

APPENDIX R

COMPARISON OF CHURCHILL RIVER CURRENT CLIMATE AND CLIMATE CHANGE FLOOD RISK MAPS



File Name: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.1_11x17.mxd
 11"x17" PLOT SCALE 1:1

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LEGEND:

-  Water Survey of Canada Gauge Location
-  River Centreline
-  1:20 Year Current Climate Open Water Flood Zone
-  1:20 Year Climate Change Open Water Flood Zone
-  Map Extents

NOTES:

1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019, and by ESRI and DigitalGlobe, WV02 dated June 3, 2015.



SCALE: 1:100,000 METRIC 11"x17"

All units are metric and in metres unless otherwise specified.
 Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM), Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

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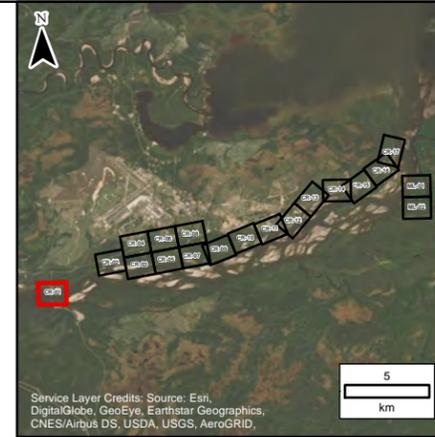
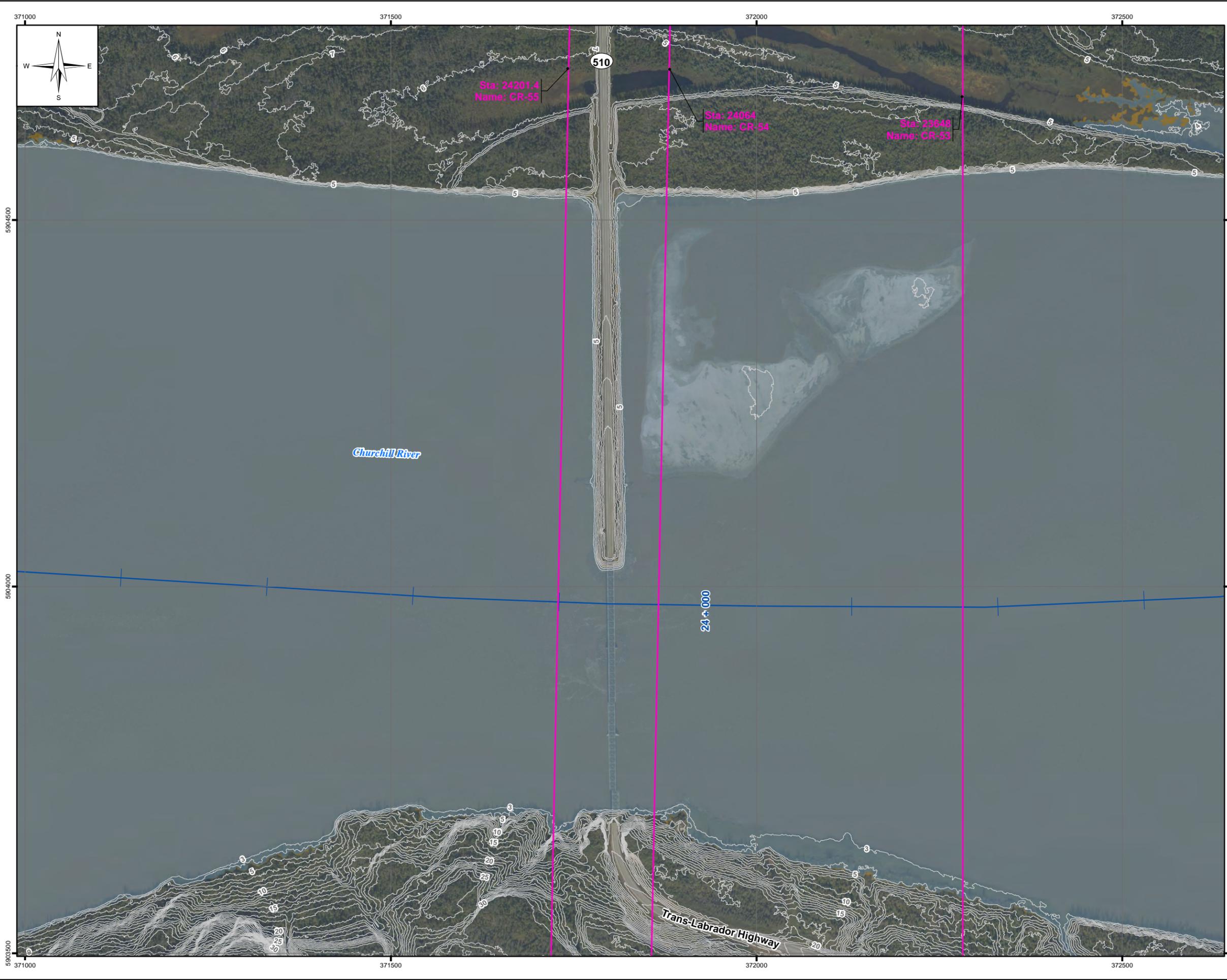




CHURCHILL RIVER FLOOD RISK AND FORECASTING

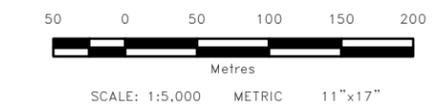
COMPARISON OF OPEN WATER 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) OVERVIEW MAP

JUNE 2020	FIGURE 5.1	REV: 0
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- LEGEND:**
- Sta: 23648 Name: CR-53
 - Cross Section
 - Water Survey of Canada Gauge Location
 - River Centreline
 - 1m LiDAR Contour
 - 1:20 Year Current Climate Open Water Flood Zone
 - 1:20 Year Climate Change Open Water Flood Zone

- NOTES:**
1. Imagery is supplied by ATLIS Geomatics and dated as September 11 – 13, 2019.
 2. Topography shown was developed by KGS Group from the LiDAR captured by ATLIS Geomatics on September 11 – 13, 2019.

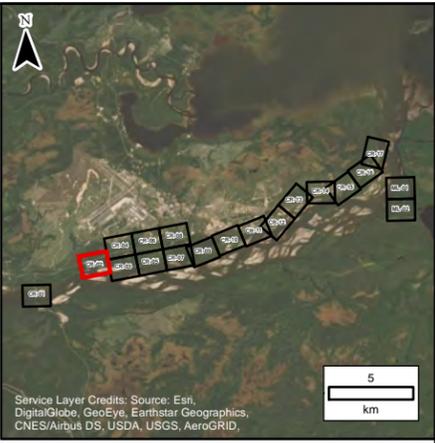
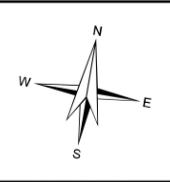
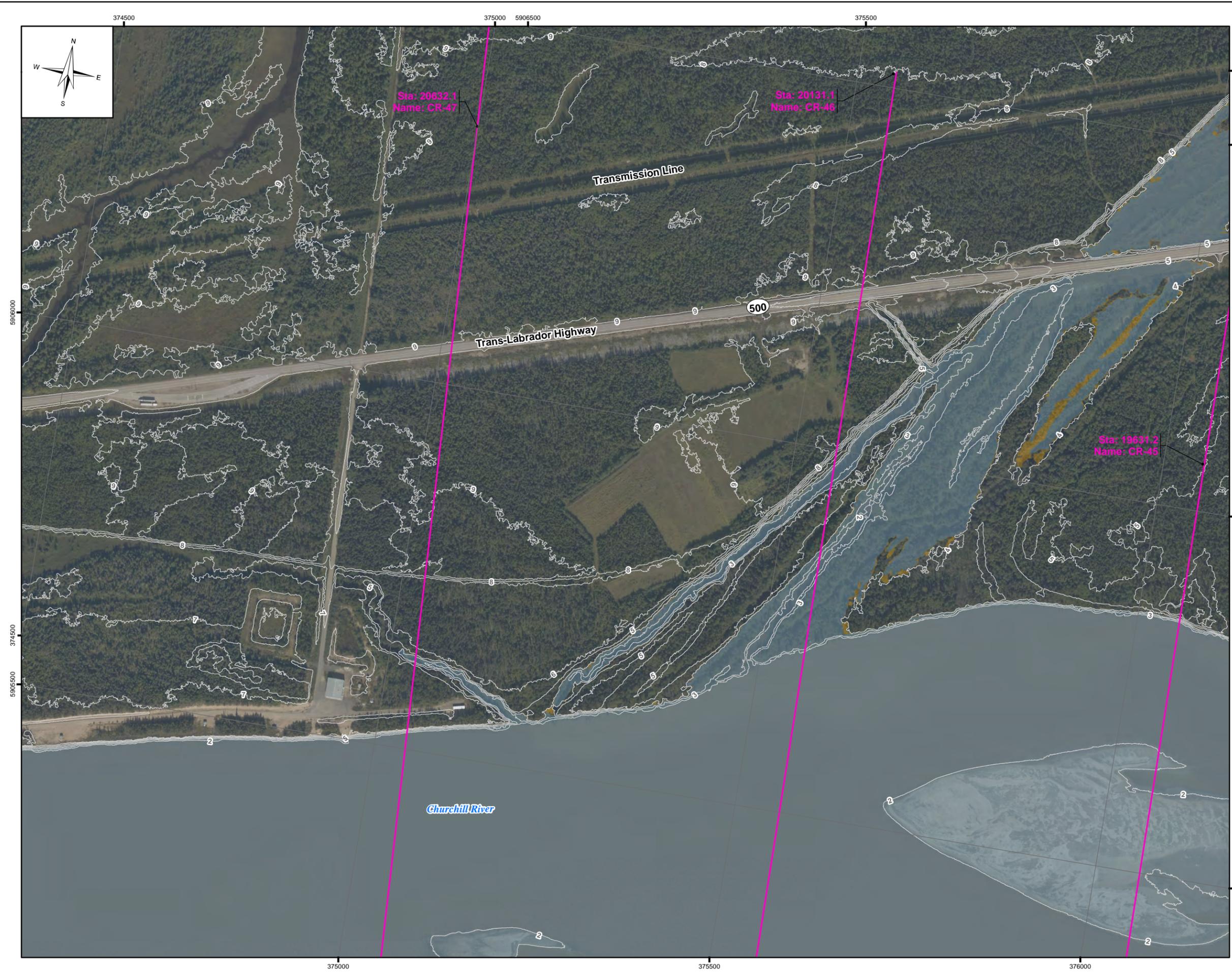


All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM) Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

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CHURCHILL RIVER FLOOD RISK AND FORECASTING		
COMPARISON OF OPEN WATER 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-01		
JUNE 2020	FIGURE 5.2	REV: 0



LEGEND:

- Sta: 20632.1 Name: CR-47
- Sta: 20131.1 Name: CR-46
- Sta: 19631.2 Name: CR-45
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:20 Year Current Climate Open Water Flood Zone
- 1:20 Year Climate Change Open Water Flood Zone

NOTES:

1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATGIS Geomatics on September 11 – 13, 2019.



SCALE: 1:5,000 METRIC 11"x17"

All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM) Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

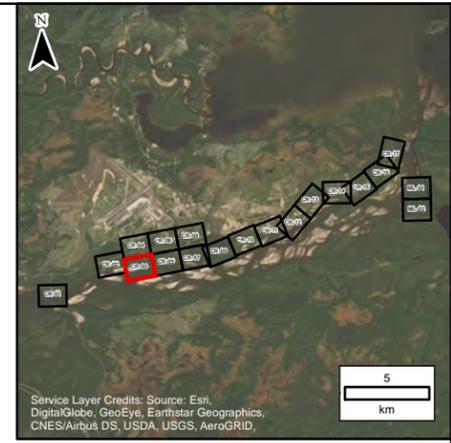
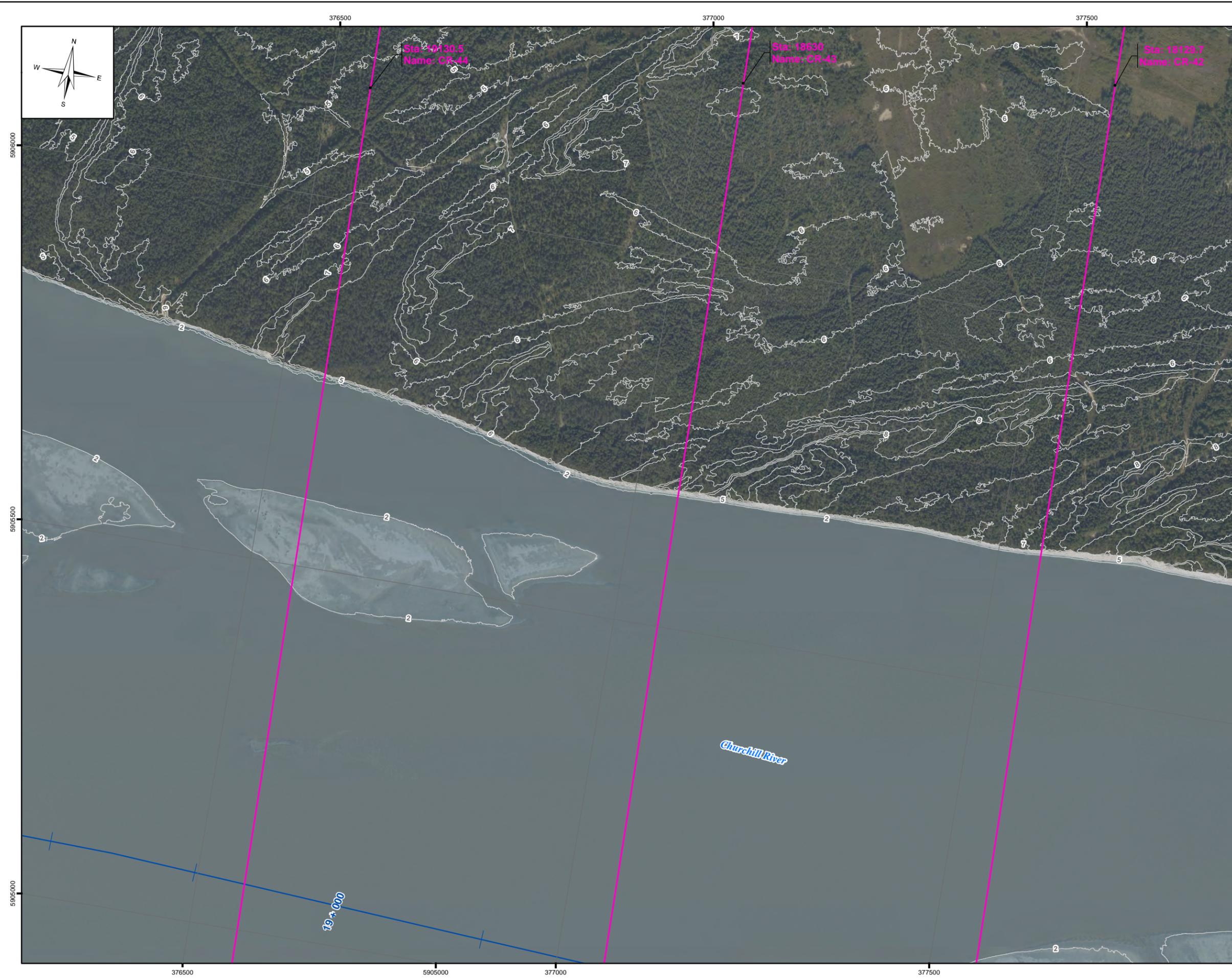
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CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF OPEN WATER 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-02

JUNE 2020	FIGURE 5.2	REV: 0
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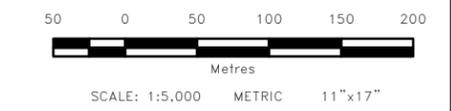


LEGEND:

- Sta: 23648 Name: CR-43
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:20 Year Current Climate Open Water Flood Zone
- 1:20 Year Climate Change Open Water Flood Zone

NOTES:

1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATGIS Geomatics on September 11 – 13, 2019.



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Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM), Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

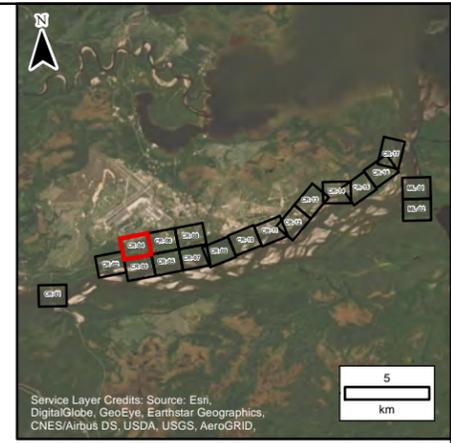
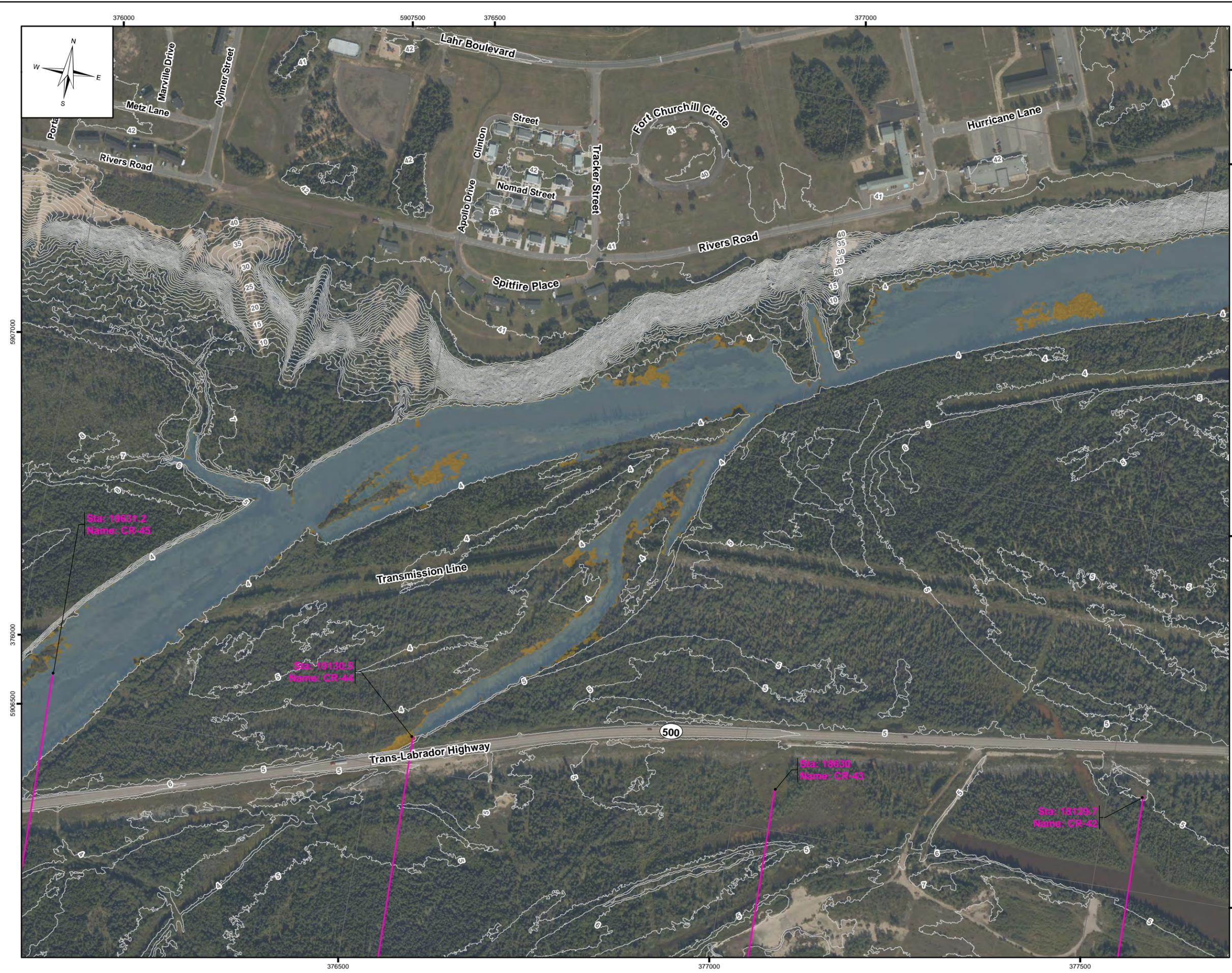
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CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF OPEN WATER 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-03

JUNE 2020	FIGURE 5.2	REV: 0
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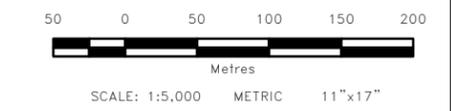


LEGEND:

- Sta: 23648 Name: CR-43
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:20 Year Current Climate Open Water Flood Zone
- 1:20 Year Climate Change Open Water Flood Zone

NOTES:

1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATGIS Geomatics on September 11 – 13, 2019.



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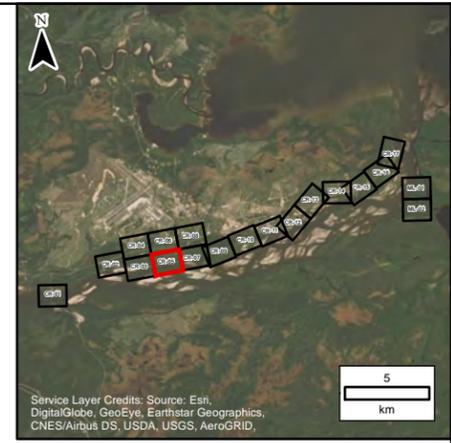
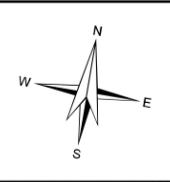
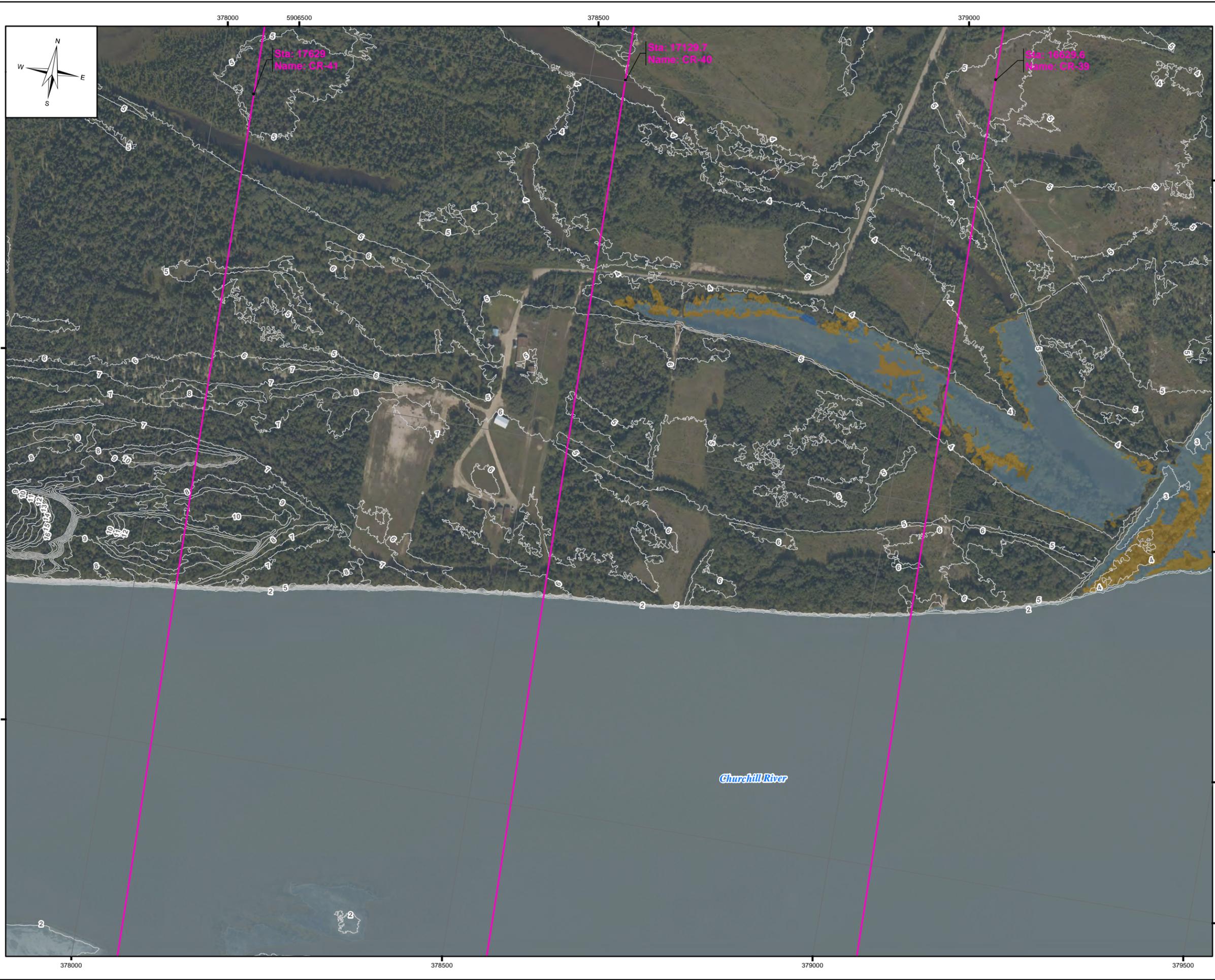
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CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF OPEN WATER 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-04

JUNE 2020	FIGURE 5.2	REV: 0
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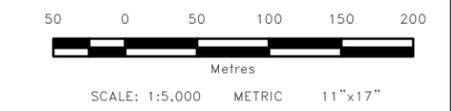
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 11"x17" PLOT SCALE 1:1



LEGEND:

- Sta: 23648 Name: CR-53
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:20 Year Current Climate Open Water Flood Zone
- 1:20 Year Climate Change Open Water Flood Zone

- NOTES:**
1. Imagery is supplied by ATLIIS Geomatics and dated as September 11 – 13, 2019.
 2. Topography shown was developed by KGS Group from the LiDAR captured by ATLIIS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
 Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM)
 Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

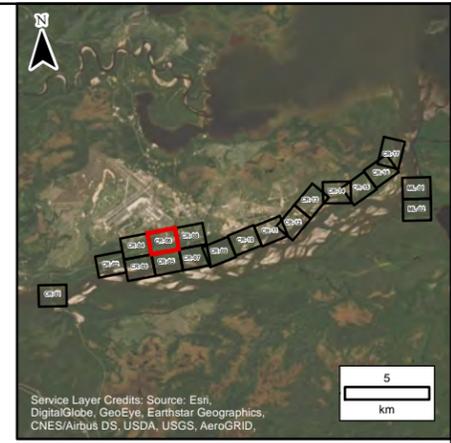
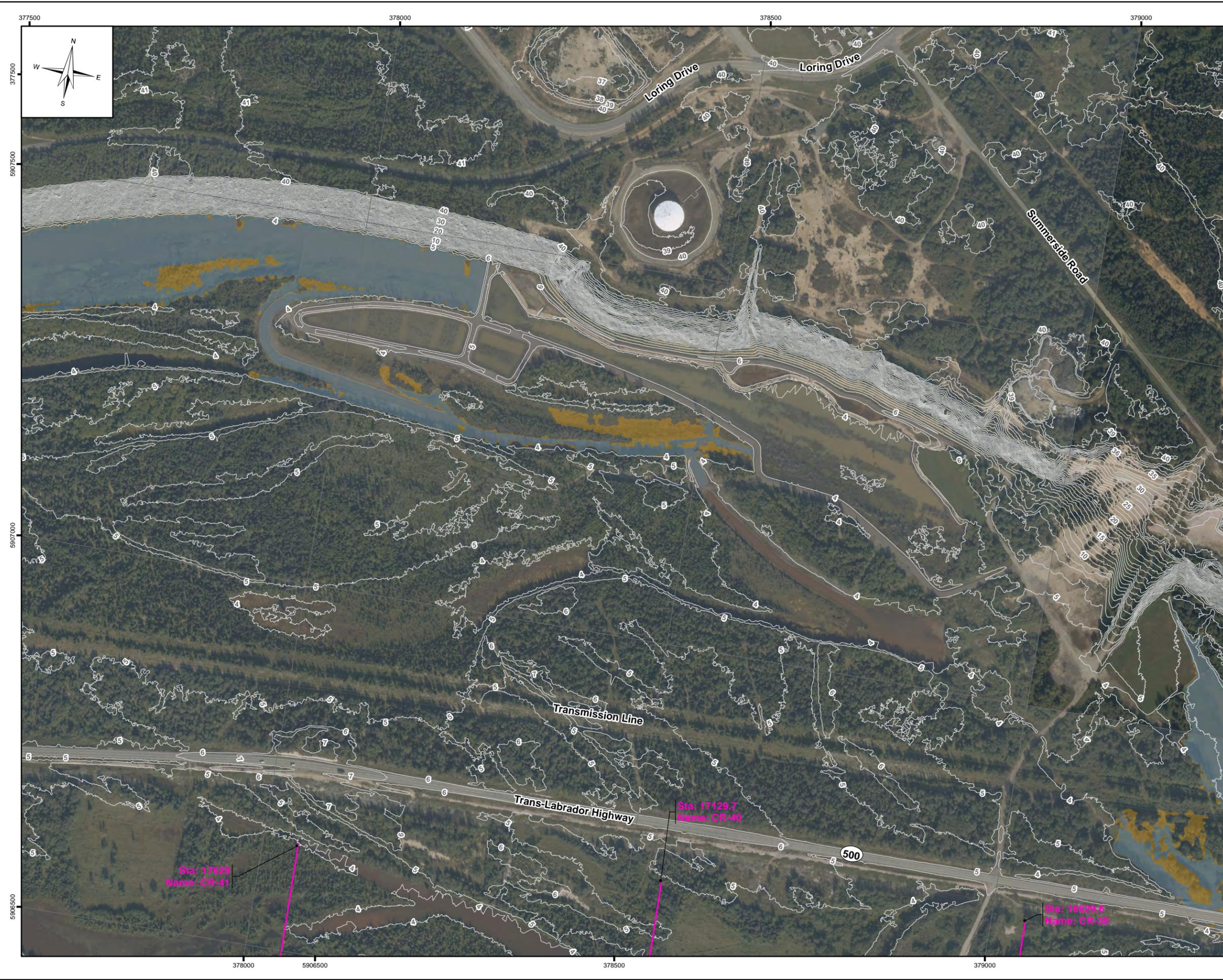
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CHURCHILL RIVER FLOOD RISK AND FORECASTING

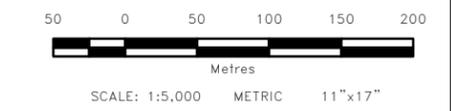
COMPARISON OF OPEN WATER 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-05

JUNE 2020	FIGURE 5.2	REV: 0
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- LEGEND:**
- Sta: 23648 Name: CR-43
 - Cross Section
 - Water Survey of Canada Gauge Location
 - River Centreline
 - 1m LIDAR Contour
 - 1:20 Year Current Climate Open Water Flood Zone
 - 1:20 Year Climate Change Open Water Flood Zone

- NOTES:**
1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019.
 2. Topography shown was developed by KGS Group from the LiDAR captured by ATGIS Geomatics on September 11 – 13, 2019.

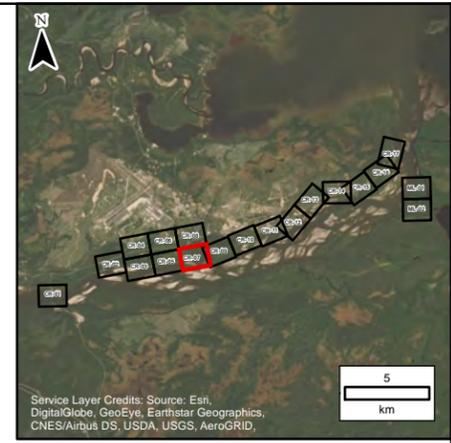
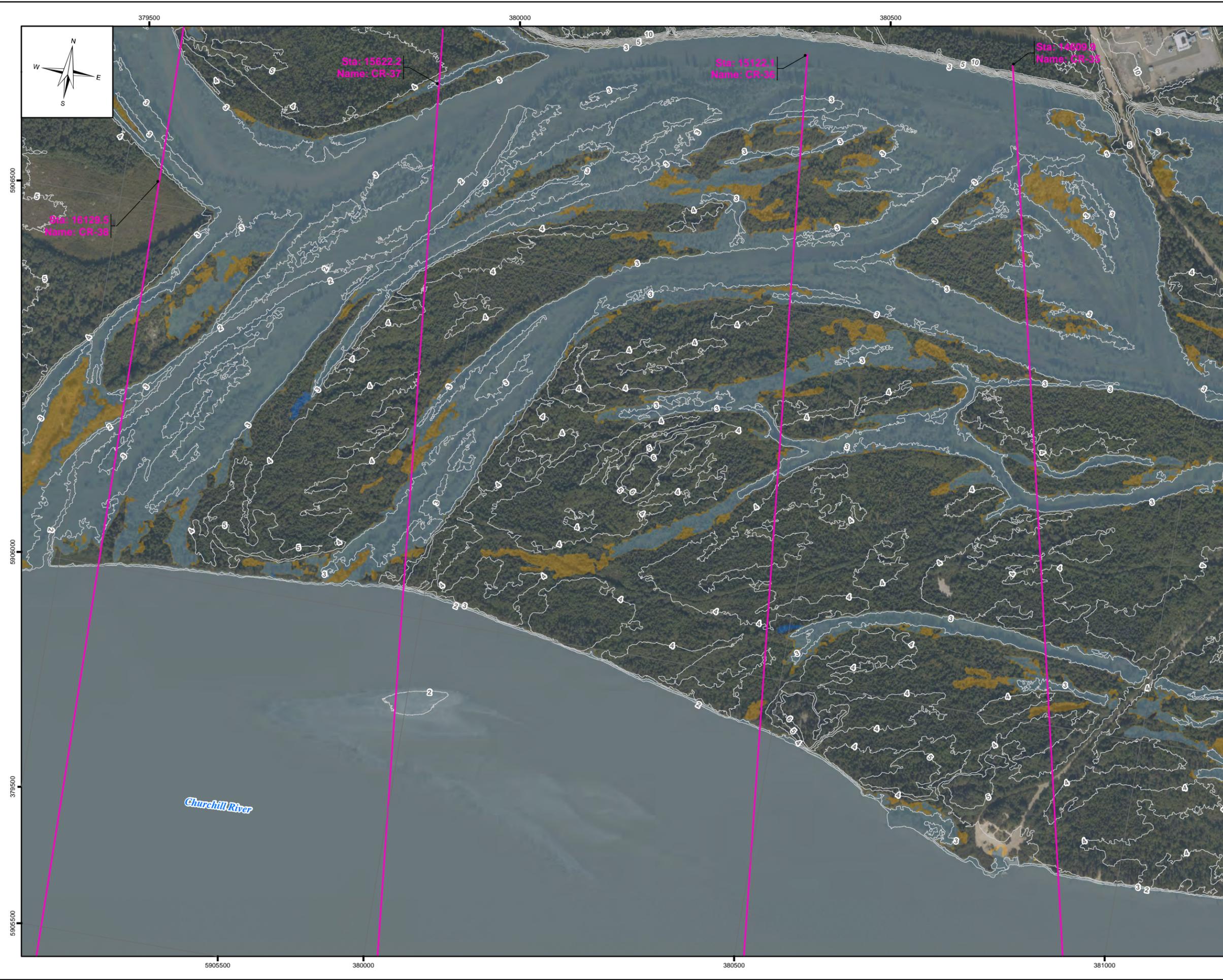


All units are metric and in metres unless otherwise specified. Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM), Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

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CHURCHILL RIVER FLOOD RISK AND FORECASTING		
COMPARISON OF OPEN WATER 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-06		
JUNE 2020	FIGURE 5.2	REV: 0

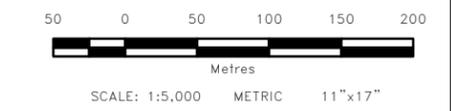


LEGEND:

- Sta: 23648 Name: CR-53
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LiDAR Contour
- 1:20 Year Current Climate Open Water Flood Zone
- 1:20 Year Climate Change Open Water Flood Zone

NOTES:

1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATGIS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM) Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

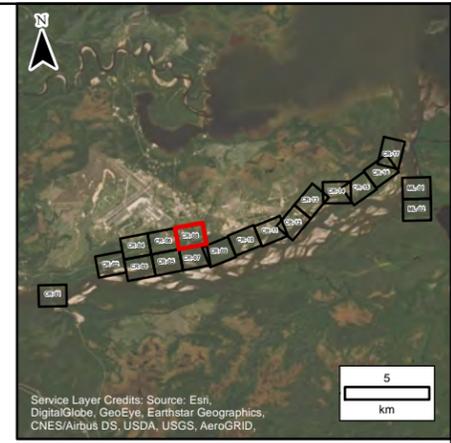
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CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF OPEN WATER 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-07

JUNE 2020	FIGURE 5.2	REV: 0
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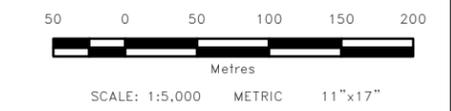


LEGEND:

- Sta: 23648 Name: CR-53
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:20 Year Current Climate Open Water Flood Zone
- 1:20 Year Climate Change Open Water Flood Zone

NOTES:

1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATGIS Geomatics on September 11 – 13, 2019.



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Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM) Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

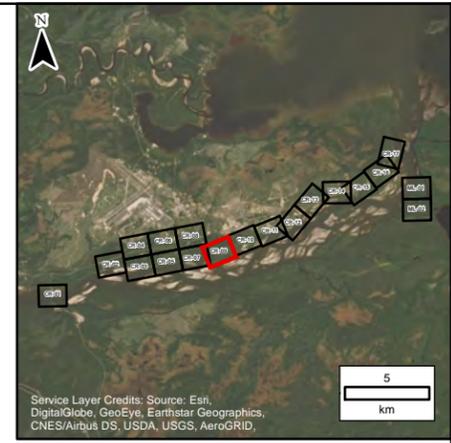
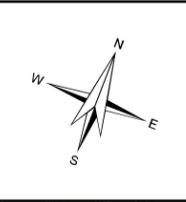
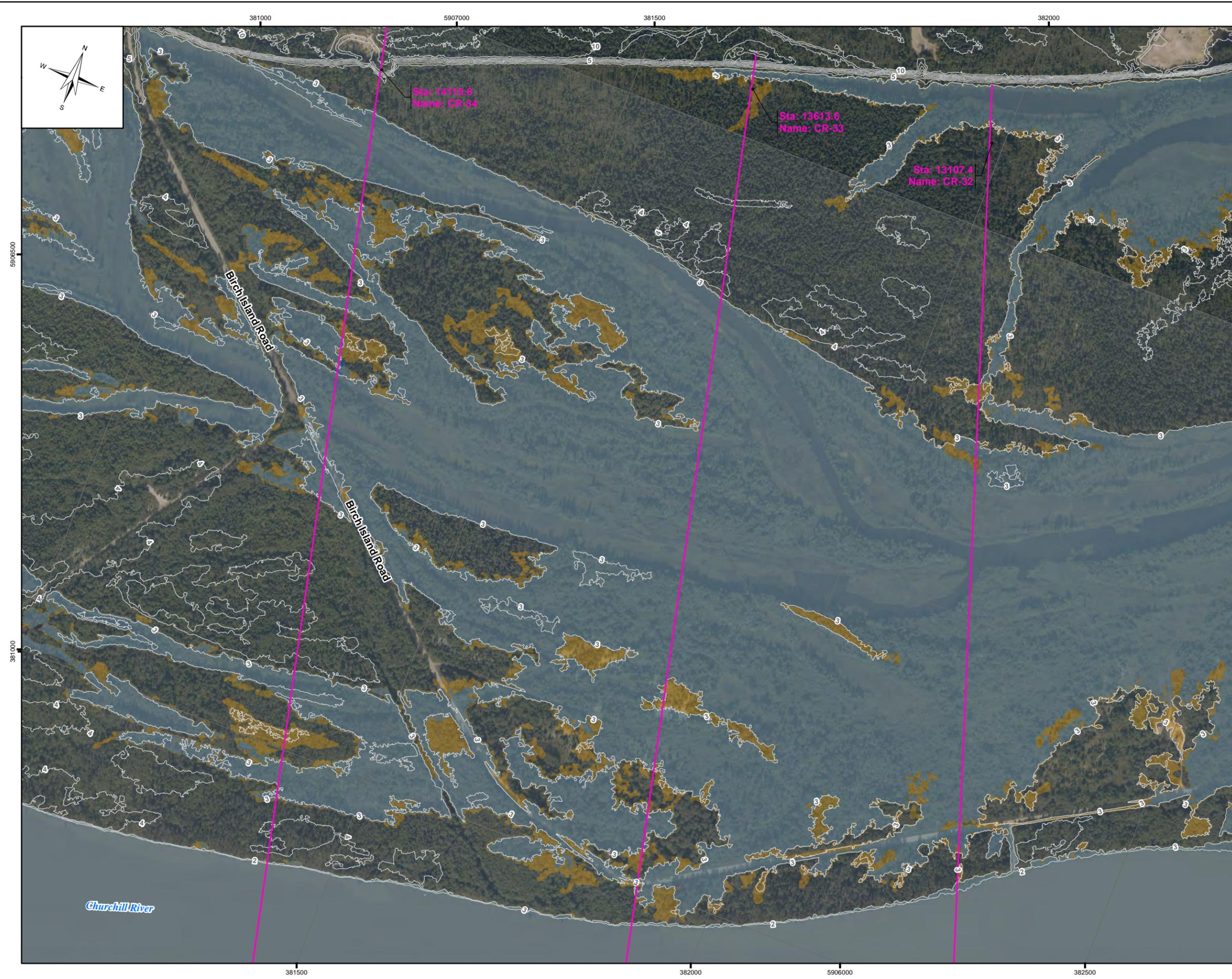
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CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF OPEN WATER 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-08

JUNE 2020	FIGURE 5.2	REV: 0
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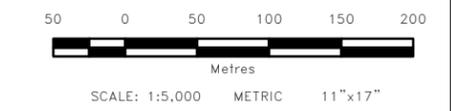


LEGEND:

- Sta: 2364.8 Name: CR-33
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LiDAR Contour
- 1:20 Year Current Climate Open Water Flood Zone
- 1:20 Year Climate Change Open Water Flood Zone

NOTES:

1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATGIS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified. Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM) Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

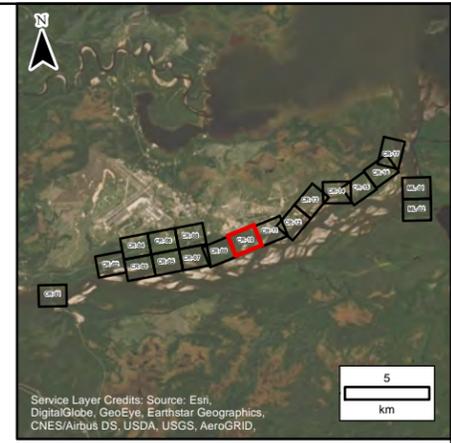
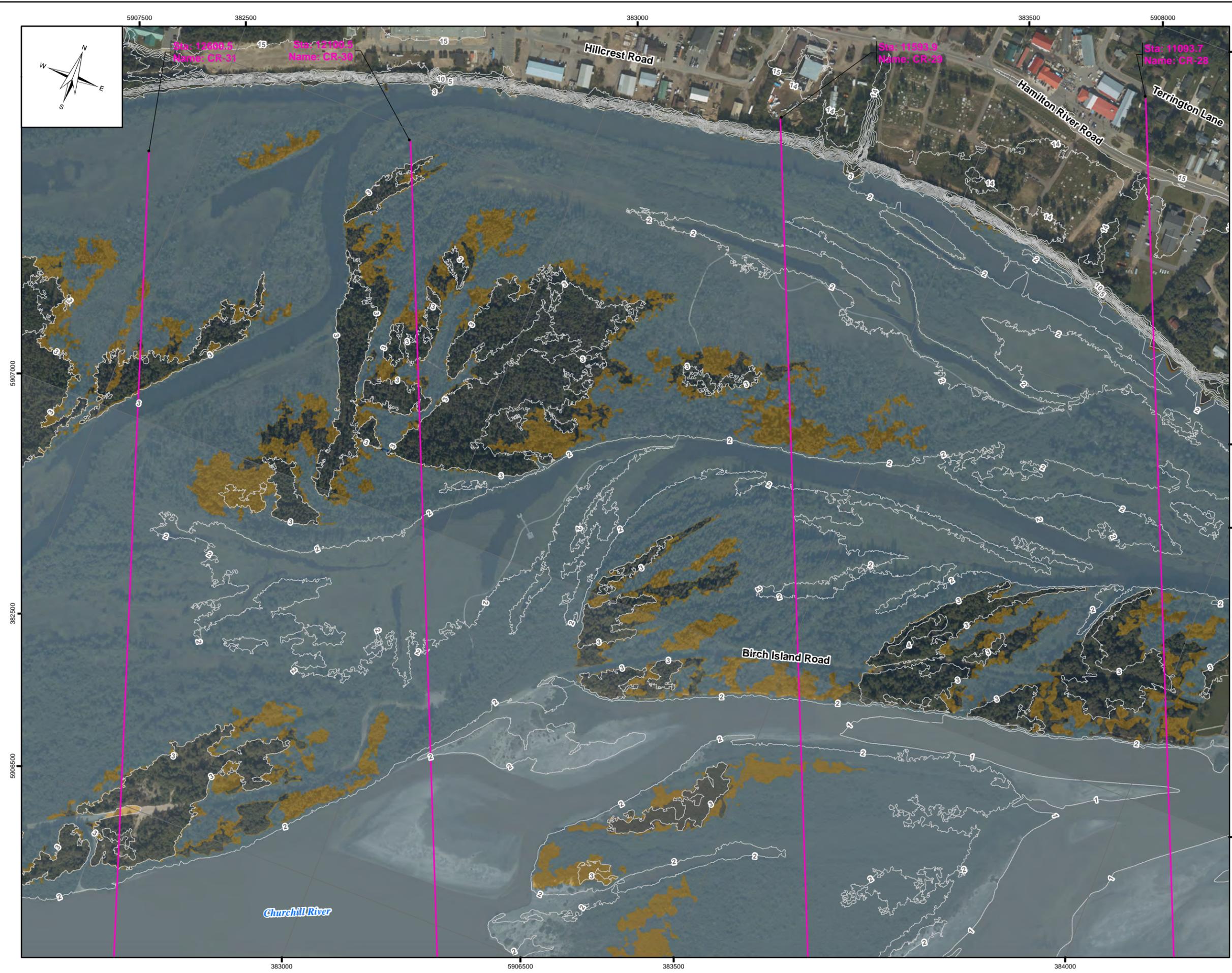
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CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF OPEN WATER 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-09

JUNE 2020	FIGURE 5.2	REV: 0
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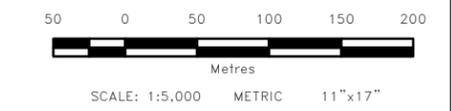


LEGEND:

- Sta: 2364.8 Name: CR-27
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LiDAR Contour
- 1:20 Year Current Climate Open Water Flood Zone
- 1:20 Year Climate Change Open Water Flood Zone

NOTES:

1. Imagery is supplied by ATLAS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATLAS Geomatics on September 11 – 13, 2019.



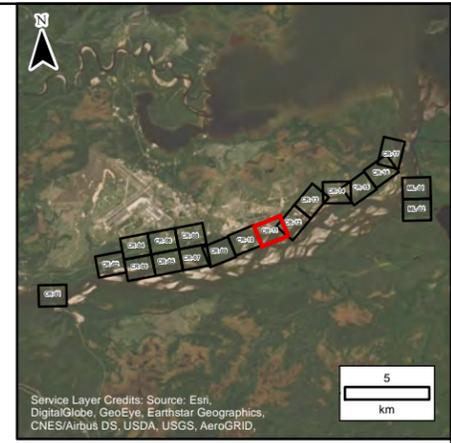
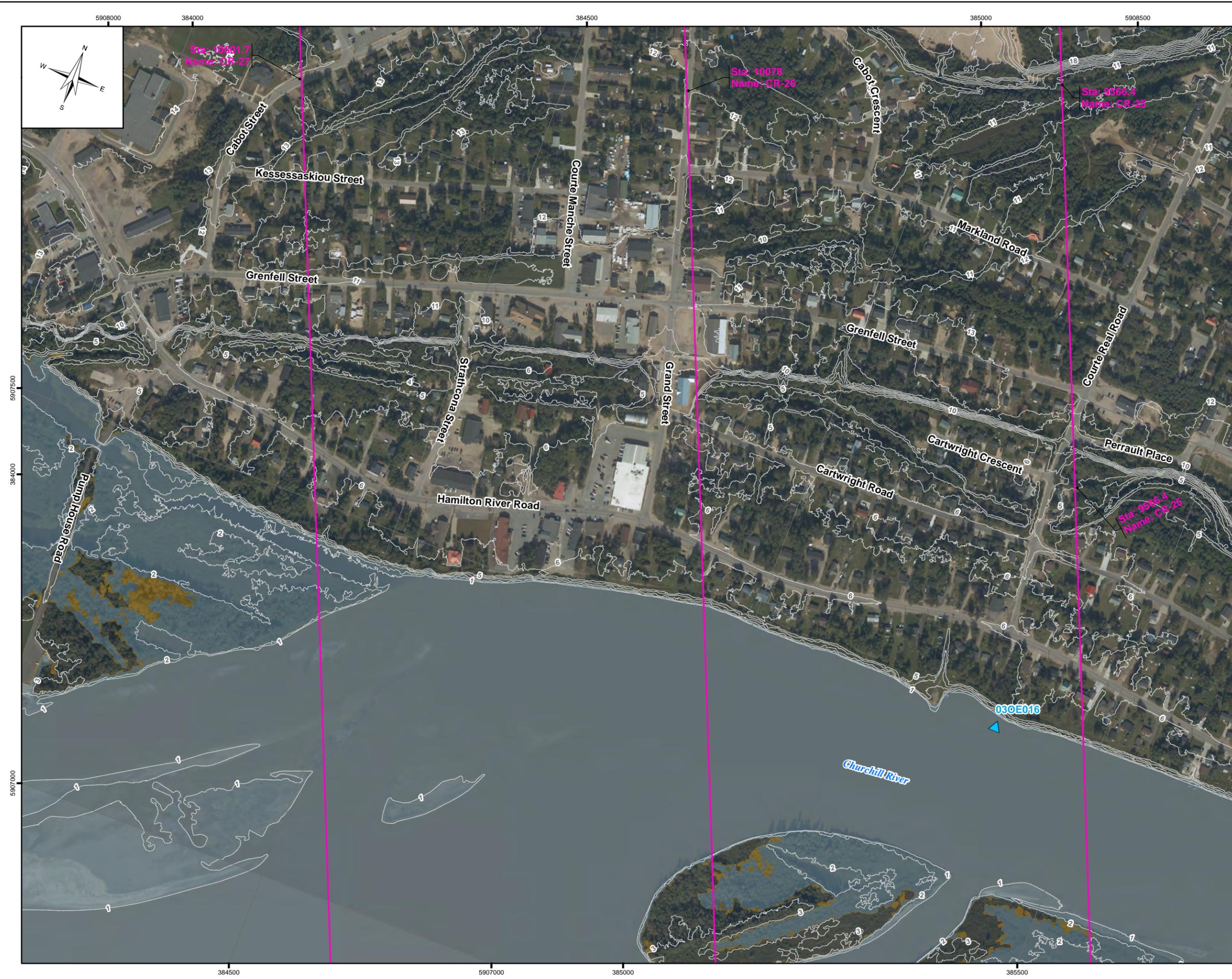
All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM), Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

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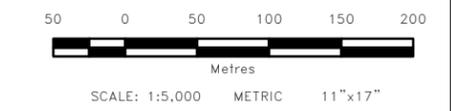
COMPARISON OF OPEN WATER 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-10

JUNE 2020	FIGURE 5.2	REV: 0
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- LEGEND:**
- Sta. 2364.8 Name: CR-53
 - Cross Section
 - Water Survey of Canada Gauge Location
 - River Centreline
 - 1m LIDAR Contour
 - 1:20 Year Current Climate Open Water Flood Zone
 - 1:20 Year Climate Change Open Water Flood Zone

- NOTES:**
1. Imagery is supplied by ATLAS Geomatics and dated as September 11 – 13, 2019.
 2. Topography shown was developed by KGS Group from the LiDAR captured by ATLAS Geomatics on September 11 – 13, 2019.



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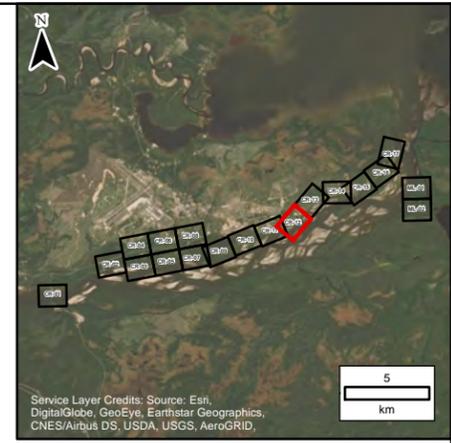
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COMPARISON OF OPEN WATER 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-11

JUNE 2020	FIGURE 5.2	REV: 0
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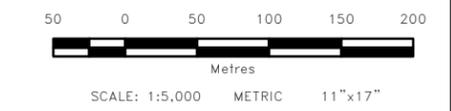


LEGEND:

- Sta: 2364.8 Name: CR-23 Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:20 Year Current Climate Open Water Flood Zone
- 1:20 Year Climate Change Open Water Flood Zone

NOTES:

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2. Topography shown was developed by KGS Group from the LiDAR captured by ATLAS Geomatics on September 11 – 13, 2019.



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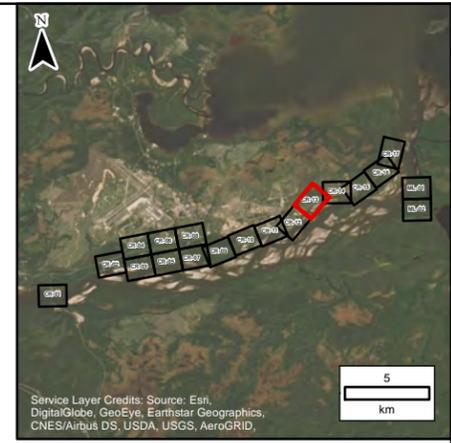
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REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF OPEN WATER 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-12

JUNE 2020	FIGURE 5.2	REV: 0
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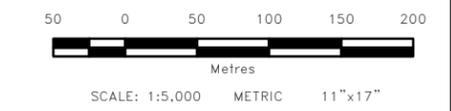


LEGEND:

- Sta: 2364.8 Name: CR-13
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:20 Year Current Climate Open Water Flood Zone
- 1:20 Year Climate Change Open Water Flood Zone

NOTES:

1. Imagery is supplied by ATLAS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATLAS Geomatics on September 11 – 13, 2019.

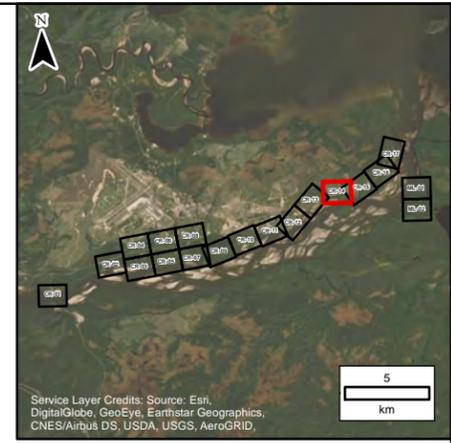
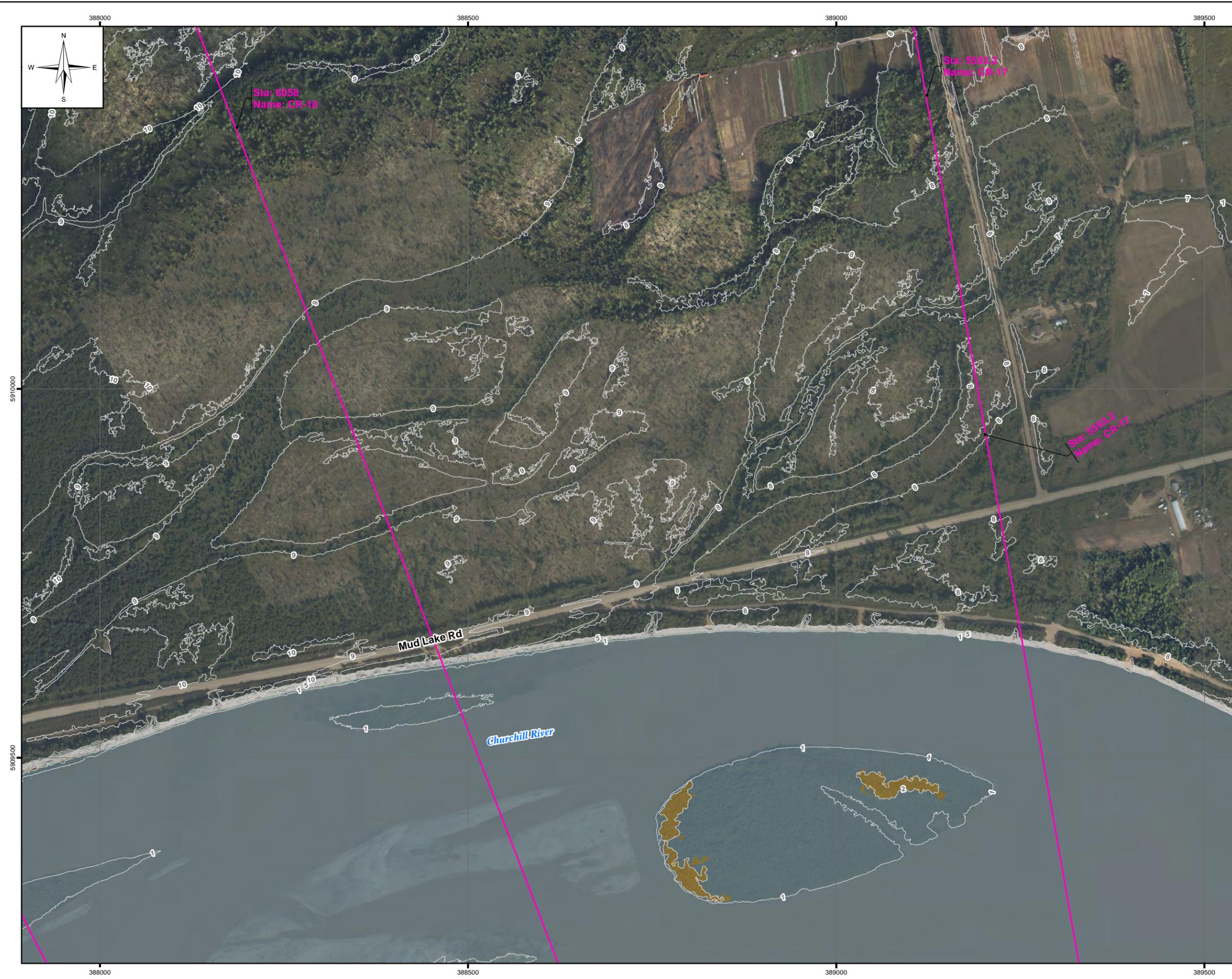


All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM), Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

0	20/06/30	ISSUED WITH FINAL REPORT	DSB	MSW
NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING		
COMPARISON OF OPEN WATER 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-13		
JUNE 2020	FIGURE 5.2	REV: 0

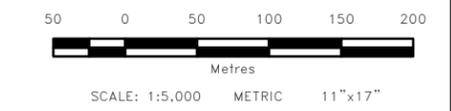


LEGEND:

- Sta: 23648 Name: CR-53
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:20 Year Current Climate Open Water Flood Zone
- 1:20 Year Climate Change Open Water Flood Zone

NOTES:

1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATGIS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM) Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

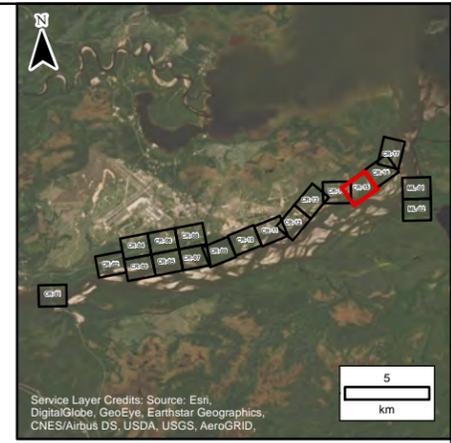
0	20/06/20	ISSUED WITH FINAL REPORT	DSB	MSW
NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF OPEN WATER 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-14

JUNE 2020	FIGURE 5.2	REV: 0
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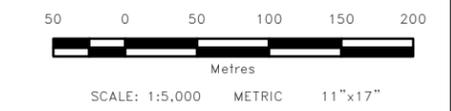


LEGEND:

- Sta: 2364.8 Name: CR-13
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LiDAR Contour
- 1:20 Year Current Climate Open Water Flood Zone
- 1:20 Year Climate Change Open Water Flood Zone

NOTES:

1. Imagery is supplied by ATLAS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATLAS Geomatics on September 11 – 13, 2019.

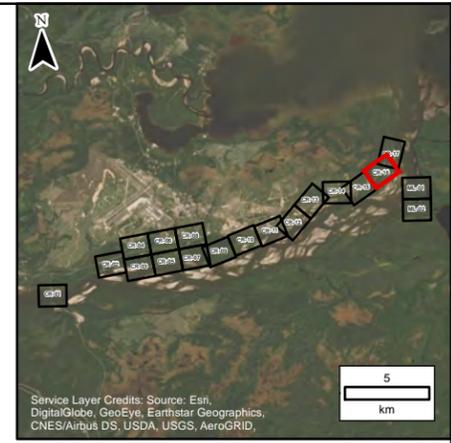
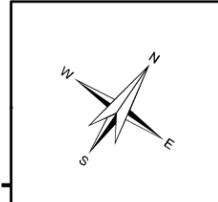
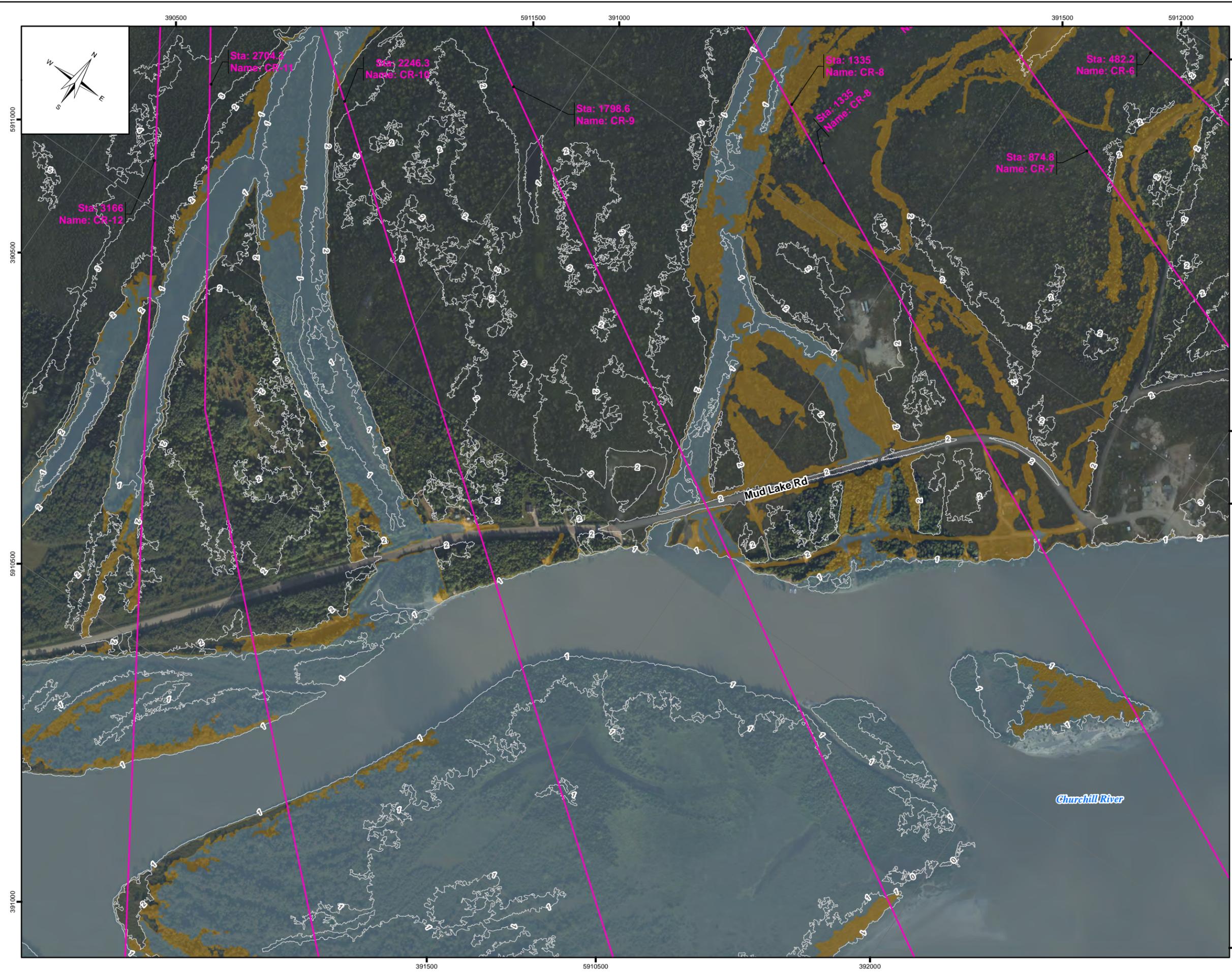


All units are metric and in metres unless otherwise specified. Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM) Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

0	20/06/30	ISSUED WITH FINAL REPORT	DSB	MSW
NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING		
COMPARISON OF OPEN WATER 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-15		
JUNE 2020	FIGURE 5.2	REV: 0

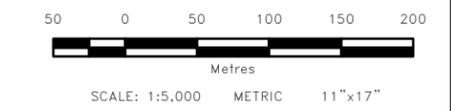


LEGEND:

- Sta: 2704.7
Name: CR-11
- Sta: 2246.3
Name: CR-10
- Sta: 1798.6
Name: CR-9
- Sta: 1335
Name: CR-8
- Sta: 1335
Name: CR-8
- Sta: 874.8
Name: CR-7
- Sta: 482.2
Name: CR-6
- Sta: 3166
Name: CR-12
- Sta: 2364.8
Name: CR-53
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:20 Year Current Climate Open Water Flood Zone
- 1:20 Year Climate Change Open Water Flood Zone

NOTES:

1. Imagery is supplied by ATLIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATLIS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM), Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

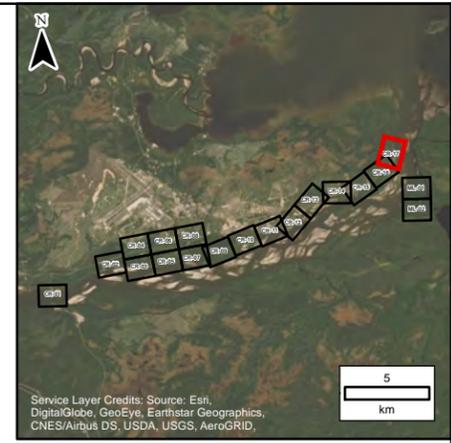
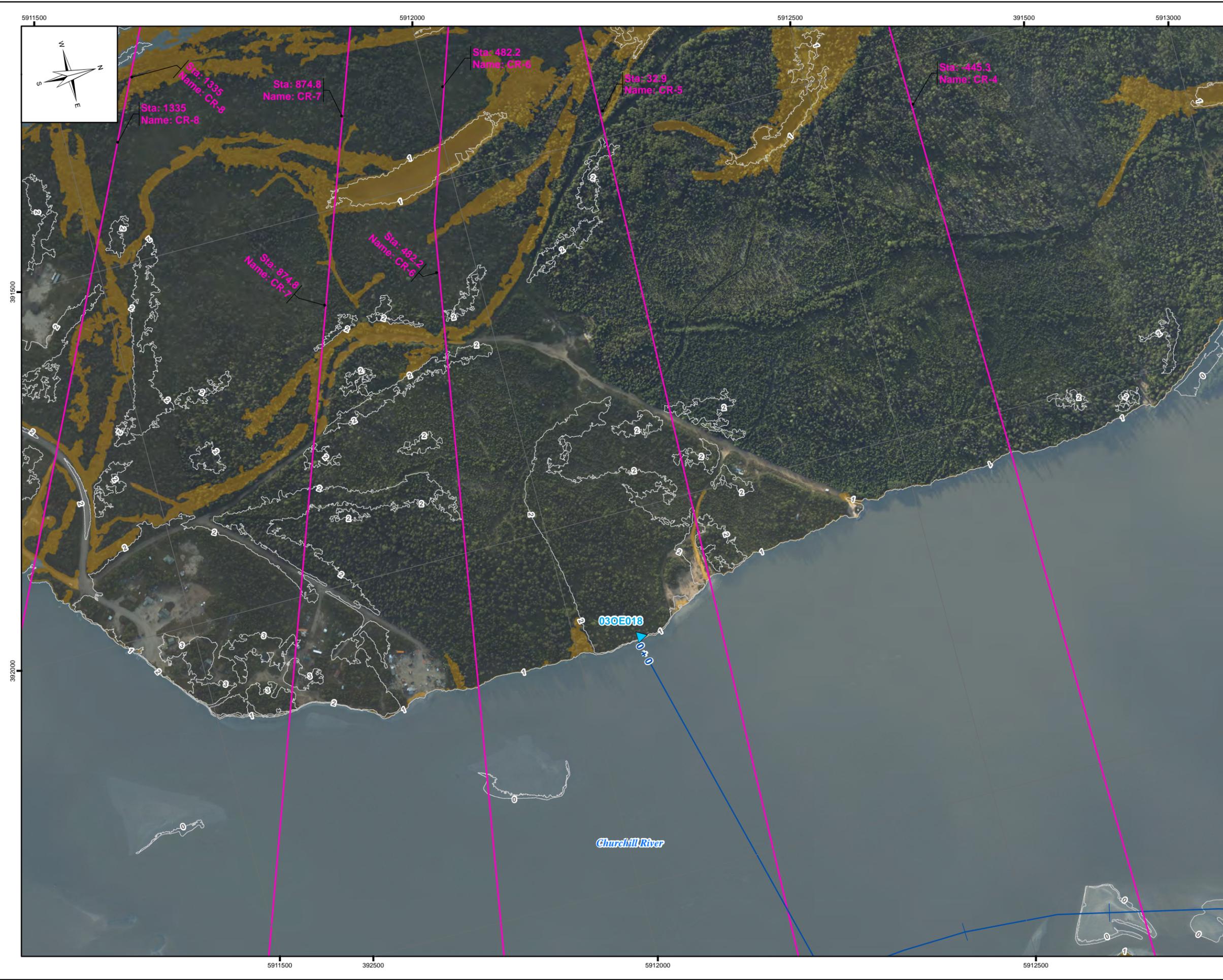
0	20/06/30	ISSUED WITH FINAL REPORT	DSB	MSW
NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF OPEN WATER 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-16

JUNE 2020	FIGURE 5.2	REV: 0
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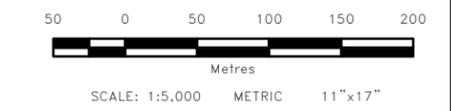


LEGEND:

- Sta: 2364.8 Name: CR-53
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:20 Year Current Climate Open Water Flood Zone
- 1:20 Year Climate Change Open Water Flood Zone

NOTES:

1. Imagery is supplied by ATLIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATLIS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM)
Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

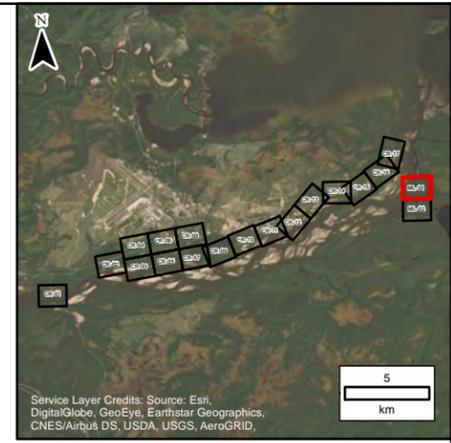
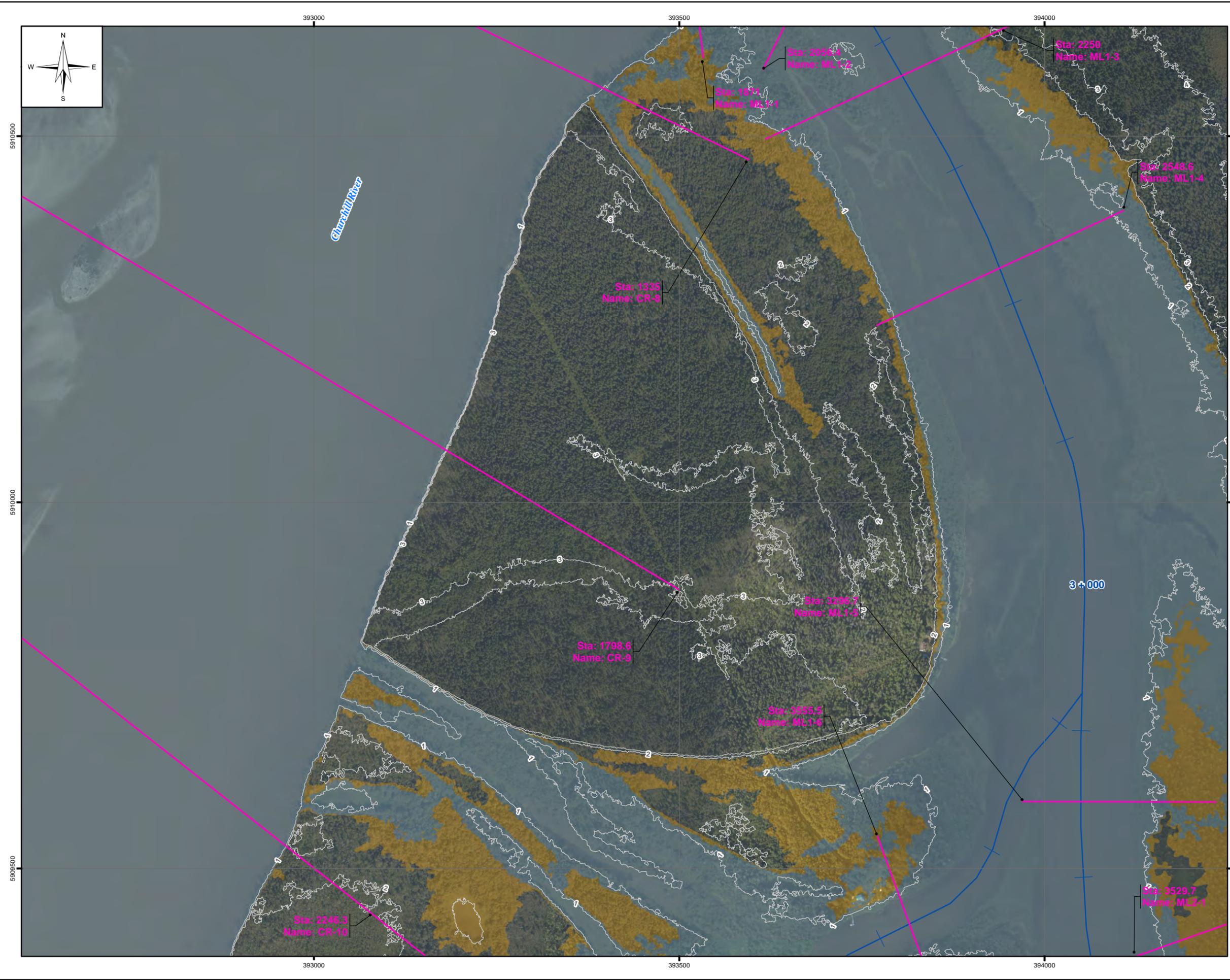
0	20/06/30	ISSUED WITH FINAL REPORT	DSB	MSW
NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF OPEN WATER 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-17

JUNE 2020	FIGURE 5.2	REV: 0
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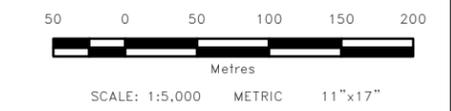


LEGEND:

- Sta: 2364.8 Name: CR-53
Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LiDAR Contour
- 1:20 Year Current Climate Open Water Flood Zone
- 1:20 Year Climate Change Open Water Flood Zone

NOTES:

1. Imagery is supplied by ATLAS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATLAS Geomatics on September 11 – 13, 2019.

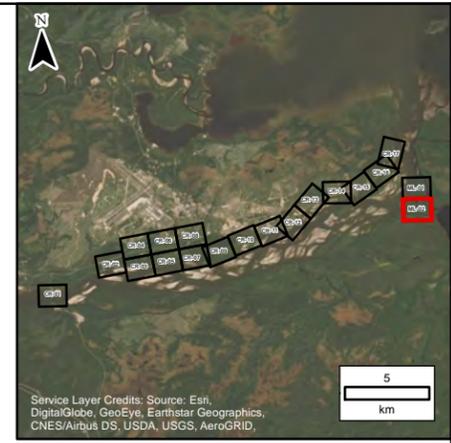
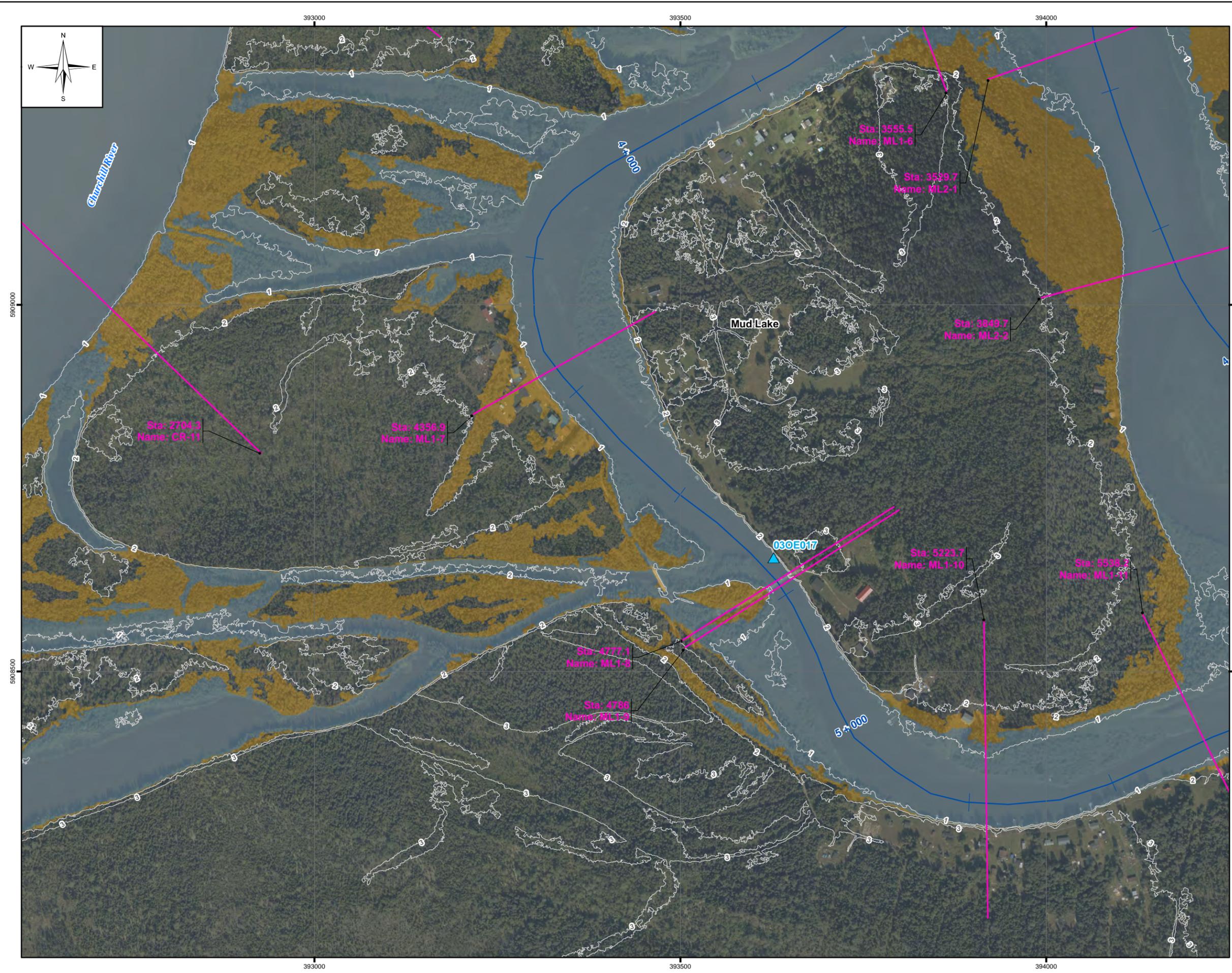


All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM)
Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

0	20/06/30	ISSUED WITH FINAL REPORT	DSB	MSW
NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING		
COMPARISON OF OPEN WATER 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – ML-01		
JUNE 2020	FIGURE 5.2	REV: 0

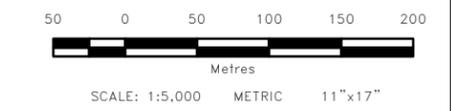


LEGEND:

- Sta: 2364.8 Name: CR-53
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:20 Year Current Climate Open Water Flood Zone
- 1:20 Year Climate Change Open Water Flood Zone

NOTES:

1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATGIS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM)
Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

0	20/06/20	ISSUED WITH FINAL REPORT	DSB	MSW
NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

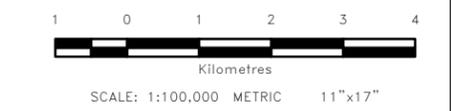
COMPARISON OF OPEN WATER 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – ML-02

JUNE 2020	FIGURE 5.2	REV: 0
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- LEGEND:**
- Water Survey of Canada Gauge Location
 - River Centreline
 - 1:100 Year Current Climate Open Water Flood Zone
 - 1:100 Year Climate Change Open Water Flood Zone
 - Map Extents

NOTES:
1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019, and by ESRI and DigitalGlobe, WV02 dated June 3, 2015.



All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM), Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

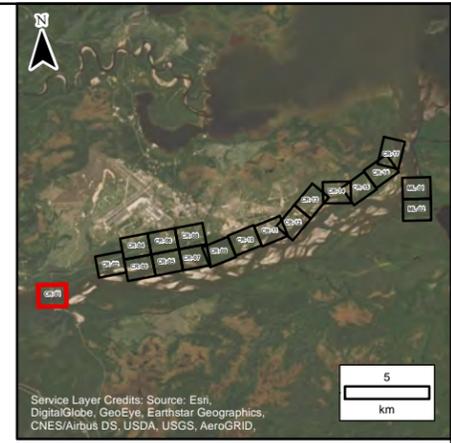
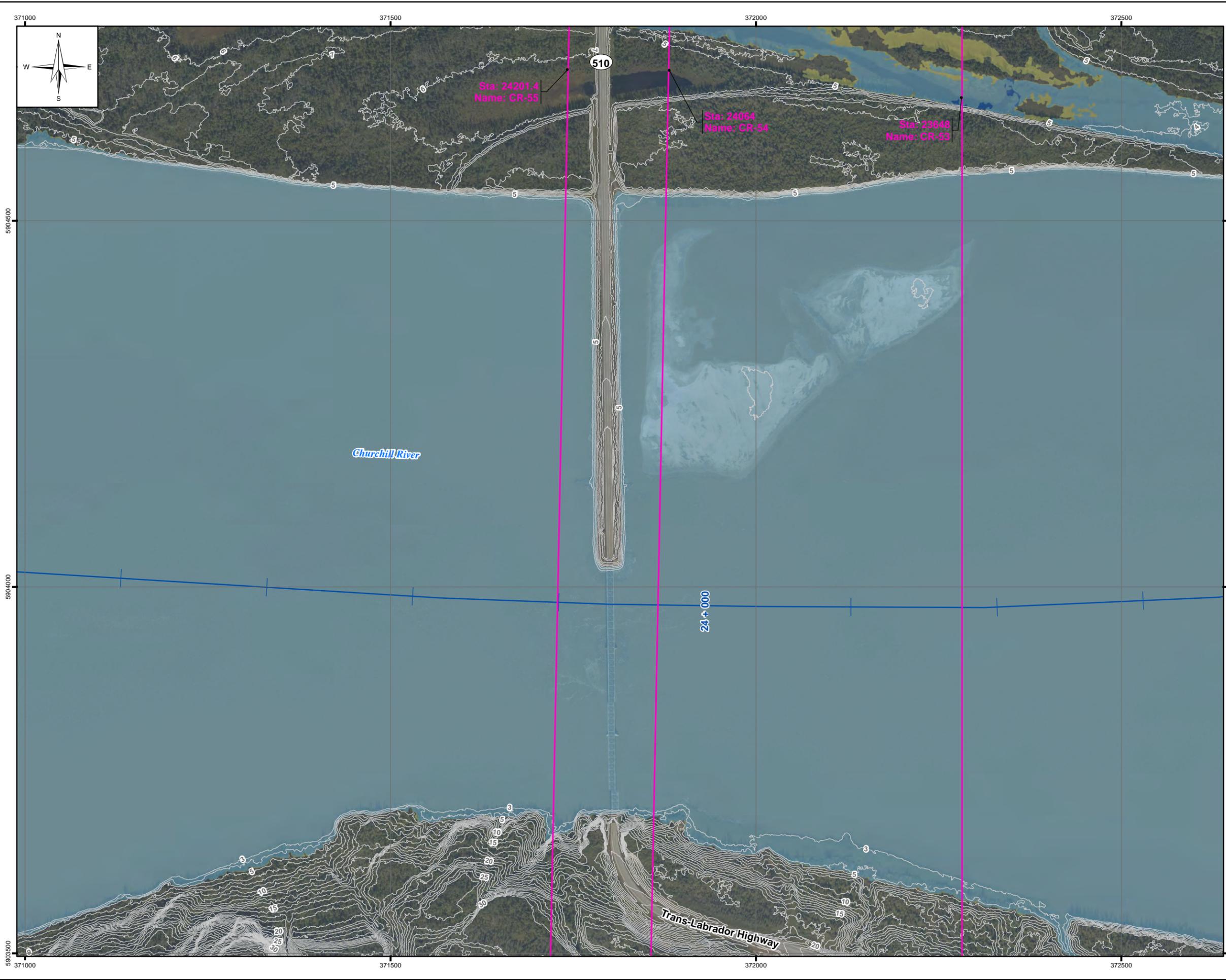
0	20/06/30	ISSUED WITH FINAL REPORT	DSB	MSW
NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

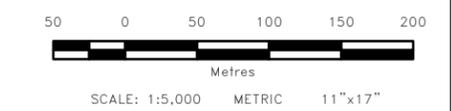
COMPARISON OF OPEN WATER 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) OVERVIEW MAP

JUNE 2020	FIGURE 5.3	REV: 0
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- LEGEND:**
- Sta: 23648 Name: CR-53
 - Cross Section
 - Water Survey of Canada Gauge Location
 - River Centreline
 - 1m LIDAR Contour
 - 1:100 Year Current Climate Open Water Flood Zone
 - 1:100 Year Climate Change Open Water Flood Zone

- NOTES:**
1. Imagery is supplied by ATLIS Geomatics and dated as September 11 – 13, 2019.
 2. Topography shown was developed by KGS Group from the LiDAR captured by ATLIS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM) Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

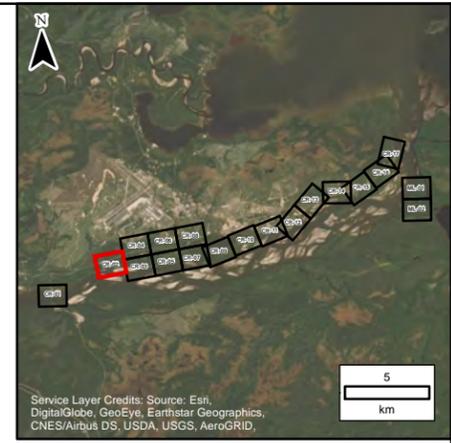
0	20/06/20	ISSUED WITH FINAL REPORT	DSB	MSW
NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF OPEN WATER 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-01

JUNE 2020	FIGURE 5.4	REV: 0
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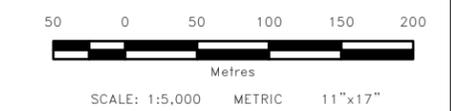


LEGEND:

- Sta: 20632.1 Name: CR-47
- Sta: 20131.1 Name: CR-46
- Sta: 19631.2 Name: CR-45
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:100 Year Current Climate Open Water Flood Zone
- 1:100 Year Climate Change Open Water Flood Zone

NOTES:

1. Imagery is supplied by ATLAS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATLAS Geomatics on September 11 – 13, 2019.

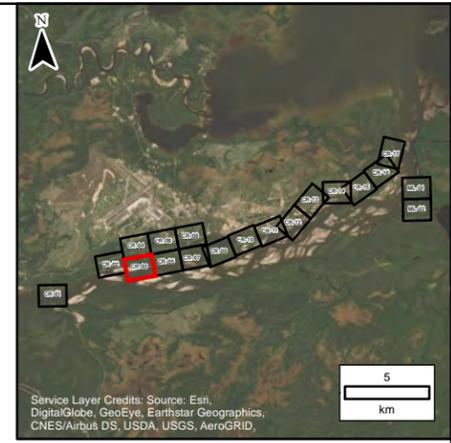
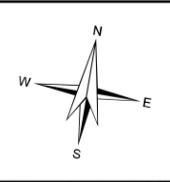
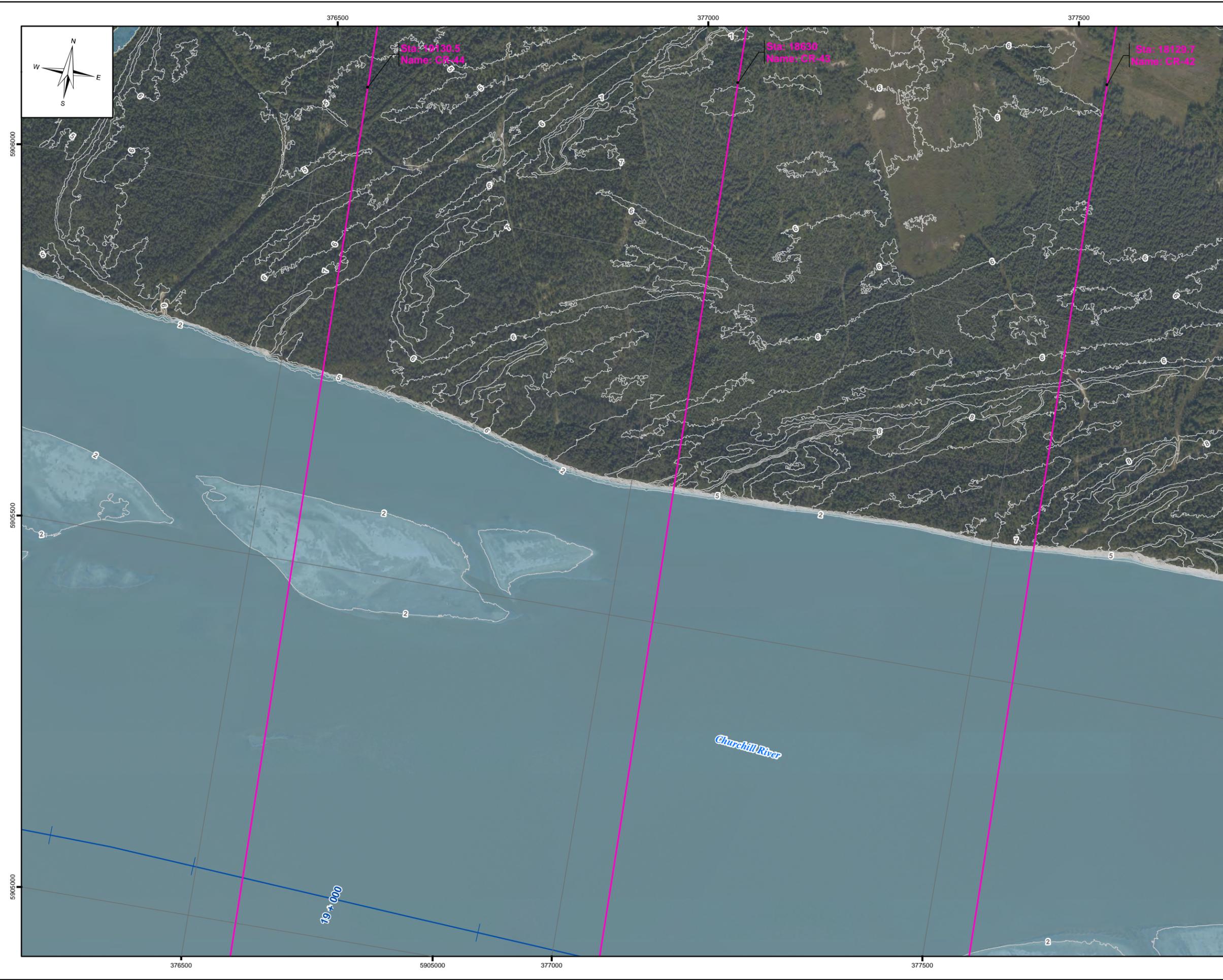


All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM)
Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

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NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING		
COMPARISON OF OPEN WATER 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-02		
JUNE 2020	FIGURE 5.4	REV: 0

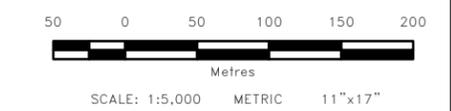


LEGEND:

- Sta: 23648 Name: CR-43
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:100 Year Current Climate Open Water Flood Zone
- 1:100 Year Climate Change Open Water Flood Zone

NOTES:

1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATGIS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM)
Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

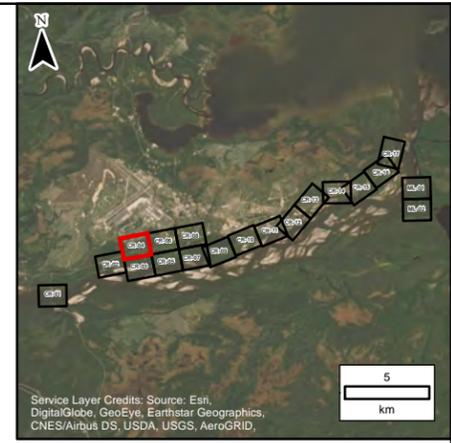
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NO	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF OPEN WATER 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-03

JUNE 2020	FIGURE 5.4	REV: 0
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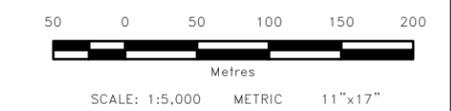


LEGEND:

- Sta: 23648 Name: CR-43
Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:100 Year Current Climate Open Water Flood Zone
- 1:100 Year Climate Change Open Water Flood Zone

NOTES:

1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATGIS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified. Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM) Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

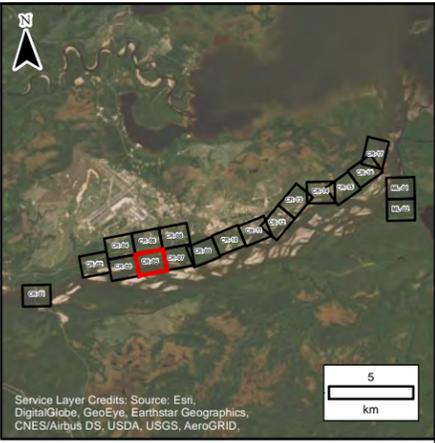
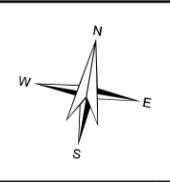
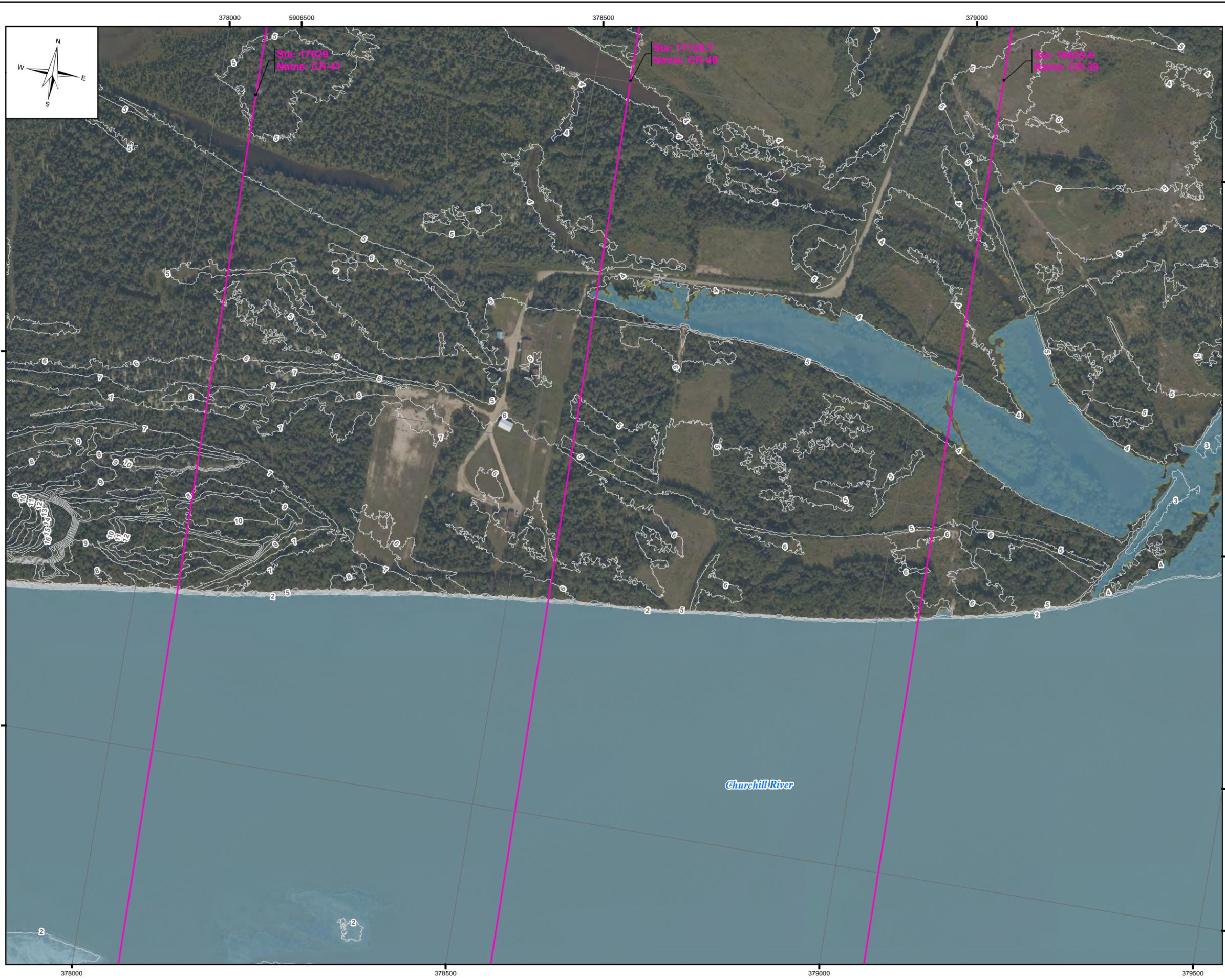
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NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF OPEN WATER 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-04

JUNE 2020	FIGURE 5.4	REV: 0
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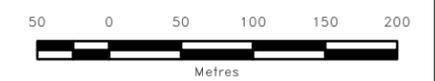


LEGEND:

- Sta: 2364.8 Name: CR-43
Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:100 Year Current Climate Open Water Flood Zone
- 1:100 Year Climate Change Open Water Flood Zone

NOTES:

1. Imagery is supplied by ATLIIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATLIIS Geomatics on September 11 – 13, 2019.



SCALE: 1:5,000 METRIC 11"x17"

All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM)
Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

0	20/06/30	ISSUED WITH FINAL REPORT	DSB	MSW
NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

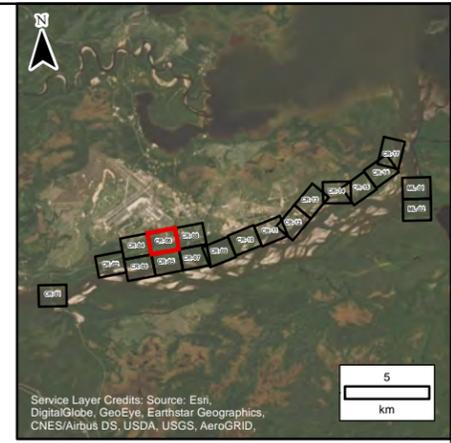
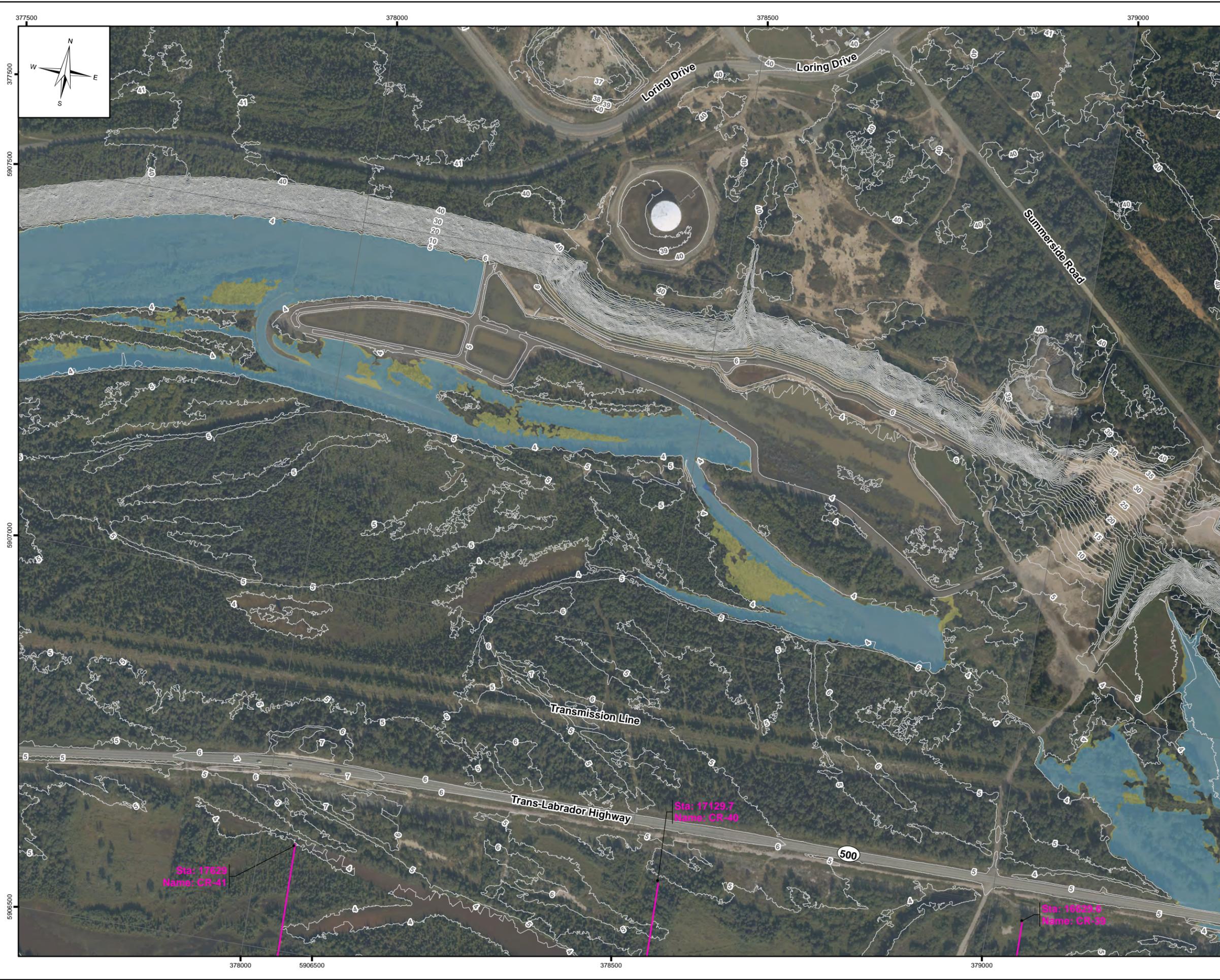
REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF OPEN WATER 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-05

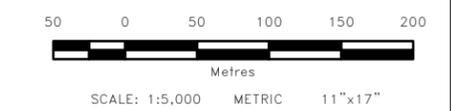
JUNE 2020	FIGURE 5.4	REV: 0
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 11"x17" PLOT SCALE 1:1
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- LEGEND:**
- Sta: 2364.8 Name: CR-43
 - Cross Section
 - Water Survey of Canada Gauge Location
 - River Centreline
 - 1m LIDAR Contour
 - 1:100 Year Current Climate Open Water Flood Zone
 - 1:100 Year Climate Change Open Water Flood Zone

- NOTES:**
1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019.
 2. Topography shown was developed by KGS Group from the LiDAR captured by ATGIS Geomatics on September 11 – 13, 2019.

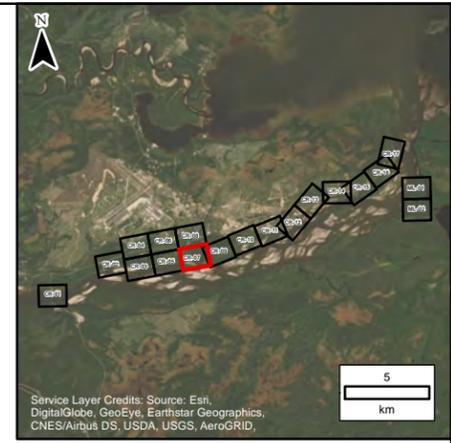
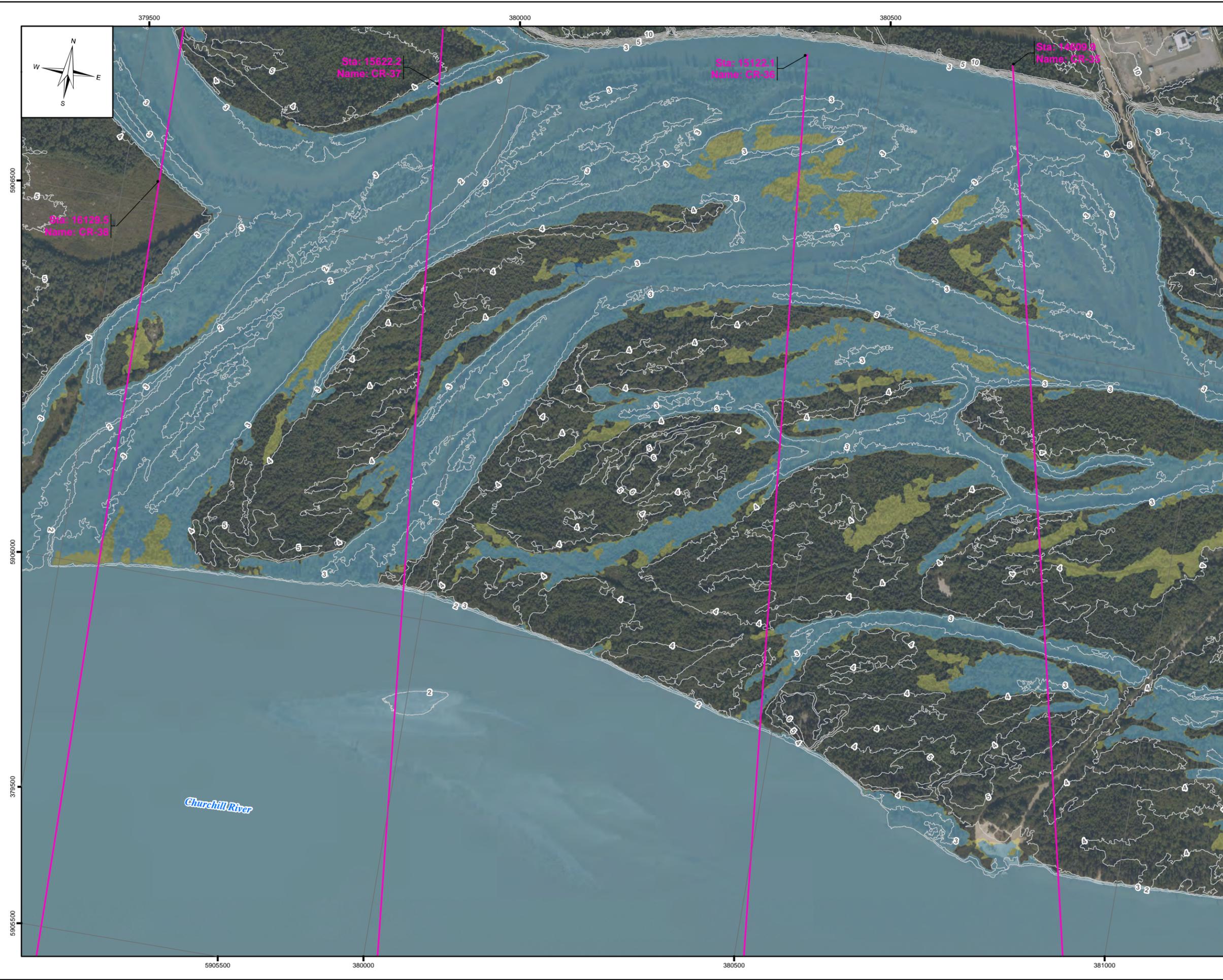


All units are metric and in metres unless otherwise specified.
 Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM) Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

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NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING		
COMPARISON OF OPEN WATER 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-06		
JUNE 2020	FIGURE 5.4	REV: 0

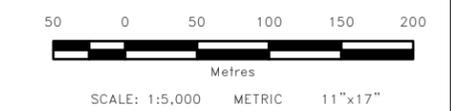


LEGEND:

- Sta: 23648 Name: CR-53
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:100 Year Current Climate Open Water Flood Zone
- 1:100 Year Climate Change Open Water Flood Zone

NOTES:

1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATGIS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM)
Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

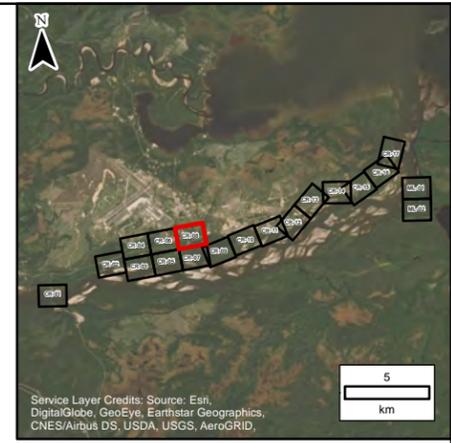
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NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF OPEN WATER 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-07

JUNE 2020	FIGURE 5.4	REV: 0
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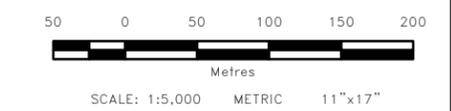


LEGEND:

- Sta: 23648 Name: CR-53
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:100 Year Current Climate Open Water Flood Zone
- 1:100 Year Climate Change Open Water Flood Zone

NOTES:

1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATGIS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM)
Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

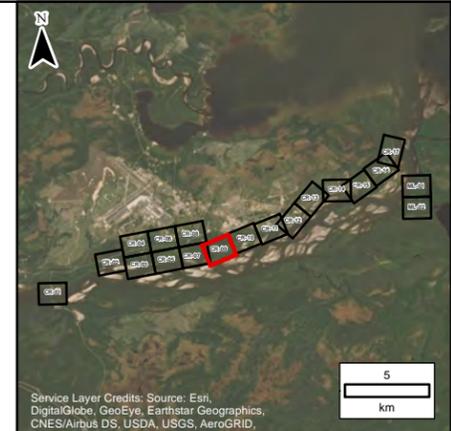
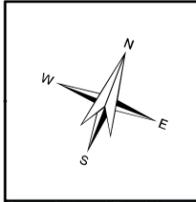
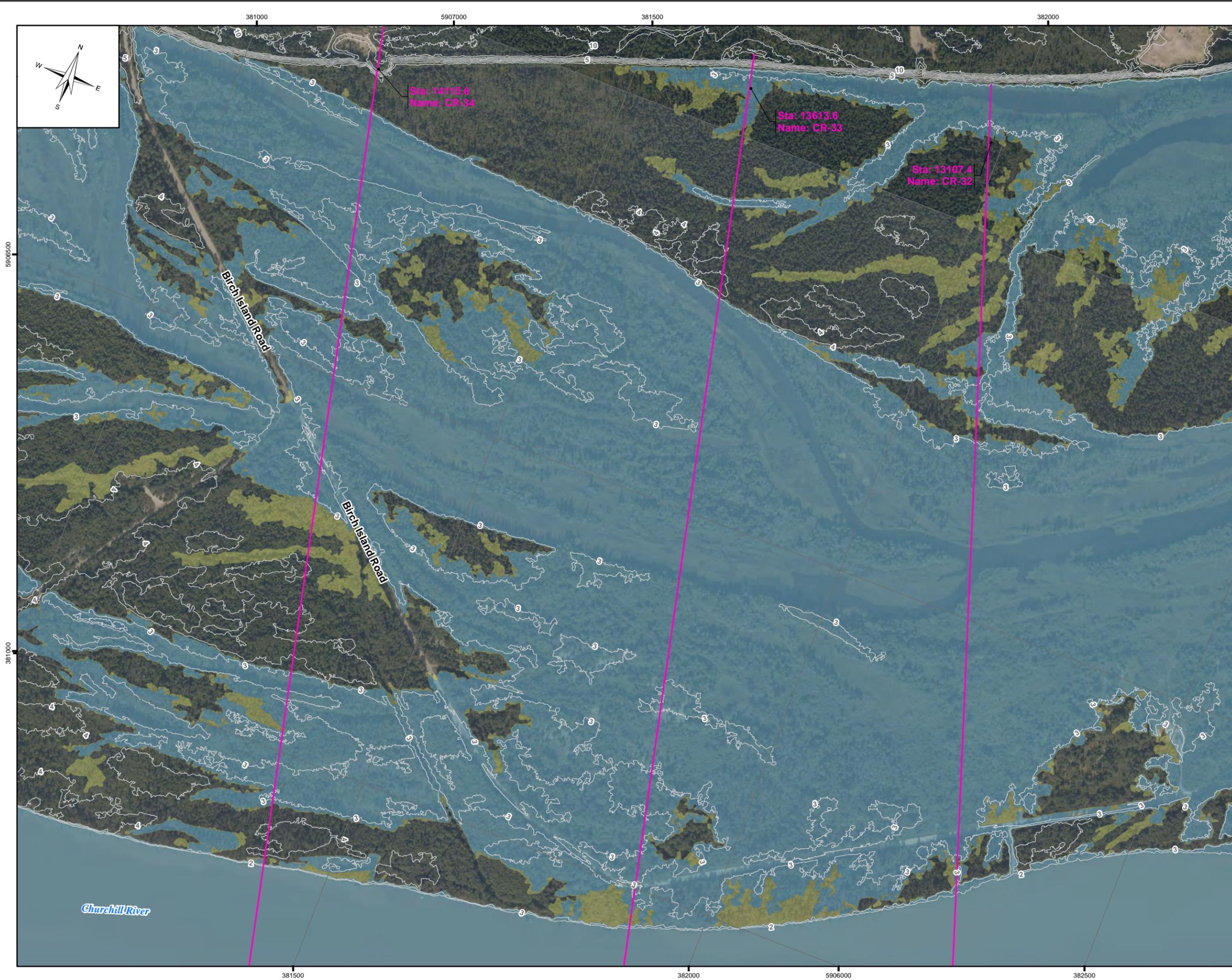
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NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

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CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF OPEN WATER 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-08

JUNE 2020	FIGURE 5.4	REV: 0
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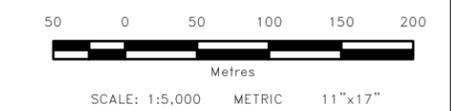


LEGEND:

- Sta: 2364.8 Name: CR-33
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:100 Year Current Climate Open Water Flood Zone
- 1:100 Year Climate Change Open Water Flood Zone

NOTES:

1. Imagery is supplied by ATLAS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATLAS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM) Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

0	20/06/30	ISSUED WITH FINAL REPORT	DSB	MSW
NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

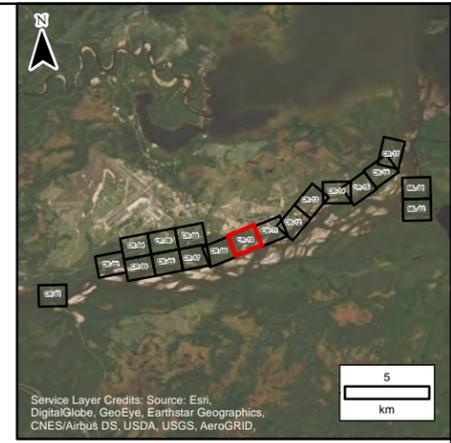
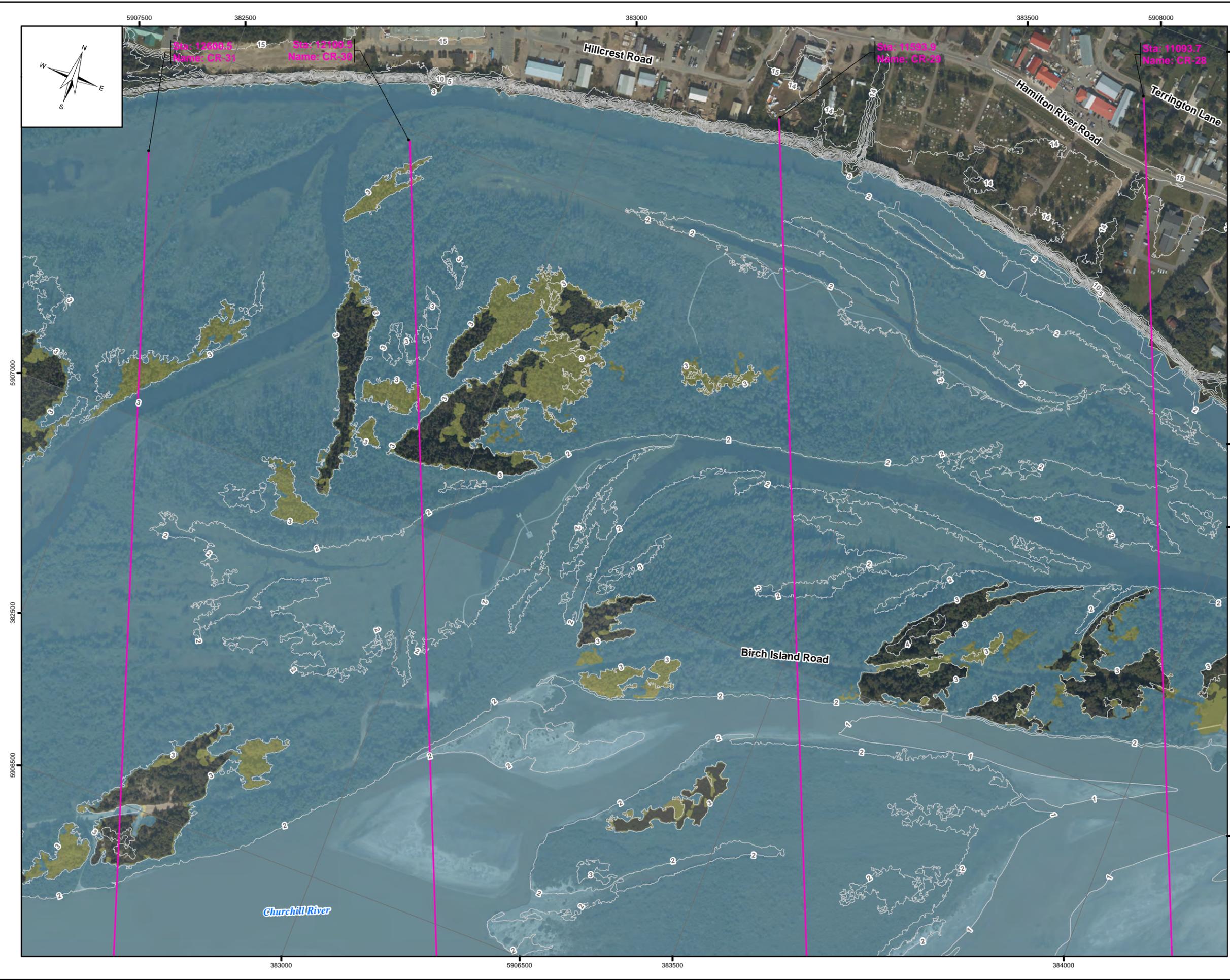
REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF OPEN WATER 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-09

JUNE 2020	FIGURE 5.4	REV: 0
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File Name: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.4_11x17.mxd
 11"x17" PLOT_SCALE 1:1
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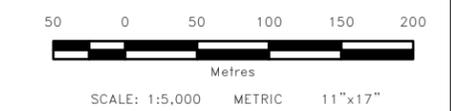


LEGEND:

- Sta: 2364.8 Name: CR-53
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:100 Year Current Climate Open Water Flood Zone
- 1:100 Year Climate Change Open Water Flood Zone

NOTES:

1. Imagery is supplied by ATLIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATLIS Geomatics on September 11 – 13, 2019.



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 Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM)
 Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

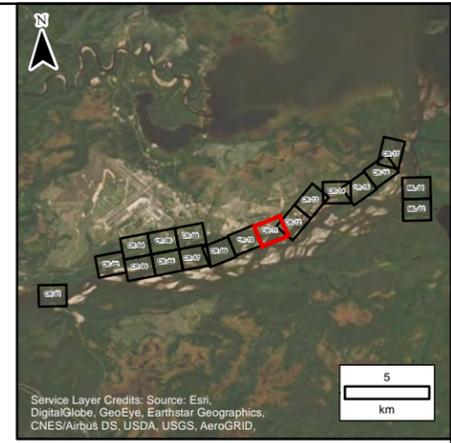
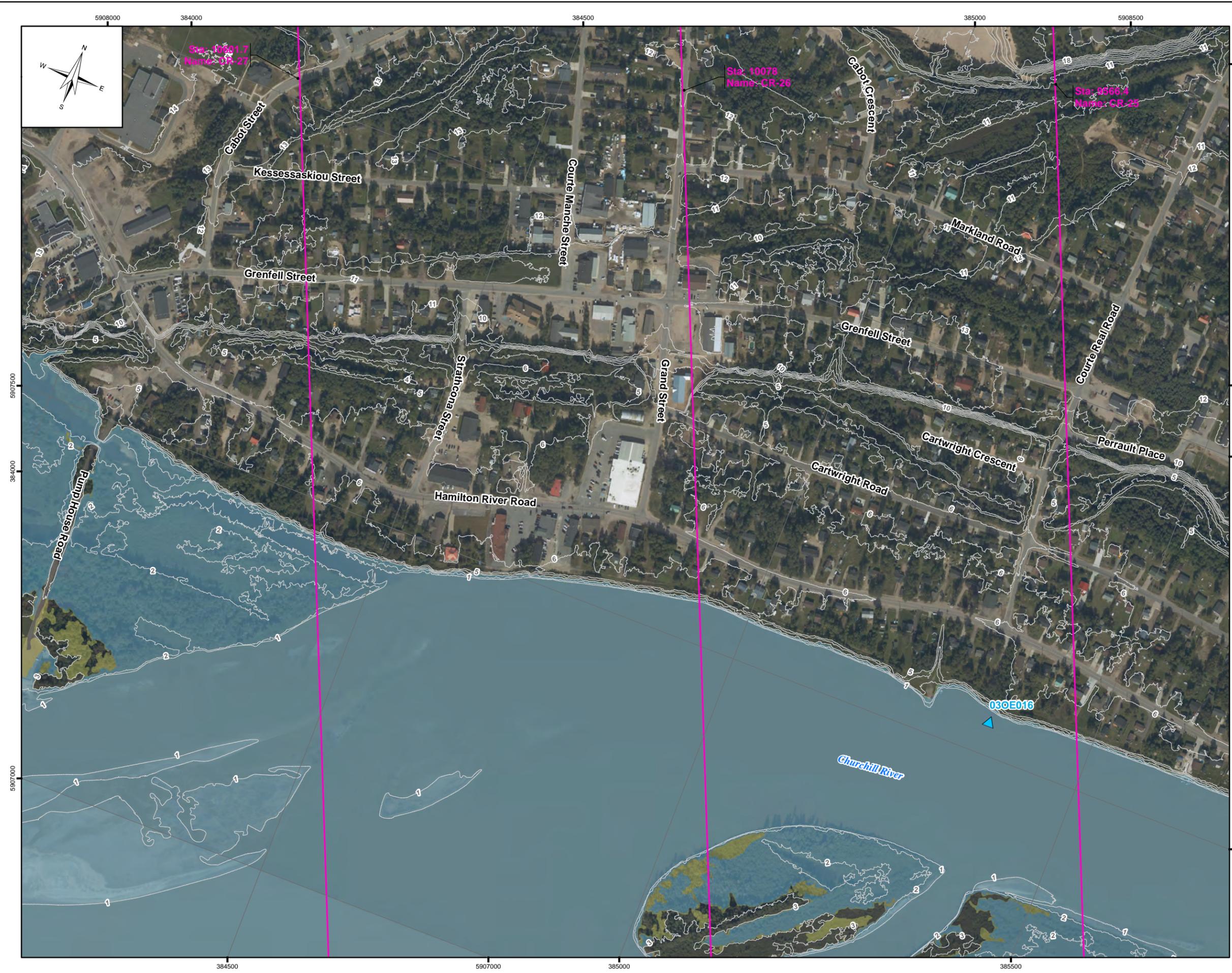
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NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF OPEN WATER 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-10

JUNE 2020	FIGURE 5.4	REV: 0
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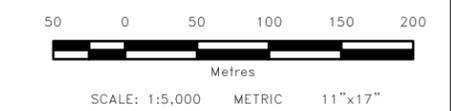


LEGEND:

- Sta. 23648 Name: CR-53
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:100 Year Current Climate Open Water Flood Zone
- 1:100 Year Climate Change Open Water Flood Zone

NOTES:

1. Imagery is supplied by ATLAS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATLAS Geomatics on September 11 – 13, 2019.



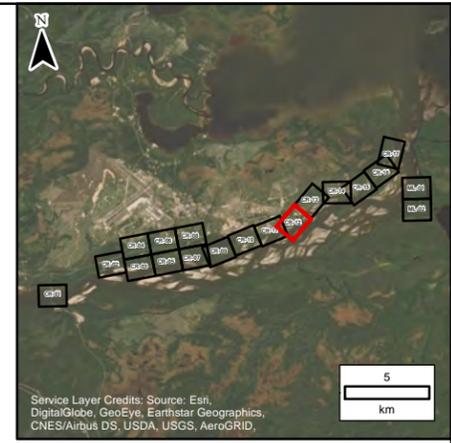
All units are metric and in metres unless otherwise specified.
 Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM) Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

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NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

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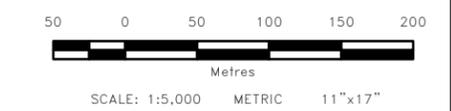
CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF OPEN WATER 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-11



- LEGEND:**
- Sta: 2364.8 Name: CR-53
 - Cross Section
 - Water Survey of Canada Gauge Location
 - River Centreline
 - 1m LIDAR Contour
 - 1:100 Year Current Climate Open Water Flood Zone
 - 1:100 Year Climate Change Open Water Flood Zone

- NOTES:**
1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019.
 2. Topography shown was developed by KGS Group from the LiDAR captured by ATGIS Geomatics on September 11 – 13, 2019.

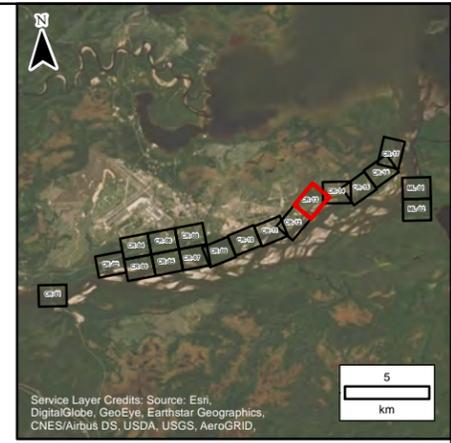
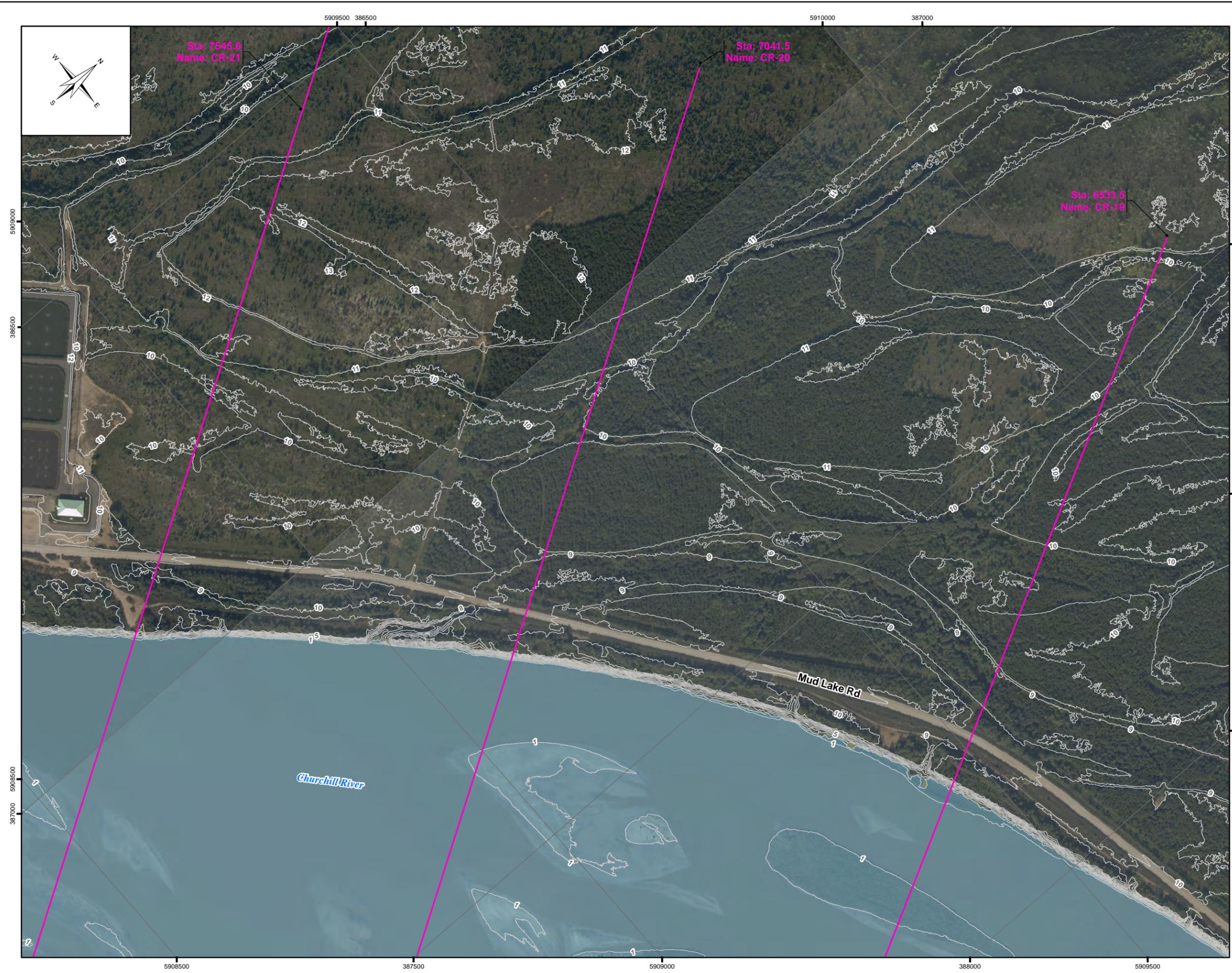


All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM)
Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

0	20/06/30	ISSUED WITH FINAL REPORT	DSB	MSW
NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

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CHURCHILL RIVER FLOOD RISK AND FORECASTING		
COMPARISON OF OPEN WATER 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-12		
JUNE 2020	FIGURE 5.4	REV: 0

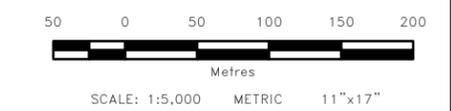


LEGEND:

- Sta: 2364.8 Name: CR-53
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:100 Year Current Climate Open Water Flood Zone
- 1:100 Year Climate Change Open Water Flood Zone

NOTES:

1. Imagery is supplied by ATLAS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATLAS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM), Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

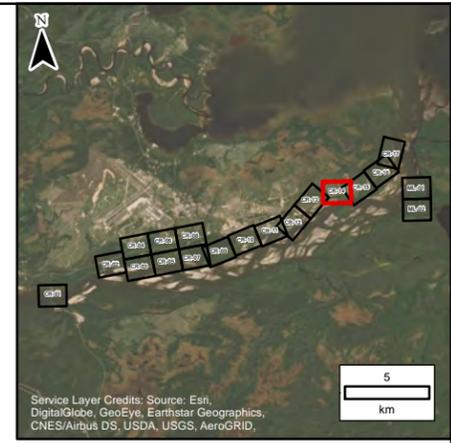
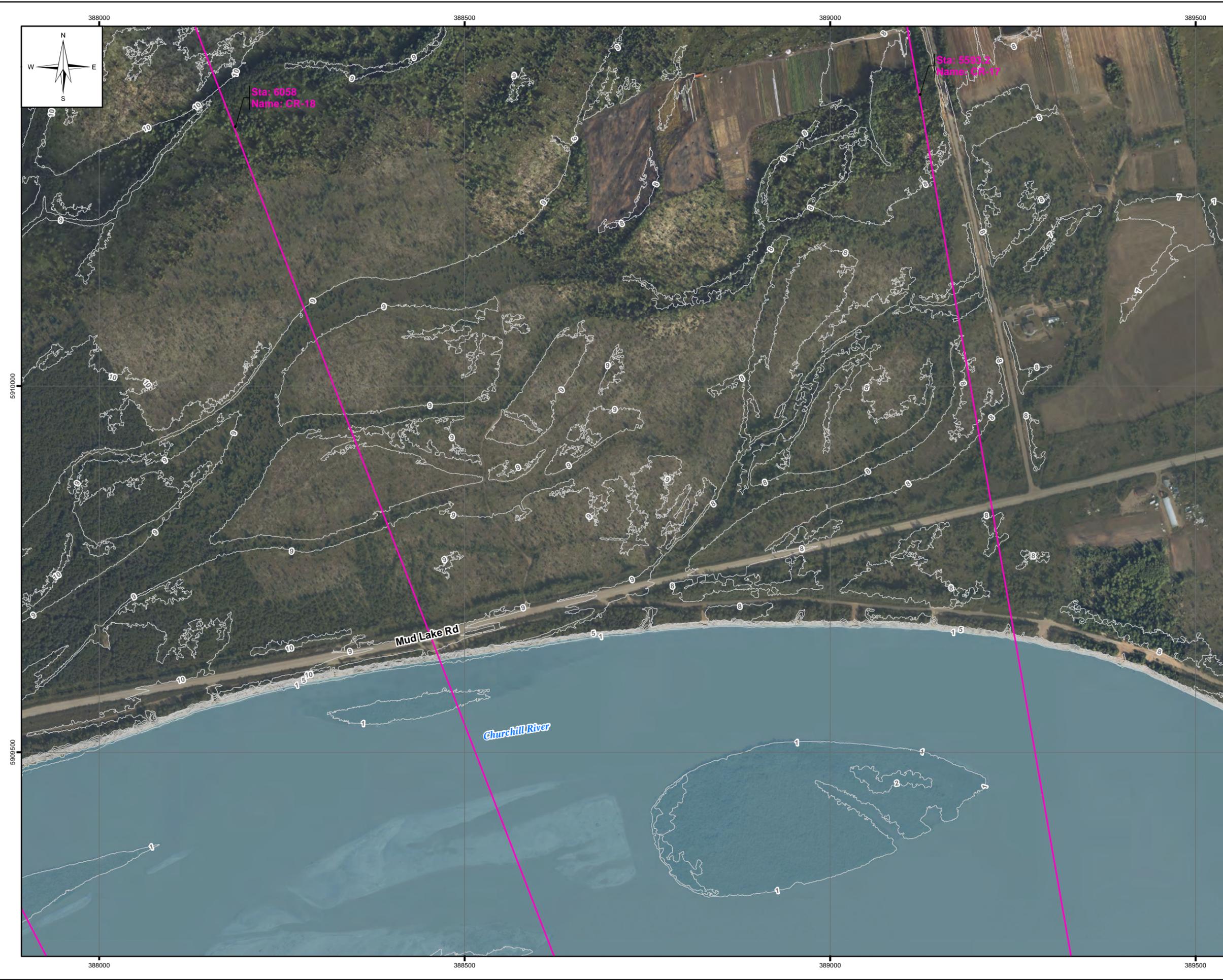
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NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

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CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF OPEN WATER 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-13

JUNE 2020	FIGURE 5.4	REV: 0
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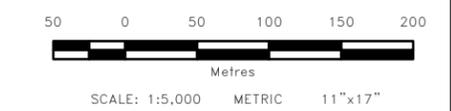


LEGEND:

- Sta: 2364.8 Name: CR-53
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:100 Year Current Climate Open Water Flood Zone
- 1:100 Year Climate Change Open Water Flood Zone

NOTES:

1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATGIS Geomatics on September 11 – 13, 2019.

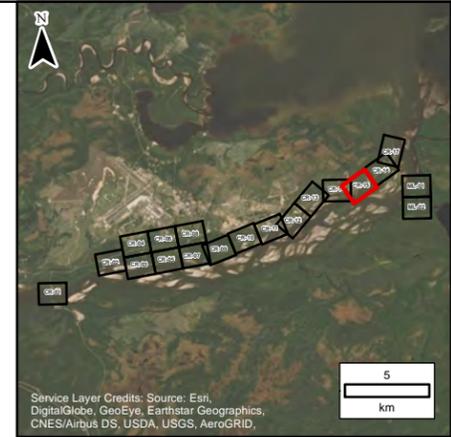
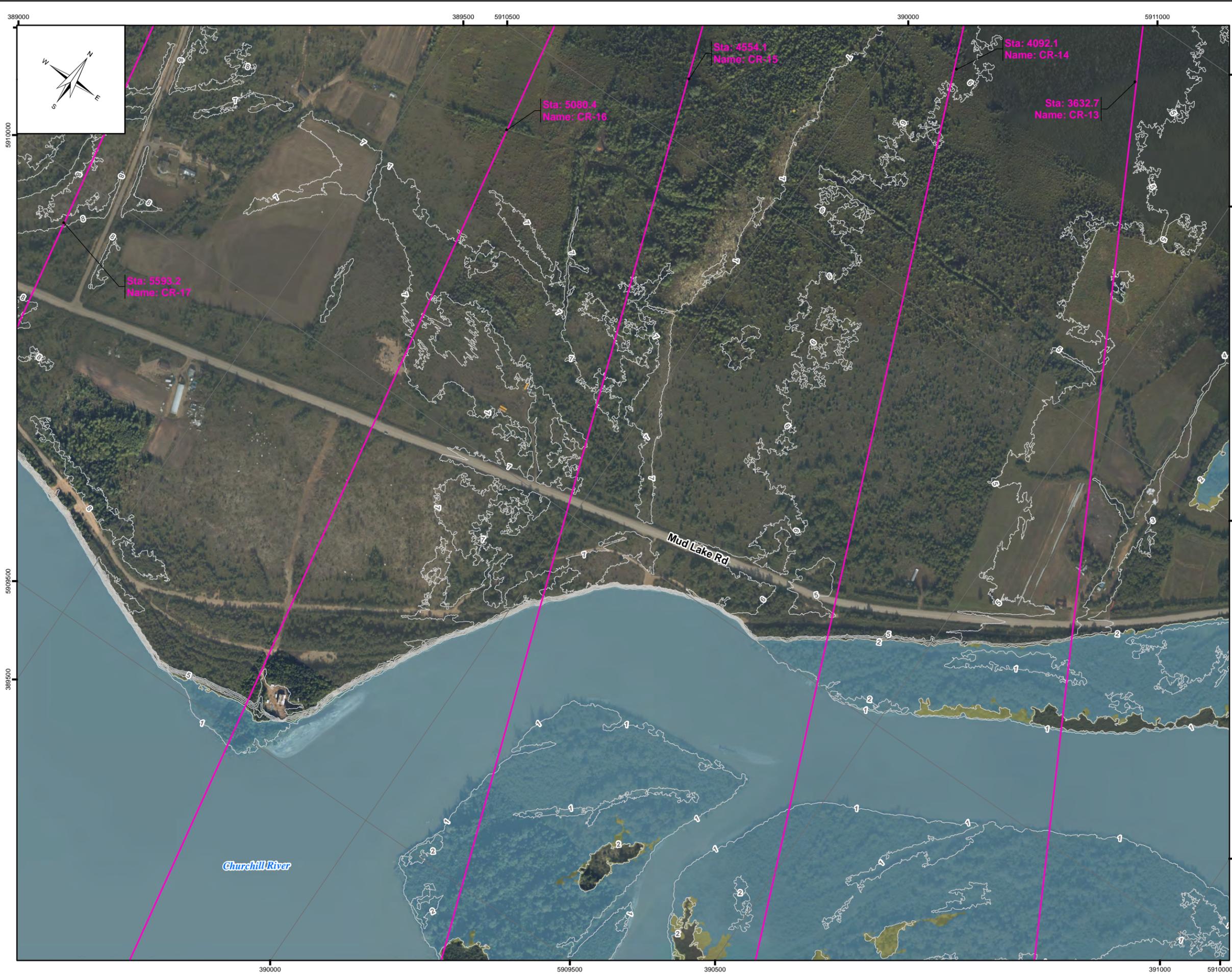


All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM)
Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

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CHURCHILL RIVER FLOOD RISK AND FORECASTING	
COMPARISON OF OPEN WATER 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-14	
JUNE 2020	FIGURE 5.4
REV: 0	0

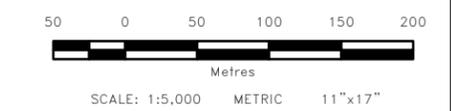


LEGEND:

- Sta: 2364.8 Name: CR-13
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:100 Year Current Climate Open Water Flood Zone
- 1:100 Year Climate Change Open Water Flood Zone

NOTES:

1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATGIS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified. Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM) Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

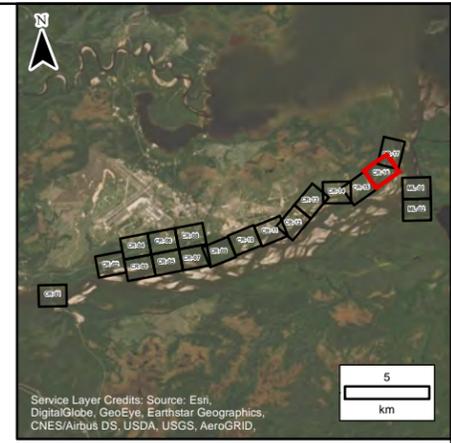
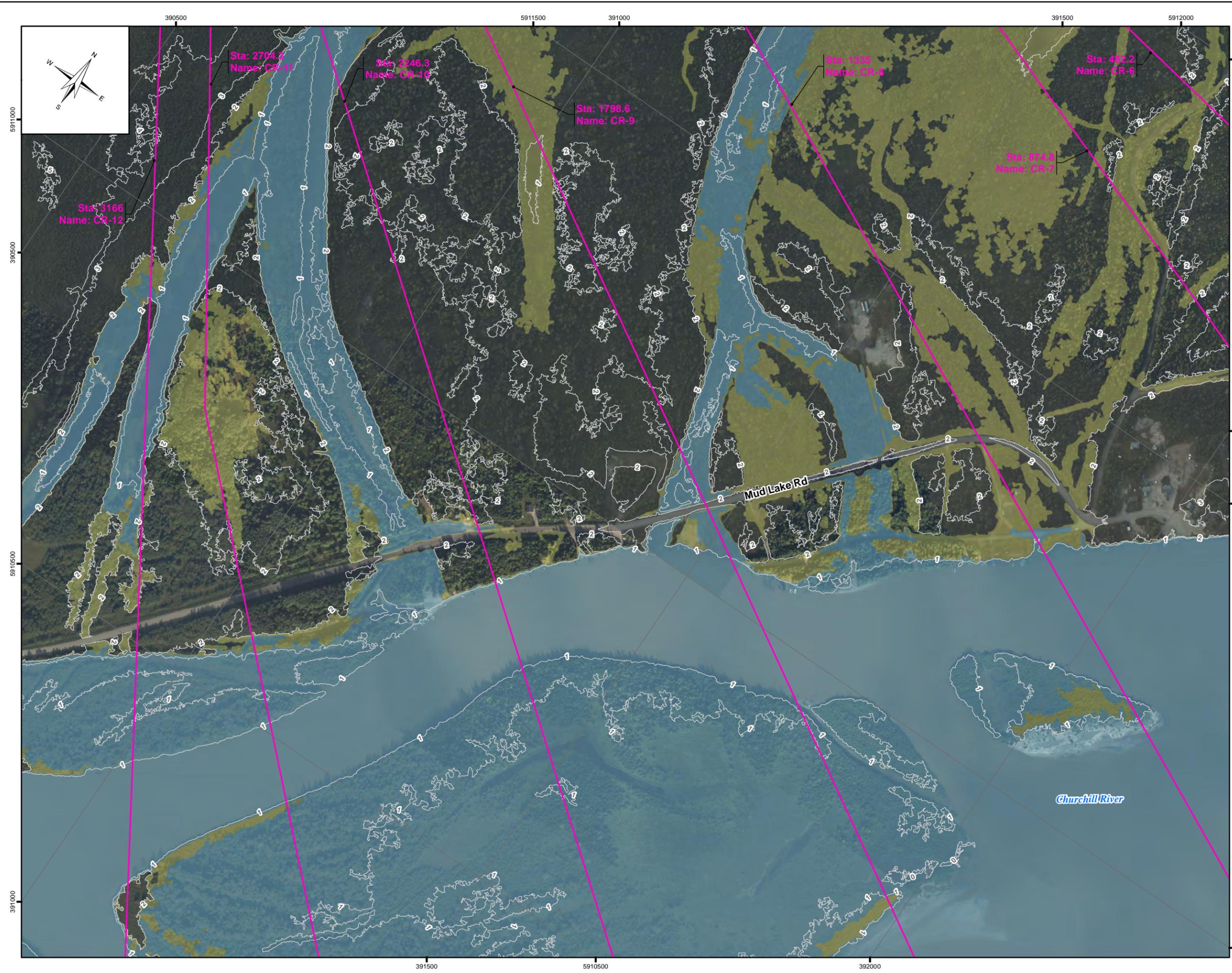
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NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

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CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF OPEN WATER 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-15

JUNE 2020	FIGURE 5.4	REV: 0
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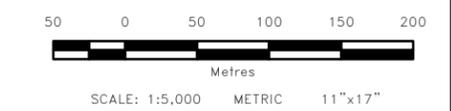


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- Sta: 2246.3
Name: CR-10
- Sta: 1798.6
Name: CR-9
- Sta: 1335
Name: CR-8
- Sta: 874.8
Name: CR-7
- Sta: 482.2
Name: CR-6
- Sta: 3166
Name: CR-12
- Sta: 2364.8
Name: CR-53
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:100 Year Current Climate Open Water Flood Zone
- 1:100 Year Climate Change Open Water Flood Zone

NOTES:

1. Imagery is supplied by ATLAS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATLAS Geomatics on September 11 – 13, 2019.



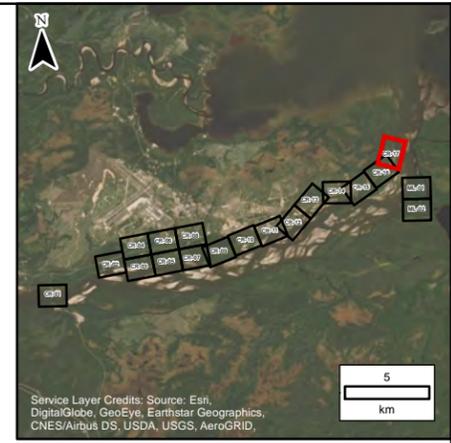
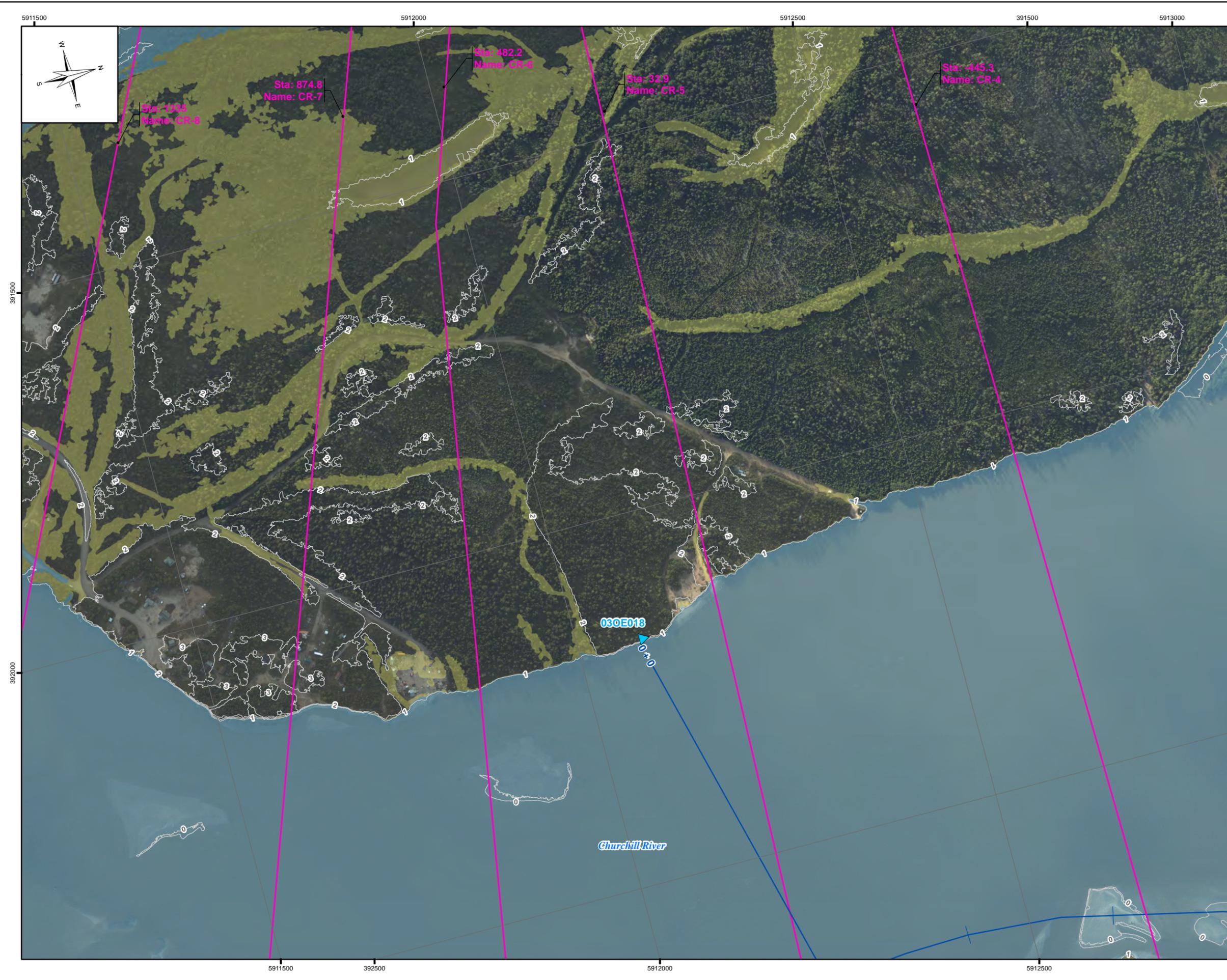
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 Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM)
 Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

0	20/06/30	ISSUED WITH FINAL REPORT	DSB	MSW
NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF OPEN WATER 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-16

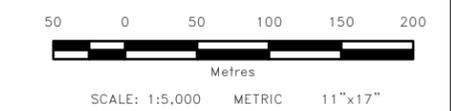


LEGEND:

- Sta: 2364.8 Name: CR-53
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:100 Year Current Climate Open Water Flood Zone
- 1:100 Year Climate Change Open Water Flood Zone

NOTES:

1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATGIS Geomatics on September 11 – 13, 2019.



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Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM)
Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

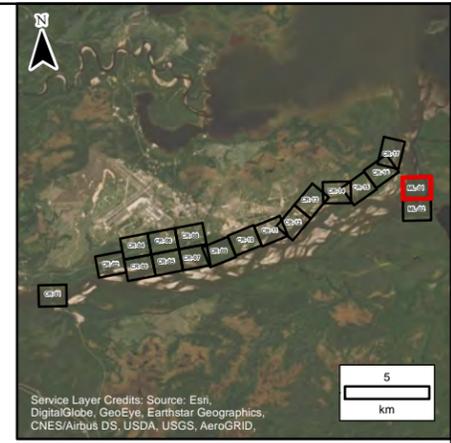
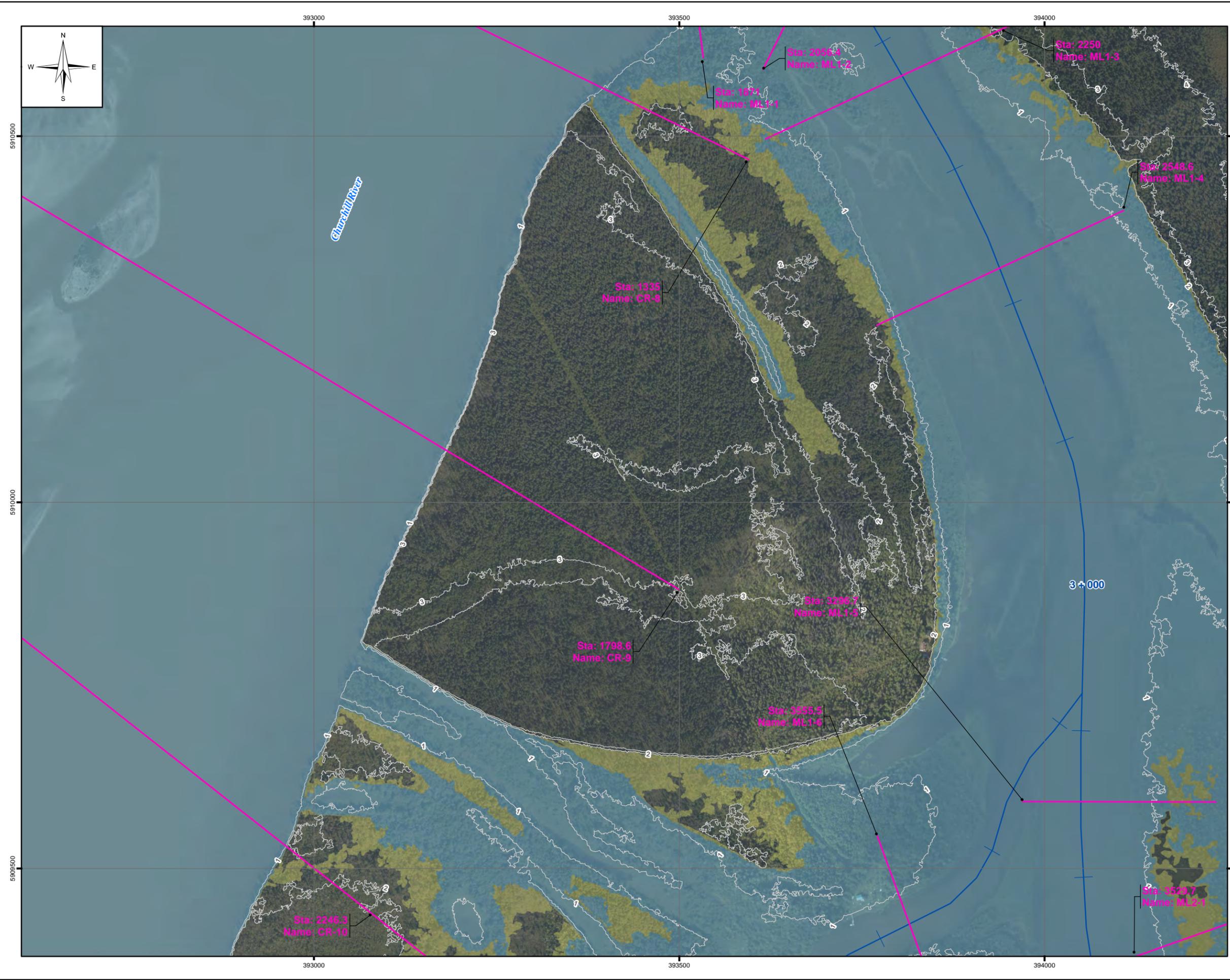
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NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF OPEN WATER 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-17

JUNE 2020	FIGURE 5.4	REV: 0
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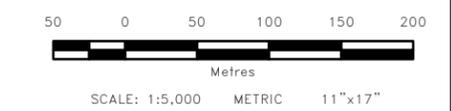


LEGEND:

- Sta: 2364.8 Name: CR-53
Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:100 Year Current Climate Open Water Flood Zone
- 1:100 Year Climate Change Open Water Flood Zone

NOTES:

1. Imagery is supplied by ATLAS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATLAS Geomatics on September 11 – 13, 2019.

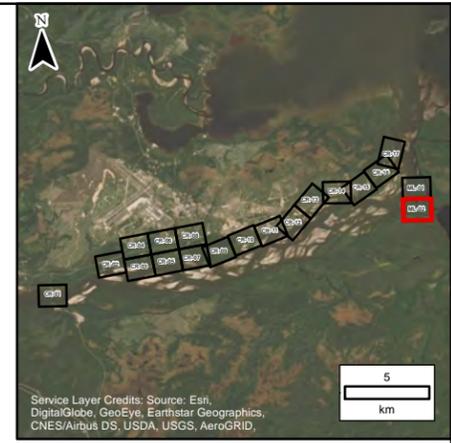
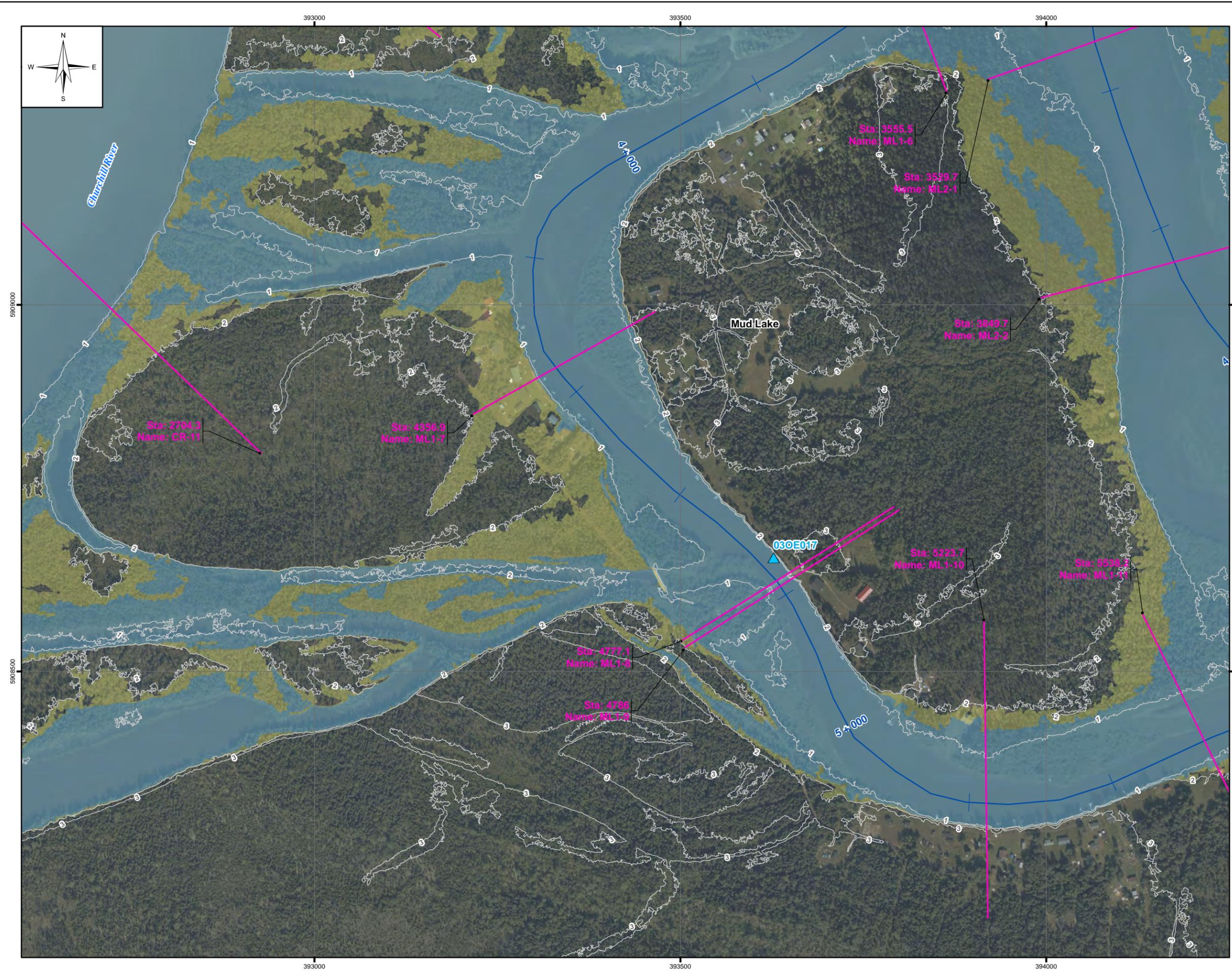


All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM) Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

0	20/06/30	ISSUED WITH FINAL REPORT	DSB	MSW
NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING		
COMPARISON OF OPEN WATER 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – ML-01		
JUNE 2020	FIGURE 5.4	REV: 0

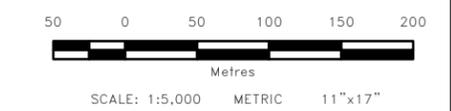


LEGEND:

- Sta: 2364.8 Name: CR-53
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:100 Year Current Climate Open Water Flood Zone
- 1:100 Year Climate Change Open Water Flood Zone

NOTES:

1. Imagery is supplied by ATLAS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATLAS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM)
Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

0	20/06/30	ISSUED WITH FINAL REPORT	DSB	MSW
NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF OPEN WATER 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – ML-02

JUNE 2020	FIGURE 5.4	REV: 0
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- LEGEND:**
- Water Survey of Canada Gauge Location
 - River Centreline
 - 1:20 Year Current Climate Ice Affected Flood Zone
 - 1:20 Year Climate Change Ice Affected Flood Zone
 - Map Extents

NOTES:
1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019, and by ESRI and DigitalGlobe, WV02 dated June 3, 2015.



SCALE: 1:100,000 METRIC 11"x17"

All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM) Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

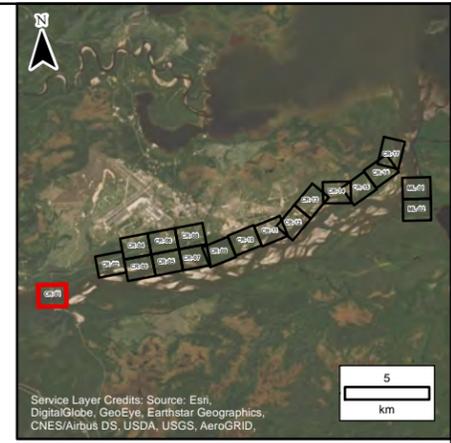
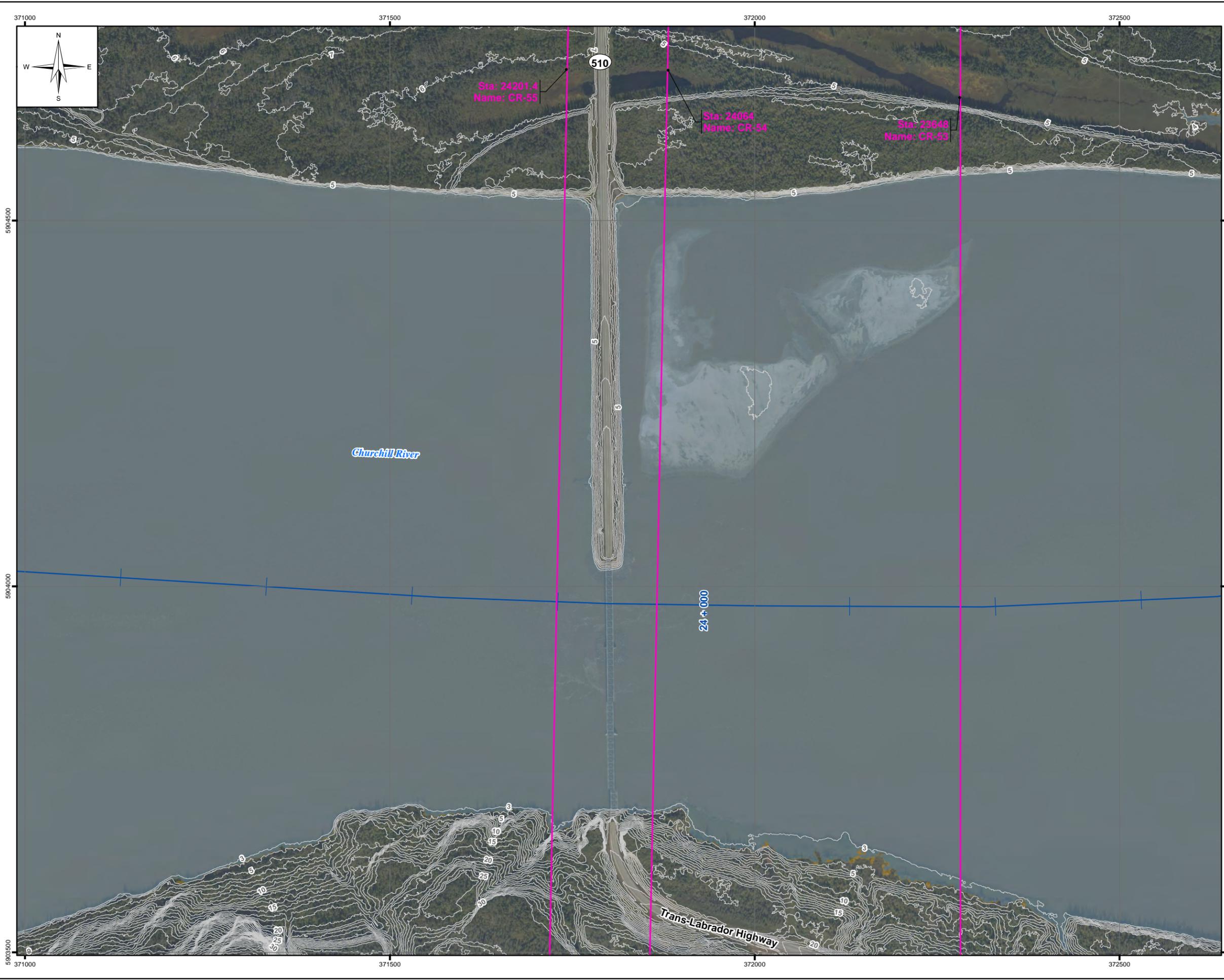
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NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF ICE-AFFECTED 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) OVERVIEW MAP

JUNE 2020	FIGURE 5.5	REV: 0
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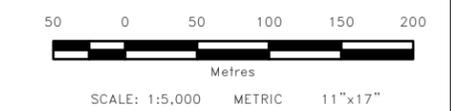


LEGEND:

-  Sta: 23648
Name: CR-53
-  Cross Section
-  Water Survey of Canada
Gauge Location
-  River Centreline
-  1m LIDAR Contour
-  1:20 Year Current Climate
Ice Affected Flood Zone
-  1:20 Year Climate Change
Ice Affected Flood Zone

NOTES:

1. Imagery is supplied by ATLAS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATLAS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM)
Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

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NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

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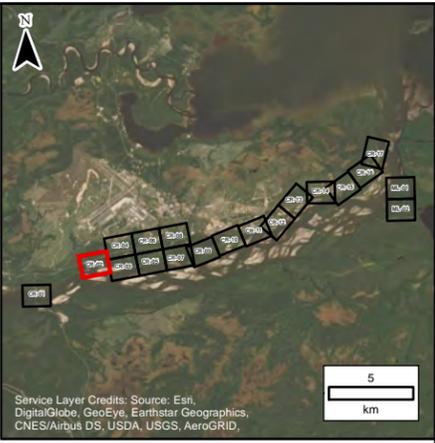
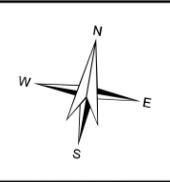
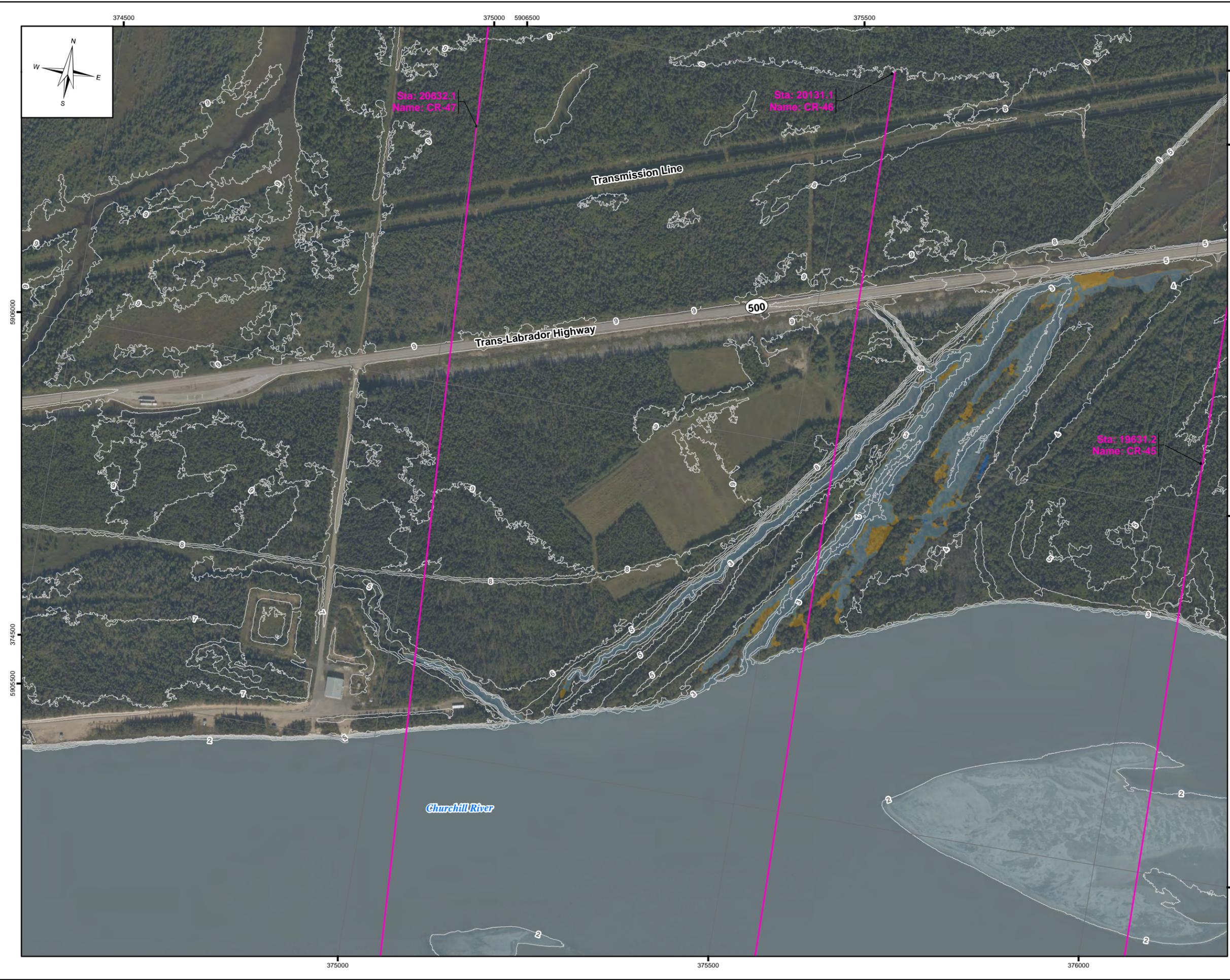




CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF ICE-AFFECTED 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-01

JUNE 2020	FIGURE 5.6	REV: 0
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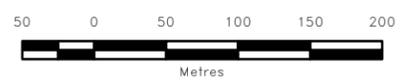


LEGEND:

- Sta: 20632.1 Name: CR-47
- Sta: 20131.1 Name: CR-46
- Sta: 19631.2 Name: CR-45
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:20 Year Current Climate Ice Affected Flood Zone
- 1:20 Year Climate Change Ice Affected Flood Zone

NOTES:

1. Imagery is supplied by ATLAS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATLAS Geomatics on September 11 – 13, 2019.



SCALE: 1:5,000 METRIC 11"x17"

All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM)
Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

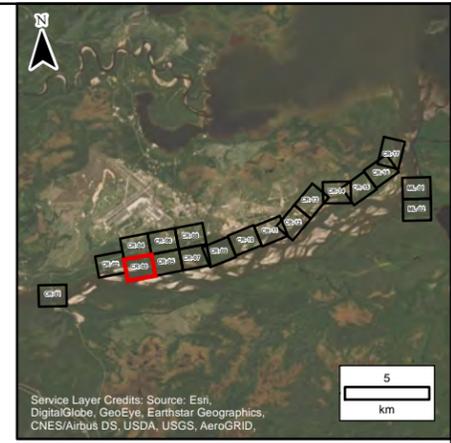
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NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF ICE-AFFECTED 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-02

JUNE 2020	FIGURE 5.6	REV: 0
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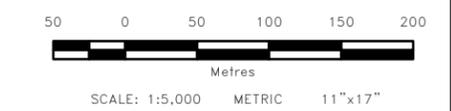


LEGEND:

- Sta: 23648 Name: CR-43
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:20 Year Current Climate Ice Affected Flood Zone
- 1:20 Year Climate Change Ice Affected Flood Zone

NOTES:

1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATGIS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM)
Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

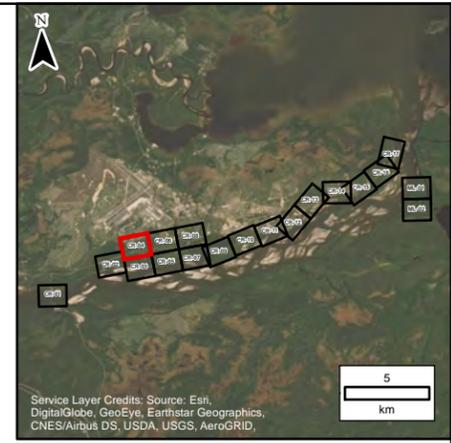
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NO	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF ICE-AFFECTED 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-03

JUNE 2020	FIGURE 5.6	REV: 0
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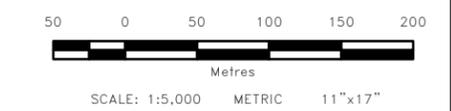


LEGEND:

- Sta: 23648 Name: CR-43
Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:20 Year Current Climate Ice Affected Flood Zone
- 1:20 Year Climate Change Ice Affected Flood Zone

NOTES:

1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATGIS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified. Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM) Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

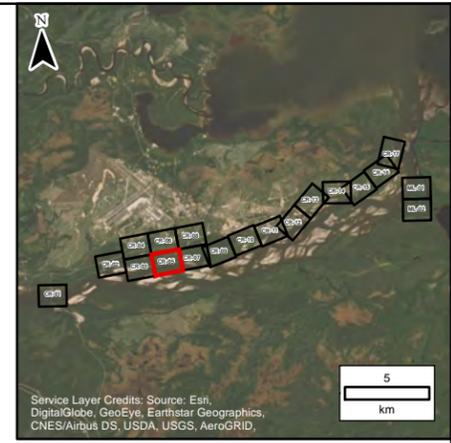
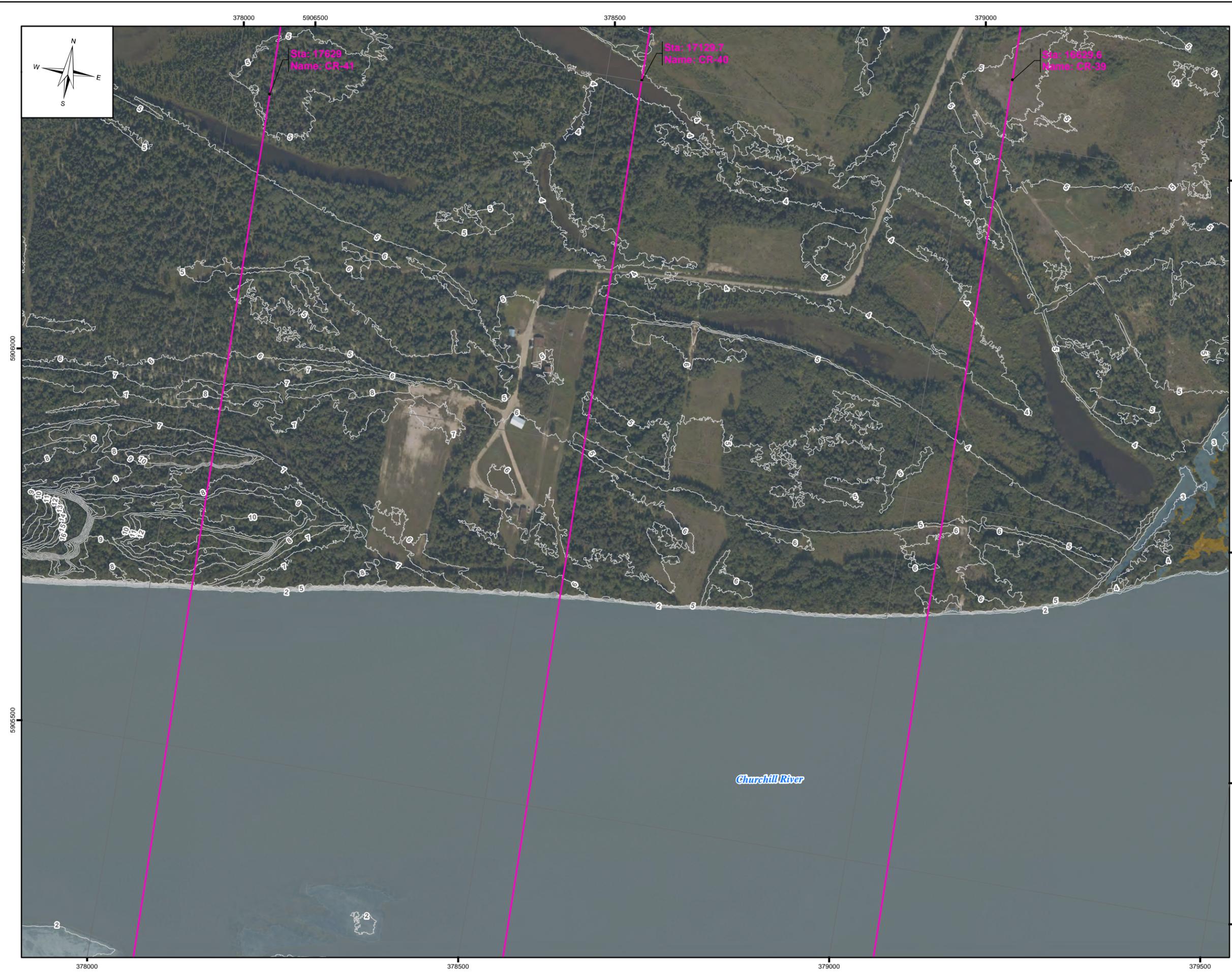
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CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF ICE-AFFECTED 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-04

JUNE 2020	FIGURE 5.6	REV: 0
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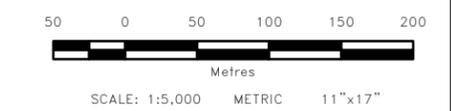


LEGEND:

- Sta: 2364.8 Name: CR-43
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:20 Year Current Climate Ice Affected Flood Zone
- 1:20 Year Climate Change Ice Affected Flood Zone

NOTES:

1. Imagery is supplied by ATLIIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATLIIS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM)
Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

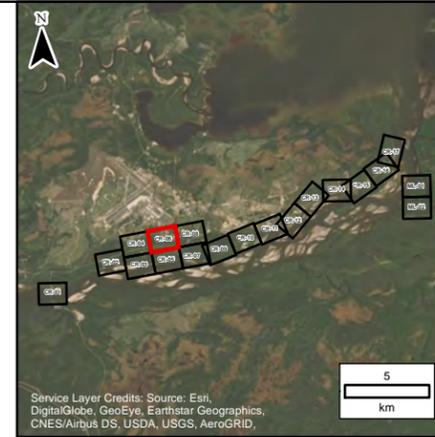
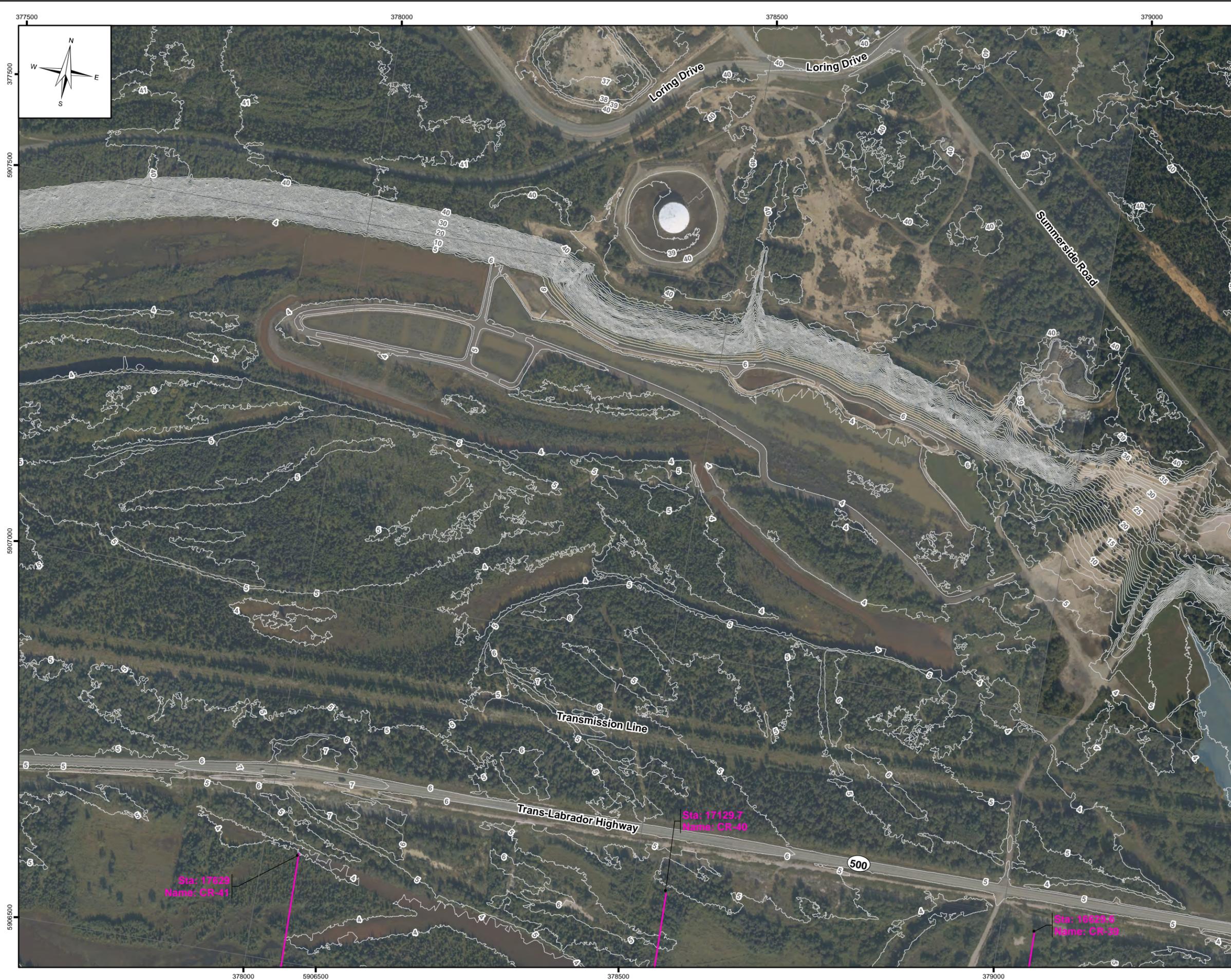
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NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF ICE-AFFECTED 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-05

JUNE 2020	FIGURE 5.6	REV: 0
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LEGEND:

- Sta: 2364.8
Name: CR-33
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:20 Year Current Climate Ice Affected Flood Zone
- 1:20 Year Climate Change Ice Affected Flood Zone

NOTES:

1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATGIS Geomatics on September 11 – 13, 2019.



SCALE: 1:5,000 METRIC 11"x17"

All units are metric and in metres unless otherwise specified. Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM) Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

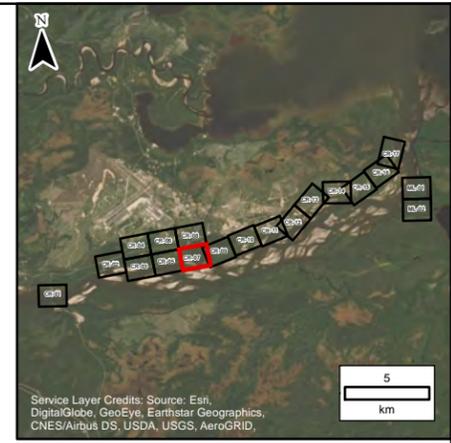
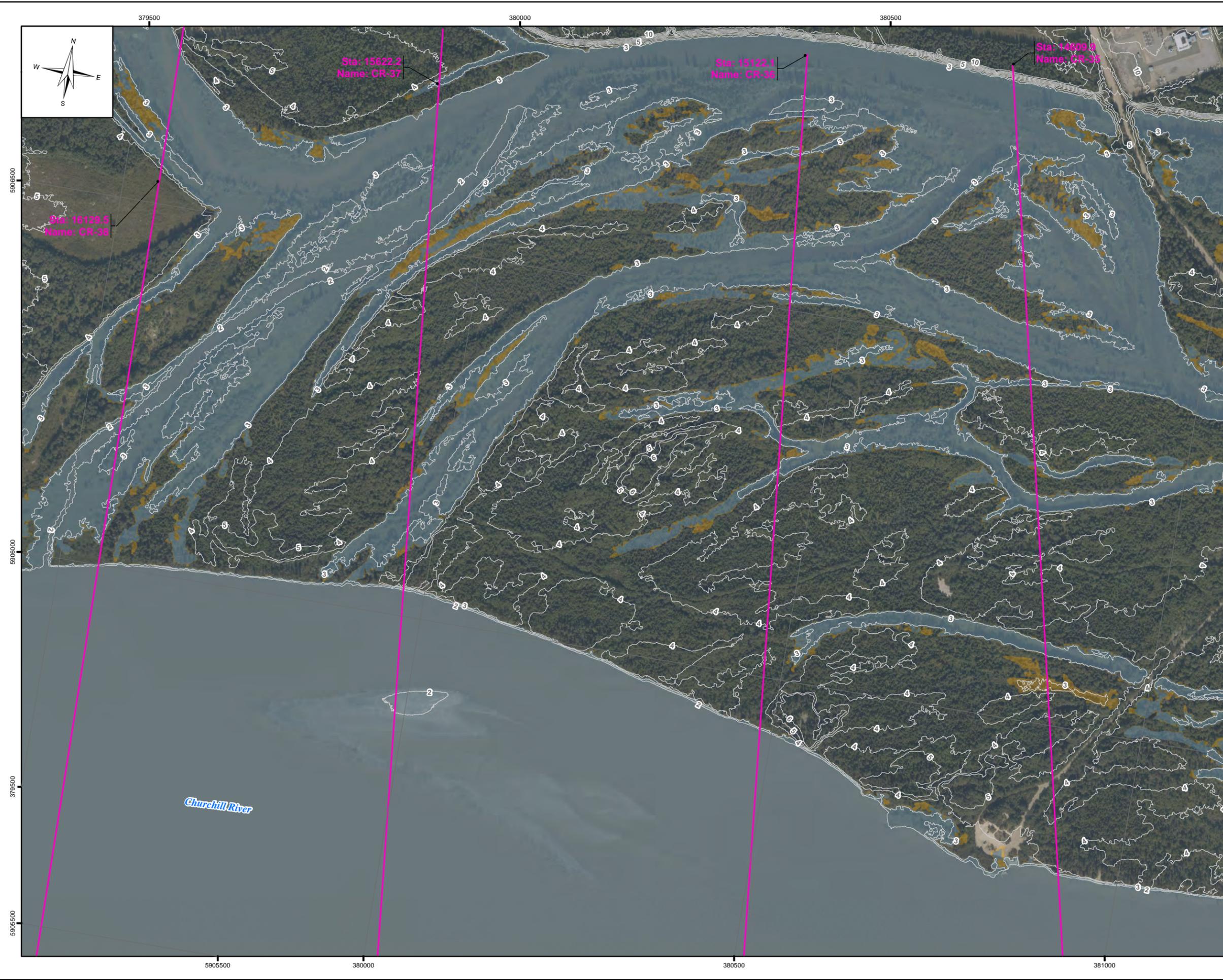
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NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF ICE-AFFECTED 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-06

JUNE 2020	FIGURE 5.6	REV: 0
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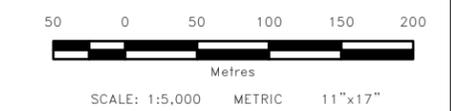


LEGEND:

- Sta: 23648 Name: CR-53
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:20 Year Current Climate Ice Affected Flood Zone
- 1:20 Year Climate Change Ice Affected Flood Zone

NOTES:

1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATGIS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM)
Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

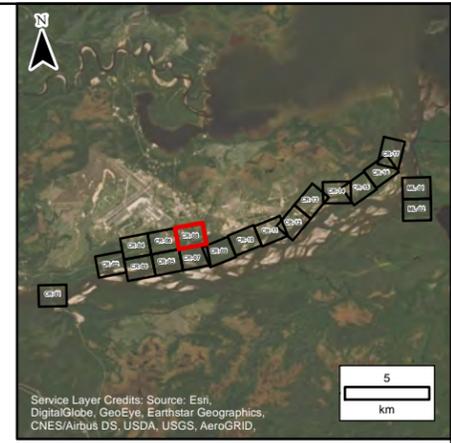
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NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF ICE-AFFECTED 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-07

JUNE 2020	FIGURE 5.6	REV: 0
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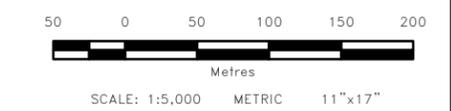


LEGEND:

- Sta: 23648 Name: CR-53
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:20 Year Current Climate Ice Affected Flood Zone
- 1:20 Year Climate Change Ice Affected Flood Zone

NOTES:

1. Imagery is supplied by ATLAS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATLAS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM)
Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

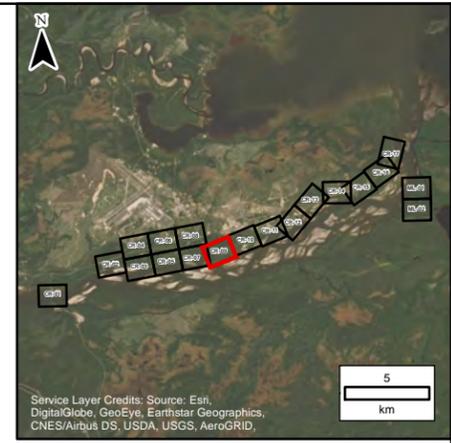
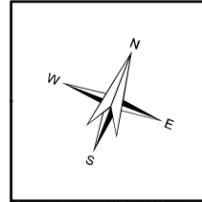
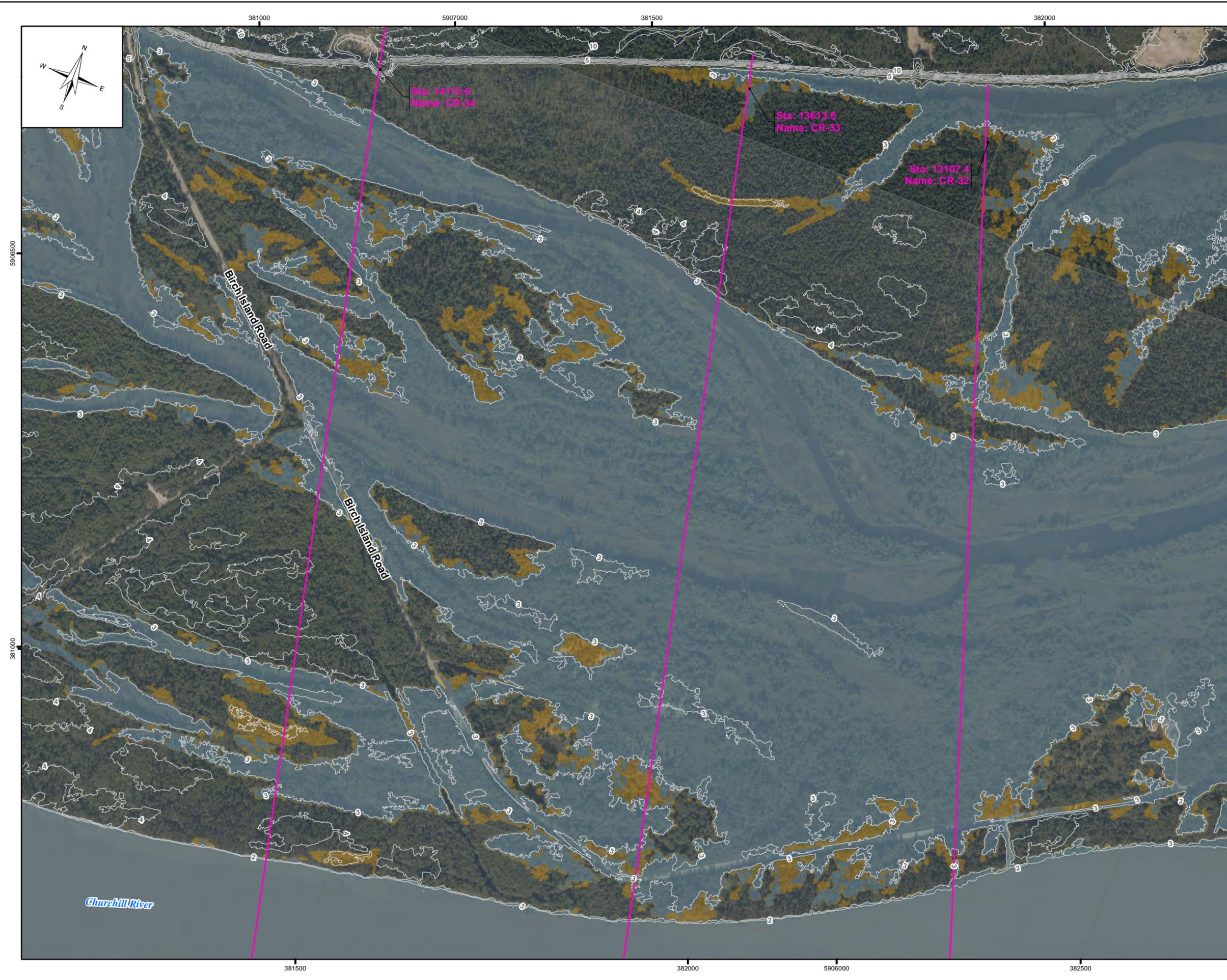
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NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF ICE-AFFECTED 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-08

JUNE 2020	FIGURE 5.6	REV: 0
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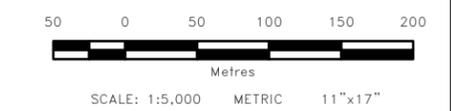


LEGEND:

- Sta: 2364.8 Name: CR-33
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:20 Year Current Climate Ice Affected Flood Zone
- 1:20 Year Climate Change Ice Affected Flood Zone

NOTES:

1. Imagery is supplied by ATLIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATLIS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified. Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM) Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

0	20/06/30	ISSUED WITH FINAL REPORT	DSB	MSW
NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

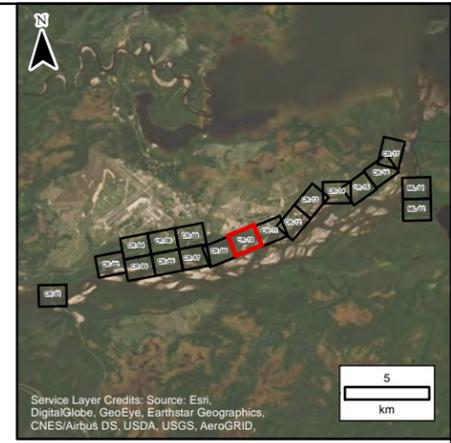
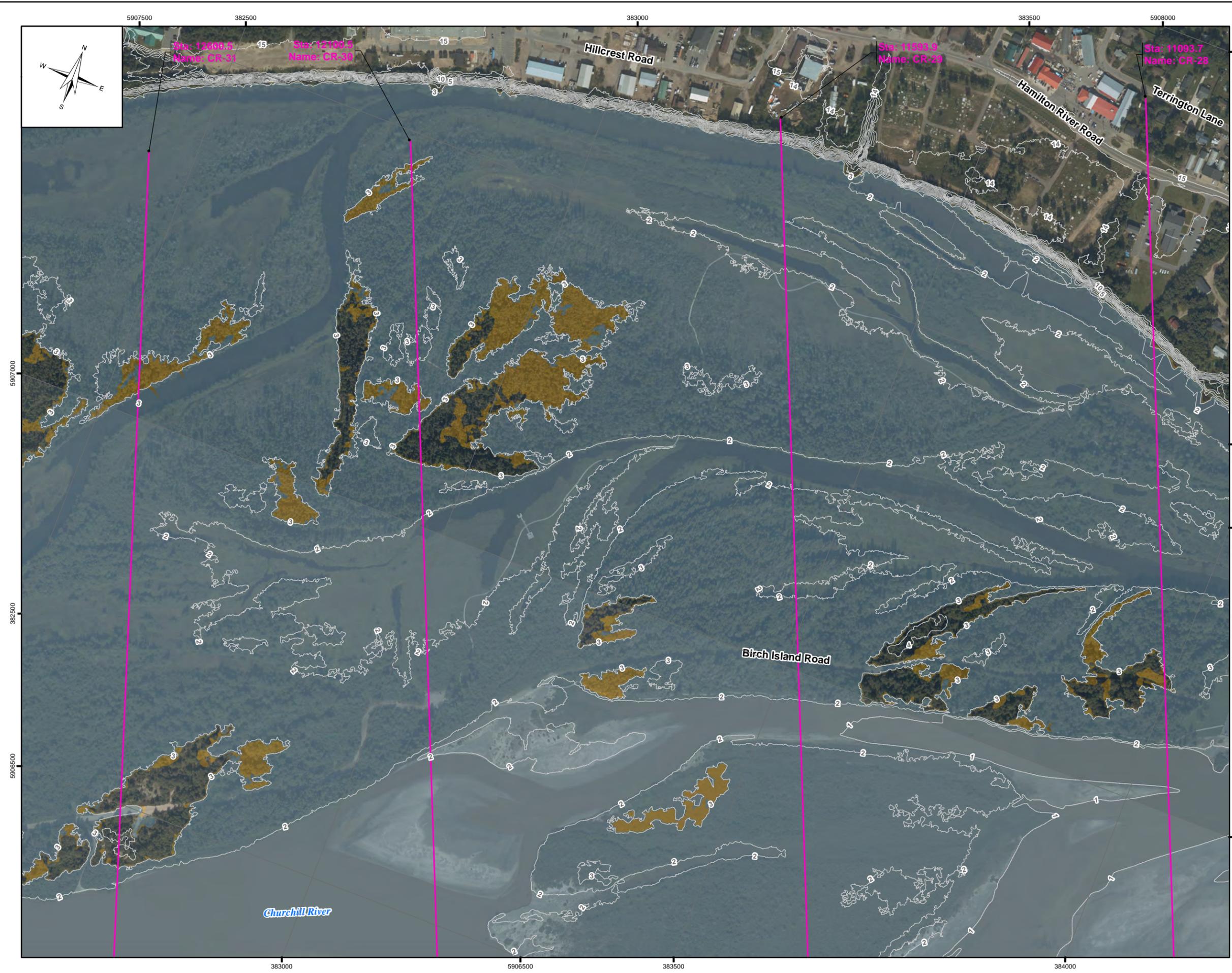
REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF ICE-AFFECTED 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-09

JUNE 2020	FIGURE 5.6	REV: 0
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 11"x17" PLOT SCALE 1:1
 Portions of data Produced by KGS Group, under Licence with the Government of Canada © 2019
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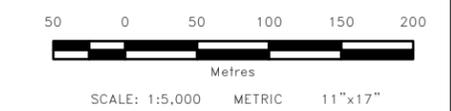


LEGEND:

- Sta: 2364.8
Name: CR-27
- Cross Section
- Water Survey of Canada
Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:20 Year Current Climate
Ice Affected Flood Zone
- 1:20 Year Climate Change
Ice Affected Flood Zone

NOTES:

1. Imagery is supplied by ATLIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATLIS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
 Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM)
 Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

0	20/06/30 ISSUED WITH FINAL REPORT	DSB	MSW
NO	YY/MM/DD	DESCRIPTION	ISSUED BY / CHECK BY

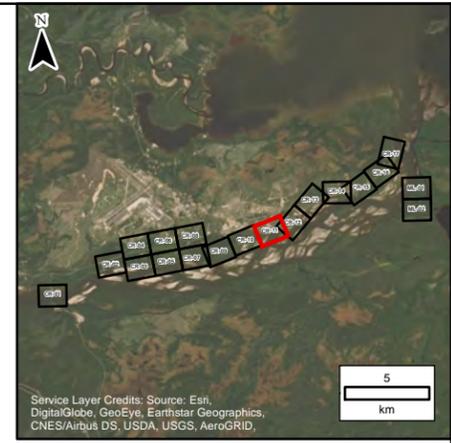
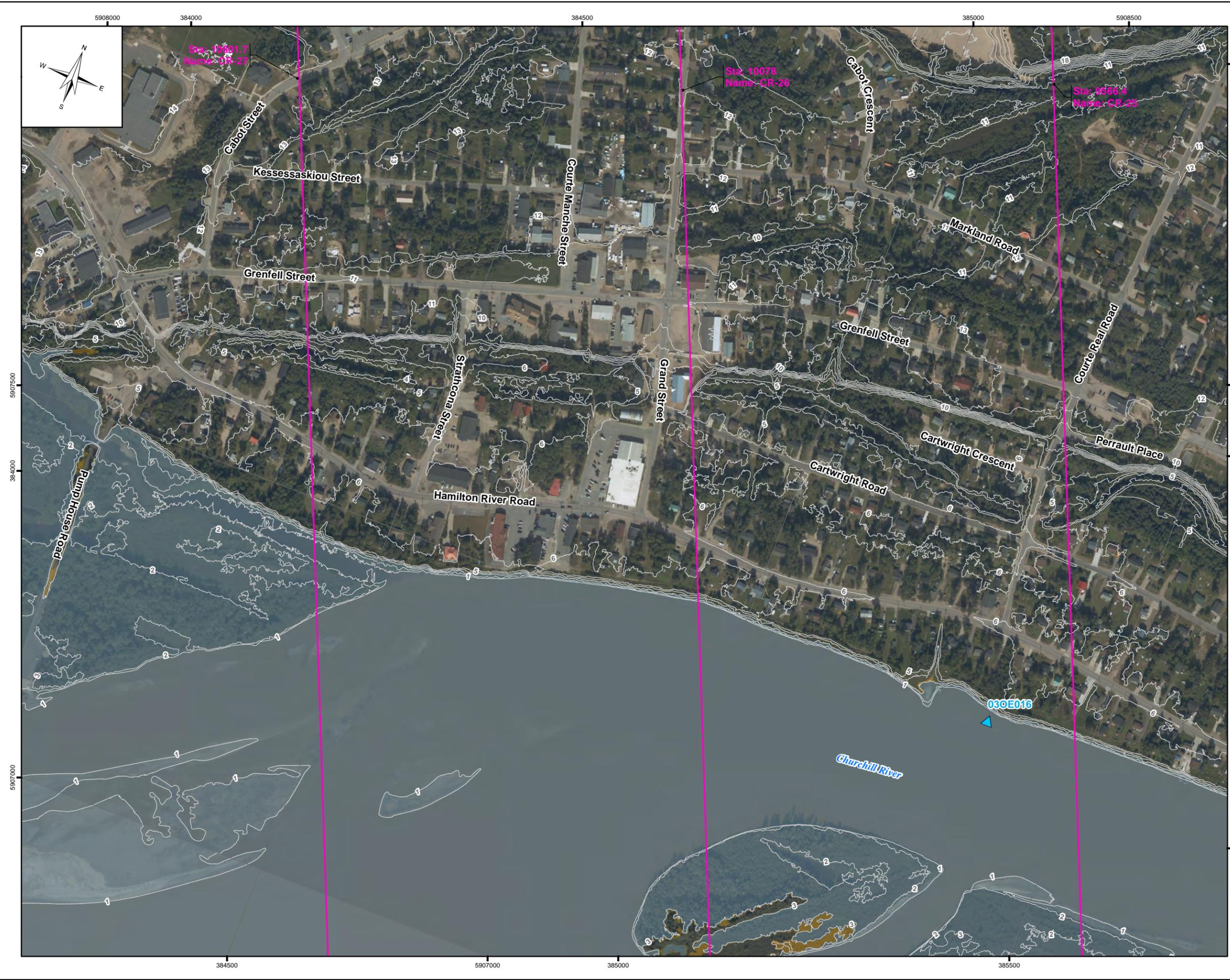
REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF ICE-AFFECTED 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-10

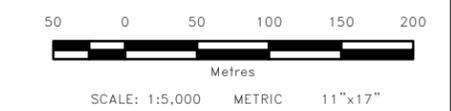
JUNE 2020	FIGURE 5.6	REV: 0
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 11"x17" PLOT SCALE 1:1
 Portions of data Produced by KGS Group, under Licence with the Government of Canada © 2019
 Her Majesty the Queen in Right of Canada, Department of Natural Resources. All rights reserved.



- LEGEND:**
- Sta. 2364.8 Name: CR-53
 - Cross Section
 - Water Survey of Canada Gauge Location
 - River Centreline
 - 1m LIDAR Contour
 - 1:20 Year Current Climate Ice Affected Flood Zone
 - 1:20 Year Climate Change Ice Affected Flood Zone

- NOTES:**
1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019.
 2. Topography shown was developed by KGS Group from the LiDAR captured by ATGIS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
 Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM)
 Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

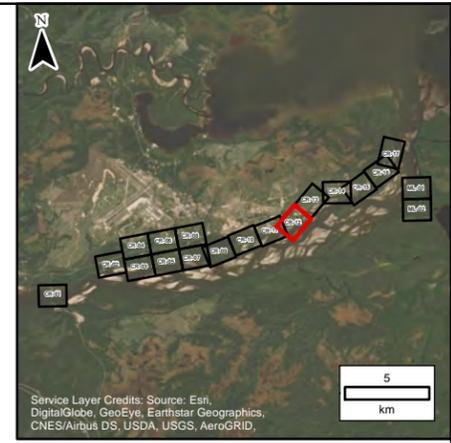
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REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF ICE-AFFECTED 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-11

JUNE 2020	FIGURE 5.6	REV: 0
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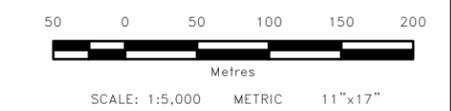


LEGEND:

- Sta: 2364.8 Name: CR-53
Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:20 Year Current Climate Ice Affected Flood Zone
- 1:20 Year Climate Change Ice Affected Flood Zone

NOTES:

1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATGIS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM) Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

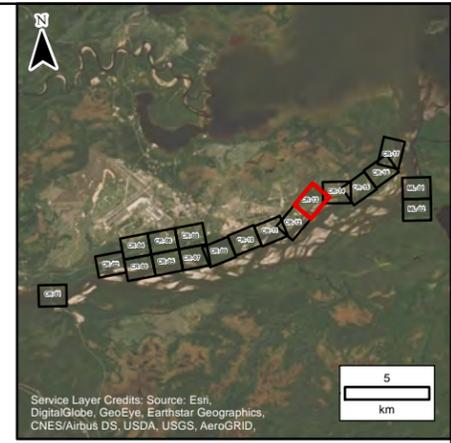
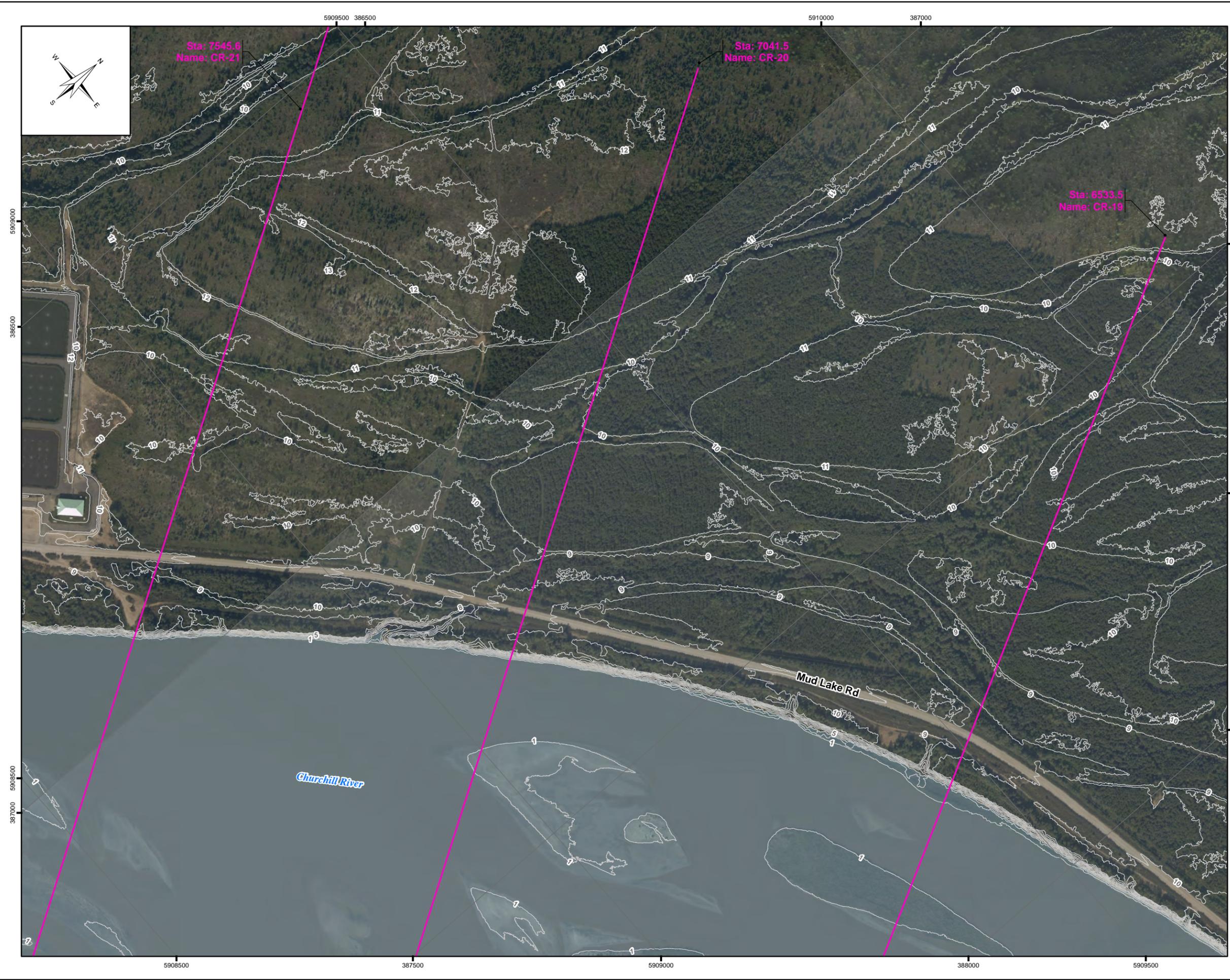
0	20/06/30	ISSUED WITH FINAL REPORT	DSB	MSW
NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF ICE-AFFECTED 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-12

JUNE 2020	FIGURE 5.6	REV: 0
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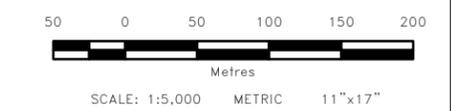


LEGEND:

- Sta: 2364.8 Name: CR-13
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:20 Year Current Climate Ice Affected Flood Zone
- 1:20 Year Climate Change Ice Affected Flood Zone

NOTES:

1. Imagery is supplied by ATLAS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATLAS Geomatics on September 11 – 13, 2019.

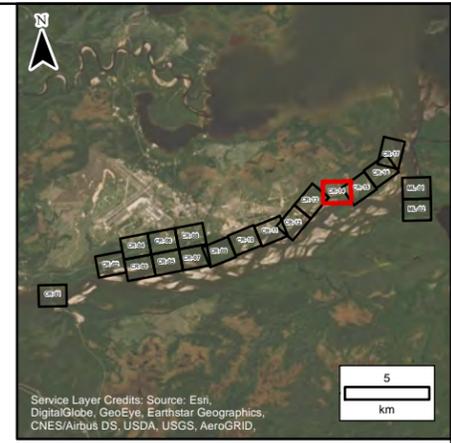
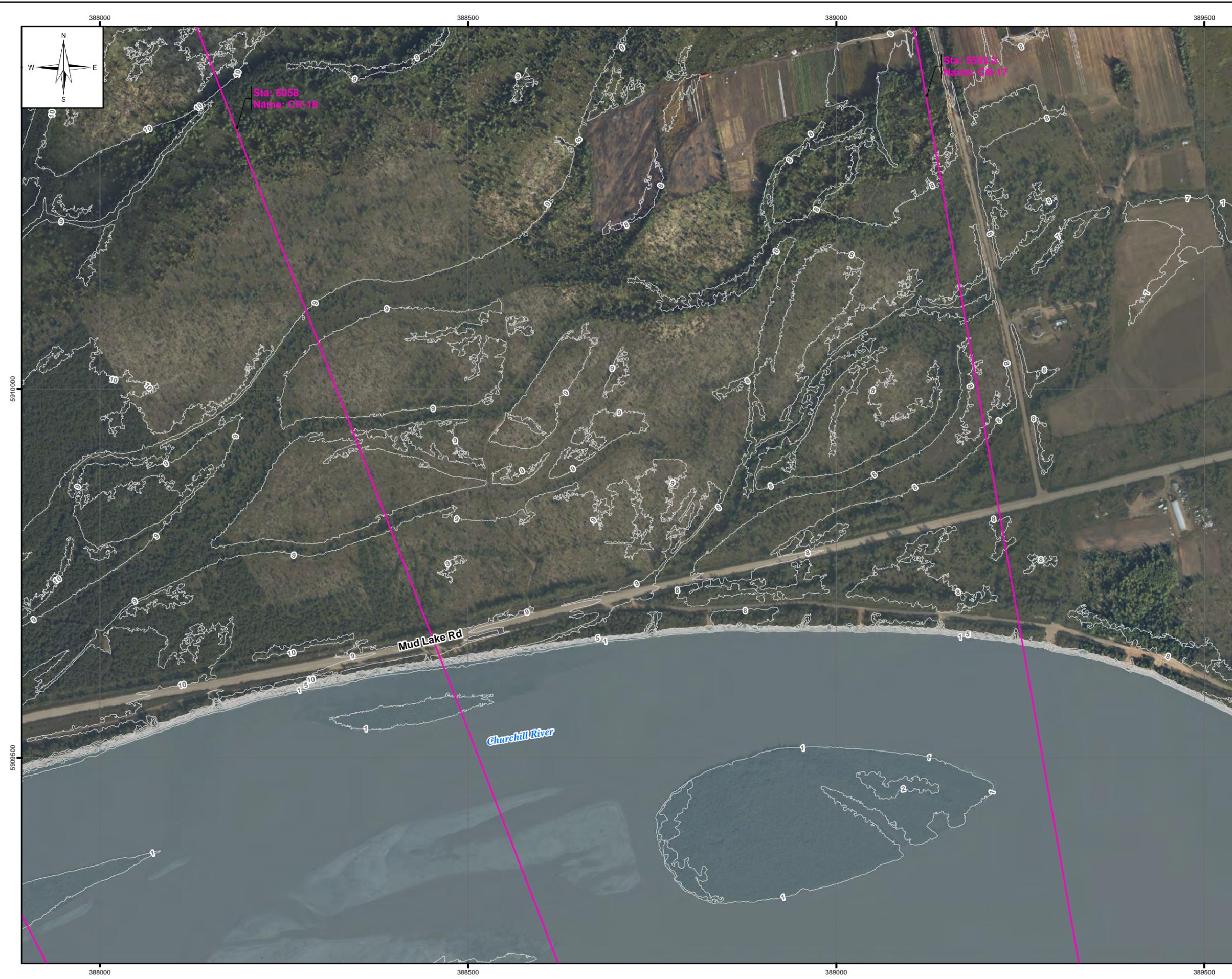


All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM), Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

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CHURCHILL RIVER FLOOD RISK AND FORECASTING		
COMPARISON OF ICE-AFFECTED 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-13		
JUNE 2020	FIGURE 5.6	REV: 0

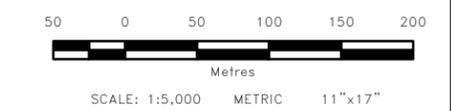


LEGEND:

- Sta: 2364.8 Name: CR-53
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:20 Year Current Climate Ice Affected Flood Zone
- 1:20 Year Climate Change Ice Affected Flood Zone

NOTES:

1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATGIS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM)
Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

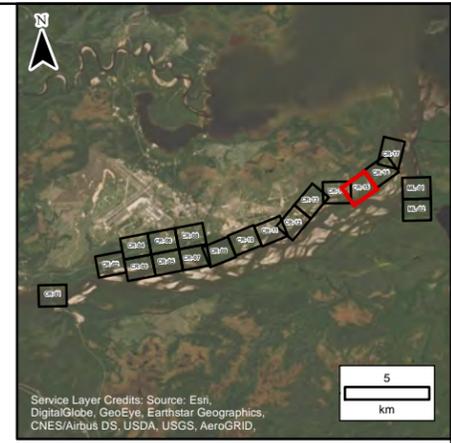
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CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF ICE-AFFECTED 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-14

JUNE 2020	FIGURE 5.6	REV: 0
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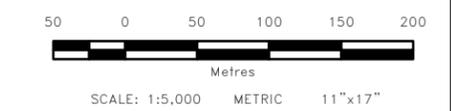


LEGEND:

- Sta: 2364.8 Name: CR-13
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:20 Year Current Climate Ice Affected Flood Zone
- 1:20 Year Climate Change Ice Affected Flood Zone

NOTES:

1. Imagery is supplied by ATLAS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATLAS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM)
Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

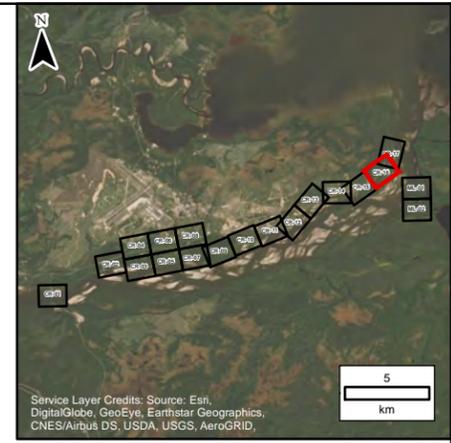
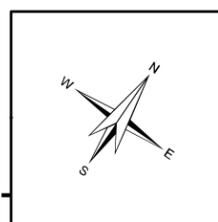
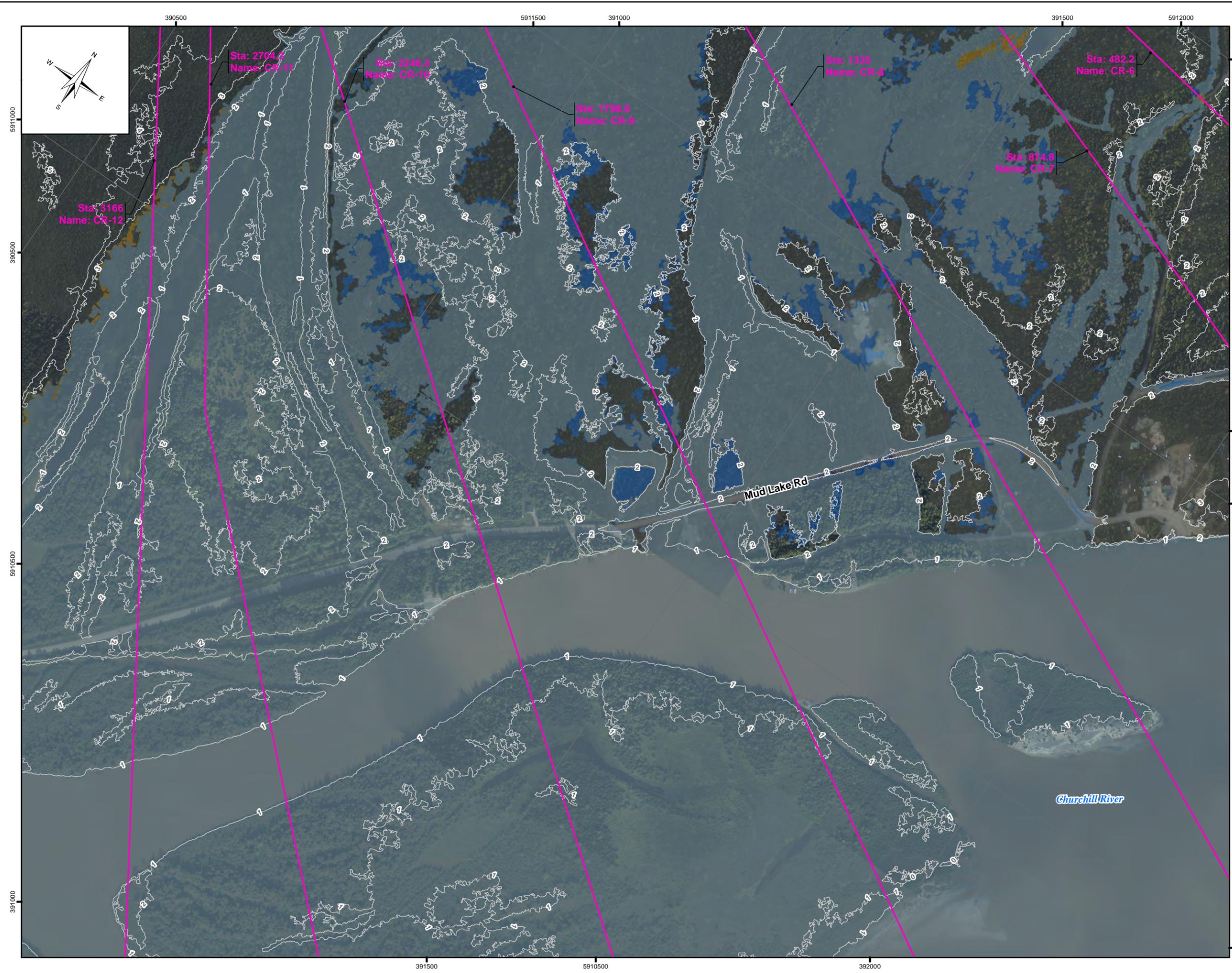
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NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

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CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF ICE-AFFECTED 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-15

JUNE 2020	FIGURE 5.6	REV: 0
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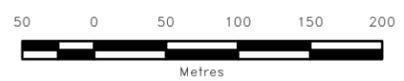


LEGEND:

- Sta: 2364.8 Name: CR-53
Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:20 Year Current Climate Ice Affected Flood Zone
- 1:20 Year Climate Change Ice Affected Flood Zone

NOTES:

1. Imagery is supplied by ATLIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATLIS Geomatics on September 11 – 13, 2019.



SCALE: 1:5,000 METRIC 11"x17"

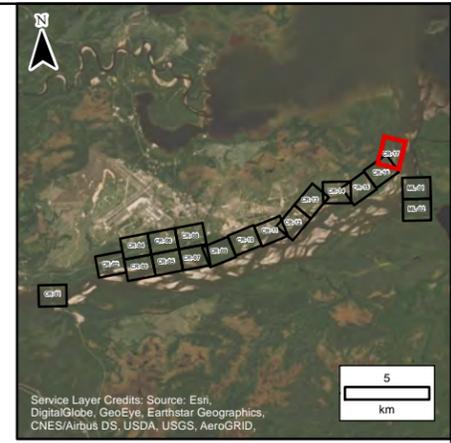
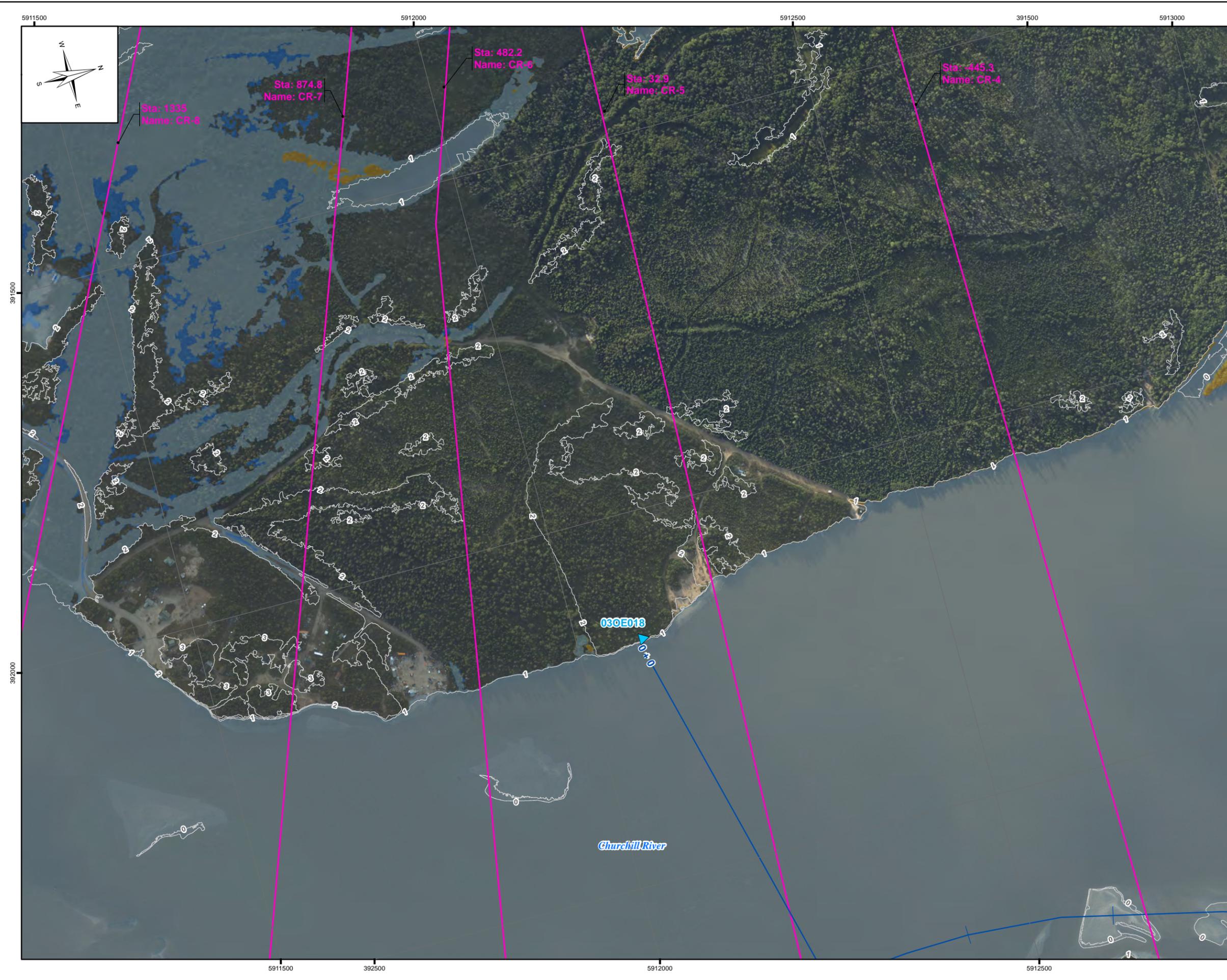
All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM) Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

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NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

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CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF ICE-AFFECTED 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-16

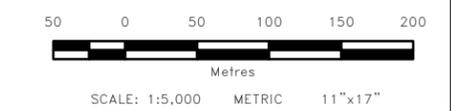


LEGEND:

- Sta: 2364.8 Name: CR-53
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:20 Year Current Climate Ice Affected Flood Zone
- 1:20 Year Climate Change Ice Affected Flood Zone

NOTES:

1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATGIS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM)
Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

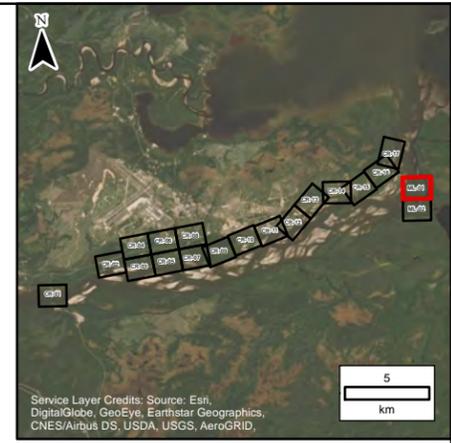
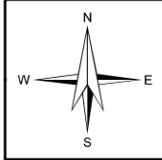
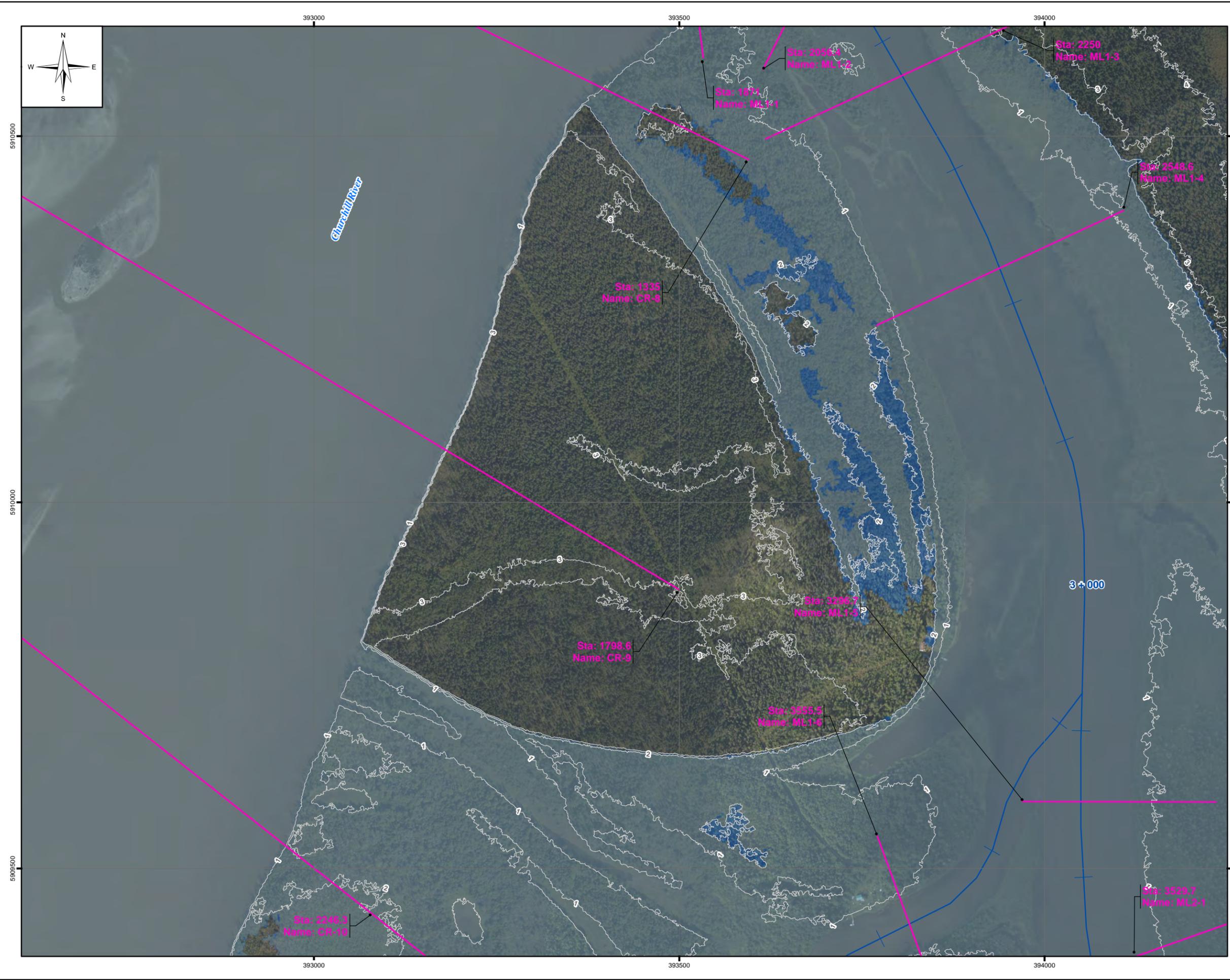
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NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF ICE-AFFECTED 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-17

JUNE 2020	FIGURE 5.6	REV: 0
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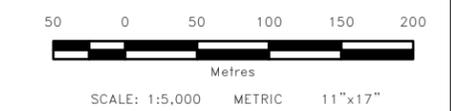


LEGEND:

- Sta: 2364.8 Name: CR-53 Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:20 Year Current Climate Ice Affected Flood Zone
- 1:20 Year Climate Change Ice Affected Flood Zone

NOTES:

1. Imagery is supplied by ATLAS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATLAS Geomatics on September 11 – 13, 2019.

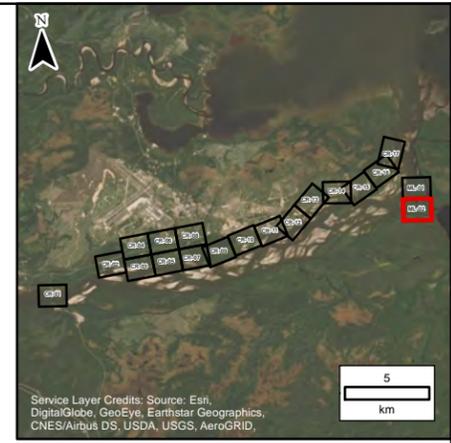
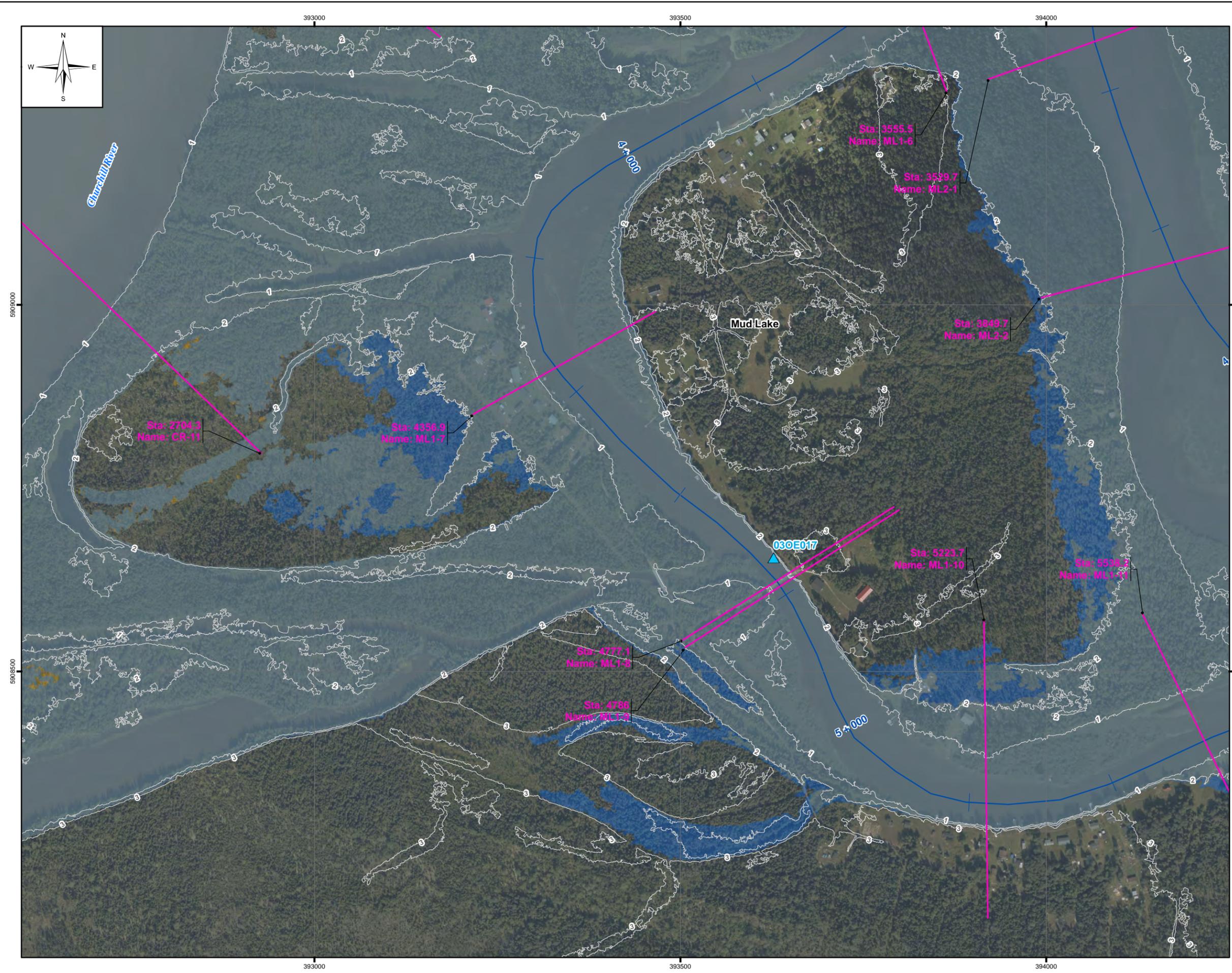


All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM) Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

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CHURCHILL RIVER FLOOD RISK AND FORECASTING		
COMPARISON OF ICE-AFFECTED 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – ML-01		
JUNE 2020	FIGURE 5.6	REV: 0

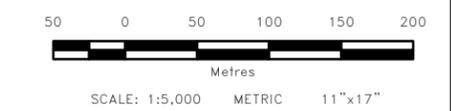


LEGEND:

- Sta: 2364.8 Name: CR-53
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:20 Year Current Climate Ice Affected Flood Zone
- 1:20 Year Climate Change Ice Affected Flood Zone

NOTES:

1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATGIS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM)
Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

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REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

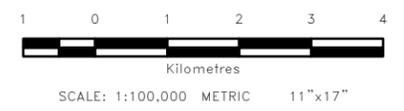
COMPARISON OF ICE-AFFECTED 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – ML-02

JUNE 2020	FIGURE 5.6	REV: 0
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- LEGEND:**
- Water Survey of Canada Gauge Location
 - River Centreline
 - 1:100 Year Current Climate Ice Affected Flood Zone
 - 1:100 Year Climate Change Ice Affected Flood Zone
 - Map Extents

NOTES:
1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019, and by ESRI and DigitalGlobe, WV02 dated June 3, 2015.



All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM), Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

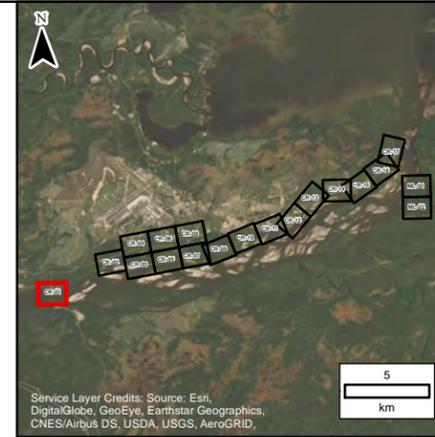
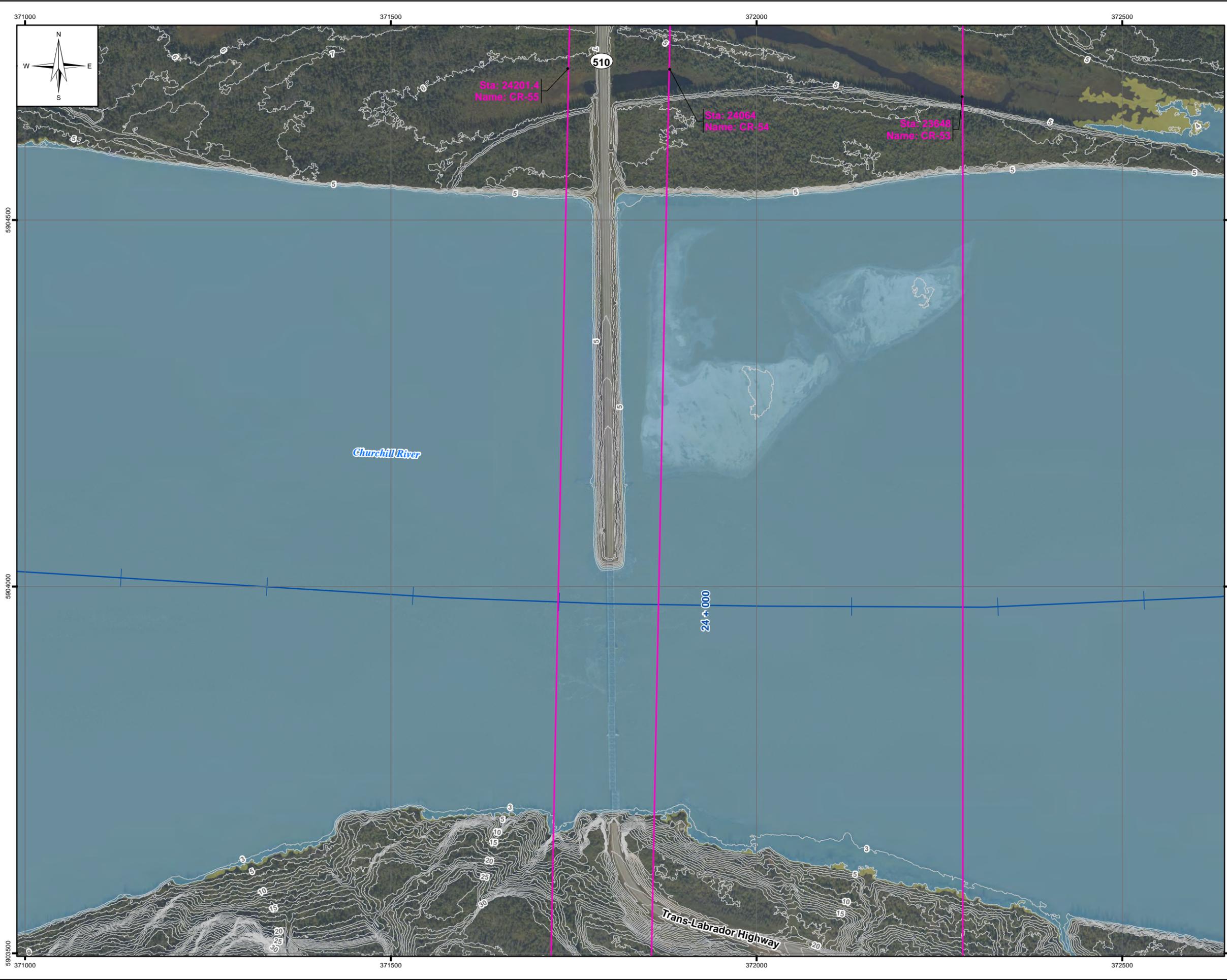
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CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF ICE-AFFECTED 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) OVERVIEW MAP

JUNE 2020	FIGURE 5.7	REV: 0
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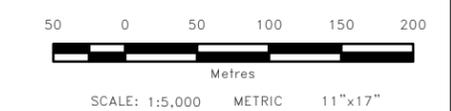


LEGEND:

- Sta: 23648 Name: CR-53
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LiDAR Contour
- 1:100 Year Current Climate Ice Affected Flood Zone
- 1:100 Year Climate Change Ice Affected Flood Zone

NOTES:

1. Imagery is supplied by ATLAS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATLAS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM), Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

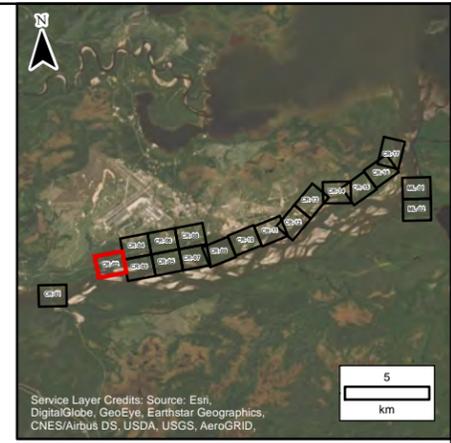
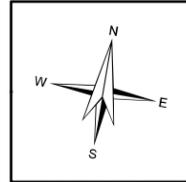
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NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF ICE-AFFECTED 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-01

JUNE 2020	FIGURE 5.8	REV: 0
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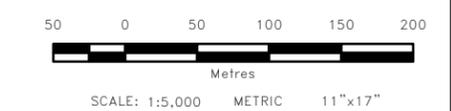


LEGEND:

- Sta: 20632.1 Name: CR-47
- Sta: 20131.1 Name: CR-46
- Sta: 19631.2 Name: CR-45
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:100 Year Current Climate Ice Affected Flood Zone
- 1:100 Year Climate Change Ice Affected Flood Zone

NOTES:

1. Imagery is supplied by ATLAS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATLAS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM), Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

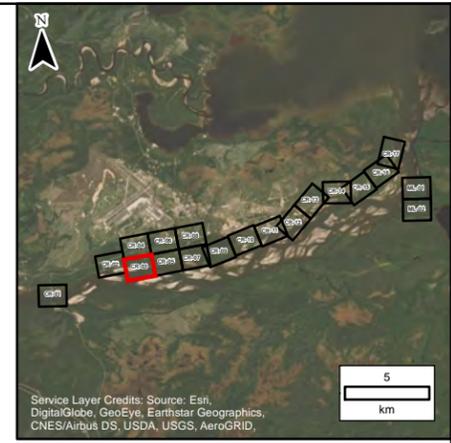
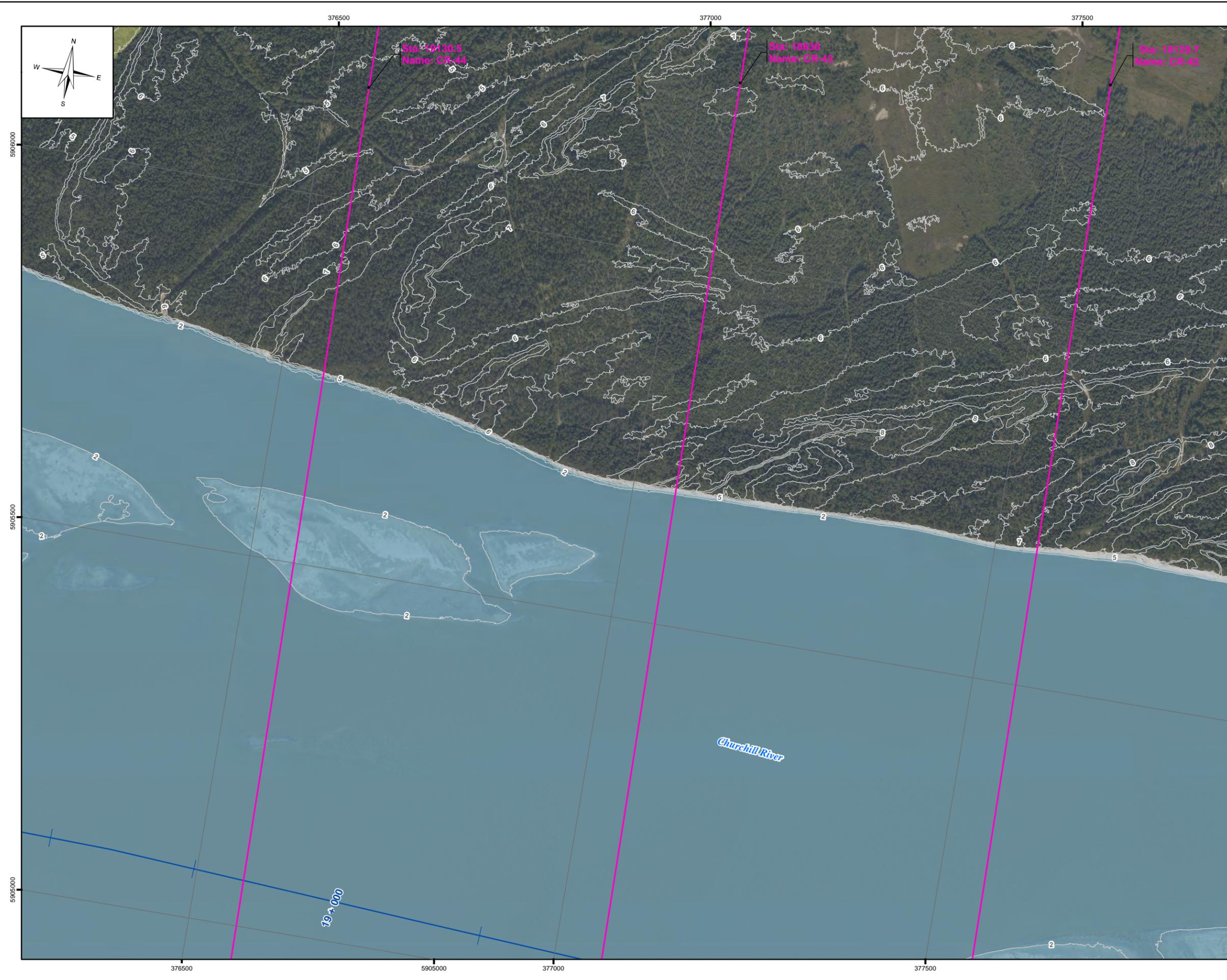
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CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF ICE-AFFECTED 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-02

JUNE 2020	FIGURE 5.8	REV: 0
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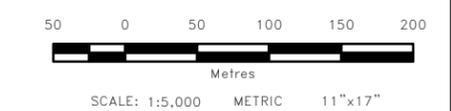


LEGEND:

- Sta: 23648 Name: CR-43 Cross Section
- ▲ Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:100 Year Current Climate Ice Affected Flood Zone
- 1:100 Year Climate Change Ice Affected Flood Zone

NOTES:

1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATGIS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
 Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM), Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

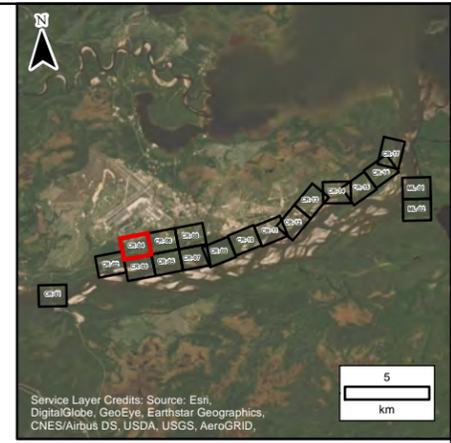
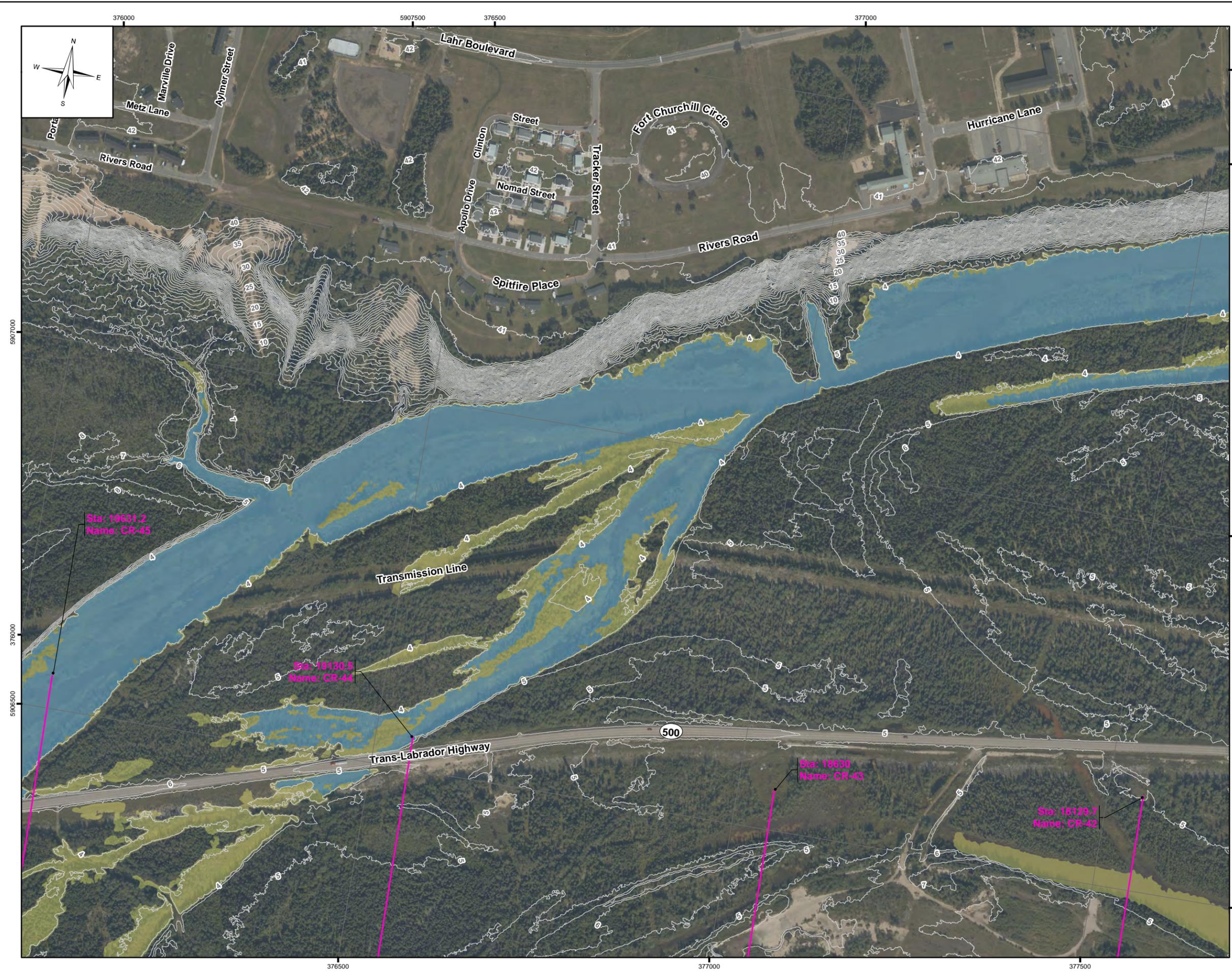
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KGS
GROUP
CONSULTING
ENGINEERS

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF ICE-AFFECTED 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-03

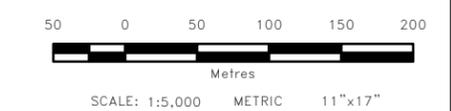


LEGEND:

- Sta: 23648 Name: CR-43
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:100 Year Current Climate Ice Affected Flood Zone
- 1:100 Year Climate Change Ice Affected Flood Zone

NOTES:

1. Imagery is supplied by ATLAS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATLAS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified. Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM) Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

20/06/30	ISSUED WITH FINAL REPORT	DSB	MSW
NO.	YY/MM/DD	DESCRIPTION	ISSUED BY / CHECK BY

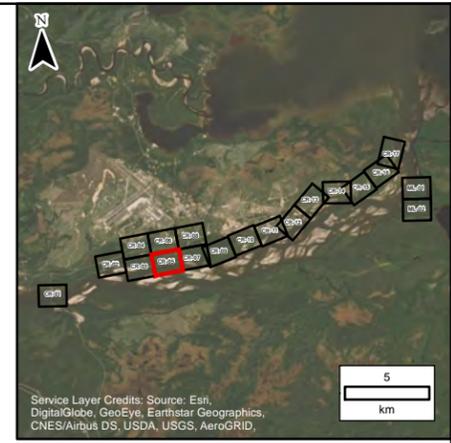
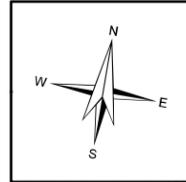
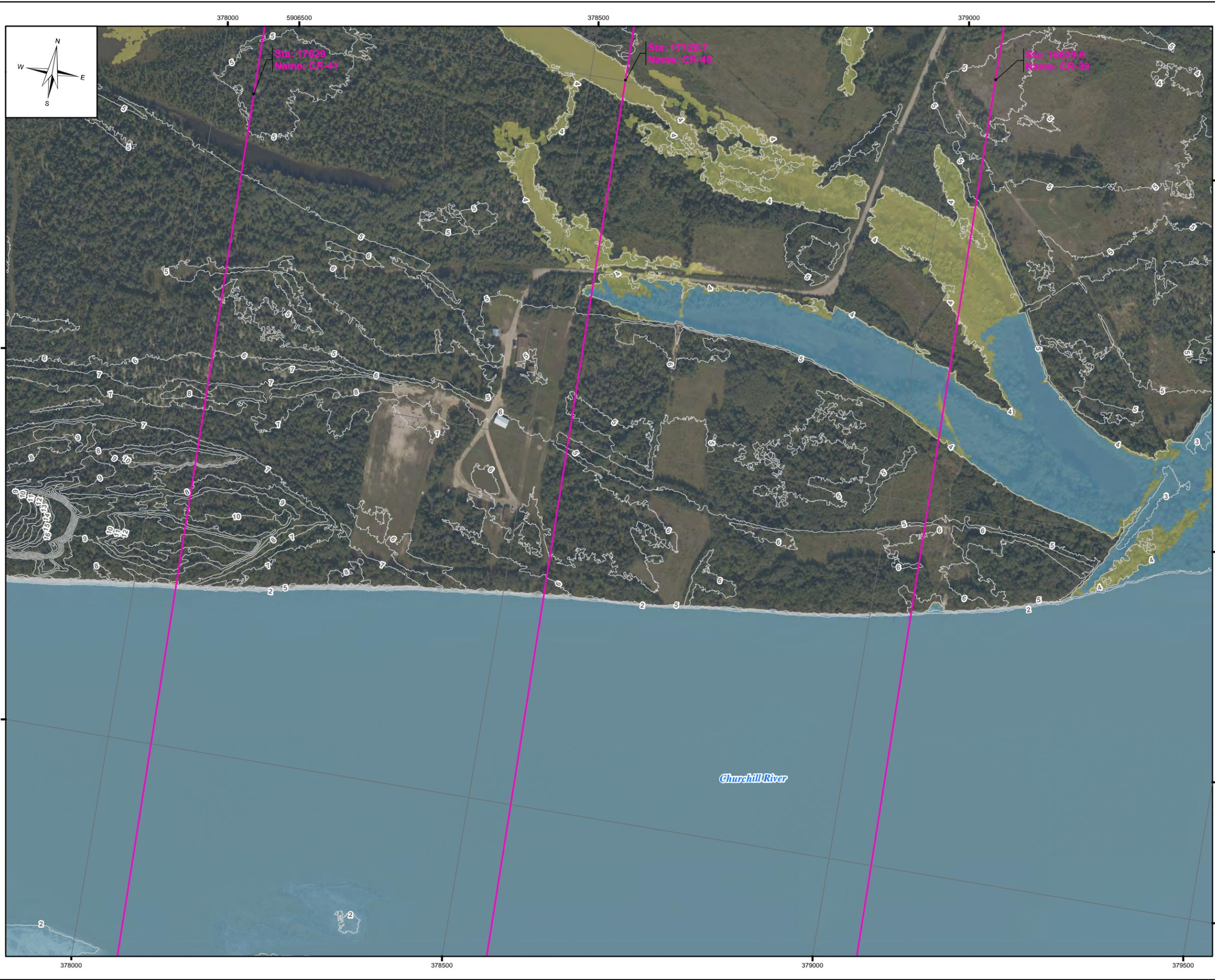
REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF ICE-AFFECTED 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-04

JUNE 2020	FIGURE 5.8	REV: 0
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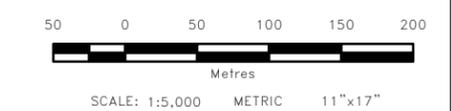


LEGEND:

- Sta: 23648 Name: CR-43
Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:100 Year Current Climate Ice Affected Flood Zone
- 1:100 Year Climate Change Ice Affected Flood Zone

NOTES:

1. Imagery is supplied by ATLIIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATLIIS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
 Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM)
 Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

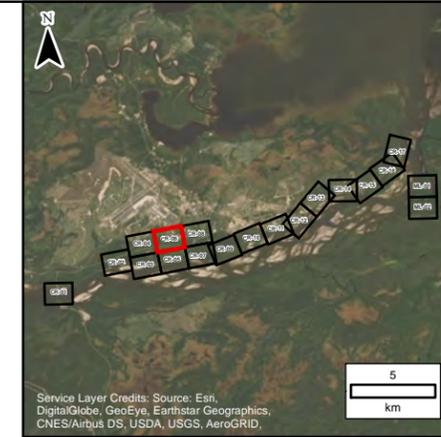
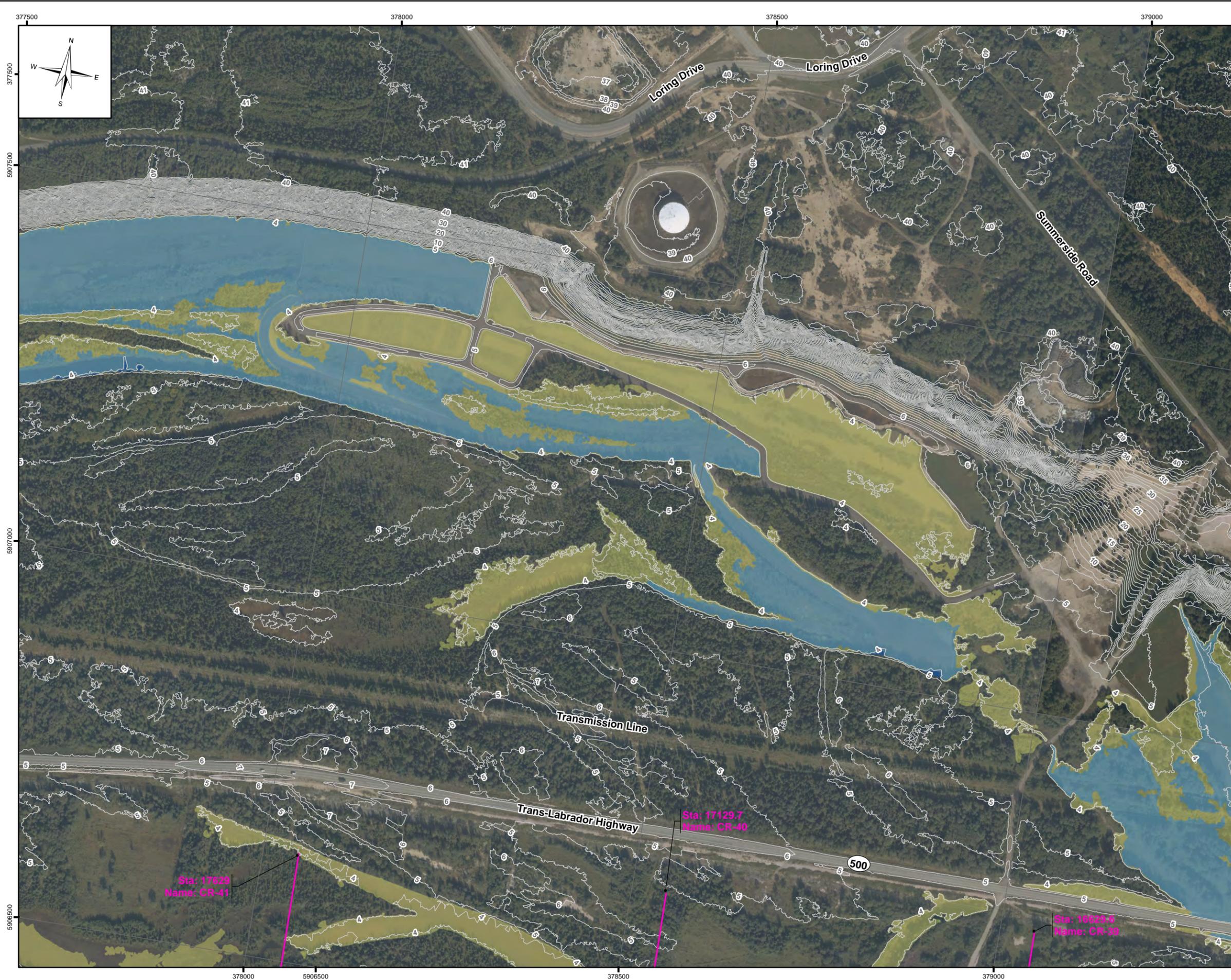
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NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF ICE-AFFECTED 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-05

JUNE 2020	FIGURE 5.8	REV: 0
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LEGEND:

- Sta: 23648 Name: CR-43
Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:100 Year Current Climate Ice Affected Flood Zone
- 1:100 Year Climate Change Ice Affected Flood Zone

NOTES:

1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATGIS Geomatics on September 11 – 13, 2019.



SCALE: 1:5,000 METRIC 11"x17"

All units are metric and in metres unless otherwise specified. Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM) Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

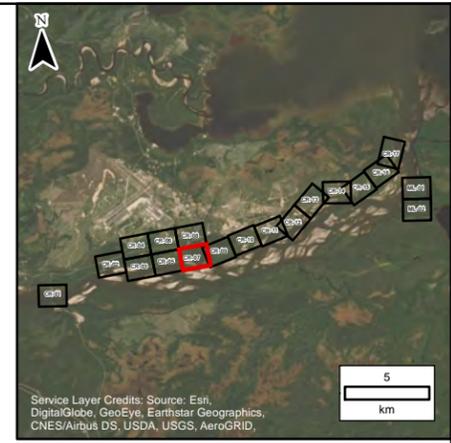
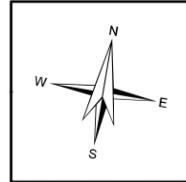
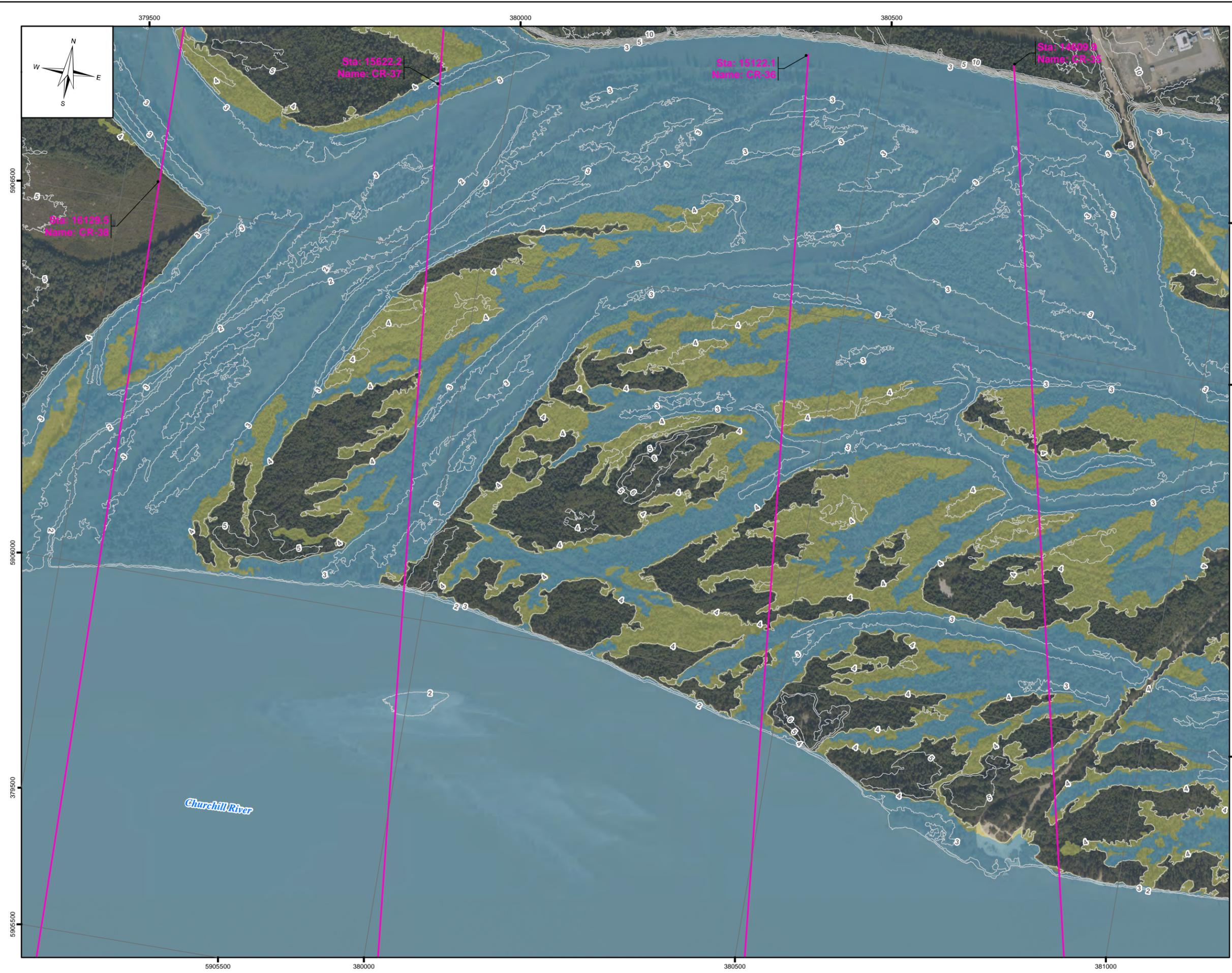
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NO.	YY/MM/DD	DESCRIPTION	ISSUED BY / CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF ICE-AFFECTED 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-06

JUNE 2020	FIGURE 5.8	REV: 0
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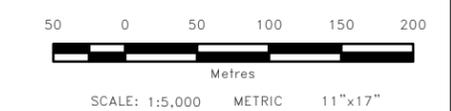


LEGEND:

- Sta: 23648 Name: CR-33
Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:100 Year Current Climate Ice Affected Flood Zone
- 1:100 Year Climate Change Ice Affected Flood Zone

NOTES:

1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATGIS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM)
Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

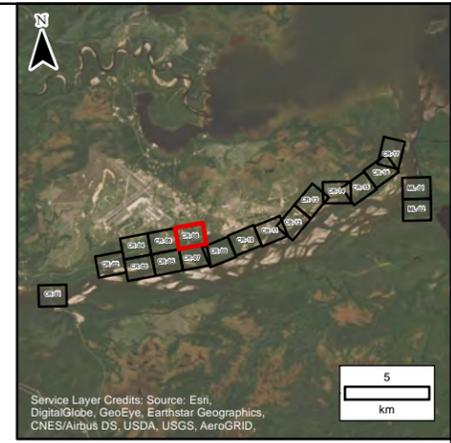
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NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF ICE-AFFECTED 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-07

JUNE 2020	FIGURE 5.8	REV: 0
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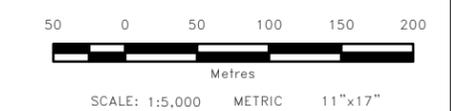


LEGEND:

- Sta: 23648 Name: CR-53
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:100 Year Current Climate Ice Affected Flood Zone
- 1:100 Year Climate Change Ice Affected Flood Zone

NOTES:

1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATGIS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified. Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM), Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

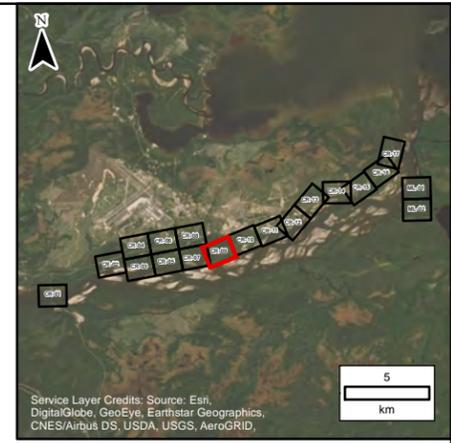
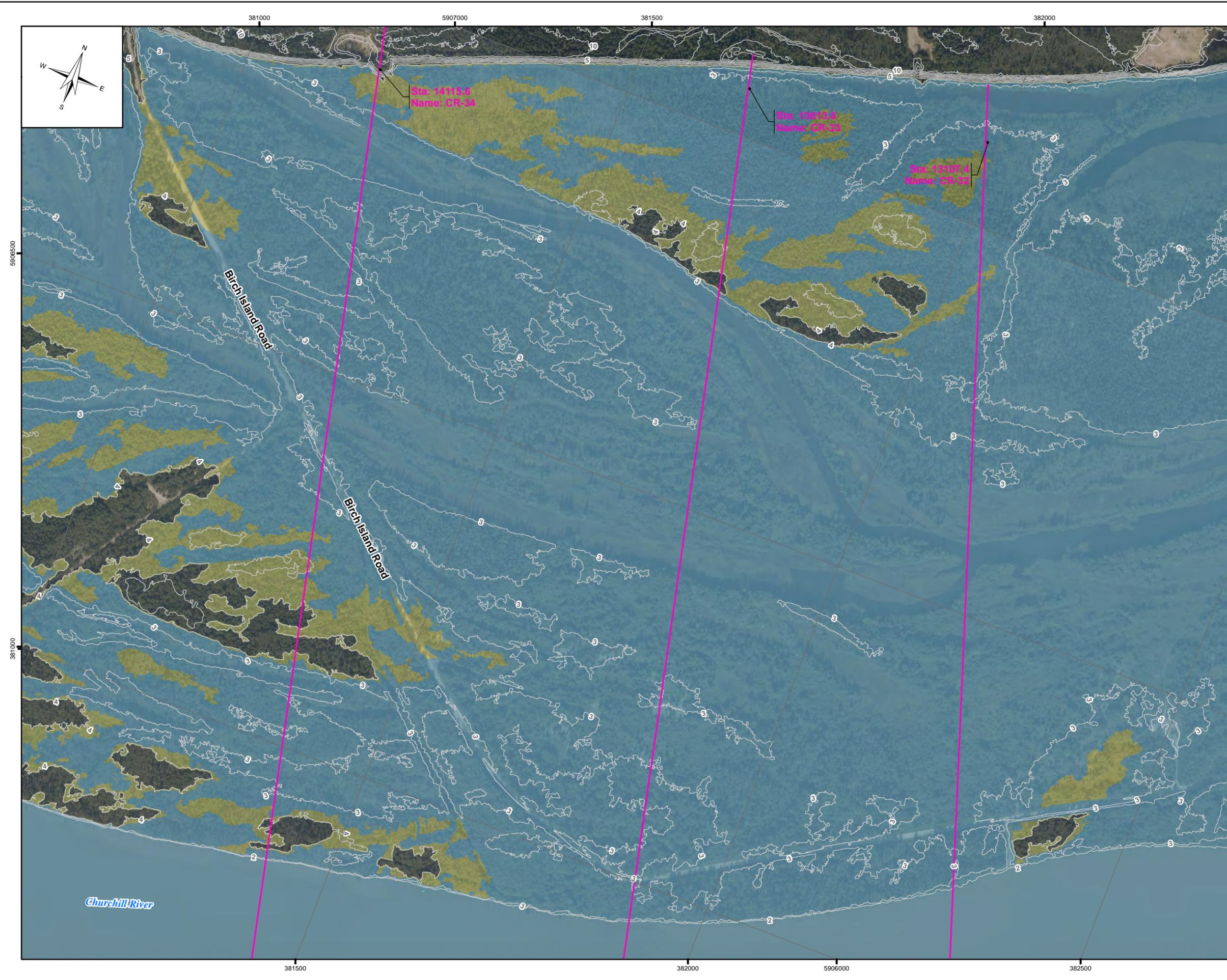
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NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF ICE-AFFECTED 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT FOR CURRENT (CC-CD) & (CLC-CD) – CR-08

JUNE 2020	FIGURE 5.8	REV: 0
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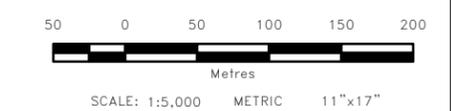


LEGEND:

- Sta: 2364.8 Name: CR-33 Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LiDAR Contour
- 1:100 Year Current Climate Ice Affected Flood Zone
- 1:100 Year Climate Change Ice Affected Flood Zone

NOTES:

1. Imagery is supplied by ATLAS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATLAS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM)
Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

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NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

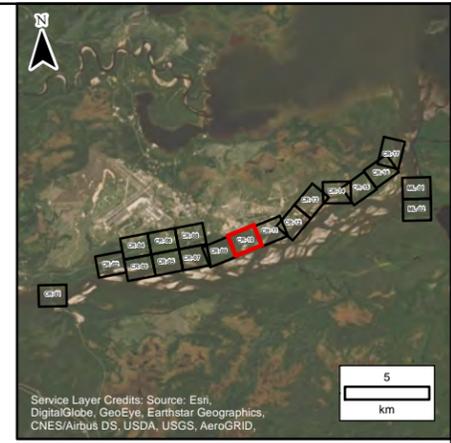
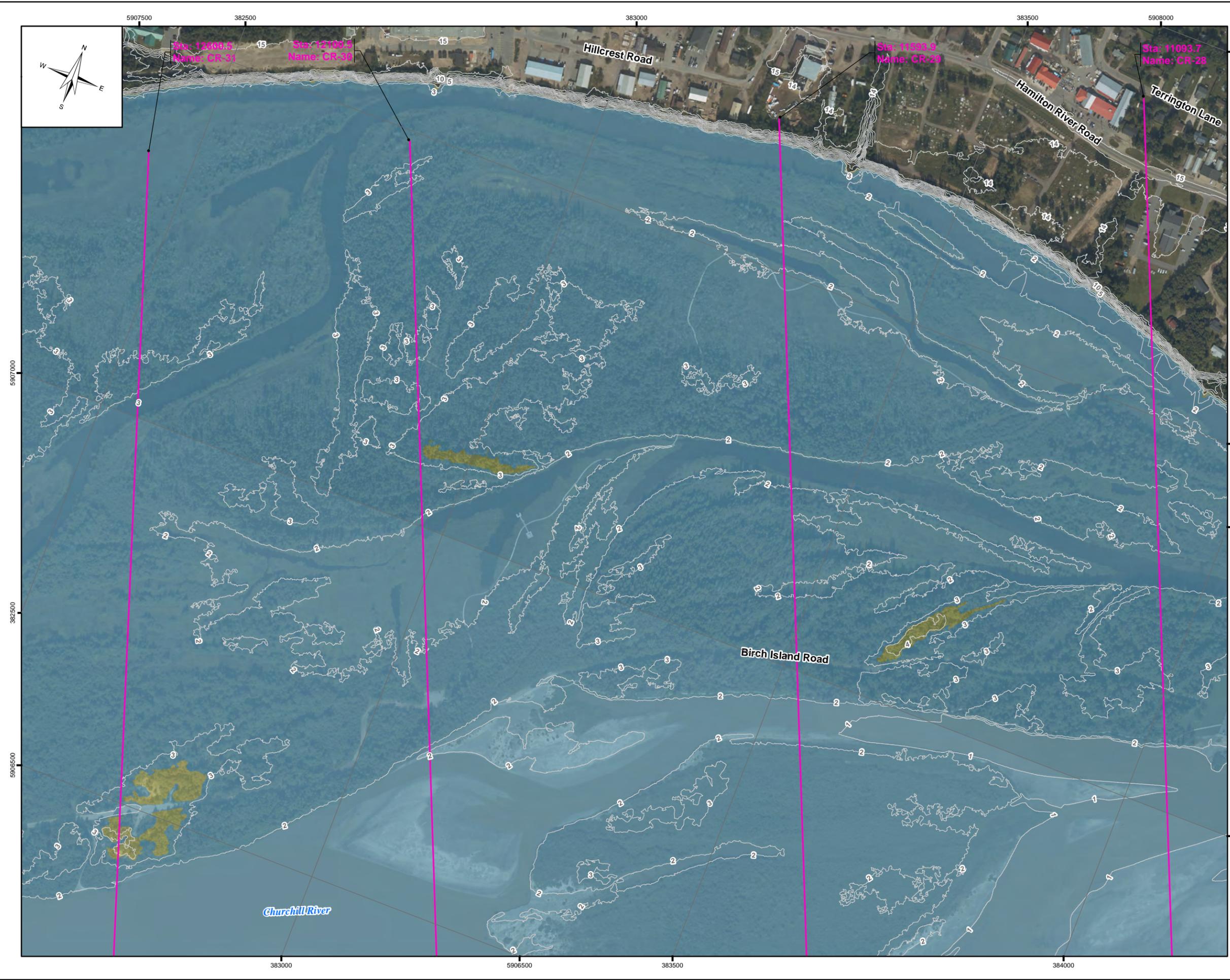
REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF ICE-AFFECTED 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-09

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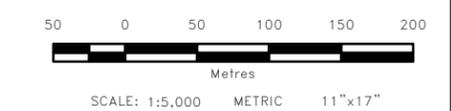


LEGEND:

- Sta: 2364.8 Name: CR-30
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:100 Year Current Climate Ice Affected Flood Zone
- 1:100 Year Climate Change Ice Affected Flood Zone

NOTES:

1. Imagery is supplied by ATLIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATLIS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
 Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM), Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

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NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

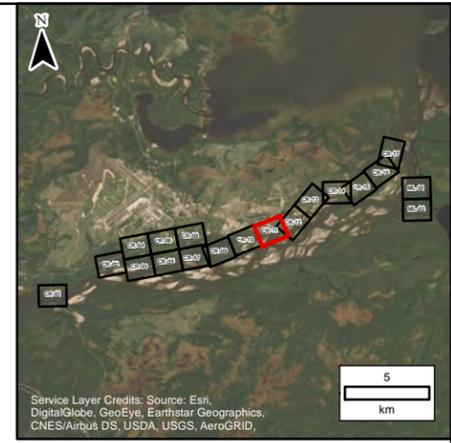
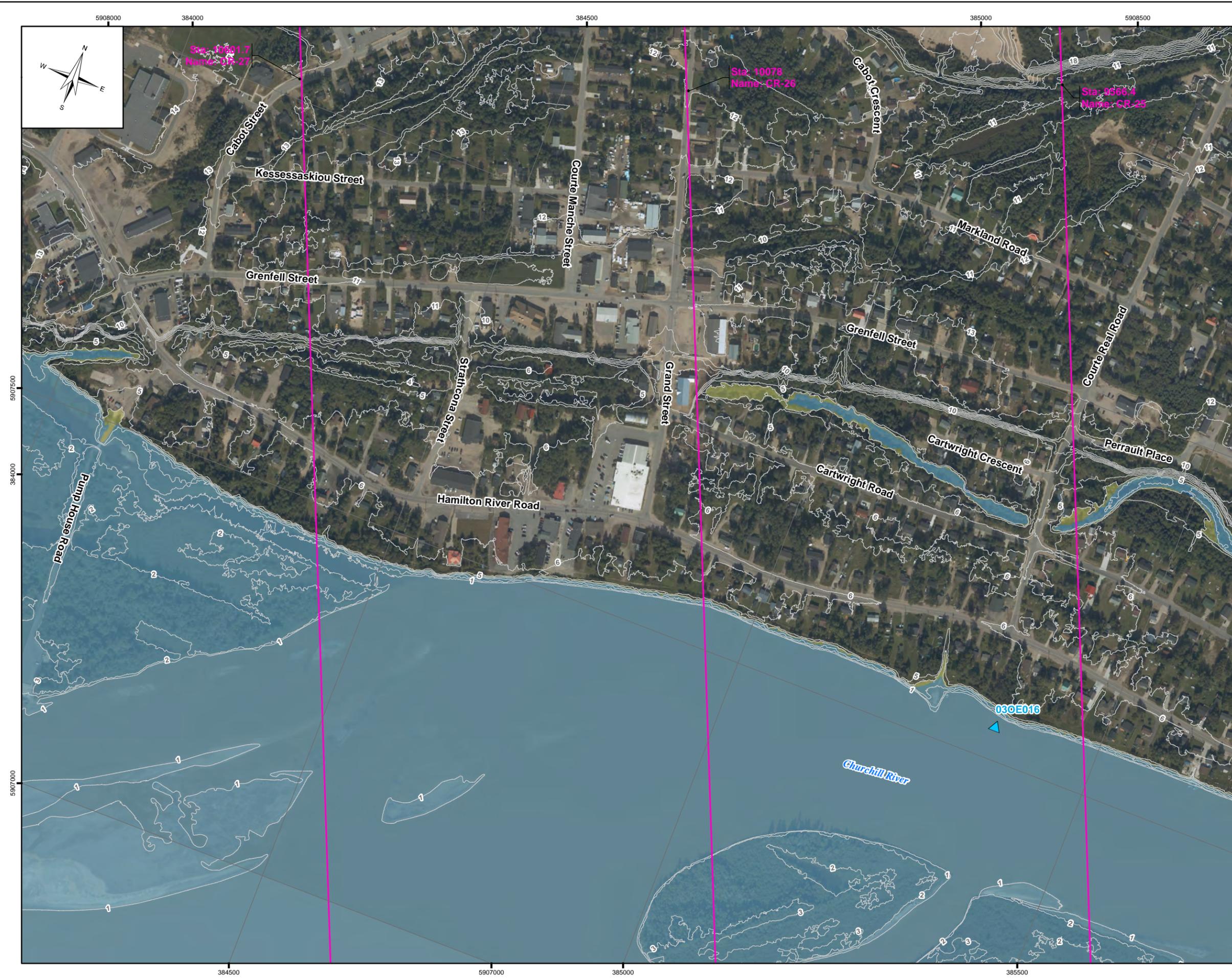
CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF ICE-AFFECTED 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-10

JUNE 2020	FIGURE 5.8	REV: 0
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File Name: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.8_11x17.mxd
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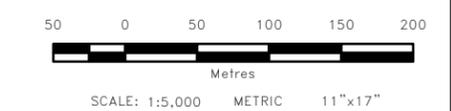


LEGEND:

- Sta: 23648 Name: CR-53
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:100 Year Current Climate Ice Affected Flood Zone
- 1:100 Year Climate Change Ice Affected Flood Zone

NOTES:

1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATGIS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
 Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM), Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

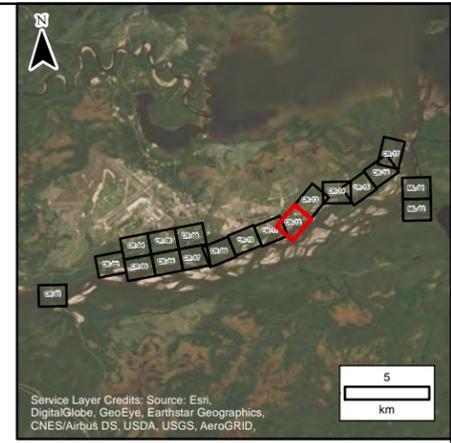
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CHURCHILL RIVER FLOOD RISK AND FORECASTING

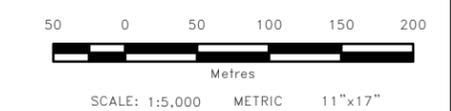
COMPARISON OF ICE-AFFECTED 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT FLOOD DEFENCE (CC-CD) & (CLC-CD) – CR-11

JUNE 2020	FIGURE 5.8	REV: 0
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- LEGEND:**
- Sta: 2364.8 Name: CR-53
 - Cross Section
 - Water Survey of Canada Gauge Location
 - River Centreline
 - 1m LIDAR Contour
 - 1:100 Year Current Climate Ice Affected Flood Zone
 - 1:100 Year Climate Change Ice Affected Flood Zone

- NOTES:**
1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019.
 2. Topography shown was developed by KGS Group from the LiDAR captured by ATGIS Geomatics on September 11 – 13, 2019.



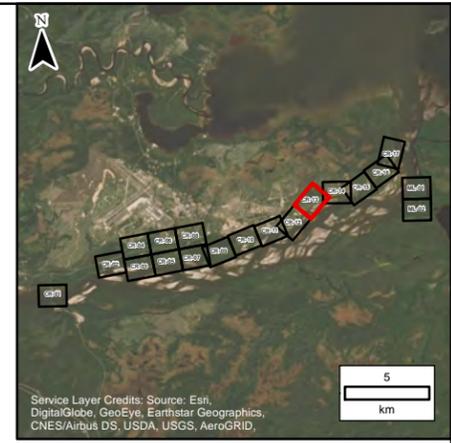
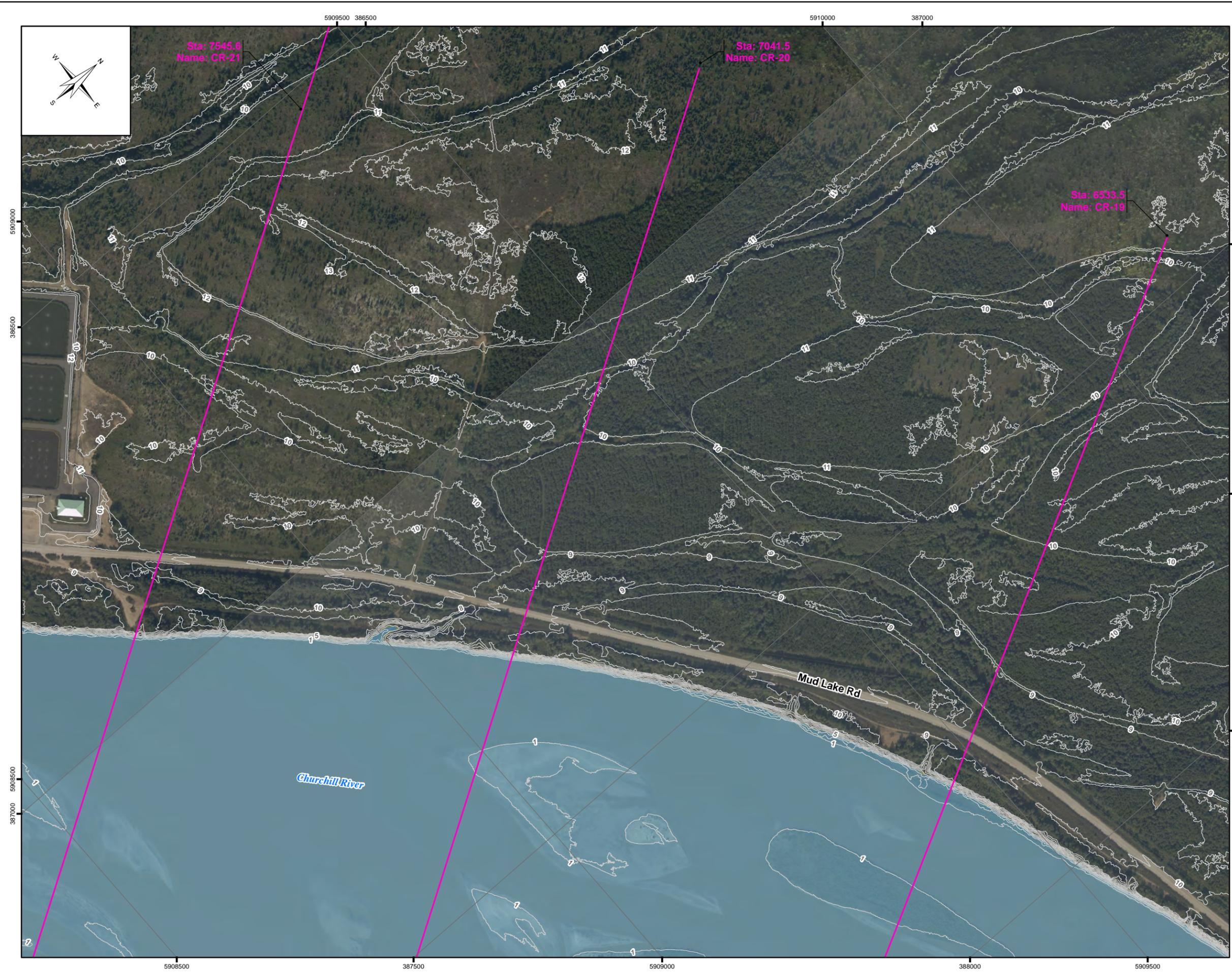
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NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF ICE-AFFECTED 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-12

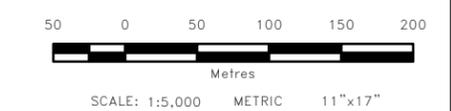


LEGEND:

- Sta: 2364.8 Name: CR-13
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:100 Year Current Climate Ice Affected Flood Zone
- 1:100 Year Climate Change Ice Affected Flood Zone

NOTES:

1. Imagery is supplied by ATLAS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATLAS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM), Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

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NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

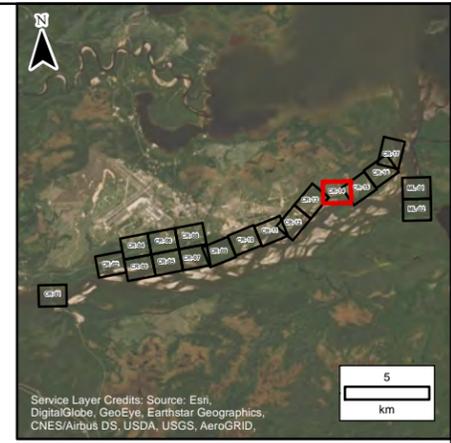
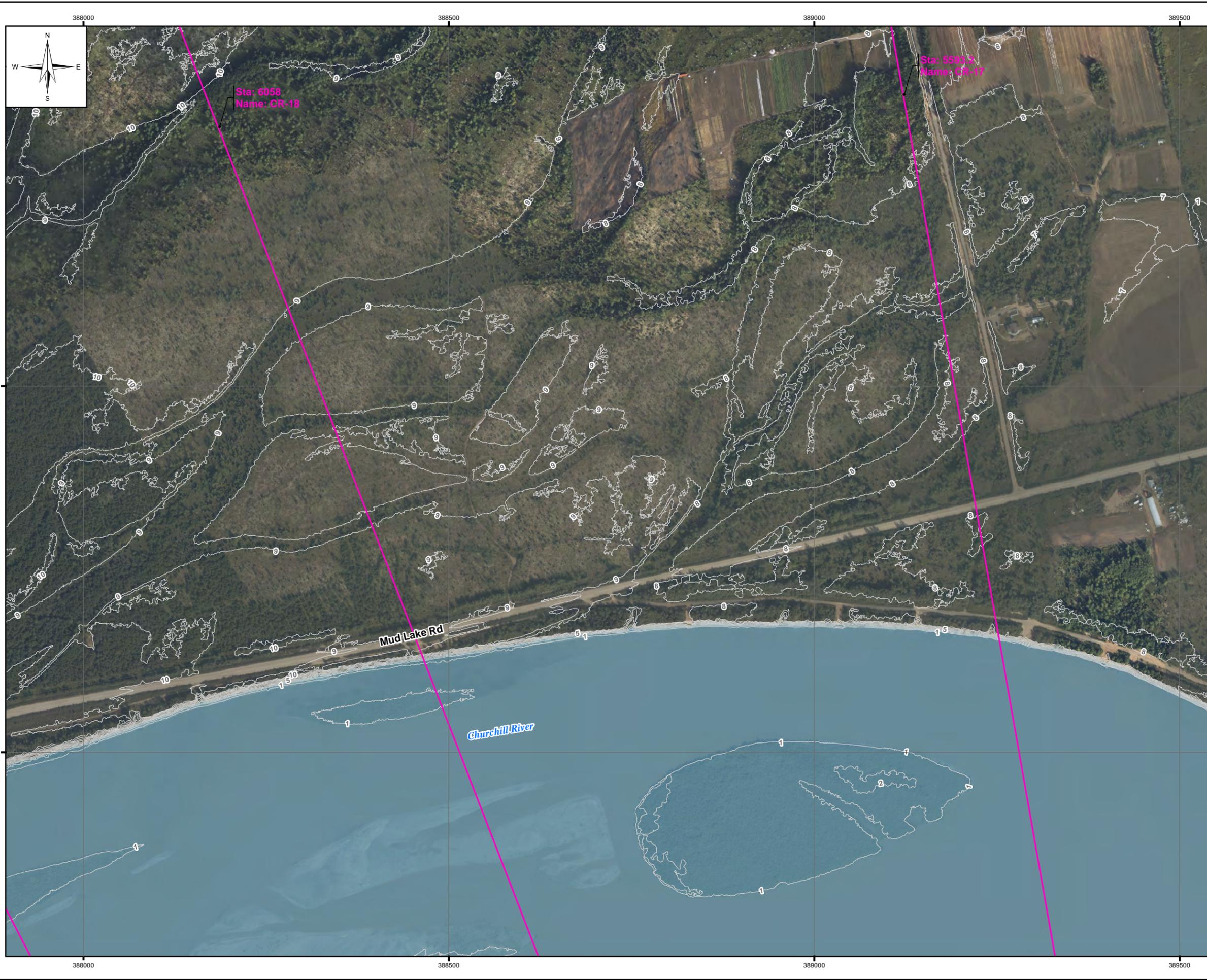
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CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF ICE-AFFECTED 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-13

JUNE 2020	FIGURE 5.8	REV: 0
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File Name: P:\Projects\2018\18-3217-001\Drawings\GIS\MXD\Flood_Mapping\18-3217-001_Figs_8_11x17.mxd
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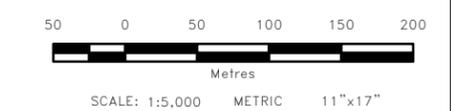


LEGEND:

- Sta: 2364.8 Name: CR-53
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:100 Year Current Climate Ice Affected Flood Zone
- 1:100 Year Climate Change Ice Affected Flood Zone

NOTES:

1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATGIS Geomatics on September 11 – 13, 2019.

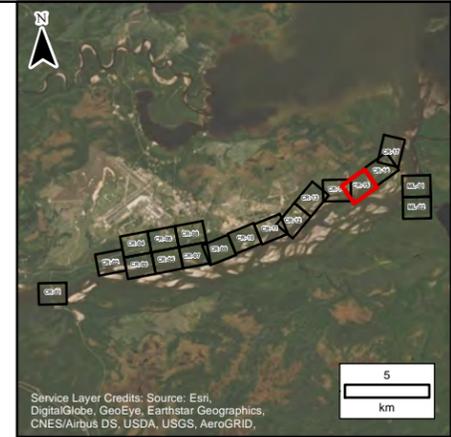


All units are metric and in metres unless otherwise specified.
 Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM), Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

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NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING	
COMPARISON OF ICE-AFFECTED 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-14	
JUNE 2020	FIGURE 5.8
REV: 0	0

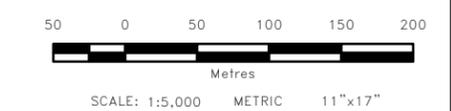


LEGEND:

- Sta: 2364.8 Name: CR-13
- Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LiDAR Contour
- 1:100 Year Current Climate Ice Affected Flood Zone
- 1:100 Year Climate Change Ice Affected Flood Zone

NOTES:

1. Imagery is supplied by ATLAS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATLAS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM), Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

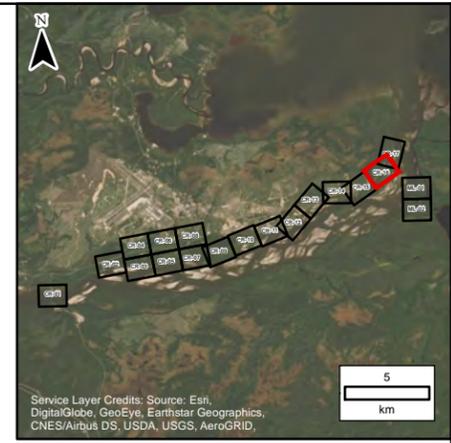
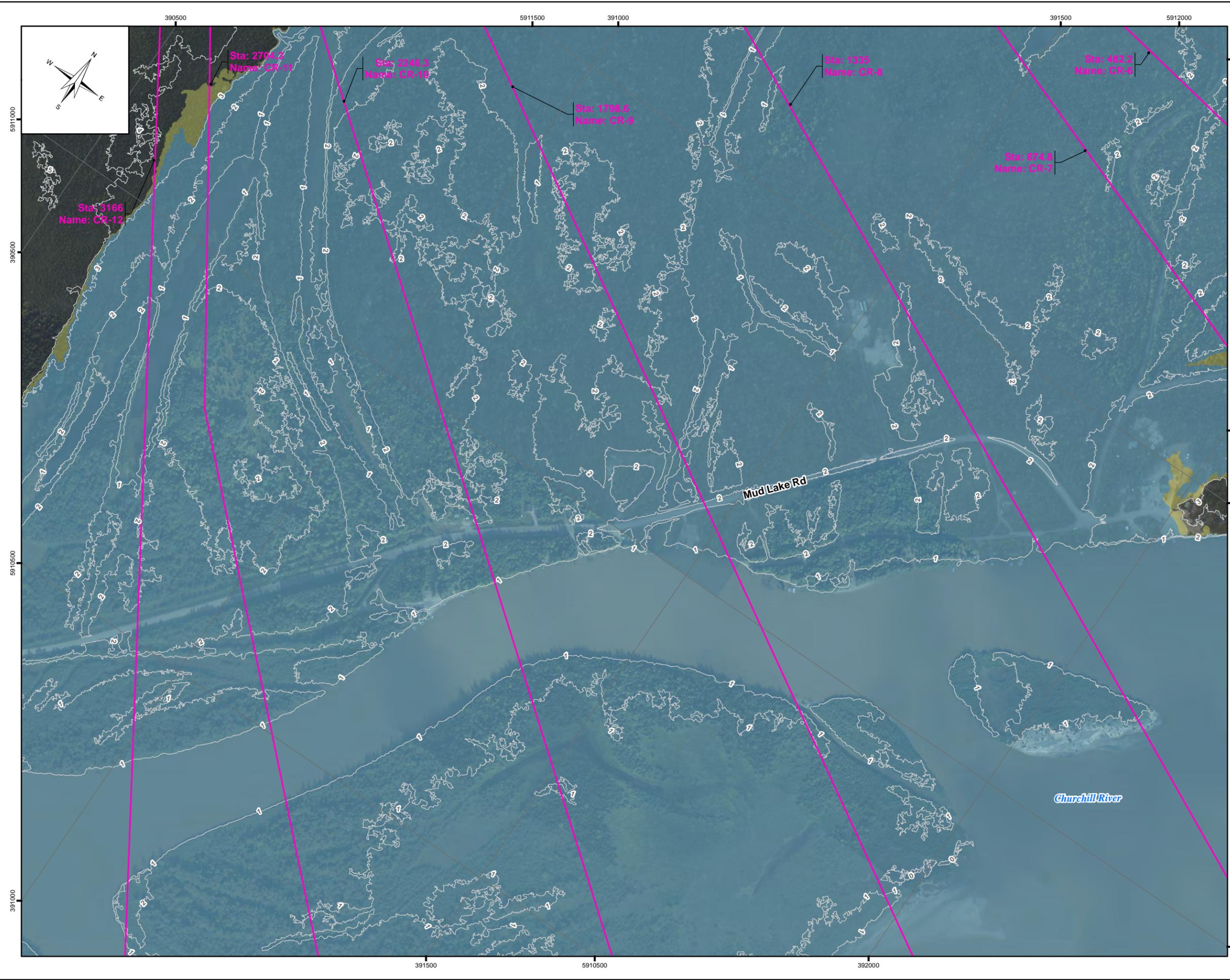
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NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF ICE-AFFECTED 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-15

JUNE 2020	FIGURE 5.8	REV: 0
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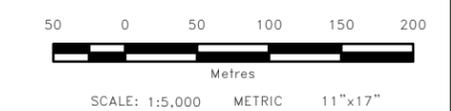


LEGEND:

- Sta: 2364.8 Name: CR-53
Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:100 Year Current Climate Ice Affected Flood Zone
- 1:100 Year Climate Change Ice Affected Flood Zone

NOTES:

1. Imagery is supplied by ATLIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATLIS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM), Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

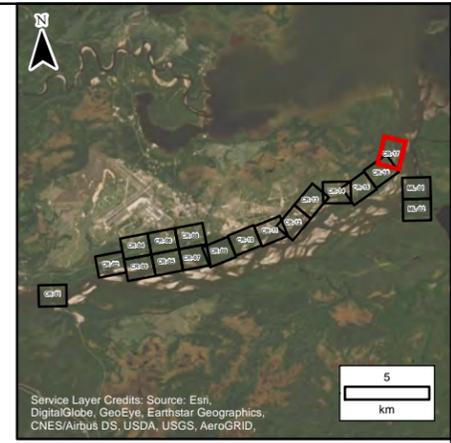
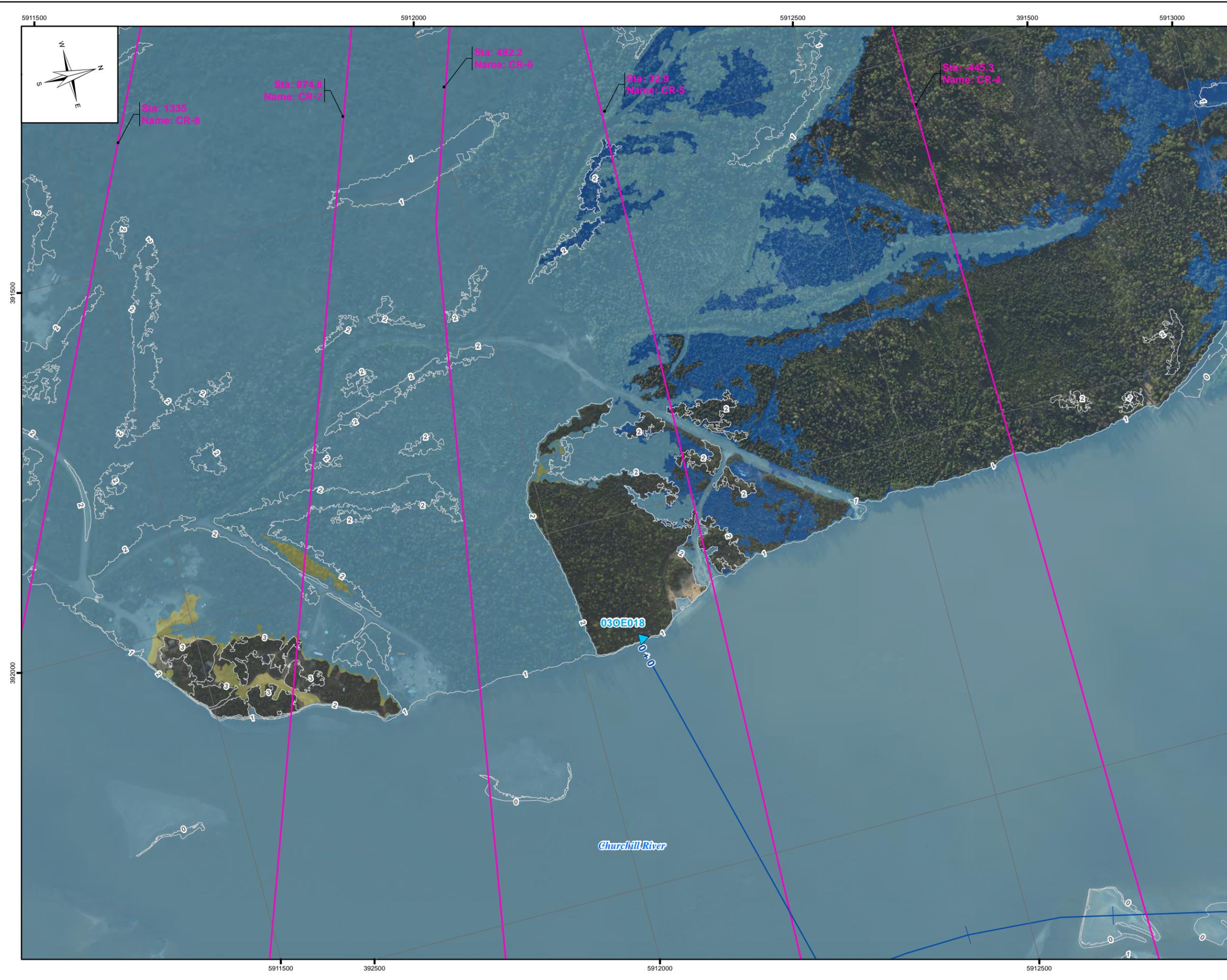
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REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

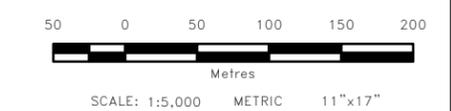
COMPARISON OF ICE-AFFECTED 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-16

JUNE 2020	FIGURE 5.8	REV: 0
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- LEGEND:**
- Sta: 2364.8 Name: CR-53
Cross Section
 - ▲ Water Survey of Canada Gauge Location
 - River Centreline
 - 1m LiDAR Contour
 - 1:100 Year Current Climate Ice Affected Flood Zone
 - 1:100 Year Climate Change Ice Affected Flood Zone

- NOTES:**
1. Imagery is supplied by ATLIS Geomatics and dated as September 11 – 13, 2019.
 2. Topography shown was developed by KGS Group from the LiDAR captured by ATLIS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM), Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

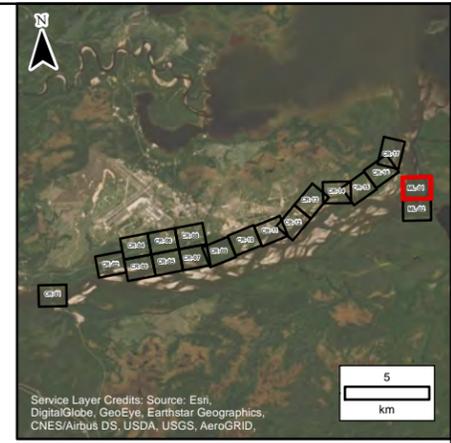
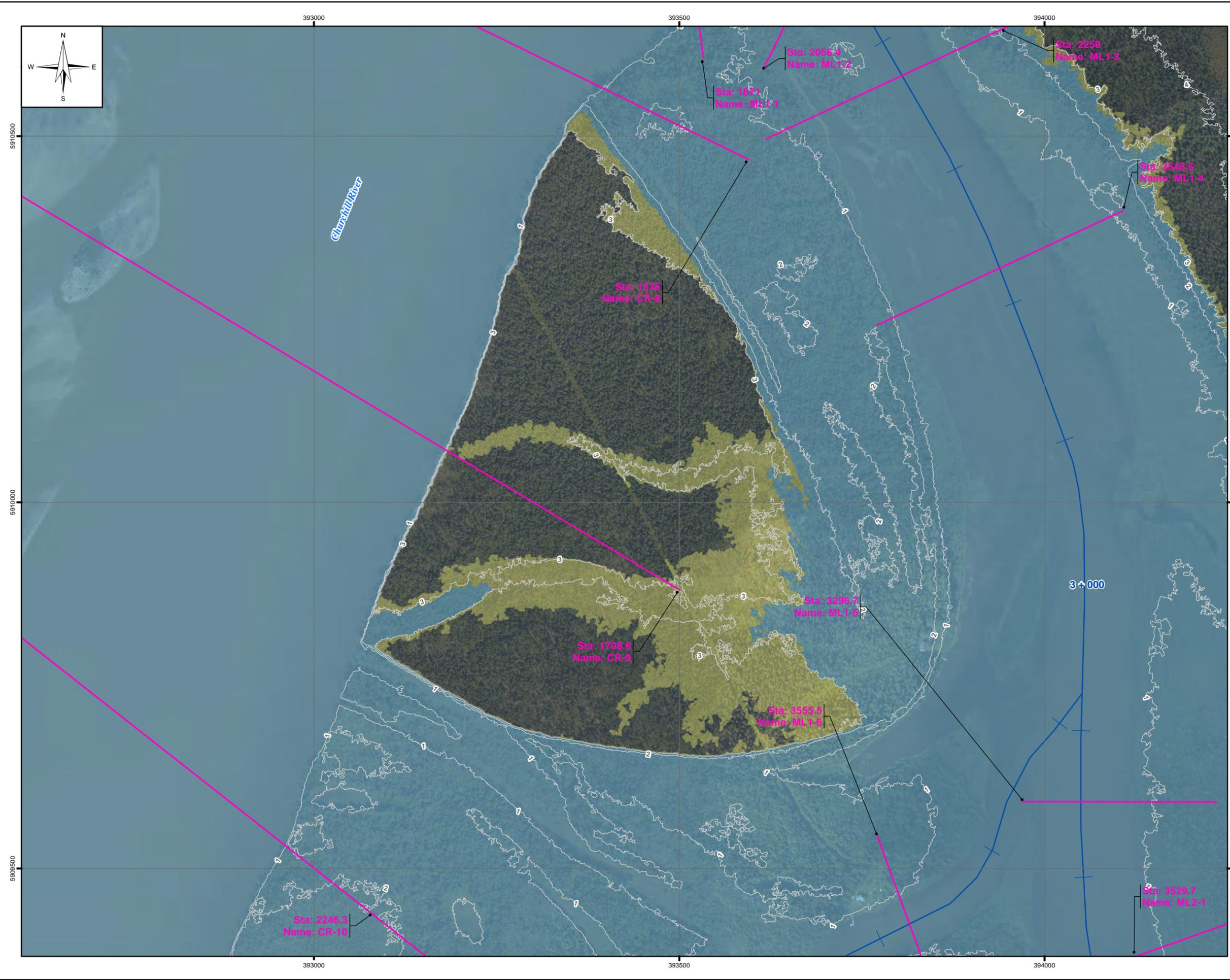
0	20/06/30	ISSUED WITH FINAL REPORT	DSB	MSW
NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

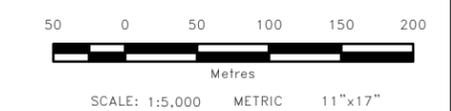
COMPARISON OF ICE-AFFECTED 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-17

JUNE 2020	FIGURE 5.8	REV: 0
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- LEGEND:**
- Sta: 2364.8 Name: CR-53 Cross Section
 - Water Survey of Canada Gauge Location
 - River Centreline
 - 1m LiDAR Contour
 - 1:100 Year Current Climate Ice Affected Flood Zone
 - 1:100 Year Climate Change Ice Affected Flood Zone

- NOTES:**
1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019.
 2. Topography shown was developed by KGS Group from the LiDAR captured by ATGIS Geomatics on September 11 – 13, 2019.

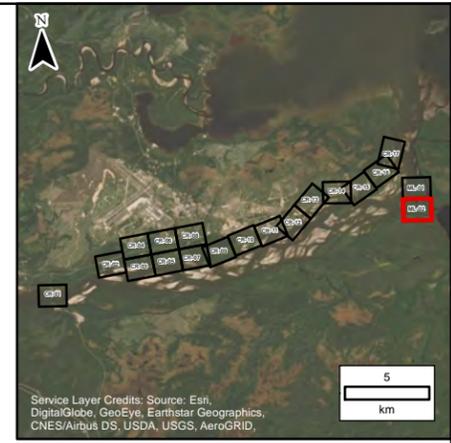
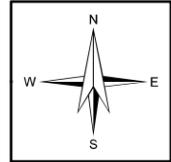
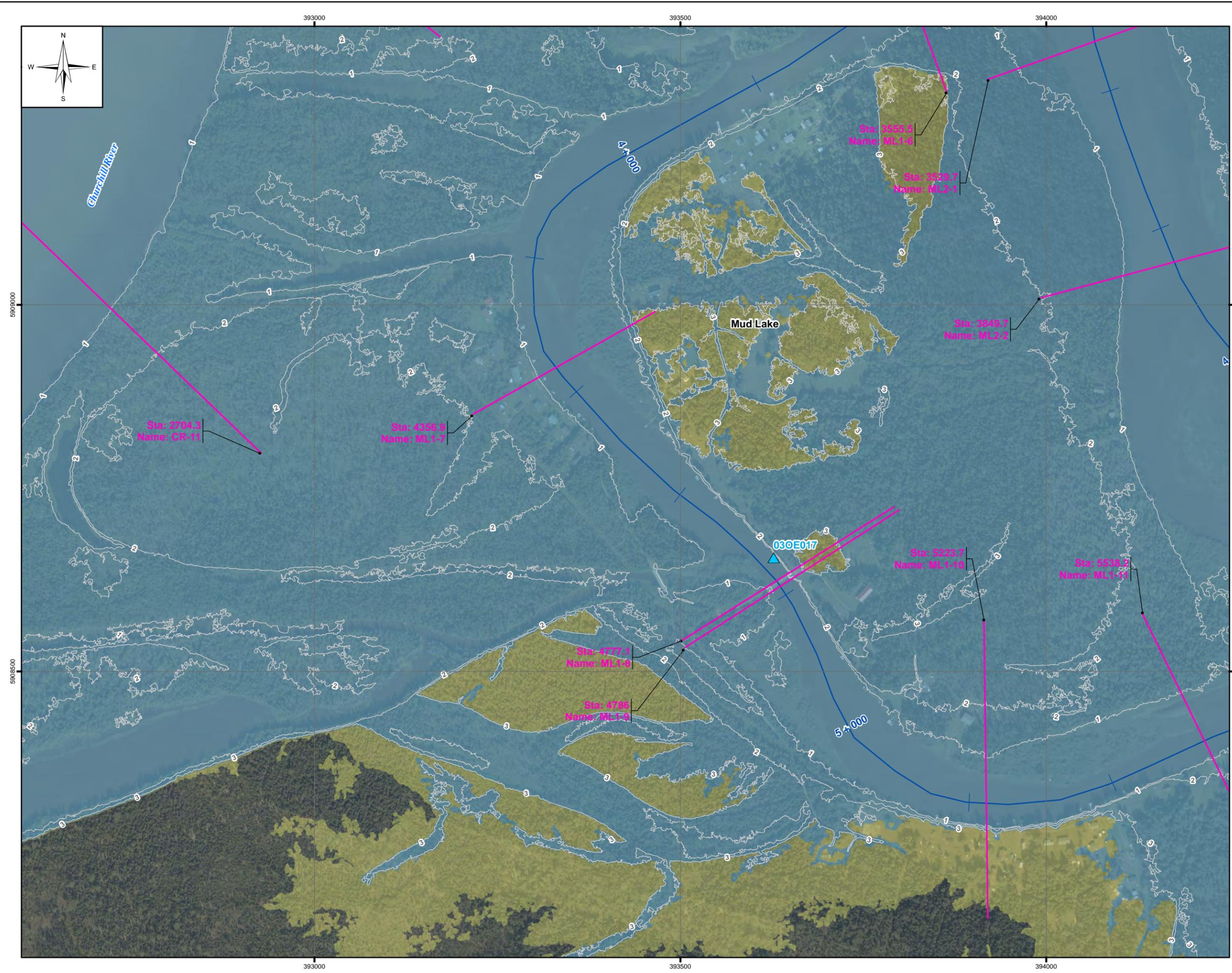


All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM) Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

0	20/06/30	ISSUED WITH FINAL REPORT	DSB	MSW
NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING	
COMPARISON OF ICE-AFFECTED 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – ML-01	
JUNE 2020	FIGURE 5.8
REV: 0	0

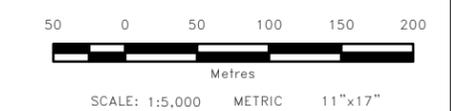


LEGEND:

- Sta: 2364.8 Name: CR-53
Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LIDAR Contour
- 1:100 Year Current Climate Ice Affected Flood Zone
- 1:100 Year Climate Change Ice Affected Flood Zone

NOTES:

1. Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATGIS Geomatics on September 11 – 13, 2019.



All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM)
Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

0	20/06/30	ISSUED WITH FINAL REPORT	DSB	MSW
NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY

REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF ICE-AFFECTED 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – ML-02

JUNE 2020	FIGURE 5.8	REV: 0
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