20	20-Existing-CBCL	31.399980	107.210	108.801000	108.8010	108.9466	0.00842	2.26	30.544	96.11	0.78
CochranePB	M002	4977.38	20-Existing-CBCL	31.399980	107.070	108.639200	108.4076	108.6708	0.00197	1.21	57.906	141.07	0.39
CochranePB	M002	4908.49	20-Existing-CBCL	31.399980	106.950	108.609500		108.6172	0.00057	0.72	100.046	192.50	0.21
CochranePB	M002	4883.44	20-Existing-CBCL	31.399980	106.940	108.596700		108.6014	0.00030	0.52	119.920	194.69	0.16
CochranePB	M002	4816.97	20-Existing-CBCL	31.399980	106.930	108.584900		108.5901	0.00030	0.52	122.417	217.88	0.16
CochranePB	M002	4757.22	20-Existing-CBCL	31.399980	106.780	108.574800		108.5791	0.00020	0.46	142.550	245.99	0.13
CochranePB	M002	4718.65	20-Existing-CBCL	31.399980	106.770	108.563400		108.5707	0.00031	0.59	122.875	302.21	0.17
CochranePB	M002	4674.22	20-Existing-CBCL	31.399980	106.760	108.534400		108.5546	0.00074	0.90	80.232	251.34	0.25
CochranePB	M002	4633.22	20-Existing-CBCL	31.399980	106.750	108.520400		108.5341	0.00031	0.57	79.978	152.16	0.17
CochranePB	M002	4561.03	20-Existing-CBCL	31.399980	106.740	108.454300		108.4951	0.00109	1.03	49.722	94.06	0.31
CochranePB	M002	4506.74	20-Existing-CBCL	31.399980	106.430	108.146100	108.1461	108.3564	0.00688	2.42	23.337	54.83	0.74
CochranePB	M002	4459.83	20-Existing-CBCL	31.399980	105.660	107.176400	107.3756	107.7951	0.02109	3.66	11.938	39.71	1.26
CochranePB	M002	4409.53	20-Existing-CBCL	31.399980	104.620	106.172300	106.3541	106.7443	0.02046	3.61	12.155	28.38	1.22
CochranePB	M002	4359.83	20-Existing-CBCL	31.399980	103.720	105.331500	105.4494	105.8350	0.01574	3.31	12.077	25.26	1.08
CochranePB	M002	4327.93	20-Existing-CBCL	31.399980	103.170	104.921100	105.0286	105.3700	0.01255	3.10	13.132	27.98	0.99
CochranePB	M002	4265.56	20-Existing-CBCL	31.399980	102.450	104.137600	104.1967	104.5443	0.01374	3.28	14.478	24.92	1.03
CochranePB	M002	4208.11	20-Existing-CBCL	31.399980	101.670	103.247000	103.3737	103.7166	0.01506	3.20	12.816	28.42	1.07
CochranePB	M002	4159.83	20-Existing-CBCL	31.399980	101.120	102.158900	102.2202	102.4458	0.05176	3.15	14.610	47.61	1.70
CochranePB	M002	4109.83	20-Existing-CBCL	31.399980	98.840	100.389600	100.5877	100.9715	0.01846	3.65	12.131	31.33	1.19
CochranePB	M002	4056.00	20-Existing-CBCL	31.399980	97.180	98.684210	98.9524	99.6149	0.03333	4.55	8.682	15.27	1.55
CochranePB	M002	4009.83	20-Existing-CBCL	31.399980	96.330	98.152750	98.2534	98.4822	0.01383	3.43	21.235	62.04	1.00
CochranePB	M002	3969.03	20-Existing-CBCL	31.399980	95.620	97.284200	97.5530	97.8860	0.01488	3.62	10.334	19.19	1.10
CochranePB	M002	3916.58	20-Existing-CBCL	31.399980	94.820	96.888860	97.0036	97.2292	0.00849	2.93	18.746	67.98	0.80
CochranePB	M002	3859.82	20-Existing-CBCL	31.399980	94.340	95.947450	96.0490	96.5508	0.01758	3.45	9.309	11.19	1.14
CochranePB	M002	3810.05	20-Existing-CBCL	31.399980	93.500	95.312870	95.4521	95.8218	0.01173	3.32	11.551	24.79	0.98
CochranePB	M002	3759.83	20-Existing-CBCL	31.399980	93.000	94.577810	94.7531	95.1034	0.01646	3.56	14.539	50.93	1.13
CochranePB	M002	3709.28	20-Existing-CBCL	31.399980	92.330	94.030650	94.1349	94.3667	0.01161	3.03	18.355	52.53	0.95
CochranePB	M002	3661.60	20-Existing-CBCL	31.399980	92.050	93.771880	93.7918	93.9342	0.00602	2.30	32.046	129.09	0.69
CochranePB	M002	3609.83	20-Existing-CBCL	31.399980	91.730	93.325790	93.3649	93.5377	0.00987	2.66	23.933	82.94	0.86
CochranePB	M002	3559.90	20-Existing-CBCL	31.399980	90.870	92.751020	92.8618	93.0585	0.00828	2.89	21.007	67.99	0.82
CochranePB	M002	3509.83	20-Existing-CBCL	31.399980	90.380	92.137080	92.2756	92.5516	0.01209	3.44	18.608	56.78	0.99
CochranePB	M002	3493.23	20-Existing-CBCL	31.399980	90.020	92.175030	91.6867	92.3736	0.00302	2.44	20.226	15.63	0.54
CochranePB	M002	3480		Bridge									
CochranePB	M002	3474.26	20-Existing-CBCL	31.399980	89.910	92.196240	91.3208	92.3088	0.00130	1.72	25.442	16.73	0.37
CochranePB	M002	3466.43	20-Existing-CBCL	31.399980	90.000	91.519970	91.4416	92.1361	0.00942	3.57	10.477	12.31	0.94
CochranePB	M002	3454.35	20-Existing-CBCL	31.399980	89.940	91.744610	91.2868	91.9531	0.00312	2.23	18.059	16.08	0.55
CochranePB	M002	3450		Bridge									
CochranePB	M002	3434.16	20-Existing-CBCL	34.400010	90.360	91.631530	91.4408	91.8989	0.00611	2.46	16.718	19.93	0.73
CochranePB	M002	3413.11	20-Existing-CBCL	34.400010	90.140	91.554240	91.5542	91.7033	0.00732	2.46	32.797	89.79	0.76
CochranePB	M002	3391.58	20-Existing-CBCL	34.400010	90.030	91.453700	91.1764	91.5285	0.00426	1.96	40.643	95.21	0.59
CochranePB	M002	3371.12	20-Existing-CBCL	34.400010	90.020	91.171330	91.1713	91.3862	0.01053	2.61	24.818	82.28	0.90
CochranePB	M002	3309.87	20-Existing-CBCL	34.400010	89.280	90.609650	90.5935	90.7228	0.01007	2.66	33.049	100.08	0.85
CochranePB	M002	3272.96	20-Existing-CBCL	34.400010	88.730	90.188610	90.1886	90.3547	0.00908	2.54	27.478	74.17	0.82
CochranePB	M002	3219.09	20-Existing-CBCL	34.400010	88.300	89.714970	89.7250	89.8665	0.00936	2.51	30.182	104.48	0.84
CochranePB	M002	3175.54	20-Existing-CBCL	34.400010	87.360	89.364040	89.1531	89.4912	0.00249	1.82	32.200	64.15	0.46
CochranePB	M002	3165		Bridge									
CochranePB	M002	3157.85	20-Existing-CBCL	34.400010	87.500	89.083900	89.0810	89.3638	0.00659	2.60	21.424	58.00	0.74
CochranePB	M002	3135.32	20-Existing-CBCL	34.400010	87.850	89.057150	89.0060	89.1184	0.00528	1.72	45.668	152.41	0.62
CochranePB	M002	3106.53	20-Existing-CBCL	34.400010	87.940	88.777590	88.7776	88.8804	0.02439	2.40	27.644	117.39	1.17
CochranePB	M002	3088.94	20-Existing-CBCL	34.400010	86.840	88.579850	88.0404	88.6449	0.00133	1.29	49.835	142.50	0.35
CochranePB	M002	3080		Bridge									
CochranePB	M002	3075.67	20-Existing-CBCL	34.400010	86.740	88.272620	87.9010	88.3332	0.00164	1.31	46.719	103.54	0.38
CochranePB	M002	3056.89	20-Existing-CBCL	34.400010	87.660	88.188770		88.2650	0.01615	0.92	28.434	99.07	0.79
CochranePB	M002	3007.54	20-Existing-CBCL	34.400010	87.610	87.908980		87.9365	0.00354	0.36	46.913	99.60	0.29
CochranePB	M002	2976.31	20-Existing-CBCL	34.400010	87.510	87.828350		87.8527	0.00310	0.41	49.992	110.70	0.32
CochranePB	M002	2941.08	20-Existing-CBCL	34.400010	86.980	87.763060		87.7741	0.00181	0.65	76.127	219.78	0.32

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	2920.10	20-Existing-CBCL	34.400010	86.740	87.754110	87.5443	87.7564	0.00019	0.27	167.642	295.25	0.10
CochranePB	M002	2915		Bridge									
CochranePB	M002	2912.75	20-Existing-CBCL	34.400010	86.970	87.752390	87.7524	87.7540	0.00011	0.22	200.702	313.30	0.09
CochranePB	M002	2890.23	20-Existing-CBCL	34.400010	86.650	86.805180	86.9715	87.5264	0.47416	3.27	9.144	69.25	3.74
CochranePB	M002	2823.99	20-Existing-CBCL	34.400010	86.080	87.028020	86.7358	87.0368	0.00149	0.64	84.982	238.65	0.27
CochranePB	M002	2789.49	20-Existing-CBCL	34.400010	86.040	87.002490		87.0107	0.00128	0.56	87.827	242.75	0.26
CochranePB	M002	2741.30	20-Existing-CBCL	34.400010	85.710	86.946760		86.9553	0.00101	0.72	93.084	256.85	0.27
CochranePB	M002	2663.79	20-Existing-CBCL	34.400010	85.580	86.896960		86.9072	0.00110	0.82	90.522	243.83	0.29
CochranePB	M002	2639.38	20-Existing-CBCL	34.400010	85.570	86.861020		86.8736	0.00147	0.89	82.228	227.87	0.33
CochranePB	M002	2616.24	20-Existing-CBCL	34.400010	85.300	86.844680		86.8537	0.00078	0.78	99.169	225.66	0.25
CochranePB	M002	2539.69	20-Existing-CBCL	34.400010	85.410	86.791770		86.8067	0.00150	0.94	78.659	216.78	0.33
CochranePB	M002	2489.06	20-Existing-CBCL	34.400010	85.180	86.743130		86.7601	0.00138	1.05	73.892	185.44	0.33
CochranePB	M002	2438.28	20-Existing-CBCL	34.400010	84.870	86.679940		86.7070	0.00141	1.14	70.027	164.07	0.34
CochranePB	M002	2384.01	20-Existing-CBCL	34.400010	84.650	86.589100		86.6283	0.00201	1.47	59.405	130.08	0.40
CochranePB	M002	2310.47	20-Existing-CBCL	34.400010	84.330	86.315400		86.4223	0.00438	2.09	40.352	104.21	0.58
CochranePB	M002	2284.63	20-Existing-CBCL	34.400010	84.160	86.256670		86.3137	0.00300	1.76	46.998	93.43	0.47
CochranePB	M002	2240.58	20-Existing-CBCL	34.400010	84.040	85.857350	85.8574	86.0923	0.00857	2.85	23.264	44.41	0.82
CochranePB	M002	2170.94	20-Existing-CBCL	34.400010	82.260	83.800710	84.1638	84.9306	0.03775	4.97	8.581	14.59	1.66
CochranePB	M002	2136.89	20-Existing-CBCL	34.400010	81.720	83.311150	83.4778	83.8745	0.01923	3.51	12.052	20.69	1.20
CochranePB	M002	2100.01	20-Existing-CBCL	34.400010	81.300	83.142560	83.1071	83.3798	0.00777	2.59	22.006	40.04	0.78
CochranePB	M002	2046.85	20-Existing-CBCL	34.400010	80.890	82.501650	82.5017	82.8630	0.01184	2.83	15.788	31.12	0.95
CochranePB	M002	2014.35	20-Existing-CBCL	34.400010	80.470	81.883460	82.0063	82.3422	0.02248	3.23	14.530	40.20	1.25
CochranePB	M002	1990.76	20-Existing-CBCL	34.400010	80.100	81.815100	81.8151	82.0662	0.00982	2.71	21.492	42.81	0.86
CochranePB	M002	1945.20	20-Existing-CBCL	34.400010	79.430	81.442500	81.1084	81.5319	0.00304	1.78	34.419	47.27	0.50
CochranePB	M002	1916.67	20-Existing-CBCL	34.400010	79.310	81.295540		81.4249	0.00434	2.12	30.019	42.25	0.59
CochranePB	M002	1871.48	20-Existing-CBCL	34.400010	79.280	81.156570		81.2434	0.00339	1.71	33.821	46.66	0.52
CochranePB	M002	1836.03	20-Existing-CBCL	34.400010	78.830	81.111900		81.1621	0.00127	1.30	44.788	69.37	0.33
CochranePB	M002	1788.63	20-Existing-CBCL	34.400010	78.460	80.508670	80.5087	80.9829	0.01259	3.70	16.165	25.71	1.00
CochranePB	M002	1768.08	20-Existing-CBCL	34.400010	78.140	79.941950	80.1615	80.6377	0.02019	4.22	12.593	23.91	1.24
CochranePB	M002	1733.19	20-Existing-CBCL	34.400010	77.950	79.855480	79.8831	80.1538	0.00793	2.74	21.001	47.68	0.80
CochranePB	M002	1694.89	20-Existing-CBCL	34.400010	77.120	79.148090	78.7045	79.2436	0.00255	1.68	31.784	40.49	0.47
CochranePB	M002	1685.79	20-Existing-CBCL	34.400010	77.060	79.093700		79.2139	0.00335	1.93	27.762	35.73	0.53
CochranePB	M002	1640.51	20-Existing-CBCL	34.400010	76.450	78.575160	78.5752	78.9665	0.00790	3.10	16.684	25.58	0.82
CochranePB	M002	1602.99	20-Existing-CBCL	34.400010	75.010	76.354700	76.8427	78.1252	0.08360	6.06	6.501	14.17	2.37
CochranePB	M002	1585.52	20-Existing-CBCL	34.400010	74.010	75.259530	75.6080	76.5059	0.08230	5.33	8.120	20.05	2.30
CochranePB	M002	1569.47	20-Existing-CBCL	34.400010	73.710	74.956300	75.0965	75.4596	0.03410	3.25	11.665	27.10	1.47
CochranePB	M002	1541.97	20-Existing-CBCL	34.400010	72.310	73.966890	74.1678	74.6629	0.02344	3.97	10.950	17.77	1.32
CochranePB	M002	1510.83	20-Existing-CBCL	34.400010	71.340	72.483080	72.7427	73.4058	0.08272	4.27	8.201	23.13	2.20
CochranePB	M002	1495.27	20-Existing-CBCL	34.400010	71.190	72.902050	72.6384	73.0160	0.00397	1.64	27.281	40.48	0.56
CochranePB	M002	1458.62	20-Existing-CBCL	34.400010	70.580	72.556510	72.5565	72.7879	0.00729	2.99	26.680	48.90	0.78
CochranePB	M002	1419.61	20-Existing-CBCL	34.400010	70.210	71.861610	71.9978	72.3591	0.01633	3.69	15.697	32.35	1.13
CochranePB	M002	1384.56	20-Existing-CBCL	34.400010	69.610	71.746920	71.5235	72.0450	0.00518	2.56	18.853	45.28	0.67
CochranePB	M002	1351.51	20-Existing-CBCL	34.400010	69.540	71.638070	71.6381	71.8582	0.00484	2.51	27.847	76.57	0.65
CochranePB	M002	1311.78	20-Existing-CBCL	34.400010	69.490	71.292140	71.3872	71.5915	0.00873	2.97	24.769	91.47	0.85
CochranePB	M002	1291.19	20-Existing-CBCL	34.400010	69.280	70.914280	71.0672	71.3479	0.01493	3.50	19.207	74.01	1.07
CochranePB	M002	1217.75	20-Existing-CBCL	34.400010	68.700	70.708600	70.1167	70.7514	0.00094	1.13	54.616	89.93	0.29
CochranePB	M002	1200.39	20-Existing-CBCL	34.400010	68.690	70.500210	70.0629	70.7082	0.00346	2.05	17.388	18.48	0.55
CochranePB	M002	1190		Bridge									
CochranePB	M002	1185.68	20-Existing-CBCL	35.300010	68.460	70.483200	69.7517	70.6331	0.00182	1.73	20.974	25.09	0.42
CochranePB	M002	1164.32	20-Existing-CBCL	35.300010	68.650	70.327590	70.3276	70.5529	0.00544	2.55	25.354	66.25	0.69
CochranePB	M002	1132.60	20-Existing-CBCL	35.300010	68.600	69.771150	69.8892	70.1920	0.02666	3.54	18.003	95.52	1.37
CochranePB	M002	1111.68	20-Existing-CBCL	35.300010	68.550	69.753880	69.5445	69.8085	0.00421	1.65	45.480	143.14	0.57
CochranePB	M002	1059.95	20-Existing-CBCL	35.300010	68.380	69.600220		69.6613	0.00387	1.83	45.052	127.80	0.57
CochranePB	M002	998.99	20-Existing-CBCL	35.300010	68.130	69.224670		69.3174	0.00857	2.45	35.247	109.93	0.81
CochranePB	M002	955.54	20-Existing-CBCL	35.300010	68.120	69.213810		69.2189	0.00053	0.59	120.781	249.58	0.20
CochranePB	M002	851.16	20-Existing-CBCL	35.300010	67.620	69.194080		69.1971	0.00020	0.46	159.457	238.51	0.13
CochranePB	M002	798.06	20-Existing-CBCL	35.300010	67.470	69.190390		69.1919	0.00009	0.32	216.452	274.54	0.09
CochranePB	M002	746.77	20-Existing-CBCL	35.300010	67.300	69.188930		69.1897	0.00003	0.21	307.946	316.38	0.05
CochranePB	M002	694.52	20-Existing-CBCL	35.300010	66.980	69.188160		69.1887	0.00002	0.18	381.126	355.43	0.04
CochranePB	M002	669.16	20-Existing-CBCL	35.300010	66.970	69.187930		69.1883	0.00001	0.16	426.792	385.76	0.04
CochranePB	M002	590.19	20-Existing-CBCL	35.300010	66.840	69.187100		69.1874	0.00001	0.14	508.255	454.28	0.03
CochranePB	M002	539.85	20-Existing-CBCL	35.300010	66.810	69.186610		69.1869	0.00001	0.14	517.399	464.46	0.03
CochranePB	M002	488.40	20-Existing-CBCL	35.300010	66.540	69.186230		69.1865	0.00001	0.12	554.751	483.85	0.03
CochranePB	M001	381.27	20-Existing-CBCL	70.200010	66.350	69.183980		69.1848	0.00002	0.25	636.899	565.93	0.05
CochranePB	M001	313.14	20-Existing-CBCL	70.200010	66.280	69.183100		69.1836	0.00002	0.19	762.497	631.93	0.04

HEC-RAS Plan:

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	TR001	439.21	20-AMEC-2020	30.699990	105.110	106.341200	106.1584	106.4639	0.00477	2.10	30.015	56.46	0.64
RaymondB	TR001	409.42	20-AMEC-2020	30.699990	104.680	105.938000	105.9380	106.2458	0.01036	3.12	18.051	30.00	0.94
RaymondB	TR001	380.07	20-AMEC-2020	30.699990	104.050	105.928100	105.1292	105.9761	0.00087	1.21	48.271	60.93	0.29
RaymondB	TR001	360.64	20-AMEC-2020	30.699990	103.600	105.625500	105.0206	105.9220	0.00321	2.42	12.851	70.46	0.56
RaymondB	TR001	350		Bridge									
RaymondB	TR001	344.45	20-AMEC-2020	30.699990	103.300	104.961200	104.9612	105.6348	0.01203	4.05	9.477	66.64	1.04
RaymondB	TR001	334.13	20-AMEC-2020	30.699990	103.400	104.228300	104.6088	105.3176	0.04584	4.81	7.864	17.87	1.82
RaymondB	TR001	272.22	20-AMEC-2020	30.699990	102.830	103.902300	103.9023	104.1364	0.01036	2.80	20.613	44.24	0.92
RaymondB	TR001	218.50	20-AMEC-2020	30.699990	101.420	102.556800	102.8086	103.3098	0.02147	4.12	10.690	23.43	1.33
RaymondB	TR001	163.97	20-AMEC-2020	30.699990	100.320	101.708700	101.3635	101.8630	0.00322	1.85	20.730	24.25	0.53
RaymondB	TR001	115.54	20-AMEC-2020	30.699990	100.000	101.132500	101.1325	101.5549	0.01368	3.44	13.867	20.68	1.07
RaymondB	TR001	56.65	20-AMEC-2020	30.699990	97.730	98.399730	98.7898	99.8113	0.08625	5.61	6.668	15.32	2.42
RaymondB	M002	6453.60	20-AMEC-2020	8.200001	118.100	125.949000	118.6484	125.9490	0.00000	0.01	839.678	252.34	0.00
RaymondB	M002	6405.52	20-AMEC-2020	8.200001	118.000	125.949000		125.9490	0.00000	0.01	843.528	234.72	0.00
RaymondB	M002	6347.04	20-AMEC-2020	8.200001	124.730	125.947500		125.9488	0.00003	0.17	51.112	43.93	0.05
RaymondB	M002	6247.26	20-AMEC-2020	8.200001	117.210	117.946200		117.9889	0.00329	1.18	12.279	33.07	0.48
RaymondB	M002	6230.10	20-AMEC-2020	8.200001	117.200	117.934100		117.9556	0.00129	0.72	15.694	39.73	0.30
RaymondB	M002	6205.35	20-AMEC-2020	8.200001	117.280	117.910100		117.9189	0.00120	0.62	22.343	52.50	0.28
RaymondB	M002	6143.06	20-AMEC-2020	8.200001	117.180	117.813300		117.8280	0.00182	0.76	19.006	52.85	0.34
RaymondB	M002	6105.93	20-AMEC-2020	8.200001	117.170	117.668900		117.7152	0.00480	1.01	10.487	48.29	0.53
RaymondB	M002	6026.35	20-AMEC-2020	8.200001	116.810	117.418400		117.4407	0.00243	0.84	15.212	41.66	0.39
RaymondB	M002	5933.71	20-AMEC-2020	8.200001	116.420	117.090300		117.1542	0.00410	1.21	8.850	24.02	0.53
RaymondB	M002	5883.92	20-AMEC-2020	8.200001	116.120	116.883100		116.9584	0.00384	1.26	7.727	18.67	0.52
RaymondB	M002	5785.15	20-AMEC-2020	8.200001	115.750	116.439800		116.5128	0.00531	1.31	7.962	20.08	0.59
RaymondB	M002	5732.44	20-AMEC-2020	8.200001	115.460	116.132000		116.2216	0.00581	1.34	6.579	17.33	0.61
RaymondB	M002	5631.37	20-AMEC-2020	8.200001	114.850	115.546200		115.6157	0.00619	1.34	9.948	42.80	0.63
RaymondB	M002	5500.15	20-AMEC-2020	8.200001	114.620	115.313600		115.3274	0.00157	0.73	23.278	114.14	0.32
RaymondB	M002	5485.46	20-AMEC-2020	8.200001	114.530	115.298200		115.3094	0.00100	0.66	27.471	135.16	0.27
RaymondB	M002	5411.19	20-AMEC-2020	8.200001	114.480	115.189100	114.9692	115.2202	0.00204	0.83	12.758	43.66	0.37
RaymondB	M002	5338.54	20-AMEC-2020	8.200001	114.410	115.192300	114.6994	115.1941	0.00009	0.19	47.961	103.18	0.08
RaymondB	M002	5278.93	20-AMEC-2020	8.200001	114.440	115.184800	114.7294	115.1875	0.00014	0.24	38.500	96.60	0.10
RaymondB	M002	5226.60	20-AMEC-2020	8.200001	114.420	115.175800		115.1790	0.00019	0.27	38.916	110.64	0.11
RaymondB	M002	5171.66	20-AMEC-2020	8.200001	114.420	115.161300		115.1662	0.00029	0.34	35.178	137.10	0.14
RaymondB	M002	5111.50	20-AMEC-2020	8.200001	114.420	115.127500		115.1399	0.00077	0.55	20.966	62.46	0.23
RaymondB	M002	5077.48	20-AMEC-2020	8.200001	114.380	115.108600		115.1177	0.00052	0.45	22.031	51.15	0.19
RaymondB	M002	5017.13	20-AMEC-2020	8.200001	114.400	114.997700		115.0465	0.00360	0.98	8.574	21.62	0.48
RaymondB	M002	4967.43	20-AMEC-2020	8.200001	114.070	114.742100		114.8283	0.00529	1.30	6.441	14.33	0.59
RaymondB	M002	4943.43	20-AMEC-2020	8.200001	113.820	114.634600		114.7181	0.00400	1.33	7.462	18.64	0.53
RaymondB	M002	4910.95	20-AMEC-2020	8.200001	113.670	114.493600		114.5846	0.00418	1.39	7.410	22.60	0.55
RaymondB	M002	4851.17	20-AMEC-2020	8.200001	113.470	114.247600		114.3331	0.00429	1.35	7.756	25.72	0.55
RaymondB	M002	4783.73	20-AMEC-2020	8.200001	113.300	113.984800		114.0375	0.00415	1.06	9.179	32.54	0.51
RaymondB	M002	4732.68	20-AMEC-2020	8.200001	113.070	113.677600		113.7448	0.00835	1.36	8.626	33.29	0.71
RaymondB	M002	4681.76	20-AMEC-2020	8.200001	112.350	112.978300	112.9783	113.1927	0.01432	2.11	4.376	11.60	0.97
RaymondB	M002	4673.96	20-AMEC-2020	8.200001	111.740	112.305100	112.5100	112.9531	0.05853	3.61	2.449	8.41	1.87
RaymondB	M002	4644.78	20-AMEC-2020	8.200001	110.490	111.092200	111.2362	111.5769	0.03625	3.12	2.815	18.42	1.51
RaymondB	M002	4625.72	20-AMEC-2020	8.200001	106.750	107.108400	107.4872	109.6481	0.51148	7.06	1.161	5.65	4.97
RaymondB	M002	4615.42	20-AMEC-2020	8.200001	105.830	106.337500	106.5685	107.1581	0.09991	4.05	2.131	7.95	2.35
RaymondB	M002	4607.06	20-AMEC-2020	8.200001	105.790	106.691700	106.5288	106.8376	0.00563	1.74	5.332	8.85	0.65
RaymondB	M002	4597.34	20-AMEC-2020	8.200001	105.760	106.646600		106.7761	0.00615	1.67	6.044	13.64	0.66
RaymondB	M002	4575.18	20-AMEC-2020	8.200001	105.980	106.346000	106.3460	106.4974	0.03941	2.00	4.866	17.47	1.38
RaymondB	M002	4545.57	20-AMEC-2020	8.200001	104.650	105.376600	105.4457	105.6875	0.01937	2.55	3.784	10.60	1.13
RaymondB	M002	4522.17	20-AMEC-2020	8.200001	103.670	104.153800	104.3709	104.8636	0.07118	3.80	2.359	8.24	2.03
RaymondB	M002	4511.42	20-AMEC-2020	8.200001	103.620	104.497100	104.3196	104.5655	0.00377	1.33	8.959	19.62	0.52
RaymondB	M002	4489.94	20-AMEC-2020	8.200001	103.590	104.202100	104.2021	104.4069	0.01532	2.13	4.742	13.34	0.99
RaymondB	M002	4466.63	20-AMEC-2020	8.200001	103.030	103.967600	103.6490	104.0211	0.00211	1.07	9.125	15.90	0.40
RaymondB	M002	4439.46	20-AMEC-2020	8.200001	103.000	103.654800	103.6506	103.8810	0.01551	2.25	4.539	11.71	1.00
RaymondB	M002	4415.77	20-AMEC-2020	8.200001	102.780	103.332700	103.3327	103.4967	0.01514	1.88	5.175	16.94	0.96
RaymondB	M002	4385.89	20-AMEC-2020	8.200001	101.800	102.330100	102.4663	102.7773	0.03966	3.02	2.993	9.79	1.54
RaymondB	M002	4354.01	20-AMEC-2020	8.200001	101.270	101.922100	101.9396	102.0724	0.01367	2.20	7.105	26.37	0.96
RaymondB	M002	4341.66	20-AMEC-2020	8.200001	100.840	101.526800	101.6261	101.8474	0.02139	2.60	3.923	15.93	1.18
RaymondB	M002	4332.73	20-AMEC-2020	8.200001	100.320	100.818200	101.0230	101.4963	0.06817	3.72	2.443	8.69	2.00
RaymondB	M002	4308.73	20-AMEC-2020	8.200001	98.870	99.367670	99.5378	99.9304	0.05970	3.48	2.851	11.01	1.85
RaymondB	M002	4294.65	20-AMEC-2020	8.200001	98.450	99.045110	99.1169	99.3552	0.02377	2.61	3.848	11.11	1.23
RaymondB	M002	4263.86	20-AMEC-2020	8.200001	97.590	98.351320	98.2043	98.4616	0.00559	1.54	6.290	12.87	0.63
RaymondB	M002	4235.25	20-AMEC-2020	8.200001	97.470	98.705830		98.7219	0.00041	0.61	17.191	21.90	0.19
RaymondB	M001	4130.35	20-AMEC-2020	37.900010	96.570	97.826870	97.8841	98.3016	0.01446	3.09	13.165	19.15	1.06
RaymondB	M001	4076.94	20-AMEC-2020	37.900010	96.040	97.527370	97.3733	97.7557	0.00547	2.22	20.969	31.26	0.68
RaymondB	M001	4023.53	20-AMEC-2020	37.900010	95.940	96.991230	96.9912	97.3147	0.01296	2.57	15.986	26.83	0.98
RaymondB	M001	3978.20	20-AMEC-2020	37.900010	94.640	96.593380	96.0885	96.6781	0.00187	1.32	33.029	44.38	0.40
RaymondB	M001	3916.71	20-AMEC-2020	54.499990	94.640	96.270380		96.4821	0.00463	2.34	38.176	60.23	0.65
RaymondB	M001	3863.30	20-AMEC-2020	54.499990	94.410	96.118000		96.2612	0.00309	2.01	48.202	74.05	0.54
RaymondB	M001	3809.58	20-AMEC-2020	54.499990	94.090	95.662490	95.6625	96.0033	0.00764	2.92	28.547	43.68	0.83
RaymondB	M001	3756.26	20-AMEC-2020	54.499990	93.530	94.883880	95.0142	95.4436	0.01407	3.54	20.372	32.25	1.09
RaymondB	M001	3694.37	20-AMEC-2020	54.499990	92.660	93.950590	94.0339	94.5236	0.01580	3.49	17.740	22.47	1.13
RaymondB	M001	3569.22	20-AMEC-2020	54.499990	92.150	93.907530	93.4230	93.9445	0.00109	1.20	81.965	104.80	0.32
RaymondB	M001	3527.64	20-AMEC-2020	54.499990	91.850	93.881480		93.9063	0.00061	1.01	93.076	86.32	0.24
RaymondB	M001	3446.51	20-AMEC-2020	54.499990	91.140	93.860300		93.8776	0.00024	0.74	132.502	137.17	0.16
RaymondB	M001	3421.64	20-AMEC-2020	54.499990	91.230	93.454770	92.8016	93.8267	0.00322	2.73	20.394	127.25	0.59
RaymondB	M001	3410		Bridge									
RaymondB	M001	3404.11	20-AMEC-2020	54.499990	91.230	92.848970	92.8490	93.6113	0.01055	3.90	14.236	71.06	1.00
RaymondB	M001	3380.48	20-AMEC-2020	54.499990	90.960	92.785290	92.2999	92.9354	0.00263	1.91	42.037	58.40	0.50
RaymondB	M001	3308.92	20-AMEC-2020	54.499990	90.800	92.121510	92.1215	92.5557	0.01176	3.29	24.019	37.08	1.00
RaymondB	M001	3216.73	20-AMEC-2020	54.499990	89.310	91.986270	90.8984	92.1776	0.00146	1.97	28.655	46.36	0.40
RaymondB	M001	3200		Bridge									
RaymondB	M001	3188.78	20-AMEC-2020	54.499990	89.300	91.292240	91.2722	91.9459	0.00844	3.81	16.909	34.39	0.90
RaymondB	M001	3015.18	20-AMEC-2020	54.499990	89.180	90.680050		90.8280	0.00328	1.91	41.544	59.52	0.54
RaymondB	M001	2876.32	20-AMEC-2020	54.499990	88.660	90.126400		90.3078	0.00506	2.20	36.130	47.96	0.66

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	M001	2789.37	20-AMEC-2020	54.499990	88.240	89.921550		89.9991	0.00223	1.65	73.008	151.50	0.45
RaymondB	M001	2681.85	20-AMEC-2020	54.499990	88.140	89.421420	89.4214	89.5962	0.00851	2.52	43.578	112.79	0.83
RaymondB	M001	2604.32	20-AMEC-2020	54.499990	87.970	89.212300	88.9652	89.2475	0.00193	1.24	81.702	176.22	0.40
RaymondB	M001	2531.57	20-AMEC-2020	54.499990	87.970	89.175760		89.1851	0.00065	0.66	143.419	271.83	0.23
RaymondB	M001	2385.34	20-AMEC-2020	54.499990	87.430	89.088890		89.1241	0.00142	1.32	104.648	241.58	0.36
RaymondB	M001	2245.72	20-AMEC-2020	54.499990	86.990	88.451240	88.3753	88.8307	0.00850	2.87	24.584	46.40	0.86
RaymondB	M001	2194.47	20-AMEC-2020	54.499990	86.680	88.538470		88.5963	0.00123	1.34	72.341	86.49	0.34
RaymondB	M001	2140.67	20-AMEC-2020	54.499990	86.590	88.405660		88.5066	0.00221	1.74	54.956	68.47	0.46
RaymondB	M001	2087.60	20-AMEC-2020	54.499990	86.380	88.270270		88.3930	0.00199	1.71	42.897	40.38	0.44
RaymondB	M001	2069.54	20-AMEC-2020	54.499990	86.350	88.227330		88.3561	0.00215	1.78	43.122	42.30	0.45
RaymondB	M001	2040.77	20-AMEC-2020	54.499990	86.250	88.170770		88.2944	0.00203	1.72	45.392	51.24	0.44
RaymondB	M001	1989.18	20-AMEC-2020	54.499990	86.020	87.924180	87.5865	88.1457	0.00373	2.32	37.725	60.48	0.59
RaymondB	M001	1950.22	20-AMEC-2020	54.499990	85.790	87.408990	87.3389	87.8921	0.01041	3.35	21.854	41.48	0.95
RaymondB	M001	1885.73	20-AMEC-2020	54.499990	85.340	86.935280	86.9353	87.2596	0.00809	2.86	28.714	44.15	0.83
RaymondB	M001	1835.84	20-AMEC-2020	54.499990	84.640	86.277270	86.3193	86.7627	0.01211	3.59	22.334	27.12	1.02
RaymondB	M001	1784.61	20-AMEC-2020	54.499990	84.100	85.216600	85.3831	85.8139	0.03014	3.96	19.966	39.10	1.48
RaymondB	M001	1733.38	20-AMEC-2020	54.499990	82.790	84.614910	84.2105	84.7480	0.00256	1.84	43.171	46.05	0.49
RaymondB	M001	1682.15	20-AMEC-2020	54.499990	82.600	84.283720		84.5525	0.00531	2.43	27.352	29.76	0.69
RaymondB	M001	1630.92	20-AMEC-2020	54.499990	82.120	83.711290	83.6510	84.1729	0.00974	3.08	20.217	26.10	0.91
RaymondB	M001	1584.49	20-AMEC-2020	54.499990	81.770	83.564340		83.7965	0.00477	2.38	30.813	32.44	0.65
RaymondB	M001	1536.01	20-AMEC-2020	54.499990	81.310	83.077540	82.9780	83.4842	0.00808	3.05	24.465	36.95	0.84
RaymondB	M001	1477.96	20-AMEC-2020	54.499990	80.960	82.689820	82.5924	83.0299	0.00697	2.78	26.214	35.30	0.78
RaymondB	M001	1425.99	20-AMEC-2020	54.499990	80.580	82.324170	82.2109	82.6708	0.00675	2.77	25.570	37.35	0.78
RaymondB	M001	1372.05	20-AMEC-2020	54.499990	80.250	82.011730		82.2841	0.00676	2.73	28.425	33.52	0.77
RaymondB	M001	1323.54	20-AMEC-2020	54.499990	79.110	81.385480	80.9265	81.9000	0.00465	3.18	17.150	14.74	0.70
RaymondB	M001	1315		Bridge									
RaymondB	M001	1303.54	20-AMEC-2020	54.499990	78.010	80.409510	80.1281	81.0219	0.00637	3.47	15.719	19.59	0.79
RaymondB	M001	1252.39	20-AMEC-2020	57.400000	78.450	80.066480	80.0665	80.6859	0.01666	3.93	19.369	24.32	1.17
RaymondB	M001	1216.25	20-AMEC-2020	57.400000	77.860	79.708020	79.8255	80.1901	0.01007	3.57	25.907	41.56	0.95
RaymondB	M001	1189.75	20-AMEC-2020	57.400000	77.610	78.954140	79.1928	79.7361	0.02890	4.27	17.787	35.53	1.48
RaymondB	M001	1166.20	20-AMEC-2020	57.400000	76.740	78.128780	78.4172	79.0112	0.03006	4.75	19.112	45.34	1.55
RaymondB	M001	1148.70	20-AMEC-2020	57.400000	76.500	77.935390	78.1103	78.4933	0.02066	3.86	23.356	50.90	1.27
RaymondB	M001	1116.25	20-AMEC-2020	57.400000	75.830	77.019730	77.2161	77.6929	0.02837	3.74	17.283	32.97	1.44
RaymondB	M001	1066.09	20-AMEC-2020	57.400000	75.160	76.553040	76.5530	76.9519	0.01066	2.95	24.476	38.92	0.93
RaymondB	M001	1035.68	20-AMEC-2020	57.400000	74.730	76.165610	76.1995	76.6174	0.01170	3.19	22.071	27.95	0.99
RaymondB	M001	999.99	20-AMEC-2020	57.400000	73.320	74.504790	74.9191	75.8080	0.04259	5.21	12.354	18.88	1.81
RaymondB	M001	976.73	20-AMEC-2020	57.400000	73.030	74.413490	74.6120	75.0474	0.01545	3.71	19.612	32.56	1.14
RaymondB	M001	942.15	20-AMEC-2020	57.400000	72.180	73.146590	73.4584	74.0122	0.06886	5.63	16.468	33.55	2.21
RaymondB	M001	916.70	20-AMEC-2020	57.400000	70.820	72.061490	72.3150	72.7920	0.03181	4.81	20.361	47.10	1.59
RaymondB	M001	892.34	20-AMEC-2020	57.400000	70.360	71.609850	71.7324	72.1893	0.01698	3.63	19.647	33.38	1.17
RaymondB	M001	866.25	20-AMEC-2020	57.400000	70.040	71.700120	71.2257	71.8659	0.00287	1.88	38.987	58.99	0.51
RaymondB	M001	841.89	20-AMEC-2020	57.400000	69.920	71.431230	71.3449	71.7505	0.00629	2.66	29.701	50.63	0.75
RaymondB	M001	816.68	20-AMEC-2020	57.400000	69.740	71.265410	71.2654	71.5809	0.00701	2.84	32.033	54.34	0.79
RaymondB	M001	766.25	20-AMEC-2020	57.400000	69.160	69.969640	70.1970	70.7439	0.06471	4.86	17.296	44.64	2.09
RaymondB	M001	716.25	20-AMEC-2020	57.400000	68.390	69.769200	69.5877	69.9575	0.00488	2.19	36.893	48.58	0.65
RaymondB	M001	675.00	20-AMEC-2020	57.400000	68.140	69.522120		69.7335	0.00591	2.39	36.785	56.68	0.71
RaymondB	M001	615.86	20-AMEC-2020	57.400000	67.750	69.385050		69.4906	0.00236	1.76	58.903	121.24	0.47
RaymondB	M001	565.77	20-AMEC-2020	57.400000	67.440	69.330570		69.3968	0.00120	1.38	75.188	148.15	0.34
RaymondB	M001	520.15	20-AMEC-2020	57.400000	67.260	69.332360		69.3517	0.00043	0.87	140.826	255.29	0.21
RaymondB	M001	468.54	20-AMEC-2020	57.400000	66.980	69.332180		69.3366	0.00012	0.50	239.144	300.41	0.11
RaymondB	M001	429.18	20-AMEC-2020	57.400000	66.800	69.332020		69.3334	0.00004	0.30	387.393	393.75	0.06
RaymondB	M001	366.25	20-AMEC-2020	57.400000	66.650	69.331670		69.3322	0.00002	0.20	623.123	611.99	0.04
RaymondB	M001	341.79	20-AMEC-2020	57.400000	66.630	69.331670		69.3321	0.00001	0.16	714.574	652.15	0.03
PettyHR	M002	6270.85	20-AMEC-2020	84.200000	66.230	69.331500		69.3316	0.00000	0.05	1800.390	824.20	0.01
PettyHR	M002	6218.07	20-AMEC-2020	84.200000	66.230	69.331410		69.3316	0.00000	0.06	1668.185	829.86	0.01
PettyHR	M002	6095.00	20-AMEC-2020	84.200000	66.230	69.331290		69.3315	0.00000	0.06	1602.796	806.14	0.01
PettyHR	M002	6004.71	20-AMEC-2020	84.200000	66.230	69.331210		69.3314	0.00000	0.06	1647.126	837.79	0.01
PettyHR	M001	5825.85	20-AMEC-2020	135.000000	66.230	69.330820		69.3311	0.00000	0.08	1962.662	836.63	0.01
PettyHR	M001	5685.44	20-AMEC-2020	135.000000	66.230	69.330590		69.3309	0.00000	0.07	1923.162	723.88	0.01
PettyHR	M001	5516.39	20-AMEC-2020	150.400000	66.230	69.330070		69.3305	0.00000	0.09	1681.462	625.80	0.02
PettyHR	M001	5279.80	20-AMEC-2020	150.400000	66.230	69.328670		69.3296	0.00001	0.14	1137.278	421.83	0.03
PettyHR	M001	4996.75	20-AMEC-2020	150.400000	66.230	69.321950		69.3263	0.00003	0.30	535.617	206.45	0.06
PettyHR	M001	4923.81	20-AMEC-2020	150.400000	66.230	69.265260		69.3167	0.00036	1.07	171.776	84.31	0.20
PettyHR	M001	4867.41	20-AMEC-2020	150.400000	66.230	69.175900		69.2797	0.00098	1.75	140.510	89.82	0.34
PettyHR	M001	4817.61	20-AMEC-2020	150.400000	66.580	69.120030		69.2233	0.00130	1.90	136.852	90.38	0.38
PettyHR	M001	4757.18	20-AMEC-2020	150.400000	66.430	68.533330	68.5333	69.0327	0.00707	3.87	67.059	63.94	0.86
PettyHR	M001	4675.66	20-AMEC-2020	150.400000	65.880	67.706860	67.4470	68.0729	0.00580	3.21	67.253	49.23	0.77
PettyHR	M001	4612.84	20-AMEC-2020	150.400000	64.880	66.985950	66.7390	67.6095	0.00825	4.21	52.431	38.81	0.93
PettyHR	M001	4570.09	20-AMEC-2020	150.400000	64.620	66.711240	66.7112	67.2742	0.00695	3.75	59.517	54.55	0.85
PettyHR	M001	4500.69	20-AMEC-2020	150.400000	64.620	66.267220	66.0181	66.5323	0.00426	2.51	79.686	73.89	0.64
PettyHR	M001	4461.12	20-AMEC-2020	150.400000	64.550	65.942180	65.9422	66.3074	0.01043	3.51	73.293	90.73	0.97
PettyHR	M001	4428.20	20-AMEC-2020	150.400000	64.410	65.667960	65.4823	65.8893	0.00893	2.95	81.917	88.64	0.88
PettyHR	M001	4395.66	20-AMEC-2020	150.400000	63.810	65.159190	65.1557	65.5555	0.00974	3.34	68.127	80.01	0.94
PettyHR	M001	4357.04	20-AMEC-2020	150.400000	63.340	65.059110		65.2568	0.00407	2.58	94.259	79.92	0.63
PettyHR	M001	4281.82	20-AMEC-2020	150.400000	62.500	65.019840		65.1071	0.00075	1.41	126.380	58.20	0.29
PettyHR	M001	4166.17	20-AMEC-2020	150.400000	61.820	65.046780		65.0602	0.00010	0.60	356.453	161.06	0.11
PettyHR	M001	3949.19	20-AMEC-2020	150.400000	61.310	65.055820		65.0559	0.00000	0.04	4570.711	1312.95	0.01
PettyHR	M001	3936.78	20-AMEC-2020	150.400000	61.310	65.055830		65.0559	0.00000	0.03	5650.140	1567.48	0.00
PettyHR	M001	3931.39	20-AMEC-2020	83.900010	61.310	65.055850		65.0559	0.00000	0.01	7091.858	1997.46	0.00
PettyHR	M001	3925.44	20-AMEC-2020	83.900010	61.310	65.055820		65.0559	0.00000	0.03	3508.571	1000.28	0.00
PettyHR	M001	3867.05	20-AMEC-2020	83.900010	61.310	65.055820		65.0559	0.00000	0.02	3543.044	979.91	0.00
PettyHR	M001	3643.73	20-AMEC-2020	83.900010	61.310	65.055790		65.0558	0.00000	0.02	4073.096	1112.64	0.00
PettyHR	M001	3440.60	20-AMEC-2020	83.900010	61.310	65.055690		65.0558	0.00000	0.04	2063.149	579.40	0.01
PettyHR	M001	3182.65	20-AMEC-2020	83.900010	61.310	65.055490		65.0556	0.00000	0.06	1547.794	423.88	0.01
PettyHR	M001	3080.13	20-AMEC-2020	83.900010	61.310	65.055470		65.0556	0.00000	0.05	1825.587	506.27	0.01
PettyHR	M001	3028.13	20-AMEC-2020	83.900010	61.310	65.055450		65.0556	0.00000	0.04	1996.686	557.38	0.01
PettyHR	M001	2983.09	20-AMEC-2020	83.900010	61.310	65.055380		65.0555	0.00000	0.05	1627.641	450.05	0.01

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	2828.46	20-AMEC-2020	83.900010	61.310	65.054920		65.0553	0.00000	0.09	954.218	278.12	0.02
PettyHR	M001	2712.72	20-AMEC-2020	83.900010	61.310	65.053510		65.0549	0.00001	0.17	543.056	178.23	0.03
PettyHR	M001	2671.95	20-AMEC-2020	83.900010	61.310	65.052550		65.0545	0.00001	0.21	488.336	172.79	0.03
PettyHR	M001	2653.10	20-AMEC-2020	83.900010	61.310	65.051450		65.0542	0.00001	0.25	417.335	154.22	0.04
PettyHR	M001	2632.46	20-AMEC-2020	83.900010	61.310	65.043170		65.0530	0.00005	0.51	246.637	113.73	0.08
PettyHR	M001	2596.08	20-AMEC-2020	83.900010	61.310	65.038020		65.0505	0.00006	0.54	218.712	110.02	0.09
PettyHR	M001	2583.24	20-AMEC-2020	83.900010	60.100	64.970300	62.6198	65.0427	0.00036	1.37	119.289	104.63	0.21
PettyHR	M001	2580		Bridge									
PettyHR	M001	2573.39	20-AMEC-2020	83.900010	60.000	64.812190	62.1877	64.8461	0.00017	0.95	147.732	80.55	0.15
PettyHR	M001	2551.09	20-AMEC-2020	83.900010	59.890	64.826600		64.8301	0.00001	0.27	358.785	104.98	0.04
PettyHR	M001	2426.14	20-AMEC-2020	83.900010	59.270	64.828510		64.8288	0.00000	0.08	1135.580	266.09	0.01
PettyHR	M001	2315.39	20-AMEC-2020	83.900010	58.720	64.828500		64.8287	0.00000	0.06	1395.612	306.81	0.01
PettyHR	M001	2204.15	20-AMEC-2020	83.900010	58.160	64.828440		64.8286	0.00000	0.06	1407.375	305.58	0.01
PettyHR	M001	2022.45	20-AMEC-2020	83.900010	57.260	64.827930		64.8285	0.00000	0.10	856.277	171.49	0.01
PettyHR	M001	1902.10	20-AMEC-2020	83.900010	56.660	64.827340		64.8282	0.00000	0.13	664.250	126.74	0.02
PettyHR	M001	1879.72	20-AMEC-2020	83.900010	56.550	64.826070		64.8280	0.00001	0.21	484.494	107.23	0.03
PettyHR	M001	1824.42	20-AMEC-2020	83.900010	56.280	64.823750		64.8275	0.00001	0.27	327.283	65.15	0.04
PettyHR	M001	1789.72	20-AMEC-2020	83.900010	56.100	64.821780		64.8270	0.00001	0.32	277.076	54.59	0.04
PettyHR	M001	1724.70	20-AMEC-2020	83.900010	55.780	64.819100		64.8259	0.00002	0.37	242.586	47.16	0.05
PettyHR	M001	1668.81	20-AMEC-2020	83.900010	55.500	64.820480	57.9359	64.8244	0.00001	0.28	321.996	64.24	0.04
PettyHR	M001	1647.80	20-AMEC-2020	83.900010	55.400	64.821110	57.6586	64.8239	0.00001	0.24	376.821	69.64	0.03
PettyHR	M001	1631.79	20-AMEC-2020	83.900010	63.550	64.610580		64.8045	0.00461	1.95	43.009	40.60	0.60
PettyHR	M001	1615.46	20-AMEC-2020	85.300000	54.380	56.556090		56.7102	0.00366	2.79	53.119	36.74	0.62
PettyHR	M001	1601.08	20-AMEC-2020	85.300000	54.000	55.668340	55.6683	56.5283	0.02617	6.22	23.592	22.32	1.58
PettyHR	M001	1586.16	20-AMEC-2020	85.300000	53.360	55.029460	55.3457	56.0790	0.03204	6.98	22.539	24.05	1.76
PettyHR	M001	1571.98	20-AMEC-2020	85.300000	52.870	54.341450	54.6964	55.5437	0.04316	7.33	20.356	23.08	1.99
PettyHR	M001	1519.66	20-AMEC-2020	85.300000	51.620	53.122540	53.2365	53.6812	0.02466	5.52	29.885	38.15	1.49
PettyHR	M001	1467.14	20-AMEC-2020	85.300000	50.860	52.050350	52.0545	52.4401	0.02115	4.50	33.205	42.56	1.35
PettyHR	M001	1457.30	20-AMEC-2020	85.300000	50.230	51.701180	51.7762	52.2250	0.02142	5.26	30.205	35.03	1.41
PettyHR	M001	1444.51	20-AMEC-2020	85.300000	48.300	49.236760	49.7519	51.4620	0.16764	10.56	15.099	29.82	3.62
PettyHR	M001	1415.17	20-AMEC-2020	85.300000	48.280	49.760600	49.3318	49.8887	0.00478	2.48	56.463	52.04	0.66
PettyHR	M001	1402.15	20-AMEC-2020	85.300000	47.790	49.322230	49.3222	49.7508	0.01776	4.75	33.196	39.12	1.27
PettyHR	M001	1385.41	20-AMEC-2020	85.300000	43.100	44.595430	45.5036	48.7753	0.11014	11.48	12.003	15.71	3.15
PettyHR	M001	1370.82	20-AMEC-2020	85.300000	41.750	43.365060	44.3703	47.1893	0.09252	11.59	12.177	12.50	2.97
PettyHR	M001	1362.66	20-AMEC-2020	85.300000	39.880	41.801930	43.0103	46.3850	0.08410	12.10	11.201	9.48	2.87
PettyHR	M001	1336.64	20-AMEC-2020	85.300000	39.870	41.294090	42.0778	43.5974	0.07893	9.73	14.953	17.07	2.67
PettyHR	M001	1309.35	20-AMEC-2020	85.300000	38.400	39.610080	40.1027	41.2758	0.07691	8.52	16.607	20.68	2.56
PettyHR	M001	1279.20	20-AMEC-2020	85.300000	35.020	37.052800	38.0026	39.5079	0.04394	9.24	16.207	15.54	2.11
PettyHR	M001	1258.06	20-AMEC-2020	85.300000	34.010	36.243920	36.9615	38.6134	0.03703	9.13	16.258	12.95	1.98
PettyHR	M001	1221.17	20-AMEC-2020	85.300000	33.210	34.449820	35.1766	36.4775	0.09001	9.01	14.811	17.42	2.73
PettyHR	M001	1203.34	20-AMEC-2020	85.300000	32.610	33.827100	34.1312	34.8931	0.05896	7.44	21.656	33.10	2.24
PettyHR	M001	1164.99	20-AMEC-2020	85.300000	31.370	32.767870	32.9041	33.3556	0.02474	5.25	29.320	39.40	1.48
PettyHR	M001	1153.41	20-AMEC-2020	85.300000	30.700	31.673710	32.0164	32.8254	0.08328	7.74	20.136	35.13	2.58
PettyHR	M001	1125.74	20-AMEC-2020	85.300000	29.270	30.426750	30.6290	31.1417	0.04096	5.98	26.249	40.99	1.85
PettyHR	M001	1090.65	20-AMEC-2020	85.300000	28.120	29.236430	29.3800	29.7577	0.03554	5.27	31.191	57.36	1.70
PettyHR	M001	1059.48	20-AMEC-2020	85.300000	26.840	28.033740	28.2019	28.6002	0.03848	5.90	30.782	61.08	1.80
PettyHR	M001	1048.77	20-AMEC-2020	85.300000	26.290	27.404380	27.6141	28.1262	0.04757	6.14	27.329	52.88	1.97
PettyHR	M001	1021.54	20-AMEC-2020	85.300000	25.470	26.926220	26.9489	27.3343	0.01902	4.78	33.974	42.35	1.31
PettyHR	M001	1003.30	20-AMEC-2020	85.300000	23.420	24.684420	25.2756	26.5864	0.07457	8.79	15.599	17.61	2.56
PettyHR	M001	994.73	20-AMEC-2020	85.300000	22.700	24.554720	25.0527	26.0293	0.03350	7.60	18.412	14.80	1.82
PettyHR	M001	961.03	20-AMEC-2020	85.300000	22.070	24.584060	24.6109	25.2276	0.01077	5.27	30.457	24.38	1.08
PettyHR	M001	944.13	20-AMEC-2020	85.300000	21.890	23.345800	23.8129	24.8087	0.04471	7.43	18.787	20.31	2.03
PettyHR	M001	924.94	20-AMEC-2020	85.300000	20.780	22.403600	22.8749	23.9536	0.04360	7.87	17.602	15.98	2.03
PettyHR	M001	905.47	20-AMEC-2020	85.300000	19.730	21.614630	22.0989	23.2165	0.03435	7.82	17.969	14.66	1.85
PettyHR	M001	883.86	20-AMEC-2020	85.300000	17.290	20.667930	19.7208	20.8625	0.00165	2.55	51.769	34.78	0.45
PettyHR	M001	875		Bridge									
PettyHR	M001	859.53	20-AMEC-2020	85.300000	17.250	19.193830	19.1938	19.7796	0.01418	4.97	27.862	28.50	1.18
PettyHR	M001	836.76	20-AMEC-2020	85.300000	12.800	14.515930	15.5560	18.2323	0.07108	10.51	11.978	10.07	2.62
PettyHR	M001	823.70	20-AMEC-2020	85.300000	12.860	14.229500	14.9803	16.8131	0.09085	10.09	13.856	15.63	2.84
PettyHR	M001	811.96	20-AMEC-2020	85.300000	12.850	14.568900	14.6523	15.8077	0.03429	7.35	21.066	21.87	1.83
PettyHR	M001	796.92	20-AMEC-2020	85.300000	12.740	14.004720	14.3440	15.1175	0.05878	7.80	21.152	30.91	2.27
PettyHR	M001	784.11	20-AMEC-2020	85.300000	11.820	13.531670	13.9042	14.5555	0.03040	6.83	24.718	31.09	1.71
PettyHR	M001	769.86	20-AMEC-2020	85.300000	10.940	12.331450	12.8226	13.9322	0.05315	7.85	17.967	20.93	2.19
PettyHR	M001	748.76	20-AMEC-2020	85.300000	8.370	10.506280	11.2639	12.9486	0.03571	8.55	16.687	16.31	1.92
PettyHR	M001	720.33	20-AMEC-2020	85.300000	8.080	9.008404	9.5390	11.0615	0.14551	9.26	15.049	26.75	3.32
PettyHR	M001	707.57	20-AMEC-2020	85.300000	6.850	8.159620	8.5741	9.6751	0.06354	8.17	19.740	31.75	2.36
PettyHR	M001	685.99	20-AMEC-2020	85.300000	5.310	6.759403	7.2368	8.3496	0.05967	8.32	19.367	27.82	2.31
PettyHR	M001	666.04	20-AMEC-2020	85.300000	5.030	6.546042	6.7814	7.3302	0.02547	5.65	28.361	40.86	1.53
PettyHR	M001	652.51	20-AMEC-2020	85.300000	4.660	5.982408	6.2048	6.8946	0.03850	6.26	23.779	32.51	1.82
PettyHR	M001	633.61	20-AMEC-2020	85.300000	4.400	5.314344	5.5268	6.0413	0.04999	5.53	26.021	75.12	1.96
PettyHR	M001	622.83	20-AMEC-2020	85.300000	4.090	5.128185	5.1282	5.3811	0.01711	3.53	43.627	97.98	1.17
PettyHR	M001	577.97	20-AMEC-2020	85.300000	2.480	3.656958	3.8330	4.1630	0.04552	6.29	33.004	101.19	1.93
PettyHR	M001	525.57	20-AMEC-2020	85.300000	0.510	2.807580	2.0811	2.8960	0.00206	2.21	73.467	95.78	0.47
PettyHR	M001	491.94	20-AMEC-2020	85.300000	-0.590	2.648899	1.7510	2.8265	0.00157	2.15	60.322	68.78	0.42
PettyHR	M001	485		Bridge									
PettyHR	M001	478.84	20-AMEC-2020	85.300000	-1.920	2.606326	0.3014	2.6629	0.00030	1.12	112.660	143.21	0.19
PettyHR	M001	439.27	20-AMEC-2020	85.300000	-1.890	2.623545		2.6334	0.00008	0.60	243.935	130.58	0.10
PettyHR	M001	405.68	20-AMEC-2020	85.300000	-2.130	2.620481		2.6308	0.00007	0.57	241.778	133.25	0.09
PettyHR	M001	367.80	20-AMEC-2020	85.300000	-2.020	2.621842		2.6268	0.00002	0.32	307.235	140.04	0.05
PettyHR	M001	338.85	20-AMEC-2020	85.300000	-2.890	2.622181		2.6259	0.00001	0.28	345.710	123.08	0.04
PettyHR	M001	305.38	20-AMEC-2020	85.300000	-2.460	2.620599		2.6253	0.00002	0.31	312.762	120.24	0.05
PettyHR	M001	269.29	20-AMEC-2020	85.300000	-3.520	2.619159		2.6246	0.00002	0.33	293.339	110.91	0.05
PettyHR	M001	238.18	20-AMEC-2020	85.300000	-3.500	2.615978		2.6237	0.00002	0.40	254.239	103.18	0.06
PettyHR	M001	201.25	20-AMEC-2020	85.300000	-4.430	2.618779		2.6219	0.00001	0.25	374.256	121.03	0.03
PettyHR	M001	150.84	20-AMEC-2020	85.300000	-3.340	2.619572		2.6211	0.00000	0.18	534.763	171.77	0.02
PettyHR	M001	105.74	20-AMEC-2020	85.300000	-2.910	2.619347		2.6209	0.00000	0.18	516.238	154.50	0.03
PettyHR	M001	91.29	20-AMEC-2020	85.300000	-3.360	2.619375		2.6208	0.00000	0.17	532.098	144.28	0.02

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	20.04	20-AMEC-2020	85.300000	-6.190	2.619596		2.6204	0.00000	0.13	716.153	185.40	0.02
PettyHR	M001	12.04	20-AMEC-2020	85.300000	-6.190	2.610002	-3.7907	2.6195	0.00004	0.47	278.430	185.37	0.05
ForthP	M001	2616.90	20-AMEC-2020	9.900000	123.090	124.345300	123.3477	124.3459	0.00002	0.12	111.084	145.46	0.04
ForthP	M001	2528.45	20-AMEC-2020	9.900000	123.090	124.345000		124.3452	0.00000	0.06	185.380	185.00	0.02
ForthP	M001	2324.32	20-AMEC-2020	9.900000	123.090	124.343400		124.3439	0.00001	0.11	122.944	190.61	0.03
ForthP	M001	2187.52	20-AMEC-2020	9.900000	123.090	124.343000		124.3431	0.00000	0.04	244.740	280.08	0.01
ForthP	M001	1955.13	20-AMEC-2020	9.900000	123.090	124.342500		124.3426	0.00000	0.04	284.257	305.48	0.01
ForthP	M001	1773.83	20-AMEC-2020	9.900000	123.090	124.342200		124.3423	0.00000	0.03	354.220	339.39	0.01
ForthP	M001	1572.85	20-AMEC-2020	9.900000	123.090	124.342100		124.3421	0.00000	0.03	340.410	314.01	0.01
ForthP	M001	1496.60	20-AMEC-2020	9.900000	123.090	124.342000		124.3420	0.00000	0.04	285.930	269.76	0.01
ForthP	M001	1392.58	20-AMEC-2020	13.500000	122.980	124.339500	124.0128	124.3411	0.00014	0.40	85.154	161.24	0.11
ForthP	M001	1390		Culvert									
ForthP	M001	1381.72	20-AMEC-2020	13.500000	122.950	124.043300	123.9901	124.0882	0.00442	1.78	24.379	119.75	0.57
ForthP	M001	1360.50	20-AMEC-2020	13.500000	122.870	123.859700		123.9595	0.00651	1.98	12.986	33.61	0.70
ForthP	M001	1311.12	20-AMEC-2020	13.500000	122.520	123.448500	123.4125	123.5611	0.01028	2.30	11.980	36.20	0.85
ForthP	M001	1261.17	20-AMEC-2020	13.500000	121.360	122.650000	122.6500	123.0237	0.01062	3.06	6.192	9.38	0.93
ForthP	M001	1211.51	20-AMEC-2020	13.500000	119.830	120.821700	121.1661	121.9631	0.04906	5.27	3.372	6.11	1.89
ForthP	M001	1161.66	20-AMEC-2020	13.500000	117.250	118.111900	118.4622	119.2543	0.06098	5.27	3.609	12.47	2.06
ForthP	M001	1112.05	20-AMEC-2020	13.500000	114.880	115.666900	115.9109	116.3447	0.05125	4.85	5.049	20.61	1.89
ForthP	M001	1062.35	20-AMEC-2020	13.500000	113.160	113.902800	113.9736	114.2198	0.03311	3.44	6.052	14.63	1.44
ForthP	M001	1041.93	20-AMEC-2020	13.500000	112.620	113.504700	113.5898	113.8528	0.02978	3.67	6.403	16.76	1.41
ForthP	M001	1031.90	20-AMEC-2020	13.500000	112.310	113.280800	113.3787	113.5827	0.02241	3.50	8.512	35.22	1.26
ForthP	M001	1011.12	20-AMEC-2020	13.500000	111.620	112.401100	112.5527	112.9059	0.04818	4.53	6.579	29.69	1.81
ForthP	M001	959.76	20-AMEC-2020	13.500000	110.310	110.938300	110.9612	111.0741	0.02587	2.60	10.500	51.18	1.25
ForthP	M001	908.93	20-AMEC-2020	13.500000	109.250	109.715500	109.6544	109.7548	0.01228	1.48	16.618	80.00	0.83
ForthP	M001	856.39	20-AMEC-2020	13.500000	108.380	108.697700	108.6605	108.7455	0.02366	1.19	14.158	85.80	1.00
ForthP	M001	806.25	20-AMEC-2020	13.500000	107.090	107.815600	107.8156	107.8911	0.01438	2.28	15.365	84.06	0.96
ForthP	M001	754.78	20-AMEC-2020	13.500000	106.120	106.954200	106.9973	107.1027	0.01671	2.88	13.423	76.28	1.09
ForthP	M001	734.50	20-AMEC-2020	13.500000	105.470	106.349500	106.4705	106.7127	0.02566	3.45	6.876	21.08	1.33
ForthP	M001	724.30	20-AMEC-2020	13.500000	105.280	106.290300	106.3496	106.4962	0.01220	2.69	10.271	43.21	0.95
ForthP	M001	703.65	20-AMEC-2020	13.500000	105.020	105.823500	105.8983	106.0981	0.03275	3.84	8.279	34.27	1.48
ForthP	M001	654.47	20-AMEC-2020	13.500000	103.900	104.726800	104.5947	104.7694	0.00542	1.63	17.636	52.40	0.62
ForthP	M001	605.63	20-AMEC-2020	13.500000	102.270	103.034200	103.0342	104.0552	0.07464	5.28	3.904	12.60	2.22
ForthP	M001	585.13	20-AMEC-2020	13.500000	101.550	102.262200	102.3686	102.6748	0.04947	4.01	7.778	52.55	1.78
ForthP	M001	577.30	20-AMEC-2020	13.500000	101.520	102.024600	102.0729	102.2062	0.05580	3.25	8.813	54.46	1.77
ForthP	M001	557.33	20-AMEC-2020	13.500000	100.670	101.159100	101.1794	101.2745	0.03870	2.49	10.449	62.12	1.44
ForthP	M001	507.84	20-AMEC-2020	13.500000	98.920	99.446960	99.4587	99.5460	0.03159	2.36	11.439	69.89	1.32
ForthP	M001	453.33	20-AMEC-2020	13.500000	96.280	96.806980	96.8776	97.0824	0.06608	3.47	8.625	72.39	1.92
ForthP	M001	402.29	20-AMEC-2020	13.500000	94.960	95.424270	95.4243	95.5287	0.03396	2.50	10.364	46.16	1.37
ForthP	M001	349.18	20-AMEC-2020	13.500000	93.640	94.025160	93.9438	94.0648	0.01590	1.24	15.516	68.66	0.87
ForthP	M001	297.76	20-AMEC-2020	13.500000	92.550	93.327580	93.3276	93.4154	0.01245	2.16	14.430	73.55	0.91
ForthP	M001	246.28	20-AMEC-2020	13.500000	91.710	92.292370	92.2924	92.3652	0.01725	1.89	14.046	70.06	1.00
ForthP	M001	182.03	20-AMEC-2020	13.500000	90.940	91.863430	91.5256	91.8769	0.00195	1.01	31.096	87.26	0.37
ForthP	M001	160.27	20-AMEC-2020	13.500000	90.130	91.868910	90.8979	91.8701	0.00004	0.24	111.611	129.28	0.06
ForthP	M001	150		Culvert									
ForthP	M001	144.74	20-AMEC-2020	13.500000	89.900	90.777840	90.6030	90.9619	0.00607	1.92	7.239	73.56	0.68
ForthP	M001	124.30	20-AMEC-2020	13.500000	89.740	90.616890	90.6169	90.7622	0.01438	2.55	12.082	46.23	1.00
ForthP	M001	61.58	20-AMEC-2020	13.500000	88.750	89.677760	89.7130	89.8509	0.01434	2.66	11.609	44.53	1.01
ForestP	M001	1557.91	20-AMEC-2020	7.000001	78.250	79.705080	78.4465	79.7052	0.00000	0.05	147.132	121.34	0.01
ForestP	M001	1428.05	20-AMEC-2020	7.000001	78.250	79.704930		79.7050	0.00000	0.04	200.665	177.13	0.01
ForestP	M001	1315.71	20-AMEC-2020	7.000001	78.250	79.704850		79.7049	0.00000	0.03	282.387	242.35	0.01
ForestP	M001	1228.83	20-AMEC-2020	7.000001	78.250	79.704820		79.7048	0.00000	0.02	337.703	289.44	0.01
ForestP	M001	1138.84	20-AMEC-2020	7.000001	78.250	79.704790		79.7048	0.00000	0.02	395.531	342.11	0.01
ForestP	M001	1077.28	20-AMEC-2020	7.000001	78.250	79.704770		79.7048	0.00000	0.02	437.335	480.32	0.00
ForestP	M001	1019.12	20-AMEC-2020	7.000001	78.250	79.704690		79.7048	0.00000	0.04	220.514	280.10	0.01
ForestP	M001	958.61	20-AMEC-2020	8.899999	78.150	79.684840	79.5024	79.7027	0.00060	0.70	24.214	68.55	0.21
ForestP	M001	955		Culvert									
ForestP	M001	949.85	20-AMEC-2020	8.899999	77.760	79.494500	79.4945	79.6545	0.00798	2.03	7.734	28.17	0.55
ForestP	M001	913.34	20-AMEC-2020	8.899999	78.160	79.025690	79.0641	79.2307	0.02579	3.32	5.727	17.63	1.24
ForestP	M001	883.23	20-AMEC-2020	8.899999	77.540	78.310330	78.3791	78.5276	0.02117	2.91	7.178	36.07	1.19
ForestP	M001	859.61	20-AMEC-2020	8.899999	76.750	77.414790	77.5318	77.8030	0.04398	3.79	4.159	13.41	1.67
ForestP	M001	831.71	20-AMEC-2020	8.899999	75.740	76.667860	76.7280	76.9654	0.02134	3.26	4.783	11.09	1.21
ForestP	M001	802.91	20-AMEC-2020	8.899999	74.660	75.391970	75.5860	76.0455	0.04964	4.37	3.273	9.47	1.82
ForestP	M001	772.90	20-AMEC-2020	8.899999	73.770	74.497470	74.5641	74.7748	0.03044	3.42	4.798	13.71	1.40
ForestP	M001	737.48	20-AMEC-2020	8.899999	72.770	73.449960	73.4459	73.5907	0.01845	2.55	6.743	21.40	1.09
ForestP	M001	688.06	20-AMEC-2020	8.899999	71.800	72.366550	72.3666	72.4722	0.02852	2.61	7.249	32.21	1.25
ForestP	M001	651.32	20-AMEC-2020	8.899999	70.810	71.400600	71.4207	71.5313	0.02317	2.66	7.329	30.56	1.21
ForestP	M001	600.44	20-AMEC-2020	8.899999	69.800	70.301920	70.3019	70.3774	0.02205	2.23	9.661	55.15	1.14
ForestP	M001	578.60	20-AMEC-2020	8.899999	69.310	69.897560	69.9222	69.9677	0.01577	2.12	12.266	84.47	0.99
ForestP	M001	528.92	20-AMEC-2020	8.899999	68.580	69.339650	69.2567	69.3751	0.00569	1.53	15.512	63.73	0.62
ForestP	M001	478.55	20-AMEC-2020	8.899999	68.210	69.334980		69.3373	0.00019	0.38	53.415	107.51	0.12
ForestP	M001	430.82	20-AMEC-2020	8.899999	67.770	69.332130		69.3329	0.00005	0.24	88.523	127.14	0.06
ForestP	M001	378.18	20-AMEC-2020	8.899999	67.480	69.331900		69.3320	0.00001	0.10	216.476	261.56	0.02
ForestP	M001	328.07	20-AMEC-2020	8.899999	67.340	69.331760		69.3318	0.00000	0.06	313.672	313.58	0.02
ForestP	M001	277.95	20-AMEC-2020	8.899999	67.070	69.331690		69.3317	0.00000	0.05	387.132	352.88	0.01
ForestP	M001	195.51	20-AMEC-2020	8.899999	66.230	69.331670		69.3317	0.00000	0.03	739.479	518.38	0.00
ForestP	M001	158.37	20-AMEC-2020	8.899999	66.230	69.331670		69.3317	0.00000	0.01	1424.645	671.72	0.00
ForestP	M001	89.11	20-AMEC-2020	8.899999	66.230	69.331670		69.3317	0.00000	0.01	1577.993	742.27	0.00
DoylesR	TR019	260.51	20-AMEC-2020	0.300000	124.740	125.058300	124.9295	125.0595	0.00034	0.19	2.905	29.06	0.13
DoylesR	TR019	199.72	20-AMEC-2020	0.300000	124.550	125.058300		125.0584	0.00000	0.02	29.764	134.36	0.01
DoylesR	TR019	150.00	20-AMEC-2020	0.300000	124.370	125.058100		125.0581	0.00000	0.02	32.346	140.52	0.01
DoylesR	TR019	100.00	20-AMEC-2020	0.300000	124.160	125.058000		125.0580	0.00000	0.03	26.917	130.61	0.01
DoylesR	TR019	50.00	20-AMEC-2020	0.300000	124.180	125.057900		125.0579	0.00000	0.02	50.802	203.47	0.01
DoylesR	TR018	302.01	20-AMEC-2020	1.200000	127.900	128.055700	128.0557	128.0878	0.01811	0.86	1.818	24.11	0.84
DoylesR	TR018	270.53	20-AMEC-2020	1.200000	126.190	128.020200	126.8068	128.0202	0.00000	0.03	142.409	244.89	0.01
DoylesR	TR018	260		Culvert									
DoylesR	TR018	257.62	20-AMEC-2020	1.200000	126.190	127.961900	126.8356	127.9619	0.00000	0.02	150.414	198.01	0.00

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR018	244.68	20-AMEC-2020	1.200000	125.640	127.916800	126.5318	127.9515	0.00045	0.89	1.638	198.83	0.19
DoylesR	TR018	200		Culvert									
DoylesR	TR018	169.24	20-AMEC-2020	1.200000	125.400	126.098100	126.0981	126.4199	0.01806	2.89	0.515	72.43	1.14
DoylesR	TR018	131.43	20-AMEC-2020	1.200000	125.240	125.445700	125.4468	125.4670	0.02037	0.93	2.507	51.81	0.90
DoylesR	TR018	59.79	20-AMEC-2020	1.200000	124.570	125.107300	124.8757	125.1090	0.00031	0.27	10.598	90.95	0.14
DoylesR	TR017	4043.45	20-AMEC-2020	6.799999	124.050	125.029800		125.0493	0.00131	1.00	17.783	56.30	0.33
DoylesR	TR017	3983.69	20-AMEC-2020	6.799999	124.040	124.918300		124.9519	0.00227	1.09	14.502	67.26	0.41
DoylesR	TR017	3923.93	20-AMEC-2020	6.799999	124.030	124.602000	124.6020	124.6812	0.01491	1.72	7.612	42.77	0.93
DoylesR	TR017	3889.37	20-AMEC-2020	6.799999	123.600	123.767500	123.6233	123.7820	0.00586	0.29	12.806	58.83	0.42
DoylesR	TR017	3781.64	20-AMEC-2020	6.799999	122.550	123.448700	123.1781	123.4916	0.00363	1.41	12.191	47.83	0.51
DoylesR	TR017	3768.91	20-AMEC-2020	6.799999	122.350	123.152600	123.1526	123.3861	0.01247	2.29	3.743	9.27	0.91
DoylesR	TR017	3745.98	20-AMEC-2020	6.799999	121.860	122.381200	122.4601	122.6751	0.06379	3.09	3.779	26.74	1.82
DoylesR	TR017	3713.18	20-AMEC-2020	6.799999	120.990	121.539800	121.5766	121.7524	0.01909	2.17	3.792	12.93	1.08
DoylesR	TR017	3692.45	20-AMEC-2020	6.799999	120.340	120.937500	121.0288	121.2449	0.02934	2.69	3.319	12.62	1.34
DoylesR	TR017	3679.05	20-AMEC-2020	6.799999	119.970	120.694500	120.7943	120.9538	0.01587	2.49	3.700	14.66	1.04
DoylesR	TR017	3656.84	20-AMEC-2020	6.799999	117.590	118.031300	118.3722	119.8928	0.26434	6.14	1.196	5.58	3.75
DoylesR	TR017	3603.67	20-AMEC-2020	6.799999	116.290	116.963200	117.0095	117.1483	0.01650	2.40	4.838	21.96	1.04
DoylesR	TR017	3583.40	20-AMEC-2020	6.799999	115.960	116.467900	116.5319	116.9249	0.06956	3.73	2.922	14.84	2.00
DoylesR	TR017	3571.14	20-AMEC-2020	6.799999	115.760	116.290200	116.2902	116.3975	0.01998	2.26	6.132	31.31	1.10
DoylesR	TR017	3545.42	20-AMEC-2020	6.799999	115.220	115.756000	115.7860	115.9357	0.02700	2.39	4.453	18.87	1.25
DoylesR	TR017	3483.93	20-AMEC-2020	6.799999	114.350	114.925200	114.9129	114.9714	0.01096	1.72	10.755	69.56	0.82
DoylesR	TR017	3432.55	20-AMEC-2020	6.799999	113.790	114.487500	114.4651	114.5467	0.00887	1.77	9.635	59.60	0.75
DoylesR	TR017	3345.48	20-AMEC-2020	6.799999	113.030	113.543300	113.5433	113.6261	0.02090	1.98	6.925	40.56	1.09
DoylesR	TR017	3300.07	20-AMEC-2020	6.799999	112.420	112.950800	112.8473	112.9653	0.00446	0.93	14.929	75.57	0.50
DoylesR	TR016	918.87	20-AMEC-2020	2.500000	127.080	128.801000	127.2395	128.8010	0.00000	0.01	404.728	361.54	0.00
DoylesR	TR016	898.71	20-AMEC-2020	2.500000	126.900	128.801000	127.8966	128.8010	0.00000	0.03	196.441	225.37	0.01
DoylesR	TR016	890		Culvert									
DoylesR	TR016	882.28	20-AMEC-2020	2.500000	126.880	128.729600	127.9195	128.7296	0.00000	0.06	104.852	158.11	0.01
DoylesR	TR016	877.71	20-AMEC-2020	2.500000	126.240	128.729600	127.3073	128.7296	0.00000	0.07	123.851	189.13	0.01
DoylesR	TR016	850		Culvert									
DoylesR	TR016	848.13	20-AMEC-2020	2.500000	126.370	127.409400	127.4094	127.9114	0.01298	3.14	0.796	4.98	1.00
DoylesR	TR016	818.98	20-AMEC-2020	2.500000	126.360	126.676300	126.7774	127.0431	0.09072	2.82	1.138	12.67	2.07
DoylesR	TR016	768.99	20-AMEC-2020	2.500000	126.300	126.629800	126.5743	126.6421	0.00455	0.73	6.650	50.18	0.48
DoylesR	TR016	714.09	20-AMEC-2020	2.500000	125.960	126.347900	126.2826	126.3660	0.00536	0.85	5.436	35.41	0.53
DoylesR	TR016	675.95	20-AMEC-2020	2.500000	125.740	126.071700	126.0717	126.1168	0.01423	1.22	3.832	39.92	0.84
DoylesR	TR016	659.39	20-AMEC-2020	2.500000	125.100	125.422300	125.5066	125.6570	0.05794	2.54	1.559	13.89	1.70
DoylesR	TR016	632.80	20-AMEC-2020	2.500000	124.780	125.241300	125.2413	125.3078	0.01031	1.36	3.239	26.28	0.76
DoylesR	TR016	610.50	20-AMEC-2020	2.500000	123.780	124.212300	124.3710	124.7505	0.07076	3.47	0.909	4.60	1.97
DoylesR	TR016	549.37	20-AMEC-2020	2.500000	122.300	122.924700	122.9492	123.0480	0.01366	1.87	2.400	14.99	0.89
DoylesR	TR016	494.31	20-AMEC-2020	2.500000	120.930	121.485900	121.5895	121.8270	0.03975	2.60	0.994	3.68	1.45
DoylesR	TR016	473.82	20-AMEC-2020	2.500000	120.180	120.662200	120.7685	120.9944	0.04156	2.62	1.064	4.59	1.50
DoylesR	TR016	459.95	20-AMEC-2020	2.500000	119.620	120.058100	120.1574	120.3845	0.04713	2.57	1.047	4.81	1.57
DoylesR	TR016	439.99	20-AMEC-2020	2.500000	119.050	119.655200	119.6812	119.8604	0.02028	2.03	1.301	4.34	1.06
DoylesR	TR016	384.99	20-AMEC-2020	2.500000	117.070	117.491800	117.6162	117.8998	0.07568	2.83	0.888	4.34	1.92
DoylesR	TR016	329.99	20-AMEC-2020	2.500000	115.670	116.148400	116.1700	116.2364	0.01498	1.49	2.656	22.95	0.89
DoylesR	TR016	274.18	20-AMEC-2020	2.500000	114.930	115.319200	115.3154	115.3621	0.01131	1.16	4.236	46.68	0.76
DoylesR	TR016	218.88	20-AMEC-2020	2.500000	114.350	114.814900	114.8069	114.8634	0.01100	1.21	4.135	45.63	0.76
DoylesR	TR016	165.43	20-AMEC-2020	2.500000	113.830	114.367200	114.3672	114.4252	0.00810	1.25	3.811	34.66	0.68
DoylesR	TR016	86.48	20-AMEC-2020	2.500000	112.800	113.204800	113.2309	113.3322	0.02868	1.73	1.868	12.09	1.18
DoylesR	TR016	40.19	20-AMEC-2020	2.500000	112.210	112.782200	112.6938	112.7954	0.00247	0.75	7.759	54.46	0.38
DoylesR	TR015	3230.71	20-AMEC-2020	14.800000	111.600	112.501300		112.5577	0.00688	1.95	19.803	75.30	0.71
DoylesR	TR015	3185.04	20-AMEC-2020	14.800000	111.220	112.110500	112.1105	112.2381	0.01333	2.47	13.785	50.08	0.96
DoylesR	TR015	3133.58	20-AMEC-2020	14.800000	110.570	111.371700	111.3926	111.5052	0.01603	2.65	12.920	46.41	1.05
DoylesR	TR015	3079.97	20-AMEC-2020	14.800000	108.170	109.027900	109.3793	109.9891	0.05300	4.83	4.203	10.00	1.92
DoylesR	TR015	3026.43	20-AMEC-2020	14.800000	107.300	109.112400	108.2685	109.1320	0.00042	0.79	31.488	33.98	0.20
DoylesR	TR015	3001.28	20-AMEC-2020	14.800000	106.170	109.120900	108.2209	109.1233	0.00006	0.40	87.295	78.14	0.08
DoylesR	TR015	3000		Culvert									
DoylesR	TR015	2988.77	20-AMEC-2020	14.800000	106.030	107.962800	107.9628	108.1782	0.00365	2.53	15.000	40.60	0.60
DoylesR	TR015	2963.30	20-AMEC-2020	14.800000	105.690	106.528300	106.8280	107.6563	0.06493	5.65	4.917	16.86	2.11
DoylesR	TR015	2915.60	20-AMEC-2020	14.800000	104.530	105.572200	105.6686	105.9348	0.01926	3.40	8.170	20.71	1.19
DoylesR	TR015	2867.64	20-AMEC-2020	14.800000	103.370	104.468800	104.6195	104.9408	0.02605	4.12	7.641	20.07	1.38
DoylesR	TR015	2841.04	20-AMEC-2020	14.800000	102.400	102.937200	103.0969	103.5259	0.12558	4.88	5.737	26.81	2.66
DoylesR	TR015	2804.73	20-AMEC-2020	14.800000	101.670	102.465300	102.4294	102.5887	0.01426	2.48	12.485	34.84	0.99
DoylesR	TR015	2742.98	20-AMEC-2020	14.800000	100.870	101.649000	101.6368	101.7445	0.01450	2.54	16.223	64.41	1.00
DoylesR	TR015	2687.77	20-AMEC-2020	14.800000	100.070	100.665000	100.6650	100.7797	0.02406	2.58	13.410	61.95	1.23
DoylesR	TR015	2638.14	20-AMEC-2020	14.800000	98.950	99.720990	99.7806	99.9290	0.02525	3.36	11.490	46.31	1.33
DoylesR	TR015	2593.26	20-AMEC-2020	14.800000	97.750	98.792980	98.7607	98.9406	0.01140	2.70	12.797	35.87	0.92
DoylesR	TR015	2557.12	20-AMEC-2020	14.800000	97.530	98.514960		98.6160	0.00859	2.35	15.048	42.54	0.81
DoylesR	TR015	2522.34	20-AMEC-2020	14.800000	97.260	98.164490	98.1645	98.3060	0.01169	2.33	12.591	39.69	0.91
DoylesR	TR015	2483.94	20-AMEC-2020	14.800000	96.950	97.664600	97.6277	97.7307	0.01308	2.04	15.843	59.56	0.90
DoylesR	TR015	2438.99	20-AMEC-2020	14.800000	96.350	97.374370		97.4320	0.00495	1.76	21.790	82.69	0.61
DoylesR	TR015	2387.12	20-AMEC-2020	14.800000	96.390	97.282220		97.2931	0.00178	0.90	38.219	120.50	0.35
DoylesR	TR015	2352.45	20-AMEC-2020	14.800000	96.400	97.251110		97.2564	0.00065	0.55	48.579	98.58	0.21
DoylesR	TR015	2283.37	20-AMEC-2020	14.800000	95.750	97.093800		97.1690	0.00288	1.68	15.366	22.02	0.50
DoylesR	TR015	2231.50	20-AMEC-2020	14.800000	95.540	96.609450	96.5901	96.8780	0.01334	2.96	8.350	16.21	1.01
DoylesR	TR015	2160.12	20-AMEC-2020	14.800000	94.930	95.904950		96.0542	0.00900	2.25	10.693	21.58	0.82
DoylesR	TR015	2119.11	20-AMEC-2020	14.800000	94.440	95.454070	95.4541	95.6555	0.01237	2.73	10.420	26.05	0.96
DoylesR	TR015	2075.88	20-AMEC-2020	14.800000	93.860	94.753110	94.8623	95.0160	0.01728	2.93	9.532	33.35	1.12
DoylesR	TR015	2024.01	20-AMEC-2020	14.800000	93.190	94.189900	94.1659	94.3574	0.01205	2.60	11.816	43.77	0.94
DoylesR	TR015	1972.14	20-AMEC-2020	14.800000	92.710	93.739000	93.7390	93.8335	0.00868	2.34	17.497	75.82	0.80
DoylesR	TR015	1921.75	20-AMEC-2020	14.800000	92.350	93.355480	93.0806	93.3796	0.00251	1.25	25.541	65.32	0.43
DoylesR	TR015	1851.62	20-AMEC-2020	14.800000	91.240	92.826450	92.8265	93.1359	0.00786	2.91	8.304	15.38	0.80
DoylesR	TR014	2057.49	20-AMEC-2020	9.000000	125.480	126.506000	126.3332	126.5411	0.00282	1.22	17.082	60.92	0.45
DoylesR	TR014	2037.89	20-AMEC-2020	9.000000	125.570	126.506700		126.5115	0.00052	0.55	37.783	101.97	0.20
DoylesR	TR014	1988.88	20-AMEC-2020	9.000000	124.710	126.427000	125.8040	126.4759	0.00080	1.04	13.537	42.95	0.26
DoylesR	TR014	1980		Culvert									
DoylesR	TR014	1975.46	20-AMEC-2020	9.000000	124.460	126.289900	125.5565	126.3467	0.00077	1.08	9.594	14.89	0.27

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR014	1936.56	20-AMEC-2020	9.000000	124.860	126.079400		126.2510	0.00477	2.08	6.552	12.07	0.63
DoylesR	TR014	1904.43	20-AMEC-2020	9.000000	124.720	125.763000	125.7630	126.0319	0.00944	2.58	5.335	11.12	0.86
DoylesR	TR014	1867.03	20-AMEC-2020	9.000000	124.610	125.540600	125.3508	125.6343	0.00467	1.69	9.422	23.53	0.60
DoylesR	TR014	1801.50	20-AMEC-2020	9.000000	124.000	124.928900	124.9289	125.1596	0.01185	2.66	5.860	13.86	0.95
DoylesR	TR014	1765.57	20-AMEC-2020	9.000000	123.200	123.692400	123.8644	124.2832	0.06596	3.79	3.329	15.44	1.98
DoylesR	TR014	1703.29	20-AMEC-2020	9.000000	121.820	122.601700	122.6017	122.8609	0.01326	2.54	5.097	13.38	0.98
DoylesR	TR014	1657.91	20-AMEC-2020	9.000000	121.270	121.971600	122.0106	122.2199	0.01523	2.37	5.242	17.84	1.01
DoylesR	TR014	1607.98	20-AMEC-2020	9.000000	120.590	121.380600	121.4267	121.5371	0.01164	2.28	8.828	42.22	0.91
DoylesR	TR014	1544.18	20-AMEC-2020	9.000000	119.810	120.625900	120.6787	120.7969	0.01181	2.40	8.586	40.08	0.92
DoylesR	TR014	1492.70	20-AMEC-2020	9.000000	119.060	119.651700	119.7369	119.9099	0.02627	2.83	6.397	35.62	1.30
DoylesR	TR014	1441.23	20-AMEC-2020	9.000000	117.590	118.546000	118.5632	118.9084	0.01658	3.27	4.850	15.96	1.13
DoylesR	TR014	1420.98	20-AMEC-2020	9.000000	116.980	118.116200	117.7050	118.1745	0.00219	1.36	10.176	13.15	0.43
DoylesR	TR014	1411.86	20-AMEC-2020	9.000000	117.030	118.023500	117.6946	118.1384	0.00396	1.77	6.612	11.95	0.57
DoylesR	TR014	1400		Bridge									
DoylesR	TR014	1384.41	20-AMEC-2020	10.300000	116.710	117.448500	117.4485	117.7515	0.01466	2.62	4.461	9.67	1.03
DoylesR	TR014	1374.60	20-AMEC-2020	10.300000	116.540	117.385500	117.2936	117.5624	0.00810	2.06	6.301	11.33	0.77
DoylesR	TR014	1353.25	20-AMEC-2020	10.300000	116.210	117.059700	117.0597	117.3366	0.01293	2.60	5.136	9.77	0.98
DoylesR	TR014	1309.14	20-AMEC-2020	10.300000	115.500	116.181200	116.2641	116.5811	0.02298	2.81	3.724	7.64	1.23
DoylesR	TR014	1296.25	20-AMEC-2020	10.300000	115.120	116.008300	116.0859	116.4172	0.01851	3.22	4.280	7.81	1.18
DoylesR	TR014	1239.25	20-AMEC-2020	10.300000	113.430	114.049300	114.2516	114.7153	0.04942	4.00	3.433	10.62	1.80
DoylesR	TR014	1203.69	20-AMEC-2020	10.300000	112.840	113.612300	113.5559	113.7154	0.00994	2.20	8.982	24.49	0.85
DoylesR	TR014	1182.25	20-AMEC-2020	10.300000	112.530	113.290000	113.2900	113.4650	0.01280	2.41	7.500	20.53	0.96
DoylesR	TR014	1125.25	20-AMEC-2020	10.300000	111.300	112.430600	112.2381	112.4950	0.00369	1.70	12.119	22.88	0.54
DoylesR	TR014	1104.23	20-AMEC-2020	10.300000	111.160	112.159500	112.1595	112.3597	0.01021	2.48	7.201	16.93	0.88
DoylesR	TR014	1094.88	20-AMEC-2020	10.300000	110.550	111.289900	111.5413	112.1085	0.05516	4.93	3.449	9.57	1.96
DoylesR	TR014	1075.36	20-AMEC-2020	10.300000	110.170	111.161700	111.2302	111.4356	0.01525	3.17	6.965	18.68	1.08
DoylesR	TR014	1027.18	20-AMEC-2020	10.300000	109.150	109.899500	110.0350	110.3657	0.03424	3.69	4.853	15.52	1.53
DoylesR	TR014	980.74	20-AMEC-2020	10.300000	107.890	108.904400	108.5911	108.9605	0.00327	1.54	12.300	20.51	0.51
DoylesR	TR014	954.47	20-AMEC-2020	10.300000	107.680	108.538200	108.5382	108.7840	0.01535	2.79	6.711	18.36	1.06
DoylesR	TR014	934.37	20-AMEC-2020	10.300000	106.990	107.838700	107.9050	108.3069	0.02802	3.58	4.934	15.00	1.40
DoylesR	TR014	907.24	20-AMEC-2020	10.300000	106.520	107.278100	107.3623	107.5379	0.02436	3.28	7.116	25.09	1.30
DoylesR	TR014	868.80	20-AMEC-2020	10.300000	105.880	106.771800	106.7718	107.0055	0.01250	2.58	6.850	17.62	0.96
DoylesR	TR014	864.98	20-AMEC-2020	10.300000	105.700	106.615700	106.6756	106.9361	0.01506	2.68	5.009	12.46	1.04
DoylesR	TR014	844.06	20-AMEC-2020	10.300000	105.100	106.214800	106.1073	106.3911	0.00680	2.25	7.216	12.46	0.74
DoylesR	TR014	836.52	20-AMEC-2020	10.300000	104.970	106.028800	106.0288	106.3118	0.01227	2.72	5.597	11.13	0.95
DoylesR	TR014	816.09	20-AMEC-2020	10.300000	104.780	105.367700	105.5322	105.8336	0.05208	3.67	4.246	14.99	1.79
DoylesR	TR014	811.48	20-AMEC-2020	10.300000	104.640	105.526700	105.3605	105.6165	0.00626	1.85	9.986	22.08	0.68
DoylesR	TR014	783.28	20-AMEC-2020	10.300000	103.980	105.072300	105.0723	105.3562	0.01208	2.99	5.735	9.96	0.97
DoylesR	TR014	751.27	20-AMEC-2020	10.300000	103.310	104.204000	104.3624	104.7513	0.02922	3.34	3.427	8.23	1.40
DoylesR	TR014	717.94	20-AMEC-2020	10.300000	102.630	103.884600	103.9122	104.1688	0.01109	3.11	6.456	13.11	0.94
DoylesR	TR014	676.43	20-AMEC-2020	10.300000	102.180	103.136100	103.2423	103.5538	0.01930	3.15	4.753	12.29	1.18
DoylesR	TR014	601.44	20-AMEC-2020	10.300000	101.390	102.292200	102.2067	102.4010	0.00746	1.98	8.847	21.35	0.74
DoylesR	TR014	540.83	20-AMEC-2020	10.300000	100.490	102.293400		102.3095	0.00039	0.77	27.243	43.29	0.19
DoylesR	TR014	519.25	20-AMEC-2020	10.300000	99.690	102.301200	101.4859	102.3027	0.00005	0.31	72.884	79.75	0.06
DoylesR	TR014	510		Culvert									
DoylesR	TR014	505.00	20-AMEC-2020	10.300000	99.620	101.443100	101.4431	102.3002	0.01220	4.17	2.568	28.24	1.00
DoylesR	TR014	484.27	20-AMEC-2020	10.300000	99.790	100.507800	100.7974	101.6452	0.11151	5.58	2.639	9.28	2.57
DoylesR	TR014	426.15	20-AMEC-2020	10.300000	98.710	99.784730	99.7847	100.0545	0.01124	2.44	5.404	15.10	0.90
DoylesR	TR014	368.05	20-AMEC-2020	10.300000	97.300	98.353390	98.5620	98.9874	0.03429	3.94	3.897	12.63	1.50
DoylesR	TR014	343.01	20-AMEC-2020	10.300000	96.780	98.178670	97.6889	98.2982	0.00237	1.59	7.202	68.90	0.45
DoylesR	TR014	335		Bridge									
DoylesR	TR014	331.91	20-AMEC-2020	10.300000	96.630	97.799200	97.7992	98.1776	0.01136	2.83	4.223	6.73	0.93
DoylesR	TR014	312.09	20-AMEC-2020	10.300000	96.260	97.454880	97.5932	97.8581	0.02282	3.13	5.450	27.64	1.20
DoylesR	TR014	227.09	20-AMEC-2020	10.300000	94.660	96.372230	96.0917	96.4251	0.00221	1.50	14.688	26.92	0.41
DoylesR	TR014	205.76	20-AMEC-2020	10.300000	94.510	96.084740	96.0847	96.3280	0.00741	2.53	7.129	17.16	0.73
DoylesR	TR014	198.96	20-AMEC-2020	10.300000	94.450	95.111060	95.4018	96.1259	0.08988	4.49	2.425	8.73	2.31
DoylesR	TR014	181.77	20-AMEC-2020	10.300000	94.010	95.157480	95.1620	95.3453	0.00923	2.41	8.060	22.26	0.82
DoylesR	TR014	121.12	20-AMEC-2020	10.300000	92.990	94.080790	94.2279	94.4984	0.01841	3.23	5.900	33.79	1.15
DoylesR	TR014	34.73	20-AMEC-2020	10.300000	91.600	92.415700	92.5110	92.8096	0.02261	2.99	4.345	10.33	1.24
DoylesR	TR012	1780.65	20-AMEC-2020	25.100000	90.300	92.103160	91.5842	92.2115	0.00195	1.59	22.551	33.74	0.42
DoylesR	TR012	1753.67	20-AMEC-2020	25.100000	89.560	92.144810	91.0708	92.1715	0.00031	0.92	55.369	66.07	0.19
DoylesR	TR012	1745		Bridge									
DoylesR	TR012	1729.43	20-AMEC-2020	25.100000	89.100	90.916640	90.9166	91.6629	0.01073	3.91	6.795	12.65	0.98
DoylesR	TR012	1709.20	20-AMEC-2020	25.100000	88.930	90.396380	90.6880	91.2975	0.02456	4.90	8.596	19.37	1.41
DoylesR	TR012	1645.76	20-AMEC-2020	25.100000	88.200	89.280140	89.3698	89.7339	0.01896	3.50	10.023	17.04	1.21
DoylesR	TR011	1552.47	20-AMEC-2020	36.000000	86.480	88.528320	88.2083	88.8824	0.00493	2.90	16.683	13.85	0.69
DoylesR	TR011	1530.88	20-AMEC-2020	36.000000	86.190	88.088100	88.0881	88.7061	0.00998	3.95	12.798	10.97	0.98
DoylesR	TR011	1477.56	20-AMEC-2020	36.000000	84.430	85.667240	86.1677	87.5052	0.06048	6.72	7.571	12.72	2.18
DoylesR	TR011	1423.69	20-AMEC-2020	36.000000	83.560	85.378840	85.4006	86.0268	0.01043	3.87	12.120	10.99	0.99
DoylesR	TR011	1370.10	20-AMEC-2020	36.000000	82.660	83.860240	84.1490	84.9589	0.04440	5.83	11.338	28.75	1.88
DoylesR	TR011	1316.51	20-AMEC-2020	36.000000	81.170	82.716320	82.8098	83.4778	0.01677	4.30	11.025	12.36	1.21
DoylesR	TR011	1262.92	20-AMEC-2020	36.000000	79.360	80.921060	81.4529	82.2454	0.02963	5.63	8.821	12.26	1.60
DoylesR	TR011	1209.33	20-AMEC-2020	36.000000	78.140	80.053360	80.3034	80.9816	0.01633	4.69	10.243	10.78	1.21
DoylesR	TR011	1155.74	20-AMEC-2020	36.000000	76.810	78.531620	78.9306	79.8233	0.02744	5.50	8.400	9.22	1.52
DoylesR	TR011	1107.39	20-AMEC-2020	36.000000	76.340	77.751280	77.9484	78.5346	0.02023	4.07	10.040	12.45	1.28
DoylesR	TR011	1057.82	20-AMEC-2020	36.000000	75.160	77.065510	77.1592	77.7322	0.01227	3.90	11.679	12.09	1.03
DoylesR	TR011	971.36	20-AMEC-2020	36.000000	73.330	74.115720	74.5401	75.5917	0.06524	5.38	6.688	17.52	2.15
DoylesR	TR011	960		Bridge									
DoylesR	TR011	949.62	20-AMEC-2020	36.000000	73.080	74.953250	74.2240	75.1411	0.00208	1.92	18.749	14.59	0.46
DoylesR	TR011	929.53	20-AMEC-2020	36.000000	72.740	74.386000	74.3983	74.9508	0.01115	3.53	12.137	11.98	0.99
DoylesR	TR011	872.05	20-AMEC-2020	36.000000	72.260	74.002520	74.0678	74.3000	0.00900	3.26	23.446	53.85	0.88
DoylesR	TR011	816.76	20-AMEC-2020	36.000000	72.000	72.848110	72.9500	73.2368	0.06504	5.01	17.875	84.57	2.05
DoylesR	TR011	760.16	20-AMEC-2020	36.000000	71.250	72.409090	72.3045	72.5019	0.00923	2.65	35.263	98.15	0.85
DoylesR	TR011	712.26	20-AMEC-2020	36.000000	70.340	71.672190	71.6722	71.9127	0.01369	3.40	22.534	57.46	1.05
DoylesR	TR011	663.11	20-AMEC-2020	36.000000	70.080	71.404800	71.2925	71.4513	0.00525	2.02	47.616	126.72	0.62
DoylesR	TR013	2205.78	20-AMEC-2020	7.599998	95.880	96.599560	96.3919	96.6087	0.00128	0.80	23.603	93.31	0.31
DoylesR	TR013	2147.59	20-AMEC-2020	7.599998	95.870	96.500050		96.5158	0.00191	0.83	15.986	48.49	0.36

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR013	2097.40	20-AMEC-2020	7.599998	95.860	96.235120	96.2351	96.2979	0.01882	1.71	9.249	69.11	1.02
DoylesR	TR013	2011.99	20-AMEC-2020	7.599998	93.670	94.582950	94.5266	94.7740	0.00827	2.11	4.698	10.03	0.78
DoylesR	TR013	1957.46	20-AMEC-2020	7.599998	93.050	93.994650	93.9947	94.2500	0.01140	2.73	4.510	10.07	0.94
DoylesR	TR013	1909.18	20-AMEC-2020	7.599998	92.330	93.153710	93.2932	93.5224	0.01933	3.01	4.556	25.13	1.17
DoylesR	TR013	1861.01	20-AMEC-2020	7.599998	91.270	92.180810	92.3387	92.6043	0.01910	3.09	3.722	20.96	1.16
DoylesR	TR013	1789.09	20-AMEC-2020	7.599998	90.000	90.512340	90.5873	90.7429	0.03419	2.78	5.981	53.54	1.43
DoylesR	TR013	1733.37	20-AMEC-2020	7.599998	89.530	90.214220	90.1151	90.2405	0.00347	1.05	14.873	72.87	0.48
DoylesR	TR013	1677.65	20-AMEC-2020	7.599998	89.420	89.789580	89.7745	89.8477	0.01929	1.64	8.203	51.85	1.01
DoylesR	TR013	1613.85	20-AMEC-2020	7.599998	89.110	89.588130		89.5951	0.00173	0.61	22.833	95.55	0.32
DoylesR	TR013	1552.30	20-AMEC-2020	7.599998	88.820	89.492700		89.5059	0.00177	0.84	19.621	67.30	0.35
DoylesR	TR013	1506.96	20-AMEC-2020	7.599998	88.810	89.427880		89.4406	0.00164	0.77	19.607	64.17	0.33
DoylesR	TR013	1478.17	20-AMEC-2020	7.599998	88.800	89.250310	89.2503	89.3215	0.01873	1.84	8.041	41.53	1.03
DoylesR	TR013	1411.61	20-AMEC-2020	7.599998	88.110	89.057210	88.6932	89.0785	0.00114	0.81	13.886	30.64	0.29
DoylesR	TR013	1388.58	20-AMEC-2020	7.599998	87.450	89.065140	88.8024	89.0680	0.00008	0.32	56.445	155.89	0.09
DoylesR	TR013	1375		Culvert									
DoylesR	TR013	1373.86	20-AMEC-2020	7.599998	87.320	88.550230	88.5022	88.6553	0.00434	1.95	7.159	13.24	0.58
DoylesR	TR013	1301.72	20-AMEC-2020	7.599998	86.820	87.802070	87.8021	88.1045	0.01223	2.65	3.680	6.88	0.95
DoylesR	TR013	1246.99	20-AMEC-2020	7.599998	85.790	86.541150	86.7061	87.0776	0.03049	3.32	2.519	5.80	1.42
DoylesR	TR013	1192.26	20-AMEC-2020	7.599998	84.790	85.747830	85.6381	85.9466	0.00875	2.20	4.671	9.60	0.80
DoylesR	TR013	1137.53	20-AMEC-2020	7.599998	84.030	85.108200	85.1082	85.4050	0.01099	2.58	3.708	7.37	0.90
DoylesR	TR013	1082.80	20-AMEC-2020	7.599998	83.550	84.359890	84.4269	84.5951	0.02139	2.62	4.920	21.03	1.16
DoylesR	TR013	1064.90	20-AMEC-2020	7.599998	82.570	84.469250	83.5968	84.4889	0.00040	0.71	24.051	107.60	0.18
DoylesR	TR013	1050		Culvert									
DoylesR	TR013	1042.53	20-AMEC-2020	7.599998	82.410	84.176320	83.3598	84.1875	0.00028	0.59	27.391	71.78	0.15
DoylesR	TR013	1022.06	20-AMEC-2020	7.599998	82.710	83.896300	83.7802	84.1108	0.00703	2.37	4.587	7.18	0.75
DoylesR	TR013	969.32	20-AMEC-2020	7.599998	82.400	83.305860	83.3059	83.5972	0.01372	2.81	3.786	6.81	1.01
DoylesR	TR013	915.66	20-AMEC-2020	7.599998	81.800	82.845280	82.5305	82.8651	0.00130	0.98	16.117	37.50	0.32
DoylesR	TR013	867.93	20-AMEC-2020	7.599998	81.400	82.723050		82.7809	0.00225	1.48	11.336	29.84	0.43
DoylesR	TR013	809.27	20-AMEC-2020	7.599998	81.320	82.432100		82.5836	0.00490	1.83	5.155	8.80	0.62
DoylesR	TR013	756.07	20-AMEC-2020	7.599998	80.750	81.838920	81.8389	82.1836	0.01139	2.93	3.573	5.62	0.95
DoylesR	TR013	702.82	20-AMEC-2020	7.599998	79.910	80.840250	80.9675	81.3459	0.02198	3.49	2.923	5.93	1.26
DoylesR	TR013	651.60	20-AMEC-2020	7.599998	78.060	78.830870	79.1769	79.6602	0.05132	4.21	2.124	5.48	1.82
DoylesR	TR013	588.74	20-AMEC-2020	7.599998	75.890	76.731930	76.8565	77.1795	0.02864	2.99	2.688	6.71	1.34
DoylesR	TR013	543.29	20-AMEC-2020	7.599998	75.200	75.958070	75.9764	76.2171	0.01471	2.28	3.540	8.06	0.99
DoylesR	TR013	489.08	20-AMEC-2020	7.599998	73.770	74.761250	74.8845	75.2659	0.01999	3.49	2.900	5.16	1.21
DoylesR	TR013	436.90	20-AMEC-2020	7.599998	72.110	72.955700	73.3020	73.7227	0.04536	3.91	2.044	4.59	1.68
DoylesR	TR013	383.70	20-AMEC-2020	7.599998	70.970	72.439680	71.8541	72.4516	0.00043	0.67	29.351	130.93	0.19
DoylesR	TR013	363.75	20-AMEC-2020	7.599998	70.360	71.901640	71.9016	72.3821	0.00791	3.29	3.242	9.00	0.86
DoylesR	TR013	360		Culvert									
DoylesR	TR013	344.87	20-AMEC-2020	7.599998	70.320	71.702220	71.7022	71.7102	0.00047	0.67	24.340	48.31	0.19
DoylesR	TR013	324.16	20-AMEC-2020	7.599998	70.290	70.853500	70.9834	71.4897	0.10831	4.48	3.353	33.12	2.44
DoylesR	TR013	256.30	20-AMEC-2020	7.599998	69.360	70.282890	70.2829	70.3568	0.01020	2.00	9.198	47.89	0.77
DoylesR	TR013	236.50	20-AMEC-2020	7.599998	69.350	70.161760	69.9692	70.1655	0.00079	0.47	30.889	115.42	0.22
DoylesR	TR013	162.98	20-AMEC-2020	7.599998	68.940	70.121830		70.1279	0.00069	0.59	28.165	109.79	0.21
DoylesR	TR013	133.14	20-AMEC-2020	7.599998	68.760	70.111050		70.1127	0.00019	0.32	47.143	113.46	0.11
DoylesR	TR013	66.14	20-AMEC-2020	7.599998	68.460	70.097600		70.1004	0.00019	0.38	36.961	119.14	0.11
DoylesR	M001	484.12	20-AMEC-2020	43.799990	68.080	69.621320	69.6213	69.8638	0.01506	3.30	25.825	71.74	1.04
DoylesR	M001	429.44	20-AMEC-2020	43.799990	67.720	69.450490	69.0845	69.4951	0.00284	1.61	57.162	123.22	0.46
DoylesR	M001	388.03	20-AMEC-2020	43.799990	67.530	69.354570		69.3867	0.00231	1.54	68.074	132.37	0.42
DoylesR	M001	344.78	20-AMEC-2020	43.799990	67.390	69.339120		69.3450	0.00039	0.67	142.171	208.16	0.18
DoylesR	M001	215.64	20-AMEC-2020	43.799990	67.210	69.335080		69.3360	0.00004	0.23	338.350	328.58	0.06
DoylesR	M001	77.13	20-AMEC-2020	43.799990	66.620	69.334500		69.3348	0.00001	0.15	607.200	501.84	0.03
CochranePB	M002	8105.53	20-AMEC-2020	12.800000	140.650	142.309000	141.3356	142.3108	0.00010	0.34	84.968	118.82	0.09
CochranePB	M002	8065.47	20-AMEC-2020	12.800000	140.640	142.294700		142.3028	0.00043	0.63	45.260	80.86	0.19
CochranePB	M002	8050.98	20-AMEC-2020	12.800000	139.200	142.284900		142.3004	0.00005	0.59	44.214	72.83	0.12
CochranePB	M002	8024.09	20-AMEC-2020	12.800000	140.620	142.284900		142.2941	0.00051	0.67	47.110	105.28	0.20
CochranePB	M002	8013.06	20-AMEC-2020	12.800000	140.420	142.281500		142.2890	0.00034	0.61	51.711	105.19	0.17
CochranePB	M002	8004.70	20-AMEC-2020	12.800000	140.250	142.282500	141.8023	142.2858	0.00017	0.57	68.131	108.83	0.13
CochranePB	M002	8000		Culvert									
CochranePB	M002	7995.14	20-AMEC-2020	12.800000	140.370	142.279100	141.5145	142.2835	0.00014	0.49	61.616	81.48	0.12
CochranePB	M002	7964.49	20-AMEC-2020	12.800000	140.140	141.779100	141.7791	142.1576	0.01172	3.26	6.556	10.09	0.91
CochranePB	M002	7901.64	20-AMEC-2020	12.800000	139.300	140.713900	140.8761	141.1805	0.02142	3.29	6.212	24.54	1.15
CochranePB	M002	7847.08	20-AMEC-2020	12.800000	138.680	139.791300	139.6717	139.8512	0.00727	1.65	16.205	50.64	0.66
CochranePB	M002	7812.33	20-AMEC-2020	12.800000	138.520	139.309400	139.3094	139.4238	0.02712	2.29	11.259	53.99	1.22
CochranePB	M002	7738.34	20-AMEC-2020	12.800000	137.940	138.911700	138.7177	138.9236	0.00232	0.85	33.764	125.60	0.38
CochranePB	M002	7695.32	20-AMEC-2020	12.800000	137.670	138.585000	138.5850	138.7231	0.01682	2.08	10.552	40.53	1.01
CochranePB	M002	7609.21	20-AMEC-2020	12.800000	136.290	137.729600	137.3560	137.7466	0.00082	0.78	32.068	71.56	0.25
CochranePB	M002	7515.77	20-AMEC-2020	12.800000	136.280	137.610500		137.6417	0.00206	1.15	25.492	92.29	0.39
CochranePB	M002	7476.72	20-AMEC-2020	12.800000	136.260	137.590100		137.5996	0.00058	0.61	38.910	90.59	0.21
CochranePB	M002	7450.86	20-AMEC-2020	12.800000	136.250	137.558500		137.5786	0.00120	0.84	28.841	83.06	0.30
CochranePB	M002	7329.89	20-AMEC-2020	12.800000	136.230	137.253100		137.3049	0.00522	1.39	17.605	73.74	0.59
CochranePB	M002	7253.62	20-AMEC-2020	12.800000	136.050	137.081700		137.0991	0.00212	0.94	26.645	92.38	0.37
CochranePB	M002	7208.54	20-AMEC-2020	12.800000	135.880	136.974500		136.9977	0.00267	1.09	25.234	95.71	0.43
CochranePB	M002	7108.13	20-AMEC-2020	12.800000	135.540	136.510200		136.5744	0.01001	1.95	16.509	72.81	0.79
CochranePB	M002	7041.67	20-AMEC-2020	12.800000	134.910	136.045800	136.0270	136.1383	0.00607	1.57	14.926	73.96	0.64
CochranePB	M002	6985.71	20-AMEC-2020	12.800000	134.290	135.642100	135.6421	135.7868	0.00656	2.11	13.004	43.72	0.70
CochranePB	M002	6955.25	20-AMEC-2020	12.800000	133.480	134.597800	134.8147	135.2995	0.04602	3.79	3.816	10.26	1.67
CochranePB	M002	6863.52	20-AMEC-2020	12.800000	131.820	132.851300	132.8513	132.9922	0.01536	2.37	11.168	38.40	0.98
CochranePB	M002	6840.09	20-AMEC-2020	12.800000	131.190	132.108400	132.1899	132.4269	0.04037	3.11	7.482	35.81	1.53
CochranePB	M002	6808.25	20-AMEC-2020	12.800000	130.510	131.361000	131.4473	131.6691	0.05786	3.34	7.378	38.66	1.76
CochranePB	M002	6767.75	20-AMEC-2020	12.800000	129.310	130.330300	130.3656	130.4945	0.01625	2.27	10.727	47.48	1.01
CochranePB	M002	6727.78	20-AMEC-2020	12.800000	128.360	129.430100	129.4988	129.6944	0.02476	2.82	8.005	32.17	1.22
CochranePB	M002	6691.71	20-AMEC-2020	12.800000	127.960	129.028300	128.9486	129.0892	0.00668	1.55	17.084	70.48	0.65
CochranePB	M002	6651.54	20-AMEC-2020	12.800000	127.680	128.635300		128.7415	0.01112	1.58	10.448	37.11	0.81
CochranePB	M002	6630.83	20-AMEC-2020	12.800000	127.190	128.390900	128.3824	128.5371	0.00873	1.96	11.137	48.76	0.77
CochranePB	M002	6534.50	20-AMEC-2020	12.800000	126.300	127.257600	127.2576	127.4109	0.01697	2.16	10.364	49.49	1.02
CochranePB	M002	6507.97	20-AMEC-2020	12.800000	125.650	126.552900	126.6004	126.7558	0.03449	2.69	9.346	54.48	1.38

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	6480.50	20-AMEC-2020	12.800000	124.970	125.901700	125.9330	126.0403	0.02195	2.37	11.095	54.89	1.13
CochranePB	M002	6433.33	20-AMEC-2020	12.800000	124.090	125.033500	125.0567	125.2029	0.01867	2.05	8.793	35.87	1.05
CochranePB	M002	6400.96	20-AMEC-2020	12.800000	123.400	124.546700	124.3852	124.5991	0.00485	1.35	15.961	44.88	0.55
CochranePB	M002	6364.18	20-AMEC-2020	12.800000	123.280	124.548500		124.5549	0.00028	0.39	45.598	108.48	0.14
CochranePB	M002	6314.31	20-AMEC-2020	12.800000	123.270	124.486900		124.5215	0.00194	0.97	20.770	53.53	0.37
CochranePB	M002	6286.25	20-AMEC-2020	12.800000	123.260	124.403800		124.4542	0.00306	1.15	17.799	57.57	0.46
CochranePB	M002	6202.53	20-AMEC-2020	12.800000	122.810	124.020100	123.9409	124.1313	0.00623	1.74	11.930	33.45	0.66
CochranePB	M002	6130.00	20-AMEC-2020	12.800000	122.300	123.291200	123.2912	123.4718	0.01580	1.93	7.489	26.21	0.97
CochranePB	M002	6040.82	20-AMEC-2020	12.800000	121.410	122.577500	122.4650	122.6203	0.00296	1.20	21.395	74.53	0.46
CochranePB	M002	6006.95	20-AMEC-2020	12.800000	121.400	122.544800		122.5586	0.00094	0.56	30.614	97.25	0.25
CochranePB	M002	5976.09	20-AMEC-2020	12.800000	121.390	122.376300	122.3763	122.4793	0.01471	1.85	12.973	69.82	0.93
CochranePB	M002	5910.40	20-AMEC-2020	12.800000	120.290	121.474200	121.4842	121.6542	0.01320	2.34	10.251	38.90	0.93
CochranePB	M002	5863.68	20-AMEC-2020	12.800000	119.620	120.514300	120.6038	120.8139	0.03674	2.70	6.733	32.53	1.44
CochranePB	M002	5811.63	20-AMEC-2020	12.800000	118.870	119.860500	119.9603	120.1555	0.02928	2.95	8.117	41.80	1.34
CochranePB	M002	5768.42	20-AMEC-2020	12.800000	117.380	118.377300	118.5124	118.7704	0.03747	2.82	5.086	21.33	1.47
CochranePB	M002	5725.36	20-AMEC-2020	12.800000	116.480	117.574400	117.6021	117.7605	0.01465	2.22	9.137	38.27	0.97
CochranePB	M002	5678.58	20-AMEC-2020	12.800000	115.390	116.441100	116.5759	116.7838	0.02712	2.64	5.550	22.00	1.28
CochranePB	M002	5627.04	20-AMEC-2020	12.800000	114.790	116.148900	115.8234	116.1902	0.00226	1.17	19.476	44.67	0.41
CochranePB	M002	5609.94	20-AMEC-2020	19.200000	114.770	115.946100		116.0681	0.00779	1.84	16.041	42.56	0.73
CochranePB	M002	5601.00	20-AMEC-2020	19.200000	114.760	115.921000		115.9333	0.00165	0.85	44.163	108.84	0.33
CochranePB	M002	5568.52	20-AMEC-2020	19.200000	114.750	115.881200		115.8925	0.00123	0.72	44.207	95.06	0.29
CochranePB	M002	5508.20	20-AMEC-2020	19.200000	114.040	115.584300		115.7437	0.00465	1.86	12.687	20.99	0.60
CochranePB	M002	5473.67	20-AMEC-2020	19.200000	113.900	115.262600	115.2626	115.5002	0.01099	2.50	12.100	27.10	0.89
CochranePB	M002	5403.83	20-AMEC-2020	19.200000	110.690	111.814000	112.2680	113.5818	0.10684	5.96	3.485	8.60	2.58
CochranePB	M002	5352.19	20-AMEC-2020	19.200000	110.270	111.608000	111.6080	111.8833	0.01328	2.58	10.281	21.18	0.97
CochranePB	M002	5309.83	20-AMEC-2020	19.200000	109.640	111.041300	111.1129	111.3263	0.01343	2.70	12.759	45.94	0.98
CochranePB	M002	5266.90	20-AMEC-2020	19.200000	109.300	110.607000	110.6448	110.7799	0.01146	2.41	18.634	82.43	0.89
CochranePB	M002	5213.45	20-AMEC-2020	19.200000	108.810	110.352900	109.8583	110.3700	0.00093	0.81	43.044	80.91	0.27
CochranePB	M002	5162.38	20-AMEC-2020	36.200000	108.180	109.946500	109.9465	110.2148	0.00950	3.12	25.842	52.66	0.88
CochranePB	M002	5109.83	20-AMEC-2020	36.200000	108.020	109.450400	109.1485	109.4927	0.00364	1.41	48.770	100.99	0.50
CochranePB	M002	5059.83	20-AMEC-2020	36.200000	107.540	109.137800		109.2816	0.00679	2.29	34.804	85.40	0.73
CochranePB	M002	5013.20	20-AMEC-2020	36.200000	107.210	108.835100	108.8351	108.9871	0.00873	2.36	33.865	98.47	0.80
CochranePB	M002	4977.38	20-AMEC-2020	36.200000	107.070	108.700900	108.4376	108.7309	0.00180	1.21	66.800	146.05	0.38
CochranePB	M002	4908.49	20-AMEC-2020	36.200000	106.950	108.673700		108.6814	0.00053	0.73	112.500	196.16	0.21
CochranePB	M002	4883.44	20-AMEC-2020	36.200000	106.940	108.661400		108.6663	0.00030	0.53	132.698	201.11	0.16
CochranePB	M002	4816.97	20-AMEC-2020	36.200000	106.930	108.650300		108.6556	0.00029	0.53	136.755	221.74	0.16
CochranePB	M002	4757.22	20-AMEC-2020	36.200000	106.780	108.640500		108.6450	0.00020	0.48	159.089	254.49	0.13
CochranePB	M002	4718.65	20-AMEC-2020	36.200000	106.770	108.630000		108.6368	0.00029	0.59	143.603	316.83	0.16
CochranePB	M002	4674.22	20-AMEC-2020	36.200000	106.760	108.600100		108.6213	0.00076	0.94	97.490	265.05	0.26
CochranePB	M002	4633.22	20-AMEC-2020	36.200000	106.750	108.585000		108.6000	0.00033	0.61	90.428	175.38	0.17
CochranePB	M002	4561.03	20-AMEC-2020	36.200000	106.740	108.516500		108.5597	0.00112	1.08	55.645	96.40	0.31
CochranePB	M002	4506.74	20-AMEC-2020	36.200000	106.430	108.199000	108.1990	108.4178	0.00701	2.52	26.302	57.11	0.76
CochranePB	M002	4459.83	20-AMEC-2020	36.200000	105.660	107.236800	107.4485	107.8573	0.02025	3.75	14.484	43.36	1.24
CochranePB	M002	4409.53	20-AMEC-2020	36.200000	104.620	106.228700	106.4075	106.8330	0.02056	3.77	13.785	29.47	1.24
CochranePB	M002	4359.83	20-AMEC-2020	36.200000	103.720	105.413400	105.6067	105.9386	0.01508	3.42	14.356	31.06	1.07
CochranePB	M002	4327.93	20-AMEC-2020	36.200000	103.170	104.963200	105.0867	105.4791	0.01393	3.36	14.324	28.60	1.05
CochranePB	M002	4265.56	20-AMEC-2020	36.200000	102.450	104.235800	104.2842	104.6323	0.01229	3.29	17.018	26.86	0.99
CochranePB	M002	4208.11	20-AMEC-2020	36.200000	101.670	103.299100	103.4458	103.8195	0.01583	3.40	14.353	30.58	1.11
CochranePB	M002	4159.83	20-AMEC-2020	36.200000	101.120	102.186500	102.2695	102.5063	0.05221	3.33	15.929	47.99	1.73
CochranePB	M002	4109.83	20-AMEC-2020	36.200000	98.840	100.466200	100.6561	101.0696	0.01785	3.78	14.787	36.98	1.19
CochranePB	M002	4056.00	20-AMEC-2020	36.200000	97.180	98.758550	99.1224	99.7457	0.03230	4.73	9.856	16.28	1.55
CochranePB	M002	4009.83	20-AMEC-2020	36.200000	96.330	98.177560	98.2753	98.5460	0.01560	3.70	22.787	63.02	1.07
CochranePB	M002	3969.03	20-AMEC-2020	36.200000	95.620	97.402980	97.6170	97.9707	0.01286	3.60	14.003	41.58	1.04
CochranePB	M002	3916.58	20-AMEC-2020	36.200000	94.820	96.916760	97.0605	97.3206	0.01004	3.23	20.717	73.29	0.88
CochranePB	M002	3859.82	20-AMEC-2020	36.200000	94.340	96.121560	96.3864	96.6721	0.01290	3.32	11.705	21.32	1.01
CochranePB	M002	3810.05	20-AMEC-2020	36.200000	93.500	95.330120	95.6209	95.9769	0.01471	3.76	11.997	27.13	1.09
CochranePB	M002	3759.83	20-AMEC-2020	36.200000	93.000	94.632310	94.8004	95.1428	0.01589	3.62	17.438	54.39	1.12
CochranePB	M002	3709.28	20-AMEC-2020	36.200000	92.330	94.076070	94.1651	94.4208	0.01182	3.14	20.860	59.50	0.96
CochranePB	M002	3661.60	20-AMEC-2020	36.200000	92.050	93.803050	93.8253	93.9670	0.00625	2.39	36.122	132.54	0.71
CochranePB	M002	3609.83	20-AMEC-2020	36.200000	91.730	93.335710	93.3607	93.5981	0.01223	2.98	24.787	89.77	0.96
CochranePB	M002	3559.90	20-AMEC-2020	36.200000	90.870	92.843690	92.9059	93.1071	0.00710	2.81	28.103	81.27	0.77
CochranePB	M002	3509.83	20-AMEC-2020	36.200000	90.380	92.585820	92.3340	92.6398	0.00172	1.60	58.369	109.79	0.39
CochranePB	M002	3493.23	20-AMEC-2020	36.200000	90.020	92.419480	91.7947	92.6001	0.00244	2.36	24.013	16.16	0.50
CochranePB	M002	3480		Bridge									
CochranePB	M002	3474.26	20-AMEC-2020	36.200000	89.910	92.431470	91.4159	92.5461	0.00118	1.75	29.094	17.46	0.36
CochranePB	M002	3466.43	20-AMEC-2020	36.200000	90.000	91.496390	91.4864	92.3136	0.01288	4.13	10.221	9.74	1.09
CochranePB	M002	3454.35	20-AMEC-2020	36.200000	89.940	91.815900	91.3860	92.0659	0.00355	2.45	19.029	16.37	0.59
CochranePB	M002	3450		Bridge									
CochranePB	M002	3434.16	20-AMEC-2020	39.699990	90.360	91.654140	91.5211	91.9941	0.00759	2.77	17.101	20.05	0.81
CochranePB	M002	3413.11	20-AMEC-2020	39.699990	90.140	91.589850	91.5899	91.7464	0.00768	2.57	36.018	91.27	0.78
CochranePB	M002	3391.58	20-AMEC-2020	39.699990	90.030	91.498700	91.1986	91.5854	0.00484	2.14	45.078	102.41	0.64
CochranePB	M002	3371.12	20-AMEC-2020	39.699990	90.020	91.267720	91.2677	91.4496	0.00844	2.51	33.367	91.88	0.82
CochranePB	M002	3309.87	20-AMEC-2020	39.699990	89.280	90.665470	90.6169	90.7667	0.00884	2.59	38.748	104.26	0.81
CochranePB	M002	3272.96	20-AMEC-2020	39.699990	88.730	90.223690	90.2237	90.4034	0.00969	2.69	30.137	77.20	0.85
CochranePB	M002	3219.09	20-AMEC-2020	39.699990	88.300	89.750870	89.7626	89.9025	0.00933	2.57	34.007	107.26	0.84
CochranePB	M002	3175.54	20-AMEC-2020	39.699990	87.360	89.421330	89.2358	89.5593	0.00268	1.93	35.877	66.86	0.48
CochranePB	M002	3165		Bridge									
CochranePB	M002	3157.85	20-AMEC-2020	39.699990	87.500	89.221210	89.2212	89.4323	0.00485	2.39	30.817	79.21	0.64
CochranePB	M002	3135.32	20-AMEC-2020	39.699990	87.850	89.092770	89.0278	89.1531	0.00510	1.75	51.118	153.61	0.61
CochranePB	M002	3106.53	20-AMEC-2020	39.699990	87.940	88.791540	88.7915	88.9117	0.02726	2.59	29.287	118.14	1.24
CochranePB	M002	3088.94	20-AMEC-2020	39.699990	86.840	88.763640	88.1298	88.7987	0.00074	1.04	79.348	172.42	0.26
CochranePB	M002	3080		Bridge									
CochranePB	M002	3075.67	20-AMEC-2020	39.699990	86.740	88.314200	87.9940	88.3782	0.00172	1.37	52.401	121.39	0.39
CochranePB	M002	3056.89	20-AMEC-2020	39.699990	87.660	88.237610		88.3117	0.01374	0.93	33.567	112.49	0.75
CochranePB	M002	3007.54	20-AMEC-2020	39.699990	87.610	87.940230		87.9725	0.00402	0.41	50.075	105.65	0.32
CochranePB	M002	2976.31	20-AMEC-2020	39.699990	87.510	87.848530		87.8782	0.00367	0.46	52.294	117.35	0.36
CochranePB	M002	2941.08	20-AMEC-2020	39.699990	86.980	87.766330		87.7807	0.00235	0.74	76.849	220.95	0.36

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	2920.10	20-AMEC-2020	39.699990	86.740	87.754410	87.5443	87.7575	0.00025	0.31	167.730	295.31	0.12
CochranePB	M002	2915		Bridge									
CochranePB	M002	2912.75	20-AMEC-2020	39.699990	86.970	87.752390	87.7524	87.7545	0.00015	0.26	200.702	313.30	0.10
CochranePB	M002	2890.23	20-AMEC-2020	39.699990	86.650	86.826460	86.9925	87.5305	0.41498	3.33	10.680	74.44	3.58
CochranePB	M002	2823.99	20-AMEC-2020	39.699990	86.080	87.069370	86.7539	87.0787	0.00148	0.67	95.030	248.43	0.28
CochranePB	M002	2789.49	20-AMEC-2020	39.699990	86.040	87.043950		87.0528	0.00125	0.59	98.125	254.74	0.26
CochranePB	M002	2741.30	20-AMEC-2020	39.699990	85.710	86.989810		86.9987	0.00099	0.75	104.400	266.86	0.27
CochranePB	M002	2663.79	20-AMEC-2020	39.699990	85.580	86.942020		86.9524	0.00105	0.83	101.733	255.52	0.28
CochranePB	M002	2639.38	20-AMEC-2020	39.699990	85.570	86.908400		86.9208	0.00133	0.89	93.208	235.90	0.31
CochranePB	M002	2616.24	20-AMEC-2020	39.699990	85.300	86.892680		86.9021	0.00077	0.79	110.150	230.73	0.25
CochranePB	M002	2539.69	20-AMEC-2020	39.699990	85.410	86.843890		86.8582	0.00134	0.92	90.068	221.77	0.32
CochranePB	M002	2489.06	20-AMEC-2020	39.699990	85.180	86.797060		86.8148	0.00142	1.10	84.275	199.38	0.33
CochranePB	M002	2438.28	20-AMEC-2020	39.699990	84.870	86.733100		86.7611	0.00144	1.19	79.065	173.92	0.35
CochranePB	M002	2384.01	20-AMEC-2020	39.699990	84.650	86.639580		86.6803	0.00207	1.53	66.203	138.43	0.41
CochranePB	M002	2310.47	20-AMEC-2020	39.699990	84.330	86.385530		86.4822	0.00399	2.07	48.249	118.69	0.56
CochranePB	M002	2284.63	20-AMEC-2020	39.699990	84.160	86.329930		86.3833	0.00277	1.75	54.158	101.52	0.45
CochranePB	M002	2240.58	20-AMEC-2020	39.699990	84.040	85.905910	85.9059	86.1615	0.00914	3.02	25.441	45.28	0.85
CochranePB	M002	2170.94	20-AMEC-2020	39.699990	82.260	83.909320	84.2450	85.0168	0.03263	4.99	10.265	16.36	1.58
CochranePB	M002	2136.89	20-AMEC-2020	39.699990	81.720	83.371850	83.5406	84.0140	0.02020	3.76	13.385	24.06	1.24
CochranePB	M002	2100.01	20-AMEC-2020	39.699990	81.300	83.138480	83.1683	83.4594	0.01054	3.00	21.843	39.96	0.91
CochranePB	M002	2046.85	20-AMEC-2020	39.699990	80.890	82.653720	82.6564	82.9599	0.00854	2.66	21.182	39.90	0.83
CochranePB	M002	2014.35	20-AMEC-2020	39.699990	80.470	81.895240	82.0748	82.4701	0.02775	3.63	15.004	40.32	1.39
CochranePB	M002	1990.76	20-AMEC-2020	39.699990	80.100	81.890140	81.8901	82.1367	0.00913	2.74	24.771	44.36	0.84
CochranePB	M002	1945.20	20-AMEC-2020	39.699990	79.430	81.518070	81.1628	81.6152	0.00313	1.88	38.081	50.73	0.51
CochranePB	M002	1916.67	20-AMEC-2020	39.699990	79.310	81.361310		81.5030	0.00456	2.25	32.836	43.32	0.61
CochranePB	M002	1871.48	20-AMEC-2020	39.699990	79.280	81.205890		81.3078	0.00380	1.86	36.158	48.21	0.55
CochranePB	M002	1836.03	20-AMEC-2020	39.699990	78.830	81.151770		81.2137	0.00152	1.45	47.626	71.80	0.36
CochranePB	M002	1788.63	20-AMEC-2020	39.699990	78.460	80.773530	80.7735	81.0587	0.00687	3.07	25.671	39.02	0.76
CochranePB	M002	1768.08	20-AMEC-2020	39.699990	78.140	79.998860	80.2449	80.7722	0.02161	4.50	14.013	25.55	1.30
CochranePB	M002	1733.19	20-AMEC-2020	39.699990	77.950	79.942740	79.9535	80.2222	0.00720	2.73	25.190	48.33	0.77
CochranePB	M002	1694.89	20-AMEC-2020	39.699990	77.120	79.245170	78.8243	79.3460	0.00251	1.74	35.790	42.00	0.47
CochranePB	M002	1685.79	20-AMEC-2020	39.699990	77.060	79.187050		79.3166	0.00338	2.03	31.211	38.26	0.54
CochranePB	M002	1640.51	20-AMEC-2020	39.699990	76.450	78.685910	78.6859	79.0744	0.00744	3.16	19.656	28.13	0.80
CochranePB	M002	1602.99	20-AMEC-2020	39.699990	75.010	76.421420	76.9372	78.2669	0.07796	6.24	7.483	15.21	2.33
CochranePB	M002	1585.52	20-AMEC-2020	39.699990	74.010	75.296970	75.6760	76.6947	0.08541	5.67	8.879	20.49	2.37
CochranePB	M002	1569.47	20-AMEC-2020	39.699990	73.710	74.984790	75.1450	75.5751	0.03731	3.53	12.439	27.26	1.55
CochranePB	M002	1541.97	20-AMEC-2020	39.699990	72.310	74.050760	74.2488	74.7769	0.02222	4.09	12.474	18.59	1.30
CochranePB	M002	1510.83	20-AMEC-2020	39.699990	71.340	72.517440	72.8030	73.5452	0.08229	4.51	9.003	23.50	2.23
CochranePB	M002	1495.27	20-AMEC-2020	39.699990	71.190	72.974370	72.6990	73.0990	0.00396	1.73	30.255	41.72	0.56
CochranePB	M002	1458.62	20-AMEC-2020	39.699990	70.580	72.591640	72.5916	72.8561	0.00831	3.24	28.408	49.52	0.83
CochranePB	M002	1419.61	20-AMEC-2020	39.699990	70.210	72.127620	72.0433	72.3817	0.00715	2.82	24.849	39.15	0.78
CochranePB	M002	1384.56	20-AMEC-2020	39.699990	69.610	71.775540	71.7596	72.1408	0.00628	2.86	20.174	47.03	0.74
CochranePB	M002	1351.51	20-AMEC-2020	39.699990	69.540	71.696430	71.6964	71.9156	0.00489	2.59	32.363	78.07	0.66
CochranePB	M002	1311.78	20-AMEC-2020	39.699990	69.490	71.342550	71.4139	71.6351	0.00869	3.05	29.803	105.15	0.85
CochranePB	M002	1291.19	20-AMEC-2020	39.699990	69.280	70.953770	71.1300	71.3934	0.01535	3.63	22.391	84.80	1.09
CochranePB	M002	1217.75	20-AMEC-2020	39.699990	68.700	70.813030	70.2953	70.8527	0.00085	1.12	65.364	112.01	0.28
CochranePB	M002	1200.39	20-AMEC-2020	39.699990	68.690	70.545170	70.1553	70.8045	0.00413	2.29	17.967	18.68	0.61
CochranePB	M002	1190		Bridge									
CochranePB	M002	1185.68	20-AMEC-2020	40.700000	68.460	70.505850	69.8477	70.6997	0.00231	1.97	21.266	25.33	0.48
CochranePB	M002	1164.32	20-AMEC-2020	40.700000	68.650	70.379060	70.3791	70.6158	0.00571	2.68	29.029	76.04	0.71
CochranePB	M002	1132.60	20-AMEC-2020	40.700000	68.600	69.799400	69.9444	70.2425	0.02773	3.71	20.764	99.44	1.40
CochranePB	M002	1111.68	20-AMEC-2020	40.700000	68.550	69.796840	69.5798	69.8510	0.00405	1.68	51.850	151.91	0.56
CochranePB	M002	1059.95	20-AMEC-2020	40.700000	68.380	69.607980		69.6852	0.00489	2.07	46.051	129.59	0.64
CochranePB	M002	998.99	20-AMEC-2020	40.700000	68.130	69.364850		69.4102	0.00400	1.84	54.856	164.36	0.56
CochranePB	M002	955.54	20-AMEC-2020	40.700000	68.120	69.353810		69.3577	0.00031	0.50	156.127	254.01	0.16
CochranePB	M002	851.16	20-AMEC-2020	40.700000	67.620	69.340990		69.3435	0.00014	0.41	194.932	243.94	0.11
CochranePB	M002	798.06	20-AMEC-2020	40.700000	67.470	69.338330		69.3397	0.00007	0.30	257.275	277.65	0.08
CochranePB	M002	746.77	20-AMEC-2020	40.700000	67.300	69.337190		69.3379	0.00003	0.21	354.924	317.35	0.05
CochranePB	M002	694.52	20-AMEC-2020	40.700000	66.980	69.336530		69.3371	0.00002	0.18	433.992	357.48	0.04
CochranePB	M002	669.16	20-AMEC-2020	40.700000	66.970	69.336360		69.3367	0.00001	0.16	484.313	389.35	0.04
CochranePB	M002	590.19	20-AMEC-2020	40.700000	66.840	69.335630		69.3359	0.00001	0.14	576.193	461.20	0.03
CochranePB	M002	539.85	20-AMEC-2020	40.700000	66.810	69.335170		69.3354	0.00001	0.13	587.173	474.19	0.03
CochranePB	M002	488.40	20-AMEC-2020	40.700000	66.540	69.334830		69.3351	0.00001	0.12	627.167	490.66	0.03
CochranePB	M001	381.27	20-AMEC-2020	80.700010	66.350	69.332740		69.3335	0.00002	0.25	722.209	580.96	0.05
CochranePB	M001	313.14	20-AMEC-2020	80.700010	66.280	69.331940		69.3324	0.00001	0.19	857.831	649.08	0.04

HEC-RAS Plan:

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	TR001	439.21	20-AMEC-2050	32.700010	105.110	106.382500	106.1599	106.5014	0.00450	2.09	32.384	58.39	0.62
RaymondB	TR001	409.42	20-AMEC-2050	32.700010	104.680	105.958100	105.9581	106.2846	0.01082	3.23	18.660	30.38	0.97
RaymondB	TR001	380.07	20-AMEC-2050	32.700010	104.050	106.070700	105.1921	106.1106	0.00068	1.13	57.589	70.33	0.26
RaymondB	TR001	360.64	20-AMEC-2050	32.700010	103.600	105.772100	105.0835	106.0618	0.00284	2.39	13.851	79.95	0.53
RaymondB	TR001	350		Bridge									
RaymondB	TR001	344.45	20-AMEC-2050	32.700010	103.300	105.017000	105.0170	105.7219	0.01202	4.14	9.858	68.47	1.05
RaymondB	TR001	334.13	20-AMEC-2050	32.700010	103.400	104.259800	104.6250	105.3799	0.04464	4.88	8.455	21.00	1.81
RaymondB	TR001	272.22	20-AMEC-2050	32.700010	102.830	103.922300	103.9223	104.1653	0.01059	2.87	21.505	44.57	0.93
RaymondB	TR001	218.50	20-AMEC-2050	32.700010	101.420	102.594200	102.8323	103.3414	0.02064	4.15	11.580	24.07	1.31
RaymondB	TR001	163.97	20-AMEC-2050	32.700010	100.320	101.755000	101.3977	101.9142	0.00318	1.88	21.867	24.86	0.53
RaymondB	TR001	115.54	20-AMEC-2050	32.700010	100.000	101.172600	101.1726	101.6081	0.01350	3.51	14.717	21.85	1.07
RaymondB	TR001	56.65	20-AMEC-2050	32.700010	97.730	98.421620	98.8267	99.8816	0.08503	5.72	7.006	15.55	2.42
RaymondB	M002	6453.60	20-AMEC-2050	8.700000	118.100	125.963200	118.6631	125.9632	0.00000	0.01	843.285	252.62	0.00
RaymondB	M002	6405.52	20-AMEC-2050	8.700000	118.000	125.963200		125.9632	0.00000	0.01	846.882	234.81	0.00
RaymondB	M002	6347.04	20-AMEC-2050	8.700000	124.730	125.961600		125.9631	0.00003	0.17	51.733	43.98	0.05
RaymondB	M002	6247.26	20-AMEC-2050	8.700000	117.210	117.961000		118.0051	0.00331	1.20	12.772	33.16	0.48
RaymondB	M002	6230.10	20-AMEC-2050	8.700000	117.200	117.949000		117.9715	0.00132	0.73	16.288	39.88	0.30
RaymondB	M002	6205.35	20-AMEC-2050	8.700000	117.280	117.924800		117.9341	0.00122	0.64	23.119	52.85	0.28
RaymondB	M002	6143.06	20-AMEC-2050	8.700000	117.180	117.827100		117.8424	0.00183	0.78	19.738	53.11	0.35
RaymondB	M002	6105.93	20-AMEC-2050	8.700000	117.170	117.681900		117.7295	0.00474	1.03	11.119	49.30	0.53
RaymondB	M002	6026.35	20-AMEC-2050	8.700000	116.810	117.435400		117.4582	0.00238	0.86	15.920	41.91	0.39
RaymondB	M002	5933.71	20-AMEC-2050	8.700000	116.420	117.109800		117.1756	0.00405	1.23	9.326	24.94	0.53
RaymondB	M002	5883.92	20-AMEC-2050	8.700000	116.120	116.897500		116.9774	0.00396	1.30	7.998	19.04	0.53
RaymondB	M002	5785.15	20-AMEC-2050	8.700000	115.750	116.460600		116.5350	0.00516	1.32	8.381	20.35	0.58
RaymondB	M002	5732.44	20-AMEC-2050	8.700000	115.460	116.154300		116.2454	0.00559	1.36	6.970	17.84	0.61
RaymondB	M002	5631.37	20-AMEC-2050	8.700000	114.850	115.549500		115.6255	0.00673	1.41	10.092	42.86	0.66
RaymondB	M002	5500.15	20-AMEC-2050	8.700000	114.620	115.329600		115.3428	0.00147	0.72	25.125	116.30	0.31
RaymondB	M002	5485.46	20-AMEC-2050	8.700000	114.530	115.314900		115.3256	0.00095	0.65	29.792	141.88	0.26
RaymondB	M002	5411.19	20-AMEC-2050	8.700000	114.480	115.208000	114.9770	115.2393	0.00198	0.84	13.597	45.41	0.37
RaymondB	M002	5338.54	20-AMEC-2050	8.700000	114.410	115.211200	114.6994	115.2131	0.00009	0.19	49.919	103.66	0.08
RaymondB	M002	5278.93	20-AMEC-2050	8.700000	114.440	115.203600	114.7361	115.2065	0.00014	0.24	40.351	100.38	0.10
RaymondB	M002	5226.60	20-AMEC-2050	8.700000	114.420	115.194700		115.1980	0.00019	0.27	41.019	111.28	0.11
RaymondB	M002	5171.66	20-AMEC-2050	8.700000	114.420	115.180700		115.1856	0.00028	0.34	37.859	140.93	0.14
RaymondB	M002	5111.50	20-AMEC-2050	8.700000	114.420	115.147800		115.1602	0.00075	0.56	22.242	63.36	0.23
RaymondB	M002	5077.48	20-AMEC-2050	8.700000	114.380	115.129200		115.1385	0.00051	0.46	23.094	53.03	0.19
RaymondB	M002	5017.13	20-AMEC-2050	8.700000	114.400	115.019500		115.0690	0.00343	0.99	9.047	21.87	0.47
RaymondB	M002	4967.43	20-AMEC-2050	8.700000	114.070	114.760700		114.8505	0.00526	1.33	6.708	14.49	0.59
RaymondB	M002	4943.43	20-AMEC-2050	8.700000	113.820	114.653300		114.7402	0.00402	1.36	7.815	19.04	0.54
RaymondB	M002	4910.95	20-AMEC-2050	8.700000	113.670	114.512500		114.6061	0.00419	1.42	7.843	23.18	0.55
RaymondB	M002	4851.17	20-AMEC-2050	8.700000	113.470	114.261900		114.3513	0.00439	1.39	8.129	26.31	0.56
RaymondB	M002	4783.73	20-AMEC-2050	8.700000	113.300	113.998100		114.0525	0.00415	1.08	9.612	32.74	0.51
RaymondB	M002	4732.68	20-AMEC-2050	8.700000	113.070	113.688600		113.7583	0.00838	1.39	8.996	33.73	0.71
RaymondB	M002	4681.76	20-AMEC-2050	8.700000	112.350	113.004400	113.0044	113.2181	0.01339	2.11	4.683	11.98	0.94
RaymondB	M002	4673.96	20-AMEC-2050	8.700000	111.740	112.319800	112.5338	112.9884	0.05762	3.67	2.574	8.62	1.86
RaymondB	M002	4644.78	20-AMEC-2050	8.700000	110.490	111.105900	111.2606	111.6149	0.03662	3.21	2.925	18.60	1.52
RaymondB	M002	4625.72	20-AMEC-2050	8.700000	106.750	107.119600	107.5056	109.6875	0.49045	7.10	1.225	5.72	4.90
RaymondB	M002	4615.42	20-AMEC-2050	8.700000	105.830	106.348000	106.5870	107.2063	0.10119	4.15	2.215	8.08	2.37
RaymondB	M002	4607.06	20-AMEC-2050	8.700000	105.790	106.709600	106.5480	106.8652	0.00583	1.80	5.491	8.91	0.66
RaymondB	M002	4597.34	20-AMEC-2050	8.700000	105.760	106.665900		106.8011	0.00620	1.71	6.310	13.88	0.66
RaymondB	M002	4575.18	20-AMEC-2050	8.700000	105.980	106.357100	106.3571	106.5153	0.03927	2.05	5.060	17.62	1.39
RaymondB	M002	4545.57	20-AMEC-2050	8.700000	104.650	105.396000	105.4680	105.7152	0.01904	2.59	3.993	10.87	1.13
RaymondB	M002	4522.17	20-AMEC-2050	8.700000	103.670	104.167300	104.3987	104.9023	0.07030	3.87	2.472	8.43	2.03
RaymondB	M002	4511.42	20-AMEC-2050	8.700000	103.620	104.518700	104.3290	104.5890	0.00374	1.36	9.387	19.86	0.52
RaymondB	M002	4489.94	20-AMEC-2050	8.700000	103.590	104.217900	104.2179	104.4309	0.01530	2.18	4.955	13.61	1.00
RaymondB	M002	4466.63	20-AMEC-2050	8.700000	103.030	103.994200	103.6660	104.0496	0.00209	1.10	9.551	16.18	0.40
RaymondB	M002	4439.46	20-AMEC-2050	8.700000	103.000	103.682200	103.6696	103.9117	0.01469	2.27	4.870	13.30	0.98
RaymondB	M002	4415.77	20-AMEC-2050	8.700000	102.780	103.330100	103.3301	103.5177	0.01746	2.01	5.131	16.89	1.03
RaymondB	M002	4385.89	20-AMEC-2050	8.700000	101.800	102.362200	102.4863	102.7821	0.03373	2.93	3.314	10.21	1.44
RaymondB	M002	4354.01	20-AMEC-2050	8.700000	101.270	101.945900	101.9459	102.0866	0.01239	2.15	7.740	26.97	0.92
RaymondB	M002	4341.66	20-AMEC-2050	8.700000	100.840	101.542200	101.6462	101.8725	0.02134	2.65	4.174	16.77	1.18
RaymondB	M002	4332.73	20-AMEC-2050	8.700000	100.320	100.833800	101.0438	101.5254	0.06593	3.77	2.579	8.84	1.98
RaymondB	M002	4308.73	20-AMEC-2050	8.700000	98.870	99.376880	99.5562	99.9705	0.06115	3.58	2.953	11.10	1.88
RaymondB	M002	4294.65	20-AMEC-2050	8.700000	98.450	99.059250	99.1368	99.3834	0.02396	2.67	4.006	11.26	1.24
RaymondB	M002	4263.86	20-AMEC-2050	8.700000	97.590	98.367710	98.2213	98.4844	0.00572	1.59	6.502	12.98	0.64
RaymondB	M002	4235.25	20-AMEC-2050	8.700000	97.470	98.751180		98.7675	0.00040	0.61	18.195	22.40	0.18
RaymondB	M001	4130.35	20-AMEC-2050	40.400010	96.570	97.886960	97.9209	98.3497	0.01296	3.06	14.333	19.74	1.02
RaymondB	M001	4076.94	20-AMEC-2050	40.400010	96.040	97.561290	97.3962	97.7984	0.00550	2.27	22.038	31.78	0.68
RaymondB	M001	4023.53	20-AMEC-2050	40.400010	95.940	97.018270	97.0183	97.3563	0.01292	2.64	16.717	27.18	0.98
RaymondB	M001	3978.20	20-AMEC-2050	40.400010	94.640	96.631200	96.1189	96.7199	0.00188	1.36	34.747	46.73	0.40
RaymondB	M001	3916.71	20-AMEC-2050	58.200010	94.640	96.308210		96.5237	0.00462	2.38	40.475	61.29	0.65
RaymondB	M001	3863.30	20-AMEC-2050	58.200010	94.410	96.161700		96.3042	0.00302	2.03	51.470	75.47	0.53
RaymondB	M001	3809.58	20-AMEC-2050	58.200010	94.090	95.695340	95.6953	96.0479	0.00775	2.99	29.989	44.12	0.83
RaymondB	M001	3756.26	20-AMEC-2050	58.200010	93.530	94.927930	95.0435	95.4912	0.01360	3.58	21.805	32.82	1.08
RaymondB	M001	3694.37	20-AMEC-2050	58.200010	92.660	93.990830	94.0937	94.5860	0.01559	3.56	18.652	22.85	1.13
RaymondB	M001	3569.22	20-AMEC-2050	58.200010	92.150	94.020650	93.4417	94.0527	0.00088	1.14	94.248	113.64	0.29
RaymondB	M001	3527.64	20-AMEC-2050	58.200010	91.850	93.998340		94.0207	0.00051	0.96	103.348	90.25	0.23
RaymondB	M001	3446.51	20-AMEC-2050	58.200010	91.140	93.977400		93.9951	0.00023	0.76	149.936	155.23	0.16
RaymondB	M001	3421.64	20-AMEC-2050	58.200010	91.230	93.556110	92.8699	93.9433	0.00316	2.79	21.343	133.01	0.59
RaymondB	M001	3410		Bridge									
RaymondB	M001	3404.11	20-AMEC-2050	58.200010	91.230	92.916360	92.9164	93.7133	0.01041	3.99	14.867	76.40	1.01
RaymondB	M001	3380.48	20-AMEC-2050	58.200010	90.960	92.793630	92.3394	92.9613	0.00293	2.02	42.525	58.57	0.53
RaymondB	M001	3308.92	20-AMEC-2050	58.200010	90.800	92.247860	92.2479	92.6037	0.00864	3.03	29.097	42.37	0.87
RaymondB	M001	3216.73	20-AMEC-2050	58.200010	89.310	92.077930	90.9554	92.2802	0.00147	2.02	29.757	51.92	0.41
RaymondB	M001	3200		Bridge									
RaymondB	M001	3188.78	20-AMEC-2050	58.200010	89.300	91.341720	91.3342	92.0358	0.00868	3.93	17.504	35.45	0.92
RaymondB	M001	3015.18	20-AMEC-2050	58.200010	89.180	90.722590		90.8803	0.00336	1.98	44.158	62.61	0.55
RaymondB	M001	2876.32	20-AMEC-2050	58.200010	88.660	90.149060		90.3435	0.00530	2.29	37.219	48.19	0.68

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	M001	2789.37	20-AMEC-2050	58.200010	88.240	89.953130		90.0289	0.00218	1.65	77.817	153.17	0.45
RaymondB	M001	2681.85	20-AMEC-2050	58.200010	88.140	89.426500	89.4265	89.6200	0.00940	2.66	44.151	113.18	0.87
RaymondB	M001	2604.32	20-AMEC-2050	58.200010	87.970	89.239370	88.9835	89.2751	0.00190	1.25	86.548	182.51	0.40
RaymondB	M001	2531.57	20-AMEC-2050	58.200010	87.970	89.203510		89.2130	0.00064	0.67	150.975	273.03	0.23
RaymondB	M001	2385.34	20-AMEC-2050	58.200010	87.430	89.121280		89.1549	0.00136	1.31	112.562	245.87	0.35
RaymondB	M001	2245.72	20-AMEC-2050	58.200010	86.990	88.523580	88.5136	88.8777	0.00750	2.81	28.228	52.27	0.81
RaymondB	M001	2194.47	20-AMEC-2050	58.200010	86.680	88.598340		88.6554	0.00118	1.34	77.578	88.65	0.34
RaymondB	M001	2140.67	20-AMEC-2050	58.200010	86.590	88.476650		88.5719	0.00201	1.71	59.842	69.18	0.44
RaymondB	M001	2087.60	20-AMEC-2050	58.200010	86.380	88.339840		88.4645	0.00193	1.73	45.749	41.66	0.43
RaymondB	M001	2069.54	20-AMEC-2050	58.200010	86.350	88.296280		88.4286	0.00210	1.81	46.123	45.01	0.45
RaymondB	M001	2040.77	20-AMEC-2050	58.200010	86.250	88.239820		88.3685	0.00201	1.76	49.229	63.11	0.44
RaymondB	M001	1989.18	20-AMEC-2050	58.200010	86.020	88.076320	87.6194	88.2452	0.00268	2.09	47.866	71.29	0.51
RaymondB	M001	1950.22	20-AMEC-2050	58.200010	85.790	87.435870	87.3699	88.0129	0.01181	3.62	23.008	43.81	1.02
RaymondB	M001	1885.73	20-AMEC-2050	58.200010	85.340	86.954070	86.9541	87.3035	0.00860	2.98	29.547	44.47	0.86
RaymondB	M001	1835.84	20-AMEC-2050	58.200010	84.640	86.345250	86.3609	86.8167	0.01112	3.56	24.197	27.70	0.99
RaymondB	M001	1784.61	20-AMEC-2050	58.200010	84.100	85.224210	85.4119	85.8846	0.03294	4.17	20.264	39.15	1.55
RaymondB	M001	1733.38	20-AMEC-2050	58.200010	82.790	84.671750	84.2359	84.8066	0.00249	1.86	45.804	46.59	0.48
RaymondB	M001	1682.15	20-AMEC-2050	58.200010	82.600	84.342120		84.6160	0.00513	2.46	29.114	30.63	0.68
RaymondB	M001	1630.92	20-AMEC-2050	58.200010	82.120	83.744920	83.6874	84.2367	0.01003	3.19	21.137	29.76	0.93
RaymondB	M001	1584.49	20-AMEC-2050	58.200010	81.770	83.606260		83.8497	0.00483	2.45	32.181	32.85	0.66
RaymondB	M001	1536.01	20-AMEC-2050	58.200010	81.310	83.121060	83.0055	83.5365	0.00803	3.10	26.093	37.78	0.84
RaymondB	M001	1477.96	20-AMEC-2050	58.200010	80.960	82.723760	82.6752	83.0811	0.00714	2.86	27.422	35.85	0.79
RaymondB	M001	1425.99	20-AMEC-2050	58.200010	80.580	82.370270	82.2504	82.7222	0.00664	2.81	27.327	38.41	0.77
RaymondB	M001	1372.05	20-AMEC-2050	58.200010	80.250	82.130410		82.3671	0.00534	2.57	32.468	34.62	0.69
RaymondB	M001	1323.54	20-AMEC-2050	58.200010	79.110	81.477160	80.9991	82.0164	0.00460	3.25	17.889	15.09	0.70
RaymondB	M001	1315		Bridge									
RaymondB	M001	1303.54	20-AMEC-2050	58.200010	78.010	80.446320	80.2050	81.1191	0.00682	3.63	16.016	19.79	0.82
RaymondB	M001	1252.39	20-AMEC-2050	61.300000	78.450	80.087580	80.0876	80.7615	0.01775	4.10	19.886	24.70	1.21
RaymondB	M001	1216.25	20-AMEC-2050	61.300000	77.860	79.747080	79.8586	80.2303	0.00994	3.61	27.539	42.00	0.95
RaymondB	M001	1189.75	20-AMEC-2050	61.300000	77.610	78.983670	79.2282	79.7805	0.02848	4.34	18.843	36.01	1.48
RaymondB	M001	1166.20	20-AMEC-2050	61.300000	76.740	78.155980	78.4324	79.0637	0.03024	4.85	20.373	47.89	1.56
RaymondB	M001	1148.70	20-AMEC-2050	61.300000	76.500	77.951290	78.1347	78.5429	0.02164	4.00	24.167	51.12	1.31
RaymondB	M001	1116.25	20-AMEC-2050	61.300000	75.830	77.056180	77.2523	77.7345	0.02687	3.77	18.503	33.97	1.41
RaymondB	M001	1066.09	20-AMEC-2050	61.300000	75.160	76.596310	76.5766	77.0140	0.01058	3.03	26.377	46.32	0.94
RaymondB	M001	1035.68	20-AMEC-2050	61.300000	74.730	76.219840	76.2198	76.6753	0.01112	3.22	23.606	28.70	0.97
RaymondB	M001	999.99	20-AMEC-2050	61.300000	73.320	74.540420	74.9509	75.8896	0.04191	5.32	13.036	19.38	1.81
RaymondB	M001	976.73	20-AMEC-2050	61.300000	73.030	74.447060	74.6584	75.1197	0.01580	3.83	20.745	34.40	1.16
RaymondB	M001	942.15	20-AMEC-2050	61.300000	72.180	73.166470	73.4787	74.0751	0.06972	5.78	17.137	33.81	2.23
RaymondB	M001	916.70	20-AMEC-2050	61.300000	70.820	72.086070	72.3380	72.8352	0.03194	4.91	21.559	51.46	1.60
RaymondB	M001	892.34	20-AMEC-2050	61.300000	70.360	71.651880	71.7731	72.2439	0.01654	3.68	21.108	36.35	1.17
RaymondB	M001	866.25	20-AMEC-2050	61.300000	70.040	71.740380	71.2673	71.9123	0.00290	1.93	41.386	60.37	0.52
RaymondB	M001	841.89	20-AMEC-2050	61.300000	69.920	71.462190	71.3604	71.7949	0.00643	2.73	31.275	51.50	0.76
RaymondB	M001	816.68	20-AMEC-2050	61.300000	69.740	71.300970	71.3010	71.6222	0.00701	2.89	33.991	55.80	0.80
RaymondB	M001	766.25	20-AMEC-2050	61.300000	69.160	69.988460	70.2175	70.7859	0.06404	4.95	18.138	44.85	2.09
RaymondB	M001	716.25	20-AMEC-2050	61.300000	68.390	69.797450	69.6379	69.9963	0.00503	2.26	38.285	50.38	0.66
RaymondB	M001	675.00	20-AMEC-2050	61.300000	68.140	69.576330		69.7798	0.00545	2.37	39.880	57.50	0.69
RaymondB	M001	615.86	20-AMEC-2050	61.300000	67.750	69.448070		69.5518	0.00224	1.76	67.157	139.38	0.46
RaymondB	M001	565.77	20-AMEC-2050	61.300000	67.440	69.401020		69.4624	0.00110	1.36	86.375	167.02	0.33
RaymondB	M001	520.15	20-AMEC-2050	61.300000	67.260	69.404270		69.4213	0.00038	0.84	159.787	270.47	0.20
RaymondB	M001	468.54	20-AMEC-2050	61.300000	66.980	69.403580		69.4078	0.00011	0.50	261.123	314.33	0.11
RaymondB	M001	429.18	20-AMEC-2050	61.300000	66.800	69.403420		69.4048	0.00003	0.30	416.354	416.38	0.06
RaymondB	M001	366.25	20-AMEC-2050	61.300000	66.650	69.403100		69.4036	0.00001	0.20	667.961	635.35	0.04
RaymondB	M001	341.79	20-AMEC-2050	61.300000	66.630	69.403090		69.4035	0.00001	0.17	761.594	662.64	0.03
PettyHR	M002	6270.85	20-AMEC-2050	89.700010	66.230	69.402900		69.4031	0.00000	0.06	1859.344	827.04	0.01
PettyHR	M002	6218.07	20-AMEC-2050	89.700010	66.230	69.402820		69.4030	0.00000	0.06	1727.715	835.93	0.01
PettyHR	M002	6095.00	20-AMEC-2050	89.700010	66.230	69.402690		69.4029	0.00000	0.06	1661.177	826.61	0.01
PettyHR	M002	6004.71	20-AMEC-2050	89.700010	66.230	69.402600		69.4028	0.00000	0.06	1707.630	854.99	0.01
PettyHR	M001	5825.85	20-AMEC-2050	144.000000	66.230	69.402200		69.4025	0.00000	0.08	2022.420	837.94	0.02
PettyHR	M001	5685.44	20-AMEC-2050	144.000000	66.230	69.401950		69.4022	0.00000	0.07	1974.890	725.73	0.01
PettyHR	M001	5516.39	20-AMEC-2050	160.500000	66.230	69.401410		69.4019	0.00000	0.10	1726.131	626.60	0.02
PettyHR	M001	5279.80	20-AMEC-2050	160.500000	66.230	69.399920		69.4009	0.00001	0.14	1167.368	422.79	0.03
PettyHR	M001	4996.75	20-AMEC-2050	160.500000	66.230	69.392750		69.3975	0.00003	0.31	550.261	207.21	0.06
PettyHR	M001	4923.81	20-AMEC-2050	160.500000	66.230	69.332090		69.3873	0.00038	1.11	177.449	85.42	0.21
PettyHR	M001	4867.41	20-AMEC-2050	160.500000	66.230	69.238880		69.3489	0.00102	1.81	146.238	92.43	0.34
PettyHR	M001	4817.61	20-AMEC-2050	160.500000	66.580	69.182720		69.2904	0.00132	1.95	142.538	91.01	0.39
PettyHR	M001	4757.18	20-AMEC-2050	160.500000	66.430	68.589440	68.5894	69.0979	0.00705	3.93	70.668	64.67	0.87
PettyHR	M001	4675.66	20-AMEC-2050	160.500000	65.880	67.799020	67.4986	68.1634	0.00544	3.22	71.812	49.72	0.75
PettyHR	M001	4612.84	20-AMEC-2050	160.500000	64.880	67.029550	66.9367	67.7006	0.00868	4.38	54.149	39.98	0.96
PettyHR	M001	4570.09	20-AMEC-2050	160.500000	64.620	66.765450	66.7655	67.3470	0.00702	3.84	62.484	54.93	0.86
PettyHR	M001	4500.69	20-AMEC-2050	160.500000	64.620	66.301780	66.0599	66.5850	0.00444	2.61	82.244	74.18	0.66
PettyHR	M001	4461.12	20-AMEC-2050	160.500000	64.550	65.975300	65.9753	66.3545	0.01056	3.59	76.302	90.96	0.99
PettyHR	M001	4428.20	20-AMEC-2050	160.500000	64.410	65.681150	65.5154	65.9258	0.00973	3.10	83.086	88.73	0.92
PettyHR	M001	4395.66	20-AMEC-2050	160.500000	63.810	65.254040	65.1916	65.6121	0.00816	3.20	75.740	80.50	0.87
PettyHR	M001	4357.04	20-AMEC-2050	160.500000	63.340	65.172060		65.3560	0.00351	2.50	103.314	80.41	0.60
PettyHR	M001	4281.82	20-AMEC-2050	160.500000	62.500	65.127590		65.2180	0.00073	1.44	132.672	58.58	0.29
PettyHR	M001	4166.17	20-AMEC-2050	160.500000	61.820	65.156810		65.1706	0.00010	0.62	374.245	162.38	0.11
PettyHR	M001	3949.19	20-AMEC-2050	160.500000	61.310	65.166110		65.1662	0.00000	0.04	4715.584	1314.13	0.01
PettyHR	M001	3936.78	20-AMEC-2050	160.500000	61.310	65.166110		65.1662	0.00000	0.03	5823.074	1568.70	0.00
PettyHR	M001	3931.39	20-AMEC-2050	92.900010	61.310	65.166140		65.1662	0.00000	0.01	7312.438	2004.07	0.00
PettyHR	M001	3925.44	20-AMEC-2050	92.900010	61.310	65.166110		65.1662	0.00000	0.03	3618.959	1001.51	0.00
PettyHR	M001	3867.05	20-AMEC-2050	92.900010	61.310	65.166100		65.1661	0.00000	0.03	3651.246	982.43	0.00
PettyHR	M001	3643.73	20-AMEC-2050	92.900010	61.310	65.166080		65.1661	0.00000	0.02	4195.834	1113.17	0.00
PettyHR	M001	3440.60	20-AMEC-2050	92.900010	61.310	65.165950		65.1661	0.00000	0.05	2127.101	580.52	0.01
PettyHR	M001	3182.65	20-AMEC-2050	92.900010	61.310	65.165740		65.1659	0.00000	0.06	1594.568	424.64	0.01
PettyHR	M001	3080.13	20-AMEC-2050	92.900010	61.310	65.165710		65.1658	0.00000	0.05	1881.576	511.99	0.01
PettyHR	M001	3028.13	20-AMEC-2050	92.900010	61.310	65.165700		65.1658	0.00000	0.05	2058.197	558.52	0.01
PettyHR	M001	2983.09	20-AMEC-2050	92.900010	61.310	65.165610		65.1658	0.00000	0.06	1677.289	450.72	0.01

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	2828.46	20-AMEC-2050	92.900010	61.310	65.165090		65.1656	0.00000	0.10	984.896	278.79	0.02
PettyHR	M001	2712.72	20-AMEC-2050	92.900010	61.310	65.163490		65.1651	0.00001	0.18	562.728	179.50	0.03
PettyHR	M001	2671.95	20-AMEC-2050	92.900010	61.310	65.162430		65.1647	0.00001	0.22	507.376	173.74	0.04
PettyHR	M001	2653.10	20-AMEC-2050	92.900010	61.310	65.161190		65.1644	0.00001	0.27	434.312	155.18	0.04
PettyHR	M001	2632.46	20-AMEC-2050	92.900010	61.310	65.152070		65.1630	0.00006	0.54	259.093	114.98	0.09
PettyHR	M001	2596.08	20-AMEC-2050	92.900010	61.310	65.146390		65.1603	0.00007	0.58	230.717	111.74	0.09
PettyHR	M001	2583.24	20-AMEC-2050	92.900010	60.100	65.076660	62.7296	65.1522	0.00038	1.43	130.667	108.99	0.22
PettyHR	M001	2580		Bridge									
PettyHR	M001	2573.39	20-AMEC-2050	92.900010	60.000	64.897030	62.2903	64.9355	0.00019	1.02	154.688	83.42	0.16
PettyHR	M001	2551.09	20-AMEC-2050	92.900010	59.890	64.913300		64.9173	0.00002	0.30	367.911	105.58	0.05
PettyHR	M001	2426.14	20-AMEC-2050	92.900010	59.270	64.915530		64.9159	0.00000	0.08	1158.794	267.64	0.01
PettyHR	M001	2315.39	20-AMEC-2050	92.900010	58.720	64.915530		64.9158	0.00000	0.07	1422.481	313.26	0.01
PettyHR	M001	2204.15	20-AMEC-2050	92.900010	58.160	64.915450		64.9157	0.00000	0.07	1433.992	306.20	0.01
PettyHR	M001	2022.45	20-AMEC-2050	92.900010	57.260	64.914860		64.9155	0.00000	0.11	871.229	172.61	0.01
PettyHR	M001	1902.10	20-AMEC-2050	92.900010	56.660	64.914160		64.9152	0.00000	0.14	675.267	127.05	0.02
PettyHR	M001	1879.72	20-AMEC-2050	92.900010	56.550	64.912670		64.9150	0.00001	0.23	493.796	107.60	0.03
PettyHR	M001	1824.42	20-AMEC-2050	92.900010	56.280	64.909900		64.9144	0.00001	0.30	332.908	65.42	0.04
PettyHR	M001	1789.72	20-AMEC-2050	92.900010	56.100	64.907580		64.9138	0.00001	0.35	281.770	54.83	0.05
PettyHR	M001	1724.70	20-AMEC-2050	92.900010	55.780	64.904400		64.9125	0.00002	0.40	246.618	47.39	0.05
PettyHR	M001	1668.81	20-AMEC-2050	92.900010	55.500	64.906050	58.0391	64.9107	0.00001	0.31	327.507	64.56	0.04
PettyHR	M001	1647.80	20-AMEC-2050	92.900010	55.400	64.906800	57.7570	64.9101	0.00001	0.26	382.734	71.42	0.03
PettyHR	M001	1631.79	20-AMEC-2050	92.900010	63.550	64.679610		64.8891	0.00460	2.03	45.811	40.60	0.61
PettyHR	M001	1615.46	20-AMEC-2050	94.400020	54.380	56.740470		56.8875	0.00313	2.73	59.993	37.91	0.58
PettyHR	M001	1601.08	20-AMEC-2050	94.400020	54.000	55.692150	55.6922	56.6989	0.03012	6.74	24.133	23.78	1.70
PettyHR	M001	1586.16	20-AMEC-2050	94.400020	53.360	55.087410	55.4051	56.2150	0.03304	7.26	23.946	24.49	1.80
PettyHR	M001	1571.98	20-AMEC-2050	94.400020	52.870	54.404000	54.7860	55.6722	0.04329	7.56	21.809	23.39	2.00
PettyHR	M001	1519.66	20-AMEC-2050	94.400020	51.620	53.167470	53.2965	53.7696	0.02549	5.73	31.605	38.42	1.53
PettyHR	M001	1467.14	20-AMEC-2050	94.400020	50.860	52.097680	52.1097	52.5197	0.02169	4.68	35.232	43.10	1.38
PettyHR	M001	1457.30	20-AMEC-2050	94.400020	50.230	51.794760	51.8445	52.3093	0.01948	5.23	33.540	36.23	1.36
PettyHR	M001	1444.51	20-AMEC-2050	94.400020	48.300	49.276700	49.8140	51.5805	0.16434	10.78	16.302	30.39	3.61
PettyHR	M001	1415.17	20-AMEC-2050	94.400020	48.280	49.855410	49.3904	49.9873	0.00450	2.51	61.419	52.51	0.65
PettyHR	M001	1402.15	20-AMEC-2050	94.400020	47.790	49.343560	49.3436	49.8424	0.02041	5.14	34.035	39.56	1.36
PettyHR	M001	1385.41	20-AMEC-2050	94.400020	43.100	44.675150	45.6158	48.8265	0.10360	11.57	13.295	16.70	3.08
PettyHR	M001	1370.82	20-AMEC-2050	94.400020	41.750	43.461930	44.5874	47.3489	0.08832	11.79	13.419	13.15	2.93
PettyHR	M001	1362.66	20-AMEC-2050	94.400020	39.880	41.921230	43.1711	46.5774	0.07973	12.29	12.362	9.98	2.83
PettyHR	M001	1336.64	20-AMEC-2050	94.400020	39.870	41.348550	42.1640	43.8409	0.08173	10.16	15.894	17.47	2.74
PettyHR	M001	1309.35	20-AMEC-2050	94.400020	38.400	39.662350	40.1926	41.4490	0.07784	8.84	17.694	20.92	2.59
PettyHR	M001	1279.20	20-AMEC-2050	94.400020	35.020	37.179860	38.0948	39.7060	0.04262	9.50	18.378	18.41	2.10
PettyHR	M001	1258.06	20-AMEC-2050	94.400020	34.010	36.338650	37.0950	38.8307	0.03735	9.43	17.502	13.32	2.00
PettyHR	M001	1221.17	20-AMEC-2050	94.400020	33.210	34.508320	35.2518	36.6800	0.09063	9.36	15.840	17.75	2.76
PettyHR	M001	1203.34	20-AMEC-2050	94.400020	32.610	33.857380	34.1985	35.0359	0.06302	7.83	22.662	33.34	2.32
PettyHR	M001	1164.99	20-AMEC-2050	94.400020	31.370	32.821700	32.9604	33.4373	0.02478	5.40	31.451	39.76	1.49
PettyHR	M001	1153.41	20-AMEC-2050	94.400020	30.700	31.720360	32.0791	32.9108	0.08061	7.87	21.788	35.70	2.56
PettyHR	M001	1125.74	20-AMEC-2050	94.400020	29.270	30.466740	30.6903	31.2321	0.04189	6.20	27.897	41.44	1.89
PettyHR	M001	1090.65	20-AMEC-2050	94.400020	28.120	29.273600	29.4089	29.8227	0.03577	5.42	33.334	57.97	1.71
PettyHR	M001	1059.48	20-AMEC-2050	94.400020	26.840	28.075570	28.2324	28.6611	0.03811	6.02	33.373	62.43	1.80
PettyHR	M001	1048.77	20-AMEC-2050	94.400020	26.290	27.445110	27.6620	28.1858	0.04647	6.23	29.495	53.48	1.96
PettyHR	M001	1021.54	20-AMEC-2050	94.400020	25.470	26.963810	27.0016	27.4151	0.02023	5.02	35.571	42.61	1.36
PettyHR	M001	1003.30	20-AMEC-2050	94.400020	23.420	24.780210	25.3474	26.6692	0.06740	8.79	17.310	18.13	2.46
PettyHR	M001	994.73	20-AMEC-2050	94.400020	22.700	24.692710	25.1762	26.1553	0.03055	7.63	20.498	15.44	1.76
PettyHR	M001	961.03	20-AMEC-2050	94.400020	22.070	24.703370	24.7306	25.3532	0.01041	5.35	33.440	25.49	1.07
PettyHR	M001	944.13	20-AMEC-2050	94.400020	21.890	23.419000	23.9009	24.9448	0.04387	7.62	20.287	20.70	2.02
PettyHR	M001	924.94	20-AMEC-2050	94.400020	20.780	22.496490	22.9815	24.1030	0.04210	8.05	19.102	16.32	2.01
PettyHR	M001	905.47	20-AMEC-2050	94.400020	19.730	21.712970	22.2182	23.3843	0.03370	8.02	19.426	14.98	1.85
PettyHR	M001	883.86	20-AMEC-2050	94.400020	17.290	20.851450	19.8180	21.0492	0.00159	2.60	59.650	37.28	0.45
PettyHR	M001	875		Bridge									
PettyHR	M001	859.53	20-AMEC-2050	94.400020	17.250	19.272220	19.2722	19.9027	0.01439	5.15	29.548	28.88	1.19
PettyHR	M001	836.76	20-AMEC-2050	94.400020	12.800	14.645330	15.7110	18.3612	0.06507	10.58	13.304	10.41	2.54
PettyHR	M001	823.70	20-AMEC-2050	94.400020	12.860	14.296040	15.0899	17.0382	0.09123	10.46	14.913	16.16	2.87
PettyHR	M001	811.96	20-AMEC-2050	94.400020	12.850	14.614580	15.1379	15.9947	0.03717	7.79	22.077	22.37	1.91
PettyHR	M001	796.92	20-AMEC-2050	94.400020	12.740	14.047990	14.4163	15.2456	0.06090	8.13	22.508	31.76	2.32
PettyHR	M001	784.11	20-AMEC-2050	94.400020	11.820	13.584420	13.9523	14.6653	0.03121	7.07	26.373	31.67	1.74
PettyHR	M001	769.86	20-AMEC-2050	94.400020	10.940	12.407760	12.8473	14.0499	0.05120	8.00	19.587	21.53	2.17
PettyHR	M001	748.76	20-AMEC-2050	94.400020	8.370	10.617590	11.3700	13.0972	0.03457	8.72	18.590	17.94	1.91
PettyHR	M001	720.33	20-AMEC-2050	94.400020	8.080	9.040989	9.6096	11.2739	0.15047	9.68	15.926	27.04	3.39
PettyHR	M001	707.57	20-AMEC-2050	94.400020	6.850	8.197556	8.6422	9.8173	0.06614	8.50	20.951	32.10	2.41
PettyHR	M001	685.99	20-AMEC-2050	94.400020	5.310	6.812430	7.3024	8.4683	0.05988	8.55	20.862	28.59	2.33
PettyHR	M001	666.04	20-AMEC-2050	94.400020	5.030	6.589004	6.8358	7.4255	0.02650	5.88	30.128	41.42	1.56
PettyHR	M001	652.51	20-AMEC-2050	94.400020	4.660	6.042197	6.2048	6.9841	0.03766	6.40	25.742	33.14	1.82
PettyHR	M001	633.61	20-AMEC-2050	94.400020	4.400	5.346341	5.5773	6.1283	0.05125	5.75	27.597	75.50	2.00
PettyHR	M001	622.83	20-AMEC-2050	94.400020	4.090	5.173951	5.1740	5.4408	0.01719	3.66	47.272	102.53	1.19
PettyHR	M001	577.97	20-AMEC-2050	94.400020	2.480	3.684600	3.8644	4.2135	0.04609	6.43	35.176	102.23	1.95
PettyHR	M001	525.57	20-AMEC-2050	94.400020	0.510	3.052919	2.1364	3.1150	0.00134	1.91	98.335	104.96	0.39
PettyHR	M001	491.94	20-AMEC-2050	94.400020	-0.590	2.937119	1.8541	3.0674	0.00110	1.93	83.038	88.85	0.36
PettyHR	M001	485		Bridge									
PettyHR	M001	478.84	20-AMEC-2050	94.400020	-1.920	2.819458	0.3936	2.8674	0.00026	1.07	142.421	149.04	0.17
PettyHR	M001	439.27	20-AMEC-2050	94.400020	-1.890	2.833291		2.8426	0.00007	0.59	271.913	134.31	0.09
PettyHR	M001	405.68	20-AMEC-2050	94.400020	-2.130	2.830390		2.8402	0.00007	0.57	270.270	139.50	0.09
PettyHR	M001	367.80	20-AMEC-2050	94.400020	-2.020	2.831369		2.8365	0.00002	0.33	336.941	143.46	0.05
PettyHR	M001	338.85	20-AMEC-2050	94.400020	-2.890	2.831635		2.8357	0.00001	0.29	371.935	128.21	0.04
PettyHR	M001	305.38	20-AMEC-2050	94.400020	-2.460	2.830066		2.8350	0.00002	0.32	338.090	121.61	0.05
PettyHR	M001	269.29	20-AMEC-2050	94.400020	-3.520	2.828456		2.8343	0.00002	0.35	316.821	113.34	0.05
PettyHR	M001	238.18	20-AMEC-2050	94.400020	-3.500	2.825141		2.8334	0.00002	0.42	276.114	106.02	0.06
PettyHR	M001	201.25	20-AMEC-2050	94.400020	-4.430	2.828047		2.8315	0.00001	0.26	400.077	125.50	0.03
PettyHR	M001	150.84	20-AMEC-2050	94.400020	-3.340	2.828958		2.8306	0.00000	0.18	570.834	172.74	0.03
PettyHR	M001	105.74	20-AMEC-2050	94.400020	-2.910	2.828707		2.8304	0.00000	0.19	548.700	155.56	0.03
PettyHR	M001	91.29	20-AMEC-2050	94.400020	-3.360	2.828729		2.8303	0.00000	0.18	562.537	146.42	0.02

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	20.04	20-AMEC-2050	94.400020	-6.190	2.828984		2.8299	0.00000	0.14	755.057	186.19	0.02
PettyHR	M001	12.04	20-AMEC-2050	94.400020	-6.190	2.820010	-3.6922	2.8290	0.00004	0.47	317.442	186.16	0.05
ForthP	M001	2616.90	20-AMEC-2050	10.500000	123.090	124.352800	123.3548	124.3534	0.00002	0.13	112.174	145.68	0.04
ForthP	M001	2528.45	20-AMEC-2050	10.500000	123.090	124.352500		124.3527	0.00000	0.06	186.764	185.40	0.02
ForthP	M001	2324.32	20-AMEC-2050	10.500000	123.090	124.350700		124.3513	0.00001	0.12	124.339	192.45	0.04
ForthP	M001	2187.52	20-AMEC-2050	10.500000	123.090	124.350300		124.3504	0.00000	0.05	246.778	280.31	0.01
ForthP	M001	1955.13	20-AMEC-2050	10.500000	123.090	124.349700		124.3498	0.00000	0.05	286.462	305.60	0.01
ForthP	M001	1773.83	20-AMEC-2050	10.500000	123.090	124.349400		124.3495	0.00000	0.03	356.664	339.59	0.01
ForthP	M001	1572.85	20-AMEC-2050	10.500000	123.090	124.349300		124.3493	0.00000	0.03	342.666	314.32	0.01
ForthP	M001	1496.60	20-AMEC-2050	10.500000	123.090	124.349100		124.3492	0.00000	0.04	287.863	269.98	0.01
ForthP	M001	1392.58	20-AMEC-2050	14.300000	122.980	124.346400	124.0128	124.3482	0.00015	0.42	86.275	162.03	0.12
ForthP	M001	1390		Culvert									
ForthP	M001	1381.72	20-AMEC-2050	14.300000	122.950	124.063700	124.0104	124.1023	0.00391	1.70	26.860	123.33	0.53
ForthP	M001	1360.50	20-AMEC-2050	14.300000	122.870	123.870000		123.9751	0.00679	2.04	13.334	33.74	0.72
ForthP	M001	1311.12	20-AMEC-2050	14.300000	122.520	123.472400		123.5804	0.00962	2.27	12.857	37.35	0.83
ForthP	M001	1261.17	20-AMEC-2050	14.300000	121.360	122.690800	122.6908	123.0668	0.01028	3.09	6.582	9.76	0.93
ForthP	M001	1211.51	20-AMEC-2050	14.300000	119.830	120.846400	121.1864	122.0248	0.04892	5.37	3.524	6.22	1.89
ForthP	M001	1161.66	20-AMEC-2050	14.300000	117.250	118.143000	118.4661	119.3327	0.05970	5.38	4.049	15.28	2.05
ForthP	M001	1112.05	20-AMEC-2050	14.300000	114.880	115.676100	115.8778	116.3871	0.05337	4.99	5.241	20.99	1.94
ForthP	M001	1062.35	20-AMEC-2050	14.300000	113.160	113.922500	113.9955	114.2453	0.03232	3.47	6.342	14.76	1.44
ForthP	M001	1041.93	20-AMEC-2050	14.300000	112.620	113.599000	113.6388	113.8339	0.01768	3.08	8.273	25.21	1.11
ForthP	M001	1031.90	20-AMEC-2050	14.300000	112.310	113.284000	113.3922	113.6127	0.02440	3.67	8.624	35.37	1.31
ForthP	M001	1011.12	20-AMEC-2050	14.300000	111.620	112.414200	112.5663	112.9092	0.04707	4.54	6.972	30.41	1.80
ForthP	M001	959.76	20-AMEC-2050	14.300000	110.310	110.945900	110.9711	111.0858	0.02624	2.65	10.889	51.62	1.27
ForthP	M001	908.93	20-AMEC-2050	14.300000	109.250	109.720900	109.6642	109.7627	0.01274	1.53	17.052	80.40	0.85
ForthP	M001	856.39	20-AMEC-2050	14.300000	108.380	108.707200	108.6673	108.7551	0.02221	1.20	14.972	86.15	0.98
ForthP	M001	806.25	20-AMEC-2050	14.300000	107.090	107.819100	107.8191	107.8997	0.01534	2.36	15.657	84.77	1.00
ForthP	M001	754.78	20-AMEC-2050	14.300000	106.120	106.964200	107.0040	107.1074	0.01633	2.88	14.192	77.12	1.08
ForthP	M001	734.50	20-AMEC-2050	14.300000	105.470	106.366200	106.4389	106.7347	0.02558	3.50	7.232	21.70	1.33
ForthP	M001	724.30	20-AMEC-2050	14.300000	105.280	106.297100	106.3639	106.5160	0.01297	2.79	10.564	43.61	0.98
ForthP	M001	703.65	20-AMEC-2050	14.300000	105.020	105.836500	105.9073	106.1072	0.03207	3.84	8.725	34.91	1.47
ForthP	M001	654.47	20-AMEC-2050	14.300000	103.900	104.765900	104.6031	104.8028	0.00439	1.52	19.710	53.69	0.56
ForthP	M001	605.63	20-AMEC-2050	14.300000	102.270	103.035400	103.0354	104.1739	0.08304	5.58	3.920	12.66	2.35
ForthP	M001	585.13	20-AMEC-2050	14.300000	101.550	102.268400	102.3897	102.6897	0.05068	4.09	8.109	53.67	1.81
ForthP	M001	577.30	20-AMEC-2050	14.300000	101.520	102.031400	102.0817	102.2153	0.05524	3.28	9.183	54.65	1.76
ForthP	M001	557.33	20-AMEC-2050	14.300000	100.670	101.165100	101.1874	101.2844	0.03897	2.53	10.821	62.31	1.45
ForthP	M001	507.84	20-AMEC-2050	14.300000	98.920	99.454540	99.4662	99.5554	0.03135	2.39	11.973	71.18	1.32
ForthP	M001	453.33	20-AMEC-2050	14.300000	96.280	96.812240	96.8855	97.0893	0.06628	3.51	9.007	72.88	1.93
ForthP	M001	402.29	20-AMEC-2050	14.300000	94.960	95.433770	95.4338	95.5408	0.03338	2.53	10.803	46.31	1.37
ForthP	M001	349.18	20-AMEC-2050	14.300000	93.640	94.032140	93.9513	94.0740	0.01615	1.28	15.996	68.80	0.88
ForthP	M001	297.76	20-AMEC-2050	14.300000	92.550	93.337350	93.3374	93.4260	0.01243	2.19	15.033	74.01	0.91
ForthP	M001	246.28	20-AMEC-2050	14.300000	91.710	92.292370	92.2924	92.3741	0.01935	2.00	14.046	70.06	1.06
ForthP	M001	182.03	20-AMEC-2050	14.300000	90.940	91.877050	91.5256	91.8910	0.00197	1.02	32.295	88.54	0.37
ForthP	M001	160.27	20-AMEC-2050	14.300000	90.130	91.882590	90.9222	91.8839	0.00004	0.25	113.381	129.81	0.06
ForthP	M001	150		Culvert									
ForthP	M001	144.74	20-AMEC-2050	14.300000	89.900	90.789690	90.6268	90.9901	0.00648	2.00	7.349	74.11	0.71
ForthP	M001	124.30	20-AMEC-2050	14.300000	89.740	90.629420	90.6294	90.7754	0.01436	2.58	12.666	46.91	1.00
ForthP	M001	61.58	20-AMEC-2050	14.300000	88.750	89.689690	89.7239	89.8637	0.01438	2.70	12.143	44.98	1.01
ForestP	M001	1557.91	20-AMEC-2050	7.400002	78.250	79.726760	78.4536	79.7269	0.00000	0.05	149.767	121.72	0.01
ForestP	M001	1428.05	20-AMEC-2050	7.400002	78.250	79.726590		79.7267	0.00000	0.04	204.507	177.42	0.01
ForestP	M001	1315.71	20-AMEC-2050	7.400002	78.250	79.726530		79.7266	0.00000	0.03	287.649	242.99	0.01
ForestP	M001	1228.83	20-AMEC-2050	7.400002	78.250	79.726490		79.7265	0.00000	0.02	344.000	291.04	0.01
ForestP	M001	1138.84	20-AMEC-2050	7.400002	78.250	79.726460		79.7265	0.00000	0.02	402.958	343.29	0.01
ForestP	M001	1077.28	20-AMEC-2050	7.400002	78.250	79.726450		79.7265	0.00000	0.02	447.768	482.34	0.01
ForestP	M001	1019.12	20-AMEC-2050	7.400002	78.250	79.726360		79.7264	0.00000	0.04	226.606	281.99	0.01
ForestP	M001	958.61	20-AMEC-2050	9.499998	78.150	79.706280	79.5024	79.7243	0.00060	0.71	25.698	69.94	0.21
ForestP	M001	955		Culvert									
ForestP	M001	949.85	20-AMEC-2050	9.499998	77.760	79.497000	79.4970	79.6765	0.00897	2.15	7.805	28.36	0.58
ForestP	M001	913.34	20-AMEC-2050	9.499998	78.160	79.055050	79.0768	79.2475	0.02346	3.25	6.256	18.40	1.19
ForestP	M001	883.23	20-AMEC-2050	9.499998	77.540	78.315200	78.3923	78.5489	0.02279	3.03	7.355	36.33	1.24
ForestP	M001	859.61	20-AMEC-2050	9.499998	76.750	77.436640	77.5535	77.8168	0.04131	3.78	4.454	13.62	1.63
ForestP	M001	831.71	20-AMEC-2050	9.499998	75.740	76.687240	76.7506	76.9965	0.02163	3.34	5.000	11.28	1.22
ForestP	M001	802.91	20-AMEC-2050	9.499998	74.660	75.411890	75.6083	76.0755	0.04883	4.44	3.464	9.65	1.81
ForestP	M001	772.90	20-AMEC-2050	9.499998	73.770	74.513260	74.5871	74.8031	0.03102	3.52	5.017	14.11	1.42
ForestP	M001	737.48	20-AMEC-2050	9.499998	72.770	73.463520	73.4600	73.6093	0.01863	2.60	7.035	21.59	1.10
ForestP	M001	688.06	20-AMEC-2050	9.499998	71.800	72.377200	72.3772	72.4854	0.02832	2.65	7.593	32.45	1.25
ForestP	M001	651.32	20-AMEC-2050	9.499998	70.810	71.411400	71.4307	71.5456	0.02334	2.71	7.661	30.93	1.22
ForestP	M001	600.44	20-AMEC-2050	9.499998	69.800	70.274120	70.3073	70.4007	0.03925	2.84	8.178	51.36	1.50
ForestP	M001	578.60	20-AMEC-2050	9.499998	69.310	69.847720	69.9140	70.0495	0.04390	3.28	8.330	72.24	1.63
ForestP	M001	528.92	20-AMEC-2050	9.499998	68.580	69.413360	69.2614	69.4340	0.00309	1.22	20.489	70.76	0.47
ForestP	M001	478.55	20-AMEC-2050	9.499998	68.210	69.405940		69.4078	0.00015	0.35	61.162	110.86	0.11
ForestP	M001	430.82	20-AMEC-2050	9.499998	67.770	69.403500		69.4042	0.00004	0.23	97.763	133.03	0.06
ForestP	M001	378.18	20-AMEC-2050	9.499998	67.480	69.403320		69.4034	0.00001	0.10	235.306	265.51	0.02
ForestP	M001	328.07	20-AMEC-2050	9.499998	67.340	69.403180		69.4032	0.00000	0.06	336.641	329.68	0.02
ForestP	M001	277.95	20-AMEC-2050	9.499998	67.070	69.403110		69.4031	0.00000	0.05	413.138	375.42	0.01
ForestP	M001	195.51	20-AMEC-2050	9.499998	66.230	69.403090		69.4031	0.00000	0.03	776.781	526.17	0.00
ForestP	M001	158.37	20-AMEC-2050	9.499998	66.230	69.403090		69.4031	0.00000	0.01	1472.792	676.49	0.00
ForestP	M001	89.11	20-AMEC-2050	9.499998	66.230	69.403090		69.4031	0.00000	0.01	1631.311	750.81	0.00
DoylesR	TR019	260.51	20-AMEC-2050	0.300000	124.740	125.073100	124.9295	125.0740	0.00024	0.17	3.340	30.03	0.11
DoylesR	TR019	199.72	20-AMEC-2050	0.300000	124.550	125.073100		125.0731	0.00000	0.02	31.749	135.42	0.01
DoylesR	TR019	150.00	20-AMEC-2050	0.300000	124.370	125.072900		125.0729	0.00000	0.02	34.443	143.82	0.01
DoylesR	TR019	100.00	20-AMEC-2050	0.300000	124.160	125.072700		125.0727	0.00000	0.03	29.079	158.27	0.01
DoylesR	TR019	50.00	20-AMEC-2050	0.300000	124.180	125.072700		125.0727	0.00000	0.01	53.924	218.75	0.01
DoylesR	TR018	302.01	20-AMEC-2050	1.300000	127.900	128.255800	128.0497	128.2581	0.00038	0.25	7.576	33.43	0.15
DoylesR	TR018	270.53	20-AMEC-2050	1.300000	126.190	128.257400	126.8425	128.2574	0.00000	0.02	200.505	244.89	0.00
DoylesR	TR018	260		Culvert									
DoylesR	TR018	257.62	20-AMEC-2050	1.300000	126.190	128.257300	126.8669	128.2573	0.00000	0.01	213.124	214.65	0.00

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR018	244.68	20-AMEC-2050	1.300000	125.640	128.217200	126.5739	128.2480	0.00033	0.84	1.878	208.38	0.17
DoylesR	TR018	200		Culvert									
DoylesR	TR018	169.24	20-AMEC-2050	1.300000	125.400	126.134400	126.1344	126.4727	0.01766	2.96	0.544	73.31	1.14
DoylesR	TR018	131.43	20-AMEC-2050	1.300000	125.240	125.446800	125.4477	125.4708	0.02283	0.99	2.564	52.68	0.95
DoylesR	TR018	59.79	20-AMEC-2050	1.300000	124.570	125.122000	124.8837	125.1236	0.00028	0.27	12.021	101.84	0.13
DoylesR	TR017	4043.45	20-AMEC-2050	7.200000	124.050	125.043700		125.0641	0.00136	1.03	18.592	62.56	0.33
DoylesR	TR017	3983.69	20-AMEC-2050	7.200000	124.040	124.929000		124.9629	0.00230	1.11	15.238	70.92	0.41
DoylesR	TR017	3923.93	20-AMEC-2050	7.200000	124.030	124.609100	124.6091	124.6902	0.01502	1.75	7.919	43.13	0.93
DoylesR	TR017	3889.37	20-AMEC-2050	7.200000	123.600	123.773600	123.6311	123.7890	0.00605	0.31	13.171	60.21	0.43
DoylesR	TR017	3781.64	20-AMEC-2050	7.200000	122.550	123.475300		123.5138	0.00326	1.37	13.517	52.35	0.49
DoylesR	TR017	3768.91	20-AMEC-2050	7.200000	122.350	123.172200	123.1722	123.4129	0.01244	2.34	3.928	9.56	0.91
DoylesR	TR017	3745.98	20-AMEC-2050	7.200000	121.860	122.387700	122.4721	122.6879	0.06403	3.14	3.957	27.41	1.83
DoylesR	TR017	3713.18	20-AMEC-2050	7.200000	120.990	121.552500	121.5821	121.7727	0.01909	2.22	3.957	13.15	1.09
DoylesR	TR017	3692.45	20-AMEC-2050	7.200000	120.340	120.950200	121.0327	121.2659	0.02916	2.74	3.482	12.93	1.34
DoylesR	TR017	3679.05	20-AMEC-2050	7.200000	119.970	120.711100	120.8110	120.9755	0.01579	2.53	3.956	16.12	1.04
DoylesR	TR017	3656.84	20-AMEC-2050	7.200000	117.590	118.043700	118.3894	119.9257	0.25308	6.19	1.266	5.69	3.69
DoylesR	TR017	3603.67	20-AMEC-2050	7.200000	116.290	117.023300	117.0221	117.1495	0.01057	2.06	6.268	25.03	0.85
DoylesR	TR017	3583.40	20-AMEC-2050	7.200000	115.960	116.534200	116.5342	116.7961	0.03465	2.95	4.134	21.46	1.45
DoylesR	TR017	3571.14	20-AMEC-2050	7.200000	115.760	116.292700	116.3076	116.4099	0.02168	2.36	6.212	31.59	1.15
DoylesR	TR017	3545.42	20-AMEC-2050	7.200000	115.220	115.776100	115.7940	115.9462	0.02417	2.34	4.838	19.42	1.19
DoylesR	TR017	3483.93	20-AMEC-2050	7.200000	114.350	114.933600	114.9197	114.9784	0.01060	1.71	11.340	70.21	0.81
DoylesR	TR017	3432.55	20-AMEC-2050	7.200000	113.790	114.494900	114.4708	114.5567	0.00921	1.82	10.085	60.92	0.77
DoylesR	TR017	3345.48	20-AMEC-2050	7.200000	113.030	113.555300	113.5553	113.6357	0.01972	1.97	7.423	42.16	1.06
DoylesR	TR017	3300.07	20-AMEC-2050	7.200000	112.420	112.960500	112.8538	112.9752	0.00434	0.94	15.670	76.09	0.50
DoylesR	TR016	918.87	20-AMEC-2050	2.700000	127.080	128.798500	127.2462	128.7985	0.00000	0.01	403.844	361.32	0.00
DoylesR	TR016	898.71	20-AMEC-2050	2.700000	126.900	128.798500	127.9550	128.7985	0.00000	0.03	195.887	225.30	0.01
DoylesR	TR016	890		Culvert									
DoylesR	TR016	882.28	20-AMEC-2050	2.700000	126.880	128.726500	127.9730	128.7266	0.00000	0.06	104.373	157.91	0.02
DoylesR	TR016	877.71	20-AMEC-2050	2.700000	126.240	128.726500	127.3631	128.7266	0.00000	0.07	123.278	188.72	0.01
DoylesR	TR016	850		Culvert									
DoylesR	TR016	848.13	20-AMEC-2050	2.700000	126.370	127.462000	127.4620	127.9902	0.01275	3.22	0.839	5.39	1.00
DoylesR	TR016	818.98	20-AMEC-2050	2.700000	126.360	126.671800	126.7853	127.1308	0.11637	3.15	1.084	11.48	2.33
DoylesR	TR016	768.99	20-AMEC-2050	2.700000	126.300	126.639000	126.5793	126.6512	0.00435	0.73	7.114	50.54	0.47
DoylesR	TR016	714.09	20-AMEC-2050	2.700000	125.960	126.356700	126.2888	126.3755	0.00535	0.86	5.751	35.99	0.53
DoylesR	TR016	675.95	20-AMEC-2050	2.700000	125.740	126.076700	126.0767	126.1239	0.01468	1.26	4.035	40.98	0.86
DoylesR	TR016	659.39	20-AMEC-2050	2.700000	125.100	125.432300	125.5193	125.6689	0.05614	2.57	1.701	14.51	1.69
DoylesR	TR016	632.80	20-AMEC-2050	2.700000	124.780	125.256700	125.2567	125.3174	0.00924	1.33	3.651	27.22	0.72
DoylesR	TR016	610.50	20-AMEC-2050	2.700000	123.780	124.223900	124.3942	124.7895	0.07154	3.58	0.964	4.74	1.99
DoylesR	TR016	549.37	20-AMEC-2050	2.700000	122.300	122.938400	122.9715	123.0654	0.01380	1.91	2.618	16.79	0.90
DoylesR	TR016	494.31	20-AMEC-2050	2.700000	120.930	121.505100	121.6131	121.8563	0.03806	2.64	1.065	3.83	1.43
DoylesR	TR016	473.82	20-AMEC-2050	2.700000	120.180	120.672000	120.7824	121.0314	0.04327	2.73	1.109	4.68	1.54
DoylesR	TR016	459.95	20-AMEC-2050	2.700000	119.620	120.072100	120.1759	120.4112	0.04599	2.63	1.115	4.92	1.57
DoylesR	TR016	439.99	20-AMEC-2050	2.700000	119.050	119.693000	119.7038	119.8852	0.01680	1.97	1.470	4.60	0.98
DoylesR	TR016	384.99	20-AMEC-2050	2.700000	117.070	117.484700	117.6364	117.9933	0.09849	3.16	0.858	4.27	2.18
DoylesR	TR016	329.99	20-AMEC-2050	2.700000	115.670	116.159500	116.1743	116.2446	0.01419	1.49	2.912	23.28	0.88
DoylesR	TR016	274.18	20-AMEC-2050	2.700000	114.930	115.326400	115.3247	115.3692	0.01116	1.18	4.581	48.10	0.76
DoylesR	TR016	218.88	20-AMEC-2050	2.700000	114.350	114.819500	114.8195	114.8706	0.01157	1.25	4.346	47.38	0.78
DoylesR	TR016	165.43	20-AMEC-2050	2.700000	113.830	114.375600	114.3832	114.4339	0.00813	1.27	4.103	35.26	0.68
DoylesR	TR016	86.48	20-AMEC-2050	2.700000	112.800	113.215000	113.2493	113.3466	0.02809	1.76	1.993	12.37	1.18
DoylesR	TR016	40.19	20-AMEC-2050	2.700000	112.210	112.793900	112.7080	112.8067	0.00240	0.75	8.406	56.81	0.38
DoylesR	TR015	3230.71	20-AMEC-2050	15.800000	111.600	112.513000		112.5702	0.00693	1.98	20.690	75.99	0.71
DoylesR	TR015	3185.04	20-AMEC-2050	15.800000	111.220	112.121800	112.1218	112.2528	0.01359	2.52	14.351	50.33	0.97
DoylesR	TR015	3133.58	20-AMEC-2050	15.800000	110.570	111.386400	111.3999	111.5200	0.01583	2.68	13.602	46.85	1.05
DoylesR	TR015	3079.97	20-AMEC-2050	15.800000	108.170	109.055700	109.4226	110.0291	0.05124	4.89	4.485	10.33	1.90
DoylesR	TR015	3026.43	20-AMEC-2050	15.800000	107.300	109.116000	108.2939	109.1381	0.00048	0.84	31.611	34.02	0.21
DoylesR	TR015	3001.28	20-AMEC-2050	15.800000	106.170	109.125600	108.3003	109.1283	0.00007	0.43	87.665	78.26	0.08
DoylesR	TR015	3000		Culvert									
DoylesR	TR015	2988.77	20-AMEC-2050	15.800000	106.030	107.991100	107.9911	108.2063	0.00369	2.57	16.176	43.53	0.60
DoylesR	TR015	2963.30	20-AMEC-2050	15.800000	105.690	106.548500	106.8529	107.6813	0.06425	5.72	5.264	17.51	2.11
DoylesR	TR015	2915.60	20-AMEC-2050	15.800000	104.530	105.595800	105.6999	105.9679	0.01930	3.47	8.671	21.70	1.20
DoylesR	TR015	2867.64	20-AMEC-2050	15.800000	103.370	104.489600	104.6626	104.9712	0.02628	4.20	8.063	20.64	1.39
DoylesR	TR015	2841.04	20-AMEC-2050	15.800000	102.400	102.948000	103.1132	103.5505	0.12442	4.96	6.029	27.15	2.66
DoylesR	TR015	2804.73	20-AMEC-2050	15.800000	101.670	102.481700	102.4447	102.6095	0.01442	2.53	13.061	35.41	1.00
DoylesR	TR015	2742.98	20-AMEC-2050	15.800000	100.870	101.660200	101.6432	101.7571	0.01461	2.58	16.948	64.93	1.01
DoylesR	TR015	2687.77	20-AMEC-2050	15.800000	100.070	100.675600	100.6756	100.7918	0.02391	2.61	14.069	62.53	1.23
DoylesR	TR015	2638.14	20-AMEC-2050	15.800000	98.950	99.733090	99.7961	99.9445	0.02552	3.42	12.057	47.32	1.34
DoylesR	TR015	2593.26	20-AMEC-2050	15.800000	97.750	98.668620	98.7664	99.0875	0.03436	4.23	8.633	31.05	1.56
DoylesR	TR015	2557.12	20-AMEC-2050	15.800000	97.530	98.549860	98.4659	98.6430	0.00777	2.30	16.574	44.75	0.77
DoylesR	TR015	2522.34	20-AMEC-2050	15.800000	97.260	98.164530	98.1645	98.3258	0.01332	2.49	12.592	39.69	0.97
DoylesR	TR015	2483.94	20-AMEC-2050	15.800000	96.950	97.673760	97.6384	97.7431	0.01343	2.10	16.389	59.77	0.92
DoylesR	TR015	2438.99	20-AMEC-2050	15.800000	96.350	97.393850		97.4480	0.00467	1.74	23.420	84.89	0.60
DoylesR	TR015	2387.12	20-AMEC-2050	15.800000	96.390	97.312500		97.3226	0.00156	0.87	41.929	124.39	0.33
DoylesR	TR015	2352.45	20-AMEC-2050	15.800000	96.400	97.283950		97.2892	0.00061	0.54	51.831	99.50	0.21
DoylesR	TR015	2283.37	20-AMEC-2050	15.800000	95.750	97.126980		97.2048	0.00289	1.72	16.104	22.40	0.50
DoylesR	TR015	2231.50	20-AMEC-2050	15.800000	95.540	96.640930	96.6269	96.9149	0.01314	3.00	8.870	16.88	1.01
DoylesR	TR015	2160.12	20-AMEC-2050	15.800000	94.930	95.920550		96.0796	0.00939	2.32	11.031	21.71	0.84
DoylesR	TR015	2119.11	20-AMEC-2050	15.800000	94.440	95.479770	95.4798	95.6804	0.01204	2.75	11.098	26.76	0.95
DoylesR	TR015	2075.88	20-AMEC-2050	15.800000	93.860	94.761950	94.8751	95.0428	0.01835	3.04	9.833	36.51	1.15
DoylesR	TR015	2024.01	20-AMEC-2050	15.800000	93.190	94.214360	94.1888	94.3944	0.01262	2.72	12.937	46.59	0.97
DoylesR	TR015	1972.14	20-AMEC-2050	15.800000	92.710	93.741300	93.7413	93.8460	0.00963	2.47	17.672	75.87	0.85
DoylesR	TR015	1921.75	20-AMEC-2050	15.800000	92.350	93.395530	93.0814	93.4188	0.00247	1.28	28.375	74.55	0.43
DoylesR	TR015	1851.62	20-AMEC-2050	15.800000	91.240	92.862480	92.8625	93.1772	0.00786	2.96	8.871	16.14	0.80
DoylesR	TR014	2057.49	20-AMEC-2050	9.600000	125.480	126.520500	126.3873	126.5559	0.00283	1.24	17.969	62.11	0.45
DoylesR	TR014	2037.89	20-AMEC-2050	9.600000	125.570	126.520400		126.5254	0.00055	0.57	39.187	103.33	0.20
DoylesR	TR014	1988.88	20-AMEC-2050	9.600000	124.710	126.432100	125.8511	126.4867	0.00089	1.10	13.757	43.72	0.28
DoylesR	TR014	1980		Culvert									
DoylesR	TR014	1975.46	20-AMEC-2050	9.600000	124.460	126.327200	125.6044	126.3881	0.00081	1.12	10.242	19.56	0.28

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR014	1936.56	20-AMEC-2050	9.600000	124.860	126.108300		126.2886	0.00489	2.14	6.918	13.29	0.64
DoylesR	TR014	1904.43	20-AMEC-2050	9.600000	124.720	125.789600	125.7896	126.0664	0.00947	2.63	5.633	11.34	0.87
DoylesR	TR014	1867.03	20-AMEC-2050	9.600000	124.610	125.564100	125.3618	125.6584	0.00460	1.71	9.980	23.88	0.60
DoylesR	TR014	1801.50	20-AMEC-2050	9.600000	124.000	124.951900	124.9519	125.1878	0.01183	2.70	6.183	14.20	0.95
DoylesR	TR014	1765.57	20-AMEC-2050	9.600000	123.200	123.704200	123.8792	124.3119	0.06584	3.86	3.512	15.79	1.99
DoylesR	TR014	1703.29	20-AMEC-2050	9.600000	121.820	122.593200	122.5932	122.8985	0.01583	2.76	4.992	11.98	1.07
DoylesR	TR014	1657.91	20-AMEC-2050	9.600000	121.270	122.015700	122.0404	122.2361	0.01257	2.27	6.056	19.07	0.93
DoylesR	TR014	1607.98	20-AMEC-2050	9.600000	120.590	121.377500	121.4279	121.5612	0.01367	2.47	8.696	42.06	0.98
DoylesR	TR014	1544.18	20-AMEC-2050	9.600000	119.810	120.649300	120.6900	120.8008	0.01055	2.32	9.530	40.67	0.88
DoylesR	TR014	1492.70	20-AMEC-2050	9.600000	119.060	119.654900	119.7476	119.9382	0.02876	2.98	6.509	35.80	1.37
DoylesR	TR014	1441.23	20-AMEC-2050	9.600000	117.590	118.618000	118.6998	118.9416	0.01369	3.14	6.160	19.14	1.04
DoylesR	TR014	1420.98	20-AMEC-2050	9.600000	116.980	118.159600	117.7232	118.2191	0.00213	1.38	10.751	13.35	0.42
DoylesR	TR014	1411.86	20-AMEC-2050	9.600000	117.030	118.063400	117.7209	118.1832	0.00392	1.81	6.899	12.06	0.57
DoylesR	TR014	1400		Bridge									
DoylesR	TR014	1384.41	20-AMEC-2050	10.900000	116.710	117.471900	117.4719	117.7865	0.01454	2.67	4.629	9.72	1.03
DoylesR	TR014	1374.60	20-AMEC-2050	10.900000	116.540	117.409700	117.3102	117.5919	0.00802	2.10	6.576	11.44	0.77
DoylesR	TR014	1353.25	20-AMEC-2050	10.900000	116.210	117.083600	117.0836	117.3680	0.01278	2.64	5.371	9.91	0.98
DoylesR	TR014	1309.14	20-AMEC-2050	10.900000	115.500	116.199100	116.2885	116.6171	0.02300	2.87	3.861	7.71	1.24
DoylesR	TR014	1296.25	20-AMEC-2050	10.900000	115.120	116.030600	116.1114	116.4539	0.01854	3.28	4.455	7.89	1.18
DoylesR	TR014	1239.25	20-AMEC-2050	10.900000	113.430	114.065200	114.2606	114.7478	0.04898	4.07	3.603	10.88	1.80
DoylesR	TR014	1203.69	20-AMEC-2050	10.900000	112.840	113.630200	113.5779	113.7341	0.00976	2.22	9.424	24.89	0.84
DoylesR	TR014	1182.25	20-AMEC-2050	10.900000	112.530	113.304300	113.3043	113.4844	0.01292	2.45	7.794	20.70	0.96
DoylesR	TR014	1125.25	20-AMEC-2050	10.900000	111.300	112.453000	112.2537	112.5187	0.00368	1.72	12.635	23.15	0.54
DoylesR	TR014	1104.23	20-AMEC-2050	10.900000	111.160	112.178100	112.1781	112.3830	0.01026	2.52	7.519	17.21	0.88
DoylesR	TR014	1094.88	20-AMEC-2050	10.900000	110.550	111.310600	111.5533	112.1326	0.05378	4.97	3.649	9.83	1.95
DoylesR	TR014	1075.36	20-AMEC-2050	10.900000	110.170	111.175100	111.2391	111.4582	0.01566	3.25	7.217	18.89	1.10
DoylesR	TR014	1027.18	20-AMEC-2050	10.900000	109.150	109.918400	110.0504	110.3797	0.03302	3.70	5.150	15.76	1.51
DoylesR	TR014	980.74	20-AMEC-2050	10.900000	107.890	108.928700	108.6078	108.9867	0.00328	1.57	12.802	20.84	0.51
DoylesR	TR014	954.47	20-AMEC-2050	10.900000	107.680	108.564900	108.5649	108.8091	0.01473	2.80	7.217	19.61	1.04
DoylesR	TR014	934.37	20-AMEC-2050	10.900000	106.990	107.851800	107.9105	108.3366	0.02859	3.67	5.132	15.20	1.42
DoylesR	TR014	907.24	20-AMEC-2050	10.900000	106.520	107.290000	107.3756	107.5529	0.02444	3.32	7.418	25.29	1.31
DoylesR	TR014	868.80	20-AMEC-2050	10.900000	105.880	106.735900	106.8213	107.0378	0.01701	2.91	6.251	16.10	1.11
DoylesR	TR014	864.98	20-AMEC-2050	10.900000	105.700	106.628900	106.6958	106.9684	0.01563	2.76	5.175	12.72	1.06
DoylesR	TR014	844.06	20-AMEC-2050	10.900000	105.100	106.240400	106.1317	106.4213	0.00680	2.29	7.537	12.67	0.74
DoylesR	TR014	836.52	20-AMEC-2050	10.900000	104.970	106.059800	106.0598	106.3439	0.01185	2.74	5.949	11.56	0.94
DoylesR	TR014	816.09	20-AMEC-2050	10.900000	104.780	105.375800	105.5395	105.8694	0.05405	3.78	4.368	15.16	1.83
DoylesR	TR014	811.48	20-AMEC-2050	10.900000	104.640	105.553400	105.3705	105.6421	0.00597	1.85	10.580	22.43	0.67
DoylesR	TR014	783.28	20-AMEC-2050	10.900000	103.980	105.098300	105.0983	105.3885	0.01202	3.04	5.997	10.12	0.98
DoylesR	TR014	751.27	20-AMEC-2050	10.900000	103.310	104.224600	104.3879	104.7870	0.02880	3.39	3.598	8.34	1.39
DoylesR	TR014	717.94	20-AMEC-2050	10.900000	102.630	103.903500	103.9304	104.1958	0.01130	3.18	6.705	13.23	0.95
DoylesR	TR014	676.43	20-AMEC-2050	10.900000	102.180	103.158100	103.2668	103.5845	0.01913	3.20	5.030	12.83	1.18
DoylesR	TR014	601.44	20-AMEC-2050	10.900000	101.390	102.121800	102.2208	102.4610	0.02999	3.33	5.485	17.95	1.41
DoylesR	TR014	540.83	20-AMEC-2050	10.900000	100.490	101.664700	101.5082	101.8497	0.00584	2.14	7.801	18.67	0.69
DoylesR	TR014	519.25	20-AMEC-2050	10.900000	99.690	101.763600	101.4859	101.7745	0.00041	0.76	34.078	63.55	0.18
DoylesR	TR014	510		Culvert									
DoylesR	TR014	505.00	20-AMEC-2050	10.900000	99.620	101.552200	101.5522	101.5782	0.00101	1.14	25.579	61.32	0.27
DoylesR	TR014	484.27	20-AMEC-2050	10.900000	99.790	100.603600	100.8242	101.3144	0.05787	4.54	3.705	12.38	1.91
DoylesR	TR014	426.15	20-AMEC-2050	10.900000	98.710	99.806660	99.8067	100.0837	0.01121	2.49	5.746	16.04	0.91
DoylesR	TR014	368.05	20-AMEC-2050	10.900000	97.300	98.371160	98.5818	99.0150	0.03416	4.00	4.125	12.97	1.50
DoylesR	TR014	343.01	20-AMEC-2050	10.900000	96.780	98.221650	97.7156	98.3462	0.00236	1.63	7.466	71.52	0.45
DoylesR	TR014	335		Bridge									
DoylesR	TR014	331.91	20-AMEC-2050	10.900000	96.630	97.830290	97.8303	98.2212	0.01128	2.88	4.410	6.81	0.93
DoylesR	TR014	312.09	20-AMEC-2050	10.900000	96.260	97.465710	97.6064	97.8993	0.02413	3.25	5.755	28.42	1.23
DoylesR	TR014	227.09	20-AMEC-2050	10.900000	94.660	96.397640	96.1027	96.4509	0.00221	1.51	15.378	27.41	0.41
DoylesR	TR014	205.76	20-AMEC-2050	10.900000	94.510	96.112850	96.1129	96.3545	0.00730	2.55	7.620	17.77	0.73
DoylesR	TR014	198.96	20-AMEC-2050	10.900000	94.450	95.128500	95.4221	96.1551	0.08610	4.53	2.581	9.18	2.27
DoylesR	TR014	181.77	20-AMEC-2050	10.900000	94.010	95.167950	95.1819	95.3662	0.00969	2.48	8.295	22.54	0.85
DoylesR	TR014	121.12	20-AMEC-2050	10.900000	92.990	94.113490	94.2321	94.5205	0.01744	3.23	7.326	52.64	1.12
DoylesR	TR014	34.73	20-AMEC-2050	10.900000	91.600	92.425110	92.5328	92.8479	0.02383	3.11	4.443	10.39	1.28
DoylesR	TR012	1780.65	20-AMEC-2050	26.700000	90.300	92.100430	91.6363	92.2236	0.00222	1.70	22.459	33.49	0.45
DoylesR	TR012	1753.67	20-AMEC-2050	26.700000	89.560	92.148090	91.1340	92.1781	0.00035	0.98	55.585	66.45	0.20
DoylesR	TR012	1745		Bridge									
DoylesR	TR012	1729.43	20-AMEC-2050	26.700000	89.100	90.976610	90.9766	91.7569	0.01071	4.00	7.066	12.81	0.98
DoylesR	TR012	1709.20	20-AMEC-2050	26.700000	88.930	90.408950	90.7113	91.3754	0.02625	5.10	8.841	19.52	1.46
DoylesR	TR012	1645.76	20-AMEC-2050	26.700000	88.200	89.313760	89.4071	89.7726	0.01835	3.54	10.600	17.30	1.20
DoylesR	TR011	1552.47	20-AMEC-2050	38.300010	86.480	88.591800	88.2615	88.9567	0.00488	2.95	17.574	14.20	0.70
DoylesR	TR011	1530.88	20-AMEC-2050	38.300010	86.190	88.140350	88.1404	88.7834	0.01003	4.05	13.375	11.12	0.99
DoylesR	TR011	1477.56	20-AMEC-2050	38.300010	84.430	85.698230	86.2131	87.5799	0.05998	6.83	7.967	12.88	2.18
DoylesR	TR011	1423.69	20-AMEC-2050	38.300010	83.560	85.437430	85.4569	86.1066	0.01032	3.94	12.774	11.34	0.99
DoylesR	TR011	1370.10	20-AMEC-2050	38.300010	82.660	83.872700	84.1752	85.0317	0.04660	6.02	11.697	28.95	1.93
DoylesR	TR011	1316.51	20-AMEC-2050	38.300010	81.170	82.779520	82.8771	83.5482	0.01600	4.34	11.824	13.08	1.20
DoylesR	TR011	1262.92	20-AMEC-2050	38.300010	79.360	80.953670	81.5130	82.3383	0.03020	5.78	9.226	12.62	1.62
DoylesR	TR011	1209.33	20-AMEC-2050	38.300010	78.140	80.107090	80.3599	81.0597	0.01615	4.77	10.834	11.20	1.21
DoylesR	TR011	1155.74	20-AMEC-2050	38.300010	76.810	78.578540	78.9987	79.9095	0.02719	5.60	8.837	9.43	1.52
DoylesR	TR011	1107.39	20-AMEC-2050	38.300010	76.340	77.780840	77.9953	78.6093	0.02066	4.19	10.410	12.57	1.30
DoylesR	TR011	1057.82	20-AMEC-2050	38.300010	75.160	77.120070	77.2105	77.7998	0.01201	3.95	12.345	12.34	1.03
DoylesR	TR011	971.36	20-AMEC-2050	38.300010	73.330	74.141080	74.5851	75.6869	0.06488	5.51	6.953	17.57	2.15
DoylesR	TR011	960		Bridge									
DoylesR	TR011	949.62	20-AMEC-2050	38.300010	73.080	75.012860	74.2659	75.2120	0.00211	1.98	19.372	14.82	0.46
DoylesR	TR011	929.53	20-AMEC-2050	38.300010	72.740	74.436490	74.4496	75.0193	0.01098	3.60	12.746	12.16	0.99
DoylesR	TR011	872.05	20-AMEC-2050	38.300010	72.260	74.001790	74.0981	74.3397	0.01023	3.47	23.406	53.82	0.94
DoylesR	TR011	816.76	20-AMEC-2050	38.300010	72.000	72.866380	72.9627	73.2193	0.05802	4.83	19.430	85.86	1.95
DoylesR	TR011	760.16	20-AMEC-2050	38.300010	71.250	72.432390	72.3167	72.5214	0.00874	2.62	37.563	99.25	0.83
DoylesR	TR011	712.26	20-AMEC-2050	38.300010	70.340	71.690610	71.6684	71.9393	0.01403	3.49	23.611	59.54	1.06
DoylesR	TR011	663.11	20-AMEC-2050	38.300010	70.080	71.400010		71.4544	0.00616	2.18	47.010	126.08	0.67
DoylesR	TR013	2205.78	20-AMEC-2050	7.999999	95.880	96.613190	96.3984	96.6221	0.00125	0.80	24.892	95.93	0.30
DoylesR	TR013	2147.59	20-AMEC-2050	7.999999	95.870	96.513040		96.5294	0.00194	0.85	16.643	52.55	0.36

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR013	2097.40	20-AMEC-2050	7.999999	95.860	96.234530	96.2345	96.3047	0.02107	1.81	9.209	68.95	1.07
DoylesR	TR013	2011.99	20-AMEC-2050	7.999999	93.670	94.597820	94.5427	94.7976	0.00846	2.16	4.848	10.18	0.79
DoylesR	TR013	1957.46	20-AMEC-2050	7.999999	93.050	94.020370	94.0204	94.2758	0.01110	2.74	4.774	10.49	0.93
DoylesR	TR013	1909.18	20-AMEC-2050	7.999999	92.330	93.160490	93.3003	93.5449	0.02014	3.09	4.728	25.48	1.19
DoylesR	TR013	1861.01	20-AMEC-2050	7.999999	91.270	92.198000	92.3436	92.6155	0.01866	3.10	4.104	23.52	1.15
DoylesR	TR013	1789.09	20-AMEC-2050	7.999999	90.000	90.515850	90.5921	90.7558	0.03560	2.85	6.170	54.05	1.46
DoylesR	TR013	1733.37	20-AMEC-2050	7.999999	89.530	90.219420	90.1214	90.2472	0.00363	1.09	15.257	74.27	0.49
DoylesR	TR013	1677.65	20-AMEC-2050	7.999999	89.420	89.798230	89.7817	89.8556	0.01835	1.64	8.657	53.15	0.99
DoylesR	TR013	1613.85	20-AMEC-2050	7.999999	89.110	89.599430		89.6067	0.00173	0.62	23.917	96.06	0.32
DoylesR	TR013	1552.30	20-AMEC-2050	7.999999	88.820	89.504680		89.5179	0.00173	0.84	20.430	67.62	0.35
DoylesR	TR013	1506.96	20-AMEC-2050	7.999999	88.810	89.441480		89.4542	0.00159	0.77	20.482	64.42	0.33
DoylesR	TR013	1478.17	20-AMEC-2050	7.999999	88.800	89.254950	89.2550	89.3296	0.01933	1.89	8.234	41.66	1.05
DoylesR	TR013	1411.61	20-AMEC-2050	7.999999	88.110	89.064370	88.7029	89.0873	0.00122	0.85	14.107	31.24	0.30
DoylesR	TR013	1388.58	20-AMEC-2050	7.999999	87.450	89.072990	88.8024	89.0760	0.00009	0.33	57.677	157.82	0.09
DoylesR	TR013	1375		Culvert									
DoylesR	TR013	1373.86	20-AMEC-2050	7.999999	87.320	88.578830	88.5022	88.6875	0.00440	1.99	7.553	14.28	0.58
DoylesR	TR013	1301.72	20-AMEC-2050	7.999999	86.820	87.826160	87.8262	88.1348	0.01206	2.69	3.848	7.02	0.95
DoylesR	TR013	1246.99	20-AMEC-2050	7.999999	85.790	86.556370	86.7207	87.1144	0.03067	3.39	2.608	5.88	1.43
DoylesR	TR013	1192.26	20-AMEC-2050	7.999999	84.790	85.766090	85.6603	85.9722	0.00884	2.25	4.848	9.83	0.81
DoylesR	TR013	1137.53	20-AMEC-2050	7.999999	84.030	85.136800	85.1368	85.4356	0.01067	2.60	3.924	7.74	0.89
DoylesR	TR013	1082.80	20-AMEC-2050	7.999999	83.550	84.361120	84.4393	84.6186	0.02339	2.74	4.946	21.04	1.21
DoylesR	TR013	1064.90	20-AMEC-2050	7.999999	82.570	84.479610	83.6324	84.5000	0.00041	0.73	25.167	110.96	0.19
DoylesR	TR013	1050		Culvert									
DoylesR	TR013	1042.53	20-AMEC-2050	7.999999	82.410	84.211020	83.3906	84.2213	0.00026	0.58	29.977	76.64	0.15
DoylesR	TR013	1022.06	20-AMEC-2050	7.999999	82.710	83.923690	83.8062	84.1437	0.00701	2.41	4.786	7.35	0.75
DoylesR	TR013	969.32	20-AMEC-2050	7.999999	82.400	83.325160	83.3252	83.6274	0.01384	2.87	3.918	6.90	1.02
DoylesR	TR013	915.66	20-AMEC-2050	7.999999	81.800	82.866900	82.5490	82.8866	0.00127	0.98	16.936	38.31	0.32
DoylesR	TR013	867.93	20-AMEC-2050	7.999999	81.400	82.750370		82.8055	0.00215	1.47	12.164	30.87	0.42
DoylesR	TR013	809.27	20-AMEC-2050	7.999999	81.320	82.459220		82.6139	0.00484	1.86	5.397	9.02	0.62
DoylesR	TR013	756.07	20-AMEC-2050	7.999999	80.750	81.867900	81.8679	82.2189	0.01123	2.97	3.737	5.73	0.95
DoylesR	TR013	702.82	20-AMEC-2050	7.999999	79.910	80.859050	80.9981	81.3813	0.02213	3.56	3.036	6.04	1.27
DoylesR	TR013	651.60	20-AMEC-2050	7.999999	78.060	78.847910	79.1999	79.6984	0.05078	4.28	2.218	5.61	1.81
DoylesR	TR013	588.74	20-AMEC-2050	7.999999	75.890	76.745450	76.8776	77.2128	0.02895	3.06	2.780	6.83	1.35
DoylesR	TR013	543.29	20-AMEC-2050	7.999999	75.200	75.974070	75.9913	76.2431	0.01473	2.33	3.671	8.23	0.99
DoylesR	TR013	489.08	20-AMEC-2050	7.999999	73.770	74.787670	74.9128	75.3001	0.01962	3.53	3.037	5.25	1.21
DoylesR	TR013	436.90	20-AMEC-2050	7.999999	72.110	72.969800	73.3172	73.7729	0.04601	4.01	2.109	4.65	1.70
DoylesR	TR013	383.70	20-AMEC-2050	7.999999	70.970	72.495990	71.9540	72.5050	0.00034	0.61	36.992	137.67	0.17
DoylesR	TR013	363.75	20-AMEC-2050	7.999999	70.360	71.901640	71.9016	72.4340	0.00877	3.46	3.242	9.00	0.91
DoylesR	TR013	360		Culvert									
DoylesR	TR013	344.87	20-AMEC-2050	7.999999	70.320	71.702220	71.7022	71.7111	0.00052	0.70	24.340	48.31	0.20
DoylesR	TR013	324.16	20-AMEC-2050	7.999999	70.290	70.859540	70.9801	71.4877	0.10693	4.50	3.556	34.25	2.44
DoylesR	TR013	256.30	20-AMEC-2050	7.999999	69.360	70.274640	70.2746	70.3666	0.01265	2.21	8.810	45.89	0.86
DoylesR	TR013	236.50	20-AMEC-2050	7.999999	69.350	70.171040	69.9724	70.1749	0.00078	0.48	31.961	115.52	0.22
DoylesR	TR013	162.98	20-AMEC-2050	7.999999	68.940	70.130490		70.1368	0.00071	0.60	29.139	116.41	0.22
DoylesR	TR013	133.14	20-AMEC-2050	7.999999	68.760	70.119270		70.1210	0.00020	0.33	48.083	115.00	0.11
DoylesR	TR013	66.14	20-AMEC-2050	7.999999	68.460	70.105090		70.1080	0.00020	0.39	37.875	124.52	0.12
DoylesR	M001	484.12	20-AMEC-2050	46.500000	68.080	69.692540	69.6925	69.8899	0.01220	3.10	31.802	91.80	0.95
DoylesR	M001	429.44	20-AMEC-2050	46.500000	67.720	69.501530	69.1070	69.5425	0.00252	1.56	63.496	124.67	0.44
DoylesR	M001	388.03	20-AMEC-2050	46.500000	67.530	69.423350		69.4503	0.00186	1.42	77.493	140.19	0.38
DoylesR	M001	344.78	20-AMEC-2050	46.500000	67.390	69.410280		69.4156	0.00033	0.64	157.260	218.83	0.17
DoylesR	M001	215.64	20-AMEC-2050	46.500000	67.210	69.406430		69.4074	0.00003	0.23	362.149	338.33	0.05
DoylesR	M001	77.13	20-AMEC-2050	46.500000	66.620	69.405860		69.4061	0.00001	0.15	643.658	515.55	0.03
CochranePB	M002	8105.53	20-AMEC-2050	13.700000	140.650	142.363100	141.3469	142.3649	0.00009	0.34	91.460	121.28	0.09
CochranePB	M002	8065.47	20-AMEC-2050	13.700000	140.640	142.350100		142.3576	0.00038	0.62	49.799	83.06	0.18
CochranePB	M002	8050.98	20-AMEC-2050	13.700000	139.200	142.339000		142.3551	0.00005	0.61	48.264	76.51	0.12
CochranePB	M002	8024.09	20-AMEC-2050	13.700000	140.620	142.339000		142.3469	0.00043	0.64	52.925	108.93	0.19
CochranePB	M002	8013.06	20-AMEC-2050	13.700000	140.420	142.335900		142.3426	0.00030	0.59	57.511	107.66	0.16
CochranePB	M002	8004.70	20-AMEC-2050	13.700000	140.250	142.336800	141.8023	142.3397	0.00016	0.55	74.075	110.52	0.12
CochranePB	M002	8000		Culvert									
CochranePB	M002	7995.14	20-AMEC-2050	13.700000	140.370	142.333300	141.5379	142.3376	0.00013	0.48	66.077	82.96	0.11
CochranePB	M002	7964.49	20-AMEC-2050	13.700000	140.140	141.817100	141.8171	142.2085	0.01181	3.34	6.949	10.53	0.92
CochranePB	M002	7901.64	20-AMEC-2050	13.700000	139.300	140.733100	140.9048	141.2170	0.02192	3.38	6.698	26.80	1.17
CochranePB	M002	7847.08	20-AMEC-2050	13.700000	138.680	139.801600	139.6780	139.8651	0.00759	1.71	16.728	50.79	0.68
CochranePB	M002	7812.33	20-AMEC-2050	13.700000	138.520	139.322700	139.3227	139.4358	0.02582	2.29	11.980	54.33	1.20
CochranePB	M002	7738.34	20-AMEC-2050	13.700000	137.940	138.930800	138.7095	138.9429	0.00226	0.86	36.210	128.47	0.38
CochranePB	M002	7695.32	20-AMEC-2050	13.700000	137.670	138.598400	138.5984	138.7400	0.01675	2.12	11.098	40.82	1.01
CochranePB	M002	7609.21	20-AMEC-2050	13.700000	136.290	137.747800	137.3488	137.7656	0.00084	0.80	33.397	74.90	0.26
CochranePB	M002	7515.77	20-AMEC-2050	13.700000	136.280	137.626800		137.6585	0.00209	1.17	27.020	95.02	0.40
CochranePB	M002	7476.72	20-AMEC-2050	13.700000	136.260	137.605300		137.6154	0.00061	0.63	40.292	91.50	0.22
CochranePB	M002	7450.86	20-AMEC-2050	13.700000	136.250	137.572800		137.5937	0.00123	0.86	30.032	83.28	0.30
CochranePB	M002	7329.89	20-AMEC-2050	13.700000	136.230	137.267800		137.3195	0.00514	1.40	18.699	74.52	0.58
CochranePB	M002	7253.62	20-AMEC-2050	13.700000	136.050	137.096800		137.1146	0.00212	0.96	28.048	93.59	0.37
CochranePB	M002	7208.54	20-AMEC-2050	13.700000	135.880	136.991600		137.0144	0.00258	1.09	26.912	100.71	0.42
CochranePB	M002	7108.13	20-AMEC-2050	13.700000	135.540	136.508100		136.5822	0.01158	2.09	16.358	71.55	0.85
CochranePB	M002	7041.67	20-AMEC-2050	13.700000	134.910	136.076700		136.1560	0.00516	1.50	17.236	75.86	0.60
CochranePB	M002	6985.71	20-AMEC-2050	13.700000	134.290	135.637700	135.6377	135.8086	0.00774	2.29	12.811	43.46	0.76
CochranePB	M002	6955.25	20-AMEC-2050	13.700000	133.480	134.643300	134.8468	135.2994	0.03894	3.69	4.300	10.98	1.56
CochranePB	M002	6863.52	20-AMEC-2050	13.700000	131.820	132.823800	132.8642	133.0254	0.02268	2.80	10.125	37.29	1.18
CochranePB	M002	6840.09	20-AMEC-2050	13.700000	131.190	132.141500	132.2005	132.4040	0.03151	2.89	8.681	36.76	1.37
CochranePB	M002	6808.25	20-AMEC-2050	13.700000	130.510	131.438100	131.4597	131.5983	0.02554	2.52	10.473	41.85	1.21
CochranePB	M002	6767.75	20-AMEC-2050	13.700000	129.310	130.297600	130.3775	130.5444	0.02562	2.72	9.250	43.04	1.25
CochranePB	M002	6727.78	20-AMEC-2050	13.700000	128.360	129.479800	129.5203	129.6834	0.01800	2.55	9.657	34.38	1.06
CochranePB	M002	6691.71	20-AMEC-2050	13.700000	127.960	129.035000	128.9527	129.1004	0.00712	1.61	17.563	70.84	0.68
CochranePB	M002	6651.54	20-AMEC-2050	13.700000	127.680	128.657500		128.7625	0.01031	1.58	11.282	37.92	0.79
CochranePB	M002	6630.83	20-AMEC-2050	13.700000	127.190	128.398800	128.3988	128.5567	0.00938	2.05	11.522	49.78	0.80
CochranePB	M002	6534.50	20-AMEC-2050	13.700000	126.300	127.286000	127.3020	127.4300	0.01513	2.12	11.865	56.10	0.97
CochranePB	M002	6507.97	20-AMEC-2050	13.700000	125.650	126.554000	126.6161	126.7829	0.03886	2.86	9.407	54.54	1.46

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	6480.50	20-AMEC-2050	13.700000	124.970	125.916900	125.9326	126.0491	0.02051	2.34	11.929	55.17	1.10
CochranePB	M002	6433.33	20-AMEC-2050	13.700000	124.090	125.043900	125.0732	125.2220	0.01911	2.12	9.170	36.11	1.07
CochranePB	M002	6400.96	20-AMEC-2050	13.700000	123.400	124.570000	124.4011	124.6234	0.00477	1.37	17.029	46.81	0.55
CochranePB	M002	6364.18	20-AMEC-2050	13.700000	123.280	124.572400		124.5790	0.00028	0.40	48.214	113.81	0.14
CochranePB	M002	6314.31	20-AMEC-2050	13.700000	123.270	124.508400		124.5451	0.00199	1.01	21.990	60.42	0.38
CochranePB	M002	6286.25	20-AMEC-2050	13.700000	123.260	124.428000		124.4778	0.00294	1.16	19.215	59.27	0.45
CochranePB	M002	6202.53	20-AMEC-2050	13.700000	122.810	124.029100	123.9546	124.1519	0.00679	1.84	12.236	34.49	0.69
CochranePB	M002	6130.00	20-AMEC-2050	13.700000	122.300	123.325200	123.3252	123.4965	0.01356	1.88	8.474	32.80	0.91
CochranePB	M002	6040.82	20-AMEC-2050	13.700000	121.410	122.593200	122.4727	122.6365	0.00296	1.22	22.572	75.18	0.46
CochranePB	M002	6006.95	20-AMEC-2050	13.700000	121.400	122.559600		122.5740	0.00096	0.58	32.062	99.24	0.25
CochranePB	M002	5976.09	20-AMEC-2050	13.700000	121.390	122.387700	122.3877	122.4930	0.01475	1.89	13.778	71.16	0.93
CochranePB	M002	5910.40	20-AMEC-2050	13.700000	120.290	121.499500	121.5170	121.6790	0.01278	2.37	11.301	43.91	0.92
CochranePB	M002	5863.68	20-AMEC-2050	13.700000	119.620	120.522500	120.6183	120.8411	0.03821	2.80	7.003	33.46	1.47
CochranePB	M002	5811.63	20-AMEC-2050	13.700000	118.870	119.969300	119.9693	120.0895	0.01091	2.05	13.343	52.42	0.84
CochranePB	M002	5768.42	20-AMEC-2050	13.700000	117.380	118.308500	118.5274	119.0361	0.08877	3.80	3.774	16.39	2.19
CochranePB	M002	5725.36	20-AMEC-2050	13.700000	116.480	117.611400	117.6204	117.7736	0.01216	2.11	10.591	40.23	0.89
CochranePB	M002	5678.58	20-AMEC-2050	13.700000	115.390	116.438800	116.5774	116.8360	0.03164	2.84	5.499	21.85	1.38
CochranePB	M002	5627.04	20-AMEC-2050	13.700000	114.790	116.172600	115.8391	116.2149	0.00226	1.19	20.546	45.58	0.41
CochranePB	M002	5609.94	20-AMEC-2050	20.500000	114.770	115.967700		116.0924	0.00770	1.87	16.975	43.68	0.73
CochranePB	M002	5601.00	20-AMEC-2050	20.500000	114.760	115.950500		115.9625	0.00152	0.84	47.393	110.16	0.32
CochranePB	M002	5568.52	20-AMEC-2050	20.500000	114.750	115.913100		115.9245	0.00116	0.72	47.308	98.23	0.28
CochranePB	M002	5508.20	20-AMEC-2050	20.500000	114.040	115.604500		115.7762	0.00489	1.93	13.116	21.39	0.62
CochranePB	M002	5473.67	20-AMEC-2050	20.500000	113.900	115.292200	115.2922	115.5297	0.01063	2.52	12.907	27.48	0.88
CochranePB	M002	5403.83	20-AMEC-2050	20.500000	110.690	111.839200	112.3095	113.6538	0.10367	6.05	3.706	8.90	2.56
CochranePB	M002	5352.19	20-AMEC-2050	20.500000	110.270	111.630600	111.6306	111.9194	0.01346	2.66	10.766	21.72	0.98
CochranePB	M002	5309.83	20-AMEC-2050	20.500000	109.640	111.060000	111.1421	111.3478	0.01343	2.74	13.629	47.02	0.98
CochranePB	M002	5266.90	20-AMEC-2050	20.500000	109.300	110.616600	110.6545	110.7954	0.01189	2.47	19.431	82.90	0.91
CochranePB	M002	5213.45	20-AMEC-2050	20.500000	108.810	110.387500	109.8751	110.4047	0.00091	0.82	45.866	82.32	0.26
CochranePB	M002	5162.38	20-AMEC-2050	38.700010	108.180	109.965900	109.9659	110.2479	0.00994	3.22	26.877	53.65	0.90
CochranePB	M002	5109.83	20-AMEC-2050	38.700010	108.020	109.473500	109.1721	109.5172	0.00366	1.44	51.109	101.75	0.51
CochranePB	M002	5059.83	20-AMEC-2050	38.700010	107.540	109.156400		109.3043	0.00694	2.35	36.399	86.26	0.74
CochranePB	M002	5013.20	20-AMEC-2050	38.700010	107.210	108.852000	108.8520	109.0067	0.00884	2.41	35.540	99.19	0.80
CochranePB	M002	4977.38	20-AMEC-2050	38.700010	107.070	108.731100	108.4418	108.7603	0.00172	1.21	71.246	147.98	0.37
CochranePB	M002	4908.49	20-AMEC-2050	38.700010	106.950	108.704800		108.7125	0.00052	0.73	118.623	198.64	0.21
CochranePB	M002	4883.44	20-AMEC-2050	38.700010	106.940	108.692300		108.6975	0.00030	0.55	139.104	212.87	0.16
CochranePB	M002	4816.97	20-AMEC-2050	38.700010	106.930	108.681400		108.6868	0.00028	0.53	143.685	223.56	0.16
CochranePB	M002	4757.22	20-AMEC-2050	38.700010	106.780	108.671800		108.6763	0.00020	0.49	167.090	258.83	0.13
CochranePB	M002	4718.65	20-AMEC-2050	38.700010	106.770	108.661800		108.6684	0.00028	0.59	153.797	323.66	0.16
CochranePB	M002	4674.22	20-AMEC-2050	38.700010	106.760	108.635200		108.6541	0.00069	0.91	106.816	265.89	0.25
CochranePB	M002	4633.22	20-AMEC-2050	38.700010	106.750	108.618100		108.6343	0.00034	0.63	96.368	180.16	0.18
CochranePB	M002	4561.03	20-AMEC-2050	38.700010	106.740	108.548600		108.5929	0.00112	1.10	58.764	98.30	0.32
CochranePB	M002	4506.74	20-AMEC-2050	38.700010	106.430	108.215100	108.2151	108.4472	0.00740	2.61	27.222	57.55	0.78
CochranePB	M002	4459.83	20-AMEC-2050	38.700010	105.660	107.265600	107.4645	107.8835	0.01982	3.79	15.749	44.67	1.24
CochranePB	M002	4409.53	20-AMEC-2050	38.700010	104.620	106.257400	106.4264	106.8754	0.02051	3.84	14.641	30.10	1.24
CochranePB	M002	4359.83	20-AMEC-2050	38.700010	103.720	105.453600	105.6857	105.9822	0.01466	3.46	15.661	33.88	1.07
CochranePB	M002	4327.93	20-AMEC-2050	38.700010	103.170	104.989400	105.1107	105.5288	0.01426	3.45	15.079	28.94	1.07
CochranePB	M002	4265.56	20-AMEC-2050	38.700010	102.450	104.277300	104.3114	104.6776	0.01200	3.33	18.151	27.71	0.98
CochranePB	M002	4208.11	20-AMEC-2050	38.700010	101.670	103.323300	103.4813	103.8691	0.01624	3.50	15.101	31.27	1.13
CochranePB	M002	4159.83	20-AMEC-2050	38.700010	101.120	102.202100	102.2766	102.5350	0.05152	3.39	16.681	48.21	1.73
CochranePB	M002	4109.83	20-AMEC-2050	38.700010	98.840	100.494500	100.6910	101.1058	0.01780	3.84	15.847	37.90	1.19
CochranePB	M002	4056.00	20-AMEC-2050	38.700010	97.180	98.799930	99.1685	99.7997	0.03123	4.78	10.541	16.81	1.53
CochranePB	M002	4009.83	20-AMEC-2050	38.700010	96.330	98.188960	98.2979	98.5788	0.01657	3.83	23.508	63.45	1.11
CochranePB	M002	3969.03	20-AMEC-2050	38.700010	95.620	97.446530	97.6494	98.0042	0.01239	3.62	16.028	50.32	1.02
CochranePB	M002	3916.58	20-AMEC-2050	38.700010	94.820	96.931280	97.0658	97.3558	0.01061	3.35	21.796	75.16	0.90
CochranePB	M002	3859.82	20-AMEC-2050	38.700010	94.340	96.190270	96.4099	96.7238	0.01171	3.29	13.856	40.35	0.97
CochranePB	M002	3810.05	20-AMEC-2050	38.700010	93.500	95.349590	95.6603	96.0500	0.01570	3.92	12.538	28.46	1.13
CochranePB	M002	3759.83	20-AMEC-2050	38.700010	93.000	94.655140	94.8257	95.1662	0.01589	3.67	18.690	55.23	1.13
CochranePB	M002	3709.28	20-AMEC-2050	38.700010	92.330	94.101030	94.1941	94.4465	0.01178	3.19	22.388	64.57	0.97
CochranePB	M002	3661.60	20-AMEC-2050	38.700010	92.050	93.820920	93.8362	93.9832	0.00627	2.42	38.509	135.75	0.71
CochranePB	M002	3609.83	20-AMEC-2050	38.700010	91.730	93.391640	93.4568	93.5908	0.00940	2.71	30.797	127.13	0.85
CochranePB	M002	3559.90	20-AMEC-2050	38.700010	90.870	92.856410	92.9222	93.1352	0.00755	2.91	29.140	81.82	0.79
CochranePB	M002	3509.83	20-AMEC-2050	38.700010	90.380	92.206150	92.3513	92.6382	0.01271	3.66	22.664	62.47	1.02
CochranePB	M002	3493.23	20-AMEC-2050	38.700010	90.020	92.085110	91.8501	92.4381	0.00562	3.23	18.845	15.43	0.73
CochranePB	M002	3480		Bridge									
CochranePB	M002	3474.26	20-AMEC-2050	38.700010	89.910	92.129460	91.4620	92.3149	0.00223	2.21	24.425	16.52	0.48
CochranePB	M002	3466.43	20-AMEC-2050	38.700010	90.000	92.010010	92.0100	92.2706	0.00343	2.61	31.904	74.82	0.59
CochranePB	M002	3454.35	20-AMEC-2050	38.700010	89.940	91.865730	91.4311	92.1322	0.00366	2.53	19.713	16.57	0.60
CochranePB	M002	3450		Bridge									
CochranePB	M002	3434.16	20-AMEC-2050	42.400010	90.360	91.662740	91.5626	92.0438	0.00843	2.94	17.246	20.10	0.86
CochranePB	M002	3413.11	20-AMEC-2050	42.400010	90.140	91.608440	91.6058	91.7672	0.00778	2.62	37.722	92.08	0.79
CochranePB	M002	3391.58	20-AMEC-2050	42.400010	90.030	91.517100		91.6092	0.00509	2.22	46.997	104.95	0.66
CochranePB	M002	3371.12	20-AMEC-2050	42.400010	90.020	91.287830	91.2878	91.4704	0.00843	2.55	35.224	92.79	0.83
CochranePB	M002	3309.87	20-AMEC-2050	42.400010	89.280	90.692950	90.6334	90.7898	0.00835	2.56	41.644	106.64	0.79
CochranePB	M002	3272.96	20-AMEC-2050	42.400010	88.730	90.236780	90.2284	90.4264	0.01017	2.78	31.156	78.36	0.88
CochranePB	M002	3219.09	20-AMEC-2050	42.400010	88.300	89.776100	89.7761	89.9187	0.00874	2.53	36.723	107.96	0.82
CochranePB	M002	3175.54	20-AMEC-2050	42.400010	87.360	89.476380	89.2657	89.6048	0.00248	1.90	39.509	69.76	0.47
CochranePB	M002	3165		Bridge									
CochranePB	M002	3157.85	20-AMEC-2050	42.400010	87.500	89.244970	89.2450	89.4605	0.00495	2.44	32.595	81.33	0.65
CochranePB	M002	3135.32	20-AMEC-2050	42.400010	87.850	89.114990	89.0382	89.1729	0.00483	1.73	54.538	154.30	0.60
CochranePB	M002	3106.53	20-AMEC-2050	42.400010	87.940	88.795140	88.7951	88.9278	0.02976	2.72	29.713	118.34	1.30
CochranePB	M002	3088.94	20-AMEC-2050	42.400010	86.840	88.591780	88.3621	88.6848	0.00191	1.55	51.568	148.42	0.41
CochranePB	M002	3080		Bridge									
CochranePB	M002	3075.67	20-AMEC-2050	42.400010	86.740	88.337100	88.0343	88.4028	0.00176	1.40	55.303	130.35	0.39
CochranePB	M002	3056.89	20-AMEC-2050	42.400010	87.660	88.267890		88.3376	0.01339	1.00	37.149	123.26	0.76
CochranePB	M002	3007.54	20-AMEC-2050	42.400010	87.610	87.956790		87.9912	0.00415	0.43	51.847	108.39	0.33
CochranePB	M002	2976.31	20-AMEC-2050	42.400010	87.510	87.859120		87.8915	0.00393	0.49	53.553	120.58	0.37
CochranePB	M002	2941.08	20-AMEC-2050	42.400010	86.980	87.768200		87.7845	0.00264	0.79	77.263	221.62	0.38

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	2920.10	20-AMEC-2050	42.400010	86.740	87.754580	87.5443	87.7581	0.00029	0.33	167.779	295.34	0.13
CochranePB	M002	2915		Bridge									
CochranePB	M002	2912.75	20-AMEC-2050	42.400010	86.970	87.752390	87.7524	87.7548	0.00017	0.28	200.702	313.30	0.11
CochranePB	M002	2890.23	20-AMEC-2050	42.400010	86.650	86.836910	87.0006	87.5333	0.38979	3.35	11.469	76.38	3.50
CochranePB	M002	2823.99	20-AMEC-2050	42.400010	86.080	87.089540	86.7607	87.0991	0.00144	0.68	100.108	253.16	0.27
CochranePB	M002	2789.49	20-AMEC-2050	42.400010	86.040	87.064700		87.0737	0.00122	0.59	103.429	256.99	0.26
CochranePB	M002	2741.30	20-AMEC-2050	42.400010	85.710	87.010720		87.0199	0.00101	0.77	110.007	268.96	0.27
CochranePB	M002	2663.79	20-AMEC-2050	42.400010	85.580	86.962810		86.9734	0.00106	0.85	107.197	269.73	0.28
CochranePB	M002	2639.38	20-AMEC-2050	42.400010	85.570	86.929210		86.9419	0.00132	0.90	98.150	237.89	0.31
CochranePB	M002	2616.24	20-AMEC-2050	42.400010	85.300	86.913670		86.9233	0.00077	0.81	115.012	233.20	0.25
CochranePB	M002	2539.69	20-AMEC-2050	42.400010	85.410	86.865560		86.8800	0.00131	0.93	94.887	222.96	0.31
CochranePB	M002	2489.06	20-AMEC-2050	42.400010	85.180	86.819330		86.8373	0.00142	1.11	88.764	203.97	0.34
CochranePB	M002	2438.28	20-AMEC-2050	42.400010	84.870	86.755550		86.7838	0.00144	1.21	82.993	175.89	0.35
CochranePB	M002	2384.01	20-AMEC-2050	42.400010	84.650	86.660800		86.7022	0.00210	1.56	69.213	145.30	0.42
CochranePB	M002	2310.47	20-AMEC-2050	42.400010	84.330	86.421720		86.5102	0.00369	2.02	52.628	125.64	0.54
CochranePB	M002	2284.63	20-AMEC-2050	42.400010	84.160	86.362110		86.4170	0.00282	1.79	57.511	105.48	0.46
CochranePB	M002	2240.58	20-AMEC-2050	42.400010	84.040	85.934360	85.9344	86.1948	0.00920	3.07	26.737	45.80	0.86
CochranePB	M002	2170.94	20-AMEC-2050	42.400010	82.260	83.956220	84.2850	85.0639	0.03111	5.02	11.046	16.93	1.55
CochranePB	M002	2136.89	20-AMEC-2050	42.400010	81.720	83.397030	83.5565	84.0736	0.02070	3.88	13.995	24.41	1.26
CochranePB	M002	2100.01	20-AMEC-2050	42.400010	81.300	83.182020	83.2001	83.4925	0.00992	2.99	23.599	40.68	0.89
CochranePB	M002	2046.85	20-AMEC-2050	42.400010	80.890	82.682580	82.6884	82.9996	0.00865	2.73	22.344	40.60	0.84
CochranePB	M002	2014.35	20-AMEC-2050	42.400010	80.470	81.913540	82.0872	82.5113	0.02820	3.72	15.744	40.51	1.41
CochranePB	M002	1990.76	20-AMEC-2050	42.400010	80.100	81.917300	81.9173	82.1701	0.00918	2.79	25.981	44.69	0.85
CochranePB	M002	1945.20	20-AMEC-2050	42.400010	79.430	81.554970	81.1897	81.6574	0.00321	1.94	39.989	52.62	0.52
CochranePB	M002	1916.67	20-AMEC-2050	42.400010	79.310	81.399170		81.5441	0.00456	2.29	34.485	43.79	0.61
CochranePB	M002	1871.48	20-AMEC-2050	42.400010	79.280	81.244410		81.3495	0.00378	1.90	38.033	49.13	0.55
CochranePB	M002	1836.03	20-AMEC-2050	42.400010	78.830	81.191510		81.2548	0.00153	1.47	50.490	72.37	0.37
CochranePB	M002	1788.63	20-AMEC-2050	42.400010	78.460	80.799090	80.7991	81.0969	0.00715	3.16	26.671	39.21	0.77
CochranePB	M002	1768.08	20-AMEC-2050	42.400010	78.140	80.038060	80.2809	80.8124	0.02116	4.55	15.024	26.04	1.29
CochranePB	M002	1733.19	20-AMEC-2050	42.400010	77.950	79.960530	79.9815	80.2582	0.00762	2.84	26.051	48.46	0.80
CochranePB	M002	1694.89	20-AMEC-2050	42.400010	77.120	79.292920	78.8708	79.3960	0.00248	1.77	37.811	42.67	0.47
CochranePB	M002	1685.79	20-AMEC-2050	42.400010	77.060	79.233190		79.3669	0.00339	2.08	33.005	39.61	0.54
CochranePB	M002	1640.51	20-AMEC-2050	42.400010	76.450	78.730040	78.7300	79.1246	0.00741	3.21	20.918	29.02	0.80
CochranePB	M002	1602.99	20-AMEC-2050	42.400010	75.010	76.454420	76.9675	78.3291	0.07529	6.31	7.993	15.70	2.31
CochranePB	M002	1585.52	20-AMEC-2050	42.400010	74.010	75.315500	75.7186	76.7865	0.08667	5.83	9.260	20.72	2.40
CochranePB	M002	1569.47	20-AMEC-2050	42.400010	73.710	75.001210	75.1731	75.6291	0.03818	3.65	12.887	27.35	1.57
CochranePB	M002	1541.97	20-AMEC-2050	42.400010	72.310	74.090030	74.2912	74.8332	0.02180	4.16	13.212	18.96	1.30
CochranePB	M002	1510.83	20-AMEC-2050	42.400010	71.340	72.534000	72.8369	73.6145	0.08222	4.62	9.393	23.62	2.24
CochranePB	M002	1495.27	20-AMEC-2050	42.400010	71.190	72.997850	72.7281	73.1317	0.00413	1.79	31.239	42.18	0.58
CochranePB	M002	1458.62	20-AMEC-2050	42.400010	70.580	72.630780	72.6308	72.8873	0.00803	3.24	30.360	50.25	0.82
CochranePB	M002	1419.61	20-AMEC-2050	42.400010	70.210	72.101830	72.0409	72.4145	0.00894	3.12	23.888	36.41	0.87
CochranePB	M002	1384.56	20-AMEC-2050	42.400010	69.610	71.910110	71.9101	72.1888	0.00460	2.59	27.396	59.56	0.65
CochranePB	M002	1351.51	20-AMEC-2050	42.400010	69.540	71.617010	71.7324	71.9886	0.00813	3.23	26.268	73.75	0.84
CochranePB	M002	1311.78	20-AMEC-2050	42.400010	69.490	71.383770	71.4240	71.6278	0.00749	2.89	34.169	106.87	0.80
CochranePB	M002	1291.19	20-AMEC-2050	42.400010	69.280	70.984640	71.1423	71.4046	0.01470	3.62	25.111	90.15	1.07
CochranePB	M002	1217.75	20-AMEC-2050	42.400010	68.700	70.858190	70.3600	70.8969	0.00082	1.12	70.588	119.11	0.28
CochranePB	M002	1200.39	20-AMEC-2050	42.400010	68.690	70.552250	70.2015	70.8451	0.00464	2.44	18.058	18.71	0.64
CochranePB	M002	1190		Bridge									
CochranePB	M002	1185.68	20-AMEC-2050	43.500000	68.460	70.495200	69.8975	70.7195	0.00270	2.11	21.129	25.21	0.51
CochranePB	M002	1164.32	20-AMEC-2050	43.500000	68.650	70.417270	70.4173	70.6441	0.00548	2.67	32.070	82.01	0.70
CochranePB	M002	1132.60	20-AMEC-2050	43.500000	68.600	69.811190	69.9665	70.2647	0.02835	3.79	21.943	100.41	1.42
CochranePB	M002	1111.68	20-AMEC-2050	43.500000	68.550	69.824110	69.6262	69.8819	0.00425	1.75	56.021	153.50	0.58
CochranePB	M002	1059.95	20-AMEC-2050	43.500000	68.380	69.644070		69.7195	0.00472	2.08	50.912	139.68	0.63
CochranePB	M002	998.99	20-AMEC-2050	43.500000	68.130	69.431760		69.4692	0.00331	1.74	66.106	171.38	0.52
CochranePB	M002	955.54	20-AMEC-2050	43.500000	68.120	69.422560		69.4261	0.00025	0.47	173.650	255.58	0.14
CochranePB	M002	851.16	20-AMEC-2050	43.500000	67.620	69.411780		69.4142	0.00012	0.40	212.239	245.06	0.11
CochranePB	M002	798.06	20-AMEC-2050	43.500000	67.470	69.409450		69.4108	0.00006	0.30	277.107	280.23	0.07
CochranePB	M002	746.77	20-AMEC-2050	43.500000	67.300	69.408400		69.4092	0.00003	0.21	377.542	317.92	0.05
CochranePB	M002	694.52	20-AMEC-2050	43.500000	66.980	69.407800		69.4083	0.00002	0.18	459.660	361.64	0.04
CochranePB	M002	669.16	20-AMEC-2050	43.500000	66.970	69.407620		69.4080	0.00001	0.16	512.124	391.08	0.03
CochranePB	M002	590.19	20-AMEC-2050	43.500000	66.840	69.406940		69.4072	0.00001	0.14	609.285	467.02	0.03
CochranePB	M002	539.85	20-AMEC-2050	43.500000	66.810	69.406500		69.4068	0.00001	0.14	621.313	482.81	0.03
CochranePB	M002	488.40	20-AMEC-2050	43.500000	66.540	69.406170		69.4064	0.00001	0.12	662.256	493.08	0.03
CochranePB	M001	381.27	20-AMEC-2050	85.999990	66.350	69.404140		69.4049	0.00002	0.24	763.951	588.29	0.05
CochranePB	M001	313.14	20-AMEC-2050	85.999990	66.280	69.403370		69.4039	0.00001	0.19	904.488	657.32	0.04

HEC-RAS Plan:

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	TR001	439.21	20-Finnis-2050	30.400000	105.110	106.339300	106.1562	106.4606	0.00471	2.08	29.910	56.39	0.63
RaymondB	TR001	409.42	20-Finnis-2050	30.400000	104.680	105.925600	105.9256	106.2404	0.01069	3.15	17.682	29.77	0.96
RaymondB	TR001	380.07	20-Finnis-2050	30.400000	104.050	105.912000	105.1217	105.9609	0.00089	1.22	47.298	60.12	0.30
RaymondB	TR001	360.64	20-Finnis-2050	30.400000	103.600	105.611300	105.0119	105.9065	0.00323	2.42	12.754	69.91	0.56
RaymondB	TR001	350		Bridge									
RaymondB	TR001	344.45	20-Finnis-2050	30.400000	103.300	104.950100	104.9501	105.6216	0.01210	4.04	9.401	66.26	1.04
RaymondB	TR001	334.13	20-Finnis-2050	30.400000	103.400	104.224800	104.6063	105.3066	0.04579	4.79	7.801	17.75	1.82
RaymondB	TR001	272.22	20-Finnis-2050	30.400000	102.830	103.899100	103.8991	104.1320	0.01033	2.79	20.474	44.18	0.92
RaymondB	TR001	218.50	20-Finnis-2050	30.400000	101.420	102.550600	102.8043	103.3056	0.02164	4.12	10.546	23.32	1.33
RaymondB	TR001	163.97	20-Finnis-2050	30.400000	100.320	101.696700	101.3592	101.8519	0.00328	1.85	20.439	24.11	0.54
RaymondB	TR001	115.54	20-Finnis-2050	30.400000	100.000	101.142200	101.1422	101.5457	0.01293	3.37	14.069	20.86	1.05
RaymondB	TR001	56.65	20-Finnis-2050	30.400000	97.730	98.389160	98.7844	99.8381	0.09068	5.68	6.507	15.21	2.47
RaymondB	M002	6453.60	20-Finnis-2050	8.200001	118.100	125.949000	118.6487	125.9490	0.00000	0.01	839.678	252.34	0.00
RaymondB	M002	6405.52	20-Finnis-2050	8.200001	118.000	125.949000		125.9490	0.00000	0.01	843.528	234.72	0.00
RaymondB	M002	6347.04	20-Finnis-2050	8.200001	124.730	125.947500		125.9488	0.00003	0.17	51.112	43.93	0.05
RaymondB	M002	6247.26	20-Finnis-2050	8.200001	117.210	117.946200		117.9889	0.00329	1.18	12.279	33.07	0.48
RaymondB	M002	6230.10	20-Finnis-2050	8.200001	117.200	117.934100		117.9556	0.00129	0.72	15.694	39.73	0.30
RaymondB	M002	6205.35	20-Finnis-2050	8.200001	117.280	117.910100		117.9189	0.00120	0.62	22.343	52.50	0.28
RaymondB	M002	6143.06	20-Finnis-2050	8.200001	117.180	117.813300		117.8280	0.00182	0.76	19.006	52.85	0.34
RaymondB	M002	6105.93	20-Finnis-2050	8.200001	117.170	117.668900		117.7152	0.00480	1.01	10.487	48.29	0.53
RaymondB	M002	6026.35	20-Finnis-2050	8.200001	116.810	117.418400		117.4407	0.00243	0.84	15.212	41.66	0.39
RaymondB	M002	5933.71	20-Finnis-2050	8.200001	116.420	117.090300		117.1542	0.00410	1.21	8.850	24.02	0.53
RaymondB	M002	5883.92	20-Finnis-2050	8.200001	116.120	116.883100		116.9584	0.00384	1.26	7.727	18.67	0.52
RaymondB	M002	5785.15	20-Finnis-2050	8.200001	115.750	116.439800		116.5128	0.00531	1.31	7.962	20.08	0.59
RaymondB	M002	5732.44	20-Finnis-2050	8.200001	115.460	116.132000		116.2216	0.00581	1.34	6.579	17.33	0.61
RaymondB	M002	5631.37	20-Finnis-2050	8.200001	114.850	115.546200		115.6157	0.00619	1.34	9.948	42.80	0.63
RaymondB	M002	5500.15	20-Finnis-2050	8.200001	114.620	115.313600		115.3274	0.00157	0.73	23.278	114.14	0.32
RaymondB	M002	5485.46	20-Finnis-2050	8.200001	114.530	115.298200		115.3094	0.00100	0.66	27.471	135.16	0.27
RaymondB	M002	5411.19	20-Finnis-2050	8.200001	114.480	115.189100	114.9692	115.2202	0.00204	0.83	12.758	43.66	0.37
RaymondB	M002	5338.54	20-Finnis-2050	8.200001	114.410	115.192300	114.6994	115.1941	0.00009	0.19	47.961	103.18	0.08
RaymondB	M002	5278.93	20-Finnis-2050	8.200001	114.440	115.184800	114.7294	115.1875	0.00014	0.24	38.500	96.60	0.10
RaymondB	M002	5226.60	20-Finnis-2050	8.200001	114.420	115.175800		115.1790	0.00019	0.27	38.916	110.64	0.11
RaymondB	M002	5171.66	20-Finnis-2050	8.200001	114.420	115.161300		115.1662	0.00029	0.34	35.178	137.10	0.14
RaymondB	M002	5111.50	20-Finnis-2050	8.200001	114.420	115.127500		115.1399	0.00077	0.55	20.966	62.46	0.23
RaymondB	M002	5077.48	20-Finnis-2050	8.200001	114.380	115.108600		115.1177	0.00052	0.45	22.031	51.15	0.19
RaymondB	M002	5017.13	20-Finnis-2050	8.200001	114.400	114.997700		115.0465	0.00360	0.98	8.574	21.62	0.48
RaymondB	M002	4967.43	20-Finnis-2050	8.200001	114.070	114.742100		114.8283	0.00529	1.30	6.441	14.33	0.59
RaymondB	M002	4943.43	20-Finnis-2050	8.200001	113.820	114.634600		114.7181	0.00400	1.33	7.462	18.64	0.53
RaymondB	M002	4910.95	20-Finnis-2050	8.200001	113.670	114.493600		114.5846	0.00418	1.39	7.410	22.60	0.55
RaymondB	M002	4851.17	20-Finnis-2050	8.200001	113.470	114.247600		114.3331	0.00429	1.35	7.756	25.72	0.55
RaymondB	M002	4783.73	20-Finnis-2050	8.200001	113.300	113.984800		114.0375	0.00415	1.06	9.179	32.54	0.51
RaymondB	M002	4732.68	20-Finnis-2050	8.200001	113.070	113.677600		113.7448	0.00835	1.36	8.626	33.29	0.71
RaymondB	M002	4681.76	20-Finnis-2050	8.200001	112.350	112.978300	112.9783	113.1927	0.01432	2.11	4.376	11.60	0.97
RaymondB	M002	4673.96	20-Finnis-2050	8.200001	111.740	112.305100	112.5100	112.9531	0.05853	3.61	2.449	8.41	1.87
RaymondB	M002	4644.78	20-Finnis-2050	8.200001	110.490	111.092200	111.2362	111.5769	0.03625	3.12	2.815	18.42	1.51
RaymondB	M002	4625.72	20-Finnis-2050	8.200001	106.750	107.108400	107.4872	109.6481	0.51148	7.06	1.161	5.65	4.97
RaymondB	M002	4615.42	20-Finnis-2050	8.200001	105.830	106.337500	106.5685	107.1581	0.09991	4.05	2.131	7.95	2.35
RaymondB	M002	4607.06	20-Finnis-2050	8.200001	105.790	106.691700	106.5288	106.8376	0.00563	1.74	5.332	8.85	0.65
RaymondB	M002	4597.34	20-Finnis-2050	8.200001	105.760	106.646600		106.7761	0.00615	1.67	6.044	13.64	0.66
RaymondB	M002	4575.18	20-Finnis-2050	8.200001	105.980	106.346000	106.3460	106.4974	0.03941	2.00	4.866	17.47	1.38
RaymondB	M002	4545.57	20-Finnis-2050	8.200001	104.650	105.376600	105.4457	105.6875	0.01937	2.55	3.784	10.60	1.13
RaymondB	M002	4522.17	20-Finnis-2050	8.200001	103.670	104.153800	104.3709	104.8636	0.07118	3.80	2.359	8.24	2.03
RaymondB	M002	4511.42	20-Finnis-2050	8.200001	103.620	104.497100	104.3196	104.5655	0.00377	1.33	8.959	19.62	0.52
RaymondB	M002	4489.94	20-Finnis-2050	8.200001	103.590	104.202100	104.2021	104.4069	0.01532	2.13	4.742	13.34	0.99
RaymondB	M002	4466.63	20-Finnis-2050	8.200001	103.030	103.967600	103.6490	104.0211	0.00211	1.07	9.125	15.90	0.40
RaymondB	M002	4439.46	20-Finnis-2050	8.200001	103.000	103.654800	103.6506	103.8810	0.01551	2.25	4.539	11.71	1.00
RaymondB	M002	4415.77	20-Finnis-2050	8.200001	102.780	103.332700	103.3327	103.4967	0.01514	1.88	5.175	16.94	0.96
RaymondB	M002	4385.89	20-Finnis-2050	8.200001	101.800	102.330100	102.4663	102.7773	0.03966	3.02	2.993	9.79	1.54
RaymondB	M002	4354.01	20-Finnis-2050	8.200001	101.270	101.922100	101.9396	102.0724	0.01367	2.20	7.105	26.37	0.96
RaymondB	M002	4341.66	20-Finnis-2050	8.200001	100.840	101.526800	101.6261	101.8474	0.02139	2.60	3.923	15.93	1.18
RaymondB	M002	4332.73	20-Finnis-2050	8.200001	100.320	100.818200	101.0230	101.4963	0.06817	3.72	2.443	8.69	2.00
RaymondB	M002	4308.73	20-Finnis-2050	8.200001	98.870	99.367670	99.5378	99.9304	0.05970	3.48	2.851	11.01	1.85
RaymondB	M002	4294.65	20-Finnis-2050	8.200001	98.450	99.045110	99.1169	99.3552	0.02377	2.61	3.848	11.11	1.23
RaymondB	M002	4263.86	20-Finnis-2050	8.200001	97.590	98.352200	98.2043	98.4621	0.00556	1.54	6.301	12.88	0.63
RaymondB	M002	4235.25	20-Finnis-2050	8.200001	97.470	98.700900		98.7172	0.00042	0.61	17.083	21.85	0.19
RaymondB	M001	4130.35	20-Finnis-2050	37.599990	96.570	97.828590	97.8795	98.2938	0.01413	3.06	13.198	19.17	1.05
RaymondB	M001	4076.94	20-Finnis-2050	37.599990	96.040	97.523160	97.3715	97.7504	0.00547	2.22	20.837	31.19	0.68
RaymondB	M001	4023.53	20-Finnis-2050	37.599990	95.940	96.987960	96.9880	97.3096	0.01297	2.57	15.899	26.79	0.98
RaymondB	M001	3978.20	20-Finnis-2050	37.599990	94.640	96.589210	96.0848	96.6734	0.00187	1.32	32.844	44.21	0.40
RaymondB	M001	3916.71	20-Finnis-2050	54.099980	94.640	96.266140		96.4775	0.00463	2.33	37.921	60.12	0.65
RaymondB	M001	3863.30	20-Finnis-2050	54.099980	94.410	96.113110		96.2564	0.00310	2.01	47.841	73.86	0.54
RaymondB	M001	3809.58	20-Finnis-2050	54.099980	94.090	95.658950	95.6590	95.9984	0.00763	2.91	28.392	43.64	0.82
RaymondB	M001	3756.26	20-Finnis-2050	54.099980	93.530	94.877880	95.0028	95.4391	0.01419	3.55	20.179	32.18	1.09
RaymondB	M001	3694.37	20-Finnis-2050	54.099980	92.660	93.946700	94.0284	94.5166	0.01579	3.48	17.653	22.43	1.13
RaymondB	M001	3569.22	20-Finnis-2050	54.099980	92.150	93.894800	93.4200	93.9327	0.00113	1.22	80.632	104.50	0.32
RaymondB	M001	3527.64	20-Finnis-2050	54.099980	91.850	93.868260		93.8934	0.00062	1.01	91.936	86.19	0.25
RaymondB	M001	3446.51	20-Finnis-2050	54.099980	91.140	93.846860		93.8642	0.00024	0.74	130.680	133.89	0.16
RaymondB	M001	3421.64	20-Finnis-2050	54.099980	91.230	93.442800	92.7881	93.8134	0.00323	2.73	20.282	126.38	0.59
RaymondB	M001	3410		Bridge									
RaymondB	M001	3404.11	20-Finnis-2050	54.099980	91.230	92.847190	92.8472	93.6001	0.01043	3.87	14.219	70.92	1.00
RaymondB	M001	3380.48	20-Finnis-2050	54.099980	90.960	92.782640	92.2956	92.9315	0.00261	1.90	41.883	58.34	0.50
RaymondB	M001	3308.92	20-Finnis-2050	54.099980	90.800	92.114090	92.1141	92.5514	0.01193	3.29	23.745	36.96	1.00
RaymondB	M001	3216.73	20-Finnis-2050	54.099980	89.310	91.973950	90.8910	92.1644	0.00146	1.96	28.507	46.11	0.40
RaymondB	M001	3200		Bridge									
RaymondB	M001	3188.78	20-Finnis-2050	54.099980	89.300	91.288190	91.2685	91.9361	0.00839	3.79	16.861	34.31	0.90
RaymondB	M001	3015.18	20-Finnis-2050	54.099980	89.180	90.675570		90.8230	0.00328	1.91	41.278	59.06	0.54
RaymondB	M001	2876.32	20-Finnis-2050	54.099980	88.660	90.123880		90.3039	0.00503	2.19	36.009	47.93	0.66

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	M001	2789.37	20-Finnis-2050	54.099980	88.240	89.918660		89.9962	0.00223	1.64	72.572	151.38	0.45
RaymondB	M001	2681.85	20-Finnis-2050	54.099980	88.140	89.419750	89.4198	89.5936	0.00847	2.52	43.389	112.67	0.83
RaymondB	M001	2604.32	20-Finnis-2050	54.099980	87.970	89.209690	88.9631	89.2448	0.00193	1.23	81.242	175.79	0.40
RaymondB	M001	2531.57	20-Finnis-2050	54.099980	87.970	89.173160		89.1824	0.00065	0.66	142.711	271.74	0.23
RaymondB	M001	2385.34	20-Finnis-2050	54.099980	87.430	89.086140		89.1214	0.00142	1.32	103.986	241.07	0.36
RaymondB	M001	2245.72	20-Finnis-2050	54.099980	86.990	88.446300	88.3715	88.8250	0.00852	2.87	24.357	45.19	0.86
RaymondB	M001	2194.47	20-Finnis-2050	54.099980	86.680	88.532990		88.5907	0.00124	1.33	71.868	86.33	0.34
RaymondB	M001	2140.67	20-Finnis-2050	54.099980	86.590	88.399590		88.5008	0.00222	1.74	54.540	68.40	0.46
RaymondB	M001	2087.60	20-Finnis-2050	54.099980	86.380	88.264970		88.3871	0.00199	1.70	42.683	40.30	0.44
RaymondB	M001	2069.54	20-Finnis-2050	54.099980	86.350	88.222310		88.3502	0.00214	1.78	42.909	42.13	0.45
RaymondB	M001	2040.77	20-Finnis-2050	54.099980	86.250	88.165640		88.2887	0.00203	1.71	45.130	51.10	0.44
RaymondB	M001	1989.18	20-Finnis-2050	54.099980	86.020	87.914500	87.5829	88.1388	0.00379	2.33	37.141	60.11	0.60
RaymondB	M001	1950.22	20-Finnis-2050	54.099980	85.790	87.404810	87.3754	87.8839	0.01037	3.33	21.682	40.92	0.95
RaymondB	M001	1885.73	20-Finnis-2050	54.099980	85.340	86.933080	86.9331	87.2549	0.00804	2.85	28.618	44.12	0.83
RaymondB	M001	1835.84	20-Finnis-2050	54.099980	84.640	86.270000	86.3146	86.7568	0.01222	3.59	22.137	27.05	1.02
RaymondB	M001	1784.61	20-Finnis-2050	54.099980	84.100	85.215290	85.3799	85.8070	0.02991	3.95	19.915	39.09	1.48
RaymondB	M001	1733.38	20-Finnis-2050	54.099980	82.790	84.608700	84.2065	84.7416	0.00257	1.83	42.885	46.00	0.49
RaymondB	M001	1682.15	20-Finnis-2050	54.099980	82.600	84.277200		84.5454	0.00533	2.43	27.158	29.67	0.69
RaymondB	M001	1630.92	20-Finnis-2050	54.099980	82.120	83.707250	83.6461	84.1657	0.00972	3.07	20.112	25.88	0.91
RaymondB	M001	1584.49	20-Finnis-2050	54.099980	81.770	83.558960		83.7903	0.00477	2.38	30.638	32.40	0.65
RaymondB	M001	1536.01	20-Finnis-2050	54.099980	81.310	83.073740	82.9758	83.4783	0.00806	3.04	24.324	36.85	0.84
RaymondB	M001	1477.96	20-Finnis-2050	54.099980	80.960	82.683530	82.5997	83.0239	0.00701	2.78	25.992	35.20	0.78
RaymondB	M001	1425.99	20-Finnis-2050	54.099980	80.580	82.320210	82.2099	82.6643	0.00673	2.76	25.423	36.95	0.77
RaymondB	M001	1372.05	20-Finnis-2050	54.099980	80.250	81.998720		82.2757	0.00695	2.75	27.989	33.39	0.78
RaymondB	M001	1323.54	20-Finnis-2050	54.099980	79.110	81.376850	80.9158	81.8880	0.00464	3.17	17.080	14.71	0.69
RaymondB	M001	1315		Bridge									
RaymondB	M001	1303.54	20-Finnis-2050	54.099980	78.010	80.406100	80.1193	81.0117	0.00631	3.45	15.691	19.57	0.79
RaymondB	M001	1252.39	20-Finnis-2050	57.000000	78.450	80.064510	80.0645	80.6781	0.01653	3.91	19.321	24.28	1.16
RaymondB	M001	1216.25	20-Finnis-2050	57.000000	77.860	79.701450	79.8219	80.1873	0.01018	3.58	25.634	41.47	0.96
RaymondB	M001	1189.75	20-Finnis-2050	57.000000	77.610	78.951220	79.1892	79.7311	0.02892	4.27	17.683	35.48	1.48
RaymondB	M001	1166.20	20-Finnis-2050	57.000000	76.740	78.126070	78.4146	79.0060	0.03003	4.74	18.990	45.18	1.55
RaymondB	M001	1148.70	20-Finnis-2050	57.000000	76.500	77.933200	78.1076	78.4890	0.02062	3.85	23.244	50.87	1.27
RaymondB	M001	1116.25	20-Finnis-2050	57.000000	75.830	77.016290	77.2123	77.6880	0.02848	3.74	17.170	32.87	1.44
RaymondB	M001	1066.09	20-Finnis-2050	57.000000	75.160	76.548480	76.5485	76.9467	0.01069	2.95	24.299	38.76	0.94
RaymondB	M001	1035.68	20-Finnis-2050	57.000000	74.730	76.161040	76.1957	76.6115	0.01172	3.19	21.944	27.90	0.99
RaymondB	M001	999.99	20-Finnis-2050	57.000000	73.320	74.500700	74.9149	75.8005	0.04273	5.21	12.277	18.82	1.81
RaymondB	M001	976.73	20-Finnis-2050	57.000000	73.030	74.410610	74.6097	75.0403	0.01539	3.70	19.519	32.31	1.14
RaymondB	M001	942.15	20-Finnis-2050	57.000000	72.180	73.141960	73.4562	74.0125	0.06985	5.65	16.312	33.49	2.22
RaymondB	M001	916.70	20-Finnis-2050	57.000000	70.820	72.055470	72.3124	72.7839	0.03203	4.81	20.081	45.64	1.59
RaymondB	M001	892.34	20-Finnis-2050	57.000000	70.360	71.608510	71.7281	72.1820	0.01683	3.61	19.602	33.30	1.17
RaymondB	M001	866.25	20-Finnis-2050	57.000000	70.040	71.686380	71.2211	71.8553	0.00295	1.90	38.179	58.52	0.52
RaymondB	M001	841.89	20-Finnis-2050	57.000000	69.920	71.428570	71.3418	71.7401	0.00618	2.63	29.567	49.57	0.74
RaymondB	M001	816.68	20-Finnis-2050	57.000000	69.740	71.261440	71.2614	71.5766	0.00702	2.83	31.817	54.19	0.79
RaymondB	M001	766.25	20-Finnis-2050	57.000000	69.160	69.967770	70.1940	70.7391	0.06472	4.85	17.213	44.59	2.09
RaymondB	M001	716.25	20-Finnis-2050	57.000000	68.390	69.765860	69.5806	69.9533	0.00487	2.19	36.730	48.56	0.65
RaymondB	M001	675.00	20-Finnis-2050	57.000000	68.140	69.518090		69.7293	0.00592	2.39	36.557	56.62	0.71
RaymondB	M001	615.86	20-Finnis-2050	57.000000	67.750	69.377470		69.4846	0.00240	1.76	57.990	119.57	0.47
RaymondB	M001	565.77	20-Finnis-2050	57.000000	67.440	69.322350		69.3894	0.00122	1.39	73.984	145.50	0.34
RaymondB	M001	520.15	20-Finnis-2050	57.000000	67.260	69.323960		69.3436	0.00044	0.88	138.688	253.61	0.21
RaymondB	M001	468.54	20-Finnis-2050	57.000000	66.980	69.323860		69.3283	0.00012	0.51	236.654	298.06	0.11
RaymondB	M001	429.18	20-Finnis-2050	57.000000	66.800	69.323710		69.3251	0.00004	0.30	384.125	391.93	0.06
RaymondB	M001	366.25	20-Finnis-2050	57.000000	66.650	69.323350		69.3239	0.00002	0.20	618.045	608.86	0.04
RaymondB	M001	341.79	20-Finnis-2050	57.000000	66.630	69.323360		69.3237	0.00001	0.16	709.155	650.37	0.03
PettyHR	M002	6270.85	20-Finnis-2050	83.399990	66.230	69.323180		69.3233	0.00000	0.05	1793.541	823.89	0.01
PettyHR	M002	6218.07	20-Finnis-2050	83.399990	66.230	69.323100		69.3233	0.00000	0.06	1661.292	828.84	0.01
PettyHR	M002	6095.00	20-Finnis-2050	83.399990	66.230	69.322980		69.3231	0.00000	0.06	1596.101	804.05	0.01
PettyHR	M002	6004.71	20-Finnis-2050	83.399990	66.230	69.322890		69.3231	0.00000	0.06	1640.173	835.26	0.01
PettyHR	M001	5825.85	20-Finnis-2050	133.900000	66.230	69.322510		69.3228	0.00000	0.08	1955.709	836.51	0.01
PettyHR	M001	5685.44	20-Finnis-2050	133.900000	66.230	69.322270		69.3225	0.00000	0.07	1917.143	723.66	0.01
PettyHR	M001	5516.39	20-Finnis-2050	149.200000	66.230	69.321760		69.3222	0.00000	0.09	1676.261	625.67	0.02
PettyHR	M001	5279.80	20-Finnis-2050	149.200000	66.230	69.320370		69.3213	0.00001	0.13	1133.776	421.69	0.03
PettyHR	M001	4996.75	20-Finnis-2050	149.200000	66.230	69.313700		69.3180	0.00003	0.29	533.915	206.36	0.06
PettyHR	M001	4923.81	20-Finnis-2050	149.200000	66.230	69.257510		69.3085	0.00036	1.06	171.123	84.19	0.20
PettyHR	M001	4867.41	20-Finnis-2050	149.200000	66.230	69.168500		69.2717	0.00098	1.74	139.845	89.71	0.34
PettyHR	M001	4817.61	20-Finnis-2050	149.200000	66.580	69.112750		69.2155	0.00129	1.90	136.195	90.30	0.38
PettyHR	M001	4757.18	20-Finnis-2050	149.200000	66.430	68.524550	68.5246	69.0247	0.00710	3.87	66.498	63.80	0.86
PettyHR	M001	4675.66	20-Finnis-2050	149.200000	65.880	67.695740	67.4406	68.0621	0.00585	3.21	66.706	49.18	0.77
PettyHR	M001	4612.84	20-Finnis-2050	149.200000	64.880	66.980510	66.7036	67.5985	0.00820	4.19	52.220	38.66	0.93
PettyHR	M001	4570.09	20-Finnis-2050	149.200000	64.620	66.704750	66.7048	67.2653	0.00695	3.74	59.163	54.51	0.85
PettyHR	M001	4500.69	20-Finnis-2050	149.200000	64.620	66.262920	66.0131	66.5259	0.00423	2.50	79.368	73.85	0.64
PettyHR	M001	4461.12	20-Finnis-2050	149.200000	64.550	65.938370	65.9384	66.3017	0.01040	3.50	72.947	90.70	0.97
PettyHR	M001	4428.20	20-Finnis-2050	149.200000	64.410	65.658340	65.4783	65.8811	0.00909	2.95	81.064	88.58	0.88
PettyHR	M001	4395.66	20-Finnis-2050	149.200000	63.810	65.161570	65.1516	65.5492	0.00951	3.30	68.318	80.03	0.93
PettyHR	M001	4357.04	20-Finnis-2050	149.200000	63.340	65.049810		65.2478	0.00410	2.58	93.517	79.88	0.64
PettyHR	M001	4281.82	20-Finnis-2050	149.200000	62.500	65.011300		65.0978	0.00075	1.41	125.883	58.17	0.29
PettyHR	M001	4166.17	20-Finnis-2050	149.200000	61.820	65.037920		65.0512	0.00010	0.60	355.025	160.95	0.11
PettyHR	M001	3949.19	20-Finnis-2050	149.200000	61.310	65.046880		65.0469	0.00000	0.04	4558.976	1312.86	0.01
PettyHR	M001	3936.78	20-Finnis-2050	149.200000	61.310	65.046890		65.0469	0.00000	0.03	5636.128	1567.40	0.00
PettyHR	M001	3931.39	20-Finnis-2050	83.199990	61.310	65.046910		65.0469	0.00000	0.01	7074.004	1997.25	0.00
PettyHR	M001	3925.44	20-Finnis-2050	83.199990	61.310	65.046880		65.0469	0.00000	0.03	3499.631	1000.17	0.00
PettyHR	M001	3867.05	20-Finnis-2050	83.199990	61.310	65.046880		65.0469	0.00000	0.02	3534.286	979.72	0.00
PettyHR	M001	3643.73	20-Finnis-2050	83.199990	61.310	65.046850		65.0469	0.00000	0.02	4063.150	1112.60	0.00
PettyHR	M001	3440.60	20-Finnis-2050	83.199990	61.310	65.046750		65.0468	0.00000	0.04	2057.970	579.32	0.01
PettyHR	M001	3182.65	20-Finnis-2050	83.199990	61.310	65.046550		65.0467	0.00000	0.05	1544.005	423.82	0.01
PettyHR	M001	3080.13	20-Finnis-2050	83.199990	61.310	65.046520		65.0466	0.00000	0.05	1821.062	506.12	0.01
PettyHR	M001	3028.13	20-Finnis-2050	83.199990	61.310	65.046520		65.0466	0.00000	0.04	1991.704	557.29	0.01
PettyHR	M001	2983.09	20-Finnis-2050	83.199990	61.310	65.046440		65.0466	0.00000	0.05	1623.618	449.99	0.01

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	2828.46	20-Finnis-2050	83.199990	61.310	65.045990		65.0464	0.00000	0.09	951.734	278.06	0.02
PettyHR	M001	2712.72	20-Finnis-2050	83.199990	61.310	65.044590		65.0460	0.00001	0.17	541.466	178.12	0.03
PettyHR	M001	2671.95	20-Finnis-2050	83.199990	61.310	65.043640		65.0456	0.00001	0.21	486.797	172.71	0.03
PettyHR	M001	2653.10	20-Finnis-2050	83.199990	61.310	65.042540		65.0453	0.00001	0.25	415.962	154.15	0.04
PettyHR	M001	2632.46	20-Finnis-2050	83.199990	61.310	65.034330		65.0441	0.00005	0.50	245.632	113.62	0.08
PettyHR	M001	2596.08	20-Finnis-2050	83.199990	61.310	65.029220		65.0416	0.00006	0.54	217.744	109.91	0.09
PettyHR	M001	2583.24	20-Finnis-2050	83.199990	60.100	64.961740	62.6139	65.0338	0.00036	1.37	118.395	104.18	0.21
PettyHR	M001	2580		Bridge									
PettyHR	M001	2573.39	20-Finnis-2050	83.199990	60.000	64.805510	62.1799	64.8391	0.00017	0.95	147.195	80.33	0.15
PettyHR	M001	2551.09	20-Finnis-2050	83.199990	59.890	64.819790		64.8232	0.00001	0.27	358.070	104.94	0.04
PettyHR	M001	2426.14	20-Finnis-2050	83.199990	59.270	64.821670		64.8220	0.00000	0.08	1133.761	266.02	0.01
PettyHR	M001	2315.39	20-Finnis-2050	83.199990	58.720	64.821660		64.8219	0.00000	0.06	1393.516	306.58	0.01
PettyHR	M001	2204.15	20-Finnis-2050	83.199990	58.160	64.821590		64.8218	0.00000	0.06	1405.284	305.53	0.01
PettyHR	M001	2022.45	20-Finnis-2050	83.199990	57.260	64.821110		64.8216	0.00000	0.10	855.105	171.41	0.01
PettyHR	M001	1902.10	20-Finnis-2050	83.199990	56.660	64.820530		64.8214	0.00000	0.13	663.386	126.71	0.02
PettyHR	M001	1879.72	20-Finnis-2050	83.199990	56.550	64.819270		64.8212	0.00001	0.21	483.764	107.20	0.03
PettyHR	M001	1824.42	20-Finnis-2050	83.199990	56.280	64.816980		64.8207	0.00001	0.27	326.843	65.13	0.04
PettyHR	M001	1789.72	20-Finnis-2050	83.199990	56.100	64.815050		64.8202	0.00001	0.32	276.708	54.57	0.04
PettyHR	M001	1724.70	20-Finnis-2050	83.199990	55.780	64.812390		64.8191	0.00002	0.37	242.270	47.14	0.05
PettyHR	M001	1668.81	20-Finnis-2050	83.199990	55.500	64.813760	57.9269	64.8176	0.00001	0.28	321.565	64.22	0.04
PettyHR	M001	1647.80	20-Finnis-2050	83.199990	55.400	64.814380	57.6517	64.8171	0.00001	0.24	376.359	69.43	0.03
PettyHR	M001	1631.79	20-Finnis-2050	83.199990	63.550	64.605220		64.7978	0.00461	1.94	42.791	40.60	0.60
PettyHR	M001	1615.46	20-Finnis-2050	84.600010	54.380	56.542440		56.6970	0.00370	2.80	52.618	36.68	0.62
PettyHR	M001	1601.08	20-Finnis-2050	84.600010	54.000	55.666230	55.6662	56.5156	0.02589	6.18	23.545	22.30	1.57
PettyHR	M001	1586.16	20-Finnis-2050	84.600010	53.360	55.020560	55.3376	56.0745	0.03238	6.99	22.326	23.98	1.77
PettyHR	M001	1571.98	20-Finnis-2050	84.600010	52.870	54.335010	54.6905	55.5366	0.04337	7.33	20.207	23.04	1.99
PettyHR	M001	1519.66	20-Finnis-2050	84.600010	51.620	53.119400	53.2316	53.6740	0.02455	5.50	29.766	38.13	1.49
PettyHR	M001	1467.14	20-Finnis-2050	84.600010	50.860	52.045170	52.0502	52.4340	0.02123	4.50	32.985	42.50	1.35
PettyHR	M001	1457.30	20-Finnis-2050	84.600010	50.230	51.695180	51.7702	52.2180	0.02149	5.25	29.995	34.95	1.41
PettyHR	M001	1444.51	20-Finnis-2050	84.600010	48.300	49.233480	49.7468	51.4537	0.16801	10.55	15.002	29.77	3.62
PettyHR	M001	1415.17	20-Finnis-2050	84.600010	48.280	49.757510	49.3279	49.8843	0.00474	2.47	56.301	52.03	0.66
PettyHR	M001	1402.15	20-Finnis-2050	84.600010	47.790	49.305320	49.3053	49.7445	0.01839	4.80	32.537	38.77	1.29
PettyHR	M001	1385.41	20-Finnis-2050	84.600010	43.100	44.590590	45.4957	48.7566	0.11015	11.45	11.927	15.65	3.15
PettyHR	M001	1370.82	20-Finnis-2050	84.600010	41.750	43.358010	44.3652	47.1722	0.09272	11.57	12.089	12.45	2.97
PettyHR	M001	1362.66	20-Finnis-2050	84.600010	39.880	41.792710	42.9959	46.3680	0.08442	12.08	11.113	9.44	2.88
PettyHR	M001	1336.64	20-Finnis-2050	84.600010	39.870	41.291380	42.0692	43.5713	0.07831	9.68	14.907	17.05	2.66
PettyHR	M001	1309.35	20-Finnis-2050	84.600010	38.400	39.605790	40.0956	41.2627	0.07688	8.50	16.518	20.66	2.56
PettyHR	M001	1279.20	20-Finnis-2050	84.600010	35.020	37.042310	37.9946	39.4919	0.04408	9.22	16.045	15.34	2.12
PettyHR	M001	1258.06	20-Finnis-2050	84.600010	34.010	36.236750	36.9536	38.5953	0.03698	9.10	16.165	12.92	1.98
PettyHR	M001	1221.17	20-Finnis-2050	84.600010	33.210	34.444590	35.1709	36.4639	0.09016	8.99	14.720	17.39	2.73
PettyHR	M001	1203.34	20-Finnis-2050	84.600010	32.610	33.824210	34.1266	34.8833	0.05877	7.41	21.560	33.08	2.23
PettyHR	M001	1164.99	20-Finnis-2050	84.600010	31.370	32.763660	32.8995	33.3491	0.02473	5.23	29.155	39.37	1.48
PettyHR	M001	1153.41	20-Finnis-2050	84.600010	30.700	31.670070	32.0113	32.8186	0.08349	7.73	20.008	35.08	2.58
PettyHR	M001	1125.74	20-Finnis-2050	84.600010	29.270	30.423570	30.6247	31.1347	0.04088	5.96	26.119	40.95	1.85
PettyHR	M001	1090.65	20-Finnis-2050	84.600010	28.120	29.233470	29.3767	29.7527	0.03553	5.26	31.021	57.31	1.70
PettyHR	M001	1059.48	20-Finnis-2050	84.600010	26.840	28.030870	28.1897	28.5955	0.03847	5.89	30.607	60.95	1.79
PettyHR	M001	1048.77	20-Finnis-2050	84.600010	26.290	27.401320	27.6104	28.1212	0.04762	6.13	27.167	52.83	1.97
PettyHR	M001	1021.54	20-Finnis-2050	84.600010	25.470	26.923490	26.9448	27.3280	0.01890	4.76	33.859	42.33	1.30
PettyHR	M001	1003.30	20-Finnis-2050	84.600010	23.420	24.676920	25.2658	26.5802	0.07519	8.79	15.467	17.56	2.56
PettyHR	M001	994.73	20-Finnis-2050	84.600010	22.700	24.543880	25.0473	26.0195	0.03375	7.59	18.252	14.75	1.83
PettyHR	M001	961.03	20-Finnis-2050	84.600010	22.070	24.563890	24.5956	25.2178	0.01102	5.30	29.968	24.16	1.09
PettyHR	M001	944.13	20-Finnis-2050	84.600010	21.890	23.340970	23.8064	24.7958	0.04465	7.40	18.689	20.28	2.02
PettyHR	M001	924.94	20-Finnis-2050	84.600010	20.780	22.396940	22.8668	23.9407	0.04365	7.86	17.495	15.96	2.03
PettyHR	M001	905.47	20-Finnis-2050	84.600010	19.730	21.607270	22.0896	23.2026	0.03437	7.80	17.862	14.63	1.85
PettyHR	M001	883.86	20-Finnis-2050	84.600010	17.290	20.654480	19.7151	20.8484	0.00165	2.55	51.464	34.59	0.45
PettyHR	M001	875		Bridge									
PettyHR	M001	859.53	20-Finnis-2050	84.600010	17.250	19.185860	19.1859	19.7700	0.01423	4.96	27.691	28.46	1.18
PettyHR	M001	836.76	20-Finnis-2050	84.600010	12.800	14.506290	15.5440	18.2199	0.07152	10.50	11.881	10.04	2.63
PettyHR	M001	823.70	20-Finnis-2050	84.600010	12.860	14.224300	14.9690	16.7949	0.09080	10.06	13.774	15.59	2.83
PettyHR	M001	811.96	20-Finnis-2050	84.600010	12.850	14.565430	14.6503	15.7929	0.03405	7.31	20.991	21.83	1.82
PettyHR	M001	796.92	20-Finnis-2050	84.600010	12.740	14.001140	14.3382	15.1078	0.05864	7.77	21.042	30.84	2.26
PettyHR	M001	784.11	20-Finnis-2050	84.600010	11.820	13.527180	13.9011	14.5474	0.03037	6.81	24.578	31.04	1.71
PettyHR	M001	769.86	20-Finnis-2050	84.600010	10.940	12.323480	12.8192	13.9285	0.05366	7.86	17.800	20.87	2.20
PettyHR	M001	748.76	20-Finnis-2050	84.600010	8.370	10.496650	11.2554	12.9392	0.03587	8.54	16.531	16.19	1.92
PettyHR	M001	720.33	20-Finnis-2050	84.600010	8.080	9.004714	9.5327	11.0524	0.14598	9.25	14.951	26.72	3.32
PettyHR	M001	707.57	20-Finnis-2050	84.600010	6.850	8.156184	8.5691	9.6659	0.06345	8.15	19.631	31.72	2.35
PettyHR	M001	685.99	20-Finnis-2050	84.600010	5.310	6.754958	7.2308	8.3412	0.05971	8.30	19.243	27.75	2.31
PettyHR	M001	666.04	20-Finnis-2050	84.600010	5.030	6.542463	6.7764	7.3229	0.02541	5.64	28.215	40.81	1.52
PettyHR	M001	652.51	20-Finnis-2050	84.600010	4.660	5.977964	6.2007	6.8872	0.03853	6.25	23.635	32.46	1.82
PettyHR	M001	633.61	20-Finnis-2050	84.600010	4.400	5.312269	5.5182	6.0336	0.04976	5.51	25.919	75.10	1.96
PettyHR	M001	622.83	20-Finnis-2050	84.600010	4.090	5.127140	5.1271	5.3769	0.01692	3.51	43.545	97.82	1.17
PettyHR	M001	577.97	20-Finnis-2050	84.600010	2.480	3.653219	3.8266	4.1622	0.04598	6.30	32.713	101.06	1.94
PettyHR	M001	525.57	20-Finnis-2050	84.600010	0.510	2.996166	2.0746	3.0527	0.00125	1.81	92.413	103.73	0.37
PettyHR	M001	491.94	20-Finnis-2050	84.600010	-0.590	2.898418	1.7437	3.0106	0.00095	1.78	79.652	86.16	0.33
PettyHR	M001	485		Bridge									
PettyHR	M001	478.84	20-Finnis-2050	84.600010	-1.920	2.819551	0.2959	2.8581	0.00021	0.96	142.434	149.04	0.16
PettyHR	M001	439.27	20-Finnis-2050	84.600010	-1.890	2.830668		2.8382	0.00006	0.53	271.561	134.30	0.08
PettyHR	M001	405.68	20-Finnis-2050	84.600010	-2.130	2.828341		2.8363	0.00005	0.51	269.984	139.31	0.08
PettyHR	M001	367.80	20-Finnis-2050	84.600010	-2.020	2.829132		2.8333	0.00002	0.29	336.621	143.42	0.05
PettyHR	M001	338.85	20-Finnis-2050	84.600010	-2.890	2.829347		2.8326	0.00001	0.26	371.642	128.13	0.04
PettyHR	M001	305.38	20-Finnis-2050	84.600010	-2.460	2.828084		2.8321	0.00002	0.29	337.849	121.59	0.04
PettyHR	M001	269.29	20-Finnis-2050	84.600010	-3.520	2.826792		2.8315	0.00001	0.31	316.633	113.32	0.04
PettyHR	M001	238.18	20-Finnis-2050	84.600010	-3.500	2.824128		2.8308	0.00002	0.38	276.007	106.01	0.05
PettyHR	M001	201.25	20-Finnis-2050	84.600010	-4.430	2.826464		2.8292	0.00001	0.24	399.879	125.47	0.03
PettyHR	M001	150.84	20-Finnis-2050	84.600010	-3.340	2.827196		2.8285	0.00000	0.17	570.530	172.74	0.02
PettyHR	M001	105.74	20-Finnis-2050	84.600010	-2.910	2.826994		2.8284	0.00000	0.17	548.434	155.55	0.02
PettyHR	M001	91.29	20-Finnis-2050	84.600010	-3.360	2.827012		2.8283	0.00000	0.16	562.286	146.40	0.02

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	20.04	20-Finnis-2050	84.600010	-6.190	2.827217		2.8280	0.00000	0.12	754.728	186.19	0.02
PettyHR	M001	12.04	20-Finnis-2050	84.600010	-6.190	2.820010	-3.7967	2.8273	0.00003	0.42	317.442	186.16	0.05
ForthP	M001	2616.90	20-Finnis-2050	9.799999	123.090	124.339700	123.3465	124.3403	0.00002	0.12	110.277	145.30	0.04
ForthP	M001	2528.45	20-Finnis-2050	9.799999	123.090	124.339500		124.3396	0.00000	0.06	184.355	184.75	0.02
ForthP	M001	2324.32	20-Finnis-2050	9.799999	123.090	124.337800		124.3384	0.00001	0.11	121.887	189.94	0.03
ForthP	M001	2187.52	20-Finnis-2050	9.799999	123.090	124.337500		124.3376	0.00000	0.04	243.188	279.91	0.01
ForthP	M001	1955.13	20-Finnis-2050	9.799999	123.090	124.336900		124.3370	0.00000	0.04	282.564	305.38	0.01
ForthP	M001	1773.83	20-Finnis-2050	9.799999	123.090	124.336700		124.3367	0.00000	0.03	352.342	339.24	0.01
ForthP	M001	1572.85	20-Finnis-2050	9.799999	123.090	124.336500		124.3366	0.00000	0.03	338.670	313.77	0.01
ForthP	M001	1496.60	20-Finnis-2050	9.799999	123.090	124.336400		124.3365	0.00000	0.04	284.435	269.58	0.01
ForthP	M001	1392.58	20-Finnis-2050	13.300000	122.980	124.333900	124.0128	124.3356	0.00014	0.40	84.264	160.97	0.11
ForthP	M001	1390		Culvert									
ForthP	M001	1381.72	20-Finnis-2050	13.300000	122.950	124.037100	123.9966	124.0844	0.00462	1.81	23.640	118.48	0.58
ForthP	M001	1360.50	20-Finnis-2050	13.300000	122.870	123.857700		123.9558	0.00641	1.96	12.919	33.59	0.70
ForthP	M001	1311.12	20-Finnis-2050	13.300000	122.520	123.442600	123.4087	123.5564	0.01045	2.31	11.766	35.92	0.86
ForthP	M001	1261.17	20-Finnis-2050	13.300000	121.360	122.640100	122.6401	123.0128	0.01069	3.05	6.100	9.30	0.94
ForthP	M001	1211.51	20-Finnis-2050	13.300000	119.830	120.815700	121.1662	121.9468	0.04904	5.24	3.335	6.09	1.88
ForthP	M001	1161.66	20-Finnis-2050	13.300000	117.250	118.107400	118.4562	119.2368	0.06071	5.24	3.555	12.06	2.05
ForthP	M001	1112.05	20-Finnis-2050	13.300000	114.880	115.663400	115.9085	116.3383	0.05118	4.83	4.977	20.46	1.89
ForthP	M001	1062.35	20-Finnis-2050	13.300000	113.160	113.898400	113.9681	114.2130	0.03316	3.42	5.989	14.60	1.44
ForthP	M001	1041.93	20-Finnis-2050	13.300000	112.620	113.490900	113.5821	113.8585	0.03210	3.76	6.173	16.66	1.46
ForthP	M001	1031.90	20-Finnis-2050	13.300000	112.310	113.281800	113.3749	113.5721	0.02155	3.44	8.547	35.27	1.23
ForthP	M001	1011.12	20-Finnis-2050	13.300000	111.620	112.397500	112.5495	112.9067	0.04863	4.53	6.472	29.50	1.82
ForthP	M001	959.76	20-Finnis-2050	13.300000	110.310	110.936500	110.9589	111.0711	0.02573	2.58	10.408	51.10	1.25
ForthP	M001	908.93	20-Finnis-2050	13.300000	109.250	109.719400	109.6516	109.7561	0.01126	1.43	16.931	80.29	0.80
ForthP	M001	856.39	20-Finnis-2050	13.300000	108.380	108.689700	108.6688	108.7409	0.02689	1.22	13.466	85.40	1.05
ForthP	M001	806.25	20-Finnis-2050	13.300000	107.090	107.819200	107.8192	107.8889	0.01325	2.19	15.669	84.80	0.93
ForthP	M001	754.78	20-Finnis-2050	13.300000	106.120	106.951400	106.9956	107.1018	0.01686	2.89	13.214	76.05	1.09
ForthP	M001	734.50	20-Finnis-2050	13.300000	105.470	106.341100	106.4749	106.7122	0.02647	3.48	6.699	20.76	1.34
ForthP	M001	724.30	20-Finnis-2050	13.300000	105.280	106.293900	106.3463	106.4881	0.01151	2.62	10.424	43.42	0.93
ForthP	M001	703.65	20-Finnis-2050	13.300000	105.020	105.816000	105.8961	106.1041	0.03449	3.91	8.021	33.89	1.52
ForthP	M001	654.47	20-Finnis-2050	13.300000	103.900	104.717300	104.5927	104.7615	0.00572	1.65	17.139	52.06	0.63
ForthP	M001	605.63	20-Finnis-2050	13.300000	102.270	103.033900	103.0339	104.0264	0.07260	5.20	3.900	12.59	2.19
ForthP	M001	585.13	20-Finnis-2050	13.300000	101.550	102.260500	102.3670	102.6717	0.04925	3.99	7.687	52.24	1.78
ForthP	M001	577.30	20-Finnis-2050	13.300000	101.520	102.022900	102.0707	102.2039	0.05595	3.24	8.719	54.42	1.77
ForthP	M001	557.33	20-Finnis-2050	13.300000	100.670	101.157600	101.1774	101.2719	0.03863	2.48	10.354	62.07	1.44
ForthP	M001	507.84	20-Finnis-2050	13.300000	98.920	99.445020	99.4567	99.5437	0.03163	2.35	11.303	69.56	1.32
ForthP	M001	453.33	20-Finnis-2050	13.300000	96.280	96.805800	96.8756	97.0799	0.06581	3.45	8.540	72.28	1.92
ForthP	M001	402.29	20-Finnis-2050	13.300000	94.960	95.421850	95.4219	95.5256	0.03412	2.50	10.253	46.12	1.37
ForthP	M001	349.18	20-Finnis-2050	13.300000	93.640	94.023800	93.9420	94.0627	0.01573	1.23	15.423	68.64	0.86
ForthP	M001	297.76	20-Finnis-2050	13.300000	92.550	93.324330	93.3243	93.4128	0.01257	2.16	14.230	73.40	0.91
ForthP	M001	246.28	20-Finnis-2050	13.300000	91.710	92.292370	92.2924	92.3631	0.01674	1.86	14.046	70.06	0.99
ForthP	M001	182.03	20-Finnis-2050	13.300000	90.940	91.850110	91.5256	91.8641	0.00206	1.02	29.965	83.68	0.38
ForthP	M001	160.27	20-Finnis-2050	13.300000	90.130	91.856180	90.8952	91.8574	0.00004	0.24	109.966	129.06	0.06
ForthP	M001	150		Culvert									
ForthP	M001	144.74	20-Finnis-2050	13.300000	89.900	90.774530	90.5970	90.9547	0.00597	1.90	7.209	73.40	0.68
ForthP	M001	124.30	20-Finnis-2050	13.300000	89.740	90.614850	90.6149	90.7585	0.01424	2.53	11.988	46.15	0.99
ForthP	M001	61.58	20-Finnis-2050	13.300000	88.750	89.673900	89.7099	89.8481	0.01444	2.66	11.437	44.38	1.01
ForestP	M001	1557.91	20-Finnis-2050	6.900000	78.250	79.704490	78.4446	79.7046	0.00000	0.05	147.061	121.33	0.01
ForestP	M001	1428.05	20-Finnis-2050	6.900000	78.250	79.704350		79.7044	0.00000	0.04	200.562	177.12	0.01
ForestP	M001	1315.71	20-Finnis-2050	6.900000	78.250	79.704290		79.7043	0.00000	0.03	282.252	242.33	0.01
ForestP	M001	1228.83	20-Finnis-2050	6.900000	78.250	79.704250		79.7043	0.00000	0.02	337.539	289.34	0.01
ForestP	M001	1138.84	20-Finnis-2050	6.900000	78.250	79.704220		79.7043	0.00000	0.02	395.337	342.08	0.01
ForestP	M001	1077.28	20-Finnis-2050	6.900000	78.250	79.704210		79.7042	0.00000	0.02	437.062	480.26	0.00
ForestP	M001	1019.12	20-Finnis-2050	6.900000	78.250	79.704120		79.7042	0.00000	0.04	220.355	280.05	0.01
ForestP	M001	958.61	20-Finnis-2050	8.800001	78.150	79.684720	79.5024	79.7021	0.00058	0.69	24.205	68.54	0.21
ForestP	M001	955		Culvert									
ForestP	M001	949.85	20-Finnis-2050	8.800001	77.760	79.487000	79.4870	79.6508	0.00814	2.04	7.525	27.61	0.55
ForestP	M001	913.34	20-Finnis-2050	8.800001	78.160	79.024890	79.0618	79.2264	0.02537	3.29	5.713	17.61	1.23
ForestP	M001	883.23	20-Finnis-2050	8.800001	77.540	78.307950	78.3766	78.5264	0.02128	2.91	7.093	35.94	1.20
ForestP	M001	859.61	20-Finnis-2050	8.800001	76.750	77.411960	77.5279	77.7993	0.04412	3.78	4.121	13.38	1.67
ForestP	M001	831.71	20-Finnis-2050	8.800001	75.740	76.663370	76.7240	76.9598	0.02139	3.25	4.734	11.01	1.21
ForestP	M001	802.91	20-Finnis-2050	8.800001	74.660	75.389040	75.5829	76.0391	0.04961	4.36	3.245	9.45	1.82
ForestP	M001	772.90	20-Finnis-2050	8.800001	73.770	74.494480	74.5596	74.7701	0.03041	3.41	4.757	13.64	1.40
ForestP	M001	737.48	20-Finnis-2050	8.800001	72.770	73.447630	73.4434	73.5876	0.01842	2.54	6.693	21.37	1.09
ForestP	M001	688.06	20-Finnis-2050	8.800001	71.800	72.364790	72.3648	72.4700	0.02854	2.61	7.192	32.17	1.25
ForestP	M001	651.32	20-Finnis-2050	8.800001	70.810	71.398750	71.4190	71.5288	0.02315	2.65	7.272	30.50	1.21
ForestP	M001	600.44	20-Finnis-2050	8.800001	69.800	70.300750	70.3008	70.3757	0.02196	2.22	9.596	55.02	1.14
ForestP	M001	578.60	20-Finnis-2050	8.800001	69.310	69.894890	69.9205	69.9671	0.01621	2.14	12.042	83.92	1.01
ForestP	M001	528.92	20-Finnis-2050	8.800001	68.580	69.330090	69.2557	69.3665	0.00580	1.53	14.905	62.24	0.63
ForestP	M001	478.55	20-Finnis-2050	8.800001	68.210	69.326710		69.3290	0.00019	0.38	52.530	106.06	0.13
ForestP	M001	430.82	20-Finnis-2050	8.800001	67.770	69.323810		69.3246	0.00005	0.24	87.467	126.69	0.06
ForestP	M001	378.18	20-Finnis-2050	8.800001	67.480	69.323590		69.3237	0.00001	0.10	214.303	260.90	0.02
ForestP	M001	328.07	20-Finnis-2050	8.800001	67.340	69.323440		69.3235	0.00000	0.06	311.071	311.72	0.02
ForestP	M001	277.95	20-Finnis-2050	8.800001	67.070	69.323370		69.3234	0.00000	0.05	384.208	350.35	0.01
ForestP	M001	195.51	20-Finnis-2050	8.800001	66.230	69.323360		69.3234	0.00000	0.03	735.172	517.47	0.00
ForestP	M001	158.37	20-Finnis-2050	8.800001	66.230	69.323360		69.3234	0.00000	0.01	1419.062	671.16	0.00
ForestP	M001	89.11	20-Finnis-2050	8.800001	66.230	69.323360		69.3234	0.00000	0.01	1571.825	741.27	0.00
DoylesR	TR019	260.51	20-Finnis-2050	0.300000	124.740	125.054300	124.9295	125.0555	0.00038	0.20	2.788	28.85	0.14
DoylesR	TR019	199.72	20-Finnis-2050	0.300000	124.550	125.054400		125.0544	0.00000	0.02	29.229	133.56	0.01
DoylesR	TR019	150.00	20-Finnis-2050	0.300000	124.370	125.054100		125.0541	0.00000	0.02	31.786	139.58	0.01
DoylesR	TR019	100.00	20-Finnis-2050	0.300000	124.160	125.054000		125.0540	0.00000	0.03	26.406	125.16	0.01
DoylesR	TR019	50.00	20-Finnis-2050	0.300000	124.180	125.053900		125.0539	0.00000	0.02	49.993	201.09	0.01
DoylesR	TR018	302.01	20-Finnis-2050	1.200000	127.900	128.055700	128.0557	128.0878	0.01811	0.86	1.818	24.11	0.84
DoylesR	TR018	270.53	20-Finnis-2050	1.200000	126.190	128.020200	126.8068	128.0202	0.00000	0.03	142.409	244.89	0.01
DoylesR	TR018	260		Culvert									
DoylesR	TR018	257.62	20-Finnis-2050	1.200000	126.190	127.961900	126.8356	127.9619	0.00000	0.02	150.414	198.01	0.00

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR018	244.68	20-Finnis-2050	1.200000	125.640	127.916800	126.5318	127.9515	0.00045	0.89	1.638	198.83	0.19
DoylesR	TR018	200		Culvert									
DoylesR	TR018	169.24	20-Finnis-2050	1.200000	125.400	126.098100	126.0981	126.4199	0.01806	2.89	0.515	72.43	1.14
DoylesR	TR018	131.43	20-Finnis-2050	1.200000	125.240	125.445700	125.4468	125.4670	0.02037	0.93	2.507	51.81	0.90
DoylesR	TR018	59.79	20-Finnis-2050	1.200000	124.570	125.103900	124.8757	125.1057	0.00033	0.28	10.295	88.49	0.14
DoylesR	TR017	4043.45	20-Finnis-2050	6.700001	124.050	125.025700		125.0452	0.00131	1.00	17.554	55.96	0.33
DoylesR	TR017	3983.69	20-Finnis-2050	6.700001	124.040	124.910800		124.9459	0.00236	1.11	14.003	65.08	0.42
DoylesR	TR017	3923.93	20-Finnis-2050	6.700001	124.030	124.600200	124.6002	124.6789	0.01487	1.71	7.536	42.68	0.92
DoylesR	TR017	3889.37	20-Finnis-2050	6.700001	123.600	123.765900	123.6219	123.7802	0.00581	0.28	12.713	58.59	0.42
DoylesR	TR017	3781.64	20-Finnis-2050	6.700001	122.550	123.442200	123.1773	123.4861	0.00372	1.42	11.883	47.04	0.52
DoylesR	TR017	3768.91	20-Finnis-2050	6.700001	122.350	123.146400	123.1464	123.3793	0.01257	2.29	3.686	9.18	0.91
DoylesR	TR017	3745.98	20-Finnis-2050	6.700001	121.860	122.379600	122.4583	122.6715	0.06363	3.08	3.736	26.58	1.82
DoylesR	TR017	3713.18	20-Finnis-2050	6.700001	120.990	121.536300	121.5728	121.7473	0.01914	2.16	3.747	12.87	1.08
DoylesR	TR017	3692.45	20-Finnis-2050	6.700001	120.340	120.934400	121.0254	121.2394	0.02934	2.68	3.280	12.55	1.33
DoylesR	TR017	3679.05	20-Finnis-2050	6.700001	119.970	120.689700	120.7750	120.9483	0.01595	2.49	3.631	14.19	1.04
DoylesR	TR017	3656.84	20-Finnis-2050	6.700001	117.590	118.028300	118.3676	119.8825	0.26694	6.12	1.180	5.55	3.76
DoylesR	TR017	3603.67	20-Finnis-2050	6.700001	116.290	116.960300	117.0085	117.1439	0.01643	2.38	4.775	21.70	1.04
DoylesR	TR017	3583.40	20-Finnis-2050	6.700001	115.960	116.467000	116.5297	116.9147	0.06828	3.69	2.910	14.82	1.98
DoylesR	TR017	3571.14	20-Finnis-2050	6.700001	115.760	116.274200	116.2873	116.3999	0.02422	2.43	5.638	30.36	1.21
DoylesR	TR017	3545.42	20-Finnis-2050	6.700001	115.220	115.766100	115.7847	115.9259	0.02335	2.26	4.644	19.11	1.16
DoylesR	TR017	3483.93	20-Finnis-2050	6.700001	114.350	114.923200	114.9112	114.9696	0.01104	1.72	10.610	69.33	0.82
DoylesR	TR017	3432.55	20-Finnis-2050	6.700001	113.790	114.485700	114.4631	114.5446	0.00881	1.76	9.529	59.12	0.75
DoylesR	TR017	3345.48	20-Finnis-2050	6.700001	113.030	113.540700	113.5407	113.6236	0.02107	1.98	6.820	40.19	1.09
DoylesR	TR017	3300.07	20-Finnis-2050	6.700001	112.420	112.949200	112.8457	112.9636	0.00443	0.93	14.812	75.47	0.50
DoylesR	TR016	918.87	20-Finnis-2050	2.500000	127.080	128.801000	127.2395	128.8010	0.00000	0.01	404.728	361.54	0.00
DoylesR	TR016	898.71	20-Finnis-2050	2.500000	126.900	128.801000	127.8966	128.8010	0.00000	0.03	196.441	225.37	0.01
DoylesR	TR016	890		Culvert									
DoylesR	TR016	882.28	20-Finnis-2050	2.500000	126.880	128.729600	127.9195	128.7296	0.00000	0.06	104.852	158.11	0.01
DoylesR	TR016	877.71	20-Finnis-2050	2.500000	126.240	128.729600	127.3073	128.7296	0.00000	0.07	123.851	189.13	0.01
DoylesR	TR016	850		Culvert									
DoylesR	TR016	848.13	20-Finnis-2050	2.500000	126.370	127.409400	127.4094	127.9114	0.01298	3.14	0.796	4.98	1.00
DoylesR	TR016	818.98	20-Finnis-2050	2.500000	126.360	126.676300	126.7774	127.0431	0.09072	2.82	1.138	12.67	2.07
DoylesR	TR016	768.99	20-Finnis-2050	2.500000	126.300	126.629800	126.5743	126.6421	0.00455	0.73	6.650	50.18	0.48
DoylesR	TR016	714.09	20-Finnis-2050	2.500000	125.960	126.347900	126.2826	126.3660	0.00536	0.85	5.436	35.41	0.53
DoylesR	TR016	675.95	20-Finnis-2050	2.500000	125.740	126.071700	126.0717	126.1168	0.01423	1.22	3.832	39.92	0.84
DoylesR	TR016	659.39	20-Finnis-2050	2.500000	125.100	125.422300	125.5066	125.6570	0.05794	2.54	1.559	13.89	1.70
DoylesR	TR016	632.80	20-Finnis-2050	2.500000	124.780	125.241300	125.2413	125.3078	0.01031	1.36	3.239	26.28	0.76
DoylesR	TR016	610.50	20-Finnis-2050	2.500000	123.780	124.212300	124.3710	124.7505	0.07076	3.47	0.909	4.60	1.97
DoylesR	TR016	549.37	20-Finnis-2050	2.500000	122.300	122.924700	122.9492	123.0480	0.01366	1.87	2.400	14.99	0.89
DoylesR	TR016	494.31	20-Finnis-2050	2.500000	120.930	121.485900	121.5895	121.8270	0.03975	2.60	0.994	3.68	1.45
DoylesR	TR016	473.82	20-Finnis-2050	2.500000	120.180	120.662200	120.7685	120.9944	0.04156	2.62	1.064	4.59	1.50
DoylesR	TR016	459.95	20-Finnis-2050	2.500000	119.620	120.058100	120.1574	120.3845	0.04713	2.57	1.047	4.81	1.57
DoylesR	TR016	439.99	20-Finnis-2050	2.500000	119.050	119.655200	119.6812	119.8604	0.02028	2.03	1.301	4.34	1.06
DoylesR	TR016	384.99	20-Finnis-2050	2.500000	117.070	117.491800	117.6162	117.8998	0.07568	2.83	0.888	4.34	1.92
DoylesR	TR016	329.99	20-Finnis-2050	2.500000	115.670	116.148400	116.1700	116.2364	0.01498	1.49	2.656	22.95	0.89
DoylesR	TR016	274.18	20-Finnis-2050	2.500000	114.930	115.319200	115.3154	115.3621	0.01131	1.16	4.236	46.68	0.76
DoylesR	TR016	218.88	20-Finnis-2050	2.500000	114.350	114.814900	114.8069	114.8634	0.01100	1.21	4.135	45.63	0.76
DoylesR	TR016	165.43	20-Finnis-2050	2.500000	113.830	114.367200	114.3672	114.4252	0.00810	1.25	3.811	34.66	0.68
DoylesR	TR016	86.48	20-Finnis-2050	2.500000	112.800	113.204800	113.2309	113.3322	0.02868	1.73	1.868	12.09	1.18
DoylesR	TR016	40.19	20-Finnis-2050	2.500000	112.210	112.781500	112.6938	112.7948	0.00250	0.75	7.718	54.36	0.38
DoylesR	TR015	3230.71	20-Finnis-2050	14.700000	111.600	112.499900		112.5563	0.00689	1.95	19.697	75.22	0.71
DoylesR	TR015	3185.04	20-Finnis-2050	14.700000	111.220	112.109400	112.1094	112.2365	0.01329	2.47	13.731	50.06	0.96
DoylesR	TR015	3133.58	20-Finnis-2050	14.700000	110.570	111.370100	111.3918	111.5037	0.01608	2.65	12.844	46.36	1.06
DoylesR	TR015	3079.97	20-Finnis-2050	14.700000	108.170	109.025400	109.3677	109.9840	0.05308	4.82	4.178	9.97	1.92
DoylesR	TR015	3026.43	20-Finnis-2050	14.700000	107.300	109.099800	108.2659	109.1198	0.00043	0.80	31.063	33.87	0.20
DoylesR	TR015	3001.28	20-Finnis-2050	14.700000	106.170	109.108500	108.2082	109.1109	0.00007	0.40	86.329	77.83	0.08
DoylesR	TR015	3000		Culvert									
DoylesR	TR015	2988.77	20-Finnis-2050	14.700000	106.030	107.899000	107.8990	108.1764	0.00463	2.78	12.555	35.94	0.67
DoylesR	TR015	2963.30	20-Finnis-2050	14.700000	105.690	106.529300	106.8256	107.6353	0.06362	5.60	4.933	16.90	2.09
DoylesR	TR015	2915.60	20-Finnis-2050	14.700000	104.530	105.571400	105.6871	105.9303	0.01908	3.38	8.153	20.66	1.19
DoylesR	TR015	2867.64	20-Finnis-2050	14.700000	103.370	104.466300	104.6169	104.9384	0.02610	4.12	7.590	20.00	1.38
DoylesR	TR015	2841.04	20-Finnis-2050	14.700000	102.400	102.936200	103.0952	103.5227	0.12547	4.87	5.711	26.78	2.66
DoylesR	TR015	2804.73	20-Finnis-2050	14.700000	101.670	102.463900	102.4278	102.5867	0.01421	2.47	12.438	34.79	0.99
DoylesR	TR015	2742.98	20-Finnis-2050	14.700000	100.870	101.647500	101.6361	101.7432	0.01454	2.54	16.129	64.31	1.00
DoylesR	TR015	2687.77	20-Finnis-2050	14.700000	100.070	100.664200	100.6642	100.7784	0.02400	2.58	13.359	61.91	1.22
DoylesR	TR015	2638.14	20-Finnis-2050	14.700000	98.950	99.719570	99.7783	99.9276	0.02527	3.35	11.424	46.20	1.33
DoylesR	TR015	2593.26	20-Finnis-2050	14.700000	97.750	98.790630	98.7593	98.9385	0.01144	2.70	12.713	35.78	0.92
DoylesR	TR015	2557.12	20-Finnis-2050	14.700000	97.530	98.512990		98.6136	0.00857	2.35	14.964	42.29	0.81
DoylesR	TR015	2522.34	20-Finnis-2050	14.700000	97.260	98.162900	98.1629	98.3041	0.01168	2.33	12.528	39.65	0.91
DoylesR	TR015	2483.94	20-Finnis-2050	14.700000	96.950	97.663530	97.6266	97.7294	0.01306	2.04	15.779	59.53	0.90
DoylesR	TR015	2438.99	20-Finnis-2050	14.700000	96.350	97.372670		97.4305	0.00497	1.76	21.649	82.53	0.61
DoylesR	TR015	2387.12	20-Finnis-2050	14.700000	96.390	97.279220		97.2902	0.00180	0.91	37.857	120.33	0.35
DoylesR	TR015	2352.45	20-Finnis-2050	14.700000	96.400	97.247800		97.2530	0.00066	0.55	48.253	98.49	0.21
DoylesR	TR015	2283.37	20-Finnis-2050	14.700000	95.750	97.090440		97.1654	0.00288	1.68	15.293	21.98	0.49
DoylesR	TR015	2231.50	20-Finnis-2050	14.700000	95.540	96.606220	96.5863	96.8742	0.01337	2.95	8.298	16.14	1.01
DoylesR	TR015	2160.12	20-Finnis-2050	14.700000	94.930	95.903380		96.0516	0.00896	2.24	10.659	21.56	0.82
DoylesR	TR015	2119.11	20-Finnis-2050	14.700000	94.440	95.451560	95.4516	95.6530	0.01241	2.73	10.354	26.00	0.96
DoylesR	TR015	2075.88	20-Finnis-2050	14.700000	93.860	94.751750	94.8609	95.0138	0.01725	2.92	9.487	33.30	1.12
DoylesR	TR015	2024.01	20-Finnis-2050	14.700000	93.190	94.188340	94.1653	94.3555	0.01203	2.59	11.748	43.60	0.94
DoylesR	TR015	1972.14	20-Finnis-2050	14.700000	92.710	93.738080	93.7381	93.8324	0.00865	2.33	17.428	75.80	0.80
DoylesR	TR015	1921.75	20-Finnis-2050	14.700000	92.350	93.354470	93.0789	93.3784	0.00249	1.25	25.475	65.17	0.43
DoylesR	TR015	1851.62	20-Finnis-2050	14.700000	91.240	92.822930	92.8229	93.1317	0.00785	2.90	8.249	15.31	0.80
DoylesR	TR014	2057.49	20-Finnis-2050	8.899999	125.480	126.502500	126.3307	126.5379	0.00284	1.22	16.868	60.63	0.45
DoylesR	TR014	2037.89	20-Finnis-2050	8.899999	125.570	126.503300		126.5080	0.00052	0.55	37.434	101.29	0.20
DoylesR	TR014	1988.88	20-Finnis-2050	8.899999	124.710	126.424400	125.8010	126.4726	0.00079	1.03	13.426	42.56	0.26
DoylesR	TR014	1980		Culvert									
DoylesR	TR014	1975.46	20-Finnis-2050	8.899999	124.460	126.283500	125.5460	126.3396	0.00077	1.07	9.502	13.86	0.27

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR014	1936.56	20-Finnis-2050	8.899999	124.860	126.074600		126.2446	0.00475	2.07	6.494	11.84	0.63
DoylesR	TR014	1904.43	20-Finnis-2050	8.899999	124.720	125.758300	125.7583	126.0261	0.00945	2.57	5.283	11.08	0.86
DoylesR	TR014	1867.03	20-Finnis-2050	8.899999	124.610	125.534500	125.3489	125.6291	0.00474	1.69	9.280	23.40	0.60
DoylesR	TR014	1801.50	20-Finnis-2050	8.899999	124.000	124.928700	124.9287	125.1545	0.01160	2.63	5.858	13.86	0.94
DoylesR	TR014	1765.57	20-Finnis-2050	8.899999	123.200	123.688800	123.8619	124.2850	0.06721	3.80	3.273	15.34	1.99
DoylesR	TR014	1703.29	20-Finnis-2050	8.899999	121.820	122.599200	122.5992	122.8550	0.01314	2.53	5.064	12.08	0.98
DoylesR	TR014	1657.91	20-Finnis-2050	8.899999	121.270	121.968000	122.0070	122.2159	0.01530	2.37	5.179	17.74	1.02
DoylesR	TR014	1607.98	20-Finnis-2050	8.899999	120.590	121.379100	121.4051	121.5344	0.01155	2.27	8.766	42.15	0.90
DoylesR	TR014	1544.18	20-Finnis-2050	8.899999	119.810	120.623600	120.6767	120.7951	0.01183	2.40	8.494	40.02	0.92
DoylesR	TR014	1492.70	20-Finnis-2050	8.899999	119.060	119.650000	119.7352	119.9075	0.02623	2.82	6.335	35.53	1.30
DoylesR	TR014	1441.23	20-Finnis-2050	8.899999	117.590	118.516300	118.5509	118.9059	0.01848	3.37	4.453	11.02	1.19
DoylesR	TR014	1420.98	20-Finnis-2050	8.899999	116.980	118.111400	117.7009	118.1691	0.00218	1.35	10.113	13.13	0.43
DoylesR	TR014	1411.86	20-Finnis-2050	8.899999	117.030	118.020100	117.6874	118.1333	0.00392	1.75	6.587	11.94	0.57
DoylesR	TR014	1400		Bridge									
DoylesR	TR014	1384.41	20-Finnis-2050	10.200000	116.710	117.441800	117.4418	117.7456	0.01490	2.62	4.412	9.65	1.03
DoylesR	TR014	1374.60	20-Finnis-2050	10.200000	116.540	117.381400	117.2900	117.5574	0.00812	2.05	6.255	11.31	0.77
DoylesR	TR014	1353.25	20-Finnis-2050	10.200000	116.210	117.055600	117.0556	117.3313	0.01295	2.60	5.097	9.75	0.98
DoylesR	TR014	1309.14	20-Finnis-2050	10.200000	115.500	116.178100	116.2599	116.5750	0.02298	2.80	3.700	7.62	1.23
DoylesR	TR014	1296.25	20-Finnis-2050	10.200000	115.120	116.004400	116.0813	116.4110	0.01853	3.21	4.249	7.79	1.17
DoylesR	TR014	1239.25	20-Finnis-2050	10.200000	113.430	114.046900	114.2502	114.7091	0.04940	3.99	3.407	10.58	1.80
DoylesR	TR014	1203.69	20-Finnis-2050	10.200000	112.840	113.609300	113.5538	113.7123	0.00998	2.20	8.908	24.42	0.85
DoylesR	TR014	1182.25	20-Finnis-2050	10.200000	112.530	113.287600	113.2876	113.4617	0.01278	2.40	7.451	20.50	0.95
DoylesR	TR014	1125.25	20-Finnis-2050	10.200000	111.300	112.426900	112.2355	112.4911	0.00369	1.70	12.036	22.84	0.54
DoylesR	TR014	1104.23	20-Finnis-2050	10.200000	111.160	112.155800	112.1558	112.3557	0.01024	2.47	7.138	16.88	0.88
DoylesR	TR014	1094.88	20-Finnis-2050	10.200000	110.550	111.286700	111.5393	112.1029	0.05528	4.92	3.418	9.51	1.96
DoylesR	TR014	1075.36	20-Finnis-2050	10.200000	110.170	111.159600	111.2265	111.4316	0.01516	3.16	6.925	18.65	1.08
DoylesR	TR014	1027.18	20-Finnis-2050	10.200000	109.150	109.896400	110.0326	110.3631	0.03441	3.68	4.806	15.48	1.53
DoylesR	TR014	980.74	20-Finnis-2050	10.200000	107.890	108.902700	108.5882	108.9581	0.00323	1.53	12.265	20.49	0.51
DoylesR	TR014	954.47	20-Finnis-2050	10.200000	107.680	108.531200	108.5312	108.7809	0.01573	2.80	6.584	18.14	1.07
DoylesR	TR014	934.37	20-Finnis-2050	10.200000	106.990	107.836600	107.9040	108.3017	0.02790	3.57	4.902	14.97	1.39
DoylesR	TR014	907.24	20-Finnis-2050	10.200000	106.520	107.361800	107.3599	107.4956	0.01171	2.47	9.273	26.45	0.92
DoylesR	TR014	868.80	20-Finnis-2050	10.200000	105.880	106.750000	106.7500	106.9974	0.01368	2.65	6.479	16.41	1.00
DoylesR	TR014	864.98	20-Finnis-2050	10.200000	105.700	106.618000	106.6715	106.9291	0.01457	2.64	5.037	12.50	1.02
DoylesR	TR014	844.06	20-Finnis-2050	10.200000	105.100	106.210600	106.1031	106.3860	0.00679	2.24	7.164	12.42	0.73
DoylesR	TR014	836.52	20-Finnis-2050	10.200000	104.970	106.023300	106.0233	106.3063	0.01236	2.72	5.536	11.05	0.95
DoylesR	TR014	816.09	20-Finnis-2050	10.200000	104.780	105.366600	105.5301	105.8270	0.05161	3.65	4.229	14.97	1.78
DoylesR	TR014	811.48	20-Finnis-2050	10.200000	104.640	105.522300	105.3588	105.6122	0.00631	1.85	9.888	22.02	0.68
DoylesR	TR014	783.28	20-Finnis-2050	10.200000	103.980	105.067800	105.0678	105.3507	0.01209	2.98	5.691	9.94	0.97
DoylesR	TR014	751.27	20-Finnis-2050	10.200000	103.310	104.200500	104.3582	104.7453	0.02928	3.33	3.398	8.21	1.40
DoylesR	TR014	717.94	20-Finnis-2050	10.200000	102.630	103.881500	103.9092	104.1641	0.01104	3.10	6.416	13.09	0.94
DoylesR	TR014	676.43	20-Finnis-2050	10.200000	102.180	103.128900	103.2422	103.5510	0.01971	3.16	4.665	12.09	1.19
DoylesR	TR014	601.44	20-Finnis-2050	10.200000	101.390	102.271800	102.2043	102.3905	0.00838	2.06	8.415	20.98	0.78
DoylesR	TR014	540.83	20-Finnis-2050	10.200000	100.490	102.274500		102.2914	0.00041	0.78	26.430	42.81	0.20
DoylesR	TR014	519.25	20-Finnis-2050	10.200000	99.690	102.282700	101.4859	102.2842	0.00005	0.32	71.417	78.99	0.07
DoylesR	TR014	510		Culvert									
DoylesR	TR014	505.00	20-Finnis-2050	10.200000	99.620	101.436300	101.4363	102.2836	0.01213	4.14	2.558	27.83	1.00
DoylesR	TR014	484.27	20-Finnis-2050	10.200000	99.790	100.506200	100.7951	101.6325	0.11082	5.55	2.625	9.18	2.56
DoylesR	TR014	426.15	20-Finnis-2050	10.200000	98.710	99.782520	99.7825	100.0494	0.01115	2.43	5.371	15.00	0.90
DoylesR	TR014	368.05	20-Finnis-2050	10.200000	97.300	98.349590	98.5588	98.9846	0.03448	3.94	3.849	12.55	1.50
DoylesR	TR014	343.01	20-Finnis-2050	10.200000	96.780	98.171300	97.6795	98.2901	0.00237	1.59	7.157	68.35	0.45
DoylesR	TR014	335		Bridge									
DoylesR	TR014	331.91	20-Finnis-2050	10.200000	96.630	97.795120	97.7951	98.1703	0.01132	2.82	4.199	6.72	0.93
DoylesR	TR014	312.09	20-Finnis-2050	10.200000	96.260	97.453700	97.5909	97.8522	0.02257	3.11	5.418	27.50	1.19
DoylesR	TR014	227.09	20-Finnis-2050	10.200000	94.660	96.367920	96.0879	96.4208	0.00221	1.49	14.572	26.83	0.41
DoylesR	TR014	205.76	20-Finnis-2050	10.200000	94.510	96.079730	96.0797	96.3235	0.00743	2.52	7.043	17.05	0.73
DoylesR	TR014	198.96	20-Finnis-2050	10.200000	94.450	95.108120	95.3983	96.1207	0.09055	4.48	2.399	8.65	2.31
DoylesR	TR014	181.77	20-Finnis-2050	10.200000	94.010	95.155290	95.1585	95.3417	0.00918	2.40	8.011	22.20	0.82
DoylesR	TR014	121.12	20-Finnis-2050	10.200000	92.990	94.076020	94.2271	94.4979	0.01864	3.24	5.741	32.83	1.15
DoylesR	TR014	34.73	20-Finnis-2050	10.200000	91.600	92.416700	92.5075	92.8013	0.02203	2.96	4.355	10.34	1.23
DoylesR	TR012	1780.65	20-Finnis-2050	24.900000	90.300	92.096240	91.5771	92.2044	0.00196	1.59	22.320	33.29	0.42
DoylesR	TR012	1753.67	20-Finnis-2050	24.900000	89.560	92.137890	91.0628	92.1644	0.00031	0.92	54.913	65.28	0.19
DoylesR	TR012	1745		Bridge									
DoylesR	TR012	1729.43	20-Finnis-2050	24.900000	89.100	90.909970	90.9100	91.6510	0.01071	3.90	6.765	12.64	0.97
DoylesR	TR012	1709.20	20-Finnis-2050	24.900000	88.930	90.394380	90.6855	91.2888	0.02439	4.88	8.558	19.34	1.40
DoylesR	TR012	1645.76	20-Finnis-2050	24.900000	88.200	89.275950	89.3660	89.7290	0.01903	3.50	9.952	17.00	1.21
DoylesR	TR011	1552.47	20-Finnis-2050	35.700010	86.480	88.519290	88.2021	88.8722	0.00494	2.89	16.558	13.80	0.69
DoylesR	TR011	1530.88	20-Finnis-2050	35.700010	86.190	88.080410	88.0804	88.6959	0.00999	3.94	12.713	10.95	0.98
DoylesR	TR011	1477.56	20-Finnis-2050	35.700010	84.430	85.663300	86.1619	87.4944	0.06050	6.70	7.521	12.70	2.18
DoylesR	TR011	1423.69	20-Finnis-2050	35.700010	83.560	85.371220	85.3989	86.0162	0.01045	3.85	12.037	10.95	0.99
DoylesR	TR011	1370.10	20-Finnis-2050	35.700010	82.660	83.858600	84.1456	84.9492	0.04410	5.80	11.291	28.72	1.88
DoylesR	TR011	1316.51	20-Finnis-2050	35.700010	81.170	82.708690	82.8102	83.4688	0.01686	4.30	10.931	12.29	1.22
DoylesR	TR011	1262.92	20-Finnis-2050	35.700010	79.360	80.916670	81.4392	82.2333	0.02956	5.61	8.767	12.22	1.59
DoylesR	TR011	1209.33	20-Finnis-2050	35.700010	78.140	80.046130	80.2904	80.9712	0.01636	4.68	10.165	10.73	1.21
DoylesR	TR011	1155.74	20-Finnis-2050	35.700010	76.810	78.525600	78.9230	79.8114	0.02745	5.48	8.344	9.19	1.52
DoylesR	TR011	1107.39	20-Finnis-2050	35.700010	76.340	77.747410	77.9422	78.5247	0.02017	4.05	9.992	12.43	1.28
DoylesR	TR011	1057.82	20-Finnis-2050	35.700010	75.160	77.058150	77.1525	77.7233	0.01231	3.89	11.590	12.06	1.03
DoylesR	TR011	971.36	20-Finnis-2050	35.700010	73.330	74.112460	74.5345	75.5788	0.06525	5.36	6.654	17.51	2.14
DoylesR	TR011	960		Bridge									
DoylesR	TR011	949.62	20-Finnis-2050	35.700010	73.080	74.945250	74.2190	75.1316	0.00208	1.91	18.665	14.56	0.46
DoylesR	TR011	929.53	20-Finnis-2050	35.700010	72.740	74.379460	74.3917	74.9417	0.01117	3.53	12.058	11.96	0.99
DoylesR	TR011	872.05	20-Finnis-2050	35.700010	72.260	74.002290	74.0643	74.2951	0.00886	3.23	23.434	53.84	0.88
DoylesR	TR011	816.76	20-Finnis-2050	35.700010	72.000	72.846050	72.9483	73.2386	0.06579	5.03	17.701	84.46	2.06
DoylesR	TR011	760.16	20-Finnis-2050	35.700010	71.250	72.400820	72.3031	72.4978	0.00968	2.70	34.453	97.76	0.87
DoylesR	TR011	712.26	20-Finnis-2050	35.700010	70.340	71.671850	71.6719	71.9087	0.01348	3.38	22.515	57.43	1.04
DoylesR	TR011	663.11	20-Finnis-2050	35.700010	70.080	71.401930	71.2728	71.4486	0.00528	2.02	47.253	126.34	0.62
DoylesR	TR013	2205.78	20-Finnis-2050	7.500000	95.880	96.595410	96.3904	96.6046	0.00130	0.81	23.218	92.38	0.31
DoylesR	TR013	2147.59	20-Finnis-2050	7.500000	95.870	96.495470		96.5111	0.00191	0.82	15.769	46.56	0.36

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR013	2097.40	20-Finnis-2050	7.500000	95.860	96.238310	96.2383	96.2966	0.01730	1.65	9.472	69.99	0.98
DoylesR	TR013	2011.99	20-Finnis-2050	7.500000	93.670	94.574120	94.5212	94.7668	0.00845	2.11	4.609	9.95	0.79
DoylesR	TR013	1957.46	20-Finnis-2050	7.500000	93.050	93.989490	93.9895	94.2435	0.01140	2.71	4.458	10.00	0.94
DoylesR	TR013	1909.18	20-Finnis-2050	7.500000	92.330	93.151670	93.3009	93.5174	0.01917	2.99	4.505	25.02	1.16
DoylesR	TR013	1861.01	20-Finnis-2050	7.500000	91.270	92.176260	92.3463	92.5984	0.01913	3.08	3.629	19.78	1.16
DoylesR	TR013	1789.09	20-Finnis-2050	7.500000	90.000	90.511050	90.5861	90.7409	0.03406	2.77	5.912	53.35	1.43
DoylesR	TR013	1733.37	20-Finnis-2050	7.500000	89.530	90.212240	90.1135	90.2384	0.00345	1.05	14.730	72.34	0.47
DoylesR	TR013	1677.65	20-Finnis-2050	7.500000	89.420	89.787600	89.7726	89.8457	0.01947	1.64	8.101	51.34	1.02
DoylesR	TR013	1613.85	20-Finnis-2050	7.500000	89.110	89.586190		89.5931	0.00173	0.61	22.647	95.18	0.32
DoylesR	TR013	1552.30	20-Finnis-2050	7.500000	88.820	89.491890		89.5048	0.00173	0.83	19.567	67.28	0.35
DoylesR	TR013	1506.96	20-Finnis-2050	7.500000	88.810	89.429080		89.4414	0.00158	0.75	19.684	64.19	0.33
DoylesR	TR013	1478.17	20-Finnis-2050	7.500000	88.800	89.248920	89.2489	89.3194	0.01864	1.83	7.983	41.49	1.03
DoylesR	TR013	1411.61	20-Finnis-2050	7.500000	88.110	89.046220	88.6907	89.0678	0.00117	0.82	13.554	29.47	0.30
DoylesR	TR013	1388.58	20-Finnis-2050	7.500000	87.450	89.054150	88.8024	89.0571	0.00009	0.32	54.746	153.19	0.09
DoylesR	TR013	1375		Culvert									
DoylesR	TR013	1373.86	20-Finnis-2050	7.500000	87.320	88.542000	88.5022	88.6462	0.00434	1.93	7.052	12.94	0.58
DoylesR	TR013	1301.72	20-Finnis-2050	7.500000	86.820	87.796810	87.7968	88.0968	0.01222	2.64	3.644	6.85	0.95
DoylesR	TR013	1246.99	20-Finnis-2050	7.500000	85.790	86.536510	86.6997	87.0693	0.03060	3.30	2.492	5.77	1.42
DoylesR	TR013	1192.26	20-Finnis-2050	7.500000	84.790	85.743230	85.6380	85.9400	0.00872	2.19	4.626	9.55	0.80
DoylesR	TR013	1137.53	20-Finnis-2050	7.500000	84.030	85.100810	85.1008	85.3972	0.01108	2.58	3.654	7.27	0.90
DoylesR	TR013	1082.80	20-Finnis-2050	7.500000	83.550	84.359770	84.4236	84.5891	0.02086	2.59	4.918	21.03	1.14
DoylesR	TR013	1064.90	20-Finnis-2050	7.500000	82.570	84.471970	83.5889	84.4908	0.00038	0.70	24.341	108.48	0.18
DoylesR	TR013	1050		Culvert									
DoylesR	TR013	1042.53	20-Finnis-2050	7.500000	82.410	84.167910	83.3532	84.1791	0.00028	0.59	26.798	68.23	0.15
DoylesR	TR013	1022.06	20-Finnis-2050	7.500000	82.710	83.890130	83.7738	84.1029	0.00702	2.36	4.543	7.15	0.74
DoylesR	TR013	969.32	20-Finnis-2050	7.500000	82.400	83.299770	83.2998	83.5895	0.01377	2.80	3.745	6.78	1.01
DoylesR	TR013	915.66	20-Finnis-2050	7.500000	81.800	82.840000	82.5403	82.8599	0.00130	0.98	15.920	37.31	0.32
DoylesR	TR013	867.93	20-Finnis-2050	7.500000	81.400	82.716160		82.7748	0.00229	1.49	11.131	29.62	0.43
DoylesR	TR013	809.27	20-Finnis-2050	7.500000	81.320	82.425360		82.5759	0.00491	1.83	5.096	8.75	0.62
DoylesR	TR013	756.07	20-Finnis-2050	7.500000	80.750	81.831430	81.8314	82.1746	0.01144	2.92	3.531	5.59	0.95
DoylesR	TR013	702.82	20-Finnis-2050	7.500000	79.910	80.832610	80.9595	81.3395	0.02227	3.49	2.878	5.89	1.27
DoylesR	TR013	651.60	20-Finnis-2050	7.500000	78.060	78.828000	79.1731	79.6466	0.05097	4.19	2.108	5.47	1.81
DoylesR	TR013	588.74	20-Finnis-2050	7.500000	75.890	76.727600	76.8513	77.1719	0.02874	2.98	2.659	6.67	1.34
DoylesR	TR013	543.29	20-Finnis-2050	7.500000	75.200	75.954570	75.9721	76.2104	0.01465	2.27	3.512	8.03	0.99
DoylesR	TR013	489.08	20-Finnis-2050	7.500000	73.770	74.754010	74.8773	75.2576	0.02014	3.48	2.862	5.13	1.21
DoylesR	TR013	436.90	20-Finnis-2050	7.500000	72.110	72.950360	73.2975	73.7137	0.04571	3.90	2.020	4.57	1.69
DoylesR	TR013	383.70	20-Finnis-2050	7.500000	70.970	72.425940	71.8419	72.4391	0.00047	0.69	27.577	127.36	0.20
DoylesR	TR013	363.75	20-Finnis-2050	7.500000	70.360	71.901640	71.9016	72.3695	0.00771	3.24	3.242	9.00	0.85
DoylesR	TR013	360		Culvert									
DoylesR	TR013	344.87	20-Finnis-2050	7.500000	70.320	71.702220	71.7022	71.7100	0.00046	0.66	24.340	48.31	0.19
DoylesR	TR013	324.16	20-Finnis-2050	7.500000	70.290	70.852110	70.9819	71.4884	0.10833	4.47	3.307	32.86	2.44
DoylesR	TR013	256.30	20-Finnis-2050	7.500000	69.360	70.281440	70.2814	70.3549	0.01013	1.99	9.128	47.66	0.77
DoylesR	TR013	236.50	20-Finnis-2050	7.500000	69.350	70.158450	69.9683	70.1622	0.00080	0.47	30.507	115.39	0.22
DoylesR	TR013	162.98	20-Finnis-2050	7.500000	68.940	70.118150		70.1243	0.00069	0.59	27.765	108.36	0.21
DoylesR	TR013	133.14	20-Finnis-2050	7.500000	68.760	70.107350		70.1090	0.00019	0.32	46.727	112.22	0.11
DoylesR	TR013	66.14	20-Finnis-2050	7.500000	68.460	70.093950		70.0967	0.00019	0.38	36.528	117.85	0.11
DoylesR	M001	484.12	20-Finnis-2050	43.400010	68.080	69.618130	69.6181	69.8602	0.01506	3.29	25.597	70.69	1.04
DoylesR	M001	429.44	20-Finnis-2050	43.400010	67.720	69.444950	69.0879	69.4899	0.00288	1.62	56.480	122.92	0.46
DoylesR	M001	388.03	20-Finnis-2050	43.400010	67.530	69.346570		69.3794	0.00238	1.55	67.018	131.74	0.43
DoylesR	M001	344.78	20-Finnis-2050	43.400010	67.390	69.330830		69.3367	0.00040	0.68	140.447	207.82	0.18
DoylesR	M001	215.64	20-Finnis-2050	43.400010	67.210	69.326770		69.3277	0.00004	0.23	335.622	327.88	0.06
DoylesR	M001	77.13	20-Finnis-2050	43.400010	66.620	69.326190		69.3265	0.00001	0.15	603.043	498.98	0.03
CochranePB	M002	8105.53	20-Finnis-2050	12.700000	140.650	142.302700	141.3344	142.3046	0.00010	0.34	84.225	118.66	0.09
CochranePB	M002	8065.47	20-Finnis-2050	12.700000	140.640	142.288300		142.2965	0.00044	0.64	44.741	80.72	0.19
CochranePB	M002	8050.98	20-Finnis-2050	12.700000	139.200	142.278700		142.2941	0.00005	0.59	43.770	69.65	0.12
CochranePB	M002	8024.09	20-Finnis-2050	12.700000	140.620	142.278700		142.2874	0.00048	0.65	46.462	103.64	0.20
CochranePB	M002	8013.06	20-Finnis-2050	12.700000	140.420	142.275100		142.2825	0.00034	0.61	51.040	103.69	0.17
CochranePB	M002	8004.70	20-Finnis-2050	12.700000	140.250	142.276000	141.8023	142.2793	0.00018	0.57	67.424	108.67	0.13
CochranePB	M002	8000		Culvert									
CochranePB	M002	7995.14	20-Finnis-2050	12.700000	140.370	142.272800	141.5147	142.2772	0.00014	0.49	61.105	81.31	0.12
CochranePB	M002	7964.49	20-Finnis-2050	12.700000	140.140	141.774900	141.7749	142.1518	0.01170	3.25	6.514	10.04	0.91
CochranePB	M002	7901.64	20-Finnis-2050	12.700000	139.300	140.712400	140.8731	141.1757	0.02128	3.27	6.175	24.46	1.15
CochranePB	M002	7847.08	20-Finnis-2050	12.700000	138.680	139.789800	139.6701	139.8490	0.00720	1.64	16.128	50.56	0.66
CochranePB	M002	7812.33	20-Finnis-2050	12.700000	138.520	139.307900	139.3079	139.4224	0.02726	2.29	11.180	53.95	1.22
CochranePB	M002	7738.34	20-Finnis-2050	12.700000	137.940	138.909900	138.7164	138.9219	0.00232	0.85	33.547	125.15	0.38
CochranePB	M002	7695.32	20-Finnis-2050	12.700000	137.670	138.583400	138.5834	138.7211	0.01683	2.08	10.489	40.49	1.01
CochranePB	M002	7609.21	20-Finnis-2050	12.700000	136.290	137.727200	137.3580	137.7441	0.00082	0.78	31.894	71.48	0.25
CochranePB	M002	7515.77	20-Finnis-2050	12.700000	136.280	137.607300		137.6389	0.00208	1.16	25.202	91.92	0.39
CochranePB	M002	7476.72	20-Finnis-2050	12.700000	136.260	137.586900		137.5964	0.00058	0.61	38.617	90.48	0.21
CochranePB	M002	7450.86	20-Finnis-2050	12.700000	136.250	137.554900		137.5752	0.00121	0.84	28.541	83.00	0.30
CochranePB	M002	7329.89	20-Finnis-2050	12.700000	136.230	137.254500		137.3048	0.00507	1.37	17.711	73.83	0.58
CochranePB	M002	7253.62	20-Finnis-2050	12.700000	136.050	137.079800		137.0972	0.00212	0.94	26.475	92.19	0.37
CochranePB	M002	7208.54	20-Finnis-2050	12.700000	135.880	136.971900		136.9953	0.00270	1.10	24.987	94.94	0.43
CochranePB	M002	7108.13	20-Finnis-2050	12.700000	135.540	136.509400		136.5722	0.00981	1.93	16.449	71.70	0.78
CochranePB	M002	7041.67	20-Finnis-2050	12.700000	134.910	136.043400	136.0251	136.1366	0.00612	1.58	14.747	73.81	0.64
CochranePB	M002	6985.71	20-Finnis-2050	12.700000	134.290	135.640200	135.6402	135.7846	0.00654	2.10	12.917	43.60	0.69
CochranePB	M002	6955.25	20-Finnis-2050	12.700000	133.480	134.594100	134.8114	135.2967	0.04647	3.79	3.779	10.20	1.68
CochranePB	M002	6863.52	20-Finnis-2050	12.700000	131.820	132.849900	132.8499	132.9902	0.01531	2.37	11.116	38.37	0.98
CochranePB	M002	6840.09	20-Finnis-2050	12.700000	131.190	132.107000	132.1895	132.4254	0.04045	3.11	7.430	35.77	1.53
CochranePB	M002	6808.25	20-Finnis-2050	12.700000	130.510	131.359800	131.4460	131.6676	0.05795	3.34	7.331	38.61	1.76
CochranePB	M002	6767.75	20-Finnis-2050	12.700000	129.310	130.328800	130.3643	130.4926	0.01624	2.26	10.655	47.33	1.01
CochranePB	M002	6727.78	20-Finnis-2050	12.700000	128.360	129.428500	129.4937	129.6922	0.02476	2.81	7.952	32.10	1.22
CochranePB	M002	6691.71	20-Finnis-2050	12.700000	127.960	129.020100	128.9469	129.0851	0.00717	1.59	16.511	70.05	0.68
CochranePB	M002	6651.54	20-Finnis-2050	12.700000	127.680	128.638500		128.7408	0.01061	1.55	10.569	37.23	0.79
CochranePB	M002	6630.83	20-Finnis-2050	12.700000	127.190	128.384200	128.3813	128.5356	0.00909	1.99	10.811	47.90	0.79
CochranePB	M002	6534.50	20-Finnis-2050	12.700000	126.300	127.262900	127.2629	127.4072	0.01582	2.10	10.631	50.50	0.98
CochranePB	M002	6507.97	20-Finnis-2050	12.700000	125.650	126.547000	126.6134	126.7641	0.03721	2.77	9.023	54.11	1.43

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	6480.50	20-Finnis-2050	12.700000	124.970	125.903800	125.9317	126.0368	0.02100	2.32	11.208	54.92	1.11
CochranePB	M002	6433.33	20-Finnis-2050	12.700000	124.090	125.030700	125.0549	125.2014	0.01894	2.06	8.694	35.81	1.05
CochranePB	M002	6400.96	20-Finnis-2050	12.700000	123.400	124.543700	124.3836	124.5960	0.00487	1.35	15.824	44.63	0.55
CochranePB	M002	6364.18	20-Finnis-2050	12.700000	123.280	124.545400		124.5518	0.00028	0.39	45.258	108.34	0.14
CochranePB	M002	6314.31	20-Finnis-2050	12.700000	123.270	124.483700		124.5182	0.00195	0.97	20.595	53.36	0.37
CochranePB	M002	6286.25	20-Finnis-2050	12.700000	123.260	124.399100		124.4501	0.00311	1.16	17.530	57.19	0.46
CochranePB	M002	6202.53	20-Finnis-2050	12.700000	122.810	124.017800	123.9387	124.1264	0.00612	1.72	11.856	32.38	0.66
CochranePB	M002	6130.00	20-Finnis-2050	12.700000	122.300	123.288700	123.2887	123.4693	0.01591	1.93	7.424	26.11	0.97
CochranePB	M002	6040.82	20-Finnis-2050	12.700000	121.410	122.575800	122.4646	122.6186	0.00295	1.20	21.272	74.46	0.46
CochranePB	M002	6006.95	20-Finnis-2050	12.700000	121.400	122.543400		122.5570	0.00093	0.56	30.471	97.08	0.25
CochranePB	M002	5976.09	20-Finnis-2050	12.700000	121.390	122.375100	122.3751	122.4780	0.01473	1.85	12.886	69.48	0.93
CochranePB	M002	5910.40	20-Finnis-2050	12.700000	120.290	121.472400	121.4803	121.6522	0.01320	2.34	10.181	38.81	0.93
CochranePB	M002	5863.68	20-Finnis-2050	12.700000	119.620	120.512900	120.6020	120.8115	0.03674	2.69	6.690	32.45	1.44
CochranePB	M002	5811.63	20-Finnis-2050	12.700000	118.870	119.953900	119.9539	120.0730	0.01093	2.02	12.539	51.62	0.84
CochranePB	M002	5768.42	20-Finnis-2050	12.700000	117.380	118.291000	118.5107	119.0038	0.09367	3.75	3.493	15.83	2.23
CochranePB	M002	5725.36	20-Finnis-2050	12.700000	116.480	117.598400	117.6001	117.7516	0.01168	2.04	10.072	39.54	0.87
CochranePB	M002	5678.58	20-Finnis-2050	12.700000	115.390	116.411500	116.5736	116.8139	0.03458	2.85	4.937	19.42	1.43
CochranePB	M002	5627.04	20-Finnis-2050	12.700000	114.790	116.145200	115.8216	116.1866	0.00228	1.17	19.309	44.49	0.41
CochranePB	M002	5609.94	20-Finnis-2050	19.000000	114.770	115.942400		116.0642	0.00781	1.84	15.887	42.35	0.73
CochranePB	M002	5601.00	20-Finnis-2050	19.000000	114.760	115.916000		115.9284	0.00168	0.85	43.618	108.63	0.33
CochranePB	M002	5568.52	20-Finnis-2050	19.000000	114.750	115.875600		115.8869	0.00125	0.72	43.672	94.77	0.29
CochranePB	M002	5508.20	20-Finnis-2050	19.000000	114.040	115.578900		115.7375	0.00465	1.85	12.574	20.89	0.60
CochranePB	M002	5473.67	20-Finnis-2050	19.000000	113.900	115.261300	115.2613	115.4953	0.01084	2.48	12.065	27.08	0.89
CochranePB	M002	5403.83	20-Finnis-2050	19.000000	110.690	111.807700	112.2620	113.5853	0.10898	5.97	3.431	8.52	2.60
CochranePB	M002	5352.19	20-Finnis-2050	19.000000	110.270	111.605700	111.6057	111.8776	0.01316	2.57	10.233	21.12	0.96
CochranePB	M002	5309.83	20-Finnis-2050	19.000000	109.640	111.032900	111.1105	111.3143	0.01349	2.69	12.384	43.40	0.98
CochranePB	M002	5266.90	20-Finnis-2050	19.000000	109.300	110.608300	110.6445	110.7754	0.01108	2.37	18.740	82.51	0.88
CochranePB	M002	5213.45	20-Finnis-2050	19.000000	108.810	110.348400	109.8557	110.3655	0.00094	0.81	42.680	80.75	0.27
CochranePB	M002	5162.38	20-Finnis-2050	35.900010	108.180	109.944500	109.9445	110.2106	0.00943	3.11	25.740	52.55	0.88
CochranePB	M002	5109.83	20-Finnis-2050	35.900010	108.020	109.447500	109.1464	109.4897	0.00364	1.40	48.481	100.90	0.50
CochranePB	M002	5059.83	20-Finnis-2050	35.900010	107.540	109.135400		109.2788	0.00677	2.29	34.602	85.26	0.73
CochranePB	M002	5013.20	20-Finnis-2050	35.900010	107.210	108.833100	108.8331	108.9847	0.00871	2.35	33.669	98.39	0.80
CochranePB	M002	4977.38	20-Finnis-2050	35.900010	107.070	108.697400	108.4358	108.7275	0.00181	1.21	66.294	145.84	0.38
CochranePB	M002	4908.49	20-Finnis-2050	35.900010	106.950	108.670200		108.6778	0.00053	0.73	111.805	195.93	0.21
CochranePB	M002	4883.44	20-Finnis-2050	35.900010	106.940	108.657900		108.6628	0.00030	0.53	131.994	199.65	0.16
CochranePB	M002	4816.97	20-Finnis-2050	35.900010	106.930	108.646700		108.6520	0.00029	0.52	135.972	221.54	0.16
CochranePB	M002	4757.22	20-Finnis-2050	35.900010	106.780	108.637000		108.6414	0.00020	0.48	158.187	254.31	0.13
CochranePB	M002	4718.65	20-Finnis-2050	35.900010	106.770	108.626400		108.6333	0.00029	0.59	142.463	316.42	0.16
CochranePB	M002	4674.22	20-Finnis-2050	35.900010	106.760	108.596100		108.6176	0.00077	0.95	96.430	264.96	0.26
CochranePB	M002	4633.22	20-Finnis-2050	35.900010	106.750	108.581200		108.5961	0.00033	0.60	89.761	173.63	0.17
CochranePB	M002	4561.03	20-Finnis-2050	35.900010	106.740	108.512900		108.5559	0.00111	1.08	55.293	96.22	0.31
CochranePB	M002	4506.74	20-Finnis-2050	35.900010	106.430	108.196100	108.1961	108.4142	0.00700	2.51	26.133	57.02	0.75
CochranePB	M002	4459.83	20-Finnis-2050	35.900010	105.660	107.233500	107.4450	107.8539	0.02028	3.75	14.340	43.26	1.25
CochranePB	M002	4409.53	20-Finnis-2050	35.900010	104.620	106.225600	106.4040	106.8272	0.02052	3.76	13.695	29.41	1.24
CochranePB	M002	4359.83	20-Finnis-2050	35.900010	103.720	105.405700	105.5810	105.9346	0.01530	3.43	14.119	30.48	1.08
CochranePB	M002	4327.93	20-Finnis-2050	35.900010	103.170	104.959600	105.0819	105.4733	0.01390	3.35	14.223	28.55	1.05
CochranePB	M002	4265.56	20-Finnis-2050	35.900010	102.450	104.230900	104.2799	104.6267	0.01232	3.29	16.886	26.76	0.99
CochranePB	M002	4208.11	20-Finnis-2050	35.900010	101.670	103.295800	103.4417	103.8137	0.01580	3.39	14.251	30.49	1.11
CochranePB	M002	4159.83	20-Finnis-2050	35.900010	101.120	102.184900	102.2664	102.5025	0.05215	3.31	15.852	47.97	1.72
CochranePB	M002	4109.83	20-Finnis-2050	35.900010	98.840	100.462600	100.6518	101.0652	0.01786	3.77	14.655	36.85	1.19
CochranePB	M002	4056.00	20-Finnis-2050	35.900010	97.180	98.753550	99.1189	99.7389	0.03243	4.72	9.775	16.22	1.55
CochranePB	M002	4009.83	20-Finnis-2050	35.900010	96.330	98.176130	98.2866	98.5420	0.01549	3.68	22.697	62.96	1.07
CochranePB	M002	3969.03	20-Finnis-2050	35.900010	95.620	97.397250	97.6133	97.9665	0.01294	3.60	13.767	40.58	1.04
CochranePB	M002	3916.58	20-Finnis-2050	35.900010	94.820	96.915140	97.0583	97.3161	0.00996	3.22	20.599	73.02	0.87
CochranePB	M002	3859.82	20-Finnis-2050	35.900010	94.340	96.118770	96.3818	96.6636	0.01281	3.30	11.646	21.09	1.00
CochranePB	M002	3810.05	20-Finnis-2050	35.900010	93.500	95.325400	95.6086	95.9694	0.01470	3.75	11.871	26.40	1.09
CochranePB	M002	3759.83	20-Finnis-2050	35.900010	93.000	94.629780	94.7972	95.1393	0.01586	3.61	17.301	54.29	1.12
CochranePB	M002	3709.28	20-Finnis-2050	35.900010	92.330	94.073140	94.1623	94.4178	0.01183	3.14	20.685	59.31	0.96
CochranePB	M002	3661.60	20-Finnis-2050	35.900010	92.050	93.801260	93.8232	93.9650	0.00624	2.39	35.884	132.33	0.71
CochranePB	M002	3609.83	20-Finnis-2050	35.900010	91.730	93.331830	93.3576	93.5972	0.01236	2.99	24.443	87.77	0.97
CochranePB	M002	3559.90	20-Finnis-2050	35.900010	90.870	92.841090	92.9022	93.1042	0.00708	2.80	27.892	81.16	0.76
CochranePB	M002	3509.83	20-Finnis-2050	35.900010	90.380	92.577010	92.3317	92.6327	0.00177	1.61	57.402	109.68	0.40
CochranePB	M002	3493.23	20-Finnis-2050	35.900010	90.020	92.413590	91.7869	92.5927	0.00242	2.35	23.922	16.14	0.49
CochranePB	M002	3480		Bridge									
CochranePB	M002	3474.26	20-Finnis-2050	35.900010	89.910	92.425640	91.4122	92.5391	0.00117	1.74	29.002	17.45	0.36
CochranePB	M002	3466.43	20-Finnis-2050	35.900010	90.000	91.482570	91.4823	92.3048	0.01311	4.14	10.087	9.66	1.10
CochranePB	M002	3454.35	20-Finnis-2050	35.900010	89.940	91.811120	91.3786	92.0586	0.00353	2.44	18.964	16.35	0.59
CochranePB	M002	3450		Bridge									
CochranePB	M002	3434.16	20-Finnis-2050	39.299990	90.360	91.652690	91.5103	91.9868	0.00747	2.75	17.076	20.04	0.81
CochranePB	M002	3413.11	20-Finnis-2050	39.299990	90.140	91.587380	91.5874	91.7432	0.00765	2.56	35.793	91.15	0.78
CochranePB	M002	3391.58	20-Finnis-2050	39.299990	90.030	91.495540	91.1996	91.5821	0.00484	2.14	44.755	101.71	0.64
CochranePB	M002	3371.12	20-Finnis-2050	39.299990	90.020	91.264630	91.2646	91.4464	0.00844	2.51	33.083	91.69	0.82
CochranePB	M002	3309.87	20-Finnis-2050	39.299990	89.280	90.661770	90.6144	90.7635	0.00889	2.59	38.363	103.96	0.81
CochranePB	M002	3272.96	20-Finnis-2050	39.299990	88.730	90.221030	90.2210	90.3999	0.00966	2.68	29.932	76.87	0.85
CochranePB	M002	3219.09	20-Finnis-2050	39.299990	88.300	89.748340	89.7605	89.8999	0.00932	2.56	33.737	107.19	0.84
CochranePB	M002	3175.54	20-Finnis-2050	39.299990	87.360	89.415340	89.2262	89.5537	0.00269	1.93	35.488	66.74	0.48
CochranePB	M002	3165		Bridge									
CochranePB	M002	3157.85	20-Finnis-2050	39.299990	87.500	89.216380	89.2164	89.4280	0.00486	2.39	30.459	78.76	0.64
CochranePB	M002	3135.32	20-Finnis-2050	39.299990	87.850	89.090460	89.0263	89.1506	0.00510	1.74	50.763	153.53	0.61
CochranePB	M002	3106.53	20-Finnis-2050	39.299990	87.940	88.790700	88.7907	88.9094	0.02699	2.58	29.187	118.10	1.24
CochranePB	M002	3088.94	20-Finnis-2050	39.299990	86.840	88.748990	88.1192	88.7859	0.00078	1.06	76.827	171.83	0.27
CochranePB	M002	3080		Bridge									
CochranePB	M002	3075.67	20-Finnis-2050	39.299990	86.740	88.310460	87.9841	88.3743	0.00172	1.37	51.949	120.17	0.39
CochranePB	M002	3056.89	20-Finnis-2050	39.299990	87.660	88.231080		88.3068	0.01427	0.93	32.840	110.34	0.76
CochranePB	M002	3007.54	20-Finnis-2050	39.299990	87.610	87.937810		87.9697	0.00389	0.40	49.824	103.12	0.31
CochranePB	M002	2976.31	20-Finnis-2050	39.299990	87.510	87.846950		87.8762	0.00362	0.45	52.109	116.87	0.35
CochranePB	M002	2941.08	20-Finnis-2050	39.299990	86.980	87.766080		87.7802	0.00230	0.73	76.791	220.86	0.36

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	2920.10	20-Finnis-2050	39.299990	86.740	87.754370	87.5443	87.7574	0.00025	0.31	167.719	295.30	0.12
CochranePB	M002	2915		Bridge									
CochranePB	M002	2912.75	20-Finnis-2050	39.299990	86.970	87.752390	87.7524	87.7545	0.00015	0.26	200.702	313.30	0.10
CochranePB	M002	2890.23	20-Finnis-2050	39.299990	86.650	86.824910	86.9914	87.5300	0.41879	3.32	10.565	74.14	3.59
CochranePB	M002	2823.99	20-Finnis-2050	39.299990	86.080	87.066280	86.7526	87.0755	0.00149	0.67	94.264	247.53	0.28
CochranePB	M002	2789.49	20-Finnis-2050	39.299990	86.040	87.040760		87.0496	0.00126	0.58	97.313	254.46	0.26
CochranePB	M002	2741.30	20-Finnis-2050	39.299990	85.710	86.986760		86.9956	0.00099	0.74	103.589	266.40	0.27
CochranePB	M002	2663.79	20-Finnis-2050	39.299990	85.580	86.938890		86.9493	0.00105	0.83	100.937	254.25	0.28
CochranePB	M002	2639.38	20-Finnis-2050	39.299990	85.570	86.905140		86.9175	0.00134	0.89	92.441	235.50	0.31
CochranePB	M002	2616.24	20-Finnis-2050	39.299990	85.300	86.889400		86.8988	0.00077	0.79	109.393	230.52	0.25
CochranePB	M002	2539.69	20-Finnis-2050	39.299990	85.410	86.840430		86.8548	0.00135	0.92	89.301	221.62	0.32
CochranePB	M002	2489.06	20-Finnis-2050	39.299990	85.180	86.793340		86.8111	0.00143	1.10	83.536	198.62	0.34
CochranePB	M002	2438.28	20-Finnis-2050	39.299990	84.870	86.729130		86.7571	0.00144	1.19	78.377	173.49	0.35
CochranePB	M002	2384.01	20-Finnis-2050	39.299990	84.650	86.635350		86.6761	0.00208	1.53	65.618	138.09	0.41
CochranePB	M002	2310.47	20-Finnis-2050	39.299990	84.330	86.388000		86.4812	0.00385	2.03	48.543	118.79	0.55
CochranePB	M002	2284.63	20-Finnis-2050	39.299990	84.160	86.330030		86.3844	0.00282	1.76	54.169	102.52	0.45
CochranePB	M002	2240.58	20-Finnis-2050	39.299990	84.040	85.887930	85.8879	86.1575	0.00971	3.08	24.630	44.96	0.87
CochranePB	M002	2170.94	20-Finnis-2050	39.299990	82.260	83.912120	84.2419	84.9888	0.03163	4.92	10.310	16.40	1.55
CochranePB	M002	2136.89	20-Finnis-2050	39.299990	81.720	83.367120	83.5397	84.0041	0.02016	3.75	13.272	23.74	1.24
CochranePB	M002	2100.01	20-Finnis-2050	39.299990	81.300	83.131030	83.1637	83.4546	0.01068	3.01	21.546	39.81	0.91
CochranePB	M002	2046.85	20-Finnis-2050	39.299990	80.890	82.651280	82.6513	82.9538	0.00846	2.65	21.084	39.84	0.82
CochranePB	M002	2014.35	20-Finnis-2050	39.299990	80.470	81.891490	82.0708	82.4658	0.02786	3.62	14.853	40.28	1.39
CochranePB	M002	1990.76	20-Finnis-2050	39.299990	80.100	81.887020	81.8870	82.1316	0.00908	2.72	24.633	44.31	0.84
CochranePB	M002	1945.20	20-Finnis-2050	39.299990	79.430	81.512500	81.1593	81.6090	0.00312	1.87	37.801	49.79	0.51
CochranePB	M002	1916.67	20-Finnis-2050	39.299990	79.310	81.356000		81.4971	0.00456	2.24	32.606	43.25	0.61
CochranePB	M002	1871.48	20-Finnis-2050	39.299990	79.280	81.201330		81.3023	0.00378	1.85	35.938	48.05	0.55
CochranePB	M002	1836.03	20-Finnis-2050	39.299990	78.830	81.147380		81.2088	0.00151	1.44	47.310	71.74	0.36
CochranePB	M002	1788.63	20-Finnis-2050	39.299990	78.460	80.760730	80.7607	81.0530	0.00706	3.09	25.172	38.93	0.77
CochranePB	M002	1768.08	20-Finnis-2050	39.299990	78.140	79.994090	80.2386	80.7642	0.02158	4.49	13.891	25.49	1.30
CochranePB	M002	1733.19	20-Finnis-2050	39.299990	77.950	79.940120	79.9492	80.2167	0.00713	2.72	25.064	48.31	0.77
CochranePB	M002	1694.89	20-Finnis-2050	39.299990	77.120	79.238030	78.8207	79.3384	0.00251	1.74	35.490	41.90	0.47
CochranePB	M002	1685.79	20-Finnis-2050	39.299990	77.060	79.180140		79.3091	0.00338	2.02	30.948	38.08	0.54
CochranePB	M002	1640.51	20-Finnis-2050	39.299990	76.450	78.678630	78.6786	79.0667	0.00746	3.15	19.452	27.98	0.80
CochranePB	M002	1602.99	20-Finnis-2050	39.299990	75.010	76.416380	76.9310	78.2577	0.07841	6.23	7.406	15.14	2.33
CochranePB	M002	1585.52	20-Finnis-2050	39.299990	74.010	75.294190	75.6714	76.6808	0.08521	5.65	8.822	20.45	2.36
CochranePB	M002	1569.47	20-Finnis-2050	39.299990	73.710	74.982790	75.1408	75.5664	0.03705	3.51	12.385	27.25	1.54
CochranePB	M002	1541.97	20-Finnis-2050	39.299990	72.310	74.044720	74.2428	74.7685	0.02229	4.08	12.362	18.53	1.30
CochranePB	M002	1510.83	20-Finnis-2050	39.299990	71.340	72.514970	72.7980	73.5347	0.08229	4.49	8.945	23.48	2.23
CochranePB	M002	1495.27	20-Finnis-2050	39.299990	71.190	72.968460	72.6944	73.0925	0.00397	1.72	30.008	41.62	0.56
CochranePB	M002	1458.62	20-Finnis-2050	39.299990	70.580	72.590260	72.5903	72.8509	0.00819	3.22	28.340	49.49	0.83
CochranePB	M002	1419.61	20-Finnis-2050	39.299990	70.210	72.129190	72.0375	72.3770	0.00696	2.79	24.910	39.38	0.77
CochranePB	M002	1384.56	20-Finnis-2050	39.299990	69.610	71.766900	71.6635	72.1341	0.00633	2.86	19.770	46.51	0.75
CochranePB	M002	1351.51	20-Finnis-2050	39.299990	69.540	71.712040	71.7120	71.9099	0.00444	2.48	33.586	78.53	0.63
CochranePB	M002	1311.78	20-Finnis-2050	39.299990	69.490	71.331590	71.4124	71.6440	0.00919	3.12	28.652	104.73	0.88
CochranePB	M002	1291.19	20-Finnis-2050	39.299990	69.280	70.949320	71.1276	71.3939	0.01550	3.64	22.015	84.22	1.09
CochranePB	M002	1217.75	20-Finnis-2050	39.299990	68.700	70.805580	70.2882	70.8455	0.00085	1.12	64.534	110.90	0.28
CochranePB	M002	1200.39	20-Finnis-2050	39.299990	68.690	70.542620	70.1478	70.7977	0.00408	2.28	17.934	18.67	0.60
CochranePB	M002	1190		Bridge									
CochranePB	M002	1185.68	20-Finnis-2050	40.400010	68.460	70.504910	69.8406	70.6961	0.00228	1.95	21.254	25.32	0.47
CochranePB	M002	1164.32	20-Finnis-2050	40.400010	68.650	70.376700	70.3767	70.6125	0.00569	2.67	28.850	75.72	0.71
CochranePB	M002	1132.60	20-Finnis-2050	40.400010	68.600	69.797780	69.9433	70.2411	0.02774	3.70	20.603	99.31	1.40
CochranePB	M002	1111.68	20-Finnis-2050	40.400010	68.550	69.794130	69.5780	69.8484	0.00408	1.68	51.438	151.19	0.56
CochranePB	M002	1059.95	20-Finnis-2050	40.400010	68.380	69.610690		69.6855	0.00473	2.04	46.404	130.25	0.63
CochranePB	M002	998.99	20-Finnis-2050	40.400010	68.130	69.356840		69.4041	0.00418	1.87	53.543	163.68	0.58
CochranePB	M002	955.54	20-Finnis-2050	40.400010	68.120	69.345880		69.3498	0.00032	0.50	154.112	253.85	0.16
CochranePB	M002	851.16	20-Finnis-2050	40.400010	67.620	69.332760		69.3353	0.00014	0.42	192.924	243.79	0.11
CochranePB	M002	798.06	20-Finnis-2050	40.400010	67.470	69.330060		69.3315	0.00007	0.30	254.979	277.40	0.08
CochranePB	M002	746.77	20-Finnis-2050	40.400010	67.300	69.328900		69.3296	0.00003	0.21	352.294	317.30	0.05
CochranePB	M002	694.52	20-Finnis-2050	40.400010	66.980	69.328250		69.3288	0.00002	0.18	431.029	357.24	0.04
CochranePB	M002	669.16	20-Finnis-2050	40.400010	66.970	69.328060		69.3284	0.00001	0.16	481.085	389.15	0.04
CochranePB	M002	590.19	20-Finnis-2050	40.400010	66.840	69.327320		69.3276	0.00001	0.14	572.368	460.28	0.03
CochranePB	M002	539.85	20-Finnis-2050	40.400010	66.810	69.326870		69.3271	0.00001	0.13	583.239	473.60	0.03
CochranePB	M002	488.40	20-Finnis-2050	40.400010	66.540	69.326530		69.3268	0.00001	0.12	623.095	490.39	0.03
CochranePB	M001	381.27	20-Finnis-2050	80.100010	66.350	69.324430		69.3252	0.00002	0.25	717.385	580.12	0.05
CochranePB	M001	313.14	20-Finnis-2050	80.100010	66.280	69.323620		69.3241	0.00001	0.19	852.438	648.12	0.04

HEC-RAS Plan:

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	TR001	439.21	20-AMEC-2080	34.099990	105.110	106.394300	106.1660	106.5176	0.00463	2.13	33.075	58.76	0.63
RaymondB	TR001	409.42	20-AMEC-2080	34.099990	104.680	106.047400	105.9711	106.3217	0.00849	3.01	21.495	33.31	0.87
RaymondB	TR001	380.07	20-AMEC-2080	34.099990	104.050	106.170700		106.2050	0.00056	1.07	64.825	74.24	0.24
RaymondB	TR001	360.64	20-AMEC-2080	34.099990	103.600	106.170000	105.1145	106.1931	0.00035	0.95	79.084	90.60	0.19
RaymondB	TR001	350		Bridge									
RaymondB	TR001	344.45	20-AMEC-2080	34.099990	103.300	105.058000	105.0580	105.7818	0.01195	4.20	10.137	69.81	1.05
RaymondB	TR001	334.13	20-AMEC-2080	34.099990	103.400	104.272700	104.6357	105.4388	0.04554	4.99	8.745	24.14	1.84
RaymondB	TR001	272.22	20-AMEC-2080	34.099990	102.830	103.937900	103.9379	104.1849	0.01063	2.91	22.202	44.83	0.94
RaymondB	TR001	218.50	20-AMEC-2080	34.099990	101.420	102.618500	102.8437	103.3651	0.02023	4.17	12.168	24.50	1.30
RaymondB	TR001	163.97	20-AMEC-2080	34.099990	100.320	101.787400	101.4255	101.9500	0.00315	1.91	22.680	25.45	0.53
RaymondB	TR001	115.54	20-AMEC-2080	34.099990	100.000	101.200900	101.2009	101.6453	0.01338	3.55	15.349	22.90	1.07
RaymondB	TR001	56.65	20-AMEC-2080	34.099990	97.730	98.436450	98.8527	99.9304	0.08432	5.80	7.238	15.71	2.42
RaymondB	M002	6453.60	20-AMEC-2080	9.000000	118.100	125.971800	118.6712	125.9718	0.00000	0.01	845.450	252.77	0.00
RaymondB	M002	6405.52	20-AMEC-2080	9.000000	118.000	125.971800		125.9718	0.00000	0.01	848.894	234.86	0.00
RaymondB	M002	6347.04	20-AMEC-2080	9.000000	124.730	125.970100		125.9717	0.00003	0.18	52.107	44.00	0.05
RaymondB	M002	6247.26	20-AMEC-2080	9.000000	117.210	117.969600		118.0144	0.00333	1.22	13.055	33.21	0.49
RaymondB	M002	6230.10	20-AMEC-2080	9.000000	117.200	117.957500		117.9806	0.00133	0.74	16.628	39.97	0.31
RaymondB	M002	6205.35	20-AMEC-2080	9.000000	117.280	117.933200		117.9428	0.00123	0.65	23.564	53.05	0.29
RaymondB	M002	6143.06	20-AMEC-2080	9.000000	117.180	117.834700		117.8503	0.00184	0.79	20.141	53.26	0.35
RaymondB	M002	6105.93	20-AMEC-2080	9.000000	117.170	117.689000		117.7372	0.00470	1.03	11.475	49.62	0.53
RaymondB	M002	6026.35	20-AMEC-2080	9.000000	116.810	117.445400		117.4684	0.00236	0.86	16.338	42.05	0.39
RaymondB	M002	5933.71	20-AMEC-2080	9.000000	116.420	117.121100		117.1880	0.00402	1.24	9.611	25.48	0.53
RaymondB	M002	5883.92	20-AMEC-2080	9.000000	116.120	116.907600		116.9896	0.00400	1.32	8.192	19.30	0.53
RaymondB	M002	5785.15	20-AMEC-2080	9.000000	115.750	116.470500		116.5466	0.00516	1.34	8.584	20.48	0.59
RaymondB	M002	5732.44	20-AMEC-2080	9.000000	115.460	116.166000		116.2587	0.00552	1.37	7.181	18.18	0.61
RaymondB	M002	5631.37	20-AMEC-2080	9.000000	114.850	115.552300		115.6317	0.00700	1.44	10.211	42.91	0.67
RaymondB	M002	5500.15	20-AMEC-2080	9.000000	114.620	115.338800		115.3516	0.00142	0.71	26.197	118.47	0.31
RaymondB	M002	5485.46	20-AMEC-2080	9.000000	114.530	115.324400		115.3347	0.00091	0.65	31.154	143.64	0.26
RaymondB	M002	5411.19	20-AMEC-2080	9.000000	114.480	115.218900	114.9853	115.2502	0.00195	0.84	14.094	46.35	0.36
RaymondB	M002	5338.54	20-AMEC-2080	9.000000	114.410	115.222100	114.7029	115.2239	0.00009	0.20	51.043	103.94	0.08
RaymondB	M002	5278.93	20-AMEC-2080	9.000000	114.440	115.214400	114.7394	115.2174	0.00014	0.25	41.438	100.70	0.10
RaymondB	M002	5226.60	20-AMEC-2080	9.000000	114.420	115.205600		115.2089	0.00019	0.27	42.230	111.67	0.11
RaymondB	M002	5171.66	20-AMEC-2080	9.000000	114.420	115.191800		115.1966	0.00027	0.34	39.443	144.26	0.14
RaymondB	M002	5111.50	20-AMEC-2080	9.000000	114.420	115.159300		115.1718	0.00074	0.56	22.974	63.88	0.23
RaymondB	M002	5077.48	20-AMEC-2080	9.000000	114.380	115.140400		115.1501	0.00052	0.47	23.706	54.58	0.19
RaymondB	M002	5017.13	20-AMEC-2080	9.000000	114.400	115.029500		115.0801	0.00341	1.00	9.265	21.98	0.47
RaymondB	M002	4967.43	20-AMEC-2080	9.000000	114.070	114.771400		114.8635	0.00525	1.35	6.864	14.58	0.59
RaymondB	M002	4943.43	20-AMEC-2080	9.000000	113.820	114.664100		114.7530	0.00404	1.38	8.022	19.27	0.54
RaymondB	M002	4910.95	20-AMEC-2080	9.000000	113.670	114.523000		114.6183	0.00420	1.43	8.088	23.50	0.55
RaymondB	M002	4851.17	20-AMEC-2080	9.000000	113.470	114.270400		114.3621	0.00444	1.41	8.356	26.69	0.56
RaymondB	M002	4783.73	20-AMEC-2080	9.000000	113.300	114.004900		114.0606	0.00419	1.09	9.835	32.84	0.52
RaymondB	M002	4732.68	20-AMEC-2080	9.000000	113.070	113.698300		113.7680	0.00813	1.39	9.327	34.24	0.70
RaymondB	M002	4681.76	20-AMEC-2080	9.000000	112.350	113.013000	113.0130	113.2329	0.01350	2.14	4.787	12.11	0.95
RaymondB	M002	4673.96	20-AMEC-2080	9.000000	111.740	112.330700	112.5436	113.0026	0.05601	3.69	2.668	8.78	1.85
RaymondB	M002	4644.78	20-AMEC-2080	9.000000	110.490	111.112700	111.2764	111.6391	0.03717	3.26	2.980	18.69	1.54
RaymondB	M002	4625.72	20-AMEC-2080	9.000000	106.750	107.126600	107.5182	109.7030	0.47678	7.11	1.266	5.77	4.85
RaymondB	M002	4615.42	20-AMEC-2080	9.000000	105.830	106.354300	106.5980	107.2340	0.10178	4.20	2.266	8.15	2.39
RaymondB	M002	4607.06	20-AMEC-2080	9.000000	105.790	106.718000	106.5610	106.8803	0.00600	1.84	5.566	8.94	0.67
RaymondB	M002	4597.34	20-AMEC-2080	9.000000	105.760	106.674000		106.8142	0.00635	1.74	6.422	13.98	0.67
RaymondB	M002	4575.18	20-AMEC-2080	9.000000	105.980	106.364400	106.3644	106.5259	0.03883	2.08	5.190	17.71	1.39
RaymondB	M002	4545.57	20-AMEC-2080	9.000000	104.650	105.406700	105.4800	105.7317	0.01895	2.62	4.110	11.02	1.13
RaymondB	M002	4522.17	20-AMEC-2080	9.000000	103.670	104.176500	104.4154	104.9209	0.06903	3.90	2.550	8.58	2.02
RaymondB	M002	4511.42	20-AMEC-2080	9.000000	103.620	104.530700	104.3373	104.6023	0.00374	1.37	9.625	19.99	0.52
RaymondB	M002	4489.94	20-AMEC-2080	9.000000	103.590	104.229900	104.2299	104.4450	0.01501	2.19	5.120	13.89	0.99
RaymondB	M002	4466.63	20-AMEC-2080	9.000000	103.030	104.008900	103.6757	104.0656	0.00209	1.11	9.791	16.33	0.40
RaymondB	M002	4439.46	20-AMEC-2080	9.000000	103.000	103.692700	103.6581	103.9273	0.01467	2.30	5.013	13.84	0.99
RaymondB	M002	4415.77	20-AMEC-2080	9.000000	102.780	103.331300	103.3313	103.5306	0.01849	2.08	5.150	16.91	1.06
RaymondB	M002	4385.89	20-AMEC-2080	9.000000	101.800	102.377000	102.4979	102.7918	0.03193	2.92	3.466	10.42	1.41
RaymondB	M002	4354.01	20-AMEC-2080	9.000000	101.270	101.949600	101.9529	102.0960	0.01284	2.20	7.840	27.07	0.94
RaymondB	M002	4341.66	20-AMEC-2080	9.000000	100.840	101.557200	101.6580	101.8813	0.02034	2.64	4.432	17.59	1.16
RaymondB	M002	4332.73	20-AMEC-2080	9.000000	100.320	100.842700	101.0589	101.5434	0.06485	3.80	2.658	8.93	1.97
RaymondB	M002	4308.73	20-AMEC-2080	9.000000	98.870	99.382400	99.5671	99.9939	0.06190	3.64	3.015	11.16	1.90
RaymondB	M002	4294.65	20-AMEC-2080	9.000000	98.450	99.067440	99.1482	99.4001	0.02409	2.71	4.099	11.35	1.24
RaymondB	M002	4263.86	20-AMEC-2080	9.000000	97.590	98.377060	98.2315	98.4977	0.00581	1.61	6.623	13.04	0.64
RaymondB	M002	4235.25	20-AMEC-2080	9.000000	97.470	98.780890		98.7972	0.00039	0.61	18.865	22.73	0.18
RaymondB	M001	4130.35	20-AMEC-2080	42.099980	96.570	97.930420	97.9461	98.3824	0.01196	3.03	15.201	20.17	0.98
RaymondB	M001	4076.94	20-AMEC-2080	42.099980	96.040	97.582170	97.4139	97.8259	0.00555	2.31	22.704	32.06	0.69
RaymondB	M001	4023.53	20-AMEC-2080	42.099980	95.940	97.038680	97.0387	97.3838	0.01275	2.67	17.274	27.44	0.98
RaymondB	M001	3978.20	20-AMEC-2080	42.099980	94.640	96.655910	96.1398	96.7473	0.00189	1.38	35.925	48.52	0.40
RaymondB	M001	3916.71	20-AMEC-2080	60.699990	94.640	96.333940		96.5512	0.00459	2.40	42.060	61.98	0.65
RaymondB	M001	3863.30	20-AMEC-2080	60.699990	94.410	96.193080		96.3338	0.00294	2.03	53.852	76.22	0.53
RaymondB	M001	3809.58	20-AMEC-2080	60.699990	94.090	95.711930	95.7119	96.0777	0.00795	3.06	30.723	44.41	0.85
RaymondB	M001	3756.26	20-AMEC-2080	60.699990	93.530	94.958090	95.0640	95.5221	0.01326	3.60	22.802	33.24	1.07
RaymondB	M001	3694.37	20-AMEC-2080	60.699990	92.660	94.020470	94.2006	94.6260	0.01530	3.60	19.333	23.13	1.13
RaymondB	M001	3569.22	20-AMEC-2080	60.699990	92.150	94.090640	93.4468	94.1205	0.00079	1.11	102.553	122.47	0.28
RaymondB	M001	3527.64	20-AMEC-2080	60.699990	91.850	94.070160		94.0915	0.00046	0.94	109.963	95.14	0.22
RaymondB	M001	3446.51	20-AMEC-2080	60.699990	91.140	94.051640		94.0680	0.00021	0.74	161.594	158.51	0.15
RaymondB	M001	3421.64	20-AMEC-2080	60.699990	91.230	93.615960	92.9148	94.0159	0.00315	2.83	21.904	135.66	0.59
RaymondB	M001	3410		Bridge									
RaymondB	M001	3404.11	20-AMEC-2080	60.699990	91.230	92.964520	92.9645	93.7810	0.01026	4.04	15.318	80.21	1.00
RaymondB	M001	3380.48	20-AMEC-2080	60.699990	90.960	92.804410	92.3662	92.9820	0.00308	2.09	43.158	58.78	0.54
RaymondB	M001	3308.92	20-AMEC-2080	60.699990	90.800	92.314940	92.2678	92.6373	0.00745	2.91	31.980	43.57	0.82
RaymondB	M001	3216.73	20-AMEC-2080	60.699990	89.310	92.130570	90.9935	92.3415	0.00149	2.06	30.390	55.49	0.41
RaymondB	M001	3200		Bridge									
RaymondB	M001	3188.78	20-AMEC-2080	60.699990	89.300	91.373140	91.3731	92.0956	0.00886	4.02	17.882	36.13	0.93
RaymondB	M001	3015.18	20-AMEC-2080	60.699990	89.180	90.748520	90.4647	90.9084	0.00335	2.00	45.791	63.30	0.55
RaymondB	M001	2876.32	20-AMEC-2080	60.699990	88.660	90.165270		90.3677	0.00544	2.34	38.001	48.36	0.69

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	M001	2789.37	20-AMEC-2080	60.699990	88.240	89.969390		90.0463	0.00221	1.68	80.324	155.20	0.45
RaymondB	M001	2681.85	20-AMEC-2080	60.699990	88.140	89.441570	89.4416	89.6347	0.00931	2.68	45.867	114.47	0.87
RaymondB	M001	2604.32	20-AMEC-2080	60.699990	87.970	89.266100	88.9867	89.3008	0.00181	1.24	91.507	187.28	0.39
RaymondB	M001	2531.57	20-AMEC-2080	60.699990	87.970	89.232060		89.2414	0.00061	0.67	158.816	276.03	0.22
RaymondB	M001	2385.34	20-AMEC-2080	60.699990	87.430	89.149420		89.1844	0.00139	1.34	119.502	247.08	0.36
RaymondB	M001	2245.72	20-AMEC-2080	60.699990	86.990	88.550770	88.5449	88.9078	0.00742	2.84	29.667	53.68	0.81
RaymondB	M001	2194.47	20-AMEC-2080	60.699990	86.680	88.632490		88.6905	0.00117	1.36	80.638	91.39	0.34
RaymondB	M001	2140.67	20-AMEC-2080	60.699990	86.590	88.514020		88.6082	0.00195	1.71	62.433	69.55	0.43
RaymondB	M001	2087.60	20-AMEC-2080	60.699990	86.380	88.373150		88.5016	0.00194	1.76	47.147	42.29	0.43
RaymondB	M001	2069.54	20-AMEC-2080	60.699990	86.350	88.328210		88.4655	0.00213	1.85	47.583	46.37	0.46
RaymondB	M001	2040.77	20-AMEC-2080	60.699990	86.250	88.271650		88.4043	0.00203	1.79	51.304	67.59	0.44
RaymondB	M001	1989.18	20-AMEC-2080	60.699990	86.020	88.123300	87.6670	88.2850	0.00253	2.07	51.300	75.08	0.50
RaymondB	M001	1950.22	20-AMEC-2080	60.699990	85.790	87.449750	87.3914	88.0545	0.01226	3.71	23.623	45.05	1.04
RaymondB	M001	1885.73	20-AMEC-2080	60.699990	85.340	86.981740	86.9746	87.3322	0.00845	3.00	30.784	44.98	0.86
RaymondB	M001	1835.84	20-AMEC-2080	60.699990	84.640	86.387950	86.3880	86.8538	0.01063	3.56	25.388	28.07	0.97
RaymondB	M001	1784.61	20-AMEC-2080	60.699990	84.100	85.230970	85.4312	85.9300	0.03452	4.30	20.529	39.19	1.59
RaymondB	M001	1733.38	20-AMEC-2080	60.699990	82.790	84.701890	84.2553	84.8399	0.00250	1.89	47.212	46.87	0.49
RaymondB	M001	1682.15	20-AMEC-2080	60.699990	82.600	84.347680		84.6425	0.00550	2.55	29.285	30.72	0.70
RaymondB	M001	1630.92	20-AMEC-2080	60.699990	82.120	83.826190	83.8262	84.2795	0.00856	3.08	23.742	33.21	0.87
RaymondB	M001	1584.49	20-AMEC-2080	60.699990	81.770	83.628860	83.3644	83.8821	0.00494	2.50	32.938	34.35	0.67
RaymondB	M001	1536.01	20-AMEC-2080	60.699990	81.310	83.157150	83.1572	83.5701	0.00780	3.11	27.467	38.36	0.83
RaymondB	M001	1477.96	20-AMEC-2080	60.699990	80.960	82.745610	82.7030	83.1147	0.00725	2.92	28.209	36.21	0.80
RaymondB	M001	1425.99	20-AMEC-2080	60.699990	80.580	82.411160	82.2712	82.7561	0.00633	2.80	28.908	38.88	0.76
RaymondB	M001	1372.05	20-AMEC-2080	60.699990	80.250	82.207760		82.4266	0.00465	2.49	35.174	35.36	0.65
RaymondB	M001	1323.54	20-AMEC-2080	60.699990	79.110	81.537720	81.0544	82.0936	0.00458	3.30	18.377	15.36	0.70
RaymondB	M001	1315		Bridge									
RaymondB	M001	1303.54	20-AMEC-2080	60.699990	78.010	80.466170	80.2534	81.1836	0.00718	3.75	16.176	19.90	0.85
RaymondB	M001	1252.39	20-AMEC-2080	64.000010	78.450	80.327060	80.3271	80.7643	0.00942	3.38	26.927	31.31	0.91
RaymondB	M001	1216.25	20-AMEC-2080	64.000010	77.860	79.679000	79.8811	80.3398	0.01397	4.15	24.706	41.16	1.12
RaymondB	M001	1189.75	20-AMEC-2080	64.000010	77.610	79.003040	79.2527	79.8116	0.02828	4.39	19.544	36.33	1.48
RaymondB	M001	1166.20	20-AMEC-2080	64.000010	76.740	78.172560	78.4530	79.0941	0.03037	4.92	21.175	48.79	1.57
RaymondB	M001	1148.70	20-AMEC-2080	64.000010	76.500	77.966030	78.1487	78.5694	0.02183	4.06	24.922	51.29	1.31
RaymondB	M001	1116.25	20-AMEC-2080	64.000010	75.830	77.078220	77.2741	77.7663	0.02629	3.80	19.259	34.65	1.40
RaymondB	M001	1066.09	20-AMEC-2080	64.000010	75.160	76.621190	76.6796	77.0447	0.01048	3.06	27.542	47.31	0.94
RaymondB	M001	1035.68	20-AMEC-2080	64.000010	74.730	76.209550	76.2255	76.7175	0.01253	3.39	23.311	28.54	1.03
RaymondB	M001	999.99	20-AMEC-2080	64.000010	73.320	74.581230	74.9834	75.9026	0.03883	5.27	13.839	20.00	1.75
RaymondB	M001	976.73	20-AMEC-2080	64.000010	73.030	74.471890	74.6733	75.1561	0.01572	3.88	21.607	35.01	1.16
RaymondB	M001	942.15	20-AMEC-2080	64.000010	72.180	73.180650	73.4912	74.1159	0.06997	5.87	17.618	34.00	2.24
RaymondB	M001	916.70	20-AMEC-2080	64.000010	70.820	72.099540	72.3533	72.8704	0.03250	5.00	22.274	54.09	1.61
RaymondB	M001	892.34	20-AMEC-2080	64.000010	70.360	71.687780	71.9182	72.2785	0.01586	3.69	22.470	39.28	1.15
RaymondB	M001	866.25	20-AMEC-2080	64.000010	70.040	71.767910	71.2874	71.9437	0.00291	1.96	43.065	61.52	0.52
RaymondB	M001	841.89	20-AMEC-2080	64.000010	69.920	71.481940	71.4276	71.8244	0.00654	2.78	32.373	59.86	0.77
RaymondB	M001	816.68	20-AMEC-2080	64.000010	69.740	71.329020	71.3290	71.6502	0.00690	2.90	35.574	57.07	0.79
RaymondB	M001	766.25	20-AMEC-2080	64.000010	69.160	69.999700	70.2350	70.8193	0.06429	5.02	18.644	44.97	2.10
RaymondB	M001	716.25	20-AMEC-2080	64.000010	68.390	69.818990	69.6546	70.0236	0.00508	2.30	39.382	51.44	0.67
RaymondB	M001	675.00	20-AMEC-2080	64.000010	68.140	69.599980		69.8065	0.00544	2.40	41.245	57.86	0.69
RaymondB	M001	615.86	20-AMEC-2080	64.000010	67.750	69.493480		69.5868	0.00201	1.70	73.635	146.28	0.44
RaymondB	M001	565.77	20-AMEC-2080	64.000010	67.440	69.448150		69.5058	0.00102	1.33	94.502	178.33	0.32
RaymondB	M001	520.15	20-AMEC-2080	64.000010	67.260	69.452000		69.4677	0.00035	0.82	172.897	281.10	0.19
RaymondB	M001	468.54	20-AMEC-2080	64.000010	66.980	69.450990		69.4550	0.00010	0.50	276.304	330.19	0.11
RaymondB	M001	429.18	20-AMEC-2080	64.000010	66.800	69.450810		69.4522	0.00003	0.30	436.346	426.91	0.06
RaymondB	M001	366.25	20-AMEC-2080	64.000010	66.650	69.450520		69.4510	0.00001	0.20	698.162	638.54	0.04
RaymondB	M001	341.79	20-AMEC-2080	64.000010	66.630	69.450510		69.4509	0.00001	0.17	793.150	668.32	0.03
PettyHR	M002	6270.85	20-AMEC-2080	93.099980	66.230	69.450320		69.4505	0.00000	0.06	1898.610	829.22	0.01
PettyHR	M002	6218.07	20-AMEC-2080	93.099980	66.230	69.450230		69.4504	0.00000	0.06	1767.441	838.92	0.01
PettyHR	M002	6095.00	20-AMEC-2080	93.099980	66.230	69.450100		69.4503	0.00000	0.06	1700.505	833.82	0.01
PettyHR	M002	6004.71	20-AMEC-2080	93.099980	66.230	69.450020		69.4502	0.00000	0.06	1748.357	864.28	0.01
PettyHR	M001	5825.85	20-AMEC-2080	150.100000	66.230	69.449590		69.4499	0.00000	0.08	2062.166	839.20	0.02
PettyHR	M001	5685.44	20-AMEC-2080	150.100000	66.230	69.449340		69.4496	0.00000	0.08	2009.308	727.07	0.01
PettyHR	M001	5516.39	20-AMEC-2080	167.300000	66.230	69.448770		69.4493	0.00000	0.10	1755.823	627.14	0.02
PettyHR	M001	5279.80	20-AMEC-2080	167.300000	66.230	69.447230		69.4483	0.00001	0.14	1187.385	423.38	0.03
PettyHR	M001	4996.75	20-AMEC-2080	167.300000	66.230	69.439770		69.4447	0.00003	0.32	560.016	207.72	0.06
PettyHR	M001	4923.81	20-AMEC-2080	167.300000	66.230	69.376550		69.4342	0.00039	1.13	181.258	85.94	0.21
PettyHR	M001	4867.41	20-AMEC-2080	167.300000	66.230	69.281880		69.3950	0.00103	1.84	150.230	93.23	0.35
PettyHR	M001	4817.61	20-AMEC-2080	167.300000	66.580	69.225340		69.3357	0.00133	1.98	146.427	91.47	0.39
PettyHR	M001	4757.18	20-AMEC-2080	167.300000	66.430	68.617810	68.6178	69.1405	0.00717	4.00	72.508	65.01	0.88
PettyHR	M001	4675.66	20-AMEC-2080	167.300000	65.880	67.863180	67.5325	68.2256	0.00520	3.22	75.014	50.09	0.73
PettyHR	M001	4612.84	20-AMEC-2080	167.300000	64.880	67.058480	67.0068	67.7637	0.00899	4.49	55.319	40.96	0.98
PettyHR	M001	4570.09	20-AMEC-2080	167.300000	64.620	66.802100	66.8021	67.3948	0.00704	3.89	64.503	55.20	0.86
PettyHR	M001	4500.69	20-AMEC-2080	167.300000	64.620	66.323790	66.0879	66.6195	0.00457	2.67	83.880	74.37	0.67
PettyHR	M001	4461.12	20-AMEC-2080	167.300000	64.550	65.997760	65.9978	66.3855	0.01062	3.64	78.347	91.11	0.99
PettyHR	M001	4428.20	20-AMEC-2080	167.300000	64.410	65.688740	65.5374	65.9501	0.01030	3.20	83.759	88.77	0.94
PettyHR	M001	4395.66	20-AMEC-2080	167.300000	63.810	65.349910		65.6645	0.00667	3.03	83.480	80.99	0.79
PettyHR	M001	4357.04	20-AMEC-2080	167.300000	63.340	65.284320		65.4505	0.00295	2.39	112.369	80.86	0.55
PettyHR	M001	4281.82	20-AMEC-2080	167.300000	62.500	65.237530		65.3271	0.00069	1.43	139.134	58.97	0.28
PettyHR	M001	4166.17	20-AMEC-2080	167.300000	61.820	65.267610		65.2812	0.00009	0.61	392.315	163.81	0.11
PettyHR	M001	3949.19	20-AMEC-2080	167.300000	61.310	65.276790		65.2769	0.00000	0.04	4861.106	1315.32	0.01
PettyHR	M001	3936.78	20-AMEC-2080	167.300000	61.310	65.276800		65.2769	0.00000	0.03	5996.784	1570.19	0.00
PettyHR	M001	3931.39	20-AMEC-2080	102.200000	61.310	65.276820		65.2768	0.00000	0.01	7534.498	2008.20	0.00
PettyHR	M001	3925.44	20-AMEC-2080	102.200000	61.310	65.276790		65.2768	0.00000	0.03	3729.865	1002.56	0.00
PettyHR	M001	3867.05	20-AMEC-2080	102.200000	61.310	65.276790		65.2768	0.00000	0.03	3760.166	985.62	0.00
PettyHR	M001	3643.73	20-AMEC-2080	102.200000	61.310	65.276760		65.2768	0.00000	0.02	4319.071	1113.70	0.00
PettyHR	M001	3440.60	20-AMEC-2080	102.200000	61.310	65.276620		65.2767	0.00000	0.05	2191.413	581.87	0.01
PettyHR	M001	3182.65	20-AMEC-2080	102.200000	61.310	65.276370		65.2766	0.00000	0.06	1641.592	425.44	0.01
PettyHR	M001	3080.13	20-AMEC-2080	102.200000	61.310	65.276340		65.2765	0.00000	0.06	1938.401	515.37	0.01
PettyHR	M001	3028.13	20-AMEC-2080	102.200000	61.310	65.276340		65.2765	0.00000	0.05	2120.056	559.70	0.01
PettyHR	M001	2983.09	20-AMEC-2080	102.200000	61.310	65.276240		65.2764	0.00000	0.06	1727.189	451.42	0.01

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	2828.46	20-AMEC-2080	102.200000	61.310	65.275660		65.2762	0.00000	0.11	1015.758	279.46	0.02
PettyHR	M001	2712.72	20-AMEC-2080	102.200000	61.310	65.273860		65.2757	0.00001	0.19	582.607	180.72	0.03
PettyHR	M001	2671.95	20-AMEC-2080	102.200000	61.310	65.272680		65.2752	0.00001	0.24	526.579	174.62	0.04
PettyHR	M001	2653.10	20-AMEC-2080	102.200000	61.310	65.271310		65.2749	0.00002	0.28	451.456	156.19	0.05
PettyHR	M001	2632.46	20-AMEC-2080	102.200000	61.310	65.261340		65.2734	0.00006	0.56	271.731	116.46	0.09
PettyHR	M001	2596.08	20-AMEC-2080	102.200000	61.310	65.255080		65.2705	0.00007	0.61	243.010	114.42	0.10
PettyHR	M001	2583.24	20-AMEC-2080	102.200000	60.100	65.184710	62.8373	65.2622	0.00039	1.47	142.657	112.96	0.22
PettyHR	M001	2580		Bridge									
PettyHR	M001	2573.39	20-AMEC-2080	102.200000	60.000	64.983320	62.4000	65.0263	0.00021	1.09	162.013	86.34	0.17
PettyHR	M001	2551.09	20-AMEC-2080	102.200000	59.890	65.001410		65.0061	0.00002	0.32	377.245	106.28	0.05
PettyHR	M001	2426.14	20-AMEC-2080	102.200000	59.270	65.004000		65.0044	0.00000	0.09	1182.538	269.25	0.01
PettyHR	M001	2315.39	20-AMEC-2080	102.200000	58.720	65.003980		65.0043	0.00000	0.07	1450.469	318.40	0.01
PettyHR	M001	2204.15	20-AMEC-2080	102.200000	58.160	65.003910		65.0042	0.00000	0.07	1461.102	306.79	0.01
PettyHR	M001	2022.45	20-AMEC-2080	102.200000	57.260	65.003210		65.0039	0.00000	0.12	886.624	176.72	0.02
PettyHR	M001	1902.10	20-AMEC-2080	102.200000	56.660	65.002400		65.0036	0.00000	0.16	686.492	127.37	0.02
PettyHR	M001	1879.72	20-AMEC-2080	102.200000	56.550	65.000660		65.0034	0.00001	0.24	503.280	107.98	0.03
PettyHR	M001	1824.42	20-AMEC-2080	102.200000	56.280	64.997420		65.0026	0.00001	0.32	338.645	65.69	0.04
PettyHR	M001	1789.72	20-AMEC-2080	102.200000	56.100	64.994690		65.0019	0.00002	0.38	286.557	55.08	0.05
PettyHR	M001	1724.70	20-AMEC-2080	102.200000	55.780	64.990970		65.0005	0.00002	0.44	250.731	47.62	0.06
PettyHR	M001	1668.81	20-AMEC-2080	102.200000	55.500	64.992940	58.1473	64.9984	0.00001	0.33	333.130	64.88	0.04
PettyHR	M001	1647.80	20-AMEC-2080	102.200000	55.400	64.993810	57.8578	64.9977	0.00001	0.28	388.770	72.74	0.03
PettyHR	M001	1631.79	20-AMEC-2080	102.200000	63.550	64.750940		64.9752	0.00455	2.10	48.708	40.61	0.61
PettyHR	M001	1615.46	20-AMEC-2080	103.900000	54.380	56.951160	56.0853	57.0897	0.00272	2.70	68.310	40.76	0.55
PettyHR	M001	1601.08	20-AMEC-2080	103.900000	54.000	55.714070	55.7141	56.8906	0.03481	7.31	24.675	25.54	1.83
PettyHR	M001	1586.16	20-AMEC-2080	103.900000	53.360	55.135680	55.4313	56.3651	0.03483	7.59	25.136	24.83	1.85
PettyHR	M001	1571.98	20-AMEC-2080	103.900000	52.870	54.465490	54.8712	55.8032	0.04351	7.79	23.257	23.71	2.02
PettyHR	M001	1519.66	20-AMEC-2080	103.900000	51.620	53.215510	53.3553	53.8567	0.02598	5.91	33.458	38.72	1.55
PettyHR	M001	1467.14	20-AMEC-2080	103.900000	50.860	52.169530	52.1695	52.5981	0.02039	4.72	38.359	43.94	1.35
PettyHR	M001	1457.30	20-AMEC-2080	103.900000	50.230	51.867730	51.9102	52.3968	0.01886	5.32	36.211	36.93	1.35
PettyHR	M001	1444.51	20-AMEC-2080	103.900000	48.300	49.318520	49.8773	51.6826	0.15942	10.94	17.584	30.92	3.59
PettyHR	M001	1415.17	20-AMEC-2080	103.900000	48.280	49.931660	49.4389	50.0720	0.00447	2.59	65.437	52.88	0.66
PettyHR	M001	1402.15	20-AMEC-2080	103.900000	47.790	49.446510	49.4465	49.9315	0.01929	5.24	38.270	43.71	1.34
PettyHR	M001	1385.41	20-AMEC-2080	103.900000	43.100	44.748150	45.6989	48.9407	0.09982	11.73	14.547	17.58	3.05
PettyHR	M001	1370.82	20-AMEC-2080	103.900000	41.750	43.557150	44.6959	47.5249	0.08511	12.01	14.705	13.90	2.90
PettyHR	M001	1362.66	20-AMEC-2080	103.900000	39.880	42.036400	43.2745	46.7797	0.07634	12.50	13.539	10.46	2.79
PettyHR	M001	1336.64	20-AMEC-2080	103.900000	39.870	41.402960	42.2555	44.0827	0.08424	10.58	16.855	17.86	2.80
PettyHR	M001	1309.35	20-AMEC-2080	103.900000	38.400	39.714070	40.2777	41.6255	0.07882	9.15	18.782	21.16	2.63
PettyHR	M001	1279.20	20-AMEC-2080	103.900000	35.020	37.266150	38.1686	39.8817	0.04277	9.77	20.023	19.66	2.12
PettyHR	M001	1258.06	20-AMEC-2080	103.900000	34.010	36.442960	37.1810	39.0160	0.03689	9.66	18.912	13.72	2.01
PettyHR	M001	1221.17	20-AMEC-2080	103.900000	33.210	34.562060	35.3271	36.9014	0.09254	9.75	16.802	18.06	2.81
PettyHR	M001	1203.34	20-AMEC-2080	103.900000	32.610	33.886300	34.2527	35.1864	0.06734	8.23	23.629	33.56	2.41
PettyHR	M001	1164.99	20-AMEC-2080	103.900000	31.370	32.877100	33.0134	33.5188	0.02467	5.53	33.665	40.17	1.50
PettyHR	M001	1153.41	20-AMEC-2080	103.900000	30.700	31.767680	32.1356	32.9955	0.07803	8.00	23.491	36.28	2.54
PettyHR	M001	1125.74	20-AMEC-2080	103.900000	29.270	30.505840	30.7486	31.3243	0.04288	6.42	29.527	41.89	1.92
PettyHR	M001	1090.65	20-AMEC-2080	103.900000	28.120	29.311020	29.4545	29.8883	0.03596	5.57	35.517	58.68	1.73
PettyHR	M001	1059.48	20-AMEC-2080	103.900000	26.840	28.110290	28.2920	28.7209	0.03833	6.16	35.546	62.82	1.81
PettyHR	M001	1048.77	20-AMEC-2080	103.900000	26.290	27.484680	27.7113	28.2483	0.04569	6.33	31.620	53.90	1.95
PettyHR	M001	1021.54	20-AMEC-2080	103.900000	25.470	27.003420	27.0552	27.4968	0.02124	5.24	37.264	42.87	1.40
PettyHR	M001	1003.30	20-AMEC-2080	103.900000	23.420	24.877930	25.4590	26.7548	0.06130	8.80	19.108	18.66	2.38
PettyHR	M001	994.73	20-AMEC-2080	103.900000	22.700	24.925290	25.4953	26.2585	0.02494	7.44	24.319	17.86	1.62
PettyHR	M001	961.03	20-AMEC-2080	103.900000	22.070	24.666540	24.8345	25.5036	0.01358	6.05	32.505	25.26	1.22
PettyHR	M001	944.13	20-AMEC-2080	103.900000	21.890	23.501970	23.9920	25.0636	0.04209	7.74	22.026	21.22	2.00
PettyHR	M001	924.94	20-AMEC-2080	103.900000	20.780	22.588000	23.0923	24.2559	0.04094	8.23	20.610	16.65	2.00
PettyHR	M001	905.47	20-AMEC-2080	103.900000	19.730	21.813460	22.3396	23.5491	0.03298	8.21	20.949	15.32	1.85
PettyHR	M001	883.86	20-AMEC-2080	103.900000	17.290	21.028820	19.9088	21.2289	0.00152	2.63	65.442	39.61	0.44
PettyHR	M001	875		Bridge									
PettyHR	M001	859.53	20-AMEC-2080	103.900000	17.250	19.358110	19.3581	20.0271	0.01434	5.29	31.396	29.29	1.20
PettyHR	M001	836.76	20-AMEC-2080	103.900000	12.800	14.776980	15.8689	18.4911	0.05985	10.65	14.698	10.77	2.47
PettyHR	M001	823.70	20-AMEC-2080	103.900000	12.860	14.360580	15.1601	17.2660	0.09185	10.82	15.972	16.66	2.90
PettyHR	M001	811.96	20-AMEC-2080	103.900000	12.850	14.669400	15.1871	16.1875	0.03980	8.23	23.331	23.42	1.99
PettyHR	M001	796.92	20-AMEC-2080	103.900000	12.740	14.085090	14.4711	15.3947	0.06478	8.55	23.703	32.74	2.40
PettyHR	M001	784.11	20-AMEC-2080	103.900000	11.820	13.639290	14.0308	14.7701	0.03171	7.28	28.128	32.28	1.77
PettyHR	M001	769.86	20-AMEC-2080	103.900000	10.940	12.484570	12.9157	14.1613	0.04920	8.13	21.260	22.02	2.15
PettyHR	M001	748.76	20-AMEC-2080	103.900000	8.370	10.712670	11.4637	13.2329	0.03396	8.90	20.343	18.87	1.90
PettyHR	M001	720.33	20-AMEC-2080	103.900000	8.080	9.077932	9.6795	11.4577	0.15178	10.01	16.931	27.36	3.43
PettyHR	M001	707.57	20-AMEC-2080	103.900000	6.850	8.235944	8.7112	9.9563	0.06837	8.82	22.190	32.43	2.47
PettyHR	M001	685.99	20-AMEC-2080	103.900000	5.310	6.864808	7.3661	8.5871	0.06009	8.78	22.380	29.36	2.34
PettyHR	M001	666.04	20-AMEC-2080	103.900000	5.030	6.626986	6.8917	7.5286	0.02793	6.15	31.711	41.90	1.61
PettyHR	M001	652.51	20-AMEC-2080	103.900000	4.660	6.099307	6.2517	7.0791	0.03730	6.56	27.653	33.79	1.82
PettyHR	M001	633.61	20-AMEC-2080	103.900000	4.400	5.374894	5.6413	6.2242	0.05339	6.00	29.010	75.89	2.05
PettyHR	M001	622.83	20-AMEC-2080	103.900000	4.090	5.211252	5.2113	5.4935	0.01732	3.77	50.282	105.59	1.20
PettyHR	M001	577.97	20-AMEC-2080	103.900000	2.480	3.712101	3.8903	4.2649	0.04663	6.58	37.362	103.58	1.97
PettyHR	M001	525.57	20-AMEC-2080	103.900000	0.510	3.322518	2.2020	3.3663	0.00086	1.64	127.486	112.93	0.32
PettyHR	M001	491.94	20-AMEC-2080	103.900000	-0.590	3.247687	1.9563	3.3354	0.00073	1.68	118.743	127.03	0.30
PettyHR	M001	485		Bridge									
PettyHR	M001	478.84	20-AMEC-2080	103.900000	-1.920	3.184224	0.4856	3.2135	0.00016	0.90	211.247	177.54	0.14
PettyHR	M001	439.27	20-AMEC-2080	103.900000	-1.890	3.191048		3.1987	0.00006	0.54	320.275	135.82	0.08
PettyHR	M001	405.68	20-AMEC-2080	103.900000	-2.130	3.188750		3.1969	0.00005	0.53	321.997	147.22	0.08
PettyHR	M001	367.80	20-AMEC-2080	103.900000	-2.020	3.189141		3.1939	0.00002	0.32	389.380	148.87	0.05
PettyHR	M001	338.85	20-AMEC-2080	103.900000	-2.890	3.189240		3.1932	0.00001	0.29	419.756	141.77	0.04
PettyHR	M001	305.38	20-AMEC-2080	103.900000	-2.460	3.187882		3.1927	0.00002	0.32	382.140	125.32	0.05
PettyHR	M001	269.29	20-AMEC-2080	103.900000	-3.520	3.186266		3.1920	0.00002	0.35	358.086	117.34	0.05
PettyHR	M001	238.18	20-AMEC-2080	103.900000	-3.500	3.183226		3.1912	0.00002	0.42	314.768	109.58	0.06
PettyHR	M001	201.25	20-AMEC-2080	103.900000	-4.430	3.185883		3.1894	0.00001	0.27	446.167	131.80	0.03
PettyHR	M001	150.84	20-AMEC-2080	103.900000	-3.340	3.186853		3.1885	0.00000	0.19	632.900	174.08	0.03
PettyHR	M001	105.74	20-AMEC-2080	103.900000	-2.910	3.186591		3.1883	0.00000	0.19	604.663	157.15	0.03
PettyHR	M001	91.29	20-AMEC-2080	103.900000	-3.360	3.186600		3.1882	0.00000	0.18	615.578	150.14	0.02

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	20.04	20-AMEC-2080	103.900000	-6.190	3.186875		3.1878	0.00000	0.14	821.913	187.37	0.02
PettyHR	M001	12.04	20-AMEC-2080	103.900000	-6.190	3.179978	-3.6039	3.1872	0.00003	0.44	384.677	187.35	0.05
ForthP	M001	2616.90	20-AMEC-2080	10.700000	123.090	124.362700	123.3571	124.3634	0.00002	0.13	113.620	145.97	0.04
ForthP	M001	2528.45	20-AMEC-2080	10.700000	123.090	124.362400		124.3626	0.00000	0.06	188.605	186.08	0.02
ForthP	M001	2324.32	20-AMEC-2080	10.700000	123.090	124.360600		124.3612	0.00001	0.12	126.248	193.16	0.04
ForthP	M001	2187.52	20-AMEC-2080	10.700000	123.090	124.360200		124.3603	0.00000	0.05	249.554	280.61	0.01
ForthP	M001	1955.13	20-AMEC-2080	10.700000	123.090	124.359600		124.3597	0.00000	0.05	289.485	305.76	0.01
ForthP	M001	1773.83	20-AMEC-2080	10.700000	123.090	124.359300		124.3594	0.00000	0.03	360.023	339.87	0.01
ForthP	M001	1572.85	20-AMEC-2080	10.700000	123.090	124.359100		124.3592	0.00000	0.03	345.776	314.74	0.01
ForthP	M001	1496.60	20-AMEC-2080	10.700000	123.090	124.359000		124.3591	0.00000	0.04	290.534	270.29	0.01
ForthP	M001	1392.58	20-AMEC-2080	14.700000	122.980	124.356200	124.0520	124.3581	0.00015	0.42	87.874	162.66	0.12
ForthP	M001	1390		Culvert									
ForthP	M001	1381.72	20-AMEC-2080	14.700000	122.950	124.073600	124.0070	124.1097	0.00367	1.66	28.097	124.76	0.52
ForthP	M001	1360.50	20-AMEC-2080	14.700000	122.870	123.873300		123.9821	0.00701	2.08	13.444	33.78	0.73
ForthP	M001	1311.12	20-AMEC-2080	14.700000	122.520	123.487700		123.5913	0.00909	2.24	13.436	38.12	0.81
ForthP	M001	1261.17	20-AMEC-2080	14.700000	121.360	122.702900	122.7029	123.0879	0.01041	3.13	6.701	9.88	0.93
ForthP	M001	1211.51	20-AMEC-2080	14.700000	119.830	120.863300	121.1953	122.0411	0.04778	5.38	3.630	6.30	1.88
ForthP	M001	1161.66	20-AMEC-2080	14.700000	117.250	118.147900	118.4753	119.3673	0.06094	5.46	4.124	15.42	2.08
ForthP	M001	1112.05	20-AMEC-2080	14.700000	114.880	115.683800	115.8859	116.3942	0.05301	5.01	5.404	21.31	1.93
ForthP	M001	1062.35	20-AMEC-2080	14.700000	113.160	113.930400	114.0175	114.2588	0.03236	3.51	6.458	14.81	1.44
ForthP	M001	1041.93	20-AMEC-2080	14.700000	112.620	113.627600	113.6550	113.8458	0.01581	2.98	9.052	29.24	1.05
ForthP	M001	1031.90	20-AMEC-2080	14.700000	112.310	113.282800	113.3986	113.6341	0.02608	3.79	8.582	35.31	1.36
ForthP	M001	1011.12	20-AMEC-2080	14.700000	111.620	112.421700	112.5725	112.9077	0.04609	4.52	7.203	30.91	1.78
ForthP	M001	959.76	20-AMEC-2080	14.700000	110.310	110.949200	110.9761	111.0919	0.02656	2.67	11.060	51.83	1.28
ForthP	M001	908.93	20-AMEC-2080	14.700000	109.250	109.720100	109.6685	109.7647	0.01361	1.58	16.993	80.34	0.88
ForthP	M001	856.39	20-AMEC-2080	14.700000	108.380	108.715000	108.6691	108.7613	0.02038	1.19	15.648	86.40	0.94
ForthP	M001	806.25	20-AMEC-2080	14.700000	107.090	107.821000	107.8210	107.9063	0.01624	2.44	15.817	84.99	1.03
ForthP	M001	754.78	20-AMEC-2080	14.700000	106.120	106.969400	107.0070	107.1096	0.01607	2.87	14.598	77.55	1.07
ForthP	M001	734.50	20-AMEC-2080	14.700000	105.470	106.375200	106.4394	106.7442	0.02537	3.52	7.430	22.04	1.33
ForthP	M001	724.30	20-AMEC-2080	14.700000	105.280	106.309400	106.3699	106.5193	0.01243	2.76	11.106	44.32	0.97
ForthP	M001	703.65	20-AMEC-2080	14.700000	105.020	105.839800	105.9118	106.1168	0.03275	3.90	8.842	35.07	1.49
ForthP	M001	654.47	20-AMEC-2080	14.700000	103.900	104.791700	104.6075	104.8251	0.00379	1.44	21.107	54.49	0.53
ForthP	M001	605.63	20-AMEC-2080	14.700000	102.270	103.036000	103.0360	104.2355	0.08741	5.72	3.927	12.68	2.41
ForthP	M001	585.13	20-AMEC-2080	14.700000	101.550	102.271400	102.3933	102.6974	0.05134	4.13	8.266	54.16	1.82
ForthP	M001	577.30	20-AMEC-2080	14.700000	101.520	102.034700	102.0860	102.2199	0.05497	3.29	9.366	54.74	1.76
ForthP	M001	557.33	20-AMEC-2080	14.700000	100.670	101.168100	101.1914	101.2893	0.03910	2.55	11.003	62.40	1.46
ForthP	M001	507.84	20-AMEC-2080	14.700000	98.920	99.458120	99.4699	99.5599	0.03126	2.40	12.230	71.80	1.32
ForthP	M001	453.33	20-AMEC-2080	14.700000	96.280	96.814540	96.8893	97.0940	0.06673	3.54	9.175	73.09	1.94
ForthP	M001	402.29	20-AMEC-2080	14.700000	94.960	95.438290	95.4383	95.5468	0.03318	2.54	11.013	46.38	1.36
ForthP	M001	349.18	20-AMEC-2080	14.700000	93.640	94.041070	93.9555	94.0821	0.01508	1.27	16.611	68.97	0.86
ForthP	M001	297.76	20-AMEC-2080	14.700000	92.550	93.336560	93.3366	93.4310	0.01326	2.26	14.985	73.97	0.94
ForthP	M001	246.28	20-AMEC-2080	14.700000	91.710	92.292370	92.2924	92.3788	0.02045	2.06	14.046	70.06	1.09
ForthP	M001	182.03	20-AMEC-2080	14.700000	90.940	91.874130	91.5628	91.8891	0.00213	1.06	32.037	88.33	0.39
ForthP	M001	160.27	20-AMEC-2080	14.700000	90.130	91.880090	90.9327	91.8815	0.00005	0.26	113.056	129.48	0.07
ForthP	M001	150		Culvert									
ForthP	M001	144.74	20-AMEC-2080	14.700000	89.900	90.796200	90.6334	91.0045	0.00667	2.04	7.409	75.73	0.72
ForthP	M001	124.30	20-AMEC-2080	14.700000	89.740	90.632630	90.6326	90.7827	0.01473	2.62	12.816	47.10	1.01
ForthP	M001	61.58	20-AMEC-2080	14.700000	88.750	89.697950	89.7326	89.8692	0.01411	2.69	12.516	45.44	1.01
ForestP	M001	1557.91	20-AMEC-2080	7.500000	78.250	79.719790	78.4552	79.7199	0.00000	0.05	148.918	121.55	0.01
ForestP	M001	1428.05	20-AMEC-2080	7.500000	78.250	79.719620		79.7197	0.00000	0.04	203.269	177.33	0.01
ForestP	M001	1315.71	20-AMEC-2080	7.500000	78.250	79.719540		79.7196	0.00000	0.03	285.952	242.77	0.01
ForestP	M001	1228.83	20-AMEC-2080	7.500000	78.250	79.719510		79.7195	0.00000	0.02	341.968	290.78	0.01
ForestP	M001	1138.84	20-AMEC-2080	7.500000	78.250	79.719480		79.7195	0.00000	0.02	400.561	342.92	0.01
ForestP	M001	1077.28	20-AMEC-2080	7.500000	78.250	79.719460		79.7195	0.00000	0.02	444.401	481.81	0.01
ForestP	M001	1019.12	20-AMEC-2080	7.500000	78.250	79.719370		79.7194	0.00000	0.04	224.635	281.43	0.01
ForestP	M001	958.61	20-AMEC-2080	9.600000	78.150	79.697910	79.5024	79.7172	0.00065	0.73	25.115	69.39	0.22
ForestP	M001	955		Culvert									
ForestP	M001	949.85	20-AMEC-2080	9.600000	77.760	79.572120	79.5721	79.6803	0.00575	1.79	11.551	52.84	0.47
ForestP	M001	913.34	20-AMEC-2080	9.600000	78.160	79.009940	79.0793	79.2755	0.03400	3.75	5.453	17.21	1.42
ForestP	M001	883.23	20-AMEC-2080	9.600000	77.540	78.336090	78.3944	78.5246	0.01839	2.79	8.126	37.58	1.12
ForestP	M001	859.61	20-AMEC-2080	9.600000	76.750	77.424960	77.5569	77.8454	0.04671	3.96	4.296	13.51	1.73
ForestP	M001	831.71	20-AMEC-2080	9.600000	75.740	76.697260	76.7529	76.9986	0.02081	3.30	5.114	11.37	1.20
ForestP	M001	802.91	20-AMEC-2080	9.600000	74.660	75.412060	75.6131	76.0891	0.04980	4.48	3.465	9.65	1.83
ForestP	M001	772.90	20-AMEC-2080	9.600000	73.770	74.517620	74.5899	74.8067	0.03072	3.52	5.079	14.22	1.42
ForestP	M001	737.48	20-AMEC-2080	9.600000	72.770	73.465680	73.4623	73.6123	0.01867	2.61	7.082	21.62	1.11
ForestP	M001	688.06	20-AMEC-2080	9.600000	71.800	72.378970	72.3790	72.4875	0.02829	2.65	7.650	32.49	1.25
ForestP	M001	651.32	20-AMEC-2080	9.600000	70.810	71.414830	71.4323	71.5475	0.02294	2.69	7.767	31.04	1.21
ForestP	M001	600.44	20-AMEC-2080	9.600000	69.800	70.281450	70.3082	70.3975	0.03545	2.73	8.558	52.35	1.43
ForestP	M001	578.60	20-AMEC-2080	9.600000	69.310	69.854060	69.9132	70.0338	0.03941	3.14	8.794	74.31	1.54
ForestP	M001	528.92	20-AMEC-2080	9.600000	68.580	69.459820	69.2620	69.4742	0.00204	1.03	23.821	72.75	0.38
ForestP	M001	478.55	20-AMEC-2080	9.600000	68.210	69.452950		69.4546	0.00012	0.33	66.434	114.07	0.10
ForestP	M001	430.82	20-AMEC-2080	9.600000	67.770	69.450850		69.4515	0.00003	0.22	104.186	138.64	0.06
ForestP	M001	378.18	20-AMEC-2080	9.600000	67.480	69.450710		69.4508	0.00000	0.09	247.948	271.14	0.02
ForestP	M001	328.07	20-AMEC-2080	9.600000	67.340	69.450600		69.4507	0.00000	0.06	352.530	340.50	0.01
ForestP	M001	277.95	20-AMEC-2080	9.600000	67.070	69.450520		69.4506	0.00000	0.05	431.293	391.03	0.01
ForestP	M001	195.51	20-AMEC-2080	9.600000	66.230	69.450510		69.4505	0.00000	0.03	801.854	531.39	0.00
ForestP	M001	158.37	20-AMEC-2080	9.600000	66.230	69.450520		69.4505	0.00000	0.01	1504.953	679.95	0.00
ForestP	M001	89.11	20-AMEC-2080	9.600000	66.230	69.450520		69.4505	0.00000	0.01	1667.048	756.45	0.00
DoylesR	TR019	260.51	20-AMEC-2080	0.300000	124.740	125.081600	124.9295	125.0824	0.00021	0.16	3.602	32.03	0.10
DoylesR	TR019	199.72	20-AMEC-2080	0.300000	124.550	125.081600		125.0816	0.00000	0.02	32.903	137.01	0.01
DoylesR	TR019	150.00	20-AMEC-2080	0.300000	124.370	125.081400		125.0814	0.00000	0.02	35.676	147.28	0.01
DoylesR	TR019	100.00	20-AMEC-2080	0.300000	124.160	125.081300		125.0813	0.00000	0.03	30.451	163.25	0.01
DoylesR	TR019	50.00	20-AMEC-2080	0.300000	124.180	125.081200		125.0812	0.00000	0.01	55.807	222.70	0.01
DoylesR	TR018	302.01	20-AMEC-2080	1.400000	127.900	128.502800	128.0568	128.5033	0.00005	0.13	17.251	44.92	0.06
DoylesR	TR018	270.53	20-AMEC-2080	1.400000	126.190	128.503200	126.8723	128.5032	0.00000	0.01	260.682	244.89	0.00
DoylesR	TR018	260		Culvert									
DoylesR	TR018	257.62	20-AMEC-2080	1.400000	126.190	128.503100	126.9020	128.5031	0.00000	0.01	265.975	215.44	0.00

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR018	244.68	20-AMEC-2080	1.400000	125.640	128.503100	126.6088	128.5031	0.00000	0.01	304.215	215.08	0.00
DoylesR	TR018	200		Culvert									
DoylesR	TR018	169.24	20-AMEC-2080	1.400000	125.400	126.172000	126.1720	126.5241	0.01713	3.02	0.574	74.20	1.13
DoylesR	TR018	131.43	20-AMEC-2080	1.400000	125.240	125.446900	125.4500	125.4747	0.02636	1.07	2.569	52.76	1.02
DoylesR	TR018	59.79	20-AMEC-2080	1.400000	124.570	125.131300	124.8914	125.1329	0.00029	0.28	13.002	112.50	0.13
DoylesR	TR017	4043.45	20-AMEC-2080	7.500000	124.050	125.052000		125.0727	0.00139	1.05	19.121	65.97	0.34
DoylesR	TR017	3983.69	20-AMEC-2080	7.500000	124.040	124.937500		124.9713	0.00230	1.12	15.859	74.43	0.41
DoylesR	TR017	3923.93	20-AMEC-2080	7.500000	124.030	124.614300	124.6143	124.6969	0.01513	1.78	8.144	43.46	0.94
DoylesR	TR017	3889.37	20-AMEC-2080	7.500000	123.600	123.787000	123.6361	123.8018	0.00591	0.33	13.999	62.95	0.44
DoylesR	TR017	3781.64	20-AMEC-2080	7.500000	122.550	123.493100		123.5292	0.00305	1.34	14.472	55.02	0.47
DoylesR	TR017	3768.91	20-AMEC-2080	7.500000	122.350	123.192500	123.1925	123.4322	0.01200	2.34	4.124	9.86	0.90
DoylesR	TR017	3745.98	20-AMEC-2080	7.500000	121.860	122.387300	122.4803	122.7152	0.07004	3.28	3.944	27.37	1.92
DoylesR	TR017	3713.18	20-AMEC-2080	7.500000	120.990	121.565700	121.5939	121.7861	0.01844	2.22	4.133	13.38	1.07
DoylesR	TR017	3692.45	20-AMEC-2080	7.500000	120.340	120.957400	121.0429	121.2837	0.02960	2.79	3.575	13.10	1.35
DoylesR	TR017	3679.05	20-AMEC-2080	7.500000	119.970	120.724000	120.8210	120.9902	0.01561	2.56	4.171	17.22	1.04
DoylesR	TR017	3656.84	20-AMEC-2080	7.500000	117.590	118.052600	118.4024	119.9525	0.24603	6.23	1.317	5.76	3.66
DoylesR	TR017	3603.67	20-AMEC-2080	7.500000	116.290	117.044000	117.0303	117.1597	0.00951	2.00	6.793	25.81	0.81
DoylesR	TR017	3583.40	20-AMEC-2080	7.500000	115.960	116.535500	116.5355	116.8160	0.03701	3.05	4.164	21.61	1.50
DoylesR	TR017	3571.14	20-AMEC-2080	7.500000	115.760	116.301100	116.3183	116.4176	0.02117	2.37	6.480	32.50	1.14
DoylesR	TR017	3545.42	20-AMEC-2080	7.500000	115.220	115.783800	115.7931	115.9577	0.02421	2.37	4.987	19.68	1.19
DoylesR	TR017	3483.93	20-AMEC-2080	7.500000	114.350	114.936800	114.9244	114.9828	0.01085	1.74	11.568	70.33	0.82
DoylesR	TR017	3432.55	20-AMEC-2080	7.500000	113.790	114.504200	114.4658	114.5633	0.00884	1.80	10.652	62.16	0.76
DoylesR	TR017	3345.48	20-AMEC-2080	7.500000	113.030	113.555200	113.5552	113.6426	0.02143	2.06	7.419	42.14	1.11
DoylesR	TR017	3300.07	20-AMEC-2080	7.500000	112.420	112.965000	112.8592	112.9802	0.00442	0.96	16.012	76.33	0.50
DoylesR	TR016	918.87	20-AMEC-2080	2.800000	127.080	128.803500	127.2489	128.8035	0.00000	0.01	405.654	361.77	0.00
DoylesR	TR016	898.71	20-AMEC-2080	2.800000	126.900	128.803500	127.9728	128.8035	0.00000	0.03	197.013	225.44	0.01
DoylesR	TR016	890		Culvert									
DoylesR	TR016	882.28	20-AMEC-2080	2.800000	126.880	128.733100	127.9953	128.7332	0.00000	0.07	105.415	158.35	0.02
DoylesR	TR016	877.71	20-AMEC-2080	2.800000	126.240	128.733100	127.3890	128.7332	0.00000	0.07	124.522	189.61	0.02
DoylesR	TR016	850		Culvert									
DoylesR	TR016	848.13	20-AMEC-2080	2.800000	126.370	127.488300	127.4883	128.0289	0.01263	3.26	0.860	5.60	1.00
DoylesR	TR016	818.98	20-AMEC-2080	2.800000	126.360	126.672500	126.7890	127.1609	0.12337	3.25	1.091	11.66	2.40
DoylesR	TR016	768.99	20-AMEC-2080	2.800000	126.300	126.642300	126.5815	126.6548	0.00437	0.74	7.282	50.67	0.48
DoylesR	TR016	714.09	20-AMEC-2080	2.800000	125.960	126.361500	126.2914	126.3804	0.00530	0.87	5.923	36.28	0.53
DoylesR	TR016	675.95	20-AMEC-2080	2.800000	125.740	126.080500	126.0805	126.1291	0.01485	1.28	4.192	42.71	0.86
DoylesR	TR016	659.39	20-AMEC-2080	2.800000	125.100	125.437900	125.5270	125.6686	0.05374	2.55	1.784	14.67	1.66
DoylesR	TR016	632.80	20-AMEC-2080	2.800000	124.780	125.260400	125.2604	125.3220	0.00934	1.34	3.751	27.45	0.73
DoylesR	TR016	610.50	20-AMEC-2080	2.800000	123.780	124.232800	124.3934	124.7952	0.06915	3.58	1.006	4.84	1.97
DoylesR	TR016	549.37	20-AMEC-2080	2.800000	122.300	122.943200	122.9771	123.0724	0.01400	1.94	2.699	17.19	0.91
DoylesR	TR016	494.31	20-AMEC-2080	2.800000	120.930	121.515700	121.6203	121.8688	0.03682	2.65	1.107	3.91	1.42
DoylesR	TR016	473.82	20-AMEC-2080	2.800000	120.180	120.677700	120.7957	121.0482	0.04367	2.77	1.136	4.74	1.55
DoylesR	TR016	459.95	20-AMEC-2080	2.800000	119.620	120.078200	120.1848	120.4255	0.04591	2.66	1.145	4.97	1.57
DoylesR	TR016	439.99	20-AMEC-2080	2.800000	119.050	119.714300	119.7143	119.8980	0.01507	1.93	1.569	4.72	0.94
DoylesR	TR016	384.99	20-AMEC-2080	2.800000	117.070	117.478400	117.6464	118.0596	0.11710	3.38	0.831	4.22	2.37
DoylesR	TR016	329.99	20-AMEC-2080	2.800000	115.670	116.165300	116.1761	116.2484	0.01372	1.48	3.049	23.42	0.86
DoylesR	TR016	274.18	20-AMEC-2080	2.800000	114.930	115.327200	115.3235	115.3724	0.01175	1.21	4.621	48.13	0.78
DoylesR	TR016	218.88	20-AMEC-2080	2.800000	114.350	114.826600	114.8248	114.8764	0.01105	1.25	4.709	51.84	0.76
DoylesR	TR016	165.43	20-AMEC-2080	2.800000	113.830	114.375300	114.3753	114.4383	0.00879	1.32	4.093	35.24	0.71
DoylesR	TR016	86.48	20-AMEC-2080	2.800000	112.800	113.226900	113.2480	113.3506	0.02487	1.72	2.143	12.74	1.12
DoylesR	TR016	40.19	20-AMEC-2080	2.800000	112.210	112.797600	112.7109	112.8105	0.00242	0.76	8.614	57.11	0.38
DoylesR	TR015	3230.71	20-AMEC-2080	16.300000	111.600	112.521400		112.5776	0.00677	1.97	21.328	76.48	0.71
DoylesR	TR015	3185.04	20-AMEC-2080	16.300000	111.220	112.127500	112.1275	112.2599	0.01368	2.55	14.641	50.46	0.98
DoylesR	TR015	3133.58	20-AMEC-2080	16.300000	110.570	111.392500	111.3925	111.5275	0.01589	2.70	13.891	47.05	1.05
DoylesR	TR015	3079.97	20-AMEC-2080	16.300000	108.170	109.071700	109.4451	110.0424	0.04979	4.89	4.652	10.54	1.88
DoylesR	TR015	3026.43	20-AMEC-2080	16.300000	107.300	109.127400	108.3064	109.1503	0.00049	0.86	31.998	34.12	0.22
DoylesR	TR015	3001.28	20-AMEC-2080	16.300000	106.170	109.137400	108.3417	109.1402	0.00007	0.43	88.585	78.56	0.08
DoylesR	TR015	3000		Culvert									
DoylesR	TR015	2988.77	20-AMEC-2080	16.300000	106.030	108.005000	108.0050	108.2196	0.00370	2.59	16.802	45.98	0.60
DoylesR	TR015	2963.30	20-AMEC-2080	16.300000	105.690	106.558200	106.8651	107.6936	0.06396	5.76	5.435	17.82	2.11
DoylesR	TR015	2915.60	20-AMEC-2080	16.300000	104.530	105.607200	105.7041	105.9829	0.01930	3.50	8.920	22.12	1.20
DoylesR	TR015	2867.64	20-AMEC-2080	16.300000	103.370	104.500800	104.6713	104.9809	0.02607	4.22	8.295	20.78	1.39
DoylesR	TR015	2841.04	20-AMEC-2080	16.300000	102.400	102.952900	103.1213	103.5647	0.12457	5.01	6.161	27.30	2.67
DoylesR	TR015	2804.73	20-AMEC-2080	16.300000	101.670	102.491100	102.4425	102.6200	0.01435	2.55	13.397	35.73	1.00
DoylesR	TR015	2742.98	20-AMEC-2080	16.300000	100.870	101.664600	101.6464	101.7635	0.01485	2.61	17.240	65.26	1.02
DoylesR	TR015	2687.77	20-AMEC-2080	16.300000	100.070	100.681700	100.6817	100.7976	0.02357	2.62	14.453	62.88	1.22
DoylesR	TR015	2638.14	20-AMEC-2080	16.300000	98.950	99.738190	99.8001	99.9528	0.02583	3.46	12.299	47.74	1.35
DoylesR	TR015	2593.26	20-AMEC-2080	16.300000	97.750	98.817110	98.7867	98.9792	0.01221	2.84	13.723	40.50	0.96
DoylesR	TR015	2557.12	20-AMEC-2080	16.300000	97.530	98.558710		98.6529	0.00782	2.32	16.973	45.36	0.78
DoylesR	TR015	2522.34	20-AMEC-2080	16.300000	97.260	98.170740	98.1707	98.3349	0.01347	2.52	12.839	39.85	0.98
DoylesR	TR015	2483.94	20-AMEC-2080	16.300000	96.950	97.677730	97.6434	97.7491	0.01368	2.13	16.627	59.86	0.93
DoylesR	TR015	2438.99	20-AMEC-2080	16.300000	96.350	97.404370		97.4566	0.00450	1.72	24.322	86.77	0.59
DoylesR	TR015	2387.12	20-AMEC-2080	16.300000	96.390	97.327100		97.3369	0.00148	0.86	43.764	126.99	0.32
DoylesR	TR015	2352.45	20-AMEC-2080	16.300000	96.400	97.299510		97.3047	0.00059	0.54	53.382	100.06	0.21
DoylesR	TR015	2283.37	20-AMEC-2080	16.300000	95.750	97.142080		97.2213	0.00291	1.74	16.443	22.57	0.50
DoylesR	TR015	2231.50	20-AMEC-2080	16.300000	95.540	96.658190	96.6491	96.9326	0.01292	3.02	9.165	17.25	1.00
DoylesR	TR015	2160.12	20-AMEC-2080	16.300000	94.930	95.925870		96.0915	0.00970	2.37	11.146	21.76	0.85
DoylesR	TR015	2119.11	20-AMEC-2080	16.300000	94.440	95.494730	95.4947	95.6927	0.01172	2.74	11.501	27.19	0.94
DoylesR	TR015	2075.88	20-AMEC-2080	16.300000	93.860	94.770560	94.8717	95.0534	0.01835	3.07	10.165	41.17	1.16
DoylesR	TR015	2024.01	20-AMEC-2080	16.300000	93.190	94.286770	94.2632	94.3911	0.00721	2.17	16.363	49.87	0.74
DoylesR	TR015	1972.14	20-AMEC-2080	16.300000	92.710	93.658190	93.6582	93.8575	0.01826	3.18	12.017	55.94	1.14
DoylesR	TR015	1921.75	20-AMEC-2080	16.300000	92.350	93.417700	93.0940	93.4393	0.00223	1.24	30.052	77.13	0.41
DoylesR	TR015	1851.62	20-AMEC-2080	16.300000	91.240	92.840130	92.8401	93.1996	0.00907	3.14	8.516	15.67	0.86
DoylesR	TR014	2057.49	20-AMEC-2080	9.900000	125.480	126.528100	126.3902	126.5636	0.00282	1.25	18.449	62.75	0.45
DoylesR	TR014	2037.89	20-AMEC-2080	9.900000	125.570	126.527800		126.5330	0.00055	0.58	39.963	104.44	0.21
DoylesR	TR014	1988.88	20-AMEC-2080	9.900000	124.710	126.435700	125.8843	126.4931	0.00093	1.13	13.915	44.27	0.29
DoylesR	TR014	1980		Culvert									
DoylesR	TR014	1975.46	20-AMEC-2080	9.900000	124.460	126.344900	125.6322	126.4080	0.00083	1.14	10.609	21.78	0.28

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR014	1936.56	20-AMEC-2080	9.900000	124.860	126.122400		126.3068	0.00494	2.17	7.110	13.85	0.65
DoylesR	TR014	1904.43	20-AMEC-2080	9.900000	124.720	125.802600	125.8026	126.0831	0.00948	2.66	5.782	11.45	0.87
DoylesR	TR014	1867.03	20-AMEC-2080	9.900000	124.610	125.578100	125.3526	125.6714	0.00450	1.70	10.315	24.05	0.59
DoylesR	TR014	1801.50	20-AMEC-2080	9.900000	124.000	124.958400	124.9584	125.2020	0.01213	2.75	6.275	14.29	0.96
DoylesR	TR014	1765.57	20-AMEC-2080	9.900000	123.200	123.713400	123.8869	124.3163	0.06370	3.86	3.660	16.31	1.96
DoylesR	TR014	1703.29	20-AMEC-2080	9.900000	121.820	122.591900	122.5919	122.9184	0.01697	2.85	4.976	11.96	1.11
DoylesR	TR014	1657.91	20-AMEC-2080	9.900000	121.270	122.032600	122.0530	122.2466	0.01189	2.25	6.383	19.57	0.91
DoylesR	TR014	1607.98	20-AMEC-2080	9.900000	120.590	121.372700	121.4339	121.5777	0.01524	2.59	8.498	41.79	1.04
DoylesR	TR014	1544.18	20-AMEC-2080	9.900000	119.810	120.666400	120.6950	120.8032	0.00954	2.24	10.232	41.59	0.84
DoylesR	TR014	1492.70	20-AMEC-2080	9.900000	119.060	119.652800	119.7528	119.9615	0.03139	3.10	6.433	35.68	1.43
DoylesR	TR014	1441.23	20-AMEC-2080	9.900000	117.590	118.628700	118.7130	118.9511	0.01361	3.15	6.365	19.26	1.04
DoylesR	TR014	1420.98	20-AMEC-2080	9.900000	116.980	118.177500	117.7333	118.2381	0.00212	1.39	10.991	13.44	0.42
DoylesR	TR014	1411.86	20-AMEC-2080	9.900000	117.030	118.078400	117.7336	118.2018	0.00396	1.83	7.007	12.11	0.58
DoylesR	TR014	1400		Bridge									
DoylesR	TR014	1384.41	20-AMEC-2080	11.300000	116.710	117.484500	117.4845	117.8096	0.01467	2.71	4.720	9.75	1.04
DoylesR	TR014	1374.60	20-AMEC-2080	11.300000	116.540	117.425400	117.3252	117.6111	0.00797	2.12	6.756	11.51	0.77
DoylesR	TR014	1353.25	20-AMEC-2080	11.300000	116.210	117.099500	117.0995	117.3885	0.01267	2.67	5.530	10.00	0.98
DoylesR	TR014	1309.14	20-AMEC-2080	11.300000	115.500	116.210600	116.3047	116.6409	0.02305	2.91	3.950	7.76	1.24
DoylesR	TR014	1296.25	20-AMEC-2080	11.300000	115.120	116.044800	116.1279	116.4780	0.01859	3.32	4.568	7.94	1.19
DoylesR	TR014	1239.25	20-AMEC-2080	11.300000	113.430	114.075200	114.2771	114.7696	0.04879	4.11	3.713	11.05	1.80
DoylesR	TR014	1203.69	20-AMEC-2080	11.300000	112.840	113.641700	113.5826	113.7462	0.00966	2.23	9.711	25.14	0.84
DoylesR	TR014	1182.25	20-AMEC-2080	11.300000	112.530	113.313900	113.3139	113.4971	0.01297	2.48	7.993	20.82	0.97
DoylesR	TR014	1125.25	20-AMEC-2080	11.300000	111.300	112.471100	112.2640	112.5366	0.00361	1.73	13.055	23.37	0.54
DoylesR	TR014	1104.23	20-AMEC-2080	11.300000	111.160	112.180600	112.1806	112.3983	0.01087	2.60	7.561	17.24	0.91
DoylesR	TR014	1094.88	20-AMEC-2080	11.300000	110.550	111.325800	111.5669	112.1425	0.05230	4.98	3.800	10.02	1.93
DoylesR	TR014	1075.36	20-AMEC-2080	11.300000	110.170	111.185500	111.2485	111.4718	0.01574	3.28	7.415	19.05	1.10
DoylesR	TR014	1027.18	20-AMEC-2080	11.300000	109.150	109.928900	110.0633	110.3928	0.03275	3.72	5.316	15.90	1.51
DoylesR	TR014	980.74	20-AMEC-2080	11.300000	107.890	108.927600	108.6190	108.9901	0.00354	1.63	12.778	20.83	0.53
DoylesR	TR014	954.47	20-AMEC-2080	11.300000	107.680	108.620500	108.6205	108.8225	0.01146	2.59	8.385	22.14	0.93
DoylesR	TR014	934.37	20-AMEC-2080	11.300000	106.990	107.851700	107.9138	108.3731	0.03076	3.80	5.130	15.20	1.47
DoylesR	TR014	907.24	20-AMEC-2080	11.300000	106.520	107.302700	107.3838	107.5574	0.02345	3.30	7.739	25.49	1.29
DoylesR	TR014	868.80	20-AMEC-2080	11.300000	105.880	106.745200	106.8316	107.0557	0.01728	2.96	6.401	16.30	1.12
DoylesR	TR014	864.98	20-AMEC-2080	11.300000	105.700	106.643400	106.7090	106.9871	0.01548	2.79	5.361	13.01	1.06
DoylesR	TR014	844.06	20-AMEC-2080	11.300000	105.100	106.262300	106.1421	106.4434	0.00665	2.30	7.816	12.86	0.73
DoylesR	TR014	836.52	20-AMEC-2080	11.300000	104.970	106.071600	106.0716	106.3647	0.01205	2.79	6.087	11.73	0.95
DoylesR	TR014	816.09	20-AMEC-2080	11.300000	104.780	105.382400	105.5522	105.8898	0.05464	3.84	4.471	16.46	1.85
DoylesR	TR014	811.48	20-AMEC-2080	11.300000	104.640	105.573300	105.3778	105.6605	0.00572	1.84	11.028	22.69	0.66
DoylesR	TR014	783.28	20-AMEC-2080	11.300000	103.980	105.108900	105.1089	105.4096	0.01233	3.10	6.104	10.18	0.99
DoylesR	TR014	751.27	20-AMEC-2080	11.300000	103.310	104.240600	104.4037	104.8069	0.02811	3.41	3.732	8.42	1.38
DoylesR	TR014	717.94	20-AMEC-2080	11.300000	102.630	103.928600	103.9469	104.2102	0.01076	3.15	7.038	13.38	0.93
DoylesR	TR014	676.43	20-AMEC-2080	11.300000	102.180	103.164500	103.2739	103.6107	0.01985	3.28	5.112	12.99	1.20
DoylesR	TR014	601.44	20-AMEC-2080	11.300000	101.390	102.241300	102.2301	102.4136	0.01269	2.46	7.785	20.42	0.95
DoylesR	TR014	540.83	20-AMEC-2080	11.300000	100.490	101.644100	101.5192	101.8604	0.00693	2.30	7.422	18.10	0.75
DoylesR	TR014	519.25	20-AMEC-2080	11.300000	99.690	101.760700	101.4859	101.7726	0.00044	0.79	33.894	63.34	0.18
DoylesR	TR014	510		Culvert									
DoylesR	TR014	505.00	20-AMEC-2080	11.300000	99.620	101.552200	101.5522	101.5801	0.00109	1.18	25.579	61.32	0.28
DoylesR	TR014	484.27	20-AMEC-2080	11.300000	99.790	100.621300	100.8364	101.3093	0.05442	4.49	3.927	12.68	1.86
DoylesR	TR014	426.15	20-AMEC-2080	11.300000	98.710	99.818650	99.8505	100.1025	0.01131	2.53	5.941	16.56	0.91
DoylesR	TR014	368.05	20-AMEC-2080	11.300000	97.300	98.381030	98.5974	99.0367	0.03444	4.06	4.254	13.16	1.51
DoylesR	TR014	343.01	20-AMEC-2080	11.300000	96.780	98.246280	97.7327	98.3748	0.00238	1.65	7.617	72.63	0.45
DoylesR	TR014	335		Bridge									
DoylesR	TR014	331.91	20-AMEC-2080	11.300000	96.630	97.863240	97.8632	98.2496	0.01072	2.87	4.610	6.91	0.92
DoylesR	TR014	312.09	20-AMEC-2080	11.300000	96.260	97.470160	97.6144	97.9189	0.02496	3.32	5.882	28.59	1.26
DoylesR	TR014	227.09	20-AMEC-2080	11.300000	94.660	96.414100	96.1169	96.4676	0.00221	1.53	15.832	27.73	0.41
DoylesR	TR014	205.76	20-AMEC-2080	11.300000	94.510	96.130230	96.1302	96.3715	0.00725	2.56	7.932	18.15	0.73
DoylesR	TR014	198.96	20-AMEC-2080	11.300000	94.450	95.139920	95.4354	96.1733	0.08376	4.55	2.687	9.47	2.25
DoylesR	TR014	181.77	20-AMEC-2080	11.300000	94.010	95.174040	95.1936	95.3800	0.01003	2.54	8.432	22.70	0.86
DoylesR	TR014	121.12	20-AMEC-2080	11.300000	92.990	94.119320	94.2404	94.5302	0.01772	3.27	7.635	53.41	1.13
DoylesR	TR014	34.73	20-AMEC-2080	11.300000	91.600	92.439750	92.5472	92.8657	0.02335	3.13	4.595	10.48	1.27
DoylesR	TR012	1780.65	20-AMEC-2080	27.600000	90.300	92.195680	91.6620	92.3043	0.00184	1.61	26.107	44.39	0.41
DoylesR	TR012	1753.67	20-AMEC-2080	27.600000	89.560	92.236780	91.1661	92.2643	0.00031	0.95	61.929	76.61	0.19
DoylesR	TR012	1745		Bridge									
DoylesR	TR012	1729.43	20-AMEC-2080	27.600000	89.100	90.921410	91.0123	91.8180	0.01285	4.29	6.817	12.67	1.07
DoylesR	TR012	1709.20	20-AMEC-2080	27.600000	88.930	90.417060	90.7352	91.4149	0.02704	5.20	8.999	19.61	1.48
DoylesR	TR012	1645.76	20-AMEC-2080	27.600000	88.200	89.331590	89.4275	89.7943	0.01810	3.56	10.910	17.45	1.19
DoylesR	TR011	1552.47	20-AMEC-2080	39.499990	86.480	88.627020	88.2925	88.9959	0.00483	2.97	18.077	14.40	0.69
DoylesR	TR011	1530.88	20-AMEC-2080	39.499990	86.190	88.168560	88.1686	88.8229	0.01002	4.09	13.690	11.20	0.99
DoylesR	TR011	1477.56	20-AMEC-2080	39.499990	84.430	85.713680	86.2382	87.6200	0.05983	6.90	8.167	12.96	2.18
DoylesR	TR011	1423.69	20-AMEC-2080	39.499990	83.560	85.466740	85.4717	86.1470	0.01027	3.98	13.109	11.51	0.99
DoylesR	TR011	1370.10	20-AMEC-2080	39.499990	82.660	83.879360	84.1977	85.0672	0.04763	6.12	11.891	29.05	1.96
DoylesR	TR011	1316.51	20-AMEC-2080	39.499990	81.170	82.809990	82.9295	83.5895	0.01579	4.38	12.231	13.63	1.19
DoylesR	TR011	1262.92	20-AMEC-2080	39.499990	79.360	80.971240	81.5361	82.3831	0.03039	5.85	9.450	12.82	1.63
DoylesR	TR011	1209.33	20-AMEC-2080	39.499990	78.140	80.133450	80.3859	81.0995	0.01610	4.81	11.132	11.40	1.21
DoylesR	TR011	1155.74	20-AMEC-2080	39.499990	76.810	78.599840	79.0349	79.9576	0.02726	5.66	9.039	9.53	1.53
DoylesR	TR011	1107.39	20-AMEC-2080	39.499990	76.340	77.792250	78.0197	78.6511	0.02114	4.27	10.554	12.62	1.32
DoylesR	TR011	1057.82	20-AMEC-2080	39.499990	75.160	77.150150	77.2369	77.8336	0.01181	3.97	12.718	12.47	1.02
DoylesR	TR011	971.36	20-AMEC-2080	39.499990	73.330	74.153290	74.6103	75.7389	0.06496	5.58	7.080	17.60	2.16
DoylesR	TR011	960		Bridge									
DoylesR	TR011	949.62	20-AMEC-2080	39.499990	73.080	75.042880	74.2921	75.2480	0.00213	2.01	19.685	14.93	0.47
DoylesR	TR011	929.53	20-AMEC-2080	39.499990	72.740	74.462960	74.4765	75.0543	0.01088	3.63	13.069	12.25	0.99
DoylesR	TR011	872.05	20-AMEC-2080	39.499990	72.260	74.001760	74.0818	74.3612	0.01088	3.58	23.405	53.81	0.97
DoylesR	TR011	816.76	20-AMEC-2080	39.499990	72.000	72.877750	72.9690	73.2078	0.05357	4.69	20.412	86.66	1.88
DoylesR	TR011	760.16	20-AMEC-2080	39.499990	71.250	72.439010	72.3177	72.5295	0.00885	2.65	38.221	99.54	0.83
DoylesR	TR011	712.26	20-AMEC-2080	39.499990	70.340	71.716220	71.7162	71.9626	0.01367	3.49	25.205	66.05	1.05
DoylesR	TR011	663.11	20-AMEC-2080	39.499990	70.080	71.397470	71.3061	71.4563	0.00668	2.26	46.691	125.72	0.70
DoylesR	TR013	2205.78	20-AMEC-2080	8.200001	95.880	96.615940	96.4015	96.6251	0.00128	0.81	25.156	96.49	0.31
DoylesR	TR013	2147.59	20-AMEC-2080	8.200001	95.870	96.512730		96.5299	0.00204	0.87	16.627	52.45	0.37

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR013	2097.40	20-AMEC-2080	8.200001	95.860	96.256340	96.2563	96.3096	0.01508	1.60	10.799	77.23	0.92
DoylesR	TR013	2011.99	20-AMEC-2080	8.200001	93.670	94.604710	94.5556	94.8092	0.00858	2.19	4.918	10.25	0.80
DoylesR	TR013	1957.46	20-AMEC-2080	8.200001	93.050	94.033110	94.0331	94.2883	0.01096	2.75	4.909	10.70	0.93
DoylesR	TR013	1909.18	20-AMEC-2080	8.200001	92.330	93.164140	93.3177	93.5551	0.02048	3.13	4.821	25.67	1.20
DoylesR	TR013	1861.01	20-AMEC-2080	8.200001	91.270	92.206440	92.3752	92.6199	0.01842	3.10	4.308	24.85	1.15
DoylesR	TR013	1789.09	20-AMEC-2080	8.200001	90.000	90.517760	90.5943	90.7614	0.03618	2.88	6.273	54.33	1.48
DoylesR	TR013	1733.37	20-AMEC-2080	8.200001	89.530	90.223780	90.1246	90.2517	0.00363	1.09	15.581	74.89	0.49
DoylesR	TR013	1677.65	20-AMEC-2080	8.200001	89.420	89.801240	89.7850	89.8592	0.01831	1.65	8.818	53.62	0.99
DoylesR	TR013	1613.85	20-AMEC-2080	8.200001	89.110	89.603680		89.6110	0.00172	0.63	24.325	96.15	0.32
DoylesR	TR013	1552.30	20-AMEC-2080	8.200001	88.820	89.509440		89.5228	0.00174	0.84	20.752	67.75	0.35
DoylesR	TR013	1506.96	20-AMEC-2080	8.200001	88.810	89.445850		89.4588	0.00161	0.78	20.763	64.50	0.33
DoylesR	TR013	1478.17	20-AMEC-2080	8.200001	88.800	89.257030	89.2570	89.3336	0.01969	1.92	8.320	41.72	1.06
DoylesR	TR013	1411.61	20-AMEC-2080	8.200001	88.110	89.062400	88.7077	89.0867	0.00129	0.87	14.046	31.07	0.31
DoylesR	TR013	1388.58	20-AMEC-2080	8.200001	87.450	89.071500	88.8024	89.0747	0.00009	0.34	57.441	157.45	0.09
DoylesR	TR013	1375		Culvert									
DoylesR	TR013	1373.86	20-AMEC-2080	8.200001	87.320	88.590450	88.5022	88.7011	0.00445	2.01	7.721	14.71	0.59
DoylesR	TR013	1301.72	20-AMEC-2080	8.200001	86.820	87.841060	87.8411	88.1495	0.01181	2.69	3.953	7.12	0.94
DoylesR	TR013	1246.99	20-AMEC-2080	8.200001	85.790	86.561720	86.7229	87.1353	0.03116	3.43	2.639	5.90	1.45
DoylesR	TR013	1192.26	20-AMEC-2080	8.200001	84.790	85.776830	85.6787	85.9852	0.00881	2.26	4.954	9.97	0.81
DoylesR	TR013	1137.53	20-AMEC-2080	8.200001	84.030	85.148410	85.1484	85.4504	0.01063	2.62	4.015	7.89	0.89
DoylesR	TR013	1082.80	20-AMEC-2080	8.200001	83.550	84.363790	84.4386	84.6275	0.02388	2.78	5.003	21.07	1.22
DoylesR	TR013	1064.90	20-AMEC-2080	8.200001	82.570	84.479220	83.6397	84.5007	0.00043	0.75	25.124	110.83	0.19
DoylesR	TR013	1050		Culvert									
DoylesR	TR013	1042.53	20-AMEC-2080	8.200001	82.410	84.228130	83.4090	84.2380	0.00025	0.57	31.304	78.48	0.15
DoylesR	TR013	1022.06	20-AMEC-2080	8.200001	82.710	83.935970	83.8200	84.1596	0.00703	2.43	4.877	7.45	0.75
DoylesR	TR013	969.32	20-AMEC-2080	8.200001	82.400	83.336200	83.3362	83.6422	0.01380	2.89	3.995	6.95	1.02
DoylesR	TR013	915.66	20-AMEC-2080	8.200001	81.800	82.878180	82.5575	82.8978	0.00125	0.98	17.371	38.78	0.32
DoylesR	TR013	867.93	20-AMEC-2080	8.200001	81.400	82.764030		82.8181	0.00210	1.46	12.590	31.55	0.42
DoylesR	TR013	809.27	20-AMEC-2080	8.200001	81.320	82.472770		82.6289	0.00481	1.87	5.520	9.13	0.62
DoylesR	TR013	756.07	20-AMEC-2080	8.200001	80.750	81.881910	81.8819	82.2362	0.01116	2.99	3.818	5.78	0.95
DoylesR	TR013	702.82	20-AMEC-2080	8.200001	79.910	80.868580	81.0126	81.3984	0.02217	3.59	3.094	6.09	1.27
DoylesR	TR013	651.60	20-AMEC-2080	8.200001	78.060	78.856150	79.2031	79.7178	0.05058	4.31	2.265	5.68	1.82
DoylesR	TR013	588.74	20-AMEC-2080	8.200001	75.890	76.752170	76.8879	77.2291	0.02907	3.09	2.826	6.89	1.36
DoylesR	TR013	543.29	20-AMEC-2080	8.200001	75.200	75.981770	75.9977	76.2559	0.01475	2.35	3.734	8.31	1.00
DoylesR	TR013	489.08	20-AMEC-2080	8.200001	73.770	74.800900	74.9268	75.3169	0.01943	3.55	3.107	5.31	1.20
DoylesR	TR013	436.90	20-AMEC-2080	8.200001	72.110	72.977400	73.3262	73.7961	0.04612	4.05	2.145	4.68	1.71
DoylesR	TR013	383.70	20-AMEC-2080	8.200001	70.970	72.525260	71.9636	72.5324	0.00028	0.56	41.027	138.04	0.16
DoylesR	TR013	363.75	20-AMEC-2080	8.200001	70.360	71.901640	71.9016	72.4609	0.00921	3.55	3.242	9.00	0.93
DoylesR	TR013	360		Culvert									
DoylesR	TR013	344.87	20-AMEC-2080	8.200001	70.320	71.702220	71.7022	71.7116	0.00055	0.72	24.340	48.31	0.20
DoylesR	TR013	324.16	20-AMEC-2080	8.200001	70.290	70.862940	70.9907	71.4810	0.10523	4.50	3.675	35.38	2.42
DoylesR	TR013	256.30	20-AMEC-2080	8.200001	69.360	70.278210	70.2782	70.3701	0.01265	2.21	8.976	46.93	0.86
DoylesR	TR013	236.50	20-AMEC-2080	8.200001	69.350	70.177560	69.9740	70.1814	0.00076	0.47	32.714	115.58	0.21
DoylesR	TR013	162.98	20-AMEC-2080	8.200001	68.940	70.137860		70.1441	0.00069	0.60	30.002	118.09	0.21
DoylesR	TR013	133.14	20-AMEC-2080	8.200001	68.760	70.126690		70.1285	0.00020	0.34	48.941	115.95	0.11
DoylesR	TR013	66.14	20-AMEC-2080	8.200001	68.460	70.112480		70.1154	0.00021	0.40	38.816	131.67	0.12
DoylesR	M001	484.12	20-AMEC-2080	47.900010	68.080	69.720110	69.7201	69.9017	0.01106	3.00	34.388	94.68	0.90
DoylesR	M001	429.44	20-AMEC-2080	47.900010	67.720	69.535550	69.1151	69.5727	0.00224	1.50	67.749	125.52	0.41
DoylesR	M001	388.03	20-AMEC-2080	47.900010	67.530	69.469410		69.4930	0.00157	1.34	84.061	147.35	0.35
DoylesR	M001	344.78	20-AMEC-2080	47.900010	67.390	69.457380		69.4623	0.00030	0.62	167.742	225.28	0.16
DoylesR	M001	215.64	20-AMEC-2080	47.900010	67.210	69.453760		69.4547	0.00003	0.23	378.329	348.40	0.05
DoylesR	M001	77.13	20-AMEC-2080	47.900010	66.620	69.453220		69.4535	0.00001	0.15	668.187	521.30	0.03
CochranePB	M002	8105.53	20-AMEC-2080	14.300000	140.650	142.401900	141.3599	142.4037	0.00009	0.34	96.302	128.57	0.09
CochranePB	M002	8065.47	20-AMEC-2080	14.300000	140.640	142.389600		142.3967	0.00035	0.61	53.129	85.11	0.17
CochranePB	M002	8050.98	20-AMEC-2080	14.300000	139.200	142.377900		142.3941	0.00005	0.61	51.293	78.89	0.12
CochranePB	M002	8024.09	20-AMEC-2080	14.300000	140.620	142.377900		142.3849	0.00038	0.61	57.178	109.97	0.18
CochranePB	M002	8013.06	20-AMEC-2080	14.300000	140.420	142.375000		142.3811	0.00027	0.57	61.740	108.76	0.15
CochranePB	M002	8004.70	20-AMEC-2080	14.300000	140.250	142.375700	141.8023	142.3785	0.00015	0.54	78.405	111.91	0.12
CochranePB	M002	8000		Culvert									
CochranePB	M002	7995.14	20-AMEC-2080	14.300000	140.370	142.364000	141.5473	142.3683	0.00013	0.49	68.638	83.82	0.11
CochranePB	M002	7964.49	20-AMEC-2080	14.300000	140.140	141.852000	141.8520	142.2403	0.01146	3.34	7.323	10.93	0.91
CochranePB	M002	7901.64	20-AMEC-2080	14.300000	139.300	140.741600	140.9148	141.2439	0.02265	3.46	6.930	27.59	1.19
CochranePB	M002	7847.08	20-AMEC-2080	14.300000	138.680	139.808400	139.6876	139.8742	0.00779	1.74	17.077	50.89	0.69
CochranePB	M002	7812.33	20-AMEC-2080	14.300000	138.520	139.331400	139.3314	139.4439	0.02506	2.29	12.454	54.55	1.19
CochranePB	M002	7738.34	20-AMEC-2080	14.300000	137.940	138.939000	138.7278	138.9513	0.00226	0.87	37.265	129.00	0.38
CochranePB	M002	7695.32	20-AMEC-2080	14.300000	137.670	138.607600	138.6076	138.7510	0.01664	2.14	11.475	41.01	1.01
CochranePB	M002	7609.21	20-AMEC-2080	14.300000	136.290	137.765400	137.4084	137.7831	0.00083	0.81	34.733	78.13	0.26
CochranePB	M002	7515.77	20-AMEC-2080	14.300000	136.280	137.630500		137.6690	0.00246	1.28	27.376	95.50	0.43
CochranePB	M002	7476.72	20-AMEC-2080	14.300000	136.260	137.609500		137.6202	0.00065	0.65	40.673	91.97	0.22
CochranePB	M002	7450.86	20-AMEC-2080	14.300000	136.250	137.574600		137.5970	0.00133	0.89	30.176	83.30	0.32
CochranePB	M002	7329.89	20-AMEC-2080	14.300000	136.230	137.280300		137.3306	0.00493	1.39	19.635	75.09	0.57
CochranePB	M002	7253.62	20-AMEC-2080	14.300000	136.050	137.104500		137.1229	0.00215	0.98	28.777	93.92	0.38
CochranePB	M002	7208.54	20-AMEC-2080	14.300000	135.880	136.994500		137.0188	0.00273	1.13	27.214	101.53	0.43
CochranePB	M002	7108.13	20-AMEC-2080	14.300000	135.540	136.528900		136.5942	0.01005	1.99	17.901	75.62	0.79
CochranePB	M002	7041.67	20-AMEC-2080	14.300000	134.910	136.074500		136.1627	0.00574	1.58	17.072	75.72	0.63
CochranePB	M002	6985.71	20-AMEC-2080	14.300000	134.290	135.672300	135.6723	135.8194	0.00666	2.17	14.350	45.43	0.70
CochranePB	M002	6955.25	20-AMEC-2080	14.300000	133.480	134.648800	134.8678	135.3468	0.04096	3.81	4.361	11.06	1.60
CochranePB	M002	6863.52	20-AMEC-2080	14.300000	131.820	132.809600	132.8732	133.0569	0.02829	3.07	9.597	36.65	1.31
CochranePB	M002	6840.09	20-AMEC-2080	14.300000	131.190	132.158800	132.2098	132.4027	0.02845	2.82	9.320	37.21	1.31
CochranePB	M002	6808.25	20-AMEC-2080	14.300000	130.510	131.465200	131.4682	131.6043	0.02098	2.38	11.629	43.33	1.10
CochranePB	M002	6767.75	20-AMEC-2080	14.300000	129.310	130.291400	130.3850	130.5755	0.02974	2.91	8.988	42.38	1.35
CochranePB	M002	6727.78	20-AMEC-2080	14.300000	128.360	129.500800	129.5289	129.6907	0.01637	2.49	10.390	35.30	1.01
CochranePB	M002	6691.71	20-AMEC-2080	14.300000	127.960	129.047400	128.9907	129.1110	0.00685	1.60	18.441	71.60	0.67
CochranePB	M002	6651.54	20-AMEC-2080	14.300000	127.680	128.656000	128.6174	128.7715	0.01139	1.66	11.224	37.86	0.83
CochranePB	M002	6630.83	20-AMEC-2080	14.300000	127.190	128.419000	128.4190	128.5668	0.00868	2.01	12.555	52.27	0.78
CochranePB	M002	6534.50	20-AMEC-2080	14.300000	126.300	127.284400	127.3289	127.4438	0.01678	2.23	11.770	55.82	1.02
CochranePB	M002	6507.97	20-AMEC-2080	14.300000	125.650	126.565200	126.6239	126.7798	0.03587	2.80	10.021	55.23	1.41

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	6480.50	20-AMEC-2080	14.300000	124.970	125.920900	125.9423	126.0584	0.02120	2.39	12.152	55.25	1.12
CochranePB	M002	6433.33	20-AMEC-2080	14.300000	124.090	125.053000	125.0841	125.2335	0.01894	2.14	9.496	36.32	1.06
CochranePB	M002	6400.96	20-AMEC-2080	14.300000	123.400	124.585500	124.4108	124.6393	0.00470	1.39	17.762	48.09	0.55
CochranePB	M002	6364.18	20-AMEC-2080	14.300000	123.280	124.587800		124.5946	0.00028	0.40	50.009	118.57	0.15
CochranePB	M002	6314.31	20-AMEC-2080	14.300000	123.270	124.523300		124.5604	0.00197	1.02	22.911	62.71	0.38
CochranePB	M002	6286.25	20-AMEC-2080	14.300000	123.260	124.443800		124.4939	0.00289	1.17	20.185	64.68	0.45
CochranePB	M002	6202.53	20-AMEC-2080	14.300000	122.810	124.029600	123.9693	124.1632	0.00738	1.91	12.253	34.55	0.72
CochranePB	M002	6130.00	20-AMEC-2080	14.300000	122.300	123.347900	123.3479	123.5116	0.01222	1.85	9.244	34.26	0.87
CochranePB	M002	6040.82	20-AMEC-2080	14.300000	121.410	122.601800	122.4800	122.6459	0.00300	1.24	23.220	75.54	0.46
CochranePB	M002	6006.95	20-AMEC-2080	14.300000	121.400	122.567100		122.5822	0.00098	0.59	32.815	99.54	0.26
CochranePB	M002	5976.09	20-AMEC-2080	14.300000	121.390	122.395300	122.3953	122.5000	0.01450	1.89	14.322	71.50	0.93
CochranePB	M002	5910.40	20-AMEC-2080	14.300000	120.290	121.508200	121.5265	121.6902	0.01290	2.40	11.684	44.41	0.93
CochranePB	M002	5863.68	20-AMEC-2080	14.300000	119.620	120.530600	120.6362	120.8529	0.03785	2.82	7.285	37.38	1.47
CochranePB	M002	5811.63	20-AMEC-2080	14.300000	118.870	119.976400	119.9764	120.0993	0.01109	2.09	13.712	52.73	0.85
CochranePB	M002	5768.42	20-AMEC-2080	14.300000	117.380	118.320400	118.5374	119.0473	0.08454	3.80	3.973	16.87	2.15
CochranePB	M002	5725.36	20-AMEC-2080	14.300000	116.480	117.619500	117.6345	117.7863	0.01238	2.15	10.917	40.66	0.90
CochranePB	M002	5678.58	20-AMEC-2080	14.300000	115.390	116.451700	116.6010	116.8518	0.03085	2.86	5.784	22.29	1.37
CochranePB	M002	5627.04	20-AMEC-2080	14.300000	114.790	116.188400	115.8486	116.2311	0.00225	1.20	21.271	46.06	0.41
CochranePB	M002	5609.94	20-AMEC-2080	21.400000	114.770	115.984100		116.1094	0.00755	1.88	17.696	44.49	0.73
CochranePB	M002	5601.00	20-AMEC-2080	21.400000	114.760	115.970200		115.9821	0.00145	0.83	49.569	111.04	0.31
CochranePB	M002	5568.52	20-AMEC-2080	21.400000	114.750	115.934500		115.9458	0.00111	0.72	49.416	99.10	0.28
CochranePB	M002	5508.20	20-AMEC-2080	21.400000	114.040	115.622200		115.8003	0.00497	1.97	13.498	21.78	0.63
CochranePB	M002	5473.67	20-AMEC-2080	21.400000	113.900	115.305500	115.3055	115.5499	0.01079	2.56	13.274	27.65	0.89
CochranePB	M002	5403.83	20-AMEC-2080	21.400000	110.690	111.860400	112.3407	113.6758	0.09916	6.06	3.897	9.16	2.52
CochranePB	M002	5352.19	20-AMEC-2080	21.400000	110.270	111.636400	111.6364	111.9446	0.01424	2.75	10.892	21.86	1.01
CochranePB	M002	5309.83	20-AMEC-2080	21.400000	109.640	111.077500	111.1450	111.3625	0.01313	2.75	14.474	49.51	0.97
CochranePB	M002	5266.90	20-AMEC-2080	21.400000	109.300	110.620900	110.6576	110.8076	0.01243	2.54	19.784	83.07	0.93
CochranePB	M002	5213.45	20-AMEC-2080	21.400000	108.810	110.402500	109.8866	110.4204	0.00093	0.83	47.108	82.99	0.27
CochranePB	M002	5162.38	20-AMEC-2080	40.300000	108.180	109.994300	109.9943	110.2657	0.00949	3.20	28.418	55.10	0.89
CochranePB	M002	5109.83	20-AMEC-2080	40.300000	108.020	109.488100	109.1828	109.5328	0.00366	1.45	52.605	102.24	0.51
CochranePB	M002	5059.83	20-AMEC-2080	40.300000	107.540	109.166600		109.3182	0.00709	2.39	37.280	86.71	0.75
CochranePB	M002	5013.20	20-AMEC-2080	40.300000	107.210	108.864300	108.8643	109.0191	0.00882	2.42	36.758	100.00	0.80
CochranePB	M002	4977.38	20-AMEC-2080	40.300000	107.070	108.748300	108.4551	108.7773	0.00170	1.21	73.798	148.97	0.37
CochranePB	M002	4908.49	20-AMEC-2080	40.300000	106.950	108.722200		108.7301	0.00052	0.74	122.101	199.54	0.21
CochranePB	M002	4883.44	20-AMEC-2080	40.300000	106.940	108.709800		108.7151	0.00031	0.55	142.836	214.84	0.16
CochranePB	M002	4816.97	20-AMEC-2080	40.300000	106.930	108.698800		108.7044	0.00028	0.54	147.612	226.99	0.16
CochranePB	M002	4757.22	20-AMEC-2080	40.300000	106.780	108.689200		108.6939	0.00020	0.49	171.614	259.86	0.13
CochranePB	M002	4718.65	20-AMEC-2080	40.300000	106.770	108.679400		108.6859	0.00028	0.59	159.515	325.02	0.16
CochranePB	M002	4674.22	20-AMEC-2080	40.300000	106.760	108.654100		108.6721	0.00066	0.90	111.836	266.32	0.24
CochranePB	M002	4633.22	20-AMEC-2080	40.300000	106.750	108.636600		108.6530	0.00035	0.64	99.696	180.51	0.18
CochranePB	M002	4561.03	20-AMEC-2080	40.300000	106.740	108.565600		108.6112	0.00114	1.12	60.457	99.87	0.32
CochranePB	M002	4506.74	20-AMEC-2080	40.300000	106.430	108.235500	108.2355	108.4650	0.00726	2.62	28.402	58.07	0.77
CochranePB	M002	4459.83	20-AMEC-2080	40.300000	105.660	107.283100	107.4852	107.8983	0.01956	3.81	16.536	45.18	1.23
CochranePB	M002	4409.53	20-AMEC-2080	40.300000	104.620	106.276600	106.4369	106.8989	0.02033	3.88	15.221	30.42	1.24
CochranePB	M002	4359.83	20-AMEC-2080	40.300000	103.720	105.465000	105.7038	106.0175	0.01519	3.55	16.054	35.64	1.09
CochranePB	M002	4327.93	20-AMEC-2080	40.300000	103.170	105.012700	105.1209	105.5540	0.01405	3.48	15.755	29.24	1.06
CochranePB	M002	4265.56	20-AMEC-2080	40.300000	102.450	104.292700	104.3452	104.7076	0.01228	3.40	18.581	28.03	1.00
CochranePB	M002	4208.11	20-AMEC-2080	40.300000	101.670	103.345900	103.4932	103.8924	0.01594	3.52	15.815	31.84	1.12
CochranePB	M002	4159.83	20-AMEC-2080	40.300000	101.120	102.206000	102.3095	102.5589	0.05393	3.50	16.867	48.26	1.77
CochranePB	M002	4109.83	20-AMEC-2080	40.300000	98.840	100.514600	100.7125	101.1240	0.01755	3.87	16.617	38.59	1.19
CochranePB	M002	4056.00	20-AMEC-2080	40.300000	97.180	98.825750	99.1932	99.8331	0.03060	4.81	10.979	17.15	1.52
CochranePB	M002	4009.83	20-AMEC-2080	40.300000	96.330	98.196140	98.3125	98.5992	0.01716	3.92	23.965	63.72	1.13
CochranePB	M002	3969.03	20-AMEC-2080	40.300000	95.620	97.470280	97.6640	98.0275	0.01226	3.64	17.304	57.83	1.02
CochranePB	M002	3916.58	20-AMEC-2080	40.300000	94.820	96.940800	97.0882	97.3764	0.01093	3.41	22.517	76.31	0.92
CochranePB	M002	3859.82	20-AMEC-2080	40.300000	94.340	96.217950	96.4266	96.7504	0.01146	3.31	15.028	44.31	0.96
CochranePB	M002	3810.05	20-AMEC-2080	40.300000	93.500	95.377430	95.7480	96.0791	0.01544	3.95	13.354	30.14	1.13
CochranePB	M002	3759.83	20-AMEC-2080	40.300000	93.000	94.664180	94.8407	95.1904	0.01635	3.75	19.191	55.54	1.14
CochranePB	M002	3709.28	20-AMEC-2080	40.300000	92.330	94.117250	94.2048	94.4602	0.01167	3.20	23.462	67.55	0.96
CochranePB	M002	3661.60	20-AMEC-2080	40.300000	92.050	93.823910	93.8619	93.9957	0.00665	2.50	38.915	136.28	0.73
CochranePB	M002	3609.83	20-AMEC-2080	40.300000	91.730	93.445730	93.4749	93.6174	0.00796	2.58	38.140	141.08	0.79
CochranePB	M002	3559.90	20-AMEC-2080	40.300000	90.870	92.850130	92.9363	93.1641	0.00848	3.08	28.627	81.55	0.84
CochranePB	M002	3509.83	20-AMEC-2080	40.300000	90.380	92.389630	92.3729	92.5623	0.00532	2.58	37.573	95.88	0.68
CochranePB	M002	3493.23	20-AMEC-2080	40.300000	90.020	92.087940	91.8870	92.4687	0.00605	3.36	18.888	15.44	0.76
CochranePB	M002	3480		Bridge									
CochranePB	M002	3474.26	20-AMEC-2080	40.300000	89.910	92.135770	91.4954	92.3352	0.00239	2.29	24.521	16.54	0.50
CochranePB	M002	3466.43	20-AMEC-2080	40.300000	90.000	92.023770	92.0238	92.2918	0.00353	2.66	32.943	76.14	0.60
CochranePB	M002	3454.35	20-AMEC-2080	40.300000	89.940	91.886250	91.4644	92.1672	0.00381	2.60	19.996	16.65	0.62
CochranePB	M002	3450		Bridge									
CochranePB	M002	3434.16	20-AMEC-2080	44.199990	90.360	91.667210	91.6028	92.0776	0.00904	3.05	17.322	20.12	0.89
CochranePB	M002	3413.11	20-AMEC-2080	44.199990	90.140	91.621640	91.6157	91.7807	0.00778	2.64	38.942	92.60	0.79
CochranePB	M002	3391.58	20-AMEC-2080	44.199990	90.030	91.528890		91.6223	0.00515	2.25	48.237	105.26	0.66
CochranePB	M002	3371.12	20-AMEC-2080	44.199990	90.020	91.304540	91.3045	91.4841	0.00825	2.55	36.782	93.82	0.82
CochranePB	M002	3309.87	20-AMEC-2080	44.199990	89.280	90.705290	90.6437	90.8031	0.00838	2.58	42.970	108.15	0.79
CochranePB	M002	3272.96	20-AMEC-2080	44.199990	88.730	90.250890	90.2443	90.4405	0.01010	2.79	32.268	79.27	0.87
CochranePB	M002	3219.09	20-AMEC-2080	44.199990	88.300	89.784350	89.7844	89.9302	0.00892	2.57	37.614	108.16	0.83
CochranePB	M002	3175.54	20-AMEC-2080	44.199990	87.360	89.500230	89.2921	89.6321	0.00252	1.93	41.165	72.15	0.47
CochranePB	M002	3165		Bridge									
CochranePB	M002	3157.85	20-AMEC-2080	44.199990	87.500	89.263150	89.2632	89.4781	0.00494	2.46	33.973	82.60	0.65
CochranePB	M002	3135.32	20-AMEC-2080	44.199990	87.850	89.121580	89.0449	89.1815	0.00497	1.76	55.557	154.44	0.61
CochranePB	M002	3106.53	20-AMEC-2080	44.199990	87.940	88.807900	88.8079	88.9369	0.02780	2.68	31.227	119.02	1.26
CochranePB	M002	3088.94	20-AMEC-2080	44.199990	86.840	88.579300	88.3795	88.6870	0.00221	1.66	49.757	142.34	0.44
CochranePB	M002	3080		Bridge									
CochranePB	M002	3075.67	20-AMEC-2080	44.199990	86.740	88.347970	88.0637	88.4160	0.00182	1.43	56.729	132.19	0.40
CochranePB	M002	3056.89	20-AMEC-2080	44.199990	87.660	88.278900		88.3496	0.01334	1.04	38.535	127.66	0.76
CochranePB	M002	3007.54	20-AMEC-2080	44.199990	87.610	87.967010		88.0029	0.00424	0.44	52.964	110.09	0.33
CochranePB	M002	2976.31	20-AMEC-2080	44.199990	87.510	87.866460		87.9005	0.00411	0.50	54.448	123.15	0.38
CochranePB	M002	2941.08	20-AMEC-2080	44.199990	86.980	87.769530		87.7871	0.00283	0.82	77.556	222.10	0.40

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	2920.10	20-AMEC-2080	44.199990	86.740	87.754700	87.5443	87.7585	0.00031	0.35	167.815	295.37	0.13
CochranePB	M002	2915		Bridge									
CochranePB	M002	2912.75	20-AMEC-2080	44.199990	86.970	87.752390	87.7524	87.7550	0.00019	0.29	200.702	313.30	0.11
CochranePB	M002	2890.23	20-AMEC-2080	44.199990	86.650	86.844220	87.0158	87.5318	0.37131	3.36	12.032	77.66	3.44
CochranePB	M002	2823.99	20-AMEC-2080	44.199990	86.080	87.102940	86.7708	87.1127	0.00149	0.70	103.518	255.28	0.28
CochranePB	M002	2789.49	20-AMEC-2080	44.199990	86.040	87.077740		87.0869	0.00121	0.60	106.799	259.47	0.26
CochranePB	M002	2741.30	20-AMEC-2080	44.199990	85.710	87.024440		87.0337	0.00100	0.77	113.704	270.14	0.27
CochranePB	M002	2663.79	20-AMEC-2080	44.199990	85.580	86.977330		86.9880	0.00104	0.85	111.145	273.12	0.28
CochranePB	M002	2639.38	20-AMEC-2080	44.199990	85.570	86.944600		86.9573	0.00128	0.89	101.814	238.49	0.31
CochranePB	M002	2616.24	20-AMEC-2080	44.199990	85.300	86.929330		86.9391	0.00076	0.81	118.689	235.93	0.25
CochranePB	M002	2539.69	20-AMEC-2080	44.199990	85.410	86.882180		86.8966	0.00128	0.93	98.601	224.98	0.31
CochranePB	M002	2489.06	20-AMEC-2080	44.199990	85.180	86.837380		86.8551	0.00137	1.11	92.475	207.04	0.33
CochranePB	M002	2438.28	20-AMEC-2080	44.199990	84.870	86.775840		86.8035	0.00140	1.20	86.575	176.89	0.34
CochranePB	M002	2384.01	20-AMEC-2080	44.199990	84.650	86.677860		86.7211	0.00219	1.60	71.714	147.30	0.43
CochranePB	M002	2310.47	20-AMEC-2080	44.199990	84.330	86.439410		86.5260	0.00362	2.02	54.909	132.33	0.53
CochranePB	M002	2284.63	20-AMEC-2080	44.199990	84.160	86.381810		86.4362	0.00278	1.79	59.598	106.36	0.45
CochranePB	M002	2240.58	20-AMEC-2080	44.199990	84.040	85.951830	85.9518	86.2165	0.00928	3.11	27.540	46.13	0.86
CochranePB	M002	2170.94	20-AMEC-2080	44.199990	82.260	83.987110	84.3054	85.0935	0.03015	5.03	11.574	17.30	1.53
CochranePB	M002	2136.89	20-AMEC-2080	44.199990	81.720	83.410800	83.5697	84.1153	0.02124	3.96	14.333	24.59	1.28
CochranePB	M002	2100.01	20-AMEC-2080	44.199990	81.300	83.210250	83.2210	83.5147	0.00955	2.98	24.754	41.11	0.87
CochranePB	M002	2046.85	20-AMEC-2080	44.199990	80.890	82.695090	82.7066	83.0256	0.00893	2.79	22.853	40.90	0.85
CochranePB	M002	2014.35	20-AMEC-2080	44.199990	80.470	81.929080	82.1049	82.5310	0.02785	3.75	16.375	40.71	1.40
CochranePB	M002	1990.76	20-AMEC-2080	44.199990	80.100	81.925550	81.9256	82.1916	0.00960	2.87	26.350	44.77	0.87
CochranePB	M002	1945.20	20-AMEC-2080	44.199990	79.430	81.579310	81.2075	81.6852	0.00325	1.97	41.296	54.88	0.52
CochranePB	M002	1916.67	20-AMEC-2080	44.199990	79.310	81.424690		81.5713	0.00454	2.31	35.606	44.10	0.62
CochranePB	M002	1871.48	20-AMEC-2080	44.199990	79.280	81.271800		81.3781	0.00374	1.92	39.387	49.72	0.55
CochranePB	M002	1836.03	20-AMEC-2080	44.199990	78.830	81.220210		81.2838	0.00151	1.49	52.574	72.79	0.37
CochranePB	M002	1788.63	20-AMEC-2080	44.199990	78.460	80.805630	80.8056	81.1222	0.00759	3.26	26.928	39.26	0.80
CochranePB	M002	1768.08	20-AMEC-2080	44.199990	78.140	80.064580	80.2894	80.8368	0.02079	4.57	15.719	26.37	1.28
CochranePB	M002	1733.19	20-AMEC-2080	44.199990	77.950	79.975160	79.9993	80.2813	0.00779	2.89	26.761	48.57	0.81
CochranePB	M002	1694.89	20-AMEC-2080	44.199990	77.120	79.323400	78.8916	79.4282	0.00247	1.79	39.120	43.20	0.47
CochranePB	M002	1685.79	20-AMEC-2080	44.199990	77.060	79.262050		79.3992	0.00341	2.11	34.165	40.92	0.54
CochranePB	M002	1640.51	20-AMEC-2080	44.199990	76.450	78.758730	78.7587	79.1564	0.00738	3.24	21.758	29.54	0.80
CochranePB	M002	1602.99	20-AMEC-2080	44.199990	75.010	76.476340	76.9978	78.3654	0.07348	6.36	8.340	16.00	2.29
CochranePB	M002	1585.52	20-AMEC-2080	44.199990	74.010	75.327770	75.7398	76.8454	0.08732	5.93	9.516	20.88	2.41
CochranePB	M002	1569.47	20-AMEC-2080	44.199990	73.710	75.010930	75.1918	75.6662	0.03897	3.73	13.154	27.41	1.59
CochranePB	M002	1541.97	20-AMEC-2080	44.199990	72.310	74.114810	74.3113	74.8700	0.02159	4.21	13.684	19.17	1.29
CochranePB	M002	1510.83	20-AMEC-2080	44.199990	71.340	72.545010	72.8578	73.6591	0.08204	4.70	9.653	23.70	2.25
CochranePB	M002	1495.27	20-AMEC-2080	44.199990	71.190	73.018390	72.7465	73.1566	0.00416	1.82	32.110	42.60	0.58
CochranePB	M002	1458.62	20-AMEC-2080	44.199990	70.580	72.645570	72.6456	72.9085	0.00821	3.30	31.106	50.56	0.83
CochranePB	M002	1419.61	20-AMEC-2080	44.199990	70.210	72.118050	72.0717	72.4420	0.00917	3.18	24.483	36.96	0.88
CochranePB	M002	1384.56	20-AMEC-2080	44.199990	69.610	71.941620	71.9416	72.2102	0.00444	2.58	29.281	60.07	0.64
CochranePB	M002	1351.51	20-AMEC-2080	44.199990	69.540	71.629710	71.7504	72.0079	0.00830	3.28	27.214	75.18	0.85
CochranePB	M002	1311.78	20-AMEC-2080	44.199990	69.490	71.389390	71.4455	71.6439	0.00784	2.96	34.771	107.13	0.82
CochranePB	M002	1291.19	20-AMEC-2080	44.199990	69.280	70.997730	71.1387	71.4112	0.01459	3.63	26.303	91.86	1.07
CochranePB	M002	1217.75	20-AMEC-2080	44.199990	68.700	70.897450	70.3695	70.9347	0.00078	1.11	75.481	130.36	0.27
CochranePB	M002	1200.39	20-AMEC-2080	44.199990	68.690	70.572700	70.2326	70.8818	0.00481	2.51	18.321	18.80	0.66
CochranePB	M002	1190		Bridge									
CochranePB	M002	1185.68	20-AMEC-2080	45.299990	68.460	70.503340	69.9295	70.7442	0.00288	2.19	21.233	25.30	0.53
CochranePB	M002	1164.32	20-AMEC-2080	45.299990	68.650	70.418500	70.4185	70.6631	0.00591	2.77	32.171	82.12	0.73
CochranePB	M002	1132.60	20-AMEC-2080	45.299990	68.600	69.821240	69.9611	70.2698	0.02802	3.80	22.955	101.23	1.42
CochranePB	M002	1111.68	20-AMEC-2080	45.299990	68.550	69.836750	69.6345	69.8941	0.00418	1.75	57.966	154.87	0.58
CochranePB	M002	1059.95	20-AMEC-2080	45.299990	68.380	69.653400		69.7302	0.00480	2.11	52.226	142.17	0.64
CochranePB	M002	998.99	20-AMEC-2080	45.299990	68.130	69.477940		69.5078	0.00255	1.57	74.072	174.14	0.46
CochranePB	M002	955.54	20-AMEC-2080	45.299990	68.120	69.468480		69.4718	0.00022	0.45	185.401	256.19	0.14
CochranePB	M002	851.16	20-AMEC-2080	45.299990	67.620	69.458820		69.4612	0.00011	0.39	223.785	245.84	0.10
CochranePB	M002	798.06	20-AMEC-2080	45.299990	67.470	69.456670		69.4580	0.00006	0.29	290.382	281.83	0.07
CochranePB	M002	746.77	20-AMEC-2080	45.299990	67.300	69.455700		69.4564	0.00002	0.21	392.589	318.36	0.05
CochranePB	M002	694.52	20-AMEC-2080	45.299990	66.980	69.455120		69.4556	0.00001	0.18	476.800	362.80	0.04
CochranePB	M002	669.16	20-AMEC-2080	45.299990	66.970	69.454950		69.4554	0.00001	0.16	530.674	393.04	0.03
CochranePB	M002	590.19	20-AMEC-2080	45.299990	66.840	69.454270		69.4546	0.00001	0.14	631.534	473.41	0.03
CochranePB	M002	539.85	20-AMEC-2080	45.299990	66.810	69.453850		69.4541	0.00001	0.14	644.404	491.57	0.03
CochranePB	M002	488.40	20-AMEC-2080	45.299990	66.540	69.453530		69.4538	0.00001	0.12	685.647	494.98	0.03
CochranePB	M001	381.27	20-AMEC-2080	89.300010	66.350	69.451540		69.4523	0.00002	0.24	791.950	593.18	0.05
CochranePB	M001	313.14	20-AMEC-2080	89.300010	66.280	69.450790		69.4513	0.00001	0.19	935.792	662.85	0.04

HEC-RAS Plan:

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	TR001	439.21	100-Existing-CBC	37.000010	105.110	106.489900	106.2715	106.5932	0.00366	2.00	38.868	62.97	0.57
RaymondB	TR001	409.42	100-Existing-CBC	37.000010	104.680	106.229600	106.0418	106.4470	0.00588	2.75	28.786	50.33	0.74
RaymondB	TR001	380.07	100-Existing-CBC	37.000010	104.050	106.330100		106.3579	0.00044	0.99	76.998	78.31	0.22
RaymondB	TR001	360.64	100-Existing-CBC	37.000010	103.600	106.329000	105.1945	106.3486	0.00029	0.90	91.329	101.94	0.18
RaymondB	TR001	350		Bridge									
RaymondB	TR001	344.45	100-Existing-CBC	37.000010	103.300	104.982300	105.1385	105.9309	0.01664	4.80	9.621	67.33	1.23
RaymondB	TR001	334.13	100-Existing-CBC	37.000010	103.400	104.292200	104.6564	105.5657	0.04842	5.23	9.264	28.93	1.90
RaymondB	TR001	272.22	100-Existing-CBC	37.000010	102.830	103.970600	103.9706	104.2243	0.01065	2.97	23.677	45.45	0.94
RaymondB	TR001	218.50	100-Existing-CBC	37.000010	101.420	102.666200	102.8644	103.4140	0.01952	4.22	13.359	25.39	1.29
RaymondB	TR001	163.97	100-Existing-CBC	37.000010	100.320	101.837100	101.4740	102.0145	0.00328	1.99	23.984	27.63	0.55
RaymondB	TR001	115.54	100-Existing-CBC	37.000010	100.000	101.312300	101.3123	101.7245	0.01112	3.45	18.298	29.95	0.99
RaymondB	TR001	56.65	100-Existing-CBC	37.000010	97.730	98.445110	98.9025	100.1436	0.09416	6.19	7.374	15.80	2.56
RaymondB	M002	6453.60	100-Existing-CBC	9.799999	118.100	125.994700	118.6935	125.9947	0.00000	0.01	851.239	253.16	0.00
RaymondB	M002	6405.52	100-Existing-CBC	9.799999	118.000	125.994700		125.9947	0.00000	0.01	854.270	235.00	0.00
RaymondB	M002	6347.04	100-Existing-CBC	9.799999	124.730	125.992700		125.9945	0.00003	0.19	53.103	44.08	0.05
RaymondB	M002	6247.26	100-Existing-CBC	9.799999	117.210	117.991000		118.0381	0.00339	1.25	13.766	33.34	0.49
RaymondB	M002	6230.10	100-Existing-CBC	9.799999	117.200	117.979600		118.0042	0.00137	0.77	17.514	40.20	0.31
RaymondB	M002	6205.35	100-Existing-CBC	9.799999	117.280	117.955000		117.9653	0.00126	0.68	24.724	53.55	0.29
RaymondB	M002	6143.06	100-Existing-CBC	9.799999	117.180	117.854400		117.8710	0.00187	0.81	21.193	53.66	0.35
RaymondB	M002	6105.93	100-Existing-CBC	9.799999	117.170	117.708000		117.7573	0.00459	1.05	12.421	50.46	0.53
RaymondB	M002	6026.35	100-Existing-CBC	9.799999	116.810	117.471900		117.4957	0.00228	0.88	17.459	42.44	0.39
RaymondB	M002	5933.71	100-Existing-CBC	9.799999	116.420	117.152700		117.2222	0.00392	1.27	10.456	28.10	0.52
RaymondB	M002	5883.92	100-Existing-CBC	9.799999	116.120	116.934300		117.0217	0.00406	1.37	8.716	19.95	0.54
RaymondB	M002	5785.15	100-Existing-CBC	9.799999	115.750	116.496400		116.5768	0.00515	1.38	9.118	20.82	0.59
RaymondB	M002	5732.44	100-Existing-CBC	9.799999	115.460	116.194500		116.2918	0.00543	1.41	7.714	19.14	0.61
RaymondB	M002	5631.37	100-Existing-CBC	9.799999	114.850	115.557700		115.6475	0.00785	1.54	10.443	43.01	0.71
RaymondB	M002	5500.15	100-Existing-CBC	9.799999	114.620	115.363000		115.3749	0.00129	0.70	29.081	119.60	0.30
RaymondB	M002	5485.46	100-Existing-CBC	9.799999	114.530	115.349200		115.3591	0.00086	0.65	34.767	147.96	0.25
RaymondB	M002	5411.19	100-Existing-CBC	9.799999	114.480	115.245900	115.0060	115.2776	0.00188	0.85	15.372	48.09	0.36
RaymondB	M002	5338.54	100-Existing-CBC	9.799999	114.410	115.249100	114.7132	115.2511	0.00009	0.21	53.862	104.62	0.08
RaymondB	M002	5278.93	100-Existing-CBC	9.799999	114.440	115.241300	114.7493	115.2444	0.00014	0.25	44.160	101.60	0.10
RaymondB	M002	5226.60	100-Existing-CBC	9.799999	114.420	115.232600		115.2360	0.00018	0.28	45.259	112.65	0.11
RaymondB	M002	5171.66	100-Existing-CBC	9.799999	114.420	115.219300		115.2240	0.00026	0.35	43.504	150.82	0.14
RaymondB	M002	5111.50	100-Existing-CBC	9.799999	114.420	115.187500		115.2001	0.00072	0.57	24.835	68.99	0.23
RaymondB	M002	5077.48	100-Existing-CBC	9.799999	114.380	115.168700		115.1788	0.00051	0.48	25.259	55.35	0.19
RaymondB	M002	5017.13	100-Existing-CBC	9.799999	114.400	115.055800		115.1093	0.00335	1.03	9.849	22.29	0.47
RaymondB	M002	4967.43	100-Existing-CBC	9.799999	114.070	114.799100		114.8971	0.00523	1.39	7.271	14.83	0.60
RaymondB	M002	4943.43	100-Existing-CBC	9.799999	113.820	114.691900		114.7859	0.00409	1.43	8.565	19.85	0.55
RaymondB	M002	4910.95	100-Existing-CBC	9.799999	113.670	114.551500		114.6504	0.00420	1.47	8.771	24.36	0.56
RaymondB	M002	4851.17	100-Existing-CBC	9.799999	113.470	114.293800		114.3902	0.00452	1.45	8.990	27.58	0.57
RaymondB	M002	4783.73	100-Existing-CBC	9.799999	113.300	114.019600		114.0798	0.00438	1.14	10.318	33.07	0.53
RaymondB	M002	4732.68	100-Existing-CBC	9.799999	113.070	113.721000		113.7917	0.00775	1.41	10.118	35.50	0.69
RaymondB	M002	4681.76	100-Existing-CBC	9.799999	112.350	113.040000	113.0400	113.2714	0.01335	2.20	5.120	12.51	0.95
RaymondB	M002	4673.96	100-Existing-CBC	9.799999	111.740	112.359100	112.5740	113.0385	0.05215	3.72	2.923	9.19	1.80
RaymondB	M002	4644.78	100-Existing-CBC	9.799999	110.490	111.130500	111.3059	111.7029	0.03856	3.41	3.124	18.90	1.57
RaymondB	M002	4625.72	100-Existing-CBC	9.799999	106.750	107.144800	107.5518	109.7461	0.44529	7.15	1.371	5.90	4.73
RaymondB	M002	4615.42	100-Existing-CBC	9.799999	105.830	106.369800	106.6276	107.3102	0.10292	4.35	2.394	8.34	2.42
RaymondB	M002	4607.06	100-Existing-CBC	9.799999	105.790	106.739300	106.5937	106.9201	0.00645	1.94	5.757	9.01	0.70
RaymondB	M002	4597.34	100-Existing-CBC	9.799999	105.760	106.694700		106.8483	0.00672	1.83	6.715	14.23	0.70
RaymondB	M002	4575.18	100-Existing-CBC	9.799999	105.980	106.383700	106.3837	106.5536	0.03762	2.14	5.534	17.93	1.38
RaymondB	M002	4545.57	100-Existing-CBC	9.799999	104.650	105.433600	105.5102	105.7746	0.01881	2.69	4.412	11.40	1.13
RaymondB	M002	4522.17	100-Existing-CBC	9.799999	103.670	104.199200	104.4472	104.9730	0.06672	3.98	2.748	8.94	2.01
RaymondB	M002	4511.42	100-Existing-CBC	9.799999	103.620	104.561300	104.3594	104.6364	0.00374	1.41	10.242	20.33	0.53
RaymondB	M002	4489.94	100-Existing-CBC	9.799999	103.590	104.262800	104.2628	104.4816	0.01413	2.22	5.589	14.68	0.97
RaymondB	M002	4466.63	100-Existing-CBC	9.799999	103.030	104.036500	103.7015	104.0986	0.00220	1.16	10.246	16.74	0.41
RaymondB	M002	4439.46	100-Existing-CBC	9.799999	103.000	103.740100	103.7401	103.9630	0.01271	2.26	5.698	14.87	0.93
RaymondB	M002	4415.77	100-Existing-CBC	9.799999	102.780	103.328000	103.3660	103.5691	0.02258	2.28	5.096	16.85	1.17
RaymondB	M002	4385.89	100-Existing-CBC	9.799999	101.800	102.420100	102.5334	102.8144	0.02703	2.86	3.929	11.03	1.32
RaymondB	M002	4354.01	100-Existing-CBC	9.799999	101.270	101.952000	101.9723	102.1226	0.01492	2.38	7.903	27.13	1.01
RaymondB	M002	4341.66	100-Existing-CBC	9.799999	100.840	101.597800	101.6820	101.9018	0.01774	2.59	5.188	19.60	1.10
RaymondB	M002	4332.73	100-Existing-CBC	9.799999	100.320	100.867000	101.0938	101.5864	0.06167	3.86	2.878	9.17	1.94
RaymondB	M002	4308.73	100-Existing-CBC	9.799999	98.870	99.396020	99.5984	100.0575	0.06421	3.80	3.168	11.31	1.95
RaymondB	M002	4294.65	100-Existing-CBC	9.799999	98.450	99.088290	99.1783	99.4438	0.02447	2.81	4.338	11.58	1.26
RaymondB	M002	4263.86	100-Existing-CBC	9.799999	97.590	98.402890	98.2607	98.5332	0.00598	1.68	6.962	13.22	0.66
RaymondB	M002	4235.25	100-Existing-CBC	9.799999	97.470	98.845130		98.8620	0.00037	0.63	20.349	23.47	0.18
RaymondB	M001	4130.35	100-Existing-CBC	45.699990	96.570	97.980100	97.9986	98.4543	0.01179	3.11	16.215	20.68	0.99
RaymondB	M001	4076.94	100-Existing-CBC	45.699990	96.040	97.624040	97.4762	97.8820	0.00566	2.39	24.059	32.61	0.70
RaymondB	M001	4023.53	100-Existing-CBC	45.699990	95.940	97.083700	97.0837	97.4414	0.01228	2.72	18.526	28.22	0.97
RaymondB	M001	3978.20	100-Existing-CBC	45.699990	94.640	96.703800	96.1838	96.8008	0.00192	1.43	38.293	50.42	0.41
RaymondB	M001	3916.71	100-Existing-CBC	65.800000	94.640	96.383220		96.6044	0.00456	2.45	45.140	62.98	0.65
RaymondB	M001	3863.30	100-Existing-CBC	65.800000	94.410	96.249000		96.3892	0.00286	2.05	58.148	77.52	0.52
RaymondB	M001	3809.58	100-Existing-CBC	65.800000	94.090	95.758900	95.7589	96.1365	0.00797	3.13	32.830	45.30	0.85
RaymondB	M001	3756.26	100-Existing-CBC	65.800000	93.530	95.008950	95.1038	95.5879	0.01303	3.67	24.509	33.90	1.07
RaymondB	M001	3694.37	100-Existing-CBC	65.800000	92.660	94.071270	94.2733	94.7082	0.01516	3.70	20.521	23.61	1.13
RaymondB	M001	3569.22	100-Existing-CBC	65.800000	92.150	94.072510	93.4552	94.1094	0.00099	1.23	100.338	121.81	0.31
RaymondB	M001	3527.64	100-Existing-CBC	65.800000	91.850	94.047100		94.0732	0.00057	1.04	107.805	92.79	0.24
RaymondB	M001	3446.51	100-Existing-CBC	65.800000	91.140	94.023520		94.0440	0.00027	0.82	157.150	157.55	0.17
RaymondB	M001	3421.64	100-Existing-CBC	65.800000	91.230	93.400470	93.0041	93.9708	0.00510	3.38	19.885	123.32	0.74
RaymondB	M001	3410		Bridge									
RaymondB	M001	3404.11	100-Existing-CBC	65.800000	91.230	93.032030	93.0548	93.9168	0.01054	4.20	15.951	86.03	1.02
RaymondB	M001	3380.48	100-Existing-CBC	65.800000	90.960	92.845910	92.4146	93.0375	0.00324	2.18	45.646	62.64	0.56
RaymondB	M001	3308.92	100-Existing-CBC	65.800000	90.800	92.459280		92.7278	0.00561	2.71	38.638	48.47	0.72
RaymondB	M001	3216.73	100-Existing-CBC	65.800000	89.310	92.247120	91.0759	92.4736	0.00151	2.14	31.791	63.40	0.42
RaymondB	M001	3200		Bridge									
RaymondB	M001	3188.78	100-Existing-CBC	65.800000	89.300	91.455370	91.4554	92.2148	0.00885	4.13	18.870	37.88	0.94
RaymondB	M001	3015.18	100-Existing-CBC	65.800000	89.180	90.804200	90.5051	90.9664	0.00328	2.03	49.355	64.70	0.55
RaymondB	M001	2876.32	100-Existing-CBC	65.800000	88.660	90.195760		90.4154	0.00574	2.44	39.481	48.67	0.71

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	M001	2789.37	100-Existing-CBC	65.800000	88.240	89.998950		90.0784	0.00227	1.72	84.962	158.22	0.46
RaymondB	M001	2681.85	100-Existing-CBC	65.800000	88.140	89.471500	89.4715	89.6640	0.00915	2.71	49.364	119.83	0.87
RaymondB	M001	2604.32	100-Existing-CBC	65.800000	87.970	89.300030	89.0055	89.3361	0.00184	1.28	97.947	194.50	0.39
RaymondB	M001	2531.57	100-Existing-CBC	65.800000	87.970	89.265900		89.2756	0.00061	0.68	168.190	278.01	0.22
RaymondB	M001	2385.34	100-Existing-CBC	65.800000	87.430	89.186790		89.2201	0.00133	1.34	128.751	247.95	0.35
RaymondB	M001	2245.72	100-Existing-CBC	65.800000	86.990	88.632000	88.5900	88.9675	0.00660	2.79	34.333	62.64	0.77
RaymondB	M001	2194.47	100-Existing-CBC	65.800000	86.680	88.709010		88.7660	0.00111	1.36	87.722	94.05	0.33
RaymondB	M001	2140.67	100-Existing-CBC	65.800000	86.590	88.599590		88.6897	0.00178	1.70	68.417	70.29	0.42
RaymondB	M001	2087.60	100-Existing-CBC	65.800000	86.380	88.456110		88.5882	0.00189	1.79	50.713	43.68	0.43
RaymondB	M001	2069.54	100-Existing-CBC	65.800000	86.350	88.409190		88.5529	0.00211	1.90	51.493	50.49	0.46
RaymondB	M001	2040.77	100-Existing-CBC	65.800000	86.250	88.353120		88.4923	0.00201	1.84	57.248	78.40	0.44
RaymondB	M001	1989.18	100-Existing-CBC	65.800000	86.020	88.245860	87.7145	88.3861	0.00211	1.98	61.004	82.33	0.46
RaymondB	M001	1950.22	100-Existing-CBC	65.800000	85.790	87.452390	87.3407	88.1581	0.01429	4.01	23.743	45.32	1.12
RaymondB	M001	1885.73	100-Existing-CBC	65.800000	85.340	87.052900	87.0209	87.3904	0.00775	2.98	34.037	46.40	0.83
RaymondB	M001	1835.84	100-Existing-CBC	65.800000	84.640	86.440810	86.4408	86.9290	0.01070	3.66	26.884	28.53	0.98
RaymondB	M001	1784.61	100-Existing-CBC	65.800000	84.100	85.258240	85.4702	85.9966	0.03504	4.44	21.600	39.37	1.61
RaymondB	M001	1733.38	100-Existing-CBC	65.800000	82.790	84.771370	84.2986	84.9130	0.00245	1.92	50.491	47.50	0.48
RaymondB	M001	1682.15	100-Existing-CBC	65.800000	82.600	84.402430		84.7156	0.00557	2.64	30.990	31.58	0.71
RaymondB	M001	1630.92	100-Existing-CBC	65.800000	82.120	83.885120	83.8851	84.3529	0.00842	3.15	25.740	34.60	0.87
RaymondB	M001	1584.49	100-Existing-CBC	65.800000	81.770	83.683900	83.4418	83.9507	0.00499	2.58	35.101	44.36	0.68
RaymondB	M001	1536.01	100-Existing-CBC	65.800000	81.310	83.207280	83.2037	83.6359	0.00787	3.20	29.405	38.95	0.84
RaymondB	M001	1477.96	100-Existing-CBC	65.800000	80.960	82.787800	82.7469	83.1815	0.00750	3.03	29.752	36.98	0.82
RaymondB	M001	1425.99	100-Existing-CBC	65.800000	80.580	82.515950	82.4156	82.8292	0.00539	2.72	33.024	39.61	0.71
RaymondB	M001	1372.05	100-Existing-CBC	65.800000	80.250	82.355720		82.5524	0.00377	2.39	40.556	37.88	0.60
RaymondB	M001	1323.54	100-Existing-CBC	65.800000	79.110	81.653880	81.1517	82.2452	0.00456	3.41	19.313	15.89	0.70
RaymondB	M001	1315		Bridge									
RaymondB	M001	1303.54	100-Existing-CBC	65.800000	78.010	80.491760	80.3531	81.3137	0.00809	4.02	16.382	20.04	0.90
RaymondB	M001	1252.39	100-Existing-CBC	69.299990	78.450	80.379240	80.3792	80.8327	0.00942	3.47	28.571	31.67	0.91
RaymondB	M001	1216.25	100-Existing-CBC	69.299990	77.860	79.717450	79.9238	80.3985	0.01417	4.26	26.299	41.69	1.13
RaymondB	M001	1189.75	100-Existing-CBC	69.299990	77.610	79.042960	79.2883	79.8649	0.02754	4.46	21.007	36.97	1.47
RaymondB	M001	1166.20	100-Existing-CBC	69.299990	76.740	78.204410	78.4928	79.1490	0.03050	5.03	22.758	50.51	1.58
RaymondB	M001	1148.70	100-Existing-CBC	69.299990	76.500	77.995840	78.1873	78.6173	0.02198	4.15	26.461	52.26	1.33
RaymondB	M001	1116.25	100-Existing-CBC	69.299990	75.830	77.119040	77.3034	77.8306	0.02549	3.88	20.711	36.56	1.39
RaymondB	M001	1066.09	100-Existing-CBC	69.299990	75.160	76.763950	76.7252	77.0945	0.00728	2.77	34.565	50.80	0.80
RaymondB	M001	1035.68	100-Existing-CBC	69.299990	74.730	76.267240	76.2672	76.7924	0.01220	3.46	25.002	31.36	1.02
RaymondB	M001	999.99	100-Existing-CBC	69.299990	73.320	74.631190	75.0712	75.9958	0.03761	5.38	14.857	20.73	1.74
RaymondB	M001	976.73	100-Existing-CBC	69.299990	73.030	74.494890	74.7587	75.2483	0.01698	4.08	22.419	35.61	1.21
RaymondB	M001	942.15	100-Existing-CBC	69.299990	72.180	73.216430	73.5266	74.1705	0.06714	5.94	18.843	34.48	2.22
RaymondB	M001	916.70	100-Existing-CBC	69.299990	70.820	72.126190	72.3822	72.9322	0.03328	5.15	23.777	59.46	1.64
RaymondB	M001	892.34	100-Existing-CBC	69.299990	70.360	71.749530	71.9242	72.3431	0.01497	3.72	25.022	43.41	1.13
RaymondB	M001	866.25	100-Existing-CBC	69.299990	70.040	71.808510	71.3410	71.9962	0.00303	2.04	45.592	63.01	0.53
RaymondB	M001	841.89	100-Existing-CBC	69.299990	69.920	71.548130	71.5277	71.8798	0.00611	2.78	36.842	76.84	0.75
RaymondB	M001	816.68	100-Existing-CBC	69.299990	69.740	71.354160	71.3542	71.7031	0.00740	3.04	37.022	58.18	0.82
RaymondB	M001	766.25	100-Existing-CBC	69.299990	69.160	70.032440	70.2698	70.8490	0.05995	5.03	20.122	45.33	2.05
RaymondB	M001	716.25	100-Existing-CBC	69.299990	68.390	69.862720	69.6904	70.0768	0.00512	2.36	41.688	55.33	0.67
RaymondB	M001	675.00	100-Existing-CBC	69.299990	68.140	69.652940		69.8608	0.00526	2.42	44.329	58.62	0.68
RaymondB	M001	615.86	100-Existing-CBC	69.299990	67.750	69.590580		69.6640	0.00157	1.57	88.546	158.13	0.39
RaymondB	M001	565.77	100-Existing-CBC	69.299990	67.440	69.545940		69.5987	0.00091	1.31	114.350	224.64	0.30
RaymondB	M001	520.15	100-Existing-CBC	69.299990	67.260	69.551330		69.5647	0.00029	0.77	202.276	307.29	0.17
RaymondB	M001	468.54	100-Existing-CBC	69.299990	66.980	69.549930		69.5537	0.00009	0.49	309.744	343.07	0.10
RaymondB	M001	429.18	100-Existing-CBC	69.299990	66.800	69.549730		69.5511	0.00003	0.30	479.098	443.76	0.06
RaymondB	M001	366.25	100-Existing-CBC	69.299990	66.650	69.549430		69.5500	0.00001	0.20	761.461	640.92	0.04
RaymondB	M001	341.79	100-Existing-CBC	69.299990	66.630	69.549440		69.5498	0.00001	0.17	860.148	683.10	0.03
PettyHR	M002	6270.85	100-Existing-CBC	101.200000	66.230	69.549250		69.5494	0.00000	0.06	1981.032	840.70	0.01
PettyHR	M002	6218.07	100-Existing-CBC	101.200000	66.230	69.549150		69.5494	0.00000	0.07	1850.608	842.89	0.01
PettyHR	M002	6095.00	100-Existing-CBC	101.200000	66.230	69.549010		69.5492	0.00000	0.06	1783.936	848.17	0.01
PettyHR	M002	6004.71	100-Existing-CBC	101.200000	66.230	69.548920		69.5491	0.00000	0.06	1834.948	883.81	0.01
PettyHR	M001	5825.85	100-Existing-CBC	162.800000	66.230	69.548480		69.5488	0.00000	0.08	2145.255	841.69	0.02
PettyHR	M001	5685.44	100-Existing-CBC	162.800000	66.230	69.548210		69.5485	0.00000	0.08	2081.358	731.16	0.01
PettyHR	M001	5516.39	100-Existing-CBC	181.400000	66.230	69.547600		69.5481	0.00000	0.10	1817.857	628.28	0.02
PettyHR	M001	5279.80	100-Existing-CBC	181.400000	66.230	69.545940		69.5471	0.00001	0.15	1229.234	424.50	0.03
PettyHR	M001	4996.75	100-Existing-CBC	181.400000	66.230	69.537900		69.5433	0.00003	0.33	580.450	208.72	0.06
PettyHR	M001	4923.81	100-Existing-CBC	181.400000	66.230	69.469650		69.5321	0.00040	1.18	189.309	87.04	0.22
PettyHR	M001	4867.41	100-Existing-CBC	181.400000	66.230	69.372480		69.4916	0.00105	1.90	158.756	95.14	0.35
PettyHR	M001	4817.61	100-Existing-CBC	181.400000	66.580	69.315790		69.4310	0.00134	2.04	154.746	92.49	0.39
PettyHR	M001	4757.18	100-Existing-CBC	181.400000	66.430	68.656270	68.6563	69.2273	0.00772	4.20	75.017	65.48	0.91
PettyHR	M001	4675.66	100-Existing-CBC	181.400000	65.880	67.997020	67.6021	68.3548	0.00474	3.21	81.771	50.88	0.71
PettyHR	M001	4612.84	100-Existing-CBC	181.400000	64.880	67.100570	67.0346	67.8902	0.00985	4.77	57.076	42.53	1.03
PettyHR	M001	4570.09	100-Existing-CBC	181.400000	64.620	66.876690	66.8767	67.4912	0.00707	3.99	68.642	55.80	0.87
PettyHR	M001	4500.69	100-Existing-CBC	181.400000	64.620	66.366170	66.1450	66.6887	0.00484	2.79	87.039	74.75	0.69
PettyHR	M001	4461.12	100-Existing-CBC	181.400000	64.550	66.044690	66.0447	66.4481	0.01067	3.73	82.629	91.40	1.00
PettyHR	M001	4428.20	100-Existing-CBC	181.400000	64.410	65.745970	65.5755	66.0174	0.01004	3.26	88.851	89.14	0.94
PettyHR	M001	4395.66	100-Existing-CBC	181.400000	63.810	65.427750		65.7433	0.00631	3.05	89.800	81.35	0.78
PettyHR	M001	4357.04	100-Existing-CBC	181.400000	63.340	65.361740		65.5352	0.00294	2.45	118.639	81.14	0.55
PettyHR	M001	4281.82	100-Existing-CBC	181.400000	62.500	65.308700		65.4081	0.00074	1.51	143.340	59.22	0.29
PettyHR	M001	4166.17	100-Existing-CBC	181.400000	61.820	65.342940		65.3580	0.00010	0.65	404.696	164.94	0.11
PettyHR	M001	3949.19	100-Existing-CBC	181.400000	61.310	65.353070		65.3532	0.00000	0.04	4961.476	1316.16	0.01
PettyHR	M001	3936.78	100-Existing-CBC	181.400000	61.310	65.353090		65.3531	0.00000	0.03	6116.624	1571.56	0.00
PettyHR	M001	3931.39	100-Existing-CBC	110.500000	61.310	65.353120		65.3531	0.00000	0.01	7687.794	2010.42	0.00
PettyHR	M001	3925.44	100-Existing-CBC	110.500000	61.310	65.353070		65.3531	0.00000	0.03	3806.377	1003.28	0.00
PettyHR	M001	3867.05	100-Existing-CBC	110.500000	61.310	65.353070		65.3531	0.00000	0.03	3835.438	987.73	0.00
PettyHR	M001	3643.73	100-Existing-CBC	110.500000	61.310	65.353040		65.3531	0.00000	0.03	4404.042	1114.07	0.00
PettyHR	M001	3440.60	100-Existing-CBC	110.500000	61.310	65.352890		65.3530	0.00000	0.05	2235.833	582.92	0.01
PettyHR	M001	3182.65	100-Existing-CBC	110.500000	61.310	65.352620		65.3528	0.00000	0.07	1674.049	425.99	0.01
PettyHR	M001	3080.13	100-Existing-CBC	110.500000	61.310	65.352580		65.3528	0.00000	0.06	1977.817	518.82	0.01
PettyHR	M001	3028.13	100-Existing-CBC	110.500000	61.310	65.352570		65.3527	0.00000	0.05	2162.755	560.53	0.01
PettyHR	M001	2983.09	100-Existing-CBC	110.500000	61.310	65.352460		65.3527	0.00000	0.06	1761.616	451.91	0.01

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	2828.46	100-Existing-CBC	110.500000	61.310	65.351810		65.3524	0.00000	0.11	1037.057	279.91	0.02
PettyHR	M001	2712.72	100-Existing-CBC	110.500000	61.310	65.349820		65.3518	0.00001	0.20	596.364	181.53	0.03
PettyHR	M001	2671.95	100-Existing-CBC	110.500000	61.310	65.348530		65.3514	0.00001	0.25	539.847	175.26	0.04
PettyHR	M001	2653.10	100-Existing-CBC	110.500000	61.310	65.347010		65.3510	0.00002	0.30	463.306	156.86	0.05
PettyHR	M001	2632.46	100-Existing-CBC	110.500000	61.310	65.336040		65.3493	0.00007	0.60	280.506	118.56	0.09
PettyHR	M001	2596.08	100-Existing-CBC	110.500000	61.310	65.329280		65.3462	0.00008	0.64	251.559	116.17	0.10
PettyHR	M001	2583.24	100-Existing-CBC	110.500000	60.100	65.256230	62.9315	65.3375	0.00041	1.53	150.830	115.58	0.23
PettyHR	M001	2580		Bridge									
PettyHR	M001	2573.39	100-Existing-CBC	110.500000	60.000	65.058530	62.4889	65.1055	0.00023	1.14	168.611	89.22	0.17
PettyHR	M001	2551.09	100-Existing-CBC	110.500000	59.890	65.078230		65.0835	0.00002	0.34	385.436	107.02	0.05
PettyHR	M001	2426.14	100-Existing-CBC	110.500000	59.270	65.081140		65.0816	0.00000	0.10	1203.475	275.32	0.01
PettyHR	M001	2315.39	100-Existing-CBC	110.500000	58.720	65.081140		65.0814	0.00000	0.08	1475.051	318.81	0.01
PettyHR	M001	2204.15	100-Existing-CBC	110.500000	58.160	65.081050		65.0813	0.00000	0.08	1484.789	307.31	0.01
PettyHR	M001	2022.45	100-Existing-CBC	110.500000	57.260	65.080260		65.0811	0.00000	0.13	900.359	179.65	0.02
PettyHR	M001	1902.10	100-Existing-CBC	110.500000	56.660	65.079340		65.0807	0.00000	0.17	696.303	127.68	0.02
PettyHR	M001	1879.72	100-Existing-CBC	110.500000	56.550	65.077380		65.0805	0.00001	0.26	511.577	108.31	0.03
PettyHR	M001	1824.42	100-Existing-CBC	110.500000	56.280	65.073690		65.0796	0.00001	0.35	343.664	65.92	0.04
PettyHR	M001	1789.72	100-Existing-CBC	110.500000	56.100	65.070590		65.0789	0.00002	0.41	290.747	55.30	0.05
PettyHR	M001	1724.70	100-Existing-CBC	110.500000	55.780	65.066380		65.0772	0.00002	0.47	254.329	47.83	0.06
PettyHR	M001	1668.81	100-Existing-CBC	110.500000	55.500	65.068630	58.2339	65.0749	0.00001	0.35	338.052	65.17	0.04
PettyHR	M001	1647.80	100-Existing-CBC	110.500000	55.400	65.069630	57.9350	65.0741	0.00001	0.30	394.056	74.02	0.04
PettyHR	M001	1631.79	100-Existing-CBC	110.500000	63.550	64.813480		65.0503	0.00451	2.16	51.248	40.61	0.61
PettyHR	M001	1615.46	100-Existing-CBC	112.200000	54.380	56.696880		56.9167	0.00479	3.34	58.347	37.60	0.71
PettyHR	M001	1601.08	100-Existing-CBC	112.200000	54.000	56.224450	56.2245	56.7774	0.01269	5.29	40.853	35.77	1.16
PettyHR	M001	1586.16	100-Existing-CBC	112.200000	53.360	55.219650	55.4661	56.4239	0.03224	7.54	27.246	25.40	1.80
PettyHR	M001	1571.98	100-Existing-CBC	112.200000	52.870	54.532270	54.9597	55.8857	0.04185	7.87	24.852	24.05	2.00
PettyHR	M001	1519.66	100-Existing-CBC	112.200000	51.620	53.246730	53.4064	53.9371	0.02720	6.14	34.670	38.91	1.59
PettyHR	M001	1467.14	100-Existing-CBC	112.200000	50.860	52.197830	52.2196	52.6657	0.02161	4.94	39.607	44.27	1.39
PettyHR	M001	1457.30	100-Existing-CBC	112.200000	50.230	51.937930	51.9651	52.4692	0.01790	5.33	38.824	37.51	1.32
PettyHR	M001	1444.51	100-Existing-CBC	112.200000	48.300	49.353540	49.9323	51.7722	0.15582	11.08	18.675	31.36	3.57
PettyHR	M001	1415.17	100-Existing-CBC	112.200000	48.280	49.978210	49.4797	50.1299	0.00464	2.69	67.904	53.10	0.67
PettyHR	M001	1402.15	100-Existing-CBC	112.200000	47.790	49.545840	49.5458	49.9959	0.01678	5.09	42.682	44.67	1.26
PettyHR	M001	1385.41	100-Existing-CBC	112.200000	43.100	44.806450	45.7844	49.0569	0.09762	11.90	15.591	18.22	3.04
PettyHR	M001	1370.82	100-Existing-CBC	112.200000	41.750	43.633110	44.7952	47.6761	0.08301	12.21	15.783	14.49	2.89
PettyHR	M001	1362.66	100-Existing-CBC	112.200000	39.880	42.132490	43.4702	46.9546	0.07394	12.69	14.565	10.90	2.77
PettyHR	M001	1336.64	100-Existing-CBC	112.200000	39.870	41.447660	42.3265	44.2895	0.08638	10.93	17.660	18.18	2.85
PettyHR	M001	1309.35	100-Existing-CBC	112.200000	38.400	39.757220	40.3486	41.7762	0.07968	9.41	19.700	21.37	2.66
PettyHR	M001	1279.20	100-Existing-CBC	112.200000	35.020	37.335270	38.2360	40.0215	0.04292	10.00	21.415	20.61	2.14
PettyHR	M001	1258.06	100-Existing-CBC	112.200000	34.010	36.537000	37.2586	39.1520	0.03608	9.81	20.219	14.08	2.00
PettyHR	M001	1221.17	100-Existing-CBC	112.200000	33.210	34.608690	35.3894	37.0821	0.09359	10.05	17.650	18.33	2.85
PettyHR	M001	1203.34	100-Existing-CBC	112.200000	32.610	33.910510	34.3266	35.3152	0.07083	8.55	24.444	33.70	2.48
PettyHR	M001	1164.99	100-Existing-CBC	112.200000	31.370	32.920530	33.0653	33.5899	0.02485	5.67	35.417	40.52	1.51
PettyHR	M001	1153.41	100-Existing-CBC	112.200000	30.700	31.805340	32.1821	33.0742	0.07682	8.13	24.866	36.74	2.54
PettyHR	M001	1125.74	100-Existing-CBC	112.200000	29.270	30.540400	30.7950	31.4005	0.04346	6.59	30.982	42.35	1.94
PettyHR	M001	1090.65	100-Existing-CBC	112.200000	28.120	29.341350	29.5200	29.9444	0.03621	5.70	37.304	59.15	1.74
PettyHR	M001	1059.48	100-Existing-CBC	112.200000	26.840	28.138420	28.3236	28.7735	0.03873	6.29	37.318	63.16	1.83
PettyHR	M001	1048.77	100-Existing-CBC	112.200000	26.290	27.519100	27.7445	28.2999	0.04485	6.41	33.482	54.27	1.95
PettyHR	M001	1021.54	100-Existing-CBC	112.200000	25.470	27.033620	27.0984	27.5673	0.02230	5.45	38.561	43.08	1.43
PettyHR	M001	1003.30	100-Existing-CBC	112.200000	23.420	24.962130	25.5108	26.8271	0.05675	8.81	20.699	19.13	2.31
PettyHR	M001	994.73	100-Existing-CBC	112.200000	22.700	25.097790	25.5914	26.3436	0.02160	7.29	27.563	19.69	1.53
PettyHR	M001	961.03	100-Existing-CBC	112.200000	22.070	24.665070	24.9138	25.6436	0.01589	6.54	32.468	25.25	1.32
PettyHR	M001	944.13	100-Existing-CBC	112.200000	21.890	23.565210	24.0633	25.1776	0.04147	7.90	23.381	21.63	2.00
PettyHR	M001	924.94	100-Existing-CBC	112.200000	20.780	22.666850	23.1885	24.3815	0.03990	8.37	21.934	16.93	1.99
PettyHR	M001	905.47	100-Existing-CBC	112.200000	19.730	21.896200	22.4348	23.6903	0.03253	8.37	22.228	15.60	1.85
PettyHR	M001	883.86	100-Existing-CBC	112.200000	17.290	21.181460	19.9931	21.3819	0.00146	2.65	70.660	41.20	0.43
PettyHR	M001	875		Bridge									
PettyHR	M001	859.53	100-Existing-CBC	112.200000	17.250	19.424170	19.4242	20.1328	0.01449	5.44	32.817	29.61	1.21
PettyHR	M001	836.76	100-Existing-CBC	112.200000	12.800	14.887660	15.9934	18.6069	0.05615	10.71	15.905	11.05	2.41
PettyHR	M001	823.70	100-Existing-CBC	112.200000	12.860	14.415400	15.2061	17.4497	0.09203	11.11	16.897	17.09	2.92
PettyHR	M001	811.96	100-Existing-CBC	112.200000	12.850	14.777220	15.2537	16.3515	0.03981	8.57	26.307	29.31	2.01
PettyHR	M001	796.92	100-Existing-CBC	112.200000	12.740	14.107600	14.5234	15.5413	0.06967	8.97	24.447	33.25	2.50
PettyHR	M001	784.11	100-Existing-CBC	112.200000	11.820	13.680210	14.0844	14.8776	0.03288	7.53	29.462	33.08	1.81
PettyHR	M001	769.86	100-Existing-CBC	112.200000	10.940	12.545040	13.1640	14.2651	0.04818	8.27	22.602	22.38	2.14
PettyHR	M001	748.76	100-Existing-CBC	112.200000	8.370	10.789000	11.5527	13.3474	0.03360	9.05	21.809	19.55	1.90
PettyHR	M001	720.33	100-Existing-CBC	112.200000	8.080	9.109395	9.7423	11.6096	0.15238	10.27	17.795	27.61	3.46
PettyHR	M001	707.57	100-Existing-CBC	112.200000	6.850	8.267836	8.7683	10.0730	0.07027	9.09	23.228	32.66	2.51
PettyHR	M001	685.99	100-Existing-CBC	112.200000	5.310	6.912059	7.4308	8.6762	0.05967	8.95	23.785	30.12	2.35
PettyHR	M001	666.04	100-Existing-CBC	112.200000	5.030	6.665074	6.9397	7.6045	0.02846	6.31	33.316	42.38	1.63
PettyHR	M001	652.51	100-Existing-CBC	112.200000	4.660	6.151371	6.6096	7.1535	0.03658	6.66	29.429	34.44	1.81
PettyHR	M001	633.61	100-Existing-CBC	112.200000	4.400	5.398065	5.6834	6.3083	0.05536	6.22	30.163	76.24	2.10
PettyHR	M001	622.83	100-Existing-CBC	112.200000	4.090	5.244547	5.2445	5.5379	0.01726	3.84	52.995	108.18	1.20
PettyHR	M001	577.97	100-Existing-CBC	112.200000	2.480	3.738661	3.9146	4.3037	0.04639	6.66	39.555	107.23	1.98
PettyHR	M001	525.57	100-Existing-CBC	112.200000	0.510	2.917783	2.2505	3.0368	0.00269	2.61	84.362	101.60	0.54
PettyHR	M001	491.94	100-Existing-CBC	112.200000	-0.590	2.379435	2.0509	2.8817	0.00464	3.45	40.694	34.21	0.71
PettyHR	M001	485		Bridge									
PettyHR	M001	478.84	100-Existing-CBC	112.200000	-1.920	2.540406	0.5661	2.6498	0.00058	1.53	103.681	141.41	0.26
PettyHR	M001	439.27	100-Existing-CBC	112.200000	-1.890	2.575074		2.5931	0.00015	0.81	237.648	128.95	0.13
PettyHR	M001	405.68	100-Existing-CBC	112.200000	-2.130	2.569260		2.5882	0.00013	0.78	234.987	132.00	0.13
PettyHR	M001	367.80	100-Existing-CBC	112.200000	-2.020	2.571924		2.5808	0.00004	0.43	300.266	139.27	0.07
PettyHR	M001	338.85	100-Existing-CBC	112.200000	-2.890	2.572571		2.5792	0.00002	0.37	339.626	122.17	0.06
PettyHR	M001	305.38	100-Existing-CBC	112.200000	-2.460	2.569684		2.5781	0.00003	0.42	306.649	119.91	0.07
PettyHR	M001	269.29	100-Existing-CBC	112.200000	-3.520	2.567136		2.5768	0.00003	0.44	287.587	110.20	0.06
PettyHR	M001	238.18	100-Existing-CBC	112.200000	-3.500	2.561378		2.5753	0.00004	0.54	248.624	102.48	0.08
PettyHR	M001	201.25	100-Existing-CBC	112.200000	-4.430	2.566445		2.5719	0.00001	0.33	367.949	120.02	0.04
PettyHR	M001	150.84	100-Existing-CBC	112.200000	-3.340	2.567837		2.5706	0.00001	0.23	525.883	171.51	0.03
PettyHR	M001	105.74	100-Existing-CBC	112.200000	-2.910	2.567438		2.5702	0.00001	0.23	508.227	154.17	0.03
PettyHR	M001	91.29	100-Existing-CBC	112.200000	-3.360	2.567491		2.5700	0.00001	0.22	524.627	143.68	0.03

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	20.04	100-Existing-CBC	112.200000	-6.190	2.567880		2.5693	0.00000	0.17	706.570	185.21	0.02
PettyHR	M001	12.04	100-Existing-CBC	112.200000	-6.190	2.549957	-3.5293	2.5676	0.00007	0.64	267.307	185.14	0.07
ForthP	M001	2616.90	100-Existing-CBC	11.800000	123.090	124.382100	123.3689	124.3829	0.00002	0.14	116.456	146.89	0.04
ForthP	M001	2528.45	100-Existing-CBC	11.800000	123.090	124.381700		124.3820	0.00000	0.07	192.235	190.97	0.02
ForthP	M001	2324.32	100-Existing-CBC	11.800000	123.090	124.379600		124.3803	0.00002	0.13	129.953	195.53	0.04
ForthP	M001	2187.52	100-Existing-CBC	11.800000	123.090	124.379200		124.3793	0.00000	0.05	254.895	280.99	0.02
ForthP	M001	1955.13	100-Existing-CBC	11.800000	123.090	124.378500		124.3786	0.00000	0.05	295.276	306.16	0.02
ForthP	M001	1773.83	100-Existing-CBC	11.800000	123.090	124.378200		124.3783	0.00000	0.03	366.452	340.45	0.01
ForthP	M001	1572.85	100-Existing-CBC	11.800000	123.090	124.378000		124.3781	0.00000	0.03	351.722	315.39	0.01
ForthP	M001	1496.60	100-Existing-CBC	11.800000	123.090	124.377900		124.3780	0.00000	0.04	295.638	270.80	0.01
ForthP	M001	1392.58	100-Existing-CBC	16.200000	122.980	124.374800	124.0716	124.3768	0.00016	0.44	90.891	163.30	0.12
ForthP	M001	1390		Culvert									
ForthP	M001	1381.72	100-Existing-CBC	16.200000	122.950	124.104300	124.0181	124.1346	0.00315	1.57	31.959	127.73	0.48
ForthP	M001	1360.50	100-Existing-CBC	16.200000	122.870	123.895300		124.0115	0.00733	2.16	14.190	34.07	0.75
ForthP	M001	1311.12	100-Existing-CBC	16.200000	122.520	123.536000		123.6299	0.00785	2.17	15.329	40.40	0.76
ForthP	M001	1261.17	100-Existing-CBC	16.200000	121.360	122.768200	122.7682	123.1645	0.01012	3.20	7.367	10.58	0.93
ForthP	M001	1211.51	100-Existing-CBC	16.200000	119.830	120.910300	121.2787	122.1419	0.04696	5.53	3.931	6.52	1.88
ForthP	M001	1161.66	100-Existing-CBC	16.200000	117.250	118.171800	118.5065	119.4481	0.06256	5.65	4.500	16.11	2.12
ForthP	M001	1112.05	100-Existing-CBC	16.200000	114.880	115.709100	115.9400	116.4286	0.05269	5.12	5.954	22.35	1.94
ForthP	M001	1062.35	100-Existing-CBC	16.200000	113.160	113.960500	114.0912	114.3075	0.03219	3.61	6.907	15.01	1.45
ForthP	M001	1041.93	100-Existing-CBC	16.200000	112.620	113.700400	113.7058	113.8781	0.01209	2.76	11.434	35.03	0.93
ForthP	M001	1031.90	100-Existing-CBC	16.200000	112.310	113.294700	113.4154	113.6762	0.02833	3.99	9.007	35.80	1.42
ForthP	M001	1011.12	100-Existing-CBC	16.200000	111.620	112.441100	112.5944	112.9296	0.04601	4.61	7.815	32.01	1.79
ForthP	M001	959.76	100-Existing-CBC	16.200000	110.310	110.963900	110.9945	111.1121	0.02673	2.74	11.831	52.68	1.29
ForthP	M001	908.93	100-Existing-CBC	16.200000	109.250	109.606900	109.6820	109.8652	0.14326	3.87	8.352	72.45	2.65
ForthP	M001	856.39	100-Existing-CBC	16.200000	108.380	108.731800	108.6886	108.7789	0.01863	1.22	17.103	86.95	0.92
ForthP	M001	806.25	100-Existing-CBC	16.200000	107.090	107.829000	107.8290	107.9212	0.01744	2.55	16.502	85.31	1.07
ForthP	M001	754.78	100-Existing-CBC	16.200000	106.120	106.988700	107.0098	107.1201	0.01531	2.85	16.114	80.07	1.05
ForthP	M001	734.50	100-Existing-CBC	16.200000	105.470	106.434000	106.6035	106.7837	0.02257	3.50	9.021	34.06	1.27
ForthP	M001	724.30	100-Existing-CBC	16.200000	105.280	106.304800	106.3845	106.5691	0.01565	3.09	10.902	44.05	1.08
ForthP	M001	703.65	100-Existing-CBC	16.200000	105.020	105.864200	105.9308	106.1313	0.03109	3.89	9.713	36.23	1.46
ForthP	M001	654.47	100-Existing-CBC	16.200000	103.900	104.910000	104.6244	104.9326	0.00224	1.22	27.964	63.34	0.41
ForthP	M001	605.63	100-Existing-CBC	16.200000	102.270	103.037700	103.0377	104.4817	0.10490	6.28	3.949	12.75	2.64
ForthP	M001	585.13	100-Existing-CBC	16.200000	101.550	102.281200	102.4060	102.7292	0.05423	4.30	8.805	55.68	1.88
ForthP	M001	577.30	100-Existing-CBC	16.200000	101.520	102.046900	102.1017	102.2370	0.05406	3.34	10.034	55.08	1.76
ForthP	M001	557.33	100-Existing-CBC	16.200000	100.670	101.178700	101.2059	101.3073	0.03956	2.62	11.671	62.73	1.48
ForthP	M001	507.84	100-Existing-CBC	16.200000	98.920	99.471480	99.4810	99.5761	0.03068	2.44	13.201	73.51	1.31
ForthP	M001	453.33	100-Existing-CBC	16.200000	96.280	96.822980	96.9031	97.1112	0.06832	3.64	9.795	73.97	1.97
ForthP	M001	402.29	100-Existing-CBC	16.200000	94.960	95.449680	95.4497	95.5687	0.03469	2.66	11.549	47.98	1.40
ForthP	M001	349.18	100-Existing-CBC	16.200000	93.640	94.061010	93.9668	94.1036	0.01413	1.30	17.990	69.35	0.84
ForthP	M001	297.76	100-Existing-CBC	16.200000	92.550	93.349490	93.3495	93.4496	0.01386	2.34	15.786	74.45	0.97
ForthP	M001	246.28	100-Existing-CBC	16.200000	91.710	92.304600	92.3046	92.3963	0.02092	2.13	14.907	70.85	1.11
ForthP	M001	182.03	100-Existing-CBC	16.200000	90.940	91.904980	91.5858	91.9201	0.00204	1.07	34.794	90.40	0.38
ForthP	M001	160.27	100-Existing-CBC	16.200000	90.130	91.910700	90.9777	91.9122	0.00005	0.27	117.066	132.28	0.07
ForthP	M001	150		Culvert									
ForthP	M001	144.74	100-Existing-CBC	16.200000	89.900	90.820420	90.6836	91.0588	0.00734	2.18	7.633	79.12	0.76
ForthP	M001	124.30	100-Existing-CBC	16.200000	89.740	90.643590	90.6436	90.8106	0.01628	2.78	13.337	47.92	1.07
ForthP	M001	61.58	100-Existing-CBC	16.200000	88.750	89.728300	89.7577	89.8903	0.01319	2.67	13.921	47.13	0.98
ForestP	M001	1557.91	100-Existing-CBC	8.400000	78.250	79.739230	78.4668	79.7394	0.00000	0.06	151.287	122.04	0.02
ForestP	M001	1428.05	100-Existing-CBC	8.400000	78.250	79.739030		79.7391	0.00000	0.04	206.714	177.59	0.01
ForestP	M001	1315.71	100-Existing-CBC	8.400000	78.250	79.738950		79.7390	0.00000	0.03	290.668	243.37	0.01
ForestP	M001	1228.83	100-Existing-CBC	8.400000	78.250	79.738910		79.7389	0.00000	0.02	347.617	291.57	0.01
ForestP	M001	1138.84	100-Existing-CBC	8.400000	78.250	79.738880		79.7389	0.00000	0.02	407.222	343.83	0.01
ForestP	M001	1077.28	100-Existing-CBC	8.400000	78.250	79.738850		79.7389	0.00000	0.02	453.755	483.35	0.01
ForestP	M001	1019.12	100-Existing-CBC	8.400000	78.250	79.738730		79.7388	0.00000	0.04	230.100	282.97	0.01
ForestP	M001	958.61	100-Existing-CBC	10.800000	78.150	79.713840	79.5024	79.7362	0.00075	0.80	26.228	70.42	0.24
ForestP	M001	955		Culvert									
ForestP	M001	949.85	100-Existing-CBC	10.800000	77.760	79.603360	79.6034	79.7058	0.00571	1.81	13.230	54.64	0.47
ForestP	M001	913.34	100-Existing-CBC	10.800000	78.160	79.044480	79.1056	79.3109	0.03284	3.81	6.063	18.12	1.41
ForestP	M001	883.23	100-Existing-CBC	10.800000	77.540	78.355980	78.3989	78.5502	0.01888	2.88	8.888	39.05	1.14
ForestP	M001	859.61	100-Existing-CBC	10.800000	76.750	77.462340	77.5803	77.8779	0.04305	3.97	4.808	13.87	1.68
ForestP	M001	831.71	100-Existing-CBC	10.800000	75.740	76.734600	76.7897	77.0565	0.02122	3.44	5.545	11.71	1.22
ForestP	M001	802.91	100-Existing-CBC	10.800000	74.660	75.449780	75.6698	76.1467	0.04836	4.60	3.836	10.00	1.82
ForestP	M001	772.90	100-Existing-CBC	10.800000	73.770	74.545920	74.6306	74.8605	0.03201	3.70	5.492	14.94	1.46
ForestP	M001	737.48	100-Existing-CBC	10.800000	72.770	73.490220	73.4878	73.6476	0.01914	2.72	7.615	21.89	1.13
ForestP	M001	688.06	100-Existing-CBC	10.800000	71.800	72.399830	72.3998	72.5130	0.02779	2.71	8.333	32.97	1.25
ForestP	M001	651.32	100-Existing-CBC	10.800000	70.810	71.435630	71.4515	71.5750	0.02321	2.78	8.420	31.77	1.23
ForestP	M001	600.44	100-Existing-CBC	10.800000	69.800	70.324010	70.3135	70.4078	0.02332	2.38	10.908	57.81	1.18
ForestP	M001	578.60	100-Existing-CBC	10.800000	69.310	69.928240	69.9282	69.9920	0.01435	2.11	14.940	89.49	0.96
ForestP	M001	528.92	100-Existing-CBC	10.800000	68.580	69.558040	69.2695	69.5678	0.00126	0.88	31.433	85.71	0.31
ForestP	M001	478.55	100-Existing-CBC	10.800000	68.210	69.551610		69.5531	0.00010	0.31	78.122	123.85	0.09
ForestP	M001	430.82	100-Existing-CBC	10.800000	67.770	69.549810		69.5505	0.00003	0.21	118.243	146.87	0.05
ForestP	M001	378.18	100-Existing-CBC	10.800000	67.480	69.549660		69.5498	0.00000	0.09	276.606	301.65	0.02
ForestP	M001	328.07	100-Existing-CBC	10.800000	67.340	69.549550		69.5496	0.00000	0.06	387.190	357.10	0.01
ForestP	M001	277.95	100-Existing-CBC	10.800000	67.070	69.549480		69.5495	0.00000	0.06	471.351	414.04	0.01
ForestP	M001	195.51	100-Existing-CBC	10.800000	66.230	69.549460		69.5495	0.00000	0.03	855.605	558.91	0.00
ForestP	M001	158.37	100-Existing-CBC	10.800000	66.230	69.549460		69.5495	0.00000	0.01	1572.773	691.39	0.00
ForestP	M001	89.11	100-Existing-CBC	10.800000	66.230	69.549460		69.5495	0.00000	0.01	1742.415	765.76	0.00
DoylesR	TR019	260.51	100-Existing-CBC	0.400000	124.740	125.101800	124.9452	125.1028	0.00025	0.18	4.273	34.40	0.12
DoylesR	TR019	199.72	100-Existing-CBC	0.400000	124.550	125.101700		125.1017	0.00000	0.02	35.681	138.73	0.01
DoylesR	TR019	150.00	100-Existing-CBC	0.400000	124.370	125.101400		125.1014	0.00000	0.03	38.688	153.80	0.01
DoylesR	TR019	100.00	100-Existing-CBC	0.400000	124.160	125.101200		125.1013	0.00000	0.03	33.844	179.95	0.01
DoylesR	TR019	50.00	100-Existing-CBC	0.400000	124.180	125.101200		125.1012	0.00000	0.02	60.352	232.38	0.01
DoylesR	TR018	302.01	100-Existing-CBC	1.500000	127.900	128.505200	128.0626	128.5059	0.00005	0.14	17.362	45.02	0.06
DoylesR	TR018	270.53	100-Existing-CBC	1.500000	126.190	128.505700	126.9027	128.5057	0.00000	0.01	261.300	244.89	0.00
DoylesR	TR018	260		Culvert									
DoylesR	TR018	257.62	100-Existing-CBC	1.500000	126.190	128.505600	126.9349	128.5056	0.00000	0.01	266.516	215.46	0.00

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR018	244.68	100-Existing-CBC	1.500000	125.640	128.505600	126.6439	128.5056	0.00000	0.01	304.755	215.11	0.00
DoylesR	TR018	200		Culvert									
DoylesR	TR018	169.24	100-Existing-CBC	1.500000	125.400	126.238400	126.2012	126.5767	0.01467	2.96	0.628	75.79	1.06
DoylesR	TR018	131.43	100-Existing-CBC	1.500000	125.240	125.441300	125.4413	125.4805	0.03857	1.25	2.285	48.20	1.23
DoylesR	TR018	59.79	100-Existing-CBC	1.500000	124.570	125.149700	124.8982	125.1511	0.00025	0.26	15.210	125.20	0.12
DoylesR	TR017	4043.45	100-Existing-CBC	8.200001	124.050	125.071400		125.0926	0.00142	1.07	20.517	81.26	0.34
DoylesR	TR017	3983.69	100-Existing-CBC	8.200001	124.040	124.957000		124.9904	0.00228	1.13	17.427	86.88	0.41
DoylesR	TR017	3923.93	100-Existing-CBC	8.200001	124.030	124.625500	124.6255	124.7122	0.01549	1.83	8.635	44.20	0.95
DoylesR	TR017	3889.37	100-Existing-CBC	8.200001	123.600	123.796300	123.6446	123.8125	0.00628	0.37	14.588	64.33	0.46
DoylesR	TR017	3781.64	100-Existing-CBC	8.200001	122.550	123.534800		123.5667	0.00268	1.30	16.921	64.16	0.45
DoylesR	TR017	3768.91	100-Existing-CBC	8.200001	122.350	123.235000	123.2350	123.4761	0.01131	2.37	4.559	10.60	0.88
DoylesR	TR017	3745.98	100-Existing-CBC	8.200001	121.860	122.397100	122.4980	122.7450	0.07241	3.41	4.231	30.58	1.96
DoylesR	TR017	3713.18	100-Existing-CBC	8.200001	120.990	121.589700	121.6221	121.8186	0.01801	2.28	4.458	13.82	1.07
DoylesR	TR017	3692.45	100-Existing-CBC	8.200001	120.340	120.977000	121.0350	121.3196	0.02965	2.88	3.836	13.57	1.36
DoylesR	TR017	3679.05	100-Existing-CBC	8.200001	119.970	120.748400	120.8301	121.0235	0.01564	2.63	4.617	19.40	1.05
DoylesR	TR017	3656.84	100-Existing-CBC	8.200001	117.590	118.074200	118.4481	119.9950	0.22819	6.29	1.444	5.96	3.57
DoylesR	TR017	3603.67	100-Existing-CBC	8.200001	116.290	116.997500	117.0415	117.2015	0.01752	2.57	5.634	24.06	1.09
DoylesR	TR017	3583.40	100-Existing-CBC	8.200001	115.960	116.599000	116.6631	116.8055	0.02446	2.73	5.764	27.51	1.25
DoylesR	TR017	3571.14	100-Existing-CBC	8.200001	115.760	116.286800	116.3379	116.4490	0.03041	2.77	6.027	31.11	1.36
DoylesR	TR017	3545.42	100-Existing-CBC	8.200001	115.220	115.784300	115.8141	115.9913	0.02879	2.59	4.997	19.70	1.30
DoylesR	TR017	3483.93	100-Existing-CBC	8.200001	114.350	114.942800	114.9246	114.9926	0.01169	1.82	11.988	70.54	0.85
DoylesR	TR017	3432.55	100-Existing-CBC	8.200001	113.790	114.524400	114.4933	114.5803	0.00834	1.79	11.929	63.93	0.74
DoylesR	TR017	3345.48	100-Existing-CBC	8.200001	113.030	113.563400	113.5634	113.6581	0.02280	2.15	7.767	43.15	1.14
DoylesR	TR017	3300.07	100-Existing-CBC	8.200001	112.420	112.980000	112.8700	112.9955	0.00430	0.97	17.157	76.99	0.50
DoylesR	TR016	918.87	100-Existing-CBC	3.000000	127.080	128.797100	127.2519	128.7971	0.00000	0.01	403.340	361.20	0.00
DoylesR	TR016	898.71	100-Existing-CBC	3.000000	126.900	128.797100	128.0279	128.7971	0.00000	0.03	195.571	225.26	0.01
DoylesR	TR016	890		Culvert									
DoylesR	TR016	882.28	100-Existing-CBC	3.000000	126.880	128.737700	128.0514	128.7377	0.00000	0.07	106.137	158.66	0.02
DoylesR	TR016	877.71	100-Existing-CBC	3.000000	126.240	128.737700	127.4398	128.7377	0.00000	0.08	125.388	190.23	0.02
DoylesR	TR016	850		Culvert									
DoylesR	TR016	848.13	100-Existing-CBC	3.000000	126.370	127.541700	127.5417	128.1049	0.01233	3.32	0.902	48.92	1.00
DoylesR	TR016	818.98	100-Existing-CBC	3.000000	126.360	126.671300	126.7910	127.2428	0.14540	3.51	1.077	11.34	2.61
DoylesR	TR016	768.99	100-Existing-CBC	3.000000	126.300	126.649400	126.5927	126.6621	0.00435	0.75	7.641	50.95	0.48
DoylesR	TR016	714.09	100-Existing-CBC	3.000000	125.960	126.369900	126.3016	126.3893	0.00528	0.89	6.229	36.70	0.53
DoylesR	TR016	675.95	100-Existing-CBC	3.000000	125.740	126.084000	126.0840	126.1356	0.01561	1.33	4.345	43.17	0.89
DoylesR	TR016	659.39	100-Existing-CBC	3.000000	125.100	125.449000	125.4936	125.6700	0.04973	2.53	1.948	15.05	1.61
DoylesR	TR016	632.80	100-Existing-CBC	3.000000	124.780	125.261100	125.2601	125.3311	0.01059	1.43	3.773	27.49	0.78
DoylesR	TR016	610.50	100-Existing-CBC	3.000000	123.780	124.258700	124.4311	124.7759	0.05884	3.47	1.135	5.11	1.84
DoylesR	TR016	549.37	100-Existing-CBC	3.000000	122.300	122.949100	122.9912	123.0871	0.01490	2.02	2.802	17.56	0.94
DoylesR	TR016	494.31	100-Existing-CBC	3.000000	120.930	121.540800	121.6460	121.8884	0.03328	2.64	1.207	4.10	1.36
DoylesR	TR016	473.82	100-Existing-CBC	3.000000	120.180	120.685400	120.8130	121.0872	0.04605	2.89	1.173	4.82	1.60
DoylesR	TR016	459.95	100-Existing-CBC	3.000000	119.620	120.091500	120.2059	120.4509	0.04497	2.71	1.211	5.07	1.57
DoylesR	TR016	439.99	100-Existing-CBC	3.000000	119.050	119.730200	119.7324	119.9239	0.01519	1.98	1.645	4.82	0.95
DoylesR	TR016	384.99	100-Existing-CBC	3.000000	117.070	117.489400	117.6615	118.0902	0.11306	3.44	0.878	4.31	2.35
DoylesR	TR016	329.99	100-Existing-CBC	3.000000	115.670	116.171500	116.1800	116.2579	0.01410	1.52	3.194	23.55	0.88
DoylesR	TR016	274.18	100-Existing-CBC	3.000000	114.930	115.316900	115.3373	115.3817	0.01716	1.42	4.132	46.14	0.93
DoylesR	TR016	218.88	100-Existing-CBC	3.000000	114.350	114.837800	114.8302	114.8824	0.00985	1.21	5.304	55.11	0.73
DoylesR	TR016	165.43	100-Existing-CBC	3.000000	113.830	114.378100	114.3781	114.4470	0.00961	1.39	4.191	35.42	0.74
DoylesR	TR016	86.48	100-Existing-CBC	3.000000	112.800	113.246000	113.2586	113.3618	0.02132	1.67	2.392	13.37	1.05
DoylesR	TR016	40.19	100-Existing-CBC	3.000000	112.210	112.812100	112.7054	112.8240	0.00221	0.74	9.454	58.52	0.37
DoylesR	TR015	3230.71	100-Existing-CBC	17.800000	111.600	112.539000		112.5960	0.00679	2.00	22.681	77.51	0.71
DoylesR	TR015	3185.04	100-Existing-CBC	17.800000	111.220	112.146400	112.1464	112.2807	0.01366	2.59	15.598	50.88	0.98
DoylesR	TR015	3133.58	100-Existing-CBC	17.800000	110.570	111.411100	111.4186	111.5494	0.01596	2.75	14.772	47.65	1.06
DoylesR	TR015	3079.97	100-Existing-CBC	17.800000	108.170	109.113900	109.4665	110.0926	0.04704	4.95	5.109	11.11	1.85
DoylesR	TR015	3026.43	100-Existing-CBC	17.800000	107.300	109.145400	108.3432	109.1717	0.00056	0.92	32.616	34.29	0.23
DoylesR	TR015	3001.28	100-Existing-CBC	17.800000	106.170	109.156900	108.4660	109.1601	0.00009	0.47	90.124	79.07	0.09
DoylesR	TR015	3000		Culvert									
DoylesR	TR015	2988.77	100-Existing-CBC	17.800000	106.030	108.087600	108.0876	108.2658	0.00316	2.46	21.143	56.97	0.56
DoylesR	TR015	2963.30	100-Existing-CBC	17.800000	105.690	106.582700	106.8922	107.7488	0.06460	5.91	5.881	18.61	2.13
DoylesR	TR015	2915.60	100-Existing-CBC	17.800000	104.530	105.636200	105.7520	106.0246	0.01949	3.59	9.574	22.85	1.22
DoylesR	TR015	2867.64	100-Existing-CBC	17.800000	103.370	104.525500	104.6730	105.0231	0.02672	4.35	8.812	21.08	1.41
DoylesR	TR015	2841.04	100-Existing-CBC	17.800000	102.400	102.969500	103.1449	103.5944	0.12129	5.10	6.618	27.78	2.66
DoylesR	TR015	2804.73	100-Existing-CBC	17.800000	101.670	102.514600	102.4671	102.6494	0.01450	2.63	14.247	36.48	1.01
DoylesR	TR015	2742.98	100-Existing-CBC	17.800000	100.870	101.678200	101.6637	101.7819	0.01543	2.70	18.130	66.24	1.04
DoylesR	TR015	2687.77	100-Existing-CBC	17.800000	100.070	100.702900	100.7029	100.8164	0.02231	2.62	15.802	67.00	1.20
DoylesR	TR015	2638.14	100-Existing-CBC	17.800000	98.950	99.755910	99.8107	99.9807	0.02670	3.58	13.169	51.21	1.38
DoylesR	TR015	2593.26	100-Existing-CBC	17.800000	97.750	98.848450	98.8456	99.0049	0.01161	2.84	15.011	41.66	0.94
DoylesR	TR015	2557.12	100-Existing-CBC	17.800000	97.530	98.584570		98.6826	0.00804	2.40	18.179	47.72	0.79
DoylesR	TR015	2522.34	100-Existing-CBC	17.800000	97.260	98.193110	98.1931	98.3607	0.01345	2.57	13.737	40.44	0.98
DoylesR	TR015	2483.94	100-Existing-CBC	17.800000	96.950	97.689870	97.6448	97.7666	0.01429	2.21	17.355	60.11	0.95
DoylesR	TR015	2438.99	100-Existing-CBC	17.800000	96.350	97.434010		97.4818	0.00411	1.68	26.974	91.24	0.57
DoylesR	TR015	2387.12	100-Existing-CBC	17.800000	96.390	97.369440		97.3783	0.00124	0.82	49.186	128.88	0.30
DoylesR	TR015	2352.45	100-Existing-CBC	17.800000	96.400	97.344530		97.3498	0.00055	0.55	57.927	102.43	0.20
DoylesR	TR015	2283.37	100-Existing-CBC	17.800000	95.750	97.185070		97.2688	0.00297	1.79	17.423	23.04	0.51
DoylesR	TR015	2231.50	100-Existing-CBC	17.800000	95.540	96.708940	96.7089	96.9830	0.01224	3.04	10.065	18.25	0.99
DoylesR	TR015	2160.12	100-Existing-CBC	17.800000	94.930	95.951200	95.8876	96.1292	0.01006	2.47	11.700	21.98	0.87
DoylesR	TR015	2119.11	100-Existing-CBC	17.800000	94.440	95.527340	95.5273	95.7285	0.01157	2.79	12.404	28.14	0.94
DoylesR	TR015	2075.88	100-Existing-CBC	17.800000	93.860	94.806130	94.8940	95.0964	0.01814	3.15	11.725	45.64	1.16
DoylesR	TR015	2024.01	100-Existing-CBC	17.800000	93.190	94.314820	94.2775	94.4164	0.00695	2.18	17.820	53.30	0.73
DoylesR	TR015	1972.14	100-Existing-CBC	17.800000	92.710	93.671090	93.6711	93.8808	0.01928	3.30	12.771	60.99	1.18
DoylesR	TR015	1921.75	100-Existing-CBC	17.800000	92.350	93.467040	93.1396	93.4865	0.00191	1.19	34.031	83.06	0.38
DoylesR	TR015	1851.62	100-Existing-CBC	17.800000	91.240	92.867790	92.8678	93.2606	0.00978	3.31	8.957	16.26	0.90
DoylesR	TR014	2057.49	100-Existing-CBC	10.800000	125.480	126.559000	126.4133	126.5923	0.00262	1.23	20.433	65.51	0.44
DoylesR	TR014	2037.89	100-Existing-CBC	10.800000	125.570	126.558200		126.5633	0.00054	0.58	43.194	108.13	0.20
DoylesR	TR014	1988.88	100-Existing-CBC	10.800000	124.710	126.456500	125.9483	126.5216	0.00105	1.20	14.877	47.80	0.30
DoylesR	TR014	1980		Culvert									
DoylesR	TR014	1975.46	100-Existing-CBC	10.800000	124.460	126.396800	125.6955	126.4646	0.00087	1.19	11.841	24.96	0.29

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR014	1936.56	100-Existing-CBC	10.800000	124.860	126.163300	125.9426	126.3583	0.00507	2.25	7.735	18.16	0.66
DoylesR	TR014	1904.43	100-Existing-CBC	10.800000	124.720	125.841800	125.8418	126.1317	0.00945	2.73	6.237	11.78	0.88
DoylesR	TR014	1867.03	100-Existing-CBC	10.800000	124.610	125.615300	125.3633	125.7078	0.00431	1.72	11.219	24.50	0.58
DoylesR	TR014	1801.50	100-Existing-CBC	10.800000	124.000	124.997000	124.9970	125.2439	0.01181	2.80	6.842	15.10	0.96
DoylesR	TR014	1765.57	100-Existing-CBC	10.800000	123.200	123.729700	123.9137	124.3692	0.06474	4.00	3.936	17.54	1.99
DoylesR	TR014	1703.29	100-Existing-CBC	10.800000	121.820	122.607500	122.6075	122.9736	0.01854	3.03	5.177	14.45	1.16
DoylesR	TR014	1657.91	100-Existing-CBC	10.800000	121.270	122.065600	122.0778	122.2804	0.01136	2.27	7.050	20.69	0.90
DoylesR	TR014	1607.98	100-Existing-CBC	10.800000	120.590	121.381600	121.4601	121.6046	0.01658	2.73	8.872	42.26	1.08
DoylesR	TR014	1544.18	100-Existing-CBC	10.800000	119.810	120.690400	120.7099	120.8204	0.00908	2.23	11.241	42.58	0.82
DoylesR	TR014	1492.70	100-Existing-CBC	10.800000	119.060	119.663300	119.7684	119.9894	0.03293	3.22	6.812	36.29	1.47
DoylesR	TR014	1441.23	100-Existing-CBC	10.800000	117.590	118.665500	118.7368	118.9740	0.01290	3.15	7.082	19.67	1.02
DoylesR	TR014	1420.98	100-Existing-CBC	10.800000	116.980	118.238200	117.7635	118.3008	0.00206	1.42	11.817	13.75	0.42
DoylesR	TR014	1411.86	100-Existing-CBC	10.800000	117.030	118.133200	117.7687	118.2645	0.00393	1.89	7.403	12.26	0.58
DoylesR	TR014	1400		Bridge									
DoylesR	TR014	1384.41	100-Existing-CBC	12.300000	116.710	117.523100	117.5231	117.8659	0.01441	2.79	4.998	9.84	1.04
DoylesR	TR014	1374.60	100-Existing-CBC	12.300000	116.540	117.463700	117.3583	117.6579	0.00786	2.17	7.201	11.69	0.78
DoylesR	TR014	1353.25	100-Existing-CBC	12.300000	116.210	117.138100	117.1381	117.4383	0.01243	2.73	5.920	10.22	0.98
DoylesR	TR014	1309.14	100-Existing-CBC	12.300000	115.500	116.238500	116.3443	116.6992	0.02315	3.02	4.168	7.87	1.26
DoylesR	TR014	1296.25	100-Existing-CBC	12.300000	115.120	116.080300	116.1687	116.5362	0.01860	3.42	4.852	8.08	1.20
DoylesR	TR014	1239.25	100-Existing-CBC	12.300000	113.430	114.097200	114.3494	114.8280	0.04915	4.24	3.960	11.43	1.82
DoylesR	TR014	1203.69	100-Existing-CBC	12.300000	112.840	113.669000	113.5935	113.7750	0.00941	2.26	10.404	25.59	0.83
DoylesR	TR014	1182.25	100-Existing-CBC	12.300000	112.530	113.337500	113.3375	113.5278	0.01305	2.55	8.488	21.12	0.98
DoylesR	TR014	1125.25	100-Existing-CBC	12.300000	111.300	112.513900	112.2891	112.5795	0.00348	1.74	14.067	23.87	0.53
DoylesR	TR014	1104.23	100-Existing-CBC	12.300000	111.160	112.189300	112.1893	112.4368	0.01226	2.78	7.713	17.37	0.97
DoylesR	TR014	1094.88	100-Existing-CBC	12.300000	110.550	111.359300	111.6122	112.1788	0.05018	5.04	4.143	10.47	1.91
DoylesR	TR014	1075.36	100-Existing-CBC	12.300000	110.170	111.205300	111.2727	111.5082	0.01649	3.41	7.793	19.35	1.13
DoylesR	TR014	1027.18	100-Existing-CBC	12.300000	109.150	109.956900	110.0930	110.4204	0.03155	3.76	5.766	16.26	1.49
DoylesR	TR014	980.74	100-Existing-CBC	12.300000	107.890	108.963500	108.6464	109.0296	0.00359	1.68	13.536	21.33	0.54
DoylesR	TR014	954.47	100-Existing-CBC	12.300000	107.680	108.644100	108.6441	108.8568	0.01180	2.68	8.919	22.96	0.95
DoylesR	TR014	934.37	100-Existing-CBC	12.300000	106.990	107.879200	108.0891	108.4060	0.03016	3.87	5.553	15.61	1.46
DoylesR	TR014	907.24	100-Existing-CBC	12.300000	106.520	107.314100	107.4024	107.5899	0.02516	3.45	8.031	25.68	1.34
DoylesR	TR014	868.80	100-Existing-CBC	12.300000	105.880	106.863200	106.8632	107.0815	0.01055	2.56	8.587	20.38	0.90
DoylesR	TR014	864.98	100-Existing-CBC	12.300000	105.700	106.680900	106.7501	107.0305	0.01492	2.83	5.863	13.72	1.05
DoylesR	TR014	844.06	100-Existing-CBC	12.300000	105.100	106.307200	106.1783	106.4934	0.00654	2.35	8.403	13.27	0.73
DoylesR	TR014	836.52	100-Existing-CBC	12.300000	104.970	106.095900	106.0959	106.4152	0.01277	2.92	6.376	12.07	0.98
DoylesR	TR014	816.09	100-Existing-CBC	12.300000	104.780	105.411100	105.5743	105.9295	0.05167	3.90	4.992	19.31	1.81
DoylesR	TR014	811.48	100-Existing-CBC	12.300000	104.640	105.617400	105.4096	105.7031	0.00532	1.84	12.042	23.32	0.64
DoylesR	TR014	783.28	100-Existing-CBC	12.300000	103.980	105.146500	105.1465	105.4606	0.01241	3.19	6.491	10.41	1.00
DoylesR	TR014	751.27	100-Existing-CBC	12.300000	103.310	104.274700	104.4430	104.8614	0.02734	3.48	4.022	8.60	1.38
DoylesR	TR014	717.94	100-Existing-CBC	12.300000	102.630	103.987400	103.9896	104.2503	0.00974	3.09	7.838	13.84	0.89
DoylesR	TR014	676.43	100-Existing-CBC	12.300000	102.180	103.188700	103.3227	103.6662	0.02062	3.41	5.434	13.56	1.23
DoylesR	TR014	601.44	100-Existing-CBC	12.300000	101.390	102.303200	102.2530	102.4499	0.00991	2.31	9.082	21.54	0.85
DoylesR	TR014	540.83	100-Existing-CBC	12.300000	100.490	101.643900	101.5137	101.9004	0.00822	2.51	7.418	18.09	0.81
DoylesR	TR014	519.25	100-Existing-CBC	12.300000	99.690	101.782900	101.4859	101.7956	0.00048	0.83	35.314	64.89	0.19
DoylesR	TR014	510		Culvert									
DoylesR	TR014	505.00	100-Existing-CBC	12.300000	99.620	101.552200	101.5522	101.5853	0.00129	1.28	25.579	61.32	0.30
DoylesR	TR014	484.27	100-Existing-CBC	12.300000	99.790	100.659100	100.8689	101.3158	0.04902	4.44	4.419	13.34	1.79
DoylesR	TR014	426.15	100-Existing-CBC	12.300000	98.710	99.887900	99.9042	100.1431	0.00940	2.44	7.326	22.49	0.84
DoylesR	TR014	368.05	100-Existing-CBC	12.300000	97.300	98.387710	98.6361	99.1371	0.03909	4.35	4.342	13.29	1.61
DoylesR	TR014	343.01	100-Existing-CBC	12.300000	96.780	98.305920	97.7807	98.4445	0.00243	1.72	7.984	73.50	0.46
DoylesR	TR014	335		Bridge									
DoylesR	TR014	331.91	100-Existing-CBC	12.300000	96.630	97.913340	97.9133	98.3166	0.01057	2.95	4.916	7.08	0.92
DoylesR	TR014	312.09	100-Existing-CBC	12.300000	96.260	97.479000	97.6247	97.9736	0.02747	3.51	6.137	29.06	1.32
DoylesR	TR014	227.09	100-Existing-CBC	12.300000	94.660	96.454160	96.1504	96.5081	0.00220	1.55	16.957	28.44	0.41
DoylesR	TR014	205.76	100-Existing-CBC	12.300000	94.510	96.167540	96.1675	96.4120	0.00728	2.62	8.624	18.96	0.73
DoylesR	TR014	198.96	100-Existing-CBC	12.300000	94.450	95.167890	95.4748	96.2143	0.07841	4.60	2.962	10.19	2.20
DoylesR	TR014	181.77	100-Existing-CBC	12.300000	94.010	95.195130	95.2178	95.4122	0.01044	2.63	8.917	23.23	0.88
DoylesR	TR014	121.12	100-Existing-CBC	12.300000	92.990	94.136500	94.2597	94.5397	0.01775	3.32	8.568	55.28	1.14
DoylesR	TR014	34.73	100-Existing-CBC	12.300000	91.600	92.475620	92.5815	92.9090	0.02226	3.17	4.976	10.71	1.25
DoylesR	TR012	1780.65	100-Existing-CBC	30.000000	90.300	92.303190	91.7279	92.4006	0.00158	1.56	31.617	58.38	0.39
DoylesR	TR012	1753.67	100-Existing-CBC	30.000000	89.560	92.338520	91.2592	92.3649	0.00030	0.95	70.316	88.26	0.18
DoylesR	TR012	1745		Bridge									
DoylesR	TR012	1729.43	100-Existing-CBC	30.000000	89.100	90.995770	91.1081	91.9570	0.01301	4.45	7.153	12.85	1.08
DoylesR	TR012	1709.20	100-Existing-CBC	30.000000	88.930	90.434950	90.7972	91.5287	0.02948	5.48	9.352	19.83	1.55
DoylesR	TR012	1645.76	100-Existing-CBC	30.000000	88.200	89.378360	89.4540	89.8511	0.01747	3.61	11.735	17.83	1.18
DoylesR	TR011	1552.47	100-Existing-CBC	43.200010	86.480	88.733410	88.3783	89.1132	0.00467	3.03	19.641	14.99	0.69
DoylesR	TR011	1530.88	100-Existing-CBC	43.200010	86.190	88.254110	88.2541	88.9413	0.00997	4.21	14.659	11.46	0.99
DoylesR	TR011	1477.56	100-Existing-CBC	43.200010	84.430	85.759880	86.3119	87.7404	0.05940	7.08	8.772	13.21	2.19
DoylesR	TR011	1423.69	100-Existing-CBC	43.200010	83.560	85.430670	85.5052	86.2909	0.01333	4.46	12.698	11.30	1.12
DoylesR	TR011	1370.10	100-Existing-CBC	43.200010	82.660	83.922280	84.2239	85.0626	0.04477	6.10	13.163	30.22	1.91
DoylesR	TR011	1316.51	100-Existing-CBC	43.200010	81.170	82.927860	83.1772	83.7031	0.01424	4.39	13.989	16.31	1.15
DoylesR	TR011	1262.92	100-Existing-CBC	43.200010	79.360	81.015500	81.6036	82.5357	0.03167	6.11	10.028	13.32	1.67
DoylesR	TR011	1209.33	100-Existing-CBC	43.200010	78.140	80.216060	80.4878	81.2217	0.01588	4.94	12.106	12.27	1.21
DoylesR	TR011	1155.74	100-Existing-CBC	43.200010	76.810	78.669810	79.1267	80.0905	0.02701	5.82	9.717	9.84	1.53
DoylesR	TR011	1107.39	100-Existing-CBC	43.200010	76.340	77.835400	78.0936	78.7695	0.02190	4.46	11.102	12.81	1.35
DoylesR	TR011	1057.82	100-Existing-CBC	43.200010	75.160	77.232310	77.3197	77.9369	0.01150	4.06	13.757	12.83	1.02
DoylesR	TR011	971.36	100-Existing-CBC	43.200010	73.330	74.194260	74.6757	75.8811	0.06391	5.75	7.508	17.68	2.16
DoylesR	TR011	960		Bridge									
DoylesR	TR011	949.62	100-Existing-CBC	43.200010	73.080	75.133970	74.3609	75.3572	0.00218	2.09	20.637	17.31	0.48
DoylesR	TR011	929.53	100-Existing-CBC	43.200010	72.740	74.539020	74.5535	75.1595	0.01070	3.73	14.010	12.51	0.99
DoylesR	TR011	872.05	100-Existing-CBC	43.200010	72.260	74.000430	74.1291	74.4332	0.01310	3.93	23.333	53.74	1.06
DoylesR	TR011	816.76	100-Existing-CBC	43.200010	72.000	73.026170	72.9886	73.1381	0.01429	2.79	33.885	94.15	1.00
DoylesR	TR011	760.16	100-Existing-CBC	43.200010	71.250	72.442490		72.5482	0.01031	2.86	38.567	99.70	0.90
DoylesR	TR011	712.26	100-Existing-CBC	43.200010	70.340	71.800370	71.8004	71.9983	0.01074	3.25	31.526	85.64	0.94
DoylesR	TR011	663.11	100-Existing-CBC	43.200010	70.080	71.420430	71.3226	71.4809	0.00673	2.30	49.614	128.97	0.71
DoylesR	TR013	2205.78	100-Existing-CBC	9.000000	95.880	96.644100	96.4132	96.6530	0.00124	0.82	27.977	103.56	0.31
DoylesR	TR013	2147.59	100-Existing-CBC	9.000000	95.870	96.540240		96.5582	0.00206	0.90	18.177	59.92	0.38

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR013	2097.40	100-Existing-CBC	9.000000	95.860	96.271010	96.2710	96.3319	0.01627	1.72	12.013	88.42	0.96
DoylesR	TR013	2011.99	100-Existing-CBC	9.000000	93.670	94.635800	94.5914	94.8550	0.00881	2.28	5.242	10.58	0.82
DoylesR	TR013	1957.46	100-Existing-CBC	9.000000	93.050	94.075490	94.0755	94.3358	0.01074	2.81	5.377	11.40	0.92
DoylesR	TR013	1909.18	100-Existing-CBC	9.000000	92.330	93.178230	93.3169	93.5923	0.02170	3.26	5.215	31.06	1.24
DoylesR	TR013	1861.01	100-Existing-CBC	9.000000	91.270	92.231250	92.3877	92.6473	0.01841	3.17	4.970	28.54	1.15
DoylesR	TR013	1789.09	100-Existing-CBC	9.000000	90.000	90.527460	90.6035	90.7755	0.03689	2.96	6.807	55.80	1.50
DoylesR	TR013	1733.37	100-Existing-CBC	9.000000	89.530	90.242610	90.1354	90.2706	0.00358	1.11	17.017	78.12	0.49
DoylesR	TR013	1677.65	100-Existing-CBC	9.000000	89.420	89.812130	89.7954	89.8731	0.01843	1.70	9.412	55.46	1.00
DoylesR	TR013	1613.85	100-Existing-CBC	9.000000	89.110	89.621570		89.6291	0.00168	0.64	26.048	96.50	0.32
DoylesR	TR013	1552.30	100-Existing-CBC	9.000000	88.820	89.527160		89.5412	0.00177	0.87	21.957	68.23	0.35
DoylesR	TR013	1506.96	100-Existing-CBC	9.000000	88.810	89.461420		89.4754	0.00168	0.81	21.769	64.79	0.34
DoylesR	TR013	1478.17	100-Existing-CBC	9.000000	88.800	89.275390	89.2516	89.3517	0.01851	1.93	9.099	43.01	1.04
DoylesR	TR013	1411.61	100-Existing-CBC	9.000000	88.110	89.075430		89.1033	0.00146	0.94	14.458	32.17	0.33
DoylesR	TR013	1388.58	100-Existing-CBC	9.000000	87.450	89.086000	88.8024	89.0896	0.00010	0.36	59.750	161.11	0.10
DoylesR	TR013	1375		Culvert									
DoylesR	TR013	1373.86	100-Existing-CBC	9.000000	87.320	88.632870	88.5022	88.7509	0.00463	2.10	8.378	16.26	0.60
DoylesR	TR013	1301.72	100-Existing-CBC	9.000000	86.820	87.904270	87.9043	88.2058	0.01067	2.68	4.467	9.24	0.91
DoylesR	TR013	1246.99	100-Existing-CBC	9.000000	85.790	86.579380	86.7816	87.2236	0.03371	3.64	2.744	6.02	1.51
DoylesR	TR013	1192.26	100-Existing-CBC	9.000000	84.790	85.833670	85.7452	86.0387	0.00805	2.27	5.541	10.64	0.78
DoylesR	TR013	1137.53	100-Existing-CBC	9.000000	84.030	85.174150	85.1742	85.5084	0.01141	2.77	4.222	8.22	0.93
DoylesR	TR013	1082.80	100-Existing-CBC	9.000000	83.550	84.383060	84.4693	84.6488	0.02356	2.83	5.411	21.28	1.22
DoylesR	TR013	1064.90	100-Existing-CBC	9.000000	82.570	84.492540	83.6981	84.5162	0.00048	0.80	26.609	115.15	0.20
DoylesR	TR013	1050		Culvert									
DoylesR	TR013	1042.53	100-Existing-CBC	9.000000	82.410	84.293360	83.4681	84.3021	0.00022	0.56	36.789	90.90	0.14
DoylesR	TR013	1022.06	100-Existing-CBC	9.000000	82.710	83.981970	83.8696	84.2202	0.00717	2.52	5.228	7.82	0.76
DoylesR	TR013	969.32	100-Existing-CBC	9.000000	82.400	83.380400	83.3804	83.6997	0.01356	2.97	4.306	7.15	1.02
DoylesR	TR013	915.66	100-Existing-CBC	9.000000	81.800	82.921660	82.5913	82.9409	0.00119	0.98	19.103	40.81	0.31
DoylesR	TR013	867.93	100-Existing-CBC	9.000000	81.400	82.817160		82.8667	0.00192	1.44	14.328	33.99	0.40
DoylesR	TR013	809.27	100-Existing-CBC	9.000000	81.320	82.531210		82.6901	0.00458	1.90	6.068	9.61	0.61
DoylesR	TR013	756.07	100-Existing-CBC	9.000000	80.750	81.925690	81.9257	82.3034	0.01137	3.10	4.075	5.95	0.96
DoylesR	TR013	702.82	100-Existing-CBC	9.000000	79.910	80.906880	81.0678	81.4630	0.02216	3.70	3.331	6.30	1.28
DoylesR	TR013	651.60	100-Existing-CBC	9.000000	78.060	78.887850	79.2126	79.7927	0.04989	4.44	2.449	5.95	1.82
DoylesR	TR013	588.74	100-Existing-CBC	9.000000	75.890	76.776990	76.9285	77.2940	0.02978	3.23	2.999	7.10	1.38
DoylesR	TR013	543.29	100-Existing-CBC	9.000000	75.200	76.012150	76.0223	76.3054	0.01478	2.44	3.992	8.64	1.01
DoylesR	TR013	489.08	100-Existing-CBC	9.000000	73.770	74.852280	74.9758	75.3821	0.01875	3.62	3.385	5.51	1.19
DoylesR	TR013	436.90	100-Existing-CBC	9.000000	72.110	73.007020	73.3576	73.8867	0.04652	4.21	2.285	4.81	1.73
DoylesR	TR013	383.70	100-Existing-CBC	9.000000	70.970	72.648030	71.9996	72.6512	0.00013	0.42	58.069	139.75	0.11
DoylesR	TR013	363.75	100-Existing-CBC	9.000000	70.360	71.901640	71.9016	72.5754	0.01110	3.89	3.242	9.00	1.02
DoylesR	TR013	360		Culvert									
DoylesR	TR013	344.87	100-Existing-CBC	9.000000	70.320	71.702220	71.7022	71.7135	0.00066	0.79	24.340	48.31	0.22
DoylesR	TR013	324.16	100-Existing-CBC	9.000000	70.290	70.874860	70.9981	71.4878	0.10368	4.56	4.124	39.67	2.42
DoylesR	TR013	256.30	100-Existing-CBC	9.000000	69.360	70.286690	70.2867	70.3851	0.01360	2.31	9.381	48.49	0.89
DoylesR	TR013	236.50	100-Existing-CBC	9.000000	69.350	70.204030	69.9800	70.2078	0.00069	0.47	35.778	115.87	0.21
DoylesR	TR013	162.98	100-Existing-CBC	9.000000	68.940	70.167530		70.1735	0.00064	0.59	33.594	123.10	0.21
DoylesR	TR013	133.14	100-Existing-CBC	9.000000	68.760	70.156010		70.1579	0.00021	0.35	52.429	121.55	0.12
DoylesR	TR013	66.14	100-Existing-CBC	9.000000	68.460	70.141310		70.1444	0.00021	0.41	42.907	153.21	0.12
DoylesR	M001	484.12	100-Existing-CBC	52.300000	68.080	69.749360	69.7494	69.9303	0.01092	3.04	37.168	95.37	0.90
DoylesR	M001	429.44	100-Existing-CBC	52.300000	67.720	69.617720	69.1347	69.6495	0.00183	1.41	78.324	131.74	0.38
DoylesR	M001	388.03	100-Existing-CBC	52.300000	67.530	69.566890		69.5861	0.00121	1.23	100.071	177.37	0.31
DoylesR	M001	344.78	100-Existing-CBC	52.300000	67.390	69.556340		69.5609	0.00026	0.60	190.996	242.46	0.15
DoylesR	M001	215.64	100-Existing-CBC	52.300000	67.210	69.552680		69.5536	0.00003	0.24	413.769	369.09	0.05
DoylesR	M001	77.13	100-Existing-CBC	52.300000	66.620	69.552110		69.5524	0.00001	0.15	721.630	555.25	0.03
CochranePB	M002	8105.53	100-Existing-CBC	15.500000	140.650	142.472600	141.3730	142.4743	0.00008	0.33	105.456	130.19	0.09
CochranePB	M002	8065.47	100-Existing-CBC	15.500000	140.640	142.461700		142.4681	0.00031	0.58	59.338	87.35	0.16
CochranePB	M002	8050.98	100-Existing-CBC	15.500000	139.200	142.449100		142.4655	0.00005	0.63	56.955	80.14	0.12
CochranePB	M002	8024.09	100-Existing-CBC	15.500000	140.620	142.449100		142.4550	0.00030	0.57	65.065	111.52	0.16
CochranePB	M002	8013.06	100-Existing-CBC	15.500000	140.420	142.446600		142.4519	0.00023	0.54	69.580	110.35	0.14
CochranePB	M002	8004.70	100-Existing-CBC	15.500000	140.250	142.447100	141.8023	142.4496	0.00013	0.51	86.457	113.55	0.11
CochranePB	M002	8000		Culvert									
CochranePB	M002	7995.14	100-Existing-CBC	15.500000	140.370	142.435600	141.5704	142.4398	0.00012	0.48	74.734	86.88	0.11
CochranePB	M002	7964.49	100-Existing-CBC	15.500000	140.140	141.887900	141.8879	142.3039	0.01201	3.48	7.723	11.41	0.94
CochranePB	M002	7901.64	100-Existing-CBC	15.500000	139.300	140.763100	140.9437	141.2765	0.02304	3.54	7.529	28.10	1.21
CochranePB	M002	7847.08	100-Existing-CBC	15.500000	138.680	139.823200	139.7046	139.8926	0.00807	1.80	17.828	51.11	0.70
CochranePB	M002	7812.33	100-Existing-CBC	15.500000	138.520	139.348200	139.3482	139.4614	0.02410	2.31	13.376	55.66	1.17
CochranePB	M002	7738.34	100-Existing-CBC	15.500000	137.940	138.956800	138.7374	138.9693	0.00222	0.88	39.563	129.97	0.38
CochranePB	M002	7695.32	100-Existing-CBC	15.500000	137.670	138.626600	138.6266	138.7724	0.01627	2.17	12.256	41.43	1.01
CochranePB	M002	7609.21	100-Existing-CBC	15.500000	136.290	137.787300	137.4156	137.8061	0.00087	0.84	36.510	84.45	0.26
CochranePB	M002	7515.77	100-Existing-CBC	15.500000	136.280	137.653400		137.6906	0.00239	1.28	29.577	97.58	0.43
CochranePB	M002	7476.72	100-Existing-CBC	15.500000	136.260	137.630300		137.6417	0.00068	0.68	42.619	94.26	0.23
CochranePB	M002	7450.86	100-Existing-CBC	15.500000	136.250	137.594900		137.6179	0.00134	0.91	31.872	83.61	0.32
CochranePB	M002	7329.89	100-Existing-CBC	15.500000	136.230	137.298000		137.3485	0.00488	1.41	20.968	75.83	0.57
CochranePB	M002	7253.62	100-Existing-CBC	15.500000	136.050	137.130300		137.1482	0.00203	0.97	31.210	95.20	0.37
CochranePB	M002	7208.54	100-Existing-CBC	15.500000	135.880	137.026700		137.0500	0.00257	1.13	30.642	111.00	0.42
CochranePB	M002	7108.13	100-Existing-CBC	15.500000	135.540	136.525600		136.6051	0.01229	2.20	17.646	75.20	0.88
CochranePB	M002	7041.67	100-Existing-CBC	15.500000	134.910	136.107800		136.1869	0.00506	1.53	19.698	82.18	0.59
CochranePB	M002	6985.71	100-Existing-CBC	15.500000	134.290	135.674900	135.6749	135.8447	0.00769	2.34	14.470	45.56	0.76
CochranePB	M002	6955.25	100-Existing-CBC	15.500000	133.480	134.705700	134.9021	135.3513	0.03394	3.69	5.014	11.89	1.48
CochranePB	M002	6863.52	100-Existing-CBC	15.500000	131.820	132.882300	132.8918	133.0435	0.01696	2.58	12.367	38.89	1.04
CochranePB	M002	6840.09	100-Existing-CBC	15.500000	131.190	132.148100	132.2299	132.4640	0.03751	3.19	8.924	36.94	1.50
CochranePB	M002	6808.25	100-Existing-CBC	15.500000	130.510	131.412800	131.4840	131.6711	0.04344	3.16	9.433	40.64	1.56
CochranePB	M002	6767.75	100-Existing-CBC	15.500000	129.310	130.355600	130.4001	130.5470	0.01842	2.49	11.945	48.80	1.08
CochranePB	M002	6727.78	100-Existing-CBC	15.500000	128.360	129.482300	129.5567	129.7381	0.02254	2.86	9.743	34.49	1.18
CochranePB	M002	6691.71	100-Existing-CBC	15.500000	127.960	129.073000	129.0005	129.1329	0.00630	1.58	20.295	73.34	0.64
CochranePB	M002	6651.54	100-Existing-CBC	15.500000	127.680	128.670000	128.6304	128.7941	0.01177	1.72	11.758	38.37	0.85
CochranePB	M002	6630.83	100-Existing-CBC	15.500000	127.190	128.440400	128.4404	128.5884	0.00859	2.04	13.712	55.85	0.78
CochranePB	M002	6534.50	100-Existing-CBC	15.500000	126.300	127.297700	127.3427	127.4630	0.01711	2.29	12.544	60.56	1.04
CochranePB	M002	6507.97	100-Existing-CBC	15.500000	125.650	126.577400	126.6392	126.7934	0.03547	2.84	10.697	55.99	1.41

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	6480.50	100-Existing-CBC	15.500000	124.970	125.932500	125.9593	126.0745	0.02151	2.45	12.794	55.48	1.13
CochranePB	M002	6433.33	100-Existing-CBC	15.500000	124.090	125.072300	125.0844	125.2553	0.01831	2.17	10.204	36.79	1.05
CochranePB	M002	6400.96	100-Existing-CBC	15.500000	123.400	124.613200	124.4293	124.6686	0.00466	1.42	19.130	50.61	0.55
CochranePB	M002	6364.18	100-Existing-CBC	15.500000	123.280	124.616300		124.6234	0.00028	0.41	53.412	119.81	0.15
CochranePB	M002	6314.31	100-Existing-CBC	15.500000	123.270	124.549800		124.5887	0.00201	1.05	24.653	69.01	0.38
CochranePB	M002	6286.25	100-Existing-CBC	15.500000	123.260	124.471600		124.5224	0.00283	1.19	22.052	68.68	0.45
CochranePB	M002	6202.53	100-Existing-CBC	15.500000	122.810	124.058700	123.9792	124.1958	0.00730	1.96	13.305	37.36	0.72
CochranePB	M002	6130.00	100-Existing-CBC	15.500000	122.300	123.363800	123.3638	123.5380	0.01255	1.92	9.792	34.75	0.89
CochranePB	M002	6040.82	100-Existing-CBC	15.500000	121.410	122.620300	122.4851	122.6655	0.00304	1.27	24.626	76.46	0.47
CochranePB	M002	6006.95	100-Existing-CBC	15.500000	121.400	122.584500		122.6004	0.00101	0.62	34.546	100.21	0.26
CochranePB	M002	5976.09	100-Existing-CBC	15.500000	121.390	122.406800	122.4068	122.5146	0.01469	1.94	15.142	72.01	0.94
CochranePB	M002	5910.40	100-Existing-CBC	15.500000	120.290	121.528000	121.5824	121.7102	0.01279	2.43	12.608	49.30	0.93
CochranePB	M002	5863.68	100-Existing-CBC	15.500000	119.620	120.542200	120.6673	120.8832	0.03894	2.92	7.731	39.35	1.50
CochranePB	M002	5811.63	100-Existing-CBC	15.500000	118.870	119.982000	119.9820	120.1193	0.01235	2.22	14.009	52.98	0.90
CochranePB	M002	5768.42	100-Existing-CBC	15.500000	117.380	118.350500	118.5581	119.0426	0.07205	3.73	4.542	19.72	2.02
CochranePB	M002	5725.36	100-Existing-CBC	15.500000	116.480	117.633900	117.6532	117.8110	0.01290	2.23	11.510	41.43	0.92
CochranePB	M002	5678.58	100-Existing-CBC	15.500000	115.390	116.477300	116.6250	116.8797	0.02920	2.89	6.371	23.60	1.34
CochranePB	M002	5627.04	100-Existing-CBC	15.500000	114.790	116.218900	115.8673	116.2626	0.00224	1.23	22.690	46.99	0.41
CochranePB	M002	5609.94	100-Existing-CBC	23.200000	114.770	116.017600		116.1428	0.00720	1.90	19.214	45.96	0.72
CochranePB	M002	5601.00	100-Existing-CBC	23.200000	114.760	116.009500		116.0211	0.00131	0.82	53.963	112.57	0.30
CochranePB	M002	5568.52	100-Existing-CBC	23.200000	114.750	115.976800		115.9880	0.00102	0.72	53.640	100.54	0.27
CochranePB	M002	5508.20	100-Existing-CBC	23.200000	114.040	115.655400		115.8467	0.00515	2.05	14.233	22.56	0.64
CochranePB	M002	5473.67	100-Existing-CBC	23.200000	113.900	115.332800	115.3328	115.5892	0.01099	2.64	14.033	28.02	0.91
CochranePB	M002	5403.83	100-Existing-CBC	23.200000	110.690	111.900700	112.3885	113.7231	0.09186	6.10	4.276	9.64	2.45
CochranePB	M002	5352.19	100-Existing-CBC	23.200000	110.270	111.665100	111.6651	111.9921	0.01450	2.84	11.571	25.64	1.02
CochranePB	M002	5309.83	100-Existing-CBC	23.200000	109.640	111.095300	111.1656	111.3938	0.01366	2.85	15.360	50.41	1.00
CochranePB	M002	5266.90	100-Existing-CBC	23.200000	109.300	110.638100	110.6624	110.8235	0.01240	2.57	21.225	83.70	0.94
CochranePB	M002	5213.45	100-Existing-CBC	23.200000	108.810	110.446200	109.9087	110.4645	0.00091	0.85	50.804	86.78	0.27
CochranePB	M002	5162.38	100-Existing-CBC	43.799990	108.180	110.054200	110.0542	110.3159	0.00894	3.20	31.896	61.26	0.87
CochranePB	M002	5109.83	100-Existing-CBC	43.799990	108.020	109.518300	109.2060	109.5650	0.00368	1.49	55.705	103.25	0.51
CochranePB	M002	5059.83	100-Existing-CBC	43.799990	107.540	109.192900		109.3489	0.00722	2.45	39.593	89.32	0.76
CochranePB	M002	5013.20	100-Existing-CBC	43.799990	107.210	108.887000	108.8870	109.0464	0.00900	2.49	39.065	102.58	0.82
CochranePB	M002	4977.38	100-Existing-CBC	43.799990	107.070	108.785800	108.4603	108.8146	0.00164	1.22	79.432	152.65	0.37
CochranePB	M002	4908.49	100-Existing-CBC	43.799990	106.950	108.760000		108.7681	0.00051	0.75	129.691	202.22	0.21
CochranePB	M002	4883.44	100-Existing-CBC	43.799990	106.940	108.747300		108.7530	0.00032	0.57	151.014	218.82	0.16
CochranePB	M002	4816.97	100-Existing-CBC	43.799990	106.930	108.736200		108.7421	0.00029	0.56	156.263	232.80	0.16
CochranePB	M002	4757.22	100-Existing-CBC	43.799990	106.780	108.726500		108.7314	0.00020	0.50	181.431	266.56	0.14
CochranePB	M002	4718.65	100-Existing-CBC	43.799990	106.770	108.717100		108.7235	0.00027	0.59	171.829	328.66	0.16
CochranePB	M002	4674.22	100-Existing-CBC	43.799990	106.760	108.694000		108.7105	0.00061	0.89	122.478	267.18	0.24
CochranePB	M002	4633.22	100-Existing-CBC	43.799990	106.750	108.675400		108.6922	0.00035	0.66	106.721	181.93	0.18
CochranePB	M002	4561.03	100-Existing-CBC	43.799990	106.740	108.602400		108.6499	0.00117	1.16	64.155	100.99	0.32
CochranePB	M002	4506.74	100-Existing-CBC	43.799990	106.430	108.267500	108.2675	108.5027	0.00735	2.68	30.271	58.71	0.78
CochranePB	M002	4459.83	100-Existing-CBC	43.799990	105.660	107.315600	107.5396	107.9362	0.01942	3.88	18.013	45.80	1.24
CochranePB	M002	4409.53	100-Existing-CBC	43.799990	104.620	106.315800	106.5466	106.9503	0.02008	3.95	16.425	31.04	1.24
CochranePB	M002	4359.83	100-Existing-CBC	43.799990	103.720	105.523100	105.7343	106.0873	0.01467	3.61	18.539	49.75	1.08
CochranePB	M002	4327.93	100-Existing-CBC	43.799990	103.170	105.042700	105.1401	105.6226	0.01471	3.62	16.638	29.64	1.09
CochranePB	M002	4265.56	100-Existing-CBC	43.799990	102.450	104.351100	104.3900	104.7661	0.01174	3.43	20.252	29.27	0.98
CochranePB	M002	4208.11	100-Existing-CBC	43.799990	101.670	103.377500	103.5533	103.9559	0.01642	3.65	16.834	32.58	1.14
CochranePB	M002	4159.83	100-Existing-CBC	43.799990	101.120	102.224900	102.3330	102.5994	0.05383	3.60	17.784	48.53	1.78
CochranePB	M002	4109.83	100-Existing-CBC	43.799990	98.840	100.550300	100.7510	101.1722	0.01758	3.95	18.015	39.85	1.19
CochranePB	M002	4056.00	100-Existing-CBC	43.799990	97.180	98.882390	99.2642	99.9050	0.02928	4.88	11.975	18.08	1.50
CochranePB	M002	4009.83	100-Existing-CBC	43.799990	96.330	98.210120	98.3433	98.6447	0.01856	4.10	24.859	64.26	1.17
CochranePB	M002	3969.03	100-Existing-CBC	43.799990	95.620	97.516740	97.7230	98.0612	0.01187	3.67	20.174	65.55	1.01
CochranePB	M002	3916.58	100-Existing-CBC	43.799990	94.820	96.963840	97.1310	97.4138	0.01140	3.52	24.314	79.26	0.94
CochranePB	M002	3859.82	100-Existing-CBC	43.799990	94.340	96.280450	96.4936	96.7911	0.01064	3.29	18.297	63.50	0.94
CochranePB	M002	3810.05	100-Existing-CBC	43.799990	93.500	95.427230	95.7912	96.1432	0.01528	4.03	14.932	33.68	1.13
CochranePB	M002	3759.83	100-Existing-CBC	43.799990	93.000	94.685330	94.8726	95.2366	0.01711	3.88	20.373	56.22	1.17
CochranePB	M002	3709.28	100-Existing-CBC	43.799990	92.330	94.146290	94.2335	94.4925	0.01174	3.27	25.487	71.82	0.97
CochranePB	M002	3661.60	100-Existing-CBC	43.799990	92.050	93.837720	93.8573	94.0207	0.00714	2.61	40.823	139.70	0.76
CochranePB	M002	3609.83	100-Existing-CBC	43.799990	91.730	93.467180	93.4949	93.6344	0.00788	2.60	41.186	142.93	0.79
CochranePB	M002	3559.90	100-Existing-CBC	43.799990	90.870	92.882940	92.9656	93.1884	0.00836	3.11	31.326	82.95	0.83
CochranePB	M002	3509.83	100-Existing-CBC	43.799990	90.380	92.552020	92.3961	92.6470	0.00300	2.08	54.666	109.37	0.52
CochranePB	M002	3493.23	100-Existing-CBC	43.799990	90.020	92.193180	91.9557	92.5680	0.00565	3.36	20.505	15.67	0.74
CochranePB	M002	3480		Bridge									
CochranePB	M002	3474.26	100-Existing-CBC	43.799990	89.910	92.131100	91.5591	92.3681	0.00284	2.50	24.450	16.52	0.55
CochranePB	M002	3466.43	100-Existing-CBC	43.799990	90.000	92.070350	92.0704	92.3350	0.00353	2.70	36.594	80.61	0.60
CochranePB	M002	3454.35	100-Existing-CBC	43.799990	89.940	91.945120	91.5192	92.2519	0.00400	2.72	20.812	16.89	0.64
CochranePB	M002	3450		Bridge									
CochranePB	M002	3434.16	100-Existing-CBC	48.000000	90.360	91.673500	91.6588	92.1515	0.01046	3.29	17.429	20.16	0.96
CochranePB	M002	3413.11	100-Existing-CBC	48.000000	90.140	91.649130		91.8087	0.00777	2.68	41.502	93.70	0.79
CochranePB	M002	3391.58	100-Existing-CBC	48.000000	90.030	91.555640		91.6503	0.00517	2.29	51.062	105.97	0.66
CochranePB	M002	3371.12	100-Existing-CBC	48.000000	90.020	91.336780	91.3368	91.5132	0.00801	2.57	39.854	96.21	0.81
CochranePB	M002	3309.87	100-Existing-CBC	48.000000	89.280	90.729550	90.6545	90.8309	0.00860	2.65	45.652	113.70	0.80
CochranePB	M002	3272.96	100-Existing-CBC	48.000000	88.730	90.288440	90.2789	90.4732	0.00967	2.80	35.356	86.15	0.86
CochranePB	M002	3219.09	100-Existing-CBC	48.000000	88.300	89.793540	89.7935	89.9546	0.00982	2.71	38.610	108.39	0.87
CochranePB	M002	3175.54	100-Existing-CBC	48.000000	87.360	89.569860	89.3259	89.6907	0.00230	1.89	46.113	75.62	0.45
CochranePB	M002	3165		Bridge									
CochranePB	M002	3157.85	100-Existing-CBC	48.000000	87.500	89.250890	89.2938	89.5195	0.00618	2.74	33.042	81.77	0.73
CochranePB	M002	3135.32	100-Existing-CBC	48.000000	87.850	89.144780	89.0593	89.2047	0.00487	1.78	59.145	154.92	0.60
CochranePB	M002	3106.53	100-Existing-CBC	48.000000	87.940	88.817120	88.8171	88.9579	0.02950	2.80	32.327	119.52	1.31
CochranePB	M002	3088.94	100-Existing-CBC	48.000000	86.840	88.590540	88.4592	88.7106	0.00246	1.76	51.384	148.07	0.47
CochranePB	M002	3080		Bridge									
CochranePB	M002	3075.67	100-Existing-CBC	48.000000	86.740	88.370600	88.1222	88.4430	0.00193	1.49	59.766	135.21	0.41
CochranePB	M002	3056.89	100-Existing-CBC	48.000000	87.660	88.303350		88.3749	0.01294	1.11	41.855	140.67	0.77
CochranePB	M002	3007.54	100-Existing-CBC	48.000000	87.610	87.992590		88.0309	0.00431	0.46	55.975	123.41	0.34
CochranePB	M002	2976.31	100-Existing-CBC	48.000000	87.510	87.884500		87.9217	0.00460	0.55	56.794	134.69	0.41
CochranePB	M002	2941.08	100-Existing-CBC	48.000000	86.980	87.772460		87.7928	0.00326	0.88	78.208	222.89	0.43

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	2920.10	100-Existing-CBC	48.000000	86.740	87.754950	87.5443	87.7594	0.00036	0.38	167.889	295.42	0.14
CochranePB	M002	2915		Bridge									
CochranePB	M002	2912.75	100-Existing-CBC	48.000000	86.970	87.752390	87.7524	87.7555	0.00022	0.31	200.702	313.30	0.12
CochranePB	M002	2890.23	100-Existing-CBC	48.000000	86.650	86.858340	87.0179	87.5378	0.35328	3.43	13.144	79.82	3.39
CochranePB	M002	2823.99	100-Existing-CBC	48.000000	86.080	87.132430	86.7861	87.1424	0.00141	0.70	111.110	260.74	0.27
CochranePB	M002	2789.49	100-Existing-CBC	48.000000	86.040	87.108150		87.1175	0.00118	0.61	114.846	269.63	0.26
CochranePB	M002	2741.30	100-Existing-CBC	48.000000	85.710	87.053470		87.0632	0.00106	0.81	121.591	273.47	0.28
CochranePB	M002	2663.79	100-Existing-CBC	48.000000	85.580	87.006010		87.0168	0.00101	0.85	119.058	279.05	0.28
CochranePB	M002	2639.38	100-Existing-CBC	48.000000	85.570	86.974440		86.9872	0.00122	0.89	108.947	240.35	0.30
CochranePB	M002	2616.24	100-Existing-CBC	48.000000	85.300	86.959520		86.9695	0.00075	0.82	125.850	238.44	0.25
CochranePB	M002	2539.69	100-Existing-CBC	48.000000	85.410	86.913690		86.9281	0.00123	0.93	105.756	228.62	0.31
CochranePB	M002	2489.06	100-Existing-CBC	48.000000	85.180	86.869300		86.8873	0.00138	1.13	99.162	212.00	0.33
CochranePB	M002	2438.28	100-Existing-CBC	48.000000	84.870	86.808140		86.8360	0.00139	1.22	92.322	179.33	0.34
CochranePB	M002	2384.01	100-Existing-CBC	48.000000	84.650	86.712330		86.7546	0.00213	1.61	76.819	148.72	0.42
CochranePB	M002	2310.47	100-Existing-CBC	48.000000	84.330	86.484470		86.5673	0.00348	2.02	61.205	143.27	0.53
CochranePB	M002	2284.63	100-Existing-CBC	48.000000	84.160	86.427640		86.4801	0.00265	1.78	64.512	108.52	0.45
CochranePB	M002	2240.58	100-Existing-CBC	48.000000	84.040	85.984860	85.9849	86.2608	0.00954	3.21	29.074	46.75	0.88
CochranePB	M002	2170.94	100-Existing-CBC	48.000000	82.260	84.051920	84.3301	85.1510	0.02820	5.06	12.720	18.04	1.50
CochranePB	M002	2136.89	100-Existing-CBC	48.000000	81.720	83.442690	83.5959	84.1968	0.02200	4.12	15.124	25.03	1.31
CochranePB	M002	2100.01	100-Existing-CBC	48.000000	81.300	83.251240	83.2575	83.5623	0.00951	3.04	26.452	41.73	0.88
CochranePB	M002	2046.85	100-Existing-CBC	48.000000	80.890	82.736790	82.7466	83.0764	0.00889	2.86	24.576	41.64	0.85
CochranePB	M002	2014.35	100-Existing-CBC	48.000000	80.470	81.958150	82.1432	82.5768	0.02762	3.83	17.563	41.07	1.41
CochranePB	M002	1990.76	100-Existing-CBC	48.000000	80.100	81.943860	81.9439	82.2366	0.01043	3.02	27.171	44.94	0.91
CochranePB	M002	1945.20	100-Existing-CBC	48.000000	79.430	81.631840	81.2364	81.7406	0.00323	2.01	44.243	56.99	0.53
CochranePB	M002	1916.67	100-Existing-CBC	48.000000	79.310	81.473620		81.6263	0.00459	2.38	37.787	45.10	0.62
CochranePB	M002	1871.48	100-Existing-CBC	48.000000	79.280	81.321630		81.4321	0.00372	1.96	41.889	50.71	0.56
CochranePB	M002	1836.03	100-Existing-CBC	48.000000	78.830	81.271270		81.3367	0.00153	1.52	56.307	73.40	0.37
CochranePB	M002	1788.63	100-Existing-CBC	48.000000	78.460	80.847450	80.8475	81.1726	0.00773	3.35	28.576	39.56	0.81
CochranePB	M002	1768.08	100-Existing-CBC	48.000000	78.140	80.118050	80.3440	80.8879	0.02014	4.62	17.145	26.99	1.27
CochranePB	M002	1733.19	100-Existing-CBC	48.000000	77.950	79.994060	80.0347	80.3306	0.00851	3.05	27.680	48.71	0.85
CochranePB	M002	1694.89	100-Existing-CBC	48.000000	77.120	79.383800	78.9253	79.4954	0.00251	1.86	41.784	46.50	0.47
CochranePB	M002	1685.79	100-Existing-CBC	48.000000	77.060	79.321890		79.4660	0.00349	2.19	36.693	45.39	0.55
CochranePB	M002	1640.51	100-Existing-CBC	48.000000	76.450	78.814270	78.8143	79.2203	0.00738	3.31	23.425	30.46	0.81
CochranePB	M002	1602.99	100-Existing-CBC	48.000000	75.010	76.521260	77.0550	78.4349	0.06995	6.44	9.070	16.48	2.25
CochranePB	M002	1585.52	100-Existing-CBC	48.000000	74.010	75.353600	75.7736	76.9630	0.08825	6.13	10.059	21.21	2.44
CochranePB	M002	1569.47	100-Existing-CBC	48.000000	73.710	75.029270	75.2319	75.7467	0.04095	3.90	13.657	27.52	1.64
CochranePB	M002	1541.97	100-Existing-CBC	48.000000	72.310	74.164730	74.3826	74.9463	0.02126	4.30	14.652	19.60	1.29
CochranePB	M002	1510.83	100-Existing-CBC	48.000000	71.340	72.568340	72.8968	73.7485	0.08129	4.84	10.209	23.91	2.26
CochranePB	M002	1495.27	100-Existing-CBC	48.000000	71.190	73.060200	72.7854	73.2076	0.00423	1.89	33.908	43.49	0.59
CochranePB	M002	1458.62	100-Existing-CBC	48.000000	70.580	72.675400	72.6754	72.9518	0.00859	3.42	32.624	51.19	0.86
CochranePB	M002	1419.61	100-Existing-CBC	48.000000	70.210	72.055190	72.1882	72.5196	0.01365	3.76	22.219	35.26	1.06
CochranePB	M002	1384.56	100-Existing-CBC	48.000000	69.610	71.917370	71.9679	72.2647	0.00574	2.90	27.829	59.68	0.72
CochranePB	M002	1351.51	100-Existing-CBC	48.000000	69.540	71.672120	71.7775	72.0375	0.00808	3.29	30.474	77.44	0.85
CochranePB	M002	1311.78	100-Existing-CBC	48.000000	69.490	71.406650	71.4714	71.6716	0.00826	3.07	36.628	107.94	0.84
CochranePB	M002	1291.19	100-Existing-CBC	48.000000	69.280	71.018350	71.1682	71.4391	0.01500	3.73	28.251	98.98	1.09
CochranePB	M002	1217.75	100-Existing-CBC	48.000000	68.700	70.986400	70.4332	71.0199	0.00069	1.08	89.760	186.23	0.26
CochranePB	M002	1200.39	100-Existing-CBC	48.000000	68.690	70.628580	70.2918	70.9660	0.00500	2.62	19.040	19.05	0.67
CochranePB	M002	1190		Bridge									
CochranePB	M002	1185.68	100-Existing-CBC	49.200010	68.460	70.522460	69.9961	70.8001	0.00327	2.35	21.479	25.50	0.57
CochranePB	M002	1164.32	100-Existing-CBC	49.200010	68.650	70.449980	70.4500	70.6996	0.00605	2.84	34.847	90.21	0.74
CochranePB	M002	1132.60	100-Existing-CBC	49.200010	68.600	69.838950	69.9893	70.2903	0.02813	3.87	24.770	104.55	1.43
CochranePB	M002	1111.68	100-Existing-CBC	49.200010	68.550	69.872130	69.6498	69.9271	0.00391	1.74	63.555	160.84	0.56
CochranePB	M002	1059.95	100-Existing-CBC	49.200010	68.380	69.694630		69.7711	0.00472	2.14	58.306	151.89	0.64
CochranePB	M002	998.99	100-Existing-CBC	49.200010	68.130	69.573570		69.5947	0.00167	1.33	91.485	187.53	0.37
CochranePB	M002	955.54	100-Existing-CBC	49.200010	68.120	69.565040		69.5681	0.00017	0.42	210.200	257.58	0.12
CochranePB	M002	851.16	100-Existing-CBC	49.200010	67.620	69.557120		69.5593	0.00009	0.37	248.036	247.65	0.09
CochranePB	M002	798.06	100-Existing-CBC	49.200010	67.470	69.555300		69.5566	0.00005	0.29	318.321	284.54	0.07
CochranePB	M002	746.77	100-Existing-CBC	49.200010	67.300	69.554440		69.5552	0.00002	0.21	424.081	319.76	0.05
CochranePB	M002	694.52	100-Existing-CBC	49.200010	66.980	69.553910		69.5544	0.00001	0.18	512.786	365.52	0.04
CochranePB	M002	669.16	100-Existing-CBC	49.200010	66.970	69.553760		69.5542	0.00001	0.16	569.988	400.51	0.03
CochranePB	M002	590.19	100-Existing-CBC	49.200010	66.840	69.553120		69.5534	0.00001	0.14	678.976	487.30	0.03
CochranePB	M002	539.85	100-Existing-CBC	49.200010	66.810	69.552710		69.5530	0.00001	0.14	693.586	503.51	0.03
CochranePB	M002	488.40	100-Existing-CBC	49.200010	66.540	69.552400		69.5526	0.00001	0.13	735.161	511.84	0.03
CochranePB	M001	381.27	100-Existing-CBC	97.199980	66.350	69.550450		69.5512	0.00002	0.24	851.101	602.50	0.05
CochranePB	M001	313.14	100-Existing-CBC	97.199980	66.280	69.549740		69.5503	0.00001	0.19	1001.889	672.05	0.04

HEC-RAS Plan:

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	TR001	439.21	AMEC-2020	41.100010	105.110	106.617300	106.3291	106.7018	0.00279	1.86	47.451	69.66	0.51
RaymondB	TR001	409.42	AMEC-2020	41.100010	104.680	106.505000		106.6166	0.00276	2.12	45.918	73.94	0.52
RaymondB	TR001	380.07	AMEC-2020	41.100010	104.050	106.544000		106.5674	0.00034	0.94	94.772	91.45	0.19
RaymondB	TR001	360.64	AMEC-2020	41.100010	103.600	106.547600	105.2946	106.5594	0.00017	0.72	131.439	107.67	0.14
RaymondB	TR001	350		Bridge									
RaymondB	TR001	344.45	AMEC-2020	41.100010	103.300	105.067200	105.2467	106.1054	0.01701	5.03	10.200	70.11	1.25
RaymondB	TR001	334.13	AMEC-2020	41.100010	103.400	104.321200	104.6872	105.7151	0.05119	5.52	10.203	36.00	1.97
RaymondB	TR001	272.22	AMEC-2020	41.100010	102.830	104.011400	104.0114	104.2775	0.01083	3.08	25.544	46.18	0.96
RaymondB	TR001	218.50	AMEC-2020	41.100010	101.420	102.730800	102.8841	103.4788	0.01862	4.28	15.039	26.62	1.27
RaymondB	TR001	163.97	AMEC-2020	41.100010	100.320	101.911800	101.5354	102.1027	0.00331	2.08	26.145	29.86	0.56
RaymondB	TR001	115.54	AMEC-2020	41.100010	100.000	101.366600	101.3666	101.8069	0.01140	3.60	19.977	32.53	1.01
RaymondB	TR001	56.65	AMEC-2020	41.100010	97.730	98.494060	98.9692	100.2279	0.08728	6.28	8.160	16.30	2.50
RaymondB	M002	6453.60	AMEC-2020	10.800000	118.100	126.012600	118.7187	126.0126	0.00000	0.02	855.765	253.47	0.00
RaymondB	M002	6405.52	AMEC-2020	10.800000	118.000	126.012600		126.0126	0.00000	0.02	858.470	235.11	0.00
RaymondB	M002	6347.04	AMEC-2020	10.800000	124.730	126.010200		126.0123	0.00004	0.21	53.875	44.18	0.06
RaymondB	M002	6247.26	AMEC-2020	10.800000	117.210	118.017200		118.0670	0.00345	1.30	14.644	33.51	0.50
RaymondB	M002	6230.10	AMEC-2020	10.800000	117.200	118.006000		118.0325	0.00141	0.81	18.577	40.47	0.32
RaymondB	M002	6205.35	AMEC-2020	10.800000	117.280	117.981000		117.9923	0.00129	0.71	26.127	54.19	0.30
RaymondB	M002	6143.06	AMEC-2020	10.800000	117.180	117.878000		117.8958	0.00191	0.84	22.465	54.13	0.36
RaymondB	M002	6105.93	AMEC-2020	10.800000	117.170	117.731300		117.7818	0.00443	1.08	13.611	51.49	0.53
RaymondB	M002	6026.35	AMEC-2020	10.800000	116.810	117.502300		117.5273	0.00223	0.90	18.759	42.90	0.39
RaymondB	M002	5933.71	AMEC-2020	10.800000	116.420	117.187800		117.2597	0.00381	1.30	11.463	29.39	0.52
RaymondB	M002	5883.92	AMEC-2020	10.800000	116.120	116.968100		117.0611	0.00408	1.42	9.403	20.72	0.54
RaymondB	M002	5785.15	AMEC-2020	10.800000	115.750	116.525000		116.6115	0.00522	1.44	9.721	21.23	0.60
RaymondB	M002	5732.44	AMEC-2020	10.800000	115.460	116.232800		116.3336	0.00517	1.44	8.464	20.01	0.60
RaymondB	M002	5631.37	AMEC-2020	10.800000	114.850	115.566400	115.5521	115.6678	0.00874	1.64	10.818	43.17	0.75
RaymondB	M002	5500.15	AMEC-2020	10.800000	114.620	115.391300		115.4025	0.00117	0.69	32.488	120.57	0.28
RaymondB	M002	5485.46	AMEC-2020	10.800000	114.530	115.378500		115.3875	0.00078	0.63	39.186	152.57	0.24
RaymondB	M002	5411.19	AMEC-2020	10.800000	114.480	115.279400	115.0318	115.3113	0.00179	0.87	17.019	50.08	0.35
RaymondB	M002	5338.54	AMEC-2020	10.800000	114.410	115.282500	114.7214	115.2847	0.00009	0.21	57.373	105.36	0.08
RaymondB	M002	5278.93	AMEC-2020	10.800000	114.440	115.274700	114.7569	115.2780	0.00014	0.26	47.597	104.85	0.10
RaymondB	M002	5226.60	AMEC-2020	10.800000	114.420	115.266100		115.2696	0.00018	0.29	49.079	118.90	0.11
RaymondB	M002	5171.66	AMEC-2020	10.800000	114.420	115.253100		115.2579	0.00025	0.35	48.880	166.22	0.14
RaymondB	M002	5111.50	AMEC-2020	10.800000	114.420	115.221800		115.2346	0.00070	0.58	27.307	75.12	0.23
RaymondB	M002	5077.48	AMEC-2020	10.800000	114.380	115.203100		115.2138	0.00051	0.49	27.179	56.04	0.19
RaymondB	M002	5017.13	AMEC-2020	10.800000	114.400	115.088400		115.1452	0.00327	1.06	10.583	22.75	0.47
RaymondB	M002	4967.43	AMEC-2020	10.800000	114.070	114.831100		114.9368	0.00525	1.45	7.751	15.15	0.60
RaymondB	M002	4943.43	AMEC-2020	10.800000	113.820	114.723200		114.8240	0.00418	1.49	9.197	20.48	0.56
RaymondB	M002	4910.95	AMEC-2020	10.800000	113.670	114.580600		114.6855	0.00429	1.53	9.489	24.95	0.57
RaymondB	M002	4851.17	AMEC-2020	10.800000	113.470	114.318800		114.4215	0.00466	1.51	9.685	27.86	0.58
RaymondB	M002	4783.73	AMEC-2020	10.800000	113.300	114.043100		114.1067	0.00438	1.18	11.102	33.43	0.54
RaymondB	M002	4732.68	AMEC-2020	10.800000	113.070	113.745100		113.8185	0.00754	1.44	10.994	37.15	0.69
RaymondB	M002	4681.76	AMEC-2020	10.800000	112.350	113.081700	113.0817	113.3173	0.01244	2.23	5.660	13.99	0.93
RaymondB	M002	4673.96	AMEC-2020	10.800000	111.740	112.385800	112.6156	113.1008	0.05105	3.83	3.174	9.57	1.80
RaymondB	M002	4644.78	AMEC-2020	10.800000	110.490	111.156100	111.3476	111.7727	0.03891	3.54	3.335	19.22	1.60
RaymondB	M002	4625.72	AMEC-2020	10.800000	106.750	107.165400	107.5916	109.8263	0.41959	7.23	1.494	6.04	4.64
RaymondB	M002	4615.42	AMEC-2020	10.800000	105.830	106.387000	106.6640	107.4102	0.10490	4.54	2.539	8.53	2.46
RaymondB	M002	4607.06	AMEC-2020	10.800000	105.790	106.763900	106.6339	106.9685	0.00703	2.07	5.980	9.09	0.73
RaymondB	M002	4597.34	AMEC-2020	10.800000	105.760	106.719600		106.8895	0.00715	1.93	7.072	14.46	0.72
RaymondB	M002	4575.18	AMEC-2020	10.800000	105.980	106.407200	106.4072	106.5870	0.03627	2.22	5.957	18.19	1.37
RaymondB	M002	4545.57	AMEC-2020	10.800000	104.650	105.466500	105.5444	105.8247	0.01854	2.77	4.793	11.80	1.13
RaymondB	M002	4522.17	AMEC-2020	10.800000	103.670	104.224000	104.4847	105.0420	0.06545	4.11	2.976	9.35	2.01
RaymondB	M002	4511.42	AMEC-2020	10.800000	103.620	104.597300	104.3869	104.6769	0.00376	1.46	10.982	20.73	0.53
RaymondB	M002	4489.94	AMEC-2020	10.800000	103.590	104.301900	104.3019	104.5245	0.01322	2.25	6.180	15.51	0.95
RaymondB	M002	4466.63	AMEC-2020	10.800000	103.030	104.065600	103.7330	104.1358	0.00237	1.24	10.746	17.58	0.43
RaymondB	M002	4439.46	AMEC-2020	10.800000	103.000	103.801500	103.8015	104.0039	0.01045	2.19	6.971	25.24	0.86
RaymondB	M002	4415.77	AMEC-2020	10.800000	102.780	103.327900	103.4251	103.6209	0.02747	2.52	5.093	16.84	1.29
RaymondB	M002	4385.89	AMEC-2020	10.800000	101.800	102.466900	102.5800	102.8510	0.02349	2.84	4.464	11.82	1.25
RaymondB	M002	4354.01	AMEC-2020	10.800000	101.270	101.958700	101.9956	102.1559	0.01709	2.57	8.087	27.31	1.08
RaymondB	M002	4341.66	AMEC-2020	10.800000	100.840	101.634000	101.7103	101.9345	0.01657	2.61	5.928	21.29	1.07
RaymondB	M002	4332.73	AMEC-2020	10.800000	100.320	100.897800	101.1377	101.6356	0.05771	3.92	3.167	9.60	1.90
RaymondB	M002	4308.73	AMEC-2020	10.800000	98.870	99.412290	99.6278	100.1351	0.06687	3.98	3.353	11.49	2.00
RaymondB	M002	4294.65	AMEC-2020	10.800000	98.450	99.112510	99.2096	99.4969	0.02501	2.93	4.622	11.84	1.29
RaymondB	M002	4263.86	AMEC-2020	10.800000	97.590	98.431120	98.2944	98.5746	0.00626	1.77	7.338	13.41	0.68
RaymondB	M002	4235.25	AMEC-2020	10.800000	97.470	98.921340		98.9389	0.00036	0.64	22.175	24.45	0.18
RaymondB	M001	4130.35	AMEC-2020	50.700010	96.570	98.038890	98.0902	98.5507	0.01188	3.24	17.450	21.33	1.00
RaymondB	M001	4076.94	AMEC-2020	50.700010	96.040	97.703250	97.5512	97.9655	0.00537	2.43	26.690	33.87	0.69
RaymondB	M001	4023.53	AMEC-2020	50.700010	95.940	97.112770	97.1128	97.5194	0.01334	2.90	19.355	28.79	1.02
RaymondB	M001	3978.20	AMEC-2020	50.700010	94.640	96.769760	96.2306	96.8742	0.00195	1.49	41.732	53.74	0.42
RaymondB	M001	3916.71	AMEC-2020	73.199980	94.640	96.453190		96.6785	0.00448	2.50	49.594	64.26	0.65
RaymondB	M001	3863.30	AMEC-2020	73.199980	94.410	96.325970		96.4666	0.00278	2.09	64.202	79.83	0.52
RaymondB	M001	3809.58	AMEC-2020	73.199980	94.090	95.821170	95.8212	96.2169	0.00805	3.24	35.684	46.33	0.86
RaymondB	M001	3756.26	AMEC-2020	73.199980	93.530	95.091060	95.2320	95.6785	0.01234	3.73	27.359	35.67	1.05
RaymondB	M001	3694.37	AMEC-2020	73.199980	92.660	94.135700	94.3358	94.8216	0.01524	3.85	22.380	33.78	1.15
RaymondB	M001	3569.22	AMEC-2020	73.199980	92.150	94.265830	93.4801	94.2934	0.00066	1.09	124.488	131.27	0.26
RaymondB	M001	3527.64	AMEC-2020	73.199980	91.850	94.238720		94.2655	0.00056	1.10	128.445	127.50	0.24
RaymondB	M001	3446.51	AMEC-2020	73.199980	91.140	94.222360		94.2389	0.00021	0.76	189.014	162.74	0.15
RaymondB	M001	3421.64	AMEC-2020	73.199980	91.230	93.545460	93.1329	94.1638	0.00507	3.52	21.244	132.54	0.74
RaymondB	M001	3410		Bridge									
RaymondB	M001	3404.11	AMEC-2020	73.199980	91.230	93.149050	93.1819	94.1076	0.01046	4.37	17.047	97.03	1.03
RaymondB	M001	3380.48	AMEC-2020	73.199980	90.960	92.938350	92.5164	93.1285	0.00307	2.20	51.588	65.60	0.55
RaymondB	M001	3308.92	AMEC-2020	73.199980	90.800	92.648120		92.8702	0.00413	2.53	48.924	64.29	0.63
RaymondB	M001	3216.73	AMEC-2020	73.199980	89.310	92.397850	91.1868	92.6486	0.00155	2.25	33.603	73.62	0.43
RaymondB	M001	3200		Bridge									
RaymondB	M001	3188.78	AMEC-2020	73.199980	89.300	91.568200	91.5682	92.3820	0.00887	4.29	20.226	42.14	0.95
RaymondB	M001	3015.18	AMEC-2020	73.199980	89.180	90.878710	90.5834	91.0453	0.00322	2.09	54.244	66.55	0.55
RaymondB	M001	2876.32	AMEC-2020	73.199980	88.660	90.233570	90.0922	90.4806	0.00625	2.60	41.360	52.56	0.74
RaymondB	M001	2789.37	AMEC-2020	73.199980	88.240	90.042920		90.1238	0.00230	1.77	91.969	160.40	0.46
RaymondB	M001	2681.85	AMEC-2020	73.199980	88.140	89.507230	89.5072	89.7055	0.00925	2.79	53.746	124.85	0.88
RaymondB	M001	2604.32	AMEC-2020	73.199980	87.970	89.342930	89.0319	89.3819	0.00191	1.34	106.455	201.75	0.40

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	M001	2531.57	AMEC-2020	73.199980	87.970	89.309010		89.3193	0.00062	0.71	180.231	280.58	0.23
RaymondB	M001	2385.34	AMEC-2020	73.199980	87.430	89.233730		89.2660	0.00128	1.34	140.417	249.05	0.35
RaymondB	M001	2245.72	AMEC-2020	73.199980	86.990	88.786600	88.6753	89.0553	0.00488	2.58	45.896	88.29	0.68
RaymondB	M001	2194.47	AMEC-2020	73.199980	86.680	88.840930		88.8931	0.00096	1.32	100.289	96.01	0.31
RaymondB	M001	2140.67	AMEC-2020	73.199980	86.590	88.747340		88.8284	0.00148	1.64	78.897	71.65	0.39
RaymondB	M001	2087.60	AMEC-2020	73.199980	86.380	88.610780		88.7399	0.00168	1.79	57.662	46.26	0.41
RaymondB	M001	2069.54	AMEC-2020	73.199980	86.350	88.557490		88.7064	0.00198	1.95	60.303	85.31	0.45
RaymondB	M001	2040.77	AMEC-2020	73.199980	86.250	88.532840		88.6455	0.00153	1.71	72.886	89.65	0.39
RaymondB	M001	1989.18	AMEC-2020	73.199980	86.020	88.461550	87.7547	88.5650	0.00147	1.78	80.433	94.70	0.39
RaymondB	M001	1950.22	AMEC-2020	73.199980	85.790	87.438140	87.3643	88.3450	0.01854	4.54	23.107	43.93	1.28
RaymondB	M001	1885.73	AMEC-2020	73.199980	85.340	87.143540	87.0826	87.4722	0.00710	2.98	38.313	48.00	0.80
RaymondB	M001	1835.84	AMEC-2020	73.199980	84.640	86.525340	86.5253	87.0333	0.01046	3.76	29.327	29.27	0.98
RaymondB	M001	1784.61	AMEC-2020	73.199980	84.100	85.294020	85.5265	86.0942	0.03609	4.64	23.013	39.60	1.65
RaymondB	M001	1733.38	AMEC-2020	73.199980	82.790	84.873390	84.3638	85.0186	0.00235	1.96	55.376	48.27	0.48
RaymondB	M001	1682.15	AMEC-2020	73.199980	82.600	84.472400		84.8195	0.00581	2.79	33.275	34.09	0.74
RaymondB	M001	1630.92	AMEC-2020	73.199980	82.120	83.965110	83.9651	84.4540	0.00828	3.24	28.597	36.95	0.87
RaymondB	M001	1584.49	AMEC-2020	73.199980	81.770	83.752490	83.5118	84.0401	0.00514	2.70	38.232	47.09	0.69
RaymondB	M001	1536.01	AMEC-2020	73.199980	81.310	83.293370	83.2927	83.7264	0.00757	3.26	32.838	42.60	0.83
RaymondB	M001	1477.96	AMEC-2020	73.199980	80.960	82.861350	82.7733	83.2847	0.00763	3.16	32.626	40.85	0.83
RaymondB	M001	1425.99	AMEC-2020	73.199980	80.580	82.689740		82.9531	0.00409	2.55	39.999	40.59	0.63
RaymondB	M001	1372.05	AMEC-2020	73.199980	80.250	82.566250		82.7406	0.00292	2.28	49.215	44.03	0.54
RaymondB	M001	1323.54	AMEC-2020	73.199980	79.110	81.824230	81.2913	82.4622	0.00449	3.54	20.686	16.68	0.71
RaymondB	M001	1315		Bridge									
RaymondB	M001	1303.54	AMEC-2020	73.199980	78.010	80.517120	80.4958	81.5094	0.00960	4.41	16.586	20.15	0.98
RaymondB	M001	1252.39	AMEC-2020	76.999990	78.450	80.452640	80.4526	80.9279	0.00940	3.58	30.913	32.17	0.92
RaymondB	M001	1216.25	AMEC-2020	76.999990	77.860	79.762240	79.9890	80.4882	0.01484	4.45	28.177	42.16	1.17
RaymondB	M001	1189.75	AMEC-2020	76.999990	77.610	79.093360	79.3446	79.9485	0.02719	4.59	22.890	37.73	1.47
RaymondB	M001	1166.20	AMEC-2020	76.999990	76.740	78.244510	78.5286	79.2273	0.03099	5.20	24.812	51.98	1.60
RaymondB	M001	1148.70	AMEC-2020	76.999990	76.500	78.035870	78.2519	78.6862	0.02230	4.30	28.585	53.58	1.34
RaymondB	M001	1116.25	AMEC-2020	76.999990	75.830	77.177190	77.3924	77.9068	0.02408	3.95	22.858	37.29	1.37
RaymondB	M001	1066.09	AMEC-2020	76.999990	75.160	76.974340	76.7907	77.2160	0.00458	2.44	45.765	55.99	0.65
RaymondB	M001	1035.68	AMEC-2020	76.999990	74.730	76.232790	76.2328	76.9313	0.01681	3.99	23.979	28.90	1.20
RaymondB	M001	999.99	AMEC-2020	76.999990	73.320	74.732910	75.1630	76.0514	0.03226	5.32	17.036	22.09	1.64
RaymondB	M001	976.73	AMEC-2020	76.999990	73.030	74.560210	74.8304	75.3611	0.01700	4.24	24.871	40.34	1.22
RaymondB	M001	942.15	AMEC-2020	76.999990	72.180	73.257880	73.5971	74.2730	0.06679	6.15	20.287	35.21	2.23
RaymondB	M001	916.70	AMEC-2020	76.999990	70.820	72.167630	72.4202	73.0219	0.03400	5.34	26.419	65.64	1.67
RaymondB	M001	892.34	AMEC-2020	76.999990	70.360	71.851590	72.0113	72.4398	0.01342	3.74	29.856	50.32	1.08
RaymondB	M001	866.25	AMEC-2020	76.999990	70.040	71.880280	71.4291	72.0773	0.00305	2.11	50.209	65.55	0.54
RaymondB	M001	841.89	AMEC-2020	76.999990	69.920	71.621760	71.5807	71.9615	0.00599	2.85	42.899	89.64	0.75
RaymondB	M001	816.68	AMEC-2020	76.999990	69.740	71.397970	71.3980	71.7777	0.00787	3.21	39.627	60.82	0.85
RaymondB	M001	766.25	AMEC-2020	76.999990	69.160	70.075070	70.3200	70.9041	0.05607	5.09	22.065	45.80	2.00
RaymondB	M001	716.25	AMEC-2020	76.999990	68.390	69.931750	69.7430	70.1545	0.00506	2.43	45.940	66.34	0.68
RaymondB	M001	675.00	AMEC-2020	76.999990	68.140	69.746570		69.9459	0.00471	2.40	49.875	59.84	0.66
RaymondB	M001	615.86	AMEC-2020	76.999990	67.750	69.718420		69.7762	0.00121	1.45	109.311	164.03	0.35
RaymondB	M001	565.77	AMEC-2020	76.999990	67.440	69.687110		69.7257	0.00068	1.18	147.116	236.65	0.27
RaymondB	M001	520.15	AMEC-2020	76.999990	67.260	69.689040		69.7001	0.00024	0.73	245.531	318.61	0.16
RaymondB	M001	468.54	AMEC-2020	76.999990	66.980	69.686320		69.6903	0.00010	0.51	359.990	397.69	0.10
RaymondB	M001	429.18	AMEC-2020	76.999990	66.800	69.686070		69.6875	0.00003	0.31	544.818	498.07	0.06
RaymondB	M001	366.25	AMEC-2020	76.999990	66.650	69.685900		69.6864	0.00001	0.20	849.110	643.59	0.04
RaymondB	M001	341.79	AMEC-2020	76.999990	66.630	69.685900		69.6863	0.00001	0.17	953.639	686.16	0.03
PettyHR	M002	6270.85	AMEC-2020	112.300000	66.230	69.685690		69.6859	0.00000	0.06	2097.362	859.94	0.01
PettyHR	M002	6218.07	AMEC-2020	112.300000	66.230	69.685590		69.6858	0.00000	0.07	1966.068	849.18	0.01
PettyHR	M002	6095.00	AMEC-2020	112.300000	66.230	69.685450		69.6857	0.00000	0.07	1900.242	855.59	0.01
PettyHR	M002	6004.71	AMEC-2020	112.300000	66.230	69.685360		69.6856	0.00000	0.07	1955.653	885.62	0.01
PettyHR	M001	5825.85	AMEC-2020	180.900000	66.230	69.684880		69.6853	0.00000	0.09	2260.369	845.77	0.02
PettyHR	M001	5685.44	AMEC-2020	180.900000	66.230	69.684590		69.6850	0.00000	0.09	2181.413	735.36	0.02
PettyHR	M001	5516.39	AMEC-2020	201.700000	66.230	69.683920		69.6845	0.00000	0.11	1903.613	629.78	0.02
PettyHR	M001	5279.80	AMEC-2020	201.700000	66.230	69.682110		69.6834	0.00001	0.16	1287.140	425.93	0.03
PettyHR	M001	4996.75	AMEC-2020	201.700000	66.230	69.673260		69.6794	0.00003	0.35	608.794	210.10	0.06
PettyHR	M001	4923.81	AMEC-2020	201.700000	66.230	69.597630		69.6671	0.00043	1.25	200.562	89.27	0.23
PettyHR	M001	4867.41	AMEC-2020	201.700000	66.230	69.496240		69.6244	0.00109	1.98	170.717	98.61	0.36
PettyHR	M001	4817.61	AMEC-2020	201.700000	66.580	69.439480		69.5616	0.00136	2.11	166.277	93.96	0.40
PettyHR	M001	4757.18	AMEC-2020	201.700000	66.430	68.721130	68.7211	69.3486	0.00828	4.44	79.295	66.63	0.95
PettyHR	M001	4675.66	AMEC-2020	201.700000	65.880	68.246480	67.6959	68.5749	0.00380	3.10	94.610	52.03	0.65
PettyHR	M001	4612.84	AMEC-2020	201.700000	64.880	67.035420	67.0354	68.0880	0.01357	5.48	54.384	40.17	1.20
PettyHR	M001	4570.09	AMEC-2020	201.700000	64.620	66.919640	66.9808	67.6281	0.00800	4.30	71.046	56.15	0.93
PettyHR	M001	4500.69	AMEC-2020	201.700000	64.620	66.428570	66.2185	66.7872	0.00517	2.96	91.722	75.31	0.72
PettyHR	M001	4461.12	AMEC-2020	201.700000	64.550	66.100010	66.1000	66.5355	0.01106	3.90	87.695	91.75	1.02
PettyHR	M001	4428.20	AMEC-2020	201.700000	64.410	65.830800	65.6336	66.1134	0.00958	3.33	96.435	89.68	0.93
PettyHR	M001	4395.66	AMEC-2020	201.700000	63.810	65.583790		65.8761	0.00524	2.96	102.543	81.97	0.72
PettyHR	M001	4357.04	AMEC-2020	201.700000	63.340	65.523640		65.6942	0.00263	2.44	131.824	81.74	0.53
PettyHR	M001	4281.82	AMEC-2020	201.700000	62.500	65.464960		65.5737	0.00075	1.58	152.637	59.77	0.30
PettyHR	M001	4166.17	AMEC-2020	201.700000	61.820	65.504140		65.5205	0.00011	0.68	431.560	168.22	0.11
PettyHR	M001	3949.19	AMEC-2020	201.700000	61.310	65.515170		65.5153	0.00000	0.04	5174.964	1317.84	0.01
PettyHR	M001	3936.78	AMEC-2020	201.700000	61.310	65.515200		65.5153	0.00000	0.03	6371.616	1574.40	0.01
PettyHR	M001	3931.39	AMEC-2020	128.300000	61.310	65.515220		65.5152	0.00000	0.02	8014.105	2016.24	0.00
PettyHR	M001	3925.44	AMEC-2020	128.300000	61.310	65.515170		65.5152	0.00000	0.03	3969.131	1004.82	0.01
PettyHR	M001	3867.05	AMEC-2020	128.300000	61.310	65.515160		65.5152	0.00000	0.03	3995.816	990.73	0.01
PettyHR	M001	3643.73	AMEC-2020	128.300000	61.310	65.515130		65.5152	0.00000	0.03	4584.682	1114.84	0.00
PettyHR	M001	3440.60	AMEC-2020	128.300000	61.310	65.514940		65.5151	0.00000	0.06	2330.497	585.70	0.01
PettyHR	M001	3182.65	AMEC-2020	128.300000	61.310	65.514620		65.5149	0.00000	0.08	1743.153	427.17	0.01
PettyHR	M001	3080.13	AMEC-2020	128.300000	61.310	65.514580		65.5148	0.00000	0.07	2062.273	523.65	0.01
PettyHR	M001	3028.13	AMEC-2020	128.300000	61.310	65.514560		65.5147	0.00000	0.06	2253.698	562.26	0.01
PettyHR	M001	2983.09	AMEC-2020	128.300000	61.310	65.514430		65.5147	0.00000	0.07	1834.896	452.94	0.01
PettyHR	M001	2828.46	AMEC-2020	128.300000	61.310	65.513640		65.5144	0.00000	0.12	1082.428	280.81	0.02
PettyHR	M001	2712.72	AMEC-2020	128.300000	61.310	65.511210		65.5137	0.00001	0.23	625.792	183.09	0.04
PettyHR	M001	2671.95	AMEC-2020	128.300000	61.310	65.509690		65.5131	0.00001	0.28	568.207	176.76	0.04
PettyHR	M001	2653.10	AMEC-2020	128.300000	61.310	65.507870		65.5127	0.00002	0.33	488.648	158.16	0.05
PettyHR	M001	2632.46	AMEC-2020	128.300000	61.310	65.494510		65.5107	0.00008	0.66	300.152	125.75	0.10
PettyHR	M001	2596.08	AMEC-2020	128.300000	61.310	65.487050		65.5072	0.00009	0.70	270.231	120.24	0.11

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	2583.24	AMEC-2020	128.300000	60.100	65.410720	63.1278	65.4979	0.00044	1.62	169.124	121.25	0.24
PettyHR	M001	2580		Bridge									
PettyHR	M001	2573.39	AMEC-2020	128.300000	60.000	65.212200	62.6787	65.2675	0.00026	1.25	182.789	95.30	0.19
PettyHR	M001	2551.09	AMEC-2020	128.300000	59.890	65.235180		65.2417	0.00002	0.38	402.393	110.84	0.06
PettyHR	M001	2426.14	AMEC-2020	128.300000	59.270	65.238840		65.2394	0.00000	0.11	1247.266	278.44	0.02
PettyHR	M001	2315.39	AMEC-2020	128.300000	58.720	65.238830		65.2392	0.00000	0.09	1525.391	319.61	0.01
PettyHR	M001	2204.15	AMEC-2020	128.300000	58.160	65.238720		65.2391	0.00000	0.09	1533.324	308.34	0.01
PettyHR	M001	2022.45	AMEC-2020	128.300000	57.260	65.237730		65.2388	0.00000	0.14	929.068	185.60	0.02
PettyHR	M001	1902.10	AMEC-2020	128.300000	56.660	65.236560		65.2383	0.00000	0.19	716.443	128.50	0.02
PettyHR	M001	1879.72	AMEC-2020	128.300000	56.550	65.234110		65.2380	0.00001	0.29	528.609	109.08	0.04
PettyHR	M001	1824.42	AMEC-2020	128.300000	56.280	65.229390		65.2370	0.00002	0.39	353.965	66.41	0.05
PettyHR	M001	1789.72	AMEC-2020	128.300000	56.100	65.225440		65.2360	0.00002	0.46	299.344	55.74	0.06
PettyHR	M001	1724.70	AMEC-2020	128.300000	55.780	65.220080		65.2340	0.00003	0.53	261.713	48.24	0.07
PettyHR	M001	1668.81	AMEC-2020	128.300000	55.500	65.223010	58.4058	65.2310	0.00002	0.40	348.161	65.79	0.05
PettyHR	M001	1647.80	AMEC-2020	128.300000	55.400	65.224270	58.0996	65.2300	0.00001	0.34	404.930	77.18	0.04
PettyHR	M001	1631.79	AMEC-2020	128.300000	63.550	64.939660		65.2035	0.00446	2.28	56.373	40.63	0.62
PettyHR	M001	1615.46	AMEC-2020	130.300000	54.380	56.841160		57.0901	0.00512	3.60	63.879	39.57	0.75
PettyHR	M001	1601.08	AMEC-2020	130.300000	54.000	56.352130	56.3521	56.9447	0.01286	5.54	45.533	37.36	1.17
PettyHR	M001	1586.16	AMEC-2020	130.300000	53.360	55.365760	55.8220	56.5968	0.02999	7.67	31.027	26.44	1.76
PettyHR	M001	1571.98	AMEC-2020	130.300000	52.870	54.657080	55.0451	56.0840	0.04029	8.12	27.892	24.64	1.99
PettyHR	M001	1519.66	AMEC-2020	130.300000	51.620	53.314080	53.5004	54.1045	0.02933	6.56	37.304	39.27	1.66
PettyHR	M001	1467.14	AMEC-2020	130.300000	50.860	52.367490	52.3149	52.8053	0.01712	4.77	47.259	45.92	1.26
PettyHR	M001	1457.30	AMEC-2020	130.300000	50.230	52.072930	52.0729	52.6219	0.01665	5.42	43.953	38.45	1.29
PettyHR	M001	1444.51	AMEC-2020	130.300000	48.300	49.427850	50.0407	51.9482	0.14793	11.33	21.039	32.25	3.52
PettyHR	M001	1415.17	AMEC-2020	130.300000	48.280	50.096650	49.5652	50.2671	0.00474	2.85	74.223	53.63	0.69
PettyHR	M001	1402.15	AMEC-2020	130.300000	47.790	49.649170	49.6492	50.1311	0.01644	5.25	47.327	45.39	1.26
PettyHR	M001	1385.41	AMEC-2020	130.300000	43.100	44.934890	45.9544	49.2115	0.09113	12.12	18.015	19.47	2.97
PettyHR	M001	1370.82	AMEC-2020	130.300000	41.750	43.787390	44.9818	47.9345	0.07838	12.52	18.100	15.47	2.84
PettyHR	M001	1362.66	AMEC-2020	130.300000	39.880	42.344000	43.7550	47.2495	0.06821	12.98	16.994	12.11	2.70
PettyHR	M001	1336.64	AMEC-2020	130.300000	39.870	41.543850	42.4813	44.7063	0.08980	11.62	19.445	18.96	2.93
PettyHR	M001	1309.35	AMEC-2020	130.300000	38.400	39.845580	40.4990	42.0955	0.08153	9.95	21.606	21.78	2.72
PettyHR	M001	1279.20	AMEC-2020	130.300000	35.020	37.469540	38.3611	40.3189	0.04366	10.49	24.309	22.58	2.18
PettyHR	M001	1258.06	AMEC-2020	130.300000	34.010	36.728260	37.9219	39.4394	0.03473	10.12	22.984	14.83	1.98
PettyHR	M001	1221.17	AMEC-2020	130.300000	33.210	34.707340	35.5201	37.4475	0.09490	10.64	19.487	18.90	2.90
PettyHR	M001	1203.34	AMEC-2020	130.300000	32.610	33.963010	34.4418	35.5823	0.07711	9.18	26.220	34.00	2.61
PettyHR	M001	1164.99	AMEC-2020	130.300000	31.370	33.006690	33.1754	33.7405	0.02546	5.97	38.937	41.20	1.55
PettyHR	M001	1153.41	AMEC-2020	130.300000	30.700	31.889390	32.3154	33.2218	0.07293	8.34	28.000	37.79	2.50
PettyHR	M001	1125.74	AMEC-2020	130.300000	29.270	30.609720	30.8885	31.5639	0.04500	6.97	33.954	43.40	1.99
PettyHR	M001	1090.65	AMEC-2020	130.300000	28.120	29.403740	29.5915	30.0627	0.03674	5.96	41.023	60.12	1.77
PettyHR	M001	1059.48	AMEC-2020	130.300000	26.840	28.199540	28.3957	28.8798	0.03893	6.52	41.201	63.90	1.85
PettyHR	M001	1048.77	AMEC-2020	130.300000	26.290	27.589820	27.8239	28.4117	0.04350	6.58	37.346	55.01	1.94
PettyHR	M001	1021.54	AMEC-2020	130.300000	25.470	27.126130	27.2031	27.7063	0.02218	5.66	42.575	43.70	1.45
PettyHR	M001	1003.30	AMEC-2020	130.300000	23.420	25.133800	25.5955	27.0027	0.04997	8.89	24.072	20.24	2.21
PettyHR	M001	994.73	AMEC-2020	130.300000	22.700	25.601340	25.7530	26.5058	0.01325	6.51	39.556	27.66	1.24
PettyHR	M001	961.03	AMEC-2020	130.300000	22.070	24.708570	25.0537	25.9360	0.01963	7.35	33.572	25.52	1.47
PettyHR	M001	944.13	AMEC-2020	130.300000	21.890	23.693000	24.2158	25.4203	0.04067	8.23	26.197	22.46	2.01
PettyHR	M001	924.94	AMEC-2020	130.300000	20.780	22.825030	23.3623	24.6512	0.03845	8.69	24.658	17.51	1.98
PettyHR	M001	905.47	AMEC-2020	130.300000	19.730	22.068380	22.6491	23.9788	0.03159	8.70	24.962	16.15	1.84
PettyHR	M001	883.86	AMEC-2020	130.300000	17.290	21.511680	20.1666	21.7099	0.00133	2.67	82.616	44.59	0.42
PettyHR	M001	875		Bridge									
PettyHR	M001	859.53	AMEC-2020	130.300000	17.250	19.578020	19.5780	20.3548	0.01432	5.67	36.126	30.35	1.22
PettyHR	M001	836.76	AMEC-2020	130.300000	12.800	15.115510	16.2643	18.8702	0.05013	10.87	18.492	11.66	2.32
PettyHR	M001	823.70	AMEC-2020	130.300000	12.860	14.524710	15.2670	17.8447	0.09324	11.73	18.814	17.98	2.97
PettyHR	M001	811.96	AMEC-2020	130.300000	12.850	14.839590	15.4246	16.6769	0.04520	9.34	28.168	30.36	2.15
PettyHR	M001	796.92	AMEC-2020	130.300000	12.740	14.171400	14.6364	15.7739	0.07316	9.48	26.585	33.77	2.58
PettyHR	M001	784.11	AMEC-2020	130.300000	11.820	13.803130	14.1780	15.0507	0.03241	7.82	33.887	37.30	1.81
PettyHR	M001	769.86	AMEC-2020	130.300000	10.940	12.679550	13.2889	14.4615	0.04530	8.48	25.666	23.21	2.10
PettyHR	M001	748.76	AMEC-2020	130.300000	8.370	10.937280	11.7316	13.5741	0.03307	9.36	24.779	20.48	1.91
PettyHR	M001	720.33	AMEC-2020	130.300000	8.080	9.181548	9.8690	11.8787	0.14897	10.69	19.809	28.20	3.47
PettyHR	M001	707.57	AMEC-2020	130.300000	6.850	8.335858	8.8770	10.3064	0.07334	9.60	25.466	33.16	2.59
PettyHR	M001	685.99	AMEC-2020	130.300000	5.310	7.008073	7.5316	8.8640	0.05911	9.28	26.755	31.75	2.36
PettyHR	M001	666.04	AMEC-2020	130.300000	5.030	6.738622	7.0794	7.7693	0.02989	6.67	36.463	43.19	1.69
PettyHR	M001	652.51	AMEC-2020	130.300000	4.660	6.340904	6.6049	7.3112	0.03366	6.96	37.287	47.23	1.78
PettyHR	M001	633.61	AMEC-2020	130.300000	4.400	5.443376	5.7764	6.4931	0.05997	6.69	32.435	76.92	2.20
PettyHR	M001	622.83	AMEC-2020	130.300000	4.090	5.318181	5.3182	5.6328	0.01704	4.00	59.154	115.22	1.21
PettyHR	M001	577.97	AMEC-2020	130.300000	2.480	3.798890	3.9753	4.3957	0.04760	6.98	44.746	111.64	2.02
PettyHR	M001	525.57	AMEC-2020	130.300000	0.510	3.127351	2.3563	3.2281	0.00212	2.45	106.209	106.61	0.49
PettyHR	M001	491.94	AMEC-2020	130.300000	-0.590	2.374523	2.2231	3.0557	0.00631	4.02	40.577	34.12	0.83
PettyHR	M001	485		Bridge									
PettyHR	M001	478.84	AMEC-2020	130.300000	-1.920	2.599698	0.7316	2.7333	0.00071	1.71	111.753	143.03	0.29
PettyHR	M001	439.27	AMEC-2020	130.300000	-1.890	2.641668		2.6642	0.00018	0.91	246.310	131.59	0.14
PettyHR	M001	405.68	AMEC-2020	130.300000	-2.130	2.634623		2.6582	0.00016	0.87	243.665	133.50	0.14
PettyHR	M001	367.80	AMEC-2020	130.300000	-2.020	2.637653		2.6490	0.00005	0.49	309.451	140.33	0.08
PettyHR	M001	338.85	AMEC-2020	130.300000	-2.890	2.638425		2.6470	0.00003	0.42	347.711	123.37	0.06
PettyHR	M001	305.38	AMEC-2020	130.300000	-2.460	2.634775		2.6456	0.00004	0.48	314.468	120.33	0.08
PettyHR	M001	269.29	AMEC-2020	130.300000	-3.520	2.631414		2.6440	0.00004	0.51	294.699	111.08	0.07
PettyHR	M001	238.18	AMEC-2020	130.300000	-3.500	2.623998		2.6420	0.00006	0.61	255.067	103.28	0.09
PettyHR	M001	201.25	AMEC-2020	130.300000	-4.430	2.630500		2.6376	0.00002	0.38	375.676	121.25	0.05
PettyHR	M001	150.84	AMEC-2020	130.300000	-3.340	2.632345		2.6359	0.00001	0.27	536.958	171.83	0.04
PettyHR	M001	105.74	AMEC-2020	130.300000	-2.910	2.631822		2.6354	0.00001	0.27	518.166	154.58	0.04
PettyHR	M001	91.29	AMEC-2020	130.300000	-3.360	2.631886		2.6352	0.00001	0.26	533.904	144.42	0.04
PettyHR	M001	20.04	AMEC-2020	130.300000	-6.190	2.632401		2.6343	0.00000	0.20	718.527	185.45	0.03
PettyHR	M001	12.04	AMEC-2020	130.300000	-6.190	2.610002	-3.3738	2.6322	0.00009	0.72	278.430	185.37	0.08
ForthP	M001	2616.90	AMEC-2020	13.000000	123.090	124.388000	123.3802	124.3889	0.00002	0.15	117.326	147.84	0.04
ForthP	M001	2528.45	AMEC-2020	13.000000	123.090	124.387600		124.3878	0.00001	0.07	193.354	191.65	0.02
ForthP	M001	2324.32	AMEC-2020	13.000000	123.090	124.385100		124.3859	0.00002	0.14	131.017	196.34	0.04
ForthP	M001	2187.52	AMEC-2020	13.000000	123.090	124.384600		124.3847	0.00000	0.06	256.398	281.10	0.02
ForthP	M001	1955.13	AMEC-2020	13.000000	123.090	124.383700		124.3839	0.00000	0.06	296.874	306.27	0.02
ForthP	M001	1773.83	AMEC-2020	13.000000	123.090	124.383400		124.3835	0.00000	0.04	368.210	340.63	0.01
ForthP	M001	1572.85	AMEC-2020	13.000000	123.090	124.383100		124.3832	0.00000	0.04	353.333	315.56	0.01

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
ForthP	M001	1496.60	AMEC-2020	13.000000	123.090	124.383000		124.3831	0.00000	0.04	297.014	270.94	0.01
ForthP	M001	1392.58	AMEC-2020	17.900000	122.980	124.379200	124.0814	124.3817	0.00019	0.49	91.619	163.46	0.13
ForthP	M001	1390		Culvert									
ForthP	M001	1381.72	AMEC-2020	17.900000	122.950	124.138300	124.0457	124.1645	0.00279	1.50	36.370	133.28	0.46
ForthP	M001	1360.50	AMEC-2020	17.900000	122.870	123.918000		124.0430	0.00772	2.26	14.967	34.39	0.77
ForthP	M001	1311.12	AMEC-2020	17.900000	122.520	123.617400		123.6924	0.00583	1.99	18.811	45.69	0.67
ForthP	M001	1261.17	AMEC-2020	17.900000	121.360	122.779500	122.7795	123.2513	0.01193	3.50	7.489	10.76	1.01
ForthP	M001	1211.51	AMEC-2020	17.900000	119.830	120.988400	121.3458	122.1773	0.04122	5.48	4.454	6.88	1.78
ForthP	M001	1161.66	AMEC-2020	17.900000	117.250	118.190500	118.5259	119.5766	0.06700	5.95	4.806	16.57	2.20
ForthP	M001	1112.05	AMEC-2020	17.900000	114.880	115.736800	115.9646	116.4587	0.05182	5.21	6.590	23.41	1.94
ForthP	M001	1062.35	AMEC-2020	17.900000	113.160	113.992600	114.1044	114.3608	0.03212	3.73	7.393	15.22	1.46
ForthP	M001	1041.93	AMEC-2020	17.900000	112.620	113.716100	113.7329	113.9135	0.01332	2.93	11.989	35.54	0.98
ForthP	M001	1031.90	AMEC-2020	17.900000	112.310	113.312500	113.4363	113.7087	0.02942	4.12	9.647	36.39	1.45
ForthP	M001	1011.12	AMEC-2020	17.900000	111.620	112.462600	112.6184	112.9500	0.04551	4.68	8.515	33.13	1.79
ForthP	M001	959.76	AMEC-2020	17.900000	110.310	110.979300	111.0116	111.1342	0.02702	2.82	12.646	53.38	1.30
ForthP	M001	908.93	AMEC-2020	17.900000	109.250	109.741200	109.6885	109.7952	0.01509	1.73	18.701	81.90	0.93
ForthP	M001	856.39	AMEC-2020	17.900000	108.380	108.746700		108.7963	0.01801	1.26	18.396	87.43	0.91
ForthP	M001	806.25	AMEC-2020	17.900000	107.090	107.840000	107.8400	107.9367	0.01811	2.63	17.438	85.74	1.09
ForthP	M001	754.78	AMEC-2020	17.900000	106.120	107.006300	107.0297	107.1332	0.01496	2.86	17.536	81.32	1.04
ForthP	M001	734.50	AMEC-2020	17.900000	105.470	106.467600	106.6151	106.8092	0.02173	3.53	10.321	45.23	1.25
ForthP	M001	724.30	AMEC-2020	17.900000	105.280	106.329300	106.4244	106.6023	0.01604	3.19	12.033	49.52	1.10
ForthP	M001	703.65	AMEC-2020	17.900000	105.020	105.883800	105.9564	106.1567	0.03130	3.97	10.431	36.95	1.47
ForthP	M001	654.47	AMEC-2020	17.900000	103.900	105.096600	104.6457	105.1089	0.00094	0.90	40.419	69.78	0.28
ForthP	M001	605.63	AMEC-2020	17.900000	102.270	103.039200	103.0392	104.7889	0.12678	6.92	3.968	12.81	2.90
ForthP	M001	585.13	AMEC-2020	17.900000	101.550	102.290600	102.4194	102.7698	0.05821	4.51	9.334	57.16	1.95
ForthP	M001	577.30	AMEC-2020	17.900000	101.520	102.058200	102.1180	102.2590	0.05488	3.43	10.656	55.38	1.78
ForthP	M001	557.33	AMEC-2020	17.900000	100.670	101.191600	101.2212	101.3264	0.03923	2.68	12.480	63.12	1.48
ForthP	M001	507.84	AMEC-2020	17.900000	98.920	99.484020	99.4922	99.5940	0.03094	2.51	14.132	74.96	1.33
ForthP	M001	453.33	AMEC-2020	17.900000	96.280	96.834010	96.9176	97.1233	0.06771	3.70	10.620	75.62	1.97
ForthP	M001	402.29	AMEC-2020	17.900000	94.960	95.467420	95.4634	95.5926	0.03398	2.71	12.417	49.91	1.40
ForthP	M001	349.18	AMEC-2020	17.900000	93.640	94.078530	93.9805	94.1242	0.01393	1.35	19.208	69.66	0.85
ForthP	M001	297.76	AMEC-2020	17.900000	92.550	93.366780	93.3668	93.4698	0.01396	2.39	16.864	75.02	0.97
ForthP	M001	246.28	AMEC-2020	17.900000	91.710	92.300890	92.3177	92.4174	0.02688	2.39	14.644	70.61	1.25
ForthP	M001	182.03	AMEC-2020	17.900000	90.940	91.921170	91.6048	91.9381	0.00222	1.13	36.270	92.03	0.40
ForthP	M001	160.27	AMEC-2020	17.900000	90.130	91.927410	91.0235	91.9292	0.00006	0.30	119.296	135.52	0.07
ForthP	M001	150		Culvert									
ForthP	M001	144.74	AMEC-2020	17.900000	89.900	90.847650	90.7287	91.1204	0.00806	2.33	7.885	81.09	0.80
ForthP	M001	124.30	AMEC-2020	17.900000	89.740	90.654160	90.6542	90.8430	0.01830	2.98	13.865	53.41	1.14
ForthP	M001	61.58	AMEC-2020	17.900000	88.750	89.763780	89.7672	89.9124	0.01192	2.62	15.614	48.27	0.94
ForestP	M001	1557.91	AMEC-2020	9.199999	78.250	79.752590	78.4746	79.7528	0.00000	0.06	152.918	122.38	0.02
ForestP	M001	1428.05	AMEC-2020	9.199999	78.250	79.752350		79.7525	0.00000	0.05	209.081	177.77	0.01
ForestP	M001	1315.71	AMEC-2020	9.199999	78.250	79.752250		79.7523	0.00000	0.03	293.908	243.76	0.01
ForestP	M001	1228.83	AMEC-2020	9.199999	78.250	79.752200		79.7522	0.00000	0.03	351.496	292.06	0.01
ForestP	M001	1138.84	AMEC-2020	9.199999	78.250	79.752170		79.7522	0.00000	0.02	411.795	344.35	0.01
ForestP	M001	1077.28	AMEC-2020	9.199999	78.250	79.752140		79.7522	0.00000	0.02	460.187	484.48	0.01
ForestP	M001	1019.12	AMEC-2020	9.199999	78.250	79.752010		79.7521	0.00000	0.05	233.895	288.09	0.01
ForestP	M001	958.61	AMEC-2020	11.800000	78.150	79.723850	79.5024	79.7491	0.00085	0.85	26.937	71.07	0.25
ForestP	M001	955		Culvert									
ForestP	M001	949.85	AMEC-2020	11.800000	77.760	79.610990	79.6110	79.7251	0.00643	1.92	13.648	55.08	0.50
ForestP	M001	913.34	AMEC-2020	11.800000	78.160	79.090130	79.1216	79.3285	0.02798	3.65	6.917	19.32	1.31
ForestP	M001	883.23	AMEC-2020	11.800000	77.540	78.357290	78.4274	78.5861	0.02224	3.13	8.939	39.16	1.24
ForestP	M001	859.61	AMEC-2020	11.800000	76.750	77.501010	77.5900	77.8945	0.03802	3.90	5.352	14.29	1.59
ForestP	M001	831.71	AMEC-2020	11.800000	75.740	76.760250	76.8419	77.1040	0.02198	3.58	5.848	11.94	1.25
ForestP	M001	802.91	AMEC-2020	11.800000	74.660	75.481210	75.7100	76.1886	0.04687	4.67	4.155	10.28	1.81
ForestP	M001	772.90	AMEC-2020	11.800000	73.770	74.570710	74.6629	74.9010	0.03244	3.81	5.870	15.59	1.48
ForestP	M001	737.48	AMEC-2020	11.800000	72.770	73.446630	73.5093	73.7000	0.03342	3.41	6.672	21.35	1.47
ForestP	M001	688.06	AMEC-2020	11.800000	71.800	72.426790	72.4163	72.5341	0.02448	2.63	9.231	33.58	1.18
ForestP	M001	651.32	AMEC-2020	11.800000	70.810	71.440350	71.4378	71.6001	0.02639	2.99	8.570	31.95	1.31
ForestP	M001	600.44	AMEC-2020	11.800000	69.800	70.353930	70.3198	70.4289	0.01976	2.30	12.800	71.28	1.10
ForestP	M001	578.60	AMEC-2020	11.800000	69.310	69.924950	69.9250	70.0054	0.01813	2.36	14.646	89.25	1.07
ForestP	M001	528.92	AMEC-2020	11.800000	68.580	69.691890	69.2833	69.6978	0.00070	0.73	44.229	108.93	0.24
ForestP	M001	478.55	AMEC-2020	11.800000	68.210	69.687550		69.6887	0.00007	0.27	95.583	135.17	0.08
ForestP	M001	430.82	AMEC-2020	11.800000	67.770	69.686190		69.6867	0.00002	0.20	139.435	159.72	0.05
ForestP	M001	378.18	AMEC-2020	11.800000	67.480	69.686090		69.6862	0.00000	0.09	318.555	316.39	0.02
ForestP	M001	328.07	AMEC-2020	11.800000	67.340	69.686000		69.6860	0.00000	0.06	436.912	371.63	0.01
ForestP	M001	277.95	AMEC-2020	11.800000	67.070	69.685940		69.6860	0.00000	0.06	529.507	436.41	0.01
ForestP	M001	195.51	AMEC-2020	11.800000	66.230	69.685920		69.6859	0.00000	0.03	935.740	610.00	0.00
ForestP	M001	158.37	AMEC-2020	11.800000	66.230	69.685920		69.6859	0.00000	0.01	1668.173	706.57	0.00
ForestP	M001	89.11	AMEC-2020	11.800000	66.230	69.685920		69.6859	0.00000	0.01	1847.557	775.17	0.00
DoylesR	TR019	260.51	AMEC-2020	0.400000	124.740	125.126600	124.9452	125.1272	0.00016	0.15	5.171	39.43	0.09
DoylesR	TR019	199.72	AMEC-2020	0.400000	124.550	125.126400		125.1264	0.00000	0.02	39.130	140.58	0.01
DoylesR	TR019	150.00	AMEC-2020	0.400000	124.370	125.126200		125.1262	0.00000	0.02	42.581	160.65	0.01
DoylesR	TR019	100.00	AMEC-2020	0.400000	124.160	125.126000		125.1260	0.00000	0.03	38.663	209.39	0.01
DoylesR	TR019	50.00	AMEC-2020	0.400000	124.180	125.126000		125.1260	0.00000	0.02	66.308	249.76	0.01
DoylesR	TR018	302.01	AMEC-2020	1.600000	127.900	128.507400	128.0673	128.5081	0.00006	0.15	17.458	45.11	0.06
DoylesR	TR018	270.53	AMEC-2020	1.600000	126.190	128.507800	126.9365	128.5078	0.00000	0.02	261.830	244.89	0.00
DoylesR	TR018	260		Culvert									
DoylesR	TR018	257.62	AMEC-2020	1.600000	126.190	128.507800	126.9652	128.5078	0.00000	0.01	266.993	215.48	0.00
DoylesR	TR018	244.68	AMEC-2020	1.600000	125.640	128.507800	126.6802	128.5078	0.00000	0.01	305.232	215.13	0.00
DoylesR	TR018	200		Culvert									
DoylesR	TR018	169.24	AMEC-2020	1.600000	125.400	126.248800	126.2353	126.6236	0.01597	3.12	0.636	76.04	1.11
DoylesR	TR018	131.43	AMEC-2020	1.600000	125.240	125.446500	125.4465	125.4833	0.03511	1.23	2.545	52.40	1.18
DoylesR	TR018	59.79	AMEC-2020	1.600000	124.570	125.172700	124.9043	125.1738	0.00020	0.24	18.171	132.64	0.11
DoylesR	TR017	4043.45	AMEC-2020	9.000000	124.050	125.096100		125.1176	0.00145	1.10	22.689	92.10	0.35
DoylesR	TR017	3983.69	AMEC-2020	9.000000	124.040	124.982600		125.0156	0.00225	1.15	19.783	95.47	0.41
DoylesR	TR017	3923.93	AMEC-2020	9.000000	124.030	124.618200	124.6182	124.7318	0.02063	2.09	8.314	43.72	1.10
DoylesR	TR017	3889.37	AMEC-2020	9.000000	123.600	123.803200	123.6568	123.8216	0.00695	0.40	15.036	65.37	0.49
DoylesR	TR017	3781.64	AMEC-2020	9.000000	122.550	123.587200		123.6115	0.00205	1.18	20.448	71.13	0.40
DoylesR	TR017	3768.91	AMEC-2020	9.000000	122.350	123.239600	123.2396	123.5247	0.01329	2.57	4.608	10.69	0.96
DoylesR	TR017	3745.98	AMEC-2020	9.000000	121.860	122.412600	122.5130	122.7535	0.06861	3.43	4.733	33.28	1.92

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR017	3713.18	AMEC-2020	9.000000	120.990	121.613600	121.6558	121.8558	0.01795	2.35	4.796	14.39	1.08
DoylesR	TR017	3692.45	AMEC-2020	9.000000	120.340	120.999600	121.1346	121.3565	0.02934	2.96	4.150	14.12	1.37
DoylesR	TR017	3679.05	AMEC-2020	9.000000	119.970	120.771600	120.8587	121.0586	0.01591	2.71	5.098	22.22	1.07
DoylesR	TR017	3656.84	AMEC-2020	9.000000	117.590	118.098700	118.4950	120.0331	0.20993	6.34	1.592	6.17	3.46
DoylesR	TR017	3603.67	AMEC-2020	9.000000	116.290	117.013700	117.0741	117.2274	0.01808	2.66	6.029	24.67	1.11
DoylesR	TR017	3583.40	AMEC-2020	9.000000	115.960	116.621400	116.6849	116.8208	0.02299	2.72	6.397	28.91	1.22
DoylesR	TR017	3571.14	AMEC-2020	9.000000	115.760	116.294700	116.3541	116.4741	0.03305	2.93	6.274	31.80	1.42
DoylesR	TR017	3545.42	AMEC-2020	9.000000	115.220	115.785800	115.8368	116.0323	0.03413	2.82	5.028	19.75	1.42
DoylesR	TR017	3483.93	AMEC-2020	9.000000	114.350	114.953600	114.9304	115.0041	0.01175	1.86	12.750	70.93	0.86
DoylesR	TR017	3432.55	AMEC-2020	9.000000	113.790	114.544800	114.4947	114.6007	0.00826	1.82	13.259	65.87	0.74
DoylesR	TR017	3345.48	AMEC-2020	9.000000	113.030	113.573500	113.5735	113.6751	0.02388	2.25	8.208	44.38	1.18
DoylesR	TR017	3300.07	AMEC-2020	9.000000	112.420	112.997700	112.8816	113.0135	0.00411	0.98	18.530	77.69	0.49
DoylesR	TR016	918.87	AMEC-2020	3.300000	127.080	128.792300	127.2582	128.7923	0.00000	0.01	401.587	360.78	0.00
DoylesR	TR016	898.71	AMEC-2020	3.300000	126.900	128.792300	128.1030	128.7923	0.00000	0.04	194.478	225.12	0.01
DoylesR	TR016	890		Culvert									
DoylesR	TR016	882.28	AMEC-2020	3.300000	126.880	128.740000	128.1234	128.7401	0.00000	0.08	106.505	158.82	0.02
DoylesR	TR016	877.71	AMEC-2020	3.300000	126.240	128.740000	127.5130	128.7400	0.00000	0.08	125.829	190.54	0.02
DoylesR	TR016	850		Culvert									
DoylesR	TR016	848.13	AMEC-2020	3.300000	126.370	127.615600	127.6156	128.2158	0.01207	3.43	0.961	95.69	1.00
DoylesR	TR016	818.98	AMEC-2020	3.300000	126.360	126.675000	126.7992	127.3277	0.16261	3.76	1.121	12.32	2.77
DoylesR	TR016	768.99	AMEC-2020	3.300000	126.300	126.660800	126.5885	126.6738	0.00422	0.77	8.225	51.40	0.47
DoylesR	TR016	714.09	AMEC-2020	3.300000	125.960	126.378100	126.3083	126.3992	0.00558	0.93	6.532	37.10	0.55
DoylesR	TR016	675.95	AMEC-2020	3.300000	125.740	126.094500	126.0945	126.1443	0.01469	1.33	4.807	44.92	0.87
DoylesR	TR016	659.39	AMEC-2020	3.300000	125.100	125.456700	125.5476	125.6939	0.05210	2.64	2.065	15.33	1.65
DoylesR	TR016	632.80	AMEC-2020	3.300000	124.780	125.273400	125.2734	125.3438	0.01050	1.46	4.115	28.24	0.78
DoylesR	TR016	610.50	AMEC-2020	3.300000	123.780	124.280900	124.4685	124.8028	0.05583	3.51	1.251	5.32	1.81
DoylesR	TR016	549.37	AMEC-2020	3.300000	122.300	122.961400	123.0005	123.1049	0.01540	2.09	3.021	18.23	0.96
DoylesR	TR016	494.31	AMEC-2020	3.300000	120.930	121.572800	121.6712	121.9219	0.03026	2.65	1.342	4.35	1.32
DoylesR	TR016	473.82	AMEC-2020	3.300000	120.180	120.698500	120.8431	121.1407	0.04835	3.04	1.237	4.95	1.65
DoylesR	TR016	459.95	AMEC-2020	3.300000	119.620	120.109500	120.2267	120.4896	0.04429	2.80	1.304	5.22	1.57
DoylesR	TR016	439.99	AMEC-2020	3.300000	119.050	119.753300	119.7620	119.9613	0.01534	2.06	1.757	4.95	0.96
DoylesR	TR016	384.99	AMEC-2020	3.300000	117.070	117.505200	117.6852	118.1350	0.10806	3.52	0.947	4.46	2.32
DoylesR	TR016	329.99	AMEC-2020	3.300000	115.670	116.180400	116.1900	116.2715	0.01463	1.58	3.403	23.75	0.90
DoylesR	TR016	274.18	AMEC-2020	3.300000	114.930	115.339300	115.3344	115.3868	0.01218	1.27	5.205	48.64	0.80
DoylesR	TR016	218.88	AMEC-2020	3.300000	114.350	114.840400	114.8381	114.8914	0.01125	1.30	5.450	56.96	0.78
DoylesR	TR016	165.43	AMEC-2020	3.300000	113.830	114.396400	114.3964	114.4576	0.00849	1.35	4.850	36.58	0.70
DoylesR	TR016	86.48	AMEC-2020	3.300000	112.800	113.256200	113.2783	113.3825	0.02226	1.75	2.529	13.70	1.08
DoylesR	TR016	40.19	AMEC-2020	3.300000	112.210	112.830400	112.7196	112.8415	0.00202	0.73	10.541	60.19	0.35
DoylesR	TR015	3230.71	AMEC-2020	19.600000	111.600	112.557800		112.6166	0.00689	2.05	24.152	78.64	0.72
DoylesR	TR015	3185.04	AMEC-2020	19.600000	111.220	112.171600	112.1647	112.3046	0.01324	2.61	16.888	51.45	0.97
DoylesR	TR015	3133.58	AMEC-2020	19.600000	110.570	111.431600	111.4316	111.5747	0.01614	2.83	15.755	48.29	1.07
DoylesR	TR015	3079.97	AMEC-2020	19.600000	108.170	109.162000	109.4942	110.1488	0.04429	5.01	5.659	11.76	1.81
DoylesR	TR015	3026.43	AMEC-2020	19.600000	107.300	109.168900	108.3856	109.1992	0.00063	0.99	33.424	34.51	0.25
DoylesR	TR015	3001.28	AMEC-2020	19.600000	106.170	109.182100	108.6522	109.1857	0.00010	0.50	92.135	80.49	0.10
DoylesR	TR015	3000		Culvert									
DoylesR	TR015	2988.77	AMEC-2020	19.600000	106.030	108.121200	108.1212	108.2998	0.00325	2.52	23.068	57.70	0.57
DoylesR	TR015	2963.30	AMEC-2020	19.600000	105.690	106.615400	106.9272	107.7790	0.06311	6.00	6.508	19.66	2.12
DoylesR	TR015	2915.60	AMEC-2020	19.600000	104.530	105.670700	105.7896	106.0706	0.01954	3.69	10.377	23.73	1.22
DoylesR	TR015	2867.64	AMEC-2020	19.600000	103.370	104.557000	104.6813	105.0657	0.02691	4.46	9.482	21.46	1.42
DoylesR	TR015	2841.04	AMEC-2020	19.600000	102.400	102.987400	103.1654	103.6346	0.11952	5.22	7.121	28.29	2.66
DoylesR	TR015	2804.73	AMEC-2020	19.600000	101.670	102.550100	102.4939	102.6852	0.01384	2.65	15.560	37.54	1.00
DoylesR	TR015	2742.98	AMEC-2020	19.600000	100.870	101.690300	101.6851	101.8038	0.01672	2.84	18.941	67.64	1.09
DoylesR	TR015	2687.77	AMEC-2020	19.600000	100.070	100.730200	100.7302	100.8369	0.02012	2.58	17.756	73.80	1.15
DoylesR	TR015	2638.14	AMEC-2020	19.600000	98.950	99.767060	99.8389	100.0128	0.02905	3.77	13.745	52.13	1.44
DoylesR	TR015	2593.26	AMEC-2020	19.600000	97.750	98.873600	98.8662	99.0362	0.01191	2.92	16.077	43.11	0.96
DoylesR	TR015	2557.12	AMEC-2020	19.600000	97.530	98.627200		98.7202	0.00743	2.37	20.280	52.84	0.77
DoylesR	TR015	2522.34	AMEC-2020	19.600000	97.260	98.204670	98.2047	98.3926	0.01491	2.74	14.213	42.34	1.03
DoylesR	TR015	2483.94	AMEC-2020	19.600000	96.950	97.699670	97.6595	97.7856	0.01562	2.33	17.944	60.30	1.00
DoylesR	TR015	2438.99	AMEC-2020	19.600000	96.350	97.477630		97.5182	0.00344	1.59	31.022	94.35	0.52
DoylesR	TR015	2387.12	AMEC-2020	19.600000	96.390	97.427410		97.4352	0.00097	0.76	56.717	131.08	0.27
DoylesR	TR015	2352.45	AMEC-2020	19.600000	96.400	97.405980		97.4112	0.00049	0.55	64.335	105.41	0.19
DoylesR	TR015	2283.37	AMEC-2020	19.600000	95.750	97.250890		97.3360	0.00286	1.82	18.964	23.77	0.50
DoylesR	TR015	2231.50	AMEC-2020	19.600000	95.540	96.722390	96.7224	97.0396	0.01399	3.28	10.313	18.70	1.06
DoylesR	TR015	2160.12	AMEC-2020	19.600000	94.930	96.006240	95.9187	96.1808	0.00917	2.46	12.923	22.46	0.84
DoylesR	TR015	2119.11	AMEC-2020	19.600000	94.440	95.536760	95.5368	95.7699	0.01330	3.01	12.670	28.42	1.01
DoylesR	TR015	2075.88	AMEC-2020	19.600000	93.860	94.833200	94.9076	95.1094	0.01722	3.14	12.977	46.70	1.14
DoylesR	TR015	2024.01	AMEC-2020	19.600000	93.190	94.284200	94.2936	94.4379	0.01063	2.63	16.236	49.42	0.90
DoylesR	TR015	1972.14	AMEC-2020	19.600000	92.710	93.759640	93.7807	93.8893	0.01205	2.80	19.067	76.30	0.95
DoylesR	TR015	1921.75	AMEC-2020	19.600000	92.350	93.544800	93.1548	93.5611	0.00151	1.11	40.977	95.14	0.35
DoylesR	TR015	1851.62	AMEC-2020	19.600000	91.240	92.864560	92.8646	93.3457	0.01200	3.66	8.905	16.19	0.99
DoylesR	TR014	2057.49	AMEC-2020	11.900000	125.480	126.598100	126.4061	126.6296	0.00243	1.22	23.068	71.21	0.42
DoylesR	TR014	2037.89	AMEC-2020	11.900000	125.570	126.597100		126.6023	0.00051	0.59	47.492	114.51	0.20
DoylesR	TR014	1988.88	AMEC-2020	11.900000	124.710	126.490600	126.0310	126.5600	0.00112	1.26	16.562	51.44	0.32
DoylesR	TR014	1980		Culvert									
DoylesR	TR014	1975.46	AMEC-2020	11.900000	124.460	126.451300	125.7856	126.5251	0.00092	1.25	13.414	36.06	0.30
DoylesR	TR014	1936.56	AMEC-2020	11.900000	124.860	126.208400	125.9866	126.4139	0.00520	2.34	8.652	21.71	0.67
DoylesR	TR014	1904.43	AMEC-2020	11.900000	124.720	125.889300	125.8893	126.1882	0.00934	2.80	6.806	12.19	0.88
DoylesR	TR014	1867.03	AMEC-2020	11.900000	124.610	125.647700	125.3737	125.7442	0.00438	1.77	12.018	24.90	0.59
DoylesR	TR014	1801.50	AMEC-2020	11.900000	124.000	125.049700	125.0497	125.2912	0.01098	2.81	7.668	16.21	0.93
DoylesR	TR014	1765.57	AMEC-2020	11.900000	123.200	123.744000	123.9333	124.4365	0.06786	4.19	4.193	18.20	2.05
DoylesR	TR014	1703.29	AMEC-2020	11.900000	121.820	122.758400	122.7963	122.9982	0.01004	2.54	8.224	24.37	0.88
DoylesR	TR014	1657.91	AMEC-2020	11.900000	121.270	122.010300	122.1158	122.3591	0.02007	2.85	5.955	18.92	1.18
DoylesR	TR014	1607.98	AMEC-2020	11.900000	120.590	121.450700	121.4776	121.5938	0.01054	2.33	11.994	47.34	0.88
DoylesR	TR014	1544.18	AMEC-2020	11.900000	119.810	120.676700	120.7271	120.8560	0.01252	2.59	10.662	42.05	0.96
DoylesR	TR014	1492.70	AMEC-2020	11.900000	119.060	119.708000	119.7866	119.9630	0.02476	2.96	8.548	40.89	1.29
DoylesR	TR014	1441.23	AMEC-2020	11.900000	117.590	118.686300	118.7722	119.0188	0.01382	3.31	7.494	19.88	1.06
DoylesR	TR014	1420.98	AMEC-2020	11.900000	116.980	118.310300	117.7997	118.3751	0.00199	1.45	12.820	14.11	0.42
DoylesR	TR014	1411.86	AMEC-2020	11.900000	117.030	118.198100	117.8123	118.3388	0.00390	1.96	7.870	12.46	0.58
DoylesR	TR014	1400		Bridge									
DoylesR	TR014	1384.41	AMEC-2020	13.600000	116.710	117.568500	117.5685	117.9369	0.01430	2.89	5.326	9.94	1.04

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR014	1374.60	AMEC-2020	13.600000	116.540	117.514200	117.3993	117.7175	0.00765	2.23	7.797	11.92	0.77
DoylesR	TR014	1353.25	AMEC-2020	13.600000	116.210	117.178800	117.1788	117.5004	0.01257	2.84	6.340	10.45	0.99
DoylesR	TR014	1309.14	AMEC-2020	13.600000	115.500	116.281900	116.3887	116.7667	0.02222	3.10	4.513	8.05	1.24
DoylesR	TR014	1296.25	AMEC-2020	13.600000	115.120	116.131600	116.2205	116.6053	0.01805	3.51	5.271	8.27	1.19
DoylesR	TR014	1239.25	AMEC-2020	13.600000	113.430	114.122900	114.3865	114.9059	0.05014	4.42	4.260	11.91	1.86
DoylesR	TR014	1203.69	AMEC-2020	13.600000	112.840	113.703800	113.6189	113.8114	0.00910	2.29	11.303	26.17	0.83
DoylesR	TR014	1182.25	AMEC-2020	13.600000	112.530	113.366000	113.3660	113.5661	0.01321	2.63	9.095	21.47	0.99
DoylesR	TR014	1125.25	AMEC-2020	13.600000	111.300	112.563700	112.3092	112.6305	0.00339	1.77	15.270	24.48	0.53
DoylesR	TR014	1104.23	AMEC-2020	13.600000	111.160	112.212100	112.2121	112.4845	0.01319	2.93	8.113	17.71	1.01
DoylesR	TR014	1094.88	AMEC-2020	13.600000	110.550	111.404200	111.6529	112.2135	0.04684	5.07	4.627	11.06	1.86
DoylesR	TR014	1075.36	AMEC-2020	13.600000	110.170	111.231700	111.3062	111.5510	0.01713	3.54	8.310	19.71	1.16
DoylesR	TR014	1027.18	AMEC-2020	13.600000	109.150	109.990900	110.1299	110.4581	0.03045	3.83	6.327	16.73	1.47
DoylesR	TR014	980.74	AMEC-2020	13.600000	107.890	108.996600	108.6783	109.0696	0.00382	1.77	14.249	21.83	0.56
DoylesR	TR014	954.47	AMEC-2020	13.600000	107.680	108.692200	108.6922	108.8978	0.01093	2.68	10.062	24.59	0.92
DoylesR	TR014	934.37	AMEC-2020	13.600000	106.990	107.915300	108.1389	108.4531	0.02951	3.95	6.132	16.62	1.46
DoylesR	TR014	907.24	AMEC-2020	13.600000	106.520	107.428700	107.4236	107.5840	0.01274	2.73	11.080	27.51	0.98
DoylesR	TR014	868.80	AMEC-2020	13.600000	105.880	106.895300	106.8953	107.1254	0.01079	2.66	9.270	21.99	0.92
DoylesR	TR014	864.98	AMEC-2020	13.600000	105.700	106.789200	106.7951	107.0709	0.01048	2.60	7.458	15.75	0.90
DoylesR	TR014	844.06	AMEC-2020	13.600000	105.100	106.356000	106.2237	106.5552	0.00666	2.44	9.073	14.43	0.75
DoylesR	TR014	836.52	AMEC-2020	13.600000	104.970	106.144800	106.1448	106.4779	0.01261	3.01	6.984	12.94	0.99
DoylesR	TR014	816.09	AMEC-2020	13.600000	104.780	105.429900	105.6132	105.9840	0.05323	4.06	5.359	19.85	1.85
DoylesR	TR014	811.48	AMEC-2020	13.600000	104.640	105.672800	105.4445	105.7573	0.00489	1.84	13.359	24.21	0.62
DoylesR	TR014	783.28	AMEC-2020	13.600000	103.980	105.193800	105.1938	105.5238	0.01247	3.29	6.991	10.69	1.01
DoylesR	TR014	751.27	AMEC-2020	13.600000	103.310	104.317300	104.4952	104.9290	0.02647	3.58	4.393	8.83	1.37
DoylesR	TR014	717.94	AMEC-2020	13.600000	102.630	104.020500	104.0455	104.3039	0.01032	3.24	8.301	14.13	0.92
DoylesR	TR014	676.43	AMEC-2020	13.600000	102.180	103.236100	103.3061	103.7147	0.01957	3.46	6.101	14.59	1.21
DoylesR	TR014	601.44	AMEC-2020	13.600000	101.390	102.406100	102.2843	102.5164	0.00652	2.04	11.383	23.11	0.71
DoylesR	TR014	540.83	AMEC-2020	13.600000	100.490	101.568100	101.5464	101.9509	0.01345	3.03	6.149	13.93	1.03
DoylesR	TR014	519.25	AMEC-2020	13.600000	99.690	101.799900	101.5085	101.8145	0.00055	0.90	36.433	66.16	0.20
DoylesR	TR014	510		Culvert									
DoylesR	TR014	505.00	AMEC-2020	13.600000	99.620	101.552200	101.5522	101.5927	0.00157	1.42	25.579	61.32	0.33
DoylesR	TR014	484.27	AMEC-2020	13.600000	99.790	100.707700	100.9322	101.3242	0.04296	4.37	5.088	14.18	1.69
DoylesR	TR014	426.15	AMEC-2020	13.600000	98.710	99.919970	99.9238	100.1911	0.00970	2.54	8.068	23.80	0.86
DoylesR	TR014	368.05	AMEC-2020	13.600000	97.300	98.424130	98.6683	99.1855	0.03825	4.44	4.846	14.59	1.61
DoylesR	TR014	343.01	AMEC-2020	13.600000	96.780	98.428960	97.8333	98.5702	0.00222	1.74	8.739	81.42	0.45
DoylesR	TR014	335		Bridge									
DoylesR	TR014	331.91	AMEC-2020	13.600000	96.630	97.971240	97.9712	98.4006	0.01056	3.05	5.269	7.27	0.93
DoylesR	TR014	312.09	AMEC-2020	13.600000	96.260	97.490710	97.6516	98.0406	0.03048	3.74	6.481	29.72	1.39
DoylesR	TR014	227.09	AMEC-2020	13.600000	94.660	96.503370	96.1816	96.5580	0.00218	1.58	18.378	29.28	0.41
DoylesR	TR014	205.76	AMEC-2020	13.600000	94.510	96.207890	96.2079	96.4607	0.00746	2.70	9.407	19.82	0.75
DoylesR	TR014	198.96	AMEC-2020	13.600000	94.450	95.202380	95.5214	96.2627	0.07276	4.65	3.329	11.08	2.15
DoylesR	TR014	181.77	AMEC-2020	13.600000	94.010	95.217430	95.2491	95.4519	0.01114	2.76	9.440	23.66	0.92
DoylesR	TR014	121.12	AMEC-2020	13.600000	92.990	94.155270	94.2744	94.5544	0.01800	3.39	9.625	57.38	1.15
DoylesR	TR014	34.73	AMEC-2020	13.600000	91.600	92.522350	92.6248	92.9622	0.02087	3.21	5.483	11.00	1.23
DoylesR	TR012	1780.65	AMEC-2020	33.200000	90.300	92.386960	91.8076	92.4806	0.00148	1.57	36.854	66.67	0.38
DoylesR	TR012	1753.67	AMEC-2020	33.200000	89.560	92.419500	91.3614	92.4464	0.00030	0.98	77.839	97.53	0.19
DoylesR	TR012	1745		Bridge									
DoylesR	TR012	1729.43	AMEC-2020	33.200000	89.100	91.224220	91.2242	92.1206	0.01032	4.30	8.186	15.79	0.98
DoylesR	TR012	1709.20	AMEC-2020	33.200000	88.930	90.457630	90.8347	91.6779	0.03267	5.84	9.805	20.12	1.64
DoylesR	TR012	1645.76	AMEC-2020	33.200000	88.200	89.436480	89.4922	89.9251	0.01689	3.70	12.786	18.34	1.17
DoylesR	TR011	1552.47	AMEC-2020	47.700010	86.480	88.860380	88.4822	89.2492	0.00446	3.09	21.581	15.57	0.68
DoylesR	TR011	1530.88	AMEC-2020	47.700010	86.190	88.354600	88.3546	89.0791	0.00989	4.35	15.826	11.77	1.00
DoylesR	TR011	1477.56	AMEC-2020	47.700010	84.430	85.813520	86.3931	87.8810	0.05895	7.29	9.488	13.49	2.20
DoylesR	TR011	1423.69	AMEC-2020	47.700010	83.560	85.706200	85.9262	86.4446	0.00944	4.17	17.727	26.38	0.97
DoylesR	TR011	1370.10	AMEC-2020	47.700010	82.660	83.915790	84.2664	85.3532	0.05660	6.83	12.967	30.08	2.15
DoylesR	TR011	1316.51	AMEC-2020	47.700010	81.170	83.027870	83.2465	83.8360	0.01378	4.51	15.786	19.66	1.14
DoylesR	TR011	1262.92	AMEC-2020	47.700010	79.360	81.079190	81.6751	82.6794	0.03189	6.32	10.900	14.08	1.69
DoylesR	TR011	1209.33	AMEC-2020	47.700010	78.140	80.311340	80.6362	81.3600	0.01563	5.09	13.331	13.45	1.21
DoylesR	TR011	1155.74	AMEC-2020	47.700010	76.810	78.755680	79.2240	80.2384	0.02646	5.99	10.581	10.29	1.53
DoylesR	TR011	1107.39	AMEC-2020	47.700010	76.340	77.885510	78.1748	78.9096	0.02275	4.68	11.750	13.02	1.39
DoylesR	TR011	1057.82	AMEC-2020	47.700010	75.160	77.325070	77.4083	78.0573	0.01125	4.17	14.966	13.23	1.02
DoylesR	TR011	971.36	AMEC-2020	47.700010	73.330	74.244870	74.7606	76.0401	0.06213	5.94	8.035	17.79	2.16
DoylesR	TR011	960		Bridge									
DoylesR	TR011	949.62	AMEC-2020	47.700010	73.080	75.244630	74.4411	75.4887	0.00221	2.19	21.794	22.84	0.48
DoylesR	TR011	929.53	AMEC-2020	47.700010	72.740	74.617160	74.6334	75.2828	0.01077	3.87	14.998	12.78	1.00
DoylesR	TR011	872.05	AMEC-2020	47.700010	72.260	74.013480	74.1747	74.5083	0.01498	4.23	24.040	54.43	1.14
DoylesR	TR011	816.76	AMEC-2020	47.700010	72.000	73.037080	73.0122	73.1643	0.01594	2.97	34.915	94.73	1.06
DoylesR	TR011	760.16	AMEC-2020	47.700010	71.250	72.493220		72.5869	0.00880	2.73	43.682	101.97	0.84
DoylesR	TR011	712.26	AMEC-2020	47.700010	70.340	71.809210	71.8092	72.0393	0.01247	3.52	32.292	87.73	1.02
DoylesR	TR011	663.11	AMEC-2020	47.700010	70.080	71.458620	71.3451	71.5167	0.00626	2.27	54.767	141.79	0.68
DoylesR	TR013	2205.78	AMEC-2020	9.799999	95.880	96.664260	96.4246	96.6732	0.00122	0.83	30.119	111.44	0.30
DoylesR	TR013	2147.59	AMEC-2020	9.799999	95.870	96.556370		96.5760	0.00220	0.95	19.178	64.53	0.39
DoylesR	TR013	2097.40	AMEC-2020	9.799999	95.860	96.282180	96.2822	96.3416	0.01556	1.72	13.006	89.28	0.95
DoylesR	TR013	2011.99	AMEC-2020	9.799999	93.670	94.667420	94.6222	94.8991	0.00893	2.35	5.582	10.92	0.83
DoylesR	TR013	1957.46	AMEC-2020	9.799999	93.050	94.112050	94.1121	94.3799	0.01071	2.88	5.805	12.01	0.93
DoylesR	TR013	1909.18	AMEC-2020	9.799999	92.330	93.191410	93.3438	93.6247	0.02277	3.38	5.648	34.40	1.28
DoylesR	TR013	1861.01	AMEC-2020	9.799999	91.270	92.258670	92.3967	92.6624	0.01778	3.19	5.821	33.06	1.14
DoylesR	TR013	1789.09	AMEC-2020	9.799999	90.000	90.534420	90.6172	90.7958	0.03890	3.08	7.199	56.87	1.54
DoylesR	TR013	1733.37	AMEC-2020	9.799999	89.530	90.253750	90.1472	90.2832	0.00371	1.15	17.892	78.92	0.50
DoylesR	TR013	1677.65	AMEC-2020	9.799999	89.420	89.824000	89.8039	89.8866	0.01809	1.73	10.081	57.08	1.00
DoylesR	TR013	1613.85	AMEC-2020	9.799999	89.110	89.638410		89.6463	0.00165	0.65	27.676	96.83	0.32
DoylesR	TR013	1552.30	AMEC-2020	9.799999	88.820	89.543170		89.5579	0.00181	0.89	23.053	68.66	0.36
DoylesR	TR013	1506.96	AMEC-2020	9.799999	88.810	89.474390		89.4895	0.00178	0.85	22.612	65.03	0.35
DoylesR	TR013	1478.17	AMEC-2020	9.799999	88.800	89.306190		89.3725	0.01461	1.81	10.440	44.08	0.93
DoylesR	TR013	1411.61	AMEC-2020	9.799999	88.110	89.073250		89.1065	0.00175	1.02	14.388	31.98	0.37
DoylesR	TR013	1388.58	AMEC-2020	9.799999	87.450	89.086720	88.8024	89.0909	0.00012	0.39	59.867	161.31	0.11
DoylesR	TR013	1375		Culvert									
DoylesR	TR013	1373.86	AMEC-2020	9.799999	87.320	88.669430	88.5022	88.7942	0.00480	2.18	8.997	17.59	0.62
DoylesR	TR013	1301.72	AMEC-2020	9.799999	86.820	87.955510	87.9555	88.2568	0.01007	2.71	4.972	10.48	0.89
DoylesR	TR013	1246.99	AMEC-2020	9.799999	85.790	86.603740	86.8400	87.2994	0.03463	3.80	2.893	6.21	1.54

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR013	1192.26	AMEC-2020	9.799999	84.790	85.865240	85.7931	86.0823	0.00821	2.35	5.881	10.91	0.80
DoylesR	TR013	1137.53	AMEC-2020	9.799999	84.030	85.230390	85.2304	85.5635	0.01067	2.79	4.709	9.12	0.91
DoylesR	TR013	1082.80	AMEC-2020	9.799999	83.550	84.383130	84.4828	84.6980	0.02791	3.08	5.412	21.28	1.33
DoylesR	TR013	1064.90	AMEC-2020	9.799999	82.570	84.506360	83.7566	84.5316	0.00053	0.83	28.204	117.77	0.21
DoylesR	TR013	1050		Culvert									
DoylesR	TR013	1042.53	AMEC-2020	9.799999	82.410	84.354510	83.5249	84.3624	0.00020	0.55	43.310	118.56	0.13
DoylesR	TR013	1022.06	AMEC-2020	9.799999	82.710	84.024490	83.9007	84.2769	0.00730	2.61	5.567	8.15	0.78
DoylesR	TR013	969.32	AMEC-2020	9.799999	82.400	83.422040	83.4220	83.7545	0.01338	3.05	4.608	7.35	1.02
DoylesR	TR013	915.66	AMEC-2020	9.799999	81.800	82.969560	82.6077	82.9879	0.00109	0.97	21.107	42.85	0.30
DoylesR	TR013	867.93	AMEC-2020	9.799999	81.400	82.870120		82.9183	0.00185	1.45	16.316	39.89	0.40
DoylesR	TR013	809.27	AMEC-2020	9.799999	81.320	82.583490		82.7465	0.00444	1.94	6.581	10.05	0.60
DoylesR	TR013	756.07	AMEC-2020	9.799999	80.750	81.977850	81.9779	82.3681	0.01114	3.17	4.390	6.17	0.96
DoylesR	TR013	702.82	AMEC-2020	9.799999	79.910	80.939030	81.1071	81.5286	0.02259	3.83	3.536	6.48	1.30
DoylesR	TR013	651.60	AMEC-2020	9.799999	78.060	78.921170	79.2319	79.8539	0.04836	4.53	2.652	6.23	1.81
DoylesR	TR013	588.74	AMEC-2020	9.799999	75.890	76.799930	76.9686	77.3576	0.03055	3.36	3.165	7.30	1.41
DoylesR	TR013	543.29	AMEC-2020	9.799999	75.200	76.045770	76.1783	76.3614	0.01473	2.52	4.344	15.23	1.01
DoylesR	TR013	489.08	AMEC-2020	9.799999	73.770	74.898670	75.0247	75.4458	0.01836	3.70	3.645	5.69	1.19
DoylesR	TR013	436.90	AMEC-2020	9.799999	72.110	73.038030	73.3629	73.9675	0.04617	4.33	2.437	4.93	1.74
DoylesR	TR013	383.70	AMEC-2020	9.799999	70.970	72.215970	72.0285	72.2827	0.00244	1.40	13.267	39.92	0.44
DoylesR	TR013	363.75	AMEC-2020	9.799999	70.360	72.174640	71.9122	72.2494	0.00105	1.35	14.098	47.59	0.32
DoylesR	TR013	360		Culvert									
DoylesR	TR013	344.87	AMEC-2020	9.799999	70.320	71.702220	71.7022	71.7156	0.00079	0.86	24.340	48.31	0.24
DoylesR	TR013	324.16	AMEC-2020	9.799999	70.290	70.885280	70.9999	71.4825	0.10118	4.59	4.552	42.25	2.40
DoylesR	TR013	256.30	AMEC-2020	9.799999	69.360	70.301210	70.3012	70.3980	0.01340	2.33	10.101	50.72	0.89
DoylesR	TR013	236.50	AMEC-2020	9.799999	69.350	70.235600	69.9855	70.2392	0.00060	0.45	39.442	116.28	0.19
DoylesR	TR013	162.98	AMEC-2020	9.799999	68.940	70.202670		70.2080	0.00056	0.57	38.009	129.40	0.20
DoylesR	TR013	133.14	AMEC-2020	9.799999	68.760	70.192170		70.1940	0.00019	0.35	56.840	122.41	0.11
DoylesR	TR013	66.14	AMEC-2020	9.799999	68.460	70.178410		70.1813	0.00020	0.41	49.275	183.92	0.12
DoylesR	M001	484.12	AMEC-2020	57.800010	68.080	69.771260	69.7713	69.9659	0.01166	3.18	39.265	96.16	0.94
DoylesR	M001	429.44	AMEC-2020	57.800010	67.720	69.734890	69.2153	69.7601	0.00135	1.28	94.108	139.71	0.33
DoylesR	M001	388.03	AMEC-2020	57.800010	67.530	69.701290		69.7153	0.00081	1.06	126.367	215.24	0.26
DoylesR	M001	344.78	AMEC-2020	57.800010	67.390	69.692270		69.6963	0.00021	0.57	226.460	277.37	0.14
DoylesR	M001	215.64	AMEC-2020	57.800010	67.210	69.688970		69.6898	0.00003	0.23	465.960	395.45	0.05
DoylesR	M001	77.13	AMEC-2020	57.800010	66.620	69.688450		69.6887	0.00001	0.15	798.558	578.66	0.03
CochranePB	M002	8105.53	AMEC-2020	17.300000	140.650	142.543000	141.3927	142.5447	0.00008	0.34	114.663	131.58	0.09
CochranePB	M002	8065.47	AMEC-2020	17.300000	140.640	142.532300		142.5387	0.00029	0.59	65.624	91.15	0.16
CochranePB	M002	8050.98	AMEC-2020	17.300000	139.200	142.518200		142.5359	0.00006	0.66	62.537	81.42	0.13
CochranePB	M002	8024.09	AMEC-2020	17.300000	140.620	142.518200		142.5237	0.00027	0.56	72.818	112.83	0.15
CochranePB	M002	8013.06	AMEC-2020	17.300000	140.420	142.515800		142.5209	0.00021	0.54	77.279	112.16	0.14
CochranePB	M002	8004.70	AMEC-2020	17.300000	140.250	142.516300	141.8023	142.5188	0.00012	0.51	94.360	114.85	0.11
CochranePB	M002	8000		Culvert									
CochranePB	M002	7995.14	AMEC-2020	17.300000	140.370	142.513000	141.6023	142.5174	0.00012	0.51	81.814	98.57	0.11
CochranePB	M002	7964.49	AMEC-2020	17.300000	140.140	142.007800	142.0078	142.3913	0.01035	3.41	9.197	13.21	0.88
CochranePB	M002	7901.64	AMEC-2020	17.300000	139.300	140.771700	140.9769	141.3771	0.02712	3.87	7.770	28.29	1.31
CochranePB	M002	7847.08	AMEC-2020	17.300000	138.680	139.851600	139.7242	139.9230	0.00799	1.84	19.288	51.56	0.70
CochranePB	M002	7812.33	AMEC-2020	17.300000	138.520	139.361300	139.3613	139.4865	0.02576	2.44	14.109	56.35	1.22
CochranePB	M002	7738.34	AMEC-2020	17.300000	137.940	138.984100	138.7501	138.9968	0.00213	0.89	43.136	131.35	0.37
CochranePB	M002	7695.32	AMEC-2020	17.300000	137.670	138.654100	138.6541	138.8036	0.01575	2.22	13.406	42.04	1.00
CochranePB	M002	7609.21	AMEC-2020	17.300000	136.290	137.821000	137.4458	137.8428	0.00098	0.91	39.470	91.87	0.28
CochranePB	M002	7515.77	AMEC-2020	17.300000	136.280	137.684100		137.7207	0.00235	1.30	32.675	104.03	0.42
CochranePB	M002	7476.72	AMEC-2020	17.300000	136.260	137.658800		137.6711	0.00071	0.71	45.328	95.88	0.24
CochranePB	M002	7450.86	AMEC-2020	17.300000	136.250	137.622300		137.6464	0.00138	0.94	34.167	84.01	0.32
CochranePB	M002	7329.89	AMEC-2020	17.300000	136.230	137.324100		137.3749	0.00476	1.43	22.965	77.61	0.57
CochranePB	M002	7253.62	AMEC-2020	17.300000	136.050	137.158400		137.1770	0.00202	0.99	33.913	96.88	0.37
CochranePB	M002	7208.54	AMEC-2020	17.300000	135.880	137.055200		137.0789	0.00256	1.15	34.076	129.88	0.42
CochranePB	M002	7108.13	AMEC-2020	17.300000	135.540	136.535600	136.4738	136.6244	0.01363	2.34	18.407	76.45	0.92
CochranePB	M002	7041.67	AMEC-2020	17.300000	134.910	136.144400		136.2170	0.00458	1.51	22.775	85.69	0.57
CochranePB	M002	6985.71	AMEC-2020	17.300000	134.290	135.691200	135.6912	135.8807	0.00859	2.50	15.223	47.27	0.80
CochranePB	M002	6955.25	AMEC-2020	17.300000	133.480	134.774700	134.9643	135.3878	0.02863	3.63	5.869	12.87	1.38
CochranePB	M002	6863.52	AMEC-2020	17.300000	131.820	132.891100	132.9198	133.0791	0.01957	2.80	12.708	39.03	1.12
CochranePB	M002	6840.09	AMEC-2020	17.300000	131.190	132.176100	132.2610	132.4833	0.03481	3.19	9.968	37.66	1.46
CochranePB	M002	6808.25	AMEC-2020	17.300000	130.510	131.441100	131.5040	131.6902	0.03947	3.15	10.597	42.04	1.50
CochranePB	M002	6767.75	AMEC-2020	17.300000	129.310	130.372000	130.4108	130.5786	0.01954	2.62	12.751	49.47	1.12
CochranePB	M002	6727.78	AMEC-2020	17.300000	128.360	129.515600	129.5834	129.7678	0.02136	2.89	10.918	36.33	1.16
CochranePB	M002	6691.71	AMEC-2020	17.300000	127.960	129.099800	129.0282	129.1604	0.00621	1.62	22.300	75.91	0.64
CochranePB	M002	6651.54	AMEC-2020	17.300000	127.680	128.697400	128.6610	128.8291	0.01159	1.78	12.830	39.81	0.85
CochranePB	M002	6630.83	AMEC-2020	17.300000	127.190	128.468300	128.4683	128.6227	0.00877	2.12	15.375	63.00	0.79
CochranePB	M002	6534.50	AMEC-2020	17.300000	126.300	127.329200	127.3775	127.4980	0.01661	2.35	14.641	71.80	1.03
CochranePB	M002	6507.97	AMEC-2020	17.300000	125.650	126.588400	126.6609	126.8239	0.03801	2.99	11.319	56.70	1.47
CochranePB	M002	6480.50	AMEC-2020	17.300000	124.970	125.953400	125.9772	126.0958	0.02086	2.48	13.958	55.90	1.12
CochranePB	M002	6433.33	AMEC-2020	17.300000	124.090	125.093500	125.1426	125.2904	0.01871	2.26	10.997	38.38	1.07
CochranePB	M002	6400.96	AMEC-2020	17.300000	123.400	124.651700	124.4573	124.7089	0.00458	1.46	21.142	53.74	0.55
CochranePB	M002	6364.18	AMEC-2020	17.300000	123.280	124.654700		124.6624	0.00029	0.44	58.152	126.98	0.15
CochranePB	M002	6314.31	AMEC-2020	17.300000	123.270	124.581700		124.6256	0.00217	1.12	27.016	78.76	0.40
CochranePB	M002	6286.25	AMEC-2020	17.300000	123.260	124.506500		124.5577	0.00276	1.21	24.520	73.29	0.45
CochranePB	M002	6202.53	AMEC-2020	17.300000	122.810	124.086100	124.0035	124.2334	0.00764	2.05	14.346	38.63	0.74
CochranePB	M002	6130.00	AMEC-2020	17.300000	122.300	123.395700	123.3957	123.5751	0.01205	1.96	10.917	35.74	0.88
CochranePB	M002	6040.82	AMEC-2020	17.300000	121.410	122.644400	122.5090	122.6919	0.00315	1.32	26.484	77.70	0.48
CochranePB	M002	6006.95	AMEC-2020	17.300000	121.400	122.606000		122.6236	0.00107	0.65	36.719	101.19	0.27
CochranePB	M002	5976.09	AMEC-2020	17.300000	121.390	122.428600	122.4286	122.5348	0.01398	1.96	16.727	72.98	0.92
CochranePB	M002	5910.40	AMEC-2020	17.300000	120.290	121.562200	121.5925	121.7499	0.01278	2.51	14.417	54.64	0.94
CochranePB	M002	5863.68	AMEC-2020	17.300000	119.620	120.569300	120.6945	120.9262	0.03783	3.01	8.848	42.67	1.50
CochranePB	M002	5811.63	AMEC-2020	17.300000	118.870	119.998500	119.9985	120.1469	0.01317	2.33	14.889	53.70	0.93
CochranePB	M002	5768.42	AMEC-2020	17.300000	117.380	118.384700	118.5899	119.0695	0.06380	3.73	5.245	22.28	1.93
CochranePB	M002	5725.36	AMEC-2020	17.300000	116.480	117.655000	117.6646	117.8465	0.01360	2.34	12.396	42.81	0.95
CochranePB	M002	5678.58	AMEC-2020	17.300000	115.390	116.513500	116.6612	116.9187	0.02720	2.93	7.312	29.34	1.31
CochranePB	M002	5627.04	AMEC-2020	17.300000	114.790	116.263800	115.8984	116.3086	0.00220	1.26	24.832	48.43	0.41
CochranePB	M002	5609.94	AMEC-2020	25.900000	114.770	116.065300		116.1917	0.00682	1.93	21.453	48.17	0.71
CochranePB	M002	5601.00	AMEC-2020	25.900000	114.760	116.068500		116.0798	0.00115	0.81	60.668	114.52	0.29
CochranePB	M002	5568.52	AMEC-2020	25.900000	114.750	116.039600		116.0507	0.00090	0.71	60.013	102.36	0.26

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	5508.20	AMEC-2020	25.900000	114.040	115.703100		115.9152	0.00543	2.17	15.345	24.41	0.67
CochranePB	M002	5473.67	AMEC-2020	25.900000	113.900	115.377800	115.3778	115.6496	0.01109	2.74	15.321	29.34	0.92
CochranePB	M002	5403.83	AMEC-2020	25.900000	110.690	111.955100	112.4693	113.8100	0.08468	6.19	4.817	10.26	2.39
CochranePB	M002	5352.19	AMEC-2020	25.900000	110.270	111.753900	111.8134	112.0509	0.01177	2.75	15.099	49.74	0.94
CochranePB	M002	5309.83	AMEC-2020	25.900000	109.640	111.099900	111.2073	111.4608	0.01649	3.14	15.593	50.56	1.10
CochranePB	M002	5266.90	AMEC-2020	25.900000	109.300	110.672400	110.6964	110.8415	0.01136	2.54	24.120	85.12	0.90
CochranePB	M002	5213.45	AMEC-2020	25.900000	108.810	110.501400	109.9227	110.5206	0.00092	0.88	55.711	90.92	0.27
CochranePB	M002	5162.38	AMEC-2020	48.800010	108.180	110.119300	110.1193	110.3737	0.00854	3.22	36.046	66.46	0.85
CochranePB	M002	5109.83	AMEC-2020	48.800010	108.020	109.558600	109.2194	109.6091	0.00379	1.56	59.964	108.75	0.52
CochranePB	M002	5059.83	AMEC-2020	48.800010	107.540	109.229900		109.3898	0.00730	2.52	42.973	92.97	0.77
CochranePB	M002	5013.20	AMEC-2020	48.800010	107.210	108.912300	108.9123	109.0811	0.00944	2.59	41.682	103.48	0.84
CochranePB	M002	4977.38	AMEC-2020	48.800010	107.070	108.837700	108.5003	108.8661	0.00156	1.22	87.474	156.41	0.36
CochranePB	M002	4908.49	AMEC-2020	48.800010	106.950	108.812700		108.8210	0.00050	0.76	140.461	206.98	0.21
CochranePB	M002	4883.44	AMEC-2020	48.800010	106.940	108.800200		108.8062	0.00032	0.59	162.630	220.53	0.17
CochranePB	M002	4816.97	AMEC-2020	48.800010	106.930	108.789400		108.7955	0.00029	0.57	168.697	234.73	0.16
CochranePB	M002	4757.22	AMEC-2020	48.800010	106.780	108.779900		108.7849	0.00020	0.52	195.788	271.00	0.14
CochranePB	M002	4718.65	AMEC-2020	48.800010	106.770	108.771000		108.7772	0.00026	0.59	189.810	336.82	0.15
CochranePB	M002	4674.22	AMEC-2020	48.800010	106.760	108.750500		108.7653	0.00055	0.86	137.608	268.09	0.23
CochranePB	M002	4633.22	AMEC-2020	48.800010	106.750	108.730500		108.7478	0.00035	0.67	116.819	184.36	0.18
CochranePB	M002	4561.03	AMEC-2020	48.800010	106.740	108.656000		108.7054	0.00118	1.20	69.602	102.17	0.33
CochranePB	M002	4506.74	AMEC-2020	48.800010	106.430	108.310400	108.3104	108.5539	0.00748	2.77	32.807	59.57	0.79
CochranePB	M002	4459.83	AMEC-2020	48.800010	105.660	107.361000	107.5800	107.9855	0.01911	3.96	20.117	47.05	1.23
CochranePB	M002	4409.53	AMEC-2020	48.800010	104.620	106.371000	106.6020	107.0178	0.01961	4.05	18.163	31.93	1.24
CochranePB	M002	4359.83	AMEC-2020	48.800010	103.720	105.566500	105.7778	106.1556	0.01504	3.75	20.757	52.51	1.10
CochranePB	M002	4327.93	AMEC-2020	48.800010	103.170	105.108800	105.3603	105.6926	0.01413	3.69	18.898	37.05	1.08
CochranePB	M002	4265.56	AMEC-2020	48.800010	102.450	104.409600	104.4246	104.8491	0.01191	3.56	22.006	30.66	1.00
CochranePB	M002	4208.11	AMEC-2020	48.800010	101.670	103.429600	103.6147	104.0321	0.01640	3.77	18.563	33.78	1.15
CochranePB	M002	4159.83	AMEC-2020	48.800010	101.120	102.248400	102.3679	102.6583	0.05483	3.77	18.928	48.85	1.81
CochranePB	M002	4109.83	AMEC-2020	48.800010	98.840	100.600700	100.7934	101.2347	0.01746	4.06	20.072	41.97	1.20
CochranePB	M002	4056.00	AMEC-2020	48.800010	97.180	98.963860	99.3276	100.0017	0.02742	4.96	13.515	19.89	1.47
CochranePB	M002	4009.83	AMEC-2020	48.800010	96.330	98.224510	98.3743	98.7188	0.02116	4.42	25.791	65.23	1.26
CochranePB	M002	3969.03	AMEC-2020	48.800010	95.620	97.562240	97.7562	98.1098	0.01195	3.77	23.256	69.96	1.02
CochranePB	M002	3916.58	AMEC-2020	48.800010	94.820	97.007740	97.1789	97.4541	0.01143	3.60	27.907	84.54	0.95
CochranePB	M002	3859.82	AMEC-2020	48.800010	94.340	96.337840	96.5576	96.8505	0.01048	3.37	22.507	79.11	0.93
CochranePB	M002	3810.05	AMEC-2020	48.800010	93.500	95.494930	95.8390	96.2258	0.01503	4.14	17.556	44.14	1.13
CochranePB	M002	3759.83	AMEC-2020	48.800010	93.000	94.714370	94.9049	95.2962	0.01802	4.05	22.016	56.96	1.21
CochranePB	M002	3709.28	AMEC-2020	48.800010	92.330	94.190650	94.3207	94.5298	0.01145	3.31	28.964	84.56	0.96
CochranePB	M002	3661.60	AMEC-2020	48.800010	92.050	93.860820	93.8988	94.0494	0.00748	2.70	44.085	142.69	0.78
CochranePB	M002	3609.83	AMEC-2020	48.800010	91.730	93.501280	93.5132	93.6567	0.00748	2.59	46.108	145.74	0.77
CochranePB	M002	3559.90	AMEC-2020	48.800010	90.870	92.929900	92.9807	93.2204	0.00807	3.12	35.268	84.99	0.82
CochranePB	M002	3509.83	AMEC-2020	48.800010	90.380	92.697430	92.3977	92.7548	0.00184	1.72	70.917	114.74	0.41
CochranePB	M002	3493.23	AMEC-2020	48.800010	90.020	92.269850	92.0921	92.6808	0.00596	3.53	21.689	15.83	0.77
CochranePB	M002	3480		Bridge									
CochranePB	M002	3474.26	AMEC-2020	48.800010	89.910	92.251530	91.6461	92.5062	0.00286	2.60	26.291	16.90	0.55
CochranePB	M002	3466.43	AMEC-2020	48.800010	90.000	92.288450	92.1342	92.4318	0.00203	2.19	56.457	101.54	0.47
CochranePB	M002	3454.35	AMEC-2020	48.800010	89.940	92.045180	91.6100	92.3801	0.00409	2.85	22.213	17.32	0.65
CochranePB	M002	3450		Bridge									
CochranePB	M002	3434.16	AMEC-2020	53.399990	90.360	91.730790	91.7308	92.2601	0.01093	3.47	18.398	20.47	0.98
CochranePB	M002	3413.11	AMEC-2020	53.399990	90.140	91.688930	91.6531	91.8475	0.00764	2.72	45.265	95.36	0.79
CochranePB	M002	3391.58	AMEC-2020	53.399990	90.030	91.600300		91.6928	0.00495	2.29	55.815	106.86	0.65
CochranePB	M002	3371.12	AMEC-2020	53.399990	90.020	91.356970	91.3570	91.5515	0.00877	2.72	41.805	97.04	0.85
CochranePB	M002	3309.87	AMEC-2020	53.399990	89.280	90.765710	90.6793	90.8717	0.00891	2.76	49.825	116.09	0.82
CochranePB	M002	3272.96	AMEC-2020	53.399990	88.730	90.323900	90.3239	90.5115	0.00966	2.86	38.498	90.79	0.86
CochranePB	M002	3219.09	AMEC-2020	53.399990	88.300	89.812270	89.8249	89.9872	0.01059	2.85	40.644	108.85	0.90
CochranePB	M002	3175.54	AMEC-2020	53.399990	87.360	89.631930	89.3843	89.7572	0.00235	1.96	50.820	79.90	0.46
CochranePB	M002	3165		Bridge									
CochranePB	M002	3157.85	AMEC-2020	53.399990	87.500	89.295460	89.3354	89.5656	0.00622	2.80	36.450	84.78	0.73
CochranePB	M002	3135.32	AMEC-2020	53.399990	87.850	89.167990	89.0774	89.2316	0.00506	1.84	62.746	155.40	0.62
CochranePB	M002	3106.53	AMEC-2020	53.399990	87.940	88.846470	88.8465	88.9852	0.02669	2.77	35.860	121.41	1.26
CochranePB	M002	3088.94	AMEC-2020	53.399990	86.840	88.605470	88.5446	88.7430	0.00283	1.90	53.624	151.79	0.50
CochranePB	M002	3080		Bridge									
CochranePB	M002	3075.67	AMEC-2020	53.399990	86.740	88.410100	88.2141	88.4853	0.00199	1.55	65.174	138.74	0.42
CochranePB	M002	3056.89	AMEC-2020	53.399990	87.660	88.344890		88.4128	0.01242	1.22	48.042	155.21	0.77
CochranePB	M002	3007.54	AMEC-2020	53.399990	87.610	88.023220		88.0651	0.00458	0.50	59.874	130.26	0.35
CochranePB	M002	2976.31	AMEC-2020	53.399990	87.510	87.905860		87.9478	0.00502	0.60	59.780	144.23	0.43
CochranePB	M002	2941.08	AMEC-2020	53.399990	86.980	87.777110		87.8017	0.00389	0.97	79.249	224.08	0.47
CochranePB	M002	2920.10	AMEC-2020	53.399990	86.740	87.755410	87.5443	87.7609	0.00045	0.42	168.024	295.51	0.16
CochranePB	M002	2915		Bridge									
CochranePB	M002	2912.75	AMEC-2020	53.399990	86.970	87.752390	87.7524	87.7562	0.00027	0.35	200.702	313.30	0.14
CochranePB	M002	2890.23	AMEC-2020	53.399990	86.650	86.879900	87.0611	87.5344	0.30144	3.38	14.899	82.99	3.19
CochranePB	M002	2823.99	AMEC-2020	53.399990	86.080	87.171010	86.8050	87.1814	0.00133	0.71	121.198	262.15	0.27
CochranePB	M002	2789.49	AMEC-2020	53.399990	86.040	87.147250		87.1570	0.00119	0.64	125.523	274.22	0.26
CochranePB	M002	2741.30	AMEC-2020	53.399990	85.710	87.093110		87.1032	0.00103	0.83	132.571	282.81	0.28
CochranePB	M002	2663.79	AMEC-2020	53.399990	85.580	87.045600		87.0569	0.00103	0.89	130.278	286.79	0.28
CochranePB	M002	2639.38	AMEC-2020	53.399990	85.570	87.014530		87.0277	0.00117	0.90	118.709	245.34	0.30
CochranePB	M002	2616.24	AMEC-2020	53.399990	85.300	86.999820		87.0103	0.00075	0.84	135.583	245.40	0.25
CochranePB	M002	2539.69	AMEC-2020	53.399990	85.410	86.955280		86.9699	0.00117	0.93	115.350	232.26	0.30
CochranePB	M002	2489.06	AMEC-2020	53.399990	85.180	86.913390		86.9312	0.00130	1.13	108.665	219.88	0.33
CochranePB	M002	2438.28	AMEC-2020	53.399990	84.870	86.854190		86.8821	0.00137	1.24	100.697	185.50	0.34
CochranePB	M002	2384.01	AMEC-2020	53.399990	84.650	86.762450		86.8031	0.00203	1.60	84.316	150.54	0.41
CochranePB	M002	2310.47	AMEC-2020	53.399990	84.330	86.546260		86.6235	0.00326	2.01	70.346	151.79	0.51
CochranePB	M002	2284.63	AMEC-2020	53.399990	84.160	86.492500		86.5423	0.00246	1.76	71.667	111.91	0.43
CochranePB	M002	2240.58	AMEC-2020	53.399990	84.040	86.016340	86.0163	86.3212	0.01039	3.40	30.554	47.31	0.92
CochranePB	M002	2170.94	AMEC-2020	53.399990	82.260	84.155110	84.5665	85.2054	0.02468	5.01	14.640	19.18	1.42
CochranePB	M002	2136.89	AMEC-2020	53.399990	81.720	83.482570	83.7862	84.3128	0.02326	4.35	16.133	25.60	1.36
CochranePB	M002	2100.01	AMEC-2020	53.399990	81.300	83.296530	83.2922	83.6277	0.00984	3.17	28.357	42.41	0.90
CochranePB	M002	2046.85	AMEC-2020	53.399990	80.890	82.804990	82.8050	83.1438	0.00845	2.90	27.452	42.70	0.84
CochranePB	M002	2014.35	AMEC-2020	53.399990	80.470	81.991790	82.1847	82.6496	0.02822	3.99	18.952	41.48	1.43
CochranePB	M002	1990.76	AMEC-2020	53.399990	80.100	82.004260	82.0043	82.2958	0.00994	3.06	29.903	45.50	0.89
CochranePB	M002	1945.20	AMEC-2020	53.399990	79.430	81.704480	81.2962	81.8161	0.00318	2.06	48.502	59.58	0.53

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	1916.67	AMEC-2020	53.399990	79.310	81.548320		81.7040	0.00448	2.43	41.426	53.36	0.62
CochranePB	M002	1871.48	AMEC-2020	53.399990	79.280	81.388550		81.5103	0.00388	2.07	45.438	55.20	0.57
CochranePB	M002	1836.03	AMEC-2020	53.399990	78.830	81.343680		81.4110	0.00152	1.56	61.650	74.18	0.37
CochranePB	M002	1788.63	AMEC-2020	53.399990	78.460	80.890740	80.8907	81.2417	0.00826	3.52	30.295	39.87	0.84
CochranePB	M002	1768.08	AMEC-2020	53.399990	78.140	80.188730	80.3887	80.9608	0.01946	4.70	19.083	27.83	1.26
CochranePB	M002	1733.19	AMEC-2020	53.399990	77.950	80.028680	80.0822	80.3964	0.00917	3.22	29.371	48.98	0.88
CochranePB	M002	1694.89	AMEC-2020	53.399990	77.120	79.494180	78.9701	79.6051	0.00233	1.87	47.128	50.03	0.46
CochranePB	M002	1685.79	AMEC-2020	53.399990	77.060	79.391010		79.5701	0.00432	2.50	40.211	53.58	0.62
CochranePB	M002	1640.51	AMEC-2020	53.399990	76.450	78.907050	78.9071	79.3049	0.00698	3.34	26.315	31.82	0.79
CochranePB	M002	1602.99	AMEC-2020	53.399990	75.010	76.579320	77.1289	78.5459	0.06667	6.57	10.045	17.12	2.22
CochranePB	M002	1585.52	AMEC-2020	53.399990	74.010	75.388890	75.8526	77.1233	0.08931	6.39	10.816	21.67	2.48
CochranePB	M002	1569.47	AMEC-2020	53.399990	73.710	75.055560	75.2890	75.8573	0.04324	4.13	14.383	27.67	1.70
CochranePB	M002	1541.97	AMEC-2020	53.399990	72.310	74.239500	74.4654	75.0454	0.02040	4.40	16.143	20.37	1.28
CochranePB	M002	1510.83	AMEC-2020	53.399990	71.340	72.599740	72.9515	73.8738	0.08063	5.03	10.964	24.20	2.27
CochranePB	M002	1495.27	AMEC-2020	53.399990	71.190	73.116580	72.8243	73.2777	0.00434	1.98	36.407	45.14	0.60
CochranePB	M002	1458.62	AMEC-2020	53.399990	70.580	72.714120	72.7141	73.0104	0.00915	3.58	34.621	52.01	0.89
CochranePB	M002	1419.61	AMEC-2020	53.399990	70.210	72.151280	72.2541	72.5895	0.01210	3.72	25.789	40.05	1.01
CochranePB	M002	1384.56	AMEC-2020	53.399990	69.610	71.987750	72.0114	72.3175	0.00544	2.91	32.069	60.80	0.71
CochranePB	M002	1351.51	AMEC-2020	53.399990	69.540	71.695980	71.8161	72.0935	0.00886	3.49	32.327	78.05	0.89
CochranePB	M002	1311.78	AMEC-2020	53.399990	69.490	71.440700	71.5048	71.6998	0.00824	3.11	40.334	109.84	0.84
CochranePB	M002	1291.19	AMEC-2020	53.399990	69.280	71.056890	71.1968	71.4643	0.01471	3.77	32.319	111.01	1.08
CochranePB	M002	1217.75	AMEC-2020	53.399990	68.700	71.103420	70.4976	71.1361	0.00065	1.10	113.434	212.34	0.26
CochranePB	M002	1200.39	AMEC-2020	53.399990	68.690	70.696310	70.3744	71.0779	0.00534	2.78	19.912	19.35	0.70
CochranePB	M002	1190		Bridge									
CochranePB	M002	1185.68	AMEC-2020	54.699990	68.460	70.571230	70.0843	70.8953	0.00369	2.54	22.106	25.99	0.60
CochranePB	M002	1164.32	AMEC-2020	54.699990	68.650	70.535840	70.5358	70.7571	0.00534	2.77	43.294	106.21	0.70
CochranePB	M002	1132.60	AMEC-2020	54.699990	68.600	69.849630	70.0130	70.3576	0.03162	4.14	25.901	107.20	1.52
CochranePB	M002	1111.68	AMEC-2020	54.699990	68.550	69.902840	69.7397	69.9589	0.00390	1.77	68.519	162.38	0.56
CochranePB	M002	1059.95	AMEC-2020	54.699990	68.380	69.778990		69.8343	0.00335	1.89	71.751	167.90	0.54
CochranePB	M002	998.99	AMEC-2020	54.699990	68.130	69.705970		69.7205	0.00099	1.10	116.817	193.05	0.29
CochranePB	M002	955.54	AMEC-2020	54.699990	68.120	69.699110		69.7018	0.00013	0.39	244.882	259.72	0.11
CochranePB	M002	851.16	AMEC-2020	54.699990	67.620	69.692860		69.6950	0.00008	0.36	281.931	252.89	0.09
CochranePB	M002	798.06	AMEC-2020	54.699990	67.470	69.691380		69.6926	0.00004	0.28	357.385	291.13	0.06
CochranePB	M002	746.77	AMEC-2020	54.699990	67.300	69.690620		69.6914	0.00002	0.21	467.996	325.78	0.05
CochranePB	M002	694.52	AMEC-2020	54.699990	66.980	69.690160		69.6907	0.00001	0.18	562.811	369.84	0.04
CochranePB	M002	669.16	AMEC-2020	54.699990	66.970	69.690020		69.6904	0.00001	0.16	625.104	407.89	0.03
CochranePB	M002	590.19	AMEC-2020	54.699990	66.840	69.689430		69.6897	0.00001	0.14	745.549	489.33	0.03
CochranePB	M002	539.85	AMEC-2020	54.699990	66.810	69.689060		69.6893	0.00001	0.14	763.437	518.22	0.03
CochranePB	M002	488.40	AMEC-2020	54.699990	66.540	69.688750		69.6890	0.00001	0.13	806.678	532.64	0.03
CochranePB	M001	381.27	AMEC-2020	107.800000	66.350	69.686870		69.6877	0.00002	0.24	934.198	618.45	0.05
CochranePB	M001	313.14	AMEC-2020	107.800000	66.280	69.686210		69.6867	0.00001	0.19	1094.542	685.97	0.04

HEC-RAS Plan:

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				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	TR001	439.21	AMEC-2050	43.300000	105.110	106.708900	106.3289	106.7806	0.00226	1.75	53.968	74.17	0.46
RaymondB	TR001	409.42	AMEC-2050	43.300000	104.680	106.628800		106.7150	0.00208	1.93	55.567	82.71	0.46
RaymondB	TR001	380.07	AMEC-2050	43.300000	104.050	106.655700		106.6765	0.00030	0.90	105.178	95.00	0.18
RaymondB	TR001	360.64	AMEC-2050	43.300000	103.600	106.658800	105.3509	106.6695	0.00015	0.69	143.619	111.39	0.13
RaymondB	TR001	350		Bridge									
RaymondB	TR001	344.45	AMEC-2050	43.300000	103.300	105.103500	105.3082	106.2005	0.01747	5.17	10.448	71.31	1.27
RaymondB	TR001	334.13	AMEC-2050	43.300000	103.400	104.334000	104.6886	105.7973	0.05300	5.67	10.686	39.14	2.01
RaymondB	TR001	272.22	AMEC-2050	43.300000	102.830	104.030800	104.0308	104.3048	0.01099	3.14	26.445	46.47	0.97
RaymondB	TR001	218.50	AMEC-2050	43.300000	101.420	102.766500	102.9167	103.5094	0.01803	4.30	16.002	27.34	1.26
RaymondB	TR001	163.97	AMEC-2050	43.300000	100.320	101.909100	101.5598	102.1221	0.00370	2.19	26.065	29.80	0.59
RaymondB	TR001	115.54	AMEC-2050	43.300000	100.000	101.486400	101.4864	101.8454	0.00861	3.32	24.508	41.08	0.89
RaymondB	TR001	56.65	AMEC-2050	43.300000	97.730	98.486470	99.0037	100.4668	0.10114	6.70	8.037	16.23	2.68
RaymondB	M002	6453.60	AMEC-2050	11.400000	118.100	126.021000	118.7336	126.0210	0.00000	0.02	857.911	253.61	0.00
RaymondB	M002	6405.52	AMEC-2050	11.400000	118.000	126.021000		126.0210	0.00000	0.02	860.460	235.17	0.00
RaymondB	M002	6347.04	AMEC-2050	11.400000	124.730	126.018400		126.0208	0.00004	0.22	54.239	44.24	0.06
RaymondB	M002	6247.26	AMEC-2050	11.400000	117.210	118.032400		118.0838	0.00348	1.32	15.153	33.60	0.51
RaymondB	M002	6230.10	AMEC-2050	11.400000	117.200	118.021300		118.0489	0.00143	0.83	19.196	40.61	0.32
RaymondB	M002	6205.35	AMEC-2050	11.400000	117.280	117.996100		118.0079	0.00131	0.72	26.947	54.60	0.30
RaymondB	M002	6143.06	AMEC-2050	11.400000	117.180	117.891600		117.9101	0.00193	0.86	23.205	54.42	0.36
RaymondB	M002	6105.93	AMEC-2050	11.400000	117.170	117.745000		117.7961	0.00434	1.09	14.320	51.94	0.52
RaymondB	M002	6026.35	AMEC-2050	11.400000	116.810	117.520200		117.5459	0.00220	0.92	19.529	43.17	0.39
RaymondB	M002	5933.71	AMEC-2050	11.400000	116.420	117.208000		117.2814	0.00376	1.32	12.067	30.37	0.52
RaymondB	M002	5883.92	AMEC-2050	11.400000	116.120	116.987800		117.0840	0.00408	1.44	9.817	21.16	0.55
RaymondB	M002	5785.15	AMEC-2050	11.400000	115.750	116.541800		116.6320	0.00526	1.47	10.078	21.56	0.60
RaymondB	M002	5732.44	AMEC-2050	11.400000	115.460	116.253700		116.3568	0.00508	1.46	8.884	20.36	0.60
RaymondB	M002	5631.37	AMEC-2050	11.400000	114.850	115.570800	115.5539	115.6797	0.00933	1.70	11.009	43.25	0.78
RaymondB	M002	5500.15	AMEC-2050	11.400000	114.620	115.408600		115.4193	0.00110	0.68	34.577	121.16	0.28
RaymondB	M002	5485.46	AMEC-2050	11.400000	114.530	115.396200		115.4048	0.00074	0.63	41.917	155.02	0.23
RaymondB	M002	5411.19	AMEC-2050	11.400000	114.480	115.300000	115.0501	115.3317	0.00173	0.87	18.059	51.21	0.35
RaymondB	M002	5338.54	AMEC-2050	11.400000	114.410	115.303000	114.7289	115.3053	0.00009	0.22	59.534	105.77	0.08
RaymondB	M002	5278.93	AMEC-2050	11.400000	114.440	115.295200	114.7610	115.2985	0.00014	0.27	49.753	105.59	0.10
RaymondB	M002	5226.60	AMEC-2050	11.400000	114.420	115.286600		115.2902	0.00018	0.29	51.542	120.43	0.11
RaymondB	M002	5171.66	AMEC-2050	11.400000	114.420	115.273900		115.2787	0.00024	0.35	52.400	169.46	0.13
RaymondB	M002	5111.50	AMEC-2050	11.400000	114.420	115.241800		115.2556	0.00072	0.60	28.851	78.92	0.23
RaymondB	M002	5077.48	AMEC-2050	11.400000	114.380	115.223400		115.2344	0.00051	0.50	28.319	56.45	0.19
RaymondB	M002	5017.13	AMEC-2050	11.400000	114.400	115.107600		115.1662	0.00323	1.08	11.023	23.02	0.47
RaymondB	M002	4967.43	AMEC-2050	11.400000	114.070	114.849400		114.9597	0.00527	1.48	8.030	15.33	0.61
RaymondB	M002	4943.43	AMEC-2050	11.400000	113.820	114.741200		114.8459	0.00423	1.52	9.569	20.82	0.56
RaymondB	M002	4910.95	AMEC-2050	11.400000	113.670	114.598500		114.7062	0.00432	1.56	9.937	25.31	0.57
RaymondB	M002	4851.17	AMEC-2050	11.400000	113.470	114.334000		114.4399	0.00471	1.54	10.109	28.03	0.59
RaymondB	M002	4783.73	AMEC-2050	11.400000	113.300	114.055900		114.1218	0.00441	1.20	11.530	33.62	0.54
RaymondB	M002	4732.68	AMEC-2050	11.400000	113.070	113.760400		113.8347	0.00734	1.46	11.570	38.23	0.68
RaymondB	M002	4681.76	AMEC-2050	11.400000	112.350	113.107200	113.1072	113.3433	0.01186	2.24	6.039	15.58	0.91
RaymondB	M002	4673.96	AMEC-2050	11.400000	111.740	112.403200	112.6345	113.1312	0.04974	3.88	3.342	9.81	1.79
RaymondB	M002	4644.78	AMEC-2050	11.400000	110.490	111.170800	111.3728	111.8138	0.03915	3.62	3.458	19.39	1.61
RaymondB	M002	4625.72	AMEC-2050	11.400000	106.750	107.177400	107.6154	109.8720	0.40611	7.27	1.568	6.12	4.59
RaymondB	M002	4615.42	AMEC-2050	11.400000	105.830	106.397000	106.6855	107.4684	0.10591	4.65	2.626	8.63	2.49
RaymondB	M002	4607.06	AMEC-2050	11.400000	105.790	106.777700	106.6577	106.9970	0.00738	2.15	6.105	9.14	0.75
RaymondB	M002	4597.34	AMEC-2050	11.400000	105.760	106.733800		106.9134	0.00739	1.99	7.278	14.58	0.74
RaymondB	M002	4575.18	AMEC-2050	11.400000	105.980	106.420800	106.4208	106.6065	0.03555	2.26	6.207	18.35	1.37
RaymondB	M002	4545.57	AMEC-2050	11.400000	104.650	105.485200	105.5646	105.8535	0.01842	2.82	5.016	11.99	1.14
RaymondB	M002	4522.17	AMEC-2050	11.400000	103.670	104.239300	104.5038	105.0785	0.06429	4.17	3.121	9.59	2.00
RaymondB	M002	4511.42	AMEC-2050	11.400000	103.620	104.621200	104.4031	104.7024	0.00371	1.48	11.479	21.00	0.53
RaymondB	M002	4489.94	AMEC-2050	11.400000	103.590	104.315100	104.3151	104.5491	0.01352	2.31	6.388	15.78	0.97
RaymondB	M002	4466.63	AMEC-2050	11.400000	103.030	104.079300	103.7513	104.1566	0.00254	1.30	10.999	19.20	0.45
RaymondB	M002	4439.46	AMEC-2050	11.400000	103.000	103.836900	103.8369	104.0258	0.00930	2.14	7.938	29.44	0.82
RaymondB	M002	4415.77	AMEC-2050	11.400000	102.780	103.330900	103.4249	103.6514	0.02976	2.63	5.145	16.90	1.34
RaymondB	M002	4385.89	AMEC-2050	11.400000	101.800	102.490400	102.6038	102.8754	0.02234	2.85	4.745	12.21	1.23
RaymondB	M002	4354.01	AMEC-2050	11.400000	101.270	101.960300	102.0063	102.1775	0.01877	2.70	8.131	27.35	1.14
RaymondB	M002	4341.66	AMEC-2050	11.400000	100.840	101.661500	101.7243	101.9486	0.01522	2.57	6.531	22.58	1.04
RaymondB	M002	4332.73	AMEC-2050	11.400000	100.320	100.915900	101.1607	101.6634	0.05561	3.96	3.343	9.85	1.88
RaymondB	M002	4308.73	AMEC-2050	11.400000	98.870	99.421980	99.6463	100.1798	0.06819	4.09	3.465	11.60	2.03
RaymondB	M002	4294.65	AMEC-2050	11.400000	98.450	99.126210	99.2297	99.5280	0.02536	3.00	4.785	11.99	1.30
RaymondB	M002	4263.86	AMEC-2050	11.400000	97.590	98.448190	98.3137	98.5991	0.00639	1.81	7.568	13.52	0.69
RaymondB	M002	4235.25	AMEC-2050	11.400000	97.470	98.977630		98.9952	0.00034	0.64	23.573	25.23	0.18
RaymondB	M001	4130.35	AMEC-2050	53.500010	96.570	98.047490	98.1026	98.6068	0.01285	3.39	17.633	21.43	1.04
RaymondB	M001	4076.94	AMEC-2050	53.500010	96.040	97.742370	97.5845	98.0110	0.00532	2.47	28.038	35.11	0.69
RaymondB	M001	4023.53	AMEC-2050	53.500010	95.940	97.133030	97.1330	97.5620	0.01365	2.98	19.942	29.19	1.03
RaymondB	M001	3978.20	AMEC-2050	53.500010	94.640	96.803570	96.2616	96.9120	0.00197	1.52	43.574	55.18	0.42
RaymondB	M001	3916.71	AMEC-2050	77.199990	94.640	96.489720		96.7167	0.00443	2.53	51.950	64.73	0.65
RaymondB	M001	3863.30	AMEC-2050	77.199990	94.410	96.366390		96.5070	0.00273	2.10	67.448	80.81	0.52
RaymondB	M001	3809.58	AMEC-2050	77.199990	94.090	95.852570	95.8526	96.2586	0.00811	3.30	37.146	46.85	0.87
RaymondB	M001	3756.26	AMEC-2050	77.199990	93.530	95.143010	95.2716	95.7264	0.01175	3.74	29.255	37.44	1.03
RaymondB	M001	3694.37	AMEC-2050	77.199990	92.660	94.163410	94.3725	94.8807	0.01552	3.95	23.405	39.55	1.16
RaymondB	M001	3569.22	AMEC-2050	77.199990	92.150	94.364900	93.4652	94.3897	0.00056	1.04	138.364	149.26	0.24
RaymondB	M001	3527.64	AMEC-2050	77.199990	91.850	94.342220		94.3659	0.00047	1.04	142.268	138.45	0.22
RaymondB	M001	3446.51	AMEC-2050	77.199990	91.140	94.327710		94.3429	0.00018	0.74	206.353	167.48	0.14
RaymondB	M001	3421.64	AMEC-2050	77.199990	91.230	93.624150	93.1960	94.2665	0.00503	3.59	21.981	136.02	0.75
RaymondB	M001	3410		Bridge									
RaymondB	M001	3404.11	AMEC-2050	77.199990	91.230	93.211460	93.2506	94.2080	0.01040	4.46	17.632	102.90	1.03
RaymondB	M001	3380.48	AMEC-2050	77.199990	90.960	93.006720	92.5497	93.1895	0.00285	2.18	56.195	69.68	0.53
RaymondB	M001	3308.92	AMEC-2050	77.199990	90.800	92.759050		92.9602	0.00352	2.44	56.797	71.80	0.59
RaymondB	M001	3216.73	AMEC-2050	77.199990	89.310	92.484600	91.2330	92.7469	0.00156	2.30	34.645	79.51	0.43
RaymondB	M001	3200		Bridge									
RaymondB	M001	3188.78	AMEC-2050	77.199990	89.300	91.630630	91.6306	92.4698	0.00882	4.37	20.977	45.17	0.95
RaymondB	M001	3015.18	AMEC-2050	77.199990	89.180	90.917940	90.6085	91.0866	0.00318	2.11	56.874	67.49	0.55
RaymondB	M001	2876.32	AMEC-2050	77.199990	88.660	90.251470	90.1219	90.5143	0.00655	2.69	42.351	59.12	0.76
RaymondB	M001	2789.37	AMEC-2050	77.199990	88.240	90.072190		90.1515	0.00225	1.77	96.681	161.56	0.46
RaymondB	M001	2681.85	AMEC-2050	77.199990	88.140	89.513120	89.5131	89.7271	0.00996	2.90	54.485	125.60	0.91
RaymondB	M001	2604.32	AMEC-2050	77.199990	87.970	89.370280	89.0463	89.4089	0.00185	1.34	112.007	204.28	0.40

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	M001	2531.57	AMEC-2050	77.199990	87.970	89.335880		89.3464	0.00063	0.73	187.847	286.47	0.23
RaymondB	M001	2385.34	AMEC-2050	77.199990	87.430	89.264250		89.2952	0.00122	1.33	148.029	249.77	0.34
RaymondB	M001	2245.72	AMEC-2050	77.199990	86.990	88.852870	88.7314	89.1021	0.00441	2.53	52.450	107.90	0.65
RaymondB	M001	2194.47	AMEC-2050	77.199990	86.680	88.899990		88.9511	0.00091	1.32	105.978	96.63	0.31
RaymondB	M001	2140.67	AMEC-2050	77.199990	86.590	88.809460		88.8893	0.00142	1.63	83.368	72.29	0.38
RaymondB	M001	2087.60	AMEC-2050	77.199990	86.380	88.670850		88.8028	0.00166	1.81	60.477	47.55	0.41
RaymondB	M001	2069.54	AMEC-2050	77.199990	86.350	88.628780		88.7710	0.00185	1.92	66.849	96.50	0.44
RaymondB	M001	2040.77	AMEC-2050	77.199990	86.250	88.608700		88.7132	0.00139	1.67	79.745	91.17	0.38
RaymondB	M001	1989.18	AMEC-2050	77.199990	86.020	88.547680	87.7843	88.6401	0.00130	1.71	88.665	96.38	0.37
RaymondB	M001	1950.22	AMEC-2050	77.199990	85.790	87.374700	87.3747	88.4134	0.02308	4.89	20.534	34.56	1.41
RaymondB	M001	1885.73	AMEC-2050	77.199990	85.340	87.183270	87.1155	87.5144	0.00698	3.01	40.237	48.80	0.80
RaymondB	M001	1835.84	AMEC-2050	77.199990	84.640	86.581530	86.5815	87.0880	0.01003	3.77	30.985	29.77	0.96
RaymondB	M001	1784.61	AMEC-2050	77.199990	84.100	85.307500	85.5562	86.1558	0.03756	4.79	23.547	39.68	1.69
RaymondB	M001	1733.38	AMEC-2050	77.199990	82.790	84.922130	84.3977	85.0704	0.00233	1.99	57.737	48.64	0.48
RaymondB	M001	1682.15	AMEC-2050	77.199990	82.600	84.508770		84.8704	0.00589	2.85	34.526	34.74	0.74
RaymondB	M001	1630.92	AMEC-2050	77.199990	82.120	84.011580	84.0116	84.5070	0.00810	3.28	30.356	38.74	0.87
RaymondB	M001	1584.49	AMEC-2050	77.199990	81.770	83.788540	83.5432	84.0872	0.00521	2.76	39.993	50.05	0.70
RaymondB	M001	1536.01	AMEC-2050	77.199990	81.310	83.338300	83.3383	83.7731	0.00742	3.29	34.842	46.36	0.83
RaymondB	M001	1477.96	AMEC-2050	77.199990	80.960	82.915800	82.8418	83.3369	0.00731	3.17	34.911	43.09	0.82
RaymondB	M001	1425.99	AMEC-2050	77.199990	80.580	82.782810		83.0256	0.00358	2.47	43.796	41.02	0.59
RaymondB	M001	1372.05	AMEC-2050	77.199990	80.250	82.678720		82.8392	0.00253	2.21	54.319	47.02	0.50
RaymondB	M001	1323.54	AMEC-2050	77.199990	79.110	81.912220	81.3635	82.5755	0.00446	3.61	21.395	17.08	0.71
RaymondB	M001	1315		Bridge									
RaymondB	M001	1303.54	AMEC-2050	77.199990	78.010	80.561070	80.5611	81.6191	0.00995	4.56	16.941	20.32	1.00
RaymondB	M001	1252.39	AMEC-2050	81.300020	78.450	80.330410	80.4903	81.0303	0.01505	4.28	27.032	31.33	1.15
RaymondB	M001	1216.25	AMEC-2050	81.300020	77.860	79.805010	80.0176	80.5123	0.01422	4.44	29.989	42.57	1.15
RaymondB	M001	1189.75	AMEC-2050	81.300020	77.610	79.123290	79.3751	79.9875	0.02667	4.63	24.025	38.11	1.46
RaymondB	M001	1166.20	AMEC-2050	81.300020	76.740	78.265540	78.5686	79.2751	0.03141	5.31	25.916	53.07	1.62
RaymondB	M001	1148.70	AMEC-2050	81.300020	76.500	78.055960	78.2792	78.7255	0.02261	4.38	29.666	54.05	1.36
RaymondB	M001	1116.25	AMEC-2050	81.300020	75.830	77.205150	77.4286	77.9523	0.02375	4.01	23.906	37.64	1.37
RaymondB	M001	1066.09	AMEC-2050	81.300020	75.160	76.846140	76.8228	77.2121	0.00758	2.95	38.810	52.45	0.82
RaymondB	M001	1035.68	AMEC-2050	81.300020	74.730	76.488850	76.4889	76.9527	0.00884	3.31	33.364	40.73	0.90
RaymondB	M001	999.99	AMEC-2050	81.300020	73.320	74.709920	75.2268	76.2613	0.03895	5.76	16.531	21.80	1.79
RaymondB	M001	976.73	AMEC-2050	81.300020	73.030	74.562230	74.8641	75.4503	0.01882	4.47	24.953	40.43	1.29
RaymondB	M001	942.15	AMEC-2050	81.300020	72.180	73.286570	73.6298	74.3130	0.06461	6.20	21.305	35.78	2.21
RaymondB	M001	916.70	AMEC-2050	81.300020	70.820	72.183010	72.4429	73.0694	0.03498	5.47	27.432	65.95	1.70
RaymondB	M001	892.34	AMEC-2050	81.300020	70.360	71.884410	72.0452	72.4809	0.01329	3.79	31.529	51.75	1.08
RaymondB	M001	866.25	AMEC-2050	81.300020	70.040	71.886560	71.4394	72.1031	0.00334	2.21	50.620	65.73	0.57
RaymondB	M001	841.89	AMEC-2050	81.300020	69.920	71.682090	71.6821	71.9921	0.00538	2.77	48.417	93.10	0.71
RaymondB	M001	816.68	AMEC-2050	81.300020	69.740	71.472540	71.5117	71.8258	0.00700	3.13	44.802	78.28	0.81
RaymondB	M001	766.25	AMEC-2050	81.300020	69.160	70.078210	70.3476	70.9898	0.06130	5.33	22.208	45.84	2.09
RaymondB	M001	716.25	AMEC-2050	81.300020	68.390	69.970920	69.7750	70.2169	0.00533	2.55	48.571	68.57	0.70
RaymondB	M001	675.00	AMEC-2050	81.300020	68.140	69.800910		69.9947	0.00441	2.39	53.145	60.49	0.64
RaymondB	M001	615.86	AMEC-2050	81.300020	67.750	69.789420		69.8393	0.00104	1.38	120.986	164.82	0.32
RaymondB	M001	565.77	AMEC-2050	81.300020	67.440	69.763630		69.7960	0.00057	1.11	165.413	240.66	0.25
RaymondB	M001	520.15	AMEC-2050	81.300020	67.260	69.764400		69.7742	0.00021	0.70	269.662	323.27	0.15
RaymondB	M001	468.54	AMEC-2050	81.300020	66.980	69.761770		69.7655	0.00009	0.50	390.352	406.28	0.10
RaymondB	M001	429.18	AMEC-2050	81.300020	66.800	69.761510		69.7629	0.00003	0.31	582.721	506.34	0.06
RaymondB	M001	366.25	AMEC-2050	81.300020	66.650	69.761360		69.7619	0.00001	0.20	897.731	645.06	0.04
RaymondB	M001	341.79	AMEC-2050	81.300020	66.630	69.761360		69.7618	0.00001	0.17	1005.470	687.51	0.03
PettyHR	M002	6270.85	AMEC-2050	118.300000	66.230	69.761150		69.7613	0.00000	0.06	2162.524	866.64	0.01
PettyHR	M002	6218.07	AMEC-2050	118.300000	66.230	69.761050		69.7613	0.00000	0.07	2030.266	852.30	0.01
PettyHR	M002	6095.00	AMEC-2050	118.300000	66.230	69.760900		69.7611	0.00000	0.07	1964.864	857.34	0.01
PettyHR	M002	6004.71	AMEC-2050	118.300000	66.230	69.760810		69.7610	0.00000	0.07	2022.516	886.62	0.01
PettyHR	M001	5825.85	AMEC-2050	190.900000	66.230	69.760310		69.7607	0.00000	0.09	2324.268	848.76	0.02
PettyHR	M001	5685.44	AMEC-2050	190.900000	66.230	69.760010		69.7604	0.00000	0.09	2236.947	737.68	0.02
PettyHR	M001	5516.39	AMEC-2050	212.800000	66.230	69.759320		69.7600	0.00000	0.11	1951.128	630.59	0.02
PettyHR	M001	5279.80	AMEC-2050	212.800000	66.230	69.757440		69.7588	0.00001	0.17	1319.249	426.67	0.03
PettyHR	M001	4996.75	AMEC-2050	212.800000	66.230	69.748170		69.7546	0.00003	0.36	624.564	210.94	0.06
PettyHR	M001	4923.81	AMEC-2050	212.800000	66.230	69.668550		69.7419	0.00044	1.28	206.957	91.26	0.23
PettyHR	M001	4867.41	AMEC-2050	212.800000	66.230	69.565870		69.6984	0.00110	2.02	177.669	100.90	0.37
PettyHR	M001	4817.61	AMEC-2050	212.800000	66.580	69.509790		69.6348	0.00136	2.14	172.910	94.71	0.40
PettyHR	M001	4757.18	AMEC-2050	212.800000	66.430	68.748980	68.7490	69.4162	0.00871	4.59	81.205	70.30	0.97
PettyHR	M001	4675.66	AMEC-2050	212.800000	65.880	68.375810	67.7417	68.6934	0.00344	3.06	101.376	52.60	0.62
PettyHR	M001	4612.84	AMEC-2050	212.800000	64.880	67.037350	67.0374	68.2064	0.01506	5.78	54.461	40.23	1.27
PettyHR	M001	4570.09	AMEC-2050	212.800000	64.620	66.966260	67.0286	67.6987	0.00812	4.39	73.673	56.54	0.94
PettyHR	M001	4500.69	AMEC-2050	212.800000	64.620	66.458010	66.2567	66.8384	0.00538	3.05	93.943	75.66	0.73
PettyHR	M001	4461.12	AMEC-2050	212.800000	64.550	66.132980	66.1330	66.5817	0.01113	3.97	90.723	91.97	1.03
PettyHR	M001	4428.20	AMEC-2050	212.800000	64.410	65.883900	65.6649	66.1684	0.00915	3.34	101.207	90.01	0.91
PettyHR	M001	4395.66	AMEC-2050	212.800000	63.810	65.656810		65.9445	0.00492	2.95	108.539	82.25	0.70
PettyHR	M001	4357.04	AMEC-2050	212.800000	63.340	65.599250		65.7712	0.00254	2.46	138.015	82.01	0.53
PettyHR	M001	4281.82	AMEC-2050	212.800000	62.500	65.537260		65.6519	0.00077	1.63	156.967	60.02	0.30
PettyHR	M001	4166.17	AMEC-2050	212.800000	61.820	65.579400		65.5966	0.00011	0.69	444.267	169.46	0.12
PettyHR	M001	3949.19	AMEC-2050	212.800000	61.310	65.591000		65.5911	0.00000	0.04	5274.903	1318.61	0.01
PettyHR	M001	3936.78	AMEC-2050	212.800000	61.310	65.591010		65.5911	0.00000	0.03	6491.026	1575.70	0.01
PettyHR	M001	3931.39	AMEC-2050	138.100000	61.310	65.591040		65.5911	0.00000	0.02	8167.026	2017.64	0.00
PettyHR	M001	3925.44	AMEC-2050	138.100000	61.310	65.590980		65.5911	0.00000	0.04	4045.333	1005.54	0.01
PettyHR	M001	3867.05	AMEC-2050	138.100000	61.310	65.590970		65.5910	0.00000	0.03	4070.969	991.83	0.01
PettyHR	M001	3643.73	AMEC-2050	138.100000	61.310	65.590940		65.5910	0.00000	0.03	4669.212	1115.30	0.00
PettyHR	M001	3440.60	AMEC-2050	138.100000	61.310	65.590730		65.5909	0.00000	0.06	2374.947	587.22	0.01
PettyHR	M001	3182.65	AMEC-2050	138.100000	61.310	65.590370		65.5907	0.00000	0.08	1775.535	427.74	0.01
PettyHR	M001	3080.13	AMEC-2050	138.100000	61.310	65.590320		65.5906	0.00000	0.07	2101.997	525.22	0.01
PettyHR	M001	3028.13	AMEC-2050	138.100000	61.310	65.590320		65.5905	0.00000	0.06	2296.319	563.07	0.01
PettyHR	M001	2983.09	AMEC-2050	138.100000	61.310	65.590170		65.5905	0.00000	0.08	1869.218	453.42	0.01
PettyHR	M001	2828.46	AMEC-2050	138.100000	61.310	65.589290		65.5902	0.00000	0.13	1103.687	281.27	0.02
PettyHR	M001	2712.72	AMEC-2050	138.100000	61.310	65.586600		65.5894	0.00001	0.24	639.622	183.81	0.04
PettyHR	M001	2671.95	AMEC-2050	138.100000	61.310	65.584940		65.5888	0.00002	0.29	581.536	177.51	0.05
PettyHR	M001	2653.10	AMEC-2050	138.100000	61.310	65.582950		65.5883	0.00002	0.35	500.540	158.65	0.05
PettyHR	M001	2632.46	AMEC-2050	138.100000	61.310	65.568460		65.5861	0.00009	0.69	309.494	126.90	0.11
PettyHR	M001	2596.08	AMEC-2050	138.100000	61.310	65.560300		65.5823	0.00010	0.74	279.109	122.41	0.11

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	2583.24	AMEC-2050	138.100000	60.100	65.481480	63.2297	65.5726	0.00046	1.67	177.796	123.85	0.25
PettyHR	M001	2580		Bridge									
PettyHR	M001	2573.39	AMEC-2050	138.100000	60.000	65.295260	62.7717	65.3548	0.00028	1.31	190.841	98.58	0.19
PettyHR	M001	2551.09	AMEC-2050	138.100000	59.890	65.319720		65.3272	0.00003	0.41	412.071	118.99	0.06
PettyHR	M001	2426.14	AMEC-2050	138.100000	59.270	65.323950		65.3246	0.00000	0.11	1271.001	279.22	0.02
PettyHR	M001	2315.39	AMEC-2050	138.100000	58.720	65.323950		65.3244	0.00000	0.09	1552.613	320.01	0.01
PettyHR	M001	2204.15	AMEC-2050	138.100000	58.160	65.323830		65.3243	0.00000	0.09	1559.593	308.92	0.01
PettyHR	M001	2022.45	AMEC-2050	138.100000	57.260	65.322720		65.3239	0.00000	0.15	945.175	191.80	0.02
PettyHR	M001	1902.10	AMEC-2050	138.100000	56.660	65.321420		65.3234	0.00000	0.20	727.365	128.94	0.03
PettyHR	M001	1879.72	AMEC-2050	138.100000	56.550	65.318670		65.3230	0.00001	0.31	537.852	109.52	0.04
PettyHR	M001	1824.42	AMEC-2050	138.100000	56.280	65.313350		65.3219	0.00002	0.42	359.552	66.67	0.05
PettyHR	M001	1789.72	AMEC-2050	138.100000	56.100	65.308920		65.3208	0.00003	0.49	304.007	55.98	0.06
PettyHR	M001	1724.70	AMEC-2050	138.100000	55.780	65.302900		65.3185	0.00003	0.56	265.718	48.47	0.07
PettyHR	M001	1668.81	AMEC-2050	138.100000	55.500	65.306230	58.4955	65.3152	0.00002	0.43	353.651	66.15	0.05
PettyHR	M001	1647.80	AMEC-2050	138.100000	55.400	65.307650	58.1825	65.3141	0.00001	0.36	410.852	79.75	0.04
PettyHR	M001	1631.79	AMEC-2050	138.100000	63.550	65.008990		65.2863	0.00441	2.33	59.190	40.63	0.62
PettyHR	M001	1615.46	AMEC-2050	140.200000	54.380	56.917890		57.1808	0.00524	3.72	66.958	40.53	0.76
PettyHR	M001	1601.08	AMEC-2050	140.200000	54.000	56.405360	56.4054	57.0306	0.01327	5.72	47.537	37.93	1.20
PettyHR	M001	1586.16	AMEC-2050	140.200000	53.360	55.450220	55.8969	56.6836	0.02856	7.69	33.294	27.26	1.72
PettyHR	M001	1571.98	AMEC-2050	140.200000	52.870	54.724730	55.0487	56.1837	0.03931	8.23	29.569	24.94	1.97
PettyHR	M001	1519.66	AMEC-2050	140.200000	51.620	53.348240	53.5524	54.1937	0.03044	6.78	38.648	39.41	1.70
PettyHR	M001	1467.14	AMEC-2050	140.200000	50.860	52.443500	52.3647	52.8808	0.01597	4.77	50.777	46.64	1.23
PettyHR	M001	1457.30	AMEC-2050	140.200000	50.230	52.131320	52.1313	52.7026	0.01659	5.52	46.210	38.83	1.30
PettyHR	M001	1444.51	AMEC-2050	140.200000	48.300	49.467890	50.1021	52.0317	0.14335	11.44	22.339	32.68	3.48
PettyHR	M001	1415.17	AMEC-2050	140.200000	48.280	50.160340	49.6130	50.3403	0.00476	2.92	77.648	53.93	0.69
PettyHR	M001	1402.15	AMEC-2050	140.200000	47.790	49.694800	49.6948	50.2018	0.01666	5.37	49.414	46.09	1.28
PettyHR	M001	1385.41	AMEC-2050	140.200000	43.100	45.001930	46.0375	49.2875	0.08800	12.22	19.340	20.06	2.94
PettyHR	M001	1370.82	AMEC-2050	140.200000	41.750	43.866630	45.0670	48.0611	0.07617	12.67	19.344	15.93	2.82
PettyHR	M001	1362.66	AMEC-2050	140.200000	39.880	42.449900	43.8860	47.4001	0.06584	13.13	18.310	12.74	2.68
PettyHR	M001	1336.64	AMEC-2050	140.200000	39.870	41.595810	42.5539	44.9143	0.09104	11.95	20.442	19.43	2.97
PettyHR	M001	1309.35	AMEC-2050	140.200000	38.400	39.891370	40.5873	42.2640	0.08246	10.23	22.608	21.99	2.75
PettyHR	M001	1279.20	AMEC-2050	140.200000	35.020	37.538570	38.4020	40.4718	0.04405	10.74	25.907	23.74	2.20
PettyHR	M001	1258.06	AMEC-2050	140.200000	34.010	36.827720	37.9914	39.5865	0.03407	10.27	24.478	15.21	1.98
PettyHR	M001	1221.17	AMEC-2050	140.200000	33.210	34.763070	35.5872	37.6182	0.09434	10.89	20.549	19.22	2.91
PettyHR	M001	1203.34	AMEC-2050	140.200000	32.610	33.990890	34.5031	35.7247	0.08022	9.50	27.171	34.21	2.67
PettyHR	M001	1164.99	AMEC-2050	140.200000	31.370	33.049900	33.2240	33.8207	0.02587	6.13	40.725	41.56	1.57
PettyHR	M001	1153.41	AMEC-2050	140.200000	30.700	31.934980	32.3707	33.2945	0.07067	8.43	29.735	38.33	2.48
PettyHR	M001	1125.74	AMEC-2050	140.200000	29.270	30.643900	30.9300	31.6519	0.04597	7.17	35.445	43.88	2.02
PettyHR	M001	1090.65	AMEC-2050	140.200000	28.120	29.435960	29.6394	30.1254	0.03705	6.09	42.969	60.69	1.79
PettyHR	M001	1059.48	AMEC-2050	140.200000	26.840	28.234160	28.4363	28.9332	0.03875	6.62	43.423	64.55	1.85
PettyHR	M001	1048.77	AMEC-2050	140.200000	26.290	27.628140	27.8664	28.4686	0.04260	6.65	39.461	55.38	1.93
PettyHR	M001	1021.54	AMEC-2050	140.200000	25.470	27.158790	27.2497	27.7844	0.02323	5.87	44.007	43.95	1.48
PettyHR	M001	1003.30	AMEC-2050	140.200000	23.420	25.226500	26.0314	27.0940	0.04705	8.94	25.983	20.97	2.16
PettyHR	M001	994.73	AMEC-2050	140.200000	22.700	25.700340	25.8457	26.6050	0.01287	6.57	42.332	28.43	1.23
PettyHR	M001	961.03	AMEC-2050	140.200000	22.070	24.784430	25.1288	26.0416	0.01958	7.49	35.527	26.00	1.48
PettyHR	M001	944.13	AMEC-2050	140.200000	21.890	23.767280	24.3027	25.5317	0.03961	8.36	27.885	22.97	1.99
PettyHR	M001	924.94	AMEC-2050	140.200000	20.780	22.912400	23.4695	24.7827	0.03738	8.82	26.201	17.81	1.97
PettyHR	M001	905.47	AMEC-2050	140.200000	19.730	22.163430	22.7552	24.1202	0.03084	8.83	26.510	16.43	1.83
PettyHR	M001	883.86	AMEC-2050	140.200000	17.290	21.422390	20.2499	21.6715	0.00171	2.98	79.293	43.70	0.47
PettyHR	M001	875		Bridge									
PettyHR	M001	859.53	AMEC-2050	140.200000	17.250	19.648840	19.6488	20.4719	0.01450	5.83	37.649	30.70	1.23
PettyHR	M001	836.76	AMEC-2050	140.200000	12.800	15.228890	16.3820	19.0304	0.04798	10.99	19.831	11.96	2.29
PettyHR	M001	823.70	AMEC-2050	140.200000	12.860	14.580050	15.2180	18.0521	0.09400	12.05	19.821	18.44	3.00
PettyHR	M001	811.96	AMEC-2050	140.200000	12.850	14.869920	15.4903	16.8540	0.04817	9.74	29.096	30.83	2.23
PettyHR	M001	796.92	AMEC-2050	140.200000	12.740	14.206420	14.6976	15.8902	0.07435	9.72	27.772	34.05	2.62
PettyHR	M001	784.11	AMEC-2050	140.200000	11.820	13.842020	14.2478	15.1540	0.03349	8.05	35.348	37.80	1.85
PettyHR	M001	769.86	AMEC-2050	140.200000	10.940	12.752090	13.3604	14.5639	0.04388	8.59	27.370	23.76	2.08
PettyHR	M001	748.76	AMEC-2050	140.200000	8.370	11.013260	11.8395	13.6920	0.03282	9.52	26.352	20.94	1.91
PettyHR	M001	720.33	AMEC-2050	140.200000	8.080	9.221077	9.9293	12.0100	0.14652	10.89	20.930	28.57	3.46
PettyHR	M001	707.57	AMEC-2050	140.200000	6.850	8.369764	8.9348	10.4358	0.07516	9.87	26.595	33.40	2.63
PettyHR	M001	685.99	AMEC-2050	140.200000	5.310	7.054812	7.5747	8.9650	0.05910	9.47	28.255	32.43	2.37
PettyHR	M001	666.04	AMEC-2050	140.200000	5.030	7.650995	7.1233	7.8710	0.00430	3.42	85.538	72.48	0.69
PettyHR	M001	652.51	AMEC-2050	140.200000	4.660	6.194253	6.1943	7.6078	0.04997	7.95	30.918	35.36	2.13
PettyHR	M001	633.61	AMEC-2050	140.200000	4.400	5.493766	5.8198	6.5275	0.05526	6.65	34.988	77.73	2.13
PettyHR	M001	622.83	AMEC-2050	140.200000	4.090	5.351779	5.3518	5.6800	0.01708	4.08	62.017	118.31	1.22
PettyHR	M001	577.97	AMEC-2050	140.200000	2.480	3.824684	4.0017	4.4361	0.04717	7.05	47.016	111.98	2.02
PettyHR	M001	525.57	AMEC-2050	140.200000	0.510	3.452767	2.4119	3.5169	0.00121	2.01	143.281	124.67	0.38
PettyHR	M001	491.94	AMEC-2050	140.200000	-0.590	3.339588	2.3109	3.4714	0.00110	2.10	130.621	131.47	0.37
PettyHR	M001	485		Bridge									
PettyHR	M001	478.84	AMEC-2050	140.200000	-1.920	2.817975	0.8229	2.9240	0.00056	1.59	142.210	148.99	0.26
PettyHR	M001	439.27	AMEC-2050	140.200000	-1.890	2.849423		2.8697	0.00016	0.87	274.081	134.41	0.14
PettyHR	M001	405.68	AMEC-2050	140.200000	-2.130	2.843014		2.8644	0.00014	0.84	272.035	140.15	0.13
PettyHR	M001	367.80	AMEC-2050	140.200000	-2.020	2.845094		2.8563	0.00005	0.49	338.912	143.68	0.08
PettyHR	M001	338.85	AMEC-2050	140.200000	-2.890	2.845664		2.8545	0.00003	0.43	373.736	128.56	0.06
PettyHR	M001	305.38	AMEC-2050	140.200000	-2.460	2.842235		2.8531	0.00004	0.48	339.570	121.70	0.07
PettyHR	M001	269.29	AMEC-2050	140.200000	-3.520	2.838684		2.8515	0.00004	0.52	317.981	113.46	0.07
PettyHR	M001	238.18	AMEC-2050	140.200000	-3.500	2.831367		2.8495	0.00005	0.62	276.774	106.11	0.09
PettyHR	M001	201.25	AMEC-2050	140.200000	-4.430	2.837754		2.8453	0.00002	0.39	401.296	125.65	0.05
PettyHR	M001	150.84	AMEC-2050	140.200000	-3.340	2.839759		2.8434	0.00001	0.27	572.700	172.79	0.04
PettyHR	M001	105.74	AMEC-2050	140.200000	-2.910	2.839206		2.8430	0.00001	0.27	550.334	155.61	0.04
PettyHR	M001	91.29	AMEC-2050	140.200000	-3.360	2.839255		2.8427	0.00001	0.26	564.079	146.52	0.04
PettyHR	M001	20.04	AMEC-2050	140.200000	-6.190	2.839814		2.8418	0.00000	0.20	757.073	186.23	0.03
PettyHR	M001	12.04	AMEC-2050	140.200000	-6.190	2.820010	-3.3047	2.8399	0.00008	0.70	317.442	186.16	0.08
ForthP	M001	2616.90	AMEC-2050	13.700000	123.090	124.396400	123.3856	124.3975	0.00002	0.16	118.580	148.90	0.05
ForthP	M001	2528.45	AMEC-2050	13.700000	123.090	124.396000		124.3963	0.00001	0.08	194.971	192.33	0.02
ForthP	M001	2324.32	AMEC-2050	13.700000	123.090	124.393300		124.3942	0.00002	0.15	132.641	199.35	0.04
ForthP	M001	2187.52	AMEC-2050	13.700000	123.090	124.392700		124.3929	0.00000	0.06	258.697	281.27	0.02
ForthP	M001	1955.13	AMEC-2050	13.700000	123.090	124.391800		124.3920	0.00000	0.06	299.354	306.45	0.02
ForthP	M001	1773.83	AMEC-2050	13.700000	123.090	124.391500		124.3915	0.00000	0.04	370.959	340.91	0.01
ForthP	M001	1572.85	AMEC-2050	13.700000	123.090	124.391200		124.3912	0.00000	0.04	355.873	315.83	0.01

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
ForthP	M001	1496.60	AMEC-2050	13.700000	123.090	124.391000		124.3911	0.00000	0.05	299.189	271.15	0.01
ForthP	M001	1392.58	AMEC-2050	18.800000	122.980	124.387000	124.0912	124.3896	0.00021	0.50	92.889	163.73	0.14
ForthP	M001	1390		Culvert									
ForthP	M001	1381.72	AMEC-2050	18.800000	122.950	124.154500	124.0326	124.1789	0.00260	1.47	38.535	134.00	0.44
ForthP	M001	1360.50	AMEC-2050	18.800000	122.870	123.930600		124.0595	0.00786	2.30	15.402	34.57	0.78
ForthP	M001	1311.12	AMEC-2050	18.800000	122.520	123.655100		123.7248	0.00529	1.95	20.611	50.69	0.64
ForthP	M001	1261.17	AMEC-2050	18.800000	121.360	122.796700	122.7967	123.2972	0.01247	3.61	7.676	11.02	1.03
ForthP	M001	1211.51	AMEC-2050	18.800000	119.830	121.022700	121.4497	122.2114	0.03963	5.50	4.693	7.03	1.76
ForthP	M001	1161.66	AMEC-2050	18.800000	117.250	118.200900	118.5451	119.6333	0.06874	6.08	4.980	16.79	2.23
ForthP	M001	1112.05	AMEC-2050	18.800000	114.880	115.749900	115.9771	116.4774	0.05176	5.27	6.899	23.92	1.94
ForthP	M001	1062.35	AMEC-2050	18.800000	113.160	114.009700	114.1205	114.3879	0.03197	3.78	7.654	15.33	1.46
ForthP	M001	1041.93	AMEC-2050	18.800000	112.620	113.725800	113.7473	113.9313	0.01380	3.01	12.335	35.85	1.00
ForthP	M001	1031.90	AMEC-2050	18.800000	112.310	113.322700	113.4486	113.7230	0.02970	4.18	10.022	36.80	1.46
ForthP	M001	1011.12	AMEC-2050	18.800000	111.620	112.474000	112.6300	112.9610	0.04521	4.71	8.897	33.89	1.79
ForthP	M001	959.76	AMEC-2050	18.800000	110.310	110.987000	111.0203	111.1456	0.02720	2.86	13.059	53.74	1.31
ForthP	M001	908.93	AMEC-2050	18.800000	109.250	109.748200	109.6952	109.8041	0.01517	1.76	19.276	82.31	0.94
ForthP	M001	856.39	AMEC-2050	18.800000	108.380	108.753700		108.8049	0.01788	1.29	19.013	87.68	0.92
ForthP	M001	806.25	AMEC-2050	18.800000	107.090	107.846400	107.8464	107.9445	0.01824	2.66	17.985	85.99	1.10
ForthP	M001	754.78	AMEC-2050	18.800000	106.120	107.083900	107.0395	107.1432	0.00698	2.08	24.087	87.18	0.72
ForthP	M001	734.50	AMEC-2050	18.800000	105.470	106.444200	106.4442	106.8857	0.02834	3.95	9.375	35.59	1.42
ForthP	M001	724.30	AMEC-2050	18.800000	105.280	106.337000	106.4346	106.6191	0.01658	3.26	12.420	50.00	1.12
ForthP	M001	703.65	AMEC-2050	18.800000	105.020	105.897200	105.9709	106.1653	0.03041	3.96	10.930	37.44	1.45
ForthP	M001	654.47	AMEC-2050	18.800000	103.900	105.234000	104.6493	105.2424	0.00054	0.74	50.226	73.99	0.21
ForthP	M001	605.63	AMEC-2050	18.800000	102.270	103.039800	103.0398	104.9638	0.13926	7.26	3.976	12.84	3.04
ForthP	M001	585.13	AMEC-2050	18.800000	101.550	102.295700	102.4260	102.7878	0.05986	4.60	9.632	57.97	1.98
ForthP	M001	577.30	AMEC-2050	18.800000	101.520	102.065900	102.1208	102.2676	0.05361	3.44	11.087	55.62	1.76
ForthP	M001	557.33	AMEC-2050	18.800000	100.670	101.196500	101.2209	101.3372	0.04007	2.74	12.792	63.27	1.50
ForthP	M001	507.84	AMEC-2050	18.800000	98.920	99.491870	99.4999	99.6027	0.03037	2.52	14.723	75.74	1.32
ForthP	M001	453.33	AMEC-2050	18.800000	96.280	96.838110	96.9247	97.1363	0.06942	3.77	10.931	76.40	2.00
ForthP	M001	402.29	AMEC-2050	18.800000	94.960	95.469380	95.4694	95.6053	0.03662	2.83	12.514	50.14	1.45
ForthP	M001	349.18	AMEC-2050	18.800000	93.640	94.085880	93.9910	94.1337	0.01410	1.39	19.721	69.77	0.86
ForthP	M001	297.76	AMEC-2050	18.800000	92.550	93.375100	93.3751	93.4801	0.01409	2.43	17.385	75.29	0.98
ForthP	M001	246.28	AMEC-2050	18.800000	91.710	92.308530	92.3233	92.4269	0.02670	2.42	15.185	71.10	1.25
ForthP	M001	182.03	AMEC-2050	18.800000	90.940	91.941840	91.6126	91.9585	0.00212	1.12	38.192	93.71	0.39
ForthP	M001	160.27	AMEC-2050	18.800000	90.130	91.947750	91.0485	91.9496	0.00006	0.30	122.136	143.25	0.08
ForthP	M001	150		Culvert									
ForthP	M001	144.74	AMEC-2050	18.800000	89.900	90.844570	90.7540	91.1476	0.00899	2.46	7.857	80.91	0.84
ForthP	M001	124.30	AMEC-2050	18.800000	89.740	90.739450	90.7395	90.8551	0.01080	2.47	19.337	68.82	0.89
ForthP	M001	61.58	AMEC-2050	18.800000	88.750	89.721110	89.7757	89.9522	0.01888	3.18	13.583	46.73	1.17
ForestP	M001	1557.91	AMEC-2050	9.600000	78.250	79.760090	78.4777	79.7603	0.00000	0.06	153.837	122.57	0.02
ForestP	M001	1428.05	AMEC-2050	9.600000	78.250	79.759830		79.7599	0.00000	0.05	210.411	177.87	0.01
ForestP	M001	1315.71	AMEC-2050	9.600000	78.250	79.759730		79.7598	0.00000	0.03	295.732	243.97	0.01
ForestP	M001	1228.83	AMEC-2050	9.600000	78.250	79.759670		79.7597	0.00000	0.03	353.679	292.33	0.01
ForestP	M001	1138.84	AMEC-2050	9.600000	78.250	79.759630		79.7597	0.00000	0.02	414.365	344.65	0.01
ForestP	M001	1077.28	AMEC-2050	9.600000	78.250	79.759600		79.7596	0.00000	0.02	463.804	485.12	0.01
ForestP	M001	1019.12	AMEC-2050	9.600000	78.250	79.759460		79.7596	0.00000	0.05	236.048	289.97	0.01
ForestP	M001	958.61	AMEC-2050	12.400000	78.150	79.729260	79.5024	79.7563	0.00091	0.89	27.323	71.42	0.26
ForestP	M001	955		Culvert									
ForestP	M001	949.85	AMEC-2050	12.400000	77.760	79.624370	79.6244	79.7360	0.00640	1.93	14.390	55.85	0.50
ForestP	M001	913.34	AMEC-2050	12.400000	78.160	79.111340	79.1338	79.3443	0.02682	3.64	7.334	20.00	1.29
ForestP	M001	883.23	AMEC-2050	12.400000	77.540	78.362440	78.4366	78.6024	0.02331	3.22	9.142	39.56	1.27
ForestP	M001	859.61	AMEC-2050	12.400000	76.750	77.519910	77.6196	77.9106	0.03653	3.90	5.624	14.50	1.57
ForestP	M001	831.71	AMEC-2050	12.400000	75.740	76.775700	76.8426	77.1314	0.02233	3.65	6.033	12.08	1.26
ForestP	M001	802.91	AMEC-2050	12.400000	74.660	75.499600	75.7314	76.2142	0.04611	4.71	4.345	10.47	1.80
ForestP	M001	772.90	AMEC-2050	12.400000	73.770	74.584130	74.6796	74.9246	0.03284	3.89	6.081	15.93	1.49
ForestP	M001	737.48	AMEC-2050	12.400000	72.770	73.458050	73.5222	73.7161	0.03332	3.46	6.917	21.52	1.47
ForestP	M001	688.06	AMEC-2050	12.400000	71.800	72.431510	72.4181	72.5455	0.02569	2.72	9.389	33.68	1.21
ForestP	M001	651.32	AMEC-2050	12.400000	70.810	71.454900	71.4414	71.6114	0.02520	2.97	9.040	32.55	1.28
ForestP	M001	600.44	AMEC-2050	12.400000	69.800	70.357570	70.3230	70.4366	0.02071	2.36	13.062	72.79	1.13
ForestP	M001	578.60	AMEC-2050	12.400000	69.310	69.931680	69.9317	70.0110	0.01785	2.36	15.249	90.09	1.07
ForestP	M001	528.92	AMEC-2050	12.400000	68.580	69.766890	69.2933	69.7713	0.00048	0.63	52.703	117.09	0.20
ForestP	M001	478.55	AMEC-2050	12.400000	68.210	69.762810		69.7639	0.00006	0.27	106.124	144.68	0.07
ForestP	M001	430.82	AMEC-2050	12.400000	67.770	69.761640		69.7621	0.00002	0.19	151.627	163.53	0.05
ForestP	M001	378.18	AMEC-2050	12.400000	67.480	69.761560		69.7616	0.00000	0.09	342.782	324.17	0.02
ForestP	M001	328.07	AMEC-2050	12.400000	67.340	69.761470		69.7615	0.00000	0.06	465.261	379.62	0.01
ForestP	M001	277.95	AMEC-2050	12.400000	67.070	69.761410		69.7614	0.00000	0.05	562.726	443.86	0.01
ForestP	M001	195.51	AMEC-2050	12.400000	66.230	69.761390		69.7614	0.00000	0.03	982.224	621.91	0.00
ForestP	M001	158.37	AMEC-2050	12.400000	66.230	69.761400		69.7614	0.00000	0.01	1721.814	714.91	0.00
ForestP	M001	89.11	AMEC-2050	12.400000	66.230	69.761400		69.7614	0.00000	0.01	1906.259	780.37	0.00
DoylesR	TR019	260.51	AMEC-2050	0.400000	124.740	125.139000	124.9452	125.1395	0.00013	0.14	5.676	41.49	0.08
DoylesR	TR019	199.72	AMEC-2050	0.400000	124.550	125.138800		125.1389	0.00000	0.02	40.888	141.61	0.01
DoylesR	TR019	150.00	AMEC-2050	0.400000	124.370	125.138700		125.1387	0.00000	0.02	44.610	164.17	0.01
DoylesR	TR019	100.00	AMEC-2050	0.400000	124.160	125.138500		125.1386	0.00000	0.03	41.354	219.25	0.01
DoylesR	TR019	50.00	AMEC-2050	0.400000	124.180	125.138500		125.1385	0.00000	0.02	69.509	260.85	0.01
DoylesR	TR018	302.01	AMEC-2050	1.700000	127.900	128.509500	128.0713	128.5103	0.00006	0.16	17.552	45.20	0.07
DoylesR	TR018	270.53	AMEC-2050	1.700000	126.190	128.510000	126.9697	128.5100	0.00000	0.02	262.359	244.89	0.00
DoylesR	TR018	260		Culvert									
DoylesR	TR018	257.62	AMEC-2050	1.700000	126.190	128.509900	126.9944	128.5099	0.00000	0.01	267.442	215.49	0.00
DoylesR	TR018	244.68	AMEC-2050	1.700000	125.640	128.509900	126.7122	128.5099	0.00000	0.01	305.680	215.15	0.00
DoylesR	TR018	200		Culvert									
DoylesR	TR018	169.24	AMEC-2050	1.700000	125.400	126.273900	126.2668	126.6714	0.01626	3.21	0.656	76.64	1.12
DoylesR	TR018	131.43	AMEC-2050	1.700000	125.240	125.447400	125.4474	125.4876	0.03799	1.29	2.597	53.19	1.23
DoylesR	TR018	59.79	AMEC-2050	1.700000	124.570	125.184000	124.9098	125.1850	0.00019	0.24	19.678	134.52	0.11
DoylesR	TR017	4043.45	AMEC-2050	9.499998	124.050	125.108700		125.1302	0.00146	1.11	23.860	94.63	0.35
DoylesR	TR017	3983.69	AMEC-2050	9.499998	124.040	124.992500		125.0266	0.00233	1.18	20.733	98.13	0.42
DoylesR	TR017	3923.93	AMEC-2050	9.499998	124.030	124.629500	124.6295	124.7407	0.01970	2.08	8.811	44.47	1.08
DoylesR	TR017	3889.37	AMEC-2050	9.499998	123.600	123.810800	123.6621	123.8300	0.00707	0.42	15.536	66.48	0.50
DoylesR	TR017	3781.64	AMEC-2050	9.499998	122.550	123.612800		123.6349	0.00186	1.15	22.347	76.60	0.38
DoylesR	TR017	3768.91	AMEC-2050	9.499998	122.350	123.265300	123.2653	123.5522	0.01290	2.60	4.888	11.15	0.95
DoylesR	TR017	3745.98	AMEC-2050	9.499998	121.860	122.416800	122.5183	122.7737	0.07123	3.53	4.874	33.59	1.96

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR017	3713.18	AMEC-2050	9.499998	120.990	121.629700	121.6721	121.8774	0.01768	2.38	5.030	14.77	1.08
DoylesR	TR017	3692.45	AMEC-2050	9.499998	120.340	121.013400	121.1438	121.3793	0.02918	3.01	4.347	14.54	1.37
DoylesR	TR017	3679.05	AMEC-2050	9.499998	119.970	120.784400	120.8860	121.0818	0.01626	2.78	5.398	24.62	1.08
DoylesR	TR017	3656.84	AMEC-2050	9.499998	117.590	118.114100	118.5557	120.0501	0.19918	6.36	1.688	6.31	3.40
DoylesR	TR017	3603.67	AMEC-2050	9.499998	116.290	117.023500	117.0881	117.2428	0.01837	2.71	6.274	25.04	1.12
DoylesR	TR017	3583.40	AMEC-2050	9.499998	115.960	116.625500	116.6895	116.8392	0.02452	2.83	6.515	29.17	1.26
DoylesR	TR017	3571.14	AMEC-2050	9.499998	115.760	116.310400	116.3538	116.4805	0.03027	2.87	6.788	33.56	1.37
DoylesR	TR017	3545.42	AMEC-2050	9.499998	115.220	115.869100	115.8864	116.0269	0.01811	2.33	6.863	25.44	1.07
DoylesR	TR017	3483.93	AMEC-2050	9.499998	114.350	114.959200	114.9357	115.0110	0.01197	1.89	13.145	71.13	0.87
DoylesR	TR017	3432.55	AMEC-2050	9.499998	113.790	114.554100	114.4889	114.6092	0.00815	1.83	13.874	66.21	0.74
DoylesR	TR017	3345.48	AMEC-2050	9.499998	113.030	113.578500	113.5785	113.6854	0.02483	2.31	8.435	45.01	1.20
DoylesR	TR017	3300.07	AMEC-2050	9.499998	112.420	113.007700	112.8880	113.0237	0.00405	0.98	19.304	78.13	0.49
DoylesR	TR016	918.87	AMEC-2050	3.499999	127.080	128.787400	127.2605	128.7874	0.00000	0.02	399.847	360.37	0.00
DoylesR	TR016	898.71	AMEC-2050	3.499999	126.900	128.787400	128.1507	128.7874	0.00000	0.04	193.389	224.98	0.01
DoylesR	TR016	890		Culvert									
DoylesR	TR016	882.28	AMEC-2050	3.499999	126.880	128.743400	128.1690	128.7435	0.00001	0.08	107.050	159.05	0.02
DoylesR	TR016	877.71	AMEC-2050	3.499999	126.240	128.743400	127.5627	128.7435	0.00000	0.09	126.483	191.01	0.02
DoylesR	TR016	850		Culvert									
DoylesR	TR016	848.13	AMEC-2050	3.499999	126.370	127.663100	127.6631	128.2879	0.01194	3.50	0.999	99.49	1.00
DoylesR	TR016	818.98	AMEC-2050	3.499999	126.360	126.677200	126.8045	127.3861	0.17451	3.93	1.149	12.91	2.87
DoylesR	TR016	768.99	AMEC-2050	3.499999	126.300	126.668000	126.5955	126.6812	0.00417	0.77	8.596	51.72	0.47
DoylesR	TR016	714.09	AMEC-2050	3.499999	125.960	126.384100	126.3127	126.4062	0.00571	0.95	6.757	37.44	0.56
DoylesR	TR016	675.95	AMEC-2050	3.499999	125.740	126.099800	126.0998	126.1501	0.01463	1.35	5.048	46.07	0.87
DoylesR	TR016	659.39	AMEC-2050	3.499999	125.100	125.474500	125.5544	125.6793	0.04264	2.50	2.352	17.16	1.51
DoylesR	TR016	632.80	AMEC-2050	3.499999	124.780	125.281100	125.2811	125.3520	0.01047	1.48	4.335	28.72	0.78
DoylesR	TR016	610.50	AMEC-2050	3.499999	123.780	124.295800	124.4872	124.8183	0.05377	3.54	1.331	5.46	1.78
DoylesR	TR016	549.37	AMEC-2050	3.499999	122.300	122.968000	123.0095	123.1169	0.01593	2.15	3.144	18.59	0.98
DoylesR	TR016	494.31	AMEC-2050	3.499999	120.930	121.592500	121.6911	121.9444	0.02882	2.67	1.429	4.51	1.30
DoylesR	TR016	473.82	AMEC-2050	3.499999	120.180	120.707600	120.8626	121.1742	0.04947	3.13	1.282	5.04	1.68
DoylesR	TR016	459.95	AMEC-2050	3.499999	119.620	120.120400	120.2428	120.5160	0.04427	2.86	1.362	5.32	1.58
DoylesR	TR016	439.99	AMEC-2050	3.499999	119.050	119.746700	119.7635	119.9886	0.01815	2.22	1.725	4.91	1.04
DoylesR	TR016	384.99	AMEC-2050	3.499999	117.070	117.533300	117.7006	118.0923	0.08268	3.32	1.076	4.71	2.07
DoylesR	TR016	329.99	AMEC-2050	3.499999	115.670	116.182400	116.1969	116.2818	0.01589	1.65	3.452	23.80	0.94
DoylesR	TR016	274.18	AMEC-2050	3.499999	114.930	115.334600	115.3416	115.3940	0.01531	1.41	4.978	48.44	0.89
DoylesR	TR016	218.88	AMEC-2050	3.499999	114.350	114.822000	114.8511	114.9086	0.01924	1.63	4.473	50.97	1.01
DoylesR	TR016	165.43	AMEC-2050	3.499999	113.830	114.405600	114.4056	114.4650	0.00820	1.35	5.192	37.11	0.69
DoylesR	TR016	86.48	AMEC-2050	3.499999	112.800	113.253400	113.2891	113.3995	0.02606	1.88	2.491	13.61	1.17
DoylesR	TR016	40.19	AMEC-2050	3.499999	112.210	112.840400	112.7261	112.8512	0.00196	0.73	11.155	62.84	0.35
DoylesR	TR015	3230.71	AMEC-2050	20.600000	111.600	112.568300		112.6279	0.00692	2.07	24.979	79.28	0.72
DoylesR	TR015	3185.04	AMEC-2050	20.600000	111.220	112.185000	112.1721	112.3178	0.01305	2.62	17.578	51.74	0.97
DoylesR	TR015	3133.58	AMEC-2050	20.600000	110.570	111.441100	111.4411	111.5882	0.01642	2.87	16.213	48.53	1.09
DoylesR	TR015	3079.97	AMEC-2050	20.600000	108.170	109.192600	109.5362	110.1655	0.04192	5.00	6.026	12.17	1.77
DoylesR	TR015	3026.43	AMEC-2050	20.600000	107.300	109.181100	108.4011	109.2137	0.00068	1.03	33.846	34.62	0.26
DoylesR	TR015	3001.28	AMEC-2050	20.600000	106.170	109.195700	108.6522	109.1997	0.00011	0.52	93.237	80.80	0.10
DoylesR	TR015	3000		Culvert									
DoylesR	TR015	2988.77	AMEC-2050	20.600000	106.030	108.139400	108.1394	108.3176	0.00329	2.55	24.120	58.10	0.58
DoylesR	TR015	2963.30	AMEC-2050	20.600000	105.690	106.632700	106.9453	107.7952	0.06238	6.05	6.852	20.22	2.12
DoylesR	TR015	2915.60	AMEC-2050	20.600000	104.530	105.689000	105.8009	106.0959	0.01960	3.74	10.816	24.26	1.23
DoylesR	TR015	2867.64	AMEC-2050	20.600000	103.370	104.573700	104.6905	105.0889	0.02702	4.51	9.842	21.66	1.43
DoylesR	TR015	2841.04	AMEC-2050	20.600000	102.400	102.997200	103.1791	103.6557	0.11848	5.28	7.399	28.56	2.66
DoylesR	TR015	2804.73	AMEC-2050	20.600000	101.670	102.566600	102.5077	102.7035	0.01373	2.68	16.182	37.98	1.00
DoylesR	TR015	2742.98	AMEC-2050	20.600000	100.870	101.698900	101.6964	101.8159	0.01711	2.90	19.527	68.80	1.10
DoylesR	TR015	2687.77	AMEC-2050	20.600000	100.070	100.741800	100.7418	100.8475	0.01958	2.59	18.613	75.05	1.14
DoylesR	TR015	2638.14	AMEC-2050	20.600000	98.950	99.775210	99.8477	100.0272	0.02969	3.84	14.173	52.74	1.46
DoylesR	TR015	2593.26	AMEC-2050	20.600000	97.750	98.902320	98.8769	99.0532	0.01089	2.85	17.334	44.37	0.92
DoylesR	TR015	2557.12	AMEC-2050	20.600000	97.530	98.644770		98.7446	0.00792	2.48	21.237	55.79	0.79
DoylesR	TR015	2522.34	AMEC-2050	20.600000	97.260	98.226970	98.2270	98.4125	0.01431	2.74	15.180	43.95	1.02
DoylesR	TR015	2483.94	AMEC-2050	20.600000	96.950	97.705830	97.6677	97.7962	0.01619	2.39	18.317	60.42	1.02
DoylesR	TR015	2438.99	AMEC-2050	20.600000	96.350	97.501080		97.5387	0.00316	1.55	33.254	95.96	0.50
DoylesR	TR015	2387.12	AMEC-2050	20.600000	96.390	97.455610		97.4630	0.00088	0.74	60.429	132.06	0.26
DoylesR	TR015	2352.45	AMEC-2050	20.600000	96.400	97.435440		97.4406	0.00047	0.55	67.456	106.46	0.19
DoylesR	TR015	2283.37	AMEC-2050	20.600000	95.750	97.279880		97.3672	0.00287	1.85	19.658	24.10	0.51
DoylesR	TR015	2231.50	AMEC-2050	20.600000	95.540	96.743530	96.7435	97.0690	0.01408	3.34	10.731	20.85	1.06
DoylesR	TR015	2160.12	AMEC-2050	20.600000	94.930	96.027630	95.9362	96.2061	0.00911	2.49	13.406	22.65	0.84
DoylesR	TR015	2119.11	AMEC-2050	20.600000	94.440	95.547230	95.5472	95.7924	0.01385	3.10	12.969	28.72	1.03
DoylesR	TR015	2075.88	AMEC-2050	20.600000	93.860	94.845250	94.9175	95.1202	0.01711	3.16	13.542	47.04	1.14
DoylesR	TR015	2024.01	AMEC-2050	20.600000	93.190	94.279100	94.2927	94.4556	0.01222	2.81	15.987	47.69	0.96
DoylesR	TR015	1972.14	AMEC-2050	20.600000	92.710	93.783870	93.7886	93.8942	0.01031	2.64	20.924	77.05	0.88
DoylesR	TR015	1921.75	AMEC-2050	20.600000	92.350	93.526030	93.1642	93.5458	0.00186	1.22	39.220	92.04	0.38
DoylesR	TR015	1851.62	AMEC-2050	20.600000	91.240	93.126150	93.1262	93.3692	0.00560	2.81	15.569	32.76	0.70
DoylesR	TR014	2057.49	AMEC-2050	12.500000	125.480	126.616900	126.4338	126.6471	0.00232	1.21	24.420	72.63	0.41
DoylesR	TR014	2037.89	AMEC-2050	12.500000	125.570	126.615600		126.6207	0.00050	0.59	49.629	116.63	0.20
DoylesR	TR014	1988.88	AMEC-2050	12.500000	124.710	126.506100	126.0716	126.5781	0.00116	1.29	17.392	54.93	0.32
DoylesR	TR014	1980		Culvert									
DoylesR	TR014	1975.46	AMEC-2050	12.500000	124.460	126.492100	125.8267	126.5655	0.00090	1.26	14.972	39.99	0.30
DoylesR	TR014	1936.56	AMEC-2050	12.500000	124.860	126.217300	126.0061	126.4463	0.00571	2.46	8.849	22.85	0.71
DoylesR	TR014	1904.43	AMEC-2050	12.500000	124.720	125.912600	125.9126	126.2178	0.00935	2.84	7.092	12.39	0.88
DoylesR	TR014	1867.03	AMEC-2050	12.500000	124.610	125.665800	125.3783	125.7640	0.00438	1.80	12.471	25.12	0.59
DoylesR	TR014	1801.50	AMEC-2050	12.500000	124.000	125.069500	125.0695	125.3147	0.01096	2.84	7.993	16.54	0.93
DoylesR	TR014	1765.57	AMEC-2050	12.500000	123.200	123.752300	123.9513	124.4636	0.06851	4.26	4.346	18.36	2.07
DoylesR	TR014	1703.29	AMEC-2050	12.500000	121.820	122.776200	122.8262	123.0190	0.01002	2.57	8.666	25.39	0.89
DoylesR	TR014	1657.91	AMEC-2050	12.500000	121.270	122.020900	122.1261	122.3841	0.02055	2.91	6.156	19.22	1.20
DoylesR	TR014	1607.98	AMEC-2050	12.500000	120.590	121.459700	121.4712	121.6049	0.01071	2.37	12.418	47.54	0.89
DoylesR	TR014	1544.18	AMEC-2050	12.500000	119.810	120.689200	120.7363	120.8653	0.01229	2.59	11.194	42.53	0.95
DoylesR	TR014	1492.70	AMEC-2050	12.500000	119.060	119.716200	119.7960	119.9725	0.02481	2.99	8.883	40.99	1.29
DoylesR	TR014	1441.23	AMEC-2050	12.500000	117.590	118.702200	118.7899	119.0377	0.01389	3.35	7.810	20.03	1.06
DoylesR	TR014	1420.98	AMEC-2050	12.500000	116.980	118.346400	117.8192	118.4127	0.00196	1.47	13.334	14.29	0.42
DoylesR	TR014	1411.86	AMEC-2050	12.500000	117.030	118.229500	117.8360	118.3761	0.00392	2.00	8.097	12.56	0.59
DoylesR	TR014	1400		Bridge									
DoylesR	TR014	1384.41	AMEC-2050	14.300000	116.710	117.590600	117.5906	117.9742	0.01436	2.95	5.485	9.99	1.05

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR014	1374.60	AMEC-2050	14.300000	116.540	117.539400	117.4211	117.7481	0.00758	2.27	8.098	12.04	0.77
DoylesR	TR014	1353.25	AMEC-2050	14.300000	116.210	117.202400	117.2024	117.5326	0.01250	2.89	6.589	10.58	0.99
DoylesR	TR014	1309.14	AMEC-2050	14.300000	115.500	116.302000	116.4140	116.8036	0.02207	3.15	4.676	8.13	1.25
DoylesR	TR014	1296.25	AMEC-2050	14.300000	115.120	116.156800	116.2479	116.6420	0.01789	3.56	5.481	8.36	1.19
DoylesR	TR014	1239.25	AMEC-2050	14.300000	113.430	114.136900	114.4050	114.9440	0.05038	4.50	4.429	12.18	1.87
DoylesR	TR014	1203.69	AMEC-2050	14.300000	112.840	113.721500	113.6335	113.8302	0.00896	2.31	11.771	26.44	0.82
DoylesR	TR014	1182.25	AMEC-2050	14.300000	112.530	113.381200	113.3812	113.5860	0.01326	2.67	9.422	21.66	0.99
DoylesR	TR014	1125.25	AMEC-2050	14.300000	111.300	112.598500	112.3225	112.6641	0.00324	1.77	16.131	25.00	0.52
DoylesR	TR014	1104.23	AMEC-2050	14.300000	111.160	112.209800	112.2098	112.5141	0.01477	3.10	8.072	17.67	1.06
DoylesR	TR014	1094.88	AMEC-2050	14.300000	110.550	111.425600	111.6611	112.2357	0.04572	5.10	4.867	11.32	1.85
DoylesR	TR014	1075.36	AMEC-2050	14.300000	110.170	111.245300	111.3253	111.5732	0.01747	3.61	8.578	19.88	1.17
DoylesR	TR014	1027.18	AMEC-2050	14.300000	109.150	110.009500	110.1555	110.4775	0.02980	3.85	6.640	17.03	1.47
DoylesR	TR014	980.74	AMEC-2050	14.300000	107.890	109.014600	108.6958	109.0910	0.00393	1.82	14.644	22.10	0.57
DoylesR	TR014	954.47	AMEC-2050	14.300000	107.680	108.714700	108.7147	108.9186	0.01065	2.69	10.623	25.30	0.91
DoylesR	TR014	934.37	AMEC-2050	14.300000	106.990	107.958900	108.1576	108.4933	0.02736	3.95	6.940	21.02	1.42
DoylesR	TR014	907.24	AMEC-2050	14.300000	106.520	107.332400	107.4410	107.6568	0.02914	3.78	8.504	25.97	1.44
DoylesR	TR014	868.80	AMEC-2050	14.300000	105.880	106.927800	106.9113	107.1476	0.01001	2.63	10.004	23.22	0.89
DoylesR	TR014	864.98	AMEC-2050	14.300000	105.700	106.818100	106.8181	107.0980	0.01008	2.61	7.920	16.25	0.89
DoylesR	TR014	844.06	AMEC-2050	14.300000	105.100	106.375100	106.2489	106.5840	0.00686	2.51	9.360	15.65	0.76
DoylesR	TR014	836.52	AMEC-2050	14.300000	104.970	106.192100	106.1921	106.5108	0.01147	2.96	7.622	14.07	0.95
DoylesR	TR014	816.09	AMEC-2050	14.300000	104.780	105.432700	105.6242	106.0330	0.05735	4.23	5.416	19.92	1.93
DoylesR	TR014	811.48	AMEC-2050	14.300000	104.640	105.701700	105.4488	105.7862	0.00474	1.85	14.107	27.65	0.61
DoylesR	TR014	783.28	AMEC-2050	14.300000	103.980	105.218900	105.2189	105.5566	0.01247	3.34	7.261	10.85	1.01
DoylesR	TR014	751.27	AMEC-2050	14.300000	103.310	104.338700	104.5170	104.9649	0.02614	3.63	4.584	8.94	1.37
DoylesR	TR014	717.94	AMEC-2050	14.300000	102.630	104.032000	104.0574	104.3322	0.01087	3.35	8.465	14.23	0.95
DoylesR	TR014	676.43	AMEC-2050	14.300000	102.180	103.271000	103.5005	103.7387	0.01834	3.44	6.638	16.10	1.18
DoylesR	TR014	601.44	AMEC-2050	14.300000	101.390	102.465200	102.3010	102.5606	0.00525	1.91	12.775	23.99	0.64
DoylesR	TR014	540.83	AMEC-2050	14.300000	100.490	101.520100	101.5158	101.9980	0.01796	3.38	5.617	10.36	1.18
DoylesR	TR014	519.25	AMEC-2050	14.300000	99.690	101.810500	101.5254	101.8267	0.00061	0.95	37.136	66.49	0.22
DoylesR	TR014	510		Culvert									
DoylesR	TR014	505.00	AMEC-2050	14.300000	99.620	101.552200	101.5522	101.5969	0.00174	1.49	25.579	61.32	0.35
DoylesR	TR014	484.27	AMEC-2050	14.300000	99.790	100.730600	100.9494	101.3357	0.04090	4.36	5.418	14.58	1.66
DoylesR	TR014	426.15	AMEC-2050	14.300000	98.710	99.937030	99.9723	100.2152	0.00981	2.58	8.485	25.84	0.87
DoylesR	TR014	368.05	AMEC-2050	14.300000	97.300	98.445190	98.6967	99.2032	0.03732	4.47	5.163	15.52	1.60
DoylesR	TR014	343.01	AMEC-2050	14.300000	96.780	98.478110	97.8623	98.6239	0.00220	1.77	9.041	85.60	0.45
DoylesR	TR014	335		Bridge									
DoylesR	TR014	331.91	AMEC-2050	14.300000	96.630	97.999280	97.9993	98.4445	0.01064	3.12	5.440	7.36	0.93
DoylesR	TR014	312.09	AMEC-2050	14.300000	96.260	97.499530	97.6618	98.0691	0.03147	3.83	6.747	30.62	1.42
DoylesR	TR014	227.09	AMEC-2050	14.300000	94.660	96.529360	96.1996	96.5841	0.00217	1.59	19.144	29.67	0.41
DoylesR	TR014	205.76	AMEC-2050	14.300000	94.510	96.223750	96.2238	96.4855	0.00769	2.77	9.724	20.13	0.76
DoylesR	TR014	198.96	AMEC-2050	14.300000	94.450	95.221090	95.5363	96.2826	0.06969	4.67	3.541	11.56	2.12
DoylesR	TR014	181.77	AMEC-2050	14.300000	94.010	95.229130	95.2660	95.4724	0.01149	2.83	9.718	23.89	0.93
DoylesR	TR014	121.12	AMEC-2050	14.300000	92.990	94.164840	94.2836	94.5624	0.01814	3.42	10.180	58.83	1.16
DoylesR	TR014	34.73	AMEC-2050	14.300000	91.600	92.546870	92.6477	92.9902	0.02021	3.24	5.755	11.16	1.22
DoylesR	TR012	1780.65	AMEC-2050	34.900010	90.300	92.478900	91.8419	92.5574	0.00122	1.47	43.310	73.94	0.35
DoylesR	TR012	1753.67	AMEC-2050	34.900010	89.560	92.504590	91.4330	92.5290	0.00028	0.95	86.551	107.20	0.18
DoylesR	TR012	1745		Bridge									
DoylesR	TR012	1729.43	AMEC-2050	34.900010	89.100	91.282100	91.2821	92.2116	0.01030	4.38	8.447	16.46	0.99
DoylesR	TR012	1709.20	AMEC-2050	34.900010	88.930	90.469830	90.8492	91.7538	0.03424	6.01	10.052	20.30	1.68
DoylesR	TR012	1645.76	AMEC-2050	34.900010	88.200	89.465080	89.5188	89.9635	0.01669	3.74	13.314	18.60	1.17
DoylesR	TR011	1552.47	AMEC-2050	50.199990	86.480	88.928540	88.5339	89.3220	0.00436	3.12	22.653	15.88	0.68
DoylesR	TR011	1530.88	AMEC-2050	50.199990	86.190	88.408740	88.4087	89.1529	0.00985	4.42	16.468	11.93	1.00
DoylesR	TR011	1477.56	AMEC-2050	50.199990	84.430	85.842220	86.4291	87.9568	0.05874	7.40	9.877	13.64	2.21
DoylesR	TR011	1423.69	AMEC-2050	50.199990	83.560	85.734760	85.9666	86.5025	0.00972	4.28	18.491	27.14	0.99
DoylesR	TR011	1370.10	AMEC-2050	50.199990	82.660	83.933800	84.3040	85.3820	0.05657	6.91	13.512	30.35	2.15
DoylesR	TR011	1316.51	AMEC-2050	50.199990	81.170	83.074010	83.2887	83.8848	0.01347	4.55	16.713	20.49	1.13
DoylesR	TR011	1262.92	AMEC-2050	50.199990	79.360	81.116870	81.7075	82.7453	0.03164	6.40	11.440	14.57	1.69
DoylesR	TR011	1209.33	AMEC-2050	50.199990	78.140	80.361110	80.6648	81.4310	0.01551	5.16	14.016	14.09	1.21
DoylesR	TR011	1155.74	AMEC-2050	50.199990	76.810	78.799410	79.2522	80.3205	0.02632	6.08	11.036	10.52	1.53
DoylesR	TR011	1107.39	AMEC-2050	50.199990	76.340	77.912270	78.2078	78.9859	0.02319	4.80	12.100	13.14	1.41
DoylesR	TR011	1057.82	AMEC-2050	50.199990	75.160	77.373600	77.4527	78.1220	0.01115	4.23	15.614	13.45	1.02
DoylesR	TR011	971.36	AMEC-2050	50.199990	73.330	74.273200	74.8069	76.1230	0.06100	6.03	8.331	17.85	2.15
DoylesR	TR011	960		Bridge									
DoylesR	TR011	949.62	AMEC-2050	50.199990	73.080	75.277470	74.4885	75.5395	0.00233	2.27	22.137	24.48	0.50
DoylesR	TR011	929.53	AMEC-2050	50.199990	72.740	74.715930	74.7294	75.3484	0.00949	3.79	16.363	17.81	0.95
DoylesR	TR011	872.05	AMEC-2050	50.199990	72.260	73.991290	74.1911	74.6041	0.01854	4.65	22.845	53.00	1.26
DoylesR	TR011	816.76	AMEC-2050	50.199990	72.000	73.071640	73.0118	73.1860	0.01351	2.81	38.221	96.57	0.98
DoylesR	TR011	760.16	AMEC-2050	50.199990	71.250	72.477630		72.5916	0.01084	3.00	42.099	101.25	0.93
DoylesR	TR011	712.26	AMEC-2050	50.199990	70.340	71.885940	71.8859	72.0636	0.00950	3.20	39.577	98.58	0.90
DoylesR	TR011	663.11	AMEC-2050	50.199990	70.080	71.440580	71.3543	71.5124	0.00785	2.52	52.266	134.27	0.76
DoylesR	TR013	2205.78	AMEC-2050	10.300000	95.880	96.677860	96.4319	96.6867	0.00119	0.83	31.657	114.64	0.30
DoylesR	TR013	2147.59	AMEC-2050	10.300000	95.870	96.570320		96.5904	0.00222	0.97	20.112	69.40	0.39
DoylesR	TR013	2097.40	AMEC-2050	10.300000	95.860	96.287860	96.2879	96.3475	0.01548	1.73	13.514	89.72	0.95
DoylesR	TR013	2011.99	AMEC-2050	10.300000	93.670	94.676990	94.6435	94.9244	0.00942	2.43	5.687	11.02	0.85
DoylesR	TR013	1957.46	AMEC-2050	10.300000	93.050	94.145010	94.1450	94.4073	0.01020	2.87	6.211	12.65	0.91
DoylesR	TR013	1909.18	AMEC-2050	10.300000	92.330	93.196340	93.3428	93.6529	0.02403	3.49	5.821	35.47	1.31
DoylesR	TR013	1861.01	AMEC-2050	10.300000	91.270	92.273470	92.4164	92.6678	0.01742	3.20	6.327	35.60	1.13
DoylesR	TR013	1789.09	AMEC-2050	10.300000	90.000	90.538640	90.6230	90.8077	0.04006	3.14	7.441	57.53	1.57
DoylesR	TR013	1733.37	AMEC-2050	10.300000	89.530	90.262020	90.1554	90.2919	0.00374	1.16	18.548	79.88	0.50
DoylesR	TR013	1677.65	AMEC-2050	10.300000	89.420	89.832020	89.8104	89.8950	0.01766	1.74	10.542	58.00	0.99
DoylesR	TR013	1613.85	AMEC-2050	10.300000	89.110	89.649070		89.6571	0.00162	0.65	28.709	97.04	0.32
DoylesR	TR013	1552.30	AMEC-2050	10.300000	88.820	89.554180		89.5693	0.00182	0.91	23.810	68.92	0.36
DoylesR	TR013	1506.96	AMEC-2050	10.300000	88.810	89.484840		89.5004	0.00180	0.86	23.292	65.23	0.35
DoylesR	TR013	1478.17	AMEC-2050	10.300000	88.800	89.322330		89.3854	0.01323	1.77	11.155	44.53	0.89
DoylesR	TR013	1411.61	AMEC-2050	10.300000	88.110	89.090030		89.1245	0.00177	1.05	14.936	33.26	0.37
DoylesR	TR013	1388.58	AMEC-2050	10.300000	87.450	89.104240	88.8024	89.1085	0.00012	0.40	62.737	166.54	0.11
DoylesR	TR013	1375		Culvert									
DoylesR	TR013	1373.86	AMEC-2050	10.300000	87.320	88.693540	88.5022	88.8272	0.00502	2.26	9.461	22.84	0.63
DoylesR	TR013	1301.72	AMEC-2050	10.300000	86.820	87.986440	87.9864	88.2865	0.00973	2.72	5.308	11.22	0.88
DoylesR	TR013	1246.99	AMEC-2050	10.300000	85.790	86.619490	86.8581	87.3437	0.03495	3.88	2.992	6.34	1.56

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR013	1192.26	AMEC-2050	10.300000	84.790	85.876140	85.8253	86.1070	0.00862	2.42	6.001	11.01	0.82
DoylesR	TR013	1137.53	AMEC-2050	10.300000	84.030	85.273020	85.2730	85.5962	0.00990	2.77	5.113	9.85	0.88
DoylesR	TR013	1082.80	AMEC-2050	10.300000	83.550	84.381320	84.4915	84.7349	0.03141	3.26	5.374	21.26	1.41
DoylesR	TR013	1064.90	AMEC-2050	10.300000	82.570	84.499240	83.7921	84.5288	0.00061	0.90	27.378	117.32	0.23
DoylesR	TR013	1050		Culvert									
DoylesR	TR013	1042.53	AMEC-2050	10.300000	82.410	84.392100	83.5650	84.3993	0.00019	0.53	47.978	129.93	0.13
DoylesR	TR013	1022.06	AMEC-2050	10.300000	82.710	84.058580	83.9218	84.3136	0.00716	2.64	5.850	8.42	0.77
DoylesR	TR013	969.32	AMEC-2050	10.300000	82.400	83.439900	83.4399	83.7879	0.01370	3.12	4.740	7.43	1.04
DoylesR	TR013	915.66	AMEC-2050	10.300000	81.800	82.993840	82.6168	83.0121	0.00106	0.97	22.160	43.81	0.30
DoylesR	TR013	867.93	AMEC-2050	10.300000	81.400	82.900890		82.9458	0.00173	1.42	17.570	41.51	0.39
DoylesR	TR013	809.27	AMEC-2050	10.300000	81.320	82.616750		82.7814	0.00434	1.95	6.920	10.34	0.60
DoylesR	TR013	756.07	AMEC-2050	10.300000	80.750	82.006530	82.0065	82.4072	0.01113	3.22	4.569	6.31	0.96
DoylesR	TR013	702.82	AMEC-2050	10.300000	79.910	80.960000	81.1335	81.5665	0.02267	3.90	3.673	6.59	1.31
DoylesR	TR013	651.60	AMEC-2050	10.300000	78.060	78.938300	79.3186	79.8986	0.04832	4.61	2.760	6.38	1.81
DoylesR	TR013	588.74	AMEC-2050	10.300000	75.890	76.815320	76.9923	77.3942	0.03072	3.43	3.278	7.44	1.42
DoylesR	TR013	543.29	AMEC-2050	10.300000	75.200	76.063740	76.1969	76.3856	0.01458	2.56	4.626	16.17	1.01
DoylesR	TR013	489.08	AMEC-2050	10.300000	73.770	74.927830	75.0548	75.4834	0.01806	3.74	3.812	5.81	1.19
DoylesR	TR013	436.90	AMEC-2050	10.300000	72.110	73.055950	73.3815	74.0185	0.04619	4.41	2.526	5.01	1.75
DoylesR	TR013	383.70	AMEC-2050	10.300000	70.970	72.221820	72.0432	72.2932	0.00260	1.45	13.502	40.36	0.46
DoylesR	TR013	363.75	AMEC-2050	10.300000	70.360	72.173390	71.9122	72.2564	0.00117	1.42	14.038	47.36	0.34
DoylesR	TR013	360		Culvert									
DoylesR	TR013	344.87	AMEC-2050	10.300000	70.320	71.702220	71.7022	71.7170	0.00087	0.91	24.340	48.31	0.26
DoylesR	TR013	324.16	AMEC-2050	10.300000	70.290	70.890630	71.0108	71.4847	0.10087	4.63	4.779	42.97	2.40
DoylesR	TR013	256.30	AMEC-2050	10.300000	69.360	70.313330	70.3133	70.4054	0.01275	2.30	10.729	52.71	0.87
DoylesR	TR013	236.50	AMEC-2050	10.300000	69.350	70.246060	69.9819	70.2498	0.00060	0.46	40.658	116.43	0.20
DoylesR	TR013	162.98	AMEC-2050	10.300000	68.940	70.212560		70.2181	0.00058	0.58	39.304	132.75	0.20
DoylesR	TR013	133.14	AMEC-2050	10.300000	68.760	70.201700		70.2037	0.00020	0.36	58.008	122.64	0.12
DoylesR	TR013	66.14	AMEC-2050	10.300000	68.460	70.187360		70.1904	0.00021	0.42	50.943	187.40	0.12
DoylesR	M001	484.12	AMEC-2050	60.699990	68.080	69.835010		69.9887	0.00902	2.90	45.489	100.02	0.83
DoylesR	M001	429.44	AMEC-2050	60.699990	67.720	69.803930		69.8263	0.00116	1.22	103.910	143.75	0.31
DoylesR	M001	388.03	AMEC-2050	60.699990	67.530	69.775650		69.7877	0.00070	1.01	143.379	244.15	0.24
DoylesR	M001	344.78	AMEC-2050	60.699990	67.390	69.767490		69.7712	0.00019	0.55	248.423	298.88	0.13
DoylesR	M001	215.64	AMEC-2050	60.699990	67.210	69.764340		69.7652	0.00003	0.24	496.666	415.16	0.05
DoylesR	M001	77.13	AMEC-2050	60.699990	66.620	69.763850		69.7641	0.00001	0.15	842.554	592.09	0.03
CochranePB	M002	8105.53	AMEC-2050	18.300000	140.650	142.583700	141.4008	142.5854	0.00008	0.34	120.034	132.42	0.09
CochranePB	M002	8065.47	AMEC-2050	18.300000	140.640	142.573200		142.5795	0.00028	0.59	69.388	92.79	0.16
CochranePB	M002	8050.98	AMEC-2050	18.300000	139.200	142.558400		142.5767	0.00006	0.68	65.828	82.35	0.13
CochranePB	M002	8024.09	AMEC-2050	18.300000	140.620	142.558400		142.5637	0.00026	0.55	77.372	113.57	0.15
CochranePB	M002	8013.06	AMEC-2050	18.300000	140.420	142.556100		142.5611	0.00021	0.54	81.822	113.20	0.14
CochranePB	M002	8004.70	AMEC-2050	18.300000	140.250	142.556500	141.8023	142.5591	0.00012	0.51	98.998	115.53	0.11
CochranePB	M002	8000		Culvert									
CochranePB	M002	7995.14	AMEC-2050	18.300000	140.370	142.552100	141.6023	142.5565	0.00012	0.51	85.719	101.33	0.11
CochranePB	M002	7964.49	AMEC-2050	18.300000	140.140	142.057700	142.0577	142.4329	0.00990	3.41	9.871	13.79	0.87
CochranePB	M002	7901.64	AMEC-2050	18.300000	139.300	140.781300	140.9787	141.4181	0.02847	3.99	8.044	28.51	1.34
CochranePB	M002	7847.08	AMEC-2050	18.300000	138.680	139.870400	139.7383	139.9413	0.00773	1.84	20.261	51.84	0.69
CochranePB	M002	7812.33	AMEC-2050	18.300000	138.520	139.369200	139.3692	139.4998	0.02631	2.50	14.558	56.69	1.24
CochranePB	M002	7738.34	AMEC-2050	18.300000	137.940	139.001700	138.7583	139.0144	0.00208	0.90	45.469	135.17	0.37
CochranePB	M002	7695.32	AMEC-2050	18.300000	137.670	138.658900	138.6589	138.8208	0.01690	2.32	13.608	42.15	1.04
CochranePB	M002	7609.21	AMEC-2050	18.300000	136.290	137.836600	137.4624	137.8592	0.00100	0.93	40.982	100.94	0.29
CochranePB	M002	7515.77	AMEC-2050	18.300000	136.280	137.699400		137.7357	0.00234	1.31	34.305	109.01	0.42
CochranePB	M002	7476.72	AMEC-2050	18.300000	136.260	137.673800		137.6867	0.00073	0.73	46.772	96.56	0.24
CochranePB	M002	7450.86	AMEC-2050	18.300000	136.250	137.636700		137.6615	0.00140	0.96	35.378	84.21	0.33
CochranePB	M002	7329.89	AMEC-2050	18.300000	136.230	137.338100		137.3891	0.00471	1.45	24.067	80.55	0.57
CochranePB	M002	7253.62	AMEC-2050	18.300000	136.050	137.170800		137.1900	0.00205	1.01	35.115	97.61	0.37
CochranePB	M002	7208.54	AMEC-2050	18.300000	135.880	137.066700		137.0906	0.00257	1.17	35.579	132.21	0.43
CochranePB	M002	7108.13	AMEC-2050	18.300000	135.540	136.544700	136.4882	136.6349	0.01375	2.37	19.107	77.44	0.93
CochranePB	M002	7041.67	AMEC-2050	18.300000	134.910	136.158700		136.2310	0.00454	1.52	24.014	86.64	0.57
CochranePB	M002	6985.71	AMEC-2050	18.300000	134.290	135.708800	135.7088	135.8976	0.00855	2.52	16.070	49.26	0.80
CochranePB	M002	6955.25	AMEC-2050	18.300000	133.480	134.810100	134.9958	135.4116	0.02657	3.62	6.332	13.38	1.34
CochranePB	M002	6863.52	AMEC-2050	18.300000	131.820	132.895900	132.9347	133.0989	0.02102	2.91	12.894	39.11	1.16
CochranePB	M002	6840.09	AMEC-2050	18.300000	131.190	132.194600	132.2805	132.4898	0.03243	3.16	10.671	38.14	1.42
CochranePB	M002	6808.25	AMEC-2050	18.300000	130.510	131.450900	131.5117	131.7076	0.03984	3.21	11.017	42.66	1.51
CochranePB	M002	6767.75	AMEC-2050	18.300000	129.310	130.384300	130.4361	130.5927	0.01945	2.65	13.364	49.97	1.12
CochranePB	M002	6727.78	AMEC-2050	18.300000	128.360	129.532600	129.6024	129.7841	0.02089	2.91	11.545	37.30	1.16
CochranePB	M002	6691.71	AMEC-2050	18.300000	127.960	129.121600	129.0368	129.1791	0.00577	1.59	23.970	77.70	0.62
CochranePB	M002	6651.54	AMEC-2050	18.300000	127.680	128.706000	128.6737	128.8463	0.01209	1.84	13.176	41.04	0.87
CochranePB	M002	6630.83	AMEC-2050	18.300000	127.190	128.484100	128.4841	128.6380	0.00868	2.13	16.405	66.89	0.79
CochranePB	M002	6534.50	AMEC-2050	18.300000	126.300	127.337700	127.3986	127.5109	0.01694	2.40	15.256	73.54	1.04
CochranePB	M002	6507.97	AMEC-2050	18.300000	125.650	126.598800	126.6548	126.8338	0.03727	3.01	11.913	57.82	1.46
CochranePB	M002	6480.50	AMEC-2050	18.300000	124.970	125.961700	125.9852	126.1087	0.02123	2.53	14.424	56.07	1.14
CochranePB	M002	6433.33	AMEC-2050	18.300000	124.090	125.109000	125.1555	125.3072	0.01818	2.28	11.609	40.96	1.07
CochranePB	M002	6400.96	AMEC-2050	18.300000	123.400	124.672400	124.4724	124.7305	0.00454	1.48	22.270	55.46	0.55
CochranePB	M002	6364.18	AMEC-2050	18.300000	123.280	124.675800		124.6837	0.00029	0.44	60.843	128.30	0.15
CochranePB	M002	6314.31	AMEC-2050	18.300000	123.270	124.603400		124.6469	0.00212	1.13	28.762	82.44	0.40
CochranePB	M002	6286.25	AMEC-2050	18.300000	123.260	124.527000		124.5796	0.00277	1.24	26.061	76.38	0.45
CochranePB	M002	6202.53	AMEC-2050	18.300000	122.810	124.101700	124.0093	124.2532	0.00774	2.09	14.956	39.22	0.75
CochranePB	M002	6130.00	AMEC-2050	18.300000	122.300	123.411200	123.4112	123.5948	0.01195	2.00	11.475	36.22	0.88
CochranePB	M002	6040.82	AMEC-2050	18.300000	121.410	122.657000	122.5097	122.7057	0.00320	1.34	27.465	78.24	0.49
CochranePB	M002	6006.95	AMEC-2050	18.300000	121.400	122.617200		122.6357	0.00111	0.67	37.852	101.71	0.28
CochranePB	M002	5976.09	AMEC-2050	18.300000	121.390	122.440000	122.4400	122.5461	0.01372	1.97	17.558	73.62	0.92
CochranePB	M002	5910.40	AMEC-2050	18.300000	120.290	121.572100	121.6148	121.7654	0.01314	2.57	14.959	55.30	0.95
CochranePB	M002	5863.68	AMEC-2050	18.300000	119.620	120.580400	120.7003	120.9397	0.03732	3.05	9.323	43.07	1.49
CochranePB	M002	5811.63	AMEC-2050	18.300000	118.870	120.007900	120.0079	120.1614	0.01352	2.38	15.397	54.11	0.95
CochranePB	M002	5768.42	AMEC-2050	18.300000	117.380	118.401500	118.6069	119.0861	0.06071	3.75	5.635	23.64	1.89
CochranePB	M002	5725.36	AMEC-2050	18.300000	116.480	117.666500	117.6899	117.8654	0.01393	2.40	12.892	43.56	0.97
CochranePB	M002	5678.58	AMEC-2050	18.300000	115.390	116.538100	116.6837	116.9416	0.02562	2.94	8.087	33.07	1.28
CochranePB	M002	5627.04	AMEC-2050	18.300000	114.790	116.290900	115.9173	116.3358	0.00215	1.26	26.155	49.31	0.41
CochranePB	M002	5609.94	AMEC-2050	27.300000	114.770	116.098100		116.2232	0.00647	1.93	23.099	51.17	0.69
CochranePB	M002	5601.00	AMEC-2050	27.300000	114.760	116.104600		116.1155	0.00104	0.79	64.819	115.59	0.27
CochranePB	M002	5568.52	AMEC-2050	27.300000	114.750	116.078200		116.0890	0.00082	0.70	63.980	103.25	0.25

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	5508.20	AMEC-2050	27.300000	114.040	115.740500	115.5628	115.9601	0.00539	2.21	16.321	27.83	0.67
CochranePB	M002	5473.67	AMEC-2050	27.300000	113.900	115.374200	115.3742	115.6799	0.01252	2.91	15.216	29.23	0.97
CochranePB	M002	5403.83	AMEC-2050	27.300000	110.690	111.998400	112.5006	113.7658	0.07506	6.07	5.272	10.75	2.27
CochranePB	M002	5352.19	AMEC-2050	27.300000	110.270	111.772400	111.8493	112.0743	0.01181	2.79	16.042	52.08	0.94
CochranePB	M002	5309.83	AMEC-2050	27.300000	109.640	111.114800	111.2107	111.4794	0.01656	3.18	16.350	51.17	1.10
CochranePB	M002	5266.90	AMEC-2050	27.300000	109.300	110.680200	110.6968	110.8559	0.01180	2.60	24.783	85.46	0.92
CochranePB	M002	5213.45	AMEC-2050	27.300000	108.810	110.527600	109.9359	110.5472	0.00092	0.90	58.114	92.38	0.27
CochranePB	M002	5162.38	AMEC-2050	51.400000	108.180	110.139400	110.1394	110.3990	0.00869	3.28	37.398	67.47	0.86
CochranePB	M002	5109.83	AMEC-2050	51.400000	108.020	109.577800	109.2333	109.6299	0.00382	1.59	62.062	109.78	0.53
CochranePB	M002	5059.83	AMEC-2050	51.400000	107.540	109.248600		109.4099	0.00731	2.55	44.732	95.36	0.77
CochranePB	M002	5013.20	AMEC-2050	51.400000	107.210	108.924400	108.9244	109.0985	0.00969	2.65	42.932	103.86	0.85
CochranePB	M002	4977.38	AMEC-2050	51.400000	107.070	108.863400	108.5236	108.8917	0.00152	1.23	91.515	157.91	0.36
CochranePB	M002	4908.49	AMEC-2050	51.400000	106.950	108.838300		108.8468	0.00051	0.77	145.809	211.68	0.21
CochranePB	M002	4883.44	AMEC-2050	51.400000	106.940	108.825700		108.8319	0.00032	0.60	168.282	223.24	0.17
CochranePB	M002	4816.97	AMEC-2050	51.400000	106.930	108.814900		108.8212	0.00029	0.58	174.708	237.75	0.16
CochranePB	M002	4757.22	AMEC-2050	51.400000	106.780	108.805400		108.8106	0.00020	0.52	202.756	273.77	0.14
CochranePB	M002	4718.65	AMEC-2050	51.400000	106.770	108.796700		108.8029	0.00025	0.59	198.515	339.53	0.15
CochranePB	M002	4674.22	AMEC-2050	51.400000	106.760	108.777100		108.7914	0.00053	0.86	144.749	268.41	0.22
CochranePB	M002	4633.22	AMEC-2050	51.400000	106.750	108.756500		108.7741	0.00036	0.69	121.620	185.28	0.18
CochranePB	M002	4561.03	AMEC-2050	51.400000	106.740	108.680800		108.7314	0.00120	1.22	72.136	102.64	0.33
CochranePB	M002	4506.74	AMEC-2050	51.400000	106.430	108.329700	108.3297	108.5793	0.00760	2.82	33.962	59.87	0.80
CochranePB	M002	4459.83	AMEC-2050	51.400000	105.660	107.389500	107.6055	108.0095	0.01863	3.98	21.510	50.16	1.22
CochranePB	M002	4409.53	AMEC-2050	51.400000	104.620	106.396100	106.6360	107.0545	0.01959	4.10	18.984	33.91	1.24
CochranePB	M002	4359.83	AMEC-2050	51.400000	103.720	105.592800	105.8035	106.1815	0.01487	3.78	22.180	55.83	1.10
CochranePB	M002	4327.93	AMEC-2050	51.400000	103.170	105.180500	105.3704	105.7298	0.01251	3.61	21.757	41.56	1.03
CochranePB	M002	4265.56	AMEC-2050	51.400000	102.450	104.394400	104.4426	104.9023	0.01391	3.82	21.543	30.30	1.07
CochranePB	M002	4208.11	AMEC-2050	51.400000	101.670	103.472500	103.6096	104.0531	0.01530	3.74	20.029	34.63	1.12
CochranePB	M002	4159.83	AMEC-2050	51.400000	101.120	102.242000	102.3851	102.7123	0.06412	4.04	18.616	48.76	1.96
CochranePB	M002	4109.83	AMEC-2050	51.400000	98.840	100.634400	100.8208	101.2535	0.01676	4.05	21.514	43.53	1.18
CochranePB	M002	4056.00	AMEC-2050	51.400000	97.180	98.999920	99.5035	100.0559	0.02699	5.02	14.249	20.81	1.47
CochranePB	M002	4009.83	AMEC-2050	51.400000	96.330	98.236210	98.3914	98.7487	0.02195	4.53	26.560	66.30	1.28
CochranePB	M002	3969.03	AMEC-2050	51.400000	95.620	97.584970	97.7861	98.1309	0.01193	3.80	24.872	72.13	1.02
CochranePB	M002	3916.58	AMEC-2050	51.400000	94.820	97.024760	97.1937	97.4723	0.01156	3.65	29.353	85.45	0.95
CochranePB	M002	3859.82	AMEC-2050	51.400000	94.340	96.365360	96.5624	96.8676	0.01026	3.38	24.726	82.49	0.93
CochranePB	M002	3810.05	AMEC-2050	51.400000	93.500	95.532530	95.8513	96.2557	0.01463	4.16	19.312	49.25	1.12
CochranePB	M002	3759.83	AMEC-2050	51.400000	93.000	94.723030	94.9284	95.3387	0.01906	4.19	22.511	57.18	1.24
CochranePB	M002	3709.28	AMEC-2050	51.400000	92.330	94.210680	94.3389	94.5481	0.01139	3.34	30.699	88.76	0.96
CochranePB	M002	3661.60	AMEC-2050	51.400000	92.050	93.877660	93.9109	94.0678	0.00756	2.74	46.512	144.88	0.79
CochranePB	M002	3609.83	AMEC-2050	51.400000	91.730	93.514270	93.5257	93.6696	0.00752	2.61	48.008	146.81	0.78
CochranePB	M002	3559.90	AMEC-2050	51.400000	90.870	92.954480	93.0007	93.2380	0.00792	3.12	37.378	86.93	0.82
CochranePB	M002	3509.83	AMEC-2050	51.400000	90.380	92.767070	92.4653	92.8165	0.00157	1.64	79.049	119.50	0.38
CochranePB	M002	3493.23	AMEC-2050	51.400000	90.020	92.329440	92.1289	92.7452	0.00586	3.56	22.612	15.96	0.76
CochranePB	M002	3480		Bridge									
CochranePB	M002	3474.26	AMEC-2050	51.400000	89.910	92.329060	91.6871	92.5876	0.00279	2.62	27.491	17.14	0.55
CochranePB	M002	3466.43	AMEC-2050	51.400000	90.000	92.386310	92.1665	92.4977	0.00161	2.01	66.853	110.93	0.42
CochranePB	M002	3454.35	AMEC-2050	51.400000	89.940	92.092580	91.6583	92.4431	0.00416	2.92	22.883	17.54	0.66
CochranePB	M002	3450		Bridge									
CochranePB	M002	3434.16	AMEC-2050	56.399990	90.360	91.771340	91.7713	92.3190	0.01087	3.53	19.084	20.69	0.99
CochranePB	M002	3413.11	AMEC-2050	56.399990	90.140	91.708890	91.6588	91.8685	0.00765	2.75	47.177	96.34	0.79
CochranePB	M002	3391.58	AMEC-2050	56.399990	90.030	91.621310		91.7143	0.00492	2.31	58.065	107.29	0.65
CochranePB	M002	3371.12	AMEC-2050	56.399990	90.020	91.372320	91.3723	91.5717	0.00893	2.77	43.300	97.77	0.86
CochranePB	M002	3309.87	AMEC-2050	56.399990	89.280	90.786580	90.6962	90.8906	0.00862	2.75	52.253	116.59	0.81
CochranePB	M002	3272.96	AMEC-2050	56.399990	88.730	90.338470	90.3384	90.5318	0.00989	2.92	39.830	91.98	0.88
CochranePB	M002	3219.09	AMEC-2050	56.399990	88.300	89.835450	89.8355	90.0028	0.01004	2.82	43.173	109.39	0.88
CochranePB	M002	3175.54	AMEC-2050	56.399990	87.360	89.688870	89.4343	89.8038	0.00214	1.91	55.231	81.09	0.44
CochranePB	M002	3165		Bridge									
CochranePB	M002	3157.85	AMEC-2050	56.399990	87.500	89.307910	89.3538	89.5927	0.00656	2.90	37.415	85.62	0.76
CochranePB	M002	3135.32	AMEC-2050	56.399990	87.850	89.179470	89.0868	89.2454	0.00519	1.88	64.531	155.64	0.63
CochranePB	M002	3106.53	AMEC-2050	56.399990	87.940	88.859270	88.8593	89.0007	0.02659	2.82	37.458	127.76	1.26
CochranePB	M002	3088.94	AMEC-2050	56.399990	86.840	88.613630	88.5599	88.7627	0.00306	1.99	54.870	153.03	0.53
CochranePB	M002	3080		Bridge									
CochranePB	M002	3075.67	AMEC-2050	56.399990	86.740	88.425670	88.2141	88.5041	0.00207	1.59	67.348	140.69	0.43
CochranePB	M002	3056.89	AMEC-2050	56.399990	87.660	88.360470		88.4292	0.01204	1.25	50.468	156.26	0.77
CochranePB	M002	3007.54	AMEC-2050	56.399990	87.610	88.041230		88.0848	0.00460	0.52	62.254	136.25	0.36
CochranePB	M002	2976.31	AMEC-2050	56.399990	87.510	87.917960		87.9623	0.00522	0.62	61.563	150.21	0.44
CochranePB	M002	2941.08	AMEC-2050	56.399990	86.980	87.779900		87.8069	0.00425	1.02	79.873	224.80	0.49
CochranePB	M002	2920.10	AMEC-2050	56.399990	86.740	87.755660	87.5443	87.7618	0.00050	0.44	168.098	295.56	0.17
CochranePB	M002	2915		Bridge									
CochranePB	M002	2912.75	AMEC-2050	56.399990	86.970	87.752390	87.7524	87.7567	0.00030	0.37	200.702	313.30	0.14
CochranePB	M002	2890.23	AMEC-2050	56.399990	86.650	86.890640	87.0766	87.5399	0.28103	3.37	15.799	84.61	3.10
CochranePB	M002	2823.99	AMEC-2050	56.399990	86.080	87.190130	86.8102	87.2008	0.00130	0.71	126.216	262.90	0.27
CochranePB	M002	2789.49	AMEC-2050	56.399990	86.040	87.166800		87.1768	0.00116	0.65	130.891	275.19	0.26
CochranePB	M002	2741.30	AMEC-2050	56.399990	85.710	87.114210		87.1244	0.00100	0.83	138.552	284.86	0.28
CochranePB	M002	2663.79	AMEC-2050	56.399990	85.580	87.066730		87.0783	0.00106	0.91	136.394	291.63	0.29
CochranePB	M002	2639.38	AMEC-2050	56.399990	85.570	87.036220		87.0495	0.00114	0.90	124.045	246.64	0.30
CochranePB	M002	2616.24	AMEC-2050	56.399990	85.300	87.021680		87.0324	0.00075	0.85	140.987	248.02	0.25
CochranePB	M002	2539.69	AMEC-2050	56.399990	85.410	86.977770		86.9925	0.00114	0.94	120.590	234.07	0.30
CochranePB	M002	2489.06	AMEC-2050	56.399990	85.180	86.935030		86.9535	0.00135	1.16	113.520	231.31	0.33
CochranePB	M002	2438.28	AMEC-2050	56.399990	84.870	86.875400		86.9036	0.00137	1.25	104.658	187.79	0.34
CochranePB	M002	2384.01	AMEC-2050	56.399990	84.650	86.782880		86.8242	0.00204	1.62	87.400	151.58	0.42
CochranePB	M002	2310.47	AMEC-2050	56.399990	84.330	86.576700		86.6490	0.00308	1.97	75.014	154.78	0.50
CochranePB	M002	2284.63	AMEC-2050	56.399990	84.160	86.521580		86.5717	0.00245	1.78	74.964	114.18	0.43
CochranePB	M002	2240.58	AMEC-2050	56.399990	84.040	86.049460	86.0495	86.3525	0.01017	3.42	32.131	47.91	0.91
CochranePB	M002	2170.94	AMEC-2050	56.399990	82.260	84.195830	84.6020	85.2599	0.02419	5.06	15.431	19.67	1.42
CochranePB	M002	2136.89	AMEC-2050	56.399990	81.720	83.498600	83.8130	84.3832	0.02440	4.50	16.546	25.84	1.39
CochranePB	M002	2100.01	AMEC-2050	56.399990	81.300	83.324790	83.3130	83.6630	0.00987	3.22	29.562	42.94	0.90
CochranePB	M002	2046.85	AMEC-2050	56.399990	80.890	82.837100	82.8371	83.1802	0.00836	2.93	28.830	43.20	0.84
CochranePB	M002	2014.35	AMEC-2050	56.399990	80.470	82.010150	82.2032	82.6878	0.02845	4.07	19.715	41.71	1.45
CochranePB	M002	1990.76	AMEC-2050	56.399990	80.100	82.028370	82.0284	82.3280	0.01004	3.11	31.002	45.73	0.90
CochranePB	M002	1945.20	AMEC-2050	56.399990	79.430	81.741430	81.3252	81.8540	0.00315	2.08	50.710	59.96	0.52

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	1916.67	AMEC-2050	56.399990	79.310	81.583380		81.7423	0.00449	2.47	43.323	54.91	0.62
CochranePB	M002	1871.48	AMEC-2050	56.399990	79.280	81.424870		81.5489	0.00385	2.10	47.458	56.00	0.57
CochranePB	M002	1836.03	AMEC-2050	56.399990	78.830	81.380750		81.4492	0.00153	1.59	64.407	74.57	0.37
CochranePB	M002	1788.63	AMEC-2050	56.399990	78.460	80.917950	80.9180	81.2782	0.00842	3.59	31.383	40.07	0.85
CochranePB	M002	1768.08	AMEC-2050	56.399990	78.140	80.232330	80.3940	80.9928	0.01875	4.71	20.307	28.33	1.24
CochranePB	M002	1733.19	AMEC-2050	56.399990	77.950	80.042140	80.1082	80.4334	0.00971	3.34	30.031	49.08	0.91
CochranePB	M002	1694.89	AMEC-2050	56.399990	77.120	79.536090	79.0015	79.6498	0.00233	1.90	49.245	50.98	0.46
CochranePB	M002	1685.79	AMEC-2050	56.399990	77.060	79.435970		79.6152	0.00424	2.53	42.666	55.90	0.62
CochranePB	M002	1640.51	AMEC-2050	56.399990	76.450	78.938980	78.9390	79.3494	0.00712	3.41	27.338	32.25	0.80
CochranePB	M002	1602.99	AMEC-2050	56.399990	75.010	76.614160	77.1711	78.5882	0.06410	6.61	10.649	17.57	2.20
CochranePB	M002	1585.52	AMEC-2050	56.399990	74.010	75.408070	75.8835	77.2079	0.08969	6.52	11.234	21.92	2.50
CochranePB	M002	1569.47	AMEC-2050	56.399990	73.710	75.069830	75.3201	75.9175	0.04438	4.25	14.778	27.75	1.73
CochranePB	M002	1541.97	AMEC-2050	56.399990	72.310	74.270470	74.5056	75.1076	0.02060	4.49	16.780	20.77	1.29
CochranePB	M002	1510.83	AMEC-2050	56.399990	71.340	72.618190	72.9852	73.9345	0.07945	5.12	11.412	24.37	2.27
CochranePB	M002	1495.27	AMEC-2050	56.399990	71.190	73.148250	72.8522	73.3164	0.00438	2.03	37.852	46.22	0.61
CochranePB	M002	1458.62	AMEC-2050	56.399990	70.580	72.733360	72.7334	73.0428	0.00951	3.68	35.627	52.59	0.91
CochranePB	M002	1419.61	AMEC-2050	56.399990	70.210	72.186040	72.2852	72.6225	0.01184	3.74	27.196	40.83	1.01
CochranePB	M002	1384.56	AMEC-2050	56.399990	69.610	72.010970	72.0325	72.3489	0.00558	2.97	33.485	61.25	0.72
CochranePB	M002	1351.51	AMEC-2050	56.399990	69.540	71.711720	71.8374	72.1198	0.00915	3.57	33.560	78.52	0.90
CochranePB	M002	1311.78	AMEC-2050	56.399990	69.490	71.463540	71.5191	71.7122	0.00799	3.10	42.858	111.18	0.83
CochranePB	M002	1291.19	AMEC-2050	56.399990	69.280	71.070930	71.2116	71.4799	0.01490	3.82	33.899	113.94	1.09
CochranePB	M002	1217.75	AMEC-2050	56.399990	68.700	71.179280	70.5142	71.2054	0.00053	1.02	129.804	220.16	0.23
CochranePB	M002	1200.39	AMEC-2050	56.399990	68.690	70.753970	70.4169	71.1494	0.00528	2.84	20.654	19.61	0.70
CochranePB	M002	1190		Bridge									
CochranePB	M002	1185.68	AMEC-2050	57.800010	68.460	70.589140	70.1329	70.9435	0.00398	2.66	22.337	26.16	0.63
CochranePB	M002	1164.32	AMEC-2050	57.800010	68.650	70.579120	70.5791	70.7807	0.00490	2.70	48.038	112.14	0.67
CochranePB	M002	1132.60	AMEC-2050	57.800010	68.600	69.857140	70.0250	70.3893	0.03307	4.26	26.714	109.51	1.55
CochranePB	M002	1111.68	AMEC-2050	57.800010	68.550	69.937050	69.7365	69.9881	0.00345	1.70	74.083	162.83	0.53
CochranePB	M002	1059.95	AMEC-2050	57.800010	68.380	69.836080		69.8825	0.00276	1.77	81.507	172.13	0.50
CochranePB	M002	998.99	AMEC-2050	57.800010	68.130	69.779500		69.7918	0.00077	1.00	131.060	194.35	0.26
CochranePB	M002	955.54	AMEC-2050	57.800010	68.120	69.773540		69.7761	0.00011	0.38	264.245	260.56	0.10
CochranePB	M002	851.16	AMEC-2050	57.800010	67.620	69.767970		69.7700	0.00007	0.35	301.074	257.45	0.08
CochranePB	M002	798.06	AMEC-2050	57.800010	67.470	69.766600		69.7679	0.00004	0.28	379.371	292.88	0.06
CochranePB	M002	746.77	AMEC-2050	57.800010	67.300	69.765900		69.7667	0.00002	0.20	492.556	326.54	0.04
CochranePB	M002	694.52	AMEC-2050	57.800010	66.980	69.765460		69.7660	0.00001	0.18	590.754	371.45	0.04
CochranePB	M002	669.16	AMEC-2050	57.800010	66.970	69.765340		69.7658	0.00001	0.16	655.907	409.98	0.03
CochranePB	M002	590.19	AMEC-2050	57.800010	66.840	69.764790		69.7651	0.00001	0.14	782.455	490.19	0.03
CochranePB	M002	539.85	AMEC-2050	57.800010	66.810	69.764420		69.7647	0.00001	0.14	802.639	521.96	0.03
CochranePB	M002	488.40	AMEC-2050	57.800010	66.540	69.764140		69.7644	0.00001	0.13	846.883	534.17	0.02
CochranePB	M001	381.27	AMEC-2050	113.600000	66.350	69.762310		69.7631	0.00002	0.24	981.221	627.97	0.04
CochranePB	M001	313.14	AMEC-2050	113.600000	66.280	69.761680		69.7622	0.00001	0.19	1146.636	697.33	0.04

HEC-RAS Plan:

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	TR001	439.21	Finnis-2050	42.600010	105.110	106.677200	106.3379	106.7515	0.00238	1.77	51.660	70.86	0.47
RaymondB	TR001	409.42	Finnis-2050	42.600010	104.680	106.591900		106.6820	0.00220	1.96	52.551	80.11	0.47
RaymondB	TR001	380.07	Finnis-2050	42.600010	104.050	106.620800		106.6423	0.00031	0.91	101.881	93.70	0.19
RaymondB	TR001	360.64	Finnis-2050	42.600010	103.600	106.624000	105.3344	106.6350	0.00016	0.70	139.760	110.21	0.13
RaymondB	TR001	350		Bridge									
RaymondB	TR001	344.45	Finnis-2050	42.600010	103.300	105.091400	105.2875	106.1706	0.01735	5.13	10.365	70.91	1.27
RaymondB	TR001	334.13	Finnis-2050	42.600010	103.400	104.330000	104.6816	105.7717	0.05244	5.62	10.529	38.15	2.00
RaymondB	TR001	272.22	Finnis-2050	42.600010	102.830	104.024400	104.0244	104.2962	0.01096	3.12	26.146	46.37	0.96
RaymondB	TR001	218.50	Finnis-2050	42.600010	101.420	102.754800	102.8982	103.5001	0.01824	4.29	15.684	27.09	1.26
RaymondB	TR001	163.97	Finnis-2050	42.600010	100.320	101.892800	101.5501	102.1055	0.00375	2.19	25.582	29.40	0.59
RaymondB	TR001	115.54	Finnis-2050	42.600010	100.000	101.493300	101.4933	101.8344	0.00815	3.24	24.792	41.50	0.87
RaymondB	TR001	56.65	Finnis-2050	42.600010	97.730	98.473240	98.9927	100.4894	0.10564	6.76	7.823	16.10	2.73
RaymondB	M002	6453.60	Finnis-2050	11.200000	118.100	126.018200	118.7287	126.0182	0.00000	0.02	857.194	253.57	0.00
RaymondB	M002	6405.52	Finnis-2050	11.200000	118.000	126.018200		126.0182	0.00000	0.02	859.795	235.15	0.00
RaymondB	M002	6347.04	Finnis-2050	11.200000	124.730	126.015700		126.0180	0.00004	0.21	54.118	44.22	0.06
RaymondB	M002	6247.26	Finnis-2050	11.200000	117.210	118.027400		118.0783	0.00347	1.31	14.984	33.57	0.50
RaymondB	M002	6230.10	Finnis-2050	11.200000	117.200	118.016200		118.0435	0.00142	0.82	18.991	40.56	0.32
RaymondB	M002	6205.35	Finnis-2050	11.200000	117.280	117.991100		118.0027	0.00130	0.72	26.674	54.46	0.30
RaymondB	M002	6143.06	Finnis-2050	11.200000	117.180	117.887100		117.9054	0.00192	0.86	22.960	54.31	0.36
RaymondB	M002	6105.93	Finnis-2050	11.200000	117.170	117.740500		117.7914	0.00437	1.08	14.084	51.79	0.52
RaymondB	M002	6026.35	Finnis-2050	11.200000	116.810	117.514200		117.5397	0.00221	0.91	19.270	43.08	0.39
RaymondB	M002	5933.71	Finnis-2050	11.200000	116.420	117.201300		117.2741	0.00377	1.31	11.865	29.93	0.52
RaymondB	M002	5883.92	Finnis-2050	11.200000	116.120	116.981300		117.0764	0.00408	1.43	9.679	21.02	0.55
RaymondB	M002	5785.15	Finnis-2050	11.200000	115.750	116.536300		116.6253	0.00524	1.46	9.962	21.45	0.60
RaymondB	M002	5732.44	Finnis-2050	11.200000	115.460	116.246400		116.3489	0.00512	1.45	8.737	20.26	0.60
RaymondB	M002	5631.37	Finnis-2050	11.200000	114.850	115.569700	115.5510	115.6758	0.00910	1.68	10.960	43.23	0.77
RaymondB	M002	5500.15	Finnis-2050	11.200000	114.620	115.402400		115.4133	0.00113	0.68	33.824	120.95	0.28
RaymondB	M002	5485.46	Finnis-2050	11.200000	114.530	115.389900		115.3986	0.00075	0.63	40.934	153.78	0.24
RaymondB	M002	5411.19	Finnis-2050	11.200000	114.480	115.292700	115.0501	115.3246	0.00176	0.87	17.686	50.81	0.35
RaymondB	M002	5338.54	Finnis-2050	11.200000	114.410	115.295700	114.7214	115.2980	0.00009	0.22	58.764	105.63	0.08
RaymondB	M002	5278.93	Finnis-2050	11.200000	114.440	115.287900	114.7607	115.2912	0.00014	0.27	48.983	105.35	0.10
RaymondB	M002	5226.60	Finnis-2050	11.200000	114.420	115.279200		115.2828	0.00018	0.29	50.652	120.28	0.12
RaymondB	M002	5171.66	Finnis-2050	11.200000	114.420	115.266300		115.2711	0.00025	0.36	51.099	169.10	0.14
RaymondB	M002	5111.50	Finnis-2050	11.200000	114.420	115.235100		115.2481	0.00069	0.59	28.325	77.62	0.22
RaymondB	M002	5077.48	Finnis-2050	11.200000	114.380	115.216700		115.2275	0.00051	0.50	27.939	56.31	0.19
RaymondB	M002	5017.13	Finnis-2050	11.200000	114.400	115.101300		115.1592	0.00324	1.08	10.876	22.93	0.47
RaymondB	M002	4967.43	Finnis-2050	11.200000	114.070	114.843400		114.9522	0.00526	1.47	7.938	15.27	0.61
RaymondB	M002	4943.43	Finnis-2050	11.200000	113.820	114.735200		114.8386	0.00421	1.51	9.445	20.71	0.56
RaymondB	M002	4910.95	Finnis-2050	11.200000	113.670	114.592300		114.6992	0.00431	1.55	9.781	25.19	0.57
RaymondB	M002	4851.17	Finnis-2050	11.200000	113.470	114.329300		114.4339	0.00469	1.53	9.976	27.97	0.59
RaymondB	M002	4783.73	Finnis-2050	11.200000	113.300	114.051100		114.1164	0.00442	1.20	11.368	33.55	0.54
RaymondB	M002	4732.68	Finnis-2050	11.200000	113.070	113.757500		113.8304	0.00727	1.44	11.458	38.00	0.68
RaymondB	M002	4681.76	Finnis-2050	11.200000	112.350	113.097200	113.0972	113.3347	0.01216	2.25	5.886	15.08	0.92
RaymondB	M002	4673.96	Finnis-2050	11.200000	111.740	112.397700	112.6283	113.1204	0.05005	3.86	3.289	9.74	1.79
RaymondB	M002	4644.78	Finnis-2050	11.200000	110.490	111.166100	111.3638	111.7999	0.03903	3.60	3.418	19.34	1.60
RaymondB	M002	4625.72	Finnis-2050	11.200000	106.750	107.173400	107.6073	109.8576	0.41061	7.26	1.543	6.09	4.60
RaymondB	M002	4615.42	Finnis-2050	11.200000	105.830	106.393700	106.6784	107.4492	0.10559	4.62	2.597	8.60	2.48
RaymondB	M002	4607.06	Finnis-2050	11.200000	105.790	106.773200	106.6498	106.9875	0.00726	2.12	6.064	9.12	0.75
RaymondB	M002	4597.34	Finnis-2050	11.200000	105.760	106.729100		106.9055	0.00731	1.97	7.210	14.54	0.73
RaymondB	M002	4575.18	Finnis-2050	11.200000	105.980	106.416300	106.4163	106.6000	0.03579	2.25	6.124	18.30	1.37
RaymondB	M002	4545.57	Finnis-2050	11.200000	104.650	105.479600	105.5579	105.8437	0.01840	2.80	4.948	11.93	1.13
RaymondB	M002	4522.17	Finnis-2050	11.200000	103.670	104.234100	104.4974	105.0671	0.06476	4.15	3.071	9.51	2.01
RaymondB	M002	4511.42	Finnis-2050	11.200000	103.620	104.612700	104.3977	104.6936	0.00374	1.48	11.302	20.91	0.53
RaymondB	M002	4489.94	Finnis-2050	11.200000	103.590	104.312400	104.3124	104.5410	0.01328	2.29	6.344	15.73	0.96
RaymondB	M002	4466.63	Finnis-2050	11.200000	103.030	104.075300	103.7453	104.1507	0.00249	1.28	10.924	18.99	0.44
RaymondB	M002	4439.46	Finnis-2050	11.200000	103.000	103.823000	103.8230	104.0185	0.00980	2.16	7.540	27.48	0.83
RaymondB	M002	4415.77	Finnis-2050	11.200000	102.780	103.335100	103.4165	103.6367	0.02765	2.56	5.215	16.98	1.30
RaymondB	M002	4385.89	Finnis-2050	11.200000	101.800	102.479500	102.5963	102.8696	0.02318	2.87	4.614	12.03	1.25
RaymondB	M002	4354.01	Finnis-2050	11.200000	101.270	101.961500	102.0027	102.1694	0.01795	2.64	8.162	27.38	1.11
RaymondB	M002	4341.66	Finnis-2050	11.200000	100.840	101.655600	101.7204	101.9419	0.01529	2.56	6.400	22.31	1.04
RaymondB	M002	4332.73	Finnis-2050	11.200000	100.320	100.909600	101.1532	101.6551	0.05642	3.95	3.281	9.76	1.89
RaymondB	M002	4308.73	Finnis-2050	11.200000	98.870	99.418880	99.6403	100.1646	0.06770	4.05	3.429	11.57	2.02
RaymondB	M002	4294.65	Finnis-2050	11.200000	98.450	99.121730	99.2231	99.5177	0.02524	2.98	4.732	11.94	1.30
RaymondB	M002	4263.86	Finnis-2050	11.200000	97.590	98.443490	98.3074	98.5915	0.00631	1.80	7.505	13.49	0.68
RaymondB	M002	4235.25	Finnis-2050	11.200000	97.470	98.953170		98.9709	0.00036	0.65	22.960	24.89	0.18
RaymondB	M001	4130.35	Finnis-2050	52.500000	96.570	98.034700	98.1093	98.5886	0.01291	3.37	17.360	21.28	1.04
RaymondB	M001	4076.94	Finnis-2050	52.500000	96.040	97.729780	97.5737	97.9954	0.00532	2.45	27.598	34.69	0.69
RaymondB	M001	4023.53	Finnis-2050	52.500000	95.940	97.124180	97.1242	97.5471	0.01364	2.96	19.684	29.02	1.03
RaymondB	M001	3978.20	Finnis-2050	52.500000	94.640	96.791830	96.2505	96.8989	0.00196	1.51	42.929	54.72	0.42
RaymondB	M001	3916.71	Finnis-2050	75.800010	94.640	96.477050		96.7034	0.00445	2.52	51.131	64.57	0.65
RaymondB	M001	3863.30	Finnis-2050	75.800010	94.410	96.352420		96.4930	0.00275	2.10	66.322	80.47	0.52
RaymondB	M001	3809.58	Finnis-2050	75.800010	94.090	95.841540	95.8415	96.2442	0.00809	3.28	36.630	46.67	0.87
RaymondB	M001	3756.26	Finnis-2050	75.800010	93.530	95.119610	95.2579	95.7107	0.01213	3.76	28.389	36.55	1.05
RaymondB	M001	3694.37	Finnis-2050	75.800010	92.660	94.157030	94.3606	94.8586	0.01527	3.90	23.158	38.41	1.15
RaymondB	M001	3569.22	Finnis-2050	75.800010	92.150	94.329440	93.4836	94.3553	0.00060	1.06	133.221	142.69	0.25
RaymondB	M001	3527.64	Finnis-2050	75.800010	91.850	94.305290		94.3301	0.00050	1.06	137.225	135.05	0.23
RaymondB	M001	3446.51	Finnis-2050	75.800010	91.140	94.290240		94.3058	0.00019	0.75	200.128	164.95	0.15
RaymondB	M001	3421.64	Finnis-2050	75.800010	91.230	93.594590	93.1764	94.2298	0.00506	3.57	21.704	134.71	0.75
RaymondB	M001	3410		Bridge									
RaymondB	M001	3404.11	Finnis-2050	75.800010	91.230	93.184570	93.2286	94.1733	0.01052	4.44	17.380	100.37	1.04
RaymondB	M001	3380.48	Finnis-2050	75.800010	90.960	92.995700	92.5383	93.1762	0.00283	2.16	55.430	69.10	0.53
RaymondB	M001	3308.92	Finnis-2050	75.800010	90.800	92.703810		92.9299	0.00403	2.55	52.849	71.18	0.63
RaymondB	M001	3216.73	Finnis-2050	75.800010	89.310	92.447070	91.2174	92.7067	0.00157	2.29	34.194	76.96	0.43
RaymondB	M001	3200		Bridge									
RaymondB	M001	3188.78	Finnis-2050	75.800010	89.300	91.611870	91.6119	92.4393	0.00879	4.33	20.751	44.26	0.95
RaymondB	M001	3015.18	Finnis-2050	75.800010	89.180	90.904260	90.6001	91.0722	0.00319	2.10	55.952	67.15	0.55
RaymondB	M001	2876.32	Finnis-2050	75.800010	88.660	90.245220	90.1121	90.5025	0.00644	2.66	41.990	56.41	0.76
RaymondB	M001	2789.37	Finnis-2050	75.800010	88.240	90.064870		90.1438	0.00224	1.76	95.501	161.35	0.46
RaymondB	M001	2681.85	Finnis-2050	75.800010	88.140	89.505910	89.5059	89.7199	0.00999	2.90	53.583	124.68	0.91
RaymondB	M001	2604.32	Finnis-2050	75.800010	87.970	89.362060	89.0412	89.4006	0.00186	1.34	110.333	203.53	0.40

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	M001	2531.57	Finnis-2050	75.800010	87.970	89.328280		89.3387	0.00062	0.72	185.670	285.31	0.23
RaymondB	M001	2385.34	Finnis-2050	75.800010	87.430	89.256370		89.2874	0.00123	1.32	146.059	249.58	0.34
RaymondB	M001	2245.72	Finnis-2050	75.800010	86.990	88.833310	88.7248	89.0895	0.00455	2.55	50.387	103.69	0.66
RaymondB	M001	2194.47	Finnis-2050	75.800010	86.680	88.884030		88.9350	0.00091	1.32	104.437	96.47	0.31
RaymondB	M001	2140.67	Finnis-2050	75.800010	86.590	88.793650		88.8730	0.00142	1.63	82.227	72.13	0.38
RaymondB	M001	2087.60	Finnis-2050	75.800010	86.380	88.657460		88.7871	0.00164	1.79	59.842	47.24	0.41
RaymondB	M001	2069.54	Finnis-2050	75.800010	86.350	88.613530		88.7553	0.00185	1.92	65.393	94.30	0.44
RaymondB	M001	2040.77	Finnis-2050	75.800010	86.250	88.592910		88.6974	0.00140	1.67	78.308	90.85	0.38
RaymondB	M001	1989.18	Finnis-2050	75.800010	86.020	88.531180	87.7741	88.6241	0.00131	1.71	87.077	96.10	0.37
RaymondB	M001	1950.22	Finnis-2050	75.800010	85.790	87.439760	87.3712	88.4077	0.01976	4.69	23.179	44.01	1.32
RaymondB	M001	1885.73	Finnis-2050	75.800010	85.340	87.164860	87.1041	87.4990	0.00712	3.02	39.341	48.43	0.81
RaymondB	M001	1835.84	Finnis-2050	75.800010	84.640	86.568500	86.5685	87.0691	0.01000	3.75	30.598	29.65	0.96
RaymondB	M001	1784.61	Finnis-2050	75.800010	84.100	85.300270	85.5458	86.1393	0.03752	4.76	23.261	39.64	1.69
RaymondB	M001	1733.38	Finnis-2050	75.800010	82.790	84.905820	84.3859	85.0529	0.00233	1.98	56.945	48.52	0.48
RaymondB	M001	1682.15	Finnis-2050	75.800010	82.600	84.500850		84.8544	0.00579	2.82	34.251	34.60	0.74
RaymondB	M001	1630.92	Finnis-2050	75.800010	82.120	83.991910	83.9919	84.4888	0.00824	3.28	29.601	38.01	0.87
RaymondB	M001	1584.49	Finnis-2050	75.800010	81.770	83.777540	83.5321	84.0715	0.00517	2.73	39.445	49.42	0.70
RaymondB	M001	1536.01	Finnis-2050	75.800010	81.310	83.317590	83.3153	83.7570	0.00758	3.29	33.896	44.79	0.83
RaymondB	M001	1477.96	Finnis-2050	75.800010	80.960	82.898670	82.7895	83.3195	0.00739	3.16	34.178	42.46	0.82
RaymondB	M001	1425.99	Finnis-2050	75.800010	80.580	82.750410		82.9999	0.00375	2.50	42.470	40.87	0.61
RaymondB	M001	1372.05	Finnis-2050	75.800010	80.250	82.639960		82.8051	0.00266	2.23	52.528	45.67	0.52
RaymondB	M001	1323.54	Finnis-2050	75.800010	79.110	81.883030	81.3398	82.5368	0.00446	3.58	21.160	16.95	0.71
RaymondB	M001	1315		Bridge									
RaymondB	M001	1303.54	Finnis-2050	75.800010	78.010	80.542920	80.5429	81.5807	0.00988	4.51	16.794	20.25	1.00
RaymondB	M001	1252.39	Finnis-2050	79.800020	78.450	80.336220	80.4782	81.0012	0.01424	4.18	27.215	31.37	1.12
RaymondB	M001	1216.25	Finnis-2050	79.800020	77.860	79.799430	80.0136	80.4927	0.01397	4.39	29.752	42.52	1.14
RaymondB	M001	1189.75	Finnis-2050	79.800020	77.610	79.114250	79.3644	79.9718	0.02670	4.61	23.681	38.01	1.46
RaymondB	M001	1166.20	Finnis-2050	79.800020	76.740	78.257570	78.5594	79.2600	0.03135	5.28	25.495	52.61	1.62
RaymondB	M001	1148.70	Finnis-2050	79.800020	76.500	78.048810	78.2697	78.7123	0.02253	4.35	29.280	53.89	1.35
RaymondB	M001	1116.25	Finnis-2050	79.800020	75.830	77.194980	77.4203	77.9371	0.02391	3.99	23.523	37.51	1.37
RaymondB	M001	1066.09	Finnis-2050	79.800020	75.160	77.027980	76.8019	77.2563	0.00418	2.39	48.785	56.65	0.62
RaymondB	M001	1035.68	Finnis-2050	79.800020	74.730	76.241890	76.2419	76.9773	0.01754	4.09	24.242	29.03	1.22
RaymondB	M001	999.99	Finnis-2050	79.800020	73.320	74.760400	75.2025	76.0892	0.03155	5.35	17.648	22.43	1.63
RaymondB	M001	976.73	Finnis-2050	79.800020	73.030	74.579580	74.8548	75.3971	0.01709	4.30	25.662	41.25	1.23
RaymondB	M001	942.15	Finnis-2050	79.800020	72.180	73.273380	73.6202	74.3072	0.06640	6.21	20.835	35.52	2.23
RaymondB	M001	916.70	Finnis-2050	79.800020	70.820	72.178570	72.4348	73.0504	0.03449	5.42	27.139	65.86	1.68
RaymondB	M001	892.34	Finnis-2050	79.800020	70.360	71.873380	72.0325	72.4665	0.01332	3.77	30.961	51.25	1.08
RaymondB	M001	866.25	Finnis-2050	79.800020	70.040	71.879580	71.4303	72.0915	0.00328	2.18	50.163	65.53	0.56
RaymondB	M001	841.89	Finnis-2050	79.800020	69.920	71.671020	71.6710	71.9809	0.00539	2.76	47.389	92.56	0.71
RaymondB	M001	816.68	Finnis-2050	79.800020	69.740	71.417860	71.5030	71.8050	0.00794	3.25	40.890	65.69	0.86
RaymondB	M001	766.25	Finnis-2050	79.800020	69.160	70.088410	70.3380	70.9288	0.05545	5.13	22.676	45.95	2.00
RaymondB	M001	716.25	Finnis-2050	79.800020	68.390	69.956740	69.7639	70.1816	0.00502	2.45	47.609	67.23	0.68
RaymondB	M001	675.00	Finnis-2050	79.800020	68.140	69.780950		69.9772	0.00453	2.40	51.940	60.25	0.65
RaymondB	M001	615.86	Finnis-2050	79.800020	67.750	69.764040		69.8166	0.00110	1.40	116.806	164.54	0.33
RaymondB	M001	565.77	Finnis-2050	79.800020	67.440	69.736240		69.7708	0.00061	1.14	158.834	239.74	0.25
RaymondB	M001	520.15	Finnis-2050	79.800020	67.260	69.737550		69.7477	0.00022	0.71	261.027	320.38	0.15
RaymondB	M001	468.54	Finnis-2050	79.800020	66.980	69.734830		69.7386	0.00009	0.51	379.431	404.33	0.10
RaymondB	M001	429.18	Finnis-2050	79.800020	66.800	69.734570		69.7360	0.00003	0.31	569.121	503.81	0.06
RaymondB	M001	366.25	Finnis-2050	79.800020	66.650	69.734420		69.7349	0.00001	0.20	880.361	644.54	0.04
RaymondB	M001	341.79	Finnis-2050	79.800020	66.630	69.734420		69.7348	0.00001	0.17	986.953	687.02	0.03
PettyHR	M002	6270.85	Finnis-2050	116.300000	66.230	69.734210		69.7344	0.00000	0.06	2139.199	864.50	0.01
PettyHR	M002	6218.07	Finnis-2050	116.300000	66.230	69.734120		69.7343	0.00000	0.07	2007.321	851.19	0.01
PettyHR	M002	6095.00	Finnis-2050	116.300000	66.230	69.733960		69.7342	0.00000	0.07	1941.774	856.64	0.01
PettyHR	M002	6004.71	Finnis-2050	116.300000	66.230	69.733870		69.7341	0.00000	0.07	1998.633	886.26	0.01
PettyHR	M001	5825.85	Finnis-2050	187.500000	66.230	69.733380		69.7338	0.00000	0.09	2301.428	847.51	0.02
PettyHR	M001	5685.44	Finnis-2050	187.500000	66.230	69.733090		69.7335	0.00000	0.09	2217.098	736.38	0.02
PettyHR	M001	5516.39	Finnis-2050	209.000000	66.230	69.732410		69.7330	0.00000	0.11	1934.157	630.29	0.02
PettyHR	M001	5279.80	Finnis-2050	209.000000	66.230	69.730540		69.7319	0.00001	0.16	1307.777	426.40	0.03
PettyHR	M001	4996.75	Finnis-2050	209.000000	66.230	69.721400		69.7278	0.00003	0.36	618.921	210.63	0.06
PettyHR	M001	4923.81	Finnis-2050	209.000000	66.230	69.643130		69.7152	0.00043	1.27	204.648	90.35	0.23
PettyHR	M001	4867.41	Finnis-2050	209.000000	66.230	69.540460		69.6718	0.00110	2.01	175.114	100.13	0.37
PettyHR	M001	4817.61	Finnis-2050	209.000000	66.580	69.484010		69.6083	0.00136	2.14	170.471	94.44	0.40
PettyHR	M001	4757.18	Finnis-2050	209.000000	66.430	68.739570	68.7396	69.3916	0.00855	4.54	80.549	69.16	0.96
PettyHR	M001	4675.66	Finnis-2050	209.000000	65.880	68.349510	67.7261	68.6645	0.00346	3.04	99.994	52.49	0.62
PettyHR	M001	4612.84	Finnis-2050	209.000000	64.880	67.012810	67.0128	68.1756	0.01517	5.76	53.483	39.53	1.27
PettyHR	M001	4570.09	Finnis-2050	209.000000	64.620	66.944970	67.0144	67.6755	0.00817	4.38	72.471	56.35	0.94
PettyHR	M001	4500.69	Finnis-2050	209.000000	64.620	66.448170	66.2437	66.8210	0.00530	3.02	93.199	75.52	0.73
PettyHR	M001	4461.12	Finnis-2050	209.000000	64.550	66.121670	66.1217	66.5660	0.01111	3.94	89.684	91.89	1.03
PettyHR	M001	4428.20	Finnis-2050	209.000000	64.410	65.865530	65.6542	66.1495	0.00929	3.34	99.554	89.89	0.92
PettyHR	M001	4395.66	Finnis-2050	209.000000	63.810	65.632290		65.9213	0.00502	2.95	106.523	82.15	0.71
PettyHR	M001	4357.04	Finnis-2050	209.000000	63.340	65.573940		65.7453	0.00257	2.45	135.940	81.92	0.53
PettyHR	M001	4281.82	Finnis-2050	209.000000	62.500	65.513100		65.6257	0.00076	1.61	155.518	59.93	0.30
PettyHR	M001	4166.17	Finnis-2050	209.000000	61.820	65.554210		65.5711	0.00011	0.69	440.004	169.04	0.12
PettyHR	M001	3949.19	Finnis-2050	209.000000	61.310	65.565610		65.5657	0.00000	0.04	5241.441	1318.36	0.01
PettyHR	M001	3936.78	Finnis-2050	209.000000	61.310	65.565630		65.5657	0.00000	0.03	6451.042	1575.26	0.01
PettyHR	M001	3931.39	Finnis-2050	134.800000	61.310	65.565660		65.5657	0.00000	0.02	8115.826	2017.17	0.00
PettyHR	M001	3925.44	Finnis-2050	134.800000	61.310	65.565610		65.5657	0.00000	0.04	4019.820	1005.30	0.01
PettyHR	M001	3867.05	Finnis-2050	134.800000	61.310	65.565600		65.5657	0.00000	0.03	4045.801	991.46	0.01
PettyHR	M001	3643.73	Finnis-2050	134.800000	61.310	65.565570		65.5656	0.00000	0.03	4640.920	1115.14	0.00
PettyHR	M001	3440.60	Finnis-2050	134.800000	61.310	65.565370		65.5655	0.00000	0.06	2360.058	586.72	0.01
PettyHR	M001	3182.65	Finnis-2050	134.800000	61.310	65.565020		65.5653	0.00000	0.08	1764.693	427.55	0.01
PettyHR	M001	3080.13	Finnis-2050	134.800000	61.310	65.564970		65.5652	0.00000	0.07	2088.690	524.71	0.01
PettyHR	M001	3028.13	Finnis-2050	134.800000	61.310	65.564960		65.5652	0.00000	0.06	2282.050	562.80	0.01
PettyHR	M001	2983.09	Finnis-2050	134.800000	61.310	65.564830		65.5651	0.00000	0.07	1857.729	453.26	0.01
PettyHR	M001	2828.46	Finnis-2050	134.800000	61.310	65.563970		65.5648	0.00000	0.13	1096.569	281.10	0.02
PettyHR	M001	2712.72	Finnis-2050	134.800000	61.310	65.561380		65.5641	0.00001	0.23	634.988	183.57	0.04
PettyHR	M001	2671.95	Finnis-2050	134.800000	61.310	65.559760		65.5635	0.00001	0.29	577.070	177.26	0.04
PettyHR	M001	2653.10	Finnis-2050	134.800000	61.310	65.557840		65.5630	0.00002	0.34	496.558	158.49	0.05
PettyHR	M001	2632.46	Finnis-2050	134.800000	61.310	65.543720		65.5609	0.00008	0.68	306.359	126.55	0.11
PettyHR	M001	2596.08	Finnis-2050	134.800000	61.310	65.535800		65.5572	0.00009	0.73	276.120	121.59	0.11

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	2583.24	Finnis-2050	134.800000	60.100	65.457750	63.1943	65.5476	0.00045	1.66	174.867	122.98	0.24
PettyHR	M001	2580		Bridge									
PettyHR	M001	2573.39	Finnis-2050	134.800000	60.000	65.267460	62.7424	65.3256	0.00027	1.29	188.115	97.48	0.19
PettyHR	M001	2551.09	Finnis-2050	134.800000	59.890	65.291430		65.2986	0.00002	0.40	408.754	116.10	0.06
PettyHR	M001	2426.14	Finnis-2050	134.800000	59.270	65.295460		65.2961	0.00000	0.11	1263.050	278.99	0.02
PettyHR	M001	2315.39	Finnis-2050	134.800000	58.720	65.295460		65.2959	0.00000	0.09	1543.498	319.88	0.01
PettyHR	M001	2204.15	Finnis-2050	134.800000	58.160	65.295350		65.2958	0.00000	0.09	1550.796	308.72	0.01
PettyHR	M001	2022.45	Finnis-2050	134.800000	57.260	65.294270		65.2954	0.00000	0.15	939.721	191.55	0.02
PettyHR	M001	1902.10	Finnis-2050	134.800000	56.660	65.293010		65.2949	0.00000	0.20	723.705	128.79	0.03
PettyHR	M001	1879.72	Finnis-2050	134.800000	56.550	65.290370		65.2946	0.00001	0.31	534.754	109.37	0.04
PettyHR	M001	1824.42	Finnis-2050	134.800000	56.280	65.285260		65.2934	0.00002	0.41	357.680	66.58	0.05
PettyHR	M001	1789.72	Finnis-2050	134.800000	56.100	65.280990		65.2924	0.00002	0.48	302.445	55.90	0.06
PettyHR	M001	1724.70	Finnis-2050	134.800000	55.780	65.275190		65.2902	0.00003	0.55	264.376	48.39	0.07
PettyHR	M001	1668.81	Finnis-2050	134.800000	55.500	65.278380	58.4676	65.2870	0.00002	0.42	351.810	66.02	0.05
PettyHR	M001	1647.80	Finnis-2050	134.800000	55.400	65.279750	58.1536	65.2860	0.00001	0.35	408.865	78.84	0.04
PettyHR	M001	1631.79	Finnis-2050	134.800000	63.550	64.985730		65.2586	0.00443	2.31	58.245	40.63	0.62
PettyHR	M001	1615.46	Finnis-2050	136.800000	54.380	56.886650		57.1468	0.00527	3.70	65.695	40.28	0.76
PettyHR	M001	1601.08	Finnis-2050	136.800000	54.000	56.402420	56.4024	57.0007	0.01271	5.59	47.425	37.90	1.17
PettyHR	M001	1586.16	Finnis-2050	136.800000	53.360	55.417880	55.8679	56.6581	0.02928	7.71	32.418	26.95	1.74
PettyHR	M001	1571.98	Finnis-2050	136.800000	52.870	54.696250	55.0433	56.1583	0.04016	8.23	28.861	24.80	1.99
PettyHR	M001	1519.66	Finnis-2050	136.800000	51.620	53.338450	53.5347	54.1616	0.02989	6.69	38.262	39.37	1.68
PettyHR	M001	1467.14	Finnis-2050	136.800000	50.860	52.417860	52.3477	52.8550	0.01633	4.77	49.584	46.40	1.24
PettyHR	M001	1457.30	Finnis-2050	136.800000	50.230	52.111240	52.1112	52.6751	0.01662	5.49	45.431	38.70	1.30
PettyHR	M001	1444.51	Finnis-2050	136.800000	48.300	49.454290	50.0811	52.0032	0.14487	11.40	21.895	32.54	3.49
PettyHR	M001	1415.17	Finnis-2050	136.800000	48.280	50.138910	49.5967	50.3155	0.00475	2.90	76.494	53.82	0.69
PettyHR	M001	1402.15	Finnis-2050	136.800000	47.790	49.678510	49.6785	50.1778	0.01663	5.33	48.665	45.84	1.28
PettyHR	M001	1385.41	Finnis-2050	136.800000	43.100	44.978470	46.0093	49.2671	0.08920	12.20	18.872	19.86	2.95
PettyHR	M001	1370.82	Finnis-2050	136.800000	41.750	43.839440	45.0394	48.0201	0.07695	12.62	18.913	15.77	2.83
PettyHR	M001	1362.66	Finnis-2050	136.800000	39.880	42.414610	43.8393	47.3464	0.06655	13.08	17.864	12.53	2.68
PettyHR	M001	1336.64	Finnis-2050	136.800000	39.870	41.577930	42.5282	44.8437	0.09063	11.84	20.097	19.26	2.96
PettyHR	M001	1309.35	Finnis-2050	136.800000	38.400	39.875840	40.5541	42.2065	0.08214	10.14	22.267	21.92	2.74
PettyHR	M001	1279.20	Finnis-2050	136.800000	35.020	37.514070	38.4020	40.4221	0.04398	10.66	25.331	23.30	2.19
PettyHR	M001	1258.06	Finnis-2050	136.800000	34.010	36.793690	37.9682	39.5373	0.03431	10.22	23.963	15.08	1.98
PettyHR	M001	1221.17	Finnis-2050	136.800000	33.210	34.743950	35.5643	37.5611	0.09458	10.81	20.183	19.11	2.91
PettyHR	M001	1203.34	Finnis-2050	136.800000	32.610	33.981310	34.4825	35.6765	0.07921	9.39	26.844	34.14	2.65
PettyHR	M001	1164.99	Finnis-2050	136.800000	31.370	33.035300	33.2148	33.7933	0.02572	6.07	40.119	41.42	1.56
PettyHR	M001	1153.41	Finnis-2050	136.800000	30.700	31.918050	32.3520	33.2736	0.07181	8.42	29.088	38.13	2.49
PettyHR	M001	1125.74	Finnis-2050	136.800000	29.270	30.633070	30.9160	31.6207	0.04551	7.10	34.971	43.73	2.01
PettyHR	M001	1090.65	Finnis-2050	136.800000	28.120	29.424890	29.6211	30.1042	0.03697	6.05	42.299	60.50	1.78
PettyHR	M001	1059.48	Finnis-2050	136.800000	26.840	28.217910	28.4225	28.9205	0.03946	6.62	42.378	64.13	1.87
PettyHR	M001	1048.77	Finnis-2050	136.800000	26.290	27.610990	27.8518	28.4562	0.04368	6.67	38.513	55.22	1.95
PettyHR	M001	1021.54	Finnis-2050	136.800000	25.470	27.142770	27.2320	27.7592	0.02322	5.83	43.303	43.82	1.48
PettyHR	M001	1003.30	Finnis-2050	136.800000	23.420	25.198330	25.9948	27.0567	0.04766	8.90	25.395	20.75	2.17
PettyHR	M001	994.73	Finnis-2050	136.800000	22.700	25.816760	25.8168	26.5476	0.01006	5.96	45.695	29.34	1.09
PettyHR	M001	961.03	Finnis-2050	136.800000	22.070	24.742890	25.1081	26.0221	0.02021	7.53	34.452	25.74	1.50
PettyHR	M001	944.13	Finnis-2050	136.800000	21.890	23.738930	24.2770	25.5000	0.04025	8.34	27.236	22.78	2.00
PettyHR	M001	924.94	Finnis-2050	136.800000	20.780	22.881790	23.4290	24.7395	0.03780	8.78	25.657	17.70	1.98
PettyHR	M001	905.47	Finnis-2050	136.800000	19.730	22.129040	22.7187	24.0752	0.03121	8.80	25.947	16.33	1.84
PettyHR	M001	883.86	Finnis-2050	136.800000	17.290	21.380190	20.2255	21.6268	0.00171	2.96	77.746	43.26	0.47
PettyHR	M001	875		Bridge									
PettyHR	M001	859.53	Finnis-2050	136.800000	17.250	19.627590	19.6276	20.4319	0.01436	5.77	37.192	30.59	1.23
PettyHR	M001	836.76	Finnis-2050	136.800000	12.800	15.187470	16.3471	18.9859	0.04892	10.97	19.338	11.85	2.31
PettyHR	M001	823.70	Finnis-2050	136.800000	12.860	14.560580	15.2099	17.9857	0.09392	11.95	19.464	18.28	3.00
PettyHR	M001	811.96	Finnis-2050	136.800000	12.850	14.860770	15.4711	16.7897	0.04702	9.59	28.815	30.68	2.20
PettyHR	M001	796.92	Finnis-2050	136.800000	12.740	14.193060	14.6767	15.8558	0.07436	9.66	27.318	33.94	2.61
PettyHR	M001	784.11	Finnis-2050	136.800000	11.820	13.826950	14.2142	15.1230	0.03331	7.99	34.779	37.60	1.84
PettyHR	M001	769.86	Finnis-2050	136.800000	10.940	12.726630	13.3371	14.5309	0.04444	8.56	26.767	23.56	2.09
PettyHR	M001	748.76	Finnis-2050	136.800000	8.370	10.987430	11.7938	13.6522	0.03291	9.47	25.814	20.78	1.91
PettyHR	M001	720.33	Finnis-2050	136.800000	8.080	9.207468	9.9083	11.9656	0.14735	10.82	20.542	28.42	3.46
PettyHR	M001	707.57	Finnis-2050	136.800000	6.850	8.359511	8.9150	10.3856	0.07422	9.76	26.253	33.33	2.61
PettyHR	M001	685.99	Finnis-2050	136.800000	5.310	7.039390	7.5607	8.9297	0.05904	9.40	27.757	32.22	2.37
PettyHR	M001	666.04	Finnis-2050	136.800000	5.030	6.764055	7.1076	7.8255	0.03032	6.79	37.565	43.47	1.70
PettyHR	M001	652.51	Finnis-2050	136.800000	4.660	6.374589	6.8389	7.3556	0.03339	7.04	38.897	48.40	1.78
PettyHR	M001	633.61	Finnis-2050	136.800000	4.400	5.465720	5.8017	6.5408	0.05961	6.77	33.564	77.26	2.21
PettyHR	M001	622.83	Finnis-2050	136.800000	4.090	5.342376	5.3424	5.6641	0.01693	4.04	61.214	118.05	1.21
PettyHR	M001	577.97	Finnis-2050	136.800000	2.480	3.813534	3.9913	4.4267	0.04799	7.06	46.034	111.83	2.03
PettyHR	M001	525.57	Finnis-2050	136.800000	0.510	3.415390	2.3897	3.4808	0.00125	2.02	138.645	123.18	0.38
PettyHR	M001	491.94	Finnis-2050	136.800000	-0.590	3.296009	2.2830	3.4334	0.00115	2.13	124.938	129.37	0.37
PettyHR	M001	485		Bridge									
PettyHR	M001	478.84	Finnis-2050	136.800000	-1.920	2.818104	0.7957	2.9191	0.00054	1.55	142.228	149.00	0.25
PettyHR	M001	439.27	Finnis-2050	136.800000	-1.890	2.848005		2.8673	0.00015	0.85	273.890	134.40	0.13
PettyHR	M001	405.68	Finnis-2050	136.800000	-2.130	2.841903		2.8623	0.00014	0.82	271.879	140.09	0.13
PettyHR	M001	367.80	Finnis-2050	136.800000	-2.020	2.843890		2.8545	0.00005	0.47	338.739	143.66	0.08
PettyHR	M001	338.85	Finnis-2050	136.800000	-2.890	2.844434		2.8528	0.00003	0.42	373.578	128.53	0.06
PettyHR	M001	305.38	Finnis-2050	136.800000	-2.460	2.841167		2.8515	0.00004	0.47	339.440	121.69	0.07
PettyHR	M001	269.29	Finnis-2050	136.800000	-3.520	2.837786		2.8500	0.00004	0.50	317.879	113.45	0.07
PettyHR	M001	238.18	Finnis-2050	136.800000	-3.500	2.830820		2.8481	0.00005	0.61	276.716	106.10	0.08
PettyHR	M001	201.25	Finnis-2050	136.800000	-4.430	2.836902		2.8440	0.00002	0.38	401.189	125.64	0.05
PettyHR	M001	150.84	Finnis-2050	136.800000	-3.340	2.838811		2.8423	0.00001	0.27	572.536	172.79	0.04
PettyHR	M001	105.74	Finnis-2050	136.800000	-2.910	2.838285		2.8419	0.00001	0.27	550.190	155.60	0.04
PettyHR	M001	91.29	Finnis-2050	136.800000	-3.360	2.838331		2.8416	0.00001	0.26	563.944	146.52	0.04
PettyHR	M001	20.04	Finnis-2050	136.800000	-6.190	2.838865		2.8408	0.00000	0.20	756.897	186.23	0.03
PettyHR	M001	12.04	Finnis-2050	136.800000	-6.190	2.820010	-3.3334	2.8390	0.00008	0.69	317.442	186.16	0.08
ForthP	M001	2616.90	Finnis-2050	13.500000	123.090	124.393400	123.3850	124.3944	0.00002	0.16	118.133	148.56	0.05
ForthP	M001	2528.45	Finnis-2050	13.500000	123.090	124.393000		124.3933	0.00001	0.08	194.393	192.13	0.02
ForthP	M001	2324.32	Finnis-2050	13.500000	123.090	124.390300		124.3912	0.00002	0.14	132.052	199.10	0.04
ForthP	M001	2187.52	Finnis-2050	13.500000	123.090	124.389800		124.3900	0.00000	0.06	257.868	281.21	0.02
ForthP	M001	1955.13	Finnis-2050	13.500000	123.090	124.388900		124.3890	0.00000	0.06	298.459	306.39	0.02
ForthP	M001	1773.83	Finnis-2050	13.500000	123.090	124.388500		124.3886	0.00000	0.04	369.963	340.81	0.01
ForthP	M001	1572.85	Finnis-2050	13.500000	123.090	124.388300		124.3883	0.00000	0.04	354.954	315.73	0.01

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
ForthP	M001	1496.60	Finnis-2050	13.500000	123.090	124.388100		124.3882	0.00000	0.05	298.400	271.07	0.01
ForthP	M001	1392.58	Finnis-2050	18.500000	122.980	124.384100	124.0912	124.3867	0.00020	0.50	92.427	163.63	0.14
ForthP	M001	1390		Culvert									
ForthP	M001	1381.72	Finnis-2050	18.500000	122.950	124.149000	124.0475	124.1740	0.00267	1.48	37.799	133.80	0.45
ForthP	M001	1360.50	Finnis-2050	18.500000	122.870	123.927900		124.0545	0.00774	2.28	15.309	34.53	0.78
ForthP	M001	1311.12	Finnis-2050	18.500000	122.520	123.645300		123.7166	0.00545	1.96	20.127	48.30	0.65
ForthP	M001	1261.17	Finnis-2050	18.500000	121.360	122.791100	122.7911	123.2820	0.01229	3.57	7.615	10.94	1.03
ForthP	M001	1211.51	Finnis-2050	18.500000	119.830	121.010900	121.4002	122.2010	0.04021	5.50	4.610	6.98	1.77
ForthP	M001	1161.66	Finnis-2050	18.500000	117.250	118.198100	118.5388	119.6095	0.06786	6.03	4.933	16.73	2.22
ForthP	M001	1112.05	Finnis-2050	18.500000	114.880	115.745200	115.9731	116.4728	0.05194	5.25	6.787	23.73	1.94
ForthP	M001	1062.35	Finnis-2050	18.500000	113.160	114.005400	114.1156	114.3781	0.03175	3.75	7.589	15.30	1.45
ForthP	M001	1041.93	Finnis-2050	18.500000	112.620	113.722000	113.7424	113.9255	0.01369	2.99	12.199	35.73	1.00
ForthP	M001	1031.90	Finnis-2050	18.500000	112.310	113.319500	113.4445	113.7179	0.02957	4.16	9.903	36.67	1.45
ForthP	M001	1011.12	Finnis-2050	18.500000	111.620	112.470500	112.6262	112.9566	0.04522	4.70	8.778	33.66	1.79
ForthP	M001	959.76	Finnis-2050	18.500000	110.310	110.984400	111.0174	111.1419	0.02717	2.85	12.917	53.62	1.31
ForthP	M001	908.93	Finnis-2050	18.500000	109.250	109.745800	109.6929	109.8011	0.01515	1.75	19.083	82.17	0.94
ForthP	M001	856.39	Finnis-2050	18.500000	108.380	108.751400		108.8021	0.01791	1.28	18.814	87.59	0.92
ForthP	M001	806.25	Finnis-2050	18.500000	107.090	107.844200	107.8442	107.9419	0.01821	2.65	17.798	85.90	1.09
ForthP	M001	754.78	Finnis-2050	18.500000	106.120	107.072700	107.0363	107.1370	0.00760	2.15	23.115	86.53	0.75
ForthP	M001	734.50	Finnis-2050	18.500000	105.470	106.441800	106.4418	106.8759	0.02790	3.91	9.290	35.23	1.41
ForthP	M001	724.30	Finnis-2050	18.500000	105.280	106.328700	106.4314	106.6218	0.01721	3.30	12.007	49.48	1.14
ForthP	M001	703.65	Finnis-2050	18.500000	105.020	105.896900	105.9662	106.1572	0.02953	3.90	10.919	37.43	1.43
ForthP	M001	654.47	Finnis-2050	18.500000	103.900	105.186200	104.6439	105.1957	0.00065	0.79	46.760	71.84	0.23
ForthP	M001	605.63	Finnis-2050	18.500000	102.270	103.039600	103.0396	104.9048	0.13506	7.14	3.973	12.83	3.00
ForthP	M001	585.13	Finnis-2050	18.500000	101.550	102.294300	102.4238	102.7800	0.05905	4.56	9.553	57.75	1.97
ForthP	M001	577.30	Finnis-2050	18.500000	101.520	102.063900	102.1196	102.2639	0.05355	3.42	10.975	55.56	1.76
ForthP	M001	557.33	Finnis-2050	18.500000	100.670	101.194400	101.2183	101.3339	0.04011	2.73	12.657	63.21	1.50
ForthP	M001	507.84	Finnis-2050	18.500000	98.920	99.489760	99.4970	99.5997	0.03036	2.51	14.564	75.56	1.32
ForthP	M001	453.33	Finnis-2050	18.500000	96.280	96.836420	96.9224	97.1334	0.06928	3.76	10.802	76.08	2.00
ForthP	M001	402.29	Finnis-2050	18.500000	94.960	95.467800	95.4678	95.6011	0.03613	2.80	12.436	49.95	1.44
ForthP	M001	349.18	Finnis-2050	18.500000	93.640	94.084230	93.9887	94.1311	0.01392	1.37	19.605	69.75	0.85
ForthP	M001	297.76	Finnis-2050	18.500000	92.550	93.370480	93.3705	93.4767	0.01433	2.43	17.095	75.14	0.99
ForthP	M001	246.28	Finnis-2050	18.500000	91.710	92.307050	92.3219	92.4235	0.02638	2.40	15.081	71.01	1.25
ForthP	M001	182.03	Finnis-2050	18.500000	90.940	91.941770	91.6126	91.9579	0.00205	1.10	38.186	93.70	0.39
ForthP	M001	160.27	Finnis-2050	18.500000	90.130	91.947530	91.0408	91.9493	0.00006	0.30	122.103	143.19	0.07
ForthP	M001	150		Culvert									
ForthP	M001	144.74	Finnis-2050	18.500000	89.900	90.842450	90.7445	91.1374	0.00878	2.43	7.837	80.79	0.83
ForthP	M001	124.30	Finnis-2050	18.500000	89.740	90.736930	90.7369	90.8516	0.01072	2.46	19.163	68.72	0.89
ForthP	M001	61.58	Finnis-2050	18.500000	88.750	89.716420	89.7723	89.9489	0.01903	3.18	13.365	46.47	1.17
ForestP	M001	1557.91	Finnis-2050	9.499998	78.250	79.758770	78.4769	79.7590	0.00000	0.06	153.676	122.53	0.02
ForestP	M001	1428.05	Finnis-2050	9.499998	78.250	79.758520		79.7586	0.00000	0.05	210.178	177.85	0.01
ForestP	M001	1315.71	Finnis-2050	9.499998	78.250	79.758420		79.7585	0.00000	0.03	295.412	243.93	0.01
ForestP	M001	1228.83	Finnis-2050	9.499998	78.250	79.758360		79.7584	0.00000	0.03	353.295	292.29	0.01
ForestP	M001	1138.84	Finnis-2050	9.499998	78.250	79.758320		79.7584	0.00000	0.02	413.917	344.60	0.01
ForestP	M001	1077.28	Finnis-2050	9.499998	78.250	79.758290		79.7583	0.00000	0.02	463.172	485.01	0.01
ForestP	M001	1019.12	Finnis-2050	9.499998	78.250	79.758160		79.7583	0.00000	0.05	235.674	289.64	0.01
ForestP	M001	958.61	Finnis-2050	12.200000	78.150	79.728870	79.5024	79.7551	0.00088	0.87	27.294	71.40	0.26
ForestP	M001	955		Culvert									
ForestP	M001	949.85	Finnis-2050	12.200000	77.760	79.620850	79.6209	79.7324	0.00637	1.92	14.194	55.64	0.50
ForestP	M001	913.34	Finnis-2050	12.200000	78.160	79.104330	79.1269	79.3386	0.02712	3.64	7.195	19.73	1.30
ForestP	M001	883.23	Finnis-2050	12.200000	77.540	78.360650	78.4334	78.5971	0.02297	3.19	9.071	39.42	1.26
ForestP	M001	859.61	Finnis-2050	12.200000	76.750	77.513730	77.6103	77.9052	0.03699	3.90	5.535	14.43	1.58
ForestP	M001	831.71	Finnis-2050	12.200000	75.740	76.770550	76.8348	77.1223	0.02222	3.62	5.971	12.03	1.26
ForestP	M001	802.91	Finnis-2050	12.200000	74.660	75.493470	75.7243	76.2054	0.04635	4.70	4.281	10.40	1.80
ForestP	M001	772.90	Finnis-2050	12.200000	73.770	74.579800	74.6742	74.9170	0.03271	3.86	6.013	15.84	1.48
ForestP	M001	737.48	Finnis-2050	12.200000	72.770	73.454270	73.5179	73.7108	0.03335	3.44	6.836	21.47	1.47
ForestP	M001	688.06	Finnis-2050	12.200000	71.800	72.430130	72.4155	72.5417	0.02524	2.69	9.343	33.65	1.20
ForestP	M001	651.32	Finnis-2050	12.200000	70.810	71.450500	71.4402	71.6075	0.02547	2.97	8.897	32.37	1.29
ForestP	M001	600.44	Finnis-2050	12.200000	69.800	70.356250	70.3220	70.4340	0.02042	2.34	12.967	72.25	1.12
ForestP	M001	578.60	Finnis-2050	12.200000	69.310	69.929530	69.9295	70.0091	0.01792	2.36	15.056	89.59	1.07
ForestP	M001	528.92	Finnis-2050	12.200000	68.580	69.740200	69.2931	69.7451	0.00055	0.67	49.601	115.12	0.21
ForestP	M001	478.55	Finnis-2050	12.200000	68.210	69.735950		69.7370	0.00006	0.27	102.267	142.36	0.07
ForestP	M001	430.82	Finnis-2050	12.200000	67.770	69.734710		69.7352	0.00002	0.20	147.243	162.09	0.05
ForestP	M001	378.18	Finnis-2050	12.200000	67.480	69.734630		69.7347	0.00000	0.09	334.086	321.91	0.02
ForestP	M001	328.07	Finnis-2050	12.200000	67.340	69.734530		69.7346	0.00000	0.06	455.073	376.77	0.01
ForestP	M001	277.95	Finnis-2050	12.200000	67.070	69.734470		69.7345	0.00000	0.05	550.803	441.20	0.01
ForestP	M001	195.51	Finnis-2050	12.200000	66.230	69.734450		69.7345	0.00000	0.03	965.525	617.60	0.00
ForestP	M001	158.37	Finnis-2050	12.200000	66.230	69.734460		69.7345	0.00000	0.01	1702.593	711.90	0.00
ForestP	M001	89.11	Finnis-2050	12.200000	66.230	69.734460		69.7345	0.00000	0.01	1885.258	778.52	0.00
DoylesR	TR019	260.51	Finnis-2050	0.400000	124.740	125.133300	124.9452	125.1338	0.00014	0.15	5.439	40.54	0.09
DoylesR	TR019	199.72	Finnis-2050	0.400000	124.550	125.133100		125.1331	0.00000	0.02	40.074	141.13	0.01
DoylesR	TR019	150.00	Finnis-2050	0.400000	124.370	125.132900		125.1329	0.00000	0.02	43.668	162.53	0.01
DoylesR	TR019	100.00	Finnis-2050	0.400000	124.160	125.132800		125.1328	0.00000	0.03	40.097	215.89	0.01
DoylesR	TR019	50.00	Finnis-2050	0.400000	124.180	125.132700		125.1327	0.00000	0.02	68.017	256.59	0.01
DoylesR	TR018	302.01	Finnis-2050	1.700000	127.900	128.509500	128.0713	128.5103	0.00006	0.16	17.552	45.20	0.07
DoylesR	TR018	270.53	Finnis-2050	1.700000	126.190	128.510000	126.9697	128.5100	0.00000	0.02	262.359	244.89	0.00
DoylesR	TR018	260		Culvert									
DoylesR	TR018	257.62	Finnis-2050	1.700000	126.190	128.509900	126.9944	128.5099	0.00000	0.01	267.442	215.49	0.00
DoylesR	TR018	244.68	Finnis-2050	1.700000	125.640	128.509900	126.7122	128.5099	0.00000	0.01	305.680	215.15	0.00
DoylesR	TR018	200		Culvert									
DoylesR	TR018	169.24	Finnis-2050	1.700000	125.400	126.273900	126.2668	126.6714	0.01626	3.21	0.656	76.64	1.12
DoylesR	TR018	131.43	Finnis-2050	1.700000	125.240	125.447400	125.4474	125.4876	0.03799	1.29	2.597	53.19	1.23
DoylesR	TR018	59.79	Finnis-2050	1.700000	124.570	125.179300	124.9098	125.1804	0.00020	0.25	19.053	133.69	0.11
DoylesR	TR017	4043.45	Finnis-2050	9.299999	124.050	125.102600		125.1243	0.00147	1.11	23.291	93.41	0.35
DoylesR	TR017	3983.69	Finnis-2050	9.299999	124.040	124.988700		125.0217	0.00226	1.16	20.367	97.05	0.41
DoylesR	TR017	3923.93	Finnis-2050	9.299999	124.030	124.625000	124.6250	124.7371	0.02008	2.08	8.610	44.16	1.09
DoylesR	TR017	3889.37	Finnis-2050	9.299999	123.600	123.808100	123.6602	123.8269	0.00700	0.41	15.358	66.08	0.49
DoylesR	TR017	3781.64	Finnis-2050	9.299999	122.550	123.602500		123.6255	0.00194	1.17	21.568	74.76	0.39
DoylesR	TR017	3768.91	Finnis-2050	9.299999	122.350	123.255800	123.2558	123.5413	0.01300	2.58	4.784	10.98	0.95
DoylesR	TR017	3745.98	Finnis-2050	9.299999	121.860	122.413500	122.5160	122.7729	0.07223	3.53	4.761	33.34	1.97

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR017	3713.18	Finnis-2050	9.299999	120.990	121.624800	121.6665	121.8684	0.01759	2.36	4.958	14.65	1.07
DoylesR	TR017	3692.45	Finnis-2050	9.299999	120.340	121.006500	121.1449	121.3720	0.02960	3.00	4.247	14.33	1.38
DoylesR	TR017	3679.05	Finnis-2050	9.299999	119.970	120.779600	120.8801	121.0708	0.01602	2.74	5.281	23.34	1.07
DoylesR	TR017	3656.84	Finnis-2050	9.299999	117.590	118.107900	118.5385	120.0445	0.20352	6.35	1.649	6.26	3.43
DoylesR	TR017	3603.67	Finnis-2050	9.299999	116.290	117.019600	117.0812	117.2367	0.01826	2.69	6.177	24.89	1.12
DoylesR	TR017	3583.40	Finnis-2050	9.299999	115.960	116.622400	116.6837	116.8333	0.02427	2.80	6.426	28.98	1.25
DoylesR	TR017	3571.14	Finnis-2050	9.299999	115.760	116.306400	116.3505	116.4761	0.03047	2.86	6.655	33.11	1.37
DoylesR	TR017	3545.42	Finnis-2050	9.299999	115.220	115.861500	115.8822	116.0217	0.01866	2.34	6.672	24.97	1.08
DoylesR	TR017	3483.93	Finnis-2050	9.299999	114.350	114.848100	114.9336	115.1798	0.07924	4.08	5.947	55.02	2.14
DoylesR	TR017	3432.55	Finnis-2050	9.299999	113.790	114.549300	114.4956	114.6055	0.00831	1.83	13.556	66.04	0.74
DoylesR	TR017	3345.48	Finnis-2050	9.299999	113.030	113.576600	113.5766	113.6813	0.02443	2.28	8.349	44.77	1.19
DoylesR	TR017	3300.07	Finnis-2050	9.299999	112.420	113.004300	112.8856	113.0201	0.00404	0.98	19.039	77.97	0.49
DoylesR	TR016	918.87	Finnis-2050	3.400001	127.080	128.801600	127.2600	128.8016	0.00000	0.02	404.954	361.59	0.00
DoylesR	TR016	898.71	Finnis-2050	3.400001	126.900	128.801600	128.1231	128.8016	0.00000	0.04	196.577	225.39	0.01
DoylesR	TR016	890		Culvert									
DoylesR	TR016	882.28	Finnis-2050	3.400001	126.880	128.741500	128.1472	128.7416	0.00000	0.08	106.746	158.92	0.02
DoylesR	TR016	877.71	Finnis-2050	3.400001	126.240	128.741500	127.5360	128.7416	0.00000	0.09	126.118	190.75	0.02
DoylesR	TR016	850		Culvert									
DoylesR	TR016	848.13	Finnis-2050	3.400001	126.370	127.636100	127.6361	128.2521	0.01211	3.48	0.978	97.33	1.00
DoylesR	TR016	818.98	Finnis-2050	3.400001	126.360	126.676500	126.8019	127.3528	0.16708	3.84	1.140	12.72	2.81
DoylesR	TR016	768.99	Finnis-2050	3.400001	126.300	126.664300	126.5921	126.6774	0.00420	0.77	8.406	51.56	0.47
DoylesR	TR016	714.09	Finnis-2050	3.400001	125.960	126.381100	126.3107	126.4027	0.00564	0.94	6.645	37.26	0.56
DoylesR	TR016	675.95	Finnis-2050	3.400001	125.740	126.097400	126.0974	126.1472	0.01458	1.33	4.938	45.54	0.87
DoylesR	TR016	659.39	Finnis-2050	3.400001	125.100	125.458500	125.5520	125.7034	0.05345	2.69	2.093	15.40	1.68
DoylesR	TR016	632.80	Finnis-2050	3.400001	124.780	125.277300	125.2773	125.3480	0.01049	1.47	4.224	28.48	0.78
DoylesR	TR016	610.50	Finnis-2050	3.400001	123.780	124.289400	124.4806	124.8076	0.05422	3.51	1.296	5.40	1.79
DoylesR	TR016	549.37	Finnis-2050	3.400001	122.300	122.964400	123.0050	123.1112	0.01574	2.12	3.076	18.39	0.97
DoylesR	TR016	494.31	Finnis-2050	3.400001	120.930	121.582000	121.6805	121.9339	0.02969	2.67	1.383	4.43	1.31
DoylesR	TR016	473.82	Finnis-2050	3.400001	120.180	120.703400	120.8532	121.1569	0.04878	3.08	1.261	5.00	1.66
DoylesR	TR016	459.95	Finnis-2050	3.400001	119.620	120.115000	120.2346	120.5030	0.04430	2.83	1.333	5.27	1.58
DoylesR	TR016	439.99	Finnis-2050	3.400001	119.050	119.743700	119.7574	119.9756	0.01753	2.17	1.710	4.90	1.03
DoylesR	TR016	384.99	Finnis-2050	3.400001	117.070	117.524000	117.6930	118.0932	0.08825	3.35	1.033	4.63	2.13
DoylesR	TR016	329.99	Finnis-2050	3.400001	115.670	116.180500	116.1934	116.2770	0.01548	1.63	3.407	23.76	0.93
DoylesR	TR016	274.18	Finnis-2050	3.400001	114.930	115.342700	115.3381	115.3896	0.01193	1.27	5.373	48.80	0.79
DoylesR	TR016	218.88	Finnis-2050	3.400001	114.350	114.841600	114.8393	114.8942	0.01161	1.33	5.518	57.28	0.79
DoylesR	TR016	165.43	Finnis-2050	3.400001	113.830	114.401200	114.4012	114.4613	0.00832	1.34	5.029	36.86	0.70
DoylesR	TR016	86.48	Finnis-2050	3.400001	112.800	113.245700	113.2839	113.3949	0.02751	1.90	2.388	13.36	1.19
DoylesR	TR016	40.19	Finnis-2050	3.400001	112.210	112.837000	112.7229	112.8477	0.00194	0.72	10.945	61.98	0.35
DoylesR	TR015	3230.71	Finnis-2050	20.300000	111.600	112.565300		112.6246	0.00691	2.06	24.740	79.10	0.72
DoylesR	TR015	3185.04	Finnis-2050	20.300000	111.220	112.180800	112.1699	112.3138	0.01312	2.62	17.362	51.65	0.97
DoylesR	TR015	3133.58	Finnis-2050	20.300000	110.570	111.438500	111.4385	111.5842	0.01632	2.86	16.086	48.46	1.08
DoylesR	TR015	3079.97	Finnis-2050	20.300000	108.170	109.183700	109.5235	110.1599	0.04255	5.00	5.918	12.05	1.78
DoylesR	TR015	3026.43	Finnis-2050	20.300000	107.300	109.176600	108.3952	109.2086	0.00067	1.02	33.689	34.58	0.25
DoylesR	TR015	3001.28	Finnis-2050	20.300000	106.170	109.190900	108.6522	109.1948	0.00010	0.52	92.848	80.69	0.10
DoylesR	TR015	3000		Culvert									
DoylesR	TR015	2988.77	Finnis-2050	20.300000	106.030	108.133200	108.1332	108.3123	0.00329	2.55	23.764	57.96	0.58
DoylesR	TR015	2963.30	Finnis-2050	20.300000	105.690	106.627600	106.9399	107.7901	0.06257	6.04	6.750	20.05	2.12
DoylesR	TR015	2915.60	Finnis-2050	20.300000	104.530	105.683600	105.7981	106.0884	0.01958	3.73	10.684	24.10	1.23
DoylesR	TR015	2867.64	Finnis-2050	20.300000	103.370	104.568700	104.6878	105.0820	0.02699	4.50	9.734	21.60	1.43
DoylesR	TR015	2841.04	Finnis-2050	20.300000	102.400	102.994300	103.1750	103.6494	0.11878	5.26	7.316	28.48	2.66
DoylesR	TR015	2804.73	Finnis-2050	20.300000	101.670	102.562800	102.5036	102.6984	0.01366	2.67	16.038	37.88	0.99
DoylesR	TR015	2742.98	Finnis-2050	20.300000	100.870	101.695300	101.6931	101.8123	0.01716	2.89	19.279	68.31	1.10
DoylesR	TR015	2687.77	Finnis-2050	20.300000	100.070	100.739400	100.7394	100.8444	0.01952	2.57	18.436	74.84	1.13
DoylesR	TR015	2638.14	Finnis-2050	20.300000	98.950	99.772070	99.8451	100.0239	0.02970	3.83	14.008	52.52	1.46
DoylesR	TR015	2593.26	Finnis-2050	20.300000	97.750	98.890240	98.8739	99.0478	0.01144	2.90	16.801	43.86	0.94
DoylesR	TR015	2557.12	Finnis-2050	20.300000	97.530	98.621800		98.7245	0.00823	2.49	19.999	51.37	0.81
DoylesR	TR015	2522.34	Finnis-2050	20.300000	97.260	98.236760	98.2368	98.4059	0.01293	2.63	15.612	44.36	0.97
DoylesR	TR015	2483.94	Finnis-2050	20.300000	96.950	97.703940	97.6652	97.7930	0.01603	2.38	18.203	60.38	1.01
DoylesR	TR015	2438.99	Finnis-2050	20.300000	96.350	97.494010		97.5325	0.00324	1.56	32.577	95.48	0.51
DoylesR	TR015	2387.12	Finnis-2050	20.300000	96.390	97.447200		97.4547	0.00090	0.74	59.320	131.78	0.26
DoylesR	TR015	2352.45	Finnis-2050	20.300000	96.400	97.426660		97.4319	0.00048	0.55	66.523	106.14	0.19
DoylesR	TR015	2283.37	Finnis-2050	20.300000	95.750	97.271260		97.3580	0.00287	1.84	19.450	24.00	0.51
DoylesR	TR015	2231.50	Finnis-2050	20.300000	95.540	96.737500	96.7375	97.0603	0.01404	3.32	10.607	20.24	1.06
DoylesR	TR015	2160.12	Finnis-2050	20.300000	94.930	96.023480	95.9309	96.1994	0.00903	2.48	13.312	22.61	0.84
DoylesR	TR015	2119.11	Finnis-2050	20.300000	94.440	95.543810	95.5438	95.7857	0.01371	3.07	12.871	28.62	1.02
DoylesR	TR015	2075.88	Finnis-2050	20.300000	93.860	94.841800	94.9146	95.1168	0.01712	3.15	13.380	46.94	1.14
DoylesR	TR015	2024.01	Finnis-2050	20.300000	93.190	94.293040	94.3019	94.4475	0.01065	2.65	16.679	50.96	0.90
DoylesR	TR015	1972.14	Finnis-2050	20.300000	92.710	93.764540	93.7863	93.8961	0.01225	2.83	19.442	76.41	0.96
DoylesR	TR015	1921.75	Finnis-2050	20.300000	92.350	93.523930	93.1621	93.5434	0.00183	1.20	39.026	91.83	0.38
DoylesR	TR015	1851.62	Finnis-2050	20.300000	91.240	93.111580	93.1116	93.3642	0.00581	2.84	15.095	32.38	0.71
DoylesR	TR014	2057.49	Finnis-2050	12.300000	125.480	126.610700	126.4295	126.6414	0.00236	1.22	23.974	72.27	0.42
DoylesR	TR014	2037.89	Finnis-2050	12.300000	125.570	126.609500		126.6147	0.00051	0.59	48.921	116.15	0.20
DoylesR	TR014	1988.88	Finnis-2050	12.300000	124.710	126.500900	126.0577	126.5721	0.00115	1.28	17.107	53.77	0.32
DoylesR	TR014	1980		Culvert									
DoylesR	TR014	1975.46	Finnis-2050	12.300000	124.460	126.486800	125.8113	126.5589	0.00089	1.24	14.759	39.50	0.29
DoylesR	TR014	1936.56	Finnis-2050	12.300000	124.860	126.220100	126.0055	126.4425	0.00552	2.43	8.914	23.27	0.70
DoylesR	TR014	1904.43	Finnis-2050	12.300000	124.720	125.904900	125.9049	126.2080	0.00934	2.83	6.998	12.33	0.88
DoylesR	TR014	1867.03	Finnis-2050	12.300000	124.610	125.659200	125.3768	125.7571	0.00440	1.79	12.306	25.04	0.59
DoylesR	TR014	1801.50	Finnis-2050	12.300000	124.000	125.062800	125.0628	125.3069	0.01097	2.83	7.882	16.43	0.93
DoylesR	TR014	1765.57	Finnis-2050	12.300000	123.200	123.749300	123.9475	124.4559	0.06848	4.24	4.291	18.30	2.07
DoylesR	TR014	1703.29	Finnis-2050	12.300000	121.820	122.770400	122.8215	123.0122	0.01002	2.56	8.519	25.05	0.89
DoylesR	TR014	1657.91	Finnis-2050	12.300000	121.270	122.015800	122.1205	122.3774	0.02062	2.90	6.059	19.08	1.20
DoylesR	TR014	1607.98	Finnis-2050	12.300000	120.590	121.457200	121.4824	121.6011	0.01061	2.35	12.300	47.49	0.88
DoylesR	TR014	1544.18	Finnis-2050	12.300000	119.810	120.684500	120.7334	120.8626	0.01243	2.60	10.991	42.35	0.96
DoylesR	TR014	1492.70	Finnis-2050	12.300000	119.060	119.713800	119.7929	119.9688	0.02470	2.98	8.786	40.96	1.29
DoylesR	TR014	1441.23	Finnis-2050	12.300000	117.590	118.695900	118.7841	119.0324	0.01395	3.34	7.684	19.97	1.06
DoylesR	TR014	1420.98	Finnis-2050	12.300000	116.980	118.335300	117.8128	118.4010	0.00197	1.46	13.175	14.23	0.42
DoylesR	TR014	1411.86	Finnis-2050	12.300000	117.030	118.220200	117.8277	118.3646	0.00390	1.98	8.030	12.53	0.58
DoylesR	TR014	1400		Bridge									
DoylesR	TR014	1384.41	Finnis-2050	14.100000	116.710	117.589900	117.5899	117.9636	0.01400	2.91	5.480	9.98	1.04

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR014	1374.60	Finnis-2050	14.100000	116.540	117.532200	117.4148	117.7395	0.00760	2.26	8.012	12.00	0.77
DoylesR	TR014	1353.25	Finnis-2050	14.100000	116.210	117.195800	117.1958	117.5234	0.01251	2.87	6.519	10.55	0.99
DoylesR	TR014	1309.14	Finnis-2050	14.100000	115.500	116.296200	116.4067	116.7932	0.02211	3.14	4.630	8.11	1.25
DoylesR	TR014	1296.25	Finnis-2050	14.100000	115.120	116.149600	116.2401	116.6316	0.01794	3.55	5.421	8.33	1.19
DoylesR	TR014	1239.25	Finnis-2050	14.100000	113.430	114.132900	114.3997	114.9334	0.05033	4.47	4.380	12.11	1.86
DoylesR	TR014	1203.69	Finnis-2050	14.100000	112.840	113.716500	113.6294	113.8249	0.00900	2.30	11.638	26.36	0.82
DoylesR	TR014	1182.25	Finnis-2050	14.100000	112.530	113.376800	113.3768	113.5804	0.01324	2.66	9.329	21.61	0.99
DoylesR	TR014	1125.25	Finnis-2050	14.100000	111.300	112.583300	112.3187	112.6505	0.00335	1.78	15.753	24.77	0.53
DoylesR	TR014	1104.23	Finnis-2050	14.100000	111.160	112.218900	112.2189	112.5028	0.01366	3.00	8.233	17.81	1.02
DoylesR	TR014	1094.88	Finnis-2050	14.100000	110.550	111.418600	111.6587	112.2320	0.04628	5.10	4.788	11.24	1.86
DoylesR	TR014	1075.36	Finnis-2050	14.100000	110.170	111.241200	111.3200	111.5671	0.01739	3.59	8.498	19.83	1.17
DoylesR	TR014	1027.18	Finnis-2050	14.100000	109.150	110.004300	110.1482	110.4719	0.02996	3.84	6.552	16.95	1.47
DoylesR	TR014	980.74	Finnis-2050	14.100000	107.890	109.009700	108.6906	109.0851	0.00390	1.81	14.536	22.03	0.57
DoylesR	TR014	954.47	Finnis-2050	14.100000	107.680	108.708600	108.7086	108.9130	0.01072	2.69	10.468	25.14	0.91
DoylesR	TR014	934.37	Finnis-2050	14.100000	106.990	107.954100	108.1483	108.4875	0.02740	3.94	6.841	20.83	1.42
DoylesR	TR014	907.24	Finnis-2050	14.100000	106.520	107.329800	107.4389	107.6514	0.02895	3.76	8.436	25.93	1.44
DoylesR	TR014	868.80	Finnis-2050	14.100000	105.880	106.914700	106.9066	107.1412	0.01044	2.65	9.704	22.72	0.90
DoylesR	TR014	864.98	Finnis-2050	14.100000	105.700	106.811100	106.8111	107.0903	0.01014	2.60	7.806	16.13	0.89
DoylesR	TR014	844.06	Finnis-2050	14.100000	105.100	106.372800	106.2415	106.5772	0.00673	2.48	9.325	15.50	0.75
DoylesR	TR014	836.52	Finnis-2050	14.100000	104.970	106.185700	106.1857	106.5013	0.01144	2.95	7.532	13.88	0.95
DoylesR	TR014	816.09	Finnis-2050	14.100000	104.780	105.429700	105.6167	106.0258	0.05727	4.21	5.357	19.84	1.92
DoylesR	TR014	811.48	Finnis-2050	14.100000	104.640	105.693400	105.4473	105.7780	0.00479	1.85	13.882	26.74	0.62
DoylesR	TR014	783.28	Finnis-2050	14.100000	103.980	105.211700	105.2117	105.5473	0.01248	3.33	7.183	10.80	1.01
DoylesR	TR014	751.27	Finnis-2050	14.100000	103.310	104.333100	104.5147	104.9542	0.02617	3.61	4.534	8.91	1.37
DoylesR	TR014	717.94	Finnis-2050	14.100000	102.630	104.034500	104.0540	104.3237	0.01046	3.29	8.499	14.25	0.93
DoylesR	TR014	676.43	Finnis-2050	14.100000	102.180	103.264400	103.4948	103.7314	0.01844	3.43	6.531	15.90	1.18
DoylesR	TR014	601.44	Finnis-2050	14.100000	101.390	102.435900	102.2963	102.5404	0.00595	1.99	12.078	23.55	0.68
DoylesR	TR014	540.83	Finnis-2050	14.100000	100.490	101.562300	101.5470	101.9779	0.01473	3.16	6.071	12.75	1.07
DoylesR	TR014	519.25	Finnis-2050	14.100000	99.690	101.810200	101.5170	101.8259	0.00060	0.94	37.113	66.48	0.21
DoylesR	TR014	510		Culvert									
DoylesR	TR014	505.00	Finnis-2050	14.100000	99.620	101.552200	101.5522	101.5957	0.00169	1.47	25.579	61.32	0.34
DoylesR	TR014	484.27	Finnis-2050	14.100000	99.790	100.726400	100.9462	101.3276	0.04087	4.34	5.356	14.50	1.66
DoylesR	TR014	426.15	Finnis-2050	14.100000	98.710	99.931730	99.9624	100.2084	0.00981	2.57	8.351	24.59	0.87
DoylesR	TR014	368.05	Finnis-2050	14.100000	97.300	98.440080	98.6895	99.1961	0.03740	4.45	5.084	15.29	1.60
DoylesR	TR014	343.01	Finnis-2050	14.100000	96.780	98.464790	97.8550	98.6092	0.00221	1.76	8.959	84.57	0.45
DoylesR	TR014	335		Bridge									
DoylesR	TR014	331.91	Finnis-2050	14.100000	96.630	97.989460	97.9895	98.4320	0.01068	3.11	5.380	7.33	0.93
DoylesR	TR014	312.09	Finnis-2050	14.100000	96.260	97.497670	97.6613	98.0591	0.03104	3.80	6.690	30.43	1.41
DoylesR	TR014	227.09	Finnis-2050	14.100000	94.660	96.521980	96.1947	96.5767	0.00218	1.59	18.925	29.56	0.41
DoylesR	TR014	205.76	Finnis-2050	14.100000	94.510	96.219460	96.2195	96.4785	0.00762	2.75	9.638	20.05	0.76
DoylesR	TR014	198.96	Finnis-2050	14.100000	94.450	95.216220	95.5308	96.2751	0.07031	4.66	3.485	11.44	2.12
DoylesR	TR014	181.77	Finnis-2050	14.100000	94.010	95.226110	95.2613	95.4665	0.01137	2.81	9.646	23.83	0.93
DoylesR	TR014	121.12	Finnis-2050	14.100000	92.990	94.162400	94.2810	94.5591	0.01805	3.41	10.038	58.40	1.15
DoylesR	TR014	34.73	Finnis-2050	14.100000	91.600	92.537060	92.6412	92.9841	0.02071	3.25	5.646	11.10	1.23
DoylesR	TR012	1780.65	Finnis-2050	34.400010	90.300	92.448400	91.8310	92.5319	0.00131	1.51	41.096	71.43	0.36
DoylesR	TR012	1753.67	Finnis-2050	34.400010	89.560	92.476280	91.4117	92.5016	0.00029	0.96	83.561	104.03	0.18
DoylesR	TR012	1745		Bridge									
DoylesR	TR012	1729.43	Finnis-2050	34.400010	89.100	91.272100	91.2721	92.1850	0.01018	4.34	8.402	16.34	0.98
DoylesR	TR012	1709.20	Finnis-2050	34.400010	88.930	90.465750	90.8479	91.7337	0.03386	5.97	9.969	20.24	1.67
DoylesR	TR012	1645.76	Finnis-2050	34.400010	88.200	89.456810	89.5113	89.9523	0.01674	3.73	13.161	18.52	1.17
DoylesR	TR011	1552.47	Finnis-2050	49.400010	86.480	88.906940	88.5181	89.2989	0.00439	3.11	22.311	15.78	0.68
DoylesR	TR011	1530.88	Finnis-2050	49.400010	86.190	88.391500	88.3915	89.1295	0.00986	4.39	16.263	11.88	1.00
DoylesR	TR011	1477.56	Finnis-2050	49.400010	84.430	85.833110	86.4162	87.9328	0.05881	7.36	9.753	13.59	2.21
DoylesR	TR011	1423.69	Finnis-2050	49.400010	83.560	85.728550	85.9520	86.4823	0.00956	4.23	18.323	26.98	0.98
DoylesR	TR011	1370.10	Finnis-2050	49.400010	82.660	83.927180	84.2966	85.3798	0.05690	6.90	13.311	30.27	2.16
DoylesR	TR011	1316.51	Finnis-2050	49.400010	81.170	83.058950	83.2704	83.8711	0.01360	4.54	16.406	20.28	1.14
DoylesR	TR011	1262.92	Finnis-2050	49.400010	79.360	81.104790	81.6839	82.7250	0.03174	6.38	11.265	14.42	1.69
DoylesR	TR011	1209.33	Finnis-2050	49.400010	78.140	80.345410	80.6517	81.4088	0.01555	5.14	13.797	13.89	1.21
DoylesR	TR011	1155.74	Finnis-2050	49.400010	76.810	78.785030	79.2386	80.2954	0.02640	6.05	10.885	10.45	1.53
DoylesR	TR011	1107.39	Finnis-2050	49.400010	76.340	77.903860	78.1972	78.9615	0.02304	4.76	11.989	13.10	1.40
DoylesR	TR011	1057.82	Finnis-2050	49.400010	75.160	77.358270	77.4385	78.1015	0.01118	4.21	15.408	13.38	1.02
DoylesR	TR011	971.36	Finnis-2050	49.400010	73.330	74.264170	74.7952	76.0967	0.06136	6.00	8.237	17.83	2.15
DoylesR	TR011	960		Bridge									
DoylesR	TR011	949.62	Finnis-2050	49.400010	73.080	75.286190	74.4751	75.5378	0.00222	2.22	22.228	24.91	0.49
DoylesR	TR011	929.53	Finnis-2050	49.400010	72.740	74.642810	74.6560	75.3286	0.01087	3.94	15.327	12.89	1.01
DoylesR	TR011	872.05	Finnis-2050	49.400010	72.260	74.016190	74.1860	74.5399	0.01585	4.35	24.187	54.58	1.17
DoylesR	TR011	816.76	Finnis-2050	49.400010	72.000	73.060640	73.0088	73.1788	0.01422	2.86	37.162	95.98	1.01
DoylesR	TR011	760.16	Finnis-2050	49.400010	71.250	72.477710		72.5880	0.01049	2.95	42.106	101.26	0.91
DoylesR	TR011	712.26	Finnis-2050	49.400010	70.340	71.874820	71.8748	72.0587	0.00983	3.24	38.485	97.79	0.91
DoylesR	TR011	663.11	Finnis-2050	49.400010	70.080	71.447500	71.3514	71.5142	0.00724	2.43	53.205	137.06	0.74
DoylesR	TR013	2205.78	Finnis-2050	10.100000	95.880	96.671610	96.4290	96.6805	0.00121	0.83	30.944	113.12	0.30
DoylesR	TR013	2147.59	Finnis-2050	10.100000	95.870	96.562380		96.5825	0.00224	0.96	19.572	66.61	0.40
DoylesR	TR013	2097.40	Finnis-2050	10.100000	95.860	96.285680	96.2857	96.3452	0.01549	1.73	13.318	89.55	0.95
DoylesR	TR013	2011.99	Finnis-2050	10.100000	93.670	94.672870	94.6351	94.9142	0.00924	2.40	5.642	10.98	0.84
DoylesR	TR013	1957.46	Finnis-2050	10.100000	93.050	94.132140	94.1321	94.3963	0.01038	2.87	6.050	12.39	0.92
DoylesR	TR013	1909.18	Finnis-2050	10.100000	92.330	93.194690	93.3350	93.6407	0.02346	3.45	5.762	35.11	1.30
DoylesR	TR013	1861.01	Finnis-2050	10.100000	91.270	92.267570	92.4089	92.6659	0.01757	3.20	6.121	34.48	1.13
DoylesR	TR013	1789.09	Finnis-2050	10.100000	90.000	90.537030	90.6207	90.8027	0.03956	3.11	7.348	57.28	1.56
DoylesR	TR013	1733.37	Finnis-2050	10.100000	89.530	90.258740	90.1521	90.2884	0.00373	1.16	18.286	79.50	0.50
DoylesR	TR013	1677.65	Finnis-2050	10.100000	89.420	89.829330	89.8078	89.8918	0.01769	1.73	10.386	57.69	0.99
DoylesR	TR013	1613.85	Finnis-2050	10.100000	89.110	89.644820		89.6528	0.00163	0.65	28.297	96.96	0.32
DoylesR	TR013	1552.30	Finnis-2050	10.100000	88.820	89.549770		89.5647	0.00182	0.90	23.506	68.84	0.36
DoylesR	TR013	1506.96	Finnis-2050	10.100000	88.810	89.480600		89.4960	0.00179	0.85	23.016	65.15	0.35
DoylesR	TR013	1478.17	Finnis-2050	10.100000	88.800	89.315900		89.3802	0.01376	1.79	10.870	44.35	0.91
DoylesR	TR013	1411.61	Finnis-2050	10.100000	88.110	89.088010		89.1214	0.00172	1.03	14.868	33.12	0.36
DoylesR	TR013	1388.58	Finnis-2050	10.100000	87.450	89.101720	88.8024	89.1059	0.00012	0.39	62.320	165.77	0.10
DoylesR	TR013	1375		Culvert									
DoylesR	TR013	1373.86	Finnis-2050	10.100000	87.320	88.683090	88.5022	88.8129	0.00493	2.23	9.242	19.08	0.63
DoylesR	TR013	1301.72	Finnis-2050	10.100000	86.820	87.975110	87.9751	88.2748	0.00982	2.71	5.182	10.95	0.88
DoylesR	TR013	1246.99	Finnis-2050	10.100000	85.790	86.612470	86.8521	87.3274	0.03498	3.85	2.948	6.28	1.56

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR013	1192.26	Finnis-2050	10.100000	84.790	85.871270	85.8130	86.0970	0.00848	2.39	5.947	10.97	0.81
DoylesR	TR013	1137.53	Finnis-2050	10.100000	84.030	85.255230	85.2552	85.5834	0.01024	2.78	4.941	9.54	0.89
DoylesR	TR013	1082.80	Finnis-2050	10.100000	83.550	84.381920	84.4879	84.7200	0.03001	3.19	5.387	21.27	1.38
DoylesR	TR013	1064.90	Finnis-2050	10.100000	82.570	84.506050	83.7767	84.5330	0.00056	0.86	28.168	117.76	0.22
DoylesR	TR013	1050		Culvert									
DoylesR	TR013	1042.53	Finnis-2050	10.100000	82.410	84.377110	83.5471	84.3846	0.00019	0.54	46.064	125.53	0.13
DoylesR	TR013	1022.06	Finnis-2050	10.100000	82.710	84.044050	83.9131	84.2988	0.00724	2.63	5.728	8.31	0.77
DoylesR	TR013	969.32	Finnis-2050	10.100000	82.400	83.432450	83.4325	83.7746	0.01359	3.09	4.685	7.39	1.03
DoylesR	TR013	915.66	Finnis-2050	10.100000	81.800	82.984120	82.6130	83.0024	0.00107	0.97	21.735	43.42	0.30
DoylesR	TR013	867.93	Finnis-2050	10.100000	81.400	82.888430		82.9347	0.00178	1.43	17.057	40.92	0.39
DoylesR	TR013	809.27	Finnis-2050	10.100000	81.320	82.602330		82.7669	0.00440	1.95	6.772	10.21	0.60
DoylesR	TR013	756.07	Finnis-2050	10.100000	80.750	81.998060	81.9981	82.3917	0.01102	3.19	4.516	6.27	0.96
DoylesR	TR013	702.82	Finnis-2050	10.100000	79.910	80.950210	81.1265	81.5530	0.02279	3.88	3.609	6.54	1.31
DoylesR	TR013	651.60	Finnis-2050	10.100000	78.060	78.931400	79.3171	79.8812	0.04836	4.58	2.716	6.32	1.81
DoylesR	TR013	588.74	Finnis-2050	10.100000	75.890	76.809290	76.9829	77.3796	0.03064	3.40	3.233	7.39	1.42
DoylesR	TR013	543.29	Finnis-2050	10.100000	75.200	76.057940	76.1862	76.3755	0.01453	2.54	4.533	15.87	1.01
DoylesR	TR013	489.08	Finnis-2050	10.100000	73.770	74.915820	75.0425	75.4688	0.01821	3.73	3.743	5.76	1.19
DoylesR	TR013	436.90	Finnis-2050	10.100000	72.110	73.048870	73.3794	73.9982	0.04617	4.38	2.490	4.98	1.74
DoylesR	TR013	383.70	Finnis-2050	10.100000	70.970	72.221330	72.0244	72.2902	0.00251	1.42	13.482	40.33	0.45
DoylesR	TR013	363.75	Finnis-2050	10.100000	70.360	72.176350	71.9122	72.2552	0.00111	1.39	14.179	47.90	0.33
DoylesR	TR013	360		Culvert									
DoylesR	TR013	344.87	Finnis-2050	10.100000	70.320	71.702220	71.7022	71.7164	0.00084	0.89	24.340	48.31	0.25
DoylesR	TR013	324.16	Finnis-2050	10.100000	70.290	70.888380	71.0066	71.4851	0.10123	4.62	4.683	42.67	2.40
DoylesR	TR013	256.30	Finnis-2050	10.100000	69.360	70.308630	70.3086	70.4024	0.01298	2.31	10.483	52.18	0.88
DoylesR	TR013	236.50	Finnis-2050	10.100000	69.350	70.241310	69.9795	70.2450	0.00060	0.46	40.106	116.36	0.20
DoylesR	TR013	162.98	Finnis-2050	10.100000	68.940	70.208050		70.2135	0.00057	0.57	38.708	130.89	0.20
DoylesR	TR013	133.14	Finnis-2050	10.100000	68.760	70.197300		70.1992	0.00020	0.35	57.467	122.53	0.12
DoylesR	TR013	66.14	Finnis-2050	10.100000	68.460	70.183090		70.1861	0.00021	0.42	50.145	186.83	0.12
DoylesR	M001	484.12	Finnis-2050	59.700010	68.080	69.811000	69.7822	69.9780	0.00986	2.99	43.116	97.79	0.87
DoylesR	M001	429.44	Finnis-2050	59.700010	67.720	69.779010		69.8025	0.00123	1.24	100.347	142.42	0.31
DoylesR	M001	388.03	Finnis-2050	59.700010	67.530	69.749300		69.7620	0.00073	1.02	137.110	232.18	0.25
DoylesR	M001	344.78	Finnis-2050	59.700010	67.390	69.740690		69.7446	0.00020	0.56	240.462	295.37	0.13
DoylesR	M001	215.64	Finnis-2050	59.700010	67.210	69.737440		69.7383	0.00003	0.24	485.553	410.93	0.05
DoylesR	M001	77.13	Finnis-2050	59.700010	66.620	69.736930		69.7372	0.00001	0.15	826.737	583.95	0.03
CochranePB	M002	8105.53	Finnis-2050	17.900000	140.650	142.572100	141.3974	142.5738	0.00008	0.34	118.504	132.21	0.09
CochranePB	M002	8065.47	Finnis-2050	17.900000	140.640	142.561700		142.5679	0.00028	0.59	68.323	92.33	0.16
CochranePB	M002	8050.98	Finnis-2050	17.900000	139.200	142.547300		142.5652	0.00006	0.67	64.916	81.99	0.13
CochranePB	M002	8024.09	Finnis-2050	17.900000	140.620	142.547300		142.5526	0.00026	0.55	76.113	113.38	0.15
CochranePB	M002	8013.06	Finnis-2050	17.900000	140.420	142.545000		142.5499	0.00020	0.53	80.568	112.94	0.13
CochranePB	M002	8004.70	Finnis-2050	17.900000	140.250	142.545500	141.8023	142.5479	0.00012	0.51	97.719	115.34	0.11
CochranePB	M002	8000		Culvert									
CochranePB	M002	7995.14	Finnis-2050	17.900000	140.370	142.536800	141.6023	142.5412	0.00012	0.51	84.180	100.29	0.11
CochranePB	M002	7964.49	Finnis-2050	17.900000	140.140	142.037600	142.0376	142.4165	0.01009	3.41	9.595	13.56	0.87
CochranePB	M002	7901.64	Finnis-2050	17.900000	139.300	140.776900	140.9861	141.4037	0.02805	3.95	7.918	28.41	1.33
CochranePB	M002	7847.08	Finnis-2050	17.900000	138.680	139.860600	139.7268	139.9327	0.00798	1.85	19.750	51.69	0.70
CochranePB	M002	7812.33	Finnis-2050	17.900000	138.520	139.366300	139.3663	139.4945	0.02603	2.47	14.392	56.57	1.23
CochranePB	M002	7738.34	Finnis-2050	17.900000	137.940	138.987300	138.7550	139.0006	0.00222	0.91	43.557	131.53	0.38
CochranePB	M002	7695.32	Finnis-2050	17.900000	137.670	138.662900	138.6629	138.8137	0.01563	2.24	13.773	42.23	1.00
CochranePB	M002	7609.21	Finnis-2050	17.900000	136.290	137.830600	137.4616	137.8528	0.00099	0.92	40.379	98.50	0.28
CochranePB	M002	7515.77	Finnis-2050	17.900000	136.280	137.693800		137.7301	0.00234	1.31	33.700	107.82	0.42
CochranePB	M002	7476.72	Finnis-2050	17.900000	136.260	137.667800		137.6805	0.00073	0.72	46.197	96.29	0.24
CochranePB	M002	7450.86	Finnis-2050	17.900000	136.250	137.631000		137.6555	0.00139	0.95	34.896	84.13	0.33
CochranePB	M002	7329.89	Finnis-2050	17.900000	136.230	137.332500		137.3834	0.00473	1.44	23.625	79.48	0.57
CochranePB	M002	7253.62	Finnis-2050	17.900000	136.050	137.165800		137.1848	0.00204	1.00	34.628	97.31	0.37
CochranePB	M002	7208.54	Finnis-2050	17.900000	135.880	137.061800		137.0857	0.00257	1.16	34.935	131.27	0.43
CochranePB	M002	7108.13	Finnis-2050	17.900000	135.540	136.543000		136.6309	0.01342	2.34	18.972	77.27	0.92
CochranePB	M002	7041.67	Finnis-2050	17.900000	134.910	136.150700		136.2245	0.00465	1.53	23.321	86.11	0.58
CochranePB	M002	6985.71	Finnis-2050	17.900000	134.290	135.706700	135.7067	135.8898	0.00830	2.48	15.968	49.06	0.79
CochranePB	M002	6955.25	Finnis-2050	17.900000	133.480	134.791200	134.9830	135.4082	0.02806	3.65	6.082	13.11	1.38
CochranePB	M002	6863.52	Finnis-2050	17.900000	131.820	132.896000	132.9288	133.0900	0.02008	2.85	12.902	39.11	1.13
CochranePB	M002	6840.09	Finnis-2050	17.900000	131.190	132.187100	132.2733	132.4872	0.03337	3.17	10.387	37.95	1.44
CochranePB	M002	6808.25	Finnis-2050	17.900000	130.510	131.470900	131.5137	131.6790	0.03104	2.91	11.875	43.59	1.35
CochranePB	M002	6767.75	Finnis-2050	17.900000	129.310	130.365200	130.4208	130.5996	0.02233	2.78	12.418	49.19	1.20
CochranePB	M002	6727.78	Finnis-2050	17.900000	128.360	129.535300	129.5965	129.7714	0.01955	2.82	11.646	37.39	1.12
CochranePB	M002	6691.71	Finnis-2050	17.900000	127.960	129.109500	129.0332	129.1699	0.00614	1.62	23.035	76.87	0.64
CochranePB	M002	6651.54	Finnis-2050	17.900000	127.680	128.704400	128.6711	128.8399	0.01171	1.81	13.112	40.76	0.86
CochranePB	M002	6630.83	Finnis-2050	17.900000	127.190	128.476300	128.4763	128.6322	0.00882	2.14	15.890	65.07	0.79
CochranePB	M002	6534.50	Finnis-2050	17.900000	126.300	127.335700	127.3798	127.5048	0.01655	2.37	15.115	73.16	1.03
CochranePB	M002	6507.97	Finnis-2050	17.900000	125.650	126.593000	126.6676	126.8325	0.03837	3.03	11.577	57.14	1.47
CochranePB	M002	6480.50	Finnis-2050	17.900000	124.970	125.960700	125.9820	126.1027	0.02054	2.49	14.367	56.05	1.12
CochranePB	M002	6433.33	Finnis-2050	17.900000	124.090	125.100900	125.1505	125.3013	0.01871	2.29	11.284	39.90	1.08
CochranePB	M002	6400.96	Finnis-2050	17.900000	123.400	124.662100	124.4664	124.7204	0.00461	1.48	21.706	54.61	0.56
CochranePB	M002	6364.18	Finnis-2050	17.900000	123.280	124.665400		124.6733	0.00030	0.44	59.512	127.60	0.15
CochranePB	M002	6314.31	Finnis-2050	17.900000	123.270	124.591400		124.6360	0.00218	1.13	27.790	80.56	0.40
CochranePB	M002	6286.25	Finnis-2050	17.900000	123.260	124.515800		124.5677	0.00278	1.22	25.211	75.08	0.45
CochranePB	M002	6202.53	Finnis-2050	17.900000	122.810	124.095100	124.0113	124.2452	0.00772	2.08	14.696	38.96	0.75
CochranePB	M002	6130.00	Finnis-2050	17.900000	122.300	123.405600	123.4056	123.5869	0.01194	1.98	11.272	36.04	0.88
CochranePB	M002	6040.82	Finnis-2050	17.900000	121.410	122.652200	122.5019	122.7004	0.00317	1.33	27.093	78.05	0.48
CochranePB	M002	6006.95	Finnis-2050	17.900000	121.400	122.613100		122.6312	0.00109	0.66	37.435	101.52	0.27
CochranePB	M002	5976.09	Finnis-2050	17.900000	121.390	122.435500	122.4355	122.5416	0.01381	1.96	17.232	73.36	0.92
CochranePB	M002	5910.40	Finnis-2050	17.900000	120.290	121.568500	121.5975	121.7591	0.01296	2.54	14.764	55.06	0.94
CochranePB	M002	5863.68	Finnis-2050	17.900000	119.620	120.575700	120.6960	120.9350	0.03764	3.04	9.123	42.90	1.50
CochranePB	M002	5811.63	Finnis-2050	17.900000	118.870	120.004200	120.0042	120.1557	0.01337	2.36	15.199	53.95	0.94
CochranePB	M002	5768.42	Finnis-2050	17.900000	117.380	118.394800	118.6003	119.0801	0.06194	3.74	5.478	23.26	1.91
CochranePB	M002	5725.36	Finnis-2050	17.900000	116.480	117.661900	117.6839	117.8579	0.01380	2.38	12.697	43.30	0.96
CochranePB	M002	5678.58	Finnis-2050	17.900000	115.390	116.530700	116.6755	116.9355	0.02603	2.93	7.844	32.53	1.29
CochranePB	M002	5627.04	Finnis-2050	17.900000	114.790	116.282600	115.9099	116.3270	0.00214	1.26	25.747	49.03	0.41
CochranePB	M002	5609.94	Finnis-2050	26.800000	114.770	116.083800		116.2121	0.00675	1.95	22.370	50.52	0.71
CochranePB	M002	5601.00	Finnis-2050	26.800000	114.760	116.089400		116.1005	0.00109	0.80	63.066	115.17	0.28
CochranePB	M002	5568.52	Finnis-2050	26.800000	114.750	116.061800		116.0728	0.00086	0.71	62.291	102.88	0.25

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	5508.20	Finnis-2050	26.800000	114.040	115.719400		115.9395	0.00553	2.21	15.755	25.75	0.67
CochranePB	M002	5473.67	Finnis-2050	26.800000	113.900	115.387800	115.3878	115.6686	0.01133	2.80	15.615	29.62	0.93
CochranePB	M002	5403.83	Finnis-2050	26.800000	110.690	111.975700	112.4897	113.8202	0.08130	6.18	5.031	10.50	2.35
CochranePB	M002	5352.19	Finnis-2050	26.800000	110.270	111.763800	111.8411	112.0670	0.01193	2.79	15.598	50.98	0.95
CochranePB	M002	5309.83	Finnis-2050	26.800000	109.640	111.109800	111.2147	111.4720	0.01649	3.16	16.098	50.89	1.10
CochranePB	M002	5266.90	Finnis-2050	26.800000	109.300	110.679600	110.7067	110.8498	0.01143	2.56	24.732	85.43	0.91
CochranePB	M002	5213.45	Finnis-2050	26.800000	108.810	110.517900	109.9312	110.5374	0.00092	0.89	57.218	91.88	0.27
CochranePB	M002	5162.38	Finnis-2050	50.500010	108.180	110.135800	110.1358	110.3903	0.00852	3.24	37.152	67.35	0.86
CochranePB	M002	5109.83	Finnis-2050	50.500010	108.020	109.571300	109.2290	109.6229	0.00381	1.58	61.348	109.43	0.53
CochranePB	M002	5059.83	Finnis-2050	50.500010	107.540	109.241900		109.4030	0.00732	2.54	44.097	94.06	0.77
CochranePB	M002	5013.20	Finnis-2050	50.500010	107.210	108.920300	108.9203	109.0925	0.00960	2.63	42.508	103.73	0.85
CochranePB	M002	4977.38	Finnis-2050	50.500010	107.070	108.854500	108.5186	108.8828	0.00154	1.22	90.107	157.39	0.36
CochranePB	M002	4908.49	Finnis-2050	50.500010	106.950	108.829200		108.8377	0.00051	0.77	143.894	209.39	0.21
CochranePB	M002	4883.44	Finnis-2050	50.500010	106.940	108.816600		108.8227	0.00032	0.60	166.263	221.60	0.17
CochranePB	M002	4816.97	Finnis-2050	50.500010	106.930	108.805900		108.8121	0.00029	0.57	172.573	235.34	0.16
CochranePB	M002	4757.22	Finnis-2050	50.500010	106.780	108.796400		108.8015	0.00020	0.52	200.283	273.20	0.14
CochranePB	M002	4718.65	Finnis-2050	50.500010	106.770	108.787600		108.7938	0.00025	0.59	195.422	338.46	0.15
CochranePB	M002	4674.22	Finnis-2050	50.500010	106.760	108.767700		108.7822	0.00054	0.86	142.213	268.29	0.22
CochranePB	M002	4633.22	Finnis-2050	50.500010	106.750	108.747200		108.7648	0.00036	0.68	119.905	184.95	0.18
CochranePB	M002	4561.03	Finnis-2050	50.500010	106.740	108.671800		108.7221	0.00119	1.21	71.217	102.47	0.33
CochranePB	M002	4506.74	Finnis-2050	50.500010	106.430	108.323200	108.3232	108.5706	0.00756	2.80	33.571	59.77	0.80
CochranePB	M002	4459.83	Finnis-2050	50.500010	105.660	107.374400	107.5991	108.0041	0.01914	4.00	20.760	49.03	1.24
CochranePB	M002	4409.53	Finnis-2050	50.500010	104.620	106.389100	106.6219	107.0399	0.01946	4.07	18.750	33.33	1.24
CochranePB	M002	4359.83	Finnis-2050	50.500010	103.720	105.584900	105.7973	106.1713	0.01486	3.76	21.743	54.75	1.09
CochranePB	M002	4327.93	Finnis-2050	50.500010	103.170	105.131600	105.3638	105.7166	0.01393	3.71	19.766	39.34	1.08
CochranePB	M002	4265.56	Finnis-2050	50.500010	102.450	104.427200	104.4310	104.8763	0.01202	3.61	22.549	31.08	1.00
CochranePB	M002	4208.11	Finnis-2050	50.500010	101.670	103.446800	103.6330	104.0562	0.01637	3.81	19.145	34.12	1.15
CochranePB	M002	4159.83	Finnis-2050	50.500010	101.120	102.251200	102.3769	102.6838	0.05739	3.87	19.064	48.89	1.86
CochranePB	M002	4109.83	Finnis-2050	50.500010	98.840	100.620000	100.8226	101.2509	0.01720	4.07	20.892	42.87	1.19
CochranePB	M002	4056.00	Finnis-2050	50.500010	97.180	98.989070	99.5070	100.0354	0.02701	4.99	14.025	20.54	1.47
CochranePB	M002	4009.83	Finnis-2050	50.500010	96.330	98.232480	98.3856	98.7376	0.02163	4.48	26.313	65.88	1.27
CochranePB	M002	3969.03	Finnis-2050	50.500010	95.620	97.577690	97.7801	98.1231	0.01192	3.79	24.349	71.47	1.02
CochranePB	M002	3916.58	Finnis-2050	50.500010	94.820	97.018840	97.1879	97.4663	0.01152	3.63	28.849	85.13	0.95
CochranePB	M002	3859.82	Finnis-2050	50.500010	94.340	96.353640	96.5588	96.8648	0.01044	3.39	23.770	80.88	0.94
CochranePB	M002	3810.05	Finnis-2050	50.500010	93.500	95.517260	95.8357	96.2459	0.01485	4.16	18.577	47.30	1.13
CochranePB	M002	3759.83	Finnis-2050	50.500010	93.000	94.720110	94.9226	95.3240	0.01870	4.14	22.344	57.11	1.23
CochranePB	M002	3709.28	Finnis-2050	50.500010	92.330	94.204280	94.3336	94.5415	0.01139	3.32	30.136	87.39	0.96
CochranePB	M002	3661.60	Finnis-2050	50.500010	92.050	93.873770	93.9067	94.0633	0.00751	2.73	45.947	144.62	0.79
CochranePB	M002	3609.83	Finnis-2050	50.500010	91.730	93.509120	93.5236	93.6653	0.00755	2.61	47.254	146.38	0.78
CochranePB	M002	3559.90	Finnis-2050	50.500010	90.870	92.946370	93.0066	93.2317	0.00796	3.12	36.676	86.22	0.82
CochranePB	M002	3509.83	Finnis-2050	50.500010	90.380	92.743490	92.4360	92.7942	0.00162	1.65	76.253	117.38	0.39
CochranePB	M002	3493.23	Finnis-2050	50.500010	90.020	92.306900	92.1161	92.7223	0.00592	3.56	22.263	15.91	0.77
CochranePB	M002	3480		Bridge									
CochranePB	M002	3474.26	Finnis-2050	50.500010	89.910	92.301040	91.6727	92.5587	0.00282	2.62	27.056	17.06	0.55
CochranePB	M002	3466.43	Finnis-2050	50.500010	90.000	92.351810	92.1558	92.4735	0.00175	2.07	63.083	107.62	0.43
CochranePB	M002	3454.35	Finnis-2050	50.500010	89.940	92.076080	91.6408	92.4213	0.00414	2.90	22.650	17.46	0.65
CochranePB	M002	3450		Bridge									
CochranePB	M002	3434.16	Finnis-2050	55.400010	90.360	91.759980	91.7600	92.2995	0.01083	3.51	18.892	20.63	0.98
CochranePB	M002	3413.11	Finnis-2050	55.400010	90.140	91.702450	91.6673	91.8615	0.00763	2.73	46.558	95.96	0.79
CochranePB	M002	3391.58	Finnis-2050	55.400010	90.030	91.614170		91.7071	0.00494	2.31	57.300	107.14	0.65
CochranePB	M002	3371.12	Finnis-2050	55.400010	90.020	91.367500	91.3675	91.5650	0.00887	2.75	42.830	97.53	0.86
CochranePB	M002	3309.87	Finnis-2050	55.400010	89.280	90.774260	90.6908	90.8824	0.00904	2.79	50.819	116.31	0.83
CochranePB	M002	3272.96	Finnis-2050	55.400010	88.730	90.340940	90.3345	90.5250	0.00940	2.85	40.058	92.15	0.86
CochranePB	M002	3219.09	Finnis-2050	55.400010	88.300	89.818490	89.8185	89.9990	0.01091	2.91	41.322	108.99	0.92
CochranePB	M002	3175.54	Finnis-2050	55.400010	87.360	89.664140	89.4236	89.7847	0.00226	1.94	53.311	80.60	0.45
CochranePB	M002	3165		Bridge									
CochranePB	M002	3157.85	Finnis-2050	55.400010	87.500	89.305770	89.3476	89.5832	0.00639	2.85	37.248	85.47	0.75
CochranePB	M002	3135.32	Finnis-2050	55.400010	87.850	89.184620	89.0837	89.2463	0.00482	1.82	65.333	155.75	0.61
CochranePB	M002	3106.53	Finnis-2050	55.400010	87.940	88.842120	88.8421	88.9963	0.03002	2.92	35.333	121.07	1.33
CochranePB	M002	3088.94	Finnis-2050	55.400010	86.840	88.611960	88.5513	88.7570	0.00298	1.96	54.613	152.87	0.52
CochranePB	M002	3080		Bridge									
CochranePB	M002	3075.67	Finnis-2050	55.400010	86.740	88.420670	88.2141	88.4980	0.00204	1.58	66.646	139.81	0.43
CochranePB	M002	3056.89	Finnis-2050	55.400010	87.660	88.355570		88.4239	0.01214	1.24	49.703	155.93	0.77
CochranePB	M002	3007.54	Finnis-2050	55.400010	87.610	88.033650		88.0770	0.00463	0.51	61.243	132.20	0.36
CochranePB	M002	2976.31	Finnis-2050	55.400010	87.510	87.913950		87.9575	0.00515	0.61	60.963	148.54	0.43
CochranePB	M002	2941.08	Finnis-2050	55.400010	86.980	87.778950		87.8051	0.00413	1.00	79.660	224.55	0.48
CochranePB	M002	2920.10	Finnis-2050	55.400010	86.740	87.755560	87.5443	87.7615	0.00048	0.43	168.070	295.54	0.16
CochranePB	M002	2915		Bridge									
CochranePB	M002	2912.75	Finnis-2050	55.400010	86.970	87.752390	87.7524	87.7565	0.00029	0.36	200.702	313.30	0.14
CochranePB	M002	2890.23	Finnis-2050	55.400010	86.650	86.886660	87.0718	87.5406	0.28950	3.38	15.463	84.01	3.14
CochranePB	M002	2823.99	Finnis-2050	55.400010	86.080	87.183060	86.8084	87.1937	0.00131	0.71	124.358	262.60	0.27
CochranePB	M002	2789.49	Finnis-2050	55.400010	86.040	87.159460		87.1694	0.00118	0.65	128.873	274.77	0.26
CochranePB	M002	2741.30	Finnis-2050	55.400010	85.710	87.105980		87.1162	0.00102	0.83	136.214	283.61	0.28
CochranePB	M002	2663.79	Finnis-2050	55.400010	85.580	87.058940		87.0704	0.00103	0.89	134.127	290.45	0.28
CochranePB	M002	2639.38	Finnis-2050	55.400010	85.570	87.028080		87.0414	0.00116	0.91	122.040	246.22	0.30
CochranePB	M002	2616.24	Finnis-2050	55.400010	85.300	87.013370		87.0241	0.00075	0.85	138.927	247.41	0.25
CochranePB	M002	2539.69	Finnis-2050	55.400010	85.410	86.968890		86.9837	0.00116	0.94	118.516	233.05	0.30
CochranePB	M002	2489.06	Finnis-2050	55.400010	85.180	86.927370		86.9453	0.00130	1.13	111.766	224.88	0.33
CochranePB	M002	2438.28	Finnis-2050	55.400010	84.870	86.868310		86.8964	0.00137	1.25	103.329	187.15	0.34
CochranePB	M002	2384.01	Finnis-2050	55.400010	84.650	86.776050		86.8172	0.00204	1.62	86.366	151.19	0.42
CochranePB	M002	2310.47	Finnis-2050	55.400010	84.330	86.566060		86.6402	0.00315	1.99	73.372	153.80	0.50
CochranePB	M002	2284.63	Finnis-2050	55.400010	84.160	86.510850		86.5613	0.00248	1.78	73.742	113.65	0.43
CochranePB	M002	2240.58	Finnis-2050	55.400010	84.040	86.043050	86.0431	86.3420	0.01006	3.39	31.825	47.79	0.91
CochranePB	M002	2170.94	Finnis-2050	55.400010	82.260	84.179700	84.5901	85.2460	0.02456	5.06	15.115	19.48	1.42
CochranePB	M002	2136.89	Finnis-2050	55.400010	81.720	83.493640	83.8047	84.3593	0.02399	4.45	16.417	25.77	1.38
CochranePB	M002	2100.01	Finnis-2050	55.400010	81.300	83.315740	83.3088	83.6511	0.00984	3.20	29.174	42.74	0.90
CochranePB	M002	2046.85	Finnis-2050	55.400010	80.890	82.825120	82.8251	83.1682	0.00843	2.93	28.314	43.01	0.84
CochranePB	M002	2014.35	Finnis-2050	55.400010	80.470	82.004620	82.1984	82.6742	0.02830	4.04	19.485	41.64	1.44
CochranePB	M002	1990.76	Finnis-2050	55.400010	80.100	82.020550	82.0206	82.3174	0.01000	3.09	30.645	45.66	0.90
CochranePB	M002	1945.20	Finnis-2050	55.400010	79.430	81.729160	81.3154	81.8414	0.00316	2.07	49.975	59.83	0.52

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	1916.67	Finnis-2050	55.400010	79.310	81.571950		81.7297	0.00449	2.45	42.698	54.35	0.62
CochranePB	M002	1871.48	Finnis-2050	55.400010	79.280	81.413030		81.5363	0.00386	2.09	46.796	55.76	0.57
CochranePB	M002	1836.03	Finnis-2050	55.400010	78.830	81.368710		81.4368	0.00153	1.58	63.510	74.44	0.37
CochranePB	M002	1788.63	Finnis-2050	55.400010	78.460	80.908990	80.9090	81.2662	0.00836	3.56	31.024	40.00	0.85
CochranePB	M002	1768.08	Finnis-2050	55.400010	78.140	80.215190	80.3890	80.9853	0.01915	4.72	19.824	28.13	1.26
CochranePB	M002	1733.19	Finnis-2050	55.400010	77.950	80.044240	80.0996	80.4190	0.00929	3.27	30.134	49.09	0.89
CochranePB	M002	1694.89	Finnis-2050	55.400010	77.120	79.521480	78.9945	79.6344	0.00234	1.89	48.503	50.65	0.46
CochranePB	M002	1685.79	Finnis-2050	55.400010	77.060	79.421180		79.5998	0.00426	2.52	41.848	54.92	0.62
CochranePB	M002	1640.51	Finnis-2050	55.400010	76.450	78.928500	78.9285	79.3348	0.00707	3.38	27.001	32.11	0.80
CochranePB	M002	1602.99	Finnis-2050	55.400010	75.010	76.602620	77.1572	78.5743	0.06493	6.60	10.447	17.42	2.21
CochranePB	M002	1585.52	Finnis-2050	55.400010	74.010	75.401710	75.8742	77.1800	0.08958	6.48	11.095	21.84	2.49
CochranePB	M002	1569.47	Finnis-2050	55.400010	73.710	75.065090	75.3098	75.8975	0.04401	4.21	14.647	27.72	1.72
CochranePB	M002	1541.97	Finnis-2050	55.400010	72.310	74.258450	74.4907	75.0887	0.02065	4.47	16.532	20.62	1.29
CochranePB	M002	1510.83	Finnis-2050	55.400010	71.340	72.612430	72.9736	73.9129	0.07965	5.09	11.272	24.32	2.27
CochranePB	M002	1495.27	Finnis-2050	55.400010	71.190	73.139850	72.8431	73.3049	0.00434	2.01	37.466	45.90	0.60
CochranePB	M002	1458.62	Finnis-2050	55.400010	70.580	72.722020	72.7220	73.0321	0.00956	3.67	35.033	52.20	0.91
CochranePB	M002	1419.61	Finnis-2050	55.400010	70.210	72.180150	72.2755	72.6095	0.01168	3.71	26.955	40.74	1.00
CochranePB	M002	1384.56	Finnis-2050	55.400010	69.610	72.041350	72.0536	72.3340	0.00482	2.79	35.357	61.97	0.67
CochranePB	M002	1351.51	Finnis-2050	55.400010	69.540	71.701240	71.8313	72.1173	0.00930	3.58	32.739	78.21	0.91
CochranePB	M002	1311.78	Finnis-2050	55.400010	69.490	71.459080	71.5144	71.7061	0.00792	3.08	42.363	110.92	0.83
CochranePB	M002	1291.19	Finnis-2050	55.400010	69.280	71.066310	71.2067	71.4748	0.01484	3.80	33.375	113.10	1.09
CochranePB	M002	1217.75	Finnis-2050	55.400010	68.700	71.155210	70.5052	71.1829	0.00056	1.04	124.532	217.32	0.24
CochranePB	M002	1200.39	Finnis-2050	55.400010	68.690	70.735920	70.4055	71.1263	0.00529	2.82	20.422	19.53	0.70
CochranePB	M002	1190		Bridge									
CochranePB	M002	1185.68	Finnis-2050	56.800000	68.460	70.576870	70.1165	70.9240	0.00393	2.63	22.179	26.05	0.62
CochranePB	M002	1164.32	Finnis-2050	56.800000	68.650	70.547470	70.5475	70.7724	0.00544	2.81	44.536	107.85	0.71
CochranePB	M002	1132.60	Finnis-2050	56.800000	68.600	69.858380	70.0212	70.3669	0.03159	4.17	26.850	109.89	1.52
CochranePB	M002	1111.68	Finnis-2050	56.800000	68.550	69.926200	69.7316	69.9787	0.00358	1.72	72.316	162.69	0.54
CochranePB	M002	1059.95	Finnis-2050	56.800000	68.380	69.815240		69.8658	0.00303	1.83	77.926	171.57	0.52
CochranePB	M002	998.99	Finnis-2050	56.800000	68.130	69.753300		69.7663	0.00084	1.03	125.973	193.88	0.27
CochranePB	M002	955.54	Finnis-2050	56.800000	68.120	69.746990		69.7496	0.00012	0.39	257.332	260.26	0.10
CochranePB	M002	851.16	Finnis-2050	56.800000	67.620	69.741180		69.7432	0.00007	0.36	294.208	255.35	0.08
CochranePB	M002	798.06	Finnis-2050	56.800000	67.470	69.739760		69.7410	0.00004	0.28	371.516	292.47	0.06
CochranePB	M002	746.77	Finnis-2050	56.800000	67.300	69.739030		69.7398	0.00002	0.21	483.785	326.33	0.05
CochranePB	M002	694.52	Finnis-2050	56.800000	66.980	69.738580		69.7391	0.00001	0.18	580.772	371.20	0.04
CochranePB	M002	669.16	Finnis-2050	56.800000	66.970	69.738460		69.7389	0.00001	0.16	644.895	409.28	0.03
CochranePB	M002	590.19	Finnis-2050	56.800000	66.840	69.737880		69.7382	0.00001	0.14	769.273	489.90	0.03
CochranePB	M002	539.85	Finnis-2050	56.800000	66.810	69.737520		69.7378	0.00001	0.14	788.606	521.22	0.03
CochranePB	M002	488.40	Finnis-2050	56.800000	66.540	69.737230		69.7375	0.00001	0.13	832.519	533.46	0.02
CochranePB	M001	381.27	Finnis-2050	111.600000	66.350	69.735370		69.7362	0.00002	0.24	964.349	624.70	0.05
CochranePB	M001	313.14	Finnis-2050	111.600000	66.280	69.734730		69.7353	0.00001	0.19	1127.952	691.07	0.04

HEC-RAS Plan:

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	TR001	439.21	AMEC-2080	44.800000	105.110	106.777000	106.3464	106.8410	0.00194	1.67	59.188	78.55	0.43
RaymondB	TR001	409.42	AMEC-2080	44.800000	104.680	106.717900		106.7872	0.00165	1.77	63.203	89.21	0.41
RaymondB	TR001	380.07	AMEC-2080	44.800000	104.050	106.736600		106.7559	0.00027	0.87	113.017	98.80	0.17
RaymondB	TR001	360.64	AMEC-2080	44.800000	103.600	106.739300	105.3924	106.7495	0.00014	0.68	152.833	119.36	0.13
RaymondB	TR001	350		Bridge									
RaymondB	TR001	344.45	AMEC-2080	44.800000	103.300	105.141900	105.3478	106.2581	0.01727	5.22	10.709	72.57	1.27
RaymondB	TR001	334.13	AMEC-2080	44.800000	103.400	104.343200	104.7032	105.8470	0.05397	5.77	11.056	41.39	2.03
RaymondB	TR001	272.22	AMEC-2080	44.800000	102.830	104.044900	104.0449	104.3229	0.01104	3.17	27.102	46.67	0.97
RaymondB	TR001	218.50	AMEC-2080	44.800000	101.420	102.786600	103.0328	103.5348	0.01791	4.33	16.556	27.77	1.25
RaymondB	TR001	163.97	AMEC-2080	44.800000	100.320	101.934600	101.5805	102.1517	0.00370	2.22	26.832	30.41	0.59
RaymondB	TR001	115.54	AMEC-2080	44.800000	100.000	101.497800	101.4978	101.8708	0.00889	3.39	24.979	41.79	0.91
RaymondB	TR001	56.65	AMEC-2080	44.800000	97.730	98.505980	99.0245	100.4768	0.09702	6.70	8.355	16.42	2.64
RaymondB	M002	6453.60	AMEC-2080	11.700000	118.100	126.025300	118.7402	126.0253	0.00000	0.02	858.987	253.69	0.00
RaymondB	M002	6405.52	AMEC-2080	11.700000	118.000	126.025300		126.0253	0.00000	0.02	861.458	235.19	0.00
RaymondB	M002	6347.04	AMEC-2080	11.700000	124.730	126.022600		126.0250	0.00004	0.22	54.422	44.27	0.06
RaymondB	M002	6247.26	AMEC-2080	11.700000	117.210	118.039900		118.0921	0.00349	1.33	15.405	33.65	0.51
RaymondB	M002	6230.10	AMEC-2080	11.700000	117.200	118.028800		118.0570	0.00144	0.83	19.503	40.69	0.32
RaymondB	M002	6205.35	AMEC-2080	11.700000	117.280	118.003600		118.0156	0.00132	0.73	27.356	54.81	0.30
RaymondB	M002	6143.06	AMEC-2080	11.700000	117.180	117.898400		117.9172	0.00194	0.87	23.574	54.63	0.36
RaymondB	M002	6105.93	AMEC-2080	11.700000	117.170	117.751800		117.8031	0.00429	1.09	14.674	52.16	0.52
RaymondB	M002	6026.35	AMEC-2080	11.700000	116.810	117.529100		117.5551	0.00218	0.92	19.914	43.30	0.39
RaymondB	M002	5933.71	AMEC-2080	11.700000	116.420	117.217900		117.2921	0.00374	1.33	12.369	31.03	0.52
RaymondB	M002	5883.92	AMEC-2080	11.700000	116.120	116.997000		117.0948	0.00410	1.46	10.012	21.35	0.55
RaymondB	M002	5785.15	AMEC-2080	11.700000	115.750	116.551000		116.6427	0.00525	1.48	10.278	21.74	0.60
RaymondB	M002	5732.44	AMEC-2080	11.700000	115.460	116.260000		116.3659	0.00515	1.48	9.014	20.45	0.60
RaymondB	M002	5631.37	AMEC-2080	11.700000	114.850	115.573500	115.5583	115.6857	0.00957	1.73	11.125	43.30	0.79
RaymondB	M002	5500.15	AMEC-2080	11.700000	114.620	115.416600		115.4272	0.00108	0.68	35.548	121.44	0.27
RaymondB	M002	5485.46	AMEC-2080	11.700000	114.530	115.404500		115.4129	0.00072	0.62	43.197	155.33	0.23
RaymondB	M002	5411.19	AMEC-2080	11.700000	114.480	115.309300	115.0501	115.3411	0.00171	0.87	18.541	52.49	0.35
RaymondB	M002	5338.54	AMEC-2080	11.700000	114.410	115.312300	114.7324	115.3146	0.00009	0.22	60.515	105.96	0.08
RaymondB	M002	5278.93	AMEC-2080	11.700000	114.440	115.304400	114.7668	115.3078	0.00014	0.27	50.730	105.86	0.10
RaymondB	M002	5226.60	AMEC-2080	11.700000	114.420	115.295900		115.2996	0.00018	0.30	52.662	120.61	0.11
RaymondB	M002	5171.66	AMEC-2080	11.700000	114.420	115.283500		115.2882	0.00024	0.35	54.017	169.84	0.13
RaymondB	M002	5111.50	AMEC-2080	11.700000	114.420	115.251800		115.2655	0.00071	0.60	29.640	79.41	0.23
RaymondB	M002	5077.48	AMEC-2080	11.700000	114.380	115.233400		115.2445	0.00050	0.51	28.885	56.68	0.19
RaymondB	M002	5017.13	AMEC-2080	11.700000	114.400	115.117200		115.1766	0.00320	1.09	11.242	23.16	0.47
RaymondB	M002	4967.43	AMEC-2080	11.700000	114.070	114.858500		114.9710	0.00527	1.50	8.169	15.41	0.61
RaymondB	M002	4943.43	AMEC-2080	11.700000	113.820	114.750200		114.8567	0.00425	1.54	9.757	20.99	0.56
RaymondB	M002	4910.95	AMEC-2080	11.700000	113.670	114.608700		114.7171	0.00429	1.57	10.195	25.51	0.57
RaymondB	M002	4851.17	AMEC-2080	11.700000	113.470	114.341800		114.4490	0.00473	1.56	10.328	28.11	0.59
RaymondB	M002	4783.73	AMEC-2080	11.700000	113.300	114.060600		114.1282	0.00448	1.22	11.689	33.69	0.54
RaymondB	M002	4732.68	AMEC-2080	11.700000	113.070	113.773000		113.8455	0.00696	1.44	12.059	39.50	0.67
RaymondB	M002	4681.76	AMEC-2080	11.700000	112.350	113.107200	113.1072	113.3559	0.01249	2.30	6.039	15.58	0.94
RaymondB	M002	4673.96	AMEC-2080	11.700000	111.740	112.415700	112.6455	113.1352	0.04767	3.86	3.466	9.97	1.76
RaymondB	M002	4644.78	AMEC-2080	11.700000	110.490	111.175800	111.3818	111.8383	0.03986	3.68	3.499	19.46	1.63
RaymondB	M002	4625.72	AMEC-2080	11.700000	106.750	107.183900	107.6274	109.8829	0.39728	7.28	1.607	6.16	4.55
RaymondB	M002	4615.42	AMEC-2080	11.700000	105.830	106.402200	106.6962	107.4958	0.10614	4.70	2.670	8.69	2.49
RaymondB	M002	4607.06	AMEC-2080	11.700000	105.790	106.784200	106.6694	107.0111	0.00756	2.18	6.165	9.16	0.76
RaymondB	M002	4597.34	AMEC-2080	11.700000	105.760	106.740600		106.9252	0.00752	2.02	7.377	14.64	0.74
RaymondB	M002	4575.18	AMEC-2080	11.700000	105.980	106.427600	106.4276	106.6160	0.03518	2.28	6.332	18.43	1.37
RaymondB	M002	4545.57	AMEC-2080	11.700000	104.650	105.493400	105.5758	105.8681	0.01846	2.85	5.115	12.07	1.14
RaymondB	M002	4522.17	AMEC-2080	11.700000	103.670	104.247100	104.5133	105.0952	0.06359	4.19	3.196	9.72	2.00
RaymondB	M002	4511.42	AMEC-2080	11.700000	103.620	104.634200	104.4109	104.7160	0.00367	1.49	11.754	21.16	0.53
RaymondB	M002	4489.94	AMEC-2080	11.700000	103.590	104.318000	104.3180	104.5614	0.01398	2.36	6.433	15.84	0.98
RaymondB	M002	4466.63	AMEC-2080	11.700000	103.030	104.088900	103.7556	104.1684	0.00258	1.31	11.188	20.37	0.45
RaymondB	M002	4439.46	AMEC-2080	11.700000	103.000	103.840800	103.8408	104.0358	0.00956	2.17	8.051	29.68	0.83
RaymondB	M002	4415.77	AMEC-2080	11.700000	102.780	103.342300	103.4536	103.6577	0.02828	2.62	5.337	17.12	1.32
RaymondB	M002	4385.89	AMEC-2080	11.700000	101.800	102.495900	102.6152	102.8917	0.02269	2.89	4.814	12.30	1.24
RaymondB	M002	4354.01	AMEC-2080	11.700000	101.270	101.969200	102.0118	102.1839	0.01835	2.69	8.374	27.58	1.12
RaymondB	M002	4341.66	AMEC-2080	11.700000	100.840	101.668200	101.7302	101.9597	0.01530	2.60	6.683	22.90	1.04
RaymondB	M002	4332.73	AMEC-2080	11.700000	100.320	100.925500	101.1703	101.6749	0.05433	3.97	3.438	9.99	1.86
RaymondB	M002	4308.73	AMEC-2080	11.700000	98.870	99.426520	99.6555	100.2026	0.06895	4.14	3.518	11.65	2.04
RaymondB	M002	4294.65	AMEC-2080	11.700000	98.450	99.132830	99.2396	99.5434	0.02554	3.04	4.865	12.05	1.31
RaymondB	M002	4263.86	AMEC-2080	11.700000	97.590	98.456120	98.3233	98.6110	0.00647	1.84	7.676	13.58	0.69
RaymondB	M002	4235.25	AMEC-2080	11.700000	97.470	99.003750		99.0213	0.00034	0.65	24.237	25.59	0.18
RaymondB	M001	4130.35	AMEC-2080	55.200010	96.570	98.069760	98.1269	98.6373	0.01272	3.42	18.113	21.67	1.04
RaymondB	M001	4076.94	AMEC-2080	55.200010	96.040	97.764980	97.6010	98.0365	0.00528	2.49	28.836	35.51	0.69
RaymondB	M001	4023.53	AMEC-2080	55.200010	95.940	97.149640	97.1496	97.5888	0.01363	3.02	20.432	29.91	1.04
RaymondB	M001	3978.20	AMEC-2080	55.200010	94.640	96.824110	96.2799	96.9355	0.00199	1.54	44.732	58.31	0.42
RaymondB	M001	3916.71	AMEC-2080	79.700000	94.640	96.512930		96.7405	0.00440	2.54	53.456	65.03	0.65
RaymondB	M001	3863.30	AMEC-2080	79.700000	94.410	96.392260		96.5325	0.00269	2.11	69.547	81.50	0.52
RaymondB	M001	3809.58	AMEC-2080	79.700000	94.090	95.868660	95.8687	96.2843	0.00822	3.35	37.902	47.12	0.88
RaymondB	M001	3756.26	AMEC-2080	79.700000	93.530	95.185750	95.2921	95.7621	0.01118	3.73	30.928	40.55	1.01
RaymondB	M001	3694.37	AMEC-2080	79.700000	92.660	94.174660	94.4657	94.9206	0.01596	4.03	23.879	44.70	1.18
RaymondB	M001	3569.22	AMEC-2080	79.700000	92.150	94.427060	93.4697	94.4501	0.00051	1.00	147.880	156.88	0.23
RaymondB	M001	3527.64	AMEC-2080	79.700000	91.850	94.406650		94.4287	0.00043	1.01	151.356	143.35	0.21
RaymondB	M001	3446.51	AMEC-2080	79.700000	91.140	94.393070		94.4075	0.00017	0.73	217.440	170.78	0.14
RaymondB	M001	3421.64	AMEC-2080	79.700000	91.230	93.673840	93.2413	94.3304	0.00500	3.63	22.447	138.22	0.75
RaymondB	M001	3410		Bridge									
RaymondB	M001	3404.11	AMEC-2080	79.700000	91.230	93.245350	93.2882	94.2701	0.01044	4.52	17.950	106.09	1.04
RaymondB	M001	3380.48	AMEC-2080	79.700000	90.960	93.038150	92.5481	93.2192	0.00279	2.18	58.398	70.42	0.53
RaymondB	M001	3308.92	AMEC-2080	79.700000	90.800	92.831960		93.0090	0.00303	2.32	62.065	72.77	0.55
RaymondB	M001	3216.73	AMEC-2080	79.700000	89.310	92.531690	91.2714	92.8024	0.00158	2.34	35.211	82.83	0.43
RaymondB	M001	3200		Bridge									
RaymondB	M001	3188.78	AMEC-2080	79.700000	89.300	91.670530	91.6705	92.5239	0.00877	4.41	21.456	47.11	0.95
RaymondB	M001	3015.18	AMEC-2080	79.700000	89.180	90.942760	90.6206	91.1124	0.00315	2.12	58.557	68.10	0.55
RaymondB	M001	2876.32	AMEC-2080	79.700000	88.660	90.262310	90.1372	90.5359	0.00675	2.74	43.028	65.57	0.78
RaymondB	M001	2789.37	AMEC-2080	79.700000	88.240	90.085360		90.1653	0.00226	1.79	98.812	161.93	0.46
RaymondB	M001	2681.85	AMEC-2080	79.700000	88.140	89.526150	89.5262	89.7398	0.00987	2.92	56.132	127.26	0.91
RaymondB	M001	2604.32	AMEC-2080	79.700000	87.970	89.391120	89.0552	89.4288	0.00178	1.33	116.286	206.40	0.39

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	M001	2531.57	AMEC-2080	79.700000	87.970	89.357380		89.3679	0.00061	0.73	194.035	289.81	0.23
RaymondB	M001	2385.34	AMEC-2080	79.700000	87.430	89.289450		89.3189	0.00116	1.30	154.330	250.40	0.33
RaymondB	M001	2245.72	AMEC-2080	79.700000	86.990	88.772730	88.7477	89.1043	0.00606	2.86	44.688	86.17	0.75
RaymondB	M001	2194.47	AMEC-2080	79.700000	86.680	88.844250		88.9057	0.00112	1.44	100.608	96.05	0.34
RaymondB	M001	2140.67	AMEC-2080	79.700000	86.590	88.727130		88.8273	0.00185	1.82	77.452	71.44	0.43
RaymondB	M001	2087.60	AMEC-2080	79.700000	86.380	88.540600		88.7104	0.00230	2.04	54.460	45.01	0.48
RaymondB	M001	2069.54	AMEC-2080	79.700000	86.350	88.473240		88.6650	0.00271	2.20	54.852	53.99	0.52
RaymondB	M001	2040.77	AMEC-2080	79.700000	86.250	88.396320		88.5857	0.00267	2.15	60.842	86.71	0.51
RaymondB	M001	1989.18	AMEC-2080	79.700000	86.020	88.133300	87.8016	88.4047	0.00423	2.69	52.055	75.84	0.65
RaymondB	M001	1950.22	AMEC-2080	79.700000	85.790	87.784620	87.7846	88.1834	0.00694	3.25	40.677	54.23	0.81
RaymondB	M001	1885.73	AMEC-2080	79.700000	85.340	87.216750	87.1347	87.5422	0.00671	3.00	41.881	49.47	0.79
RaymondB	M001	1835.84	AMEC-2080	79.700000	84.640	86.602680	86.6027	87.1212	0.01012	3.82	31.617	29.95	0.97
RaymondB	M001	1784.61	AMEC-2080	79.700000	84.100	85.320930	85.5745	86.1836	0.03750	4.84	24.081	39.77	1.69
RaymondB	M001	1733.38	AMEC-2080	79.700000	82.790	84.956250	84.4166	85.1054	0.00229	2.00	59.401	48.90	0.48
RaymondB	M001	1682.15	AMEC-2080	79.700000	82.600	84.558980		84.9121	0.00554	2.83	36.293	35.75	0.72
RaymondB	M001	1630.92	AMEC-2080	79.700000	82.120	84.003860	84.0039	84.5403	0.00882	3.41	30.058	38.48	0.90
RaymondB	M001	1584.49	AMEC-2080	79.700000	81.770	83.813100	83.5639	84.1168	0.00522	2.79	41.238	51.38	0.70
RaymondB	M001	1536.01	AMEC-2080	79.700000	81.310	83.354970	83.3285	83.8012	0.00755	3.34	35.623	47.28	0.84
RaymondB	M001	1477.96	AMEC-2080	79.700000	80.960	82.943030	82.8661	83.3678	0.00725	3.20	36.099	44.26	0.82
RaymondB	M001	1425.99	AMEC-2080	79.700000	80.580	82.821240		83.0615	0.00347	2.47	45.376	41.19	0.59
RaymondB	M001	1372.05	AMEC-2080	79.700000	80.250	82.720360		82.8802	0.00247	2.21	56.323	49.27	0.50
RaymondB	M001	1323.54	AMEC-2080	79.700000	79.110	82.547510	81.4108	82.7618	0.00130	2.16	51.898	49.24	0.38
RaymondB	M001	1315		Bridge									
RaymondB	M001	1303.54	AMEC-2080	79.700000	78.010	80.614660	80.6147	81.6869	0.00975	4.59	17.372	20.53	1.00
RaymondB	M001	1252.39	AMEC-2080	83.999990	78.450	80.284570	80.5119	81.1194	0.01854	4.65	25.604	30.95	1.27
RaymondB	M001	1216.25	AMEC-2080	83.999990	77.860	79.842990	80.0167	80.5157	0.01331	4.36	31.612	42.90	1.11
RaymondB	M001	1189.75	AMEC-2080	83.999990	77.610	79.141530	79.3943	80.0110	0.02636	4.66	24.721	38.24	1.46
RaymondB	M001	1166.20	AMEC-2080	83.999990	76.740	78.279800	78.5848	79.3009	0.03148	5.36	26.679	53.88	1.62
RaymondB	M001	1148.70	AMEC-2080	83.999990	76.500	78.068820	78.2960	78.7488	0.02274	4.43	30.363	54.35	1.36
RaymondB	M001	1116.25	AMEC-2080	83.999990	75.830	77.226520	77.4461	77.9760	0.02317	4.03	24.714	38.02	1.35
RaymondB	M001	1066.09	AMEC-2080	83.999990	75.160	76.876070	76.8336	77.2384	0.00735	2.95	40.389	53.10	0.81
RaymondB	M001	1035.68	AMEC-2080	83.999990	74.730	76.512170	76.5122	76.9824	0.00881	3.34	34.320	41.25	0.90
RaymondB	M001	999.99	AMEC-2080	83.999990	73.320	74.735050	75.2705	76.2963	0.03811	5.79	17.083	22.12	1.78
RaymondB	M001	976.73	AMEC-2080	83.999990	73.030	74.577510	74.8830	75.4883	0.01907	4.53	25.576	41.15	1.30
RaymondB	M001	942.15	AMEC-2080	83.999990	72.180	73.302380	73.6459	74.3429	0.06397	6.25	21.873	36.13	2.20
RaymondB	M001	916.70	AMEC-2080	83.999990	70.820	72.194660	72.4577	73.0914	0.03517	5.53	28.201	66.18	1.70
RaymondB	M001	892.34	AMEC-2080	83.999990	70.360	71.904040	72.0402	72.5055	0.01323	3.82	32.552	52.45	1.08
RaymondB	M001	866.25	AMEC-2080	83.999990	70.040	71.899160	71.4504	72.1239	0.00344	2.26	51.451	66.09	0.57
RaymondB	M001	841.89	AMEC-2080	83.999990	69.920	71.699650	71.6997	72.0119	0.00539	2.79	50.056	93.72	0.72
RaymondB	M001	816.68	AMEC-2080	83.999990	69.740	71.491100	71.5278	71.8554	0.00712	3.18	46.279	80.02	0.82
RaymondB	M001	766.25	AMEC-2080	83.999990	69.160	70.090780	70.3624	71.0125	0.06056	5.37	22.785	45.98	2.09
RaymondB	M001	716.25	AMEC-2080	83.999990	68.390	69.990260	69.7943	70.2388	0.00532	2.57	49.899	68.81	0.70
RaymondB	M001	675.00	AMEC-2080	83.999990	68.140	69.836030		70.0261	0.00422	2.37	55.276	60.90	0.63
RaymondB	M001	615.86	AMEC-2080	83.999990	67.750	69.829770		69.8763	0.00096	1.34	127.644	165.27	0.31
RaymondB	M001	565.77	AMEC-2080	83.999990	67.440	69.806580		69.8362	0.00053	1.08	175.780	241.96	0.24
RaymondB	M001	520.15	AMEC-2080	83.999990	67.260	69.806910		69.8161	0.00019	0.69	283.446	325.22	0.15
RaymondB	M001	468.54	AMEC-2080	83.999990	66.980	69.804370		69.8079	0.00008	0.49	407.707	408.59	0.10
RaymondB	M001	429.18	AMEC-2080	83.999990	66.800	69.804080		69.8055	0.00003	0.31	604.447	514.40	0.06
RaymondB	M001	366.25	AMEC-2080	83.999990	66.650	69.803950		69.8045	0.00001	0.19	925.220	645.90	0.04
RaymondB	M001	341.79	AMEC-2080	83.999990	66.630	69.803950		69.8043	0.00001	0.17	1034.766	688.27	0.03
PettyHR	M002	6270.85	AMEC-2080	121.800000	66.230	69.803730		69.8039	0.00000	0.07	2199.471	868.80	0.01
PettyHR	M002	6218.07	AMEC-2080	121.800000	66.230	69.803630		69.8039	0.00000	0.07	2066.609	854.80	0.01
PettyHR	M002	6095.00	AMEC-2080	121.800000	66.230	69.803490		69.8037	0.00000	0.07	2001.397	858.48	0.01
PettyHR	M002	6004.71	AMEC-2080	121.800000	66.230	69.803390		69.8036	0.00000	0.07	2060.279	887.19	0.01
PettyHR	M001	5825.85	AMEC-2080	197.100000	66.230	69.802870		69.8033	0.00000	0.09	2360.424	850.06	0.02
PettyHR	M001	5685.44	AMEC-2080	197.100000	66.230	69.802570		69.8030	0.00000	0.09	2268.357	738.33	0.02
PettyHR	M001	5516.39	AMEC-2080	219.800000	66.230	69.801860		69.8025	0.00000	0.11	1977.962	631.07	0.02
PettyHR	M001	5279.80	AMEC-2080	219.800000	66.230	69.799920		69.8014	0.00001	0.17	1337.383	427.08	0.03
PettyHR	M001	4996.75	AMEC-2080	219.800000	66.230	69.790350		69.7971	0.00003	0.37	633.473	211.43	0.06
PettyHR	M001	4923.81	AMEC-2080	219.800000	66.230	69.708070		69.7840	0.00045	1.31	210.582	92.18	0.23
PettyHR	M001	4867.41	AMEC-2080	219.800000	66.230	69.604050		69.7398	0.00112	2.05	181.543	102.02	0.37
PettyHR	M001	4817.61	AMEC-2080	219.800000	66.580	69.547770		69.6753	0.00137	2.17	176.514	95.10	0.40
PettyHR	M001	4757.18	AMEC-2080	219.800000	66.430	68.906190	68.9062	69.4764	0.00700	4.30	92.976	76.70	0.88
PettyHR	M001	4675.66	AMEC-2080	219.800000	65.880	68.415440	67.7706	68.7404	0.00346	3.10	103.464	52.74	0.62
PettyHR	M001	4612.84	AMEC-2080	219.800000	64.880	67.101360	67.1014	68.2596	0.01445	5.77	57.110	42.56	1.25
PettyHR	M001	4570.09	AMEC-2080	219.800000	64.620	67.012590	67.0534	67.7402	0.00791	4.40	76.301	56.95	0.93
PettyHR	M001	4500.69	AMEC-2080	219.800000	64.620	66.475590	66.2815	66.8702	0.00552	3.11	95.275	75.89	0.75
PettyHR	M001	4461.12	AMEC-2080	219.800000	64.550	66.153730	66.1537	66.6104	0.01116	4.01	92.633	92.10	1.03
PettyHR	M001	4428.20	AMEC-2080	219.800000	64.410	65.930030	65.6845	66.2091	0.00859	3.31	105.365	90.29	0.89
PettyHR	M001	4395.66	AMEC-2080	219.800000	63.810	65.727890		66.0020	0.00447	2.88	114.394	82.52	0.68
PettyHR	M001	4357.04	AMEC-2080	219.800000	63.340	65.675320		65.8421	0.00237	2.42	144.265	82.29	0.51
PettyHR	M001	4281.82	AMEC-2080	219.800000	62.500	65.613010		65.7287	0.00075	1.64	161.523	60.28	0.30
PettyHR	M001	4166.17	AMEC-2080	219.800000	61.820	65.656310		65.6736	0.00011	0.70	457.351	170.81	0.12
PettyHR	M001	3949.19	AMEC-2080	219.800000	61.310	65.667980		65.6681	0.00000	0.04	5376.454	1319.35	0.01
PettyHR	M001	3936.78	AMEC-2080	219.800000	61.310	65.668000		65.6681	0.00000	0.03	6612.392	1577.02	0.01
PettyHR	M001	3931.39	AMEC-2080	149.800000	61.310	65.668030		65.6681	0.00000	0.02	8322.421	2019.06	0.00
PettyHR	M001	3925.44	AMEC-2080	149.800000	61.310	65.667960		65.6680	0.00000	0.04	4122.769	1006.25	0.01
PettyHR	M001	3867.05	AMEC-2080	149.800000	61.310	65.667950		65.6680	0.00000	0.04	4147.369	993.16	0.01
PettyHR	M001	3643.73	AMEC-2080	149.800000	61.310	65.667920		65.6680	0.00000	0.03	4755.089	1115.77	0.00
PettyHR	M001	3440.60	AMEC-2080	149.800000	61.310	65.667690		65.6679	0.00000	0.06	2420.214	589.16	0.01
PettyHR	M001	3182.65	AMEC-2080	149.800000	61.310	65.667270		65.6676	0.00000	0.08	1808.453	428.31	0.01
PettyHR	M001	3080.13	AMEC-2080	149.800000	61.310	65.667230		65.6675	0.00000	0.07	2142.445	526.66	0.01
PettyHR	M001	3028.13	AMEC-2080	149.800000	61.310	65.667220		65.6674	0.00000	0.07	2339.654	563.86	0.01
PettyHR	M001	2983.09	AMEC-2080	149.800000	61.310	65.667060		65.6674	0.00000	0.08	1904.105	454.01	0.01
PettyHR	M001	2828.46	AMEC-2080	149.800000	61.310	65.666070		65.6671	0.00000	0.14	1125.302	281.79	0.02
PettyHR	M001	2712.72	AMEC-2080	149.800000	61.310	65.663060		65.6662	0.00001	0.25	653.700	184.49	0.04
PettyHR	M001	2671.95	AMEC-2080	149.800000	61.310	65.661200		65.6655	0.00002	0.31	595.102	178.24	0.05
PettyHR	M001	2653.10	AMEC-2080	149.800000	61.310	65.659000		65.6650	0.00002	0.37	512.623	159.15	0.06
PettyHR	M001	2632.46	AMEC-2080	149.800000	61.310	65.643050		65.6626	0.00009	0.73	318.998	127.91	0.11
PettyHR	M001	2596.08	AMEC-2080	149.800000	61.310	65.633990		65.6584	0.00011	0.78	288.208	124.52	0.12

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	2583.24	AMEC-2080	149.800000	60.100	65.551640	63.3454	65.6482	0.00049	1.74	186.553	125.51	0.26
PettyHR	M001	2580		Bridge									
PettyHR	M001	2573.39	AMEC-2080	149.800000	60.000	65.374130	62.8866	65.4394	0.00030	1.37	198.739	101.70	0.20
PettyHR	M001	2551.09	AMEC-2080	149.800000	59.890	65.400790		65.4093	0.00003	0.43	421.965	123.93	0.06
PettyHR	M001	2426.14	AMEC-2080	149.800000	59.270	65.405620		65.4063	0.00000	0.12	1293.830	279.90	0.02
PettyHR	M001	2315.39	AMEC-2080	149.800000	58.720	65.405620		65.4061	0.00000	0.10	1578.763	320.40	0.01
PettyHR	M001	2204.15	AMEC-2080	149.800000	58.160	65.405480		65.4060	0.00000	0.10	1584.838	309.46	0.01
PettyHR	M001	2022.45	AMEC-2080	149.800000	57.260	65.404210		65.4056	0.00000	0.16	960.835	192.55	0.02
PettyHR	M001	1902.10	AMEC-2080	149.800000	56.660	65.402730		65.4050	0.00000	0.21	737.872	129.57	0.03
PettyHR	M001	1879.72	AMEC-2080	149.800000	56.550	65.399610		65.4046	0.00001	0.33	546.733	109.97	0.04
PettyHR	M001	1824.42	AMEC-2080	149.800000	56.280	65.393520		65.4033	0.00002	0.44	364.907	66.93	0.06
PettyHR	M001	1789.72	AMEC-2080	149.800000	56.100	65.388440		65.4020	0.00003	0.52	308.468	56.21	0.07
PettyHR	M001	1724.70	AMEC-2080	149.800000	55.780	65.381560		65.3995	0.00004	0.60	269.539	48.68	0.07
PettyHR	M001	1668.81	AMEC-2080	149.800000	55.500	65.385410	58.5985	65.3957	0.00002	0.46	358.904	67.53	0.06
PettyHR	M001	1647.80	AMEC-2080	149.800000	55.400	65.386990	58.2816	65.3945	0.00001	0.39	419.428	83.37	0.05
PettyHR	M001	1631.79	AMEC-2080	149.800000	63.550	65.074910		65.3653	0.00894	2.39	62.756	73.72	0.82
PettyHR	M001	1615.46	AMEC-2080	152.100000	54.380	56.995780		57.2771	0.00539	3.85	70.136	41.07	0.77
PettyHR	M001	1601.08	AMEC-2080	152.100000	54.000	56.509730	56.5097	57.1295	0.01260	5.74	51.561	39.22	1.18
PettyHR	M001	1586.16	AMEC-2080	152.100000	53.360	55.576850	55.9785	56.7991	0.02636	7.70	36.946	30.65	1.67
PettyHR	M001	1571.98	AMEC-2080	152.100000	52.870	54.797170	55.0956	56.3128	0.03900	8.42	31.391	25.35	1.98
PettyHR	M001	1519.66	AMEC-2080	152.100000	51.620	53.390390	53.6145	54.2964	0.03144	7.01	40.313	39.59	1.74
PettyHR	M001	1467.14	AMEC-2080	152.100000	50.860	52.534480	52.4239	52.9705	0.01475	4.76	55.060	47.52	1.20
PettyHR	M001	1457.30	AMEC-2080	152.100000	50.230	52.195780	52.1958	52.7966	0.01667	5.66	48.726	39.26	1.31
PettyHR	M001	1444.51	AMEC-2080	152.100000	48.300	49.514860	50.1699	52.1284	0.13829	11.55	23.885	33.16	3.45
PettyHR	M001	1415.17	AMEC-2080	152.100000	48.280	50.229270	49.6665	50.4217	0.00486	3.02	81.380	54.34	0.70
PettyHR	M001	1402.15	AMEC-2080	152.100000	47.790	49.766080	49.7661	50.2834	0.01608	5.42	52.738	47.15	1.26
PettyHR	M001	1385.41	AMEC-2080	152.100000	43.100	45.077790	46.1437	49.3924	0.08508	12.36	20.888	20.75	2.91
PettyHR	M001	1370.82	AMEC-2080	152.100000	41.750	43.958060	45.1569	48.2131	0.07393	12.85	20.824	16.47	2.80
PettyHR	M001	1362.66	AMEC-2080	152.100000	39.880	42.564750	44.0453	47.5683	0.06367	13.31	19.804	13.27	2.65
PettyHR	M001	1336.64	AMEC-2080	152.100000	39.870	41.658560	42.6411	45.1432	0.09195	12.31	21.681	20.05	3.00
PettyHR	M001	1309.35	AMEC-2080	152.100000	38.400	39.944540	40.6839	42.4604	0.08342	10.55	23.784	22.23	2.78
PettyHR	M001	1279.20	AMEC-2080	152.100000	35.020	37.671490	38.5074	40.6903	0.04335	11.03	29.360	29.41	2.20
PettyHR	M001	1258.06	AMEC-2080	152.100000	34.010	36.921250	38.0978	39.8207	0.03465	10.59	25.921	15.66	2.01
PettyHR	M001	1221.17	AMEC-2080	152.100000	33.210	34.916520	35.6670	37.8391	0.09271	11.56	24.033	26.86	2.94
PettyHR	M001	1203.34	AMEC-2080	152.100000	32.610	34.013970	34.5963	35.9306	0.08662	9.99	27.963	34.39	2.78
PettyHR	M001	1164.99	AMEC-2080	152.100000	31.370	33.098460	33.2985	33.9162	0.02647	6.33	42.754	42.04	1.59
PettyHR	M001	1153.41	AMEC-2080	152.100000	30.700	31.982500	32.3930	33.3940	0.06967	8.60	31.570	38.89	2.48
PettyHR	M001	1125.74	AMEC-2080	152.100000	29.270	30.688030	30.9174	31.7470	0.04629	7.36	37.396	44.50	2.04
PettyHR	M001	1090.65	AMEC-2080	152.100000	28.120	29.473340	29.6836	30.2007	0.03755	6.26	45.252	61.63	1.81
PettyHR	M001	1059.48	AMEC-2080	152.100000	26.840	28.276550	28.4755	28.9981	0.03922	6.80	46.213	66.65	1.87
PettyHR	M001	1048.77	AMEC-2080	152.100000	26.290	27.670060	27.9173	28.5400	0.04210	6.76	41.790	55.75	1.93
PettyHR	M001	1021.54	AMEC-2080	152.100000	25.470	27.308600	27.3086	27.8540	0.01786	5.47	50.689	45.24	1.32
PettyHR	M001	1003.30	AMEC-2080	152.100000	23.420	25.317160	26.0710	27.2280	0.04556	9.10	27.915	21.64	2.14
PettyHR	M001	994.73	AMEC-2080	152.100000	22.700	25.713040	25.9496	26.7585	0.01482	7.07	42.694	28.53	1.32
PettyHR	M001	961.03	AMEC-2080	152.100000	22.070	24.870070	25.2239	26.1638	0.01956	7.65	37.776	26.48	1.49
PettyHR	M001	944.13	AMEC-2080	152.100000	21.890	23.851270	24.4070	25.6584	0.03846	8.49	29.835	23.43	1.98
PettyHR	M001	924.94	AMEC-2080	152.100000	20.780	23.016520	23.5911	24.9324	0.03610	8.96	28.074	18.17	1.95
PettyHR	M001	905.47	AMEC-2080	152.100000	19.730	22.270280	22.8725	24.2898	0.03023	9.01	28.283	16.76	1.83
PettyHR	M001	883.86	AMEC-2080	152.100000	17.290	21.519120	20.3471	21.7873	0.00179	3.10	82.895	44.64	0.49
PettyHR	M001	875		Bridge									
PettyHR	M001	859.53	AMEC-2080	152.100000	17.250	19.741400	19.7414	20.6091	0.01443	5.97	39.640	31.15	1.24
PettyHR	M001	836.76	AMEC-2080	152.100000	12.800	15.368510	16.5512	19.1915	0.04520	11.09	21.526	12.33	2.24
PettyHR	M001	823.70	AMEC-2080	152.100000	12.860	14.643760	15.2427	18.2845	0.09459	12.40	21.012	18.92	3.03
PettyHR	M001	811.96	AMEC-2080	152.100000	12.850	14.907240	15.5772	17.0528	0.05126	10.18	30.257	31.38	2.30
PettyHR	M001	796.92	AMEC-2080	152.100000	12.740	14.245410	14.7598	16.0322	0.07609	10.02	29.106	34.36	2.66
PettyHR	M001	784.11	AMEC-2080	152.100000	11.820	13.889020	14.3032	15.2685	0.03446	8.30	37.138	38.38	1.88
PettyHR	M001	769.86	AMEC-2080	152.100000	10.940	12.834930	13.4676	14.6853	0.04251	8.72	29.363	24.38	2.07
PettyHR	M001	748.76	AMEC-2080	152.100000	8.370	11.100610	11.9483	13.8292	0.03256	9.70	28.204	21.46	1.91
PettyHR	M001	720.33	AMEC-2080	152.100000	8.080	9.267802	10.0237	12.1603	0.14372	11.11	22.277	29.07	3.45
PettyHR	M001	707.57	AMEC-2080	152.100000	6.850	8.410390	9.0028	10.5805	0.07680	10.16	27.958	33.70	2.67
PettyHR	M001	685.99	AMEC-2080	152.100000	5.310	7.106636	7.6189	9.0828	0.05918	9.67	29.953	33.04	2.39
PettyHR	M001	666.04	AMEC-2080	152.100000	5.030	7.938058	7.1458	8.0920	0.00270	2.92	107.071	76.95	0.56
PettyHR	M001	652.51	AMEC-2080	152.100000	4.660	6.201484	6.2015	7.8422	0.05786	8.58	31.176	36.22	2.30
PettyHR	M001	633.61	AMEC-2080	152.100000	4.400	5.524820	5.8731	6.6363	0.05721	6.90	36.583	78.59	2.18
PettyHR	M001	622.83	AMEC-2080	152.100000	4.090	5.387808	5.3878	5.7348	0.01732	4.19	65.103	119.14	1.23
PettyHR	M001	577.97	AMEC-2080	152.100000	2.480	3.853510	4.0399	4.4864	0.04704	7.14	49.562	112.38	2.02
PettyHR	M001	525.57	AMEC-2080	152.100000	0.510	3.591566	2.5190	3.6507	0.00107	1.95	160.845	128.69	0.36
PettyHR	M001	491.94	AMEC-2080	152.100000	-0.590	3.499375	2.5966	3.6119	0.00094	2.00	152.246	139.19	0.34
PettyHR	M001	485		Bridge									
PettyHR	M001	478.84	AMEC-2080	152.100000	-1.920	3.189053	0.9208	3.2512	0.00034	1.32	212.104	177.56	0.21
PettyHR	M001	439.27	AMEC-2080	152.100000	-1.890	3.203750		3.2199	0.00012	0.79	322.001	135.86	0.12
PettyHR	M001	405.68	AMEC-2080	152.100000	-2.130	3.198845		3.2160	0.00011	0.77	323.483	147.29	0.12
PettyHR	M001	367.80	AMEC-2080	152.100000	-2.020	3.199642		3.2098	0.00004	0.47	390.944	148.94	0.07
PettyHR	M001	338.85	AMEC-2080	152.100000	-2.890	3.199849		3.2083	0.00003	0.42	421.260	141.93	0.06
PettyHR	M001	305.38	AMEC-2080	152.100000	-2.460	3.196950		3.2071	0.00004	0.47	383.277	125.46	0.07
PettyHR	M001	269.29	AMEC-2080	152.100000	-3.520	3.193486		3.2057	0.00003	0.51	358.934	117.43	0.07
PettyHR	M001	238.18	AMEC-2080	152.100000	-3.500	3.186959		3.2040	0.00005	0.61	315.177	109.61	0.08
PettyHR	M001	201.25	AMEC-2080	152.100000	-4.430	3.192645		3.2001	0.00002	0.39	447.058	131.88	0.05
PettyHR	M001	150.84	AMEC-2080	152.100000	-3.340	3.194719		3.1983	0.00001	0.27	634.269	174.11	0.04
PettyHR	M001	105.74	AMEC-2080	152.100000	-2.910	3.194158		3.1979	0.00001	0.27	605.853	157.18	0.04
PettyHR	M001	91.29	AMEC-2080	152.100000	-3.360	3.194178		3.1977	0.00001	0.27	616.716	150.23	0.04
PettyHR	M001	20.04	AMEC-2080	152.100000	-6.190	3.194766		3.1968	0.00000	0.20	823.392	187.40	0.03
PettyHR	M001	12.04	AMEC-2080	152.100000	-6.190	3.179978	-3.2052	3.1954	0.00006	0.65	384.677	187.35	0.07
ForthP	M001	2616.90	AMEC-2080	13.900000	123.090	124.400200	123.3880	124.4012	0.00002	0.16	119.141	149.32	0.05
ForthP	M001	2528.45	AMEC-2080	13.900000	123.090	124.399700		124.4000	0.00001	0.08	195.692	192.58	0.02
ForthP	M001	2324.32	AMEC-2080	13.900000	123.090	124.397000		124.3979	0.00002	0.15	133.380	199.65	0.04
ForthP	M001	2187.52	AMEC-2080	13.900000	123.090	124.396400		124.3966	0.00000	0.06	259.734	281.34	0.02
ForthP	M001	1955.13	AMEC-2080	13.900000	123.090	124.395500		124.3956	0.00000	0.06	300.480	306.54	0.02
ForthP	M001	1773.83	AMEC-2080	13.900000	123.090	124.395100		124.3952	0.00000	0.04	372.208	341.04	0.01
ForthP	M001	1572.85	AMEC-2080	13.900000	123.090	124.394800		124.3949	0.00000	0.04	357.028	315.96	0.01

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
ForthP	M001	1496.60	AMEC-2080	13.900000	123.090	124.394700		124.3948	0.00000	0.05	300.183	271.25	0.01
ForthP	M001	1392.58	AMEC-2080	19.100000	122.980	124.390600	124.0912	124.3932	0.00021	0.51	93.479	163.86	0.14
ForthP	M001	1390		Culvert									
ForthP	M001	1381.72	AMEC-2080	19.100000	122.950	124.160000	124.0557	124.1838	0.00254	1.45	39.268	134.21	0.44
ForthP	M001	1360.50	AMEC-2080	19.100000	122.870	123.933300		124.0644	0.00798	2.32	15.495	34.61	0.79
ForthP	M001	1311.12	AMEC-2080	19.100000	122.520	123.665600		123.7335	0.00511	1.93	21.158	53.97	0.63
ForthP	M001	1261.17	AMEC-2080	19.100000	121.360	122.802100	122.8021	123.3124	0.01266	3.65	7.735	11.11	1.04
ForthP	M001	1211.51	AMEC-2080	19.100000	119.830	121.034000	121.4579	122.2227	0.03914	5.51	4.772	7.09	1.75
ForthP	M001	1161.66	AMEC-2080	19.100000	117.250	118.204200	118.5512	119.6522	0.06932	6.13	5.037	16.86	2.24
ForthP	M001	1112.05	AMEC-2080	19.100000	114.880	115.754300	115.9805	116.4827	0.05166	5.28	7.006	24.09	1.94
ForthP	M001	1062.35	AMEC-2080	19.100000	113.160	114.014900	114.1264	114.3962	0.03198	3.80	7.745	17.96	1.46
ForthP	M001	1041.93	AMEC-2080	19.100000	112.620	113.729400	113.7522	113.9370	0.01391	3.03	12.464	35.97	1.01
ForthP	M001	1031.90	AMEC-2080	19.100000	112.310	113.325800	113.4527	113.7284	0.02987	4.20	10.134	36.92	1.46
ForthP	M001	1011.12	AMEC-2080	19.100000	111.620	112.477600	112.6339	112.9650	0.04517	4.73	9.019	34.13	1.79
ForthP	M001	959.76	AMEC-2080	19.100000	110.310	110.989500	111.0106	111.1493	0.02727	2.87	13.193	53.85	1.31
ForthP	M001	908.93	AMEC-2080	19.100000	109.250	109.750500	109.6974	109.8070	0.01518	1.77	19.469	82.44	0.94
ForthP	M001	856.39	AMEC-2080	19.100000	108.380	108.756000		108.8077	0.01786	1.30	19.210	87.76	0.92
ForthP	M001	806.25	AMEC-2080	19.100000	107.090	107.848500	107.8485	107.9470	0.01827	2.66	18.170	86.07	1.10
ForthP	M001	754.78	AMEC-2080	19.100000	106.120	107.090100	107.0427	107.1478	0.00676	2.06	24.625	87.54	0.71
ForthP	M001	734.50	AMEC-2080	19.100000	105.470	106.446500	106.4465	106.8955	0.02878	3.99	9.459	35.94	1.44
ForthP	M001	724.30	AMEC-2080	19.100000	105.280	106.339400	106.4373	106.6248	0.01679	3.29	12.537	50.15	1.13
ForthP	M001	703.65	AMEC-2080	19.100000	105.020	105.901900	105.9755	106.1680	0.03007	3.95	11.105	37.61	1.45
ForthP	M001	654.47	AMEC-2080	19.100000	103.900	105.289100	104.6548	105.2966	0.00046	0.70	54.471	78.21	0.20
ForthP	M001	605.63	AMEC-2080	19.100000	102.270	103.040000	103.0400	105.0238	0.14354	7.37	3.979	12.85	3.09
ForthP	M001	585.13	AMEC-2080	19.100000	101.550	102.296400	102.4145	102.7998	0.06124	4.66	9.670	58.07	2.00
ForthP	M001	577.30	AMEC-2080	19.100000	101.520	102.067800	102.1218	102.2714	0.05378	3.45	11.191	55.68	1.77
ForthP	M001	557.33	AMEC-2080	19.100000	100.670	101.198800	101.2236	101.3403	0.03996	2.74	12.936	63.34	1.50
ForthP	M001	507.84	AMEC-2080	19.100000	98.920	99.493800	99.5028	99.6057	0.03046	2.53	14.869	75.90	1.32
ForthP	M001	453.33	AMEC-2080	19.100000	96.280	96.839940	96.9270	97.1387	0.06939	3.78	11.070	76.75	2.00
ForthP	M001	402.29	AMEC-2080	19.100000	94.960	95.460610	95.4606	95.6113	0.04200	2.98	12.080	49.08	1.55
ForthP	M001	349.18	AMEC-2080	19.100000	93.640	94.091550	93.9939	94.1390	0.01364	1.38	20.115	69.86	0.84
ForthP	M001	297.76	AMEC-2080	19.100000	92.550	93.374470	93.3745	93.4835	0.01464	2.47	17.345	75.27	1.00
ForthP	M001	246.28	AMEC-2080	19.100000	91.710	92.313710	92.3284	92.4295	0.02571	2.40	15.555	71.43	1.23
ForthP	M001	182.03	AMEC-2080	19.100000	90.940	91.943180	91.6176	91.9603	0.00217	1.14	38.317	93.82	0.40
ForthP	M001	160.27	AMEC-2080	19.100000	90.130	91.949230	91.0523	91.9511	0.00006	0.31	122.347	143.62	0.08
ForthP	M001	150		Culvert									
ForthP	M001	144.74	AMEC-2080	19.100000	89.900	90.846610	90.7631	91.1579	0.00921	2.49	7.875	81.03	0.85
ForthP	M001	124.30	AMEC-2080	19.100000	89.740	90.741940	90.7419	90.8585	0.01088	2.49	19.508	68.92	0.89
ForthP	M001	61.58	AMEC-2080	19.100000	88.750	89.725780	89.7788	89.9555	0.01873	3.18	13.802	46.99	1.17
ForestP	M001	1557.91	AMEC-2080	9.799999	78.250	79.769310	78.4793	79.7695	0.00000	0.07	154.968	122.80	0.02
ForestP	M001	1428.05	AMEC-2080	9.799999	78.250	79.769050		79.7692	0.00000	0.05	212.051	178.03	0.01
ForestP	M001	1315.71	AMEC-2080	9.799999	78.250	79.768940		79.7690	0.00000	0.03	297.982	244.23	0.01
ForestP	M001	1228.83	AMEC-2080	9.799999	78.250	79.768890		79.7689	0.00000	0.03	356.375	292.67	0.01
ForestP	M001	1138.84	AMEC-2080	9.799999	78.250	79.768840		79.7689	0.00000	0.02	417.544	344.99	0.01
ForestP	M001	1077.28	AMEC-2080	9.799999	78.250	79.768810		79.7688	0.00000	0.02	468.279	485.79	0.01
ForestP	M001	1019.12	AMEC-2080	9.799999	78.250	79.768680		79.7688	0.00000	0.05	238.732	292.29	0.01
ForestP	M001	958.61	AMEC-2080	12.600000	78.150	79.739100	79.5024	79.7656	0.00089	0.88	28.028	72.06	0.26
ForestP	M001	955		Culvert									
ForestP	M001	949.85	AMEC-2080	12.600000	77.760	79.631330	79.6313	79.7396	0.00627	1.92	14.781	56.25	0.49
ForestP	M001	913.34	AMEC-2080	12.600000	78.160	79.113910	79.1310	79.3514	0.02729	3.68	7.385	20.13	1.30
ForestP	M001	883.23	AMEC-2080	12.600000	77.540	78.366670	78.4399	78.6044	0.02306	3.22	9.310	39.89	1.26
ForestP	M001	859.61	AMEC-2080	12.600000	76.750	77.524150	77.6286	77.9183	0.03659	3.92	5.686	14.55	1.57
ForestP	M001	831.71	AMEC-2080	12.600000	75.740	76.782380	76.8547	77.1397	0.02226	3.66	6.114	12.15	1.26
ForestP	M001	802.91	AMEC-2080	12.600000	74.660	75.505000	75.7385	76.2244	0.04607	4.74	4.402	10.54	1.80
ForestP	M001	772.90	AMEC-2080	12.600000	73.770	74.588630	74.6850	74.9320	0.03292	3.91	6.153	16.02	1.49
ForestP	M001	737.48	AMEC-2080	12.600000	72.770	73.461640	73.5265	73.7215	0.03333	3.47	6.994	21.57	1.48
ForestP	M001	688.06	AMEC-2080	12.600000	71.800	72.434900	72.4207	72.5495	0.02558	2.72	9.504	33.75	1.21
ForestP	M001	651.32	AMEC-2080	12.600000	70.810	71.458850	71.4425	71.6154	0.02503	2.98	9.169	32.71	1.28
ForestP	M001	600.44	AMEC-2080	12.600000	69.800	70.359120	70.3257	70.4392	0.02091	2.38	13.175	73.43	1.13
ForestP	M001	578.60	AMEC-2080	12.600000	69.310	69.933680	69.9337	70.0129	0.01782	2.37	15.429	90.63	1.07
ForestP	M001	528.92	AMEC-2080	12.600000	68.580	69.808850	69.2935	69.8125	0.00038	0.58	57.655	118.84	0.18
ForestP	M001	478.55	AMEC-2080	12.600000	68.210	69.805270		69.8062	0.00005	0.26	112.304	146.58	0.07
ForestP	M001	430.82	AMEC-2080	12.600000	67.770	69.804210		69.8047	0.00002	0.19	158.647	166.16	0.04
ForestP	M001	378.18	AMEC-2080	12.600000	67.480	69.804140		69.8042	0.00000	0.08	356.780	332.54	0.02
ForestP	M001	328.07	AMEC-2080	12.600000	67.340	69.804050		69.8041	0.00000	0.06	481.524	384.12	0.01
ForestP	M001	277.95	AMEC-2080	12.600000	67.070	69.804010		69.8040	0.00000	0.05	581.721	448.06	0.01
ForestP	M001	195.51	AMEC-2080	12.600000	66.230	69.803990		69.8040	0.00000	0.03	1008.851	628.40	0.00
ForestP	M001	158.37	AMEC-2080	12.600000	66.230	69.803990		69.8040	0.00000	0.01	1752.362	719.67	0.00
ForestP	M001	89.11	AMEC-2080	12.600000	66.230	69.803990		69.8040	0.00000	0.01	1939.556	783.31	0.00
DoylesR	TR019	260.51	AMEC-2080	0.400000	124.740	125.143600	124.9452	125.1440	0.00012	0.14	5.866	42.24	0.08
DoylesR	TR019	199.72	AMEC-2080	0.400000	124.550	125.143400		125.1434	0.00000	0.02	41.532	141.99	0.01
DoylesR	TR019	150.00	AMEC-2080	0.400000	124.370	125.143200		125.1432	0.00000	0.02	45.360	165.52	0.01
DoylesR	TR019	100.00	AMEC-2080	0.400000	124.160	125.143100		125.1431	0.00000	0.03	42.363	222.94	0.01
DoylesR	TR019	50.00	AMEC-2080	0.400000	124.180	125.143100		125.1431	0.00000	0.01	70.722	269.79	0.01
DoylesR	TR018	302.01	AMEC-2080	1.800000	127.900	128.515900	128.0745	128.5168	0.00007	0.16	17.846	45.47	0.07
DoylesR	TR018	270.53	AMEC-2080	1.800000	126.190	128.516500	126.9979	128.5165	0.00000	0.02	263.954	244.89	0.00
DoylesR	TR018	260		Culvert									
DoylesR	TR018	257.62	AMEC-2080	1.800000	126.190	128.516400	127.0231	128.5164	0.00000	0.02	268.843	215.54	0.00
DoylesR	TR018	244.68	AMEC-2080	1.800000	125.640	128.516400	126.7443	128.5164	0.00000	0.01	307.079	215.22	0.00
DoylesR	TR018	200		Culvert									
DoylesR	TR018	169.24	AMEC-2080	1.800000	125.400	126.297900	126.2979	126.7185	0.01656	3.31	0.675	77.22	1.14
DoylesR	TR018	131.43	AMEC-2080	1.800000	125.240	125.449300	125.4663	125.4913	0.03932	1.33	2.699	54.71	1.25
DoylesR	TR018	59.79	AMEC-2080	1.800000	124.570	125.188800	124.8994	125.1898	0.00019	0.24	20.326	135.40	0.11
DoylesR	TR017	4043.45	AMEC-2080	9.699998	124.050	125.113100		125.1347	0.00147	1.12	24.285	96.45	0.35
DoylesR	TR017	3983.69	AMEC-2080	9.699998	124.040	124.998200		125.0317	0.00230	1.18	21.301	99.85	0.42
DoylesR	TR017	3923.93	AMEC-2080	9.699998	124.030	124.633700	124.6337	124.7443	0.01941	2.08	9.000	44.75	1.07
DoylesR	TR017	3889.37	AMEC-2080	9.699998	123.600	123.816200	123.6642	123.8353	0.00691	0.43	15.898	67.37	0.49
DoylesR	TR017	3781.64	AMEC-2080	9.699998	122.550	123.628900		123.6490	0.00169	1.11	23.640	83.38	0.36
DoylesR	TR017	3768.91	AMEC-2080	9.699998	122.350	123.279800	123.2798	123.5696	0.01270	2.61	5.055	12.22	0.95
DoylesR	TR017	3745.98	AMEC-2080	9.699998	121.860	122.419600	122.5207	122.7767	0.07088	3.54	4.969	33.79	1.96

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR017	3713.18	AMEC-2080	9.699998	120.990	121.637300	121.6766	121.8855	0.01741	2.39	5.144	14.95	1.07
DoylesR	TR017	3692.45	AMEC-2080	9.699998	120.340	121.017200	121.1511	121.3901	0.02950	3.04	4.402	14.65	1.38
DoylesR	TR017	3679.05	AMEC-2080	9.699998	119.970	120.789700	120.8918	121.0886	0.01628	2.79	5.528	24.92	1.08
DoylesR	TR017	3656.84	AMEC-2080	9.699998	117.590	118.120000	118.5658	120.0595	0.19567	6.37	1.725	6.36	3.38
DoylesR	TR017	3603.67	AMEC-2080	9.699998	116.290	117.027300	117.0902	117.2488	0.01850	2.73	6.369	25.18	1.12
DoylesR	TR017	3583.40	AMEC-2080	9.699998	115.960	116.632800	116.6908	116.8407	0.02363	2.80	6.732	29.64	1.24
DoylesR	TR017	3571.14	AMEC-2080	9.699998	115.760	116.309500	116.3571	116.4885	0.03192	2.94	6.757	33.46	1.40
DoylesR	TR017	3545.42	AMEC-2080	9.699998	115.220	115.878200	115.8910	116.0320	0.01735	2.31	7.096	25.83	1.05
DoylesR	TR017	3483.93	AMEC-2080	9.699998	114.350	114.960300	114.9380	115.0134	0.01225	1.91	13.227	71.17	0.88
DoylesR	TR017	3432.55	AMEC-2080	9.699998	113.790	114.562900	114.5020	114.6143	0.00759	1.78	14.459	66.54	0.71
DoylesR	TR017	3345.48	AMEC-2080	9.699998	113.030	113.571000	113.5710	113.6924	0.02871	2.45	8.098	44.08	1.29
DoylesR	TR017	3300.07	AMEC-2080	9.699998	112.420	113.012200	112.8904	113.0282	0.00400	0.98	19.657	78.33	0.49
DoylesR	TR016	918.87	AMEC-2080	3.600000	127.080	128.803300	127.2608	128.8033	0.00000	0.02	405.586	361.75	0.00
DoylesR	TR016	898.71	AMEC-2080	3.600000	126.900	128.803300	128.1713	128.8033	0.00000	0.04	196.969	225.44	0.01
DoylesR	TR016	890		Culvert									
DoylesR	TR016	882.28	AMEC-2080	3.600000	126.880	128.745000	128.2024	128.7451	0.00001	0.08	107.302	159.16	0.02
DoylesR	TR016	877.71	AMEC-2080	3.600000	126.240	128.745000	127.5845	128.7451	0.00000	0.09	126.786	191.22	0.02
DoylesR	TR016	850		Culvert									
DoylesR	TR016	848.13	AMEC-2080	3.600000	126.370	127.690000	127.6900	128.3235	0.01176	3.53	1.021	101.64	1.00
DoylesR	TR016	818.98	AMEC-2080	3.600000	126.360	126.677600	126.7981	127.4228	0.18304	4.03	1.155	13.01	2.94
DoylesR	TR016	768.99	AMEC-2080	3.600000	126.300	126.671200	126.5987	126.6846	0.00417	0.78	8.763	51.87	0.47
DoylesR	TR016	714.09	AMEC-2080	3.600000	125.960	126.388000	126.3151	126.4103	0.00569	0.96	6.901	37.66	0.56
DoylesR	TR016	675.95	AMEC-2080	3.600000	125.740	126.101500	126.1015	126.1529	0.01490	1.36	5.126	46.53	0.88
DoylesR	TR016	659.39	AMEC-2080	3.600000	125.100	125.477900	125.5592	125.6843	0.04257	2.52	2.410	17.56	1.52
DoylesR	TR016	632.80	AMEC-2080	3.600000	124.780	125.284800	125.2848	125.3560	0.01047	1.49	4.440	28.95	0.78
DoylesR	TR016	610.50	AMEC-2080	3.600000	123.780	124.303300	124.4911	124.8251	0.05267	3.54	1.373	5.54	1.77
DoylesR	TR016	549.37	AMEC-2080	3.600000	122.300	122.971700	123.0158	123.1231	0.01616	2.17	3.212	18.90	0.99
DoylesR	TR016	494.31	AMEC-2080	3.600000	120.930	121.601600	121.7018	121.9559	0.02828	2.68	1.471	4.60	1.29
DoylesR	TR016	473.82	AMEC-2080	3.600000	120.180	120.712300	120.8714	121.1901	0.04988	3.17	1.306	5.09	1.69
DoylesR	TR016	459.95	AMEC-2080	3.600000	119.620	120.125500	120.2508	120.5293	0.04435	2.89	1.389	5.37	1.58
DoylesR	TR016	439.99	AMEC-2080	3.600000	119.050	119.763500	119.7740	119.9986	0.01688	2.19	1.808	5.01	1.01
DoylesR	TR016	384.99	AMEC-2080	3.600000	117.070	117.529700	117.7084	118.1386	0.09171	3.47	1.060	4.68	2.18
DoylesR	TR016	329.99	AMEC-2080	3.600000	115.670	116.186900	116.2003	116.2853	0.01559	1.65	3.559	23.90	0.93
DoylesR	TR016	274.18	AMEC-2080	3.600000	114.930	115.335800	115.3448	115.3970	0.01576	1.43	5.034	48.49	0.91
DoylesR	TR016	218.88	AMEC-2080	3.600000	114.350	114.810200	114.8527	114.9217	0.02544	1.82	3.924	43.79	1.15
DoylesR	TR016	165.43	AMEC-2080	3.600000	113.830	114.409600	114.4096	114.4686	0.00813	1.35	5.340	37.34	0.69
DoylesR	TR016	86.48	AMEC-2080	3.600000	112.800	113.257000	113.2930	113.4061	0.02620	1.90	2.540	13.73	1.17
DoylesR	TR016	40.19	AMEC-2080	3.600000	112.210	112.845200	112.7293	112.8559	0.00193	0.73	11.460	63.46	0.35
DoylesR	TR015	3230.71	AMEC-2080	21.100000	111.600	112.573600		112.6335	0.00692	2.08	25.400	79.60	0.72
DoylesR	TR015	3185.04	AMEC-2080	21.100000	111.220	112.191400	112.1759	112.3243	0.01298	2.63	17.908	51.88	0.97
DoylesR	TR015	3133.58	AMEC-2080	21.100000	110.570	111.445800	111.4458	111.5949	0.01655	2.90	16.442	48.64	1.09
DoylesR	TR015	3079.97	AMEC-2080	21.100000	108.170	109.206900	109.5546	110.1758	0.04099	5.00	6.201	12.36	1.76
DoylesR	TR015	3026.43	AMEC-2080	21.100000	107.300	109.183800	108.4108	109.2178	0.00070	1.05	33.938	34.64	0.26
DoylesR	TR015	3001.28	AMEC-2080	21.100000	106.170	109.199000	108.6522	109.2031	0.00011	0.53	93.504	80.87	0.10
DoylesR	TR015	3000		Culvert									
DoylesR	TR015	2988.77	AMEC-2080	21.100000	106.030	108.140700	108.1407	108.3264	0.00343	2.61	24.196	58.13	0.59
DoylesR	TR015	2963.30	AMEC-2080	21.100000	105.690	106.641700	106.9543	107.7999	0.06182	6.07	7.034	20.51	2.11
DoylesR	TR015	2915.60	AMEC-2080	21.100000	104.530	105.698800	105.7941	106.1075	0.01953	3.76	11.055	24.54	1.23
DoylesR	TR015	2867.64	AMEC-2080	21.100000	103.370	104.581500	104.6949	105.1009	0.02713	4.55	10.012	21.75	1.43
DoylesR	TR015	2841.04	AMEC-2080	21.100000	102.400	103.002100	103.1859	103.6657	0.11784	5.31	7.539	28.70	2.65
DoylesR	TR015	2804.73	AMEC-2080	21.100000	101.670	102.572700	102.5151	102.7119	0.01384	2.71	16.415	38.13	1.00
DoylesR	TR015	2742.98	AMEC-2080	21.100000	100.870	101.704300	101.7001	101.8215	0.01705	2.91	19.903	69.30	1.10
DoylesR	TR015	2687.77	AMEC-2080	21.100000	100.070	100.744800	100.7448	100.8526	0.01986	2.61	18.841	75.30	1.14
DoylesR	TR015	2638.14	AMEC-2080	21.100000	98.950	99.780330	99.8436	100.0328	0.02968	3.86	14.444	53.09	1.46
DoylesR	TR015	2593.26	AMEC-2080	21.100000	97.750	98.910850	98.8837	99.0612	0.01080	2.86	17.713	44.65	0.92
DoylesR	TR015	2557.12	AMEC-2080	21.100000	97.530	98.652970		98.7534	0.00795	2.50	21.699	56.81	0.80
DoylesR	TR015	2522.34	AMEC-2080	21.100000	97.260	98.230450	98.2305	98.4208	0.01463	2.78	15.333	44.11	1.03
DoylesR	TR015	2483.94	AMEC-2080	21.100000	96.950	97.708820	97.6716	97.8015	0.01648	2.42	18.497	60.48	1.03
DoylesR	TR015	2438.99	AMEC-2080	21.100000	96.350	97.513690		97.5498	0.00301	1.52	34.470	96.92	0.49
DoylesR	TR015	2387.12	AMEC-2080	21.100000	96.390	97.470620		97.4779	0.00083	0.73	62.414	132.57	0.25
DoylesR	TR015	2352.45	AMEC-2080	21.100000	96.400	97.451110		97.4563	0.00046	0.55	69.129	107.02	0.19
DoylesR	TR015	2283.37	AMEC-2080	21.100000	95.750	97.295460		97.3839	0.00288	1.87	20.036	24.40	0.51
DoylesR	TR015	2231.50	AMEC-2080	21.100000	95.540	96.753090	96.7531	97.0841	0.01419	3.38	10.935	21.82	1.07
DoylesR	TR015	2160.12	AMEC-2080	21.100000	94.930	96.041790	95.9448	96.2199	0.00894	2.50	13.727	22.78	0.84
DoylesR	TR015	2119.11	AMEC-2080	21.100000	94.440	95.552570	95.5526	95.8034	0.01411	3.14	13.123	28.88	1.04
DoylesR	TR015	2075.88	AMEC-2080	21.100000	93.860	94.849240	94.9226	95.1282	0.01734	3.19	13.730	47.15	1.14
DoylesR	TR015	2024.01	AMEC-2080	21.100000	93.190	94.304600	94.3191	94.4581	0.01054	2.66	17.279	52.52	0.90
DoylesR	TR015	1972.14	AMEC-2080	21.100000	92.710	93.768960	93.7924	93.9043	0.01262	2.89	19.779	76.52	0.97
DoylesR	TR015	1921.75	AMEC-2080	21.100000	92.350	93.544350	93.1793	93.5633	0.00176	1.20	40.934	95.10	0.37
DoylesR	TR015	1851.62	AMEC-2080	21.100000	91.240	93.186210	93.1862	93.3994	0.00485	2.67	17.757	40.98	0.65
DoylesR	TR014	2057.49	AMEC-2080	12.900000	125.480	126.654100	126.4170	126.6788	0.00186	1.12	27.161	74.48	0.37
DoylesR	TR014	2037.89	AMEC-2080	12.900000	125.570	126.652200		126.6568	0.00044	0.57	54.029	123.96	0.19
DoylesR	TR014	1988.88	AMEC-2080	12.900000	124.710	126.556500	126.1048	126.6194	0.00102	1.24	20.404	63.33	0.30
DoylesR	TR014	1980		Culvert									
DoylesR	TR014	1975.46	AMEC-2080	12.900000	124.460	126.542200	125.8543	126.6102	0.00083	1.23	17.109	46.45	0.29
DoylesR	TR014	1936.56	AMEC-2080	12.900000	124.860	126.240100	126.0462	126.4880	0.00595	2.55	9.382	23.60	0.72
DoylesR	TR014	1904.43	AMEC-2080	12.900000	124.720	125.919600	125.9196	126.2372	0.00967	2.90	7.179	12.45	0.90
DoylesR	TR014	1867.03	AMEC-2080	12.900000	124.610	125.679500	125.5401	125.7780	0.00434	1.81	12.816	25.27	0.59
DoylesR	TR014	1801.50	AMEC-2080	12.900000	124.000	125.081700	125.0817	125.3300	0.01098	2.87	8.196	16.75	0.94
DoylesR	TR014	1765.57	AMEC-2080	12.900000	123.200	123.758600	123.9585	124.4773	0.06836	4.30	4.461	18.48	2.07
DoylesR	TR014	1703.29	AMEC-2080	12.900000	121.820	122.787500	122.8323	123.0324	0.01002	2.60	8.957	26.05	0.89
DoylesR	TR014	1657.91	AMEC-2080	12.900000	121.270	122.030900	122.1372	122.3974	0.02042	2.94	6.350	19.51	1.19
DoylesR	TR014	1607.98	AMEC-2080	12.900000	120.590	121.465400	121.4786	121.6122	0.01082	2.39	12.691	47.67	0.89
DoylesR	TR014	1544.18	AMEC-2080	12.900000	119.810	120.694300	120.7422	120.8733	0.01249	2.63	11.411	42.73	0.96
DoylesR	TR014	1492.70	AMEC-2080	12.900000	119.060	119.721800	119.8021	119.9783	0.02477	3.01	9.113	41.06	1.29
DoylesR	TR014	1441.23	AMEC-2080	12.900000	117.590	118.715100	118.7973	119.0479	0.01372	3.36	8.070	20.14	1.06
DoylesR	TR014	1420.98	AMEC-2080	12.900000	116.980	118.372200	117.8321	118.4391	0.00194	1.48	13.703	14.42	0.42
DoylesR	TR014	1411.86	AMEC-2080	12.900000	117.030	118.252800	117.8514	118.4025	0.00390	2.02	8.265	12.63	0.59
DoylesR	TR014	1400		Bridge									
DoylesR	TR014	1384.41	AMEC-2080	14.700000	116.710	117.606800	117.6068	117.9952	0.01416	2.97	5.602	10.02	1.05

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR014	1374.60	AMEC-2080	14.700000	116.540	117.553500	117.4334	117.7653	0.00755	2.29	8.269	12.10	0.77
DoylesR	TR014	1353.25	AMEC-2080	14.700000	116.210	117.215700	117.2157	117.5506	0.01246	2.91	6.730	10.66	0.99
DoylesR	TR014	1309.14	AMEC-2080	14.700000	115.500	116.313200	116.4286	116.8244	0.02199	3.18	4.768	8.18	1.25
DoylesR	TR014	1296.25	AMEC-2080	14.700000	115.120	116.171200	116.2635	116.6625	0.01780	3.59	5.601	8.41	1.19
DoylesR	TR014	1239.25	AMEC-2080	14.700000	113.430	114.144500	114.4168	114.9656	0.05055	4.54	4.523	12.33	1.88
DoylesR	TR014	1203.69	AMEC-2080	14.700000	112.840	113.731500	113.6404	113.8408	0.00889	2.32	12.035	26.58	0.82
DoylesR	TR014	1182.25	AMEC-2080	14.700000	112.530	113.389700	113.3897	113.5973	0.01328	2.70	9.609	21.78	1.00
DoylesR	TR014	1125.25	AMEC-2080	14.700000	111.300	112.587000	112.3302	112.6591	0.00359	1.85	15.844	24.83	0.55
DoylesR	TR014	1104.23	AMEC-2080	14.700000	111.160	112.299100	112.2991	112.5255	0.01004	2.73	9.871	22.39	0.89
DoylesR	TR014	1094.88	AMEC-2080	14.700000	110.550	111.426800	111.6759	112.2783	0.04799	5.23	4.880	11.34	1.89
DoylesR	TR014	1075.36	AMEC-2080	14.700000	110.170	111.250700	111.3360	111.5874	0.01788	3.66	8.686	19.95	1.19
DoylesR	TR014	1027.18	AMEC-2080	14.700000	109.150	110.020900	110.1693	110.4871	0.02926	3.86	6.835	17.22	1.46
DoylesR	TR014	980.74	AMEC-2080	14.700000	107.890	109.024200	108.7062	109.1027	0.00400	1.85	14.858	22.25	0.58
DoylesR	TR014	954.47	AMEC-2080	14.700000	107.680	108.726300	108.7263	108.9297	0.01053	2.70	10.918	25.57	0.91
DoylesR	TR014	934.37	AMEC-2080	14.700000	106.990	107.967500	108.1655	108.5059	0.02737	3.98	7.123	21.36	1.42
DoylesR	TR014	907.24	AMEC-2080	14.700000	106.520	107.337800	107.4450	107.6672	0.02945	3.82	8.645	26.06	1.45
DoylesR	TR014	868.80	AMEC-2080	14.700000	105.880	106.951300	106.9283	107.1612	0.00937	2.58	10.562	24.18	0.86
DoylesR	TR014	864.98	AMEC-2080	14.700000	105.700	106.831700	106.8317	107.1132	0.00999	2.62	8.142	16.48	0.88
DoylesR	TR014	844.06	AMEC-2080	14.700000	105.100	106.382500	106.2551	106.6058	0.00723	2.58	9.481	17.33	0.78
DoylesR	TR014	836.52	AMEC-2080	14.700000	104.970	106.209000	106.2090	106.5295	0.01133	2.98	7.864	14.57	0.94
DoylesR	TR014	816.09	AMEC-2080	14.700000	104.780	105.437600	105.6342	106.0506	0.05802	4.28	5.513	20.05	1.94
DoylesR	TR014	811.48	AMEC-2080	14.700000	104.640	105.719400	105.4514	105.8101	0.00495	1.92	14.616	29.17	0.63
DoylesR	TR014	783.28	AMEC-2080	14.700000	103.980	105.233300	105.2333	105.5749	0.01245	3.37	7.417	10.93	1.01
DoylesR	TR014	751.27	AMEC-2080	14.700000	103.310	104.350900	104.5312	104.9849	0.02595	3.65	4.693	9.00	1.37
DoylesR	TR014	717.94	AMEC-2080	14.700000	102.630	104.042200	104.0637	104.3478	0.01101	3.39	8.610	14.31	0.96
DoylesR	TR014	676.43	AMEC-2080	14.700000	102.180	103.283300	103.5112	103.7537	0.01822	3.46	6.838	16.46	1.18
DoylesR	TR014	601.44	AMEC-2080	14.700000	101.390	102.475800	102.3103	102.5725	0.00525	1.93	13.030	24.14	0.64
DoylesR	TR014	540.83	AMEC-2080	14.700000	100.490	101.539600	101.5197	102.0140	0.01738	3.38	5.821	10.61	1.16
DoylesR	TR014	519.25	AMEC-2080	14.700000	99.690	101.813000	101.5254	101.8299	0.00064	0.97	37.301	66.56	0.22
DoylesR	TR014	510		Culvert									
DoylesR	TR014	505.00	AMEC-2080	14.700000	99.620	101.552200	101.5522	101.5995	0.00184	1.53	25.579	61.32	0.36
DoylesR	TR014	484.27	AMEC-2080	14.700000	99.790	100.748600	100.9556	101.3326	0.03859	4.31	5.682	14.89	1.62
DoylesR	TR014	426.15	AMEC-2080	14.700000	98.710	99.944980	100.0402	100.2295	0.00997	2.62	8.707	29.41	0.88
DoylesR	TR014	368.05	AMEC-2080	14.700000	97.300	98.456640	98.7078	99.2131	0.03686	4.48	5.343	16.02	1.59
DoylesR	TR014	343.01	AMEC-2080	14.700000	96.780	98.505810	97.8767	98.6542	0.00219	1.78	9.211	87.77	0.45
DoylesR	TR014	335		Bridge									
DoylesR	TR014	331.91	AMEC-2080	14.700000	96.630	98.015590	98.0156	98.4692	0.01066	3.15	5.540	7.41	0.94
DoylesR	TR014	312.09	AMEC-2080	14.700000	96.260	97.501800	97.6684	98.0929	0.03265	3.91	6.816	30.77	1.45
DoylesR	TR014	227.09	AMEC-2080	14.700000	94.660	96.544870	96.2093	96.5996	0.00216	1.60	19.606	29.91	0.41
DoylesR	TR014	205.76	AMEC-2080	14.700000	94.510	96.229420	96.2294	96.4997	0.00793	2.82	9.838	20.24	0.77
DoylesR	TR014	198.96	AMEC-2080	14.700000	94.450	95.230840	95.5469	96.2967	0.06845	4.69	3.655	11.81	2.11
DoylesR	TR014	181.77	AMEC-2080	14.700000	94.010	95.235100	95.2694	95.4841	0.01172	2.87	9.861	24.00	0.94
DoylesR	TR014	121.12	AMEC-2080	14.700000	92.990	94.172570	94.2887	94.5641	0.01796	3.43	10.642	60.78	1.15
DoylesR	TR014	34.73	AMEC-2080	14.700000	91.600	92.558680	92.6607	93.0072	0.02007	3.26	5.887	11.23	1.21
DoylesR	TR012	1780.65	AMEC-2080	35.900010	90.300	92.534940	91.8658	92.6048	0.00108	1.41	47.567	78.01	0.33
DoylesR	TR012	1753.67	AMEC-2080	35.900010	89.560	92.557030	91.4622	92.5797	0.00026	0.93	92.308	112.35	0.17
DoylesR	TR012	1745		Bridge									
DoylesR	TR012	1729.43	AMEC-2080	35.900010	89.100	91.322030	91.3220	92.2644	0.01018	4.41	8.628	16.92	0.99
DoylesR	TR012	1709.20	AMEC-2080	35.900010	88.930	90.477330	90.8695	91.7959	0.03509	6.11	10.204	20.41	1.70
DoylesR	TR012	1645.76	AMEC-2080	35.900010	88.200	89.538490	89.5285	89.9767	0.01359	3.54	14.707	19.53	1.07
DoylesR	TR011	1552.47	AMEC-2080	51.400000	86.480	88.960620	88.5568	89.3563	0.00432	3.14	23.165	16.03	0.67
DoylesR	TR011	1530.88	AMEC-2080	51.400000	86.190	88.434490	88.4345	89.1877	0.00982	4.45	16.776	12.01	1.00
DoylesR	TR011	1477.56	AMEC-2080	51.400000	84.430	85.855740	86.4484	87.9926	0.05864	7.45	10.062	13.71	2.21
DoylesR	TR011	1423.69	AMEC-2080	51.400000	83.560	85.757510	85.9853	86.5229	0.00962	4.29	19.116	27.74	0.98
DoylesR	TR011	1370.10	AMEC-2080	51.400000	82.660	83.940640	84.3151	85.4055	0.05705	6.97	13.720	30.42	2.16
DoylesR	TR011	1316.51	AMEC-2080	51.400000	81.170	83.093560	83.2896	83.9070	0.01338	4.57	17.116	20.75	1.13
DoylesR	TR011	1262.92	AMEC-2080	51.400000	79.360	81.135260	81.7215	82.7738	0.03146	6.44	11.710	14.81	1.69
DoylesR	TR011	1209.33	AMEC-2080	51.400000	78.140	80.384000	80.6844	81.4638	0.01546	5.19	14.342	14.38	1.21
DoylesR	TR011	1155.74	AMEC-2080	51.400000	76.810	78.820850	79.2694	80.3575	0.02620	6.12	11.263	10.64	1.53
DoylesR	TR011	1107.39	AMEC-2080	51.400000	76.340	77.921600	78.2389	79.0260	0.02363	4.87	12.222	13.18	1.42
DoylesR	TR011	1057.82	AMEC-2080	51.400000	75.160	77.397500	77.4743	78.1522	0.01108	4.25	15.936	13.55	1.02
DoylesR	TR011	971.36	AMEC-2080	51.400000	73.330	74.286320	74.8279	76.1635	0.06058	6.07	8.468	17.88	2.15
DoylesR	TR011	960		Bridge									
DoylesR	TR011	949.62	AMEC-2080	51.400000	73.080	75.264910	74.5108	75.5429	0.00249	2.34	22.006	23.85	0.51
DoylesR	TR011	929.53	AMEC-2080	51.400000	72.740	74.812580	74.8155	75.3758	0.00796	3.61	18.567	26.25	0.88
DoylesR	TR011	872.05	AMEC-2080	51.400000	72.260	73.979210	74.1983	74.6637	0.02069	4.88	22.211	52.06	1.33
DoylesR	TR011	816.76	AMEC-2080	51.400000	72.000	73.047970	73.0165	73.1860	0.01698	3.09	35.951	95.31	1.10
DoylesR	TR011	760.16	AMEC-2080	51.400000	71.250	72.530380		72.6188	0.00806	2.67	47.509	104.00	0.81
DoylesR	TR011	712.26	AMEC-2080	51.400000	70.340	71.824300	71.8243	72.0713	0.01336	3.67	33.644	91.76	1.06
DoylesR	TR011	663.11	AMEC-2080	51.400000	70.080	71.443850	71.3586	71.5177	0.00805	2.56	52.707	135.59	0.77
DoylesR	TR013	2205.78	AMEC-2080	10.400000	95.880	96.679180	96.4334	96.6881	0.00120	0.83	31.807	114.96	0.30
DoylesR	TR013	2147.59	AMEC-2080	10.400000	95.870	96.569330		96.5899	0.00227	0.98	20.043	69.08	0.40
DoylesR	TR013	2097.40	AMEC-2080	10.400000	95.860	96.288890	96.2889	96.3487	0.01549	1.74	13.606	89.80	0.95
DoylesR	TR013	2011.99	AMEC-2080	10.400000	93.670	94.679320	94.6479	94.9294	0.00950	2.45	5.713	11.05	0.85
DoylesR	TR013	1957.46	AMEC-2080	10.400000	93.050	94.150990	94.1510	94.4127	0.01012	2.87	6.287	12.78	0.91
DoylesR	TR013	1909.18	AMEC-2080	10.400000	92.330	93.197430	93.3427	93.6580	0.02425	3.51	5.859	35.71	1.32
DoylesR	TR013	1861.01	AMEC-2080	10.400000	91.270	92.277330	92.4200	92.6665	0.01721	3.19	6.466	36.41	1.13
DoylesR	TR013	1789.09	AMEC-2080	10.400000	90.000	90.538930	90.6242	90.8119	0.04065	3.17	7.457	57.57	1.58
DoylesR	TR013	1733.37	AMEC-2080	10.400000	89.530	90.263550	90.1571	90.2936	0.00375	1.17	18.670	80.06	0.50
DoylesR	TR013	1677.65	AMEC-2080	10.400000	89.420	89.833390	89.8117	89.8966	0.01763	1.74	10.622	58.16	0.99
DoylesR	TR013	1613.85	AMEC-2080	10.400000	89.110	89.651190		89.6592	0.00162	0.66	28.915	97.10	0.32
DoylesR	TR013	1552.30	AMEC-2080	10.400000	88.820	89.556390		89.5715	0.00182	0.91	23.962	68.96	0.36
DoylesR	TR013	1506.96	AMEC-2080	10.400000	88.810	89.486980		89.5026	0.00180	0.86	23.432	65.27	0.35
DoylesR	TR013	1478.17	AMEC-2080	10.400000	88.800	89.325510		89.3880	0.01299	1.76	11.297	44.62	0.89
DoylesR	TR013	1411.61	AMEC-2080	10.400000	88.110	89.088010		89.1234	0.00183	1.06	14.868	33.12	0.38
DoylesR	TR013	1388.58	AMEC-2080	10.400000	87.450	89.102590	88.8024	89.1070	0.00013	0.40	62.463	166.04	0.11
DoylesR	TR013	1375		Culvert									
DoylesR	TR013	1373.86	AMEC-2080	10.400000	87.320	88.698750	88.5022	88.8331	0.00503	2.27	9.585	24.71	0.63
DoylesR	TR013	1301.72	AMEC-2080	10.400000	86.820	87.991500	87.9915	88.2922	0.00970	2.72	5.365	11.34	0.88
DoylesR	TR013	1246.99	AMEC-2080	10.400000	85.790	86.623370	86.8610	87.3511	0.03486	3.89	3.017	6.37	1.56

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR013	1192.26	AMEC-2080	10.400000	84.790	85.878370	85.8311	86.1119	0.00869	2.44	6.025	11.03	0.82
DoylesR	TR013	1137.53	AMEC-2080	10.400000	84.030	85.281110	85.2811	85.6026	0.00977	2.76	5.194	9.99	0.88
DoylesR	TR013	1082.80	AMEC-2080	10.400000	83.550	84.381360	84.4929	84.7417	0.03201	3.29	5.375	21.26	1.43
DoylesR	TR013	1064.90	AMEC-2080	10.400000	82.570	84.501340	83.8009	84.5310	0.00061	0.90	27.622	117.61	0.23
DoylesR	TR013	1050		Culvert									
DoylesR	TR013	1042.53	AMEC-2080	10.400000	82.410	84.399090	83.5702	84.4062	0.00019	0.53	48.893	131.69	0.13
DoylesR	TR013	1022.06	AMEC-2080	10.400000	82.710	84.062380	83.9199	84.3199	0.00721	2.65	5.882	8.45	0.77
DoylesR	TR013	969.32	AMEC-2080	10.400000	82.400	83.443720	83.4437	83.7944	0.01374	3.13	4.768	7.45	1.04
DoylesR	TR013	915.66	AMEC-2080	10.400000	81.800	82.998630	82.6186	83.0168	0.00105	0.97	22.370	43.99	0.30
DoylesR	TR013	867.93	AMEC-2080	10.400000	81.400	82.906880		82.9512	0.00171	1.42	17.820	41.81	0.39
DoylesR	TR013	809.27	AMEC-2080	10.400000	81.320	82.623060		82.7881	0.00432	1.96	6.986	10.39	0.60
DoylesR	TR013	756.07	AMEC-2080	10.400000	80.750	82.012610	82.0126	82.4148	0.01110	3.23	4.608	6.33	0.96
DoylesR	TR013	702.82	AMEC-2080	10.400000	79.910	80.963840	81.1373	81.5743	0.02271	3.91	3.699	6.62	1.31
DoylesR	TR013	651.60	AMEC-2080	10.400000	78.060	78.941180	79.2373	79.9088	0.04845	4.63	2.778	6.40	1.82
DoylesR	TR013	588.74	AMEC-2080	10.400000	75.890	76.818600	76.9970	77.4011	0.03070	3.44	3.303	7.47	1.42
DoylesR	TR013	543.29	AMEC-2080	10.400000	75.200	76.066250	76.1930	76.3907	0.01464	2.57	4.667	16.30	1.02
DoylesR	TR013	489.08	AMEC-2080	10.400000	73.770	74.931620	75.0608	75.4920	0.01814	3.76	3.834	5.82	1.19
DoylesR	TR013	436.90	AMEC-2080	10.400000	72.110	73.060500	73.3828	74.0261	0.04593	4.42	2.548	5.03	1.74
DoylesR	TR013	383.70	AMEC-2080	10.400000	70.970	72.224880	72.0453	72.2965	0.00261	1.45	13.626	40.60	0.46
DoylesR	TR013	363.75	AMEC-2080	10.400000	70.360	72.175450	71.9122	72.2594	0.00118	1.43	14.136	47.74	0.34
DoylesR	TR013	360		Culvert									
DoylesR	TR013	344.87	AMEC-2080	10.400000	70.320	71.702220	71.7022	71.7172	0.00089	0.91	24.340	48.31	0.26
DoylesR	TR013	324.16	AMEC-2080	10.400000	70.290	70.891730	71.0128	71.4845	0.10068	4.64	4.827	43.12	2.40
DoylesR	TR013	256.30	AMEC-2080	10.400000	69.360	70.309910	70.3099	70.4078	0.01355	2.36	10.549	52.43	0.90
DoylesR	TR013	236.50	AMEC-2080	10.400000	69.350	70.257060	69.9831	70.2606	0.00056	0.45	41.941	116.58	0.19
DoylesR	TR013	162.98	AMEC-2080	10.400000	68.940	70.226770		70.2319	0.00052	0.56	41.206	135.62	0.19
DoylesR	TR013	133.14	AMEC-2080	10.400000	68.760	70.216760		70.2186	0.00018	0.35	59.857	123.10	0.11
DoylesR	TR013	66.14	AMEC-2080	10.400000	68.460	70.203580		70.2064	0.00019	0.41	54.064	194.74	0.12
DoylesR	M001	484.12	AMEC-2080	62.100010	68.080	69.873370		70.0153	0.00861	2.89	49.477	109.65	0.82
DoylesR	M001	429.44	AMEC-2080	62.100010	67.720	69.845110		69.8656	0.00105	1.18	109.950	150.34	0.29
DoylesR	M001	388.03	AMEC-2080	62.100010	67.530	69.817140		69.8294	0.00071	1.03	153.698	250.31	0.24
DoylesR	M001	344.78	AMEC-2080	62.100010	67.390	69.809850		69.8134	0.00017	0.54	261.350	309.91	0.12
DoylesR	M001	215.64	AMEC-2080	62.100010	67.210	69.806900		69.8077	0.00003	0.23	514.428	419.53	0.05
DoylesR	M001	77.13	AMEC-2080	62.100010	66.620	69.806410		69.8067	0.00001	0.15	868.054	602.44	0.03
CochranePB	M002	8105.53	AMEC-2080	18.900000	140.650	142.609100	141.4061	142.6109	0.00008	0.34	123.409	132.91	0.08
CochranePB	M002	8065.47	AMEC-2080	18.900000	140.640	142.598800		142.6051	0.00028	0.59	71.780	93.81	0.15
CochranePB	M002	8050.98	AMEC-2080	18.900000	139.200	142.583600		142.6022	0.00006	0.69	67.918	83.26	0.13
CochranePB	M002	8024.09	AMEC-2080	18.900000	140.620	142.583600		142.5888	0.00025	0.55	80.244	114.01	0.15
CochranePB	M002	8013.06	AMEC-2080	18.900000	140.420	142.581400		142.5862	0.00020	0.53	84.694	113.78	0.13
CochranePB	M002	8004.70	AMEC-2080	18.900000	140.250	142.581800	141.8023	142.5843	0.00011	0.51	101.926	116.00	0.11
CochranePB	M002	8000		Culvert									
CochranePB	M002	7995.14	AMEC-2080	18.900000	140.370	142.575100	141.6023	142.5795	0.00012	0.51	88.071	102.81	0.11
CochranePB	M002	7964.49	AMEC-2080	18.900000	140.140	142.086000	142.0860	142.4573	0.00967	3.41	10.266	14.12	0.86
CochranePB	M002	7901.64	AMEC-2080	18.900000	139.300	140.787300	140.9891	141.4413	0.02920	4.06	8.214	28.65	1.36
CochranePB	M002	7847.08	AMEC-2080	18.900000	138.680	139.879300	139.7501	139.9509	0.00772	1.86	20.718	51.98	0.70
CochranePB	M002	7812.33	AMEC-2080	18.900000	138.520	139.373900	139.3739	139.5077	0.02663	2.53	14.823	56.90	1.25
CochranePB	M002	7738.34	AMEC-2080	18.900000	137.940	139.010800	138.7632	139.0237	0.00206	0.90	46.715	136.36	0.37
CochranePB	M002	7695.32	AMEC-2080	18.900000	137.670	138.665100	138.6651	138.8308	0.01709	2.35	13.866	42.28	1.04
CochranePB	M002	7609.21	AMEC-2080	18.900000	136.290	137.852500	137.4645	137.8766	0.00105	0.96	42.630	104.99	0.29
CochranePB	M002	7515.77	AMEC-2080	18.900000	136.280	137.709100		137.7471	0.00243	1.34	35.369	110.22	0.43
CochranePB	M002	7476.72	AMEC-2080	18.900000	136.260	137.682800		137.6960	0.00074	0.74	47.647	96.97	0.24
CochranePB	M002	7450.86	AMEC-2080	18.900000	136.250	137.645400		137.6706	0.00141	0.97	36.116	84.34	0.33
CochranePB	M002	7329.89	AMEC-2080	18.900000	136.230	137.346400		137.3975	0.00467	1.45	24.754	83.19	0.57
CochranePB	M002	7253.62	AMEC-2080	18.900000	136.050	137.184600		137.2035	0.00197	1.00	36.473	98.39	0.37
CochranePB	M002	7208.54	AMEC-2080	18.900000	135.880	137.080500		137.1052	0.00262	1.19	37.426	135.06	0.43
CochranePB	M002	7108.13	AMEC-2080	18.900000	135.540	136.553400		136.6414	0.01330	2.35	19.788	78.23	0.92
CochranePB	M002	7041.67	AMEC-2080	18.900000	134.910	136.162800		136.2374	0.00468	1.55	24.362	86.88	0.58
CochranePB	M002	6985.71	AMEC-2080	18.900000	134.290	135.735100	135.7351	135.9086	0.00782	2.45	17.386	50.42	0.77
CochranePB	M002	6955.25	AMEC-2080	18.900000	133.480	134.818600	135.0051	135.4406	0.02712	3.68	6.447	13.50	1.36
CochranePB	M002	6863.52	AMEC-2080	18.900000	131.820	132.903900	132.9317	133.1082	0.02094	2.93	13.210	39.24	1.16
CochranePB	M002	6840.09	AMEC-2080	18.900000	131.190	132.201300	132.2883	132.5000	0.03246	3.19	10.926	38.32	1.42
CochranePB	M002	6808.25	AMEC-2080	18.900000	130.510	131.461700	131.5199	131.7118	0.03798	3.18	11.478	43.16	1.48
CochranePB	M002	6767.75	AMEC-2080	18.900000	129.310	130.386700	130.4438	130.6047	0.02028	2.71	13.484	50.07	1.15
CochranePB	M002	6727.78	AMEC-2080	18.900000	128.360	129.542800	129.6109	129.7925	0.02050	2.91	11.930	37.67	1.15
CochranePB	M002	6691.71	AMEC-2080	18.900000	127.960	129.124000	129.0419	129.1842	0.00602	1.63	24.161	77.83	0.64
CochranePB	M002	6651.54	AMEC-2080	18.900000	127.680	128.712800	128.6805	128.8572	0.01222	1.87	13.458	42.25	0.88
CochranePB	M002	6630.83	AMEC-2080	18.900000	127.190	128.495000	128.4950	128.6490	0.00861	2.15	17.155	70.74	0.79
CochranePB	M002	6534.50	AMEC-2080	18.900000	126.300	127.343100	127.3991	127.5180	0.01704	2.42	15.656	74.66	1.05
CochranePB	M002	6507.97	AMEC-2080	18.900000	125.650	126.603700	126.6616	126.8407	0.03731	3.04	12.194	58.08	1.46
CochranePB	M002	6480.50	AMEC-2080	18.900000	124.970	125.968900	125.9894	126.1153	0.02090	2.54	14.827	56.22	1.13
CochranePB	M002	6433.33	AMEC-2080	18.900000	124.090	125.115900	125.1634	125.3176	0.01822	2.31	11.896	41.69	1.07
CochranePB	M002	6400.96	AMEC-2080	18.900000	123.400	124.681500	124.4799	124.7409	0.00459	1.50	22.781	56.21	0.56
CochranePB	M002	6364.18	AMEC-2080	18.900000	123.280	124.685200		124.6933	0.00030	0.45	62.051	129.01	0.15
CochranePB	M002	6314.31	AMEC-2080	18.900000	123.270	124.611600		124.6559	0.00214	1.14	29.445	83.50	0.40
CochranePB	M002	6286.25	AMEC-2080	18.900000	123.260	124.533700		124.5875	0.00282	1.25	26.570	77.02	0.46
CochranePB	M002	6202.53	AMEC-2080	18.900000	122.810	124.124600	124.0749	124.2684	0.00719	2.05	15.865	40.24	0.73
CochranePB	M002	6130.00	AMEC-2080	18.900000	122.300	123.407300	123.4073	123.6075	0.01314	2.08	11.332	36.10	0.92
CochranePB	M002	6040.82	AMEC-2080	18.900000	121.410	122.664600	122.5327	122.7140	0.00323	1.36	28.064	78.56	0.49
CochranePB	M002	6006.95	AMEC-2080	18.900000	121.400	122.624100		122.6432	0.00113	0.68	38.559	102.04	0.28
CochranePB	M002	5976.09	AMEC-2080	18.900000	121.390	122.446400	122.4464	122.5528	0.01362	1.98	18.029	73.98	0.92
CochranePB	M002	5910.40	AMEC-2080	18.900000	120.290	121.578900	121.6220	121.7739	0.01323	2.59	15.338	55.75	0.96
CochranePB	M002	5863.68	AMEC-2080	18.900000	119.620	120.586400	120.7084	120.9487	0.03721	3.07	9.584	43.28	1.50
CochranePB	M002	5811.63	AMEC-2080	18.900000	118.870	120.009800	120.0098	120.1711	0.01417	2.45	15.500	54.19	0.97
CochranePB	M002	5768.42	AMEC-2080	18.900000	117.380	118.414400	118.6163	119.0844	0.05735	3.72	5.945	24.37	1.85
CochranePB	M002	5725.36	AMEC-2080	18.900000	116.480	117.672400	117.6986	117.8766	0.01420	2.44	13.150	43.91	0.98
CochranePB	M002	5678.58	AMEC-2080	18.900000	115.390	116.546900	116.6917	116.9554	0.02554	2.96	8.381	34.22	1.29
CochranePB	M002	5627.04	AMEC-2080	18.900000	114.790	116.306000	115.9282	116.3511	0.00213	1.27	26.906	49.82	0.41
CochranePB	M002	5609.94	AMEC-2080	28.300000	114.770	116.117000		116.2404	0.00624	1.93	24.073	51.78	0.68
CochranePB	M002	5601.00	AMEC-2080	28.300000	114.760	116.124600		116.1355	0.00100	0.79	67.147	116.15	0.27
CochranePB	M002	5568.52	AMEC-2080	28.300000	114.750	116.099100		116.1099	0.00079	0.70	66.142	103.59	0.24

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	5508.20	AMEC-2080	28.300000	114.040	115.752800	115.5860	115.9817	0.00555	2.26	16.666	28.54	0.68
CochranePB	M002	5473.67	AMEC-2080	28.300000	113.900	115.394700	115.3947	115.7002	0.01224	2.92	15.822	29.81	0.97
CochranePB	M002	5403.83	AMEC-2080	28.300000	110.690	112.013900	112.5091	113.8138	0.07457	6.14	5.441	10.92	2.27
CochranePB	M002	5352.19	AMEC-2080	28.300000	110.270	111.780300	111.8636	112.0928	0.01215	2.85	16.459	53.15	0.96
CochranePB	M002	5309.83	AMEC-2080	28.300000	109.640	111.125700	111.2264	111.4924	0.01658	3.21	16.912	51.79	1.11
CochranePB	M002	5266.90	AMEC-2080	28.300000	109.300	110.685600	110.7099	110.8660	0.01212	2.65	25.240	85.70	0.93
CochranePB	M002	5213.45	AMEC-2080	28.300000	108.810	110.548700	109.9458	110.5684	0.00091	0.90	60.075	93.43	0.27
CochranePB	M002	5162.38	AMEC-2080	53.100010	108.180	110.139200	110.1392	110.4165	0.00928	3.39	37.380	67.46	0.89
CochranePB	M002	5109.83	AMEC-2080	53.100010	108.020	109.593000	109.2410	109.6456	0.00380	1.60	63.735	110.59	0.53
CochranePB	M002	5059.83	AMEC-2080	53.100010	107.540	109.275300		109.4315	0.00698	2.53	47.393	101.92	0.76
CochranePB	M002	5013.20	AMEC-2080	53.100010	107.210	108.919300	108.9193	109.1109	0.01068	2.77	42.405	103.70	0.89
CochranePB	M002	4977.38	AMEC-2080	53.100010	107.070	108.881100	108.5490	108.9092	0.00150	1.23	94.309	159.13	0.36
CochranePB	M002	4908.49	AMEC-2080	53.100010	106.950	108.855900		108.8646	0.00051	0.78	149.579	215.97	0.21
CochranePB	M002	4883.44	AMEC-2080	53.100010	106.940	108.843300		108.8495	0.00032	0.60	172.208	224.04	0.17
CochranePB	M002	4816.97	AMEC-2080	53.100010	106.930	108.832600		108.8389	0.00029	0.58	178.916	238.65	0.16
CochranePB	M002	4757.22	AMEC-2080	53.100010	106.780	108.823200		108.8284	0.00020	0.53	207.628	274.66	0.14
CochranePB	M002	4718.65	AMEC-2080	53.100010	106.770	108.813900		108.8205	0.00027	0.61	204.374	341.34	0.16
CochranePB	M002	4674.22	AMEC-2080	53.100010	106.760	108.794800		108.8087	0.00052	0.85	149.487	268.62	0.22
CochranePB	M002	4633.22	AMEC-2080	53.100010	106.750	108.773800		108.7916	0.00036	0.69	124.833	185.90	0.18
CochranePB	M002	4561.03	AMEC-2080	53.100010	106.740	108.697600		108.7488	0.00120	1.23	73.860	102.91	0.33
CochranePB	M002	4506.74	AMEC-2080	53.100010	106.430	108.341800	108.3418	108.5955	0.00769	2.86	34.684	60.06	0.81
CochranePB	M002	4459.83	AMEC-2080	53.100010	105.660	107.403200	107.6179	108.0246	0.01855	4.01	22.204	50.57	1.22
CochranePB	M002	4409.53	AMEC-2080	53.100010	104.620	106.413900	106.6559	107.0765	0.01945	4.13	19.600	35.31	1.24
CochranePB	M002	4359.83	AMEC-2080	53.100010	103.720	105.604800	105.8151	106.2127	0.01522	3.85	22.865	58.14	1.11
CochranePB	M002	4327.93	AMEC-2080	53.100010	103.170	105.194300	105.3978	105.7560	0.01269	3.66	22.336	42.34	1.03
CochranePB	M002	4265.56	AMEC-2080	53.100010	102.450	104.418000	104.4506	104.9268	0.01370	3.84	22.263	30.86	1.07
CochranePB	M002	4208.11	AMEC-2080	53.100010	101.670	103.486500	103.6251	104.0790	0.01545	3.78	20.515	34.90	1.13
CochranePB	M002	4159.83	AMEC-2080	53.100010	101.120	102.253300	102.4005	102.7265	0.06239	4.05	19.166	48.92	1.94
CochranePB	M002	4109.83	AMEC-2080	53.100010	98.840	100.648300	100.8415	101.2757	0.01687	4.09	22.125	44.17	1.18
CochranePB	M002	4056.00	AMEC-2080	53.100010	97.180	99.029480	99.4050	100.0790	0.02615	5.03	14.875	21.54	1.45
CochranePB	M002	4009.83	AMEC-2080	53.100010	96.330	98.240730	98.4024	98.7739	0.02284	4.63	26.860	66.76	1.31
CochranePB	M002	3969.03	AMEC-2080	53.100010	95.620	97.598270	97.7974	98.1467	0.01200	3.84	25.842	73.86	1.03
CochranePB	M002	3916.58	AMEC-2080	53.100010	94.820	97.034140	97.2043	97.4863	0.01173	3.69	30.158	86.05	0.96
CochranePB	M002	3859.82	AMEC-2080	53.100010	94.340	96.380120	96.5503	96.8810	0.01023	3.40	25.960	84.42	0.93
CochranePB	M002	3810.05	AMEC-2080	53.100010	93.500	95.565960	95.8614	96.2879	0.01427	4.17	21.063	54.34	1.11
CochranePB	M002	3759.83	AMEC-2080	53.100010	93.000	94.728480	94.9394	95.3665	0.01974	4.28	22.823	57.32	1.27
CochranePB	M002	3709.28	AMEC-2080	53.100010	92.330	94.222120	94.3488	94.5608	0.01143	3.36	31.733	91.89	0.97
CochranePB	M002	3661.60	AMEC-2080	53.100010	92.050	93.886810	93.9233	94.0756	0.00755	2.75	47.840	145.73	0.79
CochranePB	M002	3609.83	AMEC-2080	53.100010	91.730	93.520310	93.5294	93.6784	0.00767	2.65	48.897	147.30	0.78
CochranePB	M002	3559.90	AMEC-2080	53.100010	90.870	92.972890	93.0227	93.2477	0.00771	3.11	38.989	88.09	0.81
CochranePB	M002	3509.83	AMEC-2080	53.100010	90.380	92.847060	92.5069	92.8861	0.00123	1.49	88.705	121.54	0.34
CochranePB	M002	3493.23	AMEC-2080	53.100010	90.020	92.457230	92.1604	92.8257	0.00488	3.38	24.603	16.24	0.70
CochranePB	M002	3480		Bridge									
CochranePB	M002	3474.26	AMEC-2080	53.100010	89.910	92.205090	91.7158	92.5235	0.00367	2.90	25.578	16.75	0.62
CochranePB	M002	3466.43	AMEC-2080	53.100010	90.000	92.235470	92.1746	92.4423	0.00288	2.57	51.212	96.45	0.55
CochranePB	M002	3454.35	AMEC-2080	53.100010	89.940	91.819160	91.6858	92.3545	0.00760	3.58	19.074	16.38	0.87
CochranePB	M002	3450		Bridge									
CochranePB	M002	3434.16	AMEC-2080	58.200010	90.360	91.794220	91.7942	92.3538	0.01087	3.57	19.471	20.82	0.99
CochranePB	M002	3413.11	AMEC-2080	58.200010	90.140	91.720960	91.6681	91.8813	0.00765	2.76	48.344	97.11	0.79
CochranePB	M002	3391.58	AMEC-2080	58.200010	90.030	91.634130		91.7273	0.00490	2.32	59.441	107.54	0.65
CochranePB	M002	3371.12	AMEC-2080	58.200010	90.020	91.380330	91.3803	91.5837	0.00908	2.81	44.085	98.16	0.87
CochranePB	M002	3309.87	AMEC-2080	58.200010	89.280	90.796990	90.7058	90.9011	0.00856	2.75	53.468	116.78	0.81
CochranePB	M002	3272.96	AMEC-2080	58.200010	88.730	90.349100	90.3458	90.5434	0.00989	2.94	40.812	92.68	0.88
CochranePB	M002	3219.09	AMEC-2080	58.200010	88.300	89.843730	89.8437	90.0127	0.01010	2.84	44.079	109.58	0.89
CochranePB	M002	3175.54	AMEC-2080	58.200010	87.360	89.674980	89.4456	89.8033	0.00240	2.01	54.152	80.81	0.47
CochranePB	M002	3165		Bridge									
CochranePB	M002	3157.85	AMEC-2080	58.200010	87.500	89.324490	89.3648	89.6060	0.00649	2.90	38.707	86.70	0.75
CochranePB	M002	3135.32	AMEC-2080	58.200010	87.850	89.191070	89.0923	89.2565	0.00509	1.88	66.338	155.88	0.62
CochranePB	M002	3106.53	AMEC-2080	58.200010	87.940	88.868960	88.8690	89.0112	0.02694	2.87	38.746	134.47	1.27
CochranePB	M002	3088.94	AMEC-2080	58.200010	86.840	88.619310	88.5720	88.7734	0.00317	2.03	55.739	153.57	0.54
CochranePB	M002	3080		Bridge									
CochranePB	M002	3075.67	AMEC-2080	58.200010	86.740	88.435200	88.2141	88.5155	0.00212	1.61	68.696	142.36	0.44
CochranePB	M002	3056.89	AMEC-2080	58.200010	87.660	88.370420		88.4393	0.01175	1.27	52.027	156.93	0.77
CochranePB	M002	3007.54	AMEC-2080	58.200010	87.610	88.050090		88.0949	0.00467	0.53	63.485	148.59	0.36
CochranePB	M002	2976.31	AMEC-2080	58.200010	87.510	87.925350		87.9711	0.00533	0.63	62.706	158.17	0.44
CochranePB	M002	2941.08	AMEC-2080	58.200010	86.980	87.781630		87.8101	0.00446	1.05	80.263	225.10	0.50
CochranePB	M002	2920.10	AMEC-2080	58.200010	86.740	87.755810	87.5443	87.7623	0.00053	0.46	168.142	295.59	0.17
CochranePB	M002	2915		Bridge									
CochranePB	M002	2912.75	AMEC-2080	58.200010	86.970	87.752390	87.7524	87.7570	0.00032	0.38	200.702	313.30	0.15
CochranePB	M002	2890.23	AMEC-2080	58.200010	86.650	86.897690	87.0837	87.5394	0.26722	3.35	16.399	85.67	3.04
CochranePB	M002	2823.99	AMEC-2080	58.200010	86.080	87.200800	86.8143	87.2117	0.00129	0.72	129.023	263.34	0.27
CochranePB	M002	2789.49	AMEC-2080	58.200010	86.040	87.177600		87.1878	0.00116	0.65	133.866	275.82	0.26
CochranePB	M002	2741.30	AMEC-2080	58.200010	85.710	87.125500		87.1358	0.00099	0.83	141.780	287.12	0.28
CochranePB	M002	2663.79	AMEC-2080	58.200010	85.580	87.078760		87.0904	0.00104	0.91	139.912	293.58	0.29
CochranePB	M002	2639.38	AMEC-2080	58.200010	85.570	87.048100		87.0615	0.00113	0.91	126.978	247.20	0.30
CochranePB	M002	2616.24	AMEC-2080	58.200010	85.300	87.033610		87.0445	0.00075	0.85	143.949	248.91	0.25
CochranePB	M002	2539.69	AMEC-2080	58.200010	85.410	86.989850		87.0047	0.00113	0.94	123.424	235.30	0.30
CochranePB	M002	2489.06	AMEC-2080	58.200010	85.180	86.947660		86.9662	0.00134	1.16	116.464	234.68	0.33
CochranePB	M002	2438.28	AMEC-2080	58.200010	84.870	86.888310		86.9166	0.00137	1.26	107.102	190.50	0.34
CochranePB	M002	2384.01	AMEC-2080	58.200010	84.650	86.795570		86.8372	0.00205	1.63	89.329	152.32	0.42
CochranePB	M002	2310.47	AMEC-2080	58.200010	84.330	86.597450		86.6660	0.00293	1.94	78.243	156.55	0.49
CochranePB	M002	2284.63	AMEC-2080	58.200010	84.160	86.540590		86.5914	0.00248	1.80	77.158	117.84	0.44
CochranePB	M002	2240.58	AMEC-2080	58.200010	84.040	86.062030	86.0620	86.3713	0.01032	3.46	32.735	48.14	0.92
CochranePB	M002	2170.94	AMEC-2080	58.200010	82.260	84.225120	84.6159	85.2856	0.02356	5.07	16.013	20.08	1.40
CochranePB	M002	2136.89	AMEC-2080	58.200010	81.720	83.513310	83.8135	84.4169	0.02457	4.56	16.927	26.07	1.40
CochranePB	M002	2100.01	AMEC-2080	58.200010	81.300	83.346670	83.3238	83.6840	0.00971	3.23	30.507	43.43	0.90
CochranePB	M002	2046.85	AMEC-2080	58.200010	80.890	82.850860	82.8509	83.2017	0.00847	2.97	29.426	43.41	0.85
CochranePB	M002	2014.35	AMEC-2080	58.200010	80.470	82.019400	82.2123	82.7136	0.02883	4.13	20.102	41.86	1.46
CochranePB	M002	1990.76	AMEC-2080	58.200010	80.100	82.041950	82.0420	82.3470	0.01012	3.15	31.624	45.85	0.91
CochranePB	M002	1945.20	AMEC-2080	58.200010	79.430	81.763260	81.3426	81.8765	0.00313	2.09	52.022	60.19	0.52

HEC-RAS Plan: (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	1916.67	AMEC-2080	58.200010	79.310	81.603990		81.7649	0.00450	2.49	44.464	55.86	0.62
CochranePB	M002	1871.48	AMEC-2080	58.200010	79.280	81.446860		81.5718	0.00382	2.12	48.719	58.34	0.57
CochranePB	M002	1836.03	AMEC-2080	58.200010	78.830	81.403180		81.4723	0.00153	1.60	66.082	74.81	0.38
CochranePB	M002	1788.63	AMEC-2080	58.200010	78.460	80.933910	80.9339	81.2997	0.00851	3.63	32.023	40.18	0.86
CochranePB	M002	1768.08	AMEC-2080	58.200010	78.140	80.253790	80.4690	81.0167	0.01860	4.74	20.918	28.57	1.24
CochranePB	M002	1733.19	AMEC-2080	58.200010	77.950	80.063600	80.1233	80.4505	0.00952	3.34	31.086	49.24	0.90
CochranePB	M002	1694.89	AMEC-2080	58.200010	77.120	79.567270	79.0160	79.6811	0.00230	1.91	50.845	51.68	0.46
CochranePB	M002	1685.79	AMEC-2080	58.200010	77.060	79.459660		79.6458	0.00434	2.58	44.034	59.87	0.63
CochranePB	M002	1640.51	AMEC-2080	58.200010	76.450	78.957470	78.9575	79.3754	0.00720	3.45	27.936	32.48	0.81
CochranePB	M002	1602.99	AMEC-2080	58.200010	75.010	76.634710	77.1957	78.6127	0.06268	6.63	11.013	17.83	2.18
CochranePB	M002	1585.52	AMEC-2080	58.200010	74.010	75.419370	75.9020	77.2576	0.08989	6.60	11.483	22.07	2.51
CochranePB	M002	1569.47	AMEC-2080	58.200010	73.710	75.078280	75.3386	75.9533	0.04503	4.32	15.013	27.80	1.75
CochranePB	M002	1541.97	AMEC-2080	58.200010	72.310	74.304020	74.5313	75.1306	0.01973	4.48	17.485	21.22	1.27
CochranePB	M002	1510.83	AMEC-2080	58.200010	71.340	72.626580	73.0055	73.9814	0.08009	5.19	11.617	24.45	2.29
CochranePB	M002	1495.27	AMEC-2080	58.200010	71.190	73.163470	72.8689	73.3370	0.00445	2.06	38.560	46.76	0.61
CochranePB	M002	1458.62	AMEC-2080	58.200010	70.580	72.752750	72.7528	73.0619	0.00946	3.70	36.653	53.26	0.90
CochranePB	M002	1419.61	AMEC-2080	58.200010	70.210	72.202970	72.3012	72.6426	0.01183	3.77	27.889	41.08	1.01
CochranePB	M002	1384.56	AMEC-2080	58.200010	69.610	72.015580	72.0394	72.3695	0.00584	3.04	33.768	61.36	0.73
CochranePB	M002	1351.51	AMEC-2080	58.200010	69.540	71.725160	71.8452	72.1303	0.00912	3.58	34.618	78.88	0.90
CochranePB	M002	1311.78	AMEC-2080	58.200010	69.490	71.470700	71.5157	71.7245	0.00818	3.15	43.656	112.69	0.84
CochranePB	M002	1291.19	AMEC-2080	58.200010	69.280	71.078790	71.2228	71.4895	0.01504	3.85	34.801	115.47	1.10
CochranePB	M002	1217.75	AMEC-2080	58.200010	68.700	71.225410	70.5270	71.2481	0.00046	0.97	139.997	221.75	0.22
CochranePB	M002	1200.39	AMEC-2080	58.200010	68.690	70.790630	70.4481	71.1930	0.00522	2.86	21.126	19.77	0.70
CochranePB	M002	1190		Bridge									
CochranePB	M002	1185.68	AMEC-2080	59.700010	68.460	70.592050	70.1591	70.9689	0.00422	2.74	22.374	26.18	0.65
CochranePB	M002	1164.32	AMEC-2080	59.700010	68.650	70.586300	70.5863	70.7938	0.00506	2.75	48.845	112.47	0.69
CochranePB	M002	1132.60	AMEC-2080	59.700010	68.600	69.864850	70.0321	70.3987	0.03310	4.29	27.578	113.91	1.56
CochranePB	M002	1111.68	AMEC-2080	59.700010	68.550	69.957920	69.7387	70.0065	0.00322	1.67	77.484	163.10	0.51
CochranePB	M002	1059.95	AMEC-2080	59.700010	68.380	69.871040		69.9119	0.00239	1.67	87.543	173.20	0.46
CochranePB	M002	998.99	AMEC-2080	59.700010	68.130	69.821240		69.8327	0.00068	0.96	139.186	195.06	0.25
CochranePB	M002	955.54	AMEC-2080	59.700010	68.120	69.815710		69.8183	0.00011	0.38	275.243	261.03	0.10
CochranePB	M002	851.16	AMEC-2080	59.700010	67.620	69.810380		69.8124	0.00007	0.35	312.014	258.32	0.08
CochranePB	M002	798.06	AMEC-2080	59.700010	67.470	69.809070		69.8103	0.00004	0.28	391.824	293.54	0.06
CochranePB	M002	746.77	AMEC-2080	59.700010	67.300	69.808400		69.8092	0.00002	0.20	506.442	326.87	0.04
CochranePB	M002	694.52	AMEC-2080	59.700010	66.980	69.807980		69.8085	0.00001	0.18	606.556	371.84	0.04
CochranePB	M002	669.16	AMEC-2080	59.700010	66.970	69.807860		69.8083	0.00001	0.16	673.362	410.98	0.03
CochranePB	M002	590.19	AMEC-2080	59.700010	66.840	69.807320		69.8076	0.00001	0.14	803.318	490.72	0.03
CochranePB	M002	539.85	AMEC-2080	59.700010	66.810	69.806970		69.8073	0.00001	0.14	824.863	522.54	0.03
CochranePB	M002	488.40	AMEC-2080	59.700010	66.540	69.806690		69.8069	0.00001	0.13	869.758	542.38	0.02
CochranePB	M001	381.27	AMEC-2080	116.900000	66.350	69.804880		69.8057	0.00002	0.24	1008.206	640.03	0.04
CochranePB	M001	313.14	AMEC-2080	116.900000	66.280	69.804270		69.8048	0.00001	0.19	1176.553	707.47	0.04

Reach	Reach Name	Section No.	HEC-RAS ref.	20 Year AEP					100 Year AEP				
				Existing	2020 AMEC	2050 AMEC	2050 Finnis	2080 AMEC	Existing	2020 AMEC	2050 AMEC	2050 Finnis	2080 AMEC
CochranePB	M001	313.14	CochranePB-M001-313.14	69.18	69.33	69.4	69.32	69.45	69.55	69.69	69.76	69.73	69.8
CochranePB	M001	381.27	CochranePB-M001-381.27	69.18	69.33	69.4	69.32	69.45	69.55	69.69	69.76	69.74	69.8
CochranePB	M002	1059.95	CochranePB-M002-1059.95	69.6	69.61	69.64	69.61	69.65	69.69	69.78	69.84	69.82	69.87
CochranePB	M002	1111.68	CochranePB-M002-1111.68	69.75	69.8	69.82	69.79	69.84	69.87	69.9	69.94	69.93	69.96
CochranePB	M002	1132.6	CochranePB-M002-1132.6	69.77	69.8	69.81	69.8	69.82	69.84	69.85	69.86	69.86	69.86
CochranePB	M002	1164.32	CochranePB-M002-1164.32	70.33	70.38	70.42	70.38	70.42	70.45	70.54	70.58	70.55	70.59
CochranePB	M002	1185.68	CochranePB-M002-1185.68	70.48	70.51	70.5	70.5	70.5	70.52	70.57	70.59	70.58	70.59
CochranePB	M002	1190	CochranePB-M002-1190	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge
CochranePB	M002	1200.39	CochranePB-M002-1200.39	70.5	70.55	70.55	70.54	70.57	70.63	70.7	70.75	70.74	70.79
CochranePB	M002	1217.75	CochranePB-M002-1217.75	70.71	70.81	70.86	70.81	70.9	70.99	71.1	71.18	71.16	71.23
CochranePB	M002	1291.19	CochranePB-M002-1291.19	70.91	70.95	70.98	70.95	71	71.02	71.06	71.07	71.07	71.08
CochranePB	M002	1311.78	CochranePB-M002-1311.78	71.29	71.34	71.38	71.33	71.39	71.41	71.44	71.46	71.46	71.47
CochranePB	M002	1351.51	CochranePB-M002-1351.51	71.64	71.7	71.62	71.71	71.63	71.67	71.7	71.71	71.7	71.73
CochranePB	M002	1384.56	CochranePB-M002-1384.56	71.75	71.78	71.91	71.77	71.94	71.92	71.99	72.01	72.04	72.02
CochranePB	M002	1419.61	CochranePB-M002-1419.61	71.86	72.13	72.1	72.13	72.12	72.06	72.15	72.19	72.18	72.2
CochranePB	M002	1458.62	CochranePB-M002-1458.62	72.56	72.59	72.63	72.59	72.65	72.68	72.71	72.73	72.72	72.75
CochranePB	M002	1495.27	CochranePB-M002-1495.27	72.9	72.97	73	72.97	73.02	73.06	73.12	73.15	73.14	73.16
CochranePB	M002	1510.83	CochranePB-M002-1510.83	72.48	72.52	72.53	72.51	72.55	72.57	72.6	72.62	72.61	72.63
CochranePB	M002	1541.97	CochranePB-M002-1541.97	73.97	74.05	74.09	74.04	74.11	74.16	74.24	74.27	74.26	74.3
CochranePB	M002	1569.47	CochranePB-M002-1569.47	74.96	74.98	75	74.98	75.01	75.03	75.06	75.07	75.07	75.08
CochranePB	M002	1585.52	CochranePB-M002-1585.52	75.26	75.3	75.32	75.29	75.33	75.35	75.39	75.41	75.4	75.42
CochranePB	M002	1602.99	CochranePB-M002-1602.99	76.35	76.42	76.45	76.42	76.48	76.52	76.58	76.61	76.6	76.63
CochranePB	M002	1640.51	CochranePB-M002-1640.51	78.58	78.69	78.73	78.68	78.76	78.81	78.91	78.94	78.93	78.96
CochranePB	M002	1685.79	CochranePB-M002-1685.79	79.09	79.19	79.23	79.18	79.26	79.32	79.39	79.44	79.42	79.46
CochranePB	M002	1694.89	CochranePB-M002-1694.89	79.15	79.25	79.29	79.24	79.32	79.38	79.49	79.54	79.52	79.57
CochranePB	M002	1733.19	CochranePB-M002-1733.19	79.86	79.94	79.96	79.94	79.98	79.99	80.03	80.04	80.04	80.06
CochranePB	M002	1768.08	CochranePB-M002-1768.08	79.94	80	80.04	79.99	80.06	80.12	80.19	80.23	80.22	80.25
CochranePB	M002	1788.63	CochranePB-M002-1788.63	80.51	80.77	80.8	80.76	80.81	80.85	80.89	80.92	80.91	80.93
CochranePB	M002	1836.03	CochranePB-M002-1836.03	81.11	81.15	81.19	81.15	81.22	81.27	81.34	81.38	81.37	81.4
CochranePB	M002	1871.48	CochranePB-M002-1871.48	81.16	81.21	81.24	81.2	81.27	81.32	81.39	81.42	81.41	81.45
CochranePB	M002	1916.67	CochranePB-M002-1916.67	81.3	81.36	81.4	81.36	81.42	81.47	81.55	81.58	81.57	81.6
CochranePB	M002	1945.2	CochranePB-M002-1945.2	81.44	81.52	81.55	81.51	81.58	81.63	81.7	81.74	81.73	81.76
CochranePB	M002	1990.76	CochranePB-M002-1990.76	81.82	81.89	81.92	81.89	81.93	81.94	82	82.03	82.02	82.04
CochranePB	M002	2014.35	CochranePB-M002-2014.35	81.88	81.9	81.91	81.89	81.93	81.96	81.99	82.01	82	82.02
CochranePB	M002	2046.85	CochranePB-M002-2046.85	82.5	82.65	82.68	82.65	82.7	82.74	82.8	82.84	82.83	82.85
CochranePB	M002	2100.01	CochranePB-M002-2100.01	83.14	83.14	83.18	83.13	83.21	83.25	83.3	83.32	83.32	83.35
CochranePB	M002	2136.89	CochranePB-M002-2136.89	83.31	83.37	83.4	83.37	83.41	83.44	83.48	83.5	83.49	83.51
CochranePB	M002	2170.94	CochranePB-M002-2170.94	83.8	83.91	83.96	83.91	83.99	84.05	84.16	84.2	84.18	84.23
CochranePB	M002	2240.58	CochranePB-M002-2240.58	85.86	85.91	85.93	85.89	85.95	85.98	86.02	86.05	86.04	86.06
CochranePB	M002	2284.63	CochranePB-M002-2284.63	86.26	86.33	86.36	86.33	86.38	86.43	86.49	86.52	86.51	86.54
CochranePB	M002	2310.47	CochranePB-M002-2310.47	86.32	86.39	86.42	86.39	86.44	86.48	86.55	86.58	86.57	86.6
CochranePB	M002	2384.01	CochranePB-M002-2384.01	86.59	86.64	86.66	86.64	86.68	86.71	86.76	86.78	86.78	86.8
CochranePB	M002	2438.28	CochranePB-M002-2438.28	86.68	86.73	86.76	86.73	86.78	86.81	86.85	86.88	86.87	86.89
CochranePB	M002	2489.06	CochranePB-M002-2489.06	86.74	86.8	86.82	86.79	86.84	86.87	86.91	86.94	86.93	86.95
CochranePB	M002	2539.69	CochranePB-M002-2539.69	86.79	86.84	86.87	86.84	86.88	86.91	86.96	86.98	86.97	86.99

Reach	Reach Name	Section No.	HEC-RAS ref.	20 Year AEP					100 Year AEP				
				Existing	2020 AMEC	2050 AMEC	2050 Finnis	2080 AMEC	Existing	2020 AMEC	2050 AMEC	2050 Finnis	2080 AMEC
CochranePB	M002	2616.24	CochranePB-M002-2616.24	86.84	86.89	86.91	86.89	86.93	86.96	87	87.02	87.01	87.03
CochranePB	M002	2639.38	CochranePB-M002-2639.38	86.86	86.91	86.93	86.91	86.94	86.97	87.01	87.04	87.03	87.05
CochranePB	M002	2663.79	CochranePB-M002-2663.79	86.9	86.94	86.96	86.94	86.98	87.01	87.05	87.07	87.06	87.08
CochranePB	M002	2741.3	CochranePB-M002-2741.3	86.95	86.99	87.01	86.99	87.02	87.05	87.09	87.11	87.11	87.13
CochranePB	M002	2789.49	CochranePB-M002-2789.49	87	87.04	87.06	87.04	87.08	87.11	87.15	87.17	87.16	87.18
CochranePB	M002	2823.99	CochranePB-M002-2823.99	87.03	87.07	87.09	87.07	87.1	87.13	87.17	87.19	87.18	87.2
CochranePB	M002	2890.23	CochranePB-M002-2890.23	86.81	86.83	86.84	86.82	86.84	86.86	86.88	86.89	86.89	86.9
CochranePB	M002	2912.75	CochranePB-M002-2912.75	87.75	87.75	87.75	87.75	87.75	87.75	87.75	87.75	87.75	87.75
CochranePB	M002	2915	CochranePB-M002-2915	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge
CochranePB	M002	2920.1	CochranePB-M002-2920.1	87.75	87.75	87.75	87.75	87.75	87.75	87.76	87.76	87.76	87.76
CochranePB	M002	2941.08	CochranePB-M002-2941.08	87.76	87.77	87.77	87.77	87.77	87.77	87.78	87.78	87.78	87.78
CochranePB	M002	2976.31	CochranePB-M002-2976.31	87.83	87.85	87.86	87.85	87.87	87.88	87.91	87.92	87.91	87.93
CochranePB	M002	3007.54	CochranePB-M002-3007.54	87.91	87.94	87.96	87.94	87.97	87.99	88.02	88.04	88.03	88.05
CochranePB	M002	3056.89	CochranePB-M002-3056.89	88.19	88.24	88.27	88.23	88.28	88.3	88.34	88.36	88.36	88.37
CochranePB	M002	3075.67	CochranePB-M002-3075.67	88.27	88.31	88.34	88.31	88.35	88.37	88.41	88.43	88.42	88.44
CochranePB	M002	3080	CochranePB-M002-3080	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge
CochranePB	M002	3088.94	CochranePB-M002-3088.94	88.58	88.76	88.59	88.75	88.58	88.59	88.61	88.61	88.61	88.62
CochranePB	M002	3106.53	CochranePB-M002-3106.53	88.78	88.79	88.8	88.79	88.81	88.82	88.85	88.86	88.84	88.87
CochranePB	M002	3135.32	CochranePB-M002-3135.32	89.06	89.09	89.11	89.09	89.12	89.14	89.17	89.18	89.18	89.19
CochranePB	M002	3157.85	CochranePB-M002-3157.85	89.08	89.22	89.24	89.22	89.26	89.25	89.3	89.31	89.31	89.32
CochranePB	M002	3165	CochranePB-M002-3165	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge
CochranePB	M002	3175.54	CochranePB-M002-3175.54	89.36	89.42	89.48	89.42	89.5	89.57	89.63	89.69	89.66	89.67
CochranePB	M002	3219.09	CochranePB-M002-3219.09	89.71	89.75	89.78	89.75	89.78	89.79	89.81	89.84	89.82	89.84
CochranePB	M002	3272.96	CochranePB-M002-3272.96	90.19	90.22	90.24	90.22	90.25	90.29	90.32	90.34	90.34	90.35
CochranePB	M002	3309.87	CochranePB-M002-3309.87	90.61	90.67	90.69	90.66	90.71	90.73	90.77	90.79	90.77	90.8
CochranePB	M002	3371.12	CochranePB-M002-3371.12	91.17	91.27	91.29	91.26	91.3	91.34	91.36	91.37	91.37	91.38
CochranePB	M002	3391.58	CochranePB-M002-3391.58	91.45	91.5	91.52	91.5	91.53	91.56	91.6	91.62	91.61	91.63
CochranePB	M002	3413.11	CochranePB-M002-3413.11	91.55	91.59	91.61	91.59	91.62	91.65	91.69	91.71	91.7	91.72
CochranePB	M002	3434.16	CochranePB-M002-3434.16	91.63	91.65	91.66	91.65	91.67	91.67	91.73	91.77	91.76	91.79
CochranePB	M002	3450	CochranePB-M002-3450	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge
CochranePB	M002	3454.35	CochranePB-M002-3454.35	91.74	91.82	91.87	91.81	91.89	91.95	92.05	92.09	92.08	91.82
CochranePB	M002	3466.43	CochranePB-M002-3466.43	91.52	91.5	92.01	91.48	92.02	92.07	92.29	92.39	92.35	92.24
CochranePB	M002	3474.26	CochranePB-M002-3474.26	92.2	92.43	92.13	92.43	92.14	92.13	92.25	92.33	92.3	92.21
CochranePB	M002	3480	CochranePB-M002-3480	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge
CochranePB	M002	3493.23	CochranePB-M002-3493.23	92.18	92.42	92.09	92.41	92.09	92.19	92.27	92.33	92.31	92.46
CochranePB	M002	3509.83	CochranePB-M002-3509.83	92.14	92.59	92.21	92.58	92.39	92.55	92.7	92.77	92.74	92.85
CochranePB	M002	3559.9	CochranePB-M002-3559.9	92.75	92.84	92.86	92.84	92.85	92.88	92.93	92.95	92.95	92.97
CochranePB	M002	3609.83	CochranePB-M002-3609.83	93.33	93.34	93.39	93.33	93.45	93.47	93.5	93.51	93.51	93.52
CochranePB	M002	3661.6	CochranePB-M002-3661.6	93.77	93.8	93.82	93.8	93.82	93.84	93.86	93.88	93.87	93.89
CochranePB	M002	3709.28	CochranePB-M002-3709.28	94.03	94.08	94.1	94.07	94.12	94.15	94.19	94.21	94.2	94.22
CochranePB	M002	3759.83	CochranePB-M002-3759.83	94.58	94.63	94.66	94.63	94.66	94.69	94.71	94.72	94.72	94.73
CochranePB	M002	3810.05	CochranePB-M002-3810.05	95.31	95.33	95.35	95.33	95.38	95.43	95.49	95.53	95.52	95.57
CochranePB	M002	3859.82	CochranePB-M002-3859.82	95.95	96.12	96.19	96.12	96.22	96.28	96.34	96.37	96.35	96.38
CochranePB	M002	3916.58	CochranePB-M002-3916.58	96.89	96.92	96.93	96.92	96.94	96.96	97.01	97.02	97.02	97.03
CochranePB	M002	3969.03	CochranePB-M002-3969.03	97.28	97.4	97.45	97.4	97.47	97.52	97.56	97.58	97.58	97.6

Reach	Reach Name	Section No.	HEC-RAS ref.	20 Year AEP					100 Year AEP				
				Existing	2020 AMEC	2050 AMEC	2050 Finnis	2080 AMEC	Existing	2020 AMEC	2050 AMEC	2050 Finnis	2080 AMEC
CochranePB	M002	4009.83	CochranePB-M002-4009.83	98.15	98.18	98.19	98.18	98.2	98.21	98.22	98.24	98.23	98.24
CochranePB	M002	4056	CochranePB-M002-4056	98.68	98.76	98.8	98.75	98.83	98.88	98.96	99	98.99	99.03
CochranePB	M002	4109.83	CochranePB-M002-4109.83	100.39	100.47	100.49	100.46	100.51	100.55	100.6	100.63	100.62	100.65
CochranePB	M002	4159.83	CochranePB-M002-4159.83	102.16	102.19	102.2	102.18	102.21	102.22	102.25	102.24	102.25	102.25
CochranePB	M002	4208.11	CochranePB-M002-4208.11	103.25	103.3	103.32	103.3	103.35	103.38	103.43	103.47	103.45	103.49
CochranePB	M002	4265.56	CochranePB-M002-4265.56	104.14	104.24	104.28	104.23	104.29	104.35	104.41	104.39	104.43	104.42
CochranePB	M002	4327.93	CochranePB-M002-4327.93	104.92	104.96	104.99	104.96	105.01	105.04	105.11	105.18	105.13	105.19
CochranePB	M002	4359.83	CochranePB-M002-4359.83	105.33	105.41	105.45	105.41	105.47	105.52	105.57	105.59	105.58	105.6
CochranePB	M002	4409.53	CochranePB-M002-4409.53	106.17	106.23	106.26	106.23	106.28	106.32	106.37	106.4	106.39	106.41
CochranePB	M002	4459.83	CochranePB-M002-4459.83	107.18	107.24	107.27	107.23	107.28	107.32	107.36	107.39	107.37	107.4
CochranePB	M002	4506.74	CochranePB-M002-4506.74	108.15	108.2	108.22	108.2	108.24	108.27	108.31	108.33	108.32	108.34
CochranePB	M002	4561.03	CochranePB-M002-4561.03	108.45	108.52	108.55	108.51	108.57	108.6	108.66	108.68	108.67	108.7
CochranePB	M002	4633.22	CochranePB-M002-4633.22	108.52	108.59	108.62	108.58	108.64	108.68	108.73	108.76	108.75	108.77
CochranePB	M002	4674.22	CochranePB-M002-4674.22	108.53	108.6	108.64	108.6	108.65	108.69	108.75	108.78	108.77	108.79
CochranePB	M002	4718.65	CochranePB-M002-4718.65	108.56	108.63	108.66	108.63	108.68	108.72	108.77	108.8	108.79	108.81
CochranePB	M002	4757.22	CochranePB-M002-4757.22	108.57	108.64	108.67	108.64	108.69	108.73	108.78	108.81	108.8	108.82
CochranePB	M002	4816.97	CochranePB-M002-4816.97	108.58	108.65	108.68	108.65	108.7	108.74	108.79	108.81	108.81	108.83
CochranePB	M002	488.4	CochranePB-M002-488.4	69.19	69.33	69.41	69.33	69.45	69.55	69.69	69.76	69.74	69.81
CochranePB	M002	4883.44	CochranePB-M002-4883.44	108.6	108.66	108.69	108.66	108.71	108.75	108.8	108.83	108.82	108.84
CochranePB	M002	4908.49	CochranePB-M002-4908.49	108.61	108.67	108.7	108.67	108.72	108.76	108.81	108.84	108.83	108.86
CochranePB	M002	4977.38	CochranePB-M002-4977.38	108.64	108.7	108.73	108.7	108.75	108.79	108.84	108.86	108.85	108.88
CochranePB	M002	5013.2	CochranePB-M002-5013.2	108.8	108.84	108.85	108.83	108.86	108.89	108.91	108.92	108.92	108.92
CochranePB	M002	5059.83	CochranePB-M002-5059.83	109.1	109.14	109.16	109.14	109.17	109.19	109.23	109.25	109.24	109.28
CochranePB	M002	5109.83	CochranePB-M002-5109.83	109.4	109.45	109.47	109.45	109.49	109.52	109.56	109.58	109.57	109.59
CochranePB	M002	5162.38	CochranePB-M002-5162.38	109.91	109.95	109.97	109.94	109.99	110.05	110.12	110.14	110.14	110.14
CochranePB	M002	5213.45	CochranePB-M002-5213.45	110.28	110.35	110.39	110.35	110.4	110.45	110.5	110.53	110.52	110.55
CochranePB	M002	5266.9	CochranePB-M002-5266.9	110.58	110.61	110.62	110.61	110.62	110.64	110.67	110.68	110.68	110.69
CochranePB	M002	5309.83	CochranePB-M002-5309.83	111	111.04	111.06	111.03	111.08	111.1	111.1	111.11	111.11	111.13
CochranePB	M002	5352.19	CochranePB-M002-5352.19	111.55	111.61	111.63	111.61	111.64	111.67	111.75	111.77	111.76	111.78
CochranePB	M002	539.85	CochranePB-M002-539.85	69.19	69.34	69.41	69.33	69.45	69.55	69.69	69.76	69.74	69.81
CochranePB	M002	5403.83	CochranePB-M002-5403.83	111.75	111.81	111.84	111.81	111.86	111.9	111.96	112	111.98	112.01
CochranePB	M002	5473.67	CochranePB-M002-5473.67	115.22	115.26	115.29	115.26	115.31	115.33	115.38	115.37	115.39	115.39
CochranePB	M002	5508.2	CochranePB-M002-5508.2	115.53	115.58	115.6	115.58	115.62	115.66	115.7	115.74	115.72	115.75
CochranePB	M002	5568.52	CochranePB-M002-5568.52	115.82	115.88	115.91	115.88	115.93	115.98	116.04	116.08	116.06	116.1
CochranePB	M002	5601	CochranePB-M002-5601	115.86	115.92	115.95	115.92	115.97	116.01	116.07	116.1	116.09	116.12
CochranePB	M002	5609.94	CochranePB-M002-5609.94	115.91	115.95	115.97	115.94	115.98	116.02	116.07	116.1	116.08	116.12
CochranePB	M002	5627.04	CochranePB-M002-5627.04	116.1	116.15	116.17	116.15	116.19	116.22	116.26	116.29	116.28	116.31
CochranePB	M002	5678.58	CochranePB-M002-5678.58	116.4	116.44	116.44	116.41	116.45	116.48	116.51	116.54	116.53	116.55
CochranePB	M002	5725.36	CochranePB-M002-5725.36	117.55	117.57	117.61	117.6	117.62	117.63	117.66	117.67	117.66	117.67
CochranePB	M002	5768.42	CochranePB-M002-5768.42	118.34	118.38	118.31	118.29	118.32	118.35	118.38	118.4	118.39	118.41
CochranePB	M002	5811.63	CochranePB-M002-5811.63	119.84	119.86	119.97	119.95	119.98	119.98	120	120.01	120	120.01
CochranePB	M002	5863.68	CochranePB-M002-5863.68	120.5	120.51	120.52	120.51	120.53	120.54	120.57	120.58	120.58	120.59
CochranePB	M002	590.19	CochranePB-M002-590.19	69.19	69.34	69.41	69.33	69.45	69.55	69.69	69.76	69.74	69.81
CochranePB	M002	5910.4	CochranePB-M002-5910.4	121.43	121.47	121.5	121.47	121.51	121.53	121.56	121.57	121.57	121.58
CochranePB	M002	5976.09	CochranePB-M002-5976.09	122.37	122.38	122.39	122.38	122.4	122.41	122.43	122.44	122.44	122.45

Reach	Reach Name	Section No.	HEC-RAS ref.	20 Year AEP					100 Year AEP				
				Existing	2020 AMEC	2050 AMEC	2050 Finnis	2080 AMEC	Existing	2020 AMEC	2050 AMEC	2050 Finnis	2080 AMEC
CochranePB	M002	6006.95	CochranePB-M002-6006.95	122.52	122.54	122.56	122.54	122.57	122.58	122.61	122.62	122.61	122.62
CochranePB	M002	6040.82	CochranePB-M002-6040.82	122.54	122.58	122.59	122.58	122.6	122.62	122.64	122.66	122.65	122.66
CochranePB	M002	6130	CochranePB-M002-6130	123.26	123.29	123.33	123.29	123.35	123.36	123.4	123.41	123.41	123.41
CochranePB	M002	6202.53	CochranePB-M002-6202.53	123.98	124.02	124.03	124.02	124.03	124.06	124.09	124.1	124.1	124.12
CochranePB	M002	6286.25	CochranePB-M002-6286.25	124.36	124.4	124.43	124.4	124.44	124.47	124.51	124.53	124.52	124.53
CochranePB	M002	6314.31	CochranePB-M002-6314.31	124.44	124.49	124.51	124.48	124.52	124.55	124.58	124.6	124.59	124.61
CochranePB	M002	6364.18	CochranePB-M002-6364.18	124.5	124.55	124.57	124.55	124.59	124.62	124.65	124.68	124.67	124.69
CochranePB	M002	6400.96	CochranePB-M002-6400.96	124.5	124.55	124.57	124.54	124.59	124.61	124.65	124.67	124.66	124.68
CochranePB	M002	6433.33	CochranePB-M002-6433.33	125.01	125.03	125.04	125.03	125.05	125.07	125.09	125.11	125.1	125.12
CochranePB	M002	6480.5	CochranePB-M002-6480.5	125.87	125.9	125.92	125.9	125.92	125.93	125.95	125.96	125.96	125.97
CochranePB	M002	6507.97	CochranePB-M002-6507.97	126.53	126.55	126.55	126.55	126.57	126.58	126.59	126.6	126.59	126.6
CochranePB	M002	6534.5	CochranePB-M002-6534.5	127.24	127.26	127.29	127.26	127.28	127.3	127.33	127.34	127.34	127.34
CochranePB	M002	6630.83	CochranePB-M002-6630.83	128.35	128.39	128.4	128.38	128.42	128.44	128.47	128.48	128.48	128.5
CochranePB	M002	6651.54	CochranePB-M002-6651.54	128.61	128.64	128.66	128.64	128.66	128.67	128.7	128.71	128.7	128.71
CochranePB	M002	669.16	CochranePB-M002-669.16	69.19	69.34	69.41	69.33	69.45	69.55	69.69	69.77	69.74	69.81
CochranePB	M002	6691.71	CochranePB-M002-6691.71	128.99	129.03	129.04	129.02	129.05	129.07	129.1	129.12	129.11	129.12
CochranePB	M002	6727.78	CochranePB-M002-6727.78	129.43	129.43	129.48	129.43	129.5	129.48	129.52	129.53	129.54	129.54
CochranePB	M002	6767.75	CochranePB-M002-6767.75	130.26	130.33	130.3	130.33	130.29	130.36	130.37	130.38	130.37	130.39
CochranePB	M002	6808.25	CochranePB-M002-6808.25	131.41	131.36	131.44	131.36	131.47	131.41	131.44	131.45	131.47	131.46
CochranePB	M002	6840.09	CochranePB-M002-6840.09	132.09	132.11	132.14	132.11	132.16	132.15	132.18	132.19	132.19	132.2
CochranePB	M002	6863.52	CochranePB-M002-6863.52	132.81	132.85	132.82	132.85	132.81	132.88	132.89	132.9	132.9	132.9
CochranePB	M002	694.52	CochranePB-M002-694.52	69.19	69.34	69.41	69.33	69.46	69.55	69.69	69.77	69.74	69.81
CochranePB	M002	6955.25	CochranePB-M002-6955.25	134.61	134.6	134.64	134.59	134.65	134.71	134.77	134.81	134.79	134.82
CochranePB	M002	6985.71	CochranePB-M002-6985.71	135.47	135.64	135.64	135.64	135.67	135.67	135.69	135.71	135.71	135.74
CochranePB	M002	7041.67	CochranePB-M002-7041.67	136.07	136.05	136.08	136.04	136.07	136.11	136.14	136.16	136.15	136.16
CochranePB	M002	7108.13	CochranePB-M002-7108.13	136.43	136.51	136.51	136.51	136.53	136.53	136.54	136.54	136.54	136.55
CochranePB	M002	7208.54	CochranePB-M002-7208.54	136.95	136.97	136.99	136.97	136.99	137.03	137.06	137.07	137.06	137.08
CochranePB	M002	7253.62	CochranePB-M002-7253.62	137.05	137.08	137.1	137.08	137.1	137.13	137.16	137.17	137.17	137.18
CochranePB	M002	7329.89	CochranePB-M002-7329.89	137.22	137.25	137.27	137.25	137.28	137.3	137.32	137.34	137.33	137.35
CochranePB	M002	7450.86	CochranePB-M002-7450.86	137.51	137.56	137.57	137.55	137.57	137.59	137.62	137.64	137.63	137.65
CochranePB	M002	746.77	CochranePB-M002-746.77	69.19	69.34	69.41	69.33	69.46	69.55	69.69	69.77	69.74	69.81
CochranePB	M002	7476.72	CochranePB-M002-7476.72	137.54	137.59	137.61	137.59	137.61	137.63	137.66	137.67	137.67	137.68
CochranePB	M002	7515.77	CochranePB-M002-7515.77	137.56	137.61	137.63	137.61	137.63	137.65	137.68	137.7	137.69	137.71
CochranePB	M002	7609.21	CochranePB-M002-7609.21	137.69	137.73	137.75	137.73	137.77	137.79	137.82	137.84	137.83	137.85
CochranePB	M002	7695.32	CochranePB-M002-7695.32	138.56	138.59	138.6	138.58	138.61	138.63	138.65	138.66	138.66	138.67
CochranePB	M002	7738.34	CochranePB-M002-7738.34	138.88	138.91	138.93	138.91	138.94	138.96	138.98	139	138.99	139.01
CochranePB	M002	7812.33	CochranePB-M002-7812.33	139.3	139.31	139.32	139.31	139.33	139.35	139.36	139.37	139.37	139.37
CochranePB	M002	7847.08	CochranePB-M002-7847.08	139.74	139.79	139.8	139.79	139.81	139.82	139.85	139.87	139.86	139.88
CochranePB	M002	7901.64	CochranePB-M002-7901.64	140.64	140.71	140.73	140.71	140.74	140.76	140.77	140.78	140.78	140.79
CochranePB	M002	7964.49	CochranePB-M002-7964.49	141.7	141.78	141.82	141.77	141.85	141.89	142.01	142.06	142.04	142.09
CochranePB	M002	798.06	CochranePB-M002-798.06	69.19	69.34	69.41	69.33	69.46	69.56	69.69	69.77	69.74	69.81
CochranePB	M002	7995.14	CochranePB-M002-7995.14	142.17	142.28	142.33	142.27	142.36	142.44	142.51	142.55	142.54	142.58
CochranePB	M002	8000	CochranePB-M002-8000	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert
CochranePB	M002	8004.7	CochranePB-M002-8004.7	142.17	142.28	142.34	142.28	142.38	142.45	142.52	142.56	142.55	142.58
CochranePB	M002	8013.06	CochranePB-M002-8013.06	142.17	142.28	142.34	142.28	142.38	142.45	142.52	142.56	142.55	142.58

Reach	Reach Name	Section No.	HEC-RAS ref.	20 Year AEP					100 Year AEP				
				Existing	2020 AMEC	2050 AMEC	2050 Finnis	2080 AMEC	Existing	2020 AMEC	2050 AMEC	2050 Finnis	2080 AMEC
CochranePB	M002	8024.09	CochranePB-M002-8024.09	142.18	142.28	142.34	142.28	142.38	142.45	142.52	142.56	142.55	142.58
CochranePB	M002	8050.98	CochranePB-M002-8050.98	142.18	142.28	142.34	142.28	142.38	142.45	142.52	142.56	142.55	142.58
CochranePB	M002	8065.47	CochranePB-M002-8065.47	142.18	142.29	142.35	142.29	142.39	142.46	142.53	142.57	142.56	142.6
CochranePB	M002	8105.53	CochranePB-M002-8105.53	142.2	142.31	142.36	142.3	142.4	142.47	142.54	142.58	142.57	142.61
CochranePB	M002	851.16	CochranePB-M002-851.16	69.19	69.34	69.41	69.33	69.46	69.56	69.69	69.77	69.74	69.81
CochranePB	M002	955.54	CochranePB-M002-955.54	69.21	69.35	69.42	69.35	69.47	69.57	69.7	69.77	69.75	69.82
CochranePB	M002	998.99	CochranePB-M002-998.99	69.22	69.36	69.43	69.36	69.48	69.57	69.71	69.78	69.75	69.82
DoylesR	M001	215.64	DoylesR-M001-215.64	69.19	69.34	69.41	69.33	69.45	69.55	69.69	69.76	69.74	69.81
DoylesR	M001	344.78	DoylesR-M001-344.78	69.19	69.34	69.41	69.33	69.46	69.56	69.69	69.77	69.74	69.81
DoylesR	M001	388.03	DoylesR-M001-388.03	69.21	69.35	69.42	69.35	69.47	69.57	69.7	69.78	69.75	69.82
DoylesR	M001	429.44	DoylesR-M001-429.44	69.37	69.45	69.5	69.44	69.54	69.62	69.73	69.8	69.78	69.85
DoylesR	M001	484.12	DoylesR-M001-484.12	69.59	69.62	69.69	69.62	69.72	69.75	69.77	69.84	69.81	69.87
DoylesR	M001	77.13	DoylesR-M001-77.13	69.19	69.33	69.41	69.33	69.45	69.55	69.69	69.76	69.74	69.81
DoylesR	TR011	1057.82	DoylesR-TR011-1057.82	76.94	77.07	77.12	77.06	77.15	77.23	77.33	77.37	77.36	77.4
DoylesR	TR011	1107.39	DoylesR-TR011-1107.39	77.69	77.75	77.78	77.75	77.79	77.84	77.89	77.91	77.9	77.92
DoylesR	TR011	1155.74	DoylesR-TR011-1155.74	78.43	78.53	78.58	78.53	78.6	78.67	78.76	78.8	78.79	78.82
DoylesR	TR011	1209.33	DoylesR-TR011-1209.33	79.95	80.05	80.11	80.05	80.13	80.22	80.31	80.36	80.35	80.38
DoylesR	TR011	1262.92	DoylesR-TR011-1262.92	80.85	80.92	80.95	80.92	80.97	81.02	81.08	81.12	81.1	81.14
DoylesR	TR011	1316.51	DoylesR-TR011-1316.51	82.59	82.72	82.78	82.71	82.81	82.93	83.03	83.07	83.06	83.09
DoylesR	TR011	1370.1	DoylesR-TR011-1370.1	83.83	83.86	83.87	83.86	83.88	83.92	83.92	83.93	83.93	83.94
DoylesR	TR011	1423.69	DoylesR-TR011-1423.69	85.26	85.38	85.44	85.37	85.47	85.43	85.71	85.73	85.73	85.76
DoylesR	TR011	1477.56	DoylesR-TR011-1477.56	85.61	85.67	85.7	85.66	85.71	85.76	85.81	85.84	85.83	85.86
DoylesR	TR011	1530.88	DoylesR-TR011-1530.88	87.96	88.09	88.14	88.08	88.17	88.25	88.35	88.41	88.39	88.43
DoylesR	TR011	1552.47	DoylesR-TR011-1552.47	88.39	88.53	88.59	88.52	88.63	88.73	88.86	88.93	88.91	88.96
DoylesR	TR011	663.11	DoylesR-TR011-663.11	71.36	71.4	71.4	71.4	71.4	71.42	71.46	71.44	71.45	71.44
DoylesR	TR011	712.26	DoylesR-TR011-712.26	71.64	71.67	71.69	71.67	71.72	71.8	71.81	71.89	71.87	71.82
DoylesR	TR011	760.16	DoylesR-TR011-760.16	72.33	72.41	72.43	72.4	72.44	72.44	72.49	72.48	72.48	72.53
DoylesR	TR011	816.76	DoylesR-TR011-816.76	72.81	72.85	72.87	72.85	72.88	73.03	73.04	73.07	73.06	73.05
DoylesR	TR011	872.05	DoylesR-TR011-872.05	74	74	74	74	74	74	74.01	73.99	74.02	73.98
DoylesR	TR011	929.53	DoylesR-TR011-929.53	74.28	74.39	74.44	74.38	74.46	74.54	74.62	74.72	74.64	74.81
DoylesR	TR011	949.62	DoylesR-TR011-949.62	74.83	74.95	75.01	74.95	75.04	75.13	75.24	75.28	75.29	75.26
DoylesR	TR011	960	DoylesR-TR011-960	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge
DoylesR	TR011	971.36	DoylesR-TR011-971.36	74.07	74.12	74.14	74.11	74.15	74.19	74.24	74.27	74.26	74.29
DoylesR	TR012	1645.76	DoylesR-TR012-1645.76	89.21	89.28	89.31	89.28	89.33	89.38	89.44	89.47	89.46	89.54
DoylesR	TR012	1709.2	DoylesR-TR012-1709.2	90.37	90.4	90.41	90.39	90.42	90.43	90.46	90.47	90.47	90.48
DoylesR	TR012	1729.43	DoylesR-TR012-1729.43	90.73	90.92	90.98	90.91	90.92	91	91.22	91.28	91.27	91.32
DoylesR	TR012	1745	DoylesR-TR012-1745	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge
DoylesR	TR012	1753.67	DoylesR-TR012-1753.67	92.09	92.14	92.15	92.14	92.24	92.34	92.42	92.5	92.48	92.56
DoylesR	TR012	1780.65	DoylesR-TR012-1780.65	92.05	92.1	92.1	92.1	92.2	92.3	92.39	92.48	92.45	92.53
DoylesR	TR013	1022.06	DoylesR-TR013-1022.06	83.84	83.9	83.92	83.89	83.94	83.98	84.02	84.06	84.04	84.06
DoylesR	TR013	1042.53	DoylesR-TR013-1042.53	84.1	84.18	84.21	84.17	84.23	84.29	84.35	84.39	84.38	84.4
DoylesR	TR013	1050	DoylesR-TR013-1050	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert
DoylesR	TR013	1064.9	DoylesR-TR013-1064.9	84.46	84.47	84.48	84.47	84.48	84.49	84.51	84.5	84.51	84.5
DoylesR	TR013	1082.8	DoylesR-TR013-1082.8	84.4	84.36	84.36	84.36	84.36	84.38	84.38	84.38	84.38	84.38
DoylesR	TR013	1137.53	DoylesR-TR013-1137.53	85.04	85.11	85.14	85.1	85.15	85.17	85.23	85.27	85.26	85.28

Reach	Reach Name	Section No.	HEC-RAS ref.	20 Year AEP					100 Year AEP				
				Existing	2020 AMEC	2050 AMEC	2050 Finnis	2080 AMEC	Existing	2020 AMEC	2050 AMEC	2050 Finnis	2080 AMEC
DoylesR	TR013	1192.26	DoylesR-TR013-1192.26	85.7	85.75	85.77	85.74	85.78	85.83	85.87	85.88	85.87	85.88
DoylesR	TR013	1246.99	DoylesR-TR013-1246.99	86.53	86.54	86.56	86.54	86.56	86.58	86.6	86.62	86.61	86.62
DoylesR	TR013	1301.72	DoylesR-TR013-1301.72	87.71	87.8	87.83	87.8	87.84	87.9	87.96	87.99	87.98	87.99
DoylesR	TR013	133.14	DoylesR-TR013-133.14	70.05	70.11	70.12	70.11	70.13	70.16	70.19	70.2	70.2	70.22
DoylesR	TR013	1373.86	DoylesR-TR013-1373.86	88.5	88.55	88.58	88.54	88.59	88.63	88.67	88.69	88.68	88.7
DoylesR	TR013	1375	DoylesR-TR013-1375	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert
DoylesR	TR013	1388.58	DoylesR-TR013-1388.58	89.05	89.07	89.07	89.05	89.07	89.09	89.09	89.1	89.1	89.1
DoylesR	TR013	1411.61	DoylesR-TR013-1411.61	89.04	89.06	89.06	89.05	89.06	89.08	89.07	89.09	89.09	89.09
DoylesR	TR013	1478.17	DoylesR-TR013-1478.17	89.22	89.25	89.25	89.25	89.26	89.28	89.31	89.32	89.32	89.33
DoylesR	TR013	1506.96	DoylesR-TR013-1506.96	89.41	89.43	89.44	89.43	89.45	89.46	89.47	89.48	89.48	89.49
DoylesR	TR013	1552.3	DoylesR-TR013-1552.3	89.47	89.49	89.5	89.49	89.51	89.53	89.54	89.55	89.55	89.56
DoylesR	TR013	1613.85	DoylesR-TR013-1613.85	89.57	89.59	89.6	89.59	89.6	89.62	89.64	89.65	89.64	89.65
DoylesR	TR013	162.98	DoylesR-TR013-162.98	70.07	70.12	70.13	70.12	70.14	70.17	70.2	70.21	70.21	70.23
DoylesR	TR013	1677.65	DoylesR-TR013-1677.65	89.78	89.79	89.8	89.79	89.8	89.81	89.82	89.83	89.83	89.83
DoylesR	TR013	1733.37	DoylesR-TR013-1733.37	90.19	90.21	90.22	90.21	90.22	90.24	90.25	90.26	90.26	90.26
DoylesR	TR013	1789.09	DoylesR-TR013-1789.09	90.5	90.51	90.52	90.51	90.52	90.53	90.53	90.54	90.54	90.54
DoylesR	TR013	1861.01	DoylesR-TR013-1861.01	92.13	92.18	92.2	92.18	92.21	92.23	92.26	92.27	92.27	92.28
DoylesR	TR013	1909.18	DoylesR-TR013-1909.18	93.13	93.15	93.16	93.15	93.16	93.18	93.19	93.2	93.19	93.2
DoylesR	TR013	1957.46	DoylesR-TR013-1957.46	93.95	93.99	94.02	93.99	94.03	94.08	94.11	94.15	94.13	94.15
DoylesR	TR013	2011.99	DoylesR-TR013-2011.99	94.53	94.58	94.6	94.57	94.6	94.64	94.67	94.68	94.67	94.68
DoylesR	TR013	2097.4	DoylesR-TR013-2097.4	96.22	96.24	96.23	96.24	96.26	96.27	96.28	96.29	96.29	96.29
DoylesR	TR013	2147.59	DoylesR-TR013-2147.59	96.48	96.5	96.51	96.5	96.51	96.54	96.56	96.57	96.56	96.57
DoylesR	TR013	2205.78	DoylesR-TR013-2205.78	96.57	96.6	96.61	96.6	96.62	96.64	96.66	96.68	96.67	96.68
DoylesR	TR013	236.5	DoylesR-TR013-236.5	70.12	70.16	70.17	70.16	70.18	70.2	70.24	70.25	70.24	70.26
DoylesR	TR013	256.3	DoylesR-TR013-256.3	70.27	70.28	70.27	70.28	70.28	70.29	70.3	70.31	70.31	70.31
DoylesR	TR013	324.16	DoylesR-TR013-324.16	70.84	70.85	70.86	70.85	70.86	70.87	70.89	70.89	70.89	70.89
DoylesR	TR013	344.87	DoylesR-TR013-344.87	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7
DoylesR	TR013	360	DoylesR-TR013-360	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert
DoylesR	TR013	363.75	DoylesR-TR013-363.75	71.9	71.9	71.9	71.9	71.9	71.9	72.17	72.17	72.18	72.18
DoylesR	TR013	383.7	DoylesR-TR013-383.7	72.32	72.44	72.5	72.43	72.53	72.65	72.22	72.22	72.22	72.22
DoylesR	TR013	436.9	DoylesR-TR013-436.9	72.92	72.96	72.97	72.95	72.98	73.01	73.04	73.06	73.05	73.06
DoylesR	TR013	489.08	DoylesR-TR013-489.08	74.7	74.76	74.79	74.75	74.8	74.85	74.9	74.93	74.92	74.93
DoylesR	TR013	543.29	DoylesR-TR013-543.29	75.92	75.96	75.97	75.95	75.98	76.01	76.05	76.06	76.06	76.07
DoylesR	TR013	588.74	DoylesR-TR013-588.74	76.7	76.73	76.75	76.73	76.75	76.78	76.8	76.82	76.81	76.82
DoylesR	TR013	651.6	DoylesR-TR013-651.6	78.79	78.83	78.85	78.83	78.86	78.89	78.92	78.94	78.93	78.94
DoylesR	TR013	66.14	DoylesR-TR013-66.14	70.04	70.1	70.11	70.09	70.11	70.14	70.18	70.19	70.18	70.2
DoylesR	TR013	702.82	DoylesR-TR013-702.82	80.8	80.84	80.86	80.83	80.87	80.91	80.94	80.96	80.95	80.96
DoylesR	TR013	756.07	DoylesR-TR013-756.07	81.77	81.84	81.87	81.83	81.88	81.93	81.98	82.01	82	82.01
DoylesR	TR013	809.27	DoylesR-TR013-809.27	82.37	82.43	82.46	82.43	82.47	82.53	82.58	82.62	82.6	82.62
DoylesR	TR013	867.93	DoylesR-TR013-867.93	82.66	82.72	82.75	82.72	82.76	82.82	82.87	82.9	82.89	82.91
DoylesR	TR013	915.66	DoylesR-TR013-915.66	82.8	82.85	82.87	82.84	82.88	82.92	82.97	82.99	82.98	83
DoylesR	TR013	969.32	DoylesR-TR013-969.32	83.25	83.31	83.33	83.3	83.34	83.38	83.42	83.44	83.43	83.44
DoylesR	TR014	1027.18	DoylesR-TR014-1027.18	109.86	109.9	109.92	109.9	109.93	109.96	109.99	110.01	110	110.02
DoylesR	TR014	1075.36	DoylesR-TR014-1075.36	111.13	111.16	111.18	111.16	111.19	111.21	111.23	111.25	111.24	111.25
DoylesR	TR014	1094.88	DoylesR-TR014-1094.88	111.24	111.29	111.31	111.29	111.33	111.36	111.4	111.43	111.42	111.43

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				Existing	2020 AMEC	2050 AMEC	2050 Finnis	2080 AMEC	Existing	2020 AMEC	2050 AMEC	2050 Finnis	2080 AMEC
DoylesR	TR014	1104.23	DoylesR-TR014-1104.23	112.11	112.16	112.18	112.16	112.18	112.19	112.21	112.21	112.22	112.3
DoylesR	TR014	1125.25	DoylesR-TR014-1125.25	112.38	112.43	112.45	112.43	112.47	112.51	112.56	112.6	112.58	112.59
DoylesR	TR014	1182.25	DoylesR-TR014-1182.25	113.26	113.29	113.3	113.29	113.31	113.34	113.37	113.38	113.38	113.39
DoylesR	TR014	1203.69	DoylesR-TR014-1203.69	113.57	113.61	113.63	113.61	113.64	113.67	113.7	113.72	113.72	113.73
DoylesR	TR014	121.12	DoylesR-TR014-121.12	94.04	94.08	94.11	94.08	94.12	94.14	94.16	94.16	94.16	94.17
DoylesR	TR014	1239.25	DoylesR-TR014-1239.25	114.01	114.05	114.07	114.05	114.08	114.1	114.12	114.14	114.13	114.14
DoylesR	TR014	1296.25	DoylesR-TR014-1296.25	115.96	116.01	116.03	116	116.04	116.08	116.13	116.16	116.15	116.17
DoylesR	TR014	1309.14	DoylesR-TR014-1309.14	116.14	116.18	116.2	116.18	116.21	116.24	116.28	116.3	116.3	116.31
DoylesR	TR014	1353.25	DoylesR-TR014-1353.25	117.01	117.06	117.08	117.06	117.1	117.14	117.18	117.2	117.2	117.22
DoylesR	TR014	1374.6	DoylesR-TR014-1374.6	117.33	117.39	117.41	117.38	117.43	117.46	117.51	117.54	117.53	117.55
DoylesR	TR014	1384.41	DoylesR-TR014-1384.41	117.39	117.45	117.47	117.44	117.48	117.52	117.57	117.59	117.59	117.61
DoylesR	TR014	1400	DoylesR-TR014-1400	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge
DoylesR	TR014	1411.86	DoylesR-TR014-1411.86	117.95	118.02	118.06	118.02	118.08	118.13	118.2	118.23	118.22	118.25
DoylesR	TR014	1420.98	DoylesR-TR014-1420.98	118.03	118.12	118.16	118.11	118.18	118.24	118.31	118.35	118.34	118.37
DoylesR	TR014	1441.23	DoylesR-TR014-1441.23	118.47	118.55	118.62	118.52	118.63	118.67	118.69	118.7	118.7	118.72
DoylesR	TR014	1492.7	DoylesR-TR014-1492.7	119.63	119.65	119.65	119.65	119.65	119.66	119.71	119.72	119.71	119.72
DoylesR	TR014	1544.18	DoylesR-TR014-1544.18	120.59	120.63	120.65	120.62	120.67	120.69	120.68	120.69	120.68	120.69
DoylesR	TR014	1607.98	DoylesR-TR014-1607.98	121.37	121.38	121.38	121.38	121.37	121.38	121.45	121.46	121.46	121.47
DoylesR	TR014	1657.91	DoylesR-TR014-1657.91	121.92	121.97	122.02	121.97	122.03	122.07	122.01	122.02	122.02	122.03
DoylesR	TR014	1703.29	DoylesR-TR014-1703.29	122.57	122.6	122.59	122.6	122.59	122.61	122.76	122.78	122.77	122.79
DoylesR	TR014	1765.57	DoylesR-TR014-1765.57	123.66	123.69	123.7	123.69	123.71	123.73	123.74	123.75	123.75	123.76
DoylesR	TR014	1801.5	DoylesR-TR014-1801.5	124.89	124.93	124.95	124.93	124.96	125	125.05	125.07	125.06	125.08
DoylesR	TR014	181.77	DoylesR-TR014-181.77	95.09	95.16	95.17	95.16	95.17	95.2	95.22	95.23	95.23	95.24
DoylesR	TR014	1867.03	DoylesR-TR014-1867.03	125.49	125.54	125.56	125.53	125.58	125.62	125.65	125.67	125.66	125.68
DoylesR	TR014	1904.43	DoylesR-TR014-1904.43	125.71	125.76	125.79	125.76	125.8	125.84	125.89	125.91	125.9	125.92
DoylesR	TR014	1936.56	DoylesR-TR014-1936.56	126.02	126.08	126.11	126.07	126.12	126.16	126.21	126.22	126.22	126.24
DoylesR	TR014	1975.46	DoylesR-TR014-1975.46	126.21	126.29	126.33	126.28	126.34	126.4	126.45	126.49	126.49	126.54
DoylesR	TR014	198.96	DoylesR-TR014-198.96	95.07	95.11	95.13	95.11	95.14	95.17	95.2	95.22	95.22	95.23
DoylesR	TR014	1980	DoylesR-TR014-1980	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert
DoylesR	TR014	1988.88	DoylesR-TR014-1988.88	126.38	126.43	126.43	126.42	126.44	126.46	126.49	126.51	126.5	126.56
DoylesR	TR014	2037.89	DoylesR-TR014-2037.89	126.45	126.51	126.52	126.5	126.53	126.56	126.6	126.62	126.61	126.65
DoylesR	TR014	205.76	DoylesR-TR014-205.76	96.03	96.08	96.11	96.08	96.13	96.17	96.21	96.22	96.22	96.23
DoylesR	TR014	2057.49	DoylesR-TR014-2057.49	126.45	126.51	126.52	126.5	126.53	126.56	126.6	126.62	126.61	126.65
DoylesR	TR014	227.09	DoylesR-TR014-227.09	96.31	96.37	96.4	96.37	96.41	96.45	96.5	96.53	96.52	96.54
DoylesR	TR014	312.09	DoylesR-TR014-312.09	97.44	97.45	97.47	97.45	97.47	97.48	97.49	97.5	97.5	97.5
DoylesR	TR014	331.91	DoylesR-TR014-331.91	97.73	97.8	97.83	97.8	97.86	97.91	97.97	98	97.99	98.02
DoylesR	TR014	335	DoylesR-TR014-335	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge
DoylesR	TR014	34.73	DoylesR-TR014-34.73	92.37	92.42	92.43	92.42	92.44	92.48	92.52	92.55	92.54	92.56
DoylesR	TR014	343.01	DoylesR-TR014-343.01	98.08	98.18	98.22	98.17	98.25	98.31	98.43	98.48	98.46	98.51
DoylesR	TR014	368.05	DoylesR-TR014-368.05	98.33	98.35	98.37	98.35	98.38	98.39	98.42	98.45	98.44	98.46
DoylesR	TR014	426.15	DoylesR-TR014-426.15	99.71	99.78	99.81	99.78	99.82	99.89	99.92	99.94	99.93	99.94
DoylesR	TR014	484.27	DoylesR-TR014-484.27	100.49	100.51	100.6	100.51	100.62	100.66	100.71	100.73	100.73	100.75
DoylesR	TR014	505	DoylesR-TR014-505	101.3	101.44	101.55	101.44	101.55	101.55	101.55	101.55	101.55	101.55
DoylesR	TR014	510	DoylesR-TR014-510	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert
DoylesR	TR014	519.25	DoylesR-TR014-519.25	102.08	102.3	101.76	102.28	101.76	101.78	101.8	101.81	101.81	101.81

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				Existing	2020 AMEC	2050 AMEC	2050 Finnis	2080 AMEC	Existing	2020 AMEC	2050 AMEC	2050 Finnis	2080 AMEC
DoylesR	TR014	540.83	DoylesR-TR014-540.83	102.07	102.29	101.66	102.27	101.64	101.64	101.57	101.52	101.56	101.54
DoylesR	TR014	601.44	DoylesR-TR014-601.44	102.18	102.29	102.12	102.27	102.24	102.3	102.41	102.47	102.44	102.48
DoylesR	TR014	676.43	DoylesR-TR014-676.43	103.07	103.14	103.16	103.13	103.16	103.19	103.24	103.27	103.26	103.28
DoylesR	TR014	717.94	DoylesR-TR014-717.94	103.85	103.88	103.9	103.88	103.93	103.99	104.02	104.03	104.03	104.04
DoylesR	TR014	751.27	DoylesR-TR014-751.27	104.16	104.2	104.22	104.2	104.24	104.27	104.32	104.34	104.33	104.35
DoylesR	TR014	783.28	DoylesR-TR014-783.28	105.01	105.07	105.1	105.07	105.11	105.15	105.19	105.22	105.21	105.23
DoylesR	TR014	811.48	DoylesR-TR014-811.48	105.46	105.53	105.55	105.52	105.57	105.62	105.67	105.7	105.69	105.72
DoylesR	TR014	816.09	DoylesR-TR014-816.09	105.34	105.37	105.38	105.37	105.38	105.41	105.43	105.43	105.43	105.44
DoylesR	TR014	836.52	DoylesR-TR014-836.52	105.97	106.03	106.06	106.02	106.07	106.1	106.14	106.19	106.19	106.21
DoylesR	TR014	844.06	DoylesR-TR014-844.06	106.15	106.21	106.24	106.21	106.26	106.31	106.36	106.38	106.37	106.38
DoylesR	TR014	864.98	DoylesR-TR014-864.98	106.54	106.62	106.63	106.62	106.64	106.68	106.79	106.82	106.81	106.83
DoylesR	TR014	868.8	DoylesR-TR014-868.8	106.72	106.77	106.74	106.75	106.75	106.86	106.9	106.93	106.91	106.95
DoylesR	TR014	907.24	DoylesR-TR014-907.24	107.26	107.28	107.29	107.36	107.3	107.31	107.43	107.33	107.33	107.34
DoylesR	TR014	934.37	DoylesR-TR014-934.37	107.79	107.84	107.85	107.84	107.85	107.88	107.92	107.96	107.95	107.97
DoylesR	TR014	954.47	DoylesR-TR014-954.47	108.53	108.54	108.56	108.53	108.62	108.64	108.69	108.71	108.71	108.73
DoylesR	TR014	980.74	DoylesR-TR014-980.74	108.84	108.9	108.93	108.9	108.93	108.96	109	109.01	109.01	109.02
DoylesR	TR015	1851.62	DoylesR-TR015-1851.62	92.64	92.83	92.86	92.82	92.84	92.87	92.86	93.13	93.11	93.19
DoylesR	TR015	1921.75	DoylesR-TR015-1921.75	93.32	93.36	93.4	93.35	93.42	93.47	93.54	93.53	93.52	93.54
DoylesR	TR015	1972.14	DoylesR-TR015-1972.14	93.67	93.74	93.74	93.74	93.66	93.67	93.76	93.78	93.76	93.77
DoylesR	TR015	2024.01	DoylesR-TR015-2024.01	94.17	94.19	94.21	94.19	94.29	94.31	94.28	94.28	94.29	94.3
DoylesR	TR015	2075.88	DoylesR-TR015-2075.88	94.72	94.75	94.76	94.75	94.77	94.81	94.83	94.85	94.84	94.85
DoylesR	TR015	2119.11	DoylesR-TR015-2119.11	95.42	95.45	95.48	95.45	95.49	95.53	95.54	95.55	95.54	95.55
DoylesR	TR015	2160.12	DoylesR-TR015-2160.12	95.86	95.9	95.92	95.9	95.93	95.95	96.01	96.03	96.02	96.04
DoylesR	TR015	2231.5	DoylesR-TR015-2231.5	96.57	96.61	96.64	96.61	96.66	96.71	96.72	96.74	96.74	96.75
DoylesR	TR015	2283.37	DoylesR-TR015-2283.37	97.02	97.09	97.13	97.09	97.14	97.19	97.25	97.28	97.27	97.3
DoylesR	TR015	2352.45	DoylesR-TR015-2352.45	97.19	97.25	97.28	97.25	97.3	97.34	97.41	97.44	97.43	97.45
DoylesR	TR015	2387.12	DoylesR-TR015-2387.12	97.22	97.28	97.31	97.28	97.33	97.37	97.43	97.46	97.45	97.47
DoylesR	TR015	2438.99	DoylesR-TR015-2438.99	97.35	97.37	97.39	97.37	97.4	97.43	97.48	97.5	97.49	97.51
DoylesR	TR015	2483.94	DoylesR-TR015-2483.94	97.64	97.66	97.67	97.66	97.68	97.69	97.7	97.71	97.7	97.71
DoylesR	TR015	2522.34	DoylesR-TR015-2522.34	98.14	98.16	98.16	98.16	98.17	98.19	98.2	98.23	98.24	98.23
DoylesR	TR015	2557.12	DoylesR-TR015-2557.12	98.48	98.51	98.55	98.51	98.56	98.58	98.63	98.64	98.62	98.65
DoylesR	TR015	2593.26	DoylesR-TR015-2593.26	98.74	98.79	98.67	98.79	98.82	98.85	98.87	98.9	98.89	98.91
DoylesR	TR015	2638.14	DoylesR-TR015-2638.14	99.69	99.72	99.73	99.72	99.74	99.76	99.77	99.78	99.77	99.78
DoylesR	TR015	2687.77	DoylesR-TR015-2687.77	100.65	100.67	100.68	100.66	100.68	100.7	100.73	100.74	100.74	100.74
DoylesR	TR015	2742.98	DoylesR-TR015-2742.98	101.62	101.65	101.66	101.65	101.66	101.68	101.69	101.7	101.7	101.7
DoylesR	TR015	2804.73	DoylesR-TR015-2804.73	102.44	102.47	102.48	102.46	102.49	102.51	102.55	102.57	102.56	102.57
DoylesR	TR015	2841.04	DoylesR-TR015-2841.04	102.92	102.94	102.95	102.94	102.95	102.97	102.99	103	102.99	103
DoylesR	TR015	2867.64	DoylesR-TR015-2867.64	104.4	104.47	104.49	104.47	104.5	104.53	104.56	104.57	104.57	104.58
DoylesR	TR015	2915.6	DoylesR-TR015-2915.6	105.53	105.57	105.6	105.57	105.61	105.64	105.67	105.69	105.68	105.7
DoylesR	TR015	2963.3	DoylesR-TR015-2963.3	106.49	106.53	106.55	106.53	106.56	106.58	106.62	106.63	106.63	106.64
DoylesR	TR015	2988.77	DoylesR-TR015-2988.77	107.83	107.96	107.99	107.9	108.01	108.09	108.12	108.14	108.13	108.14
DoylesR	TR015	3000	DoylesR-TR015-3000	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert
DoylesR	TR015	3001.28	DoylesR-TR015-3001.28	109.09	109.12	109.13	109.11	109.14	109.16	109.18	109.2	109.19	109.2
DoylesR	TR015	3026.43	DoylesR-TR015-3026.43	109.08	109.11	109.12	109.1	109.13	109.15	109.17	109.18	109.18	109.18
DoylesR	TR015	3079.97	DoylesR-TR015-3079.97	108.95	109.03	109.06	109.03	109.07	109.11	109.16	109.19	109.18	109.21

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DoylesR	TR015	3133.58	DoylesR-TR015-3133.58	111.37	111.37	111.39	111.37	111.39	111.41	111.43	111.44	111.44	111.45
DoylesR	TR015	3185.04	DoylesR-TR015-3185.04	112.06	112.11	112.12	112.11	112.13	112.15	112.17	112.19	112.18	112.19
DoylesR	TR015	3230.71	DoylesR-TR015-3230.71	112.48	112.5	112.51	112.5	112.52	112.54	112.56	112.57	112.57	112.57
DoylesR	TR016	165.43	DoylesR-TR016-165.43	114.33	114.37	114.38	114.37	114.38	114.38	114.4	114.41	114.4	114.41
DoylesR	TR016	218.88	DoylesR-TR016-218.88	114.71	114.81	114.82	114.81	114.83	114.84	114.84	114.82	114.84	114.81
DoylesR	TR016	274.18	DoylesR-TR016-274.18	115.3	115.32	115.33	115.32	115.33	115.32	115.34	115.33	115.34	115.34
DoylesR	TR016	329.99	DoylesR-TR016-329.99	116.13	116.15	116.16	116.15	116.17	116.17	116.18	116.18	116.18	116.19
DoylesR	TR016	384.99	DoylesR-TR016-384.99	117.49	117.49	117.48	117.49	117.48	117.49	117.51	117.53	117.52	117.53
DoylesR	TR016	40.19	DoylesR-TR016-40.19	112.75	112.78	112.79	112.78	112.8	112.81	112.83	112.84	112.84	112.85
DoylesR	TR016	439.99	DoylesR-TR016-439.99	119.61	119.66	119.69	119.66	119.71	119.73	119.75	119.75	119.74	119.76
DoylesR	TR016	459.95	DoylesR-TR016-459.95	120.04	120.06	120.07	120.06	120.08	120.09	120.11	120.12	120.12	120.13
DoylesR	TR016	473.82	DoylesR-TR016-473.82	120.64	120.66	120.67	120.66	120.68	120.69	120.7	120.71	120.7	120.71
DoylesR	TR016	494.31	DoylesR-TR016-494.31	121.48	121.49	121.51	121.49	121.52	121.54	121.57	121.59	121.58	121.6
DoylesR	TR016	549.37	DoylesR-TR016-549.37	122.88	122.92	122.94	122.92	122.94	122.95	122.96	122.97	122.96	122.97
DoylesR	TR016	610.5	DoylesR-TR016-610.5	124.18	124.21	124.22	124.21	124.23	124.26	124.28	124.3	124.29	124.3
DoylesR	TR016	632.8	DoylesR-TR016-632.8	125.23	125.24	125.26	125.24	125.26	125.26	125.27	125.28	125.28	125.28
DoylesR	TR016	659.39	DoylesR-TR016-659.39	125.4	125.42	125.43	125.42	125.44	125.45	125.46	125.47	125.46	125.48
DoylesR	TR016	675.95	DoylesR-TR016-675.95	126.06	126.07	126.08	126.07	126.08	126.08	126.09	126.1	126.1	126.1
DoylesR	TR016	714.09	DoylesR-TR016-714.09	126.33	126.35	126.36	126.35	126.36	126.37	126.38	126.38	126.38	126.39
DoylesR	TR016	768.99	DoylesR-TR016-768.99	126.62	126.63	126.64	126.63	126.64	126.65	126.66	126.67	126.66	126.67
DoylesR	TR016	818.98	DoylesR-TR016-818.98	126.81	126.68	126.67	126.68	126.67	126.67	126.68	126.68	126.68	126.68
DoylesR	TR016	848.13	DoylesR-TR016-848.13	127.33	127.41	127.46	127.41	127.49	127.54	127.62	127.66	127.64	127.69
DoylesR	TR016	850	DoylesR-TR016-850	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert
DoylesR	TR016	86.48	DoylesR-TR016-86.48	113.21	113.2	113.22	113.2	113.23	113.25	113.26	113.25	113.25	113.26
DoylesR	TR016	877.71	DoylesR-TR016-877.71	128.73	128.73	128.73	128.73	128.73	128.74	128.74	128.74	128.74	128.75
DoylesR	TR016	882.28	DoylesR-TR016-882.28	128.73	128.73	128.73	128.73	128.73	128.74	128.74	128.74	128.74	128.75
DoylesR	TR016	890	DoylesR-TR016-890	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert
DoylesR	TR016	898.71	DoylesR-TR016-898.71	128.79	128.8	128.8	128.8	128.8	128.8	128.79	128.79	128.8	128.8
DoylesR	TR016	918.87	DoylesR-TR016-918.87	128.79	128.8	128.8	128.8	128.8	128.8	128.79	128.79	128.8	128.8
DoylesR	TR017	3300.07	DoylesR-TR017-3300.07	112.92	112.95	112.96	112.95	112.97	112.98	113	113.01	113	113.01
DoylesR	TR017	3345.48	DoylesR-TR017-3345.48	113.51	113.54	113.56	113.54	113.56	113.56	113.57	113.58	113.58	113.57
DoylesR	TR017	3432.55	DoylesR-TR017-3432.55	114.47	114.49	114.49	114.49	114.5	114.52	114.54	114.55	114.55	114.56
DoylesR	TR017	3483.93	DoylesR-TR017-3483.93	114.9	114.93	114.93	114.92	114.94	114.94	114.95	114.96	114.85	114.96
DoylesR	TR017	3545.42	DoylesR-TR017-3545.42	115.74	115.76	115.78	115.77	115.78	115.78	115.79	115.87	115.86	115.88
DoylesR	TR017	3571.14	DoylesR-TR017-3571.14	116.26	116.29	116.29	116.27	116.3	116.29	116.29	116.31	116.31	116.31
DoylesR	TR017	3583.4	DoylesR-TR017-3583.4	116.53	116.47	116.53	116.47	116.54	116.6	116.62	116.63	116.62	116.63
DoylesR	TR017	3603.67	DoylesR-TR017-3603.67	116.94	116.96	117.02	116.96	117.04	117	117.01	117.02	117.02	117.03
DoylesR	TR017	3656.84	DoylesR-TR017-3656.84	118	118.03	118.04	118.03	118.05	118.07	118.1	118.11	118.11	118.12
DoylesR	TR017	3679.05	DoylesR-TR017-3679.05	120.65	120.69	120.71	120.69	120.72	120.75	120.77	120.78	120.78	120.79
DoylesR	TR017	3692.45	DoylesR-TR017-3692.45	120.91	120.94	120.95	120.93	120.96	120.98	121	121.01	121.01	121.02
DoylesR	TR017	3713.18	DoylesR-TR017-3713.18	121.5	121.54	121.55	121.54	121.57	121.59	121.61	121.63	121.62	121.64
DoylesR	TR017	3745.98	DoylesR-TR017-3745.98	122.37	122.38	122.39	122.38	122.39	122.4	122.41	122.42	122.41	122.42
DoylesR	TR017	3768.91	DoylesR-TR017-3768.91	123.1	123.15	123.17	123.15	123.19	123.24	123.24	123.27	123.26	123.28
DoylesR	TR017	3781.64	DoylesR-TR017-3781.64	123.39	123.45	123.48	123.44	123.49	123.53	123.59	123.61	123.6	123.63
DoylesR	TR017	3889.37	DoylesR-TR017-3889.37	123.75	123.77	123.77	123.77	123.79	123.8	123.8	123.81	123.81	123.82

Reach	Reach Name	Section No.	HEC-RAS ref.	20 Year AEP					100 Year AEP				
				Existing	2020 AMEC	2050 AMEC	2050 Finnis	2080 AMEC	Existing	2020 AMEC	2050 AMEC	2050 Finnis	2080 AMEC
DoylesR	TR017	3923.93	DoylesR-TR017-3923.93	124.59	124.6	124.61	124.6	124.61	124.63	124.62	124.63	124.63	124.63
DoylesR	TR017	3983.69	DoylesR-TR017-3983.69	124.88	124.92	124.93	124.91	124.94	124.96	124.98	124.99	124.99	125
DoylesR	TR017	4043.45	DoylesR-TR017-4043.45	124.99	125.03	125.04	125.03	125.05	125.07	125.1	125.11	125.1	125.11
DoylesR	TR018	131.43	DoylesR-TR018-131.43	125.44	125.45	125.45	125.45	125.45	125.44	125.45	125.45	125.45	125.45
DoylesR	TR018	169.24	DoylesR-TR018-169.24	126.12	126.1	126.13	126.1	126.17	126.24	126.25	126.27	126.27	126.3
DoylesR	TR018	200	DoylesR-TR018-200	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert
DoylesR	TR018	244.68	DoylesR-TR018-244.68	127.64	127.92	128.22	127.92	128.5	128.51	128.51	128.51	128.51	128.52
DoylesR	TR018	257.62	DoylesR-TR018-257.62	127.69	127.96	128.26	127.96	128.5	128.51	128.51	128.51	128.51	128.52
DoylesR	TR018	260	DoylesR-TR018-260	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert
DoylesR	TR018	270.53	DoylesR-TR018-270.53	128.01	128.02	128.26	128.02	128.5	128.51	128.51	128.51	128.51	128.52
DoylesR	TR018	302.01	DoylesR-TR018-302.01	128.05	128.06	128.26	128.06	128.5	128.51	128.51	128.51	128.51	128.52
DoylesR	TR018	59.79	DoylesR-TR018-59.79	125.07	125.11	125.12	125.1	125.13	125.15	125.17	125.18	125.18	125.19
DoylesR	TR019	100	DoylesR-TR019-100	125.02	125.06	125.07	125.05	125.08	125.1	125.13	125.14	125.13	125.14
DoylesR	TR019	150	DoylesR-TR019-150	125.02	125.06	125.07	125.05	125.08	125.1	125.13	125.14	125.13	125.14
DoylesR	TR019	199.72	DoylesR-TR019-199.72	125.02	125.06	125.07	125.05	125.08	125.1	125.13	125.14	125.13	125.14
DoylesR	TR019	260.51	DoylesR-TR019-260.51	125.02	125.06	125.07	125.05	125.08	125.1	125.13	125.14	125.13	125.14
DoylesR	TR019	50	DoylesR-TR019-50	125.02	125.06	125.07	125.05	125.08	125.1	125.13	125.14	125.13	125.14
ForestP	M001	1019.12	ForestP-M001-1019.12	79.69	79.7	79.73	79.7	79.72	79.74	79.75	79.76	79.76	79.77
ForestP	M001	1077.28	ForestP-M001-1077.28	79.69	79.7	79.73	79.7	79.72	79.74	79.75	79.76	79.76	79.77
ForestP	M001	1138.84	ForestP-M001-1138.84	79.69	79.7	79.73	79.7	79.72	79.74	79.75	79.76	79.76	79.77
ForestP	M001	1228.83	ForestP-M001-1228.83	79.69	79.7	79.73	79.7	79.72	79.74	79.75	79.76	79.76	79.77
ForestP	M001	1315.71	ForestP-M001-1315.71	79.69	79.7	79.73	79.7	79.72	79.74	79.75	79.76	79.76	79.77
ForestP	M001	1428.05	ForestP-M001-1428.05	79.69	79.7	79.73	79.7	79.72	79.74	79.75	79.76	79.76	79.77
ForestP	M001	1557.91	ForestP-M001-1557.91	79.69	79.71	79.73	79.7	79.72	79.74	79.75	79.76	79.76	79.77
ForestP	M001	158.37	ForestP-M001-158.37	69.18	69.33	69.4	69.32	69.45	69.55	69.69	69.76	69.73	69.8
ForestP	M001	195.51	ForestP-M001-195.51	69.18	69.33	69.4	69.32	69.45	69.55	69.69	69.76	69.73	69.8
ForestP	M001	277.95	ForestP-M001-277.95	69.18	69.33	69.4	69.32	69.45	69.55	69.69	69.76	69.73	69.8
ForestP	M001	328.07	ForestP-M001-328.07	69.18	69.33	69.4	69.32	69.45	69.55	69.69	69.76	69.73	69.8
ForestP	M001	378.18	ForestP-M001-378.18	69.18	69.33	69.4	69.32	69.45	69.55	69.69	69.76	69.73	69.8
ForestP	M001	430.82	ForestP-M001-430.82	69.18	69.33	69.4	69.32	69.45	69.55	69.69	69.76	69.73	69.8
ForestP	M001	478.55	ForestP-M001-478.55	69.19	69.33	69.41	69.33	69.45	69.55	69.69	69.76	69.74	69.81
ForestP	M001	528.92	ForestP-M001-528.92	69.23	69.34	69.41	69.33	69.46	69.56	69.69	69.77	69.74	69.81
ForestP	M001	578.6	ForestP-M001-578.6	69.9	69.9	69.85	69.89	69.85	69.93	69.92	69.93	69.93	69.93
ForestP	M001	600.44	ForestP-M001-600.44	70.25	70.3	70.27	70.3	70.28	70.32	70.35	70.36	70.36	70.36
ForestP	M001	651.32	ForestP-M001-651.32	71.38	71.4	71.41	71.4	71.41	71.44	71.44	71.45	71.45	71.46
ForestP	M001	688.06	ForestP-M001-688.06	72.35	72.37	72.38	72.36	72.38	72.4	72.43	72.43	72.43	72.43
ForestP	M001	737.48	ForestP-M001-737.48	73.37	73.45	73.46	73.45	73.47	73.49	73.45	73.46	73.45	73.46
ForestP	M001	772.9	ForestP-M001-772.9	74.47	74.5	74.51	74.49	74.52	74.55	74.57	74.58	74.58	74.59
ForestP	M001	802.91	ForestP-M001-802.91	75.36	75.39	75.41	75.39	75.41	75.45	75.48	75.5	75.49	75.51
ForestP	M001	831.71	ForestP-M001-831.71	76.63	76.67	76.69	76.66	76.7	76.73	76.76	76.78	76.77	76.78
ForestP	M001	859.61	ForestP-M001-859.61	77.38	77.41	77.44	77.41	77.42	77.46	77.5	77.52	77.51	77.52
ForestP	M001	883.23	ForestP-M001-883.23	78.29	78.31	78.32	78.31	78.34	78.36	78.36	78.36	78.36	78.37
ForestP	M001	89.11	ForestP-M001-89.11	69.18	69.33	69.4	69.32	69.45	69.55	69.69	69.76	69.73	69.8
ForestP	M001	913.34	ForestP-M001-913.34	79	79.03	79.06	79.02	79.01	79.04	79.09	79.11	79.1	79.11
ForestP	M001	949.85	ForestP-M001-949.85	79.44	79.49	79.5	79.49	79.57	79.6	79.61	79.62	79.62	79.63

				20 Year AEP					100 Year AEP				
Reach	Reach Name	Section No.	HEC-RAS ref.	Existing	2020 AMEC	2050 AMEC	2050 Finnis	2080 AMEC	Existing	2020 AMEC	2050 AMEC	2050 Finnis	2080 AMEC
ForestP	M001	955	ForestP-M001-955	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert
ForestP	M001	958.61	ForestP-M001-958.61	79.67	79.68	79.71	79.68	79.7	79.71	79.72	79.73	79.73	79.74
ForthP	M001	1011.12	ForthP-M001-1011.12	112.38	112.4	112.41	112.4	112.42	112.44	112.46	112.47	112.47	112.48
ForthP	M001	1031.9	ForthP-M001-1031.9	113.26	113.28	113.28	113.28	113.28	113.29	113.31	113.32	113.32	113.33
ForthP	M001	1041.93	ForthP-M001-1041.93	113.48	113.5	113.6	113.49	113.63	113.7	113.72	113.73	113.72	113.73
ForthP	M001	1062.35	ForthP-M001-1062.35	113.87	113.9	113.92	113.9	113.93	113.96	113.99	114.01	114.01	114.01
ForthP	M001	1112.05	ForthP-M001-1112.05	115.63	115.67	115.68	115.66	115.68	115.71	115.74	115.75	115.75	115.75
ForthP	M001	1161.66	ForthP-M001-1161.66	118.07	118.11	118.14	118.11	118.15	118.17	118.19	118.2	118.2	118.2
ForthP	M001	1211.51	ForthP-M001-1211.51	120.76	120.82	120.85	120.82	120.86	120.91	120.99	121.02	121.01	121.03
ForthP	M001	124.3	ForthP-M001-124.3	90.6	90.62	90.63	90.61	90.63	90.64	90.65	90.74	90.74	90.74
ForthP	M001	1261.17	ForthP-M001-1261.17	122.57	122.65	122.69	122.64	122.7	122.77	122.78	122.8	122.79	122.8
ForthP	M001	1311.12	ForthP-M001-1311.12	123.39	123.45	123.47	123.44	123.49	123.54	123.62	123.66	123.65	123.67
ForthP	M001	1360.5	ForthP-M001-1360.5	123.84	123.86	123.87	123.86	123.87	123.9	123.92	123.93	123.93	123.93
ForthP	M001	1381.72	ForthP-M001-1381.72	123.99	124.04	124.06	124.04	124.07	124.1	124.14	124.15	124.15	124.16
ForthP	M001	1390	ForthP-M001-1390	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert
ForthP	M001	1392.58	ForthP-M001-1392.58	124.32	124.34	124.35	124.33	124.36	124.37	124.38	124.39	124.38	124.39
ForthP	M001	144.74	ForthP-M001-144.74	90.75	90.78	90.79	90.77	90.8	90.82	90.85	90.84	90.84	90.85
ForthP	M001	1496.6	ForthP-M001-1496.6	124.32	124.34	124.35	124.34	124.36	124.38	124.38	124.39	124.39	124.39
ForthP	M001	150	ForthP-M001-150	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert	Culvert
ForthP	M001	1572.85	ForthP-M001-1572.85	124.32	124.34	124.35	124.34	124.36	124.38	124.38	124.39	124.39	124.39
ForthP	M001	160.27	ForthP-M001-160.27	91.83	91.87	91.88	91.86	91.88	91.91	91.93	91.95	91.95	91.95
ForthP	M001	1773.83	ForthP-M001-1773.83	124.32	124.34	124.35	124.34	124.36	124.38	124.38	124.39	124.39	124.4
ForthP	M001	182.03	ForthP-M001-182.03	91.82	91.86	91.88	91.85	91.87	91.9	91.92	91.94	91.94	91.94
ForthP	M001	1955.13	ForthP-M001-1955.13	124.32	124.34	124.35	124.34	124.36	124.38	124.38	124.39	124.39	124.4
ForthP	M001	2187.52	ForthP-M001-2187.52	124.32	124.34	124.35	124.34	124.36	124.38	124.38	124.39	124.39	124.4
ForthP	M001	2324.32	ForthP-M001-2324.32	124.32	124.34	124.35	124.34	124.36	124.38	124.39	124.39	124.39	124.4
ForthP	M001	246.28	ForthP-M001-246.28	92.29	92.29	92.29	92.29	92.29	92.3	92.3	92.31	92.31	92.31
ForthP	M001	2528.45	ForthP-M001-2528.45	124.32	124.35	124.35	124.34	124.36	124.38	124.39	124.4	124.39	124.4
ForthP	M001	2616.9	ForthP-M001-2616.9	124.32	124.35	124.35	124.34	124.36	124.38	124.39	124.4	124.39	124.4
ForthP	M001	297.76	ForthP-M001-297.76	93.31	93.33	93.34	93.32	93.34	93.35	93.37	93.38	93.37	93.37
ForthP	M001	349.18	ForthP-M001-349.18	94	94.03	94.03	94.02	94.04	94.06	94.08	94.09	94.08	94.09
ForthP	M001	402.29	ForthP-M001-402.29	95.4	95.42	95.43	95.42	95.44	95.45	95.47	95.47	95.47	95.46
ForthP	M001	453.33	ForthP-M001-453.33	96.79	96.81	96.81	96.81	96.81	96.82	96.83	96.84	96.84	96.84
ForthP	M001	507.84	ForthP-M001-507.84	99.43	99.45	99.45	99.45	99.46	99.47	99.48	99.49	99.49	99.49
ForthP	M001	557.33	ForthP-M001-557.33	101.14	101.16	101.17	101.16	101.17	101.18	101.19	101.2	101.19	101.2
ForthP	M001	577.3	ForthP-M001-577.3	102.01	102.02	102.03	102.02	102.03	102.05	102.06	102.07	102.06	102.07
ForthP	M001	585.13	ForthP-M001-585.13	102.24	102.26	102.27	102.26	102.27	102.28	102.29	102.3	102.29	102.3
ForthP	M001	605.63	ForthP-M001-605.63	103.05	103.03	103.04	103.03	103.04	103.04	103.04	103.04	103.04	103.04
ForthP	M001	61.58	ForthP-M001-61.58	89.64	89.68	89.69	89.67	89.7	89.73	89.76	89.72	89.72	89.73
ForthP	M001	654.47	ForthP-M001-654.47	104.63	104.73	104.77	104.72	104.79	104.91	105.1	105.23	105.19	105.29
ForthP	M001	703.65	ForthP-M001-703.65	105.81	105.82	105.84	105.82	105.84	105.86	105.88	105.9	105.9	105.9
ForthP	M001	724.3	ForthP-M001-724.3	106.24	106.29	106.3	106.29	106.31	106.3	106.33	106.34	106.33	106.34
ForthP	M001	734.5	ForthP-M001-734.5	106.31	106.35	106.37	106.34	106.38	106.43	106.47	106.44	106.44	106.45
ForthP	M001	754.78	ForthP-M001-754.78	106.92	106.95	106.96	106.95	106.97	106.99	107.01	107.08	107.07	107.09
ForthP	M001	806.25	ForthP-M001-806.25	107.8	107.82	107.82	107.82	107.82	107.83	107.84	107.85	107.84	107.85

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				Existing	2020 AMEC	2050 AMEC	2050 Finnis	2080 AMEC	Existing	2020 AMEC	2050 AMEC	2050 Finnis	2080 AMEC
ForthP	M001	856.39	ForthP-M001-856.39	108.68	108.7	108.71	108.69	108.72	108.73	108.75	108.75	108.75	108.76
ForthP	M001	908.93	ForthP-M001-908.93	109.7	109.72	109.72	109.72	109.72	109.61	109.74	109.75	109.75	109.75
ForthP	M001	959.76	ForthP-M001-959.76	110.92	110.94	110.95	110.94	110.95	110.96	110.98	110.99	110.98	110.99
PettyHR	M001	1003.3	PettyHR-M001-1003.3	24.52	24.68	24.78	24.68	24.88	24.96	25.13	25.23	25.2	25.32
PettyHR	M001	1021.54	PettyHR-M001-1021.54	26.85	26.93	26.96	26.92	27	27.03	27.13	27.16	27.14	27.31
PettyHR	M001	1048.77	PettyHR-M001-1048.77	27.34	27.4	27.45	27.4	27.48	27.52	27.59	27.63	27.61	27.67
PettyHR	M001	105.74	PettyHR-M001-105.74	2.56	2.62	2.83	2.83	3.19	2.57	2.63	2.84	2.84	3.19
PettyHR	M001	1059.48	PettyHR-M001-1059.48	27.97	28.03	28.08	28.03	28.11	28.14	28.2	28.23	28.22	28.28
PettyHR	M001	1090.65	PettyHR-M001-1090.65	29.17	29.24	29.27	29.23	29.31	29.34	29.4	29.44	29.42	29.47
PettyHR	M001	1125.74	PettyHR-M001-1125.74	30.36	30.43	30.47	30.42	30.51	30.54	30.61	30.64	30.63	30.69
PettyHR	M001	1153.41	PettyHR-M001-1153.41	31.59	31.67	31.72	31.67	31.77	31.81	31.89	31.93	31.92	31.98
PettyHR	M001	1164.99	PettyHR-M001-1164.99	32.67	32.77	32.82	32.76	32.88	32.92	33.01	33.05	33.04	33.1
PettyHR	M001	12.04	PettyHR-M001-12.04	2.55	2.61	2.82	2.82	3.18	2.55	2.61	2.82	2.82	3.18
PettyHR	M001	1203.34	PettyHR-M001-1203.34	33.77	33.83	33.86	33.82	33.89	33.91	33.96	33.99	33.98	34.01
PettyHR	M001	1221.17	PettyHR-M001-1221.17	34.35	34.45	34.51	34.44	34.56	34.61	34.71	34.76	34.74	34.92
PettyHR	M001	1258.06	PettyHR-M001-1258.06	36.07	36.24	36.34	36.24	36.44	36.54	36.73	36.83	36.79	36.92
PettyHR	M001	1279.2	PettyHR-M001-1279.2	36.84	37.05	37.18	37.04	37.27	37.34	37.47	37.54	37.51	37.67
PettyHR	M001	1309.35	PettyHR-M001-1309.35	39.51	39.61	39.66	39.61	39.71	39.76	39.85	39.89	39.88	39.94
PettyHR	M001	1336.64	PettyHR-M001-1336.64	41.2	41.29	41.35	41.29	41.4	41.45	41.54	41.6	41.58	41.66
PettyHR	M001	1362.66	PettyHR-M001-1362.66	41.59	41.8	41.92	41.79	42.04	42.13	42.34	42.45	42.41	42.56
PettyHR	M001	1370.82	PettyHR-M001-1370.82	43.2	43.37	43.46	43.36	43.56	43.63	43.79	43.87	43.84	43.96
PettyHR	M001	1385.41	PettyHR-M001-1385.41	44.46	44.6	44.68	44.59	44.75	44.81	44.93	45	44.98	45.08
PettyHR	M001	1402.15	PettyHR-M001-1402.15	49.2	49.32	49.34	49.31	49.45	49.55	49.65	49.69	49.68	49.77
PettyHR	M001	1415.17	PettyHR-M001-1415.17	49.62	49.76	49.86	49.76	49.93	49.98	50.1	50.16	50.14	50.23
PettyHR	M001	1444.51	PettyHR-M001-1444.51	49.16	49.24	49.28	49.23	49.32	49.35	49.43	49.47	49.45	49.51
PettyHR	M001	1457.3	PettyHR-M001-1457.3	51.57	51.7	51.79	51.7	51.87	51.94	52.07	52.13	52.11	52.2
PettyHR	M001	1467.14	PettyHR-M001-1467.14	51.94	52.05	52.1	52.05	52.17	52.2	52.37	52.44	52.42	52.53
PettyHR	M001	150.84	PettyHR-M001-150.84	2.56	2.62	2.83	2.83	3.19	2.57	2.63	2.84	2.84	3.19
PettyHR	M001	1519.66	PettyHR-M001-1519.66	53.04	53.12	53.17	53.12	53.22	53.25	53.31	53.35	53.34	53.39
PettyHR	M001	1571.98	PettyHR-M001-1571.98	54.23	54.34	54.4	54.34	54.47	54.53	54.66	54.72	54.7	54.8
PettyHR	M001	1586.16	PettyHR-M001-1586.16	54.9	55.03	55.09	55.02	55.14	55.22	55.37	55.45	55.42	55.58
PettyHR	M001	1601.08	PettyHR-M001-1601.08	55.69	55.67	55.69	55.67	55.71	56.22	56.35	56.41	56.4	56.51
PettyHR	M001	1615.46	PettyHR-M001-1615.46	56.23	56.56	56.74	56.54	56.95	56.7	56.84	56.92	56.89	57
PettyHR	M001	1631.79	PettyHR-M001-1631.79	64.48	64.61	64.68	64.61	64.75	64.81	64.94	65.01	64.99	65.07
PettyHR	M001	1647.8	PettyHR-M001-1647.8	64.67	64.82	64.91	64.81	64.99	65.07	65.22	65.31	65.28	65.39
PettyHR	M001	1668.81	PettyHR-M001-1668.81	64.67	64.82	64.91	64.81	64.99	65.07	65.22	65.31	65.28	65.39
PettyHR	M001	1724.7	PettyHR-M001-1724.7	64.66	64.82	64.9	64.81	64.99	65.07	65.22	65.3	65.28	65.38
PettyHR	M001	1789.72	PettyHR-M001-1789.72	64.67	64.82	64.91	64.82	64.99	65.07	65.23	65.31	65.28	65.39
PettyHR	M001	1824.42	PettyHR-M001-1824.42	64.67	64.82	64.91	64.82	65	65.07	65.23	65.31	65.29	65.39
PettyHR	M001	1879.72	PettyHR-M001-1879.72	64.67	64.83	64.91	64.82	65	65.08	65.23	65.32	65.29	65.4
PettyHR	M001	1902.1	PettyHR-M001-1902.1	64.67	64.83	64.91	64.82	65	65.08	65.24	65.32	65.29	65.4
PettyHR	M001	20.04	PettyHR-M001-20.04	2.56	2.62	2.83	2.83	3.19	2.57	2.63	2.84	2.84	3.19
PettyHR	M001	201.25	PettyHR-M001-201.25	2.56	2.62	2.83	2.83	3.19	2.57	2.63	2.84	2.84	3.19
PettyHR	M001	2022.45	PettyHR-M001-2022.45	64.67	64.83	64.91	64.82	65	65.08	65.24	65.32	65.29	65.4
PettyHR	M001	2204.15	PettyHR-M001-2204.15	64.67	64.83	64.92	64.82	65	65.08	65.24	65.32	65.3	65.41

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PettyHR	M001	2315.39	PettyHR-M001-2315.39	64.67	64.83	64.92	64.82	65	65.08	65.24	65.32	65.3	65.41
PettyHR	M001	238.18	PettyHR-M001-238.18	2.55	2.62	2.83	2.82	3.18	2.56	2.62	2.83	2.83	3.19
PettyHR	M001	2426.14	PettyHR-M001-2426.14	64.67	64.83	64.92	64.82	65	65.08	65.24	65.32	65.3	65.41
PettyHR	M001	2551.09	PettyHR-M001-2551.09	64.67	64.83	64.91	64.82	65	65.08	65.24	65.32	65.29	65.4
PettyHR	M001	2573.39	PettyHR-M001-2573.39	64.66	64.81	64.9	64.81	64.98	65.06	65.21	65.3	65.27	65.37
PettyHR	M001	2580	PettyHR-M001-2580	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge
PettyHR	M001	2583.24	PettyHR-M001-2583.24	64.77	64.97	65.08	64.96	65.18	65.26	65.41	65.48	65.46	65.55
PettyHR	M001	2596.08	PettyHR-M001-2596.08	64.83	65.04	65.15	65.03	65.26	65.33	65.49	65.56	65.54	65.63
PettyHR	M001	2632.46	PettyHR-M001-2632.46	64.84	65.04	65.15	65.03	65.26	65.34	65.49	65.57	65.54	65.64
PettyHR	M001	2653.1	PettyHR-M001-2653.1	64.84	65.05	65.16	65.04	65.27	65.35	65.51	65.58	65.56	65.66
PettyHR	M001	2671.95	PettyHR-M001-2671.95	64.84	65.05	65.16	65.04	65.27	65.35	65.51	65.58	65.56	65.66
PettyHR	M001	269.29	PettyHR-M001-269.29	2.56	2.62	2.83	2.83	3.19	2.57	2.63	2.84	2.84	3.19
PettyHR	M001	2712.72	PettyHR-M001-2712.72	64.84	65.05	65.16	65.04	65.27	65.35	65.51	65.59	65.56	65.66
PettyHR	M001	2828.46	PettyHR-M001-2828.46	64.85	65.05	65.17	65.05	65.28	65.35	65.51	65.59	65.56	65.67
PettyHR	M001	2983.09	PettyHR-M001-2983.09	64.85	65.06	65.17	65.05	65.28	65.35	65.51	65.59	65.56	65.67
PettyHR	M001	3028.13	PettyHR-M001-3028.13	64.85	65.06	65.17	65.05	65.28	65.35	65.51	65.59	65.56	65.67
PettyHR	M001	305.38	PettyHR-M001-305.38	2.56	2.62	2.83	2.83	3.19	2.57	2.63	2.84	2.84	3.2
PettyHR	M001	3080.13	PettyHR-M001-3080.13	64.85	65.06	65.17	65.05	65.28	65.35	65.51	65.59	65.56	65.67
PettyHR	M001	3182.65	PettyHR-M001-3182.65	64.85	65.06	65.17	65.05	65.28	65.35	65.51	65.59	65.57	65.67
PettyHR	M001	338.85	PettyHR-M001-338.85	2.56	2.62	2.83	2.83	3.19	2.57	2.64	2.85	2.84	3.2
PettyHR	M001	3440.6	PettyHR-M001-3440.6	64.85	65.06	65.17	65.05	65.28	65.35	65.51	65.59	65.57	65.67
PettyHR	M001	3643.73	PettyHR-M001-3643.73	64.85	65.06	65.17	65.05	65.28	65.35	65.52	65.59	65.57	65.67
PettyHR	M001	367.8	PettyHR-M001-367.8	2.56	2.62	2.83	2.83	3.19	2.57	2.64	2.85	2.84	3.2
PettyHR	M001	3867.05	PettyHR-M001-3867.05	64.85	65.06	65.17	65.05	65.28	65.35	65.52	65.59	65.57	65.67
PettyHR	M001	3925.44	PettyHR-M001-3925.44	64.85	65.06	65.17	65.05	65.28	65.35	65.52	65.59	65.57	65.67
PettyHR	M001	3931.39	PettyHR-M001-3931.39	64.85	65.06	65.17	65.05	65.28	65.35	65.52	65.59	65.57	65.67
PettyHR	M001	3936.78	PettyHR-M001-3936.78	64.85	65.06	65.17	65.05	65.28	65.35	65.52	65.59	65.57	65.67
PettyHR	M001	3949.19	PettyHR-M001-3949.19	64.85	65.06	65.17	65.05	65.28	65.35	65.52	65.59	65.57	65.67
PettyHR	M001	405.68	PettyHR-M001-405.68	2.56	2.62	2.83	2.83	3.19	2.57	2.63	2.84	2.84	3.2
PettyHR	M001	4166.17	PettyHR-M001-4166.17	64.84	65.05	65.16	65.04	65.27	65.34	65.5	65.58	65.55	65.66
PettyHR	M001	4281.82	PettyHR-M001-4281.82	64.82	65.02	65.13	65.01	65.24	65.31	65.46	65.54	65.51	65.61
PettyHR	M001	4357.04	PettyHR-M001-4357.04	64.84	65.06	65.17	65.05	65.28	65.36	65.52	65.6	65.57	65.68
PettyHR	M001	439.27	PettyHR-M001-439.27	2.56	2.62	2.83	2.83	3.19	2.58	2.64	2.85	2.85	3.2
PettyHR	M001	4395.66	PettyHR-M001-4395.66	65.08	65.16	65.25	65.16	65.35	65.43	65.58	65.66	65.63	65.73
PettyHR	M001	4428.2	PettyHR-M001-4428.2	65.58	65.67	65.68	65.66	65.69	65.75	65.83	65.88	65.87	65.93
PettyHR	M001	4461.12	PettyHR-M001-4461.12	65.89	65.94	65.98	65.94	66	66.04	66.1	66.13	66.12	66.15
PettyHR	M001	4500.69	PettyHR-M001-4500.69	66.19	66.27	66.3	66.26	66.32	66.37	66.43	66.46	66.45	66.48
PettyHR	M001	4570.09	PettyHR-M001-4570.09	66.6	66.71	66.77	66.7	66.8	66.88	66.92	66.97	66.94	67.01
PettyHR	M001	4612.84	PettyHR-M001-4612.84	66.89	66.99	67.03	66.98	67.06	67.1	67.04	67.04	67.01	67.1
PettyHR	M001	4675.66	PettyHR-M001-4675.66	67.51	67.71	67.8	67.7	67.86	68	68.25	68.38	68.35	68.42
PettyHR	M001	4757.18	PettyHR-M001-4757.18	68.32	68.53	68.59	68.52	68.62	68.66	68.72	68.75	68.74	68.91
PettyHR	M001	478.84	PettyHR-M001-478.84	2.55	2.61	2.82	2.82	3.18	2.54	2.6	2.82	2.82	3.19
PettyHR	M001	4817.61	PettyHR-M001-4817.61	68.99	69.12	69.18	69.11	69.23	69.32	69.44	69.51	69.48	69.55
PettyHR	M001	485	PettyHR-M001-485	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge
PettyHR	M001	4867.41	PettyHR-M001-4867.41	69.04	69.18	69.24	69.17	69.28	69.37	69.5	69.57	69.54	69.6

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				Existing	2020 AMEC	2050 AMEC	2050 Finnis	2080 AMEC	Existing	2020 AMEC	2050 AMEC	2050 Finnis	2080 AMEC
PettyHR	M001	491.94	PettyHR-M001-491.94	2.55	2.65	2.94	2.9	3.25	2.38	2.37	3.34	3.3	3.5
PettyHR	M001	4923.81	PettyHR-M001-4923.81	69.13	69.27	69.33	69.26	69.38	69.47	69.6	69.67	69.64	69.71
PettyHR	M001	4996.75	PettyHR-M001-4996.75	69.17	69.32	69.39	69.31	69.44	69.54	69.67	69.75	69.72	69.79
PettyHR	M001	525.57	PettyHR-M001-525.57	2.67	2.81	3.05	3	3.32	2.92	3.13	3.45	3.42	3.59
PettyHR	M001	5279.8	PettyHR-M001-5279.8	69.18	69.33	69.4	69.32	69.45	69.55	69.68	69.76	69.73	69.8
PettyHR	M001	5516.39	PettyHR-M001-5516.39	69.18	69.33	69.4	69.32	69.45	69.55	69.68	69.76	69.73	69.8
PettyHR	M001	5685.44	PettyHR-M001-5685.44	69.18	69.33	69.4	69.32	69.45	69.55	69.68	69.76	69.73	69.8
PettyHR	M001	577.97	PettyHR-M001-577.97	3.61	3.66	3.68	3.65	3.71	3.74	3.8	3.82	3.81	3.85
PettyHR	M001	5825.85	PettyHR-M001-5825.85	69.18	69.33	69.4	69.32	69.45	69.55	69.68	69.76	69.73	69.8
PettyHR	M001	622.83	PettyHR-M001-622.83	5.06	5.13	5.17	5.13	5.21	5.24	5.32	5.35	5.34	5.39
PettyHR	M001	633.61	PettyHR-M001-633.61	5.26	5.31	5.35	5.31	5.37	5.4	5.44	5.49	5.47	5.52
PettyHR	M001	652.51	PettyHR-M001-652.51	5.88	5.98	6.04	5.98	6.1	6.15	6.34	6.19	6.37	6.2
PettyHR	M001	666.04	PettyHR-M001-666.04	6.46	6.55	6.59	6.54	6.63	6.67	6.74	7.65	6.76	7.94
PettyHR	M001	685.99	PettyHR-M001-685.99	6.66	6.76	6.81	6.75	6.86	6.91	7.01	7.05	7.04	7.11
PettyHR	M001	707.57	PettyHR-M001-707.57	8.09	8.16	8.2	8.16	8.24	8.27	8.34	8.37	8.36	8.41
PettyHR	M001	720.33	PettyHR-M001-720.33	8.95	9.01	9.04	9	9.08	9.11	9.18	9.22	9.21	9.27
PettyHR	M001	748.76	PettyHR-M001-748.76	10.3	10.51	10.62	10.5	10.71	10.79	10.94	11.01	10.99	11.1
PettyHR	M001	769.86	PettyHR-M001-769.86	12.19	12.33	12.41	12.32	12.48	12.55	12.68	12.75	12.73	12.83
PettyHR	M001	784.11	PettyHR-M001-784.11	13.43	13.53	13.58	13.53	13.64	13.68	13.8	13.84	13.83	13.89
PettyHR	M001	796.92	PettyHR-M001-796.92	13.91	14	14.05	14	14.09	14.11	14.17	14.21	14.19	14.25
PettyHR	M001	811.96	PettyHR-M001-811.96	14.49	14.57	14.61	14.57	14.67	14.78	14.84	14.87	14.86	14.91
PettyHR	M001	823.7	PettyHR-M001-823.7	14.11	14.23	14.3	14.22	14.36	14.42	14.52	14.58	14.56	14.64
PettyHR	M001	836.76	PettyHR-M001-836.76	14.3	14.52	14.65	14.51	14.78	14.89	15.12	15.23	15.19	15.37
PettyHR	M001	859.53	PettyHR-M001-859.53	19.02	19.19	19.27	19.19	19.36	19.42	19.58	19.65	19.63	19.74
PettyHR	M001	875	PettyHR-M001-875	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge
PettyHR	M001	883.86	PettyHR-M001-883.86	20.35	20.67	20.85	20.65	21.03	21.18	21.51	21.42	21.38	21.52
PettyHR	M001	905.47	PettyHR-M001-905.47	21.44	21.61	21.71	21.61	21.81	21.9	22.07	22.16	22.13	22.27
PettyHR	M001	91.29	PettyHR-M001-91.29	2.56	2.62	2.83	2.83	3.19	2.57	2.63	2.84	2.84	3.19
PettyHR	M001	924.94	PettyHR-M001-924.94	22.24	22.4	22.5	22.4	22.59	22.67	22.83	22.91	22.88	23.02
PettyHR	M001	944.13	PettyHR-M001-944.13	23.21	23.35	23.42	23.34	23.5	23.57	23.69	23.77	23.74	23.85
PettyHR	M001	961.03	PettyHR-M001-961.03	24.37	24.58	24.7	24.56	24.67	24.67	24.71	24.78	24.74	24.87
PettyHR	M001	994.73	PettyHR-M001-994.73	24.32	24.55	24.69	24.54	24.93	25.1	25.6	25.7	25.82	25.71
PettyHR	M002	6004.71	PettyHR-M002-6004.71	69.18	69.33	69.4	69.32	69.45	69.55	69.69	69.76	69.73	69.8
PettyHR	M002	6095	PettyHR-M002-6095	69.18	69.33	69.4	69.32	69.45	69.55	69.69	69.76	69.73	69.8
PettyHR	M002	6218.07	PettyHR-M002-6218.07	69.18	69.33	69.4	69.32	69.45	69.55	69.69	69.76	69.73	69.8
PettyHR	M002	6270.85	PettyHR-M002-6270.85	69.18	69.33	69.4	69.32	69.45	69.55	69.69	69.76	69.73	69.8
RaymondB	M001	1035.68	RaymondB-M001-1035.68	76.1	76.17	76.22	76.16	76.21	76.27	76.23	76.49	76.24	76.51
RaymondB	M001	1066.09	RaymondB-M001-1066.09	76.47	76.55	76.6	76.55	76.62	76.76	76.97	76.85	77.03	76.88
RaymondB	M001	1116.25	RaymondB-M001-1116.25	76.95	77.02	77.06	77.02	77.08	77.12	77.18	77.21	77.19	77.23
RaymondB	M001	1148.7	RaymondB-M001-1148.7	77.89	77.94	77.95	77.93	77.97	78	78.04	78.06	78.05	78.07
RaymondB	M001	1166.2	RaymondB-M001-1166.2	78.08	78.13	78.16	78.13	78.17	78.2	78.24	78.27	78.26	78.28
RaymondB	M001	1189.75	RaymondB-M001-1189.75	78.9	78.95	78.98	78.95	79	79.04	79.09	79.12	79.11	79.14
RaymondB	M001	1216.25	RaymondB-M001-1216.25	79.6	79.71	79.75	79.7	79.68	79.72	79.76	79.81	79.8	79.84
RaymondB	M001	1252.39	RaymondB-M001-1252.39	80.05	80.07	80.09	80.06	80.33	80.38	80.45	80.33	80.34	80.28
RaymondB	M001	1303.54	RaymondB-M001-1303.54	80.32	80.41	80.45	80.41	80.47	80.49	80.52	80.56	80.54	80.61

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				Existing	2020 AMEC	2050 AMEC	2050 Finnis	2080 AMEC	Existing	2020 AMEC	2050 AMEC	2050 Finnis	2080 AMEC
RaymondB	M001	1315	RaymondB-M001-1315	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge
RaymondB	M001	1323.54	RaymondB-M001-1323.54	81.21	81.39	81.48	81.38	81.54	81.65	81.82	81.91	81.88	82.55
RaymondB	M001	1372.05	RaymondB-M001-1372.05	81.8	82.01	82.13	82	82.21	82.36	82.57	82.68	82.64	82.72
RaymondB	M001	1425.99	RaymondB-M001-1425.99	82.3	82.32	82.37	82.32	82.41	82.52	82.69	82.78	82.75	82.82
RaymondB	M001	1477.96	RaymondB-M001-1477.96	82.59	82.69	82.72	82.68	82.75	82.79	82.86	82.92	82.9	82.94
RaymondB	M001	1536.01	RaymondB-M001-1536.01	83	83.08	83.12	83.07	83.16	83.21	83.29	83.34	83.32	83.35
RaymondB	M001	1584.49	RaymondB-M001-1584.49	83.44	83.56	83.61	83.56	83.63	83.68	83.75	83.79	83.78	83.81
RaymondB	M001	1630.92	RaymondB-M001-1630.92	83.64	83.71	83.74	83.71	83.83	83.89	83.97	84.01	83.99	84
RaymondB	M001	1682.15	RaymondB-M001-1682.15	84.16	84.28	84.34	84.28	84.35	84.4	84.47	84.51	84.5	84.56
RaymondB	M001	1733.38	RaymondB-M001-1733.38	84.5	84.61	84.67	84.61	84.7	84.77	84.87	84.92	84.91	84.96
RaymondB	M001	1784.61	RaymondB-M001-1784.61	85.18	85.22	85.22	85.22	85.23	85.26	85.29	85.31	85.3	85.32
RaymondB	M001	1835.84	RaymondB-M001-1835.84	86.17	86.28	86.35	86.27	86.39	86.44	86.53	86.58	86.57	86.6
RaymondB	M001	1885.73	RaymondB-M001-1885.73	86.86	86.94	86.95	86.93	86.98	87.05	87.14	87.18	87.16	87.22
RaymondB	M001	1950.22	RaymondB-M001-1950.22	87.35	87.41	87.44	87.4	87.45	87.45	87.44	87.37	87.44	87.78
RaymondB	M001	1989.18	RaymondB-M001-1989.18	87.79	87.92	88.08	87.91	88.12	88.25	88.46	88.55	88.53	88.13
RaymondB	M001	2040.77	RaymondB-M001-2040.77	88.04	88.17	88.24	88.17	88.27	88.35	88.53	88.61	88.59	88.4
RaymondB	M001	2069.54	RaymondB-M001-2069.54	88.11	88.23	88.3	88.22	88.33	88.41	88.56	88.63	88.61	88.47
RaymondB	M001	2087.6	RaymondB-M001-2087.6	88.15	88.27	88.34	88.26	88.37	88.46	88.61	88.67	88.66	88.54
RaymondB	M001	2140.67	RaymondB-M001-2140.67	88.27	88.41	88.48	88.4	88.51	88.6	88.75	88.81	88.79	88.73
RaymondB	M001	2194.47	RaymondB-M001-2194.47	88.43	88.54	88.6	88.53	88.63	88.71	88.84	88.9	88.88	88.84
RaymondB	M001	2245.72	RaymondB-M001-2245.72	88.37	88.45	88.52	88.45	88.55	88.63	88.79	88.85	88.83	88.77
RaymondB	M001	2385.34	RaymondB-M001-2385.34	89	89.09	89.12	89.09	89.15	89.19	89.23	89.26	89.26	89.29
RaymondB	M001	2531.57	RaymondB-M001-2531.57	89.11	89.18	89.2	89.17	89.23	89.27	89.31	89.34	89.33	89.36
RaymondB	M001	2604.32	RaymondB-M001-2604.32	89.15	89.21	89.24	89.21	89.27	89.3	89.34	89.37	89.36	89.39
RaymondB	M001	2681.85	RaymondB-M001-2681.85	89.39	89.42	89.43	89.42	89.44	89.47	89.51	89.51	89.51	89.53
RaymondB	M001	2789.37	RaymondB-M001-2789.37	89.87	89.92	89.95	89.92	89.97	90	90.04	90.07	90.06	90.09
RaymondB	M001	2876.32	RaymondB-M001-2876.32	90.08	90.13	90.15	90.12	90.17	90.2	90.23	90.25	90.25	90.26
RaymondB	M001	3015.18	RaymondB-M001-3015.18	90.6	90.68	90.72	90.68	90.75	90.8	90.88	90.92	90.9	90.94
RaymondB	M001	3188.78	RaymondB-M001-3188.78	91.22	91.29	91.34	91.29	91.37	91.46	91.57	91.63	91.61	91.67
RaymondB	M001	3200	RaymondB-M001-3200	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge
RaymondB	M001	3216.73	RaymondB-M001-3216.73	91.8	91.99	92.08	91.97	92.13	92.25	92.4	92.48	92.45	92.53
RaymondB	M001	3308.92	RaymondB-M001-3308.92	92.1	92.12	92.25	92.11	92.31	92.46	92.65	92.76	92.7	92.83
RaymondB	M001	3380.48	RaymondB-M001-3380.48	92.67	92.79	92.79	92.78	92.8	92.85	92.94	93.01	93	93.04
RaymondB	M001	3404.11	RaymondB-M001-3404.11	92.71	92.85	92.92	92.85	92.96	93.03	93.15	93.21	93.18	93.25
RaymondB	M001	341.79	RaymondB-M001-341.79	69.18	69.33	69.4	69.32	69.45	69.55	69.69	69.76	69.73	69.8
RaymondB	M001	3410	RaymondB-M001-3410	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge
RaymondB	M001	3421.64	RaymondB-M001-3421.64	93.28	93.45	93.56	93.44	93.62	93.4	93.55	93.62	93.59	93.67
RaymondB	M001	3446.51	RaymondB-M001-3446.51	93.64	93.86	93.98	93.85	94.05	94.02	94.22	94.33	94.29	94.39
RaymondB	M001	3527.64	RaymondB-M001-3527.64	93.67	93.88	94	93.87	94.07	94.05	94.24	94.34	94.31	94.41
RaymondB	M001	3569.22	RaymondB-M001-3569.22	93.7	93.91	94.02	93.89	94.09	94.07	94.27	94.36	94.33	94.43
RaymondB	M001	366.25	RaymondB-M001-366.25	69.18	69.33	69.4	69.32	69.45	69.55	69.69	69.76	69.73	69.8
RaymondB	M001	3694.37	RaymondB-M001-3694.37	93.88	93.95	93.99	93.95	94.02	94.07	94.14	94.16	94.16	94.17
RaymondB	M001	3756.26	RaymondB-M001-3756.26	94.8	94.88	94.93	94.88	94.96	95.01	95.09	95.14	95.12	95.19
RaymondB	M001	3809.58	RaymondB-M001-3809.58	95.59	95.66	95.7	95.66	95.71	95.76	95.82	95.85	95.84	95.87
RaymondB	M001	3863.3	RaymondB-M001-3863.3	96.03	96.12	96.16	96.11	96.19	96.25	96.33	96.37	96.35	96.39

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RaymondB	M001	3916.71	RaymondB-M001-3916.71	96.19	96.27	96.31	96.27	96.33	96.38	96.45	96.49	96.48	96.51
RaymondB	M001	3978.2	RaymondB-M001-3978.2	96.52	96.59	96.63	96.59	96.66	96.7	96.77	96.8	96.79	96.82
RaymondB	M001	4023.53	RaymondB-M001-4023.53	96.93	96.99	97.02	96.99	97.04	97.08	97.11	97.13	97.12	97.15
RaymondB	M001	4076.94	RaymondB-M001-4076.94	97.46	97.53	97.56	97.52	97.58	97.62	97.7	97.74	97.73	97.76
RaymondB	M001	4130.35	RaymondB-M001-4130.35	97.8	97.83	97.89	97.83	97.93	97.98	98.04	98.05	98.03	98.07
RaymondB	M001	429.18	RaymondB-M001-429.18	69.18	69.33	69.4	69.32	69.45	69.55	69.69	69.76	69.73	69.8
RaymondB	M001	468.54	RaymondB-M001-468.54	69.18	69.33	69.4	69.32	69.45	69.55	69.69	69.76	69.73	69.8
RaymondB	M001	520.15	RaymondB-M001-520.15	69.18	69.33	69.4	69.32	69.45	69.55	69.69	69.76	69.74	69.81
RaymondB	M001	565.77	RaymondB-M001-565.77	69.18	69.33	69.4	69.32	69.45	69.55	69.69	69.76	69.74	69.81
RaymondB	M001	615.86	RaymondB-M001-615.86	69.25	69.39	69.45	69.38	69.49	69.59	69.72	69.79	69.76	69.83
RaymondB	M001	675	RaymondB-M001-675	69.45	69.52	69.58	69.52	69.6	69.65	69.75	69.8	69.78	69.84
RaymondB	M001	716.25	RaymondB-M001-716.25	69.7	69.77	69.8	69.77	69.82	69.86	69.93	69.97	69.96	69.99
RaymondB	M001	766.25	RaymondB-M001-766.25	69.93	69.97	69.99	69.97	70	70.03	70.08	70.08	70.09	70.09
RaymondB	M001	816.68	RaymondB-M001-816.68	71.19	71.27	71.3	71.26	71.33	71.35	71.4	71.47	71.42	71.49
RaymondB	M001	841.89	RaymondB-M001-841.89	71.39	71.43	71.46	71.43	71.48	71.55	71.62	71.68	71.67	71.7
RaymondB	M001	866.25	RaymondB-M001-866.25	71.6	71.7	71.74	71.69	71.77	71.81	71.88	71.89	71.88	71.9
RaymondB	M001	892.34	RaymondB-M001-892.34	71.53	71.61	71.65	71.61	71.69	71.75	71.85	71.88	71.87	71.9
RaymondB	M001	916.7	RaymondB-M001-916.7	72	72.06	72.09	72.06	72.1	72.13	72.17	72.18	72.18	72.19
RaymondB	M001	942.15	RaymondB-M001-942.15	73.1	73.15	73.17	73.14	73.18	73.22	73.26	73.29	73.27	73.3
RaymondB	M001	976.73	RaymondB-M001-976.73	74.35	74.41	74.45	74.41	74.47	74.49	74.56	74.56	74.58	74.58
RaymondB	M001	999.99	RaymondB-M001-999.99	74.41	74.5	74.54	74.5	74.58	74.63	74.73	74.71	74.76	74.74
RaymondB	M002	4235.25	RaymondB-M002-4235.25	98.61	98.71	98.75	98.7	98.78	98.85	98.92	98.98	98.95	99
RaymondB	M002	4263.86	RaymondB-M002-4263.86	98.62	98.35	98.37	98.35	98.38	98.4	98.43	98.45	98.44	98.46
RaymondB	M002	4294.65	RaymondB-M002-4294.65	99.01	99.05	99.06	99.05	99.07	99.09	99.11	99.13	99.12	99.13
RaymondB	M002	4308.73	RaymondB-M002-4308.73	99.35	99.37	99.38	99.37	99.38	99.4	99.41	99.42	99.42	99.43
RaymondB	M002	4332.73	RaymondB-M002-4332.73	100.79	100.82	100.83	100.82	100.84	100.87	100.9	100.92	100.91	100.93
RaymondB	M002	4341.66	RaymondB-M002-4341.66	101.48	101.53	101.54	101.53	101.56	101.6	101.63	101.66	101.66	101.67
RaymondB	M002	4354.01	RaymondB-M002-4354.01	101.88	101.92	101.95	101.92	101.95	101.95	101.96	101.96	101.96	101.97
RaymondB	M002	4385.89	RaymondB-M002-4385.89	102.3	102.33	102.36	102.33	102.38	102.42	102.47	102.49	102.48	102.5
RaymondB	M002	4415.77	RaymondB-M002-4415.77	103.3	103.33	103.33	103.33	103.33	103.33	103.33	103.33	103.34	103.34
RaymondB	M002	4439.46	RaymondB-M002-4439.46	103.63	103.65	103.68	103.65	103.69	103.74	103.8	103.84	103.82	103.84
RaymondB	M002	4466.63	RaymondB-M002-4466.63	103.91	103.97	103.99	103.97	104.01	104.04	104.07	104.08	104.08	104.09
RaymondB	M002	4489.94	RaymondB-M002-4489.94	104.17	104.2	104.22	104.2	104.23	104.26	104.3	104.32	104.31	104.32
RaymondB	M002	4511.42	RaymondB-M002-4511.42	104.45	104.5	104.52	104.5	104.53	104.56	104.6	104.62	104.61	104.63
RaymondB	M002	4522.17	RaymondB-M002-4522.17	104.13	104.15	104.17	104.15	104.18	104.2	104.22	104.24	104.23	104.25
RaymondB	M002	4545.57	RaymondB-M002-4545.57	105.33	105.38	105.4	105.38	105.41	105.43	105.47	105.49	105.48	105.49
RaymondB	M002	4575.18	RaymondB-M002-4575.18	106.32	106.35	106.36	106.35	106.36	106.38	106.41	106.42	106.42	106.43
RaymondB	M002	4597.34	RaymondB-M002-4597.34	106.61	106.65	106.67	106.65	106.67	106.69	106.72	106.73	106.73	106.74
RaymondB	M002	4607.06	RaymondB-M002-4607.06	106.66	106.69	106.71	106.69	106.72	106.74	106.76	106.78	106.77	106.78
RaymondB	M002	4615.42	RaymondB-M002-4615.42	106.32	106.34	106.35	106.34	106.35	106.37	106.39	106.4	106.39	106.4
RaymondB	M002	4625.72	RaymondB-M002-4625.72	107.08	107.11	107.12	107.11	107.13	107.14	107.17	107.18	107.17	107.18
RaymondB	M002	4644.78	RaymondB-M002-4644.78	111.07	111.09	111.11	111.09	111.11	111.13	111.16	111.17	111.17	111.18
RaymondB	M002	4673.96	RaymondB-M002-4673.96	112.27	112.31	112.32	112.31	112.33	112.36	112.39	112.4	112.4	112.42
RaymondB	M002	4681.76	RaymondB-M002-4681.76	112.94	112.98	113	112.98	113.01	113.04	113.08	113.11	113.1	113.11
RaymondB	M002	4732.68	RaymondB-M002-4732.68	113.65	113.68	113.69	113.68	113.7	113.72	113.75	113.76	113.76	113.77

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RaymondB	M002	4783.73	RaymondB-M002-4783.73	113.96	113.98	114	113.98	114	114.02	114.04	114.06	114.05	114.06
RaymondB	M002	4851.17	RaymondB-M002-4851.17	114.22	114.25	114.26	114.25	114.27	114.29	114.32	114.33	114.33	114.34
RaymondB	M002	4910.95	RaymondB-M002-4910.95	114.45	114.49	114.51	114.49	114.52	114.55	114.58	114.6	114.59	114.61
RaymondB	M002	4943.43	RaymondB-M002-4943.43	114.59	114.63	114.65	114.63	114.66	114.69	114.72	114.74	114.74	114.75
RaymondB	M002	4967.43	RaymondB-M002-4967.43	114.7	114.74	114.76	114.74	114.77	114.8	114.83	114.85	114.84	114.86
RaymondB	M002	5017.13	RaymondB-M002-5017.13	114.96	115	115.02	115	115.03	115.06	115.09	115.11	115.1	115.12
RaymondB	M002	5077.48	RaymondB-M002-5077.48	115.07	115.11	115.13	115.11	115.14	115.17	115.2	115.22	115.22	115.23
RaymondB	M002	5111.5	RaymondB-M002-5111.5	115.09	115.13	115.15	115.13	115.16	115.19	115.22	115.24	115.24	115.25
RaymondB	M002	5171.66	RaymondB-M002-5171.66	115.12	115.16	115.18	115.16	115.19	115.22	115.25	115.27	115.27	115.28
RaymondB	M002	5226.6	RaymondB-M002-5226.6	115.14	115.18	115.19	115.18	115.21	115.23	115.27	115.29	115.28	115.3
RaymondB	M002	5278.93	RaymondB-M002-5278.93	115.15	115.18	115.2	115.18	115.21	115.24	115.27	115.3	115.29	115.3
RaymondB	M002	5338.54	RaymondB-M002-5338.54	115.15	115.19	115.21	115.19	115.22	115.25	115.28	115.3	115.3	115.31
RaymondB	M002	5411.19	RaymondB-M002-5411.19	115.15	115.19	115.21	115.19	115.22	115.25	115.28	115.3	115.29	115.31
RaymondB	M002	5485.46	RaymondB-M002-5485.46	115.27	115.3	115.31	115.3	115.32	115.35	115.38	115.4	115.39	115.4
RaymondB	M002	5500.15	RaymondB-M002-5500.15	115.28	115.31	115.33	115.31	115.34	115.36	115.39	115.41	115.4	115.42
RaymondB	M002	5631.37	RaymondB-M002-5631.37	115.53	115.55	115.55	115.55	115.55	115.56	115.57	115.57	115.57	115.57
RaymondB	M002	5732.44	RaymondB-M002-5732.44	116.1	116.13	116.15	116.13	116.17	116.19	116.23	116.25	116.25	116.26
RaymondB	M002	5785.15	RaymondB-M002-5785.15	116.41	116.44	116.46	116.44	116.47	116.5	116.53	116.54	116.54	116.55
RaymondB	M002	5883.92	RaymondB-M002-5883.92	116.84	116.88	116.9	116.88	116.91	116.93	116.97	116.99	116.98	117
RaymondB	M002	5933.71	RaymondB-M002-5933.71	117.05	117.09	117.11	117.09	117.12	117.15	117.19	117.21	117.2	117.22
RaymondB	M002	6026.35	RaymondB-M002-6026.35	117.38	117.42	117.44	117.42	117.45	117.47	117.5	117.52	117.51	117.53
RaymondB	M002	6105.93	RaymondB-M002-6105.93	117.64	117.67	117.68	117.67	117.69	117.71	117.73	117.75	117.74	117.75
RaymondB	M002	6143.06	RaymondB-M002-6143.06	117.79	117.81	117.83	117.81	117.83	117.85	117.88	117.89	117.89	117.9
RaymondB	M002	6205.35	RaymondB-M002-6205.35	117.88	117.91	117.92	117.91	117.93	117.96	117.98	118	117.99	118
RaymondB	M002	6230.1	RaymondB-M002-6230.1	117.9	117.93	117.95	117.93	117.96	117.98	118.01	118.02	118.02	118.03
RaymondB	M002	6247.26	RaymondB-M002-6247.26	117.92	117.95	117.96	117.95	117.97	117.99	118.02	118.03	118.03	118.04
RaymondB	M002	6347.04	RaymondB-M002-6347.04	125.92	125.95	125.96	125.95	125.97	125.99	126.01	126.02	126.02	126.02
RaymondB	M002	6405.52	RaymondB-M002-6405.52	125.92	125.95	125.96	125.95	125.97	125.99	126.01	126.02	126.02	126.03
RaymondB	M002	6453.6	RaymondB-M002-6453.6	125.92	125.95	125.96	125.95	125.97	125.99	126.01	126.02	126.02	126.03
RaymondB	TR001	115.54	RaymondB-TR001-115.54	101.09	101.13	101.17	101.14	101.2	101.31	101.37	101.49	101.49	101.5
RaymondB	TR001	163.97	RaymondB-TR001-163.97	101.6	101.71	101.76	101.7	101.79	101.84	101.91	101.91	101.89	101.93
RaymondB	TR001	218.5	RaymondB-TR001-218.5	102.51	102.56	102.59	102.55	102.62	102.67	102.73	102.77	102.75	102.79
RaymondB	TR001	272.22	RaymondB-TR001-272.22	103.8	103.9	103.92	103.9	103.94	103.97	104.01	104.03	104.02	104.04
RaymondB	TR001	334.13	RaymondB-TR001-334.13	104.19	104.23	104.26	104.22	104.27	104.29	104.32	104.33	104.33	104.34
RaymondB	TR001	344.45	RaymondB-TR001-344.45	104.84	104.96	105.02	104.95	105.06	104.98	105.07	105.1	105.09	105.14
RaymondB	TR001	350	RaymondB-TR001-350	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge
RaymondB	TR001	360.64	RaymondB-TR001-360.64	105.42	105.63	105.77	105.61	106.17	106.33	106.55	106.66	106.62	106.74
RaymondB	TR001	380.07	RaymondB-TR001-380.07	105.7	105.93	106.07	105.91	106.17	106.33	106.54	106.66	106.62	106.74
RaymondB	TR001	409.42	RaymondB-TR001-409.42	105.88	105.94	105.96	105.93	106.05	106.23	106.51	106.63	106.59	106.72
RaymondB	TR001	439.21	RaymondB-TR001-439.21	106.26	106.34	106.38	106.34	106.39	106.49	106.62	106.71	106.68	106.78
RaymondB	TR001	56.65	RaymondB-TR001-56.65	98.34	98.4	98.42	98.39	98.44	98.45	98.49	98.49	98.47	98.51

APPENDIX K

HEC-HMS REPORTS

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PETTY HARBOUR RIVER (and TRIBUTARIES)

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```
Basin: Basin 2_Controlled
     Description: Goulds Geo Hms
     Last Modified Date: 20 March 2013
     Last Modified Time: 18:01:03
     Version: 3.5
     Filepath Separator: \
     Unit System: Metric
     Grid Cell File: P:\Work\TA1112735\Water\HecHMS\Goulds.mod
     Missing Flow To Zero: No
     Enable Flow Ratio: No
     Allow Blending: No
     Compute Local Flow At Junctions: No

     Enable Sediment Routing: No

     Enable Quality Routing: No
End:

Subbasin: W940
     Canvas X: 319132.4919
     Canvas Y: 5250527.0411
     Label X: 16.0
     Label Y: 16.0
     Area: 34.938
     Downstream: Bay Bull Big Pond

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 77.785
     Initial Abstraction: 3.281

     Transform: SCS
     Lag: 290.538
     Unitgraph Type: STANDARD

     Baseflow: None
End:

Reach: R400
     Canvas X: 319941.64357051253
     Canvas Y: 5254927.642480234
     From Canvas X: 320082.9841534981
     From Canvas Y: 5253460.074730776
     Label X: 16.0
     Label Y: 16.0
     Downstream: 6453.60

     Route: Muskingum Cunge
     Channel: 8-point
     Length: 2664.6
     Energy Slope: 0.0093824
     Left Overbank Mannings n: 0.05
     Main Channel Mannings n: 0.03
     Right Overbank Mannings n: 0.05
     Cross Section Name: R400
     Use Variable Time Step: No
     Channel Loss: None
End:
```

```
Subbasin: W1690
     Canvas X: 319741.1443
     Canvas Y: 5253840.5093
     Label X: 16.0
     Label Y: 16.0
     Area: 2.7653
     Downstream: 6453.60

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 75.272
     Initial Abstraction: 3.944

     Transform: SCS
     Lag: 135.3114
     Unitgraph Type: STANDARD

     Baseflow: None
End:

Junction: 6453.60
     Canvas X: 319941.64357051253
     Canvas Y: 5254927.642480234
     Downstream: Reach-2
End:

Reach: Reach-2
     Canvas X: 319941.641
     Canvas Y: 5254927.647
     From Canvas X: 319941.64357051253
     From Canvas Y: 5254927.642480234
     Downstream: J742

     Route: None
     Channel Loss: None
End:

Subbasin: W920
     Canvas X: 315399.5848
     Canvas Y: 5253166.0046
     Label X: 16.0
     Label Y: 16.0
     Area: 4.1650
     Downstream: J734

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 73.21
     Initial Abstraction: 3.978

     Transform: SCS
     Lag: 187.83
     Unitgraph Type: STANDARD

     Baseflow: None
```

```
End:

Subbasin: W840
     Canvas X: 315721.2456
     Canvas Y: 5254922.7762
     Label X: 16.0
     Label Y: 16.0
     Area: 4.2678
     Downstream: J734

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 73.805
     Initial Abstraction: 4.046

     Transform: SCS
     Lag: 157.8222
     Unitgraph Type: STANDARD

     Baseflow: None
End:

Junction: J734
     Description: Generic junction
     Canvas X: 317225.641
     Canvas Y: 5254387.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: R380
End:

Reach: R380
     Canvas X: 319941.6340524689
     Canvas Y: 5254927.64837874
     From Canvas X: 317225.641
     From Canvas Y: 5254387.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: 439.21

     Route: Muskingum Cunge
     Channel: 8-point
     Length: 4009.7
     Energy Slope: 0.0092276
     Left Overbank Mannings n: 0.05
     Main Channel Mannings n: 0.03
     Right Overbank Mannings n: 0.05
     Cross Section Name: R380
     Use Variable Time Step: No
     Channel Loss: None
End:

Subbasin: W880
     Canvas X: 317947.3550394629
     Canvas Y: 5254383.258379393
     Label X: 16.0
     Label Y: 16.0
     Area: 5.0671
     Downstream: 439.21
```

```
     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 74.701
     Initial Abstraction: 4.046

     Transform: SCS
     Lag: 196.146
     Unitgraph Type: STANDARD

     Baseflow: None
End:

Junction: 439.21
     Canvas X: 319941.6340524689
     Canvas Y: 5254927.64837874
     Downstream: Reach-3
End:

Reach: Reach-3
     Canvas X: 319941.641
     Canvas Y: 5254927.647
     From Canvas X: 319941.6340524689
     From Canvas Y: 5254927.64837874
     Downstream: J742

     Route: None
     Channel Loss: None
End:

Junction: J742
     Description: Generic junction
     Canvas X: 319941.641
     Canvas Y: 5254927.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: R330
End:

Reach: R330
     Canvas X: 320119.46931892587
     Canvas Y: 5255148.799810406
     From Canvas X: 319941.641
     From Canvas Y: 5254927.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: 4130.35

     Route: Muskingum Cunge
     Channel: 8-point
     Length: 354.46
     Energy Slope: 0.0056425
     Left Overbank Mannings n: 0.05
     Main Channel Mannings n: 0.03
     Right Overbank Mannings n: 0.05
     Cross Section Name: R330_1470
     Use Variable Time Step: No
     Channel Loss: None
End:
```

```
Junction: 4130.35
     Canvas X: 320119.46931892587
     Canvas Y: 5255148.799810406
     Downstream: Reach-4
End:

Reach: Reach-4
     Canvas X: 320090.641
     Canvas Y: 5255143.647
     From Canvas X: 320119.46931892587
     From Canvas Y: 5255148.799810406
     Downstream: J739

     Route: None
     Channel Loss: None
End:

Subbasin: W830
     Canvas X: 318394.0908
     Canvas Y: 5255837.6643
     Label X: 16.0
     Label Y: 16.0
     Area: 3.587348
     Downstream: J739

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 74.708
     Initial Abstraction: 3.893

     Transform: SCS
     Lag: 160.0326
     Unitgraph Type: STANDARD

     Baseflow: None
End:

Junction: J739
     Description: Generic junction
     Canvas X: 320090.641
     Canvas Y: 5255143.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: R1470
End:

Reach: R1470
     Canvas X: 322110.6499685906
     Canvas Y: 5255894.623700312
     From Canvas X: 320090.641
     From Canvas Y: 5255143.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: 3916.71

     Route: Muskingum Cunge
     Channel: 8-point
     Length: 3218.1
```

```
     Energy Slope: 0.0049719
     Left Overbank Mannings n: 0.05
     Main Channel Mannings n: 0.03
     Right Overbank Mannings n: 0.05
     Cross Section Name: R330_1470
     Use Variable Time Step: No
     Channel Loss: None
End:

Subbasin: W1450
     Canvas X: 320915.5586
     Canvas Y: 5255413.0608
     Label X: 16.0
     Label Y: 16.0
     Area: 3.3752
     Downstream: 3916.71

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 74.436
     Initial Abstraction: 3.9525

     Transform: SCS
     Lag: 122.7942
     Unitgraph Type: STANDARD

     Baseflow: None
End:

Junction: 3916.71
     Description: UserPoint10
     Canvas X: 322110.6499685906
     Canvas Y: 5255894.623700312
     Label X: 16.0
     Label Y: 16.0
     Downstream: R1880
End:

Reach: R1880
     Canvas X: 322948.641
     Canvas Y: 5256293.647
     From Canvas X: 322110.6499685906
     From Canvas Y: 5255894.623700312
     Label X: 16.0
     Label Y: 16.0
     Downstream: 1252.39

     Route: Muskingum Cunge
     Channel: 8-point
     Length: 1212.2
     Energy Slope: 0.0107241
     Left Overbank Mannings n: 0.05
     Main Channel Mannings n: 0.03
     Right Overbank Mannings n: 0.05
     Cross Section Name: R1880
     Use Variable Time Step: No
     Channel Loss: None
End:
```

```
Subbasin: W1860
     Canvas X: 322514.3087
     Canvas Y: 5255461.7197
     Label X: 16.0
     Label Y: 16.0
     Area: 1.6063
     Downstream: 1252.39

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 78.365
     Initial Abstraction: 3.536

     Transform: SCS
     Lag: 74.322
     Unitgraph Type: STANDARD

     Baseflow: None
End:

Junction: 1252.39
     Description: UserPoint19
     Canvas X: 322948.641
     Canvas Y: 5256293.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: R310
End:

Reach: R310
     Canvas X: 323360.641
     Canvas Y: 5256317.647
     From Canvas X: 322948.641
     From Canvas Y: 5256293.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: 5825.85

     Route: None
     Channel Loss: None
End:

Subbasin: W600
     Canvas X: 315253.8038
     Canvas Y: 5258043.2713
     Label X: 16.0
     Label Y: 16.0
     Area: 10.108627
     Downstream: Cochrane Pond

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 76.071
     Initial Abstraction: 3.536
```

```
     Transform: SCS
     Lag: 159.8886
     Unitgraph Type: STANDARD

     Baseflow: None
End:

Reservoir: Cochrane Pond
     Description: Cochrane Pond
     Canvas X: 316909.641
     Canvas Y: 5258577.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: R40

     Route: Modified Puls
     Routing Curve: Elevation-Area-Outflow
     Initial Elevation: 0
     Elevation-Area Table: COCHRANE POND
     Elevation-Outflow Table: cochrane_E-D
     Primary Table: Elevation-Outflow
End:

Reach: R40
     Canvas X: 318981.88861257915
     Canvas Y: 5258378.700671524
     From Canvas X: 316909.641
     From Canvas Y: 5258577.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: 8105.53

     Route: Muskingum Cunge
     Channel: 8-point
     Length: 2692.7
     Energy Slope: 0.0089129
     Left Overbank Mannings n: 0.05
     Main Channel Mannings n: 0.03
     Right Overbank Mannings n: 0.05
     Cross Section Name: R1370_1520_50_40_60
     Use Variable Time Step: No
     Channel Loss: None
End:

Subbasin: W1090
     Canvas X: 317516.3353
     Canvas Y: 5258900.432
     Label X: 16.0
     Label Y: 16.0
     Area: 5.6308
     Downstream: 8105.53

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 71.602
     Initial Abstraction: 4.063

     Transform: SCS
     Lag: 169.2756
```

```
     Unitgraph Type: STANDARD

     Baseflow: None
End:

Junction: 8105.53
     Canvas X: 318981.88861257915
     Canvas Y: 5258378.700671524
     Downstream: Reach-12
End:

Reach: Reach-12
     Canvas X: 318985.8739326885
     Canvas Y: 5258377.562460444
     From Canvas X: 318981.88861257915
     From Canvas Y: 5258378.700671524
     Downstream: J795

     Route: None
     Channel Loss: None
End:

Junction: J795
     Description: Generic junction
     Canvas X: 318985.8739326885
     Canvas Y: 5258377.562460444
     Label X: 16.0
     Label Y: 16.0
     Downstream: R50
End:

Reach: R50
     Canvas X: 319263.6340807553
     Canvas Y: 5258260.65010121
     From Canvas X: 318985.8739326885
     From Canvas Y: 5258377.562460444
     Label X: 16.0
     Label Y: 16.0
     Downstream: 5609.94

     Route: Muskingum Cunge
     Channel: 8-point
     Length: 470.78
     Energy Slope: 0.0148690
     Left Overbank Mannings n: 0.05
     Main Channel Mannings n: 0.03
     Right Overbank Mannings n: 0.05
     Cross Section Name: R1370_1520_50_40_60
     Use Variable Time Step: No
     Channel Loss: None
End:

Subbasin: W640
     Canvas X: 317635.305
     Canvas Y: 5257171.437
     Label X: 16.0
     Label Y: 16.0
     Area: 2.6872
     Downstream: 5609.94

     Canopy: None

     Surface: None
```

```
     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 73.791
     Initial Abstraction: 3.9355

     Transform: SCS
     Lag: 166.653
     Unitgraph Type: STANDARD

     Baseflow: None
End:

Junction: 5609.94
     Canvas X: 319263.6340807553
     Canvas Y: 5258260.65010121
     Downstream: Reach-5
End:

Reach: Reach-5
     Canvas X: 319263.641
     Canvas Y: 5258260.647
     From Canvas X: 319263.6340807553
     From Canvas Y: 5258260.65010121
     Downstream: J782

     Route: None
     Channel Loss: None
End:

Subbasin: W1240
     Canvas X: 318944.1684
     Canvas Y: 5259693.035
     Label X: 16.0
     Label Y: 16.0
     Area: 1.8201
     Downstream: Junction-6

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 74.683
     Initial Abstraction: 4.029

     Transform: SCS
     Lag: 130.5738
     Unitgraph Type: STANDARD

     Baseflow: None
End:

Subbasin: W1250
     Canvas X: 317596.0469
     Canvas Y: 5260581.3126
     Label X: 16.0
     Label Y: 16.0
     Area: 1.573385
     Downstream: J780

     Canopy: None
```

```
     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 65.78
     Initial Abstraction: 4.131

     Transform: SCS
     Lag: 190.872
     Unitgraph Type: STANDARD

     Baseflow: None
End:

Junction: J780
     Description: UserPoint5
     Canvas X: 319287.641
     Canvas Y: 5259892.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: R60
End:

Reach: R60
     Canvas X: 319263.643598799
     Canvas Y: 5258260.653050463
     From Canvas X: 319287.641
     From Canvas Y: 5259892.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: Junction-6

     Route: Muskingum Cunge
     Channel: 8-point
     Length: 2086.3
     Energy Slope: 0.0167764
     Left Overbank Mannings n: 0.05
     Main Channel Mannings n: 0.03
     Right Overbank Mannings n: 0.05
     Cross Section Name: R1370_1520_50_40_60
     Use Variable Time Step: No
     Channel Loss: None
End:

Junction: Junction-6
     Canvas X: 319263.643598799
     Canvas Y: 5258260.653050463
     Downstream: Reach-6
End:

Reach: Reach-6
     Canvas X: 319263.641
     Canvas Y: 5258260.647
     From Canvas X: 319263.643598799
     From Canvas Y: 5258260.653050463
     Downstream: J782

     Route: None
     Channel Loss: None
End:

Junction: J782
```

```
     Description: Generic junction
     Canvas X: 319263.641
     Canvas Y: 5258260.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: R1520
End:

Reach: R1520
     Canvas X: 320247.60138425004
     Canvas Y: 5257164.668810848
     From Canvas X: 319263.641
     From Canvas Y: 5258260.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: 5162.38

     Route: Muskingum Cunge
     Channel: 8-point
     Length: 1929.7
     Energy Slope: 0.0093280
     Left Overbank Mannings n: 0.05
     Main Channel Mannings n: 0.03
     Right Overbank Mannings n: 0.05
     Cross Section Name: R1370_1520_50_40_60
     Use Variable Time Step: No
     Channel Loss: None
End:

Subbasin: W1500
     Canvas X: 319467.288
     Canvas Y: 5257319.2992
     Label X: 16.0
     Label Y: 16.0
     Area: 3.6420
     Downstream: 5162.38

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 77.108
     Initial Abstraction: 4.097

     Transform: SCS
     Lag: 103.2228
     Unitgraph Type: STANDARD

     Baseflow: None
End:

Junction: 5162.38
     Canvas X: 320247.60138425004
     Canvas Y: 5257164.668810848
     Downstream: Reach-13
End:

Reach: Reach-13
     Canvas X: 320247.641
     Canvas Y: 5257164.647
     From Canvas X: 320247.60138425004
```

```
     From Canvas Y: 5257164.668810848
     Downstream: J784

     Route: None
     Channel Loss: None
End:

Junction: J784
     Description: UserPoint11
     Canvas X: 320247.641
     Canvas Y: 5257164.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: R1370
End:

Reach: R1370
     Canvas X: 322008.7569479506
     Canvas Y: 5256588.852117932
     From Canvas X: 320247.641
     From Canvas Y: 5257164.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: 3434.16

     Route: Muskingum Cunge
     Channel: 8-point
     Length: 2506.7
     Energy Slope: 0.0087764
     Left Overbank Mannings n: 0.05
     Main Channel Mannings n: 0.03
     Right Overbank Mannings n: 0.05
     Cross Section Name: R1370_1520_50_40_60
     Use Variable Time Step: No
     Channel Loss: None
End:

Subbasin: W1490
     Canvas X: 320941.9663
     Canvas Y: 5256718.8288
     Label X: 16.0
     Label Y: 16.0
     Area: 1.361426
     Downstream: 3434.16

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 76.404
     Initial Abstraction: 3.7655

     Transform: SCS
     Lag: 87.7014
     Unitgraph Type: STANDARD

     Baseflow: None
End:

Junction: 3434.16
     Canvas X: 322008.7569479506
```

```
     Canvas Y: 5256588.852117932
     Downstream: Reach-14
End:

Reach: Reach-14
     Canvas X: 322009.641
     Canvas Y: 5256588.647
     From Canvas X: 322008.7569479506
     From Canvas Y: 5256588.852117932
     Downstream: J786

     Route: None
     Channel Loss: None
End:

Junction: J786
     Description: UserPoint8
     Canvas X: 322009.641
     Canvas Y: 5256588.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: R2250
End:

Reach: R2250
     Canvas X: 322544.641
     Canvas Y: 5256643.647
     From Canvas X: 322009.641
     From Canvas Y: 5256588.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: 1185.68

     Route: Muskingum Cunge
     Channel: 8-point
     Length: 820.92
     Energy Slope: 0.0024363
     Left Overbank Mannings n: 0.05
     Main Channel Mannings n: 0.03
     Right Overbank Mannings n: 0.05
     Cross Section Name: R2250_250_2110
     Use Variable Time Step: No
     Channel Loss: None
End:

Subbasin: W2330
     Canvas X: 322138.7125
     Canvas Y: 5256357.9739
     Label X: 16.0
     Label Y: 16.0
     Area: 0.52061
     Downstream: 1185.68

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 80.014
     Initial Abstraction: 3.604

     Transform: SCS
```

```
     Lag: 56.9376
     Unitgraph Type: STANDARD

     Baseflow: None
End:

Junction: 1185.68
     Description: UserPoint29
     Canvas X: 322544.641
     Canvas Y: 5256643.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: R250
End:

Reach: R250
     Canvas X: 322546.641
     Canvas Y: 5256646.647
     From Canvas X: 322544.641
     From Canvas Y: 5256643.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: J770

     Route: Muskingum Cunge
     Channel: 8-point
     Length: 5
     Energy Slope: 0.001
     Left Overbank Mannings n: 0.05
     Main Channel Mannings n: 0.03
     Right Overbank Mannings n: 0.05
     Cross Section Name: R2250_250_2110
     Use Variable Time Step: No
     Channel Loss: None
End:

Subbasin: W1050
     Canvas X: 320094.1594
     Canvas Y: 5259621.9513
     Label X: 16.0
     Label Y: 16.0
     Area: 3.2788
     Downstream: J801

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 76.95
     Initial Abstraction: 3.9185

     Transform: SCS
     Lag: 139.8744
     Unitgraph Type: STANDARD

     Baseflow: None
End:

Junction: J801
     Description: UserPoint2
     Canvas X: 321088.641
```

```
     Canvas Y: 5258593.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: R80
End:

Reach: R80
     Canvas X: 321951.9096234632
     Canvas Y: 5258067.718805346
     From Canvas X: 321088.641
     From Canvas Y: 5258593.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: 3230.71

     Route: Muskingum Cunge
     Channel: 8-point
     Length: 1202.5
     Energy Slope: 0.0133053
     Left Overbank Mannings n: 0.05
     Main Channel Mannings n: 0.03
     Right Overbank Mannings n: 0.05
     Cross Section Name: R80
     Use Variable Time Step: No
     Channel Loss: None
End:

Subbasin: W1040
     Canvas X: 321576.8855
     Canvas Y: 5258264.048
     Label X: 16.0
     Label Y: 16.0
     Area: 1.5652
     Downstream: 3230.71

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 81.9
     Initial Abstraction: 3.4425

     Transform: SCS
     Lag: 90.153
     Unitgraph Type: STANDARD

     Baseflow: None
End:

Junction: 3230.71
     Canvas X: 321951.9096234632
     Canvas Y: 5258067.718805346
     Downstream: Reach-15
End:

Reach: Reach-15
     Canvas X: 321956.62986515503
     Canvas Y: 5258064.739557137
     From Canvas X: 321951.9096234632
     From Canvas Y: 5258067.718805346
     Downstream: Junction-7
```

```
     Route: None
     Channel Loss: None
End:

Junction: Junction-7
     Canvas X: 321956.62986515503
     Canvas Y: 5258064.739557137
     Downstream: Reach-7
End:

Reach: Reach-7
     Canvas X: 321956.641
     Canvas Y: 5258064.647
     From Canvas X: 321956.62986515503
     From Canvas Y: 5258064.739557137
     Label X: -1.0
     Label Y: 0.0
     Downstream: J803

     Route: None
     Channel Loss: None
End:

Subbasin: W1400
     Canvas X: 321195.1788
     Canvas Y: 5260338.574
     Label X: 16.0
     Label Y: 16.0
     Area: 2.9602
     Downstream: 2057.49

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 77.195
     Initial Abstraction: 4.0035

     Transform: SCS
     Lag: 128.205
     Unitgraph Type: STANDARD

     Baseflow: None
End:

Junction: 2057.49
     Description: UserPoint9
     Canvas X: 322014.641
     Canvas Y: 5259298.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: R90
End:

Reach: R90
     Canvas X: 321957.32575310976
     Canvas Y: 5258065.330559132
     From Canvas X: 322014.641
     From Canvas Y: 5259298.647
     Label X: 16.0
```

```
     Label Y: 16.0
     Downstream: 1384.41

     Route: Muskingum Cunge
     Channel: 8-point
     Length: 1439.2
     Energy Slope: 0.0194550
     Left Overbank Mannings n: 0.05
     Main Channel Mannings n: 0.03
     Right Overbank Mannings n: 0.05
     Cross Section Name: R100_90
     Use Variable Time Step: No
     Channel Loss: None
End:

Subbasin: W1390
     Canvas X: 321796.0579887026
     Canvas Y: 5258969.771111336
     Label X: 16.0
     Label Y: 16.0
     Area: 0.586947
     Downstream: 1384.41

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 81.631
     Initial Abstraction: 3.6125

     Transform: SCS
     Lag: 48.9942
     Unitgraph Type: STANDARD

     Baseflow: None
End:

Junction: 1384.41
     Canvas X: 321957.32575310976
     Canvas Y: 5258065.330559132
     Downstream: Reach-1
End:

Reach: Reach-1
     Canvas X: 321956.641
     Canvas Y: 5258064.647
     From Canvas X: 321957.32575310976
     From Canvas Y: 5258065.330559132
     Downstream: J803

     Route: None
     Channel Loss: None
End:

Junction: J803
     Description: Generic junction
     Canvas X: 321956.641
     Canvas Y: 5258064.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: R100
```

```
End:

Reach: R100
     Canvas X: 322090.21214392514
     Canvas Y: 5257904.786099038
     From Canvas X: 321956.641
     From Canvas Y: 5258064.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: 1780.65

     Route: Muskingum Cunge
     Channel: 8-point
     Length: 234.78
     Energy Slope: 0.0170375
     Left Overbank Mannings n: 0.05
     Main Channel Mannings n: 0.03
     Right Overbank Mannings n: 0.05
     Cross Section Name: R100_90
     Use Variable Time Step: No
     Channel Loss: None
End:

Junction: 1780.65
     Canvas X: 322090.21214392514
     Canvas Y: 5257904.786099038
     Downstream: Reach-16
End:

Reach: Reach-16
     Canvas X: 322096.635150049
     Canvas Y: 5257896.650637521
     From Canvas X: 322090.21214392514
     From Canvas Y: 5257904.786099038
     Downstream: Junction-8

     Route: None
     Channel Loss: None
End:

Junction: Junction-8
     Canvas X: 322096.635150049
     Canvas Y: 5257896.650637521
     Downstream: Reach-8
End:

Reach: Reach-8
     Canvas X: 322096.641
     Canvas Y: 5257896.647
     From Canvas X: 322096.635150049
     From Canvas Y: 5257896.650637521
     Downstream: J800

     Route: None
     Channel Loss: None
End:

Subbasin: W1150
     Canvas X: 322846.4985
     Canvas Y: 5260059.0143
     Label X: 16.0
     Label Y: 16.0
     Area: 2.3128
```

```
     Downstream: 2616.9

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 78.13
     Initial Abstraction: 3.519

     Transform: SCS
     Lag: 72.8748
     Unitgraph Type: STANDARD

     Baseflow: None
End:

Junction: 2616.9
     Description: Junction1
     Canvas X: 322441.641
     Canvas Y: 5259139.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: R110
End:

Reach: R110
     Canvas X: 322096.6454724344
     Canvas Y: 5257896.652514319
     From Canvas X: 322441.641
     From Canvas Y: 5259139.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: 1392.58

     Route: Muskingum Cunge
     Channel: 8-point
     Length: 1459.1
     Energy Slope: 0.0246727
     Left Overbank Mannings n: 0.05
     Main Channel Mannings n: 0.03
     Right Overbank Mannings n: 0.05
     Cross Section Name: R110
     Use Variable Time Step: No
     Channel Loss: None
End:

Subbasin: W1140
     Canvas X: 322604.0586
     Canvas Y: 5258634.8138
     Label X: 16.0
     Label Y: 16.0
     Area: 0.810442
     Downstream: 1392.58

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 78.812
```

```
     Initial Abstraction: 3.978

     Transform: SCS
     Lag: 52.4268
     Unitgraph Type: STANDARD

     Baseflow: None
End:

Junction: 1392.58
     Canvas X: 322096.6454724344
     Canvas Y: 5257896.652514319
     Downstream: Reach-9
End:

Reach: Reach-9
     Canvas X: 322096.641
     Canvas Y: 5257896.647
     From Canvas X: 322096.6454724344
     From Canvas Y: 5257896.652514319
     Downstream: J800

     Route: None
     Channel Loss: None
End:

Junction: J800
     Description: Generic junction
     Canvas X: 322096.641
     Canvas Y: 5257896.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: R190
End:

Reach: R190
     Canvas X: 322365.88033764466
     Canvas Y: 5257025.456874488
     From Canvas X: 322096.641
     From Canvas Y: 5257896.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: 1552.47

     Route: Muskingum Cunge
     Channel: 8-point
     Length: 1119.3
     Energy Slope: 0.0169754
     Left Overbank Mannings n: 0.05
     Main Channel Mannings n: 0.03
     Right Overbank Mannings n: 0.05
     Cross Section Name: R190_2070
     Use Variable Time Step: No
     Channel Loss: None
End:

Junction: 1552.47
     Canvas X: 322365.88033764466
     Canvas Y: 5257025.456874488
     Downstream: Reach-10
End:

Reach: Reach-10
```

```
     Canvas X: 322365.8829664109
     Canvas Y: 5257025.453620738
     From Canvas X: 322365.88033764466
     From Canvas Y: 5257025.456874488
     Downstream: J775

     Route: None
     Channel Loss: None
End:

Subbasin: W2180
     Canvas X: 321125.9337
     Canvas Y: 5257527.3216
     Label X: 16.0
     Label Y: 16.0
     Area: 1.606914
     Downstream: 2205.78

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 83.852
     Initial Abstraction: 3.23

     Transform: SCS
     Lag: 77.7168
     Unitgraph Type: STANDARD

     Baseflow: None
End:

Junction: 2205.78
     Description: UserPoint24
     Canvas X: 322325.2842275891
     Canvas Y: 5256952.620289256
     Label X: 16.0
     Label Y: 16.0
     Downstream: R180
End:

Reach: R180
     Canvas X: 322365.8829664109
     Canvas Y: 5257025.453620738
     From Canvas X: 322325.2842275891
     From Canvas Y: 5256952.620289256
     Label X: 16.0
     Label Y: 16.0
     Downstream: J775

     Route: Muskingum Cunge
     Channel: 8-point
     Length: 30.142
     Energy Slope: 0.001
     Left Overbank Mannings n: 0.05
     Main Channel Mannings n: 0.03
     Right Overbank Mannings n: 0.05
     Cross Section Name: R180_220
     Use Variable Time Step: No
     Channel Loss: None
End:
```

```
Junction: J775
     Description: Generic junction
     Canvas X: 322365.8829664109
     Canvas Y: 5257025.453620738
     Label X: 16.0
     Label Y: 16.0
     Downstream: R220
End:

Reach: R220
     Canvas X: 322546.6414347476
     Canvas Y: 5256646.652756832
     From Canvas X: 322365.8829664109
     From Canvas Y: 5257025.453620738
     Label X: 16.0
     Label Y: 16.0
     Downstream: 484.12

     Route: Muskingum Cunge
     Channel: 8-point
     Length: 440.61
     Energy Slope: 0.0022696
     Left Overbank Mannings n: 0.05
     Main Channel Mannings n: 0.03
     Right Overbank Mannings n: 0.05
     Cross Section Name: R180_220
     Use Variable Time Step: No
     Channel Loss: None
End:

Subbasin: W2380
     Canvas X: 322274.0357
     Canvas Y: 5256821.3737
     Label X: 16.0
     Label Y: 16.0
     Area: 0.17896
     Downstream: 484.12

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 80.767
     Initial Abstraction: 3.5105

     Transform: SCS
     Lag: 43.5276
     Unitgraph Type: STANDARD

     Baseflow: None
End:

Junction: 484.12
     Canvas X: 322546.6414347476
     Canvas Y: 5256646.652756832
     Downstream: Reach-11
End:

Reach: Reach-11
     Canvas X: 322546.641
```

```
     Canvas Y: 5256646.647
     From Canvas X: 322546.6414347476
     From Canvas Y: 5256646.652756832
     Downstream: J770

     Route: None
     Channel Loss: None
End:

Reservoir: Bay Bull Big Pond
     Description: Bay Bull Big Pond
     Canvas X: 320082.9841534981
     Canvas Y: 5253460.074730776
     Label X: 16.0
     Label Y: 16.0
     Downstream: R400

     Route: Modified Puls
     Routing Curve: Elevation-Area-Outflow
     Initial Elevation: 6.51
     Elevation-Area Table: BIG BAY BULLS POND
     Elevation-Outflow Table: big bay bulls_E-D
     Primary Table: Elevation-Outflow
End:

Junction: J770
     Description: Generic junction
     Canvas X: 322546.641
     Canvas Y: 5256646.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: R2110
End:

Reach: R2110
     Canvas X: 322771.641
     Canvas Y: 5256685.647
     From Canvas X: 322546.641
     From Canvas Y: 5256646.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: 381.27

     Route: Muskingum Cunge
     Channel: 8-point
     Length: 290.76
     Energy Slope: 0.0034392
     Left Overbank Mannings n: 0.05
     Main Channel Mannings n: 0.03
     Right Overbank Mannings n: 0.05
     Cross Section Name: R2250_250_2110
     Use Variable Time Step: No
     Channel Loss: None
End:

Subbasin: W2370
     Canvas X: 322638.83422147925
     Canvas Y: 5256996.687210747
     Label X: 16.0
     Label Y: 16.0
     Area: 0.0864050
     Downstream: 381.27
```

```
     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 80.223
     Initial Abstraction: 3.3405

     Transform: SCS
     Lag: 33.075
     Unitgraph Type: STANDARD

     Baseflow: None
End:

Junction: 381.27
     Description: UserPoint20
     Canvas X: 322771.641
     Canvas Y: 5256685.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: R240
End:

Reach: R240
     Canvas X: 323105.641
     Canvas Y: 5256544.647
     From Canvas X: 322771.641
     From Canvas Y: 5256685.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: 6270.85

     Route: None
     Channel Loss: None
End:

Subbasin: W2060
     Canvas X: 322707.5306
     Canvas Y: 5257340.4271
     Label X: 16.0
     Label Y: 16.0
     Area: 0.33481
     Downstream: 958.61

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 79.969
     Initial Abstraction: 3.672

     Transform: SCS
     Lag: 37.1196
     Unitgraph Type: STANDARD

     Baseflow: None
End:

Subbasin: W1760
```

```
     Canvas X: 323011.8174
     Canvas Y: 5257900.5042
     Label X: 16.0
     Label Y: 16.0
     Area: 1.190979
     Downstream: 1557.91

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 78.319
     Initial Abstraction: 3.5275

     Transform: SCS
     Lag: 39.555
     Unitgraph Type: STANDARD

     Baseflow: None
End:

Junction: 1557.91
     Description: Junction2
     Canvas X: 322789.0
     Canvas Y: 5257519.0
     Label X: 16.0
     Label Y: 16.0
     Downstream: R2070
End:

Reach: R2070
     Canvas X: 322828.641
     Canvas Y: 5256988.647
     From Canvas X: 322789.0
     From Canvas Y: 5257519.0
     Label X: 16.0
     Label Y: 16.0
     Downstream: 958.61

     Route: Muskingum Cunge
     Channel: 8-point
     Length: 570.94
     Energy Slope: 0.0192666
     Left Overbank Mannings n: 0.05
     Main Channel Mannings n: 0.03
     Right Overbank Mannings n: 0.05
     Cross Section Name: R190_2070
     Use Variable Time Step: No
     Channel Loss: None
End:

Junction: 958.61
     Description: UserPoint23
     Canvas X: 322828.641
     Canvas Y: 5256988.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: R4230
End:

Reach: R4230
```

```
     Canvas X: 323105.641
     Canvas Y: 5256544.647
     From Canvas X: 322828.641
     From Canvas Y: 5256988.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: 6270.85

     Route: None
     Channel Loss: None
End:

Junction: 6270.85
     Description: Generic junction
     Canvas X: 323105.641
     Canvas Y: 5256544.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: R260
End:

Reach: R260
     Canvas X: 323360.641
     Canvas Y: 5256317.647
     From Canvas X: 323105.641
     From Canvas Y: 5256544.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: 5825.85

     Route: None
     Channel Loss: None
End:

Junction: 5825.85
     Description: Generic junction
     Canvas X: 323360.641
     Canvas Y: 5256317.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: R270
End:

Reach: R270
     Canvas X: 323552.641
     Canvas Y: 5256236.647
     From Canvas X: 323360.641
     From Canvas Y: 5256317.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: J818

     Route: None
     Channel Loss: None
End:

Subbasin: W1810
     Canvas X: 322538.9455
     Canvas Y: 5254133.1114
     Label X: 16.0
     Label Y: 16.0
     Area: 4.1120
     Downstream: J824
```

```
     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 73.836
     Initial Abstraction: 3.8675

     Transform: SCS
     Lag: 111.6486
     Unitgraph Type: STANDARD

     Baseflow: None
End:

Junction: J824
     Description: UserPoint18
     Canvas X: 323250.641
     Canvas Y: 5255923.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: R370
End:

Reach: R370
     Canvas X: 323552.641
     Canvas Y: 5256236.647
     From Canvas X: 323250.641
     From Canvas Y: 5255923.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: J818

     Route: None
     Channel Loss: None
End:

Junction: J818
     Description: Generic junction
     Canvas X: 323552.641
     Canvas Y: 5256236.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: R1610
End:

Reach: R1610
     Canvas X: 324091.641
     Canvas Y: 5256081.647
     From Canvas X: 323552.641
     From Canvas Y: 5256236.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: 5516.39

     Route: None
     Channel Loss: None
End:

Subbasin: W2050
     Canvas X: 323592.3119964222
```

```
     Canvas Y: 5256178.97593662
     Label X: 16.0
     Label Y: 16.0
     Area: 1.939381
     Downstream: 5516.39

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 82.754
     Initial Abstraction: 2.6265

     Transform: SCS
     Lag: 45.3006
     Unitgraph Type: STANDARD

     Baseflow: None
End:

Junction: 5516.39
     Description: Generic junction
     Canvas X: 324091.641
     Canvas Y: 5256081.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: R280
End:

Reach: R280
     Canvas X: 324672.641
     Canvas Y: 5256860.647
     From Canvas X: 324091.641
     From Canvas Y: 5256081.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: 4923.81

     Route: None
     Channel Loss: None
End:

Junction: 4923.81
     Description: Generic junction
     Canvas X: 324672.641
     Canvas Y: 5256860.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: R200
End:

Reach: R200
     Canvas X: 324804.81642841257
     Canvas Y: 5257063.058233606
     From Canvas X: 324672.641
     From Canvas Y: 5256860.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: J809

     Route: None
```

```
     Channel Loss: None
End:

Subbasin: W2000
     Canvas X: 323605.6254
     Canvas Y: 5252368.6199
     Label X: 16.0
     Label Y: 16.0
     Area: 10.942
     Downstream: J811

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 72.509
     Initial Abstraction: 3.995

     Transform: SCS
     Lag: 250.578
     Unitgraph Type: STANDARD

     Baseflow: None
End:

Subbasin: W2010
     Canvas X: 326555.6539
     Canvas Y: 5255388.1209
     Label X: 16.0
     Label Y: 16.0
     Area: 1.8869
     Downstream: J811

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 76.111
     Initial Abstraction: 3.8675

     Transform: SCS
     Lag: 67.7322
     Unitgraph Type: STANDARD

     Baseflow: None
End:

Junction: J811
     Description: UserPoint21
     Canvas X: 325656.641
     Canvas Y: 5255160.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: R290
End:

Reach: R290
     Canvas X: 324804.81642841257
     Canvas Y: 5257063.058233606
```

```
     From Canvas X: 325656.641
     From Canvas Y: 5255160.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: J809

     Route: None
     Channel Loss: None
End:

Junction: J809
     Description: Generic junction
     Canvas X: 324804.81642841257
     Canvas Y: 5257063.058233606
     Label X: 16.0
     Label Y: 16.0
     Downstream: R160
End:

Reach: R160
     Canvas X: 324785.641
     Canvas Y: 5257363.647
     From Canvas X: 324804.81642841257
     From Canvas Y: 5257063.058233606
     Label X: 16.0
     Label Y: 16.0
     Downstream: J810

     Route: None
     Channel Loss: None
End:

Junction: J810
     Description: Generic junction
     Canvas X: 324785.641
     Canvas Y: 5257363.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: R1570
End:

Reach: R1570
     Canvas X: 325680.3186389729
     Canvas Y: 5258470.607197009
     From Canvas X: 324785.641
     From Canvas Y: 5257363.647
     Label X: 16.0
     Label Y: 16.0
     Downstream: 3931.39-Petty Harbour Foreba

     Route: None
     Channel Loss: None
End:

Subbasin: W1590
     Canvas X: 324691.7748
     Canvas Y: 5257546.9231
     Label X: 16.0
     Label Y: 16.0
     Area: 10.354232
     Downstream: 3931.39-Petty Harbour Foreba

     Canopy: None
```

```
     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 76.799
     Initial Abstraction: 3.485

     Transform: SCS
     Lag: 103.9968
     Unitgraph Type: STANDARD

     Baseflow: None
End:

Reservoir: 3931.39-Petty Harbour Foreba
     Description: First Pond
     Canvas X: 325680.3186389729
     Canvas Y: 5258470.607197009
     Label X: 16.0
     Label Y: 16.0
     Downstream: R140

     Route: Modified Puls
     Routing Curve: Elevation-Area-Outflow
     Initial Elevation: 7.7
     Elevation-Area Table: PETTY HARBOUR FOREBAY
     Elevation-Outflow Table: petty harbour forebay_E-D
     Primary Table: Elevation-Outflow
End:

Reach: R140
     Canvas X: 327141.141
     Canvas Y: 5258440.147
     From Canvas X: 325680.3186389729
     From Canvas Y: 5258470.607197009
     Label X: 16.0
     Label Y: 16.0
     Downstream: 1615.479-Outlet1

     Route: Muskingum Cunge
     Channel: 8-point
     Length: 1766.0
     Energy Slope: 0.0311434
     Left Overbank Mannings n: 0.05
     Main Channel Mannings n: 0.03
     Right Overbank Mannings n: 0.05
     Cross Section Name: R140
     Use Variable Time Step: No
     Channel Loss: None
End:

Subbasin: W1540
     Canvas X: 326295.0055706497
     Canvas Y: 5258271.865912263
     Label X: 16.0
     Label Y: 16.0
     Area: 2.2543
     Downstream: 1615.479-Outlet1

     Canopy: None

     Surface: None
```

```
     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 76.378
     Initial Abstraction: 3.9185

     Transform: SCS
     Lag: 40.7754
     Unitgraph Type: STANDARD

     Baseflow: None
End:

Sink: 1615.479-Outlet1
     Description: Outlet1
     Canvas X: 327141.141
     Canvas Y: 5258440.147
     Label X: 16.0
     Label Y: 16.0
End:

Basin Schematic Properties:
     Last View N: 5261084.026175
     Last View S: 5250024.327525
     Last View W: 314659.43694
     Last View E: 327735.50786
     Maximum View N: 5261084.026175
     Maximum View S: 5250024.327525
     Maximum View W: 314659.43694
     Maximum View E: 327735.50786
     Extent Method: Elements
     Buffer: 10
     Draw Icons: Yes
     Draw Icon Labels: Yes
     Draw Map Objects: No
     Draw Gridlines: Yes
     Draw Flow Direction: No
     Fix Element Locations: No
     Fix Hydrologic Order: No
     Map: hec.map.aishape.AiShapeMap
     Map File Name: maps\Subbasin1.shp
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     Maximum Scale: 2147483647
     Map Shown: Yes
     Map: hec.map.aishape.AiShapeMap
     Map File Name: maps\River1.shp
     Minimum Scale: -2147483648
     Maximum Scale: 2147483647
     Map Shown: Yes
     Map: hec.map.aishape.AiShapeMap
     Map File Name: maps\ponds.shp
     Minimum Scale: -2147483648
     Maximum Scale: 2147483647
     Map Shown: Yes
End:
```

APPENDIX L

FIELD PROGRAM DATA

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FIELD PROGRAM REPORT

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TECHNICAL MEMORANDUM

To	Mr. Amir Ali Khan, Ph.D, P.Eng. Manager, Hydrologic Modelling Section Water Resources Management Division Dept of Environment and Conservation Government of Newfoundland and Labrador	File no	**TA1112735**
From	Ken DePodesta, B.Eng., P.Eng. Senior Technical Lead, Burlington, Ontario 905-335-2353 Peter Nimmrichter, M.Eng. P.Eng. Senior Water Resources Engineer, Mississauga, Ontario 905-568-2929 x4343	cc	J. Chris Innes, Project Manager, Ottawa 613- 727-0658 x247
Date	March 16, 2012		
Subject	**Flood Plain Mapping Project (Goulds/Petty Harbour/Corner Brook Area) Technical Memorandum #1 Field Program Brief**		

Dear Mr. Khan,

AMEC Environment & Infrastructure, a division of AMEC Americas Limited (AMEC), is pleased to provide the attached draft technical memo. This memorandum summarizes the proposed methodology we have developed for Task D and E and is submitted to you for your review and comment.

It is the intent that, once approved, the content of this technical memo will comprise one section of the final project report.

If you have any questions regarding this technical memo please contact the undersigned at your convenience.

Yours truly,
AMEC Environment & Infrastructure,
a division of AMEC Americas Limited

Peter Nimmrichter, M.Eng. P.Eng.
Senior Water Resources Engineer
Mississauga, Ontario

Graeme Aggett, PhD
Associate and Boulder Office Team Leader:
Boulder, Colorado

F:\AMEC\Projects\TA1112733 - NL Flood Risk Study\Rpts\TA1112733 Phase 5000 - Vulnerable COmmunities and Monitoring v001.docx

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1. Task 1: Background Review

A thorough review of existing information was completed to obtain an understanding of the flooding problem in the study area and the factors responsible for past floods. It was originally proposed to review a variety of information sources, however, those noted in our proposal were also reviewed for the update of the Flood Events Inventory, a component deliverable of the Flood Risk and Vulnerability Analysis Project (AMEC Project # TA1112733) completed for Water Resources management Division. This Flood Risk and Vulnerability Analysis Project will assist the Provincial Government identify communities at risk to flooding and the potential impacts of the changing climate, drive projects to update existing and create new flood risk mapping, to improve or establish flood forecasting / flood warning systems and to identify mitigation and/or adaptation opportunities. It was also understood that the inventory was shared with Environment Canada. The Flood Events Inventory was used as the primary basis for identifying historical flood events in the study watersheds. However, the list established via the Flood Events Inventory was provided to the City of Corner Brook and City of St. John's for review towards addition of flood events, based on local knowledge, not previously documented in the Flood Events Inventory.

The background review project component also included a review of available mapping which includes:

- 1:50,000 scale National Topographic Series (NTS) maps covering the three subject watersheds in their entirety.
- 1:2500 Provincial Series topographic mapping in a structured format for the Corner Brook Stream and Petrie's Brook Watersheds but only unstructured data for the Petty Harbour River Watershed.

In anticipation of the production of flood plain maps, a deliverable of this project, a street names layer was created specific to the study reaches designated for floodplain map development. Street names were defined from Google Maps.

Previous flood risk reporting and hydrotechnical studies for these and other local watercourses, including:

- *Flood Risk Mapping Study: Goulds, Petty Harbour and Ferryland*, BAE-Newplan Group, March 1996.
- *Corner Brook Stream Management Study*, The Corner Brook Stream Development Committee, prepared by John Chisholm, Mike Caroll, Nancy Griffiths, Joanne Morehouse with Peter Klynstra, Environmental Planning Department, Nova Scotia College, December 1992.
- *Corner Brook Pulp and Paper Limited, Dam Safety Inspection – Twelve Mile Dam, Three Mile Dam and Glynmill Pond Dam*, Hatch Mott MacDonald, June 29, 2009.
- *Dam Safety Study: Dams on Corner Brook Stream*, AMEC E&C Services Limited, July 10, 2001.

were reviewed.

The background data review task of this project also included a field reconnaissance visit to the subject watercourses to:

- assess existing watercourse and floodplain conditions
- assess deviations from available mapping
- identify potential flood damage zones
- facilitate initial data collection and photography of watercourse crossings
- create a photo database of the subject areas designated for flood plain preparation (where relevant photos were linked to specific locations in the HEC-RAS dataset)

Given the late start to the project an adjustment to project staffing for the field reconnaissance component was adopted requiring staff to work in pairs to mitigate increased safety risk in the field. Some locations to be visited relevant to the study are remote and, at times, access conditions can be considered dangerous. In sheltered locations, a danger due to slips and falls was possible due to frost and ice forming overnight. Safety for our field staff was our primary concern in the successful completion of this component of the project work. The late start required efficient use of personnel and could have been more significantly hampered by bad weather if it had occurred.

Hydro-meteorological data was obtained from Water survey of Canada for a number of stream gauges in the Corner Brook Area including those in the Corner Brook Stream Watershed. The gauges located in the Corner Brook Stream Watershed are located downstream of controlled locations (dams). As such nearby streamflow stations measuring flow in natural watersheds were also collected. Data from these stations was pro-rated by watershed area for use in the Petrie's Brook Watershed. Single site frequency analysis was completed for these gauges as a means of generating comparative data to support hydrologic modeling. Gauge data reviewed for this project included the following locations:

Station Name	Station ID	Latitude Longitude	Data Type	Available Data Record	Drainage Area (km^2)
Corner Brook Area					
Corner Brook at Watson's Brook Powerhouse	02YL002	48°55'26'' N 57°54'11'' W	Flow	1959 – 2010 (51 years)	127.0
South Brook at Pasadena	02YL004	49°0'44'' N 57°36'41'' W	Flow	1983 – 2010 (28 years)	58.5
Rattler Brook Near McIvers	02YL005	49°3'29'' N 58°6'18'' W	Flow	1985 – 2010 (26 years)	17.0
Corner Brook Lake at Lake Outlet	02YL009	48°50'55'' N 57°51'7'' W	Level	1990 – 2010 (20 years)	65.3[1]
Copper Pond Brook Near Corner Brook Lake	02YL011	48°48'23'' N 57°47'1'' W	Flow	1995 – 2010 (16 years)	12.9
Goulds / Petty Harbour Area					
Petty Harbour River at Second Pond	02ZM001	47°27'27" N 52°43'47" W	Flow	1962 – 2010 (49 years)	134.0
Raymond Brook at Outlet of Bay Bulls Big Pond	02ZM022	47°25'12" N 52°48'2" W	Flow	1988 – 2010 (23 years)	n/a

NOTES:

1. Drainage area not available from Water Survey of Canada, estimated from available mapping.

Starting water surface elevation data was obtained from tidal data compiled by the Canadian Hydrographic Service. Further, the climate change assessment (sea level rise) completed for the Flood Risk and Vulnerability Analysis Project was reviewed and integrated, as applicable, to increase starting water levels for future scenario hydraulic modeling.

The driving function for hydrological computations is precipitation. Conveniently, the Environment Canada weather station (#8403506) at St. John's International Airport lies a short distance to the north of the study area and provides estimates of return frequency rainfall for return periods from 2 year through 100 year (including 20 year). The current IDF data for this gauge is dated 2010/04/13 although the available time series reflects the period 1949 – 1996. This station data is being used to support hydrologic modeling for the Petty Harbour River.

A weather station with published IDF data is not available specifically for the Corner Brook study area. IDF data is available, however, for weather stations at Stephenville Airport (#8403800 with a period of record from 1966 - 2007) to the south west of this study area and Deer Lake (#8401501 with a period of record from 1966 - 2002) to the north east. The current data available at these stations is dated 2010/04/13.

Future projected IDF relationships were also developed these stations. Previous reports (such as that completed for Stephenville) used the current IDF relationship to develop design rainfall for future periods generally by applying the alternating block methodology using future estimated rainfall totals in conjunction with the current IDF relationship. The future IDF relationships developed for this project clearly indicate that the IDF relationship changes in future time periods. Use of the projected IDF relationships provides a means of capturing the changing nature of rainfall over the subject watersheds and its impact on flooding.

2. Task 2: Identification of Flood Event Initiators

Historical flood events occurring in the study watersheds, identified through the background data review, were evaluated to assess the critical flood generating influences. The Flood Events Inventory identified the following:

- Petrie's Brook/Petries/Pleasant Cove – 1 event (rainfall+snowmelt)
- Corner Brook – 41 events (31 rainfall / 1 ice jam / 8 rainfall+snowmelt / 1 unknown)
- Petty Harbour – 5 events but all associated with Maddox Cove not the Petty Harbour River
- Goulds – 6 events (3 ice jam / 3 rainfall)

3. Task 3: Methodology Development

Hydrologic modeling is being developed using HEC-HMS and Hec-GeoHMS. Hydraulic modeling is being developed using HEC-RAS and HEC-GeoRAS. Where relevant to project objectives the use of the tools is being maximized.

4. Task 4: Acquisition of LiDAR and Ortho-photography

The development of the LiDAR data products was completed by Leading Edge Geomatics (Lincoln, NB). Acquisition of the raw data in the three subject watersheds was completed in November 201. The data products prepared for this project include:

- LiDAR for the entire study area defined by subject watershed areas
- Ortho-photography for the developed urban areas where floodplain mapping was to be produced
- All data have been received and reviewed for completeness and accuracy

The figures below illustrate the extent of the LiDAR and orthophoto data coverage across the three subject watersheds.

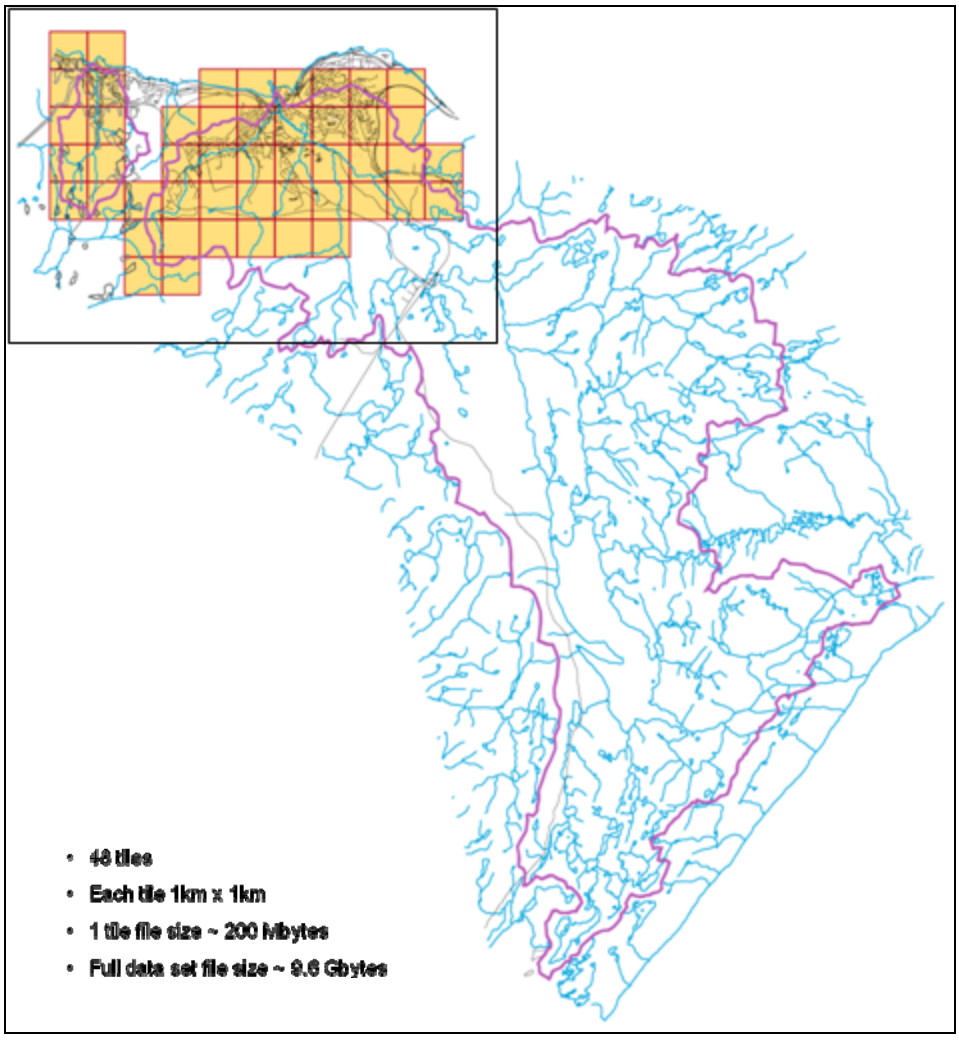

Figure 4-1 : LiDAR and Orthophoto Coverage in the Corner Brook Area

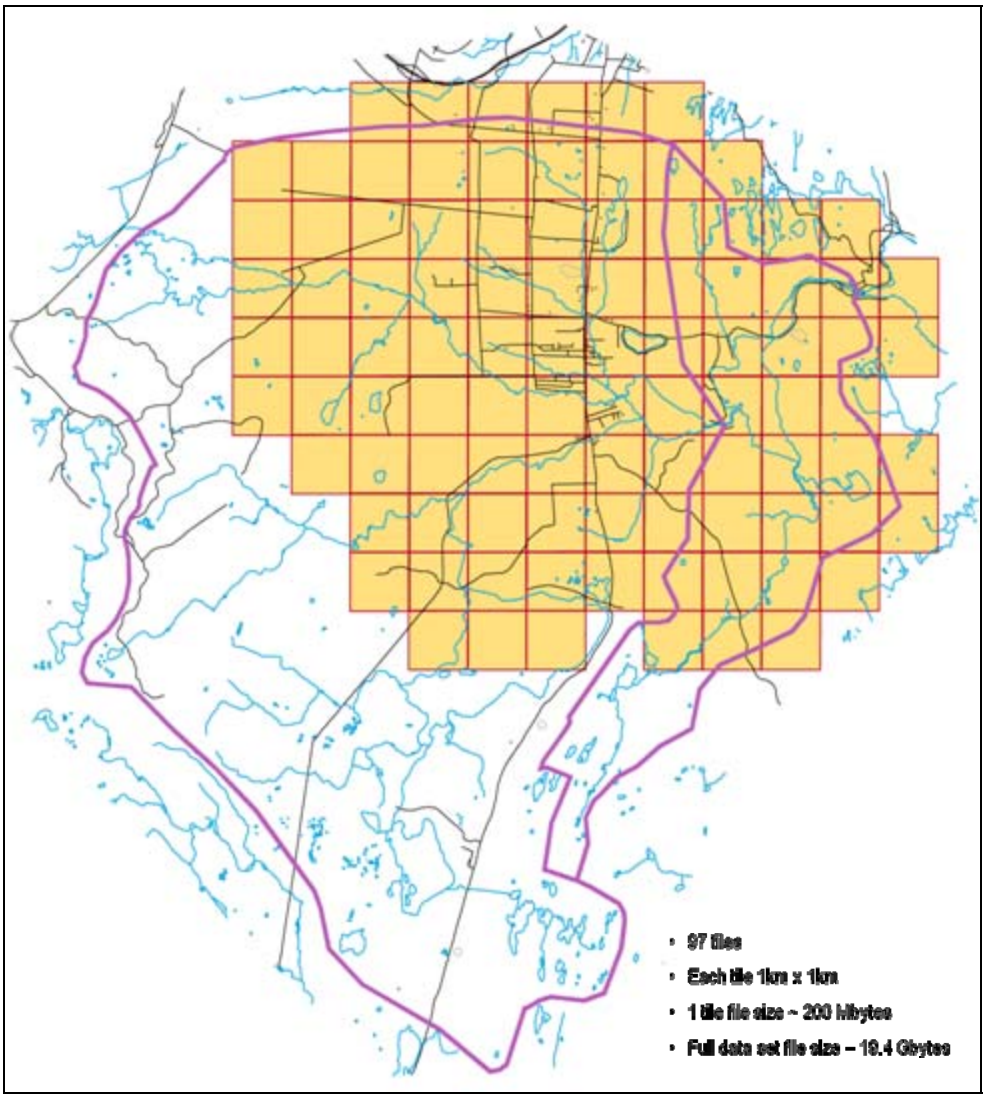

Figure 4-2 : LiDAR and Orthophoto Coverage in the Petty Harbour Watershed

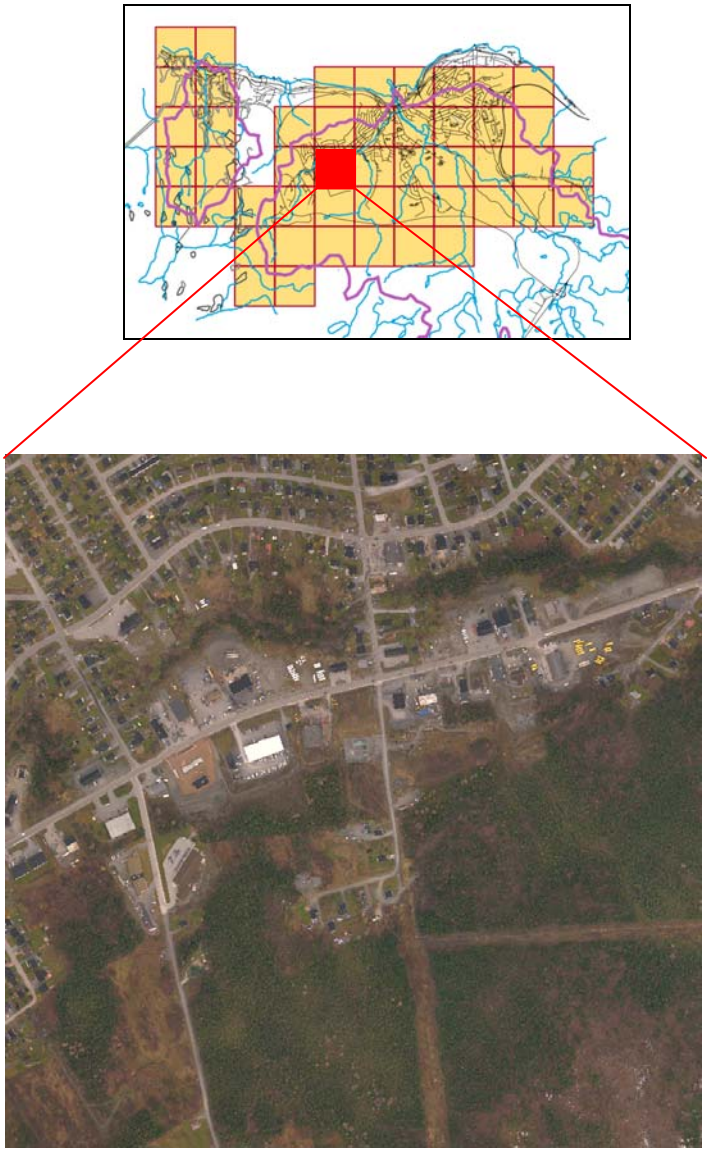

Figure 4-3 : Sample Orthophoto from the Corner Brook Area

5. Task 5: Select Computational Models

The use of non-proprietary hydrologic and hydraulic models such as HEC-HMS (v3.4, 2009) and HEC-RAS (v4.1, 2010) is required as the computational engines for this project. These programs, along with their predecessors (HEC-1 and HEC-2, respectively), have a long history of use in North America for flood plain assessments. In addition, the use of these programs for this assignment is compliant with the *'Hydrologic and Hydraulic Procedures for Flood Plain Delineation'* (Environment Canada, 1976) and the other WRMD project requirements.

6. Task 6: Field Data Collection Program

A field data collection program was developed focused on collection of the following information:

- Survey of hydraulic structures including upstream and downstream natural watercourses sections
- Photographic survey of hydraulic and other relevant watercourse features
- Water level and flow monitoring for all ponds, streams, and tributaries in the study areas
- Survey of natural watercourse sections associated with streamflow monitoring locations

Sections not associated with watercourse crossings or streamflow monitoring locations have been defined using the LiDAR data obtained for this project.

Given the late start to the project, scheduling issues with WSC staff, and winter freeze up the streamflow monitoring effort proposed for this study was not completed.

A bathymetry survey of Petty Harbour was completed using robotics technology (Clear Path Robotics) and the area downstream of the powerhouse dam. Freeze up precluded use in Corner Brook area or reservoirs on the Petty Harbour River.

The Kingfisher M100 unmanned surface vehicle (USV), see photo below, is designed for engineers, consultants and researchers who perform lengthy hydrological surveys in large, difficult to access or dangerous bodies of water. Developed in 2009 at the University of Waterloo, the first generation Kingfisher has been adopted for research at the University of Ottawa, University of Calgary, York University, MIT and Georgia Tech.

For the purposes of the this project, Clearpath mounted a Teledyne-RDI Riverray ADCP to the Kingfisher M100 USV. The ADCP is intended for collecting Depth/Bathymetric, Velocity Profile and Discharge measurements. It is rated for operability in streams, rivers, lakes, reservoirs, estuaries and irrigation canals and use cases including river hydrology, flood warning, irrigation monitoring, environmental impact studies, fishery studies and circulation studies. The Riverray ADCP is rated to deploy as float or boat mounted and specifications are as follows: 600 kHz, 1-2Hz data output rate, 10cm profile resolution, 200 cells, 0.4m minimum profiling range, 40m maximum profiling range, 16mb internal recording capability.



Kingfisher M100 Unmanned Surface Vehicle

Some specific information relevant to the three subject watersheds is provided below:



Figure 6-1 : Corner Brook Stream Field Program Schematic

Corner Brook Stream

- Identified 31 structures initially from 1:50000 NTS topographic maps
- 27 structures were confirmed in the field to exist
- 1 structure was field confirmed as non-existent
- 2 structures could not be accessed due to private property or safety concerns
- 5 additional structured were identified in the field and surveyed
- A total of 32 structures were surveyed along with 4 open water sections

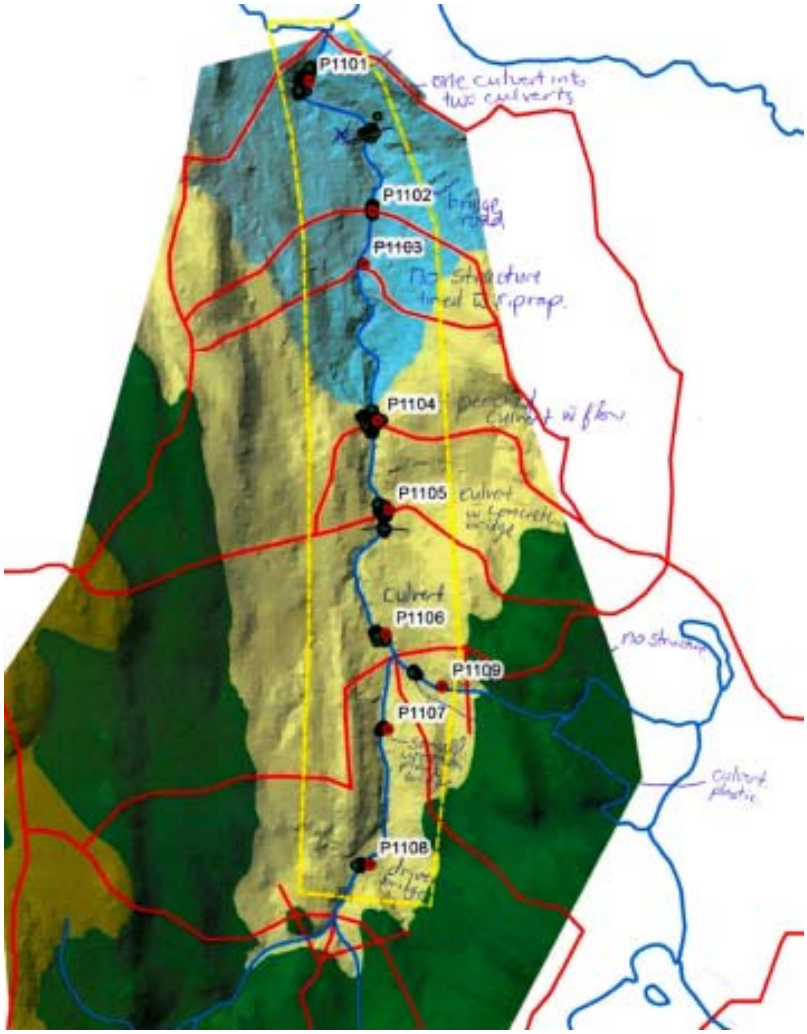

Figure 6-2 : Petrie's Brook Field Program Schematic

Petrie's Brook

- Identified 9 structures initially from 1:50000 NTS topographic maps
- 8 structures were confirmed in the field to exist
- 1 structure was field confirmed as non-existent
- All structures planned for survey were accessible
- No additional structures were identified in the field
- A total of 8 structures were surveyed along with 2 open water sections

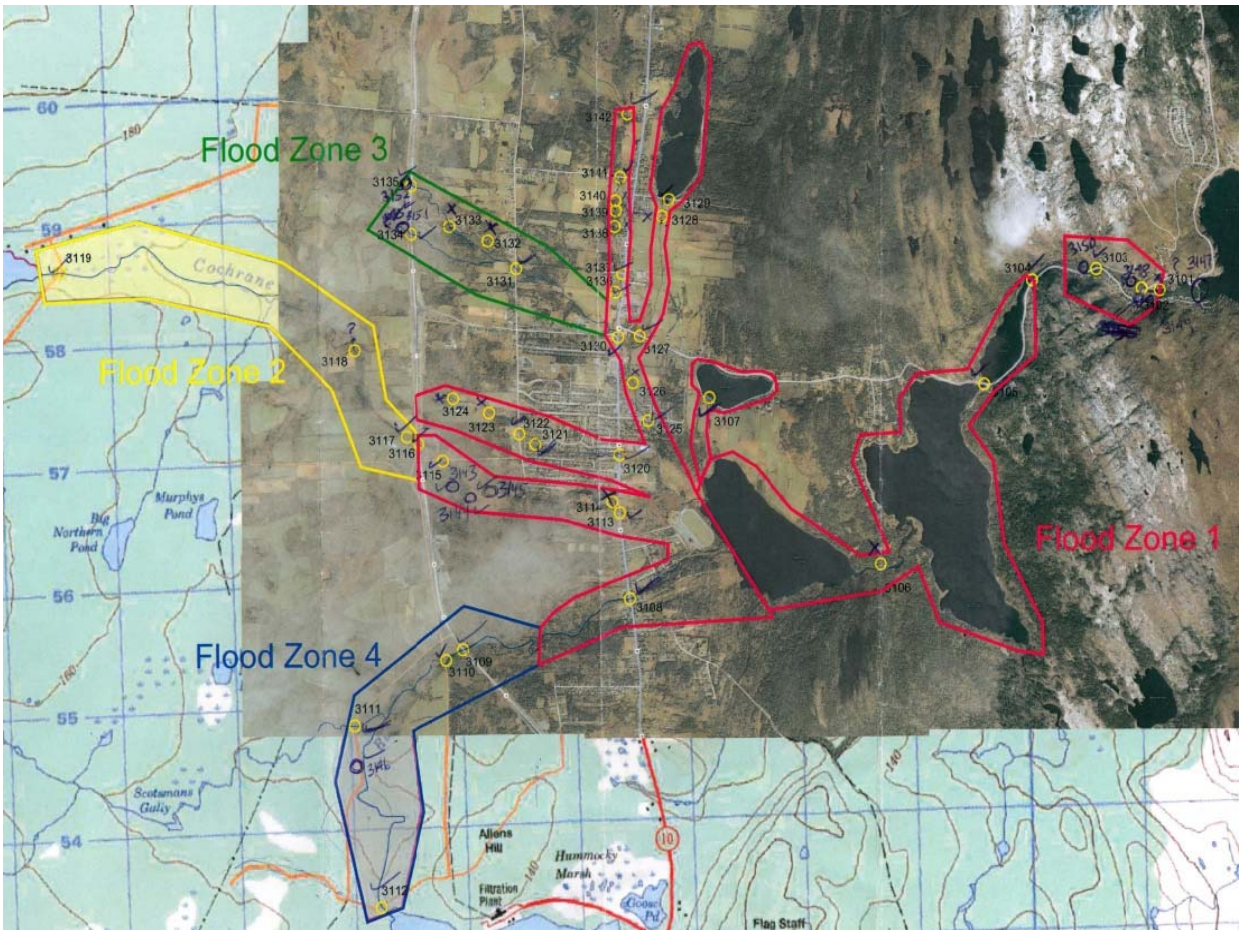

Figure 6-3 : Petty Harbour River Field Program Schematic

Petty Harbour River

- Identified 42 structures initially from 1:50000 NTS topographic maps
- 29 structures were confirmed in the field to exist
- 6 structure was field confirmed as non-existent
- 7 structures could not be accessed due to private property or safety concerns
- 10 additional structures were identified in the field
- A total of 39 structures were surveyed along with 14 open water sections

7. Task 7: Data Gap Filling

Data gaps were identified in the following areas:

- No as-built data available from municipalities for crossings. This gap was mitigated by in-field structure survey as required to support hydraulic modeling

- Minimal stage-storage-discharge data available from dam owners. This gap was mitigated by obtaining design or as-built drawings of the structures from the dam owners. These drawings, along with the available topographic map data, supported calculation of rating curve data.
- No large scale (e.g., 1:2500) topographic information was available for the hydraulic study area for the Petty Harbour River (i.e., areas designated for flood plain mapping). The City of St. John's has been contacted to obtain large scale municipal topographic (vector) information as a means of mitigating this gap.
- As noted in Section 6, a number of structures were located in the field within the area designated for flood plain map development that could not be accessed. It is planned to mitigate this gap by modeling an adjacent structure (mimicking one upstream or downstream of the location, that could not be accessed, adjusted for stream elevation.

8. References

Vasseur and Catto, 2008 — Vasseur, L. and Catto, N. (2008): Atlantic Canada; *in* From Impacts to Adaptation: Canada in a Changing Climate 2007, *edited by* D.S. Lemmen, F.J. Warren, J. Lacroix and E. Bush; Government of Canada, Ottawa, ON, p. 119-170.

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LiDAR PROGRAM ACCURACY REPORT

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Date: 12/20/2011 9:31:57 AM
Mode: Nearest Neighbour
Control Listing: F:\2011-1585-676-Goulds-LiDAR\POSITIONING\003_Control\Goulds_ENH_NAD83CSRS_MTM1_Orthometric_HT2_All_Control.txt
Search Radius: 1
ZDiffCutOff: 1
Mean Value: .059045
Standard Deviation: .035931
RMS Value: .069118
NSSDA AccuracyZ :.135472

LAS File: decoll_318000_5261000.LAS													
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1022	0.589	351	-0.0173	5	318827.4	5261377	165.477	318827.4	5261377	165.4597	11	0.088	0.582
1023	0.411	248	-0.0202	6	318813.9	5261366	166.009	318813.6	5261366	165.9888	10	0.382	0.153
1024	0.243	335	-0.033	7	318799.9	5261358	166.561	318799.8	5261358	166.528	10	0.101	0.22
1025	0.501	83	-0.0237	9	318784.1	5261350	167.172	318784.6	5261350	167.1483	10	0.498	0.06
1026	0.121	184	0.0377	6	318768.4	5261345	167.613	318768.4	5261344	167.6507	11	0.01	0.121
1027	0.375	69	-0.0192	7	318752.2	5261340	168.141	318752.6	5261341	168.1218	10	0.351	0.132
1028	0.535	346	-0.019	7	318735.7	5261338	168.555	318735.6	5261338	168.536	10	0.122	0.521
check3	0.563	117	0.1757	4	318654.9	5261246	171.059	318655.3	5261246	171.2347	10	0.497	0.263
1032	0.535	268	0.0465	3	318582.4	5261284	171.695	318581.9	5261284	171.7415	10	0.535	0.013
1033	0.153	7	0.0424	3	318589	5261280	171.628	318589	5261280	171.6704	10	0.02	0.152
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1035	0.378	27	0.0152	3	318616.4	5261261	171.369	318616.6	5261261	171.3842	10	0.177	0.334
1036	0.403	195	0.025	3	318633.1	5261253	171.244	318633	5261252	171.269	10	0.108	0.388
1037	0.575	104	-0.0262	3	318648	5261248	171.154	318648.6	5261248	171.1278	10	0.557	0.145
1038	0.286	204	0.0236	5	318662.7	5261246	171.007	318662.6	5261245	171.0306	10	0.119	0.26
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1040	0.423	265	0.0722	5	318692.9	5261242	170.563	318692.5	5261242	170.6352	10	0.422	0.03
1041	0.348	153	0.075	5	318709.8	5261242	170.159	318710	5261242	170.234	10	0.156	0.312
1042	0.166	209	0.0527	7	318726.2	5261243	169.754	318726.1	5261243	169.8067	10	0.081	0.145
1043	1.042	318	0.0849	7	318728.9	5261243	169.676	318728.2	5261244	169.7609	11	0.694	0.777
1044	0.582	50	0.0823	5	318754.1	5261243	169.178	318754.6	5261243	169.2603	10	0.446	0.374
1045	0.56	120	0.0903	4	318751	5261258	169.205	318751.4	5261258	169.2953	10	0.481	0.288
1046	0.295	243	0.0736	6	318731.5	5261258	169.612	318731.2	5261258	169.6856	10	0.265	0.13
1047	0.227	93	0.09	5	318753.6	5261154	170.82	318753.8	5261154	170.91	11	0.227	0.013
1048	0.376	78	0.0471	7	318740.3	5261153	171.016	318740.7	5261153	171.0631	10	0.369	0.075
1049	0.474	190	0.1312	5	318734.5	5261153	171.131	318734.4	5261152	171.2622	10	0.088	0.465
1050	0.291	257	0.0935	5	318723.3	5261155	171.32	318723	5261155	171.4135	11	0.285	0.062
1051	0.487	180	0.1076	5	318701.4	5261158	171.659	318701.4	5261158	171.7666	10	0.003	0.487
1052	0.527	100	0.058	5	318668.4	5261163	172.267	318668.9	5261163	172.325	10	0.518	0.093
1053	0.57	329	0.075	6	318667.5	5261163	172.277	318667.2	5261163	172.352	10	0.286	0.493
1054	0.242	315	0.0671	6	318652.7	5261166	172.484	318652.5	5261166	172.5511	10	0.171	0.171
1055	0.223	18	0.0563	2	318636.7	5261169	172.702	318636.8	5261169	172.7583	10	0.07	0.212
1056	0.693	245	0.0817	3	318612.6	5261177	172.957	318612	5261176	173.0387	10	0.629	0.292
1057	0.469	18	-0.0551	4	318595.4	5261185	173.119	318595.5	5261185	173.0639	10	0.145	0.446
1058	0.207	227	0.0571	3	318579.5	5261195	173.241	318579.4	5261194	173.2981	10	0.153	0.14
1059	0.621	248	0.0822	2	318566.4	5261204	173.345	318565.8	5261204	173.4272	10	0.578	0.226
1060	0.403	9	0.0114	2	318550	5261216	173.431	318550	5261216	173.4424	10	0.065	0.398
1061	0.285	303	0.0556	2	318529.8	5261230	173.679	318529.6	5261231	173.7346	10	0.237	0.159
1062	0.475	63	0.1298	2	318506.1	5261248	173.765	318506.6	5261249	173.8948	10	0.427	0.209

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OPEN WATER SECTION PLOTS

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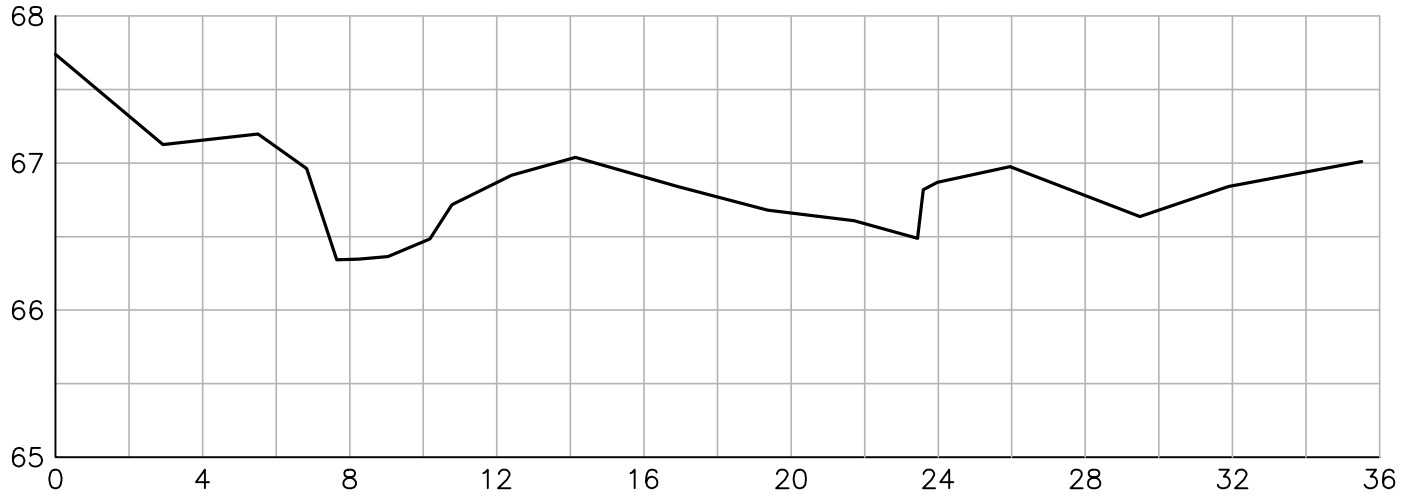

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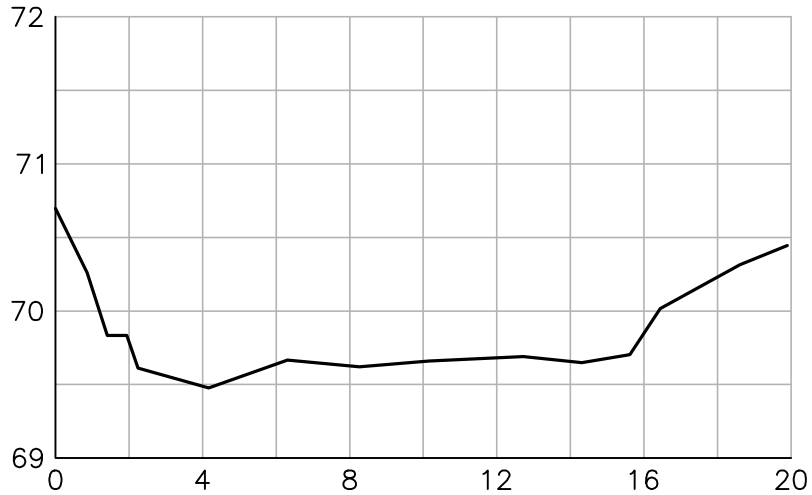

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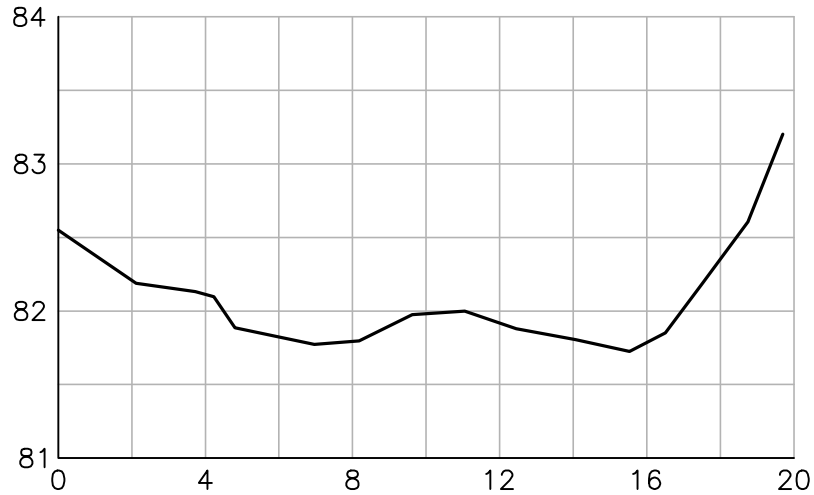

3203

Newfoundland Labrador
Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

Natural River Sections
Goulds\Petty Harbour

Doyles, Dirty Bridge and Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
and Goulds Stream

amec

Scale
Vertical 1:50
Horizontal 1:200

Sheet 1 of 4

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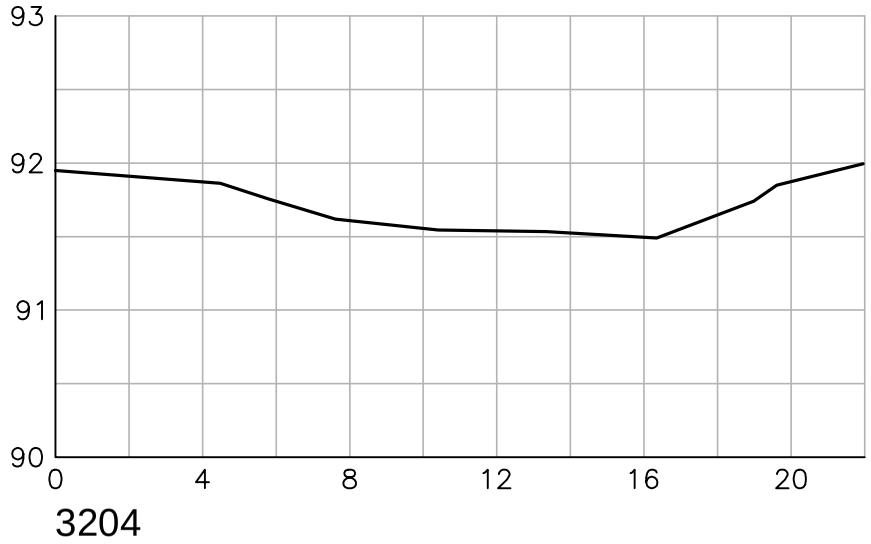

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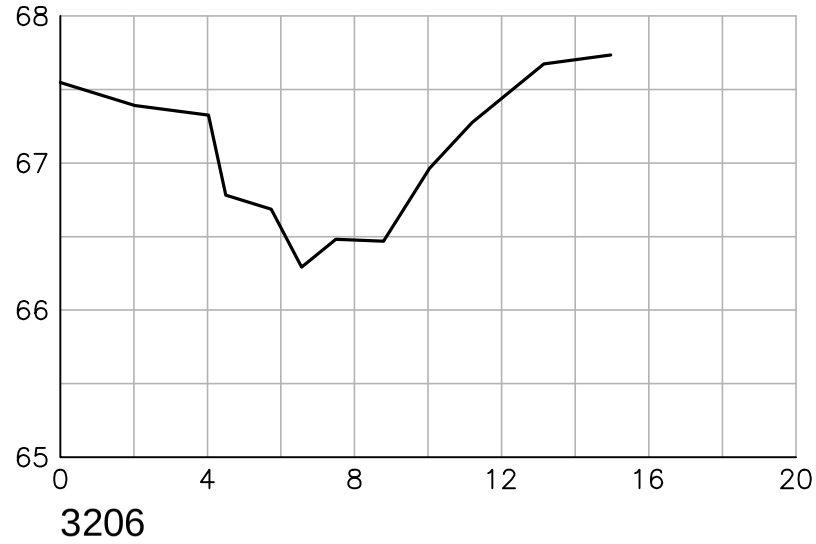

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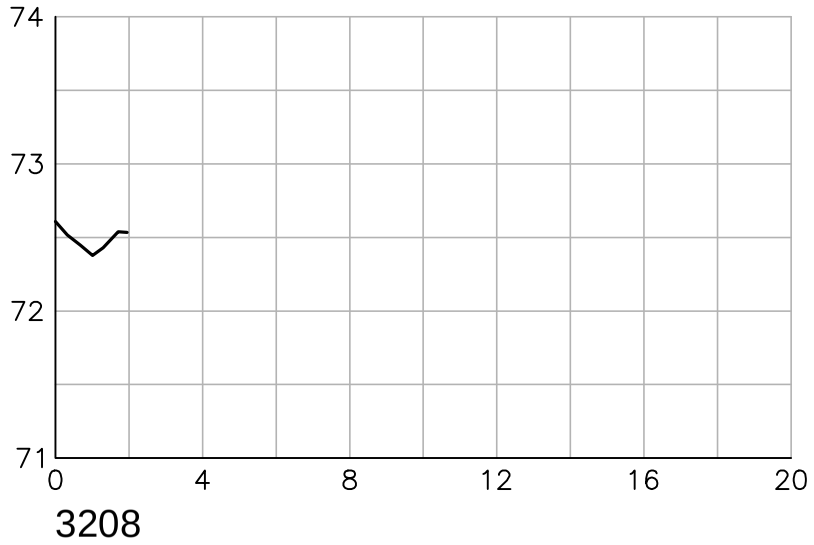

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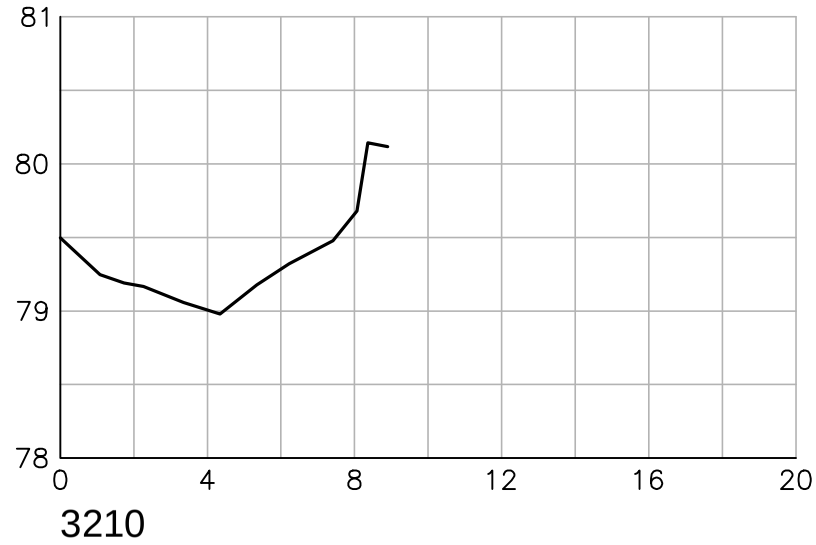

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Newfoundland Labrador
Department of Environment and Conservation
Water Resource Management Division

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Goulds\Petty Harbour

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amec

Scale
Vertical 1:50
Horizontal 1:200

Sheet 2 of 4

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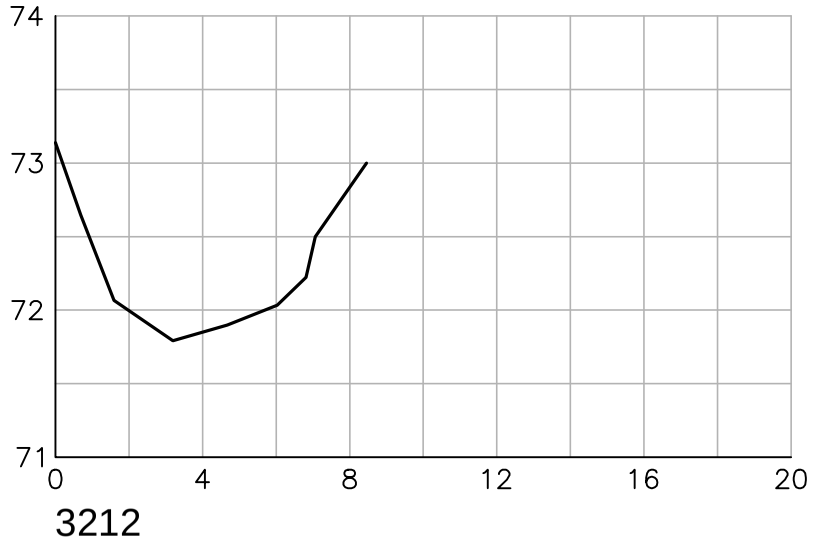

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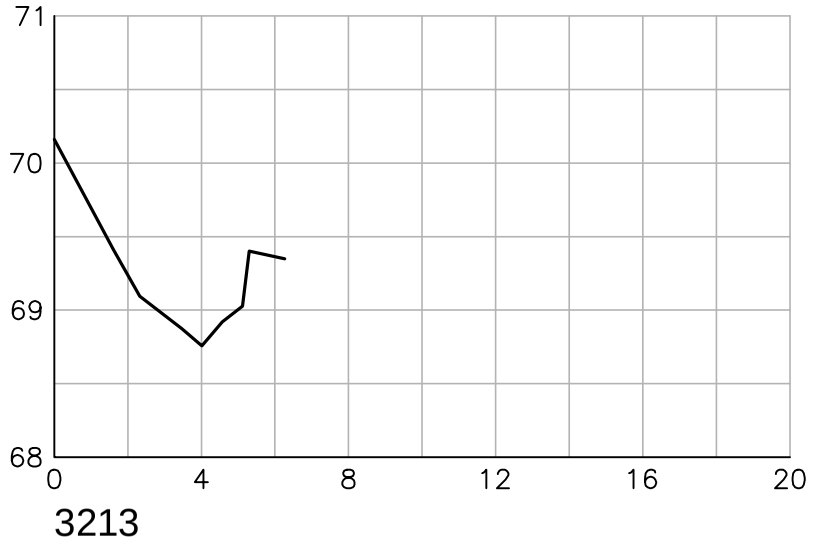

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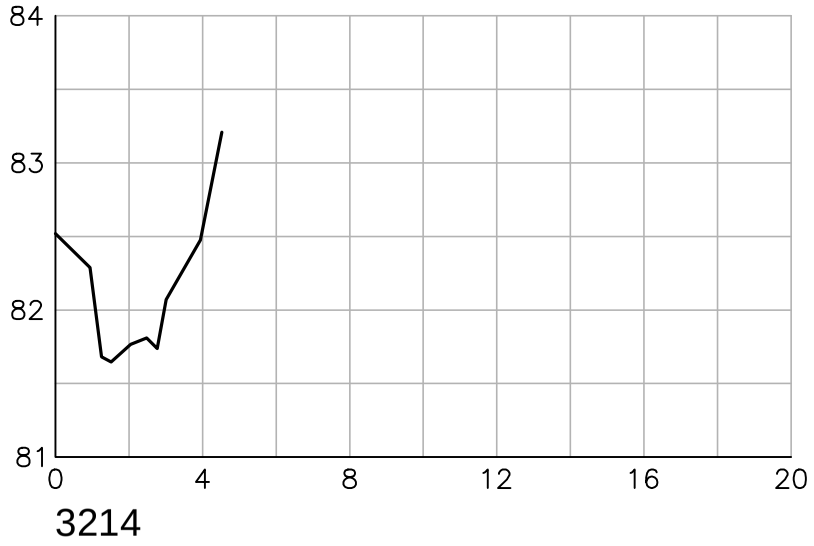

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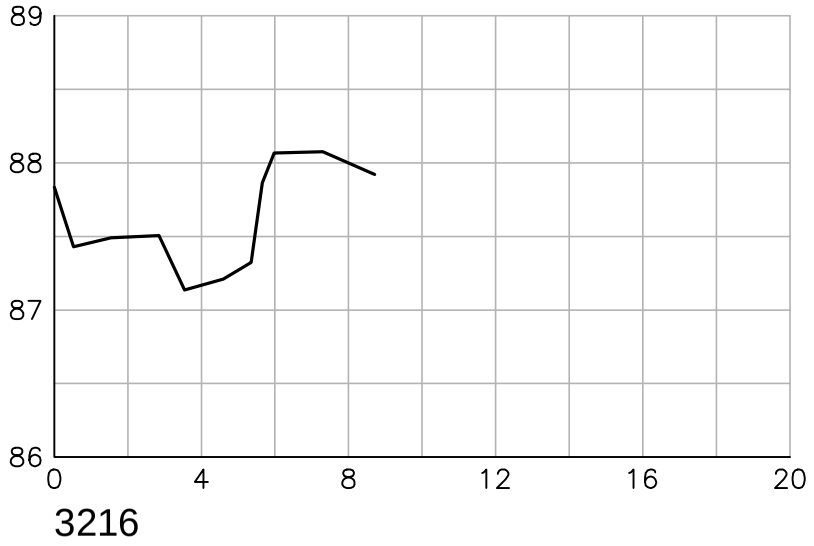

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Newfoundland Labrador
Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

Natural River Sections
Goulds\Petty Harbour

Doyles, Dirty Bridge and Petty Harbour Rivers,
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Scale
Vertical 1:50
Horizontal 1:200

Sheet 3 of 4

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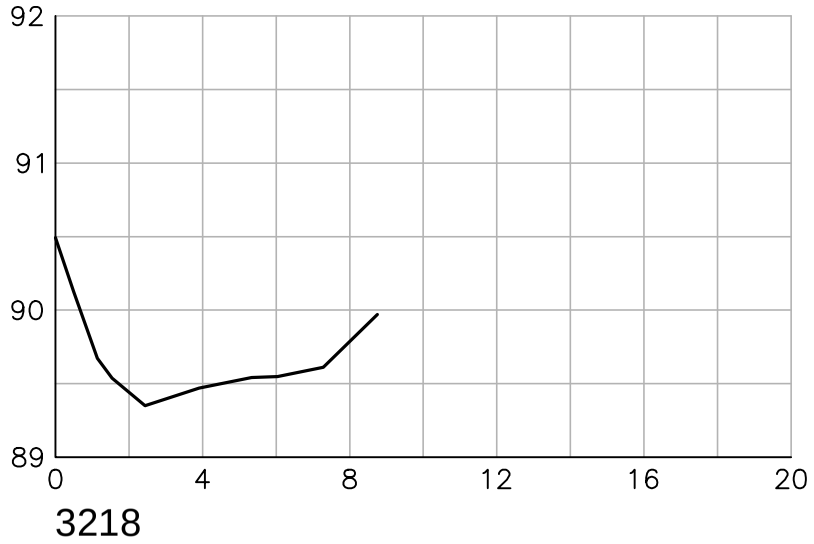

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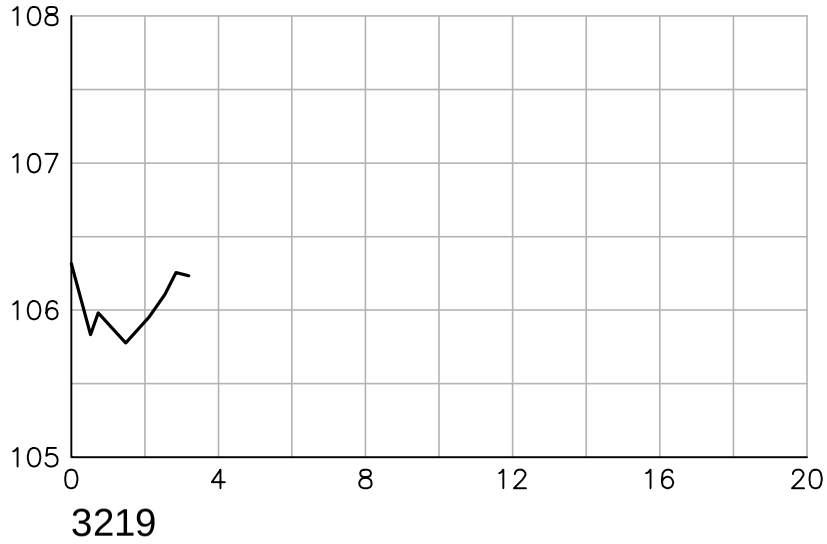

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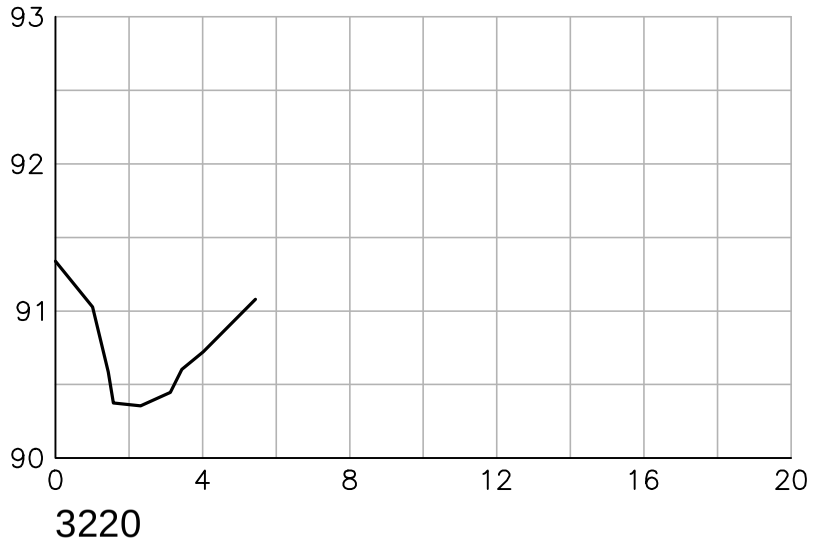

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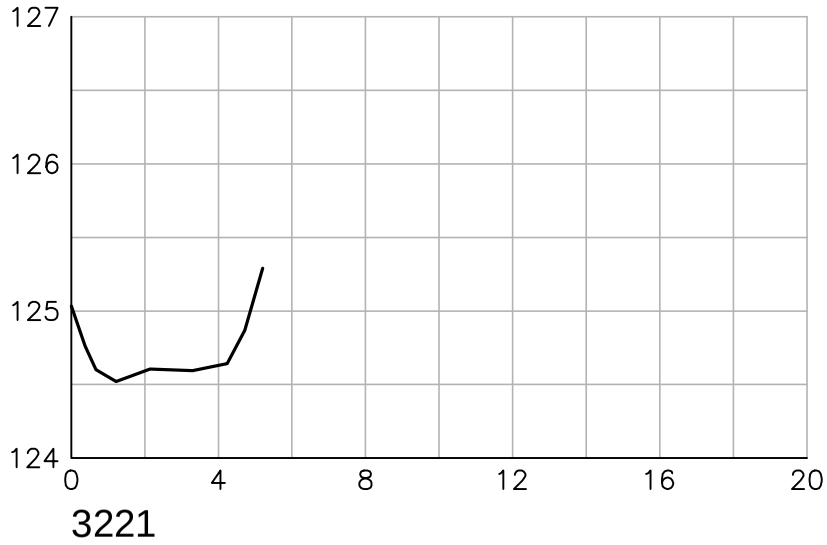

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Newfoundland Labrador
Department of Environment and Conservation
Water Resource Management Division

Hydrotechnical Study of Corner Brook and Goulds\Petty Harbour

Natural River Sections
Goulds\Petty Harbour

Doyles, Dirty Bridge and Petty Harbour Rivers,
Cochrane Pond and Raymond Brooks,
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Scale
Vertical 1:50
Horizontal 1:200

Sheet 4 of 4

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APPENDIX M

STAGE STORAGE DISCHARGE RELATIONSHIPS FOR DAMS

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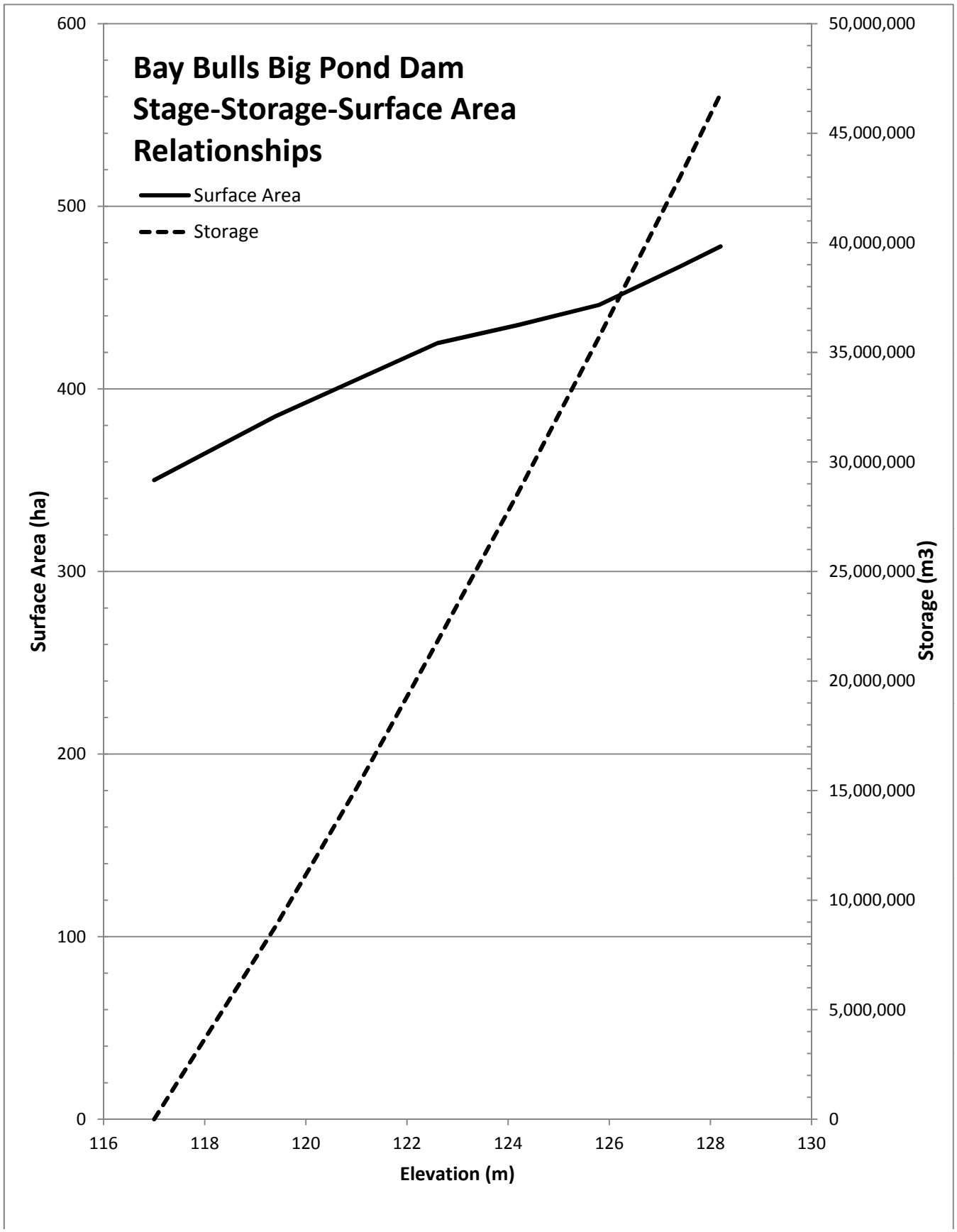
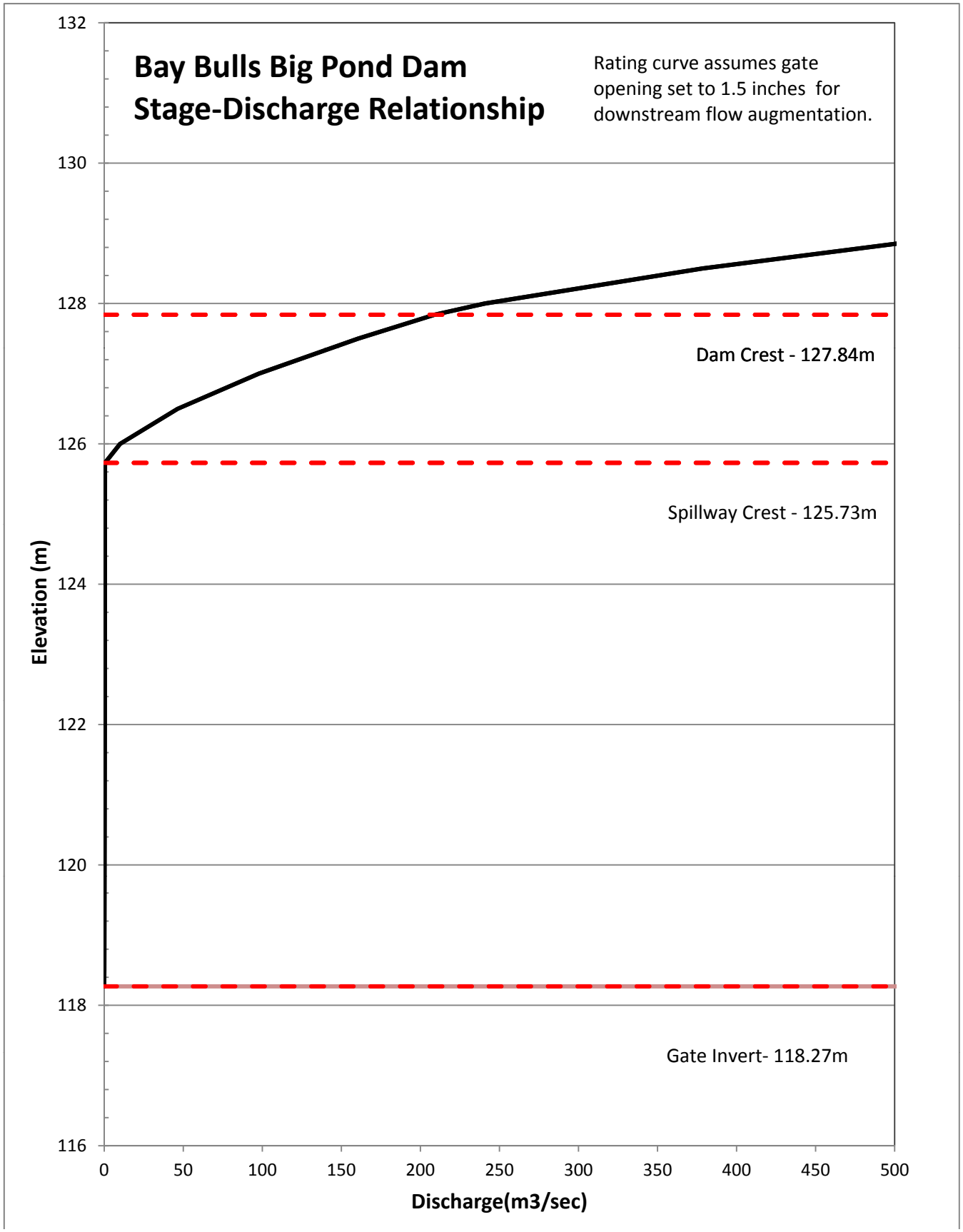
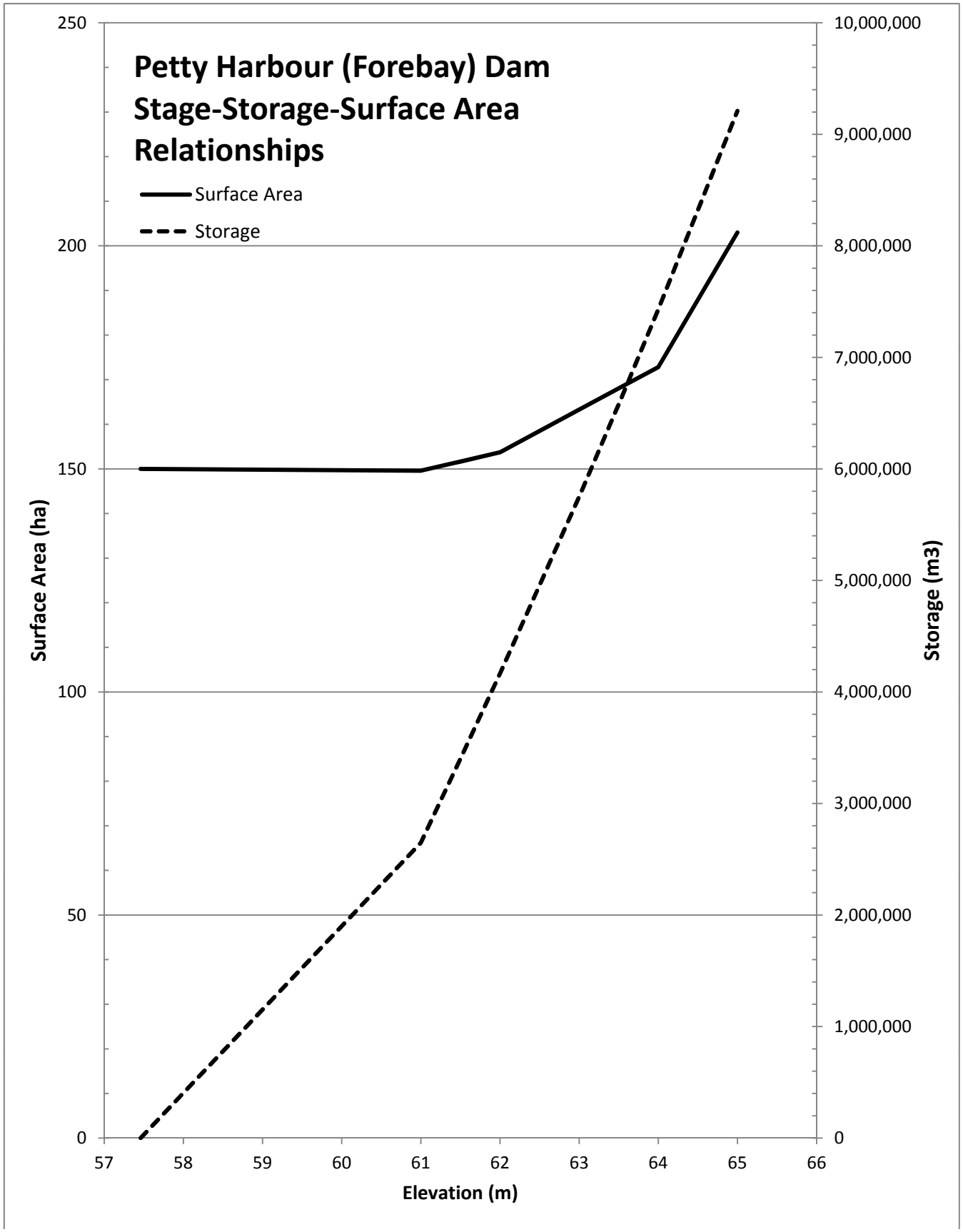

Bay Bulls Big Pond Dam
Stage-Storage-Surface Area
Relationships
Surface Area
Storage
Surface Area (ha)
Storage (m3)
Elevation (m)
600
500
400
300
200
100
0
50,000,000
45,000,000
40,000,000
35,000,000
30,000,000
25,000,000
20,000,000
15,000,000
10,000,000
5,000,000
0
116
118
120
122
124
126
128
130


Bay Bulls Big Pond Dam
Stage-Discharge Relationship
Rating curve assumes gate opening set to 1.5 inches for downstream flow augmentation.
Dam Crest - 127.84m
Spillway Crest - 125.73m
Gate Invert- 118.27m
Elevation (m)
132
130
128
126
124
122
120
118
116
0
50
100
150
200
250
300
350
400
450
500
Discharge(m3/sec)


Petty Harbour (Forebay) Dam
Stage-Storage-Surface Area
Relationships
Surface Area
Storage
Surface Area (ha)
Storage (m3)
Elevation (m)
250
200
150
100
50
0
10,000,000
9,000,000
8,000,000
7,000,000
6,000,000
5,000,000
4,000,000
3,000,000
2,000,000
1,000,000
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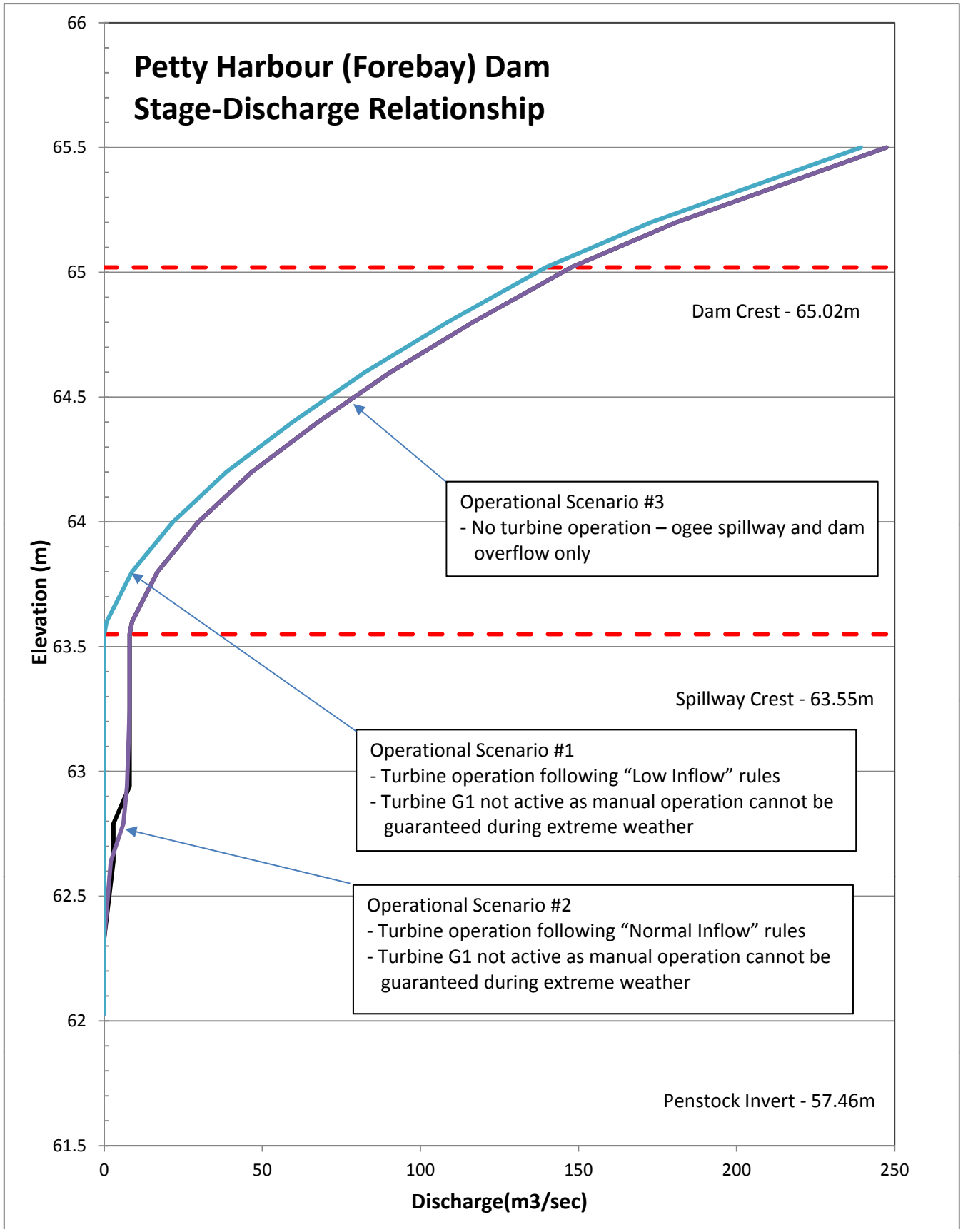
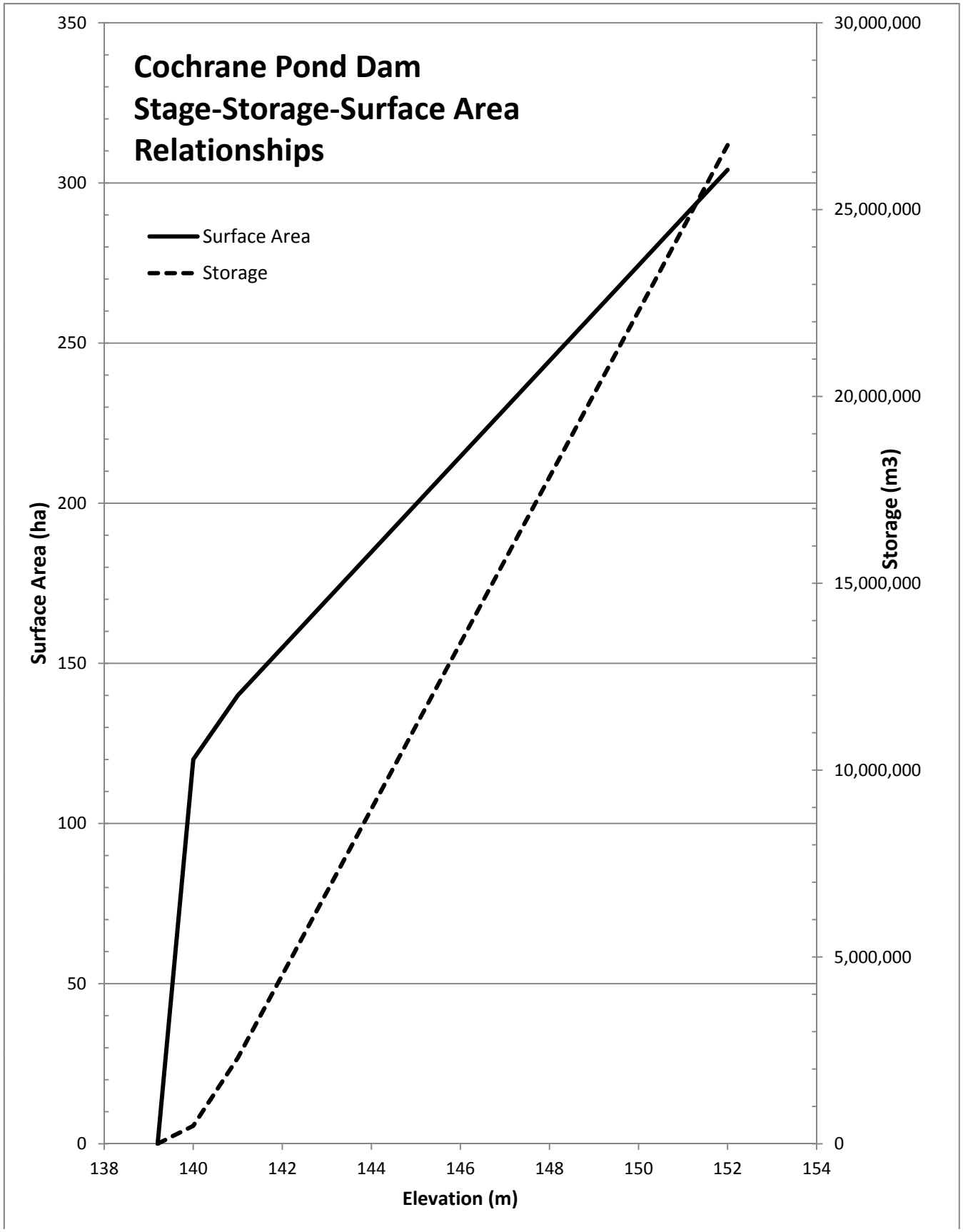
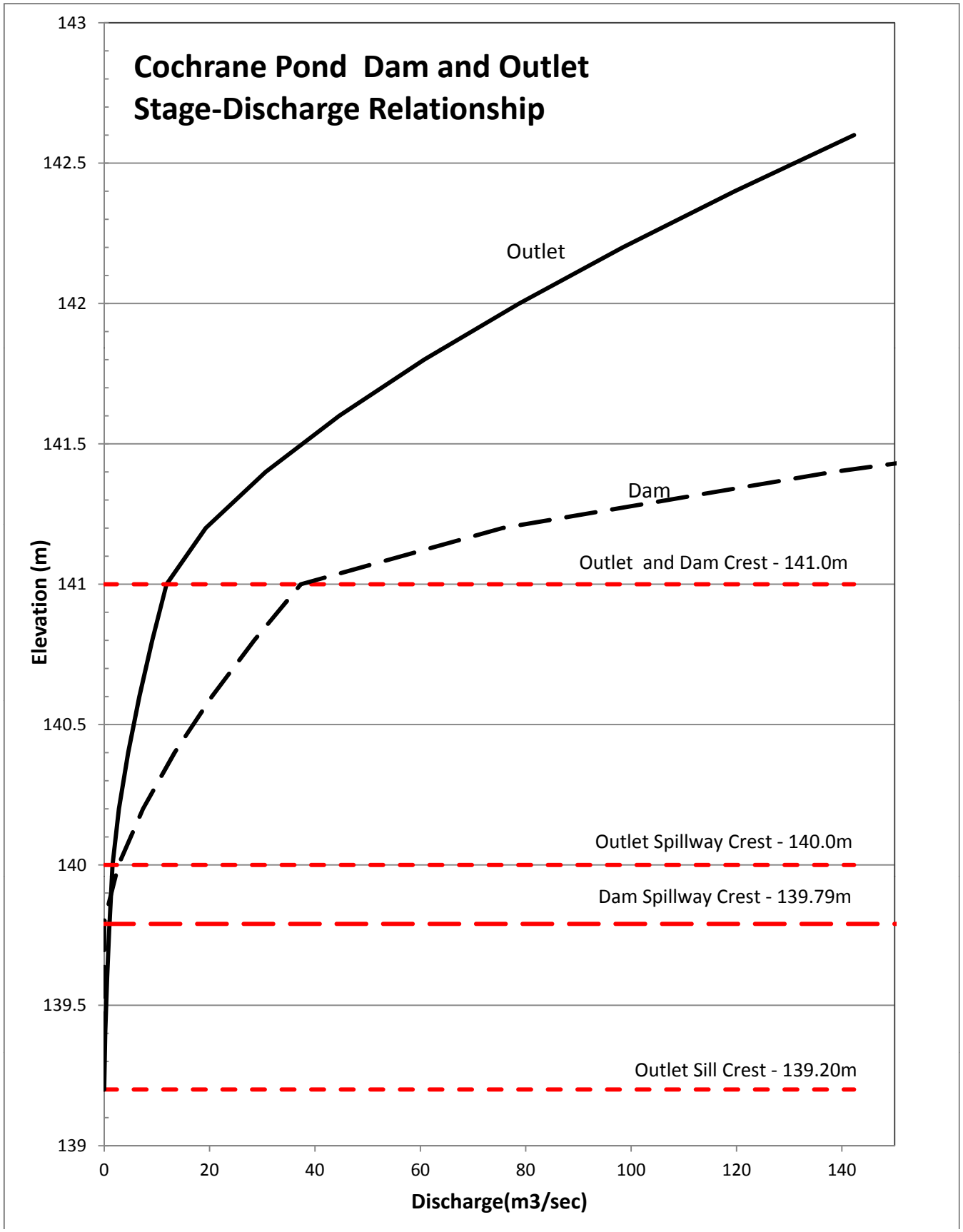
57
58
59
60
61
62
63
64
65
66


Petty Harbour (Forebay) Dam
Stage-Discharge Relationship
Elevation (m)
Discharge(m3/sec)
66
65.5
65
64.5
64
63.5
63
62.5
62
61.5
0
50
100
150
200
250
Dam Crest - 65.02m
Spillway Crest - 63.55m
Penstock Invert - 57.46m
Operational Scenario #3
- No turbine operation – ogee spillway and dam overflow only
Operational Scenario #1
- Turbine operation following “Low Inflow” rules
- Turbine G1 not active as manual operation cannot be guaranteed during extreme weather
Operational Scenario #2
- Turbine operation following “Normal Inflow” rules
- Turbine G1 not active as manual operation cannot be guaranteed during extreme weather


Cochrane Pond Dam
Stage-Storage-Surface Area
Relationships
Surface Area
Storage
Surface Area (ha)
Storage (m3)
Elevation (m)
350
300
250
200
150
100
50
0
30,000,000
25,000,000
20,000,000
15,000,000
10,000,000
5,000,000
0
138
140
142
144
146
148
150
152
154


Cochrane Pond Dam and Outlet
Stage-Discharge Relationship
Outlet
Dam
Outlet and Dam Crest - 141.0m
Outlet Spillway Crest - 140.0m
Dam Spillway Crest - 139.79m
Outlet Sill Crest - 139.20m
Elevation (m)
143
142.5
142
141.5
141
140.5
140
139.5
139
0
20
40
60
80
100
120
140
Discharge(m3/sec)

APPENDIX N

HEC-RAS SENSITIVITY ANALYSIS TABLES

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Petty Harbour River 100yr n+20%

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	TR001	439.21	100Year-Existing	36.90	105.11	106.52	106.27	106.61	0.004795	1.94	40.67	65.96	0.55
RaymondB	TR001	409.42	100Year-Existing	36.90	104.68	106.07	106.04	106.37	0.013430	3.19	22.10	33.90	0.91
RaymondB	TR001	380.07	100Year-Existing	36.90	104.05	106.18		106.22	0.000923	1.14	65.62	74.55	0.26
RaymondB	TR001	360.64	100Year-Existing	36.90	103.60	106.18	105.21	106.20	0.000426	0.86	94.64	90.94	0.18
RaymondB	TR001	350		Bridge									
RaymondB	TR001	344.45	100Year-Existing	36.90	103.30	104.61	105.00	105.84	0.050469	5.82	11.15	36.79	1.70
RaymondB	TR001	334.13	100Year-Existing	36.90	103.40	104.38	104.66	105.24	0.043200	4.42	12.71	50.23	1.52
RaymondB	TR001	272.22	100Year-Existing	36.90	102.83	103.97	103.97	104.22	0.015338	2.97	23.63	45.43	0.94
RaymondB	TR001	218.50	100Year-Existing	36.90	101.42	102.78	102.86	103.30	0.018212	3.62	16.26	27.54	1.05
RaymondB	TR001	163.97	100Year-Existing	36.90	100.32	101.91	101.47	102.06	0.003879	1.87	26.05	29.78	0.50
RaymondB	TR001	115.54	100Year-Existing	36.90	100.00	101.38	101.38	101.73	0.012816	3.20	20.48	35.13	0.90
RaymondB	TR001	56.65	100Year-Existing	36.90	97.73	98.52	98.90	99.79	0.087282	5.38	8.60	16.57	2.10
RaymondB	M002	6453.60	100Year-Existing	19.70	118.10	125.24	118.91	125.24	0.000000	0.03	669.28	233.87	0.01
RaymondB	M002	6405.52	100Year-Existing	19.70	118.00	125.24		125.24	0.000000	0.03	679.44	228.88	0.01
RaymondB	M002	6347.04	100Year-Existing	19.70	124.73	125.18		125.24	0.006214	1.10	18.17	41.46	0.52
RaymondB	M002	6247.26	100Year-Existing	19.70	117.21	118.29		118.34	0.003855	1.43	23.95	35.15	0.47
RaymondB	M002	6230.10	100Year-Existing	19.70	117.20	118.27		118.31	0.001753	0.94	29.71	42.84	0.31
RaymondB	M002	6205.35	100Year-Existing	19.70	117.28	118.24		118.26	0.001588	0.84	41.13	61.00	0.29
RaymondB	M002	6143.06	100Year-Existing	19.70	117.18	118.12		118.14	0.002259	0.97	36.80	63.78	0.35
RaymondB	M002	6105.93	100Year-Existing	19.70	117.17	117.99		118.03	0.003093	1.03	28.28	61.91	0.40
RaymondB	M002	6026.35	100Year-Existing	19.70	116.81	117.80		117.83	0.002124	0.98	32.06	47.60	0.34
RaymondB	M002	5933.71	100Year-Existing	19.70	116.42	117.52		117.59	0.003130	1.30	26.39	63.18	0.42
RaymondB	M002	5883.92	100Year-Existing	19.70	116.12	117.29		117.40	0.004417	1.59	17.42	29.61	0.50
RaymondB	M002	5785.15	100Year-Existing	19.70	115.75	116.84		116.94	0.005033	1.57	18.29	31.33	0.53
RaymondB	M002	5732.44	100Year-Existing	19.70	115.46	116.48		116.62	0.006851	1.74	14.02	25.67	0.61
RaymondB	M002	5631.37	100Year-Existing	19.70	114.85	115.77		115.86	0.008235	1.67	19.83	45.66	0.64
RaymondB	M002	5500.15	100Year-Existing	19.70	114.62	115.69		115.69	0.000634	0.55	69.41	131.32	0.19
RaymondB	M002	5485.46	100Year-Existing	19.70	114.53	115.68		115.68	0.000394	0.47	87.02	167.10	0.15
RaymondB	M002	5411.19	100Year-Existing	19.70	114.48	115.61	115.20	115.64	0.001249	0.81	37.65	68.91	0.27
RaymondB	M002	5338.54	100Year-Existing	19.70	114.41	115.61	114.79	115.61	0.000106	0.25	92.54	110.73	0.08
RaymondB	M002	5278.93	100Year-Existing	19.70	114.44	115.60	114.84	115.60	0.000149	0.29	82.90	111.62	0.09
RaymondB	M002	5226.60	100Year-Existing	19.70	114.42	115.59		115.60	0.000166	0.30	89.40	129.13	0.10
RaymondB	M002	5171.66	100Year-Existing	19.70	114.42	115.58		115.59	0.000161	0.31	106.09	179.55	0.10
RaymondB	M002	5111.50	100Year-Existing	19.70	114.42	115.56		115.57	0.000570	0.57	59.95	134.88	0.18
RaymondB	M002	5077.48	100Year-Existing	19.70	114.38	115.54		115.55	0.000530	0.55	50.49	89.95	0.17
RaymondB	M002	5017.13	100Year-Existing	19.70	114.40	115.42		115.48	0.002910	1.16	18.92	28.23	0.40
RaymondB	M002	4967.43	100Year-Existing	19.70	114.07	115.14		115.28	0.005820	1.68	12.91	18.45	0.57
RaymondB	M002	4943.43	100Year-Existing	19.70	113.82	115.03		115.15	0.004962	1.70	16.17	25.71	0.54
RaymondB	M002	4910.95	100Year-Existing	19.70	113.67	114.88		114.99	0.004657	1.66	17.67	29.61	0.52
RaymondB	M002	4851.17	100Year-Existing	19.70	113.47	114.58		114.69	0.005326	1.67	17.38	30.61	0.55
RaymondB	M002	4783.73	100Year-Existing	19.70	113.30	114.26		114.34	0.004901	1.33	18.79	36.41	0.50
RaymondB	M002	4732.68	100Year-Existing	19.70	113.07	114.01		114.07	0.005282	1.37	22.09	43.58	0.52
RaymondB	M002	4681.76	100Year-Existing	19.70	112.35	113.35	113.35	113.63	0.013740	2.52	10.73	31.15	0.87
RaymondB	M002	4673.96	100Year-Existing	19.70	111.74	112.64	112.83	113.40	0.046522	4.10	6.06	17.74	1.54
RaymondB	M002	4644.78	100Year-Existing	19.70	110.49	111.44	111.64	112.16	0.038068	3.92	5.88	22.62	1.42
RaymondB	M002	4625.72	100Year-Existing	19.70	106.75	107.34	107.90	110.27	0.373357	7.60	2.61	7.08	3.91
RaymondB	M002	4615.42	100Year-Existing	19.70	105.83	106.58	106.94	107.86	0.109752	5.18	4.30	10.00	2.26
RaymondB	M002	4607.06	100Year-Existing	19.70	105.79	107.02	106.94	107.38	0.012729	2.79	8.39	9.74	0.86
RaymondB	M002	4597.34	100Year-Existing	19.70	105.76	107.00		107.23	0.009869	2.35	11.42	16.82	0.75
RaymondB	M002	4575.18	100Year-Existing	19.70	105.98	106.59	106.59	106.84	0.041556	2.67	9.44	20.03	1.31
RaymondB	M002	4545.57	100Year-Existing	19.70	104.65	105.82	105.88	106.15	0.014735	2.80	10.83	27.16	0.91
RaymondB	M002	4522.17	100Year-Existing	19.70	103.67	104.43	104.73	105.43	0.072199	4.68	5.49	14.73	1.88
RaymondB	M002	4511.42	100Year-Existing	19.70	103.62	104.91	104.59	105.01	0.004850	1.73	18.31	28.14	0.53
RaymondB	M002	4489.94	100Year-Existing	19.70	103.59	104.55	104.55	104.82	0.015603	2.59	11.02	21.67	0.91
RaymondB	M002	4466.63	100Year-Existing	19.70	103.03	104.31	103.97	104.42	0.004180	1.62	18.07	33.86	0.50
RaymondB	M002	4439.46	100Year-Existing	19.70	103.00	104.04	104.04	104.24	0.011605	2.36	15.33	40.13	0.79
RaymondB	M002	4415.77	100Year-Existing	19.70	102.78	103.53	103.63	103.84	0.025496	2.68	10.96	39.10	1.11
RaymondB	M002	4385.89	100Year-Existing	19.70	101.80	102.75	102.87	103.14	0.021034	2.99	9.71	27.28	1.06
RaymondB	M002	4354.01	100Year-Existing	19.70	101.27	102.13	102.11	102.39	0.025555	3.12	13.40	38.93	1.15
RaymondB	M002	4341.66	100Year-Existing	19.70	100.84	101.92	101.92	102.15	0.013355	2.52	14.22	35.89	0.86
RaymondB	M002	4332.73	100Year-Existing	19.70	100.32	101.17	101.36	101.90	0.045872	4.04	6.45	14.58	1.53
RaymondB	M002	4308.73	100Year-Existing	19.70	98.87	99.60	99.87	100.49	0.075569	4.56	5.72	13.56	1.89
RaymondB	M002	4294.65	100Year-Existing	19.70	98.45	99.41	99.47	99.82	0.022490	3.12	8.61	14.84	1.10
RaymondB	M002	4263.86	100Year-Existing	19.70	97.59	99.15	98.54	99.23	0.002182	1.40	20.19	22.36	0.37
RaymondB	M002	4235.25	100Year-Existing	19.70	97.47	99.14		99.18	0.000967	0.97	27.81	27.33	0.25
RaymondB	M001	4130.35	100Year-Existing	55.40	96.57	98.14	98.13	98.63	0.014817	3.20	19.80	27.16	0.94
RaymondB	M001	4076.94	100Year-Existing	55.40	96.04	97.90	97.60	98.10	0.005169	2.19	33.71	37.48	0.58
RaymondB	M001	4023.53	100Year-Existing	55.40	95.94	97.15	97.15	97.59	0.019618	3.02	20.50	30.04	1.04
RaymondB	M001	3978.20	100Year-Existing	55.40	94.64	96.87	96.28	96.97	0.002553	1.49	47.24	60.33	0.40
RaymondB	M001	3916.71	100Year-Existing	75.30	94.64	96.58		96.75	0.004627	2.24	57.80	65.95	0.56
RaymondB	M001	3863.30	100Year-Existing	75.30	94.41	96.41		96.53	0.003321	1.96	70.72	81.92	0.48
RaymondB	M001	3809.58	100Year-Existing	75.30	94.09	95.93	95.84	96.25	0.008897	2.98	40.62	48.12	0.77
RaymondB	M001	3756.26	100Year-Existing	75.30	93.53	95.25	95.25	95.69	0.011750	3.29	33.71	42.25	0.87
RaymondB	M001	3694.37	100Year-Existing	75.30	92.66	94.55	94.35	94.82	0.006327	2.54	44.60	63.81	0.65
RaymondB	M001	3569.22	100Year-Existing	75.30	92.15	94.59		94.61	0.000448	0.83	175.54	172.99	0.18
RaymondB	M001	3527.64	100Year-Existing	75.30	91.85	94.57		94.59	0.000376	0.83	175.68	149.71	0.17
RaymondB	M001	3446.51	100Year-Existing	75.30	91.14	94.56		94.57	0.000164	0.62	246.56	179.90	0.11
RaymondB	M001	3421.64	100Year-Existing	75.30	91.23	94.55	93.16	94.56	0.000188	0.72	267.95	235.20	0.13
RaymondB	M001	3410		Bridge									
RaymondB	M001	3404.11	100Year-Existing	75.30	91.23	93.22	93.22	94.16	0.014101	4.34	17.69	103.45	1.00
RaymondB	M001	3380.48	100Year-Existing	75.30	90.96	93.10	92.53	93.24	0.003038	1.94	62.73	71.63	0.46
RaymondB	M001	3308.92	100Year-Existing	75.30	90.80	92.84		92.99	0.003821	2.18	62.51	72.88	0.51
RaymondB	M001	3216.73	100Year-Existing	75.30	89.31	92.47	91.22	92.72	0.002169	2.26	34.51	78.74	0.42
RaymondB	M001	3200		Bridge									
RaymondB	M001	3188.78	100Year-Existing	75.30	89.30	91.67	91.61	92.43	0.011229	4.16	21.49	47.23	0.90
RaymondB	M001	3015.18	100Year-Existing	75.30	89.18	91.00		91.14	0.003403	1.89	62.76	69.71	0.48
RaymondB	M001	2876.32	100Year-Existing	75.30	88.66	90.35	90.11	90.55	0.006460	2.34	51.21	98.04	0.64
RaymondB	M001	2789.37	100Year-Existing	75.30	88.24	90.11		90.17	0.002614	1.62	102.81	162.63	0.41
RaymondB	M001	2681.85	100Year-Existing	75.30	88.14	89.58		89.73	0.009398	2.46	63.60	136.14	0.74
RaymondB	M001	2604.32	100Year-Existing	75.30	87.97	89.42		89.45	0.001996	1.19	122.09	209.97	0.35

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	M001	2531.57	100Year-Existing	75.30	87.97	89.37		89.38	0.000744	0.67	198.20	291.38	0.21
RaymondB	M001	2385.34	100Year-Existing	75.30	87.43	89.30		89.32	0.001445	1.22	155.84	250.55	0.31
RaymondB	M001	2245.72	100Year-Existing	75.30	86.99	88.92	88.72	89.11	0.004806	2.26	60.23	124.23	0.57
RaymondB	M001	2194.47	100Year-Existing	75.30	86.68	88.91		88.96	0.001222	1.28	106.78	96.72	0.29
RaymondB	M001	2140.67	100Year-Existing	75.30	86.59	88.79		88.87	0.002016	1.62	82.22	72.13	0.38
RaymondB	M001	2087.60	100Year-Existing	75.30	86.38	88.61		88.75	0.002572	1.84	57.55	46.22	0.43
RaymondB	M001	2069.54	100Year-Existing	75.30	86.35	88.54		88.69	0.003101	2.01	58.55	70.76	0.47
RaymondB	M001	2040.77	100Year-Existing	75.30	86.25	88.46		88.60	0.002865	1.90	66.35	88.12	0.45
RaymondB	M001	1989.18	100Year-Existing	75.30	86.02	88.23	87.77	88.42	0.004186	2.31	59.53	81.51	0.54
RaymondB	M001	1950.22	100Year-Existing	75.30	85.79	87.71	87.37	88.14	0.011246	3.34	36.66	52.69	0.86
RaymondB	M001	1885.73	100Year-Existing	75.30	85.34	87.32		87.55	0.006439	2.56	47.25	53.51	0.65
RaymondB	M001	1835.84	100Year-Existing	75.30	84.64	86.55	86.55	87.06	0.015035	3.79	29.97	29.46	0.98
RaymondB	M001	1784.61	100Year-Existing	75.30	84.10	85.42	85.54	85.98	0.031390	3.96	27.88	40.40	1.31
RaymondB	M001	1733.38	100Year-Existing	75.30	82.79	84.99	84.38	85.11	0.002744	1.85	60.97	49.14	0.44
RaymondB	M001	1682.15	100Year-Existing	75.30	82.60	84.59		84.89	0.006610	2.61	37.44	36.75	0.66
RaymondB	M001	1630.92	100Year-Existing	75.30	82.12	84.11	83.98	84.50	0.008521	2.93	34.63	45.45	0.75
RaymondB	M001	1584.49	100Year-Existing	75.30	81.77	83.89		84.13	0.005706	2.51	45.42	57.86	0.62
RaymondB	M001	1536.01	100Year-Existing	75.30	81.31	83.45	83.31	83.80	0.008034	2.98	40.27	56.10	0.72
RaymondB	M001	1477.96	100Year-Existing	75.30	80.96	83.07		83.36	0.006647	2.69	42.07	48.68	0.66
RaymondB	M001	1425.99	100Year-Existing	75.30	80.58	82.88		83.07	0.003901	2.22	47.68	41.44	0.52
RaymondB	M001	1372.05	100Year-Existing	75.30	80.25	82.73		82.87	0.003141	2.08	56.56	49.52	0.47
RaymondB	M001	1323.54	100Year-Existing	75.30	79.11	81.91	81.33	82.54	0.006150	3.53	21.35	17.06	0.69
RaymondB	M001	1315		Bridge									
RaymondB	M001	1303.54	100Year-Existing	75.30	78.01	80.68	80.53	81.58	0.011427	4.22	17.86	20.77	0.90
RaymondB	M001	1252.39	100Year-Existing	78.50	78.45	80.47	80.47	80.95	0.013544	3.60	31.35	32.26	0.92
RaymondB	M001	1216.25	100Year-Existing	78.50	77.86	79.86	80.00	80.42	0.015766	3.99	32.38	43.05	1.01
RaymondB	M001	1189.75	100Year-Existing	78.50	77.61	79.18	79.36	79.85	0.028227	4.12	26.23	38.52	1.27
RaymondB	M001	1166.20	100Year-Existing	78.50	76.74	78.31	78.55	79.10	0.034388	4.75	28.29	54.23	1.42
RaymondB	M001	1148.70	100Year-Existing	78.50	76.50	78.18	78.26	78.58	0.017564	3.47	36.95	59.36	1.02
RaymondB	M001	1116.25	100Year-Existing	78.50	75.83	77.25	77.41	77.86	0.026022	3.63	25.77	38.55	1.20
RaymondB	M001	1066.09	100Year-Existing	78.50	75.16	77.10	76.80	77.29	0.004750	2.19	52.82	57.51	0.56
RaymondB	M001	1035.68	100Year-Existing	78.50	74.73	76.24	76.24	76.96	0.024763	4.04	24.12	28.97	1.21
RaymondB	M001	999.99	100Year-Existing	78.50	73.32	74.85	75.18	75.90	0.032773	4.79	19.73	23.55	1.40
RaymondB	M001	976.73	100Year-Existing	78.50	73.03	74.73	74.84	75.27	0.014412	3.55	32.51	48.76	0.96
RaymondB	M001	942.15	100Year-Existing	78.50	72.18	73.30	73.61	74.22	0.082694	5.89	21.66	35.97	2.09
RaymondB	M001	916.70	100Year-Existing	78.50	70.82	72.26	72.43	72.85	0.032392	4.59	32.37	67.62	1.38
RaymondB	M001	892.34	100Year-Existing	78.50	70.36	71.97	72.03	72.40	0.013138	3.28	36.09	53.85	0.91
RaymondB	M001	866.25	100Year-Existing	78.50	70.04	71.92	71.43	72.11	0.004099	2.07	52.73	66.60	0.52
RaymondB	M001	841.89	100Year-Existing	78.50	69.92	71.81	71.57	72.00	0.004572	2.25	60.82	96.34	0.56
RaymondB	M001	816.68	100Year-Existing	78.50	69.74	71.37	71.37	71.80	0.012778	3.37	38.18	59.31	0.90
RaymondB	M001	766.25	100Year-Existing	78.50	69.16	70.45	70.33	70.70	0.014045	2.86	39.80	49.36	0.90
RaymondB	M001	716.25	100Year-Existing	78.50	68.39	70.04		70.23	0.005573	2.25	53.68	69.47	0.60
RaymondB	M001	675.00	100Year-Existing	78.50	68.14	69.83		70.00	0.005347	2.22	55.13	60.87	0.59
RaymondB	M001	615.86	100Year-Existing	78.50	67.75	69.76		69.81	0.001581	1.40	115.38	164.44	0.33
RaymondB	M001	565.77	100Year-Existing	78.50	67.44	69.70		69.74	0.000953	1.17	151.35	238.32	0.26
RaymondB	M001	520.15	100Year-Existing	78.50	67.26	69.70		69.71	0.000342	0.73	248.62	318.94	0.16
RaymondB	M001	468.54	100Year-Existing	78.50	66.98	69.69		69.70	0.000145	0.52	362.43	398.22	0.11
RaymondB	M001	429.18	100Year-Existing	78.50	66.80	69.69		69.69	0.000049	0.32	547.40	499.05	0.06
RaymondB	M001	366.25	100Year-Existing	78.50	66.65	69.69		69.69	0.000018	0.20	852.21	643.68	0.04
RaymondB	M001	341.79	100Year-Existing	78.50	66.63	69.69		69.69	0.000014	0.17	956.92	686.24	0.03
PettyHR	M002	6270.85	100Year-Existing	101.20	66.23	69.69		69.69	0.000001	0.06	2101.31	860.42	0.01
PettyHR	M002	6218.07	100Year-Existing	101.20	66.23	69.69		69.69	0.000001	0.06	1969.96	849.37	0.01
PettyHR	M002	6095.00	100Year-Existing	101.20	66.23	69.69		69.69	0.000001	0.06	1904.14	855.68	0.01
PettyHR	M002	6004.71	100Year-Existing	101.20	66.23	69.69		69.69	0.000001	0.06	1959.67	885.68	0.01
PettyHR	M001	5825.85	100Year-Existing	171.20	66.23	69.69		69.69	0.000003	0.08	2264.15	845.89	0.02
PettyHR	M001	5685.44	100Year-Existing	171.20	66.23	69.69		69.69	0.000002	0.08	2184.64	735.45	0.01
PettyHR	M001	5516.39	100Year-Existing	189.70	66.23	69.69		69.69	0.000004	0.10	1906.33	629.83	0.02
PettyHR	M001	5279.80	100Year-Existing	189.70	66.23	69.69		69.69	0.000009	0.15	1288.89	425.97	0.03
PettyHR	M001	4996.75	100Year-Existing	189.70	66.23	69.68		69.68	0.000041	0.33	609.59	210.13	0.06
PettyHR	M001	4923.81	100Year-Existing	189.70	66.23	69.61		69.67	0.000536	1.17	201.53	89.52	0.21
PettyHR	M001	4867.41	100Year-Existing	189.70	66.23	69.51		69.62	0.001373	1.86	171.65	99.02	0.34
PettyHR	M001	4817.61	100Year-Existing	189.70	66.58	69.43		69.54	0.001759	2.00	165.39	93.85	0.38
PettyHR	M001	4757.18	100Year-Existing	189.70	66.43	68.69	68.69	69.28	0.011372	4.29	77.02	65.93	0.92
PettyHR	M001	4675.66	100Year-Existing	189.70	65.88	68.23	67.64	68.53	0.004962	2.94	93.82	51.96	0.62
PettyHR	M001	4612.84	100Year-Existing	189.70	64.88	67.32	67.09	68.03	0.011401	4.55	66.64	44.83	0.94
PettyHR	M001	4570.09	100Year-Existing	189.70	64.62	66.91	66.91	67.55	0.010323	4.06	70.70	56.10	0.88
PettyHR	M001	4500.69	100Year-Existing	189.70	64.62	66.50	66.18	66.78	0.005621	2.64	97.04	76.21	0.63
PettyHR	M001	4461.12	100Year-Existing	189.70	64.55	66.09	66.06	66.48	0.014704	3.72	86.45	91.67	0.98
PettyHR	M001	4428.20	100Year-Existing	189.70	64.41	65.91		66.13	0.009710	2.91	103.63	90.17	0.79
PettyHR	M001	4395.66	100Year-Existing	189.70	63.81	65.62		65.86	0.006118	2.70	105.57	82.11	0.65
PettyHR	M001	4357.04	100Year-Existing	189.70	63.34	65.50		65.66	0.003502	2.33	129.94	81.65	0.51
PettyHR	M001	4281.82	100Year-Existing	189.70	62.50	65.40		65.50	0.001036	1.53	148.77	59.54	0.29
PettyHR	M001	4166.17	100Year-Existing	189.70	61.82	65.42		65.44	0.000146	0.66	418.28	166.92	0.11
PettyHR	M001	3949.19	100Year-Existing	189.70	61.31	65.44		65.44	0.000000	0.04	5069.48	1317.01	0.01
PettyHR	M001	3936.78	100Year-Existing	189.70	61.31	65.44		65.44	0.000000	0.03	6245.61	1573.02	0.00
PettyHR	M001	3931.39	100Year-Existing	124.50	61.31	65.44		65.44	0.000000	0.02	7852.81	2012.81	0.00
PettyHR	M001	3925.44	100Year-Existing	124.50	61.31	65.44		65.44	0.000000	0.03	3888.71	1004.06	0.01
PettyHR	M001	3867.05	100Year-Existing	124.50	61.31	65.44		65.44	0.000000	0.03	3916.54	989.57	0.01
PettyHR	M001	3643.73	100Year-Existing	124.50	61.31	65.44		65.44	0.000000	0.03	4495.41	1114.46	0.00
PettyHR	M001	3440.60	100Year-Existing	124.50	61.31	65.43		65.43	0.000001	0.06	2283.64	584.13	0.01
PettyHR	M001	3182.65	100Year-Existing	124.50	61.31	65.43		65.43	0.000001	0.07	1708.92	426.58	0.01
PettyHR	M001	3080.13	100Year-Existing	124.50	61.31	65.43		65.43	0.000001	0.06	2020.34	521.41	0.01
PettyHR	M001	3028.13	100Year-Existing	124.50	61.31	65.43		65.43	0.000001	0.06	2208.61	561.40	0.01
PettyHR	M001	2983.09	100Year-Existing	124.50	61.31	65.43		65.43	0.000001	0.07	1798.56	452.43	0.01
PettyHR	M001	2828.46	100Year-Existing	124.50	61.31	65.43		65.43	0.000004	0.12	1059.88	280.36	0.02
PettyHR	M001	2712.72	100Year-Existing	124.50	61.31	65.43		65.43	0.000013	0.22	611.07	182.34	0.04
PettyHR	M001	2671.95	100Year-Existing	124.50	61.31	65.43		65.43	0.000021	0.28	553.96	175.94	0.04
PettyHR	M001	2653.10	100Year-Existing	124.50	61.31	65.43		65.43	0.000029	0.33	475.87	157.53	0.05
PettyHR	M001	2632.46	100Year-Existing	124.50	61.31	65.41		65.43	0.000118	0.66	289.96	124.38	0.10
PettyHR	M001	2596.08	100Year-Existing	124.50	61.31	65.40		65.42	0.000134	0.70	260.32	118.26	0.11

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	2583.24	100Year-Existing	124.50	60.10	65.32	63.09	65.41	0.000677	1.66	158.17	117.89	0.25
PettyHR	M001	2580		Bridge									
PettyHR	M001	2573.39	100Year-Existing	124.50	60.00	65.15	62.64	65.21	0.000379	1.24	177.35	93.01	0.19
PettyHR	M001	2551.09	100Year-Existing	124.50	59.89	65.19		65.19	0.000032	0.37	397.08	108.38	0.06
PettyHR	M001	2426.14	100Year-Existing	124.50	59.27	65.19		65.19	0.000002	0.10	1233.60	278.00	0.02
PettyHR	M001	2315.39	100Year-Existing	124.50	58.72	65.19		65.19	0.000001	0.08	1509.68	319.37	0.01
PettyHR	M001	2204.15	100Year-Existing	124.50	58.16	65.19		65.19	0.000001	0.09	1518.16	308.02	0.01
PettyHR	M001	2022.45	100Year-Existing	124.50	57.26	65.19		65.19	0.000003	0.14	919.98	183.25	0.02
PettyHR	M001	1902.10	100Year-Existing	124.50	56.66	65.19		65.19	0.000005	0.19	710.10	128.24	0.02
PettyHR	M001	1879.72	100Year-Existing	124.50	56.55	65.18		65.19	0.000013	0.29	523.23	108.82	0.04
PettyHR	M001	1824.42	100Year-Existing	124.50	56.28	65.18		65.19	0.000023	0.38	350.69	66.25	0.05
PettyHR	M001	1789.72	100Year-Existing	124.50	56.10	65.18		65.19	0.000032	0.45	296.58	55.60	0.06
PettyHR	M001	1724.70	100Year-Existing	124.50	55.78	65.17		65.18	0.000042	0.52	259.30	48.11	0.06
PettyHR	M001	1668.81	100Year-Existing	124.50	55.50	65.17	58.37	65.18	0.000023	0.39	344.83	65.59	0.05
PettyHR	M001	1647.80	100Year-Existing	124.50	55.40	65.17	58.07	65.18	0.000016	0.33	401.34	76.07	0.04
PettyHR	M001	1631.79	100Year-Existing	124.50	63.55	64.88		65.15	0.006976	2.31	53.95	40.62	0.64
PettyHR	M001	1615.46	100Year-Existing	126.20	54.38	56.86		57.09	0.006700	3.45	64.72	39.90	0.71
PettyHR	M001	1601.08	100Year-Existing	126.20	54.00	56.34	56.34	56.91	0.017809	5.42	45.11	37.24	1.15
PettyHR	M001	1586.16	100Year-Existing	126.20	53.36	55.40	55.70	56.48	0.036969	7.19	32.07	26.82	1.63
PettyHR	M001	1571.98	100Year-Existing	126.20	52.87	54.73	55.03	55.90	0.044973	7.36	29.77	24.99	1.76
PettyHR	M001	1519.66	100Year-Existing	126.20	51.62	53.47	53.48	54.00	0.024836	5.35	43.39	39.91	1.30
PettyHR	M001	1467.14	100Year-Existing	126.20	50.86	52.48	52.29	52.81	0.017036	4.16	52.32	46.96	1.06
PettyHR	M001	1457.30	100Year-Existing	126.20	50.23	52.05	52.05	52.59	0.024010	5.37	43.01	38.28	1.29
PettyHR	M001	1444.51	100Year-Existing	126.20	48.30	49.44	50.02	51.74	0.192637	10.83	21.30	32.34	3.35
PettyHR	M001	1415.17	100Year-Existing	126.20	48.28	50.12	49.55	50.27	0.006094	2.71	75.39	53.72	0.65
PettyHR	M001	1402.15	100Year-Existing	126.20	47.79	49.62	49.62	50.10	0.023927	5.22	46.21	45.07	1.27
PettyHR	M001	1385.41	100Year-Existing	126.20	43.10	44.93	45.92	48.98	0.124598	11.79	17.93	19.43	2.89
PettyHR	M001	1370.82	100Year-Existing	126.20	41.75	43.87	44.94	47.26	0.088669	11.40	19.36	15.93	2.54
PettyHR	M001	1362.66	100Year-Existing	126.20	39.88	42.44	43.70	46.51	0.078340	11.90	18.16	12.67	2.43
PettyHR	M001	1336.64	100Year-Existing	126.20	39.87	41.71	42.45	43.89	0.079888	9.77	22.81	20.60	2.34
PettyHR	M001	1309.35	100Year-Existing	126.20	38.40	39.98	40.46	41.60	0.075355	8.48	24.53	22.37	2.21
PettyHR	M001	1279.20	100Year-Existing	126.20	35.02	37.58	38.33	39.80	0.047336	9.39	27.01	24.77	1.90
PettyHR	M001	1258.06	100Year-Existing	126.20	34.01	36.96	37.89	38.87	0.032565	8.63	26.48	15.84	1.62
PettyHR	M001	1221.17	100Year-Existing	126.20	33.21	34.91	35.50	36.95	0.093813	9.66	23.86	26.82	2.46
PettyHR	M001	1203.34	100Year-Existing	126.20	32.61	34.06	34.42	35.22	0.071868	7.77	29.67	34.78	2.12
PettyHR	M001	1164.99	100Year-Existing	126.20	31.37	33.09	33.15	33.66	0.026755	5.29	42.47	41.97	1.33
PettyHR	M001	1153.41	100Year-Existing	126.20	30.70	31.91	32.28	33.08	0.089801	7.82	28.89	38.07	2.32
PettyHR	M001	1125.74	100Year-Existing	126.20	29.27	30.74	30.88	31.38	0.038765	5.75	39.60	45.13	1.57
PettyHR	M001	1090.65	100Year-Existing	126.20	28.12	29.46	29.59	29.98	0.039675	5.31	44.23	61.06	1.55
PettyHR	M001	1059.48	100Year-Existing	126.20	26.84	28.28	28.38	28.77	0.037535	5.57	46.76	66.76	1.53
PettyHR	M001	1048.77	100Year-Existing	126.20	26.29	27.92	27.81	28.23	0.017310	4.07	55.71	57.83	1.06
PettyHR	M001	1021.54	100Year-Existing	126.20	25.47	27.18	27.18	27.66	0.025781	5.19	44.74	44.10	1.31
PettyHR	M001	1003.30	100Year-Existing	126.20	23.42	25.16	25.59	26.85	0.064221	8.47	24.52	20.41	2.09
PettyHR	M001	994.73	100Year-Existing	126.20	22.70	25.73	25.73	26.43	0.014352	5.81	43.09	28.63	1.08
PettyHR	M001	961.03	100Year-Existing	126.20	22.07	24.79	25.02	25.80	0.022805	6.74	35.55	26.01	1.33
PettyHR	M001	944.13	100Year-Existing	126.20	21.89	23.76	24.19	25.21	0.047486	7.59	27.61	22.89	1.82
PettyHR	M001	924.94	100Year-Existing	126.20	20.78	22.96	23.33	24.38	0.039429	7.68	27.14	17.99	1.69
PettyHR	M001	905.47	100Year-Existing	126.20	19.73	22.22	22.59	23.70	0.032541	7.68	27.47	16.61	1.58
PettyHR	M001	883.86	100Year-Existing	126.20	17.29	21.23	20.14	21.47	0.002518	2.92	72.26	41.67	0.48
PettyHR	M001	875		Bridge									
PettyHR	M001	859.53	100Year-Existing	126.20	17.25	19.54	19.54	20.31	0.020804	5.63	35.32	30.17	1.22
PettyHR	M001	836.76	100Year-Existing	126.20	12.80	14.98	16.20	19.13	0.085501	11.36	16.98	11.31	2.50
PettyHR	M001	823.70	100Year-Existing	126.20	12.86	14.57	15.25	17.44	0.112447	10.94	19.64	18.35	2.73
PettyHR	M001	811.96	100Year-Existing	126.20	12.85	14.99	15.34	16.21	0.040487	7.75	32.96	32.38	1.72
PettyHR	M001	796.92	100Year-Existing	126.20	12.74	14.27	14.61	15.42	0.068600	8.03	30.05	34.58	2.11
PettyHR	M001	784.11	100Year-Existing	126.20	11.82	13.95	14.17	14.77	0.028778	6.45	39.49	38.95	1.44
PettyHR	M001	769.86	100Year-Existing	126.20	10.94	12.77	13.26	14.19	0.048963	7.62	27.81	23.90	1.84
PettyHR	M001	748.76	100Year-Existing	126.20	8.37	11.01	11.69	13.20	0.038804	8.61	26.21	20.90	1.73
PettyHR	M001	720.33	100Year-Existing	126.20	8.08	9.26	9.84	11.28	0.145533	9.29	22.12	29.01	2.89
PettyHR	M001	707.57	100Year-Existing	126.20	6.85	8.44	8.85	9.81	0.067966	8.09	29.10	33.95	2.10
PettyHR	M001	685.99	100Year-Existing	126.20	5.31	7.11	7.51	8.46	0.058336	8.01	30.01	33.06	1.98
PettyHR	M001	666.04	100Year-Existing	126.20	5.03	6.93	7.05	7.53	0.022183	5.18	45.10	45.18	1.24
PettyHR	M001	652.51	100Year-Existing	126.20	4.66	6.45	6.82	7.16	0.033199	6.04	42.87	52.96	1.49
PettyHR	M001	633.61	100Year-Existing	126.20	4.40	5.75	5.75	6.17	0.024311	4.29	48.83	83.50	1.23
PettyHR	M001	622.83	100Year-Existing	126.20	4.09	5.30	5.30	5.61	0.025033	3.99	57.51	113.72	1.22
PettyHR	M001	577.97	100Year-Existing	126.20	2.48	3.90	3.96	4.26	0.035943	5.33	53.83	113.05	1.48
PettyHR	M001	525.57	100Year-Existing	126.20	0.51	3.09	2.34	3.19	0.003126	2.46	102.46	105.84	0.49
PettyHR	M001	491.94	100Year-Existing	126.20	-0.59	2.63	2.16	3.03	0.005155	3.23	58.85	67.27	0.63
PettyHR	M001	485		Bridge									
PettyHR	M001	478.84	100Year-Existing	126.20	-1.92	2.54		2.66	0.000999	1.67	110.22	141.32	0.28
PettyHR	M001	439.27	100Year-Existing	126.20	-1.89	2.59		2.61	0.000267	0.90	239.62	129.37	0.14
PettyHR	M001	405.68	100Year-Existing	126.20	-2.13	2.58		2.60	0.000240	0.87	236.46	132.18	0.14
PettyHR	M001	367.80	100Year-Existing	126.20	-2.02	2.58		2.59	0.000073	0.48	301.57	139.37	0.08
PettyHR	M001	338.85	100Year-Existing	126.20	-2.89	2.58		2.59	0.000044	0.41	340.73	122.34	0.06
PettyHR	M001	305.38	100Year-Existing	126.20	-2.46	2.58		2.59	0.000062	0.47	307.58	119.96	0.07
PettyHR	M001	269.29	100Year-Existing	126.20	-3.52	2.57		2.59	0.000055	0.50	288.30	110.29	0.07
PettyHR	M001	238.18	100Year-Existing	126.20	-3.50	2.57		2.58	0.000078	0.60	249.07	102.54	0.09
PettyHR	M001	201.25	100Year-Existing	126.20	-4.43	2.57		2.58	0.000025	0.37	368.57	120.11	0.05
PettyHR	M001	150.84	100Year-Existing	126.20	-3.34	2.57		2.58	0.000014	0.26	526.78	171.54	0.04
PettyHR	M001	105.74	100Year-Existing	126.20	-2.91	2.57		2.58	0.000015	0.26	508.99	154.20	0.04
PettyHR	M001	91.29	100Year-Existing	126.20	-3.36	2.57		2.58	0.000013	0.25	525.33	143.74	0.04
PettyHR	M001	20.04	100Year-Existing	126.20	-6.19	2.57		2.57	0.000007	0.19	707.46	185.23	0.03
PettyHR	M001	12.04	100Year-Existing	126.20	-6.19	2.55	-3.41	2.57	0.000124	0.72	267.31	185.14	0.08
ForthP	M001	2616.90	100Year-Existing	12.20	123.09	124.57	123.37	124.57	0.000017	0.12	145.60	161.84	0.03
ForthP	M001	2528.45	100Year-Existing	12.20	123.09	124.57		124.57	0.000004	0.06	228.89	201.38	0.02
ForthP	M001	2324.32	100Year-Existing	12.20	123.09	124.57		124.57	0.000013	0.11	168.52	214.20	0.03
ForthP	M001	2187.52	100Year-Existing	12.20	123.09	124.57		124.57	0.000002	0.05	308.10	290.64	0.01
ForthP	M001	1955.13	100Year-Existing	12.20	123.09	124.57		124.57	0.000002	0.04	353.06	313.94	0.01
ForthP	M001	1773.83	100Year-Existing	12.20	123.09	124.57		124.57	0.000001	0.03	430.69	347.40	0.01
ForthP	M001	1572.85	100Year-Existing	12.20	123.09	124.56		124.56	0.000001	0.03	411.29	323.06	0.01

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
ForthP	M001	1496.60	100Year-Existing	12.20	123.09	124.56		124.56	0.000002	0.04	347.10	281.02	0.01
ForthP	M001	1392.58	100Year-Existing	43.90	122.98	124.55	124.15	124.56	0.000745	0.86	120.57	174.65	0.22
ForthP	M001	1390		Culvert									
ForthP	M001	1381.72	100Year-Existing	43.90	122.95	124.52	124.18	124.53	0.001570	1.15	91.12	152.08	0.30
ForthP	M001	1360.50	100Year-Existing	43.90	122.87	124.31		124.45	0.009570	2.68	36.35	83.72	0.76
ForthP	M001	1311.12	100Year-Existing	43.90	122.52	124.06		124.12	0.004296	1.86	49.63	78.42	0.51
ForthP	M001	1261.17	100Year-Existing	43.90	121.36	123.51	123.51	123.81	0.008718	3.40	28.49	42.86	0.78
ForthP	M001	1211.51	100Year-Existing	43.90	119.83	121.84	122.22	122.97	0.029688	5.91	14.33	22.30	1.40
ForthP	M001	1161.66	100Year-Existing	43.90	117.25	118.47	118.88	120.33	0.110009	7.83	10.60	25.81	2.47
ForthP	M001	1112.05	100Year-Existing	43.90	114.88	116.09	116.24	116.63	0.044461	5.22	17.68	36.49	1.60
ForthP	M001	1062.35	100Year-Existing	43.90	113.16	114.44	114.49	114.78	0.030108	4.23	20.44	36.60	1.28
ForthP	M001	1041.93	100Year-Existing	43.90	112.62	114.01	114.03	114.28	0.022826	3.86	23.93	45.98	1.12
ForthP	M001	1031.90	100Year-Existing	43.90	112.31	113.56	113.67	113.98	0.039969	4.78	20.20	45.88	1.47
ForthP	M001	1011.12	100Year-Existing	43.90	111.62	112.75	112.84	113.12	0.042096	4.71	20.83	49.91	1.52
ForthP	M001	959.76	100Year-Existing	43.90	110.31	111.11	111.20	111.44	0.062453	4.20	20.31	61.87	1.72
ForthP	M001	908.93	100Year-Existing	43.90	109.25	109.98	109.84	110.05	0.012367	1.85	39.98	91.52	0.77
ForthP	M001	856.39	100Year-Existing	43.90	108.38	108.90	108.83	109.00	0.026264	1.88	32.39	93.72	1.02
ForthP	M001	806.25	100Year-Existing	43.90	107.09	108.09		108.16	0.012852	2.33	39.58	92.71	0.81
ForthP	M001	754.78	100Year-Existing	43.90	106.12	107.17	107.17	107.33	0.024278	3.46	32.16	93.77	1.15
ForthP	M001	734.50	100Year-Existing	43.90	105.47	106.85	106.77	106.95	0.009512	2.52	42.05	96.28	0.74
ForthP	M001	724.30	100Year-Existing	43.90	105.28	106.67	106.67	106.83	0.013301	3.02	35.93	92.08	0.88
ForthP	M001	703.65	100Year-Existing	43.90	105.02	106.25	106.20	106.44	0.021889	3.62	26.89	54.86	1.10
ForthP	M001	654.47	100Year-Existing	43.90	103.90	104.85	104.85	105.07	0.032693	3.70	24.22	56.42	1.30
ForthP	M001	605.63	100Year-Existing	43.90	102.27	103.51	103.56	103.78	0.025517	3.84	26.05	63.88	1.20
ForthP	M001	585.13	100Year-Existing	43.90	101.55	102.44	102.57	102.94	0.083651	5.28	18.94	69.43	2.03
ForthP	M001	577.30	100Year-Existing	43.90	101.52	102.27	102.31	102.48	0.045312	3.51	24.44	75.35	1.45
ForthP	M001	557.33	100Year-Existing	43.90	100.67	101.40	101.38	101.55	0.032494	2.80	27.93	83.57	1.22
ForthP	M001	507.84	100Year-Existing	43.90	98.92	99.65	99.65	99.80	0.037846	2.97	27.79	88.41	1.30
ForthP	M001	453.33	100Year-Existing	43.90	96.28	97.12	97.06	97.23	0.020231	2.49	34.76	98.08	0.99
ForthP	M001	402.29	100Year-Existing	43.90	94.96	95.68	95.68	95.86	0.039871	3.28	25.10	67.88	1.36
ForthP	M001	349.18	100Year-Existing	43.90	93.64	94.33	94.15	94.40	0.013917	1.77	38.42	88.87	0.79
ForthP	M001	297.76	100Year-Existing	43.90	92.55	93.53	93.48	93.65	0.019293	2.74	33.56	79.01	0.99
ForthP	M001	246.28	100Year-Existing	43.90	91.71	92.57	92.49	92.66	0.016318	2.24	37.75	92.68	0.89
ForthP	M001	182.03	100Year-Existing	43.90	90.94	92.18	91.84	92.21	0.004333	1.58	63.32	116.72	0.49
ForthP	M001	160.27	100Year-Existing	43.90	90.13	92.18	91.61	92.19	0.000268	0.58	157.90	168.90	0.13
ForthP	M001	150		Culvert									
ForthP	M001	144.74	100Year-Existing	43.90	89.90	91.33	91.33	92.00	0.015980	3.67	12.33	110.93	1.01
ForthP	M001	124.30	100Year-Existing	43.90	89.74	91.03	90.89	91.12	0.010139	2.46	42.26	86.32	0.76
ForthP	M001	61.58	100Year-Existing	43.90	88.75	90.03	90.03	90.23	0.020067	3.43	30.62	68.82	1.06
ForestP	M001	1557.91	100Year-Existing	8.80	78.25	79.75	78.47	79.75	0.000004	0.06	152.41	122.27	0.02
ForestP	M001	1428.05	100Year-Existing	8.80	78.25	79.75		79.75	0.000002	0.04	208.32	177.71	0.01
ForestP	M001	1315.71	100Year-Existing	8.80	78.25	79.75		79.75	0.000001	0.03	292.86	243.63	0.01
ForestP	M001	1228.83	100Year-Existing	8.80	78.25	79.75		79.75	0.000001	0.03	350.23	291.91	0.01
ForestP	M001	1138.84	100Year-Existing	8.80	78.25	79.75		79.75	0.000001	0.02	410.30	344.18	0.01
ForestP	M001	1077.28	100Year-Existing	8.80	78.25	79.75		79.75	0.000001	0.02	458.08	484.11	0.01
ForestP	M001	1019.12	100Year-Existing	8.80	78.25	79.75		79.75	0.000002	0.04	232.64	286.22	0.01
ForestP	M001	958.61	100Year-Existing	11.20	78.15	79.72	79.50	79.74	0.001110	0.81	26.79	70.94	0.24
ForestP	M001	955		Culvert									
ForestP	M001	949.85	100Year-Existing	11.20	77.76	79.64	79.60	79.72	0.006607	1.65	15.35	56.83	0.42
ForestP	M001	913.34	100Year-Existing	11.20	78.16	79.11	79.11	79.30	0.030929	3.27	7.40	20.16	1.16
ForestP	M001	883.23	100Year-Existing	11.20	77.54	78.39	78.40	78.54	0.019977	2.56	10.42	41.59	0.99
ForestP	M001	859.61	100Year-Existing	11.20	76.75	77.51	77.59	77.84	0.044871	3.58	5.54	14.43	1.45
ForestP	M001	831.71	100Year-Existing	11.20	75.74	76.76	76.82	77.07	0.028194	3.38	5.87	11.96	1.18
ForestP	M001	802.91	100Year-Existing	11.20	74.66	75.53	75.69	76.04	0.045742	4.02	4.64	10.81	1.51
ForestP	M001	772.90	100Year-Existing	11.20	73.77	74.62	74.65	74.85	0.029792	3.20	6.74	16.77	1.19
ForestP	M001	737.48	100Year-Existing	11.20	72.77	73.52	73.50	73.66	0.024021	2.61	8.18	22.18	1.06
ForestP	M001	688.06	100Year-Existing	11.20	71.80	72.47		72.54	0.021222	2.15	10.56	34.37	0.93
ForestP	M001	651.32	100Year-Existing	11.20	70.81	71.45	71.45	71.58	0.031362	2.74	8.85	32.31	1.19
ForestP	M001	600.44	100Year-Existing	11.20	69.80	70.39	70.32	70.43	0.016482	1.83	15.28	86.89	0.85
ForestP	M001	578.60	100Year-Existing	11.20	69.31	69.92	69.92	70.00	0.023734	2.25	14.60	89.21	1.02
ForestP	M001	528.92	100Year-Existing	11.20	68.58	69.70	69.28	69.70	0.000863	0.67	45.08	109.59	0.22
ForestP	M001	478.55	100Year-Existing	11.20	68.21	69.69		69.69	0.000083	0.26	96.30	135.64	0.07
ForestP	M001	430.82	100Year-Existing	11.20	67.77	69.69		69.69	0.000030	0.19	140.20	159.96	0.05
ForestP	M001	378.18	100Year-Existing	11.20	67.48	69.69		69.69	0.000005	0.08	320.02	318.56	0.02
ForestP	M001	328.07	100Year-Existing	11.20	67.34	69.69		69.69	0.000002	0.06	438.62	372.12	0.01
ForestP	M001	277.95	100Year-Existing	11.20	67.07	69.69		69.69	0.000002	0.05	531.50	436.87	0.01
ForestP	M001	195.51	100Year-Existing	11.20	66.23	69.69		69.69	0.000000	0.03	938.52	610.70	0.00
ForestP	M001	158.37	100Year-Existing	11.20	66.23	69.69		69.69	0.000000	0.01	1671.40	707.06	0.00
ForestP	M001	89.11	100Year-Existing	11.20	66.23	69.69		69.69	0.000000	0.01	1851.09	775.48	0.00
DoylesR	TR019	260.51	100Year-Existing	0.40	124.74	125.14	124.95	125.14	0.000183	0.14	5.64	41.35	0.08
DoylesR	TR019	199.72	100Year-Existing	0.40	124.55	125.14		125.14	0.000002	0.02	40.73	141.52	0.01
DoylesR	TR019	150.00	100Year-Existing	0.40	124.37	125.14		125.14	0.000002	0.02	44.42	163.84	0.01
DoylesR	TR019	100.00	100Year-Existing	0.40	124.16	125.14		125.14	0.000002	0.03	41.09	218.53	0.01
DoylesR	TR019	50.00	100Year-Existing	0.40	124.18	125.14		125.14	0.000001	0.02	69.18	259.93	0.01
DoylesR	TR018	302.01	100Year-Existing	1.50	127.90	128.51	128.06	128.51	0.000073	0.14	17.39	45.05	0.06
DoylesR	TR018	270.53	100Year-Existing	1.50	126.19	128.51	126.90	128.51	0.000000	0.01	261.47	244.89	0.00
DoylesR	TR018	260		Culvert									
DoylesR	TR018	257.62	100Year-Existing	1.50	126.19	128.51	126.93	128.51	0.000000	0.01	266.66	215.47	0.00
DoylesR	TR018	244.68	100Year-Existing	1.50	125.64	128.51	126.64	128.51	0.000000	0.01	304.90	215.11	0.00
DoylesR	TR018	200		Culvert									
DoylesR	TR018	169.24	100Year-Existing	1.50	125.40	126.35	126.20	126.61	0.013336	2.58	0.72	78.58	0.86
DoylesR	TR018	131.43	100Year-Existing	1.50	125.24	125.44	125.44	125.48	0.055547	1.25	2.28	48.20	1.23
DoylesR	TR018	59.79	100Year-Existing	1.50	124.57	125.18	124.90	125.19	0.000206	0.21	19.79	134.67	0.10
DoylesR	TR017	4043.45	100Year-Existing	8.20	124.05	125.11		125.13	0.001503	0.94	24.34	96.73	0.30
DoylesR	TR017	3983.69	100Year-Existing	8.20	124.04	125.00		125.02	0.002434	1.01	21.00	98.95	0.36
DoylesR	TR017	3923.93	100Year-Existing	8.20	124.03	124.63	124.63	124.71	0.022302	1.83	8.63	44.20	0.95
DoylesR	TR017	3889.37	100Year-Existing	8.20	123.60	123.83	123.64	123.85	0.005833	0.36	17.09	70.21	0.39
DoylesR	TR017	3781.64	100Year-Existing	8.20	122.55	123.56		123.58	0.003124	1.19	18.51	67.03	0.41
DoylesR	TR017	3768.91	100Year-Existing	8.20	122.35	123.24	123.24	123.48	0.016292	2.37	4.56	10.60	0.88
DoylesR	TR017	3745.98	100Year-Existing	8.20	121.86	122.44	122.50	122.63	0.049436	2.58	5.81	35.36	1.38

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR017	3713.18	100Year-Existing	8.20	120.99	121.62	121.62	121.81	0.020094	2.10	4.92	14.59	0.95
DoylesR	TR017	3692.45	100Year-Existing	8.20	120.34	121.02	121.04	121.29	0.030902	2.58	4.37	14.59	1.18
DoylesR	TR017	3679.05	100Year-Existing	8.20	119.97	120.81	120.83	121.00	0.014555	2.24	5.99	25.71	0.86
DoylesR	TR017	3656.84	100Year-Existing	8.20	117.59	118.08	118.45	119.96	0.318758	6.23	1.46	5.98	3.52
DoylesR	TR017	3603.67	100Year-Existing	8.20	116.29	116.94	117.04	117.26	0.040956	3.07	4.43	20.34	1.36
DoylesR	TR017	3583.40	100Year-Existing	8.20	115.96	116.58	116.66	116.84	0.046438	3.03	5.15	26.46	1.42
DoylesR	TR017	3571.14	100Year-Existing	8.20	115.76	116.29	116.34	116.45	0.043108	2.76	6.06	31.18	1.35
DoylesR	TR017	3545.42	100Year-Existing	8.20	115.22	115.86	115.81	115.99	0.021053	2.07	6.65	24.91	0.96
DoylesR	TR017	3483.93	100Year-Existing	8.20	114.35	114.96	114.92	115.00	0.012840	1.63	13.15	71.13	0.75
DoylesR	TR017	3432.55	100Year-Existing	8.20	113.79	114.57	114.49	114.60	0.007322	1.46	14.81	66.73	0.58
DoylesR	TR017	3345.48	100Year-Existing	8.20	113.03	113.56	113.56	113.66	0.032830	2.15	7.77	43.15	1.14
DoylesR	TR017	3300.07	100Year-Existing	8.20	112.42	113.02	112.87	113.03	0.003571	0.79	20.60	78.83	0.39
DoylesR	TR016	918.87	100Year-Existing	3.00	127.08	128.80	127.25	128.80	0.000000	0.01	406.05	361.87	0.00
DoylesR	TR016	898.71	100Year-Existing	3.00	126.90	128.80	127.32	128.80	0.000001	0.03	197.26	225.47	0.01
DoylesR	TR016	890		Culvert									
DoylesR	TR016	882.28	100Year-Existing	3.00	126.88	128.73		128.73	0.000006	0.07	105.32	158.31	0.02
DoylesR	TR016	877.71	100Year-Existing	3.00	126.24	128.73	126.96	128.73	0.000004	0.08	124.41	189.53	0.02
DoylesR	TR016	850		Culvert									
DoylesR	TR016	848.13	100Year-Existing	3.00	126.37	127.20	127.20	127.47	0.019126	2.53	1.63	3.52	0.92
DoylesR	TR016	818.98	100Year-Existing	3.00	126.36	126.86	126.79	126.88	0.004190	0.80	8.36	54.67	0.41
DoylesR	TR016	768.99	100Year-Existing	3.00	126.30	126.67		126.68	0.004439	0.67	8.58	51.71	0.41
DoylesR	TR016	714.09	100Year-Existing	3.00	125.96	126.40		126.41	0.005086	0.77	7.19	38.19	0.44
DoylesR	TR016	675.95	100Year-Existing	3.00	125.74	126.08	126.08	126.14	0.022480	1.33	4.35	43.17	0.89
DoylesR	TR016	659.39	100Year-Existing	3.00	125.10	125.57	125.49	125.62	0.010666	1.27	4.56	26.70	0.66
DoylesR	TR016	632.80	100Year-Existing	3.00	124.78	125.26	125.26	125.33	0.015250	1.43	3.77	27.49	0.78
DoylesR	TR016	610.50	100Year-Existing	3.00	123.78	124.30	124.43	124.67	0.054731	2.99	1.35	5.50	1.50
DoylesR	TR016	549.37	100Year-Existing	3.00	122.30	122.98	122.99	123.08	0.014632	1.74	3.39	20.00	0.79
DoylesR	TR016	494.31	100Year-Existing	3.00	120.93	121.58	121.65	121.86	0.035294	2.40	1.35	4.37	1.19
DoylesR	TR016	473.82	100Year-Existing	3.00	120.18	120.72	120.81	121.03	0.046039	2.58	1.35	5.17	1.36
DoylesR	TR016	459.95	100Year-Existing	3.00	119.62	120.13	120.21	120.40	0.043650	2.40	1.40	5.38	1.31
DoylesR	TR016	439.99	100Year-Existing	3.00	119.05	119.73	119.73	119.92	0.021487	1.97	1.66	4.83	0.94
DoylesR	TR016	384.99	100Year-Existing	3.00	117.07	117.55	117.66	117.91	0.072627	2.69	1.15	4.84	1.63
DoylesR	TR016	329.99	100Year-Existing	3.00	115.67	116.18	116.18	116.26	0.017514	1.44	3.39	23.74	0.82
DoylesR	TR016	274.18	100Year-Existing	3.00	114.93	115.34	115.34	115.38	0.012935	1.11	5.45	48.88	0.69
DoylesR	TR016	218.88	100Year-Existing	3.00	114.35	114.85	114.83	114.88	0.011117	1.10	5.91	59.03	0.65
DoylesR	TR016	165.43	100Year-Existing	3.00	113.83	114.41	114.38	114.45	0.008518	1.14	5.23	37.18	0.59
DoylesR	TR016	86.48	100Year-Existing	3.00	112.80	113.26	113.26	113.36	0.025610	1.58	2.56	13.78	0.97
DoylesR	TR016	40.19	100Year-Existing	3.00	112.21	112.85	112.71	112.86	0.001843	0.60	11.67	63.88	0.28
DoylesR	TR015	3230.71	100Year-Existing	18.00	111.60	112.56		112.61	0.008216	1.86	24.31	78.76	0.65
DoylesR	TR015	3185.04	100Year-Existing	18.00	111.22	112.22		112.30	0.011079	2.07	19.23	52.41	0.75
DoylesR	TR015	3133.58	100Year-Existing	18.00	110.57	111.42	111.42	111.55	0.021393	2.68	15.28	47.98	1.03
DoylesR	TR015	3079.97	100Year-Existing	18.00	108.17	109.21	109.47	109.91	0.042760	4.26	6.21	12.37	1.50
DoylesR	TR015	3026.43	100Year-Existing	18.00	107.30	109.15	108.35	109.17	0.000816	0.93	32.70	34.31	0.23
DoylesR	TR015	3001.28	100Year-Existing	18.00	106.17	109.16	108.48	109.16	0.000125	0.47	90.17	79.08	0.09
DoylesR	TR015	3000		Culvert									
DoylesR	TR015	2988.77	100Year-Existing	18.00	106.03	108.09	108.09	108.27	0.004490	2.45	21.56	57.13	0.56
DoylesR	TR015	2963.30	100Year-Existing	18.00	105.69	106.57	106.90	107.85	0.102362	6.14	5.68	18.26	2.23
DoylesR	TR015	2915.60	100Year-Existing	18.00	104.53	105.74	105.76	105.99	0.016697	2.98	12.06	25.70	0.95
DoylesR	TR015	2867.64	100Year-Existing	18.00	103.37	104.56	104.68	104.98	0.032119	4.06	9.55	21.50	1.30
DoylesR	TR015	2841.04	100Year-Existing	18.00	102.40	103.01	103.15	103.45	0.108356	4.33	7.89	29.01	2.13
DoylesR	TR015	2804.73	100Year-Existing	18.00	101.67	102.55	102.47	102.66	0.016746	2.43	15.58	37.55	0.91
DoylesR	TR015	2742.98	100Year-Existing	18.00	100.87	101.74	101.67	101.80	0.012978	2.18	22.35	71.99	0.81
DoylesR	TR015	2687.77	100Year-Existing	18.00	100.07	100.72	100.71	100.82	0.028852	2.53	16.66	71.64	1.14
DoylesR	TR015	2638.14	100Year-Existing	18.00	98.95	99.81	99.81	99.95	0.023380	2.94	16.18	55.58	1.09
DoylesR	TR015	2593.26	100Year-Existing	18.00	97.75	98.93	98.85	99.03	0.010298	2.35	18.37	45.12	0.75
DoylesR	TR015	2557.12	100Year-Existing	18.00	97.53	98.66		98.73	0.007803	2.08	22.30	57.68	0.66
DoylesR	TR015	2522.34	100Year-Existing	18.00	97.26	98.20	98.20	98.36	0.019288	2.57	13.87	40.52	0.98
DoylesR	TR015	2483.94	100Year-Existing	18.00	96.95	97.73	97.65	97.79	0.014377	1.93	19.63	60.99	0.81
DoylesR	TR015	2438.99	100Year-Existing	18.00	96.35	97.50		97.53	0.003504	1.36	33.13	95.87	0.44
DoylesR	TR015	2387.12	100Year-Existing	18.00	96.39	97.43		97.44	0.001117	0.68	57.61	131.33	0.24
DoylesR	TR015	2352.45	100Year-Existing	18.00	96.40	97.41		97.41	0.000590	0.50	64.57	105.49	0.18
DoylesR	TR015	2283.37	100Year-Existing	18.00	95.75	97.25		97.33	0.003438	1.67	19.05	23.81	0.46
DoylesR	TR015	2231.50	100Year-Existing	18.00	95.54	96.77	96.71	97.00	0.013761	2.81	11.41	23.95	0.88
DoylesR	TR015	2160.12	100Year-Existing	18.00	94.93	96.05		96.18	0.008808	2.08	14.02	22.90	0.69
DoylesR	TR015	2119.11	100Year-Existing	18.00	94.44	95.53	95.53	95.73	0.016773	2.81	12.48	28.22	0.94
DoylesR	TR015	2075.88	100Year-Existing	18.00	93.86	94.88	94.90	95.04	0.014319	2.48	15.10	48.10	0.87
DoylesR	TR015	2024.01	100Year-Existing	18.00	93.19	94.39	94.28	94.45	0.006176	1.80	21.95	57.15	0.58
DoylesR	TR015	1972.14	100Year-Existing	18.00	92.71	93.67	93.67	93.88	0.028064	3.32	12.85	61.32	1.19
DoylesR	TR015	1921.75	100Year-Existing	18.00	92.35	93.52	93.14	93.54	0.002097	1.07	38.84	91.64	0.34
DoylesR	TR015	1851.62	100Year-Existing	18.00	91.24	92.86	92.86	93.27	0.014847	3.38	8.82	16.08	0.92
DoylesR	TR014	2057.49	100Year-Existing	10.90	125.48	126.59	126.42	126.62	0.003027	1.13	22.80	70.82	0.39
DoylesR	TR014	2037.89	100Year-Existing	10.90	125.57	126.59		126.59	0.000652	0.55	46.19	111.29	0.19
DoylesR	TR014	1988.88	100Year-Existing	10.90	124.71	126.48	125.66	126.54	0.001415	1.18	15.94	49.99	0.30
DoylesR	TR014	1980		Culvert									
DoylesR	TR014	1975.46	100Year-Existing	10.90	124.46	126.45		126.51	0.001105	1.14	13.47	36.23	0.27
DoylesR	TR014	1936.56	100Year-Existing	10.90	124.86	126.25	125.95	126.42	0.005758	2.10	9.70	23.83	0.59
DoylesR	TR014	1904.43	100Year-Existing	10.90	124.72	125.85	125.85	126.14	0.013595	2.73	6.29	11.82	0.88
DoylesR	TR014	1867.03	100Year-Existing	10.90	124.61	125.69	125.36	125.75	0.004306	1.51	12.99	25.35	0.49
DoylesR	TR014	1801.50	100Year-Existing	10.90	124.00	125.00	125.00	125.25	0.016749	2.79	6.94	15.26	0.95
DoylesR	TR014	1765.57	100Year-Existing	10.90	123.20	123.78	123.92	124.22	0.057782	3.39	4.82	18.86	1.60
DoylesR	TR014	1703.29	100Year-Existing	10.90	121.82	122.73	122.62	122.96	0.014479	2.48	7.49	22.59	0.88
DoylesR	TR014	1657.91	100Year-Existing	10.90	121.27	122.08	122.08	122.28	0.015002	2.21	7.38	21.06	0.86
DoylesR	TR014	1607.98	100Year-Existing	10.90	120.59	121.45	121.46	121.57	0.012754	2.13	11.99	47.34	0.80
DoylesR	TR014	1544.18	100Year-Existing	10.90	119.81	120.65	120.70	120.84	0.018838	2.59	9.69	40.87	0.98
DoylesR	TR014	1492.70	100Year-Existing	10.90	119.06	119.76	119.77	119.88	0.017580	2.20	10.51	41.47	0.92
DoylesR	TR014	1441.23	100Year-Existing	10.90	117.59	118.68	118.74	118.97	0.017305	3.07	7.38	19.83	0.99
DoylesR	TR014	1420.98	100Year-Existing	10.90	116.98	118.29	117.77	118.34	0.002585	1.36	12.49	13.99	0.40
DoylesR	TR014	1411.86	100Year-Existing	10.90	117.03	118.18	117.78	118.30	0.005018	1.83	7.72	12.40	0.55
DoylesR	TR014	1400		Bridge									
DoylesR	TR014	1384.41	100Year-Existing	12.40	116.71	117.59	117.53	117.88	0.015847	2.57	5.45	9.98	0.92

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR014	1374.60	100Year-Existing	12.40	116.54	117.55		117.70	0.007895	1.94	8.21	12.08	0.66
DoylesR	TR014	1353.25	100Year-Existing	12.40	116.21	117.14	117.14	117.44	0.017879	2.74	5.96	10.24	0.98
DoylesR	TR014	1309.14	100Year-Existing	12.40	115.50	116.52	116.35	116.72	0.008791	2.01	6.56	9.07	0.69
DoylesR	TR014	1296.25	100Year-Existing	12.40	115.12	116.17	116.17	116.52	0.018117	3.02	5.61	8.41	1.00
DoylesR	TR014	1239.25	100Year-Existing	12.40	113.43	114.13	114.36	114.75	0.056181	3.94	4.38	12.10	1.64
DoylesR	TR014	1203.69	100Year-Existing	12.40	112.84	113.74	113.60	113.81	0.008882	1.94	12.14	26.64	0.68
DoylesR	TR014	1182.25	100Year-Existing	12.40	112.53	113.34	113.34	113.53	0.018813	2.55	8.53	21.14	0.98
DoylesR	TR014	1125.25	100Year-Existing	12.40	111.30	112.56	112.29	112.62	0.004112	1.62	15.20	24.44	0.49
DoylesR	TR014	1104.23	100Year-Existing	12.40	111.16	112.19	112.19	112.44	0.018094	2.81	7.69	17.35	0.98
DoylesR	TR014	1094.88	100Year-Existing	12.40	110.55	111.39	111.62	112.11	0.060811	4.76	4.48	10.90	1.76
DoylesR	TR014	1075.36	100Year-Existing	12.40	110.17	111.20	111.28	111.52	0.024874	3.47	7.70	19.28	1.16
DoylesR	TR014	1027.18	100Year-Existing	12.40	109.15	110.06	110.10	110.33	0.024076	3.01	7.45	17.79	1.11
DoylesR	TR014	980.74	100Year-Existing	12.40	107.89	109.02	108.65	109.07	0.004238	1.58	14.67	22.12	0.49
DoylesR	TR014	954.47	100Year-Existing	12.40	107.68	108.65	108.65	108.86	0.017016	2.69	8.98	23.05	0.95
DoylesR	TR014	934.37	100Year-Existing	12.40	106.99	107.96	108.09	108.36	0.029566	3.43	6.95	21.03	1.23
DoylesR	TR014	907.24	100Year-Existing	12.40	106.52	107.47	107.40	107.57	0.011329	2.22	12.33	28.21	0.77
DoylesR	TR014	868.80	100Year-Existing	12.40	105.88	106.88	106.87	107.09	0.013715	2.48	9.03	21.57	0.86
DoylesR	TR014	864.98	100Year-Existing	12.40	105.70	106.75	106.75	107.02	0.014906	2.51	6.92	15.10	0.89
DoylesR	TR014	844.06	100Year-Existing	12.40	105.10	106.35	106.18	106.52	0.008175	2.25	8.98	14.03	0.69
DoylesR	TR014	836.52	100Year-Existing	12.40	104.97	106.11	106.11	106.42	0.017322	2.87	6.58	12.31	0.96
DoylesR	TR014	816.09	100Year-Existing	12.40	104.78	105.69	105.58	105.79	0.009440	1.89	11.45	28.71	0.70
DoylesR	TR014	811.48	100Year-Existing	12.40	104.64	105.68		105.75	0.005624	1.66	13.58	25.56	0.56
DoylesR	TR014	783.28	100Year-Existing	12.40	103.98	105.15	105.15	105.47	0.017892	3.20	6.53	10.43	1.00
DoylesR	TR014	751.27	100Year-Existing	12.40	103.31	104.37	104.45	104.79	0.024319	3.00	4.85	9.10	1.11
DoylesR	TR014	717.94	100Year-Existing	12.40	102.63	103.99	103.99	104.25	0.013889	3.09	7.92	13.89	0.89
DoylesR	TR014	676.43	100Year-Existing	12.40	102.18	103.30	103.32	103.61	0.017201	2.84	7.13	17.08	0.96
DoylesR	TR014	601.44	100Year-Existing	12.40	101.39	102.38	102.26	102.48	0.009320	1.98	10.67	22.66	0.70
DoylesR	TR014	540.83	100Year-Existing	12.40	100.49	101.69	101.52	101.91	0.009533	2.32	8.33	19.40	0.74
DoylesR	TR014	519.25	100Year-Existing	12.40	99.69	101.80	101.49	101.81	0.000668	0.82	36.15	65.84	0.19
DoylesR	TR014	510		Culvert									
DoylesR	TR014	505.00	100Year-Existing	12.40	99.62	101.55	101.55	101.59	0.001884	1.29	25.58	61.32	0.30
DoylesR	TR014	484.27	100Year-Existing	12.40	99.79	100.67	100.87	101.30	0.066568	4.36	4.56	13.52	1.74
DoylesR	TR014	426.15	100Year-Existing	12.40	98.71	99.91	99.91	100.15	0.012460	2.37	7.75	23.25	0.81
DoylesR	TR014	368.05	100Year-Existing	12.40	97.30	98.46	98.63	98.99	0.037294	3.76	5.38	16.12	1.33
DoylesR	TR014	343.01	100Year-Existing	12.40	96.78	98.33	97.78	98.47	0.003351	1.70	8.13	74.00	0.45
DoylesR	TR014	335		Bridge									
DoylesR	TR014	331.91	100Year-Existing	12.40	96.63	97.92	97.92	98.32	0.015286	2.96	4.94	7.09	0.92
DoylesR	TR014	312.09	100Year-Existing	12.40	96.26	97.52	97.63	97.89	0.029411	3.13	7.31	31.60	1.15
DoylesR	TR014	227.09	100Year-Existing	12.40	94.66	96.49	96.15	96.54	0.002765	1.47	17.99	29.07	0.38
DoylesR	TR014	205.76	100Year-Existing	12.40	94.51	96.17	96.17	96.42	0.010581	2.63	8.65	18.99	0.74
DoylesR	TR014	198.96	100Year-Existing	12.40	94.45	95.18	95.48	96.17	0.103518	4.48	3.09	10.52	2.12
DoylesR	TR014	181.77	100Year-Existing	12.40	94.01	95.22	95.22	95.41	0.013124	2.50	9.50	23.71	0.83
DoylesR	TR014	121.12	100Year-Existing	12.40	92.99	94.17	94.26	94.45	0.018208	2.88	10.70	60.81	0.97
DoylesR	TR014	34.73	100Year-Existing	12.40	91.60	92.56	92.58	92.88	0.020448	2.74	5.90	11.24	1.02
DoylesR	TR012	1780.65	100Year-Existing	30.40	90.30	92.35	91.74	92.44	0.001998	1.49	34.61	63.22	0.36
DoylesR	TR012	1753.67	100Year-Existing	30.40	89.56	92.38	91.27	92.40	0.000405	0.93	73.79	92.65	0.18
DoylesR	TR012	1745		Bridge									
DoylesR	TR012	1729.43	100Year-Existing	30.40	89.10	91.06	91.12	91.97	0.016868	4.33	7.45	13.84	1.03
DoylesR	TR012	1709.20	100Year-Existing	30.40	88.93	90.47	90.80	91.44	0.037375	5.24	10.06	20.30	1.46
DoylesR	TR012	1645.76	100Year-Existing	30.40	88.20	89.59	89.47	89.87	0.011911	2.84	15.73	20.48	0.84
DoylesR	TR011	1552.47	100Year-Existing	43.70	86.48	88.84	88.39	89.17	0.005613	2.87	21.25	15.48	0.63
DoylesR	TR011	1530.88	100Year-Existing	43.70	86.19	88.27	88.27	88.96	0.014340	4.23	14.79	11.50	0.99
DoylesR	TR011	1477.56	100Year-Existing	43.70	84.43	85.84	86.32	87.45	0.064723	6.46	9.84	13.63	1.93
DoylesR	TR011	1423.69	100Year-Existing	43.70	83.56	85.47	85.47	86.30	0.017924	4.39	13.16	11.54	1.09
DoylesR	TR011	1370.10	100Year-Existing	43.70	82.66	83.99	84.23	84.83	0.046199	5.37	15.12	30.92	1.63
DoylesR	TR011	1316.51	100Year-Existing	43.70	81.17	83.17	83.18	83.67	0.011322	3.61	18.75	21.77	0.87
DoylesR	TR011	1262.92	100Year-Existing	43.70	79.36	81.04	81.61	82.50	0.042931	6.01	10.40	13.63	1.63
DoylesR	TR011	1209.33	100Year-Existing	43.70	78.14	80.51	80.51	81.15	0.012213	4.02	16.34	16.36	0.91
DoylesR	TR011	1155.74	100Year-Existing	43.70	76.81	78.72	79.14	80.05	0.035089	5.65	10.20	10.09	1.46
DoylesR	TR011	1107.39	100Year-Existing	43.70	76.34	78.04	78.10	78.67	0.017614	3.72	13.76	13.62	1.04
DoylesR	TR011	1057.82	100Year-Existing	43.70	75.16	77.30	77.33	77.94	0.014429	3.89	14.63	13.12	0.96
DoylesR	TR011	971.36	100Year-Existing	43.70	73.33	75.26	74.69	75.54	0.004528	2.34	18.66	19.41	0.56
DoylesR	TR011	960		Bridge									
DoylesR	TR011	949.62	100Year-Existing	43.70	73.08	75.18	74.37	75.40	0.002972	2.07	21.11	19.59	0.46
DoylesR	TR011	929.53	100Year-Existing	43.70	72.74	74.58	74.55	75.17	0.014115	3.64	14.57	12.66	0.95
DoylesR	TR011	872.05	100Year-Existing	43.70	72.26	74.13	74.13	74.38	0.010489	3.11	30.96	61.95	0.81
DoylesR	TR011	816.76	100Year-Existing	43.70	72.00	73.08	72.99	73.16	0.014285	2.42	38.63	96.80	0.84
DoylesR	TR011	760.16	100Year-Existing	43.70	71.25	72.51		72.58	0.009646	2.40	45.22	102.75	0.73
DoylesR	TR011	712.26	100Year-Existing	43.70	70.34	71.86	71.80	72.02	0.012168	2.98	36.97	96.68	0.84
DoylesR	TR011	663.11	100Year-Existing	43.70	70.08	71.48		71.52	0.007719	2.13	57.27	143.94	0.63
DoylesR	TR013	2205.78	100Year-Existing	9.30	95.88	96.70	96.42	96.71	0.001161	0.70	34.45	117.70	0.25
DoylesR	TR013	2147.59	100Year-Existing	9.30	95.87	96.60		96.61	0.002343	0.85	22.20	75.37	0.34
DoylesR	TR013	2097.40	100Year-Existing	9.30	95.86	96.28	96.28	96.34	0.022904	1.71	12.41	88.77	0.95
DoylesR	TR013	2011.99	100Year-Existing	9.30	93.67	94.77	94.60	94.91	0.007362	1.92	6.70	12.02	0.64
DoylesR	TR013	1957.46	100Year-Existing	9.30	93.05	94.08	94.08	94.35	0.015933	2.87	5.46	11.53	0.94
DoylesR	TR013	1909.18	100Year-Existing	9.30	92.33	93.24	93.34	93.49	0.019425	2.71	7.38	44.17	0.99
DoylesR	TR013	1861.01	100Year-Existing	9.30	91.27	92.29	92.39	92.58	0.018721	2.79	6.75	37.26	0.98
DoylesR	TR013	1789.09	100Year-Existing	9.30	90.00	90.56	90.61	90.72	0.036017	2.55	8.43	60.34	1.25
DoylesR	TR013	1733.37	100Year-Existing	9.30	89.53	90.27	90.14	90.29	0.003980	1.01	19.28	80.95	0.43
DoylesR	TR013	1677.65	100Year-Existing	9.30	89.42	89.86		89.90	0.015121	1.41	12.01	63.28	0.78
DoylesR	TR013	1613.85	100Year-Existing	9.30	89.11	89.66		89.67	0.001638	0.56	30.14	97.55	0.27
DoylesR	TR013	1552.30	100Year-Existing	9.30	88.82	89.57		89.58	0.001875	0.78	24.84	69.20	0.31
DoylesR	TR013	1506.96	100Year-Existing	9.30	88.81	89.50		89.51	0.001924	0.75	24.01	65.46	0.31
DoylesR	TR013	1478.17	100Year-Existing	9.30	88.80	89.35		89.39	0.011845	1.47	12.55	48.77	0.71
DoylesR	TR013	1411.61	100Year-Existing	9.30	88.11	89.08		89.11	0.002186	0.96	14.61	32.56	0.34
DoylesR	TR013	1388.58	100Year-Existing	9.30	87.45	89.09	88.80	89.09	0.000157	0.37	60.17	161.80	0.10
DoylesR	TR013	1375		Culvert									
DoylesR	TR013	1373.86	100Year-Existing	9.30	87.32	88.73	88.50	88.83	0.005015	1.92	10.67	37.33	0.53
DoylesR	TR013	1301.72	100Year-Existing	9.30	86.82	87.93	87.93	88.23	0.014942	2.69	4.66	9.74	0.90
DoylesR	TR013	1246.99	100Year-Existing	9.30	85.79	86.69	86.82	87.15	0.027474	3.08	3.48	6.92	1.17

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR013	1192.26	100Year-Existing	9.30	84.79	85.96	85.76	86.10	0.007040	1.93	6.92	11.72	0.63
DoylesR	TR013	1137.53	100Year-Existing	9.30	84.03	85.19	85.19	85.53	0.016127	2.78	4.39	8.52	0.93
DoylesR	TR013	1082.80	100Year-Existing	9.30	83.55	84.47	84.47	84.61	0.016610	2.18	7.26	22.21	0.88
DoylesR	TR013	1064.90	100Year-Existing	9.30	82.57	84.50	83.72	84.52	0.000734	0.82	26.89	115.94	0.21
DoylesR	TR013	1050		Culvert									
DoylesR	TR013	1042.53	100Year-Existing	9.30	82.41	84.35	83.50	84.36	0.000265	0.52	43.27	118.49	0.13
DoylesR	TR013	1022.06	100Year-Existing	9.30	82.71	84.13	83.88	84.33	0.007272	2.30	6.52	11.89	0.65
DoylesR	TR013	969.32	100Year-Existing	9.30	82.40	83.40	83.40	83.72	0.019312	2.99	4.43	7.23	1.02
DoylesR	TR013	915.66	100Year-Existing	9.30	81.80	83.00	82.60	83.02	0.001177	0.86	22.63	44.25	0.26
DoylesR	TR013	867.93	100Year-Existing	9.30	81.40	82.91		82.95	0.001920	1.26	18.00	42.03	0.34
DoylesR	TR013	809.27	100Year-Existing	9.30	81.32	82.65		82.77	0.004581	1.70	7.23	10.59	0.51
DoylesR	TR013	756.07	100Year-Existing	9.30	80.75	81.94	81.94	82.33	0.016369	3.13	4.18	6.01	0.97
DoylesR	TR013	702.82	100Year-Existing	9.30	79.91	81.06	81.09	81.42	0.017700	3.07	4.34	7.32	0.98
DoylesR	TR013	651.60	100Year-Existing	9.30	78.06	78.91	79.23	79.79	0.067330	4.40	2.58	6.13	1.77
DoylesR	TR013	588.74	100Year-Existing	9.30	75.89	76.88	76.94	77.25	0.024389	2.74	3.80	8.03	1.07
DoylesR	TR013	543.29	100Year-Existing	9.30	75.20	76.05	76.00	76.33	0.018733	2.38	4.39	15.40	0.95
DoylesR	TR013	489.08	100Year-Existing	9.30	73.77	74.99	74.99	75.37	0.016446	3.10	4.21	6.07	0.95
DoylesR	TR013	436.90	100Year-Existing	9.30	72.11	73.04	73.35	73.86	0.057694	4.06	2.47	4.96	1.62
DoylesR	TR013	383.70	100Year-Existing	9.30	70.97	72.22	72.01	72.28	0.003117	1.32	13.36	40.10	0.42
DoylesR	TR013	363.75	100Year-Existing	9.30	70.36	72.17	71.91	72.24	0.001412	1.30	13.67	45.62	0.31
DoylesR	TR013	360		Culvert									
DoylesR	TR013	344.87	100Year-Existing	9.30	70.32	71.70	71.70	71.71	0.001020	0.82	24.34	48.31	0.23
DoylesR	TR013	324.16	100Year-Existing	9.30	70.29	70.88	71.00	71.47	0.143284	4.52	4.36	41.64	2.37
DoylesR	TR013	256.30	100Year-Existing	9.30	69.36	70.29	70.29	70.39	0.020646	2.38	9.43	48.64	0.92
DoylesR	TR013	236.50	100Year-Existing	9.30	69.35	70.25	69.98	70.25	0.000712	0.41	40.57	116.41	0.18
DoylesR	TR013	162.98	100Year-Existing	9.30	68.94	70.21		70.21	0.000701	0.53	38.59	130.64	0.18
DoylesR	TR013	133.14	100Year-Existing	9.30	68.76	70.19		70.19	0.000246	0.33	56.91	122.42	0.11
DoylesR	TR013	66.14	100Year-Existing	9.30	68.46	70.18		70.18	0.000267	0.39	48.67	182.81	0.11
DoylesR	M001	484.12	100Year-Existing	53.20	68.08	69.84		69.96	0.009591	2.50	46.45	101.28	0.71
DoylesR	M001	429.44	100Year-Existing	53.20	67.72	69.75		69.77	0.001559	1.15	96.81	141.28	0.29
DoylesR	M001	388.03	100Year-Existing	53.20	67.53	69.71		69.72	0.000947	0.96	128.76	219.23	0.23
DoylesR	M001	344.78	100Year-Existing	53.20	67.39	69.70		69.70	0.000253	0.52	228.34	278.50	0.12
DoylesR	M001	215.64	100Year-Existing	53.20	67.21	69.69		69.69	0.000035	0.22	468.04	397.35	0.05
DoylesR	M001	77.13	100Year-Existing	53.20	66.62	69.69		69.69	0.000010	0.14	801.45	579.23	0.03
CochranePB	M002	8105.53	100Year-Existing	15.30	140.65	142.41	141.37	142.41	0.000151	0.36	96.79	128.69	0.10
CochranePB	M002	8065.47	100Year-Existing	15.30	140.64	142.39		142.40	0.000584	0.65	53.02	85.07	0.18
CochranePB	M002	8050.98	100Year-Existing	15.30	140.00	142.36		142.39	0.000267	0.90	42.26	78.21	0.23
CochranePB	M002	8024.09	100Year-Existing	15.30	140.62	142.36		142.37	0.000674	0.68	55.47	109.63	0.20
CochranePB	M002	8013.06	100Year-Existing	15.30	140.42	142.36		142.36	0.000489	0.63	59.76	108.33	0.17
CochranePB	M002	8004.70	100Year-Existing	15.30	140.25	142.36	141.80	142.36	0.000259	0.59	76.30	111.27	0.13
CochranePB	M002	8000		Culvert									
CochranePB	M002	7995.14	100Year-Existing	15.30	140.37	142.35	141.56	142.36	0.000219	0.53	67.61	83.46	0.12
CochranePB	M002	7964.49	100Year-Existing	15.30	140.14	141.88	141.88	142.29	0.017337	3.47	7.62	11.29	0.94
CochranePB	M002	7901.64	100Year-Existing	15.30	139.30	140.86	140.93	141.15	0.017977	2.80	10.39	33.26	0.90
CochranePB	M002	7847.08	100Year-Existing	15.30	138.68	139.88	139.70	139.93	0.007196	1.50	20.81	52.00	0.56
CochranePB	M002	7812.33	100Year-Existing	15.30	138.52	139.35	139.35	139.46	0.034809	2.30	13.23	55.37	1.17
CochranePB	M002	7738.34	100Year-Existing	15.30	137.94	138.99	138.74	139.00	0.002359	0.78	43.39	131.46	0.33
CochranePB	M002	7695.32	100Year-Existing	15.30	137.67	138.62	138.62	138.77	0.023524	2.17	12.12	41.36	1.01
CochranePB	M002	7609.21	100Year-Existing	15.30	136.29	137.83	137.41	137.85	0.001028	0.78	40.65	99.62	0.24
CochranePB	M002	7515.77	100Year-Existing	15.30	136.28	137.70		137.72	0.002366	1.10	34.25	108.91	0.36
CochranePB	M002	7476.72	100Year-Existing	15.30	136.26	137.67		137.68	0.000769	0.62	46.06	96.22	0.20
CochranePB	M002	7450.86	100Year-Existing	15.30	136.25	137.63		137.65	0.001452	0.81	35.00	84.15	0.28
CochranePB	M002	7329.89	100Year-Existing	15.30	136.23	137.34		137.38	0.004519	1.19	24.52	82.62	0.47
CochranePB	M002	7253.62	100Year-Existing	15.30	136.05	137.17		137.18	0.002105	0.85	34.87	97.46	0.32
CochranePB	M002	7208.54	100Year-Existing	15.30	135.88	137.06		137.08	0.002749	1.00	34.72	130.95	0.37
CochranePB	M002	7108.13	100Year-Existing	15.30	135.54	136.55		136.61	0.012988	1.93	19.55	77.97	0.75
CochranePB	M002	7041.67	100Year-Existing	15.30	134.91	136.15		136.21	0.004769	1.29	23.57	86.30	0.49
CochranePB	M002	6985.71	100Year-Existing	15.30	134.29	135.69	135.69	135.84	0.009952	2.23	15.02	46.71	0.72
CochranePB	M002	6955.25	100Year-Existing	15.30	133.48	134.76	134.90	135.27	0.035833	3.32	5.62	12.59	1.28
CochranePB	M002	6863.52	100Year-Existing	15.30	131.82	132.89	132.89	133.04	0.022499	2.49	12.62	38.99	1.00
CochranePB	M002	6840.09	100Year-Existing	15.30	131.19	132.25	132.23	132.39	0.020127	2.22	12.76	39.69	0.95
CochranePB	M002	6808.25	100Year-Existing	15.30	130.51	131.48	131.48	131.62	0.029109	2.39	12.38	44.11	1.09
CochranePB	M002	6767.75	100Year-Existing	15.30	129.31	130.36	130.40	130.54	0.023952	2.39	12.32	49.11	1.03
CochranePB	M002	6727.78	100Year-Existing	15.30	128.36	129.52	129.54	129.71	0.023419	2.53	11.06	36.80	1.02
CochranePB	M002	6691.71	100Year-Existing	15.30	127.96	129.11	129.00	129.15	0.006507	1.39	22.96	76.78	0.55
CochranePB	M002	6651.54	100Year-Existing	15.30	127.68	128.70		128.80	0.012536	1.56	13.03	40.38	0.74
CochranePB	M002	6630.83	100Year-Existing	15.30	127.19	128.49	128.44	128.59	0.008667	1.78	16.47	67.11	0.66
CochranePB	M002	6534.50	100Year-Existing	15.30	126.30	127.34	127.34	127.46	0.017042	2.01	15.26	73.55	0.87
CochranePB	M002	6507.97	100Year-Existing	15.30	125.65	126.60	126.64	126.77	0.038890	2.55	11.75	57.48	1.24
CochranePB	M002	6480.50	100Year-Existing	15.30	124.97	125.98	125.96	126.07	0.016687	1.93	15.70	56.53	0.85
CochranePB	M002	6433.33	100Year-Existing	15.30	124.09	125.08	125.08	125.25	0.024119	2.09	10.44	36.96	1.01
CochranePB	M002	6400.96	100Year-Existing	15.30	123.40	124.66	124.43	124.71	0.004818	1.26	21.77	54.71	0.47
CochranePB	M002	6364.18	100Year-Existing	15.30	123.28	124.65		124.66	0.000331	0.39	58.03	126.92	0.13
CochranePB	M002	6314.31	100Year-Existing	15.30	123.27	124.59		124.62	0.002373	0.98	27.38	79.61	0.35
CochranePB	M002	6286.25	100Year-Existing	15.30	123.26	124.50		124.54	0.003199	1.08	24.23	72.34	0.40
CochranePB	M002	6202.53	100Year-Existing	15.30	122.81	124.14	123.98	124.23	0.006299	1.62	16.39	40.92	0.57
CochranePB	M002	6130.00	100Year-Existing	15.30	122.30	123.36	123.36	123.53	0.017664	1.90	9.78	34.74	0.88
CochranePB	M002	6040.82	100Year-Existing	15.30	121.41	122.65	122.49	122.69	0.003397	1.15	26.92	77.95	0.42
CochranePB	M002	6006.95	100Year-Existing	15.30	121.40	122.60		122.61	0.001300	0.59	35.72	100.72	0.25
CochranePB	M002	5976.09	100Year-Existing	15.30	121.39	122.43	122.41	122.51	0.016011	1.74	16.62	72.92	0.82
CochranePB	M002	5910.40	100Year-Existing	15.30	120.29	121.58	121.58	121.71	0.012253	2.08	15.46	55.90	0.77
CochranePB	M002	5863.68	100Year-Existing	15.30	119.62	120.56	120.66	120.85	0.046887	2.74	8.31	41.65	1.38
CochranePB	M002	5811.63	100Year-Existing	15.30	118.87	119.98	119.98	120.12	0.017779	2.21	13.87	52.86	0.90
CochranePB	M002	5768.42	100Year-Existing	15.30	117.38	118.41	118.55	118.87	0.058121	3.08	5.76	23.94	1.55
CochranePB	M002	5725.36	100Year-Existing	15.30	116.48	117.65	117.65	117.80	0.015914	2.10	12.19	42.44	0.86
CochranePB	M002	5678.58	100Year-Existing	15.30	115.39	116.54	116.62	116.82	0.025766	2.45	8.09	33.07	1.07
CochranePB	M002	5627.04	100Year-Existing	15.30	114.79	116.27	115.86	116.30	0.002409	1.10	25.10	48.59	0.36
CochranePB	M002	5609.94	100Year-Existing	23.00	114.77	116.09		116.18	0.006792	1.64	22.86	51.02	0.59
CochranePB	M002	5601.00	100Year-Existing	23.00	114.76	116.07		116.07	0.001324	0.72	60.32	114.43	0.26
CochranePB	M002	5568.52	100Year-Existing	23.00	114.75	116.03		116.04	0.001064	0.64	59.19	102.17	0.23

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	5508.20	100Year-Existing	23.00	114.04	115.74		115.90	0.005511	1.86	16.31	27.81	0.56
CochranePB	M002	5473.67	100Year-Existing	23.00	113.90	115.33	115.33	115.59	0.015845	2.64	13.93	27.97	0.91
CochranePB	M002	5403.83	100Year-Existing	23.00	110.69	111.98	112.39	113.32	0.084276	5.27	5.08	10.55	2.00
CochranePB	M002	5352.19	100Year-Existing	23.00	110.27	111.71	111.66	111.99	0.016912	2.65	12.95	41.77	0.93
CochranePB	M002	5309.83	100Year-Existing	23.00	109.64	111.16	111.16	111.36	0.012414	2.38	18.88	53.75	0.80
CochranePB	M002	5266.90	100Year-Existing	23.00	109.30	110.66	110.67	110.81	0.014063	2.33	23.28	84.68	0.83
CochranePB	M002	5213.45	100Year-Existing	23.00	108.81	110.48	109.91	110.50	0.001114	0.80	54.21	89.82	0.25
CochranePB	M002	5162.38	100Year-Existing	43.60	108.18	110.05	110.05	110.31	0.012973	3.20	31.64	60.91	0.87
CochranePB	M002	5109.83	100Year-Existing	43.60	108.02	109.56	109.20	109.60	0.004253	1.38	60.47	109.00	0.46
CochranePB	M002	5059.83	100Year-Existing	43.60	107.54	109.27		109.38	0.006946	2.10	46.92	101.59	0.63
CochranePB	M002	5013.20	100Year-Existing	43.60	107.21	108.90		109.05	0.011587	2.38	40.65	103.15	0.77
CochranePB	M002	4977.38	100Year-Existing	43.60	107.07	108.85		108.87	0.001712	1.07	88.96	156.96	0.32
CochranePB	M002	4908.49	100Year-Existing	43.60	106.95	108.81		108.82	0.000576	0.68	140.69	207.12	0.19
CochranePB	M002	4883.44	100Year-Existing	43.60	106.94	108.80		108.80	0.000365	0.53	162.31	220.49	0.15
CochranePB	M002	4816.97	100Year-Existing	43.60	106.93	108.79		108.79	0.000333	0.51	167.96	234.61	0.14
CochranePB	M002	4757.22	100Year-Existing	43.60	106.78	108.77		108.78	0.000239	0.47	194.42	270.67	0.12
CochranePB	M002	4718.65	100Year-Existing	43.60	106.77	108.76		108.77	0.000304	0.53	187.73	336.30	0.14
CochranePB	M002	4674.22	100Year-Existing	43.60	106.76	108.74		108.76	0.000656	0.78	135.83	268.01	0.21
CochranePB	M002	4633.22	100Year-Existing	43.60	106.75	108.72		108.74	0.000421	0.61	115.11	184.02	0.16
CochranePB	M002	4561.03	100Year-Existing	43.60	106.74	108.65		108.69	0.001417	1.09	68.49	101.96	0.30
CochranePB	M002	4506.74	100Year-Existing	43.60	106.43	108.27	108.27	108.50	0.010577	2.68	30.16	58.67	0.78
CochranePB	M002	4459.83	100Year-Existing	43.60	105.66	107.39	107.54	107.83	0.019061	3.36	21.63	50.23	1.03
CochranePB	M002	4409.53	100Year-Existing	43.60	104.62	106.40	106.55	106.87	0.019834	3.45	19.17	34.33	1.04
CochranePB	M002	4359.83	100Year-Existing	43.60	103.72	105.61	105.74	106.01	0.014689	3.15	22.95	58.23	0.91
CochranePB	M002	4327.93	100Year-Existing	43.60	103.17	105.21	105.14	105.57	0.011684	2.95	22.97	43.40	0.83
CochranePB	M002	4265.56	100Year-Existing	43.60	102.45	104.39	104.39	104.76	0.014708	3.26	21.36	30.16	0.92
CochranePB	M002	4208.11	100Year-Existing	43.60	101.67	103.48	103.55	103.89	0.015111	3.12	20.45	34.86	0.93
CochranePB	M002	4159.83	100Year-Existing	43.60	101.12	102.25	102.33	102.57	0.062029	3.35	19.02	48.88	1.61
CochranePB	M002	4109.83	100Year-Existing	43.60	98.84	100.63	100.75	101.08	0.017712	3.46	21.31	43.32	1.01
CochranePB	M002	4056.00	100Year-Existing	43.60	97.18	98.97	99.26	99.78	0.030514	4.39	13.71	20.16	1.30
CochranePB	M002	4009.83	100Year-Existing	43.60	96.33	98.28	98.34	98.56	0.017366	3.43	29.63	68.23	0.95
CochranePB	M002	3969.03	100Year-Existing	43.60	95.62	97.58	97.72	97.98	0.012608	3.25	24.57	71.75	0.87
CochranePB	M002	3916.58	100Year-Existing	43.60	94.82	97.05	97.13	97.33	0.010678	2.95	31.22	87.64	0.77
CochranePB	M002	3859.82	100Year-Existing	43.60	94.34	96.36	96.49	96.73	0.011054	2.91	24.02	81.24	0.80
CochranePB	M002	3810.05	100Year-Existing	43.60	93.50	95.51	95.79	96.07	0.016623	3.65	18.04	45.71	0.99
CochranePB	M002	3759.83	100Year-Existing	43.60	93.00	94.76	94.87	95.13	0.016454	3.31	24.46	58.18	0.97
CochranePB	M002	3709.28	100Year-Existing	43.60	92.33	94.23	94.23	94.45	0.010586	2.71	32.58	94.48	0.78
CochranePB	M002	3661.60	100Year-Existing	43.60	92.05	93.91	93.86	94.02	0.006237	2.11	51.18	147.88	0.60
CochranePB	M002	3609.83	100Year-Existing	43.60	91.73	93.49	93.49	93.63	0.009087	2.37	45.06	145.14	0.71
CochranePB	M002	3559.90	100Year-Existing	43.60	90.87	92.96	92.96	93.16	0.007978	2.62	37.87	87.30	0.69
CochranePB	M002	3509.83	100Year-Existing	43.60	90.38	92.57	92.39	92.66	0.003819	1.97	57.03	109.64	0.49
CochranePB	M002	3493.23	100Year-Existing	43.60	90.02	92.18	91.95	92.56	0.008355	3.38	20.25	15.63	0.75
CochranePB	M002	3480		Bridge									
CochranePB	M002	3474.26	100Year-Existing	43.60	89.91	92.17	91.55	92.40	0.003775	2.43	25.07	16.65	0.53
CochranePB	M002	3466.43	100Year-Existing	43.60	90.00	92.16	92.06	92.35	0.003636	2.35	44.32	89.33	0.52
CochranePB	M002	3454.35	100Year-Existing	43.60	89.94	92.01	91.51	92.29	0.004989	2.60	21.78	17.18	0.60
CochranePB	M002	3450		Bridge									
CochranePB	M002	3434.16	100Year-Existing	47.70	90.36	91.76	91.65	92.16	0.011539	3.02	18.90	20.63	0.85
CochranePB	M002	3413.11	100Year-Existing	47.70	90.14	91.72		91.83	0.007433	2.27	48.24	96.98	0.65
CochranePB	M002	3391.58	100Year-Existing	47.70	90.03	91.60		91.67	0.005647	2.04	55.95	106.89	0.58
CochranePB	M002	3371.12	100Year-Existing	47.70	90.02	91.35	91.33	91.51	0.010758	2.49	40.75	96.59	0.79
CochranePB	M002	3309.87	100Year-Existing	47.70	89.28	90.76		90.85	0.011031	2.54	48.60	115.81	0.76
CochranePB	M002	3272.96	100Year-Existing	47.70	88.73	90.39	90.27	90.50	0.007770	2.22	44.43	96.58	0.65
CochranePB	M002	3219.09	100Year-Existing	47.70	88.30	89.79	89.79	89.95	0.014153	2.71	38.41	108.34	0.87
CochranePB	M002	3175.54	100Year-Existing	47.70	87.36	89.55	89.32	89.68	0.003485	1.93	44.84	73.50	0.46
CochranePB	M002	3165		Bridge									
CochranePB	M002	3157.85	100Year-Existing	47.70	87.50	89.29	89.29	89.51	0.007170	2.51	36.40	84.73	0.66
CochranePB	M002	3135.32	100Year-Existing	47.70	87.85	89.19	89.06	89.24	0.004837	1.53	66.71	155.93	0.51
CochranePB	M002	3106.53	100Year-Existing	47.70	87.94	88.82	88.82	88.96	0.042665	2.80	32.15	119.44	1.31
CochranePB	M002	3088.94	100Year-Existing	47.70	86.84	88.60	88.46	88.71	0.003280	1.71	53.39	151.48	0.45
CochranePB	M002	3080		Bridge									
CochranePB	M002	3075.67	100Year-Existing	47.70	86.74	88.43	88.12	88.49	0.002068	1.33	68.35	141.93	0.36
CochranePB	M002	3056.89	100Year-Existing	47.70	87.66	88.37		88.41	0.011711	1.04	51.49	156.70	0.64
CochranePB	M002	3007.54	100Year-Existing	47.70	87.61	88.05		88.08	0.004595	0.43	63.04	139.68	0.30
CochranePB	M002	2976.31	100Year-Existing	47.70	87.51	87.93		87.96	0.005153	0.52	62.71	158.17	0.36
CochranePB	M002	2941.08	100Year-Existing	47.70	86.98	87.79		87.80	0.004198	0.85	81.05	225.70	0.41
CochranePB	M002	2920.10	100Year-Existing	47.70	86.74	87.76	87.54	87.76	0.000517	0.37	168.10	295.56	0.14
CochranePB	M002	2915		Bridge									
CochranePB	M002	2912.75	100Year-Existing	47.70	86.97	87.75	87.75	87.76	0.000313	0.31	200.70	313.30	0.12
CochranePB	M002	2890.23	100Year-Existing	47.70	86.65	86.86	87.02	87.53	0.503294	3.41	13.14	79.81	3.38
CochranePB	M002	2823.99	100Year-Existing	47.70	86.08	87.19	86.78	87.20	0.001327	0.60	126.56	262.95	0.23
CochranePB	M002	2789.49	100Year-Existing	47.70	86.04	87.17		87.17	0.001195	0.55	131.06	275.22	0.22
CochranePB	M002	2741.30	100Year-Existing	47.70	85.71	87.11		87.12	0.001040	0.70	138.21	284.58	0.23
CochranePB	M002	2663.79	100Year-Existing	47.70	85.58	87.06		87.07	0.001109	0.78	135.54	291.27	0.25
CochranePB	M002	2639.38	100Year-Existing	47.70	85.57	87.03		87.04	0.001207	0.77	123.05	246.44	0.25
CochranePB	M002	2616.24	100Year-Existing	47.70	85.30	87.02		87.02	0.000791	0.72	139.62	247.61	0.21
CochranePB	M002	2539.69	100Year-Existing	47.70	85.41	86.97		86.98	0.001226	0.80	118.94	233.21	0.26
CochranePB	M002	2489.06	100Year-Existing	47.70	85.18	86.93		86.94	0.001381	0.97	111.83	224.99	0.28
CochranePB	M002	2438.28	100Year-Existing	47.70	84.87	86.87		86.89	0.001465	1.08	103.31	187.14	0.30
CochranePB	M002	2384.01	100Year-Existing	47.70	84.65	86.77		86.80	0.002204	1.40	85.97	151.03	0.36
CochranePB	M002	2310.47	100Year-Existing	47.70	84.33	86.55		86.61	0.003650	1.77	71.09	152.29	0.45
CochranePB	M002	2284.63	100Year-Existing	47.70	84.16	86.48		86.52	0.003017	1.62	70.07	111.10	0.40
CochranePB	M002	2240.58	100Year-Existing	47.70	84.04	85.98	85.98	86.26	0.013703	3.20	28.96	46.70	0.88
CochranePB	M002	2170.94	100Year-Existing	47.70	82.26	84.18	84.32	84.97	0.026093	4.35	15.14	19.49	1.22
CochranePB	M002	2136.89	100Year-Existing	47.70	81.72	83.55	83.59	84.10	0.021146	3.59	17.76	26.65	1.09
CochranePB	M002	2100.01	100Year-Existing	47.70	81.30	83.40	83.25	83.60	0.007775	2.48	33.03	45.52	0.67
CochranePB	M002	2046.85	100Year-Existing	47.70	80.89	82.74	82.74	83.07	0.012306	2.81	24.86	41.75	0.84
CochranePB	M002	2014.35	100Year-Existing	47.70	80.47	82.31	82.14	82.48	0.007688	2.18	32.92	47.80	0.66
CochranePB	M002	1990.76	100Year-Existing	47.70	80.10	81.94	81.94	82.23	0.014944	3.01	27.09	44.92	0.91
CochranePB	M002	1945.20	100Year-Existing	47.70	79.43	81.73	81.23	81.81	0.003402	1.79	49.80	59.80	0.45

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	1916.67	100Year-Existing	47.70	79.31	81.58		81.69	0.004704	2.10	43.03	54.65	0.53
CochranePB	M002	1871.48	100Year-Existing	47.70	79.28	81.39		81.49	0.004450	1.85	45.47	55.22	0.51
CochranePB	M002	1836.03	100Year-Existing	47.70	78.83	81.32		81.37	0.001894	1.44	59.65	73.89	0.35
CochranePB	M002	1788.63	100Year-Existing	47.70	78.46	80.84	80.84	81.17	0.011110	3.34	28.45	39.53	0.81
CochranePB	M002	1768.08	100Year-Existing	47.70	78.14	80.37	80.33	80.75	0.012678	3.42	24.25	30.25	0.87
CochranePB	M002	1733.19	100Year-Existing	47.70	77.95	80.03	80.03	80.32	0.010403	2.87	29.53	49.00	0.78
CochranePB	M002	1694.89	100Year-Existing	47.70	77.12	79.49	78.92	79.58	0.002688	1.67	47.07	50.01	0.41
CochranePB	M002	1685.79	100Year-Existing	47.70	77.06	79.41		79.55	0.004688	2.19	41.26	54.45	0.54
CochranePB	M002	1640.51	100Year-Existing	47.70	76.45	78.81	78.81	79.22	0.010630	3.31	23.29	30.38	0.81
CochranePB	M002	1602.99	100Year-Existing	47.70	75.01	76.56	77.05	78.22	0.083050	6.03	9.73	16.90	2.06
CochranePB	M002	1585.52	100Year-Existing	47.70	74.01	75.43	75.78	76.62	0.082876	5.33	11.68	22.16	2.01
CochranePB	M002	1569.47	100Year-Existing	47.70	73.71	75.14	75.23	75.62	0.031678	3.21	16.65	28.13	1.24
CochranePB	M002	1541.97	100Year-Existing	47.70	72.31	74.26	74.38	74.87	0.021883	3.84	16.58	20.65	1.11
CochranePB	M002	1510.83	100Year-Existing	47.70	71.34	72.60	72.89	73.61	0.091187	4.47	11.02	24.22	2.02
CochranePB	M002	1495.27	100Year-Existing	47.70	71.19	73.14	72.78	73.26	0.004653	1.73	37.39	45.84	0.52
CochranePB	M002	1458.62	100Year-Existing	47.70	70.58	72.67	72.67	72.95	0.012336	3.41	32.50	51.14	0.85
CochranePB	M002	1419.61	100Year-Existing	47.70	70.21	72.30	72.19	72.52	0.008161	2.72	31.83	42.46	0.71
CochranePB	M002	1384.56	100Year-Existing	47.70	69.61	71.97	71.97	72.25	0.006797	2.68	30.72	60.45	0.66
CochranePB	M002	1351.51	100Year-Existing	47.70	69.54	71.72	71.78	72.00	0.009093	2.97	34.13	78.73	0.75
CochranePB	M002	1311.78	100Year-Existing	47.70	69.49	71.44	71.47	71.65	0.009740	2.81	39.83	109.58	0.76
CochranePB	M002	1291.19	100Year-Existing	47.70	69.28	71.06	71.17	71.38	0.017014	3.38	32.21	110.71	0.97
CochranePB	M002	1217.75	100Year-Existing	47.70	68.70	71.01	70.43	71.04	0.000916	1.05	94.88	195.70	0.25
CochranePB	M002	1200.39	100Year-Existing	47.70	68.69	70.67	70.28	70.99	0.006491	2.53	19.57	19.23	0.64
CochranePB	M002	1190		Bridge									
CochranePB	M002	1185.68	100Year-Existing	48.90	68.46	70.56	69.99	70.82	0.004303	2.28	22.01	25.92	0.54
CochranePB	M002	1164.32	100Year-Existing	48.90	68.65	70.43	70.43	70.70	0.009398	2.93	33.15	83.23	0.77
CochranePB	M002	1132.60	100Year-Existing	48.90	68.60	69.89	69.99	70.19	0.026914	3.28	30.00	119.54	1.18
CochranePB	M002	1111.68	100Year-Existing	48.90	68.55	69.93	69.65	69.97	0.003772	1.48	72.65	162.71	0.46
CochranePB	M002	1059.95	100Year-Existing	48.90	68.38	69.80		69.84	0.003459	1.62	76.15	171.31	0.46
CochranePB	M002	998.99	100Year-Existing	48.90	68.13	69.72		69.73	0.001083	0.96	118.86	193.24	0.26
CochranePB	M002	955.54	100Year-Existing	48.90	68.12	69.71		69.71	0.000146	0.35	246.69	259.81	0.10
CochranePB	M002	851.16	100Year-Existing	48.90	67.62	69.70		69.70	0.000088	0.32	283.45	253.20	0.08
CochranePB	M002	798.06	100Year-Existing	48.90	67.47	69.70		69.70	0.000048	0.25	359.02	291.55	0.06
CochranePB	M002	746.77	100Year-Existing	48.90	67.30	69.70		69.70	0.000023	0.18	469.75	325.92	0.04
CochranePB	M002	694.52	100Year-Existing	48.90	66.98	69.70		69.70	0.000015	0.16	564.76	370.37	0.03
CochranePB	M002	669.16	100Year-Existing	48.90	66.97	69.70		69.70	0.000012	0.14	627.23	408.04	0.03
CochranePB	M002	590.19	100Year-Existing	48.90	66.84	69.69		69.69	0.000008	0.12	748.05	489.39	0.03
CochranePB	M002	539.85	100Year-Existing	48.90	66.81	69.69		69.69	0.000008	0.12	766.06	518.40	0.03
CochranePB	M002	488.40	100Year-Existing	48.90	66.54	69.69		69.69	0.000007	0.11	809.35	532.73	0.02
CochranePB	M001	381.27	100Year-Existing	97.20	66.35	69.69		69.69	0.000021	0.22	937.25	619.11	0.04
CochranePB	M001	313.14	100Year-Existing	97.20	66.28	69.69		69.69	0.000015	0.17	1097.80	686.45	0.03

Petty Harbour River 100yr n-20%

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	TR001	439.21	100Year-Existing	36.90	105.11	106.52	106.27	106.61	0.004795	1.94	40.67	65.96	0.55
RaymondB	TR001	409.42	100Year-Existing	36.90	104.68	106.07	106.04	106.37	0.013430	3.19	22.10	33.90	0.91
RaymondB	TR001	380.07	100Year-Existing	36.90	104.05	106.18		106.22	0.000923	1.14	65.62	74.55	0.26
RaymondB	TR001	360.64	100Year-Existing	36.90	103.60	106.18	105.21	106.20	0.000426	0.86	94.64	90.94	0.18
RaymondB	TR001	350		Bridge									
RaymondB	TR001	344.45	100Year-Existing	36.90	103.30	104.61	105.00	105.84	0.050469	5.82	11.15	36.79	1.70
RaymondB	TR001	334.13	100Year-Existing	36.90	103.40	104.38	104.66	105.24	0.043200	4.42	12.71	50.23	1.52
RaymondB	TR001	272.22	100Year-Existing	36.90	102.83	103.97	103.97	104.22	0.015338	2.97	23.63	45.43	0.94
RaymondB	TR001	218.50	100Year-Existing	36.90	101.42	102.78	102.86	103.30	0.018212	3.62	16.26	27.54	1.05
RaymondB	TR001	163.97	100Year-Existing	36.90	100.32	101.91	101.47	102.06	0.003879	1.87	26.05	29.78	0.50
RaymondB	TR001	115.54	100Year-Existing	36.90	100.00	101.38	101.38	101.73	0.012816	3.20	20.48	35.13	0.90
RaymondB	TR001	56.65	100Year-Existing	36.90	97.73	98.52	98.90	99.79	0.087282	5.38	8.60	16.57	2.10
RaymondB	M002	6453.60	100Year-Existing	19.70	118.10	125.24	118.91	125.24	0.000000	0.03	669.28	233.87	0.01
RaymondB	M002	6405.52	100Year-Existing	19.70	118.00	125.24		125.24	0.000000	0.03	679.44	228.88	0.01
RaymondB	M002	6347.04	100Year-Existing	19.70	124.73	125.18		125.24	0.006214	1.10	18.17	41.46	0.52
RaymondB	M002	6247.26	100Year-Existing	19.70	117.21	118.29		118.34	0.003855	1.43	23.95	35.15	0.47
RaymondB	M002	6230.10	100Year-Existing	19.70	117.20	118.27		118.31	0.001753	0.94	29.71	42.84	0.31
RaymondB	M002	6205.35	100Year-Existing	19.70	117.28	118.24		118.26	0.001588	0.84	41.13	61.00	0.29
RaymondB	M002	6143.06	100Year-Existing	19.70	117.18	118.12		118.14	0.002259	0.97	36.80	63.78	0.35
RaymondB	M002	6105.93	100Year-Existing	19.70	117.17	117.99		118.03	0.003093	1.03	28.28	61.91	0.40
RaymondB	M002	6026.35	100Year-Existing	19.70	116.81	117.80		117.83	0.002124	0.98	32.06	47.60	0.34
RaymondB	M002	5933.71	100Year-Existing	19.70	116.42	117.52		117.59	0.003130	1.30	26.39	63.18	0.42
RaymondB	M002	5883.92	100Year-Existing	19.70	116.12	117.29		117.40	0.004417	1.59	17.42	29.61	0.50
RaymondB	M002	5785.15	100Year-Existing	19.70	115.75	116.84		116.94	0.005033	1.57	18.29	31.33	0.53
RaymondB	M002	5732.44	100Year-Existing	19.70	115.46	116.48		116.62	0.006851	1.74	14.02	25.67	0.61
RaymondB	M002	5631.37	100Year-Existing	19.70	114.85	115.77		115.86	0.008235	1.67	19.83	45.66	0.64
RaymondB	M002	5500.15	100Year-Existing	19.70	114.62	115.69		115.69	0.000634	0.55	69.41	131.32	0.19
RaymondB	M002	5485.46	100Year-Existing	19.70	114.53	115.68		115.68	0.000394	0.47	87.02	167.10	0.15
RaymondB	M002	5411.19	100Year-Existing	19.70	114.48	115.61	115.20	115.64	0.001249	0.81	37.65	68.91	0.27
RaymondB	M002	5338.54	100Year-Existing	19.70	114.41	115.61	114.79	115.61	0.000106	0.25	92.54	110.73	0.08
RaymondB	M002	5278.93	100Year-Existing	19.70	114.44	115.60	114.84	115.60	0.000149	0.29	82.90	111.62	0.09
RaymondB	M002	5226.60	100Year-Existing	19.70	114.42	115.59		115.60	0.000166	0.30	89.40	129.13	0.10
RaymondB	M002	5171.66	100Year-Existing	19.70	114.42	115.58		115.59	0.000161	0.31	106.09	179.55	0.10
RaymondB	M002	5111.50	100Year-Existing	19.70	114.42	115.56		115.57	0.000570	0.57	59.95	134.88	0.18
RaymondB	M002	5077.48	100Year-Existing	19.70	114.38	115.54		115.55	0.000530	0.55	50.49	89.95	0.17
RaymondB	M002	5017.13	100Year-Existing	19.70	114.40	115.42		115.48	0.002910	1.16	18.92	28.23	0.40
RaymondB	M002	4967.43	100Year-Existing	19.70	114.07	115.14		115.28	0.005820	1.68	12.91	18.45	0.57
RaymondB	M002	4943.43	100Year-Existing	19.70	113.82	115.03		115.15	0.004962	1.70	16.17	25.71	0.54
RaymondB	M002	4910.95	100Year-Existing	19.70	113.67	114.88		114.99	0.004657	1.66	17.67	29.61	0.52
RaymondB	M002	4851.17	100Year-Existing	19.70	113.47	114.58		114.69	0.005326	1.67	17.38	30.61	0.55
RaymondB	M002	4783.73	100Year-Existing	19.70	113.30	114.26		114.34	0.004901	1.33	18.79	36.41	0.50
RaymondB	M002	4732.68	100Year-Existing	19.70	113.07	114.01		114.07	0.005282	1.37	22.09	43.58	0.52
RaymondB	M002	4681.76	100Year-Existing	19.70	112.35	113.35	113.35	113.63	0.013740	2.52	10.73	31.15	0.87
RaymondB	M002	4673.96	100Year-Existing	19.70	111.74	112.64	112.83	113.40	0.046522	4.10	6.06	17.74	1.54
RaymondB	M002	4644.78	100Year-Existing	19.70	110.49	111.44	111.64	112.16	0.038068	3.92	5.88	22.62	1.42
RaymondB	M002	4625.72	100Year-Existing	19.70	106.75	107.34	107.90	110.27	0.373357	7.60	2.61	7.08	3.91
RaymondB	M002	4615.42	100Year-Existing	19.70	105.83	106.58	106.94	107.86	0.109752	5.18	4.30	10.00	2.26
RaymondB	M002	4607.06	100Year-Existing	19.70	105.79	107.02	106.94	107.38	0.012729	2.79	8.39	9.74	0.86
RaymondB	M002	4597.34	100Year-Existing	19.70	105.76	107.00		107.23	0.009869	2.35	11.42	16.82	0.75
RaymondB	M002	4575.18	100Year-Existing	19.70	105.98	106.59	106.59	106.84	0.041556	2.67	9.44	20.03	1.31
RaymondB	M002	4545.57	100Year-Existing	19.70	104.65	105.82	105.88	106.15	0.014735	2.80	10.83	27.16	0.91
RaymondB	M002	4522.17	100Year-Existing	19.70	103.67	104.43	104.73	105.43	0.072199	4.68	5.49	14.73	1.88
RaymondB	M002	4511.42	100Year-Existing	19.70	103.62	104.91	104.59	105.01	0.004850	1.73	18.31	28.14	0.53
RaymondB	M002	4489.94	100Year-Existing	19.70	103.59	104.55	104.55	104.82	0.015603	2.59	11.02	21.67	0.91
RaymondB	M002	4466.63	100Year-Existing	19.70	103.03	104.31	103.97	104.42	0.004180	1.62	18.07	33.86	0.50
RaymondB	M002	4439.46	100Year-Existing	19.70	103.00	104.04	104.04	104.24	0.011605	2.36	15.33	40.13	0.79
RaymondB	M002	4415.77	100Year-Existing	19.70	102.78	103.53	103.63	103.84	0.025496	2.68	10.96	39.10	1.11
RaymondB	M002	4385.89	100Year-Existing	19.70	101.80	102.75	102.87	103.14	0.021034	2.99	9.71	27.28	1.06
RaymondB	M002	4354.01	100Year-Existing	19.70	101.27	102.13	102.11	102.39	0.025555	3.12	13.40	38.93	1.15
RaymondB	M002	4341.66	100Year-Existing	19.70	100.84	101.92	101.92	102.15	0.013355	2.52	14.22	35.89	0.86
RaymondB	M002	4332.73	100Year-Existing	19.70	100.32	101.17	101.36	101.90	0.045872	4.04	6.45	14.58	1.53
RaymondB	M002	4308.73	100Year-Existing	19.70	98.87	99.60	99.87	100.49	0.075569	4.56	5.72	13.56	1.89
RaymondB	M002	4294.65	100Year-Existing	19.70	98.45	99.41	99.47	99.82	0.022490	3.12	8.61	14.84	1.10
RaymondB	M002	4263.86	100Year-Existing	19.70	97.59	99.15	98.54	99.23	0.002182	1.40	20.19	22.36	0.37
RaymondB	M002	4235.25	100Year-Existing	19.70	97.47	99.14		99.18	0.000967	0.97	27.81	27.33	0.25
RaymondB	M001	4130.35	100Year-Existing	55.40	96.57	98.14	98.13	98.63	0.014817	3.20	19.80	27.16	0.94
RaymondB	M001	4076.94	100Year-Existing	55.40	96.04	97.90	97.60	98.10	0.005169	2.19	33.71	37.48	0.58
RaymondB	M001	4023.53	100Year-Existing	55.40	95.94	97.15	97.15	97.59	0.019618	3.02	20.50	30.04	1.04
RaymondB	M001	3978.20	100Year-Existing	55.40	94.64	96.87	96.28	96.97	0.002553	1.49	47.24	60.33	0.40
RaymondB	M001	3916.71	100Year-Existing	75.30	94.64	96.58		96.75	0.004627	2.24	57.80	65.95	0.56
RaymondB	M001	3863.30	100Year-Existing	75.30	94.41	96.41		96.53	0.003321	1.96	70.72	81.92	0.48
RaymondB	M001	3809.58	100Year-Existing	75.30	94.09	95.93	95.84	96.25	0.008897	2.98	40.62	48.12	0.77
RaymondB	M001	3756.26	100Year-Existing	75.30	93.53	95.25	95.25	95.69	0.011750	3.29	33.71	42.25	0.87
RaymondB	M001	3694.37	100Year-Existing	75.30	92.66	94.55	94.35	94.82	0.006327	2.54	44.60	63.81	0.65
RaymondB	M001	3569.22	100Year-Existing	75.30	92.15	94.59		94.61	0.000448	0.83	175.54	172.99	0.18
RaymondB	M001	3527.64	100Year-Existing	75.30	91.85	94.57		94.59	0.000376	0.83	175.68	149.71	0.17
RaymondB	M001	3446.51	100Year-Existing	75.30	91.14	94.56		94.57	0.000164	0.62	246.56	179.90	0.11
RaymondB	M001	3421.64	100Year-Existing	75.30	91.23	94.55	93.16	94.56	0.000188	0.72	267.95	235.20	0.13
RaymondB	M001	3410		Bridge									
RaymondB	M001	3404.11	100Year-Existing	75.30	91.23	93.22	93.22	94.16	0.014101	4.34	17.69	103.45	1.00
RaymondB	M001	3380.48	100Year-Existing	75.30	90.96	93.10	92.53	93.24	0.003038	1.94	62.73	71.63	0.46
RaymondB	M001	3308.92	100Year-Existing	75.30	90.80	92.84		92.99	0.003821	2.18	62.51	72.88	0.51
RaymondB	M001	3216.73	100Year-Existing	75.30	89.31	92.47	91.22	92.72	0.002169	2.26	34.51	78.74	0.42
RaymondB	M001	3200		Bridge									
RaymondB	M001	3188.78	100Year-Existing	75.30	89.30	91.67	91.61	92.43	0.011229	4.16	21.49	47.23	0.90
RaymondB	M001	3015.18	100Year-Existing	75.30	89.18	91.00		91.14	0.003403	1.89	62.76	69.71	0.48
RaymondB	M001	2876.32	100Year-Existing	75.30	88.66	90.35	90.11	90.55	0.006460	2.34	51.21	98.04	0.64
RaymondB	M001	2789.37	100Year-Existing	75.30	88.24	90.11		90.17	0.002614	1.62	102.81	162.63	0.41
RaymondB	M001	2681.85	100Year-Existing	75.30	88.14	89.58		89.73	0.009398	2.46	63.60	136.14	0.74
RaymondB	M001	2604.32	100Year-Existing	75.30	87.97	89.42		89.45	0.001996	1.19	122.09	209.97	0.35

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	M001	2531.57	100Year-Existing	75.30	87.97	89.37		89.38	0.000744	0.67	198.20	291.38	0.21
RaymondB	M001	2385.34	100Year-Existing	75.30	87.43	89.30		89.32	0.001445	1.22	155.84	250.55	0.31
RaymondB	M001	2245.72	100Year-Existing	75.30	86.99	88.92	88.72	89.11	0.004806	2.26	60.23	124.23	0.57
RaymondB	M001	2194.47	100Year-Existing	75.30	86.68	88.91		88.96	0.001222	1.28	106.78	96.72	0.29
RaymondB	M001	2140.67	100Year-Existing	75.30	86.59	88.79		88.87	0.002016	1.62	82.22	72.13	0.38
RaymondB	M001	2087.60	100Year-Existing	75.30	86.38	88.61		88.75	0.002572	1.84	57.55	46.22	0.43
RaymondB	M001	2069.54	100Year-Existing	75.30	86.35	88.54		88.69	0.003101	2.01	58.55	70.76	0.47
RaymondB	M001	2040.77	100Year-Existing	75.30	86.25	88.46		88.60	0.002865	1.90	66.35	88.12	0.45
RaymondB	M001	1989.18	100Year-Existing	75.30	86.02	88.23	87.77	88.42	0.004186	2.31	59.53	81.51	0.54
RaymondB	M001	1950.22	100Year-Existing	75.30	85.79	87.71	87.37	88.14	0.011246	3.34	36.66	52.69	0.86
RaymondB	M001	1885.73	100Year-Existing	75.30	85.34	87.32		87.55	0.006439	2.56	47.25	53.51	0.65
RaymondB	M001	1835.84	100Year-Existing	75.30	84.64	86.55	86.55	87.06	0.015035	3.79	29.97	29.46	0.98
RaymondB	M001	1784.61	100Year-Existing	75.30	84.10	85.42	85.54	85.98	0.031390	3.96	27.88	40.40	1.31
RaymondB	M001	1733.38	100Year-Existing	75.30	82.79	84.99	84.38	85.11	0.002744	1.85	60.97	49.14	0.44
RaymondB	M001	1682.15	100Year-Existing	75.30	82.60	84.59		84.89	0.006610	2.61	37.44	36.75	0.66
RaymondB	M001	1630.92	100Year-Existing	75.30	82.12	84.11	83.98	84.50	0.008521	2.93	34.63	45.45	0.75
RaymondB	M001	1584.49	100Year-Existing	75.30	81.77	83.89		84.13	0.005706	2.51	45.42	57.86	0.62
RaymondB	M001	1536.01	100Year-Existing	75.30	81.31	83.45	83.31	83.80	0.008034	2.98	40.27	56.10	0.72
RaymondB	M001	1477.96	100Year-Existing	75.30	80.96	83.07		83.36	0.006647	2.69	42.07	48.68	0.66
RaymondB	M001	1425.99	100Year-Existing	75.30	80.58	82.88		83.07	0.003901	2.22	47.68	41.44	0.52
RaymondB	M001	1372.05	100Year-Existing	75.30	80.25	82.73		82.87	0.003141	2.08	56.56	49.52	0.47
RaymondB	M001	1323.54	100Year-Existing	75.30	79.11	81.91	81.33	82.54	0.006150	3.53	21.35	17.06	0.69
RaymondB	M001	1315		Bridge									
RaymondB	M001	1303.54	100Year-Existing	75.30	78.01	80.68	80.53	81.58	0.011427	4.22	17.86	20.77	0.90
RaymondB	M001	1252.39	100Year-Existing	78.50	78.45	80.47	80.47	80.95	0.013544	3.60	31.35	32.26	0.92
RaymondB	M001	1216.25	100Year-Existing	78.50	77.86	79.86	80.00	80.42	0.015766	3.99	32.38	43.05	1.01
RaymondB	M001	1189.75	100Year-Existing	78.50	77.61	79.18	79.36	79.85	0.028227	4.12	26.23	38.52	1.27
RaymondB	M001	1166.20	100Year-Existing	78.50	76.74	78.31	78.55	79.10	0.034388	4.75	28.29	54.23	1.42
RaymondB	M001	1148.70	100Year-Existing	78.50	76.50	78.18	78.26	78.58	0.017564	3.47	36.95	59.36	1.02
RaymondB	M001	1116.25	100Year-Existing	78.50	75.83	77.25	77.41	77.86	0.026022	3.63	25.77	38.55	1.20
RaymondB	M001	1066.09	100Year-Existing	78.50	75.16	77.10	76.80	77.29	0.004750	2.19	52.82	57.51	0.56
RaymondB	M001	1035.68	100Year-Existing	78.50	74.73	76.24	76.24	76.96	0.024763	4.04	24.12	28.97	1.21
RaymondB	M001	999.99	100Year-Existing	78.50	73.32	74.85	75.18	75.90	0.032773	4.79	19.73	23.55	1.40
RaymondB	M001	976.73	100Year-Existing	78.50	73.03	74.73	74.84	75.27	0.014412	3.55	32.51	48.76	0.96
RaymondB	M001	942.15	100Year-Existing	78.50	72.18	73.30	73.61	74.22	0.082694	5.89	21.66	35.97	2.09
RaymondB	M001	916.70	100Year-Existing	78.50	70.82	72.26	72.43	72.85	0.032392	4.59	32.37	67.62	1.38
RaymondB	M001	892.34	100Year-Existing	78.50	70.36	71.97	72.03	72.40	0.013138	3.28	36.09	53.85	0.91
RaymondB	M001	866.25	100Year-Existing	78.50	70.04	71.92	71.43	72.11	0.004099	2.07	52.73	66.60	0.52
RaymondB	M001	841.89	100Year-Existing	78.50	69.92	71.81	71.57	72.00	0.004572	2.25	60.82	96.34	0.56
RaymondB	M001	816.68	100Year-Existing	78.50	69.74	71.37	71.37	71.80	0.012778	3.37	38.18	59.31	0.90
RaymondB	M001	766.25	100Year-Existing	78.50	69.16	70.45	70.33	70.70	0.014045	2.86	39.80	49.36	0.90
RaymondB	M001	716.25	100Year-Existing	78.50	68.39	70.04		70.23	0.005573	2.25	53.68	69.47	0.60
RaymondB	M001	675.00	100Year-Existing	78.50	68.14	69.83		70.00	0.005347	2.22	55.13	60.87	0.59
RaymondB	M001	615.86	100Year-Existing	78.50	67.75	69.76		69.81	0.001581	1.40	115.38	164.44	0.33
RaymondB	M001	565.77	100Year-Existing	78.50	67.44	69.70		69.74	0.000953	1.17	151.35	238.32	0.26
RaymondB	M001	520.15	100Year-Existing	78.50	67.26	69.70		69.71	0.000342	0.73	248.62	318.94	0.16
RaymondB	M001	468.54	100Year-Existing	78.50	66.98	69.69		69.70	0.000145	0.52	362.43	398.22	0.11
RaymondB	M001	429.18	100Year-Existing	78.50	66.80	69.69		69.69	0.000049	0.32	547.40	499.05	0.06
RaymondB	M001	366.25	100Year-Existing	78.50	66.65	69.69		69.69	0.000018	0.20	852.21	643.68	0.04
RaymondB	M001	341.79	100Year-Existing	78.50	66.63	69.69		69.69	0.000014	0.17	956.92	686.24	0.03
PettyHR	M002	6270.85	100Year-Existing	101.20	66.23	69.69		69.69	0.000001	0.06	2101.31	860.42	0.01
PettyHR	M002	6218.07	100Year-Existing	101.20	66.23	69.69		69.69	0.000001	0.06	1969.96	849.37	0.01
PettyHR	M002	6095.00	100Year-Existing	101.20	66.23	69.69		69.69	0.000001	0.06	1904.14	855.68	0.01
PettyHR	M002	6004.71	100Year-Existing	101.20	66.23	69.69		69.69	0.000001	0.06	1959.67	885.68	0.01
PettyHR	M001	5825.85	100Year-Existing	171.20	66.23	69.69		69.69	0.000003	0.08	2264.15	845.89	0.02
PettyHR	M001	5685.44	100Year-Existing	171.20	66.23	69.69		69.69	0.000002	0.08	2184.64	735.45	0.01
PettyHR	M001	5516.39	100Year-Existing	189.70	66.23	69.69		69.69	0.000004	0.10	1906.33	629.83	0.02
PettyHR	M001	5279.80	100Year-Existing	189.70	66.23	69.69		69.69	0.000009	0.15	1288.89	425.97	0.03
PettyHR	M001	4996.75	100Year-Existing	189.70	66.23	69.68		69.68	0.000041	0.33	609.59	210.13	0.06
PettyHR	M001	4923.81	100Year-Existing	189.70	66.23	69.61		69.67	0.000536	1.17	201.53	89.52	0.21
PettyHR	M001	4867.41	100Year-Existing	189.70	66.23	69.51		69.62	0.001373	1.86	171.65	99.02	0.34
PettyHR	M001	4817.61	100Year-Existing	189.70	66.58	69.43		69.54	0.001759	2.00	165.39	93.85	0.38
PettyHR	M001	4757.18	100Year-Existing	189.70	66.43	68.69	68.69	69.28	0.011372	4.29	77.02	65.93	0.92
PettyHR	M001	4675.66	100Year-Existing	189.70	65.88	68.23	67.64	68.53	0.004962	2.94	93.82	51.96	0.62
PettyHR	M001	4612.84	100Year-Existing	189.70	64.88	67.32	67.09	68.03	0.011401	4.55	66.64	44.83	0.94
PettyHR	M001	4570.09	100Year-Existing	189.70	64.62	66.91	66.91	67.55	0.010323	4.06	70.70	56.10	0.88
PettyHR	M001	4500.69	100Year-Existing	189.70	64.62	66.50	66.18	66.78	0.005621	2.64	97.04	76.21	0.63
PettyHR	M001	4461.12	100Year-Existing	189.70	64.55	66.09	66.06	66.48	0.014704	3.72	86.45	91.67	0.98
PettyHR	M001	4428.20	100Year-Existing	189.70	64.41	65.91		66.13	0.009710	2.91	103.63	90.17	0.79
PettyHR	M001	4395.66	100Year-Existing	189.70	63.81	65.62		65.86	0.006118	2.70	105.57	82.11	0.65
PettyHR	M001	4357.04	100Year-Existing	189.70	63.34	65.50		65.66	0.003502	2.33	129.94	81.65	0.51
PettyHR	M001	4281.82	100Year-Existing	189.70	62.50	65.40		65.50	0.001036	1.53	148.77	59.54	0.29
PettyHR	M001	4166.17	100Year-Existing	189.70	61.82	65.42		65.44	0.000146	0.66	418.28	166.92	0.11
PettyHR	M001	3949.19	100Year-Existing	189.70	61.31	65.44		65.44	0.000000	0.04	5069.48	1317.01	0.01
PettyHR	M001	3936.78	100Year-Existing	189.70	61.31	65.44		65.44	0.000000	0.03	6245.61	1573.02	0.00
PettyHR	M001	3931.39	100Year-Existing	124.50	61.31	65.44		65.44	0.000000	0.02	7852.81	2012.81	0.00
PettyHR	M001	3925.44	100Year-Existing	124.50	61.31	65.44		65.44	0.000000	0.03	3888.71	1004.06	0.01
PettyHR	M001	3867.05	100Year-Existing	124.50	61.31	65.44		65.44	0.000000	0.03	3916.54	989.57	0.01
PettyHR	M001	3643.73	100Year-Existing	124.50	61.31	65.44		65.44	0.000000	0.03	4495.41	1114.46	0.00
PettyHR	M001	3440.60	100Year-Existing	124.50	61.31	65.43		65.43	0.000001	0.06	2283.64	584.13	0.01
PettyHR	M001	3182.65	100Year-Existing	124.50	61.31	65.43		65.43	0.000001	0.07	1708.92	426.58	0.01
PettyHR	M001	3080.13	100Year-Existing	124.50	61.31	65.43		65.43	0.000001	0.06	2020.34	521.41	0.01
PettyHR	M001	3028.13	100Year-Existing	124.50	61.31	65.43		65.43	0.000001	0.06	2208.61	561.40	0.01
PettyHR	M001	2983.09	100Year-Existing	124.50	61.31	65.43		65.43	0.000001	0.07	1798.56	452.43	0.01
PettyHR	M001	2828.46	100Year-Existing	124.50	61.31	65.43		65.43	0.000004	0.12	1059.88	280.36	0.02
PettyHR	M001	2712.72	100Year-Existing	124.50	61.31	65.43		65.43	0.000013	0.22	611.07	182.34	0.04
PettyHR	M001	2671.95	100Year-Existing	124.50	61.31	65.43		65.43	0.000021	0.28	553.96	175.94	0.04
PettyHR	M001	2653.10	100Year-Existing	124.50	61.31	65.43		65.43	0.000029	0.33	475.87	157.53	0.05
PettyHR	M001	2632.46	100Year-Existing	124.50	61.31	65.41		65.43	0.000118	0.66	289.96	124.38	0.10
PettyHR	M001	2596.08	100Year-Existing	124.50	61.31	65.40		65.42	0.000134	0.70	260.32	118.26	0.11

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	2583.24	100Year-Existing	124.50	60.10	65.32	63.09	65.41	0.000677	1.66	158.17	117.89	0.25
PettyHR	M001	2580		Bridge									
PettyHR	M001	2573.39	100Year-Existing	124.50	60.00	65.15	62.64	65.21	0.000379	1.24	177.35	93.01	0.19
PettyHR	M001	2551.09	100Year-Existing	124.50	59.89	65.19		65.19	0.000032	0.37	397.08	108.38	0.06
PettyHR	M001	2426.14	100Year-Existing	124.50	59.27	65.19		65.19	0.000002	0.10	1233.60	278.00	0.02
PettyHR	M001	2315.39	100Year-Existing	124.50	58.72	65.19		65.19	0.000001	0.08	1509.68	319.37	0.01
PettyHR	M001	2204.15	100Year-Existing	124.50	58.16	65.19		65.19	0.000001	0.09	1518.16	308.02	0.01
PettyHR	M001	2022.45	100Year-Existing	124.50	57.26	65.19		65.19	0.000003	0.14	919.98	183.25	0.02
PettyHR	M001	1902.10	100Year-Existing	124.50	56.66	65.19		65.19	0.000005	0.19	710.10	128.24	0.02
PettyHR	M001	1879.72	100Year-Existing	124.50	56.55	65.18		65.19	0.000013	0.29	523.23	108.82	0.04
PettyHR	M001	1824.42	100Year-Existing	124.50	56.28	65.18		65.19	0.000023	0.38	350.69	66.25	0.05
PettyHR	M001	1789.72	100Year-Existing	124.50	56.10	65.18		65.19	0.000032	0.45	296.58	55.60	0.06
PettyHR	M001	1724.70	100Year-Existing	124.50	55.78	65.17		65.18	0.000042	0.52	259.30	48.11	0.06
PettyHR	M001	1668.81	100Year-Existing	124.50	55.50	65.17	58.37	65.18	0.000023	0.39	344.83	65.59	0.05
PettyHR	M001	1647.80	100Year-Existing	124.50	55.40	65.17	58.07	65.18	0.000016	0.33	401.34	76.07	0.04
PettyHR	M001	1631.79	100Year-Existing	124.50	63.55	64.88		65.15	0.006976	2.31	53.95	40.62	0.64
PettyHR	M001	1615.46	100Year-Existing	126.20	54.38	56.86		57.09	0.006700	3.45	64.72	39.90	0.71
PettyHR	M001	1601.08	100Year-Existing	126.20	54.00	56.34	56.34	56.91	0.017809	5.42	45.11	37.24	1.15
PettyHR	M001	1586.16	100Year-Existing	126.20	53.36	55.40	55.70	56.48	0.036969	7.19	32.07	26.82	1.63
PettyHR	M001	1571.98	100Year-Existing	126.20	52.87	54.73	55.03	55.90	0.044973	7.36	29.77	24.99	1.76
PettyHR	M001	1519.66	100Year-Existing	126.20	51.62	53.47	53.48	54.00	0.024836	5.35	43.39	39.91	1.30
PettyHR	M001	1467.14	100Year-Existing	126.20	50.86	52.48	52.29	52.81	0.017036	4.16	52.32	46.96	1.06
PettyHR	M001	1457.30	100Year-Existing	126.20	50.23	52.05	52.05	52.59	0.024010	5.37	43.01	38.28	1.29
PettyHR	M001	1444.51	100Year-Existing	126.20	48.30	49.44	50.02	51.74	0.192637	10.83	21.30	32.34	3.35
PettyHR	M001	1415.17	100Year-Existing	126.20	48.28	50.12	49.55	50.27	0.006094	2.71	75.39	53.72	0.65
PettyHR	M001	1402.15	100Year-Existing	126.20	47.79	49.62	49.62	50.10	0.023927	5.22	46.21	45.07	1.27
PettyHR	M001	1385.41	100Year-Existing	126.20	43.10	44.93	45.92	48.98	0.124598	11.79	17.93	19.43	2.89
PettyHR	M001	1370.82	100Year-Existing	126.20	41.75	43.87	44.94	47.26	0.088669	11.40	19.36	15.93	2.54
PettyHR	M001	1362.66	100Year-Existing	126.20	39.88	42.44	43.70	46.51	0.078340	11.90	18.16	12.67	2.43
PettyHR	M001	1336.64	100Year-Existing	126.20	39.87	41.71	42.45	43.89	0.079888	9.77	22.81	20.60	2.34
PettyHR	M001	1309.35	100Year-Existing	126.20	38.40	39.98	40.46	41.60	0.075355	8.48	24.53	22.37	2.21
PettyHR	M001	1279.20	100Year-Existing	126.20	35.02	37.58	38.33	39.80	0.047336	9.39	27.01	24.77	1.90
PettyHR	M001	1258.06	100Year-Existing	126.20	34.01	36.96	37.89	38.87	0.032565	8.63	26.48	15.84	1.62
PettyHR	M001	1221.17	100Year-Existing	126.20	33.21	34.91	35.50	36.95	0.093813	9.66	23.86	26.82	2.46
PettyHR	M001	1203.34	100Year-Existing	126.20	32.61	34.06	34.42	35.22	0.071868	7.77	29.67	34.78	2.12
PettyHR	M001	1164.99	100Year-Existing	126.20	31.37	33.09	33.15	33.66	0.026755	5.29	42.47	41.97	1.33
PettyHR	M001	1153.41	100Year-Existing	126.20	30.70	31.91	32.28	33.08	0.089801	7.82	28.89	38.07	2.32
PettyHR	M001	1125.74	100Year-Existing	126.20	29.27	30.74	30.88	31.38	0.038765	5.75	39.60	45.13	1.57
PettyHR	M001	1090.65	100Year-Existing	126.20	28.12	29.46	29.59	29.98	0.039675	5.31	44.23	61.06	1.55
PettyHR	M001	1059.48	100Year-Existing	126.20	26.84	28.28	28.38	28.77	0.037535	5.57	46.76	66.76	1.53
PettyHR	M001	1048.77	100Year-Existing	126.20	26.29	27.92	27.81	28.23	0.017310	4.07	55.71	57.83	1.06
PettyHR	M001	1021.54	100Year-Existing	126.20	25.47	27.18	27.18	27.66	0.025781	5.19	44.74	44.10	1.31
PettyHR	M001	1003.30	100Year-Existing	126.20	23.42	25.16	25.59	26.85	0.064221	8.47	24.52	20.41	2.09
PettyHR	M001	994.73	100Year-Existing	126.20	22.70	25.73	25.73	26.43	0.014352	5.81	43.09	28.63	1.08
PettyHR	M001	961.03	100Year-Existing	126.20	22.07	24.79	25.02	25.80	0.022805	6.74	35.55	26.01	1.33
PettyHR	M001	944.13	100Year-Existing	126.20	21.89	23.76	24.19	25.21	0.047486	7.59	27.61	22.89	1.82
PettyHR	M001	924.94	100Year-Existing	126.20	20.78	22.96	23.33	24.38	0.039429	7.68	27.14	17.99	1.69
PettyHR	M001	905.47	100Year-Existing	126.20	19.73	22.22	22.59	23.70	0.032541	7.68	27.47	16.61	1.58
PettyHR	M001	883.86	100Year-Existing	126.20	17.29	21.23	20.14	21.47	0.002518	2.92	72.26	41.67	0.48
PettyHR	M001	875		Bridge									
PettyHR	M001	859.53	100Year-Existing	126.20	17.25	19.54	19.54	20.31	0.020804	5.63	35.32	30.17	1.22
PettyHR	M001	836.76	100Year-Existing	126.20	12.80	14.98	16.20	19.13	0.085501	11.36	16.98	11.31	2.50
PettyHR	M001	823.70	100Year-Existing	126.20	12.86	14.57	15.25	17.44	0.112447	10.94	19.64	18.35	2.73
PettyHR	M001	811.96	100Year-Existing	126.20	12.85	14.99	15.34	16.21	0.040487	7.75	32.96	32.38	1.72
PettyHR	M001	796.92	100Year-Existing	126.20	12.74	14.27	14.61	15.42	0.068600	8.03	30.05	34.58	2.11
PettyHR	M001	784.11	100Year-Existing	126.20	11.82	13.95	14.17	14.77	0.028778	6.45	39.49	38.95	1.44
PettyHR	M001	769.86	100Year-Existing	126.20	10.94	12.77	13.26	14.19	0.048963	7.62	27.81	23.90	1.84
PettyHR	M001	748.76	100Year-Existing	126.20	8.37	11.01	11.69	13.20	0.038804	8.61	26.21	20.90	1.73
PettyHR	M001	720.33	100Year-Existing	126.20	8.08	9.26	9.84	11.28	0.145533	9.29	22.12	29.01	2.89
PettyHR	M001	707.57	100Year-Existing	126.20	6.85	8.44	8.85	9.81	0.067966	8.09	29.10	33.95	2.10
PettyHR	M001	685.99	100Year-Existing	126.20	5.31	7.11	7.51	8.46	0.058336	8.01	30.01	33.06	1.98
PettyHR	M001	666.04	100Year-Existing	126.20	5.03	6.93	7.05	7.53	0.022183	5.18	45.10	45.18	1.24
PettyHR	M001	652.51	100Year-Existing	126.20	4.66	6.45	6.82	7.16	0.033199	6.04	42.87	52.96	1.49
PettyHR	M001	633.61	100Year-Existing	126.20	4.40	5.75	5.75	6.17	0.024311	4.29	48.83	83.50	1.23
PettyHR	M001	622.83	100Year-Existing	126.20	4.09	5.30	5.30	5.61	0.025033	3.99	57.51	113.72	1.22
PettyHR	M001	577.97	100Year-Existing	126.20	2.48	3.90	3.96	4.26	0.035943	5.33	53.83	113.05	1.48
PettyHR	M001	525.57	100Year-Existing	126.20	0.51	3.09	2.34	3.19	0.003126	2.46	102.46	105.84	0.49
PettyHR	M001	491.94	100Year-Existing	126.20	-0.59	2.63	2.16	3.03	0.005155	3.23	58.85	67.27	0.63
PettyHR	M001	485		Bridge									
PettyHR	M001	478.84	100Year-Existing	126.20	-1.92	2.54		2.66	0.000999	1.67	110.22	141.32	0.28
PettyHR	M001	439.27	100Year-Existing	126.20	-1.89	2.59		2.61	0.000267	0.90	239.62	129.37	0.14
PettyHR	M001	405.68	100Year-Existing	126.20	-2.13	2.58		2.60	0.000240	0.87	236.46	132.18	0.14
PettyHR	M001	367.80	100Year-Existing	126.20	-2.02	2.58		2.59	0.000073	0.48	301.57	139.37	0.08
PettyHR	M001	338.85	100Year-Existing	126.20	-2.89	2.58		2.59	0.000044	0.41	340.73	122.34	0.06
PettyHR	M001	305.38	100Year-Existing	126.20	-2.46	2.58		2.59	0.000062	0.47	307.58	119.96	0.07
PettyHR	M001	269.29	100Year-Existing	126.20	-3.52	2.57		2.59	0.000055	0.50	288.30	110.29	0.07
PettyHR	M001	238.18	100Year-Existing	126.20	-3.50	2.57		2.58	0.000078	0.60	249.07	102.54	0.09
PettyHR	M001	201.25	100Year-Existing	126.20	-4.43	2.57		2.58	0.000025	0.37	368.57	120.11	0.05
PettyHR	M001	150.84	100Year-Existing	126.20	-3.34	2.57		2.58	0.000014	0.26	526.78	171.54	0.04
PettyHR	M001	105.74	100Year-Existing	126.20	-2.91	2.57		2.58	0.000015	0.26	508.99	154.20	0.04
PettyHR	M001	91.29	100Year-Existing	126.20	-3.36	2.57		2.58	0.000013	0.25	525.33	143.74	0.04
PettyHR	M001	20.04	100Year-Existing	126.20	-6.19	2.57		2.57	0.000007	0.19	707.46	185.23	0.03
PettyHR	M001	12.04	100Year-Existing	126.20	-6.19	2.55	-3.41	2.57	0.000124	0.72	267.31	185.14	0.08
ForthP	M001	2616.90	100Year-Existing	12.20	123.09	124.57	123.37	124.57	0.000017	0.12	145.60	161.84	0.03
ForthP	M001	2528.45	100Year-Existing	12.20	123.09	124.57		124.57	0.000004	0.06	228.89	201.38	0.02
ForthP	M001	2324.32	100Year-Existing	12.20	123.09	124.57		124.57	0.000013	0.11	168.52	214.20	0.03
ForthP	M001	2187.52	100Year-Existing	12.20	123.09	124.57		124.57	0.000002	0.05	308.10	290.64	0.01
ForthP	M001	1955.13	100Year-Existing	12.20	123.09	124.57		124.57	0.000002	0.04	353.06	313.94	0.01
ForthP	M001	1773.83	100Year-Existing	12.20	123.09	124.57		124.57	0.000001	0.03	430.69	347.40	0.01
ForthP	M001	1572.85	100Year-Existing	12.20	123.09	124.56		124.56	0.000001	0.03	411.29	323.06	0.01

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
ForthP	M001	1496.60	100Year-Existing	12.20	123.09	124.56		124.56	0.000002	0.04	347.10	281.02	0.01
ForthP	M001	1392.58	100Year-Existing	43.90	122.98	124.55	124.15	124.56	0.000745	0.86	120.57	174.65	0.22
ForthP	M001	1390		Culvert									
ForthP	M001	1381.72	100Year-Existing	43.90	122.95	124.52	124.18	124.53	0.001570	1.15	91.12	152.08	0.30
ForthP	M001	1360.50	100Year-Existing	43.90	122.87	124.31		124.45	0.009570	2.68	36.35	83.72	0.76
ForthP	M001	1311.12	100Year-Existing	43.90	122.52	124.06		124.12	0.004296	1.86	49.63	78.42	0.51
ForthP	M001	1261.17	100Year-Existing	43.90	121.36	123.51	123.51	123.81	0.008718	3.40	28.49	42.86	0.78
ForthP	M001	1211.51	100Year-Existing	43.90	119.83	121.84	122.22	122.97	0.029688	5.91	14.33	22.30	1.40
ForthP	M001	1161.66	100Year-Existing	43.90	117.25	118.47	118.88	120.33	0.110009	7.83	10.60	25.81	2.47
ForthP	M001	1112.05	100Year-Existing	43.90	114.88	116.09	116.24	116.63	0.044461	5.22	17.68	36.49	1.60
ForthP	M001	1062.35	100Year-Existing	43.90	113.16	114.44	114.49	114.78	0.030108	4.23	20.44	36.60	1.28
ForthP	M001	1041.93	100Year-Existing	43.90	112.62	114.01	114.03	114.28	0.022826	3.86	23.93	45.98	1.12
ForthP	M001	1031.90	100Year-Existing	43.90	112.31	113.56	113.67	113.98	0.039969	4.78	20.20	45.88	1.47
ForthP	M001	1011.12	100Year-Existing	43.90	111.62	112.75	112.84	113.12	0.042096	4.71	20.83	49.91	1.52
ForthP	M001	959.76	100Year-Existing	43.90	110.31	111.11	111.20	111.44	0.062453	4.20	20.31	61.87	1.72
ForthP	M001	908.93	100Year-Existing	43.90	109.25	109.98	109.84	110.05	0.012367	1.85	39.98	91.52	0.77
ForthP	M001	856.39	100Year-Existing	43.90	108.38	108.90	108.83	109.00	0.026264	1.88	32.39	93.72	1.02
ForthP	M001	806.25	100Year-Existing	43.90	107.09	108.09		108.16	0.012852	2.33	39.58	92.71	0.81
ForthP	M001	754.78	100Year-Existing	43.90	106.12	107.17	107.17	107.33	0.024278	3.46	32.16	93.77	1.15
ForthP	M001	734.50	100Year-Existing	43.90	105.47	106.85	106.77	106.95	0.009512	2.52	42.05	96.28	0.74
ForthP	M001	724.30	100Year-Existing	43.90	105.28	106.67	106.67	106.83	0.013301	3.02	35.93	92.08	0.88
ForthP	M001	703.65	100Year-Existing	43.90	105.02	106.25	106.20	106.44	0.021889	3.62	26.89	54.86	1.10
ForthP	M001	654.47	100Year-Existing	43.90	103.90	104.85	104.85	105.07	0.032693	3.70	24.22	56.42	1.30
ForthP	M001	605.63	100Year-Existing	43.90	102.27	103.51	103.56	103.78	0.025517	3.84	26.05	63.88	1.20
ForthP	M001	585.13	100Year-Existing	43.90	101.55	102.44	102.57	102.94	0.083651	5.28	18.94	69.43	2.03
ForthP	M001	577.30	100Year-Existing	43.90	101.52	102.27	102.31	102.48	0.045312	3.51	24.44	75.35	1.45
ForthP	M001	557.33	100Year-Existing	43.90	100.67	101.40	101.38	101.55	0.032494	2.80	27.93	83.57	1.22
ForthP	M001	507.84	100Year-Existing	43.90	98.92	99.65	99.65	99.80	0.037846	2.97	27.79	88.41	1.30
ForthP	M001	453.33	100Year-Existing	43.90	96.28	97.12	97.06	97.23	0.020231	2.49	34.76	98.08	0.99
ForthP	M001	402.29	100Year-Existing	43.90	94.96	95.68	95.68	95.86	0.039871	3.28	25.10	67.88	1.36
ForthP	M001	349.18	100Year-Existing	43.90	93.64	94.33	94.15	94.40	0.013917	1.77	38.42	88.87	0.79
ForthP	M001	297.76	100Year-Existing	43.90	92.55	93.53	93.48	93.65	0.019293	2.74	33.56	79.01	0.99
ForthP	M001	246.28	100Year-Existing	43.90	91.71	92.57	92.49	92.66	0.016318	2.24	37.75	92.68	0.89
ForthP	M001	182.03	100Year-Existing	43.90	90.94	92.18	91.84	92.21	0.004333	1.58	63.32	116.72	0.49
ForthP	M001	160.27	100Year-Existing	43.90	90.13	92.18	91.61	92.19	0.000268	0.58	157.90	168.90	0.13
ForthP	M001	150		Culvert									
ForthP	M001	144.74	100Year-Existing	43.90	89.90	91.33	91.33	92.00	0.015980	3.67	12.33	110.93	1.01
ForthP	M001	124.30	100Year-Existing	43.90	89.74	91.03	90.89	91.12	0.010139	2.46	42.26	86.32	0.76
ForthP	M001	61.58	100Year-Existing	43.90	88.75	90.03	90.03	90.23	0.020067	3.43	30.62	68.82	1.06
ForestP	M001	1557.91	100Year-Existing	8.80	78.25	79.75	78.47	79.75	0.000004	0.06	152.41	122.27	0.02
ForestP	M001	1428.05	100Year-Existing	8.80	78.25	79.75		79.75	0.000002	0.04	208.32	177.71	0.01
ForestP	M001	1315.71	100Year-Existing	8.80	78.25	79.75		79.75	0.000001	0.03	292.86	243.63	0.01
ForestP	M001	1228.83	100Year-Existing	8.80	78.25	79.75		79.75	0.000001	0.03	350.23	291.91	0.01
ForestP	M001	1138.84	100Year-Existing	8.80	78.25	79.75		79.75	0.000001	0.02	410.30	344.18	0.01
ForestP	M001	1077.28	100Year-Existing	8.80	78.25	79.75		79.75	0.000001	0.02	458.08	484.11	0.01
ForestP	M001	1019.12	100Year-Existing	8.80	78.25	79.75		79.75	0.000002	0.04	232.64	286.22	0.01
ForestP	M001	958.61	100Year-Existing	11.20	78.15	79.72	79.50	79.74	0.001110	0.81	26.79	70.94	0.24
ForestP	M001	955		Culvert									
ForestP	M001	949.85	100Year-Existing	11.20	77.76	79.64	79.60	79.72	0.006607	1.65	15.35	56.83	0.42
ForestP	M001	913.34	100Year-Existing	11.20	78.16	79.11	79.11	79.30	0.030929	3.27	7.40	20.16	1.16
ForestP	M001	883.23	100Year-Existing	11.20	77.54	78.39	78.40	78.54	0.019977	2.56	10.42	41.59	0.99
ForestP	M001	859.61	100Year-Existing	11.20	76.75	77.51	77.59	77.84	0.044871	3.58	5.54	14.43	1.45
ForestP	M001	831.71	100Year-Existing	11.20	75.74	76.76	76.82	77.07	0.028194	3.38	5.87	11.96	1.18
ForestP	M001	802.91	100Year-Existing	11.20	74.66	75.53	75.69	76.04	0.045742	4.02	4.64	10.81	1.51
ForestP	M001	772.90	100Year-Existing	11.20	73.77	74.62	74.65	74.85	0.029792	3.20	6.74	16.77	1.19
ForestP	M001	737.48	100Year-Existing	11.20	72.77	73.52	73.50	73.66	0.024021	2.61	8.18	22.18	1.06
ForestP	M001	688.06	100Year-Existing	11.20	71.80	72.47		72.54	0.021222	2.15	10.56	34.37	0.93
ForestP	M001	651.32	100Year-Existing	11.20	70.81	71.45	71.45	71.58	0.031362	2.74	8.85	32.31	1.19
ForestP	M001	600.44	100Year-Existing	11.20	69.80	70.39	70.32	70.43	0.016482	1.83	15.28	86.89	0.85
ForestP	M001	578.60	100Year-Existing	11.20	69.31	69.92	69.92	70.00	0.023734	2.25	14.60	89.21	1.02
ForestP	M001	528.92	100Year-Existing	11.20	68.58	69.70	69.28	69.70	0.000863	0.67	45.08	109.59	0.22
ForestP	M001	478.55	100Year-Existing	11.20	68.21	69.69		69.69	0.000083	0.26	96.30	135.64	0.07
ForestP	M001	430.82	100Year-Existing	11.20	67.77	69.69		69.69	0.000030	0.19	140.20	159.96	0.05
ForestP	M001	378.18	100Year-Existing	11.20	67.48	69.69		69.69	0.000005	0.08	320.02	318.56	0.02
ForestP	M001	328.07	100Year-Existing	11.20	67.34	69.69		69.69	0.000002	0.06	438.62	372.12	0.01
ForestP	M001	277.95	100Year-Existing	11.20	67.07	69.69		69.69	0.000002	0.05	531.50	436.87	0.01
ForestP	M001	195.51	100Year-Existing	11.20	66.23	69.69		69.69	0.000000	0.03	938.52	610.70	0.00
ForestP	M001	158.37	100Year-Existing	11.20	66.23	69.69		69.69	0.000000	0.01	1671.40	707.06	0.00
ForestP	M001	89.11	100Year-Existing	11.20	66.23	69.69		69.69	0.000000	0.01	1851.09	775.48	0.00
DoylesR	TR019	260.51	100Year-Existing	0.40	124.74	125.14	124.95	125.14	0.000183	0.14	5.64	41.35	0.08
DoylesR	TR019	199.72	100Year-Existing	0.40	124.55	125.14		125.14	0.000002	0.02	40.73	141.52	0.01
DoylesR	TR019	150.00	100Year-Existing	0.40	124.37	125.14		125.14	0.000002	0.02	44.42	163.84	0.01
DoylesR	TR019	100.00	100Year-Existing	0.40	124.16	125.14		125.14	0.000002	0.03	41.09	218.53	0.01
DoylesR	TR019	50.00	100Year-Existing	0.40	124.18	125.14		125.14	0.000001	0.02	69.18	259.93	0.01
DoylesR	TR018	302.01	100Year-Existing	1.50	127.90	128.51	128.06	128.51	0.000073	0.14	17.39	45.05	0.06
DoylesR	TR018	270.53	100Year-Existing	1.50	126.19	128.51	126.90	128.51	0.000000	0.01	261.47	244.89	0.00
DoylesR	TR018	260		Culvert									
DoylesR	TR018	257.62	100Year-Existing	1.50	126.19	128.51	126.93	128.51	0.000000	0.01	266.66	215.47	0.00
DoylesR	TR018	244.68	100Year-Existing	1.50	125.64	128.51	126.64	128.51	0.000000	0.01	304.90	215.11	0.00
DoylesR	TR018	200		Culvert									
DoylesR	TR018	169.24	100Year-Existing	1.50	125.40	126.35	126.20	126.61	0.013336	2.58	0.72	78.58	0.86
DoylesR	TR018	131.43	100Year-Existing	1.50	125.24	125.44	125.44	125.48	0.055547	1.25	2.28	48.20	1.23
DoylesR	TR018	59.79	100Year-Existing	1.50	124.57	125.18	124.90	125.19	0.000206	0.21	19.79	134.67	0.10
DoylesR	TR017	4043.45	100Year-Existing	8.20	124.05	125.11		125.13	0.001503	0.94	24.34	96.73	0.30
DoylesR	TR017	3983.69	100Year-Existing	8.20	124.04	125.00		125.02	0.002434	1.01	21.00	98.95	0.36
DoylesR	TR017	3923.93	100Year-Existing	8.20	124.03	124.63	124.63	124.71	0.022302	1.83	8.63	44.20	0.95
DoylesR	TR017	3889.37	100Year-Existing	8.20	123.60	123.83	123.64	123.85	0.005833	0.36	17.09	70.21	0.39
DoylesR	TR017	3781.64	100Year-Existing	8.20	122.55	123.56		123.58	0.003124	1.19	18.51	67.03	0.41
DoylesR	TR017	3768.91	100Year-Existing	8.20	122.35	123.24	123.24	123.48	0.016292	2.37	4.56	10.60	0.88
DoylesR	TR017	3745.98	100Year-Existing	8.20	121.86	122.44	122.50	122.63	0.049436	2.58	5.81	35.36	1.38

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR017	3713.18	100Year-Existing	8.20	120.99	121.62	121.62	121.81	0.020094	2.10	4.92	14.59	0.95
DoylesR	TR017	3692.45	100Year-Existing	8.20	120.34	121.02	121.04	121.29	0.030902	2.58	4.37	14.59	1.18
DoylesR	TR017	3679.05	100Year-Existing	8.20	119.97	120.81	120.83	121.00	0.014555	2.24	5.99	25.71	0.86
DoylesR	TR017	3656.84	100Year-Existing	8.20	117.59	118.08	118.45	119.96	0.318758	6.23	1.46	5.98	3.52
DoylesR	TR017	3603.67	100Year-Existing	8.20	116.29	116.94	117.04	117.26	0.040956	3.07	4.43	20.34	1.36
DoylesR	TR017	3583.40	100Year-Existing	8.20	115.96	116.58	116.66	116.84	0.046438	3.03	5.15	26.46	1.42
DoylesR	TR017	3571.14	100Year-Existing	8.20	115.76	116.29	116.34	116.45	0.043108	2.76	6.06	31.18	1.35
DoylesR	TR017	3545.42	100Year-Existing	8.20	115.22	115.86	115.81	115.99	0.021053	2.07	6.65	24.91	0.96
DoylesR	TR017	3483.93	100Year-Existing	8.20	114.35	114.96	114.92	115.00	0.012840	1.63	13.15	71.13	0.75
DoylesR	TR017	3432.55	100Year-Existing	8.20	113.79	114.57	114.49	114.60	0.007322	1.46	14.81	66.73	0.58
DoylesR	TR017	3345.48	100Year-Existing	8.20	113.03	113.56	113.56	113.66	0.032830	2.15	7.77	43.15	1.14
DoylesR	TR017	3300.07	100Year-Existing	8.20	112.42	113.02	112.87	113.03	0.003571	0.79	20.60	78.83	0.39
DoylesR	TR016	918.87	100Year-Existing	3.00	127.08	128.80	127.25	128.80	0.000000	0.01	406.05	361.87	0.00
DoylesR	TR016	898.71	100Year-Existing	3.00	126.90	128.80	127.32	128.80	0.000001	0.03	197.26	225.47	0.01
DoylesR	TR016	890		Culvert									
DoylesR	TR016	882.28	100Year-Existing	3.00	126.88	128.73		128.73	0.000006	0.07	105.32	158.31	0.02
DoylesR	TR016	877.71	100Year-Existing	3.00	126.24	128.73	126.96	128.73	0.000004	0.08	124.41	189.53	0.02
DoylesR	TR016	850		Culvert									
DoylesR	TR016	848.13	100Year-Existing	3.00	126.37	127.20	127.20	127.47	0.019126	2.53	1.63	3.52	0.92
DoylesR	TR016	818.98	100Year-Existing	3.00	126.36	126.86	126.79	126.88	0.004190	0.80	8.36	54.67	0.41
DoylesR	TR016	768.99	100Year-Existing	3.00	126.30	126.67		126.68	0.004439	0.67	8.58	51.71	0.41
DoylesR	TR016	714.09	100Year-Existing	3.00	125.96	126.40		126.41	0.005086	0.77	7.19	38.19	0.44
DoylesR	TR016	675.95	100Year-Existing	3.00	125.74	126.08	126.08	126.14	0.022480	1.33	4.35	43.17	0.89
DoylesR	TR016	659.39	100Year-Existing	3.00	125.10	125.57	125.49	125.62	0.010666	1.27	4.56	26.70	0.66
DoylesR	TR016	632.80	100Year-Existing	3.00	124.78	125.26	125.26	125.33	0.015250	1.43	3.77	27.49	0.78
DoylesR	TR016	610.50	100Year-Existing	3.00	123.78	124.30	124.43	124.67	0.054731	2.99	1.35	5.50	1.50
DoylesR	TR016	549.37	100Year-Existing	3.00	122.30	122.98	122.99	123.08	0.014632	1.74	3.39	20.00	0.79
DoylesR	TR016	494.31	100Year-Existing	3.00	120.93	121.58	121.65	121.86	0.035294	2.40	1.35	4.37	1.19
DoylesR	TR016	473.82	100Year-Existing	3.00	120.18	120.72	120.81	121.03	0.046039	2.58	1.35	5.17	1.36
DoylesR	TR016	459.95	100Year-Existing	3.00	119.62	120.13	120.21	120.40	0.043650	2.40	1.40	5.38	1.31
DoylesR	TR016	439.99	100Year-Existing	3.00	119.05	119.73	119.73	119.92	0.021487	1.97	1.66	4.83	0.94
DoylesR	TR016	384.99	100Year-Existing	3.00	117.07	117.55	117.66	117.91	0.072627	2.69	1.15	4.84	1.63
DoylesR	TR016	329.99	100Year-Existing	3.00	115.67	116.18	116.18	116.26	0.017514	1.44	3.39	23.74	0.82
DoylesR	TR016	274.18	100Year-Existing	3.00	114.93	115.34	115.34	115.38	0.012935	1.11	5.45	48.88	0.69
DoylesR	TR016	218.88	100Year-Existing	3.00	114.35	114.85	114.83	114.88	0.011117	1.10	5.91	59.03	0.65
DoylesR	TR016	165.43	100Year-Existing	3.00	113.83	114.41	114.38	114.45	0.008518	1.14	5.23	37.18	0.59
DoylesR	TR016	86.48	100Year-Existing	3.00	112.80	113.26	113.26	113.36	0.025610	1.58	2.56	13.78	0.97
DoylesR	TR016	40.19	100Year-Existing	3.00	112.21	112.85	112.71	112.86	0.001843	0.60	11.67	63.88	0.28
DoylesR	TR015	3230.71	100Year-Existing	18.00	111.60	112.56		112.61	0.008216	1.86	24.31	78.76	0.65
DoylesR	TR015	3185.04	100Year-Existing	18.00	111.22	112.22		112.30	0.011079	2.07	19.23	52.41	0.75
DoylesR	TR015	3133.58	100Year-Existing	18.00	110.57	111.42	111.42	111.55	0.021393	2.68	15.28	47.98	1.03
DoylesR	TR015	3079.97	100Year-Existing	18.00	108.17	109.21	109.47	109.91	0.042760	4.26	6.21	12.37	1.50
DoylesR	TR015	3026.43	100Year-Existing	18.00	107.30	109.15	108.35	109.17	0.000816	0.93	32.70	34.31	0.23
DoylesR	TR015	3001.28	100Year-Existing	18.00	106.17	109.16	108.48	109.16	0.000125	0.47	90.17	79.08	0.09
DoylesR	TR015	3000		Culvert									
DoylesR	TR015	2988.77	100Year-Existing	18.00	106.03	108.09	108.09	108.27	0.004490	2.45	21.56	57.13	0.56
DoylesR	TR015	2963.30	100Year-Existing	18.00	105.69	106.57	106.90	107.85	0.102362	6.14	5.68	18.26	2.23
DoylesR	TR015	2915.60	100Year-Existing	18.00	104.53	105.74	105.76	105.99	0.016697	2.98	12.06	25.70	0.95
DoylesR	TR015	2867.64	100Year-Existing	18.00	103.37	104.56	104.68	104.98	0.032119	4.06	9.55	21.50	1.30
DoylesR	TR015	2841.04	100Year-Existing	18.00	102.40	103.01	103.15	103.45	0.108356	4.33	7.89	29.01	2.13
DoylesR	TR015	2804.73	100Year-Existing	18.00	101.67	102.55	102.47	102.66	0.016746	2.43	15.58	37.55	0.91
DoylesR	TR015	2742.98	100Year-Existing	18.00	100.87	101.74	101.67	101.80	0.012978	2.18	22.35	71.99	0.81
DoylesR	TR015	2687.77	100Year-Existing	18.00	100.07	100.72	100.71	100.82	0.028852	2.53	16.66	71.64	1.14
DoylesR	TR015	2638.14	100Year-Existing	18.00	98.95	99.81	99.81	99.95	0.023380	2.94	16.18	55.58	1.09
DoylesR	TR015	2593.26	100Year-Existing	18.00	97.75	98.93	98.85	99.03	0.010298	2.35	18.37	45.12	0.75
DoylesR	TR015	2557.12	100Year-Existing	18.00	97.53	98.66		98.73	0.007803	2.08	22.30	57.68	0.66
DoylesR	TR015	2522.34	100Year-Existing	18.00	97.26	98.20	98.20	98.36	0.019288	2.57	13.87	40.52	0.98
DoylesR	TR015	2483.94	100Year-Existing	18.00	96.95	97.73	97.65	97.79	0.014377	1.93	19.63	60.99	0.81
DoylesR	TR015	2438.99	100Year-Existing	18.00	96.35	97.50		97.53	0.003504	1.36	33.13	95.87	0.44
DoylesR	TR015	2387.12	100Year-Existing	18.00	96.39	97.43		97.44	0.001117	0.68	57.61	131.33	0.24
DoylesR	TR015	2352.45	100Year-Existing	18.00	96.40	97.41		97.41	0.000590	0.50	64.57	105.49	0.18
DoylesR	TR015	2283.37	100Year-Existing	18.00	95.75	97.25		97.33	0.003438	1.67	19.05	23.81	0.46
DoylesR	TR015	2231.50	100Year-Existing	18.00	95.54	96.77	96.71	97.00	0.013761	2.81	11.41	23.95	0.88
DoylesR	TR015	2160.12	100Year-Existing	18.00	94.93	96.05		96.18	0.008808	2.08	14.02	22.90	0.69
DoylesR	TR015	2119.11	100Year-Existing	18.00	94.44	95.53	95.53	95.73	0.016773	2.81	12.48	28.22	0.94
DoylesR	TR015	2075.88	100Year-Existing	18.00	93.86	94.88	94.90	95.04	0.014319	2.48	15.10	48.10	0.87
DoylesR	TR015	2024.01	100Year-Existing	18.00	93.19	94.39	94.28	94.45	0.006176	1.80	21.95	57.15	0.58
DoylesR	TR015	1972.14	100Year-Existing	18.00	92.71	93.67	93.67	93.88	0.028064	3.32	12.85	61.32	1.19
DoylesR	TR015	1921.75	100Year-Existing	18.00	92.35	93.52	93.14	93.54	0.002097	1.07	38.84	91.64	0.34
DoylesR	TR015	1851.62	100Year-Existing	18.00	91.24	92.86	92.86	93.27	0.014847	3.38	8.82	16.08	0.92
DoylesR	TR014	2057.49	100Year-Existing	10.90	125.48	126.59	126.42	126.62	0.003027	1.13	22.80	70.82	0.39
DoylesR	TR014	2037.89	100Year-Existing	10.90	125.57	126.59		126.59	0.000652	0.55	46.19	111.29	0.19
DoylesR	TR014	1988.88	100Year-Existing	10.90	124.71	126.48	125.66	126.54	0.001415	1.18	15.94	49.99	0.30
DoylesR	TR014	1980		Culvert									
DoylesR	TR014	1975.46	100Year-Existing	10.90	124.46	126.45		126.51	0.001105	1.14	13.47	36.23	0.27
DoylesR	TR014	1936.56	100Year-Existing	10.90	124.86	126.25	125.95	126.42	0.005758	2.10	9.70	23.83	0.59
DoylesR	TR014	1904.43	100Year-Existing	10.90	124.72	125.85	125.85	126.14	0.013595	2.73	6.29	11.82	0.88
DoylesR	TR014	1867.03	100Year-Existing	10.90	124.61	125.69	125.36	125.75	0.004306	1.51	12.99	25.35	0.49
DoylesR	TR014	1801.50	100Year-Existing	10.90	124.00	125.00	125.00	125.25	0.016749	2.79	6.94	15.26	0.95
DoylesR	TR014	1765.57	100Year-Existing	10.90	123.20	123.78	123.92	124.22	0.057782	3.39	4.82	18.86	1.60
DoylesR	TR014	1703.29	100Year-Existing	10.90	121.82	122.73	122.62	122.96	0.014479	2.48	7.49	22.59	0.88
DoylesR	TR014	1657.91	100Year-Existing	10.90	121.27	122.08	122.08	122.28	0.015002	2.21	7.38	21.06	0.86
DoylesR	TR014	1607.98	100Year-Existing	10.90	120.59	121.45	121.46	121.57	0.012754	2.13	11.99	47.34	0.80
DoylesR	TR014	1544.18	100Year-Existing	10.90	119.81	120.65	120.70	120.84	0.018838	2.59	9.69	40.87	0.98
DoylesR	TR014	1492.70	100Year-Existing	10.90	119.06	119.76	119.77	119.88	0.017580	2.20	10.51	41.47	0.92
DoylesR	TR014	1441.23	100Year-Existing	10.90	117.59	118.68	118.74	118.97	0.017305	3.07	7.38	19.83	0.99
DoylesR	TR014	1420.98	100Year-Existing	10.90	116.98	118.29	117.77	118.34	0.002585	1.36	12.49	13.99	0.40
DoylesR	TR014	1411.86	100Year-Existing	10.90	117.03	118.18	117.78	118.30	0.005018	1.83	7.72	12.40	0.55
DoylesR	TR014	1400		Bridge									
DoylesR	TR014	1384.41	100Year-Existing	12.40	116.71	117.59	117.53	117.88	0.015847	2.57	5.45	9.98	0.92

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR014	1374.60	100Year-Existing	12.40	116.54	117.55		117.70	0.007895	1.94	8.21	12.08	0.66
DoylesR	TR014	1353.25	100Year-Existing	12.40	116.21	117.14	117.14	117.44	0.017879	2.74	5.96	10.24	0.98
DoylesR	TR014	1309.14	100Year-Existing	12.40	115.50	116.52	116.35	116.72	0.008791	2.01	6.56	9.07	0.69
DoylesR	TR014	1296.25	100Year-Existing	12.40	115.12	116.17	116.17	116.52	0.018117	3.02	5.61	8.41	1.00
DoylesR	TR014	1239.25	100Year-Existing	12.40	113.43	114.13	114.36	114.75	0.056181	3.94	4.38	12.10	1.64
DoylesR	TR014	1203.69	100Year-Existing	12.40	112.84	113.74	113.60	113.81	0.008882	1.94	12.14	26.64	0.68
DoylesR	TR014	1182.25	100Year-Existing	12.40	112.53	113.34	113.34	113.53	0.018813	2.55	8.53	21.14	0.98
DoylesR	TR014	1125.25	100Year-Existing	12.40	111.30	112.56	112.29	112.62	0.004112	1.62	15.20	24.44	0.49
DoylesR	TR014	1104.23	100Year-Existing	12.40	111.16	112.19	112.19	112.44	0.018094	2.81	7.69	17.35	0.98
DoylesR	TR014	1094.88	100Year-Existing	12.40	110.55	111.39	111.62	112.11	0.060811	4.76	4.48	10.90	1.76
DoylesR	TR014	1075.36	100Year-Existing	12.40	110.17	111.20	111.28	111.52	0.024874	3.47	7.70	19.28	1.16
DoylesR	TR014	1027.18	100Year-Existing	12.40	109.15	110.06	110.10	110.33	0.024076	3.01	7.45	17.79	1.11
DoylesR	TR014	980.74	100Year-Existing	12.40	107.89	109.02	108.65	109.07	0.004238	1.58	14.67	22.12	0.49
DoylesR	TR014	954.47	100Year-Existing	12.40	107.68	108.65	108.65	108.86	0.017016	2.69	8.98	23.05	0.95
DoylesR	TR014	934.37	100Year-Existing	12.40	106.99	107.96	108.09	108.36	0.029566	3.43	6.95	21.03	1.23
DoylesR	TR014	907.24	100Year-Existing	12.40	106.52	107.47	107.40	107.57	0.011329	2.22	12.33	28.21	0.77
DoylesR	TR014	868.80	100Year-Existing	12.40	105.88	106.88	106.87	107.09	0.013715	2.48	9.03	21.57	0.86
DoylesR	TR014	864.98	100Year-Existing	12.40	105.70	106.75	106.75	107.02	0.014906	2.51	6.92	15.10	0.89
DoylesR	TR014	844.06	100Year-Existing	12.40	105.10	106.35	106.18	106.52	0.008175	2.25	8.98	14.03	0.69
DoylesR	TR014	836.52	100Year-Existing	12.40	104.97	106.11	106.11	106.42	0.017322	2.87	6.58	12.31	0.96
DoylesR	TR014	816.09	100Year-Existing	12.40	104.78	105.69	105.58	105.79	0.009440	1.89	11.45	28.71	0.70
DoylesR	TR014	811.48	100Year-Existing	12.40	104.64	105.68		105.75	0.005624	1.66	13.58	25.56	0.56
DoylesR	TR014	783.28	100Year-Existing	12.40	103.98	105.15	105.15	105.47	0.017892	3.20	6.53	10.43	1.00
DoylesR	TR014	751.27	100Year-Existing	12.40	103.31	104.37	104.45	104.79	0.024319	3.00	4.85	9.10	1.11
DoylesR	TR014	717.94	100Year-Existing	12.40	102.63	103.99	103.99	104.25	0.013889	3.09	7.92	13.89	0.89
DoylesR	TR014	676.43	100Year-Existing	12.40	102.18	103.30	103.32	103.61	0.017201	2.84	7.13	17.08	0.96
DoylesR	TR014	601.44	100Year-Existing	12.40	101.39	102.38	102.26	102.48	0.009320	1.98	10.67	22.66	0.70
DoylesR	TR014	540.83	100Year-Existing	12.40	100.49	101.69	101.52	101.91	0.009533	2.32	8.33	19.40	0.74
DoylesR	TR014	519.25	100Year-Existing	12.40	99.69	101.80	101.49	101.81	0.000668	0.82	36.15	65.84	0.19
DoylesR	TR014	510		Culvert									
DoylesR	TR014	505.00	100Year-Existing	12.40	99.62	101.55	101.55	101.59	0.001884	1.29	25.58	61.32	0.30
DoylesR	TR014	484.27	100Year-Existing	12.40	99.79	100.67	100.87	101.30	0.066568	4.36	4.56	13.52	1.74
DoylesR	TR014	426.15	100Year-Existing	12.40	98.71	99.91	99.91	100.15	0.012460	2.37	7.75	23.25	0.81
DoylesR	TR014	368.05	100Year-Existing	12.40	97.30	98.46	98.63	98.99	0.037294	3.76	5.38	16.12	1.33
DoylesR	TR014	343.01	100Year-Existing	12.40	96.78	98.33	97.78	98.47	0.003351	1.70	8.13	74.00	0.45
DoylesR	TR014	335		Bridge									
DoylesR	TR014	331.91	100Year-Existing	12.40	96.63	97.92	97.92	98.32	0.015286	2.96	4.94	7.09	0.92
DoylesR	TR014	312.09	100Year-Existing	12.40	96.26	97.52	97.63	97.89	0.029411	3.13	7.31	31.60	1.15
DoylesR	TR014	227.09	100Year-Existing	12.40	94.66	96.49	96.15	96.54	0.002765	1.47	17.99	29.07	0.38
DoylesR	TR014	205.76	100Year-Existing	12.40	94.51	96.17	96.17	96.42	0.010581	2.63	8.65	18.99	0.74
DoylesR	TR014	198.96	100Year-Existing	12.40	94.45	95.18	95.48	96.17	0.103518	4.48	3.09	10.52	2.12
DoylesR	TR014	181.77	100Year-Existing	12.40	94.01	95.22	95.22	95.41	0.013124	2.50	9.50	23.71	0.83
DoylesR	TR014	121.12	100Year-Existing	12.40	92.99	94.17	94.26	94.45	0.018208	2.88	10.70	60.81	0.97
DoylesR	TR014	34.73	100Year-Existing	12.40	91.60	92.56	92.58	92.88	0.020448	2.74	5.90	11.24	1.02
DoylesR	TR012	1780.65	100Year-Existing	30.40	90.30	92.35	91.74	92.44	0.001998	1.49	34.61	63.22	0.36
DoylesR	TR012	1753.67	100Year-Existing	30.40	89.56	92.38	91.27	92.40	0.000405	0.93	73.79	92.65	0.18
DoylesR	TR012	1745		Bridge									
DoylesR	TR012	1729.43	100Year-Existing	30.40	89.10	91.06	91.12	91.97	0.016868	4.33	7.45	13.84	1.03
DoylesR	TR012	1709.20	100Year-Existing	30.40	88.93	90.47	90.80	91.44	0.037375	5.24	10.06	20.30	1.46
DoylesR	TR012	1645.76	100Year-Existing	30.40	88.20	89.59	89.47	89.87	0.011911	2.84	15.73	20.48	0.84
DoylesR	TR011	1552.47	100Year-Existing	43.70	86.48	88.84	88.39	89.17	0.005613	2.87	21.25	15.48	0.63
DoylesR	TR011	1530.88	100Year-Existing	43.70	86.19	88.27	88.27	88.96	0.014340	4.23	14.79	11.50	0.99
DoylesR	TR011	1477.56	100Year-Existing	43.70	84.43	85.84	86.32	87.45	0.064723	6.46	9.84	13.63	1.93
DoylesR	TR011	1423.69	100Year-Existing	43.70	83.56	85.47	85.47	86.30	0.017924	4.39	13.16	11.54	1.09
DoylesR	TR011	1370.10	100Year-Existing	43.70	82.66	83.99	84.23	84.83	0.046199	5.37	15.12	30.92	1.63
DoylesR	TR011	1316.51	100Year-Existing	43.70	81.17	83.17	83.18	83.67	0.011322	3.61	18.75	21.77	0.87
DoylesR	TR011	1262.92	100Year-Existing	43.70	79.36	81.04	81.61	82.50	0.042931	6.01	10.40	13.63	1.63
DoylesR	TR011	1209.33	100Year-Existing	43.70	78.14	80.51	80.51	81.15	0.012213	4.02	16.34	16.36	0.91
DoylesR	TR011	1155.74	100Year-Existing	43.70	76.81	78.72	79.14	80.05	0.035089	5.65	10.20	10.09	1.46
DoylesR	TR011	1107.39	100Year-Existing	43.70	76.34	78.04	78.10	78.67	0.017614	3.72	13.76	13.62	1.04
DoylesR	TR011	1057.82	100Year-Existing	43.70	75.16	77.30	77.33	77.94	0.014429	3.89	14.63	13.12	0.96
DoylesR	TR011	971.36	100Year-Existing	43.70	73.33	75.26	74.69	75.54	0.004528	2.34	18.66	19.41	0.56
DoylesR	TR011	960		Bridge									
DoylesR	TR011	949.62	100Year-Existing	43.70	73.08	75.18	74.37	75.40	0.002972	2.07	21.11	19.59	0.46
DoylesR	TR011	929.53	100Year-Existing	43.70	72.74	74.58	74.55	75.17	0.014115	3.64	14.57	12.66	0.95
DoylesR	TR011	872.05	100Year-Existing	43.70	72.26	74.13	74.13	74.38	0.010489	3.11	30.96	61.95	0.81
DoylesR	TR011	816.76	100Year-Existing	43.70	72.00	73.08	72.99	73.16	0.014285	2.42	38.63	96.80	0.84
DoylesR	TR011	760.16	100Year-Existing	43.70	71.25	72.51		72.58	0.009646	2.40	45.22	102.75	0.73
DoylesR	TR011	712.26	100Year-Existing	43.70	70.34	71.86	71.80	72.02	0.012168	2.98	36.97	96.68	0.84
DoylesR	TR011	663.11	100Year-Existing	43.70	70.08	71.48		71.52	0.007719	2.13	57.27	143.94	0.63
DoylesR	TR013	2205.78	100Year-Existing	9.30	95.88	96.70	96.42	96.71	0.001161	0.70	34.45	117.70	0.25
DoylesR	TR013	2147.59	100Year-Existing	9.30	95.87	96.60		96.61	0.002343	0.85	22.20	75.37	0.34
DoylesR	TR013	2097.40	100Year-Existing	9.30	95.86	96.28	96.28	96.34	0.022904	1.71	12.41	88.77	0.95
DoylesR	TR013	2011.99	100Year-Existing	9.30	93.67	94.77	94.60	94.91	0.007362	1.92	6.70	12.02	0.64
DoylesR	TR013	1957.46	100Year-Existing	9.30	93.05	94.08	94.08	94.35	0.015933	2.87	5.46	11.53	0.94
DoylesR	TR013	1909.18	100Year-Existing	9.30	92.33	93.24	93.34	93.49	0.019425	2.71	7.38	44.17	0.99
DoylesR	TR013	1861.01	100Year-Existing	9.30	91.27	92.29	92.39	92.58	0.018721	2.79	6.75	37.26	0.98
DoylesR	TR013	1789.09	100Year-Existing	9.30	90.00	90.56	90.61	90.72	0.036017	2.55	8.43	60.34	1.25
DoylesR	TR013	1733.37	100Year-Existing	9.30	89.53	90.27	90.14	90.29	0.003980	1.01	19.28	80.95	0.43
DoylesR	TR013	1677.65	100Year-Existing	9.30	89.42	89.86		89.90	0.015121	1.41	12.01	63.28	0.78
DoylesR	TR013	1613.85	100Year-Existing	9.30	89.11	89.66		89.67	0.001638	0.56	30.14	97.55	0.27
DoylesR	TR013	1552.30	100Year-Existing	9.30	88.82	89.57		89.58	0.001875	0.78	24.84	69.20	0.31
DoylesR	TR013	1506.96	100Year-Existing	9.30	88.81	89.50		89.51	0.001924	0.75	24.01	65.46	0.31
DoylesR	TR013	1478.17	100Year-Existing	9.30	88.80	89.35		89.39	0.011845	1.47	12.55	48.77	0.71
DoylesR	TR013	1411.61	100Year-Existing	9.30	88.11	89.08		89.11	0.002186	0.96	14.61	32.56	0.34
DoylesR	TR013	1388.58	100Year-Existing	9.30	87.45	89.09	88.80	89.09	0.000157	0.37	60.17	161.80	0.10
DoylesR	TR013	1375		Culvert									
DoylesR	TR013	1373.86	100Year-Existing	9.30	87.32	88.73	88.50	88.83	0.005015	1.92	10.67	37.33	0.53
DoylesR	TR013	1301.72	100Year-Existing	9.30	86.82	87.93	87.93	88.23	0.014942	2.69	4.66	9.74	0.90
DoylesR	TR013	1246.99	100Year-Existing	9.30	85.79	86.69	86.82	87.15	0.027474	3.08	3.48	6.92	1.17

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR013	1192.26	100Year-Existing	9.30	84.79	85.96	85.76	86.10	0.007040	1.93	6.92	11.72	0.63
DoylesR	TR013	1137.53	100Year-Existing	9.30	84.03	85.19	85.19	85.53	0.016127	2.78	4.39	8.52	0.93
DoylesR	TR013	1082.80	100Year-Existing	9.30	83.55	84.47	84.47	84.61	0.016610	2.18	7.26	22.21	0.88
DoylesR	TR013	1064.90	100Year-Existing	9.30	82.57	84.50	83.72	84.52	0.000734	0.82	26.89	115.94	0.21
DoylesR	TR013	1050		Culvert									
DoylesR	TR013	1042.53	100Year-Existing	9.30	82.41	84.35	83.50	84.36	0.000265	0.52	43.27	118.49	0.13
DoylesR	TR013	1022.06	100Year-Existing	9.30	82.71	84.13	83.88	84.33	0.007272	2.30	6.52	11.89	0.65
DoylesR	TR013	969.32	100Year-Existing	9.30	82.40	83.40	83.40	83.72	0.019312	2.99	4.43	7.23	1.02
DoylesR	TR013	915.66	100Year-Existing	9.30	81.80	83.00	82.60	83.02	0.001177	0.86	22.63	44.25	0.26
DoylesR	TR013	867.93	100Year-Existing	9.30	81.40	82.91		82.95	0.001920	1.26	18.00	42.03	0.34
DoylesR	TR013	809.27	100Year-Existing	9.30	81.32	82.65		82.77	0.004581	1.70	7.23	10.59	0.51
DoylesR	TR013	756.07	100Year-Existing	9.30	80.75	81.94	81.94	82.33	0.016369	3.13	4.18	6.01	0.97
DoylesR	TR013	702.82	100Year-Existing	9.30	79.91	81.06	81.09	81.42	0.017700	3.07	4.34	7.32	0.98
DoylesR	TR013	651.60	100Year-Existing	9.30	78.06	78.91	79.23	79.79	0.067330	4.40	2.58	6.13	1.77
DoylesR	TR013	588.74	100Year-Existing	9.30	75.89	76.88	76.94	77.25	0.024389	2.74	3.80	8.03	1.07
DoylesR	TR013	543.29	100Year-Existing	9.30	75.20	76.05	76.00	76.33	0.018733	2.38	4.39	15.40	0.95
DoylesR	TR013	489.08	100Year-Existing	9.30	73.77	74.99	74.99	75.37	0.016446	3.10	4.21	6.07	0.95
DoylesR	TR013	436.90	100Year-Existing	9.30	72.11	73.04	73.35	73.86	0.057694	4.06	2.47	4.96	1.62
DoylesR	TR013	383.70	100Year-Existing	9.30	70.97	72.22	72.01	72.28	0.003117	1.32	13.36	40.10	0.42
DoylesR	TR013	363.75	100Year-Existing	9.30	70.36	72.17	71.91	72.24	0.001412	1.30	13.67	45.62	0.31
DoylesR	TR013	360		Culvert									
DoylesR	TR013	344.87	100Year-Existing	9.30	70.32	71.70	71.70	71.71	0.001020	0.82	24.34	48.31	0.23
DoylesR	TR013	324.16	100Year-Existing	9.30	70.29	70.88	71.00	71.47	0.143284	4.52	4.36	41.64	2.37
DoylesR	TR013	256.30	100Year-Existing	9.30	69.36	70.29	70.29	70.39	0.020646	2.38	9.43	48.64	0.92
DoylesR	TR013	236.50	100Year-Existing	9.30	69.35	70.25	69.98	70.25	0.000712	0.41	40.57	116.41	0.18
DoylesR	TR013	162.98	100Year-Existing	9.30	68.94	70.21		70.21	0.000701	0.53	38.59	130.64	0.18
DoylesR	TR013	133.14	100Year-Existing	9.30	68.76	70.19		70.19	0.000246	0.33	56.91	122.42	0.11
DoylesR	TR013	66.14	100Year-Existing	9.30	68.46	70.18		70.18	0.000267	0.39	48.67	182.81	0.11
DoylesR	M001	484.12	100Year-Existing	53.20	68.08	69.84		69.96	0.009591	2.50	46.45	101.28	0.71
DoylesR	M001	429.44	100Year-Existing	53.20	67.72	69.75		69.77	0.001559	1.15	96.81	141.28	0.29
DoylesR	M001	388.03	100Year-Existing	53.20	67.53	69.71		69.72	0.000947	0.96	128.76	219.23	0.23
DoylesR	M001	344.78	100Year-Existing	53.20	67.39	69.70		69.70	0.000253	0.52	228.34	278.50	0.12
DoylesR	M001	215.64	100Year-Existing	53.20	67.21	69.69		69.69	0.000035	0.22	468.04	397.35	0.05
DoylesR	M001	77.13	100Year-Existing	53.20	66.62	69.69		69.69	0.000010	0.14	801.45	579.23	0.03
CochranePB	M002	8105.53	100Year-Existing	15.30	140.65	142.37	141.37	142.38	0.000073	0.37	92.80	121.89	0.10
CochranePB	M002	8065.47	100Year-Existing	15.30	140.64	142.36		142.37	0.000290	0.68	50.75	83.64	0.19
CochranePB	M002	8050.98	100Year-Existing	15.30	140.00	142.33		142.37	0.000130	0.93	40.25	76.02	0.24
CochranePB	M002	8024.09	100Year-Existing	15.30	140.62	142.34		142.35	0.000335	0.71	53.30	109.06	0.21
CochranePB	M002	8013.06	100Year-Existing	15.30	140.42	142.34		142.35	0.000235	0.65	58.00	107.81	0.18
CochranePB	M002	8004.70	100Year-Existing	15.30	140.25	142.34	141.80	142.35	0.000122	0.61	74.68	110.72	0.14
CochranePB	M002	8000		Culvert									
CochranePB	M002	7995.14	100Year-Existing	15.30	140.37	142.34	141.56	142.34	0.000101	0.54	66.58	83.12	0.13
CochranePB	M002	7964.49	100Year-Existing	15.30	140.14	141.88	141.88	142.29	0.007705	3.47	7.62	11.29	0.94
CochranePB	M002	7901.64	100Year-Existing	15.30	139.30	140.64	140.93	141.45	0.026210	4.29	4.85	12.96	1.57
CochranePB	M002	7847.08	100Year-Existing	15.30	138.68	139.74	139.70	139.85	0.009315	2.21	13.85	44.40	0.92
CochranePB	M002	7812.33	100Year-Existing	15.30	138.52	139.35	139.35	139.46	0.015471	2.30	13.23	55.37	1.17
CochranePB	M002	7738.34	100Year-Existing	15.30	137.94	138.92	138.74	138.93	0.002049	1.00	34.19	126.48	0.45
CochranePB	M002	7695.32	100Year-Existing	15.30	137.67	138.62	138.62	138.77	0.010455	2.17	12.12	41.36	1.01
CochranePB	M002	7609.21	100Year-Existing	15.30	136.29	137.73	137.41	137.75	0.000763	0.94	31.81	71.45	0.31
CochranePB	M002	7515.77	100Year-Existing	15.30	136.28	137.60		137.65	0.002042	1.42	24.56	91.22	0.49
CochranePB	M002	7476.72	100Year-Existing	15.30	136.26	137.59		137.60	0.000531	0.73	38.93	90.60	0.25
CochranePB	M002	7450.86	100Year-Existing	15.30	136.25	137.55		137.58	0.001137	1.01	28.46	82.99	0.36
CochranePB	M002	7329.89	100Year-Existing	15.30	136.23	137.23	137.22	137.32	0.005820	1.79	16.26	72.69	0.77
CochranePB	M002	7253.62	100Year-Existing	15.30	136.05	137.08		137.10	0.002032	1.15	26.15	91.98	0.46
CochranePB	M002	7208.54	100Year-Existing	15.30	135.88	136.97		137.01	0.002508	1.32	24.98	94.91	0.52
CochranePB	M002	7108.13	100Year-Existing	15.30	135.54	136.47	136.46	136.59	0.011545	2.52	14.02	62.26	1.05
CochranePB	M002	7041.67	100Year-Existing	15.30	134.91	136.06	136.06	136.18	0.004914	1.79	15.85	74.72	0.72
CochranePB	M002	6985.71	100Year-Existing	15.30	134.29	135.63	135.69	135.85	0.006521	2.61	12.48	43.01	0.87
CochranePB	M002	6955.25	100Year-Existing	15.30	133.48	134.66	134.90	135.43	0.028332	4.00	4.46	11.21	1.67
CochranePB	M002	6863.52	100Year-Existing	15.30	131.82	132.81	132.89	133.09	0.019903	3.23	9.75	36.82	1.38
CochranePB	M002	6840.09	100Year-Existing	15.30	131.19	132.12	132.23	132.51	0.030974	3.49	8.01	36.24	1.69
CochranePB	M002	6808.25	100Year-Existing	15.30	130.51	131.43	131.48	131.64	0.021681	2.88	10.23	41.49	1.39
CochranePB	M002	6767.75	100Year-Existing	15.30	129.31	130.28	130.40	130.65	0.025744	3.31	8.37	41.70	1.56
CochranePB	M002	6727.78	100Year-Existing	15.30	128.36	129.45	129.54	129.77	0.018670	3.14	8.67	33.08	1.33
CochranePB	M002	6691.71	100Year-Existing	15.30	127.96	129.03	129.00	129.11	0.006313	1.88	16.86	70.31	0.79
CochranePB	M002	6651.54	100Year-Existing	15.30	127.68	128.63	128.63	128.79	0.010872	1.93	10.20	36.87	1.00
CochranePB	M002	6630.83	100Year-Existing	15.30	127.19	128.39	128.44	128.60	0.007839	2.33	11.25	49.06	0.92
CochranePB	M002	6534.50	100Year-Existing	15.30	126.30	127.24	127.34	127.50	0.018350	2.74	9.63	47.43	1.32
CochranePB	M002	6507.97	100Year-Existing	15.30	125.65	126.55	126.64	126.84	0.031144	3.20	9.39	54.53	1.63
CochranePB	M002	6480.50	100Year-Existing	15.30	124.97	125.87	125.96	126.11	0.025365	3.04	9.57	51.12	1.50
CochranePB	M002	6433.33	100Year-Existing	15.30	124.09	125.04	125.08	125.27	0.016660	2.44	8.87	35.92	1.24
CochranePB	M002	6400.96	100Year-Existing	15.30	123.40	124.54	124.43	124.62	0.004526	1.63	15.82	44.62	0.67
CochranePB	M002	6364.18	100Year-Existing	15.30	123.28	124.56		124.57	0.000230	0.45	47.30	109.30	0.16
CochranePB	M002	6314.31	100Year-Existing	15.30	123.27	124.50		124.54	0.001676	1.14	21.28	55.94	0.43
CochranePB	M002	6286.25	100Year-Existing	15.30	123.26	124.42		124.49	0.002447	1.31	18.86	58.88	0.52
CochranePB	M002	6202.53	100Year-Existing	15.30	122.81	123.98	123.98	124.17	0.007600	2.30	10.50	30.91	0.90
CochranePB	M002	6130.00	100Year-Existing	15.30	122.30	123.32	123.36	123.54	0.011025	2.12	8.40	32.40	1.03
CochranePB	M002	6040.82	100Year-Existing	15.30	121.41	122.57	122.49	122.64	0.002842	1.46	20.97	74.29	0.56
CochranePB	M002	6006.95	100Year-Existing	15.30	121.40	122.56		122.58	0.000778	0.65	31.83	99.14	0.28
CochranePB	M002	5976.09	100Year-Existing	15.30	121.39	122.41	122.41	122.51	0.009025	1.91	15.23	72.06	0.92
CochranePB	M002	5910.40	100Year-Existing	15.30	120.29	121.44	121.58	121.78	0.016545	3.16	8.93	37.27	1.29
CochranePB	M002	5863.68	100Year-Existing	15.30	119.62	120.53	120.66	120.91	0.028974	3.07	7.15	34.52	1.61
CochranePB	M002	5811.63	100Year-Existing	15.30	118.87	119.95	119.98	120.13	0.010568	2.47	12.34	51.41	1.03
CochranePB	M002	5768.42	100Year-Existing	15.30	117.38	118.32	118.55	119.18	0.065403	4.14	3.89	16.63	2.36
CochranePB	M002	5725.36	100Year-Existing	15.30	116.48	117.56	117.65	117.85	0.014734	2.74	8.70	36.10	1.21
CochranePB	M002	5678.58	100Year-Existing	15.30	115.39	116.44	116.62	116.92	0.024034	3.13	5.63	22.09	1.51
CochranePB	M002	5627.04	100Year-Existing	15.30	114.79	116.19	115.86	116.24	0.001674	1.29	21.16	45.99	0.44
CochranePB	M002	5609.94	100Year-Existing	23.00	114.77	115.92	115.92	116.12	0.008658	2.35	14.85	40.92	0.96
CochranePB	M002	5601.00	100Year-Existing	23.00	114.76	115.95	115.67	115.97	0.001215	0.94	47.51	110.21	0.36
CochranePB	M002	5568.52	100Year-Existing	23.00	114.75	115.92		115.94	0.000883	0.79	48.27	98.68	0.31

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	5508.20	100Year-Existing	23.00	114.04	115.53	115.46	115.80	0.005308	2.39	11.60	19.90	0.80
CochranePB	M002	5473.67	100Year-Existing	23.00	113.90	115.33	115.33	115.59	0.007042	2.64	13.93	27.97	0.91
CochranePB	M002	5403.83	100Year-Existing	23.00	110.69	111.83	112.39	114.18	0.086914	6.87	3.65	8.83	2.93
CochranePB	M002	5352.19	100Year-Existing	23.00	110.27	111.56	111.66	112.03	0.015491	3.35	9.37	20.26	1.29
CochranePB	M002	5309.83	100Year-Existing	23.00	109.64	111.05	111.16	111.44	0.011725	3.17	13.09	46.35	1.14
CochranePB	M002	5266.90	100Year-Existing	23.00	109.30	110.58	110.67	110.90	0.013319	3.17	16.58	76.30	1.20
CochranePB	M002	5213.45	100Year-Existing	23.00	108.81	110.40	109.91	110.43	0.000681	0.89	47.30	83.09	0.29
CochranePB	M002	5162.38	100Year-Existing	43.60	108.18	110.05	110.05	110.31	0.005766	3.20	31.64	60.91	0.87
CochranePB	M002	5109.83	100Year-Existing	43.60	108.02	109.47	109.20	109.52	0.003067	1.64	50.52	101.56	0.58
CochranePB	M002	5059.83	100Year-Existing	43.60	107.54	109.16	109.16	109.34	0.005624	2.64	36.44	86.28	0.83
CochranePB	M002	5013.20	100Year-Existing	43.60	107.21	108.82	108.89	109.07	0.009226	2.99	32.12	97.51	1.02
CochranePB	M002	4977.38	100Year-Existing	43.60	107.07	108.71	108.46	108.76	0.001544	1.41	68.81	147.00	0.44
CochranePB	M002	4908.49	100Year-Existing	43.60	106.95	108.70		108.71	0.000431	0.83	117.78	198.43	0.24
CochranePB	M002	4883.44	100Year-Existing	43.60	106.94	108.69		108.70	0.000248	0.62	138.87	212.74	0.18
CochranePB	M002	4816.97	100Year-Existing	43.60	106.93	108.68		108.69	0.000229	0.60	143.87	223.67	0.17
CochranePB	M002	4757.22	100Year-Existing	43.60	106.78	108.67		108.68	0.000159	0.54	167.87	259.05	0.15
CochranePB	M002	4718.65	100Year-Existing	43.60	106.77	108.67		108.67	0.000223	0.65	155.11	323.97	0.18
CochranePB	M002	4674.22	100Year-Existing	43.60	106.76	108.64		108.66	0.000545	1.02	107.79	265.97	0.28
CochranePB	M002	4633.22	100Year-Existing	43.60	106.75	108.63		108.65	0.000271	0.70	97.81	180.31	0.20
CochranePB	M002	4561.03	100Year-Existing	43.60	106.74	108.56		108.61	0.000886	1.23	59.63	99.61	0.35
CochranePB	M002	4506.74	100Year-Existing	43.60	106.43	108.27	108.27	108.50	0.004701	2.68	30.16	58.67	0.78
CochranePB	M002	4459.83	100Year-Existing	43.60	105.66	107.26	107.54	108.07	0.016646	4.32	15.47	44.30	1.42
CochranePB	M002	4409.53	100Year-Existing	43.60	104.62	106.22	106.55	107.14	0.020367	4.65	13.39	29.18	1.54
CochranePB	M002	4359.83	100Year-Existing	43.60	103.72	105.38	105.74	106.22	0.015994	4.31	13.34	27.98	1.37
CochranePB	M002	4327.93	100Year-Existing	43.60	103.17	104.95	105.14	105.73	0.013708	4.13	13.93	28.42	1.30
CochranePB	M002	4265.56	100Year-Existing	43.60	102.45	104.19	104.39	104.85	0.013470	4.20	15.90	26.01	1.28
CochranePB	M002	4208.11	100Year-Existing	43.60	101.67	103.31	103.55	104.04	0.014158	4.04	14.61	30.82	1.31
CochranePB	M002	4159.83	100Year-Existing	43.60	101.12	102.15	102.33	102.72	0.066760	4.43	14.41	47.55	2.41
CochranePB	M002	4109.83	100Year-Existing	43.60	98.84	100.48	100.75	101.30	0.015449	4.44	15.33	37.45	1.38
CochranePB	M002	4056.00	100Year-Existing	43.60	97.18	98.78	99.26	100.14	0.027896	5.56	10.15	16.51	1.80
CochranePB	M002	4009.83	100Year-Existing	43.60	96.33	98.13	98.34	98.87	0.019525	5.04	20.00	61.10	1.49
CochranePB	M002	3969.03	100Year-Existing	43.60	95.62	97.39	97.72	98.25	0.012456	4.41	13.56	39.69	1.27
CochranePB	M002	3916.58	100Year-Existing	43.60	94.82	96.87	97.13	97.58	0.011217	4.18	17.75	63.17	1.15
CochranePB	M002	3859.82	100Year-Existing	43.60	94.34	96.12	96.49	96.92	0.011914	3.99	11.74	21.46	1.21
CochranePB	M002	3810.05	100Year-Existing	43.60	93.50	95.33	95.79	96.27	0.013672	4.53	11.99	27.09	1.32
CochranePB	M002	3759.83	100Year-Existing	43.60	93.00	94.61	94.87	95.45	0.016676	4.58	16.32	53.52	1.43
CochranePB	M002	3709.28	100Year-Existing	43.60	92.33	94.04	94.23	94.64	0.013188	4.07	19.09	53.57	1.27
CochranePB	M002	3661.60	100Year-Existing	43.60	92.05	93.77	93.86	94.10	0.007775	3.26	31.32	128.59	0.98
CochranePB	M002	3609.83	100Year-Existing	43.60	91.73	93.37	93.49	93.66	0.008796	3.24	28.35	114.62	1.03
CochranePB	M002	3559.90	100Year-Existing	43.60	90.87	92.84	92.96	93.23	0.006813	3.43	27.62	81.02	0.94
CochranePB	M002	3509.83	100Year-Existing	43.60	90.38	92.46	92.39	92.60	0.002899	2.46	44.48	105.13	0.63
CochranePB	M002	3493.23	100Year-Existing	43.60	90.02	92.03	91.95	92.53	0.005256	3.83	17.93	15.30	0.88
CochranePB	M002	3480		Bridge									
CochranePB	M002	3474.26	100Year-Existing	43.60	89.91	92.12	91.55	92.36	0.001833	2.50	24.31	16.49	0.55
CochranePB	M002	3466.43	100Year-Existing	43.60	90.00	92.06	92.06	92.33	0.002316	2.72	35.84	79.70	0.61
CochranePB	M002	3454.35	100Year-Existing	43.60	89.94	91.90	91.51	92.22	0.002799	2.80	20.12	16.69	0.66
CochranePB	M002	3450		Bridge									
CochranePB	M002	3434.16	100Year-Existing	47.70	90.36	91.65	91.65	92.14	0.007068	3.34	17.06	20.04	0.98
CochranePB	M002	3413.11	100Year-Existing	47.70	90.14	91.58	91.63	91.82	0.007535	3.17	35.18	90.83	0.97
CochranePB	M002	3391.58	100Year-Existing	47.70	90.03	91.47	91.24	91.62	0.005338	2.77	42.32	99.06	0.83
CochranePB	M002	3371.12	100Year-Existing	47.70	90.02	91.33	91.33	91.51	0.005121	2.56	39.67	96.13	0.81
CochranePB	M002	3309.87	100Year-Existing	47.70	89.28	90.54	90.65	90.93	0.022623	4.74	26.14	95.27	1.58
CochranePB	M002	3272.96	100Year-Existing	47.70	88.73	90.24	90.27	90.47	0.007829	3.06	31.78	78.86	0.96
CochranePB	M002	3219.09	100Year-Existing	47.70	88.30	89.73	89.79	89.99	0.010446	3.34	31.47	106.58	1.11
CochranePB	M002	3175.54	100Year-Existing	47.70	87.36	89.57	89.32	89.69	0.001474	1.89	45.82	75.13	0.45
CochranePB	M002	3165		Bridge									
CochranePB	M002	3157.85	100Year-Existing	47.70	87.50	89.24	89.29	89.52	0.004149	2.79	32.05	80.75	0.74
CochranePB	M002	3135.32	100Year-Existing	47.70	87.85	89.09	89.06	89.18	0.005025	2.15	49.99	153.35	0.76
CochranePB	M002	3106.53	100Year-Existing	47.70	87.94	88.81	88.81	88.96	0.019514	2.83	31.85	119.30	1.33
CochranePB	M002	3088.94	100Year-Existing	47.70	86.84	88.58	88.46	88.70	0.001667	1.80	49.36	141.52	0.48
CochranePB	M002	3080		Bridge									
CochranePB	M002	3075.67	100Year-Existing	47.70	86.74	88.32	88.12	88.41	0.001549	1.63	53.12	125.32	0.46
CochranePB	M002	3056.89	100Year-Existing	47.70	87.66	88.21	88.19	88.34	0.016104	1.19	30.72	104.38	1.00
CochranePB	M002	3007.54	100Year-Existing	47.70	87.61	87.93		87.98	0.003913	0.48	48.62	101.01	0.39
CochranePB	M002	2976.31	100Year-Existing	47.70	87.51	87.84		87.88	0.003659	0.56	50.76	112.98	0.44
CochranePB	M002	2941.08	100Year-Existing	47.70	86.98	87.76		87.78	0.002263	0.90	75.69	219.07	0.44
CochranePB	M002	2920.10	100Year-Existing	47.70	86.74	87.75	87.54	87.76	0.000231	0.37	167.71	295.30	0.14
CochranePB	M002	2915		Bridge									
CochranePB	M002	2912.75	100Year-Existing	47.70	86.97	87.75	87.75	87.76	0.000139	0.31	200.70	313.30	0.12
CochranePB	M002	2890.23	100Year-Existing	47.70	86.65	86.86	87.02	87.54	0.230669	3.45	13.00	79.57	3.42
CochranePB	M002	2823.99	100Year-Existing	47.70	86.08	87.06	86.78	87.08	0.001462	0.83	93.01	246.04	0.34
CochranePB	M002	2789.49	100Year-Existing	47.70	86.04	87.04		87.05	0.001208	0.71	96.27	251.55	0.32
CochranePB	M002	2741.30	100Year-Existing	47.70	85.71	86.98		87.00	0.000950	0.91	103.07	266.11	0.33
CochranePB	M002	2663.79	100Year-Existing	47.70	85.58	86.94		86.95	0.000997	1.01	100.86	254.15	0.34
CochranePB	M002	2639.38	100Year-Existing	47.70	85.57	86.91		86.92	0.001253	1.07	92.68	235.62	0.38
CochranePB	M002	2616.24	100Year-Existing	47.70	85.30	86.89		86.91	0.000707	0.95	110.17	230.74	0.30
CochranePB	M002	2539.69	100Year-Existing	47.70	85.41	86.85		86.87	0.001228	1.10	90.36	221.83	0.38
CochranePB	M002	2489.06	100Year-Existing	47.70	85.18	86.80		86.83	0.001278	1.31	85.13	200.24	0.40
CochranePB	M002	2438.28	100Year-Existing	47.70	84.87	86.74		86.78	0.001287	1.41	79.98	174.54	0.41
CochranePB	M002	2384.01	100Year-Existing	47.70	84.65	86.65		86.71	0.001803	1.80	67.69	142.34	0.48
CochranePB	M002	2310.47	100Year-Existing	47.70	84.33	86.39		86.53	0.003584	2.45	48.81	118.89	0.66
CochranePB	M002	2284.63	100Year-Existing	47.70	84.16	86.36		86.43	0.002295	2.02	57.42	105.42	0.51
CochranePB	M002	2240.58	100Year-Existing	47.70	84.04	85.98	85.98	86.26	0.006090	3.20	28.96	46.70	0.88
CochranePB	M002	2170.94	100Year-Existing	47.70	82.26	83.95	84.32	85.39	0.026175	5.72	10.88	16.81	1.78
CochranePB	M002	2136.89	100Year-Existing	47.70	81.72	83.30	83.59	84.42	0.024955	4.95	11.80	20.35	1.70
CochranePB	M002	2100.01	100Year-Existing	47.70	81.30	83.10	83.25	83.64	0.011782	3.87	20.19	39.13	1.19
CochranePB	M002	2046.85	100Year-Existing	47.70	80.89	82.64	82.74	83.10	0.008384	3.27	20.60	39.36	1.02
CochranePB	M002	2014.35	100Year-Existing	47.70	80.47	81.92	82.14	82.66	0.022188	4.14	15.93	40.57	1.56
CochranePB	M002	1990.76	100Year-Existing	47.70	80.10	81.88	81.94	82.25	0.008698	3.33	24.48	44.25	1.03
CochranePB	M002	1945.20	100Year-Existing	47.70	79.43	81.53	81.23	81.67	0.002808	2.24	38.74	51.46	0.61

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	1916.67	100Year-Existing	47.70	79.31	81.34		81.56	0.004475	2.76	32.12	43.11	0.76
CochranePB	M002	1871.48	100Year-Existing	47.70	79.28	81.24		81.37	0.003120	2.15	37.77	49.01	0.63
CochranePB	M002	1836.03	100Year-Existing	47.70	78.83	81.22		81.29	0.001141	1.61	52.33	72.74	0.40
CochranePB	M002	1788.63	100Year-Existing	47.70	78.46	80.84	80.84	81.17	0.004938	3.34	28.45	39.53	0.81
CochranePB	M002	1768.08	100Year-Existing	47.70	78.14	80.08	80.33	80.94	0.014875	4.86	16.01	26.49	1.36
CochranePB	M002	1733.19	100Year-Existing	47.70	77.95	79.85	80.03	80.43	0.009909	3.82	20.85	47.66	1.12
CochranePB	M002	1694.89	100Year-Existing	47.70	77.12	79.29	78.92	79.42	0.002012	1.99	37.79	42.67	0.52
CochranePB	M002	1685.79	100Year-Existing	47.70	77.06	79.23		79.40	0.002783	2.35	32.80	39.41	0.61
CochranePB	M002	1640.51	100Year-Existing	47.70	76.45	78.81	78.81	79.22	0.004724	3.31	23.29	30.38	0.81
CochranePB	M002	1602.99	100Year-Existing	47.70	75.01	76.49	77.05	78.62	0.052427	6.76	8.48	16.10	2.42
CochranePB	M002	1585.52	100Year-Existing	47.70	74.01	75.28	75.78	77.45	0.087475	7.04	8.56	20.30	2.98
CochranePB	M002	1569.47	100Year-Existing	47.70	73.71	74.93	75.23	76.04	0.052510	4.84	10.84	26.89	2.25
CochranePB	M002	1541.97	100Year-Existing	47.70	72.31	74.03	74.38	75.14	0.022178	5.05	12.11	18.39	1.62
CochranePB	M002	1510.83	100Year-Existing	47.70	71.34	72.52	72.89	73.96	0.072363	5.33	9.15	23.54	2.62
CochranePB	M002	1495.27	100Year-Existing	47.70	71.19	72.96	72.78	73.15	0.003848	2.11	29.71	41.50	0.69
CochranePB	M002	1458.62	100Year-Existing	47.70	70.58	72.67	72.67	72.95	0.005483	3.41	32.50	51.14	0.85
CochranePB	M002	1419.61	100Year-Existing	47.70	70.21	71.96	72.19	72.60	0.012631	4.30	19.03	33.71	1.26
CochranePB	M002	1384.56	100Year-Existing	47.70	69.61	71.80	71.97	72.29	0.005298	3.32	21.49	48.89	0.86
CochranePB	M002	1351.51	100Year-Existing	47.70	69.54	71.61	71.78	72.10	0.006766	3.67	25.86	73.20	0.96
CochranePB	M002	1311.78	100Year-Existing	47.70	69.49	71.34	71.47	71.77	0.008120	3.68	29.63	105.10	1.03
CochranePB	M002	1291.19	100Year-Existing	47.70	69.28	70.97	71.17	71.55	0.012833	4.20	24.16	89.26	1.25
CochranePB	M002	1217.75	100Year-Existing	47.70	68.70	70.94	70.43	70.98	0.000505	1.14	81.16	158.28	0.28
CochranePB	M002	1200.39	100Year-Existing	47.70	68.69	70.56	70.28	70.93	0.003715	2.73	18.12	18.73	0.72
CochranePB	M002	1190		Bridge									
CochranePB	M002	1185.68	100Year-Existing	48.90	68.46	70.48	69.99	70.77	0.002247	2.40	20.94	25.06	0.58
CochranePB	M002	1164.32	100Year-Existing	48.90	68.65	70.43	70.43	70.70	0.004177	2.93	33.15	83.23	0.77
CochranePB	M002	1132.60	100Year-Existing	48.90	68.60	69.81	69.99	70.39	0.023236	4.28	21.80	100.29	1.61
CochranePB	M002	1111.68	100Year-Existing	48.90	68.55	69.82	69.65	69.90	0.003545	1.99	55.42	153.35	0.66
CochranePB	M002	1059.95	100Year-Existing	48.90	68.38	69.72		69.79	0.002455	1.96	62.97	157.89	0.58
CochranePB	M002	998.99	100Year-Existing	48.90	68.13	69.70		69.71	0.000527	1.00	115.51	192.93	0.27
CochranePB	M002	955.54	100Year-Existing	48.90	68.12	69.70		69.70	0.000067	0.35	244.60	259.71	0.10
CochranePB	M002	851.16	100Year-Existing	48.90	67.62	69.69		69.70	0.000039	0.32	282.47	253.00	0.08
CochranePB	M002	798.06	100Year-Existing	48.90	67.47	69.69		69.70	0.000022	0.25	358.26	291.36	0.06
CochranePB	M002	746.77	100Year-Existing	48.90	67.30	69.69		69.69	0.000010	0.18	469.13	325.87	0.04
CochranePB	M002	694.52	100Year-Existing	48.90	66.98	69.69		69.69	0.000006	0.16	564.20	370.22	0.03
CochranePB	M002	669.16	100Year-Existing	48.90	66.97	69.69		69.69	0.000005	0.14	626.68	408.00	0.03
CochranePB	M002	590.19	100Year-Existing	48.90	66.84	69.69		69.69	0.000004	0.12	747.59	489.38	0.03
CochranePB	M002	539.85	100Year-Existing	48.90	66.81	69.69		69.69	0.000004	0.12	765.69	518.38	0.03
CochranePB	M002	488.40	100Year-Existing	48.90	66.54	69.69		69.69	0.000003	0.11	809.08	532.72	0.02
CochranePB	M001	381.27	100Year-Existing	97.20	66.35	69.69		69.69	0.000021	0.22	937.25	619.11	0.04
CochranePB	M001	313.14	100Year-Existing	97.20	66.28	69.69		69.69	0.000015	0.17	1097.80	686.45	0.03

Petty Harbour River 100yr Q+10%

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	TR001	439.21	100Year-Existing	40.59	105.11	106.60	106.33	106.69	0.004243	1.89	46.05	69.14	0.52
RaymondB	TR001	409.42	100Year-Existing	40.59	104.68	106.29	106.06	106.50	0.008143	2.77	32.08	57.43	0.73
RaymondB	TR001	380.07	100Year-Existing	40.59	104.05	106.37		106.40	0.000696	1.05	79.80	79.11	0.23
RaymondB	TR001	360.64	100Year-Existing	40.59	103.60	106.37	105.24	106.38	0.000356	0.83	112.35	102.93	0.16
RaymondB	TR001	350		Bridge									
RaymondB	TR001	344.45	100Year-Existing	40.59	103.30	104.63	105.05	105.99	0.055473	6.18	12.00	38.33	1.79
RaymondB	TR001	334.13	100Year-Existing	40.59	103.40	104.40	104.68	105.34	0.046203	4.65	13.88	55.61	1.58
RaymondB	TR001	272.22	100Year-Existing	40.59	102.83	104.01	104.01	104.27	0.015553	3.06	25.33	46.11	0.95
RaymondB	TR001	218.50	100Year-Existing	40.59	101.42	102.84	102.88	103.36	0.017260	3.65	18.18	29.27	1.03
RaymondB	TR001	163.97	100Year-Existing	40.59	100.32	102.02	101.53	102.17	0.003526	1.87	29.52	33.61	0.48
RaymondB	TR001	115.54	100Year-Existing	40.59	100.00	101.32	101.32	101.81	0.018847	3.76	18.48	30.12	1.08
RaymondB	TR001	56.65	100Year-Existing	40.59	97.73	98.58	98.96	99.84	0.079384	5.40	9.52	17.11	2.02
RaymondB	M002	6453.60	100Year-Existing	21.67	118.10	125.28	118.95	125.28	0.000000	0.04	677.37	234.81	0.01
RaymondB	M002	6405.52	100Year-Existing	21.67	118.00	125.28		125.28	0.000000	0.04	687.36	229.58	0.01
RaymondB	M002	6347.04	100Year-Existing	21.67	124.73	125.21		125.27	0.006018	1.13	19.45	41.56	0.52
RaymondB	M002	6247.26	100Year-Existing	21.67	117.21	118.33		118.39	0.003937	1.48	25.34	35.39	0.48
RaymondB	M002	6230.10	100Year-Existing	21.67	117.20	118.31		118.35	0.001802	0.98	31.42	43.19	0.32
RaymondB	M002	6205.35	100Year-Existing	21.67	117.28	118.28		118.30	0.001619	0.87	43.57	62.13	0.30
RaymondB	M002	6143.06	100Year-Existing	21.67	117.18	118.16		118.18	0.002264	1.00	39.25	64.79	0.35
RaymondB	M002	6105.93	100Year-Existing	21.67	117.17	118.03		118.07	0.002969	1.05	30.81	63.26	0.39
RaymondB	M002	6026.35	100Year-Existing	21.67	116.81	117.84		117.87	0.002154	1.02	34.08	48.64	0.34
RaymondB	M002	5933.71	100Year-Existing	21.67	116.42	117.57		117.64	0.002995	1.32	29.62	65.78	0.42
RaymondB	M002	5883.92	100Year-Existing	21.67	116.12	117.34		117.45	0.004492	1.65	18.92	36.82	0.51
RaymondB	M002	5785.15	100Year-Existing	21.67	115.75	116.89		116.99	0.004929	1.61	19.82	32.09	0.52
RaymondB	M002	5732.44	100Year-Existing	21.67	115.46	116.50		116.66	0.007425	1.85	14.65	26.09	0.64
RaymondB	M002	5631.37	100Year-Existing	21.67	114.85	115.81		115.90	0.007453	1.66	21.94	46.06	0.62
RaymondB	M002	5500.15	100Year-Existing	21.67	114.62	115.74		115.74	0.000617	0.56	76.16	137.26	0.19
RaymondB	M002	5485.46	100Year-Existing	21.67	114.53	115.73		115.73	0.000361	0.47	95.50	169.12	0.15
RaymondB	M002	5411.19	100Year-Existing	21.67	114.48	115.67	115.23	115.69	0.001168	0.81	41.40	70.00	0.26
RaymondB	M002	5338.54	100Year-Existing	21.67	114.41	115.66	114.80	115.66	0.000106	0.26	98.51	111.52	0.08
RaymondB	M002	5278.93	100Year-Existing	21.67	114.44	115.65	114.85	115.66	0.000147	0.30	88.94	112.58	0.09
RaymondB	M002	5226.60	100Year-Existing	21.67	114.42	115.65		115.65	0.000162	0.31	96.42	130.52	0.10
RaymondB	M002	5171.66	100Year-Existing	21.67	114.42	115.64		115.64	0.000152	0.31	115.96	182.05	0.09
RaymondB	M002	5111.50	100Year-Existing	21.67	114.42	115.61		115.63	0.000552	0.59	67.65	142.93	0.18
RaymondB	M002	5077.48	100Year-Existing	21.67	114.38	115.59		115.61	0.000523	0.57	55.74	98.16	0.18
RaymondB	M002	5017.13	100Year-Existing	21.67	114.40	115.47		115.54	0.002852	1.19	20.43	29.41	0.40
RaymondB	M002	4967.43	100Year-Existing	21.67	114.07	115.18		115.33	0.005950	1.76	13.73	19.05	0.58
RaymondB	M002	4943.43	100Year-Existing	21.67	113.82	115.07		115.20	0.005082	1.77	17.31	26.58	0.55
RaymondB	M002	4910.95	100Year-Existing	21.67	113.67	114.92		115.03	0.004731	1.72	18.93	30.20	0.53
RaymondB	M002	4851.17	100Year-Existing	21.67	113.47	114.62		114.73	0.005446	1.74	18.53	30.97	0.56
RaymondB	M002	4783.73	100Year-Existing	21.67	113.30	114.30		114.38	0.004948	1.38	20.02	36.79	0.51
RaymondB	M002	4732.68	100Year-Existing	21.67	113.07	114.05		114.11	0.005189	1.41	23.71	43.82	0.52
RaymondB	M002	4681.76	100Year-Existing	21.67	112.35	113.39	113.39	113.68	0.013923	2.61	11.56	33.16	0.88
RaymondB	M002	4673.96	100Year-Existing	21.67	111.74	112.70	112.96	113.45	0.043061	4.13	6.74	21.22	1.50
RaymondB	M002	4644.78	100Year-Existing	21.67	110.49	111.47	111.70	112.25	0.039165	4.10	6.24	23.10	1.45
RaymondB	M002	4625.72	100Year-Existing	21.67	106.75	107.37	107.97	110.37	0.342066	7.68	2.85	7.24	3.80
RaymondB	M002	4615.42	100Year-Existing	21.67	105.83	106.60	106.99	108.01	0.113395	5.42	4.55	10.10	2.31
RaymondB	M002	4607.06	100Year-Existing	21.67	105.79	107.04	107.00	107.46	0.014193	2.99	8.63	9.79	0.91
RaymondB	M002	4597.34	100Year-Existing	21.67	105.76	107.03	106.92	107.29	0.010451	2.47	12.02	17.09	0.77
RaymondB	M002	4575.18	100Year-Existing	21.67	105.98	106.62	106.62	106.89	0.040338	2.75	10.14	20.33	1.31
RaymondB	M002	4545.57	100Year-Existing	21.67	104.65	105.86	105.92	106.20	0.014898	2.89	11.88	28.51	0.92
RaymondB	M002	4522.17	100Year-Existing	21.67	103.67	104.47	104.78	105.48	0.068912	4.76	6.08	15.45	1.85
RaymondB	M002	4511.42	100Year-Existing	21.67	103.62	104.96	104.62	105.06	0.004844	1.78	19.72	28.65	0.54
RaymondB	M002	4489.94	100Year-Existing	21.67	103.59	104.59	104.59	104.87	0.015807	2.69	11.81	22.08	0.93
RaymondB	M002	4466.63	100Year-Existing	21.67	103.03	104.35	104.01	104.47	0.004377	1.70	19.28	34.43	0.51
RaymondB	M002	4439.46	100Year-Existing	21.67	103.00	104.07	104.07	104.27	0.011951	2.44	16.45	40.57	0.81
RaymondB	M002	4415.77	100Year-Existing	21.67	102.78	103.56	103.65	103.87	0.024536	2.72	12.18	40.18	1.10
RaymondB	M002	4385.89	100Year-Existing	21.67	101.80	102.80	102.91	103.18	0.020306	3.04	10.90	28.84	1.05
RaymondB	M002	4354.01	100Year-Existing	21.67	101.27	102.16	102.22	102.42	0.024863	3.16	14.67	40.64	1.14
RaymondB	M002	4341.66	100Year-Existing	21.67	100.84	101.95	101.95	102.19	0.013806	2.63	15.35	38.03	0.88
RaymondB	M002	4332.73	100Year-Existing	21.67	100.32	101.23	101.39	101.94	0.041558	4.04	7.28	15.62	1.48
RaymondB	M002	4308.73	100Year-Existing	21.67	98.87	99.63	99.92	100.58	0.077397	4.75	6.09	13.79	1.93
RaymondB	M002	4294.65	100Year-Existing	21.67	98.45	99.45	99.52	99.89	0.023184	3.26	9.15	15.20	1.12
RaymondB	M002	4263.86	100Year-Existing	21.67	97.59	99.28	98.59	99.36	0.001901	1.38	23.32	25.62	0.36
RaymondB	M002	4235.25	100Year-Existing	21.67	97.47	99.28		99.32	0.000836	0.96	31.75	29.33	0.24
RaymondB	M001	4130.35	100Year-Existing	60.94	96.57	98.11	98.11	98.75	0.019656	3.63	19.03	25.30	1.08
RaymondB	M001	4076.94	100Year-Existing	60.94	96.04	98.01	97.65	98.20	0.004642	2.17	37.86	38.84	0.55
RaymondB	M001	4023.53	100Year-Existing	60.94	95.94	97.15	97.15	97.69	0.024064	3.34	20.38	29.81	1.15
RaymondB	M001	3978.20	100Year-Existing	60.94	94.64	96.93	96.33	97.04	0.002549	1.54	51.43	62.44	0.40
RaymondB	M001	3916.71	100Year-Existing	82.83	94.64	96.65		96.83	0.004569	2.29	62.64	70.39	0.56
RaymondB	M001	3863.30	100Year-Existing	82.83	94.41	96.48		96.60	0.003273	2.01	76.97	85.15	0.48
RaymondB	M001	3809.58	100Year-Existing	82.83	94.09	96.00	95.89	96.33	0.008683	3.04	44.35	49.92	0.76
RaymondB	M001	3756.26	100Year-Existing	82.83	93.53	95.31	95.31	95.78	0.011900	3.40	36.34	43.66	0.88
RaymondB	M001	3694.37	100Year-Existing	82.83	92.66	94.78	94.40	94.96	0.003914	2.19	59.99	69.66	0.52
RaymondB	M001	3569.22	100Year-Existing	82.83	92.15	94.80		94.82	0.000330	0.76	213.64	187.81	0.16
RaymondB	M001	3527.64	100Year-Existing	82.83	91.85	94.79		94.80	0.000337	0.83	210.20	175.00	0.16
RaymondB	M001	3446.51	100Year-Existing	82.83	91.14	94.78		94.78	0.000134	0.58	286.45	186.99	0.10
RaymondB	M001	3421.64	100Year-Existing	82.83	91.23	94.77	93.29	94.78	0.000149	0.67	322.01	258.82	0.11
RaymondB	M001	3410		Bridge									
RaymondB	M001	3404.11	100Year-Existing	82.83	91.23	93.34	93.34	94.34	0.013747	4.47	18.87	115.36	1.00
RaymondB	M001	3380.48	100Year-Existing	82.83	90.96	93.23	92.56	93.36	0.002673	1.91	71.97	74.99	0.44
RaymondB	M001	3308.92	100Year-Existing	82.83	90.80	93.02		93.15	0.002984	2.05	77.14	86.50	0.46
RaymondB	M001	3216.73	100Year-Existing	82.83	89.31	92.63	91.32	92.90	0.002197	2.35	36.41	90.01	0.43
RaymondB	M001	3200		Bridge									
RaymondB	M001	3188.78	100Year-Existing	82.83	89.30	91.77	91.71	92.59	0.011479	4.33	22.69	52.09	0.91
RaymondB	M001	3015.18	100Year-Existing	82.83	89.18	91.08		91.23	0.003628	2.01	68.24	83.45	0.50
RaymondB	M001	2876.32	100Year-Existing	82.83	88.66	90.40	90.17	90.61	0.006697	2.44	55.56	100.57	0.66
RaymondB	M001	2789.37	100Year-Existing	82.83	88.24	90.15		90.22	0.002672	1.67	109.58	164.52	0.42
RaymondB	M001	2681.85	100Year-Existing	82.83	88.14	89.62		89.77	0.009173	2.49	69.33	139.84	0.74
RaymondB	M001	2604.32	100Year-Existing	82.83	87.97	89.47		89.50	0.001931	1.20	133.16	242.05	0.35

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	M001	2531.57	100Year-Existing	82.83	87.97	89.42		89.43	0.000730	0.69	212.77	294.41	0.21
RaymondB	M001	2385.34	100Year-Existing	82.83	87.43	89.35		89.37	0.001363	1.21	169.59	251.85	0.30
RaymondB	M001	2245.72	100Year-Existing	82.83	86.99	89.01		89.19	0.004381	2.24	72.35	138.62	0.55
RaymondB	M001	2194.47	100Year-Existing	82.83	86.68	88.99		89.04	0.001204	1.31	114.89	97.59	0.29
RaymondB	M001	2140.67	100Year-Existing	82.83	86.59	88.88		88.96	0.002003	1.66	88.21	73.03	0.38
RaymondB	M001	2087.60	100Year-Existing	82.83	86.38	88.68		88.83	0.002721	1.94	60.73	47.68	0.44
RaymondB	M001	2069.54	100Year-Existing	82.83	86.35	88.60		88.77	0.003326	2.13	63.78	92.27	0.49
RaymondB	M001	2040.77	100Year-Existing	82.83	86.25	88.53		88.67	0.002857	1.95	72.50	89.56	0.45
RaymondB	M001	1989.18	100Year-Existing	82.83	86.02	88.29	88.04	88.49	0.004253	2.38	64.84	85.28	0.55
RaymondB	M001	1950.22	100Year-Existing	82.83	85.79	87.78	87.78	88.22	0.010912	3.39	40.47	54.14	0.85
RaymondB	M001	1885.73	100Year-Existing	82.83	85.34	87.41	87.15	87.64	0.006215	2.61	51.87	56.26	0.64
RaymondB	M001	1835.84	100Year-Existing	82.83	84.64	86.63	86.63	87.16	0.014783	3.89	32.35	30.17	0.98
RaymondB	M001	1784.61	100Year-Existing	82.83	84.10	85.45	85.60	86.07	0.032584	4.14	29.36	40.64	1.35
RaymondB	M001	1733.38	100Year-Existing	82.83	82.79	85.09	84.44	85.22	0.002676	1.89	65.87	49.91	0.44
RaymondB	M001	1682.15	100Year-Existing	82.83	82.60	84.65		84.99	0.007069	2.77	39.84	42.03	0.69
RaymondB	M001	1630.92	100Year-Existing	82.83	82.12	84.18	84.11	84.58	0.008628	3.03	37.64	48.71	0.76
RaymondB	M001	1584.49	100Year-Existing	82.83	81.77	83.96		84.21	0.005695	2.57	49.56	58.93	0.62
RaymondB	M001	1536.01	100Year-Existing	82.83	81.31	83.53	83.35	83.88	0.007716	3.01	45.55	62.74	0.72
RaymondB	M001	1477.96	100Year-Existing	82.83	80.96	83.17		83.47	0.006298	2.72	47.70	56.61	0.65
RaymondB	M001	1425.99	100Year-Existing	82.83	80.58	83.01		83.20	0.003478	2.20	53.29	41.96	0.50
RaymondB	M001	1372.05	100Year-Existing	82.83	80.25	82.87		83.01	0.002877	2.09	65.09	66.50	0.46
RaymondB	M001	1323.54	100Year-Existing	82.83	79.11	82.66	81.46	82.86	0.001739	2.13	57.91	59.55	0.37
RaymondB	M001	1315		Bridge									
RaymondB	M001	1303.54	100Year-Existing	82.83	78.01	80.71	80.67	81.77	0.013165	4.57	18.13	20.91	0.97
RaymondB	M001	1252.39	100Year-Existing	86.35	78.45	80.53	80.53	81.04	0.013720	3.72	33.45	32.64	0.93
RaymondB	M001	1216.25	100Year-Existing	86.35	77.86	79.91	80.05	80.49	0.016129	4.12	34.58	43.45	1.03
RaymondB	M001	1189.75	100Year-Existing	86.35	77.61	79.23	79.41	79.93	0.028066	4.24	28.17	38.87	1.27
RaymondB	M001	1166.20	100Year-Existing	86.35	76.74	78.35	78.60	79.16	0.034849	4.89	30.35	54.67	1.44
RaymondB	M001	1148.70	100Year-Existing	86.35	76.50	78.23	78.30	78.64	0.017578	3.56	39.76	61.05	1.02
RaymondB	M001	1116.25	100Year-Existing	86.35	75.83	77.31	77.46	77.94	0.024881	3.70	28.13	39.84	1.19
RaymondB	M001	1066.09	100Year-Existing	86.35	75.16	77.04	76.84	77.30	0.006772	2.55	49.56	56.82	0.66
RaymondB	M001	1035.68	100Year-Existing	86.35	74.73	76.54	76.54	77.01	0.012450	3.35	35.38	41.83	0.89
RaymondB	M001	999.99	100Year-Existing	86.35	73.32	74.83	75.29	76.16	0.042530	5.39	19.21	23.27	1.59
RaymondB	M001	976.73	100Year-Existing	86.35	73.03	74.76	74.90	75.36	0.016271	3.81	33.56	49.48	1.02
RaymondB	M001	942.15	100Year-Existing	86.35	72.18	73.38	73.66	74.28	0.071506	5.84	24.82	41.80	1.97
RaymondB	M001	916.70	100Year-Existing	86.35	70.82	72.53	72.47	72.79	0.012310	3.26	51.41	73.42	0.88
RaymondB	M001	892.34	100Year-Existing	86.35	70.36	72.07	72.07	72.48	0.011679	3.25	41.87	61.02	0.87
RaymondB	M001	866.25	100Year-Existing	86.35	70.04	71.95	71.47	72.16	0.004508	2.20	55.05	67.40	0.55
RaymondB	M001	841.89	100Year-Existing	86.35	69.92	71.83		72.05	0.005250	2.42	62.31	96.47	0.60
RaymondB	M001	816.68	100Year-Existing	86.35	69.74	71.54	71.54	71.87	0.009037	3.05	50.35	80.71	0.77
RaymondB	M001	766.25	100Year-Existing	86.35	69.16	70.16	70.38	70.89	0.061045	4.80	26.10	46.62	1.78
RaymondB	M001	716.25	100Year-Existing	86.35	68.39	70.12	69.81	70.31	0.005315	2.27	58.89	70.27	0.59
RaymondB	M001	675.00	100Year-Existing	86.35	68.14	69.92		70.09	0.005063	2.25	60.35	62.47	0.58
RaymondB	M001	615.86	100Year-Existing	86.35	67.75	69.87		69.91	0.001273	1.31	134.37	165.77	0.30
RaymondB	M001	565.77	100Year-Existing	86.35	67.44	69.83		69.86	0.000729	1.07	182.20	242.66	0.23
RaymondB	M001	520.15	100Year-Existing	86.35	67.26	69.83		69.84	0.000278	0.69	289.97	325.98	0.14
RaymondB	M001	468.54	100Year-Existing	86.35	66.98	69.82		69.83	0.000123	0.50	414.70	409.74	0.10
RaymondB	M001	429.18	100Year-Existing	86.35	66.80	69.82		69.82	0.000044	0.31	612.84	516.05	0.06
RaymondB	M001	366.25	100Year-Existing	86.35	66.65	69.82		69.82	0.000017	0.20	935.52	646.22	0.04
RaymondB	M001	341.79	100Year-Existing	86.35	66.63	69.82		69.82	0.000013	0.17	1045.72	688.53	0.03
PettyHR	M002	6270.85	100Year-Existing	111.32	66.23	69.82		69.82	0.000001	0.06	2213.13	869.60	0.01
PettyHR	M002	6218.07	100Year-Existing	111.32	66.23	69.82		69.82	0.000001	0.06	2080.04	855.55	0.01
PettyHR	M002	6095.00	100Year-Existing	111.32	66.23	69.82		69.82	0.000001	0.06	2014.86	858.88	0.01
PettyHR	M002	6004.71	100Year-Existing	111.32	66.23	69.82		69.82	0.000001	0.06	2074.17	887.43	0.01
PettyHR	M001	5825.85	100Year-Existing	188.32	66.23	69.82		69.82	0.000003	0.09	2373.68	850.39	0.02
PettyHR	M001	5685.44	100Year-Existing	188.32	66.23	69.82		69.82	0.000003	0.09	2279.80	738.57	0.01
PettyHR	M001	5516.39	100Year-Existing	208.67	66.23	69.82		69.82	0.000004	0.11	1987.69	631.25	0.02
PettyHR	M001	5279.80	100Year-Existing	208.67	66.23	69.82		69.82	0.000009	0.16	1343.87	427.23	0.03
PettyHR	M001	4996.75	100Year-Existing	208.67	66.23	69.81		69.81	0.000043	0.35	636.60	211.60	0.06
PettyHR	M001	4923.81	100Year-Existing	208.67	66.23	69.73		69.80	0.000564	1.23	212.59	92.68	0.22
PettyHR	M001	4867.41	100Year-Existing	208.67	66.23	69.62		69.74	0.001413	1.93	183.55	102.67	0.35
PettyHR	M001	4817.61	100Year-Existing	208.67	66.58	69.55		69.66	0.001774	2.06	176.52	95.11	0.38
PettyHR	M001	4757.18	100Year-Existing	208.67	66.43	68.74	68.74	69.39	0.012295	4.53	80.49	69.07	0.96
PettyHR	M001	4675.66	100Year-Existing	208.67	65.88	68.37	67.72	68.67	0.004842	3.01	100.85	52.56	0.61
PettyHR	M001	4612.84	100Year-Existing	208.67	64.88	67.40	67.01	68.17	0.011958	4.77	70.33	45.56	0.97
PettyHR	M001	4570.09	100Year-Existing	208.67	64.62	67.01	67.01	67.67	0.010253	4.17	76.34	56.95	0.88
PettyHR	M001	4500.69	100Year-Existing	208.67	64.62	66.55	66.24	66.87	0.006079	2.80	101.09	77.41	0.66
PettyHR	M001	4461.12	100Year-Existing	208.67	64.55	66.16	66.12	66.57	0.014049	3.76	93.59	92.17	0.97
PettyHR	M001	4428.20	100Year-Existing	208.67	64.41	66.00		66.22	0.009200	2.95	111.94	90.74	0.77
PettyHR	M001	4395.66	100Year-Existing	208.67	63.81	65.73		65.98	0.005786	2.73	114.52	82.52	0.64
PettyHR	M001	4357.04	100Year-Existing	208.67	63.34	65.61		65.78	0.003429	2.39	139.17	82.06	0.51
PettyHR	M001	4281.82	100Year-Existing	208.67	62.50	65.50		65.62	0.001105	1.62	155.01	59.90	0.30
PettyHR	M001	4166.17	100Year-Existing	208.67	61.82	65.53		65.55	0.000157	0.69	436.58	168.71	0.12
PettyHR	M001	3949.19	100Year-Existing	208.67	61.31	65.55		65.55	0.000000	0.04	5214.73	1318.15	0.01
PettyHR	M001	3936.78	100Year-Existing	208.67	61.31	65.55		65.55	0.000000	0.03	6419.12	1574.91	0.01
PettyHR	M001	3931.39	100Year-Existing	136.95	61.31	65.55		65.55	0.000000	0.02	8074.94	2016.79	0.00
PettyHR	M001	3925.44	100Year-Existing	136.95	61.31	65.55		65.55	0.000000	0.04	3999.44	1005.11	0.01
PettyHR	M001	3867.05	100Year-Existing	136.95	61.31	65.55		65.55	0.000000	0.03	4025.70	991.17	0.01
PettyHR	M001	3643.73	100Year-Existing	136.95	61.31	65.55		65.55	0.000000	0.03	4618.28	1115.01	0.00
PettyHR	M001	3440.60	100Year-Existing	136.95	61.31	65.55		65.55	0.000001	0.06	2348.13	586.33	0.01
PettyHR	M001	3182.65	100Year-Existing	136.95	61.31	65.54		65.54	0.000002	0.08	1755.95	427.40	0.01
PettyHR	M001	3080.13	100Year-Existing	136.95	61.31	65.54		65.54	0.000001	0.07	2077.94	524.30	0.01
PettyHR	M001	3028.13	100Year-Existing	136.95	61.31	65.54		65.54	0.000001	0.06	2270.50	562.58	0.01
PettyHR	M001	2983.09	100Year-Existing	136.95	61.31	65.54		65.54	0.000001	0.08	1848.42	453.13	0.01
PettyHR	M001	2828.46	100Year-Existing	136.95	61.31	65.54		65.54	0.000005	0.13	1090.75	280.98	0.02
PettyHR	M001	2712.72	100Year-Existing	136.95	61.31	65.54		65.54	0.000015	0.24	631.12	183.37	0.04
PettyHR	M001	2671.95	100Year-Existing	136.95	61.31	65.54		65.54	0.000023	0.30	573.28	177.05	0.05
PettyHR	M001	2653.10	100Year-Existing	136.95	61.31	65.54		65.54	0.000032	0.35	493.13	158.34	0.05
PettyHR	M001	2632.46	100Year-Existing	136.95	61.31	65.52		65.54	0.000128	0.70	303.48	126.18	0.11
PettyHR	M001	2596.08	100Year-Existing	136.95	61.31	65.51		65.53	0.000145	0.74	273.11	120.70	0.12

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	2583.24	100Year-Existing	136.95	60.10	65.42	63.21	65.52	0.000703	1.71	170.80	121.76	0.25
PettyHR	M001	2580		Bridge									
PettyHR	M001	2573.39	100Year-Existing	136.95	60.00	65.26	62.76	65.32	0.000411	1.31	187.39	97.19	0.20
PettyHR	M001	2551.09	100Year-Existing	136.95	59.89	65.29		65.30	0.000037	0.40	409.16	116.28	0.06
PettyHR	M001	2426.14	100Year-Existing	136.95	59.27	65.30		65.30	0.000003	0.11	1263.98	279.01	0.02
PettyHR	M001	2315.39	100Year-Existing	136.95	58.72	65.30		65.30	0.000002	0.09	1544.54	319.89	0.01
PettyHR	M001	2204.15	100Year-Existing	136.95	58.16	65.30		65.30	0.000002	0.09	1551.79	308.74	0.01
PettyHR	M001	2022.45	100Year-Existing	136.95	57.26	65.30		65.30	0.000004	0.15	940.31	191.58	0.02
PettyHR	M001	1902.10	100Year-Existing	136.95	56.66	65.30		65.30	0.000006	0.20	724.07	128.81	0.03
PettyHR	M001	1879.72	100Year-Existing	136.95	56.55	65.29		65.30	0.000015	0.31	535.05	109.38	0.04
PettyHR	M001	1824.42	100Year-Existing	136.95	56.28	65.29		65.30	0.000026	0.41	357.83	66.59	0.05
PettyHR	M001	1789.72	100Year-Existing	136.95	56.10	65.28		65.29	0.000037	0.49	302.54	55.90	0.06
PettyHR	M001	1724.70	100Year-Existing	136.95	55.78	65.28		65.29	0.000048	0.56	264.41	48.39	0.07
PettyHR	M001	1668.81	100Year-Existing	136.95	55.50	65.28	58.48	65.29	0.000026	0.42	351.83	66.02	0.05
PettyHR	M001	1647.80	100Year-Existing	136.95	55.40	65.28	58.17	65.29	0.000018	0.36	408.88	78.84	0.04
PettyHR	M001	1631.79	100Year-Existing	136.95	63.55	64.97		65.26	0.006846	2.38	57.55	40.63	0.64
PettyHR	M001	1615.46	100Year-Existing	138.82	54.38	56.96		57.21	0.006839	3.59	68.79	40.84	0.72
PettyHR	M001	1601.08	100Year-Existing	138.82	54.00	56.41	56.41	57.02	0.018479	5.63	47.78	38.00	1.18
PettyHR	M001	1586.16	100Year-Existing	138.82	53.36	55.55	55.89	56.61	0.033723	7.18	35.99	29.89	1.57
PettyHR	M001	1571.98	100Year-Existing	138.82	52.87	54.81	55.05	56.04	0.045314	7.60	31.74	25.43	1.78
PettyHR	M001	1519.66	100Year-Existing	138.82	51.62	53.52	53.55	54.10	0.025925	5.58	45.51	40.14	1.33
PettyHR	M001	1467.14	100Year-Existing	138.82	50.86	52.57	52.36	52.91	0.016316	4.23	56.57	47.82	1.05
PettyHR	M001	1457.30	100Year-Existing	138.82	50.23	52.12	52.12	52.69	0.023913	5.51	45.89	38.78	1.30
PettyHR	M001	1444.51	100Year-Existing	138.82	48.30	49.49	50.09	51.85	0.185365	10.97	23.01	32.89	3.31
PettyHR	M001	1415.17	100Year-Existing	138.82	48.28	50.20	49.61	50.37	0.006183	2.81	79.81	54.16	0.66
PettyHR	M001	1402.15	100Year-Existing	138.82	47.79	49.69	49.69	50.19	0.023976	5.36	49.11	45.99	1.28
PettyHR	M001	1385.41	100Year-Existing	138.82	43.10	45.02	46.03	49.07	0.118772	11.91	19.68	20.21	2.85
PettyHR	M001	1370.82	100Year-Existing	138.82	41.75	43.98	45.06	47.43	0.085644	11.59	21.12	16.64	2.52
PettyHR	M001	1362.66	100Year-Existing	138.82	39.88	42.57	43.87	46.70	0.075446	12.10	19.90	13.30	2.41
PettyHR	M001	1336.64	100Year-Existing	138.82	39.87	41.79	42.53	44.13	0.082614	10.21	24.35	21.67	2.40
PettyHR	M001	1309.35	100Year-Existing	138.82	38.40	40.05	40.57	41.78	0.075993	8.78	26.07	22.65	2.24
PettyHR	M001	1279.20	100Year-Existing	138.82	35.02	37.73	38.41	40.00	0.046494	9.66	31.05	30.96	1.90
PettyHR	M001	1258.06	100Year-Existing	138.82	34.01	37.08	37.98	39.09	0.032628	8.89	28.54	16.51	1.64
PettyHR	M001	1221.17	100Year-Existing	138.82	33.21	34.96	35.58	37.14	0.096334	10.01	25.30	27.18	2.51
PettyHR	M001	1203.34	100Year-Existing	138.82	32.61	34.11	34.49	35.36	0.073461	8.04	31.38	35.16	2.16
PettyHR	M001	1164.99	100Year-Existing	138.82	31.37	33.16	33.22	33.76	0.026953	5.45	45.26	42.63	1.35
PettyHR	M001	1153.41	100Year-Existing	138.82	30.70	31.97	32.36	33.19	0.087832	7.98	31.04	38.73	2.32
PettyHR	M001	1125.74	100Year-Existing	138.82	29.27	30.79	30.92	31.48	0.039534	5.96	41.97	45.79	1.59
PettyHR	M001	1090.65	100Year-Existing	138.82	28.12	29.51	29.63	30.06	0.039675	5.47	47.56	63.65	1.56
PettyHR	M001	1059.48	100Year-Existing	138.82	26.84	28.33	28.43	28.84	0.038223	5.73	49.52	67.28	1.55
PettyHR	M001	1048.77	100Year-Existing	138.82	26.29	27.99	27.86	28.32	0.016678	4.13	60.01	58.43	1.05
PettyHR	M001	1021.54	100Year-Existing	138.82	25.47	27.24	27.24	27.76	0.025704	5.32	47.72	44.68	1.31
PettyHR	M001	1003.30	100Year-Existing	138.82	23.42	26.26	26.02	26.71	0.011355	4.99	55.72	38.05	0.96
PettyHR	M001	994.73	100Year-Existing	138.82	22.70	25.84	25.84	26.57	0.014443	5.97	46.27	29.50	1.09
PettyHR	M001	961.03	100Year-Existing	138.82	22.07	24.89	25.12	25.94	0.022744	6.90	38.21	26.54	1.34
PettyHR	M001	944.13	100Year-Existing	138.82	21.89	23.85	24.29	25.36	0.046134	7.75	29.84	23.43	1.81
PettyHR	M001	924.94	100Year-Existing	138.82	20.78	23.09	23.45	24.54	0.037854	7.82	29.43	18.43	1.67
PettyHR	M001	905.47	100Year-Existing	138.82	19.73	22.35	22.74	23.88	0.031619	7.85	29.69	17.01	1.57
PettyHR	M001	883.86	100Year-Existing	138.82	17.29	21.32	20.24	21.59	0.002706	3.08	75.73	42.68	0.50
PettyHR	M001	875		Bridge									
PettyHR	M001	859.53	100Year-Existing	138.82	17.25	19.64	19.64	20.46	0.020871	5.81	37.42	30.65	1.23
PettyHR	M001	836.76	100Year-Existing	138.82	12.80	15.13	16.37	19.31	0.079700	11.48	18.68	11.70	2.44
PettyHR	M001	823.70	100Year-Existing	138.82	12.86	14.64	15.21	17.69	0.114143	11.34	20.97	18.91	2.77
PettyHR	M001	811.96	100Year-Existing	138.82	12.85	15.02	15.48	16.41	0.045635	8.30	33.85	32.70	1.83
PettyHR	M001	796.92	100Year-Existing	138.82	12.74	14.33	14.69	15.54	0.068531	8.23	32.03	34.99	2.12
PettyHR	M001	784.11	100Year-Existing	138.82	11.82	14.01	14.24	14.88	0.029573	6.67	41.87	39.53	1.47
PettyHR	M001	769.86	100Year-Existing	138.82	10.94	12.95	13.35	14.33	0.043263	7.64	32.29	28.66	1.75
PettyHR	M001	748.76	100Year-Existing	138.82	8.37	11.10	11.83	13.38	0.039342	8.87	28.12	21.44	1.75
PettyHR	M001	720.33	100Year-Existing	138.82	8.08	9.31	9.92	11.46	0.145919	9.59	23.59	29.54	2.92
PettyHR	M001	707.57	100Year-Existing	138.82	6.85	8.49	8.93	9.95	0.070072	8.39	30.78	34.30	2.15
PettyHR	M001	685.99	100Year-Existing	138.82	5.31	7.18	7.57	8.57	0.057614	8.17	32.25	33.71	1.98
PettyHR	M001	666.04	100Year-Existing	138.82	5.03	7.69	7.12	7.89	0.005574	3.28	88.27	73.39	0.66
PettyHR	M001	652.51	100Year-Existing	138.82	4.66	6.19	6.19	7.58	0.070706	7.87	30.88	35.26	2.11
PettyHR	M001	633.61	100Year-Existing	138.82	4.40	5.62	5.81	6.33	0.047651	5.57	41.49	80.95	1.68
PettyHR	M001	622.83	100Year-Existing	138.82	4.09	5.35	5.35	5.67	0.024811	4.08	61.45	118.12	1.22
PettyHR	M001	577.97	100Year-Existing	138.82	2.48	3.94	4.00	4.32	0.036522	5.47	56.89	113.53	1.50
PettyHR	M001	525.57	100Year-Existing	138.82	0.51	3.24	2.41	3.33	0.002651	2.35	118.31	109.21	0.46
PettyHR	M001	491.94	100Year-Existing	138.82	-0.59	2.91	2.32	3.21	0.003587	2.89	81.00	87.24	0.54
PettyHR	M001	485		Bridge									
PettyHR	M001	478.84	100Year-Existing	138.82	-1.92	2.53		2.69	0.001216	1.84	109.69	141.22	0.31
PettyHR	M001	439.27	100Year-Existing	138.82	-1.89	2.60		2.63	0.000319	0.99	240.72	129.66	0.16
PettyHR	M001	405.68	100Year-Existing	138.82	-2.13	2.59		2.62	0.000287	0.95	237.31	132.35	0.16
PettyHR	M001	367.80	100Year-Existing	138.82	-2.02	2.59		2.60	0.000088	0.53	302.49	139.44	0.09
PettyHR	M001	338.85	100Year-Existing	138.82	-2.89	2.59		2.60	0.000053	0.45	341.54	122.46	0.07
PettyHR	M001	305.38	100Year-Existing	138.82	-2.46	2.58		2.60	0.000074	0.51	308.27	120.00	0.08
PettyHR	M001	269.29	100Year-Existing	138.82	-3.52	2.58		2.59	0.000066	0.55	288.85	110.36	0.08
PettyHR	M001	238.18	100Year-Existing	138.82	-3.50	2.57		2.59	0.000095	0.66	249.41	102.59	0.09
PettyHR	M001	201.25	100Year-Existing	138.82	-4.43	2.58		2.58	0.000030	0.41	369.12	120.20	0.05
PettyHR	M001	150.84	100Year-Existing	138.82	-3.34	2.58		2.58	0.000017	0.29	527.62	171.56	0.04
PettyHR	M001	105.74	100Year-Existing	138.82	-2.91	2.58		2.58	0.000018	0.29	509.72	154.23	0.04
PettyHR	M001	91.29	100Year-Existing	138.82	-3.36	2.58		2.58	0.000015	0.28	526.01	143.79	0.04
PettyHR	M001	20.04	100Year-Existing	138.82	-6.19	2.58		2.58	0.000008	0.21	708.34	185.24	0.03
PettyHR	M001	12.04	100Year-Existing	138.82	-6.19	2.55	-3.32	2.58	0.000150	0.79	267.31	185.14	0.09
ForthP	M001	2616.90	100Year-Existing	13.42	123.09	124.61	123.39	124.61	0.000018	0.13	151.71	163.67	0.03
ForthP	M001	2528.45	100Year-Existing	13.42	123.09	124.61		124.61	0.000005	0.06	236.48	203.37	0.02
ForthP	M001	2324.32	100Year-Existing	13.42	123.09	124.60		124.60	0.000014	0.11	176.59	218.49	0.03
ForthP	M001	2187.52	100Year-Existing	13.42	123.09	124.60		124.60	0.000003	0.05	318.98	292.64	0.01
ForthP	M001	1955.13	100Year-Existing	13.42	123.09	124.60		124.60	0.000003	0.05	364.77	315.09	0.01
ForthP	M001	1773.83	100Year-Existing	13.42	123.09	124.60		124.60	0.000001	0.03	443.64	348.40	0.01
ForthP	M001	1572.85	100Year-Existing	13.42	123.09	124.60		124.60	0.000001	0.03	423.33	324.10	0.01

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
ForthP	M001	1496.60	100Year-Existing	13.42	123.09	124.60		124.60	0.000002	0.04	357.57	282.15	0.01
ForthP	M001	1392.58	100Year-Existing	48.29	122.98	124.59	124.15	124.60	0.000774	0.89	126.92	176.82	0.23
ForthP	M001	1390		Culvert									
ForthP	M001	1381.72	100Year-Existing	48.29	122.95	124.56	124.19	124.58	0.001556	1.16	97.42	154.28	0.30
ForthP	M001	1360.50	100Year-Existing	48.29	122.87	124.36		124.50	0.009024	2.67	40.73	87.21	0.75
ForthP	M001	1311.12	100Year-Existing	48.29	122.52	124.12		124.18	0.004201	1.89	54.36	86.22	0.51
ForthP	M001	1261.17	100Year-Existing	48.29	121.36	123.56	123.56	123.86	0.008776	3.48	30.89	44.61	0.78
ForthP	M001	1211.51	100Year-Existing	48.29	119.83	121.90	122.29	123.03	0.029404	6.02	15.75	23.47	1.40
ForthP	M001	1161.66	100Year-Existing	48.29	117.25	118.50	118.93	120.40	0.110480	8.02	11.46	26.58	2.49
ForthP	M001	1112.05	100Year-Existing	48.29	114.88	116.12	116.28	116.68	0.044618	5.34	18.94	37.15	1.61
ForthP	M001	1062.35	100Year-Existing	48.29	113.16	114.48	114.53	114.83	0.029937	4.32	21.94	37.41	1.28
ForthP	M001	1041.93	100Year-Existing	48.29	112.62	114.05	114.07	114.32	0.022138	3.89	25.93	46.87	1.11
ForthP	M001	1031.90	100Year-Existing	48.29	112.31	113.59	113.71	114.02	0.040230	4.88	21.58	46.56	1.48
ForthP	M001	1011.12	100Year-Existing	48.29	111.62	112.78	112.88	113.16	0.041927	4.80	22.32	50.76	1.52
ForthP	M001	959.76	100Year-Existing	48.29	110.31	111.16	111.23	111.45	0.051394	4.00	23.19	63.74	1.58
ForthP	M001	908.93	100Year-Existing	48.29	109.25	110.01	109.86	110.08	0.012397	1.91	42.48	92.37	0.77
ForthP	M001	856.39	100Year-Existing	48.29	108.38	108.92	108.86	109.03	0.026368	1.95	34.36	94.40	1.03
ForthP	M001	806.25	100Year-Existing	48.29	107.09	108.12		108.19	0.012706	2.37	42.22	93.32	0.81
ForthP	M001	754.78	100Year-Existing	48.29	106.12	107.19	107.19	107.36	0.024888	3.56	34.11	95.34	1.16
ForthP	M001	734.50	100Year-Existing	48.29	105.47	106.88	106.79	106.98	0.009546	2.56	44.95	97.56	0.74
ForthP	M001	724.30	100Year-Existing	48.29	105.28	106.69	106.69	106.86	0.014132	3.15	37.72	92.88	0.91
ForthP	M001	703.65	100Year-Existing	48.29	105.02	106.30	106.22	106.49	0.021291	3.67	29.74	60.36	1.09
ForthP	M001	654.47	100Year-Existing	48.29	103.90	104.87	104.87	105.11	0.034446	3.87	25.50	58.79	1.34
ForthP	M001	605.63	100Year-Existing	48.29	102.27	103.54	103.59	103.82	0.024815	3.87	28.28	65.49	1.19
ForthP	M001	585.13	100Year-Existing	48.29	101.55	102.45	102.59	102.98	0.085956	5.43	20.03	69.78	2.06
ForthP	M001	577.30	100Year-Existing	48.29	101.52	102.30	102.33	102.51	0.042558	3.51	26.60	76.74	1.42
ForthP	M001	557.33	100Year-Existing	48.29	100.67	101.37	101.40	101.59	0.052017	3.41	25.29	80.98	1.52
ForthP	M001	507.84	100Year-Existing	48.29	98.92	99.67	99.67	99.83	0.037869	3.05	29.61	89.31	1.31
ForthP	M001	453.33	100Year-Existing	48.29	96.28	97.14	97.08	97.25	0.020179	2.54	37.08	99.31	1.00
ForthP	M001	402.29	100Year-Existing	48.29	94.96	95.71	95.71	95.90	0.039402	3.36	26.98	69.00	1.36
ForthP	M001	349.18	100Year-Existing	48.29	93.64	94.37	94.17	94.44	0.013153	1.80	41.86	91.83	0.78
ForthP	M001	297.76	100Year-Existing	48.29	92.55	93.54	93.50	93.68	0.021540	2.93	34.43	79.15	1.05
ForthP	M001	246.28	100Year-Existing	48.29	91.71	92.62	92.51	92.70	0.014221	2.19	42.01	93.70	0.84
ForthP	M001	182.03	100Year-Existing	48.29	90.94	92.17	91.88	92.21	0.005477	1.77	62.36	116.17	0.55
ForthP	M001	160.27	100Year-Existing	48.29	90.13	92.17	91.67	92.18	0.000331	0.64	156.72	168.10	0.15
ForthP	M001	150		Culvert									
ForthP	M001	144.74	100Year-Existing	48.29	89.90	91.45	91.45	91.48	0.001334	1.12	87.91	119.86	0.29
ForthP	M001	124.30	100Year-Existing	48.29	89.74	91.06	90.91	91.16	0.010219	2.52	45.17	90.73	0.76
ForthP	M001	61.58	100Year-Existing	48.29	88.75	90.06	90.06	90.27	0.019889	3.49	32.96	70.16	1.06
ForestP	M001	1557.91	100Year-Existing	9.68	78.25	79.77	78.48	79.77	0.000005	0.06	154.99	122.80	0.02
ForestP	M001	1428.05	100Year-Existing	9.68	78.25	79.77		79.77	0.000003	0.05	212.06	178.04	0.01
ForestP	M001	1315.71	100Year-Existing	9.68	78.25	79.77		79.77	0.000001	0.03	297.98	244.23	0.01
ForestP	M001	1228.83	100Year-Existing	9.68	78.25	79.77		79.77	0.000001	0.03	356.37	292.67	0.01
ForestP	M001	1138.84	100Year-Existing	9.68	78.25	79.77		79.77	0.000001	0.02	417.53	344.99	0.01
ForestP	M001	1077.28	100Year-Existing	9.68	78.25	79.77		79.77	0.000001	0.02	468.25	485.79	0.01
ForestP	M001	1019.12	100Year-Existing	9.68	78.25	79.77		79.77	0.000003	0.05	238.71	292.27	0.01
ForestP	M001	958.61	100Year-Existing	12.32	78.15	79.74	79.50	79.77	0.001216	0.86	28.11	72.13	0.25
ForestP	M001	955		Culvert									
ForestP	M001	949.85	100Year-Existing	12.32	77.76	79.69	79.62	79.75	0.005712	1.56	18.00	59.45	0.40
ForestP	M001	913.34	100Year-Existing	12.32	78.16	79.13	79.13	79.34	0.034252	3.48	7.71	20.91	1.22
ForestP	M001	883.23	100Year-Existing	12.32	77.54	78.42	78.44	78.56	0.019431	2.58	11.37	42.66	0.98
ForestP	M001	859.61	100Year-Existing	12.32	76.75	77.54	77.62	77.88	0.043752	3.65	5.98	14.77	1.44
ForestP	M001	831.71	100Year-Existing	12.32	75.74	76.74	76.84	77.15	0.038517	3.88	5.61	11.76	1.37
ForestP	M001	802.91	100Year-Existing	12.32	74.66	75.59	75.73	76.06	0.038020	3.88	5.39	11.59	1.39
ForestP	M001	772.90	100Year-Existing	12.32	73.77	74.63	74.68	74.90	0.034374	3.47	6.87	16.93	1.28
ForestP	M001	737.48	100Year-Existing	12.32	72.77	73.53	73.52	73.69	0.025324	2.73	8.58	22.37	1.09
ForestP	M001	688.06	100Year-Existing	12.32	71.80	72.49		72.56	0.020186	2.16	11.45	34.88	0.91
ForestP	M001	651.32	100Year-Existing	12.32	70.81	71.46	71.44	71.61	0.033475	2.88	9.27	34.09	1.24
ForestP	M001	600.44	100Year-Existing	12.32	69.80	70.40		70.45	0.015736	1.83	16.87	91.94	0.83
ForestP	M001	578.60	100Year-Existing	12.32	69.31	69.93	69.93	70.01	0.025729	2.36	15.17	89.86	1.07
ForestP	M001	528.92	100Year-Existing	12.32	68.58	69.83	69.29	69.83	0.000468	0.54	59.82	119.52	0.16
ForestP	M001	478.55	100Year-Existing	12.32	68.21	69.82		69.82	0.000066	0.24	114.71	147.98	0.07
ForestP	M001	430.82	100Year-Existing	12.32	67.77	69.82		69.82	0.000025	0.18	161.29	166.70	0.04
ForestP	M001	378.18	100Year-Existing	12.32	67.48	69.82		69.82	0.000004	0.08	362.04	335.17	0.02
ForestP	M001	328.07	100Year-Existing	12.32	67.34	69.82		69.82	0.000002	0.06	487.57	385.79	0.01
ForestP	M001	277.95	100Year-Existing	12.32	67.07	69.82		69.82	0.000001	0.05	588.76	449.61	0.01
ForestP	M001	195.51	100Year-Existing	12.32	66.23	69.82		69.82	0.000000	0.03	1018.72	630.74	0.00
ForestP	M001	158.37	100Year-Existing	12.32	66.23	69.82		69.82	0.000000	0.01	1763.66	721.43	0.00
ForestP	M001	89.11	100Year-Existing	12.32	66.23	69.82		69.82	0.000000	0.01	1951.85	784.39	0.00
DoylesR	TR019	260.51	100Year-Existing	0.44	124.74	125.16	124.95	125.17	0.000146	0.14	6.80	45.29	0.08
DoylesR	TR019	199.72	100Year-Existing	0.44	124.55	125.16		125.16	0.000002	0.02	44.52	144.13	0.01
DoylesR	TR019	150.00	100Year-Existing	0.44	124.37	125.16		125.16	0.000001	0.02	48.88	173.33	0.01
DoylesR	TR019	100.00	100Year-Existing	0.44	124.16	125.16		125.16	0.000002	0.03	47.12	234.68	0.01
DoylesR	TR019	50.00	100Year-Existing	0.44	124.18	125.16		125.16	0.000001	0.02	76.49	283.73	0.01
DoylesR	TR018	302.01	100Year-Existing	1.65	127.90	128.51	128.07	128.51	0.000087	0.15	17.54	45.18	0.06
DoylesR	TR018	270.53	100Year-Existing	1.65	126.19	128.51	126.95	128.51	0.000000	0.02	262.29	244.89	0.00
DoylesR	TR018	260		Culvert									
DoylesR	TR018	257.62	100Year-Existing	1.65	126.19	128.51	126.98	128.51	0.000000	0.01	267.38	215.49	0.00
DoylesR	TR018	244.68	100Year-Existing	1.65	125.64	128.51	126.70	128.51	0.000000	0.01	305.62	215.15	0.00
DoylesR	TR018	200		Culvert									
DoylesR	TR018	169.24	100Year-Existing	1.65	125.40	126.37	126.25	126.67	0.015262	2.79	0.73	78.94	0.92
DoylesR	TR018	131.43	100Year-Existing	1.65	125.24	125.45	125.45	125.48	0.047707	1.22	2.69	54.66	1.15
DoylesR	TR018	59.79	100Year-Existing	1.65	124.57	125.21	124.91	125.21	0.000167	0.19	23.25	146.19	0.09
DoylesR	TR017	4043.45	100Year-Existing	9.02	124.05	125.14		125.16	0.001582	0.99	27.05	111.97	0.31
DoylesR	TR017	3983.69	100Year-Existing	9.02	124.04	125.03		125.05	0.002194	0.98	24.10	103.71	0.34
DoylesR	TR017	3923.93	100Year-Existing	9.02	124.03	124.62	124.62	124.73	0.029651	2.09	8.33	43.75	1.10
DoylesR	TR017	3889.37	100Year-Existing	9.02	123.60	123.85	123.66	123.86	0.006135	0.39	18.00	73.92	0.40
DoylesR	TR017	3781.64	100Year-Existing	9.02	122.55	123.61		123.63	0.002471	1.10	22.11	75.96	0.36
DoylesR	TR017	3768.91	100Year-Existing	9.02	122.35	123.24	123.24	123.53	0.019147	2.58	4.62	10.70	0.96
DoylesR	TR017	3745.98	100Year-Existing	9.02	121.86	122.47	122.51	122.63	0.043956	2.53	6.57	37.09	1.31

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR017	3713.18	100Year-Existing	9.02	120.99	121.65	121.66	121.85	0.020369	2.18	5.27	15.15	0.97
DoylesR	TR017	3692.45	100Year-Existing	9.02	120.34	121.05	121.14	121.32	0.028827	2.60	4.87	15.64	1.15
DoylesR	TR017	3679.05	100Year-Existing	9.02	119.97	120.82	120.86	121.03	0.015854	2.37	6.34	26.29	0.90
DoylesR	TR017	3656.84	100Year-Existing	9.02	117.59	118.11	118.50	119.95	0.281896	6.20	1.64	6.24	3.36
DoylesR	TR017	3603.67	100Year-Existing	9.02	116.29	117.07	117.07	117.21	0.016119	2.22	7.47	28.71	0.88
DoylesR	TR017	3583.40	100Year-Existing	9.02	115.96	116.64	116.69	116.81	0.027130	2.53	6.97	30.18	1.11
DoylesR	TR017	3571.14	100Year-Existing	9.02	115.76	116.34	116.35	116.45	0.025871	2.32	7.99	36.10	1.07
DoylesR	TR017	3545.42	100Year-Existing	9.02	115.22	115.88	115.84	116.01	0.021670	2.15	7.09	25.82	0.98
DoylesR	TR017	3483.93	100Year-Existing	9.02	114.35	114.97	114.93	115.01	0.012834	1.66	14.02	71.56	0.75
DoylesR	TR017	3432.55	100Year-Existing	9.02	113.79	114.59	114.50	114.62	0.007064	1.47	16.07	67.47	0.58
DoylesR	TR017	3345.48	100Year-Existing	9.02	113.03	113.57	113.57	113.68	0.034421	2.25	8.22	44.42	1.18
DoylesR	TR017	3300.07	100Year-Existing	9.02	112.42	113.04	112.88	113.05	0.003682	0.82	21.71	79.36	0.39
DoylesR	TR016	918.87	100Year-Existing	3.30	127.08	128.81	127.26	128.81	0.000000	0.01	408.14	362.39	0.00
DoylesR	TR016	898.71	100Year-Existing	3.30	126.90	128.81	127.34	128.81	0.000001	0.04	198.56	225.64	0.01
DoylesR	TR016	890		Culvert									
DoylesR	TR016	882.28	100Year-Existing	3.30	126.88	128.74		128.74	0.000007	0.08	105.99	158.60	0.02
DoylesR	TR016	877.71	100Year-Existing	3.30	126.24	128.74	127.00	128.74	0.000004	0.08	125.21	190.10	0.02
DoylesR	TR016	850		Culvert									
DoylesR	TR016	848.13	100Year-Existing	3.30	126.37	127.24	127.24	127.52	0.018444	2.58	1.80	3.75	0.91
DoylesR	TR016	818.98	100Year-Existing	3.30	126.36	126.88	126.80	126.89	0.004196	0.82	9.16	60.21	0.42
DoylesR	TR016	768.99	100Year-Existing	3.30	126.30	126.68		126.69	0.004300	0.68	9.24	52.28	0.40
DoylesR	TR016	714.09	100Year-Existing	3.30	125.96	126.41	126.31	126.42	0.005328	0.80	7.58	38.94	0.46
DoylesR	TR016	675.95	100Year-Existing	3.30	125.74	126.09	126.09	126.14	0.021152	1.33	4.81	44.92	0.87
DoylesR	TR016	659.39	100Year-Existing	3.30	125.10	125.58	125.55	125.63	0.010622	1.30	4.91	27.17	0.67
DoylesR	TR016	632.80	100Year-Existing	3.30	124.78	125.27	125.27	125.34	0.015124	1.46	4.11	28.24	0.78
DoylesR	TR016	610.50	100Year-Existing	3.30	123.78	124.32	124.47	124.70	0.052331	3.04	1.48	5.73	1.48
DoylesR	TR016	549.37	100Year-Existing	3.30	122.30	122.99	123.00	123.09	0.015237	1.81	3.64	20.61	0.81
DoylesR	TR016	494.31	100Year-Existing	3.30	120.93	121.61	121.67	121.90	0.032930	2.43	1.49	4.64	1.16
DoylesR	TR016	473.82	100Year-Existing	3.30	120.18	120.74	120.84	121.08	0.047943	2.70	1.43	5.34	1.40
DoylesR	TR016	459.95	100Year-Existing	3.30	119.62	120.15	120.23	120.44	0.042695	2.47	1.51	5.58	1.31
DoylesR	TR016	439.99	100Year-Existing	3.30	119.05	119.76	119.76	119.96	0.020664	2.02	1.80	5.01	0.93
DoylesR	TR016	384.99	100Year-Existing	3.30	117.07	117.56	117.69	117.97	0.076789	2.84	1.20	4.94	1.69
DoylesR	TR016	329.99	100Year-Existing	3.30	115.67	116.19	116.19	116.27	0.017517	1.47	3.67	24.00	0.83
DoylesR	TR016	274.18	100Year-Existing	3.30	114.93	115.35		115.39	0.013828	1.16	5.72	49.15	0.71
DoylesR	TR016	218.88	100Year-Existing	3.30	114.35	114.86	114.84	114.89	0.010750	1.11	6.58	61.49	0.64
DoylesR	TR016	165.43	100Year-Existing	3.30	113.83	114.42	114.40	114.46	0.008944	1.19	5.57	37.69	0.61
DoylesR	TR016	86.48	100Year-Existing	3.30	112.80	113.28	113.28	113.38	0.023589	1.59	2.86	16.58	0.94
DoylesR	TR016	40.19	100Year-Existing	3.30	112.21	112.87	112.72	112.87	0.001761	0.60	12.90	68.22	0.28
DoylesR	TR015	3230.71	100Year-Existing	19.80	111.60	112.58		112.63	0.008057	1.88	26.18	80.20	0.65
DoylesR	TR015	3185.04	100Year-Existing	19.80	111.22	112.25		112.33	0.010520	2.08	21.15	54.72	0.74
DoylesR	TR015	3133.58	100Year-Existing	19.80	110.57	111.43	111.43	111.58	0.023326	2.84	15.85	48.34	1.08
DoylesR	TR015	3079.97	100Year-Existing	19.80	108.17	109.29	109.50	109.96	0.037041	4.22	7.32	15.33	1.42
DoylesR	TR015	3026.43	100Year-Existing	19.80	107.30	109.17	108.39	109.21	0.000917	1.00	33.61	34.56	0.25
DoylesR	TR015	3001.28	100Year-Existing	19.80	106.17	109.19	108.65	109.19	0.000144	0.51	92.40	80.57	0.10
DoylesR	TR015	3000		Culvert									
DoylesR	TR015	2988.77	100Year-Existing	19.80	106.03	108.12	108.12	108.30	0.004710	2.53	23.23	57.76	0.57
DoylesR	TR015	2963.30	100Year-Existing	19.80	105.69	106.60	106.93	107.87	0.099391	6.22	6.30	19.32	2.21
DoylesR	TR015	2915.60	100Year-Existing	19.80	104.53	105.78	105.79	106.03	0.016691	3.06	13.08	26.82	0.96
DoylesR	TR015	2867.64	100Year-Existing	19.80	103.37	104.59	104.68	105.03	0.032347	4.17	10.25	21.89	1.31
DoylesR	TR015	2841.04	100Year-Existing	19.80	102.40	103.03	103.17	103.49	0.107279	4.44	8.45	29.40	2.14
DoylesR	TR015	2804.73	100Year-Existing	19.80	101.67	102.58	102.50	102.70	0.016896	2.51	16.64	38.28	0.92
DoylesR	TR015	2742.98	100Year-Existing	19.80	100.87	101.76	101.69	101.83	0.013138	2.23	23.80	73.16	0.82
DoylesR	TR015	2687.77	100Year-Existing	19.80	100.07	100.73	100.73	100.84	0.029051	2.59	17.87	73.98	1.15
DoylesR	TR015	2638.14	100Year-Existing	19.80	98.95	99.83	99.84	99.98	0.023739	3.01	17.30	57.00	1.10
DoylesR	TR015	2593.26	100Year-Existing	19.80	97.75	98.96	98.87	99.06	0.010021	2.37	19.96	46.11	0.74
DoylesR	TR015	2557.12	100Year-Existing	19.80	97.53	98.71		98.77	0.007497	2.09	24.89	63.56	0.65
DoylesR	TR015	2522.34	100Year-Existing	19.80	97.26	98.21	98.21	98.40	0.021663	2.75	14.28	42.57	1.04
DoylesR	TR015	2483.94	100Year-Existing	19.80	96.95	97.75	97.66	97.81	0.014676	1.99	20.75	61.51	0.82
DoylesR	TR015	2438.99	100Year-Existing	19.80	96.35	97.55		97.57	0.002989	1.29	37.73	99.37	0.41
DoylesR	TR015	2387.12	100Year-Existing	19.80	96.39	97.49		97.50	0.000909	0.65	65.46	133.34	0.22
DoylesR	TR015	2352.45	100Year-Existing	19.80	96.40	97.47		97.48	0.000529	0.50	71.26	107.75	0.17
DoylesR	TR015	2283.37	100Year-Existing	19.80	95.75	97.32		97.39	0.003385	1.71	20.65	24.88	0.46
DoylesR	TR015	2231.50	100Year-Existing	19.80	95.54	96.81	96.73	97.07	0.014636	2.97	12.41	25.34	0.91
DoylesR	TR015	2160.12	100Year-Existing	19.80	94.93	96.10		96.23	0.008529	2.12	15.16	23.36	0.69
DoylesR	TR015	2119.11	100Year-Existing	19.80	94.44	95.55	95.53	95.77	0.018638	2.99	12.91	28.66	1.00
DoylesR	TR015	2075.88	100Year-Existing	19.80	93.86	94.91	94.91	95.06	0.013543	2.47	16.64	49.23	0.85
DoylesR	TR015	2024.01	100Year-Existing	19.80	93.19	94.34	94.30	94.45	0.010108	2.23	19.33	55.53	0.74
DoylesR	TR015	1972.14	100Year-Existing	19.80	92.71	93.78	93.78	93.89	0.013931	2.55	20.81	76.99	0.85
DoylesR	TR015	1921.75	100Year-Existing	19.80	92.35	93.59	93.16	93.60	0.001650	1.00	45.55	101.16	0.30
DoylesR	TR015	1851.62	100Year-Existing	19.80	91.24	92.86	92.86	93.36	0.017852	3.71	8.85	16.12	1.01
DoylesR	TR014	2057.49	100Year-Existing	11.99	125.48	126.63	126.41	126.66	0.002792	1.12	25.35	73.37	0.38
DoylesR	TR014	2037.89	100Year-Existing	11.99	125.57	126.62		126.63	0.000647	0.56	50.19	117.06	0.19
DoylesR	TR014	1988.88	100Year-Existing	11.99	124.71	126.51	125.71	126.57	0.001537	1.24	17.39	54.93	0.31
DoylesR	TR014	1980		Culvert									
DoylesR	TR014	1975.46	100Year-Existing	11.99	124.46	126.50		126.56	0.001180	1.20	15.17	40.43	0.28
DoylesR	TR014	1936.56	100Year-Existing	11.99	124.86	126.31	125.99	126.47	0.005494	2.11	11.01	24.74	0.58
DoylesR	TR014	1904.43	100Year-Existing	11.99	124.72	125.89	125.89	126.19	0.013440	2.80	6.85	12.22	0.88
DoylesR	TR014	1867.03	100Year-Existing	11.99	124.61	125.72	125.37	125.79	0.004310	1.55	13.95	25.74	0.50
DoylesR	TR014	1801.50	100Year-Existing	11.99	124.00	125.05	125.05	125.29	0.015824	2.81	7.71	16.26	0.93
DoylesR	TR014	1765.57	100Year-Existing	11.99	123.20	123.79	123.94	124.27	0.062051	3.57	5.05	19.10	1.66
DoylesR	TR014	1703.29	100Year-Existing	11.99	121.82	122.81	122.81	123.00	0.011274	2.33	9.46	27.45	0.79
DoylesR	TR014	1657.91	100Year-Existing	11.99	121.27	122.07	122.12	122.33	0.020063	2.52	7.06	20.71	1.00
DoylesR	TR014	1607.98	100Year-Existing	11.99	120.59	121.41	121.48	121.62	0.021821	2.69	10.18	44.94	1.04
DoylesR	TR014	1544.18	100Year-Existing	11.99	119.81	120.73	120.73	120.84	0.011402	2.15	12.89	43.46	0.77
DoylesR	TR014	1492.70	100Year-Existing	11.99	119.06	119.73	119.79	119.94	0.029374	2.75	9.28	41.11	1.18
DoylesR	TR014	1441.23	100Year-Existing	11.99	117.59	118.77	118.77	118.99	0.012782	2.79	9.16	20.79	0.86
DoylesR	TR014	1420.98	100Year-Existing	11.99	116.98	118.36	117.80	118.42	0.002526	1.40	13.48	14.34	0.40
DoylesR	TR014	1411.86	100Year-Existing	11.99	117.03	118.24	117.82	118.37	0.005042	1.90	8.17	12.59	0.56
DoylesR	TR014	1400		Bridge									
DoylesR	TR014	1384.41	100Year-Existing	13.64	116.71	117.63	117.57	117.94	0.016047	2.68	5.76	10.07	0.93

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR014	1374.60	100Year-Existing	13.64	116.54	117.60		117.76	0.007748	2.00	8.83	12.31	0.66
DoylesR	TR014	1353.25	100Year-Existing	13.64	116.21	117.18	117.18	117.50	0.018090	2.84	6.36	10.46	0.99
DoylesR	TR014	1309.14	100Year-Existing	13.64	115.50	116.58	116.39	116.79	0.008474	2.06	7.10	9.42	0.68
DoylesR	TR014	1296.25	100Year-Existing	13.64	115.12	116.22	116.22	116.59	0.017933	3.11	6.03	8.59	1.00
DoylesR	TR014	1239.25	100Year-Existing	13.64	113.43	114.16	114.39	114.82	0.056846	4.08	4.71	12.62	1.66
DoylesR	TR014	1203.69	100Year-Existing	13.64	112.84	113.77	113.62	113.85	0.008747	1.97	13.04	27.13	0.68
DoylesR	TR014	1182.25	100Year-Existing	13.64	112.53	113.37	113.37	113.57	0.019024	2.63	9.11	21.48	0.99
DoylesR	TR014	1125.25	100Year-Existing	13.64	111.30	112.61	112.31	112.67	0.004057	1.66	16.40	25.16	0.49
DoylesR	TR014	1104.23	100Year-Existing	13.64	111.16	112.21	112.21	112.49	0.019040	2.94	8.12	17.72	1.01
DoylesR	TR014	1094.88	100Year-Existing	13.64	110.55	111.43	111.65	112.15	0.058082	4.82	4.93	11.39	1.74
DoylesR	TR014	1075.36	100Year-Existing	13.64	110.17	111.24	111.31	111.55	0.023425	3.47	8.50	19.83	1.13
DoylesR	TR014	1027.18	100Year-Existing	13.64	109.15	110.08	110.13	110.38	0.025041	3.14	7.92	18.29	1.14
DoylesR	TR014	980.74	100Year-Existing	13.64	107.89	109.05	108.68	109.11	0.004474	1.65	15.44	22.64	0.51
DoylesR	TR014	954.47	100Year-Existing	13.64	107.68	108.69	108.69	108.90	0.015715	2.68	10.10	24.64	0.92
DoylesR	TR014	934.37	100Year-Existing	13.64	106.99	107.98	108.14	108.41	0.031006	3.57	7.44	21.93	1.27
DoylesR	TR014	907.24	100Year-Existing	13.64	106.52	107.48	107.42	107.60	0.013162	2.41	12.51	28.31	0.83
DoylesR	TR014	868.80	100Year-Existing	13.64	105.88	106.97	106.90	107.14	0.010698	2.33	10.96	24.85	0.77
DoylesR	TR014	864.98	100Year-Existing	13.64	105.70	106.80	106.80	107.07	0.014664	2.58	7.57	15.87	0.89
DoylesR	TR014	844.06	100Year-Existing	13.64	105.10	106.40	106.23	106.58	0.008560	2.36	9.75	19.35	0.71
DoylesR	TR014	836.52	100Year-Existing	13.64	104.97	106.15	106.15	106.48	0.018129	3.01	7.01	12.98	0.99
DoylesR	TR014	816.09	100Year-Existing	13.64	104.78	105.75	105.61	105.85	0.007990	1.84	13.38	29.85	0.65
DoylesR	TR014	811.48	100Year-Existing	13.64	104.64	105.74		105.81	0.005571	1.72	15.20	29.88	0.56
DoylesR	TR014	783.28	100Year-Existing	13.64	103.98	105.20	105.20	105.53	0.017957	3.29	7.01	10.70	1.01
DoylesR	TR014	751.27	100Year-Existing	13.64	103.31	104.41	104.50	104.86	0.023839	3.08	5.25	9.33	1.11
DoylesR	TR014	717.94	100Year-Existing	13.64	102.63	104.09	104.05	104.31	0.011290	2.93	9.28	14.71	0.81
DoylesR	TR014	676.43	100Year-Existing	13.64	102.18	103.31	103.31	103.68	0.020326	3.10	7.22	17.45	1.04
DoylesR	TR014	601.44	100Year-Existing	13.64	101.39	102.48	102.29	102.56	0.006536	1.79	13.01	24.13	0.60
DoylesR	TR014	540.83	100Year-Existing	13.64	100.49	101.63	101.54	101.96	0.015534	2.84	7.18	17.66	0.93
DoylesR	TR014	519.25	100Year-Existing	13.64	99.69	101.80	101.51	101.82	0.000836	0.92	36.54	66.22	0.21
DoylesR	TR014	510		Culvert									
DoylesR	TR014	505.00	100Year-Existing	13.64	99.62	101.55	101.55	101.59	0.002279	1.42	25.58	61.32	0.33
DoylesR	TR014	484.27	100Year-Existing	13.64	99.79	100.72	100.93	101.30	0.057830	4.27	5.25	14.37	1.64
DoylesR	TR014	426.15	100Year-Existing	13.64	98.71	99.93	99.93	100.19	0.013613	2.52	8.21	24.02	0.85
DoylesR	TR014	368.05	100Year-Existing	13.64	97.30	98.50	98.67	99.02	0.034780	3.76	6.12	17.69	1.30
DoylesR	TR014	343.01	100Year-Existing	13.64	96.78	98.46	97.83	98.59	0.003022	1.71	8.91	83.97	0.44
DoylesR	TR014	335		Bridge									
DoylesR	TR014	331.91	100Year-Existing	13.64	96.63	97.97	97.97	98.40	0.015272	3.06	5.27	7.27	0.93
DoylesR	TR014	312.09	100Year-Existing	13.64	96.26	97.52	97.65	97.96	0.035028	3.43	7.37	31.70	1.25
DoylesR	TR014	227.09	100Year-Existing	13.64	94.66	96.54	96.18	96.59	0.002764	1.50	19.35	29.78	0.38
DoylesR	TR014	205.76	100Year-Existing	13.64	94.51	96.21	96.21	96.46	0.010755	2.71	9.43	19.84	0.75
DoylesR	TR014	198.96	100Year-Existing	13.64	94.45	95.21	95.52	96.22	0.096857	4.54	3.45	11.36	2.07
DoylesR	TR014	181.77	100Year-Existing	13.64	94.01	95.25	95.25	95.45	0.013318	2.58	10.22	24.29	0.84
DoylesR	TR014	121.12	100Year-Existing	13.64	92.99	94.19	94.27	94.47	0.018764	2.95	11.64	61.20	0.99
DoylesR	TR014	34.73	100Year-Existing	13.64	91.60	92.61	92.63	92.93	0.019107	2.78	6.48	11.56	1.00
DoylesR	TR012	1780.65	100Year-Existing	33.44	90.30	92.43	91.81	92.51	0.001880	1.49	39.92	70.24	0.36
DoylesR	TR012	1753.67	100Year-Existing	33.44	89.56	92.45	91.38	92.48	0.000410	0.95	81.26	101.47	0.18
DoylesR	TR012	1745		Bridge									
DoylesR	TR012	1729.43	100Year-Existing	33.44	89.10	91.23	91.23	92.13	0.014796	4.31	8.23	15.91	0.98
DoylesR	TR012	1709.20	100Year-Existing	33.44	88.93	90.49	90.84	91.59	0.041921	5.60	10.42	20.56	1.55
DoylesR	TR012	1645.76	100Year-Existing	33.44	88.20	89.69	89.50	89.96	0.010504	2.82	17.91	22.39	0.80
DoylesR	TR011	1552.47	100Year-Existing	48.07	86.48	88.96	88.49	89.31	0.005440	2.93	23.16	16.03	0.63
DoylesR	TR011	1530.88	100Year-Existing	48.07	86.19	88.36	88.36	89.09	0.014231	4.36	15.92	11.79	1.00
DoylesR	TR011	1477.56	100Year-Existing	48.07	84.43	85.89	86.40	87.59	0.064997	6.67	10.56	13.90	1.95
DoylesR	TR011	1423.69	100Year-Existing	48.07	83.56	85.83	85.93	86.40	0.010068	3.75	21.18	29.17	0.84
DoylesR	TR011	1370.10	100Year-Existing	48.07	82.66	83.95	84.27	85.19	0.069834	6.44	13.87	30.47	2.00
DoylesR	TR011	1316.51	100Year-Existing	48.07	81.17	83.25	83.25	83.76	0.011146	3.69	20.51	22.83	0.87
DoylesR	TR011	1262.92	100Year-Existing	48.07	79.36	81.11	81.67	82.62	0.042073	6.15	11.41	14.54	1.62
DoylesR	TR011	1209.33	100Year-Existing	48.07	78.14	80.62	80.65	81.27	0.012000	4.12	18.11	18.23	0.91
DoylesR	TR011	1155.74	100Year-Existing	48.07	76.81	78.81	79.22	80.18	0.034206	5.79	11.11	10.56	1.46
DoylesR	TR011	1107.39	100Year-Existing	48.07	76.34	78.09	78.18	78.79	0.018596	3.92	14.44	13.81	1.08
DoylesR	TR011	1057.82	100Year-Existing	48.07	75.16	77.35	77.41	78.06	0.015411	4.11	15.34	13.36	0.99
DoylesR	TR011	971.36	100Year-Existing	48.07	73.33	75.38	74.77	75.67	0.004476	2.42	19.83	19.56	0.56
DoylesR	TR011	960		Bridge									
DoylesR	TR011	949.62	100Year-Existing	48.07	73.08	75.30	74.45	75.53	0.002986	2.15	22.32	25.37	0.47
DoylesR	TR011	929.53	100Year-Existing	48.07	72.74	74.64	74.64	75.29	0.014800	3.83	15.34	12.90	0.98
DoylesR	TR011	872.05	100Year-Existing	48.07	72.26	74.15	74.18	74.42	0.011853	3.33	31.96	63.05	0.86
DoylesR	TR011	816.76	100Year-Existing	48.07	72.00	73.10	73.01	73.19	0.014153	2.46	41.27	97.86	0.84
DoylesR	TR011	760.16	100Year-Existing	48.07	71.25	72.54		72.61	0.009726	2.46	48.33	104.99	0.74
DoylesR	TR011	712.26	100Year-Existing	48.07	70.34	71.90	71.86	72.05	0.011856	2.99	40.53	99.28	0.84
DoylesR	TR011	663.11	100Year-Existing	48.07	70.08	71.45	71.34	71.51	0.009563	2.33	53.89	141.25	0.70
DoylesR	TR013	2205.78	100Year-Existing	10.23	95.88	96.72	96.43	96.73	0.001175	0.71	36.80	119.08	0.25
DoylesR	TR013	2147.59	100Year-Existing	10.23	95.87	96.62		96.63	0.002469	0.89	23.50	77.96	0.35
DoylesR	TR013	2097.40	100Year-Existing	10.23	95.86	96.29	96.29	96.35	0.022293	1.73	13.45	89.66	0.95
DoylesR	TR013	2011.99	100Year-Existing	10.23	93.67	94.80	94.64	94.96	0.007720	2.01	7.12	12.49	0.66
DoylesR	TR013	1957.46	100Year-Existing	10.23	93.05	94.14	94.14	94.40	0.014770	2.87	6.16	12.56	0.91
DoylesR	TR013	1909.18	100Year-Existing	10.23	92.33	93.25	93.34	93.53	0.021364	2.88	8.12	49.68	1.05
DoylesR	TR013	1861.01	100Year-Existing	10.23	91.27	92.31	92.41	92.60	0.018488	2.82	7.64	38.57	0.98
DoylesR	TR013	1789.09	100Year-Existing	10.23	90.00	90.57	90.62	90.74	0.036881	2.63	9.17	66.70	1.27
DoylesR	TR013	1733.37	100Year-Existing	10.23	89.53	90.29	90.15	90.31	0.004074	1.04	20.54	82.39	0.44
DoylesR	TR013	1677.65	100Year-Existing	10.23	89.42	89.87		89.91	0.014729	1.43	13.02	68.10	0.77
DoylesR	TR013	1613.85	100Year-Existing	10.23	89.11	89.69		89.69	0.001596	0.57	32.34	98.75	0.27
DoylesR	TR013	1552.30	100Year-Existing	10.23	88.82	89.59		89.60	0.001868	0.80	26.47	69.63	0.31
DoylesR	TR013	1506.96	100Year-Existing	10.23	88.81	89.52		89.53	0.001934	0.77	25.55	66.03	0.31
DoylesR	TR013	1478.17	100Year-Existing	10.23	88.80	89.38		89.42	0.010480	1.44	13.92	49.52	0.68
DoylesR	TR013	1411.61	100Year-Existing	10.23	88.11	89.10		89.13	0.002367	1.02	15.36	33.97	0.36
DoylesR	TR013	1388.58	100Year-Existing	10.23	87.45	89.11	88.80	89.12	0.000168	0.39	64.21	169.20	0.10
DoylesR	TR013	1375		Culvert									
DoylesR	TR013	1373.86	100Year-Existing	10.23	87.32	88.79	88.50	88.90	0.005496	2.07	13.84	67.77	0.56
DoylesR	TR013	1301.72	100Year-Existing	10.23	86.82	87.98	87.98	88.28	0.014036	2.71	5.27	11.13	0.88
DoylesR	TR013	1246.99	100Year-Existing	10.23	85.79	86.73	86.86	87.21	0.028148	3.22	3.71	7.18	1.20

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR013	1192.26	100Year-Existing	10.23	84.79	86.00	85.82	86.15	0.007324	2.02	7.37	12.23	0.64
DoylesR	TR013	1137.53	100Year-Existing	10.23	84.03	85.27	85.27	85.59	0.014412	2.77	5.05	9.75	0.89
DoylesR	TR013	1082.80	100Year-Existing	10.23	83.55	84.46	84.49	84.64	0.020836	2.43	7.16	22.16	0.98
DoylesR	TR013	1064.90	100Year-Existing	10.23	82.57	84.51	83.78	84.54	0.000804	0.86	28.64	117.89	0.22
DoylesR	TR013	1050		Culvert									
DoylesR	TR013	1042.53	100Year-Existing	10.23	82.41	84.42	83.56	84.42	0.000236	0.50	51.48	136.71	0.12
DoylesR	TR013	1022.06	100Year-Existing	10.23	82.71	84.19	83.92	84.39	0.007036	2.34	7.33	13.47	0.65
DoylesR	TR013	969.32	100Year-Existing	10.23	82.40	83.44	83.44	83.78	0.019670	3.11	4.72	7.42	1.04
DoylesR	TR013	915.66	100Year-Existing	10.23	81.80	83.05	82.62	83.07	0.001122	0.86	24.86	46.60	0.26
DoylesR	TR013	867.93	100Year-Existing	10.23	81.40	82.97		83.00	0.001709	1.22	20.56	45.04	0.32
DoylesR	TR013	809.27	100Year-Existing	10.23	81.32	82.71		82.84	0.004424	1.74	7.93	11.18	0.51
DoylesR	TR013	756.07	100Year-Existing	10.23	80.75	82.00	82.00	82.40	0.016044	3.22	4.54	6.29	0.96
DoylesR	TR013	702.82	100Year-Existing	10.23	79.91	81.09	81.13	81.49	0.018416	3.21	4.62	7.61	1.01
DoylesR	TR013	651.60	100Year-Existing	10.23	78.06	78.95	79.32	79.84	0.062936	4.45	2.86	6.51	1.73
DoylesR	TR013	588.74	100Year-Existing	10.23	75.89	76.91	76.99	77.31	0.025445	2.87	4.02	8.27	1.10
DoylesR	TR013	543.29	100Year-Existing	10.23	75.20	76.11	76.19	76.37	0.015726	2.32	5.66	28.19	0.89
DoylesR	TR013	489.08	100Year-Existing	10.23	73.77	75.02	75.05	75.44	0.017924	3.30	4.38	6.19	1.00
DoylesR	TR013	436.90	100Year-Existing	10.23	72.11	73.10	73.38	73.92	0.052009	4.08	2.75	5.19	1.56
DoylesR	TR013	383.70	100Year-Existing	10.23	70.97	72.25	72.04	72.31	0.003076	1.34	14.86	42.99	0.42
DoylesR	TR013	363.75	100Year-Existing	10.23	70.36	72.19	71.91	72.27	0.001537	1.37	15.03	53.33	0.33
DoylesR	TR013	360		Culvert									
DoylesR	TR013	344.87	100Year-Existing	10.23	70.32	71.70	71.70	71.72	0.001234	0.90	24.34	48.31	0.25
DoylesR	TR013	324.16	100Year-Existing	10.23	70.29	70.89	71.01	71.46	0.139176	4.55	4.84	43.17	2.35
DoylesR	TR013	256.30	100Year-Existing	10.23	69.36	70.31	70.31	70.40	0.018472	2.30	10.64	52.58	0.87
DoylesR	TR013	236.50	100Year-Existing	10.23	69.35	70.28	69.98	70.29	0.000619	0.40	44.98	116.93	0.17
DoylesR	TR013	162.98	100Year-Existing	10.23	68.94	70.25		70.25	0.000605	0.51	44.27	138.95	0.17
DoylesR	TR013	133.14	100Year-Existing	10.23	68.76	70.24		70.24	0.000226	0.32	62.23	123.74	0.10
DoylesR	TR013	66.14	100Year-Existing	10.23	68.46	70.22		70.22	0.000243	0.38	57.29	197.90	0.11
DoylesR	M001	484.12	100Year-Existing	58.52	68.08	69.95		70.04	0.007344	2.31	58.15	115.77	0.63
DoylesR	M001	429.44	100Year-Existing	58.52	67.72	69.87		69.89	0.001298	1.10	114.35	154.62	0.27
DoylesR	M001	388.03	100Year-Existing	58.52	67.53	69.84		69.85	0.000816	0.93	159.10	250.76	0.22
DoylesR	M001	344.78	100Year-Existing	58.52	67.39	69.83		69.83	0.000210	0.50	266.89	313.76	0.11
DoylesR	M001	215.64	100Year-Existing	58.52	67.21	69.82		69.82	0.000033	0.22	521.32	421.21	0.05
DoylesR	M001	77.13	100Year-Existing	58.52	66.62	69.82		69.82	0.000010	0.14	877.79	603.67	0.03
CochranePB	M002	8105.53	100Year-Existing	16.83	140.65	142.46	141.39	142.46	0.000103	0.37	103.79	129.96	0.10
CochranePB	M002	8065.47	100Year-Existing	16.83	140.64	142.45		142.45	0.000383	0.65	57.98	86.83	0.18
CochranePB	M002	8050.98	100Year-Existing	16.83	140.00	142.42		142.45	0.000186	0.93	46.90	79.56	0.24
CochranePB	M002	8024.09	100Year-Existing	16.83	140.62	142.43		142.43	0.000404	0.65	62.44	111.03	0.18
CochranePB	M002	8013.06	100Year-Existing	16.83	140.42	142.42		142.43	0.000302	0.62	66.90	109.78	0.16
CochranePB	M002	8004.70	100Year-Existing	16.83	140.25	142.42	141.80	142.43	0.000165	0.58	83.72	113.04	0.13
CochranePB	M002	8000		Culvert									
CochranePB	M002	7995.14	100Year-Existing	16.83	140.37	142.42	141.60	142.42	0.000150	0.54	73.15	85.71	0.12
CochranePB	M002	7964.49	100Year-Existing	16.83	140.14	141.98	141.98	142.37	0.010775	3.43	8.79	12.71	0.90
CochranePB	M002	7901.64	100Year-Existing	16.83	139.30	140.77	140.96	141.35	0.025914	3.78	7.73	28.26	1.28
CochranePB	M002	7847.08	100Year-Existing	16.83	138.68	139.84	139.72	139.92	0.007998	1.83	18.92	51.45	0.70
CochranePB	M002	7812.33	100Year-Existing	16.83	138.52	139.36	139.36	139.48	0.025431	2.41	13.91	56.19	1.21
CochranePB	M002	7738.34	100Year-Existing	16.83	137.94	138.98	138.75	138.99	0.002078	0.88	42.71	131.17	0.37
CochranePB	M002	7695.32	100Year-Existing	16.83	137.67	138.65	138.65	138.80	0.015865	2.21	13.11	41.89	1.00
CochranePB	M002	7609.21	100Year-Existing	16.83	136.29	137.81	137.44	137.84	0.000958	0.89	38.83	89.65	0.28
CochranePB	M002	7515.77	100Year-Existing	16.83	136.28	137.68		137.71	0.002369	1.30	31.85	102.52	0.43
CochranePB	M002	7476.72	100Year-Existing	16.83	136.26	137.65		137.66	0.000706	0.70	44.62	95.54	0.23
CochranePB	M002	7450.86	100Year-Existing	16.83	136.25	137.62		137.64	0.001371	0.94	33.56	83.91	0.32
CochranePB	M002	7329.89	100Year-Existing	16.83	136.23	137.32		137.37	0.004788	1.43	22.45	76.55	0.57
CochranePB	M002	7253.62	100Year-Existing	16.83	136.05	137.15		137.17	0.002070	1.00	32.92	96.27	0.37
CochranePB	M002	7208.54	100Year-Existing	16.83	135.88	137.04		137.07	0.002657	1.16	32.32	122.92	0.43
CochranePB	M002	7108.13	100Year-Existing	16.83	135.54	136.54		136.62	0.012809	2.27	18.45	76.52	0.90
CochranePB	M002	7041.67	100Year-Existing	16.83	134.91	136.13		136.21	0.004859	1.54	21.67	84.82	0.59
CochranePB	M002	6985.71	100Year-Existing	16.83	134.29	135.69	135.69	135.87	0.007927	2.41	15.40	47.75	0.77
CochranePB	M002	6955.25	100Year-Existing	16.83	133.48	134.75	134.95	135.38	0.030668	3.68	5.58	12.55	1.43
CochranePB	M002	6863.52	100Year-Existing	16.83	131.82	132.89	132.91	133.07	0.018507	2.72	12.71	39.03	1.09
CochranePB	M002	6840.09	100Year-Existing	16.83	131.19	132.17	132.25	132.48	0.035232	3.18	9.72	37.49	1.47
CochranePB	M002	6808.25	100Year-Existing	16.83	130.51	131.42	131.50	131.70	0.046018	3.30	9.81	41.01	1.61
CochranePB	M002	6767.75	100Year-Existing	16.83	129.31	130.38	130.42	130.57	0.017876	2.51	12.93	49.61	1.07
CochranePB	M002	6727.78	100Year-Existing	16.83	128.36	129.50	129.58	129.76	0.022647	2.93	10.40	35.31	1.19
CochranePB	M002	6691.71	100Year-Existing	16.83	127.96	129.09	129.02	129.15	0.006514	1.63	21.40	74.72	0.66
CochranePB	M002	6651.54	100Year-Existing	16.83	127.68	128.69	128.66	128.82	0.011296	1.75	12.69	39.61	0.84
CochranePB	M002	6630.83	100Year-Existing	16.83	127.19	128.46	128.46	128.62	0.008865	2.11	14.86	60.56	0.79
CochranePB	M002	6534.50	100Year-Existing	16.83	126.30	127.33	127.37	127.49	0.016356	2.32	14.37	70.83	1.02
CochranePB	M002	6507.97	100Year-Existing	16.83	125.65	126.58	126.66	126.82	0.038611	2.99	11.02	56.37	1.47
CochranePB	M002	6480.50	100Year-Existing	16.83	124.97	125.95	125.96	126.09	0.020502	2.45	13.78	55.84	1.11
CochranePB	M002	6433.33	100Year-Existing	16.83	124.09	125.09	125.12	125.28	0.018973	2.25	10.71	37.69	1.08
CochranePB	M002	6400.96	100Year-Existing	16.83	123.40	124.64	124.45	124.70	0.004576	1.45	20.67	53.13	0.55
CochranePB	M002	6364.18	100Year-Existing	16.83	123.28	124.65		124.65	0.000290	0.43	57.01	126.46	0.15
CochranePB	M002	6314.31	100Year-Existing	16.83	123.27	124.57		124.62	0.002139	1.11	26.42	76.32	0.40
CochranePB	M002	6286.25	100Year-Existing	16.83	123.26	124.50		124.55	0.002762	1.20	23.95	71.62	0.45
CochranePB	M002	6202.53	100Year-Existing	16.83	122.81	124.08	124.00	124.22	0.007726	2.04	13.95	38.19	0.75
CochranePB	M002	6130.00	100Year-Existing	16.83	122.30	123.39	123.39	123.57	0.011840	1.93	10.75	35.59	0.87
CochranePB	M002	6040.82	100Year-Existing	16.83	121.41	122.64	122.50	122.69	0.003120	1.30	26.01	77.41	0.48
CochranePB	M002	6006.95	100Year-Existing	16.83	121.40	122.60		122.62	0.001058	0.64	36.16	100.93	0.27
CochranePB	M002	5976.09	100Year-Existing	16.83	121.39	122.42	122.42	122.53	0.014141	1.95	16.32	72.74	0.93
CochranePB	M002	5910.40	100Year-Existing	16.83	120.29	121.56	121.59	121.74	0.012876	2.50	14.03	54.17	0.94
CochranePB	M002	5863.68	100Year-Existing	16.83	119.62	120.56	120.69	120.91	0.038440	2.99	8.41	42.12	1.50
CochranePB	M002	5811.63	100Year-Existing	16.83	118.87	119.99	119.99	120.14	0.013018	2.30	14.64	53.49	0.93
CochranePB	M002	5768.42	100Year-Existing	16.83	117.38	118.38	118.58	119.06	0.065524	3.73	5.06	21.17	1.95
CochranePB	M002	5725.36	100Year-Existing	16.83	116.48	117.65	117.68	117.84	0.013416	2.32	12.17	42.41	0.94
CochranePB	M002	5678.58	100Year-Existing	16.83	115.39	116.50	116.65	116.91	0.027678	2.92	7.05	27.77	1.32
CochranePB	M002	5627.04	100Year-Existing	16.83	114.79	116.25	115.89	116.30	0.002197	1.25	24.33	48.13	0.41
CochranePB	M002	5609.94	100Year-Existing	25.30	114.77	116.06		116.18	0.006775	1.91	21.06	47.47	0.70
CochranePB	M002	5601.00	100Year-Existing	25.30	114.76	116.05		116.07	0.001185	0.81	59.10	114.09	0.29
CochranePB	M002	5568.52	100Year-Existing	25.30	114.75	116.03		116.04	0.000926	0.71	58.52	102.02	0.26

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	5508.20	100Year-Existing	25.30	114.04	115.69		115.90	0.005375	2.14	15.07	23.72	0.66
CochranePB	M002	5473.67	100Year-Existing	25.30	113.90	115.37	115.37	115.64	0.010932	2.71	15.11	29.11	0.91
CochranePB	M002	5403.83	100Year-Existing	25.30	110.69	111.94	112.45	113.80	0.086948	6.19	4.68	10.11	2.41
CochranePB	M002	5352.19	100Year-Existing	25.30	110.27	111.75	111.80	112.04	0.011600	2.72	14.81	49.02	0.93
CochranePB	M002	5309.83	100Year-Existing	25.30	109.64	111.09	111.20	111.45	0.016501	3.12	15.25	50.33	1.10
CochranePB	M002	5266.90	100Year-Existing	25.30	109.30	110.67	110.69	110.84	0.011507	2.54	23.53	84.81	0.91
CochranePB	M002	5213.45	100Year-Existing	25.30	108.81	110.49	109.92	110.51	0.000911	0.87	54.86	90.38	0.27
CochranePB	M002	5162.38	100Year-Existing	47.96	108.18	110.11	110.11	110.36	0.008465	3.20	35.64	66.07	0.85
CochranePB	M002	5109.83	100Year-Existing	47.96	108.02	109.55	109.23	109.60	0.003772	1.55	59.28	108.42	0.52
CochranePB	M002	5059.83	100Year-Existing	47.96	107.54	109.22		109.38	0.007295	2.51	42.40	92.54	0.77
CochranePB	M002	5013.20	100Year-Existing	47.96	107.21	108.91	108.91	109.08	0.009364	2.58	41.26	103.35	0.84
CochranePB	M002	4977.38	100Year-Existing	47.96	107.07	108.83	108.50	108.86	0.001575	1.22	86.16	155.93	0.36
CochranePB	M002	4908.49	100Year-Existing	47.96	106.95	108.80		108.81	0.000505	0.76	138.69	205.84	0.21
CochranePB	M002	4883.44	100Year-Existing	47.96	106.94	108.79		108.80	0.000316	0.59	160.73	220.25	0.16
CochranePB	M002	4816.97	100Year-Existing	47.96	106.93	108.78		108.79	0.000286	0.56	166.67	234.39	0.16
CochranePB	M002	4757.22	100Year-Existing	47.96	106.78	108.77		108.78	0.000204	0.52	193.44	270.43	0.14
CochranePB	M002	4718.65	100Year-Existing	47.96	106.77	108.76		108.77	0.000259	0.59	186.86	336.08	0.15
CochranePB	M002	4674.22	100Year-Existing	47.96	106.76	108.74		108.76	0.000559	0.87	135.16	267.98	0.23
CochranePB	M002	4633.22	100Year-Existing	47.96	106.75	108.72		108.74	0.000353	0.67	115.17	184.04	0.18
CochranePB	M002	4561.03	100Year-Existing	47.96	106.74	108.65		108.70	0.001180	1.19	68.72	102.01	0.33
CochranePB	M002	4506.74	100Year-Existing	47.96	106.43	108.30	108.30	108.55	0.007444	2.75	32.41	59.44	0.79
CochranePB	M002	4459.83	100Year-Existing	47.96	105.66	107.35	107.57	107.98	0.019209	3.96	19.74	46.72	1.24
CochranePB	M002	4409.53	100Year-Existing	47.96	104.62	106.36	106.61	107.01	0.019839	4.04	17.82	31.75	1.24
CochranePB	M002	4359.83	100Year-Existing	47.96	103.72	105.56	105.77	106.14	0.014883	3.72	20.47	52.16	1.09
CochranePB	M002	4327.93	100Year-Existing	47.96	103.17	105.10	105.28	105.68	0.014167	3.67	18.54	36.32	1.08
CochranePB	M002	4265.56	100Year-Existing	47.96	102.45	104.40	104.41	104.84	0.011905	3.54	21.70	30.42	0.99
CochranePB	M002	4208.11	100Year-Existing	47.96	101.67	103.42	103.61	104.02	0.016371	3.75	18.29	33.60	1.15
CochranePB	M002	4159.83	100Year-Existing	47.96	101.12	102.24	102.36	102.65	0.054768	3.75	18.73	48.79	1.81
CochranePB	M002	4109.83	100Year-Existing	47.96	98.84	100.59	100.79	101.22	0.017423	4.04	19.76	41.62	1.20
CochranePB	M002	4056.00	100Year-Existing	47.96	97.18	98.95	99.31	99.98	0.027550	4.94	13.28	19.56	1.47
CochranePB	M002	4009.83	100Year-Existing	47.96	96.33	98.22	98.37	98.70	0.020614	4.35	25.69	65.13	1.24
CochranePB	M002	3969.03	100Year-Existing	47.96	95.62	97.55	97.75	98.10	0.012022	3.76	22.64	69.09	1.02
CochranePB	M002	3916.58	100Year-Existing	47.96	94.82	96.99	97.17	97.45	0.011609	3.61	26.80	83.05	0.95
CochranePB	M002	3859.82	100Year-Existing	47.96	94.34	96.34	96.52	96.83	0.010168	3.31	22.43	79.01	0.92
CochranePB	M002	3810.05	100Year-Existing	47.96	93.50	95.49	95.83	96.21	0.015042	4.12	17.13	42.57	1.13
CochranePB	M002	3759.83	100Year-Existing	47.96	93.00	94.71	94.90	95.29	0.017999	4.04	21.68	56.81	1.21
CochranePB	M002	3709.28	100Year-Existing	47.96	92.33	94.18	94.32	94.52	0.011422	3.29	28.45	82.94	0.96
CochranePB	M002	3661.60	100Year-Existing	47.96	92.05	93.86	93.89	94.04	0.007405	2.68	43.59	142.23	0.78
CochranePB	M002	3609.83	100Year-Existing	47.96	91.73	93.50	93.51	93.65	0.007515	2.58	45.36	145.31	0.77
CochranePB	M002	3559.90	100Year-Existing	47.96	90.87	92.92	92.99	93.21	0.008107	3.12	34.64	84.65	0.83
CochranePB	M002	3509.83	100Year-Existing	47.96	90.38	92.68	92.41	92.74	0.001884	1.74	69.44	114.28	0.42
CochranePB	M002	3493.23	100Year-Existing	47.96	90.02	92.28	92.07	92.67	0.005594	3.44	21.91	15.86	0.74
CochranePB	M002	3480		Bridge									
CochranePB	M002	3474.26	100Year-Existing	47.96	89.91	92.22	91.63	92.48	0.002917	2.60	25.81	16.80	0.56
CochranePB	M002	3466.43	100Year-Existing	47.96	90.00	92.25	92.12	92.41	0.002259	2.28	52.32	97.55	0.49
CochranePB	M002	3454.35	100Year-Existing	47.96	89.94	92.03	91.60	92.36	0.004079	2.83	21.98	17.24	0.65
CochranePB	M002	3450		Bridge									
CochranePB	M002	3434.16	100Year-Existing	52.47	90.36	91.72	91.72	92.24	0.010960	3.45	18.18	20.40	0.98
CochranePB	M002	3413.11	100Year-Existing	52.47	90.14	91.68	91.65	91.84	0.007648	2.71	44.66	95.10	0.79
CochranePB	M002	3391.58	100Year-Existing	52.47	90.03	91.59		91.69	0.004955	2.29	55.12	106.73	0.65
CochranePB	M002	3371.12	100Year-Existing	52.47	90.02	91.35	91.35	91.55	0.008725	2.70	41.31	96.83	0.85
CochranePB	M002	3309.87	100Year-Existing	52.47	89.28	90.76	90.67	90.87	0.009006	2.76	49.07	115.92	0.83
CochranePB	M002	3272.96	100Year-Existing	52.47	88.73	90.32	90.32	90.51	0.009613	2.84	38.04	90.25	0.86
CochranePB	M002	3219.09	100Year-Existing	52.47	88.30	89.81	89.82	89.98	0.010612	2.85	40.09	108.72	0.90
CochranePB	M002	3175.54	100Year-Existing	52.47	87.36	89.62	89.37	89.75	0.002343	1.95	50.12	79.65	0.46
CochranePB	M002	3165		Bridge									
CochranePB	M002	3157.85	100Year-Existing	52.47	87.50	89.29	89.33	89.56	0.006172	2.78	35.99	84.37	0.73
CochranePB	M002	3135.32	100Year-Existing	52.47	87.85	89.16	89.07	89.23	0.005066	1.84	61.98	155.30	0.62
CochranePB	M002	3106.53	100Year-Existing	52.47	87.94	88.84	88.84	88.98	0.026352	2.75	35.59	121.24	1.25
CochranePB	M002	3088.94	100Year-Existing	52.47	86.84	88.60	88.53	88.74	0.002756	1.88	53.39	151.49	0.50
CochranePB	M002	3080		Bridge									
CochranePB	M002	3075.67	100Year-Existing	52.47	86.74	88.40	88.19	88.48	0.001982	1.54	64.25	138.09	0.42
CochranePB	M002	3056.89	100Year-Existing	52.47	87.66	88.34		88.41	0.012818	1.22	46.87	154.18	0.78
CochranePB	M002	3007.54	100Year-Existing	52.47	87.61	88.02		88.06	0.004551	0.50	59.24	129.40	0.35
CochranePB	M002	2976.31	100Year-Existing	52.47	87.51	87.90		87.94	0.004958	0.59	59.24	142.73	0.42
CochranePB	M002	2941.08	100Year-Existing	52.47	86.98	87.78		87.80	0.003784	0.95	79.06	223.86	0.46
CochranePB	M002	2920.10	100Year-Existing	52.47	86.74	87.76	87.54	87.76	0.000435	0.41	167.99	295.49	0.16
CochranePB	M002	2915		Bridge									
CochranePB	M002	2912.75	100Year-Existing	52.47	86.97	87.75	87.75	87.76	0.000263	0.34	200.70	313.30	0.13
CochranePB	M002	2890.23	100Year-Existing	52.47	86.65	86.88	87.06	87.53	0.309779	3.39	14.60	82.44	3.22
CochranePB	M002	2823.99	100Year-Existing	52.47	86.08	87.16	86.81	87.18	0.001336	0.71	119.55	261.92	0.27
CochranePB	M002	2789.49	100Year-Existing	52.47	86.04	87.14		87.15	0.001201	0.64	123.75	273.93	0.26
CochranePB	M002	2741.30	100Year-Existing	52.47	85.71	87.09		87.10	0.001020	0.82	130.79	278.81	0.28
CochranePB	M002	2663.79	100Year-Existing	52.47	85.58	87.04		87.05	0.001035	0.88	128.50	285.74	0.28
CochranePB	M002	2639.38	100Year-Existing	52.47	85.57	87.01		87.02	0.001178	0.90	117.16	244.84	0.30
CochranePB	M002	2616.24	100Year-Existing	52.47	85.30	86.99		87.00	0.000746	0.83	134.04	244.17	0.25
CochranePB	M002	2539.69	100Year-Existing	52.47	85.41	86.95		86.96	0.001176	0.93	113.88	231.96	0.30
CochranePB	M002	2489.06	100Year-Existing	52.47	85.18	86.91		86.92	0.001309	1.12	107.24	218.77	0.33
CochranePB	M002	2438.28	100Year-Existing	52.47	84.87	86.85		86.88	0.001368	1.23	99.49	183.60	0.34
CochranePB	M002	2384.01	100Year-Existing	52.47	84.65	86.76		86.80	0.002020	1.60	83.38	150.29	0.41
CochranePB	M002	2310.47	100Year-Existing	52.47	84.33	86.54		86.62	0.003326	2.02	68.92	150.97	0.52
CochranePB	M002	2284.63	100Year-Existing	52.47	84.16	86.48		86.53	0.002478	1.76	70.64	111.28	0.43
CochranePB	M002	2240.58	100Year-Existing	52.47	84.04	86.01	86.01	86.31	0.010419	3.39	30.11	47.14	0.92
CochranePB	M002	2170.94	100Year-Existing	52.47	82.26	84.14	84.56	85.19	0.025189	5.01	14.31	18.97	1.43
CochranePB	M002	2136.89	100Year-Existing	52.47	81.72	83.47	83.78	84.30	0.023302	4.33	15.89	25.46	1.36
CochranePB	M002	2100.01	100Year-Existing	52.47	81.30	83.28	83.29	83.62	0.010114	3.19	27.68	42.17	0.91
CochranePB	M002	2046.85	100Year-Existing	52.47	80.89	82.79	82.80	83.13	0.008572	2.90	26.89	42.49	0.85
CochranePB	M002	2014.35	100Year-Existing	52.47	80.47	81.99	82.18	82.64	0.028033	3.96	18.74	41.42	1.43
CochranePB	M002	1990.76	100Year-Existing	52.47	80.10	82.00	82.00	82.29	0.009923	3.04	29.54	45.43	0.89
CochranePB	M002	1945.20	100Year-Existing	52.47	79.43	81.69	81.29	81.80	0.003188	2.05	47.82	59.46	0.53

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	1916.67	100Year-Existing	52.47	79.31	81.54		81.69	0.004476	2.41	40.86	51.80	0.62
CochranePB	M002	1871.48	100Year-Existing	52.47	79.28	81.38		81.50	0.003884	2.06	44.84	54.96	0.57
CochranePB	M002	1836.03	100Year-Existing	52.47	78.83	81.33		81.40	0.001522	1.55	60.78	74.05	0.37
CochranePB	M002	1788.63	100Year-Existing	52.47	78.46	80.88	80.88	81.23	0.008206	3.49	29.95	39.81	0.84
CochranePB	M002	1768.08	100Year-Existing	52.47	78.14	80.18	80.38	80.95	0.019525	4.68	18.77	27.70	1.26
CochranePB	M002	1733.19	100Year-Existing	52.47	77.95	80.02	80.07	80.39	0.009123	3.20	29.00	48.92	0.88
CochranePB	M002	1694.89	100Year-Existing	52.47	77.12	79.48	78.96	79.59	0.002326	1.86	46.50	49.71	0.46
CochranePB	M002	1685.79	100Year-Existing	52.47	77.06	79.38		79.56	0.004358	2.50	39.44	53.01	0.62
CochranePB	M002	1640.51	100Year-Existing	52.47	76.45	78.90	78.90	79.29	0.006942	3.31	25.98	31.67	0.79
CochranePB	M002	1602.99	100Year-Existing	52.47	75.01	76.57	77.12	78.53	0.067503	6.56	9.86	16.98	2.23
CochranePB	M002	1585.52	100Year-Existing	52.47	74.01	75.38	75.84	77.10	0.089170	6.35	10.69	21.59	2.47
CochranePB	M002	1569.47	100Year-Existing	52.47	73.71	75.05	75.28	75.84	0.042865	4.09	14.26	27.64	1.69
CochranePB	M002	1541.97	100Year-Existing	52.47	72.31	74.23	74.45	75.03	0.020501	4.38	15.90	20.21	1.28
CochranePB	M002	1510.83	100Year-Existing	52.47	71.34	72.59	72.94	73.85	0.080712	5.00	10.84	24.15	2.27
CochranePB	M002	1495.27	100Year-Existing	52.47	71.19	73.11	72.82	73.27	0.004322	1.97	35.98	44.86	0.60
CochranePB	M002	1458.62	100Year-Existing	52.47	70.58	72.71	72.71	73.00	0.009046	3.55	34.29	51.87	0.88
CochranePB	M002	1419.61	100Year-Existing	52.47	70.21	72.12	72.24	72.57	0.012736	3.76	24.63	38.31	1.04
CochranePB	M002	1384.56	100Year-Existing	52.47	69.61	71.99	72.02	72.31	0.005234	2.85	32.14	60.82	0.69
CochranePB	M002	1351.51	100Year-Existing	52.47	69.54	71.69	71.81	72.09	0.008820	3.47	31.86	77.88	0.89
CochranePB	M002	1311.78	100Year-Existing	52.47	69.49	71.44	71.50	71.69	0.008210	3.10	39.77	109.55	0.84
CochranePB	M002	1291.19	100Year-Existing	52.47	69.28	71.05	71.19	71.46	0.014667	3.75	31.81	109.54	1.08
CochranePB	M002	1217.75	100Year-Existing	52.47	68.70	71.08	70.49	71.11	0.000685	1.12	108.16	209.86	0.26
CochranePB	M002	1200.39	100Year-Existing	52.47	68.69	70.68	70.36	71.05	0.005386	2.77	19.65	19.26	0.70
CochranePB	M002	1190		Bridge									
CochranePB	M002	1185.68	100Year-Existing	53.79	68.46	70.55	70.07	70.87	0.003706	2.53	21.84	25.79	0.60
CochranePB	M002	1164.32	100Year-Existing	53.79	68.65	70.50	70.50	70.74	0.005906	2.87	39.39	98.39	0.73
CochranePB	M002	1132.60	100Year-Existing	53.79	68.60	69.85	70.01	70.33	0.029349	4.01	26.41	108.63	1.46
CochranePB	M002	1111.68	100Year-Existing	53.79	68.55	69.94	69.74	69.99	0.002869	1.56	75.11	162.91	0.48
CochranePB	M002	1059.95	100Year-Existing	53.79	68.38	69.87		69.91	0.001926	1.50	87.72	173.22	0.42
CochranePB	M002	998.99	100Year-Existing	53.79	68.13	69.83		69.84	0.000521	0.84	141.67	195.27	0.22
CochranePB	M002	955.54	100Year-Existing	53.79	68.12	69.83		69.83	0.000083	0.33	278.89	261.17	0.09
CochranePB	M002	851.16	100Year-Existing	53.79	67.62	69.83		69.83	0.000054	0.31	315.93	258.59	0.07
CochranePB	M002	798.06	100Year-Existing	53.79	67.47	69.82		69.83	0.000030	0.24	396.35	293.77	0.05
CochranePB	M002	746.77	100Year-Existing	53.79	67.30	69.82		69.82	0.000015	0.18	511.53	326.99	0.04
CochranePB	M002	694.52	100Year-Existing	53.79	66.98	69.82		69.82	0.000009	0.16	612.38	371.98	0.03
CochranePB	M002	669.16	100Year-Existing	53.79	66.97	69.82		69.82	0.000008	0.14	679.81	411.35	0.03
CochranePB	M002	590.19	100Year-Existing	53.79	66.84	69.82		69.82	0.000005	0.12	811.07	490.92	0.02
CochranePB	M002	539.85	100Year-Existing	53.79	66.81	69.82		69.82	0.000005	0.12	833.16	522.72	0.02
CochranePB	M002	488.40	100Year-Existing	53.79	66.54	69.82		69.82	0.000005	0.11	878.45	551.23	0.02
CochranePB	M001	381.27	100Year-Existing	106.92	66.35	69.82		69.82	0.000020	0.22	1018.51	644.37	0.04
CochranePB	M001	313.14	100Year-Existing	106.92	66.28	69.82		69.82	0.000014	0.18	1187.82	711.17	0.03

Petty Harbour River 100yr Q+20%

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	TR001	439.21	100Year-Existing	44.28	105.11	106.68	106.34	106.76	0.003621	1.82	52.08	71.61	0.48
RaymondB	TR001	409.42	100Year-Existing	44.28	104.68	106.51		106.64	0.004519	2.27	46.39	74.34	0.56
RaymondB	TR001	380.07	100Year-Existing	44.28	104.05	106.54		106.57	0.000575	1.01	94.73	91.43	0.21
RaymondB	TR001	360.64	100Year-Existing	44.28	103.60	106.55	105.32	106.56	0.000284	0.77	131.20	107.61	0.15
RaymondB	TR001	350		Bridge									
RaymondB	TR001	344.45	100Year-Existing	44.28	103.30	104.65	105.08	106.15	0.060863	6.54	12.72	39.98	1.88
RaymondB	TR001	334.13	100Year-Existing	44.28	103.40	104.42	104.70	105.44	0.049456	4.88	14.96	60.19	1.64
RaymondB	TR001	272.22	100Year-Existing	44.28	102.83	104.04	104.04	104.32	0.015870	3.16	26.88	46.60	0.97
RaymondB	TR001	218.50	100Year-Existing	44.28	101.42	102.92	103.03	103.43	0.016176	3.67	20.42	33.08	1.01
RaymondB	TR001	163.97	100Year-Existing	44.28	100.32	102.03	101.57	102.21	0.004127	2.03	29.76	34.00	0.52
RaymondB	TR001	115.54	100Year-Existing	44.28	100.00	101.49	101.49	101.86	0.012769	3.37	24.70	41.36	0.91
RaymondB	TR001	56.65	100Year-Existing	44.28	97.73	98.57	99.02	100.12	0.098735	5.98	9.38	17.03	2.25
RaymondB	M002	6453.60	100Year-Existing	23.64	118.10	125.31	118.98	125.31	0.000000	0.04	685.40	235.74	0.01
RaymondB	M002	6405.52	100Year-Existing	23.64	118.00	125.31		125.31	0.000000	0.04	695.21	230.20	0.01
RaymondB	M002	6347.04	100Year-Existing	23.64	124.73	125.24		125.30	0.005812	1.15	20.72	41.66	0.52
RaymondB	M002	6247.26	100Year-Existing	23.64	117.21	118.37		118.43	0.004008	1.54	26.70	35.61	0.48
RaymondB	M002	6230.10	100Year-Existing	23.64	117.20	118.35		118.39	0.001845	1.02	33.08	43.55	0.33
RaymondB	M002	6205.35	100Year-Existing	23.64	117.28	118.32		118.34	0.001642	0.91	45.99	63.12	0.30
RaymondB	M002	6143.06	100Year-Existing	23.64	117.18	118.20		118.22	0.002262	1.03	41.70	65.85	0.35
RaymondB	M002	6105.93	100Year-Existing	23.64	117.17	118.07		118.12	0.002833	1.06	33.40	64.28	0.39
RaymondB	M002	6026.35	100Year-Existing	23.64	116.81	117.88		117.92	0.002153	1.05	36.25	49.90	0.35
RaymondB	M002	5933.71	100Year-Existing	23.64	116.42	117.63		117.69	0.002743	1.31	33.35	70.98	0.40
RaymondB	M002	5883.92	100Year-Existing	23.64	116.12	117.38		117.51	0.004670	1.73	20.72	42.93	0.52
RaymondB	M002	5785.15	100Year-Existing	23.64	115.75	116.93		117.04	0.004853	1.64	21.28	32.71	0.52
RaymondB	M002	5732.44	100Year-Existing	23.64	115.46	116.53		116.71	0.007768	1.93	15.43	26.63	0.65
RaymondB	M002	5631.37	100Year-Existing	23.64	114.85	115.85		115.94	0.007094	1.68	23.70	46.39	0.61
RaymondB	M002	5500.15	100Year-Existing	23.64	114.62	115.78		115.79	0.000577	0.56	82.66	139.40	0.18
RaymondB	M002	5485.46	100Year-Existing	23.64	114.53	115.78		115.78	0.000337	0.47	103.57	171.03	0.14
RaymondB	M002	5411.19	100Year-Existing	23.64	114.48	115.72	115.26	115.74	0.001111	0.82	44.91	71.78	0.25
RaymondB	M002	5338.54	100Year-Existing	23.64	114.41	115.71	114.81	115.71	0.000107	0.27	104.08	112.15	0.08
RaymondB	M002	5278.93	100Year-Existing	23.64	114.44	115.70	114.87	115.71	0.000147	0.31	94.56	113.43	0.09
RaymondB	M002	5226.60	100Year-Existing	23.64	114.42	115.70		115.70	0.000159	0.32	102.96	131.81	0.10
RaymondB	M002	5171.66	100Year-Existing	23.64	114.42	115.69		115.69	0.000145	0.31	125.13	183.31	0.09
RaymondB	M002	5111.50	100Year-Existing	23.64	114.42	115.67		115.68	0.000515	0.58	75.21	151.36	0.18
RaymondB	M002	5077.48	100Year-Existing	23.64	114.38	115.65		115.66	0.000500	0.57	60.90	99.99	0.17
RaymondB	M002	5017.13	100Year-Existing	23.64	114.40	115.52		115.59	0.002800	1.22	21.95	30.60	0.40
RaymondB	M002	4967.43	100Year-Existing	23.64	114.07	115.22		115.39	0.006074	1.83	14.53	19.67	0.59
RaymondB	M002	4943.43	100Year-Existing	23.64	113.82	115.11		115.25	0.005176	1.83	18.44	27.41	0.55
RaymondB	M002	4910.95	100Year-Existing	23.64	113.67	114.96		115.08	0.004768	1.77	20.20	30.83	0.53
RaymondB	M002	4851.17	100Year-Existing	23.64	113.47	114.65		114.78	0.005556	1.80	19.64	31.31	0.57
RaymondB	M002	4783.73	100Year-Existing	23.64	113.30	114.33		114.41	0.004986	1.42	21.22	37.15	0.51
RaymondB	M002	4732.68	100Year-Existing	23.64	113.07	114.08		114.15	0.005061	1.44	25.35	44.04	0.52
RaymondB	M002	4681.76	100Year-Existing	23.64	112.35	113.44	113.44	113.73	0.013435	2.65	12.62	35.12	0.87
RaymondB	M002	4673.96	100Year-Existing	23.64	111.74	112.74	113.00	113.51	0.040778	4.18	7.37	23.24	1.48
RaymondB	M002	4644.78	100Year-Existing	23.64	110.49	111.51	111.76	112.34	0.038905	4.22	6.65	23.69	1.45
RaymondB	M002	4625.72	100Year-Existing	23.64	106.75	107.40	108.02	110.49	0.320307	7.80	3.07	7.39	3.72
RaymondB	M002	4615.42	100Year-Existing	23.64	105.83	106.62	107.04	108.14	0.116143	5.64	4.79	10.21	2.35
RaymondB	M002	4607.06	100Year-Existing	23.64	105.79	107.06	107.05	107.54	0.015843	3.20	8.82	9.84	0.97
RaymondB	M002	4597.34	100Year-Existing	23.64	105.76	107.07	106.97	107.35	0.011048	2.59	12.58	17.33	0.80
RaymondB	M002	4575.18	100Year-Existing	23.64	105.98	106.66	106.66	106.93	0.039249	2.81	10.83	20.62	1.30
RaymondB	M002	4545.57	100Year-Existing	23.64	104.65	105.89	105.95	106.25	0.015255	2.99	12.83	29.73	0.94
RaymondB	M002	4522.17	100Year-Existing	23.64	103.67	104.51	104.82	105.53	0.065749	4.82	6.68	16.11	1.83
RaymondB	M002	4511.42	100Year-Existing	23.64	103.62	105.00	104.66	105.12	0.004858	1.83	21.06	29.10	0.54
RaymondB	M002	4489.94	100Year-Existing	23.64	103.59	104.62	104.62	104.92	0.015830	2.77	12.63	22.46	0.93
RaymondB	M002	4466.63	100Year-Existing	23.64	103.03	104.38	104.01	104.51	0.004597	1.77	20.38	34.95	0.53
RaymondB	M002	4439.46	100Year-Existing	23.64	103.00	104.10	104.10	104.31	0.012083	2.51	17.63	40.90	0.82
RaymondB	M002	4415.77	100Year-Existing	23.64	102.78	103.59	103.68	103.90	0.024988	2.81	13.07	41.05	1.12
RaymondB	M002	4385.89	100Year-Existing	23.64	101.80	102.84	102.94	103.23	0.019500	3.08	12.25	31.50	1.04
RaymondB	M002	4354.01	100Year-Existing	23.64	101.27	102.17	102.25	102.46	0.027903	3.37	15.01	40.82	1.21
RaymondB	M002	4341.66	100Year-Existing	23.64	100.84	102.00	102.01	102.23	0.012533	2.59	17.34	40.17	0.84
RaymondB	M002	4332.73	100Year-Existing	23.64	100.32	101.27	101.55	102.00	0.040113	4.12	7.96	16.55	1.46
RaymondB	M002	4308.73	100Year-Existing	23.64	98.87	99.66	99.96	100.67	0.077945	4.91	6.47	14.02	1.95
RaymondB	M002	4294.65	100Year-Existing	23.64	98.45	99.48	99.57	99.95	0.023770	3.39	9.68	15.55	1.14
RaymondB	M002	4263.86	100Year-Existing	23.64	97.59	99.28	98.63	99.37	0.002302	1.52	23.10	25.17	0.39
RaymondB	M002	4235.25	100Year-Existing	23.64	97.47	99.27		99.31	0.001020	1.05	31.44	29.17	0.26
RaymondB	M001	4130.35	100Year-Existing	66.48	96.57	98.36	98.36	98.81	0.011217	3.12	26.96	35.17	0.84
RaymondB	M001	4076.94	100Year-Existing	66.48	96.04	97.97	97.69	98.22	0.006116	2.46	36.39	38.37	0.63
RaymondB	M001	4023.53	100Year-Existing	66.48	95.94	97.35	97.35	97.74	0.013427	2.87	27.95	41.43	0.89
RaymondB	M001	3978.20	100Year-Existing	66.48	94.64	97.01	96.39	97.12	0.002476	1.56	56.14	64.11	0.40
RaymondB	M001	3916.71	100Year-Existing	90.36	94.64	96.72		96.90	0.004647	2.37	67.48	72.75	0.57
RaymondB	M001	3863.30	100Year-Existing	90.36	94.41	96.56		96.68	0.003185	2.03	83.52	87.98	0.47
RaymondB	M001	3809.58	100Year-Existing	90.36	94.09	96.08	95.95	96.41	0.008503	3.10	48.19	52.42	0.76
RaymondB	M001	3756.26	100Year-Existing	90.36	93.53	95.37	95.37	95.86	0.012190	3.52	38.71	44.90	0.90
RaymondB	M001	3694.37	100Year-Existing	90.36	92.66	94.99	94.54	95.13	0.002685	1.95	75.25	74.02	0.44
RaymondB	M001	3569.22	100Year-Existing	90.36	92.15	95.01		95.02	0.000254	0.70	253.82	199.32	0.14
RaymondB	M001	3527.64	100Year-Existing	90.36	91.85	95.00		95.01	0.000266	0.77	249.00	191.05	0.15
RaymondB	M001	3446.51	100Year-Existing	90.36	91.14	94.99		95.00	0.000111	0.55	326.80	192.26	0.10
RaymondB	M001	3421.64	100Year-Existing	90.36	91.23	94.99	93.41	94.99	0.000120	0.62	379.87	281.92	0.10
RaymondB	M001	3410		Bridge									
RaymondB	M001	3404.11	100Year-Existing	90.36	91.23	93.46	93.46	94.52	0.013578	4.61	19.96	126.29	1.00
RaymondB	M001	3380.48	100Year-Existing	90.36	90.96	93.36	92.57	93.48	0.002314	1.85	82.29	78.23	0.41
RaymondB	M001	3308.92	100Year-Existing	90.36	90.80	93.20		93.31	0.002344	1.92	93.74	98.15	0.42
RaymondB	M001	3216.73	100Year-Existing	90.36	89.31	92.79	91.42	93.08	0.002213	2.44	38.29	101.22	0.43
RaymondB	M001	3200		Bridge									
RaymondB	M001	3188.78	100Year-Existing	90.36	89.30	91.83	91.82	92.75	0.012550	4.60	23.32	54.62	0.96
RaymondB	M001	3015.18	100Year-Existing	90.36	89.18	91.13		91.29	0.003679	2.07	73.09	85.85	0.50
RaymondB	M001	2876.32	100Year-Existing	90.36	88.66	90.44	90.21	90.66	0.006916	2.52	59.67	102.09	0.67
RaymondB	M001	2789.37	100Year-Existing	90.36	88.24	90.19		90.26	0.002709	1.71	116.18	165.54	0.43
RaymondB	M001	2681.85	100Year-Existing	90.36	88.14	89.66		89.81	0.009032	2.52	75.07	150.28	0.74
RaymondB	M001	2604.32	100Year-Existing	90.36	87.97	89.52		89.55	0.001823	1.20	146.94	292.71	0.34

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	M001	2531.57	100Year-Existing	90.36	87.97	89.47		89.48	0.000701	0.70	228.28	296.63	0.20
RaymondB	M001	2385.34	100Year-Existing	90.36	87.43	89.41		89.43	0.001266	1.19	184.35	253.20	0.29
RaymondB	M001	2245.72	100Year-Existing	90.36	86.99	89.09		89.26	0.004094	2.23	84.03	154.52	0.53
RaymondB	M001	2194.47	100Year-Existing	90.36	86.68	89.07		89.12	0.001191	1.33	122.62	98.38	0.29
RaymondB	M001	2140.67	100Year-Existing	90.36	86.59	88.95		89.04	0.002000	1.70	93.90	73.93	0.38
RaymondB	M001	2087.60	100Year-Existing	90.36	86.38	88.74		88.90	0.002868	2.03	63.77	49.01	0.46
RaymondB	M001	2069.54	100Year-Existing	90.36	86.35	88.67		88.85	0.003302	2.17	70.89	101.92	0.49
RaymondB	M001	2040.77	100Year-Existing	90.36	86.25	88.61		88.75	0.002768	1.97	79.42	91.10	0.44
RaymondB	M001	1989.18	100Year-Existing	90.36	86.02	88.36	88.09	88.57	0.004318	2.46	70.87	92.02	0.56
RaymondB	M001	1950.22	100Year-Existing	90.36	85.79	87.83	87.83	88.29	0.011089	3.50	43.42	55.57	0.86
RaymondB	M001	1885.73	100Year-Existing	90.36	85.34	87.51		87.73	0.005636	2.58	57.74	58.52	0.62
RaymondB	M001	1835.84	100Year-Existing	90.36	84.64	86.67	86.67	87.26	0.015985	4.11	33.55	30.60	1.02
RaymondB	M001	1784.61	100Year-Existing	90.36	84.10	85.50	85.65	86.14	0.031470	4.22	31.51	40.99	1.34
RaymondB	M001	1733.38	100Year-Existing	90.36	82.79	85.17	84.51	85.31	0.002691	1.95	69.96	50.52	0.44
RaymondB	M001	1682.15	100Year-Existing	90.36	82.60	84.72		85.07	0.007110	2.85	42.81	43.47	0.70
RaymondB	M001	1630.92	100Year-Existing	90.36	82.12	84.23	84.18	84.66	0.008865	3.14	40.50	51.05	0.77
RaymondB	M001	1584.49	100Year-Existing	90.36	81.77	84.01		84.28	0.005944	2.68	52.50	59.53	0.64
RaymondB	M001	1536.01	100Year-Existing	90.36	81.31	83.61	83.36	83.95	0.007342	3.02	50.55	64.27	0.70
RaymondB	M001	1477.96	100Year-Existing	90.36	80.96	83.32		83.58	0.005158	2.60	56.52	61.58	0.60
RaymondB	M001	1425.99	100Year-Existing	90.36	80.58	83.19		83.35	0.002868	2.11	60.72	42.52	0.46
RaymondB	M001	1372.05	100Year-Existing	90.36	80.25	83.10		83.20	0.002095	1.91	83.80	91.45	0.40
RaymondB	M001	1323.54	100Year-Existing	90.36	79.11	82.92	81.60	83.09	0.001404	2.01	76.46	83.71	0.34
RaymondB	M001	1315		Bridge									
RaymondB	M001	1303.54	100Year-Existing	90.36	78.01	80.80	80.80	81.97	0.013759	4.79	18.85	21.26	1.00
RaymondB	M001	1252.39	100Year-Existing	94.20	78.45	80.42	80.59	81.18	0.022118	4.51	29.93	31.96	1.17
RaymondB	M001	1216.25	100Year-Existing	94.20	77.86	80.07	80.10	80.53	0.011916	3.76	41.47	44.58	0.90
RaymondB	M001	1189.75	100Year-Existing	94.20	77.61	79.26	79.47	80.03	0.029931	4.45	29.31	39.08	1.32
RaymondB	M001	1166.20	100Year-Existing	94.20	76.74	78.38	78.64	79.22	0.035469	5.03	32.25	55.01	1.46
RaymondB	M001	1148.70	100Year-Existing	94.20	76.50	78.29	78.35	78.70	0.016498	3.57	43.66	61.94	1.00
RaymondB	M001	1116.25	100Year-Existing	94.20	75.83	77.36	77.52	78.02	0.024551	3.80	30.17	40.99	1.19
RaymondB	M001	1066.09	100Year-Existing	94.20	75.16	77.12	76.90	77.38	0.006493	2.58	53.89	57.71	0.65
RaymondB	M001	1035.68	100Year-Existing	94.20	74.73	76.60	76.60	77.09	0.012343	3.44	38.15	43.42	0.90
RaymondB	M001	999.99	100Year-Existing	94.20	73.32	74.90	75.31	76.26	0.040451	5.47	20.93	24.16	1.57
RaymondB	M001	976.73	100Year-Existing	94.20	73.03	74.78	74.97	75.46	0.017756	4.03	34.92	50.31	1.07
RaymondB	M001	942.15	100Year-Existing	94.20	72.18	73.43	73.71	74.34	0.068045	5.90	26.90	42.87	1.94
RaymondB	M001	916.70	100Year-Existing	94.20	70.82	72.66	72.51	72.87	0.009123	2.98	61.37	76.06	0.77
RaymondB	M001	892.34	100Year-Existing	94.20	70.36	72.06	72.06	72.56	0.014528	3.60	41.01	60.23	0.96
RaymondB	M001	866.25	100Year-Existing	94.20	70.04	71.99	71.49	72.22	0.004814	2.31	57.86	69.15	0.57
RaymondB	M001	841.89	100Year-Existing	94.20	69.92	71.88		72.10	0.005237	2.47	67.46	96.95	0.60
RaymondB	M001	816.68	100Year-Existing	94.20	69.74	71.59	71.59	71.92	0.009183	3.13	54.04	81.32	0.78
RaymondB	M001	766.25	100Year-Existing	94.20	69.16	70.21	70.42	70.95	0.057977	4.86	28.11	46.99	1.75
RaymondB	M001	716.25	100Year-Existing	94.20	68.39	70.20	69.89	70.38	0.004978	2.28	64.53	71.27	0.58
RaymondB	M001	675.00	100Year-Existing	94.20	68.14	70.00		70.17	0.004894	2.29	65.82	67.47	0.57
RaymondB	M001	615.86	100Year-Existing	94.20	67.75	69.98		70.02	0.001074	1.24	152.30	167.32	0.28
RaymondB	M001	565.77	100Year-Existing	94.20	67.44	69.95		69.97	0.000596	1.00	210.41	246.67	0.21
RaymondB	M001	520.15	100Year-Existing	94.20	67.26	69.94		69.95	0.000234	0.65	327.97	329.36	0.13
RaymondB	M001	468.54	100Year-Existing	94.20	66.98	69.94		69.94	0.000112	0.49	462.83	416.29	0.09
RaymondB	M001	429.18	100Year-Existing	94.20	66.80	69.94		69.94	0.000042	0.31	673.61	525.37	0.06
RaymondB	M001	366.25	100Year-Existing	94.20	66.65	69.94		69.94	0.000016	0.20	1010.89	648.56	0.04
RaymondB	M001	341.79	100Year-Existing	94.20	66.63	69.94		69.94	0.000012	0.17	1125.99	690.38	0.03
PettyHR	M002	6270.85	100Year-Existing	121.44	66.23	69.94		69.94	0.000001	0.06	2314.84	875.67	0.01
PettyHR	M002	6218.07	100Year-Existing	121.44	66.23	69.94		69.94	0.000002	0.07	2179.92	860.29	0.01
PettyHR	M002	6095.00	100Year-Existing	121.44	66.23	69.94		69.94	0.000001	0.07	2115.01	861.72	0.01
PettyHR	M002	6004.71	100Year-Existing	121.44	66.23	69.94		69.94	0.000001	0.07	2177.58	889.37	0.01
PettyHR	M001	5825.85	100Year-Existing	205.44	66.23	69.93		69.94	0.000003	0.09	2472.81	854.04	0.02
PettyHR	M001	5685.44	100Year-Existing	205.44	66.23	69.93		69.93	0.000003	0.09	2365.99	742.39	0.02
PettyHR	M001	5516.39	100Year-Existing	227.64	66.23	69.93		69.93	0.000004	0.11	2061.18	632.84	0.02
PettyHR	M001	5279.80	100Year-Existing	227.64	66.23	69.93		69.93	0.000010	0.17	1393.54	428.33	0.03
PettyHR	M001	4996.75	100Year-Existing	227.64	66.23	69.92		69.93	0.000046	0.37	661.06	212.85	0.06
PettyHR	M001	4923.81	100Year-Existing	227.64	66.23	69.84		69.91	0.000594	1.29	222.77	94.85	0.23
PettyHR	M001	4867.41	100Year-Existing	227.64	66.23	69.73		69.86	0.001477	2.02	194.35	106.81	0.36
PettyHR	M001	4817.61	100Year-Existing	227.64	66.58	69.65		69.77	0.001819	2.13	186.23	96.32	0.39
PettyHR	M001	4757.18	100Year-Existing	227.64	66.43	68.94	68.94	69.52	0.010080	4.34	95.56	77.15	0.89
PettyHR	M001	4675.66	100Year-Existing	227.64	65.88	68.49	67.81	68.81	0.004772	3.09	107.39	53.00	0.61
PettyHR	M001	4612.84	100Year-Existing	227.64	64.88	67.50	67.49	68.30	0.012129	4.93	74.71	46.46	0.98
PettyHR	M001	4570.09	100Year-Existing	227.64	64.62	67.08	67.08	67.79	0.010704	4.35	80.29	57.56	0.90
PettyHR	M001	4500.69	100Year-Existing	227.64	64.62	66.60	66.31	66.95	0.006576	2.96	104.81	79.70	0.69
PettyHR	M001	4461.12	100Year-Existing	227.64	64.55	66.24	66.18	66.65	0.013414	3.80	100.74	92.67	0.95
PettyHR	M001	4428.20	100Year-Existing	227.64	64.41	66.09		66.32	0.008781	3.00	120.02	91.31	0.76
PettyHR	M001	4395.66	100Year-Existing	227.64	63.81	65.83		66.08	0.005589	2.78	122.64	82.89	0.63
PettyHR	M001	4357.04	100Year-Existing	227.64	63.34	65.71		65.88	0.003420	2.45	147.39	82.43	0.51
PettyHR	M001	4281.82	100Year-Existing	227.64	62.50	65.60		65.72	0.001183	1.71	160.45	60.22	0.31
PettyHR	M001	4166.17	100Year-Existing	227.64	61.82	65.63		65.65	0.000168	0.73	452.77	170.32	0.12
PettyHR	M001	3949.19	100Year-Existing	227.64	61.31	65.64		65.64	0.000001	0.05	5342.26	1319.10	0.01
PettyHR	M001	3936.78	100Year-Existing	227.64	61.31	65.64		65.64	0.000000	0.04	6571.52	1576.57	0.01
PettyHR	M001	3931.39	100Year-Existing	149.40	61.31	65.64		65.64	0.000000	0.02	8270.10	2018.58	0.00
PettyHR	M001	3925.44	100Year-Existing	149.40	61.31	65.64		65.64	0.000000	0.04	4096.69	1006.02	0.01
PettyHR	M001	3867.05	100Year-Existing	149.40	61.31	65.64		65.64	0.000000	0.04	4121.63	992.66	0.01
PettyHR	M001	3643.73	100Year-Existing	149.40	61.31	65.64		65.64	0.000000	0.03	4726.14	1115.61	0.00
PettyHR	M001	3440.60	100Year-Existing	149.40	61.31	65.64		65.64	0.000001	0.06	2404.92	588.57	0.01
PettyHR	M001	3182.65	100Year-Existing	149.40	61.31	65.64		65.64	0.000002	0.08	1797.29	428.12	0.01
PettyHR	M001	3080.13	100Year-Existing	149.40	61.31	65.64		65.64	0.000001	0.07	2128.69	526.17	0.01
PettyHR	M001	3028.13	100Year-Existing	149.40	61.31	65.64		65.64	0.000001	0.07	2324.91	563.59	0.01
PettyHR	M001	2983.09	100Year-Existing	149.40	61.31	65.64		65.64	0.000002	0.08	1892.22	453.81	0.01
PettyHR	M001	2828.46	100Year-Existing	149.40	61.31	65.64		65.64	0.000005	0.14	1117.89	281.61	0.02
PettyHR	M001	2712.72	100Year-Existing	149.40	61.31	65.64		65.64	0.000016	0.25	648.79	184.25	0.04
PettyHR	M001	2671.95	100Year-Existing	149.40	61.31	65.63		65.64	0.000025	0.31	590.31	177.98	0.05
PettyHR	M001	2653.10	100Year-Existing	149.40	61.31	65.63		65.64	0.000035	0.37	508.31	158.97	0.06
PettyHR	M001	2632.46	100Year-Existing	149.40	61.31	65.62		65.64	0.000138	0.74	315.44	127.53	0.11
PettyHR	M001	2596.08	100Year-Existing	149.40	61.31	65.60		65.63	0.000157	0.79	284.51	123.69	0.12

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	2583.24	100Year-Existing	149.40	60.10	65.52	63.34	65.62	0.000734	1.77	182.04	124.83	0.26
PettyHR	M001	2580		Bridge									
PettyHR	M001	2573.39	100Year-Existing	149.40	60.00	65.36	62.88	65.43	0.000440	1.38	197.57	101.24	0.20
PettyHR	M001	2551.09	100Year-Existing	149.40	59.89	65.40		65.41	0.000041	0.43	421.88	123.90	0.06
PettyHR	M001	2426.14	100Year-Existing	149.40	59.27	65.40		65.41	0.000003	0.12	1293.56	279.89	0.02
PettyHR	M001	2315.39	100Year-Existing	149.40	58.72	65.40		65.41	0.000002	0.10	1578.43	320.40	0.01
PettyHR	M001	2204.15	100Year-Existing	149.40	58.16	65.40		65.40	0.000002	0.10	1584.50	309.45	0.01
PettyHR	M001	2022.45	100Year-Existing	149.40	57.26	65.40		65.40	0.000004	0.16	960.60	192.54	0.02
PettyHR	M001	1902.10	100Year-Existing	149.40	56.66	65.40		65.40	0.000007	0.21	737.69	129.56	0.03
PettyHR	M001	1879.72	100Year-Existing	149.40	56.55	65.40		65.40	0.000017	0.33	546.57	109.96	0.04
PettyHR	M001	1824.42	100Year-Existing	149.40	56.28	65.39		65.40	0.000029	0.44	364.78	66.92	0.06
PettyHR	M001	1789.72	100Year-Existing	149.40	56.10	65.39		65.40	0.000041	0.52	308.35	56.20	0.07
PettyHR	M001	1724.70	100Year-Existing	149.40	55.78	65.38		65.40	0.000054	0.60	269.39	48.67	0.07
PettyHR	M001	1668.81	100Year-Existing	149.40	55.50	65.38	58.60	65.39	0.000030	0.46	358.65	67.44	0.06
PettyHR	M001	1647.80	100Year-Existing	149.40	55.40	65.38	58.28	65.39	0.000020	0.39	419.10	83.36	0.05
PettyHR	M001	1631.79	100Year-Existing	149.40	63.55	65.06		65.36	0.013343	2.41	61.98	73.34	0.83
PettyHR	M001	1615.46	100Year-Existing	151.44	54.38	57.05		57.31	0.006988	3.71	72.51	41.48	0.74
PettyHR	M001	1601.08	100Year-Existing	151.44	54.00	56.50	56.50	57.12	0.018192	5.73	51.35	39.15	1.18
PettyHR	M001	1586.16	100Year-Existing	151.44	53.36	55.64	55.98	56.73	0.032535	7.27	39.04	31.62	1.56
PettyHR	M001	1571.98	100Year-Existing	151.44	52.87	54.90	55.09	56.18	0.044629	7.77	33.91	25.91	1.78
PettyHR	M001	1519.66	100Year-Existing	151.44	51.62	53.57	53.61	54.20	0.027014	5.80	47.51	40.36	1.36
PettyHR	M001	1467.14	100Year-Existing	151.44	50.86	52.65	52.42	53.01	0.015715	4.29	60.73	48.64	1.04
PettyHR	M001	1457.30	100Year-Existing	151.44	50.23	52.20	52.20	52.79	0.023694	5.63	48.80	39.27	1.30
PettyHR	M001	1444.51	100Year-Existing	151.44	48.30	49.54	50.17	51.95	0.179067	11.10	24.67	33.35	3.28
PettyHR	M001	1415.17	100Year-Existing	151.44	48.28	50.27	49.66	50.45	0.006320	2.92	83.87	54.61	0.67
PettyHR	M001	1402.15	100Year-Existing	151.44	47.79	49.76	49.76	50.28	0.023165	5.41	52.58	47.12	1.26
PettyHR	M001	1385.41	100Year-Existing	151.44	43.10	45.10	46.14	49.18	0.114553	12.05	21.37	20.96	2.82
PettyHR	M001	1370.82	100Year-Existing	151.44	41.75	44.08	45.15	47.58	0.082624	11.76	22.99	17.57	2.49
PettyHR	M001	1362.66	100Year-Existing	151.44	39.88	42.70	44.04	46.88	0.072992	12.29	21.61	13.88	2.39
PettyHR	M001	1336.64	100Year-Existing	151.44	39.87	41.88	42.64	44.36	0.083007	10.58	26.58	24.86	2.43
PettyHR	M001	1309.35	100Year-Existing	151.44	38.40	40.10	40.68	41.98	0.078719	9.14	27.31	22.88	2.29
PettyHR	M001	1279.20	100Year-Existing	151.44	35.02	37.80	38.50	40.15	0.047600	9.95	33.28	32.49	1.94
PettyHR	M001	1258.06	100Year-Existing	151.44	34.01	37.26	38.09	39.22	0.030599	8.94	31.96	22.48	1.60
PettyHR	M001	1221.17	100Year-Existing	151.44	33.21	35.01	35.66	37.32	0.098954	10.35	26.66	27.50	2.55
PettyHR	M001	1203.34	100Year-Existing	151.44	32.61	34.16	34.59	35.49	0.074966	8.30	33.04	35.55	2.20
PettyHR	M001	1164.99	100Year-Existing	151.44	31.37	33.26	33.30	33.85	0.024528	5.41	49.71	43.74	1.30
PettyHR	M001	1153.41	100Year-Existing	151.44	30.70	32.02	32.39	33.30	0.087651	8.19	32.95	39.30	2.33
PettyHR	M001	1125.74	100Year-Existing	151.44	29.27	30.84	30.92	31.57	0.039951	6.13	44.38	46.46	1.61
PettyHR	M001	1090.65	100Year-Existing	151.44	28.12	29.55	29.68	30.13	0.040269	5.63	50.22	64.44	1.58
PettyHR	M001	1059.48	100Year-Existing	151.44	26.84	28.37	28.47	28.90	0.037921	5.83	52.58	67.81	1.55
PettyHR	M001	1048.77	100Year-Existing	151.44	26.29	28.06	27.91	28.40	0.016082	4.18	64.27	59.01	1.04
PettyHR	M001	1021.54	100Year-Existing	151.44	25.47	27.31	27.31	27.85	0.025717	5.46	50.55	45.22	1.32
PettyHR	M001	1003.30	100Year-Existing	151.44	23.42	26.37	26.08	26.84	0.011476	5.15	60.13	40.02	0.97
PettyHR	M001	994.73	100Year-Existing	151.44	22.70	25.94	25.94	26.70	0.014385	6.10	49.49	30.27	1.10
PettyHR	M001	961.03	100Year-Existing	151.44	22.07	24.98	25.22	26.07	0.022853	7.07	40.62	26.83	1.35
PettyHR	M001	944.13	100Year-Existing	151.44	21.89	23.95	24.39	25.49	0.044631	7.87	32.05	23.86	1.79
PettyHR	M001	924.94	100Year-Existing	151.44	20.78	23.22	23.59	24.69	0.035718	7.90	31.93	18.90	1.64
PettyHR	M001	905.47	100Year-Existing	151.44	19.73	22.48	22.86	24.05	0.030779	8.00	31.89	17.40	1.56
PettyHR	M001	883.86	100Year-Existing	151.44	17.29	21.41	20.34	21.70	0.002914	3.24	78.77	43.56	0.52
PettyHR	M001	875		Bridge									
PettyHR	M001	859.53	100Year-Existing	151.44	17.25	19.74	19.74	20.60	0.020601	5.95	39.64	31.15	1.23
PettyHR	M001	836.76	100Year-Existing	151.44	12.80	15.28	16.54	19.48	0.074614	11.58	20.40	12.08	2.39
PettyHR	M001	823.70	100Year-Existing	151.44	12.86	14.70	15.24	17.95	0.116981	11.76	22.17	19.39	2.83
PettyHR	M001	811.96	100Year-Existing	151.44	12.85	15.05	15.57	16.60	0.050183	8.79	34.88	33.07	1.92
PettyHR	M001	796.92	100Year-Existing	151.44	12.74	14.38	14.76	15.65	0.068868	8.43	33.87	35.33	2.14
PettyHR	M001	784.11	100Year-Existing	151.44	11.82	14.08	14.30	14.98	0.029750	6.83	44.44	40.10	1.48
PettyHR	M001	769.86	100Year-Existing	151.44	10.94	13.04	13.46	14.43	0.041384	7.70	34.96	29.35	1.73
PettyHR	M001	748.76	100Year-Existing	151.44	8.37	11.20	11.94	13.50	0.038356	9.00	30.42	22.06	1.74
PettyHR	M001	720.33	100Year-Existing	151.44	8.08	9.36	10.02	11.64	0.148220	9.93	24.90	30.00	2.96
PettyHR	M001	707.57	100Year-Existing	151.44	6.85	8.54	9.00	10.09	0.072339	8.69	32.35	34.65	2.19
PettyHR	M001	685.99	100Year-Existing	151.44	5.31	7.24	7.62	8.68	0.057290	8.34	34.37	34.31	1.98
PettyHR	M001	666.04	100Year-Existing	151.44	5.03	7.97	7.14	8.11	0.003618	2.83	109.45	77.31	0.54
PettyHR	M001	652.51	100Year-Existing	151.44	4.66	6.20	6.20	7.83	0.082663	8.54	31.16	36.16	2.29
PettyHR	M001	633.61	100Year-Existing	151.44	4.40	5.66	5.87	6.43	0.049319	5.79	43.51	81.70	1.72
PettyHR	M001	622.83	100Year-Existing	151.44	4.09	5.38	5.38	5.73	0.025238	4.21	64.66	119.03	1.24
PettyHR	M001	577.97	100Year-Existing	151.44	2.48	3.98	4.04	4.37	0.035998	5.54	60.38	114.10	1.50
PettyHR	M001	525.57	100Year-Existing	151.44	0.51	3.38	2.48	3.47	0.002374	2.30	134.45	121.24	0.44
PettyHR	M001	491.94	100Year-Existing	151.44	-0.59	3.11	2.40	3.36	0.002997	2.76	101.70	120.38	0.50
PettyHR	M001	485		Bridge									
PettyHR	M001	478.84	100Year-Existing	151.44	-1.92	2.53		2.71	0.001458	2.02	109.05	141.09	0.34
PettyHR	M001	439.27	100Year-Existing	151.44	-1.89	2.61		2.64	0.000375	1.07	241.92	129.98	0.17
PettyHR	M001	405.68	100Year-Existing	151.44	-2.13	2.59		2.63	0.000338	1.03	238.25	132.54	0.17
PettyHR	M001	367.80	100Year-Existing	151.44	-2.02	2.60		2.61	0.000104	0.57	303.49	139.55	0.10
PettyHR	M001	338.85	100Year-Existing	151.44	-2.89	2.60		2.61	0.000062	0.50	342.43	122.59	0.08
PettyHR	M001	305.38	100Year-Existing	151.44	-2.46	2.59		2.60	0.000088	0.56	309.03	120.04	0.09
PettyHR	M001	269.29	100Year-Existing	151.44	-3.52	2.58		2.60	0.000079	0.60	289.45	110.43	0.09
PettyHR	M001	238.18	100Year-Existing	151.44	-3.50	2.57		2.60	0.000112	0.72	249.78	102.64	0.10
PettyHR	M001	201.25	100Year-Existing	151.44	-4.43	2.58		2.59	0.000036	0.44	369.72	120.30	0.06
PettyHR	M001	150.84	100Year-Existing	151.44	-3.34	2.58		2.59	0.000021	0.32	528.53	171.59	0.04
PettyHR	M001	105.74	100Year-Existing	151.44	-2.91	2.58		2.59	0.000022	0.31	510.51	154.27	0.05
PettyHR	M001	91.29	100Year-Existing	151.44	-3.36	2.58		2.59	0.000018	0.30	526.75	143.85	0.04
PettyHR	M001	20.04	100Year-Existing	151.44	-6.19	2.58		2.59	0.000009	0.23	709.31	185.26	0.03
PettyHR	M001	12.04	100Year-Existing	151.44	-6.19	2.55	-3.21	2.58	0.000179	0.86	267.31	185.14	0.10
ForthP	M001	2616.90	100Year-Existing	14.64	123.09	124.63	123.40	124.64	0.000020	0.13	156.41	164.67	0.04
ForthP	M001	2528.45	100Year-Existing	14.64	123.09	124.63		124.63	0.000005	0.07	242.32	205.20	0.02
ForthP	M001	2324.32	100Year-Existing	14.64	123.09	124.63		124.63	0.000016	0.12	182.86	223.52	0.03
ForthP	M001	2187.52	100Year-Existing	14.64	123.09	124.63		124.63	0.000003	0.05	327.29	294.11	0.01
ForthP	M001	1955.13	100Year-Existing	14.64	123.09	124.63		124.63	0.000003	0.05	373.68	316.05	0.01
ForthP	M001	1773.83	100Year-Existing	14.64	123.09	124.63		124.63	0.000001	0.03	453.48	349.15	0.01
ForthP	M001	1572.85	100Year-Existing	14.64	123.09	124.63		124.63	0.000001	0.03	432.47	324.83	0.01

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
ForthP	M001	1496.60	100Year-Existing	14.64	123.09	124.63		124.63	0.000002	0.04	365.53	282.92	0.01
ForthP	M001	1392.58	100Year-Existing	52.68	122.98	124.62	124.15	124.63	0.000823	0.93	131.69	177.99	0.23
ForthP	M001	1390		Culvert									
ForthP	M001	1381.72	100Year-Existing	52.68	122.95	124.60	124.20	124.61	0.001566	1.18	103.31	158.04	0.30
ForthP	M001	1360.50	100Year-Existing	52.68	122.87	124.40		124.54	0.008654	2.68	44.66	89.17	0.73
ForthP	M001	1311.12	100Year-Existing	52.68	122.52	124.17		124.23	0.004043	1.90	58.98	88.45	0.50
ForthP	M001	1261.17	100Year-Existing	52.68	121.36	123.60	123.60	123.92	0.009111	3.59	32.75	45.80	0.80
ForthP	M001	1211.51	100Year-Existing	52.68	119.83	121.96	122.33	123.08	0.028994	6.10	17.16	24.50	1.40
ForthP	M001	1161.66	100Year-Existing	52.68	117.25	118.53	118.97	120.46	0.111022	8.19	12.30	27.31	2.51
ForthP	M001	1112.05	100Year-Existing	52.68	114.88	116.16	116.32	116.72	0.044815	5.45	20.14	37.71	1.62
ForthP	M001	1062.35	100Year-Existing	52.68	113.16	114.52	114.56	114.88	0.029758	4.40	23.42	38.26	1.29
ForthP	M001	1041.93	100Year-Existing	52.68	112.62	114.08	114.10	114.37	0.023425	4.05	27.05	47.37	1.15
ForthP	M001	1031.90	100Year-Existing	52.68	112.31	113.62	113.74	114.06	0.040223	4.97	22.95	47.18	1.49
ForthP	M001	1011.12	100Year-Existing	52.68	111.62	112.80	112.91	113.20	0.042071	4.89	23.70	51.53	1.53
ForthP	M001	959.76	100Year-Existing	52.68	110.31	111.18	111.25	111.49	0.051631	4.10	24.58	64.62	1.59
ForthP	M001	908.93	100Year-Existing	52.68	109.25	110.04	109.88	110.11	0.012376	1.97	44.99	93.42	0.78
ForthP	M001	856.39	100Year-Existing	52.68	108.38	108.94	108.87	109.05	0.026673	2.03	36.16	94.98	1.04
ForthP	M001	806.25	100Year-Existing	52.68	107.09	108.14		108.23	0.012435	2.39	44.94	93.93	0.81
ForthP	M001	754.78	100Year-Existing	52.68	106.12	107.21	107.21	107.38	0.025746	3.66	35.82	96.51	1.19
ForthP	M001	734.50	100Year-Existing	52.68	105.47	106.90	106.81	107.01	0.009942	2.65	47.07	98.24	0.76
ForthP	M001	724.30	100Year-Existing	52.68	105.28	106.73		106.89	0.012576	3.05	42.16	96.02	0.87
ForthP	M001	703.65	100Year-Existing	52.68	105.02	106.31	106.28	106.53	0.023556	3.89	30.63	61.47	1.15
ForthP	M001	654.47	100Year-Existing	52.68	103.90	104.92	104.92	105.15	0.030974	3.82	28.90	63.75	1.29
ForthP	M001	605.63	100Year-Existing	52.68	102.27	103.55	103.62	103.86	0.027251	4.09	29.11	65.92	1.25
ForthP	M001	585.13	100Year-Existing	52.68	101.55	102.48	102.61	102.98	0.081461	5.40	21.65	70.31	2.02
ForthP	M001	577.30	100Year-Existing	52.68	101.52	102.31	102.35	102.55	0.049521	3.80	26.80	76.85	1.53
ForthP	M001	557.33	100Year-Existing	52.68	100.67	101.44	101.43	101.61	0.033624	3.01	31.84	89.56	1.25
ForthP	M001	507.84	100Year-Existing	52.68	98.92	99.69	99.69	99.86	0.037474	3.11	31.48	90.23	1.31
ForthP	M001	453.33	100Year-Existing	52.68	96.28	97.16	97.10	97.28	0.020684	2.62	38.98	100.30	1.01
ForthP	M001	402.29	100Year-Existing	52.68	94.96	95.74	95.74	95.93	0.038322	3.42	29.02	72.14	1.35
ForthP	M001	349.18	100Year-Existing	52.68	93.64	94.40	94.19	94.48	0.013066	1.86	44.58	94.06	0.78
ForthP	M001	297.76	100Year-Existing	52.68	92.55	93.56	93.52	93.71	0.022073	3.01	36.11	79.40	1.07
ForthP	M001	246.28	100Year-Existing	52.68	91.71	92.65	92.53	92.74	0.013759	2.22	45.01	95.05	0.83
ForthP	M001	182.03	100Year-Existing	52.68	90.94	92.20	91.90	92.24	0.005709	1.83	65.28	117.61	0.56
ForthP	M001	160.27	100Year-Existing	52.68	90.13	92.20	91.67	92.21	0.000375	0.69	160.78	170.22	0.16
ForthP	M001	150		Culvert									
ForthP	M001	144.74	100Year-Existing	52.68	89.90	91.45	91.45	91.49	0.001588	1.22	87.91	119.86	0.32
ForthP	M001	124.30	100Year-Existing	52.68	89.74	91.10	90.97	91.20	0.010199	2.58	48.47	95.80	0.77
ForthP	M001	61.58	100Year-Existing	52.68	88.75	90.10	90.10	90.31	0.019820	3.55	35.39	72.72	1.07
ForestP	M001	1557.91	100Year-Existing	10.56	78.25	79.78	78.49	79.78	0.000006	0.07	156.27	123.12	0.02
ForestP	M001	1428.05	100Year-Existing	10.56	78.25	79.78		79.78	0.000003	0.05	213.90	178.22	0.01
ForestP	M001	1315.71	100Year-Existing	10.56	78.25	79.78		79.78	0.000002	0.04	300.49	244.53	0.01
ForestP	M001	1228.83	100Year-Existing	10.56	78.25	79.78		79.78	0.000001	0.03	359.37	293.04	0.01
ForestP	M001	1138.84	100Year-Existing	10.56	78.25	79.78		79.78	0.000001	0.03	421.06	345.36	0.01
ForestP	M001	1077.28	100Year-Existing	10.56	78.25	79.78		79.78	0.000001	0.03	473.23	486.65	0.01
ForestP	M001	1019.12	100Year-Existing	10.56	78.25	79.78		79.78	0.000003	0.05	241.70	293.45	0.01
ForestP	M001	958.61	100Year-Existing	13.44	78.15	79.75	79.50	79.78	0.001402	0.93	28.53	72.51	0.27
ForestP	M001	955		Culvert									
ForestP	M001	949.85	100Year-Existing	13.44	77.76	79.71	79.64	79.77	0.005810	1.59	19.32	60.71	0.40
ForestP	M001	913.34	100Year-Existing	13.44	78.16	79.18	79.18	79.38	0.031505	3.48	8.88	24.32	1.18
ForestP	M001	883.23	100Year-Existing	13.44	77.54	78.41	78.44	78.59	0.024725	2.90	11.07	42.32	1.10
ForestP	M001	859.61	100Year-Existing	13.44	76.75	77.61	77.66	77.90	0.033396	3.41	7.02	15.70	1.28
ForestP	M001	831.71	100Year-Existing	13.44	75.74	76.78	76.85	77.19	0.037245	3.93	6.07	12.11	1.36
ForestP	M001	802.91	100Year-Existing	13.44	74.66	75.62	75.77	76.11	0.038425	4.00	5.75	12.00	1.41
ForestP	M001	772.90	100Year-Existing	13.44	73.77	74.66	74.71	74.93	0.034973	3.57	7.31	17.44	1.30
ForestP	M001	737.48	100Year-Existing	13.44	72.77	73.58	73.54	73.72	0.022212	2.67	9.53	22.82	1.03
ForestP	M001	688.06	100Year-Existing	13.44	71.80	72.49	72.43	72.58	0.023721	2.35	11.49	34.91	0.99
ForestP	M001	651.32	100Year-Existing	13.44	70.81	71.51	71.51	71.63	0.027465	2.75	10.90	38.85	1.13
ForestP	M001	600.44	100Year-Existing	13.44	69.80	70.42	70.34	70.46	0.015970	1.88	18.02	96.20	0.84
ForestP	M001	578.60	100Year-Existing	13.44	69.31	69.94	69.94	70.02	0.025464	2.39	16.28	95.60	1.07
ForestP	M001	528.92	100Year-Existing	13.44	68.58	69.94		69.94	0.000337	0.49	74.68	142.06	0.14
ForestP	M001	478.55	100Year-Existing	13.44	68.21	69.94		69.94	0.000051	0.23	132.15	151.49	0.06
ForestP	M001	430.82	100Year-Existing	13.44	67.77	69.94		69.94	0.000023	0.18	181.68	191.58	0.04
ForestP	M001	378.18	100Year-Existing	13.44	67.48	69.94		69.94	0.000004	0.08	402.25	350.01	0.02
ForestP	M001	328.07	100Year-Existing	13.44	67.34	69.94		69.94	0.000002	0.06	533.21	398.21	0.01
ForestP	M001	277.95	100Year-Existing	13.44	67.07	69.94		69.94	0.000001	0.05	642.26	467.19	0.01
ForestP	M001	195.51	100Year-Existing	13.44	66.23	69.94		69.94	0.000000	0.03	1093.19	648.51	0.00
ForestP	M001	158.37	100Year-Existing	13.44	66.23	69.94		69.94	0.000000	0.01	1848.42	734.56	0.00
ForestP	M001	89.11	100Year-Existing	13.44	66.23	69.94		69.94	0.000000	0.01	2043.65	792.45	0.00
DoylesR	TR019	260.51	100Year-Existing	0.48	124.74	125.18	124.96	125.18	0.000130	0.13	7.62	47.19	0.07
DoylesR	TR019	199.72	100Year-Existing	0.48	124.55	125.18		125.18	0.000002	0.02	47.10	148.14	0.01
DoylesR	TR019	150.00	100Year-Existing	0.48	124.37	125.18		125.18	0.000002	0.02	52.01	179.41	0.01
DoylesR	TR019	100.00	100Year-Existing	0.48	124.16	125.18		125.18	0.000002	0.03	51.33	241.43	0.01
DoylesR	TR019	50.00	100Year-Existing	0.48	124.18	125.18		125.18	0.000001	0.02	81.59	291.69	0.01
DoylesR	TR018	302.01	100Year-Existing	1.80	127.90	128.51	128.07	128.51	0.000102	0.16	17.64	45.28	0.07
DoylesR	TR018	270.53	100Year-Existing	1.80	126.19	128.51	127.00	128.51	0.000000	0.02	262.85	244.89	0.00
DoylesR	TR018	260		Culvert									
DoylesR	TR018	257.62	100Year-Existing	1.80	126.19	128.51	127.02	128.51	0.000000	0.02	267.87	215.51	0.00
DoylesR	TR018	244.68	100Year-Existing	1.80	125.64	128.51	126.74	128.51	0.000000	0.01	306.11	215.17	0.00
DoylesR	TR018	200		Culvert									
DoylesR	TR018	169.24	100Year-Existing	1.80	125.40	126.33	126.30	126.72	0.020685	3.17	0.70	78.10	1.07
DoylesR	TR018	131.43	100Year-Existing	1.80	125.24	125.47	125.47	125.49	0.030656	1.07	3.75	69.15	0.95
DoylesR	TR018	59.79	100Year-Existing	1.80	124.57	125.23	124.90	125.23	0.000156	0.19	25.78	154.76	0.08
DoylesR	TR017	4043.45	100Year-Existing	9.84	124.05	125.16		125.17	0.001617	1.01	29.10	122.97	0.31
DoylesR	TR017	3983.69	100Year-Existing	9.84	124.04	125.04		125.06	0.002225	1.00	25.80	105.20	0.35
DoylesR	TR017	3923.93	100Year-Existing	9.84	124.03	124.64	124.64	124.75	0.027753	2.08	9.12	44.93	1.07
DoylesR	TR017	3889.37	100Year-Existing	9.84	123.60	123.86	123.67	123.87	0.006170	0.43	19.11	76.51	0.41
DoylesR	TR017	3781.64	100Year-Existing	9.84	122.55	123.65		123.67	0.002079	1.04	25.64	86.96	0.34
DoylesR	TR017	3768.91	100Year-Existing	9.84	122.35	123.32	123.32	123.58	0.015795	2.50	5.56	14.58	0.89
DoylesR	TR017	3745.98	100Year-Existing	9.84	121.86	122.48	122.52	122.65	0.044277	2.59	7.02	38.10	1.33

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR017	3713.18	100Year-Existing	9.84	120.99	121.67	121.68	121.89	0.019771	2.22	5.70	15.77	0.96
DoylesR	TR017	3692.45	100Year-Existing	9.84	120.34	121.07	121.16	121.36	0.029582	2.72	5.27	18.63	1.17
DoylesR	TR017	3679.05	100Year-Existing	9.84	119.97	120.84	120.90	121.06	0.016840	2.47	6.73	26.74	0.93
DoylesR	TR017	3656.84	100Year-Existing	9.84	117.59	118.13	118.57	119.96	0.253980	6.20	1.81	6.48	3.23
DoylesR	TR017	3603.67	100Year-Existing	9.84	116.29	117.09	117.09	117.23	0.016564	2.29	7.97	29.68	0.90
DoylesR	TR017	3583.40	100Year-Existing	9.84	115.96	116.66	116.69	116.83	0.027491	2.60	7.47	31.56	1.12
DoylesR	TR017	3571.14	100Year-Existing	9.84	115.76	116.36	116.36	116.47	0.024246	2.31	8.72	36.66	1.04
DoylesR	TR017	3545.42	100Year-Existing	9.84	115.22	115.90	115.90	116.04	0.020607	2.17	7.74	26.82	0.96
DoylesR	TR017	3483.93	100Year-Existing	9.84	114.35	114.98	114.94	115.02	0.013214	1.70	14.71	71.82	0.77
DoylesR	TR017	3432.55	100Year-Existing	9.84	113.79	114.61	114.50	114.64	0.006838	1.47	17.30	68.19	0.57
DoylesR	TR017	3345.48	100Year-Existing	9.84	113.03	113.58	113.58	113.69	0.037514	2.37	8.51	45.26	1.23
DoylesR	TR017	3300.07	100Year-Existing	9.84	112.42	113.06	112.89	113.07	0.003622	0.84	23.12	80.15	0.39
DoylesR	TR016	918.87	100Year-Existing	3.60	127.08	128.80	127.26	128.80	0.000000	0.02	404.52	361.48	0.00
DoylesR	TR016	898.71	100Year-Existing	3.60	126.90	128.80	127.36	128.80	0.000001	0.04	196.31	225.35	0.01
DoylesR	TR016	890		Culvert									
DoylesR	TR016	882.28	100Year-Existing	3.60	126.88	128.74		128.74	0.000008	0.08	106.18	158.68	0.02
DoylesR	TR016	877.71	100Year-Existing	3.60	126.24	128.74	127.03	128.74	0.000005	0.09	125.44	190.27	0.02
DoylesR	TR016	850		Culvert									
DoylesR	TR016	848.13	100Year-Existing	3.60	126.37	127.25	127.25	127.57	0.020858	2.77	1.84	3.80	0.97
DoylesR	TR016	818.98	100Year-Existing	3.60	126.36	126.88	126.80	126.90	0.004355	0.84	9.69	64.02	0.43
DoylesR	TR016	768.99	100Year-Existing	3.60	126.30	126.69		126.70	0.004282	0.69	9.82	52.77	0.41
DoylesR	TR016	714.09	100Year-Existing	3.60	125.96	126.42	126.32	126.44	0.005188	0.82	8.25	43.85	0.45
DoylesR	TR016	675.95	100Year-Existing	3.60	125.74	126.10	126.10	126.15	0.021477	1.36	5.12	46.52	0.88
DoylesR	TR016	659.39	100Year-Existing	3.60	125.10	125.59	125.56	125.64	0.011147	1.35	5.15	27.48	0.68
DoylesR	TR016	632.80	100Year-Existing	3.60	124.78	125.28	125.28	125.36	0.015079	1.49	4.44	28.95	0.78
DoylesR	TR016	610.50	100Year-Existing	3.60	123.78	124.35	124.49	124.72	0.048977	3.06	1.63	5.97	1.45
DoylesR	TR016	549.37	100Year-Existing	3.60	122.30	123.00	123.02	123.11	0.015997	1.88	3.85	21.13	0.83
DoylesR	TR016	494.31	100Year-Existing	3.60	120.93	121.64	121.70	121.93	0.029321	2.42	1.67	4.99	1.11
DoylesR	TR016	473.82	100Year-Existing	3.60	120.18	120.74	120.87	121.13	0.053021	2.88	1.47	5.43	1.47
DoylesR	TR016	459.95	100Year-Existing	3.60	119.62	120.17	120.25	120.47	0.040449	2.50	1.64	5.80	1.29
DoylesR	TR016	439.99	100Year-Existing	3.60	119.05	119.77	119.77	120.00	0.022475	2.14	1.86	5.08	0.98
DoylesR	TR016	384.99	100Year-Existing	3.60	117.07	117.59	117.71	117.98	0.067078	2.82	1.34	5.18	1.60
DoylesR	TR016	329.99	100Year-Existing	3.60	115.67	116.10	116.20	116.53	0.115385	3.05	1.63	21.02	2.01
DoylesR	TR016	274.18	100Year-Existing	3.60	114.93	115.36	115.34	115.40	0.013632	1.18	6.15	49.58	0.71
DoylesR	TR016	218.88	100Year-Existing	3.60	114.35	114.87	114.85	114.90	0.011151	1.14	6.98	67.34	0.65
DoylesR	TR016	165.43	100Year-Existing	3.60	113.83	114.43	114.41	114.47	0.008951	1.21	6.00	40.66	0.61
DoylesR	TR016	86.48	100Year-Existing	3.60	112.80	113.29	113.29	113.40	0.023090	1.62	3.14	19.97	0.94
DoylesR	TR016	40.19	100Year-Existing	3.60	112.21	112.88	112.73	112.89	0.001643	0.59	14.14	70.04	0.27
DoylesR	TR015	3230.71	100Year-Existing	21.60	111.60	112.61		112.66	0.007929	1.90	28.19	83.10	0.65
DoylesR	TR015	3185.04	100Year-Existing	21.60	111.22	112.28		112.36	0.010492	2.12	22.61	56.12	0.74
DoylesR	TR015	3133.58	100Year-Existing	21.60	110.57	111.45	111.45	111.60	0.024005	2.92	16.67	48.76	1.10
DoylesR	TR015	3079.97	100Year-Existing	21.60	108.17	109.34	109.58	110.01	0.034598	4.23	8.16	16.63	1.38
DoylesR	TR015	3026.43	100Year-Existing	21.60	107.30	109.19	108.42	109.22	0.001051	1.08	34.08	34.68	0.27
DoylesR	TR015	3001.28	100Year-Existing	21.60	106.17	109.20	108.65	109.21	0.000165	0.55	93.68	80.92	0.10
DoylesR	TR015	3000		Culvert									
DoylesR	TR015	2988.77	100Year-Existing	21.60	106.03	108.15	108.15	108.34	0.004906	2.61	24.86	58.50	0.59
DoylesR	TR015	2963.30	100Year-Existing	21.60	105.69	106.64	106.96	107.89	0.096858	6.30	6.91	20.32	2.20
DoylesR	TR015	2915.60	100Year-Existing	21.60	104.53	105.74	105.80	106.10	0.024229	3.59	12.02	25.65	1.15
DoylesR	TR015	2867.64	100Year-Existing	21.60	103.37	104.67	104.70	105.03	0.025396	3.88	12.10	25.60	1.17
DoylesR	TR015	2841.04	100Year-Existing	21.60	102.40	103.03	103.19	103.59	0.134745	4.93	8.30	29.29	2.39
DoylesR	TR015	2804.73	100Year-Existing	21.60	101.67	102.61	102.52	102.73	0.016746	2.56	17.77	39.01	0.92
DoylesR	TR015	2742.98	100Year-Existing	21.60	100.87	101.78	101.70	101.85	0.013610	2.31	25.02	74.33	0.83
DoylesR	TR015	2687.77	100Year-Existing	21.60	100.07	100.75	100.75	100.86	0.027604	2.59	19.41	75.91	1.13
DoylesR	TR015	2638.14	100Year-Existing	21.60	98.95	99.85	99.85	100.00	0.024414	3.10	18.31	58.43	1.12
DoylesR	TR015	2593.26	100Year-Existing	21.60	97.75	98.99	98.89	99.09	0.010112	2.42	21.22	46.67	0.75
DoylesR	TR015	2557.12	100Year-Existing	21.60	97.53	98.73		98.80	0.007724	2.15	26.24	64.54	0.66
DoylesR	TR015	2522.34	100Year-Existing	21.60	97.26	98.24	98.24	98.43	0.020432	2.76	15.80	44.53	1.02
DoylesR	TR015	2483.94	100Year-Existing	21.60	96.95	97.77	97.68	97.83	0.014502	2.02	22.05	62.18	0.82
DoylesR	TR015	2438.99	100Year-Existing	21.60	96.35	97.59		97.61	0.002654	1.25	42.07	102.75	0.39
DoylesR	TR015	2387.12	100Year-Existing	21.60	96.39	97.54		97.55	0.000804	0.63	72.10	135.24	0.21
DoylesR	TR015	2352.45	100Year-Existing	21.60	96.40	97.52		97.53	0.000502	0.50	76.81	109.61	0.17
DoylesR	TR015	2283.37	100Year-Existing	21.60	95.75	97.37		97.45	0.003548	1.79	21.82	26.08	0.47
DoylesR	TR015	2231.50	100Year-Existing	21.60	95.54	96.86	96.76	97.11	0.014372	3.02	13.52	26.64	0.91
DoylesR	TR015	2160.12	100Year-Existing	21.60	94.93	96.14		96.28	0.008680	2.20	16.01	23.69	0.70
DoylesR	TR015	2119.11	100Year-Existing	21.60	94.44	95.58	95.56	95.81	0.018730	3.07	13.84	29.81	1.00
DoylesR	TR015	2075.88	100Year-Existing	21.60	93.86	94.93	94.93	95.09	0.014072	2.55	17.53	49.76	0.87
DoylesR	TR015	2024.01	100Year-Existing	21.60	93.19	94.37	94.30	94.48	0.009978	2.27	21.05	56.75	0.74
DoylesR	TR015	1972.14	100Year-Existing	21.60	92.71	93.80	93.80	93.90	0.014455	2.63	21.87	77.49	0.87
DoylesR	TR015	1921.75	100Year-Existing	21.60	92.35	93.64	93.18	93.66	0.001471	0.97	51.20	112.90	0.29
DoylesR	TR015	1851.62	100Year-Existing	21.60	91.24	92.90	92.90	93.43	0.018609	3.86	9.47	17.05	1.04
DoylesR	TR014	2057.49	100Year-Existing	13.08	125.48	126.67	126.42	126.70	0.002368	1.07	28.72	75.41	0.35
DoylesR	TR014	2037.89	100Year-Existing	13.08	125.57	126.67		126.67	0.000617	0.56	55.72	128.48	0.19
DoylesR	TR014	1988.88	100Year-Existing	13.08	124.71	126.55	125.76	126.62	0.001532	1.26	20.17	62.89	0.31
DoylesR	TR014	1980		Culvert									
DoylesR	TR014	1975.46	100Year-Existing	13.08	124.46	126.54		126.61	0.001231	1.24	17.07	46.28	0.29
DoylesR	TR014	1936.56	100Year-Existing	13.08	124.86	126.37	126.07	126.52	0.005096	2.09	12.50	25.89	0.57
DoylesR	TR014	1904.43	100Year-Existing	13.08	124.72	125.92	125.92	126.25	0.014010	2.92	7.24	12.50	0.90
DoylesR	TR014	1867.03	100Year-Existing	13.08	124.61	125.76	125.55	125.83	0.004259	1.58	14.95	26.15	0.50
DoylesR	TR014	1801.50	100Year-Existing	13.08	124.00	125.09	125.09	125.34	0.015822	2.88	8.29	16.84	0.94
DoylesR	TR014	1765.57	100Year-Existing	13.08	123.20	123.81	123.96	124.31	0.062618	3.68	5.39	19.44	1.68
DoylesR	TR014	1703.29	100Year-Existing	13.08	121.82	122.84	122.84	123.03	0.010864	2.35	10.46	28.59	0.78
DoylesR	TR014	1657.91	100Year-Existing	13.08	121.27	122.09	122.14	122.37	0.020584	2.61	7.54	21.23	1.01
DoylesR	TR014	1607.98	100Year-Existing	13.08	120.59	121.50	121.48	121.61	0.011867	2.15	14.32	48.38	0.78
DoylesR	TR014	1544.18	100Year-Existing	13.08	119.81	120.74	120.74	120.86	0.011814	2.22	13.59	43.76	0.79
DoylesR	TR014	1492.70	100Year-Existing	13.08	119.06	119.74	119.80	119.95	0.028413	2.76	10.06	41.34	1.16
DoylesR	TR014	1441.23	100Year-Existing	13.08	117.59	118.78	118.80	119.03	0.014551	3.00	9.34	20.89	0.92
DoylesR	TR014	1420.98	100Year-Existing	13.08	116.98	118.43	117.84	118.49	0.002461	1.43	14.47	14.69	0.39
DoylesR	TR014	1411.86	100Year-Existing	13.08	117.03	118.30	117.85	118.44	0.005039	1.96	8.61	12.78	0.56
DoylesR	TR014	1400		Bridge									
DoylesR	TR014	1384.41	100Year-Existing	14.88	116.71	117.67	117.61	118.01	0.016359	2.79	6.03	10.16	0.95

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR014	1374.60	100Year-Existing	14.88	116.54	117.65		117.82	0.007687	2.05	9.41	12.52	0.66
DoylesR	TR014	1353.25	100Year-Existing	14.88	116.21	117.22	117.22	117.56	0.017911	2.92	6.79	10.69	0.99
DoylesR	TR014	1309.14	100Year-Existing	14.88	115.50	116.63	116.44	116.85	0.008330	2.12	7.60	9.73	0.68
DoylesR	TR014	1296.25	100Year-Existing	14.88	115.12	116.27	116.27	116.65	0.017702	3.19	6.45	8.76	1.01
DoylesR	TR014	1239.25	100Year-Existing	14.88	113.43	114.18	114.42	114.88	0.058079	4.23	5.00	13.01	1.69
DoylesR	TR014	1203.69	100Year-Existing	14.88	112.84	113.80	113.64	113.88	0.008679	2.01	13.92	27.75	0.69
DoylesR	TR014	1182.25	100Year-Existing	14.88	112.53	113.39	113.39	113.60	0.019115	2.71	9.70	21.83	1.00
DoylesR	TR014	1125.25	100Year-Existing	14.88	111.30	112.63	112.33	112.70	0.004354	1.74	17.04	25.53	0.51
DoylesR	TR014	1104.23	100Year-Existing	14.88	111.16	112.31	112.31	112.53	0.014182	2.72	10.06	22.56	0.88
DoylesR	TR014	1094.88	100Year-Existing	14.88	110.55	111.45	111.69	112.23	0.061361	5.04	5.17	11.64	1.79
DoylesR	TR014	1075.36	100Year-Existing	14.88	110.17	111.29	111.34	111.57	0.020702	3.38	9.54	20.48	1.07
DoylesR	TR014	1027.18	100Year-Existing	14.88	109.15	110.10	110.18	110.43	0.027591	3.34	8.17	18.56	1.20
DoylesR	TR014	980.74	100Year-Existing	14.88	107.89	109.08	108.71	109.15	0.004682	1.73	16.20	23.14	0.52
DoylesR	TR014	954.47	100Year-Existing	14.88	107.68	108.73	108.73	108.93	0.015207	2.71	11.01	25.65	0.91
DoylesR	TR014	934.37	100Year-Existing	14.88	106.99	108.01	108.18	108.45	0.030991	3.66	8.07	23.05	1.27
DoylesR	TR014	907.24	100Year-Existing	14.88	106.52	107.50	107.45	107.63	0.013506	2.48	13.19	28.69	0.85
DoylesR	TR014	868.80	100Year-Existing	14.88	105.88	107.02		107.18	0.009977	2.32	12.19	26.56	0.75
DoylesR	TR014	864.98	100Year-Existing	14.88	105.70	106.84	106.84	107.12	0.014340	2.63	8.24	16.59	0.88
DoylesR	TR014	844.06	100Year-Existing	14.88	105.10	106.44	106.27	106.64	0.008710	2.45	10.66	21.38	0.72
DoylesR	TR014	836.52	100Year-Existing	14.88	104.97	106.20	106.20	106.54	0.017005	3.03	7.80	14.44	0.96
DoylesR	TR014	816.09	100Year-Existing	14.88	104.78	105.81	105.64	105.89	0.007135	1.81	14.94	30.74	0.62
DoylesR	TR014	811.48	100Year-Existing	14.88	104.64	105.79		105.86	0.005308	1.73	16.78	32.77	0.55
DoylesR	TR014	783.28	100Year-Existing	14.88	103.98	105.24	105.24	105.58	0.017918	3.38	7.49	10.97	1.01
DoylesR	TR014	751.27	100Year-Existing	14.88	103.31	104.45	104.54	104.92	0.023566	3.16	5.63	9.54	1.11
DoylesR	TR014	717.94	100Year-Existing	14.88	102.63	104.17	104.07	104.41	0.011008	3.01	10.69	18.98	0.81
DoylesR	TR014	676.43	100Year-Existing	14.88	102.18	103.32	103.32	103.75	0.022975	3.33	7.44	18.24	1.11
DoylesR	TR014	601.44	100Year-Existing	14.88	101.39	102.58	102.31	102.65	0.004712	1.63	15.60	25.59	0.52
DoylesR	TR014	540.83	100Year-Existing	14.88	100.49	101.52	101.52	102.03	0.027395	3.49	5.67	10.42	1.21
DoylesR	TR014	519.25	100Year-Existing	14.88	99.69	101.82	101.53	101.83	0.000923	0.97	37.58	66.69	0.22
DoylesR	TR014	510		Culvert									
DoylesR	TR014	505.00	100Year-Existing	14.88	99.62	101.55	101.55	101.60	0.002712	1.55	25.58	61.32	0.36
DoylesR	TR014	484.27	100Year-Existing	14.88	99.79	100.77	100.96	101.31	0.050390	4.18	5.98	15.21	1.55
DoylesR	TR014	426.15	100Year-Existing	14.88	98.71	100.06	100.06	100.23	0.008324	2.15	12.88	47.81	0.68
DoylesR	TR014	368.05	100Year-Existing	14.88	97.30	98.46	98.71	99.22	0.052955	4.49	5.42	16.21	1.59
DoylesR	TR014	343.01	100Year-Existing	14.88	96.78	98.54	97.89	98.68	0.003026	1.77	9.40	90.14	0.44
DoylesR	TR014	335		Bridge									
DoylesR	TR014	331.91	100Year-Existing	14.88	96.63	98.03	98.03	98.48	0.015222	3.15	5.60	7.45	0.93
DoylesR	TR014	312.09	100Year-Existing	14.88	96.26	97.53	97.67	98.01	0.037985	3.60	7.72	31.98	1.31
DoylesR	TR014	227.09	100Year-Existing	14.88	94.66	96.58	96.21	96.63	0.002744	1.53	20.74	30.49	0.39
DoylesR	TR014	205.76	100Year-Existing	14.88	94.51	96.24	96.24	96.51	0.011414	2.83	9.96	20.36	0.77
DoylesR	TR014	198.96	100Year-Existing	14.88	94.45	95.24	95.55	96.26	0.091180	4.59	3.82	12.17	2.03
DoylesR	TR014	181.77	100Year-Existing	14.88	94.01	95.27	95.27	95.48	0.013875	2.67	10.80	24.79	0.86
DoylesR	TR014	121.12	100Year-Existing	14.88	92.99	94.20	94.29	94.48	0.018985	3.01	12.63	61.61	0.99
DoylesR	TR014	34.73	100Year-Existing	14.88	91.60	92.66	92.67	92.99	0.018090	2.81	7.05	11.90	0.98
DoylesR	TR012	1780.65	100Year-Existing	36.48	90.30	92.59	91.88	92.65	0.001360	1.34	51.94	82.72	0.31
DoylesR	TR012	1753.67	100Year-Existing	36.48	89.56	92.60	91.49	92.62	0.000341	0.90	97.64	116.92	0.17
DoylesR	TR012	1745		Bridge									
DoylesR	TR012	1729.43	100Year-Existing	36.48	89.10	91.34	91.34	92.29	0.014692	4.45	8.71	17.12	0.99
DoylesR	TR012	1709.20	100Year-Existing	36.48	88.93	90.51	90.88	91.72	0.046040	5.92	10.81	20.84	1.63
DoylesR	TR012	1645.76	100Year-Existing	36.48	88.20	89.54	89.54	89.99	0.019854	3.57	14.82	19.63	1.08
DoylesR	TR011	1552.47	100Year-Existing	52.44	86.48	89.08	88.58	89.43	0.005291	2.99	25.05	16.55	0.63
DoylesR	TR011	1530.88	100Year-Existing	52.44	86.19	88.46	88.46	89.22	0.014081	4.47	17.06	12.08	1.00
DoylesR	TR011	1477.56	100Year-Existing	52.44	84.43	85.94	86.46	87.72	0.065297	6.87	11.25	14.10	1.97
DoylesR	TR011	1423.69	100Year-Existing	52.44	83.56	85.94	86.00	86.47	0.009150	3.70	24.38	30.87	0.81
DoylesR	TR011	1370.10	100Year-Existing	52.44	82.66	83.97	84.32	85.31	0.074353	6.73	14.49	30.69	2.07
DoylesR	TR011	1316.51	100Year-Existing	52.44	81.17	83.28	83.32	83.85	0.012374	3.93	21.15	23.25	0.92
DoylesR	TR011	1262.92	100Year-Existing	52.44	79.36	81.21	81.73	82.68	0.038446	6.14	12.95	16.65	1.57
DoylesR	TR011	1209.33	100Year-Existing	52.44	78.14	80.70	80.70	81.38	0.012187	4.26	19.60	19.77	0.92
DoylesR	TR011	1155.74	100Year-Existing	52.44	76.81	78.90	79.29	80.30	0.032430	5.86	12.15	11.08	1.43
DoylesR	TR011	1107.39	100Year-Existing	52.44	76.34	78.13	78.26	78.91	0.019850	4.13	15.01	13.97	1.12
DoylesR	TR011	1057.82	100Year-Existing	52.44	75.16	77.40	77.49	78.18	0.016511	4.33	15.97	13.56	1.03
DoylesR	TR011	971.36	100Year-Existing	52.44	73.33	75.38	74.84	75.73	0.005292	2.64	19.87	19.56	0.61
DoylesR	TR011	960		Bridge									
DoylesR	TR011	949.62	100Year-Existing	52.44	73.08	75.27	74.52	75.56	0.003679	2.37	22.09	24.27	0.52
DoylesR	TR011	929.53	100Year-Existing	52.44	72.74	74.94	74.94	75.40	0.008860	3.32	22.89	43.39	0.78
DoylesR	TR011	872.05	100Year-Existing	52.44	72.26	74.02	74.20	74.59	0.024665	4.54	24.66	55.03	1.22
DoylesR	TR011	816.76	100Year-Existing	52.44	72.00	73.14	73.02	73.22	0.013478	2.46	44.51	99.59	0.83
DoylesR	TR011	760.16	100Year-Existing	52.44	71.25	72.56		72.64	0.010195	2.55	51.08	109.22	0.76
DoylesR	TR011	712.26	100Year-Existing	52.44	70.34	71.94	71.90	72.09	0.011033	2.96	45.25	104.83	0.81
DoylesR	TR011	663.11	100Year-Existing	52.44	70.08	71.45	71.35	71.52	0.011502	2.56	53.68	141.12	0.77
DoylesR	TR013	2205.78	100Year-Existing	11.16	95.88	96.74	96.44	96.75	0.001167	0.72	39.29	120.41	0.25
DoylesR	TR013	2147.59	100Year-Existing	11.16	95.87	96.64		96.65	0.002523	0.92	25.11	83.87	0.36
DoylesR	TR013	2097.40	100Year-Existing	11.16	95.86	96.29	96.29	96.36	0.025938	1.87	13.56	89.76	1.02
DoylesR	TR013	2011.99	100Year-Existing	11.16	93.67	94.83	94.68	95.01	0.008026	2.10	7.56	13.20	0.67
DoylesR	TR013	1957.46	100Year-Existing	11.16	93.05	94.19	94.19	94.45	0.014238	2.91	6.78	13.55	0.90
DoylesR	TR013	1909.18	100Year-Existing	11.16	92.33	93.26	93.35	93.56	0.023419	3.04	8.53	50.52	1.10
DoylesR	TR013	1861.01	100Year-Existing	11.16	91.27	92.34	92.42	92.60	0.017487	2.80	8.68	39.93	0.96
DoylesR	TR013	1789.09	100Year-Existing	11.16	90.00	90.57	90.63	90.76	0.039879	2.76	9.59	70.78	1.32
DoylesR	TR013	1733.37	100Year-Existing	11.16	89.53	90.30	90.17	90.32	0.004153	1.07	21.73	83.34	0.45
DoylesR	TR013	1677.65	100Year-Existing	11.16	89.42	89.89		89.93	0.014172	1.44	14.08	71.35	0.76
DoylesR	TR013	1613.85	100Year-Existing	11.16	89.11	89.71		89.71	0.001556	0.58	34.50	99.63	0.27
DoylesR	TR013	1552.30	100Year-Existing	11.16	88.82	89.62		89.63	0.001862	0.81	28.06	70.15	0.31
DoylesR	TR013	1506.96	100Year-Existing	11.16	88.81	89.54		89.55	0.001940	0.79	27.05	66.57	0.31
DoylesR	TR013	1478.17	100Year-Existing	11.16	88.80	89.41		89.45	0.009098	1.40	15.45	50.23	0.64
DoylesR	TR013	1411.61	100Year-Existing	11.16	88.11	89.10		89.14	0.002795	1.11	15.41	34.07	0.39
DoylesR	TR013	1388.58	100Year-Existing	11.16	87.45	89.12	88.80	89.12	0.000196	0.42	64.84	170.28	0.11
DoylesR	TR013	1375		Culvert									
DoylesR	TR013	1373.86	100Year-Existing	11.16	87.32	88.83	88.50	88.92	0.005057	2.02	16.19	78.72	0.54
DoylesR	TR013	1301.72	100Year-Existing	11.16	86.82	88.03	88.03	88.33	0.013722	2.77	5.80	12.21	0.88
DoylesR	TR013	1246.99	100Year-Existing	11.16	85.79	86.76	86.85	87.28	0.028489	3.33	3.95	7.44	1.21

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR013	1192.26	100Year-Existing	11.16	84.79	86.04	85.86	86.20	0.007422	2.09	7.89	12.81	0.65
DoylesR	TR013	1137.53	100Year-Existing	11.16	84.03	85.32	85.32	85.65	0.013746	2.80	5.62	10.68	0.87
DoylesR	TR013	1082.80	100Year-Existing	11.16	83.55	84.47	84.49	84.68	0.024208	2.63	7.23	22.20	1.06
DoylesR	TR013	1064.90	100Year-Existing	11.16	82.57	84.51	83.85	84.54	0.000984	0.95	28.17	117.76	0.24
DoylesR	TR013	1050		Culvert									
DoylesR	TR013	1042.53	100Year-Existing	11.16	82.41	84.47	83.62	84.48	0.000233	0.51	59.26	151.36	0.12
DoylesR	TR013	1022.06	100Year-Existing	11.16	82.71	84.24	83.98	84.45	0.006993	2.39	8.03	14.52	0.65
DoylesR	TR013	969.32	100Year-Existing	11.16	82.40	83.48	83.48	83.84	0.019645	3.20	5.04	7.63	1.04
DoylesR	TR013	915.66	100Year-Existing	11.16	81.80	83.10	82.64	83.12	0.001069	0.87	27.24	49.59	0.25
DoylesR	TR013	867.93	100Year-Existing	11.16	81.40	83.03		83.05	0.001581	1.20	23.17	49.35	0.31
DoylesR	TR013	809.27	100Year-Existing	11.16	81.32	82.77		82.90	0.004370	1.78	8.58	11.77	0.51
DoylesR	TR013	756.07	100Year-Existing	11.16	80.75	82.06	82.06	82.47	0.015753	3.29	4.90	6.55	0.96
DoylesR	TR013	702.82	100Year-Existing	11.16	79.91	81.13	81.17	81.55	0.019000	3.34	4.90	7.89	1.03
DoylesR	TR013	651.60	100Year-Existing	11.16	78.06	79.00	79.26	79.91	0.059577	4.51	3.22	12.40	1.70
DoylesR	TR013	588.74	100Year-Existing	11.16	75.89	76.94	77.03	77.37	0.026521	3.00	4.23	8.49	1.13
DoylesR	TR013	543.29	100Year-Existing	11.16	75.20	76.14	76.22	76.40	0.015718	2.37	6.44	31.46	0.89
DoylesR	TR013	489.08	100Year-Existing	11.16	73.77	75.09	75.11	75.51	0.016626	3.31	4.83	6.47	0.97
DoylesR	TR013	436.90	100Year-Existing	11.16	72.11	73.12	73.38	74.02	0.054756	4.28	2.91	9.18	1.61
DoylesR	TR013	383.70	100Year-Existing	11.16	70.97	72.26	72.07	72.33	0.003612	1.45	14.96	43.16	0.45
DoylesR	TR013	363.75	100Year-Existing	11.16	70.36	72.17	71.91	72.27	0.001990	1.54	13.94	46.99	0.37
DoylesR	TR013	360		Culvert									
DoylesR	TR013	344.87	100Year-Existing	11.16	70.32	71.70	71.70	71.72	0.001469	0.98	24.34	48.31	0.28
DoylesR	TR013	324.16	100Year-Existing	11.16	70.29	70.90	71.03	71.46	0.136829	4.59	5.29	44.55	2.34
DoylesR	TR013	256.30	100Year-Existing	11.16	69.36	70.34	70.34	70.42	0.017563	2.30	11.93	54.14	0.86
DoylesR	TR013	236.50	100Year-Existing	11.16	69.35	70.32	69.99	70.32	0.000549	0.40	49.29	117.44	0.16
DoylesR	TR013	162.98	100Year-Existing	11.16	68.94	70.29		70.29	0.000520	0.48	50.19	145.77	0.16
DoylesR	TR013	133.14	100Year-Existing	11.16	68.76	70.28		70.28	0.000209	0.32	67.56	125.62	0.10
DoylesR	TR013	66.14	100Year-Existing	11.16	68.46	70.26		70.27	0.000218	0.37	66.21	202.80	0.10
DoylesR	M001	484.12	100Year-Existing	63.84	68.08	70.04		70.11	0.006069	2.19	70.50	168.80	0.58
DoylesR	M001	429.44	100Year-Existing	63.84	67.72	69.98		69.99	0.001079	1.05	130.98	164.13	0.25
DoylesR	M001	388.03	100Year-Existing	63.84	67.53	69.95		69.96	0.000589	0.82	187.73	253.36	0.19
DoylesR	M001	344.78	100Year-Existing	63.84	67.39	69.94		69.95	0.000172	0.47	304.06	325.12	0.10
DoylesR	M001	215.64	100Year-Existing	63.84	67.21	69.94		69.94	0.000030	0.21	571.02	433.15	0.04
DoylesR	M001	77.13	100Year-Existing	63.84	66.62	69.94		69.94	0.000009	0.14	948.58	612.53	0.03
CochranePB	M002	8105.53	100Year-Existing	18.36	140.65	142.53	141.40	142.53	0.000097	0.37	112.45	131.21	0.09
CochranePB	M002	8065.47	100Year-Existing	18.36	140.64	142.51		142.52	0.000354	0.64	63.90	89.96	0.17
CochranePB	M002	8050.98	100Year-Existing	18.36	140.00	142.48		142.52	0.000176	0.93	52.36	80.76	0.23
CochranePB	M002	8024.09	100Year-Existing	18.36	140.62	142.49		142.50	0.000344	0.62	70.12	112.38	0.17
CochranePB	M002	8013.06	100Year-Existing	18.36	140.42	142.49		142.50	0.000267	0.60	74.54	111.39	0.15
CochranePB	M002	8004.70	100Year-Existing	18.36	140.25	142.49	141.80	142.50	0.000150	0.57	91.57	114.44	0.12
CochranePB	M002	8000		Culvert									
CochranePB	M002	7995.14	100Year-Existing	18.36	140.37	142.48	141.60	142.49	0.000149	0.55	78.81	91.85	0.12
CochranePB	M002	7964.49	100Year-Existing	18.36	140.14	142.06	142.06	142.44	0.009873	3.41	9.91	13.82	0.87
CochranePB	M002	7901.64	100Year-Existing	18.36	139.30	140.78	140.98	141.42	0.028549	4.00	8.06	28.52	1.35
CochranePB	M002	7847.08	100Year-Existing	18.36	138.68	139.87	139.74	139.94	0.007730	1.84	20.31	51.86	0.69
CochranePB	M002	7812.33	100Year-Existing	18.36	138.52	139.37	139.37	139.50	0.026353	2.50	14.58	56.71	1.24
CochranePB	M002	7738.34	100Year-Existing	18.36	137.94	139.00	138.76	139.02	0.002082	0.90	45.59	135.29	0.37
CochranePB	M002	7695.32	100Year-Existing	18.36	137.67	138.66	138.66	138.82	0.016897	2.32	13.64	42.16	1.04
CochranePB	M002	7609.21	100Year-Existing	18.36	136.29	137.84	137.46	137.87	0.001048	0.95	41.44	103.46	0.29
CochranePB	M002	7515.77	100Year-Existing	18.36	136.28	137.70		137.74	0.002446	1.34	34.41	109.19	0.43
CochranePB	M002	7476.72	100Year-Existing	18.36	136.26	137.67		137.69	0.000734	0.73	46.86	96.60	0.24
CochranePB	M002	7450.86	100Year-Existing	18.36	136.25	137.64		137.66	0.001400	0.96	35.45	84.23	0.33
CochranePB	M002	7329.89	100Year-Existing	18.36	136.23	137.34		137.39	0.004705	1.45	24.13	80.72	0.57
CochranePB	M002	7253.62	100Year-Existing	18.36	136.05	137.17		137.19	0.002052	1.01	35.19	97.66	0.38
CochranePB	M002	7208.54	100Year-Existing	18.36	135.88	137.07		137.09	0.002564	1.17	35.68	132.36	0.43
CochranePB	M002	7108.13	100Year-Existing	18.36	135.54	136.55	136.49	136.64	0.013797	2.37	19.13	77.46	0.93
CochranePB	M002	7041.67	100Year-Existing	18.36	134.91	136.16		136.23	0.004523	1.52	24.12	86.72	0.57
CochranePB	M002	6985.71	100Year-Existing	18.36	134.29	135.71	135.71	135.90	0.008591	2.53	16.09	49.30	0.81
CochranePB	M002	6955.25	100Year-Existing	18.36	133.48	134.81	135.00	135.41	0.026446	3.61	6.36	13.41	1.34
CochranePB	M002	6863.52	100Year-Existing	18.36	131.82	132.90	132.94	133.10	0.021118	2.92	12.90	39.11	1.16
CochranePB	M002	6840.09	100Year-Existing	18.36	131.19	132.20	132.28	132.49	0.032335	3.16	10.71	38.17	1.42
CochranePB	M002	6808.25	100Year-Existing	18.36	130.51	131.45	131.51	131.71	0.039286	3.19	11.10	42.75	1.51
CochranePB	M002	6767.75	100Year-Existing	18.36	129.31	130.38	130.44	130.59	0.019740	2.67	13.32	49.93	1.13
CochranePB	M002	6727.78	100Year-Existing	18.36	128.36	129.53	129.60	129.78	0.020717	2.90	11.61	37.36	1.15
CochranePB	M002	6691.71	100Year-Existing	18.36	127.96	129.12	129.04	129.18	0.005720	1.59	24.11	77.79	0.62
CochranePB	M002	6651.54	100Year-Existing	18.36	127.68	128.71	128.67	128.85	0.012140	1.85	13.19	41.09	0.87
CochranePB	M002	6630.83	100Year-Existing	18.36	127.19	128.49	128.49	128.64	0.008661	2.13	16.48	67.13	0.79
CochranePB	M002	6534.50	100Year-Existing	18.36	126.30	127.34	127.40	127.51	0.016985	2.40	15.28	73.62	1.05
CochranePB	M002	6507.97	100Year-Existing	18.36	125.65	126.60	126.66	126.83	0.037205	3.01	11.95	57.90	1.46
CochranePB	M002	6480.50	100Year-Existing	18.36	124.97	125.96	125.99	126.11	0.021295	2.54	14.44	56.08	1.14
CochranePB	M002	6433.33	100Year-Existing	18.36	124.09	125.11	125.16	125.31	0.018129	2.28	11.65	41.10	1.06
CochranePB	M002	6400.96	100Year-Existing	18.36	123.40	124.67	124.47	124.73	0.004571	1.49	22.27	55.47	0.55
CochranePB	M002	6364.18	100Year-Existing	18.36	123.28	124.68		124.68	0.000295	0.45	60.85	128.31	0.15
CochranePB	M002	6314.31	100Year-Existing	18.36	123.27	124.60		124.65	0.002140	1.13	28.71	82.36	0.40
CochranePB	M002	6286.25	100Year-Existing	18.36	123.26	124.52		124.58	0.002839	1.25	25.87	76.16	0.46
CochranePB	M002	6202.53	100Year-Existing	18.36	122.81	124.12	124.01	124.26	0.007184	2.04	15.49	39.82	0.73
CochranePB	M002	6130.00	100Year-Existing	18.36	122.30	123.40	123.40	123.60	0.013327	2.07	11.00	35.81	0.93
CochranePB	M002	6040.82	100Year-Existing	18.36	121.41	122.66	122.51	122.71	0.003205	1.34	27.52	78.28	0.49
CochranePB	M002	6006.95	100Year-Existing	18.36	121.40	122.62		122.64	0.001112	0.67	37.92	101.75	0.28
CochranePB	M002	5976.09	100Year-Existing	18.36	121.39	122.44	122.44	122.55	0.013711	1.97	17.60	73.65	0.92
CochranePB	M002	5910.40	100Year-Existing	18.36	120.29	121.57	121.62	121.77	0.013147	2.57	15.00	55.34	0.95
CochranePB	M002	5863.68	100Year-Existing	18.36	119.62	120.58	120.70	120.94	0.037316	3.05	9.35	43.09	1.49
CochranePB	M002	5811.63	100Year-Existing	18.36	118.87	120.01	120.01	120.16	0.013542	2.39	15.43	54.13	0.95
CochranePB	M002	5768.42	100Year-Existing	18.36	117.38	118.40	118.61	119.09	0.060519	3.75	5.66	23.70	1.89
CochranePB	M002	5725.36	100Year-Existing	18.36	116.48	117.67	117.69	117.87	0.013948	2.41	12.92	43.60	0.97
CochranePB	M002	5678.58	100Year-Existing	18.36	115.39	116.54	116.68	116.94	0.025562	2.94	8.12	33.15	1.28
CochranePB	M002	5627.04	100Year-Existing	18.36	114.79	116.30	115.92	116.34	0.002118	1.26	26.37	49.46	0.41
CochranePB	M002	5609.94	100Year-Existing	27.60	114.77	116.10		116.23	0.006450	1.94	23.32	51.31	0.69
CochranePB	M002	5601.00	100Year-Existing	27.60	114.76	116.11		116.12	0.001036	0.79	65.35	115.72	0.27
CochranePB	M002	5568.52	100Year-Existing	27.60	114.75	116.08		116.09	0.000817	0.70	64.46	103.33	0.25

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	5508.20	100Year-Existing	27.60	114.04	115.74	115.57	115.96	0.005559	2.24	16.23	27.54	0.68
CochranePB	M002	5473.67	100Year-Existing	27.60	113.90	115.39	115.39	115.69	0.011855	2.87	15.70	29.70	0.95
CochranePB	M002	5403.83	100Year-Existing	27.60	110.69	112.00	112.51	113.81	0.077032	6.14	5.26	10.74	2.30
CochranePB	M002	5352.19	100Year-Existing	27.60	110.27	111.77	111.86	112.08	0.012023	2.82	16.08	52.17	0.95
CochranePB	M002	5309.83	100Year-Existing	27.60	109.64	111.12	111.22	111.48	0.016546	3.19	16.53	51.37	1.10
CochranePB	M002	5266.90	100Year-Existing	27.60	109.30	110.68	110.70	110.86	0.011856	2.61	24.96	85.55	0.92
CochranePB	M002	5213.45	100Year-Existing	27.60	108.81	110.54	109.94	110.56	0.000900	0.89	59.10	92.91	0.27
CochranePB	M002	5162.38	100Year-Existing	52.32	108.18	110.14	110.14	110.41	0.008961	3.33	37.47	67.51	0.88
CochranePB	M002	5109.83	100Year-Existing	52.32	108.02	109.59	109.24	109.64	0.003788	1.59	63.10	110.28	0.53
CochranePB	M002	5059.83	100Year-Existing	52.32	107.54	109.27		109.43	0.006932	2.52	46.96	101.62	0.75
CochranePB	M002	5013.20	100Year-Existing	52.32	107.21	108.91	108.91	109.11	0.010684	2.76	41.93	103.55	0.89
CochranePB	M002	4977.38	100Year-Existing	52.32	107.07	108.87	108.53	108.90	0.001509	1.23	93.03	158.52	0.36
CochranePB	M002	4908.49	100Year-Existing	52.32	106.95	108.85		108.86	0.000504	0.77	147.90	215.32	0.21
CochranePB	M002	4883.44	100Year-Existing	52.32	106.94	108.84		108.84	0.000317	0.60	170.49	223.69	0.17
CochranePB	M002	4816.97	100Year-Existing	52.32	106.93	108.82		108.83	0.000286	0.58	177.08	238.28	0.16
CochranePB	M002	4757.22	100Year-Existing	52.32	106.78	108.82		108.82	0.000204	0.53	205.50	274.28	0.14
CochranePB	M002	4718.65	100Year-Existing	52.32	106.77	108.81		108.81	0.000271	0.61	201.70	341.10	0.16
CochranePB	M002	4674.22	100Year-Existing	52.32	106.76	108.79		108.80	0.000521	0.85	147.32	268.52	0.22
CochranePB	M002	4633.22	100Year-Existing	52.32	106.75	108.77		108.78	0.000357	0.69	123.36	185.62	0.18
CochranePB	M002	4561.03	100Year-Existing	52.32	106.74	108.69		108.74	0.001200	1.22	73.07	102.79	0.33
CochranePB	M002	4506.74	100Year-Existing	52.32	106.43	108.34	108.34	108.59	0.007650	2.84	34.36	59.97	0.80
CochranePB	M002	4459.83	100Year-Existing	52.32	105.66	107.40	107.61	108.02	0.018593	4.00	21.88	50.38	1.22
CochranePB	M002	4409.53	100Year-Existing	52.32	104.62	106.41	106.65	107.07	0.019500	4.12	19.32	34.67	1.24
CochranePB	M002	4359.83	100Year-Existing	52.32	103.72	105.60	105.81	106.19	0.014980	3.81	22.55	56.71	1.10
CochranePB	M002	4327.93	100Year-Existing	52.32	103.17	105.18	105.39	105.75	0.012816	3.66	21.88	41.66	1.04
CochranePB	M002	4265.56	100Year-Existing	52.32	102.45	104.41	104.45	104.91	0.013525	3.80	22.11	30.74	1.06
CochranePB	M002	4208.11	100Year-Existing	52.32	101.67	103.48	103.62	104.07	0.015507	3.77	20.22	34.73	1.13
CochranePB	M002	4159.83	100Year-Existing	52.32	101.12	102.25	102.39	102.72	0.061897	4.02	19.04	48.88	1.93
CochranePB	M002	4109.83	100Year-Existing	52.32	98.84	100.64	100.83	101.27	0.016891	4.08	21.80	43.83	1.18
CochranePB	M002	4056.00	100Year-Existing	52.32	97.18	99.01	99.53	100.07	0.026683	5.03	14.55	21.16	1.46
CochranePB	M002	4009.83	100Year-Existing	52.32	96.33	98.24	98.40	98.76	0.022397	4.58	26.74	66.62	1.29
CochranePB	M002	3969.03	100Year-Existing	52.32	95.62	97.59	97.79	98.14	0.011947	3.82	25.42	72.97	1.02
CochranePB	M002	3916.58	100Year-Existing	52.32	94.82	97.03	97.20	97.48	0.011600	3.66	29.86	85.78	0.96
CochranePB	M002	3859.82	100Year-Existing	52.32	94.34	96.37	96.55	96.87	0.010243	3.39	25.40	83.66	0.93
CochranePB	M002	3810.05	100Year-Existing	52.32	93.50	95.56	95.86	96.28	0.014210	4.15	20.74	53.91	1.11
CochranePB	M002	3759.83	100Year-Existing	52.32	93.00	94.72	94.93	95.36	0.019732	4.26	22.52	57.19	1.27
CochranePB	M002	3709.28	100Year-Existing	52.32	92.33	94.22	94.34	94.55	0.011410	3.35	31.26	90.47	0.97
CochranePB	M002	3661.60	100Year-Existing	52.32	92.05	93.88	93.92	94.07	0.007493	2.74	47.39	145.42	0.79
CochranePB	M002	3609.83	100Year-Existing	52.32	91.73	93.52	93.53	93.67	0.007644	2.64	48.38	147.02	0.78
CochranePB	M002	3559.90	100Year-Existing	52.32	90.87	92.97	93.02	93.24	0.007771	3.11	38.33	87.65	0.81
CochranePB	M002	3509.83	100Year-Existing	52.32	90.38	92.79	92.45	92.84	0.001485	1.60	82.07	120.49	0.37
CochranePB	M002	3493.23	100Year-Existing	52.32	90.02	92.35	92.14	92.77	0.005778	3.57	23.00	16.01	0.76
CochranePB	M002	3480		Bridge									
CochranePB	M002	3474.26	100Year-Existing	52.32	89.91	92.35	91.70	92.61	0.002786	2.64	27.86	17.22	0.55
CochranePB	M002	3466.43	100Year-Existing	52.32	90.00	92.42	92.17	92.52	0.001521	1.97	70.09	113.70	0.41
CochranePB	M002	3454.35	100Year-Existing	52.32	89.94	92.11	91.67	92.47	0.004184	2.95	23.12	17.61	0.66
CochranePB	M002	3450		Bridge									
CochranePB	M002	3434.16	100Year-Existing	57.24	90.36	91.78	91.78	92.34	0.010898	3.55	19.25	20.74	0.99
CochranePB	M002	3413.11	100Year-Existing	57.24	90.14	91.71	91.66	91.87	0.007643	2.75	47.72	96.67	0.79
CochranePB	M002	3391.58	100Year-Existing	57.24	90.03	91.63		91.72	0.004913	2.32	58.71	107.41	0.65
CochranePB	M002	3371.12	100Year-Existing	57.24	90.02	91.38	91.38	91.58	0.008999	2.79	43.68	97.96	0.87
CochranePB	M002	3309.87	100Year-Existing	57.24	89.28	90.79	90.70	90.90	0.008608	2.75	52.79	116.67	0.81
CochranePB	M002	3272.96	100Year-Existing	57.24	88.73	90.34	90.34	90.54	0.009871	2.92	40.32	92.33	0.88
CochranePB	M002	3219.09	100Year-Existing	57.24	88.30	89.84	89.84	90.01	0.010065	2.83	43.60	109.48	0.89
CochranePB	M002	3175.54	100Year-Existing	57.24	87.36	89.66	89.44	89.79	0.002401	2.00	53.37	80.61	0.47
CochranePB	M002	3165		Bridge									
CochranePB	M002	3157.85	100Year-Existing	57.24	87.50	89.32	89.36	89.60	0.006451	2.88	38.22	86.30	0.75
CochranePB	M002	3135.32	100Year-Existing	57.24	87.85	89.19	89.09	89.26	0.004876	1.84	66.53	155.91	0.61
CochranePB	M002	3106.53	100Year-Existing	57.24	87.94	88.86	88.86	89.01	0.028355	2.89	36.99	126.51	1.30
CochranePB	M002	3088.94	100Year-Existing	57.24	86.84	88.62	88.57	88.77	0.003082	2.00	55.60	153.48	0.53
CochranePB	M002	3080		Bridge									
CochranePB	M002	3075.67	100Year-Existing	57.24	86.74	88.43	88.21	88.51	0.002092	1.60	67.98	141.48	0.43
CochranePB	M002	3056.89	100Year-Existing	57.24	87.66	88.37		88.43	0.011904	1.26	51.19	156.57	0.77
CochranePB	M002	3007.54	100Year-Existing	57.24	87.61	88.05		88.09	0.004635	0.52	62.82	138.71	0.36
CochranePB	M002	2976.31	100Year-Existing	57.24	87.51	87.92		87.97	0.005269	0.63	62.09	155.17	0.44
CochranePB	M002	2941.08	100Year-Existing	57.24	86.98	87.78		87.81	0.004347	1.03	80.05	224.94	0.50
CochranePB	M002	2920.10	100Year-Existing	57.24	86.74	87.76	87.54	87.76	0.000516	0.45	168.12	295.57	0.17
CochranePB	M002	2915		Bridge									
CochranePB	M002	2912.75	100Year-Existing	57.24	86.97	87.75	87.75	87.76	0.000313	0.37	200.70	313.30	0.15
CochranePB	M002	2890.23	100Year-Existing	57.24	86.65	86.89	87.08	87.54	0.274397	3.36	16.08	85.10	3.07
CochranePB	M002	2823.99	100Year-Existing	57.24	86.08	87.20	86.81	87.21	0.001295	0.71	127.55	263.11	0.27
CochranePB	M002	2789.49	100Year-Existing	57.24	86.04	87.17		87.18	0.001160	0.65	132.31	275.49	0.26
CochranePB	M002	2741.30	100Year-Existing	57.24	85.71	87.12		87.13	0.000998	0.83	140.10	286.11	0.28
CochranePB	M002	2663.79	100Year-Existing	57.24	85.58	87.07		87.08	0.001046	0.91	138.09	292.48	0.29
CochranePB	M002	2639.38	100Year-Existing	57.24	85.57	87.04		87.06	0.001138	0.91	125.41	246.90	0.30
CochranePB	M002	2616.24	100Year-Existing	57.24	85.30	87.03		87.04	0.000746	0.85	142.37	248.43	0.25
CochranePB	M002	2539.69	100Year-Existing	57.24	85.41	86.98		87.00	0.001138	0.94	121.91	234.68	0.30
CochranePB	M002	2489.06	100Year-Existing	57.24	85.18	86.94		86.96	0.001346	1.16	114.89	232.94	0.33
CochranePB	M002	2438.28	100Year-Existing	57.24	84.87	86.88		86.91	0.001371	1.26	105.79	189.42	0.34
CochranePB	M002	2384.01	100Year-Existing	57.24	84.65	86.79		86.83	0.002048	1.63	88.29	151.92	0.42
CochranePB	M002	2310.47	100Year-Existing	57.24	84.33	86.59		86.66	0.003017	1.96	76.39	155.47	0.50
CochranePB	M002	2284.63	100Year-Existing	57.24	84.16	86.53		86.58	0.002438	1.78	75.98	114.74	0.43
CochranePB	M002	2240.58	100Year-Existing	57.24	84.04	86.05	86.05	86.36	0.010260	3.44	32.39	48.01	0.92
CochranePB	M002	2170.94	100Year-Existing	57.24	82.26	84.21	84.60	85.27	0.023877	5.07	15.70	19.86	1.41
CochranePB	M002	2136.89	100Year-Existing	57.24	81.72	83.51	83.82	84.40	0.024341	4.52	16.76	25.97	1.39
CochranePB	M002	2100.01	100Year-Existing	57.24	81.30	83.34	83.32	83.67	0.009790	3.23	30.00	43.17	0.90
CochranePB	M002	2046.85	100Year-Existing	57.24	80.89	82.84	82.84	83.19	0.008414	2.95	29.11	43.30	0.84
CochranePB	M002	2014.35	100Year-Existing	57.24	80.47	82.02	82.21	82.70	0.028430	4.09	19.95	41.80	1.45
CochranePB	M002	1990.76	100Year-Existing	57.24	80.10	82.03	82.03	82.34	0.010075	3.13	31.30	45.79	0.90
CochranePB	M002	1945.20	100Year-Existing	57.24	79.43	81.75	81.33	81.86	0.003135	2.09	51.33	60.07	0.52

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	1916.67	100Year-Existing	57.24	79.31	81.59		81.75	0.004498	2.48	43.86	55.37	0.62
CochranePB	M002	1871.48	100Year-Existing	57.24	79.28	81.44		81.56	0.003834	2.11	48.05	57.47	0.57
CochranePB	M002	1836.03	100Year-Existing	57.24	78.83	81.39		81.46	0.001528	1.59	65.20	74.68	0.37
CochranePB	M002	1788.63	100Year-Existing	57.24	78.46	80.93	80.93	81.29	0.008463	3.61	31.68	40.12	0.85
CochranePB	M002	1768.08	100Year-Existing	57.24	78.14	80.24	80.41	81.00	0.018628	4.72	20.62	28.45	1.24
CochranePB	M002	1733.19	100Year-Existing	57.24	77.95	80.05	80.12	80.44	0.009586	3.33	30.57	49.16	0.90
CochranePB	M002	1694.89	100Year-Existing	57.24	77.12	79.55	79.01	79.66	0.002326	1.91	49.92	51.28	0.46
CochranePB	M002	1685.79	100Year-Existing	57.24	77.06	79.45		79.63	0.004258	2.54	43.33	57.06	0.62
CochranePB	M002	1640.51	100Year-Existing	57.24	76.45	78.95	78.95	79.36	0.007153	3.43	27.62	32.36	0.81
CochranePB	M002	1602.99	100Year-Existing	57.24	75.01	76.62	77.18	78.60	0.063430	6.62	10.82	17.69	2.19
CochranePB	M002	1585.52	100Year-Existing	57.24	74.01	75.41	75.89	77.23	0.089774	6.56	11.35	21.99	2.50
CochranePB	M002	1569.47	100Year-Existing	57.24	73.71	75.07	75.33	75.93	0.044682	4.29	14.89	27.77	1.74
CochranePB	M002	1541.97	100Year-Existing	57.24	72.31	74.29	74.52	75.11	0.019832	4.46	17.22	21.04	1.27
CochranePB	M002	1510.83	100Year-Existing	57.24	71.34	72.62	72.99	73.96	0.080256	5.16	11.48	24.40	2.29
CochranePB	M002	1495.27	100Year-Existing	57.24	71.19	73.16	72.86	73.33	0.004411	2.05	38.18	46.49	0.61
CochranePB	M002	1458.62	100Year-Existing	57.24	70.58	72.74	72.74	73.05	0.009485	3.69	36.11	52.91	0.91
CochranePB	M002	1419.61	100Year-Existing	57.24	70.21	72.19	72.29	72.63	0.011824	3.75	27.53	40.95	1.01
CochranePB	M002	1384.56	100Year-Existing	57.24	69.61	72.01	72.04	72.36	0.005703	3.00	33.61	61.30	0.73
CochranePB	M002	1351.51	100Year-Existing	57.24	69.54	71.72	71.84	72.13	0.009224	3.59	33.90	78.64	0.91
CochranePB	M002	1311.78	100Year-Existing	57.24	69.49	71.47	71.52	71.72	0.008001	3.11	43.39	111.46	0.83
CochranePB	M002	1291.19	100Year-Existing	57.24	69.28	71.08	71.22	71.48	0.014823	3.82	34.48	114.92	1.09
CochranePB	M002	1217.75	100Year-Existing	57.24	68.70	71.20	70.52	71.22	0.000503	1.00	133.85	220.80	0.23
CochranePB	M002	1200.39	100Year-Existing	57.24	68.69	70.76	70.43	71.17	0.005327	2.86	20.78	19.65	0.71
CochranePB	M002	1190		Bridge									
CochranePB	M002	1185.68	100Year-Existing	58.68	68.46	70.59	70.15	70.95	0.004102	2.70	22.34	26.16	0.64
CochranePB	M002	1164.32	100Year-Existing	58.68	68.65	70.58	70.58	70.79	0.005085	2.75	47.90	112.08	0.69
CochranePB	M002	1132.60	100Year-Existing	58.68	68.60	69.86	70.03	70.39	0.032910	4.27	27.20	112.89	1.55
CochranePB	M002	1111.68	100Year-Existing	58.68	68.55	70.02	69.74	70.06	0.002110	1.40	88.07	163.88	0.42
CochranePB	M002	1059.95	100Year-Existing	58.68	68.38	69.98		70.00	0.001295	1.30	105.99	175.35	0.35
CochranePB	M002	998.99	100Year-Existing	58.68	68.13	69.95		69.96	0.000388	0.76	164.20	197.38	0.19
CochranePB	M002	955.54	100Year-Existing	58.68	68.12	69.95		69.95	0.000070	0.32	309.15	262.35	0.08
CochranePB	M002	851.16	100Year-Existing	58.68	67.62	69.94		69.94	0.000048	0.31	346.08	260.44	0.07
CochranePB	M002	798.06	100Year-Existing	58.68	67.47	69.94		69.94	0.000027	0.24	430.62	295.48	0.05
CochranePB	M002	746.77	100Year-Existing	58.68	67.30	69.94		69.94	0.000014	0.18	549.63	328.08	0.04
CochranePB	M002	694.52	100Year-Existing	58.68	66.98	69.94		69.94	0.000009	0.16	655.70	372.57	0.03
CochranePB	M002	669.16	100Year-Existing	58.68	66.97	69.94		69.94	0.000008	0.14	727.84	414.09	0.03
CochranePB	M002	590.19	100Year-Existing	58.68	66.84	69.94		69.94	0.000005	0.12	868.32	492.71	0.02
CochranePB	M002	539.85	100Year-Existing	58.68	66.81	69.94		69.94	0.000005	0.12	894.09	524.12	0.02
CochranePB	M002	488.40	100Year-Existing	58.68	66.54	69.94		69.94	0.000005	0.12	944.70	573.53	0.02
CochranePB	M001	381.27	100Year-Existing	116.64	66.35	69.94		69.94	0.000020	0.22	1094.90	665.44	0.04
CochranePB	M001	313.14	100Year-Existing	116.64	66.28	69.94		69.94	0.000014	0.18	1271.85	730.21	0.03

Petty Harbour River 100yr Q+30%

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	TR001	439.21	100Year-Existing	47.97	105.11	106.74	106.38	106.82	0.003694	1.89	55.95	76.58	0.49
RaymondB	TR001	409.42	100Year-Existing	47.97	104.68	106.58		106.70	0.004175	2.24	51.61	78.41	0.54
RaymondB	TR001	380.07	100Year-Existing	47.97	104.05	106.61		106.63	0.000584	1.03	100.53	93.21	0.21
RaymondB	TR001	360.64	100Year-Existing	47.97	103.60	106.61	105.36	106.62	0.000293	0.80	138.01	109.67	0.15
RaymondB	TR001	350		Bridge									
RaymondB	TR001	344.45	100Year-Existing	47.97	103.30	104.68	105.11	106.28	0.064826	6.82	13.62	42.16	1.95
RaymondB	TR001	334.13	100Year-Existing	47.97	103.40	104.44	104.72	105.52	0.051947	5.08	16.18	64.94	1.69
RaymondB	TR001	272.22	100Year-Existing	47.97	102.83	104.09	104.09	104.36	0.015097	3.17	29.11	47.30	0.95
RaymondB	TR001	218.50	100Year-Existing	47.97	101.42	102.98	103.11	103.50	0.015709	3.73	22.77	37.46	1.00
RaymondB	TR001	163.97	100Year-Existing	47.97	100.32	102.09	101.63	102.28	0.004196	2.10	32.05	39.78	0.53
RaymondB	TR001	115.54	100Year-Existing	47.97	100.00	101.53	101.53	101.92	0.013355	3.51	26.29	43.74	0.93
RaymondB	TR001	56.65	100Year-Existing	47.97	97.73	98.62	99.07	100.16	0.090634	5.99	10.24	17.51	2.18
RaymondB	M002	6453.60	100Year-Existing	25.61	118.10	125.35	119.01	125.35	0.000000	0.04	693.39	236.67	0.01
RaymondB	M002	6405.52	100Year-Existing	25.61	118.00	125.35		125.35	0.000000	0.04	703.00	230.54	0.01
RaymondB	M002	6347.04	100Year-Existing	25.61	124.73	125.27		125.34	0.005603	1.18	22.00	41.75	0.51
RaymondB	M002	6247.26	100Year-Existing	25.61	117.21	118.40		118.47	0.004054	1.58	28.05	35.84	0.49
RaymondB	M002	6230.10	100Year-Existing	25.61	117.20	118.39		118.43	0.001875	1.06	34.76	43.92	0.33
RaymondB	M002	6205.35	100Year-Existing	25.61	117.28	118.36		118.38	0.001656	0.93	48.45	64.19	0.31
RaymondB	M002	6143.06	100Year-Existing	25.61	117.18	118.23		118.26	0.002297	1.07	44.14	68.06	0.36
RaymondB	M002	6105.93	100Year-Existing	25.61	117.17	118.11		118.16	0.002721	1.07	35.93	65.25	0.38
RaymondB	M002	6026.35	100Year-Existing	25.61	116.81	117.92		117.96	0.002185	1.09	38.29	51.48	0.35
RaymondB	M002	5933.71	100Year-Existing	25.61	116.42	117.67		117.73	0.002691	1.33	36.42	73.92	0.40
RaymondB	M002	5883.92	100Year-Existing	25.61	116.12	117.42		117.55	0.004683	1.77	22.53	46.53	0.53
RaymondB	M002	5785.15	100Year-Existing	25.61	115.75	116.98		117.08	0.004785	1.68	22.71	33.31	0.52
RaymondB	M002	5732.44	100Year-Existing	25.61	115.46	116.56		116.75	0.008126	2.02	16.16	27.13	0.67
RaymondB	M002	5631.37	100Year-Existing	25.61	114.85	115.89		115.98	0.006755	1.69	25.46	46.71	0.60
RaymondB	M002	5500.15	100Year-Existing	25.61	114.62	115.83		115.84	0.000539	0.56	89.15	140.64	0.18
RaymondB	M002	5485.46	100Year-Existing	25.61	114.53	115.82		115.83	0.000316	0.46	111.62	172.84	0.14
RaymondB	M002	5411.19	100Year-Existing	25.61	114.48	115.76	115.27	115.79	0.001064	0.82	48.35	75.87	0.25
RaymondB	M002	5338.54	100Year-Existing	25.61	114.41	115.76	114.83	115.76	0.000108	0.28	109.49	112.75	0.08
RaymondB	M002	5278.93	100Year-Existing	25.61	114.44	115.75	114.88	115.76	0.000146	0.31	100.03	114.36	0.09
RaymondB	M002	5226.60	100Year-Existing	25.61	114.42	115.74		115.75	0.000157	0.32	109.35	133.10	0.10
RaymondB	M002	5171.66	100Year-Existing	25.61	114.42	115.74		115.74	0.000141	0.31	134.16	188.61	0.09
RaymondB	M002	5111.50	100Year-Existing	25.61	114.42	115.72		115.73	0.000478	0.58	82.86	156.95	0.17
RaymondB	M002	5077.48	100Year-Existing	25.61	114.38	115.70		115.71	0.000479	0.58	65.95	101.49	0.17
RaymondB	M002	5017.13	100Year-Existing	25.61	114.40	115.57		115.64	0.002753	1.25	23.46	31.73	0.40
RaymondB	M002	4967.43	100Year-Existing	25.61	114.07	115.26		115.44	0.006192	1.89	15.33	20.29	0.60
RaymondB	M002	4943.43	100Year-Existing	25.61	113.82	115.15		115.29	0.005257	1.89	19.56	28.21	0.56
RaymondB	M002	4910.95	100Year-Existing	25.61	113.67	115.00		115.13	0.004793	1.82	21.46	31.43	0.54
RaymondB	M002	4851.17	100Year-Existing	25.61	113.47	114.69		114.82	0.005723	1.86	20.62	31.61	0.58
RaymondB	M002	4783.73	100Year-Existing	25.61	113.30	114.36		114.45	0.004995	1.46	22.42	37.51	0.52
RaymondB	M002	4732.68	100Year-Existing	25.61	113.07	114.12		114.19	0.004908	1.46	27.02	44.27	0.51
RaymondB	M002	4681.76	100Year-Existing	25.61	112.35	113.48	113.48	113.78	0.013260	2.70	13.54	36.33	0.87
RaymondB	M002	4673.96	100Year-Existing	25.61	111.74	112.78	113.03	113.57	0.039392	4.25	7.96	24.80	1.46
RaymondB	M002	4644.78	100Year-Existing	25.61	110.49	111.55	111.81	112.42	0.038468	4.33	7.08	24.27	1.46
RaymondB	M002	4625.72	100Year-Existing	25.61	106.75	107.43	108.07	110.60	0.302128	7.91	3.30	7.53	3.65
RaymondB	M002	4615.42	100Year-Existing	25.61	105.83	106.65	107.09	108.27	0.118873	5.85	5.03	10.30	2.40
RaymondB	M002	4607.06	100Year-Existing	25.61	105.79	107.04	107.11	107.63	0.020387	3.56	8.55	9.77	1.09
RaymondB	M002	4597.34	100Year-Existing	25.61	105.76	107.10	107.02	107.40	0.011462	2.70	13.19	17.59	0.82
RaymondB	M002	4575.18	100Year-Existing	25.61	105.98	106.69	106.69	106.98	0.038257	2.88	11.50	20.90	1.29
RaymondB	M002	4545.57	100Year-Existing	25.61	104.65	105.93	106.06	106.29	0.015281	3.06	13.91	31.22	0.94
RaymondB	M002	4522.17	100Year-Existing	25.61	103.67	104.54	104.87	105.58	0.063538	4.90	7.25	16.69	1.81
RaymondB	M002	4511.42	100Year-Existing	25.61	103.62	105.05	104.69	105.16	0.004871	1.88	22.37	29.54	0.54
RaymondB	M002	4489.94	100Year-Existing	25.61	103.59	104.66	104.66	104.97	0.015826	2.84	13.44	22.82	0.94
RaymondB	M002	4466.63	100Year-Existing	25.61	103.03	104.41	104.04	104.55	0.004829	1.85	21.40	35.42	0.54
RaymondB	M002	4439.46	100Year-Existing	25.61	103.00	104.13	104.13	104.34	0.012065	2.56	18.85	41.24	0.82
RaymondB	M002	4415.77	100Year-Existing	25.61	102.78	103.62	103.70	103.93	0.023735	2.83	14.48	44.37	1.10
RaymondB	M002	4385.89	100Year-Existing	25.61	101.80	102.87	102.97	103.27	0.019710	3.16	13.15	32.00	1.05
RaymondB	M002	4354.01	100Year-Existing	25.61	101.27	102.19	102.28	102.49	0.028170	3.45	15.90	41.31	1.23
RaymondB	M002	4341.66	100Year-Existing	25.61	100.84	102.01	102.03	102.26	0.013667	2.73	17.89	40.51	0.88
RaymondB	M002	4332.73	100Year-Existing	25.61	100.32	101.33	101.58	102.03	0.035260	4.05	9.00	17.77	1.39
RaymondB	M002	4308.73	100Year-Existing	25.61	98.87	99.68	100.01	100.76	0.080342	5.10	6.79	14.22	1.99
RaymondB	M002	4294.65	100Year-Existing	25.61	98.45	99.51	99.62	100.02	0.024595	3.53	10.16	15.85	1.17
RaymondB	M002	4263.86	100Year-Existing	25.61	97.59	99.34	98.65	99.44	0.002320	1.57	24.82	27.33	0.39
RaymondB	M002	4235.25	100Year-Existing	25.61	97.47	99.33		99.38	0.001029	1.09	33.42	30.35	0.27
RaymondB	M001	4130.35	100Year-Existing	72.02	96.57	98.42	98.42	98.88	0.011114	3.19	29.04	35.87	0.85
RaymondB	M001	4076.94	100Year-Existing	72.02	96.04	98.02	97.78	98.29	0.006219	2.53	38.47	39.04	0.64
RaymondB	M001	4023.53	100Year-Existing	72.02	95.94	97.40	97.40	97.80	0.013323	2.95	29.96	43.08	0.89
RaymondB	M001	3978.20	100Year-Existing	72.02	94.64	97.07	96.42	97.19	0.002453	1.60	60.29	65.18	0.40
RaymondB	M001	3916.71	100Year-Existing	97.89	94.64	96.79		96.98	0.004491	2.39	72.86	74.49	0.56
RaymondB	M001	3863.30	100Year-Existing	97.89	94.41	96.64		96.76	0.003063	2.05	90.73	92.88	0.47
RaymondB	M001	3809.58	100Year-Existing	97.89	94.09	96.15	95.98	96.50	0.008356	3.17	52.45	56.98	0.76
RaymondB	M001	3756.26	100Year-Existing	97.89	93.53	95.41	95.41	95.94	0.012715	3.66	40.72	46.16	0.92
RaymondB	M001	3694.37	100Year-Existing	97.89	92.66	95.20	94.58	95.31	0.001955	1.78	90.91	78.09	0.38
RaymondB	M001	3569.22	100Year-Existing	97.89	92.15	95.21		95.22	0.000198	0.66	295.36	209.56	0.13
RaymondB	M001	3527.64	100Year-Existing	97.89	91.85	95.20		95.21	0.000212	0.72	289.72	205.98	0.13
RaymondB	M001	3446.51	100Year-Existing	97.89	91.14	95.20		95.20	0.000100	0.55	368.21	210.86	0.09
RaymondB	M001	3421.64	100Year-Existing	97.89	91.23	95.19	93.53	95.20	0.000101	0.59	446.41	326.78	0.10
RaymondB	M001	3410		Bridge									
RaymondB	M001	3404.11	100Year-Existing	97.89	91.23	93.58	93.58	94.70	0.013298	4.73	21.08	134.29	1.00
RaymondB	M001	3380.48	100Year-Existing	97.89	90.96	93.49	92.61	93.61	0.002145	1.86	93.16	91.91	0.40
RaymondB	M001	3308.92	100Year-Existing	97.89	90.80	93.37		93.46	0.001826	1.79	111.02	104.49	0.37
RaymondB	M001	3216.73	100Year-Existing	97.89	89.31	92.94	91.52	93.25	0.002232	2.52	40.08	111.95	0.44
RaymondB	M001	3200		Bridge									
RaymondB	M001	3188.78	100Year-Existing	97.89	89.30	91.92	91.92	92.90	0.012636	4.74	24.50	59.37	0.97
RaymondB	M001	3015.18	100Year-Existing	97.89	89.18	91.19	90.77	91.35	0.003761	2.14	78.16	91.76	0.51
RaymondB	M001	2876.32	100Year-Existing	97.89	88.66	90.48	90.25	90.71	0.007099	2.60	63.66	103.08	0.68
RaymondB	M001	2789.37	100Year-Existing	97.89	88.24	90.23		90.30	0.002728	1.74	122.79	166.55	0.43
RaymondB	M001	2681.85	100Year-Existing	97.89	88.14	89.70		89.85	0.008982	2.57	81.27	176.63	0.74
RaymondB	M001	2604.32	100Year-Existing	97.89	87.97	89.56		89.59	0.001805	1.22	159.59	310.79	0.34

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	M001	2531.57	100Year-Existing	97.89	87.97	89.52		89.53	0.000700	0.71	240.78	300.66	0.21
RaymondB	M001	2385.34	100Year-Existing	97.89	87.43	89.45		89.48	0.001249	1.21	195.37	254.29	0.29
RaymondB	M001	2245.72	100Year-Existing	97.89	86.99	89.19		89.33	0.003318	2.09	99.99	159.01	0.48
RaymondB	M001	2194.47	100Year-Existing	97.89	86.68	89.16		89.21	0.001159	1.35	130.98	99.44	0.29
RaymondB	M001	2140.67	100Year-Existing	97.89	86.59	89.04		89.12	0.001948	1.72	100.29	74.85	0.38
RaymondB	M001	2087.60	100Year-Existing	97.89	86.38	88.81		88.99	0.003008	2.13	67.30	52.73	0.47
RaymondB	M001	2069.54	100Year-Existing	97.89	86.35	88.72		88.93	0.003628	2.32	76.51	108.43	0.51
RaymondB	M001	2040.77	100Year-Existing	97.89	86.25	88.67		88.82	0.002721	1.99	85.73	92.46	0.44
RaymondB	M001	1989.18	100Year-Existing	97.89	86.02	88.47	88.17	88.65	0.003700	2.36	81.28	94.88	0.52
RaymondB	M001	1950.22	100Year-Existing	97.89	85.79	87.88	87.85	88.38	0.011880	3.69	46.08	62.49	0.89
RaymondB	M001	1885.73	100Year-Existing	97.89	85.34	87.60		87.82	0.005206	2.57	63.42	60.92	0.60
RaymondB	M001	1835.84	100Year-Existing	97.89	84.64	86.72	86.72	87.36	0.016686	4.28	35.13	33.84	1.05
RaymondB	M001	1784.61	100Year-Existing	97.89	84.10	85.55	85.70	86.21	0.031308	4.33	33.32	41.29	1.34
RaymondB	M001	1733.38	100Year-Existing	97.89	82.79	85.25	84.58	85.39	0.002705	2.00	73.93	51.12	0.44
RaymondB	M001	1682.15	100Year-Existing	97.89	82.60	84.78		85.15	0.007347	2.96	45.27	45.21	0.71
RaymondB	M001	1630.92	100Year-Existing	97.89	82.12	84.29	84.27	84.73	0.008957	3.22	43.35	51.57	0.78
RaymondB	M001	1584.49	100Year-Existing	97.89	81.77	84.05		84.34	0.006246	2.79	55.06	60.03	0.65
RaymondB	M001	1536.01	100Year-Existing	97.89	81.31	83.70	83.40	84.02	0.006707	2.98	56.56	66.08	0.68
RaymondB	M001	1477.96	100Year-Existing	97.89	80.96	83.48		83.70	0.004087	2.44	66.62	64.18	0.54
RaymondB	M001	1425.99	100Year-Existing	97.89	80.58	83.37		83.52	0.002398	2.04	68.38	43.13	0.42
RaymondB	M001	1372.05	100Year-Existing	97.89	80.25	83.31		83.40	0.001538	1.73	104.54	102.06	0.34
RaymondB	M001	1323.54	100Year-Existing	97.89	79.11	83.18	81.72	83.31	0.001068	1.84	100.98	102.77	0.30
RaymondB	M001	1315		Bridge									
RaymondB	M001	1303.54	100Year-Existing	97.89	78.01	80.93	80.93	82.16	0.013458	4.92	19.91	21.78	1.00
RaymondB	M001	1252.39	100Year-Existing	102.05	78.45	80.37	80.66	81.38	0.030317	5.16	28.26	31.60	1.36
RaymondB	M001	1216.25	100Year-Existing	102.05	77.86	80.15	80.15	80.60	0.011157	3.75	45.08	45.05	0.88
RaymondB	M001	1189.75	100Year-Existing	102.05	77.61	79.30	79.52	80.11	0.030477	4.59	30.84	39.36	1.34
RaymondB	M001	1166.20	100Year-Existing	102.05	76.74	78.41	78.67	79.29	0.036307	5.17	33.98	55.31	1.48
RaymondB	M001	1148.70	100Year-Existing	102.05	76.50	78.33	78.39	78.75	0.016964	3.68	45.82	62.16	1.02
RaymondB	M001	1116.25	100Year-Existing	102.05	75.83	77.43	77.58	78.08	0.022918	3.82	32.89	42.58	1.16
RaymondB	M001	1066.09	100Year-Existing	102.05	75.16	77.19	76.98	77.45	0.006288	2.61	57.98	58.50	0.65
RaymondB	M001	1035.68	100Year-Existing	102.05	74.73	76.66	76.66	77.17	0.012256	3.52	40.84	44.77	0.90
RaymondB	M001	999.99	100Year-Existing	102.05	73.32	74.97	75.33	76.36	0.038918	5.56	22.58	25.00	1.55
RaymondB	M001	976.73	100Year-Existing	102.05	73.03	74.81	75.02	75.55	0.019146	4.24	36.28	51.08	1.12
RaymondB	M001	942.15	100Year-Existing	102.05	72.18	73.47	73.75	74.39	0.065185	5.96	28.93	43.78	1.91
RaymondB	M001	916.70	100Year-Existing	102.05	70.82	72.33	72.56	73.06	0.038023	5.20	37.70	69.30	1.51
RaymondB	M001	892.34	100Year-Existing	102.05	70.36	72.23	72.29	72.62	0.010243	3.26	54.00	85.88	0.83
RaymondB	M001	866.25	100Year-Existing	102.05	70.04	72.04	71.77	72.28	0.005031	2.41	60.96	70.54	0.59
RaymondB	M001	841.89	100Year-Existing	102.05	69.92	71.93		72.15	0.005219	2.52	72.43	97.41	0.60
RaymondB	M001	816.68	100Year-Existing	102.05	69.74	71.64	71.64	71.97	0.008880	3.15	58.73	81.97	0.78
RaymondB	M001	766.25	100Year-Existing	102.05	69.16	70.24	70.48	71.02	0.058199	5.00	29.59	47.30	1.76
RaymondB	M001	716.25	100Year-Existing	102.05	68.39	70.28	69.90	70.46	0.004592	2.26	70.66	72.48	0.56
RaymondB	M001	675.00	100Year-Existing	102.05	68.14	70.09		70.27	0.004819	2.35	72.11	77.36	0.57
RaymondB	M001	615.86	100Year-Existing	102.05	67.75	70.08		70.11	0.000937	1.20	169.57	169.95	0.26
RaymondB	M001	565.77	100Year-Existing	102.05	67.44	70.06		70.08	0.000503	0.95	237.16	248.36	0.20
RaymondB	M001	520.15	100Year-Existing	102.05	67.26	70.05		70.06	0.000205	0.63	363.86	332.59	0.13
RaymondB	M001	468.54	100Year-Existing	102.05	66.98	70.05		70.05	0.000100	0.47	508.33	418.33	0.09
RaymondB	M001	429.18	100Year-Existing	102.05	66.80	70.05		70.05	0.000038	0.31	731.03	526.94	0.06
RaymondB	M001	366.25	100Year-Existing	102.05	66.65	70.05		70.05	0.000015	0.20	1081.81	650.75	0.04
RaymondB	M001	341.79	100Year-Existing	102.05	66.63	70.05		70.05	0.000012	0.17	1201.45	692.33	0.03
PettyHR	M002	6270.85	100Year-Existing	131.56	66.23	70.05		70.05	0.000001	0.07	2410.58	879.32	0.01
PettyHR	M002	6218.07	100Year-Existing	131.56	66.23	70.04		70.05	0.000002	0.07	2274.05	864.73	0.01
PettyHR	M002	6095.00	100Year-Existing	131.56	66.23	70.04		70.04	0.000002	0.07	2209.18	864.12	0.01
PettyHR	M002	6004.71	100Year-Existing	131.56	66.23	70.04		70.04	0.000002	0.07	2274.75	891.94	0.01
PettyHR	M001	5825.85	100Year-Existing	222.56	66.23	70.04		70.04	0.000003	0.10	2566.11	856.68	0.02
PettyHR	M001	5685.44	100Year-Existing	222.56	66.23	70.04		70.04	0.000003	0.09	2447.09	745.25	0.02
PettyHR	M001	5516.39	100Year-Existing	246.61	66.23	70.04		70.04	0.000005	0.12	2130.24	634.40	0.02
PettyHR	M001	5279.80	100Year-Existing	246.61	66.23	70.04		70.04	0.000010	0.18	1440.22	429.36	0.03
PettyHR	M001	4996.75	100Year-Existing	246.61	66.23	70.03		70.04	0.000048	0.39	684.10	213.95	0.07
PettyHR	M001	4923.81	100Year-Existing	246.61	66.23	69.94		70.02	0.000622	1.35	232.46	96.09	0.23
PettyHR	M001	4867.41	100Year-Existing	246.61	66.23	69.82		69.96	0.001535	2.10	204.83	110.52	0.36
PettyHR	M001	4817.61	100Year-Existing	246.61	66.58	69.74		69.87	0.001868	2.21	195.40	97.49	0.40
PettyHR	M001	4757.18	100Year-Existing	246.61	66.43	69.00	69.00	69.61	0.010439	4.49	100.36	78.18	0.90
PettyHR	M001	4675.66	100Year-Existing	246.61	65.88	68.61	67.88	68.95	0.004706	3.16	113.79	53.42	0.62
PettyHR	M001	4612.84	100Year-Existing	246.61	64.88	67.59	67.59	68.44	0.012309	5.08	78.94	47.37	0.99
PettyHR	M001	4570.09	100Year-Existing	246.61	64.62	67.07	67.16	67.91	0.012856	4.75	79.58	57.45	0.99
PettyHR	M001	4500.69	100Year-Existing	246.61	64.62	66.65	66.38	67.03	0.007020	3.11	108.63	81.65	0.71
PettyHR	M001	4461.12	100Year-Existing	246.61	64.55	66.32	66.23	66.73	0.012885	3.84	107.67	93.16	0.94
PettyHR	M001	4428.20	100Year-Existing	246.61	64.41	66.17		66.41	0.008494	3.05	127.59	91.84	0.76
PettyHR	M001	4395.66	100Year-Existing	246.61	63.81	65.91		66.18	0.005536	2.85	129.64	83.19	0.64
PettyHR	M001	4357.04	100Year-Existing	246.61	63.34	65.80		65.98	0.003489	2.54	154.21	82.72	0.52
PettyHR	M001	4281.82	100Year-Existing	246.61	62.50	65.67		65.81	0.001280	1.80	164.77	60.46	0.33
PettyHR	M001	4166.17	100Year-Existing	246.61	61.82	65.71		65.73	0.000182	0.77	465.91	171.91	0.13
PettyHR	M001	3949.19	100Year-Existing	246.61	61.31	65.72		65.72	0.000001	0.05	5445.43	1319.89	0.01
PettyHR	M001	3936.78	100Year-Existing	246.61	61.31	65.72		65.72	0.000000	0.04	6694.86	1578.13	0.01
PettyHR	M001	3931.39	100Year-Existing	161.85	61.31	65.72		65.72	0.000000	0.02	8428.00	2020.02	0.00
PettyHR	M001	3925.44	100Year-Existing	161.85	61.31	65.72		65.72	0.000000	0.04	4175.38	1006.71	0.01
PettyHR	M001	3867.05	100Year-Existing	161.85	61.31	65.72		65.72	0.000000	0.04	4199.31	994.75	0.01
PettyHR	M001	3643.73	100Year-Existing	161.85	61.31	65.72		65.72	0.000000	0.03	4813.38	1116.10	0.01
PettyHR	M001	3440.60	100Year-Existing	161.85	61.31	65.72		65.72	0.000001	0.07	2450.99	591.04	0.01
PettyHR	M001	3182.65	100Year-Existing	161.85	61.31	65.72		65.72	0.000002	0.09	1830.74	428.69	0.01
PettyHR	M001	3080.13	100Year-Existing	161.85	61.31	65.72		65.72	0.000002	0.08	2169.83	527.52	0.01
PettyHR	M001	3028.13	100Year-Existing	161.85	61.31	65.72		65.72	0.000001	0.07	2368.94	564.40	0.01
PettyHR	M001	2983.09	100Year-Existing	161.85	61.31	65.72		65.72	0.000002	0.09	1927.67	454.40	0.01
PettyHR	M001	2828.46	100Year-Existing	161.85	61.31	65.72		65.72	0.000005	0.15	1139.85	282.14	0.02
PettyHR	M001	2712.72	100Year-Existing	161.85	61.31	65.71		65.72	0.000018	0.27	663.10	184.94	0.04
PettyHR	M001	2671.95	100Year-Existing	161.85	61.31	65.71		65.72	0.000027	0.33	604.09	178.72	0.05
PettyHR	M001	2653.10	100Year-Existing	161.85	61.31	65.71		65.72	0.000038	0.40	520.57	159.47	0.06
PettyHR	M001	2632.46	100Year-Existing	161.85	61.31	65.69		65.71	0.000150	0.78	325.09	128.52	0.12
PettyHR	M001	2596.08	100Year-Existing	161.85	61.31	65.68		65.71	0.000171	0.83	293.77	125.79	0.13

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	2583.24	100Year-Existing	161.85	60.10	65.59	63.46	65.69	0.000776	1.84	190.90	126.17	0.27
PettyHR	M001	2580		Bridge									
PettyHR	M001	2573.39	100Year-Existing	161.85	60.00	65.44	63.00	65.51	0.000476	1.45	205.60	104.33	0.21
PettyHR	M001	2551.09	100Year-Existing	161.85	59.89	65.48		65.49	0.000045	0.46	432.13	127.88	0.07
PettyHR	M001	2426.14	100Year-Existing	161.85	59.27	65.49		65.49	0.000003	0.13	1316.54	280.55	0.02
PettyHR	M001	2315.39	100Year-Existing	161.85	58.72	65.49		65.49	0.000002	0.10	1604.72	320.79	0.01
PettyHR	M001	2204.15	100Year-Existing	161.85	58.16	65.49		65.49	0.000002	0.10	1609.89	309.94	0.01
PettyHR	M001	2022.45	100Year-Existing	161.85	57.26	65.48		65.49	0.000005	0.17	976.38	193.33	0.02
PettyHR	M001	1902.10	100Year-Existing	161.85	56.66	65.48		65.49	0.000008	0.23	748.29	130.33	0.03
PettyHR	M001	1879.72	100Year-Existing	161.85	56.55	65.48		65.48	0.000019	0.35	555.52	110.54	0.04
PettyHR	M001	1824.42	100Year-Existing	161.85	56.28	65.47		65.48	0.000033	0.47	370.16	67.19	0.06
PettyHR	M001	1789.72	100Year-Existing	161.85	56.10	65.47		65.48	0.000046	0.56	312.82	56.42	0.07
PettyHR	M001	1724.70	100Year-Existing	161.85	55.78	65.46		65.48	0.000061	0.64	273.21	48.88	0.08
PettyHR	M001	1668.81	100Year-Existing	161.85	55.50	65.46	58.70	65.47	0.000033	0.49	363.92	69.06	0.06
PettyHR	M001	1647.80	100Year-Existing	161.85	55.40	65.46	58.38	65.47	0.000023	0.41	425.71	83.61	0.05
PettyHR	M001	1631.79	100Year-Existing	161.85	63.55	65.16		65.44	0.010852	2.34	69.49	76.95	0.76
PettyHR	M001	1615.46	100Year-Existing	164.06	54.38	57.14		57.42	0.007101	3.82	76.10	41.93	0.75
PettyHR	M001	1601.08	100Year-Existing	164.06	54.00	56.58	56.58	57.22	0.018216	5.86	54.47	40.00	1.18
PettyHR	M001	1586.16	100Year-Existing	164.06	53.36	55.76	56.05	56.84	0.030459	7.28	42.87	34.60	1.52
PettyHR	M001	1571.98	100Year-Existing	164.06	52.87	54.98	55.49	56.30	0.043981	7.93	36.06	26.41	1.78
PettyHR	M001	1519.66	100Year-Existing	164.06	51.62	53.62	53.68	54.29	0.028115	6.01	49.40	40.57	1.40
PettyHR	M001	1467.14	100Year-Existing	164.06	50.86	52.74	52.48	53.10	0.014965	4.33	65.05	49.29	1.02
PettyHR	M001	1457.30	100Year-Existing	164.06	50.23	52.26	52.26	52.89	0.024026	5.79	51.26	39.72	1.31
PettyHR	M001	1444.51	100Year-Existing	164.06	48.30	49.59	50.23	52.05	0.172440	11.20	26.33	33.70	3.24
PettyHR	M001	1415.17	100Year-Existing	164.06	48.28	50.35	49.72	50.54	0.006408	3.02	87.96	55.04	0.68
PettyHR	M001	1402.15	100Year-Existing	164.06	47.79	49.82	49.82	50.36	0.023091	5.52	55.49	47.78	1.27
PettyHR	M001	1385.41	100Year-Existing	164.06	43.10	45.18	46.23	49.28	0.110317	12.17	23.09	21.69	2.79
PettyHR	M001	1370.82	100Year-Existing	164.06	41.75	44.19	45.25	47.75	0.080177	11.94	24.89	18.72	2.47
PettyHR	M001	1362.66	100Year-Existing	164.06	39.88	42.82	44.15	47.06	0.071119	12.48	23.28	14.44	2.37
PettyHR	M001	1336.64	100Year-Existing	164.06	39.87	41.94	42.71	44.56	0.085203	10.94	28.07	25.78	2.47
PettyHR	M001	1309.35	100Year-Existing	164.06	38.40	40.17	40.74	42.13	0.078031	9.36	28.91	23.16	2.30
PettyHR	M001	1279.20	100Year-Existing	164.06	35.02	37.86	38.59	40.29	0.048658	10.22	35.39	33.77	1.96
PettyHR	M001	1258.06	100Year-Existing	164.06	34.01	37.65	38.18	39.33	0.024399	8.62	43.13	32.02	1.46
PettyHR	M001	1221.17	100Year-Existing	164.06	33.21	35.04	35.74	37.59	0.107824	10.92	27.37	27.67	2.67
PettyHR	M001	1203.34	100Year-Existing	164.06	32.61	34.20	34.63	35.62	0.077413	8.60	34.52	36.03	2.24
PettyHR	M001	1164.99	100Year-Existing	164.06	31.37	33.25	33.34	33.95	0.029266	5.90	49.43	43.67	1.42
PettyHR	M001	1153.41	100Year-Existing	164.06	30.70	32.08	32.44	33.37	0.082451	8.21	35.49	39.99	2.28
PettyHR	M001	1125.74	100Year-Existing	164.06	29.27	30.89	31.11	31.67	0.040973	6.34	46.56	47.28	1.64
PettyHR	M001	1090.65	100Year-Existing	164.06	28.12	29.59	29.73	30.20	0.040754	5.78	52.84	65.19	1.60
PettyHR	M001	1059.48	100Year-Existing	164.06	26.84	28.42	28.52	28.97	0.037368	5.91	55.69	68.31	1.55
PettyHR	M001	1048.77	100Year-Existing	164.06	26.29	28.13	27.97	28.48	0.015564	4.22	68.45	59.57	1.03
PettyHR	M001	1021.54	100Year-Existing	164.06	25.47	27.37	27.37	27.94	0.025712	5.58	53.29	45.68	1.33
PettyHR	M001	1003.30	100Year-Existing	164.06	23.42	26.50	26.13	26.96	0.010694	5.12	65.60	41.61	0.94
PettyHR	M001	994.73	100Year-Existing	164.06	22.70	26.05	26.05	26.82	0.014265	6.21	52.72	31.00	1.10
PettyHR	M001	961.03	100Year-Existing	164.06	22.07	25.06	25.31	26.19	0.022917	7.23	42.99	27.13	1.36
PettyHR	M001	944.13	100Year-Existing	164.06	21.89	24.03	24.47	25.63	0.043980	8.04	34.06	24.24	1.79
PettyHR	M001	924.94	100Year-Existing	164.06	20.78	23.34	23.70	24.85	0.034510	8.03	34.20	19.32	1.63
PettyHR	M001	905.47	100Year-Existing	164.06	19.73	22.61	23.00	24.22	0.030040	8.14	34.06	17.77	1.55
PettyHR	M001	883.86	100Year-Existing	164.06	17.29	21.51	20.44	21.82	0.003041	3.36	82.51	44.57	0.53
PettyHR	M001	875		Bridge									
PettyHR	M001	859.53	100Year-Existing	164.06	17.25	19.83	19.83	20.74	0.020716	6.11	41.56	31.58	1.24
PettyHR	M001	836.76	100Year-Existing	164.06	12.80	15.42	16.69	19.63	0.070064	11.66	22.15	12.46	2.34
PettyHR	M001	823.70	100Year-Existing	164.06	12.86	14.77	15.90	18.18	0.118532	12.12	23.44	19.90	2.86
PettyHR	M001	811.96	100Year-Existing	164.06	12.85	15.08	15.65	16.78	0.054303	9.23	35.96	33.45	2.00
PettyHR	M001	796.92	100Year-Existing	164.06	12.74	14.43	14.83	15.77	0.069560	8.65	35.60	35.65	2.16
PettyHR	M001	784.11	100Year-Existing	164.06	11.82	14.13	14.38	15.08	0.030478	7.02	46.62	40.54	1.51
PettyHR	M001	769.86	100Year-Existing	164.06	10.94	13.12	13.55	14.54	0.040554	7.83	37.33	29.97	1.72
PettyHR	M001	748.76	100Year-Existing	164.06	8.37	11.30	12.05	13.63	0.037783	9.14	32.58	22.63	1.74
PettyHR	M001	720.33	100Year-Existing	164.06	8.08	9.41	10.10	11.79	0.146663	10.16	26.40	30.50	2.97
PettyHR	M001	707.57	100Year-Existing	164.06	6.85	8.59	9.07	10.21	0.073800	8.95	33.99	35.03	2.22
PettyHR	M001	685.99	100Year-Existing	164.06	5.31	7.30	7.84	8.79	0.057127	8.51	36.40	34.86	1.99
PettyHR	M001	666.04	100Year-Existing	164.06	5.03	7.09	7.18	7.81	0.024648	5.77	52.22	46.60	1.32
PettyHR	M001	652.51	100Year-Existing	164.06	4.66	6.71	6.93	7.43	0.030725	6.39	61.22	96.93	1.47
PettyHR	M001	633.61	100Year-Existing	164.06	4.40	5.92	5.92	6.41	0.023908	4.64	58.53	86.21	1.24
PettyHR	M001	622.83	100Year-Existing	164.06	4.09	5.43	5.43	5.79	0.024599	4.26	68.68	120.06	1.23
PettyHR	M001	577.97	100Year-Existing	164.06	2.48	4.00	4.07	4.42	0.037122	5.70	62.92	114.54	1.52
PettyHR	M001	525.57	100Year-Existing	164.06	0.51	3.60	2.62	3.67	0.001766	2.09	161.78	129.07	0.38
PettyHR	M001	491.94	100Year-Existing	164.06	-0.59	3.46	2.41	3.60	0.001702	2.23	146.81	137.29	0.38
PettyHR	M001	485		Bridge									
PettyHR	M001	478.84	100Year-Existing	164.06	-1.92	2.52		2.74	0.001728	2.19	108.26	140.94	0.37
PettyHR	M001	439.27	100Year-Existing	164.06	-1.89	2.62		2.65	0.000434	1.16	243.23	130.33	0.19
PettyHR	M001	405.68	100Year-Existing	164.06	-2.13	2.60		2.64	0.000393	1.11	239.27	132.75	0.18
PettyHR	M001	367.80	100Year-Existing	164.06	-2.02	2.60		2.62	0.000121	0.62	304.58	139.70	0.10
PettyHR	M001	338.85	100Year-Existing	164.06	-2.89	2.60		2.62	0.000073	0.54	343.40	122.73	0.08
PettyHR	M001	305.38	100Year-Existing	164.06	-2.46	2.60		2.61	0.000102	0.61	309.86	120.08	0.10
PettyHR	M001	269.29	100Year-Existing	164.06	-3.52	2.59		2.61	0.000092	0.65	290.10	110.51	0.09
PettyHR	M001	238.18	100Year-Existing	164.06	-3.50	2.58		2.61	0.000131	0.78	250.19	102.69	0.11
PettyHR	M001	201.25	100Year-Existing	164.06	-4.43	2.59		2.60	0.000042	0.48	370.37	120.40	0.06
PettyHR	M001	150.84	100Year-Existing	164.06	-3.34	2.59		2.59	0.000024	0.34	529.52	171.62	0.05
PettyHR	M001	105.74	100Year-Existing	164.06	-2.91	2.59		2.59	0.000025	0.34	511.38	154.30	0.05
PettyHR	M001	91.29	100Year-Existing	164.06	-3.36	2.59		2.59	0.000021	0.33	527.56	143.92	0.05
PettyHR	M001	20.04	100Year-Existing	164.06	-6.19	2.59		2.59	0.000011	0.25	710.37	185.28	0.03
PettyHR	M001	12.04	100Year-Existing	164.06	-6.19	2.55	-3.11	2.59	0.000210	0.93	267.31	185.14	0.11
ForthP	M001	2616.90	100Year-Existing	15.86	123.09	124.67	123.41	124.67	0.000021	0.14	162.86	166.42	0.04
ForthP	M001	2528.45	100Year-Existing	15.86	123.09	124.67		124.67	0.000005	0.07	250.45	210.81	0.02
ForthP	M001	2324.32	100Year-Existing	15.86	123.09	124.67		124.67	0.000017	0.13	191.67	228.91	0.03
ForthP	M001	2187.52	100Year-Existing	15.86	123.09	124.67		124.67	0.000003	0.05	338.73	297.62	0.01
ForthP	M001	1955.13	100Year-Existing	15.86	123.09	124.67		124.67	0.000003	0.05	385.93	317.65	0.01
ForthP	M001	1773.83	100Year-Existing	15.86	123.09	124.67		124.67	0.000001	0.04	466.99	350.18	0.01
ForthP	M001	1572.85	100Year-Existing	15.86	123.09	124.67		124.67	0.000001	0.04	445.04	325.81	0.01

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
ForthP	M001	1496.60	100Year-Existing	15.86	123.09	124.67		124.67	0.000002	0.04	376.49	285.83	0.01
ForthP	M001	1392.58	100Year-Existing	57.07	122.98	124.65	124.15	124.66	0.000828	0.95	138.45	179.47	0.24
ForthP	M001	1390		Culvert									
ForthP	M001	1381.72	100Year-Existing	57.07	122.95	124.63	124.22	124.65	0.001592	1.21	108.88	162.20	0.31
ForthP	M001	1360.50	100Year-Existing	57.07	122.87	124.44		124.57	0.008281	2.67	48.27	90.17	0.72
ForthP	M001	1311.12	100Year-Existing	57.07	122.52	124.22		124.28	0.003853	1.90	63.50	89.72	0.49
ForthP	M001	1261.17	100Year-Existing	57.07	121.36	123.64	123.64	123.97	0.009608	3.73	34.29	46.82	0.82
ForthP	M001	1211.51	100Year-Existing	57.07	119.83	122.02	122.39	123.13	0.028405	6.16	18.63	25.56	1.39
ForthP	M001	1161.66	100Year-Existing	57.07	117.25	118.56	119.02	120.53	0.111659	8.37	13.12	28.15	2.53
ForthP	M001	1112.05	100Year-Existing	57.07	114.88	116.19	116.35	116.77	0.044797	5.55	21.34	38.24	1.62
ForthP	M001	1062.35	100Year-Existing	57.07	113.16	114.55	114.60	114.93	0.029677	4.49	24.84	39.03	1.29
ForthP	M001	1041.93	100Year-Existing	57.07	112.62	114.11	114.13	114.41	0.023890	4.15	28.46	47.98	1.17
ForthP	M001	1031.90	100Year-Existing	57.07	112.31	113.65	113.77	114.10	0.040500	5.07	24.24	47.77	1.50
ForthP	M001	1011.12	100Year-Existing	57.07	111.62	112.83	112.94	113.23	0.041992	4.97	25.08	52.21	1.54
ForthP	M001	959.76	100Year-Existing	57.07	110.31	111.21	111.28	111.51	0.047855	4.07	26.66	65.93	1.54
ForthP	M001	908.93	100Year-Existing	57.07	109.25	110.06	109.90	110.14	0.012425	2.02	47.41	94.78	0.79
ForthP	M001	856.39	100Year-Existing	57.07	108.38	108.96	108.89	109.08	0.026638	2.10	38.05	95.58	1.05
ForthP	M001	806.25	100Year-Existing	57.07	107.09	108.17		108.26	0.012357	2.43	47.39	94.48	0.81
ForthP	M001	754.78	100Year-Existing	57.07	106.12	107.23	107.23	107.41	0.026486	3.76	37.47	97.43	1.21
ForthP	M001	734.50	100Year-Existing	57.07	105.47	106.92	106.84	107.04	0.010144	2.71	49.41	98.97	0.77
ForthP	M001	724.30	100Year-Existing	57.07	105.28	106.77		106.92	0.011997	3.03	45.78	99.64	0.85
ForthP	M001	703.65	100Year-Existing	57.07	105.02	106.34	106.33	106.57	0.024422	4.02	32.16	63.19	1.17
ForthP	M001	654.47	100Year-Existing	57.07	103.90	104.96	104.96	105.18	0.029801	3.84	30.91	64.69	1.27
ForthP	M001	605.63	100Year-Existing	57.07	102.27	103.58	103.65	103.89	0.027578	4.17	30.71	66.74	1.26
ForthP	M001	585.13	100Year-Existing	57.07	101.55	102.49	102.64	103.01	0.081264	5.48	22.88	70.71	2.02
ForthP	M001	577.30	100Year-Existing	57.07	101.52	102.33	102.37	102.58	0.048724	3.85	28.44	77.83	1.53
ForthP	M001	557.33	100Year-Existing	57.07	100.67	101.46	101.46	101.64	0.033822	3.09	33.65	91.37	1.26
ForthP	M001	507.84	100Year-Existing	57.07	98.92	99.71	99.71	99.89	0.037043	3.17	33.47	92.05	1.31
ForthP	M001	453.33	100Year-Existing	57.07	96.28	97.18	97.13	97.31	0.020503	2.67	41.27	101.71	1.01
ForthP	M001	402.29	100Year-Existing	57.07	94.96	95.76	95.76	95.97	0.038621	3.51	30.70	74.28	1.37
ForthP	M001	349.18	100Year-Existing	57.07	93.64	94.42	94.22	94.51	0.013152	1.92	47.04	96.22	0.79
ForthP	M001	297.76	100Year-Existing	57.07	92.55	93.59	93.54	93.74	0.022159	3.08	37.95	79.68	1.08
ForthP	M001	246.28	100Year-Existing	57.07	91.71	92.68	92.55	92.77	0.013446	2.26	48.30	101.19	0.83
ForthP	M001	182.03	100Year-Existing	57.07	90.94	92.21	91.91	92.26	0.006107	1.92	67.35	119.76	0.58
ForthP	M001	160.27	100Year-Existing	57.07	90.13	92.21	91.67	92.22	0.000419	0.73	163.72	171.03	0.17
ForthP	M001	150		Culvert									
ForthP	M001	144.74	100Year-Existing	57.07	89.90	91.45	91.45	91.49	0.001864	1.33	87.91	119.86	0.35
ForthP	M001	124.30	100Year-Existing	57.07	89.74	91.14	90.99	91.24	0.010205	2.64	52.51	102.06	0.77
ForthP	M001	61.58	100Year-Existing	57.07	88.75	90.13	90.13	90.34	0.019948	3.63	37.48	74.14	1.08
ForestP	M001	1557.91	100Year-Existing	11.44	78.25	79.81	78.50	79.81	0.000006	0.07	159.98	124.04	0.02
ForestP	M001	1428.05	100Year-Existing	11.44	78.25	79.81		79.81	0.000003	0.05	219.26	178.75	0.01
ForestP	M001	1315.71	100Year-Existing	11.44	78.25	79.81		79.81	0.000002	0.04	307.85	245.43	0.01
ForestP	M001	1228.83	100Year-Existing	11.44	78.25	79.81		79.81	0.000001	0.03	368.18	294.04	0.01
ForestP	M001	1138.84	100Year-Existing	11.44	78.25	79.81		79.81	0.000001	0.03	431.45	346.46	0.01
ForestP	M001	1077.28	100Year-Existing	11.44	78.25	79.81		79.81	0.000001	0.03	487.87	489.33	0.01
ForestP	M001	1019.12	100Year-Existing	11.44	78.25	79.81		79.81	0.000003	0.05	250.54	296.09	0.01
ForestP	M001	958.61	100Year-Existing	14.56	78.15	79.78	79.50	79.81	0.001406	0.94	30.72	74.44	0.27
ForestP	M001	955		Culvert									
ForestP	M001	949.85	100Year-Existing	14.56	77.76	79.73	79.66	79.79	0.005889	1.61	20.60	61.91	0.40
ForestP	M001	913.34	100Year-Existing	14.56	78.16	79.22	79.22	79.41	0.029211	3.44	9.82	26.03	1.15
ForestP	M001	883.23	100Year-Existing	14.56	77.54	78.43	78.46	78.61	0.024518	2.93	11.83	43.18	1.10
ForestP	M001	859.61	100Year-Existing	14.56	76.75	77.72	77.70	77.93	0.021416	2.99	8.83	17.98	1.05
ForestP	M001	831.71	100Year-Existing	14.56	75.74	76.85	76.85	77.22	0.031189	3.79	6.93	13.06	1.26
ForestP	M001	802.91	100Year-Existing	14.56	74.66	75.64	75.81	76.18	0.042066	4.24	5.92	12.20	1.48
ForestP	M001	772.90	100Year-Existing	14.56	73.77	74.69	74.73	74.97	0.033799	3.61	7.87	18.00	1.29
ForestP	M001	737.48	100Year-Existing	14.56	72.77	73.64	73.56	73.77	0.017032	2.49	11.07	23.88	0.92
ForestP	M001	688.06	100Year-Existing	14.56	71.80	72.46	72.45	72.59	0.036613	2.81	10.49	34.33	1.22
ForestP	M001	651.32	100Year-Existing	14.56	70.81	71.57	71.53	71.66	0.018224	2.39	13.46	43.61	0.94
ForestP	M001	600.44	100Year-Existing	14.56	69.80	70.37	70.37	70.46	0.032519	2.53	14.34	80.27	1.19
ForestP	M001	578.60	100Year-Existing	14.56	69.31	70.07	69.96	70.09	0.005767	1.32	30.16	116.37	0.53
ForestP	M001	528.92	100Year-Existing	14.56	68.58	70.05		70.05	0.000235	0.43	90.87	155.43	0.12
ForestP	M001	478.55	100Year-Existing	14.56	68.21	70.05		70.05	0.000047	0.23	150.08	182.83	0.06
ForestP	M001	430.82	100Year-Existing	14.56	67.77	70.05		70.05	0.000020	0.17	202.86	198.67	0.04
ForestP	M001	378.18	100Year-Existing	14.56	67.48	70.05		70.05	0.000003	0.08	440.87	358.31	0.02
ForestP	M001	328.07	100Year-Existing	14.56	67.34	70.05		70.05	0.000002	0.06	577.49	417.15	0.01
ForestP	M001	277.95	100Year-Existing	14.56	67.07	70.05		70.05	0.000001	0.05	694.04	485.34	0.01
ForestP	M001	195.51	100Year-Existing	14.56	66.23	70.05		70.05	0.000000	0.03	1164.92	665.48	0.00
ForestP	M001	158.37	100Year-Existing	14.56	66.23	70.05		70.05	0.000000	0.01	1929.29	746.54	0.00
ForestP	M001	89.11	100Year-Existing	14.56	66.23	70.05		70.05	0.000000	0.01	2130.63	802.80	0.00
DoylesR	TR019	260.51	100Year-Existing	0.52	124.74	125.20	124.97	125.20	0.000115	0.13	8.44	47.95	0.07
DoylesR	TR019	199.72	100Year-Existing	0.52	124.55	125.20		125.20	0.000002	0.02	49.65	149.34	0.01
DoylesR	TR019	150.00	100Year-Existing	0.52	124.37	125.20		125.20	0.000002	0.02	55.11	182.59	0.01
DoylesR	TR019	100.00	100Year-Existing	0.52	124.16	125.20		125.20	0.000002	0.03	55.48	243.60	0.01
DoylesR	TR019	50.00	100Year-Existing	0.52	124.18	125.20		125.20	0.000001	0.02	86.61	294.03	0.01
DoylesR	TR018	302.01	100Year-Existing	1.95	127.90	128.51	128.08	128.52	0.000117	0.18	17.80	45.42	0.07
DoylesR	TR018	270.53	100Year-Existing	1.95	126.19	128.52	127.04	128.52	0.000000	0.02	263.71	244.89	0.00
DoylesR	TR018	260		Culvert									
DoylesR	TR018	257.62	100Year-Existing	1.95	126.19	128.52	127.07	128.52	0.000000	0.02	268.63	215.54	0.00
DoylesR	TR018	244.68	100Year-Existing	1.95	125.64	128.52	126.79	128.52	0.000000	0.01	306.87	215.21	0.00
DoylesR	TR018	200		Culvert									
DoylesR	TR018	169.24	100Year-Existing	1.95	125.40	126.45	126.35	126.80	0.015965	3.02	0.80	80.93	0.96
DoylesR	TR018	131.43	100Year-Existing	1.95	125.24	125.45	125.45	125.50	0.055687	1.35	2.98	59.07	1.25
DoylesR	TR018	59.79	100Year-Existing	1.95	124.57	125.24	124.91	125.24	0.000145	0.19	28.34	162.02	0.08
DoylesR	TR017	4043.45	100Year-Existing	10.66	124.05	125.17		125.19	0.001634	1.02	31.34	134.73	0.31
DoylesR	TR017	3983.69	100Year-Existing	10.66	124.04	125.06		125.08	0.002184	1.01	27.83	110.73	0.34
DoylesR	TR017	3923.93	100Year-Existing	10.66	124.03	124.64	124.64	124.76	0.031375	2.23	9.25	45.12	1.14
DoylesR	TR017	3889.37	100Year-Existing	10.66	123.60	123.88	123.69	123.89	0.005916	0.47	20.53	79.10	0.41
DoylesR	TR017	3781.64	100Year-Existing	10.66	122.55	123.70		123.72	0.001689	0.97	30.12	94.48	0.31
DoylesR	TR017	3768.91	100Year-Existing	10.66	122.35	123.31	123.31	123.63	0.019045	2.73	5.49	14.39	0.97
DoylesR	TR017	3745.98	100Year-Existing	10.66	121.86	122.48	122.54	122.68	0.052135	2.81	7.01	38.08	1.44

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR017	3713.18	100Year-Existing	10.66	120.99	121.66	121.70	121.93	0.025912	2.50	5.47	15.44	1.10
DoylesR	TR017	3692.45	100Year-Existing	10.66	120.34	121.11	121.18	121.38	0.024942	2.62	6.12	20.50	1.09
DoylesR	TR017	3679.05	100Year-Existing	10.66	119.97	120.84	120.92	121.09	0.019266	2.65	6.82	26.84	0.99
DoylesR	TR017	3656.84	100Year-Existing	10.66	117.59	118.16	118.61	119.93	0.223872	6.13	2.01	6.70	3.07
DoylesR	TR017	3603.67	100Year-Existing	10.66	116.29	117.10	117.11	117.25	0.016812	2.35	8.49	30.46	0.91
DoylesR	TR017	3583.40	100Year-Existing	10.66	115.96	116.67	116.72	116.85	0.026946	2.62	8.02	32.27	1.12
DoylesR	TR017	3571.14	100Year-Existing	10.66	115.76	116.38	116.37	116.49	0.023905	2.34	9.29	37.09	1.04
DoylesR	TR017	3545.42	100Year-Existing	10.66	115.22	115.92	115.92	116.06	0.020484	2.21	8.24	27.44	0.96
DoylesR	TR017	3483.93	100Year-Existing	10.66	114.35	114.99	114.95	115.03	0.013097	1.72	15.56	72.15	0.76
DoylesR	TR017	3432.55	100Year-Existing	10.66	113.79	114.61	114.52	114.65	0.007603	1.56	17.64	68.40	0.60
DoylesR	TR017	3345.48	100Year-Existing	10.66	113.03	113.62	113.62	113.71	0.030364	2.27	10.26	50.57	1.13
DoylesR	TR017	3300.07	100Year-Existing	10.66	112.42	113.07	112.89	113.08	0.003578	0.85	24.47	80.96	0.39
DoylesR	TR016	918.87	100Year-Existing	3.90	127.08	128.80	127.26	128.80	0.000000	0.02	406.06	361.87	0.00
DoylesR	TR016	898.71	100Year-Existing	3.90	126.90	128.80	127.38	128.80	0.000002	0.04	197.27	225.47	0.01
DoylesR	TR016	890		Culvert									
DoylesR	TR016	882.28	100Year-Existing	3.90	126.88	128.74		128.74	0.000009	0.09	107.02	159.04	0.02
DoylesR	TR016	877.71	100Year-Existing	3.90	126.24	128.74	127.06	128.74	0.000006	0.10	126.44	190.98	0.02
DoylesR	TR016	850		Culvert									
DoylesR	TR016	848.13	100Year-Existing	3.90	126.37	127.31	127.31	127.62	0.018871	2.75	2.06	4.20	0.93
DoylesR	TR016	818.98	100Year-Existing	3.90	126.36	126.90	126.81	126.91	0.004347	0.86	10.37	67.43	0.43
DoylesR	TR016	768.99	100Year-Existing	3.90	126.30	126.70		126.71	0.004280	0.71	10.36	53.24	0.41
DoylesR	TR016	714.09	100Year-Existing	3.90	125.96	126.43		126.45	0.005160	0.84	8.82	46.56	0.46
DoylesR	TR016	675.95	100Year-Existing	3.90	125.74	126.10	126.10	126.16	0.024985	1.47	5.14	46.63	0.95
DoylesR	TR016	659.39	100Year-Existing	3.90	125.10	125.60	125.57	125.65	0.011228	1.38	5.46	27.88	0.69
DoylesR	TR016	632.80	100Year-Existing	3.90	124.78	125.30	125.30	125.37	0.015156	1.52	4.74	29.59	0.79
DoylesR	TR016	610.50	100Year-Existing	3.90	123.78	124.38	124.51	124.74	0.045366	3.05	1.80	6.22	1.41
DoylesR	TR016	549.37	100Year-Existing	3.90	122.30	123.01	123.03	123.12	0.016879	1.95	4.04	21.58	0.85
DoylesR	TR016	494.31	100Year-Existing	3.90	120.93	121.68	121.73	121.96	0.026167	2.40	1.86	5.34	1.06
DoylesR	TR016	473.82	100Year-Existing	3.90	120.18	120.75	120.89	121.18	0.057423	3.04	1.51	5.54	1.54
DoylesR	TR016	459.95	100Year-Existing	3.90	119.62	120.19	120.27	120.50	0.039081	2.55	1.77	5.99	1.28
DoylesR	TR016	439.99	100Year-Existing	3.90	119.05	119.77	119.83	120.04	0.028187	2.37	1.82	5.02	1.09
DoylesR	TR016	384.99	100Year-Existing	3.90	117.07	117.63	117.73	117.98	0.051072	2.67	1.56	5.56	1.43
DoylesR	TR016	329.99	100Year-Existing	3.90	115.67	116.21	116.21	116.29	0.017993	1.55	4.14	24.43	0.84
DoylesR	TR016	274.18	100Year-Existing	3.90	114.93	115.37		115.41	0.013458	1.19	6.56	50.00	0.71
DoylesR	TR016	218.88	100Year-Existing	3.90	114.35	114.87	114.86	114.91	0.011761	1.19	7.32	72.86	0.67
DoylesR	TR016	165.43	100Year-Existing	3.90	113.83	114.45	114.41	114.49	0.008325	1.21	6.86	44.82	0.59
DoylesR	TR016	86.48	100Year-Existing	3.90	112.80	113.30	113.30	113.42	0.026076	1.73	3.20	20.46	1.00
DoylesR	TR016	40.19	100Year-Existing	3.90	112.21	112.90	112.74	112.91	0.001572	0.59	15.26	71.54	0.27
DoylesR	TR015	3230.71	100Year-Existing	23.40	111.60	112.63		112.68	0.007720	1.91	30.14	84.80	0.64
DoylesR	TR015	3185.04	100Year-Existing	23.40	111.22	112.30		112.39	0.010487	2.16	24.07	57.84	0.74
DoylesR	TR015	3133.58	100Year-Existing	23.40	110.57	111.47	111.47	111.62	0.024311	2.99	17.53	49.08	1.11
DoylesR	TR015	3079.97	100Year-Existing	23.40	108.17	109.39	109.61	110.06	0.033234	4.28	8.98	18.22	1.36
DoylesR	TR015	3026.43	100Year-Existing	23.40	107.30	109.21	108.46	109.25	0.001173	1.14	34.73	34.86	0.28
DoylesR	TR015	3001.28	100Year-Existing	23.40	106.17	109.22	108.65	109.23	0.000184	0.58	95.34	81.39	0.11
DoylesR	TR015	3000		Culvert									
DoylesR	TR015	2988.77	100Year-Existing	23.40	106.03	108.18	108.18	108.37	0.005073	2.68	26.46	59.36	0.60
DoylesR	TR015	2963.30	100Year-Existing	23.40	105.69	106.66	106.99	107.91	0.094727	6.37	7.52	21.25	2.19
DoylesR	TR015	2915.60	100Year-Existing	23.40	104.53	105.83	105.83	106.12	0.018202	3.30	14.51	28.17	1.01
DoylesR	TR015	2867.64	100Year-Existing	23.40	103.37	104.66	104.71	105.10	0.031036	4.27	11.89	25.04	1.29
DoylesR	TR015	2841.04	100Year-Existing	23.40	102.40	103.06	103.21	103.57	0.110828	4.72	9.38	30.02	2.20
DoylesR	TR015	2804.73	100Year-Existing	23.40	101.67	102.63	102.55	102.76	0.017051	2.63	18.71	39.60	0.94
DoylesR	TR015	2742.98	100Year-Existing	23.40	100.87	101.80	101.72	101.87	0.013554	2.34	26.60	76.37	0.83
DoylesR	TR015	2687.77	100Year-Existing	23.40	100.07	100.77	100.76	100.88	0.028131	2.66	20.43	77.07	1.14
DoylesR	TR015	2638.14	100Year-Existing	23.40	98.95	99.87	99.87	100.02	0.024099	3.14	19.61	60.44	1.12
DoylesR	TR015	2593.26	100Year-Existing	23.40	97.75	99.01	98.91	99.12	0.010311	2.48	22.35	47.28	0.76
DoylesR	TR015	2557.12	100Year-Existing	23.40	97.53	98.75		98.82	0.007668	2.18	27.87	65.45	0.66
DoylesR	TR015	2522.34	100Year-Existing	23.40	97.26	98.27	98.27	98.45	0.020248	2.81	16.89	45.56	1.02
DoylesR	TR015	2483.94	100Year-Existing	23.40	96.95	97.79	97.69	97.86	0.013977	2.03	23.52	63.14	0.81
DoylesR	TR015	2438.99	100Year-Existing	23.40	96.35	97.64		97.66	0.002291	1.20	47.16	106.75	0.36
DoylesR	TR015	2387.12	100Year-Existing	23.40	96.39	97.60		97.60	0.000693	0.61	79.63	137.04	0.20
DoylesR	TR015	2352.45	100Year-Existing	23.40	96.40	97.58		97.58	0.000467	0.50	83.18	112.18	0.16
DoylesR	TR015	2283.37	100Year-Existing	23.40	95.75	97.42		97.51	0.003770	1.89	23.24	29.36	0.49
DoylesR	TR015	2231.50	100Year-Existing	23.40	95.54	96.89	96.88	97.16	0.014467	3.10	14.53	28.42	0.92
DoylesR	TR015	2160.12	100Year-Existing	23.40	94.93	96.18		96.32	0.008578	2.24	17.00	24.07	0.70
DoylesR	TR015	2119.11	100Year-Existing	23.40	94.44	95.61	95.57	95.86	0.019221	3.17	14.80	32.33	1.02
DoylesR	TR015	2075.88	100Year-Existing	23.40	93.86	94.95	94.95	95.11	0.014429	2.62	18.46	50.27	0.89
DoylesR	TR015	2024.01	100Year-Existing	23.40	93.19	94.40	94.32	94.50	0.009535	2.26	22.68	57.48	0.72
DoylesR	TR015	1972.14	100Year-Existing	23.40	92.71	93.80	93.80	93.92	0.016314	2.80	22.18	77.64	0.93
DoylesR	TR015	1921.75	100Year-Existing	23.40	92.35	93.73	93.20	93.74	0.001141	0.90	61.02	118.12	0.26
DoylesR	TR015	1851.62	100Year-Existing	23.40	91.24	92.89	92.89	93.52	0.022437	4.22	9.33	16.74	1.14
DoylesR	TR014	2057.49	100Year-Existing	14.17	125.48	126.71	126.43	126.74	0.002174	1.05	31.79	79.73	0.34
DoylesR	TR014	2037.89	100Year-Existing	14.17	125.57	126.71		126.71	0.000565	0.56	61.10	133.65	0.18
DoylesR	TR014	1988.88	100Year-Existing	14.17	124.71	126.60	125.81	126.66	0.001465	1.26	23.31	68.70	0.30
DoylesR	TR014	1980		Culvert									
DoylesR	TR014	1975.46	100Year-Existing	14.17	124.46	126.58		126.66	0.001264	1.28	19.29	55.45	0.30
DoylesR	TR014	1936.56	100Year-Existing	14.17	124.86	126.42	126.15	126.56	0.004838	2.09	13.87	26.99	0.56
DoylesR	TR014	1904.43	100Year-Existing	14.17	124.72	125.96	125.96	126.30	0.014174	3.01	7.71	12.84	0.91
DoylesR	TR014	1867.03	100Year-Existing	14.17	124.61	125.80	125.57	125.87	0.004168	1.60	15.99	26.57	0.49
DoylesR	TR014	1801.50	100Year-Existing	14.17	124.00	125.11	125.11	125.38	0.016233	2.98	8.76	17.30	0.95
DoylesR	TR014	1765.57	100Year-Existing	14.17	123.20	123.83	123.99	124.33	0.060557	3.72	5.81	19.76	1.66
DoylesR	TR014	1703.29	100Year-Existing	14.17	121.82	122.87	122.87	123.06	0.010947	2.40	11.23	29.30	0.79
DoylesR	TR014	1657.91	100Year-Existing	14.17	121.27	122.12	122.17	122.40	0.020173	2.65	8.15	21.86	1.01
DoylesR	TR014	1607.98	100Year-Existing	14.17	120.59	121.52	121.50	121.63	0.011365	2.15	15.51	48.89	0.77
DoylesR	TR014	1544.18	100Year-Existing	14.17	119.81	120.76	120.76	120.88	0.012291	2.29	14.22	44.03	0.81
DoylesR	TR014	1492.70	100Year-Existing	14.17	119.06	119.76	119.81	119.96	0.027062	2.76	10.88	41.58	1.14
DoylesR	TR014	1441.23	100Year-Existing	14.17	117.59	118.80	118.83	119.06	0.015389	3.12	9.76	21.14	0.95
DoylesR	TR014	1420.98	100Year-Existing	14.17	116.98	118.49	117.87	118.56	0.002404	1.46	15.49	15.12	0.39
DoylesR	TR014	1411.86	100Year-Existing	14.17	117.03	118.36	117.89	118.51	0.005011	2.02	9.06	12.98	0.56
DoylesR	TR014	1400		Bridge									
DoylesR	TR014	1384.41	100Year-Existing	16.12	116.71	117.70	117.66	118.07	0.016696	2.89	6.30	10.24	0.97

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR014	1374.60	100Year-Existing	16.12	116.54	117.69		117.87	0.007641	2.11	9.98	12.73	0.66
DoylesR	TR014	1353.25	100Year-Existing	16.12	116.21	117.26	117.26	117.61	0.017700	2.99	7.23	10.92	0.99
DoylesR	TR014	1309.14	100Year-Existing	16.12	115.50	116.68	116.47	116.91	0.008201	2.18	8.10	10.02	0.68
DoylesR	TR014	1296.25	100Year-Existing	16.12	115.12	116.32	116.32	116.71	0.017455	3.26	6.87	8.93	1.01
DoylesR	TR014	1239.25	100Year-Existing	16.12	113.43	114.20	114.46	114.94	0.059059	4.36	5.30	13.39	1.72
DoylesR	TR014	1203.69	100Year-Existing	16.12	112.84	113.84	113.66	113.92	0.008530	2.05	14.90	28.69	0.68
DoylesR	TR014	1182.25	100Year-Existing	16.12	112.53	113.41	113.41	113.64	0.019830	2.80	10.15	22.12	1.02
DoylesR	TR014	1125.25	100Year-Existing	16.12	111.30	112.67	112.36	112.73	0.004484	1.80	17.89	26.03	0.52
DoylesR	TR014	1104.23	100Year-Existing	16.12	111.16	112.34	112.34	112.57	0.013789	2.75	10.88	23.29	0.88
DoylesR	TR014	1094.88	100Year-Existing	16.12	110.55	111.49	111.73	112.27	0.059576	5.11	5.58	12.07	1.78
DoylesR	TR014	1075.36	100Year-Existing	16.12	110.17	111.31	111.36	111.61	0.021545	3.50	9.99	20.76	1.10
DoylesR	TR014	1027.18	100Year-Existing	16.12	109.15	110.13	110.20	110.47	0.026469	3.37	8.86	19.28	1.18
DoylesR	TR014	980.74	100Year-Existing	16.12	107.89	109.12	108.74	109.19	0.004833	1.79	17.00	23.67	0.54
DoylesR	TR014	954.47	100Year-Existing	16.12	107.68	108.76	108.76	108.97	0.015453	2.78	11.68	26.24	0.92
DoylesR	TR014	934.37	100Year-Existing	16.12	106.99	108.04	108.20	108.48	0.030367	3.70	8.78	24.24	1.27
DoylesR	TR014	907.24	100Year-Existing	16.12	106.52	107.54	107.46	107.66	0.012743	2.48	14.26	29.26	0.83
DoylesR	TR014	868.80	100Year-Existing	16.12	105.88	107.05	106.97	107.22	0.010024	2.39	13.23	28.98	0.76
DoylesR	TR014	864.98	100Year-Existing	16.12	105.70	106.87	106.87	107.17	0.014273	2.69	8.85	17.20	0.89
DoylesR	TR014	844.06	100Year-Existing	16.12	105.10	106.52	106.31	106.70	0.007323	2.35	12.50	22.83	0.67
DoylesR	TR014	836.52	100Year-Existing	16.12	104.97	106.22	106.22	106.59	0.018939	3.23	7.99	14.83	1.02
DoylesR	TR014	816.09	100Year-Existing	16.12	104.78	105.85	105.66	105.93	0.006757	1.82	16.22	31.44	0.61
DoylesR	TR014	811.48	100Year-Existing	16.12	104.64	105.83		105.90	0.005013	1.73	18.26	33.76	0.54
DoylesR	TR014	783.28	100Year-Existing	16.12	103.98	105.29	105.29	105.64	0.017552	3.44	8.02	11.26	1.01
DoylesR	TR014	751.27	100Year-Existing	16.12	103.31	104.49	104.58	104.98	0.023522	3.25	5.99	9.75	1.12
DoylesR	TR014	717.94	100Year-Existing	16.12	102.63	104.07	104.07	104.40	0.017067	3.56	9.00	14.54	1.00
DoylesR	TR014	676.43	100Year-Existing	16.12	102.18	103.45	103.52	103.74	0.014035	2.85	11.54	37.69	0.89
DoylesR	TR014	601.44	100Year-Existing	16.12	101.39	102.50	102.34	102.61	0.007924	2.01	13.70	24.55	0.66
DoylesR	TR014	540.83	100Year-Existing	16.12	100.49	101.77	101.77	102.04	0.011161	2.64	9.96	21.68	0.81
DoylesR	TR014	519.25	100Year-Existing	16.12	99.69	101.84	101.55	101.85	0.000996	1.02	38.77	67.14	0.23
DoylesR	TR014	510		Culvert									
DoylesR	TR014	505.00	100Year-Existing	16.12	99.62	101.55	101.55	101.61	0.003183	1.68	25.58	61.32	0.39
DoylesR	TR014	484.27	100Year-Existing	16.12	99.79	100.82	100.99	101.31	0.042602	4.03	6.85	16.11	1.44
DoylesR	TR014	426.15	100Year-Existing	16.12	98.71	100.09	100.11	100.27	0.008691	2.24	14.42	52.91	0.70
DoylesR	TR014	368.05	100Year-Existing	16.12	97.30	98.49	98.75	99.25	0.051785	4.55	5.93	17.31	1.58
DoylesR	TR014	343.01	100Year-Existing	16.12	96.78	98.82	97.94	98.82	0.000171	0.47	85.00	125.69	0.11
DoylesR	TR014	335		Bridge									
DoylesR	TR014	331.91	100Year-Existing	16.12	96.63	98.08	98.08	98.55	0.015178	3.24	5.92	7.61	0.94
DoylesR	TR014	312.09	100Year-Existing	16.12	96.26	97.54	97.68	98.07	0.042464	3.83	7.90	32.12	1.38
DoylesR	TR014	227.09	100Year-Existing	16.12	94.66	96.63	96.24	96.68	0.002679	1.54	22.26	31.29	0.38
DoylesR	TR014	205.76	100Year-Existing	16.12	94.51	96.26	96.26	96.55	0.012359	2.97	10.39	21.09	0.81
DoylesR	TR014	198.96	100Year-Existing	16.12	94.45	95.27	95.58	96.30	0.086556	4.64	4.19	12.93	2.00
DoylesR	TR014	181.77	100Year-Existing	16.12	94.01	95.29	95.29	95.52	0.014867	2.80	11.21	25.15	0.89
DoylesR	TR014	121.12	100Year-Existing	16.12	92.99	94.22	94.31	94.49	0.018774	3.03	13.70	62.11	0.99
DoylesR	TR014	34.73	100Year-Existing	16.12	91.60	92.68	92.70	93.04	0.019343	2.95	7.30	12.06	1.02
DoylesR	TR012	1780.65	100Year-Existing	39.52	90.30	92.44	91.93	92.55	0.002597	1.76	40.16	70.48	0.42
DoylesR	TR012	1753.67	100Year-Existing	39.52	89.56	92.47	91.65	92.50	0.000557	1.11	82.53	102.89	0.21
DoylesR	TR012	1745		Bridge									
DoylesR	TR012	1729.43	100Year-Existing	39.52	89.10	91.40	91.40	91.70	0.005317	2.66	20.26	17.85	0.60
DoylesR	TR012	1709.20	100Year-Existing	39.52	88.93	90.73	90.91	91.39	0.023259	4.66	15.97	25.85	1.19
DoylesR	TR012	1645.76	100Year-Existing	39.52	88.20	89.88	89.62	90.18	0.009915	3.01	24.60	44.73	0.80
DoylesR	TR011	1552.47	100Year-Existing	56.81	86.48	89.19	88.67	89.55	0.005156	3.05	26.91	17.01	0.62
DoylesR	TR011	1530.88	100Year-Existing	56.81	86.19	88.55	88.55	89.34	0.013838	4.57	18.23	12.37	1.00
DoylesR	TR011	1477.56	100Year-Existing	56.81	84.43	85.99	86.54	87.85	0.065604	7.06	11.91	14.28	1.98
DoylesR	TR011	1423.69	100Year-Existing	56.81	83.56	86.02	86.06	86.53	0.008681	3.70	27.11	32.08	0.79
DoylesR	TR011	1370.10	100Year-Existing	56.81	82.66	83.99	84.35	85.40	0.077175	6.95	15.19	30.94	2.11
DoylesR	TR011	1316.51	100Year-Existing	56.81	81.17	83.41	83.41	83.93	0.010599	3.81	24.44	26.14	0.87
DoylesR	TR011	1262.92	100Year-Existing	56.81	79.36	81.26	81.78	82.84	0.040003	6.39	13.79	18.06	1.61
DoylesR	TR011	1209.33	100Year-Existing	56.81	78.14	80.60	80.69	81.54	0.017465	4.94	17.75	17.86	1.09
DoylesR	TR011	1155.74	100Year-Existing	56.81	76.81	79.05	79.30	80.34	0.027535	5.71	13.82	11.94	1.34
DoylesR	TR011	1107.39	100Year-Existing	56.81	76.34	78.15	78.32	79.03	0.022133	4.41	15.28	14.05	1.18
DoylesR	TR011	1057.82	100Year-Existing	56.81	75.16	77.58	77.58	78.28	0.013154	4.12	18.54	14.47	0.94
DoylesR	TR011	971.36	100Year-Existing	56.81	73.33	74.44	74.92	76.07	0.060135	5.65	10.05	18.19	1.84
DoylesR	TR011	960		Bridge									
DoylesR	TR011	949.62	100Year-Existing	56.81	73.08	75.26	74.60	75.60	0.004393	2.58	21.98	23.72	0.57
DoylesR	TR011	929.53	100Year-Existing	56.81	72.74	75.07	75.19	75.47	0.007445	3.19	29.76	65.05	0.72
DoylesR	TR011	872.05	100Year-Existing	56.81	72.26	74.02	74.22	74.69	0.029271	4.94	24.54	54.91	1.33
DoylesR	TR011	816.76	100Year-Existing	56.81	72.00	73.17	73.04	73.26	0.012961	2.47	47.48	100.44	0.82
DoylesR	TR011	760.16	100Year-Existing	56.81	71.25	72.57		72.66	0.011421	2.72	52.27	113.44	0.80
DoylesR	TR011	712.26	100Year-Existing	56.81	70.34	72.01	71.92	72.13	0.009143	2.78	52.58	115.81	0.75
DoylesR	TR011	663.11	100Year-Existing	56.81	70.08	71.41	71.38	71.52	0.018772	3.18	47.66	126.77	0.98
DoylesR	TR013	2205.78	100Year-Existing	12.09	95.88	96.76	96.45	96.77	0.001174	0.74	41.54	121.58	0.25
DoylesR	TR013	2147.59	100Year-Existing	12.09	95.87	96.65		96.67	0.002628	0.95	26.44	87.70	0.37
DoylesR	TR013	2097.40	100Year-Existing	12.09	95.86	96.30	96.30	96.37	0.026362	1.92	14.28	90.28	1.03
DoylesR	TR013	2011.99	100Year-Existing	12.09	93.67	94.89	94.72	95.09	0.008205	2.21	8.49	18.95	0.69
DoylesR	TR013	1957.46	100Year-Existing	12.09	93.05	94.20	94.20	94.50	0.015714	3.08	6.98	13.88	0.95
DoylesR	TR013	1909.18	100Year-Existing	12.09	92.33	93.28	93.38	93.57	0.022263	3.03	9.83	52.14	1.07
DoylesR	TR013	1861.01	100Year-Existing	12.09	91.27	92.35	92.47	92.63	0.018327	2.90	9.24	43.06	0.98
DoylesR	TR013	1789.09	100Year-Existing	12.09	90.00	90.65	90.64	90.72	0.015190	1.89	15.51	83.46	0.84
DoylesR	TR013	1733.37	100Year-Existing	12.09	89.53	90.31	90.18	90.34	0.004238	1.10	22.86	84.24	0.45
DoylesR	TR013	1677.65	100Year-Existing	12.09	89.42	89.90		89.94	0.013561	1.45	15.22	75.59	0.75
DoylesR	TR013	1613.85	100Year-Existing	12.09	89.11	89.73		89.74	0.001513	0.59	36.63	100.21	0.26
DoylesR	TR013	1552.30	100Year-Existing	12.09	88.82	89.64		89.65	0.001851	0.83	29.65	70.95	0.31
DoylesR	TR013	1506.96	100Year-Existing	12.09	88.81	89.56		89.58	0.001928	0.81	28.59	67.04	0.31
DoylesR	TR013	1478.17	100Year-Existing	12.09	88.80	89.44		89.48	0.008234	1.38	16.85	51.00	0.61
DoylesR	TR013	1411.61	100Year-Existing	12.09	88.11	89.11		89.16	0.003143	1.18	15.71	34.58	0.41
DoylesR	TR013	1388.58	100Year-Existing	12.09	87.45	89.13	88.80	89.13	0.000218	0.44	66.69	173.42	0.12
DoylesR	TR013	1375		Culvert									
DoylesR	TR013	1373.86	100Year-Existing	12.09	87.32	88.85	88.50	88.94	0.004753	1.98	18.48	88.04	0.52
DoylesR	TR013	1301.72	100Year-Existing	12.09	86.82	88.08	88.08	88.38	0.013158	2.80	6.42	13.27	0.86
DoylesR	TR013	1246.99	100Year-Existing	12.09	85.79	86.79	87.05	87.34	0.028650	3.44	4.21	7.85	1.22

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR013	1192.26	100Year-Existing	12.09	84.79	86.07	85.90	86.25	0.007590	2.17	8.38	13.51	0.66
DoylesR	TR013	1137.53	100Year-Existing	12.09	84.03	85.38	85.38	85.70	0.013083	2.83	6.21	11.61	0.86
DoylesR	TR013	1082.80	100Year-Existing	12.09	83.55	84.47	84.51	84.71	0.027949	2.83	7.27	22.22	1.14
DoylesR	TR013	1064.90	100Year-Existing	12.09	82.57	84.52	83.91	84.56	0.001021	0.98	30.25	118.26	0.25
DoylesR	TR013	1050		Culvert									
DoylesR	TR013	1042.53	100Year-Existing	12.09	82.41	84.52	83.69	84.53	0.000222	0.51	67.15	164.16	0.12
DoylesR	TR013	1022.06	100Year-Existing	12.09	82.71	84.29	84.04	84.49	0.007023	2.45	8.69	15.56	0.66
DoylesR	TR013	969.32	100Year-Existing	12.09	82.40	83.53	83.53	83.90	0.018814	3.25	5.45	7.94	1.03
DoylesR	TR013	915.66	100Year-Existing	12.09	81.80	83.15	82.65	83.17	0.001019	0.87	29.76	53.02	0.25
DoylesR	TR013	867.93	100Year-Existing	12.09	81.40	83.08		83.11	0.001471	1.19	26.01	54.76	0.30
DoylesR	TR013	809.27	100Year-Existing	12.09	81.32	82.82		82.96	0.004306	1.82	9.24	12.37	0.51
DoylesR	TR013	756.07	100Year-Existing	12.09	80.75	82.11	82.11	82.54	0.015491	3.36	5.26	6.79	0.96
DoylesR	TR013	702.82	100Year-Existing	12.09	79.91	81.16	81.22	81.61	0.019549	3.46	5.18	8.18	1.05
DoylesR	TR013	651.60	100Year-Existing	12.09	78.06	79.04	79.26	79.98	0.056709	4.59	3.96	18.43	1.68
DoylesR	TR013	588.74	100Year-Existing	12.09	75.89	76.96	77.07	77.43	0.027645	3.13	4.43	8.70	1.16
DoylesR	TR013	543.29	100Year-Existing	12.09	75.20	76.16	76.25	76.43	0.015931	2.44	7.10	32.07	0.90
DoylesR	TR013	489.08	100Year-Existing	12.09	73.77	75.12	75.15	75.58	0.018118	3.50	4.97	6.55	1.02
DoylesR	TR013	436.90	100Year-Existing	12.09	72.11	73.17	73.41	74.05	0.051273	4.30	3.53	24.68	1.58
DoylesR	TR013	383.70	100Year-Existing	12.09	70.97	72.26	72.09	72.34	0.004092	1.55	15.24	44.98	0.48
DoylesR	TR013	363.75	100Year-Existing	12.09	70.36	72.15	71.91	72.27	0.002539	1.73	12.86	40.70	0.42
DoylesR	TR013	360		Culvert									
DoylesR	TR013	344.87	100Year-Existing	12.09	70.32	71.70	71.70	71.72	0.001724	1.06	24.34	48.31	0.30
DoylesR	TR013	324.16	100Year-Existing	12.09	70.29	70.91	71.05	71.45	0.131431	4.58	5.79	46.16	2.31
DoylesR	TR013	256.30	100Year-Existing	12.09	69.36	70.35	70.34	70.44	0.017357	2.31	12.68	54.49	0.85
DoylesR	TR013	236.50	100Year-Existing	12.09	69.35	70.36		70.36	0.000482	0.39	53.95	118.27	0.15
DoylesR	TR013	162.98	100Year-Existing	12.09	68.94	70.33		70.34	0.000446	0.46	56.66	149.44	0.15
DoylesR	TR013	133.14	100Year-Existing	12.09	68.76	70.32		70.33	0.000194	0.32	73.26	128.65	0.10
DoylesR	TR013	66.14	100Year-Existing	12.09	68.46	70.31		70.31	0.000193	0.36	75.75	209.60	0.10
DoylesR	M001	484.12	100Year-Existing	69.16	68.08	70.14		70.19	0.004271	1.92	91.60	245.20	0.49
DoylesR	M001	429.44	100Year-Existing	69.16	67.72	70.08		70.09	0.000958	1.02	151.81	256.37	0.24
DoylesR	M001	388.03	100Year-Existing	69.16	67.53	70.06		70.07	0.000472	0.76	217.16	298.14	0.17
DoylesR	M001	344.78	100Year-Existing	69.16	67.39	70.05		70.05	0.000148	0.45	340.23	347.96	0.10
DoylesR	M001	215.64	100Year-Existing	69.16	67.21	70.05		70.05	0.000027	0.21	620.69	483.70	0.04
DoylesR	M001	77.13	100Year-Existing	69.16	66.62	70.05		70.05	0.000009	0.14	1018.11	672.30	0.03
CochranePB	M002	8105.53	100Year-Existing	19.89	140.65	142.58	141.39	142.58	0.000095	0.37	119.85	132.40	0.09
CochranePB	M002	8065.47	100Year-Existing	19.89	140.64	142.57		142.58	0.000338	0.65	69.07	92.65	0.17
CochranePB	M002	8050.98	100Year-Existing	19.89	140.00	142.54		142.57	0.000173	0.94	56.97	81.87	0.23
CochranePB	M002	8024.09	100Year-Existing	19.89	140.62	142.55		142.56	0.000312	0.61	76.58	113.45	0.16
CochranePB	M002	8013.06	100Year-Existing	19.89	140.42	142.55		142.55	0.000249	0.59	80.98	113.03	0.15
CochranePB	M002	8004.70	100Year-Existing	19.89	140.25	142.55	141.81	142.55	0.000143	0.56	98.15	115.40	0.12
CochranePB	M002	8000		Culvert									
CochranePB	M002	7995.14	100Year-Existing	19.89	140.37	142.54	141.60	142.55	0.000151	0.56	84.64	100.61	0.12
CochranePB	M002	7964.49	100Year-Existing	19.89	140.14	142.12	142.12	142.50	0.009578	3.45	10.78	14.49	0.86
CochranePB	M002	7901.64	100Year-Existing	19.89	139.30	140.80	141.00	141.48	0.030190	4.16	8.52	28.89	1.39
CochranePB	M002	7847.08	100Year-Existing	19.89	138.68	139.89	139.75	139.97	0.007790	1.89	21.38	52.17	0.70
CochranePB	M002	7812.33	100Year-Existing	19.89	138.52	139.38	139.38	139.52	0.026650	2.57	15.34	57.26	1.25
CochranePB	M002	7738.34	100Year-Existing	19.89	137.94	139.03	138.77	139.04	0.002014	0.91	48.88	138.77	0.37
CochranePB	M002	7695.32	100Year-Existing	19.89	137.67	138.67	138.67	138.85	0.017576	2.41	14.24	42.48	1.06
CochranePB	M002	7609.21	100Year-Existing	19.89	136.29	137.87	137.47	137.89	0.001073	0.98	44.11	106.14	0.30
CochranePB	M002	7515.77	100Year-Existing	19.89	136.28	137.72		137.76	0.002392	1.35	37.07	111.74	0.43
CochranePB	M002	7476.72	100Year-Existing	19.89	136.26	137.70		137.71	0.000759	0.75	49.03	97.62	0.25
CochranePB	M002	7450.86	100Year-Existing	19.89	136.25	137.66		137.68	0.001427	0.99	37.26	84.52	0.33
CochranePB	M002	7329.89	100Year-Existing	19.89	136.23	137.36		137.41	0.004645	1.47	25.82	85.65	0.57
CochranePB	M002	7253.62	100Year-Existing	19.89	136.05	137.20		137.22	0.002013	1.03	37.54	98.89	0.37
CochranePB	M002	7208.54	100Year-Existing	19.89	135.88	137.09		137.11	0.002652	1.21	38.68	136.56	0.44
CochranePB	M002	7108.13	100Year-Existing	19.89	135.54	136.56		136.65	0.013481	2.39	20.42	78.93	0.93
CochranePB	M002	7041.67	100Year-Existing	19.89	134.91	136.18		136.25	0.004605	1.56	25.60	87.68	0.58
CochranePB	M002	6985.71	100Year-Existing	19.89	134.29	135.76	135.76	135.92	0.007555	2.44	18.43	51.16	0.76
CochranePB	M002	6955.25	100Year-Existing	19.89	133.48	134.84	135.00	135.47	0.026414	3.72	6.80	13.88	1.35
CochranePB	M002	6863.52	100Year-Existing	19.89	131.82	132.91	132.94	133.13	0.021523	3.00	13.56	39.38	1.18
CochranePB	M002	6840.09	100Year-Existing	19.89	131.19	132.21	132.30	132.51	0.031842	3.21	11.43	38.70	1.41
CochranePB	M002	6808.25	100Year-Existing	19.89	130.51	131.52	131.54	131.70	0.025162	2.78	13.86	45.69	1.23
CochranePB	M002	6767.75	100Year-Existing	19.89	129.31	130.37	130.46	130.65	0.025929	3.01	12.73	49.45	1.29
CochranePB	M002	6727.78	100Year-Existing	19.89	128.36	129.58	129.62	129.80	0.017556	2.78	13.18	38.78	1.07
CochranePB	M002	6691.71	100Year-Existing	19.89	127.96	129.14	129.05	129.20	0.005699	1.62	25.60	78.81	0.62
CochranePB	M002	6651.54	100Year-Existing	19.89	127.68	128.73	128.69	128.88	0.012188	1.91	14.07	44.70	0.88
CochranePB	M002	6630.83	100Year-Existing	19.89	127.19	128.50	128.50	128.66	0.008874	2.20	17.87	73.93	0.80
CochranePB	M002	6534.50	100Year-Existing	19.89	126.30	127.36	127.42	127.53	0.016425	2.42	16.76	79.51	1.03
CochranePB	M002	6507.97	100Year-Existing	19.89	125.65	126.61	126.67	126.85	0.037170	3.07	12.67	58.37	1.46
CochranePB	M002	6480.50	100Year-Existing	19.89	124.97	125.98	125.99	126.13	0.020807	2.56	15.38	56.41	1.13
CochranePB	M002	6433.33	100Year-Existing	19.89	124.09	125.13	125.16	125.34	0.017722	2.33	12.66	43.08	1.06
CochranePB	M002	6400.96	100Year-Existing	19.89	123.40	124.70	124.49	124.76	0.004609	1.53	23.76	57.63	0.56
CochranePB	M002	6364.18	100Year-Existing	19.89	123.28	124.70		124.71	0.000305	0.46	64.31	131.71	0.16
CochranePB	M002	6314.31	100Year-Existing	19.89	123.27	124.63		124.67	0.002130	1.15	30.88	87.78	0.40
CochranePB	M002	6286.25	100Year-Existing	19.89	123.26	124.55		124.61	0.002770	1.26	27.99	80.31	0.45
CochranePB	M002	6202.53	100Year-Existing	19.89	122.81	124.14	124.08	124.29	0.007443	2.11	16.34	40.85	0.74
CochranePB	M002	6130.00	100Year-Existing	19.89	122.30	123.43	123.43	123.63	0.012649	2.09	12.00	36.69	0.91
CochranePB	M002	6040.82	100Year-Existing	19.89	121.41	122.68	122.54	122.73	0.003239	1.37	29.13	79.13	0.49
CochranePB	M002	6006.95	100Year-Existing	19.89	121.40	122.64		122.66	0.001144	0.70	39.87	102.90	0.28
CochranePB	M002	5976.09	100Year-Existing	19.89	121.39	122.45	122.45	122.56	0.014395	2.05	18.34	74.22	0.95
CochranePB	M002	5910.40	100Year-Existing	19.89	120.29	121.60	121.63	121.78	0.012757	2.58	16.27	56.86	0.94
CochranePB	M002	5863.68	100Year-Existing	19.89	119.62	120.59	120.72	120.97	0.038461	3.15	9.86	43.51	1.52
CochranePB	M002	5811.63	100Year-Existing	19.89	118.87	120.03	120.03	120.19	0.013895	2.46	16.39	56.33	0.97
CochranePB	M002	5768.42	100Year-Existing	19.89	117.38	118.43	118.63	119.11	0.056756	3.78	6.25	25.37	1.85
CochranePB	M002	5725.36	100Year-Existing	19.89	116.48	117.68	117.70	117.89	0.014453	2.49	13.64	44.56	0.99
CochranePB	M002	5678.58	100Year-Existing	19.89	115.39	116.56	116.70	116.97	0.024868	2.99	8.99	36.90	1.28
CochranePB	M002	5627.04	100Year-Existing	19.89	114.79	116.33	115.95	116.38	0.002120	1.29	28.15	51.20	0.41
CochranePB	M002	5609.94	100Year-Existing	29.90	114.77	116.15		116.27	0.005798	1.91	25.82	52.76	0.66
CochranePB	M002	5601.00	100Year-Existing	29.90	114.76	116.16		116.17	0.000931	0.78	71.24	117.05	0.26
CochranePB	M002	5568.52	100Year-Existing	29.90	114.75	116.14		116.15	0.000741	0.70	69.95	104.17	0.24

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	5508.20	100Year-Existing	29.90	114.04	115.79	115.61	116.02	0.005470	2.29	17.76	30.99	0.68
CochranePB	M002	5473.67	100Year-Existing	29.90	113.90	115.40	115.40	115.73	0.013144	3.04	16.08	30.04	1.00
CochranePB	M002	5403.83	100Year-Existing	29.90	110.69	112.05	112.54	113.81	0.068460	6.09	5.89	11.37	2.20
CochranePB	M002	5352.19	100Year-Existing	29.90	110.27	111.80	111.88	112.12	0.012344	2.91	17.50	56.21	0.97
CochranePB	M002	5309.83	100Year-Existing	29.90	109.64	111.14	111.26	111.51	0.016729	3.27	17.73	52.68	1.11
CochranePB	M002	5266.90	100Year-Existing	29.90	109.30	110.70	110.73	110.88	0.011748	2.64	26.70	86.45	0.92
CochranePB	M002	5213.45	100Year-Existing	29.90	108.81	110.58	109.96	110.60	0.000895	0.91	63.19	95.37	0.27
CochranePB	M002	5162.38	100Year-Existing	56.68	108.18	110.16	110.16	110.45	0.009498	3.47	39.03	68.29	0.91
CochranePB	M002	5109.83	100Year-Existing	56.68	108.02	109.63	109.25	109.68	0.003632	1.61	68.03	113.51	0.52
CochranePB	M002	5059.83	100Year-Existing	56.68	107.54	109.29		109.47	0.007583	2.67	49.28	104.08	0.79
CochranePB	M002	5013.20	100Year-Existing	56.68	107.21	108.94	108.94	109.13	0.010641	2.81	44.61	104.29	0.90
CochranePB	M002	4977.38	100Year-Existing	56.68	107.07	108.92	108.56	108.94	0.001448	1.23	99.92	161.31	0.35
CochranePB	M002	4908.49	100Year-Existing	56.68	106.95	108.89		108.90	0.000500	0.79	157.48	225.42	0.21
CochranePB	M002	4883.44	100Year-Existing	56.68	106.94	108.88		108.89	0.000317	0.61	180.36	227.68	0.17
CochranePB	M002	4816.97	100Year-Existing	56.68	106.93	108.87		108.88	0.000282	0.59	187.61	240.15	0.16
CochranePB	M002	4757.22	100Year-Existing	56.68	106.78	108.86		108.87	0.000202	0.53	217.70	276.41	0.14
CochranePB	M002	4718.65	100Year-Existing	56.68	106.77	108.85		108.86	0.000256	0.61	217.05	342.45	0.16
CochranePB	M002	4674.22	100Year-Existing	56.68	106.76	108.83		108.85	0.000484	0.84	159.79	269.08	0.21
CochranePB	M002	4633.22	100Year-Existing	56.68	106.75	108.81		108.83	0.000356	0.70	131.90	187.28	0.18
CochranePB	M002	4561.03	100Year-Existing	56.68	106.74	108.74		108.79	0.001198	1.25	77.73	103.54	0.33
CochranePB	M002	4506.74	100Year-Existing	56.68	106.43	108.36	108.36	108.63	0.008255	2.98	35.50	60.27	0.84
CochranePB	M002	4459.83	100Year-Existing	56.68	105.66	107.44	107.64	108.05	0.018075	4.04	23.84	51.53	1.21
CochranePB	M002	4409.53	100Year-Existing	56.68	104.62	106.45	106.70	107.12	0.019144	4.19	21.02	40.98	1.24
CochranePB	M002	4359.83	100Year-Existing	56.68	103.72	105.63	105.83	106.26	0.015647	3.95	24.28	60.06	1.13
CochranePB	M002	4327.93	100Year-Existing	56.68	103.17	105.24	105.42	105.80	0.012421	3.70	24.12	44.39	1.03
CochranePB	M002	4265.56	100Year-Existing	56.68	102.45	104.46	104.50	104.98	0.013709	3.92	23.49	31.79	1.07
CochranePB	M002	4208.11	100Year-Existing	56.68	101.67	103.52	103.66	104.13	0.015751	3.89	21.53	35.55	1.14
CochranePB	M002	4159.83	100Year-Existing	56.68	101.12	102.27	102.42	102.76	0.062043	4.14	20.01	49.15	1.95
CochranePB	M002	4109.83	100Year-Existing	56.68	98.84	100.68	100.88	101.32	0.016899	4.17	23.51	45.62	1.19
CochranePB	M002	4056.00	100Year-Existing	56.68	97.18	99.09	99.65	100.15	0.025075	5.08	16.21	24.15	1.43
CochranePB	M002	4009.83	100Year-Existing	56.68	96.33	98.25	98.42	98.83	0.024794	4.84	27.39	67.05	1.36
CochranePB	M002	3969.03	100Year-Existing	56.68	95.62	97.63	97.82	98.17	0.011932	3.88	28.03	76.41	1.03
CochranePB	M002	3916.58	100Year-Existing	56.68	94.82	97.06	97.19	97.51	0.011854	3.75	32.20	90.13	0.97
CochranePB	M002	3859.82	100Year-Existing	56.68	94.34	96.41	96.57	96.91	0.010210	3.44	28.60	92.12	0.93
CochranePB	M002	3810.05	100Year-Existing	56.68	93.50	95.60	95.88	96.31	0.014043	4.20	23.00	56.90	1.11
CochranePB	M002	3759.83	100Year-Existing	56.68	93.00	94.75	94.96	95.40	0.020187	4.37	23.97	57.91	1.29
CochranePB	M002	3709.28	100Year-Existing	56.68	92.33	94.28	94.37	94.60	0.010672	3.34	37.06	102.08	0.94
CochranePB	M002	3661.60	100Year-Existing	56.68	92.05	93.89	93.94	94.10	0.008595	2.94	47.86	145.74	0.84
CochranePB	M002	3609.83	100Year-Existing	56.68	91.73	93.50	93.53	93.71	0.010223	3.02	45.86	145.59	0.90
CochranePB	M002	3559.90	100Year-Existing	56.68	90.87	93.03	93.05	93.26	0.006761	2.98	43.76	90.57	0.76
CochranePB	M002	3509.83	100Year-Existing	56.68	90.38	92.92	92.46	92.96	0.001052	1.41	98.20	123.58	0.32
CochranePB	M002	3493.23	100Year-Existing	56.68	90.02	92.50	92.21	92.90	0.005108	3.50	25.33	16.34	0.72
CochranePB	M002	3480		Bridge									
CochranePB	M002	3474.26	100Year-Existing	56.68	89.91	92.32	91.77	92.64	0.003427	2.90	27.41	17.13	0.61
CochranePB	M002	3466.43	100Year-Existing	56.68	90.00	92.40	92.21	92.53	0.001895	2.18	68.04	111.96	0.45
CochranePB	M002	3454.35	100Year-Existing	56.68	89.94	91.89	91.74	92.44	0.007547	3.66	19.98	16.65	0.87
CochranePB	M002	3450		Bridge									
CochranePB	M002	3434.16	100Year-Existing	62.01	90.36	91.84	91.84	92.43	0.011003	3.67	20.19	21.05	1.00
CochranePB	M002	3413.11	100Year-Existing	62.01	90.14	91.74	91.70	91.91	0.007853	2.84	50.55	100.20	0.81
CochranePB	M002	3391.58	100Year-Existing	62.01	90.03	91.65		91.75	0.005089	2.39	61.43	108.83	0.67
CochranePB	M002	3371.12	100Year-Existing	62.01	90.02	91.41	91.41	91.61	0.008706	2.80	47.00	99.26	0.86
CochranePB	M002	3309.87	100Year-Existing	62.01	89.28	90.82	90.72	90.93	0.008207	2.74	56.53	117.27	0.80
CochranePB	M002	3272.96	100Year-Existing	62.01	88.73	90.37	90.37	90.57	0.010231	3.02	42.39	94.26	0.90
CochranePB	M002	3219.09	100Year-Existing	62.01	88.30	89.87	89.86	90.03	0.009573	2.82	47.10	110.48	0.87
CochranePB	M002	3175.54	100Year-Existing	62.01	87.36	89.73	89.48	89.85	0.002249	1.98	58.49	81.85	0.46
CochranePB	M002	3165		Bridge									
CochranePB	M002	3157.85	100Year-Existing	62.01	87.50	89.34	89.39	89.64	0.006778	2.99	40.19	87.94	0.77
CochranePB	M002	3135.32	100Year-Existing	62.01	87.85	89.21	89.09	89.27	0.005190	1.92	68.73	156.20	0.63
CochranePB	M002	3106.53	100Year-Existing	62.01	87.94	88.89	88.89	89.03	0.025928	2.89	41.51	136.98	1.25
CochranePB	M002	3088.94	100Year-Existing	62.01	86.84	88.63	88.60	88.79	0.003469	2.13	56.90	154.31	0.56
CochranePB	M002	3080		Bridge									
CochranePB	M002	3075.67	100Year-Existing	62.01	86.74	88.46	88.29	88.54	0.002124	1.64	72.72	145.28	0.44
CochranePB	M002	3056.89	100Year-Existing	62.01	87.66	88.40		88.47	0.010409	1.28	57.24	162.02	0.73
CochranePB	M002	3007.54	100Year-Existing	62.01	87.61	88.08		88.13	0.004943	0.58	68.60	166.31	0.38
CochranePB	M002	2976.31	100Year-Existing	62.01	87.51	87.95		88.00	0.005824	0.69	66.69	174.06	0.47
CochranePB	M002	2941.08	100Year-Existing	62.01	86.98	87.79		87.82	0.004912	1.10	81.14	225.77	0.53
CochranePB	M002	2920.10	100Year-Existing	62.01	86.74	87.76	87.54	87.76	0.000605	0.48	168.25	295.67	0.18
CochranePB	M002	2915		Bridge									
CochranePB	M002	2912.75	100Year-Existing	62.01	86.97	87.75	87.75	87.76	0.000368	0.40	200.70	313.30	0.16
CochranePB	M002	2890.23	100Year-Existing	62.01	86.65	86.91	87.11	87.54	0.260543	3.44	17.71	89.33	3.03
CochranePB	M002	2823.99	100Year-Existing	62.01	86.08	87.22	86.83	87.24	0.001260	0.72	135.31	264.37	0.27
CochranePB	M002	2789.49	100Year-Existing	62.01	86.04	87.20		87.21	0.001125	0.66	140.60	276.96	0.26
CochranePB	M002	2741.30	100Year-Existing	62.01	85.71	87.15		87.16	0.001005	0.85	148.96	297.56	0.28
CochranePB	M002	2663.79	100Year-Existing	62.01	85.58	87.10		87.12	0.000998	0.91	147.55	296.63	0.28
CochranePB	M002	2639.38	100Year-Existing	62.01	85.57	87.07		87.09	0.001119	0.92	133.54	252.82	0.30
CochranePB	M002	2616.24	100Year-Existing	62.01	85.30	87.06		87.07	0.000739	0.86	150.57	251.19	0.25
CochranePB	M002	2539.69	100Year-Existing	62.01	85.41	87.02		87.03	0.001100	0.94	129.90	239.51	0.30
CochranePB	M002	2489.06	100Year-Existing	62.01	85.18	86.98		86.99	0.001353	1.19	123.04	239.01	0.33
CochranePB	M002	2438.28	100Year-Existing	62.01	84.87	86.92		86.95	0.001358	1.27	112.62	202.50	0.34
CochranePB	M002	2384.01	100Year-Existing	62.01	84.65	86.82		86.87	0.002041	1.65	93.72	154.27	0.42
CochranePB	M002	2310.47	100Year-Existing	62.01	84.33	86.64		86.70	0.002764	1.92	84.24	158.66	0.48
CochranePB	M002	2284.63	100Year-Existing	62.01	84.16	86.58		86.63	0.002432	1.81	81.71	120.83	0.43
CochranePB	M002	2240.58	100Year-Existing	62.01	84.04	86.10	86.10	86.41	0.010133	3.49	34.60	48.83	0.92
CochranePB	M002	2170.94	100Year-Existing	62.01	82.26	84.28	84.66	85.35	0.022819	5.12	17.10	20.85	1.39
CochranePB	M002	2136.89	100Year-Existing	62.01	81.72	83.54	83.86	84.49	0.025158	4.69	17.66	26.51	1.42
CochranePB	M002	2100.01	100Year-Existing	62.01	81.30	83.40	83.34	83.73	0.009346	3.25	32.68	45.11	0.88
CochranePB	M002	2046.85	100Year-Existing	62.01	80.89	82.88	82.88	83.25	0.008784	3.07	30.52	43.75	0.87
CochranePB	M002	2014.35	100Year-Existing	62.01	80.47	82.05	82.23	82.75	0.028021	4.17	21.35	42.35	1.45
CochranePB	M002	1990.76	100Year-Existing	62.01	80.10	82.07	82.07	82.39	0.010354	3.23	32.82	46.05	0.92
CochranePB	M002	1945.20	100Year-Existing	62.01	79.43	81.81	81.38	81.92	0.003096	2.12	54.69	60.65	0.52

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	1916.67	100Year-Existing	62.01	79.31	81.64		81.81	0.004559	2.55	46.75	57.65	0.63
CochranePB	M002	1871.48	100Year-Existing	62.01	79.28	81.49		81.62	0.003809	2.16	51.16	61.31	0.57
CochranePB	M002	1836.03	100Year-Existing	62.01	78.83	81.44		81.52	0.001550	1.63	69.14	75.23	0.38
CochranePB	M002	1788.63	100Year-Existing	62.01	78.46	80.98	80.98	81.34	0.008334	3.65	33.90	40.50	0.85
CochranePB	M002	1768.08	100Year-Existing	62.01	78.14	80.31	80.55	81.06	0.017741	4.74	22.51	29.33	1.22
CochranePB	M002	1733.19	100Year-Existing	62.01	77.95	80.08	80.15	80.50	0.010157	3.48	31.89	49.37	0.93
CochranePB	M002	1694.89	100Year-Existing	62.01	77.12	79.61	79.05	79.73	0.002343	1.96	53.12	52.76	0.47
CochranePB	M002	1685.79	100Year-Existing	62.01	77.06	79.51		79.70	0.004187	2.58	47.28	61.84	0.62
CochranePB	M002	1640.51	100Year-Existing	62.01	76.45	79.00	79.00	79.43	0.007197	3.51	29.46	33.07	0.81
CochranePB	M002	1602.99	100Year-Existing	62.01	75.01	76.68	77.23	78.67	0.060025	6.68	11.78	18.37	2.15
CochranePB	M002	1585.52	100Year-Existing	62.01	74.01	75.44	75.96	77.36	0.090023	6.75	12.01	22.31	2.52
CochranePB	M002	1569.47	100Year-Existing	62.01	73.71	75.10	75.37	76.03	0.046174	4.46	15.52	27.90	1.78
CochranePB	M002	1541.97	100Year-Existing	62.01	72.31	74.36	74.58	75.20	0.019190	4.53	18.59	22.04	1.26
CochranePB	M002	1510.83	100Year-Existing	62.01	71.34	72.65	73.04	74.06	0.079640	5.31	12.13	24.64	2.30
CochranePB	M002	1495.27	100Year-Existing	62.01	71.19	73.20	72.90	73.38	0.004509	2.12	40.26	47.81	0.62
CochranePB	M002	1458.62	100Year-Existing	62.01	70.58	72.78	72.78	73.10	0.009711	3.79	38.20	54.24	0.92
CochranePB	M002	1419.61	100Year-Existing	62.01	70.21	72.24	72.33	72.68	0.011623	3.80	29.52	41.66	1.01
CochranePB	M002	1384.56	100Year-Existing	62.01	69.61	72.06	72.08	72.40	0.005623	3.04	36.63	62.48	0.72
CochranePB	M002	1351.51	100Year-Existing	62.01	69.54	71.74	71.87	72.17	0.009658	3.71	35.75	79.23	0.93
CochranePB	M002	1311.78	100Year-Existing	62.01	69.49	71.51	71.55	71.74	0.007660	3.10	47.80	115.23	0.82
CochranePB	M002	1291.19	100Year-Existing	62.01	69.28	71.31	71.24	71.42	0.004197	2.28	65.29	137.76	0.60
CochranePB	M002	1217.75	100Year-Existing	62.01	68.70	71.32		71.34	0.000359	0.88	162.10	226.05	0.19
CochranePB	M002	1200.39	100Year-Existing	62.01	68.69	70.88	70.50	71.29	0.005018	2.90	22.22	20.15	0.69
CochranePB	M002	1190		Bridge									
CochranePB	M002	1185.68	100Year-Existing	63.57	68.46	70.60	70.22	71.02	0.004749	2.91	22.43	26.22	0.69
CochranePB	M002	1164.32	100Year-Existing	63.57	68.65	70.60	70.60	70.82	0.005347	2.85	50.53	113.15	0.71
CochranePB	M002	1132.60	100Year-Existing	63.57	68.60	69.88	70.05	70.41	0.032678	4.33	29.53	118.90	1.55
CochranePB	M002	1111.68	100Year-Existing	63.57	68.55	70.11	69.75	70.14	0.001552	1.26	102.46	164.53	0.37
CochranePB	M002	1059.95	100Year-Existing	63.57	68.38	70.08		70.10	0.000937	1.16	123.92	176.79	0.30
CochranePB	M002	998.99	100Year-Existing	63.57	68.13	70.06		70.06	0.000309	0.71	185.65	199.87	0.17
CochranePB	M002	955.54	100Year-Existing	63.57	68.12	70.05		70.06	0.000062	0.32	339.41	301.91	0.08
CochranePB	M002	851.16	100Year-Existing	63.57	67.62	70.05		70.05	0.000043	0.30	375.99	296.97	0.07
CochranePB	M002	798.06	100Year-Existing	63.57	67.47	70.05		70.05	0.000026	0.24	464.30	330.59	0.05
CochranePB	M002	746.77	100Year-Existing	63.57	67.30	70.05		70.05	0.000013	0.18	589.00	403.96	0.04
CochranePB	M002	694.52	100Year-Existing	63.57	66.98	70.05		70.05	0.000009	0.16	699.65	443.33	0.03
CochranePB	M002	669.16	100Year-Existing	63.57	66.97	70.05		70.05	0.000007	0.14	776.23	482.85	0.03
CochranePB	M002	590.19	100Year-Existing	63.57	66.84	70.05		70.05	0.000005	0.13	925.14	559.40	0.02
CochranePB	M002	539.85	100Year-Existing	63.57	66.81	70.05		70.05	0.000005	0.12	954.13	586.80	0.02
CochranePB	M002	488.40	100Year-Existing	63.57	66.54	70.05		70.05	0.000005	0.12	1010.00	632.48	0.02
CochranePB	M001	381.27	100Year-Existing	126.36	66.35	70.05		70.05	0.000019	0.23	1168.36	683.35	0.04
CochranePB	M001	313.14	100Year-Existing	126.36	66.28	70.05		70.05	0.000014	0.18	1352.48	748.26	0.03

Petty Harbour River 100yr Q-10%

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	TR001	439.21	100Year-Existing	33.21	105.11	106.46	106.17	106.55	0.004749	1.87	37.10	61.39	0.54
RaymondB	TR001	409.42	100Year-Existing	33.21	104.68	105.97	105.97	106.29	0.015553	3.24	18.91	30.59	0.97
RaymondB	TR001	380.07	100Year-Existing	33.21	104.05	105.97	105.20	106.02	0.001307	1.26	50.79	63.18	0.30
RaymondB	TR001	360.64	100Year-Existing	33.21	103.60	105.97	105.08	106.00	0.000596	0.96	75.80	85.23	0.21
RaymondB	TR001	350		Bridge									
RaymondB	TR001	344.45	100Year-Existing	33.21	103.30	104.59	104.99	105.68	0.045191	5.43	10.28	34.57	1.61
RaymondB	TR001	334.13	100Year-Existing	33.21	103.40	104.35	104.63	105.14	0.040241	4.19	11.52	44.05	1.46
RaymondB	TR001	272.22	100Year-Existing	33.21	102.83	103.93	103.93	104.17	0.015317	2.89	21.73	44.65	0.93
RaymondB	TR001	218.50	100Year-Existing	33.21	101.42	102.71	102.83	103.23	0.019037	3.56	14.47	26.21	1.07
RaymondB	TR001	163.97	100Year-Existing	33.21	100.32	101.86	101.41	102.00	0.003601	1.76	24.59	28.58	0.48
RaymondB	TR001	115.54	100Year-Existing	33.21	100.00	101.18	101.18	101.62	0.019888	3.56	14.77	21.94	1.09
RaymondB	TR001	56.65	100Year-Existing	33.21	97.73	98.53	98.84	99.54	0.069156	4.80	8.67	16.61	1.87
RaymondB	M002	6453.60	100Year-Existing	17.73	118.10	125.21	118.87	125.21	0.000000	0.03	661.10	233.25	0.00
RaymondB	M002	6405.52	100Year-Existing	17.73	118.00	125.21		125.21	0.000000	0.03	671.45	227.92	0.00
RaymondB	M002	6347.04	100Year-Existing	17.73	124.73	125.15		125.20	0.006389	1.06	16.90	41.36	0.52
RaymondB	M002	6247.26	100Year-Existing	17.73	117.21	118.25		118.30	0.003773	1.37	22.49	34.90	0.46
RaymondB	M002	6230.10	100Year-Existing	17.73	117.20	118.23		118.26	0.001703	0.90	27.91	42.46	0.31
RaymondB	M002	6205.35	100Year-Existing	17.73	117.28	118.20		118.21	0.001555	0.80	38.59	59.82	0.29
RaymondB	M002	6143.06	100Year-Existing	17.73	117.18	118.08		118.10	0.002258	0.94	34.25	62.70	0.34
RaymondB	M002	6105.93	100Year-Existing	17.73	117.17	117.95		117.99	0.003252	1.01	25.64	59.97	0.40
RaymondB	M002	6026.35	100Year-Existing	17.73	116.81	117.75		117.78	0.002122	0.94	29.85	46.55	0.34
RaymondB	M002	5933.71	100Year-Existing	17.73	116.42	117.47		117.53	0.003209	1.27	23.29	55.68	0.42
RaymondB	M002	5883.92	100Year-Existing	17.73	116.12	117.24		117.34	0.004333	1.52	16.04	28.15	0.49
RaymondB	M002	5785.15	100Year-Existing	17.73	115.75	116.79		116.88	0.005130	1.52	16.75	30.53	0.53
RaymondB	M002	5732.44	100Year-Existing	17.73	115.46	116.45		116.57	0.006453	1.64	13.19	25.12	0.59
RaymondB	M002	5631.37	100Year-Existing	17.73	114.85	115.73		115.82	0.008697	1.65	18.05	45.32	0.66
RaymondB	M002	5500.15	100Year-Existing	17.73	114.62	115.63		115.64	0.000692	0.55	62.75	127.98	0.19
RaymondB	M002	5485.46	100Year-Existing	17.73	114.53	115.63		115.63	0.000430	0.48	78.38	163.89	0.16
RaymondB	M002	5411.19	100Year-Existing	17.73	114.48	115.56	115.18	115.58	0.001343	0.80	33.84	67.54	0.27
RaymondB	M002	5338.54	100Year-Existing	17.73	114.41	115.55	114.78	115.55	0.000105	0.24	86.40	109.82	0.08
RaymondB	M002	5278.93	100Year-Existing	17.73	114.44	115.54	114.82	115.55	0.000151	0.28	76.71	110.61	0.09
RaymondB	M002	5226.60	100Year-Existing	17.73	114.42	115.54		115.54	0.000171	0.29	82.23	127.47	0.10
RaymondB	M002	5171.66	100Year-Existing	17.73	114.42	115.53		115.53	0.000172	0.30	96.02	176.84	0.10
RaymondB	M002	5111.50	100Year-Existing	17.73	114.42	115.50		115.51	0.000588	0.56	52.80	112.94	0.18
RaymondB	M002	5077.48	100Year-Existing	17.73	114.38	115.48		115.49	0.000542	0.53	45.57	80.92	0.18
RaymondB	M002	5017.13	100Year-Existing	17.73	114.40	115.36		115.42	0.002979	1.12	17.39	27.16	0.40
RaymondB	M002	4967.43	100Year-Existing	17.73	114.07	115.09		115.22	0.005700	1.61	12.05	17.87	0.56
RaymondB	M002	4943.43	100Year-Existing	17.73	113.82	114.98		115.09	0.004839	1.63	15.00	24.77	0.53
RaymondB	M002	4910.95	100Year-Existing	17.73	113.67	114.83		114.93	0.004603	1.60	16.33	28.95	0.51
RaymondB	M002	4851.17	100Year-Existing	17.73	113.47	114.54		114.64	0.005193	1.61	16.19	30.24	0.54
RaymondB	M002	4783.73	100Year-Existing	17.73	113.30	114.23		114.30	0.004810	1.27	17.56	35.97	0.49
RaymondB	M002	4732.68	100Year-Existing	17.73	113.07	113.96		114.02	0.005700	1.36	20.03	43.23	0.53
RaymondB	M002	4681.76	100Year-Existing	17.73	112.35	113.31	113.31	113.57	0.013564	2.42	9.88	28.81	0.85
RaymondB	M002	4673.96	100Year-Existing	17.73	111.74	112.59	112.82	113.34	0.049524	4.03	5.44	13.57	1.57
RaymondB	M002	4644.78	100Year-Existing	17.73	110.49	111.40	111.59	112.06	0.037449	3.75	5.49	22.14	1.39
RaymondB	M002	4625.72	100Year-Existing	17.73	106.75	107.30	107.84	110.17	0.402988	7.50	2.37	6.88	4.02
RaymondB	M002	4615.42	100Year-Existing	17.73	105.83	106.55	106.88	107.73	0.107300	4.94	4.03	9.82	2.21
RaymondB	M002	4607.06	100Year-Existing	17.73	105.79	106.99	106.88	107.30	0.011417	2.59	8.10	9.67	0.81
RaymondB	M002	4597.34	100Year-Existing	17.73	105.76	106.96		107.17	0.009309	2.22	10.78	16.52	0.72
RaymondB	M002	4575.18	100Year-Existing	17.73	105.98	106.55	106.55	106.79	0.042656	2.58	8.75	19.72	1.32
RaymondB	M002	4545.57	100Year-Existing	17.73	104.65	105.78	105.83	106.09	0.014625	2.71	9.73	25.28	0.90
RaymondB	M002	4522.17	100Year-Existing	17.73	103.67	104.39	104.69	105.36	0.076055	4.59	4.89	13.61	1.91
RaymondB	M002	4511.42	100Year-Existing	17.73	103.62	104.86	104.55	104.95	0.004792	1.67	16.91	27.23	0.52
RaymondB	M002	4489.94	100Year-Existing	17.73	103.59	104.50	104.50	104.76	0.015844	2.52	10.07	21.14	0.91
RaymondB	M002	4466.63	100Year-Existing	17.73	103.03	104.28	103.91	104.38	0.003925	1.54	16.88	33.22	0.48
RaymondB	M002	4439.46	100Year-Existing	17.73	103.00	104.00	104.00	104.20	0.011741	2.31	13.84	39.14	0.79
RaymondB	M002	4415.77	100Year-Existing	17.73	102.78	103.51	103.57	103.79	0.025275	2.59	9.93	37.47	1.10
RaymondB	M002	4385.89	100Year-Existing	17.73	101.80	102.70	102.80	103.08	0.022019	2.93	8.47	22.42	1.07
RaymondB	M002	4354.01	100Year-Existing	17.73	101.27	102.09	102.09	102.32	0.024138	2.93	12.09	34.06	1.11
RaymondB	M002	4341.66	100Year-Existing	17.73	100.84	101.90	101.90	102.10	0.012356	2.39	13.40	35.17	0.82
RaymondB	M002	4332.73	100Year-Existing	17.73	100.32	101.12	101.34	101.85	0.049897	4.00	5.71	13.63	1.58
RaymondB	M002	4308.73	100Year-Existing	17.73	98.87	99.57	99.82	100.39	0.073646	4.36	5.34	13.25	1.85
RaymondB	M002	4294.65	100Year-Existing	17.73	98.45	99.37	99.42	99.75	0.021764	2.98	8.05	14.46	1.07
RaymondB	M002	4263.86	100Year-Existing	17.73	97.59	99.06	98.49	99.14	0.002323	1.38	18.13	21.48	0.38
RaymondB	M002	4235.25	100Year-Existing	17.73	97.47	99.04		99.08	0.001005	0.95	25.25	26.10	0.25
RaymondB	M001	4130.35	100Year-Existing	49.86	96.57	98.08	98.08	98.53	0.014527	3.06	18.30	21.77	0.93
RaymondB	M001	4076.94	100Year-Existing	49.86	96.04	97.82	97.54	98.01	0.005287	2.13	30.75	36.41	0.58
RaymondB	M001	4023.53	100Year-Existing	49.86	95.94	97.11	97.11	97.51	0.019003	2.87	19.20	28.69	1.01
RaymondB	M001	3978.20	100Year-Existing	49.86	94.64	96.80	96.22	96.89	0.002518	1.43	43.17	54.89	0.39
RaymondB	M001	3916.71	100Year-Existing	67.77	94.64	96.51		96.67	0.004659	2.18	53.08	64.96	0.56
RaymondB	M001	3863.30	100Year-Existing	67.77	94.41	96.33		96.45	0.003402	1.93	64.40	79.89	0.48
RaymondB	M001	3809.58	100Year-Existing	67.77	94.09	95.86	95.78	96.17	0.008777	2.87	37.52	46.98	0.76
RaymondB	M001	3756.26	100Year-Existing	67.77	93.53	95.16	95.16	95.60	0.012420	3.24	30.04	39.51	0.89
RaymondB	M001	3694.37	100Year-Existing	67.77	92.66	94.18	94.29	94.71	0.016207	3.40	24.23	45.27	0.99
RaymondB	M001	3569.22	100Year-Existing	67.77	92.15	94.33	93.47	94.35	0.000682	0.94	133.56	142.90	0.22
RaymondB	M001	3527.64	100Year-Existing	67.77	91.85	94.30		94.32	0.000582	0.95	137.01	134.92	0.21
RaymondB	M001	3446.51	100Year-Existing	67.77	91.14	94.28		94.30	0.000223	0.67	199.07	164.70	0.13
RaymondB	M001	3421.64	100Year-Existing	67.77	91.23	93.82	93.04	94.24	0.004293	2.91	23.79	144.57	0.58
RaymondB	M001	3410		Bridge									
RaymondB	M001	3404.11	100Year-Existing	67.77	91.23	93.09	93.09	93.97	0.014489	4.19	16.46	91.18	1.01
RaymondB	M001	3380.48	100Year-Existing	67.77	90.96	92.99	92.44	93.13	0.003320	1.95	54.83	67.70	0.48
RaymondB	M001	3308.92	100Year-Existing	67.77	90.80	92.64		92.83	0.005189	2.35	48.43	63.02	0.59
RaymondB	M001	3216.73	100Year-Existing	67.77	89.31	92.31	91.10	92.54	0.002133	2.15	32.54	67.65	0.41
RaymondB	M001	3200		Bridge									
RaymondB	M001	3188.78	100Year-Existing	67.77	89.30	91.61	91.49	92.27	0.010157	3.88	20.73	44.17	0.85
RaymondB	M001	3015.18	100Year-Existing	67.77	89.18	90.93		91.06	0.003406	1.83	57.67	67.78	0.47
RaymondB	M001	2876.32	100Year-Existing	67.77	88.66	90.31		90.49	0.006045	2.22	46.82	93.59	0.62
RaymondB	M001	2789.37	100Year-Existing	67.77	88.24	90.07		90.13	0.002551	1.57	95.85	161.41	0.41
RaymondB	M001	2681.85	100Year-Existing	67.77	88.14	89.54		89.68	0.009545	2.41	57.92	130.50	0.75
RaymondB	M001	2604.32	100Year-Existing	67.77	87.97	89.37		89.40	0.002075	1.18	111.61	204.11	0.35

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	M001	2531.57	100Year-Existing	67.77	87.97	89.32		89.33	0.000728	0.65	183.86	283.29	0.20
RaymondB	M001	2385.34	100Year-Existing	67.77	87.43	89.24		89.27	0.001507	1.22	142.84	249.28	0.31
RaymondB	M001	2245.72	100Year-Existing	67.77	86.99	88.82	88.61	89.03	0.005389	2.30	49.49	101.40	0.60
RaymondB	M001	2194.47	100Year-Existing	67.77	86.68	88.82		88.87	0.001247	1.25	98.27	95.79	0.30
RaymondB	M001	2140.67	100Year-Existing	67.77	86.59	88.71		88.78	0.002041	1.57	75.90	71.21	0.38
RaymondB	M001	2087.60	100Year-Existing	67.77	86.38	88.53		88.66	0.002431	1.74	54.18	44.91	0.41
RaymondB	M001	2069.54	100Year-Existing	67.77	86.35	88.47		88.61	0.002831	1.88	54.74	53.87	0.44
RaymondB	M001	2040.77	100Year-Existing	67.77	86.25	88.39		88.53	0.002857	1.85	60.06	86.42	0.44
RaymondB	M001	1989.18	100Year-Existing	67.77	86.02	88.16	87.74	88.35	0.004115	2.24	54.22	78.50	0.53
RaymondB	M001	1950.22	100Year-Existing	67.77	85.79	87.64	87.35	88.07	0.011594	3.29	32.82	51.45	0.86
RaymondB	M001	1885.73	100Year-Existing	67.77	85.34	87.23		87.46	0.006641	2.51	42.74	49.94	0.65
RaymondB	M001	1835.84	100Year-Existing	67.77	84.64	86.46	86.46	86.96	0.015355	3.69	27.51	28.72	0.98
RaymondB	M001	1784.61	100Year-Existing	67.77	84.10	85.38	85.49	85.89	0.029603	3.75	26.47	40.17	1.27
RaymondB	M001	1733.38	100Year-Existing	67.77	82.79	84.89	84.32	85.01	0.002778	1.79	56.25	48.41	0.44
RaymondB	M001	1682.15	100Year-Existing	67.77	82.60	84.52		84.79	0.006422	2.49	34.76	34.86	0.65
RaymondB	M001	1630.92	100Year-Existing	67.77	82.12	84.01	83.90	84.39	0.009019	2.88	30.32	38.73	0.76
RaymondB	M001	1584.49	100Year-Existing	67.77	81.77	83.78		84.01	0.005982	2.45	39.34	49.29	0.62
RaymondB	M001	1536.01	100Year-Existing	67.77	81.31	83.38	83.26	83.69	0.007320	2.77	36.86	49.19	0.69
RaymondB	M001	1477.96	100Year-Existing	67.77	80.96	82.96	82.77	83.26	0.007385	2.70	36.69	46.72	0.69
RaymondB	M001	1425.99	100Year-Existing	67.77	80.58	82.72		82.93	0.004686	2.30	41.16	40.72	0.56
RaymondB	M001	1372.05	100Year-Existing	67.77	80.25	82.52		82.68	0.003974	2.18	47.32	42.81	0.52
RaymondB	M001	1323.54	100Year-Existing	67.77	79.11	81.73	81.18	82.32	0.006241	3.40	19.96	16.26	0.69
RaymondB	M001	1315		Bridge									
RaymondB	M001	1303.54	100Year-Existing	67.77	78.01	80.63	80.39	81.39	0.009894	3.87	17.51	20.60	0.84
RaymondB	M001	1252.39	100Year-Existing	70.65	78.45	80.39	80.39	80.85	0.013606	3.49	28.95	31.75	0.92
RaymondB	M001	1216.25	100Year-Existing	70.65	77.86	79.81	79.93	80.33	0.015018	3.81	30.34	42.64	0.98
RaymondB	M001	1189.75	100Year-Existing	70.65	77.61	79.12	79.30	79.78	0.029341	4.04	23.92	38.09	1.28
RaymondB	M001	1166.20	100Year-Existing	70.65	76.74	78.27	78.50	79.02	0.033209	4.57	26.25	53.43	1.39
RaymondB	M001	1148.70	100Year-Existing	70.65	76.50	78.15	78.20	78.51	0.016192	3.27	35.15	58.64	0.97
RaymondB	M001	1116.25	100Year-Existing	70.65	75.83	77.18	77.32	77.79	0.028914	3.62	22.94	37.32	1.25
RaymondB	M001	1066.09	100Year-Existing	70.65	75.16	76.92	76.74	77.15	0.006600	2.37	42.57	54.28	0.64
RaymondB	M001	1035.68	100Year-Existing	70.65	74.73	76.28	76.28	76.81	0.017685	3.50	25.33	33.47	1.03
RaymondB	M001	999.99	100Year-Existing	70.65	73.32	74.73	75.09	75.84	0.039177	4.89	17.02	22.08	1.51
RaymondB	M001	976.73	100Year-Existing	70.65	73.03	74.70	74.77	75.17	0.012927	3.31	30.94	46.94	0.90
RaymondB	M001	942.15	100Year-Existing	70.65	72.18	73.24	73.54	74.16	0.090732	5.86	19.51	34.78	2.16
RaymondB	M001	916.70	100Year-Existing	70.65	70.82	72.23	72.39	72.78	0.030506	4.37	30.31	66.84	1.33
RaymondB	M001	892.34	100Year-Existing	70.65	70.36	71.89	71.94	72.33	0.013932	3.25	32.06	52.12	0.93
RaymondB	M001	866.25	100Year-Existing	70.65	70.04	71.87	71.36	72.04	0.003837	1.96	49.33	65.14	0.50
RaymondB	M001	841.89	100Year-Existing	70.65	69.92	71.69	71.54	71.92	0.005718	2.39	49.00	93.32	0.61
RaymondB	M001	816.68	100Year-Existing	70.65	69.74	71.36	71.36	71.72	0.010882	3.08	37.32	58.40	0.83
RaymondB	M001	766.25	100Year-Existing	70.65	69.16	70.39	70.28	70.63	0.014081	2.76	37.06	48.71	0.89
RaymondB	M001	716.25	100Year-Existing	70.65	68.39	69.97		70.16	0.005735	2.21	48.78	68.61	0.60
RaymondB	M001	675.00	100Year-Existing	70.65	68.14	69.76		69.92	0.005532	2.18	50.46	59.96	0.59
RaymondB	M001	615.86	100Year-Existing	70.65	67.75	69.63		69.70	0.002058	1.52	95.60	162.98	0.37
RaymondB	M001	565.77	100Year-Existing	70.65	67.44	69.57		69.62	0.001260	1.29	119.10	227.20	0.30
RaymondB	M001	520.15	100Year-Existing	70.65	67.26	69.56		69.58	0.000420	0.78	205.45	308.08	0.17
RaymondB	M001	468.54	100Year-Existing	70.65	66.98	69.56		69.56	0.000139	0.49	311.99	343.44	0.10
RaymondB	M001	429.18	100Year-Existing	70.65	66.80	69.56		69.56	0.000047	0.30	481.69	459.46	0.06
RaymondB	M001	366.25	100Year-Existing	70.65	66.65	69.55		69.56	0.000021	0.21	764.85	641.02	0.04
RaymondB	M001	341.79	100Year-Existing	70.65	66.63	69.55		69.56	0.000015	0.18	863.72	684.22	0.03
PettyHR	M002	6270.85	100Year-Existing	91.08	66.23	69.55		69.55	0.000001	0.05	1985.26	843.11	0.01
PettyHR	M002	6218.07	100Year-Existing	91.08	66.23	69.55		69.55	0.000001	0.06	1854.84	843.16	0.01
PettyHR	M002	6095.00	100Year-Existing	91.08	66.23	69.55		69.55	0.000001	0.06	1788.18	848.47	0.01
PettyHR	M002	6004.71	100Year-Existing	91.08	66.23	69.55		69.55	0.000001	0.06	1839.35	883.88	0.01
PettyHR	M001	5825.85	100Year-Existing	154.08	66.23	69.55		69.55	0.000003	0.08	2149.39	841.90	0.01
PettyHR	M001	5685.44	100Year-Existing	154.08	66.23	69.55		69.55	0.000002	0.08	2084.90	731.47	0.01
PettyHR	M001	5516.39	100Year-Existing	170.73	66.23	69.55		69.55	0.000004	0.10	1820.85	628.33	0.02
PettyHR	M001	5279.80	100Year-Existing	170.73	66.23	69.55		69.55	0.000008	0.14	1231.18	424.55	0.03
PettyHR	M001	4996.75	100Year-Existing	170.73	66.23	69.54		69.55	0.000038	0.31	581.33	208.76	0.06
PettyHR	M001	4923.81	100Year-Existing	170.73	66.23	69.48		69.53	0.000507	1.11	190.22	87.16	0.20
PettyHR	M001	4867.41	100Year-Existing	170.73	66.23	69.38		69.49	0.001328	1.78	159.60	95.37	0.33
PettyHR	M001	4817.61	100Year-Existing	170.73	66.58	69.31		69.41	0.001741	1.93	153.86	92.38	0.37
PettyHR	M001	4757.18	100Year-Existing	170.73	66.43	68.64	68.64	69.16	0.010188	4.00	74.05	65.30	0.87
PettyHR	M001	4675.66	100Year-Existing	170.73	65.88	68.09	67.55	68.37	0.005096	2.86	86.63	51.33	0.62
PettyHR	M001	4612.84	100Year-Existing	170.73	64.88	67.23	67.02	67.88	0.010906	4.34	62.59	44.04	0.91
PettyHR	M001	4570.09	100Year-Existing	170.73	64.62	66.82	66.82	67.42	0.010142	3.91	65.53	55.35	0.86
PettyHR	M001	4500.69	100Year-Existing	170.73	64.62	66.44	66.10	66.69	0.005180	2.48	92.66	75.42	0.60
PettyHR	M001	4461.12	100Year-Existing	170.73	64.55	66.01	66.01	66.40	0.015316	3.66	79.39	91.18	0.99
PettyHR	M001	4428.20	100Year-Existing	170.73	64.41	65.82		66.03	0.010281	2.86	95.23	89.60	0.80
PettyHR	M001	4395.66	100Year-Existing	170.73	63.81	65.50		65.74	0.006732	2.70	95.35	81.64	0.67
PettyHR	M001	4357.04	100Year-Existing	170.73	63.34	65.37		65.52	0.003723	2.30	118.93	81.16	0.52
PettyHR	M001	4281.82	100Year-Existing	170.73	62.50	65.27		65.36	0.000987	1.44	141.16	59.10	0.28
PettyHR	M001	4166.17	100Year-Existing	170.73	61.82	65.29		65.31	0.000138	0.62	396.34	164.14	0.11
PettyHR	M001	3949.19	100Year-Existing	170.73	61.31	65.30		65.30	0.000000	0.04	4893.47	1315.59	0.01
PettyHR	M001	3936.78	100Year-Existing	170.73	61.31	65.30		65.30	0.000000	0.03	6035.43	1570.64	0.00
PettyHR	M001	3931.39	100Year-Existing	112.05	61.31	65.30		65.30	0.000000	0.02	7583.92	2008.92	0.00
PettyHR	M001	3925.44	100Year-Existing	112.05	61.31	65.30		65.30	0.000000	0.03	3754.54	1002.79	0.01
PettyHR	M001	3867.05	100Year-Existing	112.05	61.31	65.30		65.30	0.000000	0.03	3784.41	986.30	0.00
PettyHR	M001	3643.73	100Year-Existing	112.05	61.31	65.30		65.30	0.000000	0.03	4346.44	1113.82	0.00
PettyHR	M001	3440.60	100Year-Existing	112.05	61.31	65.30		65.30	0.000001	0.05	2205.69	582.21	0.01
PettyHR	M001	3182.65	100Year-Existing	112.05	61.31	65.30		65.30	0.000001	0.07	1651.98	425.61	0.01
PettyHR	M001	3080.13	100Year-Existing	112.05	61.31	65.30		65.30	0.000001	0.06	1950.97	516.33	0.01
PettyHR	M001	3028.13	100Year-Existing	112.05	61.31	65.30		65.30	0.000001	0.05	2133.68	559.96	0.01
PettyHR	M001	2983.09	100Year-Existing	112.05	61.31	65.30		65.30	0.000001	0.07	1738.17	451.58	0.01
PettyHR	M001	2828.46	100Year-Existing	112.05	61.31	65.30		65.30	0.000004	0.12	1022.50	279.61	0.02
PettyHR	M001	2712.72	100Year-Existing	112.05	61.31	65.30		65.30	0.000012	0.21	586.87	180.97	0.03
PettyHR	M001	2671.95	100Year-Existing	112.05	61.31	65.30		65.30	0.000019	0.26	530.63	174.82	0.04
PettyHR	M001	2653.10	100Year-Existing	112.05	61.31	65.29		65.30	0.000027	0.31	455.02	156.40	0.05
PettyHR	M001	2632.46	100Year-Existing	112.05	61.31	65.28		65.30	0.000107	0.61	274.14	116.99	0.10
PettyHR	M001	2596.08	100Year-Existing	112.05	61.31	65.27		65.29	0.000124	0.66	245.09	114.79	0.11

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	2583.24	100Year-Existing	112.05	60.10	65.19	62.95	65.28	0.000666	1.61	143.00	113.07	0.25
PettyHR	M001	2580		Bridge									
PettyHR	M001	2573.39	100Year-Existing	112.05	60.00	65.05	62.51	65.10	0.000344	1.16	167.58	88.76	0.18
PettyHR	M001	2551.09	100Year-Existing	112.05	59.89	65.08		65.08	0.000029	0.34	385.15	106.99	0.05
PettyHR	M001	2426.14	100Year-Existing	112.05	59.27	65.08		65.08	0.000002	0.10	1202.71	274.88	0.01
PettyHR	M001	2315.39	100Year-Existing	112.05	58.72	65.08		65.08	0.000001	0.08	1474.14	318.80	0.01
PettyHR	M001	2204.15	100Year-Existing	112.05	58.16	65.08		65.08	0.000001	0.08	1483.90	307.29	0.01
PettyHR	M001	2022.45	100Year-Existing	112.05	57.26	65.08		65.08	0.000003	0.13	899.82	179.55	0.02
PettyHR	M001	1902.10	100Year-Existing	112.05	56.66	65.08		65.08	0.000005	0.17	695.90	127.67	0.02
PettyHR	M001	1879.72	100Year-Existing	112.05	56.55	65.07		65.08	0.000011	0.26	511.22	108.29	0.03
PettyHR	M001	1824.42	100Year-Existing	112.05	56.28	65.07		65.08	0.000020	0.35	343.42	65.91	0.04
PettyHR	M001	1789.72	100Year-Existing	112.05	56.10	65.07		65.08	0.000028	0.41	290.53	55.29	0.05
PettyHR	M001	1724.70	100Year-Existing	112.05	55.78	65.06		65.07	0.000036	0.47	254.10	47.81	0.06
PettyHR	M001	1668.81	100Year-Existing	112.05	55.50	65.06	58.25	65.07	0.000020	0.36	337.72	65.15	0.05
PettyHR	M001	1647.80	100Year-Existing	112.05	55.40	65.06	57.95	65.07	0.000013	0.30	393.69	73.93	0.04
PettyHR	M001	1631.79	100Year-Existing	112.05	63.55	64.79		65.04	0.007082	2.23	50.34	40.61	0.64
PettyHR	M001	1615.46	100Year-Existing	113.58	54.38	56.76		56.97	0.006277	3.25	60.79	38.05	0.68
PettyHR	M001	1601.08	100Year-Existing	113.58	54.00	56.24	56.24	56.79	0.018074	5.29	41.42	36.04	1.15
PettyHR	M001	1586.16	100Year-Existing	113.58	53.36	55.29	55.47	56.36	0.039451	7.14	29.07	25.85	1.67
PettyHR	M001	1571.98	100Year-Existing	113.58	52.87	54.64	54.96	55.76	0.045693	7.17	27.56	24.59	1.76
PettyHR	M001	1519.66	100Year-Existing	113.58	51.62	53.41	53.41	53.89	0.023730	5.11	41.13	39.67	1.26
PettyHR	M001	1467.14	100Year-Existing	113.58	50.86	52.38	52.23	52.71	0.017947	4.10	47.93	46.06	1.08
PettyHR	M001	1457.30	100Year-Existing	113.58	50.23	51.97	51.97	52.48	0.023910	5.21	40.15	37.79	1.28
PettyHR	M001	1444.51	100Year-Existing	113.58	48.30	49.38	49.94	51.63	0.201467	10.69	19.54	31.71	3.39
PettyHR	M001	1415.17	100Year-Existing	113.58	48.28	50.03	49.49	50.18	0.005985	2.60	70.89	53.35	0.64
PettyHR	M001	1402.15	100Year-Existing	113.58	47.79	49.55	49.55	50.01	0.024265	5.11	42.96	44.71	1.27
PettyHR	M001	1385.41	100Year-Existing	113.58	43.10	44.84	45.80	48.86	0.130410	11.63	16.21	18.58	2.93
PettyHR	M001	1370.82	100Year-Existing	113.58	41.75	43.76	44.81	47.06	0.091124	11.15	17.69	15.32	2.55
PettyHR	M001	1362.66	100Year-Existing	113.58	39.88	42.29	43.48	46.28	0.081744	11.67	16.37	11.80	2.46
PettyHR	M001	1336.64	100Year-Existing	113.58	39.87	41.65	42.34	43.63	0.076111	9.29	21.43	19.93	2.27
PettyHR	M001	1309.35	100Year-Existing	113.58	38.40	39.90	40.36	41.42	0.075333	8.20	22.87	22.05	2.19
PettyHR	M001	1279.20	100Year-Existing	113.58	35.02	37.47	38.25	39.62	0.047286	9.11	24.42	22.66	1.89
PettyHR	M001	1258.06	100Year-Existing	113.58	34.01	36.79	37.24	38.68	0.034021	8.48	23.97	15.08	1.64
PettyHR	M001	1221.17	100Year-Existing	113.58	33.21	34.74	35.40	36.70	0.095715	9.03	20.05	19.07	2.44
PettyHR	M001	1203.34	100Year-Existing	113.58	32.61	34.04	34.34	35.04	0.063215	7.20	28.87	34.60	1.99
PettyHR	M001	1164.99	100Year-Existing	113.58	31.37	33.04	33.07	33.56	0.025542	5.04	40.11	41.42	1.29
PettyHR	M001	1153.41	100Year-Existing	113.58	30.70	31.85	32.19	32.99	0.094336	7.72	26.46	37.30	2.36
PettyHR	M001	1125.74	100Year-Existing	113.58	29.27	30.69	30.80	31.28	0.037510	5.52	37.28	44.47	1.53
PettyHR	M001	1090.65	100Year-Existing	113.58	28.12	29.40	29.53	29.91	0.040656	5.21	40.87	60.08	1.55
PettyHR	M001	1059.48	100Year-Existing	113.58	26.84	28.24	28.33	28.69	0.036361	5.35	43.54	64.60	1.50
PettyHR	M001	1048.77	100Year-Existing	113.58	26.29	27.58	27.75	28.22	0.048671	5.78	37.07	54.96	1.71
PettyHR	M001	1021.54	100Year-Existing	113.58	25.47	27.11	27.11	27.57	0.025907	5.05	41.68	43.56	1.30
PettyHR	M001	1003.30	100Year-Existing	113.58	23.42	25.03	25.53	26.72	0.070257	8.41	22.01	19.53	2.16
PettyHR	M001	994.73	100Year-Existing	113.58	22.70	25.60	25.60	26.29	0.014486	5.67	39.57	27.66	1.08
PettyHR	M001	961.03	100Year-Existing	113.58	22.07	24.68	24.92	25.66	0.022754	6.55	32.84	25.34	1.32
PettyHR	M001	944.13	100Year-Existing	113.58	21.89	23.65	24.08	25.07	0.049434	7.44	25.22	22.16	1.84
PettyHR	M001	924.94	100Year-Existing	113.58	20.78	22.84	23.20	24.20	0.040706	7.49	24.94	17.57	1.70
PettyHR	M001	905.47	100Year-Existing	113.58	19.73	22.10	22.45	23.50	0.032858	7.45	25.41	16.23	1.57
PettyHR	M001	883.86	100Year-Existing	113.58	17.29	21.01	20.00	21.26	0.002675	2.89	64.93	39.45	0.49
PettyHR	M001	875		Bridge									
PettyHR	M001	859.53	100Year-Existing	113.58	17.25	19.44	19.44	20.15	0.020565	5.43	33.22	29.70	1.21
PettyHR	M001	836.76	100Year-Existing	113.58	12.80	14.83	16.01	18.95	0.092703	11.25	15.27	10.90	2.57
PettyHR	M001	823.70	100Year-Existing	113.58	12.86	14.50	15.22	17.15	0.109426	10.46	18.32	17.75	2.68
PettyHR	M001	811.96	100Year-Existing	113.58	12.85	14.97	15.25	16.01	0.034661	7.12	32.28	32.13	1.59
PettyHR	M001	796.92	100Year-Existing	113.58	12.74	14.21	14.53	15.30	0.068171	7.79	28.06	34.12	2.09
PettyHR	M001	784.11	100Year-Existing	113.58	11.82	13.88	14.09	14.66	0.028037	6.23	36.96	38.33	1.42
PettyHR	M001	769.86	100Year-Existing	113.58	10.94	12.66	13.17	14.07	0.052565	7.54	25.13	23.04	1.88
PettyHR	M001	748.76	100Year-Existing	113.58	8.37	10.90	11.57	13.05	0.039406	8.42	23.94	20.23	1.73
PettyHR	M001	720.33	100Year-Existing	113.58	8.08	9.21	9.75	11.09	0.144175	8.94	20.64	28.46	2.86
PettyHR	M001	707.57	100Year-Existing	113.58	6.85	8.39	8.78	9.66	0.065618	7.77	27.35	33.57	2.05
PettyHR	M001	685.99	100Year-Existing	113.58	5.31	7.04	7.44	8.34	0.058264	7.79	27.82	32.24	1.96
PettyHR	M001	666.04	100Year-Existing	113.58	5.03	6.88	6.95	7.43	0.021321	4.96	42.46	44.60	1.20
PettyHR	M001	652.51	100Year-Existing	113.58	4.66	6.37	6.62	7.05	0.033656	5.87	38.66	48.21	1.49
PettyHR	M001	633.61	100Year-Existing	113.58	4.40	5.70	5.70	6.09	0.023986	4.13	45.69	82.44	1.21
PettyHR	M001	622.83	100Year-Existing	113.58	4.09	5.25	5.25	5.55	0.025076	3.87	53.27	108.41	1.21
PettyHR	M001	577.97	100Year-Existing	113.58	2.48	3.87	3.92	4.20	0.035343	5.19	50.62	112.55	1.46
PettyHR	M001	525.57	100Year-Existing	113.58	0.51	2.93	2.26	3.05	0.003838	2.61	85.65	101.98	0.54
PettyHR	M001	491.94	100Year-Existing	113.58	-0.59	2.49	2.03	2.87	0.005141	3.12	50.47	36.21	0.63
PettyHR	M001	485		Bridge									
PettyHR	M001	478.84	100Year-Existing	113.58	-1.92	2.54		2.64	0.000805	1.50	110.65	141.40	0.26
PettyHR	M001	439.27	100Year-Existing	113.58	-1.89	2.58		2.60	0.000218	0.82	238.63	129.16	0.13
PettyHR	M001	405.68	100Year-Existing	113.58	-2.13	2.57		2.59	0.000196	0.78	235.69	132.09	0.13
PettyHR	M001	367.80	100Year-Existing	113.58	-2.02	2.58		2.58	0.000060	0.43	300.74	139.31	0.07
PettyHR	M001	338.85	100Year-Existing	113.58	-2.89	2.58		2.58	0.000036	0.37	340.00	122.23	0.06
PettyHR	M001	305.38	100Year-Existing	113.58	-2.46	2.57		2.58	0.000050	0.42	306.95	119.92	0.07
PettyHR	M001	269.29	100Year-Existing	113.58	-3.52	2.57		2.58	0.000045	0.45	287.80	110.23	0.06
PettyHR	M001	238.18	100Year-Existing	113.58	-3.50	2.56		2.58	0.000064	0.54	248.76	102.50	0.08
PettyHR	M001	201.25	100Year-Existing	113.58	-4.43	2.57		2.57	0.000020	0.33	368.08	120.04	0.04
PettyHR	M001	150.84	100Year-Existing	113.58	-3.34	2.57		2.57	0.000012	0.24	526.03	171.52	0.03
PettyHR	M001	105.74	100Year-Existing	113.58	-2.91	2.57		2.57	0.000012	0.24	508.33	154.18	0.03
PettyHR	M001	91.29	100Year-Existing	113.58	-3.36	2.57		2.57	0.000010	0.23	524.72	143.69	0.03
PettyHR	M001	20.04	100Year-Existing	113.58	-6.19	2.57		2.57	0.000005	0.17	706.66	185.21	0.02
PettyHR	M001	12.04	100Year-Existing	113.58	-6.19	2.55	-3.52	2.57	0.000101	0.65	267.31	185.14	0.07
ForthP	M001	2616.90	100Year-Existing	10.98	123.09	124.55	123.36	124.55	0.000014	0.11	142.98	161.16	0.03
ForthP	M001	2528.45	100Year-Existing	10.98	123.09	124.55		124.55	0.000003	0.05	225.65	200.13	0.01
ForthP	M001	2324.32	100Year-Existing	10.98	123.09	124.55		124.55	0.000011	0.10	165.13	212.86	0.03
ForthP	M001	2187.52	100Year-Existing	10.98	123.09	124.55		124.55	0.000002	0.04	303.51	289.67	0.01
ForthP	M001	1955.13	100Year-Existing	10.98	123.09	124.55		124.55	0.000002	0.04	348.13	313.47	0.01
ForthP	M001	1773.83	100Year-Existing	10.98	123.09	124.55		124.55	0.000001	0.03	425.25	346.87	0.01
ForthP	M001	1572.85	100Year-Existing	10.98	123.09	124.55		124.55	0.000001	0.03	406.24	322.59	0.01

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
ForthP	M001	1496.60	100Year-Existing	10.98	123.09	124.55		124.55	0.000001	0.03	342.71	280.58	0.01
ForthP	M001	1392.58	100Year-Existing	39.51	122.98	124.54	124.15	124.55	0.000628	0.78	118.20	170.90	0.20
ForthP	M001	1390		Culvert									
ForthP	M001	1381.72	100Year-Existing	39.51	122.95	124.48	124.16	124.49	0.001572	1.13	85.13	150.94	0.30
ForthP	M001	1360.50	100Year-Existing	39.51	122.87	124.26		124.41	0.009887	2.66	32.73	79.65	0.77
ForthP	M001	1311.12	100Year-Existing	39.51	122.52	124.01		124.06	0.004523	1.85	45.26	76.91	0.52
ForthP	M001	1261.17	100Year-Existing	39.51	121.36	123.46	123.46	123.75	0.008217	3.25	26.66	41.57	0.75
ForthP	M001	1211.51	100Year-Existing	39.51	119.83	121.68	122.13	122.90	0.034592	6.00	11.25	15.04	1.49
ForthP	M001	1161.66	100Year-Existing	39.51	117.25	118.45	118.85	120.12	0.099628	7.36	10.11	25.40	2.35
ForthP	M001	1112.05	100Year-Existing	39.51	114.88	116.05	116.21	116.58	0.044783	5.11	16.29	35.59	1.59
ForthP	M001	1062.35	100Year-Existing	39.51	113.16	114.40	114.44	114.72	0.030053	4.12	18.96	35.81	1.27
ForthP	M001	1041.93	100Year-Existing	39.51	112.62	113.97	114.00	114.23	0.022230	3.73	22.31	44.96	1.10
ForthP	M001	1031.90	100Year-Existing	39.51	112.31	113.53	113.65	113.93	0.039335	4.65	18.83	45.14	1.45
ForthP	M001	1011.12	100Year-Existing	39.51	111.62	112.72	112.81	113.08	0.042405	4.63	19.27	48.96	1.51
ForthP	M001	959.76	100Year-Existing	39.51	110.31	111.12	111.18	111.37	0.048319	3.72	20.63	62.09	1.51
ForthP	M001	908.93	100Year-Existing	39.51	109.25	109.96	109.82	110.02	0.012413	1.80	37.33	90.66	0.76
ForthP	M001	856.39	100Year-Existing	39.51	108.38	108.88	108.81	108.97	0.025833	1.79	30.46	93.05	1.00
ForthP	M001	806.25	100Year-Existing	39.51	107.09	108.06		108.13	0.013042	2.29	36.82	92.06	0.81
ForthP	M001	754.78	100Year-Existing	39.51	106.12	107.15	107.15	107.30	0.023640	3.36	30.07	91.66	1.13
ForthP	M001	734.50	100Year-Existing	39.51	105.47	106.82	106.76	106.91	0.009241	2.44	38.97	91.86	0.72
ForthP	M001	724.30	100Year-Existing	39.51	105.28	106.64	106.64	106.79	0.012594	2.90	33.82	90.77	0.86
ForthP	M001	703.65	100Year-Existing	39.51	105.02	106.20	106.18	106.39	0.022732	3.57	24.21	50.75	1.11
ForthP	M001	654.47	100Year-Existing	39.51	103.90	104.82	104.82	105.02	0.031420	3.55	22.82	55.49	1.27
ForthP	M001	605.63	100Year-Existing	39.51	102.27	103.47	103.53	103.75	0.026216	3.80	23.81	62.09	1.21
ForthP	M001	585.13	100Year-Existing	39.51	101.55	102.42	102.56	102.90	0.080682	5.10	17.83	69.08	1.98
ForthP	M001	577.30	100Year-Existing	39.51	101.52	102.25	102.28	102.45	0.046160	3.45	22.63	73.65	1.46
ForthP	M001	557.33	100Year-Existing	39.51	100.67	101.37	101.36	101.52	0.032820	2.73	25.81	81.41	1.21
ForthP	M001	507.84	100Year-Existing	39.51	98.92	99.63	99.63	99.77	0.037835	2.89	25.87	87.25	1.29
ForthP	M001	453.33	100Year-Existing	39.51	96.28	97.09	97.03	97.19	0.020442	2.42	31.83	93.07	0.99
ForthP	M001	402.29	100Year-Existing	39.51	94.96	95.65	95.65	95.83	0.039107	3.16	23.43	66.69	1.34
ForthP	M001	349.18	100Year-Existing	39.51	93.64	94.29	94.12	94.36	0.014461	1.71	35.26	85.28	0.79
ForthP	M001	297.76	100Year-Existing	39.51	92.55	93.51	93.46	93.62	0.018558	2.64	31.76	78.74	0.97
ForthP	M001	246.28	100Year-Existing	39.51	91.71	92.54	92.47	92.63	0.017095	2.21	34.72	92.02	0.90
ForthP	M001	182.03	100Year-Existing	39.51	90.94	92.13	91.82	92.16	0.004415	1.55	58.10	111.90	0.49
ForthP	M001	160.27	100Year-Existing	39.51	90.13	92.14	91.51	92.14	0.000244	0.54	150.46	162.92	0.13
ForthP	M001	150		Culvert									
ForthP	M001	144.74	100Year-Existing	39.51	89.90	91.24	91.24	91.86	0.016378	3.54	11.48	107.46	1.01
ForthP	M001	124.30	100Year-Existing	39.51	89.74	91.01	90.88	91.09	0.009455	2.35	40.23	85.43	0.73
ForthP	M001	61.58	100Year-Existing	39.51	88.75	89.95	89.95	90.18	0.023103	3.50	25.68	57.70	1.13
ForestP	M001	1557.91	100Year-Existing	7.92	78.25	79.73	78.46	79.73	0.000004	0.05	150.69	121.92	0.02
ForestP	M001	1428.05	100Year-Existing	7.92	78.25	79.73		79.73	0.000002	0.04	205.83	177.52	0.01
ForestP	M001	1315.71	100Year-Existing	7.92	78.25	79.73		79.73	0.000001	0.03	289.45	243.22	0.01
ForestP	M001	1228.83	100Year-Existing	7.92	78.25	79.73		79.73	0.000001	0.02	346.15	291.35	0.01
ForestP	M001	1138.84	100Year-Existing	7.92	78.25	79.73		79.73	0.000000	0.02	405.49	343.63	0.01
ForestP	M001	1077.28	100Year-Existing	7.92	78.25	79.73		79.73	0.000000	0.02	451.32	482.92	0.01
ForestP	M001	1019.12	100Year-Existing	7.92	78.25	79.73		79.73	0.000002	0.04	228.68	282.57	0.01
ForestP	M001	958.61	100Year-Existing	10.08	78.15	79.71	79.50	79.73	0.000951	0.75	26.07	70.28	0.22
ForestP	M001	955		Culvert									
ForestP	M001	949.85	100Year-Existing	10.08	77.76	79.60	79.58	79.69	0.007253	1.69	13.14	54.55	0.44
ForestP	M001	913.34	100Year-Existing	10.08	78.16	79.09	79.09	79.26	0.029315	3.12	6.93	19.33	1.12
ForestP	M001	883.23	100Year-Existing	10.08	77.54	78.37	78.40	78.52	0.020580	2.54	9.44	40.14	1.00
ForestP	M001	859.61	100Year-Existing	10.08	76.75	77.48	77.56	77.80	0.045823	3.50	5.10	14.09	1.45
ForestP	M001	831.71	100Year-Existing	10.08	75.74	76.69	76.77	77.03	0.034096	3.51	5.05	11.32	1.28
ForestP	M001	802.91	100Year-Existing	10.08	74.66	75.51	75.64	75.96	0.041234	3.75	4.45	10.59	1.42
ForestP	M001	772.90	100Year-Existing	10.08	73.77	74.58	74.60	74.81	0.031350	3.16	6.07	15.92	1.21
ForestP	M001	737.48	100Year-Existing	10.08	72.77	73.50	73.47	73.63	0.021582	2.44	7.90	22.04	1.00
ForestP	M001	688.06	100Year-Existing	10.08	71.80	72.43	72.39	72.51	0.023856	2.19	9.47	33.72	0.97
ForestP	M001	651.32	100Year-Existing	10.08	70.81	71.44	71.44	71.56	0.027823	2.55	8.56	31.94	1.12
ForestP	M001	600.44	100Year-Existing	10.08	69.80	70.36	70.31	70.41	0.018357	1.87	13.43	74.97	0.89
ForestP	M001	578.60	100Year-Existing	10.08	69.31	69.92	69.92	69.98	0.020292	2.07	14.32	88.98	0.95
ForestP	M001	528.92	100Year-Existing	10.08	68.58	69.57	69.26	69.58	0.001473	0.80	32.25	87.00	0.28
ForestP	M001	478.55	100Year-Existing	10.08	68.21	69.56		69.56	0.000121	0.29	78.85	124.08	0.09
ForestP	M001	430.82	100Year-Existing	10.08	67.77	69.56		69.56	0.000037	0.20	119.01	147.82	0.05
ForestP	M001	378.18	100Year-Existing	10.08	67.48	69.55		69.55	0.000006	0.09	278.13	302.16	0.02
ForestP	M001	328.07	100Year-Existing	10.08	67.34	69.55		69.55	0.000003	0.06	388.99	357.64	0.01
ForestP	M001	277.95	100Year-Existing	10.08	67.07	69.55		69.55	0.000002	0.05	473.42	414.89	0.01
ForestP	M001	195.51	100Year-Existing	10.08	66.23	69.55		69.55	0.000000	0.03	858.40	560.03	0.00
ForestP	M001	158.37	100Year-Existing	10.08	66.23	69.55		69.55	0.000000	0.01	1576.23	691.96	0.00
ForestP	M001	89.11	100Year-Existing	10.08	66.23	69.55		69.55	0.000000	0.01	1746.24	766.10	0.00
DoylesR	TR019	260.51	100Year-Existing	0.36	124.74	125.11	124.94	125.11	0.000238	0.15	4.65	35.61	0.09
DoylesR	TR019	199.72	100Year-Existing	0.36	124.55	125.11		125.11	0.000002	0.02	37.14	139.39	0.01
DoylesR	TR019	150.00	100Year-Existing	0.36	124.37	125.11		125.11	0.000002	0.02	40.31	156.65	0.01
DoylesR	TR019	100.00	100Year-Existing	0.36	124.16	125.11		125.11	0.000002	0.03	35.78	193.00	0.01
DoylesR	TR019	50.00	100Year-Existing	0.36	124.18	125.11		125.11	0.000001	0.02	62.81	238.35	0.01
DoylesR	TR018	302.01	100Year-Existing	1.35	127.90	128.41	128.05	128.41	0.000127	0.16	13.18	40.48	0.08
DoylesR	TR018	270.53	100Year-Existing	1.35	126.19	128.41	126.86	128.41	0.000000	0.01	237.36	244.89	0.00
DoylesR	TR018	260		Culvert									
DoylesR	TR018	257.62	100Year-Existing	1.35	126.19	128.41	126.89	128.41	0.000000	0.01	245.47	215.13	0.00
DoylesR	TR018	244.68	100Year-Existing	1.35	125.64	128.37	126.59	128.40	0.000424	0.82	2.00	211.98	0.16
DoylesR	TR018	200		Culvert									
DoylesR	TR018	169.24	100Year-Existing	1.35	125.40	126.26	126.15	126.52	0.015952	2.61	0.64	76.19	0.92
DoylesR	TR018	131.43	100Year-Existing	1.35	125.24	125.45	125.45	125.47	0.032279	1.00	2.68	54.46	0.95
DoylesR	TR018	59.79	100Year-Existing	1.35	124.57	125.16	124.89	125.16	0.000238	0.22	16.56	128.36	0.10
DoylesR	TR017	4043.45	100Year-Existing	7.38	124.05	125.09		125.10	0.001450	0.91	21.99	90.42	0.29
DoylesR	TR017	3983.69	100Year-Existing	7.38	124.04	124.97		125.00	0.002426	0.99	18.82	92.80	0.36
DoylesR	TR017	3923.93	100Year-Existing	7.38	124.03	124.61	124.61	124.69	0.021722	1.77	8.05	43.32	0.94
DoylesR	TR017	3889.37	100Year-Existing	7.38	123.60	123.82	123.63	123.83	0.005706	0.33	15.96	67.51	0.37
DoylesR	TR017	3781.64	100Year-Existing	7.38	122.55	123.52		123.55	0.003554	1.23	15.79	58.57	0.43
DoylesR	TR017	3768.91	100Year-Existing	7.38	122.35	123.18	123.18	123.42	0.017934	2.36	4.01	9.68	0.92
DoylesR	TR017	3745.98	100Year-Existing	7.38	121.86	122.44	122.48	122.60	0.043035	2.39	5.64	34.99	1.29

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR017	3713.18	100Year-Existing	7.38	120.99	121.59	121.59	121.78	0.021744	2.07	4.40	13.74	0.98
DoylesR	TR017	3692.45	100Year-Existing	7.38	120.34	121.00	121.04	121.24	0.028404	2.42	4.15	14.12	1.12
DoylesR	TR017	3679.05	100Year-Existing	7.38	119.97	120.77	120.82	120.96	0.015203	2.21	5.14	22.48	0.87
DoylesR	TR017	3656.84	100Year-Existing	7.38	117.59	118.05	118.40	119.89	0.342609	6.13	1.32	5.77	3.60
DoylesR	TR017	3603.67	100Year-Existing	7.38	116.29	117.03	117.03	117.16	0.015204	2.07	6.41	25.24	0.85
DoylesR	TR017	3583.40	100Year-Existing	7.38	115.96	116.60	116.54	116.76	0.027173	2.41	5.88	27.77	1.10
DoylesR	TR017	3571.14	100Year-Existing	7.38	115.76	116.31	116.31	116.41	0.025100	2.19	6.92	33.98	1.04
DoylesR	TR017	3545.42	100Year-Existing	7.38	115.22	115.71	115.79	116.04	0.082793	3.18	3.59	17.75	1.78
DoylesR	TR017	3483.93	100Year-Existing	7.38	114.35	114.95	114.92	114.99	0.012505	1.58	12.35	70.72	0.74
DoylesR	TR017	3432.55	100Year-Existing	7.38	113.79	114.55	114.47	114.58	0.007567	1.46	13.54	66.03	0.59
DoylesR	TR017	3345.48	100Year-Existing	7.38	113.03	113.56	113.56	113.64	0.029531	2.01	7.45	42.24	1.08
DoylesR	TR017	3300.07	100Year-Existing	7.38	112.42	113.01	112.86	113.02	0.003510	0.76	19.32	78.13	0.38
DoylesR	TR016	918.87	100Year-Existing	2.70	127.08	128.79	127.25	128.79	0.000000	0.01	402.24	360.94	0.00
DoylesR	TR016	898.71	100Year-Existing	2.70	126.90	128.79	127.29	128.79	0.000001	0.03	194.89	225.17	0.01
DoylesR	TR016	890		Culvert									
DoylesR	TR016	882.28	100Year-Existing	2.70	126.88	128.73		128.73	0.000005	0.06	104.28	157.87	0.02
DoylesR	TR016	877.71	100Year-Existing	2.70	126.24	128.73	126.92	128.73	0.000003	0.07	123.16	188.64	0.01
DoylesR	TR016	850		Culvert									
DoylesR	TR016	848.13	100Year-Existing	2.70	126.37	127.15	127.15	127.41	0.019921	2.47	1.47	3.28	0.93
DoylesR	TR016	818.98	100Year-Existing	2.70	126.36	126.85	126.79	126.87	0.004114	0.77	7.72	53.01	0.41
DoylesR	TR016	768.99	100Year-Existing	2.70	126.30	126.66		126.67	0.004491	0.65	7.96	51.19	0.41
DoylesR	TR016	714.09	100Year-Existing	2.70	125.96	126.38		126.40	0.005040	0.74	6.69	37.33	0.44
DoylesR	TR016	675.95	100Year-Existing	2.70	125.74	126.08	126.08	126.12	0.021145	1.26	4.03	40.98	0.86
DoylesR	TR016	659.39	100Year-Existing	2.70	125.10	125.55	125.52	125.60	0.011422	1.27	4.08	25.90	0.68
DoylesR	TR016	632.80	100Year-Existing	2.70	124.78	125.26	125.26	125.32	0.013303	1.33	3.65	27.22	0.72
DoylesR	TR016	610.50	100Year-Existing	2.70	123.78	124.26	124.39	124.68	0.068801	3.12	1.13	5.11	1.65
DoylesR	TR016	549.37	100Year-Existing	2.70	122.30	122.97	122.97	123.06	0.013327	1.64	3.18	18.69	0.75
DoylesR	TR016	494.31	100Year-Existing	2.70	120.93	121.53	121.61	121.83	0.042462	2.44	1.17	4.03	1.28
DoylesR	TR016	473.82	100Year-Existing	2.70	120.18	120.71	120.78	120.98	0.040298	2.38	1.31	5.09	1.27
DoylesR	TR016	459.95	100Year-Existing	2.70	119.62	120.10	120.18	120.37	0.048503	2.38	1.25	5.12	1.36
DoylesR	TR016	439.99	100Year-Existing	2.70	119.05	119.70	119.70	119.88	0.022041	1.91	1.52	4.66	0.94
DoylesR	TR016	384.99	100Year-Existing	2.70	117.07	117.53	117.64	117.87	0.070753	2.56	1.08	4.71	1.60
DoylesR	TR016	329.99	100Year-Existing	2.70	115.67	116.14	116.17	116.26	0.030462	1.73	2.43	22.64	1.06
DoylesR	TR016	274.18	100Year-Existing	2.70	114.93	115.34	115.32	115.37	0.012754	1.08	5.03	48.49	0.68
DoylesR	TR016	218.88	100Year-Existing	2.70	114.35	114.84	114.82	114.87	0.010623	1.06	5.50	57.19	0.63
DoylesR	TR016	165.43	100Year-Existing	2.70	113.83	114.39	114.38	114.44	0.009120	1.15	4.62	36.21	0.60
DoylesR	TR016	86.48	100Year-Existing	2.70	112.80	113.25	113.25	113.34	0.023713	1.48	2.44	13.47	0.93
DoylesR	TR016	40.19	100Year-Existing	2.70	112.21	112.83	112.71	112.84	0.001902	0.59	10.63	60.60	0.29
DoylesR	TR015	3230.71	100Year-Existing	16.20	111.60	112.53		112.58	0.008564	1.86	22.24	77.17	0.66
DoylesR	TR015	3185.04	100Year-Existing	16.20	111.22	112.20		112.27	0.010383	1.97	18.28	52.03	0.72
DoylesR	TR015	3133.58	100Year-Existing	16.20	110.57	111.39	111.39	111.53	0.023028	2.70	13.80	46.98	1.06
DoylesR	TR015	3079.97	100Year-Existing	16.20	108.17	109.17	109.43	109.83	0.042217	4.10	5.73	11.84	1.48
DoylesR	TR015	3026.43	100Year-Existing	16.20	107.30	109.13	108.30	109.15	0.000694	0.85	32.11	34.15	0.22
DoylesR	TR015	3001.28	100Year-Existing	16.20	106.17	109.14	108.33	109.14	0.000106	0.43	88.70	78.60	0.08
DoylesR	TR015	3000		Culvert									
DoylesR	TR015	2988.77	100Year-Existing	16.20	106.03	108.08	108.08	108.23	0.003845	2.26	20.92	56.88	0.52
DoylesR	TR015	2963.30	100Year-Existing	16.20	105.69	106.53	106.86	107.84	0.107488	6.09	5.02	17.05	2.27
DoylesR	TR015	2915.60	100Year-Existing	16.20	104.53	105.70	105.70	105.94	0.016711	2.90	11.02	24.50	0.95
DoylesR	TR015	2867.64	100Year-Existing	16.20	103.37	104.52	104.67	104.94	0.032085	3.97	8.79	21.07	1.29
DoylesR	TR015	2841.04	100Year-Existing	16.20	102.40	103.00	103.12	103.41	0.108050	4.19	7.34	28.50	2.11
DoylesR	TR015	2804.73	100Year-Existing	16.20	101.67	102.51	102.44	102.63	0.017415	2.40	14.21	36.45	0.92
DoylesR	TR015	2742.98	100Year-Existing	16.20	100.87	101.72	101.65	101.78	0.012092	2.08	21.25	70.86	0.78
DoylesR	TR015	2687.77	100Year-Existing	16.20	100.07	100.69	100.68	100.80	0.032010	2.56	14.69	63.10	1.19
DoylesR	TR015	2638.14	100Year-Existing	16.20	98.95	99.80	99.80	99.93	0.021347	2.77	15.47	54.85	1.04
DoylesR	TR015	2593.26	100Year-Existing	16.20	97.75	98.88	98.78	98.99	0.011262	2.38	16.33	43.38	0.78
DoylesR	TR015	2557.12	100Year-Existing	16.20	97.53	98.62		98.69	0.007408	1.97	20.16	52.23	0.64
DoylesR	TR015	2522.34	100Year-Existing	16.20	97.26	98.17	98.17	98.33	0.019353	2.51	12.79	39.82	0.97
DoylesR	TR015	2483.94	100Year-Existing	16.20	96.95	97.71	97.64	97.76	0.014019	1.86	18.48	60.47	0.79
DoylesR	TR015	2438.99	100Year-Existing	16.20	96.35	97.46		97.49	0.003943	1.40	29.28	93.07	0.46
DoylesR	TR015	2387.12	100Year-Existing	16.20	96.39	97.38		97.39	0.001355	0.72	50.55	129.24	0.26
DoylesR	TR015	2352.45	100Year-Existing	16.20	96.40	97.35		97.35	0.000643	0.50	58.55	103.38	0.18
DoylesR	TR015	2283.37	100Year-Existing	16.20	95.75	97.20		97.26	0.003403	1.61	17.68	23.16	0.46
DoylesR	TR015	2231.50	100Year-Existing	16.20	95.54	96.72	96.64	96.94	0.013794	2.72	10.30	18.65	0.87
DoylesR	TR015	2160.12	100Year-Existing	16.20	94.93	96.02		96.13	0.008547	2.00	13.17	22.55	0.68
DoylesR	TR015	2119.11	100Year-Existing	16.20	94.44	95.49	95.49	95.69	0.016954	2.74	11.42	27.11	0.94
DoylesR	TR015	2075.88	100Year-Existing	16.20	93.86	94.85	94.87	95.01	0.014236	2.42	13.91	47.26	0.86
DoylesR	TR015	2024.01	100Year-Existing	16.20	93.19	94.29	94.19	94.39	0.009837	2.12	16.63	50.80	0.72
DoylesR	TR015	1972.14	100Year-Existing	16.20	92.71	93.75	93.75	93.85	0.012661	2.38	18.61	76.16	0.81
DoylesR	TR015	1921.75	100Year-Existing	16.20	92.35	93.46	93.09	93.47	0.002477	1.12	33.05	82.16	0.36
DoylesR	TR015	1851.62	100Year-Existing	16.20	91.24	92.85	92.85	93.19	0.012453	3.08	8.67	15.87	0.84
DoylesR	TR014	2057.49	100Year-Existing	9.81	125.48	126.56	126.39	126.58	0.003183	1.13	20.26	65.34	0.40
DoylesR	TR014	2037.89	100Year-Existing	9.81	125.57	126.55		126.55	0.000691	0.55	41.99	107.20	0.19
DoylesR	TR014	1988.88	100Year-Existing	9.81	124.71	126.45	125.60	126.50	0.001269	1.10	14.45	46.64	0.28
DoylesR	TR014	1980		Culvert									
DoylesR	TR014	1975.46	100Year-Existing	9.81	124.46	126.38		126.43	0.001086	1.10	11.31	24.11	0.27
DoylesR	TR014	1936.56	100Year-Existing	9.81	124.86	126.20		126.35	0.005167	1.94	8.57	21.50	0.56
DoylesR	TR014	1904.43	100Year-Existing	9.81	124.72	125.80	125.80	126.08	0.013647	2.65	5.74	11.42	0.87
DoylesR	TR014	1867.03	100Year-Existing	9.81	124.61	125.65	125.35	125.71	0.004239	1.46	12.07	24.92	0.49
DoylesR	TR014	1801.50	100Year-Existing	9.81	124.00	124.96	124.96	125.20	0.017406	2.74	6.24	14.26	0.96
DoylesR	TR014	1765.57	100Year-Existing	9.81	123.20	123.76	123.88	124.16	0.054276	3.21	4.55	18.57	1.54
DoylesR	TR014	1703.29	100Year-Existing	9.81	121.82	122.69	122.60	122.91	0.014426	2.40	6.70	20.17	0.87
DoylesR	TR014	1657.91	100Year-Existing	9.81	121.27	122.05	122.05	122.24	0.014810	2.13	6.76	20.26	0.85
DoylesR	TR014	1607.98	100Year-Existing	9.81	120.59	121.43	121.43	121.55	0.012316	2.06	11.13	46.97	0.79
DoylesR	TR014	1544.18	100Year-Existing	9.81	119.81	120.68	120.69	120.80	0.011448	2.08	10.97	42.33	0.77
DoylesR	TR014	1492.70	100Year-Existing	9.81	119.06	119.69	119.75	119.90	0.028731	2.61	7.92	39.77	1.15
DoylesR	TR014	1441.23	100Year-Existing	9.81	117.59	118.69	118.71	118.91	0.013374	2.71	7.53	19.90	0.87
DoylesR	TR014	1420.98	100Year-Existing	9.81	116.98	118.21	117.73	118.27	0.002651	1.32	11.49	13.62	0.40
DoylesR	TR014	1411.86	100Year-Existing	9.81	117.03	118.11	117.73	118.23	0.004998	1.75	7.25	12.20	0.54
DoylesR	TR014	1400		Bridge									
DoylesR	TR014	1384.41	100Year-Existing	11.16	116.71	117.54	117.48	117.81	0.015492	2.45	5.15	9.88	0.90

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR014	1374.60	100Year-Existing	11.16	116.54	117.50		117.64	0.007936	1.87	7.61	11.85	0.65
DoylesR	TR014	1353.25	100Year-Existing	11.16	116.21	117.09	117.09	117.38	0.018308	2.66	5.47	9.97	0.98
DoylesR	TR014	1309.14	100Year-Existing	11.16	115.50	116.46	116.30	116.65	0.009029	1.95	6.04	8.80	0.69
DoylesR	TR014	1296.25	100Year-Existing	11.16	115.12	116.12	116.12	116.45	0.018246	2.92	5.19	8.23	0.99
DoylesR	TR014	1239.25	100Year-Existing	11.16	113.43	114.10	114.27	114.69	0.056104	3.80	4.02	11.52	1.63
DoylesR	TR014	1203.69	100Year-Existing	11.16	112.84	113.70	113.58	113.77	0.009014	1.89	11.22	26.11	0.68
DoylesR	TR014	1182.25	100Year-Existing	11.16	112.53	113.31	113.31	113.49	0.018651	2.47	7.92	20.78	0.97
DoylesR	TR014	1125.25	100Year-Existing	11.16	111.30	112.51	112.26	112.56	0.004286	1.60	13.87	23.78	0.49
DoylesR	TR014	1104.23	100Year-Existing	11.16	111.16	112.18	112.18	112.39	0.015249	2.57	7.57	17.25	0.90
DoylesR	TR014	1094.88	100Year-Existing	11.16	110.55	111.34	111.58	112.08	0.066273	4.75	3.96	10.23	1.82
DoylesR	TR014	1075.36	100Year-Existing	11.16	110.17	111.17	111.25	111.48	0.024686	3.38	7.09	18.79	1.15
DoylesR	TR014	1027.18	100Year-Existing	11.16	109.15	110.02	110.06	110.29	0.024424	2.94	6.82	17.20	1.11
DoylesR	TR014	980.74	100Year-Existing	11.16	107.89	108.97	108.62	109.03	0.004090	1.51	13.74	21.47	0.48
DoylesR	TR014	954.47	100Year-Existing	11.16	107.68	108.62	108.62	108.82	0.016416	2.58	8.31	22.03	0.93
DoylesR	TR014	934.37	100Year-Existing	11.16	106.99	107.89	107.91	108.30	0.033659	3.43	5.70	15.79	1.29
DoylesR	TR014	907.24	100Year-Existing	11.16	106.52	107.45	107.38	107.54	0.010735	2.12	11.65	27.84	0.75
DoylesR	TR014	868.80	100Year-Existing	11.16	105.88	106.83	106.83	107.04	0.015333	2.50	7.89	19.22	0.90
DoylesR	TR014	864.98	100Year-Existing	11.16	105.70	106.67	106.70	106.97	0.019225	2.64	5.66	13.45	0.99
DoylesR	TR014	844.06	100Year-Existing	11.16	105.10	106.30	106.14	106.45	0.008106	2.16	8.26	13.17	0.68
DoylesR	TR014	836.52	100Year-Existing	11.16	104.97	106.07	106.07	106.36	0.017172	2.77	6.05	11.69	0.95
DoylesR	TR014	816.09	100Year-Existing	11.16	104.78	105.64	105.55	105.74	0.010626	1.91	10.02	25.93	0.73
DoylesR	TR014	811.48	100Year-Existing	11.16	104.64	105.63		105.70	0.005954	1.64	12.29	23.49	0.57
DoylesR	TR014	783.28	100Year-Existing	11.16	103.98	105.10	105.10	105.40	0.017735	3.09	6.05	10.15	0.99
DoylesR	TR014	751.27	100Year-Existing	11.16	103.31	104.32	104.40	104.73	0.024880	2.91	4.44	8.86	1.11
DoylesR	TR014	717.94	100Year-Existing	11.16	102.63	103.94	103.94	104.20	0.014281	3.04	7.20	13.46	0.90
DoylesR	TR014	676.43	100Year-Existing	11.16	102.18	103.26	103.27	103.56	0.016688	2.72	6.52	15.88	0.94
DoylesR	TR014	601.44	100Year-Existing	11.16	101.39	102.30	102.23	102.42	0.012149	2.12	8.97	21.45	0.79
DoylesR	TR014	540.83	100Year-Existing	11.16	100.49	101.71	101.52	101.87	0.007142	2.03	8.65	19.84	0.64
DoylesR	TR014	519.25	100Year-Existing	11.16	99.69	101.79	101.49	101.80	0.000564	0.75	35.45	65.05	0.17
DoylesR	TR014	510		Culvert									
DoylesR	TR014	505.00	100Year-Existing	11.16	99.62	101.55	101.55	101.58	0.001526	1.16	25.58	61.32	0.27
DoylesR	TR014	484.27	100Year-Existing	11.16	99.79	100.62	100.83	101.29	0.075527	4.42	3.95	12.71	1.83
DoylesR	TR014	426.15	100Year-Existing	11.16	98.71	99.84	99.84	100.09	0.014496	2.42	6.25	17.76	0.86
DoylesR	TR014	368.05	100Year-Existing	11.16	97.30	98.45	98.59	98.91	0.032526	3.48	5.18	15.56	1.24
DoylesR	TR014	343.01	100Year-Existing	11.16	96.78	98.27	97.73	98.39	0.003174	1.61	7.74	72.92	0.44
DoylesR	TR014	335		Bridge									
DoylesR	TR014	331.91	100Year-Existing	11.16	96.63	97.84	97.84	98.24	0.016234	2.91	4.49	6.85	0.94
DoylesR	TR014	312.09	100Year-Existing	11.16	96.26	97.52	97.61	97.81	0.022695	2.77	7.49	31.82	1.01
DoylesR	TR014	227.09	100Year-Existing	11.16	94.66	96.44	96.11	96.49	0.002771	1.44	16.55	28.18	0.38
DoylesR	TR014	205.76	100Year-Existing	11.16	94.51	96.12	96.12	96.37	0.010462	2.56	7.82	18.02	0.73
DoylesR	TR014	198.96	100Year-Existing	11.16	94.45	95.15	95.43	96.12	0.111949	4.42	2.74	9.62	2.18
DoylesR	TR014	181.77	100Year-Existing	11.16	94.01	95.19	95.19	95.37	0.012782	2.42	8.80	23.13	0.81
DoylesR	TR014	121.12	100Year-Existing	11.16	92.99	94.15	94.24	94.43	0.017860	2.81	9.49	57.08	0.96
DoylesR	TR014	34.73	100Year-Existing	11.16	91.60	92.51	92.54	92.82	0.021662	2.70	5.35	10.93	1.04
DoylesR	TR012	1780.65	100Year-Existing	27.36	90.30	92.24	91.66	92.33	0.002295	1.53	28.06	48.61	0.39
DoylesR	TR012	1753.67	100Year-Existing	27.36	89.56	92.27	91.16	92.29	0.000418	0.92	64.28	80.04	0.18
DoylesR	TR012	1745		Bridge									
DoylesR	TR012	1729.43	100Year-Existing	27.36	89.10	91.01	91.01	91.80	0.015224	4.03	7.20	12.98	0.98
DoylesR	TR012	1709.20	100Year-Existing	27.36	88.93	90.44	90.73	91.32	0.033874	4.92	9.54	19.94	1.39
DoylesR	TR012	1645.76	100Year-Existing	27.36	88.20	89.49	89.42	89.78	0.013599	2.86	13.72	18.79	0.89
DoylesR	TR011	1552.47	100Year-Existing	39.33	86.48	88.71	88.29	89.04	0.005797	2.80	19.34	14.88	0.64
DoylesR	TR011	1530.88	100Year-Existing	39.33	86.19	88.16	88.16	88.82	0.014430	4.08	13.65	11.19	0.99
DoylesR	TR011	1477.56	100Year-Existing	39.33	84.43	85.78	86.23	87.31	0.064624	6.24	9.09	13.33	1.91
DoylesR	TR011	1423.69	100Year-Existing	39.33	83.56	85.47	85.47	86.14	0.014630	3.96	13.12	11.52	0.98
DoylesR	TR011	1370.10	100Year-Existing	39.33	82.66	83.94	84.20	84.81	0.048712	5.36	13.65	30.39	1.67
DoylesR	TR011	1316.51	100Year-Existing	39.33	81.17	82.92	82.92	83.57	0.017226	4.01	13.90	16.19	1.05
DoylesR	TR011	1262.92	100Year-Existing	39.33	79.36	81.04	81.53	82.23	0.035256	5.43	10.34	13.57	1.47
DoylesR	TR011	1209.33	100Year-Existing	39.33	78.14	80.35	80.38	81.02	0.014157	4.09	13.81	13.90	0.96
DoylesR	TR011	1155.74	100Year-Existing	39.33	76.81	78.66	79.03	79.86	0.033108	5.35	9.62	9.80	1.41
DoylesR	TR011	1107.39	100Year-Existing	39.33	76.34	77.97	78.02	78.56	0.017120	3.55	12.90	13.37	1.02
DoylesR	TR011	1057.82	100Year-Existing	39.33	75.16	77.22	77.23	77.82	0.014247	3.74	13.56	12.76	0.94
DoylesR	TR011	971.36	100Year-Existing	39.33	73.33	75.14	74.61	75.40	0.004672	2.27	17.35	19.23	0.56
DoylesR	TR011	960		Bridge									
DoylesR	TR011	949.62	100Year-Existing	39.33	73.08	75.05	74.29	75.25	0.002993	1.99	19.78	14.97	0.46
DoylesR	TR011	929.53	100Year-Existing	39.33	72.74	74.56	74.47	75.06	0.012200	3.35	14.24	12.57	0.88
DoylesR	TR011	872.05	100Year-Existing	39.33	72.26	74.08	74.08	74.33	0.010714	3.07	27.74	57.90	0.81
DoylesR	TR011	816.76	100Year-Existing	39.33	72.00	73.04	72.97	73.12	0.015467	2.44	35.02	94.79	0.87
DoylesR	TR011	760.16	100Year-Existing	39.33	71.25	72.49		72.55	0.008926	2.28	43.15	101.71	0.70
DoylesR	TR011	712.26	100Year-Existing	39.33	70.34	71.79	71.67	71.96	0.014021	3.07	30.23	82.52	0.90
DoylesR	TR011	663.11	100Year-Existing	39.33	70.08	71.46		71.50	0.006197	1.88	54.54	141.65	0.57
DoylesR	TR013	2205.78	100Year-Existing	8.37	95.88	96.66	96.40	96.67	0.001288	0.71	30.02	111.24	0.26
DoylesR	TR013	2147.59	100Year-Existing	8.37	95.87	96.56		96.57	0.002283	0.81	19.28	65.08	0.33
DoylesR	TR013	2097.40	100Year-Existing	8.37	95.86	96.26	96.26	96.31	0.021223	1.60	11.08	78.57	0.91
DoylesR	TR013	2011.99	100Year-Existing	8.37	93.67	94.72	94.56	94.86	0.007430	1.86	6.13	11.44	0.63
DoylesR	TR013	1957.46	100Year-Existing	8.37	93.05	94.04	94.04	94.30	0.015598	2.76	5.02	10.88	0.92
DoylesR	TR013	1909.18	100Year-Existing	8.37	92.33	93.22	93.31	93.46	0.018341	2.60	6.69	39.68	0.96
DoylesR	TR013	1861.01	100Year-Existing	8.37	91.27	92.26	92.38	92.56	0.019173	2.75	5.71	32.59	0.99
DoylesR	TR013	1789.09	100Year-Existing	8.37	90.00	90.54	90.60	90.71	0.034357	2.45	7.81	58.43	1.21
DoylesR	TR013	1733.37	100Year-Existing	8.37	89.53	90.25	90.13	90.27	0.004048	0.99	17.63	78.53	0.43
DoylesR	TR013	1677.65	100Year-Existing	8.37	89.42	89.84		89.88	0.015432	1.37	10.87	58.64	0.78
DoylesR	TR013	1613.85	100Year-Existing	8.37	89.11	89.64		89.65	0.001698	0.55	27.85	96.87	0.27
DoylesR	TR013	1552.30	100Year-Existing	8.37	88.82	89.54		89.55	0.001894	0.76	23.09	68.68	0.31
DoylesR	TR013	1506.96	100Year-Existing	8.37	88.81	89.47		89.48	0.001942	0.73	22.32	64.95	0.31
DoylesR	TR013	1478.17	100Year-Existing	8.37	88.80	89.32		89.36	0.013415	1.47	10.92	44.38	0.75
DoylesR	TR013	1411.61	100Year-Existing	8.37	88.11	89.07		89.09	0.001886	0.88	14.21	31.51	0.32
DoylesR	TR013	1388.58	100Year-Existing	8.37	87.45	89.07	88.80	89.08	0.000137	0.34	57.92	158.20	0.09
DoylesR	TR013	1375		Culvert									
DoylesR	TR013	1373.86	100Year-Existing	8.37	87.32	88.69	88.50	88.77	0.004870	1.85	9.29	19.99	0.52
DoylesR	TR013	1301.72	100Year-Existing	8.37	86.82	87.85	87.85	88.16	0.016623	2.69	4.05	7.49	0.93
DoylesR	TR013	1246.99	100Year-Existing	8.37	85.79	86.67	86.74	87.07	0.024678	2.87	3.35	6.76	1.11

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR013	1192.26	100Year-Existing	8.37	84.79	85.89	85.69	86.04	0.007620	1.92	6.18	11.15	0.64
DoylesR	TR013	1137.53	100Year-Existing	8.37	84.03	85.17	85.16	85.46	0.014760	2.61	4.15	8.11	0.88
DoylesR	TR013	1082.80	100Year-Existing	8.37	83.55	84.44	84.44	84.58	0.016720	2.13	6.70	21.93	0.87
DoylesR	TR013	1064.90	100Year-Existing	8.37	82.57	84.49	83.65	84.51	0.000628	0.75	25.84	112.93	0.19
DoylesR	TR013	1050		Culvert									
DoylesR	TR013	1042.53	100Year-Existing	8.37	82.41	84.26	83.42	84.27	0.000323	0.55	33.69	82.83	0.14
DoylesR	TR013	1022.06	100Year-Existing	8.37	82.71	84.07	83.83	84.23	0.006531	2.11	5.95	8.52	0.62
DoylesR	TR013	969.32	100Year-Existing	8.37	82.40	83.35	83.35	83.65	0.019819	2.91	4.06	6.99	1.02
DoylesR	TR013	915.66	100Year-Existing	8.37	81.80	82.95	82.56	82.97	0.001241	0.86	20.46	42.25	0.27
DoylesR	TR013	867.93	100Year-Existing	8.37	81.40	82.85		82.89	0.002163	1.29	15.52	38.59	0.36
DoylesR	TR013	809.27	100Year-Existing	8.37	81.32	82.58		82.70	0.004733	1.66	6.54	10.02	0.52
DoylesR	TR013	756.07	100Year-Existing	8.37	80.75	81.89	81.89	82.25	0.016138	3.01	3.87	5.82	0.95
DoylesR	TR013	702.82	100Year-Existing	8.37	79.91	81.00	81.02	81.35	0.017856	2.97	3.97	6.91	0.98
DoylesR	TR013	651.60	100Year-Existing	8.37	78.06	78.87	79.20	79.71	0.068237	4.25	2.36	5.82	1.77
DoylesR	TR013	588.74	100Year-Existing	8.37	75.89	76.85	76.90	77.18	0.024057	2.62	3.53	7.73	1.06
DoylesR	TR013	543.29	100Year-Existing	8.37	75.20	76.00	76.00	76.27	0.019594	2.31	3.90	8.53	0.96
DoylesR	TR013	489.08	100Year-Existing	8.37	73.77	74.94	74.94	75.29	0.016473	3.00	3.87	5.85	0.95
DoylesR	TR013	436.90	100Year-Existing	8.37	72.11	73.00	73.34	73.77	0.059078	3.93	2.27	4.79	1.62
DoylesR	TR013	383.70	100Year-Existing	8.37	70.97	72.56	71.97	72.56	0.000324	0.52	45.28	138.42	0.14
DoylesR	TR013	363.75	100Year-Existing	8.37	70.36	71.90	71.90	72.48	0.013820	3.62	3.24	9.00	0.95
DoylesR	TR013	360		Culvert									
DoylesR	TR013	344.87	100Year-Existing	8.37	70.32	71.70	71.70	71.71	0.000826	0.74	24.34	48.31	0.21
DoylesR	TR013	324.16	100Year-Existing	8.37	70.29	70.87	70.99	71.47	0.149135	4.49	3.78	36.43	2.40
DoylesR	TR013	256.30	100Year-Existing	8.37	69.36	70.28	70.28	70.37	0.018255	2.22	9.11	47.61	0.86
DoylesR	TR013	236.50	100Year-Existing	8.37	69.35	70.22	69.98	70.22	0.000758	0.41	37.23	116.02	0.18
DoylesR	TR013	162.98	100Year-Existing	8.37	68.94	70.18		70.18	0.000741	0.53	34.67	124.03	0.19
DoylesR	TR013	133.14	100Year-Existing	8.37	68.76	70.16		70.16	0.000247	0.32	53.10	121.68	0.11
DoylesR	TR013	66.14	100Year-Existing	8.37	68.46	70.14		70.15	0.000259	0.38	43.34	155.60	0.11
DoylesR	M001	484.12	100Year-Existing	47.88	68.08	69.76		69.90	0.012534	2.72	37.94	95.66	0.81
DoylesR	M001	429.44	100Year-Existing	47.88	67.72	69.64		69.66	0.001996	1.24	81.28	132.74	0.33
DoylesR	M001	388.03	100Year-Existing	47.88	67.53	69.58		69.60	0.001383	1.10	102.39	181.12	0.28
DoylesR	M001	344.78	100Year-Existing	47.88	67.39	69.56		69.57	0.000305	0.54	192.77	243.87	0.13
DoylesR	M001	215.64	100Year-Existing	47.88	67.21	69.56		69.56	0.000038	0.21	415.87	369.94	0.05
DoylesR	M001	77.13	100Year-Existing	47.88	66.62	69.56		69.56	0.000011	0.14	724.64	555.87	0.03
CochranePB	M002	8105.53	100Year-Existing	13.77	140.65	142.31	141.35	142.32	0.000115	0.36	85.46	118.97	0.10
CochranePB	M002	8065.47	100Year-Existing	13.77	140.64	142.30		142.31	0.000491	0.68	45.43	80.91	0.20
CochranePB	M002	8050.98	100Year-Existing	13.77	140.00	142.27		142.30	0.000202	0.90	35.52	68.11	0.24
CochranePB	M002	8024.09	100Year-Existing	13.77	140.62	142.27		142.28	0.000580	0.72	45.90	102.55	0.22
CochranePB	M002	8013.06	100Year-Existing	13.77	140.42	142.27		142.28	0.000414	0.67	50.40	103.09	0.19
CochranePB	M002	8004.70	100Year-Existing	13.77	140.25	142.27	141.80	142.27	0.000214	0.63	66.77	108.52	0.14
CochranePB	M002	8000		Culvert									
CochranePB	M002	7995.14	100Year-Existing	13.77	140.37	142.26	141.54	142.27	0.000168	0.54	60.23	80.97	0.13
CochranePB	M002	7964.49	100Year-Existing	13.77	140.14	141.82	141.82	142.21	0.011812	3.34	6.98	10.56	0.92
CochranePB	M002	7901.64	100Year-Existing	13.77	139.30	140.73	140.91	141.22	0.021996	3.39	6.73	26.92	1.17
CochranePB	M002	7847.08	100Year-Existing	13.77	138.68	139.80	139.68	139.87	0.007614	1.71	16.77	50.80	0.68
CochranePB	M002	7812.33	100Year-Existing	13.77	138.52	139.32	139.32	139.44	0.025735	2.29	12.03	54.35	1.20
CochranePB	M002	7738.34	100Year-Existing	13.77	137.94	138.93	138.71	138.94	0.002260	0.86	36.34	128.54	0.38
CochranePB	M002	7695.32	100Year-Existing	13.77	137.67	138.60	138.60	138.74	0.016745	2.12	11.14	40.84	1.01
CochranePB	M002	7609.21	100Year-Existing	13.77	136.29	137.75	137.40	137.77	0.000854	0.81	33.37	74.86	0.26
CochranePB	M002	7515.77	100Year-Existing	13.77	136.28	137.62		137.66	0.002169	1.19	26.65	94.49	0.40
CochranePB	M002	7476.72	100Year-Existing	13.77	136.26	137.60		137.61	0.000629	0.64	39.87	90.97	0.22
CochranePB	M002	7450.86	100Year-Existing	13.77	136.25	137.57		137.59	0.001309	0.88	29.48	83.18	0.31
CochranePB	M002	7329.89	100Year-Existing	13.77	136.23	137.27		137.32	0.005121	1.40	18.80	74.58	0.58
CochranePB	M002	7253.62	100Year-Existing	13.77	136.05	137.10		137.12	0.002125	0.96	28.12	93.62	0.38
CochranePB	M002	7208.54	100Year-Existing	13.77	135.88	136.99		137.01	0.002608	1.10	26.91	100.69	0.42
CochranePB	M002	7108.13	100Year-Existing	13.77	135.54	136.51		136.58	0.011567	2.09	16.43	71.67	0.85
CochranePB	M002	7041.67	100Year-Existing	13.77	134.91	136.08		136.16	0.005162	1.50	17.31	75.92	0.60
CochranePB	M002	6985.71	100Year-Existing	13.77	134.29	135.64	135.64	135.81	0.007720	2.29	12.89	43.57	0.75
CochranePB	M002	6955.25	100Year-Existing	13.77	133.48	134.65	134.85	135.30	0.038792	3.69	4.32	11.01	1.56
CochranePB	M002	6863.52	100Year-Existing	13.77	131.82	132.83	132.87	133.03	0.022033	2.77	10.29	37.53	1.17
CochranePB	M002	6840.09	100Year-Existing	13.77	131.19	132.14	132.20	132.41	0.032086	2.92	8.65	36.75	1.38
CochranePB	M002	6808.25	100Year-Existing	13.77	130.51	131.43	131.46	131.60	0.027000	2.57	10.30	41.58	1.24
CochranePB	M002	6767.75	100Year-Existing	13.77	129.31	130.30	130.38	130.54	0.024636	2.69	9.46	43.55	1.23
CochranePB	M002	6727.78	100Year-Existing	13.77	128.36	129.48	129.52	129.69	0.018287	2.57	9.63	34.35	1.07
CochranePB	M002	6691.71	100Year-Existing	13.77	127.96	129.04	128.98	129.10	0.007113	1.61	17.64	70.90	0.68
CochranePB	M002	6651.54	100Year-Existing	13.77	127.68	128.66		128.76	0.010300	1.58	11.33	37.96	0.79
CochranePB	M002	6630.83	100Year-Existing	13.77	127.19	128.40	128.40	128.56	0.009394	2.05	11.58	49.92	0.80
CochranePB	M002	6534.50	100Year-Existing	13.77	126.30	127.29	127.30	127.43	0.015117	2.12	11.92	56.27	0.97
CochranePB	M002	6507.97	100Year-Existing	13.77	125.65	126.55	126.62	126.78	0.038895	2.87	9.44	54.58	1.46
CochranePB	M002	6480.50	100Year-Existing	13.77	124.97	125.92	125.93	126.05	0.020498	2.34	11.97	55.18	1.10
CochranePB	M002	6433.33	100Year-Existing	13.77	124.09	125.05	125.07	125.22	0.019090	2.12	9.21	36.14	1.07
CochranePB	M002	6400.96	100Year-Existing	13.77	123.40	124.57	124.40	124.63	0.004763	1.38	17.11	46.95	0.55
CochranePB	M002	6364.18	100Year-Existing	13.77	123.28	124.57		124.58	0.000276	0.40	48.41	114.60	0.14
CochranePB	M002	6314.31	100Year-Existing	13.77	123.27	124.51		124.55	0.001991	1.01	22.09	60.75	0.38
CochranePB	M002	6286.25	100Year-Existing	13.77	123.26	124.43		124.48	0.002929	1.16	19.32	59.39	0.45
CochranePB	M002	6202.53	100Year-Existing	13.77	122.81	124.03	123.95	124.15	0.006835	1.84	12.26	34.57	0.69
CochranePB	M002	6130.00	100Year-Existing	13.77	122.30	123.33	123.33	123.50	0.013436	1.88	8.55	33.23	0.91
CochranePB	M002	6040.82	100Year-Existing	13.77	121.41	122.59	122.47	122.64	0.002965	1.22	22.65	75.22	0.46
CochranePB	M002	6006.95	100Year-Existing	13.77	121.40	122.56		122.58	0.000959	0.58	32.15	99.27	0.25
CochranePB	M002	5976.09	100Year-Existing	13.77	121.39	122.39	122.39	122.49	0.014725	1.89	13.84	71.20	0.93
CochranePB	M002	5910.40	100Year-Existing	13.77	120.29	121.50	121.52	121.68	0.012812	2.37	11.34	43.96	0.92
CochranePB	M002	5863.68	100Year-Existing	13.77	119.62	120.52	120.62	120.84	0.038135	2.80	7.04	33.71	1.47
CochranePB	M002	5811.63	100Year-Existing	13.77	118.87	119.97	119.97	120.09	0.010933	2.06	13.38	52.46	0.85
CochranePB	M002	5768.42	100Year-Existing	13.77	117.38	118.31	118.53	119.04	0.088228	3.80	3.80	16.44	2.19
CochranePB	M002	5725.36	100Year-Existing	13.77	116.48	117.61	117.62	117.78	0.012181	2.12	10.63	40.28	0.89
CochranePB	M002	5678.58	100Year-Existing	13.77	115.39	116.44	116.58	116.84	0.031623	2.85	5.53	21.97	1.38
CochranePB	M002	5627.04	100Year-Existing	13.77	114.79	116.18	115.84	116.22	0.002242	1.19	20.71	45.68	0.41
CochranePB	M002	5609.94	100Year-Existing	20.70	114.77	115.97		116.10	0.007669	1.87	17.13	43.86	0.73
CochranePB	M002	5601.00	100Year-Existing	20.70	114.76	115.95		115.97	0.001502	0.84	47.88	110.35	0.32
CochranePB	M002	5568.52	100Year-Existing	20.70	114.75	115.92		115.93	0.001153	0.72	47.78	98.47	0.28

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	5508.20	100Year-Existing	20.70	114.04	115.61		115.78	0.004906	1.94	13.20	21.48	0.62
CochranePB	M002	5473.67	100Year-Existing	20.70	113.90	115.30	115.30	115.53	0.010676	2.53	12.99	27.52	0.89
CochranePB	M002	5403.83	100Year-Existing	20.70	110.69	111.84	112.32	113.66	0.102550	6.05	3.75	8.96	2.55
CochranePB	M002	5352.19	100Year-Existing	20.70	110.27	111.64	111.64	111.92	0.013406	2.66	10.87	21.83	0.98
CochranePB	M002	5309.83	100Year-Existing	20.70	109.64	111.06	111.14	111.35	0.013581	2.76	13.69	47.15	0.99
CochranePB	M002	5266.90	100Year-Existing	20.70	109.30	110.62	110.65	110.79	0.011447	2.44	19.92	83.13	0.90
CochranePB	M002	5213.45	100Year-Existing	20.70	108.81	110.39	109.88	110.41	0.000908	0.82	46.32	82.56	0.26
CochranePB	M002	5162.38	100Year-Existing	39.24	108.18	109.97	109.97	110.25	0.009866	3.23	27.29	53.99	0.90
CochranePB	M002	5109.83	100Year-Existing	39.24	108.02	109.48	109.18	109.52	0.003657	1.44	51.61	101.92	0.51
CochranePB	M002	5059.83	100Year-Existing	39.24	107.54	109.16		109.31	0.006983	2.36	36.72	86.42	0.74
CochranePB	M002	5013.20	100Year-Existing	39.24	107.21	108.86	108.86	109.01	0.008855	2.41	35.91	99.35	0.81
CochranePB	M002	4977.38	100Year-Existing	39.24	107.07	108.74	108.45	108.77	0.001713	1.21	72.14	148.32	0.37
CochranePB	M002	4908.49	100Year-Existing	39.24	106.95	108.71		108.72	0.000517	0.73	119.84	198.94	0.21
CochranePB	M002	4883.44	100Year-Existing	39.24	106.94	108.70		108.70	0.000305	0.55	140.41	213.57	0.16
CochranePB	M002	4816.97	100Year-Existing	39.24	106.93	108.69		108.69	0.000282	0.53	145.06	224.41	0.16
CochranePB	M002	4757.22	100Year-Existing	39.24	106.78	108.68		108.68	0.000199	0.49	168.68	259.29	0.13
CochranePB	M002	4718.65	100Year-Existing	39.24	106.77	108.67		108.67	0.000279	0.59	155.81	324.14	0.16
CochranePB	M002	4674.22	100Year-Existing	39.24	106.76	108.64		108.66	0.000677	0.91	108.60	266.05	0.25
CochranePB	M002	4633.22	100Year-Existing	39.24	106.75	108.62		108.64	0.000345	0.63	97.55	180.29	0.18
CochranePB	M002	4561.03	100Year-Existing	39.24	106.74	108.55		108.60	0.001135	1.11	59.34	99.52	0.32
CochranePB	M002	4506.74	100Year-Existing	39.24	106.43	108.22	108.22	108.45	0.007342	2.61	27.63	57.74	0.78
CochranePB	M002	4459.83	100Year-Existing	39.24	105.66	107.27	107.47	107.89	0.019542	3.78	16.10	45.00	1.23
CochranePB	M002	4409.53	100Year-Existing	39.24	104.62	106.26	106.43	106.88	0.020488	3.86	14.82	30.21	1.24
CochranePB	M002	4359.83	100Year-Existing	39.24	103.72	105.45	105.69	106.00	0.015052	3.51	15.67	33.90	1.08
CochranePB	M002	4327.93	100Year-Existing	39.24	103.17	105.00	105.12	105.54	0.014025	3.45	15.39	29.08	1.06
CochranePB	M002	4265.56	100Year-Existing	39.24	102.45	104.28	104.33	104.69	0.012200	3.36	18.23	27.77	0.99
CochranePB	M002	4208.11	100Year-Existing	39.24	101.67	103.33	103.48	103.88	0.015968	3.50	15.42	31.55	1.12
CochranePB	M002	4159.83	100Year-Existing	39.24	101.12	102.20	102.30	102.54	0.053148	3.44	16.66	48.20	1.75
CochranePB	M002	4109.83	100Year-Existing	39.24	98.84	100.50	100.70	101.11	0.017623	3.84	16.15	38.16	1.19
CochranePB	M002	4056.00	100Year-Existing	39.24	97.18	98.81	99.18	99.81	0.030881	4.79	10.71	16.94	1.53
CochranePB	M002	4009.83	100Year-Existing	39.24	96.33	98.19	98.30	98.59	0.016787	3.86	23.65	63.54	1.11
CochranePB	M002	3969.03	100Year-Existing	39.24	95.62	97.46	97.66	98.01	0.012301	3.62	16.46	52.50	1.02
CochranePB	M002	3916.58	100Year-Existing	39.24	94.82	96.93	97.07	97.36	0.010714	3.37	22.05	75.55	0.91
CochranePB	M002	3859.82	100Year-Existing	39.24	94.34	96.20	96.42	96.73	0.011567	3.29	14.31	41.91	0.96
CochranePB	M002	3810.05	100Year-Existing	39.24	93.50	95.36	95.67	96.06	0.015496	3.92	12.87	29.16	1.13
CochranePB	M002	3759.83	100Year-Existing	39.24	93.00	94.66	94.83	95.18	0.016100	3.70	18.83	55.32	1.13
CochranePB	M002	3709.28	100Year-Existing	39.24	92.33	94.11	94.20	94.45	0.011719	3.19	22.78	65.79	0.96
CochranePB	M002	3661.60	100Year-Existing	39.24	92.05	93.82	93.84	93.99	0.006616	2.48	37.95	134.19	0.73
CochranePB	M002	3609.83	100Year-Existing	39.24	91.73	93.44	93.46	93.61	0.007797	2.55	37.58	140.73	0.78
CochranePB	M002	3559.90	100Year-Existing	39.24	90.87	92.84	92.93	93.16	0.008519	3.07	27.80	81.11	0.84
CochranePB	M002	3509.83	100Year-Existing	39.24	90.38	92.22	92.36	92.64	0.012411	3.64	23.30	64.39	1.01
CochranePB	M002	3493.23	100Year-Existing	39.24	90.02	92.09	91.87	92.45	0.005683	3.26	18.95	15.45	0.74
CochranePB	M002	3480		Bridge									
CochranePB	M002	3474.26	100Year-Existing	39.24	89.91	92.14	91.47	92.33	0.002259	2.23	24.54	16.54	0.49
CochranePB	M002	3466.43	100Year-Existing	39.24	90.00	92.01	92.01	92.28	0.003582	2.66	31.55	74.37	0.61
CochranePB	M002	3454.35	100Year-Existing	39.24	89.94	91.88	91.44	92.15	0.003690	2.55	19.85	16.61	0.61
CochranePB	M002	3450		Bridge									
CochranePB	M002	3434.16	100Year-Existing	42.93	90.36	91.66	91.59	92.05	0.008606	2.97	17.27	20.11	0.87
CochranePB	M002	3413.11	100Year-Existing	42.93	90.14	91.61	91.61	91.77	0.007785	2.62	38.08	92.24	0.79
CochranePB	M002	3391.58	100Year-Existing	42.93	90.03	91.52		91.61	0.005115	2.23	47.35	105.04	0.66
CochranePB	M002	3371.12	100Year-Existing	42.93	90.02	91.29	91.29	91.47	0.008416	2.55	35.60	92.97	0.83
CochranePB	M002	3309.87	100Year-Existing	42.93	89.28	90.70	90.64	90.79	0.008364	2.56	42.03	107.08	0.79
CochranePB	M002	3272.96	100Year-Existing	42.93	88.73	90.24	90.23	90.43	0.010149	2.78	31.48	78.61	0.87
CochranePB	M002	3219.09	100Year-Existing	42.93	88.30	89.78	89.78	89.92	0.008788	2.54	36.99	108.02	0.82
CochranePB	M002	3175.54	100Year-Existing	42.93	87.36	89.48	89.28	89.61	0.002472	1.90	40.09	70.96	0.47
CochranePB	M002	3165		Bridge									
CochranePB	M002	3157.85	100Year-Existing	42.93	87.50	89.25	89.25	89.47	0.004959	2.45	32.98	81.72	0.65
CochranePB	M002	3135.32	100Year-Existing	42.93	87.85	89.12	89.04	89.18	0.004814	1.73	55.05	154.37	0.60
CochranePB	M002	3106.53	100Year-Existing	42.93	87.94	88.80	88.80	88.93	0.030024	2.74	29.87	118.41	1.31
CochranePB	M002	3088.94	100Year-Existing	42.93	86.84	88.58	88.37	88.68	0.002116	1.62	49.28	141.33	0.43
CochranePB	M002	3080		Bridge									
CochranePB	M002	3075.67	100Year-Existing	42.93	86.74	88.34	88.04	88.41	0.001777	1.41	55.78	130.99	0.39
CochranePB	M002	3056.89	100Year-Existing	42.93	87.66	88.27		88.34	0.013297	1.01	37.67	125.67	0.76
CochranePB	M002	3007.54	100Year-Existing	42.93	87.61	87.96		87.99	0.004179	0.43	52.17	108.89	0.33
CochranePB	M002	2976.31	100Year-Existing	42.93	87.51	87.86		87.89	0.003982	0.49	53.81	121.29	0.37
CochranePB	M002	2941.08	100Year-Existing	42.93	86.98	87.77		87.79	0.002694	0.80	77.35	221.76	0.39
CochranePB	M002	2920.10	100Year-Existing	42.93	86.74	87.75	87.54	87.76	0.000292	0.34	167.79	295.35	0.13
CochranePB	M002	2915		Bridge									
CochranePB	M002	2912.75	100Year-Existing	42.93	86.97	87.75	87.75	87.75	0.000176	0.28	200.70	313.30	0.11
CochranePB	M002	2890.23	100Year-Existing	42.93	86.65	86.84	87.00	87.53	0.385023	3.36	11.63	76.74	3.49
CochranePB	M002	2823.99	100Year-Existing	42.93	86.08	87.09	86.76	87.10	0.001436	0.68	101.06	253.86	0.27
CochranePB	M002	2789.49	100Year-Existing	42.93	86.04	87.07		87.08	0.001221	0.60	104.41	257.69	0.26
CochranePB	M002	2741.30	100Year-Existing	42.93	85.71	87.01		87.02	0.001005	0.77	111.10	269.19	0.27
CochranePB	M002	2663.79	100Year-Existing	42.93	85.58	86.97		86.98	0.001051	0.85	108.36	271.05	0.28
CochranePB	M002	2639.38	100Year-Existing	42.93	85.57	86.93		86.95	0.001306	0.89	99.24	238.08	0.31
CochranePB	M002	2616.24	100Year-Existing	42.93	85.30	86.92		86.93	0.000763	0.81	116.10	233.82	0.25
CochranePB	M002	2539.69	100Year-Existing	42.93	85.41	86.87		86.88	0.001297	0.92	96.01	223.25	0.31
CochranePB	M002	2489.06	100Year-Existing	42.93	85.18	86.82		86.84	0.001404	1.11	89.90	204.95	0.33
CochranePB	M002	2438.28	100Year-Existing	42.93	84.87	86.76		86.79	0.001426	1.21	84.10	176.31	0.35
CochranePB	M002	2384.01	100Year-Existing	42.93	84.65	86.67		86.71	0.002079	1.56	70.27	146.61	0.42
CochranePB	M002	2310.47	100Year-Existing	42.93	84.33	86.43		86.52	0.003656	2.02	53.38	127.88	0.54
CochranePB	M002	2284.63	100Year-Existing	42.93	84.16	86.37		86.42	0.002810	1.79	58.13	105.84	0.46
CochranePB	M002	2240.58	100Year-Existing	42.93	84.04	85.94	85.94	86.20	0.009226	3.09	26.98	45.90	0.86
CochranePB	M002	2170.94	100Year-Existing	42.93	82.26	83.97	84.29	85.07	0.030817	5.02	11.20	17.04	1.55
CochranePB	M002	2136.89	100Year-Existing	42.93	81.72	83.40	83.56	84.08	0.020746	3.90	14.13	24.48	1.26
CochranePB	M002	2100.01	100Year-Existing	42.93	81.30	83.19	83.21	83.50	0.009782	2.98	23.96	40.82	0.88
CochranePB	M002	2046.85	100Year-Existing	42.93	80.89	82.69	82.70	83.01	0.008764	2.75	22.45	40.67	0.84
CochranePB	M002	2014.35	100Year-Existing	42.93	80.47	81.92	82.09	82.52	0.028016	3.73	15.95	40.58	1.41
CochranePB	M002	1990.76	100Year-Existing	42.93	80.10	81.92	81.92	82.18	0.009301	2.81	26.09	44.71	0.85
CochranePB	M002	1945.20	100Year-Existing	42.93	79.43	81.56	81.19	81.67	0.003217	1.94	40.37	53.13	0.52

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	1916.67	100Year-Existing	42.93	79.31	81.41		81.55	0.004556	2.30	34.81	43.88	0.61
CochranePB	M002	1871.48	100Year-Existing	42.93	79.28	81.25		81.36	0.003774	1.90	38.41	49.30	0.55
CochranePB	M002	1836.03	100Year-Existing	42.93	78.83	81.20		81.26	0.001525	1.48	51.07	72.49	0.37
CochranePB	M002	1788.63	100Year-Existing	42.93	78.46	80.80	80.80	81.10	0.007219	3.18	26.83	39.24	0.78
CochranePB	M002	1768.08	100Year-Existing	42.93	78.14	80.05	80.29	80.82	0.021051	4.56	15.23	26.14	1.29
CochranePB	M002	1733.19	100Year-Existing	42.93	77.95	79.96	79.99	80.27	0.007669	2.85	26.27	48.49	0.80
CochranePB	M002	1694.89	100Year-Existing	42.93	77.12	79.30	78.88	79.41	0.002477	1.78	38.20	42.81	0.47
CochranePB	M002	1685.79	100Year-Existing	42.93	77.06	79.24		79.38	0.003393	2.08	33.35	39.94	0.54
CochranePB	M002	1640.51	100Year-Existing	42.93	76.45	78.74	78.74	79.13	0.007405	3.22	21.16	29.17	0.80
CochranePB	M002	1602.99	100Year-Existing	42.93	75.01	76.46	76.98	78.34	0.074729	6.33	8.10	15.80	2.30
CochranePB	M002	1585.52	100Year-Existing	42.93	74.01	75.32	75.72	76.80	0.086878	5.86	9.34	20.77	2.40
CochranePB	M002	1569.47	100Year-Existing	42.93	73.71	75.00	75.18	75.64	0.038419	3.67	12.97	27.37	1.58
CochranePB	M002	1541.97	100Year-Existing	42.93	72.31	74.10	74.30	74.84	0.021737	4.17	13.35	19.02	1.29
CochranePB	M002	1510.83	100Year-Existing	42.93	71.34	72.54	72.84	73.63	0.082185	4.65	9.47	23.65	2.25
CochranePB	M002	1495.27	100Year-Existing	42.93	71.19	73.00	72.73	73.14	0.004141	1.80	31.50	42.31	0.58
CochranePB	M002	1458.62	100Year-Existing	42.93	70.58	72.64	72.64	72.89	0.008083	3.26	30.58	50.35	0.83
CochranePB	M002	1419.61	100Year-Existing	42.93	70.21	72.11	72.04	72.42	0.008988	3.14	24.08	36.59	0.87
CochranePB	M002	1384.56	100Year-Existing	42.93	69.61	71.92	71.92	72.19	0.004470	2.57	28.24	59.79	0.64
CochranePB	M002	1351.51	100Year-Existing	42.93	69.54	71.62	71.74	72.00	0.008380	3.27	26.18	73.64	0.86
CochranePB	M002	1311.78	100Year-Existing	42.93	69.49	71.39	71.43	71.63	0.007444	2.88	34.67	107.09	0.79
CochranePB	M002	1291.19	100Year-Existing	42.93	69.28	70.99	71.13	71.41	0.014835	3.64	25.32	90.45	1.08
CochranePB	M002	1217.75	100Year-Existing	42.93	68.70	70.87	70.34	70.91	0.000799	1.12	72.23	123.08	0.28
CochranePB	M002	1200.39	100Year-Existing	42.93	68.69	70.56	70.21	70.86	0.004649	2.45	18.18	18.75	0.65
CochranePB	M002	1190		Bridge									
CochranePB	M002	1185.68	100Year-Existing	44.01	68.46	70.50	69.91	70.73	0.002720	2.13	21.23	25.30	0.52
CochranePB	M002	1164.32	100Year-Existing	44.01	68.65	70.41	70.41	70.65	0.005794	2.73	31.50	81.42	0.72
CochranePB	M002	1132.60	100Year-Existing	44.01	68.60	69.82	69.97	70.26	0.027863	3.77	22.38	100.77	1.41
CochranePB	M002	1111.68	100Year-Existing	44.01	68.55	69.83	69.63	69.88	0.004299	1.76	56.26	153.56	0.58
CochranePB	M002	1059.95	100Year-Existing	44.01	68.38	69.67		69.74	0.004009	1.94	54.82	146.66	0.58
CochranePB	M002	998.99	100Year-Existing	44.01	68.13	69.57		69.59	0.001326	1.19	91.63	187.59	0.33
CochranePB	M002	955.54	100Year-Existing	44.01	68.12	69.57		69.57	0.000137	0.38	210.85	257.62	0.11
CochranePB	M002	851.16	100Year-Existing	44.01	67.62	69.56		69.56	0.000074	0.33	249.08	247.73	0.08
CochranePB	M002	798.06	100Year-Existing	44.01	67.47	69.56		69.56	0.000039	0.25	319.63	284.64	0.06
CochranePB	M002	746.77	100Year-Existing	44.01	67.30	69.56		69.56	0.000017	0.18	425.61	319.84	0.04
CochranePB	M002	694.52	100Year-Existing	44.01	66.98	69.56		69.56	0.000011	0.16	514.57	365.63	0.03
CochranePB	M002	669.16	100Year-Existing	44.01	66.97	69.56		69.56	0.000009	0.14	571.95	400.69	0.03
CochranePB	M002	590.19	100Year-Existing	44.01	66.84	69.56		69.56	0.000006	0.12	681.43	487.38	0.03
CochranePB	M002	539.85	100Year-Existing	44.01	66.81	69.56		69.56	0.000006	0.12	696.17	503.83	0.03
CochranePB	M002	488.40	100Year-Existing	44.01	66.54	69.56		69.56	0.000005	0.11	737.82	512.54	0.02
CochranePB	M001	381.27	100Year-Existing	87.48	66.35	69.56		69.56	0.000022	0.22	854.34	602.96	0.04
CochranePB	M001	313.14	100Year-Existing	87.48	66.28	69.55		69.56	0.000016	0.17	1005.38	672.42	0.03

Petty Harbour River 100yr Q-20%

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	TR001	439.21	100Year-Existing	29.52	105.11	106.39	106.15	106.48	0.005110	1.86	32.80	58.61	0.55
RaymondB	TR001	409.42	100Year-Existing	29.52	104.68	105.92	105.92	106.22	0.014770	3.08	17.56	29.69	0.94
RaymondB	TR001	380.07	100Year-Existing	29.52	104.05	105.78	105.10	105.85	0.001781	1.37	39.81	55.40	0.35
RaymondB	TR001	360.64	100Year-Existing	29.52	103.60	105.78	104.99	105.81	0.000815	1.05	60.15	80.17	0.24
RaymondB	TR001	350		Bridge									
RaymondB	TR001	344.45	100Year-Existing	29.52	103.30	104.56	104.95	105.51	0.040418	5.04	9.31	28.10	1.51
RaymondB	TR001	334.13	100Year-Existing	29.52	103.40	104.32	104.60	105.04	0.037587	3.95	10.28	36.53	1.41
RaymondB	TR001	272.22	100Year-Existing	29.52	102.83	103.82	103.82	104.11	0.020083	3.06	17.22	39.86	1.05
RaymondB	TR001	218.50	100Year-Existing	29.52	101.42	102.69	102.77	103.13	0.016227	3.25	13.98	25.85	0.98
RaymondB	TR001	163.97	100Year-Existing	29.52	100.32	101.76	101.26	101.89	0.003666	1.69	22.02	24.96	0.48
RaymondB	TR001	115.54	100Year-Existing	29.52	100.00	101.13	101.13	101.52	0.018479	3.33	13.79	20.61	1.04
RaymondB	TR001	56.65	100Year-Existing	29.52	97.73	98.45	98.77	99.51	0.083767	4.89	7.45	15.85	2.01
RaymondB	M002	6453.60	100Year-Existing	15.76	118.10	125.17	118.83	125.17	0.000000	0.03	652.82	232.66	0.00
RaymondB	M002	6405.52	100Year-Existing	15.76	118.00	125.17		125.17	0.000000	0.03	663.37	226.54	0.00
RaymondB	M002	6347.04	100Year-Existing	15.76	124.73	125.11		125.17	0.006526	1.02	15.64	41.26	0.52
RaymondB	M002	6247.26	100Year-Existing	15.76	117.21	118.20		118.25	0.003698	1.31	20.92	34.63	0.45
RaymondB	M002	6230.10	100Year-Existing	15.76	117.20	118.19		118.21	0.001653	0.86	26.00	42.07	0.30
RaymondB	M002	6205.35	100Year-Existing	15.76	117.28	118.15		118.17	0.001522	0.76	35.92	58.63	0.28
RaymondB	M002	6143.06	100Year-Existing	15.76	117.18	118.04		118.06	0.002236	0.90	31.59	60.92	0.34
RaymondB	M002	6105.93	100Year-Existing	15.76	117.17	117.91		117.94	0.003390	0.98	23.06	57.21	0.41
RaymondB	M002	6026.35	100Year-Existing	15.76	116.81	117.70		117.73	0.002095	0.90	27.71	45.71	0.33
RaymondB	M002	5933.71	100Year-Existing	15.76	116.42	117.42		117.48	0.003374	1.25	20.25	52.06	0.43
RaymondB	M002	5883.92	100Year-Existing	15.76	116.12	117.19		117.29	0.004241	1.45	14.63	26.47	0.48
RaymondB	M002	5785.15	100Year-Existing	15.76	115.75	116.74		116.83	0.005231	1.47	15.17	29.40	0.53
RaymondB	M002	5732.44	100Year-Existing	15.76	115.46	116.41		116.52	0.006129	1.55	12.24	24.08	0.57
RaymondB	M002	5631.37	100Year-Existing	15.76	114.85	115.69		115.78	0.008999	1.62	16.39	44.94	0.66
RaymondB	M002	5500.15	100Year-Existing	15.76	114.62	115.58		115.59	0.000761	0.56	56.11	126.42	0.20
RaymondB	M002	5485.46	100Year-Existing	15.76	114.53	115.57		115.58	0.000476	0.48	69.81	160.82	0.16
RaymondB	M002	5411.19	100Year-Existing	15.76	114.48	115.50	115.15	115.52	0.001430	0.79	30.07	64.94	0.28
RaymondB	M002	5338.54	100Year-Existing	15.76	114.41	115.50	114.76	115.50	0.000103	0.23	80.22	108.81	0.08
RaymondB	M002	5278.93	100Year-Existing	15.76	114.44	115.49	114.81	115.49	0.000152	0.27	70.49	109.74	0.09
RaymondB	M002	5226.60	100Year-Existing	15.76	114.42	115.48		115.48	0.000174	0.28	75.10	124.58	0.10
RaymondB	M002	5171.66	100Year-Existing	15.76	114.42	115.47		115.47	0.000184	0.30	86.01	174.27	0.10
RaymondB	M002	5111.50	100Year-Existing	15.76	114.42	115.44		115.45	0.000638	0.56	46.55	102.00	0.19
RaymondB	M002	5077.48	100Year-Existing	15.76	114.38	115.42		115.43	0.000562	0.52	40.90	77.23	0.18
RaymondB	M002	5017.13	100Year-Existing	15.76	114.40	115.30		115.36	0.003062	1.08	15.85	26.18	0.40
RaymondB	M002	4967.43	100Year-Existing	15.76	114.07	115.04		115.16	0.005579	1.53	11.17	17.30	0.55
RaymondB	M002	4943.43	100Year-Existing	15.76	113.82	114.93		115.03	0.004712	1.55	13.79	23.88	0.51
RaymondB	M002	4910.95	100Year-Existing	15.76	113.67	114.78		114.88	0.004546	1.54	14.93	28.27	0.50
RaymondB	M002	4851.17	100Year-Existing	15.76	113.47	114.50		114.60	0.005021	1.53	14.96	29.83	0.52
RaymondB	M002	4783.73	100Year-Existing	15.76	113.30	114.19		114.25	0.004840	1.23	16.11	35.45	0.49
RaymondB	M002	4732.68	100Year-Existing	15.76	113.07	113.92		113.98	0.005899	1.33	18.23	42.89	0.54
RaymondB	M002	4681.76	100Year-Existing	15.76	112.35	113.26	113.26	113.51	0.014011	2.36	8.82	25.50	0.86
RaymondB	M002	4673.96	100Year-Existing	15.76	111.74	112.54	112.78	113.27	0.053178	3.96	4.83	11.55	1.61
RaymondB	M002	4644.78	100Year-Existing	15.76	110.49	111.35	111.52	111.96	0.036383	3.56	5.10	21.65	1.36
RaymondB	M002	4625.72	100Year-Existing	15.76	106.75	107.27	107.77	110.06	0.441053	7.41	2.13	6.67	4.14
RaymondB	M002	4615.42	100Year-Existing	15.76	105.83	106.52	106.82	107.59	0.104770	4.69	3.74	9.61	2.16
RaymondB	M002	4607.06	100Year-Existing	15.76	105.79	106.95	106.82	107.22	0.010178	2.39	7.76	9.59	0.76
RaymondB	M002	4597.34	100Year-Existing	15.76	105.76	106.92		107.11	0.008679	2.08	10.11	16.19	0.69
RaymondB	M002	4575.18	100Year-Existing	15.76	105.98	106.52	106.52	106.74	0.044617	2.50	7.99	19.38	1.33
RaymondB	M002	4545.57	100Year-Existing	15.76	104.65	105.73	105.78	106.03	0.014685	2.61	8.57	20.84	0.89
RaymondB	M002	4522.17	100Year-Existing	15.76	103.67	104.35	104.63	105.29	0.080131	4.48	4.33	12.70	1.93
RaymondB	M002	4511.42	100Year-Existing	15.76	103.62	104.80	104.51	104.89	0.004599	1.58	15.55	24.39	0.51
RaymondB	M002	4489.94	100Year-Existing	15.76	103.59	104.46	104.46	104.71	0.015909	2.43	9.14	20.61	0.91
RaymondB	M002	4466.63	100Year-Existing	15.76	103.03	104.24	103.86	104.33	0.003672	1.45	15.58	32.41	0.46
RaymondB	M002	4439.46	100Year-Existing	15.76	103.00	103.97	103.97	104.15	0.011761	2.24	12.35	38.10	0.79
RaymondB	M002	4415.77	100Year-Existing	15.76	102.78	103.48	103.55	103.75	0.025226	2.49	8.83	33.92	1.09
RaymondB	M002	4385.89	100Year-Existing	15.76	101.80	102.65	102.77	103.02	0.023043	2.87	7.39	20.34	1.09
RaymondB	M002	4354.01	100Year-Existing	15.76	101.27	102.08	102.09	102.28	0.020343	2.66	11.76	32.99	1.02
RaymondB	M002	4341.66	100Year-Existing	15.76	100.84	101.83	101.87	102.06	0.014217	2.44	11.28	33.04	0.87
RaymondB	M002	4332.73	100Year-Existing	15.76	100.32	101.06	101.32	101.79	0.055064	3.96	4.97	12.48	1.63
RaymondB	M002	4308.73	100Year-Existing	15.76	98.87	99.54	99.77	100.29	0.071103	4.13	4.96	12.94	1.80
RaymondB	M002	4294.65	100Year-Existing	15.76	98.45	99.33	99.37	99.67	0.021053	2.83	7.46	14.04	1.04
RaymondB	M002	4263.86	100Year-Existing	15.76	97.59	98.95	98.44	99.03	0.002537	1.36	15.95	20.47	0.39
RaymondB	M002	4235.25	100Year-Existing	15.76	97.47	98.94		98.97	0.001064	0.92	22.56	24.66	0.26
RaymondB	M001	4130.35	100Year-Existing	44.32	96.57	98.02	97.98	98.43	0.014031	2.90	17.00	21.10	0.90
RaymondB	M001	4076.94	100Year-Existing	44.32	96.04	97.73	97.45	97.92	0.005418	2.07	27.68	34.78	0.58
RaymondB	M001	4023.53	100Year-Existing	44.32	95.94	97.07	97.07	97.42	0.017835	2.69	18.08	27.91	0.97
RaymondB	M001	3978.20	100Year-Existing	44.32	94.64	96.72	96.17	96.81	0.002466	1.36	39.24	51.39	0.39
RaymondB	M001	3916.71	100Year-Existing	60.24	94.64	96.43		96.59	0.004682	2.11	48.23	63.92	0.55
RaymondB	M001	3863.30	100Year-Existing	60.24	94.41	96.25		96.37	0.003455	1.88	58.14	77.52	0.48
RaymondB	M001	3809.58	100Year-Existing	60.24	94.09	95.78	95.71	96.08	0.009073	2.81	33.63	45.60	0.76
RaymondB	M001	3756.26	100Year-Existing	60.24	93.53	95.06	95.06	95.49	0.013120	3.16	26.39	34.96	0.90
RaymondB	M001	3694.37	100Year-Existing	60.24	92.66	94.13	94.17	94.60	0.015361	3.20	22.04	31.99	0.96
RaymondB	M001	3569.22	100Year-Existing	60.24	92.15	94.12	93.45	94.15	0.000998	1.05	106.77	123.38	0.26
RaymondB	M001	3527.64	100Year-Existing	60.24	91.85	94.10		94.12	0.000615	0.91	112.42	100.38	0.21
RaymondB	M001	3446.51	100Year-Existing	60.24	91.14	94.07		94.08	0.000287	0.72	164.29	159.00	0.15
RaymondB	M001	3421.64	100Year-Existing	60.24	91.23	93.64	92.90	94.03	0.004294	2.78	22.17	136.89	0.57
RaymondB	M001	3410		Bridge									
RaymondB	M001	3404.11	100Year-Existing	60.24	91.23	92.96	92.96	93.77	0.014806	4.03	15.24	79.52	1.00
RaymondB	M001	3380.48	100Year-Existing	60.24	90.96	92.89	92.36	93.03	0.003467	1.91	48.27	64.16	0.48
RaymondB	M001	3308.92	100Year-Existing	60.24	90.80	92.45		92.68	0.007040	2.52	38.01	48.07	0.67
RaymondB	M001	3216.73	100Year-Existing	60.24	89.31	92.14	90.99	92.35	0.002078	2.04	30.55	56.40	0.40
RaymondB	M001	3200		Bridge									
RaymondB	M001	3188.78	100Year-Existing	60.24	89.30	91.54	91.37	92.11	0.009146	3.60	19.86	40.67	0.80
RaymondB	M001	3015.18	100Year-Existing	60.24	89.18	90.85		90.97	0.003427	1.77	52.34	65.84	0.47
RaymondB	M001	2876.32	100Year-Existing	60.24	88.66	90.26		90.42	0.005582	2.08	42.91	64.79	0.59
RaymondB	M001	2789.37	100Year-Existing	60.24	88.24	90.02		90.08	0.002490	1.52	88.28	159.27	0.40
RaymondB	M001	2681.85	100Year-Existing	60.24	88.14	89.50		89.64	0.009664	2.36	52.24	123.38	0.74
RaymondB	M001	2604.32	100Year-Existing	60.24	87.97	89.31		89.34	0.002182	1.17	100.28	196.14	0.36

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	M001	2531.57	100Year-Existing	60.24	87.97	89.26		89.27	0.000740	0.63	167.87	277.94	0.20
RaymondB	M001	2385.34	100Year-Existing	60.24	87.43	89.18		89.21	0.001694	1.25	126.21	247.72	0.33
RaymondB	M001	2245.72	100Year-Existing	60.24	86.99	88.73	88.54	88.94	0.005830	2.29	41.02	75.47	0.61
RaymondB	M001	2194.47	100Year-Existing	60.24	86.68	88.72		88.77	0.001296	1.23	88.91	94.65	0.30
RaymondB	M001	2140.67	100Year-Existing	60.24	86.59	88.60		88.68	0.002120	1.54	68.78	70.33	0.38
RaymondB	M001	2087.60	100Year-Existing	60.24	86.38	88.44		88.56	0.002337	1.65	50.22	43.50	0.40
RaymondB	M001	2069.54	100Year-Existing	60.24	86.35	88.39		88.51	0.002657	1.76	50.47	49.30	0.43
RaymondB	M001	2040.77	100Year-Existing	60.24	86.25	88.31		88.43	0.002684	1.74	53.92	73.18	0.43
RaymondB	M001	1989.18	100Year-Existing	60.24	86.02	88.08	87.66	88.26	0.004040	2.15	48.41	71.79	0.52
RaymondB	M001	1950.22	100Year-Existing	60.24	85.79	87.57	87.39	87.99	0.011510	3.18	29.42	50.41	0.85
RaymondB	M001	1885.73	100Year-Existing	60.24	85.34	87.14		87.36	0.007105	2.48	37.94	47.84	0.67
RaymondB	M001	1835.84	100Year-Existing	60.24	84.64	86.38	86.38	86.85	0.015297	3.55	25.25	28.03	0.97
RaymondB	M001	1784.61	100Year-Existing	60.24	84.10	85.34	85.43	85.80	0.028743	3.57	24.67	39.87	1.24
RaymondB	M001	1733.38	100Year-Existing	60.24	82.79	84.78	84.25	84.90	0.002860	1.74	51.10	47.59	0.44
RaymondB	M001	1682.15	100Year-Existing	60.24	82.60	84.43		84.68	0.006326	2.37	31.76	32.21	0.64
RaymondB	M001	1630.92	100Year-Existing	60.24	82.12	83.93	83.82	84.29	0.008905	2.76	27.33	35.81	0.75
RaymondB	M001	1584.49	100Year-Existing	60.24	81.77	83.69		83.91	0.005872	2.34	35.53	44.70	0.61
RaymondB	M001	1536.01	100Year-Existing	60.24	81.31	83.29	83.17	83.58	0.007541	2.70	32.52	41.91	0.69
RaymondB	M001	1477.96	100Year-Existing	60.24	80.96	82.86		83.15	0.007410	2.60	32.68	40.90	0.68
RaymondB	M001	1425.99	100Year-Existing	60.24	80.58	82.56		82.80	0.005682	2.37	34.86	39.89	0.61
RaymondB	M001	1372.05	100Year-Existing	60.24	80.25	82.32		82.49	0.004957	2.25	39.17	37.01	0.57
RaymondB	M001	1323.54	100Year-Existing	60.24	79.11	81.56	81.04	82.10	0.006260	3.24	18.58	15.47	0.68
RaymondB	M001	1315		Bridge									
RaymondB	M001	1303.54	100Year-Existing	60.24	78.01	80.58	80.25	81.21	0.008524	3.53	17.06	20.38	0.77
RaymondB	M001	1252.39	100Year-Existing	62.80	78.45	80.33	80.33	80.75	0.012831	3.30	27.11	31.35	0.88
RaymondB	M001	1216.25	100Year-Existing	62.80	77.86	79.75	79.87	80.25	0.014683	3.67	27.80	42.07	0.97
RaymondB	M001	1189.75	100Year-Existing	62.80	77.61	79.06	79.24	79.70	0.030404	3.95	21.57	37.20	1.29
RaymondB	M001	1166.20	100Year-Existing	62.80	76.74	78.23	78.44	78.93	0.032262	4.38	23.92	51.34	1.36
RaymondB	M001	1148.70	100Year-Existing	62.80	76.50	78.08	78.14	78.44	0.017152	3.23	31.15	55.01	0.99
RaymondB	M001	1116.25	100Year-Existing	62.80	75.83	77.13	77.26	77.70	0.029213	3.48	20.95	36.64	1.24
RaymondB	M001	1066.09	100Year-Existing	62.80	75.16	76.81	76.67	77.05	0.007445	2.39	36.73	51.70	0.68
RaymondB	M001	1035.68	100Year-Existing	62.80	74.73	76.22	76.22	76.70	0.016989	3.31	23.51	28.65	1.00
RaymondB	M001	999.99	100Year-Existing	62.80	73.32	74.64	74.97	75.73	0.042376	4.80	15.13	20.91	1.54
RaymondB	M001	976.73	100Year-Existing	62.80	73.03	74.64	74.65	75.07	0.012576	3.16	28.02	42.96	0.89
RaymondB	M001	942.15	100Year-Existing	62.80	72.18	73.19	73.48	74.07	0.094190	5.70	17.79	34.07	2.17
RaymondB	M001	916.70	100Year-Existing	62.80	70.82	72.19	72.35	72.70	0.028976	4.17	27.90	66.09	1.29
RaymondB	M001	892.34	100Year-Existing	62.80	70.36	71.72	71.79	72.24	0.019328	3.47	23.94	41.68	1.06
RaymondB	M001	866.25	100Year-Existing	62.80	70.04	71.80	71.28	71.96	0.003700	1.86	44.89	62.60	0.49
RaymondB	M001	841.89	100Year-Existing	62.80	69.92	71.61	71.39	71.84	0.005886	2.34	41.77	87.10	0.62
RaymondB	M001	816.68	100Year-Existing	62.80	69.74	71.31	71.31	71.64	0.010105	2.91	34.71	56.38	0.80
RaymondB	M001	766.25	100Year-Existing	62.80	69.16	70.07	70.23	70.63	0.054511	4.17	21.96	45.78	1.64
RaymondB	M001	716.25	100Year-Existing	62.80	68.39	69.91	69.65	70.06	0.005267	2.04	44.22	64.66	0.57
RaymondB	M001	675.00	100Year-Existing	62.80	68.14	69.68		69.84	0.005691	2.13	45.80	58.96	0.60
RaymondB	M001	615.86	100Year-Existing	62.80	67.75	69.51		69.60	0.002545	1.61	76.80	149.58	0.41
RaymondB	M001	565.77	100Year-Existing	62.80	67.44	69.44		69.49	0.001472	1.33	92.48	175.67	0.32
RaymondB	M001	520.15	100Year-Existing	62.80	67.26	69.43		69.44	0.000523	0.83	166.11	273.90	0.19
RaymondB	M001	468.54	100Year-Existing	62.80	66.98	69.42		69.43	0.000156	0.50	267.07	318.46	0.11
RaymondB	M001	429.18	100Year-Existing	62.80	66.80	69.42		69.42	0.000050	0.30	423.81	421.36	0.06
RaymondB	M001	366.25	100Year-Existing	62.80	66.65	69.42		69.42	0.000021	0.20	679.05	636.52	0.04
RaymondB	M001	341.79	100Year-Existing	62.80	66.63	69.42		69.42	0.000015	0.17	773.14	664.97	0.03
PettyHR	M002	6270.85	100Year-Existing	80.96	66.23	69.42		69.42	0.000001	0.05	1873.59	827.83	0.01
PettyHR	M002	6218.07	100Year-Existing	80.96	66.23	69.42		69.42	0.000001	0.06	1742.11	837.71	0.01
PettyHR	M002	6095.00	100Year-Existing	80.96	66.23	69.42		69.42	0.000001	0.05	1675.40	828.34	0.01
PettyHR	M002	6004.71	100Year-Existing	80.96	66.23	69.42		69.42	0.000001	0.05	1722.34	857.76	0.01
PettyHR	M001	5825.85	100Year-Existing	136.96	66.23	69.42		69.42	0.000002	0.07	2036.76	838.55	0.01
PettyHR	M001	5685.44	100Year-Existing	136.96	66.23	69.42		69.42	0.000002	0.07	1987.26	726.18	0.01
PettyHR	M001	5516.39	100Year-Existing	151.76	66.23	69.42		69.42	0.000003	0.09	1736.76	626.79	0.02
PettyHR	M001	5279.80	100Year-Existing	151.76	66.23	69.42		69.42	0.000007	0.13	1174.47	423.02	0.02
PettyHR	M001	4996.75	100Year-Existing	151.76	66.23	69.41		69.41	0.000035	0.29	553.67	207.39	0.05
PettyHR	M001	4923.81	100Year-Existing	151.76	66.23	69.35		69.40	0.000471	1.04	179.33	85.68	0.20
PettyHR	M001	4867.41	100Year-Existing	151.76	66.23	69.26		69.36	0.001264	1.69	148.27	92.85	0.32
PettyHR	M001	4817.61	100Year-Existing	151.76	66.58	69.19		69.28	0.001683	1.84	143.03	91.07	0.37
PettyHR	M001	4757.18	100Year-Existing	151.76	66.43	68.54	68.54	69.04	0.010131	3.87	67.67	64.08	0.86
PettyHR	M001	4675.66	100Year-Existing	151.76	65.88	67.94	67.45	68.21	0.005276	2.77	79.07	50.56	0.62
PettyHR	M001	4612.84	100Year-Existing	151.76	64.88	67.13	66.77	67.72	0.010315	4.10	58.44	43.10	0.88
PettyHR	M001	4570.09	100Year-Existing	151.76	64.62	66.72	66.72	67.28	0.010027	3.76	59.92	54.60	0.85
PettyHR	M001	4500.69	100Year-Existing	151.76	64.62	66.37	66.02	66.59	0.004867	2.33	87.12	74.76	0.58
PettyHR	M001	4461.12	100Year-Existing	151.76	64.55	65.95	65.95	66.31	0.014788	3.50	74.13	90.79	0.97
PettyHR	M001	4428.20	100Year-Existing	151.76	64.41	65.73	65.49	65.93	0.010736	2.78	87.22	89.02	0.81
PettyHR	M001	4395.66	100Year-Existing	151.76	63.81	65.37		65.62	0.007390	2.68	85.38	81.11	0.70
PettyHR	M001	4357.04	100Year-Existing	151.76	63.34	65.23		65.38	0.003929	2.26	108.19	80.67	0.53
PettyHR	M001	4281.82	100Year-Existing	151.76	62.50	65.15		65.23	0.000918	1.35	133.86	58.65	0.27
PettyHR	M001	4166.17	100Year-Existing	151.76	61.82	65.16		65.18	0.000127	0.58	375.42	162.46	0.10
PettyHR	M001	3949.19	100Year-Existing	151.76	61.31	65.17		65.17	0.000000	0.03	4723.61	1314.20	0.01
PettyHR	M001	3936.78	100Year-Existing	151.76	61.31	65.17		65.17	0.000000	0.03	5832.65	1568.77	0.00
PettyHR	M001	3931.39	100Year-Existing	99.60	61.31	65.17		65.17	0.000000	0.01	7324.66	2004.31	0.00
PettyHR	M001	3925.44	100Year-Existing	99.60	61.31	65.17		65.17	0.000000	0.03	3625.06	1001.56	0.00
PettyHR	M001	3867.05	100Year-Existing	99.60	61.31	65.17		65.17	0.000000	0.03	3657.23	982.60	0.00
PettyHR	M001	3643.73	100Year-Existing	99.60	61.31	65.17		65.17	0.000000	0.02	4202.60	1113.20	0.00
PettyHR	M001	3440.60	100Year-Existing	99.60	61.31	65.17		65.17	0.000001	0.05	2130.60	580.59	0.01
PettyHR	M001	3182.65	100Year-Existing	99.60	61.31	65.17		65.17	0.000001	0.06	1597.09	424.68	0.01
PettyHR	M001	3080.13	100Year-Existing	99.60	61.31	65.17		65.17	0.000001	0.06	1884.60	512.14	0.01
PettyHR	M001	3028.13	100Year-Existing	99.60	61.31	65.17		65.17	0.000001	0.05	2061.48	558.58	0.01
PettyHR	M001	2983.09	100Year-Existing	99.60	61.31	65.17		65.17	0.000001	0.06	1679.93	450.76	0.01
PettyHR	M001	2828.46	100Year-Existing	99.60	61.31	65.17		65.17	0.000003	0.11	986.49	278.83	0.02
PettyHR	M001	2712.72	100Year-Existing	99.60	61.31	65.17		65.17	0.000011	0.19	563.68	179.56	0.03
PettyHR	M001	2671.95	100Year-Existing	99.60	61.31	65.17		65.17	0.000017	0.24	508.24	173.77	0.04
PettyHR	M001	2653.10	100Year-Existing	99.60	61.31	65.17		65.17	0.000024	0.29	435.03	155.22	0.05
PettyHR	M001	2632.46	100Year-Existing	99.60	61.31	65.16		65.17	0.000097	0.57	259.44	115.02	0.09
PettyHR	M001	2596.08	100Year-Existing	99.60	61.31	65.15		65.16	0.000112	0.62	230.82	111.76	0.10

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	2583.24	100Year-Existing	99.60	60.10	65.06	62.80	65.15	0.000634	1.54	129.32	108.54	0.24
PettyHR	M001	2580		Bridge									
PettyHR	M001	2573.39	100Year-Existing	99.60	60.00	64.93	62.37	64.98	0.000307	1.08	157.75	84.66	0.17
PettyHR	M001	2551.09	100Year-Existing	99.60	59.89	64.96		64.96	0.000025	0.31	372.71	105.94	0.05
PettyHR	M001	2426.14	100Year-Existing	99.60	59.27	64.96		64.96	0.000002	0.09	1170.99	268.42	0.01
PettyHR	M001	2315.39	100Year-Existing	99.60	58.72	64.96		64.96	0.000001	0.07	1436.79	316.40	0.01
PettyHR	M001	2204.15	100Year-Existing	99.60	58.16	64.96		64.96	0.000001	0.07	1447.91	306.50	0.01
PettyHR	M001	2022.45	100Year-Existing	99.60	57.26	64.96		64.96	0.000002	0.12	879.06	174.43	0.02
PettyHR	M001	1902.10	100Year-Existing	99.60	56.66	64.96		64.96	0.000004	0.15	681.00	127.22	0.02
PettyHR	M001	1879.72	100Year-Existing	99.60	56.55	64.96		64.96	0.000010	0.24	498.62	107.79	0.03
PettyHR	M001	1824.42	100Year-Existing	99.60	56.28	64.95		64.96	0.000017	0.32	335.81	65.55	0.04
PettyHR	M001	1789.72	100Year-Existing	99.60	56.10	64.95		64.96	0.000023	0.38	284.17	54.96	0.05
PettyHR	M001	1724.70	100Year-Existing	99.60	55.78	64.95		64.96	0.000030	0.43	248.65	47.50	0.05
PettyHR	M001	1668.81	100Year-Existing	99.60	55.50	64.95	58.12	64.95	0.000017	0.33	330.27	64.72	0.04
PettyHR	M001	1647.80	100Year-Existing	99.60	55.40	64.95	57.83	64.95	0.000011	0.28	385.69	72.06	0.03
PettyHR	M001	1631.79	100Year-Existing	99.60	63.55	64.70		64.93	0.007272	2.14	46.45	40.60	0.64
PettyHR	M001	1615.46	100Year-Existing	100.96	54.38	56.93		57.06	0.003836	2.66	67.42	40.61	0.54
PettyHR	M001	1601.08	100Year-Existing	100.96	54.00	55.71	55.71	56.83	0.048016	7.14	24.51	25.05	1.79
PettyHR	M001	1586.16	100Year-Existing	100.96	53.36	55.25	55.42	56.17	0.034902	6.61	27.96	25.58	1.56
PettyHR	M001	1571.98	100Year-Existing	100.96	52.87	54.56	54.85	55.60	0.045768	6.92	25.41	24.16	1.75
PettyHR	M001	1519.66	100Year-Existing	100.96	51.62	53.30	53.34	53.79	0.026439	5.16	36.80	39.22	1.31
PettyHR	M001	1467.14	100Year-Existing	100.96	50.86	52.27	52.15	52.59	0.019857	4.09	42.86	44.99	1.12
PettyHR	M001	1457.30	100Year-Existing	100.96	50.23	51.90	51.90	52.37	0.023178	4.98	37.47	37.22	1.25
PettyHR	M001	1444.51	100Year-Existing	100.96	48.30	49.32	49.86	51.52	0.212519	10.55	17.70	30.97	3.45
PettyHR	M001	1415.17	100Year-Existing	100.96	48.28	49.95	49.43	50.08	0.005829	2.48	66.31	52.96	0.62
PettyHR	M001	1402.15	100Year-Existing	100.96	47.79	49.45	49.45	49.90	0.026226	5.09	38.27	43.72	1.30
PettyHR	M001	1385.41	100Year-Existing	100.96	43.10	44.75	45.68	48.71	0.135761	11.40	14.55	17.58	2.96
PettyHR	M001	1370.82	100Year-Existing	100.96	41.75	43.65	44.67	46.84	0.093421	10.85	16.01	14.61	2.56
PettyHR	M001	1362.66	100Year-Existing	100.96	39.88	42.14	43.27	46.02	0.085677	11.39	14.60	10.92	2.49
PettyHR	M001	1336.64	100Year-Existing	100.96	39.87	41.58	42.23	43.36	0.071611	8.76	20.04	19.23	2.19
PettyHR	M001	1309.35	100Year-Existing	100.96	38.40	39.82	40.25	41.24	0.075686	7.90	21.10	21.67	2.18
PettyHR	M001	1279.20	100Year-Existing	100.96	35.02	37.36	38.15	39.43	0.047129	8.80	22.00	21.00	1.87
PettyHR	M001	1258.06	100Year-Existing	100.96	34.01	36.63	37.15	38.49	0.035571	8.32	21.55	14.45	1.66
PettyHR	M001	1221.17	100Year-Existing	100.96	33.21	34.66	35.30	36.46	0.093408	8.60	18.63	18.64	2.39
PettyHR	M001	1203.34	100Year-Existing	100.96	32.61	34.00	34.24	34.88	0.058320	6.77	27.42	34.27	1.90
PettyHR	M001	1164.99	100Year-Existing	100.96	31.37	32.98	33.00	33.45	0.024082	4.77	37.75	40.97	1.25
PettyHR	M001	1153.41	100Year-Existing	100.96	30.70	31.78	32.12	32.89	0.099354	7.59	24.01	36.46	2.39
PettyHR	M001	1125.74	100Year-Existing	100.96	29.27	30.63	30.73	31.17	0.036383	5.27	34.74	43.65	1.50
PettyHR	M001	1090.65	100Year-Existing	100.96	28.12	29.35	29.44	29.82	0.040378	5.04	37.86	59.29	1.54
PettyHR	M001	1059.48	100Year-Existing	100.96	26.84	28.18	28.28	28.62	0.036701	5.22	40.02	63.68	1.49
PettyHR	M001	1048.77	100Year-Existing	100.96	26.29	27.53	27.70	28.13	0.049108	5.63	34.19	54.40	1.70
PettyHR	M001	1021.54	100Year-Existing	100.96	25.47	27.04	27.04	27.47	0.025497	4.87	38.81	43.11	1.28
PettyHR	M001	1003.30	100Year-Existing	100.96	23.42	24.90	25.41	26.60	0.078112	8.37	19.54	18.79	2.24
PettyHR	M001	994.73	100Year-Existing	100.96	22.70	25.19	25.45	26.09	0.021503	6.23	29.51	20.82	1.28
PettyHR	M001	961.03	100Year-Existing	100.96	22.07	24.80	24.80	25.44	0.014150	5.33	35.97	26.11	1.05
PettyHR	M001	944.13	100Year-Existing	100.96	21.89	23.52	23.97	24.94	0.053895	7.37	22.50	21.36	1.89
PettyHR	M001	924.94	100Year-Existing	100.96	20.78	22.72	23.06	24.00	0.041011	7.22	22.92	17.14	1.69
PettyHR	M001	905.47	100Year-Existing	100.96	19.73	21.96	22.30	23.29	0.033366	7.21	23.26	15.82	1.57
PettyHR	M001	883.86	100Year-Existing	100.96	17.29	20.79	19.88	21.03	0.002823	2.85	57.86	36.50	0.49
PettyHR	M001	875		Bridge									
PettyHR	M001	859.53	100Year-Existing	100.96	17.25	19.33	19.33	19.99	0.020729	5.25	30.80	29.16	1.20
PettyHR	M001	836.76	100Year-Existing	100.96	12.80	14.67	15.81	18.76	0.101567	11.12	13.56	10.48	2.65
PettyHR	M001	823.70	100Year-Existing	100.96	12.86	14.41	15.15	16.87	0.107472	10.00	16.89	17.08	2.63
PettyHR	M001	811.96	100Year-Existing	100.96	12.85	14.94	15.18	15.81	0.029438	6.50	31.41	31.80	1.46
PettyHR	M001	796.92	100Year-Existing	100.96	12.74	14.15	14.45	15.17	0.068200	7.56	25.92	33.61	2.07
PettyHR	M001	784.11	100Year-Existing	100.96	11.82	13.81	14.01	14.55	0.027779	6.04	34.00	37.33	1.40
PettyHR	M001	769.86	100Year-Existing	100.96	10.94	12.54	12.90	13.94	0.056320	7.45	22.58	22.37	1.93
PettyHR	M001	748.76	100Year-Existing	100.96	8.37	10.78	11.43	12.89	0.040009	8.21	21.62	19.46	1.73
PettyHR	M001	720.33	100Year-Existing	100.96	8.08	9.16	9.66	10.89	0.141418	8.55	19.20	28.02	2.80
PettyHR	M001	707.57	100Year-Existing	100.96	6.85	8.34	8.69	9.52	0.063105	7.42	25.51	33.17	2.00
PettyHR	M001	685.99	100Year-Existing	100.96	5.31	6.97	7.35	8.21	0.058535	7.56	25.40	31.02	1.95
PettyHR	M001	666.04	100Year-Existing	100.96	5.03	6.81	6.87	7.32	0.020352	4.73	39.71	43.97	1.17
PettyHR	M001	652.51	100Year-Existing	100.96	4.66	6.19	6.21	6.93	0.037604	5.74	30.80	35.01	1.54
PettyHR	M001	633.61	100Year-Existing	100.96	4.40	5.44	5.62	6.08	0.053275	5.23	32.14	76.83	1.73
PettyHR	M001	622.83	100Year-Existing	100.96	4.09	5.20	5.20	5.48	0.025070	3.74	49.24	104.56	1.20
PettyHR	M001	577.97	100Year-Existing	100.96	2.48	3.83	3.88	4.14	0.035069	5.07	47.08	111.99	1.45
PettyHR	M001	525.57	100Year-Existing	100.96	0.51	2.82	2.18	2.94	0.004046	2.59	74.48	96.46	0.55
PettyHR	M001	491.94	100Year-Existing	100.96	-0.59	2.47	1.90	2.78	0.004204	2.80	49.74	35.84	0.57
PettyHR	M001	485		Bridge									
PettyHR	M001	478.84	100Year-Existing	100.96	-1.92	2.54		2.62	0.000633	1.33	111.00	141.47	0.23
PettyHR	M001	439.27	100Year-Existing	100.96	-1.89	2.58		2.59	0.000174	0.73	237.75	128.97	0.12
PettyHR	M001	405.68	100Year-Existing	100.96	-2.13	2.57		2.58	0.000156	0.70	235.01	132.01	0.12
PettyHR	M001	367.80	100Year-Existing	100.96	-2.02	2.57		2.58	0.000048	0.39	300.00	139.26	0.06
PettyHR	M001	338.85	100Year-Existing	100.96	-2.89	2.57		2.58	0.000028	0.33	339.34	122.13	0.05
PettyHR	M001	305.38	100Year-Existing	100.96	-2.46	2.57		2.57	0.000040	0.38	306.39	119.89	0.06
PettyHR	M001	269.29	100Year-Existing	100.96	-3.52	2.57		2.57	0.000035	0.40	287.36	110.17	0.06
PettyHR	M001	238.18	100Year-Existing	100.96	-3.50	2.56		2.57	0.000050	0.48	248.48	102.46	0.07
PettyHR	M001	201.25	100Year-Existing	100.96	-4.43	2.56		2.57	0.000016	0.30	367.63	119.97	0.04
PettyHR	M001	150.84	100Year-Existing	100.96	-3.34	2.56		2.57	0.000009	0.21	525.35	171.50	0.03
PettyHR	M001	105.74	100Year-Existing	100.96	-2.91	2.56		2.57	0.000010	0.21	507.74	154.15	0.03
PettyHR	M001	91.29	100Year-Existing	100.96	-3.36	2.56		2.57	0.000008	0.20	524.17	143.65	0.03
PettyHR	M001	20.04	100Year-Existing	100.96	-6.19	2.56		2.57	0.000004	0.15	705.94	185.19	0.02
PettyHR	M001	12.04	100Year-Existing	100.96	-6.19	2.55	-3.63	2.56	0.000080	0.57	267.31	185.14	0.07
ForthP	M001	2616.90	100Year-Existing	9.76	123.09	124.51	123.35	124.51	0.000013	0.10	136.78	159.45	0.03
ForthP	M001	2528.45	100Year-Existing	9.76	123.09	124.51		124.51	0.000003	0.05	217.95	198.62	0.01
ForthP	M001	2324.32	100Year-Existing	9.76	123.09	124.51		124.51	0.000010	0.09	157.02	209.80	0.03
ForthP	M001	2187.52	100Year-Existing	9.76	123.09	124.51		124.51	0.000002	0.04	292.43	287.53	0.01
ForthP	M001	1955.13	100Year-Existing	9.76	123.09	124.51		124.51	0.000002	0.04	336.16	310.72	0.01
ForthP	M001	1773.83	100Year-Existing	9.76	123.09	124.51		124.51	0.000001	0.02	411.99	345.43	0.01
ForthP	M001	1572.85	100Year-Existing	9.76	123.09	124.51		124.51	0.000001	0.03	393.95	320.29	0.01

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
ForthP	M001	1496.60	100Year-Existing	9.76	123.09	124.51		124.51	0.000001	0.03	332.02	277.97	0.01
ForthP	M001	1392.58	100Year-Existing	35.12	122.98	124.50	124.15	124.51	0.000579	0.74	111.93	167.98	0.19
ForthP	M001	1390		Culvert									
ForthP	M001	1381.72	100Year-Existing	35.12	122.95	124.44	124.13	124.45	0.001595	1.11	78.62	150.04	0.30
ForthP	M001	1360.50	100Year-Existing	35.12	122.87	124.22		124.36	0.010012	2.61	29.09	76.39	0.77
ForthP	M001	1311.12	100Year-Existing	35.12	122.52	123.95		124.01	0.004804	1.85	40.80	75.66	0.53
ForthP	M001	1261.17	100Year-Existing	35.12	121.36	123.41	123.41	123.68	0.007961	3.14	24.42	40.33	0.74
ForthP	M001	1211.51	100Year-Existing	35.12	119.83	121.53	121.67	122.83	0.040067	6.07	9.25	12.18	1.58
ForthP	M001	1161.66	100Year-Existing	35.12	117.25	118.42	118.81	119.93	0.090427	6.90	9.53	24.92	2.23
ForthP	M001	1112.05	100Year-Existing	35.12	114.88	116.01	116.17	116.53	0.045432	5.02	14.85	34.84	1.59
ForthP	M001	1062.35	100Year-Existing	35.12	113.16	114.35	114.41	114.66	0.029989	4.00	17.37	34.60	1.26
ForthP	M001	1041.93	100Year-Existing	35.12	112.62	113.93	113.95	114.18	0.022551	3.65	20.19	43.37	1.10
ForthP	M001	1031.90	100Year-Existing	35.12	112.31	113.51	113.60	113.88	0.037747	4.47	17.53	44.36	1.42
ForthP	M001	1011.12	100Year-Existing	35.12	111.62	112.68	112.78	113.04	0.043477	4.56	17.49	47.39	1.52
ForthP	M001	959.76	100Year-Existing	35.12	110.31	111.05	111.15	111.38	0.071343	4.18	16.56	58.62	1.80
ForthP	M001	908.93	100Year-Existing	35.12	109.25	109.93	109.80	109.99	0.011929	1.71	35.07	89.93	0.74
ForthP	M001	856.39	100Year-Existing	35.12	108.38	108.85	108.80	108.94	0.027307	1.73	27.75	91.74	1.01
ForthP	M001	806.25	100Year-Existing	35.12	107.09	108.03		108.10	0.012498	2.20	34.61	91.54	0.79
ForthP	M001	754.78	100Year-Existing	35.12	106.12	107.12	107.12	107.27	0.024244	3.33	27.37	89.07	1.13
ForthP	M001	734.50	100Year-Existing	35.12	105.47	106.79	106.73	106.88	0.008841	2.34	36.39	90.79	0.70
ForthP	M001	724.30	100Year-Existing	35.12	105.28	106.60	106.60	106.76	0.013460	2.92	29.89	86.75	0.88
ForthP	M001	703.65	100Year-Existing	35.12	105.02	106.15	106.13	106.34	0.024472	3.58	21.51	47.92	1.14
ForthP	M001	654.47	100Year-Existing	35.12	103.90	104.80	104.80	104.98	0.028366	3.32	21.79	54.85	1.20
ForthP	M001	605.63	100Year-Existing	35.12	102.27	103.43	103.50	103.72	0.027814	3.81	21.26	59.86	1.23
ForthP	M001	585.13	100Year-Existing	35.12	101.55	102.40	102.53	102.86	0.077993	4.93	16.62	68.71	1.94
ForthP	M001	577.30	100Year-Existing	35.12	101.52	102.23	102.25	102.41	0.045561	3.33	20.96	70.55	1.44
ForthP	M001	557.33	100Year-Existing	35.12	100.67	101.35	101.34	101.48	0.033302	2.65	23.67	79.64	1.21
ForthP	M001	507.84	100Year-Existing	35.12	98.92	99.61	99.61	99.74	0.037276	2.78	23.98	85.92	1.27
ForthP	M001	453.33	100Year-Existing	35.12	96.28	97.06	97.00	97.16	0.020526	2.35	29.24	90.60	0.98
ForthP	M001	402.29	100Year-Existing	35.12	94.96	95.62	95.62	95.79	0.039576	3.07	21.45	64.67	1.33
ForthP	M001	349.18	100Year-Existing	35.12	93.64	94.26	94.10	94.32	0.014880	1.65	32.25	80.25	0.79
ForthP	M001	297.76	100Year-Existing	35.12	92.55	93.49	93.44	93.59	0.017104	2.49	30.23	78.50	0.93
ForthP	M001	246.28	100Year-Existing	35.12	91.71	92.50	92.45	92.59	0.018563	2.21	31.26	91.13	0.93
ForthP	M001	182.03	100Year-Existing	35.12	90.94	92.10	91.77	92.12	0.004284	1.49	53.85	108.69	0.48
ForthP	M001	160.27	100Year-Existing	35.12	90.13	92.10	91.43	92.10	0.000210	0.50	144.46	155.39	0.12
ForthP	M001	150		Culvert									
ForthP	M001	144.74	100Year-Existing	35.12	89.90	91.15	91.15	91.72	0.016613	3.40	10.65	100.79	1.00
ForthP	M001	124.30	100Year-Existing	35.12	89.74	90.96	90.86	91.05	0.010189	2.36	36.20	84.24	0.75
ForthP	M001	61.58	100Year-Existing	35.12	88.75	89.93	89.93	90.13	0.020898	3.28	24.44	56.92	1.07
ForestP	M001	1557.91	100Year-Existing	7.04	78.25	79.71	78.45	79.71	0.000003	0.05	147.25	121.35	0.01
ForestP	M001	1428.05	100Year-Existing	7.04	78.25	79.71		79.71	0.000002	0.04	200.82	177.14	0.01
ForestP	M001	1315.71	100Year-Existing	7.04	78.25	79.71		79.71	0.000001	0.03	282.59	242.37	0.01
ForestP	M001	1228.83	100Year-Existing	7.04	78.25	79.71		79.71	0.000001	0.02	337.94	289.60	0.01
ForestP	M001	1138.84	100Year-Existing	7.04	78.25	79.71		79.71	0.000000	0.02	395.80	342.15	0.01
ForestP	M001	1077.28	100Year-Existing	7.04	78.25	79.71		79.71	0.000000	0.02	437.71	480.40	0.01
ForestP	M001	1019.12	100Year-Existing	7.04	78.25	79.71		79.71	0.000002	0.04	220.73	280.17	0.01
ForestP	M001	958.61	100Year-Existing	8.96	78.15	79.69	79.50	79.70	0.000870	0.71	24.24	68.57	0.21
ForestP	M001	955		Culvert									
ForestP	M001	949.85	100Year-Existing	8.96	77.76	79.56	79.49	79.67	0.008013	1.75	10.85	52.07	0.46
ForestP	M001	913.34	100Year-Existing	8.96	78.16	79.07	79.07	79.23	0.027780	2.97	6.45	18.68	1.08
ForestP	M001	883.23	100Year-Existing	8.96	77.54	78.34	78.38	78.50	0.022465	2.57	8.22	37.73	1.03
ForestP	M001	859.61	100Year-Existing	8.96	76.75	77.46	77.53	77.75	0.045076	3.36	4.72	13.80	1.43
ForestP	M001	831.71	100Year-Existing	8.96	75.74	76.68	76.73	76.96	0.028643	3.19	4.94	11.23	1.17
ForestP	M001	802.91	100Year-Existing	8.96	74.66	75.45	75.59	75.92	0.046458	3.77	3.88	10.04	1.49
ForestP	M001	772.90	100Year-Existing	8.96	73.77	74.56	74.57	74.76	0.028053	2.94	5.77	15.42	1.14
ForestP	M001	737.48	100Year-Existing	8.96	72.77	73.49	73.45	73.60	0.018256	2.22	7.72	21.94	0.92
ForestP	M001	688.06	100Year-Existing	8.96	71.80	72.39	72.37	72.48	0.029509	2.31	8.14	32.84	1.07
ForestP	M001	651.32	100Year-Existing	8.96	70.81	71.44	71.42	71.53	0.022631	2.30	8.47	31.83	1.01
ForestP	M001	600.44	100Year-Existing	8.96	69.80	70.33	70.30	70.38	0.022653	1.96	10.99	57.99	0.97
ForestP	M001	578.60	100Year-Existing	8.96	69.31	69.92	69.92	69.97	0.015545	1.82	14.48	89.11	0.83
ForestP	M001	528.92	100Year-Existing	8.96	68.58	69.44	69.26	69.45	0.003131	1.05	22.22	71.73	0.39
ForestP	M001	478.55	100Year-Existing	8.96	68.21	69.42		69.43	0.000172	0.32	63.19	111.56	0.10
ForestP	M001	430.82	100Year-Existing	8.96	67.77	69.42		69.42	0.000047	0.21	100.10	134.52	0.06
ForestP	M001	378.18	100Year-Existing	8.96	67.48	69.42		69.42	0.000007	0.09	239.89	266.36	0.02
ForestP	M001	328.07	100Year-Existing	8.96	67.34	69.42		69.42	0.000003	0.06	342.35	333.61	0.01
ForestP	M001	277.95	100Year-Existing	8.96	67.07	69.42		69.42	0.000001	0.05	419.64	380.78	0.01
ForestP	M001	195.51	100Year-Existing	8.96	66.23	69.42		69.42	0.000000	0.02	785.84	528.06	0.00
ForestP	M001	158.37	100Year-Existing	8.96	66.23	69.42		69.42	0.000000	0.01	1484.42	677.74	0.00
ForestP	M001	89.11	100Year-Existing	8.96	66.23	69.42		69.42	0.000000	0.01	1644.23	752.85	0.00
DoylesR	TR019	260.51	100Year-Existing	0.32	124.74	125.08	124.93	125.08	0.000335	0.17	3.66	32.24	0.11
DoylesR	TR019	199.72	100Year-Existing	0.32	124.55	125.08		125.08	0.000002	0.02	33.11	137.20	0.01
DoylesR	TR019	150.00	100Year-Existing	0.32	124.37	125.08		125.08	0.000002	0.02	35.89	147.52	0.01
DoylesR	TR019	100.00	100Year-Existing	0.32	124.16	125.08		125.08	0.000002	0.03	30.67	163.92	0.01
DoylesR	TR019	50.00	100Year-Existing	0.32	124.18	125.08		125.08	0.000001	0.02	56.10	223.27	0.01
DoylesR	TR018	302.01	100Year-Existing	1.20	127.90	128.06	128.06	128.09	0.026083	0.86	1.82	24.11	0.84
DoylesR	TR018	270.53	100Year-Existing	1.20	126.19	128.02	126.81	128.02	0.000001	0.03	142.41	244.89	0.01
DoylesR	TR018	260		Culvert									
DoylesR	TR018	257.62	100Year-Existing	1.20	126.19	127.96	126.84	127.96	0.000000	0.02	150.41	198.01	0.00
DoylesR	TR018	244.68	100Year-Existing	1.20	125.64	127.92	126.53	127.95	0.000641	0.89	1.64	198.83	0.19
DoylesR	TR018	200		Culvert									
DoylesR	TR018	169.24	100Year-Existing	1.20	125.40	126.20	126.10	126.44	0.015734	2.48	0.60	74.95	0.91
DoylesR	TR018	131.43	100Year-Existing	1.20	125.24	125.45	125.45	125.47	0.028043	0.92	2.56	52.66	0.88
DoylesR	TR018	59.79	100Year-Existing	1.20	124.57	125.13	124.88	125.14	0.000293	0.23	13.36	115.37	0.11
DoylesR	TR017	4043.45	100Year-Existing	6.56	124.05	125.06		125.07	0.001443	0.89	19.59	67.75	0.29
DoylesR	TR017	3983.69	100Year-Existing	6.56	124.04	124.95		124.97	0.002285	0.94	16.67	80.26	0.34
DoylesR	TR017	3923.93	100Year-Existing	6.56	124.03	124.60	124.60	124.68	0.021320	1.70	7.43	42.56	0.92
DoylesR	TR017	3889.37	100Year-Existing	6.56	123.60	123.80	123.62	123.81	0.005497	0.29	14.86	64.97	0.36
DoylesR	TR017	3781.64	100Year-Existing	6.56	122.55	123.47		123.50	0.004207	1.29	13.03	50.61	0.46
DoylesR	TR017	3768.91	100Year-Existing	6.56	122.35	123.14	123.14	123.37	0.018242	2.28	3.61	9.06	0.91
DoylesR	TR017	3745.98	100Year-Existing	6.56	121.86	122.43	122.46	122.57	0.040124	2.26	5.28	34.35	1.24

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR017	3713.18	100Year-Existing	6.56	120.99	121.55	121.57	121.74	0.023497	2.04	3.91	13.10	1.00
DoylesR	TR017	3692.45	100Year-Existing	6.56	120.34	120.98	121.02	121.20	0.026971	2.29	3.86	13.61	1.08
DoylesR	TR017	3679.05	100Year-Existing	6.56	119.97	120.73	120.76	120.93	0.016002	2.18	4.35	18.13	0.88
DoylesR	TR017	3656.84	100Year-Existing	6.56	117.59	118.03	118.36	119.81	0.368231	6.00	1.18	5.55	3.68
DoylesR	TR017	3603.67	100Year-Existing	6.56	116.29	116.99	117.01	117.13	0.017866	2.14	5.39	23.67	0.91
DoylesR	TR017	3583.40	100Year-Existing	6.56	115.96	116.59	116.61	116.73	0.023977	2.23	5.62	27.26	1.03
DoylesR	TR017	3571.14	100Year-Existing	6.56	115.76	116.28	116.28	116.39	0.030140	2.28	5.86	30.80	1.13
DoylesR	TR017	3545.42	100Year-Existing	6.56	115.22	115.70	115.78	116.00	0.078420	3.02	3.36	17.46	1.72
DoylesR	TR017	3483.93	100Year-Existing	6.56	114.35	114.93	114.91	114.97	0.012430	1.55	11.41	70.25	0.73
DoylesR	TR017	3432.55	100Year-Existing	6.56	113.79	114.53	114.46	114.57	0.007410	1.42	12.49	65.44	0.58
DoylesR	TR017	3345.48	100Year-Existing	6.56	113.03	113.54	113.54	113.62	0.030769	1.98	6.67	39.65	1.09
DoylesR	TR017	3300.07	100Year-Existing	6.56	112.42	112.98	112.84	112.99	0.003773	0.76	17.44	77.13	0.39
DoylesR	TR016	918.87	100Year-Existing	2.40	127.08	128.79	127.25	128.79	0.000000	0.01	399.41	360.27	0.00
DoylesR	TR016	898.71	100Year-Existing	2.40	126.90	128.79	127.27	128.79	0.000001	0.03	193.12	224.95	0.01
DoylesR	TR016	890		Culvert									
DoylesR	TR016	882.28	100Year-Existing	2.40	126.88	128.73		128.73	0.000004	0.06	104.98	158.17	0.01
DoylesR	TR016	877.71	100Year-Existing	2.40	126.24	128.73	126.88	128.73	0.000002	0.06	124.01	189.24	0.01
DoylesR	TR016	850		Culvert									
DoylesR	TR016	848.13	100Year-Existing	2.40	126.37	127.10	127.10	127.35	0.020420	2.39	1.32	3.08	0.93
DoylesR	TR016	818.98	100Year-Existing	2.40	126.36	126.84	126.77	126.85	0.004073	0.75	7.07	52.30	0.40
DoylesR	TR016	768.99	100Year-Existing	2.40	126.30	126.64		126.65	0.004525	0.63	7.33	50.71	0.40
DoylesR	TR016	714.09	100Year-Existing	2.40	125.96	126.37	126.27	126.38	0.005031	0.72	6.16	36.60	0.43
DoylesR	TR016	675.95	100Year-Existing	2.40	125.74	126.07	126.07	126.11	0.020227	1.20	3.72	39.34	0.83
DoylesR	TR016	659.39	100Year-Existing	2.40	125.10	125.55	125.48	125.59	0.009884	1.17	3.93	25.56	0.63
DoylesR	TR016	632.80	100Year-Existing	2.40	124.78	125.24	125.24	125.30	0.014690	1.34	3.13	26.03	0.75
DoylesR	TR016	610.50	100Year-Existing	2.40	123.78	124.24	124.36	124.63	0.067562	2.99	1.04	4.91	1.62
DoylesR	TR016	549.37	100Year-Existing	2.40	122.30	122.89	122.89	123.04	0.024368	1.98	2.00	11.33	0.98
DoylesR	TR016	494.31	100Year-Existing	2.40	120.93	121.58	121.58	121.76	0.022082	1.90	1.36	4.39	0.94
DoylesR	TR016	473.82	100Year-Existing	2.40	120.18	120.64	120.75	121.00	0.069808	2.71	0.98	4.43	1.61
DoylesR	TR016	459.95	100Year-Existing	2.40	119.62	120.11	120.15	120.31	0.032857	2.02	1.32	5.24	1.13
DoylesR	TR016	439.99	100Year-Existing	2.40	119.05	119.58	119.67	119.89	0.059978	2.49	0.99	3.86	1.47
DoylesR	TR016	384.99	100Year-Existing	2.40	117.07	117.60	117.61	117.76	0.026267	1.81	1.40	5.29	1.01
DoylesR	TR016	329.99	100Year-Existing	2.40	115.67	116.13	116.17	116.24	0.028813	1.64	2.23	22.37	1.02
DoylesR	TR016	274.18	100Year-Existing	2.40	114.93	115.33	115.32	115.36	0.012259	1.03	4.65	48.16	0.66
DoylesR	TR016	218.88	100Year-Existing	2.40	114.35	114.83	114.80	114.86	0.010587	1.03	4.93	52.77	0.63
DoylesR	TR016	165.43	100Year-Existing	2.40	113.83	114.38	114.36	114.42	0.008743	1.10	4.22	35.47	0.59
DoylesR	TR016	86.48	100Year-Existing	2.40	112.80	113.23	113.23	113.32	0.025797	1.46	2.16	12.78	0.95
DoylesR	TR016	40.19	100Year-Existing	2.40	112.21	112.81	112.69	112.82	0.002154	0.61	9.24	58.16	0.30
DoylesR	TR015	3230.71	100Year-Existing	14.40	111.60	112.52		112.56	0.008038	1.78	20.92	76.17	0.64
DoylesR	TR015	3185.04	100Year-Existing	14.40	111.22	112.15	112.11	112.24	0.012082	2.04	15.95	51.04	0.77
DoylesR	TR015	3133.58	100Year-Existing	14.40	110.57	111.39	111.39	111.50	0.018421	2.41	13.74	46.94	0.95
DoylesR	TR015	3079.97	100Year-Existing	14.40	108.17	109.07	109.34	109.83	0.055927	4.32	4.65	10.54	1.66
DoylesR	TR015	3026.43	100Year-Existing	14.40	107.30	109.10	108.26	109.12	0.000604	0.78	30.97	33.84	0.20
DoylesR	TR015	3001.28	100Year-Existing	14.40	106.17	109.10	108.18	109.11	0.000091	0.40	85.97	77.76	0.08
DoylesR	TR015	3000		Culvert									
DoylesR	TR015	2988.77	100Year-Existing	14.40	106.03	107.91	107.91	108.17	0.006087	2.67	13.05	36.93	0.64
DoylesR	TR015	2963.30	100Year-Existing	14.40	105.69	106.52	106.82	107.68	0.097231	5.69	4.70	16.44	2.15
DoylesR	TR015	2915.60	100Year-Existing	14.40	104.53	105.66	105.68	105.89	0.016280	2.78	10.07	23.37	0.93
DoylesR	TR015	2867.64	100Year-Existing	14.40	103.37	104.49	104.61	104.89	0.032072	3.86	7.99	20.55	1.28
DoylesR	TR015	2841.04	100Year-Existing	14.40	102.40	102.97	103.09	103.36	0.107477	4.03	6.76	27.93	2.09
DoylesR	TR015	2804.73	100Year-Existing	14.40	101.67	102.48	102.42	102.59	0.017649	2.33	12.95	35.30	0.92
DoylesR	TR015	2742.98	100Year-Existing	14.40	100.87	101.70	101.63	101.76	0.011639	2.00	19.78	69.15	0.76
DoylesR	TR015	2687.77	100Year-Existing	14.40	100.07	100.66	100.66	100.77	0.034261	2.56	13.21	61.79	1.22
DoylesR	TR015	2638.14	100Year-Existing	14.40	98.95	99.78	99.78	99.90	0.020076	2.64	14.40	53.02	1.00
DoylesR	TR015	2593.26	100Year-Existing	14.40	97.75	98.85	98.75	98.95	0.011074	2.31	14.94	41.60	0.76
DoylesR	TR015	2557.12	100Year-Existing	14.40	97.53	98.58		98.65	0.007817	1.96	17.94	47.35	0.65
DoylesR	TR015	2522.34	100Year-Existing	14.40	97.26	98.16	98.16	98.30	0.016804	2.32	12.34	39.52	0.91
DoylesR	TR015	2483.94	100Year-Existing	14.40	96.95	97.69	97.62	97.74	0.013690	1.80	17.26	60.08	0.78
DoylesR	TR015	2438.99	100Year-Existing	14.40	96.35	97.42		97.46	0.004356	1.43	25.78	90.13	0.48
DoylesR	TR015	2387.12	100Year-Existing	14.40	96.39	97.32		97.33	0.001761	0.78	42.93	126.27	0.29
DoylesR	TR015	2352.45	100Year-Existing	14.40	96.40	97.29		97.29	0.000715	0.49	52.04	99.58	0.19
DoylesR	TR015	2283.37	100Year-Existing	14.40	95.75	97.13		97.19	0.003422	1.56	16.17	22.43	0.45
DoylesR	TR015	2231.50	100Year-Existing	14.40	95.54	96.69		96.88	0.012298	2.52	9.81	17.96	0.82
DoylesR	TR015	2160.12	100Year-Existing	14.40	94.93	95.94		96.06	0.009907	2.03	11.52	21.91	0.72
DoylesR	TR015	2119.11	100Year-Existing	14.40	94.44	95.51	95.44	95.65	0.012117	2.35	11.89	27.61	0.80
DoylesR	TR015	2075.88	100Year-Existing	14.40	93.86	94.78	94.78	94.99	0.019152	2.63	10.55	42.95	0.99
DoylesR	TR015	2024.01	100Year-Existing	14.40	93.19	94.28	94.16	94.37	0.008211	1.93	16.27	49.55	0.66
DoylesR	TR015	1972.14	100Year-Existing	14.40	92.71	93.68	93.68	93.81	0.017277	2.62	13.10	62.45	0.93
DoylesR	TR015	1921.75	100Year-Existing	14.40	92.35	93.40	93.07	93.42	0.002944	1.17	28.41	74.56	0.39
DoylesR	TR015	1851.62	100Year-Existing	14.40	91.24	92.81	92.81	93.12	0.011210	2.88	8.11	15.12	0.80
DoylesR	TR014	2057.49	100Year-Existing	8.72	125.48	126.52	126.34	126.55	0.003381	1.13	17.93	62.06	0.41
DoylesR	TR014	2037.89	100Year-Existing	8.72	125.57	126.51		126.52	0.000699	0.53	38.20	102.67	0.19
DoylesR	TR014	1988.88	100Year-Existing	8.72	124.71	126.42	125.55	126.47	0.001096	1.01	13.32	42.18	0.26
DoylesR	TR014	1980		Culvert									
DoylesR	TR014	1975.46	100Year-Existing	8.72	124.46	126.31		126.36	0.000999	1.03	9.94	17.71	0.26
DoylesR	TR014	1936.56	100Year-Existing	8.72	124.86	126.15		126.28	0.005073	1.86	7.44	14.76	0.55
DoylesR	TR014	1904.43	100Year-Existing	8.72	124.72	125.75	125.75	126.02	0.013599	2.56	5.19	11.01	0.86
DoylesR	TR014	1867.03	100Year-Existing	8.72	124.61	125.60	125.35	125.66	0.004455	1.44	10.81	24.30	0.49
DoylesR	TR014	1801.50	100Year-Existing	8.72	124.00	124.93	124.93	125.15	0.016175	2.58	5.84	13.84	0.92
DoylesR	TR014	1765.57	100Year-Existing	8.72	123.20	123.74	123.86	124.13	0.057033	3.16	4.05	17.89	1.56
DoylesR	TR014	1703.29	100Year-Existing	8.72	121.82	122.64	122.59	122.87	0.015179	2.36	5.82	18.71	0.88
DoylesR	TR014	1657.91	100Year-Existing	8.72	121.27	122.03	122.01	122.20	0.013440	1.99	6.35	19.50	0.81
DoylesR	TR014	1607.98	100Year-Existing	8.72	120.59	121.40	121.40	121.52	0.013275	2.07	9.55	42.89	0.81
DoylesR	TR014	1544.18	100Year-Existing	8.72	119.81	120.67	120.67	120.77	0.010525	1.96	10.29	41.66	0.73
DoylesR	TR014	1492.70	100Year-Existing	8.72	119.06	119.74	119.73	119.84	0.013242	1.88	9.88	41.28	0.79
DoylesR	TR014	1441.23	100Year-Existing	8.72	117.59	118.52	118.52	118.89	0.025278	3.29	4.48	11.22	1.16
DoylesR	TR014	1420.98	100Year-Existing	8.72	116.98	118.14	117.69	118.19	0.002735	1.28	10.46	13.25	0.40
DoylesR	TR014	1411.86	100Year-Existing	8.72	117.03	118.04	117.68	118.15	0.005000	1.68	6.75	12.01	0.54
DoylesR	TR014	1400		Bridge									
DoylesR	TR014	1384.41	100Year-Existing	9.92	116.71	117.50	117.44	117.74	0.015155	2.33	4.82	9.78	0.88

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR014	1374.60	100Year-Existing	9.92	116.54	117.45		117.58	0.007995	1.80	7.00	11.61	0.65
DoylesR	TR014	1353.25	100Year-Existing	9.92	116.21	117.04	117.04	117.32	0.018737	2.57	4.99	9.69	0.98
DoylesR	TR014	1309.14	100Year-Existing	9.92	115.50	116.40	116.25	116.58	0.009317	1.88	5.52	8.55	0.69
DoylesR	TR014	1296.25	100Year-Existing	9.92	115.12	116.07	116.07	116.38	0.018395	2.81	4.76	8.04	0.99
DoylesR	TR014	1239.25	100Year-Existing	9.92	113.43	114.07	114.24	114.62	0.055584	3.64	3.67	10.99	1.60
DoylesR	TR014	1203.69	100Year-Existing	9.92	112.84	113.66	113.55	113.73	0.009199	1.85	10.25	25.49	0.69
DoylesR	TR014	1182.25	100Year-Existing	9.92	112.53	113.28	113.28	113.45	0.018294	2.37	7.32	20.41	0.95
DoylesR	TR014	1125.25	100Year-Existing	9.92	111.30	112.46	112.23	112.51	0.004293	1.55	12.74	23.21	0.49
DoylesR	TR014	1104.23	100Year-Existing	9.92	111.16	112.14	112.14	112.34	0.014905	2.46	6.95	16.72	0.88
DoylesR	TR014	1094.88	100Year-Existing	9.92	110.55	111.30	111.53	112.03	0.070037	4.67	3.52	9.66	1.85
DoylesR	TR014	1075.36	100Year-Existing	9.92	110.17	111.14	111.22	111.43	0.023128	3.21	6.61	18.39	1.10
DoylesR	TR014	1027.18	100Year-Existing	9.92	109.15	109.97	110.03	110.25	0.026198	2.91	6.04	16.47	1.13
DoylesR	TR014	980.74	100Year-Existing	9.92	107.89	108.94	108.59	108.99	0.003719	1.40	13.04	21.00	0.46
DoylesR	TR014	954.47	100Year-Existing	9.92	107.68	108.53	108.53	108.77	0.021699	2.74	6.55	18.08	1.04
DoylesR	TR014	934.37	100Year-Existing	9.92	106.99	107.87	107.90	108.23	0.029552	3.17	5.45	15.51	1.21
DoylesR	TR014	907.24	100Year-Existing	9.92	106.52	107.43	107.35	107.51	0.009816	1.99	11.06	27.50	0.71
DoylesR	TR014	868.80	100Year-Existing	9.92	105.88	106.75	106.75	106.98	0.019030	2.59	6.42	16.33	0.98
DoylesR	TR014	864.98	100Year-Existing	9.92	105.70	106.65	106.66	106.91	0.016495	2.41	5.46	13.16	0.91
DoylesR	TR014	844.06	100Year-Existing	9.92	105.10	106.24	106.09	106.39	0.008116	2.08	7.53	12.66	0.67
DoylesR	TR014	836.52	100Year-Existing	9.92	104.97	106.01	106.01	106.29	0.018041	2.70	5.38	10.85	0.96
DoylesR	TR014	816.09	100Year-Existing	9.92	104.78	105.58	105.52	105.70	0.012093	1.93	8.70	23.48	0.77
DoylesR	TR014	811.48	100Year-Existing	9.92	104.64	105.57		105.64	0.006337	1.62	11.03	22.69	0.58
DoylesR	TR014	783.28	100Year-Existing	9.92	103.98	105.06	105.06	105.34	0.017444	2.96	5.57	9.86	0.97
DoylesR	TR014	751.27	100Year-Existing	9.92	103.31	104.27	104.35	104.66	0.025649	2.81	4.02	8.60	1.11
DoylesR	TR014	717.94	100Year-Existing	9.92	102.63	103.90	103.90	104.15	0.013655	2.91	6.67	13.21	0.87
DoylesR	TR014	676.43	100Year-Existing	9.92	102.18	103.20	103.23	103.50	0.017931	2.68	5.62	13.86	0.96
DoylesR	TR014	601.44	100Year-Existing	9.92	101.39	102.27	102.20	102.38	0.011788	2.03	8.31	20.89	0.77
DoylesR	TR014	540.83	100Year-Existing	9.92	100.49	102.23		102.25	0.000667	0.82	24.49	41.63	0.21
DoylesR	TR014	519.25	100Year-Existing	9.92	99.69	102.24	101.49	102.24	0.000081	0.33	67.82	77.44	0.07
DoylesR	TR014	510		Culvert									
DoylesR	TR014	505.00	100Year-Existing	9.92	99.62	101.40	101.40	102.24	0.017724	4.11	2.50	25.53	1.00
DoylesR	TR014	484.27	100Year-Existing	9.92	99.79	100.53	100.79	101.45	0.122781	5.03	2.87	10.43	2.27
DoylesR	TR014	426.15	100Year-Existing	9.92	98.71	99.78	99.78	100.04	0.015733	2.39	5.27	14.72	0.89
DoylesR	TR014	368.05	100Year-Existing	9.92	97.30	98.42	98.55	98.83	0.029732	3.26	4.81	14.48	1.18
DoylesR	TR014	343.01	100Year-Existing	9.92	96.78	98.18	97.67	98.29	0.003187	1.54	7.18	68.66	0.43
DoylesR	TR014	335		Bridge									
DoylesR	TR014	331.91	100Year-Existing	9.92	96.63	97.78	97.78	98.15	0.016527	2.80	4.09	6.67	0.93
DoylesR	TR014	312.09	100Year-Existing	9.92	96.26	97.53	97.58	97.74	0.016540	2.38	7.80	32.04	0.86
DoylesR	TR014	227.09	100Year-Existing	9.92	94.66	96.39	96.08	96.43	0.002758	1.40	15.10	27.22	0.38
DoylesR	TR014	205.76	100Year-Existing	9.92	94.51	96.07	96.07	96.31	0.010831	2.52	6.80	16.77	0.74
DoylesR	TR014	198.96	100Year-Existing	9.92	94.45	95.11	95.39	96.06	0.122896	4.36	2.40	8.66	2.24
DoylesR	TR014	181.77	100Year-Existing	9.92	94.01	95.15	95.15	95.33	0.013033	2.37	7.87	22.02	0.81
DoylesR	TR014	121.12	100Year-Existing	9.92	92.99	94.14	94.22	94.40	0.016811	2.69	8.51	55.16	0.92
DoylesR	TR014	34.73	100Year-Existing	9.92	91.60	92.45	92.50	92.76	0.023976	2.67	4.73	10.56	1.08
DoylesR	TR012	1780.65	100Year-Existing	24.32	90.30	92.13	91.56	92.23	0.002469	1.51	23.42	35.94	0.40
DoylesR	TR012	1753.67	100Year-Existing	24.32	89.56	92.16	91.04	92.18	0.000410	0.89	56.29	67.66	0.18
DoylesR	TR012	1745		Bridge									
DoylesR	TR012	1729.43	100Year-Existing	24.32	89.10	90.88	90.88	91.62	0.015556	3.87	6.65	12.57	0.98
DoylesR	TR012	1709.20	100Year-Existing	24.32	88.93	90.42	90.68	91.18	0.029678	4.55	9.08	19.66	1.30
DoylesR	TR012	1645.76	100Year-Existing	24.32	88.20	89.38	89.35	89.69	0.016708	2.94	11.69	17.81	0.96
DoylesR	TR011	1552.47	100Year-Existing	34.96	86.48	88.58	88.19	88.89	0.005966	2.71	17.44	14.15	0.64
DoylesR	TR011	1530.88	100Year-Existing	34.96	86.19	88.06	88.06	88.67	0.014433	3.92	12.50	10.89	0.98
DoylesR	TR011	1477.56	100Year-Existing	34.96	84.43	85.72	86.15	87.17	0.064719	6.02	8.30	13.02	1.90
DoylesR	TR011	1423.69	100Year-Existing	34.96	83.56	85.37	85.37	85.99	0.014435	3.78	12.03	10.95	0.97
DoylesR	TR011	1370.10	100Year-Existing	34.96	82.66	83.91	84.14	84.71	0.045246	5.07	12.79	29.91	1.60
DoylesR	TR011	1316.51	100Year-Existing	34.96	81.17	82.77	82.77	83.42	0.019480	3.98	11.74	12.97	1.10
DoylesR	TR011	1262.92	100Year-Existing	34.96	79.36	80.99	81.41	82.05	0.032285	5.08	9.70	13.03	1.40
DoylesR	TR011	1209.33	100Year-Existing	34.96	78.14	80.23	80.26	80.87	0.014477	3.96	12.29	12.45	0.96
DoylesR	TR011	1155.74	100Year-Existing	34.96	76.81	78.57	78.90	79.70	0.033395	5.15	8.76	9.39	1.40
DoylesR	TR011	1107.39	100Year-Existing	34.96	76.34	77.91	77.93	78.43	0.016256	3.35	12.08	13.13	0.98
DoylesR	TR011	1057.82	100Year-Existing	34.96	75.16	77.13	77.14	77.69	0.014129	3.59	12.44	12.37	0.93
DoylesR	TR011	971.36	100Year-Existing	34.96	73.33	75.02	74.52	75.26	0.004729	2.17	16.11	19.07	0.56
DoylesR	TR011	960		Bridge									
DoylesR	TR011	949.62	100Year-Existing	34.96	73.08	74.93	74.20	75.11	0.002938	1.89	18.53	14.51	0.45
DoylesR	TR011	929.53	100Year-Existing	34.96	72.74	74.50	74.38	74.93	0.011286	3.13	13.46	12.36	0.84
DoylesR	TR011	872.05	100Year-Existing	34.96	72.26	74.05	74.05	74.27	0.009566	2.87	26.25	56.54	0.76
DoylesR	TR011	816.76	100Year-Existing	34.96	72.00	73.01	72.94	73.09	0.015518	2.39	32.33	93.43	0.87
DoylesR	TR011	760.16	100Year-Existing	34.96	71.25	72.45		72.52	0.008998	2.24	39.64	100.17	0.70
DoylesR	TR011	712.26	100Year-Existing	34.96	70.34	71.74	71.67	71.92	0.014603	3.05	26.65	68.40	0.91
DoylesR	TR011	663.11	100Year-Existing	34.96	70.08	71.44		71.47	0.005530	1.76	52.11	133.88	0.53
DoylesR	TR013	2205.78	100Year-Existing	7.44	95.88	96.64	96.39	96.64	0.001310	0.70	27.20	101.95	0.26
DoylesR	TR013	2147.59	100Year-Existing	7.44	95.87	96.53		96.55	0.002111	0.75	17.81	58.38	0.32
DoylesR	TR013	2097.40	100Year-Existing	7.44	95.86	96.24	96.24	96.30	0.025017	1.65	9.39	69.68	0.98
DoylesR	TR013	2011.99	100Year-Existing	7.44	93.67	94.67	94.52	94.80	0.007267	1.77	5.63	10.96	0.62
DoylesR	TR013	1957.46	100Year-Existing	7.44	93.05	93.99	93.99	94.24	0.016404	2.71	4.43	9.95	0.93
DoylesR	TR013	1909.18	100Year-Existing	7.44	92.33	93.21	93.30	93.42	0.016277	2.42	6.22	37.54	0.90
DoylesR	TR013	1861.01	100Year-Existing	7.44	91.27	92.21	92.32	92.54	0.020506	2.75	4.52	26.10	1.01
DoylesR	TR013	1789.09	100Year-Existing	7.44	90.00	90.54	90.59	90.68	0.031527	2.31	7.28	57.10	1.16
DoylesR	TR013	1733.37	100Year-Existing	7.44	89.53	90.23	90.11	90.25	0.003937	0.96	16.16	75.88	0.42
DoylesR	TR013	1677.65	100Year-Existing	7.44	89.42	89.82		89.86	0.015689	1.33	9.92	56.77	0.78
DoylesR	TR013	1613.85	100Year-Existing	7.44	89.11	89.62		89.62	0.001761	0.54	25.52	96.39	0.27
DoylesR	TR013	1552.30	100Year-Existing	7.44	88.82	89.52		89.53	0.001885	0.74	21.38	68.00	0.30
DoylesR	TR013	1506.96	100Year-Existing	7.44	88.81	89.45		89.46	0.001910	0.71	20.74	64.50	0.30
DoylesR	TR013	1478.17	100Year-Existing	7.44	88.80	89.28		89.33	0.016217	1.53	9.47	43.32	0.81
DoylesR	TR013	1411.61	100Year-Existing	7.44	88.11	89.06		89.08	0.001572	0.80	13.88	30.62	0.29
DoylesR	TR013	1388.58	100Year-Existing	7.44	87.45	89.06	88.80	89.07	0.000116	0.31	56.05	155.26	0.08
DoylesR	TR013	1375		Culvert									
DoylesR	TR013	1373.86	100Year-Existing	7.44	87.32	88.62	88.50	88.70	0.004744	1.76	8.19	15.84	0.51
DoylesR	TR013	1301.72	100Year-Existing	7.44	86.82	87.79	87.79	88.09	0.017578	2.63	3.62	6.83	0.95
DoylesR	TR013	1246.99	100Year-Existing	7.44	85.79	86.64	86.70	86.99	0.023435	2.70	3.12	6.50	1.07

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR013	1192.26	100Year-Existing	7.44	84.79	85.84	85.64	85.98	0.007603	1.85	5.63	10.71	0.64
DoylesR	TR013	1137.53	100Year-Existing	7.44	84.03	85.10	85.10	85.39	0.015503	2.55	3.67	7.31	0.89
DoylesR	TR013	1082.80	100Year-Existing	7.44	83.55	84.44	84.43	84.55	0.014132	1.94	6.53	21.85	0.80
DoylesR	TR013	1064.90	100Year-Existing	7.44	82.57	84.47	83.59	84.49	0.000548	0.70	23.96	107.31	0.18
DoylesR	TR013	1050		Culvert									
DoylesR	TR013	1042.53	100Year-Existing	7.44	82.41	84.18	83.35	84.19	0.000369	0.57	27.90	73.04	0.15
DoylesR	TR013	1022.06	100Year-Existing	7.44	82.71	84.01	83.77	84.16	0.006422	2.02	5.43	8.02	0.60
DoylesR	TR013	969.32	100Year-Existing	7.44	82.40	83.30	83.30	83.58	0.019858	2.80	3.72	6.77	1.01
DoylesR	TR013	915.66	100Year-Existing	7.44	81.80	82.89	82.54	82.91	0.001364	0.86	17.95	39.49	0.28
DoylesR	TR013	867.93	100Year-Existing	7.44	81.40	82.78		82.82	0.002274	1.28	13.15	32.33	0.36
DoylesR	TR013	809.27	100Year-Existing	7.44	81.32	82.51		82.62	0.004919	1.62	5.86	9.43	0.52
DoylesR	TR013	756.07	100Year-Existing	7.44	80.75	81.83	81.83	82.17	0.016071	2.89	3.54	5.60	0.94
DoylesR	TR013	702.82	100Year-Existing	7.44	79.91	80.95	80.95	81.28	0.017450	2.84	3.64	6.56	0.96
DoylesR	TR013	651.60	100Year-Existing	7.44	78.06	78.83	79.17	79.63	0.071195	4.13	2.12	5.48	1.78
DoylesR	TR013	588.74	100Year-Existing	7.44	75.89	76.81	76.85	77.12	0.023239	2.48	3.27	7.43	1.03
DoylesR	TR013	543.29	100Year-Existing	7.44	75.20	75.86	75.96	76.24	0.040221	2.75	2.80	7.28	1.32
DoylesR	TR013	489.08	100Year-Existing	7.44	73.77	74.87	74.87	75.21	0.016928	2.91	3.50	5.59	0.95
DoylesR	TR013	436.90	100Year-Existing	7.44	72.11	72.96	73.29	73.67	0.059216	3.77	2.08	4.63	1.61
DoylesR	TR013	383.70	100Year-Existing	7.44	70.97	72.43	71.84	72.44	0.000653	0.68	27.82	127.86	0.20
DoylesR	TR013	363.75	100Year-Existing	7.44	70.36	71.90	71.90	72.36	0.010920	3.22	3.24	9.00	0.84
DoylesR	TR013	360		Culvert									
DoylesR	TR013	344.87	100Year-Existing	7.44	70.32	71.70	71.70	71.71	0.000653	0.65	24.34	48.31	0.19
DoylesR	TR013	324.16	100Year-Existing	7.44	70.29	70.85	70.98	71.48	0.153359	4.43	3.31	32.87	2.42
DoylesR	TR013	256.30	100Year-Existing	7.44	69.36	70.28	70.28	70.35	0.014536	1.98	9.09	47.52	0.77
DoylesR	TR013	236.50	100Year-Existing	7.44	69.35	70.19	69.97	70.19	0.000820	0.41	33.74	115.67	0.19
DoylesR	TR013	162.98	100Year-Existing	7.44	68.94	70.14		70.15	0.000780	0.53	30.68	119.43	0.19
DoylesR	TR013	133.14	100Year-Existing	7.44	68.76	70.13		70.13	0.000228	0.30	49.28	116.30	0.10
DoylesR	TR013	66.14	100Year-Existing	7.44	68.46	70.11		70.12	0.000243	0.36	38.94	132.32	0.11
DoylesR	M001	484.12	100Year-Existing	42.56	68.08	69.69	69.61	69.86	0.014867	2.85	31.65	91.43	0.87
DoylesR	M001	429.44	100Year-Existing	42.56	67.72	69.53		69.56	0.002560	1.33	67.56	125.46	0.37
DoylesR	M001	388.03	100Year-Existing	42.56	67.53	69.45		69.47	0.001941	1.23	81.28	143.24	0.33
DoylesR	M001	344.78	100Year-Existing	42.56	67.39	69.43		69.43	0.000383	0.58	161.57	222.43	0.15
DoylesR	M001	215.64	100Year-Existing	42.56	67.21	69.42		69.43	0.000039	0.21	368.19	339.56	0.05
DoylesR	M001	77.13	100Year-Existing	42.56	66.62	69.42		69.42	0.000011	0.13	652.73	516.89	0.03
CochranePB	M002	8105.53	100Year-Existing	12.24	140.65	142.23	141.33	142.23	0.000115	0.35	75.65	105.62	0.10
CochranePB	M002	8065.47	100Year-Existing	12.24	140.64	142.21		142.22	0.000606	0.72	38.40	76.05	0.22
CochranePB	M002	8050.98	100Year-Existing	12.24	140.00	142.18		142.21	0.000218	0.90	29.73	62.78	0.25
CochranePB	M002	8024.09	100Year-Existing	12.24	140.62	142.18		142.20	0.000789	0.79	37.02	92.41	0.25
CochranePB	M002	8013.06	100Year-Existing	12.24	140.42	142.18		142.19	0.000466	0.68	41.84	85.64	0.19
CochranePB	M002	8004.70	100Year-Existing	12.24	140.25	142.18	141.80	142.18	0.000273	0.69	56.89	106.85	0.16
CochranePB	M002	8000		Culvert									
CochranePB	M002	7995.14	100Year-Existing	12.24	140.37	142.17	141.50	142.18	0.000183	0.54	53.18	78.26	0.13
CochranePB	M002	7964.49	100Year-Existing	12.24	140.14	141.75	141.75	142.12	0.011728	3.22	6.29	9.81	0.91
CochranePB	M002	7901.64	100Year-Existing	12.24	139.30	140.71	140.88	141.15	0.020694	3.21	6.00	24.04	1.13
CochranePB	M002	7847.08	100Year-Existing	12.24	138.68	139.77	139.66	139.83	0.007564	1.64	15.01	45.90	0.67
CochranePB	M002	7812.33	100Year-Existing	12.24	138.52	139.32	139.32	139.41	0.022809	2.12	11.58	54.14	1.12
CochranePB	M002	7738.34	100Year-Existing	12.24	137.94	138.90	138.71	138.91	0.002349	0.84	32.56	123.83	0.38
CochranePB	M002	7695.32	100Year-Existing	12.24	137.67	138.58	138.58	138.71	0.016753	2.05	10.23	40.36	1.00
CochranePB	M002	7609.21	100Year-Existing	12.24	136.29	137.71	137.34	137.73	0.000818	0.77	30.97	71.08	0.25
CochranePB	M002	7515.77	100Year-Existing	12.24	136.28	137.59		137.62	0.002297	1.20	23.27	89.77	0.41
CochranePB	M002	7476.72	100Year-Existing	12.24	136.26	137.56		137.57	0.000632	0.62	36.58	89.76	0.22
CochranePB	M002	7450.86	100Year-Existing	12.24	136.25	137.53		137.55	0.001206	0.82	26.71	80.57	0.30
CochranePB	M002	7329.89	100Year-Existing	12.24	136.23	137.25		137.30	0.005106	1.36	17.14	73.35	0.58
CochranePB	M002	7253.62	100Year-Existing	12.24	136.05	137.07		137.09	0.002109	0.93	25.78	91.74	0.37
CochranePB	M002	7208.54	100Year-Existing	12.24	135.88	136.96		136.99	0.002698	1.09	24.33	90.15	0.43
CochranePB	M002	7108.13	100Year-Existing	12.24	135.54	136.50		136.57	0.009657	1.90	16.08	71.07	0.77
CochranePB	M002	7041.67	100Year-Existing	12.24	134.91	136.04	136.02	136.13	0.006067	1.56	14.21	71.37	0.64
CochranePB	M002	6985.71	100Year-Existing	12.24	134.29	135.63	135.63	135.77	0.006650	2.10	12.36	42.85	0.70
CochranePB	M002	6955.25	100Year-Existing	12.24	133.48	134.58	134.80	135.28	0.047863	3.78	3.63	9.98	1.70
CochranePB	M002	6863.52	100Year-Existing	12.24	131.82	132.84	132.84	132.98	0.015067	2.33	10.89	38.27	0.97
CochranePB	M002	6840.09	100Year-Existing	12.24	131.19	132.10	132.19	132.42	0.040921	3.09	7.18	35.57	1.54
CochranePB	M002	6808.25	100Year-Existing	12.24	130.51	131.36	131.44	131.66	0.057353	3.29	7.16	38.45	1.75
CochranePB	M002	6767.75	100Year-Existing	12.24	129.31	130.32	130.34	130.48	0.016447	2.25	10.20	45.32	1.01
CochranePB	M002	6727.78	100Year-Existing	12.24	128.36	129.42	129.48	129.68	0.024456	2.77	7.75	31.82	1.21
CochranePB	M002	6691.71	100Year-Existing	12.24	127.96	129.02	128.94	129.08	0.006700	1.54	16.47	69.98	0.65
CochranePB	M002	6651.54	100Year-Existing	12.24	127.68	128.62	128.59	128.73	0.012125	1.60	9.81	36.52	0.84
CochranePB	M002	6630.83	100Year-Existing	12.24	127.19	128.39	128.39	128.52	0.008121	1.89	11.04	48.50	0.74
CochranePB	M002	6534.50	100Year-Existing	12.24	126.30	127.24	127.26	127.40	0.018245	2.19	9.66	47.50	1.05
CochranePB	M002	6507.97	100Year-Existing	12.24	125.65	126.55	126.61	126.74	0.032549	2.61	9.23	54.35	1.34
CochranePB	M002	6480.50	100Year-Existing	12.24	124.97	125.89	125.91	126.03	0.022642	2.36	10.45	53.15	1.15
CochranePB	M002	6433.33	100Year-Existing	12.24	124.09	125.03	125.05	125.19	0.018190	2.01	8.59	35.74	1.03
CochranePB	M002	6400.96	100Year-Existing	12.24	123.40	124.53	124.37	124.58	0.005115	1.36	15.07	43.50	0.57
CochranePB	M002	6364.18	100Year-Existing	12.24	123.28	124.53		124.53	0.000284	0.39	43.39	107.16	0.14
CochranePB	M002	6314.31	100Year-Existing	12.24	123.27	124.46		124.50	0.002049	0.98	19.57	52.34	0.38
CochranePB	M002	6286.25	100Year-Existing	12.24	123.26	124.38		124.43	0.003149	1.14	16.47	54.04	0.46
CochranePB	M002	6202.53	100Year-Existing	12.24	122.81	124.01	123.93	124.12	0.005938	1.69	11.64	32.16	0.64
CochranePB	M002	6130.00	100Year-Existing	12.24	122.30	123.28	123.28	123.46	0.016637	1.93	7.09	25.61	0.99
CochranePB	M002	6040.82	100Year-Existing	12.24	121.41	122.57	122.46	122.61	0.002954	1.19	20.63	74.04	0.46
CochranePB	M002	6006.95	100Year-Existing	12.24	121.40	122.54		122.55	0.000924	0.55	29.68	96.37	0.25
CochranePB	M002	5976.09	100Year-Existing	12.24	121.39	122.38	122.38	122.47	0.012422	1.72	13.50	70.98	0.86
CochranePB	M002	5910.40	100Year-Existing	12.24	120.29	121.45	121.49	121.65	0.015405	2.46	9.22	37.62	1.00
CochranePB	M002	5863.68	100Year-Existing	12.24	119.62	120.52	120.61	120.78	0.031581	2.53	6.91	32.85	1.34
CochranePB	M002	5811.63	100Year-Existing	12.24	118.87	119.86	119.95	120.13	0.026700	2.82	8.13	41.86	1.28
CochranePB	M002	5768.42	100Year-Existing	12.24	117.38	118.36	118.50	118.76	0.040090	2.84	4.76	20.09	1.51
CochranePB	M002	5725.36	100Year-Existing	12.24	116.48	117.57	117.59	117.74	0.014163	2.16	8.86	36.67	0.95
CochranePB	M002	5678.58	100Year-Existing	12.24	115.39	116.43	116.53	116.77	0.028304	2.64	5.22	20.62	1.30
CochranePB	M002	5627.04	100Year-Existing	12.24	114.79	116.13	115.82	116.17	0.002260	1.15	18.80	43.95	0.41
CochranePB	M002	5609.94	100Year-Existing	18.40	114.77	115.93		116.05	0.007832	1.82	15.47	41.78	0.73
CochranePB	M002	5601.00	100Year-Existing	18.40	114.76	115.90		115.91	0.001749	0.86	42.10	108.08	0.34
CochranePB	M002	5568.52	100Year-Existing	18.40	114.75	115.86		115.87	0.001304	0.72	42.19	94.20	0.30

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	5508.20	100Year-Existing	18.40	114.04	115.57		115.72	0.004610	1.83	12.29	20.63	0.60
CochranePB	M002	5473.67	100Year-Existing	18.40	113.90	115.25	115.25	115.48	0.010654	2.44	11.84	26.97	0.88
CochranePB	M002	5403.83	100Year-Existing	18.40	110.69	111.79	112.24	113.58	0.113538	5.97	3.30	8.33	2.64
CochranePB	M002	5352.19	100Year-Existing	18.40	110.27	111.59	111.59	111.86	0.013498	2.56	9.88	20.71	0.97
CochranePB	M002	5309.83	100Year-Existing	18.40	109.64	111.03	111.10	111.30	0.012801	2.61	12.31	43.05	0.95
CochranePB	M002	5266.90	100Year-Existing	18.40	109.30	110.59	110.64	110.77	0.011728	2.41	17.60	78.44	0.90
CochranePB	M002	5213.45	100Year-Existing	18.40	108.81	110.33	109.85	110.35	0.000941	0.80	41.47	80.24	0.27
CochranePB	M002	5162.38	100Year-Existing	34.88	108.18	109.94	109.94	110.20	0.009208	3.06	25.36	52.16	0.87
CochranePB	M002	5109.83	100Year-Existing	34.88	108.02	109.44	109.14	109.48	0.003637	1.39	47.49	100.57	0.50
CochranePB	M002	5059.83	100Year-Existing	34.88	107.54	109.13		109.27	0.006717	2.26	33.90	84.76	0.72
CochranePB	M002	5013.20	100Year-Existing	34.88	107.21	108.83	108.83	108.98	0.008638	2.33	33.00	98.04	0.79
CochranePB	M002	4977.38	100Year-Existing	34.88	107.07	108.69	108.43	108.72	0.001844	1.21	64.55	145.20	0.38
CochranePB	M002	4908.49	100Year-Existing	34.88	106.95	108.66		108.67	0.000532	0.72	109.44	194.42	0.21
CochranePB	M002	4883.44	100Year-Existing	34.88	106.94	108.65		108.65	0.000298	0.53	129.57	198.81	0.16
CochranePB	M002	4816.97	100Year-Existing	34.88	106.93	108.63		108.64	0.000287	0.52	133.26	220.86	0.16
CochranePB	M002	4757.22	100Year-Existing	34.88	106.78	108.62		108.63	0.000199	0.47	155.06	253.69	0.13
CochranePB	M002	4718.65	100Year-Existing	34.88	106.77	108.61		108.62	0.000298	0.59	138.52	314.49	0.16
CochranePB	M002	4674.22	100Year-Existing	34.88	106.76	108.58		108.60	0.000798	0.96	92.76	264.56	0.27
CochranePB	M002	4633.22	100Year-Existing	34.88	106.75	108.57		108.58	0.000325	0.60	87.51	166.98	0.17
CochranePB	M002	4561.03	100Year-Existing	34.88	106.74	108.50		108.54	0.001108	1.07	54.09	95.60	0.31
CochranePB	M002	4506.74	100Year-Existing	34.88	106.43	108.19	108.19	108.40	0.006962	2.49	25.55	56.74	0.75
CochranePB	M002	4459.83	100Year-Existing	34.88	105.66	107.22	107.43	107.84	0.020403	3.73	13.85	42.92	1.25
CochranePB	M002	4409.53	100Year-Existing	34.88	104.62	106.21	106.39	106.81	0.020463	3.73	13.36	29.16	1.23
CochranePB	M002	4359.83	100Year-Existing	34.88	103.72	105.39	105.59	105.91	0.015344	3.40	13.63	28.60	1.08
CochranePB	M002	4327.93	100Year-Existing	34.88	103.17	104.95	105.08	105.45	0.013729	3.30	13.92	28.42	1.04
CochranePB	M002	4265.56	100Year-Existing	34.88	102.45	104.21	104.25	104.61	0.012531	3.28	16.38	26.38	0.99
CochranePB	M002	4208.11	100Year-Existing	34.88	101.67	103.28	103.43	103.79	0.015694	3.35	13.91	30.03	1.10
CochranePB	M002	4159.83	100Year-Existing	34.88	101.12	102.18	102.26	102.49	0.051137	3.26	15.66	47.92	1.70
CochranePB	M002	4109.83	100Year-Existing	34.88	98.84	100.45	100.64	101.05	0.017995	3.75	14.17	36.40	1.19
CochranePB	M002	4056.00	100Year-Existing	34.88	97.18	98.74	99.11	99.71	0.032818	4.69	9.51	16.00	1.55
CochranePB	M002	4009.83	100Year-Existing	34.88	96.33	98.17	98.28	98.53	0.015116	3.63	22.38	62.77	1.05
CochranePB	M002	3969.03	100Year-Existing	34.88	95.62	97.38	97.60	97.95	0.013229	3.60	12.96	36.67	1.05
CochranePB	M002	3916.58	100Year-Existing	34.88	94.82	96.91	97.05	97.30	0.009652	3.16	20.24	72.20	0.86
CochranePB	M002	3859.82	100Year-Existing	34.88	94.34	96.08	96.37	96.64	0.013747	3.34	10.95	13.82	1.03
CochranePB	M002	3810.05	100Year-Existing	34.88	93.50	95.32	95.61	95.94	0.014285	3.68	11.65	25.21	1.08
CochranePB	M002	3759.83	100Year-Existing	34.88	93.00	94.62	94.79	95.13	0.015830	3.59	16.79	53.89	1.12
CochranePB	M002	3709.28	100Year-Existing	34.88	92.33	94.06	94.15	94.41	0.011830	3.12	20.10	56.56	0.96
CochranePB	M002	3661.60	100Year-Existing	34.88	92.05	93.79	93.81	93.96	0.006199	2.37	35.01	131.55	0.71
CochranePB	M002	3609.83	100Year-Existing	34.88	91.73	93.36	93.41	93.56	0.009574	2.68	27.08	102.21	0.85
CochranePB	M002	3559.90	100Year-Existing	34.88	90.87	92.82	92.88	93.10	0.007623	2.87	26.02	80.00	0.79
CochranePB	M002	3509.83	100Year-Existing	34.88	90.38	92.48	92.32	92.57	0.002763	1.94	47.23	108.20	0.49
CochranePB	M002	3493.23	100Year-Existing	34.88	90.02	92.34	91.76	92.53	0.002642	2.40	22.78	15.98	0.51
CochranePB	M002	3480		Bridge									
CochranePB	M002	3474.26	100Year-Existing	34.88	89.91	92.35	91.39	92.47	0.001234	1.76	27.89	17.22	0.37
CochranePB	M002	3466.43	100Year-Existing	34.88	90.00	91.50	91.49	92.26	0.011963	3.98	10.22	9.74	1.05
CochranePB	M002	3454.35	100Year-Existing	34.88	89.94	91.80	91.35	92.04	0.003432	2.39	18.78	16.30	0.58
CochranePB	M002	3450		Bridge									
CochranePB	M002	3434.16	100Year-Existing	38.16	90.36	91.65	91.50	91.97	0.007139	2.68	17.00	20.02	0.79
CochranePB	M002	3413.11	100Year-Existing	38.16	90.14	91.58	91.58	91.73	0.007563	2.54	35.13	90.81	0.77
CochranePB	M002	3391.58	100Year-Existing	38.16	90.03	91.48	91.18	91.57	0.005113	2.18	42.98	99.21	0.65
CochranePB	M002	3371.12	100Year-Existing	38.16	90.02	91.27	91.27	91.44	0.007636	2.40	33.66	92.06	0.78
CochranePB	M002	3309.87	100Year-Existing	38.16	89.28	90.65	90.61	90.75	0.008944	2.58	37.42	103.21	0.81
CochranePB	M002	3272.96	100Year-Existing	38.16	88.73	90.21	90.21	90.39	0.009636	2.66	29.28	76.43	0.85
CochranePB	M002	3219.09	100Year-Existing	38.16	88.30	89.74	89.75	89.89	0.009260	2.54	33.05	107.00	0.84
CochranePB	M002	3175.54	100Year-Existing	38.16	87.36	89.40	89.21	89.54	0.002702	1.92	34.40	66.36	0.48
CochranePB	M002	3165		Bridge									
CochranePB	M002	3157.85	100Year-Existing	38.16	87.50	89.20	89.20	89.42	0.004977	2.40	29.15	76.93	0.65
CochranePB	M002	3135.32	100Year-Existing	38.16	87.85	89.08	89.02	89.14	0.005096	1.73	49.74	153.30	0.61
CochranePB	M002	3106.53	100Year-Existing	38.16	87.94	88.79	88.79	88.90	0.026263	2.53	28.89	117.96	1.22
CochranePB	M002	3088.94	100Year-Existing	38.16	86.84	88.71	88.11	88.75	0.000885	1.11	70.09	167.79	0.29
CochranePB	M002	3080		Bridge									
CochranePB	M002	3075.67	100Year-Existing	38.16	86.74	88.30	87.96	88.36	0.001686	1.35	51.01	114.85	0.38
CochranePB	M002	3056.89	100Year-Existing	38.16	87.66	88.22		88.30	0.014652	0.93	31.81	107.22	0.77
CochranePB	M002	3007.54	100Year-Existing	38.16	87.61	87.93		87.96	0.003798	0.39	49.12	101.56	0.31
CochranePB	M002	2976.31	100Year-Existing	38.16	87.51	87.84		87.87	0.003505	0.44	51.59	115.49	0.35
CochranePB	M002	2941.08	100Year-Existing	38.16	86.98	87.77		87.78	0.002186	0.71	76.63	220.59	0.35
CochranePB	M002	2920.10	100Year-Existing	38.16	86.74	87.75	87.54	87.76	0.000231	0.30	167.70	295.29	0.11
CochranePB	M002	2915		Bridge									
CochranePB	M002	2912.75	100Year-Existing	38.16	86.97	87.75	87.75	87.75	0.000139	0.25	200.70	313.30	0.10
CochranePB	M002	2890.23	100Year-Existing	38.16	86.65	86.82	86.99	87.53	0.430052	3.31	10.24	73.26	3.62
CochranePB	M002	2823.99	100Year-Existing	38.16	86.08	87.06	86.75	87.07	0.001442	0.66	92.07	244.86	0.27
CochranePB	M002	2789.49	100Year-Existing	38.16	86.04	87.03		87.04	0.001254	0.58	95.05	250.29	0.26
CochranePB	M002	2741.30	100Year-Existing	38.16	85.71	86.98		86.99	0.000984	0.73	101.21	264.98	0.27
CochranePB	M002	2663.79	100Year-Existing	38.16	85.58	86.93		86.94	0.001061	0.83	98.67	251.18	0.28
CochranePB	M002	2639.38	100Year-Existing	38.16	85.57	86.90		86.91	0.001359	0.89	90.24	234.03	0.32
CochranePB	M002	2616.24	100Year-Existing	38.16	85.30	86.88		86.89	0.000768	0.79	107.21	229.93	0.25
CochranePB	M002	2539.69	100Year-Existing	38.16	85.41	86.83		86.84	0.001367	0.92	87.11	220.09	0.32
CochranePB	M002	2489.06	100Year-Existing	38.16	85.18	86.78		86.80	0.001453	1.10	81.41	196.02	0.34
CochranePB	M002	2438.28	100Year-Existing	38.16	84.87	86.72		86.75	0.001454	1.19	76.33	172.66	0.35
CochranePB	M002	2384.01	100Year-Existing	38.16	84.65	86.62		86.66	0.002100	1.53	63.85	136.90	0.41
CochranePB	M002	2310.47	100Year-Existing	38.16	84.33	86.36		86.46	0.004050	2.06	45.77	115.70	0.56
CochranePB	M002	2284.63	100Year-Existing	38.16	84.16	86.31		86.36	0.002862	1.76	51.84	99.14	0.46
CochranePB	M002	2240.58	100Year-Existing	38.16	84.04	85.89	85.89	86.14	0.009002	2.97	24.80	45.03	0.84
CochranePB	M002	2170.94	100Year-Existing	38.16	82.26	83.89	84.22	84.97	0.032549	4.92	9.95	16.12	1.57
CochranePB	M002	2136.89	100Year-Existing	38.16	81.72	83.35	83.53	83.97	0.020199	3.70	12.87	22.00	1.24
CochranePB	M002	2100.01	100Year-Existing	38.16	81.30	83.10	83.15	83.44	0.011342	3.05	20.51	39.29	0.94
CochranePB	M002	2046.85	100Year-Existing	38.16	80.89	82.59	82.63	82.93	0.010069	2.78	18.85	36.98	0.89
CochranePB	M002	2014.35	100Year-Existing	38.16	80.47	81.90	82.04	82.43	0.025562	3.48	15.02	40.32	1.34
CochranePB	M002	1990.76	100Year-Existing	38.16	80.10	81.88	81.88	82.12	0.008959	2.69	24.20	44.15	0.83
CochranePB	M002	1945.20	100Year-Existing	38.16	79.43	81.50	81.15	81.59	0.003113	1.85	36.98	48.82	0.51

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	1916.67	100Year-Existing	38.16	79.31	81.34		81.48	0.004569	2.23	31.88	43.04	0.61
CochranePB	M002	1871.48	100Year-Existing	38.16	79.28	81.18		81.28	0.003768	1.83	35.16	47.47	0.55
CochranePB	M002	1836.03	100Year-Existing	38.16	78.83	81.13		81.19	0.001502	1.43	46.11	71.28	0.36
CochranePB	M002	1788.63	100Year-Existing	38.16	78.46	80.75	80.75	81.04	0.006959	3.06	24.71	38.85	0.76
CochranePB	M002	1768.08	100Year-Existing	38.16	78.14	79.97	80.22	80.75	0.022015	4.48	13.39	25.25	1.31
CochranePB	M002	1733.19	100Year-Existing	38.16	77.95	79.93	79.94	80.20	0.007011	2.68	24.59	48.24	0.76
CochranePB	M002	1694.89	100Year-Existing	38.16	77.12	79.22	78.81	79.32	0.002524	1.73	34.63	41.60	0.47
CochranePB	M002	1685.79	100Year-Existing	38.16	77.06	79.16		79.29	0.003376	2.00	30.19	37.52	0.53
CochranePB	M002	1640.51	100Year-Existing	38.16	76.45	78.66	78.66	79.04	0.007506	3.13	18.86	27.51	0.80
CochranePB	M002	1602.99	100Year-Existing	38.16	75.01	76.40	76.91	78.23	0.079717	6.20	7.19	14.92	2.34
CochranePB	M002	1585.52	100Year-Existing	38.16	74.01	75.29	75.66	76.64	0.084602	5.57	8.66	20.35	2.35
CochranePB	M002	1569.47	100Year-Existing	38.16	73.71	74.98	75.13	75.54	0.036344	3.45	12.23	27.22	1.52
CochranePB	M002	1541.97	100Year-Existing	38.16	72.31	74.03	74.23	74.74	0.022517	4.06	12.04	18.36	1.30
CochranePB	M002	1510.83	100Year-Existing	38.16	71.34	72.51	72.78	73.50	0.082284	4.44	8.78	23.42	2.22
CochranePB	M002	1495.27	100Year-Existing	38.16	71.19	72.95	72.68	73.08	0.003948	1.70	29.44	41.39	0.56
CochranePB	M002	1458.62	100Year-Existing	38.16	70.58	72.58	72.58	72.84	0.008080	3.18	27.83	49.31	0.82
CochranePB	M002	1419.61	100Year-Existing	38.16	70.21	72.10	72.04	72.35	0.007307	2.82	23.79	36.32	0.78
CochranePB	M002	1384.56	100Year-Existing	38.16	69.61	71.77	71.61	72.11	0.006005	2.78	19.69	46.39	0.73
CochranePB	M002	1351.51	100Year-Existing	38.16	69.54	71.70	71.70	71.90	0.004511	2.49	32.38	78.07	0.63
CochranePB	M002	1311.78	100Year-Existing	38.16	69.49	71.33	71.41	71.63	0.008907	3.06	28.25	104.57	0.86
CochranePB	M002	1291.19	100Year-Existing	38.16	69.28	70.94	71.09	71.39	0.015483	3.62	21.29	83.10	1.09
CochranePB	M002	1217.75	100Year-Existing	38.16	68.70	70.78	70.18	70.82	0.000872	1.12	61.98	107.73	0.29
CochranePB	M002	1200.39	100Year-Existing	38.16	68.69	70.53	70.13	70.78	0.003944	2.23	17.79	18.62	0.59
CochranePB	M002	1190		Bridge									
CochranePB	M002	1185.68	100Year-Existing	39.12	68.46	70.50	69.82	70.68	0.002172	1.90	21.16	25.24	0.46
CochranePB	M002	1164.32	100Year-Existing	39.12	68.65	70.37	70.37	70.60	0.005456	2.61	28.48	75.05	0.70
CochranePB	M002	1132.60	100Year-Existing	39.12	68.60	69.79	69.92	70.22	0.026961	3.64	20.23	99.01	1.38
CochranePB	M002	1111.68	100Year-Existing	39.12	68.55	69.78	69.62	69.84	0.004166	1.68	49.71	149.27	0.57
CochranePB	M002	1059.95	100Year-Existing	39.12	68.38	69.61		69.68	0.004458	1.98	46.31	130.06	0.61
CochranePB	M002	998.99	100Year-Existing	39.12	68.13	69.44		69.47	0.002448	1.51	68.10	171.86	0.45
CochranePB	M002	955.54	100Year-Existing	39.12	68.12	69.44		69.44	0.000191	0.41	177.08	255.76	0.13
CochranePB	M002	851.16	100Year-Existing	39.12	67.62	69.43		69.43	0.000092	0.35	216.17	245.32	0.09
CochranePB	M002	798.06	100Year-Existing	39.12	67.47	69.43		69.43	0.000046	0.26	281.76	280.88	0.07
CochranePB	M002	746.77	100Year-Existing	39.12	67.30	69.43		69.43	0.000019	0.18	382.89	318.08	0.04
CochranePB	M002	694.52	100Year-Existing	39.12	66.98	69.42		69.43	0.000012	0.16	465.80	362.03	0.03
CochranePB	M002	669.16	100Year-Existing	39.12	66.97	69.42		69.42	0.000010	0.14	518.78	391.60	0.03
CochranePB	M002	590.19	100Year-Existing	39.12	66.84	69.42		69.42	0.000007	0.12	617.31	468.90	0.03
CochranePB	M002	539.85	100Year-Existing	39.12	66.81	69.42		69.42	0.000006	0.12	629.67	486.01	0.03
CochranePB	M002	488.40	100Year-Existing	39.12	66.54	69.42		69.42	0.000005	0.11	670.81	493.69	0.02
CochranePB	M001	381.27	100Year-Existing	77.76	66.35	69.42		69.42	0.000024	0.22	774.28	590.10	0.04
CochranePB	M001	313.14	100Year-Existing	77.76	66.28	69.42		69.42	0.000016	0.17	915.92	659.34	0.03

Petty Harbour River 100yr Q-30%

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	TR001	439.21	100Year-Existing	25.83	105.11	106.32	106.13	106.41	0.005488	1.85	28.57	55.47	0.57
RaymondB	TR001	409.42	100Year-Existing	25.83	104.68	105.87	105.87	106.15	0.014249	2.93	15.99	28.67	0.91
RaymondB	TR001	380.07	100Year-Existing	25.83	104.05	105.59	105.04	105.67	0.002551	1.50	29.92	47.05	0.41
RaymondB	TR001	360.64	100Year-Existing	25.83	103.60	105.58	104.82	105.63	0.001124	1.15	45.25	68.73	0.28
RaymondB	TR001	350		Bridge									
RaymondB	TR001	344.45	100Year-Existing	25.83	103.30	104.52	104.85	105.34	0.035095	4.61	8.52	18.90	1.40
RaymondB	TR001	334.13	100Year-Existing	25.83	103.40	104.29	104.56	104.92	0.034684	3.68	9.15	27.97	1.34
RaymondB	TR001	272.22	100Year-Existing	25.83	102.83	103.79	103.79	104.05	0.018297	2.85	15.98	35.58	1.00
RaymondB	TR001	218.50	100Year-Existing	25.83	101.42	102.60	102.71	103.05	0.017802	3.23	11.81	24.23	1.01
RaymondB	TR001	163.97	100Year-Existing	25.83	100.32	101.67	101.24	101.79	0.003668	1.61	19.88	23.85	0.47
RaymondB	TR001	115.54	100Year-Existing	25.83	100.00	101.05	101.05	101.42	0.018945	3.20	12.26	19.08	1.04
RaymondB	TR001	56.65	100Year-Existing	25.83	97.73	98.42	98.70	99.35	0.079051	4.57	6.92	15.50	1.94
RaymondB	M002	6453.60	100Year-Existing	13.79	118.10	125.14	118.79	125.14	0.000000	0.03	644.43	231.97	0.00
RaymondB	M002	6405.52	100Year-Existing	13.79	118.00	125.14		125.14	0.000000	0.03	655.21	225.08	0.00
RaymondB	M002	6347.04	100Year-Existing	13.79	124.73	125.08		125.13	0.006597	0.97	14.37	41.16	0.52
RaymondB	M002	6247.26	100Year-Existing	13.79	117.21	118.15		118.20	0.003616	1.25	19.27	34.34	0.44
RaymondB	M002	6230.10	100Year-Existing	13.79	117.20	118.14		118.16	0.001598	0.81	23.98	41.65	0.29
RaymondB	M002	6205.35	100Year-Existing	13.79	117.28	118.11		118.12	0.001484	0.72	33.14	57.44	0.28
RaymondB	M002	6143.06	100Year-Existing	13.79	117.18	117.99		118.01	0.002204	0.85	28.90	59.12	0.33
RaymondB	M002	6105.93	100Year-Existing	13.79	117.17	117.86		117.90	0.003620	0.96	20.37	55.49	0.41
RaymondB	M002	6026.35	100Year-Existing	13.79	116.81	117.65		117.67	0.002175	0.87	25.06	44.91	0.33
RaymondB	M002	5933.71	100Year-Existing	13.79	116.42	117.35		117.41	0.003516	1.21	17.31	40.50	0.43
RaymondB	M002	5883.92	100Year-Existing	13.79	116.12	117.14		117.22	0.004127	1.37	13.21	24.38	0.47
RaymondB	M002	5785.15	100Year-Existing	13.79	115.75	116.68		116.76	0.005396	1.42	13.50	27.97	0.53
RaymondB	M002	5732.44	100Year-Existing	13.79	115.46	116.36		116.46	0.005873	1.45	11.17	21.96	0.55
RaymondB	M002	5631.37	100Year-Existing	13.79	114.85	115.66		115.74	0.009035	1.56	14.84	44.52	0.66
RaymondB	M002	5500.15	100Year-Existing	13.79	114.62	115.53		115.53	0.000857	0.56	49.19	124.86	0.21
RaymondB	M002	5485.46	100Year-Existing	13.79	114.53	115.52		115.52	0.000547	0.50	60.82	159.10	0.17
RaymondB	M002	5411.19	100Year-Existing	13.79	114.48	115.44	115.12	115.46	0.001582	0.79	26.03	63.30	0.29
RaymondB	M002	5338.54	100Year-Existing	13.79	114.41	115.43	114.75	115.44	0.000103	0.22	73.45	108.03	0.07
RaymondB	M002	5278.93	100Year-Existing	13.79	114.44	115.42	114.79	115.43	0.000155	0.26	63.66	108.74	0.09
RaymondB	M002	5226.60	100Year-Existing	13.79	114.42	115.42		115.42	0.000182	0.28	67.32	123.06	0.10
RaymondB	M002	5171.66	100Year-Existing	13.79	114.42	115.41		115.41	0.000206	0.30	74.93	172.78	0.11
RaymondB	M002	5111.50	100Year-Existing	13.79	114.42	115.38		115.39	0.000667	0.55	40.22	91.54	0.19
RaymondB	M002	5077.48	100Year-Existing	13.79	114.38	115.36		115.37	0.000557	0.49	36.27	67.00	0.17
RaymondB	M002	5017.13	100Year-Existing	13.79	114.40	115.24		115.30	0.003156	1.03	14.29	25.12	0.40
RaymondB	M002	4967.43	100Year-Existing	13.79	114.07	114.99		115.09	0.005456	1.44	10.25	16.72	0.53
RaymondB	M002	4943.43	100Year-Existing	13.79	113.82	114.88		114.97	0.004594	1.47	12.52	23.08	0.50
RaymondB	M002	4910.95	100Year-Existing	13.79	113.67	114.73		114.82	0.004474	1.47	13.48	27.60	0.50
RaymondB	M002	4851.17	100Year-Existing	13.79	113.47	114.46		114.54	0.004844	1.45	13.65	29.37	0.51
RaymondB	M002	4783.73	100Year-Existing	13.79	113.30	114.15		114.21	0.004795	1.17	14.69	34.91	0.48
RaymondB	M002	4732.68	100Year-Existing	13.79	113.07	113.88		113.94	0.005782	1.26	16.71	42.60	0.53
RaymondB	M002	4681.76	100Year-Existing	13.79	112.35	113.17	113.17	113.44	0.017509	2.43	7.09	17.67	0.94
RaymondB	M002	4673.96	100Year-Existing	13.79	111.74	112.50	112.72	113.18	0.054643	3.81	4.30	10.97	1.61
RaymondB	M002	4644.78	100Year-Existing	13.79	110.49	111.31	111.46	111.85	0.035761	3.37	4.66	21.09	1.33
RaymondB	M002	4625.72	100Year-Existing	13.79	106.75	107.23	107.71	109.95	0.487607	7.31	1.89	6.44	4.29
RaymondB	M002	4615.42	100Year-Existing	13.79	105.83	106.49	106.76	107.44	0.101626	4.42	3.44	9.38	2.11
RaymondB	M002	4607.06	100Year-Existing	13.79	105.79	106.90	106.74	107.13	0.009469	2.22	7.26	9.47	0.73
RaymondB	M002	4597.34	100Year-Existing	13.79	105.76	106.85		107.03	0.008900	2.01	9.04	15.60	0.69
RaymondB	M002	4575.18	100Year-Existing	13.79	105.98	106.52	106.47	106.68	0.033961	2.18	8.01	19.39	1.16
RaymondB	M002	4545.57	100Year-Existing	13.79	104.65	105.62	105.62	105.94	0.018515	2.68	6.73	13.62	0.98
RaymondB	M002	4522.17	100Year-Existing	13.79	103.67	104.33	104.59	105.13	0.071291	4.12	4.06	12.29	1.81
RaymondB	M002	4511.42	100Year-Existing	13.79	103.62	104.75	104.47	104.83	0.004412	1.48	14.23	23.04	0.49
RaymondB	M002	4489.94	100Year-Existing	13.79	103.59	104.40	104.40	104.64	0.016791	2.36	8.01	19.68	0.92
RaymondB	M002	4466.63	100Year-Existing	13.79	103.03	104.19	103.81	104.28	0.003378	1.35	14.25	31.56	0.44
RaymondB	M002	4439.46	100Year-Existing	13.79	103.00	103.90	103.90	104.10	0.013617	2.27	9.79	34.20	0.83
RaymondB	M002	4415.77	100Year-Existing	13.79	102.78	103.46	103.51	103.69	0.022138	2.29	8.26	33.32	1.01
RaymondB	M002	4385.89	100Year-Existing	13.79	101.80	102.59	102.68	102.96	0.025712	2.84	6.16	17.64	1.13
RaymondB	M002	4354.01	100Year-Existing	13.79	101.27	102.01	102.05	102.24	0.027121	2.84	9.42	28.55	1.15
RaymondB	M002	4341.66	100Year-Existing	13.79	100.84	101.81	101.82	102.01	0.012333	2.23	10.62	31.99	0.81
RaymondB	M002	4332.73	100Year-Existing	13.79	100.32	101.00	101.24	101.73	0.064635	3.97	4.19	11.13	1.73
RaymondB	M002	4308.73	100Year-Existing	13.79	98.87	99.52	99.72	100.16	0.063783	3.80	4.68	12.70	1.70
RaymondB	M002	4294.65	100Year-Existing	13.79	98.45	99.28	99.31	99.59	0.020927	2.69	6.77	13.53	1.03
RaymondB	M002	4263.86	100Year-Existing	13.79	97.59	98.85	98.38	98.93	0.002683	1.32	14.01	19.35	0.40
RaymondB	M002	4235.25	100Year-Existing	13.79	97.47	98.84		98.87	0.001092	0.89	20.18	23.38	0.26
RaymondB	M001	4130.35	100Year-Existing	38.78	96.57	97.95	97.90	98.32	0.013733	2.74	15.54	20.33	0.88
RaymondB	M001	4076.94	100Year-Existing	38.78	96.04	97.66	97.38	97.83	0.005247	1.96	25.15	33.11	0.56
RaymondB	M001	4023.53	100Year-Existing	38.78	95.94	97.00	97.00	97.33	0.018638	2.60	16.25	26.96	0.98
RaymondB	M001	3978.20	100Year-Existing	38.78	94.64	96.64	96.10	96.72	0.002402	1.29	35.35	47.65	0.38
RaymondB	M001	3916.71	100Year-Existing	52.71	94.64	96.35		96.51	0.004648	2.03	43.32	62.40	0.55
RaymondB	M001	3863.30	100Year-Existing	52.71	94.41	96.17		96.28	0.003493	1.82	51.90	75.64	0.48
RaymondB	M001	3809.58	100Year-Existing	52.71	94.09	95.68	95.65	95.98	0.009728	2.77	29.23	43.89	0.78
RaymondB	M001	3756.26	100Year-Existing	52.71	93.53	94.99	94.99	95.38	0.012813	3.00	23.90	33.66	0.88
RaymondB	M001	3694.37	100Year-Existing	52.71	92.66	94.04	94.01	94.48	0.015538	3.06	19.79	23.32	0.95
RaymondB	M001	3569.22	100Year-Existing	52.71	92.15	93.92		93.95	0.001409	1.15	83.23	105.09	0.30
RaymondB	M001	3527.64	100Year-Existing	52.71	91.85	93.88		93.90	0.000817	0.97	93.02	86.31	0.24
RaymondB	M001	3446.51	100Year-Existing	52.71	91.14	93.85		93.87	0.000329	0.72	131.04	134.58	0.16
RaymondB	M001	3421.64	100Year-Existing	52.71	91.23	93.47	92.77	93.81	0.004245	2.62	20.53	128.27	0.56
RaymondB	M001	3410		Bridge									
RaymondB	M001	3404.11	100Year-Existing	52.71	91.23	92.82	92.82	93.56	0.015184	3.85	13.95	68.66	1.00
RaymondB	M001	3380.48	100Year-Existing	52.71	90.96	92.81	92.28	92.94	0.003296	1.80	43.45	58.88	0.47
RaymondB	M001	3308.92	100Year-Existing	52.71	90.80	92.26	92.11	92.54	0.009940	2.72	29.41	42.51	0.78
RaymondB	M001	3216.73	100Year-Existing	52.71	89.31	91.98	90.87	92.16	0.001985	1.91	28.57	46.22	0.39
RaymondB	M001	3200		Bridge									
RaymondB	M001	3188.78	100Year-Existing	52.71	89.30	91.46	91.24	91.94	0.008138	3.31	18.90	37.94	0.75
RaymondB	M001	3015.18	100Year-Existing	52.71	89.18	90.76		90.88	0.003456	1.71	46.78	63.69	0.47
RaymondB	M001	2876.32	100Year-Existing	52.71	88.66	90.21		90.34	0.005132	1.93	39.96	48.78	0.56
RaymondB	M001	2789.37	100Year-Existing	52.71	88.24	89.98		90.03	0.002315	1.44	81.55	156.18	0.38
RaymondB	M001	2681.85	100Year-Existing	52.71	88.14	89.43	89.41	89.59	0.010953	2.40	44.39	113.34	0.78
RaymondB	M001	2604.32	100Year-Existing	52.71	87.97	89.25		89.28	0.002157	1.12	88.06	184.98	0.35

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	M001	2531.57	100Year-Existing	52.71	87.97	89.20		89.21	0.000779	0.61	149.52	272.59	0.21
RaymondB	M001	2385.34	100Year-Existing	52.71	87.43	89.10		89.13	0.001770	1.24	108.14	244.45	0.34
RaymondB	M001	2245.72	100Year-Existing	52.71	86.99	88.62	88.36	88.84	0.006311	2.26	33.72	61.15	0.63
RaymondB	M001	2194.47	100Year-Existing	52.71	86.68	88.62		88.66	0.001325	1.19	79.14	89.58	0.30
RaymondB	M001	2140.67	100Year-Existing	52.71	86.59	88.49		88.57	0.002253	1.52	61.01	69.35	0.39
RaymondB	M001	2087.60	100Year-Existing	52.71	86.38	88.34		88.45	0.002249	1.56	45.95	41.76	0.39
RaymondB	M001	2069.54	100Year-Existing	52.71	86.35	88.29		88.40	0.002489	1.64	46.06	44.94	0.41
RaymondB	M001	2040.77	100Year-Existing	52.71	86.25	88.23		88.33	0.002381	1.59	48.49	59.32	0.40
RaymondB	M001	1989.18	100Year-Existing	52.71	86.02	87.99		88.17	0.004105	2.09	42.06	67.34	0.52
RaymondB	M001	1950.22	100Year-Existing	52.71	85.79	87.50	87.36	87.90	0.011138	3.03	26.12	49.30	0.83
RaymondB	M001	1885.73	100Year-Existing	52.71	85.34	87.03		87.26	0.007696	2.45	33.06	46.01	0.69
RaymondB	M001	1835.84	100Year-Existing	52.71	84.64	86.30	86.30	86.73	0.014922	3.37	23.08	27.35	0.95
RaymondB	M001	1784.61	100Year-Existing	52.71	84.10	85.29	85.37	85.71	0.027671	3.37	22.80	39.56	1.20
RaymondB	M001	1733.38	100Year-Existing	52.71	82.79	84.67	84.19	84.78	0.002942	1.68	45.82	46.59	0.44
RaymondB	M001	1682.15	100Year-Existing	52.71	82.60	84.33		84.56	0.006245	2.25	28.79	30.46	0.62
RaymondB	M001	1630.92	100Year-Existing	52.71	82.12	83.84	83.63	84.17	0.008881	2.63	24.24	33.56	0.74
RaymondB	M001	1584.49	100Year-Existing	52.71	81.77	83.61		83.81	0.005727	2.22	32.14	32.84	0.60
RaymondB	M001	1536.01	100Year-Existing	52.71	81.31	83.19		83.48	0.007735	2.62	28.61	38.72	0.69
RaymondB	M001	1477.96	100Year-Existing	52.71	80.96	82.78		83.04	0.007197	2.46	29.29	36.75	0.67
RaymondB	M001	1425.99	100Year-Existing	52.71	80.58	82.43		82.68	0.006427	2.38	29.74	39.11	0.64
RaymondB	M001	1372.05	100Year-Existing	52.71	80.25	82.11		82.31	0.006723	2.38	31.73	34.41	0.65
RaymondB	M001	1323.54	100Year-Existing	52.71	79.11	81.37	80.89	81.86	0.006370	3.09	17.06	14.70	0.68
RaymondB	M001	1315		Bridge									
RaymondB	M001	1303.54	100Year-Existing	52.71	78.01	80.50	80.09	81.02	0.007425	3.21	16.41	20.06	0.72
RaymondB	M001	1252.39	100Year-Existing	54.95	78.45	80.13	80.05	80.63	0.018217	3.54	20.92	28.05	1.03
RaymondB	M001	1216.25	100Year-Existing	54.95	77.86	79.80	79.80	80.13	0.009409	3.01	29.92	42.55	0.78
RaymondB	M001	1189.75	100Year-Existing	54.95	77.61	78.97	79.17	79.65	0.036099	4.02	18.18	35.71	1.38
RaymondB	M001	1166.20	100Year-Existing	54.95	76.74	78.18	78.40	78.83	0.030654	4.15	21.68	49.38	1.32
RaymondB	M001	1148.70	100Year-Existing	54.95	76.50	78.03	78.06	78.37	0.016547	3.08	28.45	53.53	0.96
RaymondB	M001	1116.25	100Year-Existing	54.95	75.83	77.05	77.19	77.61	0.032209	3.42	18.26	33.78	1.28
RaymondB	M001	1066.09	100Year-Existing	54.95	75.16	76.67	76.52	76.94	0.009159	2.46	30.03	48.83	0.74
RaymondB	M001	1035.68	100Year-Existing	54.95	74.73	76.18	76.18	76.58	0.014814	3.02	22.40	28.06	0.93
RaymondB	M001	999.99	100Year-Existing	54.95	73.32	74.54	74.89	75.63	0.048673	4.77	13.02	19.37	1.62
RaymondB	M001	976.73	100Year-Existing	54.95	73.03	74.57	74.60	74.97	0.012170	3.00	25.16	40.67	0.86
RaymondB	M001	942.15	100Year-Existing	54.95	72.18	73.13	73.29	73.98	0.099301	5.55	15.99	33.36	2.20
RaymondB	M001	916.70	100Year-Existing	54.95	70.82	72.15	72.31	72.63	0.027752	3.97	25.09	65.19	1.25
RaymondB	M001	892.34	100Year-Existing	54.95	70.36	71.73	71.73	72.12	0.014600	3.03	24.10	41.92	0.93
RaymondB	M001	866.25	100Year-Existing	54.95	70.04	71.72	71.20	71.87	0.003532	1.76	40.34	59.62	0.48
RaymondB	M001	841.89	100Year-Existing	54.95	69.92	71.54	71.32	71.75	0.005735	2.23	36.04	74.67	0.61
RaymondB	M001	816.68	100Year-Existing	54.95	69.74	71.24	71.24	71.55	0.010238	2.82	30.60	53.20	0.80
RaymondB	M001	766.25	100Year-Existing	54.95	69.16	70.03	70.18	70.54	0.053829	3.98	20.18	45.35	1.62
RaymondB	M001	716.25	100Year-Existing	54.95	68.39	69.83	69.55	69.98	0.005159	1.94	40.04	52.07	0.56
RaymondB	M001	675.00	100Year-Existing	54.95	68.14	69.60		69.75	0.005868	2.07	40.98	57.79	0.60
RaymondB	M001	615.86	100Year-Existing	54.95	67.75	69.40		69.49	0.002891	1.63	61.19	126.65	0.43
RaymondB	M001	565.77	100Year-Existing	54.95	67.44	69.31		69.38	0.001682	1.35	72.68	143.50	0.34
RaymondB	M001	520.15	100Year-Existing	54.95	67.26	69.30		69.32	0.000639	0.88	132.50	244.37	0.21
RaymondB	M001	468.54	100Year-Existing	54.95	66.98	69.29		69.30	0.000171	0.50	227.94	293.91	0.11
RaymondB	M001	429.18	100Year-Existing	54.95	66.80	69.29		69.29	0.000052	0.30	372.28	386.76	0.06
RaymondB	M001	366.25	100Year-Existing	54.95	66.65	69.29		69.29	0.000022	0.20	599.41	600.04	0.04
RaymondB	M001	341.79	100Year-Existing	54.95	66.63	69.29		69.29	0.000015	0.16	689.17	641.57	0.03
PettyHR	M002	6270.85	100Year-Existing	70.84	66.23	69.29		69.29	0.000001	0.05	1767.96	822.72	0.01
PettyHR	M002	6218.07	100Year-Existing	70.84	66.23	69.29		69.29	0.000001	0.05	1635.59	826.58	0.01
PettyHR	M002	6095.00	100Year-Existing	70.84	66.23	69.29		69.29	0.000001	0.05	1571.23	797.39	0.01
PettyHR	M002	6004.71	100Year-Existing	70.84	66.23	69.29		69.29	0.000001	0.05	1614.35	826.73	0.01
PettyHR	M001	5825.85	100Year-Existing	119.84	66.23	69.29		69.29	0.000002	0.07	1929.69	835.83	0.01
PettyHR	M001	5685.44	100Year-Existing	119.84	66.23	69.29		69.29	0.000002	0.06	1894.61	722.85	0.01
PettyHR	M001	5516.39	100Year-Existing	132.79	66.23	69.29		69.29	0.000003	0.08	1656.76	625.17	0.02
PettyHR	M001	5279.80	100Year-Existing	132.79	66.23	69.29		69.29	0.000007	0.12	1120.61	421.17	0.02
PettyHR	M001	4996.75	100Year-Existing	132.79	66.23	69.28		69.29	0.000031	0.27	527.51	206.00	0.05
PettyHR	M001	4923.81	100Year-Existing	132.79	66.23	69.24		69.28	0.000422	0.95	169.27	83.81	0.18
PettyHR	M001	4867.41	100Year-Existing	132.79	66.23	69.15		69.24	0.001149	1.57	138.33	89.45	0.30
PettyHR	M001	4817.61	100Year-Existing	132.79	66.58	69.08		69.17	0.001556	1.72	133.57	90.01	0.35
PettyHR	M001	4757.18	100Year-Existing	132.79	66.43	68.28	68.28	68.91	0.014174	4.19	51.98	54.26	1.00
PettyHR	M001	4675.66	100Year-Existing	132.79	65.88	67.70	67.35	67.99	0.006626	2.85	66.86	49.19	0.68
PettyHR	M001	4612.84	100Year-Existing	132.79	64.88	67.09		67.52	0.007730	3.51	56.65	42.15	0.76
PettyHR	M001	4570.09	100Year-Existing	132.79	64.62	66.61	66.61	67.14	0.009876	3.60	54.04	53.84	0.84
PettyHR	M001	4500.69	100Year-Existing	132.79	64.62	66.29	65.94	66.49	0.004489	2.17	81.49	74.09	0.55
PettyHR	M001	4461.12	100Year-Existing	132.79	64.55	65.88	65.88	66.22	0.014611	3.36	67.88	90.31	0.95
PettyHR	M001	4428.20	100Year-Existing	132.79	64.41	65.64	65.42	65.83	0.010991	2.68	79.58	88.47	0.81
PettyHR	M001	4395.66	100Year-Existing	132.79	63.81	65.24		65.49	0.008398	2.69	74.63	80.43	0.73
PettyHR	M001	4357.04	100Year-Existing	132.79	63.34	65.08		65.23	0.004326	2.24	95.98	80.02	0.55
PettyHR	M001	4281.82	100Year-Existing	132.79	62.50	65.00		65.07	0.000858	1.26	125.51	58.14	0.26
PettyHR	M001	4166.17	100Year-Existing	132.79	61.82	65.02		65.03	0.000118	0.54	351.64	160.66	0.10
PettyHR	M001	3949.19	100Year-Existing	132.79	61.31	65.02		65.02	0.000000	0.03	4528.96	1312.61	0.01
PettyHR	M001	3936.78	100Year-Existing	132.79	61.31	65.02		65.02	0.000000	0.02	5600.29	1567.18	0.00
PettyHR	M001	3931.39	100Year-Existing	87.15	61.31	65.02		65.02	0.000000	0.01	7028.32	1996.72	0.00
PettyHR	M001	3925.44	100Year-Existing	87.15	61.31	65.02		65.02	0.000000	0.03	3476.75	999.90	0.00
PettyHR	M001	3867.05	100Year-Existing	87.15	61.31	65.02		65.02	0.000000	0.03	3511.87	979.23	0.00
PettyHR	M001	3643.73	100Year-Existing	87.15	61.31	65.02		65.02	0.000000	0.02	4037.68	1112.49	0.00
PettyHR	M001	3440.60	100Year-Existing	87.15	61.31	65.02		65.02	0.000001	0.04	2044.69	579.10	0.01
PettyHR	M001	3182.65	100Year-Existing	87.15	61.31	65.02		65.02	0.000001	0.06	1534.26	423.67	0.01
PettyHR	M001	3080.13	100Year-Existing	87.15	61.31	65.02		65.02	0.000001	0.05	1809.41	505.80	0.01
PettyHR	M001	3028.13	100Year-Existing	87.15	61.31	65.02		65.02	0.000001	0.05	1978.86	557.06	0.01
PettyHR	M001	2983.09	100Year-Existing	87.15	61.31	65.02		65.02	0.000001	0.06	1613.24	449.85	0.01
PettyHR	M001	2828.46	100Year-Existing	87.15	61.31	65.02		65.02	0.000003	0.10	945.28	277.92	0.02
PettyHR	M001	2712.72	100Year-Existing	87.15	61.31	65.02		65.02	0.000010	0.18	537.28	177.80	0.03
PettyHR	M001	2671.95	100Year-Existing	87.15	61.31	65.02		65.02	0.000015	0.22	482.69	172.50	0.04
PettyHR	M001	2653.10	100Year-Existing	87.15	61.31	65.02		65.02	0.000021	0.26	412.26	153.93	0.04
PettyHR	M001	2632.46	100Year-Existing	87.15	61.31	65.01		65.02	0.000088	0.53	242.76	113.30	0.09
PettyHR	M001	2596.08	100Year-Existing	87.15	61.31	65.00		65.02	0.000101	0.57	214.77	109.55	0.10

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	2583.24	100Year-Existing	87.15	60.10	64.92	62.66	65.01	0.000600	1.47	114.34	102.13	0.23
PettyHR	M001	2580		Bridge									
PettyHR	M001	2573.39	100Year-Existing	87.15	60.00	64.82	62.23	64.85	0.000267	0.99	148.16	80.73	0.16
PettyHR	M001	2551.09	100Year-Existing	87.15	59.89	64.84		64.84	0.000021	0.28	360.10	105.05	0.04
PettyHR	M001	2426.14	100Year-Existing	87.15	59.27	64.84		64.84	0.000001	0.08	1138.92	266.21	0.01
PettyHR	M001	2315.39	100Year-Existing	87.15	58.72	64.84		64.84	0.000001	0.06	1399.46	307.23	0.01
PettyHR	M001	2204.15	100Year-Existing	87.15	58.16	64.84		64.84	0.000001	0.06	1411.19	305.68	0.01
PettyHR	M001	2022.45	100Year-Existing	87.15	57.26	64.84		64.84	0.000002	0.11	858.40	171.62	0.01
PettyHR	M001	1902.10	100Year-Existing	87.15	56.66	64.84		64.84	0.000003	0.14	665.80	126.78	0.02
PettyHR	M001	1879.72	100Year-Existing	87.15	56.55	64.84		64.84	0.000008	0.22	485.79	107.28	0.03
PettyHR	M001	1824.42	100Year-Existing	87.15	56.28	64.84		64.84	0.000014	0.28	328.05	65.19	0.04
PettyHR	M001	1789.72	100Year-Existing	87.15	56.10	64.83		64.84	0.000019	0.34	277.70	54.62	0.04
PettyHR	M001	1724.70	100Year-Existing	87.15	55.78	64.83		64.84	0.000025	0.38	243.10	47.19	0.05
PettyHR	M001	1668.81	100Year-Existing	87.15	55.50	64.83	57.97	64.84	0.000014	0.29	322.68	64.28	0.04
PettyHR	M001	1647.80	100Year-Existing	87.15	55.40	64.83	57.70	64.83	0.000009	0.25	377.55	69.97	0.03
PettyHR	M001	1631.79	100Year-Existing	87.15	63.55	64.60		64.81	0.007407	2.05	42.56	40.59	0.64
PettyHR	M001	1615.46	100Year-Existing	88.34	54.38	56.66		56.81	0.004551	2.69	57.12	37.38	0.58
PettyHR	M001	1601.08	100Year-Existing	88.34	54.00	55.68	55.68	56.58	0.039489	6.39	23.79	22.38	1.62
PettyHR	M001	1586.16	100Year-Existing	88.34	53.36	55.14	55.36	56.02	0.035472	6.41	25.33	24.88	1.56
PettyHR	M001	1571.98	100Year-Existing	88.34	52.87	54.47	54.73	55.43	0.045296	6.63	23.26	23.71	1.72
PettyHR	M001	1519.66	100Year-Existing	88.34	51.62	53.19	53.26	53.69	0.029388	5.19	32.56	38.57	1.37
PettyHR	M001	1467.14	100Year-Existing	88.34	50.86	52.17	52.07	52.48	0.020923	4.00	38.54	43.99	1.14
PettyHR	M001	1457.30	100Year-Existing	88.34	50.23	51.80	51.80	52.25	0.023997	4.86	33.82	36.32	1.26
PettyHR	M001	1444.51	100Year-Existing	88.34	48.30	49.27	49.77	51.38	0.221049	10.33	15.95	30.24	3.48
PettyHR	M001	1415.17	100Year-Existing	88.34	48.28	49.83	49.35	49.95	0.006070	2.40	60.11	52.39	0.63
PettyHR	M001	1402.15	100Year-Existing	88.34	47.79	49.36	49.36	49.78	0.024680	4.75	34.61	39.90	1.25
PettyHR	M001	1385.41	100Year-Existing	88.34	43.10	44.64	45.54	48.60	0.145516	11.25	12.75	16.29	3.03
PettyHR	M001	1370.82	100Year-Existing	88.34	41.75	43.51	44.40	46.61	0.098066	10.57	14.10	13.51	2.59
PettyHR	M001	1362.66	100Year-Existing	88.34	39.88	41.97	43.07	45.76	0.090959	11.12	12.85	10.18	2.53
PettyHR	M001	1336.64	100Year-Existing	88.34	39.87	41.50	42.11	43.09	0.067282	8.22	18.57	18.56	2.11
PettyHR	M001	1309.35	100Year-Existing	88.34	38.40	39.74	40.13	41.05	0.076316	7.59	19.24	21.26	2.16
PettyHR	M001	1279.20	100Year-Existing	88.34	35.02	37.24	38.04	39.23	0.047228	8.49	19.50	19.29	1.85
PettyHR	M001	1258.06	100Year-Existing	88.34	34.01	36.46	37.03	38.28	0.037424	8.14	19.10	13.77	1.69
PettyHR	M001	1221.17	100Year-Existing	88.34	33.21	34.59	35.20	36.19	0.088679	8.07	17.29	18.22	2.30
PettyHR	M001	1203.34	100Year-Existing	88.34	32.61	33.95	34.16	34.72	0.053697	6.34	25.79	33.92	1.81
PettyHR	M001	1164.99	100Year-Existing	88.34	31.37	32.91	32.92	33.34	0.022854	4.51	35.05	40.45	1.21
PettyHR	M001	1153.41	100Year-Existing	88.34	30.70	31.71	32.04	32.78	0.105023	7.46	21.55	35.62	2.43
PettyHR	M001	1125.74	100Year-Existing	88.34	29.27	30.57	30.65	31.06	0.035206	5.02	32.04	42.73	1.46
PettyHR	M001	1090.65	100Year-Existing	88.34	28.12	29.30	29.39	29.74	0.040495	4.88	34.58	58.37	1.53
PettyHR	M001	1059.48	100Year-Existing	88.34	26.84	28.13	28.20	28.54	0.036393	5.05	36.67	63.04	1.48
PettyHR	M001	1048.77	100Year-Existing	88.34	26.29	27.47	27.63	28.05	0.050438	5.51	31.01	53.78	1.71
PettyHR	M001	1021.54	100Year-Existing	88.34	25.47	26.97	26.97	27.36	0.025258	4.68	35.69	42.62	1.26
PettyHR	M001	1003.30	100Year-Existing	88.34	23.42	24.77	25.31	26.47	0.088382	8.34	17.08	18.06	2.35
PettyHR	M001	994.73	100Year-Existing	88.34	22.70	25.05	25.12	25.87	0.021113	5.92	26.54	19.16	1.26
PettyHR	M001	961.03	100Year-Existing	88.34	22.07	24.62	24.66	25.27	0.015643	5.34	31.22	24.72	1.09
PettyHR	M001	944.13	100Year-Existing	88.34	21.89	23.42	23.84	24.75	0.054970	7.11	20.33	20.71	1.89
PettyHR	M001	924.94	100Year-Existing	88.34	20.78	22.59	22.91	23.79	0.042230	6.98	20.68	16.66	1.70
PettyHR	M001	905.47	100Year-Existing	88.34	19.73	21.82	22.14	23.07	0.034121	6.96	20.99	15.33	1.57
PettyHR	M001	883.86	100Year-Existing	88.34	17.29	20.56	19.75	20.79	0.002942	2.78	49.39	33.34	0.50
PettyHR	M001	875		Bridge									
PettyHR	M001	859.53	100Year-Existing	88.34	17.25	19.22	19.22	19.82	0.020746	5.05	28.34	28.61	1.19
PettyHR	M001	836.76	100Year-Existing	88.34	12.80	14.50	15.61	18.57	0.112887	10.99	11.86	10.04	2.75
PettyHR	M001	823.70	100Year-Existing	88.34	12.86	15.76	15.03	16.00	0.005685	3.54	49.78	34.60	0.67
PettyHR	M001	811.96	100Year-Existing	88.34	12.85	14.66	14.66	15.78	0.042277	7.05	23.12	23.24	1.71
PettyHR	M001	796.92	100Year-Existing	88.34	12.74	14.13	14.37	14.97	0.057665	6.86	25.07	33.40	1.90
PettyHR	M001	784.11	100Year-Existing	88.34	11.82	13.68	13.91	14.42	0.029035	5.91	29.60	33.20	1.42
PettyHR	M001	769.86	100Year-Existing	88.34	10.94	12.44	12.84	13.78	0.059006	7.26	20.22	21.72	1.95
PettyHR	M001	748.76	100Year-Existing	88.34	8.37	10.65	11.30	12.70	0.040680	7.96	19.17	18.30	1.73
PettyHR	M001	720.33	100Year-Existing	88.34	8.08	9.11	9.56	10.67	0.137237	8.11	17.74	27.60	2.74
PettyHR	M001	707.57	100Year-Existing	88.34	6.85	8.28	8.60	9.36	0.060464	7.06	23.54	32.73	1.94
PettyHR	M001	685.99	100Year-Existing	88.34	5.31	6.88	7.26	8.07	0.059137	7.32	22.85	29.60	1.94
PettyHR	M001	666.04	100Year-Existing	88.34	5.03	6.75	6.80	7.21	0.019002	4.46	37.00	43.33	1.12
PettyHR	M001	652.51	100Year-Existing	88.34	4.66	6.09	6.21	6.82	0.040240	5.64	27.30	33.66	1.57
PettyHR	M001	633.61	100Year-Existing	88.34	4.40	5.41	5.54	5.95	0.047249	4.82	30.62	76.37	1.62
PettyHR	M001	622.83	100Year-Existing	88.34	4.09	5.13	5.13	5.40	0.025696	3.62	44.04	98.76	1.20
PettyHR	M001	577.97	100Year-Existing	88.34	2.48	3.79	3.84	4.08	0.033593	4.86	43.84	111.51	1.41
PettyHR	M001	525.57	100Year-Existing	88.34	0.51	2.74	2.10	2.84	0.003652	2.40	66.81	88.05	0.52
PettyHR	M001	491.94	100Year-Existing	88.34	-0.59	2.48	1.77	2.72	0.003154	2.44	50.17	36.06	0.49
PettyHR	M001	485		Bridge									
PettyHR	M001	478.84	100Year-Existing	88.34	-1.92	2.55		2.61	0.000482	1.16	111.38	141.54	0.20
PettyHR	M001	439.27	100Year-Existing	88.34	-1.89	2.57		2.58	0.000135	0.64	236.96	128.81	0.10
PettyHR	M001	405.68	100Year-Existing	88.34	-2.13	2.56		2.58	0.000120	0.61	234.40	131.93	0.10
PettyHR	M001	367.80	100Year-Existing	88.34	-2.02	2.57		2.57	0.000037	0.34	299.35	139.21	0.06
PettyHR	M001	338.85	100Year-Existing	88.34	-2.89	2.57		2.57	0.000022	0.29	338.76	122.04	0.04
PettyHR	M001	305.38	100Year-Existing	88.34	-2.46	2.56		2.57	0.000031	0.33	305.90	119.86	0.05
PettyHR	M001	269.29	100Year-Existing	88.34	-3.52	2.56		2.57	0.000027	0.35	286.97	110.13	0.05
PettyHR	M001	238.18	100Year-Existing	88.34	-3.50	2.56		2.57	0.000039	0.42	248.24	102.43	0.06
PettyHR	M001	201.25	100Year-Existing	88.34	-4.43	2.56		2.56	0.000012	0.26	367.24	119.91	0.03
PettyHR	M001	150.84	100Year-Existing	88.34	-3.34	2.56		2.56	0.000007	0.18	524.76	171.48	0.03
PettyHR	M001	105.74	100Year-Existing	88.34	-2.91	2.56		2.56	0.000007	0.18	507.22	154.13	0.03
PettyHR	M001	91.29	100Year-Existing	88.34	-3.36	2.56		2.56	0.000006	0.18	523.69	143.61	0.02
PettyHR	M001	20.04	100Year-Existing	88.34	-6.19	2.56		2.56	0.000003	0.14	705.31	185.18	0.02
PettyHR	M001	12.04	100Year-Existing	88.34	-6.19	2.55	-3.76	2.56	0.000061	0.50	267.31	185.14	0.06
ForthP	M001	2616.90	100Year-Existing	8.54	123.09	124.49	123.33	124.49	0.000010	0.09	132.70	158.07	0.03
ForthP	M001	2528.45	100Year-Existing	8.54	123.09	124.49		124.49	0.000002	0.04	212.87	197.61	0.01
ForthP	M001	2324.32	100Year-Existing	8.54	123.09	124.49		124.49	0.000008	0.08	151.70	208.50	0.02
ForthP	M001	2187.52	100Year-Existing	8.54	123.09	124.49		124.49	0.000001	0.03	285.15	285.66	0.01
ForthP	M001	1955.13	100Year-Existing	8.54	123.09	124.49		124.49	0.000001	0.03	328.32	309.22	0.01
ForthP	M001	1773.83	100Year-Existing	8.54	123.09	124.49		124.49	0.000001	0.02	403.28	344.48	0.01
ForthP	M001	1572.85	100Year-Existing	8.54	123.09	124.49		124.49	0.000001	0.02	385.88	319.24	0.01

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
ForthP	M001	1496.60	100Year-Existing	8.54	123.09	124.49		124.49	0.000001	0.03	325.04	276.06	0.01
ForthP	M001	1392.58	100Year-Existing	30.73	122.98	124.48	124.15	124.48	0.000496	0.68	107.96	167.19	0.18
ForthP	M001	1390		Culvert									
ForthP	M001	1381.72	100Year-Existing	30.73	122.95	124.38	124.12	124.39	0.001721	1.12	70.51	149.00	0.31
ForthP	M001	1360.50	100Year-Existing	30.73	122.87	124.17	124.03	124.31	0.009484	2.47	25.80	70.40	0.75
ForthP	M001	1311.12	100Year-Existing	30.73	122.52	123.88		123.94	0.005353	1.88	35.65	73.70	0.55
ForthP	M001	1261.17	100Year-Existing	30.73	121.36	123.36	123.36	123.61	0.007262	2.95	22.60	39.22	0.70
ForthP	M001	1211.51	100Year-Existing	30.73	119.83	121.37	122.01	122.76	0.047578	6.15	7.53	9.85	1.69
ForthP	M001	1161.66	100Year-Existing	30.73	117.25	118.40	118.76	119.71	0.079514	6.37	8.98	24.45	2.08
ForthP	M001	1112.05	100Year-Existing	30.73	114.88	115.96	116.12	116.49	0.046979	4.95	13.26	34.02	1.61
ForthP	M001	1062.35	100Year-Existing	30.73	113.16	114.30	114.35	114.60	0.029785	3.86	15.76	33.33	1.25
ForthP	M001	1041.93	100Year-Existing	30.73	112.62	113.87	113.90	114.12	0.022290	3.52	18.03	41.16	1.09
ForthP	M001	1031.90	100Year-Existing	30.73	112.31	113.47	113.58	113.83	0.036988	4.33	16.00	43.44	1.39
ForthP	M001	1011.12	100Year-Existing	30.73	111.62	112.64	112.75	113.00	0.044071	4.47	15.74	45.71	1.52
ForthP	M001	959.76	100Year-Existing	30.73	110.31	111.11	111.11	111.27	0.029961	2.92	20.46	61.97	1.19
ForthP	M001	908.93	100Year-Existing	30.73	109.25	109.89	109.77	109.94	0.012857	1.68	31.45	88.77	0.76
ForthP	M001	856.39	100Year-Existing	30.73	108.38	108.84	108.77	108.91	0.023472	1.56	26.72	91.07	0.93
ForthP	M001	806.25	100Year-Existing	30.73	107.09	107.99		108.05	0.014526	2.27	30.26	90.44	0.84
ForthP	M001	754.78	100Year-Existing	30.73	106.12	107.11	107.11	107.23	0.020125	3.01	26.61	88.65	1.03
ForthP	M001	734.50	100Year-Existing	30.73	105.47	106.73	106.71	106.83	0.010394	2.45	31.16	88.86	0.76
ForthP	M001	724.30	100Year-Existing	30.73	105.28	106.56	106.56	106.71	0.012698	2.77	26.37	78.52	0.85
ForthP	M001	703.65	100Year-Existing	30.73	105.02	106.10	106.09	106.29	0.024569	3.48	19.46	46.02	1.13
ForthP	M001	654.47	100Year-Existing	30.73	103.90	104.77	104.77	104.94	0.027922	3.20	20.01	53.87	1.18
ForthP	M001	605.63	100Year-Existing	30.73	102.27	103.39	103.48	103.68	0.028019	3.72	19.07	57.38	1.23
ForthP	M001	585.13	100Year-Existing	30.73	101.55	102.38	102.50	102.82	0.075699	4.76	15.28	68.30	1.90
ForthP	M001	577.30	100Year-Existing	30.73	101.52	102.19	102.22	102.37	0.048105	3.28	18.61	66.58	1.46
ForthP	M001	557.33	100Year-Existing	30.73	100.67	101.29	101.31	101.45	0.045110	2.85	19.44	75.25	1.38
ForthP	M001	507.84	100Year-Existing	30.73	98.92	99.60	99.59	99.71	0.032008	2.54	23.06	85.35	1.18
ForthP	M001	453.33	100Year-Existing	30.73	96.28	97.04	96.99	97.13	0.018671	2.19	27.44	88.23	0.93
ForthP	M001	402.29	100Year-Existing	30.73	94.96	95.58	95.58	95.74	0.045899	3.10	18.43	58.14	1.41
ForthP	M001	349.18	100Year-Existing	30.73	93.64	94.21	94.07	94.27	0.015906	1.59	28.87	76.30	0.81
ForthP	M001	297.76	100Year-Existing	30.73	92.55	93.47	93.43	93.55	0.015771	2.34	28.48	78.23	0.88
ForthP	M001	246.28	100Year-Existing	30.73	91.71	92.46	92.42	92.55	0.021011	2.23	27.44	89.73	0.98
ForthP	M001	182.03	100Year-Existing	30.73	90.94	92.06	91.72	92.09	0.003965	1.40	50.46	107.12	0.46
ForthP	M001	160.27	100Year-Existing	30.73	90.13	92.07	91.33	92.07	0.000173	0.45	139.74	149.89	0.11
ForthP	M001	150		Culvert									
ForthP	M001	144.74	100Year-Existing	30.73	89.90	91.05	91.05	91.58	0.016844	3.24	9.78	94.11	0.99
ForthP	M001	124.30	100Year-Existing	30.73	89.74	90.90	90.83	90.99	0.011448	2.40	30.93	80.52	0.79
ForthP	M001	61.58	100Year-Existing	30.73	88.75	89.91	89.91	90.08	0.018070	3.01	23.38	56.34	0.99
ForestP	M001	1557.91	100Year-Existing	6.16	78.25	79.70	78.44	79.70	0.000002	0.04	146.25	121.23	0.01
ForestP	M001	1428.05	100Year-Existing	6.16	78.25	79.70		79.70	0.000001	0.03	199.37	176.80	0.01
ForestP	M001	1315.71	100Year-Existing	6.16	78.25	79.70		79.70	0.000001	0.02	280.62	242.13	0.01
ForestP	M001	1228.83	100Year-Existing	6.16	78.25	79.70		79.70	0.000000	0.02	335.59	288.19	0.01
ForestP	M001	1138.84	100Year-Existing	6.16	78.25	79.70		79.70	0.000000	0.02	393.03	341.52	0.00
ForestP	M001	1077.28	100Year-Existing	6.16	78.25	79.70		79.70	0.000000	0.02	433.83	479.63	0.00
ForestP	M001	1019.12	100Year-Existing	6.16	78.25	79.70		79.70	0.000001	0.03	218.47	279.48	0.01
ForestP	M001	958.61	100Year-Existing	7.84	78.15	79.68	79.50	79.70	0.000680	0.62	23.99	68.34	0.19
ForestP	M001	955		Culvert									
ForestP	M001	949.85	100Year-Existing	7.84	77.76	79.51	79.44	79.64	0.008672	1.78	8.56	49.48	0.48
ForestP	M001	913.34	100Year-Existing	7.84	78.16	79.03	79.03	79.18	0.027697	2.88	5.82	17.76	1.07
ForestP	M001	883.23	100Year-Existing	7.84	77.54	78.32	78.35	78.47	0.021002	2.44	7.55	36.62	0.99
ForestP	M001	859.61	100Year-Existing	7.84	76.75	77.41	77.50	77.72	0.050254	3.37	4.13	13.38	1.49
ForestP	M001	831.71	100Year-Existing	7.84	75.74	76.62	76.69	76.90	0.031106	3.14	4.28	10.26	1.20
ForestP	M001	802.91	100Year-Existing	7.84	74.66	75.42	75.55	75.85	0.043805	3.55	3.58	9.77	1.44
ForestP	M001	772.90	100Year-Existing	7.84	73.77	74.52	74.52	74.71	0.029209	2.86	5.10	14.26	1.15
ForestP	M001	737.48	100Year-Existing	7.84	72.77	73.46	73.43	73.56	0.019274	2.19	6.91	21.51	0.93
ForestP	M001	688.06	100Year-Existing	7.84	71.80	72.38	72.35	72.45	0.026192	2.13	7.75	32.56	1.00
ForestP	M001	651.32	100Year-Existing	7.84	70.81	71.40	71.40	71.50	0.025120	2.31	7.41	30.65	1.05
ForestP	M001	600.44	100Year-Existing	7.84	69.80	70.32		70.36	0.019883	1.81	10.45	56.82	0.91
ForestP	M001	578.60	100Year-Existing	7.84	69.31	69.90	69.90	69.95	0.017743	1.87	12.24	84.39	0.88
ForestP	M001	528.92	100Year-Existing	7.84	68.58	69.31	69.23	69.35	0.007866	1.46	13.88	58.37	0.60
ForestP	M001	478.55	100Year-Existing	7.84	68.21	69.30		69.30	0.000263	0.36	49.43	104.43	0.12
ForestP	M001	430.82	100Year-Existing	7.84	67.77	69.29		69.29	0.000059	0.22	83.59	125.28	0.06
ForestP	M001	378.18	100Year-Existing	7.84	67.48	69.29		69.29	0.000008	0.09	206.31	255.97	0.02
ForestP	M001	328.07	100Year-Existing	7.84	67.34	69.29		69.29	0.000003	0.06	301.49	304.74	0.01
ForestP	M001	277.95	100Year-Existing	7.84	67.07	69.29		69.29	0.000002	0.05	373.46	340.87	0.01
ForestP	M001	195.51	100Year-Existing	7.84	66.23	69.29		69.29	0.000000	0.02	719.13	514.10	0.00
ForestP	M001	158.37	100Year-Existing	7.84	66.23	69.29		69.29	0.000000	0.01	1398.22	669.10	0.00
ForestP	M001	89.11	100Year-Existing	7.84	66.23	69.29		69.29	0.000000	0.01	1548.83	737.53	0.00
DoylesR	TR019	260.51	100Year-Existing	0.28	124.74	125.05	124.93	125.05	0.000486	0.19	2.77	28.81	0.13
DoylesR	TR019	199.72	100Year-Existing	0.28	124.55	125.05		125.05	0.000002	0.02	29.08	133.34	0.01
DoylesR	TR019	150.00	100Year-Existing	0.28	124.37	125.05		125.05	0.000002	0.02	31.62	139.31	0.01
DoylesR	TR019	100.00	100Year-Existing	0.28	124.16	125.05		125.05	0.000002	0.03	26.26	123.54	0.01
DoylesR	TR019	50.00	100Year-Existing	0.28	124.18	125.05		125.05	0.000001	0.02	49.75	200.36	0.01
DoylesR	TR018	302.01	100Year-Existing	1.05	127.90	128.05	128.05	128.08	0.024542	0.80	1.69	23.85	0.81
DoylesR	TR018	270.53	100Year-Existing	1.05	126.19	128.01	126.76	128.01	0.000000	0.02	139.72	244.89	0.01
DoylesR	TR018	260		Culvert									
DoylesR	TR018	257.62	100Year-Existing	1.05	126.19	127.56	126.78	127.56	0.000002	0.04	75.07	176.84	0.01
DoylesR	TR018	244.68	100Year-Existing	1.05	125.64	127.51	126.47	127.55	0.001012	0.98	1.31	176.92	0.23
DoylesR	TR018	200		Culvert									
DoylesR	TR018	169.24	100Year-Existing	1.05	125.40	126.20	126.04	126.39	0.011994	2.17	0.60	74.98	0.79
DoylesR	TR018	131.43	100Year-Existing	1.05	125.24	125.43	125.43	125.46	0.039173	0.99	1.92	40.63	1.02
DoylesR	TR018	59.79	100Year-Existing	1.05	124.57	125.10	124.87	125.11	0.000357	0.24	10.36	89.01	0.12
DoylesR	TR017	4043.45	100Year-Existing	5.74	124.05	125.03		125.04	0.001340	0.84	17.81	56.35	0.28
DoylesR	TR017	3983.69	100Year-Existing	5.74	124.04	124.92		124.95	0.002207	0.90	14.88	69.10	0.34
DoylesR	TR017	3923.93	100Year-Existing	5.74	124.03	124.58	124.58	124.66	0.020906	1.64	6.78	41.85	0.91
DoylesR	TR017	3889.37	100Year-Existing	5.74	123.60	123.79	123.61	123.80	0.005022	0.26	13.96	62.87	0.34
DoylesR	TR017	3781.64	100Year-Existing	5.74	122.55	123.41		123.45	0.005034	1.35	10.59	43.61	0.50
DoylesR	TR017	3768.91	100Year-Existing	5.74	122.35	123.09	123.09	123.31	0.019435	2.22	3.16	8.27	0.93
DoylesR	TR017	3745.98	100Year-Existing	5.74	121.86	122.42	122.45	122.54	0.032931	2.03	5.14	34.09	1.12

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR017	3713.18	100Year-Existing	5.74	120.99	121.50	121.53	121.70	0.027540	2.05	3.34	12.32	1.07
DoylesR	TR017	3692.45	100Year-Existing	5.74	120.34	120.96	120.99	121.15	0.024403	2.12	3.61	13.16	1.02
DoylesR	TR017	3679.05	100Year-Existing	5.74	119.97	120.69	120.70	120.88	0.017137	2.14	3.60	13.96	0.90
DoylesR	TR017	3656.84	100Year-Existing	5.74	117.59	118.00	118.32	119.70	0.394993	5.83	1.05	5.31	3.75
DoylesR	TR017	3603.67	100Year-Existing	5.74	116.29	116.98	116.97	117.10	0.015265	1.95	5.10	22.99	0.84
DoylesR	TR017	3583.40	100Year-Existing	5.74	115.96	116.57	116.55	116.71	0.025296	2.21	4.92	26.03	1.05
DoylesR	TR017	3571.14	100Year-Existing	5.74	115.76	116.27	116.27	116.37	0.027802	2.15	5.46	30.04	1.07
DoylesR	TR017	3545.42	100Year-Existing	5.74	115.22	115.79	115.76	115.89	0.018716	1.76	5.16	19.98	0.88
DoylesR	TR017	3483.93	100Year-Existing	5.74	114.35	114.92	114.88	114.95	0.013091	1.55	10.17	68.62	0.74
DoylesR	TR017	3432.55	100Year-Existing	5.74	113.79	114.50	114.40	114.54	0.007502	1.38	10.63	62.10	0.58
DoylesR	TR017	3345.48	100Year-Existing	5.74	113.03	113.52	113.52	113.60	0.028829	1.87	6.15	37.88	1.05
DoylesR	TR017	3300.07	100Year-Existing	5.74	112.42	112.96	112.85	112.97	0.004002	0.75	15.63	76.06	0.40
DoylesR	TR016	918.87	100Year-Existing	2.10	127.08	128.78	127.25	128.78	0.000000	0.01	397.24	359.75	0.00
DoylesR	TR016	898.71	100Year-Existing	2.10	126.90	128.78	127.24	128.78	0.000000	0.02	191.77	224.78	0.01
DoylesR	TR016	890		Culvert									
DoylesR	TR016	882.28	100Year-Existing	2.10	126.88	128.72		128.72	0.000003	0.05	103.40	157.49	0.01
DoylesR	TR016	877.71	100Year-Existing	2.10	126.24	128.72	126.84	128.72	0.000002	0.06	122.11	187.88	0.01
DoylesR	TR016	850		Culvert									
DoylesR	TR016	848.13	100Year-Existing	2.10	126.37	127.06	127.06	127.29	0.020316	2.28	1.19	2.92	0.92
DoylesR	TR016	818.98	100Year-Existing	2.10	126.36	126.83	126.77	126.84	0.003619	0.70	6.67	51.85	0.38
DoylesR	TR016	768.99	100Year-Existing	2.10	126.30	126.63		126.64	0.004777	0.62	6.58	50.13	0.41
DoylesR	TR016	714.09	100Year-Existing	2.10	125.96	126.35	126.26	126.37	0.004966	0.69	5.62	35.75	0.43
DoylesR	TR016	675.95	100Year-Existing	2.10	125.74	126.06	126.06	126.10	0.019386	1.15	3.39	37.48	0.81
DoylesR	TR016	659.39	100Year-Existing	2.10	125.10	125.53	125.48	125.57	0.009594	1.12	3.56	24.72	0.62
DoylesR	TR016	632.80	100Year-Existing	2.10	124.78	125.22	125.22	125.29	0.014716	1.30	2.75	24.85	0.75
DoylesR	TR016	610.50	100Year-Existing	2.10	123.78	124.21	124.33	124.60	0.074291	2.95	0.90	4.57	1.68
DoylesR	TR016	549.37	100Year-Existing	2.10	122.30	122.87	122.87	123.00	0.023319	1.87	1.77	9.69	0.95
DoylesR	TR016	494.31	100Year-Existing	2.10	120.93	121.54	121.54	121.71	0.023493	1.85	1.21	4.10	0.95
DoylesR	TR016	473.82	100Year-Existing	2.10	120.18	120.63	120.72	120.94	0.065382	2.52	0.91	4.29	1.54
DoylesR	TR016	459.95	100Year-Existing	2.10	119.62	120.09	120.12	120.27	0.033325	1.93	1.19	5.04	1.12
DoylesR	TR016	439.99	100Year-Existing	2.10	119.05	119.64	119.64	119.80	0.024864	1.80	1.22	4.22	0.97
DoylesR	TR016	384.99	100Year-Existing	2.10	117.07	117.51	117.58	117.76	0.060564	2.21	0.96	4.48	1.45
DoylesR	TR016	329.99	100Year-Existing	2.10	115.67	116.13	116.15	116.21	0.020547	1.40	2.31	22.48	0.87
DoylesR	TR016	274.18	100Year-Existing	2.10	114.93	115.32	115.30	115.35	0.011163	0.97	4.32	47.87	0.63
DoylesR	TR016	218.88	100Year-Existing	2.10	114.35	114.81	114.80	114.85	0.011196	1.02	4.13	45.60	0.64
DoylesR	TR016	165.43	100Year-Existing	2.10	113.83	114.36	114.31	114.41	0.008655	1.07	3.72	34.43	0.58
DoylesR	TR016	86.48	100Year-Existing	2.10	112.80	113.21	113.21	113.29	0.027136	1.42	1.92	12.21	0.96
DoylesR	TR016	40.19	100Year-Existing	2.10	112.21	112.78	112.67	112.79	0.002410	0.62	7.90	54.79	0.32
DoylesR	TR015	3230.71	100Year-Existing	12.60	111.60	112.49		112.53	0.007970	1.72	18.64	72.20	0.63
DoylesR	TR015	3185.04	100Year-Existing	12.60	111.22	112.13	112.07	112.21	0.011827	1.97	14.62	50.45	0.76
DoylesR	TR015	3133.58	100Year-Existing	12.60	110.57	111.36	111.36	111.47	0.018384	2.34	12.48	45.97	0.94
DoylesR	TR015	3079.97	100Year-Existing	12.60	108.17	109.01	109.21	109.76	0.060855	4.24	4.05	9.82	1.71
DoylesR	TR015	3026.43	100Year-Existing	12.60	107.30	109.07	108.21	109.09	0.000496	0.70	30.15	33.61	0.18
DoylesR	TR015	3001.28	100Year-Existing	12.60	106.17	109.08	108.02	109.08	0.000075	0.36	83.98	77.35	0.07
DoylesR	TR015	3000		Culvert									
DoylesR	TR015	2988.77	100Year-Existing	12.60	106.03	107.83	107.83	108.09	0.006345	2.64	10.29	29.54	0.65
DoylesR	TR015	2963.30	100Year-Existing	12.60	105.69	106.48	106.77	107.60	0.096382	5.48	4.13	15.26	2.12
DoylesR	TR015	2915.60	100Year-Existing	12.60	104.53	105.61	105.62	105.83	0.016091	2.67	9.04	22.29	0.92
DoylesR	TR015	2867.64	100Year-Existing	12.60	103.37	104.44	104.57	104.84	0.032044	3.73	7.10	19.23	1.27
DoylesR	TR015	2841.04	100Year-Existing	12.60	102.40	102.95	103.06	103.31	0.104802	3.84	6.21	27.35	2.04
DoylesR	TR015	2804.73	100Year-Existing	12.60	101.67	102.46	102.39	102.55	0.015198	2.12	12.39	34.74	0.85
DoylesR	TR015	2742.98	100Year-Existing	12.60	100.87	101.66	101.62	101.72	0.013180	2.04	17.04	65.04	0.80
DoylesR	TR015	2687.77	100Year-Existing	12.60	100.07	100.66	100.66	100.75	0.028174	2.30	12.88	61.53	1.10
DoylesR	TR015	2638.14	100Year-Existing	12.60	98.95	99.73	99.74	99.87	0.023551	2.73	12.02	47.25	1.07
DoylesR	TR015	2593.26	100Year-Existing	12.60	97.75	98.80	98.75	98.90	0.011117	2.24	13.17	38.10	0.76
DoylesR	TR015	2557.12	100Year-Existing	12.60	97.53	98.54		98.60	0.007665	1.88	16.06	43.99	0.64
DoylesR	TR015	2522.34	100Year-Existing	12.60	97.26	98.13	98.13	98.26	0.016503	2.23	11.20	38.75	0.89
DoylesR	TR015	2483.94	100Year-Existing	12.60	96.95	97.66	97.60	97.71	0.013696	1.74	15.82	59.55	0.77
DoylesR	TR015	2438.99	100Year-Existing	12.60	96.35	97.39		97.42	0.004611	1.43	22.76	83.82	0.49
DoylesR	TR015	2387.12	100Year-Existing	12.60	96.39	97.26		97.27	0.002197	0.82	36.13	119.49	0.32
DoylesR	TR015	2352.45	100Year-Existing	12.60	96.40	97.22		97.23	0.000806	0.49	45.99	97.88	0.20
DoylesR	TR015	2283.37	100Year-Existing	12.60	95.75	97.06		97.12	0.003379	1.49	14.71	21.67	0.45
DoylesR	TR015	2231.50	100Year-Existing	12.60	95.54	96.64		96.81	0.012163	2.40	8.83	16.83	0.81
DoylesR	TR015	2160.12	100Year-Existing	12.60	94.93	95.90		96.01	0.009656	1.93	10.59	21.54	0.71
DoylesR	TR015	2119.11	100Year-Existing	12.60	94.44	95.46	95.41	95.60	0.012176	2.27	10.66	26.28	0.79
DoylesR	TR015	2075.88	100Year-Existing	12.60	93.86	94.75	94.75	94.94	0.018325	2.51	9.47	33.28	0.96
DoylesR	TR015	2024.01	100Year-Existing	12.60	93.19	94.25	94.16	94.33	0.008496	1.91	14.54	47.14	0.66
DoylesR	TR015	1972.14	100Year-Existing	12.60	92.71	93.66	93.66	93.78	0.015997	2.48	11.91	55.41	0.89
DoylesR	TR015	1921.75	100Year-Existing	12.60	92.35	93.34	93.04	93.36	0.002828	1.10	24.82	64.17	0.38
DoylesR	TR015	1851.62	100Year-Existing	12.60	91.24	92.63	92.63	93.03	0.016608	3.17	5.75	9.96	0.95
DoylesR	TR014	2057.49	100Year-Existing	7.63	125.48	126.48	126.31	126.51	0.003837	1.15	15.25	58.61	0.43
DoylesR	TR014	2037.89	100Year-Existing	7.63	125.57	126.47		126.47	0.000682	0.51	34.02	93.33	0.19
DoylesR	TR014	1988.88	100Year-Existing	7.63	124.71	126.39	125.49	126.43	0.000936	0.92	12.07	36.85	0.24
DoylesR	TR014	1980		Culvert									
DoylesR	TR014	1975.46	100Year-Existing	7.63	124.46	126.24		126.28	0.000903	0.95	9.05	8.30	0.24
DoylesR	TR014	1936.56	100Year-Existing	7.63	124.86	126.08		126.20	0.004914	1.76	6.57	12.13	0.54
DoylesR	TR014	1904.43	100Year-Existing	7.63	124.72	125.70	125.70	125.95	0.013206	2.43	4.68	10.62	0.84
DoylesR	TR014	1867.03	100Year-Existing	7.63	124.61	125.55	125.32	125.61	0.004577	1.40	9.63	23.70	0.49
DoylesR	TR014	1801.50	100Year-Existing	7.63	124.00	124.88	124.88	125.09	0.016021	2.48	5.25	13.20	0.91
DoylesR	TR014	1765.57	100Year-Existing	7.63	123.20	123.71	123.83	124.08	0.058652	3.05	3.54	15.84	1.56
DoylesR	TR014	1703.29	100Year-Existing	7.63	121.82	122.60	122.56	122.79	0.013699	2.16	5.10	13.44	0.83
DoylesR	TR014	1657.91	100Year-Existing	7.63	121.27	121.99	121.94	122.15	0.014226	1.94	5.49	18.23	0.82
DoylesR	TR014	1607.98	100Year-Existing	7.63	120.59	121.38	121.38	121.49	0.011884	1.93	8.88	42.28	0.76
DoylesR	TR014	1544.18	100Year-Existing	7.63	119.81	120.63	120.64	120.75	0.011316	1.97	8.88	40.26	0.75
DoylesR	TR014	1492.70	100Year-Existing	7.63	119.06	119.64	119.72	119.85	0.029980	2.49	6.11	35.18	1.16
DoylesR	TR014	1441.23	100Year-Existing	7.63	117.59	118.51	118.51	118.80	0.019704	2.90	4.43	10.88	1.02
DoylesR	TR014	1420.98	100Year-Existing	7.63	116.98	118.06	117.65	118.11	0.002804	1.23	9.45	12.90	0.40
DoylesR	TR014	1411.86	100Year-Existing	7.63	117.03	117.97	117.64	118.07	0.004931	1.59	6.25	11.82	0.53
DoylesR	TR014	1400		Bridge									
DoylesR	TR014	1384.41	100Year-Existing	8.68	116.71	117.45	117.39	117.66	0.014800	2.20	4.48	9.67	0.86

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR014	1374.60	100Year-Existing	8.68	116.54	117.39		117.51	0.008038	1.72	6.37	11.36	0.64
DoylesR	TR014	1353.25	100Year-Existing	8.68	116.21	116.99	116.99	117.25	0.019045	2.47	4.50	9.39	0.97
DoylesR	TR014	1309.14	100Year-Existing	8.68	115.50	116.34	116.20	116.50	0.009737	1.81	4.97	8.28	0.70
DoylesR	TR014	1296.25	100Year-Existing	8.68	115.12	116.01	116.01	116.30	0.018373	2.68	4.33	7.83	0.98
DoylesR	TR014	1239.25	100Year-Existing	8.68	113.43	114.04	114.20	114.54	0.055461	3.48	3.31	10.42	1.58
DoylesR	TR014	1203.69	100Year-Existing	8.68	112.84	113.62	113.53	113.69	0.009534	1.81	9.20	24.68	0.69
DoylesR	TR014	1182.25	100Year-Existing	8.68	112.53	113.25	113.25	113.41	0.017491	2.25	6.73	20.02	0.92
DoylesR	TR014	1125.25	100Year-Existing	8.68	111.30	112.41	112.20	112.46	0.004236	1.50	11.62	22.61	0.48
DoylesR	TR014	1104.23	100Year-Existing	8.68	111.16	112.10	112.10	112.29	0.015403	2.40	6.16	16.00	0.88
DoylesR	TR014	1094.88	100Year-Existing	8.68	110.55	111.25	111.48	111.97	0.075173	4.58	3.06	8.85	1.89
DoylesR	TR014	1075.36	100Year-Existing	8.68	110.17	111.09	111.18	111.40	0.025838	3.25	5.63	17.49	1.15
DoylesR	TR014	1027.18	100Year-Existing	8.68	109.15	109.95	109.99	110.19	0.023584	2.70	5.67	16.18	1.07
DoylesR	TR014	980.74	100Year-Existing	8.68	107.89	108.87	108.55	108.91	0.003944	1.37	11.57	20.02	0.46
DoylesR	TR014	954.47	100Year-Existing	8.68	107.68	108.52	108.52	108.71	0.017790	2.45	6.36	17.75	0.94
DoylesR	TR014	934.37	100Year-Existing	8.68	106.99	107.83	107.90	108.19	0.031565	3.13	4.73	14.80	1.23
DoylesR	TR014	907.24	100Year-Existing	8.68	106.52	107.38	107.31	107.46	0.010833	2.00	9.69	26.71	0.74
DoylesR	TR014	868.80	100Year-Existing	8.68	105.88	106.72	106.72	106.93	0.017075	2.40	6.01	15.79	0.92
DoylesR	TR014	864.98	100Year-Existing	8.68	105.70	106.54	106.60	106.85	0.023785	2.59	4.15	10.32	1.06
DoylesR	TR014	844.06	100Year-Existing	8.68	105.10	106.18	106.05	106.32	0.008221	2.01	6.77	12.16	0.67
DoylesR	TR014	836.52	100Year-Existing	8.68	104.97	105.96	105.96	106.22	0.017535	2.56	4.89	10.35	0.93
DoylesR	TR014	816.09	100Year-Existing	8.68	104.78	105.52	105.48	105.64	0.015171	2.01	7.19	22.39	0.85
DoylesR	TR014	811.48	100Year-Existing	8.68	104.64	105.51		105.58	0.007159	1.62	9.59	21.83	0.60
DoylesR	TR014	783.28	100Year-Existing	8.68	103.98	105.00	105.00	105.26	0.017532	2.85	5.02	9.54	0.96
DoylesR	TR014	751.27	100Year-Existing	8.68	103.31	104.23	104.29	104.58	0.026058	2.69	3.61	8.34	1.11
DoylesR	TR014	717.94	100Year-Existing	8.68	102.63	103.86	103.86	104.09	0.012789	2.75	6.15	12.96	0.84
DoylesR	TR014	676.43	100Year-Existing	8.68	102.18	103.23	103.19	103.43	0.011715	2.22	6.04	14.50	0.78
DoylesR	TR014	601.44	100Year-Existing	8.68	101.39	102.17	102.17	102.33	0.018499	2.30	6.37	19.04	0.94
DoylesR	TR014	540.83	100Year-Existing	8.68	100.49	102.01	101.40	102.04	0.001215	0.99	16.31	31.96	0.28
DoylesR	TR014	519.25	100Year-Existing	8.68	99.69	102.02	101.31	102.03	0.000130	0.39	51.91	72.23	0.08
DoylesR	TR014	510		Culvert									
DoylesR	TR014	505.00	100Year-Existing	8.68	99.62	101.26	101.26	102.02	0.018133	3.93	2.29	24.29	1.00
DoylesR	TR014	484.27	100Year-Existing	8.68	99.79	100.52	100.75	101.28	0.105035	4.57	2.73	9.93	2.09
DoylesR	TR014	426.15	100Year-Existing	8.68	98.71	99.70	99.70	99.96	0.018625	2.41	4.30	9.04	0.95
DoylesR	TR014	368.05	100Year-Existing	8.68	97.30	98.41	98.51	98.74	0.024918	2.94	4.60	13.81	1.08
DoylesR	TR014	343.01	100Year-Existing	8.68	96.78	98.09	97.61	98.19	0.003148	1.45	6.63	62.03	0.42
DoylesR	TR014	335		Bridge									
DoylesR	TR014	331.91	100Year-Existing	8.68	96.63	97.71	97.71	98.05	0.016707	2.68	3.70	6.47	0.93
DoylesR	TR014	312.09	100Year-Existing	8.68	96.26	97.56	97.56	97.69	0.010520	1.94	8.52	32.57	0.69
DoylesR	TR014	227.09	100Year-Existing	8.68	94.66	96.33	95.95	96.37	0.002779	1.37	13.50	25.93	0.38
DoylesR	TR014	205.76	100Year-Existing	8.68	94.51	96.02	96.02	96.25	0.010471	2.41	6.00	15.92	0.72
DoylesR	TR014	198.96	100Year-Existing	8.68	94.45	95.07	95.34	96.00	0.138428	4.29	2.07	7.62	2.34
DoylesR	TR014	181.77	100Year-Existing	8.68	94.01	95.10	95.10	95.29	0.013383	2.31	6.88	20.59	0.82
DoylesR	TR014	121.12	100Year-Existing	8.68	92.99	94.11	94.21	94.37	0.015989	2.57	7.30	52.58	0.90
DoylesR	TR014	34.73	100Year-Existing	8.68	91.60	92.40	92.45	92.70	0.026095	2.63	4.16	10.22	1.11
DoylesR	TR012	1780.65	100Year-Existing	21.28	90.30	92.05	91.47	92.14	0.002389	1.43	20.71	31.12	0.39
DoylesR	TR012	1753.67	100Year-Existing	21.28	89.56	92.08	90.91	92.10	0.000359	0.81	51.08	58.17	0.17
DoylesR	TR012	1745		Bridge									
DoylesR	TR012	1729.43	100Year-Existing	21.28	89.10	90.76	90.76	91.43	0.015828	3.70	6.08	11.85	0.97
DoylesR	TR012	1709.20	100Year-Existing	21.28	88.93	90.42	90.58	91.01	0.022908	3.99	9.04	19.64	1.14
DoylesR	TR012	1645.76	100Year-Existing	21.28	88.20	89.26	89.30	89.61	0.021181	3.05	9.75	16.91	1.06
DoylesR	TR011	1552.47	100Year-Existing	30.59	86.48	88.45	88.08	88.74	0.006077	2.60	15.61	13.41	0.64
DoylesR	TR011	1530.88	100Year-Existing	30.59	86.19	87.94	87.94	88.51	0.014884	3.78	11.20	10.51	0.98
DoylesR	TR011	1477.56	100Year-Existing	30.59	84.43	85.67	86.06	87.00	0.063455	5.73	7.54	12.71	1.86
DoylesR	TR011	1423.69	100Year-Existing	30.59	83.56	85.25	85.25	85.83	0.015027	3.64	10.70	10.27	0.97
DoylesR	TR011	1370.10	100Year-Existing	30.59	82.66	83.88	84.10	84.58	0.039859	4.68	12.05	29.20	1.49
DoylesR	TR011	1316.51	100Year-Existing	30.59	81.17	82.65	82.72	83.28	0.021401	3.90	10.18	11.77	1.13
DoylesR	TR011	1262.92	100Year-Existing	30.59	79.36	80.92	81.16	81.88	0.030906	4.79	8.81	12.25	1.36
DoylesR	TR011	1209.33	100Year-Existing	30.59	78.14	80.11	80.13	80.71	0.014619	3.79	10.90	11.24	0.96
DoylesR	TR011	1155.74	100Year-Existing	30.59	76.81	78.48	78.78	79.52	0.033652	4.93	7.89	8.97	1.39
DoylesR	TR011	1107.39	100Year-Existing	30.59	76.34	77.79	77.83	78.31	0.018409	3.31	10.52	12.61	1.03
DoylesR	TR011	1057.82	100Year-Existing	30.59	75.16	77.01	77.04	77.55	0.014871	3.49	11.01	11.83	0.94
DoylesR	TR011	971.36	100Year-Existing	30.59	73.33	74.90	74.43	75.11	0.004783	2.06	14.82	18.89	0.55
DoylesR	TR011	960		Bridge									
DoylesR	TR011	949.62	100Year-Existing	30.59	73.08	74.81	74.12	74.97	0.002862	1.77	17.24	14.03	0.44
DoylesR	TR011	929.53	100Year-Existing	30.59	72.74	74.45		74.81	0.009822	2.85	12.87	12.19	0.78
DoylesR	TR011	872.05	100Year-Existing	30.59	72.26	74.00	74.00	74.22	0.009334	2.77	23.48	53.89	0.75
DoylesR	TR011	816.76	100Year-Existing	30.59	72.00	72.99	72.93	73.06	0.014024	2.23	30.61	92.74	0.82
DoylesR	TR011	760.16	100Year-Existing	30.59	71.25	72.38		72.45	0.011060	2.36	32.07	92.60	0.77
DoylesR	TR011	712.26	100Year-Existing	30.59	70.34	71.70	71.65	71.85	0.012123	2.72	24.32	61.94	0.82
DoylesR	TR011	663.11	100Year-Existing	30.59	70.08	71.40		71.43	0.005797	1.76	46.62	125.64	0.54
DoylesR	TR013	2205.78	100Year-Existing	6.51	95.88	96.61	96.37	96.61	0.001244	0.67	24.43	94.97	0.25
DoylesR	TR013	2147.59	100Year-Existing	6.51	95.87	96.52		96.53	0.001794	0.68	16.90	54.05	0.29
DoylesR	TR013	2097.40	100Year-Existing	6.51	95.86	96.19	96.19	96.28	0.041614	1.89	6.65	48.93	1.22
DoylesR	TR013	2011.99	100Year-Existing	6.51	93.67	94.62	94.47	94.74	0.007321	1.70	5.04	10.38	0.62
DoylesR	TR013	1957.46	100Year-Existing	6.51	93.05	93.94	93.94	94.18	0.016041	2.58	3.98	9.30	0.92
DoylesR	TR013	1909.18	100Year-Existing	6.51	92.33	93.18	93.23	93.39	0.015468	2.31	5.41	32.74	0.88
DoylesR	TR013	1861.01	100Year-Existing	6.51	91.27	92.17	92.31	92.50	0.021985	2.73	3.45	17.71	1.03
DoylesR	TR013	1789.09	100Year-Existing	6.51	90.00	90.53	90.57	90.66	0.028029	2.15	6.78	55.72	1.09
DoylesR	TR013	1733.37	100Year-Existing	6.51	89.53	90.21	90.10	90.23	0.003848	0.92	14.55	71.68	0.42
DoylesR	TR013	1677.65	100Year-Existing	6.51	89.42	89.81		89.84	0.015524	1.28	9.04	54.33	0.77
DoylesR	TR013	1613.85	100Year-Existing	6.51	89.11	89.59		89.60	0.001814	0.52	23.19	95.92	0.27
DoylesR	TR013	1552.30	100Year-Existing	6.51	88.82	89.49		89.50	0.001839	0.71	19.72	67.34	0.30
DoylesR	TR013	1506.96	100Year-Existing	6.51	88.81	89.42		89.43	0.001803	0.67	19.34	64.10	0.29
DoylesR	TR013	1478.17	100Year-Existing	6.51	88.80	89.24	89.22	89.30	0.024248	1.70	7.51	41.17	0.97
DoylesR	TR013	1411.61	100Year-Existing	6.51	88.11	89.05		89.06	0.001262	0.71	13.59	29.67	0.26
DoylesR	TR013	1388.58	100Year-Existing	6.51	87.45	89.05	88.80	89.05	0.000094	0.28	54.41	152.65	0.08
DoylesR	TR013	1375		Culvert									
DoylesR	TR013	1373.86	100Year-Existing	6.51	87.32	88.54	88.50	88.62	0.004714	1.68	7.04	12.91	0.50
DoylesR	TR013	1301.72	100Year-Existing	6.51	86.82	87.74	87.74	88.02	0.017638	2.51	3.27	6.54	0.94
DoylesR	TR013	1246.99	100Year-Existing	6.51	85.79	86.59	86.63	86.91	0.023595	2.58	2.82	6.12	1.06

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR013	1192.26	100Year-Existing	6.51	84.79	85.78	85.61	85.91	0.007827	1.79	5.00	10.02	0.64
DoylesR	TR013	1137.53	100Year-Existing	6.51	84.03	85.05	85.03	85.32	0.015442	2.43	3.29	6.59	0.88
DoylesR	TR013	1082.80	100Year-Existing	6.51	83.55	84.42		84.52	0.012645	1.80	6.16	21.66	0.75
DoylesR	TR013	1064.90	100Year-Existing	6.51	82.57	84.45	83.52	84.47	0.000455	0.63	22.51	102.79	0.16
DoylesR	TR013	1050		Culvert									
DoylesR	TR013	1042.53	100Year-Existing	6.51	82.41	84.10	83.27	84.11	0.000423	0.59	22.56	61.37	0.16
DoylesR	TR013	1022.06	100Year-Existing	6.51	82.71	83.94	83.71	84.08	0.006310	1.92	4.90	7.48	0.59
DoylesR	TR013	969.32	100Year-Existing	6.51	82.40	83.24	83.24	83.51	0.020481	2.70	3.34	6.50	1.02
DoylesR	TR013	915.66	100Year-Existing	6.51	81.80	82.84	82.49	82.85	0.001444	0.85	15.79	37.16	0.28
DoylesR	TR013	867.93	100Year-Existing	6.51	81.40	82.71		82.76	0.002515	1.30	11.06	29.55	0.38
DoylesR	TR013	809.27	100Year-Existing	6.51	81.32	82.44		82.55	0.005033	1.56	5.21	8.85	0.52
DoylesR	TR013	756.07	100Year-Existing	6.51	80.75	81.76	81.76	82.08	0.016567	2.79	3.16	5.34	0.94
DoylesR	TR013	702.82	100Year-Existing	6.51	79.91	80.91	80.91	81.20	0.016317	2.66	3.36	6.33	0.92
DoylesR	TR013	651.60	100Year-Existing	6.51	78.06	78.78	78.97	79.57	0.079408	4.08	1.84	5.14	1.85
DoylesR	TR013	588.74	100Year-Existing	6.51	75.89	76.78	76.80	77.05	0.021959	2.32	3.02	7.13	0.99
DoylesR	TR013	543.29	100Year-Existing	6.51	75.20	75.84	75.91	76.17	0.037670	2.56	2.62	7.11	1.26
DoylesR	TR013	489.08	100Year-Existing	6.51	73.77	74.80	74.80	75.13	0.017401	2.80	3.12	5.32	0.95
DoylesR	TR013	436.90	100Year-Existing	6.51	72.11	72.92	73.27	73.57	0.059303	3.58	1.90	4.44	1.59
DoylesR	TR013	383.70	100Year-Existing	6.51	70.97	72.65	71.79	72.65	0.000099	0.30	58.53	139.82	0.08
DoylesR	TR013	363.75	100Year-Existing	6.51	70.36	71.85	71.85	72.57	0.015475	3.76	1.73	8.20	1.00
DoylesR	TR013	360		Culvert									
DoylesR	TR013	344.87	100Year-Existing	6.51	70.32	71.70	71.70	71.71	0.000500	0.57	24.34	48.31	0.16
DoylesR	TR013	324.16	100Year-Existing	6.51	70.29	70.83	70.96	71.49	0.161790	4.39	2.76	28.02	2.47
DoylesR	TR013	256.30	100Year-Existing	6.51	69.36	70.26	70.26	70.33	0.014119	1.92	8.31	43.65	0.75
DoylesR	TR013	236.50	100Year-Existing	6.51	69.35	70.14	69.96	70.15	0.001023	0.44	28.93	115.26	0.20
DoylesR	TR013	162.98	100Year-Existing	6.51	68.94	70.09		70.10	0.000951	0.56	25.06	103.07	0.21
DoylesR	TR013	133.14	100Year-Existing	6.51	68.76	70.08		70.08	0.000261	0.31	43.25	111.48	0.11
DoylesR	TR013	66.14	100Year-Existing	6.51	68.46	70.06		70.06	0.000251	0.35	33.01	84.21	0.11
DoylesR	M001	484.12	100Year-Existing	37.24	68.08	69.64	69.58	69.80	0.014484	2.72	27.00	78.72	0.85
DoylesR	M001	429.44	100Year-Existing	37.24	67.72	69.44		69.48	0.003070	1.39	56.35	122.86	0.40
DoylesR	M001	388.03	100Year-Existing	37.24	67.53	69.33		69.35	0.002819	1.40	64.56	130.78	0.39
DoylesR	M001	344.78	100Year-Existing	37.24	67.39	69.30		69.31	0.000475	0.61	134.53	204.39	0.16
DoylesR	M001	215.64	100Year-Existing	37.24	67.21	69.30		69.30	0.000041	0.20	325.74	321.91	0.05
DoylesR	M001	77.13	100Year-Existing	37.24	66.62	69.30		69.30	0.000011	0.13	587.74	494.10	0.03
CochranePB	M002	8105.53	100Year-Existing	10.71	140.65	142.14	141.32	142.14	0.000128	0.35	66.63	100.06	0.10
CochranePB	M002	8065.47	100Year-Existing	10.71	140.64	142.12		142.13	0.000767	0.76	31.57	71.29	0.24
CochranePB	M002	8050.98	100Year-Existing	10.71	140.00	142.09		142.12	0.000235	0.89	24.14	59.05	0.26
CochranePB	M002	8024.09	100Year-Existing	10.71	140.62	142.08		142.10	0.001145	0.89	28.75	81.26	0.29
CochranePB	M002	8013.06	100Year-Existing	10.71	140.42	142.08		142.09	0.000589	0.72	34.26	74.13	0.22
CochranePB	M002	8004.70	100Year-Existing	10.71	140.25	142.08	141.80	142.09	0.000360	0.76	46.68	102.38	0.18
CochranePB	M002	8000		Culvert									
CochranePB	M002	7995.14	100Year-Existing	10.71	140.37	142.08	141.45	142.09	0.000203	0.55	45.97	74.68	0.14
CochranePB	M002	7964.49	100Year-Existing	10.71	140.14	141.69	141.69	142.03	0.011434	3.06	5.66	9.21	0.89
CochranePB	M002	7901.64	100Year-Existing	10.71	139.30	140.63	140.80	141.05	0.021932	3.09	4.65	11.10	1.14
CochranePB	M002	7847.08	100Year-Existing	10.71	138.68	139.73	139.64	139.79	0.007770	1.60	13.40	43.79	0.67
CochranePB	M002	7812.33	100Year-Existing	10.71	138.52	139.30	139.30	139.39	0.021532	2.01	10.79	53.77	1.08
CochranePB	M002	7738.34	100Year-Existing	10.71	137.94	138.87	138.69	138.88	0.002284	0.79	28.55	109.94	0.37
CochranePB	M002	7695.32	100Year-Existing	10.71	137.67	138.56	138.56	138.68	0.015995	1.94	9.42	39.64	0.97
CochranePB	M002	7609.21	100Year-Existing	10.71	136.29	137.68	137.29	137.69	0.000786	0.74	28.37	69.95	0.25
CochranePB	M002	7515.77	100Year-Existing	10.71	136.28	137.55		137.59	0.002180	1.14	20.59	75.92	0.40
CochranePB	M002	7476.72	100Year-Existing	10.71	136.26	137.53		137.54	0.000585	0.58	33.87	87.78	0.21
CochranePB	M002	7450.86	100Year-Existing	10.71	136.25	137.50		137.52	0.001137	0.78	24.49	75.17	0.29
CochranePB	M002	7329.89	100Year-Existing	10.71	136.23	137.21		137.27	0.005586	1.37	14.82	71.78	0.60
CochranePB	M002	7253.62	100Year-Existing	10.71	136.05	137.05		137.06	0.001956	0.88	23.45	87.14	0.36
CochranePB	M002	7208.54	100Year-Existing	10.71	135.88	136.95		136.97	0.002481	1.02	22.78	87.20	0.41
CochranePB	M002	7108.13	100Year-Existing	10.71	135.54	136.43	136.43	136.52	0.014661	2.16	11.48	54.55	0.93
CochranePB	M002	7041.67	100Year-Existing	10.71	134.91	136.05	135.99	136.11	0.003970	1.28	15.44	74.38	0.52
CochranePB	M002	6985.71	100Year-Existing	10.71	134.29	135.48	135.48	135.74	0.012658	2.58	6.94	23.89	0.94
CochranePB	M002	6955.25	100Year-Existing	10.71	133.48	134.59	134.75	135.10	0.034612	3.25	3.71	10.10	1.45
CochranePB	M002	6863.52	100Year-Existing	10.71	131.82	132.81	132.82	132.95	0.015253	2.27	9.75	36.81	0.97
CochranePB	M002	6840.09	100Year-Existing	10.71	131.19	132.08	132.16	132.38	0.040364	2.97	6.49	34.90	1.52
CochranePB	M002	6808.25	100Year-Existing	10.71	130.51	131.39	131.42	131.55	0.028440	2.45	8.40	39.60	1.25
CochranePB	M002	6767.75	100Year-Existing	10.71	129.31	130.26	130.33	130.48	0.024029	2.50	7.67	41.04	1.20
CochranePB	M002	6727.78	100Year-Existing	10.71	128.36	129.42	129.47	129.62	0.019158	2.45	7.68	31.71	1.07
CochranePB	M002	6691.71	100Year-Existing	10.71	127.96	128.99	128.91	129.05	0.007325	1.54	14.21	66.58	0.68
CochranePB	M002	6651.54	100Year-Existing	10.71	127.68	128.61		128.70	0.010576	1.46	9.36	36.09	0.78
CochranePB	M002	6630.83	100Year-Existing	10.71	127.19	128.34	128.34	128.49	0.009422	1.92	8.84	35.70	0.79
CochranePB	M002	6534.50	100Year-Existing	10.71	126.30	127.24	127.24	127.37	0.014635	1.95	9.46	46.85	0.94
CochranePB	M002	6507.97	100Year-Existing	10.71	125.65	126.52	126.59	126.74	0.038950	2.69	7.55	49.43	1.44
CochranePB	M002	6480.50	100Year-Existing	10.71	124.97	125.87	125.90	125.99	0.021097	2.20	9.22	50.15	1.10
CochranePB	M002	6433.33	100Year-Existing	10.71	124.09	125.00	125.02	125.16	0.018884	1.95	7.65	35.14	1.04
CochranePB	M002	6400.96	100Year-Existing	10.71	123.40	124.48	124.34	124.54	0.005458	1.33	13.27	41.36	0.58
CochranePB	M002	6364.18	100Year-Existing	10.71	123.28	124.49		124.49	0.000264	0.36	39.17	93.88	0.14
CochranePB	M002	6314.31	100Year-Existing	10.71	123.27	124.43		124.46	0.001963	0.92	17.74	48.93	0.37
CochranePB	M002	6286.25	100Year-Existing	10.71	123.26	124.35		124.39	0.003078	1.09	14.74	48.38	0.46
CochranePB	M002	6202.53	100Year-Existing	10.71	122.81	123.97	123.89	124.07	0.006040	1.63	10.33	30.69	0.64
CochranePB	M002	6130.00	100Year-Existing	10.71	122.30	123.25	123.25	123.41	0.016286	1.82	6.44	23.26	0.97
CochranePB	M002	6040.82	100Year-Existing	10.71	121.41	122.54	122.42	122.58	0.002922	1.15	18.37	70.43	0.45
CochranePB	M002	6006.95	100Year-Existing	10.71	121.40	122.51		122.52	0.000822	0.50	27.25	85.65	0.23
CochranePB	M002	5976.09	100Year-Existing	10.71	121.39	122.36	122.36	122.45	0.012188	1.65	12.14	67.63	0.84
CochranePB	M002	5910.40	100Year-Existing	10.71	120.29	121.42	121.46	121.62	0.015632	2.40	8.11	36.09	1.00
CochranePB	M002	5863.68	100Year-Existing	10.71	119.62	120.49	120.60	120.73	0.032188	2.42	5.99	30.74	1.33
CochranePB	M002	5811.63	100Year-Existing	10.71	118.87	119.92	119.92	120.04	0.010554	1.92	11.04	49.82	0.82
CochranePB	M002	5768.42	100Year-Existing	10.71	117.38	118.25	118.45	118.95	0.111777	3.70	2.91	12.69	2.37
CochranePB	M002	5725.36	100Year-Existing	10.71	116.48	117.54	117.56	117.71	0.013497	2.04	8.02	34.20	0.92
CochranePB	M002	5678.58	100Year-Existing	10.71	115.39	116.38	116.48	116.72	0.031429	2.59	4.45	17.45	1.34
CochranePB	M002	5627.04	100Year-Existing	10.71	114.79	116.09	115.79	116.12	0.001972	1.04	16.96	36.02	0.38
CochranePB	M002	5609.94	100Year-Existing	16.10	114.77	115.90		116.01	0.007436	1.71	14.18	39.95	0.71
CochranePB	M002	5601.00	100Year-Existing	16.10	114.76	115.85		115.87	0.002019	0.87	36.75	106.21	0.36
CochranePB	M002	5568.52	100Year-Existing	16.10	114.75	115.80		115.82	0.001494	0.73	36.97	92.02	0.31

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	5508.20	100Year-Existing	16.10	114.04	115.51		115.65	0.004379	1.71	11.25	19.52	0.58
CochranePB	M002	5473.67	100Year-Existing	16.10	113.90	115.22	115.22	115.42	0.010117	2.30	10.86	26.50	0.85
CochranePB	M002	5403.83	100Year-Existing	16.10	110.69	111.73	112.18	113.52	0.132957	5.96	2.82	7.60	2.80
CochranePB	M002	5352.19	100Year-Existing	16.10	110.27	111.53	111.53	111.79	0.014059	2.48	8.78	19.73	0.98
CochranePB	M002	5309.83	100Year-Existing	16.10	109.64	111.00	111.07	111.25	0.011837	2.45	11.21	40.23	0.91
CochranePB	M002	5266.90	100Year-Existing	16.10	109.30	110.57	110.62	110.74	0.011661	2.34	15.57	75.37	0.89
CochranePB	M002	5213.45	100Year-Existing	16.10	108.81	110.27	109.83	110.28	0.001001	0.78	36.21	77.43	0.27
CochranePB	M002	5162.38	100Year-Existing	30.52	108.18	109.90	109.90	110.13	0.008384	2.86	23.40	49.72	0.82
CochranePB	M002	5109.83	100Year-Existing	30.52	108.02	109.39	109.11	109.43	0.003666	1.34	42.78	95.93	0.50
CochranePB	M002	5059.83	100Year-Existing	30.52	107.54	109.09		109.23	0.006437	2.16	30.85	82.53	0.71
CochranePB	M002	5013.20	100Year-Existing	30.52	107.21	108.79	108.79	108.94	0.008393	2.24	29.88	95.74	0.77
CochranePB	M002	4977.38	100Year-Existing	30.52	107.07	108.63	108.41	108.66	0.001980	1.21	56.34	137.90	0.39
CochranePB	M002	4908.49	100Year-Existing	30.52	106.95	108.60		108.61	0.000573	0.72	97.77	192.05	0.22
CochranePB	M002	4883.44	100Year-Existing	30.52	106.94	108.58		108.59	0.000304	0.51	117.61	194.26	0.16
CochranePB	M002	4816.97	100Year-Existing	30.52	106.93	108.57		108.58	0.000301	0.51	119.80	217.55	0.16
CochranePB	M002	4757.22	100Year-Existing	30.52	106.78	108.56		108.57	0.000197	0.46	139.64	242.10	0.13
CochranePB	M002	4718.65	100Year-Existing	30.52	106.77	108.55		108.56	0.000318	0.59	119.25	296.12	0.17
CochranePB	M002	4674.22	100Year-Existing	30.52	106.76	108.52		108.54	0.000755	0.90	77.05	241.39	0.26
CochranePB	M002	4633.22	100Year-Existing	30.52	106.75	108.51		108.52	0.000311	0.56	78.10	149.76	0.16
CochranePB	M002	4561.03	100Year-Existing	30.52	106.74	108.44		108.48	0.001088	1.02	48.60	93.65	0.31
CochranePB	M002	4506.74	100Year-Existing	30.52	106.43	108.14	108.14	108.34	0.006843	2.40	22.81	54.50	0.74
CochranePB	M002	4459.83	100Year-Existing	30.52	105.66	107.17	107.37	107.78	0.021222	3.64	11.49	38.83	1.26
CochranePB	M002	4409.53	100Year-Existing	30.52	104.62	106.16	106.33	106.73	0.020387	3.58	11.86	28.19	1.22
CochranePB	M002	4359.83	100Year-Existing	30.52	103.72	105.32	105.43	105.82	0.015891	3.29	11.68	24.38	1.08
CochranePB	M002	4327.93	100Year-Existing	30.52	103.17	104.89	105.02	105.34	0.013177	3.11	12.27	25.94	1.01
CochranePB	M002	4265.56	100Year-Existing	30.52	102.45	104.14	104.18	104.52	0.012700	3.16	14.61	25.02	0.99
CochranePB	M002	4208.11	100Year-Existing	30.52	101.67	103.23	103.36	103.70	0.015637	3.21	12.25	27.67	1.09
CochranePB	M002	4159.83	100Year-Existing	30.52	101.12	102.16	102.21	102.43	0.047800	3.04	14.71	47.64	1.63
CochranePB	M002	4109.83	100Year-Existing	30.52	98.84	100.37	100.57	100.96	0.019192	3.67	11.50	29.76	1.21
CochranePB	M002	4056.00	100Year-Existing	30.52	97.18	98.67	98.95	99.58	0.033117	4.49	8.51	15.10	1.54
CochranePB	M002	4009.83	100Year-Existing	30.52	96.33	98.15	98.25	98.47	0.013287	3.36	21.08	61.93	0.98
CochranePB	M002	3969.03	100Year-Existing	30.52	95.62	97.25	97.55	97.87	0.015783	3.65	9.75	12.82	1.12
CochranePB	M002	3916.58	100Year-Existing	30.52	94.82	96.89	96.99	97.21	0.007923	2.84	18.91	68.54	0.78
CochranePB	M002	3859.82	100Year-Existing	30.52	94.34	95.91	96.02	96.53	0.018952	3.49	8.91	11.05	1.18
CochranePB	M002	3810.05	100Year-Existing	30.52	93.50	95.32	95.42	95.79	0.010758	3.20	11.77	25.81	0.93
CochranePB	M002	3759.83	100Year-Existing	30.52	93.00	94.56	94.74	95.10	0.016980	3.58	13.74	48.49	1.15
CochranePB	M002	3709.28	100Year-Existing	30.52	92.33	94.02	94.12	94.35	0.011433	2.99	17.99	52.01	0.94
CochranePB	M002	3661.60	100Year-Existing	30.52	92.05	93.77	93.78	93.92	0.005641	2.23	32.17	129.18	0.67
CochranePB	M002	3609.83	100Year-Existing	30.52	91.73	93.31	93.37	93.53	0.010405	2.70	22.70	79.46	0.88
CochranePB	M002	3559.90	100Year-Existing	30.52	90.87	92.74	92.85	93.05	0.008207	2.87	20.35	66.18	0.81
CochranePB	M002	3509.83	100Year-Existing	30.52	90.38	92.13	92.26	92.54	0.012044	3.42	18.05	56.26	0.99
CochranePB	M002	3493.23	100Year-Existing	30.52	90.02	92.13	91.67	92.33	0.003157	2.46	19.53	15.53	0.55
CochranePB	M002	3480		Bridge									
CochranePB	M002	3474.26	100Year-Existing	30.52	89.91	92.15	91.30	92.27	0.001325	1.72	24.80	16.59	0.37
CochranePB	M002	3466.43	100Year-Existing	30.52	90.00	91.52	91.44	92.10	0.008851	3.47	10.52	12.77	0.91
CochranePB	M002	3454.35	100Year-Existing	30.52	89.94	91.73	91.27	91.93	0.003036	2.19	17.88	16.03	0.54
CochranePB	M002	3450		Bridge									
CochranePB	M002	3434.16	100Year-Existing	33.39	90.36	91.63	91.43	91.88	0.005853	2.40	16.63	19.90	0.71
CochranePB	M002	3413.11	100Year-Existing	33.39	90.14	91.55	91.55	91.69	0.007274	2.44	32.11	89.52	0.76
CochranePB	M002	3391.58	100Year-Existing	33.39	90.03	91.44	91.17	91.52	0.004398	1.97	39.22	93.56	0.60
CochranePB	M002	3371.12	100Year-Existing	33.39	90.02	91.17	91.17	91.37	0.010042	2.55	24.66	81.63	0.88
CochranePB	M002	3309.87	100Year-Existing	33.39	89.28	90.60	90.59	90.71	0.010291	2.67	32.05	99.47	0.86
CochranePB	M002	3272.96	100Year-Existing	33.39	88.73	90.18	90.18	90.35	0.009000	2.52	26.92	73.67	0.82
CochranePB	M002	3219.09	100Year-Existing	33.39	88.30	89.71	89.72	89.86	0.009249	2.48	29.56	103.49	0.83
CochranePB	M002	3175.54	100Year-Existing	33.39	87.36	89.33	89.13	89.46	0.002691	1.86	29.96	61.93	0.48
CochranePB	M002	3165		Bridge									
CochranePB	M002	3157.85	100Year-Existing	33.39	87.50	89.10	89.10	89.35	0.005897	2.48	22.11	59.82	0.70
CochranePB	M002	3135.32	100Year-Existing	33.39	87.85	89.06	89.00	89.12	0.004918	1.67	45.84	152.44	0.60
CochranePB	M002	3106.53	100Year-Existing	33.39	87.94	88.76	88.76	88.88	0.028943	2.54	25.60	116.28	1.27
CochranePB	M002	3088.94	100Year-Existing	33.39	86.84	88.55	88.03	88.62	0.001483	1.34	45.19	135.69	0.36
CochranePB	M002	3080		Bridge									
CochranePB	M002	3075.67	100Year-Existing	33.39	86.74	88.27	87.88	88.32	0.001599	1.29	46.01	102.30	0.37
CochranePB	M002	3056.89	100Year-Existing	33.39	87.66	88.18		88.26	0.016122	0.91	27.84	98.04	0.79
CochranePB	M002	3007.54	100Year-Existing	33.39	87.61	87.90		87.93	0.003464	0.35	46.32	99.11	0.29
CochranePB	M002	2976.31	100Year-Existing	33.39	87.51	87.82		87.85	0.002988	0.39	49.59	109.89	0.32
CochranePB	M002	2941.08	100Year-Existing	33.39	86.98	87.76		87.77	0.001713	0.63	76.00	219.57	0.31
CochranePB	M002	2920.10	100Year-Existing	33.39	86.74	87.75	87.54	87.76	0.000177	0.26	167.63	295.24	0.10
CochranePB	M002	2915		Bridge									
CochranePB	M002	2912.75	100Year-Existing	33.39	86.97	87.75	87.75	87.75	0.000107	0.22	200.70	313.30	0.08
CochranePB	M002	2890.23	100Year-Existing	33.39	86.65	86.80	86.97	87.53	0.487406	3.25	8.86	68.20	3.78
CochranePB	M002	2823.99	100Year-Existing	33.39	86.08	87.02	86.73	87.03	0.001502	0.64	83.11	236.83	0.28
CochranePB	M002	2789.49	100Year-Existing	33.39	86.04	86.99		87.00	0.001286	0.56	85.88	240.39	0.26
CochranePB	M002	2741.30	100Year-Existing	33.39	85.71	86.94		86.95	0.000999	0.72	91.03	252.67	0.27
CochranePB	M002	2663.79	100Year-Existing	33.39	85.58	86.89		86.90	0.001108	0.82	88.56	243.13	0.29
CochranePB	M002	2639.38	100Year-Existing	33.39	85.57	86.85		86.87	0.001487	0.89	80.33	227.32	0.33
CochranePB	M002	2616.24	100Year-Existing	33.39	85.30	86.84		86.85	0.000777	0.77	97.27	224.52	0.25
CochranePB	M002	2539.69	100Year-Existing	33.39	85.41	86.78		86.80	0.001523	0.93	76.74	215.93	0.33
CochranePB	M002	2489.06	100Year-Existing	33.39	85.18	86.73		86.75	0.001386	1.04	72.18	181.75	0.33
CochranePB	M002	2438.28	100Year-Existing	33.39	84.87	86.67		86.70	0.001400	1.14	68.51	162.03	0.34
CochranePB	M002	2384.01	100Year-Existing	33.39	84.65	86.58		86.62	0.001988	1.46	58.34	129.27	0.40
CochranePB	M002	2310.47	100Year-Existing	33.39	84.33	86.30		86.41	0.004528	2.11	38.80	103.15	0.59
CochranePB	M002	2284.63	100Year-Existing	33.39	84.16	86.24		86.30	0.003024	1.76	45.70	91.86	0.47
CochranePB	M002	2240.58	100Year-Existing	33.39	84.04	85.85	85.85	86.08	0.008321	2.80	22.97	44.29	0.80
CochranePB	M002	2170.94	100Year-Existing	33.39	82.26	83.78	84.14	84.91	0.038785	4.97	8.28	14.30	1.68
CochranePB	M002	2136.89	100Year-Existing	33.39	81.72	83.30	83.47	83.85	0.018721	3.44	11.89	20.48	1.18
CochranePB	M002	2100.01	100Year-Existing	33.39	81.30	83.10	83.10	83.36	0.008901	2.70	20.30	39.19	0.83
CochranePB	M002	2046.85	100Year-Existing	33.39	80.89	82.51	82.51	82.84	0.010619	2.70	16.14	31.46	0.90
CochranePB	M002	2014.35	100Year-Existing	33.39	80.47	81.87	82.00	82.34	0.023451	3.25	13.91	40.04	1.27
CochranePB	M002	1990.76	100Year-Existing	33.39	80.10	81.80	81.80	82.05	0.009956	2.70	20.85	42.27	0.87
CochranePB	M002	1945.20	100Year-Existing	33.39	79.43	81.42	81.09	81.51	0.003049	1.77	33.59	46.73	0.50

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	1916.67	100Year-Existing	33.39	79.31	81.28		81.41	0.004384	2.11	29.23	41.85	0.59
CochranePB	M002	1871.48	100Year-Existing	33.39	79.28	81.14		81.22	0.003458	1.70	32.82	46.08	0.52
CochranePB	M002	1836.03	100Year-Existing	33.39	78.83	81.09		81.14	0.001279	1.29	43.30	60.20	0.33
CochranePB	M002	1788.63	100Year-Existing	33.39	78.46	80.50	80.50	80.96	0.012403	3.65	15.85	25.50	0.99
CochranePB	M002	1768.08	100Year-Existing	33.39	78.14	79.92	80.14	80.62	0.020635	4.21	12.10	23.19	1.25
CochranePB	M002	1733.19	100Year-Existing	33.39	77.95	79.84	79.87	80.14	0.008073	2.74	20.20	47.56	0.81
CochranePB	M002	1694.89	100Year-Existing	33.39	77.12	79.12	78.67	79.22	0.002619	1.68	30.72	39.80	0.47
CochranePB	M002	1685.79	100Year-Existing	33.39	77.06	79.07		79.19	0.003436	1.93	26.80	35.04	0.53
CochranePB	M002	1640.51	100Year-Existing	33.39	76.45	78.57	78.57	78.94	0.007454	3.01	16.67	25.57	0.79
CochranePB	M002	1602.99	100Year-Existing	33.39	75.01	76.34	76.82	78.12	0.087231	6.08	6.24	13.80	2.41
CochranePB	M002	1585.52	100Year-Existing	33.39	74.01	75.25	75.59	76.47	0.081391	5.25	7.98	19.97	2.28
CochranePB	M002	1569.47	100Year-Existing	33.39	73.71	74.95	75.08	75.43	0.032982	3.18	11.56	27.08	1.44
CochranePB	M002	1541.97	100Year-Existing	33.39	72.31	73.95	74.14	74.64	0.023786	3.95	10.64	17.60	1.32
CochranePB	M002	1510.83	100Year-Existing	33.39	71.34	72.48	72.73	73.37	0.081725	4.20	8.08	23.07	2.19
CochranePB	M002	1495.27	100Year-Existing	33.39	71.19	72.89	72.63	73.00	0.003857	1.61	26.99	40.36	0.55
CochranePB	M002	1458.62	100Year-Existing	33.39	70.58	72.54	72.54	72.78	0.007575	3.02	25.64	48.58	0.79
CochranePB	M002	1419.61	100Year-Existing	33.39	70.21	71.85	71.99	72.34	0.016153	3.64	15.37	32.22	1.12
CochranePB	M002	1384.56	100Year-Existing	33.39	69.61	71.74	71.48	72.03	0.005002	2.51	18.51	44.82	0.66
CochranePB	M002	1351.51	100Year-Existing	33.39	69.54	71.63	71.63	71.85	0.004812	2.49	26.97	74.80	0.65
CochranePB	M002	1311.78	100Year-Existing	33.39	69.49	71.29	71.38	71.58	0.008603	2.94	24.15	90.77	0.84
CochranePB	M002	1291.19	100Year-Existing	33.39	69.28	70.91	71.06	71.34	0.014849	3.47	18.59	71.36	1.06
CochranePB	M002	1217.75	100Year-Existing	33.39	68.70	70.69	70.10	70.74	0.000940	1.12	53.18	89.54	0.29
CochranePB	M002	1200.39	100Year-Existing	33.39	68.69	70.50	70.05	70.69	0.003285	2.00	17.34	18.46	0.54
CochranePB	M002	1190		Bridge									
CochranePB	M002	1185.68	100Year-Existing	34.23	68.46	70.48	69.73	70.62	0.001719	1.68	20.95	25.07	0.41
CochranePB	M002	1164.32	100Year-Existing	34.23	68.65	70.31	70.31	70.54	0.005518	2.55	24.26	65.68	0.69
CochranePB	M002	1132.60	100Year-Existing	34.23	68.60	69.77	69.88	70.18	0.026123	3.48	17.58	92.30	1.35
CochranePB	M002	1111.68	100Year-Existing	34.23	68.55	69.75	69.54	69.80	0.004120	1.63	44.53	137.33	0.56
CochranePB	M002	1059.95	100Year-Existing	34.23	68.38	69.56		69.64	0.004770	1.98	40.34	118.10	0.63
CochranePB	M002	998.99	100Year-Existing	34.23	68.13	69.32		69.36	0.003920	1.77	47.67	153.04	0.55
CochranePB	M002	955.54	100Year-Existing	34.23	68.12	69.31		69.31	0.000276	0.46	145.39	253.30	0.15
CochranePB	M002	851.16	100Year-Existing	34.23	67.62	69.30		69.30	0.000116	0.37	185.07	243.18	0.10
CochranePB	M002	798.06	100Year-Existing	34.23	67.47	69.30		69.30	0.000054	0.27	246.18	276.61	0.07
CochranePB	M002	746.77	100Year-Existing	34.23	67.30	69.30		69.30	0.000021	0.18	342.29	317.09	0.05
CochranePB	M002	694.52	100Year-Existing	34.23	66.98	69.30		69.30	0.000012	0.16	419.82	356.71	0.04
CochranePB	M002	669.16	100Year-Existing	34.23	66.97	69.30		69.30	0.000010	0.14	468.89	388.39	0.03
CochranePB	M002	590.19	100Year-Existing	34.23	66.84	69.30		69.30	0.000007	0.12	558.04	458.64	0.03
CochranePB	M002	539.85	100Year-Existing	34.23	66.81	69.30		69.30	0.000007	0.12	568.54	471.82	0.03
CochranePB	M002	488.40	100Year-Existing	34.23	66.54	69.30		69.30	0.000006	0.11	607.90	489.09	0.02
CochranePB	M001	381.27	100Year-Existing	68.04	66.35	69.29		69.29	0.000025	0.21	699.57	577.01	0.04
CochranePB	M001	313.14	100Year-Existing	68.04	66.28	69.29		69.29	0.000017	0.17	832.43	644.55	0.03

Petty Harbour River 100yr WSEL+1m

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	TR001	439.21	100Year-Existing	36.90	105.11	106.52	106.27	106.61	0.004795	1.94	40.67	65.96	0.55
RaymondB	TR001	409.42	100Year-Existing	36.90	104.68	106.07	106.04	106.37	0.013430	3.19	22.10	33.90	0.91
RaymondB	TR001	380.07	100Year-Existing	36.90	104.05	106.18		106.22	0.000923	1.14	65.62	74.55	0.26
RaymondB	TR001	360.64	100Year-Existing	36.90	103.60	106.18	105.21	106.20	0.000426	0.86	94.64	90.94	0.18
RaymondB	TR001	350		Bridge									
RaymondB	TR001	344.45	100Year-Existing	36.90	103.30	104.61	105.00	105.84	0.050469	5.82	11.15	36.79	1.70
RaymondB	TR001	334.13	100Year-Existing	36.90	103.40	104.38	104.66	105.24	0.043200	4.42	12.71	50.23	1.52
RaymondB	TR001	272.22	100Year-Existing	36.90	102.83	103.97	103.97	104.22	0.015338	2.97	23.63	45.43	0.94
RaymondB	TR001	218.50	100Year-Existing	36.90	101.42	102.78	102.86	103.30	0.018212	3.62	16.26	27.54	1.05
RaymondB	TR001	163.97	100Year-Existing	36.90	100.32	101.91	101.47	102.06	0.003879	1.87	26.05	29.78	0.50
RaymondB	TR001	115.54	100Year-Existing	36.90	100.00	101.38	101.38	101.73	0.012816	3.20	20.48	35.13	0.90
RaymondB	TR001	56.65	100Year-Existing	36.90	97.73	98.52	98.90	99.79	0.087282	5.38	8.60	16.57	2.10
RaymondB	M002	6453.60	100Year-Existing	19.70	118.10	125.24	118.91	125.24	0.000000	0.03	669.28	233.87	0.01
RaymondB	M002	6405.52	100Year-Existing	19.70	118.00	125.24		125.24	0.000000	0.03	679.44	228.88	0.01
RaymondB	M002	6347.04	100Year-Existing	19.70	124.73	125.18		125.24	0.006214	1.10	18.17	41.46	0.52
RaymondB	M002	6247.26	100Year-Existing	19.70	117.21	118.29		118.34	0.003855	1.43	23.95	35.15	0.47
RaymondB	M002	6230.10	100Year-Existing	19.70	117.20	118.27		118.31	0.001753	0.94	29.71	42.84	0.31
RaymondB	M002	6205.35	100Year-Existing	19.70	117.28	118.24		118.26	0.001588	0.84	41.13	61.00	0.29
RaymondB	M002	6143.06	100Year-Existing	19.70	117.18	118.12		118.14	0.002259	0.97	36.80	63.78	0.35
RaymondB	M002	6105.93	100Year-Existing	19.70	117.17	117.99		118.03	0.003093	1.03	28.28	61.91	0.40
RaymondB	M002	6026.35	100Year-Existing	19.70	116.81	117.80		117.83	0.002124	0.98	32.06	47.60	0.34
RaymondB	M002	5933.71	100Year-Existing	19.70	116.42	117.52		117.59	0.003130	1.30	26.39	63.18	0.42
RaymondB	M002	5883.92	100Year-Existing	19.70	116.12	117.29		117.40	0.004417	1.59	17.42	29.61	0.50
RaymondB	M002	5785.15	100Year-Existing	19.70	115.75	116.84		116.94	0.005033	1.57	18.29	31.33	0.53
RaymondB	M002	5732.44	100Year-Existing	19.70	115.46	116.48		116.62	0.006851	1.74	14.02	25.67	0.61
RaymondB	M002	5631.37	100Year-Existing	19.70	114.85	115.77		115.86	0.008235	1.67	19.83	45.66	0.64
RaymondB	M002	5500.15	100Year-Existing	19.70	114.62	115.69		115.69	0.000634	0.55	69.41	131.32	0.19
RaymondB	M002	5485.46	100Year-Existing	19.70	114.53	115.68		115.68	0.000394	0.47	87.02	167.10	0.15
RaymondB	M002	5411.19	100Year-Existing	19.70	114.48	115.61	115.20	115.64	0.001249	0.81	37.65	68.91	0.27
RaymondB	M002	5338.54	100Year-Existing	19.70	114.41	115.61	114.79	115.61	0.000106	0.25	92.54	110.73	0.08
RaymondB	M002	5278.93	100Year-Existing	19.70	114.44	115.60	114.84	115.60	0.000149	0.29	82.90	111.62	0.09
RaymondB	M002	5226.60	100Year-Existing	19.70	114.42	115.59		115.60	0.000166	0.30	89.40	129.13	0.10
RaymondB	M002	5171.66	100Year-Existing	19.70	114.42	115.58		115.59	0.000161	0.31	106.09	179.55	0.10
RaymondB	M002	5111.50	100Year-Existing	19.70	114.42	115.56		115.57	0.000570	0.57	59.95	134.88	0.18
RaymondB	M002	5077.48	100Year-Existing	19.70	114.38	115.54		115.55	0.000530	0.55	50.49	89.95	0.17
RaymondB	M002	5017.13	100Year-Existing	19.70	114.40	115.42		115.48	0.002910	1.16	18.92	28.23	0.40
RaymondB	M002	4967.43	100Year-Existing	19.70	114.07	115.14		115.28	0.005820	1.68	12.91	18.45	0.57
RaymondB	M002	4943.43	100Year-Existing	19.70	113.82	115.03		115.15	0.004962	1.70	16.17	25.71	0.54
RaymondB	M002	4910.95	100Year-Existing	19.70	113.67	114.88		114.99	0.004657	1.66	17.67	29.61	0.52
RaymondB	M002	4851.17	100Year-Existing	19.70	113.47	114.58		114.69	0.005326	1.67	17.38	30.61	0.55
RaymondB	M002	4783.73	100Year-Existing	19.70	113.30	114.26		114.34	0.004901	1.33	18.79	36.41	0.50
RaymondB	M002	4732.68	100Year-Existing	19.70	113.07	114.01		114.07	0.005282	1.37	22.09	43.58	0.52
RaymondB	M002	4681.76	100Year-Existing	19.70	112.35	113.35	113.35	113.63	0.013740	2.52	10.73	31.15	0.87
RaymondB	M002	4673.96	100Year-Existing	19.70	111.74	112.64	112.83	113.40	0.046522	4.10	6.06	17.74	1.54
RaymondB	M002	4644.78	100Year-Existing	19.70	110.49	111.44	111.64	112.16	0.038068	3.92	5.88	22.62	1.42
RaymondB	M002	4625.72	100Year-Existing	19.70	106.75	107.34	107.90	110.27	0.373357	7.60	2.61	7.08	3.91
RaymondB	M002	4615.42	100Year-Existing	19.70	105.83	106.58	106.94	107.86	0.109752	5.18	4.30	10.00	2.26
RaymondB	M002	4607.06	100Year-Existing	19.70	105.79	107.02	106.94	107.38	0.012729	2.79	8.39	9.74	0.86
RaymondB	M002	4597.34	100Year-Existing	19.70	105.76	107.00		107.23	0.009869	2.35	11.42	16.82	0.75
RaymondB	M002	4575.18	100Year-Existing	19.70	105.98	106.59	106.59	106.84	0.041556	2.67	9.44	20.03	1.31
RaymondB	M002	4545.57	100Year-Existing	19.70	104.65	105.82	105.88	106.15	0.014735	2.80	10.83	27.16	0.91
RaymondB	M002	4522.17	100Year-Existing	19.70	103.67	104.43	104.73	105.43	0.072199	4.68	5.49	14.73	1.88
RaymondB	M002	4511.42	100Year-Existing	19.70	103.62	104.91	104.59	105.01	0.004850	1.73	18.31	28.14	0.53
RaymondB	M002	4489.94	100Year-Existing	19.70	103.59	104.55	104.55	104.82	0.015603	2.59	11.02	21.67	0.91
RaymondB	M002	4466.63	100Year-Existing	19.70	103.03	104.31	103.97	104.42	0.004180	1.62	18.07	33.86	0.50
RaymondB	M002	4439.46	100Year-Existing	19.70	103.00	104.04	104.04	104.24	0.011605	2.36	15.33	40.13	0.79
RaymondB	M002	4415.77	100Year-Existing	19.70	102.78	103.53	103.63	103.84	0.025496	2.68	10.96	39.10	1.11
RaymondB	M002	4385.89	100Year-Existing	19.70	101.80	102.75	102.87	103.14	0.021034	2.99	9.71	27.28	1.06
RaymondB	M002	4354.01	100Year-Existing	19.70	101.27	102.13	102.11	102.39	0.025555	3.12	13.40	38.93	1.15
RaymondB	M002	4341.66	100Year-Existing	19.70	100.84	101.92	101.92	102.15	0.013355	2.52	14.22	35.89	0.86
RaymondB	M002	4332.73	100Year-Existing	19.70	100.32	101.17	101.36	101.90	0.045872	4.04	6.45	14.58	1.53
RaymondB	M002	4308.73	100Year-Existing	19.70	98.87	99.60	99.87	100.49	0.075569	4.56	5.72	13.56	1.89
RaymondB	M002	4294.65	100Year-Existing	19.70	98.45	99.41	99.47	99.82	0.022490	3.12	8.61	14.84	1.10
RaymondB	M002	4263.86	100Year-Existing	19.70	97.59	99.15	98.54	99.23	0.002182	1.40	20.19	22.36	0.37
RaymondB	M002	4235.25	100Year-Existing	19.70	97.47	99.14		99.18	0.000967	0.97	27.81	27.33	0.25
RaymondB	M001	4130.35	100Year-Existing	55.40	96.57	98.14	98.13	98.63	0.014817	3.20	19.80	27.16	0.94
RaymondB	M001	4076.94	100Year-Existing	55.40	96.04	97.90	97.60	98.10	0.005169	2.19	33.71	37.48	0.58
RaymondB	M001	4023.53	100Year-Existing	55.40	95.94	97.15	97.15	97.59	0.019618	3.02	20.50	30.04	1.04
RaymondB	M001	3978.20	100Year-Existing	55.40	94.64	96.87	96.28	96.97	0.002553	1.49	47.24	60.33	0.40
RaymondB	M001	3916.71	100Year-Existing	75.30	94.64	96.58		96.75	0.004627	2.24	57.80	65.95	0.56
RaymondB	M001	3863.30	100Year-Existing	75.30	94.41	96.41		96.53	0.003321	1.96	70.72	81.92	0.48
RaymondB	M001	3809.58	100Year-Existing	75.30	94.09	95.93	95.84	96.25	0.008897	2.98	40.62	48.12	0.77
RaymondB	M001	3756.26	100Year-Existing	75.30	93.53	95.25	95.25	95.69	0.011750	3.29	33.71	42.25	0.87
RaymondB	M001	3694.37	100Year-Existing	75.30	92.66	94.55	94.35	94.82	0.006327	2.54	44.60	63.81	0.65
RaymondB	M001	3569.22	100Year-Existing	75.30	92.15	94.59		94.61	0.000448	0.83	175.54	172.99	0.18
RaymondB	M001	3527.64	100Year-Existing	75.30	91.85	94.57		94.59	0.000376	0.83	175.68	149.71	0.17
RaymondB	M001	3446.51	100Year-Existing	75.30	91.14	94.56		94.57	0.000164	0.62	246.56	179.90	0.11
RaymondB	M001	3421.64	100Year-Existing	75.30	91.23	94.55	93.16	94.56	0.000188	0.72	267.95	235.20	0.13
RaymondB	M001	3410		Bridge									
RaymondB	M001	3404.11	100Year-Existing	75.30	91.23	93.22	93.22	94.16	0.014101	4.34	17.69	103.45	1.00
RaymondB	M001	3380.48	100Year-Existing	75.30	90.96	93.10	92.53	93.24	0.003038	1.94	62.73	71.63	0.46
RaymondB	M001	3308.92	100Year-Existing	75.30	90.80	92.84		92.99	0.003821	2.18	62.51	72.88	0.51
RaymondB	M001	3216.73	100Year-Existing	75.30	89.31	92.47	91.22	92.72	0.002169	2.26	34.51	78.74	0.42
RaymondB	M001	3200		Bridge									
RaymondB	M001	3188.78	100Year-Existing	75.30	89.30	91.67	91.61	92.43	0.011229	4.16	21.49	47.23	0.90
RaymondB	M001	3015.18	100Year-Existing	75.30	89.18	91.00		91.14	0.003403	1.89	62.76	69.71	0.48
RaymondB	M001	2876.32	100Year-Existing	75.30	88.66	90.35	90.11	90.55	0.006460	2.34	51.21	98.04	0.64
RaymondB	M001	2789.37	100Year-Existing	75.30	88.24	90.11		90.17	0.002614	1.62	102.81	162.63	0.41
RaymondB	M001	2681.85	100Year-Existing	75.30	88.14	89.58		89.73	0.009398	2.46	63.60	136.14	0.74
RaymondB	M001	2604.32	100Year-Existing	75.30	87.97	89.42		89.45	0.001996	1.19	122.09	209.97	0.35

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	M001	2531.57	100Year-Existing	75.30	87.97	89.37		89.38	0.000744	0.67	198.20	291.38	0.21
RaymondB	M001	2385.34	100Year-Existing	75.30	87.43	89.30		89.32	0.001445	1.22	155.84	250.55	0.31
RaymondB	M001	2245.72	100Year-Existing	75.30	86.99	88.92	88.72	89.11	0.004806	2.26	60.23	124.23	0.57
RaymondB	M001	2194.47	100Year-Existing	75.30	86.68	88.91		88.96	0.001222	1.28	106.78	96.72	0.29
RaymondB	M001	2140.67	100Year-Existing	75.30	86.59	88.79		88.87	0.002016	1.62	82.22	72.13	0.38
RaymondB	M001	2087.60	100Year-Existing	75.30	86.38	88.61		88.75	0.002572	1.84	57.55	46.22	0.43
RaymondB	M001	2069.54	100Year-Existing	75.30	86.35	88.54		88.69	0.003101	2.01	58.55	70.76	0.47
RaymondB	M001	2040.77	100Year-Existing	75.30	86.25	88.46		88.60	0.002865	1.90	66.35	88.12	0.45
RaymondB	M001	1989.18	100Year-Existing	75.30	86.02	88.23	87.77	88.42	0.004186	2.31	59.53	81.51	0.54
RaymondB	M001	1950.22	100Year-Existing	75.30	85.79	87.71	87.37	88.14	0.011246	3.34	36.66	52.69	0.86
RaymondB	M001	1885.73	100Year-Existing	75.30	85.34	87.32		87.55	0.006439	2.56	47.25	53.51	0.65
RaymondB	M001	1835.84	100Year-Existing	75.30	84.64	86.55	86.55	87.06	0.015035	3.79	29.97	29.46	0.98
RaymondB	M001	1784.61	100Year-Existing	75.30	84.10	85.42	85.54	85.98	0.031390	3.96	27.88	40.40	1.31
RaymondB	M001	1733.38	100Year-Existing	75.30	82.79	84.99	84.38	85.11	0.002744	1.85	60.97	49.14	0.44
RaymondB	M001	1682.15	100Year-Existing	75.30	82.60	84.59		84.89	0.006610	2.61	37.44	36.75	0.66
RaymondB	M001	1630.92	100Year-Existing	75.30	82.12	84.11	83.98	84.50	0.008521	2.93	34.63	45.45	0.75
RaymondB	M001	1584.49	100Year-Existing	75.30	81.77	83.89		84.13	0.005706	2.51	45.42	57.86	0.62
RaymondB	M001	1536.01	100Year-Existing	75.30	81.31	83.45	83.31	83.80	0.008034	2.98	40.27	56.10	0.72
RaymondB	M001	1477.96	100Year-Existing	75.30	80.96	83.07		83.36	0.006647	2.69	42.07	48.68	0.66
RaymondB	M001	1425.99	100Year-Existing	75.30	80.58	82.88		83.07	0.003901	2.22	47.68	41.44	0.52
RaymondB	M001	1372.05	100Year-Existing	75.30	80.25	82.73		82.87	0.003141	2.08	56.56	49.52	0.47
RaymondB	M001	1323.54	100Year-Existing	75.30	79.11	81.91	81.33	82.54	0.006150	3.53	21.35	17.06	0.69
RaymondB	M001	1315		Bridge									
RaymondB	M001	1303.54	100Year-Existing	75.30	78.01	80.68	80.53	81.58	0.011427	4.22	17.86	20.77	0.90
RaymondB	M001	1252.39	100Year-Existing	78.50	78.45	80.47	80.47	80.95	0.013544	3.60	31.35	32.26	0.92
RaymondB	M001	1216.25	100Year-Existing	78.50	77.86	79.86	80.00	80.42	0.015766	3.99	32.38	43.05	1.01
RaymondB	M001	1189.75	100Year-Existing	78.50	77.61	79.18	79.36	79.85	0.028227	4.12	26.23	38.52	1.27
RaymondB	M001	1166.20	100Year-Existing	78.50	76.74	78.31	78.55	79.10	0.034388	4.75	28.29	54.23	1.42
RaymondB	M001	1148.70	100Year-Existing	78.50	76.50	78.18	78.26	78.58	0.017564	3.47	36.95	59.36	1.02
RaymondB	M001	1116.25	100Year-Existing	78.50	75.83	77.25	77.41	77.86	0.026022	3.63	25.77	38.55	1.20
RaymondB	M001	1066.09	100Year-Existing	78.50	75.16	77.10	76.80	77.29	0.004750	2.19	52.82	57.51	0.56
RaymondB	M001	1035.68	100Year-Existing	78.50	74.73	76.24	76.24	76.96	0.024763	4.04	24.12	28.97	1.21
RaymondB	M001	999.99	100Year-Existing	78.50	73.32	74.85	75.18	75.90	0.032773	4.79	19.73	23.55	1.40
RaymondB	M001	976.73	100Year-Existing	78.50	73.03	74.73	74.84	75.27	0.014412	3.55	32.51	48.76	0.96
RaymondB	M001	942.15	100Year-Existing	78.50	72.18	73.30	73.61	74.22	0.082694	5.89	21.66	35.97	2.09
RaymondB	M001	916.70	100Year-Existing	78.50	70.82	72.26	72.43	72.85	0.032392	4.59	32.37	67.62	1.38
RaymondB	M001	892.34	100Year-Existing	78.50	70.36	71.97	72.03	72.40	0.013138	3.28	36.09	53.85	0.91
RaymondB	M001	866.25	100Year-Existing	78.50	70.04	71.92	71.43	72.11	0.004099	2.07	52.73	66.60	0.52
RaymondB	M001	841.89	100Year-Existing	78.50	69.92	71.81	71.57	72.00	0.004572	2.25	60.82	96.34	0.56
RaymondB	M001	816.68	100Year-Existing	78.50	69.74	71.37	71.37	71.80	0.012778	3.37	38.18	59.31	0.90
RaymondB	M001	766.25	100Year-Existing	78.50	69.16	70.45	70.33	70.70	0.014045	2.86	39.80	49.36	0.90
RaymondB	M001	716.25	100Year-Existing	78.50	68.39	70.04		70.23	0.005573	2.25	53.68	69.47	0.60
RaymondB	M001	675.00	100Year-Existing	78.50	68.14	69.83		70.00	0.005347	2.22	55.13	60.87	0.59
RaymondB	M001	615.86	100Year-Existing	78.50	67.75	69.76		69.81	0.001581	1.40	115.38	164.44	0.33
RaymondB	M001	565.77	100Year-Existing	78.50	67.44	69.70		69.74	0.000953	1.17	151.35	238.32	0.26
RaymondB	M001	520.15	100Year-Existing	78.50	67.26	69.70		69.71	0.000342	0.73	248.62	318.94	0.16
RaymondB	M001	468.54	100Year-Existing	78.50	66.98	69.69		69.70	0.000145	0.52	362.43	398.22	0.11
RaymondB	M001	429.18	100Year-Existing	78.50	66.80	69.69		69.69	0.000049	0.32	547.40	499.05	0.06
RaymondB	M001	366.25	100Year-Existing	78.50	66.65	69.69		69.69	0.000018	0.20	852.21	643.68	0.04
RaymondB	M001	341.79	100Year-Existing	78.50	66.63	69.69		69.69	0.000014	0.17	956.92	686.24	0.03
PettyHR	M002	6270.85	100Year-Existing	101.20	66.23	69.69		69.69	0.000001	0.06	2101.31	860.42	0.01
PettyHR	M002	6218.07	100Year-Existing	101.20	66.23	69.69		69.69	0.000001	0.06	1969.96	849.37	0.01
PettyHR	M002	6095.00	100Year-Existing	101.20	66.23	69.69		69.69	0.000001	0.06	1904.14	855.68	0.01
PettyHR	M002	6004.71	100Year-Existing	101.20	66.23	69.69		69.69	0.000001	0.06	1959.67	885.68	0.01
PettyHR	M001	5825.85	100Year-Existing	171.20	66.23	69.69		69.69	0.000003	0.08	2264.15	845.89	0.02
PettyHR	M001	5685.44	100Year-Existing	171.20	66.23	69.69		69.69	0.000002	0.08	2184.64	735.45	0.01
PettyHR	M001	5516.39	100Year-Existing	189.70	66.23	69.69		69.69	0.000004	0.10	1906.33	629.83	0.02
PettyHR	M001	5279.80	100Year-Existing	189.70	66.23	69.69		69.69	0.000009	0.15	1288.89	425.97	0.03
PettyHR	M001	4996.75	100Year-Existing	189.70	66.23	69.68		69.68	0.000041	0.33	609.59	210.13	0.06
PettyHR	M001	4923.81	100Year-Existing	189.70	66.23	69.61		69.67	0.000536	1.17	201.53	89.52	0.21
PettyHR	M001	4867.41	100Year-Existing	189.70	66.23	69.51		69.62	0.001373	1.86	171.65	99.02	0.34
PettyHR	M001	4817.61	100Year-Existing	189.70	66.58	69.43		69.54	0.001759	2.00	165.39	93.85	0.38
PettyHR	M001	4757.18	100Year-Existing	189.70	66.43	68.69	68.69	69.28	0.011372	4.29	77.02	65.93	0.92
PettyHR	M001	4675.66	100Year-Existing	189.70	65.88	68.23	67.64	68.53	0.004962	2.94	93.82	51.96	0.62
PettyHR	M001	4612.84	100Year-Existing	189.70	64.88	67.32	67.09	68.03	0.011401	4.55	66.64	44.83	0.94
PettyHR	M001	4570.09	100Year-Existing	189.70	64.62	66.91	66.91	67.55	0.010323	4.06	70.70	56.10	0.88
PettyHR	M001	4500.69	100Year-Existing	189.70	64.62	66.50	66.18	66.78	0.005621	2.64	97.04	76.21	0.63
PettyHR	M001	4461.12	100Year-Existing	189.70	64.55	66.09	66.06	66.48	0.014704	3.72	86.45	91.67	0.98
PettyHR	M001	4428.20	100Year-Existing	189.70	64.41	65.91		66.13	0.009710	2.91	103.63	90.17	0.79
PettyHR	M001	4395.66	100Year-Existing	189.70	63.81	65.62		65.86	0.006118	2.70	105.57	82.11	0.65
PettyHR	M001	4357.04	100Year-Existing	189.70	63.34	65.50		65.66	0.003502	2.33	129.94	81.65	0.51
PettyHR	M001	4281.82	100Year-Existing	189.70	62.50	65.40		65.50	0.001036	1.53	148.77	59.54	0.29
PettyHR	M001	4166.17	100Year-Existing	189.70	61.82	65.42		65.44	0.000146	0.66	418.28	166.92	0.11
PettyHR	M001	3949.19	100Year-Existing	189.70	61.31	65.44		65.44	0.000000	0.04	5069.48	1317.01	0.01
PettyHR	M001	3936.78	100Year-Existing	189.70	61.31	65.44		65.44	0.000000	0.03	6245.61	1573.02	0.00
PettyHR	M001	3931.39	100Year-Existing	124.50	61.31	65.44		65.44	0.000000	0.02	7852.81	2012.81	0.00
PettyHR	M001	3925.44	100Year-Existing	124.50	61.31	65.44		65.44	0.000000	0.03	3888.71	1004.06	0.01
PettyHR	M001	3867.05	100Year-Existing	124.50	61.31	65.44		65.44	0.000000	0.03	3916.54	989.57	0.01
PettyHR	M001	3643.73	100Year-Existing	124.50	61.31	65.44		65.44	0.000000	0.03	4495.41	1114.46	0.00
PettyHR	M001	3440.60	100Year-Existing	124.50	61.31	65.43		65.43	0.000001	0.06	2283.64	584.13	0.01
PettyHR	M001	3182.65	100Year-Existing	124.50	61.31	65.43		65.43	0.000001	0.07	1708.92	426.58	0.01
PettyHR	M001	3080.13	100Year-Existing	124.50	61.31	65.43		65.43	0.000001	0.06	2020.34	521.41	0.01
PettyHR	M001	3028.13	100Year-Existing	124.50	61.31	65.43		65.43	0.000001	0.06	2208.61	561.40	0.01
PettyHR	M001	2983.09	100Year-Existing	124.50	61.31	65.43		65.43	0.000001	0.07	1798.56	452.43	0.01
PettyHR	M001	2828.46	100Year-Existing	124.50	61.31	65.43		65.43	0.000004	0.12	1059.88	280.36	0.02
PettyHR	M001	2712.72	100Year-Existing	124.50	61.31	65.43		65.43	0.000013	0.22	611.07	182.34	0.04
PettyHR	M001	2671.95	100Year-Existing	124.50	61.31	65.43		65.43	0.000021	0.28	553.96	175.94	0.04
PettyHR	M001	2653.10	100Year-Existing	124.50	61.31	65.43		65.43	0.000029	0.33	475.87	157.53	0.05
PettyHR	M001	2632.46	100Year-Existing	124.50	61.31	65.41		65.43	0.000118	0.66	289.96	124.38	0.10
PettyHR	M001	2596.08	100Year-Existing	124.50	61.31	65.40		65.42	0.000134	0.70	260.32	118.26	0.11

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	2583.24	100Year-Existing	124.50	60.10	65.32	63.09	65.41	0.000677	1.66	158.17	117.89	0.25
PettyHR	M001	2580		Bridge									
PettyHR	M001	2573.39	100Year-Existing	124.50	60.00	65.15	62.64	65.21	0.000379	1.24	177.35	93.01	0.19
PettyHR	M001	2551.09	100Year-Existing	124.50	59.89	65.19		65.19	0.000032	0.37	397.08	108.38	0.06
PettyHR	M001	2426.14	100Year-Existing	124.50	59.27	65.19		65.19	0.000002	0.10	1233.60	278.00	0.02
PettyHR	M001	2315.39	100Year-Existing	124.50	58.72	65.19		65.19	0.000001	0.08	1509.68	319.37	0.01
PettyHR	M001	2204.15	100Year-Existing	124.50	58.16	65.19		65.19	0.000001	0.09	1518.16	308.02	0.01
PettyHR	M001	2022.45	100Year-Existing	124.50	57.26	65.19		65.19	0.000003	0.14	919.98	183.25	0.02
PettyHR	M001	1902.10	100Year-Existing	124.50	56.66	65.19		65.19	0.000005	0.19	710.10	128.24	0.02
PettyHR	M001	1879.72	100Year-Existing	124.50	56.55	65.18		65.19	0.000013	0.29	523.23	108.82	0.04
PettyHR	M001	1824.42	100Year-Existing	124.50	56.28	65.18		65.19	0.000023	0.38	350.69	66.25	0.05
PettyHR	M001	1789.72	100Year-Existing	124.50	56.10	65.18		65.19	0.000032	0.45	296.58	55.60	0.06
PettyHR	M001	1724.70	100Year-Existing	124.50	55.78	65.17		65.18	0.000042	0.52	259.30	48.11	0.06
PettyHR	M001	1668.81	100Year-Existing	124.50	55.50	65.17	58.37	65.18	0.000023	0.39	344.83	65.59	0.05
PettyHR	M001	1647.80	100Year-Existing	124.50	55.40	65.17	58.07	65.18	0.000016	0.33	401.34	76.07	0.04
PettyHR	M001	1631.79	100Year-Existing	124.50	63.55	64.88		65.15	0.006976	2.31	53.95	40.62	0.64
PettyHR	M001	1615.46	100Year-Existing	126.20	54.38	56.86		57.09	0.006700	3.45	64.72	39.90	0.71
PettyHR	M001	1601.08	100Year-Existing	126.20	54.00	56.34	56.34	56.91	0.017809	5.42	45.11	37.24	1.15
PettyHR	M001	1586.16	100Year-Existing	126.20	53.36	55.40	55.70	56.48	0.036969	7.19	32.07	26.82	1.63
PettyHR	M001	1571.98	100Year-Existing	126.20	52.87	54.73	55.03	55.90	0.044973	7.36	29.77	24.99	1.76
PettyHR	M001	1519.66	100Year-Existing	126.20	51.62	53.47	53.48	54.00	0.024836	5.35	43.39	39.91	1.30
PettyHR	M001	1467.14	100Year-Existing	126.20	50.86	52.48	52.29	52.81	0.017036	4.16	52.32	46.96	1.06
PettyHR	M001	1457.30	100Year-Existing	126.20	50.23	52.05	52.05	52.59	0.024010	5.37	43.01	38.28	1.29
PettyHR	M001	1444.51	100Year-Existing	126.20	48.30	49.44	50.02	51.74	0.192637	10.83	21.30	32.34	3.35
PettyHR	M001	1415.17	100Year-Existing	126.20	48.28	50.12	49.55	50.27	0.006094	2.71	75.39	53.72	0.65
PettyHR	M001	1402.15	100Year-Existing	126.20	47.79	49.62	49.62	50.10	0.023927	5.22	46.21	45.07	1.27
PettyHR	M001	1385.41	100Year-Existing	126.20	43.10	44.93	45.92	48.98	0.124598	11.79	17.93	19.43	2.89
PettyHR	M001	1370.82	100Year-Existing	126.20	41.75	43.87	44.94	47.26	0.088669	11.40	19.36	15.93	2.54
PettyHR	M001	1362.66	100Year-Existing	126.20	39.88	42.44	43.70	46.51	0.078340	11.90	18.16	12.67	2.43
PettyHR	M001	1336.64	100Year-Existing	126.20	39.87	41.71	42.45	43.89	0.079888	9.77	22.81	20.60	2.34
PettyHR	M001	1309.35	100Year-Existing	126.20	38.40	39.98	40.46	41.60	0.075355	8.48	24.53	22.37	2.21
PettyHR	M001	1279.20	100Year-Existing	126.20	35.02	37.58	38.33	39.80	0.047336	9.39	27.01	24.77	1.90
PettyHR	M001	1258.06	100Year-Existing	126.20	34.01	36.96	37.89	38.87	0.032565	8.63	26.48	15.84	1.62
PettyHR	M001	1221.17	100Year-Existing	126.20	33.21	34.91	35.50	36.95	0.093813	9.66	23.86	26.82	2.46
PettyHR	M001	1203.34	100Year-Existing	126.20	32.61	34.06	34.42	35.22	0.071868	7.77	29.67	34.78	2.12
PettyHR	M001	1164.99	100Year-Existing	126.20	31.37	33.09	33.15	33.66	0.026755	5.29	42.47	41.97	1.33
PettyHR	M001	1153.41	100Year-Existing	126.20	30.70	31.91	32.28	33.08	0.089801	7.82	28.89	38.07	2.32
PettyHR	M001	1125.74	100Year-Existing	126.20	29.27	30.74	30.88	31.38	0.038765	5.75	39.60	45.13	1.57
PettyHR	M001	1090.65	100Year-Existing	126.20	28.12	29.46	29.59	29.98	0.039675	5.31	44.23	61.06	1.55
PettyHR	M001	1059.48	100Year-Existing	126.20	26.84	28.28	28.38	28.77	0.037535	5.57	46.76	66.76	1.53
PettyHR	M001	1048.77	100Year-Existing	126.20	26.29	27.92	27.81	28.23	0.017310	4.07	55.71	57.83	1.06
PettyHR	M001	1021.54	100Year-Existing	126.20	25.47	27.18	27.18	27.66	0.025781	5.19	44.74	44.10	1.31
PettyHR	M001	1003.30	100Year-Existing	126.20	23.42	25.16	25.59	26.85	0.064221	8.47	24.52	20.41	2.09
PettyHR	M001	994.73	100Year-Existing	126.20	22.70	25.73	25.73	26.43	0.014352	5.81	43.09	28.63	1.08
PettyHR	M001	961.03	100Year-Existing	126.20	22.07	24.79	25.02	25.80	0.022805	6.74	35.55	26.01	1.33
PettyHR	M001	944.13	100Year-Existing	126.20	21.89	23.76	24.19	25.21	0.047486	7.59	27.61	22.89	1.82
PettyHR	M001	924.94	100Year-Existing	126.20	20.78	22.96	23.33	24.38	0.039429	7.68	27.14	17.99	1.69
PettyHR	M001	905.47	100Year-Existing	126.20	19.73	22.22	22.59	23.70	0.032541	7.68	27.47	16.61	1.58
PettyHR	M001	883.86	100Year-Existing	126.20	17.29	21.23	20.14	21.47	0.002518	2.92	72.26	41.67	0.48
PettyHR	M001	875		Bridge									
PettyHR	M001	859.53	100Year-Existing	126.20	17.25	19.54	19.54	20.31	0.020804	5.63	35.32	30.17	1.22
PettyHR	M001	836.76	100Year-Existing	126.20	12.80	14.98	16.20	19.13	0.085501	11.36	16.98	11.31	2.50
PettyHR	M001	823.70	100Year-Existing	126.20	12.86	14.57	15.25	17.44	0.112447	10.94	19.64	18.35	2.73
PettyHR	M001	811.96	100Year-Existing	126.20	12.85	14.99	15.34	16.21	0.040487	7.75	32.96	32.38	1.72
PettyHR	M001	796.92	100Year-Existing	126.20	12.74	14.27	14.61	15.42	0.068600	8.03	30.05	34.58	2.11
PettyHR	M001	784.11	100Year-Existing	126.20	11.82	13.95	14.17	14.77	0.028778	6.45	39.49	38.95	1.44
PettyHR	M001	769.86	100Year-Existing	126.20	10.94	12.77	13.26	14.19	0.048963	7.62	27.81	23.90	1.84
PettyHR	M001	748.76	100Year-Existing	126.20	8.37	11.01	11.69	13.20	0.038804	8.61	26.21	20.90	1.73
PettyHR	M001	720.33	100Year-Existing	126.20	8.08	9.26	9.84	11.28	0.145533	9.29	22.12	29.01	2.89
PettyHR	M001	707.57	100Year-Existing	126.20	6.85	8.44	8.85	9.81	0.067966	8.09	29.10	33.95	2.10
PettyHR	M001	685.99	100Year-Existing	126.20	5.31	7.11	7.51	8.46	0.058336	8.01	30.01	33.06	1.98
PettyHR	M001	666.04	100Year-Existing	126.20	5.03	6.93	7.05	7.53	0.022183	5.18	45.10	45.18	1.24
PettyHR	M001	652.51	100Year-Existing	126.20	4.66	6.45	6.82	7.16	0.033199	6.04	42.87	52.96	1.49
PettyHR	M001	633.61	100Year-Existing	126.20	4.40	5.75	5.75	6.17	0.024311	4.29	48.83	83.50	1.23
PettyHR	M001	622.83	100Year-Existing	126.20	4.09	5.30	5.30	5.61	0.025033	3.99	57.51	113.72	1.22
PettyHR	M001	577.97	100Year-Existing	126.20	2.48	3.90	3.96	4.26	0.035943	5.33	53.83	113.05	1.48
PettyHR	M001	525.57	100Year-Existing	126.20	0.51	3.62	2.34	3.66	0.001056	1.62	164.82	130.20	0.30
PettyHR	M001	491.94	100Year-Existing	126.20	-0.59	3.56	2.16	3.63	0.000833	1.59	160.58	141.52	0.27
PettyHR	M001	485		Bridge									
PettyHR	M001	478.84	100Year-Existing	126.20	-1.92	3.56		3.58	0.000182	0.85	278.06	178.75	0.13
PettyHR	M001	439.27	100Year-Existing	126.20	-1.89	3.56		3.57	0.000075	0.56	371.23	136.98	0.08
PettyHR	M001	405.68	100Year-Existing	126.20	-2.13	3.56		3.57	0.000068	0.54	377.32	149.24	0.08
PettyHR	M001	367.80	100Year-Existing	126.20	-2.02	3.56		3.57	0.000028	0.35	445.20	151.55	0.05
PettyHR	M001	338.85	100Year-Existing	126.20	-2.89	3.56		3.57	0.000020	0.32	473.32	146.42	0.04
PettyHR	M001	305.38	100Year-Existing	126.20	-2.46	3.56		3.56	0.000026	0.35	429.51	129.83	0.05
PettyHR	M001	269.29	100Year-Existing	126.20	-3.52	3.56		3.56	0.000026	0.39	402.35	121.54	0.05
PettyHR	M001	238.18	100Year-Existing	126.20	-3.50	3.55		3.56	0.000036	0.46	356.00	113.93	0.06
PettyHR	M001	201.25	100Year-Existing	126.20	-4.43	3.56		3.56	0.000013	0.30	495.78	137.70	0.04
PettyHR	M001	150.84	100Year-Existing	126.20	-3.34	3.56		3.56	0.000007	0.21	697.54	175.40	0.03
PettyHR	M001	105.74	100Year-Existing	126.20	-2.91	3.56		3.56	0.000008	0.21	663.07	158.74	0.03
PettyHR	M001	91.29	100Year-Existing	126.20	-3.36	3.56		3.56	0.000007	0.20	671.84	153.97	0.03
PettyHR	M001	20.04	100Year-Existing	126.20	-6.19	3.56		3.56	0.000004	0.16	891.39	188.48	0.02
PettyHR	M001	12.04	100Year-Existing	126.20	-6.19	3.55	-3.41	3.56	0.000043	0.46	454.21	188.47	0.05
ForthP	M001	2616.90	100Year-Existing	12.20	123.09	124.57	123.37	124.57	0.000017	0.12	145.60	161.84	0.03
ForthP	M001	2528.45	100Year-Existing	12.20	123.09	124.57		124.57	0.000004	0.06	228.89	201.38	0.02
ForthP	M001	2324.32	100Year-Existing	12.20	123.09	124.57		124.57	0.000013	0.11	168.52	214.20	0.03
ForthP	M001	2187.52	100Year-Existing	12.20	123.09	124.57		124.57	0.000002	0.05	308.10	290.64	0.01
ForthP	M001	1955.13	100Year-Existing	12.20	123.09	124.57		124.57	0.000002	0.04	353.06	313.94	0.01
ForthP	M001	1773.83	100Year-Existing	12.20	123.09	124.57		124.57	0.000001	0.03	430.69	347.40	0.01
ForthP	M001	1572.85	100Year-Existing	12.20	123.09	124.56		124.56	0.000001	0.03	411.29	323.06	0.01

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
ForthP	M001	1496.60	100Year-Existing	12.20	123.09	124.56		124.56	0.000002	0.04	347.10	281.02	0.01
ForthP	M001	1392.58	100Year-Existing	43.90	122.98	124.55	124.15	124.56	0.000745	0.86	120.57	174.65	0.22
ForthP	M001	1390		Culvert									
ForthP	M001	1381.72	100Year-Existing	43.90	122.95	124.52	124.18	124.53	0.001570	1.15	91.12	152.08	0.30
ForthP	M001	1360.50	100Year-Existing	43.90	122.87	124.31		124.45	0.009570	2.68	36.35	83.72	0.76
ForthP	M001	1311.12	100Year-Existing	43.90	122.52	124.06		124.12	0.004296	1.86	49.63	78.42	0.51
ForthP	M001	1261.17	100Year-Existing	43.90	121.36	123.51	123.51	123.81	0.008718	3.40	28.49	42.86	0.78
ForthP	M001	1211.51	100Year-Existing	43.90	119.83	121.84	122.22	122.97	0.029688	5.91	14.33	22.30	1.40
ForthP	M001	1161.66	100Year-Existing	43.90	117.25	118.47	118.88	120.33	0.110009	7.83	10.60	25.81	2.47
ForthP	M001	1112.05	100Year-Existing	43.90	114.88	116.09	116.24	116.63	0.044461	5.22	17.68	36.49	1.60
ForthP	M001	1062.35	100Year-Existing	43.90	113.16	114.44	114.49	114.78	0.030108	4.23	20.44	36.60	1.28
ForthP	M001	1041.93	100Year-Existing	43.90	112.62	114.01	114.03	114.28	0.022826	3.86	23.93	45.98	1.12
ForthP	M001	1031.90	100Year-Existing	43.90	112.31	113.56	113.67	113.98	0.039969	4.78	20.20	45.88	1.47
ForthP	M001	1011.12	100Year-Existing	43.90	111.62	112.75	112.84	113.12	0.042096	4.71	20.83	49.91	1.52
ForthP	M001	959.76	100Year-Existing	43.90	110.31	111.11	111.20	111.44	0.062453	4.20	20.31	61.87	1.72
ForthP	M001	908.93	100Year-Existing	43.90	109.25	109.98	109.84	110.05	0.012367	1.85	39.98	91.52	0.77
ForthP	M001	856.39	100Year-Existing	43.90	108.38	108.90	108.83	109.00	0.026264	1.88	32.39	93.72	1.02
ForthP	M001	806.25	100Year-Existing	43.90	107.09	108.09		108.16	0.012852	2.33	39.58	92.71	0.81
ForthP	M001	754.78	100Year-Existing	43.90	106.12	107.17	107.17	107.33	0.024278	3.46	32.16	93.77	1.15
ForthP	M001	734.50	100Year-Existing	43.90	105.47	106.85	106.77	106.95	0.009512	2.52	42.05	96.28	0.74
ForthP	M001	724.30	100Year-Existing	43.90	105.28	106.67	106.67	106.83	0.013301	3.02	35.93	92.08	0.88
ForthP	M001	703.65	100Year-Existing	43.90	105.02	106.25	106.20	106.44	0.021889	3.62	26.89	54.86	1.10
ForthP	M001	654.47	100Year-Existing	43.90	103.90	104.85	104.85	105.07	0.032693	3.70	24.22	56.42	1.30
ForthP	M001	605.63	100Year-Existing	43.90	102.27	103.51	103.56	103.78	0.025517	3.84	26.05	63.88	1.20
ForthP	M001	585.13	100Year-Existing	43.90	101.55	102.44	102.57	102.94	0.083651	5.28	18.94	69.43	2.03
ForthP	M001	577.30	100Year-Existing	43.90	101.52	102.27	102.31	102.48	0.045312	3.51	24.44	75.35	1.45
ForthP	M001	557.33	100Year-Existing	43.90	100.67	101.40	101.38	101.55	0.032494	2.80	27.93	83.57	1.22
ForthP	M001	507.84	100Year-Existing	43.90	98.92	99.65	99.65	99.80	0.037846	2.97	27.79	88.41	1.30
ForthP	M001	453.33	100Year-Existing	43.90	96.28	97.12	97.06	97.23	0.020231	2.49	34.76	98.08	0.99
ForthP	M001	402.29	100Year-Existing	43.90	94.96	95.68	95.68	95.86	0.039871	3.28	25.10	67.88	1.36
ForthP	M001	349.18	100Year-Existing	43.90	93.64	94.33	94.15	94.40	0.013917	1.77	38.42	88.87	0.79
ForthP	M001	297.76	100Year-Existing	43.90	92.55	93.53	93.48	93.65	0.019293	2.74	33.56	79.01	0.99
ForthP	M001	246.28	100Year-Existing	43.90	91.71	92.57	92.49	92.66	0.016318	2.24	37.75	92.68	0.89
ForthP	M001	182.03	100Year-Existing	43.90	90.94	92.18	91.84	92.21	0.004333	1.58	63.32	116.72	0.49
ForthP	M001	160.27	100Year-Existing	43.90	90.13	92.18	91.61	92.19	0.000268	0.58	157.90	168.90	0.13
ForthP	M001	150		Culvert									
ForthP	M001	144.74	100Year-Existing	43.90	89.90	91.33	91.33	92.00	0.015980	3.67	12.33	110.93	1.01
ForthP	M001	124.30	100Year-Existing	43.90	89.74	91.03	90.89	91.12	0.010139	2.46	42.26	86.32	0.76
ForthP	M001	61.58	100Year-Existing	43.90	88.75	90.03	90.03	90.23	0.020067	3.43	30.62	68.82	1.06
ForestP	M001	1557.91	100Year-Existing	8.80	78.25	79.75	78.47	79.75	0.000004	0.06	152.41	122.27	0.02
ForestP	M001	1428.05	100Year-Existing	8.80	78.25	79.75		79.75	0.000002	0.04	208.32	177.71	0.01
ForestP	M001	1315.71	100Year-Existing	8.80	78.25	79.75		79.75	0.000001	0.03	292.86	243.63	0.01
ForestP	M001	1228.83	100Year-Existing	8.80	78.25	79.75		79.75	0.000001	0.03	350.23	291.91	0.01
ForestP	M001	1138.84	100Year-Existing	8.80	78.25	79.75		79.75	0.000001	0.02	410.30	344.18	0.01
ForestP	M001	1077.28	100Year-Existing	8.80	78.25	79.75		79.75	0.000001	0.02	458.08	484.11	0.01
ForestP	M001	1019.12	100Year-Existing	8.80	78.25	79.75		79.75	0.000002	0.04	232.64	286.22	0.01
ForestP	M001	958.61	100Year-Existing	11.20	78.15	79.72	79.50	79.74	0.001110	0.81	26.79	70.94	0.24
ForestP	M001	955		Culvert									
ForestP	M001	949.85	100Year-Existing	11.20	77.76	79.64	79.60	79.72	0.006607	1.65	15.35	56.83	0.42
ForestP	M001	913.34	100Year-Existing	11.20	78.16	79.11	79.11	79.30	0.030929	3.27	7.40	20.16	1.16
ForestP	M001	883.23	100Year-Existing	11.20	77.54	78.39	78.40	78.54	0.019977	2.56	10.42	41.59	0.99
ForestP	M001	859.61	100Year-Existing	11.20	76.75	77.51	77.59	77.84	0.044871	3.58	5.54	14.43	1.45
ForestP	M001	831.71	100Year-Existing	11.20	75.74	76.76	76.82	77.07	0.028194	3.38	5.87	11.96	1.18
ForestP	M001	802.91	100Year-Existing	11.20	74.66	75.53	75.69	76.04	0.045742	4.02	4.64	10.81	1.51
ForestP	M001	772.90	100Year-Existing	11.20	73.77	74.62	74.65	74.85	0.029792	3.20	6.74	16.77	1.19
ForestP	M001	737.48	100Year-Existing	11.20	72.77	73.52	73.50	73.66	0.024021	2.61	8.18	22.18	1.06
ForestP	M001	688.06	100Year-Existing	11.20	71.80	72.47		72.54	0.021222	2.15	10.56	34.37	0.93
ForestP	M001	651.32	100Year-Existing	11.20	70.81	71.45	71.45	71.58	0.031362	2.74	8.85	32.31	1.19
ForestP	M001	600.44	100Year-Existing	11.20	69.80	70.39	70.32	70.43	0.016482	1.83	15.28	86.89	0.85
ForestP	M001	578.60	100Year-Existing	11.20	69.31	69.92	69.92	70.00	0.023734	2.25	14.60	89.21	1.02
ForestP	M001	528.92	100Year-Existing	11.20	68.58	69.70	69.28	69.70	0.000863	0.67	45.08	109.59	0.22
ForestP	M001	478.55	100Year-Existing	11.20	68.21	69.69		69.69	0.000083	0.26	96.30	135.64	0.07
ForestP	M001	430.82	100Year-Existing	11.20	67.77	69.69		69.69	0.000030	0.19	140.20	159.96	0.05
ForestP	M001	378.18	100Year-Existing	11.20	67.48	69.69		69.69	0.000005	0.08	320.02	318.56	0.02
ForestP	M001	328.07	100Year-Existing	11.20	67.34	69.69		69.69	0.000002	0.06	438.62	372.12	0.01
ForestP	M001	277.95	100Year-Existing	11.20	67.07	69.69		69.69	0.000002	0.05	531.50	436.87	0.01
ForestP	M001	195.51	100Year-Existing	11.20	66.23	69.69		69.69	0.000000	0.03	938.52	610.70	0.00
ForestP	M001	158.37	100Year-Existing	11.20	66.23	69.69		69.69	0.000000	0.01	1671.40	707.06	0.00
ForestP	M001	89.11	100Year-Existing	11.20	66.23	69.69		69.69	0.000000	0.01	1851.09	775.48	0.00
DoylesR	TR019	260.51	100Year-Existing	0.40	124.74	125.14	124.95	125.14	0.000183	0.14	5.64	41.35	0.08
DoylesR	TR019	199.72	100Year-Existing	0.40	124.55	125.14		125.14	0.000002	0.02	40.73	141.52	0.01
DoylesR	TR019	150.00	100Year-Existing	0.40	124.37	125.14		125.14	0.000002	0.02	44.42	163.84	0.01
DoylesR	TR019	100.00	100Year-Existing	0.40	124.16	125.14		125.14	0.000002	0.03	41.09	218.53	0.01
DoylesR	TR019	50.00	100Year-Existing	0.40	124.18	125.14		125.14	0.000001	0.02	69.18	259.93	0.01
DoylesR	TR018	302.01	100Year-Existing	1.50	127.90	128.51	128.06	128.51	0.000073	0.14	17.39	45.05	0.06
DoylesR	TR018	270.53	100Year-Existing	1.50	126.19	128.51	126.90	128.51	0.000000	0.01	261.47	244.89	0.00
DoylesR	TR018	260		Culvert									
DoylesR	TR018	257.62	100Year-Existing	1.50	126.19	128.51	126.93	128.51	0.000000	0.01	266.66	215.47	0.00
DoylesR	TR018	244.68	100Year-Existing	1.50	125.64	128.51	126.64	128.51	0.000000	0.01	304.90	215.11	0.00
DoylesR	TR018	200		Culvert									
DoylesR	TR018	169.24	100Year-Existing	1.50	125.40	126.35	126.20	126.61	0.013336	2.58	0.72	78.58	0.86
DoylesR	TR018	131.43	100Year-Existing	1.50	125.24	125.44	125.44	125.48	0.055547	1.25	2.28	48.20	1.23
DoylesR	TR018	59.79	100Year-Existing	1.50	124.57	125.18	124.90	125.19	0.000206	0.21	19.79	134.67	0.10
DoylesR	TR017	4043.45	100Year-Existing	8.20	124.05	125.11		125.13	0.001503	0.94	24.34	96.73	0.30
DoylesR	TR017	3983.69	100Year-Existing	8.20	124.04	125.00		125.02	0.002434	1.01	21.00	98.95	0.36
DoylesR	TR017	3923.93	100Year-Existing	8.20	124.03	124.63	124.63	124.71	0.022302	1.83	8.63	44.20	0.95
DoylesR	TR017	3889.37	100Year-Existing	8.20	123.60	123.83	123.64	123.85	0.005833	0.36	17.09	70.21	0.39
DoylesR	TR017	3781.64	100Year-Existing	8.20	122.55	123.56		123.58	0.003124	1.19	18.51	67.03	0.41
DoylesR	TR017	3768.91	100Year-Existing	8.20	122.35	123.24	123.24	123.48	0.016292	2.37	4.56	10.60	0.88
DoylesR	TR017	3745.98	100Year-Existing	8.20	121.86	122.44	122.50	122.63	0.049436	2.58	5.81	35.36	1.38

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR017	3713.18	100Year-Existing	8.20	120.99	121.62	121.62	121.81	0.020094	2.10	4.92	14.59	0.95
DoylesR	TR017	3692.45	100Year-Existing	8.20	120.34	121.02	121.04	121.29	0.030902	2.58	4.37	14.59	1.18
DoylesR	TR017	3679.05	100Year-Existing	8.20	119.97	120.81	120.83	121.00	0.014555	2.24	5.99	25.71	0.86
DoylesR	TR017	3656.84	100Year-Existing	8.20	117.59	118.08	118.45	119.96	0.318758	6.23	1.46	5.98	3.52
DoylesR	TR017	3603.67	100Year-Existing	8.20	116.29	116.94	117.04	117.26	0.040956	3.07	4.43	20.34	1.36
DoylesR	TR017	3583.40	100Year-Existing	8.20	115.96	116.58	116.66	116.84	0.046438	3.03	5.15	26.46	1.42
DoylesR	TR017	3571.14	100Year-Existing	8.20	115.76	116.29	116.34	116.45	0.043108	2.76	6.06	31.18	1.35
DoylesR	TR017	3545.42	100Year-Existing	8.20	115.22	115.86	115.81	115.99	0.021053	2.07	6.65	24.91	0.96
DoylesR	TR017	3483.93	100Year-Existing	8.20	114.35	114.96	114.92	115.00	0.012840	1.63	13.15	71.13	0.75
DoylesR	TR017	3432.55	100Year-Existing	8.20	113.79	114.57	114.49	114.60	0.007322	1.46	14.81	66.73	0.58
DoylesR	TR017	3345.48	100Year-Existing	8.20	113.03	113.56	113.56	113.66	0.032830	2.15	7.77	43.15	1.14
DoylesR	TR017	3300.07	100Year-Existing	8.20	112.42	113.02	112.87	113.03	0.003571	0.79	20.60	78.83	0.39
DoylesR	TR016	918.87	100Year-Existing	3.00	127.08	128.80	127.25	128.80	0.000000	0.01	406.05	361.87	0.00
DoylesR	TR016	898.71	100Year-Existing	3.00	126.90	128.80	127.32	128.80	0.000001	0.03	197.26	225.47	0.01
DoylesR	TR016	890		Culvert									
DoylesR	TR016	882.28	100Year-Existing	3.00	126.88	128.73		128.73	0.000006	0.07	105.32	158.31	0.02
DoylesR	TR016	877.71	100Year-Existing	3.00	126.24	128.73	126.96	128.73	0.000004	0.08	124.41	189.53	0.02
DoylesR	TR016	850		Culvert									
DoylesR	TR016	848.13	100Year-Existing	3.00	126.37	127.20	127.20	127.47	0.019126	2.53	1.63	3.52	0.92
DoylesR	TR016	818.98	100Year-Existing	3.00	126.36	126.86	126.79	126.88	0.004190	0.80	8.36	54.67	0.41
DoylesR	TR016	768.99	100Year-Existing	3.00	126.30	126.67		126.68	0.004439	0.67	8.58	51.71	0.41
DoylesR	TR016	714.09	100Year-Existing	3.00	125.96	126.40		126.41	0.005086	0.77	7.19	38.19	0.44
DoylesR	TR016	675.95	100Year-Existing	3.00	125.74	126.08	126.08	126.14	0.022480	1.33	4.35	43.17	0.89
DoylesR	TR016	659.39	100Year-Existing	3.00	125.10	125.57	125.49	125.62	0.010666	1.27	4.56	26.70	0.66
DoylesR	TR016	632.80	100Year-Existing	3.00	124.78	125.26	125.26	125.33	0.015250	1.43	3.77	27.49	0.78
DoylesR	TR016	610.50	100Year-Existing	3.00	123.78	124.30	124.43	124.67	0.054731	2.99	1.35	5.50	1.50
DoylesR	TR016	549.37	100Year-Existing	3.00	122.30	122.98	122.99	123.08	0.014632	1.74	3.39	20.00	0.79
DoylesR	TR016	494.31	100Year-Existing	3.00	120.93	121.58	121.65	121.86	0.035294	2.40	1.35	4.37	1.19
DoylesR	TR016	473.82	100Year-Existing	3.00	120.18	120.72	120.81	121.03	0.046039	2.58	1.35	5.17	1.36
DoylesR	TR016	459.95	100Year-Existing	3.00	119.62	120.13	120.21	120.40	0.043650	2.40	1.40	5.38	1.31
DoylesR	TR016	439.99	100Year-Existing	3.00	119.05	119.73	119.73	119.92	0.021487	1.97	1.66	4.83	0.94
DoylesR	TR016	384.99	100Year-Existing	3.00	117.07	117.55	117.66	117.91	0.072627	2.69	1.15	4.84	1.63
DoylesR	TR016	329.99	100Year-Existing	3.00	115.67	116.18	116.18	116.26	0.017514	1.44	3.39	23.74	0.82
DoylesR	TR016	274.18	100Year-Existing	3.00	114.93	115.34	115.34	115.38	0.012935	1.11	5.45	48.88	0.69
DoylesR	TR016	218.88	100Year-Existing	3.00	114.35	114.85	114.83	114.88	0.011117	1.10	5.91	59.03	0.65
DoylesR	TR016	165.43	100Year-Existing	3.00	113.83	114.41	114.38	114.45	0.008518	1.14	5.23	37.18	0.59
DoylesR	TR016	86.48	100Year-Existing	3.00	112.80	113.26	113.26	113.36	0.025610	1.58	2.56	13.78	0.97
DoylesR	TR016	40.19	100Year-Existing	3.00	112.21	112.85	112.71	112.86	0.001843	0.60	11.67	63.88	0.28
DoylesR	TR015	3230.71	100Year-Existing	18.00	111.60	112.56		112.61	0.008216	1.86	24.31	78.76	0.65
DoylesR	TR015	3185.04	100Year-Existing	18.00	111.22	112.22		112.30	0.011079	2.07	19.23	52.41	0.75
DoylesR	TR015	3133.58	100Year-Existing	18.00	110.57	111.42	111.42	111.55	0.021393	2.68	15.28	47.98	1.03
DoylesR	TR015	3079.97	100Year-Existing	18.00	108.17	109.21	109.47	109.91	0.042760	4.26	6.21	12.37	1.50
DoylesR	TR015	3026.43	100Year-Existing	18.00	107.30	109.15	108.35	109.17	0.000816	0.93	32.70	34.31	0.23
DoylesR	TR015	3001.28	100Year-Existing	18.00	106.17	109.16	108.48	109.16	0.000125	0.47	90.17	79.08	0.09
DoylesR	TR015	3000		Culvert									
DoylesR	TR015	2988.77	100Year-Existing	18.00	106.03	108.09	108.09	108.27	0.004490	2.45	21.56	57.13	0.56
DoylesR	TR015	2963.30	100Year-Existing	18.00	105.69	106.57	106.90	107.85	0.102362	6.14	5.68	18.26	2.23
DoylesR	TR015	2915.60	100Year-Existing	18.00	104.53	105.74	105.76	105.99	0.016697	2.98	12.06	25.70	0.95
DoylesR	TR015	2867.64	100Year-Existing	18.00	103.37	104.56	104.68	104.98	0.032119	4.06	9.55	21.50	1.30
DoylesR	TR015	2841.04	100Year-Existing	18.00	102.40	103.01	103.15	103.45	0.108356	4.33	7.89	29.01	2.13
DoylesR	TR015	2804.73	100Year-Existing	18.00	101.67	102.55	102.47	102.66	0.016746	2.43	15.58	37.55	0.91
DoylesR	TR015	2742.98	100Year-Existing	18.00	100.87	101.74	101.67	101.80	0.012978	2.18	22.35	71.99	0.81
DoylesR	TR015	2687.77	100Year-Existing	18.00	100.07	100.72	100.71	100.82	0.028852	2.53	16.66	71.64	1.14
DoylesR	TR015	2638.14	100Year-Existing	18.00	98.95	99.81	99.81	99.95	0.023380	2.94	16.18	55.58	1.09
DoylesR	TR015	2593.26	100Year-Existing	18.00	97.75	98.93	98.85	99.03	0.010298	2.35	18.37	45.12	0.75
DoylesR	TR015	2557.12	100Year-Existing	18.00	97.53	98.66		98.73	0.007803	2.08	22.30	57.68	0.66
DoylesR	TR015	2522.34	100Year-Existing	18.00	97.26	98.20	98.20	98.36	0.019288	2.57	13.87	40.52	0.98
DoylesR	TR015	2483.94	100Year-Existing	18.00	96.95	97.73	97.65	97.79	0.014377	1.93	19.63	60.99	0.81
DoylesR	TR015	2438.99	100Year-Existing	18.00	96.35	97.50		97.53	0.003504	1.36	33.13	95.87	0.44
DoylesR	TR015	2387.12	100Year-Existing	18.00	96.39	97.43		97.44	0.001117	0.68	57.61	131.33	0.24
DoylesR	TR015	2352.45	100Year-Existing	18.00	96.40	97.41		97.41	0.000590	0.50	64.57	105.49	0.18
DoylesR	TR015	2283.37	100Year-Existing	18.00	95.75	97.25		97.33	0.003438	1.67	19.05	23.81	0.46
DoylesR	TR015	2231.50	100Year-Existing	18.00	95.54	96.77	96.71	97.00	0.013761	2.81	11.41	23.95	0.88
DoylesR	TR015	2160.12	100Year-Existing	18.00	94.93	96.05		96.18	0.008808	2.08	14.02	22.90	0.69
DoylesR	TR015	2119.11	100Year-Existing	18.00	94.44	95.53	95.53	95.73	0.016773	2.81	12.48	28.22	0.94
DoylesR	TR015	2075.88	100Year-Existing	18.00	93.86	94.88	94.90	95.04	0.014319	2.48	15.10	48.10	0.87
DoylesR	TR015	2024.01	100Year-Existing	18.00	93.19	94.39	94.28	94.45	0.006176	1.80	21.95	57.15	0.58
DoylesR	TR015	1972.14	100Year-Existing	18.00	92.71	93.67	93.67	93.88	0.028064	3.32	12.85	61.32	1.19
DoylesR	TR015	1921.75	100Year-Existing	18.00	92.35	93.52	93.14	93.54	0.002097	1.07	38.84	91.64	0.34
DoylesR	TR015	1851.62	100Year-Existing	18.00	91.24	92.86	92.86	93.27	0.014847	3.38	8.82	16.08	0.92
DoylesR	TR014	2057.49	100Year-Existing	10.90	125.48	126.59	126.42	126.62	0.003027	1.13	22.80	70.82	0.39
DoylesR	TR014	2037.89	100Year-Existing	10.90	125.57	126.59		126.59	0.000652	0.55	46.19	111.29	0.19
DoylesR	TR014	1988.88	100Year-Existing	10.90	124.71	126.48	125.66	126.54	0.001415	1.18	15.94	49.99	0.30
DoylesR	TR014	1980		Culvert									
DoylesR	TR014	1975.46	100Year-Existing	10.90	124.46	126.45		126.51	0.001105	1.14	13.47	36.23	0.27
DoylesR	TR014	1936.56	100Year-Existing	10.90	124.86	126.25	125.95	126.42	0.005758	2.10	9.70	23.83	0.59
DoylesR	TR014	1904.43	100Year-Existing	10.90	124.72	125.85	125.85	126.14	0.013595	2.73	6.29	11.82	0.88
DoylesR	TR014	1867.03	100Year-Existing	10.90	124.61	125.69	125.36	125.75	0.004306	1.51	12.99	25.35	0.49
DoylesR	TR014	1801.50	100Year-Existing	10.90	124.00	125.00	125.00	125.25	0.016749	2.79	6.94	15.26	0.95
DoylesR	TR014	1765.57	100Year-Existing	10.90	123.20	123.78	123.92	124.22	0.057782	3.39	4.82	18.86	1.60
DoylesR	TR014	1703.29	100Year-Existing	10.90	121.82	122.73	122.62	122.96	0.014479	2.48	7.49	22.59	0.88
DoylesR	TR014	1657.91	100Year-Existing	10.90	121.27	122.08	122.08	122.28	0.015002	2.21	7.38	21.06	0.86
DoylesR	TR014	1607.98	100Year-Existing	10.90	120.59	121.45	121.46	121.57	0.012754	2.13	11.99	47.34	0.80
DoylesR	TR014	1544.18	100Year-Existing	10.90	119.81	120.65	120.70	120.84	0.018838	2.59	9.69	40.87	0.98
DoylesR	TR014	1492.70	100Year-Existing	10.90	119.06	119.76	119.77	119.88	0.017580	2.20	10.51	41.47	0.92
DoylesR	TR014	1441.23	100Year-Existing	10.90	117.59	118.68	118.74	118.97	0.017305	3.07	7.38	19.83	0.99
DoylesR	TR014	1420.98	100Year-Existing	10.90	116.98	118.29	117.77	118.34	0.002585	1.36	12.49	13.99	0.40
DoylesR	TR014	1411.86	100Year-Existing	10.90	117.03	118.18	117.78	118.30	0.005018	1.83	7.72	12.40	0.55
DoylesR	TR014	1400		Bridge									
DoylesR	TR014	1384.41	100Year-Existing	12.40	116.71	117.59	117.53	117.88	0.015847	2.57	5.45	9.98	0.92

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR014	1374.60	100Year-Existing	12.40	116.54	117.55		117.70	0.007895	1.94	8.21	12.08	0.66
DoylesR	TR014	1353.25	100Year-Existing	12.40	116.21	117.14	117.14	117.44	0.017879	2.74	5.96	10.24	0.98
DoylesR	TR014	1309.14	100Year-Existing	12.40	115.50	116.52	116.35	116.72	0.008791	2.01	6.56	9.07	0.69
DoylesR	TR014	1296.25	100Year-Existing	12.40	115.12	116.17	116.17	116.52	0.018117	3.02	5.61	8.41	1.00
DoylesR	TR014	1239.25	100Year-Existing	12.40	113.43	114.13	114.36	114.75	0.056181	3.94	4.38	12.10	1.64
DoylesR	TR014	1203.69	100Year-Existing	12.40	112.84	113.74	113.60	113.81	0.008882	1.94	12.14	26.64	0.68
DoylesR	TR014	1182.25	100Year-Existing	12.40	112.53	113.34	113.34	113.53	0.018813	2.55	8.53	21.14	0.98
DoylesR	TR014	1125.25	100Year-Existing	12.40	111.30	112.56	112.29	112.62	0.004112	1.62	15.20	24.44	0.49
DoylesR	TR014	1104.23	100Year-Existing	12.40	111.16	112.19	112.19	112.44	0.018094	2.81	7.69	17.35	0.98
DoylesR	TR014	1094.88	100Year-Existing	12.40	110.55	111.39	111.62	112.11	0.060811	4.76	4.48	10.90	1.76
DoylesR	TR014	1075.36	100Year-Existing	12.40	110.17	111.20	111.28	111.52	0.024874	3.47	7.70	19.28	1.16
DoylesR	TR014	1027.18	100Year-Existing	12.40	109.15	110.06	110.10	110.33	0.024076	3.01	7.45	17.79	1.11
DoylesR	TR014	980.74	100Year-Existing	12.40	107.89	109.02	108.65	109.07	0.004238	1.58	14.67	22.12	0.49
DoylesR	TR014	954.47	100Year-Existing	12.40	107.68	108.65	108.65	108.86	0.017016	2.69	8.98	23.05	0.95
DoylesR	TR014	934.37	100Year-Existing	12.40	106.99	107.96	108.09	108.36	0.029566	3.43	6.95	21.03	1.23
DoylesR	TR014	907.24	100Year-Existing	12.40	106.52	107.47	107.40	107.57	0.011329	2.22	12.33	28.21	0.77
DoylesR	TR014	868.80	100Year-Existing	12.40	105.88	106.88	106.87	107.09	0.013715	2.48	9.03	21.57	0.86
DoylesR	TR014	864.98	100Year-Existing	12.40	105.70	106.75	106.75	107.02	0.014906	2.51	6.92	15.10	0.89
DoylesR	TR014	844.06	100Year-Existing	12.40	105.10	106.35	106.18	106.52	0.008175	2.25	8.98	14.03	0.69
DoylesR	TR014	836.52	100Year-Existing	12.40	104.97	106.11	106.11	106.42	0.017322	2.87	6.58	12.31	0.96
DoylesR	TR014	816.09	100Year-Existing	12.40	104.78	105.69	105.58	105.79	0.009440	1.89	11.45	28.71	0.70
DoylesR	TR014	811.48	100Year-Existing	12.40	104.64	105.68		105.75	0.005624	1.66	13.58	25.56	0.56
DoylesR	TR014	783.28	100Year-Existing	12.40	103.98	105.15	105.15	105.47	0.017892	3.20	6.53	10.43	1.00
DoylesR	TR014	751.27	100Year-Existing	12.40	103.31	104.37	104.45	104.79	0.024319	3.00	4.85	9.10	1.11
DoylesR	TR014	717.94	100Year-Existing	12.40	102.63	103.99	103.99	104.25	0.013889	3.09	7.92	13.89	0.89
DoylesR	TR014	676.43	100Year-Existing	12.40	102.18	103.30	103.32	103.61	0.017201	2.84	7.13	17.08	0.96
DoylesR	TR014	601.44	100Year-Existing	12.40	101.39	102.38	102.26	102.48	0.009320	1.98	10.67	22.66	0.70
DoylesR	TR014	540.83	100Year-Existing	12.40	100.49	101.69	101.52	101.91	0.009533	2.32	8.33	19.40	0.74
DoylesR	TR014	519.25	100Year-Existing	12.40	99.69	101.80	101.49	101.81	0.000668	0.82	36.15	65.84	0.19
DoylesR	TR014	510		Culvert									
DoylesR	TR014	505.00	100Year-Existing	12.40	99.62	101.55	101.55	101.59	0.001884	1.29	25.58	61.32	0.30
DoylesR	TR014	484.27	100Year-Existing	12.40	99.79	100.67	100.87	101.30	0.066568	4.36	4.56	13.52	1.74
DoylesR	TR014	426.15	100Year-Existing	12.40	98.71	99.91	99.91	100.15	0.012460	2.37	7.75	23.25	0.81
DoylesR	TR014	368.05	100Year-Existing	12.40	97.30	98.46	98.63	98.99	0.037294	3.76	5.38	16.12	1.33
DoylesR	TR014	343.01	100Year-Existing	12.40	96.78	98.33	97.78	98.47	0.003351	1.70	8.13	74.00	0.45
DoylesR	TR014	335		Bridge									
DoylesR	TR014	331.91	100Year-Existing	12.40	96.63	97.92	97.92	98.32	0.015286	2.96	4.94	7.09	0.92
DoylesR	TR014	312.09	100Year-Existing	12.40	96.26	97.52	97.63	97.89	0.029411	3.13	7.31	31.60	1.15
DoylesR	TR014	227.09	100Year-Existing	12.40	94.66	96.49	96.15	96.54	0.002765	1.47	17.99	29.07	0.38
DoylesR	TR014	205.76	100Year-Existing	12.40	94.51	96.17	96.17	96.42	0.010581	2.63	8.65	18.99	0.74
DoylesR	TR014	198.96	100Year-Existing	12.40	94.45	95.18	95.48	96.17	0.103518	4.48	3.09	10.52	2.12
DoylesR	TR014	181.77	100Year-Existing	12.40	94.01	95.22	95.22	95.41	0.013124	2.50	9.50	23.71	0.83
DoylesR	TR014	121.12	100Year-Existing	12.40	92.99	94.17	94.26	94.45	0.018208	2.88	10.70	60.81	0.97
DoylesR	TR014	34.73	100Year-Existing	12.40	91.60	92.56	92.58	92.88	0.020448	2.74	5.90	11.24	1.02
DoylesR	TR012	1780.65	100Year-Existing	30.40	90.30	92.35	91.74	92.44	0.001998	1.49	34.61	63.22	0.36
DoylesR	TR012	1753.67	100Year-Existing	30.40	89.56	92.38	91.27	92.40	0.000405	0.93	73.79	92.65	0.18
DoylesR	TR012	1745		Bridge									
DoylesR	TR012	1729.43	100Year-Existing	30.40	89.10	91.06	91.12	91.97	0.016868	4.33	7.45	13.84	1.03
DoylesR	TR012	1709.20	100Year-Existing	30.40	88.93	90.47	90.80	91.44	0.037375	5.24	10.06	20.30	1.46
DoylesR	TR012	1645.76	100Year-Existing	30.40	88.20	89.59	89.47	89.87	0.011911	2.84	15.73	20.48	0.84
DoylesR	TR011	1552.47	100Year-Existing	43.70	86.48	88.84	88.39	89.17	0.005613	2.87	21.25	15.48	0.63
DoylesR	TR011	1530.88	100Year-Existing	43.70	86.19	88.27	88.27	88.96	0.014340	4.23	14.79	11.50	0.99
DoylesR	TR011	1477.56	100Year-Existing	43.70	84.43	85.84	86.32	87.45	0.064723	6.46	9.84	13.63	1.93
DoylesR	TR011	1423.69	100Year-Existing	43.70	83.56	85.47	85.47	86.30	0.017924	4.39	13.16	11.54	1.09
DoylesR	TR011	1370.10	100Year-Existing	43.70	82.66	83.99	84.23	84.83	0.046199	5.37	15.12	30.92	1.63
DoylesR	TR011	1316.51	100Year-Existing	43.70	81.17	83.17	83.18	83.67	0.011322	3.61	18.75	21.77	0.87
DoylesR	TR011	1262.92	100Year-Existing	43.70	79.36	81.04	81.61	82.50	0.042931	6.01	10.40	13.63	1.63
DoylesR	TR011	1209.33	100Year-Existing	43.70	78.14	80.51	80.51	81.15	0.012213	4.02	16.34	16.36	0.91
DoylesR	TR011	1155.74	100Year-Existing	43.70	76.81	78.72	79.14	80.05	0.035089	5.65	10.20	10.09	1.46
DoylesR	TR011	1107.39	100Year-Existing	43.70	76.34	78.04	78.10	78.67	0.017614	3.72	13.76	13.62	1.04
DoylesR	TR011	1057.82	100Year-Existing	43.70	75.16	77.30	77.33	77.94	0.014429	3.89	14.63	13.12	0.96
DoylesR	TR011	971.36	100Year-Existing	43.70	73.33	75.26	74.69	75.54	0.004528	2.34	18.66	19.41	0.56
DoylesR	TR011	960		Bridge									
DoylesR	TR011	949.62	100Year-Existing	43.70	73.08	75.18	74.37	75.40	0.002972	2.07	21.11	19.59	0.46
DoylesR	TR011	929.53	100Year-Existing	43.70	72.74	74.58	74.55	75.17	0.014115	3.64	14.57	12.66	0.95
DoylesR	TR011	872.05	100Year-Existing	43.70	72.26	74.13	74.13	74.38	0.010489	3.11	30.96	61.95	0.81
DoylesR	TR011	816.76	100Year-Existing	43.70	72.00	73.08	72.99	73.16	0.014285	2.42	38.63	96.80	0.84
DoylesR	TR011	760.16	100Year-Existing	43.70	71.25	72.51		72.58	0.009646	2.40	45.22	102.75	0.73
DoylesR	TR011	712.26	100Year-Existing	43.70	70.34	71.86	71.80	72.02	0.012168	2.98	36.97	96.68	0.84
DoylesR	TR011	663.11	100Year-Existing	43.70	70.08	71.48		71.52	0.007719	2.13	57.27	143.94	0.63
DoylesR	TR013	2205.78	100Year-Existing	9.30	95.88	96.70	96.42	96.71	0.001161	0.70	34.45	117.70	0.25
DoylesR	TR013	2147.59	100Year-Existing	9.30	95.87	96.60		96.61	0.002343	0.85	22.20	75.37	0.34
DoylesR	TR013	2097.40	100Year-Existing	9.30	95.86	96.28	96.28	96.34	0.022904	1.71	12.41	88.77	0.95
DoylesR	TR013	2011.99	100Year-Existing	9.30	93.67	94.77	94.60	94.91	0.007362	1.92	6.70	12.02	0.64
DoylesR	TR013	1957.46	100Year-Existing	9.30	93.05	94.08	94.08	94.35	0.015933	2.87	5.46	11.53	0.94
DoylesR	TR013	1909.18	100Year-Existing	9.30	92.33	93.24	93.34	93.49	0.019425	2.71	7.38	44.17	0.99
DoylesR	TR013	1861.01	100Year-Existing	9.30	91.27	92.29	92.39	92.58	0.018721	2.79	6.75	37.26	0.98
DoylesR	TR013	1789.09	100Year-Existing	9.30	90.00	90.56	90.61	90.72	0.036017	2.55	8.43	60.34	1.25
DoylesR	TR013	1733.37	100Year-Existing	9.30	89.53	90.27	90.14	90.29	0.003980	1.01	19.28	80.95	0.43
DoylesR	TR013	1677.65	100Year-Existing	9.30	89.42	89.86		89.90	0.015121	1.41	12.01	63.28	0.78
DoylesR	TR013	1613.85	100Year-Existing	9.30	89.11	89.66		89.67	0.001638	0.56	30.14	97.55	0.27
DoylesR	TR013	1552.30	100Year-Existing	9.30	88.82	89.57		89.58	0.001875	0.78	24.84	69.20	0.31
DoylesR	TR013	1506.96	100Year-Existing	9.30	88.81	89.50		89.51	0.001924	0.75	24.01	65.46	0.31
DoylesR	TR013	1478.17	100Year-Existing	9.30	88.80	89.35		89.39	0.011845	1.47	12.55	48.77	0.71
DoylesR	TR013	1411.61	100Year-Existing	9.30	88.11	89.08		89.11	0.002186	0.96	14.61	32.56	0.34
DoylesR	TR013	1388.58	100Year-Existing	9.30	87.45	89.09	88.80	89.09	0.000157	0.37	60.17	161.80	0.10
DoylesR	TR013	1375		Culvert									
DoylesR	TR013	1373.86	100Year-Existing	9.30	87.32	88.73	88.50	88.83	0.005015	1.92	10.67	37.33	0.53
DoylesR	TR013	1301.72	100Year-Existing	9.30	86.82	87.93	87.93	88.23	0.014942	2.69	4.66	9.74	0.90
DoylesR	TR013	1246.99	100Year-Existing	9.30	85.79	86.69	86.82	87.15	0.027474	3.08	3.48	6.92	1.17

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR013	1192.26	100Year-Existing	9.30	84.79	85.96	85.76	86.10	0.007040	1.93	6.92	11.72	0.63
DoylesR	TR013	1137.53	100Year-Existing	9.30	84.03	85.19	85.19	85.53	0.016127	2.78	4.39	8.52	0.93
DoylesR	TR013	1082.80	100Year-Existing	9.30	83.55	84.47	84.47	84.61	0.016610	2.18	7.26	22.21	0.88
DoylesR	TR013	1064.90	100Year-Existing	9.30	82.57	84.50	83.72	84.52	0.000734	0.82	26.89	115.94	0.21
DoylesR	TR013	1050		Culvert									
DoylesR	TR013	1042.53	100Year-Existing	9.30	82.41	84.35	83.50	84.36	0.000265	0.52	43.27	118.49	0.13
DoylesR	TR013	1022.06	100Year-Existing	9.30	82.71	84.13	83.88	84.33	0.007272	2.30	6.52	11.89	0.65
DoylesR	TR013	969.32	100Year-Existing	9.30	82.40	83.40	83.40	83.72	0.019312	2.99	4.43	7.23	1.02
DoylesR	TR013	915.66	100Year-Existing	9.30	81.80	83.00	82.60	83.02	0.001177	0.86	22.63	44.25	0.26
DoylesR	TR013	867.93	100Year-Existing	9.30	81.40	82.91		82.95	0.001920	1.26	18.00	42.03	0.34
DoylesR	TR013	809.27	100Year-Existing	9.30	81.32	82.65		82.77	0.004581	1.70	7.23	10.59	0.51
DoylesR	TR013	756.07	100Year-Existing	9.30	80.75	81.94	81.94	82.33	0.016369	3.13	4.18	6.01	0.97
DoylesR	TR013	702.82	100Year-Existing	9.30	79.91	81.06	81.09	81.42	0.017700	3.07	4.34	7.32	0.98
DoylesR	TR013	651.60	100Year-Existing	9.30	78.06	78.91	79.23	79.79	0.067330	4.40	2.58	6.13	1.77
DoylesR	TR013	588.74	100Year-Existing	9.30	75.89	76.88	76.94	77.25	0.024389	2.74	3.80	8.03	1.07
DoylesR	TR013	543.29	100Year-Existing	9.30	75.20	76.05	76.00	76.33	0.018733	2.38	4.39	15.40	0.95
DoylesR	TR013	489.08	100Year-Existing	9.30	73.77	74.99	74.99	75.37	0.016446	3.10	4.21	6.07	0.95
DoylesR	TR013	436.90	100Year-Existing	9.30	72.11	73.04	73.35	73.86	0.057694	4.06	2.47	4.96	1.62
DoylesR	TR013	383.70	100Year-Existing	9.30	70.97	72.22	72.01	72.28	0.003117	1.32	13.36	40.10	0.42
DoylesR	TR013	363.75	100Year-Existing	9.30	70.36	72.17	71.91	72.24	0.001412	1.30	13.67	45.62	0.31
DoylesR	TR013	360		Culvert									
DoylesR	TR013	344.87	100Year-Existing	9.30	70.32	71.70	71.70	71.71	0.001020	0.82	24.34	48.31	0.23
DoylesR	TR013	324.16	100Year-Existing	9.30	70.29	70.88	71.00	71.47	0.143284	4.52	4.36	41.64	2.37
DoylesR	TR013	256.30	100Year-Existing	9.30	69.36	70.29	70.29	70.39	0.020646	2.38	9.43	48.64	0.92
DoylesR	TR013	236.50	100Year-Existing	9.30	69.35	70.25	69.98	70.25	0.000712	0.41	40.57	116.41	0.18
DoylesR	TR013	162.98	100Year-Existing	9.30	68.94	70.21		70.21	0.000701	0.53	38.59	130.64	0.18
DoylesR	TR013	133.14	100Year-Existing	9.30	68.76	70.19		70.19	0.000246	0.33	56.91	122.42	0.11
DoylesR	TR013	66.14	100Year-Existing	9.30	68.46	70.18		70.18	0.000267	0.39	48.67	182.81	0.11
DoylesR	M001	484.12	100Year-Existing	53.20	68.08	69.84		69.96	0.009591	2.50	46.45	101.28	0.71
DoylesR	M001	429.44	100Year-Existing	53.20	67.72	69.75		69.77	0.001559	1.15	96.81	141.28	0.29
DoylesR	M001	388.03	100Year-Existing	53.20	67.53	69.71		69.72	0.000947	0.96	128.76	219.23	0.23
DoylesR	M001	344.78	100Year-Existing	53.20	67.39	69.70		69.70	0.000253	0.52	228.34	278.50	0.12
DoylesR	M001	215.64	100Year-Existing	53.20	67.21	69.69		69.69	0.000035	0.22	468.04	397.35	0.05
DoylesR	M001	77.13	100Year-Existing	53.20	66.62	69.69		69.69	0.000010	0.14	801.45	579.23	0.03
CochranePB	M002	8105.53	100Year-Existing	15.30	140.65	142.40	141.37	142.40	0.000108	0.36	95.78	128.45	0.10
CochranePB	M002	8065.47	100Year-Existing	15.30	140.64	142.38		142.39	0.000414	0.65	52.60	84.93	0.19
CochranePB	M002	8050.98	100Year-Existing	15.30	140.00	142.35		142.39	0.000188	0.91	41.99	77.72	0.24
CochranePB	M002	8024.09	100Year-Existing	15.30	140.62	142.36		142.37	0.000468	0.68	55.47	109.63	0.20
CochranePB	M002	8013.06	100Year-Existing	15.30	140.42	142.36		142.37	0.000336	0.63	59.98	108.40	0.17
CochranePB	M002	8004.70	100Year-Existing	15.30	140.25	142.36	141.80	142.36	0.000178	0.59	76.61	111.38	0.13
CochranePB	M002	8000		Culvert									
CochranePB	M002	7995.14	100Year-Existing	15.30	140.37	142.34	141.56	142.35	0.000156	0.53	67.03	83.27	0.12
CochranePB	M002	7964.49	100Year-Existing	15.30	140.14	141.88	141.88	142.29	0.012039	3.47	7.62	11.29	0.94
CochranePB	M002	7901.64	100Year-Existing	15.30	139.30	140.76	140.93	141.27	0.022789	3.52	7.47	28.04	1.20
CochranePB	M002	7847.08	100Year-Existing	15.30	138.68	139.82	139.70	139.89	0.008044	1.79	17.69	51.07	0.70
CochranePB	M002	7812.33	100Year-Existing	15.30	138.52	139.35	139.35	139.46	0.024173	2.30	13.23	55.37	1.17
CochranePB	M002	7738.34	100Year-Existing	15.30	137.94	138.95	138.74	138.97	0.002228	0.88	39.19	129.82	0.38
CochranePB	M002	7695.32	100Year-Existing	15.30	137.67	138.62	138.62	138.77	0.016336	2.17	12.12	41.36	1.01
CochranePB	M002	7609.21	100Year-Existing	15.30	136.29	137.78	137.41	137.80	0.000866	0.83	36.21	83.34	0.26
CochranePB	M002	7515.77	100Year-Existing	15.30	136.28	137.65		137.69	0.002403	1.28	29.23	96.83	0.43
CochranePB	M002	7476.72	100Year-Existing	15.30	136.26	137.63		137.64	0.000673	0.67	42.30	94.05	0.23
CochranePB	M002	7450.86	100Year-Existing	15.30	136.25	137.59		137.61	0.001338	0.91	31.60	83.56	0.32
CochranePB	M002	7329.89	100Year-Existing	15.30	136.23	137.30		137.35	0.004890	1.41	20.74	75.72	0.57
CochranePB	M002	7253.62	100Year-Existing	15.30	136.05	137.13		137.14	0.002046	0.97	30.83	94.96	0.37
CochranePB	M002	7208.54	100Year-Existing	15.30	135.88	137.02		137.04	0.002693	1.15	29.82	108.55	0.43
CochranePB	M002	7108.13	100Year-Existing	15.30	135.54	136.53		136.60	0.011049	2.10	18.17	76.06	0.83
CochranePB	M002	7041.67	100Year-Existing	15.30	134.91	136.10		136.18	0.005490	1.58	18.68	79.74	0.62
CochranePB	M002	6985.71	100Year-Existing	15.30	134.29	135.69	135.69	135.84	0.006911	2.23	15.02	46.71	0.72
CochranePB	M002	6955.25	100Year-Existing	15.30	133.48	134.69	134.90	135.37	0.036919	3.77	4.80	11.64	1.54
CochranePB	M002	6863.52	100Year-Existing	15.30	131.82	132.89	132.89	133.04	0.016116	2.52	12.48	38.94	1.01
CochranePB	M002	6840.09	100Year-Existing	15.30	131.19	132.14	132.23	132.47	0.038810	3.22	8.72	36.79	1.52
CochranePB	M002	6808.25	100Year-Existing	15.30	130.51	131.41	131.48	131.67	0.045204	3.20	9.21	40.41	1.59
CochranePB	M002	6767.75	100Year-Existing	15.30	129.31	130.36	130.40	130.54	0.018043	2.46	11.92	48.78	1.07
CochranePB	M002	6727.78	100Year-Existing	15.30	128.36	129.48	129.54	129.73	0.022544	2.85	9.64	34.36	1.18
CochranePB	M002	6691.71	100Year-Existing	15.30	127.96	129.07	129.00	129.13	0.006368	1.58	20.01	73.03	0.65
CochranePB	M002	6651.54	100Year-Existing	15.30	127.68	128.67	128.63	128.79	0.011956	1.72	11.58	38.20	0.85
CochranePB	M002	6630.83	100Year-Existing	15.30	127.19	128.44	128.44	128.58	0.008445	2.02	13.65	55.60	0.77
CochranePB	M002	6534.50	100Year-Existing	15.30	126.30	127.29	127.34	127.46	0.017439	2.30	12.29	59.01	1.04
CochranePB	M002	6507.97	100Year-Existing	15.30	125.65	126.58	126.64	126.79	0.034953	2.82	10.65	55.94	1.40
CochranePB	M002	6480.50	100Year-Existing	15.30	124.97	125.93	125.96	126.07	0.021553	2.45	12.67	55.44	1.13
CochranePB	M002	6433.33	100Year-Existing	15.30	124.09	125.07	125.08	125.25	0.018392	2.16	10.09	36.71	1.06
CochranePB	M002	6400.96	100Year-Existing	15.30	123.40	124.61	124.43	124.66	0.004641	1.41	18.94	50.23	0.55
CochranePB	M002	6364.18	100Year-Existing	15.30	123.28	124.61		124.62	0.000279	0.41	52.94	119.59	0.15
CochranePB	M002	6314.31	100Year-Existing	15.30	123.27	124.55		124.58	0.001996	1.04	24.42	68.46	0.38
CochranePB	M002	6286.25	100Year-Existing	15.30	123.26	124.47		124.52	0.002822	1.18	21.84	68.27	0.45
CochranePB	M002	6202.53	100Year-Existing	15.30	122.81	124.05	123.98	124.19	0.007406	1.96	13.08	37.06	0.73
CochranePB	M002	6130.00	100Year-Existing	15.30	122.30	123.36	123.36	123.53	0.012266	1.90	9.78	34.74	0.88
CochranePB	M002	6040.82	100Year-Existing	15.30	121.41	122.62	122.49	122.66	0.003051	1.26	24.34	76.26	0.47
CochranePB	M002	6006.95	100Year-Existing	15.30	121.40	122.58		122.60	0.001014	0.61	34.16	100.06	0.26
CochranePB	M002	5976.09	100Year-Existing	15.30	121.39	122.41	122.41	122.51	0.014101	1.91	15.23	72.06	0.92
CochranePB	M002	5910.40	100Year-Existing	15.30	120.29	121.52	121.58	121.71	0.013444	2.47	12.18	46.42	0.95
CochranePB	M002	5863.68	100Year-Existing	15.30	119.62	120.55	120.66	120.87	0.036284	2.84	7.89	39.87	1.45
CochranePB	M002	5811.63	100Year-Existing	15.30	118.87	119.98	119.98	120.12	0.012346	2.21	13.87	52.86	0.90
CochranePB	M002	5768.42	100Year-Existing	15.30	117.38	118.35	118.55	119.04	0.072602	3.72	4.48	19.61	2.02
CochranePB	M002	5725.36	100Year-Existing	15.30	116.48	117.63	117.65	117.81	0.012838	2.22	11.40	41.29	0.92
CochranePB	M002	5678.58	100Year-Existing	15.30	115.39	116.47	116.62	116.88	0.029422	2.89	6.28	23.37	1.35
CochranePB	M002	5627.04	100Year-Existing	15.30	114.79	116.22	115.86	116.26	0.002218	1.22	22.53	46.89	0.41
CochranePB	M002	5609.94	100Year-Existing	23.00	114.77	116.01		116.14	0.007240	1.90	19.04	45.81	0.72
CochranePB	M002	5601.00	100Year-Existing	23.00	114.76	116.01		116.02	0.001328	0.82	53.48	112.42	0.30
CochranePB	M002	5568.52	100Year-Existing	23.00	114.75	115.97		115.98	0.001027	0.72	53.18	100.39	0.27

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	5508.20	100Year-Existing	23.00	114.04	115.65		115.84	0.005126	2.04	14.16	22.46	0.64
CochranePB	M002	5473.67	100Year-Existing	23.00	113.90	115.33	115.33	115.59	0.011004	2.64	13.93	27.97	0.91
CochranePB	M002	5403.83	100Year-Existing	23.00	110.69	111.90	112.39	113.72	0.092559	6.09	4.23	9.59	2.46
CochranePB	M002	5352.19	100Year-Existing	23.00	110.27	111.66	111.66	111.99	0.014749	2.85	11.39	24.66	1.03
CochranePB	M002	5309.83	100Year-Existing	23.00	109.64	111.10	111.16	111.39	0.013319	2.81	15.42	50.44	0.99
CochranePB	M002	5266.90	100Year-Existing	23.00	109.30	110.63	110.67	110.82	0.012685	2.59	20.87	83.54	0.95
CochranePB	M002	5213.45	100Year-Existing	23.00	108.81	110.44	109.91	110.46	0.000905	0.85	50.63	86.62	0.27
CochranePB	M002	5162.38	100Year-Existing	43.60	108.18	110.05	110.05	110.31	0.009009	3.20	31.64	60.91	0.87
CochranePB	M002	5109.83	100Year-Existing	43.60	108.02	109.52	109.20	109.56	0.003680	1.49	55.53	103.19	0.51
CochranePB	M002	5059.83	100Year-Existing	43.60	107.54	109.19		109.35	0.007212	2.45	39.46	89.10	0.76
CochranePB	M002	5013.20	100Year-Existing	43.60	107.21	108.89	108.89	109.05	0.008981	2.48	38.95	102.52	0.82
CochranePB	M002	4977.38	100Year-Existing	43.60	107.07	108.78	108.46	108.81	0.001646	1.22	79.11	152.37	0.37
CochranePB	M002	4908.49	100Year-Existing	43.60	106.95	108.76		108.77	0.000511	0.75	129.27	201.98	0.21
CochranePB	M002	4883.44	100Year-Existing	43.60	106.94	108.75		108.75	0.000316	0.57	150.55	218.75	0.16
CochranePB	M002	4816.97	100Year-Existing	43.60	106.93	108.73		108.74	0.000290	0.55	155.77	232.74	0.16
CochranePB	M002	4757.22	100Year-Existing	43.60	106.78	108.72		108.73	0.000203	0.50	180.86	266.33	0.14
CochranePB	M002	4718.65	100Year-Existing	43.60	106.77	108.71		108.72	0.000269	0.59	171.12	328.43	0.16
CochranePB	M002	4674.22	100Year-Existing	43.60	106.76	108.69		108.71	0.000614	0.89	121.87	267.13	0.24
CochranePB	M002	4633.22	100Year-Existing	43.60	106.75	108.67		108.69	0.000351	0.65	106.32	181.83	0.18
CochranePB	M002	4561.03	100Year-Existing	43.60	106.74	108.60		108.65	0.001169	1.16	63.94	100.94	0.32
CochranePB	M002	4506.74	100Year-Existing	43.60	106.43	108.27	108.27	108.50	0.007345	2.68	30.16	58.67	0.78
CochranePB	M002	4459.83	100Year-Existing	43.60	105.66	107.31	107.54	107.93	0.019431	3.88	17.93	45.76	1.24
CochranePB	M002	4409.53	100Year-Existing	43.60	104.62	106.31	106.55	106.95	0.020093	3.95	16.36	31.01	1.24
CochranePB	M002	4359.83	100Year-Existing	43.60	103.72	105.52	105.74	106.08	0.014677	3.61	18.43	49.59	1.08
CochranePB	M002	4327.93	100Year-Existing	43.60	103.17	105.04	105.14	105.62	0.014724	3.62	16.56	29.59	1.09
CochranePB	M002	4265.56	100Year-Existing	43.60	102.45	104.35	104.39	104.76	0.011736	3.43	20.18	29.22	0.98
CochranePB	M002	4208.11	100Year-Existing	43.60	101.67	103.38	103.55	103.95	0.016421	3.65	16.76	32.53	1.14
CochranePB	M002	4159.83	100Year-Existing	43.60	101.12	102.22	102.33	102.60	0.053748	3.59	17.74	48.51	1.78
CochranePB	M002	4109.83	100Year-Existing	43.60	98.84	100.55	100.75	101.17	0.017586	3.95	17.93	39.78	1.19
CochranePB	M002	4056.00	100Year-Existing	43.60	97.18	98.88	99.26	99.90	0.029353	4.88	11.92	18.03	1.50
CochranePB	M002	4009.83	100Year-Existing	43.60	96.33	98.21	98.34	98.64	0.018474	4.09	24.81	64.23	1.17
CochranePB	M002	3969.03	100Year-Existing	43.60	95.62	97.51	97.72	98.06	0.011875	3.67	20.04	65.33	1.01
CochranePB	M002	3916.58	100Year-Existing	43.60	94.82	96.96	97.13	97.41	0.011388	3.52	24.20	79.11	0.94
CochranePB	M002	3859.82	100Year-Existing	43.60	94.34	96.28	96.49	96.79	0.010673	3.29	18.11	62.17	0.94
CochranePB	M002	3810.05	100Year-Existing	43.60	93.50	95.42	95.79	96.14	0.015426	4.04	14.75	32.94	1.13
CochranePB	M002	3759.83	100Year-Existing	43.60	93.00	94.68	94.87	95.24	0.017113	3.88	20.28	56.17	1.17
CochranePB	M002	3709.28	100Year-Existing	43.60	92.33	94.14	94.23	94.49	0.011747	3.26	25.36	71.58	0.97
CochranePB	M002	3661.60	100Year-Existing	43.60	92.05	93.84	93.86	94.02	0.007118	2.60	40.70	139.54	0.76
CochranePB	M002	3609.83	100Year-Existing	43.60	91.73	93.47	93.49	93.63	0.007737	2.58	41.35	143.03	0.78
CochranePB	M002	3559.90	100Year-Existing	43.60	90.87	92.88	92.96	93.19	0.008415	3.11	31.08	82.82	0.84
CochranePB	M002	3509.83	100Year-Existing	43.60	90.38	92.54	92.39	92.64	0.003081	2.10	53.89	109.26	0.52
CochranePB	M002	3493.23	100Year-Existing	43.60	90.02	92.19	91.95	92.56	0.005664	3.35	20.42	15.66	0.74
CochranePB	M002	3480		Bridge									
CochranePB	M002	3474.26	100Year-Existing	43.60	89.91	92.14	91.55	92.37	0.002794	2.48	24.52	16.54	0.54
CochranePB	M002	3466.43	100Year-Existing	43.60	90.00	92.06	92.06	92.33	0.003618	2.72	35.84	79.70	0.61
CochranePB	M002	3454.35	100Year-Existing	43.60	89.94	91.94	91.51	92.25	0.003987	2.72	20.77	16.88	0.63
CochranePB	M002	3450		Bridge									
CochranePB	M002	3434.16	100Year-Existing	47.70	90.36	91.67	91.65	92.15	0.010338	3.27	17.42	20.16	0.95
CochranePB	M002	3413.11	100Year-Existing	47.70	90.14	91.65		91.81	0.007770	2.67	41.30	93.61	0.79
CochranePB	M002	3391.58	100Year-Existing	47.70	90.03	91.55		91.65	0.005168	2.28	50.83	105.91	0.66
CochranePB	M002	3371.12	100Year-Existing	47.70	90.02	91.33	91.33	91.51	0.008002	2.56	39.67	96.13	0.81
CochranePB	M002	3309.87	100Year-Existing	47.70	89.28	90.73	90.65	90.83	0.008624	2.65	45.34	113.04	0.81
CochranePB	M002	3272.96	100Year-Existing	47.70	88.73	90.29	90.27	90.47	0.009648	2.79	35.22	85.82	0.86
CochranePB	M002	3219.09	100Year-Existing	47.70	88.30	89.79	89.79	89.95	0.009828	2.71	38.41	108.34	0.87
CochranePB	M002	3175.54	100Year-Existing	47.70	87.36	89.55	89.32	89.68	0.002478	1.95	44.39	73.13	0.47
CochranePB	M002	3165		Bridge									
CochranePB	M002	3157.85	100Year-Existing	47.70	87.50	89.29	89.29	89.51	0.004979	2.51	36.40	84.73	0.66
CochranePB	M002	3135.32	100Year-Existing	47.70	87.85	89.14	89.06	89.20	0.004860	1.77	58.94	154.89	0.60
CochranePB	M002	3106.53	100Year-Existing	47.70	87.94	88.82	88.82	88.96	0.029629	2.80	32.15	119.44	1.31
CochranePB	M002	3088.94	100Year-Existing	47.70	86.84	88.59	88.46	88.71	0.002444	1.75	51.22	146.65	0.47
CochranePB	M002	3080		Bridge									
CochranePB	M002	3075.67	100Year-Existing	47.70	86.74	88.37	88.12	88.44	0.001923	1.49	59.51	135.06	0.41
CochranePB	M002	3056.89	100Year-Existing	47.70	87.66	88.30		88.37	0.012996	1.10	41.58	140.09	0.77
CochranePB	M002	3007.54	100Year-Existing	47.70	87.61	87.99		88.03	0.004300	0.46	55.76	122.97	0.34
CochranePB	M002	2976.31	100Year-Existing	47.70	87.51	87.88		87.92	0.004571	0.55	56.63	134.16	0.40
CochranePB	M002	2941.08	100Year-Existing	47.70	86.98	87.77		87.79	0.003230	0.88	78.16	222.83	0.43
CochranePB	M002	2920.10	100Year-Existing	47.70	86.74	87.75	87.54	87.76	0.000360	0.37	167.89	295.42	0.14
CochranePB	M002	2915		Bridge									
CochranePB	M002	2912.75	100Year-Existing	47.70	86.97	87.75	87.75	87.76	0.000218	0.31	200.70	313.30	0.12
CochranePB	M002	2890.23	100Year-Existing	47.70	86.65	86.86	87.02	87.54	0.355441	3.43	13.06	79.68	3.40
CochranePB	M002	2823.99	100Year-Existing	47.70	86.08	87.13	86.78	87.14	0.001415	0.70	110.60	260.67	0.28
CochranePB	M002	2789.49	100Year-Existing	47.70	86.04	87.11		87.12	0.001186	0.61	114.31	269.02	0.26
CochranePB	M002	2741.30	100Year-Existing	47.70	85.71	87.05		87.06	0.001060	0.81	121.03	272.82	0.28
CochranePB	M002	2663.79	100Year-Existing	47.70	85.58	87.00		87.01	0.001010	0.85	118.46	278.55	0.28
CochranePB	M002	2639.38	100Year-Existing	47.70	85.57	86.97		86.99	0.001225	0.89	108.42	239.83	0.30
CochranePB	M002	2616.24	100Year-Existing	47.70	85.30	86.96		86.97	0.000747	0.82	125.33	238.26	0.25
CochranePB	M002	2539.69	100Year-Existing	47.70	85.41	86.91		86.93	0.001229	0.93	105.24	228.51	0.31
CochranePB	M002	2489.06	100Year-Existing	47.70	85.18	86.87		86.88	0.001379	1.13	98.66	211.55	0.33
CochranePB	M002	2438.28	100Year-Existing	47.70	84.87	86.81		86.83	0.001392	1.22	91.90	179.06	0.34
CochranePB	M002	2384.01	100Year-Existing	47.70	84.65	86.71		86.75	0.002135	1.61	76.47	148.64	0.42
CochranePB	M002	2310.47	100Year-Existing	47.70	84.33	86.48		86.56	0.003506	2.02	60.67	142.40	0.53
CochranePB	M002	2284.63	100Year-Existing	47.70	84.16	86.42		86.48	0.002654	1.78	64.11	108.11	0.45
CochranePB	M002	2240.58	100Year-Existing	47.70	84.04	85.98	85.98	86.26	0.009516	3.20	28.96	46.70	0.88
CochranePB	M002	2170.94	100Year-Existing	47.70	82.26	84.05	84.32	85.15	0.028355	5.06	12.63	17.99	1.50
CochranePB	M002	2136.89	100Year-Existing	47.70	81.72	83.44	83.59	84.19	0.021939	4.11	15.06	24.99	1.31
CochranePB	M002	2100.01	100Year-Existing	47.70	81.30	83.25	83.25	83.56	0.009469	3.03	26.37	41.70	0.87
CochranePB	M002	2046.85	100Year-Existing	47.70	80.89	82.73	82.74	83.07	0.008920	2.86	24.41	41.58	0.86
CochranePB	M002	2014.35	100Year-Existing	47.70	80.47	81.96	82.14	82.57	0.027597	3.83	17.48	41.04	1.41
CochranePB	M002	1990.76	100Year-Existing	47.70	80.10	81.94	81.94	82.23	0.010378	3.01	27.09	44.92	0.91
CochranePB	M002	1945.20	100Year-Existing	47.70	79.43	81.63	81.23	81.74	0.003239	2.01	44.01	56.87	0.53

HEC-RAS Plan: Plan 03 Profile: 100Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	1916.67	100Year-Existing	47.70	79.31	81.47		81.62	0.004584	2.37	37.61	45.02	0.62
CochranePB	M002	1871.48	100Year-Existing	47.70	79.28	81.32		81.43	0.003722	1.96	41.69	50.62	0.55
CochranePB	M002	1836.03	100Year-Existing	47.70	78.83	81.27		81.33	0.001526	1.52	56.01	73.36	0.37
CochranePB	M002	1788.63	100Year-Existing	47.70	78.46	80.84	80.84	81.17	0.007717	3.34	28.44	39.53	0.81
CochranePB	M002	1768.08	100Year-Existing	47.70	78.14	80.11	80.33	80.89	0.020466	4.64	16.93	26.89	1.28
CochranePB	M002	1733.19	100Year-Existing	47.70	77.95	80.00	80.03	80.33	0.008195	3.00	27.98	48.76	0.83
CochranePB	M002	1694.89	100Year-Existing	47.70	77.12	79.38	78.92	79.49	0.002500	1.85	41.65	46.36	0.47
CochranePB	M002	1685.79	100Year-Existing	47.70	77.06	79.32		79.46	0.003476	2.18	36.49	44.40	0.55
CochranePB	M002	1640.51	100Year-Existing	47.70	76.45	78.81	78.81	79.22	0.007382	3.31	23.29	30.38	0.81
CochranePB	M002	1602.99	100Year-Existing	47.70	75.01	76.52	77.05	78.43	0.070200	6.43	9.01	16.44	2.26
CochranePB	M002	1585.52	100Year-Existing	47.70	74.01	75.35	75.78	76.95	0.088260	6.12	10.01	21.18	2.44
CochranePB	M002	1569.47	100Year-Existing	47.70	73.71	75.03	75.23	75.74	0.040285	3.87	13.67	27.52	1.63
CochranePB	M002	1541.97	100Year-Existing	47.70	72.31	74.16	74.38	74.94	0.021270	4.29	14.58	19.57	1.29
CochranePB	M002	1510.83	100Year-Existing	47.70	71.34	72.57	72.89	73.74	0.081378	4.83	10.16	23.89	2.26
CochranePB	M002	1495.27	100Year-Existing	47.70	71.19	73.06	72.78	73.20	0.004221	1.88	33.77	43.40	0.59
CochranePB	M002	1458.62	100Year-Existing	47.70	70.58	72.67	72.67	72.95	0.008567	3.41	32.50	51.14	0.85
CochranePB	M002	1419.61	100Year-Existing	47.70	70.21	72.05	72.19	72.52	0.013700	3.76	22.07	35.18	1.07
CochranePB	M002	1384.56	100Year-Existing	47.70	69.61	71.91	71.97	72.26	0.005725	2.90	27.66	59.63	0.72
CochranePB	M002	1351.51	100Year-Existing	47.70	69.54	71.67	71.78	72.03	0.008024	3.28	30.38	77.42	0.84
CochranePB	M002	1311.78	100Year-Existing	47.70	69.49	71.40	71.47	71.67	0.008266	3.06	36.40	107.84	0.84
CochranePB	M002	1291.19	100Year-Existing	47.70	69.28	71.02	71.17	71.44	0.014967	3.72	28.09	98.21	1.09
CochranePB	M002	1217.75	100Year-Existing	47.70	68.70	70.98	70.43	71.01	0.000699	1.09	88.27	182.15	0.26
CochranePB	M002	1200.39	100Year-Existing	47.70	68.69	70.62	70.29	70.96	0.005006	2.61	18.96	19.02	0.68
CochranePB	M002	1190		Bridge									
CochranePB	M002	1185.68	100Year-Existing	48.90	68.46	70.52	69.99	70.79	0.003274	2.35	21.40	25.43	0.57
CochranePB	M002	1164.32	100Year-Existing	48.90	68.65	70.43	70.43	70.70	0.006527	2.93	33.15	83.23	0.77
CochranePB	M002	1132.60	100Year-Existing	48.90	68.60	69.84	69.99	70.29	0.028141	3.87	24.62	104.15	1.43
CochranePB	M002	1111.68	100Year-Existing	48.90	68.55	69.88	69.65	69.93	0.003736	1.70	64.30	161.08	0.55
CochranePB	M002	1059.95	100Year-Existing	48.90	68.38	69.76		69.81	0.002929	1.75	69.44	163.40	0.51
CochranePB	M002	998.99	100Year-Existing	48.90	68.13	69.71		69.72	0.000790	0.98	117.04	193.07	0.26
CochranePB	M002	955.54	100Year-Existing	48.90	68.12	69.70		69.70	0.000103	0.35	245.56	259.76	0.10
CochranePB	M002	851.16	100Year-Existing	48.90	67.62	69.70		69.70	0.000061	0.32	282.92	253.09	0.08
CochranePB	M002	798.06	100Year-Existing	48.90	67.47	69.70		69.70	0.000034	0.25	358.62	291.45	0.06
CochranePB	M002	746.77	100Year-Existing	48.90	67.30	69.70		69.70	0.000016	0.18	469.42	325.90	0.04
CochranePB	M002	694.52	100Year-Existing	48.90	66.98	69.69		69.70	0.000010	0.16	564.47	370.29	0.03
CochranePB	M002	669.16	100Year-Existing	48.90	66.97	69.69		69.69	0.000008	0.14	626.94	408.02	0.03
CochranePB	M002	590.19	100Year-Existing	48.90	66.84	69.69		69.69	0.000006	0.12	747.82	489.39	0.03
CochranePB	M002	539.85	100Year-Existing	48.90	66.81	69.69		69.69	0.000006	0.12	765.88	518.39	0.03
CochranePB	M002	488.40	100Year-Existing	48.90	66.54	69.69		69.69	0.000005	0.11	809.22	532.73	0.02
CochranePB	M001	381.27	100Year-Existing	97.20	66.35	69.69		69.69	0.000021	0.22	937.25	619.11	0.04
CochranePB	M001	313.14	100Year-Existing	97.20	66.28	69.69		69.69	0.000015	0.17	1097.80	686.45	0.03

Petty Harbour River 20yr n+20%

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	TR001	439.21	20Year-Existing	26.90	105.11	106.34	106.14	106.43	0.005399	1.85	29.72	56.26	0.57
RaymondB	TR001	409.42	20Year-Existing	26.90	104.68	105.89	105.89	106.17	0.014209	2.96	16.55	29.03	0.91
RaymondB	TR001	380.07	20Year-Existing	26.90	104.05	105.64	105.05	105.72	0.002265	1.45	32.66	48.25	0.38
RaymondB	TR001	360.64	20Year-Existing	26.90	103.60	105.64	104.88	105.68	0.001016	1.12	49.34	70.95	0.26
RaymondB	TR001	350		Bridge									
RaymondB	TR001	344.45	20Year-Existing	26.90	103.30	104.53	104.92	105.39	0.037011	4.75	8.67	20.56	1.44
RaymondB	TR001	334.13	20Year-Existing	26.90	103.40	104.30	104.57	104.95	0.035529	3.76	9.47	30.61	1.36
RaymondB	TR001	272.22	20Year-Existing	26.90	102.83	103.81	103.81	104.07	0.018266	2.88	16.55	37.29	1.00
RaymondB	TR001	218.50	20Year-Existing	26.90	101.42	102.62	102.73	103.08	0.017639	3.26	12.33	24.62	1.01
RaymondB	TR001	163.97	20Year-Existing	26.90	100.32	101.69	101.23	101.82	0.003740	1.64	20.35	24.07	0.48
RaymondB	TR001	115.54	20Year-Existing	26.90	100.00	101.10	101.10	101.45	0.017278	3.15	13.15	20.05	1.00
RaymondB	TR001	56.65	20Year-Existing	26.90	97.73	98.41	98.72	99.43	0.086459	4.77	6.90	15.48	2.03
RaymondB	M002	6453.60	20Year-Existing	17.20	118.10	125.20	118.86	125.20	0.000000	0.03	658.89	233.09	0.00
RaymondB	M002	6405.52	20Year-Existing	17.20	118.00	125.20		125.20	0.000000	0.03	669.28	227.58	0.00
RaymondB	M002	6347.04	20Year-Existing	17.20	124.73	125.14		125.19	0.006430	1.05	16.56	41.33	0.52
RaymondB	M002	6247.26	20Year-Existing	17.20	117.21	118.23		118.29	0.003754	1.36	22.07	34.83	0.46
RaymondB	M002	6230.10	20Year-Existing	17.20	117.20	118.22		118.25	0.001690	0.89	27.40	42.36	0.30
RaymondB	M002	6205.35	20Year-Existing	17.20	117.28	118.19		118.20	0.001547	0.79	37.88	59.47	0.29
RaymondB	M002	6143.06	20Year-Existing	17.20	117.18	118.07		118.09	0.002261	0.93	33.52	62.33	0.34
RaymondB	M002	6105.93	20Year-Existing	17.20	117.17	117.94		117.98	0.003281	1.00	24.94	58.75	0.40
RaymondB	M002	6026.35	20Year-Existing	17.20	116.81	117.74		117.76	0.002115	0.93	29.28	46.33	0.33
RaymondB	M002	5933.71	20Year-Existing	17.20	116.42	117.46		117.52	0.003251	1.27	22.48	54.73	0.43
RaymondB	M002	5883.92	20Year-Existing	17.20	116.12	117.23		117.33	0.004311	1.50	15.66	27.73	0.49
RaymondB	M002	5785.15	20Year-Existing	17.20	115.75	116.78		116.87	0.005153	1.51	16.33	30.24	0.53
RaymondB	M002	5732.44	20Year-Existing	17.20	115.46	116.44		116.56	0.006358	1.62	12.95	24.96	0.58
RaymondB	M002	5631.37	20Year-Existing	17.20	114.85	115.72		115.81	0.008797	1.65	17.60	45.23	0.66
RaymondB	M002	5500.15	20Year-Existing	17.20	114.62	115.62		115.63	0.000709	0.55	60.99	127.56	0.19
RaymondB	M002	5485.46	20Year-Existing	17.20	114.53	115.61		115.62	0.000440	0.48	76.11	162.26	0.16
RaymondB	M002	5411.19	20Year-Existing	17.20	114.48	115.54	115.17	115.57	0.001366	0.80	32.84	67.01	0.27
RaymondB	M002	5338.54	20Year-Existing	17.20	114.41	115.54	114.77	115.54	0.000104	0.24	84.78	109.56	0.08
RaymondB	M002	5278.93	20Year-Existing	17.20	114.44	115.53	114.81	115.53	0.000151	0.28	75.09	110.40	0.09
RaymondB	M002	5226.60	20Year-Existing	17.20	114.42	115.52		115.52	0.000171	0.29	80.35	126.74	0.10
RaymondB	M002	5171.66	20Year-Existing	17.20	114.42	115.51		115.51	0.000175	0.30	93.40	176.18	0.10
RaymondB	M002	5111.50	20Year-Existing	17.20	114.42	115.49		115.50	0.000601	0.56	51.08	108.53	0.18
RaymondB	M002	5077.48	20Year-Existing	17.20	114.38	115.47		115.48	0.000547	0.53	44.32	79.09	0.18
RaymondB	M002	5017.13	20Year-Existing	17.20	114.40	115.35		115.41	0.003000	1.11	16.98	26.91	0.40
RaymondB	M002	4967.43	20Year-Existing	17.20	114.07	115.08		115.20	0.005669	1.59	11.82	17.72	0.55
RaymondB	M002	4943.43	20Year-Existing	17.20	113.82	114.97		115.08	0.004804	1.61	14.67	24.50	0.52
RaymondB	M002	4910.95	20Year-Existing	17.20	113.67	114.82		114.92	0.004587	1.59	15.96	28.77	0.51
RaymondB	M002	4851.17	20Year-Existing	17.20	113.47	114.53		114.63	0.005156	1.59	15.86	30.13	0.53
RaymondB	M002	4783.73	20Year-Existing	17.20	113.30	114.22		114.29	0.004783	1.26	17.22	35.85	0.49
RaymondB	M002	4732.68	20Year-Existing	17.20	113.07	113.95		114.01	0.005752	1.35	19.55	43.14	0.54
RaymondB	M002	4681.76	20Year-Existing	17.20	112.35	113.30	113.30	113.55	0.013679	2.41	9.60	27.86	0.86
RaymondB	M002	4673.96	20Year-Existing	17.20	111.74	112.58	112.82	113.32	0.050419	4.01	5.28	12.05	1.58
RaymondB	M002	4644.78	20Year-Existing	17.20	110.49	111.38	111.57	112.03	0.037193	3.71	5.38	22.01	1.38
RaymondB	M002	4625.72	20Year-Existing	17.20	106.75	107.29	107.82	110.14	0.412171	7.48	2.31	6.82	4.05
RaymondB	M002	4615.42	20Year-Existing	17.20	105.83	106.54	106.87	107.69	0.106656	4.87	3.95	9.76	2.20
RaymondB	M002	4607.06	20Year-Existing	17.20	105.79	106.98	106.86	107.28	0.011064	2.54	8.01	9.65	0.80
RaymondB	M002	4597.34	20Year-Existing	17.20	105.76	106.95		107.15	0.009121	2.18	10.61	16.44	0.71
RaymondB	M002	4575.18	20Year-Existing	17.20	105.98	106.54	106.54	106.78	0.043386	2.57	8.53	19.63	1.32
RaymondB	M002	4545.57	20Year-Existing	17.20	104.65	105.77	105.82	106.08	0.014563	2.68	9.43	23.89	0.90
RaymondB	M002	4522.17	20Year-Existing	17.20	103.67	104.38	104.68	105.34	0.077409	4.57	4.73	13.29	1.92
RaymondB	M002	4511.42	20Year-Existing	17.20	103.62	104.84	104.54	104.94	0.004704	1.64	16.54	25.93	0.52
RaymondB	M002	4489.94	20Year-Existing	17.20	103.59	104.49	104.49	104.75	0.015858	2.49	9.82	21.00	0.91
RaymondB	M002	4466.63	20Year-Existing	17.20	103.03	104.26	103.90	104.36	0.003910	1.52	16.43	32.95	0.48
RaymondB	M002	4439.46	20Year-Existing	17.20	103.00	104.00	104.00	104.19	0.011279	2.26	13.71	39.05	0.78
RaymondB	M002	4415.77	20Year-Existing	17.20	102.78	103.49	103.56	103.79	0.026565	2.61	9.41	36.75	1.12
RaymondB	M002	4385.89	20Year-Existing	17.20	101.80	102.69	102.79	103.06	0.021774	2.89	8.27	22.03	1.07
RaymondB	M002	4354.01	20Year-Existing	17.20	101.27	102.09	102.09	102.31	0.023945	2.90	11.82	33.19	1.10
RaymondB	M002	4341.66	20Year-Existing	17.20	100.84	101.88	101.88	102.09	0.012476	2.38	12.99	34.79	0.82
RaymondB	M002	4332.73	20Year-Existing	17.20	100.32	101.10	101.35	101.83	0.051819	4.01	5.48	13.30	1.60
RaymondB	M002	4308.73	20Year-Existing	17.20	98.87	99.57	99.81	100.36	0.072734	4.29	5.25	13.18	1.84
RaymondB	M002	4294.65	20Year-Existing	17.20	98.45	99.36	99.40	99.73	0.021551	2.94	7.90	14.35	1.06
RaymondB	M002	4263.86	20Year-Existing	17.20	97.59	98.95	98.47	99.05	0.003026	1.49	15.94	20.46	0.43
RaymondB	M002	4235.25	20Year-Existing	17.20	97.47	98.93		98.98	0.001281	1.01	22.46	24.61	0.28
RaymondB	M001	4130.35	20Year-Existing	43.20	96.57	98.00	97.97	98.41	0.014009	2.87	16.69	20.94	0.90
RaymondB	M001	4076.94	20Year-Existing	43.20	96.04	97.72	97.42	97.90	0.005375	2.04	27.17	34.24	0.58
RaymondB	M001	4023.53	20Year-Existing	43.20	95.94	97.05	97.05	97.40	0.018021	2.68	17.70	27.68	0.97
RaymondB	M001	3978.20	20Year-Existing	43.20	94.64	96.70	96.15	96.78	0.002542	1.36	37.85	50.07	0.39
RaymondB	M001	3916.71	20Year-Existing	57.60	94.64	96.41		96.56	0.004673	2.09	46.53	63.43	0.55
RaymondB	M001	3863.30	20Year-Existing	57.60	94.41	96.22		96.34	0.003465	1.86	55.99	76.83	0.48
RaymondB	M001	3809.58	20Year-Existing	57.60	94.09	95.74	95.69	96.04	0.009341	2.80	32.02	44.96	0.77
RaymondB	M001	3756.26	20Year-Existing	57.60	93.53	95.04	95.04	95.45	0.013006	3.11	25.53	34.48	0.89
RaymondB	M001	3694.37	20Year-Existing	57.60	92.66	94.10	94.09	94.56	0.015297	3.15	21.24	28.45	0.95
RaymondB	M001	3569.22	20Year-Existing	57.60	92.15	94.05		94.08	0.001132	1.09	98.13	120.03	0.27
RaymondB	M001	3527.64	20Year-Existing	57.60	91.85	94.02		94.04	0.000673	0.93	105.48	91.22	0.22
RaymondB	M001	3446.51	20Year-Existing	57.60	91.14	93.99		94.01	0.000315	0.74	152.23	155.90	0.15
RaymondB	M001	3421.64	20Year-Existing	57.60	91.23	93.58	92.86	93.95	0.004282	2.73	21.59	134.19	0.57
RaymondB	M001	3410		Bridge									
RaymondB	M001	3404.11	20Year-Existing	57.60	91.23	92.91	92.91	93.70	0.014947	3.97	14.79	75.73	1.00
RaymondB	M001	3380.48	20Year-Existing	57.60	90.96	92.86	92.33	93.00	0.003450	1.88	46.42	63.30	0.48
RaymondB	M001	3308.92	20Year-Existing	57.60	90.80	92.38		92.63	0.007862	2.58	34.96	46.22	0.70
RaymondB	M001	3216.73	20Year-Existing	57.60	89.31	92.09	90.95	92.28	0.002047	1.99	29.87	52.55	0.40
RaymondB	M001	3200		Bridge									
RaymondB	M001	3188.78	20Year-Existing	57.60	89.30	91.51	91.33	92.05	0.008782	3.49	19.54	39.39	0.78

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	M001	3015.18	20Year-Existing	57.60	89.18	90.82		90.94	0.003440	1.75	50.39	65.09	0.47
RaymondB	M001	2876.32	20Year-Existing	57.60	88.66	90.24		90.39	0.005413	2.03	41.82	55.25	0.58
RaymondB	M001	2789.37	20Year-Existing	57.60	88.24	90.01		90.07	0.002389	1.48	86.61	158.74	0.39
RaymondB	M001	2681.85	20Year-Existing	57.60	88.14	89.47	89.42	89.62	0.010474	2.41	48.61	118.58	0.77
RaymondB	M001	2604.32	20Year-Existing	57.60	87.97	89.30		89.32	0.002033	1.12	97.15	192.42	0.35
RaymondB	M001	2531.57	20Year-Existing	57.60	87.97	89.25		89.26	0.000729	0.62	163.50	277.03	0.20
RaymondB	M001	2385.34	20Year-Existing	57.60	87.43	89.16		89.19	0.001696	1.24	122.18	247.33	0.33
RaymondB	M001	2245.72	20Year-Existing	57.60	86.99	88.69	88.43	88.91	0.006097	2.30	38.12	73.69	0.62
RaymondB	M001	2194.47	20Year-Existing	57.60	86.68	88.68		88.73	0.001310	1.22	85.44	93.00	0.30
RaymondB	M001	2140.67	20Year-Existing	57.60	86.59	88.57		88.64	0.002169	1.54	66.04	70.00	0.38
RaymondB	M001	2087.60	20Year-Existing	57.60	86.38	88.41		88.52	0.002316	1.62	48.67	42.89	0.40
RaymondB	M001	2069.54	20Year-Existing	57.60	86.35	88.36		88.47	0.002606	1.72	48.85	47.57	0.42
RaymondB	M001	2040.77	20Year-Existing	57.60	86.25	88.28		88.40	0.002564	1.68	51.96	68.70	0.42
RaymondB	M001	1989.18	20Year-Existing	57.60	86.02	88.05	87.61	88.23	0.004030	2.12	46.29	69.36	0.52
RaymondB	M001	1950.22	20Year-Existing	57.60	85.79	87.55	87.36	87.96	0.011430	3.13	28.23	50.01	0.85
RaymondB	M001	1885.73	20Year-Existing	57.60	85.34	87.10		87.33	0.007272	2.47	36.29	47.23	0.67
RaymondB	M001	1835.84	20Year-Existing	57.60	84.64	86.35	86.35	86.81	0.015264	3.49	24.45	27.78	0.96
RaymondB	M001	1784.61	20Year-Existing	57.60	84.10	85.32	85.41	85.77	0.027888	3.48	24.17	39.79	1.22
RaymondB	M001	1733.38	20Year-Existing	57.60	82.79	84.75	84.23	84.86	0.002891	1.72	49.25	47.27	0.44
RaymondB	M001	1682.15	20Year-Existing	57.60	82.60	84.39		84.64	0.006284	2.33	30.73	31.45	0.63
RaymondB	M001	1630.92	20Year-Existing	57.60	82.12	83.90	83.67	84.25	0.008892	2.71	26.26	35.00	0.75
RaymondB	M001	1584.49	20Year-Existing	57.60	81.77	83.66		83.88	0.005842	2.30	34.19	40.87	0.61
RaymondB	M001	1536.01	20Year-Existing	57.60	81.31	83.25		83.55	0.007563	2.67	31.22	39.49	0.69
RaymondB	M001	1477.96	20Year-Existing	57.60	80.96	82.83		83.11	0.007368	2.55	31.45	39.53	0.68
RaymondB	M001	1425.99	20Year-Existing	57.60	80.58	82.51		82.75	0.006017	2.39	32.87	39.59	0.62
RaymondB	M001	1372.05	20Year-Existing	57.60	80.25	82.24		82.43	0.005447	2.28	36.50	35.72	0.59
RaymondB	M001	1323.54	20Year-Existing	57.60	79.11	81.49	80.99	82.01	0.006325	3.19	18.03	15.16	0.68
RaymondB	M001	1315		Bridge									
RaymondB	M001	1303.54	20Year-Existing	57.60	78.01	80.57	80.19	81.15	0.007885	3.39	17.00	20.35	0.74
RaymondB	M001	1252.39	20Year-Existing	60.00	78.45	80.17	80.08	80.74	0.019891	3.78	22.08	29.41	1.08
RaymondB	M001	1216.25	20Year-Existing	60.00	77.86	79.85	79.85	80.19	0.009606	3.10	31.84	42.95	0.79
RaymondB	M001	1189.75	20Year-Existing	60.00	77.61	79.01	79.22	79.71	0.035191	4.09	19.67	36.39	1.37
RaymondB	M001	1166.20	20Year-Existing	60.00	76.74	78.21	78.42	78.90	0.031558	4.29	23.19	50.83	1.34
RaymondB	M001	1148.70	20Year-Existing	60.00	76.50	78.07	78.13	78.42	0.016936	3.18	30.20	54.28	0.98
RaymondB	M001	1116.25	20Year-Existing	60.00	75.83	77.10	77.24	77.66	0.029981	3.45	20.03	35.43	1.25
RaymondB	M001	1066.09	20Year-Existing	60.00	75.16	76.76	76.56	77.01	0.008048	2.42	34.22	50.64	0.70
RaymondB	M001	1035.68	20Year-Existing	60.00	74.73	76.21	76.21	76.66	0.015997	3.19	23.24	28.50	0.97
RaymondB	M001	999.99	20Year-Existing	60.00	73.32	74.60	74.94	75.70	0.045007	4.81	14.30	20.34	1.58
RaymondB	M001	976.73	20Year-Existing	60.00	73.03	74.61	74.63	75.03	0.012388	3.10	27.07	42.28	0.88
RaymondB	M001	942.15	20Year-Existing	60.00	72.18	73.17	73.47	74.04	0.096335	5.66	17.13	33.81	2.19
RaymondB	M001	916.70	20Year-Existing	60.00	70.82	72.18	72.33	72.67	0.028386	4.09	27.00	65.82	1.27
RaymondB	M001	892.34	20Year-Existing	60.00	70.36	71.71	71.76	72.20	0.018275	3.36	23.53	41.05	1.03
RaymondB	M001	866.25	20Year-Existing	60.00	70.04	71.77	71.25	71.92	0.003642	1.83	43.30	61.66	0.49
RaymondB	M001	841.89	20Year-Existing	60.00	69.92	71.59	71.37	71.81	0.005795	2.29	39.85	80.89	0.61
RaymondB	M001	816.68	20Year-Existing	60.00	69.74	71.29	71.29	71.61	0.010060	2.87	33.38	55.31	0.79
RaymondB	M001	766.25	20Year-Existing	60.00	69.16	70.06	70.21	70.60	0.054857	4.12	21.26	45.61	1.64
RaymondB	M001	716.25	20Year-Existing	60.00	68.39	69.88	69.63	70.03	0.005212	2.01	42.69	57.81	0.57
RaymondB	M001	675.00	20Year-Existing	60.00	68.14	69.65		69.81	0.005658	2.10	44.38	58.63	0.59
RaymondB	M001	615.86	20Year-Existing	60.00	67.75	69.47		69.56	0.002812	1.66	70.18	141.85	0.43
RaymondB	M001	565.77	20Year-Existing	60.00	67.44	69.39		69.45	0.001575	1.35	84.03	163.61	0.33
RaymondB	M001	520.15	20Year-Existing	60.00	67.26	69.38		69.39	0.000578	0.86	152.04	266.09	0.20
RaymondB	M001	468.54	20Year-Existing	60.00	66.98	69.37		69.37	0.000165	0.51	250.76	309.40	0.11
RaymondB	M001	429.18	20Year-Existing	60.00	66.80	69.37		69.37	0.000052	0.30	402.26	406.81	0.06
RaymondB	M001	366.25	20Year-Existing	60.00	66.65	69.37		69.37	0.000022	0.20	645.96	632.21	0.04
RaymondB	M001	341.79	20Year-Existing	60.00	66.63	69.37		69.37	0.000016	0.17	738.65	658.81	0.03
PettyHR	M002	6270.85	20Year-Existing	74.10	66.23	69.37		69.37	0.000001	0.05	1830.49	825.59	0.01
PettyHR	M002	6218.07	20Year-Existing	74.10	66.23	69.37		69.37	0.000001	0.05	1698.56	834.12	0.01
PettyHR	M002	6095.00	20Year-Existing	74.10	66.23	69.37		69.37	0.000001	0.05	1632.42	818.86	0.01
PettyHR	M002	6004.71	20Year-Existing	74.10	66.23	69.37		69.37	0.000001	0.05	1677.87	848.75	0.01
PettyHR	M001	5825.85	20Year-Existing	127.80	66.23	69.37		69.37	0.000002	0.07	1993.15	837.15	0.01
PettyHR	M001	5685.44	20Year-Existing	127.80	66.23	69.37		69.37	0.000002	0.07	1949.51	724.82	0.01
PettyHR	M001	5516.39	20Year-Existing	141.20	66.23	69.37		69.37	0.000003	0.09	1704.20	626.20	0.02
PettyHR	M001	5279.80	20Year-Existing	141.20	66.23	69.36		69.37	0.000007	0.13	1152.56	422.32	0.02
PettyHR	M001	4996.75	20Year-Existing	141.20	66.23	69.36		69.36	0.000032	0.27	543.08	206.84	0.05
PettyHR	M001	4923.81	20Year-Existing	141.20	66.23	69.31		69.35	0.000433	0.98	175.42	85.03	0.19
PettyHR	M001	4867.41	20Year-Existing	141.20	66.23	69.22		69.31	0.001161	1.60	144.76	91.77	0.31
PettyHR	M001	4817.61	20Year-Existing	141.20	66.58	69.16		69.24	0.001542	1.75	140.14	90.75	0.35
PettyHR	M001	4757.18	20Year-Existing	141.20	66.43	68.32	68.32	68.98	0.014846	4.33	53.66	55.03	1.02
PettyHR	M001	4675.66	20Year-Existing	141.20	65.88	67.85	67.40	68.11	0.005520	2.74	74.14	49.99	0.63
PettyHR	M001	4612.84	20Year-Existing	141.20	64.88	67.13	66.66	67.64	0.009047	3.84	58.15	43.03	0.82
PettyHR	M001	4570.09	20Year-Existing	141.20	64.62	66.66	66.66	67.21	0.009922	3.67	56.75	54.19	0.84
PettyHR	M001	4500.69	20Year-Existing	141.20	64.62	66.33	65.98	66.54	0.004655	2.25	84.07	74.40	0.56
PettyHR	M001	4461.12	20Year-Existing	141.20	64.55	65.91	65.91	66.26	0.014742	3.42	70.62	90.52	0.96
PettyHR	M001	4428.20	20Year-Existing	141.20	64.41	65.68	65.45	65.87	0.010824	2.72	83.12	88.73	0.81
PettyHR	M001	4395.66	20Year-Existing	141.20	63.81	65.28		65.54	0.008380	2.74	77.89	80.64	0.74
PettyHR	M001	4357.04	20Year-Existing	141.20	63.34	65.12		65.27	0.004488	2.31	98.75	80.17	0.56
PettyHR	M001	4281.82	20Year-Existing	141.20	62.50	65.03		65.11	0.000934	1.32	127.05	58.24	0.27
PettyHR	M001	4166.17	20Year-Existing	141.20	61.82	65.05		65.06	0.000128	0.57	356.18	161.04	0.10
PettyHR	M001	3949.19	20Year-Existing	141.20	61.31	65.05		65.05	0.000000	0.03	4566.93	1312.92	0.01
PettyHR	M001	3936.78	20Year-Existing	141.20	61.31	65.05		65.05	0.000000	0.03	5645.61	1567.45	0.00
PettyHR	M001	3931.39	20Year-Existing	89.50	61.31	65.05		65.05	0.000000	0.01	7086.08	1997.39	0.00
PettyHR	M001	3925.44	20Year-Existing	89.50	61.31	65.05		65.05	0.000000	0.03	3505.67	1000.24	0.00
PettyHR	M001	3867.05	20Year-Existing	89.50	61.31	65.05		65.05	0.000000	0.03	3540.20	979.84	0.00
PettyHR	M001	3643.73	20Year-Existing	89.50	61.31	65.05		65.05	0.000000	0.02	4069.86	1112.63	0.00
PettyHR	M001	3440.60	20Year-Existing	89.50	61.31	65.05		65.05	0.000001	0.04	2061.44	579.37	0.01

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	3182.65	20Year-Existing	89.50	61.31	65.05		65.05	0.000001	0.06	1546.51	423.86	0.01
PettyHR	M001	3080.13	20Year-Existing	89.50	61.31	65.05		65.05	0.000001	0.05	1824.03	506.22	0.01
PettyHR	M001	3028.13	20Year-Existing	89.50	61.31	65.05		65.05	0.000001	0.05	1994.97	557.35	0.01
PettyHR	M001	2983.09	20Year-Existing	89.50	61.31	65.05		65.05	0.000001	0.06	1626.24	450.03	0.01
PettyHR	M001	2828.46	20Year-Existing	89.50	61.31	65.05		65.05	0.000003	0.10	953.32	278.10	0.02
PettyHR	M001	2712.72	20Year-Existing	89.50	61.31	65.05		65.05	0.000010	0.18	542.41	178.18	0.03
PettyHR	M001	2671.95	20Year-Existing	89.50	61.31	65.05		65.05	0.000015	0.22	487.66	172.76	0.04
PettyHR	M001	2653.10	20Year-Existing	89.50	61.31	65.05		65.05	0.000022	0.27	416.69	154.19	0.04
PettyHR	M001	2632.46	20Year-Existing	89.50	61.31	65.04		65.05	0.000090	0.54	246.00	113.66	0.09
PettyHR	M001	2596.08	20Year-Existing	89.50	61.31	65.03		65.04	0.000103	0.58	217.88	109.92	0.10
PettyHR	M001	2583.24	20Year-Existing	89.50	60.10	64.95	62.69	65.03	0.000608	1.48	117.16	103.56	0.23
PettyHR	M001	2580		Bridge									
PettyHR	M001	2573.39	20Year-Existing	89.50	60.00	64.84	62.26	64.88	0.000275	1.01	149.96	81.48	0.16
PettyHR	M001	2551.09	20Year-Existing	89.50	59.89	64.86		64.87	0.000022	0.29	362.50	105.20	0.05
PettyHR	M001	2426.14	20Year-Existing	89.50	59.27	64.86		64.86	0.000002	0.08	1145.02	266.48	0.01
PettyHR	M001	2315.39	20Year-Existing	89.50	58.72	64.86		64.86	0.000001	0.07	1406.50	308.07	0.01
PettyHR	M001	2204.15	20Year-Existing	89.50	58.16	64.86		64.86	0.000001	0.07	1418.19	305.85	0.01
PettyHR	M001	2022.45	20Year-Existing	89.50	57.26	64.86		64.86	0.000002	0.11	862.33	171.88	0.01
PettyHR	M001	1902.10	20Year-Existing	89.50	56.66	64.86		64.86	0.000003	0.14	668.70	126.87	0.02
PettyHR	M001	1879.72	20Year-Existing	89.50	56.55	64.86		64.86	0.000008	0.22	488.24	107.38	0.03
PettyHR	M001	1824.42	20Year-Existing	89.50	56.28	64.86		64.86	0.000014	0.29	329.53	65.26	0.04
PettyHR	M001	1789.72	20Year-Existing	89.50	56.10	64.86		64.86	0.000020	0.34	278.93	54.68	0.04
PettyHR	M001	1724.70	20Year-Existing	89.50	55.78	64.85		64.86	0.000026	0.39	244.15	47.25	0.05
PettyHR	M001	1668.81	20Year-Existing	89.50	55.50	64.85	58.00	64.86	0.000014	0.30	324.12	64.37	0.04
PettyHR	M001	1647.80	20Year-Existing	89.50	55.40	64.85	57.72	64.86	0.000010	0.25	379.10	70.59	0.03
PettyHR	M001	1631.79	20Year-Existing	89.50	63.55	64.62		64.84	0.007387	2.07	43.29	40.60	0.64
PettyHR	M001	1615.46	20Year-Existing	90.70	54.38	56.71		56.85	0.004393	2.68	58.88	37.70	0.57
PettyHR	M001	1601.08	20Year-Existing	90.70	54.00	55.68	55.68	56.63	0.040950	6.52	23.92	22.79	1.65
PettyHR	M001	1586.16	20Year-Existing	90.70	53.36	55.17	55.37	56.04	0.034663	6.40	26.01	25.07	1.54
PettyHR	M001	1571.98	20Year-Existing	90.70	52.87	54.48	54.75	55.47	0.046211	6.72	23.52	23.76	1.74
PettyHR	M001	1519.66	20Year-Existing	90.70	51.62	53.21	53.27	53.71	0.029454	5.23	33.10	38.66	1.37
PettyHR	M001	1467.14	20Year-Existing	90.70	50.86	52.19	52.09	52.50	0.020589	4.01	39.44	44.23	1.13
PettyHR	M001	1457.30	20Year-Existing	90.70	50.23	51.82	51.82	52.27	0.024011	4.89	34.43	36.50	1.26
PettyHR	M001	1444.51	20Year-Existing	90.70	48.30	49.28	49.79	51.41	0.218985	10.36	16.29	30.38	3.48
PettyHR	M001	1415.17	20Year-Existing	90.70	48.28	49.86	49.37	49.98	0.005976	2.41	61.43	52.51	0.63
PettyHR	M001	1402.15	20Year-Existing	90.70	47.79	49.36	49.36	49.80	0.026062	4.88	34.58	39.88	1.29
PettyHR	M001	1385.41	20Year-Existing	90.70	43.10	44.66	45.56	48.60	0.142557	11.25	13.12	16.57	3.01
PettyHR	M001	1370.82	20Year-Existing	90.70	41.75	43.54	44.43	46.65	0.096826	10.62	14.49	13.77	2.58
PettyHR	M001	1362.66	20Year-Existing	90.70	39.88	42.00	43.11	45.81	0.089842	11.18	13.18	10.32	2.52
PettyHR	M001	1336.64	20Year-Existing	90.70	39.87	41.52	42.14	43.13	0.067505	8.30	18.91	18.72	2.11
PettyHR	M001	1309.35	20Year-Existing	90.70	38.40	39.75	40.16	41.09	0.076454	7.66	19.57	21.34	2.17
PettyHR	M001	1279.20	20Year-Existing	90.70	35.02	37.26	38.06	39.27	0.047445	8.57	19.93	19.59	1.86
PettyHR	M001	1258.06	20Year-Existing	90.70	34.01	36.49	37.06	38.32	0.037195	8.19	19.53	13.89	1.68
PettyHR	M001	1221.17	20Year-Existing	90.70	33.21	34.60	35.22	36.23	0.089076	8.15	17.58	18.31	2.31
PettyHR	M001	1203.34	20Year-Existing	90.70	32.61	33.96	34.17	34.75	0.054608	6.42	26.09	33.97	1.83
PettyHR	M001	1164.99	20Year-Existing	90.70	31.37	32.93	32.94	33.36	0.022715	4.53	35.77	40.59	1.21
PettyHR	M001	1153.41	20Year-Existing	90.70	30.70	31.73	32.05	32.80	0.104354	7.49	21.98	35.77	2.43
PettyHR	M001	1125.74	20Year-Existing	90.70	29.27	30.58	30.67	31.08	0.035363	5.06	32.58	42.92	1.47
PettyHR	M001	1090.65	20Year-Existing	90.70	28.12	29.31	29.40	29.75	0.040503	4.91	35.20	58.58	1.53
PettyHR	M001	1059.48	20Year-Existing	90.70	26.84	28.14	28.22	28.55	0.036600	5.09	37.26	63.15	1.48
PettyHR	M001	1048.77	20Year-Existing	90.70	26.29	27.48	27.64	28.07	0.050163	5.53	31.61	53.90	1.71
PettyHR	M001	1021.54	20Year-Existing	90.70	25.47	26.98	26.98	27.38	0.025337	4.72	36.27	42.72	1.27
PettyHR	M001	1003.30	20Year-Existing	90.70	23.42	24.80	25.32	26.48	0.085542	8.32	17.59	18.21	2.32
PettyHR	M001	994.73	20Year-Existing	90.70	22.70	25.13	25.14	25.91	0.019249	5.79	28.20	20.04	1.21
PettyHR	M001	961.03	20Year-Existing	90.70	22.07	24.67	24.68	25.30	0.014907	5.28	32.50	25.25	1.07
PettyHR	M001	944.13	20Year-Existing	90.70	21.89	23.44	23.86	24.79	0.055230	7.18	20.68	20.81	1.90
PettyHR	M001	924.94	20Year-Existing	90.70	20.78	22.62	22.94	23.83	0.041942	7.02	21.11	16.76	1.69
PettyHR	M001	905.47	20Year-Existing	90.70	19.73	21.84	22.17	23.11	0.033981	7.01	21.42	15.42	1.57
PettyHR	M001	883.86	20Year-Existing	90.70	17.29	20.61	19.78	20.84	0.002912	2.79	50.42	33.96	0.50
PettyHR	M001	875		Bridge									
PettyHR	M001	859.53	20Year-Existing	90.70	17.25	19.24	19.24	19.85	0.020556	5.07	28.89	28.73	1.18
PettyHR	M001	836.76	20Year-Existing	90.70	12.80	14.53	15.65	18.61	0.110779	11.02	12.17	10.12	2.74
PettyHR	M001	823.70	20Year-Existing	90.70	12.86	15.82	15.06	16.06	0.005268	3.46	52.11	34.90	0.65
PettyHR	M001	811.96	20Year-Existing	90.70	12.85	14.67	14.67	15.83	0.043997	7.21	23.25	23.35	1.74
PettyHR	M001	796.92	20Year-Existing	90.70	12.74	14.14	14.39	14.99	0.057720	6.91	25.51	33.51	1.90
PettyHR	M001	784.11	20Year-Existing	90.70	11.82	13.74	13.93	14.45	0.027539	5.86	31.43	36.19	1.39
PettyHR	M001	769.86	20Year-Existing	90.70	10.94	12.45	12.83	13.82	0.059380	7.34	20.56	21.82	1.96
PettyHR	M001	748.76	20Year-Existing	90.70	8.37	10.67	11.33	12.74	0.040650	8.02	19.61	18.51	1.73
PettyHR	M001	720.33	20Year-Existing	90.70	8.08	9.12	9.58	10.71	0.138185	8.20	18.02	27.68	2.75
PettyHR	M001	707.57	20Year-Existing	90.70	6.85	8.29	8.61	9.39	0.060974	7.13	23.92	32.81	1.95
PettyHR	M001	685.99	20Year-Existing	90.70	5.31	6.90	7.28	8.10	0.059013	7.36	23.34	29.87	1.94
PettyHR	M001	666.04	20Year-Existing	90.70	5.03	6.76	6.82	7.23	0.019638	4.54	37.26	43.40	1.14
PettyHR	M001	652.51	20Year-Existing	90.70	4.66	6.11	6.19	6.84	0.039399	5.65	28.03	33.93	1.56
PettyHR	M001	633.61	20Year-Existing	90.70	4.40	5.41	5.56	5.98	0.049284	4.93	30.72	76.41	1.66
PettyHR	M001	622.83	20Year-Existing	90.70	4.09	5.16	5.13	5.42	0.025095	3.64	45.81	101.03	1.19
PettyHR	M001	577.97	20Year-Existing	90.70	2.48	3.78	3.78	4.08	0.034552	4.90	43.05	111.32	1.43
PettyHR	M001	525.57	20Year-Existing	90.70	0.51	2.75	2.11	2.86	0.003719	2.43	68.04	89.45	0.53
PettyHR	M001	491.94	20Year-Existing	90.70	-0.59	2.48	1.80	2.73	0.003342	2.51	50.06	36.00	0.50
PettyHR	M001	485		Bridge									
PettyHR	M001	478.84	20Year-Existing	90.70	-1.92	2.54		2.61	0.000509	1.20	111.24	141.51	0.20
PettyHR	M001	439.27	20Year-Existing	90.70	-1.89	2.57		2.58	0.000142	0.66	237.10	128.83	0.11
PettyHR	M001	405.68	20Year-Existing	90.70	-2.13	2.57		2.58	0.000127	0.63	234.51	131.95	0.10
PettyHR	M001	367.80	20Year-Existing	90.70	-2.02	2.57		2.57	0.000039	0.35	299.46	139.22	0.06
PettyHR	M001	338.85	20Year-Existing	90.70	-2.89	2.57		2.57	0.000023	0.30	338.86	122.06	0.05
PettyHR	M001	305.38	20Year-Existing	90.70	-2.46	2.56		2.57	0.000032	0.34	305.99	119.87	0.05

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	269.29	20Year-Existing	90.70	-3.52	2.56		2.57	0.000029	0.36	287.04	110.13	0.05
PettyHR	M001	238.18	20Year-Existing	90.70	-3.50	2.56		2.57	0.000041	0.43	248.28	102.43	0.06
PettyHR	M001	201.25	20Year-Existing	90.70	-4.43	2.56		2.56	0.000013	0.27	367.31	119.92	0.04
PettyHR	M001	150.84	20Year-Existing	90.70	-3.34	2.56		2.56	0.000008	0.19	524.87	171.49	0.03
PettyHR	M001	105.74	20Year-Existing	90.70	-2.91	2.56		2.56	0.000008	0.19	507.32	154.14	0.03
PettyHR	M001	91.29	20Year-Existing	90.70	-3.36	2.56		2.56	0.000007	0.18	523.77	143.62	0.03
PettyHR	M001	20.04	20Year-Existing	90.70	-6.19	2.56		2.56	0.000003	0.14	705.42	185.18	0.02
PettyHR	M001	12.04	20Year-Existing	90.70	-6.19	2.55	-3.73	2.56	0.000064	0.52	267.31	185.14	0.06
ForthP	M001	2616.90	20Year-Existing	9.00	123.09	124.50	123.34	124.50	0.000011	0.09	134.24	158.53	0.03
ForthP	M001	2528.45	20Year-Existing	9.00	123.09	124.50		124.50	0.000003	0.05	214.79	197.99	0.01
ForthP	M001	2324.32	20Year-Existing	9.00	123.09	124.50		124.50	0.000009	0.09	153.71	209.05	0.02
ForthP	M001	2187.52	20Year-Existing	9.00	123.09	124.50		124.50	0.000002	0.04	287.90	286.61	0.01
ForthP	M001	1955.13	20Year-Existing	9.00	123.09	124.50		124.50	0.000002	0.04	331.28	309.79	0.01
ForthP	M001	1773.83	20Year-Existing	9.00	123.09	124.50		124.50	0.000001	0.02	406.58	344.84	0.01
ForthP	M001	1572.85	20Year-Existing	9.00	123.09	124.50		124.50	0.000001	0.02	388.93	319.64	0.01
ForthP	M001	1496.60	20Year-Existing	9.00	123.09	124.50		124.50	0.000001	0.03	327.68	276.74	0.01
ForthP	M001	1392.58	20Year-Existing	32.30	122.98	124.49	124.15	124.49	0.000525	0.70	109.47	167.49	0.18
ForthP	M001	1390		Culvert									
ForthP	M001	1381.72	20Year-Existing	32.30	122.95	124.40	124.13	124.41	0.001694	1.12	73.14	149.34	0.31
ForthP	M001	1360.50	20Year-Existing	32.30	122.87	124.19	124.05	124.33	0.009532	2.50	27.01	73.73	0.75
ForthP	M001	1311.12	20Year-Existing	32.30	122.52	123.91		123.96	0.005168	1.87	37.43	74.44	0.55
ForthP	M001	1261.17	20Year-Existing	32.30	121.36	123.38	123.38	123.64	0.007426	3.01	23.39	39.71	0.71
ForthP	M001	1211.51	20Year-Existing	32.30	119.83	121.44	122.02	122.78	0.043801	6.09	8.21	10.93	1.63
ForthP	M001	1161.66	20Year-Existing	32.30	117.25	118.41	118.78	119.81	0.084868	6.61	9.11	24.57	2.15
ForthP	M001	1112.05	20Year-Existing	32.30	114.88	115.98	116.14	116.50	0.045946	4.95	13.89	34.35	1.59
ForthP	M001	1062.35	20Year-Existing	32.30	113.16	114.32	114.38	114.62	0.030044	3.92	16.31	33.76	1.26
ForthP	M001	1041.93	20Year-Existing	32.30	112.62	113.89	113.92	114.14	0.022781	3.59	18.69	41.92	1.10
ForthP	M001	1031.90	20Year-Existing	32.30	112.31	113.48	113.58	113.85	0.036886	4.36	16.62	43.81	1.40
ForthP	M001	1011.12	20Year-Existing	32.30	111.62	112.65	112.76	113.02	0.044088	4.51	16.34	46.29	1.53
ForthP	M001	959.76	20Year-Existing	32.30	110.31	111.14	111.13	111.29	0.027742	2.87	21.74	62.81	1.15
ForthP	M001	908.93	20Year-Existing	32.30	109.25	109.90	109.78	109.96	0.012905	1.71	32.42	89.08	0.76
ForthP	M001	856.39	20Year-Existing	32.30	108.38	108.85	108.78	108.92	0.023821	1.60	27.47	91.58	0.94
ForthP	M001	806.25	20Year-Existing	32.30	107.09	108.00		108.07	0.014197	2.27	31.48	90.76	0.84
ForthP	M001	754.78	20Year-Existing	32.30	106.12	107.12	107.12	107.25	0.020696	3.07	27.28	89.02	1.05
ForthP	M001	734.50	20Year-Existing	32.30	105.47	106.75	106.72	106.85	0.009683	2.40	33.16	89.60	0.73
ForthP	M001	724.30	20Year-Existing	32.30	105.28	106.57	106.57	106.73	0.013115	2.84	27.44	82.08	0.87
ForthP	M001	703.65	20Year-Existing	32.30	105.02	106.12	106.10	106.31	0.024735	3.53	20.13	46.59	1.14
ForthP	M001	654.47	20Year-Existing	32.30	103.90	104.78	104.78	104.95	0.027816	3.24	20.73	54.29	1.18
ForthP	M001	605.63	20Year-Existing	32.30	102.27	103.40	103.49	103.70	0.028222	3.77	19.78	58.20	1.24
ForthP	M001	585.13	20Year-Existing	32.30	101.55	102.39	102.51	102.83	0.076087	4.81	15.80	68.46	1.91
ForthP	M001	577.30	20Year-Existing	32.30	101.52	102.20	102.23	102.38	0.048239	3.33	19.30	67.77	1.47
ForthP	M001	557.33	20Year-Existing	32.30	100.67	101.32	101.32	101.46	0.036840	2.69	21.58	77.80	1.26
ForthP	M001	507.84	20Year-Existing	32.30	98.92	99.60	99.60	99.72	0.033390	2.61	23.51	85.59	1.20
ForthP	M001	453.33	20Year-Existing	32.30	96.28	97.05	97.00	97.14	0.018130	2.19	28.77	89.97	0.92
ForthP	M001	402.29	20Year-Existing	32.30	94.96	95.58	95.58	95.76	0.048739	3.21	18.68	58.27	1.46
ForthP	M001	349.18	20Year-Existing	32.30	93.64	94.23	94.08	94.29	0.015671	1.62	29.98	78.01	0.81
ForthP	M001	297.76	20Year-Existing	32.30	92.55	93.48	93.43	93.57	0.015927	2.38	29.31	78.36	0.89
ForthP	M001	246.28	20Year-Existing	32.30	91.71	92.47	92.43	92.56	0.020337	2.23	28.68	90.29	0.97
ForthP	M001	182.03	20Year-Existing	32.30	90.94	92.08	91.75	92.10	0.004000	1.42	52.04	107.80	0.46
ForthP	M001	160.27	20Year-Existing	32.30	90.13	92.08	91.36	92.09	0.000183	0.46	141.93	151.92	0.11
ForthP	M001	150		Culvert									
ForthP	M001	144.74	20Year-Existing	32.30	89.90	91.09	91.09	91.63	0.016686	3.29	10.11	95.30	0.99
ForthP	M001	124.30	20Year-Existing	32.30	89.74	90.94	90.84	91.02	0.010077	2.31	34.33	83.81	0.74
ForthP	M001	61.58	20Year-Existing	32.30	88.75	89.90	89.90	90.10	0.021588	3.26	22.73	56.06	1.08
ForestP	M001	1557.91	20Year-Existing	6.40	78.25	79.69	78.44	79.69	0.000003	0.05	144.98	121.08	0.01
ForestP	M001	1428.05	20Year-Existing	6.40	78.25	79.69		79.69	0.000001	0.03	197.52	175.86	0.01
ForestP	M001	1315.71	20Year-Existing	6.40	78.25	79.69		79.69	0.000001	0.02	278.07	241.83	0.01
ForestP	M001	1228.83	20Year-Existing	6.40	78.25	79.69		79.69	0.000000	0.02	332.57	286.52	0.01
ForestP	M001	1138.84	20Year-Existing	6.40	78.25	79.69		79.69	0.000000	0.02	389.44	339.43	0.00
ForestP	M001	1077.28	20Year-Existing	6.40	78.25	79.69		79.69	0.000000	0.02	428.78	478.78	0.00
ForestP	M001	1019.12	20Year-Existing	6.40	78.25	79.69		79.69	0.000001	0.03	215.53	278.48	0.01
ForestP	M001	958.61	20Year-Existing	8.10	78.15	79.67	79.50	79.68	0.000780	0.66	23.12	67.51	0.20
ForestP	M001	955		Culvert									
ForestP	M001	949.85	20Year-Existing	8.10	77.76	79.52	79.45	79.64	0.008558	1.78	9.08	50.08	0.48
ForestP	M001	913.34	20Year-Existing	8.10	78.16	79.04	79.04	79.19	0.027541	2.89	5.98	18.00	1.07
ForestP	M001	883.23	20Year-Existing	8.10	77.54	78.33	78.36	78.48	0.021244	2.47	7.73	36.91	1.00
ForestP	M001	859.61	20Year-Existing	8.10	76.75	77.42	77.51	77.73	0.050251	3.40	4.22	13.45	1.49
ForestP	M001	831.71	20Year-Existing	8.10	75.74	76.62	76.70	76.92	0.032501	3.22	4.31	10.33	1.23
ForestP	M001	802.91	20Year-Existing	8.10	74.66	75.44	75.56	75.86	0.042522	3.55	3.72	9.89	1.42
ForestP	M001	772.90	20Year-Existing	8.10	73.77	74.52	74.53	74.72	0.029921	2.91	5.18	14.41	1.17
ForestP	M001	737.48	20Year-Existing	8.10	72.77	73.46	73.43	73.57	0.019837	2.23	6.99	21.57	0.95
ForestP	M001	688.06	20Year-Existing	8.10	71.80	72.39	72.35	72.46	0.025314	2.12	8.01	32.74	0.99
ForestP	M001	651.32	20Year-Existing	8.10	70.81	71.41	71.40	71.51	0.026264	2.37	7.46	30.71	1.08
ForestP	M001	600.44	20Year-Existing	8.10	69.80	70.32		70.37	0.019197	1.80	10.84	57.67	0.89
ForestP	M001	578.60	20Year-Existing	8.10	69.31	69.90	69.90	69.96	0.018682	1.92	12.30	84.54	0.90
ForestP	M001	528.92	20Year-Existing	8.10	68.58	69.39	69.23	69.41	0.004322	1.17	18.53	69.60	0.46
ForestP	M001	478.55	20Year-Existing	8.10	68.21	69.37		69.37	0.000186	0.32	57.43	109.20	0.10
ForestP	M001	430.82	20Year-Existing	8.10	67.77	69.37		69.37	0.000046	0.20	93.22	128.84	0.05
ForestP	M001	378.18	20Year-Existing	8.10	67.48	69.37		69.37	0.000007	0.09	226.06	263.73	0.02
ForestP	M001	328.07	20Year-Existing	8.10	67.34	69.37		69.37	0.000003	0.06	325.26	321.78	0.01
ForestP	M001	277.95	20Year-Existing	8.10	67.07	69.37		69.37	0.000001	0.05	400.20	364.34	0.01
ForestP	M001	195.51	20Year-Existing	8.10	66.23	69.37		69.37	0.000000	0.02	758.45	522.35	0.00
ForestP	M001	158.37	20Year-Existing	8.10	66.23	69.37		69.37	0.000000	0.01	1449.18	674.14	0.00
ForestP	M001	89.11	20Year-Existing	8.10	66.23	69.37		69.37	0.000000	0.01	1605.13	746.64	0.00
DoylesR	TR019	260.51	20Year-Existing	0.30	124.74	125.07	124.93	125.07	0.000384	0.17	3.22	29.62	0.12

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR019	199.72	20Year-Existing	0.30	124.55	125.07		125.07	0.000002	0.02	31.17	135.17	0.01
DoylesR	TR019	150.00	20Year-Existing	0.30	124.37	125.07		125.07	0.000002	0.02	33.82	142.97	0.01
DoylesR	TR019	100.00	20Year-Existing	0.30	124.16	125.07		125.07	0.000002	0.03	28.39	151.14	0.01
DoylesR	TR019	50.00	20Year-Existing	0.30	124.18	125.07		125.07	0.000001	0.02	52.96	213.90	0.01
DoylesR	TR018	302.01	20Year-Existing	1.10	127.90	128.05	128.05	128.08	0.024884	0.82	1.74	23.95	0.82
DoylesR	TR018	270.53	20Year-Existing	1.10	126.19	128.01	126.77	128.01	0.000000	0.02	140.46	244.89	0.01
DoylesR	TR018	260		Culvert									
DoylesR	TR018	257.62	20Year-Existing	1.10	126.19	127.69	126.80	127.69	0.000001	0.03	98.24	183.61	0.01
DoylesR	TR018	244.68	20Year-Existing	1.10	125.64	127.64	126.49	127.68	0.000865	0.95	1.41	183.95	0.22
DoylesR	TR018	200		Culvert									
DoylesR	TR018	169.24	20Year-Existing	1.10	125.40	126.22	126.06	126.41	0.012373	2.23	0.61	75.31	0.81
DoylesR	TR018	131.43	20Year-Existing	1.10	125.24	125.44	125.44	125.46	0.039096	1.01	2.01	41.68	1.02
DoylesR	TR018	59.79	20Year-Existing	1.10	124.57	125.12	124.87	125.12	0.000302	0.23	11.77	100.08	0.11
DoylesR	TR017	4043.45	20Year-Existing	6.10	124.05	125.05		125.06	0.001393	0.87	18.69	63.03	0.28
DoylesR	TR017	3983.69	20Year-Existing	6.10	124.04	124.94		124.96	0.002234	0.92	15.70	73.80	0.34
DoylesR	TR017	3923.93	20Year-Existing	6.10	124.03	124.59	124.59	124.66	0.021104	1.67	7.07	42.17	0.91
DoylesR	TR017	3889.37	20Year-Existing	6.10	123.60	123.79	123.61	123.80	0.005388	0.27	14.21	63.42	0.35
DoylesR	TR017	3781.64	20Year-Existing	6.10	122.55	123.44		123.48	0.004646	1.32	11.64	46.41	0.48
DoylesR	TR017	3768.91	20Year-Existing	6.10	122.35	123.11	123.11	123.34	0.018678	2.24	3.37	8.67	0.92
DoylesR	TR017	3745.98	20Year-Existing	6.10	121.86	122.43	122.46	122.55	0.036422	2.14	5.18	34.17	1.18
DoylesR	TR017	3713.18	20Year-Existing	6.10	120.99	121.52	121.55	121.71	0.025794	2.05	3.58	12.65	1.04
DoylesR	TR017	3692.45	20Year-Existing	6.10	120.34	120.97	121.00	121.17	0.025465	2.19	3.72	13.37	1.05
DoylesR	TR017	3679.05	20Year-Existing	6.10	119.97	120.71	120.73	120.90	0.016663	2.16	3.91	15.88	0.89
DoylesR	TR017	3656.84	20Year-Existing	6.10	117.59	118.01	118.34	119.74	0.382116	5.90	1.11	5.43	3.72
DoylesR	TR017	3603.67	20Year-Existing	6.10	116.29	116.98	116.99	117.11	0.017061	2.06	5.13	23.09	0.89
DoylesR	TR017	3583.40	20Year-Existing	6.10	115.96	116.46	116.54	116.85	0.084000	3.39	2.88	14.77	1.83
DoylesR	TR017	3571.14	20Year-Existing	6.10	115.76	116.27	116.27	116.38	0.029945	2.24	5.56	30.21	1.12
DoylesR	TR017	3545.42	20Year-Existing	6.10	115.22	115.81	115.78	115.91	0.017127	1.74	5.59	20.81	0.85
DoylesR	TR017	3483.93	20Year-Existing	6.10	114.35	114.92	114.89	114.96	0.014454	1.63	10.25	68.76	0.78
DoylesR	TR017	3432.55	20Year-Existing	6.10	113.79	114.52	114.41	114.55	0.007046	1.36	11.65	63.62	0.57
DoylesR	TR017	3345.48	20Year-Existing	6.10	113.03	113.52	113.52	113.61	0.033267	2.00	6.10	37.71	1.13
DoylesR	TR017	3300.07	20Year-Existing	6.10	112.42	112.98	112.85	112.98	0.003662	0.74	16.78	76.79	0.38
DoylesR	TR016	918.87	20Year-Existing	2.20	127.08	128.78	127.25	128.78	0.000000	0.01	397.63	359.84	0.00
DoylesR	TR016	898.71	20Year-Existing	2.20	126.90	128.78	127.25	128.78	0.000001	0.02	192.01	224.81	0.01
DoylesR	TR016	890		Culvert									
DoylesR	TR016	882.28	20Year-Existing	2.20	126.88	128.72		128.72	0.000003	0.05	103.68	157.61	0.01
DoylesR	TR016	877.71	20Year-Existing	2.20	126.24	128.72	126.86	128.72	0.000002	0.06	122.45	188.12	0.01
DoylesR	TR016	850		Culvert									
DoylesR	TR016	848.13	20Year-Existing	2.20	126.37	127.08	127.08	127.31	0.019901	2.30	1.24	2.99	0.91
DoylesR	TR016	818.98	20Year-Existing	2.20	126.36	126.83	126.77	126.84	0.004031	0.74	6.63	51.81	0.40
DoylesR	TR016	768.99	20Year-Existing	2.20	126.30	126.63		126.64	0.004580	0.62	6.89	50.37	0.40
DoylesR	TR016	714.09	20Year-Existing	2.20	125.96	126.36	126.26	126.37	0.004956	0.70	5.82	36.11	0.43
DoylesR	TR016	675.95	20Year-Existing	2.20	125.74	126.06	126.06	126.11	0.019927	1.17	3.48	38.02	0.82
DoylesR	TR016	659.39	20Year-Existing	2.20	125.10	125.54	125.48	125.57	0.010019	1.15	3.64	24.89	0.63
DoylesR	TR016	632.80	20Year-Existing	2.20	124.78	125.23	125.23	125.29	0.013915	1.29	2.96	25.62	0.73
DoylesR	TR016	610.50	20Year-Existing	2.20	123.78	124.22	124.34	124.62	0.076225	3.02	0.92	4.64	1.70
DoylesR	TR016	549.37	20Year-Existing	2.20	122.30	122.88	122.88	123.01	0.022866	1.89	1.88	10.53	0.95
DoylesR	TR016	494.31	20Year-Existing	2.20	120.93	121.55	121.55	121.73	0.023829	1.89	1.24	4.17	0.97
DoylesR	TR016	473.82	20Year-Existing	2.20	120.18	120.64	120.73	120.95	0.063959	2.55	0.95	4.37	1.53
DoylesR	TR016	459.95	20Year-Existing	2.20	119.62	120.09	120.13	120.28	0.033721	1.97	1.23	5.09	1.13
DoylesR	TR016	439.99	20Year-Existing	2.20	119.05	119.65	119.65	119.81	0.024533	1.83	1.26	4.29	0.97
DoylesR	TR016	384.99	20Year-Existing	2.20	117.07	117.51	117.59	117.77	0.061600	2.27	0.98	4.53	1.47
DoylesR	TR016	329.99	20Year-Existing	2.20	115.67	116.15	116.15	116.22	0.015571	1.27	2.74	23.06	0.76
DoylesR	TR016	274.18	20Year-Existing	2.20	114.93	115.32	115.31	115.35	0.011178	0.98	4.49	48.02	0.63
DoylesR	TR016	218.88	20Year-Existing	2.20	114.35	114.82	114.80	114.86	0.010842	1.02	4.49	51.04	0.63
DoylesR	TR016	165.43	20Year-Existing	2.20	113.83	114.37	114.32	114.41	0.008668	1.08	3.89	34.85	0.58
DoylesR	TR016	86.48	20Year-Existing	2.20	112.80	113.21	113.21	113.30	0.027049	1.44	1.99	12.36	0.96
DoylesR	TR016	40.19	20Year-Existing	2.20	112.21	112.80	112.68	112.81	0.002076	0.59	8.74	57.30	0.29
DoylesR	TR015	3230.71	20Year-Existing	13.30	111.60	112.50		112.54	0.008482	1.80	19.38	74.75	0.66
DoylesR	TR015	3185.04	20Year-Existing	13.30	111.22	112.14		112.22	0.011717	1.99	15.24	50.73	0.76
DoylesR	TR015	3133.58	20Year-Existing	13.30	110.57	111.37	111.37	111.48	0.018906	2.40	12.86	46.37	0.95
DoylesR	TR015	3079.97	20Year-Existing	13.30	108.17	109.04	109.29	109.78	0.057050	4.23	4.33	10.14	1.67
DoylesR	TR015	3026.43	20Year-Existing	13.30	107.30	109.08	108.23	109.10	0.000538	0.74	30.47	33.70	0.19
DoylesR	TR015	3001.28	20Year-Existing	13.30	106.17	109.09	108.08	109.09	0.000081	0.37	84.77	77.52	0.07
DoylesR	TR015	3000		Culvert									
DoylesR	TR015	2988.77	20Year-Existing	13.30	106.03	107.88	107.88	108.12	0.005880	2.59	11.88	32.90	0.63
DoylesR	TR015	2963.30	20Year-Existing	13.30	105.69	106.49	106.79	107.65	0.098435	5.60	4.32	15.66	2.15
DoylesR	TR015	2915.60	20Year-Existing	13.30	104.53	105.63	105.65	105.85	0.016189	2.72	9.44	22.72	0.92
DoylesR	TR015	2867.64	20Year-Existing	13.30	103.37	104.46	104.58	104.86	0.031982	3.78	7.46	19.82	1.27
DoylesR	TR015	2841.04	20Year-Existing	13.30	102.40	102.96	103.07	103.33	0.105519	3.91	6.44	27.60	2.06
DoylesR	TR015	2804.73	20Year-Existing	13.30	101.67	102.47	102.40	102.57	0.015538	2.17	12.80	35.16	0.86
DoylesR	TR015	2742.98	20Year-Existing	13.30	100.87	101.67	101.62	101.73	0.013014	2.05	17.82	65.90	0.80
DoylesR	TR015	2687.77	20Year-Existing	13.30	100.07	100.66	100.66	100.76	0.028691	2.34	13.29	61.86	1.12
DoylesR	TR015	2638.14	20Year-Existing	13.30	98.95	99.74	99.76	99.88	0.023606	2.77	12.54	48.15	1.07
DoylesR	TR015	2593.26	20Year-Existing	13.30	97.75	98.82	98.76	98.93	0.011422	2.30	13.86	40.63	0.77
DoylesR	TR015	2557.12	20Year-Existing	13.30	97.53	98.55		98.62	0.007701	1.91	16.78	45.07	0.64
DoylesR	TR015	2522.34	20Year-Existing	13.30	97.26	98.14	98.14	98.28	0.016659	2.26	11.64	39.05	0.90
DoylesR	TR015	2483.94	20Year-Existing	13.30	96.95	97.67	97.61	97.72	0.013600	1.76	16.43	59.79	0.77
DoylesR	TR015	2438.99	20Year-Existing	13.30	96.35	97.40		97.44	0.004573	1.44	23.79	85.67	0.49
DoylesR	TR015	2387.12	20Year-Existing	13.30	96.39	97.29		97.29	0.002002	0.80	38.62	120.70	0.31
DoylesR	TR015	2352.45	20Year-Existing	13.30	96.40	97.25		97.25	0.000772	0.49	48.25	98.49	0.19
DoylesR	TR015	2283.37	20Year-Existing	13.30	95.75	97.09		97.15	0.003381	1.52	15.31	21.99	0.45
DoylesR	TR015	2231.50	20Year-Existing	13.30	95.54	96.66		96.84	0.012484	2.47	9.13	17.21	0.82
DoylesR	TR015	2160.12	20Year-Existing	13.30	94.93	95.92		96.03	0.009437	1.95	11.09	21.74	0.70
DoylesR	TR015	2119.11	20Year-Existing	13.30	94.44	95.47	95.43	95.62	0.012900	2.35	10.88	26.52	0.82

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR015	2075.88	20Year-Existing	13.30	93.86	94.77	94.76	94.96	0.018052	2.52	10.03	38.80	0.96
DoylesR	TR015	2024.01	20Year-Existing	13.30	93.19	94.25	94.17	94.34	0.008976	1.97	14.83	47.25	0.68
DoylesR	TR015	1972.14	20Year-Existing	13.30	92.71	93.67	93.67	93.79	0.015216	2.45	12.89	61.52	0.87
DoylesR	TR015	1921.75	20Year-Existing	13.30	92.35	93.36	93.06	93.38	0.002771	1.10	26.03	68.01	0.38
DoylesR	TR015	1851.62	20Year-Existing	13.30	91.24	92.71	92.71	93.07	0.013740	3.02	6.72	12.77	0.87
DoylesR	TR014	2057.49	20Year-Existing	8.00	125.48	126.50	126.31	126.53	0.003429	1.11	16.61	60.27	0.41
DoylesR	TR014	2037.89	20Year-Existing	8.00	125.57	126.49		126.50	0.000636	0.50	36.21	97.80	0.18
DoylesR	TR014	1988.88	20Year-Existing	8.00	124.71	126.41	125.51	126.45	0.000951	0.94	12.96	40.86	0.24
DoylesR	TR014	1980		Culvert									
DoylesR	TR014	1975.46	20Year-Existing	8.00	124.46	126.26		126.31	0.000935	0.97	9.28	8.67	0.25
DoylesR	TR014	1936.56	20Year-Existing	8.00	124.86	126.11		126.23	0.004947	1.79	6.88	13.17	0.54
DoylesR	TR014	1904.43	20Year-Existing	8.00	124.72	125.72	125.72	125.97	0.013578	2.49	4.82	10.73	0.86
DoylesR	TR014	1867.03	20Year-Existing	8.00	124.61	125.57	125.34	125.63	0.004561	1.42	10.01	23.89	0.50
DoylesR	TR014	1801.50	20Year-Existing	8.00	124.00	124.90	124.90	125.11	0.015816	2.50	5.49	13.46	0.91
DoylesR	TR014	1765.57	20Year-Existing	8.00	123.20	123.72	123.84	124.10	0.058704	3.10	3.70	16.54	1.57
DoylesR	TR014	1703.29	20Year-Existing	8.00	121.82	122.62	122.57	122.81	0.013974	2.21	5.32	16.14	0.84
DoylesR	TR014	1657.91	20Year-Existing	8.00	121.27	122.00	121.99	122.17	0.014491	1.98	5.68	18.52	0.83
DoylesR	TR014	1607.98	20Year-Existing	8.00	120.59	121.39	121.39	121.50	0.011823	1.94	9.30	42.66	0.76
DoylesR	TR014	1544.18	20Year-Existing	8.00	119.81	120.64	120.64	120.76	0.011801	2.02	9.08	40.39	0.77
DoylesR	TR014	1492.70	20Year-Existing	8.00	119.06	119.66	119.72	119.85	0.028258	2.46	6.56	35.88	1.13
DoylesR	TR014	1441.23	20Year-Existing	8.00	117.59	118.53	118.52	118.83	0.020375	2.98	4.60	12.17	1.04
DoylesR	TR014	1420.98	20Year-Existing	8.00	116.98	118.09	117.66	118.14	0.002782	1.25	9.79	13.02	0.40
DoylesR	TR014	1411.86	20Year-Existing	8.00	117.03	118.00	117.65	118.09	0.004961	1.62	6.42	11.88	0.53
DoylesR	TR014	1400		Bridge									
DoylesR	TR014	1384.41	20Year-Existing	9.20	116.71	117.47	117.40	117.70	0.014902	2.25	4.63	9.72	0.87
DoylesR	TR014	1374.60	20Year-Existing	9.20	116.54	117.42		117.54	0.007975	1.75	6.65	11.47	0.64
DoylesR	TR014	1353.25	20Year-Existing	9.20	116.21	117.02	117.02	117.28	0.018920	2.52	4.71	9.52	0.98
DoylesR	TR014	1309.14	20Year-Existing	9.20	115.50	116.36	116.22	116.54	0.009618	1.84	5.19	8.39	0.70
DoylesR	TR014	1296.25	20Year-Existing	9.20	115.12	116.04	116.04	116.33	0.018222	2.73	4.52	7.92	0.98
DoylesR	TR014	1239.25	20Year-Existing	9.20	113.43	114.05	114.22	114.58	0.055922	3.56	3.45	10.65	1.60
DoylesR	TR014	1203.69	20Year-Existing	9.20	112.84	113.64	113.53	113.71	0.009540	1.84	9.59	25.04	0.69
DoylesR	TR014	1182.25	20Year-Existing	9.20	112.53	113.27	113.27	113.43	0.017320	2.28	7.06	20.26	0.92
DoylesR	TR014	1125.25	20Year-Existing	9.20	111.30	112.43	112.21	112.48	0.004234	1.52	12.13	22.88	0.48
DoylesR	TR014	1104.23	20Year-Existing	9.20	111.16	112.11	112.11	112.31	0.015463	2.44	6.45	16.27	0.89
DoylesR	TR014	1094.88	20Year-Existing	9.20	110.55	111.27	111.51	111.99	0.071899	4.60	3.27	9.25	1.86
DoylesR	TR014	1075.36	20Year-Existing	9.20	110.17	111.13	111.20	111.40	0.022050	3.09	6.33	18.15	1.07
DoylesR	TR014	1027.18	20Year-Existing	9.20	109.15	109.95	110.01	110.22	0.027712	2.90	5.57	16.10	1.16
DoylesR	TR014	980.74	20Year-Existing	9.20	107.89	108.90	108.57	108.94	0.003892	1.39	12.14	20.40	0.46
DoylesR	TR014	954.47	20Year-Existing	9.20	107.68	108.53	108.53	108.73	0.018447	2.53	6.58	18.14	0.96
DoylesR	TR014	934.37	20Year-Existing	9.20	106.99	107.84	107.92	108.21	0.031053	3.16	5.01	15.08	1.23
DoylesR	TR014	907.24	20Year-Existing	9.20	106.52	107.40	107.33	107.48	0.010439	2.00	10.24	27.04	0.73
DoylesR	TR014	868.80	20Year-Existing	9.20	105.88	106.73	106.73	106.95	0.018071	2.49	6.16	15.99	0.95
DoylesR	TR014	864.98	20Year-Existing	9.20	105.70	106.59	106.63	106.88	0.020680	2.54	4.64	11.91	1.00
DoylesR	TR014	844.06	20Year-Existing	9.20	105.10	106.21	106.07	106.35	0.008056	2.03	7.13	12.40	0.67
DoylesR	TR014	836.52	20Year-Existing	9.20	104.97	105.98	105.98	106.25	0.017875	2.63	5.08	10.55	0.95
DoylesR	TR014	816.09	20Year-Existing	9.20	104.78	105.55	105.50	105.67	0.013599	1.97	7.85	22.88	0.81
DoylesR	TR014	811.48	20Year-Existing	9.20	104.64	105.54		105.61	0.006726	1.61	10.23	22.22	0.59
DoylesR	TR014	783.28	20Year-Existing	9.20	103.98	105.02	105.02	105.29	0.017589	2.90	5.24	9.66	0.97
DoylesR	TR014	751.27	20Year-Existing	9.20	103.31	104.25	104.31	104.61	0.025784	2.74	3.79	8.46	1.11
DoylesR	TR014	717.94	20Year-Existing	9.20	102.63	103.88	103.88	104.11	0.013060	2.81	6.39	13.08	0.85
DoylesR	TR014	676.43	20Year-Existing	9.20	102.18	103.26	103.22	103.46	0.011615	2.26	6.45	15.70	0.78
DoylesR	TR014	601.44	20Year-Existing	9.20	101.39	102.18	102.18	102.34	0.019086	2.37	6.58	19.30	0.96
DoylesR	TR014	540.83	20Year-Existing	9.20	100.49	102.10	101.40	102.13	0.000951	0.92	19.52	36.98	0.25
DoylesR	TR014	519.25	20Year-Existing	9.20	99.69	102.11	101.37	102.12	0.000104	0.36	58.58	74.38	0.08
DoylesR	TR014	510		Culvert									
DoylesR	TR014	505.00	20Year-Existing	9.20	99.62	101.32	101.32	102.11	0.017778	4.00	2.39	24.86	1.00
DoylesR	TR014	484.27	20Year-Existing	9.20	99.79	100.52	100.77	101.35	0.113526	4.78	2.78	10.16	2.17
DoylesR	TR014	426.15	20Year-Existing	9.20	98.71	99.73	99.73	100.00	0.017300	2.40	4.65	12.16	0.92
DoylesR	TR014	368.05	20Year-Existing	9.20	97.30	98.41	98.53	98.78	0.027150	3.08	4.67	14.04	1.13
DoylesR	TR014	343.01	20Year-Existing	9.20	96.78	98.12	97.63	98.23	0.003159	1.49	6.87	65.59	0.43
DoylesR	TR014	335		Bridge									
DoylesR	TR014	331.91	20Year-Existing	9.20	96.63	97.74	97.74	98.09	0.016778	2.74	3.85	6.55	0.93
DoylesR	TR014	312.09	20Year-Existing	9.20	96.26	97.54	97.57	97.71	0.013774	2.18	7.92	32.13	0.79
DoylesR	TR014	227.09	20Year-Existing	9.20	94.66	96.35	96.04	96.40	0.002773	1.38	14.19	26.55	0.38
DoylesR	TR014	205.76	20Year-Existing	9.20	94.51	96.04	96.04	96.28	0.010724	2.47	6.31	16.24	0.73
DoylesR	TR014	198.96	20Year-Existing	9.20	94.45	95.09	95.36	96.03	0.131122	4.32	2.21	8.07	2.30
DoylesR	TR014	181.77	20Year-Existing	9.20	94.01	95.12	95.12	95.31	0.013362	2.34	7.26	21.18	0.82
DoylesR	TR014	121.12	20Year-Existing	9.20	92.99	94.12	94.20	94.38	0.016146	2.61	7.89	53.94	0.90
DoylesR	TR014	34.73	20Year-Existing	9.20	91.60	92.42	92.47	92.73	0.025355	2.65	4.38	10.36	1.10
DoylesR	TR012	1780.65	20Year-Existing	22.40	90.30	92.07	91.49	92.16	0.002458	1.47	21.49	32.19	0.39
DoylesR	TR012	1753.67	20Year-Existing	22.40	89.56	92.10	90.96	92.12	0.000384	0.84	52.58	61.05	0.17
DoylesR	TR012	1745		Bridge									
DoylesR	TR012	1729.43	20Year-Existing	22.40	89.10	90.81	90.81	91.50	0.015676	3.76	6.30	12.15	0.97
DoylesR	TR012	1709.20	20Year-Existing	22.40	88.93	90.41	90.61	91.08	0.025975	4.24	8.94	19.58	1.21
DoylesR	TR012	1645.76	20Year-Existing	22.40	88.20	89.32	89.32	89.64	0.018172	2.94	10.69	17.34	0.99
DoylesR	TR011	1552.47	20Year-Existing	32.30	86.48	88.50	88.13	88.80	0.006038	2.65	16.33	13.71	0.64
DoylesR	TR011	1530.88	20Year-Existing	32.30	86.19	87.99	87.99	88.58	0.014687	3.84	11.72	10.66	0.98
DoylesR	TR011	1477.56	20Year-Existing	32.30	84.43	85.69	86.10	87.07	0.064021	5.85	7.84	12.83	1.87
DoylesR	TR011	1423.69	20Year-Existing	32.30	83.56	85.29	85.29	85.89	0.015071	3.72	11.13	10.45	0.98
DoylesR	TR011	1370.10	20Year-Existing	32.30	82.66	83.90	84.12	84.62	0.041345	4.81	12.43	29.56	1.53
DoylesR	TR011	1316.51	20Year-Existing	32.30	81.17	82.75	82.75	83.32	0.017678	3.74	11.44	12.64	1.04
DoylesR	TR011	1262.92	20Year-Existing	32.30	79.36	80.92	81.22	81.99	0.034495	5.06	8.81	12.25	1.43
DoylesR	TR011	1209.33	20Year-Existing	32.30	78.14	80.13	80.18	80.78	0.015581	3.94	11.11	11.39	0.99
DoylesR	TR011	1155.74	20Year-Existing	32.30	76.81	78.53	78.84	79.57	0.032053	4.94	8.37	9.21	1.37
DoylesR	TR011	1107.39	20Year-Existing	32.30	76.34	77.87	77.87	78.36	0.015962	3.23	11.50	12.94	0.97

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR011	1057.82	20Year-Existing	32.30	75.16	77.06	77.07	77.60	0.014414	3.51	11.62	12.07	0.93
DoylesR	TR011	971.36	20Year-Existing	32.30	73.33	74.94	74.47	75.17	0.004762	2.11	15.33	18.96	0.55
DoylesR	TR011	960		Bridge									
DoylesR	TR011	949.62	20Year-Existing	32.30	73.08	74.86	74.15	75.03	0.002894	1.82	17.75	14.22	0.45
DoylesR	TR011	929.53	20Year-Existing	32.30	72.74	74.47	74.32	74.86	0.010351	2.96	13.13	12.26	0.80
DoylesR	TR011	872.05	20Year-Existing	32.30	72.26	74.02	74.02	74.24	0.009478	2.81	24.52	54.89	0.76
DoylesR	TR011	816.76	20Year-Existing	32.30	72.00	73.00	72.94	73.08	0.013936	2.25	31.79	93.22	0.82
DoylesR	TR011	760.16	20Year-Existing	32.30	71.25	72.41		72.49	0.010330	2.34	35.70	98.36	0.75
DoylesR	TR011	712.26	20Year-Existing	32.30	70.34	71.72	71.64	71.88	0.013186	2.86	25.17	65.95	0.86
DoylesR	TR011	663.11	20Year-Existing	32.30	70.08	71.42		71.45	0.005543	1.74	49.22	128.48	0.53
DoylesR	TR013	2205.78	20Year-Existing	7.00	95.88	96.62	96.38	96.63	0.001253	0.68	25.87	98.29	0.25
DoylesR	TR013	2147.59	20Year-Existing	7.00	95.87	96.53		96.54	0.001938	0.72	17.48	56.95	0.30
DoylesR	TR013	2097.40	20Year-Existing	7.00	95.86	96.22	96.22	96.29	0.029764	1.73	8.32	64.27	1.06
DoylesR	TR013	2011.99	20Year-Existing	7.00	93.67	94.65	94.49	94.77	0.007315	1.74	5.34	10.68	0.62
DoylesR	TR013	1957.46	20Year-Existing	7.00	93.05	93.97	93.97	94.21	0.016245	2.65	4.22	9.65	0.93
DoylesR	TR013	1909.18	20Year-Existing	7.00	92.33	93.20	93.28	93.40	0.015597	2.35	5.91	36.04	0.88
DoylesR	TR013	1861.01	20Year-Existing	7.00	91.27	92.19	92.33	92.53	0.021531	2.76	3.96	22.57	1.03
DoylesR	TR013	1789.09	20Year-Existing	7.00	90.00	90.53	90.58	90.67	0.029541	2.23	7.09	56.57	1.12
DoylesR	TR013	1733.37	20Year-Existing	7.00	89.53	90.22	90.11	90.24	0.003854	0.94	15.51	74.77	0.42
DoylesR	TR013	1677.65	20Year-Existing	7.00	89.42	89.81		89.85	0.015522	1.30	9.53	55.77	0.77
DoylesR	TR013	1613.85	20Year-Existing	7.00	89.11	89.60		89.61	0.001790	0.53	24.41	96.17	0.27
DoylesR	TR013	1552.30	20Year-Existing	7.00	88.82	89.51		89.52	0.001864	0.73	20.61	67.69	0.30
DoylesR	TR013	1506.96	20Year-Existing	7.00	88.81	89.44		89.45	0.001860	0.69	20.09	64.31	0.30
DoylesR	TR013	1478.17	20Year-Existing	7.00	88.80	89.26		89.31	0.019374	1.60	8.51	41.95	0.88
DoylesR	TR013	1411.61	20Year-Existing	7.00	88.11	89.05		89.07	0.001451	0.76	13.63	29.83	0.28
DoylesR	TR013	1388.58	20Year-Existing	7.00	87.45	89.05	88.80	89.06	0.000108	0.30	54.68	153.08	0.08
DoylesR	TR013	1375		Culvert									
DoylesR	TR013	1373.86	20Year-Existing	7.00	87.32	88.59	88.50	88.67	0.004732	1.73	7.66	14.56	0.51
DoylesR	TR013	1301.72	20Year-Existing	7.00	86.82	87.77	87.77	88.06	0.017494	2.57	3.46	6.70	0.94
DoylesR	TR013	1246.99	20Year-Existing	7.00	85.79	86.62	86.67	86.95	0.023584	2.65	2.98	6.32	1.07
DoylesR	TR013	1192.26	20Year-Existing	7.00	84.79	85.81	85.63	85.95	0.007844	1.83	5.30	10.40	0.64
DoylesR	TR013	1137.53	20Year-Existing	7.00	84.03	85.08	85.06	85.36	0.015037	2.47	3.53	7.05	0.88
DoylesR	TR013	1082.80	20Year-Existing	7.00	83.55	84.42	84.42	84.54	0.013948	1.90	6.27	21.72	0.79
DoylesR	TR013	1064.90	20Year-Existing	7.00	82.57	84.46	83.55	84.48	0.000498	0.66	23.48	105.83	0.17
DoylesR	TR013	1050		Culvert									
DoylesR	TR013	1042.53	20Year-Existing	7.00	82.41	84.15	83.32	84.16	0.000387	0.57	25.41	63.73	0.15
DoylesR	TR013	1022.06	20Year-Existing	7.00	82.71	83.98	83.74	84.12	0.006314	1.97	5.20	7.79	0.60
DoylesR	TR013	969.32	20Year-Existing	7.00	82.40	83.27	83.27	83.55	0.020140	2.75	3.54	6.64	1.01
DoylesR	TR013	915.66	20Year-Existing	7.00	81.80	82.87	82.49	82.88	0.001403	0.86	16.90	38.27	0.28
DoylesR	TR013	867.93	20Year-Existing	7.00	81.40	82.75		82.79	0.002376	1.29	12.14	30.83	0.37
DoylesR	TR013	809.27	20Year-Existing	7.00	81.32	82.48		82.59	0.004973	1.59	5.55	9.16	0.52
DoylesR	TR013	756.07	20Year-Existing	7.00	80.75	81.80	81.80	82.13	0.016295	2.84	3.36	5.48	0.94
DoylesR	TR013	702.82	20Year-Existing	7.00	79.91	80.93	80.93	81.24	0.016921	2.75	3.51	6.45	0.94
DoylesR	TR013	651.60	20Year-Existing	7.00	78.06	78.81	78.98	79.60	0.074018	4.09	1.99	5.33	1.80
DoylesR	TR013	588.74	20Year-Existing	7.00	75.89	76.80	76.83	77.08	0.022720	2.41	3.15	7.29	1.01
DoylesR	TR013	543.29	20Year-Existing	7.00	75.20	75.84	75.93	76.22	0.043056	2.75	2.63	7.12	1.35
DoylesR	TR013	489.08	20Year-Existing	7.00	73.77	74.84	74.84	75.17	0.017149	2.86	3.32	5.46	0.95
DoylesR	TR013	436.90	20Year-Existing	7.00	72.11	72.95	73.29	73.62	0.058893	3.67	2.00	4.55	1.59
DoylesR	TR013	383.70	20Year-Existing	7.00	70.97	72.37	71.82	72.39	0.000768	0.72	21.82	80.49	0.21
DoylesR	TR013	363.75	20Year-Existing	7.00	70.36	71.90	71.90	72.31	0.009666	3.03	3.24	9.00	0.79
DoylesR	TR013	360		Culvert									
DoylesR	TR013	344.87	20Year-Existing	7.00	70.32	71.70	71.70	71.71	0.000578	0.62	24.34	48.31	0.17
DoylesR	TR013	324.16	20Year-Existing	7.00	70.29	70.84	70.97	71.48	0.157597	4.41	3.02	30.22	2.44
DoylesR	TR013	256.30	20Year-Existing	7.00	69.36	70.27	70.27	70.35	0.014555	1.97	8.67	44.99	0.77
DoylesR	TR013	236.50	20Year-Existing	7.00	69.35	70.17	69.96	70.17	0.000907	0.42	31.46	115.47	0.19
DoylesR	TR013	162.98	20Year-Existing	7.00	68.94	70.12		70.12	0.000858	0.55	27.92	108.72	0.20
DoylesR	TR013	133.14	20Year-Existing	7.00	68.76	70.10		70.11	0.000242	0.30	46.42	112.16	0.11
DoylesR	TR013	66.14	20Year-Existing	7.00	68.46	70.09		70.09	0.000248	0.36	35.82	111.26	0.11
DoylesR	M001	484.12	20Year-Existing	39.30	68.08	69.66	69.60	69.83	0.015145	2.83	29.12	86.67	0.87
DoylesR	M001	429.44	20Year-Existing	39.30	67.72	69.49		69.52	0.002751	1.35	62.17	124.44	0.38
DoylesR	M001	388.03	20Year-Existing	39.30	67.53	69.40		69.42	0.002156	1.26	73.98	138.08	0.34
DoylesR	M001	344.78	20Year-Existing	39.30	67.39	69.38		69.38	0.000390	0.57	150.17	211.81	0.15
DoylesR	M001	215.64	20Year-Existing	39.30	67.21	69.37		69.37	0.000038	0.20	350.54	333.69	0.05
DoylesR	M001	77.13	20Year-Existing	39.30	66.62	69.37		69.37	0.000010	0.13	625.78	512.81	0.03
CochranePB	M002	8105.53	20Year-Existing	11.10	140.65	142.18	141.31	142.19	0.000163	0.34	71.26	101.13	0.10
CochranePB	M002	8065.47	20Year-Existing	11.10	140.64	142.16		142.17	0.000928	0.72	34.87	74.12	0.22
CochranePB	M002	8050.98	20Year-Existing	11.10	140.00	142.13		142.16	0.000307	0.87	26.82	60.65	0.24
CochranePB	M002	8024.09	20Year-Existing	11.10	140.62	142.13		142.14	0.001327	0.82	32.24	83.78	0.27
CochranePB	M002	8013.06	20Year-Existing	11.10	140.42	142.12		142.13	0.000738	0.69	37.19	76.23	0.20
CochranePB	M002	8004.70	20Year-Existing	11.10	140.25	142.12	141.80	142.12	0.000446	0.71	50.58	103.90	0.17
CochranePB	M002	8000		Culvert									
CochranePB	M002	7995.14	20Year-Existing	11.10	140.37	142.11	141.46	142.12	0.000276	0.54	48.43	76.09	0.14
CochranePB	M002	7964.49	20Year-Existing	11.10	140.14	141.70	141.70	142.06	0.016781	3.12	5.79	9.34	0.90
CochranePB	M002	7901.64	20Year-Existing	11.10	139.30	140.78	140.81	141.02	0.015342	2.44	7.97	28.45	0.82
CochranePB	M002	7847.08	20Year-Existing	11.10	138.68	139.80	139.64	139.84	0.007304	1.39	16.63	50.76	0.55
CochranePB	M002	7812.33	20Year-Existing	11.10	138.52	139.30	139.30	139.40	0.031621	2.04	10.98	53.86	1.10
CochranePB	M002	7738.34	20Year-Existing	11.10	137.94	138.91	138.69	138.92	0.002453	0.73	34.05	126.20	0.33
CochranePB	M002	7695.32	20Year-Existing	11.10	137.67	138.56	138.56	138.69	0.023250	1.97	9.64	39.88	0.98
CochranePB	M002	7609.21	20Year-Existing	11.10	136.29	137.74	137.32	137.75	0.000855	0.67	32.50	71.79	0.22
CochranePB	M002	7515.77	20Year-Existing	11.10	136.28	137.62		137.64	0.002106	0.98	26.19	93.71	0.33
CochranePB	M002	7476.72	20Year-Existing	11.10	136.26	137.59		137.60	0.000626	0.53	39.00	90.62	0.18
CochranePB	M002	7450.86	20Year-Existing	11.10	136.25	137.56		137.58	0.001270	0.72	29.08	83.10	0.26
CochranePB	M002	7329.89	20Year-Existing	11.10	136.23	137.27		137.30	0.004840	1.13	18.72	74.54	0.47
CochranePB	M002	7253.62	20Year-Existing	11.10	136.05	137.09		137.10	0.002115	0.79	27.48	93.33	0.31
CochranePB	M002	7208.54	20Year-Existing	11.10	135.88	136.99		137.00	0.002490	0.89	26.70	100.11	0.34

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	7108.13	20Year-Existing	11.10	135.54	136.46		136.53	0.016511	1.97	13.02	58.83	0.83
CochranePB	M002	7041.67	20Year-Existing	11.10	134.91	136.12	136.00	136.15	0.003461	1.06	20.42	83.18	0.41
CochranePB	M002	6985.71	20Year-Existing	11.10	134.29	135.47	135.47	135.76	0.020223	2.70	6.82	22.56	0.98
CochranePB	M002	6955.25	20Year-Existing	11.10	133.48	134.70	134.76	135.04	0.026449	2.69	4.91	11.76	1.09
CochranePB	M002	6863.52	20Year-Existing	11.10	131.82	132.83	132.83	132.96	0.020434	2.22	10.32	37.59	0.94
CochranePB	M002	6840.09	20Year-Existing	11.10	131.19	132.17	132.17	132.30	0.021777	2.09	9.77	37.52	0.96
CochranePB	M002	6808.25	20Year-Existing	11.10	130.51	131.43	131.43	131.54	0.026214	2.10	10.15	41.36	1.02
CochranePB	M002	6767.75	20Year-Existing	11.10	129.31	130.29	130.34	130.46	0.026278	2.27	8.92	42.22	1.06
CochranePB	M002	6727.78	20Year-Existing	11.10	128.36	129.46	129.47	129.62	0.020918	2.23	8.87	33.35	0.94
CochranePB	M002	6691.71	20Year-Existing	11.10	127.96	129.03	128.92	129.08	0.006808	1.31	17.49	70.79	0.55
CochranePB	M002	6651.54	20Year-Existing	11.10	127.68	128.63		128.71	0.013109	1.41	10.13	36.81	0.73
CochranePB	M002	6630.83	20Year-Existing	11.10	127.19	128.41	128.35	128.51	0.007806	1.58	12.32	51.76	0.61
CochranePB	M002	6534.50	20Year-Existing	11.10	126.30	127.25	127.25	127.37	0.020022	1.93	9.98	48.40	0.92
CochranePB	M002	6507.97	20Year-Existing	11.10	125.65	126.57	126.60	126.69	0.031100	2.17	10.02	55.23	1.09
CochranePB	M002	6480.50	20Year-Existing	11.10	124.97	125.91	125.91	126.00	0.019909	1.92	11.82	55.12	0.90
CochranePB	M002	6433.33	20Year-Existing	11.10	124.09	125.03	125.03	125.16	0.021187	1.81	8.64	35.78	0.93
CochranePB	M002	6400.96	20Year-Existing	11.10	123.40	124.55	124.34	124.59	0.004983	1.15	16.32	45.54	0.47
CochranePB	M002	6364.18	20Year-Existing	11.10	123.28	124.54		124.55	0.000305	0.34	45.19	108.30	0.13
CochranePB	M002	6314.31	20Year-Existing	11.10	123.27	124.49		124.51	0.002082	0.84	20.83	53.59	0.32
CochranePB	M002	6286.25	20Year-Existing	11.10	123.26	124.40		124.44	0.003288	1.00	17.85	57.65	0.40
CochranePB	M002	6202.53	20Year-Existing	11.10	122.81	124.06	123.89	124.13	0.005514	1.41	13.18	37.19	0.52
CochranePB	M002	6130.00	20Year-Existing	11.10	122.30	123.26	123.26	123.43	0.023024	1.83	6.68	24.79	0.96
CochranePB	M002	6040.82	20Year-Existing	11.10	121.41	122.58	122.43	122.61	0.003178	1.04	21.46	74.56	0.40
CochranePB	M002	6006.95	20Year-Existing	11.10	121.40	122.53		122.54	0.001125	0.51	29.35	96.14	0.23
CochranePB	M002	5976.09	20Year-Existing	11.10	121.39	122.39		122.46	0.013710	1.52	13.86	71.21	0.75
CochranePB	M002	5910.40	20Year-Existing	11.10	120.29	121.47	121.47	121.61	0.015130	2.08	10.00	38.58	0.83
CochranePB	M002	5863.68	20Year-Existing	11.10	119.62	120.60	120.58	120.71	0.015323	1.69	10.34	43.94	0.80
CochranePB	M002	5811.63	20Year-Existing	11.10	118.87	119.93	119.93	120.04	0.015372	1.94	11.33	50.21	0.83
CochranePB	M002	5768.42	20Year-Existing	11.10	117.38	118.31	118.46	118.77	0.079527	3.03	3.85	16.55	1.73
CochranePB	M002	5725.36	20Year-Existing	11.10	116.48	117.57	117.57	117.71	0.016162	1.94	9.06	38.16	0.84
CochranePB	M002	5678.58	20Year-Existing	11.10	115.39	116.45	116.49	116.69	0.027213	2.24	5.74	22.22	1.07
CochranePB	M002	5627.04	20Year-Existing	11.10	114.79	116.14	115.79	116.18	0.002523	1.02	19.26	44.43	0.36
CochranePB	M002	5609.94	20Year-Existing	16.70	114.77	115.98		116.06	0.006966	1.50	17.35	44.10	0.58
CochranePB	M002	5601.00	20Year-Existing	16.70	114.76	115.92		115.93	0.001850	0.75	43.73	108.67	0.29
CochranePB	M002	5568.52	20Year-Existing	16.70	114.75	115.87		115.88	0.001433	0.64	43.26	94.61	0.26
CochranePB	M002	5508.20	20Year-Existing	16.70	114.04	115.60		115.72	0.004683	1.58	13.10	21.37	0.51
CochranePB	M002	5473.67	20Year-Existing	16.70	113.90	115.22	115.22	115.44	0.015280	2.37	10.98	26.55	0.87
CochranePB	M002	5403.83	20Year-Existing	16.70	110.69	111.83	112.19	113.09	0.106141	5.04	3.61	8.77	2.15
CochranePB	M002	5352.19	20Year-Existing	16.70	110.27	111.59	111.55	111.81	0.015899	2.32	9.91	20.74	0.88
CochranePB	M002	5309.83	20Year-Existing	16.70	109.64	111.09	111.09	111.25	0.010781	2.09	14.95	50.06	0.74
CochranePB	M002	5266.90	20Year-Existing	16.70	109.30	110.59	110.62	110.74	0.014519	2.22	17.25	77.31	0.83
CochranePB	M002	5213.45	20Year-Existing	16.70	108.81	110.32	109.84	110.34	0.001176	0.74	40.60	79.87	0.25
CochranePB	M002	5162.38	20Year-Existing	31.70	108.18	109.92	109.92	110.15	0.012058	2.88	24.26	50.85	0.83
CochranePB	M002	5109.83	20Year-Existing	31.70	108.02	109.44	109.12	109.48	0.004206	1.25	47.98	100.73	0.45
CochranePB	M002	5059.83	20Year-Existing	31.70	107.54	109.18		109.27	0.005968	1.84	38.14	87.25	0.57
CochranePB	M002	5013.20	20Year-Existing	31.70	107.21	108.80	108.80	108.95	0.012127	2.26	30.80	96.40	0.78
CochranePB	M002	4977.38	20Year-Existing	31.70	107.07	108.70	108.41	108.73	0.001955	1.05	67.27	146.27	0.33
CochranePB	M002	4908.49	20Year-Existing	31.70	106.95	108.67		108.67	0.000600	0.64	111.38	194.83	0.19
CochranePB	M002	4883.44	20Year-Existing	31.70	106.94	108.65		108.66	0.000343	0.47	131.06	199.32	0.14
CochranePB	M002	4816.97	20Year-Existing	31.70	106.93	108.64		108.64	0.000331	0.47	134.59	221.20	0.14
CochranePB	M002	4757.22	20Year-Existing	31.70	106.78	108.63		108.63	0.000232	0.43	156.14	253.90	0.12
CochranePB	M002	4718.65	20Year-Existing	31.70	106.77	108.62		108.62	0.000348	0.53	139.63	315.18	0.15
CochranePB	M002	4674.22	20Year-Existing	31.70	106.76	108.59		108.60	0.000919	0.86	93.99	264.71	0.24
CochranePB	M002	4633.22	20Year-Existing	31.70	106.75	108.57		108.58	0.000386	0.54	87.54	167.05	0.15
CochranePB	M002	4561.03	20Year-Existing	31.70	106.74	108.50		108.53	0.001328	0.97	53.91	95.54	0.28
CochranePB	M002	4506.74	20Year-Existing	31.70	106.43	108.15	108.15	108.36	0.009933	2.43	23.51	54.94	0.74
CochranePB	M002	4459.83	20Year-Existing	31.70	105.66	107.26	107.38	107.69	0.020210	3.17	15.30	44.07	1.04
CochranePB	M002	4409.53	20Year-Existing	31.70	104.62	106.25	106.36	106.68	0.020381	3.18	14.46	29.97	1.03
CochranePB	M002	4359.83	20Year-Existing	31.70	103.72	105.45	105.45	105.81	0.014458	2.86	15.49	33.54	0.88
CochranePB	M002	4327.93	20Year-Existing	31.70	103.17	105.05	105.03	105.35	0.010907	2.61	16.77	29.71	0.78
CochranePB	M002	4265.56	20Year-Existing	31.70	102.45	104.20	104.20	104.54	0.015504	3.02	16.12	26.18	0.92
CochranePB	M002	4208.11	20Year-Existing	31.70	101.67	103.34	103.38	103.68	0.014306	2.78	15.76	31.80	0.88
CochranePB	M002	4159.83	20Year-Existing	31.70	101.12	102.18	102.22	102.43	0.058903	2.93	15.82	47.96	1.53
CochranePB	M002	4109.83	20Year-Existing	31.70	98.84	100.48	100.59	100.92	0.018479	3.23	15.28	37.41	1.01
CochranePB	M002	4056.00	20Year-Existing	31.70	97.18	98.76	98.97	99.51	0.035545	4.13	9.87	16.29	1.35
CochranePB	M002	4009.83	20Year-Existing	31.70	96.33	98.23	98.26	98.43	0.012296	2.82	26.29	65.84	0.80
CochranePB	M002	3969.03	20Year-Existing	31.70	95.62	97.37	97.56	97.85	0.015952	3.29	12.83	36.26	0.96
CochranePB	M002	3916.58	20Year-Existing	31.70	94.82	96.98	97.01	97.20	0.007980	2.47	25.42	80.68	0.66
CochranePB	M002	3859.82	20Year-Existing	31.70	94.34	96.06	96.07	96.54	0.017494	3.10	10.67	13.45	0.97
CochranePB	M002	3810.05	20Year-Existing	31.70	93.50	95.42	95.48	95.80	0.012004	2.96	14.55	32.43	0.83
CochranePB	M002	3759.83	20Year-Existing	31.70	93.00	94.63	94.76	95.03	0.018102	3.21	17.15	54.17	1.00
CochranePB	M002	3709.28	20Year-Existing	31.70	92.33	94.13	94.14	94.33	0.009864	2.47	24.11	69.03	0.74
CochranePB	M002	3661.60	20Year-Existing	31.70	92.05	93.82	93.79	93.93	0.005929	1.96	38.90	136.26	0.58
CochranePB	M002	3609.83	20Year-Existing	31.70	91.73	93.37	93.37	93.53	0.010681	2.37	28.03	108.02	0.75
CochranePB	M002	3559.90	20Year-Existing	31.70	90.87	92.85	92.86	93.04	0.007380	2.40	28.97	81.73	0.65
CochranePB	M002	3509.83	20Year-Existing	31.70	90.38	92.17	92.28	92.52	0.014734	3.23	20.58	58.47	0.91
CochranePB	M002	3493.23	20Year-Existing	31.70	90.02	92.15	91.69	92.36	0.004701	2.51	19.82	15.57	0.56
CochranePB	M002	3480		Bridge									
CochranePB	M002	3474.26	20Year-Existing	31.70	89.91	92.16	91.33	92.28	0.002026	1.77	24.94	16.62	0.38
CochranePB	M002	3466.43	20Year-Existing	31.70	90.00	91.72	91.43	92.16	0.008375	3.06	15.65	38.44	0.75
CochranePB	M002	3454.35	20Year-Existing	31.70	89.94	91.82	91.29	92.01	0.003864	2.13	19.13	16.40	0.51
CochranePB	M002	3450		Bridge									
CochranePB	M002	3434.16	20Year-Existing	34.70	90.36	91.69	91.44	91.93	0.007406	2.33	17.77	20.27	0.67
CochranePB	M002	3413.11	20Year-Existing	34.70	90.14	91.61		91.71	0.007489	2.14	37.76	92.10	0.65
CochranePB	M002	3391.58	20Year-Existing	34.70	90.03	91.50		91.56	0.005396	1.88	44.87	101.96	0.56

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	3371.12	20Year-Existing	34.70	90.02	91.25	91.18	91.41	0.010612	2.32	31.53	90.66	0.77
CochranePB	M002	3309.87	20Year-Existing	34.70	89.28	90.65		90.73	0.011109	2.39	36.83	102.76	0.75
CochranePB	M002	3272.96	20Year-Existing	34.70	88.73	90.27	90.18	90.38	0.007918	2.09	34.21	83.04	0.65
CochranePB	M002	3219.09	20Year-Existing	34.70	88.30	89.73	89.73	89.87	0.012602	2.44	31.31	106.54	0.81
CochranePB	M002	3175.54	20Year-Existing	34.70	87.36	89.37	89.16	89.49	0.003638	1.83	32.27	64.23	0.47
CochranePB	M002	3165		Bridge									
CochranePB	M002	3157.85	20Year-Existing	34.70	87.50	89.16	89.08	89.38	0.007230	2.36	26.17	73.10	0.65
CochranePB	M002	3135.32	20Year-Existing	34.70	87.85	89.10	89.01	89.15	0.005157	1.47	52.64	153.95	0.51
CochranePB	M002	3106.53	20Year-Existing	34.70	87.94	88.78	88.78	88.88	0.035461	2.41	27.72	117.43	1.18
CochranePB	M002	3088.94	20Year-Existing	34.70	86.84	88.65	88.04	88.70	0.001375	1.13	61.00	157.27	0.29
CochranePB	M002	3080		Bridge									
CochranePB	M002	3075.67	20Year-Existing	34.70	86.74	88.33	87.91	88.38	0.001743	1.16	54.64	129.45	0.33
CochranePB	M002	3056.89	20Year-Existing	34.70	87.66	88.27		88.31	0.013057	0.81	36.96	122.68	0.62
CochranePB	M002	3007.54	20Year-Existing	34.70	87.61	87.96		87.98	0.004043	0.35	51.67	108.12	0.27
CochranePB	M002	2976.31	20Year-Existing	34.70	87.51	87.86		87.88	0.003769	0.40	53.67	120.89	0.30
CochranePB	M002	2941.08	20Year-Existing	34.70	86.98	87.77		87.78	0.002500	0.64	77.73	222.33	0.31
CochranePB	M002	2920.10	20Year-Existing	34.70	86.74	87.75	87.54	87.76	0.000275	0.27	167.76	295.33	0.10
CochranePB	M002	2915		Bridge									
CochranePB	M002	2912.75	20Year-Existing	34.70	86.97	87.75	87.75	87.75	0.000166	0.23	200.70	313.30	0.09
CochranePB	M002	2890.23	20Year-Existing	34.70	86.65	86.81	86.97	87.52	0.672015	3.26	9.26	69.66	3.72
CochranePB	M002	2823.99	20Year-Existing	34.70	86.08	87.08	86.74	87.09	0.001467	0.57	98.35	252.36	0.23
CochranePB	M002	2789.49	20Year-Existing	34.70	86.04	87.06		87.06	0.001248	0.50	101.51	255.88	0.22
CochranePB	M002	2741.30	20Year-Existing	34.70	85.71	87.00		87.01	0.001039	0.64	107.58	268.49	0.23
CochranePB	M002	2663.79	20Year-Existing	34.70	85.58	86.95		86.96	0.001101	0.72	104.33	263.43	0.24
CochranePB	M002	2639.38	20Year-Existing	34.70	85.57	86.92		86.93	0.001387	0.76	95.41	237.42	0.27
CochranePB	M002	2616.24	20Year-Existing	34.70	85.30	86.90		86.91	0.000801	0.68	111.99	231.32	0.21
CochranePB	M002	2539.69	20Year-Existing	34.70	85.41	86.85		86.86	0.001396	0.79	91.76	222.14	0.27
CochranePB	M002	2489.06	20Year-Existing	34.70	85.18	86.80		86.82	0.001500	0.94	85.57	200.66	0.29
CochranePB	M002	2438.28	20Year-Existing	34.70	84.87	86.74		86.76	0.001523	1.03	80.18	174.67	0.30
CochranePB	M002	2384.01	20Year-Existing	34.70	84.65	86.64		86.67	0.002223	1.33	66.80	140.18	0.36
CochranePB	M002	2310.47	20Year-Existing	34.70	84.33	86.40		86.46	0.004148	1.76	49.40	119.48	0.47
CochranePB	M002	2284.63	20Year-Existing	34.70	84.16	86.32		86.36	0.003188	1.56	53.20	100.53	0.40
CochranePB	M002	2240.58	20Year-Existing	34.70	84.04	85.86	85.86	86.10	0.012442	2.86	23.35	44.44	0.82
CochranePB	M002	2170.94	20Year-Existing	34.70	82.26	83.93	84.17	84.73	0.033729	4.27	10.53	16.56	1.34
CochranePB	M002	2136.89	20Year-Existing	34.70	81.72	83.45	83.48	83.84	0.016301	2.96	15.22	25.08	0.94
CochranePB	M002	2100.01	20Year-Existing	34.70	81.30	83.27	83.11	83.42	0.006650	2.14	27.22	42.00	0.61
CochranePB	M002	2046.85	20Year-Existing	34.70	80.89	82.51	82.51	82.87	0.016875	2.83	15.98	31.31	0.94
CochranePB	M002	2014.35	20Year-Existing	34.70	80.47	82.17	82.01	82.31	0.007221	1.92	26.39	43.91	0.62
CochranePB	M002	1990.76	20Year-Existing	34.70	80.10	81.82	81.82	82.07	0.014072	2.71	21.70	42.99	0.86
CochranePB	M002	1945.20	20Year-Existing	34.70	79.43	81.53	81.11	81.61	0.003316	1.62	38.86	51.56	0.44
CochranePB	M002	1916.67	20Year-Existing	34.70	79.31	81.40		81.49	0.004457	1.88	34.31	43.74	0.51
CochranePB	M002	1871.48	20Year-Existing	34.70	79.28	81.23		81.30	0.003819	1.58	37.39	48.83	0.46
CochranePB	M002	1836.03	20Year-Existing	34.70	78.83	81.17		81.21	0.001597	1.24	48.63	72.00	0.31
CochranePB	M002	1788.63	20Year-Existing	34.70	78.46	80.51	80.51	80.99	0.018218	3.72	16.26	25.78	1.00
CochranePB	M002	1768.08	20Year-Existing	34.70	78.14	80.23	80.17	80.52	0.010423	2.92	20.14	28.26	0.77
CochranePB	M002	1733.19	20Year-Existing	34.70	77.95	79.89	79.89	80.15	0.010121	2.62	22.47	47.91	0.76
CochranePB	M002	1694.89	20Year-Existing	34.70	77.12	79.23	78.71	79.31	0.002889	1.55	35.16	41.78	0.42
CochranePB	M002	1685.79	20Year-Existing	34.70	77.06	79.18		79.28	0.003848	1.80	30.77	37.96	0.48
CochranePB	M002	1640.51	20Year-Existing	34.70	76.45	78.58	78.58	78.97	0.011350	3.10	16.84	25.71	0.82
CochranePB	M002	1602.99	20Year-Existing	34.70	75.01	76.40	76.85	77.92	0.095096	5.64	7.18	14.91	2.13
CochranePB	M002	1585.52	20Year-Existing	34.70	74.01	75.33	75.61	76.25	0.075349	4.62	9.61	20.94	1.87
CochranePB	M002	1569.47	20Year-Existing	34.70	73.71	75.05	75.10	75.39	0.026537	2.69	14.34	27.66	1.11
CochranePB	M002	1541.97	20Year-Existing	34.70	72.31	74.02	74.17	74.62	0.027531	3.72	11.92	18.29	1.20
CochranePB	M002	1510.83	20Year-Existing	34.70	71.34	73.03	72.75	73.17	0.005789	1.70	22.24	28.43	0.56
CochranePB	M002	1495.27	20Year-Existing	34.70	71.19	72.98		73.08	0.004195	1.49	30.66	41.91	0.48
CochranePB	M002	1458.62	20Year-Existing	34.70	70.58	72.46	72.43	72.76	0.014561	3.37	22.00	41.92	0.91
CochranePB	M002	1419.61	20Year-Existing	34.70	70.21	72.11		72.31	0.008459	2.54	24.08	36.59	0.70
CochranePB	M002	1384.56	20Year-Existing	34.70	69.61	71.84	71.52	72.07	0.005675	2.33	23.15	52.00	0.59
CochranePB	M002	1351.51	20Year-Existing	34.70	69.54	71.64	71.64	71.86	0.007120	2.54	27.78	76.41	0.66
CochranePB	M002	1311.78	20Year-Existing	34.70	69.49	71.38	71.39	71.55	0.007315	2.38	33.97	106.78	0.66
CochranePB	M002	1291.19	20Year-Existing	34.70	69.28	70.94	71.07	71.31	0.018376	3.29	21.33	83.16	0.99
CochranePB	M002	1217.75	20Year-Existing	34.70	68.70	70.76	70.12	70.80	0.001124	1.05	59.62	103.89	0.27
CochranePB	M002	1200.39	20Year-Existing	34.70	68.69	70.55	70.07	70.75	0.004482	2.00	18.05	18.71	0.53
CochranePB	M002	1190		Bridge									
CochranePB	M002	1185.68	20Year-Existing	35.50	68.46	70.52	69.75	70.66	0.002482	1.70	21.41	25.44	0.41
CochranePB	M002	1164.32	20Year-Existing	35.50	68.65	70.33	70.33	70.56	0.007813	2.55	25.55	66.40	0.69
CochranePB	M002	1132.60	20Year-Existing	35.50	68.60	69.81	69.89	70.11	0.026809	3.07	22.10	100.53	1.15
CochranePB	M002	1111.68	20Year-Existing	35.50	68.55	69.82	69.55	69.86	0.004369	1.47	54.67	153.17	0.49
CochranePB	M002	1059.95	20Year-Existing	35.50	68.38	69.63		69.69	0.005015	1.77	48.94	135.57	0.54
CochranePB	M002	998.99	20Year-Existing	35.50	68.13	69.41		69.43	0.003187	1.40	62.21	170.21	0.42
CochranePB	M002	955.54	20Year-Existing	35.50	68.12	69.39		69.39	0.000283	0.41	165.35	254.92	0.13
CochranePB	M002	851.16	20Year-Existing	35.50	67.62	69.38		69.38	0.000132	0.34	203.94	244.53	0.09
CochranePB	M002	798.06	20Year-Existing	35.50	67.47	69.38		69.38	0.000065	0.25	267.50	278.90	0.06
CochranePB	M002	746.77	20Year-Existing	35.50	67.30	69.37		69.37	0.000026	0.18	366.56	317.60	0.04
CochranePB	M002	694.52	20Year-Existing	35.50	66.98	69.37		69.37	0.000016	0.15	447.14	360.75	0.03
CochranePB	M002	669.16	20Year-Existing	35.50	66.97	69.37		69.37	0.000013	0.13	498.57	390.24	0.03
CochranePB	M002	590.19	20Year-Existing	35.50	66.84	69.37		69.37	0.000009	0.11	593.11	464.06	0.03
CochranePB	M002	539.85	20Year-Existing	35.50	66.81	69.37		69.37	0.000009	0.11	604.60	479.48	0.02
CochranePB	M002	488.40	20Year-Existing	35.50	66.54	69.37		69.37	0.000007	0.10	645.12	491.86	0.02
CochranePB	M001	381.27	20Year-Existing	71.10	66.35	69.37		69.37	0.000022	0.21	743.59	584.71	0.04
CochranePB	M001	313.14	20Year-Existing	71.10	66.28	69.37		69.37	0.000015	0.16	881.66	653.29	0.03

Petty Harbour River 20yr n+20%

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	TR001	439.21	20Year-Existing	26.90	105.11	106.34	106.14	106.43	0.005399	1.85	29.72	56.26	0.57
RaymondB	TR001	409.42	20Year-Existing	26.90	104.68	105.89	105.89	106.17	0.014209	2.96	16.55	29.03	0.91
RaymondB	TR001	380.07	20Year-Existing	26.90	104.05	105.64	105.05	105.72	0.002265	1.45	32.66	48.25	0.38
RaymondB	TR001	360.64	20Year-Existing	26.90	103.60	105.64	104.88	105.68	0.001016	1.12	49.34	70.95	0.26
RaymondB	TR001	350		Bridge									
RaymondB	TR001	344.45	20Year-Existing	26.90	103.30	104.53	104.92	105.39	0.037011	4.75	8.67	20.56	1.44
RaymondB	TR001	334.13	20Year-Existing	26.90	103.40	104.30	104.57	104.95	0.035529	3.76	9.47	30.61	1.36
RaymondB	TR001	272.22	20Year-Existing	26.90	102.83	103.81	103.81	104.07	0.018266	2.88	16.55	37.29	1.00
RaymondB	TR001	218.50	20Year-Existing	26.90	101.42	102.62	102.73	103.08	0.017639	3.26	12.33	24.62	1.01
RaymondB	TR001	163.97	20Year-Existing	26.90	100.32	101.69	101.23	101.82	0.003740	1.64	20.35	24.07	0.48
RaymondB	TR001	115.54	20Year-Existing	26.90	100.00	101.10	101.10	101.45	0.017278	3.15	13.15	20.05	1.00
RaymondB	TR001	56.65	20Year-Existing	26.90	97.73	98.41	98.72	99.43	0.086459	4.77	6.90	15.48	2.03
RaymondB	M002	6453.60	20Year-Existing	17.20	118.10	125.20	118.86	125.20	0.000000	0.03	658.89	233.09	0.00
RaymondB	M002	6405.52	20Year-Existing	17.20	118.00	125.20		125.20	0.000000	0.03	669.28	227.58	0.00
RaymondB	M002	6347.04	20Year-Existing	17.20	124.73	125.14		125.19	0.006430	1.05	16.56	41.33	0.52
RaymondB	M002	6247.26	20Year-Existing	17.20	117.21	118.23		118.29	0.003754	1.36	22.07	34.83	0.46
RaymondB	M002	6230.10	20Year-Existing	17.20	117.20	118.22		118.25	0.001690	0.89	27.40	42.36	0.30
RaymondB	M002	6205.35	20Year-Existing	17.20	117.28	118.19		118.20	0.001547	0.79	37.88	59.47	0.29
RaymondB	M002	6143.06	20Year-Existing	17.20	117.18	118.07		118.09	0.002261	0.93	33.52	62.33	0.34
RaymondB	M002	6105.93	20Year-Existing	17.20	117.17	117.94		117.98	0.003281	1.00	24.94	58.75	0.40
RaymondB	M002	6026.35	20Year-Existing	17.20	116.81	117.74		117.76	0.002115	0.93	29.28	46.33	0.33
RaymondB	M002	5933.71	20Year-Existing	17.20	116.42	117.46		117.52	0.003251	1.27	22.48	54.73	0.43
RaymondB	M002	5883.92	20Year-Existing	17.20	116.12	117.23		117.33	0.004311	1.50	15.66	27.73	0.49
RaymondB	M002	5785.15	20Year-Existing	17.20	115.75	116.78		116.87	0.005153	1.51	16.33	30.24	0.53
RaymondB	M002	5732.44	20Year-Existing	17.20	115.46	116.44		116.56	0.006358	1.62	12.95	24.96	0.58
RaymondB	M002	5631.37	20Year-Existing	17.20	114.85	115.72		115.81	0.008797	1.65	17.60	45.23	0.66
RaymondB	M002	5500.15	20Year-Existing	17.20	114.62	115.62		115.63	0.000709	0.55	60.99	127.56	0.19
RaymondB	M002	5485.46	20Year-Existing	17.20	114.53	115.61		115.62	0.000440	0.48	76.11	162.26	0.16
RaymondB	M002	5411.19	20Year-Existing	17.20	114.48	115.54	115.17	115.57	0.001366	0.80	32.84	67.01	0.27
RaymondB	M002	5338.54	20Year-Existing	17.20	114.41	115.54	114.77	115.54	0.000104	0.24	84.78	109.56	0.08
RaymondB	M002	5278.93	20Year-Existing	17.20	114.44	115.53	114.81	115.53	0.000151	0.28	75.09	110.40	0.09
RaymondB	M002	5226.60	20Year-Existing	17.20	114.42	115.52		115.52	0.000171	0.29	80.35	126.74	0.10
RaymondB	M002	5171.66	20Year-Existing	17.20	114.42	115.51		115.51	0.000175	0.30	93.40	176.18	0.10
RaymondB	M002	5111.50	20Year-Existing	17.20	114.42	115.49		115.50	0.000601	0.56	51.08	108.53	0.18
RaymondB	M002	5077.48	20Year-Existing	17.20	114.38	115.47		115.48	0.000547	0.53	44.32	79.09	0.18
RaymondB	M002	5017.13	20Year-Existing	17.20	114.40	115.35		115.41	0.003000	1.11	16.98	26.91	0.40
RaymondB	M002	4967.43	20Year-Existing	17.20	114.07	115.08		115.20	0.005669	1.59	11.82	17.72	0.55
RaymondB	M002	4943.43	20Year-Existing	17.20	113.82	114.97		115.08	0.004804	1.61	14.67	24.50	0.52
RaymondB	M002	4910.95	20Year-Existing	17.20	113.67	114.82		114.92	0.004587	1.59	15.96	28.77	0.51
RaymondB	M002	4851.17	20Year-Existing	17.20	113.47	114.53		114.63	0.005156	1.59	15.86	30.13	0.53
RaymondB	M002	4783.73	20Year-Existing	17.20	113.30	114.22		114.29	0.004783	1.26	17.22	35.85	0.49
RaymondB	M002	4732.68	20Year-Existing	17.20	113.07	113.95		114.01	0.005752	1.35	19.55	43.14	0.54
RaymondB	M002	4681.76	20Year-Existing	17.20	112.35	113.30	113.30	113.55	0.013679	2.41	9.60	27.86	0.86
RaymondB	M002	4673.96	20Year-Existing	17.20	111.74	112.58	112.82	113.32	0.050419	4.01	5.28	12.05	1.58
RaymondB	M002	4644.78	20Year-Existing	17.20	110.49	111.38	111.57	112.03	0.037193	3.71	5.38	22.01	1.38
RaymondB	M002	4625.72	20Year-Existing	17.20	106.75	107.29	107.82	110.14	0.412171	7.48	2.31	6.82	4.05
RaymondB	M002	4615.42	20Year-Existing	17.20	105.83	106.54	106.87	107.69	0.106656	4.87	3.95	9.76	2.20
RaymondB	M002	4607.06	20Year-Existing	17.20	105.79	106.98	106.86	107.28	0.011064	2.54	8.01	9.65	0.80
RaymondB	M002	4597.34	20Year-Existing	17.20	105.76	106.95		107.15	0.009121	2.18	10.61	16.44	0.71
RaymondB	M002	4575.18	20Year-Existing	17.20	105.98	106.54	106.54	106.78	0.043386	2.57	8.53	19.63	1.32
RaymondB	M002	4545.57	20Year-Existing	17.20	104.65	105.77	105.82	106.08	0.014563	2.68	9.43	23.89	0.90
RaymondB	M002	4522.17	20Year-Existing	17.20	103.67	104.38	104.68	105.34	0.077409	4.57	4.73	13.29	1.92
RaymondB	M002	4511.42	20Year-Existing	17.20	103.62	104.84	104.54	104.94	0.004704	1.64	16.54	25.93	0.52
RaymondB	M002	4489.94	20Year-Existing	17.20	103.59	104.49	104.49	104.75	0.015858	2.49	9.82	21.00	0.91
RaymondB	M002	4466.63	20Year-Existing	17.20	103.03	104.26	103.90	104.36	0.003910	1.52	16.43	32.95	0.48
RaymondB	M002	4439.46	20Year-Existing	17.20	103.00	104.00	104.00	104.19	0.011279	2.26	13.71	39.05	0.78
RaymondB	M002	4415.77	20Year-Existing	17.20	102.78	103.49	103.56	103.79	0.026565	2.61	9.41	36.75	1.12
RaymondB	M002	4385.89	20Year-Existing	17.20	101.80	102.69	102.79	103.06	0.021774	2.89	8.27	22.03	1.07
RaymondB	M002	4354.01	20Year-Existing	17.20	101.27	102.09	102.09	102.31	0.023945	2.90	11.82	33.19	1.10
RaymondB	M002	4341.66	20Year-Existing	17.20	100.84	101.88	101.88	102.09	0.012476	2.38	12.99	34.79	0.82
RaymondB	M002	4332.73	20Year-Existing	17.20	100.32	101.10	101.35	101.83	0.051819	4.01	5.48	13.30	1.60
RaymondB	M002	4308.73	20Year-Existing	17.20	98.87	99.57	99.81	100.36	0.072734	4.29	5.25	13.18	1.84
RaymondB	M002	4294.65	20Year-Existing	17.20	98.45	99.36	99.40	99.73	0.021551	2.94	7.90	14.35	1.06
RaymondB	M002	4263.86	20Year-Existing	17.20	97.59	98.95	98.47	99.05	0.003026	1.49	15.94	20.46	0.43
RaymondB	M002	4235.25	20Year-Existing	17.20	97.47	98.93		98.98	0.001281	1.01	22.46	24.61	0.28
RaymondB	M001	4130.35	20Year-Existing	43.20	96.57	98.00	97.97	98.41	0.014009	2.87	16.69	20.94	0.90
RaymondB	M001	4076.94	20Year-Existing	43.20	96.04	97.72	97.42	97.90	0.005375	2.04	27.17	34.24	0.58
RaymondB	M001	4023.53	20Year-Existing	43.20	95.94	97.05	97.05	97.40	0.018021	2.68	17.70	27.68	0.97
RaymondB	M001	3978.20	20Year-Existing	43.20	94.64	96.70	96.15	96.78	0.002542	1.36	37.85	50.07	0.39
RaymondB	M001	3916.71	20Year-Existing	57.60	94.64	96.41		96.56	0.004673	2.09	46.53	63.43	0.55
RaymondB	M001	3863.30	20Year-Existing	57.60	94.41	96.22		96.34	0.003465	1.86	55.99	76.83	0.48
RaymondB	M001	3809.58	20Year-Existing	57.60	94.09	95.74	95.69	96.04	0.009341	2.80	32.02	44.96	0.77
RaymondB	M001	3756.26	20Year-Existing	57.60	93.53	95.04	95.04	95.45	0.013006	3.11	25.53	34.48	0.89
RaymondB	M001	3694.37	20Year-Existing	57.60	92.66	94.10	94.09	94.56	0.015297	3.15	21.24	28.45	0.95
RaymondB	M001	3569.22	20Year-Existing	57.60	92.15	94.05		94.08	0.001132	1.09	98.13	120.03	0.27
RaymondB	M001	3527.64	20Year-Existing	57.60	91.85	94.02		94.04	0.000673	0.93	105.48	91.22	0.22
RaymondB	M001	3446.51	20Year-Existing	57.60	91.14	93.99		94.01	0.000315	0.74	152.23	155.90	0.15
RaymondB	M001	3421.64	20Year-Existing	57.60	91.23	93.58	92.86	93.95	0.004282	2.73	21.59	134.19	0.57
RaymondB	M001	3410		Bridge									
RaymondB	M001	3404.11	20Year-Existing	57.60	91.23	92.91	92.91	93.70	0.014947	3.97	14.79	75.73	1.00
RaymondB	M001	3380.48	20Year-Existing	57.60	90.96	92.86	92.33	93.00	0.003450	1.88	46.42	63.30	0.48
RaymondB	M001	3308.92	20Year-Existing	57.60	90.80	92.38		92.63	0.007862	2.58	34.96	46.22	0.70
RaymondB	M001	3216.73	20Year-Existing	57.60	89.31	92.09	90.95	92.28	0.002047	1.99	29.87	52.55	0.40
RaymondB	M001	3200		Bridge									
RaymondB	M001	3188.78	20Year-Existing	57.60	89.30	91.51	91.33	92.05	0.008782	3.49	19.54	39.39	0.78

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	M001	3015.18	20Year-Existing	57.60	89.18	90.82		90.94	0.003440	1.75	50.39	65.09	0.47
RaymondB	M001	2876.32	20Year-Existing	57.60	88.66	90.24		90.39	0.005413	2.03	41.82	55.25	0.58
RaymondB	M001	2789.37	20Year-Existing	57.60	88.24	90.01		90.07	0.002389	1.48	86.61	158.74	0.39
RaymondB	M001	2681.85	20Year-Existing	57.60	88.14	89.47	89.42	89.62	0.010474	2.41	48.61	118.58	0.77
RaymondB	M001	2604.32	20Year-Existing	57.60	87.97	89.30		89.32	0.002033	1.12	97.15	192.42	0.35
RaymondB	M001	2531.57	20Year-Existing	57.60	87.97	89.25		89.26	0.000729	0.62	163.50	277.03	0.20
RaymondB	M001	2385.34	20Year-Existing	57.60	87.43	89.16		89.19	0.001696	1.24	122.18	247.33	0.33
RaymondB	M001	2245.72	20Year-Existing	57.60	86.99	88.69	88.43	88.91	0.006097	2.30	38.12	73.69	0.62
RaymondB	M001	2194.47	20Year-Existing	57.60	86.68	88.68		88.73	0.001310	1.22	85.44	93.00	0.30
RaymondB	M001	2140.67	20Year-Existing	57.60	86.59	88.57		88.64	0.002169	1.54	66.04	70.00	0.38
RaymondB	M001	2087.60	20Year-Existing	57.60	86.38	88.41		88.52	0.002316	1.62	48.67	42.89	0.40
RaymondB	M001	2069.54	20Year-Existing	57.60	86.35	88.36		88.47	0.002606	1.72	48.85	47.57	0.42
RaymondB	M001	2040.77	20Year-Existing	57.60	86.25	88.28		88.40	0.002564	1.68	51.96	68.70	0.42
RaymondB	M001	1989.18	20Year-Existing	57.60	86.02	88.05	87.61	88.23	0.004030	2.12	46.29	69.36	0.52
RaymondB	M001	1950.22	20Year-Existing	57.60	85.79	87.55	87.36	87.96	0.011430	3.13	28.23	50.01	0.85
RaymondB	M001	1885.73	20Year-Existing	57.60	85.34	87.10		87.33	0.007272	2.47	36.29	47.23	0.67
RaymondB	M001	1835.84	20Year-Existing	57.60	84.64	86.35	86.35	86.81	0.015264	3.49	24.45	27.78	0.96
RaymondB	M001	1784.61	20Year-Existing	57.60	84.10	85.32	85.41	85.77	0.027888	3.48	24.17	39.79	1.22
RaymondB	M001	1733.38	20Year-Existing	57.60	82.79	84.75	84.23	84.86	0.002891	1.72	49.25	47.27	0.44
RaymondB	M001	1682.15	20Year-Existing	57.60	82.60	84.39		84.64	0.006284	2.33	30.73	31.45	0.63
RaymondB	M001	1630.92	20Year-Existing	57.60	82.12	83.90	83.67	84.25	0.008892	2.71	26.26	35.00	0.75
RaymondB	M001	1584.49	20Year-Existing	57.60	81.77	83.66		83.88	0.005842	2.30	34.19	40.87	0.61
RaymondB	M001	1536.01	20Year-Existing	57.60	81.31	83.25		83.55	0.007563	2.67	31.22	39.49	0.69
RaymondB	M001	1477.96	20Year-Existing	57.60	80.96	82.83		83.11	0.007368	2.55	31.45	39.53	0.68
RaymondB	M001	1425.99	20Year-Existing	57.60	80.58	82.51		82.75	0.006017	2.39	32.87	39.59	0.62
RaymondB	M001	1372.05	20Year-Existing	57.60	80.25	82.24		82.43	0.005447	2.28	36.50	35.72	0.59
RaymondB	M001	1323.54	20Year-Existing	57.60	79.11	81.49	80.99	82.01	0.006325	3.19	18.03	15.16	0.68
RaymondB	M001	1315		Bridge									
RaymondB	M001	1303.54	20Year-Existing	57.60	78.01	80.57	80.19	81.15	0.007885	3.39	17.00	20.35	0.74
RaymondB	M001	1252.39	20Year-Existing	60.00	78.45	80.17	80.08	80.74	0.019891	3.78	22.08	29.41	1.08
RaymondB	M001	1216.25	20Year-Existing	60.00	77.86	79.85	79.85	80.19	0.009606	3.10	31.84	42.95	0.79
RaymondB	M001	1189.75	20Year-Existing	60.00	77.61	79.01	79.22	79.71	0.035191	4.09	19.67	36.39	1.37
RaymondB	M001	1166.20	20Year-Existing	60.00	76.74	78.21	78.42	78.90	0.031558	4.29	23.19	50.83	1.34
RaymondB	M001	1148.70	20Year-Existing	60.00	76.50	78.07	78.13	78.42	0.016936	3.18	30.20	54.28	0.98
RaymondB	M001	1116.25	20Year-Existing	60.00	75.83	77.10	77.24	77.66	0.029981	3.45	20.03	35.43	1.25
RaymondB	M001	1066.09	20Year-Existing	60.00	75.16	76.76	76.56	77.01	0.008048	2.42	34.22	50.64	0.70
RaymondB	M001	1035.68	20Year-Existing	60.00	74.73	76.21	76.21	76.66	0.015997	3.19	23.24	28.50	0.97
RaymondB	M001	999.99	20Year-Existing	60.00	73.32	74.60	74.94	75.70	0.045007	4.81	14.30	20.34	1.58
RaymondB	M001	976.73	20Year-Existing	60.00	73.03	74.61	74.63	75.03	0.012388	3.10	27.07	42.28	0.88
RaymondB	M001	942.15	20Year-Existing	60.00	72.18	73.17	73.47	74.04	0.096335	5.66	17.13	33.81	2.19
RaymondB	M001	916.70	20Year-Existing	60.00	70.82	72.18	72.33	72.67	0.028386	4.09	27.00	65.82	1.27
RaymondB	M001	892.34	20Year-Existing	60.00	70.36	71.71	71.76	72.20	0.018275	3.36	23.53	41.05	1.03
RaymondB	M001	866.25	20Year-Existing	60.00	70.04	71.77	71.25	71.92	0.003642	1.83	43.30	61.66	0.49
RaymondB	M001	841.89	20Year-Existing	60.00	69.92	71.59	71.37	71.81	0.005795	2.29	39.85	80.89	0.61
RaymondB	M001	816.68	20Year-Existing	60.00	69.74	71.29	71.29	71.61	0.010060	2.87	33.38	55.31	0.79
RaymondB	M001	766.25	20Year-Existing	60.00	69.16	70.06	70.21	70.60	0.054857	4.12	21.26	45.61	1.64
RaymondB	M001	716.25	20Year-Existing	60.00	68.39	69.88	69.63	70.03	0.005212	2.01	42.69	57.81	0.57
RaymondB	M001	675.00	20Year-Existing	60.00	68.14	69.65		69.81	0.005658	2.10	44.38	58.63	0.59
RaymondB	M001	615.86	20Year-Existing	60.00	67.75	69.47		69.56	0.002812	1.66	70.18	141.85	0.43
RaymondB	M001	565.77	20Year-Existing	60.00	67.44	69.39		69.45	0.001575	1.35	84.03	163.61	0.33
RaymondB	M001	520.15	20Year-Existing	60.00	67.26	69.38		69.39	0.000578	0.86	152.04	266.09	0.20
RaymondB	M001	468.54	20Year-Existing	60.00	66.98	69.37		69.37	0.000165	0.51	250.76	309.40	0.11
RaymondB	M001	429.18	20Year-Existing	60.00	66.80	69.37		69.37	0.000052	0.30	402.26	406.81	0.06
RaymondB	M001	366.25	20Year-Existing	60.00	66.65	69.37		69.37	0.000022	0.20	645.96	632.21	0.04
RaymondB	M001	341.79	20Year-Existing	60.00	66.63	69.37		69.37	0.000016	0.17	738.65	658.81	0.03
PettyHR	M002	6270.85	20Year-Existing	74.10	66.23	69.37		69.37	0.000001	0.05	1830.49	825.59	0.01
PettyHR	M002	6218.07	20Year-Existing	74.10	66.23	69.37		69.37	0.000001	0.05	1698.56	834.12	0.01
PettyHR	M002	6095.00	20Year-Existing	74.10	66.23	69.37		69.37	0.000001	0.05	1632.42	818.86	0.01
PettyHR	M002	6004.71	20Year-Existing	74.10	66.23	69.37		69.37	0.000001	0.05	1677.87	848.75	0.01
PettyHR	M001	5825.85	20Year-Existing	127.80	66.23	69.37		69.37	0.000002	0.07	1993.15	837.15	0.01
PettyHR	M001	5685.44	20Year-Existing	127.80	66.23	69.37		69.37	0.000002	0.07	1949.51	724.82	0.01
PettyHR	M001	5516.39	20Year-Existing	141.20	66.23	69.37		69.37	0.000003	0.09	1704.20	626.20	0.02
PettyHR	M001	5279.80	20Year-Existing	141.20	66.23	69.36		69.37	0.000007	0.13	1152.56	422.32	0.02
PettyHR	M001	4996.75	20Year-Existing	141.20	66.23	69.36		69.36	0.000032	0.27	543.08	206.84	0.05
PettyHR	M001	4923.81	20Year-Existing	141.20	66.23	69.31		69.35	0.000433	0.98	175.42	85.03	0.19
PettyHR	M001	4867.41	20Year-Existing	141.20	66.23	69.22		69.31	0.001161	1.60	144.76	91.77	0.31
PettyHR	M001	4817.61	20Year-Existing	141.20	66.58	69.16		69.24	0.001542	1.75	140.14	90.75	0.35
PettyHR	M001	4757.18	20Year-Existing	141.20	66.43	68.32	68.32	68.98	0.014846	4.33	53.66	55.03	1.02
PettyHR	M001	4675.66	20Year-Existing	141.20	65.88	67.85	67.40	68.11	0.005520	2.74	74.14	49.99	0.63
PettyHR	M001	4612.84	20Year-Existing	141.20	64.88	67.13	66.66	67.64	0.009047	3.84	58.15	43.03	0.82
PettyHR	M001	4570.09	20Year-Existing	141.20	64.62	66.66	66.66	67.21	0.009922	3.67	56.75	54.19	0.84
PettyHR	M001	4500.69	20Year-Existing	141.20	64.62	66.33	65.98	66.54	0.004655	2.25	84.07	74.40	0.56
PettyHR	M001	4461.12	20Year-Existing	141.20	64.55	65.91	65.91	66.26	0.014742	3.42	70.62	90.52	0.96
PettyHR	M001	4428.20	20Year-Existing	141.20	64.41	65.68	65.45	65.87	0.010824	2.72	83.12	88.73	0.81
PettyHR	M001	4395.66	20Year-Existing	141.20	63.81	65.28		65.54	0.008380	2.74	77.89	80.64	0.74
PettyHR	M001	4357.04	20Year-Existing	141.20	63.34	65.12		65.27	0.004488	2.31	98.75	80.17	0.56
PettyHR	M001	4281.82	20Year-Existing	141.20	62.50	65.03		65.11	0.000934	1.32	127.05	58.24	0.27
PettyHR	M001	4166.17	20Year-Existing	141.20	61.82	65.05		65.06	0.000128	0.57	356.18	161.04	0.10
PettyHR	M001	3949.19	20Year-Existing	141.20	61.31	65.05		65.05	0.000000	0.03	4566.93	1312.92	0.01
PettyHR	M001	3936.78	20Year-Existing	141.20	61.31	65.05		65.05	0.000000	0.03	5645.61	1567.45	0.00
PettyHR	M001	3931.39	20Year-Existing	89.50	61.31	65.05		65.05	0.000000	0.01	7086.08	1997.39	0.00
PettyHR	M001	3925.44	20Year-Existing	89.50	61.31	65.05		65.05	0.000000	0.03	3505.67	1000.24	0.00
PettyHR	M001	3867.05	20Year-Existing	89.50	61.31	65.05		65.05	0.000000	0.03	3540.20	979.84	0.00
PettyHR	M001	3643.73	20Year-Existing	89.50	61.31	65.05		65.05	0.000000	0.02	4069.86	1112.63	0.00
PettyHR	M001	3440.60	20Year-Existing	89.50	61.31	65.05		65.05	0.000001	0.04	2061.44	579.37	0.01

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	3182.65	20Year-Existing	89.50	61.31	65.05		65.05	0.000001	0.06	1546.51	423.86	0.01
PettyHR	M001	3080.13	20Year-Existing	89.50	61.31	65.05		65.05	0.000001	0.05	1824.03	506.22	0.01
PettyHR	M001	3028.13	20Year-Existing	89.50	61.31	65.05		65.05	0.000001	0.05	1994.97	557.35	0.01
PettyHR	M001	2983.09	20Year-Existing	89.50	61.31	65.05		65.05	0.000001	0.06	1626.24	450.03	0.01
PettyHR	M001	2828.46	20Year-Existing	89.50	61.31	65.05		65.05	0.000003	0.10	953.32	278.10	0.02
PettyHR	M001	2712.72	20Year-Existing	89.50	61.31	65.05		65.05	0.000010	0.18	542.41	178.18	0.03
PettyHR	M001	2671.95	20Year-Existing	89.50	61.31	65.05		65.05	0.000015	0.22	487.66	172.76	0.04
PettyHR	M001	2653.10	20Year-Existing	89.50	61.31	65.05		65.05	0.000022	0.27	416.69	154.19	0.04
PettyHR	M001	2632.46	20Year-Existing	89.50	61.31	65.04		65.05	0.000090	0.54	246.00	113.66	0.09
PettyHR	M001	2596.08	20Year-Existing	89.50	61.31	65.03		65.04	0.000103	0.58	217.88	109.92	0.10
PettyHR	M001	2583.24	20Year-Existing	89.50	60.10	64.95	62.69	65.03	0.000608	1.48	117.16	103.56	0.23
PettyHR	M001	2580		Bridge									
PettyHR	M001	2573.39	20Year-Existing	89.50	60.00	64.84	62.26	64.88	0.000275	1.01	149.96	81.48	0.16
PettyHR	M001	2551.09	20Year-Existing	89.50	59.89	64.86		64.87	0.000022	0.29	362.50	105.20	0.05
PettyHR	M001	2426.14	20Year-Existing	89.50	59.27	64.86		64.86	0.000002	0.08	1145.02	266.48	0.01
PettyHR	M001	2315.39	20Year-Existing	89.50	58.72	64.86		64.86	0.000001	0.07	1406.50	308.07	0.01
PettyHR	M001	2204.15	20Year-Existing	89.50	58.16	64.86		64.86	0.000001	0.07	1418.19	305.85	0.01
PettyHR	M001	2022.45	20Year-Existing	89.50	57.26	64.86		64.86	0.000002	0.11	862.33	171.88	0.01
PettyHR	M001	1902.10	20Year-Existing	89.50	56.66	64.86		64.86	0.000003	0.14	668.70	126.87	0.02
PettyHR	M001	1879.72	20Year-Existing	89.50	56.55	64.86		64.86	0.000008	0.22	488.24	107.38	0.03
PettyHR	M001	1824.42	20Year-Existing	89.50	56.28	64.86		64.86	0.000014	0.29	329.53	65.26	0.04
PettyHR	M001	1789.72	20Year-Existing	89.50	56.10	64.86		64.86	0.000020	0.34	278.93	54.68	0.04
PettyHR	M001	1724.70	20Year-Existing	89.50	55.78	64.85		64.86	0.000026	0.39	244.15	47.25	0.05
PettyHR	M001	1668.81	20Year-Existing	89.50	55.50	64.85	58.00	64.86	0.000014	0.30	324.12	64.37	0.04
PettyHR	M001	1647.80	20Year-Existing	89.50	55.40	64.85	57.72	64.86	0.000010	0.25	379.10	70.59	0.03
PettyHR	M001	1631.79	20Year-Existing	89.50	63.55	64.62		64.84	0.007387	2.07	43.29	40.60	0.64
PettyHR	M001	1615.46	20Year-Existing	90.70	54.38	56.71		56.85	0.004393	2.68	58.88	37.70	0.57
PettyHR	M001	1601.08	20Year-Existing	90.70	54.00	55.68	55.68	56.63	0.040950	6.52	23.92	22.79	1.65
PettyHR	M001	1586.16	20Year-Existing	90.70	53.36	55.17	55.37	56.04	0.034663	6.40	26.01	25.07	1.54
PettyHR	M001	1571.98	20Year-Existing	90.70	52.87	54.48	54.75	55.47	0.046211	6.72	23.52	23.76	1.74
PettyHR	M001	1519.66	20Year-Existing	90.70	51.62	53.21	53.27	53.71	0.029454	5.23	33.10	38.66	1.37
PettyHR	M001	1467.14	20Year-Existing	90.70	50.86	52.19	52.09	52.50	0.020589	4.01	39.44	44.23	1.13
PettyHR	M001	1457.30	20Year-Existing	90.70	50.23	51.82	51.82	52.27	0.024011	4.89	34.43	36.50	1.26
PettyHR	M001	1444.51	20Year-Existing	90.70	48.30	49.28	49.79	51.41	0.218985	10.36	16.29	30.38	3.48
PettyHR	M001	1415.17	20Year-Existing	90.70	48.28	49.86	49.37	49.98	0.005976	2.41	61.43	52.51	0.63
PettyHR	M001	1402.15	20Year-Existing	90.70	47.79	49.36	49.36	49.80	0.026062	4.88	34.58	39.88	1.29
PettyHR	M001	1385.41	20Year-Existing	90.70	43.10	44.66	45.56	48.60	0.142557	11.25	13.12	16.57	3.01
PettyHR	M001	1370.82	20Year-Existing	90.70	41.75	43.54	44.43	46.65	0.096826	10.62	14.49	13.77	2.58
PettyHR	M001	1362.66	20Year-Existing	90.70	39.88	42.00	43.11	45.81	0.089842	11.18	13.18	10.32	2.52
PettyHR	M001	1336.64	20Year-Existing	90.70	39.87	41.52	42.14	43.13	0.067505	8.30	18.91	18.72	2.11
PettyHR	M001	1309.35	20Year-Existing	90.70	38.40	39.75	40.16	41.09	0.076454	7.66	19.57	21.34	2.17
PettyHR	M001	1279.20	20Year-Existing	90.70	35.02	37.26	38.06	39.27	0.047445	8.57	19.93	19.59	1.86
PettyHR	M001	1258.06	20Year-Existing	90.70	34.01	36.49	37.06	38.32	0.037195	8.19	19.53	13.89	1.68
PettyHR	M001	1221.17	20Year-Existing	90.70	33.21	34.60	35.22	36.23	0.089076	8.15	17.58	18.31	2.31
PettyHR	M001	1203.34	20Year-Existing	90.70	32.61	33.96	34.17	34.75	0.054608	6.42	26.09	33.97	1.83
PettyHR	M001	1164.99	20Year-Existing	90.70	31.37	32.93	32.94	33.36	0.022715	4.53	35.77	40.59	1.21
PettyHR	M001	1153.41	20Year-Existing	90.70	30.70	31.73	32.05	32.80	0.104354	7.49	21.98	35.77	2.43
PettyHR	M001	1125.74	20Year-Existing	90.70	29.27	30.58	30.67	31.08	0.035363	5.06	32.58	42.92	1.47
PettyHR	M001	1090.65	20Year-Existing	90.70	28.12	29.31	29.40	29.75	0.040503	4.91	35.20	58.58	1.53
PettyHR	M001	1059.48	20Year-Existing	90.70	26.84	28.14	28.22	28.55	0.036600	5.09	37.26	63.15	1.48
PettyHR	M001	1048.77	20Year-Existing	90.70	26.29	27.48	27.64	28.07	0.050163	5.53	31.61	53.90	1.71
PettyHR	M001	1021.54	20Year-Existing	90.70	25.47	26.98	26.98	27.38	0.025337	4.72	36.27	42.72	1.27
PettyHR	M001	1003.30	20Year-Existing	90.70	23.42	24.80	25.32	26.48	0.085542	8.32	17.59	18.21	2.32
PettyHR	M001	994.73	20Year-Existing	90.70	22.70	25.13	25.14	25.91	0.019249	5.79	28.20	20.04	1.21
PettyHR	M001	961.03	20Year-Existing	90.70	22.07	24.67	24.68	25.30	0.014907	5.28	32.50	25.25	1.07
PettyHR	M001	944.13	20Year-Existing	90.70	21.89	23.44	23.86	24.79	0.055230	7.18	20.68	20.81	1.90
PettyHR	M001	924.94	20Year-Existing	90.70	20.78	22.62	22.94	23.83	0.041942	7.02	21.11	16.76	1.69
PettyHR	M001	905.47	20Year-Existing	90.70	19.73	21.84	22.17	23.11	0.033981	7.01	21.42	15.42	1.57
PettyHR	M001	883.86	20Year-Existing	90.70	17.29	20.61	19.78	20.84	0.002912	2.79	50.42	33.96	0.50
PettyHR	M001	875		Bridge									
PettyHR	M001	859.53	20Year-Existing	90.70	17.25	19.24	19.24	19.85	0.020556	5.07	28.89	28.73	1.18
PettyHR	M001	836.76	20Year-Existing	90.70	12.80	14.53	15.65	18.61	0.110779	11.02	12.17	10.12	2.74
PettyHR	M001	823.70	20Year-Existing	90.70	12.86	15.82	15.06	16.06	0.005268	3.46	52.11	34.90	0.65
PettyHR	M001	811.96	20Year-Existing	90.70	12.85	14.67	14.67	15.83	0.043997	7.21	23.25	23.35	1.74
PettyHR	M001	796.92	20Year-Existing	90.70	12.74	14.14	14.39	14.99	0.057720	6.91	25.51	33.51	1.90
PettyHR	M001	784.11	20Year-Existing	90.70	11.82	13.74	13.93	14.45	0.027539	5.86	31.43	36.19	1.39
PettyHR	M001	769.86	20Year-Existing	90.70	10.94	12.45	12.83	13.82	0.059380	7.34	20.56	21.82	1.96
PettyHR	M001	748.76	20Year-Existing	90.70	8.37	10.67	11.33	12.74	0.040650	8.02	19.61	18.51	1.73
PettyHR	M001	720.33	20Year-Existing	90.70	8.08	9.12	9.58	10.71	0.138185	8.20	18.02	27.68	2.75
PettyHR	M001	707.57	20Year-Existing	90.70	6.85	8.29	8.61	9.39	0.060974	7.13	23.92	32.81	1.95
PettyHR	M001	685.99	20Year-Existing	90.70	5.31	6.90	7.28	8.10	0.059013	7.36	23.34	29.87	1.94
PettyHR	M001	666.04	20Year-Existing	90.70	5.03	6.76	6.82	7.23	0.019638	4.54	37.26	43.40	1.14
PettyHR	M001	652.51	20Year-Existing	90.70	4.66	6.11	6.19	6.84	0.039399	5.65	28.03	33.93	1.56
PettyHR	M001	633.61	20Year-Existing	90.70	4.40	5.41	5.56	5.98	0.049284	4.93	30.72	76.41	1.66
PettyHR	M001	622.83	20Year-Existing	90.70	4.09	5.16	5.13	5.42	0.025095	3.64	45.81	101.03	1.19
PettyHR	M001	577.97	20Year-Existing	90.70	2.48	3.78	3.78	4.08	0.034552	4.90	43.05	111.32	1.43
PettyHR	M001	525.57	20Year-Existing	90.70	0.51	2.75	2.11	2.86	0.003719	2.43	68.04	89.45	0.53
PettyHR	M001	491.94	20Year-Existing	90.70	-0.59	2.48	1.80	2.73	0.003342	2.51	50.06	36.00	0.50
PettyHR	M001	485		Bridge									
PettyHR	M001	478.84	20Year-Existing	90.70	-1.92	2.54		2.61	0.000509	1.20	111.24	141.51	0.20
PettyHR	M001	439.27	20Year-Existing	90.70	-1.89	2.57		2.58	0.000142	0.66	237.10	128.83	0.11
PettyHR	M001	405.68	20Year-Existing	90.70	-2.13	2.57		2.58	0.000127	0.63	234.51	131.95	0.10
PettyHR	M001	367.80	20Year-Existing	90.70	-2.02	2.57		2.57	0.000039	0.35	299.46	139.22	0.06
PettyHR	M001	338.85	20Year-Existing	90.70	-2.89	2.57		2.57	0.000023	0.30	338.86	122.06	0.05
PettyHR	M001	305.38	20Year-Existing	90.70	-2.46	2.56		2.57	0.000032	0.34	305.99	119.87	0.05

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	269.29	20Year-Existing	90.70	-3.52	2.56		2.57	0.000029	0.36	287.04	110.13	0.05
PettyHR	M001	238.18	20Year-Existing	90.70	-3.50	2.56		2.57	0.000041	0.43	248.28	102.43	0.06
PettyHR	M001	201.25	20Year-Existing	90.70	-4.43	2.56		2.56	0.000013	0.27	367.31	119.92	0.04
PettyHR	M001	150.84	20Year-Existing	90.70	-3.34	2.56		2.56	0.000008	0.19	524.87	171.49	0.03
PettyHR	M001	105.74	20Year-Existing	90.70	-2.91	2.56		2.56	0.000008	0.19	507.32	154.14	0.03
PettyHR	M001	91.29	20Year-Existing	90.70	-3.36	2.56		2.56	0.000007	0.18	523.77	143.62	0.03
PettyHR	M001	20.04	20Year-Existing	90.70	-6.19	2.56		2.56	0.000003	0.14	705.42	185.18	0.02
PettyHR	M001	12.04	20Year-Existing	90.70	-6.19	2.55	-3.73	2.56	0.000064	0.52	267.31	185.14	0.06
ForthP	M001	2616.90	20Year-Existing	9.00	123.09	124.50	123.34	124.50	0.000011	0.09	134.24	158.53	0.03
ForthP	M001	2528.45	20Year-Existing	9.00	123.09	124.50		124.50	0.000003	0.05	214.79	197.99	0.01
ForthP	M001	2324.32	20Year-Existing	9.00	123.09	124.50		124.50	0.000009	0.09	153.71	209.05	0.02
ForthP	M001	2187.52	20Year-Existing	9.00	123.09	124.50		124.50	0.000002	0.04	287.90	286.61	0.01
ForthP	M001	1955.13	20Year-Existing	9.00	123.09	124.50		124.50	0.000002	0.04	331.28	309.79	0.01
ForthP	M001	1773.83	20Year-Existing	9.00	123.09	124.50		124.50	0.000001	0.02	406.58	344.84	0.01
ForthP	M001	1572.85	20Year-Existing	9.00	123.09	124.50		124.50	0.000001	0.02	388.93	319.64	0.01
ForthP	M001	1496.60	20Year-Existing	9.00	123.09	124.50		124.50	0.000001	0.03	327.68	276.74	0.01
ForthP	M001	1392.58	20Year-Existing	32.30	122.98	124.49	124.15	124.49	0.000525	0.70	109.47	167.49	0.18
ForthP	M001	1390		Culvert									
ForthP	M001	1381.72	20Year-Existing	32.30	122.95	124.40	124.13	124.41	0.001694	1.12	73.14	149.34	0.31
ForthP	M001	1360.50	20Year-Existing	32.30	122.87	124.19	124.05	124.33	0.009532	2.50	27.01	73.73	0.75
ForthP	M001	1311.12	20Year-Existing	32.30	122.52	123.91		123.96	0.005168	1.87	37.43	74.44	0.55
ForthP	M001	1261.17	20Year-Existing	32.30	121.36	123.38	123.38	123.64	0.007426	3.01	23.39	39.71	0.71
ForthP	M001	1211.51	20Year-Existing	32.30	119.83	121.44	122.02	122.78	0.043801	6.09	8.21	10.93	1.63
ForthP	M001	1161.66	20Year-Existing	32.30	117.25	118.41	118.78	119.81	0.084868	6.61	9.11	24.57	2.15
ForthP	M001	1112.05	20Year-Existing	32.30	114.88	115.98	116.14	116.50	0.045946	4.95	13.89	34.35	1.59
ForthP	M001	1062.35	20Year-Existing	32.30	113.16	114.32	114.38	114.62	0.030044	3.92	16.31	33.76	1.26
ForthP	M001	1041.93	20Year-Existing	32.30	112.62	113.89	113.92	114.14	0.022781	3.59	18.69	41.92	1.10
ForthP	M001	1031.90	20Year-Existing	32.30	112.31	113.48	113.58	113.85	0.036886	4.36	16.62	43.81	1.40
ForthP	M001	1011.12	20Year-Existing	32.30	111.62	112.65	112.76	113.02	0.044088	4.51	16.34	46.29	1.53
ForthP	M001	959.76	20Year-Existing	32.30	110.31	111.14	111.13	111.29	0.027742	2.87	21.74	62.81	1.15
ForthP	M001	908.93	20Year-Existing	32.30	109.25	109.90	109.78	109.96	0.012905	1.71	32.42	89.08	0.76
ForthP	M001	856.39	20Year-Existing	32.30	108.38	108.85	108.78	108.92	0.023821	1.60	27.47	91.58	0.94
ForthP	M001	806.25	20Year-Existing	32.30	107.09	108.00		108.07	0.014197	2.27	31.48	90.76	0.84
ForthP	M001	754.78	20Year-Existing	32.30	106.12	107.12	107.12	107.25	0.020696	3.07	27.28	89.02	1.05
ForthP	M001	734.50	20Year-Existing	32.30	105.47	106.75	106.72	106.85	0.009683	2.40	33.16	89.60	0.73
ForthP	M001	724.30	20Year-Existing	32.30	105.28	106.57	106.57	106.73	0.013115	2.84	27.44	82.08	0.87
ForthP	M001	703.65	20Year-Existing	32.30	105.02	106.12	106.10	106.31	0.024735	3.53	20.13	46.59	1.14
ForthP	M001	654.47	20Year-Existing	32.30	103.90	104.78	104.78	104.95	0.027816	3.24	20.73	54.29	1.18
ForthP	M001	605.63	20Year-Existing	32.30	102.27	103.40	103.49	103.70	0.028222	3.77	19.78	58.20	1.24
ForthP	M001	585.13	20Year-Existing	32.30	101.55	102.39	102.51	102.83	0.076087	4.81	15.80	68.46	1.91
ForthP	M001	577.30	20Year-Existing	32.30	101.52	102.20	102.23	102.38	0.048239	3.33	19.30	67.77	1.47
ForthP	M001	557.33	20Year-Existing	32.30	100.67	101.32	101.32	101.46	0.036840	2.69	21.58	77.80	1.26
ForthP	M001	507.84	20Year-Existing	32.30	98.92	99.60	99.60	99.72	0.033390	2.61	23.51	85.59	1.20
ForthP	M001	453.33	20Year-Existing	32.30	96.28	97.05	97.00	97.14	0.018130	2.19	28.77	89.97	0.92
ForthP	M001	402.29	20Year-Existing	32.30	94.96	95.58	95.58	95.76	0.048739	3.21	18.68	58.27	1.46
ForthP	M001	349.18	20Year-Existing	32.30	93.64	94.23	94.08	94.29	0.015671	1.62	29.98	78.01	0.81
ForthP	M001	297.76	20Year-Existing	32.30	92.55	93.48	93.43	93.57	0.015927	2.38	29.31	78.36	0.89
ForthP	M001	246.28	20Year-Existing	32.30	91.71	92.47	92.43	92.56	0.020337	2.23	28.68	90.29	0.97
ForthP	M001	182.03	20Year-Existing	32.30	90.94	92.08	91.75	92.10	0.004000	1.42	52.04	107.80	0.46
ForthP	M001	160.27	20Year-Existing	32.30	90.13	92.08	91.36	92.09	0.000183	0.46	141.93	151.92	0.11
ForthP	M001	150		Culvert									
ForthP	M001	144.74	20Year-Existing	32.30	89.90	91.09	91.09	91.63	0.016686	3.29	10.11	95.30	0.99
ForthP	M001	124.30	20Year-Existing	32.30	89.74	90.94	90.84	91.02	0.010077	2.31	34.33	83.81	0.74
ForthP	M001	61.58	20Year-Existing	32.30	88.75	89.90	89.90	90.10	0.021588	3.26	22.73	56.06	1.08
ForestP	M001	1557.91	20Year-Existing	6.40	78.25	79.69	78.44	79.69	0.000003	0.05	144.98	121.08	0.01
ForestP	M001	1428.05	20Year-Existing	6.40	78.25	79.69		79.69	0.000001	0.03	197.52	175.86	0.01
ForestP	M001	1315.71	20Year-Existing	6.40	78.25	79.69		79.69	0.000001	0.02	278.07	241.83	0.01
ForestP	M001	1228.83	20Year-Existing	6.40	78.25	79.69		79.69	0.000000	0.02	332.57	286.52	0.01
ForestP	M001	1138.84	20Year-Existing	6.40	78.25	79.69		79.69	0.000000	0.02	389.44	339.43	0.00
ForestP	M001	1077.28	20Year-Existing	6.40	78.25	79.69		79.69	0.000000	0.02	428.78	478.78	0.00
ForestP	M001	1019.12	20Year-Existing	6.40	78.25	79.69		79.69	0.000001	0.03	215.53	278.48	0.01
ForestP	M001	958.61	20Year-Existing	8.10	78.15	79.67	79.50	79.68	0.000780	0.66	23.12	67.51	0.20
ForestP	M001	955		Culvert									
ForestP	M001	949.85	20Year-Existing	8.10	77.76	79.52	79.45	79.64	0.008558	1.78	9.08	50.08	0.48
ForestP	M001	913.34	20Year-Existing	8.10	78.16	79.04	79.04	79.19	0.027541	2.89	5.98	18.00	1.07
ForestP	M001	883.23	20Year-Existing	8.10	77.54	78.33	78.36	78.48	0.021244	2.47	7.73	36.91	1.00
ForestP	M001	859.61	20Year-Existing	8.10	76.75	77.42	77.51	77.73	0.050251	3.40	4.22	13.45	1.49
ForestP	M001	831.71	20Year-Existing	8.10	75.74	76.62	76.70	76.92	0.032501	3.22	4.31	10.33	1.23
ForestP	M001	802.91	20Year-Existing	8.10	74.66	75.44	75.56	75.86	0.042522	3.55	3.72	9.89	1.42
ForestP	M001	772.90	20Year-Existing	8.10	73.77	74.52	74.53	74.72	0.029921	2.91	5.18	14.41	1.17
ForestP	M001	737.48	20Year-Existing	8.10	72.77	73.46	73.43	73.57	0.019837	2.23	6.99	21.57	0.95
ForestP	M001	688.06	20Year-Existing	8.10	71.80	72.39	72.35	72.46	0.025314	2.12	8.01	32.74	0.99
ForestP	M001	651.32	20Year-Existing	8.10	70.81	71.41	71.40	71.51	0.026264	2.37	7.46	30.71	1.08
ForestP	M001	600.44	20Year-Existing	8.10	69.80	70.32		70.37	0.019197	1.80	10.84	57.67	0.89
ForestP	M001	578.60	20Year-Existing	8.10	69.31	69.90	69.90	69.96	0.018682	1.92	12.30	84.54	0.90
ForestP	M001	528.92	20Year-Existing	8.10	68.58	69.39	69.23	69.41	0.004322	1.17	18.53	69.60	0.46
ForestP	M001	478.55	20Year-Existing	8.10	68.21	69.37		69.37	0.000186	0.32	57.43	109.20	0.10
ForestP	M001	430.82	20Year-Existing	8.10	67.77	69.37		69.37	0.000046	0.20	93.22	128.84	0.05
ForestP	M001	378.18	20Year-Existing	8.10	67.48	69.37		69.37	0.000007	0.09	226.06	263.73	0.02
ForestP	M001	328.07	20Year-Existing	8.10	67.34	69.37		69.37	0.000003	0.06	325.26	321.78	0.01
ForestP	M001	277.95	20Year-Existing	8.10	67.07	69.37		69.37	0.000001	0.05	400.20	364.34	0.01
ForestP	M001	195.51	20Year-Existing	8.10	66.23	69.37		69.37	0.000000	0.02	758.45	522.35	0.00
ForestP	M001	158.37	20Year-Existing	8.10	66.23	69.37		69.37	0.000000	0.01	1449.18	674.14	0.00
ForestP	M001	89.11	20Year-Existing	8.10	66.23	69.37		69.37	0.000000	0.01	1605.13	746.64	0.00
DoylesR	TR019	260.51	20Year-Existing	0.30	124.74	125.07	124.93	125.07	0.000384	0.17	3.22	29.62	0.12

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR019	199.72	20Year-Existing	0.30	124.55	125.07		125.07	0.000002	0.02	31.17	135.17	0.01
DoylesR	TR019	150.00	20Year-Existing	0.30	124.37	125.07		125.07	0.000002	0.02	33.82	142.97	0.01
DoylesR	TR019	100.00	20Year-Existing	0.30	124.16	125.07		125.07	0.000002	0.03	28.39	151.14	0.01
DoylesR	TR019	50.00	20Year-Existing	0.30	124.18	125.07		125.07	0.000001	0.02	52.96	213.90	0.01
DoylesR	TR018	302.01	20Year-Existing	1.10	127.90	128.05	128.05	128.08	0.024884	0.82	1.74	23.95	0.82
DoylesR	TR018	270.53	20Year-Existing	1.10	126.19	128.01	126.77	128.01	0.000000	0.02	140.46	244.89	0.01
DoylesR	TR018	260		Culvert									
DoylesR	TR018	257.62	20Year-Existing	1.10	126.19	127.69	126.80	127.69	0.000001	0.03	98.24	183.61	0.01
DoylesR	TR018	244.68	20Year-Existing	1.10	125.64	127.64	126.49	127.68	0.000865	0.95	1.41	183.95	0.22
DoylesR	TR018	200		Culvert									
DoylesR	TR018	169.24	20Year-Existing	1.10	125.40	126.22	126.06	126.41	0.012373	2.23	0.61	75.31	0.81
DoylesR	TR018	131.43	20Year-Existing	1.10	125.24	125.44	125.44	125.46	0.039096	1.01	2.01	41.68	1.02
DoylesR	TR018	59.79	20Year-Existing	1.10	124.57	125.12	124.87	125.12	0.000302	0.23	11.77	100.08	0.11
DoylesR	TR017	4043.45	20Year-Existing	6.10	124.05	125.05		125.06	0.001393	0.87	18.69	63.03	0.28
DoylesR	TR017	3983.69	20Year-Existing	6.10	124.04	124.94		124.96	0.002234	0.92	15.70	73.80	0.34
DoylesR	TR017	3923.93	20Year-Existing	6.10	124.03	124.59	124.59	124.66	0.021104	1.67	7.07	42.17	0.91
DoylesR	TR017	3889.37	20Year-Existing	6.10	123.60	123.79	123.61	123.80	0.005388	0.27	14.21	63.42	0.35
DoylesR	TR017	3781.64	20Year-Existing	6.10	122.55	123.44		123.48	0.004646	1.32	11.64	46.41	0.48
DoylesR	TR017	3768.91	20Year-Existing	6.10	122.35	123.11	123.11	123.34	0.018678	2.24	3.37	8.67	0.92
DoylesR	TR017	3745.98	20Year-Existing	6.10	121.86	122.43	122.46	122.55	0.036422	2.14	5.18	34.17	1.18
DoylesR	TR017	3713.18	20Year-Existing	6.10	120.99	121.52	121.55	121.71	0.025794	2.05	3.58	12.65	1.04
DoylesR	TR017	3692.45	20Year-Existing	6.10	120.34	120.97	121.00	121.17	0.025465	2.19	3.72	13.37	1.05
DoylesR	TR017	3679.05	20Year-Existing	6.10	119.97	120.71	120.73	120.90	0.016663	2.16	3.91	15.88	0.89
DoylesR	TR017	3656.84	20Year-Existing	6.10	117.59	118.01	118.34	119.74	0.382116	5.90	1.11	5.43	3.72
DoylesR	TR017	3603.67	20Year-Existing	6.10	116.29	116.98	116.99	117.11	0.017061	2.06	5.13	23.09	0.89
DoylesR	TR017	3583.40	20Year-Existing	6.10	115.96	116.46	116.54	116.85	0.084000	3.39	2.88	14.77	1.83
DoylesR	TR017	3571.14	20Year-Existing	6.10	115.76	116.27	116.27	116.38	0.029945	2.24	5.56	30.21	1.12
DoylesR	TR017	3545.42	20Year-Existing	6.10	115.22	115.81	115.78	115.91	0.017127	1.74	5.59	20.81	0.85
DoylesR	TR017	3483.93	20Year-Existing	6.10	114.35	114.92	114.89	114.96	0.014454	1.63	10.25	68.76	0.78
DoylesR	TR017	3432.55	20Year-Existing	6.10	113.79	114.52	114.41	114.55	0.007046	1.36	11.65	63.62	0.57
DoylesR	TR017	3345.48	20Year-Existing	6.10	113.03	113.52	113.52	113.61	0.033267	2.00	6.10	37.71	1.13
DoylesR	TR017	3300.07	20Year-Existing	6.10	112.42	112.98	112.85	112.98	0.003662	0.74	16.78	76.79	0.38
DoylesR	TR016	918.87	20Year-Existing	2.20	127.08	128.78	127.25	128.78	0.000000	0.01	397.63	359.84	0.00
DoylesR	TR016	898.71	20Year-Existing	2.20	126.90	128.78	127.25	128.78	0.000001	0.02	192.01	224.81	0.01
DoylesR	TR016	890		Culvert									
DoylesR	TR016	882.28	20Year-Existing	2.20	126.88	128.72		128.72	0.000003	0.05	103.68	157.61	0.01
DoylesR	TR016	877.71	20Year-Existing	2.20	126.24	128.72	126.86	128.72	0.000002	0.06	122.45	188.12	0.01
DoylesR	TR016	850		Culvert									
DoylesR	TR016	848.13	20Year-Existing	2.20	126.37	127.08	127.08	127.31	0.019901	2.30	1.24	2.99	0.91
DoylesR	TR016	818.98	20Year-Existing	2.20	126.36	126.83	126.77	126.84	0.004031	0.74	6.63	51.81	0.40
DoylesR	TR016	768.99	20Year-Existing	2.20	126.30	126.63		126.64	0.004580	0.62	6.89	50.37	0.40
DoylesR	TR016	714.09	20Year-Existing	2.20	125.96	126.36	126.26	126.37	0.004956	0.70	5.82	36.11	0.43
DoylesR	TR016	675.95	20Year-Existing	2.20	125.74	126.06	126.06	126.11	0.019927	1.17	3.48	38.02	0.82
DoylesR	TR016	659.39	20Year-Existing	2.20	125.10	125.54	125.48	125.57	0.010019	1.15	3.64	24.89	0.63
DoylesR	TR016	632.80	20Year-Existing	2.20	124.78	125.23	125.23	125.29	0.013915	1.29	2.96	25.62	0.73
DoylesR	TR016	610.50	20Year-Existing	2.20	123.78	124.22	124.34	124.62	0.076225	3.02	0.92	4.64	1.70
DoylesR	TR016	549.37	20Year-Existing	2.20	122.30	122.88	122.88	123.01	0.022866	1.89	1.88	10.53	0.95
DoylesR	TR016	494.31	20Year-Existing	2.20	120.93	121.55	121.55	121.73	0.023829	1.89	1.24	4.17	0.97
DoylesR	TR016	473.82	20Year-Existing	2.20	120.18	120.64	120.73	120.95	0.063959	2.55	0.95	4.37	1.53
DoylesR	TR016	459.95	20Year-Existing	2.20	119.62	120.09	120.13	120.28	0.033721	1.97	1.23	5.09	1.13
DoylesR	TR016	439.99	20Year-Existing	2.20	119.05	119.65	119.65	119.81	0.024533	1.83	1.26	4.29	0.97
DoylesR	TR016	384.99	20Year-Existing	2.20	117.07	117.51	117.59	117.77	0.061600	2.27	0.98	4.53	1.47
DoylesR	TR016	329.99	20Year-Existing	2.20	115.67	116.15	116.15	116.22	0.015571	1.27	2.74	23.06	0.76
DoylesR	TR016	274.18	20Year-Existing	2.20	114.93	115.32	115.31	115.35	0.011178	0.98	4.49	48.02	0.63
DoylesR	TR016	218.88	20Year-Existing	2.20	114.35	114.82	114.80	114.86	0.010842	1.02	4.49	51.04	0.63
DoylesR	TR016	165.43	20Year-Existing	2.20	113.83	114.37	114.32	114.41	0.008668	1.08	3.89	34.85	0.58
DoylesR	TR016	86.48	20Year-Existing	2.20	112.80	113.21	113.21	113.30	0.027049	1.44	1.99	12.36	0.96
DoylesR	TR016	40.19	20Year-Existing	2.20	112.21	112.80	112.68	112.81	0.002076	0.59	8.74	57.30	0.29
DoylesR	TR015	3230.71	20Year-Existing	13.30	111.60	112.50		112.54	0.008482	1.80	19.38	74.75	0.66
DoylesR	TR015	3185.04	20Year-Existing	13.30	111.22	112.14		112.22	0.011717	1.99	15.24	50.73	0.76
DoylesR	TR015	3133.58	20Year-Existing	13.30	110.57	111.37	111.37	111.48	0.018906	2.40	12.86	46.37	0.95
DoylesR	TR015	3079.97	20Year-Existing	13.30	108.17	109.04	109.29	109.78	0.057050	4.23	4.33	10.14	1.67
DoylesR	TR015	3026.43	20Year-Existing	13.30	107.30	109.08	108.23	109.10	0.000538	0.74	30.47	33.70	0.19
DoylesR	TR015	3001.28	20Year-Existing	13.30	106.17	109.09	108.08	109.09	0.000081	0.37	84.77	77.52	0.07
DoylesR	TR015	3000		Culvert									
DoylesR	TR015	2988.77	20Year-Existing	13.30	106.03	107.88	107.88	108.12	0.005880	2.59	11.88	32.90	0.63
DoylesR	TR015	2963.30	20Year-Existing	13.30	105.69	106.49	106.79	107.65	0.098435	5.60	4.32	15.66	2.15
DoylesR	TR015	2915.60	20Year-Existing	13.30	104.53	105.63	105.65	105.85	0.016189	2.72	9.44	22.72	0.92
DoylesR	TR015	2867.64	20Year-Existing	13.30	103.37	104.46	104.58	104.86	0.031982	3.78	7.46	19.82	1.27
DoylesR	TR015	2841.04	20Year-Existing	13.30	102.40	102.96	103.07	103.33	0.105519	3.91	6.44	27.60	2.06
DoylesR	TR015	2804.73	20Year-Existing	13.30	101.67	102.47	102.40	102.57	0.015538	2.17	12.80	35.16	0.86
DoylesR	TR015	2742.98	20Year-Existing	13.30	100.87	101.67	101.62	101.73	0.013014	2.05	17.82	65.90	0.80
DoylesR	TR015	2687.77	20Year-Existing	13.30	100.07	100.66	100.66	100.76	0.028691	2.34	13.29	61.86	1.12
DoylesR	TR015	2638.14	20Year-Existing	13.30	98.95	99.74	99.76	99.88	0.023606	2.77	12.54	48.15	1.07
DoylesR	TR015	2593.26	20Year-Existing	13.30	97.75	98.82	98.76	98.93	0.011422	2.30	13.86	40.63	0.77
DoylesR	TR015	2557.12	20Year-Existing	13.30	97.53	98.55		98.62	0.007701	1.91	16.78	45.07	0.64
DoylesR	TR015	2522.34	20Year-Existing	13.30	97.26	98.14	98.14	98.28	0.016659	2.26	11.64	39.05	0.90
DoylesR	TR015	2483.94	20Year-Existing	13.30	96.95	97.67	97.61	97.72	0.013600	1.76	16.43	59.79	0.77
DoylesR	TR015	2438.99	20Year-Existing	13.30	96.35	97.40		97.44	0.004573	1.44	23.79	85.67	0.49
DoylesR	TR015	2387.12	20Year-Existing	13.30	96.39	97.29		97.29	0.002002	0.80	38.62	120.70	0.31
DoylesR	TR015	2352.45	20Year-Existing	13.30	96.40	97.25		97.25	0.000772	0.49	48.25	98.49	0.19
DoylesR	TR015	2283.37	20Year-Existing	13.30	95.75	97.09		97.15	0.003381	1.52	15.31	21.99	0.45
DoylesR	TR015	2231.50	20Year-Existing	13.30	95.54	96.66		96.84	0.012484	2.47	9.13	17.21	0.82
DoylesR	TR015	2160.12	20Year-Existing	13.30	94.93	95.92		96.03	0.009437	1.95	11.09	21.74	0.70
DoylesR	TR015	2119.11	20Year-Existing	13.30	94.44	95.47	95.43	95.62	0.012900	2.35	10.88	26.52	0.82

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR015	2075.88	20Year-Existing	13.30	93.86	94.77	94.76	94.96	0.018052	2.52	10.03	38.80	0.96
DoylesR	TR015	2024.01	20Year-Existing	13.30	93.19	94.25	94.17	94.34	0.008976	1.97	14.83	47.25	0.68
DoylesR	TR015	1972.14	20Year-Existing	13.30	92.71	93.67	93.67	93.79	0.015216	2.45	12.89	61.52	0.87
DoylesR	TR015	1921.75	20Year-Existing	13.30	92.35	93.36	93.06	93.38	0.002771	1.10	26.03	68.01	0.38
DoylesR	TR015	1851.62	20Year-Existing	13.30	91.24	92.71	92.71	93.07	0.013740	3.02	6.72	12.77	0.87
DoylesR	TR014	2057.49	20Year-Existing	8.00	125.48	126.50	126.31	126.53	0.003429	1.11	16.61	60.27	0.41
DoylesR	TR014	2037.89	20Year-Existing	8.00	125.57	126.49		126.50	0.000636	0.50	36.21	97.80	0.18
DoylesR	TR014	1988.88	20Year-Existing	8.00	124.71	126.41	125.51	126.45	0.000951	0.94	12.96	40.86	0.24
DoylesR	TR014	1980		Culvert									
DoylesR	TR014	1975.46	20Year-Existing	8.00	124.46	126.26		126.31	0.000935	0.97	9.28	8.67	0.25
DoylesR	TR014	1936.56	20Year-Existing	8.00	124.86	126.11		126.23	0.004947	1.79	6.88	13.17	0.54
DoylesR	TR014	1904.43	20Year-Existing	8.00	124.72	125.72	125.72	125.97	0.013578	2.49	4.82	10.73	0.86
DoylesR	TR014	1867.03	20Year-Existing	8.00	124.61	125.57	125.34	125.63	0.004561	1.42	10.01	23.89	0.50
DoylesR	TR014	1801.50	20Year-Existing	8.00	124.00	124.90	124.90	125.11	0.015816	2.50	5.49	13.46	0.91
DoylesR	TR014	1765.57	20Year-Existing	8.00	123.20	123.72	123.84	124.10	0.058704	3.10	3.70	16.54	1.57
DoylesR	TR014	1703.29	20Year-Existing	8.00	121.82	122.62	122.57	122.81	0.013974	2.21	5.32	16.14	0.84
DoylesR	TR014	1657.91	20Year-Existing	8.00	121.27	122.00	121.99	122.17	0.014491	1.98	5.68	18.52	0.83
DoylesR	TR014	1607.98	20Year-Existing	8.00	120.59	121.39	121.39	121.50	0.011823	1.94	9.30	42.66	0.76
DoylesR	TR014	1544.18	20Year-Existing	8.00	119.81	120.64	120.64	120.76	0.011801	2.02	9.08	40.39	0.77
DoylesR	TR014	1492.70	20Year-Existing	8.00	119.06	119.66	119.72	119.85	0.028258	2.46	6.56	35.88	1.13
DoylesR	TR014	1441.23	20Year-Existing	8.00	117.59	118.53	118.52	118.83	0.020375	2.98	4.60	12.17	1.04
DoylesR	TR014	1420.98	20Year-Existing	8.00	116.98	118.09	117.66	118.14	0.002782	1.25	9.79	13.02	0.40
DoylesR	TR014	1411.86	20Year-Existing	8.00	117.03	118.00	117.65	118.09	0.004961	1.62	6.42	11.88	0.53
DoylesR	TR014	1400		Bridge									
DoylesR	TR014	1384.41	20Year-Existing	9.20	116.71	117.47	117.40	117.70	0.014902	2.25	4.63	9.72	0.87
DoylesR	TR014	1374.60	20Year-Existing	9.20	116.54	117.42		117.54	0.007975	1.75	6.65	11.47	0.64
DoylesR	TR014	1353.25	20Year-Existing	9.20	116.21	117.02	117.02	117.28	0.018920	2.52	4.71	9.52	0.98
DoylesR	TR014	1309.14	20Year-Existing	9.20	115.50	116.36	116.22	116.54	0.009618	1.84	5.19	8.39	0.70
DoylesR	TR014	1296.25	20Year-Existing	9.20	115.12	116.04	116.04	116.33	0.018222	2.73	4.52	7.92	0.98
DoylesR	TR014	1239.25	20Year-Existing	9.20	113.43	114.05	114.22	114.58	0.055922	3.56	3.45	10.65	1.60
DoylesR	TR014	1203.69	20Year-Existing	9.20	112.84	113.64	113.53	113.71	0.009540	1.84	9.59	25.04	0.69
DoylesR	TR014	1182.25	20Year-Existing	9.20	112.53	113.27	113.27	113.43	0.017320	2.28	7.06	20.26	0.92
DoylesR	TR014	1125.25	20Year-Existing	9.20	111.30	112.43	112.21	112.48	0.004234	1.52	12.13	22.88	0.48
DoylesR	TR014	1104.23	20Year-Existing	9.20	111.16	112.11	112.11	112.31	0.015463	2.44	6.45	16.27	0.89
DoylesR	TR014	1094.88	20Year-Existing	9.20	110.55	111.27	111.51	111.99	0.071899	4.60	3.27	9.25	1.86
DoylesR	TR014	1075.36	20Year-Existing	9.20	110.17	111.13	111.20	111.40	0.022050	3.09	6.33	18.15	1.07
DoylesR	TR014	1027.18	20Year-Existing	9.20	109.15	109.95	110.01	110.22	0.027712	2.90	5.57	16.10	1.16
DoylesR	TR014	980.74	20Year-Existing	9.20	107.89	108.90	108.57	108.94	0.003892	1.39	12.14	20.40	0.46
DoylesR	TR014	954.47	20Year-Existing	9.20	107.68	108.53	108.53	108.73	0.018447	2.53	6.58	18.14	0.96
DoylesR	TR014	934.37	20Year-Existing	9.20	106.99	107.84	107.92	108.21	0.031053	3.16	5.01	15.08	1.23
DoylesR	TR014	907.24	20Year-Existing	9.20	106.52	107.40	107.33	107.48	0.010439	2.00	10.24	27.04	0.73
DoylesR	TR014	868.80	20Year-Existing	9.20	105.88	106.73	106.73	106.95	0.018071	2.49	6.16	15.99	0.95
DoylesR	TR014	864.98	20Year-Existing	9.20	105.70	106.59	106.63	106.88	0.020680	2.54	4.64	11.91	1.00
DoylesR	TR014	844.06	20Year-Existing	9.20	105.10	106.21	106.07	106.35	0.008056	2.03	7.13	12.40	0.67
DoylesR	TR014	836.52	20Year-Existing	9.20	104.97	105.98	105.98	106.25	0.017875	2.63	5.08	10.55	0.95
DoylesR	TR014	816.09	20Year-Existing	9.20	104.78	105.55	105.50	105.67	0.013599	1.97	7.85	22.88	0.81
DoylesR	TR014	811.48	20Year-Existing	9.20	104.64	105.54		105.61	0.006726	1.61	10.23	22.22	0.59
DoylesR	TR014	783.28	20Year-Existing	9.20	103.98	105.02	105.02	105.29	0.017589	2.90	5.24	9.66	0.97
DoylesR	TR014	751.27	20Year-Existing	9.20	103.31	104.25	104.31	104.61	0.025784	2.74	3.79	8.46	1.11
DoylesR	TR014	717.94	20Year-Existing	9.20	102.63	103.88	103.88	104.11	0.013060	2.81	6.39	13.08	0.85
DoylesR	TR014	676.43	20Year-Existing	9.20	102.18	103.26	103.22	103.46	0.011615	2.26	6.45	15.70	0.78
DoylesR	TR014	601.44	20Year-Existing	9.20	101.39	102.18	102.18	102.34	0.019086	2.37	6.58	19.30	0.96
DoylesR	TR014	540.83	20Year-Existing	9.20	100.49	102.10	101.40	102.13	0.000951	0.92	19.52	36.98	0.25
DoylesR	TR014	519.25	20Year-Existing	9.20	99.69	102.11	101.37	102.12	0.000104	0.36	58.58	74.38	0.08
DoylesR	TR014	510		Culvert									
DoylesR	TR014	505.00	20Year-Existing	9.20	99.62	101.32	101.32	102.11	0.017778	4.00	2.39	24.86	1.00
DoylesR	TR014	484.27	20Year-Existing	9.20	99.79	100.52	100.77	101.35	0.113526	4.78	2.78	10.16	2.17
DoylesR	TR014	426.15	20Year-Existing	9.20	98.71	99.73	99.73	100.00	0.017300	2.40	4.65	12.16	0.92
DoylesR	TR014	368.05	20Year-Existing	9.20	97.30	98.41	98.53	98.78	0.027150	3.08	4.67	14.04	1.13
DoylesR	TR014	343.01	20Year-Existing	9.20	96.78	98.12	97.63	98.23	0.003159	1.49	6.87	65.59	0.43
DoylesR	TR014	335		Bridge									
DoylesR	TR014	331.91	20Year-Existing	9.20	96.63	97.74	97.74	98.09	0.016778	2.74	3.85	6.55	0.93
DoylesR	TR014	312.09	20Year-Existing	9.20	96.26	97.54	97.57	97.71	0.013774	2.18	7.92	32.13	0.79
DoylesR	TR014	227.09	20Year-Existing	9.20	94.66	96.35	96.04	96.40	0.002773	1.38	14.19	26.55	0.38
DoylesR	TR014	205.76	20Year-Existing	9.20	94.51	96.04	96.04	96.28	0.010724	2.47	6.31	16.24	0.73
DoylesR	TR014	198.96	20Year-Existing	9.20	94.45	95.09	95.36	96.03	0.131122	4.32	2.21	8.07	2.30
DoylesR	TR014	181.77	20Year-Existing	9.20	94.01	95.12	95.12	95.31	0.013362	2.34	7.26	21.18	0.82
DoylesR	TR014	121.12	20Year-Existing	9.20	92.99	94.12	94.20	94.38	0.016146	2.61	7.89	53.94	0.90
DoylesR	TR014	34.73	20Year-Existing	9.20	91.60	92.42	92.47	92.73	0.025355	2.65	4.38	10.36	1.10
DoylesR	TR012	1780.65	20Year-Existing	22.40	90.30	92.07	91.49	92.16	0.002458	1.47	21.49	32.19	0.39
DoylesR	TR012	1753.67	20Year-Existing	22.40	89.56	92.10	90.96	92.12	0.000384	0.84	52.58	61.05	0.17
DoylesR	TR012	1745		Bridge									
DoylesR	TR012	1729.43	20Year-Existing	22.40	89.10	90.81	90.81	91.50	0.015676	3.76	6.30	12.15	0.97
DoylesR	TR012	1709.20	20Year-Existing	22.40	88.93	90.41	90.61	91.08	0.025975	4.24	8.94	19.58	1.21
DoylesR	TR012	1645.76	20Year-Existing	22.40	88.20	89.32	89.32	89.64	0.018172	2.94	10.69	17.34	0.99
DoylesR	TR011	1552.47	20Year-Existing	32.30	86.48	88.50	88.13	88.80	0.006038	2.65	16.33	13.71	0.64
DoylesR	TR011	1530.88	20Year-Existing	32.30	86.19	87.99	87.99	88.58	0.014687	3.84	11.72	10.66	0.98
DoylesR	TR011	1477.56	20Year-Existing	32.30	84.43	85.69	86.10	87.07	0.064021	5.85	7.84	12.83	1.87
DoylesR	TR011	1423.69	20Year-Existing	32.30	83.56	85.29	85.29	85.89	0.015071	3.72	11.13	10.45	0.98
DoylesR	TR011	1370.10	20Year-Existing	32.30	82.66	83.90	84.12	84.62	0.041345	4.81	12.43	29.56	1.53
DoylesR	TR011	1316.51	20Year-Existing	32.30	81.17	82.75	82.75	83.32	0.017678	3.74	11.44	12.64	1.04
DoylesR	TR011	1262.92	20Year-Existing	32.30	79.36	80.92	81.22	81.99	0.034495	5.06	8.81	12.25	1.43
DoylesR	TR011	1209.33	20Year-Existing	32.30	78.14	80.13	80.18	80.78	0.015581	3.94	11.11	11.39	0.99
DoylesR	TR011	1155.74	20Year-Existing	32.30	76.81	78.53	78.84	79.57	0.032053	4.94	8.37	9.21	1.37
DoylesR	TR011	1107.39	20Year-Existing	32.30	76.34	77.87	77.87	78.36	0.015962	3.23	11.50	12.94	0.97

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR011	1057.82	20Year-Existing	32.30	75.16	77.06	77.07	77.60	0.014414	3.51	11.62	12.07	0.93
DoylesR	TR011	971.36	20Year-Existing	32.30	73.33	74.94	74.47	75.17	0.004762	2.11	15.33	18.96	0.55
DoylesR	TR011	960		Bridge									
DoylesR	TR011	949.62	20Year-Existing	32.30	73.08	74.86	74.15	75.03	0.002894	1.82	17.75	14.22	0.45
DoylesR	TR011	929.53	20Year-Existing	32.30	72.74	74.47	74.32	74.86	0.010351	2.96	13.13	12.26	0.80
DoylesR	TR011	872.05	20Year-Existing	32.30	72.26	74.02	74.02	74.24	0.009478	2.81	24.52	54.89	0.76
DoylesR	TR011	816.76	20Year-Existing	32.30	72.00	73.00	72.94	73.08	0.013936	2.25	31.79	93.22	0.82
DoylesR	TR011	760.16	20Year-Existing	32.30	71.25	72.41		72.49	0.010330	2.34	35.70	98.36	0.75
DoylesR	TR011	712.26	20Year-Existing	32.30	70.34	71.72	71.64	71.88	0.013186	2.86	25.17	65.95	0.86
DoylesR	TR011	663.11	20Year-Existing	32.30	70.08	71.42		71.45	0.005543	1.74	49.22	128.48	0.53
DoylesR	TR013	2205.78	20Year-Existing	7.00	95.88	96.62	96.38	96.63	0.001253	0.68	25.87	98.29	0.25
DoylesR	TR013	2147.59	20Year-Existing	7.00	95.87	96.53		96.54	0.001938	0.72	17.48	56.95	0.30
DoylesR	TR013	2097.40	20Year-Existing	7.00	95.86	96.22	96.22	96.29	0.029764	1.73	8.32	64.27	1.06
DoylesR	TR013	2011.99	20Year-Existing	7.00	93.67	94.65	94.49	94.77	0.007315	1.74	5.34	10.68	0.62
DoylesR	TR013	1957.46	20Year-Existing	7.00	93.05	93.97	93.97	94.21	0.016245	2.65	4.22	9.65	0.93
DoylesR	TR013	1909.18	20Year-Existing	7.00	92.33	93.20	93.28	93.40	0.015597	2.35	5.91	36.04	0.88
DoylesR	TR013	1861.01	20Year-Existing	7.00	91.27	92.19	92.33	92.53	0.021531	2.76	3.96	22.57	1.03
DoylesR	TR013	1789.09	20Year-Existing	7.00	90.00	90.53	90.58	90.67	0.029541	2.23	7.09	56.57	1.12
DoylesR	TR013	1733.37	20Year-Existing	7.00	89.53	90.22	90.11	90.24	0.003854	0.94	15.51	74.77	0.42
DoylesR	TR013	1677.65	20Year-Existing	7.00	89.42	89.81		89.85	0.015522	1.30	9.53	55.77	0.77
DoylesR	TR013	1613.85	20Year-Existing	7.00	89.11	89.60		89.61	0.001790	0.53	24.41	96.17	0.27
DoylesR	TR013	1552.30	20Year-Existing	7.00	88.82	89.51		89.52	0.001864	0.73	20.61	67.69	0.30
DoylesR	TR013	1506.96	20Year-Existing	7.00	88.81	89.44		89.45	0.001860	0.69	20.09	64.31	0.30
DoylesR	TR013	1478.17	20Year-Existing	7.00	88.80	89.26		89.31	0.019374	1.60	8.51	41.95	0.88
DoylesR	TR013	1411.61	20Year-Existing	7.00	88.11	89.05		89.07	0.001451	0.76	13.63	29.83	0.28
DoylesR	TR013	1388.58	20Year-Existing	7.00	87.45	89.05	88.80	89.06	0.000108	0.30	54.68	153.08	0.08
DoylesR	TR013	1375		Culvert									
DoylesR	TR013	1373.86	20Year-Existing	7.00	87.32	88.59	88.50	88.67	0.004732	1.73	7.66	14.56	0.51
DoylesR	TR013	1301.72	20Year-Existing	7.00	86.82	87.77	87.77	88.06	0.017494	2.57	3.46	6.70	0.94
DoylesR	TR013	1246.99	20Year-Existing	7.00	85.79	86.62	86.67	86.95	0.023584	2.65	2.98	6.32	1.07
DoylesR	TR013	1192.26	20Year-Existing	7.00	84.79	85.81	85.63	85.95	0.007844	1.83	5.30	10.40	0.64
DoylesR	TR013	1137.53	20Year-Existing	7.00	84.03	85.08	85.06	85.36	0.015037	2.47	3.53	7.05	0.88
DoylesR	TR013	1082.80	20Year-Existing	7.00	83.55	84.42	84.42	84.54	0.013948	1.90	6.27	21.72	0.79
DoylesR	TR013	1064.90	20Year-Existing	7.00	82.57	84.46	83.55	84.48	0.000498	0.66	23.48	105.83	0.17
DoylesR	TR013	1050		Culvert									
DoylesR	TR013	1042.53	20Year-Existing	7.00	82.41	84.15	83.32	84.16	0.000387	0.57	25.41	63.73	0.15
DoylesR	TR013	1022.06	20Year-Existing	7.00	82.71	83.98	83.74	84.12	0.006314	1.97	5.20	7.79	0.60
DoylesR	TR013	969.32	20Year-Existing	7.00	82.40	83.27	83.27	83.55	0.020140	2.75	3.54	6.64	1.01
DoylesR	TR013	915.66	20Year-Existing	7.00	81.80	82.87	82.49	82.88	0.001403	0.86	16.90	38.27	0.28
DoylesR	TR013	867.93	20Year-Existing	7.00	81.40	82.75		82.79	0.002376	1.29	12.14	30.83	0.37
DoylesR	TR013	809.27	20Year-Existing	7.00	81.32	82.48		82.59	0.004973	1.59	5.55	9.16	0.52
DoylesR	TR013	756.07	20Year-Existing	7.00	80.75	81.80	81.80	82.13	0.016295	2.84	3.36	5.48	0.94
DoylesR	TR013	702.82	20Year-Existing	7.00	79.91	80.93	80.93	81.24	0.016921	2.75	3.51	6.45	0.94
DoylesR	TR013	651.60	20Year-Existing	7.00	78.06	78.81	78.98	79.60	0.074018	4.09	1.99	5.33	1.80
DoylesR	TR013	588.74	20Year-Existing	7.00	75.89	76.80	76.83	77.08	0.022720	2.41	3.15	7.29	1.01
DoylesR	TR013	543.29	20Year-Existing	7.00	75.20	75.84	75.93	76.22	0.043056	2.75	2.63	7.12	1.35
DoylesR	TR013	489.08	20Year-Existing	7.00	73.77	74.84	74.84	75.17	0.017149	2.86	3.32	5.46	0.95
DoylesR	TR013	436.90	20Year-Existing	7.00	72.11	72.95	73.29	73.62	0.058893	3.67	2.00	4.55	1.59
DoylesR	TR013	383.70	20Year-Existing	7.00	70.97	72.37	71.82	72.39	0.000768	0.72	21.82	80.49	0.21
DoylesR	TR013	363.75	20Year-Existing	7.00	70.36	71.90	71.90	72.31	0.009666	3.03	3.24	9.00	0.79
DoylesR	TR013	360		Culvert									
DoylesR	TR013	344.87	20Year-Existing	7.00	70.32	71.70	71.70	71.71	0.000578	0.62	24.34	48.31	0.17
DoylesR	TR013	324.16	20Year-Existing	7.00	70.29	70.84	70.97	71.48	0.157597	4.41	3.02	30.22	2.44
DoylesR	TR013	256.30	20Year-Existing	7.00	69.36	70.27	70.27	70.35	0.014555	1.97	8.67	44.99	0.77
DoylesR	TR013	236.50	20Year-Existing	7.00	69.35	70.17	69.96	70.17	0.000907	0.42	31.46	115.47	0.19
DoylesR	TR013	162.98	20Year-Existing	7.00	68.94	70.12		70.12	0.000858	0.55	27.92	108.72	0.20
DoylesR	TR013	133.14	20Year-Existing	7.00	68.76	70.10		70.11	0.000242	0.30	46.42	112.16	0.11
DoylesR	TR013	66.14	20Year-Existing	7.00	68.46	70.09		70.09	0.000248	0.36	35.82	111.26	0.11
DoylesR	M001	484.12	20Year-Existing	39.30	68.08	69.66	69.60	69.83	0.015145	2.83	29.12	86.67	0.87
DoylesR	M001	429.44	20Year-Existing	39.30	67.72	69.49		69.52	0.002751	1.35	62.17	124.44	0.38
DoylesR	M001	388.03	20Year-Existing	39.30	67.53	69.40		69.42	0.002156	1.26	73.98	138.08	0.34
DoylesR	M001	344.78	20Year-Existing	39.30	67.39	69.38		69.38	0.000390	0.57	150.17	211.81	0.15
DoylesR	M001	215.64	20Year-Existing	39.30	67.21	69.37		69.37	0.000038	0.20	350.54	333.69	0.05
DoylesR	M001	77.13	20Year-Existing	39.30	66.62	69.37		69.37	0.000010	0.13	625.78	512.81	0.03
CochranePB	M002	8105.53	20Year-Existing	11.10	140.65	142.15	141.31	142.15	0.000085	0.36	67.37	100.23	0.10
CochranePB	M002	8065.47	20Year-Existing	11.10	140.64	142.13		142.14	0.000497	0.77	32.35	71.99	0.24
CochranePB	M002	8050.98	20Year-Existing	11.10	140.00	142.10		142.13	0.000154	0.91	24.87	59.48	0.26
CochranePB	M002	8024.09	20Year-Existing	11.10	140.62	142.10		142.12	0.000693	0.88	30.21	82.03	0.29
CochranePB	M002	8013.06	20Year-Existing	11.10	140.42	142.10		142.11	0.000361	0.71	35.82	75.29	0.21
CochranePB	M002	8004.70	20Year-Existing	11.10	140.25	142.10	141.80	142.11	0.000216	0.74	48.99	103.15	0.18
CochranePB	M002	8000		Culvert									
CochranePB	M002	7995.14	20Year-Existing	11.10	140.37	142.10	141.46	142.10	0.000130	0.55	47.37	75.49	0.14
CochranePB	M002	7964.49	20Year-Existing	11.10	140.14	141.70	141.70	142.06	0.007458	3.12	5.79	9.34	0.90
CochranePB	M002	7901.64	20Year-Existing	11.10	139.30	140.53	140.81	141.22	0.026780	3.88	3.62	9.51	1.54
CochranePB	M002	7847.08	20Year-Existing	11.10	138.68	139.67	139.64	139.77	0.008984	1.99	10.87	39.55	0.89
CochranePB	M002	7812.33	20Year-Existing	11.10	138.52	139.30	139.30	139.40	0.014054	2.04	10.98	53.86	1.10
CochranePB	M002	7738.34	20Year-Existing	11.10	137.94	138.84	138.69	138.85	0.002213	0.93	25.33	99.97	0.45
CochranePB	M002	7695.32	20Year-Existing	11.10	137.67	138.56	138.56	138.69	0.010333	1.97	9.64	39.88	0.98
CochranePB	M002	7609.21	20Year-Existing	11.10	136.29	137.64	137.32	137.66	0.000656	0.82	25.72	64.95	0.28
CochranePB	M002	7515.77	20Year-Existing	11.10	136.28	137.52		137.56	0.001993	1.32	18.20	62.93	0.47
CochranePB	M002	7476.72	20Year-Existing	11.10	136.26	137.51		137.52	0.000465	0.64	31.98	83.90	0.23
CochranePB	M002	7450.86	20Year-Existing	11.10	136.25	137.48		137.51	0.000915	0.85	22.96	71.40	0.32
CochranePB	M002	7329.89	20Year-Existing	11.10	136.23	137.16	137.16	137.27	0.006937	1.79	11.35	66.18	0.82
CochranePB	M002	7253.62	20Year-Existing	11.10	136.05	137.01	136.81	137.03	0.001874	1.03	20.56	75.87	0.43
CochranePB	M002	7208.54	20Year-Existing	11.10	135.88	136.90		136.94	0.002655	1.27	19.10	82.64	0.52

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	7108.13	20Year-Existing	11.10	135.54	136.43	136.43	136.53	0.009623	2.19	11.70	55.12	0.94
CochranePB	M002	7041.67	20Year-Existing	11.10	134.91	136.01	136.00	136.11	0.004327	1.59	12.10	69.56	0.67
CochranePB	M002	6985.71	20Year-Existing	11.10	134.29	135.47	135.47	135.76	0.008988	2.70	6.82	22.56	0.98
CochranePB	M002	6955.25	20Year-Existing	11.10	133.48	134.54	134.76	135.23	0.033282	3.74	3.26	9.43	1.74
CochranePB	M002	6863.52	20Year-Existing	11.10	131.82	132.77	132.83	132.98	0.016306	2.78	8.19	35.22	1.23
CochranePB	M002	6840.09	20Year-Existing	11.10	131.19	132.07	132.17	132.45	0.032849	3.28	6.05	34.42	1.70
CochranePB	M002	6808.25	20Year-Existing	11.10	130.51	131.38	131.43	131.57	0.021258	2.62	8.15	39.37	1.35
CochranePB	M002	6767.75	20Year-Existing	11.10	129.31	130.22	130.34	130.59	0.026335	3.08	6.19	39.89	1.54
CochranePB	M002	6727.78	20Year-Existing	11.10	128.36	129.38	129.47	129.68	0.018895	2.90	6.56	29.64	1.31
CochranePB	M002	6691.71	20Year-Existing	11.10	127.96	128.95	128.92	129.04	0.007069	1.80	11.90	55.87	0.82
CochranePB	M002	6651.54	20Year-Existing	11.10	127.68	128.57	128.57	128.70	0.011066	1.74	8.03	34.72	0.98
CochranePB	M002	6630.83	20Year-Existing	11.10	127.19	128.31	128.35	128.50	0.008098	2.15	7.83	30.67	0.91
CochranePB	M002	6534.50	20Year-Existing	11.10	126.30	127.20	127.25	127.41	0.016907	2.44	7.54	41.95	1.24
CochranePB	M002	6507.97	20Year-Existing	11.10	125.65	126.51	126.60	126.78	0.031783	2.97	6.98	47.35	1.62
CochranePB	M002	6480.50	20Year-Existing	11.10	124.97	125.83	125.91	126.04	0.024180	2.76	7.44	43.13	1.44
CochranePB	M002	6433.33	20Year-Existing	11.10	124.09	124.98	125.03	125.19	0.017284	2.23	6.82	33.51	1.23
CochranePB	M002	6400.96	20Year-Existing	11.10	123.40	124.44	124.34	124.51	0.005689	1.60	11.31	38.82	0.72
CochranePB	M002	6364.18	20Year-Existing	11.10	123.28	124.46		124.47	0.000213	0.39	36.71	81.56	0.15
CochranePB	M002	6314.31	20Year-Existing	11.10	123.27	124.40		124.44	0.001692	1.04	16.19	47.52	0.42
CochranePB	M002	6286.25	20Year-Existing	11.10	123.26	124.32		124.38	0.002547	1.20	13.62	43.47	0.51
CochranePB	M002	6202.53	20Year-Existing	11.10	122.81	123.89	123.89	124.07	0.007286	2.07	8.11	27.70	0.87
CochranePB	M002	6130.00	20Year-Existing	11.10	122.30	123.24	123.26	123.43	0.011894	1.92	6.30	23.07	1.03
CochranePB	M002	6040.82	20Year-Existing	11.10	121.41	122.50	122.43	122.56	0.002617	1.31	16.14	66.54	0.53
CochranePB	M002	6006.95	20Year-Existing	11.10	121.40	122.49		122.51	0.000634	0.54	26.04	82.72	0.25
CochranePB	M002	5976.09	20Year-Existing	11.10	121.39	122.37	122.37	122.45	0.007857	1.67	12.45	67.97	0.85
CochranePB	M002	5910.40	20Year-Existing	11.10	120.29	121.37	121.47	121.73	0.018279	3.05	6.29	33.40	1.33
CochranePB	M002	5863.68	20Year-Existing	11.10	119.62	120.47	120.58	120.78	0.027716	2.70	5.45	28.54	1.53
CochranePB	M002	5811.63	20Year-Existing	11.10	118.87	119.90	119.93	120.05	0.009510	2.20	9.69	44.98	0.96
CochranePB	M002	5768.42	20Year-Existing	11.10	117.38	118.24	118.46	119.07	0.092308	4.05	2.74	12.29	2.67
CochranePB	M002	5725.36	20Year-Existing	11.10	116.48	117.51	117.57	117.74	0.012621	2.36	6.94	32.38	1.10
CochranePB	M002	5678.58	20Year-Existing	11.10	115.39	116.35	116.49	116.80	0.030267	2.99	3.88	15.52	1.62
CochranePB	M002	5627.04	20Year-Existing	11.10	114.79	116.07	115.79	116.11	0.001477	1.10	16.32	34.84	0.41
CochranePB	M002	5609.94	20Year-Existing	16.70	114.77	115.81	115.80	116.00	0.009631	2.19	10.86	33.59	0.98
CochranePB	M002	5601.00	20Year-Existing	16.70	114.76	115.81		115.83	0.001817	0.99	32.41	102.19	0.42
CochranePB	M002	5568.52	20Year-Existing	16.70	114.75	115.77		115.78	0.001368	0.83	33.67	90.60	0.37
CochranePB	M002	5508.20	20Year-Existing	16.70	114.04	115.44		115.63	0.004157	1.97	9.87	17.94	0.69
CochranePB	M002	5473.67	20Year-Existing	16.70	113.90	115.22	115.22	115.44	0.006789	2.37	10.98	26.55	0.87
CochranePB	M002	5403.83	20Year-Existing	16.70	110.69	111.70	112.19	113.99	0.120840	6.73	2.56	7.17	3.30
CochranePB	M002	5352.19	20Year-Existing	16.70	110.27	111.48	111.55	111.83	0.013578	2.87	7.72	18.82	1.18
CochranePB	M002	5309.83	20Year-Existing	16.70	109.64	110.96	111.09	111.31	0.011413	2.89	9.42	38.61	1.11
CochranePB	M002	5266.90	20Year-Existing	16.70	109.30	110.52	110.62	110.81	0.012091	2.85	12.43	65.39	1.12
CochranePB	M002	5213.45	20Year-Existing	16.70	108.81	110.24	109.84	110.26	0.000757	0.84	34.51	70.46	0.29
CochranePB	M002	5162.38	20Year-Existing	31.70	108.18	109.92	109.92	110.15	0.005359	2.88	24.26	50.85	0.83
CochranePB	M002	5109.83	20Year-Existing	31.70	108.02	109.36	109.12	109.41	0.003015	1.48	39.93	93.95	0.56
CochranePB	M002	5059.83	20Year-Existing	31.70	107.54	109.07	109.07	109.23	0.005143	2.38	28.95	80.63	0.78
CochranePB	M002	5013.20	20Year-Existing	31.70	107.21	108.74	108.80	108.97	0.008483	2.71	25.23	89.96	0.96
CochranePB	M002	4977.38	20Year-Existing	31.70	107.07	108.58	108.41	108.62	0.001914	1.43	49.32	130.83	0.48
CochranePB	M002	4908.49	20Year-Existing	31.70	106.95	108.56		108.57	0.000506	0.83	90.01	190.10	0.25
CochranePB	M002	4883.44	20Year-Existing	31.70	106.94	108.55		108.55	0.000252	0.57	110.36	192.78	0.18
CochranePB	M002	4816.97	20Year-Existing	31.70	106.93	108.54		108.54	0.000249	0.57	112.05	212.72	0.18
CochranePB	M002	4757.22	20Year-Existing	31.70	106.78	108.53		108.53	0.000162	0.51	131.51	237.40	0.15
CochranePB	M002	4718.65	20Year-Existing	31.70	106.77	108.52		108.53	0.000256	0.65	109.91	263.93	0.19
CochranePB	M002	4674.22	20Year-Existing	31.70	106.76	108.49		108.51	0.000584	0.98	69.87	203.91	0.28
CochranePB	M002	4633.22	20Year-Existing	31.70	106.75	108.48		108.50	0.000239	0.61	74.05	146.00	0.18
CochranePB	M002	4561.03	20Year-Existing	31.70	106.74	108.42		108.47	0.000840	1.11	46.27	92.90	0.33
CochranePB	M002	4506.74	20Year-Existing	31.70	106.43	108.15	108.15	108.36	0.004415	2.43	23.51	54.94	0.74
CochranePB	M002	4459.83	20Year-Existing	31.70	105.66	107.10	107.38	107.92	0.019813	4.17	9.42	24.02	1.50
CochranePB	M002	4409.53	20Year-Existing	31.70	104.62	106.10	106.36	106.91	0.020037	4.21	10.04	27.11	1.49
CochranePB	M002	4359.83	20Year-Existing	31.70	103.72	105.21	105.45	105.96	0.017698	3.99	9.32	18.89	1.40
CochranePB	M002	4327.93	20Year-Existing	31.70	103.17	104.80	105.03	105.45	0.013530	3.68	10.23	19.86	1.25
CochranePB	M002	4265.56	20Year-Existing	31.70	102.45	104.06	104.20	104.60	0.012751	3.74	12.54	23.49	1.22
CochranePB	M002	4208.11	20Year-Existing	31.70	101.67	103.17	103.38	103.81	0.014458	3.68	10.63	26.04	1.29
CochranePB	M002	4159.83	20Year-Existing	31.70	101.12	102.08	102.22	102.52	0.057580	3.68	11.25	35.86	2.17
CochranePB	M002	4109.83	20Year-Existing	31.70	98.84	100.32	100.59	101.08	0.016762	4.13	10.12	22.38	1.40
CochranePB	M002	4056.00	20Year-Existing	31.70	97.18	98.61	98.97	99.83	0.031139	5.16	7.52	14.11	1.84
CochranePB	M002	4009.83	20Year-Existing	31.70	96.33	98.08	98.26	98.65	0.014917	4.27	16.84	58.60	1.29
CochranePB	M002	3969.03	20Year-Existing	31.70	95.62	97.14	97.56	98.01	0.016236	4.31	8.45	11.20	1.40
CochranePB	M002	3916.58	20Year-Existing	31.70	94.82	96.80	97.01	97.31	0.008185	3.45	14.01	44.98	0.98
CochranePB	M002	3859.82	20Year-Existing	31.70	94.34	95.84	96.07	96.63	0.017411	3.96	8.12	10.76	1.39
CochranePB	M002	3810.05	20Year-Existing	31.70	93.50	95.18	95.48	95.89	0.012015	3.88	9.30	11.55	1.21
CochranePB	M002	3759.83	20Year-Existing	31.70	93.00	94.53	94.76	95.21	0.013754	3.95	12.45	46.97	1.28
CochranePB	M002	3709.28	20Year-Existing	31.70	92.33	93.94	94.14	94.51	0.012782	3.75	14.11	47.27	1.22
CochranePB	M002	3661.60	20Year-Existing	31.70	92.05	93.68	93.79	94.00	0.007185	2.98	21.71	102.65	0.93
CochranePB	M002	3609.83	20Year-Existing	31.70	91.73	93.28	93.37	93.58	0.008957	3.07	20.42	73.84	1.02
CochranePB	M002	3559.90	20Year-Existing	31.70	90.87	92.66	92.86	93.12	0.007993	3.39	15.96	48.20	0.99
CochranePB	M002	3509.83	20Year-Existing	31.70	90.38	92.08	92.28	92.65	0.010758	3.93	15.36	49.84	1.16
CochranePB	M002	3493.23	20Year-Existing	31.70	90.02	92.18	91.69	92.38	0.001967	2.46	20.24	15.63	0.55
CochranePB	M002	3480		Bridge									
CochranePB	M002	3474.26	20Year-Existing	31.70	89.91	92.21	91.33	92.32	0.000837	1.73	25.58	16.75	0.37
CochranePB	M002	3466.43	20Year-Existing	31.70	90.00	91.43	91.43	92.13	0.007430	3.81	9.61	9.38	1.03
CochranePB	M002	3454.35	20Year-Existing	31.70	89.94	91.69	91.29	91.92	0.002320	2.35	17.27	15.85	0.59
CochranePB	M002	3450		Bridge									
CochranePB	M002	3434.16	20Year-Existing	34.70	90.36	91.58	91.44	91.88	0.004777	2.63	15.76	19.62	0.80
CochranePB	M002	3413.11	20Year-Existing	34.70	90.14	91.56	91.56	91.71	0.004699	2.46	32.98	89.86	0.76
CochranePB	M002	3391.58	20Year-Existing	34.70	90.03	91.39	91.18	91.50	0.004184	2.33	34.48	86.28	0.73

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	3371.12	20Year-Existing	34.70	90.02	91.18	91.18	91.39	0.006401	2.57	25.77	86.23	0.88
CochranePB	M002	3309.87	20Year-Existing	34.70	89.28	90.48	90.60	90.79	0.017812	4.02	20.72	81.09	1.39
CochranePB	M002	3272.96	20Year-Existing	34.70	88.73	90.17	90.18	90.36	0.006811	2.71	25.96	73.00	0.88
CochranePB	M002	3219.09	20Year-Existing	34.70	88.30	89.63	89.73	89.91	0.011284	3.22	22.00	78.32	1.13
CochranePB	M002	3175.54	20Year-Existing	34.70	87.36	89.32	89.16	89.47	0.001893	1.94	29.68	61.62	0.50
CochranePB	M002	3165		Bridge									
CochranePB	M002	3157.85	20Year-Existing	34.70	87.50	89.08	89.08	89.37	0.004344	2.64	21.26	57.55	0.75
CochranePB	M002	3135.32	20Year-Existing	34.70	87.85	89.01	89.01	89.11	0.005414	2.10	38.74	151.12	0.78
CochranePB	M002	3106.53	20Year-Existing	34.70	87.94	88.77	88.77	88.88	0.018122	2.55	26.46	116.81	1.26
CochranePB	M002	3088.94	20Year-Existing	34.70	86.84	88.55	88.04	88.63	0.000987	1.37	46.23	136.49	0.37
CochranePB	M002	3080		Bridge									
CochranePB	M002	3075.67	20Year-Existing	34.70	86.74	88.25	87.91	88.32	0.001179	1.37	44.68	100.79	0.40
CochranePB	M002	3056.89	20Year-Existing	34.70	87.66	88.08	88.08	88.24	0.023827	1.46	19.50	63.47	1.14
CochranePB	M002	3007.54	20Year-Existing	34.70	87.61	87.86	87.56	87.89	0.002660	0.34	41.97	91.87	0.31
CochranePB	M002	2976.31	20Year-Existing	34.70	87.51	87.80		87.83	0.002397	0.42	46.95	103.49	0.35
CochranePB	M002	2941.08	20Year-Existing	34.70	86.98	87.76		87.77	0.001233	0.66	74.88	214.50	0.33
CochranePB	M002	2920.10	20Year-Existing	34.70	86.74	87.75	87.54	87.76	0.000123	0.27	167.56	295.19	0.10
CochranePB	M002	2915		Bridge									
CochranePB	M002	2912.75	20Year-Existing	34.70	86.97	87.75	87.75	87.75	0.000074	0.23	200.70	313.30	0.09
CochranePB	M002	2890.23	20Year-Existing	34.70	86.65	86.81	86.97	87.53	0.304315	3.28	9.19	69.43	3.75
CochranePB	M002	2823.99	20Year-Existing	34.70	86.08	86.97	86.74	86.99	0.001595	0.78	72.33	227.39	0.35
CochranePB	M002	2789.49	20Year-Existing	34.70	86.04	86.95		86.96	0.001331	0.66	74.84	230.37	0.32
CochranePB	M002	2741.30	20Year-Existing	34.70	85.71	86.89		86.90	0.001030	0.87	79.09	229.76	0.33
CochranePB	M002	2663.79	20Year-Existing	34.70	85.58	86.83		86.85	0.001164	1.01	75.66	230.32	0.36
CochranePB	M002	2639.38	20Year-Existing	34.70	85.57	86.80		86.82	0.001497	1.06	67.72	222.51	0.40
CochranePB	M002	2616.24	20Year-Existing	34.70	85.30	86.78		86.79	0.000795	0.94	85.07	218.47	0.31
CochranePB	M002	2539.69	20Year-Existing	34.70	85.41	86.73		86.75	0.001414	1.07	65.00	198.20	0.40
CochranePB	M002	2489.06	20Year-Existing	34.70	85.18	86.67		86.70	0.001467	1.29	61.66	162.52	0.42
CochranePB	M002	2438.28	20Year-Existing	34.70	84.87	86.61		86.65	0.001256	1.30	59.81	131.62	0.40
CochranePB	M002	2384.01	20Year-Existing	34.70	84.65	86.52		86.58	0.001779	1.67	51.26	117.94	0.47
CochranePB	M002	2310.47	20Year-Existing	34.70	84.33	86.23	86.18	86.38	0.004162	2.44	31.90	86.45	0.70
CochranePB	M002	2284.63	20Year-Existing	34.70	84.16	86.20		86.28	0.002728	2.04	41.41	90.08	0.55
CochranePB	M002	2240.58	20Year-Existing	34.70	84.04	85.86	85.86	86.10	0.005530	2.86	23.35	44.44	0.82
CochranePB	M002	2170.94	20Year-Existing	34.70	82.26	83.72	84.17	85.20	0.035402	5.64	7.41	13.33	1.98
CochranePB	M002	2136.89	20Year-Existing	34.70	81.72	83.17	83.48	84.04	0.023294	4.31	9.45	17.24	1.60
CochranePB	M002	2100.01	20Year-Existing	34.70	81.30	83.02	83.11	83.41	0.008778	3.19	17.39	36.56	1.02
CochranePB	M002	2046.85	20Year-Existing	34.70	80.89	82.42	82.51	82.88	0.010927	3.18	13.38	24.12	1.12
CochranePB	M002	2014.35	20Year-Existing	34.70	80.47	81.85	82.01	82.41	0.018809	3.55	13.01	39.21	1.41
CochranePB	M002	1990.76	20Year-Existing	34.70	80.10	81.78	81.82	82.07	0.007569	2.90	20.03	41.57	0.94
CochranePB	M002	1945.20	20Year-Existing	34.70	79.43	81.36	81.11	81.47	0.002674	2.00	30.59	44.76	0.58
CochranePB	M002	1916.67	20Year-Existing	34.70	79.31	81.19		81.37	0.004231	2.48	25.66	39.98	0.72
CochranePB	M002	1871.48	20Year-Existing	34.70	79.28	81.09		81.20	0.002803	1.87	30.91	44.93	0.58
CochranePB	M002	1836.03	20Year-Existing	34.70	78.83	81.07		81.13	0.000933	1.37	42.28	59.70	0.35
CochranePB	M002	1788.63	20Year-Existing	34.70	78.46	80.51	80.51	80.99	0.008097	3.72	16.26	25.78	1.00
CochranePB	M002	1768.08	20Year-Existing	34.70	78.14	79.89	80.17	80.73	0.016211	4.57	11.35	22.03	1.38
CochranePB	M002	1733.19	20Year-Existing	34.70	77.95	79.75	79.89	80.23	0.008503	3.33	15.99	46.43	1.02
CochranePB	M002	1694.89	20Year-Existing	34.70	77.12	79.07	78.71	79.19	0.002132	1.84	28.75	38.30	0.53
CochranePB	M002	1685.79	20Year-Existing	34.70	77.06	79.01		79.16	0.002798	2.12	25.03	33.39	0.60
CochranePB	M002	1640.51	20Year-Existing	34.70	76.45	78.58	78.58	78.97	0.005044	3.10	16.84	25.71	0.82
CochranePB	M002	1602.99	20Year-Existing	34.70	75.01	76.32	76.85	78.35	0.064632	6.46	6.08	13.55	2.59
CochranePB	M002	1585.52	20Year-Existing	34.70	74.01	75.19	75.61	76.96	0.086693	6.28	6.83	19.30	2.89
CochranePB	M002	1569.47	20Year-Existing	34.70	73.71	74.87	75.10	75.67	0.045049	4.09	9.24	26.40	2.04
CochranePB	M002	1541.97	20Year-Existing	34.70	72.31	73.88	74.17	74.81	0.022123	4.53	9.49	16.95	1.57
CochranePB	M002	1510.83	20Year-Existing	34.70	71.34	72.44	72.75	73.61	0.077212	4.80	7.32	22.70	2.61
CochranePB	M002	1495.27	20Year-Existing	34.70	71.19	72.84	72.64	72.98	0.003335	1.80	24.91	39.40	0.63
CochranePB	M002	1458.62	20Year-Existing	34.70	70.58	72.43	72.43	72.77	0.007264	3.51	20.74	38.47	0.96
CochranePB	M002	1419.61	20Year-Existing	34.70	70.21	71.84	72.00	72.40	0.011799	3.87	15.01	32.06	1.20
CochranePB	M002	1384.56	20Year-Existing	34.70	69.61	71.65	71.52	72.03	0.004475	2.85	15.21	28.81	0.77
CochranePB	M002	1351.51	20Year-Existing	34.70	69.54	71.64	71.64	71.86	0.003164	2.54	27.78	76.41	0.66
CochranePB	M002	1311.78	20Year-Existing	34.70	69.49	71.26	71.39	71.65	0.007264	3.32	21.48	88.08	0.96
CochranePB	M002	1291.19	20Year-Existing	34.70	69.28	70.86	71.07	71.44	0.012857	3.93	15.83	59.05	1.23
CochranePB	M002	1217.75	20Year-Existing	34.70	68.70	70.68	70.12	70.73	0.000687	1.19	51.96	89.21	0.31
CochranePB	M002	1200.39	20Year-Existing	34.70	68.69	70.47	70.07	70.69	0.002440	2.12	16.97	18.33	0.58
CochranePB	M002	1190		Bridge									
CochranePB	M002	1185.68	20Year-Existing	35.50	68.46	70.46	69.75	70.62	0.001237	1.76	20.66	24.84	0.43
CochranePB	M002	1164.32	20Year-Existing	35.50	68.65	70.33	70.33	70.56	0.003472	2.55	25.55	66.40	0.69
CochranePB	M002	1132.60	20Year-Existing	35.50	68.60	69.74	69.89	70.29	0.022290	3.93	15.54	81.92	1.55
CochranePB	M002	1111.68	20Year-Existing	35.50	68.55	69.70	69.55	69.78	0.003923	1.92	38.80	125.09	0.68
CochranePB	M002	1059.95	20Year-Existing	35.50	68.38	69.49		69.61	0.005158	2.45	32.36	89.74	0.80
CochranePB	M002	998.99	20Year-Existing	35.50	68.13	69.38		69.41	0.001791	1.55	56.68	165.28	0.47
CochranePB	M002	955.54	20Year-Existing	35.50	68.12	69.38		69.38	0.000133	0.41	162.37	254.63	0.13
CochranePB	M002	851.16	20Year-Existing	35.50	67.62	69.37		69.37	0.000060	0.34	202.78	244.46	0.09
CochranePB	M002	798.06	20Year-Existing	35.50	67.47	69.37		69.37	0.000029	0.25	266.70	278.79	0.06
CochranePB	M002	746.77	20Year-Existing	35.50	67.30	69.37		69.37	0.000012	0.18	365.92	317.58	0.04
CochranePB	M002	694.52	20Year-Existing	35.50	66.98	69.37		69.37	0.000007	0.15	446.58	360.71	0.03
CochranePB	M002	669.16	20Year-Existing	35.50	66.97	69.37		69.37	0.000006	0.13	498.02	390.20	0.03
CochranePB	M002	590.19	20Year-Existing	35.50	66.84	69.37		69.37	0.000004	0.11	592.66	463.99	0.03
CochranePB	M002	539.85	20Year-Existing	35.50	66.81	69.37		69.37	0.000004	0.11	604.25	479.42	0.02
CochranePB	M002	488.40	20Year-Existing	35.50	66.54	69.37		69.37	0.000003	0.10	644.87	491.84	0.02
CochranePB	M001	381.27	20Year-Existing	71.10	66.35	69.37		69.37	0.000022	0.21	743.59	584.71	0.04
CochranePB	M001	313.14	20Year-Existing	71.10	66.28	69.37		69.37	0.000015	0.16	881.66	653.29	0.03

Petty Harbour River 20yr Q+10%

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	TR001	439.21	20Year-Existing	29.59	105.11	106.39	106.15	106.49	0.005101	1.86	32.88	58.66	0.55
RaymondB	TR001	409.42	20Year-Existing	29.59	104.68	105.92	105.92	106.22	0.014791	3.08	17.58	29.70	0.94
RaymondB	TR001	380.07	20Year-Existing	29.59	104.05	105.79	105.10	105.85	0.001770	1.36	40.01	55.50	0.34
RaymondB	TR001	360.64	20Year-Existing	29.59	103.60	105.78	104.99	105.82	0.000810	1.05	60.43	80.27	0.24
RaymondB	TR001	350		Bridge									
RaymondB	TR001	344.45	20Year-Existing	29.59	103.30	104.56	104.94	105.52	0.040478	5.05	9.33	28.30	1.51
RaymondB	TR001	334.13	20Year-Existing	29.59	103.40	104.32	104.60	105.04	0.037633	3.95	10.31	36.69	1.41
RaymondB	TR001	272.22	20Year-Existing	29.59	102.83	103.82	103.82	104.12	0.020103	3.07	17.25	39.97	1.05
RaymondB	TR001	218.50	20Year-Existing	29.59	101.42	102.69	102.78	103.13	0.016209	3.25	14.01	25.87	0.98
RaymondB	TR001	163.97	20Year-Existing	29.59	100.32	101.76	101.26	101.89	0.003718	1.70	21.94	24.91	0.48
RaymondB	TR001	115.54	20Year-Existing	29.59	100.00	101.14	101.14	101.52	0.017500	3.27	14.12	20.90	1.01
RaymondB	TR001	56.65	20Year-Existing	29.59	97.73	98.47	98.77	99.46	0.074843	4.72	7.77	16.06	1.91
RaymondB	M002	6453.60	20Year-Existing	18.92	118.10	125.23	118.90	125.23	0.000000	0.03	666.05	233.61	0.00
RaymondB	M002	6405.52	20Year-Existing	18.92	118.00	125.23		125.23	0.000000	0.03	676.29	228.51	0.00
RaymondB	M002	6347.04	20Year-Existing	18.92	124.73	125.16		125.22	0.006286	1.08	17.67	41.42	0.52
RaymondB	M002	6247.26	20Year-Existing	18.92	117.21	118.27		118.33	0.003825	1.41	23.38	35.05	0.46
RaymondB	M002	6230.10	20Year-Existing	18.92	117.20	118.26		118.29	0.001735	0.93	29.00	42.69	0.31
RaymondB	M002	6205.35	20Year-Existing	18.92	117.28	118.23		118.24	0.001577	0.82	40.13	60.54	0.29
RaymondB	M002	6143.06	20Year-Existing	18.92	117.18	118.10		118.13	0.002261	0.96	35.78	63.35	0.34
RaymondB	M002	6105.93	20Year-Existing	18.92	117.17	117.98		118.02	0.003166	1.02	27.20	61.26	0.40
RaymondB	M002	6026.35	20Year-Existing	18.92	116.81	117.78		117.80	0.002141	0.97	31.10	47.11	0.34
RaymondB	M002	5933.71	20Year-Existing	18.92	116.42	117.50		117.56	0.003121	1.28	25.13	59.55	0.42
RaymondB	M002	5883.92	20Year-Existing	18.92	116.12	117.27		117.38	0.004387	1.56	16.87	29.04	0.50
RaymondB	M002	5785.15	20Year-Existing	18.92	115.75	116.82		116.92	0.005069	1.55	17.68	31.02	0.53
RaymondB	M002	5732.44	20Year-Existing	18.92	115.46	116.47		116.60	0.006692	1.70	13.70	25.46	0.60
RaymondB	M002	5631.37	20Year-Existing	18.92	114.85	115.75		115.84	0.008420	1.67	19.12	45.52	0.65
RaymondB	M002	5500.15	20Year-Existing	18.92	114.62	115.67		115.67	0.000653	0.55	66.86	128.97	0.19
RaymondB	M002	5485.46	20Year-Existing	18.92	114.53	115.66		115.66	0.000407	0.47	83.71	165.83	0.15
RaymondB	M002	5411.19	20Year-Existing	18.92	114.48	115.59	115.19	115.61	0.001280	0.80	36.20	68.44	0.27
RaymondB	M002	5338.54	20Year-Existing	18.92	114.41	115.59	114.79	115.59	0.000105	0.24	90.21	110.39	0.08
RaymondB	M002	5278.93	20Year-Existing	18.92	114.44	115.58	114.83	115.58	0.000150	0.29	80.55	111.23	0.09
RaymondB	M002	5226.60	20Year-Existing	18.92	114.42	115.57		115.57	0.000167	0.30	86.68	128.54	0.10
RaymondB	M002	5171.66	20Year-Existing	18.92	114.42	115.56		115.56	0.000165	0.30	102.27	178.76	0.10
RaymondB	M002	5111.50	20Year-Existing	18.92	114.42	115.54		115.55	0.000589	0.58	57.06	129.55	0.18
RaymondB	M002	5077.48	20Year-Existing	18.92	114.38	115.52		115.53	0.000538	0.55	48.54	87.62	0.18
RaymondB	M002	5017.13	20Year-Existing	18.92	114.40	115.40		115.46	0.002937	1.14	18.31	27.82	0.40
RaymondB	M002	4967.43	20Year-Existing	18.92	114.07	115.12		115.26	0.005771	1.65	12.57	18.20	0.56
RaymondB	M002	4943.43	20Year-Existing	18.92	113.82	115.01		115.12	0.004915	1.67	15.71	25.34	0.53
RaymondB	M002	4910.95	20Year-Existing	18.92	113.67	114.86		114.97	0.004637	1.64	17.15	29.36	0.52
RaymondB	M002	4851.17	20Year-Existing	18.92	113.47	114.57		114.67	0.005273	1.65	16.92	30.47	0.54
RaymondB	M002	4783.73	20Year-Existing	18.92	113.30	114.25		114.32	0.004866	1.31	18.31	36.24	0.50
RaymondB	M002	4732.68	20Year-Existing	18.92	113.07	113.99		114.05	0.005567	1.38	21.11	43.42	0.53
RaymondB	M002	4681.76	20Year-Existing	18.92	112.35	113.34	113.34	113.60	0.013669	2.48	10.40	30.24	0.86
RaymondB	M002	4673.96	20Year-Existing	18.92	111.74	112.63	112.83	113.37	0.047268	4.06	5.83	16.34	1.55
RaymondB	M002	4644.78	20Year-Existing	18.92	110.49	111.42	111.63	112.12	0.037854	3.86	5.73	22.43	1.41
RaymondB	M002	4625.72	20Year-Existing	18.92	106.75	107.32	107.88	110.23	0.385034	7.56	2.52	7.01	3.95
RaymondB	M002	4615.42	20Year-Existing	18.92	105.83	106.57	106.92	107.81	0.108709	5.08	4.20	9.94	2.24
RaymondB	M002	4607.06	20Year-Existing	18.92	105.79	107.01	106.92	107.35	0.012191	2.71	8.28	9.71	0.84
RaymondB	M002	4597.34	20Year-Existing	18.92	105.76	106.98		107.21	0.009640	2.30	11.18	16.71	0.74
RaymondB	M002	4575.18	20Year-Existing	18.92	105.98	106.57	106.57	106.82	0.042074	2.64	9.16	19.90	1.32
RaymondB	M002	4545.57	20Year-Existing	18.92	104.65	105.81	105.86	106.13	0.014684	2.76	10.40	26.55	0.91
RaymondB	M002	4522.17	20Year-Existing	18.92	103.67	104.41	104.72	105.40	0.073635	4.65	5.25	14.37	1.89
RaymondB	M002	4511.42	20Year-Existing	18.92	103.62	104.89	104.57	104.99	0.004821	1.71	17.77	27.79	0.53
RaymondB	M002	4489.94	20Year-Existing	18.92	103.59	104.53	104.53	104.80	0.015777	2.57	10.62	21.45	0.92
RaymondB	M002	4466.63	20Year-Existing	18.92	103.03	104.30	103.94	104.41	0.004083	1.59	17.60	33.64	0.49
RaymondB	M002	4439.46	20Year-Existing	18.92	103.00	104.03	104.03	104.22	0.011643	2.34	14.75	39.75	0.79
RaymondB	M002	4415.77	20Year-Existing	18.92	102.78	103.52	103.59	103.82	0.025427	2.65	10.56	38.75	1.11
RaymondB	M002	4385.89	20Year-Existing	18.92	101.80	102.73	102.86	103.12	0.021419	2.97	9.22	26.69	1.07
RaymondB	M002	4354.01	20Year-Existing	18.92	101.27	102.12	102.11	102.35	0.024117	2.99	12.83	36.76	1.12
RaymondB	M002	4341.66	20Year-Existing	18.92	100.84	101.91	101.91	102.13	0.012691	2.45	14.03	35.72	0.83
RaymondB	M002	4332.73	20Year-Existing	18.92	100.32	101.15	101.34	101.88	0.048162	4.05	6.11	14.18	1.56
RaymondB	M002	4308.73	20Year-Existing	18.92	98.87	99.59	99.85	100.45	0.074301	4.47	5.59	13.45	1.87
RaymondB	M002	4294.65	20Year-Existing	18.92	98.45	99.40	99.45	99.79	0.022162	3.06	8.40	14.70	1.09
RaymondB	M002	4263.86	20Year-Existing	18.92	97.59	99.03	98.52	99.13	0.002864	1.51	17.57	21.23	0.42
RaymondB	M002	4235.25	20Year-Existing	18.92	97.47	99.01		99.06	0.001241	1.04	24.47	25.72	0.28
RaymondB	M001	4130.35	20Year-Existing	47.52	96.57	98.05	98.02	98.49	0.014299	2.99	17.77	21.50	0.91
RaymondB	M001	4076.94	20Year-Existing	47.52	96.04	97.78	97.51	97.97	0.005395	2.11	29.35	35.76	0.58
RaymondB	M001	4023.53	20Year-Existing	47.52	95.94	97.10	97.10	97.47	0.018149	2.78	18.87	28.46	0.98
RaymondB	M001	3978.20	20Year-Existing	47.52	94.64	96.75	96.20	96.85	0.002594	1.42	40.84	52.99	0.40
RaymondB	M001	3916.71	20Year-Existing	63.36	94.64	96.46		96.63	0.004696	2.14	50.17	64.37	0.56
RaymondB	M001	3863.30	20Year-Existing	63.36	94.41	96.28		96.40	0.003468	1.91	60.49	78.35	0.48
RaymondB	M001	3809.58	20Year-Existing	63.36	94.09	95.83	95.74	96.12	0.008366	2.77	36.23	46.53	0.73
RaymondB	M001	3756.26	20Year-Existing	63.36	93.53	95.07	95.07	95.53	0.014154	3.30	26.67	35.13	0.94
RaymondB	M001	3694.37	20Year-Existing	63.36	92.66	94.18	94.23	94.65	0.014419	3.20	23.98	44.87	0.94
RaymondB	M001	3569.22	20Year-Existing	63.36	92.15	94.21	93.43	94.24	0.000829	0.99	117.95	125.24	0.24
RaymondB	M001	3527.64	20Year-Existing	63.36	91.85	94.19		94.21	0.000548	0.89	122.33	114.67	0.20
RaymondB	M001	3446.51	20Year-Existing	63.36	91.14	94.17		94.18	0.000253	0.69	179.80	161.25	0.14
RaymondB	M001	3421.64	20Year-Existing	63.36	91.23	93.73	92.96	94.12	0.004234	2.82	22.95	140.57	0.57
RaymondB	M001	3410		Bridge									
RaymondB	M001	3404.11	20Year-Existing	63.36	91.23	93.01	93.01	93.85	0.014679	4.10	15.75	84.00	1.00
RaymondB	M001	3380.48	20Year-Existing	63.36	90.96	92.93	92.39	93.07	0.003427	1.93	50.81	65.26	0.48
RaymondB	M001	3308.92	20Year-Existing	63.36	90.80	92.52		92.74	0.006256	2.46	41.78	51.08	0.64
RaymondB	M001	3216.73	20Year-Existing	63.36	89.31	92.22	91.04	92.43	0.002095	2.08	31.42	61.30	0.41
RaymondB	M001	3200		Bridge									
RaymondB	M001	3188.78	20Year-Existing	63.36	89.30	91.57	91.42	92.18	0.009550	3.71	20.24	42.20	0.82

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	M001	3015.18	20Year-Existing	63.36	89.18	90.88		91.01	0.003411	1.79	54.61	66.68	0.47
RaymondB	M001	2876.32	20Year-Existing	63.36	88.66	90.28		90.45	0.005783	2.14	44.42	81.83	0.60
RaymondB	M001	2789.37	20Year-Existing	63.36	88.24	90.04		90.10	0.002515	1.54	91.49	160.25	0.40
RaymondB	M001	2681.85	20Year-Existing	63.36	88.14	89.51		89.66	0.009600	2.38	54.62	125.73	0.74
RaymondB	M001	2604.32	20Year-Existing	63.36	87.97	89.33		89.37	0.002151	1.18	104.85	201.02	0.36
RaymondB	M001	2531.57	20Year-Existing	63.36	87.97	89.29		89.30	0.000734	0.63	174.38	279.33	0.20
RaymondB	M001	2385.34	20Year-Existing	63.36	87.43	89.20		89.23	0.001613	1.24	133.09	248.36	0.32
RaymondB	M001	2245.72	20Year-Existing	63.36	86.99	88.77	88.56	88.98	0.005586	2.28	44.38	85.67	0.60
RaymondB	M001	2194.47	20Year-Existing	63.36	86.68	88.76		88.81	0.001275	1.24	92.83	95.15	0.30
RaymondB	M001	2140.67	20Year-Existing	63.36	86.59	88.65		88.72	0.002085	1.56	71.77	70.69	0.38
RaymondB	M001	2087.60	20Year-Existing	63.36	86.38	88.48		88.60	0.002378	1.69	51.87	44.09	0.41
RaymondB	M001	2069.54	20Year-Existing	63.36	86.35	88.42		88.55	0.002761	1.82	52.12	51.67	0.44
RaymondB	M001	2040.77	20Year-Existing	63.36	86.25	88.34		88.47	0.002762	1.79	56.29	76.28	0.43
RaymondB	M001	1989.18	20Year-Existing	63.36	86.02	88.12	87.69	88.30	0.004020	2.17	50.97	74.75	0.52
RaymondB	M001	1950.22	20Year-Existing	63.36	85.79	87.60	87.35	88.02	0.011603	3.23	30.78	50.84	0.86
RaymondB	M001	1885.73	20Year-Existing	63.36	85.34	87.18		87.40	0.006862	2.48	40.02	48.71	0.66
RaymondB	M001	1835.84	20Year-Existing	63.36	84.64	86.42	86.42	86.89	0.015361	3.61	26.17	28.31	0.97
RaymondB	M001	1784.61	20Year-Existing	63.36	84.10	85.36	85.45	85.84	0.029046	3.64	25.45	40.00	1.25
RaymondB	M001	1733.38	20Year-Existing	63.36	82.79	84.83	84.28	84.95	0.002812	1.76	53.34	47.95	0.44
RaymondB	M001	1682.15	20Year-Existing	63.36	82.60	84.46		84.73	0.006406	2.43	32.97	33.68	0.64
RaymondB	M001	1630.92	20Year-Existing	63.36	82.12	83.96	83.85	84.33	0.008945	2.81	28.57	36.93	0.75
RaymondB	M001	1584.49	20Year-Existing	63.36	81.77	83.73		83.95	0.005903	2.38	37.14	46.07	0.62
RaymondB	M001	1536.01	20Year-Existing	63.36	81.31	83.32	83.18	83.63	0.007496	2.74	34.17	45.33	0.69
RaymondB	M001	1477.96	20Year-Existing	63.36	80.96	82.90	82.73	83.19	0.007391	2.64	34.27	42.56	0.69
RaymondB	M001	1425.99	20Year-Existing	63.36	80.58	82.63		82.85	0.005237	2.34	37.45	40.29	0.59
RaymondB	M001	1372.05	20Year-Existing	63.36	80.25	82.40		82.57	0.004546	2.23	42.38	39.51	0.55
RaymondB	M001	1323.54	20Year-Existing	63.36	79.11	81.63	81.10	82.19	0.006269	3.31	19.14	15.79	0.69
RaymondB	M001	1315		Bridge									
RaymondB	M001	1303.54	20Year-Existing	63.36	78.01	80.60	80.30	81.29	0.009084	3.67	17.25	20.48	0.80
RaymondB	M001	1252.39	20Year-Existing	66.00	78.45	80.35	80.35	80.79	0.013407	3.40	27.68	31.47	0.90
RaymondB	M001	1216.25	20Year-Existing	66.00	77.86	79.78	79.90	80.28	0.014764	3.73	28.90	42.33	0.97
RaymondB	M001	1189.75	20Year-Existing	66.00	77.61	79.08	79.26	79.73	0.029883	3.98	22.56	37.60	1.28
RaymondB	M001	1166.20	20Year-Existing	66.00	76.74	78.24	78.47	78.97	0.032903	4.47	24.77	51.95	1.38
RaymondB	M001	1148.70	20Year-Existing	66.00	76.50	78.12	78.16	78.47	0.016121	3.21	33.38	57.81	0.97
RaymondB	M001	1116.25	20Year-Existing	66.00	75.83	77.14	77.29	77.74	0.029644	3.56	21.62	36.87	1.26
RaymondB	M001	1066.09	20Year-Existing	66.00	75.16	76.85	76.69	77.09	0.007048	2.38	39.14	52.57	0.66
RaymondB	M001	1035.68	20Year-Existing	66.00	74.73	76.24	76.24	76.74	0.017300	3.39	24.23	29.03	1.01
RaymondB	M001	999.99	20Year-Existing	66.00	73.32	74.68	75.01	75.78	0.041122	4.84	15.88	21.39	1.53
RaymondB	M001	976.73	20Year-Existing	66.00	73.03	74.68	74.72	75.11	0.011949	3.16	30.08	45.40	0.87
RaymondB	M001	942.15	20Year-Existing	66.00	72.18	73.20	73.51	74.13	0.098389	5.88	18.13	34.20	2.23
RaymondB	M001	916.70	20Year-Existing	66.00	70.82	72.21	72.36	72.73	0.029529	4.25	28.94	66.40	1.30
RaymondB	M001	892.34	20Year-Existing	66.00	70.36	71.91	71.92	72.28	0.011581	2.98	32.78	52.61	0.85
RaymondB	M001	866.25	20Year-Existing	66.00	70.04	71.83	71.30	71.99	0.003692	1.89	47.11	63.88	0.49
RaymondB	M001	841.89	20Year-Existing	66.00	69.92	71.64	71.50	71.88	0.005841	2.37	44.96	91.19	0.62
RaymondB	M001	816.68	20Year-Existing	66.00	69.74	71.33	71.33	71.67	0.010409	2.98	35.82	57.26	0.81
RaymondB	M001	766.25	20Year-Existing	66.00	69.16	70.09	70.25	70.65	0.052704	4.19	22.95	46.02	1.62
RaymondB	M001	716.25	20Year-Existing	66.00	68.39	69.93	69.67	70.10	0.005330	2.08	46.02	66.39	0.58
RaymondB	M001	675.00	20Year-Existing	66.00	68.14	69.70		69.87	0.005819	2.18	47.12	59.25	0.60
RaymondB	M001	615.86	20Year-Existing	66.00	67.75	69.54		69.62	0.002513	1.62	80.92	154.40	0.41
RaymondB	M001	565.77	20Year-Existing	66.00	67.44	69.46		69.52	0.001497	1.35	96.97	183.81	0.32
RaymondB	M001	520.15	20Year-Existing	66.00	67.26	69.45		69.47	0.000527	0.84	173.17	281.44	0.19
RaymondB	M001	468.54	20Year-Existing	66.00	66.98	69.45		69.45	0.000161	0.51	275.16	327.61	0.11
RaymondB	M001	429.18	20Year-Existing	66.00	66.80	69.45		69.45	0.000052	0.31	434.44	426.14	0.06
RaymondB	M001	366.25	20Year-Existing	66.00	66.65	69.45		69.45	0.000022	0.21	695.02	638.20	0.04
RaymondB	M001	341.79	20Year-Existing	66.00	66.63	69.45		69.45	0.000016	0.18	789.84	667.56	0.03
PettyHR	M002	6270.85	20Year-Existing	81.51	66.23	69.45		69.45	0.000001	0.05	1894.32	828.99	0.01
PettyHR	M002	6218.07	20Year-Existing	81.51	66.23	69.45		69.45	0.000001	0.05	1763.10	838.73	0.01
PettyHR	M002	6095.00	20Year-Existing	81.51	66.23	69.44		69.45	0.000001	0.05	1696.18	833.13	0.01
PettyHR	M002	6004.71	20Year-Existing	81.51	66.23	69.44		69.44	0.000001	0.05	1743.87	862.70	0.01
PettyHR	M001	5825.85	20Year-Existing	140.58	66.23	69.44		69.44	0.000003	0.08	2057.75	839.09	0.01
PettyHR	M001	5685.44	20Year-Existing	140.58	66.23	69.44		69.44	0.000002	0.07	2005.43	726.91	0.01
PettyHR	M001	5516.39	20Year-Existing	155.32	66.23	69.44		69.44	0.000003	0.09	1752.44	627.08	0.02
PettyHR	M001	5279.80	20Year-Existing	155.32	66.23	69.44		69.44	0.000007	0.13	1185.04	423.31	0.02
PettyHR	M001	4996.75	20Year-Existing	155.32	66.23	69.43		69.44	0.000036	0.29	558.82	207.66	0.05
PettyHR	M001	4923.81	20Year-Existing	155.32	66.23	69.38		69.43	0.000478	1.05	181.34	85.95	0.20
PettyHR	M001	4867.41	20Year-Existing	155.32	66.23	69.28		69.38	0.001278	1.70	150.35	93.25	0.32
PettyHR	M001	4817.61	20Year-Existing	155.32	66.58	69.21		69.31	0.001697	1.86	145.01	91.30	0.37
PettyHR	M001	4757.18	20Year-Existing	155.32	66.43	68.57	68.57	69.06	0.010023	3.88	69.21	64.40	0.86
PettyHR	M001	4675.66	20Year-Existing	155.32	65.88	67.97	67.47	68.24	0.005228	2.79	80.57	50.74	0.62
PettyHR	M001	4612.84	20Year-Existing	155.32	64.88	67.15	66.85	67.75	0.010511	4.16	59.06	43.24	0.89
PettyHR	M001	4570.09	20Year-Existing	155.32	64.62	66.74	66.74	67.31	0.010062	3.79	60.96	54.74	0.85
PettyHR	M001	4500.69	20Year-Existing	155.32	64.62	66.38	66.04	66.61	0.004938	2.36	88.11	74.88	0.58
PettyHR	M001	4461.12	20Year-Existing	155.32	64.55	65.96	65.96	66.33	0.014794	3.52	75.31	90.88	0.97
PettyHR	M001	4428.20	20Year-Existing	155.32	64.41	65.74	65.50	65.94	0.010648	2.80	88.73	89.13	0.81
PettyHR	M001	4395.66	20Year-Existing	155.32	63.81	65.38		65.63	0.007691	2.74	85.57	81.12	0.71
PettyHR	M001	4357.04	20Year-Existing	155.32	63.34	65.22		65.38	0.004197	2.33	107.50	80.64	0.55
PettyHR	M001	4281.82	20Year-Existing	155.32	62.50	65.13		65.22	0.000981	1.39	133.01	58.60	0.28
PettyHR	M001	4166.17	20Year-Existing	155.32	61.82	65.15		65.16	0.000136	0.60	373.18	162.30	0.11
PettyHR	M001	3949.19	20Year-Existing	155.32	61.31	65.16		65.16	0.000000	0.04	4706.12	1314.06	0.01
PettyHR	M001	3936.78	20Year-Existing	155.32	61.31	65.16		65.16	0.000000	0.03	5811.78	1568.61	0.00
PettyHR	M001	3931.39	20Year-Existing	98.45	61.31	65.16		65.16	0.000000	0.01	7298.00	2003.79	0.00
PettyHR	M001	3925.44	20Year-Existing	98.45	61.31	65.16		65.16	0.000000	0.03	3611.74	1001.44	0.00
PettyHR	M001	3867.05	20Year-Existing	98.45	61.31	65.16		65.16	0.000000	0.03	3644.16	982.23	0.00
PettyHR	M001	3643.73	20Year-Existing	98.45	61.31	65.16		65.16	0.000000	0.02	4187.79	1113.14	0.00
PettyHR	M001	3440.60	20Year-Existing	98.45	61.31	65.16		65.16	0.000001	0.05	2122.88	580.44	0.01

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	3182.65	20Year-Existing	98.45	61.31	65.16		65.16	0.000001	0.06	1591.44	424.59	0.01
PettyHR	M001	3080.13	20Year-Existing	98.45	61.31	65.16		65.16	0.000001	0.05	1877.79	511.55	0.01
PettyHR	M001	3028.13	20Year-Existing	98.45	61.31	65.16		65.16	0.000001	0.05	2054.06	558.44	0.01
PettyHR	M001	2983.09	20Year-Existing	98.45	61.31	65.16		65.16	0.000001	0.06	1673.94	450.67	0.01
PettyHR	M001	2828.46	20Year-Existing	98.45	61.31	65.16		65.16	0.000003	0.11	982.78	278.75	0.02
PettyHR	M001	2712.72	20Year-Existing	98.45	61.31	65.16		65.16	0.000011	0.19	561.30	179.41	0.03
PettyHR	M001	2671.95	20Year-Existing	98.45	61.31	65.15		65.16	0.000017	0.24	505.93	173.67	0.04
PettyHR	M001	2653.10	20Year-Existing	98.45	61.31	65.15		65.16	0.000024	0.28	432.98	155.11	0.05
PettyHR	M001	2632.46	20Year-Existing	98.45	61.31	65.14		65.15	0.000096	0.57	257.93	114.87	0.09
PettyHR	M001	2596.08	20Year-Existing	98.45	61.31	65.13		65.15	0.000111	0.61	229.37	111.48	0.10
PettyHR	M001	2583.24	20Year-Existing	98.45	60.10	65.05	62.79	65.14	0.000632	1.54	127.93	108.06	0.24
PettyHR	M001	2580		Bridge									
PettyHR	M001	2573.39	20Year-Existing	98.45	60.00	64.92	62.36	64.97	0.000304	1.07	156.85	84.30	0.17
PettyHR	M001	2551.09	20Year-Existing	98.45	59.89	64.95		64.95	0.000024	0.31	371.56	105.86	0.05
PettyHR	M001	2426.14	20Year-Existing	98.45	59.27	64.95		64.95	0.000002	0.09	1168.05	268.24	0.01
PettyHR	M001	2315.39	20Year-Existing	98.45	58.72	64.95		64.95	0.000001	0.07	1433.33	315.55	0.01
PettyHR	M001	2204.15	20Year-Existing	98.45	58.16	64.95		64.95	0.000001	0.07	1444.55	306.43	0.01
PettyHR	M001	2022.45	20Year-Existing	98.45	57.26	64.95		64.95	0.000002	0.12	877.16	173.10	0.02
PettyHR	M001	1902.10	20Year-Existing	98.45	56.66	64.95		64.95	0.000004	0.15	679.60	127.18	0.02
PettyHR	M001	1879.72	20Year-Existing	98.45	56.55	64.95		64.95	0.000009	0.24	497.45	107.74	0.03
PettyHR	M001	1824.42	20Year-Existing	98.45	56.28	64.94		64.95	0.000016	0.32	335.10	65.52	0.04
PettyHR	M001	1789.72	20Year-Existing	98.45	56.10	64.94		64.95	0.000023	0.37	283.58	54.93	0.05
PettyHR	M001	1724.70	20Year-Existing	98.45	55.78	64.94		64.95	0.000030	0.43	248.14	47.48	0.05
PettyHR	M001	1668.81	20Year-Existing	98.45	55.50	64.94	58.10	64.94	0.000016	0.32	329.57	64.68	0.04
PettyHR	M001	1647.80	20Year-Existing	98.45	55.40	64.94	57.82	64.94	0.000011	0.27	384.94	71.90	0.03
PettyHR	M001	1631.79	20Year-Existing	98.45	63.55	64.69		64.92	0.007287	2.14	46.09	40.60	0.64
PettyHR	M001	1615.46	20Year-Existing	99.77	54.38	56.90		57.04	0.003919	2.67	66.38	40.43	0.55
PettyHR	M001	1601.08	20Year-Existing	99.77	54.00	55.70	55.70	56.81	0.047178	7.07	24.43	24.82	1.77
PettyHR	M001	1586.16	20Year-Existing	99.77	53.36	55.24	55.41	56.15	0.034799	6.58	27.75	25.53	1.56
PettyHR	M001	1571.98	20Year-Existing	99.77	52.87	54.55	54.83	55.59	0.045758	6.90	25.20	24.12	1.74
PettyHR	M001	1519.66	20Year-Existing	99.77	51.62	53.29	53.33	53.78	0.026753	5.17	36.38	39.18	1.32
PettyHR	M001	1467.14	20Year-Existing	99.77	50.86	52.26	52.14	52.58	0.020116	4.09	42.35	44.88	1.13
PettyHR	M001	1457.30	20Year-Existing	99.77	50.23	51.90	51.90	52.35	0.022973	4.95	37.29	37.18	1.24
PettyHR	M001	1444.51	20Year-Existing	99.77	48.30	49.32	49.85	51.51	0.213974	10.55	17.52	30.89	3.46
PettyHR	M001	1415.17	20Year-Existing	99.77	48.28	49.93	49.42	50.06	0.005894	2.48	65.58	52.89	0.63
PettyHR	M001	1402.15	20Year-Existing	99.77	47.79	49.43	49.43	49.89	0.026157	5.04	37.53	42.32	1.30
PettyHR	M001	1385.41	20Year-Existing	99.77	43.10	44.74	45.67	48.69	0.136322	11.38	14.39	17.48	2.97
PettyHR	M001	1370.82	20Year-Existing	99.77	41.75	43.64	44.65	46.81	0.093761	10.82	15.83	14.52	2.56
PettyHR	M001	1362.66	20Year-Existing	99.77	39.88	42.12	43.25	46.00	0.086032	11.37	14.44	10.85	2.49
PettyHR	M001	1336.64	20Year-Existing	99.77	39.87	41.57	42.22	43.34	0.071158	8.71	19.91	19.17	2.18
PettyHR	M001	1309.35	20Year-Existing	99.77	38.40	39.81	40.24	41.22	0.075751	7.87	20.92	21.63	2.18
PettyHR	M001	1279.20	20Year-Existing	99.77	35.02	37.35	38.14	39.41	0.047191	8.78	21.75	20.83	1.87
PettyHR	M001	1258.06	20Year-Existing	99.77	34.01	36.61	37.17	38.48	0.036106	8.33	21.24	14.36	1.67
PettyHR	M001	1221.17	20Year-Existing	99.77	33.21	34.66	35.30	36.42	0.091711	8.51	18.59	18.63	2.36
PettyHR	M001	1203.34	20Year-Existing	99.77	32.61	33.99	34.24	34.87	0.057895	6.73	27.27	34.24	1.89
PettyHR	M001	1164.99	20Year-Existing	99.77	31.37	32.98	32.99	33.44	0.023719	4.73	37.64	40.95	1.24
PettyHR	M001	1153.41	20Year-Existing	99.77	30.70	31.78	32.11	32.88	0.100150	7.59	23.76	36.37	2.40
PettyHR	M001	1125.74	20Year-Existing	99.77	29.27	30.62	30.72	31.16	0.036233	5.25	34.51	43.58	1.49
PettyHR	M001	1090.65	20Year-Existing	99.77	28.12	29.35	29.43	29.82	0.040422	5.03	37.55	59.21	1.54
PettyHR	M001	1059.48	20Year-Existing	99.77	26.84	28.18	28.28	28.61	0.036600	5.20	39.74	63.62	1.49
PettyHR	M001	1048.77	20Year-Existing	99.77	26.29	27.53	27.69	28.13	0.049247	5.62	33.89	54.35	1.70
PettyHR	M001	1021.54	20Year-Existing	99.77	25.47	27.03	27.03	27.46	0.025485	4.85	38.51	43.07	1.28
PettyHR	M001	1003.30	20Year-Existing	99.77	23.42	24.89	25.38	26.58	0.078833	8.36	19.32	18.73	2.25
PettyHR	M001	994.73	20Year-Existing	99.77	22.70	25.20	25.43	26.07	0.020918	6.15	29.56	20.85	1.26
PettyHR	M001	961.03	20Year-Existing	99.77	22.07	24.76	24.79	25.42	0.014845	5.41	35.00	25.87	1.07
PettyHR	M001	944.13	20Year-Existing	99.77	21.89	23.52	23.95	24.91	0.053482	7.32	22.37	21.33	1.88
PettyHR	M001	924.94	20Year-Existing	99.77	20.78	22.71	23.04	23.98	0.041183	7.20	22.69	17.10	1.69
PettyHR	M001	905.47	20Year-Existing	99.77	19.73	21.95	22.29	23.27	0.033434	7.19	23.05	15.78	1.57
PettyHR	M001	883.86	20Year-Existing	99.77	17.29	20.78	19.87	21.02	0.002808	2.84	57.44	36.32	0.49
PettyHR	M001	875		Bridge									
PettyHR	M001	859.53	20Year-Existing	99.77	17.25	19.32	19.32	19.97	0.020788	5.24	30.55	29.10	1.20
PettyHR	M001	836.76	20Year-Existing	99.77	12.80	14.66	15.80	18.74	0.102428	11.10	13.41	10.44	2.66
PettyHR	M001	823.70	20Year-Existing	99.77	12.86	14.41	15.14	16.84	0.106929	9.95	16.77	17.03	2.62
PettyHR	M001	811.96	20Year-Existing	99.77	12.85	14.94	15.18	15.79	0.028704	6.42	31.43	31.81	1.44
PettyHR	M001	796.92	20Year-Existing	99.77	12.74	14.15	14.45	15.16	0.068039	7.53	25.74	33.56	2.07
PettyHR	M001	784.11	20Year-Existing	99.77	11.82	13.80	13.99	14.54	0.027705	6.01	33.73	37.24	1.40
PettyHR	M001	769.86	20Year-Existing	99.77	10.94	12.53	12.90	13.93	0.056662	7.44	22.35	22.31	1.93
PettyHR	M001	748.76	20Year-Existing	99.77	8.37	10.77	11.42	12.87	0.040106	8.19	21.38	19.35	1.73
PettyHR	M001	720.33	20Year-Existing	99.77	8.08	9.16	9.65	10.87	0.141006	8.51	19.07	27.98	2.80
PettyHR	M001	707.57	20Year-Existing	99.77	6.85	8.33	8.68	9.50	0.062857	7.39	25.33	33.13	2.00
PettyHR	M001	685.99	20Year-Existing	99.77	5.31	6.96	7.34	8.20	0.058575	7.54	25.17	30.89	1.95
PettyHR	M001	666.04	20Year-Existing	99.77	5.03	6.81	6.87	7.31	0.020256	4.71	39.44	43.91	1.17
PettyHR	M001	652.51	20Year-Existing	99.77	4.66	6.18	6.21	6.92	0.038359	5.75	30.31	34.75	1.55
PettyHR	M001	633.61	20Year-Existing	99.77	4.40	5.44	5.62	6.07	0.052275	5.18	32.09	76.82	1.71
PettyHR	M001	622.83	20Year-Existing	99.77	4.09	5.20	5.20	5.47	0.024815	3.72	49.01	104.33	1.19
PettyHR	M001	577.97	20Year-Existing	99.77	2.48	3.82	3.88	4.14	0.035389	5.07	46.59	111.92	1.45
PettyHR	M001	525.57	20Year-Existing	99.77	0.51	2.81	2.17	2.93	0.004052	2.59	73.58	95.86	0.55
PettyHR	M001	491.94	20Year-Existing	99.77	-0.59	2.47	1.89	2.77	0.004105	2.77	49.74	35.84	0.56
PettyHR	M001	485		Bridge									
PettyHR	M001	478.84	20Year-Existing	99.77	-1.92	2.54		2.62	0.000618	1.32	111.03	141.48	0.22
PettyHR	M001	439.27	20Year-Existing	99.77	-1.89	2.58		2.59	0.000170	0.72	237.67	128.95	0.12
PettyHR	M001	405.68	20Year-Existing	99.77	-2.13	2.57		2.58	0.000152	0.69	234.95	132.00	0.11
PettyHR	M001	367.80	20Year-Existing	99.77	-2.02	2.57		2.58	0.000046	0.38	299.94	139.25	0.06
PettyHR	M001	338.85	20Year-Existing	99.77	-2.89	2.57		2.58	0.000028	0.33	339.28	122.12	0.05
PettyHR	M001	305.38	20Year-Existing	99.77	-2.46	2.57		2.57	0.000039	0.37	306.34	119.89	0.06

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	269.29	20Year-Existing	99.77	-3.52	2.56		2.57	0.000035	0.40	287.32	110.17	0.06
PettyHR	M001	238.18	20Year-Existing	99.77	-3.50	2.56		2.57	0.000049	0.48	248.46	102.46	0.07
PettyHR	M001	201.25	20Year-Existing	99.77	-4.43	2.56		2.57	0.000016	0.29	367.59	119.96	0.04
PettyHR	M001	150.84	20Year-Existing	99.77	-3.34	2.56		2.57	0.000009	0.21	525.30	171.50	0.03
PettyHR	M001	105.74	20Year-Existing	99.77	-2.91	2.56		2.57	0.000009	0.21	507.69	154.15	0.03
PettyHR	M001	91.29	20Year-Existing	99.77	-3.36	2.56		2.57	0.000008	0.20	524.12	143.64	0.03
PettyHR	M001	20.04	20Year-Existing	99.77	-6.19	2.56		2.57	0.000004	0.15	705.88	185.19	0.02
PettyHR	M001	12.04	20Year-Existing	99.77	-6.19	2.55	-3.64	2.56	0.000078	0.57	267.31	185.14	0.07
ForthP	M001	2616.90	20Year-Existing	9.90	123.09	124.52	123.35	124.53	0.000012	0.10	138.57	160.02	0.03
ForthP	M001	2528.45	20Year-Existing	9.90	123.09	124.52		124.52	0.000003	0.05	220.18	199.05	0.01
ForthP	M001	2324.32	20Year-Existing	9.90	123.09	124.52		124.52	0.000010	0.09	159.38	210.25	0.03
ForthP	M001	2187.52	20Year-Existing	9.90	123.09	124.52		124.52	0.000002	0.04	295.66	288.15	0.01
ForthP	M001	1955.13	20Year-Existing	9.90	123.09	124.52		124.52	0.000002	0.04	339.64	312.33	0.01
ForthP	M001	1773.83	20Year-Existing	9.90	123.09	124.52		124.52	0.000001	0.02	415.87	345.85	0.01
ForthP	M001	1572.85	20Year-Existing	9.90	123.09	124.52		124.52	0.000001	0.03	397.53	320.80	0.01
ForthP	M001	1496.60	20Year-Existing	9.90	123.09	124.52		124.52	0.000001	0.03	335.14	278.65	0.01
ForthP	M001	1392.58	20Year-Existing	35.53	122.98	124.51	124.15	124.52	0.000563	0.74	113.83	168.46	0.19
ForthP	M001	1390		Culvert									
ForthP	M001	1381.72	20Year-Existing	35.53	122.95	124.44	124.15	124.45	0.001594	1.11	79.23	150.12	0.30
ForthP	M001	1360.50	20Year-Existing	35.53	122.87	124.22	124.07	124.37	0.009901	2.60	29.54	76.98	0.77
ForthP	M001	1311.12	20Year-Existing	35.53	122.52	123.96		124.01	0.004768	1.85	41.24	75.78	0.53
ForthP	M001	1261.17	20Year-Existing	35.53	121.36	123.41	123.41	123.69	0.008006	3.16	24.60	40.44	0.74
ForthP	M001	1211.51	20Year-Existing	35.53	119.83	121.54	121.67	122.84	0.039566	6.07	9.41	12.42	1.57
ForthP	M001	1161.66	20Year-Existing	35.53	117.25	118.43	118.82	119.95	0.091279	6.95	9.59	24.97	2.24
ForthP	M001	1112.05	20Year-Existing	35.53	114.88	116.01	116.17	116.53	0.045363	5.03	14.98	34.91	1.59
ForthP	M001	1062.35	20Year-Existing	35.53	113.16	114.36	114.41	114.67	0.029993	4.01	17.52	34.71	1.26
ForthP	M001	1041.93	20Year-Existing	35.53	112.62	113.93	113.96	114.18	0.022516	3.66	20.40	43.56	1.10
ForthP	M001	1031.90	20Year-Existing	35.53	112.31	113.51	113.61	113.88	0.037861	4.49	17.66	44.44	1.42
ForthP	M001	1011.12	20Year-Existing	35.53	111.62	112.68	112.78	113.05	0.043355	4.57	17.66	47.55	1.52
ForthP	M001	959.76	20Year-Existing	35.53	110.31	111.06	111.15	111.38	0.069352	4.15	16.89	59.25	1.78
ForthP	M001	908.93	20Year-Existing	35.53	109.25	109.93	109.80	109.99	0.011963	1.72	35.30	90.01	0.74
ForthP	M001	856.39	20Year-Existing	35.53	108.38	108.85	108.80	108.94	0.027227	1.73	27.98	91.85	1.01
ForthP	M001	806.25	20Year-Existing	35.53	107.09	108.04		108.10	0.012548	2.20	34.83	91.59	0.79
ForthP	M001	754.78	20Year-Existing	35.53	106.12	107.12	107.12	107.27	0.024144	3.33	27.62	89.22	1.13
ForthP	M001	734.50	20Year-Existing	35.53	105.47	106.79	106.73	106.88	0.008873	2.35	36.64	90.89	0.71
ForthP	M001	724.30	20Year-Existing	35.53	105.28	106.60	106.60	106.76	0.013426	2.92	30.19	86.90	0.88
ForthP	M001	703.65	20Year-Existing	35.53	105.02	106.15	106.14	106.34	0.024228	3.57	21.79	48.20	1.13
ForthP	M001	654.47	20Year-Existing	35.53	103.90	104.81	104.81	104.99	0.028713	3.35	21.87	54.89	1.21
ForthP	M001	605.63	20Year-Existing	35.53	102.27	103.43	103.51	103.72	0.027549	3.80	21.54	60.17	1.23
ForthP	M001	585.13	20Year-Existing	35.53	101.55	102.40	102.53	102.86	0.078638	4.95	16.71	68.74	1.95
ForthP	M001	577.30	20Year-Existing	35.53	101.52	102.23	102.26	102.41	0.045437	3.34	21.14	70.73	1.44
ForthP	M001	557.33	20Year-Existing	35.53	100.67	101.35	101.34	101.48	0.033663	2.67	23.78	79.72	1.22
ForthP	M001	507.84	20Year-Existing	35.53	98.92	99.61	99.61	99.74	0.036873	2.78	24.26	86.12	1.27
ForthP	M001	453.33	20Year-Existing	35.53	96.28	97.07	97.01	97.16	0.019559	2.32	30.02	91.62	0.96
ForthP	M001	402.29	20Year-Existing	35.53	94.96	95.62	95.62	95.79	0.041830	3.14	21.21	64.50	1.37
ForthP	M001	349.18	20Year-Existing	35.53	93.64	94.26	94.10	94.32	0.015113	1.67	32.33	80.32	0.80
ForthP	M001	297.76	20Year-Existing	35.53	92.55	93.49	93.44	93.59	0.016756	2.48	30.66	78.57	0.92
ForthP	M001	246.28	20Year-Existing	35.53	91.71	92.50	92.44	92.59	0.019122	2.24	31.20	91.11	0.95
ForthP	M001	182.03	20Year-Existing	35.53	90.94	92.11	91.77	92.14	0.004014	1.46	55.70	110.30	0.46
ForthP	M001	160.27	20Year-Existing	35.53	90.13	92.11	91.44	92.12	0.000205	0.49	147.05	158.54	0.12
ForthP	M001	150		Culvert									
ForthP	M001	144.74	20Year-Existing	35.53	89.90	91.16	91.16	91.74	0.016357	3.40	10.77	102.48	0.99
ForthP	M001	124.30	20Year-Existing	35.53	89.74	90.96	90.86	91.05	0.010326	2.38	36.32	84.27	0.76
ForthP	M001	61.58	20Year-Existing	35.53	88.75	89.94	89.94	90.13	0.020600	3.27	24.77	57.11	1.06
ForestP	M001	1557.91	20Year-Existing	7.04	78.25	79.71	78.45	79.71	0.000003	0.05	147.62	121.39	0.01
ForestP	M001	1428.05	20Year-Existing	7.04	78.25	79.71		79.71	0.000002	0.04	201.36	177.18	0.01
ForestP	M001	1315.71	20Year-Existing	7.04	78.25	79.71		79.71	0.000001	0.03	283.33	242.46	0.01
ForestP	M001	1228.83	20Year-Existing	7.04	78.25	79.71		79.71	0.000001	0.02	338.83	290.17	0.01
ForestP	M001	1138.84	20Year-Existing	7.04	78.25	79.71		79.71	0.000000	0.02	396.85	342.33	0.01
ForestP	M001	1077.28	20Year-Existing	7.04	78.25	79.71		79.71	0.000000	0.02	439.19	480.71	0.00
ForestP	M001	1019.12	20Year-Existing	7.04	78.25	79.71		79.71	0.000002	0.04	221.59	280.45	0.01
ForestP	M001	958.61	20Year-Existing	8.91	78.15	79.69	79.50	79.71	0.000842	0.70	24.50	68.81	0.21
ForestP	M001	955		Culvert									
ForestP	M001	949.85	20Year-Existing	8.91	77.76	79.56	79.49	79.66	0.008052	1.75	10.74	51.95	0.46
ForestP	M001	913.34	20Year-Existing	8.91	78.16	79.06	79.06	79.22	0.027722	2.97	6.43	18.64	1.08
ForestP	M001	883.23	20Year-Existing	8.91	77.54	78.34	78.38	78.50	0.022495	2.57	8.17	37.66	1.03
ForestP	M001	859.61	20Year-Existing	8.91	76.75	77.45	77.53	77.75	0.045221	3.36	4.69	13.79	1.43
ForestP	M001	831.71	20Year-Existing	8.91	75.74	76.68	76.73	76.96	0.028756	3.18	4.91	11.21	1.17
ForestP	M001	802.91	20Year-Existing	8.91	74.66	75.45	75.59	75.92	0.046347	3.76	3.87	10.03	1.49
ForestP	M001	772.90	20Year-Existing	8.91	73.77	74.56	74.56	74.76	0.027975	2.93	5.75	15.38	1.14
ForestP	M001	737.48	20Year-Existing	8.91	72.77	73.49	73.45	73.60	0.018325	2.22	7.68	21.93	0.92
ForestP	M001	688.06	20Year-Existing	8.91	71.80	72.39	72.37	72.48	0.029344	2.30	8.13	32.83	1.07
ForestP	M001	651.32	20Year-Existing	8.91	70.81	71.44	71.42	71.53	0.022754	2.30	8.42	31.77	1.01
ForestP	M001	600.44	20Year-Existing	8.91	69.80	70.33	70.30	70.38	0.022500	1.95	10.97	57.95	0.97
ForestP	M001	578.60	20Year-Existing	8.91	69.31	69.92	69.92	69.97	0.015585	1.82	14.41	89.05	0.83
ForestP	M001	528.92	20Year-Existing	8.91	68.58	69.46	69.26	69.47	0.002508	0.96	23.90	72.80	0.35
ForestP	M001	478.55	20Year-Existing	8.91	68.21	69.45		69.45	0.000152	0.30	65.96	113.78	0.09
ForestP	M001	430.82	20Year-Existing	8.91	67.77	69.45		69.45	0.000043	0.20	103.50	138.12	0.05
ForestP	M001	378.18	20Year-Existing	8.91	67.48	69.45		69.45	0.000006	0.09	246.57	267.59	0.02
ForestP	M001	328.07	20Year-Existing	8.91	67.34	69.45		69.45	0.000003	0.06	350.77	339.32	0.01
ForestP	M001	277.95	20Year-Existing	8.91	67.07	69.45		69.45	0.000002	0.05	429.27	389.06	0.01
ForestP	M001	195.51	20Year-Existing	8.91	66.23	69.45		69.45	0.000000	0.02	799.09	530.81	0.00
ForestP	M001	158.37	20Year-Existing	8.91	66.23	69.45		69.45	0.000000	0.01	1501.41	679.57	0.00
ForestP	M001	89.11	20Year-Existing	8.91	66.23	69.45		69.45	0.000000	0.01	1663.11	755.83	0.00
DoylesR	TR019	260.51	20Year-Existing	0.33	124.74	125.09	124.95	125.09	0.000317	0.17	3.85	32.91	0.11

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR019	199.72	20Year-Existing	0.33	124.55	125.09		125.09	0.000002	0.02	33.89	137.91	0.01
DoylesR	TR019	150.00	20Year-Existing	0.33	124.37	125.09		125.09	0.000002	0.02	36.73	148.48	0.01
DoylesR	TR019	100.00	20Year-Existing	0.33	124.16	125.09		125.09	0.000002	0.03	31.61	166.80	0.01
DoylesR	TR019	50.00	20Year-Existing	0.33	124.18	125.09		125.09	0.000001	0.02	57.37	225.78	0.01
DoylesR	TR018	302.01	20Year-Existing	1.21	127.90	128.06	128.06	128.09	0.026143	0.86	1.83	24.12	0.85
DoylesR	TR018	270.53	20Year-Existing	1.21	126.19	128.02	126.81	128.02	0.000001	0.03	141.24	244.89	0.01
DoylesR	TR018	260		Culvert									
DoylesR	TR018	257.62	20Year-Existing	1.21	126.19	127.99	126.84	127.99	0.000000	0.02	155.63	199.39	0.00
DoylesR	TR018	244.68	20Year-Existing	1.21	125.64	127.94	126.54	127.98	0.000625	0.89	1.66	200.25	0.19
DoylesR	TR018	200		Culvert									
DoylesR	TR018	169.24	20Year-Existing	1.21	125.40	126.21	126.11	126.45	0.015695	2.49	0.60	75.06	0.91
DoylesR	TR018	131.43	20Year-Existing	1.21	125.24	125.45	125.45	125.47	0.028512	0.93	2.56	52.66	0.89
DoylesR	TR018	59.79	20Year-Existing	1.21	124.57	125.14	124.88	125.14	0.000274	0.22	13.93	119.87	0.11
DoylesR	TR017	4043.45	20Year-Existing	6.71	124.05	125.06		125.08	0.001443	0.90	20.00	73.99	0.29
DoylesR	TR017	3983.69	20Year-Existing	6.71	124.04	124.96		124.98	0.002220	0.93	17.35	86.36	0.34
DoylesR	TR017	3923.93	20Year-Existing	6.71	124.03	124.60	124.60	124.68	0.021413	1.71	7.54	42.69	0.92
DoylesR	TR017	3889.37	20Year-Existing	6.71	123.60	123.80	123.62	123.81	0.005504	0.30	15.09	65.50	0.36
DoylesR	TR017	3781.64	20Year-Existing	6.71	122.55	123.48		123.51	0.004080	1.28	13.50	52.31	0.46
DoylesR	TR017	3768.91	20Year-Existing	6.71	122.35	123.15	123.15	123.38	0.018079	2.29	3.69	9.19	0.91
DoylesR	TR017	3745.98	20Year-Existing	6.71	121.86	122.43	122.46	122.58	0.042184	2.32	5.27	34.34	1.27
DoylesR	TR017	3713.18	20Year-Existing	6.71	120.99	121.56	121.57	121.74	0.022790	2.03	4.03	13.24	0.99
DoylesR	TR017	3692.45	20Year-Existing	6.71	120.34	120.98	121.03	121.20	0.027568	2.33	3.89	13.67	1.10
DoylesR	TR017	3679.05	20Year-Existing	6.71	119.97	120.74	120.78	120.93	0.015656	2.18	4.52	18.96	0.87
DoylesR	TR017	3656.84	20Year-Existing	6.71	117.59	118.03	118.37	119.83	0.365621	6.03	1.20	5.58	3.67
DoylesR	TR017	3603.67	20Year-Existing	6.71	116.29	116.98	117.01	117.14	0.020159	2.25	5.20	23.31	0.96
DoylesR	TR017	3583.40	20Year-Existing	6.71	115.96	116.53	116.53	116.77	0.045609	2.80	4.04	20.98	1.39
DoylesR	TR017	3571.14	20Year-Existing	6.71	115.76	116.29	116.29	116.40	0.029034	2.26	6.05	31.15	1.11
DoylesR	TR017	3545.42	20Year-Existing	6.71	115.22	115.70	115.78	116.01	0.082091	3.09	3.36	17.46	1.76
DoylesR	TR017	3483.93	20Year-Existing	6.71	114.35	114.94	114.91	114.97	0.012372	1.55	11.61	70.35	0.73
DoylesR	TR017	3432.55	20Year-Existing	6.71	113.79	114.54	114.46	114.57	0.007483	1.43	12.66	65.54	0.59
DoylesR	TR017	3345.48	20Year-Existing	6.71	113.03	113.54	113.54	113.62	0.030328	1.98	6.83	40.23	1.09
DoylesR	TR017	3300.07	20Year-Existing	6.71	112.42	112.99	112.85	113.00	0.003769	0.76	17.71	77.27	0.39
DoylesR	TR016	918.87	20Year-Existing	2.42	127.08	128.81	127.24	128.81	0.000000	0.01	406.78	362.05	0.00
DoylesR	TR016	898.71	20Year-Existing	2.42	126.90	128.81	127.27	128.81	0.000001	0.03	197.72	225.53	0.01
DoylesR	TR016	890		Culvert									
DoylesR	TR016	882.28	20Year-Existing	2.42	126.88	128.73		128.73	0.000004	0.06	104.13	157.80	0.01
DoylesR	TR016	877.71	20Year-Existing	2.42	126.24	128.73	126.89	128.73	0.000002	0.06	122.98	188.51	0.01
DoylesR	TR016	850		Culvert									
DoylesR	TR016	848.13	20Year-Existing	2.42	126.37	127.10	127.10	127.36	0.020466	2.40	1.33	3.08	0.93
DoylesR	TR016	818.98	20Year-Existing	2.42	126.36	126.84	126.77	126.85	0.004078	0.75	7.11	52.35	0.40
DoylesR	TR016	768.99	20Year-Existing	2.42	126.30	126.64		126.65	0.004520	0.63	7.38	50.75	0.40
DoylesR	TR016	714.09	20Year-Existing	2.42	125.96	126.37	126.28	126.38	0.005036	0.72	6.19	36.64	0.43
DoylesR	TR016	675.95	20Year-Existing	2.42	125.74	126.07	126.07	126.11	0.020271	1.21	3.75	39.46	0.83
DoylesR	TR016	659.39	20Year-Existing	2.42	125.10	125.55	125.48	125.59	0.009904	1.17	3.96	25.62	0.63
DoylesR	TR016	632.80	20Year-Existing	2.42	124.78	125.24	125.24	125.30	0.014711	1.34	3.16	26.08	0.75
DoylesR	TR016	610.50	20Year-Existing	2.42	123.78	124.24	124.36	124.63	0.067045	2.99	1.05	4.93	1.62
DoylesR	TR016	549.37	20Year-Existing	2.42	122.30	122.89	122.89	123.04	0.024567	1.99	2.01	11.40	0.99
DoylesR	TR016	494.31	20Year-Existing	2.42	120.93	121.58	121.58	121.76	0.022008	1.91	1.37	4.41	0.94
DoylesR	TR016	473.82	20Year-Existing	2.42	120.18	120.64	120.76	121.00	0.069984	2.72	0.98	4.44	1.61
DoylesR	TR016	459.95	20Year-Existing	2.42	119.62	120.11	120.15	120.31	0.032856	2.02	1.32	5.26	1.13
DoylesR	TR016	439.99	20Year-Existing	2.42	119.05	119.58	119.67	119.89	0.058634	2.48	1.00	3.88	1.45
DoylesR	TR016	384.99	20Year-Existing	2.42	117.07	117.60	117.61	117.76	0.026646	1.82	1.40	5.29	1.02
DoylesR	TR016	329.99	20Year-Existing	2.42	115.67	116.13	116.17	116.24	0.028442	1.64	2.26	22.42	1.02
DoylesR	TR016	274.18	20Year-Existing	2.42	114.93	115.33	115.32	115.36	0.011925	1.02	4.73	48.23	0.65
DoylesR	TR016	218.88	20Year-Existing	2.42	114.35	114.83	114.81	114.86	0.010715	1.03	4.94	52.84	0.63
DoylesR	TR016	165.43	20Year-Existing	2.42	113.83	114.38	114.36	114.42	0.008687	1.10	4.26	35.56	0.59
DoylesR	TR016	86.48	20Year-Existing	2.42	112.80	113.23	113.23	113.32	0.025893	1.47	2.17	12.81	0.95
DoylesR	TR016	40.19	20Year-Existing	2.42	112.21	112.81	112.69	112.82	0.002100	0.60	9.40	58.43	0.30
DoylesR	TR015	3230.71	20Year-Existing	14.63	111.60	112.52		112.57	0.008078	1.79	21.12	76.32	0.64
DoylesR	TR015	3185.04	20Year-Existing	14.63	111.22	112.16	112.11	112.24	0.011974	2.04	16.19	51.14	0.77
DoylesR	TR015	3133.58	20Year-Existing	14.63	110.57	111.39	111.39	111.50	0.018662	2.43	13.83	47.00	0.95
DoylesR	TR015	3079.97	20Year-Existing	14.63	108.17	109.08	109.36	109.84	0.055290	4.33	4.73	10.65	1.66
DoylesR	TR015	3026.43	20Year-Existing	14.63	107.30	109.10	108.26	109.12	0.000617	0.79	31.08	33.87	0.20
DoylesR	TR015	3001.28	20Year-Existing	14.63	106.17	109.11	108.20	109.11	0.000093	0.40	86.26	77.82	0.08
DoylesR	TR015	3000		Culvert									
DoylesR	TR015	2988.77	20Year-Existing	14.63	106.03	107.96	107.96	108.17	0.005284	2.53	14.72	40.16	0.60
DoylesR	TR015	2963.30	20Year-Existing	14.63	105.69	106.51	106.82	107.72	0.100589	5.79	4.69	16.43	2.18
DoylesR	TR015	2915.60	20Year-Existing	14.63	104.53	105.66	105.69	105.89	0.016385	2.80	10.18	23.49	0.93
DoylesR	TR015	2867.64	20Year-Existing	14.63	103.37	104.49	104.62	104.90	0.032007	3.87	8.11	20.67	1.28
DoylesR	TR015	2841.04	20Year-Existing	14.63	102.40	102.98	103.09	103.37	0.107914	4.06	6.83	28.00	2.09
DoylesR	TR015	2804.73	20Year-Existing	14.63	101.67	102.49	102.43	102.59	0.017198	2.32	13.23	35.57	0.91
DoylesR	TR015	2742.98	20Year-Existing	14.63	100.87	101.70	101.64	101.76	0.012042	2.03	19.76	69.13	0.77
DoylesR	TR015	2687.77	20Year-Existing	14.63	100.07	100.67	100.66	100.78	0.032027	2.50	13.67	62.16	1.18
DoylesR	TR015	2638.14	20Year-Existing	14.63	98.95	99.78	99.78	99.90	0.021243	2.71	14.26	52.84	1.03
DoylesR	TR015	2593.26	20Year-Existing	14.63	97.75	98.85	98.76	98.96	0.011038	2.31	15.15	41.83	0.76
DoylesR	TR015	2557.12	20Year-Existing	14.63	97.53	98.58		98.65	0.007859	1.97	18.14	47.66	0.65
DoylesR	TR015	2522.34	20Year-Existing	14.63	97.26	98.16	98.16	98.30	0.016813	2.32	12.48	39.62	0.91
DoylesR	TR015	2483.94	20Year-Existing	14.63	96.95	97.69	97.63	97.74	0.013761	1.81	17.41	60.13	0.78
DoylesR	TR015	2438.99	20Year-Existing	14.63	96.35	97.43		97.46	0.004281	1.42	26.27	90.61	0.48
DoylesR	TR015	2387.12	20Year-Existing	14.63	96.39	97.33		97.34	0.001674	0.77	44.18	127.31	0.29
DoylesR	TR015	2352.45	20Year-Existing	14.63	96.40	97.30		97.30	0.000692	0.49	53.16	99.98	0.19
DoylesR	TR015	2283.37	20Year-Existing	14.63	95.75	97.14		97.21	0.003352	1.55	16.49	22.59	0.45
DoylesR	TR015	2231.50	20Year-Existing	14.63	95.54	96.67	96.58	96.88	0.014030	2.65	9.41	17.53	0.87
DoylesR	TR015	2160.12	20Year-Existing	14.63	94.93	95.99		96.09	0.008094	1.90	12.50	22.30	0.66
DoylesR	TR015	2119.11	20Year-Existing	14.63	94.44	95.45	95.45	95.65	0.017897	2.72	10.31	25.96	0.96

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR015	2075.88	20Year-Existing	14.63	93.86	94.84	94.86	94.98	0.012789	2.27	13.39	46.94	0.82
DoylesR	TR015	2024.01	20Year-Existing	14.63	93.19	94.27	94.16	94.37	0.009664	2.07	15.49	47.50	0.71
DoylesR	TR015	1972.14	20Year-Existing	14.63	92.71	93.74	93.74	93.83	0.012414	2.33	17.39	75.79	0.80
DoylesR	TR015	1921.75	20Year-Existing	14.63	92.35	93.40	93.08	93.42	0.003005	1.18	28.52	74.62	0.40
DoylesR	TR015	1851.62	20Year-Existing	14.63	91.24	92.85	92.85	93.13	0.010212	2.79	8.64	15.84	0.76
DoylesR	TR014	2057.49	20Year-Existing	8.80	125.48	126.52	126.33	126.55	0.003500	1.15	17.82	61.91	0.42
DoylesR	TR014	2037.89	20Year-Existing	8.80	125.57	126.51		126.51	0.000699	0.53	38.03	102.45	0.19
DoylesR	TR014	1988.88	20Year-Existing	8.80	124.71	126.42	125.55	126.47	0.001134	1.03	13.13	41.48	0.26
DoylesR	TR014	1980		Culvert									
DoylesR	TR014	1975.46	20Year-Existing	8.80	124.46	126.32		126.37	0.001005	1.03	10.03	18.19	0.26
DoylesR	TR014	1936.56	20Year-Existing	8.80	124.86	126.15		126.28	0.005086	1.87	7.51	15.94	0.55
DoylesR	TR014	1904.43	20Year-Existing	8.80	124.72	125.75	125.75	126.02	0.013595	2.56	5.23	11.04	0.86
DoylesR	TR014	1867.03	20Year-Existing	8.80	124.61	125.60	125.35	125.67	0.004422	1.44	10.92	24.35	0.49
DoylesR	TR014	1801.50	20Year-Existing	8.80	124.00	124.93	124.93	125.15	0.016390	2.60	5.85	13.85	0.93
DoylesR	TR014	1765.57	20Year-Existing	8.80	123.20	123.74	123.86	124.13	0.056477	3.16	4.10	18.05	1.56
DoylesR	TR014	1703.29	20Year-Existing	8.80	121.82	122.65	122.60	122.87	0.015279	2.37	5.85	18.75	0.89
DoylesR	TR014	1657.91	20Year-Existing	8.80	121.27	122.03	122.01	122.20	0.013663	2.00	6.35	19.51	0.81
DoylesR	TR014	1607.98	20Year-Existing	8.80	120.59	121.40	121.40	121.52	0.013069	2.06	9.69	43.13	0.80
DoylesR	TR014	1544.18	20Year-Existing	8.80	119.81	120.67	120.67	120.77	0.010673	1.98	10.31	41.69	0.74
DoylesR	TR014	1492.70	20Year-Existing	8.80	119.06	119.74	119.73	119.84	0.012928	1.86	10.04	41.33	0.78
DoylesR	TR014	1441.23	20Year-Existing	8.80	117.59	118.52	118.52	118.90	0.025742	3.32	4.48	11.22	1.17
DoylesR	TR014	1420.98	20Year-Existing	8.80	116.98	118.14	117.70	118.20	0.002723	1.28	10.54	13.28	0.40
DoylesR	TR014	1411.86	20Year-Existing	8.80	117.03	118.05	117.69	118.15	0.004988	1.68	6.79	12.02	0.54
DoylesR	TR014	1400		Bridge									
DoylesR	TR014	1384.41	20Year-Existing	10.12	116.71	117.51	117.44	117.75	0.015207	2.35	4.88	9.80	0.88
DoylesR	TR014	1374.60	20Year-Existing	10.12	116.54	117.46		117.59	0.007982	1.81	7.10	11.65	0.65
DoylesR	TR014	1353.25	20Year-Existing	10.12	116.21	117.05	117.05	117.33	0.018676	2.59	5.07	9.73	0.98
DoylesR	TR014	1309.14	20Year-Existing	10.12	115.50	116.41	116.26	116.59	0.009272	1.89	5.60	8.59	0.69
DoylesR	TR014	1296.25	20Year-Existing	10.12	115.12	116.08	116.08	116.39	0.018355	2.83	4.83	8.07	0.99
DoylesR	TR014	1239.25	20Year-Existing	10.12	113.43	114.08	114.25	114.63	0.055542	3.67	3.73	11.09	1.61
DoylesR	TR014	1203.69	20Year-Existing	10.12	112.84	113.67	113.55	113.74	0.009160	1.86	10.41	25.59	0.69
DoylesR	TR014	1182.25	20Year-Existing	10.12	112.53	113.29	113.29	113.46	0.018380	2.39	7.41	20.47	0.95
DoylesR	TR014	1125.25	20Year-Existing	10.12	111.30	112.46	112.23	112.52	0.004309	1.57	12.91	23.29	0.49
DoylesR	TR014	1104.23	20Year-Existing	10.12	111.16	112.15	112.15	112.35	0.014770	2.47	7.09	16.84	0.88
DoylesR	TR014	1094.88	20Year-Existing	10.12	110.55	111.31	111.54	112.03	0.068634	4.66	3.61	9.78	1.83
DoylesR	TR014	1075.36	20Year-Existing	10.12	110.17	111.15	111.22	111.43	0.022270	3.18	6.82	18.57	1.09
DoylesR	TR014	1027.18	20Year-Existing	10.12	109.15	109.97	110.03	110.26	0.027221	2.96	6.05	16.48	1.16
DoylesR	TR014	980.74	20Year-Existing	10.12	107.89	108.95	108.59	108.99	0.003763	1.42	13.18	21.09	0.46
DoylesR	TR014	954.47	20Year-Existing	10.12	107.68	108.53	108.53	108.78	0.022068	2.77	6.61	18.19	1.05
DoylesR	TR014	934.37	20Year-Existing	10.12	106.99	107.88	107.90	108.24	0.029434	3.18	5.55	15.61	1.21
DoylesR	TR014	907.24	20Year-Existing	10.12	106.52	107.44	107.36	107.52	0.009658	1.99	11.28	27.63	0.71
DoylesR	TR014	868.80	20Year-Existing	10.12	105.88	106.75	106.75	106.99	0.019265	2.62	6.50	16.48	0.99
DoylesR	TR014	864.98	20Year-Existing	10.12	105.70	106.66	106.67	106.92	0.016739	2.44	5.52	13.25	0.92
DoylesR	TR014	844.06	20Year-Existing	10.12	105.10	106.25	106.10	106.40	0.008110	2.10	7.65	12.75	0.67
DoylesR	TR014	836.52	20Year-Existing	10.12	104.97	106.02	106.02	106.30	0.017890	2.71	5.49	10.99	0.96
DoylesR	TR014	816.09	20Year-Existing	10.12	104.78	105.59	105.53	105.70	0.011782	1.93	8.92	23.62	0.76
DoylesR	TR014	811.48	20Year-Existing	10.12	104.64	105.58		105.65	0.006255	1.62	11.25	22.81	0.57
DoylesR	TR014	783.28	20Year-Existing	10.12	103.98	105.06	105.06	105.35	0.017417	2.98	5.66	9.92	0.97
DoylesR	TR014	751.27	20Year-Existing	10.12	103.31	104.28	104.35	104.67	0.025597	2.83	4.08	8.64	1.11
DoylesR	TR014	717.94	20Year-Existing	10.12	102.63	103.91	103.91	104.16	0.013805	2.93	6.75	13.25	0.88
DoylesR	TR014	676.43	20Year-Existing	10.12	102.18	103.21	103.24	103.51	0.017725	2.69	5.76	14.07	0.96
DoylesR	TR014	601.44	20Year-Existing	10.12	101.39	102.30	102.20	102.40	0.009917	1.92	9.00	21.47	0.71
DoylesR	TR014	540.83	20Year-Existing	10.12	100.49	102.26		102.28	0.000604	0.79	25.98	42.54	0.20
DoylesR	TR014	519.25	20Year-Existing	10.12	99.69	102.27	101.49	102.27	0.000076	0.32	70.52	78.59	0.07
DoylesR	TR014	510		Culvert									
DoylesR	TR014	505.00	20Year-Existing	10.12	99.62	101.43	101.43	102.27	0.017543	4.13	2.54	26.83	1.00
DoylesR	TR014	484.27	20Year-Existing	10.12	99.79	100.53	100.79	101.47	0.125950	5.11	2.89	10.49	2.30
DoylesR	TR014	426.15	20Year-Existing	10.12	98.71	99.78	99.78	100.05	0.015970	2.42	5.34	14.92	0.90
DoylesR	TR014	368.05	20Year-Existing	10.12	97.30	98.43	98.56	98.84	0.029342	3.26	4.94	14.88	1.18
DoylesR	TR014	343.01	20Year-Existing	10.12	96.78	98.20	97.68	98.31	0.003141	1.54	7.31	69.92	0.43
DoylesR	TR014	335		Bridge									
DoylesR	TR014	331.91	20Year-Existing	10.12	96.63	97.79	97.79	98.16	0.016283	2.81	4.18	6.70	0.93
DoylesR	TR014	312.09	20Year-Existing	10.12	96.26	97.53	97.59	97.75	0.017753	2.46	7.68	31.96	0.89
DoylesR	TR014	227.09	20Year-Existing	10.12	94.66	96.40	96.08	96.44	0.002762	1.41	15.34	27.38	0.38
DoylesR	TR014	205.76	20Year-Existing	10.12	94.51	96.08	96.08	96.32	0.010743	2.52	6.97	16.97	0.73
DoylesR	TR014	198.96	20Year-Existing	10.12	94.45	95.11	95.40	96.07	0.121071	4.37	2.46	8.82	2.23
DoylesR	TR014	181.77	20Year-Existing	10.12	94.01	95.16	95.16	95.34	0.012979	2.37	8.02	22.21	0.81
DoylesR	TR014	121.12	20Year-Existing	10.12	92.99	94.14	94.23	94.41	0.017237	2.72	8.59	55.32	0.94
DoylesR	TR014	34.73	20Year-Existing	10.12	91.60	92.46	92.50	92.77	0.023158	2.66	4.86	10.64	1.06
DoylesR	TR012	1780.65	20Year-Existing	24.64	90.30	92.14	91.57	92.24	0.002473	1.52	23.75	36.75	0.40
DoylesR	TR012	1753.67	20Year-Existing	24.64	89.56	92.17	91.05	92.19	0.000414	0.89	56.93	68.72	0.18
DoylesR	TR012	1745		Bridge									
DoylesR	TR012	1729.43	20Year-Existing	24.64	89.10	90.90	90.90	91.64	0.015378	3.88	6.73	12.62	0.97
DoylesR	TR012	1709.20	20Year-Existing	24.64	88.93	90.43	90.68	91.19	0.029936	4.58	9.16	19.71	1.30
DoylesR	TR012	1645.76	20Year-Existing	24.64	88.20	89.39	89.36	89.70	0.016103	2.92	11.96	17.94	0.95
DoylesR	TR011	1552.47	20Year-Existing	35.53	86.48	88.60	88.20	88.91	0.005949	2.72	17.68	14.25	0.64
DoylesR	TR011	1530.88	20Year-Existing	35.53	86.19	88.08	88.08	88.69	0.014400	3.94	12.67	10.93	0.98
DoylesR	TR011	1477.56	20Year-Existing	35.53	84.43	85.73	86.16	87.19	0.064807	6.05	8.40	13.06	1.90
DoylesR	TR011	1423.69	20Year-Existing	35.53	83.56	85.39	85.39	86.01	0.014160	3.78	12.28	11.08	0.96
DoylesR	TR011	1370.10	20Year-Existing	35.53	82.66	83.91	84.14	84.73	0.046388	5.14	12.83	29.95	1.62
DoylesR	TR011	1316.51	20Year-Existing	35.53	81.17	82.80	82.80	83.44	0.018649	3.95	12.16	13.53	1.08
DoylesR	TR011	1262.92	20Year-Existing	35.53	79.36	80.99	81.43	82.08	0.033326	5.16	9.70	13.04	1.42
DoylesR	TR011	1209.33	20Year-Existing	35.53	78.14	80.26	80.28	80.89	0.014154	3.95	12.59	12.74	0.96
DoylesR	TR011	1155.74	20Year-Existing	35.53	76.81	78.58	78.92	79.72	0.033771	5.20	8.83	9.43	1.41
DoylesR	TR011	1107.39	20Year-Existing	35.53	76.34	77.92	77.94	78.45	0.016294	3.37	12.21	13.18	0.98

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR011	1057.82	20Year-Existing	35.53	75.16	77.14	77.15	77.70	0.014095	3.60	12.60	12.43	0.93
DoylesR	TR011	971.36	20Year-Existing	35.53	73.33	75.04	74.53	75.28	0.004717	2.18	16.28	19.09	0.56
DoylesR	TR011	960		Bridge									
DoylesR	TR011	949.62	20Year-Existing	35.53	73.08	74.95	74.22	75.13	0.002943	1.90	18.70	14.57	0.45
DoylesR	TR011	929.53	20Year-Existing	35.53	72.74	74.50	74.39	74.95	0.011570	3.17	13.50	12.37	0.85
DoylesR	TR011	872.05	20Year-Existing	35.53	72.26	74.06	74.06	74.28	0.009471	2.86	26.76	57.01	0.76
DoylesR	TR011	816.76	20Year-Existing	35.53	72.00	73.01	72.95	73.10	0.015688	2.40	32.56	93.52	0.87
DoylesR	TR011	760.16	20Year-Existing	35.53	71.25	72.46		72.52	0.008854	2.24	40.31	100.47	0.70
DoylesR	TR011	712.26	20Year-Existing	35.53	70.34	71.74	71.66	71.93	0.014641	3.06	26.99	69.55	0.91
DoylesR	TR011	663.11	20Year-Existing	35.53	70.08	71.44		71.48	0.005542	1.77	52.69	135.53	0.54
DoylesR	TR013	2205.78	20Year-Existing	7.70	95.88	96.64	96.39	96.65	0.001300	0.70	28.03	103.65	0.26
DoylesR	TR013	2147.59	20Year-Existing	7.70	95.87	96.54		96.56	0.002135	0.77	18.33	60.56	0.32
DoylesR	TR013	2097.40	20Year-Existing	7.70	95.86	96.24	96.24	96.30	0.027076	1.71	9.35	69.52	1.02
DoylesR	TR013	2011.99	20Year-Existing	7.70	93.67	94.69	94.53	94.82	0.007275	1.79	5.78	11.11	0.62
DoylesR	TR013	1957.46	20Year-Existing	7.70	93.05	94.00	94.00	94.26	0.016346	2.73	4.57	10.16	0.94
DoylesR	TR013	1909.18	20Year-Existing	7.70	92.33	93.21	93.31	93.43	0.016653	2.46	6.40	38.38	0.91
DoylesR	TR013	1861.01	20Year-Existing	7.70	91.27	92.23	92.33	92.54	0.020319	2.76	4.80	27.61	1.01
DoylesR	TR013	1789.09	20Year-Existing	7.70	90.00	90.54	90.59	90.69	0.031679	2.33	7.50	57.69	1.16
DoylesR	TR013	1733.37	20Year-Existing	7.70	89.53	90.24	90.12	90.26	0.003953	0.97	16.59	76.62	0.43
DoylesR	TR013	1677.65	20Year-Existing	7.70	89.42	89.83		89.86	0.015610	1.34	10.19	57.30	0.78
DoylesR	TR013	1613.85	20Year-Existing	7.70	89.11	89.62		89.63	0.001743	0.54	26.17	96.53	0.27
DoylesR	TR013	1552.30	20Year-Existing	7.70	88.82	89.53		89.54	0.001892	0.75	21.85	68.19	0.30
DoylesR	TR013	1506.96	20Year-Existing	7.70	88.81	89.45		89.46	0.001929	0.72	21.16	64.62	0.30
DoylesR	TR013	1478.17	20Year-Existing	7.70	88.80	89.29		89.34	0.015591	1.52	9.82	43.62	0.80
DoylesR	TR013	1411.61	20Year-Existing	7.70	88.11	89.06		89.08	0.001642	0.82	14.03	31.04	0.29
DoylesR	TR013	1388.58	20Year-Existing	7.70	87.45	89.07	88.80	89.07	0.000120	0.32	56.88	156.57	0.09
DoylesR	TR013	1375		Culvert									
DoylesR	TR013	1373.86	20Year-Existing	7.70	87.32	88.64	88.50	88.73	0.004736	1.78	8.51	16.55	0.51
DoylesR	TR013	1301.72	20Year-Existing	7.70	86.82	87.81	87.81	88.11	0.017593	2.66	3.72	6.91	0.95
DoylesR	TR013	1246.99	20Year-Existing	7.70	85.79	86.65	86.71	87.01	0.023393	2.74	3.21	6.60	1.07
DoylesR	TR013	1192.26	20Year-Existing	7.70	84.79	85.86	85.65	86.00	0.007483	1.86	5.82	10.87	0.63
DoylesR	TR013	1137.53	20Year-Existing	7.70	84.03	85.12	85.12	85.41	0.015693	2.59	3.76	7.46	0.90
DoylesR	TR013	1082.80	20Year-Existing	7.70	83.55	84.44	84.43	84.56	0.014202	1.96	6.69	21.93	0.81
DoylesR	TR013	1064.90	20Year-Existing	7.70	82.57	84.48	83.61	84.50	0.000563	0.71	24.74	109.67	0.18
DoylesR	TR013	1050		Culvert									
DoylesR	TR013	1042.53	20Year-Existing	7.70	82.41	84.20	83.37	84.21	0.000356	0.56	29.46	75.92	0.15
DoylesR	TR013	1022.06	20Year-Existing	7.70	82.71	84.02	83.79	84.18	0.006481	2.05	5.57	8.16	0.61
DoylesR	TR013	969.32	20Year-Existing	7.70	82.40	83.31	83.31	83.60	0.019697	2.82	3.83	6.84	1.01
DoylesR	TR013	915.66	20Year-Existing	7.70	81.80	82.91	82.54	82.92	0.001344	0.86	18.57	40.26	0.28
DoylesR	TR013	867.93	20Year-Existing	7.70	81.40	82.80		82.84	0.002207	1.27	13.76	33.10	0.36
DoylesR	TR013	809.27	20Year-Existing	7.70	81.32	82.53		82.65	0.004773	1.62	6.10	9.63	0.52
DoylesR	TR013	756.07	20Year-Existing	7.70	80.75	81.85	81.85	82.19	0.016319	2.94	3.62	5.65	0.95
DoylesR	TR013	702.82	20Year-Existing	7.70	79.91	80.98	80.98	81.30	0.017044	2.85	3.77	6.69	0.95
DoylesR	TR013	651.60	20Year-Existing	7.70	78.06	78.84	79.18	79.66	0.072397	4.21	2.16	5.53	1.80
DoylesR	TR013	588.74	20Year-Existing	7.70	75.89	76.83	76.86	77.14	0.023167	2.51	3.36	7.53	1.03
DoylesR	TR013	543.29	20Year-Existing	7.70	75.20	75.93	75.98	76.23	0.026962	2.47	3.28	7.72	1.10
DoylesR	TR013	489.08	20Year-Existing	7.70	73.77	74.89	74.89	75.24	0.016800	2.93	3.60	5.67	0.95
DoylesR	TR013	436.90	20Year-Existing	7.70	72.11	72.98	73.31	73.70	0.059285	3.82	2.14	4.67	1.61
DoylesR	TR013	383.70	20Year-Existing	7.70	70.97	72.46	71.89	72.48	0.000604	0.67	32.48	137.24	0.19
DoylesR	TR013	363.75	20Year-Existing	7.70	70.36	71.90	71.90	72.39	0.011696	3.33	3.24	9.00	0.87
DoylesR	TR013	360		Culvert									
DoylesR	TR013	344.87	20Year-Existing	7.70	70.32	71.70	71.70	71.71	0.000699	0.68	24.34	48.31	0.19
DoylesR	TR013	324.16	20Year-Existing	7.70	70.29	70.86	70.98	71.47	0.151545	4.44	3.45	33.65	2.41
DoylesR	TR013	256.30	20Year-Existing	7.70	69.36	70.28	70.28	70.36	0.014788	2.01	9.27	48.12	0.78
DoylesR	TR013	236.50	20Year-Existing	7.70	69.35	70.19	69.97	70.20	0.000814	0.42	34.56	115.75	0.19
DoylesR	TR013	162.98	20Year-Existing	7.70	68.94	70.15		70.16	0.000794	0.54	31.50	121.02	0.19
DoylesR	TR013	133.14	20Year-Existing	7.70	68.76	70.14		70.14	0.000233	0.31	50.04	118.08	0.10
DoylesR	TR013	66.14	20Year-Existing	7.70	68.46	70.12		70.12	0.000252	0.37	39.75	136.53	0.11
DoylesR	M001	484.12	20Year-Existing	43.23	68.08	69.70	69.62	69.86	0.014798	2.86	32.19	92.76	0.87
DoylesR	M001	429.44	20Year-Existing	43.23	67.72	69.55		69.58	0.002419	1.31	69.76	126.18	0.36
DoylesR	M001	388.03	20Year-Existing	43.23	67.53	69.47		69.49	0.001804	1.20	84.67	148.26	0.31
DoylesR	M001	344.78	20Year-Existing	43.23	67.39	69.45		69.46	0.000358	0.56	167.09	224.71	0.14
DoylesR	M001	215.64	20Year-Existing	43.23	67.21	69.45		69.45	0.000038	0.21	376.73	346.98	0.05
DoylesR	M001	77.13	20Year-Existing	43.23	66.62	69.45		69.45	0.000010	0.13	665.65	520.73	0.03
CochranePB	M002	8105.53	20Year-Existing	12.21	140.65	142.23	141.33	142.23	0.000116	0.35	75.47	105.37	0.10
CochranePB	M002	8065.47	20Year-Existing	12.21	140.64	142.21		142.22	0.000609	0.72	38.27	75.95	0.22
CochranePB	M002	8050.98	20Year-Existing	12.21	140.00	142.18		142.21	0.000218	0.90	29.63	62.70	0.25
CochranePB	M002	8024.09	20Year-Existing	12.21	140.62	142.18		142.19	0.000794	0.79	36.86	92.21	0.25
CochranePB	M002	8013.06	20Year-Existing	12.21	140.42	142.18		142.19	0.000467	0.68	41.69	85.18	0.19
CochranePB	M002	8004.70	20Year-Existing	12.21	140.25	142.18	141.80	142.18	0.000274	0.69	56.71	106.81	0.16
CochranePB	M002	8000		Culvert									
CochranePB	M002	7995.14	20Year-Existing	12.21	140.37	142.17	141.50	142.18	0.000184	0.54	53.06	78.22	0.13
CochranePB	M002	7964.49	20Year-Existing	12.21	140.14	141.75	141.75	142.12	0.011752	3.22	6.27	9.79	0.91
CochranePB	M002	7901.64	20Year-Existing	12.21	139.30	140.70	140.88	141.15	0.020641	3.20	5.99	24.02	1.13
CochranePB	M002	7847.08	20Year-Existing	12.21	138.68	139.77	139.66	139.83	0.007562	1.64	14.98	45.87	0.67
CochranePB	M002	7812.33	20Year-Existing	12.21	138.52	139.32	139.32	139.41	0.022782	2.12	11.57	54.13	1.12
CochranePB	M002	7738.34	20Year-Existing	12.21	137.94	138.90	138.71	138.91	0.002351	0.84	32.50	123.75	0.38
CochranePB	M002	7695.32	20Year-Existing	12.21	137.67	138.58	138.58	138.71	0.016735	2.05	10.21	40.35	1.00
CochranePB	M002	7609.21	20Year-Existing	12.21	136.29	137.71	137.35	137.73	0.000818	0.77	30.92	71.06	0.25
CochranePB	M002	7515.77	20Year-Existing	12.21	136.28	137.59		137.62	0.002298	1.20	23.21	89.70	0.41
CochranePB	M002	7476.72	20Year-Existing	12.21	136.26	137.56		137.57	0.000631	0.62	36.53	89.74	0.22
CochranePB	M002	7450.86	20Year-Existing	12.21	136.25	137.53		137.55	0.001205	0.82	26.67	80.47	0.30
CochranePB	M002	7329.89	20Year-Existing	12.21	136.23	137.25		137.30	0.005108	1.36	17.10	73.32	0.58
CochranePB	M002	7253.62	20Year-Existing	12.21	136.05	137.07		137.09	0.002108	0.93	25.74	91.71	0.37
CochranePB	M002	7208.54	20Year-Existing	12.21	135.88	136.96		136.99	0.002697	1.09	24.28	90.03	0.43

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	7108.13	20Year-Existing	12.21	135.54	136.50		136.57	0.009648	1.90	16.06	71.03	0.77
CochranePB	M002	7041.67	20Year-Existing	12.21	134.91	136.04	136.02	136.13	0.006072	1.56	14.17	71.34	0.64
CochranePB	M002	6985.71	20Year-Existing	12.21	134.29	135.63	135.63	135.77	0.006650	2.10	12.33	42.81	0.70
CochranePB	M002	6955.25	20Year-Existing	12.21	133.48	134.58	134.80	135.28	0.047987	3.78	3.62	9.97	1.70
CochranePB	M002	6863.52	20Year-Existing	12.21	131.82	132.84	132.84	132.98	0.015052	2.33	10.87	38.27	0.97
CochranePB	M002	6840.09	20Year-Existing	12.21	131.19	132.10	132.19	132.42	0.040958	3.09	7.17	35.55	1.54
CochranePB	M002	6808.25	20Year-Existing	12.21	130.51	131.35	131.44	131.66	0.057783	3.30	7.13	38.42	1.75
CochranePB	M002	6767.75	20Year-Existing	12.21	129.31	130.32	130.34	130.48	0.016407	2.24	10.19	45.29	1.01
CochranePB	M002	6727.78	20Year-Existing	12.21	128.36	129.42	129.48	129.68	0.024505	2.77	7.73	31.78	1.21
CochranePB	M002	6691.71	20Year-Existing	12.21	127.96	129.02	128.94	129.08	0.006706	1.54	16.43	69.92	0.65
CochranePB	M002	6651.54	20Year-Existing	12.21	127.68	128.62	128.59	128.73	0.012124	1.60	9.79	36.50	0.84
CochranePB	M002	6630.83	20Year-Existing	12.21	127.19	128.39	128.39	128.52	0.008121	1.89	11.01	48.42	0.74
CochranePB	M002	6534.50	20Year-Existing	12.21	126.30	127.24	127.26	127.40	0.018242	2.19	9.64	47.45	1.05
CochranePB	M002	6507.97	20Year-Existing	12.21	125.65	126.55	126.61	126.74	0.032546	2.60	9.22	54.33	1.34
CochranePB	M002	6480.50	20Year-Existing	12.21	124.97	125.89	125.91	126.03	0.022639	2.36	10.44	53.13	1.14
CochranePB	M002	6433.33	20Year-Existing	12.21	124.09	125.03	125.05	125.19	0.018194	2.01	8.57	35.73	1.03
CochranePB	M002	6400.96	20Year-Existing	12.21	123.40	124.53	124.37	124.58	0.005120	1.36	15.04	43.45	0.57
CochranePB	M002	6364.18	20Year-Existing	12.21	123.28	124.53		124.53	0.000284	0.39	43.30	107.05	0.14
CochranePB	M002	6314.31	20Year-Existing	12.21	123.27	124.46		124.50	0.002050	0.98	19.53	52.30	0.38
CochranePB	M002	6286.25	20Year-Existing	12.21	123.26	124.38		124.43	0.003151	1.14	16.42	53.92	0.46
CochranePB	M002	6202.53	20Year-Existing	12.21	122.81	124.01	123.93	124.12	0.005925	1.69	11.63	32.14	0.64
CochranePB	M002	6130.00	20Year-Existing	12.21	122.30	123.28	123.28	123.46	0.016698	1.93	7.07	25.58	0.99
CochranePB	M002	6040.82	20Year-Existing	12.21	121.41	122.57	122.46	122.61	0.002953	1.19	20.59	74.00	0.46
CochranePB	M002	6006.95	20Year-Existing	12.21	121.40	122.53		122.55	0.000923	0.55	29.63	96.34	0.25
CochranePB	M002	5976.09	20Year-Existing	12.21	121.39	122.38	122.38	122.47	0.012409	1.72	13.48	70.97	0.86
CochranePB	M002	5910.40	20Year-Existing	12.21	120.29	121.45	121.49	121.65	0.015420	2.46	9.19	37.59	1.00
CochranePB	M002	5863.68	20Year-Existing	12.21	119.62	120.52	120.61	120.78	0.031550	2.53	6.89	32.83	1.34
CochranePB	M002	5811.63	20Year-Existing	12.21	118.87	119.86	119.95	120.13	0.026653	2.81	8.12	41.80	1.28
CochranePB	M002	5768.42	20Year-Existing	12.21	117.38	118.36	118.50	118.76	0.040165	2.84	4.75	20.06	1.51
CochranePB	M002	5725.36	20Year-Existing	12.21	116.48	117.57	117.59	117.74	0.014122	2.16	8.85	36.64	0.95
CochranePB	M002	5678.58	20Year-Existing	12.21	115.39	116.42	116.53	116.77	0.029021	2.65	5.15	20.30	1.31
CochranePB	M002	5627.04	20Year-Existing	12.21	114.79	116.13	115.82	116.17	0.002256	1.15	18.77	43.92	0.41
CochranePB	M002	5609.94	20Year-Existing	18.37	114.77	115.93		116.05	0.007832	1.82	15.45	41.75	0.73
CochranePB	M002	5601.00	20Year-Existing	18.37	114.76	115.90		115.91	0.001753	0.86	42.03	108.05	0.34
CochranePB	M002	5568.52	20Year-Existing	18.37	114.75	115.86		115.87	0.001307	0.72	42.12	94.17	0.30
CochranePB	M002	5508.20	20Year-Existing	18.37	114.04	115.56		115.72	0.004606	1.82	12.28	20.62	0.60
CochranePB	M002	5473.67	20Year-Existing	18.37	113.90	115.25	115.25	115.48	0.010652	2.44	11.83	26.97	0.88
CochranePB	M002	5403.83	20Year-Existing	18.37	110.69	111.79	112.24	113.57	0.113709	5.97	3.29	8.32	2.64
CochranePB	M002	5352.19	20Year-Existing	18.37	110.27	111.59	111.59	111.86	0.013464	2.56	9.88	20.71	0.97
CochranePB	M002	5309.83	20Year-Existing	18.37	109.64	111.03	111.10	111.30	0.012782	2.61	12.30	42.99	0.95
CochranePB	M002	5266.90	20Year-Existing	18.37	109.30	110.59	110.64	110.77	0.011729	2.41	17.57	78.35	0.90
CochranePB	M002	5213.45	20Year-Existing	18.37	108.81	110.33	109.85	110.35	0.000939	0.80	41.45	80.23	0.27
CochranePB	M002	5162.38	20Year-Existing	34.87	108.18	109.94	109.94	110.20	0.009208	3.06	25.35	52.15	0.87
CochranePB	M002	5109.83	20Year-Existing	34.87	108.02	109.44	109.14	109.48	0.003637	1.39	47.48	100.57	0.50
CochranePB	M002	5059.83	20Year-Existing	34.87	107.54	109.13		109.27	0.006716	2.26	33.89	84.75	0.72
CochranePB	M002	5013.20	20Year-Existing	34.87	107.21	108.83	108.83	108.98	0.008638	2.33	32.99	98.03	0.79
CochranePB	M002	4977.38	20Year-Existing	34.87	107.07	108.69	108.43	108.72	0.001844	1.21	64.53	145.20	0.38
CochranePB	M002	4908.49	20Year-Existing	34.87	106.95	108.66		108.67	0.000532	0.72	109.41	194.41	0.21
CochranePB	M002	4883.44	20Year-Existing	34.87	106.94	108.65		108.65	0.000298	0.53	129.54	198.80	0.16
CochranePB	M002	4816.97	20Year-Existing	34.87	106.93	108.63		108.64	0.000287	0.52	133.24	220.85	0.16
CochranePB	M002	4757.22	20Year-Existing	34.87	106.78	108.62		108.63	0.000199	0.47	155.03	253.69	0.13
CochranePB	M002	4718.65	20Year-Existing	34.87	106.77	108.61		108.62	0.000298	0.59	138.49	314.46	0.16
CochranePB	M002	4674.22	20Year-Existing	34.87	106.76	108.58		108.60	0.000799	0.96	92.72	264.56	0.27
CochranePB	M002	4633.22	20Year-Existing	34.87	106.75	108.57		108.58	0.000325	0.60	87.49	166.95	0.17
CochranePB	M002	4561.03	20Year-Existing	34.87	106.74	108.50		108.54	0.001108	1.07	54.07	95.60	0.31
CochranePB	M002	4506.74	20Year-Existing	34.87	106.43	108.19	108.19	108.40	0.006962	2.49	25.54	56.74	0.75
CochranePB	M002	4459.83	20Year-Existing	34.87	105.66	107.22	107.43	107.84	0.020405	3.73	13.84	42.91	1.25
CochranePB	M002	4409.53	20Year-Existing	34.87	104.62	106.21	106.39	106.81	0.020461	3.73	13.36	29.16	1.23
CochranePB	M002	4359.83	20Year-Existing	34.87	103.72	105.39	105.59	105.91	0.015346	3.40	13.62	28.59	1.08
CochranePB	M002	4327.93	20Year-Existing	34.87	103.17	104.95	105.08	105.45	0.013728	3.30	13.92	28.42	1.04
CochranePB	M002	4265.56	20Year-Existing	34.87	102.45	104.21	104.25	104.61	0.012533	3.28	16.38	26.37	0.99
CochranePB	M002	4208.11	20Year-Existing	34.87	101.67	103.28	103.43	103.79	0.015694	3.35	13.90	30.02	1.10
CochranePB	M002	4159.83	20Year-Existing	34.87	101.12	102.18	102.26	102.49	0.051135	3.26	15.66	47.92	1.70
CochranePB	M002	4109.83	20Year-Existing	34.87	98.84	100.45	100.64	101.05	0.017996	3.75	14.16	36.39	1.19
CochranePB	M002	4056.00	20Year-Existing	34.87	97.18	98.74	99.11	99.71	0.032821	4.69	9.50	15.99	1.55
CochranePB	M002	4009.83	20Year-Existing	34.87	96.33	98.17	98.28	98.53	0.015112	3.63	22.37	62.77	1.05
CochranePB	M002	3969.03	20Year-Existing	34.87	95.62	97.38	97.60	97.95	0.013232	3.60	12.95	36.65	1.05
CochranePB	M002	3916.58	20Year-Existing	34.87	94.82	96.91	97.05	97.30	0.009649	3.16	20.24	72.19	0.86
CochranePB	M002	3859.82	20Year-Existing	34.87	94.34	96.08	96.37	96.64	0.013755	3.34	10.94	13.81	1.03
CochranePB	M002	3810.05	20Year-Existing	34.87	93.50	95.32	95.61	95.94	0.014280	3.68	11.65	25.20	1.08
CochranePB	M002	3759.83	20Year-Existing	34.87	93.00	94.62	94.79	95.13	0.015830	3.59	16.79	53.89	1.12
CochranePB	M002	3709.28	20Year-Existing	34.87	92.33	94.06	94.15	94.41	0.011830	3.12	20.10	56.54	0.96
CochranePB	M002	3661.60	20Year-Existing	34.87	92.05	93.79	93.81	93.96	0.006198	2.37	35.00	131.54	0.71
CochranePB	M002	3609.83	20Year-Existing	34.87	91.73	93.36	93.41	93.56	0.009575	2.68	27.07	102.17	0.85
CochranePB	M002	3559.90	20Year-Existing	34.87	90.87	92.82	92.88	93.10	0.007623	2.87	26.02	80.00	0.79
CochranePB	M002	3509.83	20Year-Existing	34.87	90.38	92.48	92.32	92.57	0.002775	1.94	47.14	108.18	0.49
CochranePB	M002	3493.23	20Year-Existing	34.87	90.02	92.34	91.76	92.53	0.002643	2.40	22.77	15.98	0.51
CochranePB	M002	3480		Bridge									
CochranePB	M002	3474.26	20Year-Existing	34.87	89.91	92.35	91.39	92.47	0.001234	1.76	27.88	17.22	0.37
CochranePB	M002	3466.43	20Year-Existing	34.87	90.00	91.50	91.49	92.25	0.011957	3.98	10.22	9.74	1.05
CochranePB	M002	3454.35	20Year-Existing	34.87	89.94	91.80	91.35	92.04	0.003431	2.39	18.78	16.30	0.58
CochranePB	M002	3450		Bridge									
CochranePB	M002	3434.16	20Year-Existing	38.17	90.36	91.65	91.50	91.97	0.007142	2.68	17.00	20.02	0.79
CochranePB	M002	3413.11	20Year-Existing	38.17	90.14	91.58	91.58	91.73	0.007563	2.54	35.14	90.81	0.77
CochranePB	M002	3391.58	20Year-Existing	38.17	90.03	91.48	91.18	91.57	0.005113	2.18	42.98	99.21	0.65

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	3371.12	20Year-Existing	38.17	90.02	91.27	91.27	91.44	0.007635	2.40	33.66	92.06	0.78
CochranePB	M002	3309.87	20Year-Existing	38.17	89.28	90.65	90.61	90.75	0.008942	2.58	37.43	103.22	0.81
CochranePB	M002	3272.96	20Year-Existing	38.17	88.73	90.21	90.21	90.39	0.009638	2.66	29.29	76.43	0.85
CochranePB	M002	3219.09	20Year-Existing	38.17	88.30	89.74	89.75	89.89	0.009258	2.54	33.05	107.01	0.84
CochranePB	M002	3175.54	20Year-Existing	38.17	87.36	89.40	89.21	89.54	0.002683	1.91	34.56	66.47	0.48
CochranePB	M002	3165		Bridge									
CochranePB	M002	3157.85	20Year-Existing	38.17	87.50	89.20	89.20	89.42	0.004891	2.38	29.43	77.35	0.64
CochranePB	M002	3135.32	20Year-Existing	38.17	87.85	89.08	89.02	89.14	0.005097	1.73	49.75	153.30	0.61
CochranePB	M002	3106.53	20Year-Existing	38.17	87.94	88.79	88.79	88.90	0.026255	2.53	28.89	117.97	1.22
CochranePB	M002	3088.94	20Year-Existing	38.17	86.84	88.71	88.11	88.75	0.000888	1.12	70.14	169.88	0.29
CochranePB	M002	3080		Bridge									
CochranePB	M002	3075.67	20Year-Existing	38.17	86.74	88.30	87.96	88.36	0.001686	1.35	51.02	114.87	0.38
CochranePB	M002	3056.89	20Year-Existing	38.17	87.66	88.22		88.30	0.014650	0.93	31.82	107.25	0.77
CochranePB	M002	3007.54	20Year-Existing	38.17	87.61	87.93		87.96	0.003799	0.39	49.13	101.57	0.31
CochranePB	M002	2976.31	20Year-Existing	38.17	87.51	87.84		87.87	0.003506	0.44	51.60	115.51	0.35
CochranePB	M002	2941.08	20Year-Existing	38.17	86.98	87.77		87.78	0.002187	0.71	76.63	220.59	0.35
CochranePB	M002	2920.10	20Year-Existing	38.17	86.74	87.75	87.54	87.76	0.000231	0.30	167.70	295.29	0.11
CochranePB	M002	2915		Bridge									
CochranePB	M002	2912.75	20Year-Existing	38.17	86.97	87.75	87.75	87.75	0.000139	0.25	200.70	313.30	0.10
CochranePB	M002	2890.23	20Year-Existing	38.17	86.65	86.82	86.99	87.53	0.429968	3.31	10.24	73.27	3.62
CochranePB	M002	2823.99	20Year-Existing	38.17	86.08	87.06	86.75	87.07	0.001442	0.66	92.09	244.88	0.27
CochranePB	M002	2789.49	20Year-Existing	38.17	86.04	87.03		87.04	0.001254	0.58	95.07	250.31	0.26
CochranePB	M002	2741.30	20Year-Existing	38.17	85.71	86.98		86.99	0.000984	0.73	101.23	264.99	0.27
CochranePB	M002	2663.79	20Year-Existing	38.17	85.58	86.93		86.94	0.001061	0.83	98.68	251.20	0.28
CochranePB	M002	2639.38	20Year-Existing	38.17	85.57	86.90		86.91	0.001360	0.89	90.25	234.04	0.32
CochranePB	M002	2616.24	20Year-Existing	38.17	85.30	86.88		86.89	0.000768	0.79	107.22	229.94	0.25
CochranePB	M002	2539.69	20Year-Existing	38.17	85.41	86.83		86.84	0.001368	0.92	87.12	220.09	0.32
CochranePB	M002	2489.06	20Year-Existing	38.17	85.18	86.78		86.80	0.001453	1.10	81.41	196.02	0.34
CochranePB	M002	2438.28	20Year-Existing	38.17	84.87	86.72		86.75	0.001455	1.19	76.33	172.65	0.35
CochranePB	M002	2384.01	20Year-Existing	38.17	84.65	86.62		86.66	0.002103	1.53	63.83	136.89	0.42
CochranePB	M002	2310.47	20Year-Existing	38.17	84.33	86.37		86.46	0.003994	2.05	46.07	116.82	0.56
CochranePB	M002	2284.63	20Year-Existing	38.17	84.16	86.31		86.37	0.002782	1.74	52.42	99.70	0.45
CochranePB	M002	2240.58	20Year-Existing	38.17	84.04	85.88	85.88	86.14	0.009496	3.04	24.28	44.82	0.86
CochranePB	M002	2170.94	20Year-Existing	38.17	82.26	83.89	84.22	84.97	0.032533	4.92	9.95	16.13	1.57
CochranePB	M002	2136.89	20Year-Existing	38.17	81.72	83.35	83.53	83.97	0.020187	3.70	12.88	22.01	1.24
CochranePB	M002	2100.01	20Year-Existing	38.17	81.30	83.11	83.15	83.44	0.011331	3.05	20.52	39.30	0.94
CochranePB	M002	2046.85	20Year-Existing	38.17	80.89	82.59	82.63	82.93	0.010038	2.78	18.88	37.00	0.89
CochranePB	M002	2014.35	20Year-Existing	38.17	80.47	81.90	82.05	82.43	0.025594	3.48	15.02	40.32	1.34
CochranePB	M002	1990.76	20Year-Existing	38.17	80.10	81.88	81.88	82.12	0.008960	2.69	24.20	44.15	0.83
CochranePB	M002	1945.20	20Year-Existing	38.17	79.43	81.50	81.15	81.59	0.003113	1.85	36.99	48.83	0.51
CochranePB	M002	1916.67	20Year-Existing	38.17	79.31	81.34		81.48	0.004569	2.23	31.88	43.04	0.61
CochranePB	M002	1871.48	20Year-Existing	38.17	79.28	81.19		81.28	0.003768	1.83	35.16	47.47	0.55
CochranePB	M002	1836.03	20Year-Existing	38.17	78.83	81.13		81.19	0.001502	1.43	46.12	71.29	0.36
CochranePB	M002	1788.63	20Year-Existing	38.17	78.46	80.75	80.75	81.04	0.006961	3.06	24.71	38.85	0.76
CochranePB	M002	1768.08	20Year-Existing	38.17	78.14	79.97	80.22	80.75	0.022008	4.48	13.40	25.25	1.31
CochranePB	M002	1733.19	20Year-Existing	38.17	77.95	79.93	79.94	80.20	0.007011	2.68	24.60	48.24	0.76
CochranePB	M002	1694.89	20Year-Existing	38.17	77.12	79.22	78.81	79.32	0.002524	1.73	34.64	41.60	0.47
CochranePB	M002	1685.79	20Year-Existing	38.17	77.06	79.16		79.29	0.003376	2.00	30.20	37.53	0.53
CochranePB	M002	1640.51	20Year-Existing	38.17	76.45	78.66	78.66	79.04	0.007505	3.13	18.87	27.52	0.80
CochranePB	M002	1602.99	20Year-Existing	38.17	75.01	76.40	76.91	78.23	0.079706	6.20	7.19	14.92	2.34
CochranePB	M002	1585.52	20Year-Existing	38.17	74.01	75.29	75.66	76.64	0.084608	5.57	8.66	20.35	2.35
CochranePB	M002	1569.47	20Year-Existing	38.17	73.71	74.98	75.13	75.54	0.036351	3.45	12.23	27.22	1.52
CochranePB	M002	1541.97	20Year-Existing	38.17	72.31	74.03	74.23	74.74	0.022514	4.06	12.04	18.36	1.30
CochranePB	M002	1510.83	20Year-Existing	38.17	71.34	72.51	72.78	73.50	0.082283	4.44	8.78	23.42	2.22
CochranePB	M002	1495.27	20Year-Existing	38.17	71.19	72.95	72.68	73.08	0.003948	1.70	29.44	41.39	0.56
CochranePB	M002	1458.62	20Year-Existing	38.17	70.58	72.58	72.58	72.84	0.008079	3.18	27.84	49.31	0.82
CochranePB	M002	1419.61	20Year-Existing	38.17	70.21	72.10	72.04	72.35	0.007304	2.82	23.80	36.33	0.78
CochranePB	M002	1384.56	20Year-Existing	38.17	69.61	71.77	71.61	72.11	0.006008	2.78	19.69	46.40	0.73
CochranePB	M002	1351.51	20Year-Existing	38.17	69.54	71.70	71.70	71.90	0.004511	2.49	32.39	78.08	0.63
CochranePB	M002	1311.78	20Year-Existing	38.17	69.49	71.33	71.41	71.63	0.008909	3.06	28.25	104.57	0.86
CochranePB	M002	1291.19	20Year-Existing	38.17	69.28	70.94	71.09	71.39	0.015485	3.62	21.30	83.11	1.09
CochranePB	M002	1217.75	20Year-Existing	38.17	68.70	70.78	70.18	70.82	0.000872	1.12	61.98	107.74	0.29
CochranePB	M002	1200.39	20Year-Existing	38.17	68.69	70.53	70.12	70.78	0.003947	2.23	17.79	18.62	0.59
CochranePB	M002	1190		Bridge									
CochranePB	M002	1185.68	20Year-Existing	39.05	68.46	70.50	69.82	70.68	0.002165	1.90	21.16	25.24	0.46
CochranePB	M002	1164.32	20Year-Existing	39.05	68.65	70.37	70.37	70.60	0.005455	2.61	28.43	74.95	0.70
CochranePB	M002	1132.60	20Year-Existing	39.05	68.60	69.79	69.92	70.22	0.026953	3.63	20.20	98.98	1.38
CochranePB	M002	1111.68	20Year-Existing	39.05	68.55	69.78	69.62	69.84	0.004180	1.68	49.57	149.16	0.57
CochranePB	M002	1059.95	20Year-Existing	39.05	68.38	69.61		69.68	0.004406	1.97	46.48	130.40	0.61
CochranePB	M002	998.99	20Year-Existing	39.05	68.13	69.47		69.49	0.002051	1.40	72.16	173.15	0.41
CochranePB	M002	955.54	20Year-Existing	39.05	68.12	69.46		69.46	0.000170	0.39	183.17	256.08	0.12
CochranePB	M002	851.16	20Year-Existing	39.05	67.62	69.45		69.45	0.000084	0.34	222.20	245.73	0.09
CochranePB	M002	798.06	20Year-Existing	39.05	67.47	69.45		69.45	0.000043	0.25	288.72	281.65	0.06
CochranePB	M002	746.77	20Year-Existing	39.05	67.30	69.45		69.45	0.000018	0.18	390.78	318.31	0.04
CochranePB	M002	694.52	20Year-Existing	39.05	66.98	69.45		69.45	0.000011	0.15	474.79	362.65	0.03
CochranePB	M002	669.16	20Year-Existing	39.05	66.97	69.45		69.45	0.000009	0.14	528.51	392.78	0.03
CochranePB	M002	590.19	20Year-Existing	39.05	66.84	69.45		69.45	0.000006	0.12	629.02	472.25	0.03
CochranePB	M002	539.85	20Year-Existing	39.05	66.81	69.45		69.45	0.000006	0.12	641.85	491.03	0.03
CochranePB	M002	488.40	20Year-Existing	39.05	66.54	69.45		69.45	0.000005	0.11	683.11	494.71	0.02
CochranePB	M001	381.27	20Year-Existing	78.21	66.35	69.45		69.45	0.000023	0.21	789.05	592.67	0.04
CochranePB	M001	313.14	20Year-Existing	78.21	66.28	69.45		69.45	0.000016	0.17	932.45	662.26	0.03

Petty Harbour River 20yr Q+20%

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	TR001	439.21	20Year-Existing	32.28	105.11	106.45	106.17	106.54	0.004786	1.86	36.12	60.57	0.54
RaymondB	TR001	409.42	20Year-Existing	32.28	104.68	105.95	105.95	106.28	0.015641	3.22	18.44	30.24	0.97
RaymondB	TR001	380.07	20Year-Existing	32.28	104.05	105.92	105.18	105.97	0.001416	1.29	47.69	60.39	0.31
RaymondB	TR001	360.64	20Year-Existing	32.28	103.60	105.92	105.07	105.95	0.000647	0.98	71.52	83.71	0.21
RaymondB	TR001	350		Bridge									
RaymondB	TR001	344.45	20Year-Existing	32.28	103.30	104.58	104.98	105.64	0.043979	5.33	10.03	32.87	1.58
RaymondB	TR001	334.13	20Year-Existing	32.28	103.40	104.35	104.62	105.11	0.039546	4.13	11.21	42.29	1.45
RaymondB	TR001	272.22	20Year-Existing	32.28	102.83	103.92	103.92	104.16	0.015181	2.85	21.32	44.50	0.93
RaymondB	TR001	218.50	20Year-Existing	32.28	101.42	102.69	102.83	103.22	0.019340	3.55	14.00	25.86	1.07
RaymondB	TR001	163.97	20Year-Existing	32.28	100.32	101.83	101.39	101.97	0.003649	1.75	23.82	27.36	0.48
RaymondB	TR001	115.54	20Year-Existing	32.28	100.00	101.18	101.18	101.60	0.018746	3.45	14.79	21.97	1.05
RaymondB	TR001	56.65	20Year-Existing	32.28	97.73	98.43	98.82	99.79	0.111771	5.53	7.17	15.66	2.32
RaymondB	M002	6453.60	20Year-Existing	20.64	118.10	125.26	118.93	125.26	0.000000	0.04	673.15	234.32	0.01
RaymondB	M002	6405.52	20Year-Existing	20.64	118.00	125.26		125.26	0.000000	0.04	683.23	229.25	0.01
RaymondB	M002	6347.04	20Year-Existing	20.64	124.73	125.19		125.25	0.006122	1.11	18.78	41.51	0.52
RaymondB	M002	6247.26	20Year-Existing	20.64	117.21	118.31		118.37	0.003894	1.46	24.63	35.27	0.47
RaymondB	M002	6230.10	20Year-Existing	20.64	117.20	118.29		118.33	0.001776	0.96	30.53	43.01	0.32
RaymondB	M002	6205.35	20Year-Existing	20.64	117.28	118.26		118.28	0.001603	0.86	42.31	61.55	0.30
RaymondB	M002	6143.06	20Year-Existing	20.64	117.18	118.14		118.16	0.002260	0.99	37.99	64.27	0.35
RaymondB	M002	6105.93	20Year-Existing	20.64	117.17	118.01		118.05	0.003024	1.04	29.52	62.59	0.39
RaymondB	M002	6026.35	20Year-Existing	20.64	116.81	117.82		117.85	0.002129	1.00	33.09	48.13	0.34
RaymondB	M002	5933.71	20Year-Existing	20.64	116.42	117.55		117.61	0.003088	1.32	27.94	64.70	0.42
RaymondB	M002	5883.92	20Year-Existing	20.64	116.12	117.31		117.42	0.004453	1.62	18.09	33.20	0.51
RaymondB	M002	5785.15	20Year-Existing	20.64	115.75	116.86		116.96	0.004973	1.59	19.03	31.71	0.52
RaymondB	M002	5732.44	20Year-Existing	20.64	115.46	116.49		116.64	0.007208	1.80	14.26	25.83	0.62
RaymondB	M002	5631.37	20Year-Existing	20.64	114.85	115.79		115.88	0.007682	1.66	20.99	45.88	0.63
RaymondB	M002	5500.15	20Year-Existing	20.64	114.62	115.71		115.72	0.000639	0.56	72.66	135.57	0.19
RaymondB	M002	5485.46	20Year-Existing	20.64	114.53	115.70		115.71	0.000377	0.47	91.12	168.11	0.15
RaymondB	M002	5411.19	20Year-Existing	20.64	114.48	115.64	115.22	115.66	0.001207	0.81	39.47	69.44	0.26
RaymondB	M002	5338.54	20Year-Existing	20.64	114.41	115.63	114.80	115.64	0.000106	0.25	95.44	111.15	0.08
RaymondB	M002	5278.93	20Year-Existing	20.64	114.44	115.63	114.84	115.63	0.000148	0.29	85.83	112.10	0.09
RaymondB	M002	5226.60	20Year-Existing	20.64	114.42	115.62		115.62	0.000164	0.30	92.81	129.81	0.10
RaymondB	M002	5171.66	20Year-Existing	20.64	114.42	115.61		115.61	0.000156	0.31	110.88	181.21	0.10
RaymondB	M002	5111.50	20Year-Existing	20.64	114.42	115.59		115.60	0.000544	0.57	63.73	139.43	0.18
RaymondB	M002	5077.48	20Year-Existing	20.64	114.38	115.57		115.58	0.000534	0.56	53.01	96.08	0.18
RaymondB	M002	5017.13	20Year-Existing	20.64	114.40	115.44		115.51	0.002882	1.17	19.64	28.80	0.40
RaymondB	M002	4967.43	20Year-Existing	20.64	114.07	115.16		115.31	0.005886	1.72	13.30	18.74	0.57
RaymondB	M002	4943.43	20Year-Existing	20.64	113.82	115.05		115.17	0.005028	1.74	16.71	26.12	0.54
RaymondB	M002	4910.95	20Year-Existing	20.64	113.67	114.90		115.01	0.004712	1.69	18.25	29.88	0.52
RaymondB	M002	4851.17	20Year-Existing	20.64	113.47	114.60		114.71	0.005383	1.70	17.94	30.78	0.55
RaymondB	M002	4783.73	20Year-Existing	20.64	113.30	114.28		114.36	0.004929	1.35	19.38	36.59	0.51
RaymondB	M002	4732.68	20Year-Existing	20.64	113.07	114.02		114.08	0.005375	1.40	22.67	43.67	0.53
RaymondB	M002	4681.76	20Year-Existing	20.64	112.35	113.37	113.37	113.65	0.013671	2.55	11.19	32.37	0.87
RaymondB	M002	4673.96	20Year-Existing	20.64	111.74	112.67	112.95	113.43	0.045102	4.12	6.36	19.36	1.53
RaymondB	M002	4644.78	20Year-Existing	20.64	110.49	111.45	111.67	112.21	0.039165	4.03	6.02	22.79	1.44
RaymondB	M002	4625.72	20Year-Existing	20.64	106.75	107.35	107.93	110.31	0.355519	7.62	2.73	7.16	3.85
RaymondB	M002	4615.42	20Year-Existing	20.64	105.83	106.59	106.97	107.93	0.111095	5.29	4.43	10.05	2.28
RaymondB	M002	4607.06	20Year-Existing	20.64	105.79	107.03	106.97	107.42	0.013408	2.88	8.51	9.76	0.89
RaymondB	M002	4597.34	20Year-Existing	20.64	105.76	107.01		107.26	0.010146	2.41	11.71	16.95	0.76
RaymondB	M002	4575.18	20Year-Existing	20.64	105.98	106.61	106.61	106.86	0.040944	2.71	9.78	20.17	1.31
RaymondB	M002	4545.57	20Year-Existing	20.64	104.65	105.84	105.90	106.17	0.014809	2.84	11.34	27.81	0.91
RaymondB	M002	4522.17	20Year-Existing	20.64	103.67	104.45	104.75	105.45	0.070546	4.72	5.77	15.08	1.87
RaymondB	M002	4511.42	20Year-Existing	20.64	103.62	104.93	104.61	105.04	0.004841	1.76	19.00	28.41	0.53
RaymondB	M002	4489.94	20Year-Existing	20.64	103.59	104.57	104.57	104.85	0.015751	2.64	11.39	21.87	0.92
RaymondB	M002	4466.63	20Year-Existing	20.64	103.03	104.33	104.00	104.44	0.004270	1.66	18.66	34.14	0.50
RaymondB	M002	4439.46	20Year-Existing	20.64	103.00	104.06	104.06	104.25	0.011793	2.40	15.87	40.41	0.80
RaymondB	M002	4415.77	20Year-Existing	20.64	102.78	103.55	103.64	103.85	0.025128	2.71	11.52	39.60	1.11
RaymondB	M002	4385.89	20Year-Existing	20.64	101.80	102.77	102.89	103.16	0.020828	3.02	10.24	27.90	1.06
RaymondB	M002	4354.01	20Year-Existing	20.64	101.27	102.15	102.20	102.40	0.023849	3.07	14.36	40.46	1.12
RaymondB	M002	4341.66	20Year-Existing	20.64	100.84	101.92	101.93	102.17	0.014684	2.65	14.21	35.88	0.90
RaymondB	M002	4332.73	20Year-Existing	20.64	100.32	101.20	101.37	101.91	0.042231	3.99	6.94	15.14	1.48
RaymondB	M002	4308.73	20Year-Existing	20.64	98.87	99.61	99.89	100.54	0.077396	4.67	5.87	13.65	1.92
RaymondB	M002	4294.65	20Year-Existing	20.64	98.45	99.43	99.49	99.85	0.022908	3.19	8.86	15.01	1.11
RaymondB	M002	4263.86	20Year-Existing	20.64	97.59	99.10	98.56	99.20	0.002740	1.53	19.15	21.93	0.42
RaymondB	M002	4235.25	20Year-Existing	20.64	97.47	99.09		99.13	0.001209	1.06	26.44	26.67	0.28
RaymondB	M001	4130.35	20Year-Existing	51.84	96.57	98.11	98.11	98.57	0.014382	3.10	18.94	24.85	0.92
RaymondB	M001	4076.94	20Year-Existing	51.84	96.04	97.85	97.57	98.05	0.005253	2.15	31.79	36.79	0.58
RaymondB	M001	4023.53	20Year-Existing	51.84	95.94	97.12	97.12	97.54	0.019241	2.93	19.65	29.00	1.02
RaymondB	M001	3978.20	20Year-Existing	51.84	94.64	96.81	96.24	96.91	0.002627	1.47	43.85	55.38	0.40
RaymondB	M001	3916.71	20Year-Existing	69.12	94.64	96.52		96.69	0.004650	2.19	53.95	65.13	0.56
RaymondB	M001	3863.30	20Year-Existing	69.12	94.41	96.34		96.46	0.003379	1.93	65.60	80.25	0.48
RaymondB	M001	3809.58	20Year-Existing	69.12	94.09	95.87	95.79	96.18	0.008920	2.91	37.87	47.11	0.76
RaymondB	M001	3756.26	20Year-Existing	69.12	93.53	95.19	95.19	95.62	0.012010	3.22	31.04	40.63	0.88
RaymondB	M001	3694.37	20Year-Existing	69.12	92.66	94.18	94.31	94.73	0.016849	3.47	24.24	45.28	1.01
RaymondB	M001	3569.22	20Year-Existing	69.12	92.15	94.37	93.48	94.39	0.000641	0.92	138.91	149.69	0.21
RaymondB	M001	3527.64	20Year-Existing	69.12	91.85	94.34		94.36	0.000548	0.93	142.26	138.44	0.20
RaymondB	M001	3446.51	20Year-Existing	69.12	91.14	94.32		94.34	0.000215	0.67	205.59	167.14	0.13
RaymondB	M001	3421.64	20Year-Existing	69.12	91.23	93.85	93.06	94.28	0.004278	2.93	24.10	146.03	0.58
RaymondB	M001	3410		Bridge									
RaymondB	M001	3404.11	20Year-Existing	69.12	91.23	93.11	93.11	94.00	0.014313	4.21	16.72	93.77	1.00
RaymondB	M001	3380.48	20Year-Existing	69.12	90.96	93.03	92.45	93.17	0.003059	1.90	58.05	70.32	0.46
RaymondB	M001	3308.92	20Year-Existing	69.12	90.80	92.67		92.88	0.005389	2.42	50.38	70.80	0.60
RaymondB	M001	3216.73	20Year-Existing	69.12	89.31	92.34	91.12	92.58	0.002128	2.17	32.96	69.99	0.41
RaymondB	M001	3200		Bridge									
RaymondB	M001	3188.78	20Year-Existing	69.12	89.30	91.62	91.51	92.30	0.010387	3.93	20.84	44.63	0.86

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	M001	3015.18	20Year-Existing	69.12	89.18	90.95		91.07	0.003375	1.84	58.80	68.19	0.47
RaymondB	M001	2876.32	20Year-Existing	69.12	88.66	90.32	90.07	90.50	0.006181	2.25	47.60	96.50	0.62
RaymondB	M001	2789.37	20Year-Existing	69.12	88.24	90.07		90.14	0.002564	1.58	97.11	161.63	0.41
RaymondB	M001	2681.85	20Year-Existing	69.12	88.14	89.55		89.69	0.009517	2.42	58.94	131.33	0.75
RaymondB	M001	2604.32	20Year-Existing	69.12	87.97	89.38		89.41	0.002053	1.18	113.63	204.93	0.35
RaymondB	M001	2531.57	20Year-Existing	69.12	87.97	89.33		89.34	0.000736	0.65	186.54	285.97	0.21
RaymondB	M001	2385.34	20Year-Existing	69.12	87.43	89.25		89.28	0.001492	1.22	145.31	249.51	0.31
RaymondB	M001	2245.72	20Year-Existing	69.12	86.99	88.84	88.61	89.05	0.005292	2.30	51.25	104.86	0.59
RaymondB	M001	2194.47	20Year-Existing	69.12	86.68	88.84		88.88	0.001244	1.26	99.77	95.95	0.30
RaymondB	M001	2140.67	20Year-Existing	69.12	86.59	88.72		88.80	0.002040	1.58	77.01	71.37	0.38
RaymondB	M001	2087.60	20Year-Existing	69.12	86.38	88.55		88.67	0.002461	1.76	54.75	45.11	0.41
RaymondB	M001	2069.54	20Year-Existing	69.12	86.35	88.48		88.62	0.002879	1.90	55.35	54.52	0.45
RaymondB	M001	2040.77	20Year-Existing	69.12	86.25	88.40		88.54	0.002861	1.86	61.19	86.81	0.44
RaymondB	M001	1989.18	20Year-Existing	69.12	86.02	88.17	87.72	88.36	0.004125	2.25	55.19	78.94	0.53
RaymondB	M001	1950.22	20Year-Existing	69.12	85.79	87.65	87.35	88.08	0.011539	3.30	33.50	51.65	0.86
RaymondB	M001	1885.73	20Year-Existing	69.12	85.34	87.25		87.48	0.006608	2.52	43.51	50.47	0.65
RaymondB	M001	1835.84	20Year-Existing	69.12	84.64	86.48	86.48	86.98	0.015260	3.71	27.97	28.86	0.98
RaymondB	M001	1784.61	20Year-Existing	69.12	84.10	85.39	85.50	85.91	0.029921	3.79	26.73	40.21	1.28
RaymondB	M001	1733.38	20Year-Existing	69.12	82.79	84.91	84.33	85.03	0.002776	1.80	57.08	48.54	0.44
RaymondB	M001	1682.15	20Year-Existing	69.12	82.60	84.53		84.81	0.006445	2.51	35.26	35.11	0.65
RaymondB	M001	1630.92	20Year-Existing	69.12	82.12	84.02	83.93	84.41	0.009010	2.90	30.88	38.99	0.76
RaymondB	M001	1584.49	20Year-Existing	69.12	81.77	83.79		84.03	0.006000	2.47	40.04	50.11	0.63
RaymondB	M001	1536.01	20Year-Existing	69.12	81.31	83.39	83.26	83.70	0.007346	2.79	37.51	50.02	0.69
RaymondB	M001	1477.96	20Year-Existing	69.12	80.96	82.98	82.76	83.28	0.007260	2.70	37.62	47.08	0.69
RaymondB	M001	1425.99	20Year-Existing	69.12	80.58	82.75		82.96	0.004515	2.28	42.37	40.86	0.55
RaymondB	M001	1372.05	20Year-Existing	69.12	80.25	82.56		82.72	0.003793	2.16	49.01	43.88	0.51
RaymondB	M001	1323.54	20Year-Existing	69.12	79.11	81.77	81.21	82.37	0.006151	3.41	20.28	16.45	0.69
RaymondB	M001	1315		Bridge									
RaymondB	M001	1303.54	20Year-Existing	69.12	78.01	80.64	80.42	81.43	0.010166	3.93	17.57	20.63	0.85
RaymondB	M001	1252.39	20Year-Existing	72.00	78.45	80.40	80.40	80.87	0.013604	3.51	29.37	31.84	0.92
RaymondB	M001	1216.25	20Year-Existing	72.00	77.86	79.82	79.95	80.35	0.015117	3.84	30.73	42.72	0.99
RaymondB	M001	1189.75	20Year-Existing	72.00	77.61	79.13	79.31	79.79	0.029204	4.06	24.30	38.16	1.28
RaymondB	M001	1166.20	20Year-Existing	72.00	76.74	78.28	78.50	79.03	0.033294	4.60	26.72	53.90	1.39
RaymondB	M001	1148.70	20Year-Existing	72.00	76.50	78.16	78.21	78.53	0.016632	3.32	35.30	58.70	0.99
RaymondB	M001	1116.25	20Year-Existing	72.00	75.83	77.19	77.33	77.80	0.028200	3.61	23.47	37.49	1.24
RaymondB	M001	1066.09	20Year-Existing	72.00	75.16	76.99	76.75	77.19	0.005477	2.24	46.70	56.20	0.59
RaymondB	M001	1035.68	20Year-Existing	72.00	74.73	76.21	76.21	76.85	0.022799	3.82	23.33	28.55	1.16
RaymondB	M001	999.99	20Year-Existing	72.00	73.32	74.78	75.10	75.81	0.034617	4.73	18.10	22.67	1.43
RaymondB	M001	976.73	20Year-Existing	72.00	73.03	74.71	74.78	75.18	0.012929	3.33	31.51	47.64	0.91
RaymondB	M001	942.15	20Year-Existing	72.00	72.18	73.24	73.56	74.18	0.090269	5.89	19.80	34.94	2.16
RaymondB	M001	916.70	20Year-Existing	72.00	70.82	72.23	72.40	72.79	0.030743	4.41	30.72	67.00	1.34
RaymondB	M001	892.34	20Year-Existing	72.00	70.36	71.90	71.94	72.35	0.014401	3.31	32.13	52.17	0.94
RaymondB	M001	866.25	20Year-Existing	72.00	70.04	71.88	71.38	72.05	0.003886	1.98	49.92	65.43	0.51
RaymondB	M001	841.89	20Year-Existing	72.00	69.92	71.71	71.54	71.93	0.005402	2.35	51.49	94.34	0.60
RaymondB	M001	816.68	20Year-Existing	72.00	69.74	71.36	71.36	71.73	0.011135	3.13	37.57	58.66	0.84
RaymondB	M001	766.25	20Year-Existing	72.00	69.16	70.40	70.29	70.64	0.014040	2.77	37.56	48.80	0.89
RaymondB	M001	716.25	20Year-Existing	72.00	68.39	69.98		70.17	0.005765	2.22	49.43	68.73	0.61
RaymondB	M001	675.00	20Year-Existing	72.00	68.14	69.76		69.93	0.005665	2.21	50.72	60.01	0.60
RaymondB	M001	615.86	20Year-Existing	72.00	67.75	69.63		69.70	0.002155	1.56	95.27	162.95	0.38
RaymondB	M001	565.77	20Year-Existing	72.00	67.44	69.56		69.61	0.001344	1.33	117.56	226.37	0.31
RaymondB	M001	520.15	20Year-Existing	72.00	67.26	69.55		69.57	0.000447	0.80	203.23	307.52	0.18
RaymondB	M001	468.54	20Year-Existing	72.00	66.98	69.55		69.55	0.000147	0.50	309.43	343.01	0.11
RaymondB	M001	429.18	20Year-Existing	72.00	66.80	69.55		69.55	0.000049	0.31	478.28	442.51	0.06
RaymondB	M001	366.25	20Year-Existing	72.00	66.65	69.55		69.55	0.000022	0.21	759.99	640.87	0.04
RaymondB	M001	341.79	20Year-Existing	72.00	66.63	69.55		69.55	0.000016	0.18	858.55	682.80	0.03
PettyHR	M002	6270.85	20Year-Existing	88.92	66.23	69.55		69.55	0.000001	0.05	1978.88	840.02	0.01
PettyHR	M002	6218.07	20Year-Existing	88.92	66.23	69.55		69.55	0.000001	0.06	1848.45	842.76	0.01
PettyHR	M002	6095.00	20Year-Existing	88.92	66.23	69.55		69.55	0.000001	0.06	1781.76	848.02	0.01
PettyHR	M002	6004.71	20Year-Existing	88.92	66.23	69.55		69.55	0.000001	0.06	1832.66	883.78	0.01
PettyHR	M001	5825.85	20Year-Existing	153.36	66.23	69.55		69.55	0.000003	0.08	2143.02	841.58	0.01
PettyHR	M001	5685.44	20Year-Existing	153.36	66.23	69.55		69.55	0.000002	0.08	2079.36	730.88	0.01
PettyHR	M001	5516.39	20Year-Existing	169.44	66.23	69.54		69.55	0.000004	0.10	1816.10	628.24	0.02
PettyHR	M001	5279.80	20Year-Existing	169.44	66.23	69.54		69.54	0.000008	0.14	1227.97	424.47	0.03
PettyHR	M001	4996.75	20Year-Existing	169.44	66.23	69.53		69.54	0.000038	0.31	579.77	208.68	0.06
PettyHR	M001	4923.81	20Year-Existing	169.44	66.23	69.47		69.53	0.000503	1.10	189.61	87.08	0.20
PettyHR	M001	4867.41	20Year-Existing	169.44	66.23	69.38		69.48	0.001320	1.77	159.00	95.21	0.33
PettyHR	M001	4817.61	20Year-Existing	169.44	66.58	69.30		69.40	0.001732	1.92	153.31	92.31	0.37
PettyHR	M001	4757.18	20Year-Existing	169.44	66.43	68.63	68.63	69.15	0.010384	4.02	73.07	65.12	0.88
PettyHR	M001	4675.66	20Year-Existing	169.44	65.88	68.08	67.54	68.36	0.005106	2.85	86.13	51.29	0.62
PettyHR	M001	4612.84	20Year-Existing	169.44	64.88	67.22	67.01	67.87	0.010870	4.33	62.31	43.98	0.91
PettyHR	M001	4570.09	20Year-Existing	169.44	64.62	66.81	66.81	67.41	0.010140	3.90	65.14	55.30	0.86
PettyHR	M001	4500.69	20Year-Existing	169.44	64.62	66.43	66.10	66.68	0.005213	2.48	91.96	75.34	0.60
PettyHR	M001	4461.12	20Year-Existing	169.44	64.55	66.01	66.00	66.39	0.014824	3.61	79.87	91.21	0.98
PettyHR	M001	4428.20	20Year-Existing	169.44	64.41	65.81		66.02	0.010367	2.86	94.53	89.55	0.80
PettyHR	M001	4395.66	20Year-Existing	169.44	63.81	65.47		65.72	0.007120	2.74	93.11	81.52	0.69
PettyHR	M001	4357.04	20Year-Existing	169.44	63.34	65.33		65.49	0.003973	2.35	115.86	81.02	0.54
PettyHR	M001	4281.82	20Year-Existing	169.44	62.50	65.23		65.32	0.001025	1.46	138.73	58.95	0.29
PettyHR	M001	4166.17	20Year-Existing	169.44	61.82	65.25		65.26	0.000143	0.63	389.56	163.59	0.11
PettyHR	M001	3949.19	20Year-Existing	169.44	61.31	65.26		65.26	0.000000	0.04	4839.29	1315.14	0.01
PettyHR	M001	3936.78	20Year-Existing	169.44	61.31	65.26		65.26	0.000000	0.03	5970.75	1569.90	0.00
PettyHR	M001	3931.39	20Year-Existing	107.40	61.31	65.26		65.26	0.000000	0.01	7501.20	2007.71	0.00
PettyHR	M001	3925.44	20Year-Existing	107.40	61.31	65.26		65.26	0.000000	0.03	3713.24	1002.40	0.00
PettyHR	M001	3867.05	20Year-Existing	107.40	61.31	65.26		65.26	0.000000	0.03	3743.81	985.20	0.00
PettyHR	M001	3643.73	20Year-Existing	107.40	61.31	65.26		65.26	0.000000	0.03	4300.57	1113.62	0.00
PettyHR	M001	3440.60	20Year-Existing	107.40	61.31	65.26		65.26	0.000001	0.05	2181.73	581.64	0.01

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	3182.65	20Year-Existing	107.40	61.31	65.26		65.26	0.000001	0.07	1634.47	425.32	0.01
PettyHR	M001	3080.13	20Year-Existing	107.40	61.31	65.26		65.26	0.000001	0.06	1929.75	514.83	0.01
PettyHR	M001	3028.13	20Year-Existing	107.40	61.31	65.26		65.26	0.000001	0.05	2110.65	559.52	0.01
PettyHR	M001	2983.09	20Year-Existing	107.40	61.31	65.26		65.26	0.000001	0.06	1719.59	451.32	0.01
PettyHR	M001	2828.46	20Year-Existing	107.40	61.31	65.26		65.26	0.000004	0.11	1011.01	279.36	0.02
PettyHR	M001	2712.72	20Year-Existing	107.40	61.31	65.26		65.26	0.000012	0.20	579.46	180.54	0.03
PettyHR	M001	2671.95	20Year-Existing	107.40	61.31	65.25		65.26	0.000018	0.25	523.48	174.47	0.04
PettyHR	M001	2653.10	20Year-Existing	107.40	61.31	65.25		65.26	0.000026	0.30	448.64	156.03	0.05
PettyHR	M001	2632.46	20Year-Existing	107.40	61.31	65.24		65.26	0.000102	0.60	269.45	116.15	0.10
PettyHR	M001	2596.08	20Year-Existing	107.40	61.31	65.23		65.25	0.000119	0.65	240.53	114.00	0.10
PettyHR	M001	2583.24	20Year-Existing	107.40	60.10	65.15	62.89	65.24	0.000648	1.58	138.73	111.67	0.24
PettyHR	M001	2580		Bridge									
PettyHR	M001	2573.39	20Year-Existing	107.40	60.00	65.00	62.46	65.05	0.000330	1.13	163.88	87.10	0.17
PettyHR	M001	2551.09	20Year-Existing	107.40	59.89	65.03		65.04	0.000027	0.33	380.52	106.53	0.05
PettyHR	M001	2426.14	20Year-Existing	107.40	59.27	65.03		65.04	0.000002	0.09	1190.85	269.87	0.01
PettyHR	M001	2315.39	20Year-Existing	107.40	58.72	65.03		65.04	0.000001	0.08	1460.27	318.57	0.01
PettyHR	M001	2204.15	20Year-Existing	107.40	58.16	65.03		65.03	0.000001	0.08	1470.53	307.00	0.01
PettyHR	M001	2022.45	20Year-Existing	107.40	57.26	65.03		65.03	0.000003	0.12	892.05	177.96	0.02
PettyHR	M001	1902.10	20Year-Existing	107.40	56.66	65.03		65.03	0.000004	0.16	690.36	127.49	0.02
PettyHR	M001	1879.72	20Year-Existing	107.40	56.55	65.03		65.03	0.000011	0.26	506.54	108.11	0.03
PettyHR	M001	1824.42	20Year-Existing	107.40	56.28	65.03		65.03	0.000019	0.34	340.59	65.78	0.04
PettyHR	M001	1789.72	20Year-Existing	107.40	56.10	65.02		65.03	0.000026	0.40	288.16	55.17	0.05
PettyHR	M001	1724.70	20Year-Existing	107.40	55.78	65.02		65.03	0.000034	0.46	252.08	47.70	0.06
PettyHR	M001	1668.81	20Year-Existing	107.40	55.50	65.02	58.20	65.03	0.000019	0.35	334.95	64.98	0.04
PettyHR	M001	1647.80	20Year-Existing	107.40	55.40	65.02	57.91	65.03	0.000013	0.29	390.72	73.20	0.04
PettyHR	M001	1631.79	20Year-Existing	107.40	63.55	64.76		65.00	0.007158	2.20	48.88	40.61	0.64
PettyHR	M001	1615.46	20Year-Existing	108.84	54.38	57.10		57.23	0.003319	2.59	74.58	41.76	0.51
PettyHR	M001	1601.08	20Year-Existing	108.84	54.00	55.72	55.72	56.99	0.053786	7.61	24.94	26.23	1.90
PettyHR	M001	1586.16	20Year-Existing	108.84	53.36	55.30	55.45	56.26	0.034967	6.75	29.43	25.94	1.57
PettyHR	M001	1571.98	20Year-Existing	108.84	52.87	54.62	54.91	55.69	0.044837	7.03	26.94	24.49	1.74
PettyHR	M001	1519.66	20Year-Existing	108.84	51.62	53.38	53.39	53.85	0.023613	5.05	40.08	39.56	1.25
PettyHR	M001	1467.14	20Year-Existing	108.84	50.86	52.35	52.20	52.66	0.018367	4.08	46.24	45.71	1.09
PettyHR	M001	1457.30	20Year-Existing	108.84	50.23	51.94	51.94	52.44	0.023855	5.14	39.04	37.56	1.27
PettyHR	M001	1444.51	20Year-Existing	108.84	48.30	49.36	49.91	51.59	0.204960	10.63	18.86	31.44	3.41
PettyHR	M001	1415.17	20Year-Existing	108.84	48.28	50.00	49.46	50.14	0.005974	2.56	69.03	53.19	0.64
PettyHR	M001	1402.15	20Year-Existing	108.84	47.79	49.53	49.53	49.97	0.023776	5.02	42.07	44.60	1.25
PettyHR	M001	1385.41	20Year-Existing	108.84	43.10	44.80	45.75	48.83	0.133295	11.58	15.54	18.20	2.96
PettyHR	M001	1370.82	20Year-Existing	108.84	41.75	43.72	44.75	46.99	0.092181	11.05	17.05	15.08	2.56
PettyHR	M001	1362.66	20Year-Existing	108.84	39.88	42.23	43.40	46.19	0.083176	11.57	15.70	11.45	2.47
PettyHR	M001	1336.64	20Year-Existing	108.84	39.87	41.62	42.30	43.53	0.074541	9.10	20.91	19.66	2.24
PettyHR	M001	1309.35	20Year-Existing	108.84	38.40	39.87	40.32	41.36	0.075397	8.09	22.22	21.91	2.19
PettyHR	M001	1279.20	20Year-Existing	108.84	35.02	37.43	38.19	39.55	0.047353	9.00	23.47	21.96	1.88
PettyHR	M001	1258.06	20Year-Existing	108.84	34.01	36.73	37.23	38.61	0.034590	8.42	23.06	14.85	1.65
PettyHR	M001	1221.17	20Year-Existing	108.84	33.21	34.71	35.36	36.62	0.095392	8.88	19.48	18.90	2.42
PettyHR	M001	1203.34	20Year-Existing	108.84	32.61	34.03	34.30	34.97	0.060793	7.02	28.43	34.50	1.95
PettyHR	M001	1164.99	20Year-Existing	108.84	31.37	33.01	33.04	33.52	0.025127	4.95	39.18	41.24	1.28
PettyHR	M001	1153.41	20Year-Existing	108.84	30.70	31.82	32.16	32.95	0.095966	7.67	25.56	36.99	2.37
PettyHR	M001	1125.74	20Year-Existing	108.84	29.27	30.66	30.78	31.24	0.037136	5.43	36.33	44.16	1.52
PettyHR	M001	1090.65	20Year-Existing	108.84	28.12	29.38	29.48	29.87	0.040266	5.14	39.84	59.77	1.54
PettyHR	M001	1059.48	20Year-Existing	108.84	26.84	28.21	28.31	28.67	0.037014	5.33	41.97	64.05	1.50
PettyHR	M001	1048.77	20Year-Existing	108.84	26.29	27.56	27.73	28.19	0.049125	5.74	35.93	54.74	1.71
PettyHR	M001	1021.54	20Year-Existing	108.84	25.47	27.08	27.08	27.53	0.025782	4.98	40.60	43.39	1.29
PettyHR	M001	1003.30	20Year-Existing	108.84	23.42	24.98	25.50	26.68	0.073048	8.40	21.07	19.23	2.19
PettyHR	M001	994.73	20Year-Existing	108.84	22.70	25.22	25.56	26.23	0.024077	6.63	30.01	21.16	1.36
PettyHR	M001	961.03	20Year-Existing	108.84	22.07	24.86	24.88	25.53	0.014634	5.50	37.58	26.46	1.07
PettyHR	M001	944.13	20Year-Existing	108.84	21.89	23.59	24.03	25.03	0.052092	7.46	24.02	21.82	1.87
PettyHR	M001	924.94	20Year-Existing	108.84	20.78	22.80	23.15	24.12	0.040339	7.37	24.29	17.43	1.69
PettyHR	M001	905.47	20Year-Existing	108.84	19.73	22.05	22.40	23.42	0.032947	7.36	24.64	16.08	1.57
PettyHR	M001	883.86	20Year-Existing	108.84	17.29	20.93	19.96	21.17	0.002732	2.88	62.23	38.37	0.49
PettyHR	M001	875		Bridge									
PettyHR	M001	859.53	20Year-Existing	108.84	17.25	19.40	19.40	20.09	0.020675	5.37	32.30	29.49	1.20
PettyHR	M001	836.76	20Year-Existing	108.84	12.80	14.77	15.94	18.89	0.095886	11.20	14.62	10.75	2.60
PettyHR	M001	823.70	20Year-Existing	108.84	12.86	14.47	15.19	17.04	0.108331	10.28	17.81	17.51	2.66
PettyHR	M001	811.96	20Year-Existing	108.84	12.85	14.96	15.24	15.94	0.032959	6.91	31.86	31.97	1.55
PettyHR	M001	796.92	20Year-Existing	108.84	12.74	14.19	14.50	15.24	0.067641	7.68	27.34	33.95	2.08
PettyHR	M001	784.11	20Year-Existing	108.84	11.82	13.85	14.05	14.62	0.028189	6.18	35.75	37.94	1.42
PettyHR	M001	769.86	20Year-Existing	108.84	10.94	12.61	13.14	14.02	0.053859	7.51	24.18	22.79	1.90
PettyHR	M001	748.76	20Year-Existing	108.84	8.37	10.85	11.52	12.99	0.039611	8.34	23.09	19.97	1.73
PettyHR	M001	720.33	20Year-Existing	108.84	8.08	9.19	9.72	11.02	0.143226	8.80	20.10	28.28	2.84
PettyHR	M001	707.57	20Year-Existing	108.84	6.85	8.37	8.75	9.61	0.064683	7.64	26.67	33.42	2.03
PettyHR	M001	685.99	20Year-Existing	108.84	5.31	7.01	7.40	8.29	0.058342	7.71	26.94	31.84	1.96
PettyHR	M001	666.04	20Year-Existing	108.84	5.03	7.02	6.92	7.39	0.012912	4.08	49.15	46.03	0.95
PettyHR	M001	652.51	20Year-Existing	108.84	4.66	6.20	6.20	7.05	0.043193	6.16	30.98	35.55	1.65
PettyHR	M001	633.61	20Year-Existing	108.84	4.40	5.48	5.67	6.13	0.049861	5.23	34.53	77.55	1.69
PettyHR	M001	622.83	20Year-Existing	108.84	4.09	5.23	5.23	5.52	0.024774	3.81	51.98	107.26	1.20
PettyHR	M001	577.97	20Year-Existing	108.84	2.48	3.85	3.90	4.18	0.035642	5.17	49.13	112.32	1.47
PettyHR	M001	525.57	20Year-Existing	108.84	0.51	2.88	2.23	3.00	0.004022	2.63	80.61	100.24	0.55
PettyHR	M001	491.94	20Year-Existing	108.84	-0.59	2.47	1.98	2.83	0.004920	3.03	49.59	35.77	0.61
PettyHR	M001	485		Bridge									
PettyHR	M001	478.84	20Year-Existing	108.84	-1.92	2.54		2.63	0.000738	1.44	110.79	141.43	0.24
PettyHR	M001	439.27	20Year-Existing	108.84	-1.89	2.58		2.60	0.000201	0.78	238.29	129.08	0.13
PettyHR	M001	405.68	20Year-Existing	108.84	-2.13	2.57		2.59	0.000180	0.75	235.43	132.06	0.12
PettyHR	M001	367.80	20Year-Existing	108.84	-2.02	2.57		2.58	0.000055	0.41	300.46	139.29	0.07
PettyHR	M001	338.85	20Year-Existing	108.84	-2.89	2.57		2.58	0.000033	0.36	339.74	122.19	0.06
PettyHR	M001	305.38	20Year-Existing	108.84	-2.46	2.57		2.58	0.000046	0.41	306.74	119.91	0.06

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	269.29	20Year-Existing	108.84	-3.52	2.57		2.58	0.000041	0.43	287.63	110.21	0.06
PettyHR	M001	238.18	20Year-Existing	108.84	-3.50	2.56		2.57	0.000059	0.52	248.65	102.49	0.07
PettyHR	M001	201.25	20Year-Existing	108.84	-4.43	2.57		2.57	0.000019	0.32	367.90	120.01	0.04
PettyHR	M001	150.84	20Year-Existing	108.84	-3.34	2.57		2.57	0.000011	0.23	525.77	171.51	0.03
PettyHR	M001	105.74	20Year-Existing	108.84	-2.91	2.57		2.57	0.000011	0.23	508.10	154.17	0.03
PettyHR	M001	91.29	20Year-Existing	108.84	-3.36	2.57		2.57	0.000010	0.22	524.50	143.67	0.03
PettyHR	M001	20.04	20Year-Existing	108.84	-6.19	2.57		2.57	0.000005	0.17	706.38	185.20	0.02
PettyHR	M001	12.04	20Year-Existing	108.84	-6.19	2.55	-3.56	2.57	0.000092	0.62	267.31	185.14	0.07
ForthP	M001	2616.90	20Year-Existing	10.80	123.09	124.53	123.36	124.53	0.000015	0.11	139.01	160.13	0.03
ForthP	M001	2528.45	20Year-Existing	10.80	123.09	124.53		124.53	0.000004	0.05	220.71	199.16	0.02
ForthP	M001	2324.32	20Year-Existing	10.80	123.09	124.53		124.53	0.000012	0.10	159.89	210.35	0.03
ForthP	M001	2187.52	20Year-Existing	10.80	123.09	124.53		124.53	0.000002	0.04	296.34	288.28	0.01
ForthP	M001	1955.13	20Year-Existing	10.80	123.09	124.52		124.52	0.000002	0.04	340.36	312.43	0.01
ForthP	M001	1773.83	20Year-Existing	10.80	123.09	124.52		124.52	0.000001	0.03	416.64	345.93	0.01
ForthP	M001	1572.85	20Year-Existing	10.80	123.09	124.52		124.52	0.000001	0.03	398.25	320.95	0.01
ForthP	M001	1496.60	20Year-Existing	10.80	123.09	124.52		124.52	0.000001	0.03	335.75	278.85	0.01
ForthP	M001	1392.58	20Year-Existing	38.76	122.98	124.51	124.15	124.52	0.000669	0.80	113.92	168.49	0.21
ForthP	M001	1390		Culvert									
ForthP	M001	1381.72	20Year-Existing	38.76	122.95	124.47	124.16	124.49	0.001571	1.12	84.11	150.76	0.30
ForthP	M001	1360.50	20Year-Existing	38.76	122.87	124.26	124.07	124.40	0.009948	2.66	32.12	79.38	0.77
ForthP	M001	1311.12	20Year-Existing	38.76	122.52	124.00		124.06	0.004529	1.85	44.64	76.73	0.52
ForthP	M001	1261.17	20Year-Existing	38.76	121.36	123.45	123.45	123.73	0.008314	3.26	26.09	41.25	0.76
ForthP	M001	1211.51	20Year-Existing	38.76	119.83	121.66	122.12	122.88	0.035181	6.00	10.92	14.52	1.50
ForthP	M001	1161.66	20Year-Existing	38.76	117.25	118.44	118.85	120.09	0.098321	7.29	10.00	25.31	2.33
ForthP	M001	1112.05	20Year-Existing	38.76	114.88	116.05	116.21	116.57	0.044849	5.10	16.05	35.46	1.59
ForthP	M001	1062.35	20Year-Existing	38.76	113.16	114.39	114.44	114.71	0.030050	4.10	18.69	35.60	1.27
ForthP	M001	1041.93	20Year-Existing	38.76	112.62	113.97	113.99	114.22	0.022130	3.71	22.01	44.76	1.10
ForthP	M001	1031.90	20Year-Existing	38.76	112.31	113.53	113.64	113.92	0.039324	4.64	18.57	44.98	1.45
ForthP	M001	1011.12	20Year-Existing	38.76	111.62	112.71	112.81	113.07	0.042321	4.61	19.02	48.75	1.51
ForthP	M001	959.76	20Year-Existing	38.76	110.31	111.11	111.17	111.37	0.049567	3.74	20.18	61.79	1.53
ForthP	M001	908.93	20Year-Existing	38.76	109.25	109.95	109.82	110.01	0.012430	1.79	36.86	90.51	0.76
ForthP	M001	856.39	20Year-Existing	38.76	108.38	108.88	108.81	108.96	0.025745	1.77	30.12	92.89	0.99
ForthP	M001	806.25	20Year-Existing	38.76	107.09	108.05		108.12	0.013117	2.28	36.31	91.94	0.81
ForthP	M001	754.78	20Year-Existing	38.76	106.12	107.15	107.15	107.29	0.023494	3.34	29.60	90.32	1.12
ForthP	M001	734.50	20Year-Existing	38.76	105.47	106.81	106.75	106.91	0.009248	2.43	38.42	91.62	0.72
ForthP	M001	724.30	20Year-Existing	38.76	105.28	106.64	106.64	106.79	0.012466	2.88	33.44	90.49	0.85
ForthP	M001	703.65	20Year-Existing	38.76	105.02	106.19	106.17	106.38	0.023268	3.59	23.66	50.24	1.12
ForthP	M001	654.47	20Year-Existing	38.76	103.90	104.82	104.82	105.02	0.030566	3.50	22.73	55.44	1.25
ForthP	M001	605.63	20Year-Existing	38.76	102.27	103.47	103.53	103.75	0.026288	3.79	23.44	61.80	1.21
ForthP	M001	585.13	20Year-Existing	38.76	101.55	102.42	102.55	102.89	0.080417	5.08	17.61	69.01	1.98
ForthP	M001	577.30	20Year-Existing	38.76	101.52	102.25	102.28	102.44	0.045694	3.42	22.41	73.44	1.45
ForthP	M001	557.33	20Year-Existing	38.76	100.67	101.37	101.36	101.51	0.032888	2.71	25.45	81.12	1.21
ForthP	M001	507.84	20Year-Existing	38.76	98.92	99.62	99.62	99.77	0.037783	2.87	25.55	87.02	1.29
ForthP	M001	453.33	20Year-Existing	38.76	96.28	97.08	97.02	97.19	0.020295	2.40	31.49	92.82	0.98
ForthP	M001	402.29	20Year-Existing	38.76	94.96	95.65	95.65	95.82	0.039678	3.16	22.99	66.36	1.34
ForthP	M001	349.18	20Year-Existing	38.76	93.64	94.29	94.12	94.36	0.014460	1.70	34.81	84.85	0.79
ForthP	M001	297.76	20Year-Existing	38.76	92.55	93.51	93.46	93.61	0.018208	2.61	31.57	78.71	0.96
ForthP	M001	246.28	20Year-Existing	38.76	91.71	92.53	92.49	92.62	0.017516	2.22	34.01	91.85	0.91
ForthP	M001	182.03	20Year-Existing	38.76	90.94	92.13	91.81	92.16	0.004296	1.53	57.87	111.74	0.48
ForthP	M001	160.27	20Year-Existing	38.76	90.13	92.13	91.50	92.14	0.000236	0.53	150.12	162.63	0.13
ForthP	M001	150		Culvert									
ForthP	M001	144.74	20Year-Existing	38.76	89.90	91.22	91.22	91.84	0.016310	3.51	11.37	106.92	1.00
ForthP	M001	124.30	20Year-Existing	38.76	89.74	91.00	90.87	91.08	0.009577	2.35	39.52	85.12	0.73
ForthP	M001	61.58	20Year-Existing	38.76	88.75	89.95	89.95	90.17	0.022674	3.46	25.48	57.50	1.12
ForestP	M001	1557.91	20Year-Existing	7.68	78.25	79.73	78.46	79.73	0.000003	0.05	149.55	121.68	0.01
ForestP	M001	1428.05	20Year-Existing	7.68	78.25	79.72		79.72	0.000002	0.04	204.17	177.40	0.01
ForestP	M001	1315.71	20Year-Existing	7.68	78.25	79.72		79.72	0.000001	0.03	287.18	242.93	0.01
ForestP	M001	1228.83	20Year-Existing	7.68	78.25	79.72		79.72	0.000001	0.02	343.43	290.97	0.01
ForestP	M001	1138.84	20Year-Existing	7.68	78.25	79.72		79.72	0.000000	0.02	402.28	343.19	0.01
ForestP	M001	1077.28	20Year-Existing	7.68	78.25	79.72		79.72	0.000000	0.02	446.81	482.20	0.01
ForestP	M001	1019.12	20Year-Existing	7.68	78.25	79.72		79.72	0.000002	0.04	226.04	281.83	0.01
ForestP	M001	958.61	20Year-Existing	9.72	78.15	79.70	79.50	79.72	0.000929	0.74	25.45	69.71	0.22
ForestP	M001	955		Culvert									
ForestP	M001	949.85	20Year-Existing	9.72	77.76	79.59	79.58	79.68	0.007455	1.71	12.44	53.80	0.45
ForestP	M001	913.34	20Year-Existing	9.72	78.16	79.08	79.08	79.25	0.028907	3.08	6.77	19.12	1.11
ForestP	M001	883.23	20Year-Existing	9.72	77.54	78.36	78.40	78.51	0.020370	2.51	9.19	39.65	0.99
ForestP	M001	859.61	20Year-Existing	9.72	76.75	77.47	77.56	77.79	0.047308	3.50	4.91	13.94	1.47
ForestP	M001	831.71	20Year-Existing	9.72	75.74	76.68	76.76	77.02	0.034431	3.48	4.90	11.20	1.28
ForestP	M001	802.91	20Year-Existing	9.72	74.66	75.50	75.62	75.94	0.041140	3.71	4.33	10.46	1.42
ForestP	M001	772.90	20Year-Existing	9.72	73.77	74.57	74.59	74.79	0.031270	3.13	5.90	15.65	1.21
ForestP	M001	737.48	20Year-Existing	9.72	72.77	73.50	73.46	73.62	0.020644	2.38	7.82	22.00	0.98
ForestP	M001	688.06	20Year-Existing	9.72	71.80	72.42	72.38	72.50	0.025144	2.21	9.08	33.49	1.00
ForestP	M001	651.32	20Year-Existing	9.72	70.81	71.44	71.43	71.55	0.026314	2.48	8.51	31.88	1.09
ForestP	M001	600.44	20Year-Existing	9.72	69.80	70.35		70.40	0.019250	1.89	12.81	71.36	0.91
ForestP	M001	578.60	20Year-Existing	9.72	69.31	69.92	69.92	69.98	0.019143	2.00	13.97	88.19	0.92
ForestP	M001	528.92	20Year-Existing	9.72	68.58	69.56	69.25	69.57	0.001452	0.79	31.55	85.87	0.27
ForestP	M001	478.55	20Year-Existing	9.72	68.21	69.55		69.55	0.000117	0.28	77.89	123.78	0.08
ForestP	M001	430.82	20Year-Existing	9.72	67.77	69.55		69.55	0.000035	0.19	117.89	146.55	0.05
ForestP	M001	378.18	20Year-Existing	9.72	67.48	69.55		69.55	0.000006	0.09	275.84	301.40	0.02
ForestP	M001	328.07	20Year-Existing	9.72	67.34	69.55		69.55	0.000002	0.06	386.27	356.82	0.01
ForestP	M001	277.95	20Year-Existing	9.72	67.07	69.55		69.55	0.000002	0.05	470.28	413.60	0.01
ForestP	M001	195.51	20Year-Existing	9.72	66.23	69.55		69.55	0.000000	0.02	854.15	558.33	0.00
ForestP	M001	158.37	20Year-Existing	9.72	66.23	69.55		69.55	0.000000	0.01	1570.98	691.09	0.00
ForestP	M001	89.11	20Year-Existing	9.72	66.23	69.55		69.55	0.000000	0.01	1740.43	765.58	0.00
DoylesR	TR019	260.51	20Year-Existing	0.36	124.74	125.11	124.94	125.11	0.000246	0.16	4.59	35.45	0.10

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR019	199.72	20Year-Existing	0.36	124.55	125.11		125.11	0.000002	0.02	36.91	139.25	0.01
DoylesR	TR019	150.00	20Year-Existing	0.36	124.37	125.11		125.11	0.000002	0.02	40.06	156.19	0.01
DoylesR	TR019	100.00	20Year-Existing	0.36	124.16	125.11		125.11	0.000002	0.03	35.47	191.45	0.01
DoylesR	TR019	50.00	20Year-Existing	0.36	124.18	125.11		125.11	0.000001	0.02	62.42	237.34	0.01
DoylesR	TR018	302.01	20Year-Existing	1.32	127.90	128.31	128.05	128.32	0.000290	0.21	9.59	36.12	0.11
DoylesR	TR018	270.53	20Year-Existing	1.32	126.19	128.31	126.85	128.31	0.000000	0.02	214.53	244.89	0.00
DoylesR	TR018	260		Culvert									
DoylesR	TR018	257.62	20Year-Existing	1.32	126.19	128.31	126.87	128.31	0.000000	0.01	225.43	214.83	0.00
DoylesR	TR018	244.68	20Year-Existing	1.32	125.64	128.28	126.58	128.31	0.000459	0.84	1.92	209.75	0.17
DoylesR	TR018	200		Culvert									
DoylesR	TR018	169.24	20Year-Existing	1.32	125.40	126.25	126.14	126.50	0.015739	2.58	0.63	76.01	0.92
DoylesR	TR018	131.43	20Year-Existing	1.32	125.24	125.45	125.45	125.47	0.032159	0.99	2.63	53.68	0.94
DoylesR	TR018	59.79	20Year-Existing	1.32	124.57	125.16	124.89	125.16	0.000234	0.21	16.33	127.81	0.10
DoylesR	TR017	4043.45	20Year-Existing	7.32	124.05	125.09		125.10	0.001444	0.91	21.85	89.94	0.29
DoylesR	TR017	3983.69	20Year-Existing	7.32	124.04	124.97		125.00	0.002381	0.98	18.84	92.86	0.35
DoylesR	TR017	3923.93	20Year-Existing	7.32	124.03	124.61	124.61	124.69	0.021696	1.76	8.01	43.25	0.94
DoylesR	TR017	3889.37	20Year-Existing	7.32	123.60	123.82	123.63	123.83	0.005677	0.32	15.89	67.36	0.37
DoylesR	TR017	3781.64	20Year-Existing	7.32	122.55	123.51		123.54	0.003604	1.24	15.58	58.15	0.43
DoylesR	TR017	3768.91	20Year-Existing	7.32	122.35	123.18	123.18	123.42	0.017927	2.35	3.98	9.64	0.92
DoylesR	TR017	3745.98	20Year-Existing	7.32	121.86	122.44	122.48	122.59	0.042493	2.37	5.63	34.98	1.28
DoylesR	TR017	3713.18	20Year-Existing	7.32	120.99	121.58	121.59	121.77	0.021733	2.07	4.37	13.70	0.98
DoylesR	TR017	3692.45	20Year-Existing	7.32	120.34	121.00	121.04	121.24	0.028846	2.43	4.10	14.03	1.13
DoylesR	TR017	3679.05	20Year-Existing	7.32	119.97	120.77	120.82	120.96	0.015097	2.20	5.11	22.30	0.87
DoylesR	TR017	3656.84	20Year-Existing	7.32	117.59	118.05	118.39	119.89	0.346200	6.13	1.31	5.75	3.61
DoylesR	TR017	3603.67	20Year-Existing	7.32	116.29	117.01	117.03	117.16	0.017292	2.17	6.02	24.65	0.90
DoylesR	TR017	3583.40	20Year-Existing	7.32	115.96	116.53	116.53	116.80	0.051264	2.99	4.15	21.52	1.47
DoylesR	TR017	3571.14	20Year-Existing	7.32	115.76	116.31	116.31	116.41	0.025363	2.19	6.84	33.74	1.04
DoylesR	TR017	3545.42	20Year-Existing	7.32	115.22	115.71	115.79	116.03	0.078311	3.12	3.64	17.82	1.73
DoylesR	TR017	3483.93	20Year-Existing	7.32	114.35	114.95	114.92	114.98	0.012405	1.57	12.31	70.71	0.73
DoylesR	TR017	3432.55	20Year-Existing	7.32	113.79	114.55	114.47	114.58	0.007651	1.46	13.40	65.95	0.59
DoylesR	TR017	3345.48	20Year-Existing	7.32	113.03	113.56	113.56	113.64	0.028979	2.00	7.46	42.27	1.07
DoylesR	TR017	3300.07	20Year-Existing	7.32	112.42	113.00	112.86	113.01	0.003655	0.77	18.96	77.93	0.39
DoylesR	TR016	918.87	20Year-Existing	2.64	127.08	128.80	127.24	128.80	0.000000	0.01	404.91	361.58	0.00
DoylesR	TR016	898.71	20Year-Existing	2.64	126.90	128.80	127.29	128.80	0.000001	0.03	196.55	225.38	0.01
DoylesR	TR016	890		Culvert									
DoylesR	TR016	882.28	20Year-Existing	2.64	126.88	128.74		128.74	0.000004	0.06	106.78	158.94	0.02
DoylesR	TR016	877.71	20Year-Existing	2.64	126.24	128.74	126.92	128.74	0.000003	0.07	126.16	190.78	0.01
DoylesR	TR016	850		Culvert									
DoylesR	TR016	848.13	20Year-Existing	2.64	126.37	127.14	127.14	127.40	0.020197	2.46	1.43	3.23	0.93
DoylesR	TR016	818.98	20Year-Existing	2.64	126.36	126.85	126.78	126.86	0.004121	0.77	7.58	52.86	0.41
DoylesR	TR016	768.99	20Year-Existing	2.64	126.30	126.65		126.66	0.004505	0.65	7.83	51.09	0.41
DoylesR	TR016	714.09	20Year-Existing	2.64	125.96	126.38		126.39	0.005029	0.74	6.58	37.17	0.44
DoylesR	TR016	675.95	20Year-Existing	2.64	125.74	126.08	126.08	126.12	0.021059	1.25	3.97	40.62	0.85
DoylesR	TR016	659.39	20Year-Existing	2.64	125.10	125.55	125.52	125.60	0.011376	1.26	4.01	25.75	0.68
DoylesR	TR016	632.80	20Year-Existing	2.64	124.78	125.25	125.25	125.31	0.013224	1.32	3.59	27.08	0.72
DoylesR	TR016	610.50	20Year-Existing	2.64	123.78	124.25	124.39	124.68	0.070576	3.13	1.10	5.04	1.67
DoylesR	TR016	549.37	20Year-Existing	2.64	122.30	122.96	122.96	123.05	0.015069	1.71	2.94	17.98	0.79
DoylesR	TR016	494.31	20Year-Existing	2.64	120.93	121.54	121.61	121.81	0.035960	2.30	1.22	4.13	1.18
DoylesR	TR016	473.82	20Year-Existing	2.64	120.18	120.70	120.78	120.98	0.045185	2.44	1.23	4.94	1.33
DoylesR	TR016	459.95	20Year-Existing	2.64	119.62	120.10	120.17	120.36	0.043928	2.29	1.27	5.16	1.30
DoylesR	TR016	439.99	20Year-Existing	2.64	119.05	119.70	119.70	119.88	0.022290	1.90	1.49	4.62	0.95
DoylesR	TR016	384.99	20Year-Existing	2.64	117.07	117.53	117.63	117.86	0.069771	2.53	1.07	4.69	1.58
DoylesR	TR016	329.99	20Year-Existing	2.64	115.67	116.17	116.17	116.24	0.015199	1.32	3.24	23.60	0.76
DoylesR	TR016	274.18	20Year-Existing	2.64	114.93	115.33	115.32	115.37	0.012651	1.07	4.96	48.43	0.68
DoylesR	TR016	218.88	20Year-Existing	2.64	114.35	114.84	114.82	114.87	0.010460	1.04	5.43	55.85	0.63
DoylesR	TR016	165.43	20Year-Existing	2.64	113.83	114.39	114.37	114.43	0.008925	1.13	4.57	36.12	0.60
DoylesR	TR016	86.48	20Year-Existing	2.64	112.80	113.24	113.24	113.34	0.024683	1.49	2.36	13.28	0.94
DoylesR	TR016	40.19	20Year-Existing	2.64	112.21	112.83	112.70	112.83	0.001961	0.60	10.33	59.84	0.29
DoylesR	TR015	3230.71	20Year-Existing	15.96	111.60	112.53		112.58	0.008241	1.83	22.30	77.22	0.65
DoylesR	TR015	3185.04	20Year-Existing	15.96	111.22	112.19		112.26	0.011278	2.03	17.58	51.74	0.75
DoylesR	TR015	3133.58	20Year-Existing	15.96	110.57	111.40	111.40	111.52	0.020260	2.56	14.29	47.32	0.99
DoylesR	TR015	3079.97	20Year-Existing	15.96	108.17	109.14	109.43	109.86	0.048366	4.27	5.36	11.41	1.57
DoylesR	TR015	3026.43	20Year-Existing	15.96	107.30	109.12	108.30	109.15	0.000686	0.85	31.88	34.09	0.21
DoylesR	TR015	3001.28	20Year-Existing	15.96	106.17	109.13	108.31	109.13	0.000105	0.43	88.17	78.42	0.08
DoylesR	TR015	3000		Culvert									
DoylesR	TR015	2988.77	20Year-Existing	15.96	106.03	108.00	108.00	108.21	0.005231	2.56	16.53	45.04	0.60
DoylesR	TR015	2963.30	20Year-Existing	15.96	105.69	106.54	106.86	107.76	0.099758	5.90	5.13	17.26	2.19
DoylesR	TR015	2915.60	20Year-Existing	15.96	104.53	105.69	105.70	105.93	0.016526	2.87	10.93	24.39	0.94
DoylesR	TR015	2867.64	20Year-Existing	15.96	103.37	104.52	104.67	104.94	0.032453	3.97	8.65	20.98	1.29
DoylesR	TR015	2841.04	20Year-Existing	15.96	102.40	102.99	103.12	103.40	0.106345	4.15	7.30	28.47	2.09
DoylesR	TR015	2804.73	20Year-Existing	15.96	101.67	102.51	102.45	102.62	0.017568	2.39	14.01	36.28	0.93
DoylesR	TR015	2742.98	20Year-Existing	15.96	100.87	101.72	101.64	101.78	0.011919	2.06	21.14	70.74	0.77
DoylesR	TR015	2687.77	20Year-Existing	15.96	100.07	100.68	100.68	100.79	0.032625	2.57	14.44	62.87	1.20
DoylesR	TR015	2638.14	20Year-Existing	15.96	98.95	99.80	99.80	99.92	0.021049	2.75	15.36	54.62	1.03
DoylesR	TR015	2593.26	20Year-Existing	15.96	97.75	98.87	98.77	98.98	0.011274	2.37	16.13	43.17	0.77
DoylesR	TR015	2557.12	20Year-Existing	15.96	97.53	98.62		98.68	0.007418	1.97	19.89	49.84	0.64
DoylesR	TR015	2522.34	20Year-Existing	15.96	97.26	98.17	98.17	98.33	0.019247	2.50	12.67	39.74	0.97
DoylesR	TR015	2483.94	20Year-Existing	15.96	96.95	97.71	97.64	97.76	0.013957	1.85	18.33	60.42	0.79
DoylesR	TR015	2438.99	20Year-Existing	15.96	96.35	97.45		97.49	0.004010	1.40	28.77	92.66	0.47
DoylesR	TR015	2387.12	20Year-Existing	15.96	96.39	97.37		97.38	0.001405	0.73	49.48	128.96	0.27
DoylesR	TR015	2352.45	20Year-Existing	15.96	96.40	97.34		97.35	0.000643	0.49	57.66	102.00	0.18
DoylesR	TR015	2283.37	20Year-Existing	15.96	95.75	97.19		97.26	0.003394	1.60	17.50	23.08	0.45
DoylesR	TR015	2231.50	20Year-Existing	15.96	95.54	96.71	96.63	96.93	0.013851	2.71	10.16	18.35	0.87
DoylesR	TR015	2160.12	20Year-Existing	15.96	94.93	96.01		96.13	0.008456	1.98	13.08	22.52	0.68
DoylesR	TR015	2119.11	20Year-Existing	15.96	94.44	95.48	95.48	95.68	0.017153	2.74	11.24	26.91	0.94

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR015	2075.88	20Year-Existing	15.96	93.86	94.85	94.88	95.01	0.013785	2.38	13.93	47.26	0.85
DoylesR	TR015	2024.01	20Year-Existing	15.96	93.19	94.29	94.19	94.39	0.009858	2.12	16.42	50.07	0.72
DoylesR	TR015	1972.14	20Year-Existing	15.96	92.71	93.75	93.75	93.85	0.012553	2.37	18.47	76.12	0.81
DoylesR	TR015	1921.75	20Year-Existing	15.96	92.35	93.45	93.09	93.47	0.002516	1.12	32.53	81.57	0.37
DoylesR	TR015	1851.62	20Year-Existing	15.96	91.24	92.84	92.84	93.18	0.012505	3.08	8.52	15.68	0.84
DoylesR	TR014	2057.49	20Year-Existing	9.60	125.48	126.56	126.39	126.58	0.003063	1.11	20.22	65.30	0.39
DoylesR	TR014	2037.89	20Year-Existing	9.60	125.57	126.55		126.55	0.000662	0.53	41.97	107.18	0.19
DoylesR	TR014	1988.88	20Year-Existing	9.60	124.71	126.45	125.59	126.50	0.001217	1.08	14.61	47.28	0.27
DoylesR	TR014	1980		Culvert									
DoylesR	TR014	1975.46	20Year-Existing	9.60	124.46	126.36		126.42	0.001071	1.09	11.04	23.50	0.27
DoylesR	TR014	1936.56	20Year-Existing	9.60	124.86	126.19		126.33	0.005164	1.93	8.33	20.92	0.56
DoylesR	TR014	1904.43	20Year-Existing	9.60	124.72	125.79	125.79	126.07	0.013641	2.63	5.63	11.34	0.87
DoylesR	TR014	1867.03	20Year-Existing	9.60	124.61	125.64	125.36	125.70	0.004293	1.45	11.81	24.79	0.49
DoylesR	TR014	1801.50	20Year-Existing	9.60	124.00	124.95	124.95	125.19	0.017029	2.70	6.18	14.20	0.95
DoylesR	TR014	1765.57	20Year-Existing	9.60	123.20	123.76	123.88	124.16	0.055271	3.21	4.44	18.46	1.55
DoylesR	TR014	1703.29	20Year-Existing	9.60	121.82	122.68	122.59	122.91	0.014536	2.39	6.54	19.84	0.87
DoylesR	TR014	1657.91	20Year-Existing	9.60	121.27	122.05	122.04	122.23	0.014614	2.11	6.67	20.09	0.85
DoylesR	TR014	1607.98	20Year-Existing	9.60	120.59	121.43	121.43	121.54	0.012321	2.05	10.92	46.88	0.79
DoylesR	TR014	1544.18	20Year-Existing	9.60	119.81	120.68	120.69	120.79	0.011391	2.06	10.79	42.17	0.76
DoylesR	TR014	1492.70	20Year-Existing	9.60	119.06	119.69	119.75	119.89	0.028951	2.60	7.73	39.10	1.15
DoylesR	TR014	1441.23	20Year-Existing	9.60	117.59	118.68	118.70	118.90	0.013459	2.71	7.37	19.83	0.87
DoylesR	TR014	1420.98	20Year-Existing	9.60	116.98	118.20	117.72	118.25	0.002661	1.31	11.30	13.55	0.40
DoylesR	TR014	1411.86	20Year-Existing	9.60	117.03	118.10	117.72	118.21	0.004985	1.74	7.16	12.17	0.54
DoylesR	TR014	1400		Bridge									
DoylesR	TR014	1384.41	20Year-Existing	11.04	116.71	117.54	117.48	117.80	0.015456	2.44	5.12	9.87	0.90
DoylesR	TR014	1374.60	20Year-Existing	11.04	116.54	117.49		117.64	0.007939	1.87	7.56	11.83	0.65
DoylesR	TR014	1353.25	20Year-Existing	11.04	116.21	117.09	117.09	117.38	0.018356	2.65	5.43	9.94	0.98
DoylesR	TR014	1309.14	20Year-Existing	11.04	115.50	116.46	116.29	116.65	0.009059	1.94	5.99	8.78	0.69
DoylesR	TR014	1296.25	20Year-Existing	11.04	115.12	116.12	116.12	116.44	0.018248	2.91	5.15	8.22	0.99
DoylesR	TR014	1239.25	20Year-Existing	11.04	113.43	114.10	114.26	114.68	0.056082	3.79	3.99	11.46	1.62
DoylesR	TR014	1203.69	20Year-Existing	11.04	112.84	113.70	113.58	113.77	0.009024	1.89	11.13	26.06	0.68
DoylesR	TR014	1182.25	20Year-Existing	11.04	112.53	113.31	113.31	113.49	0.018642	2.46	7.86	20.74	0.96
DoylesR	TR014	1125.25	20Year-Existing	11.04	111.30	112.50	112.26	112.56	0.004310	1.60	13.74	23.71	0.49
DoylesR	TR014	1104.23	20Year-Existing	11.04	111.16	112.18	112.18	112.39	0.014923	2.54	7.57	17.25	0.89
DoylesR	TR014	1094.88	20Year-Existing	11.04	110.55	111.34	111.57	112.07	0.066986	4.75	3.91	10.16	1.83
DoylesR	TR014	1075.36	20Year-Existing	11.04	110.17	111.17	111.24	111.47	0.024498	3.36	7.05	18.75	1.14
DoylesR	TR014	1027.18	20Year-Existing	11.04	109.15	110.02	110.05	110.29	0.024614	2.93	6.74	17.13	1.11
DoylesR	TR014	980.74	20Year-Existing	11.04	107.89	108.97	108.61	109.02	0.004084	1.50	13.64	21.40	0.48
DoylesR	TR014	954.47	20Year-Existing	11.04	107.68	108.61	108.61	108.81	0.016318	2.56	8.26	21.94	0.92
DoylesR	TR014	934.37	20Year-Existing	11.04	106.99	107.88	107.91	108.30	0.033715	3.42	5.64	15.72	1.29
DoylesR	TR014	907.24	20Year-Existing	11.04	106.52	107.45	107.38	107.54	0.010796	2.12	11.54	27.77	0.75
DoylesR	TR014	868.80	20Year-Existing	11.04	105.88	106.82	106.82	107.04	0.015278	2.49	7.83	19.17	0.90
DoylesR	TR014	864.98	20Year-Existing	11.04	105.70	106.66	106.70	106.97	0.019186	2.63	5.61	13.38	0.99
DoylesR	TR014	844.06	20Year-Existing	11.04	105.10	106.29	106.14	106.45	0.007980	2.14	8.24	13.16	0.67
DoylesR	TR014	836.52	20Year-Existing	11.04	104.97	106.07	106.07	106.35	0.016968	2.74	6.03	11.66	0.94
DoylesR	TR014	816.09	20Year-Existing	11.04	104.78	105.63	105.54	105.74	0.010807	1.92	9.87	25.67	0.74
DoylesR	TR014	811.48	20Year-Existing	11.04	104.64	105.62		105.69	0.006059	1.64	12.12	23.37	0.57
DoylesR	TR014	783.28	20Year-Existing	11.04	103.98	105.10	105.10	105.40	0.017300	3.05	6.06	10.16	0.98
DoylesR	TR014	751.27	20Year-Existing	11.04	103.31	104.32	104.39	104.72	0.025362	2.91	4.38	8.82	1.12
DoylesR	TR014	717.94	20Year-Existing	11.04	102.63	103.94	103.94	104.20	0.014288	3.03	7.13	13.43	0.89
DoylesR	TR014	676.43	20Year-Existing	11.04	102.18	103.25	103.27	103.55	0.017303	2.74	6.33	15.29	0.95
DoylesR	TR014	601.44	20Year-Existing	11.04	101.39	102.31	102.22	102.43	0.010781	2.02	9.30	21.72	0.74
DoylesR	TR014	540.83	20Year-Existing	11.04	100.49	101.67	101.51	101.86	0.008283	2.14	7.96	18.89	0.68
DoylesR	TR014	519.25	20Year-Existing	11.04	99.69	101.76	101.49	101.77	0.000610	0.78	33.86	63.31	0.18
DoylesR	TR014	510		Culvert									
DoylesR	TR014	505.00	20Year-Existing	11.04	99.62	101.55	101.55	101.58	0.001493	1.15	25.58	61.32	0.27
DoylesR	TR014	484.27	20Year-Existing	11.04	99.79	100.62	100.83	101.29	0.076607	4.42	3.89	12.63	1.84
DoylesR	TR014	426.15	20Year-Existing	11.04	98.71	99.82	99.82	100.09	0.015250	2.45	6.00	16.78	0.88
DoylesR	TR014	368.05	20Year-Existing	11.04	97.30	98.45	98.59	98.89	0.030974	3.41	5.25	15.77	1.21
DoylesR	TR014	343.01	20Year-Existing	11.04	96.78	98.25	97.73	98.38	0.003208	1.60	7.67	72.74	0.44
DoylesR	TR014	335		Bridge									
DoylesR	TR014	331.91	20Year-Existing	11.04	96.63	97.84	97.84	98.23	0.016167	2.89	4.46	6.83	0.93
DoylesR	TR014	312.09	20Year-Existing	11.04	96.26	97.52	97.61	97.80	0.022277	2.74	7.48	31.81	1.00
DoylesR	TR014	227.09	20Year-Existing	11.04	94.66	96.43	96.11	96.48	0.002770	1.44	16.41	28.09	0.38
DoylesR	TR014	205.76	20Year-Existing	11.04	94.51	96.12	96.12	96.36	0.010483	2.55	7.73	17.91	0.73
DoylesR	TR014	198.96	20Year-Existing	11.04	94.45	95.14	95.43	96.12	0.112761	4.41	2.71	9.53	2.18
DoylesR	TR014	181.77	20Year-Existing	11.04	94.01	95.19	95.19	95.37	0.012785	2.41	8.71	23.03	0.81
DoylesR	TR014	121.12	20Year-Existing	11.04	92.99	94.15	94.24	94.43	0.017795	2.80	9.39	56.85	0.95
DoylesR	TR014	34.73	20Year-Existing	11.04	91.60	92.50	92.54	92.82	0.021820	2.69	5.29	10.89	1.04
DoylesR	TR012	1780.65	20Year-Existing	26.88	90.30	92.22	91.64	92.32	0.002340	1.53	27.20	47.02	0.39
DoylesR	TR012	1753.67	20Year-Existing	26.88	89.56	92.25	91.14	92.27	0.000418	0.92	62.91	78.06	0.18
DoylesR	TR012	1745		Bridge									
DoylesR	TR012	1729.43	20Year-Existing	26.88	89.10	90.99	90.99	91.77	0.015191	4.00	7.13	12.84	0.97
DoylesR	TR012	1709.20	20Year-Existing	26.88	88.93	90.44	90.71	91.29	0.032854	4.84	9.52	19.93	1.37
DoylesR	TR012	1645.76	20Year-Existing	26.88	88.20	89.47	89.41	89.76	0.013849	2.86	13.46	18.66	0.89
DoylesR	TR011	1552.47	20Year-Existing	38.76	86.48	88.70	88.27	89.02	0.005818	2.79	19.09	14.78	0.64
DoylesR	TR011	1530.88	20Year-Existing	38.76	86.19	88.15	88.15	88.80	0.014435	4.06	13.50	11.15	0.99
DoylesR	TR011	1477.56	20Year-Existing	38.76	84.43	85.78	86.22	87.30	0.064626	6.21	8.99	13.29	1.91
DoylesR	TR011	1423.69	20Year-Existing	38.76	83.56	85.47	85.47	86.12	0.014023	3.88	13.19	11.55	0.96
DoylesR	TR011	1370.10	20Year-Existing	38.76	82.66	83.93	84.19	84.81	0.049581	5.38	13.40	30.31	1.68
DoylesR	TR011	1316.51	20Year-Existing	38.76	81.17	82.93	82.93	83.55	0.016303	3.92	14.07	16.41	1.02
DoylesR	TR011	1262.92	20Year-Existing	38.76	79.36	81.02	81.52	82.24	0.036584	5.47	10.04	13.33	1.50
DoylesR	TR011	1209.33	20Year-Existing	38.76	78.14	80.33	80.37	81.00	0.014163	4.07	13.63	13.73	0.96
DoylesR	TR011	1155.74	20Year-Existing	38.76	76.81	78.65	79.01	79.84	0.033196	5.33	9.50	9.74	1.41
DoylesR	TR011	1107.39	20Year-Existing	38.76	76.34	77.96	78.00	78.54	0.016988	3.52	12.80	13.35	1.01

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR011	1057.82	20Year-Existing	38.76	75.16	77.21	77.22	77.80	0.014167	3.72	13.44	12.72	0.94
DoylesR	TR011	971.36	20Year-Existing	38.76	73.33	75.12	74.60	75.38	0.004675	2.25	17.20	19.21	0.56
DoylesR	TR011	960		Bridge									
DoylesR	TR011	949.62	20Year-Existing	38.76	73.08	75.04	74.28	75.24	0.002984	1.98	19.62	14.91	0.46
DoylesR	TR011	929.53	20Year-Existing	38.76	72.74	74.55	74.46	75.04	0.012173	3.33	14.10	12.53	0.88
DoylesR	TR011	872.05	20Year-Existing	38.76	72.26	74.08	74.08	74.32	0.010436	3.03	27.71	57.87	0.80
DoylesR	TR011	816.76	20Year-Existing	38.76	72.00	73.03	72.97	73.12	0.015472	2.43	34.67	94.59	0.87
DoylesR	TR011	760.16	20Year-Existing	38.76	71.25	72.48		72.55	0.008934	2.28	42.70	101.52	0.70
DoylesR	TR011	712.26	20Year-Existing	38.76	70.34	71.78	71.67	71.96	0.014077	3.06	29.76	80.39	0.90
DoylesR	TR011	663.11	20Year-Existing	38.76	70.08	71.45		71.49	0.006127	1.87	54.19	141.43	0.56
DoylesR	TR013	2205.78	20Year-Existing	8.40	95.88	96.67	96.40	96.67	0.001265	0.71	30.32	111.85	0.26
DoylesR	TR013	2147.59	20Year-Existing	8.40	95.87	96.56		96.58	0.002227	0.80	19.60	66.79	0.33
DoylesR	TR013	2097.40	20Year-Existing	8.40	95.86	96.26	96.26	96.32	0.022375	1.64	11.11	82.69	0.94
DoylesR	TR013	2011.99	20Year-Existing	8.40	93.67	94.72	94.57	94.86	0.007438	1.86	6.15	11.46	0.63
DoylesR	TR013	1957.46	20Year-Existing	8.40	93.05	94.05	94.05	94.30	0.015564	2.76	5.05	10.91	0.92
DoylesR	TR013	1909.18	20Year-Existing	8.40	92.33	93.22	93.31	93.46	0.018420	2.60	6.71	39.73	0.96
DoylesR	TR013	1861.01	20Year-Existing	8.40	91.27	92.26	92.38	92.56	0.019155	2.76	5.75	32.74	0.99
DoylesR	TR013	1789.09	20Year-Existing	8.40	90.00	90.55	90.60	90.71	0.034410	2.45	7.83	58.48	1.21
DoylesR	TR013	1733.37	20Year-Existing	8.40	89.53	90.25	90.13	90.27	0.004077	1.00	17.63	78.53	0.43
DoylesR	TR013	1677.65	20Year-Existing	8.40	89.42	89.84		89.88	0.015077	1.36	10.99	58.87	0.77
DoylesR	TR013	1613.85	20Year-Existing	8.40	89.11	89.64		89.65	0.001696	0.55	27.92	96.88	0.27
DoylesR	TR013	1552.30	20Year-Existing	8.40	88.82	89.54		89.56	0.001894	0.76	23.15	68.70	0.31
DoylesR	TR013	1506.96	20Year-Existing	8.40	88.81	89.47		89.48	0.001942	0.73	22.37	64.96	0.31
DoylesR	TR013	1478.17	20Year-Existing	8.40	88.80	89.32		89.36	0.013348	1.47	10.96	44.41	0.75
DoylesR	TR013	1411.61	20Year-Existing	8.40	88.11	89.07		89.09	0.001923	0.89	14.13	31.30	0.32
DoylesR	TR013	1388.58	20Year-Existing	8.40	87.45	89.07	88.80	89.08	0.000140	0.35	57.54	157.61	0.09
DoylesR	TR013	1375		Culvert									
DoylesR	TR013	1373.86	20Year-Existing	8.40	87.32	88.69	88.50	88.78	0.004869	1.85	9.36	21.27	0.52
DoylesR	TR013	1301.72	20Year-Existing	8.40	86.82	87.86	87.86	88.16	0.016549	2.69	4.07	7.55	0.93
DoylesR	TR013	1246.99	20Year-Existing	8.40	85.79	86.67	86.74	87.07	0.024778	2.88	3.35	6.77	1.11
DoylesR	TR013	1192.26	20Year-Existing	8.40	84.79	85.90	85.70	86.04	0.007427	1.91	6.26	11.21	0.64
DoylesR	TR013	1137.53	20Year-Existing	8.40	84.03	85.16	85.16	85.47	0.015332	2.65	4.10	8.02	0.90
DoylesR	TR013	1082.80	20Year-Existing	8.40	83.55	84.45	84.46	84.58	0.016144	2.10	6.80	21.99	0.86
DoylesR	TR013	1064.90	20Year-Existing	8.40	82.57	84.49	83.66	84.51	0.000634	0.76	25.80	112.80	0.19
DoylesR	TR013	1050		Culvert									
DoylesR	TR013	1042.53	20Year-Existing	8.40	82.41	84.26	83.42	84.27	0.000322	0.55	33.88	83.38	0.14
DoylesR	TR013	1022.06	20Year-Existing	8.40	82.71	84.07	83.83	84.24	0.006535	2.12	5.97	8.54	0.62
DoylesR	TR013	969.32	20Year-Existing	8.40	82.40	83.35	83.35	83.66	0.019810	2.91	4.07	7.00	1.02
DoylesR	TR013	915.66	20Year-Existing	8.40	81.80	82.96	82.57	82.97	0.001238	0.86	20.53	42.31	0.27
DoylesR	TR013	867.93	20Year-Existing	8.40	81.40	82.85		82.89	0.002155	1.29	15.60	38.73	0.36
DoylesR	TR013	809.27	20Year-Existing	8.40	81.32	82.58		82.70	0.004728	1.66	6.57	10.04	0.52
DoylesR	TR013	756.07	20Year-Existing	8.40	80.75	81.89	81.89	82.25	0.016151	3.02	3.88	5.82	0.95
DoylesR	TR013	702.82	20Year-Existing	8.40	79.91	81.01	81.03	81.35	0.017849	2.98	3.98	6.92	0.98
DoylesR	TR013	651.60	20Year-Existing	8.40	78.06	78.87	79.20	79.71	0.068186	4.26	2.37	5.83	1.77
DoylesR	TR013	588.74	20Year-Existing	8.40	75.89	76.85	76.90	77.19	0.024059	2.62	3.54	7.74	1.06
DoylesR	TR013	543.29	20Year-Existing	8.40	75.20	76.00	76.00	76.27	0.019570	2.31	3.91	8.54	0.96
DoylesR	TR013	489.08	20Year-Existing	8.40	73.77	74.94	74.94	75.30	0.016460	3.00	3.89	5.86	0.95
DoylesR	TR013	436.90	20Year-Existing	8.40	72.11	73.00	73.34	73.78	0.059067	3.94	2.28	4.80	1.62
DoylesR	TR013	383.70	20Year-Existing	8.40	70.97	72.56	71.97	72.57	0.000316	0.51	45.88	138.47	0.14
DoylesR	TR013	363.75	20Year-Existing	8.40	70.36	71.90	71.90	72.49	0.013919	3.63	3.24	9.00	0.95
DoylesR	TR013	360		Culvert									
DoylesR	TR013	344.87	20Year-Existing	8.40	70.32	71.70	71.70	71.71	0.000832	0.74	24.34	48.31	0.21
DoylesR	TR013	324.16	20Year-Existing	8.40	70.29	70.87	70.99	71.47	0.149197	4.49	3.79	36.55	2.41
DoylesR	TR013	256.30	20Year-Existing	8.40	69.36	70.28	70.28	70.37	0.018974	2.26	9.00	47.10	0.88
DoylesR	TR013	236.50	20Year-Existing	8.40	69.35	70.21	69.98	70.22	0.000778	0.42	37.01	116.00	0.18
DoylesR	TR013	162.98	20Year-Existing	8.40	68.94	70.17		70.18	0.000768	0.54	34.27	123.67	0.19
DoylesR	TR013	133.14	20Year-Existing	8.40	68.76	70.16		70.16	0.000256	0.33	52.65	121.59	0.11
DoylesR	TR013	66.14	20Year-Existing	8.40	68.46	70.14		70.14	0.000267	0.38	42.69	149.04	0.11
DoylesR	M001	484.12	20Year-Existing	47.16	68.08	69.75		69.90	0.012725	2.73	37.24	95.39	0.81
DoylesR	M001	429.44	20Year-Existing	47.16	67.72	69.63		69.66	0.002003	1.24	80.27	132.40	0.33
DoylesR	M001	388.03	20Year-Existing	47.16	67.53	69.57		69.59	0.001388	1.10	100.98	178.60	0.28
DoylesR	M001	344.78	20Year-Existing	47.16	67.39	69.56		69.56	0.000304	0.54	190.89	242.41	0.13
DoylesR	M001	215.64	20Year-Existing	47.16	67.21	69.55		69.55	0.000038	0.21	413.02	368.78	0.05
DoylesR	M001	77.13	20Year-Existing	47.16	66.62	69.55		69.55	0.000011	0.14	720.37	554.99	0.03
CochranePB	M002	8105.53	20Year-Existing	13.32	140.65	142.29	141.34	142.29	0.000120	0.36	82.46	118.28	0.10
CochranePB	M002	8065.47	20Year-Existing	13.32	140.64	142.27		142.28	0.000524	0.69	43.32	80.32	0.21
CochranePB	M002	8050.98	20Year-Existing	13.32	140.00	142.24		142.27	0.000207	0.90	33.75	66.38	0.24
CochranePB	M002	8024.09	20Year-Existing	13.32	140.62	142.25		142.26	0.000630	0.74	43.18	98.02	0.22
CochranePB	M002	8013.06	20Year-Existing	13.32	140.42	142.24		142.25	0.000416	0.66	47.71	98.07	0.19
CochranePB	M002	8004.70	20Year-Existing	13.32	140.25	142.24	141.80	142.25	0.000229	0.64	63.85	107.98	0.15
CochranePB	M002	8000		Culvert									
CochranePB	M002	7995.14	20Year-Existing	13.32	140.37	142.24	141.53	142.24	0.000172	0.54	58.19	80.15	0.13
CochranePB	M002	7964.49	20Year-Existing	13.32	140.14	141.80	141.80	142.19	0.011779	3.30	6.78	10.35	0.92
CochranePB	M002	7901.64	20Year-Existing	13.32	139.30	140.72	140.89	141.20	0.021628	3.33	6.49	25.17	1.16
CochranePB	M002	7847.08	20Year-Existing	13.32	138.68	139.80	139.67	139.86	0.007384	1.68	16.57	50.74	0.67
CochranePB	M002	7812.33	20Year-Existing	13.32	138.52	139.32	139.32	139.43	0.026364	2.29	11.67	54.18	1.21
CochranePB	M002	7738.34	20Year-Existing	13.32	137.94	138.93	138.71	138.94	0.002272	0.86	35.47	128.10	0.38
CochranePB	M002	7695.32	20Year-Existing	13.32	137.67	138.59	138.59	138.73	0.016809	2.10	10.86	40.69	1.01
CochranePB	M002	7609.21	20Year-Existing	13.32	136.29	137.74	137.36	137.76	0.000833	0.79	32.82	73.95	0.26
CochranePB	M002	7515.77	20Year-Existing	13.32	136.28	137.62		137.65	0.002084	1.17	26.32	93.97	0.39
CochranePB	M002	7476.72	20Year-Existing	13.32	136.26	137.60		137.61	0.000597	0.62	39.66	90.85	0.21
CochranePB	M002	7450.86	20Year-Existing	13.32	136.25	137.57		137.59	0.001226	0.85	29.47	83.18	0.30
CochranePB	M002	7329.89	20Year-Existing	13.32	136.23	137.26		137.32	0.005003	1.38	18.48	74.39	0.58
CochranePB	M002	7253.62	20Year-Existing	13.32	136.05	137.09		137.11	0.002134	0.96	27.39	93.28	0.38
CochranePB	M002	7208.54	20Year-Existing	13.32	135.88	136.98		137.01	0.002697	1.11	25.90	97.75	0.43

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	7108.13	20Year-Existing	13.32	135.54	136.52		136.58	0.009926	1.96	17.07	74.15	0.79
CochranePB	M002	7041.67	20Year-Existing	13.32	134.91	136.06	136.04	136.15	0.005875	1.57	15.77	74.66	0.63
CochranePB	M002	6985.71	20Year-Existing	13.32	134.29	135.65	135.65	135.80	0.006662	2.14	13.41	44.27	0.70
CochranePB	M002	6955.25	20Year-Existing	13.32	133.48	134.61	134.83	135.32	0.044584	3.81	3.99	10.52	1.65
CochranePB	M002	6863.52	20Year-Existing	13.32	131.82	132.86	132.86	133.00	0.015534	2.41	11.45	38.51	0.99
CochranePB	M002	6840.09	20Year-Existing	13.32	131.19	132.12	132.19	132.44	0.040027	3.14	7.74	36.02	1.53
CochranePB	M002	6808.25	20Year-Existing	13.32	130.51	131.37	131.45	131.68	0.057446	3.37	7.62	38.88	1.76
CochranePB	M002	6767.75	20Year-Existing	13.32	129.31	130.34	130.37	130.50	0.016225	2.29	11.10	47.91	1.01
CochranePB	M002	6727.78	20Year-Existing	13.32	128.36	129.44	129.51	129.71	0.024726	2.85	8.28	32.55	1.22
CochranePB	M002	6691.71	20Year-Existing	13.32	127.96	129.04	128.96	129.10	0.006710	1.57	17.59	70.86	0.66
CochranePB	M002	6651.54	20Year-Existing	13.32	127.68	128.64	128.61	128.75	0.011827	1.64	10.52	37.18	0.84
CochranePB	M002	6630.83	20Year-Existing	13.32	127.19	128.41	128.41	128.55	0.008323	1.94	11.92	50.80	0.76
CochranePB	M002	6534.50	20Year-Existing	13.32	126.30	127.26	127.29	127.42	0.017691	2.21	10.54	50.09	1.04
CochranePB	M002	6507.97	20Year-Existing	13.32	125.65	126.56	126.61	126.76	0.033620	2.69	9.73	54.91	1.36
CochranePB	M002	6480.50	20Year-Existing	13.32	124.97	125.91	125.94	126.05	0.022115	2.40	11.38	54.98	1.14
CochranePB	M002	6433.33	20Year-Existing	13.32	124.09	125.04	125.07	125.21	0.018498	2.07	9.09	36.06	1.05
CochranePB	M002	6400.96	20Year-Existing	13.32	123.40	124.56	124.39	124.61	0.004816	1.37	16.55	45.97	0.55
CochranePB	M002	6364.18	20Year-Existing	13.32	123.28	124.56		124.57	0.000276	0.39	47.06	109.15	0.14
CochranePB	M002	6314.31	20Year-Existing	13.32	123.27	124.50		124.53	0.001949	0.99	21.46	56.60	0.37
CochranePB	M002	6286.25	20Year-Existing	13.32	123.26	124.42		124.47	0.003007	1.16	18.56	58.54	0.46
CochranePB	M002	6202.53	20Year-Existing	13.32	122.81	124.03	123.95	124.15	0.006245	1.77	12.41	35.07	0.66
CochranePB	M002	6130.00	20Year-Existing	13.32	122.30	123.30	123.30	123.49	0.015617	1.95	7.76	26.87	0.97
CochranePB	M002	6040.82	20Year-Existing	13.32	121.41	122.59	122.47	122.63	0.002935	1.21	22.15	74.95	0.46
CochranePB	M002	6006.95	20Year-Existing	13.32	121.40	122.55		122.57	0.000941	0.57	31.57	99.03	0.25
CochranePB	M002	5976.09	20Year-Existing	13.32	121.39	122.38	122.38	122.49	0.014886	1.88	13.44	70.94	0.94
CochranePB	M002	5910.40	20Year-Existing	13.32	120.29	121.48	121.50	121.67	0.013122	2.36	10.67	40.76	0.93
CochranePB	M002	5863.68	20Year-Existing	13.32	119.62	120.52	120.61	120.83	0.036796	2.74	6.95	33.08	1.45
CochranePB	M002	5811.63	20Year-Existing	13.32	118.87	119.97	119.97	120.08	0.010725	2.03	13.13	52.21	0.84
CochranePB	M002	5768.42	20Year-Existing	13.32	117.38	118.30	118.52	119.03	0.092165	3.80	3.64	16.12	2.22
CochranePB	M002	5725.36	20Year-Existing	13.32	116.48	117.61	117.61	117.77	0.011971	2.08	10.40	39.97	0.88
CochranePB	M002	5678.58	20Year-Existing	13.32	115.39	116.43	116.57	116.83	0.032995	2.85	5.26	20.79	1.40
CochranePB	M002	5627.04	20Year-Existing	13.32	114.79	116.16	115.83	116.21	0.002246	1.18	20.17	45.32	0.41
CochranePB	M002	5609.94	20Year-Existing	20.04	114.77	115.96		116.08	0.007778	1.87	16.61	43.25	0.74
CochranePB	M002	5601.00	20Year-Existing	20.04	114.76	115.94		115.95	0.001563	0.84	46.25	109.69	0.32
CochranePB	M002	5568.52	20Year-Existing	20.04	114.75	115.90		115.91	0.001195	0.72	46.20	97.67	0.29
CochranePB	M002	5508.20	20Year-Existing	20.04	114.04	115.60		115.76	0.004849	1.91	12.91	21.19	0.62
CochranePB	M002	5473.67	20Year-Existing	20.04	113.90	115.29	115.29	115.52	0.010534	2.49	12.73	27.39	0.88
CochranePB	M002	5403.83	20Year-Existing	20.04	110.69	111.83	112.29	113.64	0.106354	6.05	3.61	8.77	2.59
CochranePB	M002	5352.19	20Year-Existing	20.04	110.27	111.62	111.62	111.91	0.013473	2.64	10.57	21.50	0.98
CochranePB	M002	5309.83	20Year-Existing	20.04	109.64	111.06	111.14	111.34	0.013282	2.72	13.40	46.73	0.98
CochranePB	M002	5266.90	20Year-Existing	20.04	109.30	110.61	110.65	110.79	0.011793	2.46	19.11	82.74	0.91
CochranePB	M002	5213.45	20Year-Existing	20.04	108.81	110.38	109.87	110.39	0.000916	0.81	44.94	81.82	0.26
CochranePB	M002	5162.38	20Year-Existing	38.04	108.18	109.97	109.97	110.24	0.009604	3.17	26.87	53.64	0.89
CochranePB	M002	5109.83	20Year-Existing	38.04	108.02	109.47	109.17	109.51	0.003653	1.43	50.49	101.55	0.51
CochranePB	M002	5059.83	20Year-Existing	38.04	107.54	109.15		109.30	0.006890	2.33	36.01	86.06	0.74
CochranePB	M002	5013.20	20Year-Existing	38.04	107.21	108.85	108.85	109.00	0.008833	2.40	35.07	98.99	0.80
CochranePB	M002	4977.38	20Year-Existing	38.04	107.07	108.72	108.44	108.75	0.001739	1.20	70.18	147.59	0.37
CochranePB	M002	4908.49	20Year-Existing	38.04	106.95	108.70		108.71	0.000520	0.73	117.17	198.11	0.21
CochranePB	M002	4883.44	20Year-Existing	38.04	106.94	108.69		108.69	0.000301	0.54	137.58	210.07	0.16
CochranePB	M002	4816.97	20Year-Existing	38.04	106.93	108.67		108.68	0.000282	0.53	142.07	223.05	0.16
CochranePB	M002	4757.22	20Year-Existing	38.04	106.78	108.66		108.67	0.000197	0.48	165.24	257.08	0.13
CochranePB	M002	4718.65	20Year-Existing	38.04	106.77	108.65		108.66	0.000282	0.59	151.45	323.10	0.16
CochranePB	M002	4674.22	20Year-Existing	38.04	106.76	108.63		108.65	0.000699	0.92	104.75	265.70	0.25
CochranePB	M002	4633.22	20Year-Existing	38.04	106.75	108.61		108.63	0.000344	0.63	95.01	180.02	0.18
CochranePB	M002	4561.03	20Year-Existing	38.04	106.74	108.54		108.59	0.001116	1.10	58.08	97.84	0.31
CochranePB	M002	4506.74	20Year-Existing	38.04	106.43	108.21	108.21	108.44	0.007475	2.61	26.70	57.30	0.78
CochranePB	M002	4459.83	20Year-Existing	38.04	105.66	107.26	107.46	107.87	0.019661	3.76	15.53	44.38	1.23
CochranePB	M002	4409.53	20Year-Existing	38.04	104.62	106.25	106.42	106.87	0.020580	3.83	14.40	29.92	1.24
CochranePB	M002	4359.83	20Year-Existing	38.04	103.72	105.44	105.65	105.97	0.014806	3.45	15.29	33.14	1.07
CochranePB	M002	4327.93	20Year-Existing	38.04	103.17	104.99	105.10	105.51	0.014011	3.42	14.96	28.89	1.06
CochranePB	M002	4265.56	20Year-Existing	38.04	102.45	104.27	104.30	104.67	0.012120	3.33	17.82	27.47	0.98
CochranePB	M002	4208.11	20Year-Existing	38.04	101.67	103.32	103.47	103.86	0.016169	3.48	14.89	31.08	1.12
CochranePB	M002	4159.83	20Year-Existing	38.04	101.12	102.20	102.27	102.53	0.051438	3.37	16.51	48.16	1.72
CochranePB	M002	4109.83	20Year-Existing	38.04	98.84	100.49	100.68	101.10	0.017808	3.83	15.57	37.66	1.19
CochranePB	M002	4056.00	20Year-Existing	38.04	97.18	98.79	99.16	99.79	0.031507	4.77	10.36	16.68	1.54
CochranePB	M002	4009.83	20Year-Existing	38.04	96.33	98.19	98.29	98.57	0.016312	3.80	23.32	63.34	1.10
CochranePB	M002	3969.03	20Year-Existing	38.04	95.62	97.43	97.65	98.00	0.012617	3.63	15.40	48.46	1.03
CochranePB	M002	3916.58	20Year-Existing	38.04	94.82	96.93	97.07	97.35	0.010449	3.32	21.53	74.74	0.90
CochranePB	M002	3859.82	20Year-Existing	38.04	94.34	96.18	96.41	96.71	0.011905	3.29	13.29	37.85	0.97
CochranePB	M002	3810.05	20Year-Existing	38.04	93.50	95.35	95.61	96.03	0.015396	3.88	12.42	28.17	1.12
CochranePB	M002	3759.83	20Year-Existing	38.04	93.00	94.65	94.82	95.16	0.015889	3.66	18.37	55.03	1.12
CochranePB	M002	3709.28	20Year-Existing	38.04	92.33	94.09	94.19	94.44	0.011794	3.18	21.97	62.37	0.96
CochranePB	M002	3661.60	20Year-Existing	38.04	92.05	93.81	93.83	93.98	0.006332	2.42	37.63	133.90	0.72
CochranePB	M002	3609.83	20Year-Existing	38.04	91.73	93.39	93.39	93.58	0.009280	2.69	30.36	124.67	0.84
CochranePB	M002	3559.90	20Year-Existing	38.04	90.87	92.85	92.92	93.13	0.007518	2.90	28.71	81.59	0.79
CochranePB	M002	3509.83	20Year-Existing	38.04	90.38	92.20	92.35	92.63	0.012743	3.65	22.21	60.46	1.02
CochranePB	M002	3493.23	20Year-Existing	38.04	90.02	92.09	91.83	92.43	0.005410	3.17	18.87	15.44	0.72
CochranePB	M002	3480		Bridge									
CochranePB	M002	3474.26	20Year-Existing	38.04	89.91	92.13	91.45	92.31	0.002139	2.17	24.47	16.53	0.47
CochranePB	M002	3466.43	20Year-Existing	38.04	90.00	91.99	91.99	92.26	0.003564	2.64	30.36	72.46	0.60
CochranePB	M002	3454.35	20Year-Existing	38.04	89.94	91.85	91.42	92.12	0.003625	2.51	19.55	16.52	0.60
CochranePB	M002	3450		Bridge									
CochranePB	M002	3434.16	20Year-Existing	41.64	90.36	91.66	91.55	92.03	0.008185	2.89	17.21	20.09	0.84
CochranePB	M002	3413.11	20Year-Existing	41.64	90.14	91.60	91.60	91.76	0.007791	2.61	37.19	91.86	0.79
CochranePB	M002	3391.58	20Year-Existing	41.64	90.03	91.51		91.60	0.005094	2.21	46.40	104.80	0.65

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	3371.12	20Year-Existing	41.64	90.02	91.28	91.28	91.46	0.008427	2.54	34.71	92.55	0.83
CochranePB	M002	3309.87	20Year-Existing	41.64	89.28	90.69	90.63	90.78	0.008363	2.55	41.04	106.05	0.79
CochranePB	M002	3272.96	20Year-Existing	41.64	88.73	90.23	90.22	90.42	0.010458	2.80	30.38	77.58	0.89
CochranePB	M002	3219.09	20Year-Existing	41.64	88.30	89.77	89.77	89.91	0.008665	2.51	36.33	107.87	0.81
CochranePB	M002	3175.54	20Year-Existing	41.64	87.36	89.46	89.26	89.59	0.002503	1.90	38.70	68.31	0.47
CochranePB	M002	3165		Bridge									
CochranePB	M002	3157.85	20Year-Existing	41.64	87.50	89.23	89.23	89.45	0.005019	2.45	31.79	80.43	0.66
CochranePB	M002	3135.32	20Year-Existing	41.64	87.85	89.11	89.04	89.17	0.004895	1.73	53.60	154.16	0.60
CochranePB	M002	3106.53	20Year-Existing	41.64	87.94	88.80	88.80	88.92	0.028553	2.67	29.76	118.36	1.28
CochranePB	M002	3088.94	20Year-Existing	41.64	86.84	88.57	88.16	88.67	0.002026	1.58	48.78	140.30	0.43
CochranePB	M002	3080		Bridge									
CochranePB	M002	3075.67	20Year-Existing	41.64	86.74	88.33	88.03	88.40	0.001742	1.39	54.66	129.46	0.39
CochranePB	M002	3056.89	20Year-Existing	41.64	87.66	88.26		88.33	0.013405	0.98	36.50	121.30	0.75
CochranePB	M002	3007.54	20Year-Existing	41.64	87.61	87.95		87.99	0.004107	0.42	51.39	107.69	0.32
CochranePB	M002	2976.31	20Year-Existing	41.64	87.51	87.86		87.89	0.003858	0.48	53.19	119.67	0.37
CochranePB	M002	2941.08	20Year-Existing	41.64	86.98	87.77		87.78	0.002553	0.77	77.15	221.43	0.38
CochranePB	M002	2920.10	20Year-Existing	41.64	86.74	87.75	87.54	87.76	0.000275	0.33	167.77	295.33	0.12
CochranePB	M002	2915		Bridge									
CochranePB	M002	2912.75	20Year-Existing	41.64	86.97	87.75	87.75	87.75	0.000166	0.27	200.70	313.30	0.11
CochranePB	M002	2890.23	20Year-Existing	41.64	86.65	86.83	87.00	87.53	0.396490	3.35	11.25	75.86	3.52
CochranePB	M002	2823.99	20Year-Existing	41.64	86.08	87.08	86.76	87.09	0.001445	0.68	98.83	252.58	0.27
CochranePB	M002	2789.49	20Year-Existing	41.64	86.04	87.06		87.07	0.001226	0.59	102.12	256.08	0.26
CochranePB	M002	2741.30	20Year-Existing	41.64	85.71	87.01		87.01	0.001010	0.76	108.61	268.69	0.27
CochranePB	M002	2663.79	20Year-Existing	41.64	85.58	86.96		86.97	0.001062	0.85	105.65	266.84	0.28
CochranePB	M002	2639.38	20Year-Existing	41.64	85.57	86.92		86.94	0.001328	0.89	96.78	237.65	0.31
CochranePB	M002	2616.24	20Year-Existing	41.64	85.30	86.91		86.92	0.000766	0.80	113.66	232.39	0.25
CochranePB	M002	2539.69	20Year-Existing	41.64	85.41	86.86		86.87	0.001318	0.92	93.56	222.61	0.32
CochranePB	M002	2489.06	20Year-Existing	41.64	85.18	86.81		86.83	0.001428	1.11	87.49	202.56	0.34
CochranePB	M002	2438.28	20Year-Existing	41.64	84.87	86.75		86.78	0.001441	1.20	81.86	175.41	0.35
CochranePB	M002	2384.01	20Year-Existing	41.64	84.65	86.65		86.70	0.002095	1.55	68.32	143.16	0.42
CochranePB	M002	2310.47	20Year-Existing	41.64	84.33	86.41		86.50	0.003739	2.02	51.56	122.77	0.54
CochranePB	M002	2284.63	20Year-Existing	41.64	84.16	86.35		86.41	0.002836	1.79	56.62	104.95	0.46
CochranePB	M002	2240.58	20Year-Existing	41.64	84.04	85.93	85.93	86.19	0.009181	3.06	26.38	45.65	0.85
CochranePB	M002	2170.94	20Year-Existing	41.64	82.26	83.94	84.28	85.05	0.031519	5.01	10.83	16.78	1.56
CochranePB	M002	2136.89	20Year-Existing	41.64	81.72	83.39	83.55	84.06	0.020604	3.85	13.81	24.31	1.26
CochranePB	M002	2100.01	20Year-Existing	41.64	81.30	83.17	83.19	83.48	0.010124	3.00	23.07	40.48	0.89
CochranePB	M002	2046.85	20Year-Existing	41.64	80.89	82.68	82.68	82.99	0.008589	2.71	22.05	40.43	0.83
CochranePB	M002	2014.35	20Year-Existing	41.64	80.47	81.91	82.08	82.50	0.028246	3.70	15.50	40.44	1.41
CochranePB	M002	1990.76	20Year-Existing	41.64	80.10	81.90	81.90	82.16	0.009394	2.80	25.41	44.57	0.86
CochranePB	M002	1945.20	20Year-Existing	41.64	79.43	81.54	81.18	81.65	0.003198	1.92	39.44	52.05	0.52
CochranePB	M002	1916.67	20Year-Existing	41.64	79.31	81.39		81.53	0.004560	2.28	34.02	43.66	0.61
CochranePB	M002	1871.48	20Year-Existing	41.64	79.28	81.23		81.34	0.003788	1.89	37.50	48.88	0.55
CochranePB	M002	1836.03	20Year-Existing	41.64	78.83	81.18		81.24	0.001524	1.47	49.68	72.21	0.37
CochranePB	M002	1788.63	20Year-Existing	41.64	78.46	80.79	80.79	81.09	0.007074	3.13	26.39	39.16	0.77
CochranePB	M002	1768.08	20Year-Existing	41.64	78.14	80.03	80.27	80.80	0.021301	4.54	14.74	25.90	1.29
CochranePB	M002	1733.19	20Year-Existing	41.64	77.95	79.95	79.97	80.25	0.007545	2.82	25.75	48.42	0.79
CochranePB	M002	1694.89	20Year-Existing	41.64	77.12	79.28	78.86	79.38	0.002487	1.76	37.25	42.49	0.47
CochranePB	M002	1685.79	20Year-Existing	41.64	77.06	79.22		79.35	0.003380	2.06	32.52	39.13	0.54
CochranePB	M002	1640.51	20Year-Existing	41.64	76.45	78.72	78.72	79.11	0.007427	3.20	20.56	28.79	0.80
CochranePB	M002	1602.99	20Year-Existing	41.64	75.01	76.44	76.95	78.31	0.076113	6.30	7.84	15.56	2.31
CochranePB	M002	1585.52	20Year-Existing	41.64	74.01	75.31	75.71	76.76	0.086347	5.79	9.15	20.66	2.39
CochranePB	M002	1569.47	20Year-Existing	41.64	73.71	75.00	75.17	75.61	0.037826	3.61	12.77	27.33	1.56
CochranePB	M002	1541.97	20Year-Existing	41.64	72.31	74.08	74.28	74.82	0.021913	4.14	13.01	18.86	1.30
CochranePB	M002	1510.83	20Year-Existing	41.64	71.34	72.53	72.83	73.60	0.082251	4.59	9.28	23.59	2.24
CochranePB	M002	1495.27	20Year-Existing	41.64	71.19	72.99	72.72	73.12	0.004117	1.78	30.87	42.01	0.57
CochranePB	M002	1458.62	20Year-Existing	41.64	70.58	72.62	72.62	72.88	0.007961	3.22	30.03	50.11	0.82
CochranePB	M002	1419.61	20Year-Existing	41.64	70.21	72.12	72.04	72.41	0.008022	2.98	24.63	38.31	0.82
CochranePB	M002	1384.56	20Year-Existing	41.64	69.61	71.85	71.85	72.18	0.005402	2.74	24.06	56.22	0.69
CochranePB	M002	1351.51	20Year-Existing	41.64	69.54	71.62	71.73	71.97	0.007622	3.13	26.69	74.37	0.82
CochranePB	M002	1311.78	20Year-Existing	41.64	69.49	71.38	71.42	71.63	0.007648	2.91	33.26	106.47	0.80
CochranePB	M002	1291.19	20Year-Existing	41.64	69.28	70.98	71.14	71.40	0.014635	3.60	24.71	89.56	1.07
CochranePB	M002	1217.75	20Year-Existing	41.64	68.70	70.84	70.33	70.88	0.000829	1.12	68.93	117.13	0.28
CochranePB	M002	1200.39	20Year-Existing	41.64	68.69	70.55	70.19	70.83	0.004516	2.40	18.01	18.69	0.64
CochranePB	M002	1190		Bridge									
CochranePB	M002	1185.68	20Year-Existing	42.60	68.46	70.50	69.89	70.71	0.002581	2.07	21.15	25.23	0.50
CochranePB	M002	1164.32	20Year-Existing	42.60	68.65	70.41	70.41	70.64	0.005483	2.66	31.32	81.22	0.70
CochranePB	M002	1132.60	20Year-Existing	42.60	68.60	69.81	69.95	70.26	0.028722	3.79	21.36	99.93	1.43
CochranePB	M002	1111.68	20Year-Existing	42.60	68.55	69.82	69.62	69.88	0.004306	1.75	54.95	153.24	0.58
CochranePB	M002	1059.95	20Year-Existing	42.60	68.38	69.66		69.73	0.004012	1.93	53.41	144.26	0.58
CochranePB	M002	998.99	20Year-Existing	42.60	68.13	69.57		69.58	0.001308	1.18	90.06	186.87	0.33
CochranePB	M002	955.54	20Year-Existing	42.60	68.12	69.56		69.56	0.000133	0.37	208.77	257.48	0.11
CochranePB	M002	851.16	20Year-Existing	42.60	67.62	69.55		69.56	0.000071	0.33	247.13	247.57	0.08
CochranePB	M002	798.06	20Year-Existing	42.60	67.47	69.55		69.55	0.000038	0.25	317.40	284.46	0.06
CochranePB	M002	746.77	20Year-Existing	42.60	67.30	69.55		69.55	0.000017	0.18	423.12	319.70	0.04
CochranePB	M002	694.52	20Year-Existing	42.60	66.98	69.55		69.55	0.000010	0.15	511.73	365.46	0.03
CochranePB	M002	669.16	20Year-Existing	42.60	66.97	69.55		69.55	0.000009	0.14	568.85	400.40	0.03
CochranePB	M002	590.19	20Year-Existing	42.60	66.84	69.55		69.55	0.000006	0.12	677.67	487.26	0.03
CochranePB	M002	539.85	20Year-Existing	42.60	66.81	69.55		69.55	0.000006	0.12	692.28	503.35	0.02
CochranePB	M002	488.40	20Year-Existing	42.60	66.54	69.55		69.55	0.000005	0.11	733.88	511.50	0.02
CochranePB	M001	381.27	20Year-Existing	85.32	66.35	69.55		69.55	0.000022	0.21	849.73	602.31	0.04
CochranePB	M001	313.14	20Year-Existing	85.32	66.28	69.55		69.55	0.000015	0.17	1000.26	671.88	0.03

Petty Harbour River 20yr Q+30%

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	TR001	439.21	20Year-Existing	34.97	105.11	106.49	106.26	106.58	0.004683	1.89	38.98	63.07	0.54
RaymondB	TR001	409.42	20Year-Existing	34.97	104.68	105.99	105.99	106.33	0.015624	3.30	19.71	31.29	0.97
RaymondB	TR001	380.07	20Year-Existing	34.97	104.05	106.08	105.20	106.13	0.001080	1.19	58.43	70.78	0.28
RaymondB	TR001	360.64	20Year-Existing	34.97	103.60	106.08	105.16	106.11	0.000489	0.90	85.79	88.41	0.19
RaymondB	TR001	350		Bridge									
RaymondB	TR001	344.45	20Year-Existing	34.97	103.30	104.60	105.00	105.75	0.047672	5.62	10.71	35.81	1.65
RaymondB	TR001	334.13	20Year-Existing	34.97	103.40	104.37	104.64	105.19	0.041602	4.30	12.10	47.15	1.49
RaymondB	TR001	272.22	20Year-Existing	34.97	102.83	103.95	103.95	104.20	0.014850	2.89	22.93	45.13	0.92
RaymondB	TR001	218.50	20Year-Existing	34.97	101.42	102.74	102.84	103.27	0.018997	3.61	15.19	26.73	1.07
RaymondB	TR001	163.97	20Year-Existing	34.97	100.32	101.91	101.44	102.05	0.003477	1.77	26.07	29.80	0.47
RaymondB	TR001	115.54	20Year-Existing	34.97	100.00	101.18	101.18	101.67	0.021435	3.71	14.96	22.27	1.13
RaymondB	TR001	56.65	20Year-Existing	34.97	97.73	98.49	98.87	99.78	0.095557	5.42	8.02	16.22	2.17
RaymondB	M002	6453.60	20Year-Existing	22.36	118.10	125.29	118.96	125.29	0.000000	0.04	680.19	235.14	0.01
RaymondB	M002	6405.52	20Year-Existing	22.36	118.00	125.29		125.29	0.000000	0.04	690.12	229.80	0.01
RaymondB	M002	6347.04	20Year-Existing	22.36	124.73	125.22		125.28	0.005946	1.14	19.89	41.59	0.52
RaymondB	M002	6247.26	20Year-Existing	22.36	117.21	118.34		118.40	0.003962	1.50	25.82	35.47	0.48
RaymondB	M002	6230.10	20Year-Existing	22.36	117.20	118.33		118.36	0.001817	1.00	32.01	43.32	0.32
RaymondB	M002	6205.35	20Year-Existing	22.36	117.28	118.30		118.31	0.001627	0.89	44.43	62.50	0.30
RaymondB	M002	6143.06	20Year-Existing	22.36	117.18	118.17		118.20	0.002261	1.01	40.12	65.14	0.35
RaymondB	M002	6105.93	20Year-Existing	22.36	117.17	118.05		118.09	0.002914	1.05	31.74	63.63	0.39
RaymondB	M002	6026.35	20Year-Existing	22.36	116.81	117.86		117.89	0.002141	1.03	34.90	49.06	0.34
RaymondB	M002	5933.71	20Year-Existing	22.36	116.42	117.59		117.65	0.002941	1.32	30.72	66.57	0.41
RaymondB	M002	5883.92	20Year-Existing	22.36	116.12	117.35		117.47	0.004514	1.67	19.49	38.68	0.51
RaymondB	M002	5785.15	20Year-Existing	22.36	115.75	116.90		117.00	0.004915	1.62	20.31	32.30	0.53
RaymondB	M002	5732.44	20Year-Existing	22.36	115.46	116.52		116.68	0.007548	1.88	14.92	26.28	0.64
RaymondB	M002	5631.37	20Year-Existing	22.36	114.85	115.83		115.91	0.007323	1.67	22.56	46.17	0.62
RaymondB	M002	5500.15	20Year-Existing	22.36	114.62	115.75		115.76	0.000603	0.56	78.43	138.17	0.18
RaymondB	M002	5485.46	20Year-Existing	22.36	114.53	115.75		115.75	0.000352	0.47	98.33	169.77	0.14
RaymondB	M002	5411.19	20Year-Existing	22.36	114.48	115.68	115.24	115.71	0.001148	0.81	42.63	70.33	0.26
RaymondB	M002	5338.54	20Year-Existing	22.36	114.41	115.68	114.81	115.68	0.000106	0.26	100.47	111.75	0.08
RaymondB	M002	5278.93	20Year-Existing	22.36	114.44	115.67	114.86	115.67	0.000147	0.30	90.91	112.88	0.09
RaymondB	M002	5226.60	20Year-Existing	22.36	114.42	115.66		115.67	0.000161	0.31	98.72	130.97	0.10
RaymondB	M002	5171.66	20Year-Existing	22.36	114.42	115.66		115.66	0.000149	0.31	119.18	182.55	0.09
RaymondB	M002	5111.50	20Year-Existing	22.36	114.42	115.63		115.64	0.000534	0.58	70.27	144.57	0.18
RaymondB	M002	5077.48	20Year-Existing	22.36	114.38	115.61		115.63	0.000514	0.57	57.56	98.91	0.17
RaymondB	M002	5017.13	20Year-Existing	22.36	114.40	115.49		115.56	0.002834	1.20	20.96	29.83	0.40
RaymondB	M002	4967.43	20Year-Existing	22.36	114.07	115.20		115.35	0.005993	1.78	14.01	19.26	0.58
RaymondB	M002	4943.43	20Year-Existing	22.36	113.82	115.08		115.22	0.005116	1.79	17.71	26.87	0.55
RaymondB	M002	4910.95	20Year-Existing	22.36	113.67	114.94		115.05	0.004745	1.74	19.38	30.42	0.53
RaymondB	M002	4851.17	20Year-Existing	22.36	113.47	114.63		114.75	0.005485	1.76	18.92	31.09	0.56
RaymondB	M002	4783.73	20Year-Existing	22.36	113.30	114.31		114.39	0.004965	1.39	20.44	36.92	0.51
RaymondB	M002	4732.68	20Year-Existing	22.36	113.07	114.06		114.12	0.005146	1.42	24.28	43.90	0.52
RaymondB	M002	4681.76	20Year-Existing	22.36	112.35	113.41	113.41	113.70	0.013713	2.62	11.95	33.96	0.87
RaymondB	M002	4673.96	20Year-Existing	22.36	111.74	112.71	112.97	113.47	0.041859	4.14	6.98	22.04	1.49
RaymondB	M002	4644.78	20Year-Existing	22.36	110.49	111.49	111.72	112.28	0.039146	4.15	6.38	23.30	1.45
RaymondB	M002	4625.72	20Year-Existing	22.36	106.75	107.38	107.99	110.41	0.333769	7.72	2.93	7.29	3.77
RaymondB	M002	4615.42	20Year-Existing	22.36	105.83	106.61	107.01	108.05	0.114353	5.50	4.63	10.14	2.33
RaymondB	M002	4607.06	20Year-Existing	22.36	105.79	107.05	107.02	107.49	0.014747	3.06	8.70	9.81	0.93
RaymondB	M002	4597.34	20Year-Existing	22.36	105.76	107.04	106.94	107.31	0.010658	2.51	12.22	17.17	0.78
RaymondB	M002	4575.18	20Year-Existing	22.36	105.98	106.64	106.64	106.90	0.039942	2.77	10.38	20.43	1.30
RaymondB	M002	4545.57	20Year-Existing	22.36	104.65	105.87	105.94	106.22	0.014975	2.92	12.24	28.96	0.92
RaymondB	M002	4522.17	20Year-Existing	22.36	103.67	104.48	104.79	105.50	0.067842	4.78	6.28	15.69	1.85
RaymondB	M002	4511.42	20Year-Existing	22.36	103.62	104.97	104.64	105.08	0.004848	1.80	20.20	28.81	0.54
RaymondB	M002	4489.94	20Year-Existing	22.36	103.59	104.60	104.60	104.89	0.015831	2.72	12.10	22.21	0.93
RaymondB	M002	4466.63	20Year-Existing	22.36	103.03	104.36	104.02	104.48	0.004451	1.72	19.68	34.62	0.52
RaymondB	M002	4439.46	20Year-Existing	22.36	103.00	104.08	104.08	104.29	0.012027	2.47	16.86	40.69	0.81
RaymondB	M002	4415.77	20Year-Existing	22.36	102.78	103.57	103.66	103.88	0.024643	2.75	12.51	40.46	1.10
RaymondB	M002	4385.89	20Year-Existing	22.36	101.80	102.81	102.93	103.20	0.020199	3.06	11.28	29.41	1.05
RaymondB	M002	4354.01	20Year-Existing	22.36	101.27	102.17	102.23	102.43	0.025620	3.22	14.86	40.74	1.16
RaymondB	M002	4341.66	20Year-Existing	22.36	100.84	101.99	101.99	102.20	0.011582	2.48	17.10	40.01	0.81
RaymondB	M002	4332.73	20Year-Existing	22.36	100.32	101.24	101.52	101.97	0.041762	4.09	7.46	15.88	1.48
RaymondB	M002	4308.73	20Year-Existing	22.36	98.87	99.64	99.93	100.61	0.076973	4.79	6.24	13.88	1.93
RaymondB	M002	4294.65	20Year-Existing	22.36	98.45	99.46	99.54	99.91	0.023322	3.30	9.35	15.33	1.13
RaymondB	M002	4263.86	20Year-Existing	22.36	97.59	99.18	98.60	99.28	0.002580	1.54	20.89	22.64	0.41
RaymondB	M002	4235.25	20Year-Existing	22.36	97.47	99.17		99.22	0.001159	1.08	28.60	27.73	0.28
RaymondB	M001	4130.35	20Year-Existing	56.16	96.57	98.14	98.14	98.65	0.015232	3.25	19.80	27.16	0.96
RaymondB	M001	4076.94	20Year-Existing	56.16	96.04	97.91	97.61	98.11	0.005150	2.19	34.12	37.62	0.58
RaymondB	M001	4023.53	20Year-Existing	56.16	95.94	97.16	97.16	97.60	0.019650	3.04	20.70	30.45	1.04
RaymondB	M001	3978.20	20Year-Existing	56.16	94.64	96.86	96.29	96.97	0.002659	1.52	46.95	60.14	0.41
RaymondB	M001	3916.71	20Year-Existing	74.88	94.64	96.58		96.75	0.004628	2.23	57.54	65.89	0.56
RaymondB	M001	3863.30	20Year-Existing	74.88	94.41	96.40		96.52	0.003324	1.96	70.37	81.80	0.48
RaymondB	M001	3809.58	20Year-Existing	74.88	94.09	95.92	95.83	96.24	0.008899	2.97	40.43	48.05	0.77
RaymondB	M001	3756.26	20Year-Existing	74.88	93.53	95.25	95.25	95.69	0.011763	3.28	33.54	42.15	0.87
RaymondB	M001	3694.37	20Year-Existing	74.88	92.66	94.54	94.35	94.81	0.006516	2.56	43.74	63.12	0.66
RaymondB	M001	3569.22	20Year-Existing	74.88	92.15	94.58		94.59	0.000458	0.84	173.36	172.51	0.18
RaymondB	M001	3527.64	20Year-Existing	74.88	91.85	94.56		94.57	0.000382	0.83	173.74	148.97	0.17
RaymondB	M001	3446.51	20Year-Existing	74.88	91.14	94.55		94.56	0.000166	0.62	244.19	179.20	0.12
RaymondB	M001	3421.64	20Year-Existing	74.88	91.23	94.54	93.16	94.55	0.000191	0.72	264.83	233.76	0.13
RaymondB	M001	3410		Bridge									
RaymondB	M001	3404.11	20Year-Existing	74.88	91.23	93.21	93.21	94.15	0.014051	4.32	17.65	103.04	1.00
RaymondB	M001	3380.48	20Year-Existing	74.88	90.96	93.09	92.53	93.23	0.003048	1.94	62.34	71.52	0.46
RaymondB	M001	3308.92	20Year-Existing	74.88	90.80	92.83		92.99	0.003897	2.19	61.73	72.70	0.52
RaymondB	M001	3216.73	20Year-Existing	74.88	89.31	92.46	91.20	92.71	0.002166	2.25	34.40	78.15	0.42
RaymondB	M001	3200		Bridge									
RaymondB	M001	3188.78	20Year-Existing	74.88	89.30	91.67	91.60	92.42	0.011173	4.14	21.44	47.05	0.89

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	M001	3015.18	20Year-Existing	74.88	89.18	91.00		91.13	0.003400	1.88	62.50	69.59	0.48
RaymondB	M001	2876.32	20Year-Existing	74.88	88.66	90.35	90.11	90.55	0.006444	2.34	50.96	97.99	0.64
RaymondB	M001	2789.37	20Year-Existing	74.88	88.24	90.11		90.17	0.002610	1.62	102.43	162.56	0.41
RaymondB	M001	2681.85	20Year-Existing	74.88	88.14	89.58		89.73	0.009408	2.45	63.28	135.94	0.74
RaymondB	M001	2604.32	20Year-Existing	74.88	87.97	89.42		89.45	0.001999	1.19	121.54	209.62	0.35
RaymondB	M001	2531.57	20Year-Existing	74.88	87.97	89.37		89.38	0.000743	0.67	197.45	291.10	0.21
RaymondB	M001	2385.34	20Year-Existing	74.88	87.43	89.29		89.32	0.001447	1.22	155.16	250.48	0.31
RaymondB	M001	2245.72	20Year-Existing	74.88	86.99	88.92	88.72	89.11	0.004773	2.25	60.08	124.04	0.57
RaymondB	M001	2194.47	20Year-Existing	74.88	86.68	88.90		88.95	0.001223	1.28	106.32	96.67	0.29
RaymondB	M001	2140.67	20Year-Existing	74.88	86.59	88.79		88.87	0.002017	1.61	81.88	72.08	0.38
RaymondB	M001	2087.60	20Year-Existing	74.88	86.38	88.60		88.74	0.002564	1.84	57.37	46.15	0.43
RaymondB	M001	2069.54	20Year-Existing	74.88	86.35	88.53		88.69	0.003090	2.00	58.30	69.47	0.47
RaymondB	M001	2040.77	20Year-Existing	74.88	86.25	88.46		88.60	0.002864	1.90	66.01	88.04	0.45
RaymondB	M001	1989.18	20Year-Existing	74.88	86.02	88.22	87.77	88.42	0.004182	2.31	59.24	81.35	0.54
RaymondB	M001	1950.22	20Year-Existing	74.88	85.79	87.71	87.37	88.14	0.011269	3.34	36.44	52.61	0.86
RaymondB	M001	1885.73	20Year-Existing	74.88	85.34	87.32		87.55	0.006452	2.56	46.98	53.25	0.65
RaymondB	M001	1835.84	20Year-Existing	74.88	84.64	86.54	86.54	87.06	0.015036	3.78	29.84	29.43	0.98
RaymondB	M001	1784.61	20Year-Existing	74.88	84.10	85.41	85.54	85.98	0.031348	3.95	27.78	40.38	1.31
RaymondB	M001	1733.38	20Year-Existing	74.88	82.79	84.98	84.38	85.11	0.002746	1.84	60.70	49.10	0.44
RaymondB	M001	1682.15	20Year-Existing	74.88	82.60	84.59		84.88	0.006590	2.60	37.31	36.59	0.66
RaymondB	M001	1630.92	20Year-Existing	74.88	82.12	84.11	83.99	84.49	0.008517	2.92	34.46	45.35	0.75
RaymondB	M001	1584.49	20Year-Existing	74.88	81.77	83.89		84.13	0.005713	2.50	45.16	57.78	0.62
RaymondB	M001	1536.01	20Year-Existing	74.88	81.31	83.44	83.31	83.79	0.008016	2.97	40.09	55.93	0.72
RaymondB	M001	1477.96	20Year-Existing	74.88	80.96	83.06		83.35	0.006681	2.69	41.78	48.58	0.66
RaymondB	M001	1425.99	20Year-Existing	74.88	80.58	82.87		83.06	0.003935	2.23	47.34	41.41	0.52
RaymondB	M001	1372.05	20Year-Existing	74.88	80.25	82.71		82.86	0.003174	2.08	56.05	48.97	0.47
RaymondB	M001	1323.54	20Year-Existing	74.88	79.11	81.90	81.32	82.53	0.006128	3.51	21.31	17.03	0.69
RaymondB	M001	1315		Bridge									
RaymondB	M001	1303.54	20Year-Existing	74.88	78.01	80.67	80.53	81.57	0.011349	4.20	17.84	20.76	0.90
RaymondB	M001	1252.39	20Year-Existing	78.00	78.45	80.46	80.46	80.94	0.013546	3.59	31.20	32.23	0.92
RaymondB	M001	1216.25	20Year-Existing	78.00	77.86	79.86	80.00	80.41	0.015712	3.98	32.26	43.03	1.01
RaymondB	M001	1189.75	20Year-Existing	78.00	77.61	79.18	79.35	79.85	0.028227	4.11	26.10	38.49	1.27
RaymondB	M001	1166.20	20Year-Existing	78.00	76.74	78.31	78.53	79.08	0.033633	4.70	28.39	54.26	1.41
RaymondB	M001	1148.70	20Year-Existing	78.00	76.50	78.18	78.26	78.58	0.017324	3.45	36.96	59.37	1.01
RaymondB	M001	1116.25	20Year-Existing	78.00	75.83	77.25	77.39	77.86	0.026502	3.64	25.47	38.40	1.21
RaymondB	M001	1066.09	20Year-Existing	78.00	75.16	77.09	76.79	77.28	0.004805	2.19	52.32	57.41	0.56
RaymondB	M001	1035.68	20Year-Existing	78.00	74.73	76.24	76.24	76.95	0.024575	4.02	24.08	28.95	1.21
RaymondB	M001	999.99	20Year-Existing	78.00	73.32	74.85	75.18	75.90	0.032914	4.79	19.60	23.48	1.40
RaymondB	M001	976.73	20Year-Existing	78.00	73.03	74.73	74.84	75.26	0.014412	3.55	32.31	48.59	0.96
RaymondB	M001	942.15	20Year-Existing	78.00	72.18	73.29	73.61	74.22	0.083064	5.89	21.53	35.90	2.09
RaymondB	M001	916.70	20Year-Existing	78.00	70.82	72.26	72.43	72.85	0.032274	4.58	32.25	67.57	1.37
RaymondB	M001	892.34	20Year-Existing	78.00	70.36	71.96	72.02	72.40	0.013463	3.30	35.51	53.64	0.92
RaymondB	M001	866.25	20Year-Existing	78.00	70.04	71.91	71.43	72.10	0.004112	2.07	52.35	66.46	0.52
RaymondB	M001	841.89	20Year-Existing	78.00	69.92	71.80	71.57	71.99	0.004767	2.28	59.28	96.12	0.57
RaymondB	M001	816.68	20Year-Existing	78.00	69.74	71.38	71.38	71.79	0.012198	3.30	38.78	59.93	0.88
RaymondB	M001	766.25	20Year-Existing	78.00	69.16	70.44	70.33	70.70	0.014065	2.86	39.60	49.31	0.90
RaymondB	M001	716.25	20Year-Existing	78.00	68.39	70.04		70.22	0.005678	2.26	53.02	69.37	0.60
RaymondB	M001	675.00	20Year-Existing	78.00	68.14	69.81		69.99	0.005594	2.26	53.99	60.65	0.60
RaymondB	M001	615.86	20Year-Existing	78.00	67.75	69.72		69.78	0.001776	1.46	109.76	164.06	0.35
RaymondB	M001	565.77	20Year-Existing	78.00	67.44	69.66		69.71	0.001101	1.25	141.24	235.92	0.28
RaymondB	M001	520.15	20Year-Existing	78.00	67.26	69.66		69.67	0.000391	0.77	234.87	317.63	0.17
RaymondB	M001	468.54	20Year-Existing	78.00	66.98	69.65		69.65	0.000138	0.50	345.91	381.37	0.10
RaymondB	M001	429.18	20Year-Existing	78.00	66.80	69.65		69.65	0.000052	0.33	526.50	487.36	0.06
RaymondB	M001	366.25	20Year-Existing	78.00	66.65	69.65		69.65	0.000020	0.21	824.85	642.85	0.04
RaymondB	M001	341.79	20Year-Existing	78.00	66.63	69.65		69.65	0.000015	0.18	927.75	685.52	0.03
PettyHR	M002	6270.85	20Year-Existing	96.33	66.23	69.65		69.65	0.000001	0.05	2064.78	856.18	0.01
PettyHR	M002	6218.07	20Year-Existing	96.33	66.23	69.65		69.65	0.000001	0.06	1933.86	847.60	0.01
PettyHR	M002	6095.00	20Year-Existing	96.33	66.23	69.65		69.65	0.000001	0.06	1867.76	854.82	0.01
PettyHR	M002	6004.71	20Year-Existing	96.33	66.23	69.65		69.65	0.000001	0.06	1922.01	885.12	0.01
PettyHR	M001	5825.85	20Year-Existing	166.14	66.23	69.65		69.65	0.000003	0.08	2228.20	844.78	0.02
PettyHR	M001	5685.44	20Year-Existing	166.14	66.23	69.65		69.65	0.000002	0.08	2153.38	734.56	0.01
PettyHR	M001	5516.39	20Year-Existing	183.56	66.23	69.65		69.65	0.000004	0.10	1879.56	629.39	0.02
PettyHR	M001	5279.80	20Year-Existing	183.56	66.23	69.64		69.64	0.000008	0.15	1270.82	425.56	0.03
PettyHR	M001	4996.75	20Year-Existing	183.56	66.23	69.63		69.64	0.000040	0.32	600.73	209.70	0.06
PettyHR	M001	4923.81	20Year-Existing	183.56	66.23	69.57		69.63	0.000526	1.15	197.97	88.50	0.21
PettyHR	M001	4867.41	20Year-Existing	183.56	66.23	69.47		69.58	0.001351	1.83	167.92	97.38	0.34
PettyHR	M001	4817.61	20Year-Existing	183.56	66.58	69.39		69.50	0.001749	1.97	161.85	93.40	0.38
PettyHR	M001	4757.18	20Year-Existing	183.56	66.43	68.66	68.66	69.24	0.011182	4.23	75.55	65.59	0.91
PettyHR	M001	4675.66	20Year-Existing	183.56	65.88	68.19	67.61	68.48	0.005000	2.91	91.54	51.76	0.62
PettyHR	M001	4612.84	20Year-Existing	183.56	64.88	67.29	67.04	67.98	0.011264	4.49	65.31	44.57	0.93
PettyHR	M001	4570.09	20Year-Existing	183.56	64.62	66.89	66.89	67.51	0.010185	4.01	69.27	55.89	0.87
PettyHR	M001	4500.69	20Year-Existing	183.56	64.62	66.48	66.15	66.75	0.005470	2.59	95.71	75.97	0.62
PettyHR	M001	4461.12	20Year-Existing	183.56	64.55	66.06	66.05	66.46	0.014982	3.71	84.02	91.50	0.99
PettyHR	M001	4428.20	20Year-Existing	183.56	64.41	65.88		66.09	0.010035	2.91	100.45	89.96	0.80
PettyHR	M001	4395.66	20Year-Existing	183.56	63.81	65.55		65.81	0.006722	2.76	100.12	81.86	0.68
PettyHR	M001	4357.04	20Year-Existing	183.56	63.34	65.42		65.58	0.003849	2.38	123.33	81.36	0.53
PettyHR	M001	4281.82	20Year-Existing	183.56	62.50	65.32		65.42	0.001078	1.53	143.78	59.25	0.29
PettyHR	M001	4166.17	20Year-Existing	183.56	61.82	65.34		65.35	0.000151	0.65	404.14	164.88	0.11
PettyHR	M001	3949.19	20Year-Existing	183.56	61.31	65.35		65.35	0.000000	0.04	4957.20	1316.12	0.01
PettyHR	M001	3936.78	20Year-Existing	183.56	61.31	65.35		65.35	0.000000	0.03	6111.52	1571.50	0.00
PettyHR	M001	3931.39	20Year-Existing	116.35	61.31	65.35		65.35	0.000000	0.02	7681.24	2010.33	0.00
PettyHR	M001	3925.44	20Year-Existing	116.35	61.31	65.35		65.35	0.000000	0.03	3803.11	1003.25	0.01
PettyHR	M001	3867.05	20Year-Existing	116.35	61.31	65.35		65.35	0.000000	0.03	3832.21	987.64	0.00
PettyHR	M001	3643.73	20Year-Existing	116.35	61.31	65.35		65.35	0.000000	0.03	4400.38	1114.05	0.00
PettyHR	M001	3440.60	20Year-Existing	116.35	61.31	65.35		65.35	0.000001	0.05	2233.89	582.87	0.01

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	3182.65	20Year-Existing	116.35	61.31	65.35		65.35	0.000001	0.07	1672.59	425.96	0.01
PettyHR	M001	3080.13	20Year-Existing	116.35	61.31	65.35		65.35	0.000001	0.06	1976.01	518.67	0.01
PettyHR	M001	3028.13	20Year-Existing	116.35	61.31	65.35		65.35	0.000001	0.06	2160.80	560.49	0.01
PettyHR	M001	2983.09	20Year-Existing	116.35	61.31	65.35		65.35	0.000001	0.07	1760.03	451.88	0.01
PettyHR	M001	2828.46	20Year-Existing	116.35	61.31	65.35		65.35	0.000004	0.12	1036.03	279.89	0.02
PettyHR	M001	2712.72	20Year-Existing	116.35	61.31	65.35		65.35	0.000013	0.21	595.61	181.49	0.03
PettyHR	M001	2671.95	20Year-Existing	116.35	61.31	65.34		65.35	0.000020	0.27	539.06	175.22	0.04
PettyHR	M001	2653.10	20Year-Existing	116.35	61.31	65.34		65.35	0.000028	0.32	462.56	156.82	0.05
PettyHR	M001	2632.46	20Year-Existing	116.35	61.31	65.33		65.34	0.000110	0.63	279.75	118.37	0.10
PettyHR	M001	2596.08	20Year-Existing	116.35	61.31	65.32		65.34	0.000127	0.68	250.56	115.93	0.11
PettyHR	M001	2583.24	20Year-Existing	116.35	60.10	65.24	63.00	65.33	0.000669	1.63	148.45	114.82	0.25
PettyHR	M001	2580		Bridge									
PettyHR	M001	2573.39	20Year-Existing	116.35	60.00	65.08	62.55	65.14	0.000356	1.19	170.94	90.25	0.18
PettyHR	M001	2551.09	20Year-Existing	116.35	59.89	65.11		65.12	0.000030	0.35	389.31	107.39	0.05
PettyHR	M001	2426.14	20Year-Existing	116.35	59.27	65.12		65.12	0.000002	0.10	1213.49	277.36	0.01
PettyHR	M001	2315.39	20Year-Existing	116.35	58.72	65.12		65.12	0.000001	0.08	1486.56	319.00	0.01
PettyHR	M001	2204.15	20Year-Existing	116.35	58.16	65.12		65.12	0.000001	0.08	1495.87	307.55	0.01
PettyHR	M001	2022.45	20Year-Existing	116.35	57.26	65.12		65.12	0.000003	0.13	906.83	180.78	0.02
PettyHR	M001	1902.10	20Year-Existing	116.35	56.66	65.11		65.12	0.000005	0.18	700.86	127.87	0.02
PettyHR	M001	1879.72	20Year-Existing	116.35	56.55	65.11		65.12	0.000012	0.27	515.42	108.46	0.04
PettyHR	M001	1824.42	20Year-Existing	116.35	56.28	65.11		65.11	0.000021	0.36	345.96	66.03	0.05
PettyHR	M001	1789.72	20Year-Existing	116.35	56.10	65.10		65.11	0.000029	0.43	292.64	55.40	0.05
PettyHR	M001	1724.70	20Year-Existing	116.35	55.78	65.10		65.11	0.000038	0.49	255.92	47.92	0.06
PettyHR	M001	1668.81	20Year-Existing	116.35	55.50	65.10	58.29	65.11	0.000021	0.37	340.20	65.30	0.05
PettyHR	M001	1647.80	20Year-Existing	116.35	55.40	65.10	57.99	65.11	0.000014	0.31	396.36	74.62	0.04
PettyHR	M001	1631.79	20Year-Existing	116.35	63.55	64.82		65.08	0.007042	2.25	51.60	40.61	0.64
PettyHR	M001	1615.46	20Year-Existing	117.91	54.38	56.80		57.01	0.006421	3.32	62.12	38.61	0.69
PettyHR	M001	1601.08	20Year-Existing	117.91	54.00	56.28	56.28	56.83	0.017703	5.31	42.98	36.66	1.14
PettyHR	M001	1586.16	20Year-Existing	117.91	53.36	55.32	55.59	56.41	0.039079	7.19	29.94	26.06	1.66
PettyHR	M001	1571.98	20Year-Existing	117.91	52.87	54.67	54.99	55.81	0.045747	7.25	28.25	24.70	1.77
PettyHR	M001	1519.66	20Year-Existing	117.91	51.62	53.43	53.44	53.93	0.023973	5.19	42.00	39.76	1.27
PettyHR	M001	1467.14	20Year-Existing	117.91	50.86	52.42	52.25	52.74	0.017597	4.12	49.46	46.37	1.07
PettyHR	M001	1457.30	20Year-Existing	117.91	50.23	52.00	52.00	52.52	0.023996	5.27	41.11	37.96	1.28
PettyHR	M001	1444.51	20Year-Existing	117.91	48.30	49.40	49.97	51.67	0.198328	10.74	20.14	31.93	3.38
PettyHR	M001	1415.17	20Year-Existing	117.91	48.28	50.06	49.51	50.21	0.006070	2.65	72.28	53.46	0.64
PettyHR	M001	1402.15	20Year-Existing	117.91	47.79	49.59	49.59	50.04	0.023314	5.09	44.59	44.89	1.25
PettyHR	M001	1385.41	20Year-Existing	117.91	43.10	44.87	45.84	48.92	0.128969	11.71	16.77	18.89	2.93
PettyHR	M001	1370.82	20Year-Existing	117.91	41.75	43.80	44.85	47.14	0.090481	11.25	18.25	15.53	2.55
PettyHR	M001	1362.66	20Year-Existing	117.91	39.88	42.34	43.57	46.37	0.080634	11.75	16.98	12.10	2.45
PettyHR	M001	1336.64	20Year-Existing	117.91	39.87	41.67	42.39	43.72	0.077616	9.46	21.89	20.15	2.30
PettyHR	M001	1309.35	20Year-Existing	117.91	38.40	39.93	40.39	41.49	0.075280	8.30	23.45	22.17	2.20
PettyHR	M001	1279.20	20Year-Existing	117.91	35.02	37.51	38.28	39.68	0.047325	9.20	25.26	23.25	1.89
PettyHR	M001	1258.06	20Year-Existing	117.91	34.01	36.85	37.85	38.75	0.033495	8.53	24.81	15.30	1.64
PettyHR	M001	1221.17	20Year-Existing	117.91	33.21	34.88	35.43	36.82	0.091140	9.39	22.96	26.60	2.42
PettyHR	M001	1203.34	20Year-Existing	117.91	32.61	34.03	34.36	35.13	0.070729	7.58	28.51	34.52	2.10
PettyHR	M001	1164.99	20Year-Existing	117.91	31.37	33.03	33.10	33.60	0.027619	5.24	40.07	41.41	1.35
PettyHR	M001	1153.41	20Year-Existing	117.91	30.70	31.87	32.22	33.01	0.091548	7.72	27.42	37.60	2.33
PettyHR	M001	1125.74	20Year-Existing	117.91	29.27	30.70	30.83	31.32	0.038076	5.61	38.05	44.71	1.55
PettyHR	M001	1090.65	20Year-Existing	117.91	28.12	29.43	29.55	29.93	0.039368	5.20	42.36	60.52	1.53
PettyHR	M001	1059.48	20Year-Existing	117.91	26.84	28.25	28.34	28.72	0.037159	5.44	44.39	65.49	1.51
PettyHR	M001	1048.77	20Year-Existing	117.91	26.29	27.87	27.77	28.18	0.017695	4.03	52.92	57.43	1.07
PettyHR	M001	1021.54	20Year-Existing	117.91	25.47	27.13	27.13	27.60	0.025958	5.11	42.68	43.71	1.30
PettyHR	M001	1003.30	20Year-Existing	117.91	23.42	25.07	25.54	26.77	0.068013	8.43	22.86	19.81	2.13
PettyHR	M001	994.73	20Year-Existing	117.91	22.70	25.65	25.65	26.34	0.014255	5.70	40.98	28.05	1.07
PettyHR	M001	961.03	20Year-Existing	117.91	22.07	24.71	24.96	25.71	0.022885	6.63	33.72	25.56	1.33
PettyHR	M001	944.13	20Year-Existing	117.91	21.89	23.69	24.12	25.11	0.048440	7.48	26.10	22.43	1.82
PettyHR	M001	924.94	20Year-Existing	117.91	20.78	22.88	23.25	24.26	0.040409	7.57	25.66	17.71	1.70
PettyHR	M001	905.47	20Year-Existing	117.91	19.73	22.14	22.50	23.56	0.032660	7.53	26.15	16.37	1.57
PettyHR	M001	883.86	20Year-Existing	117.91	17.29	21.09	20.06	21.33	0.002618	2.90	67.44	40.22	0.48
PettyHR	M001	875		Bridge									
PettyHR	M001	859.53	20Year-Existing	117.91	17.25	19.48	19.48	20.20	0.020698	5.51	33.93	29.85	1.21
PettyHR	M001	836.76	20Year-Existing	117.91	12.80	14.88	16.07	19.02	0.090265	11.30	15.84	11.04	2.55
PettyHR	M001	823.70	20Year-Existing	117.91	12.86	14.52	15.22	17.26	0.111131	10.65	18.74	17.94	2.70
PettyHR	M001	811.96	20Year-Existing	117.91	12.85	14.98	15.28	16.08	0.036840	7.35	32.45	32.19	1.64
PettyHR	M001	796.92	20Year-Existing	117.91	12.74	14.23	14.56	15.35	0.070229	7.95	28.48	34.22	2.12
PettyHR	M001	784.11	20Year-Existing	117.91	11.82	13.91	14.10	14.70	0.028416	6.32	37.79	38.53	1.43
PettyHR	M001	769.86	20Year-Existing	117.91	10.94	12.70	13.20	14.11	0.051161	7.56	26.07	23.34	1.86
PettyHR	M001	748.76	20Year-Existing	117.91	8.37	10.93	11.61	13.10	0.039212	8.49	24.72	20.46	1.73
PettyHR	M001	720.33	20Year-Existing	117.91	8.08	9.23	9.78	11.16	0.144783	9.06	21.15	28.65	2.87
PettyHR	M001	707.57	20Year-Existing	117.91	6.85	8.41	8.81	9.71	0.066425	7.88	27.96	33.70	2.07
PettyHR	M001	685.99	20Year-Existing	117.91	5.31	7.07	7.47	8.38	0.058279	7.87	28.59	32.57	1.97
PettyHR	M001	666.04	20Year-Existing	117.91	5.03	6.90	6.98	7.46	0.021637	5.04	43.37	44.80	1.22
PettyHR	M001	652.51	20Year-Existing	117.91	4.66	6.40	6.63	7.09	0.033155	5.91	40.25	49.90	1.48
PettyHR	M001	633.61	20Year-Existing	117.91	4.40	5.71	5.71	6.12	0.024416	4.20	46.57	82.73	1.22
PettyHR	M001	622.83	20Year-Existing	117.91	4.09	5.25	5.25	5.57	0.026619	3.99	53.55	108.68	1.25
PettyHR	M001	577.97	20Year-Existing	117.91	2.48	3.89	3.94	4.22	0.033957	5.15	52.50	112.84	1.44
PettyHR	M001	525.57	20Year-Existing	117.91	0.51	3.01	2.28	3.12	0.003362	2.49	93.83	104.02	0.51
PettyHR	M001	491.94	20Year-Existing	117.91	-0.59	2.52	2.08	2.94	0.005579	3.27	51.75	59.47	0.65
PettyHR	M001	485		Bridge									
PettyHR	M001	478.84	20Year-Existing	117.91	-1.92	2.54		2.65	0.000869	1.56	110.51	141.37	0.27
PettyHR	M001	439.27	20Year-Existing	117.91	-1.89	2.59		2.60	0.000234	0.85	238.96	129.23	0.14
PettyHR	M001	405.68	20Year-Existing	117.91	-2.13	2.58		2.60	0.000210	0.81	235.95	132.12	0.13
PettyHR	M001	367.80	20Year-Existing	117.91	-2.02	2.58		2.59	0.000064	0.45	301.02	139.33	0.08
PettyHR	M001	338.85	20Year-Existing	117.91	-2.89	2.58		2.58	0.000038	0.39	340.24	122.26	0.06
PettyHR	M001	305.38	20Year-Existing	117.91	-2.46	2.57		2.58	0.000054	0.44	307.16	119.94	0.07

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	269.29	20Year-Existing	117.91	-3.52	2.57		2.58	0.000048	0.47	287.97	110.25	0.07
PettyHR	M001	238.18	20Year-Existing	117.91	-3.50	2.56		2.58	0.000069	0.56	248.86	102.52	0.08
PettyHR	M001	201.25	20Year-Existing	117.91	-4.43	2.57		2.57	0.000022	0.35	368.24	120.06	0.05
PettyHR	M001	150.84	20Year-Existing	117.91	-3.34	2.57		2.57	0.000013	0.25	526.28	171.53	0.04
PettyHR	M001	105.74	20Year-Existing	117.91	-2.91	2.57		2.57	0.000013	0.25	508.55	154.19	0.04
PettyHR	M001	91.29	20Year-Existing	117.91	-3.36	2.57		2.57	0.000011	0.23	524.92	143.71	0.03
PettyHR	M001	20.04	20Year-Existing	117.91	-6.19	2.57		2.57	0.000006	0.18	706.92	185.21	0.02
PettyHR	M001	12.04	20Year-Existing	117.91	-6.19	2.55	-3.48	2.57	0.000109	0.67	267.31	185.14	0.08
ForthP	M001	2616.90	20Year-Existing	11.70	123.09	124.55	123.37	124.55	0.000016	0.12	142.58	161.06	0.03
ForthP	M001	2528.45	20Year-Existing	11.70	123.09	124.55		124.55	0.000004	0.06	225.15	200.03	0.02
ForthP	M001	2324.32	20Year-Existing	11.70	123.09	124.55		124.55	0.000013	0.10	164.55	212.38	0.03
ForthP	M001	2187.52	20Year-Existing	11.70	123.09	124.55		124.55	0.000002	0.04	302.70	289.51	0.01
ForthP	M001	1955.13	20Year-Existing	11.70	123.09	124.55		124.55	0.000002	0.04	347.23	313.35	0.01
ForthP	M001	1773.83	20Year-Existing	11.70	123.09	124.55		124.55	0.000001	0.03	424.24	346.76	0.01
ForthP	M001	1572.85	20Year-Existing	11.70	123.09	124.55		124.55	0.000001	0.03	405.30	322.39	0.01
ForthP	M001	1496.60	20Year-Existing	11.70	123.09	124.55		124.55	0.000001	0.04	341.88	280.49	0.01
ForthP	M001	1392.58	20Year-Existing	41.99	122.98	124.53	124.15	124.54	0.000721	0.84	117.45	170.32	0.22
ForthP	M001	1390		Culvert									
ForthP	M001	1381.72	20Year-Existing	41.99	122.95	124.50	124.17	124.52	0.001572	1.14	88.51	151.53	0.30
ForthP	M001	1360.50	20Year-Existing	41.99	122.87	124.29		124.43	0.009715	2.67	34.75	80.81	0.77
ForthP	M001	1311.12	20Year-Existing	41.99	122.52	124.04		124.10	0.004353	1.85	47.86	77.72	0.51
ForthP	M001	1261.17	20Year-Existing	41.99	121.36	123.49	123.49	123.78	0.008499	3.34	27.69	42.23	0.77
ForthP	M001	1211.51	20Year-Existing	41.99	119.83	121.80	122.17	122.97	0.030991	5.95	13.45	21.48	1.43
ForthP	M001	1161.66	20Year-Existing	41.99	117.25	118.45	118.88	120.28	0.108423	7.71	10.27	25.53	2.45
ForthP	M001	1112.05	20Year-Existing	41.99	114.88	116.07	116.23	116.60	0.044389	5.17	17.11	36.12	1.59
ForthP	M001	1062.35	20Year-Existing	41.99	113.16	114.42	114.47	114.75	0.030177	4.19	19.78	36.27	1.28
ForthP	M001	1041.93	20Year-Existing	41.99	112.62	113.99	114.02	114.26	0.022810	3.82	23.15	45.54	1.12
ForthP	M001	1031.90	20Year-Existing	41.99	112.31	113.55	113.67	113.95	0.039246	4.71	19.69	45.61	1.46
ForthP	M001	1011.12	20Year-Existing	41.99	111.62	112.73	112.83	113.11	0.042603	4.69	20.10	49.48	1.52
ForthP	M001	959.76	20Year-Existing	41.99	110.31	111.14	111.19	111.39	0.044289	3.65	22.17	63.09	1.46
ForthP	M001	908.93	20Year-Existing	41.99	109.25	109.97	109.83	110.04	0.012466	1.83	38.76	91.11	0.77
ForthP	M001	856.39	20Year-Existing	41.99	108.38	108.89	108.83	108.99	0.025780	1.83	31.68	93.47	1.00
ForthP	M001	806.25	20Year-Existing	41.99	107.09	108.07		108.15	0.013012	2.32	38.31	92.40	0.81
ForthP	M001	754.78	20Year-Existing	41.99	106.12	107.17	107.17	107.31	0.023793	3.41	31.39	93.15	1.13
ForthP	M001	734.50	20Year-Existing	41.99	105.47	106.83	106.76	106.93	0.009266	2.46	40.66	93.39	0.73
ForthP	M001	724.30	20Year-Existing	41.99	105.28	106.66	106.66	106.81	0.012922	2.96	35.11	91.65	0.87
ForthP	M001	703.65	20Year-Existing	41.99	105.02	106.24	106.19	106.42	0.021403	3.55	26.19	53.98	1.08
ForthP	M001	654.47	20Year-Existing	41.99	103.90	104.83	104.83	105.05	0.033285	3.68	23.33	55.84	1.31
ForthP	M001	605.63	20Year-Existing	41.99	102.27	103.50	103.55	103.77	0.025126	3.78	25.33	63.30	1.19
ForthP	M001	585.13	20Year-Existing	41.99	101.55	102.43	102.56	102.93	0.084165	5.25	18.33	69.24	2.03
ForthP	M001	577.30	20Year-Existing	41.99	101.52	102.26	102.29	102.46	0.045561	3.48	23.67	74.63	1.45
ForthP	M001	557.33	20Year-Existing	41.99	100.67	101.39	101.38	101.53	0.032901	2.78	26.92	82.49	1.22
ForthP	M001	507.84	20Year-Existing	41.99	98.92	99.64	99.64	99.79	0.037876	2.94	26.97	88.00	1.30
ForthP	M001	453.33	20Year-Existing	41.99	96.28	97.10	97.05	97.21	0.020158	2.45	33.45	95.01	0.99
ForthP	M001	402.29	20Year-Existing	41.99	94.96	95.67	95.67	95.85	0.039570	3.23	24.38	67.43	1.35
ForthP	M001	349.18	20Year-Existing	41.99	93.64	94.31	94.14	94.38	0.014154	1.75	37.04	87.21	0.79
ForthP	M001	297.76	20Year-Existing	41.99	92.55	93.52	93.48	93.64	0.019040	2.70	32.75	78.89	0.98
ForthP	M001	246.28	20Year-Existing	41.99	91.71	92.56	92.48	92.65	0.016610	2.22	36.47	92.41	0.90
ForthP	M001	182.03	20Year-Existing	41.99	90.94	92.16	91.83	92.19	0.004393	1.57	60.89	114.23	0.49
ForthP	M001	160.27	20Year-Existing	41.99	90.13	92.16	91.57	92.17	0.000259	0.56	154.46	166.29	0.13
ForthP	M001	150		Culvert									
ForthP	M001	144.74	20Year-Existing	41.99	89.90	91.29	91.29	91.94	0.016065	3.61	11.99	109.34	1.00
ForthP	M001	124.30	20Year-Existing	41.99	89.74	91.02	90.88	91.11	0.010021	2.43	41.13	85.82	0.75
ForthP	M001	61.58	20Year-Existing	41.99	88.75	90.00	90.00	90.21	0.020798	3.44	28.86	65.32	1.08
ForestP	M001	1557.91	20Year-Existing	8.32	78.25	79.74	78.47	79.74	0.000004	0.06	151.69	122.12	0.02
ForestP	M001	1428.05	20Year-Existing	8.32	78.25	79.74		79.74	0.000002	0.04	207.28	177.63	0.01
ForestP	M001	1315.71	20Year-Existing	8.32	78.25	79.74		79.74	0.000001	0.03	291.44	243.47	0.01
ForestP	M001	1228.83	20Year-Existing	8.32	78.25	79.74		79.74	0.000001	0.02	348.53	291.70	0.01
ForestP	M001	1138.84	20Year-Existing	8.32	78.25	79.74		79.74	0.000001	0.02	408.30	343.95	0.01
ForestP	M001	1077.28	20Year-Existing	8.32	78.25	79.74		79.74	0.000001	0.02	455.26	483.62	0.01
ForestP	M001	1019.12	20Year-Existing	8.32	78.25	79.74		79.74	0.000002	0.04	230.98	285.34	0.01
ForestP	M001	958.61	20Year-Existing	10.53	78.15	79.72	79.50	79.74	0.000999	0.77	26.56	70.73	0.23
ForestP	M001	955		Culvert									
ForestP	M001	949.85	20Year-Existing	10.53	77.76	79.62	79.59	79.70	0.006979	1.67	14.04	55.48	0.43
ForestP	M001	913.34	20Year-Existing	10.53	78.16	79.10	79.10	79.28	0.029931	3.18	7.11	19.57	1.13
ForestP	M001	883.23	20Year-Existing	10.53	77.54	78.38	78.40	78.53	0.020172	2.54	9.88	40.97	0.99
ForestP	M001	859.61	20Year-Existing	10.53	76.75	77.49	77.58	77.82	0.046148	3.55	5.24	14.21	1.46
ForestP	M001	831.71	20Year-Existing	10.53	75.74	76.70	76.78	77.06	0.035238	3.59	5.16	11.41	1.30
ForestP	M001	802.91	20Year-Existing	10.53	74.66	75.53	75.66	75.98	0.040289	3.77	4.65	10.81	1.41
ForestP	M001	772.90	20Year-Existing	10.53	73.77	74.59	74.62	74.83	0.032187	3.23	6.22	16.11	1.23
ForestP	M001	737.48	20Year-Existing	10.53	72.77	73.51	73.48	73.64	0.021607	2.47	8.14	22.15	1.00
ForestP	M001	688.06	20Year-Existing	10.53	71.80	72.44	72.40	72.52	0.023936	2.21	9.74	33.88	0.98
ForestP	M001	651.32	20Year-Existing	10.53	70.81	71.45	71.45	71.57	0.027443	2.57	8.88	32.35	1.12
ForestP	M001	600.44	20Year-Existing	10.53	69.80	70.37		70.42	0.018503	1.89	13.86	77.60	0.89
ForestP	M001	578.60	20Year-Existing	10.53	69.31	69.93	69.93	69.99	0.020483	2.09	14.72	89.31	0.95
ForestP	M001	528.92	20Year-Existing	10.53	68.58	69.66	69.27	69.66	0.000916	0.68	40.61	102.34	0.22
ForestP	M001	478.55	20Year-Existing	10.53	68.21	69.65		69.65	0.000088	0.26	90.62	131.20	0.07
ForestP	M001	430.82	20Year-Existing	10.53	67.77	69.65		69.65	0.000031	0.19	133.43	158.10	0.05
ForestP	M001	378.18	20Year-Existing	10.53	67.48	69.65		69.65	0.000005	0.08	306.73	309.47	0.02
ForestP	M001	328.07	20Year-Existing	10.53	67.34	69.65		69.65	0.000002	0.06	422.87	367.61	0.01
ForestP	M001	277.95	20Year-Existing	10.53	67.07	69.65		69.65	0.000001	0.05	513.00	432.15	0.01
ForestP	M001	195.51	20Year-Existing	10.53	66.23	69.65		69.65	0.000000	0.03	912.67	603.91	0.00
ForestP	M001	158.37	20Year-Existing	10.53	66.23	69.65		69.65	0.000000	0.01	1641.39	702.42	0.00
ForestP	M001	89.11	20Year-Existing	10.53	66.23	69.65		69.65	0.000000	0.01	1818.14	772.55	0.00
DoylesR	TR019	260.51	20Year-Existing	0.39	124.74	125.13	124.94	125.13	0.000203	0.15	5.29	39.94	0.09

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR019	199.72	20Year-Existing	0.39	124.55	125.13		125.13	0.000002	0.02	39.53	140.82	0.01
DoylesR	TR019	150.00	20Year-Existing	0.39	124.37	125.13		125.13	0.000002	0.02	43.03	161.42	0.01
DoylesR	TR019	100.00	20Year-Existing	0.39	124.16	125.13		125.13	0.000002	0.03	39.24	211.42	0.01
DoylesR	TR019	50.00	20Year-Existing	0.39	124.18	125.13		125.13	0.000001	0.02	67.00	251.69	0.01
DoylesR	TR018	302.01	20Year-Existing	1.43	127.90	128.50	128.06	128.50	0.000069	0.13	17.21	44.88	0.06
DoylesR	TR018	270.53	20Year-Existing	1.43	126.19	128.50	126.88	128.50	0.000000	0.01	260.48	244.89	0.00
DoylesR	TR018	260		Culvert									
DoylesR	TR018	257.62	20Year-Existing	1.43	126.19	128.50	126.91	128.50	0.000000	0.01	265.81	215.44	0.00
DoylesR	TR018	244.68	20Year-Existing	1.43	125.64	128.50	126.62	128.50	0.000000	0.01	304.06	215.07	0.00
DoylesR	TR018	200		Culvert									
DoylesR	TR018	169.24	20Year-Existing	1.43	125.40	126.35	126.18	126.58	0.012506	2.48	0.71	78.37	0.83
DoylesR	TR018	131.43	20Year-Existing	1.43	125.24	125.44	125.44	125.48	0.060505	1.27	2.09	42.67	1.27
DoylesR	TR018	59.79	20Year-Existing	1.43	124.57	125.18	124.89	125.18	0.000214	0.21	18.77	133.36	0.10
DoylesR	TR017	4043.45	20Year-Existing	7.93	124.05	125.10		125.12	0.001508	0.94	23.51	93.88	0.30
DoylesR	TR017	3983.69	20Year-Existing	7.93	124.04	124.99		125.01	0.002393	0.99	20.27	96.78	0.36
DoylesR	TR017	3923.93	20Year-Existing	7.93	124.03	124.62	124.62	124.71	0.022066	1.81	8.45	43.93	0.95
DoylesR	TR017	3889.37	20Year-Existing	7.93	123.60	123.83	123.64	123.84	0.005698	0.35	16.82	69.59	0.38
DoylesR	TR017	3781.64	20Year-Existing	7.93	122.55	123.54		123.57	0.003347	1.22	17.54	65.44	0.42
DoylesR	TR017	3768.91	20Year-Existing	7.93	122.35	123.22	123.22	123.46	0.016358	2.34	4.42	10.37	0.88
DoylesR	TR017	3745.98	20Year-Existing	7.93	121.86	122.44	122.49	122.62	0.050912	2.59	5.59	34.90	1.40
DoylesR	TR017	3713.18	20Year-Existing	7.93	120.99	121.59	121.61	121.80	0.024515	2.21	4.44	13.79	1.04
DoylesR	TR017	3692.45	20Year-Existing	7.93	120.34	121.03	121.03	121.26	0.026159	2.42	4.55	14.96	1.09
DoylesR	TR017	3679.05	20Year-Existing	7.93	119.97	120.79	120.82	120.99	0.015150	2.25	5.63	25.12	0.87
DoylesR	TR017	3656.84	20Year-Existing	7.93	117.59	118.07	118.43	119.93	0.322589	6.17	1.42	5.92	3.53
DoylesR	TR017	3603.67	20Year-Existing	7.93	116.29	117.04	117.04	117.17	0.015654	2.13	6.73	25.71	0.87
DoylesR	TR017	3583.40	20Year-Existing	7.93	115.96	116.62	116.66	116.78	0.026406	2.42	6.32	28.75	1.09
DoylesR	TR017	3571.14	20Year-Existing	7.93	115.76	116.32	116.33	116.43	0.026218	2.26	7.20	34.89	1.07
DoylesR	TR017	3545.42	20Year-Existing	7.93	115.22	115.85	115.81	115.98	0.020609	2.03	6.49	24.10	0.94
DoylesR	TR017	3483.93	20Year-Existing	7.93	114.35	114.95	114.92	114.99	0.012966	1.63	12.81	70.96	0.75
DoylesR	TR017	3432.55	20Year-Existing	7.93	113.79	114.56	114.48	114.60	0.007233	1.45	14.51	66.57	0.58
DoylesR	TR017	3345.48	20Year-Existing	7.93	113.03	113.56	113.56	113.65	0.032553	2.13	7.59	42.64	1.14
DoylesR	TR017	3300.07	20Year-Existing	7.93	112.42	113.02	112.87	113.03	0.003587	0.78	20.12	78.59	0.39
DoylesR	TR016	918.87	20Year-Existing	2.86	127.08	128.80	127.25	128.80	0.000000	0.01	402.80	361.07	0.00
DoylesR	TR016	898.71	20Year-Existing	2.86	126.90	128.80	127.31	128.80	0.000001	0.03	195.24	225.22	0.01
DoylesR	TR016	890		Culvert									
DoylesR	TR016	882.28	20Year-Existing	2.86	126.88	128.73		128.73	0.000005	0.07	105.13	158.23	0.02
DoylesR	TR016	877.71	20Year-Existing	2.86	126.24	128.73	126.95	128.73	0.000003	0.07	124.19	189.37	0.02
DoylesR	TR016	850		Culvert									
DoylesR	TR016	848.13	20Year-Existing	2.86	126.37	127.18	127.18	127.44	0.019508	2.50	1.56	3.41	0.92
DoylesR	TR016	818.98	20Year-Existing	2.86	126.36	126.86	126.79	126.87	0.004132	0.78	8.08	53.86	0.41
DoylesR	TR016	768.99	20Year-Existing	2.86	126.30	126.66		126.67	0.004521	0.66	8.25	51.42	0.41
DoylesR	TR016	714.09	20Year-Existing	2.86	125.96	126.39	126.30	126.40	0.004945	0.75	7.01	37.85	0.44
DoylesR	TR016	675.95	20Year-Existing	2.86	125.74	126.08	126.08	126.13	0.023013	1.32	4.09	41.24	0.89
DoylesR	TR016	659.39	20Year-Existing	2.86	125.10	125.57	125.49	125.61	0.010127	1.23	4.48	26.60	0.65
DoylesR	TR016	632.80	20Year-Existing	2.86	124.78	125.26	125.26	125.32	0.015267	1.42	3.61	27.14	0.78
DoylesR	TR016	610.50	20Year-Existing	2.86	123.78	124.29	124.40	124.65	0.054711	2.95	1.30	5.41	1.50
DoylesR	TR016	549.37	20Year-Existing	2.86	122.30	122.97	122.98	123.07	0.014662	1.72	3.22	18.92	0.78
DoylesR	TR016	494.31	20Year-Existing	2.86	120.93	121.56	121.63	121.84	0.035883	2.37	1.30	4.27	1.19
DoylesR	TR016	473.82	20Year-Existing	2.86	120.18	120.71	120.80	121.01	0.045457	2.52	1.30	5.09	1.34
DoylesR	TR016	459.95	20Year-Existing	2.86	119.62	120.12	120.19	120.39	0.043943	2.36	1.35	5.30	1.31
DoylesR	TR016	439.99	20Year-Existing	2.86	119.05	119.72	119.72	119.91	0.021924	1.95	1.59	4.75	0.95
DoylesR	TR016	384.99	20Year-Existing	2.86	117.07	117.54	117.65	117.89	0.070825	2.62	1.12	4.79	1.61
DoylesR	TR016	329.99	20Year-Existing	2.86	115.67	116.18	116.18	116.25	0.017250	1.41	3.28	23.64	0.81
DoylesR	TR016	274.18	20Year-Existing	2.86	114.93	115.34	115.33	115.38	0.012468	1.08	5.32	48.75	0.67
DoylesR	TR016	218.88	20Year-Existing	2.86	114.35	114.84	114.83	114.88	0.011419	1.10	5.60	57.66	0.65
DoylesR	TR016	165.43	20Year-Existing	2.86	113.83	114.40	114.38	114.44	0.008426	1.13	5.04	36.88	0.58
DoylesR	TR016	86.48	20Year-Existing	2.86	112.80	113.25	113.25	113.35	0.026715	1.57	2.43	13.46	0.98
DoylesR	TR016	40.19	20Year-Existing	2.86	112.21	112.84	112.69	112.85	0.001857	0.59	11.21	62.96	0.28
DoylesR	TR015	3230.71	20Year-Existing	17.29	111.60	112.55		112.60	0.008295	1.86	23.55	78.16	0.66
DoylesR	TR015	3185.04	20Year-Existing	17.29	111.22	112.21		112.29	0.010856	2.04	18.84	52.25	0.74
DoylesR	TR015	3133.58	20Year-Existing	17.29	110.57	111.41	111.41	111.54	0.021800	2.68	14.74	47.63	1.03
DoylesR	TR015	3079.97	20Year-Existing	17.29	108.17	109.19	109.46	109.88	0.042857	4.21	6.01	12.15	1.49
DoylesR	TR015	3026.43	20Year-Existing	17.29	107.30	109.13	108.33	109.16	0.000783	0.91	32.22	34.18	0.23
DoylesR	TR015	3001.28	20Year-Existing	17.29	106.17	109.14	108.42	109.15	0.000120	0.46	89.03	78.71	0.09
DoylesR	TR015	3000		Culvert									
DoylesR	TR015	2988.77	20Year-Existing	17.29	106.03	108.03	108.03	108.25	0.005468	2.64	17.86	49.78	0.61
DoylesR	TR015	2963.30	20Year-Existing	17.29	105.69	106.57	106.89	107.78	0.097803	5.98	5.59	18.10	2.18
DoylesR	TR015	2915.60	20Year-Existing	17.29	104.53	105.73	105.73	105.97	0.016452	2.93	11.73	25.32	0.95
DoylesR	TR015	2867.64	20Year-Existing	17.29	103.37	104.55	104.67	104.97	0.032252	4.03	9.23	21.32	1.29
DoylesR	TR015	2841.04	20Year-Existing	17.29	102.40	103.01	103.14	103.43	0.107571	4.26	7.69	28.85	2.12
DoylesR	TR015	2804.73	20Year-Existing	17.29	101.67	102.54	102.46	102.65	0.016976	2.42	15.05	37.15	0.92
DoylesR	TR015	2742.98	20Year-Existing	17.29	100.87	101.73	101.66	101.79	0.012644	2.14	21.92	71.55	0.80
DoylesR	TR015	2687.77	20Year-Existing	17.29	100.07	100.70	100.70	100.81	0.030296	2.55	15.80	67.01	1.16
DoylesR	TR015	2638.14	20Year-Existing	17.29	98.95	99.81	99.81	99.94	0.022715	2.88	15.87	55.28	1.07
DoylesR	TR015	2593.26	20Year-Existing	17.29	97.75	98.91	98.79	99.01	0.010381	2.34	17.75	44.68	0.75
DoylesR	TR015	2557.12	20Year-Existing	17.29	97.53	98.66		98.72	0.007515	2.03	21.90	57.11	0.65
DoylesR	TR015	2522.34	20Year-Existing	17.29	97.26	98.18	98.18	98.35	0.020424	2.61	13.17	40.07	1.00
DoylesR	TR015	2483.94	20Year-Existing	17.29	96.95	97.72	97.64	97.78	0.014223	1.90	19.19	60.79	0.80
DoylesR	TR015	2438.99	20Year-Existing	17.29	96.35	97.48		97.51	0.003691	1.38	31.53	94.72	0.45
DoylesR	TR015	2387.12	20Year-Existing	17.29	96.39	97.41		97.42	0.001207	0.70	54.74	130.44	0.25
DoylesR	TR015	2352.45	20Year-Existing	17.29	96.40	97.38		97.39	0.000612	0.50	62.12	104.69	0.18
DoylesR	TR015	2283.37	20Year-Existing	17.29	95.75	97.23		97.30	0.003442	1.65	18.48	23.54	0.46
DoylesR	TR015	2231.50	20Year-Existing	17.29	95.54	96.75	96.70	96.98	0.013660	2.76	10.96	21.95	0.87
DoylesR	TR015	2160.12	20Year-Existing	17.29	94.93	96.04		96.16	0.008808	2.06	13.64	22.74	0.69
DoylesR	TR015	2119.11	20Year-Existing	17.29	94.44	95.52	95.52	95.72	0.016473	2.76	12.17	27.90	0.93

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR015	2075.88	20Year-Existing	17.29	93.86	94.87	94.89	95.03	0.014447	2.47	14.57	47.70	0.87
DoylesR	TR015	2024.01	20Year-Existing	17.29	93.19	94.38	94.27	94.44	0.006261	1.80	21.21	56.82	0.58
DoylesR	TR015	1972.14	20Year-Existing	17.29	92.71	93.66	93.66	93.88	0.027781	3.29	12.40	58.52	1.18
DoylesR	TR015	1921.75	20Year-Existing	17.29	92.35	93.49	93.10	93.51	0.002351	1.12	36.35	88.56	0.36
DoylesR	TR015	1851.62	20Year-Existing	17.29	91.24	93.05	93.05	93.29	0.007752	2.67	13.23	29.50	0.68
DoylesR	TR014	2057.49	20Year-Existing	10.40	125.48	126.58	126.40	126.61	0.002935	1.11	21.91	67.09	0.39
DoylesR	TR014	2037.89	20Year-Existing	10.40	125.57	126.57		126.58	0.000649	0.54	44.75	109.11	0.19
DoylesR	TR014	1988.88	20Year-Existing	10.40	124.71	126.47	125.63	126.53	0.001326	1.13	15.56	49.14	0.29
DoylesR	TR014	1980		Culvert									
DoylesR	TR014	1975.46	20Year-Existing	10.40	124.46	126.43		126.49	0.001056	1.11	12.77	28.96	0.27
DoylesR	TR014	1936.56	20Year-Existing	10.40	124.86	126.23	125.92	126.40	0.005890	2.10	9.09	23.40	0.60
DoylesR	TR014	1904.43	20Year-Existing	10.40	124.72	125.82	125.82	126.11	0.013663	2.70	6.03	11.63	0.88
DoylesR	TR014	1867.03	20Year-Existing	10.40	124.61	125.67	125.36	125.74	0.004317	1.49	12.53	25.15	0.49
DoylesR	TR014	1801.50	20Year-Existing	10.40	124.00	124.98	124.98	125.23	0.017124	2.77	6.60	14.72	0.96
DoylesR	TR014	1765.57	20Year-Existing	10.40	123.20	123.77	123.90	124.19	0.055877	3.30	4.71	18.74	1.57
DoylesR	TR014	1703.29	20Year-Existing	10.40	121.82	122.71	122.60	122.94	0.014832	2.47	7.03	21.22	0.89
DoylesR	TR014	1657.91	20Year-Existing	10.40	121.27	122.07	122.07	122.26	0.014429	2.15	7.20	20.87	0.85
DoylesR	TR014	1607.98	20Year-Existing	10.40	120.59	121.44	121.44	121.56	0.012945	2.13	11.45	47.11	0.81
DoylesR	TR014	1544.18	20Year-Existing	10.40	119.81	120.70	120.70	120.81	0.010852	2.06	11.76	42.99	0.75
DoylesR	TR014	1492.70	20Year-Existing	10.40	119.06	119.70	119.76	119.92	0.030663	2.71	8.12	40.44	1.19
DoylesR	TR014	1441.23	20Year-Existing	10.40	117.59	118.71	118.73	118.93	0.013092	2.73	8.00	20.11	0.86
DoylesR	TR014	1420.98	20Year-Existing	10.40	116.98	118.25	117.75	118.31	0.002618	1.35	12.03	13.82	0.40
DoylesR	TR014	1411.86	20Year-Existing	10.40	117.03	118.15	117.75	118.27	0.005017	1.80	7.51	12.30	0.55
DoylesR	TR014	1400		Bridge									
DoylesR	TR014	1384.41	20Year-Existing	11.96	116.71	117.57	117.51	117.85	0.015721	2.53	5.35	9.94	0.91
DoylesR	TR014	1374.60	20Year-Existing	11.96	116.54	117.53		117.68	0.007910	1.92	8.00	12.00	0.66
DoylesR	TR014	1353.25	20Year-Existing	11.96	116.21	117.13	117.13	117.42	0.018018	2.71	5.79	10.15	0.98
DoylesR	TR014	1309.14	20Year-Existing	11.96	115.50	116.50	116.33	116.70	0.008864	1.99	6.38	8.96	0.69
DoylesR	TR014	1296.25	20Year-Existing	11.96	115.12	116.15	116.15	116.50	0.018169	2.99	5.47	8.35	1.00
DoylesR	TR014	1239.25	20Year-Existing	11.96	113.43	114.12	114.32	114.73	0.056144	3.89	4.25	11.90	1.64
DoylesR	TR014	1203.69	20Year-Existing	11.96	112.84	113.72	113.58	113.80	0.008929	1.92	11.82	26.46	0.68
DoylesR	TR014	1182.25	20Year-Existing	11.96	112.53	113.33	113.33	113.52	0.018753	2.52	8.32	21.02	0.97
DoylesR	TR014	1125.25	20Year-Existing	11.96	111.30	112.55	112.28	112.60	0.004041	1.60	14.89	24.26	0.48
DoylesR	TR014	1104.23	20Year-Existing	11.96	111.16	112.17	112.17	112.43	0.018396	2.80	7.42	17.12	0.98
DoylesR	TR014	1094.88	20Year-Existing	11.96	110.55	111.38	111.60	112.09	0.061445	4.72	4.33	10.71	1.76
DoylesR	TR014	1075.36	20Year-Existing	11.96	110.17	111.19	111.26	111.51	0.025177	3.46	7.44	19.08	1.16
DoylesR	TR014	1027.18	20Year-Existing	11.96	109.15	110.05	110.08	110.32	0.023875	2.97	7.27	17.62	1.10
DoylesR	TR014	980.74	20Year-Existing	11.96	107.89	109.00	108.64	109.06	0.004198	1.55	14.33	21.88	0.49
DoylesR	TR014	954.47	20Year-Existing	11.96	107.68	108.64	108.64	108.85	0.016901	2.65	8.72	22.66	0.94
DoylesR	TR014	934.37	20Year-Existing	11.96	106.99	107.92	108.08	108.33	0.032093	3.45	6.20	16.78	1.27
DoylesR	TR014	907.24	20Year-Existing	11.96	106.52	107.47	107.40	107.57	0.010776	2.16	12.23	28.16	0.75
DoylesR	TR014	868.80	20Year-Existing	11.96	105.88	106.86	106.85	107.07	0.014868	2.52	8.46	20.01	0.89
DoylesR	TR014	864.98	20Year-Existing	11.96	105.70	106.74	106.74	107.00	0.015264	2.50	6.63	14.72	0.89
DoylesR	TR014	844.06	20Year-Existing	11.96	105.10	106.34	106.17	106.50	0.008006	2.20	8.79	13.77	0.68
DoylesR	TR014	836.52	20Year-Existing	11.96	104.97	106.09	106.09	106.40	0.018108	2.88	6.27	11.94	0.97
DoylesR	TR014	816.09	20Year-Existing	11.96	104.78	105.67	105.57	105.77	0.009733	1.89	10.97	27.70	0.71
DoylesR	TR014	811.48	20Year-Existing	11.96	104.64	105.66		105.73	0.005729	1.65	13.11	24.02	0.56
DoylesR	TR014	783.28	20Year-Existing	11.96	103.98	105.13	105.13	105.44	0.017847	3.16	6.36	10.33	1.00
DoylesR	TR014	751.27	20Year-Existing	11.96	103.31	104.35	104.43	104.77	0.024507	2.96	4.71	9.01	1.11
DoylesR	TR014	717.94	20Year-Existing	11.96	102.63	103.98	103.98	104.24	0.013945	3.06	7.68	13.74	0.89
DoylesR	TR014	676.43	20Year-Existing	11.96	102.18	103.29	103.31	103.59	0.016988	2.79	6.91	16.59	0.95
DoylesR	TR014	601.44	20Year-Existing	11.96	101.39	102.35	102.25	102.46	0.010029	2.02	10.12	22.29	0.72
DoylesR	TR014	540.83	20Year-Existing	11.96	100.49	101.69	101.51	101.89	0.008779	2.23	8.37	19.46	0.71
DoylesR	TR014	519.25	20Year-Existing	11.96	99.69	101.79	101.49	101.80	0.000638	0.80	35.71	65.35	0.18
DoylesR	TR014	510		Culvert									
DoylesR	TR014	505.00	20Year-Existing	11.96	99.62	101.55	101.55	101.58	0.001752	1.25	25.58	61.32	0.29
DoylesR	TR014	484.27	20Year-Existing	11.96	99.79	100.65	100.85	101.30	0.069637	4.38	4.34	13.23	1.77
DoylesR	TR014	426.15	20Year-Existing	11.96	98.71	99.89	99.89	100.13	0.012912	2.38	7.29	22.42	0.82
DoylesR	TR014	368.05	20Year-Existing	11.96	97.30	98.45	98.62	98.96	0.035921	3.67	5.28	15.86	1.31
DoylesR	TR014	343.01	20Year-Existing	11.96	96.78	98.30	97.76	98.44	0.003326	1.67	7.97	73.46	0.45
DoylesR	TR014	335		Bridge									
DoylesR	TR014	331.91	20Year-Existing	11.96	96.63	97.90	97.90	98.29	0.015327	2.93	4.81	7.02	0.92
DoylesR	TR014	312.09	20Year-Existing	11.96	96.26	97.51	97.62	97.87	0.028323	3.06	7.17	31.38	1.13
DoylesR	TR014	227.09	20Year-Existing	11.96	94.66	96.47	96.14	96.52	0.002791	1.47	17.42	28.72	0.38
DoylesR	TR014	205.76	20Year-Existing	11.96	94.51	96.16	96.16	96.40	0.010125	2.57	8.53	18.86	0.72
DoylesR	TR014	198.96	20Year-Existing	11.96	94.45	95.17	95.46	96.16	0.106921	4.47	2.96	10.19	2.14
DoylesR	TR014	181.77	20Year-Existing	11.96	94.01	95.21	95.21	95.40	0.013002	2.47	9.26	23.51	0.82
DoylesR	TR014	121.12	20Year-Existing	11.96	92.99	94.17	94.25	94.44	0.017912	2.84	10.30	59.19	0.96
DoylesR	TR014	34.73	20Year-Existing	11.96	91.60	92.54	92.57	92.86	0.020988	2.73	5.69	11.12	1.03
DoylesR	TR012	1780.65	20Year-Existing	29.12	90.30	92.34	91.70	92.42	0.001902	1.45	33.88	62.20	0.36
DoylesR	TR012	1753.67	20Year-Existing	29.12	89.56	92.36	91.22	92.39	0.000382	0.90	72.62	91.20	0.17
DoylesR	TR012	1745		Bridge									
DoylesR	TR012	1729.43	20Year-Existing	29.12	89.10	90.91	91.07	91.93	0.021298	4.57	6.75	12.63	1.14
DoylesR	TR012	1709.20	20Year-Existing	29.12	88.93	90.50	90.76	91.29	0.029982	4.77	10.70	20.76	1.32
DoylesR	TR012	1645.76	20Year-Existing	29.12	88.20	89.55	89.45	89.83	0.012411	2.84	14.93	19.74	0.85
DoylesR	TR011	1552.47	20Year-Existing	41.99	86.48	88.79	88.36	89.12	0.005685	2.84	20.50	15.25	0.64
DoylesR	TR011	1530.88	20Year-Existing	41.99	86.19	88.23	88.23	88.90	0.014383	4.17	14.34	11.38	0.99
DoylesR	TR011	1477.56	20Year-Existing	41.99	84.43	85.82	86.29	87.40	0.064659	6.38	9.55	13.51	1.92
DoylesR	TR011	1423.69	20Year-Existing	41.99	83.56	85.50	85.50	86.23	0.015514	4.13	13.50	11.71	1.02
DoylesR	TR011	1370.10	20Year-Existing	41.99	82.66	83.96	84.21	84.84	0.048962	5.45	14.34	30.64	1.68
DoylesR	TR011	1316.51	20Year-Existing	41.99	81.17	83.14	83.17	83.63	0.011186	3.55	18.20	21.43	0.87
DoylesR	TR011	1262.92	20Year-Existing	41.99	79.36	81.01	81.58	82.47	0.044038	5.98	9.93	13.24	1.64
DoylesR	TR011	1209.33	20Year-Existing	41.99	78.14	80.41	80.45	81.10	0.014046	4.16	14.72	14.70	0.97
DoylesR	TR011	1155.74	20Year-Existing	41.99	76.81	78.72	79.09	79.95	0.032639	5.45	10.17	10.07	1.41
DoylesR	TR011	1107.39	20Year-Existing	41.99	76.34	78.00	78.07	78.63	0.017757	3.68	13.33	13.50	1.04

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR011	1057.82	20Year-Existing	41.99	75.16	77.26	77.29	77.89	0.014667	3.86	14.10	12.95	0.96
DoylesR	TR011	971.36	20Year-Existing	41.99	73.33	75.22	74.66	75.49	0.004578	2.31	18.16	19.34	0.56
DoylesR	TR011	960		Bridge									
DoylesR	TR011	949.62	20Year-Existing	41.99	73.08	75.13	74.34	75.34	0.002977	2.04	20.60	17.14	0.46
DoylesR	TR011	929.53	20Year-Existing	41.99	72.74	74.57	74.53	75.13	0.013550	3.54	14.37	12.60	0.93
DoylesR	TR011	872.05	20Year-Existing	41.99	72.26	74.12	74.12	74.36	0.010288	3.06	30.10	60.93	0.80
DoylesR	TR011	816.76	20Year-Existing	41.99	72.00	73.07	72.98	73.15	0.014298	2.40	37.59	96.22	0.84
DoylesR	TR011	760.16	20Year-Existing	41.99	71.25	72.50		72.57	0.009585	2.38	44.06	102.16	0.73
DoylesR	TR011	712.26	20Year-Existing	41.99	70.34	71.82	71.70	71.99	0.012909	3.01	33.55	91.40	0.87
DoylesR	TR011	663.11	20Year-Existing	41.99	70.08	71.45		71.50	0.007240	2.03	54.05	141.35	0.61
DoylesR	TR013	2205.78	20Year-Existing	9.10	95.88	96.70	96.41	96.70	0.001160	0.70	33.92	117.37	0.25
DoylesR	TR013	2147.59	20Year-Existing	9.10	95.87	96.60		96.61	0.002311	0.84	21.92	74.87	0.34
DoylesR	TR013	2097.40	20Year-Existing	9.10	95.86	96.27	96.27	96.33	0.023231	1.72	12.15	88.54	0.96
DoylesR	TR013	2011.99	20Year-Existing	9.10	93.67	94.75	94.60	94.90	0.007431	1.91	6.56	11.84	0.64
DoylesR	TR013	1957.46	20Year-Existing	9.10	93.05	94.08	94.08	94.34	0.015627	2.83	5.41	11.44	0.93
DoylesR	TR013	1909.18	20Year-Existing	9.10	92.33	93.23	93.33	93.48	0.019203	2.69	7.24	43.86	0.99
DoylesR	TR013	1861.01	20Year-Existing	9.10	91.27	92.28	92.39	92.58	0.019007	2.79	6.46	36.36	0.99
DoylesR	TR013	1789.09	20Year-Existing	9.10	90.00	90.55	90.60	90.72	0.035262	2.52	8.34	60.02	1.23
DoylesR	TR013	1733.37	20Year-Existing	9.10	89.53	90.27	90.14	90.29	0.004008	1.01	18.90	80.40	0.43
DoylesR	TR013	1677.65	20Year-Existing	9.10	89.42	89.85		89.89	0.015125	1.40	11.83	62.83	0.78
DoylesR	TR013	1613.85	20Year-Existing	9.10	89.11	89.66		89.66	0.001662	0.56	29.58	97.35	0.27
DoylesR	TR013	1552.30	20Year-Existing	9.10	88.82	89.56		89.57	0.001910	0.78	24.34	69.06	0.31
DoylesR	TR013	1506.96	20Year-Existing	9.10	88.81	89.49		89.50	0.001988	0.76	23.41	65.26	0.31
DoylesR	TR013	1478.17	20Year-Existing	9.10	88.80	89.34		89.38	0.011835	1.44	12.07	46.93	0.71
DoylesR	TR013	1411.61	20Year-Existing	9.10	88.11	89.08		89.11	0.002094	0.94	14.61	32.56	0.33
DoylesR	TR013	1388.58	20Year-Existing	9.10	87.45	89.09	88.80	89.09	0.000151	0.36	60.10	161.69	0.10
DoylesR	TR013	1375		Culvert									
DoylesR	TR013	1373.86	20Year-Existing	9.10	87.32	88.72	88.50	88.82	0.005028	1.91	10.30	33.55	0.53
DoylesR	TR013	1301.72	20Year-Existing	9.10	86.82	87.91	87.91	88.21	0.015208	2.69	4.53	9.41	0.90
DoylesR	TR013	1246.99	20Year-Existing	9.10	85.79	86.69	86.81	87.13	0.026794	3.04	3.46	6.89	1.16
DoylesR	TR013	1192.26	20Year-Existing	9.10	84.79	85.94	85.75	86.09	0.007138	1.93	6.77	11.60	0.63
DoylesR	TR013	1137.53	20Year-Existing	9.10	84.03	85.19	85.18	85.52	0.015952	2.75	4.32	8.40	0.92
DoylesR	TR013	1082.80	20Year-Existing	9.10	83.55	84.47	84.47	84.61	0.016202	2.15	7.21	22.19	0.87
DoylesR	TR013	1064.90	20Year-Existing	9.10	82.57	84.50	83.71	84.53	0.000664	0.78	27.93	117.70	0.20
DoylesR	TR013	1050		Culvert									
DoylesR	TR013	1042.53	20Year-Existing	9.10	82.41	84.32	83.48	84.33	0.000291	0.54	39.26	102.27	0.13
DoylesR	TR013	1022.06	20Year-Existing	9.10	82.71	84.12	83.87	84.29	0.006744	2.20	6.37	9.41	0.63
DoylesR	TR013	969.32	20Year-Existing	9.10	82.40	83.39	83.39	83.71	0.019439	2.98	4.35	7.18	1.02
DoylesR	TR013	915.66	20Year-Existing	9.10	81.80	82.99	82.60	83.01	0.001189	0.86	22.17	43.81	0.26
DoylesR	TR013	867.93	20Year-Existing	9.10	81.40	82.90		82.93	0.001970	1.26	17.46	41.39	0.34
DoylesR	TR013	809.27	20Year-Existing	9.10	81.32	82.63		82.76	0.004613	1.69	7.08	10.47	0.52
DoylesR	TR013	756.07	20Year-Existing	9.10	80.75	81.93	81.93	82.31	0.016381	3.11	4.11	5.97	0.96
DoylesR	TR013	702.82	20Year-Existing	9.10	79.91	81.05	81.07	81.41	0.017671	3.05	4.27	7.24	0.98
DoylesR	TR013	651.60	20Year-Existing	9.10	78.06	78.90	79.21	79.77	0.067469	4.37	2.53	6.07	1.77
DoylesR	TR013	588.74	20Year-Existing	9.10	75.89	76.88	76.93	77.23	0.024300	2.71	3.74	7.97	1.07
DoylesR	TR013	543.29	20Year-Existing	9.10	75.20	75.93	76.03	76.35	0.037103	2.90	3.30	7.74	1.30
DoylesR	TR013	489.08	20Year-Existing	9.10	73.77	74.98	74.98	75.35	0.016491	3.08	4.13	6.02	0.95
DoylesR	TR013	436.90	20Year-Existing	9.10	72.11	73.04	73.35	73.84	0.057892	4.04	2.43	4.93	1.62
DoylesR	TR013	383.70	20Year-Existing	9.10	70.97	72.67	72.00	72.67	0.000174	0.40	60.83	140.14	0.11
DoylesR	TR013	363.75	20Year-Existing	9.10	70.36	71.90	71.90	72.59	0.016336	3.94	3.24	9.00	1.03
DoylesR	TR013	360		Culvert									
DoylesR	TR013	344.87	20Year-Existing	9.10	70.32	71.70	71.70	71.71	0.000977	0.80	24.34	48.31	0.23
DoylesR	TR013	324.16	20Year-Existing	9.10	70.29	70.88	71.00	71.47	0.145477	4.53	4.22	40.09	2.39
DoylesR	TR013	256.30	20Year-Existing	9.10	69.36	70.29	70.29	70.39	0.019693	2.32	9.44	48.68	0.90
DoylesR	TR013	236.50	20Year-Existing	9.10	69.35	70.24	69.98	70.24	0.000741	0.42	39.52	116.29	0.18
DoylesR	TR013	162.98	20Year-Existing	9.10	68.94	70.20		70.20	0.000734	0.54	37.21	127.91	0.19
DoylesR	TR013	133.14	20Year-Existing	9.10	68.76	70.18		70.18	0.000254	0.33	55.54	122.15	0.11
DoylesR	TR013	66.14	20Year-Existing	9.10	68.46	70.16		70.17	0.000273	0.39	46.56	176.55	0.12
DoylesR	M001	484.12	20Year-Existing	51.09	68.08	69.81		69.93	0.010400	2.56	43.11	97.78	0.74
DoylesR	M001	429.44	20Year-Existing	51.09	67.72	69.72		69.74	0.001638	1.16	91.56	137.50	0.30
DoylesR	M001	388.03	20Year-Existing	51.09	67.53	69.67		69.68	0.001051	0.99	119.88	205.97	0.24
DoylesR	M001	344.78	20Year-Existing	51.09	67.39	69.66		69.66	0.000266	0.53	216.65	268.44	0.13
DoylesR	M001	215.64	20Year-Existing	51.09	67.21	69.65		69.65	0.000036	0.21	451.29	389.01	0.05
DoylesR	M001	77.13	20Year-Existing	51.09	66.62	69.65		69.65	0.000010	0.14	777.00	566.47	0.03
CochranePB	M002	8105.53	20Year-Existing	14.43	140.65	142.35	141.36	142.35	0.000112	0.36	89.32	120.30	0.10
CochranePB	M002	8065.47	20Year-Existing	14.43	140.64	142.33		142.34	0.000463	0.67	48.12	82.22	0.19
CochranePB	M002	8050.98	20Year-Existing	14.43	140.00	142.30		142.33	0.000204	0.92	37.78	74.08	0.24
CochranePB	M002	8024.09	20Year-Existing	14.43	140.62	142.31		142.32	0.000569	0.72	49.30	107.34	0.21
CochranePB	M002	8013.06	20Year-Existing	14.43	140.42	142.30		142.31	0.000395	0.67	53.83	106.28	0.18
CochranePB	M002	8004.70	20Year-Existing	14.43	140.25	142.30	141.80	142.31	0.000202	0.62	70.33	109.32	0.14
CochranePB	M002	8000		Culvert									
CochranePB	M002	7995.14	20Year-Existing	14.43	140.37	142.30	141.55	142.30	0.000163	0.54	63.02	81.95	0.13
CochranePB	M002	7964.49	20Year-Existing	14.43	140.14	141.86	141.86	142.25	0.011492	3.36	7.37	10.99	0.91
CochranePB	M002	7901.64	20Year-Existing	14.43	139.30	140.74	140.92	141.25	0.022703	3.47	6.99	27.65	1.19
CochranePB	M002	7847.08	20Year-Existing	14.43	138.68	139.81	139.69	139.88	0.007834	1.75	17.15	50.91	0.69
CochranePB	M002	7812.33	20Year-Existing	14.43	138.52	139.33	139.33	139.45	0.024881	2.29	12.56	54.59	1.18
CochranePB	M002	7738.34	20Year-Existing	14.43	137.94	138.94	138.73	138.95	0.002258	0.87	37.52	129.12	0.38
CochranePB	M002	7695.32	20Year-Existing	14.43	137.67	138.61	138.61	138.75	0.016601	2.14	11.56	41.06	1.01
CochranePB	M002	7609.21	20Year-Existing	14.43	136.29	137.77	137.41	137.79	0.000837	0.81	34.92	78.91	0.26
CochranePB	M002	7515.77	20Year-Existing	14.43	136.28	137.63		137.67	0.002448	1.28	27.64	95.69	0.43
CochranePB	M002	7476.72	20Year-Existing	14.43	136.26	137.61		137.62	0.000657	0.66	40.88	93.12	0.22
CochranePB	M002	7450.86	20Year-Existing	14.43	136.25	137.58		137.60	0.001328	0.89	30.36	83.34	0.32
CochranePB	M002	7329.89	20Year-Existing	14.43	136.23	137.28		137.33	0.004924	1.39	19.79	75.19	0.57
CochranePB	M002	7253.62	20Year-Existing	14.43	136.05	137.11		137.12	0.002156	0.98	28.96	94.01	0.38
CochranePB	M002	7208.54	20Year-Existing	14.43	135.88	137.00		137.02	0.002728	1.13	27.42	102.08	0.43

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	7108.13	20Year-Existing	14.43	135.54	136.53		136.60	0.010111	2.00	17.98	75.75	0.79
CochranePB	M002	7041.67	20Year-Existing	14.43	134.91	136.08		136.16	0.005702	1.58	17.27	75.88	0.63
CochranePB	M002	6985.71	20Year-Existing	14.43	134.29	135.67	135.67	135.82	0.006699	2.18	14.44	45.52	0.71
CochranePB	M002	6955.25	20Year-Existing	14.43	133.48	134.65	134.87	135.35	0.040354	3.80	4.42	11.15	1.59
CochranePB	M002	6863.52	20Year-Existing	14.43	131.82	132.82	132.88	133.05	0.024917	2.93	10.16	37.35	1.24
CochranePB	M002	6840.09	20Year-Existing	14.43	131.19	132.16	132.21	132.41	0.029931	2.88	9.21	37.13	1.34
CochranePB	M002	6808.25	20Year-Existing	14.43	130.51	131.47	131.47	131.61	0.020330	2.36	11.84	43.55	1.09
CochranePB	M002	6767.75	20Year-Existing	14.43	129.31	130.29	130.39	130.58	0.030522	2.94	8.96	42.30	1.37
CochranePB	M002	6727.78	20Year-Existing	14.43	128.36	129.50	129.53	129.69	0.016136	2.48	10.53	35.46	1.01
CochranePB	M002	6691.71	20Year-Existing	14.43	127.96	129.05	128.99	129.11	0.006876	1.61	18.55	71.70	0.67
CochranePB	M002	6651.54	20Year-Existing	14.43	127.68	128.66	128.62	128.77	0.011366	1.66	11.31	37.94	0.83
CochranePB	M002	6630.83	20Year-Existing	14.43	127.19	128.42	128.42	128.57	0.008703	2.02	12.65	52.55	0.78
CochranePB	M002	6534.50	20Year-Existing	14.43	126.30	127.29	127.33	127.45	0.016748	2.23	11.88	56.13	1.02
CochranePB	M002	6507.97	20Year-Existing	14.43	125.65	126.57	126.63	126.78	0.035948	2.81	10.08	55.30	1.41
CochranePB	M002	6480.50	20Year-Existing	14.43	124.97	125.92	125.94	126.06	0.021156	2.40	12.24	55.28	1.12
CochranePB	M002	6433.33	20Year-Existing	14.43	124.09	125.05	125.09	125.24	0.018952	2.14	9.56	36.36	1.07
CochranePB	M002	6400.96	20Year-Existing	14.43	123.40	124.59	124.41	124.64	0.004701	1.39	17.90	48.32	0.55
CochranePB	M002	6364.18	20Year-Existing	14.43	123.28	124.59		124.60	0.000280	0.41	50.35	118.68	0.15
CochranePB	M002	6314.31	20Year-Existing	14.43	123.27	124.53		124.56	0.001978	1.02	23.08	63.07	0.38
CochranePB	M002	6286.25	20Year-Existing	14.43	123.26	124.45		124.50	0.002893	1.17	20.35	65.39	0.45
CochranePB	M002	6202.53	20Year-Existing	14.43	122.81	124.04	123.97	124.17	0.007212	1.91	12.51	35.42	0.71
CochranePB	M002	6130.00	20Year-Existing	14.43	122.30	123.35	123.35	123.51	0.012226	1.86	9.31	34.32	0.87
CochranePB	M002	6040.82	20Year-Existing	14.43	121.41	122.60	122.48	122.65	0.003011	1.24	23.36	75.63	0.46
CochranePB	M002	6006.95	20Year-Existing	14.43	121.40	122.57		122.58	0.000987	0.60	32.98	99.60	0.26
CochranePB	M002	5976.09	20Year-Existing	14.43	121.39	122.40	122.40	122.50	0.014456	1.90	14.44	71.57	0.93
CochranePB	M002	5910.40	20Year-Existing	14.43	120.29	121.51	121.53	121.69	0.012945	2.41	11.76	44.51	0.93
CochranePB	M002	5863.68	20Year-Existing	14.43	119.62	120.53	120.64	120.86	0.037733	2.83	7.35	37.71	1.47
CochranePB	M002	5811.63	20Year-Existing	14.43	118.87	119.98	119.98	120.10	0.011134	2.09	13.79	52.80	0.85
CochranePB	M002	5768.42	20Year-Existing	14.43	117.38	118.32	118.54	119.05	0.083672	3.80	4.02	17.46	2.14
CochranePB	M002	5725.36	20Year-Existing	14.43	116.48	117.62	117.64	117.79	0.012429	2.16	10.98	40.74	0.90
CochranePB	M002	5678.58	20Year-Existing	14.43	115.39	116.45	116.60	116.86	0.030824	2.87	5.83	22.38	1.37
CochranePB	M002	5627.04	20Year-Existing	14.43	114.79	116.19	115.85	116.24	0.002226	1.20	21.52	46.22	0.41
CochranePB	M002	5609.94	20Year-Existing	21.71	114.77	115.99		116.12	0.007498	1.89	17.95	44.78	0.73
CochranePB	M002	5601.00	20Year-Existing	21.71	114.76	115.98		115.99	0.001422	0.83	50.32	111.32	0.31
CochranePB	M002	5568.52	20Year-Existing	21.71	114.75	115.94		115.95	0.001095	0.72	50.14	99.36	0.28
CochranePB	M002	5508.20	20Year-Existing	21.71	114.04	115.63		115.81	0.005009	1.99	13.62	21.90	0.63
CochranePB	M002	5473.67	20Year-Existing	21.71	113.90	115.31	115.31	115.56	0.010805	2.58	13.42	27.72	0.89
CochranePB	M002	5403.83	20Year-Existing	21.71	110.69	111.87	112.35	113.69	0.098067	6.07	3.96	9.24	2.51
CochranePB	M002	5352.19	20Year-Existing	21.71	110.27	111.65	111.65	111.95	0.013896	2.74	11.13	23.14	1.00
CochranePB	M002	5309.83	20Year-Existing	21.71	109.64	111.08	111.15	111.37	0.013573	2.80	14.44	49.47	0.99
CochranePB	M002	5266.90	20Year-Existing	21.71	109.30	110.63	110.66	110.81	0.012207	2.53	20.19	83.25	0.93
CochranePB	M002	5213.45	20Year-Existing	21.71	108.81	110.42	109.89	110.43	0.000898	0.83	48.34	83.65	0.26
CochranePB	M002	5162.38	20Year-Existing	41.21	108.18	109.99	109.99	110.28	0.009997	3.28	28.33	55.01	0.91
CochranePB	M002	5109.83	20Year-Existing	41.21	108.02	109.50	109.19	109.54	0.003667	1.46	53.40	102.50	0.51
CochranePB	M002	5059.83	20Year-Existing	41.21	107.54	109.17		109.33	0.007103	2.40	37.93	87.10	0.75
CochranePB	M002	5013.20	20Year-Existing	41.21	107.21	108.87	108.87	109.03	0.008896	2.44	37.31	100.60	0.81
CochranePB	M002	4977.38	20Year-Existing	41.21	107.07	108.76	108.46	108.79	0.001664	1.20	75.51	149.80	0.37
CochranePB	M002	4908.49	20Year-Existing	41.21	106.95	108.73		108.74	0.000510	0.74	124.47	200.27	0.21
CochranePB	M002	4883.44	20Year-Existing	41.21	106.94	108.72		108.73	0.000313	0.56	145.35	217.98	0.16
CochranePB	M002	4816.97	20Year-Existing	41.21	106.93	108.71		108.72	0.000282	0.54	150.29	230.62	0.16
CochranePB	M002	4757.22	20Year-Existing	41.21	106.78	108.70		108.71	0.000198	0.49	174.69	261.80	0.13
CochranePB	M002	4718.65	20Year-Existing	41.21	106.77	108.69		108.70	0.000272	0.58	163.43	326.15	0.16
CochranePB	M002	4674.22	20Year-Existing	41.21	106.76	108.67		108.68	0.000637	0.89	115.32	266.60	0.24
CochranePB	M002	4633.22	20Year-Existing	41.21	106.75	108.65		108.67	0.000345	0.64	102.05	180.75	0.18
CochranePB	M002	4561.03	20Year-Existing	41.21	106.74	108.58		108.62	0.001135	1.13	61.80	100.28	0.32
CochranePB	M002	4506.74	20Year-Existing	41.21	106.43	108.23	108.23	108.48	0.007688	2.69	28.25	58.01	0.80
CochranePB	M002	4459.83	20Year-Existing	41.21	105.66	107.30	107.50	107.90	0.019062	3.80	17.13	45.43	1.22
CochranePB	M002	4409.53	20Year-Existing	41.21	104.62	106.29	106.46	106.91	0.020368	3.91	15.50	30.56	1.24
CochranePB	M002	4359.83	20Year-Existing	41.21	103.72	105.49	105.72	106.04	0.014629	3.54	17.04	41.85	1.07
CochranePB	M002	4327.93	20Year-Existing	41.21	103.17	105.02	105.13	105.58	0.014532	3.54	15.83	29.27	1.08
CochranePB	M002	4265.56	20Year-Existing	41.21	102.45	104.32	104.36	104.72	0.011820	3.38	19.22	28.50	0.98
CochranePB	M002	4208.11	20Year-Existing	41.21	101.67	103.35	103.51	103.91	0.016267	3.57	15.99	31.97	1.13
CochranePB	M002	4159.83	20Year-Existing	41.21	101.12	102.22	102.32	102.56	0.051667	3.48	17.34	48.40	1.74
CochranePB	M002	4109.83	20Year-Existing	41.21	98.84	100.52	100.72	101.14	0.017663	3.90	16.93	38.88	1.19
CochranePB	M002	4056.00	20Year-Existing	41.21	97.18	98.84	99.22	99.85	0.030116	4.83	11.25	17.36	1.52
CochranePB	M002	4009.83	20Year-Existing	41.21	96.33	98.20	98.32	98.61	0.017553	3.97	24.19	63.85	1.14
CochranePB	M002	3969.03	20Year-Existing	41.21	95.62	97.48	97.70	98.03	0.012069	3.64	18.11	60.12	1.01
CochranePB	M002	3916.58	20Year-Existing	41.21	94.82	96.95	97.09	97.39	0.011166	3.46	22.85	77.05	0.93
CochranePB	M002	3859.82	20Year-Existing	41.21	94.34	96.24	96.47	96.76	0.011120	3.29	15.94	47.38	0.95
CochranePB	M002	3810.05	20Year-Existing	41.21	93.50	95.39	95.76	96.10	0.015393	3.97	13.76	30.97	1.13
CochranePB	M002	3759.83	20Year-Existing	41.21	93.00	94.67	94.85	95.20	0.016559	3.78	19.50	55.73	1.15
CochranePB	M002	3709.28	20Year-Existing	41.21	92.33	94.13	94.21	94.47	0.011670	3.22	24.01	68.81	0.96
CochranePB	M002	3661.60	20Year-Existing	41.21	92.05	93.83	93.86	94.00	0.006778	2.53	39.39	136.90	0.74
CochranePB	M002	3609.83	20Year-Existing	41.21	91.73	93.46	93.48	93.62	0.007659	2.55	39.55	141.97	0.78
CochranePB	M002	3559.90	20Year-Existing	41.21	90.87	92.86	92.94	93.17	0.008558	3.10	29.15	81.82	0.84
CochranePB	M002	3509.83	20Year-Existing	41.21	90.38	92.44	92.37	92.58	0.004485	2.42	42.27	102.91	0.62
CochranePB	M002	3493.23	20Year-Existing	41.21	90.02	92.08	91.90	92.48	0.006391	3.44	18.82	15.43	0.78
CochranePB	M002	3480		Bridge									
CochranePB	M002	3474.26	20Year-Existing	41.21	89.91	92.13	91.52	92.34	0.002502	2.34	24.50	16.53	0.51
CochranePB	M002	3466.43	20Year-Existing	41.21	90.00	92.04	92.04	92.30	0.003506	2.66	34.06	77.54	0.60
CochranePB	M002	3454.35	20Year-Existing	41.21	89.94	91.90	91.48	92.19	0.003859	2.63	20.21	16.71	0.62
CochranePB	M002	3450		Bridge									
CochranePB	M002	3434.16	20Year-Existing	45.11	90.36	91.67	91.61	92.09	0.009360	3.10	17.35	20.13	0.90
CochranePB	M002	3413.11	20Year-Existing	45.11	90.14	91.63	91.62	91.79	0.007775	2.65	39.57	92.87	0.79
CochranePB	M002	3391.58	20Year-Existing	45.11	90.03	91.54		91.63	0.005137	2.25	48.97	105.45	0.66

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	3371.12	20Year-Existing	45.11	90.02	91.31	91.31	91.49	0.008175	2.55	37.59	94.78	0.82
CochranePB	M002	3309.87	20Year-Existing	45.11	89.28	90.71	90.63	90.81	0.008712	2.63	43.01	108.20	0.81
CochranePB	M002	3272.96	20Year-Existing	45.11	88.73	90.27	90.25	90.45	0.009481	2.74	33.95	82.80	0.85
CochranePB	M002	3219.09	20Year-Existing	45.11	88.30	89.78	89.78	89.94	0.009877	2.69	36.74	107.96	0.87
CochranePB	M002	3175.54	20Year-Existing	45.11	87.36	89.52	89.30	89.65	0.002480	1.93	42.25	72.48	0.47
CochranePB	M002	3165		Bridge									
CochranePB	M002	3157.85	20Year-Existing	45.11	87.50	89.27	89.27	89.49	0.004956	2.48	34.61	83.16	0.65
CochranePB	M002	3135.32	20Year-Existing	45.11	87.85	89.13	89.05	89.19	0.004967	1.77	56.33	154.54	0.61
CochranePB	M002	3106.53	20Year-Existing	45.11	87.94	88.81	88.81	88.94	0.027717	2.69	31.68	119.22	1.26
CochranePB	M002	3088.94	20Year-Existing	45.11	86.84	88.58	88.38	88.69	0.002287	1.69	49.90	142.66	0.45
CochranePB	M002	3080		Bridge									
CochranePB	M002	3075.67	20Year-Existing	45.11	86.74	88.35	88.08	88.42	0.001839	1.45	57.60	133.89	0.40
CochranePB	M002	3056.89	20Year-Existing	45.11	87.66	88.29		88.36	0.013275	1.06	39.49	134.15	0.77
CochranePB	M002	3007.54	20Year-Existing	45.11	87.61	87.97		88.01	0.004235	0.44	53.78	114.75	0.33
CochranePB	M002	2976.31	20Year-Existing	45.11	87.51	87.87		87.91	0.004425	0.53	54.91	128.50	0.40
CochranePB	M002	2941.08	20Year-Existing	45.11	86.98	87.77		87.79	0.002936	0.83	77.70	222.31	0.41
CochranePB	M002	2920.10	20Year-Existing	45.11	86.74	87.75	87.54	87.76	0.000322	0.35	167.83	295.38	0.13
CochranePB	M002	2915		Bridge									
CochranePB	M002	2912.75	20Year-Existing	45.11	86.97	87.75	87.75	87.76	0.000195	0.29	200.70	313.30	0.11
CochranePB	M002	2890.23	20Year-Existing	45.11	86.65	86.85	87.02	87.53	0.363651	3.36	12.30	78.26	3.41
CochranePB	M002	2823.99	20Year-Existing	45.11	86.08	87.11	86.77	87.12	0.001439	0.70	106.01	256.25	0.28
CochranePB	M002	2789.49	20Year-Existing	45.11	86.04	87.09		87.10	0.001172	0.60	109.56	263.13	0.25
CochranePB	M002	2741.30	20Year-Existing	45.11	85.71	87.03		87.04	0.001077	0.81	116.12	271.19	0.28
CochranePB	M002	2663.79	20Year-Existing	45.11	85.58	86.98		87.00	0.001026	0.85	113.20	274.48	0.28
CochranePB	M002	2639.38	20Year-Existing	45.11	85.57	86.95		86.97	0.001257	0.89	103.71	238.75	0.31
CochranePB	M002	2616.24	20Year-Existing	45.11	85.30	86.94		86.95	0.000750	0.81	120.61	236.63	0.25
CochranePB	M002	2539.69	20Year-Existing	45.11	85.41	86.89		86.91	0.001254	0.92	100.58	225.84	0.31
CochranePB	M002	2489.06	20Year-Existing	45.11	85.18	86.85		86.86	0.001347	1.10	94.49	208.67	0.33
CochranePB	M002	2438.28	20Year-Existing	45.11	84.87	86.79		86.81	0.001372	1.20	88.52	177.52	0.34
CochranePB	M002	2384.01	20Year-Existing	45.11	84.65	86.69		86.73	0.002104	1.58	73.88	147.96	0.42
CochranePB	M002	2310.47	20Year-Existing	45.11	84.33	86.45		86.54	0.003725	2.06	56.50	138.49	0.54
CochranePB	M002	2284.63	20Year-Existing	45.11	84.16	86.39		86.45	0.002723	1.78	60.95	106.79	0.45
CochranePB	M002	2240.58	20Year-Existing	45.11	84.04	85.96	85.96	86.23	0.009335	3.14	27.93	46.29	0.86
CochranePB	M002	2170.94	20Year-Existing	45.11	82.26	84.00	84.31	85.11	0.029895	5.05	11.81	17.46	1.53
CochranePB	M002	2136.89	20Year-Existing	45.11	81.72	83.42	83.58	84.13	0.021408	4.00	14.53	24.70	1.29
CochranePB	M002	2100.01	20Year-Existing	45.11	81.30	83.23	83.23	83.53	0.009154	2.95	25.58	41.41	0.86
CochranePB	M002	2046.85	20Year-Existing	45.11	80.89	82.70	82.72	83.04	0.009144	2.83	23.02	40.99	0.86
CochranePB	M002	2014.35	20Year-Existing	45.11	80.47	81.94	82.11	82.54	0.027565	3.76	16.72	40.81	1.40
CochranePB	M002	1990.76	20Year-Existing	45.11	80.10	81.92	81.92	82.20	0.010212	2.95	26.15	44.72	0.90
CochranePB	M002	1945.20	20Year-Existing	45.11	79.43	81.59	81.22	81.70	0.003260	1.98	41.98	55.59	0.53
CochranePB	M002	1916.67	20Year-Existing	45.11	79.31	81.44		81.58	0.004549	2.33	36.13	44.31	0.62
CochranePB	M002	1871.48	20Year-Existing	45.11	79.28	81.28		81.39	0.003731	1.93	39.99	49.96	0.55
CochranePB	M002	1836.03	20Year-Existing	45.11	78.83	81.23		81.30	0.001518	1.49	53.48	72.97	0.37
CochranePB	M002	1788.63	20Year-Existing	45.11	78.46	80.82	80.82	81.13	0.007624	3.28	27.32	39.33	0.80
CochranePB	M002	1768.08	20Year-Existing	45.11	78.14	80.08	80.30	80.85	0.020614	4.58	16.07	26.52	1.28
CochranePB	M002	1733.19	20Year-Existing	45.11	77.95	79.98	80.01	80.29	0.007885	2.92	27.10	48.62	0.81
CochranePB	M002	1694.89	20Year-Existing	45.11	77.12	79.34	78.90	79.44	0.002464	1.80	39.78	43.47	0.47
CochranePB	M002	1685.79	20Year-Existing	45.11	77.06	79.28		79.42	0.003415	2.12	34.77	41.52	0.54
CochranePB	M002	1640.51	20Year-Existing	45.11	76.45	78.77	78.77	79.17	0.007397	3.26	22.14	29.77	0.81
CochranePB	M002	1602.99	20Year-Existing	45.11	75.01	76.49	77.01	78.38	0.072546	6.37	8.52	16.12	2.28
CochranePB	M002	1585.52	20Year-Existing	45.11	74.01	75.33	75.75	76.87	0.087589	5.98	9.65	20.96	2.42
CochranePB	M002	1569.47	20Year-Existing	45.11	73.71	75.02	75.20	75.68	0.039335	3.77	13.29	27.44	1.60
CochranePB	M002	1541.97	20Year-Existing	45.11	72.31	74.13	74.33	74.89	0.021500	4.23	13.92	19.28	1.29
CochranePB	M002	1510.83	20Year-Existing	45.11	71.34	72.55	72.87	73.68	0.081899	4.73	9.79	23.75	2.25
CochranePB	M002	1495.27	20Year-Existing	45.11	71.19	73.03	72.76	73.17	0.004175	1.84	32.55	42.80	0.58
CochranePB	M002	1458.62	20Year-Existing	45.11	70.58	72.65	72.65	72.92	0.008311	3.33	31.47	50.72	0.84
CochranePB	M002	1419.61	20Year-Existing	45.11	70.21	72.12	72.09	72.46	0.009435	3.24	24.61	38.22	0.89
CochranePB	M002	1384.56	20Year-Existing	45.11	69.61	71.95	71.95	72.22	0.004469	2.60	29.81	60.21	0.64
CochranePB	M002	1351.51	20Year-Existing	45.11	69.54	71.64	71.76	72.02	0.008406	3.31	27.68	76.19	0.86
CochranePB	M002	1311.78	20Year-Existing	45.11	69.49	71.39	71.45	71.65	0.007886	2.98	35.34	107.38	0.82
CochranePB	M002	1291.19	20Year-Existing	45.11	69.28	71.00	71.15	71.42	0.014561	3.64	26.88	92.89	1.07
CochranePB	M002	1217.75	20Year-Existing	45.11	68.70	70.92	70.38	70.95	0.000756	1.10	78.19	141.33	0.27
CochranePB	M002	1200.39	20Year-Existing	45.11	68.69	70.58	70.24	70.90	0.004888	2.54	18.46	18.85	0.66
CochranePB	M002	1190		Bridge									
CochranePB	M002	1185.68	20Year-Existing	46.15	68.46	70.51	69.95	70.75	0.002978	2.23	21.26	25.32	0.54
CochranePB	M002	1164.32	20Year-Existing	46.15	68.65	70.43	70.43	70.67	0.005885	2.78	32.93	82.94	0.73
CochranePB	M002	1132.60	20Year-Existing	46.15	68.60	69.82	69.98	70.28	0.028149	3.82	23.31	101.52	1.42
CochranePB	M002	1111.68	20Year-Existing	46.15	68.55	69.86	69.64	69.91	0.003785	1.69	60.88	157.56	0.55
CochranePB	M002	1059.95	20Year-Existing	46.15	68.38	69.73		69.78	0.003311	1.83	63.68	158.63	0.54
CochranePB	M002	998.99	20Year-Existing	46.15	68.13	69.66		69.68	0.000884	1.02	108.87	192.28	0.28
CochranePB	M002	955.54	20Year-Existing	46.15	68.12	69.66		69.66	0.000107	0.35	234.51	259.12	0.10
CochranePB	M002	851.16	20Year-Existing	46.15	67.62	69.65		69.66	0.000062	0.32	272.17	250.91	0.08
CochranePB	M002	798.06	20Year-Existing	46.15	67.47	69.65		69.65	0.000034	0.24	346.24	288.47	0.06
CochranePB	M002	746.77	20Year-Existing	46.15	67.30	69.65		69.65	0.000016	0.18	455.55	323.59	0.04
CochranePB	M002	694.52	20Year-Existing	46.15	66.98	69.65		69.65	0.000010	0.15	548.73	367.89	0.03
CochranePB	M002	669.16	20Year-Existing	46.15	66.97	69.65		69.65	0.000008	0.14	609.56	406.79	0.03
CochranePB	M002	590.19	20Year-Existing	46.15	66.84	69.65		69.65	0.000006	0.12	726.95	488.84	0.02
CochranePB	M002	539.85	20Year-Existing	46.15	66.81	69.65		69.65	0.000006	0.12	743.85	515.20	0.02
CochranePB	M002	488.40	20Year-Existing	46.15	66.54	69.65		69.65	0.000005	0.11	786.52	532.16	0.02
CochranePB	M001	381.27	20Year-Existing	92.43	66.35	69.65		69.65	0.000021	0.21	911.04	611.51	0.04
CochranePB	M001	313.14	20Year-Existing	92.43	66.28	69.65		69.65	0.000014	0.17	1068.66	682.32	0.03

Petty Harbour River 20yr Q-10%

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	TR001	439.21	20Year-Existing	24.21	105.11	106.28	106.11	106.38	0.005636	1.83	26.85	54.47	0.57
RaymondB	TR001	409.42	20Year-Existing	24.21	104.68	105.84	105.84	106.11	0.014370	2.88	15.12	28.10	0.91
RaymondB	TR001	380.07	20Year-Existing	24.21	104.05	105.50	105.01	105.59	0.003040	1.57	25.90	42.85	0.44
RaymondB	TR001	360.64	20Year-Existing	24.21	103.60	105.49	104.76	105.54	0.001342	1.22	39.04	65.78	0.30
RaymondB	TR001	350		Bridge									
RaymondB	TR001	344.45	20Year-Existing	24.21	103.30	104.50	104.88	105.27	0.034127	4.47	8.08	14.22	1.38
RaymondB	TR001	334.13	20Year-Existing	24.21	103.40	104.27	104.54	104.87	0.034303	3.59	8.57	22.35	1.33
RaymondB	TR001	272.22	20Year-Existing	24.21	102.83	103.79	103.79	104.01	0.016380	2.69	15.86	35.04	0.94
RaymondB	TR001	218.50	20Year-Existing	24.21	101.42	102.56	102.68	103.03	0.019268	3.25	10.68	23.42	1.05
RaymondB	TR001	163.97	20Year-Existing	24.21	100.32	101.63	101.21	101.75	0.003681	1.58	18.90	23.38	0.47
RaymondB	TR001	115.54	20Year-Existing	24.21	100.00	101.02	101.02	101.38	0.019021	3.13	11.62	18.40	1.03
RaymondB	TR001	56.65	20Year-Existing	24.21	97.73	98.39	98.67	99.29	0.079752	4.47	6.59	15.27	1.93
RaymondB	M002	6453.60	20Year-Existing	15.48	118.10	125.17	118.83	125.17	0.000000	0.03	651.64	232.56	0.00
RaymondB	M002	6405.52	20Year-Existing	15.48	118.00	125.17		125.17	0.000000	0.03	662.22	226.28	0.00
RaymondB	M002	6347.04	20Year-Existing	15.48	124.73	125.11		125.16	0.006540	1.01	15.46	41.25	0.52
RaymondB	M002	6247.26	20Year-Existing	15.48	117.21	118.19		118.24	0.003689	1.31	20.69	34.59	0.45
RaymondB	M002	6230.10	20Year-Existing	15.48	117.20	118.18		118.21	0.001647	0.85	25.71	42.01	0.30
RaymondB	M002	6205.35	20Year-Existing	15.48	117.28	118.15		118.16	0.001519	0.76	35.52	58.46	0.28
RaymondB	M002	6143.06	20Year-Existing	15.48	117.18	118.03		118.05	0.002235	0.89	31.19	60.62	0.34
RaymondB	M002	6105.93	20Year-Existing	15.48	117.17	117.90		117.94	0.003438	0.98	22.64	56.94	0.41
RaymondB	M002	6026.35	20Year-Existing	15.48	116.81	117.69		117.72	0.002135	0.90	27.21	45.54	0.33
RaymondB	M002	5933.71	20Year-Existing	15.48	116.42	117.41		117.47	0.003399	1.25	19.81	51.51	0.43
RaymondB	M002	5883.92	20Year-Existing	15.48	116.12	117.19		117.28	0.004226	1.44	14.43	26.21	0.48
RaymondB	M002	5785.15	20Year-Existing	15.48	115.75	116.73		116.82	0.005254	1.47	14.93	29.22	0.53
RaymondB	M002	5732.44	20Year-Existing	15.48	115.46	116.40		116.51	0.006087	1.54	12.09	23.75	0.56
RaymondB	M002	5631.37	20Year-Existing	15.48	114.85	115.69		115.78	0.009023	1.61	16.16	44.88	0.66
RaymondB	M002	5500.15	20Year-Existing	15.48	114.62	115.57		115.58	0.000772	0.56	55.16	126.20	0.20
RaymondB	M002	5485.46	20Year-Existing	15.48	114.53	115.57		115.57	0.000484	0.49	68.58	160.55	0.16
RaymondB	M002	5411.19	20Year-Existing	15.48	114.48	115.49	115.14	115.52	0.001446	0.79	29.53	64.73	0.28
RaymondB	M002	5338.54	20Year-Existing	15.48	114.41	115.49	114.76	115.49	0.000103	0.23	79.33	108.67	0.08
RaymondB	M002	5278.93	20Year-Existing	15.48	114.44	115.48	114.80	115.48	0.000152	0.27	69.59	109.61	0.09
RaymondB	M002	5226.60	20Year-Existing	15.48	114.42	115.47		115.47	0.000174	0.28	74.07	124.37	0.10
RaymondB	M002	5171.66	20Year-Existing	15.48	114.42	115.46		115.46	0.000187	0.30	84.56	174.07	0.10
RaymondB	M002	5111.50	20Year-Existing	15.48	114.42	115.43		115.45	0.000647	0.56	45.67	101.66	0.19
RaymondB	M002	5077.48	20Year-Existing	15.48	114.38	115.41		115.42	0.000565	0.52	40.23	76.92	0.18
RaymondB	M002	5017.13	20Year-Existing	15.48	114.40	115.30		115.35	0.003074	1.07	15.63	26.04	0.40
RaymondB	M002	4967.43	20Year-Existing	15.48	114.07	115.03		115.15	0.005560	1.52	11.04	17.22	0.54
RaymondB	M002	4943.43	20Year-Existing	15.48	113.82	114.92		115.02	0.004694	1.54	13.61	23.77	0.51
RaymondB	M002	4910.95	20Year-Existing	15.48	113.67	114.78		114.87	0.004536	1.53	14.73	28.17	0.50
RaymondB	M002	4851.17	20Year-Existing	15.48	113.47	114.50		114.59	0.004995	1.52	14.78	29.76	0.52
RaymondB	M002	4783.73	20Year-Existing	15.48	113.30	114.18		114.25	0.004829	1.22	15.92	35.37	0.49
RaymondB	M002	4732.68	20Year-Existing	15.48	113.07	113.91		113.97	0.005985	1.33	17.91	42.83	0.54
RaymondB	M002	4681.76	20Year-Existing	15.48	112.35	113.25	113.25	113.50	0.014168	2.36	8.64	24.86	0.86
RaymondB	M002	4673.96	20Year-Existing	15.48	111.74	112.53	112.77	113.26	0.053734	3.95	4.74	11.46	1.61
RaymondB	M002	4644.78	20Year-Existing	15.48	110.49	111.35	111.52	111.94	0.036162	3.53	5.04	21.58	1.35
RaymondB	M002	4625.72	20Year-Existing	15.48	106.75	107.26	107.77	110.05	0.447674	7.40	2.09	6.63	4.16
RaymondB	M002	4615.42	20Year-Existing	15.48	105.83	106.51	106.81	107.57	0.104398	4.65	3.70	9.58	2.16
RaymondB	M002	4607.06	20Year-Existing	15.48	105.79	106.95	106.80	107.21	0.010009	2.36	7.71	9.58	0.76
RaymondB	M002	4597.34	20Year-Existing	15.48	105.76	106.91		107.10	0.008590	2.06	10.01	16.14	0.69
RaymondB	M002	4575.18	20Year-Existing	15.48	105.98	106.51	106.51	106.73	0.044891	2.48	7.89	19.33	1.33
RaymondB	M002	4545.57	20Year-Existing	15.48	104.65	105.72	105.77	106.02	0.014620	2.60	8.44	20.35	0.89
RaymondB	M002	4522.17	20Year-Existing	15.48	103.67	104.34	104.63	105.28	0.080943	4.47	4.25	12.57	1.94
RaymondB	M002	4511.42	20Year-Existing	15.48	103.62	104.79	104.50	104.88	0.004578	1.56	15.36	24.16	0.51
RaymondB	M002	4489.94	20Year-Existing	15.48	103.59	104.45	104.45	104.70	0.015922	2.41	9.00	20.54	0.91
RaymondB	M002	4466.63	20Year-Existing	15.48	103.03	104.22	103.86	104.32	0.003732	1.45	15.20	32.17	0.46
RaymondB	M002	4439.46	20Year-Existing	15.48	103.00	103.97	103.97	104.15	0.010831	2.16	12.64	38.33	0.76
RaymondB	M002	4415.77	20Year-Existing	15.48	102.78	103.46	103.55	103.75	0.028207	2.58	8.22	33.28	1.14
RaymondB	M002	4385.89	20Year-Existing	15.48	101.80	102.65	102.74	103.01	0.021988	2.81	7.43	20.42	1.06
RaymondB	M002	4354.01	20Year-Existing	15.48	101.27	102.07	102.09	102.27	0.021145	2.69	11.40	31.35	1.03
RaymondB	M002	4341.66	20Year-Existing	15.48	100.84	101.84	101.86	102.05	0.013604	2.38	11.33	33.12	0.85
RaymondB	M002	4332.73	20Year-Existing	15.48	100.32	101.05	101.29	101.79	0.057650	3.99	4.81	12.17	1.66
RaymondB	M002	4308.73	20Year-Existing	15.48	98.87	99.54	99.77	100.26	0.069322	4.07	4.94	12.92	1.78
RaymondB	M002	4294.65	20Year-Existing	15.48	98.45	99.33	99.36	99.66	0.020900	2.80	7.39	13.99	1.04
RaymondB	M002	4263.86	20Year-Existing	15.48	97.59	98.87	98.43	98.96	0.003187	1.46	14.35	19.55	0.44
RaymondB	M002	4235.25	20Year-Existing	15.48	97.47	98.85		98.89	0.001320	0.98	20.49	23.55	0.28
RaymondB	M001	4130.35	20Year-Existing	38.88	96.57	97.95	97.90	98.32	0.013739	2.74	15.57	20.35	0.88
RaymondB	M001	4076.94	20Year-Existing	38.88	96.04	97.66	97.38	97.83	0.005251	1.96	25.20	33.13	0.56
RaymondB	M001	4023.53	20Year-Existing	38.88	95.94	97.00	97.00	97.33	0.018640	2.60	16.27	26.97	0.98
RaymondB	M001	3978.20	20Year-Existing	38.88	94.64	96.63	96.10	96.72	0.002488	1.30	34.90	46.91	0.38
RaymondB	M001	3916.71	20Year-Existing	51.84	94.64	96.34		96.50	0.004646	2.02	42.73	62.21	0.54
RaymondB	M001	3863.30	20Year-Existing	51.84	94.41	96.16		96.27	0.003499	1.82	51.15	75.34	0.48
RaymondB	M001	3809.58	20Year-Existing	51.84	94.09	95.67	95.64	95.97	0.009754	2.76	28.80	43.76	0.78
RaymondB	M001	3756.26	20Year-Existing	51.84	93.53	94.98	94.98	95.37	0.012850	2.99	23.56	33.53	0.88
RaymondB	M001	3694.37	20Year-Existing	51.84	92.66	94.04	94.00	94.46	0.015015	3.01	19.80	23.32	0.94
RaymondB	M001	3569.22	20Year-Existing	51.84	92.15	93.90		93.93	0.001487	1.17	80.66	104.51	0.31
RaymondB	M001	3527.64	20Year-Existing	51.84	91.85	93.85		93.88	0.000851	0.98	90.78	86.05	0.24
RaymondB	M001	3446.51	20Year-Existing	51.84	91.14	93.82		93.84	0.000326	0.72	127.67	124.53	0.15
RaymondB	M001	3421.64	20Year-Existing	51.84	91.23	93.45	92.76	93.79	0.004238	2.61	20.33	126.77	0.56
RaymondB	M001	3410		Bridge									
RaymondB	M001	3404.11	20Year-Existing	51.84	91.23	92.80	92.80	93.54	0.015324	3.83	13.77	67.16	1.00
RaymondB	M001	3380.48	20Year-Existing	51.84	90.96	92.80	92.27	92.93	0.003246	1.78	43.09	58.76	0.46
RaymondB	M001	3308.92	20Year-Existing	51.84	90.80	92.23	92.12	92.53	0.010459	2.75	28.41	42.04	0.80
RaymondB	M001	3216.73	20Year-Existing	51.84	89.31	91.96	90.86	92.14	0.001972	1.89	28.34	45.83	0.39
RaymondB	M001	3200		Bridge									
RaymondB	M001	3188.78	20Year-Existing	51.84	89.30	91.45	91.23	91.92	0.007986	3.27	18.81	37.78	0.74

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	M001	3015.18	20Year-Existing	51.84	89.18	90.75		90.87	0.003502	1.71	45.89	63.34	0.47
RaymondB	M001	2876.32	20Year-Existing	51.84	88.66	90.20		90.33	0.005086	1.92	39.61	48.70	0.56
RaymondB	M001	2789.37	20Year-Existing	51.84	88.24	89.97		90.03	0.002300	1.43	80.60	155.43	0.38
RaymondB	M001	2681.85	20Year-Existing	51.84	88.14	89.42	89.41	89.58	0.011025	2.40	43.67	112.86	0.79
RaymondB	M001	2604.32	20Year-Existing	51.84	87.97	89.24		89.27	0.002161	1.11	86.81	182.93	0.35
RaymondB	M001	2531.57	20Year-Existing	51.84	87.97	89.19		89.20	0.000781	0.61	147.62	272.35	0.21
RaymondB	M001	2385.34	20Year-Existing	51.84	87.43	89.10		89.13	0.001789	1.24	106.15	243.00	0.34
RaymondB	M001	2245.72	20Year-Existing	51.84	86.99	88.61	88.35	88.83	0.006367	2.26	32.97	59.57	0.63
RaymondB	M001	2194.47	20Year-Existing	51.84	86.68	88.60		88.65	0.001327	1.19	78.02	88.92	0.30
RaymondB	M001	2140.67	20Year-Existing	51.84	86.59	88.48		88.56	0.002271	1.52	60.09	69.21	0.39
RaymondB	M001	2087.60	20Year-Existing	51.84	86.38	88.33		88.43	0.002236	1.55	45.46	41.52	0.39
RaymondB	M001	2069.54	20Year-Existing	51.84	86.35	88.28		88.39	0.002464	1.63	45.57	44.41	0.41
RaymondB	M001	2040.77	20Year-Existing	51.84	86.25	88.22		88.32	0.002353	1.57	47.90	56.45	0.40
RaymondB	M001	1989.18	20Year-Existing	51.84	86.02	87.98		88.16	0.004125	2.08	41.26	66.91	0.52
RaymondB	M001	1950.22	20Year-Existing	51.84	85.79	87.49	87.36	87.89	0.011088	3.01	25.72	48.96	0.83
RaymondB	M001	1885.73	20Year-Existing	51.84	85.34	87.02		87.25	0.007753	2.44	32.52	45.77	0.69
RaymondB	M001	1835.84	20Year-Existing	51.84	84.64	86.29	86.29	86.72	0.014925	3.35	22.80	27.26	0.94
RaymondB	M001	1784.61	20Year-Existing	51.84	84.10	85.28	85.37	85.70	0.027427	3.34	22.61	39.53	1.20
RaymondB	M001	1733.38	20Year-Existing	51.84	82.79	84.66	84.18	84.77	0.002953	1.68	45.20	46.46	0.44
RaymondB	M001	1682.15	20Year-Existing	51.84	82.60	84.32		84.55	0.006238	2.24	28.44	30.28	0.62
RaymondB	M001	1630.92	20Year-Existing	51.84	82.12	83.83	83.62	84.16	0.008882	2.62	23.87	33.30	0.74
RaymondB	M001	1584.49	20Year-Existing	51.84	81.77	83.59		83.79	0.005707	2.20	31.79	32.73	0.60
RaymondB	M001	1536.01	20Year-Existing	51.84	81.31	83.18		83.46	0.007745	2.61	28.17	38.58	0.69
RaymondB	M001	1477.96	20Year-Existing	51.84	80.96	82.77		83.02	0.007160	2.44	28.95	36.57	0.67
RaymondB	M001	1425.99	20Year-Existing	51.84	80.58	82.42		82.67	0.006470	2.37	29.25	38.98	0.64
RaymondB	M001	1372.05	20Year-Existing	51.84	80.25	82.08		82.29	0.007005	2.40	30.88	34.18	0.66
RaymondB	M001	1323.54	20Year-Existing	51.84	79.11	81.35	80.87	81.83	0.006389	3.07	16.87	14.61	0.68
RaymondB	M001	1315		Bridge									
RaymondB	M001	1303.54	20Year-Existing	51.84	78.01	80.50	80.07	81.01	0.007123	3.15	16.45	20.08	0.70
RaymondB	M001	1252.39	20Year-Existing	54.00	78.45	80.13	80.05	80.64	0.018209	3.55	20.98	28.41	1.03
RaymondB	M001	1216.25	20Year-Existing	54.00	77.86	79.79	79.79	80.12	0.009372	2.99	29.54	42.48	0.78
RaymondB	M001	1189.75	20Year-Existing	54.00	77.61	78.96	79.16	79.64	0.036285	4.00	17.89	35.58	1.38
RaymondB	M001	1166.20	20Year-Existing	54.00	76.74	78.17	78.39	78.82	0.030778	4.13	21.29	48.93	1.32
RaymondB	M001	1148.70	20Year-Existing	54.00	76.50	78.03	78.08	78.36	0.016497	3.06	28.10	53.37	0.96
RaymondB	M001	1116.25	20Year-Existing	54.00	75.83	77.04	77.19	77.60	0.032634	3.41	17.94	33.52	1.29
RaymondB	M001	1066.09	20Year-Existing	54.00	75.16	76.66	76.48	76.93	0.009326	2.46	29.34	48.52	0.74
RaymondB	M001	1035.68	20Year-Existing	54.00	74.73	76.17	76.17	76.57	0.014733	2.99	22.17	27.98	0.92
RaymondB	M001	999.99	20Year-Existing	54.00	73.32	74.53	74.88	75.61	0.049290	4.76	12.79	19.20	1.63
RaymondB	M001	976.73	20Year-Existing	54.00	73.03	74.50	74.56	74.95	0.014472	3.16	22.67	35.80	0.93
RaymondB	M001	942.15	20Year-Existing	54.00	72.18	73.15	73.29	73.90	0.084578	5.23	16.67	33.63	2.04
RaymondB	M001	916.70	20Year-Existing	54.00	70.82	72.12	72.30	72.62	0.029325	4.02	23.69	59.20	1.28
RaymondB	M001	892.34	20Year-Existing	54.00	70.36	71.70	71.72	72.11	0.015329	3.06	23.13	40.43	0.94
RaymondB	M001	866.25	20Year-Existing	54.00	70.04	71.71	71.19	71.85	0.003532	1.75	39.66	59.31	0.48
RaymondB	M001	841.89	20Year-Existing	54.00	69.92	71.52	71.28	71.74	0.005799	2.23	35.07	68.26	0.61
RaymondB	M001	816.68	20Year-Existing	54.00	69.74	71.24	71.24	71.54	0.009971	2.78	30.48	52.93	0.78
RaymondB	M001	766.25	20Year-Existing	54.00	69.16	70.02	70.17	70.54	0.055454	3.99	19.75	45.24	1.64
RaymondB	M001	716.25	20Year-Existing	54.00	68.39	69.82	69.54	69.97	0.005148	1.93	39.55	51.61	0.56
RaymondB	M001	675.00	20Year-Existing	54.00	68.14	69.58		69.74	0.005946	2.07	40.25	57.60	0.60
RaymondB	M001	615.86	20Year-Existing	54.00	67.75	69.37		69.47	0.003257	1.70	56.56	116.87	0.46
RaymondB	M001	565.77	20Year-Existing	54.00	67.44	69.26		69.33	0.001939	1.42	65.46	131.85	0.36
RaymondB	M001	520.15	20Year-Existing	54.00	67.26	69.24		69.27	0.000760	0.93	119.27	224.06	0.23
RaymondB	M001	468.54	20Year-Existing	54.00	66.98	69.24		69.24	0.000194	0.53	211.89	269.23	0.12
RaymondB	M001	429.18	20Year-Existing	54.00	66.80	69.24		69.24	0.000059	0.31	350.51	378.02	0.07
RaymondB	M001	366.25	20Year-Existing	54.00	66.65	69.24		69.24	0.000024	0.20	565.77	575.35	0.04
RaymondB	M001	341.79	20Year-Existing	54.00	66.63	69.24		69.24	0.000017	0.17	653.19	623.75	0.04
PettyHR	M002	6270.85	20Year-Existing	66.69	66.23	69.24		69.24	0.000001	0.04	1721.15	820.15	0.01
PettyHR	M002	6218.07	20Year-Existing	66.69	66.23	69.24		69.24	0.000001	0.05	1588.57	823.72	0.01
PettyHR	M002	6095.00	20Year-Existing	66.69	66.23	69.23		69.24	0.000001	0.05	1526.16	784.69	0.01
PettyHR	M002	6004.71	20Year-Existing	66.69	66.23	69.23		69.23	0.000001	0.05	1567.62	813.73	0.01
PettyHR	M001	5825.85	20Year-Existing	115.02	66.23	69.23		69.23	0.000002	0.07	1882.16	832.52	0.01
PettyHR	M001	5685.44	20Year-Existing	115.02	66.23	69.23		69.23	0.000002	0.06	1853.51	716.44	0.01
PettyHR	M001	5516.39	20Year-Existing	127.08	66.23	69.23		69.23	0.000003	0.08	1621.19	624.14	0.02
PettyHR	M001	5279.80	20Year-Existing	127.08	66.23	69.23		69.23	0.000006	0.12	1096.67	420.31	0.02
PettyHR	M001	4996.75	20Year-Existing	127.08	66.23	69.23		69.23	0.000031	0.26	515.84	205.34	0.05
PettyHR	M001	4923.81	20Year-Existing	127.08	66.23	69.18		69.22	0.000416	0.93	164.68	82.79	0.18
PettyHR	M001	4867.41	20Year-Existing	127.08	66.23	69.10		69.18	0.001156	1.55	133.39	88.62	0.30
PettyHR	M001	4817.61	20Year-Existing	127.08	66.58	69.03		69.11	0.001586	1.71	128.45	89.42	0.35
PettyHR	M001	4757.18	20Year-Existing	127.08	66.43	68.28	68.28	68.85	0.013146	4.02	51.70	54.07	0.96
PettyHR	M001	4675.66	20Year-Existing	127.08	65.88	67.64	67.32	67.93	0.006836	2.84	64.22	48.92	0.69
PettyHR	M001	4612.84	20Year-Existing	127.08	64.88	67.06		67.47	0.007428	3.41	55.45	41.08	0.74
PettyHR	M001	4570.09	20Year-Existing	127.08	64.62	66.58	66.58	67.10	0.009839	3.55	52.17	53.62	0.83
PettyHR	M001	4500.69	20Year-Existing	127.08	64.62	66.27	65.92	66.46	0.004381	2.13	79.65	73.88	0.54
PettyHR	M001	4461.12	20Year-Existing	127.08	64.55	65.86	65.86	66.19	0.014450	3.30	66.09	90.18	0.95
PettyHR	M001	4428.20	20Year-Existing	127.08	64.41	65.62	65.40	65.80	0.010830	2.63	77.76	88.34	0.80
PettyHR	M001	4395.66	20Year-Existing	127.08	63.81	65.18		65.45	0.009256	2.74	70.01	80.13	0.76
PettyHR	M001	4357.04	20Year-Existing	127.08	63.34	65.00		65.16	0.004939	2.31	89.20	79.65	0.58
PettyHR	M001	4281.82	20Year-Existing	127.08	62.50	64.92		64.99	0.000888	1.25	120.62	57.83	0.26
PettyHR	M001	4166.17	20Year-Existing	127.08	61.82	64.93		64.94	0.000121	0.54	337.96	159.50	0.10
PettyHR	M001	3949.19	20Year-Existing	127.08	61.31	64.94		64.94	0.000000	0.03	4416.74	1311.70	0.01
PettyHR	M001	3936.78	20Year-Existing	127.08	61.31	64.94		64.94	0.000000	0.02	5466.29	1566.38	0.00
PettyHR	M001	3931.39	20Year-Existing	80.55	61.31	64.94		64.94	0.000000	0.01	6857.63	1994.73	0.00
PettyHR	M001	3925.44	20Year-Existing	80.55	61.31	64.94		64.94	0.000000	0.02	3391.28	998.85	0.00
PettyHR	M001	3867.05	20Year-Existing	80.55	61.31	64.94		64.94	0.000000	0.02	3428.20	977.44	0.00
PettyHR	M001	3643.73	20Year-Existing	80.55	61.31	64.94		64.94	0.000000	0.02	3942.55	1112.09	0.00
PettyHR	M001	3440.60	20Year-Existing	80.55	61.31	64.94		64.94	0.000001	0.04	1995.21	578.31	0.01

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	3182.65	20Year-Existing	80.55	61.31	64.94		64.94	0.000001	0.05	1498.07	423.09	0.01
PettyHR	M001	3080.13	20Year-Existing	80.55	61.31	64.94		64.94	0.000001	0.05	1766.21	504.87	0.01
PettyHR	M001	3028.13	20Year-Existing	80.55	61.31	64.94		64.94	0.000001	0.04	1931.28	556.21	0.01
PettyHR	M001	2983.09	20Year-Existing	80.55	61.31	64.94		64.94	0.000001	0.05	1574.81	449.33	0.01
PettyHR	M001	2828.46	20Year-Existing	80.55	61.31	64.94		64.94	0.000003	0.09	921.57	277.38	0.02
PettyHR	M001	2712.72	20Year-Existing	80.55	61.31	64.94		64.94	0.000009	0.17	522.18	176.44	0.03
PettyHR	M001	2671.95	20Year-Existing	80.55	61.31	64.93		64.94	0.000014	0.21	468.03	171.71	0.04
PettyHR	M001	2653.10	20Year-Existing	80.55	61.31	64.93		64.94	0.000020	0.25	399.20	153.28	0.04
PettyHR	M001	2632.46	20Year-Existing	80.55	61.31	64.92		64.93	0.000083	0.51	233.24	112.24	0.09
PettyHR	M001	2596.08	20Year-Existing	80.55	61.31	64.92		64.93	0.000096	0.55	205.63	108.31	0.09
PettyHR	M001	2583.24	20Year-Existing	80.55	60.10	64.84	62.57	64.92	0.000576	1.42	106.23	97.91	0.23
PettyHR	M001	2580		Bridge									
PettyHR	M001	2573.39	20Year-Existing	80.55	60.00	64.75	62.15	64.79	0.000246	0.94	142.96	78.52	0.15
PettyHR	M001	2551.09	20Year-Existing	80.55	59.89	64.77		64.78	0.000019	0.27	353.05	104.66	0.04
PettyHR	M001	2426.14	20Year-Existing	80.55	59.27	64.77		64.77	0.000001	0.07	1120.97	265.55	0.01
PettyHR	M001	2315.39	20Year-Existing	80.55	58.72	64.77		64.77	0.000001	0.06	1378.79	304.97	0.01
PettyHR	M001	2204.15	20Year-Existing	80.55	58.16	64.77		64.77	0.000001	0.06	1390.57	305.16	0.01
PettyHR	M001	2022.45	20Year-Existing	80.55	57.26	64.77		64.77	0.000002	0.10	846.85	170.88	0.01
PettyHR	M001	1902.10	20Year-Existing	80.55	56.66	64.77		64.77	0.000003	0.13	657.27	126.54	0.02
PettyHR	M001	1879.72	20Year-Existing	80.55	56.55	64.77		64.77	0.000007	0.20	478.60	106.99	0.03
PettyHR	M001	1824.42	20Year-Existing	80.55	56.28	64.77		64.77	0.000012	0.27	323.70	64.97	0.03
PettyHR	M001	1789.72	20Year-Existing	80.55	56.10	64.77		64.77	0.000017	0.31	274.07	54.43	0.04
PettyHR	M001	1724.70	20Year-Existing	80.55	55.78	64.76		64.77	0.000022	0.36	239.98	47.01	0.05
PettyHR	M001	1668.81	20Year-Existing	80.55	55.50	64.76	57.89	64.77	0.000012	0.27	318.42	64.04	0.03
PettyHR	M001	1647.80	20Year-Existing	80.55	55.40	64.77	57.62	64.77	0.000008	0.23	372.99	68.58	0.03
PettyHR	M001	1631.79	20Year-Existing	80.55	63.55	64.54		64.75	0.007563	2.00	40.30	40.59	0.64
PettyHR	M001	1615.46	20Year-Existing	81.63	54.38	56.49		56.65	0.005512	2.80	50.83	36.47	0.63
PettyHR	M001	1601.08	20Year-Existing	81.63	54.00	55.73	55.73	56.44	0.030033	5.69	25.03	26.45	1.42
PettyHR	M001	1586.16	20Year-Existing	81.63	53.36	55.08	55.30	55.94	0.036229	6.32	23.79	24.44	1.57
PettyHR	M001	1571.98	20Year-Existing	81.63	52.87	54.41	54.67	55.35	0.046092	6.51	21.89	23.41	1.72
PettyHR	M001	1519.66	20Year-Existing	81.63	51.62	53.22	53.21	53.61	0.022849	4.63	33.58	38.74	1.21
PettyHR	M001	1467.14	20Year-Existing	81.63	50.86	52.12	52.03	52.42	0.021742	3.95	36.09	43.33	1.15
PettyHR	M001	1457.30	20Year-Existing	81.63	50.23	51.75	51.75	52.18	0.024417	4.78	31.79	35.61	1.26
PettyHR	M001	1444.51	20Year-Existing	81.63	48.30	49.23	49.72	51.30	0.225920	10.19	14.99	29.76	3.50
PettyHR	M001	1415.17	20Year-Existing	81.63	48.28	49.77	49.31	49.88	0.006146	2.35	56.92	52.09	0.63
PettyHR	M001	1402.15	20Year-Existing	81.63	47.79	49.31	49.31	49.71	0.024427	4.61	32.66	38.84	1.24
PettyHR	M001	1385.41	20Year-Existing	81.63	43.10	44.58	45.46	48.53	0.150896	11.14	11.83	15.58	3.07
PettyHR	M001	1370.82	20Year-Existing	81.63	41.75	43.44	44.33	46.47	0.100411	10.38	13.14	13.00	2.60
PettyHR	M001	1362.66	20Year-Existing	81.63	39.88	41.88	42.96	45.60	0.093880	10.95	11.94	9.80	2.55
PettyHR	M001	1336.64	20Year-Existing	81.63	39.87	41.46	41.80	42.93	0.064089	7.88	17.83	18.25	2.05
PettyHR	M001	1309.35	20Year-Existing	81.63	38.40	39.69	40.07	40.95	0.077330	7.43	18.17	21.03	2.16
PettyHR	M001	1279.20	20Year-Existing	81.63	35.02	37.16	37.96	39.11	0.047645	8.32	18.05	18.09	1.85
PettyHR	M001	1258.06	20Year-Existing	81.63	34.01	36.37	36.90	38.15	0.037977	7.99	17.89	13.43	1.69
PettyHR	M001	1221.17	20Year-Existing	81.63	33.21	34.55	35.15	36.03	0.085366	7.75	16.59	17.99	2.25
PettyHR	M001	1203.34	20Year-Existing	81.63	32.61	33.92	34.11	34.64	0.050894	6.09	24.92	33.78	1.76
PettyHR	M001	1164.99	20Year-Existing	81.63	31.37	32.86	32.88	33.27	0.023373	4.45	32.93	40.03	1.21
PettyHR	M001	1153.41	20Year-Existing	81.63	30.70	31.68	31.99	32.71	0.106837	7.34	20.32	35.19	2.44
PettyHR	M001	1125.74	20Year-Existing	81.63	29.27	30.53	30.61	31.00	0.034654	4.88	30.50	42.18	1.44
PettyHR	M001	1090.65	20Year-Existing	81.63	28.12	29.26	29.36	29.69	0.040525	4.78	32.76	57.80	1.52
PettyHR	M001	1059.48	20Year-Existing	81.63	26.84	28.10	28.18	28.49	0.035854	4.94	34.94	62.70	1.46
PettyHR	M001	1048.77	20Year-Existing	81.63	26.29	27.44	27.59	28.00	0.051238	5.44	29.26	53.44	1.71
PettyHR	M001	1021.54	20Year-Existing	81.63	25.47	26.93	26.93	27.30	0.024467	4.53	34.25	42.40	1.24
PettyHR	M001	1003.30	20Year-Existing	81.63	23.42	24.70	25.22	26.39	0.094828	8.31	15.79	17.66	2.41
PettyHR	M001	994.73	20Year-Existing	81.63	22.70	25.05	24.94	25.75	0.017880	5.45	26.63	19.20	1.16
PettyHR	M001	961.03	20Year-Existing	81.63	22.07	24.55	24.55	25.17	0.015325	5.18	29.55	24.01	1.07
PettyHR	M001	944.13	20Year-Existing	81.63	21.89	23.36	23.77	24.66	0.056247	6.99	19.10	20.39	1.90
PettyHR	M001	924.94	20Year-Existing	81.63	20.78	22.52	22.83	23.67	0.042858	6.83	19.48	16.40	1.70
PettyHR	M001	905.47	20Year-Existing	81.63	19.73	21.74	22.05	22.94	0.034544	6.82	19.77	15.06	1.56
PettyHR	M001	883.86	20Year-Existing	81.63	17.29	20.43	19.68	20.66	0.003022	2.74	46.48	31.55	0.50
PettyHR	M001	875		Bridge									
PettyHR	M001	859.53	20Year-Existing	81.63	17.25	19.16	19.16	19.73	0.020419	4.90	27.11	28.33	1.17
PettyHR	M001	836.76	20Year-Existing	81.63	12.80	14.41	15.50	18.46	0.120473	10.92	10.95	9.79	2.82
PettyHR	M001	823.70	20Year-Existing	81.63	12.86	15.56	14.93	15.85	0.007160	3.79	43.26	33.52	0.75
PettyHR	M001	811.96	20Year-Existing	81.63	12.85	14.64	14.64	15.63	0.037642	6.60	22.69	22.86	1.61
PettyHR	M001	796.92	20Year-Existing	81.63	12.74	14.09	14.33	14.89	0.057012	6.69	23.80	32.83	1.88
PettyHR	M001	784.11	20Year-Existing	81.63	11.82	13.63	13.86	14.35	0.029418	5.81	27.69	32.13	1.42
PettyHR	M001	769.86	20Year-Existing	81.63	10.94	12.37	12.79	13.71	0.061794	7.20	18.80	21.25	1.98
PettyHR	M001	748.76	20Year-Existing	81.63	8.37	10.56	11.22	12.59	0.041626	7.84	17.65	17.10	1.74
PettyHR	M001	720.33	20Year-Existing	81.63	8.08	9.08	9.51	10.53	0.131816	7.80	17.06	27.40	2.67
PettyHR	M001	707.57	20Year-Existing	81.63	6.85	8.25	8.55	9.27	0.058505	6.83	22.50	32.50	1.90
PettyHR	M001	685.99	20Year-Existing	81.63	5.31	6.83	7.21	7.99	0.059451	7.18	21.50	28.92	1.94
PettyHR	M001	666.04	20Year-Existing	81.63	5.03	6.71	6.75	7.15	0.018400	4.32	35.36	42.91	1.10
PettyHR	M001	652.51	20Year-Existing	81.63	4.66	6.03	6.18	6.76	0.042088	5.60	25.41	33.04	1.60
PettyHR	M001	633.61	20Year-Existing	81.63	4.40	5.38	5.50	5.89	0.046116	4.67	29.29	75.97	1.59
PettyHR	M001	622.83	20Year-Existing	81.63	4.09	5.11	5.11	5.36	0.024998	3.51	42.14	95.27	1.18
PettyHR	M001	577.97	20Year-Existing	81.63	2.48	3.74	3.82	4.04	0.034337	4.79	39.97	107.55	1.42
PettyHR	M001	525.57	20Year-Existing	81.63	0.51	2.70	2.05	2.80	0.003351	2.28	64.22	82.56	0.50
PettyHR	M001	491.94	20Year-Existing	81.63	-0.59	2.50	1.70	2.69	0.002618	2.23	50.78	36.37	0.45
PettyHR	M001	485		Bridge									
PettyHR	M001	478.84	20Year-Existing	81.63	-1.92	2.55		2.60	0.000411	1.08	111.48	141.56	0.18
PettyHR	M001	439.27	20Year-Existing	81.63	-1.89	2.57		2.58	0.000115	0.59	236.59	128.73	0.10
PettyHR	M001	405.68	20Year-Existing	81.63	-2.13	2.56		2.57	0.000103	0.57	234.12	131.90	0.09
PettyHR	M001	367.80	20Year-Existing	81.63	-2.02	2.56		2.57	0.000031	0.31	299.03	139.19	0.05
PettyHR	M001	338.85	20Year-Existing	81.63	-2.89	2.56		2.57	0.000019	0.27	338.48	122.00	0.04
PettyHR	M001	305.38	20Year-Existing	81.63	-2.46	2.56		2.57	0.000026	0.30	305.66	119.85	0.05

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	269.29	20Year-Existing	81.63	-3.52	2.56		2.56	0.000023	0.32	286.78	110.10	0.05
PettyHR	M001	238.18	20Year-Existing	81.63	-3.50	2.56		2.56	0.000033	0.39	248.13	102.41	0.06
PettyHR	M001	201.25	20Year-Existing	81.63	-4.43	2.56		2.56	0.000010	0.24	367.06	119.88	0.03
PettyHR	M001	150.84	20Year-Existing	81.63	-3.34	2.56		2.56	0.000006	0.17	524.48	171.48	0.02
PettyHR	M001	105.74	20Year-Existing	81.63	-2.91	2.56		2.56	0.000006	0.17	506.98	154.12	0.02
PettyHR	M001	91.29	20Year-Existing	81.63	-3.36	2.56		2.56	0.000005	0.16	523.46	143.59	0.02
PettyHR	M001	20.04	20Year-Existing	81.63	-6.19	2.56		2.56	0.000003	0.12	705.01	185.18	0.02
PettyHR	M001	12.04	20Year-Existing	81.63	-6.19	2.55	-3.82	2.56	0.000052	0.46	267.31	185.14	0.05
ForthP	M001	2616.90	20Year-Existing	8.10	123.09	124.48	123.33	124.48	0.000010	0.09	130.86	157.52	0.02
ForthP	M001	2528.45	20Year-Existing	8.10	123.09	124.48		124.48	0.000002	0.04	210.57	197.06	0.01
ForthP	M001	2324.32	20Year-Existing	8.10	123.09	124.48		124.48	0.000008	0.08	149.29	207.83	0.02
ForthP	M001	2187.52	20Year-Existing	8.10	123.09	124.47		124.47	0.000001	0.03	281.86	284.21	0.01
ForthP	M001	1955.13	20Year-Existing	8.10	123.09	124.47		124.47	0.000001	0.03	324.75	308.68	0.01
ForthP	M001	1773.83	20Year-Existing	8.10	123.09	124.47		124.47	0.000001	0.02	399.32	344.00	0.01
ForthP	M001	1572.85	20Year-Existing	8.10	123.09	124.47		124.47	0.000001	0.02	382.20	318.76	0.01
ForthP	M001	1496.60	20Year-Existing	8.10	123.09	124.47		124.47	0.000001	0.03	321.86	275.34	0.01
ForthP	M001	1392.58	20Year-Existing	29.07	122.98	124.47	124.15	124.47	0.000468	0.66	106.13	166.82	0.17
ForthP	M001	1390		Culvert									
ForthP	M001	1381.72	20Year-Existing	29.07	122.95	124.36	124.11	124.38	0.001758	1.12	67.61	148.63	0.31
ForthP	M001	1360.50	20Year-Existing	29.07	122.87	124.15		124.29	0.009486	2.45	24.52	62.29	0.74
ForthP	M001	1311.12	20Year-Existing	29.07	122.52	123.86		123.92	0.005332	1.86	34.27	73.03	0.55
ForthP	M001	1261.17	20Year-Existing	29.07	121.36	123.32	123.32	123.59	0.007611	2.98	21.06	38.26	0.71
ForthP	M001	1211.51	20Year-Existing	29.07	119.83	121.31	121.71	122.72	0.051105	6.17	6.93	8.94	1.74
ForthP	M001	1161.66	20Year-Existing	29.07	117.25	118.39	118.74	119.62	0.074105	6.13	8.82	24.32	2.01
ForthP	M001	1112.05	20Year-Existing	29.07	114.88	115.95	116.10	116.48	0.048030	4.93	12.60	33.68	1.62
ForthP	M001	1062.35	20Year-Existing	29.07	113.16	114.29	114.33	114.58	0.029455	3.79	15.19	32.87	1.24
ForthP	M001	1041.93	20Year-Existing	29.07	112.62	113.85	113.88	114.10	0.022669	3.49	17.02	40.10	1.09
ForthP	M001	1031.90	20Year-Existing	29.07	112.31	113.46	113.56	113.81	0.036301	4.25	15.46	43.09	1.38
ForthP	M001	1011.12	20Year-Existing	29.07	111.62	112.63	112.73	112.98	0.043604	4.40	15.15	45.13	1.51
ForthP	M001	959.76	20Year-Existing	29.07	110.31	111.10	111.10	111.26	0.029975	2.88	19.68	61.46	1.19
ForthP	M001	908.93	20Year-Existing	29.07	109.25	109.88	109.76	109.93	0.012973	1.66	30.25	88.23	0.76
ForthP	M001	856.39	20Year-Existing	29.07	108.38	108.83	108.76	108.90	0.023000	1.51	25.93	90.54	0.92
ForthP	M001	806.25	20Year-Existing	29.07	107.09	107.97		108.04	0.014778	2.26	29.04	90.12	0.85
ForthP	M001	754.78	20Year-Existing	29.07	106.12	107.10	107.10	107.22	0.019544	2.95	25.87	88.24	1.01
ForthP	M001	734.50	20Year-Existing	29.07	105.47	106.72	106.70	106.82	0.010147	2.41	30.18	88.49	0.75
ForthP	M001	724.30	20Year-Existing	29.07	105.28	106.54	106.54	106.69	0.013039	2.77	24.90	74.74	0.86
ForthP	M001	703.65	20Year-Existing	29.07	105.02	106.09	106.08	106.27	0.024321	3.42	18.76	45.42	1.12
ForthP	M001	654.47	20Year-Existing	29.07	103.90	104.76	104.76	104.92	0.028103	3.17	19.23	53.39	1.18
ForthP	M001	605.63	20Year-Existing	29.07	102.27	103.38	103.46	103.67	0.027749	3.67	18.31	56.51	1.22
ForthP	M001	585.13	20Year-Existing	29.07	101.55	102.38	102.48	102.81	0.075310	4.70	14.71	68.12	1.89
ForthP	M001	577.30	20Year-Existing	29.07	101.52	102.17	102.20	102.36	0.053982	3.35	16.84	61.44	1.53
ForthP	M001	557.33	20Year-Existing	29.07	100.67	101.31	101.30	101.43	0.033441	2.52	20.75	76.84	1.20
ForthP	M001	507.84	20Year-Existing	29.07	98.92	99.57	99.57	99.69	0.036459	2.63	21.20	83.42	1.25
ForthP	M001	453.33	20Year-Existing	29.07	96.28	97.03	96.98	97.11	0.018523	2.15	26.44	87.09	0.92
ForthP	M001	402.29	20Year-Existing	29.07	94.96	95.56	95.56	95.73	0.047591	3.09	17.53	57.66	1.43
ForthP	M001	349.18	20Year-Existing	29.07	93.64	94.20	94.06	94.26	0.015826	1.55	27.89	74.32	0.80
ForthP	M001	297.76	20Year-Existing	29.07	92.55	93.45	93.43	93.54	0.015574	2.30	27.59	78.09	0.88
ForthP	M001	246.28	20Year-Existing	29.07	91.71	92.44	92.39	92.54	0.021278	2.21	26.32	89.22	0.98
ForthP	M001	182.03	20Year-Existing	29.07	90.94	92.04	91.72	92.06	0.004100	1.40	47.75	103.56	0.46
ForthP	M001	160.27	20Year-Existing	29.07	90.13	92.04	91.29	92.05	0.000167	0.43	135.96	149.07	0.11
ForthP	M001	150		Culvert									
ForthP	M001	144.74	20Year-Existing	29.07	89.90	91.01	91.01	91.52	0.017052	3.18	9.42	92.93	0.99
ForthP	M001	124.30	20Year-Existing	29.07	89.74	90.89	90.82	90.97	0.011137	2.34	30.02	78.77	0.77
ForthP	M001	61.58	20Year-Existing	29.07	88.75	89.89	89.89	90.06	0.018856	3.03	22.13	55.81	1.01
ForestP	M001	1557.91	20Year-Existing	5.76	78.25	79.68	78.45	79.68	0.000002	0.04	143.91	120.94	0.01
ForestP	M001	1428.05	20Year-Existing	5.76	78.25	79.68		79.68	0.000001	0.03	195.97	175.49	0.01
ForestP	M001	1315.71	20Year-Existing	5.76	78.25	79.68		79.68	0.000001	0.02	275.94	241.58	0.01
ForestP	M001	1228.83	20Year-Existing	5.76	78.25	79.68		79.68	0.000000	0.02	330.05	284.07	0.01
ForestP	M001	1138.84	20Year-Existing	5.76	78.25	79.68		79.68	0.000000	0.02	386.45	338.91	0.00
ForestP	M001	1077.28	20Year-Existing	5.76	78.25	79.68		79.68	0.000000	0.02	424.56	477.65	0.00
ForestP	M001	1019.12	20Year-Existing	5.76	78.25	79.68		79.68	0.000001	0.03	213.09	275.31	0.01
ForestP	M001	958.61	20Year-Existing	7.29	78.15	79.66	79.50	79.68	0.000653	0.60	22.72	67.13	0.18
ForestP	M001	955		Culvert									
ForestP	M001	949.85	20Year-Existing	7.29	77.76	79.49	79.40	79.60	0.008004	1.69	7.55	27.68	0.46
ForestP	M001	913.34	20Year-Existing	7.29	78.16	79.01	79.01	79.16	0.027981	2.84	5.47	17.24	1.07
ForestP	M001	883.23	20Year-Existing	7.29	77.54	78.31	78.33	78.46	0.020693	2.39	7.14	36.01	0.98
ForestP	M001	859.61	20Year-Existing	7.29	76.75	77.39	77.48	77.70	0.052194	3.34	3.87	13.19	1.51
ForestP	M001	831.71	20Year-Existing	7.29	75.74	76.62	76.62	76.86	0.026927	2.92	4.27	10.26	1.12
ForestP	M001	802.91	20Year-Existing	7.29	74.66	75.39	75.53	75.83	0.048594	3.60	3.26	9.46	1.50
ForestP	M001	772.90	20Year-Existing	7.29	73.77	74.45	74.50	74.69	0.042313	3.18	4.16	12.57	1.36
ForestP	M001	737.48	20Year-Existing	7.29	72.77	73.46	73.41	73.55	0.016262	2.02	6.96	21.55	0.86
ForestP	M001	688.06	20Year-Existing	7.29	71.80	72.35	72.34	72.43	0.033526	2.31	6.79	31.92	1.12
ForestP	M001	651.32	20Year-Existing	7.29	70.81	71.41	71.38	71.49	0.020489	2.10	7.57	30.82	0.95
ForestP	M001	600.44	20Year-Existing	7.29	69.80	70.29	70.28	70.35	0.024761	1.94	9.15	54.05	1.00
ForestP	M001	578.60	20Year-Existing	7.29	69.31	69.90		69.95	0.013745	1.66	12.74	85.39	0.77
ForestP	M001	528.92	20Year-Existing	7.29	68.58	69.26		69.31	0.012139	1.70	10.90	51.58	0.74
ForestP	M001	478.55	20Year-Existing	7.29	68.21	69.24		69.24	0.000328	0.39	43.59	102.27	0.13
ForestP	M001	430.82	20Year-Existing	7.29	67.77	69.24		69.24	0.000064	0.23	76.57	119.86	0.06
ForestP	M001	378.18	20Year-Existing	7.29	67.48	69.24		69.24	0.000009	0.09	191.85	251.64	0.02
ForestP	M001	328.07	20Year-Existing	7.29	67.34	69.24		69.24	0.000003	0.05	284.58	287.75	0.01
ForestP	M001	277.95	20Year-Existing	7.29	67.07	69.24		69.24	0.000002	0.05	354.52	323.73	0.01
ForestP	M001	195.51	20Year-Existing	7.29	66.23	69.24		69.24	0.000000	0.02	690.00	507.98	0.00
ForestP	M001	158.37	20Year-Existing	7.29	66.23	69.24		69.24	0.000000	0.01	1360.20	665.26	0.00
ForestP	M001	89.11	20Year-Existing	7.29	66.23	69.24		69.24	0.000000	0.01	1506.99	730.68	0.00
DoylesR	TR019	260.51	20Year-Existing	0.27	124.74	125.04	124.93	125.05	0.000582	0.20	2.49	28.30	0.14

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR019	199.72	20Year-Existing	0.27	124.55	125.04		125.04	0.000003	0.02	27.80	131.75	0.01
DoylesR	TR019	150.00	20Year-Existing	0.27	124.37	125.04		125.04	0.000002	0.02	30.28	136.91	0.01
DoylesR	TR019	100.00	20Year-Existing	0.27	124.16	125.04		125.04	0.000002	0.03	25.12	111.05	0.01
DoylesR	TR019	50.00	20Year-Existing	0.27	124.18	125.04		125.04	0.000001	0.02	47.82	196.08	0.01
DoylesR	TR018	302.01	20Year-Existing	0.99	127.90	128.05	128.05	128.07	0.024853	0.79	1.61	23.70	0.81
DoylesR	TR018	270.53	20Year-Existing	0.99	126.19	128.01	126.73	128.01	0.000000	0.02	139.90	244.89	0.01
DoylesR	TR018	260		Culvert									
DoylesR	TR018	257.62	20Year-Existing	0.99	126.19	127.36	126.76	127.42	0.001817	1.09	0.91	139.68	0.33
DoylesR	TR018	244.68	20Year-Existing	0.99	125.64	127.35	126.45	127.40	0.001239	1.02	1.18	157.99	0.25
DoylesR	TR018	200		Culvert									
DoylesR	TR018	169.24	20Year-Existing	0.99	125.40	126.19	126.03	126.36	0.011583	2.10	0.59	74.53	0.78
DoylesR	TR018	131.43	20Year-Existing	0.99	125.24	125.43	125.43	125.46	0.039836	0.98	1.81	39.15	1.02
DoylesR	TR018	59.79	20Year-Existing	0.99	124.57	125.10	124.86	125.10	0.000377	0.25	9.54	82.30	0.12
DoylesR	TR017	4043.45	20Year-Existing	5.49	124.05	125.02		125.03	0.001315	0.83	17.27	55.54	0.27
DoylesR	TR017	3983.69	20Year-Existing	5.49	124.04	124.92		124.94	0.002172	0.89	14.35	66.62	0.33
DoylesR	TR017	3923.93	20Year-Existing	5.49	124.03	124.58	124.58	124.65	0.021282	1.63	6.49	41.24	0.91
DoylesR	TR017	3889.37	20Year-Existing	5.49	123.60	123.77	123.60	123.78	0.005030	0.23	13.20	60.36	0.33
DoylesR	TR017	3781.64	20Year-Existing	5.49	122.55	123.40		123.44	0.005375	1.37	9.85	41.59	0.51
DoylesR	TR017	3768.91	20Year-Existing	5.49	122.35	123.07	123.07	123.29	0.019743	2.19	3.03	8.02	0.93
DoylesR	TR017	3745.98	20Year-Existing	5.49	121.86	122.43	122.44	122.53	0.029908	1.94	5.15	34.12	1.06
DoylesR	TR017	3713.18	20Year-Existing	5.49	120.99	121.49	121.52	121.69	0.030432	2.08	3.12	12.01	1.11
DoylesR	TR017	3692.45	20Year-Existing	5.49	120.34	120.96	120.98	121.13	0.021808	2.01	3.64	13.22	0.97
DoylesR	TR017	3679.05	20Year-Existing	5.49	119.97	120.66	120.68	120.86	0.018782	2.18	3.29	11.20	0.94
DoylesR	TR017	3656.84	20Year-Existing	5.49	117.59	118.00	118.31	119.61	0.385650	5.69	1.02	5.26	3.69
DoylesR	TR017	3603.67	20Year-Existing	5.49	116.29	116.95	116.95	117.08	0.018153	2.05	4.46	20.43	0.91
DoylesR	TR017	3583.40	20Year-Existing	5.49	115.96	116.51	116.54	116.70	0.036619	2.45	3.73	19.55	1.23
DoylesR	TR017	3571.14	20Year-Existing	5.49	115.76	116.19	116.27	116.42	0.077775	3.09	3.28	21.78	1.73
DoylesR	TR017	3545.42	20Year-Existing	5.49	115.22	115.78	115.76	115.88	0.018547	1.73	5.00	19.71	0.87
DoylesR	TR017	3483.93	20Year-Existing	5.49	114.35	114.91	114.88	114.95	0.012833	1.52	9.91	68.21	0.74
DoylesR	TR017	3432.55	20Year-Existing	5.49	113.79	114.50	114.40	114.53	0.007625	1.38	10.14	61.04	0.58
DoylesR	TR017	3345.48	20Year-Existing	5.49	113.03	113.52	113.52	113.59	0.027857	1.82	6.02	37.45	1.03
DoylesR	TR017	3300.07	20Year-Existing	5.49	112.42	112.95	112.84	112.96	0.003960	0.74	15.21	75.77	0.40
DoylesR	TR016	918.87	20Year-Existing	1.98	127.08	128.80	127.24	128.80	0.000000	0.01	405.00	361.60	0.00
DoylesR	TR016	898.71	20Year-Existing	1.98	126.90	128.80	127.23	128.80	0.000000	0.02	196.61	225.39	0.01
DoylesR	TR016	890		Culvert									
DoylesR	TR016	882.28	20Year-Existing	1.98	126.88	128.72		128.72	0.000003	0.05	102.79	157.23	0.01
DoylesR	TR016	877.71	20Year-Existing	1.98	126.24	128.72	126.83	128.72	0.000002	0.05	121.39	187.35	0.01
DoylesR	TR016	850		Culvert									
DoylesR	TR016	848.13	20Year-Existing	1.98	126.37	127.04	127.04	127.26	0.020444	2.24	1.13	2.85	0.91
DoylesR	TR016	818.98	20Year-Existing	1.98	126.36	126.82	126.76	126.84	0.003698	0.70	6.30	51.45	0.38
DoylesR	TR016	768.99	20Year-Existing	1.98	126.30	126.62	126.55	126.63	0.004834	0.62	6.29	49.91	0.41
DoylesR	TR016	714.09	20Year-Existing	1.98	125.96	126.35	126.25	126.36	0.004921	0.67	5.40	35.35	0.42
DoylesR	TR016	675.95	20Year-Existing	1.98	125.74	126.06	126.06	126.10	0.019322	1.13	3.23	36.76	0.81
DoylesR	TR016	659.39	20Year-Existing	1.98	125.10	125.53	125.47	125.56	0.009220	1.09	3.44	24.27	0.60
DoylesR	TR016	632.80	20Year-Existing	1.98	124.78	125.21	125.21	125.28	0.015288	1.30	2.53	23.48	0.76
DoylesR	TR016	610.50	20Year-Existing	1.98	123.78	124.20	124.32	124.58	0.074473	2.89	0.85	4.46	1.67
DoylesR	TR016	549.37	20Year-Existing	1.98	122.30	122.87	122.87	122.99	0.022119	1.80	1.71	9.46	0.93
DoylesR	TR016	494.31	20Year-Existing	1.98	120.93	121.52	121.53	121.69	0.024989	1.84	1.13	3.96	0.98
DoylesR	TR016	473.82	20Year-Existing	1.98	120.18	120.62	120.71	120.91	0.061852	2.43	0.89	4.25	1.49
DoylesR	TR016	459.95	20Year-Existing	1.98	119.62	120.08	120.11	120.25	0.034120	1.90	1.13	4.95	1.13
DoylesR	TR016	439.99	20Year-Existing	1.98	119.05	119.62	119.62	119.78	0.025474	1.78	1.16	4.13	0.98
DoylesR	TR016	384.99	20Year-Existing	1.98	117.07	117.50	117.57	117.74	0.058673	2.14	0.93	4.43	1.42
DoylesR	TR016	329.99	20Year-Existing	1.98	115.67	116.05	116.14	116.33	0.096857	2.36	0.86	5.56	1.76
DoylesR	TR016	274.18	20Year-Existing	1.98	114.93	115.31	115.30	115.34	0.011770	0.97	3.96	45.22	0.64
DoylesR	TR016	218.88	20Year-Existing	1.98	114.35	114.81	114.80	114.84	0.010609	0.98	4.01	44.52	0.62
DoylesR	TR016	165.43	20Year-Existing	1.98	113.83	114.36	114.30	114.40	0.008604	1.05	3.51	33.93	0.58
DoylesR	TR016	86.48	20Year-Existing	1.98	112.80	113.20	113.20	113.28	0.027502	1.39	1.83	12.00	0.96
DoylesR	TR016	40.19	20Year-Existing	1.98	112.21	112.78	112.67	112.79	0.002372	0.61	7.54	53.00	0.31
DoylesR	TR015	3230.71	20Year-Existing	11.97	111.60	112.47		112.52	0.008197	1.73	17.74	69.91	0.64
DoylesR	TR015	3185.04	20Year-Existing	11.97	111.22	112.12	112.05	112.20	0.011169	1.91	14.38	50.35	0.74
DoylesR	TR015	3133.58	20Year-Existing	11.97	110.57	111.34	111.34	111.46	0.019810	2.39	11.68	45.09	0.97
DoylesR	TR015	3079.97	20Year-Existing	11.97	108.17	109.00	109.21	109.70	0.057909	4.10	3.97	9.72	1.66
DoylesR	TR015	3026.43	20Year-Existing	11.97	107.30	109.05	108.19	109.07	0.000474	0.68	29.51	33.44	0.18
DoylesR	TR015	3001.28	20Year-Existing	11.97	106.17	109.06	107.96	109.06	0.000071	0.35	82.50	77.05	0.07
DoylesR	TR015	3000		Culvert									
DoylesR	TR015	2988.77	20Year-Existing	11.97	106.03	107.82	107.82	108.07	0.005990	2.56	9.95	28.36	0.63
DoylesR	TR015	2963.30	20Year-Existing	11.97	105.69	106.46	106.75	107.59	0.098198	5.44	3.89	14.70	2.13
DoylesR	TR015	2915.60	20Year-Existing	11.97	104.53	105.59	105.60	105.81	0.016081	2.63	8.64	21.65	0.91
DoylesR	TR015	2867.64	20Year-Existing	11.97	103.37	104.39	104.56	104.79	0.034500	3.72	6.23	14.92	1.30
DoylesR	TR015	2841.04	20Year-Existing	11.97	102.40	102.96	103.05	103.27	0.089595	3.58	6.33	27.49	1.89
DoylesR	TR015	2804.73	20Year-Existing	11.97	101.67	102.45	102.38	102.54	0.014999	2.08	11.97	34.31	0.84
DoylesR	TR015	2742.98	20Year-Existing	11.97	100.87	101.65	101.61	101.71	0.013195	2.02	16.43	64.57	0.80
DoylesR	TR015	2687.77	20Year-Existing	11.97	100.07	100.65	100.65	100.74	0.027675	2.26	12.51	61.23	1.09
DoylesR	TR015	2638.14	20Year-Existing	11.97	98.95	99.72	99.73	99.86	0.023817	2.72	11.48	46.30	1.07
DoylesR	TR015	2593.26	20Year-Existing	11.97	97.75	98.79	98.74	98.89	0.011114	2.21	12.63	35.68	0.76
DoylesR	TR015	2557.12	20Year-Existing	11.97	97.53	98.53		98.59	0.007542	1.85	15.52	43.44	0.63
DoylesR	TR015	2522.34	20Year-Existing	11.97	97.26	98.12	98.12	98.25	0.016307	2.19	10.81	38.51	0.88
DoylesR	TR015	2483.94	20Year-Existing	11.97	96.95	97.66	97.60	97.70	0.013018	1.69	15.56	59.45	0.75
DoylesR	TR015	2438.99	20Year-Existing	11.97	96.35	97.38		97.41	0.004624	1.42	21.87	82.78	0.49
DoylesR	TR015	2387.12	20Year-Existing	11.97	96.39	97.24		97.25	0.002435	0.85	33.75	118.33	0.34
DoylesR	TR015	2352.45	20Year-Existing	11.97	96.40	97.20		97.21	0.000849	0.49	43.76	97.22	0.20
DoylesR	TR015	2283.37	20Year-Existing	11.97	95.75	97.04		97.10	0.003364	1.47	14.18	21.39	0.44
DoylesR	TR015	2231.50	20Year-Existing	11.97	95.54	96.62		96.79	0.012192	2.37	8.45	16.34	0.81
DoylesR	TR015	2160.12	20Year-Existing	11.97	94.93	95.89		95.99	0.009457	1.89	10.29	21.41	0.70
DoylesR	TR015	2119.11	20Year-Existing	11.97	94.44	95.44	95.41	95.58	0.012365	2.26	10.18	25.86	0.80

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR015	2075.88	20Year-Existing	11.97	93.86	94.74	94.74	94.93	0.018176	2.47	9.10	32.87	0.95
DoylesR	TR015	2024.01	20Year-Existing	11.97	93.19	94.24	94.17	94.32	0.008350	1.88	14.08	46.96	0.66
DoylesR	TR015	1972.14	20Year-Existing	11.97	92.71	93.64	93.64	93.76	0.016441	2.47	10.97	50.76	0.90
DoylesR	TR015	1921.75	20Year-Existing	11.97	92.35	93.33	93.03	93.35	0.002868	1.09	23.79	63.41	0.38
DoylesR	TR015	1851.62	20Year-Existing	11.97	91.24	92.56	92.56	92.99	0.019066	3.25	5.13	8.40	1.00
DoylesR	TR014	2057.49	20Year-Existing	7.20	125.48	126.46	126.30	126.49	0.003699	1.12	14.23	56.99	0.42
DoylesR	TR014	2037.89	20Year-Existing	7.20	125.57	126.45		126.45	0.000699	0.51	32.41	91.74	0.19
DoylesR	TR014	1988.88	20Year-Existing	7.20	124.71	126.38	125.47	126.41	0.000873	0.88	11.58	34.51	0.23
DoylesR	TR014	1980		Culvert									
DoylesR	TR014	1975.46	20Year-Existing	7.20	124.46	126.21		126.25	0.000863	0.91	8.80	8.05	0.24
DoylesR	TR014	1936.56	20Year-Existing	7.20	124.86	126.06		126.17	0.004791	1.71	6.28	10.36	0.53
DoylesR	TR014	1904.43	20Year-Existing	7.20	124.72	125.68	125.68	125.92	0.013317	2.39	4.42	10.42	0.84
DoylesR	TR014	1867.03	20Year-Existing	7.20	124.61	125.53		125.60	0.004519	1.37	9.23	23.36	0.49
DoylesR	TR014	1801.50	20Year-Existing	7.20	124.00	124.86	124.86	125.07	0.016814	2.48	4.89	12.67	0.92
DoylesR	TR014	1765.57	20Year-Existing	7.20	123.20	123.70	123.82	124.05	0.055387	2.93	3.46	15.69	1.52
DoylesR	TR014	1703.29	20Year-Existing	7.20	121.82	122.58	122.53	122.76	0.013705	2.11	4.86	11.80	0.83
DoylesR	TR014	1657.91	20Year-Existing	7.20	121.27	121.97	121.91	122.13	0.013859	1.89	5.27	17.89	0.81
DoylesR	TR014	1607.98	20Year-Existing	7.20	120.59	121.37	121.37	121.48	0.012000	1.91	8.36	41.61	0.76
DoylesR	TR014	1544.18	20Year-Existing	7.20	119.81	120.62	120.63	120.73	0.011522	1.96	8.23	38.39	0.76
DoylesR	TR014	1492.70	20Year-Existing	7.20	119.06	119.64	119.71	119.83	0.028768	2.42	5.90	34.85	1.13
DoylesR	TR014	1441.23	20Year-Existing	7.20	117.59	118.50	118.50	118.77	0.018701	2.79	4.28	9.65	0.99
DoylesR	TR014	1420.98	20Year-Existing	7.20	116.98	118.03	117.63	118.07	0.002854	1.22	9.02	12.75	0.40
DoylesR	TR014	1411.86	20Year-Existing	7.20	117.03	117.94	117.61	118.03	0.004948	1.55	6.03	11.73	0.52
DoylesR	TR014	1400		Bridge									
DoylesR	TR014	1384.41	20Year-Existing	8.28	116.71	117.43	117.36	117.64	0.014695	2.15	4.36	9.64	0.85
DoylesR	TR014	1374.60	20Year-Existing	8.28	116.54	117.37		117.49	0.008065	1.69	6.16	11.27	0.64
DoylesR	TR014	1353.25	20Year-Existing	8.28	116.21	116.98	116.98	117.22	0.019316	2.44	4.33	9.27	0.98
DoylesR	TR014	1309.14	20Year-Existing	8.28	115.50	116.32	116.18	116.48	0.009794	1.78	4.81	8.20	0.70
DoylesR	TR014	1296.25	20Year-Existing	8.28	115.12	115.99	115.99	116.27	0.018616	2.65	4.16	7.74	0.98
DoylesR	TR014	1239.25	20Year-Existing	8.28	113.43	114.03	114.19	114.52	0.054672	3.41	3.21	10.25	1.57
DoylesR	TR014	1203.69	20Year-Existing	8.28	112.84	113.61	113.52	113.68	0.009509	1.79	8.89	24.41	0.69
DoylesR	TR014	1182.25	20Year-Existing	8.28	112.53	113.24	113.24	113.39	0.017712	2.23	6.46	19.78	0.92
DoylesR	TR014	1125.25	20Year-Existing	8.28	111.30	112.39	112.19	112.44	0.004238	1.48	11.23	22.40	0.48
DoylesR	TR014	1104.23	20Year-Existing	8.28	111.16	112.08	112.08	112.27	0.015415	2.37	5.92	15.76	0.88
DoylesR	TR014	1094.88	20Year-Existing	8.28	110.55	111.23	111.46	111.95	0.075967	4.53	2.93	8.59	1.89
DoylesR	TR014	1075.36	20Year-Existing	8.28	110.17	111.06	111.16	111.40	0.028137	3.32	5.21	17.00	1.20
DoylesR	TR014	1027.18	20Year-Existing	8.28	109.15	109.95	109.98	110.17	0.022251	2.61	5.59	16.12	1.04
DoylesR	TR014	980.74	20Year-Existing	8.28	107.89	108.85	108.54	108.90	0.003891	1.35	11.23	19.78	0.46
DoylesR	TR014	954.47	20Year-Existing	8.28	107.68	108.50	108.50	108.69	0.017970	2.43	6.07	17.25	0.94
DoylesR	TR014	934.37	20Year-Existing	8.28	106.99	107.81	107.89	108.17	0.031576	3.09	4.55	14.61	1.23
DoylesR	TR014	907.24	20Year-Existing	8.28	106.52	107.35	107.31	107.45	0.011920	2.06	9.04	26.31	0.77
DoylesR	TR014	868.80	20Year-Existing	8.28	105.88	106.71	106.71	106.91	0.016498	2.33	5.86	15.60	0.91
DoylesR	TR014	864.98	20Year-Existing	8.28	105.70	106.52	106.55	106.83	0.025314	2.60	3.90	10.01	1.09
DoylesR	TR014	844.06	20Year-Existing	8.28	105.10	106.16	106.03	106.30	0.008260	1.98	6.51	11.99	0.67
DoylesR	TR014	836.52	20Year-Existing	8.28	104.97	105.94	105.94	106.20	0.017664	2.53	4.70	10.15	0.93
DoylesR	TR014	816.09	20Year-Existing	8.28	104.78	105.49	105.47	105.63	0.017079	2.07	6.61	21.96	0.89
DoylesR	TR014	811.48	20Year-Existing	8.28	104.64	105.49		105.55	0.007072	1.58	9.16	20.21	0.60
DoylesR	TR014	783.28	20Year-Existing	8.28	103.98	104.98	104.98	105.24	0.017403	2.80	4.86	9.44	0.96
DoylesR	TR014	751.27	20Year-Existing	8.28	103.31	104.21	104.28	104.56	0.026290	2.65	3.47	8.26	1.10
DoylesR	TR014	717.94	20Year-Existing	8.28	102.63	103.84	103.84	104.07	0.012650	2.70	5.94	12.85	0.83
DoylesR	TR014	676.43	20Year-Existing	8.28	102.18	103.22	103.17	103.41	0.011532	2.18	5.83	14.18	0.77
DoylesR	TR014	601.44	20Year-Existing	8.28	101.39	102.16	102.16	102.31	0.018639	2.28	6.12	18.73	0.94
DoylesR	TR014	540.83	20Year-Existing	8.28	100.49	101.94	101.38	101.97	0.001490	1.06	14.07	28.77	0.30
DoylesR	TR014	519.25	20Year-Existing	8.28	99.69	101.95	101.27	101.96	0.000156	0.42	46.88	70.08	0.09
DoylesR	TR014	510		Culvert									
DoylesR	TR014	505.00	20Year-Existing	8.28	99.62	101.21	101.21	101.95	0.018239	3.87	2.22	23.90	1.00
DoylesR	TR014	484.27	20Year-Existing	8.28	99.79	100.52	100.73	101.20	0.093136	4.32	2.76	10.11	1.97
DoylesR	TR014	426.15	20Year-Existing	8.28	98.71	99.67	99.67	99.94	0.019427	2.40	4.09	8.83	0.96
DoylesR	TR014	368.05	20Year-Existing	8.28	97.30	98.40	98.49	98.72	0.023817	2.86	4.49	13.50	1.05
DoylesR	TR014	343.01	20Year-Existing	8.28	96.78	98.05	97.59	98.15	0.003177	1.43	6.41	60.19	0.42
DoylesR	TR014	335		Bridge									
DoylesR	TR014	331.91	20Year-Existing	8.28	96.63	97.70	97.69	98.02	0.015778	2.59	3.65	6.45	0.90
DoylesR	TR014	312.09	20Year-Existing	8.28	96.26	97.55	97.55	97.68	0.010285	1.90	8.24	32.36	0.68
DoylesR	TR014	227.09	20Year-Existing	8.28	94.66	96.30	95.93	96.35	0.002820	1.36	12.88	25.23	0.38
DoylesR	TR014	205.76	20Year-Existing	8.28	94.51	96.01	96.01	96.23	0.009823	2.33	5.90	15.82	0.70
DoylesR	TR014	198.96	20Year-Existing	8.28	94.45	95.05	95.33	95.99	0.145849	4.28	1.97	7.25	2.38
DoylesR	TR014	181.77	20Year-Existing	8.28	94.01	95.09	95.09	95.27	0.013415	2.29	6.58	20.11	0.82
DoylesR	TR014	121.12	20Year-Existing	8.28	92.99	94.10	94.20	94.35	0.015848	2.53	6.51	42.36	0.89
DoylesR	TR014	34.73	20Year-Existing	8.28	91.60	92.38	92.44	92.68	0.026319	2.59	4.00	10.12	1.11
DoylesR	TR012	1780.65	20Year-Existing	20.16	90.30	92.03	91.45	92.12	0.002223	1.37	20.35	30.60	0.37
DoylesR	TR012	1753.67	20Year-Existing	20.16	89.56	92.06	90.87	92.08	0.000328	0.77	50.29	56.59	0.16
DoylesR	TR012	1745		Bridge									
DoylesR	TR012	1729.43	20Year-Existing	20.16	89.10	90.71	90.71	91.36	0.015864	3.63	5.87	11.49	0.97
DoylesR	TR012	1709.20	20Year-Existing	20.16	88.93	90.45	90.57	90.92	0.018122	3.60	9.60	19.98	1.02
DoylesR	TR012	1645.76	20Year-Existing	20.16	88.20	89.24	89.28	89.58	0.020958	2.98	9.42	16.75	1.05
DoylesR	TR011	1552.47	20Year-Existing	29.07	86.48	88.40	88.04	88.68	0.006126	2.56	14.96	13.13	0.64
DoylesR	TR011	1530.88	20Year-Existing	29.07	86.19	87.90	87.90	88.46	0.014945	3.72	10.76	10.38	0.98
DoylesR	TR011	1477.56	20Year-Existing	29.07	84.43	85.64	86.03	86.94	0.063255	5.63	7.26	12.59	1.85
DoylesR	TR011	1423.69	20Year-Existing	29.07	83.56	85.20	85.20	85.77	0.015086	3.58	10.29	10.11	0.97
DoylesR	TR011	1370.10	20Year-Existing	29.07	82.66	83.87	84.07	84.54	0.038684	4.57	11.69	28.94	1.47
DoylesR	TR011	1316.51	20Year-Existing	29.07	81.17	82.65	82.69	83.22	0.018855	3.68	10.28	11.84	1.06
DoylesR	TR011	1262.92	20Year-Existing	29.07	79.36	80.87	81.16	81.86	0.033362	4.84	8.17	11.71	1.40
DoylesR	TR011	1209.33	20Year-Existing	29.07	78.14	80.04	80.08	80.66	0.015699	3.81	10.14	10.71	0.98
DoylesR	TR011	1155.74	20Year-Existing	29.07	76.81	78.45	78.73	79.45	0.032637	4.79	7.68	8.86	1.37
DoylesR	TR011	1107.39	20Year-Existing	29.07	76.34	77.75	77.80	78.26	0.019201	3.29	10.00	12.43	1.04

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR011	1057.82	20Year-Existing	29.07	75.16	76.95	76.99	77.50	0.015952	3.51	10.31	11.57	0.97
DoylesR	TR011	971.36	20Year-Existing	29.07	73.33	74.85	74.40	75.06	0.004794	2.02	14.36	18.83	0.55
DoylesR	TR011	960		Bridge									
DoylesR	TR011	949.62	20Year-Existing	29.07	73.08	74.77	74.08	74.92	0.002825	1.73	16.78	13.86	0.44
DoylesR	TR011	929.53	20Year-Existing	29.07	72.74	74.42		74.77	0.009579	2.77	12.52	12.09	0.77
DoylesR	TR011	872.05	20Year-Existing	29.07	72.26	74.00	74.00	74.20	0.008748	2.67	23.08	53.37	0.72
DoylesR	TR011	816.76	20Year-Existing	29.07	72.00	72.98	72.91	73.05	0.014468	2.24	29.29	92.21	0.83
DoylesR	TR011	760.16	20Year-Existing	29.07	71.25	72.35		72.43	0.011097	2.33	30.00	82.23	0.77
DoylesR	TR011	712.26	20Year-Existing	29.07	70.34	71.69		71.83	0.011644	2.65	23.61	59.53	0.81
DoylesR	TR011	663.11	20Year-Existing	29.07	70.08	71.38		71.42	0.005935	1.76	44.60	123.41	0.55
DoylesR	TR013	2205.78	20Year-Existing	6.30	95.88	96.60	96.37	96.61	0.001237	0.66	23.85	93.82	0.25
DoylesR	TR013	2147.59	20Year-Existing	6.30	95.87	96.51		96.52	0.001722	0.67	16.70	52.87	0.29
DoylesR	TR013	2097.40	20Year-Existing	6.30	95.86	96.18	96.18	96.27	0.045621	1.94	6.24	46.94	1.27
DoylesR	TR013	2011.99	20Year-Existing	6.30	93.67	94.60	94.45	94.72	0.007374	1.69	4.90	10.23	0.62
DoylesR	TR013	1957.46	20Year-Existing	6.30	93.05	93.93	93.93	94.16	0.016156	2.56	3.86	9.12	0.92
DoylesR	TR013	1909.18	20Year-Existing	6.30	92.33	93.18	93.22	93.38	0.015133	2.27	5.26	31.54	0.87
DoylesR	TR013	1861.01	20Year-Existing	6.30	91.27	92.15	92.30	92.49	0.022562	2.72	3.20	16.40	1.04
DoylesR	TR013	1789.09	20Year-Existing	6.30	90.00	90.53	90.57	90.65	0.026694	2.09	6.72	55.57	1.06
DoylesR	TR013	1733.37	20Year-Existing	6.30	89.53	90.21	90.09	90.23	0.003764	0.90	14.28	70.86	0.41
DoylesR	TR013	1677.65	20Year-Existing	6.30	89.42	89.80		89.83	0.016416	1.29	8.65	53.14	0.78
DoylesR	TR013	1613.85	20Year-Existing	6.30	89.11	89.58		89.59	0.001785	0.51	22.52	94.93	0.27
DoylesR	TR013	1552.30	20Year-Existing	6.30	88.82	89.49		89.50	0.001815	0.70	19.37	67.20	0.29
DoylesR	TR013	1506.96	20Year-Existing	6.30	88.81	89.42		89.43	0.001749	0.66	19.11	64.03	0.29
DoylesR	TR013	1478.17	20Year-Existing	6.30	88.80	89.23	89.22	89.29	0.027404	1.77	7.05	40.86	1.02
DoylesR	TR013	1411.61	20Year-Existing	6.30	88.11	89.05		89.06	0.001187	0.69	13.57	29.55	0.25
DoylesR	TR013	1388.58	20Year-Existing	6.30	87.45	89.05	88.76	89.05	0.000089	0.27	54.24	152.37	0.07
DoylesR	TR013	1375		Culvert									
DoylesR	TR013	1373.86	20Year-Existing	6.30	87.32	88.52	88.50	88.60	0.004656	1.65	6.80	12.22	0.50
DoylesR	TR013	1301.72	20Year-Existing	6.30	86.82	87.73	87.73	88.00	0.017340	2.47	3.21	6.49	0.93
DoylesR	TR013	1246.99	20Year-Existing	6.30	85.79	86.58	86.62	86.90	0.023975	2.56	2.74	6.01	1.06
DoylesR	TR013	1192.26	20Year-Existing	6.30	84.79	85.77	85.60	85.90	0.007812	1.76	4.87	9.86	0.64
DoylesR	TR013	1137.53	20Year-Existing	6.30	84.03	85.03	85.01	85.30	0.015672	2.41	3.19	6.38	0.88
DoylesR	TR013	1082.80	20Year-Existing	6.30	83.55	84.42		84.51	0.012079	1.76	6.11	21.64	0.74
DoylesR	TR013	1064.90	20Year-Existing	6.30	82.57	84.45	83.50	84.47	0.000435	0.62	22.12	101.52	0.16
DoylesR	TR013	1050		Culvert									
DoylesR	TR013	1042.53	20Year-Existing	6.30	82.41	84.08	83.26	84.09	0.000439	0.59	21.39	60.53	0.16
DoylesR	TR013	1022.06	20Year-Existing	6.30	82.71	83.92	83.69	84.06	0.006264	1.90	4.78	7.35	0.59
DoylesR	TR013	969.32	20Year-Existing	6.30	82.40	83.22	83.22	83.49	0.020608	2.67	3.25	6.44	1.02
DoylesR	TR013	915.66	20Year-Existing	6.30	81.80	82.82	82.48	82.84	0.001459	0.85	15.32	36.59	0.28
DoylesR	TR013	867.93	20Year-Existing	6.30	81.40	82.70		82.74	0.002587	1.30	10.59	28.95	0.38
DoylesR	TR013	809.27	20Year-Existing	6.30	81.32	82.42		82.53	0.005103	1.55	5.05	8.70	0.52
DoylesR	TR013	756.07	20Year-Existing	6.30	80.75	81.75	81.74	82.06	0.016359	2.75	3.10	5.29	0.93
DoylesR	TR013	702.82	20Year-Existing	6.30	79.91	80.90	80.90	81.18	0.016470	2.64	3.26	6.24	0.92
DoylesR	TR013	651.60	20Year-Existing	6.30	78.06	78.77	78.97	79.54	0.079250	4.03	1.79	5.08	1.84
DoylesR	TR013	588.74	20Year-Existing	6.30	75.89	76.79	76.78	77.03	0.019472	2.21	3.09	7.21	0.94
DoylesR	TR013	543.29	20Year-Existing	6.30	75.20	75.91	75.90	76.13	0.020347	2.10	3.15	7.58	0.95
DoylesR	TR013	489.08	20Year-Existing	6.30	73.77	74.79	74.79	75.11	0.017514	2.78	3.04	5.26	0.95
DoylesR	TR013	436.90	20Year-Existing	6.30	72.11	72.91	73.26	73.54	0.059694	3.54	1.85	4.39	1.59
DoylesR	TR013	383.70	20Year-Existing	6.30	70.97	72.60	71.78	72.61	0.000128	0.33	51.93	139.00	0.09
DoylesR	TR013	363.75	20Year-Existing	6.30	70.36	71.82	71.82	72.53	0.015492	3.72	1.70	7.90	1.00
DoylesR	TR013	360		Culvert									
DoylesR	TR013	344.87	20Year-Existing	6.30	70.32	71.70	71.70	71.71	0.000468	0.55	24.34	48.31	0.16
DoylesR	TR013	324.16	20Year-Existing	6.30	70.29	70.83	70.96	71.49	0.163515	4.38	2.65	27.21	2.47
DoylesR	TR013	256.30	20Year-Existing	6.30	69.36	70.26	70.26	70.33	0.013962	1.90	8.14	43.19	0.75
DoylesR	TR013	236.50	20Year-Existing	6.30	69.35	70.13	69.96	70.13	0.001147	0.45	27.32	115.12	0.22
DoylesR	TR013	162.98	20Year-Existing	6.30	68.94	70.07		70.08	0.001091	0.59	22.96	100.46	0.22
DoylesR	TR013	133.14	20Year-Existing	6.30	68.76	70.05		70.06	0.000294	0.32	40.72	110.91	0.12
DoylesR	TR013	66.14	20Year-Existing	6.30	68.46	70.03		70.04	0.000269	0.36	31.02	75.80	0.11
DoylesR	M001	484.12	20Year-Existing	35.37	68.08	69.62	69.59	69.78	0.013961	2.65	25.98	72.46	0.83
DoylesR	M001	429.44	20Year-Existing	35.37	67.72	69.41		69.45	0.003334	1.43	52.41	121.11	0.41
DoylesR	M001	388.03	20Year-Existing	35.37	67.53	69.27		69.31	0.003559	1.53	57.68	129.03	0.43
DoylesR	M001	344.78	20Year-Existing	35.37	67.39	69.25		69.25	0.000545	0.63	123.15	198.44	0.17
DoylesR	M001	215.64	20Year-Existing	35.37	67.21	69.24		69.24	0.000044	0.20	307.50	319.20	0.05
DoylesR	M001	77.13	20Year-Existing	35.37	66.62	69.24		69.24	0.000011	0.13	559.70	491.05	0.03
CochranePB	M002	8105.53	20Year-Existing	9.99	140.65	142.10	141.31	142.10	0.000135	0.35	62.39	99.07	0.10
CochranePB	M002	8065.47	20Year-Existing	9.99	140.64	142.07		142.09	0.000879	0.79	28.40	69.49	0.26
CochranePB	M002	8050.98	20Year-Existing	9.99	140.00	142.04		142.08	0.000244	0.88	21.55	57.30	0.26
CochranePB	M002	8024.09	20Year-Existing	9.99	140.62	142.04		142.06	0.001448	0.97	24.81	79.51	0.33
CochranePB	M002	8013.06	20Year-Existing	9.99	140.42	142.03		142.05	0.000675	0.75	30.74	71.25	0.23
CochranePB	M002	8004.70	20Year-Existing	9.99	140.25	142.03	141.80	142.04	0.000424	0.81	41.74	100.03	0.20
CochranePB	M002	8000		Culvert									
CochranePB	M002	7995.14	20Year-Existing	9.99	140.37	142.03	141.44	142.04	0.000215	0.56	42.50	72.78	0.14
CochranePB	M002	7964.49	20Year-Existing	9.99	140.14	141.65	141.65	141.99	0.011400	3.00	5.33	8.88	0.89
CochranePB	M002	7901.64	20Year-Existing	9.99	139.30	140.60	140.64	141.01	0.022244	3.04	4.34	10.56	1.14
CochranePB	M002	7847.08	20Year-Existing	9.99	138.68	139.73	139.62	139.78	0.006781	1.49	13.38	43.77	0.63
CochranePB	M002	7812.33	20Year-Existing	9.99	138.52	139.28	139.28	139.38	0.025449	2.10	9.72	53.09	1.17
CochranePB	M002	7738.34	20Year-Existing	9.99	137.94	138.85	138.69	138.86	0.002409	0.79	26.67	101.86	0.38
CochranePB	M002	7695.32	20Year-Existing	9.99	137.67	138.55	138.55	138.66	0.014513	1.84	9.27	39.48	0.92
CochranePB	M002	7609.21	20Year-Existing	9.99	136.29	137.66	137.21	137.67	0.000737	0.71	27.02	68.79	0.24
CochranePB	M002	7515.77	20Year-Existing	9.99	136.28	137.54		137.57	0.002119	1.11	19.60	67.50	0.39
CochranePB	M002	7476.72	20Year-Existing	9.99	136.26	137.52		137.53	0.000550	0.56	32.80	84.72	0.20
CochranePB	M002	7450.86	20Year-Existing	9.99	136.25	137.49		137.51	0.001071	0.75	23.70	73.31	0.28
CochranePB	M002	7329.89	20Year-Existing	9.99	136.23	137.20		137.25	0.005714	1.36	13.76	71.10	0.60
CochranePB	M002	7253.62	20Year-Existing	9.99	136.05	137.03		137.05	0.001925	0.86	22.29	82.74	0.35
CochranePB	M002	7208.54	20Year-Existing	9.99	135.88	136.93		136.95	0.002501	1.01	21.60	86.30	0.41

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	7108.13	20Year-Existing	9.99	135.54	136.42		136.51	0.013786	2.07	11.15	53.83	0.90
CochranePB	M002	7041.67	20Year-Existing	9.99	134.91	136.03		136.10	0.004095	1.28	14.12	71.29	0.52
CochranePB	M002	6985.71	20Year-Existing	9.99	134.29	135.46	135.46	135.71	0.012660	2.53	6.44	19.98	0.93
CochranePB	M002	6955.25	20Year-Existing	9.99	133.48	134.57	134.72	135.06	0.035094	3.18	3.50	9.78	1.45
CochranePB	M002	6863.52	20Year-Existing	9.99	131.82	132.80	132.80	132.93	0.014907	2.21	9.31	36.33	0.95
CochranePB	M002	6840.09	20Year-Existing	9.99	131.19	132.07	132.15	132.37	0.041041	2.94	6.08	34.45	1.52
CochranePB	M002	6808.25	20Year-Existing	9.99	130.51	131.37	131.41	131.54	0.029526	2.44	7.88	39.12	1.26
CochranePB	M002	6767.75	20Year-Existing	9.99	129.31	130.25	130.31	130.46	0.023373	2.43	7.30	40.75	1.18
CochranePB	M002	6727.78	20Year-Existing	9.99	128.36	129.40	129.46	129.61	0.019795	2.43	7.14	30.95	1.08
CochranePB	M002	6691.71	20Year-Existing	9.99	127.96	128.96	128.90	129.03	0.007533	1.52	12.84	58.65	0.68
CochranePB	M002	6651.54	20Year-Existing	9.99	127.68	128.59		128.68	0.010477	1.42	8.93	35.66	0.77
CochranePB	M002	6630.83	20Year-Existing	9.99	127.19	128.31	128.29	128.46	0.010016	1.92	7.92	30.90	0.81
CochranePB	M002	6534.50	20Year-Existing	9.99	126.30	127.23	127.23	127.35	0.013387	1.85	9.26	45.82	0.90
CochranePB	M002	6507.97	20Year-Existing	9.99	125.65	126.50	126.58	126.74	0.043476	2.75	6.74	46.73	1.51
CochranePB	M002	6480.50	20Year-Existing	9.99	124.97	125.86	125.86	125.98	0.019652	2.10	8.97	49.60	1.05
CochranePB	M002	6433.33	20Year-Existing	9.99	124.09	124.99	125.01	125.14	0.019874	1.94	7.10	34.40	1.06
CochranePB	M002	6400.96	20Year-Existing	9.99	123.40	124.46	124.33	124.52	0.005676	1.32	12.39	40.14	0.58
CochranePB	M002	6364.18	20Year-Existing	9.99	123.28	124.47		124.47	0.000260	0.35	37.33	83.65	0.14
CochranePB	M002	6314.31	20Year-Existing	9.99	123.27	124.41		124.44	0.001963	0.91	16.76	47.95	0.37
CochranePB	M002	6286.25	20Year-Existing	9.99	123.26	124.33		124.37	0.003139	1.07	13.77	43.94	0.46
CochranePB	M002	6202.53	20Year-Existing	9.99	122.81	123.96	123.87	124.05	0.005742	1.57	9.95	30.17	0.63
CochranePB	M002	6130.00	20Year-Existing	9.99	122.30	123.23	123.23	123.39	0.017533	1.81	5.97	22.60	1.00
CochranePB	M002	6040.82	20Year-Existing	9.99	121.41	122.52	122.40	122.56	0.002776	1.10	17.45	68.95	0.44
CochranePB	M002	6006.95	20Year-Existing	9.99	121.40	122.50		122.51	0.000789	0.49	26.21	83.00	0.23
CochranePB	M002	5976.09	20Year-Existing	9.99	121.39	122.35	122.35	122.44	0.012486	1.64	11.38	67.03	0.85
CochranePB	M002	5910.40	20Year-Existing	9.99	120.29	121.41	121.45	121.60	0.015303	2.34	7.68	35.49	0.98
CochranePB	M002	5863.68	20Year-Existing	9.99	119.62	120.48	120.58	120.71	0.031939	2.35	5.66	29.66	1.32
CochranePB	M002	5811.63	20Year-Existing	9.99	118.87	119.91	119.91	120.02	0.010317	1.87	10.49	48.71	0.81
CochranePB	M002	5768.42	20Year-Existing	9.99	117.38	118.23	118.43	118.93	0.121726	3.69	2.71	12.20	2.45
CochranePB	M002	5725.36	20Year-Existing	9.99	116.48	117.54	117.54	117.69	0.012553	1.95	7.77	33.90	0.88
CochranePB	M002	5678.58	20Year-Existing	9.99	115.39	116.36	116.47	116.70	0.034672	2.61	4.03	16.08	1.40
CochranePB	M002	5627.04	20Year-Existing	9.99	114.79	116.06	115.77	116.10	0.001914	1.00	16.15	34.51	0.37
CochranePB	M002	5609.94	20Year-Existing	15.03	114.77	115.89		115.99	0.007199	1.66	13.58	39.07	0.69
CochranePB	M002	5601.00	20Year-Existing	15.03	114.76	115.83		115.84	0.002180	0.88	34.23	105.34	0.37
CochranePB	M002	5568.52	20Year-Existing	15.03	114.75	115.78		115.79	0.001618	0.73	34.43	90.93	0.32
CochranePB	M002	5508.20	20Year-Existing	15.03	114.04	115.49		115.62	0.004182	1.65	10.83	19.05	0.56
CochranePB	M002	5473.67	20Year-Existing	15.03	113.90	115.19	115.19	115.40	0.010330	2.27	10.18	26.15	0.85
CochranePB	M002	5403.83	20Year-Existing	15.03	110.69	111.71	112.14	113.45	0.138615	5.88	2.65	7.32	2.84
CochranePB	M002	5352.19	20Year-Existing	15.03	110.27	111.51	111.51	111.76	0.013951	2.41	8.36	19.34	0.97
CochranePB	M002	5309.83	20Year-Existing	15.03	109.64	110.99	111.05	111.23	0.011820	2.41	10.46	39.62	0.91
CochranePB	M002	5266.90	20Year-Existing	15.03	109.30	110.56	110.60	110.73	0.011006	2.26	14.92	72.79	0.87
CochranePB	M002	5213.45	20Year-Existing	15.03	108.81	110.24	109.82	110.26	0.000966	0.76	34.39	70.22	0.26
CochranePB	M002	5162.38	20Year-Existing	28.53	108.18	109.81	109.81	110.09	0.010507	3.05	19.46	42.33	0.91
CochranePB	M002	5109.83	20Year-Existing	28.53	108.02	109.37	109.10	109.41	0.003642	1.31	40.70	94.59	0.49
CochranePB	M002	5059.83	20Year-Existing	28.53	107.54	109.08		109.20	0.005944	2.06	30.08	81.40	0.68
CochranePB	M002	5013.20	20Year-Existing	28.53	107.21	108.77	108.77	108.92	0.008721	2.25	27.78	94.81	0.79
CochranePB	M002	4977.38	20Year-Existing	28.53	107.07	108.60	108.39	108.63	0.002037	1.20	52.63	132.49	0.40
CochranePB	M002	4908.49	20Year-Existing	28.53	106.95	108.57		108.58	0.000598	0.73	92.15	190.68	0.22
CochranePB	M002	4883.44	20Year-Existing	28.53	106.94	108.56		108.56	0.000307	0.51	111.86	193.15	0.16
CochranePB	M002	4816.97	20Year-Existing	28.53	106.93	108.54		108.55	0.000307	0.51	113.29	214.13	0.16
CochranePB	M002	4757.22	20Year-Existing	28.53	106.78	108.53		108.54	0.000201	0.45	132.35	237.86	0.13
CochranePB	M002	4718.65	20Year-Existing	28.53	106.77	108.52		108.53	0.000318	0.58	110.66	267.08	0.17
CochranePB	M002	4674.22	20Year-Existing	28.53	106.76	108.49		108.51	0.000724	0.87	70.58	208.24	0.25
CochranePB	M002	4633.22	20Year-Existing	28.53	106.75	108.48		108.49	0.000305	0.55	73.83	145.65	0.16
CochranePB	M002	4561.03	20Year-Existing	28.53	106.74	108.41		108.45	0.001077	1.00	45.99	92.81	0.30
CochranePB	M002	4506.74	20Year-Existing	28.53	106.43	108.11	108.11	108.32	0.006746	2.35	21.58	53.73	0.73
CochranePB	M002	4459.83	20Year-Existing	28.53	105.66	107.12	107.33	107.75	0.023104	3.65	9.87	27.11	1.30
CochranePB	M002	4409.53	20Year-Existing	28.53	104.62	106.15	106.31	106.67	0.019004	3.42	11.51	27.96	1.17
CochranePB	M002	4359.83	20Year-Existing	28.53	103.72	105.27	105.42	105.78	0.017211	3.30	10.53	21.79	1.12
CochranePB	M002	4327.93	20Year-Existing	28.53	103.17	104.88	104.99	105.29	0.011753	2.93	12.14	25.49	0.95
CochranePB	M002	4265.56	20Year-Existing	28.53	102.45	104.09	104.15	104.49	0.014231	3.22	13.20	23.96	1.04
CochranePB	M002	4208.11	20Year-Existing	28.53	101.67	103.21	103.33	103.65	0.014723	3.08	11.81	27.09	1.05
CochranePB	M002	4159.83	20Year-Existing	28.53	101.12	102.13	102.20	102.40	0.052114	2.95	13.08	42.92	1.67
CochranePB	M002	4109.83	20Year-Existing	28.53	98.84	100.34	100.54	100.91	0.018810	3.57	10.74	26.51	1.19
CochranePB	M002	4056.00	20Year-Existing	28.53	97.18	98.63	98.90	99.53	0.034362	4.44	7.94	14.54	1.56
CochranePB	M002	4009.83	20Year-Existing	28.53	96.33	98.14	98.23	98.44	0.012509	3.24	20.39	61.40	0.95
CochranePB	M002	3969.03	20Year-Existing	28.53	95.62	97.18	97.52	97.82	0.017851	3.71	8.88	11.39	1.18
CochranePB	M002	3916.58	20Year-Existing	28.53	94.82	96.91	96.98	97.17	0.006422	2.58	20.32	72.37	0.70
CochranePB	M002	3859.82	20Year-Existing	28.53	94.34	95.81	95.98	96.50	0.024593	3.68	7.84	10.65	1.32
CochranePB	M002	3810.05	20Year-Existing	28.53	93.50	95.34	95.38	95.73	0.008817	2.93	12.28	27.82	0.85
CochranePB	M002	3759.83	20Year-Existing	28.53	93.00	94.53	94.72	95.09	0.017617	3.57	12.35	46.87	1.16
CochranePB	M002	3709.28	20Year-Existing	28.53	92.33	94.01	94.10	94.32	0.010992	2.90	17.17	50.40	0.92
CochranePB	M002	3661.60	20Year-Existing	28.53	92.05	93.74	93.77	93.91	0.006035	2.27	28.24	121.76	0.69
CochranePB	M002	3609.83	20Year-Existing	28.53	91.73	93.30	93.35	93.51	0.009902	2.61	21.79	76.79	0.86
CochranePB	M002	3559.90	20Year-Existing	28.53	90.87	92.70	92.77	93.02	0.008596	2.87	17.82	56.66	0.83
CochranePB	M002	3509.83	20Year-Existing	28.53	90.38	92.10	92.23	92.51	0.011732	3.33	16.79	54.20	0.97
CochranePB	M002	3493.23	20Year-Existing	28.53	90.02	92.04	91.61	92.25	0.003433	2.48	18.08	15.33	0.57
CochranePB	M002	3480		Bridge									
CochranePB	M002	3474.26	20Year-Existing	28.53	89.91	92.06	91.25	92.17	0.001363	1.69	23.44	16.31	0.38
CochranePB	M002	3466.43	20Year-Existing	28.53	90.00	91.53	91.42	92.03	0.007703	3.24	10.55	13.10	0.85
CochranePB	M002	3454.35	20Year-Existing	28.53	89.94	91.70	91.22	91.88	0.002856	2.09	17.44	15.90	0.52
CochranePB	M002	3450		Bridge									
CochranePB	M002	3434.16	20Year-Existing	31.23	90.36	91.60	91.39	91.84	0.005530	2.30	16.22	19.77	0.69
CochranePB	M002	3413.11	20Year-Existing	31.23	90.14	91.50	91.50	91.67	0.008465	2.54	27.59	83.99	0.81
CochranePB	M002	3391.58	20Year-Existing	31.23	90.03	91.41	91.15	91.49	0.004662	1.99	36.29	89.80	0.62

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	3371.12	20Year-Existing	31.23	90.02	91.16	91.16	91.35	0.009118	2.42	24.18	80.82	0.84
CochranePB	M002	3309.87	20Year-Existing	31.23	89.28	90.59	90.58	90.70	0.009612	2.57	31.26	98.98	0.83
CochranePB	M002	3272.96	20Year-Existing	31.23	88.73	90.15	90.15	90.33	0.009661	2.56	24.79	72.14	0.84
CochranePB	M002	3219.09	20Year-Existing	31.23	88.30	89.70	89.71	89.84	0.008397	2.36	29.09	102.94	0.79
CochranePB	M002	3175.54	20Year-Existing	31.23	87.36	89.29	89.07	89.43	0.002736	1.84	27.61	59.41	0.48
CochranePB	M002	3165		Bridge									
CochranePB	M002	3157.85	20Year-Existing	31.23	87.50	89.08	89.06	89.31	0.005581	2.39	21.06	56.71	0.68
CochranePB	M002	3135.32	20Year-Existing	31.23	87.85	89.05	88.95	89.11	0.004527	1.59	45.02	152.29	0.57
CochranePB	M002	3106.53	20Year-Existing	31.23	87.94	88.75	88.75	88.86	0.029417	2.52	24.34	115.43	1.27
CochranePB	M002	3088.94	20Year-Existing	31.23	86.84	88.46	87.99	88.56	0.001942	1.47	34.11	117.69	0.41
CochranePB	M002	3080		Bridge									
CochranePB	M002	3075.67	20Year-Existing	31.23	86.74	88.25	87.84	88.30	0.001520	1.24	44.30	100.23	0.36
CochranePB	M002	3056.89	20Year-Existing	31.23	87.66	88.16		88.24	0.016927	0.90	26.04	92.84	0.79
CochranePB	M002	3007.54	20Year-Existing	31.23	87.61	87.89		87.91	0.003324	0.33	44.92	97.74	0.28
CochranePB	M002	2976.31	20Year-Existing	31.23	87.51	87.82		87.84	0.002740	0.37	48.74	108.09	0.30
CochranePB	M002	2941.08	20Year-Existing	31.23	86.98	87.76		87.77	0.001513	0.59	75.75	219.15	0.29
CochranePB	M002	2920.10	20Year-Existing	31.23	86.74	87.75	87.54	87.76	0.000155	0.25	167.60	295.22	0.09
CochranePB	M002	2915		Bridge									
CochranePB	M002	2912.75	20Year-Existing	31.23	86.97	87.75	87.75	87.75	0.000093	0.20	200.70	313.30	0.08
CochranePB	M002	2890.23	20Year-Existing	31.23	86.65	86.79	86.95	87.53	0.522729	3.23	8.23	66.54	3.87
CochranePB	M002	2823.99	20Year-Existing	31.23	86.08	87.00	86.72	87.01	0.001536	0.63	78.98	233.74	0.28
CochranePB	M002	2789.49	20Year-Existing	31.23	86.04	86.98		86.98	0.001302	0.54	81.64	233.66	0.26
CochranePB	M002	2741.30	20Year-Existing	31.23	85.71	86.92		86.93	0.001015	0.71	86.28	239.14	0.27
CochranePB	M002	2663.79	20Year-Existing	31.23	85.58	86.87		86.88	0.001144	0.82	83.52	240.92	0.29
CochranePB	M002	2639.38	20Year-Existing	31.23	85.57	86.83		86.84	0.001596	0.91	75.14	225.87	0.34
CochranePB	M002	2616.24	20Year-Existing	31.23	85.30	86.81		86.82	0.000807	0.77	91.97	222.94	0.25
CochranePB	M002	2539.69	20Year-Existing	31.23	85.41	86.76		86.77	0.001630	0.94	70.95	208.04	0.34
CochranePB	M002	2489.06	20Year-Existing	31.23	85.18	86.70		86.72	0.001539	1.08	66.27	171.77	0.34
CochranePB	M002	2438.28	20Year-Existing	31.23	84.87	86.64		86.66	0.001380	1.11	63.39	145.06	0.33
CochranePB	M002	2384.01	20Year-Existing	31.23	84.65	86.55		86.59	0.001923	1.41	54.42	121.39	0.39
CochranePB	M002	2310.47	20Year-Existing	31.23	84.33	86.27		86.38	0.004525	2.08	36.09	98.18	0.58
CochranePB	M002	2284.63	20Year-Existing	31.23	84.16	86.21		86.27	0.003111	1.76	43.04	90.72	0.47
CochranePB	M002	2240.58	20Year-Existing	31.23	84.04	85.82	85.82	86.05	0.008295	2.75	21.76	43.68	0.80
CochranePB	M002	2170.94	20Year-Existing	31.23	82.26	83.75	84.10	84.84	0.039147	4.86	7.82	13.81	1.68
CochranePB	M002	2136.89	20Year-Existing	31.23	81.72	83.28	83.42	83.79	0.018394	3.34	11.35	19.75	1.16
CochranePB	M002	2100.01	20Year-Existing	31.23	81.30	82.98	83.06	83.35	0.013380	3.07	16.01	35.17	1.00
CochranePB	M002	2046.85	20Year-Existing	31.23	80.89	82.40	82.49	82.79	0.014845	2.93	12.99	23.19	1.04
CochranePB	M002	2014.35	20Year-Existing	31.23	80.47	82.03	81.98	82.22	0.007803	2.17	20.59	42.05	0.76
CochranePB	M002	1990.76	20Year-Existing	31.23	80.10	81.79	81.79	82.02	0.009319	2.58	20.27	41.77	0.84
CochranePB	M002	1945.20	20Year-Existing	31.23	79.43	81.39	81.06	81.47	0.003073	1.74	31.77	45.51	0.50
CochranePB	M002	1916.67	20Year-Existing	31.23	79.31	81.23		81.36	0.004471	2.09	27.48	40.69	0.60
CochranePB	M002	1871.48	20Year-Existing	31.23	79.28	81.08		81.17	0.003673	1.70	30.50	44.69	0.53
CochranePB	M002	1836.03	20Year-Existing	31.23	78.83	81.04		81.09	0.001290	1.27	40.26	56.39	0.33
CochranePB	M002	1788.63	20Year-Existing	31.23	78.46	80.47	80.47	80.91	0.011850	3.53	15.24	25.07	0.96
CochranePB	M002	1768.08	20Year-Existing	31.23	78.14	79.88	80.10	80.57	0.020979	4.15	11.22	21.73	1.26
CochranePB	M002	1733.19	20Year-Existing	31.23	77.95	79.83	79.86	80.10	0.007267	2.59	19.90	47.51	0.76
CochranePB	M002	1694.89	20Year-Existing	31.23	77.12	79.08	78.67	79.17	0.002609	1.64	29.13	38.50	0.47
CochranePB	M002	1685.79	20Year-Existing	31.23	77.06	79.03		79.14	0.003402	1.89	25.45	33.84	0.53
CochranePB	M002	1640.51	20Year-Existing	31.23	76.45	78.52	78.52	78.90	0.007765	3.00	15.35	24.60	0.80
CochranePB	M002	1602.99	20Year-Existing	31.23	75.01	76.31	76.78	78.06	0.090652	6.00	5.84	13.19	2.44
CochranePB	M002	1585.52	20Year-Existing	31.23	74.01	75.24	75.55	76.38	0.079412	5.09	7.67	19.79	2.24
CochranePB	M002	1569.47	20Year-Existing	31.23	73.71	74.94	75.05	75.39	0.032268	3.08	11.15	26.98	1.42
CochranePB	M002	1541.97	20Year-Existing	31.23	72.31	73.91	74.11	74.59	0.024581	3.90	9.98	17.23	1.33
CochranePB	M002	1510.83	20Year-Existing	31.23	71.34	72.46	72.70	73.31	0.080693	4.08	7.77	22.92	2.16
CochranePB	M002	1495.27	20Year-Existing	31.23	71.19	72.85	72.60	72.96	0.004032	1.59	25.32	39.59	0.55
CochranePB	M002	1458.62	20Year-Existing	31.23	70.58	72.42	72.42	72.70	0.009481	3.20	20.45	38.08	0.87
CochranePB	M002	1419.61	20Year-Existing	31.23	70.21	71.87	71.96	72.27	0.012953	3.30	15.95	32.46	1.01
CochranePB	M002	1384.56	20Year-Existing	31.23	69.61	71.72	71.42	71.99	0.004624	2.40	17.75	43.62	0.63
CochranePB	M002	1351.51	20Year-Existing	31.23	69.54	71.61	71.61	71.82	0.004563	2.41	25.76	73.06	0.63
CochranePB	M002	1311.78	20Year-Existing	31.23	69.49	71.27	71.38	71.56	0.008340	2.87	22.76	89.30	0.83
CochranePB	M002	1291.19	20Year-Existing	31.23	69.28	70.87	71.04	71.32	0.015636	3.49	16.31	62.60	1.09
CochranePB	M002	1217.75	20Year-Existing	31.23	68.70	70.65	70.07	70.70	0.000962	1.11	49.76	88.61	0.30
CochranePB	M002	1200.39	20Year-Existing	31.23	68.69	70.48	70.01	70.66	0.002975	1.89	17.16	18.40	0.51
CochranePB	M002	1190		Bridge									
CochranePB	M002	1185.68	20Year-Existing	31.95	68.46	70.47	69.69	70.59	0.001534	1.58	20.79	24.94	0.39
CochranePB	M002	1164.32	20Year-Existing	31.95	68.65	70.28	70.28	70.51	0.005562	2.52	22.18	63.30	0.69
CochranePB	M002	1132.60	20Year-Existing	31.95	68.60	69.75	69.88	70.15	0.025503	3.40	16.48	88.56	1.33
CochranePB	M002	1111.68	20Year-Existing	31.95	68.55	69.73	69.53	69.78	0.004123	1.61	42.16	131.64	0.56
CochranePB	M002	1059.95	20Year-Existing	31.95	68.38	69.55		69.62	0.004415	1.90	39.35	116.81	0.60
CochranePB	M002	998.99	20Year-Existing	31.95	68.13	69.26		69.32	0.005383	2.00	39.74	123.60	0.64
CochranePB	M002	955.54	20Year-Existing	31.95	68.12	69.26		69.26	0.000333	0.48	131.49	251.91	0.16
CochranePB	M002	851.16	20Year-Existing	31.95	67.62	69.24		69.25	0.000128	0.38	171.37	240.54	0.11
CochranePB	M002	798.06	20Year-Existing	31.95	67.47	69.24		69.24	0.000058	0.27	230.49	275.43	0.07
CochranePB	M002	746.77	20Year-Existing	31.95	67.30	69.24		69.24	0.000022	0.18	324.25	316.72	0.05
CochranePB	M002	694.52	20Year-Existing	31.95	66.98	69.24		69.24	0.000013	0.15	399.53	355.96	0.04
CochranePB	M002	669.16	20Year-Existing	31.95	66.97	69.24		69.24	0.000010	0.13	446.81	387.02	0.03
CochranePB	M002	590.19	20Year-Existing	31.95	66.84	69.24		69.24	0.000007	0.12	531.97	456.69	0.03
CochranePB	M002	539.85	20Year-Existing	31.95	66.81	69.24		69.24	0.000007	0.12	541.76	468.43	0.03
CochranePB	M002	488.40	20Year-Existing	31.95	66.54	69.24		69.24	0.000006	0.11	580.13	486.11	0.02
CochranePB	M001	381.27	20Year-Existing	63.99	66.35	69.24		69.24	0.000025	0.21	666.86	571.26	0.04
CochranePB	M001	313.14	20Year-Existing	63.99	66.28	69.24		69.24	0.000017	0.17	795.88	637.99	0.03

Petty Harbour River 20yr Q-20%

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	TR001	439.21	20Year-Existing	21.52	105.11	106.23	106.07	106.33	0.006038	1.83	23.78	53.11	0.59
RaymondB	TR001	409.42	20Year-Existing	21.52	104.68	105.79	105.79	106.05	0.014028	2.76	13.88	27.36	0.89
RaymondB	TR001	380.07	20Year-Existing	21.52	104.05	105.35	104.96	105.46	0.003821	1.62	20.53	34.42	0.48
RaymondB	TR001	360.64	20Year-Existing	21.52	103.60	105.33	104.70	105.40	0.001830	1.33	29.19	57.58	0.34
RaymondB	TR001	350		Bridge									
RaymondB	TR001	344.45	20Year-Existing	21.52	103.30	104.47	104.73	105.13	0.030262	4.13	7.68	12.58	1.29
RaymondB	TR001	334.13	20Year-Existing	21.52	103.40	104.23	104.49	104.77	0.032978	3.39	7.81	17.76	1.29
RaymondB	TR001	272.22	20Year-Existing	21.52	102.83	103.78	103.67	103.96	0.013712	2.44	15.49	33.77	0.86
RaymondB	TR001	218.50	20Year-Existing	21.52	101.42	102.44	102.44	102.96	0.024856	3.39	8.06	17.06	1.16
RaymondB	TR001	163.97	20Year-Existing	21.52	100.32	101.56	101.17	101.66	0.003742	1.52	17.18	22.56	0.47
RaymondB	TR001	115.54	20Year-Existing	21.52	100.00	100.97	100.97	101.30	0.018027	2.96	10.84	17.86	1.00
RaymondB	TR001	56.65	20Year-Existing	21.52	97.73	98.35	98.61	99.22	0.087126	4.40	5.88	14.76	1.99
RaymondB	M002	6453.60	20Year-Existing	13.76	118.10	125.14	118.79	125.14	0.000000	0.03	644.30	231.96	0.00
RaymondB	M002	6405.52	20Year-Existing	13.76	118.00	125.14		125.14	0.000000	0.02	655.09	225.06	0.00
RaymondB	M002	6347.04	20Year-Existing	13.76	124.73	125.08		125.13	0.006598	0.97	14.35	41.16	0.52
RaymondB	M002	6247.26	20Year-Existing	13.76	117.21	118.15		118.20	0.003614	1.25	19.24	34.34	0.44
RaymondB	M002	6230.10	20Year-Existing	13.76	117.20	118.14		118.16	0.001598	0.81	23.95	41.64	0.29
RaymondB	M002	6205.35	20Year-Existing	13.76	117.28	118.11		118.12	0.001484	0.72	33.09	57.42	0.28
RaymondB	M002	6143.06	20Year-Existing	13.76	117.18	117.99		118.01	0.002203	0.85	28.85	59.09	0.33
RaymondB	M002	6105.93	20Year-Existing	13.76	117.17	117.86		117.89	0.003623	0.96	20.33	55.47	0.41
RaymondB	M002	6026.35	20Year-Existing	13.76	116.81	117.64		117.67	0.002175	0.87	25.02	44.90	0.33
RaymondB	M002	5933.71	20Year-Existing	13.76	116.42	117.35		117.41	0.003519	1.21	17.27	40.32	0.43
RaymondB	M002	5883.92	20Year-Existing	13.76	116.12	117.14		117.22	0.004126	1.37	13.19	24.36	0.47
RaymondB	M002	5785.15	20Year-Existing	13.76	115.75	116.68		116.76	0.005396	1.42	13.47	27.94	0.53
RaymondB	M002	5732.44	20Year-Existing	13.76	115.46	116.36		116.46	0.005871	1.45	11.15	21.94	0.55
RaymondB	M002	5631.37	20Year-Existing	13.76	114.85	115.66		115.74	0.009033	1.56	14.81	44.51	0.66
RaymondB	M002	5500.15	20Year-Existing	13.76	114.62	115.53		115.53	0.000859	0.56	49.08	124.84	0.21
RaymondB	M002	5485.46	20Year-Existing	13.76	114.53	115.52		115.52	0.000548	0.50	60.68	159.07	0.17
RaymondB	M002	5411.19	20Year-Existing	13.76	114.48	115.44	115.12	115.46	0.001584	0.79	25.97	63.25	0.29
RaymondB	M002	5338.54	20Year-Existing	13.76	114.41	115.43	114.75	115.43	0.000103	0.22	73.35	108.02	0.07
RaymondB	M002	5278.93	20Year-Existing	13.76	114.44	115.42	114.79	115.43	0.000155	0.26	63.56	108.72	0.09
RaymondB	M002	5226.60	20Year-Existing	13.76	114.42	115.42		115.42	0.000182	0.28	67.20	123.05	0.10
RaymondB	M002	5171.66	20Year-Existing	13.76	114.42	115.40		115.41	0.000206	0.30	74.77	172.76	0.11
RaymondB	M002	5111.50	20Year-Existing	13.76	114.42	115.38		115.39	0.000667	0.54	40.13	91.40	0.19
RaymondB	M002	5077.48	20Year-Existing	13.76	114.38	115.36		115.37	0.000558	0.49	36.21	66.77	0.17
RaymondB	M002	5017.13	20Year-Existing	13.76	114.40	115.24		115.30	0.003158	1.03	14.27	25.11	0.40
RaymondB	M002	4967.43	20Year-Existing	13.76	114.07	114.99		115.09	0.005455	1.44	10.23	16.71	0.53
RaymondB	M002	4943.43	20Year-Existing	13.76	113.82	114.87		114.97	0.004592	1.47	12.50	23.07	0.50
RaymondB	M002	4910.95	20Year-Existing	13.76	113.67	114.73		114.82	0.004473	1.47	13.46	27.58	0.50
RaymondB	M002	4851.17	20Year-Existing	13.76	113.47	114.46		114.54	0.004842	1.45	13.63	29.36	0.51
RaymondB	M002	4783.73	20Year-Existing	13.76	113.30	114.15		114.21	0.004795	1.17	14.67	34.90	0.48
RaymondB	M002	4732.68	20Year-Existing	13.76	113.07	113.88		113.94	0.005766	1.26	16.70	42.59	0.53
RaymondB	M002	4681.76	20Year-Existing	13.76	112.35	113.17	113.17	113.44	0.017694	2.43	7.04	17.35	0.94
RaymondB	M002	4673.96	20Year-Existing	13.76	111.74	112.50	112.72	113.18	0.054515	3.80	4.30	10.96	1.61
RaymondB	M002	4644.78	20Year-Existing	13.76	110.49	111.31	111.46	111.85	0.035803	3.37	4.65	21.08	1.33
RaymondB	M002	4625.72	20Year-Existing	13.76	106.75	107.23	107.70	109.94	0.488054	7.30	1.89	6.44	4.29
RaymondB	M002	4615.42	20Year-Existing	13.76	105.83	106.49	106.76	107.44	0.101561	4.41	3.44	9.38	2.11
RaymondB	M002	4607.06	20Year-Existing	13.76	105.79	106.90	106.74	107.13	0.009450	2.22	7.25	9.47	0.73
RaymondB	M002	4597.34	20Year-Existing	13.76	105.76	106.85		107.03	0.008887	2.00	9.03	15.60	0.69
RaymondB	M002	4575.18	20Year-Existing	13.76	105.98	106.52	106.47	106.68	0.034098	2.18	7.99	19.38	1.16
RaymondB	M002	4545.57	20Year-Existing	13.76	104.65	105.62	105.62	105.94	0.018481	2.68	6.73	13.61	0.98
RaymondB	M002	4522.17	20Year-Existing	13.76	103.67	104.32	104.58	105.12	0.071409	4.11	4.05	12.28	1.81
RaymondB	M002	4511.42	20Year-Existing	13.76	103.62	104.75	104.47	104.82	0.004409	1.48	14.22	23.03	0.49
RaymondB	M002	4489.94	20Year-Existing	13.76	103.59	104.40	104.40	104.64	0.016811	2.36	7.99	19.66	0.92
RaymondB	M002	4466.63	20Year-Existing	13.76	103.03	104.19	103.81	104.28	0.003368	1.35	14.24	31.56	0.44
RaymondB	M002	4439.46	20Year-Existing	13.76	103.00	103.89	103.89	104.10	0.013721	2.28	9.72	34.00	0.84
RaymondB	M002	4415.77	20Year-Existing	13.76	102.78	103.46	103.51	103.69	0.022008	2.28	8.27	33.33	1.01
RaymondB	M002	4385.89	20Year-Existing	13.76	101.80	102.59	102.67	102.96	0.025820	2.84	6.13	17.58	1.13
RaymondB	M002	4354.01	20Year-Existing	13.76	101.27	102.00	102.05	102.24	0.027461	2.85	9.36	28.50	1.16
RaymondB	M002	4341.66	20Year-Existing	13.76	100.84	101.81	101.82	102.01	0.012236	2.22	10.63	32.01	0.80
RaymondB	M002	4332.73	20Year-Existing	13.76	100.32	101.00	101.23	101.73	0.064886	3.97	4.18	11.11	1.74
RaymondB	M002	4308.73	20Year-Existing	13.76	98.87	99.52	99.72	100.15	0.063632	3.80	4.68	12.70	1.69
RaymondB	M002	4294.65	20Year-Existing	13.76	98.45	99.28	99.30	99.59	0.020916	2.69	6.76	13.52	1.03
RaymondB	M002	4263.86	20Year-Existing	13.76	97.59	98.79	98.38	98.88	0.003384	1.43	12.74	18.42	0.44
RaymondB	M002	4235.25	20Year-Existing	13.76	97.47	98.76		98.80	0.001376	0.96	18.47	22.54	0.29
RaymondB	M001	4130.35	20Year-Existing	34.56	96.57	97.89	97.83	98.23	0.013453	2.61	14.41	19.78	0.86
RaymondB	M001	4076.94	20Year-Existing	34.56	96.04	97.60	97.33	97.75	0.005130	1.87	23.15	32.24	0.55
RaymondB	M001	4023.53	20Year-Existing	34.56	95.94	96.95	96.95	97.26	0.019209	2.51	14.87	26.30	0.98
RaymondB	M001	3978.20	20Year-Existing	34.56	94.64	96.57	96.05	96.64	0.002440	1.24	31.90	43.35	0.38
RaymondB	M001	3916.71	20Year-Existing	46.08	94.64	96.28		96.43	0.004624	1.95	38.69	60.47	0.54
RaymondB	M001	3863.30	20Year-Existing	46.08	94.41	96.09		96.20	0.003473	1.76	46.27	72.15	0.47
RaymondB	M001	3809.58	20Year-Existing	46.08	94.09	95.59	95.58	95.90	0.010261	2.72	25.48	42.71	0.79
RaymondB	M001	3756.26	20Year-Existing	46.08	93.53	94.92	94.92	95.28	0.012724	2.87	21.49	32.69	0.87
RaymondB	M001	3694.37	20Year-Existing	46.08	92.66	94.07	93.93	94.38	0.010905	2.60	20.39	23.56	0.80
RaymondB	M001	3569.22	20Year-Existing	46.08	92.15	93.73		93.78	0.002273	1.33	63.87	102.42	0.38
RaymondB	M001	3527.64	20Year-Existing	46.08	91.85	93.68		93.71	0.001088	1.03	76.16	80.44	0.27
RaymondB	M001	3446.51	20Year-Existing	46.08	91.14	93.65		93.66	0.000369	0.72	108.22	99.54	0.16
RaymondB	M001	3421.64	20Year-Existing	46.08	91.23	93.30	92.64	93.61	0.004212	2.48	18.98	116.31	0.56
RaymondB	M001	3410		Bridge									
RaymondB	M001	3404.11	20Year-Existing	46.08	91.23	92.69	92.69	93.37	0.015624	3.68	12.76	58.55	1.00
RaymondB	M001	3380.48	20Year-Existing	46.08	90.96	92.75	92.20	92.86	0.003047	1.68	39.75	56.56	0.44
RaymondB	M001	3308.92	20Year-Existing	46.08	90.80	92.09	92.09	92.43	0.013818	2.91	22.77	36.54	0.90
RaymondB	M001	3216.73	20Year-Existing	46.08	89.31	91.83	90.76	91.99	0.001881	1.78	26.77	43.23	0.38
RaymondB	M001	3200		Bridge									
RaymondB	M001	3188.78	20Year-Existing	46.08	89.30	91.36	91.12	91.79	0.007509	3.07	17.76	35.90	0.71

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	M001	3015.18	20Year-Existing	46.08	89.18	90.68		90.79	0.003383	1.62	41.53	59.49	0.46
RaymondB	M001	2876.32	20Year-Existing	46.08	88.66	90.15		90.27	0.004755	1.81	37.31	48.21	0.54
RaymondB	M001	2789.37	20Year-Existing	46.08	88.24	89.93		89.98	0.002220	1.37	74.06	151.81	0.37
RaymondB	M001	2681.85	20Year-Existing	46.08	88.14	89.38	89.38	89.54	0.011202	2.35	39.34	110.00	0.79
RaymondB	M001	2604.32	20Year-Existing	46.08	87.97	89.19	88.88	89.22	0.002230	1.09	78.02	172.57	0.36
RaymondB	M001	2531.57	20Year-Existing	46.08	87.97	89.14		89.15	0.000821	0.60	133.54	270.49	0.21
RaymondB	M001	2385.34	20Year-Existing	46.08	87.43	89.03		89.07	0.001931	1.25	91.63	223.46	0.35
RaymondB	M001	2245.72	20Year-Existing	46.08	86.99	88.53	88.29	88.75	0.006693	2.22	28.39	52.43	0.64
RaymondB	M001	2194.47	20Year-Existing	46.08	86.68	88.52		88.56	0.001361	1.16	70.40	85.87	0.30
RaymondB	M001	2140.67	20Year-Existing	46.08	86.59	88.39		88.46	0.002433	1.51	53.59	68.27	0.40
RaymondB	M001	2087.60	20Year-Existing	46.08	86.38	88.25		88.34	0.002173	1.47	41.97	40.04	0.38
RaymondB	M001	2069.54	20Year-Existing	46.08	86.35	88.20		88.30	0.002345	1.53	42.06	41.44	0.39
RaymondB	M001	2040.77	20Year-Existing	46.08	86.25	88.14		88.23	0.002300	1.50	43.61	50.26	0.39
RaymondB	M001	1989.18	20Year-Existing	46.08	86.02	87.89		88.06	0.004284	2.04	35.69	59.19	0.53
RaymondB	M001	1950.22	20Year-Existing	46.08	85.79	87.44	87.29	87.80	0.010529	2.85	23.17	44.00	0.80
RaymondB	M001	1885.73	20Year-Existing	46.08	85.34	86.94		87.17	0.008112	2.40	29.02	44.27	0.70
RaymondB	M001	1835.84	20Year-Existing	46.08	84.64	86.22	86.22	86.62	0.015048	3.23	20.82	26.62	0.94
RaymondB	M001	1784.61	20Year-Existing	46.08	84.10	85.25	85.31	85.62	0.025483	3.14	21.38	39.33	1.15
RaymondB	M001	1733.38	20Year-Existing	46.08	82.79	84.57	84.12	84.67	0.003019	1.63	41.04	45.61	0.44
RaymondB	M001	1682.15	20Year-Existing	46.08	82.60	84.24		84.45	0.006243	2.14	26.03	29.15	0.62
RaymondB	M001	1630.92	20Year-Existing	46.08	82.12	83.76	83.57	84.06	0.008837	2.51	21.47	31.04	0.73
RaymondB	M001	1584.49	20Year-Existing	46.08	81.77	83.52		83.70	0.005621	2.11	29.33	32.09	0.59
RaymondB	M001	1536.01	20Year-Existing	46.08	81.31	83.10	82.92	83.37	0.007760	2.52	25.28	37.44	0.69
RaymondB	M001	1477.96	20Year-Existing	46.08	80.96	82.69		82.93	0.007073	2.34	26.37	35.37	0.66
RaymondB	M001	1425.99	20Year-Existing	46.08	80.58	82.35		82.58	0.006369	2.28	26.61	38.20	0.63
RaymondB	M001	1372.05	20Year-Existing	46.08	80.25	81.92	81.79	82.16	0.009542	2.57	25.33	32.60	0.75
RaymondB	M001	1323.54	20Year-Existing	46.08	79.11	81.19	80.75	81.64	0.006579	2.96	15.59	13.99	0.68
RaymondB	M001	1315		Bridge									
RaymondB	M001	1303.54	20Year-Existing	46.08	78.01	80.41	79.95	80.85	0.006569	2.93	15.71	19.59	0.67
RaymondB	M001	1252.39	20Year-Existing	48.00	78.45	80.09	80.05	80.50	0.015461	3.20	19.99	24.77	0.94
RaymondB	M001	1216.25	20Year-Existing	48.00	77.86	79.72	79.72	80.04	0.009627	2.93	26.49	41.75	0.78
RaymondB	M001	1189.75	20Year-Existing	48.00	77.61	78.91	79.11	79.56	0.036690	3.87	16.20	34.49	1.38
RaymondB	M001	1166.20	20Year-Existing	48.00	76.74	78.13	78.35	78.75	0.030193	3.97	19.13	45.37	1.29
RaymondB	M001	1148.70	20Year-Existing	48.00	76.50	77.99	78.02	78.30	0.015471	2.90	26.27	52.07	0.93
RaymondB	M001	1116.25	20Year-Existing	48.00	75.83	76.98	77.14	77.52	0.035905	3.36	15.90	31.68	1.33
RaymondB	M001	1066.09	20Year-Existing	48.00	75.16	76.59	76.40	76.85	0.009534	2.39	26.13	46.11	0.74
RaymondB	M001	1035.68	20Year-Existing	48.00	74.73	76.08	76.08	76.47	0.015857	2.94	19.83	27.14	0.95
RaymondB	M001	999.99	20Year-Existing	48.00	73.32	74.47	74.79	75.48	0.050075	4.58	11.68	18.38	1.62
RaymondB	M001	976.73	20Year-Existing	48.00	73.03	74.38	74.47	74.86	0.017298	3.21	18.71	29.98	1.00
RaymondB	M001	942.15	20Year-Existing	48.00	72.18	73.14	73.28	73.76	0.070580	4.74	16.37	33.51	1.86
RaymondB	M001	916.70	20Year-Existing	48.00	70.82	72.07	72.24	72.56	0.030288	3.94	20.87	48.39	1.29
RaymondB	M001	892.34	20Year-Existing	48.00	70.36	71.66	71.62	72.02	0.014297	2.86	21.32	36.91	0.91
RaymondB	M001	866.25	20Year-Existing	48.00	70.04	71.66		71.79	0.003286	1.64	36.55	56.52	0.46
RaymondB	M001	841.89	20Year-Existing	48.00	69.92	71.50		71.68	0.004946	2.04	33.59	63.59	0.56
RaymondB	M001	816.68	20Year-Existing	48.00	69.74	71.08	71.08	71.47	0.014248	3.03	22.70	42.39	0.92
RaymondB	M001	766.25	20Year-Existing	48.00	69.16	70.16	70.13	70.39	0.018735	2.66	26.16	46.63	0.98
RaymondB	M001	716.25	20Year-Existing	48.00	68.39	69.76		69.90	0.005038	1.85	36.57	48.54	0.55
RaymondB	M001	675.00	20Year-Existing	48.00	68.14	69.52		69.67	0.005958	2.00	36.76	56.67	0.60
RaymondB	M001	615.86	20Year-Existing	48.00	67.75	69.26		69.38	0.003912	1.77	46.07	93.33	0.50
RaymondB	M001	565.77	20Year-Existing	48.00	67.44	69.14		69.22	0.002302	1.47	51.30	100.18	0.39
RaymondB	M001	520.15	20Year-Existing	48.00	67.26	69.11		69.14	0.000986	1.01	91.14	180.22	0.26
RaymondB	M001	468.54	20Year-Existing	48.00	66.98	69.10		69.11	0.000226	0.54	178.80	202.06	0.13
RaymondB	M001	429.18	20Year-Existing	48.00	66.80	69.10		69.10	0.000067	0.32	304.76	284.65	0.07
RaymondB	M001	366.25	20Year-Existing	48.00	66.65	69.10		69.10	0.000028	0.21	492.48	496.05	0.05
RaymondB	M001	341.79	20Year-Existing	48.00	66.63	69.10		69.10	0.000019	0.17	573.92	538.06	0.04
PettyHR	M002	6270.85	20Year-Existing	59.28	66.23	69.10		69.10	0.000001	0.04	1610.71	810.56	0.01
PettyHR	M002	6218.07	20Year-Existing	59.28	66.23	69.10		69.10	0.000001	0.05	1477.46	815.54	0.01
PettyHR	M002	6095.00	20Year-Existing	59.28	66.23	69.10		69.10	0.000001	0.04	1422.97	716.78	0.01
PettyHR	M002	6004.71	20Year-Existing	59.28	66.23	69.10		69.10	0.000001	0.04	1461.78	735.82	0.01
PettyHR	M001	5825.85	20Year-Existing	102.24	66.23	69.10		69.10	0.000002	0.06	1770.28	822.87	0.01
PettyHR	M001	5685.44	20Year-Existing	102.24	66.23	69.10		69.10	0.000002	0.06	1756.93	711.07	0.01
PettyHR	M001	5516.39	20Year-Existing	112.96	66.23	69.10		69.10	0.000003	0.08	1536.82	622.06	0.01
PettyHR	M001	5279.80	20Year-Existing	112.96	66.23	69.10		69.10	0.000006	0.11	1039.93	418.37	0.02
PettyHR	M001	4996.75	20Year-Existing	112.96	66.23	69.09		69.09	0.000029	0.24	488.29	203.50	0.05
PettyHR	M001	4923.81	20Year-Existing	112.96	66.23	69.05		69.09	0.000394	0.88	154.10	80.26	0.18
PettyHR	M001	4867.41	20Year-Existing	112.96	66.23	68.97		69.05	0.001140	1.49	122.19	85.94	0.30
PettyHR	M001	4817.61	20Year-Existing	112.96	66.58	68.90		68.98	0.001619	1.67	116.87	88.02	0.35
PettyHR	M001	4757.18	20Year-Existing	112.96	66.43	68.20	68.20	68.72	0.012618	3.82	47.42	50.54	0.93
PettyHR	M001	4675.66	20Year-Existing	112.96	65.88	67.51	67.25	67.79	0.007441	2.80	57.61	48.23	0.71
PettyHR	M001	4612.84	20Year-Existing	112.96	64.88	66.98		67.33	0.006805	3.18	52.11	38.59	0.71
PettyHR	M001	4570.09	20Year-Existing	112.96	64.62	66.49	66.49	66.98	0.009645	3.40	47.58	53.11	0.82
PettyHR	M001	4500.69	20Year-Existing	112.96	64.62	66.20	65.85	66.37	0.004108	2.00	74.86	73.37	0.52
PettyHR	M001	4461.12	20Year-Existing	112.96	64.55	65.81	65.81	66.12	0.013980	3.16	61.55	89.77	0.92
PettyHR	M001	4428.20	20Year-Existing	112.96	64.41	65.56	65.36	65.72	0.010688	2.52	72.49	87.95	0.79
PettyHR	M001	4395.66	20Year-Existing	112.96	63.81	65.09		65.36	0.010213	2.74	62.29	79.64	0.79
PettyHR	M001	4357.04	20Year-Existing	112.96	63.34	64.87		65.03	0.005586	2.33	79.11	79.10	0.61
PettyHR	M001	4281.82	20Year-Existing	112.96	62.50	64.80		64.86	0.000839	1.17	113.89	57.40	0.25
PettyHR	M001	4166.17	20Year-Existing	112.96	61.82	64.81		64.82	0.000113	0.50	318.98	157.49	0.10
PettyHR	M001	3949.19	20Year-Existing	112.96	61.31	64.82		64.82	0.000000	0.03	4258.72	1310.32	0.00
PettyHR	M001	3936.78	20Year-Existing	112.96	61.31	64.82		64.82	0.000000	0.02	5277.56	1565.24	0.00
PettyHR	M001	3931.39	20Year-Existing	71.60	61.31	64.82		64.82	0.000000	0.01	6617.39	1991.19	0.00
PettyHR	M001	3925.44	20Year-Existing	71.60	61.31	64.82		64.82	0.000000	0.02	3270.98	997.31	0.00
PettyHR	M001	3867.05	20Year-Existing	71.60	61.31	64.82		64.82	0.000000	0.02	3310.59	974.35	0.00
PettyHR	M001	3643.73	20Year-Existing	71.60	61.31	64.82		64.82	0.000000	0.02	3808.56	1111.53	0.00
PettyHR	M001	3440.60	20Year-Existing	71.60	61.31	64.82		64.82	0.000000	0.04	1925.59	577.24	0.01

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	3182.65	20Year-Existing	71.60	61.31	64.82		64.82	0.000001	0.05	1447.14	422.37	0.01
PettyHR	M001	3080.13	20Year-Existing	71.60	61.31	64.82		64.82	0.000001	0.04	1705.47	503.64	0.01
PettyHR	M001	3028.13	20Year-Existing	71.60	61.31	64.82		64.82	0.000001	0.04	1864.35	554.90	0.01
PettyHR	M001	2983.09	20Year-Existing	71.60	61.31	64.82		64.82	0.000001	0.05	1520.73	448.59	0.01
PettyHR	M001	2828.46	20Year-Existing	71.60	61.31	64.82		64.82	0.000002	0.08	888.23	276.57	0.01
PettyHR	M001	2712.72	20Year-Existing	71.60	61.31	64.82		64.82	0.000008	0.15	501.14	173.08	0.03
PettyHR	M001	2671.95	20Year-Existing	71.60	61.31	64.81		64.82	0.000013	0.19	447.49	170.55	0.03
PettyHR	M001	2653.10	20Year-Existing	71.60	61.31	64.81		64.82	0.000018	0.23	380.87	152.43	0.04
PettyHR	M001	2632.46	20Year-Existing	71.60	61.31	64.81		64.81	0.000076	0.48	219.97	110.80	0.08
PettyHR	M001	2596.08	20Year-Existing	71.60	61.31	64.80		64.81	0.000087	0.51	192.92	106.50	0.09
PettyHR	M001	2583.24	20Year-Existing	71.60	60.10	64.73	62.46	64.80	0.000533	1.34	95.55	92.06	0.22
PettyHR	M001	2580		Bridge									
PettyHR	M001	2573.39	20Year-Existing	71.60	60.00	64.66	62.03	64.69	0.000215	0.86	136.01	75.47	0.14
PettyHR	M001	2551.09	20Year-Existing	71.60	59.89	64.68		64.68	0.000016	0.24	343.35	104.13	0.04
PettyHR	M001	2426.14	20Year-Existing	71.60	59.27	64.68		64.68	0.000001	0.07	1096.27	264.78	0.01
PettyHR	M001	2315.39	20Year-Existing	71.60	58.72	64.68		64.68	0.000001	0.05	1350.45	303.63	0.01
PettyHR	M001	2204.15	20Year-Existing	71.60	58.16	64.68		64.68	0.000001	0.05	1362.18	304.45	0.01
PettyHR	M001	2022.45	20Year-Existing	71.60	57.26	64.68		64.68	0.000001	0.09	831.00	169.81	0.01
PettyHR	M001	1902.10	20Year-Existing	71.60	56.66	64.68		64.68	0.000002	0.12	645.53	126.21	0.02
PettyHR	M001	1879.72	20Year-Existing	71.60	56.55	64.68		64.68	0.000006	0.18	468.69	106.63	0.02
PettyHR	M001	1824.42	20Year-Existing	71.60	56.28	64.68		64.68	0.000010	0.24	317.72	64.68	0.03
PettyHR	M001	1789.72	20Year-Existing	71.60	56.10	64.67		64.68	0.000014	0.28	269.08	54.16	0.04
PettyHR	M001	1724.70	20Year-Existing	71.60	55.78	64.67		64.68	0.000018	0.32	235.69	46.75	0.04
PettyHR	M001	1668.81	20Year-Existing	71.60	55.50	64.67	57.78	64.68	0.000010	0.25	312.57	63.70	0.03
PettyHR	M001	1647.80	20Year-Existing	71.60	55.40	64.67	57.51	64.68	0.000007	0.21	366.71	68.21	0.03
PettyHR	M001	1631.79	20Year-Existing	71.60	63.55	64.47		64.66	0.007742	1.92	37.23	40.58	0.64
PettyHR	M001	1615.46	20Year-Existing	72.56	54.38	56.34		56.50	0.006166	2.81	45.36	35.80	0.66
PettyHR	M001	1601.08	20Year-Existing	72.56	54.00	55.67	55.67	56.29	0.026822	5.26	23.73	22.36	1.33
PettyHR	M001	1586.16	20Year-Existing	72.56	53.36	55.00	55.22	55.81	0.036509	6.13	21.84	23.82	1.56
PettyHR	M001	1571.98	20Year-Existing	72.56	52.87	54.33	54.58	55.22	0.046252	6.30	20.16	23.03	1.71
PettyHR	M001	1519.66	20Year-Existing	72.56	51.62	53.17	53.16	53.52	0.021180	4.37	31.85	38.46	1.16
PettyHR	M001	1467.14	20Year-Existing	72.56	50.86	52.03	51.98	52.33	0.023696	3.93	32.41	42.35	1.19
PettyHR	M001	1457.30	20Year-Existing	72.56	50.23	51.67	51.67	52.08	0.024402	4.62	29.27	34.67	1.25
PettyHR	M001	1444.51	20Year-Existing	72.56	48.30	49.19	49.66	51.20	0.234515	10.01	13.62	29.02	3.53
PettyHR	M001	1415.17	20Year-Existing	72.56	48.28	49.69	49.26	49.79	0.006214	2.27	52.62	51.68	0.63
PettyHR	M001	1402.15	20Year-Existing	72.56	47.79	49.22	49.22	49.62	0.025304	4.50	29.38	37.11	1.25
PettyHR	M001	1385.41	20Year-Existing	72.56	43.10	44.50	45.36	48.41	0.158411	10.95	10.62	14.63	3.11
PettyHR	M001	1370.82	20Year-Existing	72.56	41.75	43.34	44.15	46.26	0.103763	10.10	11.83	12.31	2.61
PettyHR	M001	1362.66	20Year-Existing	72.56	39.88	41.75	42.81	45.36	0.098477	10.70	10.71	9.26	2.58
PettyHR	M001	1336.64	20Year-Existing	72.56	39.87	41.40	41.75	42.71	0.059394	7.40	16.83	17.85	1.96
PettyHR	M001	1309.35	20Year-Existing	72.56	38.40	39.61	39.97	40.81	0.079449	7.23	16.65	20.69	2.17
PettyHR	M001	1279.20	20Year-Existing	72.56	35.02	37.00	37.84	38.90	0.050212	8.09	15.45	14.62	1.88
PettyHR	M001	1258.06	20Year-Existing	72.56	34.01	36.27	36.78	37.91	0.036621	7.62	16.58	13.05	1.65
PettyHR	M001	1221.17	20Year-Existing	72.56	33.21	34.48	34.80	35.86	0.085919	7.45	15.26	17.56	2.23
PettyHR	M001	1203.34	20Year-Existing	72.56	32.61	33.89	34.05	34.52	0.047286	5.74	23.63	33.56	1.68
PettyHR	M001	1164.99	20Year-Existing	72.56	31.37	32.78	32.82	33.19	0.024206	4.36	29.97	39.51	1.22
PettyHR	M001	1153.41	20Year-Existing	72.56	30.70	31.63	31.92	32.62	0.109622	7.17	18.62	34.57	2.45
PettyHR	M001	1125.74	20Year-Existing	72.56	29.27	30.48	30.55	30.91	0.034099	4.69	28.32	41.56	1.42
PettyHR	M001	1090.65	20Year-Existing	72.56	28.12	29.22	29.31	29.62	0.040123	4.62	30.36	57.13	1.50
PettyHR	M001	1059.48	20Year-Existing	72.56	26.84	28.05	28.14	28.43	0.036260	4.82	31.90	61.90	1.46
PettyHR	M001	1048.77	20Year-Existing	72.56	26.29	27.40	27.55	27.94	0.051699	5.30	26.94	52.77	1.71
PettyHR	M001	1021.54	20Year-Existing	72.56	25.47	26.87	26.87	27.22	0.024679	4.41	31.62	41.93	1.23
PettyHR	M001	1003.30	20Year-Existing	72.56	23.42	24.60	25.11	26.28	0.104125	8.24	14.12	17.15	2.49
PettyHR	M001	994.73	20Year-Existing	72.56	22.70	24.95	24.76	25.58	0.016770	5.13	24.79	18.19	1.11
PettyHR	M001	961.03	20Year-Existing	72.56	22.07	24.45	24.45	25.04	0.014783	4.96	27.34	23.29	1.05
PettyHR	M001	944.13	20Year-Existing	72.56	21.89	23.28	23.65	24.52	0.058497	6.83	17.36	19.92	1.91
PettyHR	M001	924.94	20Year-Existing	72.56	20.78	22.42	22.72	23.51	0.043692	6.61	17.84	16.04	1.69
PettyHR	M001	905.47	20Year-Existing	72.56	19.73	21.63	21.92	22.76	0.034771	6.58	18.15	14.70	1.55
PettyHR	M001	883.86	20Year-Existing	72.56	17.29	20.25	19.58	20.47	0.003165	2.69	42.32	28.92	0.51
PettyHR	M001	875		Bridge									
PettyHR	M001	859.53	20Year-Existing	72.56	17.25	19.07	19.07	19.60	0.020361	4.73	25.20	27.91	1.16
PettyHR	M001	836.76	20Year-Existing	72.56	12.80	14.28	15.33	18.32	0.132710	10.81	9.72	9.45	2.91
PettyHR	M001	823.70	20Year-Existing	72.56	12.86	14.21	14.83	16.15	0.099708	8.73	13.59	15.50	2.47
PettyHR	M001	811.96	20Year-Existing	72.56	12.85	14.67	14.67	15.41	0.028031	5.76	23.30	23.39	1.39
PettyHR	M001	796.92	20Year-Existing	72.56	12.74	14.00	14.26	14.81	0.061572	6.65	21.11	30.88	1.93
PettyHR	M001	784.11	20Year-Existing	72.56	11.82	13.56	13.78	14.25	0.029057	5.62	25.52	31.37	1.40
PettyHR	M001	769.86	20Year-Existing	72.56	10.94	12.28	12.68	13.59	0.065328	7.07	16.93	20.53	2.01
PettyHR	M001	748.76	20Year-Existing	72.56	8.37	10.44	11.09	12.42	0.043046	7.65	15.63	15.46	1.75
PettyHR	M001	720.33	20Year-Existing	72.56	8.08	9.05	9.43	10.34	0.123613	7.35	16.11	27.10	2.57
PettyHR	M001	707.57	20Year-Existing	72.56	6.85	8.19	8.48	9.16	0.057089	6.57	20.84	32.07	1.87
PettyHR	M001	685.99	20Year-Existing	72.56	5.31	6.77	7.13	7.89	0.060130	6.99	19.61	27.94	1.93
PettyHR	M001	666.04	20Year-Existing	72.56	5.03	6.65	6.69	7.06	0.017973	4.15	32.74	42.21	1.08
PettyHR	M001	652.51	20Year-Existing	72.56	4.66	5.97	6.16	6.66	0.042635	5.44	23.27	32.35	1.59
PettyHR	M001	633.61	20Year-Existing	72.56	4.40	5.35	5.46	5.81	0.043324	4.41	27.65	75.52	1.53
PettyHR	M001	622.83	20Year-Existing	72.56	4.09	5.07	5.07	5.30	0.024535	3.38	39.21	90.16	1.16
PettyHR	M001	577.97	20Year-Existing	72.56	2.48	3.70	3.75	3.99	0.034525	4.69	36.71	102.97	1.41
PettyHR	M001	525.57	20Year-Existing	72.56	0.51	2.67	1.98	2.76	0.002846	2.08	61.82	76.90	0.46
PettyHR	M001	491.94	20Year-Existing	72.56	-0.59	2.50	1.59	2.67	0.002169	2.03	50.93	58.51	0.41
PettyHR	M001	485		Bridge									
PettyHR	M001	478.84	20Year-Existing	72.56	-1.92	2.55		2.59	0.000325	0.96	111.61	141.59	0.16
PettyHR	M001	439.27	20Year-Existing	72.56	-1.89	2.56		2.57	0.000092	0.53	236.14	128.63	0.08
PettyHR	M001	405.68	20Year-Existing	72.56	-2.13	2.56		2.57	0.000082	0.50	233.76	131.86	0.08
PettyHR	M001	367.80	20Year-Existing	72.56	-2.02	2.56		2.56	0.000025	0.28	298.65	139.16	0.05
PettyHR	M001	338.85	20Year-Existing	72.56	-2.89	2.56		2.56	0.000015	0.24	338.15	121.94	0.04
PettyHR	M001	305.38	20Year-Existing	72.56	-2.46	2.56		2.56	0.000021	0.27	305.37	119.83	0.04

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	269.29	20Year-Existing	72.56	-3.52	2.56		2.56	0.000018	0.29	286.55	110.07	0.04
PettyHR	M001	238.18	20Year-Existing	72.56	-3.50	2.56		2.56	0.000026	0.35	247.99	102.39	0.05
PettyHR	M001	201.25	20Year-Existing	72.56	-4.43	2.56		2.56	0.000008	0.21	366.83	119.84	0.03
PettyHR	M001	150.84	20Year-Existing	72.56	-3.34	2.56		2.56	0.000005	0.15	524.13	171.47	0.02
PettyHR	M001	105.74	20Year-Existing	72.56	-2.91	2.56		2.56	0.000005	0.15	506.67	154.11	0.02
PettyHR	M001	91.29	20Year-Existing	72.56	-3.36	2.56		2.56	0.000004	0.14	523.17	143.57	0.02
PettyHR	M001	20.04	20Year-Existing	72.56	-6.19	2.56		2.56	0.000002	0.11	704.64	185.17	0.01
PettyHR	M001	12.04	20Year-Existing	72.56	-6.19	2.55	-4.08	2.56	0.000041	0.41	267.31	185.14	0.05
ForthP	M001	2616.90	20Year-Existing	7.20	123.09	124.45	123.32	124.45	0.000008	0.08	126.54	155.39	0.02
ForthP	M001	2528.45	20Year-Existing	7.20	123.09	124.45		124.45	0.000002	0.04	205.18	195.49	0.01
ForthP	M001	2324.32	20Year-Existing	7.20	123.09	124.45		124.45	0.000007	0.07	143.64	205.56	0.02
ForthP	M001	2187.52	20Year-Existing	7.20	123.09	124.45		124.45	0.000001	0.03	274.13	282.43	0.01
ForthP	M001	1955.13	20Year-Existing	7.20	123.09	124.45		124.45	0.000001	0.03	316.36	307.77	0.01
ForthP	M001	1773.83	20Year-Existing	7.20	123.09	124.45		124.45	0.000000	0.02	389.97	342.85	0.01
ForthP	M001	1572.85	20Year-Existing	7.20	123.09	124.45		124.45	0.000001	0.02	373.55	317.73	0.01
ForthP	M001	1496.60	20Year-Existing	7.20	123.09	124.45		124.45	0.000001	0.02	314.40	273.81	0.01
ForthP	M001	1392.58	20Year-Existing	25.84	122.98	124.44	124.15	124.44	0.000421	0.61	101.77	165.85	0.16
ForthP	M001	1390		Culvert									
ForthP	M001	1381.72	20Year-Existing	25.84	122.95	124.29	124.10	124.31	0.002158	1.20	57.69	143.54	0.34
ForthP	M001	1360.50	20Year-Existing	25.84	122.87	124.11		124.22	0.008314	2.22	21.89	46.88	0.69
ForthP	M001	1311.12	20Year-Existing	25.84	122.52	123.95		123.98	0.002588	1.36	40.87	75.68	0.39
ForthP	M001	1261.17	20Year-Existing	25.84	121.36	122.96	122.96	123.64	0.021455	4.28	9.91	16.33	1.15
ForthP	M001	1211.51	20Year-Existing	25.84	119.83	121.19	121.66	122.62	0.057752	6.15	5.96	7.82	1.82
ForthP	M001	1161.66	20Year-Existing	25.84	117.25	118.37	118.67	119.43	0.066346	5.68	8.15	23.54	1.89
ForthP	M001	1112.05	20Year-Existing	25.84	114.88	115.91	116.07	116.44	0.049289	4.87	11.39	33.04	1.63
ForthP	M001	1062.35	20Year-Existing	25.84	113.16	114.25	114.29	114.52	0.029127	3.67	13.96	31.86	1.22
ForthP	M001	1041.93	20Year-Existing	25.84	112.62	113.83	113.84	114.05	0.020224	3.25	16.11	39.12	1.03
ForthP	M001	1031.90	20Year-Existing	25.84	112.31	113.43	113.52	113.77	0.036452	4.17	14.10	42.07	1.37
ForthP	M001	1011.12	20Year-Existing	25.84	111.62	112.60	112.70	112.95	0.044323	4.33	13.75	43.59	1.51
ForthP	M001	959.76	20Year-Existing	25.84	110.31	111.08	111.08	111.22	0.029334	2.78	18.28	60.52	1.17
ForthP	M001	908.93	20Year-Existing	25.84	109.25	109.85	109.74	109.90	0.013488	1.63	27.69	87.08	0.77
ForthP	M001	856.39	20Year-Existing	25.84	108.38	108.82		108.87	0.021754	1.41	24.50	89.93	0.88
ForthP	M001	806.25	20Year-Existing	25.84	107.09	107.94		108.01	0.015648	2.26	26.40	89.36	0.87
ForthP	M001	754.78	20Year-Existing	25.84	106.12	107.09	107.09	107.20	0.017930	2.79	24.57	87.50	0.97
ForthP	M001	734.50	20Year-Existing	25.84	105.47	106.99	106.67	107.01	0.001411	1.05	56.49	101.37	0.29
ForthP	M001	724.30	20Year-Existing	25.84	105.28	106.99		107.00	0.000809	0.87	68.96	111.88	0.23
ForthP	M001	703.65	20Year-Existing	25.84	105.02	106.98		106.99	0.000359	0.65	87.88	103.29	0.15
ForthP	M001	654.47	20Year-Existing	25.84	103.90	106.98		106.98	0.000019	0.21	230.68	123.11	0.04
ForthP	M001	605.63	20Year-Existing	25.84	102.27	103.04	103.04	106.62	0.370922	9.90	4.02	12.97	4.14
ForthP	M001	585.13	20Year-Existing	25.84	101.55	102.35	102.47	102.79	0.077495	4.66	13.23	66.52	1.91
ForthP	M001	577.30	20Year-Existing	25.84	101.52	102.13	102.17	102.33	0.060244	3.37	14.81	57.94	1.60
ForthP	M001	557.33	20Year-Existing	25.84	100.67	101.30	101.28	101.40	0.030196	2.35	19.81	75.73	1.13
ForthP	M001	507.84	20Year-Existing	25.84	98.92	99.54	99.54	99.67	0.040689	2.66	18.83	81.08	1.30
ForthP	M001	453.33	20Year-Existing	25.84	96.28	97.00	96.96	97.08	0.020229	2.16	23.72	85.54	0.96
ForthP	M001	402.29	20Year-Existing	25.84	94.96	95.55	95.55	95.69	0.041610	2.85	16.94	57.39	1.33
ForthP	M001	349.18	20Year-Existing	25.84	93.64	94.17	94.04	94.22	0.016692	1.50	25.48	71.18	0.81
ForthP	M001	297.76	20Year-Existing	25.84	92.55	93.44	93.43	93.51	0.014287	2.17	26.29	77.87	0.84
ForthP	M001	246.28	20Year-Existing	25.84	91.71	92.41	92.37	92.51	0.023633	2.23	23.46	88.01	1.02
ForthP	M001	182.03	20Year-Existing	25.84	90.94	92.01	91.69	92.03	0.003927	1.34	44.75	102.11	0.45
ForthP	M001	160.27	20Year-Existing	25.84	90.13	92.01	91.22	92.02	0.000145	0.40	131.65	148.09	0.10
ForthP	M001	150		Culvert									
ForthP	M001	144.74	20Year-Existing	25.84	89.90	90.95	90.93	91.40	0.016569	3.01	8.85	88.97	0.97
ForthP	M001	124.30	20Year-Existing	25.84	89.74	90.84		90.94	0.012446	2.40	26.58	74.60	0.81
ForthP	M001	61.58	20Year-Existing	25.84	88.75	89.87	89.87	90.03	0.016646	2.81	21.26	55.44	0.94
ForestP	M001	1557.91	20Year-Existing	5.12	78.25	79.70	78.42	79.70	0.000002	0.04	146.05	121.21	0.01
ForestP	M001	1428.05	20Year-Existing	5.12	78.25	79.70		79.70	0.000001	0.03	199.09	176.63	0.01
ForestP	M001	1315.71	20Year-Existing	5.12	78.25	79.70		79.70	0.000000	0.02	280.24	242.09	0.01
ForestP	M001	1228.83	20Year-Existing	5.12	78.25	79.70		79.70	0.000000	0.02	335.14	287.96	0.00
ForestP	M001	1138.84	20Year-Existing	5.12	78.25	79.70		79.70	0.000000	0.01	392.50	341.33	0.00
ForestP	M001	1077.28	20Year-Existing	5.12	78.25	79.70		79.70	0.000000	0.01	433.08	479.50	0.00
ForestP	M001	1019.12	20Year-Existing	5.12	78.25	79.70		79.70	0.000001	0.03	218.04	279.37	0.01
ForestP	M001	958.61	20Year-Existing	6.48	78.15	79.69	79.42	79.69	0.000455	0.51	24.24	68.58	0.15
ForestP	M001	955		Culvert									
ForestP	M001	949.85	20Year-Existing	6.48	77.76	79.28	79.00	79.69	0.008151	2.84	2.28	12.02	0.74
ForestP	M001	913.34	20Year-Existing	6.48	78.16	78.98	78.98	79.13	0.028550	2.78	4.93	16.24	1.08
ForestP	M001	883.23	20Year-Existing	6.48	77.54	78.29	78.31	78.43	0.019529	2.29	6.61	35.22	0.95
ForestP	M001	859.61	20Year-Existing	6.48	76.75	77.36	77.45	77.68	0.057843	3.36	3.42	12.86	1.57
ForestP	M001	831.71	20Year-Existing	6.48	75.74	76.54	76.54	76.81	0.032641	2.97	3.54	8.79	1.21
ForestP	M001	802.91	20Year-Existing	6.48	74.66	75.38	75.48	75.75	0.041692	3.29	3.15	9.36	1.38
ForestP	M001	772.90	20Year-Existing	6.48	73.77	74.43	74.46	74.65	0.038786	2.98	3.93	12.31	1.29
ForestP	M001	737.48	20Year-Existing	6.48	72.77	73.44	73.39	73.52	0.015972	1.94	6.45	21.20	0.84
ForestP	M001	688.06	20Year-Existing	6.48	71.80	72.33	72.33	72.41	0.034620	2.28	6.20	31.52	1.13
ForestP	M001	651.32	20Year-Existing	6.48	70.81	71.40	71.37	71.47	0.017613	1.93	7.34	30.58	0.88
ForestP	M001	600.44	20Year-Existing	6.48	69.80	70.27	70.27	70.33	0.029455	2.02	7.85	50.50	1.08
ForestP	M001	578.60	20Year-Existing	6.48	69.31	69.94	69.88	69.96	0.006044	1.16	16.15	95.00	0.52
ForestP	M001	528.92	20Year-Existing	6.48	68.58	69.14	69.14	69.30	0.043030	2.72	5.30	38.83	1.33
ForestP	M001	478.55	20Year-Existing	6.48	68.21	69.11	68.74	69.11	0.000669	0.50	30.59	92.47	0.19
ForestP	M001	430.82	20Year-Existing	6.48	67.77	69.10		69.10	0.000091	0.25	61.02	106.77	0.07
ForestP	M001	378.18	20Year-Existing	6.48	67.48	69.10		69.10	0.000012	0.10	158.44	238.44	0.03
ForestP	M001	328.07	20Year-Existing	6.48	67.34	69.10		69.10	0.000003	0.06	247.65	262.65	0.01
ForestP	M001	277.95	20Year-Existing	6.48	67.07	69.10		69.10	0.000002	0.05	312.95	293.31	0.01
ForestP	M001	195.51	20Year-Existing	6.48	66.23	69.10		69.10	0.000000	0.02	622.15	493.21	0.00
ForestP	M001	158.37	20Year-Existing	6.48	66.23	69.10		69.10	0.000000	0.01	1270.66	656.06	0.00
ForestP	M001	89.11	20Year-Existing	6.48	66.23	69.10		69.10	0.000000	0.01	1409.07	714.24	0.00
DoylesR	TR019	260.51	20Year-Existing	0.24	124.74	125.01	124.92	125.01	0.001092	0.24	1.67	20.84	0.19

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR019	199.72	20Year-Existing	0.24	124.55	125.01		125.01	0.000003	0.02	23.59	122.23	0.01
DoylesR	TR019	150.00	20Year-Existing	0.24	124.37	125.01		125.01	0.000002	0.02	25.89	128.49	0.01
DoylesR	TR019	100.00	20Year-Existing	0.24	124.16	125.01		125.01	0.000002	0.03	21.89	84.55	0.01
DoylesR	TR019	50.00	20Year-Existing	0.24	124.18	125.01		125.01	0.000001	0.02	41.47	185.00	0.01
DoylesR	TR018	302.01	20Year-Existing	0.88	127.90	128.03	128.03	128.07	0.036731	0.86	1.27	23.03	0.96
DoylesR	TR018	270.53	20Year-Existing	0.88	126.19	127.70	126.69	127.73	0.000543	0.73	1.21	195.28	0.19
DoylesR	TR018	260		Culvert									
DoylesR	TR018	257.62	20Year-Existing	0.88	126.19	127.09	126.72	127.17	0.003534	1.27	0.69	76.34	0.44
DoylesR	TR018	244.68	20Year-Existing	0.88	125.64	127.08	126.41	127.13	0.001863	1.10	0.97	124.33	0.30
DoylesR	TR018	200		Culvert									
DoylesR	TR018	169.24	20Year-Existing	0.88	125.40	126.16	125.98	126.30	0.010546	1.95	0.56	73.80	0.74
DoylesR	TR018	131.43	20Year-Existing	0.88	125.24	125.42	125.42	125.45	0.041623	0.96	1.61	33.35	1.03
DoylesR	TR018	59.79	20Year-Existing	0.88	124.57	125.07	124.85	125.07	0.000468	0.26	7.44	62.49	0.14
DoylesR	TR017	4043.45	20Year-Existing	4.88	124.05	124.99		125.00	0.001353	0.82	15.44	53.24	0.27
DoylesR	TR017	3983.69	20Year-Existing	4.88	124.04	124.88		124.91	0.002040	0.83	12.40	58.88	0.32
DoylesR	TR017	3923.93	20Year-Existing	4.88	124.03	124.56	124.56	124.63	0.020697	1.56	5.98	40.30	0.89
DoylesR	TR017	3889.37	20Year-Existing	4.88	123.60	123.76	123.59	123.77	0.004814	0.21	12.37	57.66	0.31
DoylesR	TR017	3781.64	20Year-Existing	4.88	122.55	123.36		123.41	0.006190	1.41	8.23	36.78	0.55
DoylesR	TR017	3768.91	20Year-Existing	4.88	122.35	123.02	123.02	123.24	0.021974	2.18	2.65	7.29	0.97
DoylesR	TR017	3745.98	20Year-Existing	4.88	121.86	122.42	122.43	122.51	0.024918	1.76	5.04	33.92	0.97
DoylesR	TR017	3713.18	20Year-Existing	4.88	120.99	121.44	121.50	121.66	0.037950	2.14	2.64	11.34	1.22
DoylesR	TR017	3692.45	20Year-Existing	4.88	120.34	120.92	120.95	121.10	0.026014	2.05	3.09	12.18	1.04
DoylesR	TR017	3679.05	20Year-Existing	4.88	119.97	120.61	120.63	120.82	0.021233	2.18	2.80	8.12	0.98
DoylesR	TR017	3656.84	20Year-Existing	4.88	117.59	117.98	118.27	119.46	0.383140	5.43	0.94	5.08	3.64
DoylesR	TR017	3603.67	20Year-Existing	4.88	116.29	116.92	116.92	117.05	0.017273	1.94	4.06	18.55	0.88
DoylesR	TR017	3583.40	20Year-Existing	4.88	115.96	116.53	116.53	116.66	0.024501	2.05	4.01	20.86	1.01
DoylesR	TR017	3571.14	20Year-Existing	4.88	115.76	116.26	116.26	116.34	0.021773	1.88	5.30	29.81	0.95
DoylesR	TR017	3545.42	20Year-Existing	4.88	115.22	115.78	115.74	115.85	0.015845	1.58	4.85	19.45	0.80
DoylesR	TR017	3483.93	20Year-Existing	4.88	114.35	114.89	114.88	114.93	0.014830	1.57	8.22	61.03	0.78
DoylesR	TR017	3432.55	20Year-Existing	4.88	113.79	114.48	114.39	114.52	0.007055	1.30	9.32	58.17	0.56
DoylesR	TR017	3345.48	20Year-Existing	4.88	113.03	113.50	113.50	113.58	0.032808	1.88	5.17	32.86	1.11
DoylesR	TR017	3300.07	20Year-Existing	4.88	112.42	112.94	112.83	112.95	0.003834	0.71	14.18	74.77	0.39
DoylesR	TR016	918.87	20Year-Existing	1.76	127.08	128.78	127.24	128.78	0.000000	0.01	397.87	359.90	0.00
DoylesR	TR016	898.71	20Year-Existing	1.76	126.90	128.78	127.21	128.78	0.000000	0.02	192.16	224.83	0.00
DoylesR	TR016	890		Culvert									
DoylesR	TR016	882.28	20Year-Existing	1.76	126.88	128.71		128.72	0.000002	0.04	102.55	157.12	0.01
DoylesR	TR016	877.71	20Year-Existing	1.76	126.24	128.71	126.79	128.72	0.000001	0.05	121.10	187.15	0.01
DoylesR	TR016	850		Culvert									
DoylesR	TR016	848.13	20Year-Existing	1.76	126.37	127.00	127.00	127.21	0.020859	2.17	1.02	2.71	0.91
DoylesR	TR016	818.98	20Year-Existing	1.76	126.36	126.81	126.74	126.82	0.003822	0.69	5.52	49.54	0.39
DoylesR	TR016	768.99	20Year-Existing	1.76	126.30	126.61	126.56	126.62	0.004804	0.60	5.81	49.36	0.41
DoylesR	TR016	714.09	20Year-Existing	1.76	125.96	126.34	126.24	126.35	0.004838	0.65	5.00	34.70	0.42
DoylesR	TR016	675.95	20Year-Existing	1.76	125.74	126.05	126.05	126.09	0.019358	1.10	2.92	35.35	0.80
DoylesR	TR016	659.39	20Year-Existing	1.76	125.10	125.51	125.47	125.54	0.009053	1.04	3.01	21.91	0.59
DoylesR	TR016	632.80	20Year-Existing	1.76	124.78	125.20	125.20	125.26	0.014577	1.23	2.28	21.28	0.74
DoylesR	TR016	610.50	20Year-Existing	1.76	123.78	124.17	124.29	124.56	0.083205	2.88	0.74	4.16	1.74
DoylesR	TR016	549.37	20Year-Existing	1.76	122.30	122.86	122.86	122.96	0.019308	1.66	1.64	9.25	0.86
DoylesR	TR016	494.31	20Year-Existing	1.76	120.93	121.48	121.50	121.66	0.029691	1.86	0.98	3.65	1.04
DoylesR	TR016	473.82	20Year-Existing	1.76	120.18	120.62	120.68	120.86	0.052502	2.20	0.86	4.20	1.37
DoylesR	TR016	459.95	20Year-Existing	1.76	119.62	120.05	120.09	120.22	0.037169	1.87	1.01	4.76	1.16
DoylesR	TR016	439.99	20Year-Existing	1.76	119.05	119.60	119.60	119.74	0.025353	1.69	1.07	3.99	0.97
DoylesR	TR016	384.99	20Year-Existing	1.76	117.07	117.49	117.55	117.70	0.059203	2.05	0.86	4.28	1.41
DoylesR	TR016	329.99	20Year-Existing	1.76	115.67	116.13	116.14	116.19	0.015259	1.20	2.25	22.39	0.74
DoylesR	TR016	274.18	20Year-Existing	1.76	114.93	115.31	115.28	115.33	0.011118	0.92	3.63	43.77	0.62
DoylesR	TR016	218.88	20Year-Existing	1.76	114.35	114.80	114.77	114.83	0.010997	0.96	3.43	41.13	0.62
DoylesR	TR016	165.43	20Year-Existing	1.76	113.83	114.34	114.29	114.39	0.008356	1.01	3.06	31.08	0.57
DoylesR	TR016	86.48	20Year-Existing	1.76	112.80	113.19	113.19	113.27	0.028698	1.36	1.65	11.59	0.97
DoylesR	TR016	40.19	20Year-Existing	1.76	112.21	112.77	112.66	112.77	0.002332	0.59	6.89	51.90	0.31
DoylesR	TR015	3230.71	20Year-Existing	10.64	111.60	112.45		112.50	0.008626	1.73	15.99	67.05	0.65
DoylesR	TR015	3185.04	20Year-Existing	10.64	111.22	112.11		112.18	0.010308	1.80	13.60	50.00	0.70
DoylesR	TR015	3133.58	20Year-Existing	10.64	110.57	111.30	111.30	111.43	0.022978	2.46	9.91	40.50	1.03
DoylesR	TR015	3079.97	20Year-Existing	10.64	108.17	108.98	109.19	109.59	0.052496	3.82	3.76	9.47	1.57
DoylesR	TR015	3026.43	20Year-Existing	10.64	107.30	109.05	108.16	109.06	0.000381	0.61	29.32	33.38	0.16
DoylesR	TR015	3001.28	20Year-Existing	10.64	106.17	109.05	107.84	109.05	0.000057	0.31	81.97	76.94	0.06
DoylesR	TR015	3000		Culvert									
DoylesR	TR015	2988.77	20Year-Existing	10.64	106.03	107.66	107.66	108.45	0.016479	4.11	2.88	17.70	1.04
DoylesR	TR015	2963.30	20Year-Existing	10.64	105.69	106.43	106.72	107.56	0.102420	5.35	3.38	13.46	2.15
DoylesR	TR015	2915.60	20Year-Existing	10.64	104.53	105.50	105.50	105.74	0.020830	2.76	6.75	16.60	1.02
DoylesR	TR015	2867.64	20Year-Existing	10.64	103.37	104.40	104.40	104.71	0.026234	3.27	6.37	15.40	1.14
DoylesR	TR015	2841.04	20Year-Existing	10.64	102.40	102.92	103.03	103.30	0.126476	3.91	5.16	26.22	2.20
DoylesR	TR015	2804.73	20Year-Existing	10.64	101.67	102.43	102.35	102.51	0.014364	1.99	11.15	33.56	0.82
DoylesR	TR015	2742.98	20Year-Existing	10.64	100.87	101.63	101.59	101.69	0.013458	2.00	14.96	63.04	0.80
DoylesR	TR015	2687.77	20Year-Existing	10.64	100.07	100.64	100.64	100.72	0.026829	2.17	11.63	60.24	1.07
DoylesR	TR015	2638.14	20Year-Existing	10.64	98.95	99.69	99.71	99.83	0.024810	2.69	10.20	43.15	1.09
DoylesR	TR015	2593.26	20Year-Existing	10.64	97.75	98.75	98.71	98.85	0.011322	2.17	11.42	34.39	0.76
DoylesR	TR015	2557.12	20Year-Existing	10.64	97.53	98.48		98.54	0.007715	1.81	13.74	39.11	0.63
DoylesR	TR015	2522.34	20Year-Existing	10.64	97.26	98.10	98.10	98.22	0.014724	2.05	10.26	38.17	0.84
DoylesR	TR015	2483.94	20Year-Existing	10.64	96.95	97.48	97.58	98.02	0.196537	4.97	5.53	51.95	2.72
DoylesR	TR015	2438.99	20Year-Existing	10.64	96.35	97.35	97.28	97.39	0.004636	1.40	19.96	80.58	0.49
DoylesR	TR015	2387.12	20Year-Existing	10.64	96.39	97.20		97.21	0.003175	0.92	28.62	116.26	0.38
DoylesR	TR015	2352.45	20Year-Existing	10.64	96.40	97.15		97.16	0.000973	0.50	38.84	95.61	0.21
DoylesR	TR015	2283.37	20Year-Existing	10.64	95.75	96.98		97.04	0.003385	1.42	12.97	20.75	0.44
DoylesR	TR015	2231.50	20Year-Existing	10.64	95.54	96.55		96.72	0.013198	2.34	7.45	15.14	0.83
DoylesR	TR015	2160.12	20Year-Existing	10.64	94.93	95.87		95.96	0.008101	1.73	10.01	21.30	0.64
DoylesR	TR015	2119.11	20Year-Existing	10.64	94.44	95.37	95.37	95.54	0.016071	2.42	8.36	24.12	0.89

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR015	2075.88	20Year-Existing	10.64	93.86	94.74	94.74	94.89	0.014052	2.18	9.19	32.97	0.84
DoylesR	TR015	2024.01	20Year-Existing	10.64	93.19	94.22	94.15	94.30	0.007971	1.80	13.10	46.64	0.64
DoylesR	TR015	1972.14	20Year-Existing	10.64	92.71	93.59	93.59	93.73	0.018318	2.50	8.89	35.93	0.94
DoylesR	TR015	1921.75	20Year-Existing	10.64	92.35	93.27	93.02	93.29	0.003281	1.11	20.32	58.42	0.40
DoylesR	TR015	1851.62	20Year-Existing	10.64	91.24	92.52	92.52	92.90	0.017662	3.05	4.78	7.89	0.96
DoylesR	TR014	2057.49	20Year-Existing	6.40	125.48	126.43	126.30	126.46	0.003770	1.09	12.54	48.31	0.42
DoylesR	TR014	2037.89	20Year-Existing	6.40	125.57	126.42		126.42	0.000695	0.49	29.44	86.69	0.19
DoylesR	TR014	1988.88	20Year-Existing	6.40	124.71	126.35	125.42	126.38	0.000749	0.81	10.77	30.90	0.21
DoylesR	TR014	1980		Culvert									
DoylesR	TR014	1975.46	20Year-Existing	6.40	124.46	126.14		126.17	0.000796	0.85	8.28	7.49	0.22
DoylesR	TR014	1936.56	20Year-Existing	6.40	124.86	126.00		126.11	0.004678	1.63	5.73	9.20	0.52
DoylesR	TR014	1904.43	20Year-Existing	6.40	124.72	125.65	125.63	125.86	0.012287	2.24	4.12	10.10	0.80
DoylesR	TR014	1867.03	20Year-Existing	6.40	124.61	125.50		125.56	0.004501	1.33	8.39	22.63	0.48
DoylesR	TR014	1801.50	20Year-Existing	6.40	124.00	124.81	124.81	125.02	0.017686	2.43	4.33	11.82	0.94
DoylesR	TR014	1765.57	20Year-Existing	6.40	123.20	123.69	123.80	124.00	0.050403	2.74	3.26	15.32	1.44
DoylesR	TR014	1703.29	20Year-Existing	6.40	121.82	122.55	122.50	122.71	0.013398	2.02	4.45	11.22	0.81
DoylesR	TR014	1657.91	20Year-Existing	6.40	121.27	121.94	121.89	122.09	0.014434	1.84	4.62	15.73	0.81
DoylesR	TR014	1607.98	20Year-Existing	6.40	120.59	121.36	121.36	121.46	0.010602	1.77	7.92	41.01	0.72
DoylesR	TR014	1544.18	20Year-Existing	6.40	119.81	120.58	120.60	120.71	0.013243	2.02	6.85	34.26	0.80
DoylesR	TR014	1492.70	20Year-Existing	6.40	119.06	119.63	119.67	119.80	0.024229	2.21	5.73	34.57	1.04
DoylesR	TR014	1441.23	20Year-Existing	6.40	117.59	118.46	118.45	118.71	0.018518	2.67	3.89	8.57	0.98
DoylesR	TR014	1420.98	20Year-Existing	6.40	116.98	117.97	117.60	118.01	0.002904	1.17	8.26	12.47	0.40
DoylesR	TR014	1411.86	20Year-Existing	6.40	117.03	117.89	117.58	117.97	0.004868	1.48	5.63	11.56	0.51
DoylesR	TR014	1400		Bridge									
DoylesR	TR014	1384.41	20Year-Existing	7.36	116.71	117.39	117.32	117.58	0.014611	2.05	4.06	9.55	0.84
DoylesR	TR014	1374.60	20Year-Existing	7.36	116.54	117.32		117.44	0.008289	1.64	5.62	11.04	0.64
DoylesR	TR014	1353.25	20Year-Existing	7.36	116.21	116.94	116.94	117.17	0.019229	2.34	3.99	9.03	0.96
DoylesR	TR014	1309.14	20Year-Existing	7.36	115.50	116.27	116.14	116.42	0.010004	1.71	4.42	8.00	0.69
DoylesR	TR014	1296.25	20Year-Existing	7.36	115.12	115.94	115.94	116.21	0.019087	2.57	3.79	7.53	0.98
DoylesR	TR014	1239.25	20Year-Existing	7.36	113.43	114.00	114.15	114.45	0.053380	3.25	2.95	9.87	1.53
DoylesR	TR014	1203.69	20Year-Existing	7.36	112.84	113.58	113.49	113.64	0.009512	1.74	8.16	23.72	0.68
DoylesR	TR014	1182.25	20Year-Existing	7.36	112.53	113.21	113.21	113.36	0.018022	2.17	5.86	19.25	0.92
DoylesR	TR014	1125.25	20Year-Existing	7.36	111.30	112.35	112.16	112.40	0.004240	1.44	10.31	21.90	0.48
DoylesR	TR014	1104.23	20Year-Existing	7.36	111.16	112.05	112.05	112.23	0.015225	2.29	5.41	15.34	0.87
DoylesR	TR014	1094.88	20Year-Existing	7.36	110.55	111.18	111.42	111.90	0.083251	4.48	2.54	7.58	1.95
DoylesR	TR014	1075.36	20Year-Existing	7.36	110.17	111.08	111.15	111.32	0.019736	2.82	5.49	17.33	1.01
DoylesR	TR014	1027.18	20Year-Existing	7.36	109.15	109.88	109.95	110.16	0.030463	2.82	4.50	15.22	1.19
DoylesR	TR014	980.74	20Year-Existing	7.36	107.89	108.81	108.51	108.85	0.003724	1.28	10.47	19.24	0.45
DoylesR	TR014	954.47	20Year-Existing	7.36	107.68	108.46	108.46	108.65	0.019318	2.40	5.31	15.83	0.97
DoylesR	TR014	934.37	20Year-Existing	7.36	106.99	107.79	107.88	108.12	0.030547	2.95	4.16	14.21	1.20
DoylesR	TR014	907.24	20Year-Existing	7.36	106.52	107.33	107.28	107.42	0.011329	1.96	8.44	25.94	0.75
DoylesR	TR014	868.80	20Year-Existing	7.36	105.88	106.66	106.66	106.86	0.017888	2.31	5.13	14.53	0.93
DoylesR	TR014	864.98	20Year-Existing	7.36	105.70	106.48	106.52	106.77	0.026135	2.52	3.51	9.52	1.09
DoylesR	TR014	844.06	20Year-Existing	7.36	105.10	106.11	105.99	106.24	0.008352	1.92	5.92	11.58	0.67
DoylesR	TR014	836.52	20Year-Existing	7.36	104.97	105.89	105.89	106.14	0.018334	2.46	4.21	9.63	0.94
DoylesR	TR014	816.09	20Year-Existing	7.36	104.78	105.45	105.44	105.59	0.019405	2.09	5.69	20.27	0.94
DoylesR	TR014	811.48	20Year-Existing	7.36	104.64	105.44		105.51	0.007280	1.54	8.26	19.06	0.60
DoylesR	TR014	783.28	20Year-Existing	7.36	103.98	104.94	104.94	105.18	0.017146	2.69	4.47	9.21	0.94
DoylesR	TR014	751.27	20Year-Existing	7.36	103.31	104.17	104.23	104.49	0.027124	2.57	3.13	8.04	1.11
DoylesR	TR014	717.94	20Year-Existing	7.36	102.63	103.81	103.81	104.02	0.012268	2.60	5.45	12.61	0.81
DoylesR	TR014	676.43	20Year-Existing	7.36	102.18	103.17	103.08	103.35	0.011858	2.12	5.17	13.09	0.78
DoylesR	TR014	601.44	20Year-Existing	7.36	101.39	102.14	102.14	102.28	0.017356	2.15	5.75	18.24	0.90
DoylesR	TR014	540.83	20Year-Existing	7.36	100.49	101.76	101.33	101.82	0.002437	1.23	9.74	21.34	0.38
DoylesR	TR014	519.25	20Year-Existing	7.36	99.69	101.79	101.16	101.79	0.000244	0.50	35.53	65.14	0.11
DoylesR	TR014	510		Culvert									
DoylesR	TR014	505.00	20Year-Existing	7.36	99.62	101.10	101.10	101.79	0.018651	3.72	2.06	23.12	1.00
DoylesR	TR014	484.27	20Year-Existing	7.36	99.79	100.53	100.70	101.03	0.065555	3.70	2.91	10.55	1.66
DoylesR	TR014	426.15	20Year-Existing	7.36	98.71	99.63	99.63	99.88	0.019957	2.32	3.70	8.45	0.96
DoylesR	TR014	368.05	20Year-Existing	7.36	97.30	98.37	98.44	98.67	0.022789	2.72	4.09	12.92	1.02
DoylesR	TR014	343.01	20Year-Existing	7.36	96.78	97.97	97.53	98.06	0.003194	1.37	5.94	55.97	0.42
DoylesR	TR014	335		Bridge									
DoylesR	TR014	331.91	20Year-Existing	7.36	96.63	97.69	97.63	97.95	0.013386	2.35	3.56	6.40	0.83
DoylesR	TR014	312.09	20Year-Existing	7.36	96.26	97.51	97.51	97.65	0.010747	1.89	7.16	31.36	0.69
DoylesR	TR014	227.09	20Year-Existing	7.36	94.66	96.26	95.90	96.30	0.002769	1.32	11.72	23.98	0.37
DoylesR	TR014	205.76	20Year-Existing	7.36	94.51	95.94	95.94	96.18	0.010947	2.35	4.82	14.24	0.73
DoylesR	TR014	198.96	20Year-Existing	7.36	94.45	95.02	95.28	95.92	0.158628	4.19	1.76	6.49	2.45
DoylesR	TR014	181.77	20Year-Existing	7.36	94.01	95.08	95.06	95.23	0.010812	2.05	6.52	20.01	0.73
DoylesR	TR014	121.12	20Year-Existing	7.36	92.99	94.00	94.00	94.30	0.020838	2.67	3.97	11.20	1.00
DoylesR	TR014	34.73	20Year-Existing	7.36	91.60	92.39	92.40	92.62	0.019323	2.25	4.11	10.19	0.95
DoylesR	TR012	1780.65	20Year-Existing	17.92	90.30	92.03	91.40	92.10	0.001778	1.23	20.22	30.43	0.33
DoylesR	TR012	1753.67	20Year-Existing	17.92	89.56	92.05	90.77	92.07	0.000262	0.69	49.76	55.50	0.14
DoylesR	TR012	1745		Bridge									
DoylesR	TR012	1729.43	20Year-Existing	17.92	89.10	90.63	90.62	91.21	0.015381	3.44	5.50	10.94	0.94
DoylesR	TR012	1709.20	20Year-Existing	17.92	88.93	90.52	90.52	90.80	0.010388	2.83	11.15	21.07	0.78
DoylesR	TR012	1645.76	20Year-Existing	17.92	88.20	89.09	89.23	89.58	0.038374	3.52	6.96	15.57	1.38
DoylesR	TR011	1552.47	20Year-Existing	25.84	86.48	88.29	87.95	88.56	0.006225	2.47	13.58	12.52	0.64
DoylesR	TR011	1530.88	20Year-Existing	25.84	86.19	87.81	87.81	88.33	0.015061	3.58	9.84	10.09	0.97
DoylesR	TR011	1477.56	20Year-Existing	25.84	84.43	85.59	85.96	86.82	0.062930	5.41	6.63	12.28	1.83
DoylesR	TR011	1423.69	20Year-Existing	25.84	83.56	85.11	85.11	85.64	0.015574	3.46	9.32	9.71	0.97
DoylesR	TR011	1370.10	20Year-Existing	25.84	82.66	83.85	84.05	84.44	0.034332	4.25	11.14	28.64	1.38
DoylesR	TR011	1316.51	20Year-Existing	25.84	81.17	82.58	82.62	83.10	0.018662	3.51	9.45	11.37	1.05
DoylesR	TR011	1262.92	20Year-Existing	25.84	79.36	80.79	81.09	81.74	0.033942	4.68	7.34	10.99	1.40
DoylesR	TR011	1209.33	20Year-Existing	25.84	78.14	79.95	79.99	80.53	0.015990	3.69	9.14	10.01	0.98
DoylesR	TR011	1155.74	20Year-Existing	25.84	76.81	78.37	78.64	79.31	0.032874	4.61	7.00	8.51	1.36
DoylesR	TR011	1107.39	20Year-Existing	25.84	76.34	77.63	77.72	78.17	0.023771	3.37	8.54	11.90	1.14

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR011	1057.82	20Year-Existing	25.84	75.16	76.91	76.91	77.38	0.014240	3.25	9.84	11.39	0.91
DoylesR	TR011	971.36	20Year-Existing	25.84	73.33	74.76	74.33	74.95	0.004792	1.93	13.38	18.69	0.54
DoylesR	TR011	960		Bridge									
DoylesR	TR011	949.62	20Year-Existing	25.84	73.08	74.67	74.01	74.81	0.002719	1.63	15.82	13.51	0.42
DoylesR	TR011	929.53	20Year-Existing	25.84	72.74	74.37		74.67	0.008646	2.57	11.95	11.93	0.73
DoylesR	TR011	872.05	20Year-Existing	25.84	72.26	73.96	73.96	74.15	0.008290	2.55	21.26	51.53	0.70
DoylesR	TR011	816.76	20Year-Existing	25.84	72.00	72.96	72.91	73.03	0.013396	2.12	27.79	91.60	0.80
DoylesR	TR011	760.16	20Year-Existing	25.84	71.25	72.30		72.39	0.012572	2.39	26.21	71.40	0.81
DoylesR	TR011	712.26	20Year-Existing	25.84	70.34	71.66		71.79	0.010789	2.50	21.90	56.31	0.77
DoylesR	TR011	663.11	20Year-Existing	25.84	70.08	71.35		71.39	0.006028	1.74	40.89	118.62	0.55
DoylesR	TR013	2205.78	20Year-Existing	5.60	95.88	96.57	96.36	96.58	0.001348	0.67	21.03	88.47	0.26
DoylesR	TR013	2147.59	20Year-Existing	5.60	95.87	96.48		96.49	0.001685	0.63	15.15	40.78	0.28
DoylesR	TR013	2097.40	20Year-Existing	5.60	95.86	96.18	96.18	96.25	0.035500	1.71	6.27	47.02	1.12
DoylesR	TR013	2011.99	20Year-Existing	5.60	93.67	94.56	94.41	94.68	0.007159	1.61	4.51	9.85	0.60
DoylesR	TR013	1957.46	20Year-Existing	5.60	93.05	93.88	93.88	94.11	0.016910	2.51	3.42	8.43	0.93
DoylesR	TR013	1909.18	20Year-Existing	5.60	92.33	93.16	93.21	93.35	0.013789	2.14	4.81	25.66	0.82
DoylesR	TR013	1861.01	20Year-Existing	5.60	91.27	92.09	92.27	92.44	0.026113	2.75	2.49	6.60	1.11
DoylesR	TR013	1789.09	20Year-Existing	5.60	90.00	90.52	90.55	90.63	0.022216	1.90	6.56	55.10	0.97
DoylesR	TR013	1733.37	20Year-Existing	5.60	89.53	90.19	90.08	90.21	0.003759	0.88	12.93	67.28	0.41
DoylesR	TR013	1677.65	20Year-Existing	5.60	89.42	89.78		89.82	0.016550	1.25	7.94	50.53	0.78
DoylesR	TR013	1613.85	20Year-Existing	5.60	89.11	89.56		89.57	0.001831	0.50	20.62	91.25	0.27
DoylesR	TR013	1552.30	20Year-Existing	5.60	88.82	89.47		89.48	0.001768	0.68	18.05	66.67	0.29
DoylesR	TR013	1506.96	20Year-Existing	5.60	88.81	89.40		89.41	0.001635	0.62	18.06	63.75	0.28
DoylesR	TR013	1478.17	20Year-Existing	5.60	88.80	89.21	89.21	89.28	0.030366	1.78	6.29	40.45	1.07
DoylesR	TR013	1411.61	20Year-Existing	5.60	88.11	89.03	88.65	89.04	0.001026	0.63	13.07	25.90	0.23
DoylesR	TR013	1388.58	20Year-Existing	5.60	87.45	89.03	88.67	89.03	0.000077	0.25	51.47	147.84	0.07
DoylesR	TR013	1375		Culvert									
DoylesR	TR013	1373.86	20Year-Existing	5.60	87.32	88.50	88.50	88.56	0.003871	1.49	6.57	11.48	0.45
DoylesR	TR013	1301.72	20Year-Existing	5.60	86.82	87.61	87.68	87.95	0.027120	2.74	2.48	5.82	1.13
DoylesR	TR013	1246.99	20Year-Existing	5.60	85.79	86.57	86.57	86.83	0.020052	2.31	2.68	5.94	0.97
DoylesR	TR013	1192.26	20Year-Existing	5.60	84.79	85.71	85.55	85.84	0.008088	1.71	4.36	9.14	0.64
DoylesR	TR013	1137.53	20Year-Existing	5.60	84.03	84.99	84.96	85.23	0.015339	2.30	2.93	5.91	0.87
DoylesR	TR013	1082.80	20Year-Existing	5.60	83.55	84.40		84.49	0.011420	1.67	5.71	21.44	0.71
DoylesR	TR013	1064.90	20Year-Existing	5.60	82.57	84.43	83.45	84.44	0.000386	0.58	20.11	94.81	0.15
DoylesR	TR013	1050		Culvert									
DoylesR	TR013	1042.53	20Year-Existing	5.60	82.41	84.02	83.20	84.03	0.000496	0.61	17.52	57.41	0.17
DoylesR	TR013	1022.06	20Year-Existing	5.60	82.71	83.87	83.64	84.00	0.006139	1.81	4.39	7.04	0.58
DoylesR	TR013	969.32	20Year-Existing	5.60	82.40	83.18	83.18	83.43	0.021010	2.58	2.96	6.23	1.01
DoylesR	TR013	915.66	20Year-Existing	5.60	81.80	82.77	82.46	82.79	0.001581	0.85	13.42	33.81	0.29
DoylesR	TR013	867.93	20Year-Existing	5.60	81.40	82.64		82.68	0.002684	1.28	8.96	22.72	0.39
DoylesR	TR013	809.27	20Year-Existing	5.60	81.32	82.36		82.46	0.005310	1.50	4.53	8.21	0.53
DoylesR	TR013	756.07	20Year-Existing	5.60	80.75	81.70	81.69	81.99	0.015990	2.62	2.85	5.12	0.92
DoylesR	TR013	702.82	20Year-Existing	5.60	79.91	80.85	80.85	81.11	0.016595	2.54	2.96	5.97	0.91
DoylesR	TR013	651.60	20Year-Existing	5.60	78.06	78.74	78.95	79.46	0.080350	3.88	1.64	4.88	1.83
DoylesR	TR013	588.74	20Year-Existing	5.60	75.89	76.76	76.74	76.97	0.018845	2.09	2.86	6.93	0.91
DoylesR	TR013	543.29	20Year-Existing	5.60	75.20	75.87	75.87	76.08	0.021023	2.02	2.87	7.35	0.96
DoylesR	TR013	489.08	20Year-Existing	5.60	73.77	74.74	74.74	75.03	0.017456	2.67	2.78	5.08	0.94
DoylesR	TR013	436.90	20Year-Existing	5.60	72.11	72.88	73.05	73.46	0.060216	3.39	1.70	4.23	1.58
DoylesR	TR013	383.70	20Year-Existing	5.60	70.97	72.32	71.74	72.33	0.000651	0.64	18.22	60.71	0.19
DoylesR	TR013	363.75	20Year-Existing	5.60	70.36	72.31	71.71	72.32	0.000277	0.61	21.95	64.37	0.14
DoylesR	TR013	360		Culvert									
DoylesR	TR013	344.87	20Year-Existing	5.60	70.32	71.67	71.67	72.32	0.017273	3.59	1.56	47.48	1.00
DoylesR	TR013	324.16	20Year-Existing	5.60	70.29	70.82	70.95	71.50	0.171858	4.35	2.27	24.16	2.52
DoylesR	TR013	256.30	20Year-Existing	5.60	69.36	70.25	70.25	70.31	0.013180	1.83	7.62	42.97	0.73
DoylesR	TR013	236.50	20Year-Existing	5.60	69.35	70.10	69.96	70.10	0.001379	0.47	23.83	112.86	0.23
DoylesR	TR013	162.98	20Year-Existing	5.60	68.94	70.03		70.04	0.001258	0.61	19.31	86.85	0.24
DoylesR	TR013	133.14	20Year-Existing	5.60	68.76	70.01		70.01	0.000338	0.33	36.07	109.63	0.12
DoylesR	TR013	66.14	20Year-Existing	5.60	68.46	69.99		69.99	0.000268	0.35	28.25	54.52	0.11
DoylesR	M001	484.12	20Year-Existing	31.44	68.08	69.58	69.55	69.74	0.013932	2.58	23.38	62.71	0.83
DoylesR	M001	429.44	20Year-Existing	31.44	67.72	69.37		69.40	0.003353	1.40	47.36	110.70	0.41
DoylesR	M001	388.03	20Year-Existing	31.44	67.53	69.16		69.21	0.006187	1.89	43.32	119.03	0.56
DoylesR	M001	344.78	20Year-Existing	31.44	67.39	69.11		69.12	0.000869	0.75	97.50	187.48	0.21
DoylesR	M001	215.64	20Year-Existing	31.44	67.21	69.10		69.11	0.000053	0.21	265.52	301.22	0.05
DoylesR	M001	77.13	20Year-Existing	31.44	66.62	69.10		69.10	0.000013	0.14	494.03	481.69	0.03
CochranePB	M002	8105.53	20Year-Existing	8.88	140.65	142.03	141.29	142.03	0.000149	0.35	55.55	97.56	0.11
CochranePB	M002	8065.47	20Year-Existing	8.88	140.64	142.00		142.01	0.001135	0.85	23.33	66.08	0.29
CochranePB	M002	8050.98	20Year-Existing	8.88	140.00	141.97		142.01	0.000257	0.87	17.54	54.68	0.26
CochranePB	M002	8024.09	20Year-Existing	8.88	140.62	141.96		141.99	0.001925	1.05	18.94	66.29	0.37
CochranePB	M002	8013.06	20Year-Existing	8.88	140.42	141.95		141.97	0.000866	0.81	25.39	65.63	0.26
CochranePB	M002	8004.70	20Year-Existing	8.88	140.25	141.95	141.80	141.96	0.000515	0.86	34.39	89.37	0.22
CochranePB	M002	8000		Culvert									
CochranePB	M002	7995.14	20Year-Existing	8.88	140.37	141.96	141.40	141.96	0.000237	0.56	37.00	69.69	0.15
CochranePB	M002	7964.49	20Year-Existing	8.88	140.14	141.59	141.59	141.91	0.011533	2.90	4.78	8.33	0.88
CochranePB	M002	7901.64	20Year-Existing	8.88	139.30	140.56	140.63	140.94	0.021662	2.89	3.97	10.03	1.12
CochranePB	M002	7847.08	20Year-Existing	8.88	138.68	139.69	139.60	139.74	0.007372	1.48	11.70	40.36	0.65
CochranePB	M002	7812.33	20Year-Existing	8.88	138.52	139.28	139.28	139.36	0.019440	1.84	9.83	53.17	1.02
CochranePB	M002	7738.34	20Year-Existing	8.88	137.94	138.83	138.67	138.84	0.002339	0.76	24.55	98.11	0.37
CochranePB	M002	7695.32	20Year-Existing	8.88	137.67	138.53	138.53	138.64	0.015426	1.81	8.28	38.70	0.94
CochranePB	M002	7609.21	20Year-Existing	8.88	136.29	137.63	137.19	137.64	0.000699	0.67	25.05	63.56	0.23
CochranePB	M002	7515.77	20Year-Existing	8.88	136.28	137.51		137.54	0.002082	1.07	17.87	62.41	0.39
CochranePB	M002	7476.72	20Year-Existing	8.88	136.26	137.50		137.50	0.000521	0.53	30.62	82.72	0.20
CochranePB	M002	7450.86	20Year-Existing	8.88	136.25	137.47		137.48	0.001023	0.71	21.96	67.69	0.27
CochranePB	M002	7329.89	20Year-Existing	8.88	136.23	137.18		137.23	0.005956	1.35	12.17	67.83	0.61
CochranePB	M002	7253.62	20Year-Existing	8.88	136.05	137.01		137.02	0.001942	0.83	20.29	75.61	0.35
CochranePB	M002	7208.54	20Year-Existing	8.88	135.88	136.90		136.93	0.002673	1.02	19.05	82.50	0.42

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	7108.13	20Year-Existing	8.88	135.54	136.43		136.49	0.010644	1.83	11.25	54.04	0.79
CochranePB	M002	7041.67	20Year-Existing	8.88	134.91	135.99	135.89	136.07	0.005054	1.35	11.08	68.67	0.58
CochranePB	M002	6985.71	20Year-Existing	8.88	134.29	135.44	135.44	135.65	0.010970	2.32	6.14	19.17	0.86
CochranePB	M002	6955.25	20Year-Existing	8.88	133.48	134.51	134.67	135.03	0.042170	3.22	2.98	9.00	1.55
CochranePB	M002	6863.52	20Year-Existing	8.88	131.82	132.72	132.79	132.95	0.027747	2.72	6.62	33.95	1.27
CochranePB	M002	6840.09	20Year-Existing	8.88	131.19	132.08	132.13	132.29	0.028507	2.49	6.42	34.82	1.27
CochranePB	M002	6808.25	20Year-Existing	8.88	130.51	131.38	131.40	131.50	0.020704	2.08	8.23	39.44	1.06
CochranePB	M002	6767.75	20Year-Existing	8.88	129.31	130.21	130.29	130.47	0.030529	2.59	5.64	36.10	1.32
CochranePB	M002	6727.78	20Year-Existing	8.88	128.36	129.40	129.43	129.57	0.016160	2.19	7.04	30.81	0.98
CochranePB	M002	6691.71	20Year-Existing	8.88	127.96	128.94	128.90	129.01	0.007489	1.47	11.62	55.49	0.67
CochranePB	M002	6651.54	20Year-Existing	8.88	127.68	128.57		128.65	0.010996	1.39	8.05	34.74	0.78
CochranePB	M002	6630.83	20Year-Existing	8.88	127.19	128.28	128.26	128.43	0.010037	1.86	7.05	28.80	0.80
CochranePB	M002	6534.50	20Year-Existing	8.88	126.30	127.22	127.22	127.33	0.013142	1.78	8.43	43.50	0.88
CochranePB	M002	6507.97	20Year-Existing	8.88	125.65	126.48	126.57	126.72	0.044472	2.69	5.97	43.02	1.51
CochranePB	M002	6480.50	20Year-Existing	8.88	124.97	125.78	125.84	126.03	0.048093	2.86	5.64	37.43	1.59
CochranePB	M002	6433.33	20Year-Existing	8.88	124.09	124.99	124.99	125.11	0.014593	1.69	7.31	34.92	0.91
CochranePB	M002	6400.96	20Year-Existing	8.88	123.40	124.42	124.30	124.48	0.006403	1.33	10.80	38.00	0.61
CochranePB	M002	6364.18	20Year-Existing	8.88	123.28	124.43		124.43	0.000255	0.33	34.20	78.21	0.13
CochranePB	M002	6314.31	20Year-Existing	8.88	123.27	124.37		124.40	0.002066	0.89	14.92	46.16	0.37
CochranePB	M002	6286.25	20Year-Existing	8.88	123.26	124.29		124.33	0.003145	1.02	12.27	37.03	0.45
CochranePB	M002	6202.53	20Year-Existing	8.88	122.81	123.92	123.84	124.01	0.005896	1.53	8.89	28.77	0.63
CochranePB	M002	6130.00	20Year-Existing	8.88	122.30	123.21	123.21	123.36	0.016800	1.71	5.56	22.03	0.97
CochranePB	M002	6040.82	20Year-Existing	8.88	121.41	122.50	122.37	122.54	0.002694	1.06	15.94	66.26	0.43
CochranePB	M002	6006.95	20Year-Existing	8.88	121.40	122.48		122.49	0.000717	0.45	24.69	73.13	0.21
CochranePB	M002	5976.09	20Year-Existing	8.88	121.39	122.34	122.34	122.42	0.012390	1.59	10.39	66.41	0.84
CochranePB	M002	5910.40	20Year-Existing	8.88	120.29	121.38	121.43	121.58	0.015428	2.29	6.85	34.40	0.98
CochranePB	M002	5863.68	20Year-Existing	8.88	119.62	120.46	120.53	120.68	0.032079	2.27	5.14	26.28	1.31
CochranePB	M002	5811.63	20Year-Existing	8.88	118.87	119.89	119.89	120.00	0.010499	1.83	9.29	44.52	0.81
CochranePB	M002	5768.42	20Year-Existing	8.88	117.38	118.21	118.40	118.87	0.130014	3.60	2.47	11.65	2.49
CochranePB	M002	5725.36	20Year-Existing	8.88	116.48	117.51	117.51	117.65	0.012231	1.87	7.04	32.60	0.87
CochranePB	M002	5678.58	20Year-Existing	8.88	115.39	116.33	116.44	116.66	0.037333	2.55	3.58	14.23	1.43
CochranePB	M002	5627.04	20Year-Existing	8.88	114.79	116.03	115.74	116.05	0.001848	0.95	14.86	32.65	0.36
CochranePB	M002	5609.94	20Year-Existing	13.36	114.77	115.85		115.95	0.007348	1.61	12.25	37.14	0.69
CochranePB	M002	5601.00	20Year-Existing	13.36	114.76	115.79		115.80	0.002223	0.85	30.14	99.87	0.37
CochranePB	M002	5568.52	20Year-Existing	13.36	114.75	115.73		115.74	0.001883	0.74	30.35	89.24	0.34
CochranePB	M002	5508.20	20Year-Existing	13.36	114.04	115.45		115.57	0.003917	1.55	10.11	18.23	0.54
CochranePB	M002	5473.67	20Year-Existing	13.36	113.90	115.15	115.15	115.35	0.010391	2.20	9.21	25.62	0.85
CochranePB	M002	5403.83	20Year-Existing	13.36	110.69	111.67	112.09	113.37	0.153139	5.79	2.36	6.83	2.93
CochranePB	M002	5352.19	20Year-Existing	13.36	110.27	111.48	111.48	111.71	0.013475	2.29	7.75	18.84	0.94
CochranePB	M002	5309.83	20Year-Existing	13.36	109.64	110.96	111.01	111.19	0.011408	2.31	9.42	38.61	0.88
CochranePB	M002	5266.90	20Year-Existing	13.36	109.30	110.53	110.58	110.70	0.011158	2.21	12.99	67.30	0.87
CochranePB	M002	5213.45	20Year-Existing	13.36	108.81	110.18	109.80	110.19	0.001063	0.75	30.20	64.04	0.27
CochranePB	M002	5162.38	20Year-Existing	25.36	108.18	109.80	109.80	110.03	0.008893	2.78	18.86	41.61	0.84
CochranePB	M002	5109.83	20Year-Existing	25.36	108.02	109.33	109.07	109.37	0.003482	1.24	37.51	91.53	0.48
CochranePB	M002	5059.83	20Year-Existing	25.36	107.54	109.04	109.01	109.17	0.006377	2.07	26.40	78.87	0.69
CochranePB	M002	5013.20	20Year-Existing	25.36	107.21	108.76	108.76	108.89	0.007541	2.07	26.70	93.69	0.73
CochranePB	M002	4977.38	20Year-Existing	25.36	107.07	108.56	108.35	108.59	0.002206	1.21	46.81	130.05	0.41
CochranePB	M002	4908.49	20Year-Existing	25.36	106.95	108.52		108.53	0.000636	0.73	83.22	187.38	0.22
CochranePB	M002	4883.44	20Year-Existing	25.36	106.94	108.51		108.51	0.000307	0.49	102.81	187.43	0.16
CochranePB	M002	4816.97	20Year-Existing	25.36	106.93	108.50		108.50	0.000317	0.50	103.13	210.98	0.16
CochranePB	M002	4757.22	20Year-Existing	25.36	106.78	108.48		108.49	0.000200	0.44	121.06	229.83	0.13
CochranePB	M002	4718.65	20Year-Existing	25.36	106.77	108.47		108.48	0.000319	0.57	98.43	244.89	0.17
CochranePB	M002	4674.22	20Year-Existing	25.36	106.76	108.44		108.46	0.000772	0.87	61.55	158.91	0.26
CochranePB	M002	4633.22	20Year-Existing	25.36	106.75	108.43		108.44	0.000294	0.52	67.11	129.18	0.16
CochranePB	M002	4561.03	20Year-Existing	25.36	106.74	108.37		108.40	0.001061	0.97	41.63	91.44	0.30
CochranePB	M002	4506.74	20Year-Existing	25.36	106.43	108.08	108.08	108.27	0.006514	2.25	19.65	52.71	0.71
CochranePB	M002	4459.83	20Year-Existing	25.36	105.66	107.05	107.30	107.68	0.026017	3.64	8.26	19.75	1.36
CochranePB	M002	4409.53	20Year-Existing	25.36	104.62	106.12	106.27	106.59	0.017391	3.20	10.75	27.52	1.12
CochranePB	M002	4359.83	20Year-Existing	25.36	103.72	105.20	105.32	105.69	0.018045	3.21	9.24	18.70	1.13
CochranePB	M002	4327.93	20Year-Existing	25.36	103.17	104.83	104.84	105.20	0.011774	2.81	10.87	20.59	0.94
CochranePB	M002	4265.56	20Year-Existing	25.36	102.45	104.04	104.10	104.41	0.013894	3.08	12.11	23.19	1.02
CochranePB	M002	4208.11	20Year-Existing	25.36	101.67	103.16	103.26	103.58	0.014975	2.98	10.45	25.87	1.05
CochranePB	M002	4159.83	20Year-Existing	25.36	101.12	102.10	102.14	102.34	0.049240	2.72	11.99	37.54	1.61
CochranePB	M002	4109.83	20Year-Existing	25.36	98.84	100.28	100.50	100.83	0.019787	3.49	9.34	20.91	1.21
CochranePB	M002	4056.00	20Year-Existing	25.36	97.18	98.58	98.84	99.42	0.034415	4.26	7.23	13.83	1.54
CochranePB	M002	4009.83	20Year-Existing	25.36	96.33	98.12	98.20	98.39	0.011316	3.05	19.18	60.47	0.90
CochranePB	M002	3969.03	20Year-Existing	25.36	95.62	97.05	97.24	97.74	0.022494	3.82	7.53	10.80	1.30
CochranePB	M002	3916.58	20Year-Existing	25.36	94.82	96.80	96.87	97.13	0.008118	2.75	14.10	45.10	0.78
CochranePB	M002	3859.82	20Year-Existing	25.36	94.34	95.77	95.90	96.38	0.023681	3.47	7.36	10.47	1.28
CochranePB	M002	3810.05	20Year-Existing	25.36	93.50	95.16	95.16	95.64	0.012829	3.17	9.08	11.46	1.00
CochranePB	M002	3759.83	20Year-Existing	25.36	93.00	94.54	94.69	94.95	0.012970	3.09	12.92	47.46	1.00
CochranePB	M002	3709.28	20Year-Existing	25.36	92.33	93.95	94.05	94.31	0.012686	2.99	14.16	47.31	0.98
CochranePB	M002	3661.60	20Year-Existing	25.36	92.05	93.72	93.73	93.87	0.005519	2.14	25.64	112.98	0.66
CochranePB	M002	3609.83	20Year-Existing	25.36	91.73	93.26	93.31	93.49	0.010480	2.61	18.92	68.87	0.88
CochranePB	M002	3559.90	20Year-Existing	25.36	90.87	92.63	92.70	92.96	0.009168	2.86	14.56	43.49	0.85
CochranePB	M002	3509.83	20Year-Existing	25.36	90.38	91.96	92.00	92.45	0.015977	3.57	11.30	24.17	1.11
CochranePB	M002	3493.23	20Year-Existing	25.36	90.02	91.91	91.53	92.12	0.003656	2.45	16.16	14.74	0.58
CochranePB	M002	3480		Bridge									
CochranePB	M002	3474.26	20Year-Existing	25.36	89.91	91.94	91.18	92.04	0.001369	1.63	21.57	15.93	0.37
CochranePB	M002	3466.43	20Year-Existing	25.36	90.00	91.53	91.30	91.93	0.006012	2.87	10.65	14.02	0.75
CochranePB	M002	3454.35	20Year-Existing	25.36	89.94	91.66	91.16	91.81	0.002474	1.92	16.90	15.74	0.49
CochranePB	M002	3450		Bridge									
CochranePB	M002	3434.16	20Year-Existing	27.76	90.36	91.58	91.33	91.77	0.004735	2.10	15.81	19.63	0.63
CochranePB	M002	3413.11	20Year-Existing	27.76	90.14	91.48	91.48	91.63	0.007371	2.35	26.42	81.23	0.75
CochranePB	M002	3391.58	20Year-Existing	27.76	90.03	91.36	91.11	91.44	0.004847	1.97	32.29	79.95	0.62

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	3371.12	20Year-Existing	27.76	90.02	91.10	91.06	91.30	0.009917	2.40	19.60	71.17	0.87
CochranePB	M002	3309.87	20Year-Existing	27.76	89.28	90.55	90.55	90.67	0.010807	2.64	27.25	96.24	0.88
CochranePB	M002	3272.96	20Year-Existing	27.76	88.73	90.14	90.13	90.29	0.008116	2.33	24.17	71.53	0.77
CochranePB	M002	3219.09	20Year-Existing	27.76	88.30	89.64	89.64	89.80	0.010581	2.51	22.63	80.63	0.88
CochranePB	M002	3175.54	20Year-Existing	27.76	87.36	89.20	88.82	89.35	0.003005	1.85	22.90	54.62	0.50
CochranePB	M002	3165		Bridge									
CochranePB	M002	3157.85	20Year-Existing	27.76	87.50	89.06	89.00	89.26	0.004722	2.18	20.17	52.46	0.62
CochranePB	M002	3135.32	20Year-Existing	27.76	87.85	89.02	88.92	89.08	0.004902	1.61	40.18	151.40	0.59
CochranePB	M002	3106.53	20Year-Existing	27.76	87.94	88.74	88.74	88.84	0.026273	2.34	23.30	114.15	1.20
CochranePB	M002	3088.94	20Year-Existing	27.76	86.84	88.33	87.92	88.49	0.003368	1.81	15.31	73.01	0.53
CochranePB	M002	3080		Bridge									
CochranePB	M002	3075.67	20Year-Existing	27.76	86.74	88.17	87.78	88.34	0.003491	1.84	15.11	86.95	0.54
CochranePB	M002	3056.89	20Year-Existing	27.76	87.66	88.09		88.18	0.021500	1.04	20.19	64.93	0.86
CochranePB	M002	3007.54	20Year-Existing	27.76	87.61	87.86		87.89	0.002583	0.27	42.50	92.82	0.24
CochranePB	M002	2976.31	20Year-Existing	27.76	87.51	87.81		87.82	0.002317	0.33	47.54	105.08	0.28
CochranePB	M002	2941.08	20Year-Existing	27.76	86.98	87.76		87.77	0.001209	0.53	75.38	215.52	0.26
CochranePB	M002	2920.10	20Year-Existing	27.76	86.74	87.75	87.54	87.76	0.000123	0.22	167.56	295.19	0.08
CochranePB	M002	2915		Bridge									
CochranePB	M002	2912.75	20Year-Existing	27.76	86.97	87.75	87.75	87.75	0.000074	0.18	200.70	313.30	0.07
CochranePB	M002	2890.23	20Year-Existing	27.76	86.65	86.78	86.93	87.53	0.556682	3.08	7.23	63.25	3.92
CochranePB	M002	2823.99	20Year-Existing	27.76	86.08	86.97	86.71	86.98	0.001638	0.63	71.73	227.19	0.28
CochranePB	M002	2789.49	20Year-Existing	27.76	86.04	86.94		86.95	0.001376	0.53	74.01	230.01	0.26
CochranePB	M002	2741.30	20Year-Existing	27.76	85.71	86.88		86.89	0.001092	0.71	77.51	228.02	0.27
CochranePB	M002	2663.79	20Year-Existing	27.76	85.58	86.83		86.84	0.001261	0.83	73.44	226.64	0.30
CochranePB	M002	2639.38	20Year-Existing	27.76	85.57	86.78		86.80	0.001673	0.89	64.93	220.78	0.34
CochranePB	M002	2616.24	20Year-Existing	27.76	85.30	86.77		86.78	0.000800	0.75	82.01	214.86	0.25
CochranePB	M002	2539.69	20Year-Existing	27.76	85.41	86.71		86.73	0.001579	0.89	62.27	191.43	0.33
CochranePB	M002	2489.06	20Year-Existing	27.76	85.18	86.65		86.67	0.001641	1.08	58.73	157.77	0.35
CochranePB	M002	2438.28	20Year-Existing	27.76	84.87	86.59		86.61	0.001418	1.09	56.91	128.65	0.34
CochranePB	M002	2384.01	20Year-Existing	27.76	84.65	86.49		86.53	0.002083	1.43	47.88	115.43	0.41
CochranePB	M002	2310.47	20Year-Existing	27.76	84.33	86.23		86.33	0.004099	1.94	32.13	86.96	0.55
CochranePB	M002	2284.63	20Year-Existing	27.76	84.16	86.17		86.23	0.003176	1.74	38.75	88.26	0.47
CochranePB	M002	2240.58	20Year-Existing	27.76	84.04	85.77	85.77	86.00	0.008571	2.71	19.40	42.40	0.81
CochranePB	M002	2170.94	20Year-Existing	27.76	82.26	83.70	84.03	84.71	0.038906	4.65	7.13	13.01	1.66
CochranePB	M002	2136.89	20Year-Existing	27.76	81.72	83.24	83.32	83.69	0.017267	3.14	10.60	18.64	1.12
CochranePB	M002	2100.01	20Year-Existing	27.76	81.30	83.03	83.02	83.27	0.008311	2.50	17.81	36.94	0.79
CochranePB	M002	2046.85	20Year-Existing	27.76	80.89	82.37	82.37	82.71	0.013254	2.70	12.37	22.31	0.98
CochranePB	M002	2014.35	20Year-Existing	27.76	80.47	81.99	81.94	82.17	0.007606	2.07	18.97	41.49	0.74
CochranePB	M002	1990.76	20Year-Existing	27.76	80.10	81.74	81.74	81.97	0.009601	2.53	18.18	40.52	0.84
CochranePB	M002	1945.20	20Year-Existing	27.76	79.43	81.32	81.03	81.40	0.003096	1.69	28.90	43.67	0.49
CochranePB	M002	1916.67	20Year-Existing	27.76	79.31	81.16		81.29	0.004754	2.07	24.54	39.53	0.61
CochranePB	M002	1871.48	20Year-Existing	27.76	79.28	80.99		81.08	0.004225	1.71	26.43	41.90	0.56
CochranePB	M002	1836.03	20Year-Existing	27.76	78.83	80.94		80.99	0.001353	1.24	35.55	44.87	0.34
CochranePB	M002	1788.63	20Year-Existing	27.76	78.46	80.44	80.44	80.82	0.010430	3.26	14.44	23.77	0.90
CochranePB	M002	1768.08	20Year-Existing	27.76	78.14	80.14	80.06	80.38	0.006249	2.60	17.72	27.25	0.71
CochranePB	M002	1733.19	20Year-Existing	27.76	77.95	79.63	79.63	80.06	0.013251	3.08	11.74	24.96	1.00
CochranePB	M002	1694.89	20Year-Existing	27.76	77.12	79.00	78.62	79.09	0.002733	1.60	26.09	37.17	0.47
CochranePB	M002	1685.79	20Year-Existing	27.76	77.06	78.95		79.06	0.003429	1.82	22.96	30.58	0.52
CochranePB	M002	1640.51	20Year-Existing	27.76	76.45	78.45	78.45	78.81	0.007831	2.91	13.61	22.79	0.80
CochranePB	M002	1602.99	20Year-Existing	27.76	75.01	76.25	76.69	77.96	0.098149	5.89	5.18	12.29	2.50
CochranePB	M002	1585.52	20Year-Existing	27.76	74.01	75.21	75.50	76.25	0.076611	4.82	7.14	19.49	2.18
CochranePB	M002	1569.47	20Year-Existing	27.76	73.71	74.91	75.01	75.31	0.030277	2.89	10.54	26.79	1.36
CochranePB	M002	1541.97	20Year-Existing	27.76	72.31	73.85	74.04	74.51	0.026222	3.83	8.89	16.55	1.36
CochranePB	M002	1510.83	20Year-Existing	27.76	71.34	72.44	72.65	73.19	0.077307	3.84	7.31	22.70	2.09
CochranePB	M002	1495.27	20Year-Existing	27.76	71.19	72.79	72.56	72.90	0.004190	1.55	22.97	38.51	0.56
CochranePB	M002	1458.62	20Year-Existing	27.76	70.58	72.38	72.38	72.64	0.008854	3.03	18.98	36.18	0.84
CochranePB	M002	1419.61	20Year-Existing	27.76	70.21	71.91	71.91	72.17	0.008350	2.72	17.38	33.06	0.82
CochranePB	M002	1384.56	20Year-Existing	27.76	69.61	71.85	71.34	71.99	0.002420	1.83	23.84	53.84	0.46
CochranePB	M002	1351.51	20Year-Existing	27.76	69.54	71.41	71.29	71.83	0.009101	3.09	13.09	43.90	0.87
CochranePB	M002	1311.78	20Year-Existing	27.76	69.49	71.31	71.31	71.49	0.005066	2.29	26.72	98.42	0.65
CochranePB	M002	1291.19	20Year-Existing	27.76	69.28	70.82	71.00	71.29	0.016328	3.45	13.61	48.04	1.10
CochranePB	M002	1217.75	20Year-Existing	27.76	68.70	70.64	69.99	70.67	0.000818	1.02	48.20	88.13	0.27
CochranePB	M002	1200.39	20Year-Existing	27.76	68.69	70.51	69.94	70.64	0.002202	1.65	17.50	18.52	0.44
CochranePB	M002	1190		Bridge									
CochranePB	M002	1185.68	20Year-Existing	28.40	68.46	70.50	69.61	70.60	0.001139	1.38	21.19	25.27	0.33
CochranePB	M002	1164.32	20Year-Existing	28.40	68.65	70.06	70.06	70.45	0.010530	3.08	12.54	20.05	0.93
CochranePB	M002	1132.60	20Year-Existing	28.40	68.60	69.80	69.85	70.01	0.012972	2.54	21.19	99.79	0.96
CochranePB	M002	1111.68	20Year-Existing	28.40	68.55	69.70	69.52	69.75	0.004115	1.56	38.05	121.66	0.56
CochranePB	M002	1059.95	20Year-Existing	28.40	68.38	69.55	69.41	69.61	0.003603	1.71	38.83	114.03	0.54
CochranePB	M002	998.99	20Year-Existing	28.40	68.13	69.14	69.13	69.25	0.009968	2.49	26.83	97.00	0.86
CochranePB	M002	955.54	20Year-Existing	28.40	68.12	69.13		69.14	0.000616	0.59	100.35	245.72	0.21
CochranePB	M002	851.16	20Year-Existing	28.40	67.62	69.11		69.11	0.000192	0.43	139.60	235.93	0.13
CochranePB	M002	798.06	20Year-Existing	28.40	67.47	69.11		69.11	0.000080	0.30	193.64	271.35	0.08
CochranePB	M002	746.77	20Year-Existing	28.40	67.30	69.11		69.11	0.000028	0.19	281.60	315.66	0.05
CochranePB	M002	694.52	20Year-Existing	28.40	66.98	69.10		69.11	0.000015	0.16	351.56	354.70	0.04
CochranePB	M002	669.16	20Year-Existing	28.40	66.97	69.10		69.11	0.000012	0.14	394.77	383.60	0.03
CochranePB	M002	590.19	20Year-Existing	28.40	66.84	69.10		69.10	0.000008	0.12	470.65	451.38	0.03
CochranePB	M002	539.85	20Year-Existing	28.40	66.81	69.10		69.10	0.000008	0.12	479.11	458.66	0.03
CochranePB	M002	488.40	20Year-Existing	28.40	66.54	69.10		69.10	0.000006	0.11	515.15	465.92	0.02
CochranePB	M001	381.27	20Year-Existing	56.88	66.35	69.10		69.10	0.000028	0.22	590.42	557.58	0.05
CochranePB	M001	313.14	20Year-Existing	56.88	66.28	69.10		69.10	0.000019	0.17	710.46	622.38	0.04

Petty Harbour River 20yr Q-30%

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	TR001	439.21	20Year-Existing	18.83	105.11	106.16	106.04	106.26	0.006059	1.75	20.64	45.37	0.58
RaymondB	TR001	409.42	20Year-Existing	18.83	104.68	105.74	105.74	105.99	0.013823	2.65	12.51	26.45	0.88
RaymondB	TR001	380.07	20Year-Existing	18.83	104.05	105.21	104.90	105.32	0.004804	1.66	16.04	24.95	0.53
RaymondB	TR001	360.64	20Year-Existing	18.83	103.60	105.16	104.61	105.25	0.002535	1.45	20.41	45.25	0.39
RaymondB	TR001	350		Bridge									
RaymondB	TR001	344.45	20Year-Existing	18.83	103.30	104.43	104.67	105.00	0.026842	3.79	7.25	11.03	1.21
RaymondB	TR001	334.13	20Year-Existing	18.83	103.40	104.44	104.40	104.61	0.007977	1.99	16.21	65.08	0.66
RaymondB	TR001	272.22	20Year-Existing	18.83	102.83	103.66	103.66	103.88	0.019136	2.59	11.76	26.83	0.99
RaymondB	TR001	218.50	20Year-Existing	18.83	101.42	102.44	102.44	102.84	0.018881	2.96	8.09	17.41	1.01
RaymondB	TR001	163.97	20Year-Existing	18.83	100.32	101.49	101.11	101.58	0.003693	1.44	15.62	21.92	0.46
RaymondB	TR001	115.54	20Year-Existing	18.83	100.00	100.90	100.90	101.21	0.019389	2.89	9.55	17.01	1.02
RaymondB	TR001	56.65	20Year-Existing	18.83	97.73	98.32	98.55	99.09	0.083148	4.13	5.45	14.49	1.93
RaymondB	M002	6453.60	20Year-Existing	12.04	118.10	125.10	118.75	125.10	0.000000	0.02	636.86	231.24	0.00
RaymondB	M002	6405.52	20Year-Existing	12.04	118.00	125.10		125.10	0.000000	0.02	647.87	224.37	0.00
RaymondB	M002	6347.04	20Year-Existing	12.04	124.73	125.06		125.10	0.006574	0.92	13.25	41.08	0.51
RaymondB	M002	6247.26	20Year-Existing	12.04	117.21	118.11		118.15	0.003521	1.19	17.74	34.07	0.43
RaymondB	M002	6230.10	20Year-Existing	12.04	117.20	118.09		118.12	0.001539	0.76	22.10	41.26	0.28
RaymondB	M002	6205.35	20Year-Existing	12.04	117.28	118.06		118.07	0.001438	0.68	30.60	56.32	0.27
RaymondB	M002	6143.06	20Year-Existing	12.04	117.18	117.95		117.97	0.002159	0.81	26.49	57.72	0.32
RaymondB	M002	6105.93	20Year-Existing	12.04	117.17	117.81		117.85	0.003834	0.94	18.01	54.17	0.42
RaymondB	M002	6026.35	20Year-Existing	12.04	116.81	117.59		117.62	0.002215	0.83	22.78	44.24	0.33
RaymondB	M002	5933.71	20Year-Existing	12.04	116.42	117.30		117.35	0.003678	1.18	15.06	37.15	0.44
RaymondB	M002	5883.92	20Year-Existing	12.04	116.12	117.08		117.16	0.004055	1.30	11.91	23.01	0.46
RaymondB	M002	5785.15	20Year-Existing	12.04	115.75	116.63		116.70	0.005437	1.36	12.06	25.91	0.52
RaymondB	M002	5732.44	20Year-Existing	12.04	115.46	116.32		116.41	0.005623	1.37	10.24	21.26	0.53
RaymondB	M002	5631.37	20Year-Existing	12.04	114.85	115.63		115.71	0.008695	1.48	13.60	44.18	0.64
RaymondB	M002	5500.15	20Year-Existing	12.04	114.62	115.48		115.48	0.000973	0.57	42.86	123.63	0.22
RaymondB	M002	5485.46	20Year-Existing	12.04	114.53	115.46		115.47	0.000634	0.51	52.57	157.41	0.18
RaymondB	M002	5411.19	20Year-Existing	12.04	114.48	115.38	115.05	115.40	0.001673	0.77	22.50	59.61	0.29
RaymondB	M002	5338.54	20Year-Existing	12.04	114.41	115.38	114.73	115.38	0.000101	0.21	67.26	107.23	0.07
RaymondB	M002	5278.93	20Year-Existing	12.04	114.44	115.37	114.77	115.37	0.000157	0.25	57.44	107.52	0.09
RaymondB	M002	5226.60	20Year-Existing	12.04	114.42	115.36		115.36	0.000189	0.27	60.24	121.87	0.10
RaymondB	M002	5171.66	20Year-Existing	12.04	114.42	115.35		115.35	0.000231	0.31	64.78	171.55	0.11
RaymondB	M002	5111.50	20Year-Existing	12.04	114.42	115.32		115.33	0.000709	0.53	35.01	82.54	0.19
RaymondB	M002	5077.48	20Year-Existing	12.04	114.38	115.30		115.31	0.000550	0.47	32.57	58.44	0.17
RaymondB	M002	5017.13	20Year-Existing	12.04	114.40	115.19		115.24	0.003254	0.99	12.89	24.20	0.40
RaymondB	M002	4967.43	20Year-Existing	12.04	114.07	114.94		115.03	0.005358	1.36	9.38	16.18	0.52
RaymondB	M002	4943.43	20Year-Existing	12.04	113.82	114.82		114.91	0.004475	1.40	11.34	22.27	0.49
RaymondB	M002	4910.95	20Year-Existing	12.04	113.67	114.68		114.77	0.004401	1.40	12.11	26.81	0.49
RaymondB	M002	4851.17	20Year-Existing	12.04	113.47	114.41		114.49	0.004781	1.39	12.29	28.88	0.50
RaymondB	M002	4783.73	20Year-Existing	12.04	113.30	114.11		114.16	0.004750	1.11	13.36	34.39	0.47
RaymondB	M002	4732.68	20Year-Existing	12.04	113.07	113.84		113.89	0.006091	1.23	14.87	42.24	0.53
RaymondB	M002	4681.76	20Year-Existing	12.04	112.35	113.11	113.11	113.37	0.019049	2.37	6.04	15.58	0.96
RaymondB	M002	4673.96	20Year-Existing	12.04	111.74	112.45	112.66	113.09	0.056616	3.67	3.82	10.40	1.61
RaymondB	M002	4644.78	20Year-Existing	12.04	110.49	111.26	111.39	111.75	0.035222	3.19	4.25	20.51	1.31
RaymondB	M002	4625.72	20Year-Existing	12.04	106.75	107.19	107.64	109.84	0.539806	7.20	1.67	6.23	4.44
RaymondB	M002	4615.42	20Year-Existing	12.04	105.83	107.00	106.71	107.12	0.005098	1.64	8.91	11.69	0.54
RaymondB	M002	4607.06	20Year-Existing	12.04	105.79	106.87		107.06	0.008115	2.01	6.97	9.40	0.67
RaymondB	M002	4597.34	20Year-Existing	12.04	105.76	106.83		106.97	0.007596	1.82	8.65	15.39	0.64
RaymondB	M002	4575.18	20Year-Existing	12.04	105.98	106.44	106.44	106.63	0.048157	2.28	6.56	18.56	1.34
RaymondB	M002	4545.57	20Year-Existing	12.04	104.65	105.60	105.60	105.86	0.015947	2.44	6.41	13.27	0.91
RaymondB	M002	4522.17	20Year-Existing	12.04	103.67	104.27	104.52	105.08	0.083097	4.11	3.40	10.41	1.92
RaymondB	M002	4511.42	20Year-Existing	12.04	103.62	104.70	104.42	104.77	0.004071	1.38	13.24	22.22	0.47
RaymondB	M002	4489.94	20Year-Existing	12.04	103.59	104.31	104.31	104.58	0.022526	2.47	6.30	15.67	1.04
RaymondB	M002	4466.63	20Year-Existing	12.04	103.03	104.14	103.77	104.22	0.003274	1.28	12.63	30.39	0.43
RaymondB	M002	4439.46	20Year-Existing	12.04	103.00	103.85	103.85	104.05	0.013335	2.17	8.47	30.55	0.82
RaymondB	M002	4415.77	20Year-Existing	12.04	102.78	103.42	103.46	103.64	0.023385	2.22	6.99	27.64	1.03
RaymondB	M002	4385.89	20Year-Existing	12.04	101.80	102.54	102.63	102.89	0.026301	2.73	5.37	14.49	1.13
RaymondB	M002	4354.01	20Year-Existing	12.04	101.27	101.96	102.02	102.21	0.031465	2.89	8.00	27.22	1.22
RaymondB	M002	4341.66	20Year-Existing	12.04	100.84	101.72	101.74	101.95	0.016845	2.39	7.86	25.26	0.92
RaymondB	M002	4332.73	20Year-Existing	12.04	100.32	100.95	101.18	101.64	0.066510	3.81	3.74	10.41	1.74
RaymondB	M002	4308.73	20Year-Existing	12.04	98.87	99.49	99.67	100.06	0.061993	3.59	4.28	12.35	1.65
RaymondB	M002	4294.65	20Year-Existing	12.04	98.45	99.24	99.25	99.52	0.020489	2.54	6.17	13.08	1.01
RaymondB	M002	4263.86	20Year-Existing	12.04	97.59	98.70	98.33	98.78	0.003452	1.36	11.26	15.96	0.44
RaymondB	M002	4235.25	20Year-Existing	12.04	97.47	98.67		98.71	0.001435	0.92	16.48	21.57	0.29
RaymondB	M001	4130.35	20Year-Existing	30.24	96.57	97.83	97.75	98.13	0.013211	2.46	13.18	19.16	0.85
RaymondB	M001	4076.94	20Year-Existing	30.24	96.04	97.53	97.26	97.67	0.004983	1.77	21.03	31.29	0.54
RaymondB	M001	4023.53	20Year-Existing	30.24	95.94	96.89	96.89	97.18	0.019841	2.41	13.45	25.66	0.98
RaymondB	M001	3978.20	20Year-Existing	30.24	94.64	96.50	96.00	96.56	0.002372	1.17	29.00	37.82	0.37
RaymondB	M001	3916.71	20Year-Existing	40.32	94.64	96.21		96.35	0.004580	1.88	34.52	58.52	0.53
RaymondB	M001	3863.30	20Year-Existing	40.32	94.41	96.02		96.13	0.003516	1.70	41.02	70.11	0.47
RaymondB	M001	3809.58	20Year-Existing	40.32	94.09	95.52	95.51	95.81	0.010416	2.63	22.47	41.61	0.79
RaymondB	M001	3756.26	20Year-Existing	40.32	93.53	94.84	94.84	95.19	0.013018	2.77	19.06	31.74	0.87
RaymondB	M001	3694.37	20Year-Existing	40.32	92.66	94.11	93.86	94.33	0.007342	2.19	21.42	29.41	0.66
RaymondB	M001	3569.22	20Year-Existing	40.32	92.15	93.56		93.64	0.003993	1.60	46.73	98.57	0.49
RaymondB	M001	3527.64	20Year-Existing	40.32	91.85	93.50		93.53	0.001365	1.07	62.58	72.39	0.29
RaymondB	M001	3446.51	20Year-Existing	40.32	91.14	93.46		93.48	0.000440	0.74	90.75	90.39	0.17
RaymondB	M001	3421.64	20Year-Existing	40.32	91.23	93.15	92.52	93.43	0.004188	2.35	17.54	105.24	0.55
RaymondB	M001	3410		Bridge									
RaymondB	M001	3404.11	20Year-Existing	40.32	91.23	92.57	92.57	93.20	0.016164	3.52	11.65	49.19	1.00
RaymondB	M001	3380.48	20Year-Existing	40.32	90.96	92.65	92.12	92.76	0.002963	1.59	35.24	45.92	0.43
RaymondB	M001	3308.92	20Year-Existing	40.32	90.80	92.03	92.03	92.34	0.013217	2.75	20.78	35.76	0.87
RaymondB	M001	3216.73	20Year-Existing	40.32	89.31	91.69	90.66	91.82	0.001795	1.66	25.05	40.35	0.36
RaymondB	M001	3200		Bridge									
RaymondB	M001	3188.78	20Year-Existing	40.32	89.30	91.28	91.02	91.64	0.006881	2.85	16.72	34.06	0.68

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	M001	3015.18	20Year-Existing	40.32	89.18	90.61		90.70	0.003330	1.54	37.40	54.00	0.45
RaymondB	M001	2876.32	20Year-Existing	40.32	88.66	90.10		90.21	0.004384	1.68	34.91	47.69	0.51
RaymondB	M001	2789.37	20Year-Existing	40.32	88.24	89.88		89.93	0.002172	1.33	66.90	150.16	0.37
RaymondB	M001	2681.85	20Year-Existing	40.32	88.14	89.35	89.35	89.50	0.010782	2.25	35.68	107.63	0.77
RaymondB	M001	2604.32	20Year-Existing	40.32	87.97	89.14	88.86	89.17	0.002330	1.08	69.19	160.96	0.36
RaymondB	M001	2531.57	20Year-Existing	40.32	87.97	89.08		89.09	0.000847	0.58	118.73	263.21	0.21
RaymondB	M001	2385.34	20Year-Existing	40.32	87.43	88.97		89.00	0.002095	1.26	77.59	202.02	0.36
RaymondB	M001	2245.72	20Year-Existing	40.32	86.99	88.43	88.21	88.65	0.007100	2.17	23.85	42.11	0.65
RaymondB	M001	2194.47	20Year-Existing	40.32	86.68	88.41		88.46	0.001469	1.15	61.53	83.37	0.31
RaymondB	M001	2140.67	20Year-Existing	40.32	86.59	88.26		88.35	0.002865	1.54	45.27	66.21	0.42
RaymondB	M001	2087.60	20Year-Existing	40.32	86.38	88.12		88.21	0.002307	1.43	37.05	38.15	0.38
RaymondB	M001	2069.54	20Year-Existing	40.32	86.35	88.08		88.17	0.002423	1.47	37.17	37.42	0.40
RaymondB	M001	2040.77	20Year-Existing	40.32	86.25	88.00		88.09	0.002522	1.48	37.13	44.04	0.40
RaymondB	M001	1989.18	20Year-Existing	40.32	86.02	87.75		87.91	0.004620	1.99	28.34	39.74	0.54
RaymondB	M001	1950.22	20Year-Existing	40.32	85.79	87.38	87.19	87.66	0.009009	2.55	20.60	35.11	0.74
RaymondB	M001	1885.73	20Year-Existing	40.32	85.34	86.87		87.09	0.008268	2.32	25.79	42.98	0.70
RaymondB	M001	1835.84	20Year-Existing	40.32	84.64	86.13	86.13	86.52	0.015728	3.14	18.51	25.65	0.95
RaymondB	M001	1784.61	20Year-Existing	40.32	84.10	85.23	85.26	85.54	0.022419	2.88	20.37	39.17	1.07
RaymondB	M001	1733.38	20Year-Existing	40.32	82.79	84.47	84.06	84.57	0.003117	1.57	36.54	43.76	0.44
RaymondB	M001	1682.15	20Year-Existing	40.32	82.60	84.13		84.33	0.006596	2.08	23.08	27.59	0.63
RaymondB	M001	1630.92	20Year-Existing	40.32	82.12	83.68		83.95	0.008447	2.35	19.42	24.33	0.71
RaymondB	M001	1584.49	20Year-Existing	40.32	81.77	83.43		83.60	0.005696	2.02	26.48	31.38	0.58
RaymondB	M001	1536.01	20Year-Existing	40.32	81.31	83.02		83.27	0.007665	2.40	22.34	33.86	0.67
RaymondB	M001	1477.96	20Year-Existing	40.32	80.96	82.62		82.84	0.006953	2.23	23.67	33.23	0.64
RaymondB	M001	1425.99	20Year-Existing	40.32	80.58	82.32		82.51	0.005376	2.06	25.43	36.97	0.58
RaymondB	M001	1372.05	20Year-Existing	40.32	80.25	81.74	81.73	82.05	0.014186	2.82	19.81	30.75	0.89
RaymondB	M001	1323.54	20Year-Existing	40.32	79.11	81.04	80.63	81.44	0.006597	2.81	14.37	13.41	0.67
RaymondB	M001	1315		Bridge									
RaymondB	M001	1303.54	20Year-Existing	40.32	78.01	80.33	79.83	80.69	0.005784	2.68	15.06	19.15	0.63
RaymondB	M001	1252.39	20Year-Existing	42.00	78.45	80.04	79.80	80.39	0.014238	2.97	18.62	23.78	0.89
RaymondB	M001	1216.25	20Year-Existing	42.00	77.86	79.63	79.63	79.95	0.010190	2.88	22.66	38.83	0.79
RaymondB	M001	1189.75	20Year-Existing	42.00	77.61	78.86	79.04	79.46	0.036299	3.68	14.48	31.60	1.35
RaymondB	M001	1166.20	20Year-Existing	42.00	76.74	78.08	78.30	78.67	0.030032	3.82	16.87	42.83	1.28
RaymondB	M001	1148.70	20Year-Existing	42.00	76.50	77.95	77.98	78.23	0.014758	2.75	24.08	51.10	0.90
RaymondB	M001	1116.25	20Year-Existing	42.00	75.83	76.91	77.05	77.45	0.041383	3.34	13.72	29.22	1.40
RaymondB	M001	1066.09	20Year-Existing	42.00	75.16	76.52	76.34	76.76	0.009168	2.24	23.38	37.82	0.72
RaymondB	M001	1035.68	20Year-Existing	42.00	74.73	76.00	76.00	76.37	0.016827	2.85	17.62	26.17	0.96
RaymondB	M001	999.99	20Year-Existing	42.00	73.32	74.40	74.70	75.34	0.051530	4.39	10.52	17.43	1.62
RaymondB	M001	976.73	20Year-Existing	42.00	73.03	74.36	74.36	74.75	0.014309	2.88	18.10	29.45	0.91
RaymondB	M001	942.15	20Year-Existing	42.00	72.18	73.08	73.27	73.71	0.083789	4.80	14.15	32.71	1.99
RaymondB	M001	916.70	20Year-Existing	42.00	70.82	72.03	72.19	72.47	0.028589	3.71	18.93	40.48	1.25
RaymondB	M001	892.34	20Year-Existing	42.00	70.36	71.59	71.55	71.92	0.013904	2.71	19.13	32.41	0.88
RaymondB	M001	866.25	20Year-Existing	42.00	70.04	71.59		71.70	0.003155	1.55	32.60	53.21	0.44
RaymondB	M001	841.89	20Year-Existing	42.00	69.92	71.43		71.60	0.004824	1.94	29.76	50.65	0.55
RaymondB	M001	816.68	20Year-Existing	42.00	69.74	70.94	70.94	71.37	0.017664	3.11	17.73	31.54	1.00
RaymondB	M001	766.25	20Year-Existing	42.00	69.16	70.10	70.08	70.32	0.020481	2.63	23.26	46.09	1.01
RaymondB	M001	716.25	20Year-Existing	42.00	68.39	69.70		69.82	0.004919	1.76	33.48	48.19	0.54
RaymondB	M001	675.00	20Year-Existing	42.00	68.14	69.44		69.59	0.006273	1.96	32.44	55.26	0.60
RaymondB	M001	615.86	20Year-Existing	42.00	67.75	69.15		69.28	0.004378	1.77	37.02	77.09	0.52
RaymondB	M001	565.77	20Year-Existing	42.00	67.44	69.01		69.10	0.002704	1.49	39.99	64.33	0.41
RaymondB	M001	520.15	20Year-Existing	42.00	67.26	68.97		69.00	0.001173	1.03	73.62	112.15	0.28
RaymondB	M001	468.54	20Year-Existing	42.00	66.98	68.96		68.97	0.000268	0.56	154.01	171.55	0.14
RaymondB	M001	429.18	20Year-Existing	42.00	66.80	68.96		68.96	0.000077	0.32	266.52	265.83	0.07
RaymondB	M001	366.25	20Year-Existing	42.00	66.65	68.96		68.96	0.000032	0.22	423.23	477.43	0.05
RaymondB	M001	341.79	20Year-Existing	42.00	66.63	68.96		68.96	0.000021	0.18	498.34	524.97	0.04
PettyHR	M002	6270.85	20Year-Existing	51.87	66.23	68.96		68.96	0.000001	0.04	1495.30	808.21	0.01
PettyHR	M002	6218.07	20Year-Existing	51.87	66.23	68.96		68.96	0.000001	0.04	1361.85	806.66	0.01
PettyHR	M002	6095.00	20Year-Existing	51.87	66.23	68.96		68.96	0.000001	0.04	1323.48	685.90	0.01
PettyHR	M002	6004.71	20Year-Existing	51.87	66.23	68.96		68.96	0.000001	0.04	1358.15	719.65	0.01
PettyHR	M001	5825.85	20Year-Existing	89.46	66.23	68.96		68.96	0.000002	0.06	1653.92	811.92	0.01
PettyHR	M001	5685.44	20Year-Existing	89.46	66.23	68.96		68.96	0.000002	0.06	1656.18	704.11	0.01
PettyHR	M001	5516.39	20Year-Existing	98.84	66.23	68.96		68.96	0.000003	0.07	1448.30	620.10	0.01
PettyHR	M001	5279.80	20Year-Existing	98.84	66.23	68.95		68.96	0.000006	0.10	980.86	412.74	0.02
PettyHR	M001	4996.75	20Year-Existing	98.84	66.23	68.95		68.95	0.000027	0.23	459.57	201.84	0.05
PettyHR	M001	4923.81	20Year-Existing	98.84	66.23	68.91		68.94	0.000370	0.82	143.20	78.76	0.17
PettyHR	M001	4867.41	20Year-Existing	98.84	66.23	68.84		68.91	0.001100	1.41	111.07	82.04	0.29
PettyHR	M001	4817.61	20Year-Existing	98.84	66.58	68.76		68.84	0.001639	1.61	105.10	85.73	0.35
PettyHR	M001	4757.18	20Year-Existing	98.84	66.43	68.14	68.14	68.60	0.011159	3.52	44.72	49.43	0.87
PettyHR	M001	4675.66	20Year-Existing	98.84	65.88	67.36	67.16	67.65	0.008281	2.78	50.70	47.44	0.74
PettyHR	M001	4612.84	20Year-Existing	98.84	64.88	66.89		67.19	0.006187	2.94	48.71	34.61	0.67
PettyHR	M001	4570.09	20Year-Existing	98.84	64.62	66.39	66.39	66.85	0.009584	3.26	42.34	52.52	0.81
PettyHR	M001	4500.69	20Year-Existing	98.84	64.62	66.13	65.78	66.28	0.003803	1.87	69.83	72.83	0.50
PettyHR	M001	4461.12	20Year-Existing	98.84	64.55	65.76	65.76	66.04	0.013600	3.02	56.51	89.29	0.90
PettyHR	M001	4428.20	20Year-Existing	98.84	64.41	65.50	65.31	65.64	0.010589	2.40	66.82	87.54	0.77
PettyHR	M001	4395.66	20Year-Existing	98.84	63.81	65.00	64.88	65.27	0.011005	2.70	55.08	78.78	0.81
PettyHR	M001	4357.04	20Year-Existing	98.84	63.34	64.73		64.91	0.006530	2.36	68.50	78.36	0.65
PettyHR	M001	4281.82	20Year-Existing	98.84	62.50	64.68		64.73	0.000780	1.09	106.97	56.95	0.24
PettyHR	M001	4166.17	20Year-Existing	98.84	61.82	64.69		64.70	0.000103	0.47	299.65	155.27	0.09
PettyHR	M001	3949.19	20Year-Existing	98.84	61.31	64.69		64.69	0.000000	0.03	4095.85	1308.63	0.00
PettyHR	M001	3936.78	20Year-Existing	98.84	61.31	64.69		64.69	0.000000	0.02	5082.96	1564.07	0.00
PettyHR	M001	3931.39	20Year-Existing	62.65	61.31	64.69		64.69	0.000000	0.01	6370.02	1987.52	0.00
PettyHR	M001	3925.44	20Year-Existing	62.65	61.31	64.69		64.69	0.000000	0.02	3147.04	995.77	0.00
PettyHR	M001	3867.05	20Year-Existing	62.65	61.31	64.69		64.69	0.000000	0.02	3189.51	972.71	0.00
PettyHR	M001	3643.73	20Year-Existing	62.65	61.31	64.69		64.69	0.000000	0.02	3670.36	1110.95	0.00
PettyHR	M001	3440.60	20Year-Existing	62.65	61.31	64.69		64.69	0.000000	0.03	1853.88	576.12	0.01

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	3182.65	20Year-Existing	62.65	61.31	64.69		64.69	0.000001	0.05	1394.68	421.66	0.01
PettyHR	M001	3080.13	20Year-Existing	62.65	61.31	64.69		64.69	0.000001	0.04	1642.92	502.56	0.01
PettyHR	M001	3028.13	20Year-Existing	62.65	61.31	64.69		64.69	0.000000	0.04	1795.46	553.42	0.01
PettyHR	M001	2983.09	20Year-Existing	62.65	61.31	64.69		64.69	0.000001	0.04	1465.02	447.83	0.01
PettyHR	M001	2828.46	20Year-Existing	62.65	61.31	64.69		64.69	0.000002	0.08	853.92	275.67	0.01
PettyHR	M001	2712.72	20Year-Existing	62.65	61.31	64.69		64.69	0.000007	0.14	479.90	169.49	0.02
PettyHR	M001	2671.95	20Year-Existing	62.65	61.31	64.69		64.69	0.000011	0.18	426.44	169.31	0.03
PettyHR	M001	2653.10	20Year-Existing	62.65	61.31	64.69		64.69	0.000016	0.21	362.06	151.51	0.04
PettyHR	M001	2632.46	20Year-Existing	62.65	61.31	64.68		64.69	0.000068	0.44	206.46	109.32	0.08
PettyHR	M001	2596.08	20Year-Existing	62.65	61.31	64.68		64.69	0.000078	0.47	180.05	104.42	0.08
PettyHR	M001	2583.24	20Year-Existing	62.65	60.10	64.62	62.32	64.68	0.000472	1.24	85.45	86.16	0.20
PettyHR	M001	2580		Bridge									
PettyHR	M001	2573.39	20Year-Existing	62.65	60.00	64.57	61.92	64.59	0.000183	0.79	129.16	72.33	0.13
PettyHR	M001	2551.09	20Year-Existing	62.65	59.89	64.58		64.59	0.000014	0.22	333.43	103.59	0.04
PettyHR	M001	2426.14	20Year-Existing	62.65	59.27	64.58		64.58	0.000001	0.06	1070.94	264.28	0.01
PettyHR	M001	2315.39	20Year-Existing	62.65	58.72	64.58		64.58	0.000001	0.05	1321.42	302.80	0.01
PettyHR	M001	2204.15	20Year-Existing	62.65	58.16	64.58		64.58	0.000001	0.05	1333.22	299.57	0.01
PettyHR	M001	2022.45	20Year-Existing	62.65	57.26	64.58		64.58	0.000001	0.08	814.81	168.57	0.01
PettyHR	M001	1902.10	20Year-Existing	62.65	56.66	64.58		64.58	0.000002	0.10	633.48	125.88	0.01
PettyHR	M001	1879.72	20Year-Existing	62.65	56.55	64.58		64.58	0.000005	0.16	458.54	106.26	0.02
PettyHR	M001	1824.42	20Year-Existing	62.65	56.28	64.58		64.58	0.000008	0.21	311.59	64.37	0.03
PettyHR	M001	1789.72	20Year-Existing	62.65	56.10	64.58		64.58	0.000011	0.25	263.97	53.89	0.03
PettyHR	M001	1724.70	20Year-Existing	62.65	55.78	64.58		64.58	0.000015	0.29	231.30	46.50	0.04
PettyHR	M001	1668.81	20Year-Existing	62.65	55.50	64.58	57.65	64.58	0.000008	0.22	306.58	63.32	0.03
PettyHR	M001	1647.80	20Year-Existing	62.65	55.40	64.58	57.40	64.58	0.000005	0.18	360.29	67.88	0.02
PettyHR	M001	1631.79	20Year-Existing	62.65	63.55	64.39		64.56	0.007881	1.84	34.13	40.58	0.64
PettyHR	M001	1615.46	20Year-Existing	63.49	54.38	56.19		56.34	0.006981	2.83	39.88	35.01	0.69
PettyHR	M001	1601.08	20Year-Existing	63.49	54.00	55.64	55.64	56.14	0.022451	4.75	22.99	22.12	1.22
PettyHR	M001	1586.16	20Year-Existing	63.49	53.36	54.91	55.12	55.69	0.037321	5.96	19.73	23.13	1.56
PettyHR	M001	1571.98	20Year-Existing	63.49	52.87	54.25	54.48	55.09	0.047048	6.09	18.26	22.54	1.71
PettyHR	M001	1519.66	20Year-Existing	63.49	51.62	53.12	53.09	53.43	0.019687	4.11	29.88	38.15	1.11
PettyHR	M001	1467.14	20Year-Existing	63.49	50.86	51.95	51.91	52.24	0.025933	3.89	28.79	41.39	1.22
PettyHR	M001	1457.30	20Year-Existing	63.49	50.23	51.59	51.59	51.98	0.024924	4.48	26.42	33.48	1.25
PettyHR	M001	1444.51	20Year-Existing	63.49	48.30	49.14	49.58	51.09	0.241996	9.76	12.23	28.03	3.55
PettyHR	M001	1415.17	20Year-Existing	63.49	48.28	49.59	49.21	49.69	0.006404	2.20	47.84	51.18	0.63
PettyHR	M001	1402.15	20Year-Existing	63.49	47.79	49.15	49.15	49.52	0.024764	4.29	26.75	35.87	1.22
PettyHR	M001	1385.41	20Year-Existing	63.49	43.10	44.41	45.24	48.31	0.169255	10.78	9.34	13.96	3.17
PettyHR	M001	1370.82	20Year-Existing	63.49	41.75	43.23	44.01	46.03	0.107584	9.79	10.53	11.61	2.63
PettyHR	M001	1362.66	20Year-Existing	63.49	39.88	41.62	42.65	45.09	0.103258	10.39	9.51	8.80	2.61
PettyHR	M001	1336.64	20Year-Existing	63.49	39.87	41.34	41.70	42.49	0.054707	6.90	15.74	17.40	1.86
PettyHR	M001	1309.35	20Year-Existing	63.49	38.40	39.53	39.88	40.67	0.082436	7.02	15.05	20.31	2.18
PettyHR	M001	1279.20	20Year-Existing	63.49	35.02	36.87	37.49	38.69	0.051845	7.83	13.57	13.18	1.88
PettyHR	M001	1258.06	20Year-Existing	63.49	34.01	36.15	36.63	37.69	0.036122	7.29	15.06	12.59	1.62
PettyHR	M001	1221.17	20Year-Existing	63.49	33.21	34.41	34.76	35.66	0.084004	7.06	14.04	17.18	2.18
PettyHR	M001	1203.34	20Year-Existing	63.49	32.61	33.84	33.98	34.40	0.043547	5.38	22.22	33.24	1.61
PettyHR	M001	1164.99	20Year-Existing	63.49	31.37	32.70	32.75	33.10	0.025375	4.28	26.84	38.97	1.24
PettyHR	M001	1153.41	20Year-Existing	63.49	30.70	31.58	31.86	32.52	0.112468	6.97	16.88	33.91	2.46
PettyHR	M001	1125.74	20Year-Existing	63.49	29.27	30.42	30.49	30.82	0.033402	4.49	26.05	40.93	1.39
PettyHR	M001	1090.65	20Year-Existing	63.49	28.12	29.18	29.26	29.55	0.039306	4.44	27.84	56.13	1.47
PettyHR	M001	1059.48	20Year-Existing	63.49	26.84	28.00	28.09	28.36	0.036431	4.70	28.98	59.56	1.45
PettyHR	M001	1048.77	20Year-Existing	63.49	26.29	27.35	27.50	27.87	0.053035	5.19	24.39	52.02	1.72
PettyHR	M001	1021.54	20Year-Existing	63.49	25.47	26.81	26.81	27.13	0.024581	4.26	29.01	41.46	1.22
PettyHR	M001	1003.30	20Year-Existing	63.49	23.42	24.50	24.99	26.17	0.115696	8.17	12.45	16.63	2.58
PettyHR	M001	994.73	20Year-Existing	63.49	22.70	24.84	24.69	25.39	0.015283	4.73	22.89	16.80	1.05
PettyHR	M001	961.03	20Year-Existing	63.49	22.07	24.36	24.36	24.89	0.014048	4.70	25.16	22.66	1.01
PettyHR	M001	944.13	20Year-Existing	63.49	21.89	23.18	23.55	24.39	0.061344	6.67	15.57	19.43	1.94
PettyHR	M001	924.94	20Year-Existing	63.49	20.78	22.31	22.59	23.34	0.044529	6.37	16.17	15.67	1.69
PettyHR	M001	905.47	20Year-Existing	63.49	19.73	21.51	21.79	22.58	0.035281	6.34	16.45	14.32	1.55
PettyHR	M001	883.86	20Year-Existing	63.49	17.29	20.05	19.47	20.27	0.003377	2.65	37.83	26.08	0.52
PettyHR	M001	875		Bridge									
PettyHR	M001	859.53	20Year-Existing	63.49	17.25	18.94	18.94	19.46	0.021976	4.66	22.44	27.19	1.19
PettyHR	M001	836.76	20Year-Existing	63.49	12.80	14.16	15.15	18.10	0.144355	10.61	8.58	9.13	2.99
PettyHR	M001	823.70	20Year-Existing	63.49	12.86	14.14	14.68	15.88	0.094989	8.21	12.54	14.98	2.39
PettyHR	M001	811.96	20Year-Existing	63.49	12.85	14.62	14.62	15.24	0.023627	5.20	22.30	22.53	1.27
PettyHR	M001	796.92	20Year-Existing	63.49	12.74	13.94	14.20	14.69	0.060223	6.33	19.12	29.04	1.89
PettyHR	M001	784.11	20Year-Existing	63.49	11.82	13.48	13.65	14.14	0.029136	5.45	23.11	30.55	1.39
PettyHR	M001	769.86	20Year-Existing	63.49	10.94	12.19	12.58	13.47	0.069803	6.94	15.02	19.79	2.05
PettyHR	M001	748.76	20Year-Existing	63.49	8.37	10.30	10.96	12.25	0.045160	7.47	13.61	13.96	1.77
PettyHR	M001	720.33	20Year-Existing	63.49	8.08	9.02	9.35	10.12	0.111936	6.81	15.23	26.81	2.43
PettyHR	M001	707.57	20Year-Existing	63.49	6.85	8.14	8.41	9.05	0.056193	6.32	19.00	31.54	1.84
PettyHR	M001	685.99	20Year-Existing	63.49	5.31	6.70	7.05	7.78	0.060937	6.78	17.66	26.91	1.93
PettyHR	M001	666.04	20Year-Existing	63.49	5.03	6.60	6.62	6.97	0.016850	3.92	30.40	41.50	1.04
PettyHR	M001	652.51	20Year-Existing	63.49	4.66	5.89	6.10	6.57	0.045520	5.37	20.69	31.50	1.63
PettyHR	M001	633.61	20Year-Existing	63.49	4.40	5.32	5.41	5.71	0.038569	4.07	26.31	75.19	1.44
PettyHR	M001	622.83	20Year-Existing	63.49	4.09	5.03	5.03	5.24	0.023977	3.23	36.19	89.38	1.14
PettyHR	M001	577.97	20Year-Existing	63.49	2.48	3.66	3.71	3.93	0.034999	4.61	33.41	101.38	1.41
PettyHR	M001	525.57	20Year-Existing	63.49	0.51	2.64	1.92	2.71	0.002361	1.87	59.33	67.57	0.42
PettyHR	M001	491.94	20Year-Existing	63.49	-0.59	2.51	1.48	2.64	0.001621	1.76	51.68	59.40	0.35
PettyHR	M001	485		Bridge									
PettyHR	M001	478.84	20Year-Existing	63.49	-1.92	2.55		2.58	0.000248	0.84	111.72	141.61	0.14
PettyHR	M001	439.27	20Year-Existing	63.49	-1.89	2.56		2.57	0.000070	0.46	235.73	128.55	0.07
PettyHR	M001	405.68	20Year-Existing	63.49	-2.13	2.56		2.56	0.000063	0.44	233.45	131.82	0.07
PettyHR	M001	367.80	20Year-Existing	63.49	-2.02	2.56		2.56	0.000019	0.24	298.31	139.13	0.04
PettyHR	M001	338.85	20Year-Existing	63.49	-2.89	2.56		2.56	0.000011	0.21	337.85	121.89	0.03
PettyHR	M001	305.38	20Year-Existing	63.49	-2.46	2.56		2.56	0.000016	0.24	305.12	119.82	0.04

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	269.29	20Year-Existing	63.49	-3.52	2.56		2.56	0.000014	0.25	286.35	110.05	0.04
PettyHR	M001	238.18	20Year-Existing	63.49	-3.50	2.55		2.56	0.000020	0.30	247.86	102.37	0.04
PettyHR	M001	201.25	20Year-Existing	63.49	-4.43	2.56		2.56	0.000006	0.19	366.63	119.81	0.03
PettyHR	M001	150.84	20Year-Existing	63.49	-3.34	2.56		2.56	0.000004	0.13	523.82	171.46	0.02
PettyHR	M001	105.74	20Year-Existing	63.49	-2.91	2.56		2.56	0.000004	0.13	506.41	154.10	0.02
PettyHR	M001	91.29	20Year-Existing	63.49	-3.36	2.56		2.56	0.000003	0.13	522.92	143.55	0.02
PettyHR	M001	20.04	20Year-Existing	63.49	-6.19	2.56		2.56	0.000002	0.10	704.31	185.16	0.01
PettyHR	M001	12.04	20Year-Existing	63.49	-6.19	2.55	-4.22	2.56	0.000031	0.36	267.31	185.14	0.04
ForthP	M001	2616.90	20Year-Existing	6.30	123.09	124.43	123.30	124.43	0.000007	0.07	123.46	152.27	0.02
ForthP	M001	2528.45	20Year-Existing	6.30	123.09	124.43		124.43	0.000002	0.03	201.27	194.50	0.01
ForthP	M001	2324.32	20Year-Existing	6.30	123.09	124.43		124.43	0.000006	0.06	139.58	202.05	0.02
ForthP	M001	2187.52	20Year-Existing	6.30	123.09	124.43		124.43	0.000001	0.03	268.54	281.99	0.01
ForthP	M001	1955.13	20Year-Existing	6.30	123.09	124.43		124.43	0.000001	0.03	310.29	307.25	0.01
ForthP	M001	1773.83	20Year-Existing	6.30	123.09	124.43		124.43	0.000000	0.02	383.21	342.16	0.00
ForthP	M001	1572.85	20Year-Existing	6.30	123.09	124.43		124.43	0.000000	0.02	367.30	317.06	0.01
ForthP	M001	1496.60	20Year-Existing	6.30	123.09	124.43		124.43	0.000001	0.02	309.03	272.11	0.01
ForthP	M001	1392.58	20Year-Existing	22.61	122.98	124.42	124.12	124.43	0.000354	0.56	98.69	165.20	0.15
ForthP	M001	1390		Culvert									
ForthP	M001	1381.72	20Year-Existing	22.61	122.95	124.24	124.08	124.26	0.002459	1.25	50.10	136.29	0.36
ForthP	M001	1360.50	20Year-Existing	22.61	122.87	124.06		124.16	0.008015	2.11	19.89	36.62	0.67
ForthP	M001	1311.12	20Year-Existing	22.61	122.52	123.82		123.86	0.004229	1.61	30.96	70.92	0.49
ForthP	M001	1261.17	20Year-Existing	22.61	121.36	123.02	123.02	123.47	0.013850	3.53	11.02	22.97	0.93
ForthP	M001	1211.51	20Year-Existing	22.61	119.83	121.20	121.59	122.28	0.043592	5.36	5.99	7.84	1.58
ForthP	M001	1161.66	20Year-Existing	22.61	117.25	118.30	118.62	119.46	0.075722	5.76	6.69	18.67	1.99
ForthP	M001	1112.05	20Year-Existing	22.61	114.88	115.87	116.02	116.36	0.046241	4.59	10.25	30.91	1.57
ForthP	M001	1062.35	20Year-Existing	22.61	113.16	114.20	114.25	114.48	0.031129	3.66	12.36	30.84	1.25
ForthP	M001	1041.93	20Year-Existing	22.61	112.62	113.77	113.80	114.00	0.021649	3.24	13.98	37.30	1.06
ForthP	M001	1031.90	20Year-Existing	22.61	112.31	113.40	113.50	113.72	0.034080	3.95	13.04	41.23	1.32
ForthP	M001	1011.12	20Year-Existing	22.61	111.62	112.56	112.67	112.92	0.045166	4.25	12.27	41.73	1.52
ForthP	M001	959.76	20Year-Existing	22.61	110.31	110.97	111.06	111.25	0.072028	3.77	12.00	52.82	1.76
ForthP	M001	908.93	20Year-Existing	22.61	109.25	109.83	109.72	109.87	0.012650	1.53	25.93	86.26	0.74
ForthP	M001	856.39	20Year-Existing	22.61	108.38	108.79		108.84	0.023495	1.36	21.98	88.92	0.90
ForthP	M001	806.25	20Year-Existing	22.61	107.09	107.92		107.99	0.014555	2.15	24.78	88.88	0.83
ForthP	M001	754.78	20Year-Existing	22.61	106.12	107.06	107.06	107.17	0.019634	2.85	21.66	85.58	1.01
ForthP	M001	734.50	20Year-Existing	22.61	105.47	106.58	106.65	106.81	0.021247	3.18	18.48	84.19	1.06
ForthP	M001	724.30	20Year-Existing	22.61	105.28	106.45	106.47	106.62	0.014587	2.76	18.60	62.55	0.89
ForthP	M001	703.65	20Year-Existing	22.61	105.02	105.98	106.01	106.19	0.031490	3.60	14.16	40.89	1.25
ForthP	M001	654.47	20Year-Existing	22.61	103.90	106.08	104.70	106.09	0.000090	0.36	124.54	109.54	0.08
ForthP	M001	605.63	20Year-Existing	22.61	102.27	103.04	103.04	105.80	0.285946	8.69	4.00	12.93	3.64
ForthP	M001	585.13	20Year-Existing	22.61	101.55	102.35	102.45	102.72	0.065042	4.24	12.75	65.49	1.75
ForthP	M001	577.30	20Year-Existing	22.61	101.52	102.11	102.14	102.29	0.057518	3.20	13.78	57.30	1.55
ForthP	M001	557.33	20Year-Existing	22.61	100.67	101.22	101.25	101.38	0.058112	2.88	14.41	67.01	1.52
ForthP	M001	507.84	20Year-Existing	22.61	98.92	99.53	99.53	99.64	0.035153	2.43	18.07	80.52	1.21
ForthP	M001	453.33	20Year-Existing	22.61	96.28	96.98	96.93	97.05	0.019340	2.06	21.96	84.01	0.93
ForthP	M001	402.29	20Year-Existing	22.61	94.96	95.52	95.52	95.65	0.044398	2.81	15.13	56.25	1.36
ForthP	M001	349.18	20Year-Existing	22.61	93.64	94.19	94.02	94.22	0.010727	1.25	26.90	71.58	0.66
ForthP	M001	297.76	20Year-Existing	22.61	92.55	93.40	93.40	93.52	0.022691	2.63	18.97	76.13	1.04
ForthP	M001	246.28	20Year-Existing	22.61	91.71	92.36	92.35	92.46	0.029150	2.29	19.05	79.31	1.12
ForthP	M001	182.03	20Year-Existing	22.61	90.94	91.98	91.66	92.00	0.003447	1.23	41.81	96.59	0.42
ForthP	M001	160.27	20Year-Existing	22.61	90.13	91.98	91.14	91.99	0.000121	0.36	127.39	147.07	0.09
ForthP	M001	150		Culvert									
ForthP	M001	144.74	20Year-Existing	22.61	89.90	90.94	90.86	91.29	0.013336	2.67	8.71	88.31	0.87
ForthP	M001	124.30	20Year-Existing	22.61	89.74	90.81		90.90	0.012350	2.33	24.26	73.58	0.80
ForthP	M001	61.58	20Year-Existing	22.61	88.75	89.84	89.84	89.99	0.016777	2.74	19.19	54.09	0.94
ForestP	M001	1557.91	20Year-Existing	4.48	78.25	79.66	78.41	79.66	0.000001	0.03	141.09	120.58	0.01
ForestP	M001	1428.05	20Year-Existing	4.48	78.25	79.66		79.66	0.000001	0.02	191.90	174.44	0.01
ForestP	M001	1315.71	20Year-Existing	4.48	78.25	79.66		79.66	0.000000	0.02	270.34	240.96	0.00
ForestP	M001	1228.83	20Year-Existing	4.48	78.25	79.65		79.65	0.000000	0.01	323.48	282.55	0.00
ForestP	M001	1138.84	20Year-Existing	4.48	78.25	79.65		79.65	0.000000	0.01	378.62	337.36	0.00
ForestP	M001	1077.28	20Year-Existing	4.48	78.25	79.65		79.65	0.000000	0.01	413.59	469.15	0.00
ForestP	M001	1019.12	20Year-Existing	4.48	78.25	79.65		79.65	0.000001	0.02	206.75	272.93	0.01
ForestP	M001	958.61	20Year-Existing	5.67	78.15	79.64	79.31	79.65	0.000438	0.49	21.52	65.95	0.15
ForestP	M001	955		Culvert									
ForestP	M001	949.85	20Year-Existing	5.67	77.76	79.24	78.89	79.57	0.006858	2.56	2.22	8.83	0.67
ForestP	M001	913.34	20Year-Existing	5.67	78.16	78.95	78.95	79.09	0.028724	2.70	4.41	15.19	1.07
ForestP	M001	883.23	20Year-Existing	5.67	77.54	78.28	78.31	78.41	0.018381	2.18	6.04	34.34	0.92
ForestP	M001	859.61	20Year-Existing	5.67	76.75	77.33	77.42	77.65	0.063523	3.36	3.01	12.54	1.62
ForestP	M001	831.71	20Year-Existing	5.67	75.74	76.53	76.53	76.74	0.027708	2.69	3.40	8.62	1.11
ForestP	M001	802.91	20Year-Existing	5.67	74.66	75.33	75.45	75.72	0.047055	3.30	2.71	8.90	1.45
ForestP	M001	772.90	20Year-Existing	5.67	73.77	74.36	74.43	74.63	0.054903	3.25	3.14	11.34	1.51
ForestP	M001	737.48	20Year-Existing	5.67	72.77	73.41	73.36	73.49	0.015669	1.86	5.91	20.82	0.83
ForestP	M001	688.06	20Year-Existing	5.67	71.80	72.32	72.32	72.39	0.034620	2.22	5.65	31.15	1.12
ForestP	M001	651.32	20Year-Existing	5.67	70.81	71.27	71.36	71.55	0.088146	3.51	3.60	25.50	1.87
ForestP	M001	600.44	20Year-Existing	5.67	69.80	70.25	70.25	70.32	0.029322	1.97	7.14	48.59	1.07
ForestP	M001	578.60	20Year-Existing	5.67	69.31	69.91	69.86	69.94	0.006831	1.19	13.71	87.43	0.55
ForestP	M001	528.92	20Year-Existing	5.67	68.58	69.13	69.13	69.27	0.035662	2.45	5.07	36.74	1.21
ForestP	M001	478.55	20Year-Existing	5.67	68.21	68.97	68.70	68.98	0.001433	0.63	19.40	65.37	0.26
ForestP	M001	430.82	20Year-Existing	5.67	67.77	68.96		68.96	0.000152	0.30	46.54	99.01	0.09
ForestP	M001	378.18	20Year-Existing	5.67	67.48	68.96		68.96	0.000018	0.12	125.23	225.41	0.03
ForestP	M001	328.07	20Year-Existing	5.67	67.34	68.96		68.96	0.000004	0.06	211.55	246.00	0.02
ForestP	M001	277.95	20Year-Existing	5.67	67.07	68.96		68.96	0.000002	0.05	272.18	280.57	0.01
ForestP	M001	195.51	20Year-Existing	5.67	66.23	68.96		68.96	0.000000	0.02	552.98	474.52	0.00
ForestP	M001	158.37	20Year-Existing	5.67	66.23	68.96		68.96	0.000000	0.01	1177.87	642.14	0.00
ForestP	M001	89.11	20Year-Existing	5.67	66.23	68.96		68.96	0.000000	0.01	1308.44	696.83	0.00
DoylesR	TR019	260.51	20Year-Existing	0.21	124.74	124.98	124.91	124.99	0.001875	0.28	1.18	17.40	0.24

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR019	199.72	20Year-Existing	0.21	124.55	124.98		124.98	0.000004	0.02	20.50	118.57	0.01
DoylesR	TR019	150.00	20Year-Existing	0.21	124.37	124.98		124.98	0.000003	0.02	22.61	126.09	0.01
DoylesR	TR019	100.00	20Year-Existing	0.21	124.16	124.98		124.98	0.000002	0.02	19.81	76.95	0.01
DoylesR	TR019	50.00	20Year-Existing	0.21	124.18	124.98		124.98	0.000001	0.01	36.78	177.89	0.01
DoylesR	TR018	302.01	20Year-Existing	0.77	127.90	128.02	128.02	128.06	0.045294	0.89	1.06	22.59	1.05
DoylesR	TR018	270.53	20Year-Existing	0.77	126.19	127.36	126.65	127.40	0.000978	0.82	0.93	83.74	0.24
DoylesR	TR018	260		Culvert									
DoylesR	TR018	257.62	20Year-Existing	0.77	126.19	126.85	126.68	126.97	0.008084	1.55	0.50	16.10	0.63
DoylesR	TR018	244.68	20Year-Existing	0.77	125.64	126.83	126.35	126.90	0.002928	1.21	0.77	70.39	0.37
DoylesR	TR018	200		Culvert									
DoylesR	TR018	169.24	20Year-Existing	0.77	125.40	126.15	125.94	126.26	0.008243	1.71	0.56	73.70	0.65
DoylesR	TR018	131.43	20Year-Existing	0.77	125.24	125.41	125.41	125.45	0.068424	1.10	1.18	27.74	1.29
DoylesR	TR018	59.79	20Year-Existing	0.77	124.57	125.04	124.83	125.04	0.000561	0.27	5.97	50.35	0.15
DoylesR	TR017	4043.45	20Year-Existing	4.27	124.05	124.96		124.98	0.001277	0.78	14.12	51.79	0.27
DoylesR	TR017	3983.69	20Year-Existing	4.27	124.04	124.87		124.89	0.001824	0.78	11.41	54.54	0.30
DoylesR	TR017	3923.93	20Year-Existing	4.27	124.03	124.52	124.52	124.61	0.031096	1.74	4.35	32.73	1.07
DoylesR	TR017	3889.37	20Year-Existing	4.27	123.60	123.75	123.58	123.76	0.004285	0.18	11.76	55.82	0.29
DoylesR	TR017	3781.64	20Year-Existing	4.27	122.55	123.30	123.16	123.36	0.007669	1.49	6.49	30.78	0.60
DoylesR	TR017	3768.91	20Year-Existing	4.27	122.35	122.99	122.99	123.19	0.020614	2.03	2.45	7.03	0.93
DoylesR	TR017	3745.98	20Year-Existing	4.27	121.86	122.41	122.42	122.49	0.025064	1.70	4.50	32.77	0.96
DoylesR	TR017	3713.18	20Year-Existing	4.27	120.99	121.42	121.47	121.62	0.037743	2.03	2.40	10.99	1.20
DoylesR	TR017	3692.45	20Year-Existing	4.27	120.34	120.88	120.92	121.06	0.028295	2.01	2.68	11.06	1.07
DoylesR	TR017	3679.05	20Year-Existing	4.27	119.97	120.54	120.58	120.78	0.029665	2.31	2.24	7.17	1.13
DoylesR	TR017	3656.84	20Year-Existing	4.27	117.59	117.98	118.23	119.15	0.310105	4.83	0.92	5.03	3.27
DoylesR	TR017	3603.67	20Year-Existing	4.27	116.29	116.88	116.88	117.02	0.020408	1.98	3.29	14.54	0.94
DoylesR	TR017	3583.40	20Year-Existing	4.27	115.96	116.53	116.53	116.63	0.018604	1.79	4.03	20.93	0.88
DoylesR	TR017	3571.14	20Year-Existing	4.27	115.76	116.22	116.23	116.32	0.031810	2.11	4.12	26.00	1.13
DoylesR	TR017	3545.42	20Year-Existing	4.27	115.22	115.64	115.71	115.90	0.079923	2.68	2.44	16.38	1.68
DoylesR	TR017	3483.93	20Year-Existing	4.27	114.35	114.88	114.87	114.92	0.013913	1.49	7.57	59.58	0.76
DoylesR	TR017	3432.55	20Year-Existing	4.27	113.79	114.46	114.38	114.49	0.007514	1.31	7.97	51.64	0.57
DoylesR	TR017	3345.48	20Year-Existing	4.27	113.03	113.49	113.49	113.56	0.027933	1.71	4.98	32.52	1.02
DoylesR	TR017	3300.07	20Year-Existing	4.27	112.42	112.92	112.83	112.93	0.004191	0.71	12.57	73.49	0.40
DoylesR	TR016	918.87	20Year-Existing	1.54	127.08	128.79	127.23	128.79	0.000000	0.01	401.85	360.85	0.00
DoylesR	TR016	898.71	20Year-Existing	1.54	126.90	128.79	127.18	128.79	0.000000	0.02	194.65	225.14	0.00
DoylesR	TR016	890		Culvert									
DoylesR	TR016	882.28	20Year-Existing	1.54	126.88	128.71		128.71	0.000002	0.04	101.73	156.77	0.01
DoylesR	TR016	877.71	20Year-Existing	1.54	126.24	128.71	126.76	128.71	0.000001	0.04	120.13	186.44	0.01
DoylesR	TR016	850		Culvert									
DoylesR	TR016	848.13	20Year-Existing	1.54	126.37	126.95	126.95	127.16	0.021844	2.10	0.90	2.56	0.92
DoylesR	TR016	818.98	20Year-Existing	1.54	126.36	126.80	126.74	126.81	0.003369	0.63	5.18	48.99	0.36
DoylesR	TR016	768.99	20Year-Existing	1.54	126.30	126.60	126.55	126.61	0.005133	0.59	5.13	47.45	0.42
DoylesR	TR016	714.09	20Year-Existing	1.54	125.96	126.32	126.24	126.33	0.004738	0.62	4.58	34.21	0.41
DoylesR	TR016	675.95	20Year-Existing	1.54	125.74	126.04	126.04	126.08	0.019440	1.06	2.60	33.97	0.80
DoylesR	TR016	659.39	20Year-Existing	1.54	125.10	125.49	125.45	125.52	0.008720	0.98	2.69	19.18	0.58
DoylesR	TR016	632.80	20Year-Existing	1.54	124.78	125.18	125.18	125.25	0.015477	1.22	1.91	19.72	0.75
DoylesR	TR016	610.50	20Year-Existing	1.54	123.78	124.15	124.27	124.52	0.085542	2.78	0.66	3.92	1.74
DoylesR	TR016	549.37	20Year-Existing	1.54	122.30	122.85	122.85	122.94	0.016939	1.53	1.54	8.97	0.80
DoylesR	TR016	494.31	20Year-Existing	1.54	120.93	121.44	121.47	121.62	0.035550	1.86	0.84	3.34	1.12
DoylesR	TR016	473.82	20Year-Existing	1.54	120.18	120.61	120.66	120.81	0.044445	1.99	0.83	4.14	1.26
DoylesR	TR016	459.95	20Year-Existing	1.54	119.62	120.02	120.06	120.19	0.042633	1.85	0.88	4.54	1.22
DoylesR	TR016	439.99	20Year-Existing	1.54	119.05	119.57	119.57	119.71	0.027159	1.64	0.96	3.81	0.98
DoylesR	TR016	384.99	20Year-Existing	1.54	117.07	117.47	117.52	117.66	0.054076	1.89	0.82	4.18	1.34
DoylesR	TR016	329.99	20Year-Existing	1.54	115.67	116.05	116.11	116.22	0.057054	1.82	0.87	7.80	1.36
DoylesR	TR016	274.18	20Year-Existing	1.54	114.93	115.30	115.29	115.32	0.010860	0.89	3.23	42.26	0.61
DoylesR	TR016	218.88	20Year-Existing	1.54	114.35	114.79	114.77	114.82	0.010641	0.92	3.04	38.84	0.61
DoylesR	TR016	165.43	20Year-Existing	1.54	113.83	114.32	114.27	114.36	0.008718	0.99	2.48	24.81	0.57
DoylesR	TR016	86.48	20Year-Existing	1.54	112.80	113.18	113.18	113.25	0.026927	1.27	1.53	11.30	0.93
DoylesR	TR016	40.19	20Year-Existing	1.54	112.21	112.74	112.65	112.75	0.002760	0.61	5.51	44.89	0.33
DoylesR	TR015	3230.71	20Year-Existing	9.31	111.60	112.41	112.35	112.45	0.008692	1.67	13.34	56.96	0.65
DoylesR	TR015	3185.04	20Year-Existing	9.31	111.22	112.07	112.02	112.14	0.010477	1.75	11.74	46.43	0.70
DoylesR	TR015	3133.58	20Year-Existing	9.31	110.57	111.28	111.28	111.39	0.021729	2.32	8.87	37.47	1.00
DoylesR	TR015	3079.97	20Year-Existing	9.31	108.17	108.93	109.12	109.54	0.058826	3.78	3.24	8.87	1.64
DoylesR	TR015	3026.43	20Year-Existing	9.31	107.30	109.02	108.11	109.03	0.000321	0.55	28.27	33.09	0.14
DoylesR	TR015	3001.28	20Year-Existing	9.31	106.17	109.02	107.71	109.02	0.000048	0.28	79.49	76.43	0.06
DoylesR	TR015	3000		Culvert									
DoylesR	TR015	2988.77	20Year-Existing	9.31	106.03	107.53	107.53	108.25	0.016951	3.93	2.64	5.17	1.04
DoylesR	TR015	2963.30	20Year-Existing	9.31	105.69	106.41	106.68	107.38	0.090005	4.92	3.14	12.86	2.01
DoylesR	TR015	2915.60	20Year-Existing	9.31	104.53	105.46	105.46	105.69	0.019723	2.60	6.18	15.84	0.98
DoylesR	TR015	2867.64	20Year-Existing	9.31	103.37	104.34	104.38	104.64	0.027984	3.21	5.48	13.67	1.16
DoylesR	TR015	2841.04	20Year-Existing	9.31	102.40	102.91	103.01	103.24	0.111768	3.60	4.91	25.97	2.06
DoylesR	TR015	2804.73	20Year-Existing	9.31	101.67	102.39	102.33	102.47	0.014791	1.94	9.99	32.42	0.82
DoylesR	TR015	2742.98	20Year-Existing	9.31	100.87	101.61	101.58	101.67	0.012543	1.89	13.91	61.89	0.77
DoylesR	TR015	2687.77	20Year-Existing	9.31	100.07	100.61	100.61	100.70	0.029502	2.18	10.03	55.11	1.11
DoylesR	TR015	2638.14	20Year-Existing	9.31	98.95	99.68	99.69	99.80	0.022490	2.52	9.52	41.79	1.03
DoylesR	TR015	2593.26	20Year-Existing	9.31	97.75	98.71	98.67	98.82	0.011856	2.15	10.06	32.81	0.77
DoylesR	TR015	2557.12	20Year-Existing	9.31	97.53	98.46		98.52	0.006962	1.69	12.91	38.40	0.60
DoylesR	TR015	2522.34	20Year-Existing	9.31	97.26	98.07	98.07	98.19	0.015863	2.05	8.93	37.32	0.86
DoylesR	TR015	2483.94	20Year-Existing	9.31	96.95	97.61	97.56	97.66	0.014052	1.65	12.87	58.42	0.77
DoylesR	TR015	2438.99	20Year-Existing	9.31	96.35	97.33	97.27	97.37	0.004284	1.32	18.56	78.90	0.47
DoylesR	TR015	2387.12	20Year-Existing	9.31	96.39	97.16		97.17	0.004030	0.99	23.97	111.38	0.43
DoylesR	TR015	2352.45	20Year-Existing	9.31	96.40	97.10		97.10	0.001128	0.50	34.01	93.88	0.22
DoylesR	TR015	2283.37	20Year-Existing	9.31	95.75	96.92		96.97	0.003368	1.36	11.76	20.00	0.43
DoylesR	TR015	2231.50	20Year-Existing	9.31	95.54	96.51		96.66	0.012971	2.23	6.76	14.49	0.81
DoylesR	TR015	2160.12	20Year-Existing	9.31	94.93	95.83		95.91	0.008045	1.65	9.14	20.93	0.63
DoylesR	TR015	2119.11	20Year-Existing	9.31	94.44	95.34	95.27	95.50	0.015347	2.30	7.65	23.44	0.87

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR015	2075.88	20Year-Existing	9.31	93.86	94.70	94.70	94.85	0.014497	2.13	7.95	31.44	0.84
DoylesR	TR015	2024.01	20Year-Existing	9.31	93.19	94.17	94.11	94.25	0.008200	1.75	10.87	41.43	0.64
DoylesR	TR015	1972.14	20Year-Existing	9.31	92.71	93.58	93.58	93.70	0.016299	2.32	8.31	33.03	0.88
DoylesR	TR015	1921.75	20Year-Existing	9.31	92.35	93.21	92.99	93.23	0.003722	1.12	16.86	50.07	0.42
DoylesR	TR015	1851.62	20Year-Existing	9.31	91.24	92.45	92.45	92.80	0.017723	2.92	4.27	7.22	0.95
DoylesR	TR014	2057.49	20Year-Existing	5.60	125.48	126.38	126.28	126.42	0.004587	1.15	10.40	45.07	0.46
DoylesR	TR014	2037.89	20Year-Existing	5.60	125.57	126.37		126.37	0.000789	0.50	25.47	82.95	0.20
DoylesR	TR014	1988.88	20Year-Existing	5.60	124.71	126.31	125.37	126.34	0.000647	0.74	9.63	23.27	0.20
DoylesR	TR014	1980		Culvert									
DoylesR	TR014	1975.46	20Year-Existing	5.60	124.46	126.07		126.10	0.000723	0.78	7.77	6.94	0.21
DoylesR	TR014	1936.56	20Year-Existing	5.60	124.86	125.94		126.03	0.004542	1.54	5.18	8.58	0.50
DoylesR	TR014	1904.43	20Year-Existing	5.60	124.72	125.62	125.48	125.81	0.011334	2.09	3.79	9.74	0.77
DoylesR	TR014	1867.03	20Year-Existing	5.60	124.61	125.45		125.51	0.004635	1.29	7.36	21.12	0.49
DoylesR	TR014	1801.50	20Year-Existing	5.60	124.00	124.77	124.77	124.97	0.017142	2.31	3.92	11.19	0.91
DoylesR	TR014	1765.57	20Year-Existing	5.60	123.20	123.66	123.77	123.96	0.052105	2.65	2.89	14.61	1.45
DoylesR	TR014	1703.29	20Year-Existing	5.60	121.82	122.54	122.46	122.67	0.010691	1.79	4.38	11.11	0.72
DoylesR	TR014	1657.91	20Year-Existing	5.60	121.27	121.86	121.86	122.03	0.019084	1.91	3.64	12.33	0.91
DoylesR	TR014	1607.98	20Year-Existing	5.60	120.59	121.37	121.31	121.44	0.007510	1.51	8.23	41.43	0.60
DoylesR	TR014	1544.18	20Year-Existing	5.60	119.81	120.49	120.49	120.68	0.020597	2.29	4.31	19.94	0.98
DoylesR	TR014	1492.70	20Year-Existing	5.60	119.06	119.65	119.65	119.75	0.014951	1.78	6.34	35.53	0.82
DoylesR	TR014	1441.23	20Year-Existing	5.60	117.59	118.32	118.38	118.66	0.030779	3.03	2.84	7.20	1.22
DoylesR	TR014	1420.98	20Year-Existing	5.60	116.98	117.90	117.57	117.94	0.002957	1.13	7.48	12.17	0.40
DoylesR	TR014	1411.86	20Year-Existing	5.60	117.03	117.83	117.54	117.90	0.004779	1.40	5.22	11.38	0.50
DoylesR	TR014	1400		Bridge									
DoylesR	TR014	1384.41	20Year-Existing	6.44	116.71	117.35	117.28	117.52	0.014470	1.95	3.75	9.45	0.83
DoylesR	TR014	1374.60	20Year-Existing	6.44	116.54	117.28		117.38	0.008438	1.57	5.09	10.77	0.64
DoylesR	TR014	1353.25	20Year-Existing	6.44	116.21	116.89	116.89	117.11	0.019824	2.25	3.58	8.75	0.97
DoylesR	TR014	1309.14	20Year-Existing	6.44	115.50	116.22	116.10	116.35	0.010420	1.64	3.99	7.78	0.70
DoylesR	TR014	1296.25	20Year-Existing	6.44	115.12	115.90	115.90	116.14	0.019232	2.46	3.43	7.33	0.97
DoylesR	TR014	1239.25	20Year-Existing	6.44	113.43	113.97	114.10	114.38	0.052263	3.08	2.68	9.45	1.50
DoylesR	TR014	1203.69	20Year-Existing	6.44	112.84	113.54	113.34	113.61	0.009907	1.70	7.29	22.86	0.69
DoylesR	TR014	1182.25	20Year-Existing	6.44	112.53	113.18	113.18	113.32	0.017110	2.05	5.39	18.82	0.89
DoylesR	TR014	1125.25	20Year-Existing	6.44	111.30	112.30	112.14	112.35	0.004378	1.41	9.25	21.33	0.48
DoylesR	TR014	1104.23	20Year-Existing	6.44	111.16	112.02	112.02	112.19	0.013814	2.13	5.04	15.03	0.82
DoylesR	TR014	1094.88	20Year-Existing	6.44	110.55	111.13	111.37	111.86	0.095468	4.48	2.16	6.89	2.05
DoylesR	TR014	1075.36	20Year-Existing	6.44	110.17	111.04	111.12	111.28	0.019620	2.72	4.89	16.63	1.00
DoylesR	TR014	1027.18	20Year-Existing	6.44	109.15	109.84	109.92	110.11	0.030715	2.73	4.02	14.86	1.19
DoylesR	TR014	980.74	20Year-Existing	6.44	107.89	108.76	108.48	108.80	0.003655	1.22	9.57	18.58	0.44
DoylesR	TR014	954.47	20Year-Existing	6.44	107.68	108.42	108.42	108.60	0.018793	2.28	4.79	15.05	0.95
DoylesR	TR014	934.37	20Year-Existing	6.44	106.99	107.75	107.85	108.07	0.030769	2.85	3.69	13.70	1.19
DoylesR	TR014	907.24	20Year-Existing	6.44	106.52	107.30	107.26	107.39	0.010902	1.87	7.76	25.50	0.73
DoylesR	TR014	868.80	20Year-Existing	6.44	105.88	106.59	106.59	106.80	0.021566	2.35	4.20	12.27	1.00
DoylesR	TR014	864.98	20Year-Existing	6.44	105.70	106.44	106.49	106.71	0.026553	2.42	3.14	9.01	1.09
DoylesR	TR014	844.06	20Year-Existing	6.44	105.10	106.05	105.95	106.18	0.008639	1.86	5.28	11.20	0.67
DoylesR	TR014	836.52	20Year-Existing	6.44	104.97	105.85	105.85	106.08	0.018769	2.37	3.75	9.10	0.94
DoylesR	TR014	816.09	20Year-Existing	6.44	104.78	105.39	105.38	105.55	0.024457	2.16	4.55	16.91	1.03
DoylesR	TR014	811.48	20Year-Existing	6.44	104.64	105.39		105.45	0.008046	1.52	7.21	18.08	0.62
DoylesR	TR014	783.28	20Year-Existing	6.44	103.98	104.90	104.90	105.12	0.016317	2.54	4.11	8.99	0.91
DoylesR	TR014	751.27	20Year-Existing	6.44	103.31	104.12	104.18	104.43	0.029033	2.50	2.75	7.54	1.13
DoylesR	TR014	717.94	20Year-Existing	6.44	102.63	103.77	103.77	103.97	0.011733	2.48	4.96	12.36	0.79
DoylesR	TR014	676.43	20Year-Existing	6.44	102.18	103.12	103.05	103.30	0.011563	2.01	4.62	11.94	0.76
DoylesR	TR014	601.44	20Year-Existing	6.44	101.39	102.11	102.11	102.24	0.017264	2.07	5.21	17.69	0.89
DoylesR	TR014	540.83	20Year-Existing	6.44	100.49	101.67	101.28	101.73	0.002928	1.26	7.81	18.68	0.41
DoylesR	TR014	519.25	20Year-Existing	6.44	99.69	101.69	101.04	101.70	0.000283	0.52	29.66	59.96	0.12
DoylesR	TR014	510		Culvert									
DoylesR	TR014	505.00	20Year-Existing	6.44	99.62	100.98	100.98	101.61	0.019152	3.55	1.88	21.89	1.00
DoylesR	TR014	484.27	20Year-Existing	6.44	99.79	100.55	100.65	100.90	0.045207	3.12	3.05	10.95	1.38
DoylesR	TR014	426.15	20Year-Existing	6.44	98.71	99.58	99.58	99.82	0.020133	2.21	3.35	8.13	0.96
DoylesR	TR014	368.05	20Year-Existing	6.44	97.30	98.33	98.38	98.61	0.022177	2.59	3.64	12.12	1.00
DoylesR	TR014	343.01	20Year-Existing	6.44	96.78	97.90	97.47	97.98	0.003147	1.30	5.48	45.69	0.41
DoylesR	TR014	335		Bridge									
DoylesR	TR014	331.91	20Year-Existing	6.44	96.63	97.66	97.57	97.88	0.011699	2.15	3.39	6.32	0.77
DoylesR	TR014	312.09	20Year-Existing	6.44	96.26	97.49	97.49	97.61	0.010255	1.80	6.33	29.42	0.67
DoylesR	TR014	227.09	20Year-Existing	6.44	94.66	96.20	95.87	96.24	0.002836	1.29	10.32	22.40	0.37
DoylesR	TR014	205.76	20Year-Existing	6.44	94.51	95.82	95.82	96.10	0.014100	2.47	3.47	9.50	0.81
DoylesR	TR014	198.96	20Year-Existing	6.44	94.45	95.00	95.24	95.82	0.162693	4.01	1.61	5.85	2.44
DoylesR	TR014	181.77	20Year-Existing	6.44	94.01	95.01	94.89	95.19	0.013981	2.18	5.09	17.62	0.82
DoylesR	TR014	121.12	20Year-Existing	6.44	92.99	93.99	93.99	94.23	0.017168	2.40	3.83	10.51	0.91
DoylesR	TR014	34.73	20Year-Existing	6.44	91.60	92.33	92.36	92.57	0.023481	2.29	3.47	9.76	1.03
DoylesR	TR012	1780.65	20Year-Existing	15.68	90.30	91.69	91.33	91.81	0.004335	1.58	11.73	19.16	0.49
DoylesR	TR012	1753.67	20Year-Existing	15.68	89.56	91.74	90.67	91.75	0.000325	0.70	36.26	33.60	0.15
DoylesR	TR012	1745		Bridge									
DoylesR	TR012	1729.43	20Year-Existing	15.68	89.10	90.60	90.50	91.07	0.012835	3.09	5.36	10.76	0.86
DoylesR	TR012	1709.20	20Year-Existing	15.68	88.93	90.47	90.47	90.73	0.009778	2.68	10.14	20.36	0.75
DoylesR	TR012	1645.76	20Year-Existing	15.68	88.20	89.04	89.17	89.52	0.042192	3.48	6.10	15.15	1.42
DoylesR	TR011	1552.47	20Year-Existing	22.61	86.48	88.18	87.86	88.43	0.006308	2.36	12.21	11.94	0.63
DoylesR	TR011	1530.88	20Year-Existing	22.61	86.19	87.71	87.71	88.20	0.015216	3.43	8.88	9.79	0.96
DoylesR	TR011	1477.56	20Year-Existing	22.61	84.43	85.54	85.88	86.68	0.062301	5.17	5.98	11.93	1.80
DoylesR	TR011	1423.69	20Year-Existing	22.61	83.56	85.00	85.00	85.51	0.016126	3.34	8.34	9.30	0.98
DoylesR	TR011	1370.10	20Year-Existing	22.61	82.66	83.83	84.01	84.35	0.030571	3.95	10.46	28.25	1.30
DoylesR	TR011	1316.51	20Year-Existing	22.61	81.17	82.47	82.55	82.99	0.021448	3.51	8.15	10.81	1.10
DoylesR	TR011	1262.92	20Year-Existing	22.61	79.36	80.74	81.01	81.57	0.031488	4.36	6.75	10.27	1.34
DoylesR	TR011	1209.33	20Year-Existing	22.61	78.14	79.86	79.89	80.39	0.015599	3.49	8.30	9.51	0.96
DoylesR	TR011	1155.74	20Year-Existing	22.61	76.81	78.28	78.54	79.16	0.034130	4.45	6.24	8.12	1.36
DoylesR	TR011	1107.39	20Year-Existing	22.61	76.34	77.65	77.65	78.05	0.016957	2.89	8.76	11.99	0.96

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR011	1057.82	20Year-Existing	22.61	75.16	76.81	76.82	77.26	0.014802	3.14	8.75	10.97	0.92
DoylesR	TR011	971.36	20Year-Existing	22.61	73.33	74.66	74.26	74.83	0.004771	1.83	12.37	18.55	0.54
DoylesR	TR011	960		Bridge									
DoylesR	TR011	949.62	20Year-Existing	22.61	73.08	74.58	73.94	74.70	0.002585	1.53	14.83	13.14	0.41
DoylesR	TR011	929.53	20Year-Existing	22.61	72.74	74.32		74.57	0.007647	2.36	11.36	11.76	0.68
DoylesR	TR011	872.05	20Year-Existing	22.61	72.26	73.92	73.92	74.10	0.008058	2.46	18.99	49.95	0.69
DoylesR	TR011	816.76	20Year-Existing	22.61	72.00	72.94	72.88	73.00	0.012890	2.04	25.70	90.19	0.78
DoylesR	TR011	760.16	20Year-Existing	22.61	71.25	72.26		72.35	0.013531	2.40	23.31	70.35	0.83
DoylesR	TR011	712.26	20Year-Existing	22.61	70.34	71.62		71.74	0.010587	2.41	19.61	48.03	0.76
DoylesR	TR011	663.11	20Year-Existing	22.61	70.08	71.33		71.36	0.005435	1.63	38.68	117.52	0.52
DoylesR	TR013	2205.78	20Year-Existing	4.90	95.88	96.54	96.35	96.55	0.001399	0.66	18.42	81.44	0.26
DoylesR	TR013	2147.59	20Year-Existing	4.90	95.87	96.45		96.46	0.001572	0.59	14.06	37.92	0.27
DoylesR	TR013	2097.40	20Year-Existing	4.90	95.86	96.17	96.17	96.24	0.034577	1.63	5.74	45.90	1.10
DoylesR	TR013	2011.99	20Year-Existing	4.90	93.67	94.52	94.37	94.62	0.007196	1.54	4.05	9.37	0.60
DoylesR	TR013	1957.46	20Year-Existing	4.90	93.05	93.82	93.82	94.05	0.017674	2.44	2.99	7.71	0.94
DoylesR	TR013	1909.18	20Year-Existing	4.90	92.33	93.15	93.20	93.31	0.012224	1.98	4.40	24.81	0.77
DoylesR	TR013	1861.01	20Year-Existing	4.90	91.27	92.01	92.16	92.39	0.032427	2.81	2.03	5.54	1.21
DoylesR	TR013	1789.09	20Year-Existing	4.90	90.00	90.52	90.54	90.60	0.017891	1.70	6.39	54.65	0.87
DoylesR	TR013	1733.37	20Year-Existing	4.90	89.53	90.17	90.08	90.18	0.003664	0.84	11.61	63.30	0.40
DoylesR	TR013	1677.65	20Year-Existing	4.90	89.42	89.77		89.80	0.016270	1.20	7.30	47.87	0.77
DoylesR	TR013	1613.85	20Year-Existing	4.90	89.11	89.54		89.55	0.001907	0.49	18.66	86.06	0.27
DoylesR	TR013	1552.30	20Year-Existing	4.90	88.82	89.45		89.46	0.001745	0.66	16.56	65.87	0.29
DoylesR	TR013	1506.96	20Year-Existing	4.90	88.81	89.38		89.39	0.001568	0.59	16.73	63.41	0.27
DoylesR	TR013	1478.17	20Year-Existing	4.90	88.80	89.20	89.20	89.26	0.029251	1.70	5.83	40.22	1.04
DoylesR	TR013	1411.61	20Year-Existing	4.90	88.11	89.02	88.63	89.03	0.000817	0.56	12.88	24.30	0.21
DoylesR	TR013	1388.58	20Year-Existing	4.90	87.45	89.02	88.57	89.03	0.000062	0.22	50.26	145.81	0.06
DoylesR	TR013	1375		Culvert									
DoylesR	TR013	1373.86	20Year-Existing	4.90	87.32	88.42	88.42	88.87	0.018374	3.08	1.79	10.56	0.97
DoylesR	TR013	1301.72	20Year-Existing	4.90	86.82	87.63	87.63	87.87	0.018632	2.32	2.58	5.92	0.94
DoylesR	TR013	1246.99	20Year-Existing	4.90	85.79	86.51	86.53	86.76	0.022290	2.28	2.35	5.64	1.00
DoylesR	TR013	1192.26	20Year-Existing	4.90	84.79	85.68	85.51	85.78	0.007491	1.59	4.03	8.54	0.61
DoylesR	TR013	1137.53	20Year-Existing	4.90	84.03	84.91	84.91	85.16	0.018174	2.32	2.48	5.49	0.92
DoylesR	TR013	1082.80	20Year-Existing	4.90	83.55	84.40		84.47	0.008363	1.44	5.81	21.49	0.61
DoylesR	TR013	1064.90	20Year-Existing	4.90	82.57	84.43	83.39	84.44	0.000303	0.51	19.67	93.27	0.13
DoylesR	TR013	1050		Culvert									
DoylesR	TR013	1042.53	20Year-Existing	4.90	82.41	83.91	83.14	83.99	0.001551	1.19	4.13	48.52	0.31
DoylesR	TR013	1022.06	20Year-Existing	4.90	82.71	83.81	83.59	83.93	0.006029	1.72	3.98	6.75	0.57
DoylesR	TR013	969.32	20Year-Existing	4.90	82.40	83.13	83.13	83.37	0.021262	2.47	2.68	6.02	1.01
DoylesR	TR013	915.66	20Year-Existing	4.90	81.80	82.71	82.44	82.73	0.001750	0.85	11.52	31.04	0.30
DoylesR	TR013	867.93	20Year-Existing	4.90	81.40	82.57		82.62	0.002781	1.25	7.60	18.91	0.39
DoylesR	TR013	809.27	20Year-Existing	4.90	81.32	82.29		82.39	0.005566	1.45	4.00	7.69	0.53
DoylesR	TR013	756.07	20Year-Existing	4.90	80.75	81.66	81.63	81.91	0.015532	2.48	2.60	4.93	0.89
DoylesR	TR013	702.82	20Year-Existing	4.90	79.91	80.79	80.79	81.05	0.017149	2.46	2.63	5.66	0.92
DoylesR	TR013	651.60	20Year-Existing	4.90	78.06	78.71	78.91	79.36	0.079594	3.68	1.49	4.68	1.80
DoylesR	TR013	588.74	20Year-Existing	4.90	75.89	76.61	76.69	76.95	0.045847	2.61	1.91	5.65	1.35
DoylesR	TR013	543.29	20Year-Existing	4.90	75.20	75.83	75.83	76.02	0.022128	1.95	2.58	7.09	0.97
DoylesR	TR013	489.08	20Year-Existing	4.90	73.77	74.68	74.68	74.96	0.017493	2.55	2.51	4.88	0.93
DoylesR	TR013	436.90	20Year-Existing	4.90	72.11	72.84	73.00	73.37	0.061545	3.24	1.54	4.05	1.57
DoylesR	TR013	383.70	20Year-Existing	4.90	70.97	72.17	71.70	72.20	0.001127	0.77	11.66	37.67	0.25
DoylesR	TR013	363.75	20Year-Existing	4.90	70.36	72.16	71.61	72.18	0.000395	0.69	13.57	45.04	0.16
DoylesR	TR013	360		Culvert									
DoylesR	TR013	344.87	20Year-Existing	4.90	70.32	71.56	71.56	72.16	0.017584	3.42	1.43	42.32	1.00
DoylesR	TR013	324.16	20Year-Existing	4.90	70.29	70.81	70.92	71.35	0.133723	3.83	2.25	24.07	2.22
DoylesR	TR013	256.30	20Year-Existing	4.90	69.36	70.23	70.23	70.30	0.012658	1.76	7.00	42.71	0.71
DoylesR	TR013	236.50	20Year-Existing	4.90	69.35	70.07	69.95	70.08	0.001605	0.49	20.79	110.37	0.25
DoylesR	TR013	162.98	20Year-Existing	4.90	68.94	70.00		70.01	0.001347	0.61	16.64	70.64	0.24
DoylesR	TR013	133.14	20Year-Existing	4.90	68.76	69.98		69.98	0.000365	0.34	32.18	108.08	0.13
DoylesR	TR013	66.14	20Year-Existing	4.90	68.46	69.96		69.96	0.000250	0.33	26.47	49.76	0.11
DoylesR	M001	484.12	20Year-Existing	27.51	68.08	69.52	69.52	69.69	0.016585	2.68	19.29	56.95	0.89
DoylesR	M001	429.44	20Year-Existing	27.51	67.72	69.31	69.00	69.34	0.003205	1.32	41.05	94.84	0.40
DoylesR	M001	388.03	20Year-Existing	27.51	67.53	69.07		69.14	0.007994	2.04	33.21	104.14	0.63
DoylesR	M001	344.78	20Year-Existing	27.51	67.39	68.97		68.98	0.001736	0.97	71.44	182.77	0.30
DoylesR	M001	215.64	20Year-Existing	27.51	67.21	68.96		68.96	0.000067	0.22	223.71	287.71	0.06
DoylesR	M001	77.13	20Year-Existing	27.51	66.62	68.96		68.96	0.000016	0.14	426.71	466.95	0.03
CochranePB	M002	8105.53	20Year-Existing	7.77	140.65	141.96	141.27	141.96	0.000139	0.32	49.07	88.00	0.10
CochranePB	M002	8065.47	20Year-Existing	7.77	140.64	141.92		141.94	0.001412	0.90	18.80	58.02	0.32
CochranePB	M002	8050.98	20Year-Existing	7.77	140.00	141.90		141.94	0.000249	0.82	14.30	40.85	0.26
CochranePB	M002	8024.09	20Year-Existing	7.77	140.62	141.87		141.92	0.003007	1.21	13.59	55.13	0.46
CochranePB	M002	8013.06	20Year-Existing	7.77	140.42	141.87		141.89	0.001128	0.87	20.01	59.70	0.29
CochranePB	M002	8004.70	20Year-Existing	7.77	140.25	141.87	141.80	141.88	0.000690	0.96	26.92	83.03	0.25
CochranePB	M002	8000		Culvert									
CochranePB	M002	7995.14	20Year-Existing	7.77	140.37	141.87	141.37	141.88	0.000251	0.56	31.43	63.95	0.15
CochranePB	M002	7964.49	20Year-Existing	7.77	140.14	141.51	141.51	141.83	0.011876	2.82	4.20	7.71	0.88
CochranePB	M002	7901.64	20Year-Existing	7.77	139.30	140.53	140.61	140.87	0.020718	2.73	3.61	9.48	1.08
CochranePB	M002	7847.08	20Year-Existing	7.77	138.68	139.67	139.57	139.72	0.006509	1.37	11.09	39.77	0.60
CochranePB	M002	7812.33	20Year-Existing	7.77	138.52	139.26	139.26	139.34	0.022540	1.88	8.52	52.25	1.09
CochranePB	M002	7738.34	20Year-Existing	7.77	137.94	138.81	138.66	138.82	0.002269	0.72	22.61	94.48	0.36
CochranePB	M002	7695.32	20Year-Existing	7.77	137.67	138.50	138.50	138.61	0.016298	1.78	7.33	38.12	0.96
CochranePB	M002	7609.21	20Year-Existing	7.77	136.29	137.59	137.16	137.60	0.000684	0.64	22.73	61.01	0.23
CochranePB	M002	7515.77	20Year-Existing	7.77	136.28	137.48		137.51	0.001879	0.99	16.13	55.80	0.36
CochranePB	M002	7476.72	20Year-Existing	7.77	136.26	137.47		137.47	0.000493	0.51	28.22	80.64	0.19
CochranePB	M002	7450.86	20Year-Existing	7.77	136.25	137.44		137.46	0.000981	0.68	20.09	65.09	0.26
CochranePB	M002	7329.89	20Year-Existing	7.77	136.23	137.15		137.21	0.006142	1.32	10.51	59.69	0.62
CochranePB	M002	7253.62	20Year-Existing	7.77	136.05	136.98		137.00	0.001906	0.80	18.44	74.78	0.34
CochranePB	M002	7208.54	20Year-Existing	7.77	135.88	136.88	136.78	136.90	0.002756	1.00	17.00	78.13	0.42

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	7108.13	20Year-Existing	7.77	135.54	136.42		136.47	0.009274	1.68	10.70	52.86	0.74
CochranePB	M002	7041.67	20Year-Existing	7.77	134.91	135.95	135.86	136.03	0.005933	1.38	8.31	52.09	0.62
CochranePB	M002	6985.71	20Year-Existing	7.77	134.29	135.40	135.40	135.60	0.010476	2.19	5.48	17.61	0.84
CochranePB	M002	6955.25	20Year-Existing	7.77	133.48	134.47	134.62	134.97	0.047058	3.17	2.60	8.38	1.61
CochranePB	M002	6863.52	20Year-Existing	7.77	131.82	132.76	132.76	132.88	0.013904	2.02	7.85	34.91	0.91
CochranePB	M002	6840.09	20Year-Existing	7.77	131.19	132.03	132.12	132.33	0.043843	2.82	4.76	32.95	1.54
CochranePB	M002	6808.25	20Year-Existing	7.77	130.51	131.31	131.37	131.53	0.043645	2.65	5.63	36.98	1.49
CochranePB	M002	6767.75	20Year-Existing	7.77	129.31	130.23	130.27	130.40	0.018874	2.11	6.39	40.04	1.05
CochranePB	M002	6727.78	20Year-Existing	7.77	128.36	129.34	129.41	129.56	0.023225	2.41	5.30	26.55	1.15
CochranePB	M002	6691.71	20Year-Existing	7.77	127.96	128.92	128.87	128.98	0.006967	1.38	10.57	53.12	0.65
CochranePB	M002	6651.54	20Year-Existing	7.77	127.68	128.54		128.62	0.012063	1.36	7.05	33.17	0.81
CochranePB	M002	6630.83	20Year-Existing	7.77	127.19	128.25	128.25	128.39	0.010066	1.79	6.19	27.16	0.80
CochranePB	M002	6534.50	20Year-Existing	7.77	126.30	127.20	127.20	127.30	0.012765	1.70	7.58	42.07	0.86
CochranePB	M002	6507.97	20Year-Existing	7.77	125.65	126.47	126.55	126.69	0.044215	2.59	5.32	41.33	1.50
CochranePB	M002	6480.50	20Year-Existing	7.77	124.97	125.83	125.84	125.93	0.019182	1.96	7.34	42.77	1.03
CochranePB	M002	6433.33	20Year-Existing	7.77	124.09	124.94	124.96	125.09	0.020961	1.82	5.67	31.65	1.06
CochranePB	M002	6400.96	20Year-Existing	7.77	123.40	124.38	124.29	124.44	0.007143	1.33	9.34	35.84	0.64
CochranePB	M002	6364.18	20Year-Existing	7.77	123.28	124.39		124.39	0.000249	0.31	31.24	75.99	0.13
CochranePB	M002	6314.31	20Year-Existing	7.77	123.27	124.33		124.36	0.002114	0.86	13.23	44.39	0.37
CochranePB	M002	6286.25	20Year-Existing	7.77	123.26	124.25		124.29	0.003128	0.97	11.02	34.27	0.45
CochranePB	M002	6202.53	20Year-Existing	7.77	122.81	123.89	123.80	123.98	0.005722	1.46	8.02	27.57	0.61
CochranePB	M002	6130.00	20Year-Existing	7.77	122.30	123.19	123.19	123.32	0.016998	1.63	5.04	21.27	0.96
CochranePB	M002	6040.82	20Year-Existing	7.77	121.41	122.47	122.35	122.51	0.002724	1.03	14.10	65.62	0.43
CochranePB	M002	6006.95	20Year-Existing	7.77	121.40	122.45		122.46	0.000689	0.42	22.79	71.41	0.21
CochranePB	M002	5976.09	20Year-Existing	7.77	121.39	122.32	122.32	122.40	0.012781	1.55	8.93	65.06	0.84
CochranePB	M002	5910.40	20Year-Existing	7.77	120.29	121.36	121.41	121.55	0.015052	2.19	6.06	32.85	0.96
CochranePB	M002	5863.68	20Year-Existing	7.77	119.62	120.44	120.49	120.65	0.033071	2.19	4.59	23.91	1.31
CochranePB	M002	5811.63	20Year-Existing	7.77	118.87	119.85	119.85	119.97	0.011849	1.84	7.63	39.78	0.85
CochranePB	M002	5768.42	20Year-Existing	7.77	117.38	118.20	118.37	118.78	0.119397	3.36	2.31	11.32	2.37
CochranePB	M002	5725.36	20Year-Existing	7.77	116.48	117.47	117.47	117.62	0.014313	1.89	5.77	23.56	0.92
CochranePB	M002	5678.58	20Year-Existing	7.77	115.39	116.32	116.40	116.59	0.032843	2.33	3.40	13.42	1.33
CochranePB	M002	5627.04	20Year-Existing	7.77	114.79	115.99	115.72	116.01	0.001800	0.90	13.57	31.38	0.35
CochranePB	M002	5609.94	20Year-Existing	11.69	114.77	115.83		115.91	0.006816	1.50	11.33	35.56	0.66
CochranePB	M002	5601.00	20Year-Existing	11.69	114.76	115.75		115.76	0.002472	0.86	26.45	95.52	0.39
CochranePB	M002	5568.52	20Year-Existing	11.69	114.75	115.68		115.70	0.002291	0.76	26.12	87.53	0.37
CochranePB	M002	5508.20	20Year-Existing	11.69	114.04	115.41		115.51	0.003672	1.44	9.32	17.24	0.52
CochranePB	M002	5473.67	20Year-Existing	11.69	113.90	115.12	115.12	115.30	0.010194	2.10	8.28	25.11	0.83
CochranePB	M002	5403.83	20Year-Existing	11.69	110.69	111.62	112.02	113.29	0.176910	5.73	2.06	6.29	3.09
CochranePB	M002	5352.19	20Year-Existing	11.69	110.27	111.43	111.43	111.65	0.014032	2.22	6.90	18.16	0.95
CochranePB	M002	5309.83	20Year-Existing	11.69	109.64	110.94	110.97	111.14	0.010360	2.15	8.57	37.73	0.84
CochranePB	M002	5266.90	20Year-Existing	11.69	109.30	110.50	110.55	110.68	0.011439	2.17	11.10	62.73	0.87
CochranePB	M002	5213.45	20Year-Existing	11.69	108.81	110.12	109.78	110.14	0.001124	0.73	26.49	57.36	0.28
CochranePB	M002	5162.38	20Year-Existing	22.19	108.18	109.77	109.77	109.98	0.007972	2.59	17.59	40.49	0.79
CochranePB	M002	5109.83	20Year-Existing	22.19	108.02	109.29	109.05	109.32	0.003427	1.18	33.87	84.99	0.47
CochranePB	M002	5059.83	20Year-Existing	22.19	107.54	109.00	108.98	109.13	0.006131	1.98	23.79	76.01	0.68
CochranePB	M002	5013.20	20Year-Existing	22.19	107.21	108.73	108.73	108.86	0.007447	2.00	23.76	89.12	0.72
CochranePB	M002	4977.38	20Year-Existing	22.19	107.07	108.50	108.32	108.54	0.002451	1.22	39.60	119.76	0.43
CochranePB	M002	4908.49	20Year-Existing	22.19	106.95	108.46		108.47	0.000639	0.70	72.91	167.57	0.22
CochranePB	M002	4883.44	20Year-Existing	22.19	106.94	108.45		108.45	0.000318	0.48	92.06	179.08	0.16
CochranePB	M002	4816.97	20Year-Existing	22.19	106.93	108.44		108.44	0.000326	0.49	91.21	193.98	0.16
CochranePB	M002	4757.22	20Year-Existing	22.19	106.78	108.42		108.43	0.000209	0.43	107.64	221.23	0.13
CochranePB	M002	4718.65	20Year-Existing	22.19	106.77	108.41		108.42	0.000337	0.56	84.34	222.09	0.17
CochranePB	M002	4674.22	20Year-Existing	22.19	106.76	108.38		108.40	0.000825	0.87	52.46	136.40	0.26
CochranePB	M002	4633.22	20Year-Existing	22.19	106.75	108.37		108.38	0.000284	0.50	59.70	113.73	0.15
CochranePB	M002	4561.03	20Year-Existing	22.19	106.74	108.31		108.35	0.000936	0.88	37.18	74.48	0.28
CochranePB	M002	4506.74	20Year-Existing	22.19	106.43	108.01	108.01	108.22	0.007240	2.27	16.10	48.94	0.74
CochranePB	M002	4459.83	20Year-Existing	22.19	105.66	106.99	107.26	107.59	0.026634	3.51	7.25	18.13	1.36
CochranePB	M002	4409.53	20Year-Existing	22.19	104.62	106.08	106.22	106.51	0.016633	3.03	9.65	26.88	1.08
CochranePB	M002	4359.83	20Year-Existing	22.19	103.72	105.13	105.25	105.61	0.019560	3.14	8.02	15.17	1.16
CochranePB	M002	4327.93	20Year-Existing	22.19	103.17	104.79	104.79	105.12	0.010793	2.61	10.04	19.65	0.90
CochranePB	M002	4265.56	20Year-Existing	22.19	102.45	103.98	104.04	104.34	0.014428	3.00	10.70	22.17	1.02
CochranePB	M002	4208.11	20Year-Existing	22.19	101.67	103.11	103.20	103.50	0.014417	2.81	9.31	24.54	1.02
CochranePB	M002	4159.83	20Year-Existing	22.19	101.12	102.07	102.10	102.30	0.047494	2.68	10.93	35.29	1.58
CochranePB	M002	4109.83	20Year-Existing	22.19	98.84	100.21	100.36	100.75	0.021180	3.41	7.98	18.24	1.23
CochranePB	M002	4056.00	20Year-Existing	22.19	97.18	98.53	98.78	99.30	0.033991	4.05	6.54	13.06	1.52
CochranePB	M002	4009.83	20Year-Existing	22.19	96.33	98.10	98.16	98.35	0.010212	2.85	17.77	59.36	0.86
CochranePB	M002	3969.03	20Year-Existing	22.19	95.62	96.94	97.15	97.67	0.027951	3.89	6.36	10.27	1.41
CochranePB	M002	3916.58	20Year-Existing	22.19	94.82	96.80	96.80	97.05	0.006343	2.42	13.84	44.46	0.69
CochranePB	M002	3859.82	20Year-Existing	22.19	94.34	95.65	95.82	96.32	0.032692	3.63	6.12	9.94	1.46
CochranePB	M002	3810.05	20Year-Existing	22.19	93.50	95.09	95.09	95.52	0.012475	2.99	8.34	11.13	0.97
CochranePB	M002	3759.83	20Year-Existing	22.19	93.00	94.52	94.64	94.88	0.011686	2.88	11.63	46.11	0.94
CochranePB	M002	3709.28	20Year-Existing	22.19	92.33	93.90	94.02	94.27	0.013300	2.95	11.84	43.64	0.99
CochranePB	M002	3661.60	20Year-Existing	22.19	92.05	93.70	93.70	93.84	0.004974	2.00	23.18	107.65	0.62
CochranePB	M002	3609.83	20Year-Existing	22.19	91.73	93.22	93.28	93.46	0.011058	2.60	16.26	62.67	0.89
CochranePB	M002	3559.90	20Year-Existing	22.19	90.87	92.55	92.63	92.90	0.010198	2.86	11.31	29.98	0.88
CochranePB	M002	3509.83	20Year-Existing	22.19	90.38	91.96	92.02	92.34	0.012319	3.13	11.26	24.10	0.97
CochranePB	M002	3493.23	20Year-Existing	22.19	90.02	91.79	91.42	91.99	0.003734	2.36	14.45	14.08	0.58
CochranePB	M002	3480		Bridge									
CochranePB	M002	3474.26	20Year-Existing	22.19	89.91	91.82	91.09	91.91	0.001337	1.54	19.83	15.59	0.36
CochranePB	M002	3466.43	20Year-Existing	22.19	90.00	91.52	91.19	91.83	0.004675	2.52	10.53	12.83	0.66
CochranePB	M002	3454.35	20Year-Existing	22.19	89.94	91.61	91.06	91.74	0.002110	1.74	16.29	15.55	0.45
CochranePB	M002	3450		Bridge									
CochranePB	M002	3434.16	20Year-Existing	24.29	90.36	91.54	91.26	91.71	0.004037	1.90	15.25	19.45	0.58
CochranePB	M002	3413.11	20Year-Existing	24.29	90.14	91.44	91.44	91.59	0.007441	2.30	23.17	75.89	0.75
CochranePB	M002	3391.58	20Year-Existing	24.29	90.03	91.30	91.07	91.37	0.004136	1.75	28.27	66.41	0.57

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	3371.12	20Year-Existing	24.29	90.02	91.07	91.04	91.24	0.009010	2.23	17.79	47.76	0.82
CochranePB	M002	3309.87	20Year-Existing	24.29	89.28	90.49	90.47	90.63	0.012134	2.68	21.93	85.67	0.92
CochranePB	M002	3272.96	20Year-Existing	24.29	88.73	90.10	90.09	90.25	0.008425	2.29	21.03	63.77	0.78
CochranePB	M002	3219.09	20Year-Existing	24.29	88.30	89.61	89.61	89.77	0.009866	2.38	20.78	75.06	0.84
CochranePB	M002	3175.54	20Year-Existing	24.29	87.36	89.13	88.74	89.28	0.003038	1.80	19.28	50.68	0.50
CochranePB	M002	3165		Bridge									
CochranePB	M002	3157.85	20Year-Existing	24.29	87.50	89.04	88.90	89.21	0.003935	1.97	19.18	47.94	0.57
CochranePB	M002	3135.32	20Year-Existing	24.29	87.85	89.00		89.05	0.004820	1.56	36.34	149.99	0.58
CochranePB	M002	3106.53	20Year-Existing	24.29	87.94	88.72	88.72	88.81	0.025773	2.25	21.34	111.69	1.18
CochranePB	M002	3088.94	20Year-Existing	24.29	86.84	88.23	87.85	88.38	0.003439	1.73	14.04	28.49	0.53
CochranePB	M002	3080		Bridge									
CochranePB	M002	3075.67	20Year-Existing	24.29	86.74	88.13	87.71	88.27	0.003032	1.67	14.55	78.41	0.50
CochranePB	M002	3056.89	20Year-Existing	24.29	87.66	88.03		88.14	0.023734	1.21	16.95	53.57	0.89
CochranePB	M002	3007.54	20Year-Existing	24.29	87.61	87.84		87.86	0.002223	0.24	40.61	88.12	0.22
CochranePB	M002	2976.31	20Year-Existing	24.29	87.51	87.79		87.81	0.001905	0.29	46.37	101.84	0.25
CochranePB	M002	2941.08	20Year-Existing	24.29	86.98	87.76		87.76	0.000938	0.46	75.06	214.87	0.23
CochranePB	M002	2920.10	20Year-Existing	24.29	86.74	87.75	87.54	87.75	0.000094	0.19	167.52	295.17	0.07
CochranePB	M002	2915		Bridge									
CochranePB	M002	2912.75	20Year-Existing	24.29	86.97	87.75	87.75	87.75	0.000056	0.16	200.70	313.30	0.06
CochranePB	M002	2890.23	20Year-Existing	24.29	86.65	86.76	86.91	87.52	0.615970	2.98	6.30	58.13	4.03
CochranePB	M002	2823.99	20Year-Existing	24.29	86.08	86.94	86.69	86.95	0.001755	0.62	64.41	222.55	0.29
CochranePB	M002	2789.49	20Year-Existing	24.29	86.04	86.91		86.92	0.001465	0.52	66.19	226.40	0.27
CochranePB	M002	2741.30	20Year-Existing	24.29	85.71	86.85		86.85	0.001131	0.70	69.51	223.83	0.28
CochranePB	M002	2663.79	20Year-Existing	24.29	85.58	86.79		86.80	0.001300	0.82	65.07	218.71	0.30
CochranePB	M002	2639.38	20Year-Existing	24.29	85.57	86.74		86.76	0.001875	0.90	55.94	209.67	0.36
CochranePB	M002	2616.24	20Year-Existing	24.29	85.30	86.72		86.73	0.000821	0.73	73.24	201.49	0.25
CochranePB	M002	2539.69	20Year-Existing	24.29	85.41	86.66		86.68	0.001854	0.93	53.37	171.50	0.36
CochranePB	M002	2489.06	20Year-Existing	24.29	85.18	86.60		86.62	0.001604	1.03	50.90	149.84	0.34
CochranePB	M002	2438.28	20Year-Existing	24.29	84.87	86.54		86.56	0.001463	1.07	50.24	122.18	0.34
CochranePB	M002	2384.01	20Year-Existing	24.29	84.65	86.45		86.48	0.001974	1.35	42.54	102.38	0.39
CochranePB	M002	2310.47	20Year-Existing	24.29	84.33	86.18		86.28	0.004334	1.93	27.59	74.58	0.56
CochranePB	M002	2284.63	20Year-Existing	24.29	84.16	86.11		86.17	0.003146	1.68	34.37	78.94	0.47
CochranePB	M002	2240.58	20Year-Existing	24.29	84.04	85.69	85.69	85.93	0.009610	2.73	16.19	37.12	0.84
CochranePB	M002	2170.94	20Year-Existing	24.29	82.26	83.61	83.95	84.63	0.044240	4.62	6.11	11.84	1.73
CochranePB	M002	2136.89	20Year-Existing	24.29	81.72	83.28	83.25	83.59	0.010933	2.58	11.43	19.86	0.90
CochranePB	M002	2100.01	20Year-Existing	24.29	81.30	82.96	82.95	83.20	0.009034	2.48	15.24	34.37	0.82
CochranePB	M002	2046.85	20Year-Existing	24.29	80.89	82.32	82.32	82.63	0.013010	2.56	11.25	20.98	0.96
CochranePB	M002	2014.35	20Year-Existing	24.29	80.47	81.94	81.90	82.11	0.008066	2.03	16.66	40.79	0.76
CochranePB	M002	1990.76	20Year-Existing	24.29	80.10	81.70	81.70	81.91	0.008943	2.38	16.78	39.89	0.81
CochranePB	M002	1945.20	20Year-Existing	24.29	79.43	81.26	80.97	81.33	0.003058	1.61	26.15	41.81	0.49
CochranePB	M002	1916.67	20Year-Existing	24.29	79.31	81.09		81.22	0.004917	2.02	21.85	38.49	0.61
CochranePB	M002	1871.48	20Year-Existing	24.29	79.28	80.90		80.99	0.004974	1.73	22.58	39.95	0.60
CochranePB	M002	1836.03	20Year-Existing	24.29	78.83	80.85		80.89	0.001398	1.20	31.48	40.01	0.34
CochranePB	M002	1788.63	20Year-Existing	24.29	78.46	80.37	80.37	80.72	0.010197	3.10	12.83	21.30	0.88
CochranePB	M002	1768.08	20Year-Existing	24.29	78.14	80.03	79.99	80.29	0.007285	2.65	14.70	25.89	0.76
CochranePB	M002	1733.19	20Year-Existing	24.29	77.95	79.59	79.59	79.96	0.012279	2.87	10.68	18.49	0.96
CochranePB	M002	1694.89	20Year-Existing	24.29	77.12	78.95	78.56	79.03	0.002571	1.51	24.07	36.56	0.45
CochranePB	M002	1685.79	20Year-Existing	24.29	77.06	78.91		79.00	0.003024	1.67	21.67	28.86	0.49
CochranePB	M002	1640.51	20Year-Existing	24.29	76.45	78.19	78.19	78.70	0.013911	3.36	8.85	11.98	1.03
CochranePB	M002	1602.99	20Year-Existing	24.29	75.01	76.25	76.63	77.59	0.078428	5.22	5.10	12.18	2.23
CochranePB	M002	1585.52	20Year-Existing	24.29	74.01	75.18	75.44	76.13	0.075540	4.58	6.52	19.12	2.14
CochranePB	M002	1569.47	20Year-Existing	24.29	73.71	74.89	74.96	75.24	0.028471	2.70	9.85	26.58	1.31
CochranePB	M002	1541.97	20Year-Existing	24.29	72.31	73.78	73.96	74.43	0.028466	3.75	7.75	15.60	1.40
CochranePB	M002	1510.83	20Year-Existing	24.29	71.34	72.42	72.61	73.08	0.073807	3.59	6.82	22.45	2.02
CochranePB	M002	1495.27	20Year-Existing	24.29	71.19	72.73	72.53	72.83	0.004363	1.49	20.61	37.51	0.56
CochranePB	M002	1458.62	20Year-Existing	24.29	70.58	72.33	72.33	72.57	0.008430	2.88	17.22	33.92	0.81
CochranePB	M002	1419.61	20Year-Existing	24.29	70.21	71.75	71.87	72.15	0.014061	3.18	12.21	28.93	1.03
CochranePB	M002	1384.56	20Year-Existing	24.29	69.61	71.73	71.25	71.89	0.002697	1.84	18.25	44.41	0.48
CochranePB	M002	1351.51	20Year-Existing	24.29	69.54	71.39	71.24	71.73	0.007457	2.77	12.35	36.26	0.79
CochranePB	M002	1311.78	20Year-Existing	24.29	69.49	71.29	71.29	71.44	0.004464	2.12	24.42	91.09	0.61
CochranePB	M002	1291.19	20Year-Existing	24.29	69.28	70.75	70.96	71.25	0.018455	3.48	10.36	36.32	1.16
CochranePB	M002	1217.75	20Year-Existing	24.29	68.70	70.52	69.93	70.56	0.001048	1.09	37.96	83.33	0.30
CochranePB	M002	1200.39	20Year-Existing	24.29	68.69	70.41	69.87	70.53	0.002142	1.55	16.27	18.09	0.43
CochranePB	M002	1190		Bridge									
CochranePB	M002	1185.68	20Year-Existing	24.85	68.46	70.41	69.54	70.49	0.001056	1.28	19.98	24.10	0.32
CochranePB	M002	1164.32	20Year-Existing	24.85	68.65	70.00	70.00	70.36	0.010015	2.90	11.48	17.98	0.90
CochranePB	M002	1132.60	20Year-Existing	24.85	68.60	69.79	69.84	69.97	0.010990	2.32	20.12	98.92	0.88
CochranePB	M002	1111.68	20Year-Existing	24.85	68.55	69.65	69.48	69.70	0.003926	1.47	33.17	99.51	0.54
CochranePB	M002	1059.95	20Year-Existing	24.85	68.38	69.51	69.38	69.56	0.003434	1.63	34.81	102.49	0.53
CochranePB	M002	998.99	20Year-Existing	24.85	68.13	69.11	69.11	69.22	0.010581	2.50	23.59	88.61	0.88
CochranePB	M002	955.54	20Year-Existing	24.85	68.12	69.01	68.79	69.02	0.001386	0.80	71.26	240.38	0.31
CochranePB	M002	851.16	20Year-Existing	24.85	67.62	68.97		68.98	0.000331	0.52	107.19	231.14	0.16
CochranePB	M002	798.06	20Year-Existing	24.85	67.47	68.97		68.97	0.000123	0.34	155.64	266.93	0.10
CochranePB	M002	746.77	20Year-Existing	24.85	67.30	68.96		68.96	0.000036	0.21	236.97	313.72	0.06
CochranePB	M002	694.52	20Year-Existing	24.85	66.98	68.96		68.96	0.000019	0.17	301.31	353.26	0.04
CochranePB	M002	669.16	20Year-Existing	24.85	66.97	68.96		68.96	0.000015	0.14	340.71	378.13	0.04
CochranePB	M002	590.19	20Year-Existing	24.85	66.84	68.96		68.96	0.000010	0.12	406.75	445.70	0.03
CochranePB	M002	539.85	20Year-Existing	24.85	66.81	68.96		68.96	0.000010	0.12	414.42	451.37	0.03
CochranePB	M002	488.40	20Year-Existing	24.85	66.54	68.96		68.96	0.000007	0.11	452.23	427.01	0.02
CochranePB	M001	381.27	20Year-Existing	49.77	66.35	68.96		68.96	0.000032	0.22	512.29	538.72	0.05
CochranePB	M001	313.14	20Year-Existing	49.77	66.28	68.96		68.96	0.000021	0.17	622.86	605.73	0.04

Petty Harbour River 20yr WSEL+1m

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	TR001	439.21	20Year-Existing	26.90	105.11	106.34	106.14	106.43	0.005399	1.85	29.72	56.26	0.57
RaymondB	TR001	409.42	20Year-Existing	26.90	104.68	105.89	105.89	106.17	0.014209	2.96	16.55	29.03	0.91
RaymondB	TR001	380.07	20Year-Existing	26.90	104.05	105.64	105.05	105.72	0.002265	1.45	32.66	48.25	0.38
RaymondB	TR001	360.64	20Year-Existing	26.90	103.60	105.64	104.88	105.68	0.001016	1.12	49.34	70.95	0.26
RaymondB	TR001	350		Bridge									
RaymondB	TR001	344.45	20Year-Existing	26.90	103.30	104.53	104.92	105.39	0.037011	4.75	8.67	20.56	1.44
RaymondB	TR001	334.13	20Year-Existing	26.90	103.40	104.30	104.57	104.95	0.035529	3.76	9.47	30.61	1.36
RaymondB	TR001	272.22	20Year-Existing	26.90	102.83	103.81	103.81	104.07	0.018266	2.88	16.55	37.29	1.00
RaymondB	TR001	218.50	20Year-Existing	26.90	101.42	102.62	102.73	103.08	0.017639	3.26	12.33	24.62	1.01
RaymondB	TR001	163.97	20Year-Existing	26.90	100.32	101.69	101.23	101.82	0.003740	1.64	20.35	24.07	0.48
RaymondB	TR001	115.54	20Year-Existing	26.90	100.00	101.10	101.10	101.45	0.017278	3.15	13.15	20.05	1.00
RaymondB	TR001	56.65	20Year-Existing	26.90	97.73	98.41	98.72	99.43	0.086459	4.77	6.90	15.48	2.03
RaymondB	M002	6453.60	20Year-Existing	17.20	118.10	125.20	118.86	125.20	0.000000	0.03	658.89	233.09	0.00
RaymondB	M002	6405.52	20Year-Existing	17.20	118.00	125.20		125.20	0.000000	0.03	669.28	227.58	0.00
RaymondB	M002	6347.04	20Year-Existing	17.20	124.73	125.14		125.19	0.006430	1.05	16.56	41.33	0.52
RaymondB	M002	6247.26	20Year-Existing	17.20	117.21	118.23		118.29	0.003754	1.36	22.07	34.83	0.46
RaymondB	M002	6230.10	20Year-Existing	17.20	117.20	118.22		118.25	0.001690	0.89	27.40	42.36	0.30
RaymondB	M002	6205.35	20Year-Existing	17.20	117.28	118.19		118.20	0.001547	0.79	37.88	59.47	0.29
RaymondB	M002	6143.06	20Year-Existing	17.20	117.18	118.07		118.09	0.002261	0.93	33.52	62.33	0.34
RaymondB	M002	6105.93	20Year-Existing	17.20	117.17	117.94		117.98	0.003281	1.00	24.94	58.75	0.40
RaymondB	M002	6026.35	20Year-Existing	17.20	116.81	117.74		117.76	0.002115	0.93	29.28	46.33	0.33
RaymondB	M002	5933.71	20Year-Existing	17.20	116.42	117.46		117.52	0.003251	1.27	22.48	54.73	0.43
RaymondB	M002	5883.92	20Year-Existing	17.20	116.12	117.23		117.33	0.004311	1.50	15.66	27.73	0.49
RaymondB	M002	5785.15	20Year-Existing	17.20	115.75	116.78		116.87	0.005153	1.51	16.33	30.24	0.53
RaymondB	M002	5732.44	20Year-Existing	17.20	115.46	116.44		116.56	0.006358	1.62	12.95	24.96	0.58
RaymondB	M002	5631.37	20Year-Existing	17.20	114.85	115.72		115.81	0.008797	1.65	17.60	45.23	0.66
RaymondB	M002	5500.15	20Year-Existing	17.20	114.62	115.62		115.63	0.000709	0.55	60.99	127.56	0.19
RaymondB	M002	5485.46	20Year-Existing	17.20	114.53	115.61		115.62	0.000440	0.48	76.11	162.26	0.16
RaymondB	M002	5411.19	20Year-Existing	17.20	114.48	115.54	115.17	115.57	0.001366	0.80	32.84	67.01	0.27
RaymondB	M002	5338.54	20Year-Existing	17.20	114.41	115.54	114.77	115.54	0.000104	0.24	84.78	109.56	0.08
RaymondB	M002	5278.93	20Year-Existing	17.20	114.44	115.53	114.81	115.53	0.000151	0.28	75.09	110.40	0.09
RaymondB	M002	5226.60	20Year-Existing	17.20	114.42	115.52		115.52	0.000171	0.29	80.35	126.74	0.10
RaymondB	M002	5171.66	20Year-Existing	17.20	114.42	115.51		115.51	0.000175	0.30	93.40	176.18	0.10
RaymondB	M002	5111.50	20Year-Existing	17.20	114.42	115.49		115.50	0.000601	0.56	51.08	108.53	0.18
RaymondB	M002	5077.48	20Year-Existing	17.20	114.38	115.47		115.48	0.000547	0.53	44.32	79.09	0.18
RaymondB	M002	5017.13	20Year-Existing	17.20	114.40	115.35		115.41	0.003000	1.11	16.98	26.91	0.40
RaymondB	M002	4967.43	20Year-Existing	17.20	114.07	115.08		115.20	0.005669	1.59	11.82	17.72	0.55
RaymondB	M002	4943.43	20Year-Existing	17.20	113.82	114.97		115.08	0.004804	1.61	14.67	24.50	0.52
RaymondB	M002	4910.95	20Year-Existing	17.20	113.67	114.82		114.92	0.004587	1.59	15.96	28.77	0.51
RaymondB	M002	4851.17	20Year-Existing	17.20	113.47	114.53		114.63	0.005156	1.59	15.86	30.13	0.53
RaymondB	M002	4783.73	20Year-Existing	17.20	113.30	114.22		114.29	0.004783	1.26	17.22	35.85	0.49
RaymondB	M002	4732.68	20Year-Existing	17.20	113.07	113.95		114.01	0.005752	1.35	19.55	43.14	0.54
RaymondB	M002	4681.76	20Year-Existing	17.20	112.35	113.30	113.30	113.55	0.013679	2.41	9.60	27.86	0.86
RaymondB	M002	4673.96	20Year-Existing	17.20	111.74	112.58	112.82	113.32	0.050419	4.01	5.28	12.05	1.58
RaymondB	M002	4644.78	20Year-Existing	17.20	110.49	111.38	111.57	112.03	0.037193	3.71	5.38	22.01	1.38
RaymondB	M002	4625.72	20Year-Existing	17.20	106.75	107.29	107.82	110.14	0.412171	7.48	2.31	6.82	4.05
RaymondB	M002	4615.42	20Year-Existing	17.20	105.83	106.54	106.87	107.69	0.106656	4.87	3.95	9.76	2.20
RaymondB	M002	4607.06	20Year-Existing	17.20	105.79	106.98	106.86	107.28	0.011064	2.54	8.01	9.65	0.80
RaymondB	M002	4597.34	20Year-Existing	17.20	105.76	106.95		107.15	0.009121	2.18	10.61	16.44	0.71
RaymondB	M002	4575.18	20Year-Existing	17.20	105.98	106.54	106.54	106.78	0.043386	2.57	8.53	19.63	1.32
RaymondB	M002	4545.57	20Year-Existing	17.20	104.65	105.77	105.82	106.08	0.014563	2.68	9.43	23.89	0.90
RaymondB	M002	4522.17	20Year-Existing	17.20	103.67	104.38	104.68	105.34	0.077409	4.57	4.73	13.29	1.92
RaymondB	M002	4511.42	20Year-Existing	17.20	103.62	104.84	104.54	104.94	0.004704	1.64	16.54	25.93	0.52
RaymondB	M002	4489.94	20Year-Existing	17.20	103.59	104.49	104.49	104.75	0.015858	2.49	9.82	21.00	0.91
RaymondB	M002	4466.63	20Year-Existing	17.20	103.03	104.26	103.90	104.36	0.003910	1.52	16.43	32.95	0.48
RaymondB	M002	4439.46	20Year-Existing	17.20	103.00	104.00	104.00	104.19	0.011279	2.26	13.71	39.05	0.78
RaymondB	M002	4415.77	20Year-Existing	17.20	102.78	103.49	103.56	103.79	0.026565	2.61	9.41	36.75	1.12
RaymondB	M002	4385.89	20Year-Existing	17.20	101.80	102.69	102.79	103.06	0.021774	2.89	8.27	22.03	1.07
RaymondB	M002	4354.01	20Year-Existing	17.20	101.27	102.09	102.09	102.31	0.023945	2.90	11.82	33.19	1.10
RaymondB	M002	4341.66	20Year-Existing	17.20	100.84	101.88	101.88	102.09	0.012476	2.38	12.99	34.79	0.82
RaymondB	M002	4332.73	20Year-Existing	17.20	100.32	101.10	101.35	101.83	0.051819	4.01	5.48	13.30	1.60
RaymondB	M002	4308.73	20Year-Existing	17.20	98.87	99.57	99.81	100.36	0.072734	4.29	5.25	13.18	1.84
RaymondB	M002	4294.65	20Year-Existing	17.20	98.45	99.36	99.40	99.73	0.021551	2.94	7.90	14.35	1.06
RaymondB	M002	4263.86	20Year-Existing	17.20	97.59	98.95	98.47	99.05	0.003026	1.49	15.94	20.46	0.43
RaymondB	M002	4235.25	20Year-Existing	17.20	97.47	98.93		98.98	0.001281	1.01	22.46	24.61	0.28
RaymondB	M001	4130.35	20Year-Existing	43.20	96.57	98.00	97.97	98.41	0.014009	2.87	16.69	20.94	0.90
RaymondB	M001	4076.94	20Year-Existing	43.20	96.04	97.72	97.42	97.90	0.005375	2.04	27.17	34.24	0.58
RaymondB	M001	4023.53	20Year-Existing	43.20	95.94	97.05	97.05	97.40	0.018021	2.68	17.70	27.68	0.97
RaymondB	M001	3978.20	20Year-Existing	43.20	94.64	96.70	96.15	96.78	0.002542	1.36	37.85	50.07	0.39
RaymondB	M001	3916.71	20Year-Existing	57.60	94.64	96.41		96.56	0.004673	2.09	46.53	63.43	0.55
RaymondB	M001	3863.30	20Year-Existing	57.60	94.41	96.22		96.34	0.003465	1.86	55.99	76.83	0.48
RaymondB	M001	3809.58	20Year-Existing	57.60	94.09	95.74	95.69	96.04	0.009341	2.80	32.02	44.96	0.77
RaymondB	M001	3756.26	20Year-Existing	57.60	93.53	95.04	95.04	95.45	0.013006	3.11	25.53	34.48	0.89
RaymondB	M001	3694.37	20Year-Existing	57.60	92.66	94.10	94.09	94.56	0.015297	3.15	21.24	28.45	0.95
RaymondB	M001	3569.22	20Year-Existing	57.60	92.15	94.05		94.08	0.001132	1.09	98.13	120.03	0.27
RaymondB	M001	3527.64	20Year-Existing	57.60	91.85	94.02		94.04	0.000673	0.93	105.48	91.22	0.22
RaymondB	M001	3446.51	20Year-Existing	57.60	91.14	93.99		94.01	0.000315	0.74	152.23	155.90	0.15
RaymondB	M001	3421.64	20Year-Existing	57.60	91.23	93.58	92.86	93.95	0.004282	2.73	21.59	134.19	0.57
RaymondB	M001	3410		Bridge									
RaymondB	M001	3404.11	20Year-Existing	57.60	91.23	92.91	92.91	93.70	0.014947	3.97	14.79	75.73	1.00
RaymondB	M001	3380.48	20Year-Existing	57.60	90.96	92.86	92.33	93.00	0.003450	1.88	46.42	63.30	0.48
RaymondB	M001	3308.92	20Year-Existing	57.60	90.80	92.38		92.63	0.007862	2.58	34.96	46.22	0.70
RaymondB	M001	3216.73	20Year-Existing	57.60	89.31	92.09	90.95	92.28	0.002047	1.99	29.87	52.55	0.40
RaymondB	M001	3200		Bridge									
RaymondB	M001	3188.78	20Year-Existing	57.60	89.30	91.51	91.33	92.05	0.008782	3.49	19.54	39.39	0.78

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
RaymondB	M001	3015.18	20Year-Existing	57.60	89.18	90.82		90.94	0.003440	1.75	50.39	65.09	0.47
RaymondB	M001	2876.32	20Year-Existing	57.60	88.66	90.24		90.39	0.005413	2.03	41.82	55.25	0.58
RaymondB	M001	2789.37	20Year-Existing	57.60	88.24	90.01		90.07	0.002389	1.48	86.61	158.74	0.39
RaymondB	M001	2681.85	20Year-Existing	57.60	88.14	89.47	89.42	89.62	0.010474	2.41	48.61	118.58	0.77
RaymondB	M001	2604.32	20Year-Existing	57.60	87.97	89.30		89.32	0.002033	1.12	97.15	192.42	0.35
RaymondB	M001	2531.57	20Year-Existing	57.60	87.97	89.25		89.26	0.000729	0.62	163.50	277.03	0.20
RaymondB	M001	2385.34	20Year-Existing	57.60	87.43	89.16		89.19	0.001696	1.24	122.18	247.33	0.33
RaymondB	M001	2245.72	20Year-Existing	57.60	86.99	88.69	88.43	88.91	0.006097	2.30	38.12	73.69	0.62
RaymondB	M001	2194.47	20Year-Existing	57.60	86.68	88.68		88.73	0.001310	1.22	85.44	93.00	0.30
RaymondB	M001	2140.67	20Year-Existing	57.60	86.59	88.57		88.64	0.002169	1.54	66.04	70.00	0.38
RaymondB	M001	2087.60	20Year-Existing	57.60	86.38	88.41		88.52	0.002316	1.62	48.67	42.89	0.40
RaymondB	M001	2069.54	20Year-Existing	57.60	86.35	88.36		88.47	0.002606	1.72	48.85	47.57	0.42
RaymondB	M001	2040.77	20Year-Existing	57.60	86.25	88.28		88.40	0.002564	1.68	51.96	68.70	0.42
RaymondB	M001	1989.18	20Year-Existing	57.60	86.02	88.05	87.61	88.23	0.004030	2.12	46.29	69.36	0.52
RaymondB	M001	1950.22	20Year-Existing	57.60	85.79	87.55	87.36	87.96	0.011430	3.13	28.23	50.01	0.85
RaymondB	M001	1885.73	20Year-Existing	57.60	85.34	87.10		87.33	0.007272	2.47	36.29	47.23	0.67
RaymondB	M001	1835.84	20Year-Existing	57.60	84.64	86.35	86.35	86.81	0.015264	3.49	24.45	27.78	0.96
RaymondB	M001	1784.61	20Year-Existing	57.60	84.10	85.32	85.41	85.77	0.027888	3.48	24.17	39.79	1.22
RaymondB	M001	1733.38	20Year-Existing	57.60	82.79	84.75	84.23	84.86	0.002891	1.72	49.25	47.27	0.44
RaymondB	M001	1682.15	20Year-Existing	57.60	82.60	84.39		84.64	0.006284	2.33	30.73	31.45	0.63
RaymondB	M001	1630.92	20Year-Existing	57.60	82.12	83.90	83.67	84.25	0.008892	2.71	26.26	35.00	0.75
RaymondB	M001	1584.49	20Year-Existing	57.60	81.77	83.66		83.88	0.005842	2.30	34.19	40.87	0.61
RaymondB	M001	1536.01	20Year-Existing	57.60	81.31	83.25		83.55	0.007563	2.67	31.22	39.49	0.69
RaymondB	M001	1477.96	20Year-Existing	57.60	80.96	82.83		83.11	0.007368	2.55	31.45	39.53	0.68
RaymondB	M001	1425.99	20Year-Existing	57.60	80.58	82.51		82.75	0.006017	2.39	32.87	39.59	0.62
RaymondB	M001	1372.05	20Year-Existing	57.60	80.25	82.24		82.43	0.005447	2.28	36.50	35.72	0.59
RaymondB	M001	1323.54	20Year-Existing	57.60	79.11	81.49	80.99	82.01	0.006325	3.19	18.03	15.16	0.68
RaymondB	M001	1315		Bridge									
RaymondB	M001	1303.54	20Year-Existing	57.60	78.01	80.57	80.19	81.15	0.007885	3.39	17.00	20.35	0.74
RaymondB	M001	1252.39	20Year-Existing	60.00	78.45	80.17	80.08	80.74	0.019891	3.78	22.08	29.41	1.08
RaymondB	M001	1216.25	20Year-Existing	60.00	77.86	79.85	79.85	80.19	0.009606	3.10	31.84	42.95	0.79
RaymondB	M001	1189.75	20Year-Existing	60.00	77.61	79.01	79.22	79.71	0.035191	4.09	19.67	36.39	1.37
RaymondB	M001	1166.20	20Year-Existing	60.00	76.74	78.21	78.42	78.90	0.031558	4.29	23.19	50.83	1.34
RaymondB	M001	1148.70	20Year-Existing	60.00	76.50	78.07	78.13	78.42	0.016936	3.18	30.20	54.28	0.98
RaymondB	M001	1116.25	20Year-Existing	60.00	75.83	77.10	77.24	77.66	0.029981	3.45	20.03	35.43	1.25
RaymondB	M001	1066.09	20Year-Existing	60.00	75.16	76.76	76.56	77.01	0.008048	2.42	34.22	50.64	0.70
RaymondB	M001	1035.68	20Year-Existing	60.00	74.73	76.21	76.21	76.66	0.015997	3.19	23.24	28.50	0.97
RaymondB	M001	999.99	20Year-Existing	60.00	73.32	74.60	74.94	75.70	0.045007	4.81	14.30	20.34	1.58
RaymondB	M001	976.73	20Year-Existing	60.00	73.03	74.61	74.63	75.03	0.012388	3.10	27.07	42.28	0.88
RaymondB	M001	942.15	20Year-Existing	60.00	72.18	73.17	73.47	74.04	0.096335	5.66	17.13	33.81	2.19
RaymondB	M001	916.70	20Year-Existing	60.00	70.82	72.18	72.33	72.67	0.028386	4.09	27.00	65.82	1.27
RaymondB	M001	892.34	20Year-Existing	60.00	70.36	71.71	71.76	72.20	0.018275	3.36	23.53	41.05	1.03
RaymondB	M001	866.25	20Year-Existing	60.00	70.04	71.77	71.25	71.92	0.003642	1.83	43.30	61.66	0.49
RaymondB	M001	841.89	20Year-Existing	60.00	69.92	71.59	71.37	71.81	0.005795	2.29	39.85	80.89	0.61
RaymondB	M001	816.68	20Year-Existing	60.00	69.74	71.29	71.29	71.61	0.010060	2.87	33.38	55.31	0.79
RaymondB	M001	766.25	20Year-Existing	60.00	69.16	70.06	70.21	70.60	0.054857	4.12	21.26	45.61	1.64
RaymondB	M001	716.25	20Year-Existing	60.00	68.39	69.88	69.63	70.03	0.005212	2.01	42.69	57.81	0.57
RaymondB	M001	675.00	20Year-Existing	60.00	68.14	69.65		69.81	0.005658	2.10	44.38	58.63	0.59
RaymondB	M001	615.86	20Year-Existing	60.00	67.75	69.47		69.56	0.002812	1.66	70.18	141.85	0.43
RaymondB	M001	565.77	20Year-Existing	60.00	67.44	69.39		69.45	0.001575	1.35	84.03	163.61	0.33
RaymondB	M001	520.15	20Year-Existing	60.00	67.26	69.38		69.39	0.000578	0.86	152.04	266.09	0.20
RaymondB	M001	468.54	20Year-Existing	60.00	66.98	69.37		69.37	0.000165	0.51	250.76	309.40	0.11
RaymondB	M001	429.18	20Year-Existing	60.00	66.80	69.37		69.37	0.000052	0.30	402.26	406.81	0.06
RaymondB	M001	366.25	20Year-Existing	60.00	66.65	69.37		69.37	0.000022	0.20	645.96	632.21	0.04
RaymondB	M001	341.79	20Year-Existing	60.00	66.63	69.37		69.37	0.000016	0.17	738.65	658.81	0.03
PettyHR	M002	6270.85	20Year-Existing	74.10	66.23	69.37		69.37	0.000001	0.05	1830.49	825.59	0.01
PettyHR	M002	6218.07	20Year-Existing	74.10	66.23	69.37		69.37	0.000001	0.05	1698.56	834.12	0.01
PettyHR	M002	6095.00	20Year-Existing	74.10	66.23	69.37		69.37	0.000001	0.05	1632.42	818.86	0.01
PettyHR	M002	6004.71	20Year-Existing	74.10	66.23	69.37		69.37	0.000001	0.05	1677.87	848.75	0.01
PettyHR	M001	5825.85	20Year-Existing	127.80	66.23	69.37		69.37	0.000002	0.07	1993.15	837.15	0.01
PettyHR	M001	5685.44	20Year-Existing	127.80	66.23	69.37		69.37	0.000002	0.07	1949.51	724.82	0.01
PettyHR	M001	5516.39	20Year-Existing	141.20	66.23	69.37		69.37	0.000003	0.09	1704.20	626.20	0.02
PettyHR	M001	5279.80	20Year-Existing	141.20	66.23	69.36		69.37	0.000007	0.13	1152.56	422.32	0.02
PettyHR	M001	4996.75	20Year-Existing	141.20	66.23	69.36		69.36	0.000032	0.27	543.08	206.84	0.05
PettyHR	M001	4923.81	20Year-Existing	141.20	66.23	69.31		69.35	0.000433	0.98	175.42	85.03	0.19
PettyHR	M001	4867.41	20Year-Existing	141.20	66.23	69.22		69.31	0.001161	1.60	144.76	91.77	0.31
PettyHR	M001	4817.61	20Year-Existing	141.20	66.58	69.16		69.24	0.001542	1.75	140.14	90.75	0.35
PettyHR	M001	4757.18	20Year-Existing	141.20	66.43	68.32	68.32	68.98	0.014846	4.33	53.66	55.03	1.02
PettyHR	M001	4675.66	20Year-Existing	141.20	65.88	67.85	67.40	68.11	0.005520	2.74	74.14	49.99	0.63
PettyHR	M001	4612.84	20Year-Existing	141.20	64.88	67.13	66.66	67.64	0.009047	3.84	58.15	43.03	0.82
PettyHR	M001	4570.09	20Year-Existing	141.20	64.62	66.66	66.66	67.21	0.009922	3.67	56.75	54.19	0.84
PettyHR	M001	4500.69	20Year-Existing	141.20	64.62	66.33	65.98	66.54	0.004655	2.25	84.07	74.40	0.56
PettyHR	M001	4461.12	20Year-Existing	141.20	64.55	65.91	65.91	66.26	0.014742	3.42	70.62	90.52	0.96
PettyHR	M001	4428.20	20Year-Existing	141.20	64.41	65.68	65.45	65.87	0.010824	2.72	83.12	88.73	0.81
PettyHR	M001	4395.66	20Year-Existing	141.20	63.81	65.28		65.54	0.008380	2.74	77.89	80.64	0.74
PettyHR	M001	4357.04	20Year-Existing	141.20	63.34	65.12		65.27	0.004488	2.31	98.75	80.17	0.56
PettyHR	M001	4281.82	20Year-Existing	141.20	62.50	65.03		65.11	0.000934	1.32	127.05	58.24	0.27
PettyHR	M001	4166.17	20Year-Existing	141.20	61.82	65.05		65.06	0.000128	0.57	356.18	161.04	0.10
PettyHR	M001	3949.19	20Year-Existing	141.20	61.31	65.05		65.05	0.000000	0.03	4566.93	1312.92	0.01
PettyHR	M001	3936.78	20Year-Existing	141.20	61.31	65.05		65.05	0.000000	0.03	5645.61	1567.45	0.00
PettyHR	M001	3931.39	20Year-Existing	89.50	61.31	65.05		65.05	0.000000	0.01	7086.08	1997.39	0.00
PettyHR	M001	3925.44	20Year-Existing	89.50	61.31	65.05		65.05	0.000000	0.03	3505.67	1000.24	0.00
PettyHR	M001	3867.05	20Year-Existing	89.50	61.31	65.05		65.05	0.000000	0.03	3540.20	979.84	0.00
PettyHR	M001	3643.73	20Year-Existing	89.50	61.31	65.05		65.05	0.000000	0.02	4069.86	1112.63	0.00
PettyHR	M001	3440.60	20Year-Existing	89.50	61.31	65.05		65.05	0.000001	0.04	2061.44	579.37	0.01

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	3182.65	20Year-Existing	89.50	61.31	65.05		65.05	0.000001	0.06	1546.51	423.86	0.01
PettyHR	M001	3080.13	20Year-Existing	89.50	61.31	65.05		65.05	0.000001	0.05	1824.03	506.22	0.01
PettyHR	M001	3028.13	20Year-Existing	89.50	61.31	65.05		65.05	0.000001	0.05	1994.97	557.35	0.01
PettyHR	M001	2983.09	20Year-Existing	89.50	61.31	65.05		65.05	0.000001	0.06	1626.24	450.03	0.01
PettyHR	M001	2828.46	20Year-Existing	89.50	61.31	65.05		65.05	0.000003	0.10	953.32	278.10	0.02
PettyHR	M001	2712.72	20Year-Existing	89.50	61.31	65.05		65.05	0.000010	0.18	542.41	178.18	0.03
PettyHR	M001	2671.95	20Year-Existing	89.50	61.31	65.05		65.05	0.000015	0.22	487.66	172.76	0.04
PettyHR	M001	2653.10	20Year-Existing	89.50	61.31	65.05		65.05	0.000022	0.27	416.69	154.19	0.04
PettyHR	M001	2632.46	20Year-Existing	89.50	61.31	65.04		65.05	0.000090	0.54	246.00	113.66	0.09
PettyHR	M001	2596.08	20Year-Existing	89.50	61.31	65.03		65.04	0.000103	0.58	217.88	109.92	0.10
PettyHR	M001	2583.24	20Year-Existing	89.50	60.10	64.95	62.69	65.03	0.000608	1.48	117.16	103.56	0.23
PettyHR	M001	2580		Bridge									
PettyHR	M001	2573.39	20Year-Existing	89.50	60.00	64.84	62.26	64.88	0.000275	1.01	149.96	81.48	0.16
PettyHR	M001	2551.09	20Year-Existing	89.50	59.89	64.86		64.87	0.000022	0.29	362.50	105.20	0.05
PettyHR	M001	2426.14	20Year-Existing	89.50	59.27	64.86		64.86	0.000002	0.08	1145.02	266.48	0.01
PettyHR	M001	2315.39	20Year-Existing	89.50	58.72	64.86		64.86	0.000001	0.07	1406.50	308.07	0.01
PettyHR	M001	2204.15	20Year-Existing	89.50	58.16	64.86		64.86	0.000001	0.07	1418.19	305.85	0.01
PettyHR	M001	2022.45	20Year-Existing	89.50	57.26	64.86		64.86	0.000002	0.11	862.33	171.88	0.01
PettyHR	M001	1902.10	20Year-Existing	89.50	56.66	64.86		64.86	0.000003	0.14	668.70	126.87	0.02
PettyHR	M001	1879.72	20Year-Existing	89.50	56.55	64.86		64.86	0.000008	0.22	488.24	107.38	0.03
PettyHR	M001	1824.42	20Year-Existing	89.50	56.28	64.86		64.86	0.000014	0.29	329.53	65.26	0.04
PettyHR	M001	1789.72	20Year-Existing	89.50	56.10	64.86		64.86	0.000020	0.34	278.93	54.68	0.04
PettyHR	M001	1724.70	20Year-Existing	89.50	55.78	64.85		64.86	0.000026	0.39	244.15	47.25	0.05
PettyHR	M001	1668.81	20Year-Existing	89.50	55.50	64.85	58.00	64.86	0.000014	0.30	324.12	64.37	0.04
PettyHR	M001	1647.80	20Year-Existing	89.50	55.40	64.85	57.72	64.86	0.000010	0.25	379.10	70.59	0.03
PettyHR	M001	1631.79	20Year-Existing	89.50	63.55	64.62		64.84	0.007387	2.07	43.29	40.60	0.64
PettyHR	M001	1615.46	20Year-Existing	90.70	54.38	56.71		56.85	0.004393	2.68	58.88	37.70	0.57
PettyHR	M001	1601.08	20Year-Existing	90.70	54.00	55.68	55.68	56.63	0.040950	6.52	23.92	22.79	1.65
PettyHR	M001	1586.16	20Year-Existing	90.70	53.36	55.17	55.37	56.04	0.034663	6.40	26.01	25.07	1.54
PettyHR	M001	1571.98	20Year-Existing	90.70	52.87	54.48	54.75	55.47	0.046211	6.72	23.52	23.76	1.74
PettyHR	M001	1519.66	20Year-Existing	90.70	51.62	53.21	53.27	53.71	0.029454	5.23	33.10	38.66	1.37
PettyHR	M001	1467.14	20Year-Existing	90.70	50.86	52.19	52.09	52.50	0.020589	4.01	39.44	44.23	1.13
PettyHR	M001	1457.30	20Year-Existing	90.70	50.23	51.82	51.82	52.27	0.024011	4.89	34.43	36.50	1.26
PettyHR	M001	1444.51	20Year-Existing	90.70	48.30	49.28	49.79	51.41	0.218985	10.36	16.29	30.38	3.48
PettyHR	M001	1415.17	20Year-Existing	90.70	48.28	49.86	49.37	49.98	0.005976	2.41	61.43	52.51	0.63
PettyHR	M001	1402.15	20Year-Existing	90.70	47.79	49.36	49.36	49.80	0.026062	4.88	34.58	39.88	1.29
PettyHR	M001	1385.41	20Year-Existing	90.70	43.10	44.66	45.56	48.60	0.142557	11.25	13.12	16.57	3.01
PettyHR	M001	1370.82	20Year-Existing	90.70	41.75	43.54	44.43	46.65	0.096826	10.62	14.49	13.77	2.58
PettyHR	M001	1362.66	20Year-Existing	90.70	39.88	42.00	43.11	45.81	0.089842	11.18	13.18	10.32	2.52
PettyHR	M001	1336.64	20Year-Existing	90.70	39.87	41.52	42.14	43.13	0.067505	8.30	18.91	18.72	2.11
PettyHR	M001	1309.35	20Year-Existing	90.70	38.40	39.75	40.16	41.09	0.076454	7.66	19.57	21.34	2.17
PettyHR	M001	1279.20	20Year-Existing	90.70	35.02	37.26	38.06	39.27	0.047445	8.57	19.93	19.59	1.86
PettyHR	M001	1258.06	20Year-Existing	90.70	34.01	36.49	37.06	38.32	0.037195	8.19	19.53	13.89	1.68
PettyHR	M001	1221.17	20Year-Existing	90.70	33.21	34.60	35.22	36.23	0.089076	8.15	17.58	18.31	2.31
PettyHR	M001	1203.34	20Year-Existing	90.70	32.61	33.96	34.17	34.75	0.054608	6.42	26.09	33.97	1.83
PettyHR	M001	1164.99	20Year-Existing	90.70	31.37	32.93	32.94	33.36	0.022715	4.53	35.77	40.59	1.21
PettyHR	M001	1153.41	20Year-Existing	90.70	30.70	31.73	32.05	32.80	0.104354	7.49	21.98	35.77	2.43
PettyHR	M001	1125.74	20Year-Existing	90.70	29.27	30.58	30.67	31.08	0.035363	5.06	32.58	42.92	1.47
PettyHR	M001	1090.65	20Year-Existing	90.70	28.12	29.31	29.40	29.75	0.040503	4.91	35.20	58.58	1.53
PettyHR	M001	1059.48	20Year-Existing	90.70	26.84	28.14	28.22	28.55	0.036600	5.09	37.26	63.15	1.48
PettyHR	M001	1048.77	20Year-Existing	90.70	26.29	27.48	27.64	28.07	0.050163	5.53	31.61	53.90	1.71
PettyHR	M001	1021.54	20Year-Existing	90.70	25.47	26.98	26.98	27.38	0.025337	4.72	36.27	42.72	1.27
PettyHR	M001	1003.30	20Year-Existing	90.70	23.42	24.80	25.32	26.48	0.085542	8.32	17.59	18.21	2.32
PettyHR	M001	994.73	20Year-Existing	90.70	22.70	25.13	25.14	25.91	0.019249	5.79	28.20	20.04	1.21
PettyHR	M001	961.03	20Year-Existing	90.70	22.07	24.67	24.68	25.30	0.014907	5.28	32.50	25.25	1.07
PettyHR	M001	944.13	20Year-Existing	90.70	21.89	23.44	23.86	24.79	0.055230	7.18	20.68	20.81	1.90
PettyHR	M001	924.94	20Year-Existing	90.70	20.78	22.62	22.94	23.83	0.041942	7.02	21.11	16.76	1.69
PettyHR	M001	905.47	20Year-Existing	90.70	19.73	21.84	22.17	23.11	0.033981	7.01	21.42	15.42	1.57
PettyHR	M001	883.86	20Year-Existing	90.70	17.29	20.61	19.78	20.84	0.002912	2.79	50.42	33.96	0.50
PettyHR	M001	875		Bridge									
PettyHR	M001	859.53	20Year-Existing	90.70	17.25	19.24	19.24	19.85	0.020556	5.07	28.89	28.73	1.18
PettyHR	M001	836.76	20Year-Existing	90.70	12.80	14.53	15.65	18.61	0.110779	11.02	12.17	10.12	2.74
PettyHR	M001	823.70	20Year-Existing	90.70	12.86	15.82	15.06	16.06	0.005268	3.46	52.11	34.90	0.65
PettyHR	M001	811.96	20Year-Existing	90.70	12.85	14.67	14.67	15.83	0.043997	7.21	23.25	23.35	1.74
PettyHR	M001	796.92	20Year-Existing	90.70	12.74	14.14	14.39	14.99	0.057720	6.91	25.51	33.51	1.90
PettyHR	M001	784.11	20Year-Existing	90.70	11.82	13.74	13.93	14.45	0.027539	5.86	31.43	36.19	1.39
PettyHR	M001	769.86	20Year-Existing	90.70	10.94	12.45	12.83	13.82	0.059380	7.34	20.56	21.82	1.96
PettyHR	M001	748.76	20Year-Existing	90.70	8.37	10.67	11.33	12.74	0.040650	8.02	19.61	18.51	1.73
PettyHR	M001	720.33	20Year-Existing	90.70	8.08	9.12	9.58	10.71	0.138185	8.20	18.02	27.68	2.75
PettyHR	M001	707.57	20Year-Existing	90.70	6.85	8.29	8.61	9.39	0.060974	7.13	23.92	32.81	1.95
PettyHR	M001	685.99	20Year-Existing	90.70	5.31	6.90	7.28	8.10	0.059013	7.36	23.34	29.87	1.94
PettyHR	M001	666.04	20Year-Existing	90.70	5.03	6.76	6.82	7.23	0.019638	4.54	37.26	43.40	1.14
PettyHR	M001	652.51	20Year-Existing	90.70	4.66	6.11	6.19	6.84	0.039399	5.65	28.03	33.93	1.56
PettyHR	M001	633.61	20Year-Existing	90.70	4.40	5.41	5.56	5.98	0.049284	4.93	30.72	76.41	1.66
PettyHR	M001	622.83	20Year-Existing	90.70	4.09	5.16	5.13	5.42	0.025095	3.64	45.81	101.03	1.19
PettyHR	M001	577.97	20Year-Existing	90.70	2.48	3.78	3.78	4.08	0.034552	4.90	43.05	111.32	1.43
PettyHR	M001	525.57	20Year-Existing	90.70	0.51	3.59	2.11	3.61	0.000553	1.16	160.15	128.48	0.21
PettyHR	M001	491.94	20Year-Existing	90.70	-0.59	3.55	1.80	3.59	0.000435	1.15	159.80	141.30	0.19
PettyHR	M001	485		Bridge									
PettyHR	M001	478.84	20Year-Existing	90.70	-1.92	3.55		3.57	0.000095	0.61	277.24	178.73	0.09
PettyHR	M001	439.27	20Year-Existing	90.70	-1.89	3.56		3.56	0.000039	0.40	370.26	136.95	0.06
PettyHR	M001	405.68	20Year-Existing	90.70	-2.13	3.56		3.56	0.000035	0.39	376.47	149.22	0.06
PettyHR	M001	367.80	20Year-Existing	90.70	-2.02	3.56		3.56	0.000014	0.25	444.40	151.50	0.04
PettyHR	M001	338.85	20Year-Existing	90.70	-2.89	3.56		3.56	0.000010	0.23	472.57	146.28	0.03
PettyHR	M001	305.38	20Year-Existing	90.70	-2.46	3.55		3.56	0.000013	0.25	428.95	129.77	0.04

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
PettyHR	M001	269.29	20Year-Existing	90.70	-3.52	3.55		3.56	0.000013	0.28	401.96	121.51	0.04
PettyHR	M001	238.18	20Year-Existing	90.70	-3.50	3.55		3.56	0.000018	0.33	355.84	113.91	0.04
PettyHR	M001	201.25	20Year-Existing	90.70	-4.43	3.55		3.56	0.000007	0.22	495.40	137.67	0.03
PettyHR	M001	150.84	20Year-Existing	90.70	-3.34	3.55		3.55	0.000004	0.15	696.97	175.38	0.02
PettyHR	M001	105.74	20Year-Existing	90.70	-2.91	3.55		3.55	0.000004	0.15	662.58	158.73	0.02
PettyHR	M001	91.29	20Year-Existing	90.70	-3.36	3.55		3.55	0.000003	0.15	671.37	153.94	0.02
PettyHR	M001	20.04	20Year-Existing	90.70	-6.19	3.55		3.55	0.000002	0.11	890.79	188.48	0.01
PettyHR	M001	12.04	20Year-Existing	90.70	-6.19	3.55	-3.73	3.55	0.000022	0.33	454.21	188.47	0.04
ForthP	M001	2616.90	20Year-Existing	9.00	123.09	124.50	123.34	124.50	0.000011	0.09	134.24	158.53	0.03
ForthP	M001	2528.45	20Year-Existing	9.00	123.09	124.50		124.50	0.000003	0.05	214.79	197.99	0.01
ForthP	M001	2324.32	20Year-Existing	9.00	123.09	124.50		124.50	0.000009	0.09	153.71	209.05	0.02
ForthP	M001	2187.52	20Year-Existing	9.00	123.09	124.50		124.50	0.000002	0.04	287.90	286.61	0.01
ForthP	M001	1955.13	20Year-Existing	9.00	123.09	124.50		124.50	0.000002	0.04	331.28	309.79	0.01
ForthP	M001	1773.83	20Year-Existing	9.00	123.09	124.50		124.50	0.000001	0.02	406.58	344.84	0.01
ForthP	M001	1572.85	20Year-Existing	9.00	123.09	124.50		124.50	0.000001	0.02	388.93	319.64	0.01
ForthP	M001	1496.60	20Year-Existing	9.00	123.09	124.50		124.50	0.000001	0.03	327.68	276.74	0.01
ForthP	M001	1392.58	20Year-Existing	32.30	122.98	124.49	124.15	124.49	0.000525	0.70	109.47	167.49	0.18
ForthP	M001	1390		Culvert									
ForthP	M001	1381.72	20Year-Existing	32.30	122.95	124.40	124.13	124.41	0.001694	1.12	73.14	149.34	0.31
ForthP	M001	1360.50	20Year-Existing	32.30	122.87	124.19	124.05	124.33	0.009532	2.50	27.01	73.73	0.75
ForthP	M001	1311.12	20Year-Existing	32.30	122.52	123.91		123.96	0.005168	1.87	37.43	74.44	0.55
ForthP	M001	1261.17	20Year-Existing	32.30	121.36	123.38	123.38	123.64	0.007426	3.01	23.39	39.71	0.71
ForthP	M001	1211.51	20Year-Existing	32.30	119.83	121.44	122.02	122.78	0.043801	6.09	8.21	10.93	1.63
ForthP	M001	1161.66	20Year-Existing	32.30	117.25	118.41	118.78	119.81	0.084868	6.61	9.11	24.57	2.15
ForthP	M001	1112.05	20Year-Existing	32.30	114.88	115.98	116.14	116.50	0.045946	4.95	13.89	34.35	1.59
ForthP	M001	1062.35	20Year-Existing	32.30	113.16	114.32	114.38	114.62	0.030044	3.92	16.31	33.76	1.26
ForthP	M001	1041.93	20Year-Existing	32.30	112.62	113.89	113.92	114.14	0.022781	3.59	18.69	41.92	1.10
ForthP	M001	1031.90	20Year-Existing	32.30	112.31	113.48	113.58	113.85	0.036886	4.36	16.62	43.81	1.40
ForthP	M001	1011.12	20Year-Existing	32.30	111.62	112.65	112.76	113.02	0.044088	4.51	16.34	46.29	1.53
ForthP	M001	959.76	20Year-Existing	32.30	110.31	111.14	111.13	111.29	0.027742	2.87	21.74	62.81	1.15
ForthP	M001	908.93	20Year-Existing	32.30	109.25	109.90	109.78	109.96	0.012905	1.71	32.42	89.08	0.76
ForthP	M001	856.39	20Year-Existing	32.30	108.38	108.85	108.78	108.92	0.023821	1.60	27.47	91.58	0.94
ForthP	M001	806.25	20Year-Existing	32.30	107.09	108.00		108.07	0.014197	2.27	31.48	90.76	0.84
ForthP	M001	754.78	20Year-Existing	32.30	106.12	107.12	107.12	107.25	0.020696	3.07	27.28	89.02	1.05
ForthP	M001	734.50	20Year-Existing	32.30	105.47	106.75	106.72	106.85	0.009683	2.40	33.16	89.60	0.73
ForthP	M001	724.30	20Year-Existing	32.30	105.28	106.57	106.57	106.73	0.013115	2.84	27.44	82.08	0.87
ForthP	M001	703.65	20Year-Existing	32.30	105.02	106.12	106.10	106.31	0.024735	3.53	20.13	46.59	1.14
ForthP	M001	654.47	20Year-Existing	32.30	103.90	104.78	104.78	104.95	0.027816	3.24	20.73	54.29	1.18
ForthP	M001	605.63	20Year-Existing	32.30	102.27	103.40	103.49	103.70	0.028222	3.77	19.78	58.20	1.24
ForthP	M001	585.13	20Year-Existing	32.30	101.55	102.39	102.51	102.83	0.076087	4.81	15.80	68.46	1.91
ForthP	M001	577.30	20Year-Existing	32.30	101.52	102.20	102.23	102.38	0.048239	3.33	19.30	67.77	1.47
ForthP	M001	557.33	20Year-Existing	32.30	100.67	101.32	101.32	101.46	0.036840	2.69	21.58	77.80	1.26
ForthP	M001	507.84	20Year-Existing	32.30	98.92	99.60	99.60	99.72	0.033390	2.61	23.51	85.59	1.20
ForthP	M001	453.33	20Year-Existing	32.30	96.28	97.05	97.00	97.14	0.018130	2.19	28.77	89.97	0.92
ForthP	M001	402.29	20Year-Existing	32.30	94.96	95.58	95.58	95.76	0.048739	3.21	18.68	58.27	1.46
ForthP	M001	349.18	20Year-Existing	32.30	93.64	94.23	94.08	94.29	0.015671	1.62	29.98	78.01	0.81
ForthP	M001	297.76	20Year-Existing	32.30	92.55	93.48	93.43	93.57	0.015927	2.38	29.31	78.36	0.89
ForthP	M001	246.28	20Year-Existing	32.30	91.71	92.47	92.43	92.56	0.020337	2.23	28.68	90.29	0.97
ForthP	M001	182.03	20Year-Existing	32.30	90.94	92.08	91.75	92.10	0.004000	1.42	52.04	107.80	0.46
ForthP	M001	160.27	20Year-Existing	32.30	90.13	92.08	91.36	92.09	0.000183	0.46	141.93	151.92	0.11
ForthP	M001	150		Culvert									
ForthP	M001	144.74	20Year-Existing	32.30	89.90	91.09	91.09	91.63	0.016686	3.29	10.11	95.30	0.99
ForthP	M001	124.30	20Year-Existing	32.30	89.74	90.94	90.84	91.02	0.010077	2.31	34.33	83.81	0.74
ForthP	M001	61.58	20Year-Existing	32.30	88.75	89.90	89.90	90.10	0.021588	3.26	22.73	56.06	1.08
ForestP	M001	1557.91	20Year-Existing	6.40	78.25	79.69	78.44	79.69	0.000003	0.05	144.98	121.08	0.01
ForestP	M001	1428.05	20Year-Existing	6.40	78.25	79.69		79.69	0.000001	0.03	197.52	175.86	0.01
ForestP	M001	1315.71	20Year-Existing	6.40	78.25	79.69		79.69	0.000001	0.02	278.07	241.83	0.01
ForestP	M001	1228.83	20Year-Existing	6.40	78.25	79.69		79.69	0.000000	0.02	332.57	286.52	0.01
ForestP	M001	1138.84	20Year-Existing	6.40	78.25	79.69		79.69	0.000000	0.02	389.44	339.43	0.00
ForestP	M001	1077.28	20Year-Existing	6.40	78.25	79.69		79.69	0.000000	0.02	428.78	478.78	0.00
ForestP	M001	1019.12	20Year-Existing	6.40	78.25	79.69		79.69	0.000001	0.03	215.53	278.48	0.01
ForestP	M001	958.61	20Year-Existing	8.10	78.15	79.67	79.50	79.68	0.000780	0.66	23.12	67.51	0.20
ForestP	M001	955		Culvert									
ForestP	M001	949.85	20Year-Existing	8.10	77.76	79.52	79.45	79.64	0.008558	1.78	9.08	50.08	0.48
ForestP	M001	913.34	20Year-Existing	8.10	78.16	79.04	79.04	79.19	0.027541	2.89	5.98	18.00	1.07
ForestP	M001	883.23	20Year-Existing	8.10	77.54	78.33	78.36	78.48	0.021244	2.47	7.73	36.91	1.00
ForestP	M001	859.61	20Year-Existing	8.10	76.75	77.42	77.51	77.73	0.050251	3.40	4.22	13.45	1.49
ForestP	M001	831.71	20Year-Existing	8.10	75.74	76.62	76.70	76.92	0.032501	3.22	4.31	10.33	1.23
ForestP	M001	802.91	20Year-Existing	8.10	74.66	75.44	75.56	75.86	0.042522	3.55	3.72	9.89	1.42
ForestP	M001	772.90	20Year-Existing	8.10	73.77	74.52	74.53	74.72	0.029921	2.91	5.18	14.41	1.17
ForestP	M001	737.48	20Year-Existing	8.10	72.77	73.46	73.43	73.57	0.019837	2.23	6.99	21.57	0.95
ForestP	M001	688.06	20Year-Existing	8.10	71.80	72.39	72.35	72.46	0.025314	2.12	8.01	32.74	0.99
ForestP	M001	651.32	20Year-Existing	8.10	70.81	71.41	71.40	71.51	0.026264	2.37	7.46	30.71	1.08
ForestP	M001	600.44	20Year-Existing	8.10	69.80	70.32		70.37	0.019197	1.80	10.84	57.67	0.89
ForestP	M001	578.60	20Year-Existing	8.10	69.31	69.90	69.90	69.96	0.018682	1.92	12.30	84.54	0.90
ForestP	M001	528.92	20Year-Existing	8.10	68.58	69.39	69.23	69.41	0.004322	1.17	18.53	69.60	0.46
ForestP	M001	478.55	20Year-Existing	8.10	68.21	69.37		69.37	0.000186	0.32	57.43	109.20	0.10
ForestP	M001	430.82	20Year-Existing	8.10	67.77	69.37		69.37	0.000046	0.20	93.22	128.84	0.05
ForestP	M001	378.18	20Year-Existing	8.10	67.48	69.37		69.37	0.000007	0.09	226.06	263.73	0.02
ForestP	M001	328.07	20Year-Existing	8.10	67.34	69.37		69.37	0.000003	0.06	325.26	321.78	0.01
ForestP	M001	277.95	20Year-Existing	8.10	67.07	69.37		69.37	0.000001	0.05	400.20	364.34	0.01
ForestP	M001	195.51	20Year-Existing	8.10	66.23	69.37		69.37	0.000000	0.02	758.45	522.35	0.00
ForestP	M001	158.37	20Year-Existing	8.10	66.23	69.37		69.37	0.000000	0.01	1449.18	674.14	0.00
ForestP	M001	89.11	20Year-Existing	8.10	66.23	69.37		69.37	0.000000	0.01	1605.13	746.64	0.00
DoylesR	TR019	260.51	20Year-Existing	0.30	124.74	125.07	124.93	125.07	0.000384	0.17	3.22	29.62	0.12

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR019	199.72	20Year-Existing	0.30	124.55	125.07		125.07	0.000002	0.02	31.17	135.17	0.01
DoylesR	TR019	150.00	20Year-Existing	0.30	124.37	125.07		125.07	0.000002	0.02	33.82	142.97	0.01
DoylesR	TR019	100.00	20Year-Existing	0.30	124.16	125.07		125.07	0.000002	0.03	28.39	151.14	0.01
DoylesR	TR019	50.00	20Year-Existing	0.30	124.18	125.07		125.07	0.000001	0.02	52.96	213.90	0.01
DoylesR	TR018	302.01	20Year-Existing	1.10	127.90	128.05	128.05	128.08	0.024884	0.82	1.74	23.95	0.82
DoylesR	TR018	270.53	20Year-Existing	1.10	126.19	128.01	126.77	128.01	0.000000	0.02	140.46	244.89	0.01
DoylesR	TR018	260		Culvert									
DoylesR	TR018	257.62	20Year-Existing	1.10	126.19	127.69	126.80	127.69	0.000001	0.03	98.24	183.61	0.01
DoylesR	TR018	244.68	20Year-Existing	1.10	125.64	127.64	126.49	127.68	0.000865	0.95	1.41	183.95	0.22
DoylesR	TR018	200		Culvert									
DoylesR	TR018	169.24	20Year-Existing	1.10	125.40	126.22	126.06	126.41	0.012373	2.23	0.61	75.31	0.81
DoylesR	TR018	131.43	20Year-Existing	1.10	125.24	125.44	125.44	125.46	0.039096	1.01	2.01	41.68	1.02
DoylesR	TR018	59.79	20Year-Existing	1.10	124.57	125.12	124.87	125.12	0.000302	0.23	11.77	100.08	0.11
DoylesR	TR017	4043.45	20Year-Existing	6.10	124.05	125.05		125.06	0.001393	0.87	18.69	63.03	0.28
DoylesR	TR017	3983.69	20Year-Existing	6.10	124.04	124.94		124.96	0.002234	0.92	15.70	73.80	0.34
DoylesR	TR017	3923.93	20Year-Existing	6.10	124.03	124.59	124.59	124.66	0.021104	1.67	7.07	42.17	0.91
DoylesR	TR017	3889.37	20Year-Existing	6.10	123.60	123.79	123.61	123.80	0.005388	0.27	14.21	63.42	0.35
DoylesR	TR017	3781.64	20Year-Existing	6.10	122.55	123.44		123.48	0.004646	1.32	11.64	46.41	0.48
DoylesR	TR017	3768.91	20Year-Existing	6.10	122.35	123.11	123.11	123.34	0.018678	2.24	3.37	8.67	0.92
DoylesR	TR017	3745.98	20Year-Existing	6.10	121.86	122.43	122.46	122.55	0.036422	2.14	5.18	34.17	1.18
DoylesR	TR017	3713.18	20Year-Existing	6.10	120.99	121.52	121.55	121.71	0.025794	2.05	3.58	12.65	1.04
DoylesR	TR017	3692.45	20Year-Existing	6.10	120.34	120.97	121.00	121.17	0.025465	2.19	3.72	13.37	1.05
DoylesR	TR017	3679.05	20Year-Existing	6.10	119.97	120.71	120.73	120.90	0.016663	2.16	3.91	15.88	0.89
DoylesR	TR017	3656.84	20Year-Existing	6.10	117.59	118.01	118.34	119.74	0.382116	5.90	1.11	5.43	3.72
DoylesR	TR017	3603.67	20Year-Existing	6.10	116.29	116.98	116.99	117.11	0.017061	2.06	5.13	23.09	0.89
DoylesR	TR017	3583.40	20Year-Existing	6.10	115.96	116.46	116.54	116.85	0.084000	3.39	2.88	14.77	1.83
DoylesR	TR017	3571.14	20Year-Existing	6.10	115.76	116.27	116.27	116.38	0.029945	2.24	5.56	30.21	1.12
DoylesR	TR017	3545.42	20Year-Existing	6.10	115.22	115.81	115.78	115.91	0.017127	1.74	5.59	20.81	0.85
DoylesR	TR017	3483.93	20Year-Existing	6.10	114.35	114.92	114.89	114.96	0.014454	1.63	10.25	68.76	0.78
DoylesR	TR017	3432.55	20Year-Existing	6.10	113.79	114.52	114.41	114.55	0.007046	1.36	11.65	63.62	0.57
DoylesR	TR017	3345.48	20Year-Existing	6.10	113.03	113.52	113.52	113.61	0.033267	2.00	6.10	37.71	1.13
DoylesR	TR017	3300.07	20Year-Existing	6.10	112.42	112.98	112.85	112.98	0.003662	0.74	16.78	76.79	0.38
DoylesR	TR016	918.87	20Year-Existing	2.20	127.08	128.78	127.25	128.78	0.000000	0.01	397.63	359.84	0.00
DoylesR	TR016	898.71	20Year-Existing	2.20	126.90	128.78	127.25	128.78	0.000001	0.02	192.01	224.81	0.01
DoylesR	TR016	890		Culvert									
DoylesR	TR016	882.28	20Year-Existing	2.20	126.88	128.72		128.72	0.000003	0.05	103.68	157.61	0.01
DoylesR	TR016	877.71	20Year-Existing	2.20	126.24	128.72	126.86	128.72	0.000002	0.06	122.45	188.12	0.01
DoylesR	TR016	850		Culvert									
DoylesR	TR016	848.13	20Year-Existing	2.20	126.37	127.08	127.08	127.31	0.019901	2.30	1.24	2.99	0.91
DoylesR	TR016	818.98	20Year-Existing	2.20	126.36	126.83	126.77	126.84	0.004031	0.74	6.63	51.81	0.40
DoylesR	TR016	768.99	20Year-Existing	2.20	126.30	126.63		126.64	0.004580	0.62	6.89	50.37	0.40
DoylesR	TR016	714.09	20Year-Existing	2.20	125.96	126.36	126.26	126.37	0.004956	0.70	5.82	36.11	0.43
DoylesR	TR016	675.95	20Year-Existing	2.20	125.74	126.06	126.06	126.11	0.019927	1.17	3.48	38.02	0.82
DoylesR	TR016	659.39	20Year-Existing	2.20	125.10	125.54	125.48	125.57	0.010019	1.15	3.64	24.89	0.63
DoylesR	TR016	632.80	20Year-Existing	2.20	124.78	125.23	125.23	125.29	0.013915	1.29	2.96	25.62	0.73
DoylesR	TR016	610.50	20Year-Existing	2.20	123.78	124.22	124.34	124.62	0.076225	3.02	0.92	4.64	1.70
DoylesR	TR016	549.37	20Year-Existing	2.20	122.30	122.88	122.88	123.01	0.022866	1.89	1.88	10.53	0.95
DoylesR	TR016	494.31	20Year-Existing	2.20	120.93	121.55	121.55	121.73	0.023829	1.89	1.24	4.17	0.97
DoylesR	TR016	473.82	20Year-Existing	2.20	120.18	120.64	120.73	120.95	0.063959	2.55	0.95	4.37	1.53
DoylesR	TR016	459.95	20Year-Existing	2.20	119.62	120.09	120.13	120.28	0.033721	1.97	1.23	5.09	1.13
DoylesR	TR016	439.99	20Year-Existing	2.20	119.05	119.65	119.65	119.81	0.024533	1.83	1.26	4.29	0.97
DoylesR	TR016	384.99	20Year-Existing	2.20	117.07	117.51	117.59	117.77	0.061600	2.27	0.98	4.53	1.47
DoylesR	TR016	329.99	20Year-Existing	2.20	115.67	116.15	116.15	116.22	0.015571	1.27	2.74	23.06	0.76
DoylesR	TR016	274.18	20Year-Existing	2.20	114.93	115.32	115.31	115.35	0.011178	0.98	4.49	48.02	0.63
DoylesR	TR016	218.88	20Year-Existing	2.20	114.35	114.82	114.80	114.86	0.010842	1.02	4.49	51.04	0.63
DoylesR	TR016	165.43	20Year-Existing	2.20	113.83	114.37	114.32	114.41	0.008668	1.08	3.89	34.85	0.58
DoylesR	TR016	86.48	20Year-Existing	2.20	112.80	113.21	113.21	113.30	0.027049	1.44	1.99	12.36	0.96
DoylesR	TR016	40.19	20Year-Existing	2.20	112.21	112.80	112.68	112.81	0.002076	0.59	8.74	57.30	0.29
DoylesR	TR015	3230.71	20Year-Existing	13.30	111.60	112.50		112.54	0.008482	1.80	19.38	74.75	0.66
DoylesR	TR015	3185.04	20Year-Existing	13.30	111.22	112.14		112.22	0.011717	1.99	15.24	50.73	0.76
DoylesR	TR015	3133.58	20Year-Existing	13.30	110.57	111.37	111.37	111.48	0.018906	2.40	12.86	46.37	0.95
DoylesR	TR015	3079.97	20Year-Existing	13.30	108.17	109.04	109.29	109.78	0.057050	4.23	4.33	10.14	1.67
DoylesR	TR015	3026.43	20Year-Existing	13.30	107.30	109.08	108.23	109.10	0.000538	0.74	30.47	33.70	0.19
DoylesR	TR015	3001.28	20Year-Existing	13.30	106.17	109.09	108.08	109.09	0.000081	0.37	84.77	77.52	0.07
DoylesR	TR015	3000		Culvert									
DoylesR	TR015	2988.77	20Year-Existing	13.30	106.03	107.88	107.88	108.12	0.005880	2.59	11.88	32.90	0.63
DoylesR	TR015	2963.30	20Year-Existing	13.30	105.69	106.49	106.79	107.65	0.098435	5.60	4.32	15.66	2.15
DoylesR	TR015	2915.60	20Year-Existing	13.30	104.53	105.63	105.65	105.85	0.016189	2.72	9.44	22.72	0.92
DoylesR	TR015	2867.64	20Year-Existing	13.30	103.37	104.46	104.58	104.86	0.031982	3.78	7.46	19.82	1.27
DoylesR	TR015	2841.04	20Year-Existing	13.30	102.40	102.96	103.07	103.33	0.105519	3.91	6.44	27.60	2.06
DoylesR	TR015	2804.73	20Year-Existing	13.30	101.67	102.47	102.40	102.57	0.015538	2.17	12.80	35.16	0.86
DoylesR	TR015	2742.98	20Year-Existing	13.30	100.87	101.67	101.62	101.73	0.013014	2.05	17.82	65.90	0.80
DoylesR	TR015	2687.77	20Year-Existing	13.30	100.07	100.66	100.66	100.76	0.028691	2.34	13.29	61.86	1.12
DoylesR	TR015	2638.14	20Year-Existing	13.30	98.95	99.74	99.76	99.88	0.023606	2.77	12.54	48.15	1.07
DoylesR	TR015	2593.26	20Year-Existing	13.30	97.75	98.82	98.76	98.93	0.011422	2.30	13.86	40.63	0.77
DoylesR	TR015	2557.12	20Year-Existing	13.30	97.53	98.55		98.62	0.007701	1.91	16.78	45.07	0.64
DoylesR	TR015	2522.34	20Year-Existing	13.30	97.26	98.14	98.14	98.28	0.016659	2.26	11.64	39.05	0.90
DoylesR	TR015	2483.94	20Year-Existing	13.30	96.95	97.67	97.61	97.72	0.013600	1.76	16.43	59.79	0.77
DoylesR	TR015	2438.99	20Year-Existing	13.30	96.35	97.40		97.44	0.004573	1.44	23.79	85.67	0.49
DoylesR	TR015	2387.12	20Year-Existing	13.30	96.39	97.29		97.29	0.002002	0.80	38.62	120.70	0.31
DoylesR	TR015	2352.45	20Year-Existing	13.30	96.40	97.25		97.25	0.000772	0.49	48.25	98.49	0.19
DoylesR	TR015	2283.37	20Year-Existing	13.30	95.75	97.09		97.15	0.003381	1.52	15.31	21.99	0.45
DoylesR	TR015	2231.50	20Year-Existing	13.30	95.54	96.66		96.84	0.012484	2.47	9.13	17.21	0.82
DoylesR	TR015	2160.12	20Year-Existing	13.30	94.93	95.92		96.03	0.009437	1.95	11.09	21.74	0.70
DoylesR	TR015	2119.11	20Year-Existing	13.30	94.44	95.47	95.43	95.62	0.012900	2.35	10.88	26.52	0.82

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR015	2075.88	20Year-Existing	13.30	93.86	94.77	94.76	94.96	0.018052	2.52	10.03	38.80	0.96
DoylesR	TR015	2024.01	20Year-Existing	13.30	93.19	94.25	94.17	94.34	0.008976	1.97	14.83	47.25	0.68
DoylesR	TR015	1972.14	20Year-Existing	13.30	92.71	93.67	93.67	93.79	0.015216	2.45	12.89	61.52	0.87
DoylesR	TR015	1921.75	20Year-Existing	13.30	92.35	93.36	93.06	93.38	0.002771	1.10	26.03	68.01	0.38
DoylesR	TR015	1851.62	20Year-Existing	13.30	91.24	92.71	92.71	93.07	0.013740	3.02	6.72	12.77	0.87
DoylesR	TR014	2057.49	20Year-Existing	8.00	125.48	126.50	126.31	126.53	0.003429	1.11	16.61	60.27	0.41
DoylesR	TR014	2037.89	20Year-Existing	8.00	125.57	126.49		126.50	0.000636	0.50	36.21	97.80	0.18
DoylesR	TR014	1988.88	20Year-Existing	8.00	124.71	126.41	125.51	126.45	0.000951	0.94	12.96	40.86	0.24
DoylesR	TR014	1980		Culvert									
DoylesR	TR014	1975.46	20Year-Existing	8.00	124.46	126.26		126.31	0.000935	0.97	9.28	8.67	0.25
DoylesR	TR014	1936.56	20Year-Existing	8.00	124.86	126.11		126.23	0.004947	1.79	6.88	13.17	0.54
DoylesR	TR014	1904.43	20Year-Existing	8.00	124.72	125.72	125.72	125.97	0.013578	2.49	4.82	10.73	0.86
DoylesR	TR014	1867.03	20Year-Existing	8.00	124.61	125.57	125.34	125.63	0.004561	1.42	10.01	23.89	0.50
DoylesR	TR014	1801.50	20Year-Existing	8.00	124.00	124.90	124.90	125.11	0.015816	2.50	5.49	13.46	0.91
DoylesR	TR014	1765.57	20Year-Existing	8.00	123.20	123.72	123.84	124.10	0.058704	3.10	3.70	16.54	1.57
DoylesR	TR014	1703.29	20Year-Existing	8.00	121.82	122.62	122.57	122.81	0.013974	2.21	5.32	16.14	0.84
DoylesR	TR014	1657.91	20Year-Existing	8.00	121.27	122.00	121.99	122.17	0.014491	1.98	5.68	18.52	0.83
DoylesR	TR014	1607.98	20Year-Existing	8.00	120.59	121.39	121.39	121.50	0.011823	1.94	9.30	42.66	0.76
DoylesR	TR014	1544.18	20Year-Existing	8.00	119.81	120.64	120.64	120.76	0.011801	2.02	9.08	40.39	0.77
DoylesR	TR014	1492.70	20Year-Existing	8.00	119.06	119.66	119.72	119.85	0.028258	2.46	6.56	35.88	1.13
DoylesR	TR014	1441.23	20Year-Existing	8.00	117.59	118.53	118.52	118.83	0.020375	2.98	4.60	12.17	1.04
DoylesR	TR014	1420.98	20Year-Existing	8.00	116.98	118.09	117.66	118.14	0.002782	1.25	9.79	13.02	0.40
DoylesR	TR014	1411.86	20Year-Existing	8.00	117.03	118.00	117.65	118.09	0.004961	1.62	6.42	11.88	0.53
DoylesR	TR014	1400		Bridge									
DoylesR	TR014	1384.41	20Year-Existing	9.20	116.71	117.47	117.40	117.70	0.014902	2.25	4.63	9.72	0.87
DoylesR	TR014	1374.60	20Year-Existing	9.20	116.54	117.42		117.54	0.007975	1.75	6.65	11.47	0.64
DoylesR	TR014	1353.25	20Year-Existing	9.20	116.21	117.02	117.02	117.28	0.018920	2.52	4.71	9.52	0.98
DoylesR	TR014	1309.14	20Year-Existing	9.20	115.50	116.36	116.22	116.54	0.009618	1.84	5.19	8.39	0.70
DoylesR	TR014	1296.25	20Year-Existing	9.20	115.12	116.04	116.04	116.33	0.018222	2.73	4.52	7.92	0.98
DoylesR	TR014	1239.25	20Year-Existing	9.20	113.43	114.05	114.22	114.58	0.055922	3.56	3.45	10.65	1.60
DoylesR	TR014	1203.69	20Year-Existing	9.20	112.84	113.64	113.53	113.71	0.009540	1.84	9.59	25.04	0.69
DoylesR	TR014	1182.25	20Year-Existing	9.20	112.53	113.27	113.27	113.43	0.017320	2.28	7.06	20.26	0.92
DoylesR	TR014	1125.25	20Year-Existing	9.20	111.30	112.43	112.21	112.48	0.004234	1.52	12.13	22.88	0.48
DoylesR	TR014	1104.23	20Year-Existing	9.20	111.16	112.11	112.11	112.31	0.015463	2.44	6.45	16.27	0.89
DoylesR	TR014	1094.88	20Year-Existing	9.20	110.55	111.27	111.51	111.99	0.071899	4.60	3.27	9.25	1.86
DoylesR	TR014	1075.36	20Year-Existing	9.20	110.17	111.13	111.20	111.40	0.022050	3.09	6.33	18.15	1.07
DoylesR	TR014	1027.18	20Year-Existing	9.20	109.15	109.95	110.01	110.22	0.027712	2.90	5.57	16.10	1.16
DoylesR	TR014	980.74	20Year-Existing	9.20	107.89	108.90	108.57	108.94	0.003892	1.39	12.14	20.40	0.46
DoylesR	TR014	954.47	20Year-Existing	9.20	107.68	108.53	108.53	108.73	0.018447	2.53	6.58	18.14	0.96
DoylesR	TR014	934.37	20Year-Existing	9.20	106.99	107.84	107.92	108.21	0.031053	3.16	5.01	15.08	1.23
DoylesR	TR014	907.24	20Year-Existing	9.20	106.52	107.40	107.33	107.48	0.010439	2.00	10.24	27.04	0.73
DoylesR	TR014	868.80	20Year-Existing	9.20	105.88	106.73	106.73	106.95	0.018071	2.49	6.16	15.99	0.95
DoylesR	TR014	864.98	20Year-Existing	9.20	105.70	106.59	106.63	106.88	0.020680	2.54	4.64	11.91	1.00
DoylesR	TR014	844.06	20Year-Existing	9.20	105.10	106.21	106.07	106.35	0.008056	2.03	7.13	12.40	0.67
DoylesR	TR014	836.52	20Year-Existing	9.20	104.97	105.98	105.98	106.25	0.017875	2.63	5.08	10.55	0.95
DoylesR	TR014	816.09	20Year-Existing	9.20	104.78	105.55	105.50	105.67	0.013599	1.97	7.85	22.88	0.81
DoylesR	TR014	811.48	20Year-Existing	9.20	104.64	105.54		105.61	0.006726	1.61	10.23	22.22	0.59
DoylesR	TR014	783.28	20Year-Existing	9.20	103.98	105.02	105.02	105.29	0.017589	2.90	5.24	9.66	0.97
DoylesR	TR014	751.27	20Year-Existing	9.20	103.31	104.25	104.31	104.61	0.025784	2.74	3.79	8.46	1.11
DoylesR	TR014	717.94	20Year-Existing	9.20	102.63	103.88	103.88	104.11	0.013060	2.81	6.39	13.08	0.85
DoylesR	TR014	676.43	20Year-Existing	9.20	102.18	103.26	103.22	103.46	0.011615	2.26	6.45	15.70	0.78
DoylesR	TR014	601.44	20Year-Existing	9.20	101.39	102.18	102.18	102.34	0.019086	2.37	6.58	19.30	0.96
DoylesR	TR014	540.83	20Year-Existing	9.20	100.49	102.10	101.40	102.13	0.000951	0.92	19.52	36.98	0.25
DoylesR	TR014	519.25	20Year-Existing	9.20	99.69	102.11	101.37	102.12	0.000104	0.36	58.58	74.38	0.08
DoylesR	TR014	510		Culvert									
DoylesR	TR014	505.00	20Year-Existing	9.20	99.62	101.32	101.32	102.11	0.017778	4.00	2.39	24.86	1.00
DoylesR	TR014	484.27	20Year-Existing	9.20	99.79	100.52	100.77	101.35	0.113526	4.78	2.78	10.16	2.17
DoylesR	TR014	426.15	20Year-Existing	9.20	98.71	99.73	99.73	100.00	0.017300	2.40	4.65	12.16	0.92
DoylesR	TR014	368.05	20Year-Existing	9.20	97.30	98.41	98.53	98.78	0.027150	3.08	4.67	14.04	1.13
DoylesR	TR014	343.01	20Year-Existing	9.20	96.78	98.12	97.63	98.23	0.003159	1.49	6.87	65.59	0.43
DoylesR	TR014	335		Bridge									
DoylesR	TR014	331.91	20Year-Existing	9.20	96.63	97.74	97.74	98.09	0.016778	2.74	3.85	6.55	0.93
DoylesR	TR014	312.09	20Year-Existing	9.20	96.26	97.54	97.57	97.71	0.013774	2.18	7.92	32.13	0.79
DoylesR	TR014	227.09	20Year-Existing	9.20	94.66	96.35	96.04	96.40	0.002773	1.38	14.19	26.55	0.38
DoylesR	TR014	205.76	20Year-Existing	9.20	94.51	96.04	96.04	96.28	0.010724	2.47	6.31	16.24	0.73
DoylesR	TR014	198.96	20Year-Existing	9.20	94.45	95.09	95.36	96.03	0.131122	4.32	2.21	8.07	2.30
DoylesR	TR014	181.77	20Year-Existing	9.20	94.01	95.12	95.12	95.31	0.013362	2.34	7.26	21.18	0.82
DoylesR	TR014	121.12	20Year-Existing	9.20	92.99	94.12	94.20	94.38	0.016146	2.61	7.89	53.94	0.90
DoylesR	TR014	34.73	20Year-Existing	9.20	91.60	92.42	92.47	92.73	0.025355	2.65	4.38	10.36	1.10
DoylesR	TR012	1780.65	20Year-Existing	22.40	90.30	92.07	91.49	92.16	0.002458	1.47	21.49	32.19	0.39
DoylesR	TR012	1753.67	20Year-Existing	22.40	89.56	92.10	90.96	92.12	0.000384	0.84	52.58	61.05	0.17
DoylesR	TR012	1745		Bridge									
DoylesR	TR012	1729.43	20Year-Existing	22.40	89.10	90.81	90.81	91.50	0.015676	3.76	6.30	12.15	0.97
DoylesR	TR012	1709.20	20Year-Existing	22.40	88.93	90.41	90.61	91.08	0.025975	4.24	8.94	19.58	1.21
DoylesR	TR012	1645.76	20Year-Existing	22.40	88.20	89.32	89.32	89.64	0.018172	2.94	10.69	17.34	0.99
DoylesR	TR011	1552.47	20Year-Existing	32.30	86.48	88.50	88.13	88.80	0.006038	2.65	16.33	13.71	0.64
DoylesR	TR011	1530.88	20Year-Existing	32.30	86.19	87.99	87.99	88.58	0.014687	3.84	11.72	10.66	0.98
DoylesR	TR011	1477.56	20Year-Existing	32.30	84.43	85.69	86.10	87.07	0.064021	5.85	7.84	12.83	1.87
DoylesR	TR011	1423.69	20Year-Existing	32.30	83.56	85.29	85.29	85.89	0.015071	3.72	11.13	10.45	0.98
DoylesR	TR011	1370.10	20Year-Existing	32.30	82.66	83.90	84.12	84.62	0.041345	4.81	12.43	29.56	1.53
DoylesR	TR011	1316.51	20Year-Existing	32.30	81.17	82.75	82.75	83.32	0.017678	3.74	11.44	12.64	1.04
DoylesR	TR011	1262.92	20Year-Existing	32.30	79.36	80.92	81.22	81.99	0.034495	5.06	8.81	12.25	1.43
DoylesR	TR011	1209.33	20Year-Existing	32.30	78.14	80.13	80.18	80.78	0.015581	3.94	11.11	11.39	0.99
DoylesR	TR011	1155.74	20Year-Existing	32.30	76.81	78.53	78.84	79.57	0.032053	4.94	8.37	9.21	1.37
DoylesR	TR011	1107.39	20Year-Existing	32.30	76.34	77.87	77.87	78.36	0.015962	3.23	11.50	12.94	0.97

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
DoylesR	TR011	1057.82	20Year-Existing	32.30	75.16	77.06	77.07	77.60	0.014414	3.51	11.62	12.07	0.93
DoylesR	TR011	971.36	20Year-Existing	32.30	73.33	74.94	74.47	75.17	0.004762	2.11	15.33	18.96	0.55
DoylesR	TR011	960		Bridge									
DoylesR	TR011	949.62	20Year-Existing	32.30	73.08	74.86	74.15	75.03	0.002894	1.82	17.75	14.22	0.45
DoylesR	TR011	929.53	20Year-Existing	32.30	72.74	74.47	74.32	74.86	0.010351	2.96	13.13	12.26	0.80
DoylesR	TR011	872.05	20Year-Existing	32.30	72.26	74.02	74.02	74.24	0.009478	2.81	24.52	54.89	0.76
DoylesR	TR011	816.76	20Year-Existing	32.30	72.00	73.00	72.94	73.08	0.013936	2.25	31.79	93.22	0.82
DoylesR	TR011	760.16	20Year-Existing	32.30	71.25	72.41		72.49	0.010330	2.34	35.70	98.36	0.75
DoylesR	TR011	712.26	20Year-Existing	32.30	70.34	71.72	71.64	71.88	0.013186	2.86	25.17	65.95	0.86
DoylesR	TR011	663.11	20Year-Existing	32.30	70.08	71.42		71.45	0.005543	1.74	49.22	128.48	0.53
DoylesR	TR013	2205.78	20Year-Existing	7.00	95.88	96.62	96.38	96.63	0.001253	0.68	25.87	98.29	0.25
DoylesR	TR013	2147.59	20Year-Existing	7.00	95.87	96.53		96.54	0.001938	0.72	17.48	56.95	0.30
DoylesR	TR013	2097.40	20Year-Existing	7.00	95.86	96.22	96.22	96.29	0.029764	1.73	8.32	64.27	1.06
DoylesR	TR013	2011.99	20Year-Existing	7.00	93.67	94.65	94.49	94.77	0.007315	1.74	5.34	10.68	0.62
DoylesR	TR013	1957.46	20Year-Existing	7.00	93.05	93.97	93.97	94.21	0.016245	2.65	4.22	9.65	0.93
DoylesR	TR013	1909.18	20Year-Existing	7.00	92.33	93.20	93.28	93.40	0.015597	2.35	5.91	36.04	0.88
DoylesR	TR013	1861.01	20Year-Existing	7.00	91.27	92.19	92.33	92.53	0.021531	2.76	3.96	22.57	1.03
DoylesR	TR013	1789.09	20Year-Existing	7.00	90.00	90.53	90.58	90.67	0.029541	2.23	7.09	56.57	1.12
DoylesR	TR013	1733.37	20Year-Existing	7.00	89.53	90.22	90.11	90.24	0.003854	0.94	15.51	74.77	0.42
DoylesR	TR013	1677.65	20Year-Existing	7.00	89.42	89.81		89.85	0.015522	1.30	9.53	55.77	0.77
DoylesR	TR013	1613.85	20Year-Existing	7.00	89.11	89.60		89.61	0.001790	0.53	24.41	96.17	0.27
DoylesR	TR013	1552.30	20Year-Existing	7.00	88.82	89.51		89.52	0.001864	0.73	20.61	67.69	0.30
DoylesR	TR013	1506.96	20Year-Existing	7.00	88.81	89.44		89.45	0.001860	0.69	20.09	64.31	0.30
DoylesR	TR013	1478.17	20Year-Existing	7.00	88.80	89.26		89.31	0.019374	1.60	8.51	41.95	0.88
DoylesR	TR013	1411.61	20Year-Existing	7.00	88.11	89.05		89.07	0.001451	0.76	13.63	29.83	0.28
DoylesR	TR013	1388.58	20Year-Existing	7.00	87.45	89.05	88.80	89.06	0.000108	0.30	54.68	153.08	0.08
DoylesR	TR013	1375		Culvert									
DoylesR	TR013	1373.86	20Year-Existing	7.00	87.32	88.59	88.50	88.67	0.004732	1.73	7.66	14.56	0.51
DoylesR	TR013	1301.72	20Year-Existing	7.00	86.82	87.77	87.77	88.06	0.017494	2.57	3.46	6.70	0.94
DoylesR	TR013	1246.99	20Year-Existing	7.00	85.79	86.62	86.67	86.95	0.023584	2.65	2.98	6.32	1.07
DoylesR	TR013	1192.26	20Year-Existing	7.00	84.79	85.81	85.63	85.95	0.007844	1.83	5.30	10.40	0.64
DoylesR	TR013	1137.53	20Year-Existing	7.00	84.03	85.08	85.06	85.36	0.015037	2.47	3.53	7.05	0.88
DoylesR	TR013	1082.80	20Year-Existing	7.00	83.55	84.42	84.42	84.54	0.013948	1.90	6.27	21.72	0.79
DoylesR	TR013	1064.90	20Year-Existing	7.00	82.57	84.46	83.55	84.48	0.000498	0.66	23.48	105.83	0.17
DoylesR	TR013	1050		Culvert									
DoylesR	TR013	1042.53	20Year-Existing	7.00	82.41	84.15	83.32	84.16	0.000387	0.57	25.41	63.73	0.15
DoylesR	TR013	1022.06	20Year-Existing	7.00	82.71	83.98	83.74	84.12	0.006314	1.97	5.20	7.79	0.60
DoylesR	TR013	969.32	20Year-Existing	7.00	82.40	83.27	83.27	83.55	0.020140	2.75	3.54	6.64	1.01
DoylesR	TR013	915.66	20Year-Existing	7.00	81.80	82.87	82.49	82.88	0.001403	0.86	16.90	38.27	0.28
DoylesR	TR013	867.93	20Year-Existing	7.00	81.40	82.75		82.79	0.002376	1.29	12.14	30.83	0.37
DoylesR	TR013	809.27	20Year-Existing	7.00	81.32	82.48		82.59	0.004973	1.59	5.55	9.16	0.52
DoylesR	TR013	756.07	20Year-Existing	7.00	80.75	81.80	81.80	82.13	0.016295	2.84	3.36	5.48	0.94
DoylesR	TR013	702.82	20Year-Existing	7.00	79.91	80.93	80.93	81.24	0.016921	2.75	3.51	6.45	0.94
DoylesR	TR013	651.60	20Year-Existing	7.00	78.06	78.81	78.98	79.60	0.074018	4.09	1.99	5.33	1.80
DoylesR	TR013	588.74	20Year-Existing	7.00	75.89	76.80	76.83	77.08	0.022720	2.41	3.15	7.29	1.01
DoylesR	TR013	543.29	20Year-Existing	7.00	75.20	75.84	75.93	76.22	0.043056	2.75	2.63	7.12	1.35
DoylesR	TR013	489.08	20Year-Existing	7.00	73.77	74.84	74.84	75.17	0.017149	2.86	3.32	5.46	0.95
DoylesR	TR013	436.90	20Year-Existing	7.00	72.11	72.95	73.29	73.62	0.058893	3.67	2.00	4.55	1.59
DoylesR	TR013	383.70	20Year-Existing	7.00	70.97	72.37	71.82	72.39	0.000768	0.72	21.82	80.49	0.21
DoylesR	TR013	363.75	20Year-Existing	7.00	70.36	71.90	71.90	72.31	0.009666	3.03	3.24	9.00	0.79
DoylesR	TR013	360		Culvert									
DoylesR	TR013	344.87	20Year-Existing	7.00	70.32	71.70	71.70	71.71	0.000578	0.62	24.34	48.31	0.17
DoylesR	TR013	324.16	20Year-Existing	7.00	70.29	70.84	70.97	71.48	0.157597	4.41	3.02	30.22	2.44
DoylesR	TR013	256.30	20Year-Existing	7.00	69.36	70.27	70.27	70.35	0.014555	1.97	8.67	44.99	0.77
DoylesR	TR013	236.50	20Year-Existing	7.00	69.35	70.17	69.96	70.17	0.000907	0.42	31.46	115.47	0.19
DoylesR	TR013	162.98	20Year-Existing	7.00	68.94	70.12		70.12	0.000858	0.55	27.92	108.72	0.20
DoylesR	TR013	133.14	20Year-Existing	7.00	68.76	70.10		70.11	0.000242	0.30	46.42	112.16	0.11
DoylesR	TR013	66.14	20Year-Existing	7.00	68.46	70.09		70.09	0.000248	0.36	35.82	111.26	0.11
DoylesR	M001	484.12	20Year-Existing	39.30	68.08	69.66	69.60	69.83	0.015145	2.83	29.12	86.67	0.87
DoylesR	M001	429.44	20Year-Existing	39.30	67.72	69.49		69.52	0.002751	1.35	62.17	124.44	0.38
DoylesR	M001	388.03	20Year-Existing	39.30	67.53	69.40		69.42	0.002156	1.26	73.98	138.08	0.34
DoylesR	M001	344.78	20Year-Existing	39.30	67.39	69.38		69.38	0.000390	0.57	150.17	211.81	0.15
DoylesR	M001	215.64	20Year-Existing	39.30	67.21	69.37		69.37	0.000038	0.20	350.54	333.69	0.05
DoylesR	M001	77.13	20Year-Existing	39.30	66.62	69.37		69.37	0.000010	0.13	625.78	512.81	0.03
CochranePB	M002	8105.53	20Year-Existing	11.10	140.65	142.16	141.31	142.16	0.000124	0.35	68.92	100.59	0.10
CochranePB	M002	8065.47	20Year-Existing	11.10	140.64	142.14		142.15	0.000729	0.75	33.28	73.32	0.24
CochranePB	M002	8050.98	20Year-Existing	11.10	140.00	142.11		142.14	0.000231	0.89	25.55	59.90	0.25
CochranePB	M002	8024.09	20Year-Existing	11.10	140.62	142.11		142.13	0.001029	0.86	30.82	82.42	0.28
CochranePB	M002	8013.06	20Year-Existing	11.10	140.42	142.11		142.12	0.000551	0.71	36.14	75.52	0.21
CochranePB	M002	8004.70	20Year-Existing	11.10	140.25	142.11	141.80	142.11	0.000332	0.74	49.29	103.25	0.18
CochranePB	M002	8000		Culvert									
CochranePB	M002	7995.14	20Year-Existing	11.10	140.37	142.10	141.46	142.11	0.000197	0.55	47.88	75.78	0.14
CochranePB	M002	7964.49	20Year-Existing	11.10	140.14	141.70	141.70	142.06	0.011654	3.12	5.79	9.34	0.90
CochranePB	M002	7901.64	20Year-Existing	11.10	139.30	140.64	140.81	141.07	0.021685	3.12	4.83	12.82	1.14
CochranePB	M002	7847.08	20Year-Existing	11.10	138.68	139.74	139.64	139.80	0.007477	1.59	13.98	44.58	0.66
CochranePB	M002	7812.33	20Year-Existing	11.10	138.52	139.30	139.30	139.40	0.021959	2.04	10.98	53.86	1.10
CochranePB	M002	7738.34	20Year-Existing	11.10	137.94	138.88	138.69	138.89	0.002209	0.79	29.86	113.31	0.37
CochranePB	M002	7695.32	20Year-Existing	11.10	137.67	138.56	138.56	138.69	0.016146	1.97	9.64	39.88	0.98
CochranePB	M002	7609.21	20Year-Existing	11.10	136.29	137.69	137.32	137.70	0.000799	0.75	28.98	70.22	0.25
CochranePB	M002	7515.77	20Year-Existing	11.10	136.28	137.56		137.60	0.002181	1.14	21.29	78.89	0.40
CochranePB	M002	7476.72	20Year-Existing	11.10	136.26	137.54		137.55	0.000609	0.60	34.55	88.98	0.21
CochranePB	M002	7450.86	20Year-Existing	11.10	136.25	137.51		137.53	0.001159	0.79	25.02	76.40	0.29
CochranePB	M002	7329.89	20Year-Existing	11.10	136.23	137.22		137.28	0.005360	1.36	15.53	72.23	0.59
CochranePB	M002	7253.62	20Year-Existing	11.10	136.05	137.05		137.07	0.002012	0.90	24.13	89.45	0.36
CochranePB	M002	7208.54	20Year-Existing	11.10	135.88	136.95		136.98	0.002469	1.03	23.41	87.69	0.41

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	7108.13	20Year-Existing	11.10	135.54	136.43	136.43	136.53	0.015036	2.19	11.70	55.12	0.94
CochranePB	M002	7041.67	20Year-Existing	11.10	134.91	136.07	136.00	136.13	0.003573	1.24	16.81	75.51	0.50
CochranePB	M002	6985.71	20Year-Existing	11.10	134.29	135.47	135.47	135.76	0.014044	2.70	6.82	22.56	0.98
CochranePB	M002	6955.25	20Year-Existing	11.10	133.48	134.61	134.76	135.11	0.031575	3.20	3.96	10.47	1.39
CochranePB	M002	6863.52	20Year-Existing	11.10	131.82	132.81	132.83	132.96	0.016266	2.34	9.77	36.84	1.00
CochranePB	M002	6840.09	20Year-Existing	11.10	131.19	132.09	132.17	132.38	0.038647	2.95	6.80	35.24	1.49
CochranePB	M002	6808.25	20Year-Existing	11.10	130.51	131.41	131.43	131.55	0.024373	2.34	9.13	40.33	1.16
CochranePB	M002	6767.75	20Year-Existing	11.10	129.31	130.26	130.34	130.50	0.026510	2.61	7.58	40.97	1.26
CochranePB	M002	6727.78	20Year-Existing	11.10	128.36	129.43	129.47	129.63	0.017882	2.41	8.14	32.36	1.04
CochranePB	M002	6691.71	20Year-Existing	11.10	127.96	128.99	128.92	129.06	0.007247	1.55	14.71	67.21	0.67
CochranePB	M002	6651.54	20Year-Existing	11.10	127.68	128.61		128.71	0.011092	1.50	9.44	36.18	0.80
CochranePB	M002	6630.83	20Year-Existing	11.10	127.19	128.35	128.35	128.50	0.008950	1.90	9.41	38.86	0.77
CochranePB	M002	6534.50	20Year-Existing	11.10	126.30	127.24	127.25	127.38	0.015982	2.03	9.40	46.51	0.98
CochranePB	M002	6507.97	20Year-Existing	11.10	125.65	126.53	126.60	126.74	0.036167	2.66	8.21	53.17	1.40
CochranePB	M002	6480.50	20Year-Existing	11.10	124.97	125.87	125.91	126.00	0.022481	2.27	9.25	50.21	1.13
CochranePB	M002	6433.33	20Year-Existing	11.10	124.09	125.01	125.03	125.17	0.018335	1.95	7.95	35.33	1.03
CochranePB	M002	6400.96	20Year-Existing	11.10	123.40	124.50	124.34	124.55	0.005329	1.34	13.77	42.00	0.57
CochranePB	M002	6364.18	20Year-Existing	11.10	123.28	124.50		124.50	0.000273	0.37	40.25	100.74	0.14
CochranePB	M002	6314.31	20Year-Existing	11.10	123.27	124.44		124.47	0.001978	0.94	18.22	49.57	0.37
CochranePB	M002	6286.25	20Year-Existing	11.10	123.26	124.36		124.40	0.003082	1.10	15.20	50.22	0.46
CochranePB	M002	6202.53	20Year-Existing	11.10	122.81	123.98	123.89	124.08	0.005976	1.64	10.70	31.17	0.64
CochranePB	M002	6130.00	20Year-Existing	11.10	122.30	123.26	123.26	123.43	0.015989	1.83	6.68	24.79	0.96
CochranePB	M002	6040.82	20Year-Existing	11.10	121.41	122.54	122.43	122.58	0.002933	1.16	18.89	70.68	0.45
CochranePB	M002	6006.95	20Year-Existing	11.10	121.40	122.52		122.53	0.000839	0.51	27.82	87.55	0.23
CochranePB	M002	5976.09	20Year-Existing	11.10	121.39	122.37	122.37	122.45	0.012276	1.67	12.45	67.97	0.85
CochranePB	M002	5910.40	20Year-Existing	11.10	120.29	121.43	121.47	121.63	0.015548	2.41	8.41	36.52	1.00
CochranePB	M002	5863.68	20Year-Existing	11.10	119.62	120.50	120.58	120.75	0.031368	2.45	6.39	31.89	1.32
CochranePB	M002	5811.63	20Year-Existing	11.10	118.87	119.84	119.93	120.11	0.028052	2.79	7.12	38.47	1.30
CochranePB	M002	5768.42	20Year-Existing	11.10	117.38	118.34	118.46	118.72	0.039440	2.73	4.42	19.51	1.49
CochranePB	M002	5725.36	20Year-Existing	11.10	116.48	117.55	117.57	117.72	0.013967	2.09	8.15	34.36	0.93
CochranePB	M002	5678.58	20Year-Existing	11.10	115.39	116.40	116.49	116.73	0.030404	2.60	4.65	18.21	1.33
CochranePB	M002	5627.04	20Year-Existing	11.10	114.79	116.10	115.79	116.13	0.002018	1.06	17.42	37.32	0.38
CochranePB	M002	5609.94	20Year-Existing	16.70	114.77	115.91		116.02	0.007530	1.74	14.53	40.47	0.71
CochranePB	M002	5601.00	20Year-Existing	16.70	114.76	115.87		115.88	0.001924	0.87	38.26	106.69	0.35
CochranePB	M002	5568.52	20Year-Existing	16.70	114.75	115.82		115.83	0.001422	0.72	38.48	92.65	0.30
CochranePB	M002	5508.20	20Year-Existing	16.70	114.04	115.53		115.67	0.004381	1.74	11.59	19.89	0.58
CochranePB	M002	5473.67	20Year-Existing	16.70	113.90	115.22	115.22	115.44	0.010608	2.37	10.98	26.55	0.87
CochranePB	M002	5403.83	20Year-Existing	16.70	110.69	111.75	112.19	113.51	0.123602	5.91	2.98	7.85	2.72
CochranePB	M002	5352.19	20Year-Existing	16.70	110.27	111.55	111.55	111.81	0.013626	2.48	9.14	20.05	0.97
CochranePB	M002	5309.83	20Year-Existing	16.70	109.64	111.00	111.09	111.26	0.012685	2.54	11.23	40.25	0.94
CochranePB	M002	5266.90	20Year-Existing	16.70	109.30	110.58	110.62	110.75	0.010851	2.29	16.66	76.43	0.86
CochranePB	M002	5213.45	20Year-Existing	16.70	108.81	110.28	109.84	110.30	0.000988	0.79	37.54	78.32	0.27
CochranePB	M002	5162.38	20Year-Existing	31.70	108.18	109.92	109.92	110.15	0.008374	2.88	24.26	50.85	0.83
CochranePB	M002	5109.83	20Year-Existing	31.70	108.02	109.40	109.12	109.44	0.003661	1.35	44.02	96.56	0.50
CochranePB	M002	5059.83	20Year-Existing	31.70	107.54	109.10		109.24	0.006551	2.19	31.63	83.24	0.71
CochranePB	M002	5013.20	20Year-Existing	31.70	107.21	108.80	108.80	108.95	0.008421	2.26	30.80	96.40	0.78
CochranePB	M002	4977.38	20Year-Existing	31.70	107.07	108.64	108.41	108.67	0.001964	1.21	58.43	141.74	0.39
CochranePB	M002	4908.49	20Year-Existing	31.70	106.95	108.61		108.62	0.000564	0.72	100.80	192.64	0.21
CochranePB	M002	4883.44	20Year-Existing	31.70	106.94	108.60		108.61	0.000304	0.52	120.69	194.91	0.16
CochranePB	M002	4816.97	20Year-Existing	31.70	106.93	108.59		108.59	0.000298	0.52	123.28	217.99	0.16
CochranePB	M002	4757.22	20Year-Existing	31.70	106.78	108.58		108.58	0.000200	0.46	143.53	246.50	0.13
CochranePB	M002	4718.65	20Year-Existing	31.70	106.77	108.57		108.57	0.000312	0.59	124.11	304.01	0.17
CochranePB	M002	4674.22	20Year-Existing	31.70	106.76	108.54		108.56	0.000733	0.90	81.33	253.22	0.25
CochranePB	M002	4633.22	20Year-Existing	31.70	106.75	108.52		108.54	0.000315	0.57	80.62	153.00	0.17
CochranePB	M002	4561.03	20Year-Existing	31.70	106.74	108.46		108.50	0.001094	1.04	50.10	94.20	0.31
CochranePB	M002	4506.74	20Year-Existing	31.70	106.43	108.15	108.15	108.36	0.006898	2.43	23.51	54.94	0.74
CochranePB	M002	4459.83	20Year-Existing	31.70	105.66	107.18	107.38	107.80	0.021003	3.67	12.11	40.10	1.25
CochranePB	M002	4409.53	20Year-Existing	31.70	104.62	106.18	106.36	106.75	0.020474	3.62	12.26	28.45	1.22
CochranePB	M002	4359.83	20Year-Existing	31.70	103.72	105.34	105.45	105.84	0.015698	3.32	12.21	25.56	1.08
CochranePB	M002	4327.93	20Year-Existing	31.70	103.17	104.92	105.03	105.38	0.012597	3.11	13.23	28.04	0.99
CochranePB	M002	4265.56	20Year-Existing	31.70	102.45	104.14	104.20	104.55	0.013691	3.28	14.61	25.02	1.03
CochranePB	M002	4208.11	20Year-Existing	31.70	101.67	103.25	103.38	103.72	0.015078	3.21	12.93	28.56	1.07
CochranePB	M002	4159.83	20Year-Existing	31.70	101.12	102.16	102.22	102.45	0.051797	3.16	14.69	47.64	1.70
CochranePB	M002	4109.83	20Year-Existing	31.70	98.84	100.39	100.59	100.98	0.018562	3.67	12.22	31.56	1.20
CochranePB	M002	4056.00	20Year-Existing	31.70	97.18	98.69	98.97	99.62	0.033134	4.55	8.77	15.35	1.55
CochranePB	M002	4009.83	20Year-Existing	31.70	96.33	98.15	98.26	98.49	0.013948	3.45	21.33	62.10	1.01
CochranePB	M002	3969.03	20Year-Existing	31.70	95.62	97.29	97.56	97.89	0.014676	3.62	10.52	20.36	1.09
CochranePB	M002	3916.58	20Year-Existing	31.70	94.82	96.89	97.01	97.24	0.008635	2.96	18.77	68.07	0.81
CochranePB	M002	3859.82	20Year-Existing	31.70	94.34	95.96	96.07	96.56	0.017090	3.44	9.45	11.25	1.13
CochranePB	M002	3810.05	20Year-Existing	31.70	93.50	95.31	95.48	95.83	0.012268	3.38	11.37	23.98	1.00
CochranePB	M002	3759.83	20Year-Existing	31.70	93.00	94.58	94.76	95.11	0.016384	3.56	14.79	52.29	1.13
CochranePB	M002	3709.28	20Year-Existing	31.70	92.33	94.03	94.14	94.37	0.011669	3.04	18.48	52.70	0.95
CochranePB	M002	3661.60	20Year-Existing	31.70	92.05	93.77	93.79	93.94	0.006023	2.31	32.33	129.29	0.69
CochranePB	M002	3609.83	20Year-Existing	31.70	91.73	93.33	93.37	93.54	0.009836	2.66	24.19	83.63	0.86
CochranePB	M002	3559.90	20Year-Existing	31.70	90.87	92.76	92.86	93.06	0.008076	2.87	21.66	70.27	0.81
CochranePB	M002	3509.83	20Year-Existing	31.70	90.38	92.14	92.28	92.56	0.012213	3.46	18.70	56.87	0.99
CochranePB	M002	3493.23	20Year-Existing	31.70	90.02	92.19	91.69	92.39	0.002985	2.44	20.44	15.66	0.54
CochranePB	M002	3480		Bridge									
CochranePB	M002	3474.26	20Year-Existing	31.70	89.91	92.21	91.33	92.32	0.001298	1.73	25.65	16.77	0.37
CochranePB	M002	3466.43	20Year-Existing	31.70	90.00	91.52	91.43	92.15	0.009625	3.61	10.45	12.08	0.95
CochranePB	M002	3454.35	20Year-Existing	31.70	89.94	91.75	91.29	91.96	0.003157	2.25	18.10	16.10	0.55
CochranePB	M002	3450		Bridge									
CochranePB	M002	3434.16	20Year-Existing	34.70	90.36	91.63	91.44	91.90	0.006192	2.47	16.74	19.94	0.73
CochranePB	M002	3413.11	20Year-Existing	34.70	90.14	91.56	91.56	91.71	0.007342	2.46	32.98	89.86	0.76
CochranePB	M002	3391.58	20Year-Existing	34.70	90.03	91.45	91.18	91.53	0.004390	1.98	40.45	94.98	0.60

HEC-RAS Plan: Plan 03 Profile: 20Year-Existing (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
CochranePB	M002	3371.12	20Year-Existing	34.70	90.02	91.18	91.18	91.39	0.010001	2.57	25.77	86.23	0.88
CochranePB	M002	3309.87	20Year-Existing	34.70	89.28	90.62	90.60	90.73	0.009489	2.60	34.04	100.77	0.83
CochranePB	M002	3272.96	20Year-Existing	34.70	88.73	90.18	90.18	90.36	0.009569	2.60	27.09	73.82	0.84
CochranePB	M002	3219.09	20Year-Existing	34.70	88.30	89.73	89.73	89.87	0.008751	2.44	31.31	106.54	0.81
CochranePB	M002	3175.54	20Year-Existing	34.70	87.36	89.37	89.16	89.50	0.002500	1.82	32.44	64.43	0.46
CochranePB	M002	3165		Bridge									
CochranePB	M002	3157.85	20Year-Existing	34.70	87.50	89.08	89.08	89.37	0.006677	2.62	21.48	58.14	0.74
CochranePB	M002	3135.32	20Year-Existing	34.70	87.85	89.06	89.01	89.12	0.005219	1.72	46.12	152.49	0.62
CochranePB	M002	3106.53	20Year-Existing	34.70	87.94	88.78	88.78	88.88	0.024626	2.41	27.72	117.43	1.18
CochranePB	M002	3088.94	20Year-Existing	34.70	86.84	88.59	88.04	88.65	0.001299	1.28	51.11	146.32	0.34
CochranePB	M002	3080		Bridge									
CochranePB	M002	3075.67	20Year-Existing	34.70	86.74	88.28	87.91	88.34	0.001650	1.32	46.96	104.23	0.38
CochranePB	M002	3056.89	20Year-Existing	34.70	87.66	88.19		88.27	0.015944	0.92	28.75	99.62	0.79
CochranePB	M002	3007.54	20Year-Existing	34.70	87.61	87.91		87.94	0.003560	0.36	47.09	99.75	0.29
CochranePB	M002	2976.31	20Year-Existing	34.70	87.51	87.83		87.85	0.003134	0.41	50.11	110.94	0.33
CochranePB	M002	2941.08	20Year-Existing	34.70	86.98	87.76		87.77	0.001839	0.65	76.16	219.84	0.32
CochranePB	M002	2920.10	20Year-Existing	34.70	86.74	87.75	87.54	87.76	0.000191	0.27	167.65	295.25	0.10
CochranePB	M002	2915		Bridge									
CochranePB	M002	2912.75	20Year-Existing	34.70	86.97	87.75	87.75	87.75	0.000115	0.23	200.70	313.30	0.09
CochranePB	M002	2890.23	20Year-Existing	34.70	86.65	86.81	86.97	87.53	0.470431	3.27	9.23	69.56	3.73
CochranePB	M002	2823.99	20Year-Existing	34.70	86.08	87.03	86.74	87.04	0.001487	0.65	85.51	239.14	0.27
CochranePB	M002	2789.49	20Year-Existing	34.70	86.04	87.00		87.01	0.001276	0.56	88.37	243.31	0.26
CochranePB	M002	2741.30	20Year-Existing	34.70	85.71	86.95		86.96	0.001006	0.72	93.68	258.02	0.27
CochranePB	M002	2663.79	20Year-Existing	34.70	85.58	86.90		86.91	0.001103	0.83	91.10	244.03	0.29
CochranePB	M002	2639.38	20Year-Existing	34.70	85.57	86.86		86.88	0.001464	0.89	82.79	228.20	0.32
CochranePB	M002	2616.24	20Year-Existing	34.70	85.30	86.85		86.86	0.000777	0.78	99.73	225.95	0.25
CochranePB	M002	2539.69	20Year-Existing	34.70	85.41	86.79		86.81	0.001496	0.94	79.23	216.89	0.33
CochranePB	M002	2489.06	20Year-Existing	34.70	85.18	86.75		86.76	0.001377	1.05	74.40	186.32	0.33
CochranePB	M002	2438.28	20Year-Existing	34.70	84.87	86.68		86.71	0.001409	1.15	70.48	164.53	0.34
CochranePB	M002	2384.01	20Year-Existing	34.70	84.65	86.59		86.63	0.002023	1.48	59.72	130.32	0.41
CochranePB	M002	2310.47	20Year-Existing	34.70	84.33	86.32		86.43	0.004324	2.08	40.87	105.65	0.58
CochranePB	M002	2284.63	20Year-Existing	34.70	84.16	86.26		86.32	0.002981	1.76	47.48	94.05	0.46
CochranePB	M002	2240.58	20Year-Existing	34.70	84.04	85.86	85.86	86.10	0.008640	2.86	23.35	44.44	0.82
CochranePB	M002	2170.94	20Year-Existing	34.70	82.26	83.81	84.17	84.94	0.037444	4.98	8.67	14.68	1.66
CochranePB	M002	2136.89	20Year-Existing	34.70	81.72	83.32	83.48	83.88	0.019252	3.52	12.13	20.80	1.20
CochranePB	M002	2100.01	20Year-Existing	34.70	81.30	83.15	83.11	83.38	0.007820	2.60	22.10	40.09	0.78
CochranePB	M002	2046.85	20Year-Existing	34.70	80.89	82.51	82.51	82.87	0.011719	2.83	15.98	31.31	0.94
CochranePB	M002	2014.35	20Year-Existing	34.70	80.47	81.88	82.01	82.35	0.022648	3.24	14.59	40.21	1.25
CochranePB	M002	1990.76	20Year-Existing	34.70	80.10	81.82	81.82	82.07	0.009772	2.71	21.70	42.99	0.86
CochranePB	M002	1945.20	20Year-Existing	34.70	79.43	81.45	81.11	81.54	0.003041	1.79	34.66	47.42	0.50
CochranePB	M002	1916.67	20Year-Existing	34.70	79.31	81.30		81.43	0.004331	2.13	30.25	42.35	0.59
CochranePB	M002	1871.48	20Year-Existing	34.70	79.28	81.16		81.25	0.003370	1.71	34.12	46.83	0.52
CochranePB	M002	1836.03	20Year-Existing	34.70	78.83	81.12		81.17	0.001263	1.30	45.25	70.59	0.33
CochranePB	M002	1788.63	20Year-Existing	34.70	78.46	80.51	80.51	80.99	0.012651	3.72	16.26	25.78	1.00
CochranePB	M002	1768.08	20Year-Existing	34.70	78.14	79.95	80.17	80.64	0.020049	4.22	12.75	24.13	1.24
CochranePB	M002	1733.19	20Year-Existing	34.70	77.95	79.86	79.89	80.16	0.007905	2.74	21.22	47.72	0.80
CochranePB	M002	1694.89	20Year-Existing	34.70	77.12	79.15	78.71	79.25	0.002551	1.68	32.02	40.60	0.47
CochranePB	M002	1685.79	20Year-Existing	34.70	77.06	79.10		79.22	0.003347	1.94	27.96	35.86	0.53
CochranePB	M002	1640.51	20Year-Existing	34.70	76.45	78.58	78.58	78.97	0.007882	3.10	16.84	25.71	0.82
CochranePB	M002	1602.99	20Year-Existing	34.70	75.01	76.36	76.85	78.13	0.083195	6.07	6.56	14.25	2.37
CochranePB	M002	1585.52	20Year-Existing	34.70	74.01	75.26	75.61	76.52	0.082522	5.35	8.16	20.07	2.30
CochranePB	M002	1569.47	20Year-Existing	34.70	73.71	74.96	75.10	75.47	0.034278	3.27	11.71	27.11	1.47
CochranePB	M002	1541.97	20Year-Existing	34.70	72.31	73.97	74.17	74.67	0.023361	3.98	11.04	17.82	1.31
CochranePB	M002	1510.83	20Year-Existing	34.70	71.34	72.48	72.75	73.41	0.082869	4.28	8.24	23.15	2.21
CochranePB	M002	1495.27	20Year-Existing	34.70	71.19	72.93	72.64	73.03	0.003675	1.61	28.22	40.88	0.54
CochranePB	M002	1458.62	20Year-Existing	34.70	70.58	72.43	72.43	72.77	0.011328	3.51	20.76	38.50	0.96
CochranePB	M002	1419.61	20Year-Existing	34.70	70.21	71.94	72.00	72.31	0.011728	3.27	18.16	33.38	0.97
CochranePB	M002	1384.56	20Year-Existing	34.70	69.61	71.75	71.52	72.05	0.005218	2.58	18.99	45.47	0.68
CochranePB	M002	1351.51	20Year-Existing	34.70	69.54	71.64	71.64	71.86	0.004944	2.54	27.78	76.41	0.66
CochranePB	M002	1311.78	20Year-Existing	34.70	69.49	71.29	71.39	71.59	0.008743	2.98	24.99	91.70	0.85
CochranePB	M002	1291.19	20Year-Existing	34.70	69.28	70.92	71.07	71.35	0.014975	3.51	19.38	74.67	1.07
CochranePB	M002	1217.75	20Year-Existing	34.70	68.70	70.71	70.12	70.76	0.000934	1.13	55.06	90.60	0.29
CochranePB	M002	1200.39	20Year-Existing	34.70	68.69	70.50	70.07	70.71	0.003506	2.07	17.40	18.48	0.56
CochranePB	M002	1190		Bridge									
CochranePB	M002	1185.68	20Year-Existing	35.50	68.46	70.48	69.75	70.64	0.001838	1.74	20.99	25.10	0.42
CochranePB	M002	1164.32	20Year-Existing	35.50	68.65	70.33	70.33	70.56	0.005425	2.55	25.55	66.40	0.69
CochranePB	M002	1132.60	20Year-Existing	35.50	68.60	69.77	69.89	70.19	0.026747	3.54	18.08	95.67	1.37
CochranePB	M002	1111.68	20Year-Existing	35.50	68.55	69.76	69.55	69.81	0.004105	1.64	46.21	145.28	0.56
CochranePB	M002	1059.95	20Year-Existing	35.50	68.38	69.57		69.64	0.004985	2.03	40.81	118.77	0.64
CochranePB	M002	998.99	20Year-Existing	35.50	68.13	69.39		69.42	0.002493	1.47	59.30	166.76	0.45
CochranePB	M002	955.54	20Year-Existing	35.50	68.12	69.38		69.39	0.000203	0.41	163.74	254.76	0.13
CochranePB	M002	851.16	20Year-Existing	35.50	67.62	69.38		69.38	0.000092	0.34	203.31	244.49	0.09
CochranePB	M002	798.06	20Year-Existing	35.50	67.47	69.37		69.37	0.000045	0.25	267.07	278.84	0.06
CochranePB	M002	746.77	20Year-Existing	35.50	67.30	69.37		69.37	0.000018	0.18	366.22	317.59	0.04
CochranePB	M002	694.52	20Year-Existing	35.50	66.98	69.37		69.37	0.000011	0.15	446.84	360.73	0.03
CochranePB	M002	669.16	20Year-Existing	35.50	66.97	69.37		69.37	0.000009	0.13	498.28	390.22	0.03
CochranePB	M002	590.19	20Year-Existing	35.50	66.84	69.37		69.37	0.000006	0.11	592.88	464.03	0.03
CochranePB	M002	539.85	20Year-Existing	35.50	66.81	69.37		69.37	0.000006	0.11	604.42	479.45	0.02
CochranePB	M002	488.40	20Year-Existing	35.50	66.54	69.37		69.37	0.000005	0.10	645.00	491.85	0.02
CochranePB	M001	381.27	20Year-Existing	71.10	66.35	69.37		69.37	0.000022	0.21	743.59	584.71	0.04
CochranePB	M001	313.14	20Year-Existing	71.10	66.28	69.37		69.37	0.000015	0.16	881.66	653.29	0.03