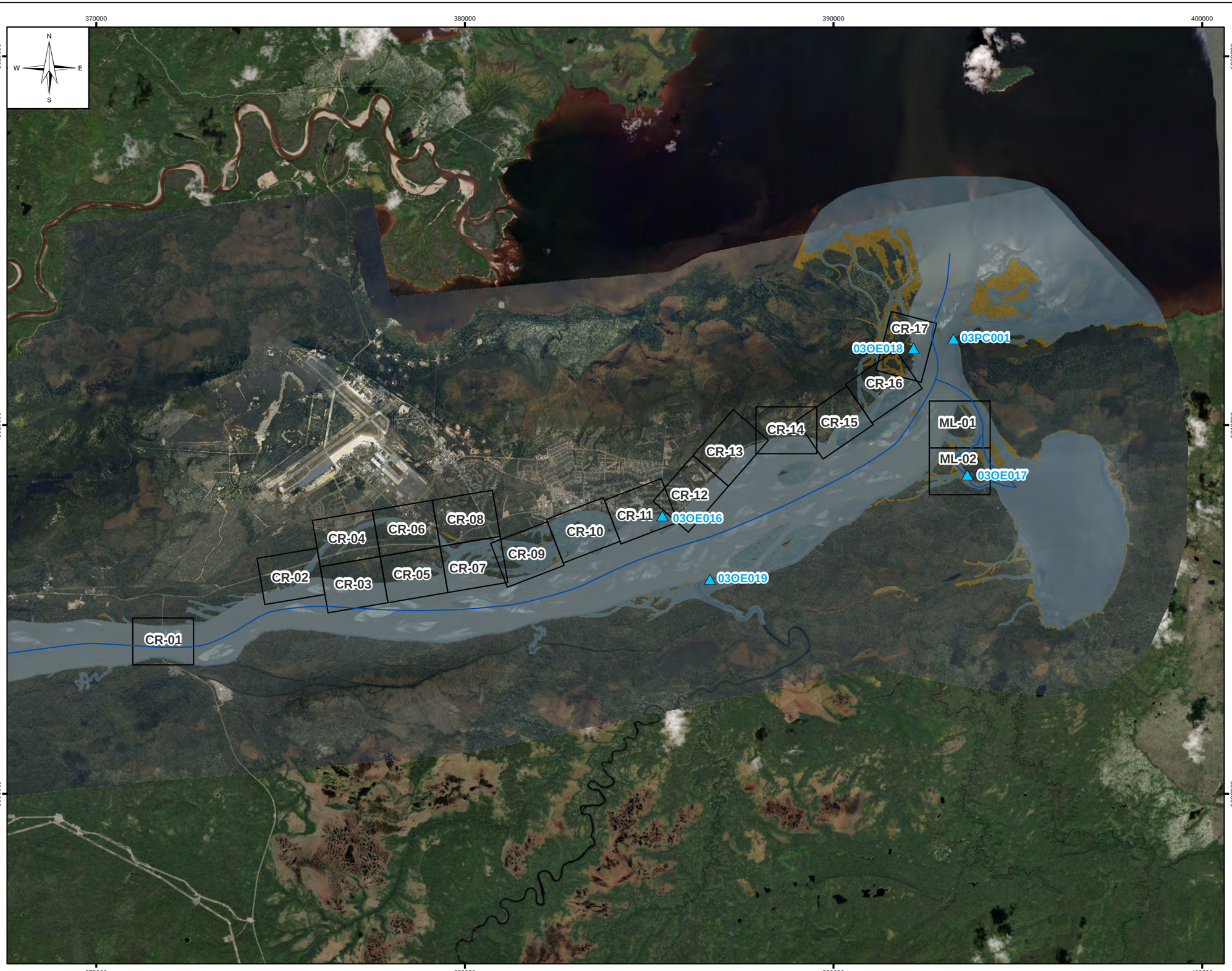



LEGEND:

- 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 ATLIS Geomatics and dated as September 11 – 13, 2019, and by ESRI and DigitalGlobe, WV02 dated June 3, 2015.

1 0 1 2 3 4
Kilometres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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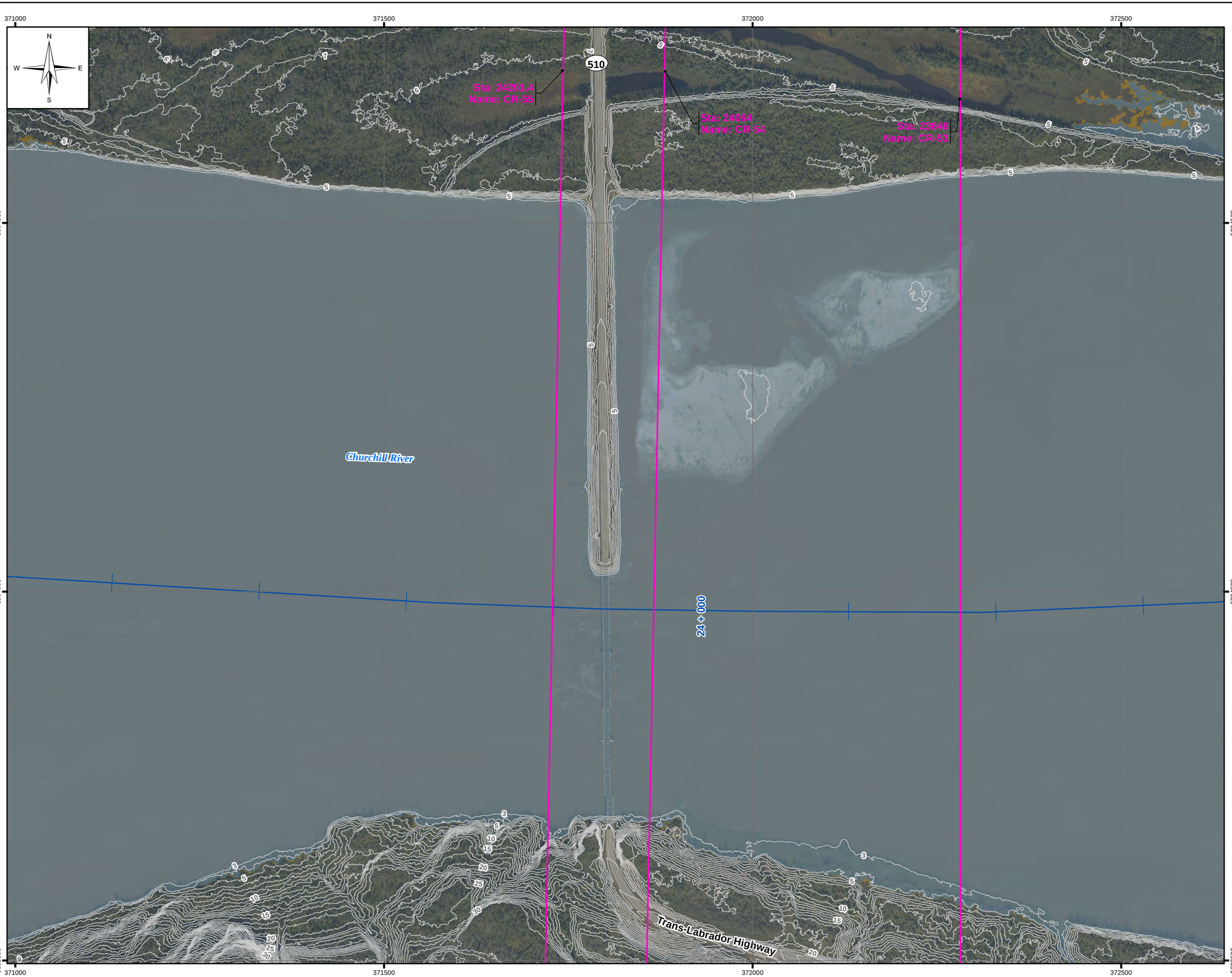
Newfoundland Labrador

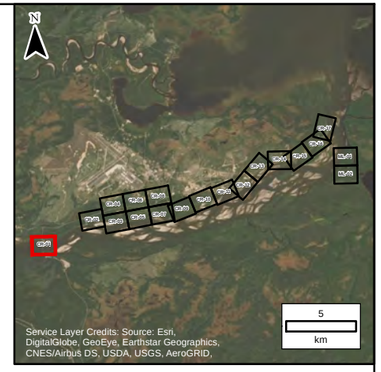
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.1_11x17.mxd
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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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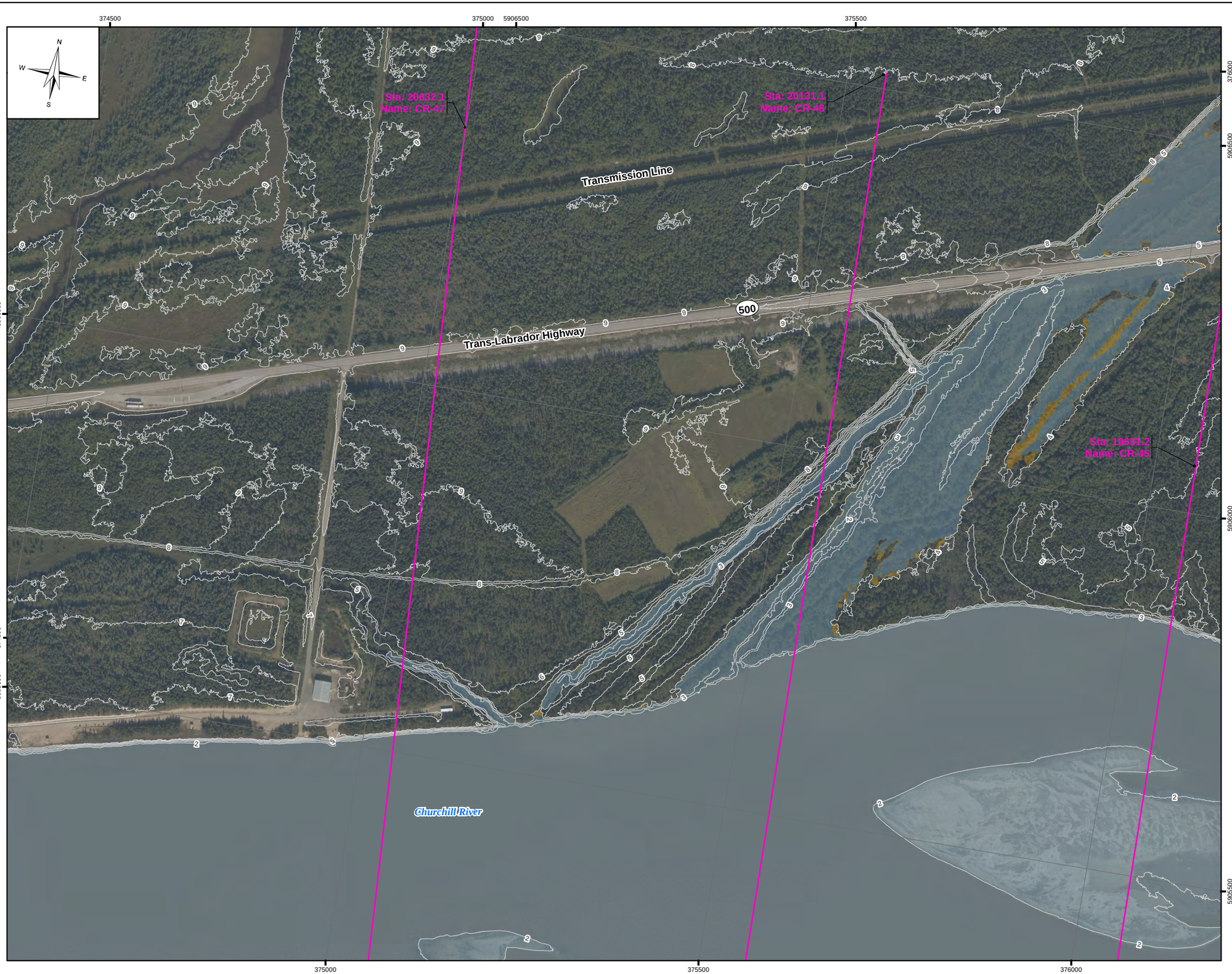
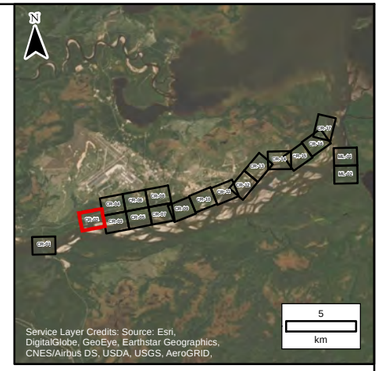
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.2_11x17.mxd
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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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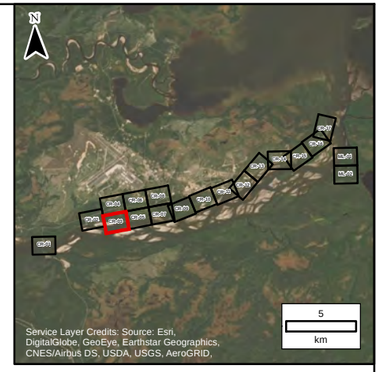
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.2_11x17.mxd
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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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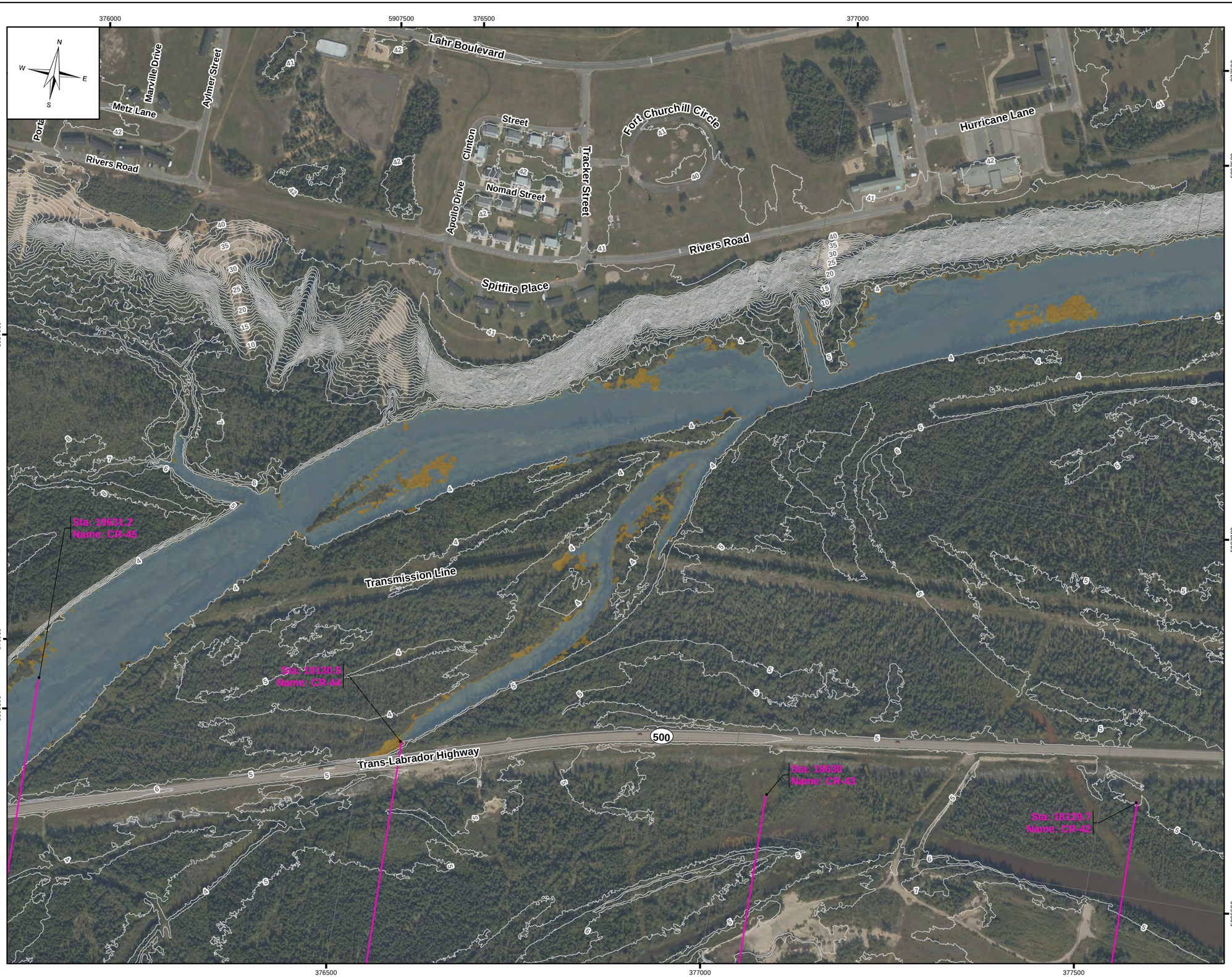
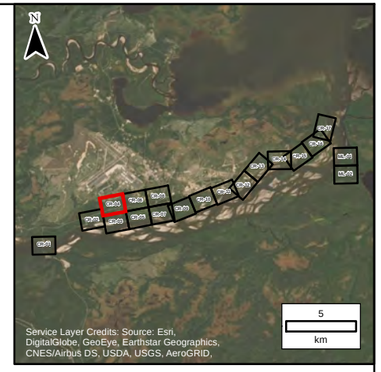
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.2_11x17.mxd
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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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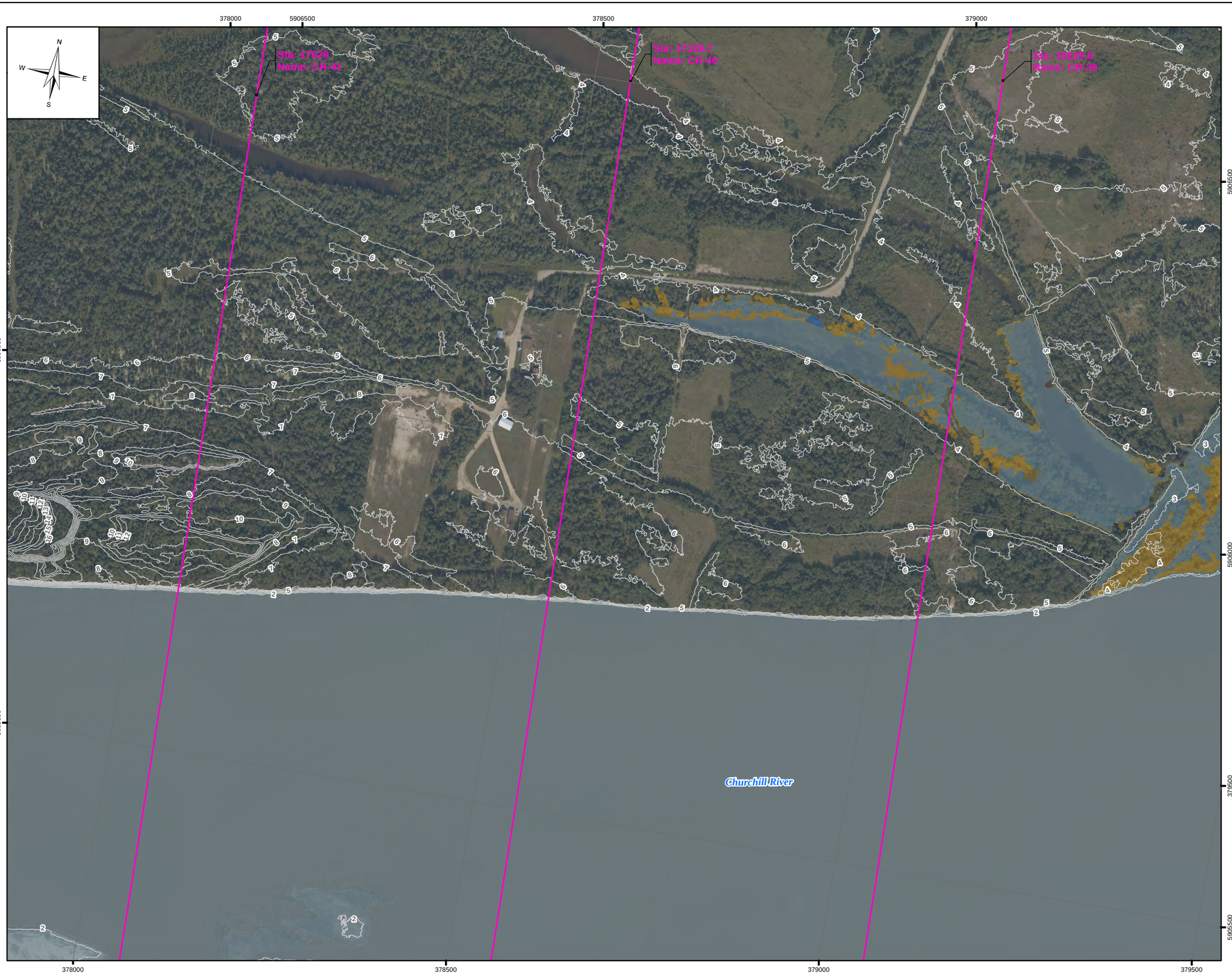
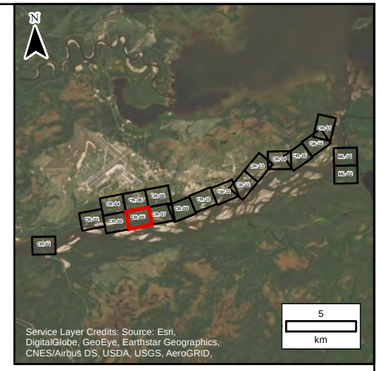
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.2 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.2_11x17.mxd
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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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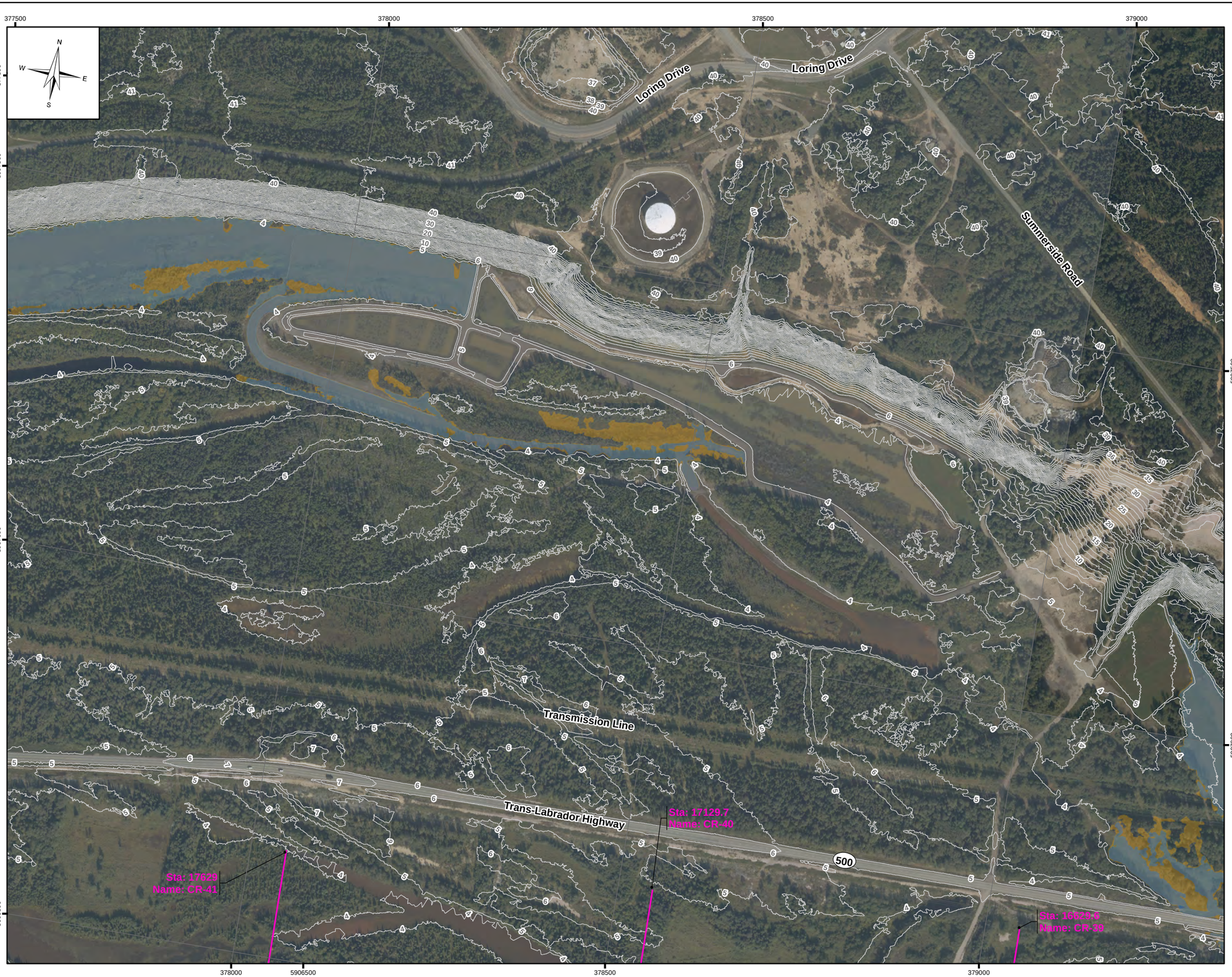
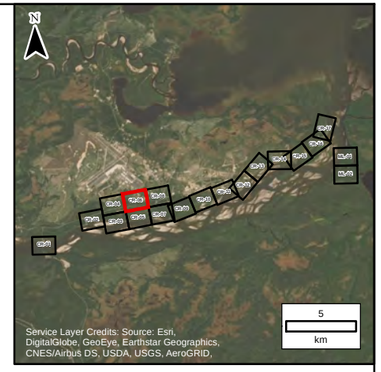
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.2_11x17.mxd
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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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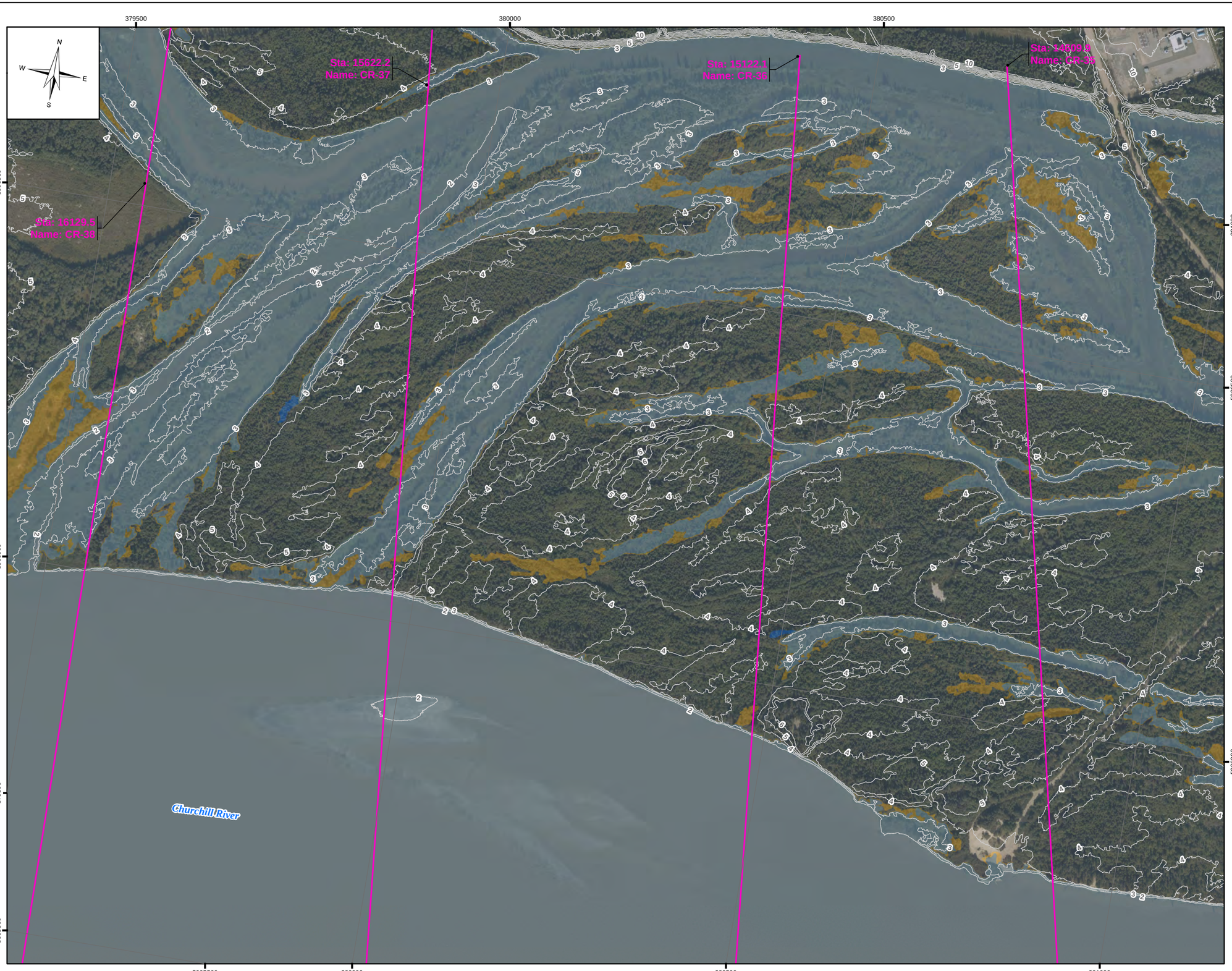
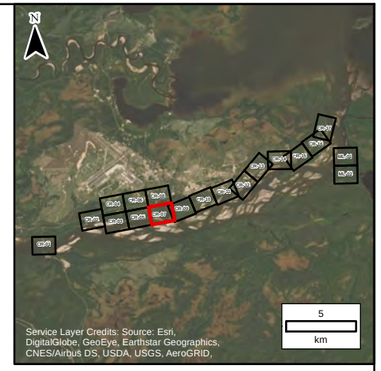
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.2_11x17.mxd
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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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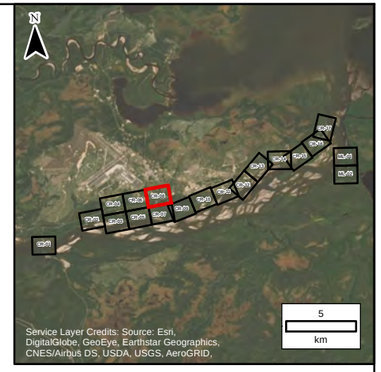
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.2_11x17.mxd
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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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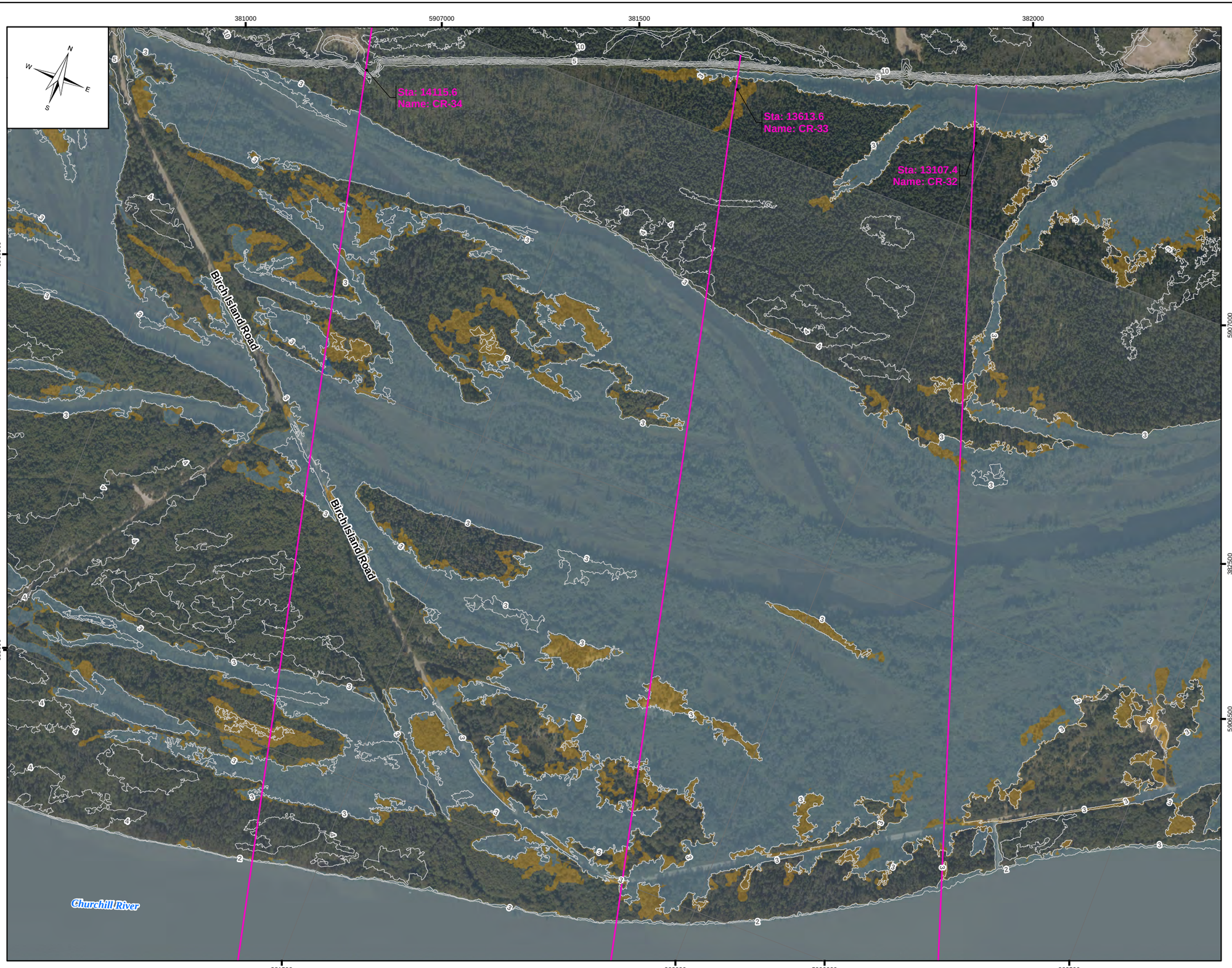
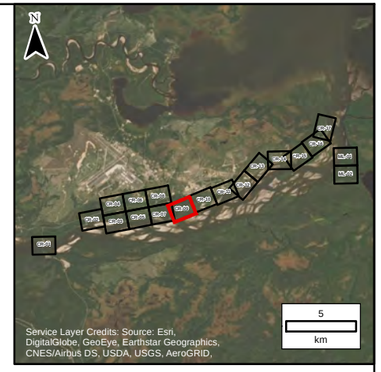
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.2_11x17.mxd
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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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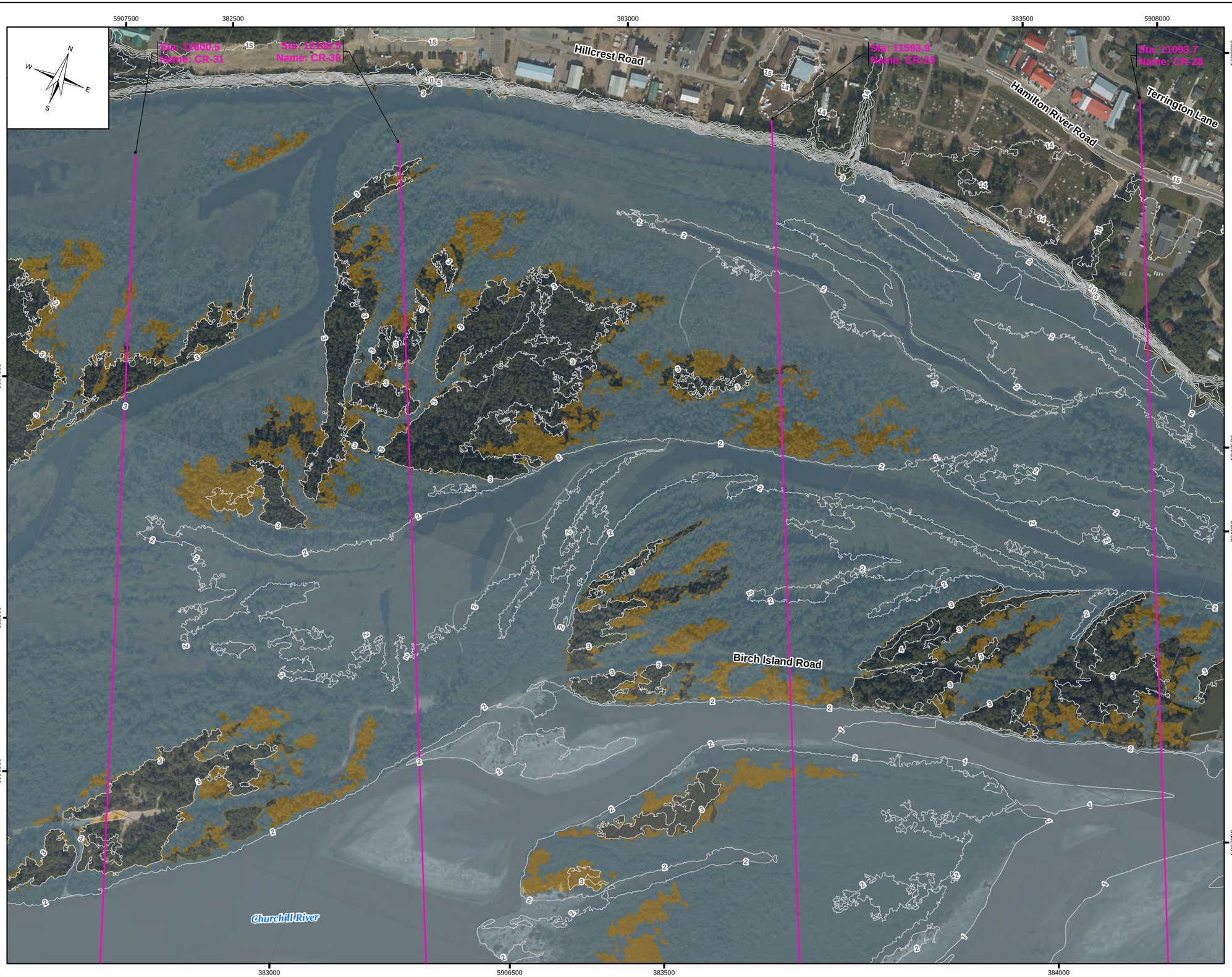
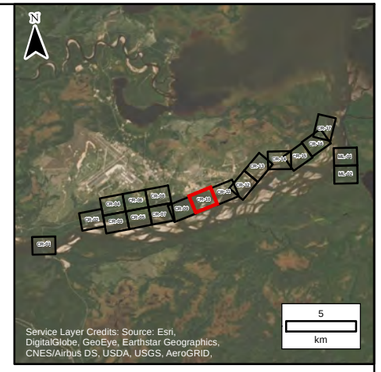
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.2_11x17.mxd
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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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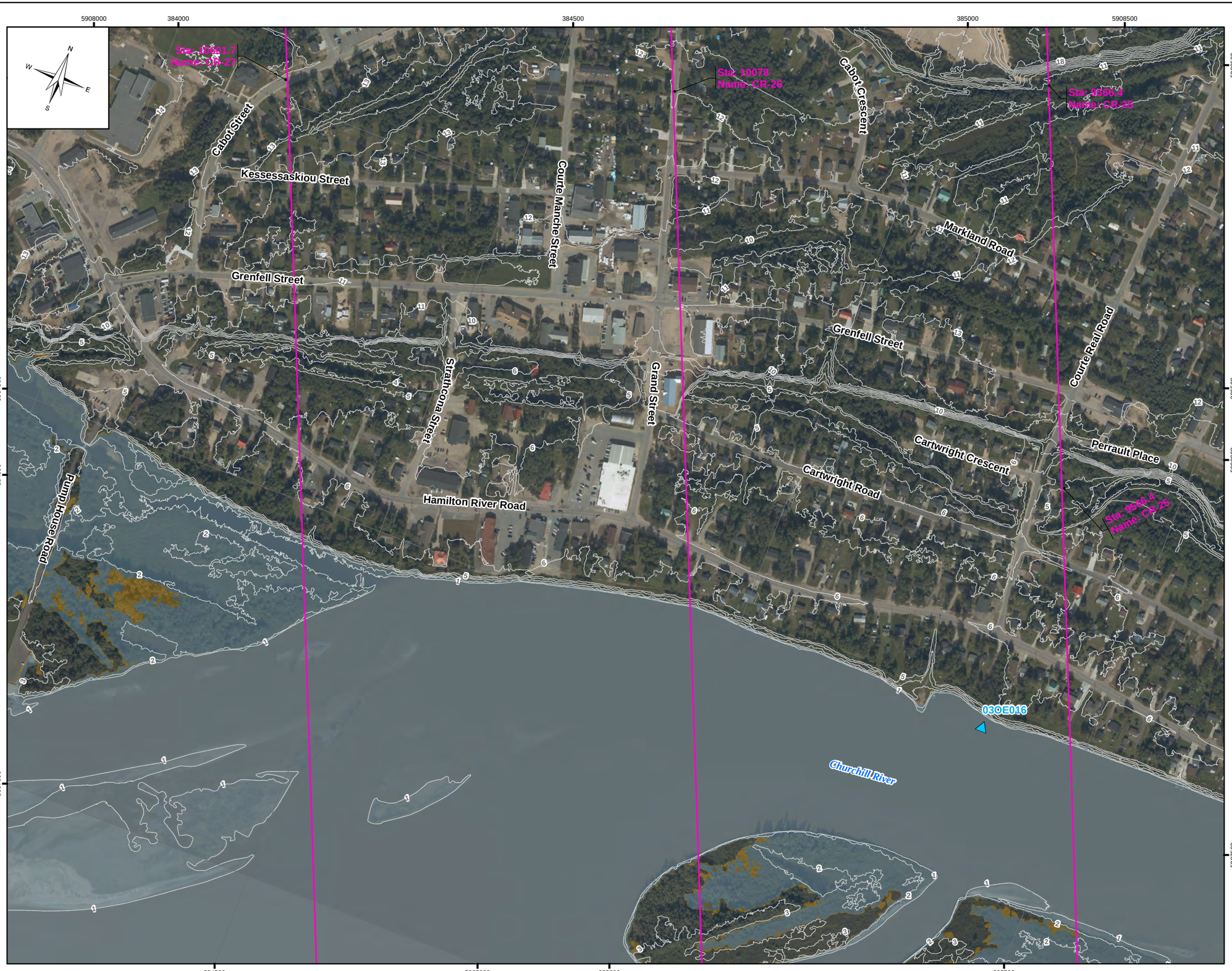
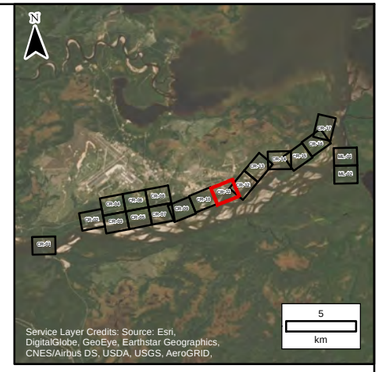
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.2 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.2_11x17.mxd
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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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

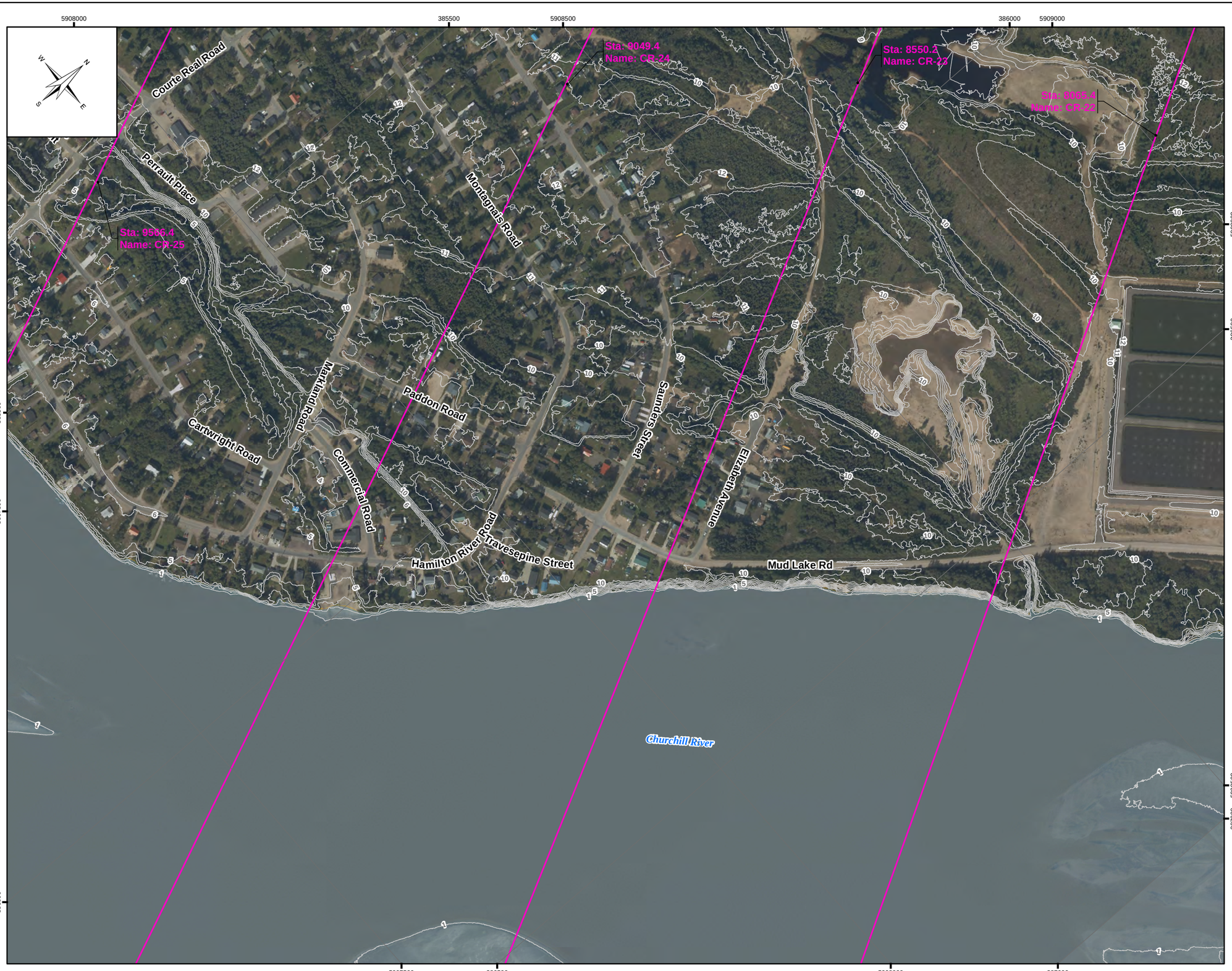
Newfoundland Labrador

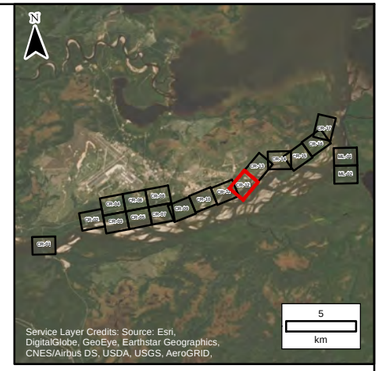
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.2 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.2_11x17.mxd
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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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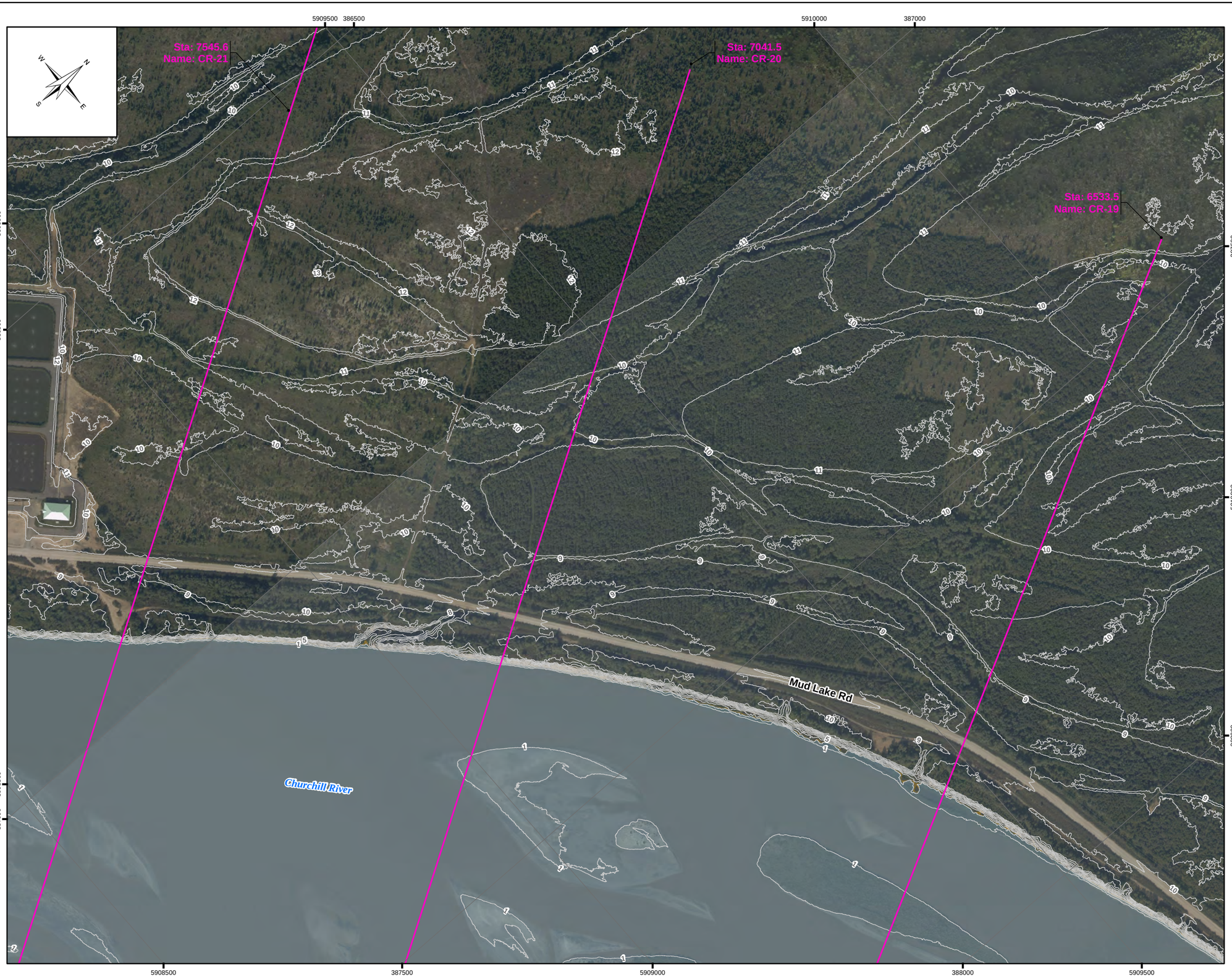
Newfoundland Labrador

# 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

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.2_11x17.mxd
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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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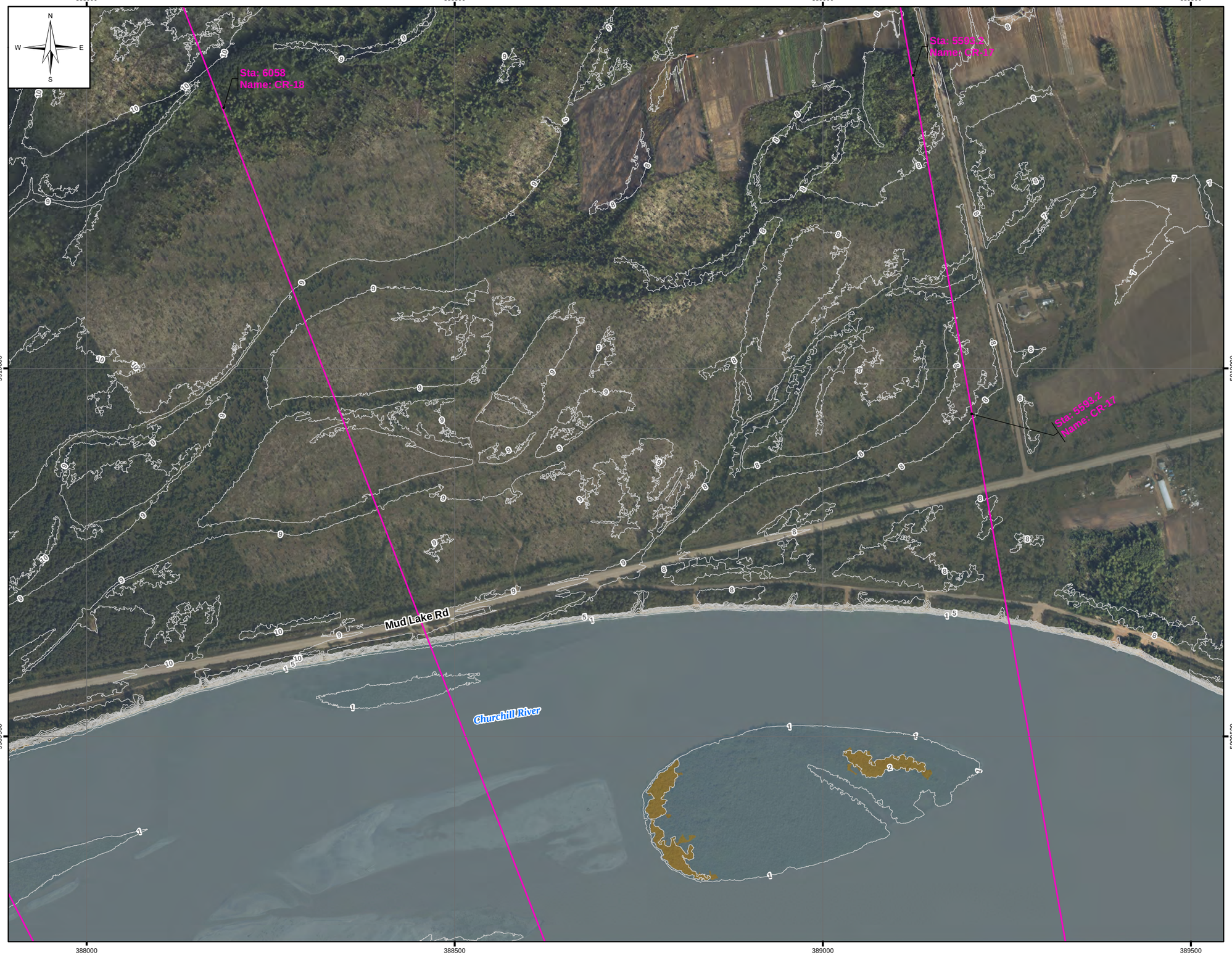
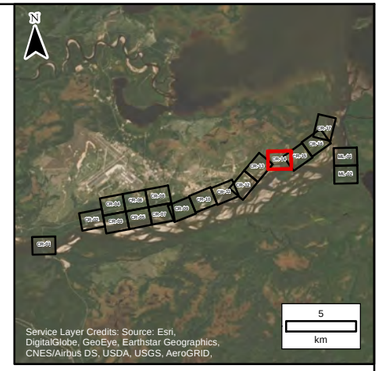
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF OPEN WATER 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC–CD) & (CLC–CD) – CR–13

JUNE 2020 | FIGURE 5.2 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.2_11x17.mxd
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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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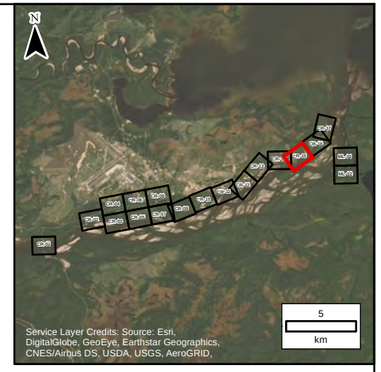
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.2 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.2_11x17.mxd
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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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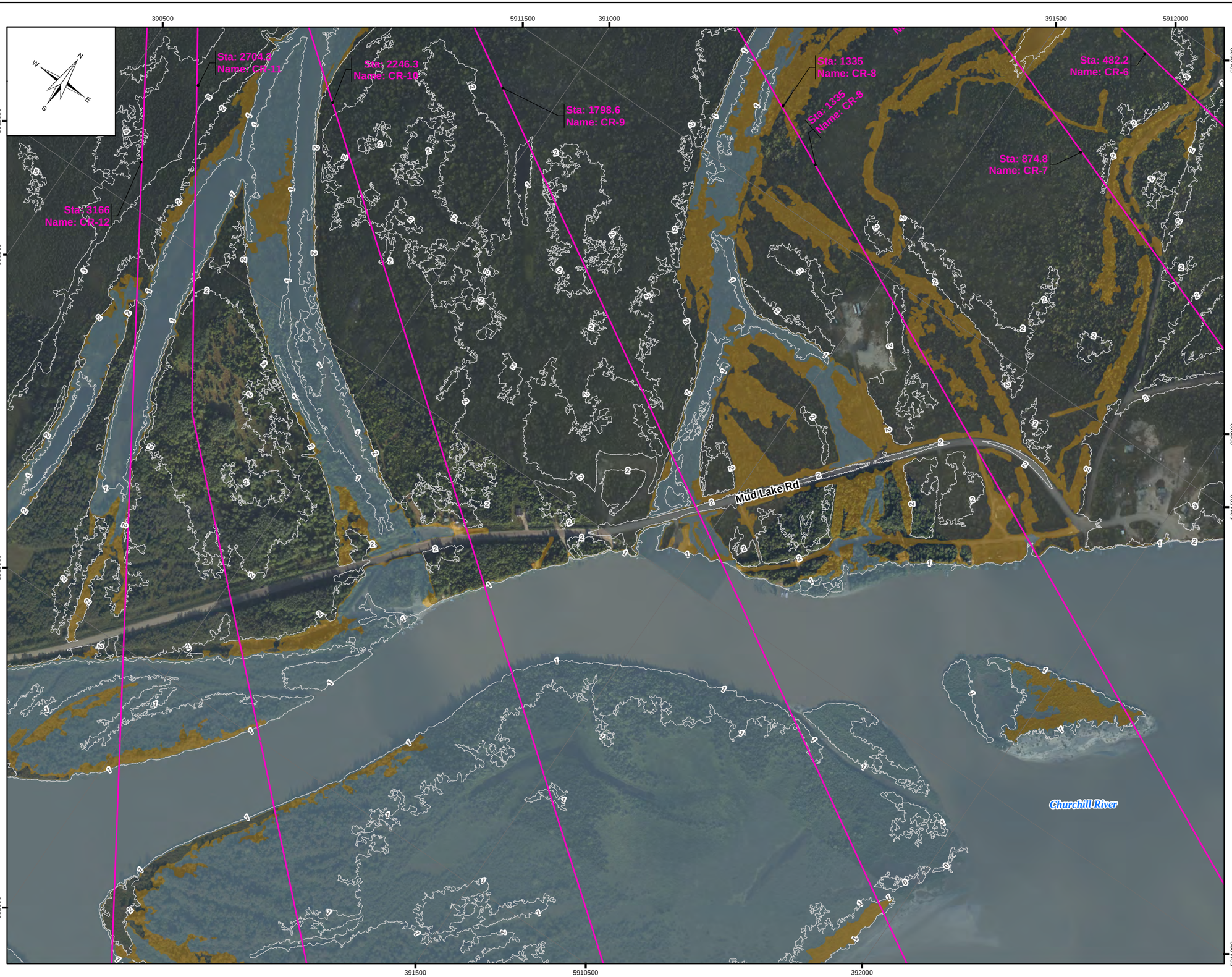
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.2 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.2_11x17.mxd
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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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–16

JUNE 2020 | FIGURE 5.2 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.2_11x17.mxd
11"x17" PLOT SCALE 1:1

5911500 5912000 5912500 391500 5913000

391500 5913000 392000 392500

Sta: 1335
Name: CR-8

Sta: 874.8
Name: CR-7

Sta: 482.2
Name: CR-6

Sta: 32.9
Name: CR-5

Sta: -445.3
Name: CR-4

Sta: 874.8
Name: CR-7

Sta: 492.2
Name: CR-6

03OE018

Churchill River


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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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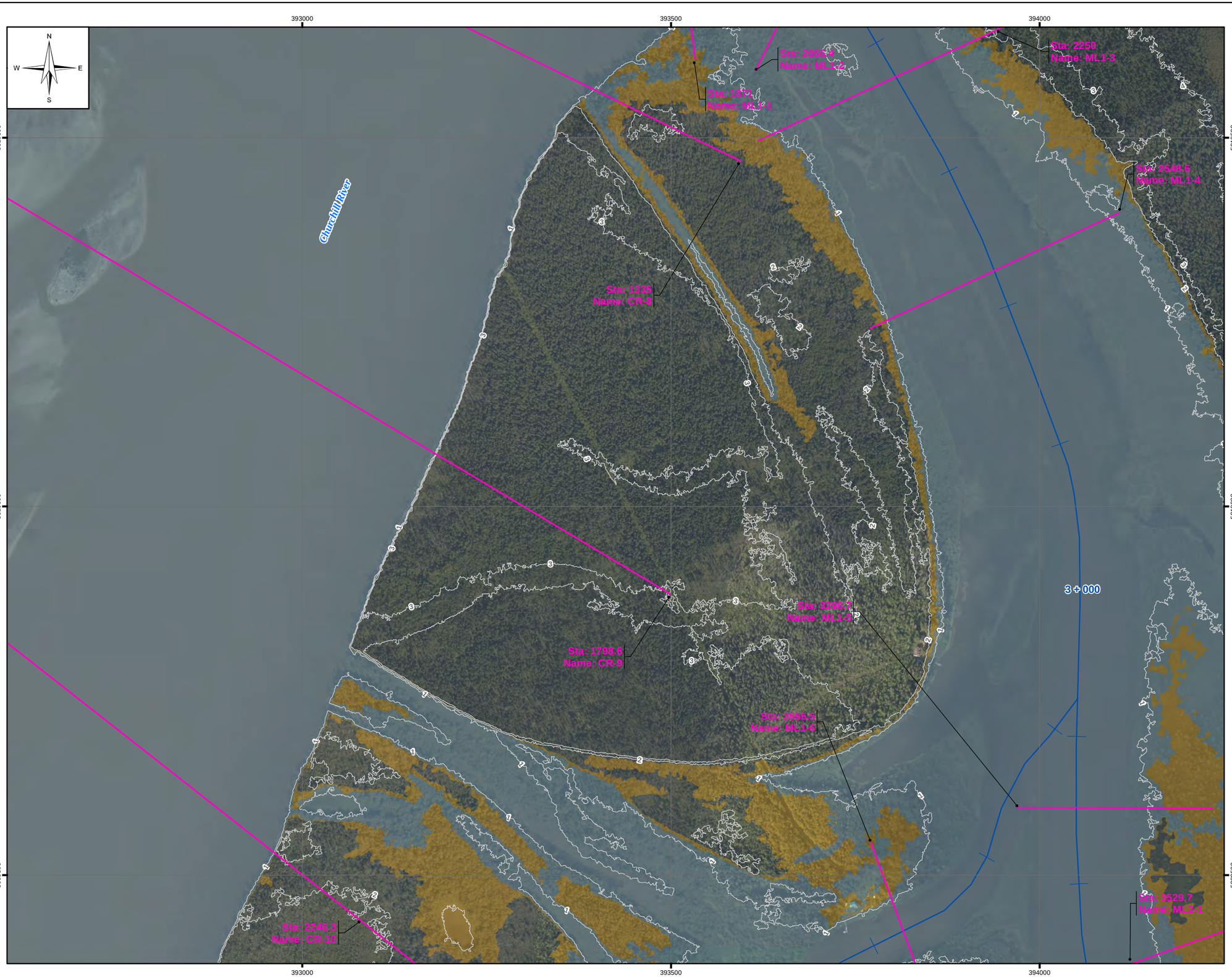
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.2 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.2_11x17.mxd
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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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) – ML–01

JUNE 2020 | FIGURE 5.2 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.2_11x17.mxd
11"x17" PLOT SCALE 1:1

393000 393500 394000

5909000 5908500

N W E S

Churchill River

4+000

5+000

Mud Lake

Sta: 3555.5
Name: ML1-6

Sta: 3579.7
Name: ML2-1

Sta: 3849.7
Name: ML2-2

Sta: 2704.3
Name: CR-11

Sta: 4356.9
Name: ML1-7

Sta: 4777.1
Name: ML1-8

Sta: 4786
Name: ML1-9

030E017

Sta: 5223.7
Name: ML1-10

Sta: 5538.2
Name: ML1-11


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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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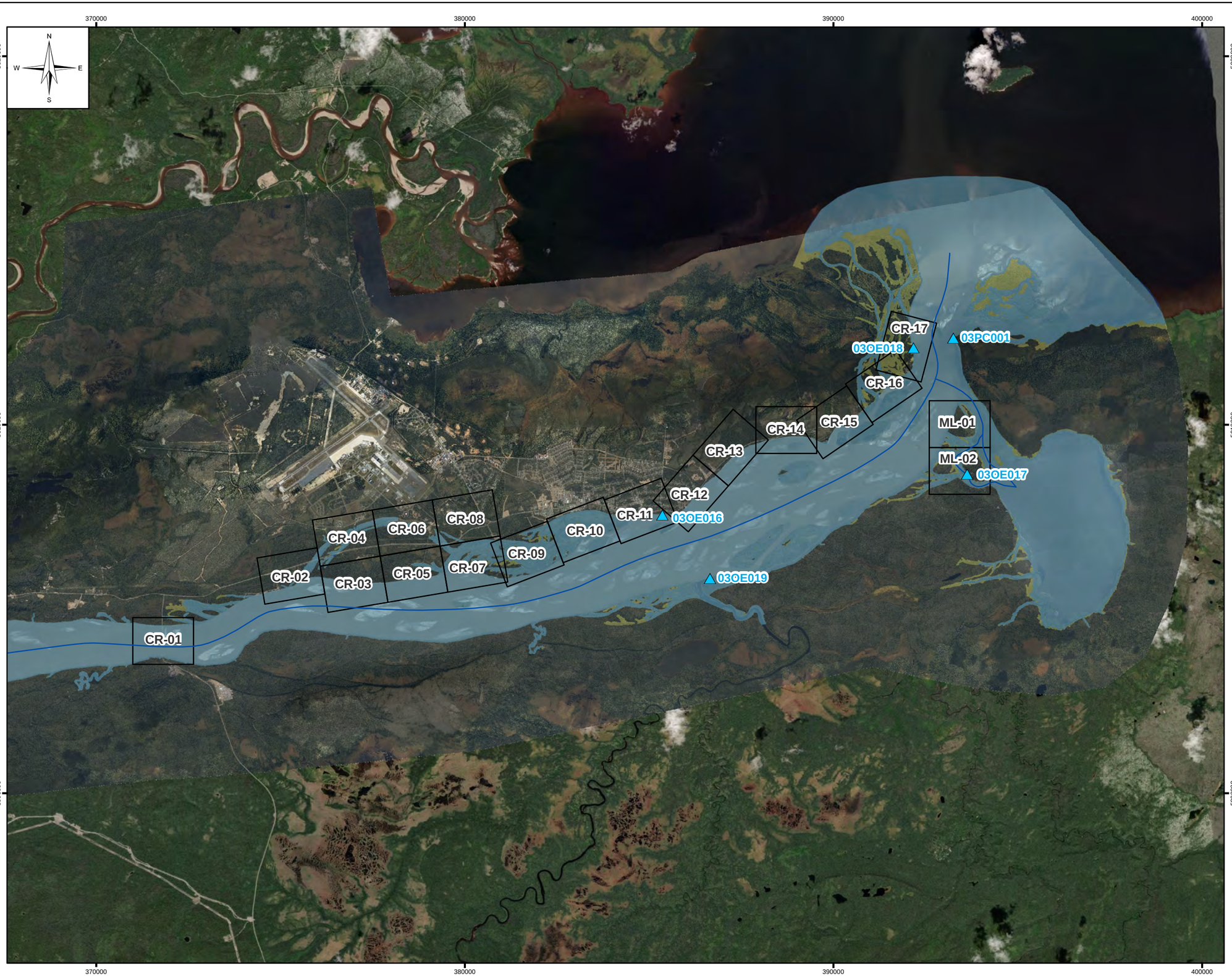
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.2 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.2_11x17.mxd
11"x17" PLOT SCALE 1:1





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 ATLIS Geomatics and dated as September 11 – 13, 2019, and by ESRI and DigitalGlobe, WV02 dated June 3, 2015.

1 0 1 2 3 4
Kilometres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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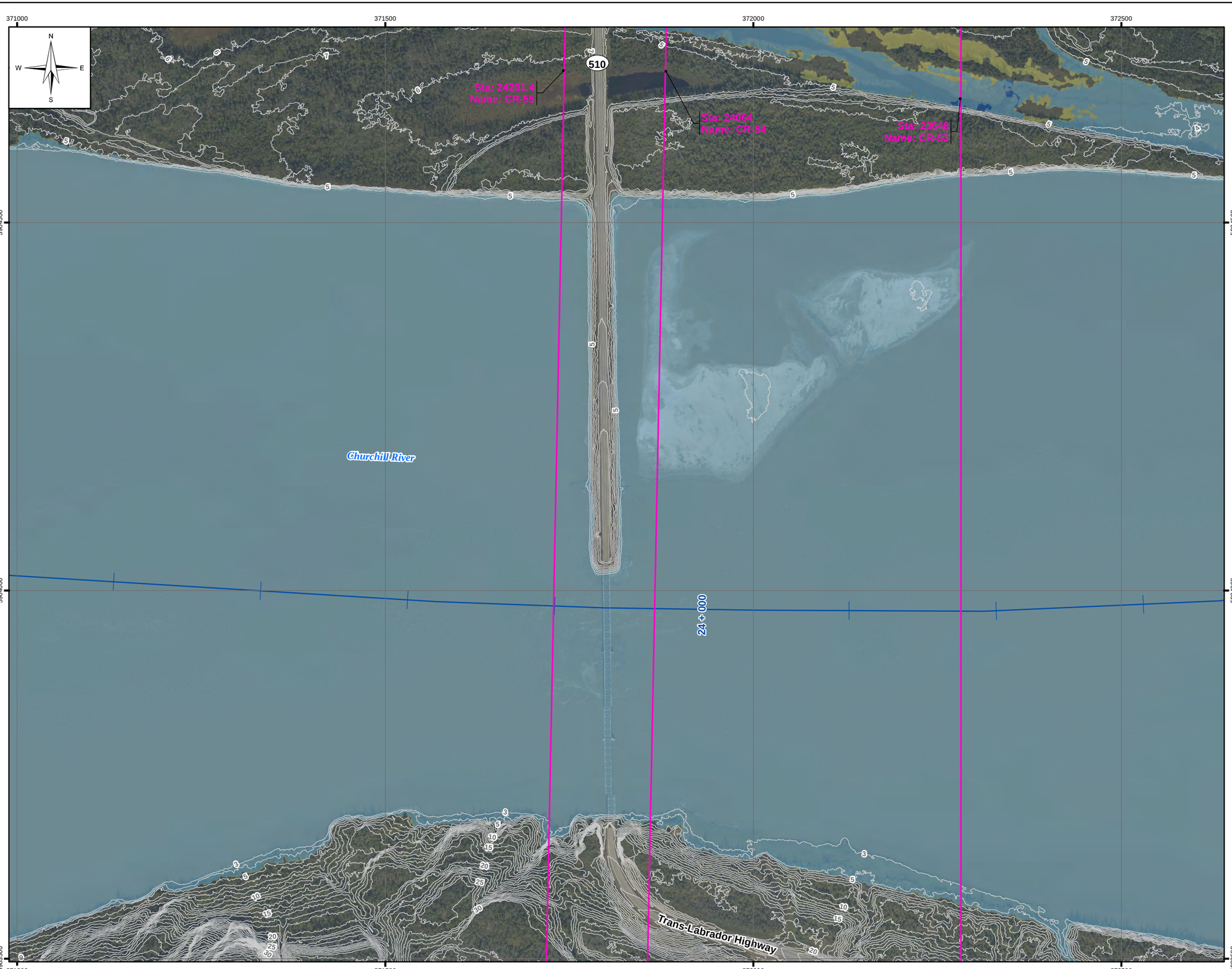
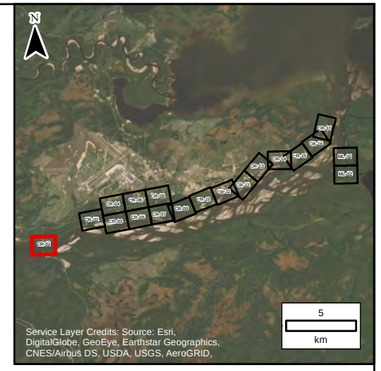
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.3 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.3_11x17.mxd
11"x17" PLOT SCALE 1:1




LEGEND:

- Cross Section (Sta: 23648, Name: CR-53)
- 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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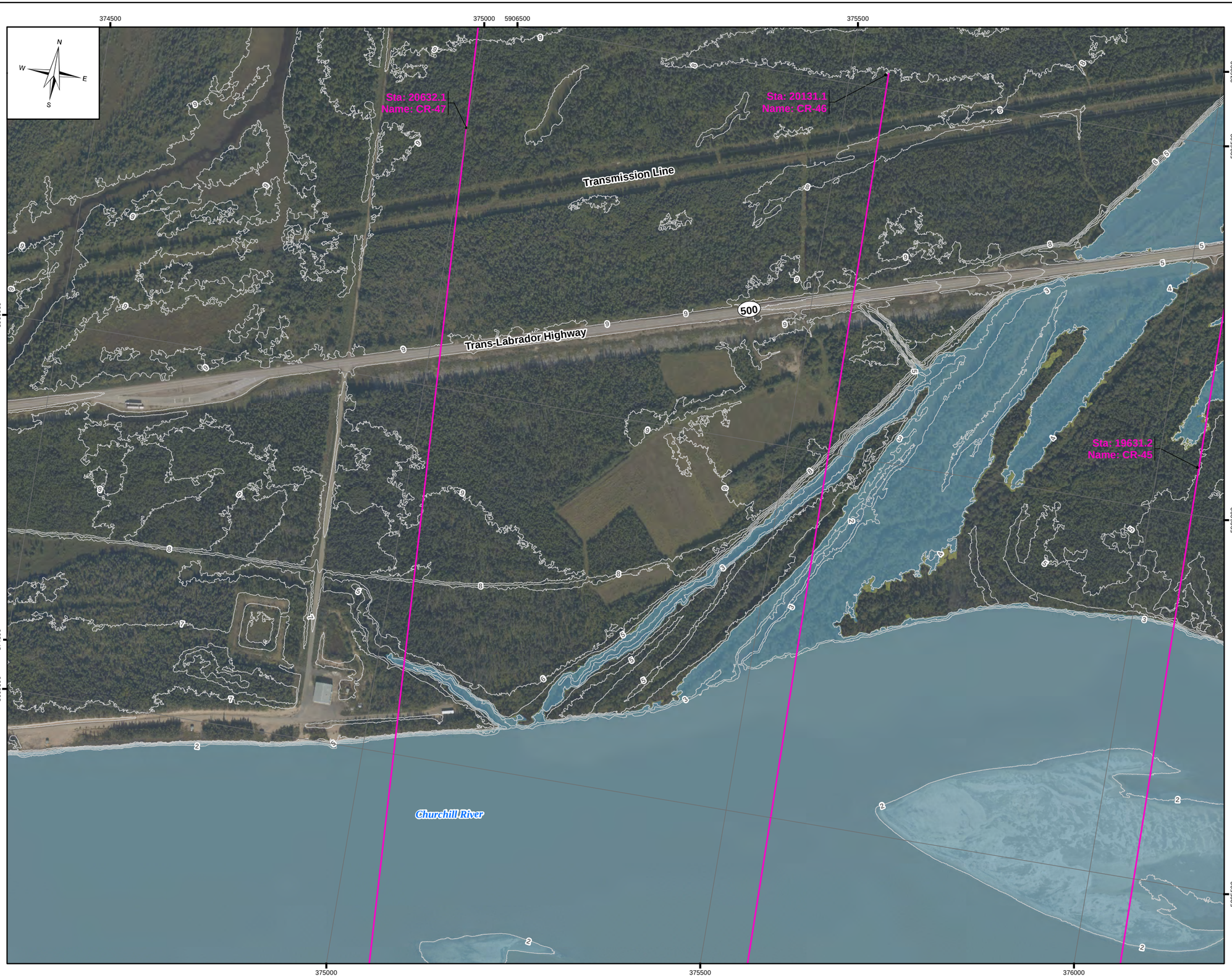
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.4 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.4_11x17.mxd
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
- 1:100 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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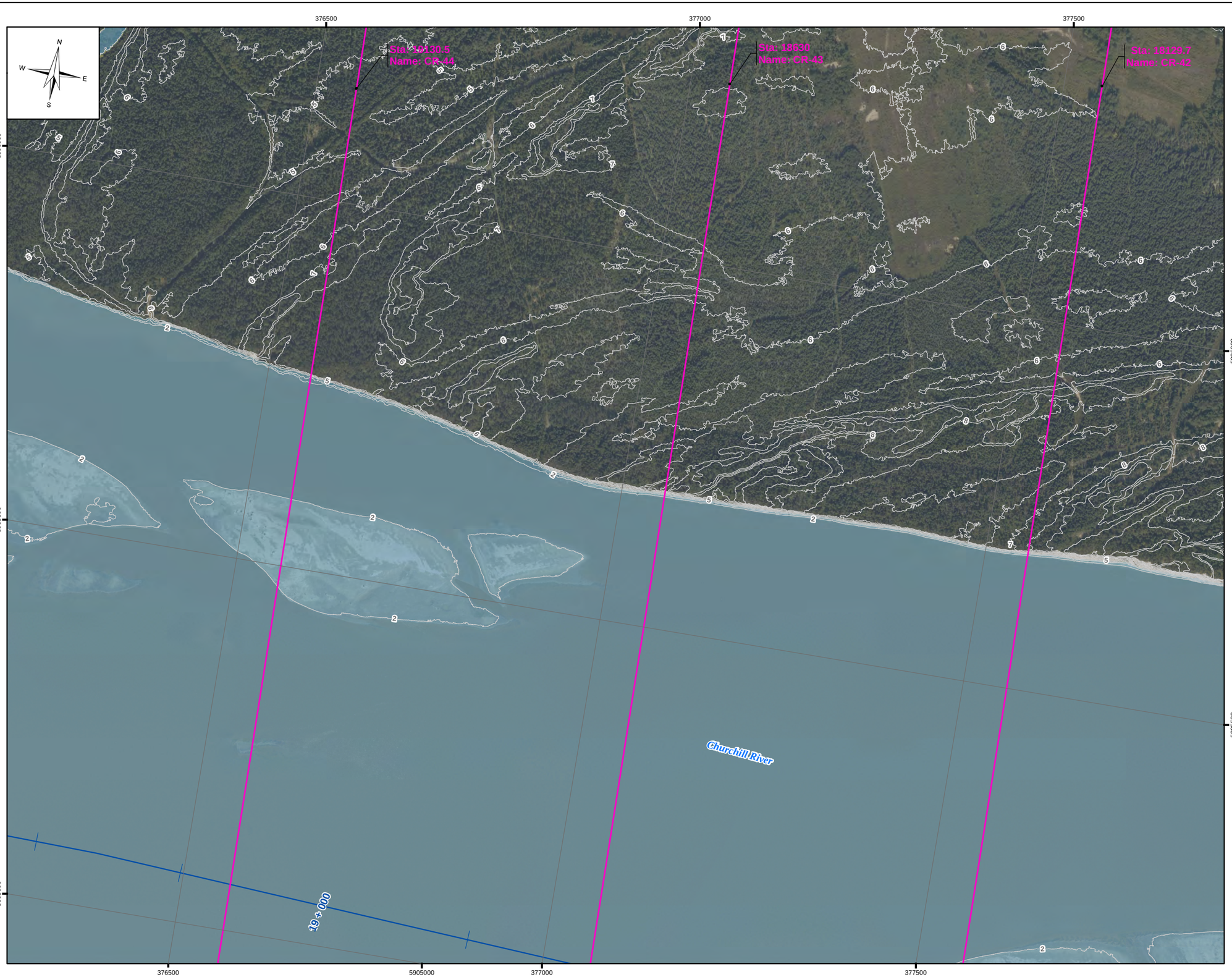
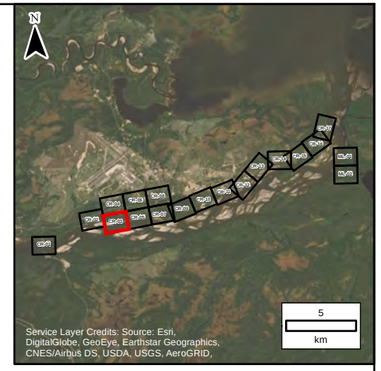
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.4 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.4_11x17.mxd
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
- 1:100 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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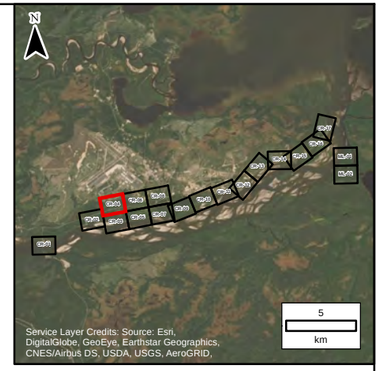
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.4 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.4_11x17.mxd
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
- 1:100 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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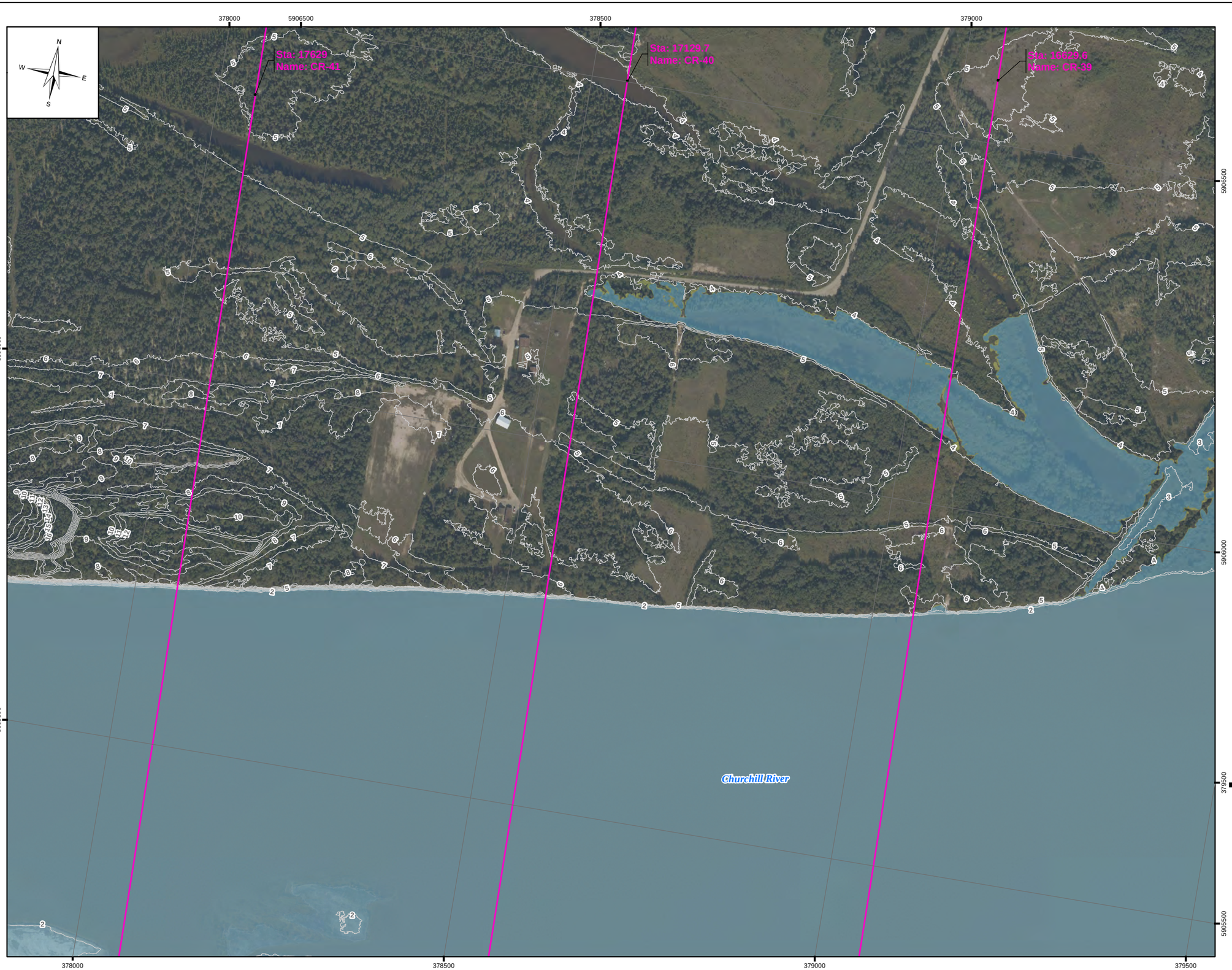
Newfoundland Labrador

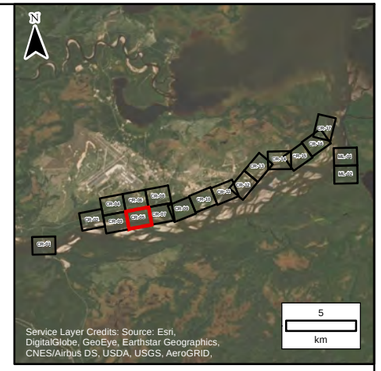
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.4_11x17.mxd
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
- 1:100 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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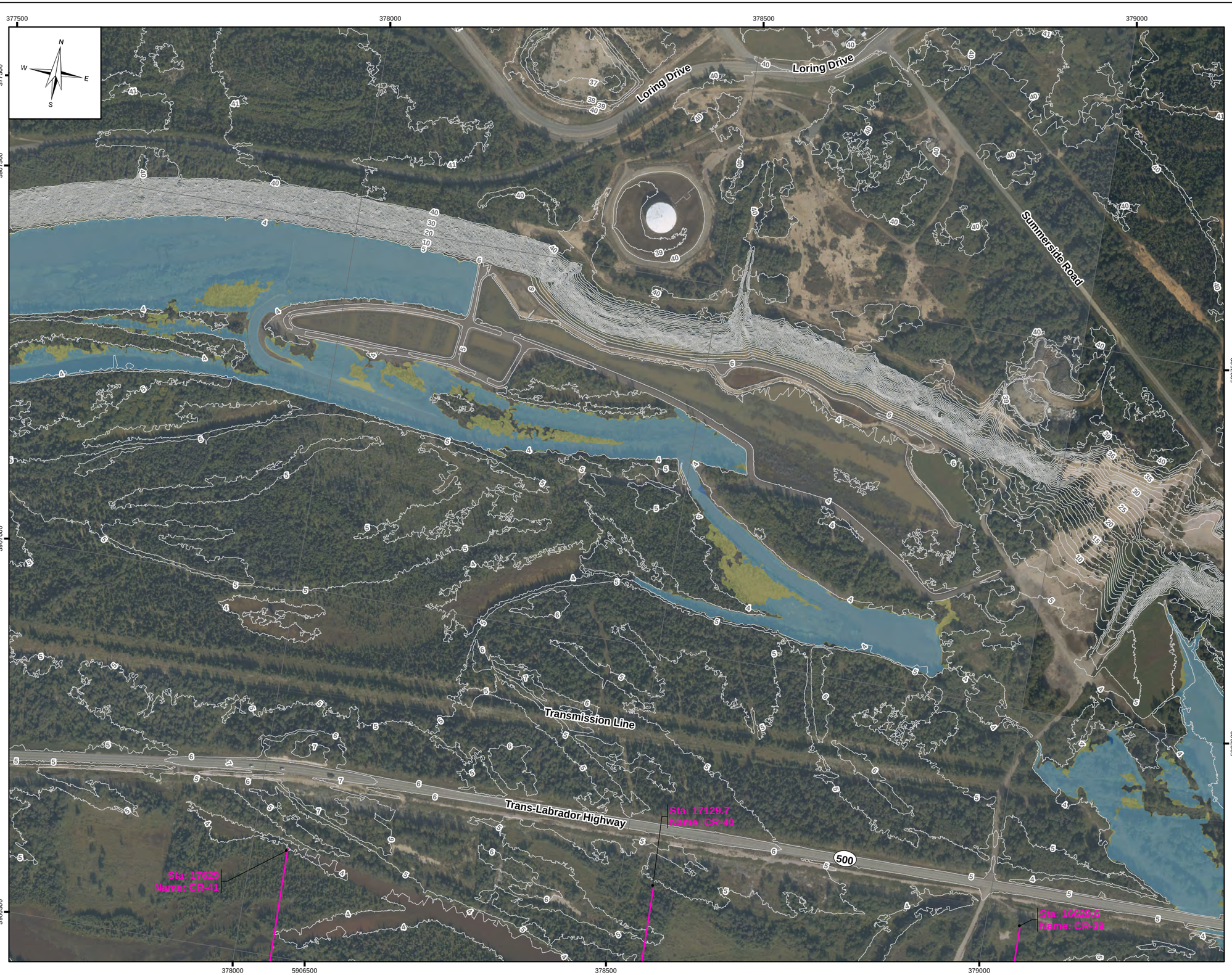
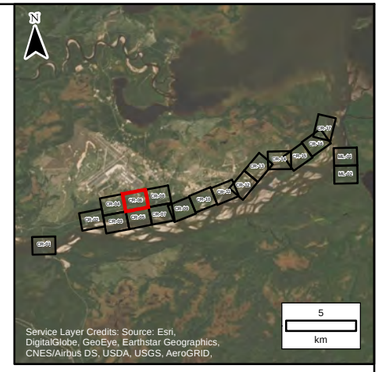
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.4 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.4_11x17.mxd
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
- 1:100 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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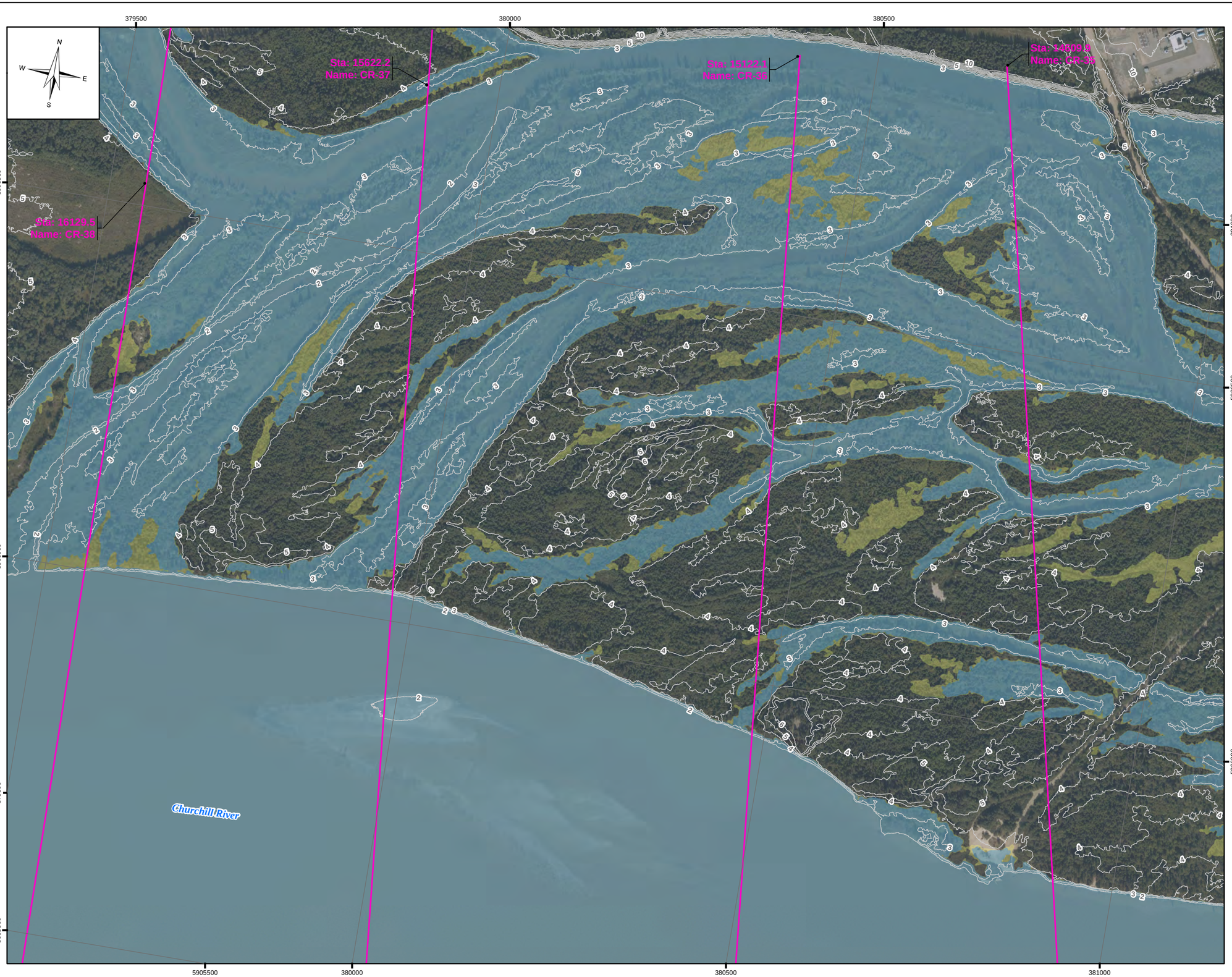
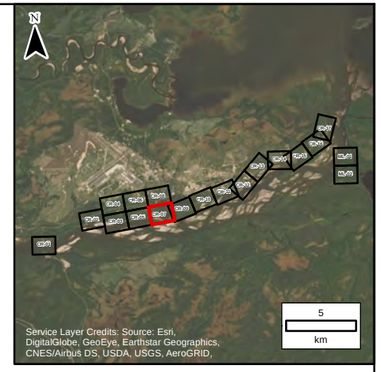
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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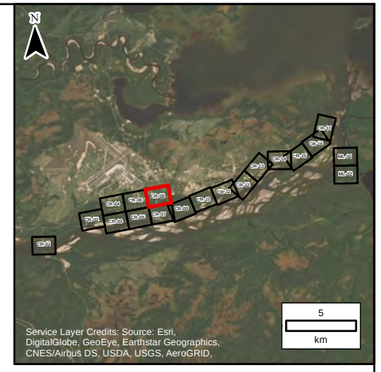
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.4 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.4_11x17.mxd
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
- 1:100 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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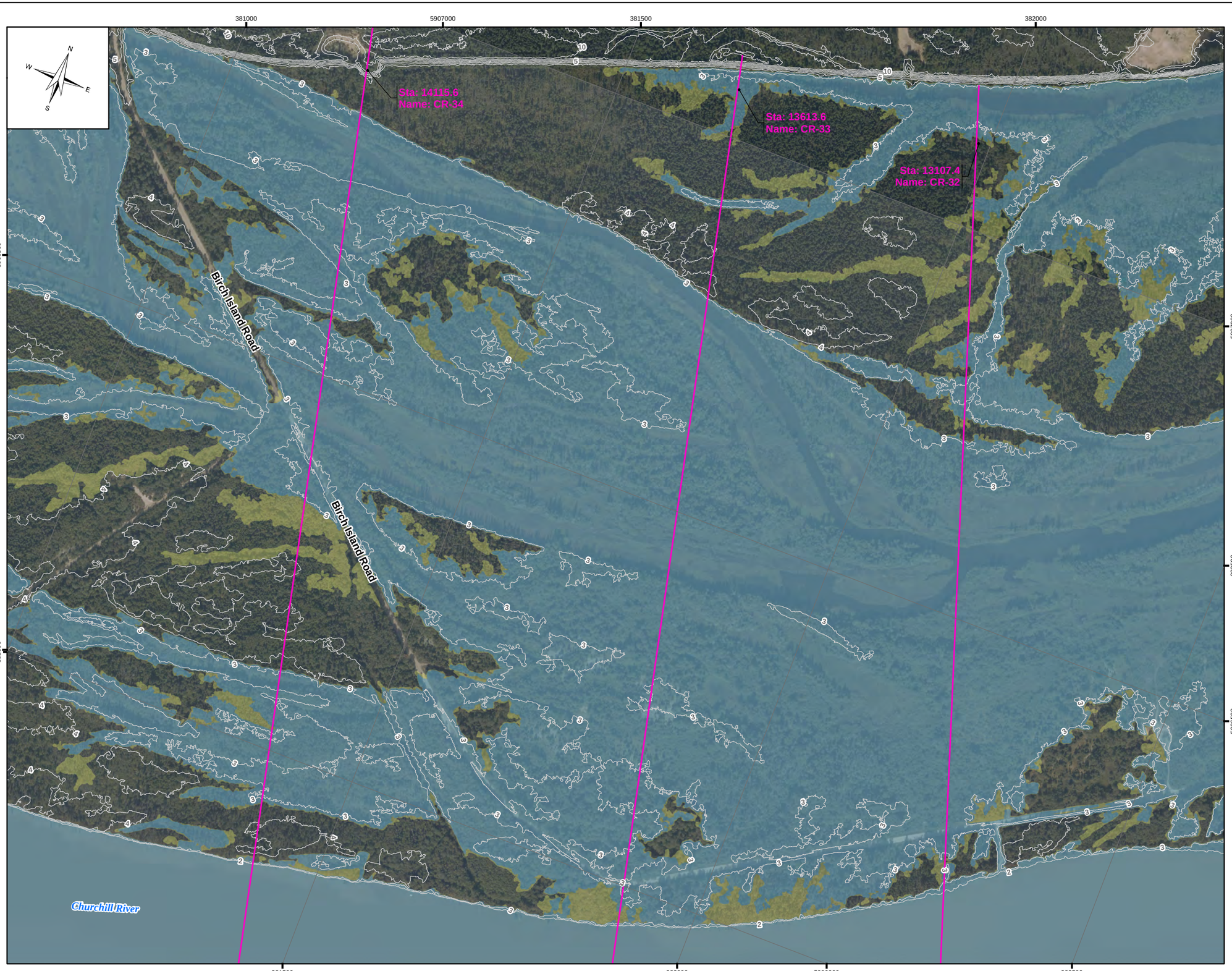
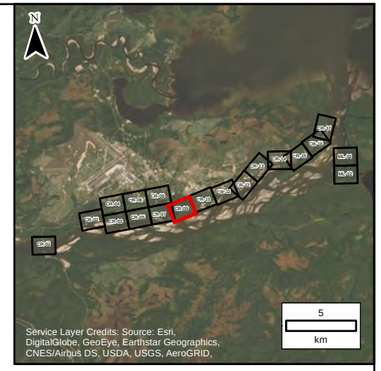
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.4 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.4_11x17.mxd
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
- 1:100 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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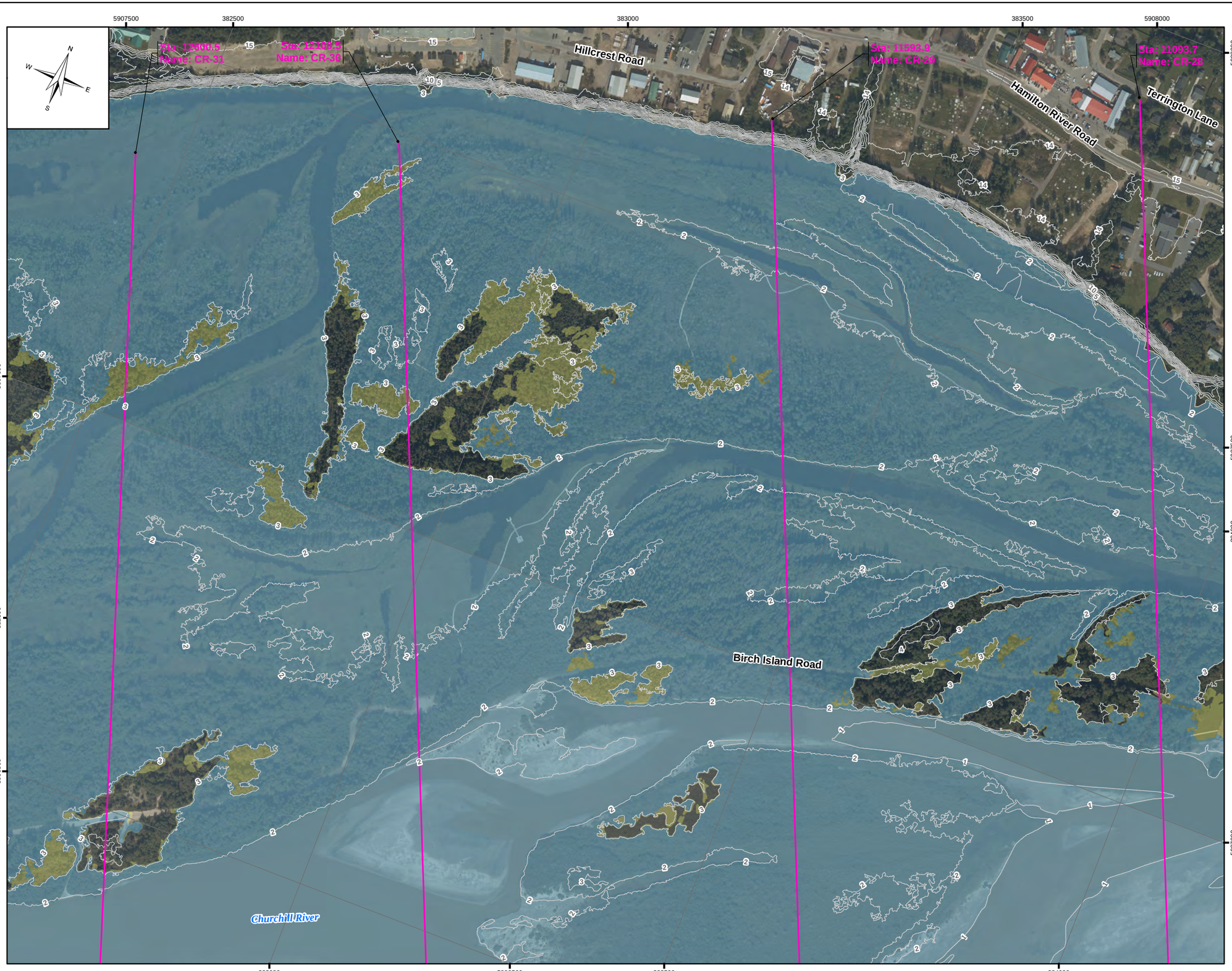
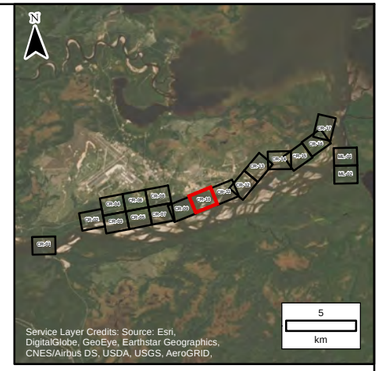
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.4 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.4_11x17.mxd
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
- 1:100 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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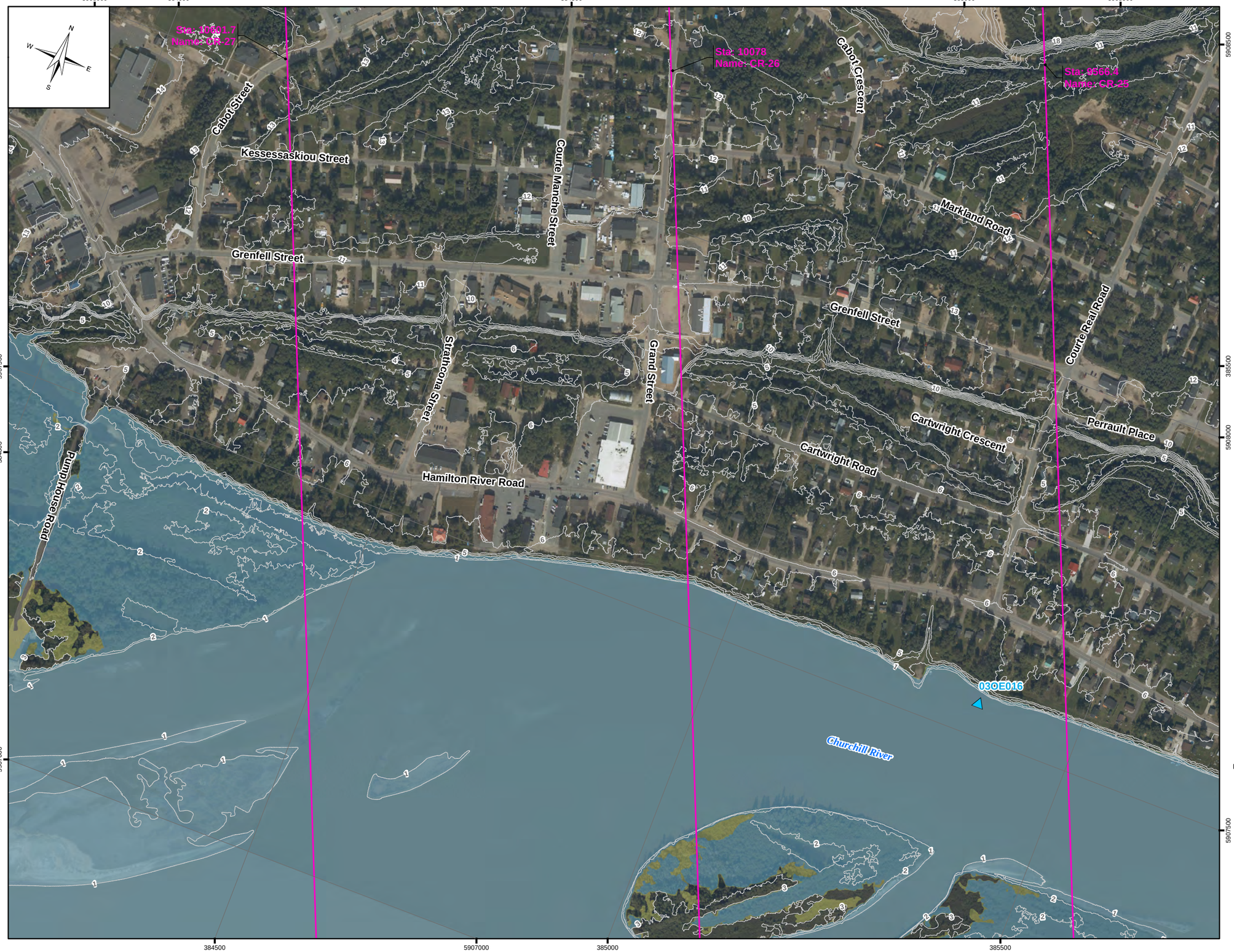
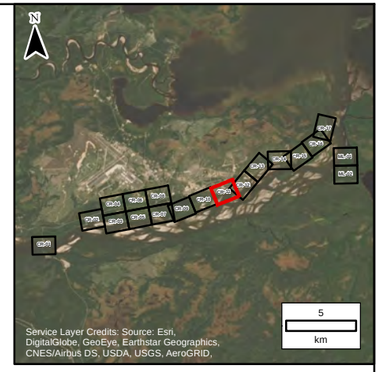
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.4 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.4_11x17.mxd
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
- 1:100 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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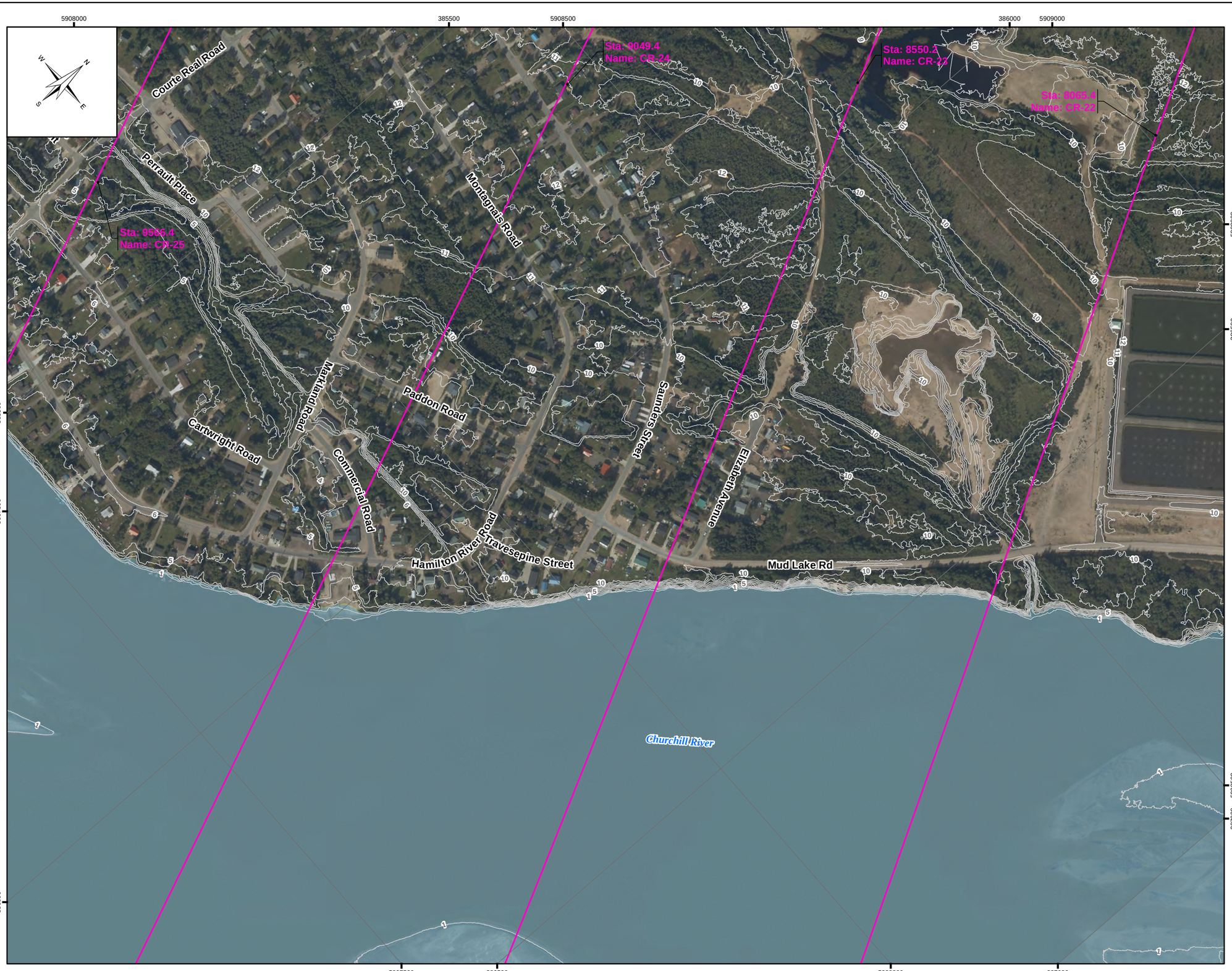
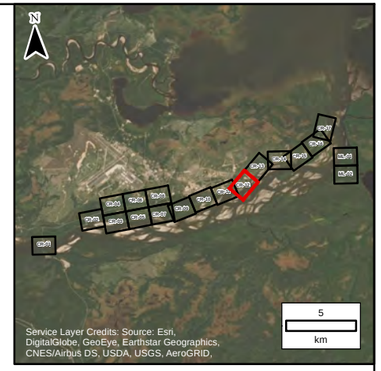
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.4 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.4_11x17.mxd
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
- 1:100 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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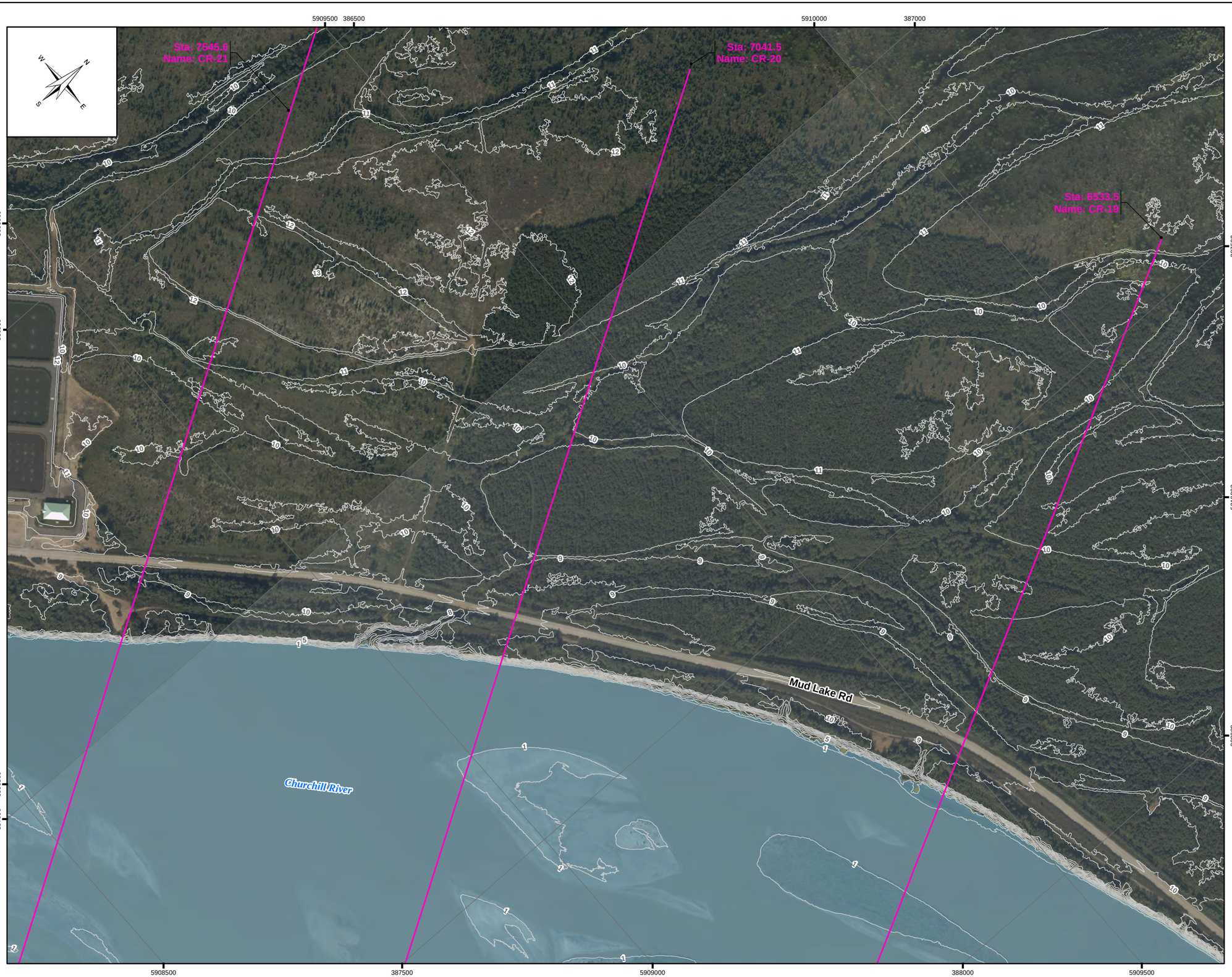
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.4 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.4_11x17.mxd
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
- 1:100 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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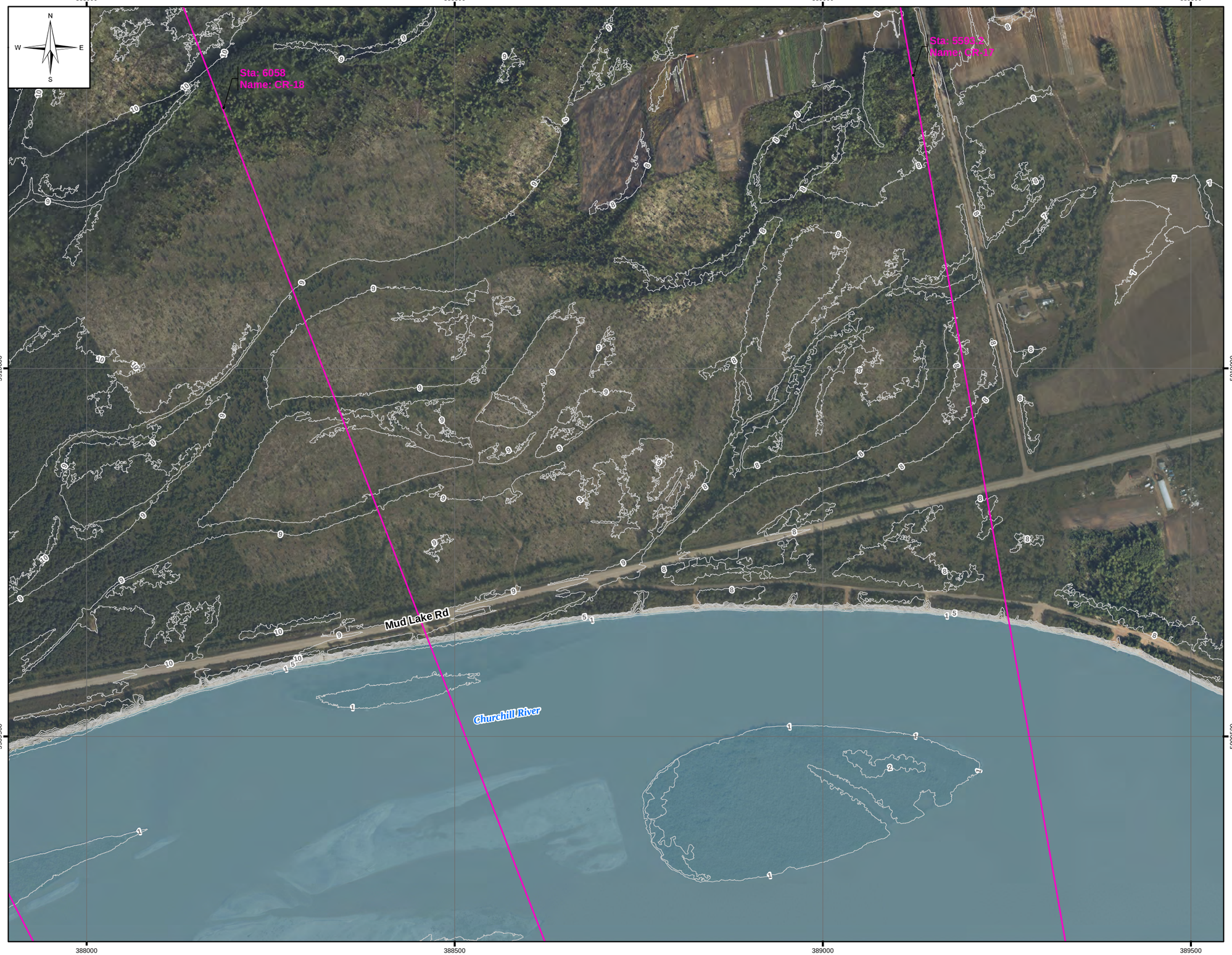
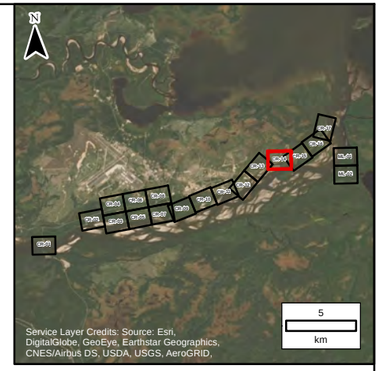
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.4 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.4_11x17.mxd
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
- 1:100 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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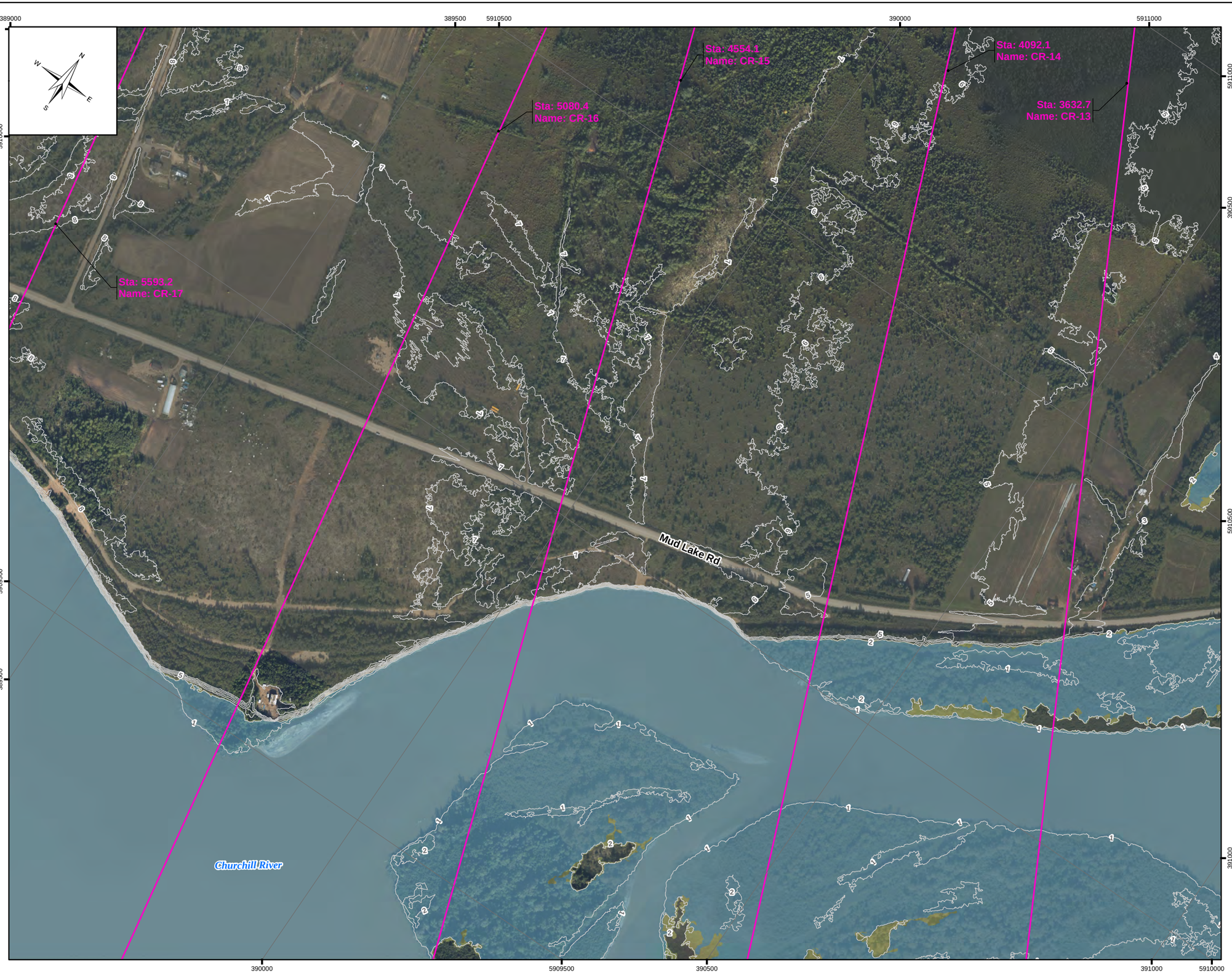
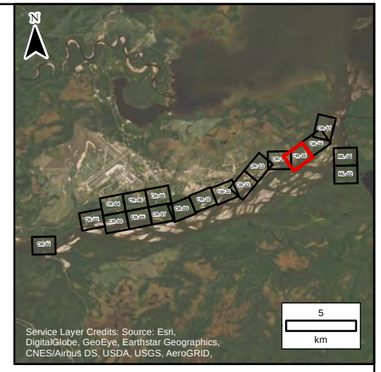
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.4_11x17.mxd
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
- 1:100 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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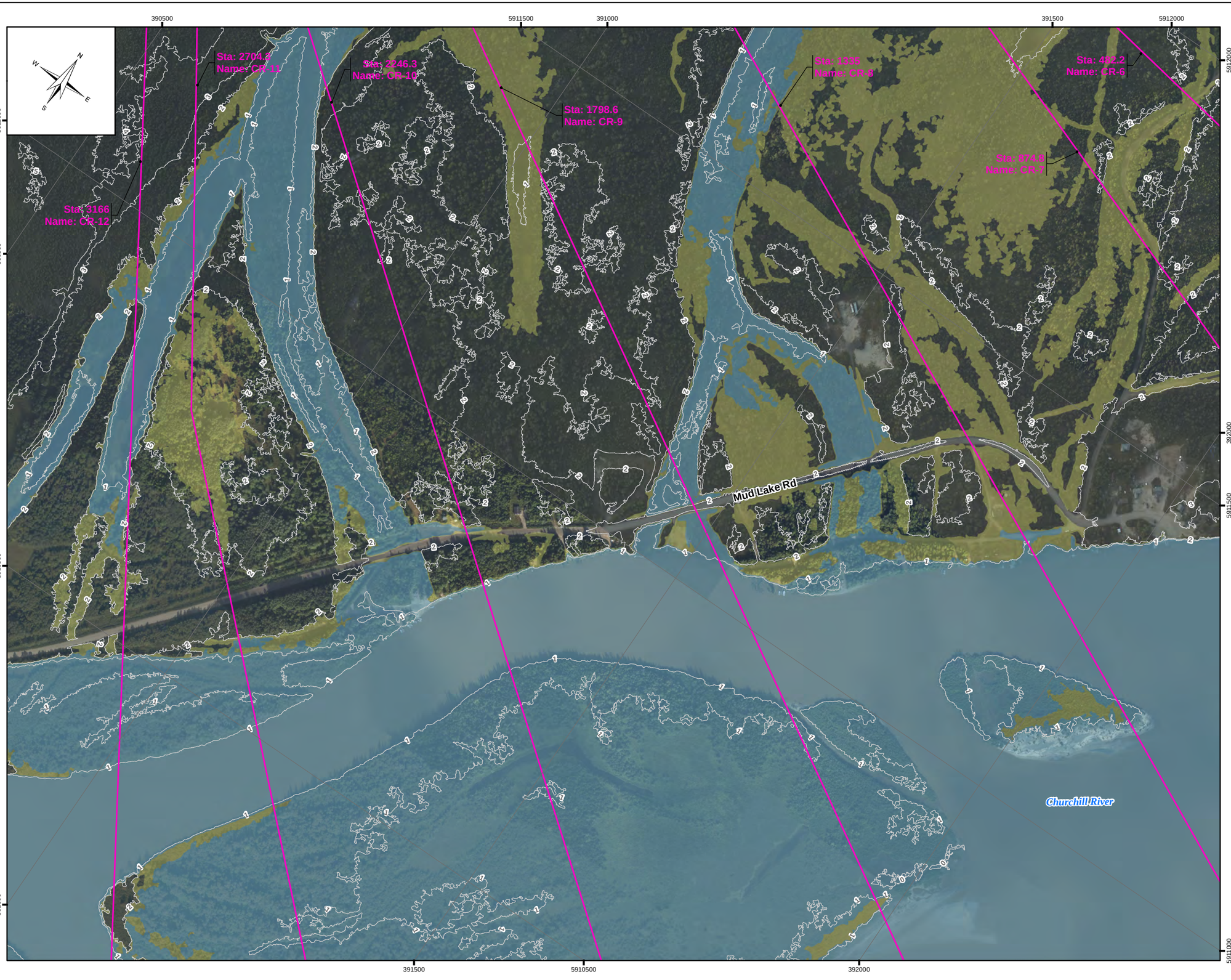
Newfoundland Labrador

# 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

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.4_11x17.mxd
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
- 1:100 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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–16

JUNE 2020 | FIGURE 5.4 | REV: 0

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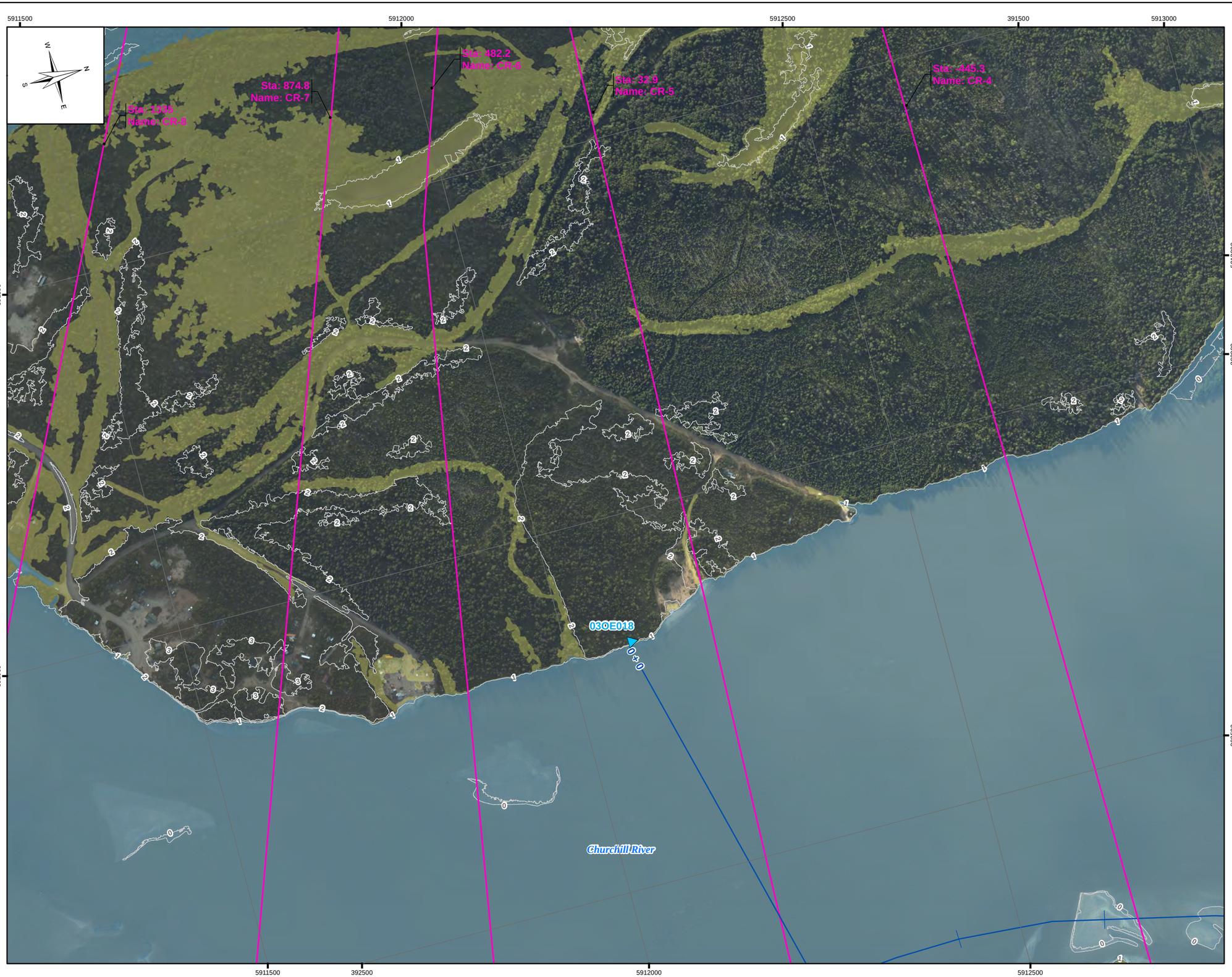
11"x17" PLOT SCALE 1:1





LEGEND:

- Sta: 23648 Name: CR-53 — Cross Section
- Water Survey of Canada Gauge Location
- River Centreline
- 1m LiDAR Contour
- 1:100 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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–17

JUNE 2020 | FIGURE 5.4 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.4_11x17.mxd
11"x17" PLOT SCALE 1:1

393000 393500 394000

5910500 5910000 5909500

N W E S

Churchill River

Sta: 2055.9
Name: ML1-2

Sta: 1812
Name: ML1-1

Sta: 2250
Name: ML1-3

Sta: 2548.6
Name: ML1-4

Sta: 1335
Name: CR-8

Sta: 3296.7
Name: ML1-5

Sta: 1798.6
Name: CR-9

Sta: 3555.5
Name: ML1-6

Sta: 2246.3
Name: CR-10

Sta: 3529.7
Name: ML1-7

3+000


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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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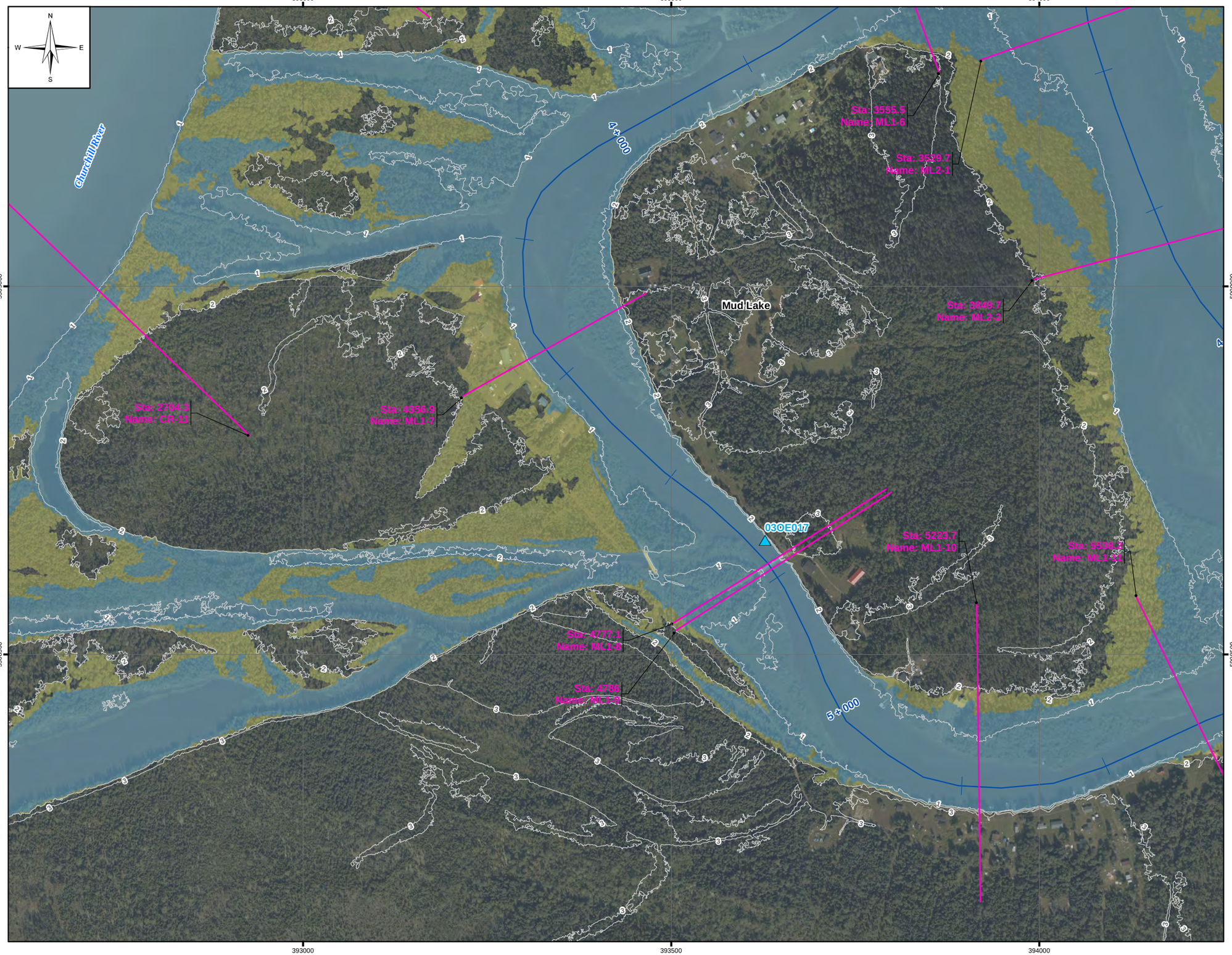
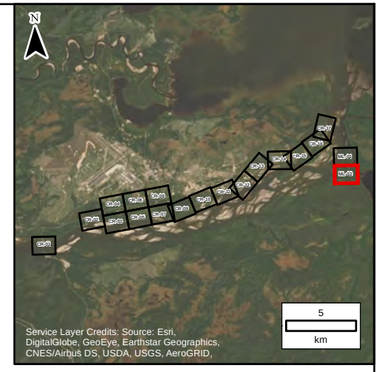
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.4 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.4_11x17.mxd
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
- 1:100 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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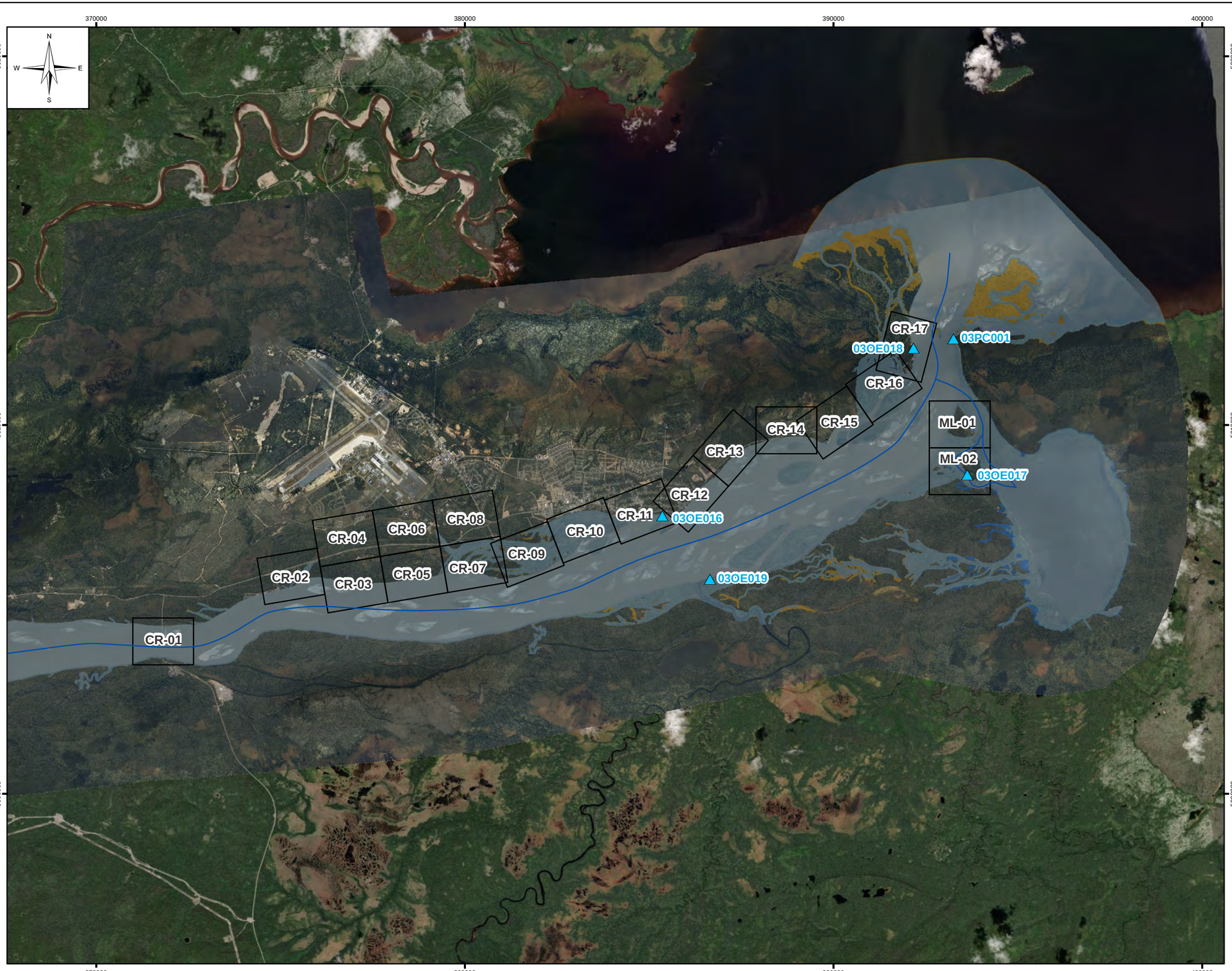
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.4 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.4_11x17.mxd
11"x17" PLOT SCALE 1:1





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 ATLIS Geomatics and dated as September 11 – 13, 2019, and by ESRI and DigitalGlobe, WV02 dated June 3, 2015.

1 0 1 2 3 4
Kilometres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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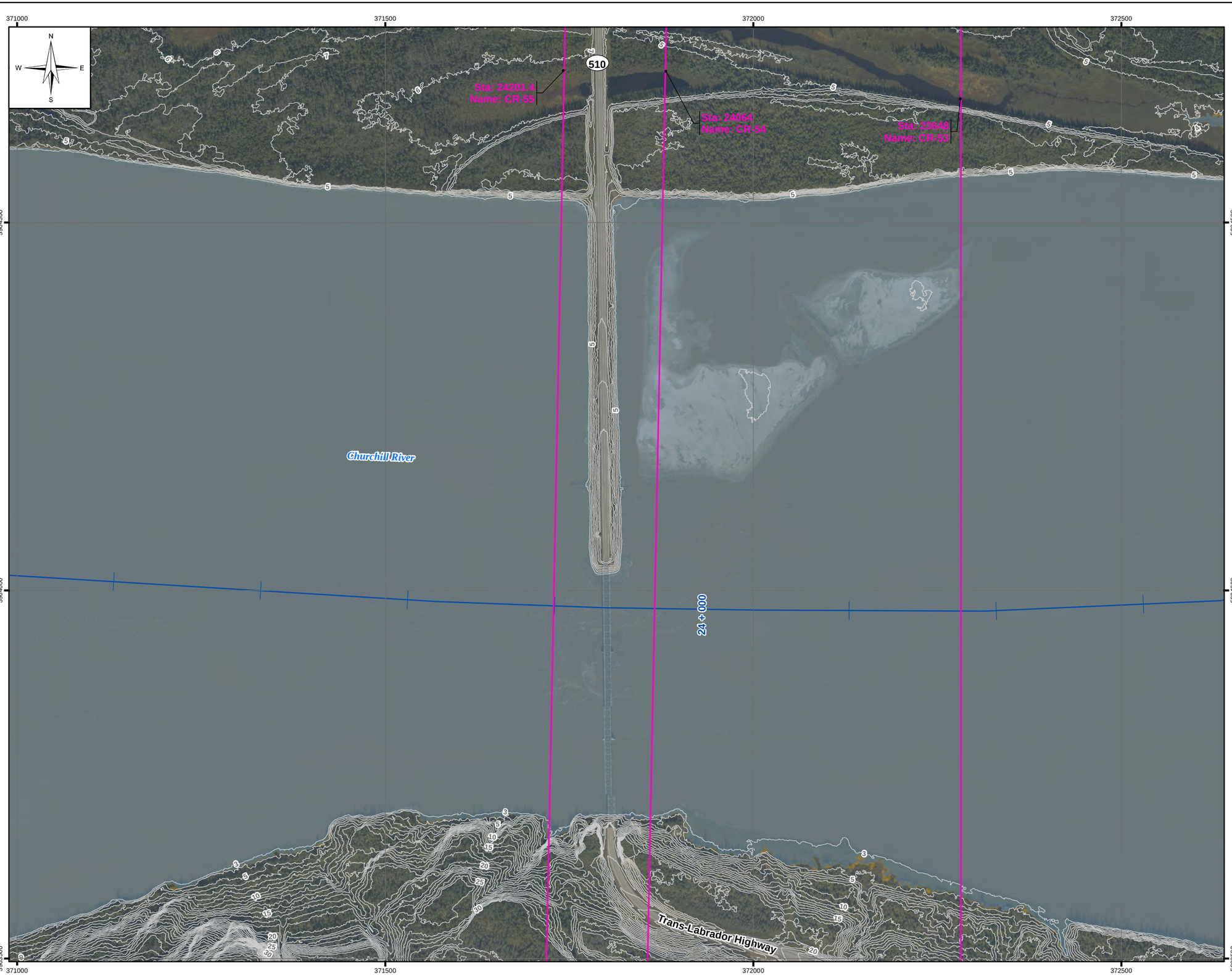
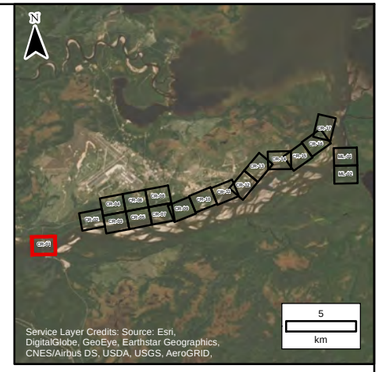
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.5 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.5_11x17.mxd
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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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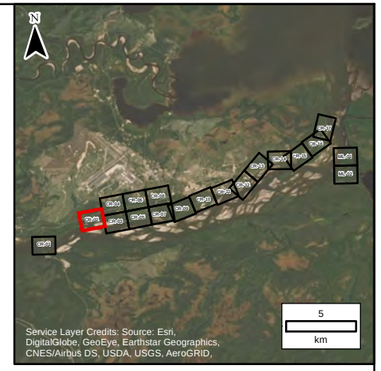
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.6 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.6_11x17.mxd
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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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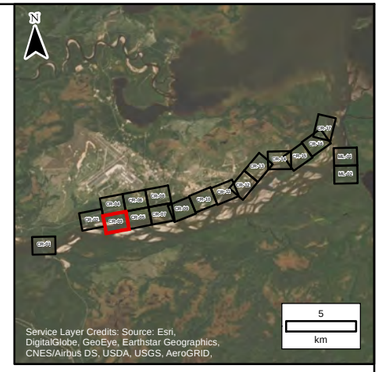
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.6 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.6_11x17.mxd
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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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-03

JUNE 2020 | FIGURE 5.6 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.6_11x17.mxd
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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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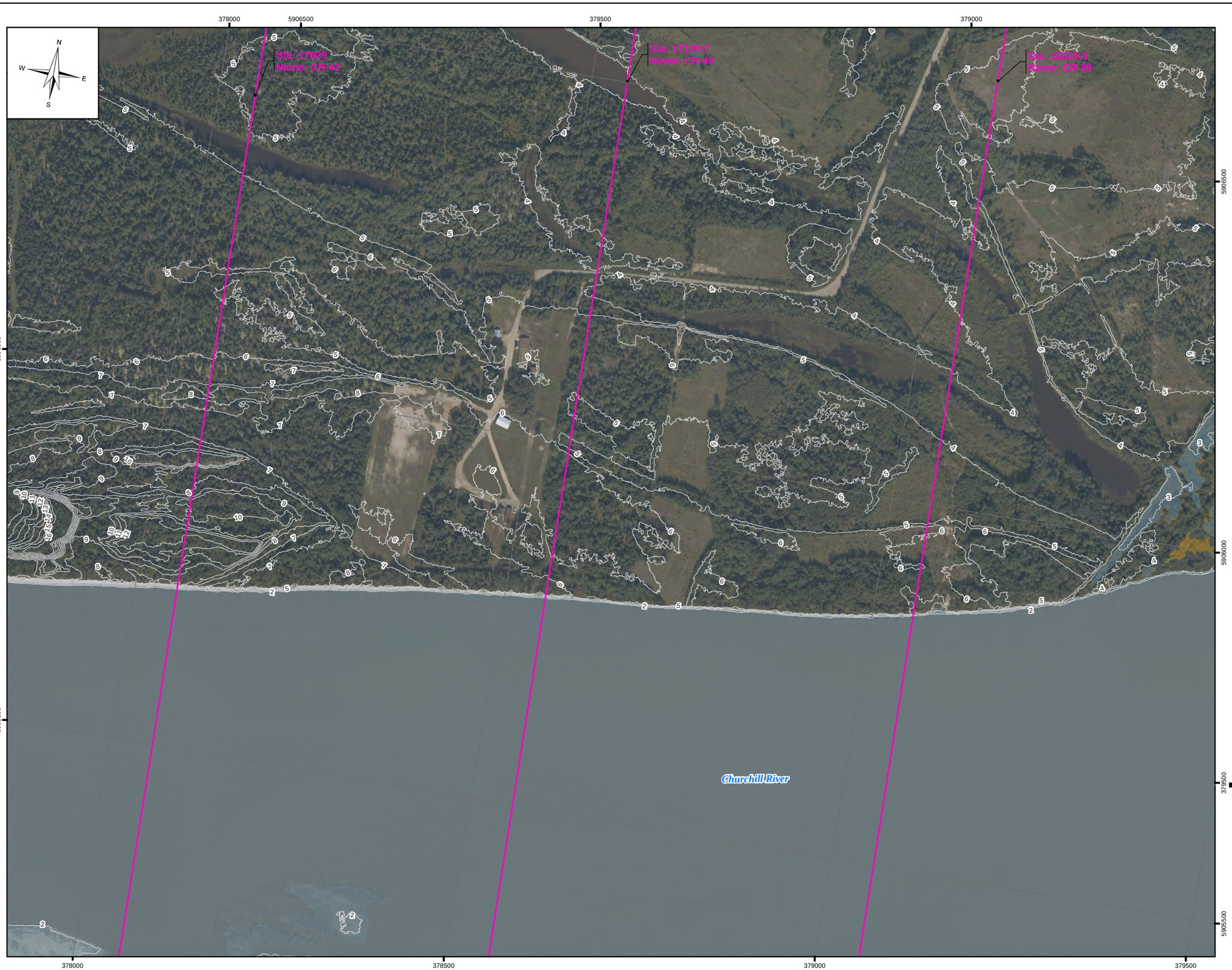
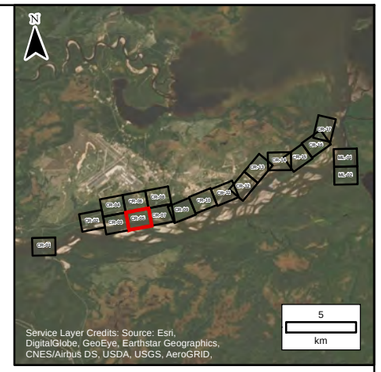
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.6_11x17.mxd
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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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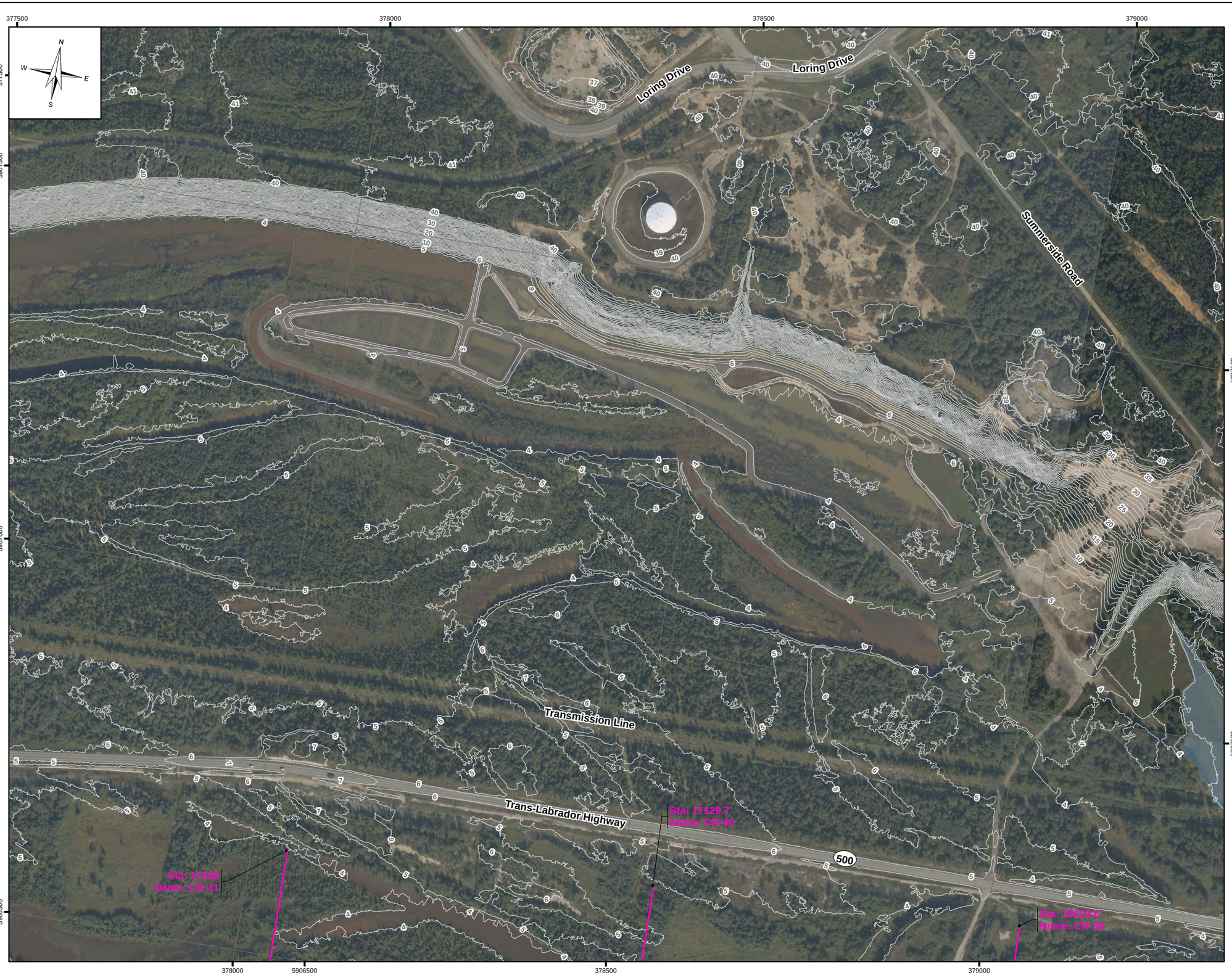
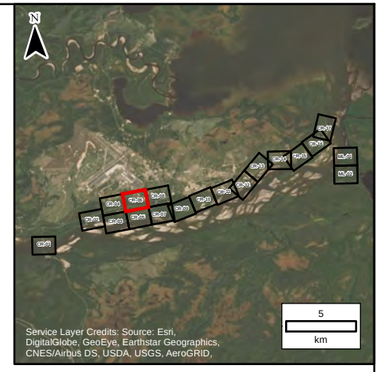
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.6 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.6_11x17.mxd
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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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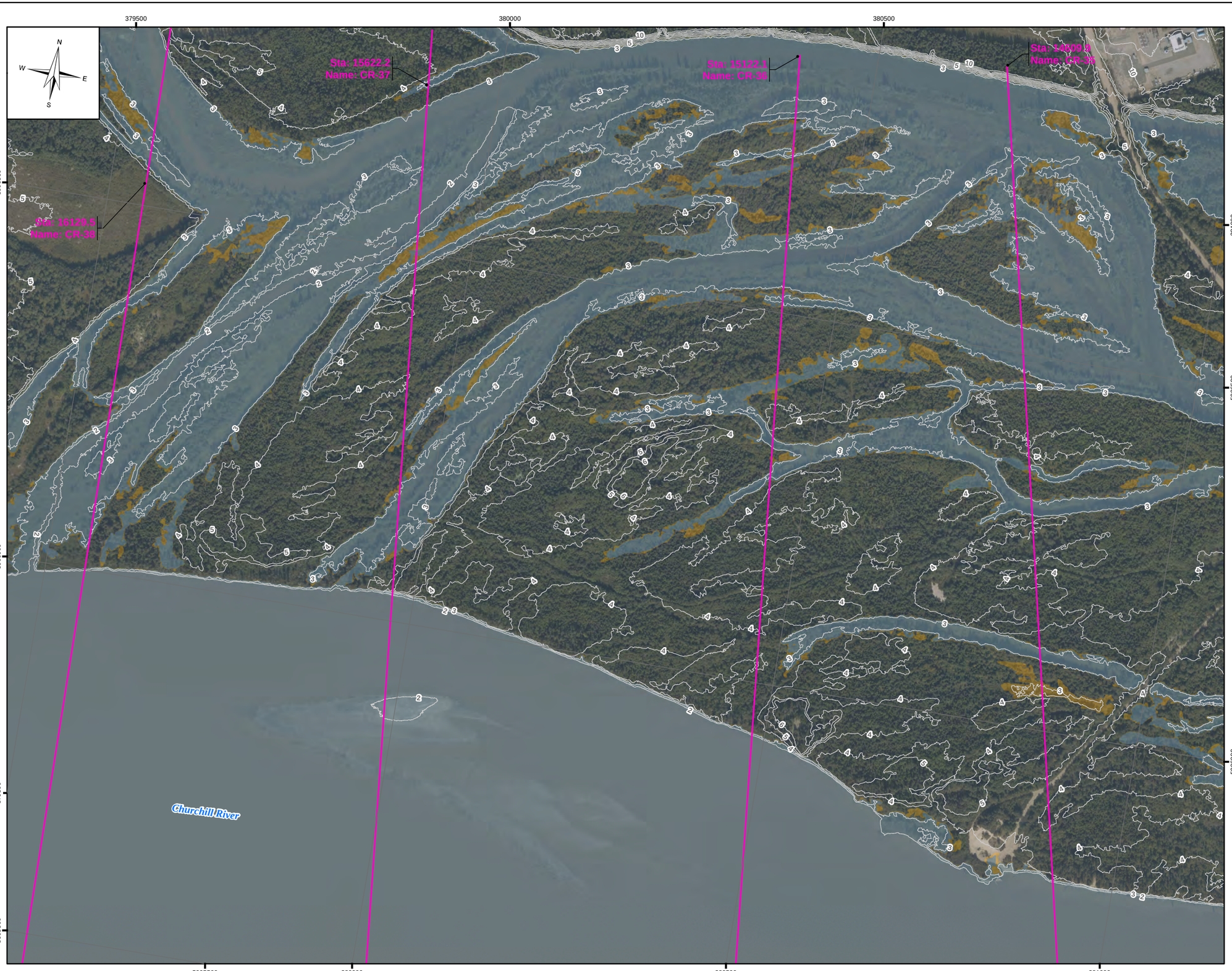
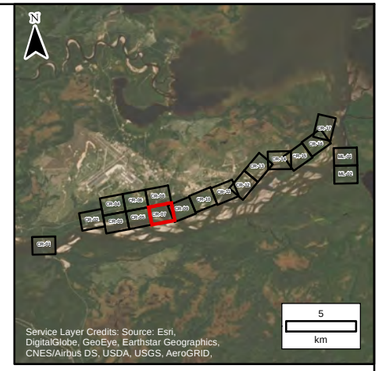
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.6 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.6_11x17.mxd
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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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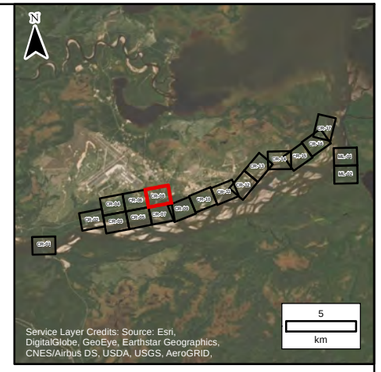
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.6 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.6_11x17.mxd
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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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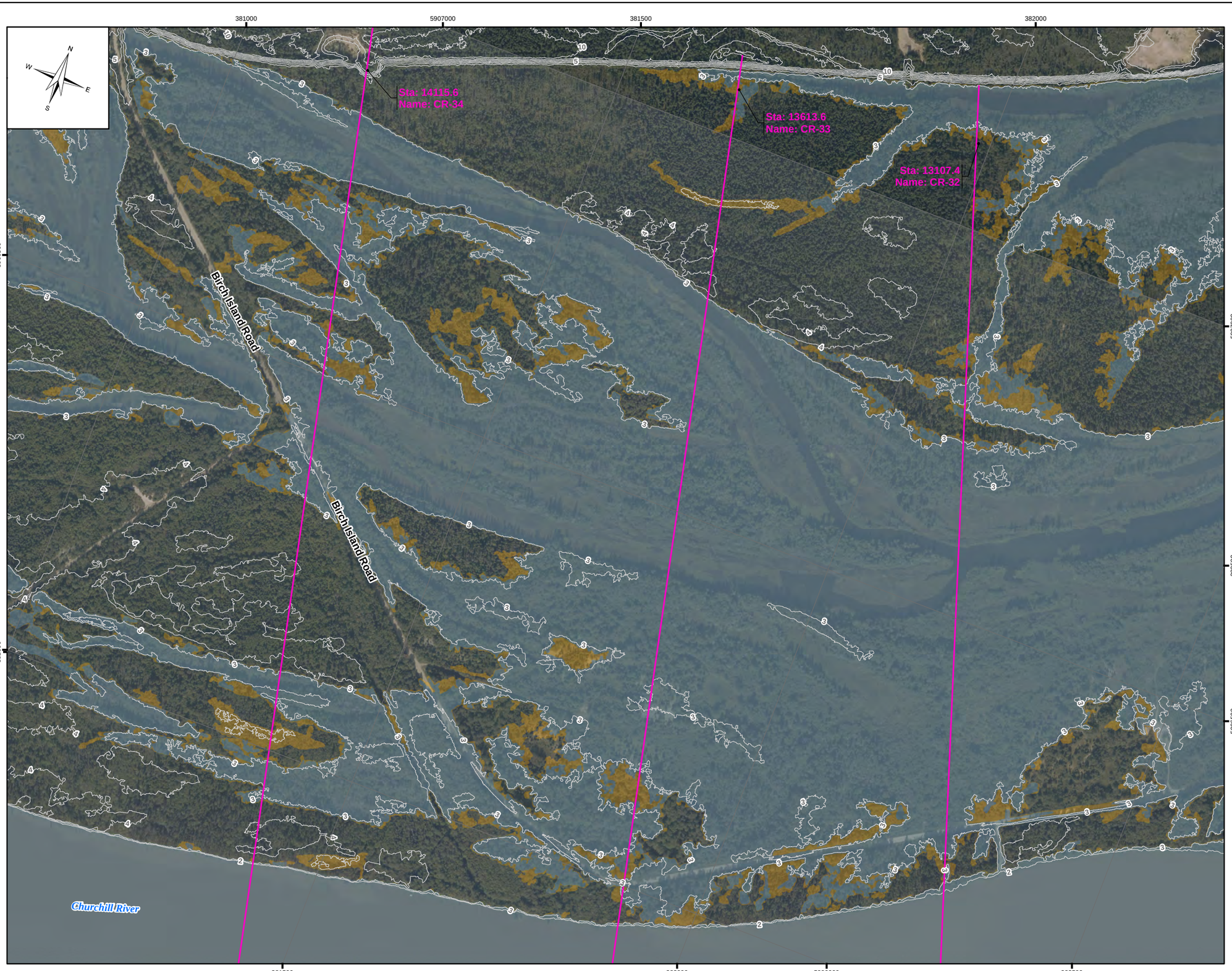
Newfoundland Labrador

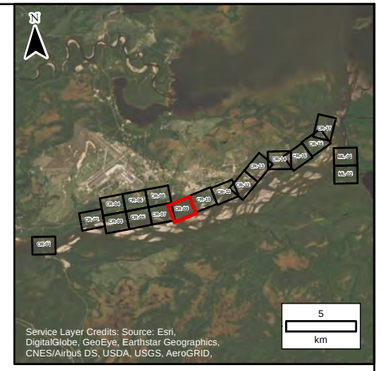
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.6_11x17.mxd
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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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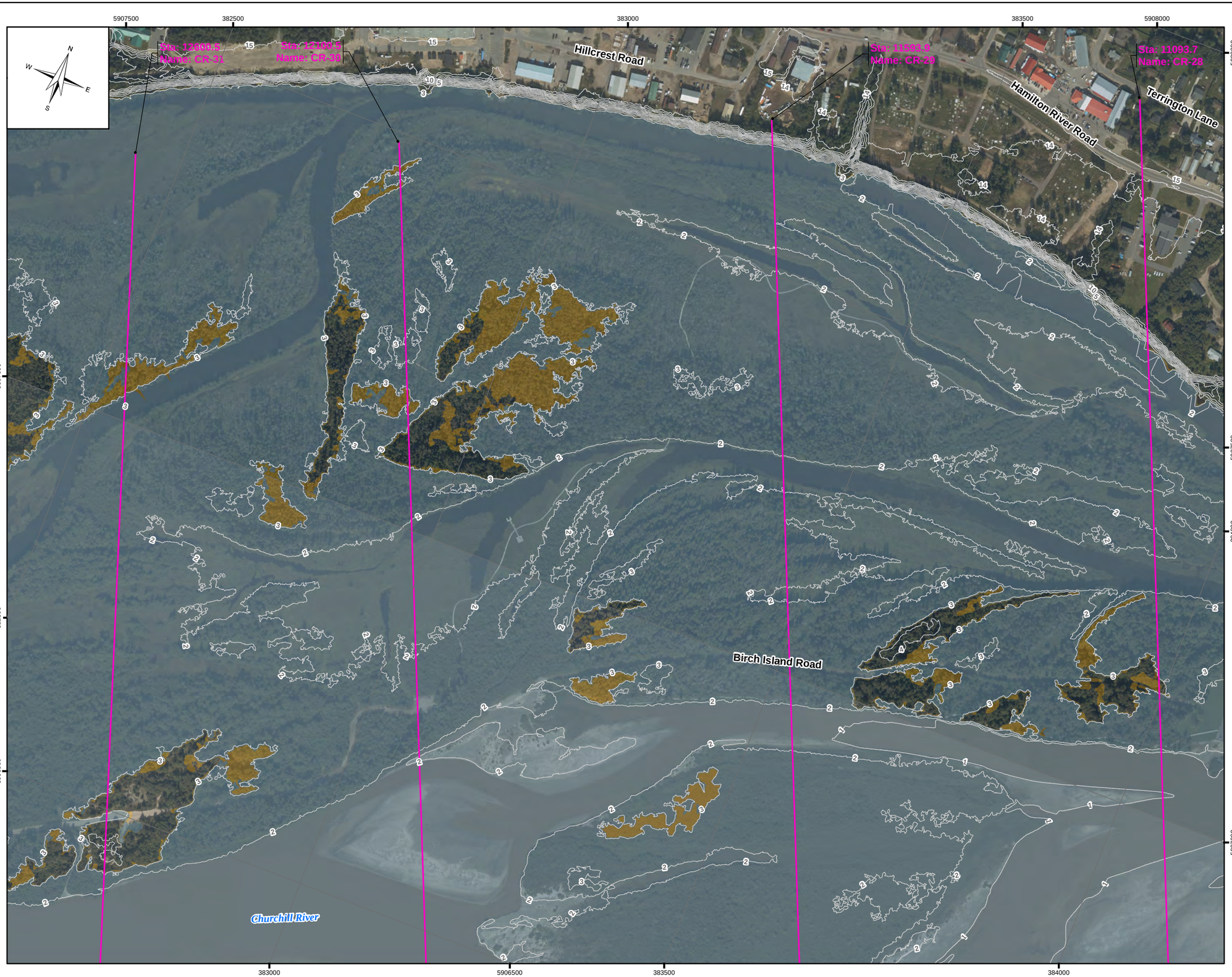
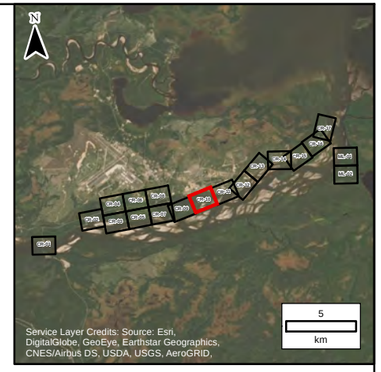
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.6 | 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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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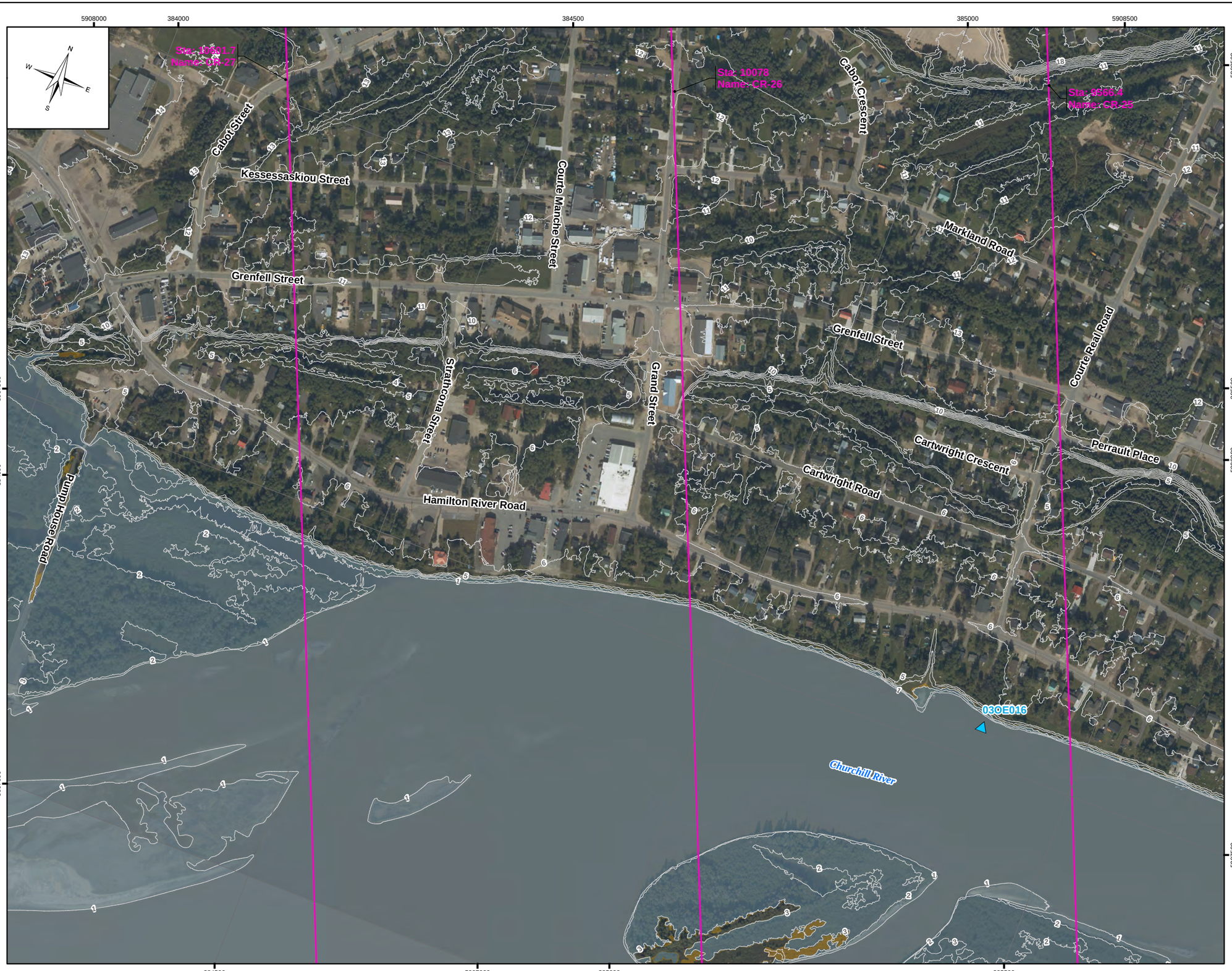
CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.6 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.6_11x17.mxd
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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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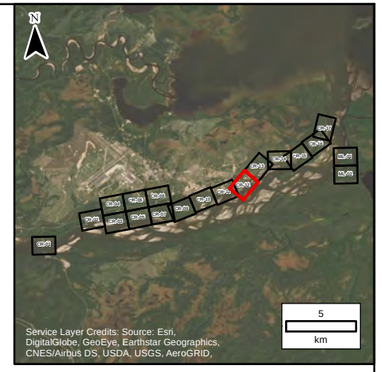
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.6 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.6_11x17.mxd
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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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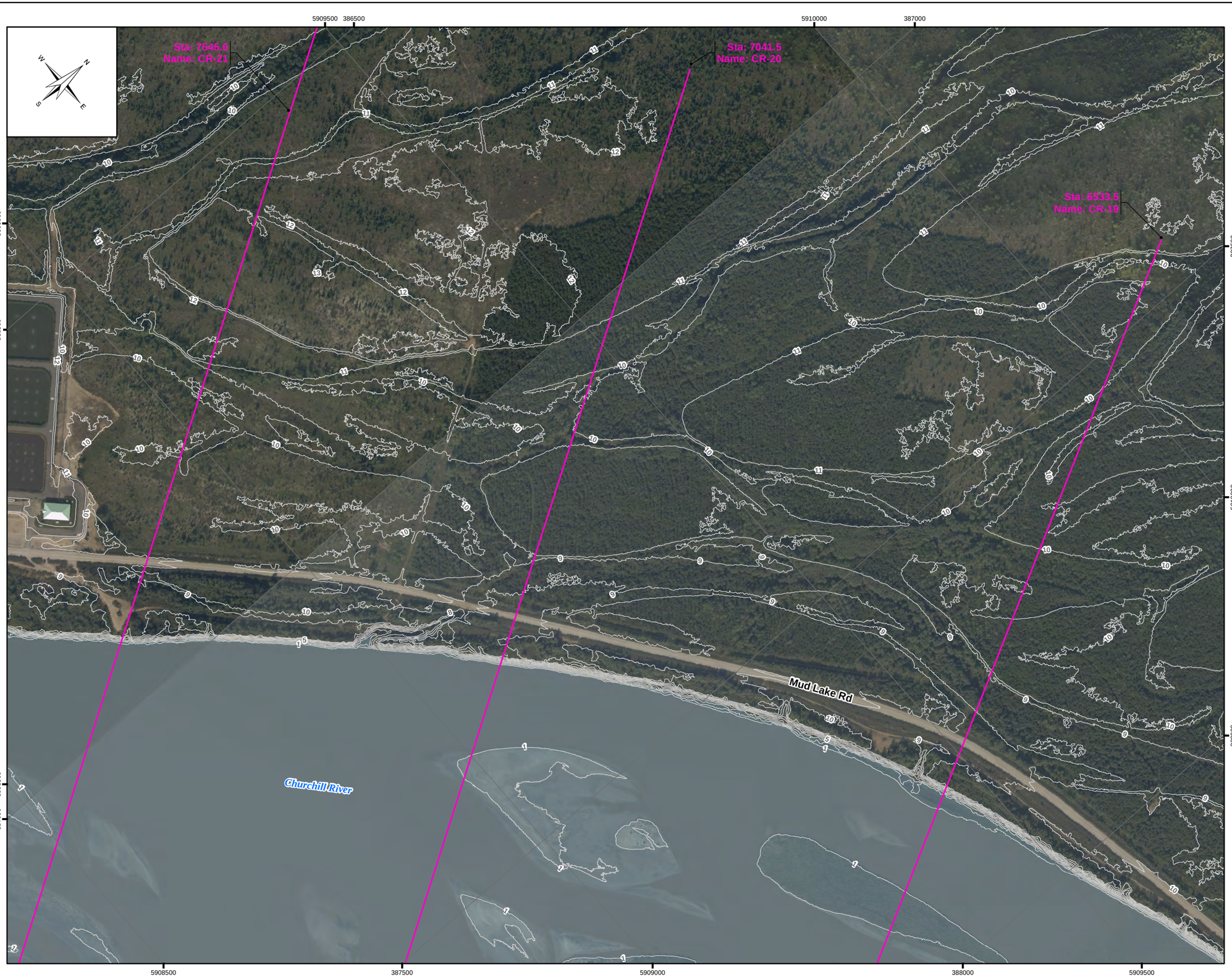
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.6 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.6_11x17.mxd
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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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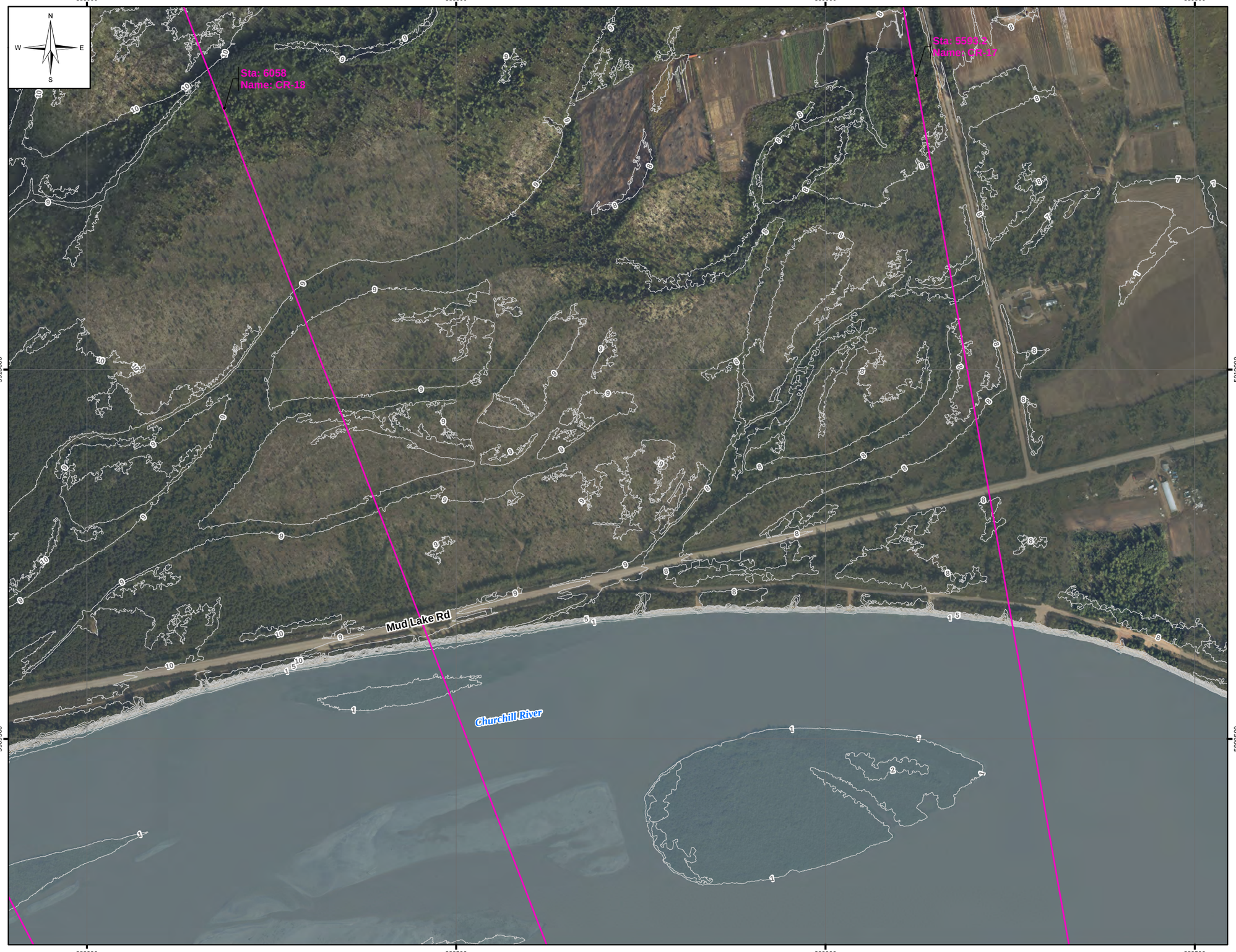
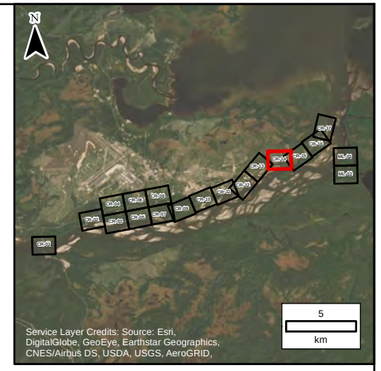
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.6_11x17.mxd
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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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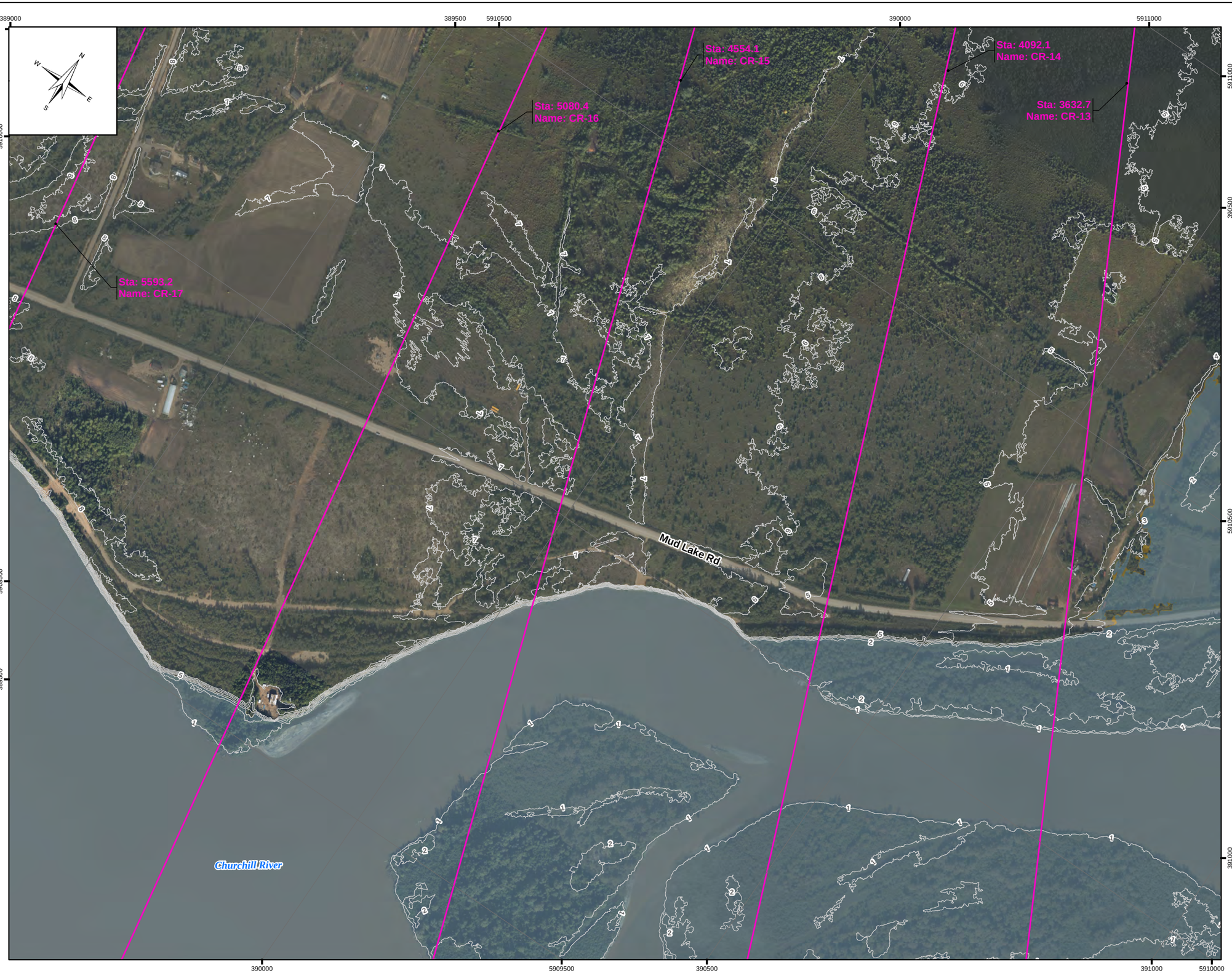
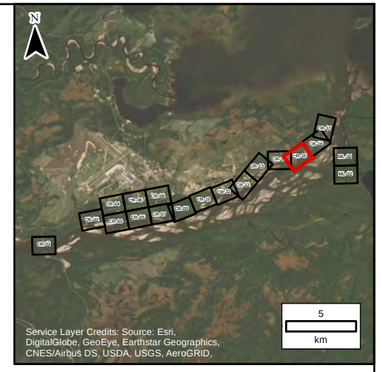
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.6_11x17.mxd
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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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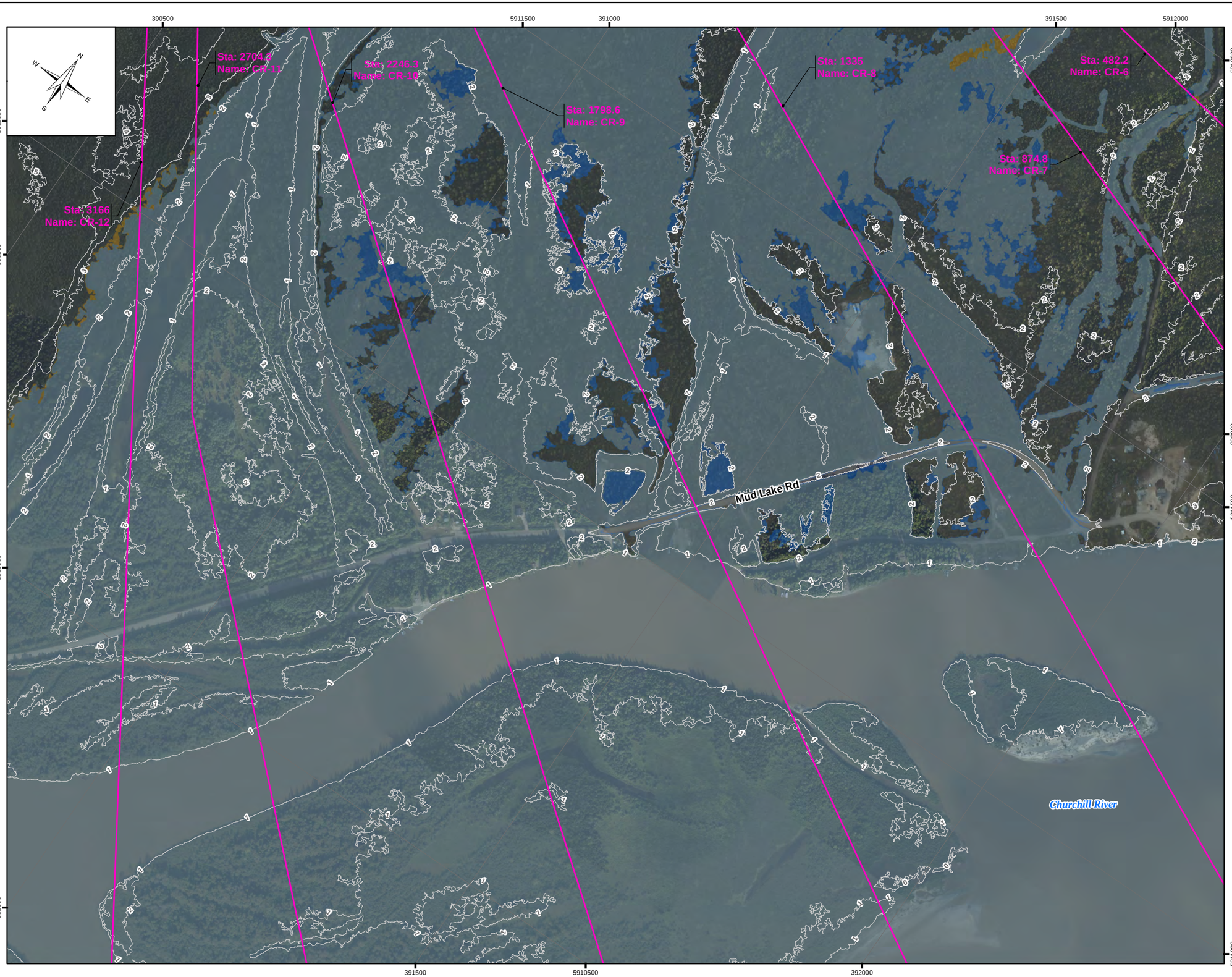
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.6 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.6_11x17.mxd
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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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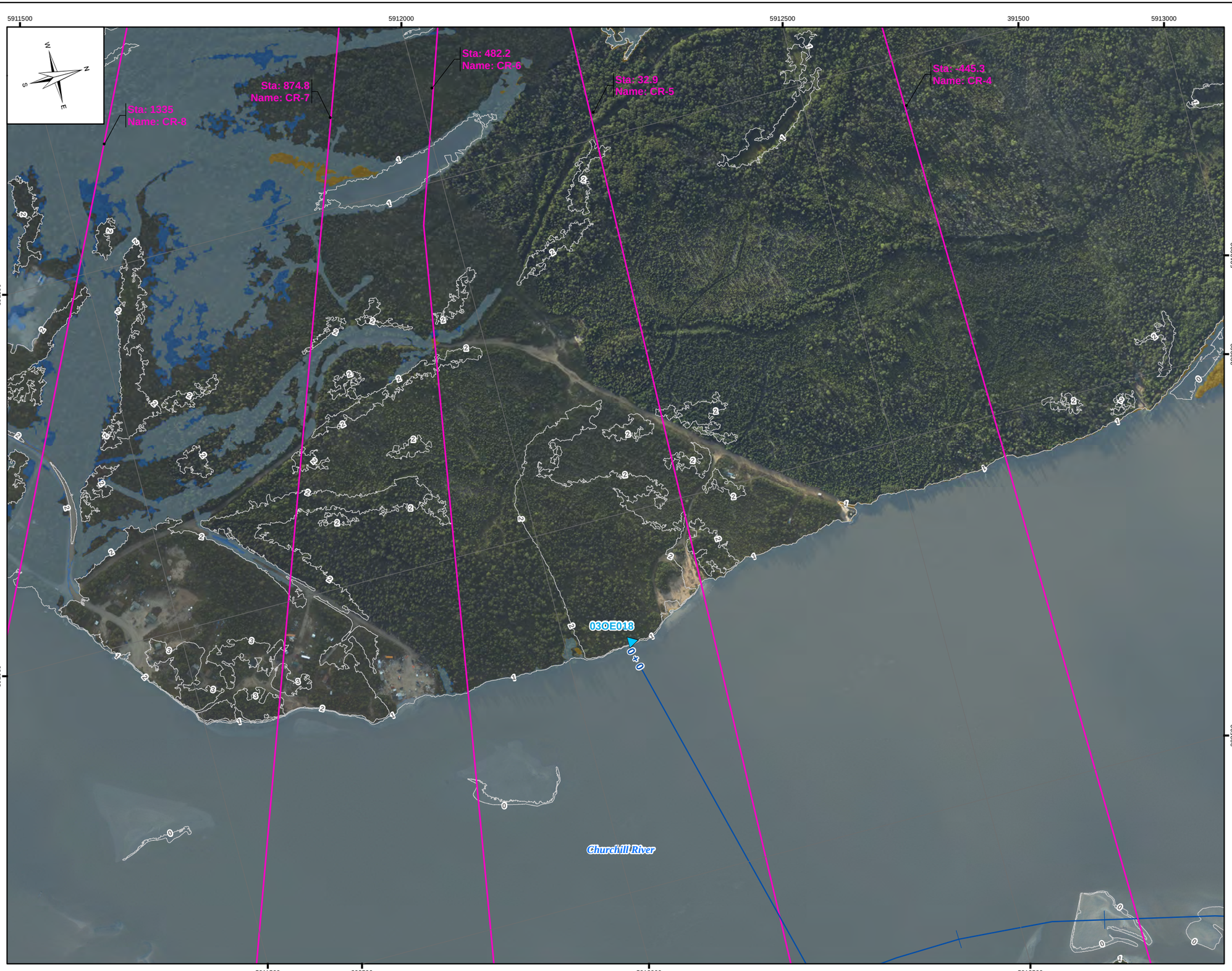
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.6 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.6_11x17.mxd
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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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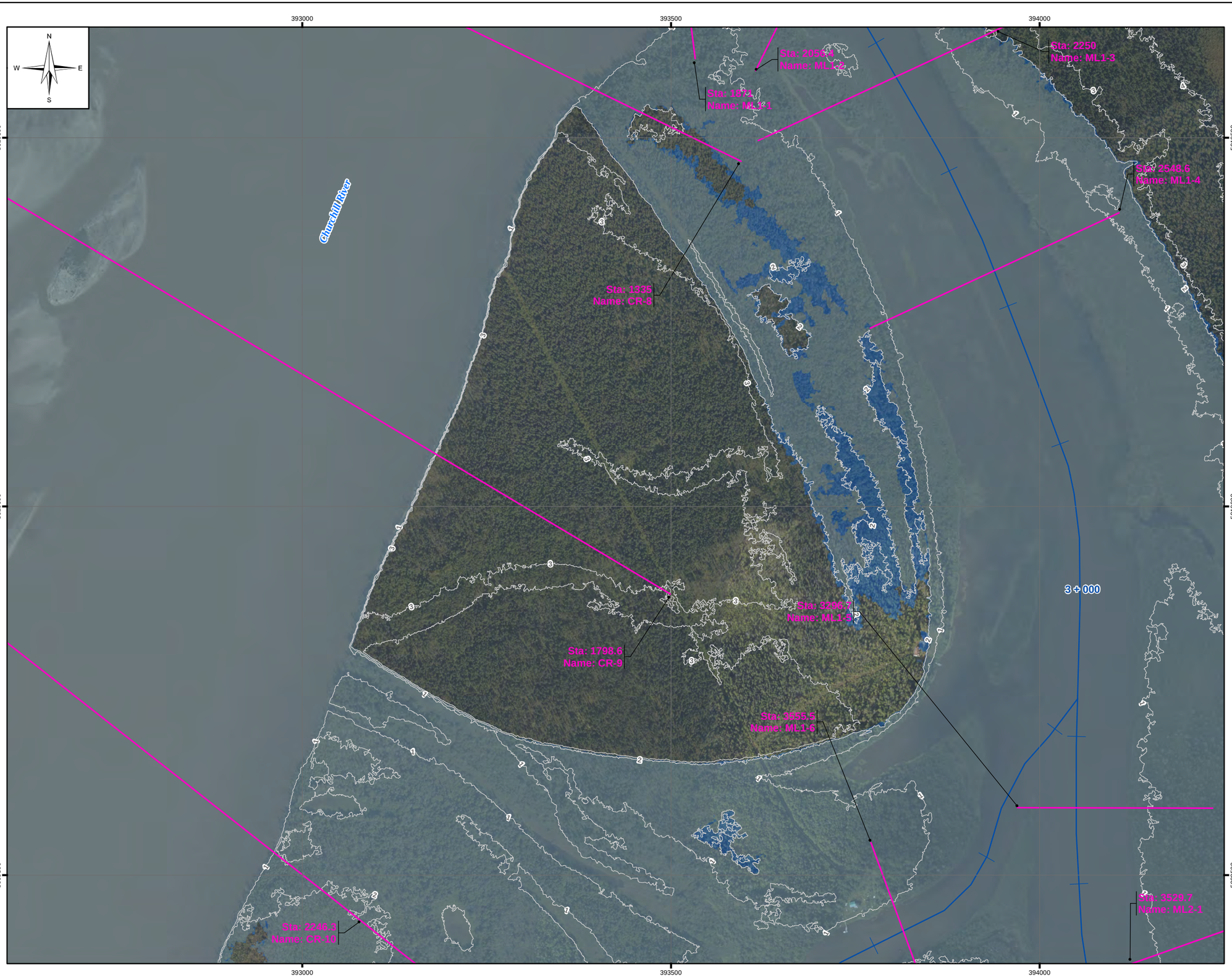
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.6 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.6_11x17.mxd
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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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).

| NO. | YY/MM/DD | DESCRIPTION | ISSUED BY | CHECK BY |
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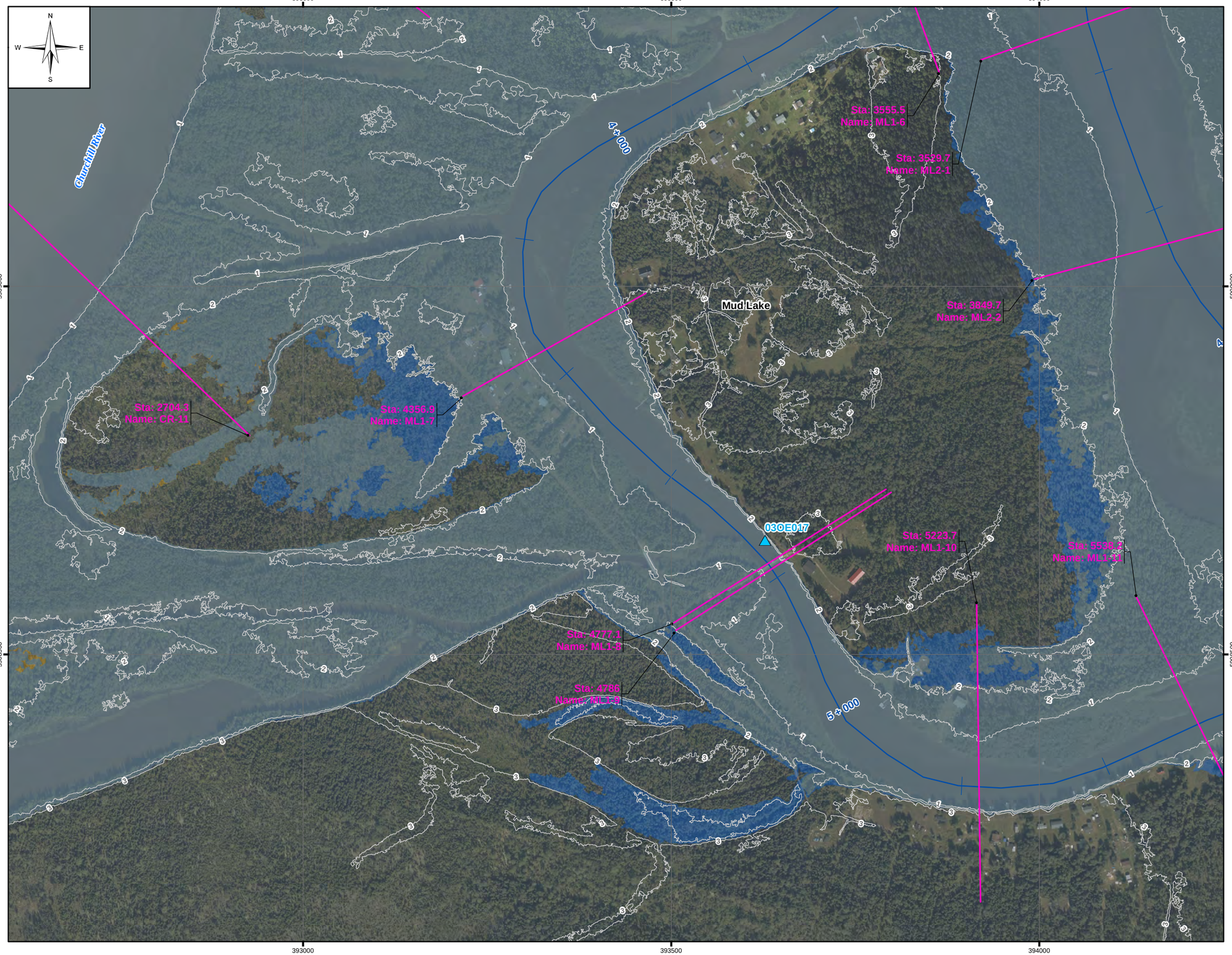
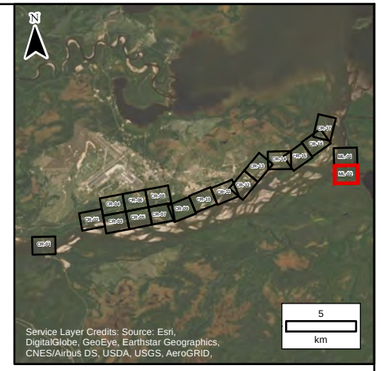
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.6 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.6_11x17.mxd
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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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-02

JUNE 2020 | FIGURE 5.6 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.6_11x17.mxd
11"x17" PLOT SCALE 1:1



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 ATLIS Geomatics and dated as September 11 – 13, 2019, and by ESRI and DigitalGlobe, WV02 dated June 3, 2015.

1 0 1 2 3 4
Kilometres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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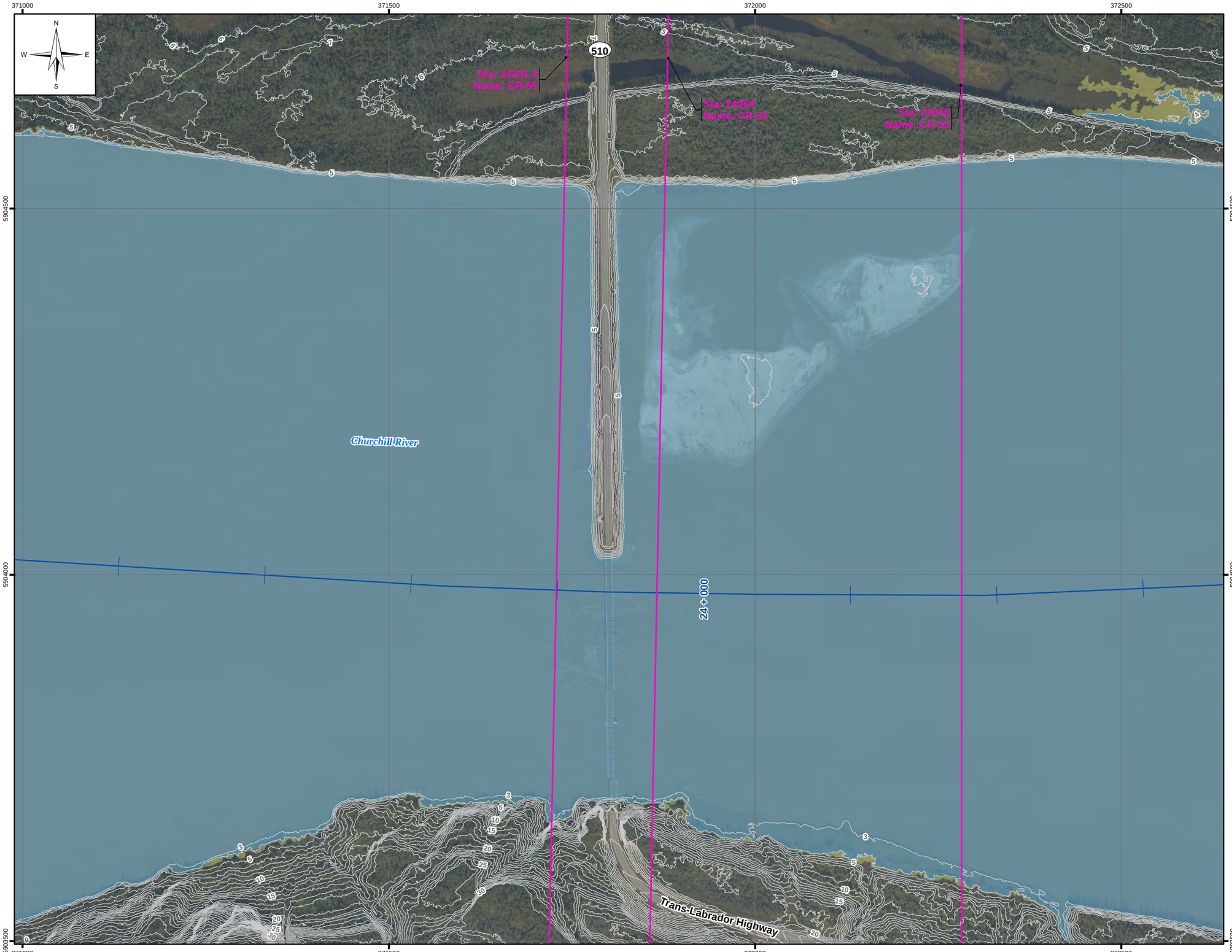
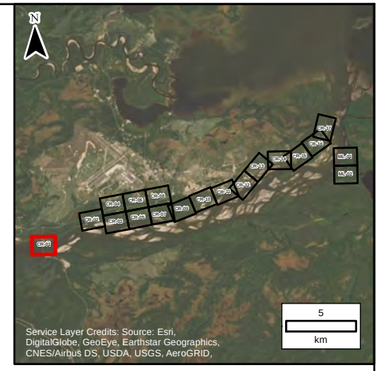
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.7_11x17.mxd
11"x17" PLOT SCALE 1:1




LEGEND:

- Cross Section (Sta: 23648, Name: CR-53)
- 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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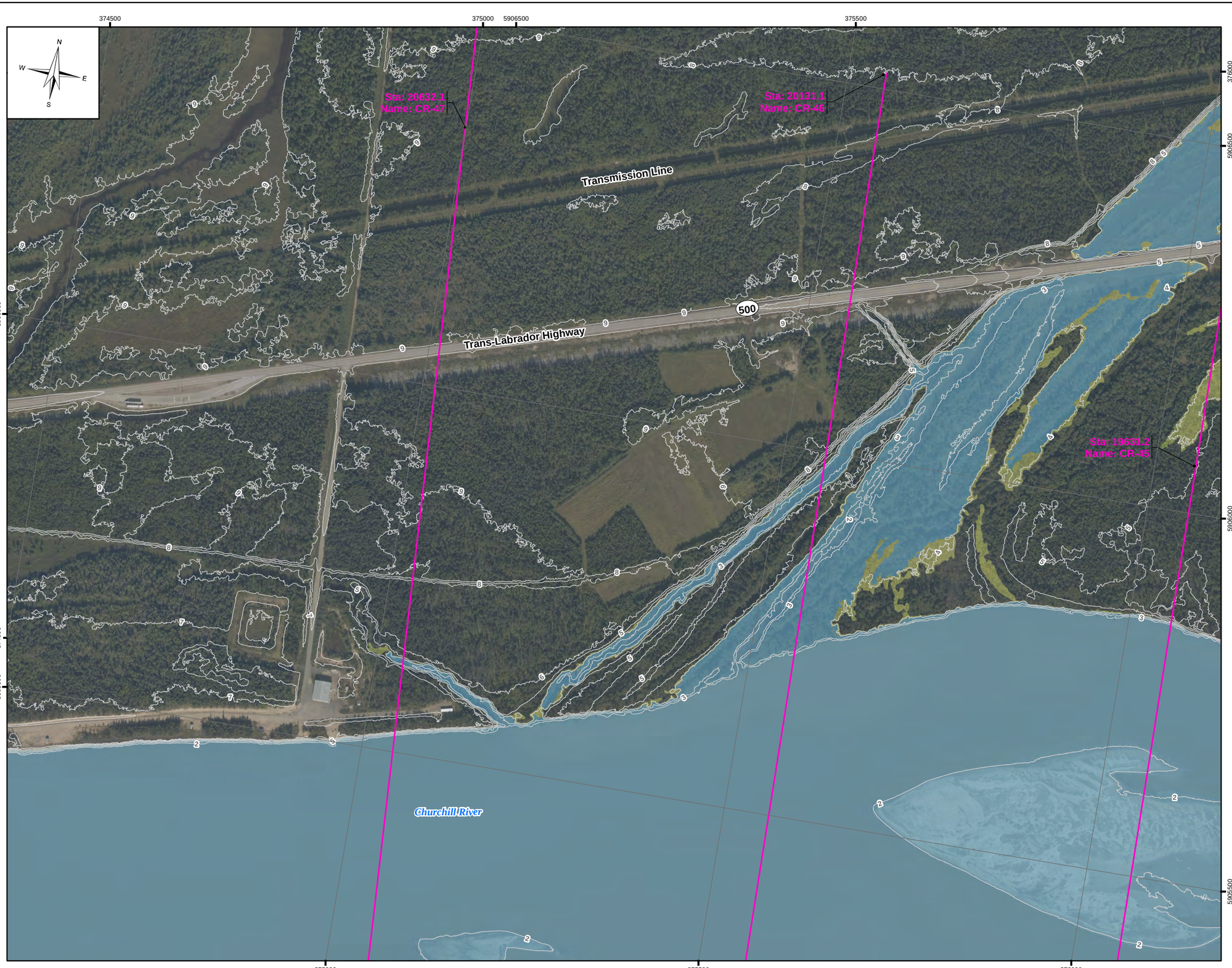
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.8 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.8_11x17.mxd
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
- 1:100 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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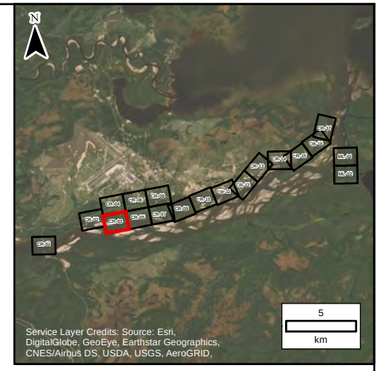
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.8_11x17.mxd
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
- 1:100 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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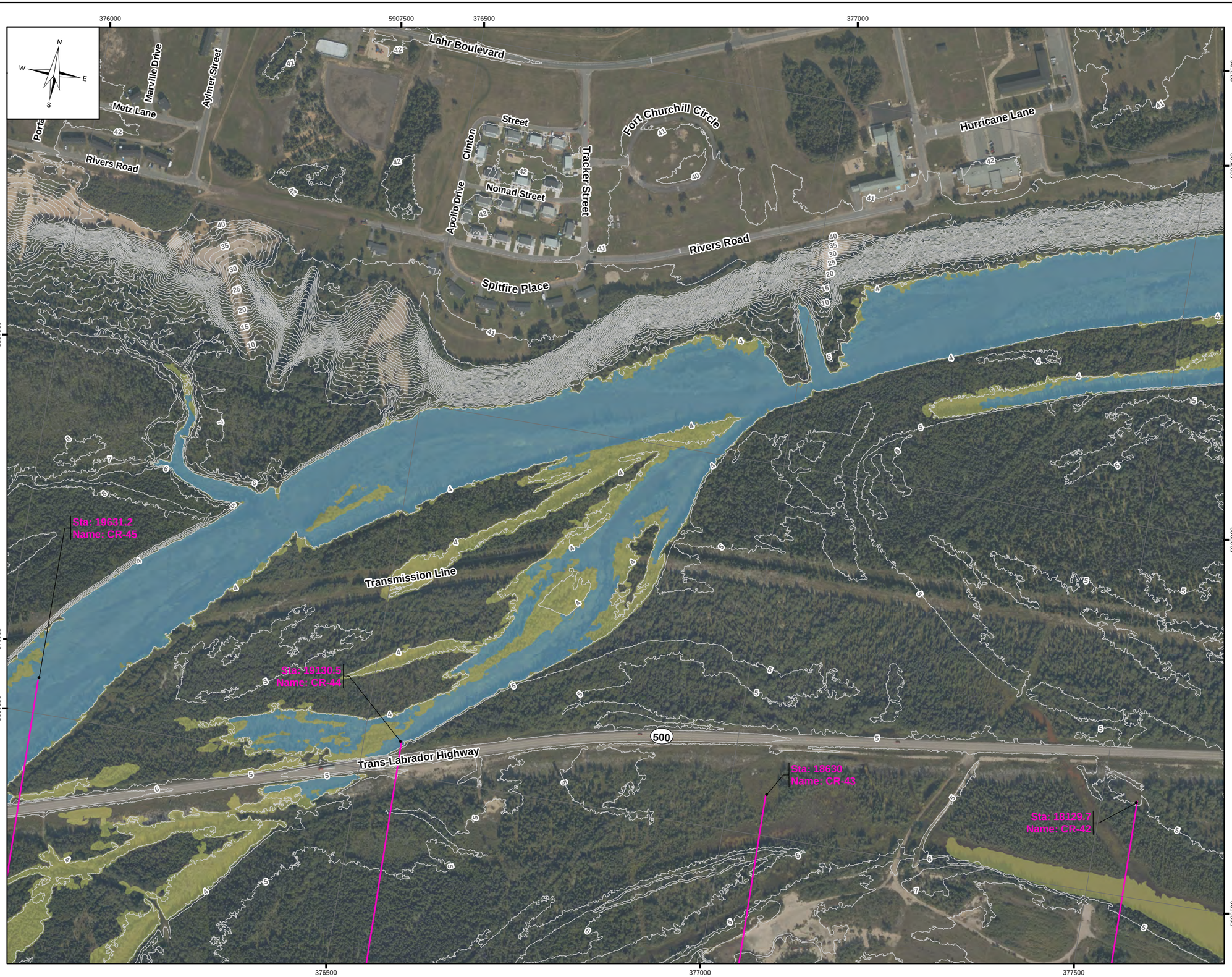
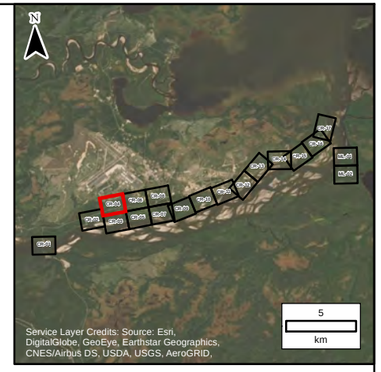
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.8 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.8_11x17.mxd
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
- 1:100 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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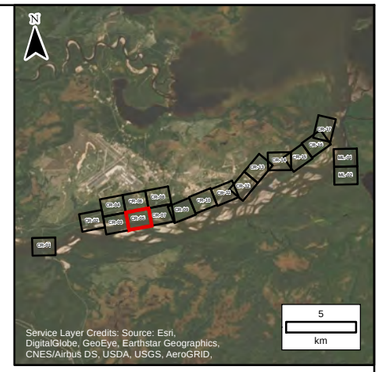
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.8 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.8_11x17.mxd
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
- 1:100 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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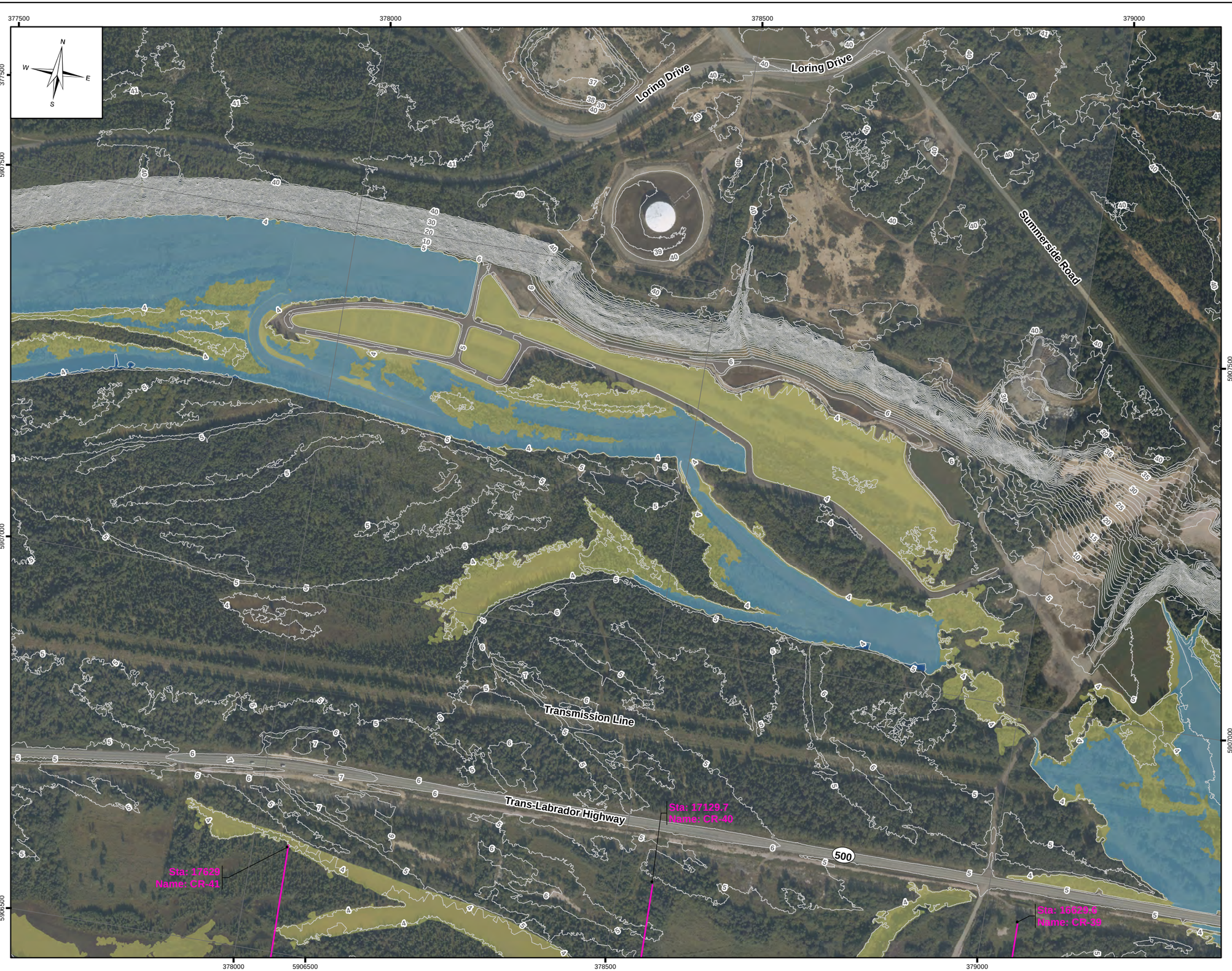
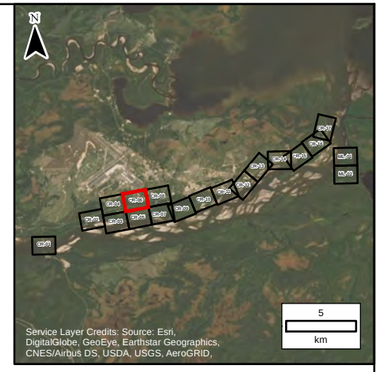
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.8 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.8_11x17.mxd
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
- 1:100 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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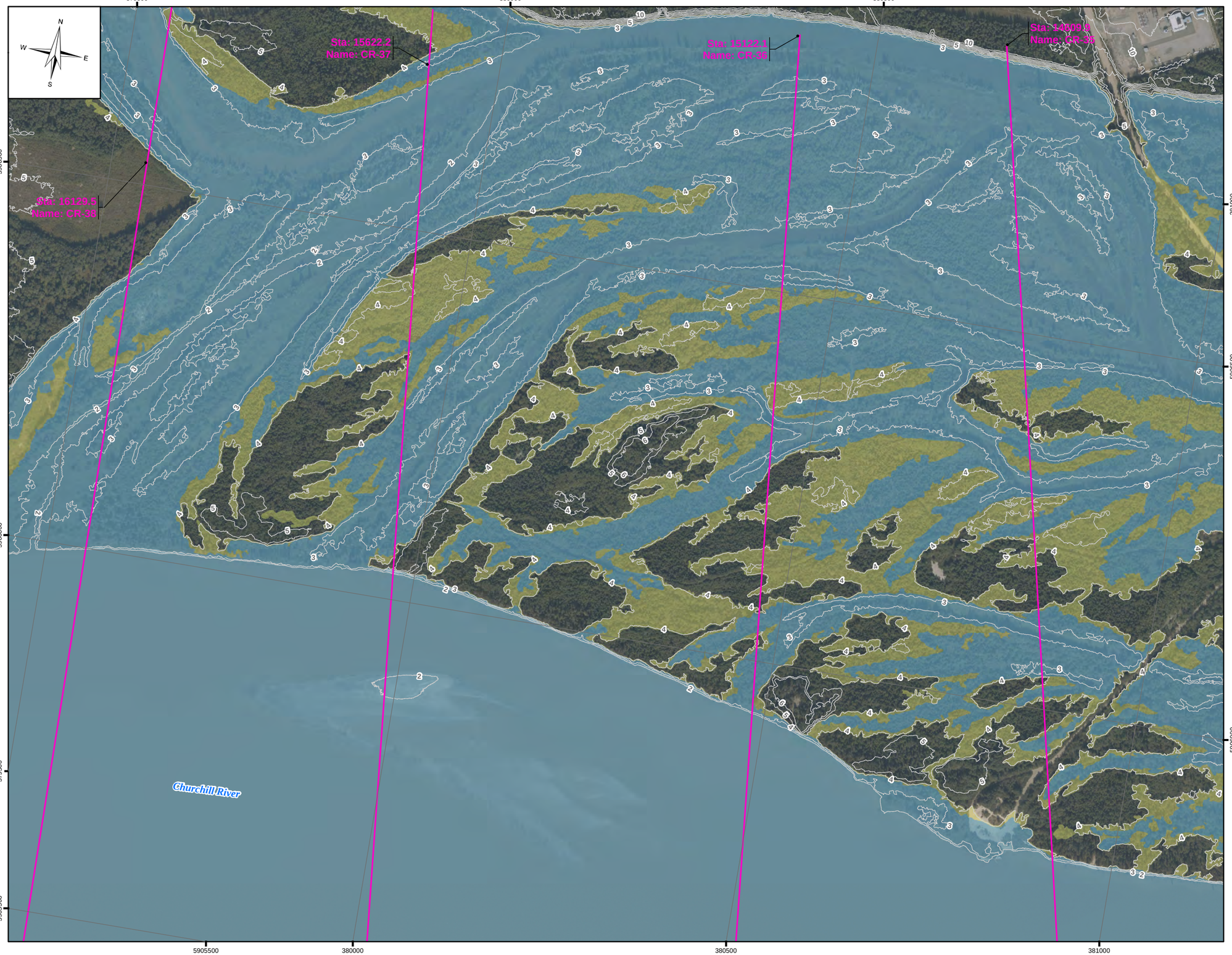
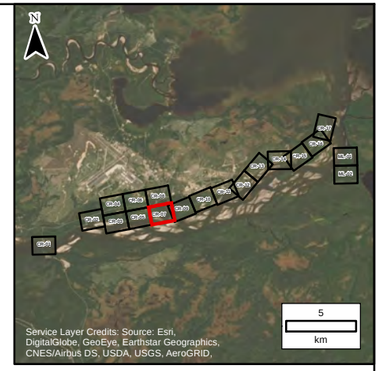
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.8 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.8_11x17.mxd
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
- 1:100 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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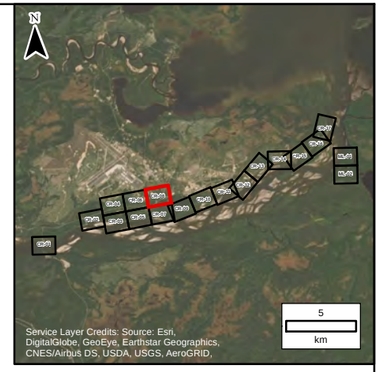
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.8 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.8_11x17.mxd
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
- 1:100 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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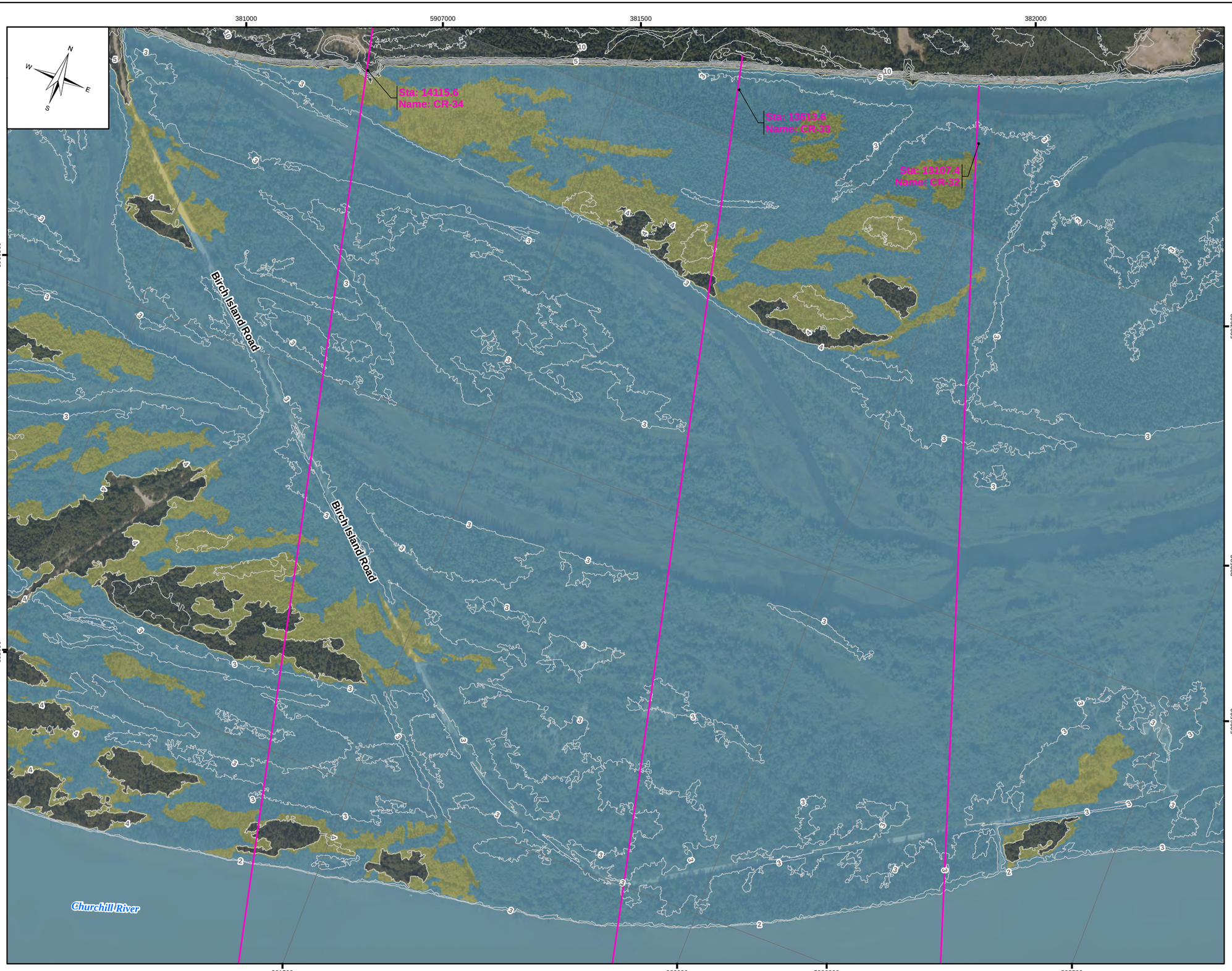
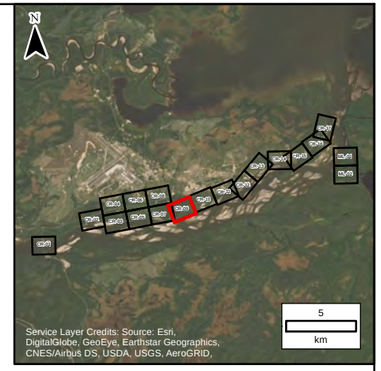
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.8 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.8_11x17.mxd
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
- 1:100 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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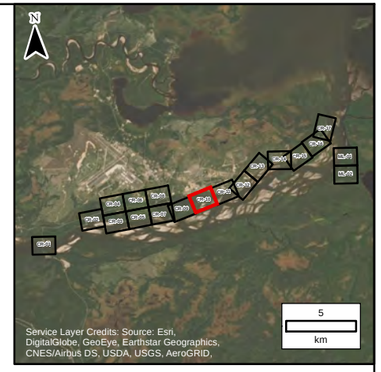
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.8 | 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 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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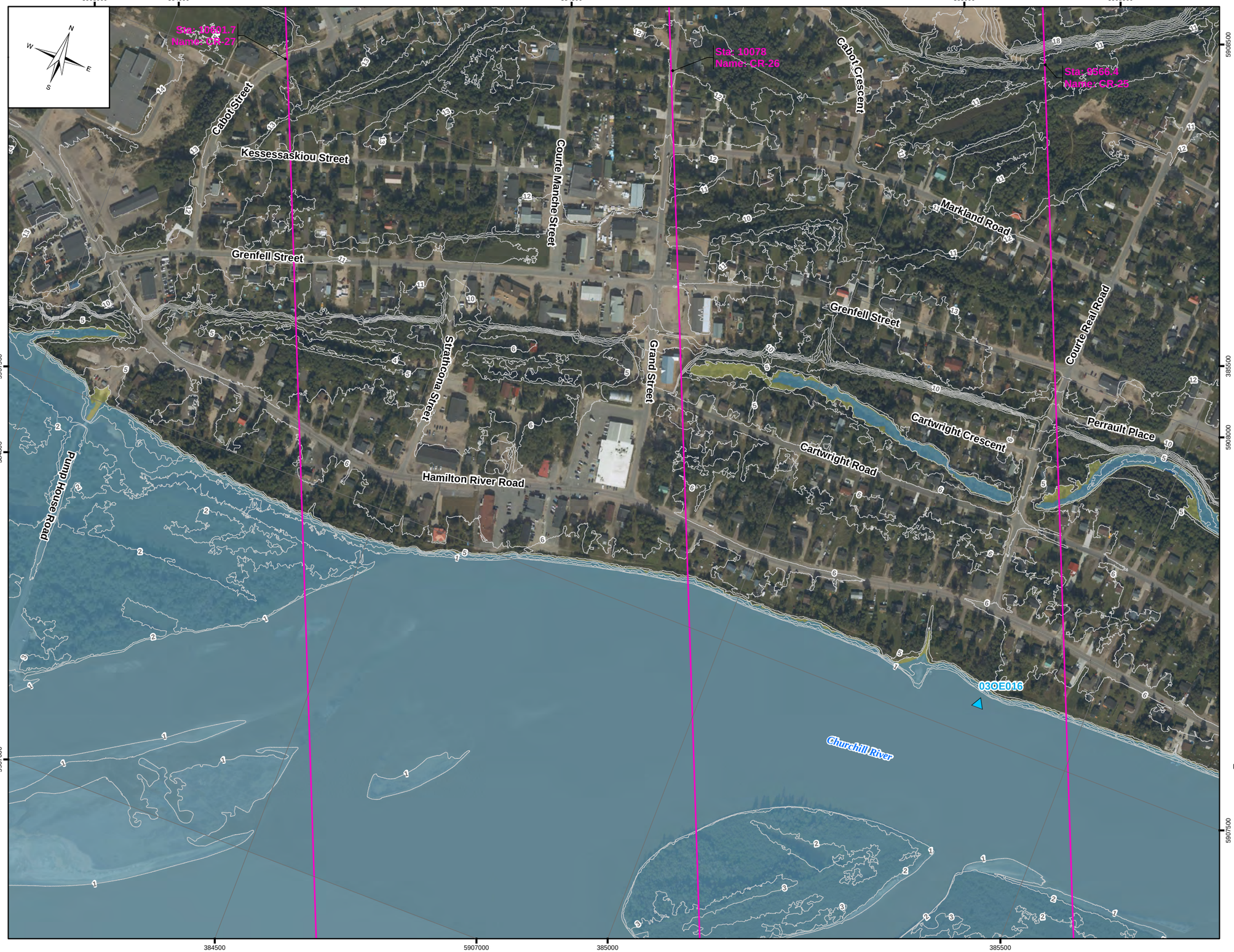
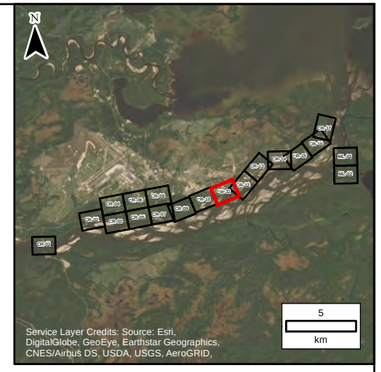
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.8 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.8_11x17.mxd
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
- 1:100 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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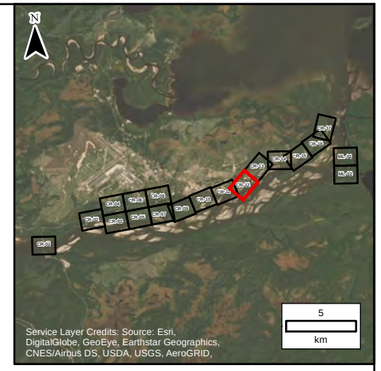
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.8 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.8_11x17.mxd
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
- 1:100 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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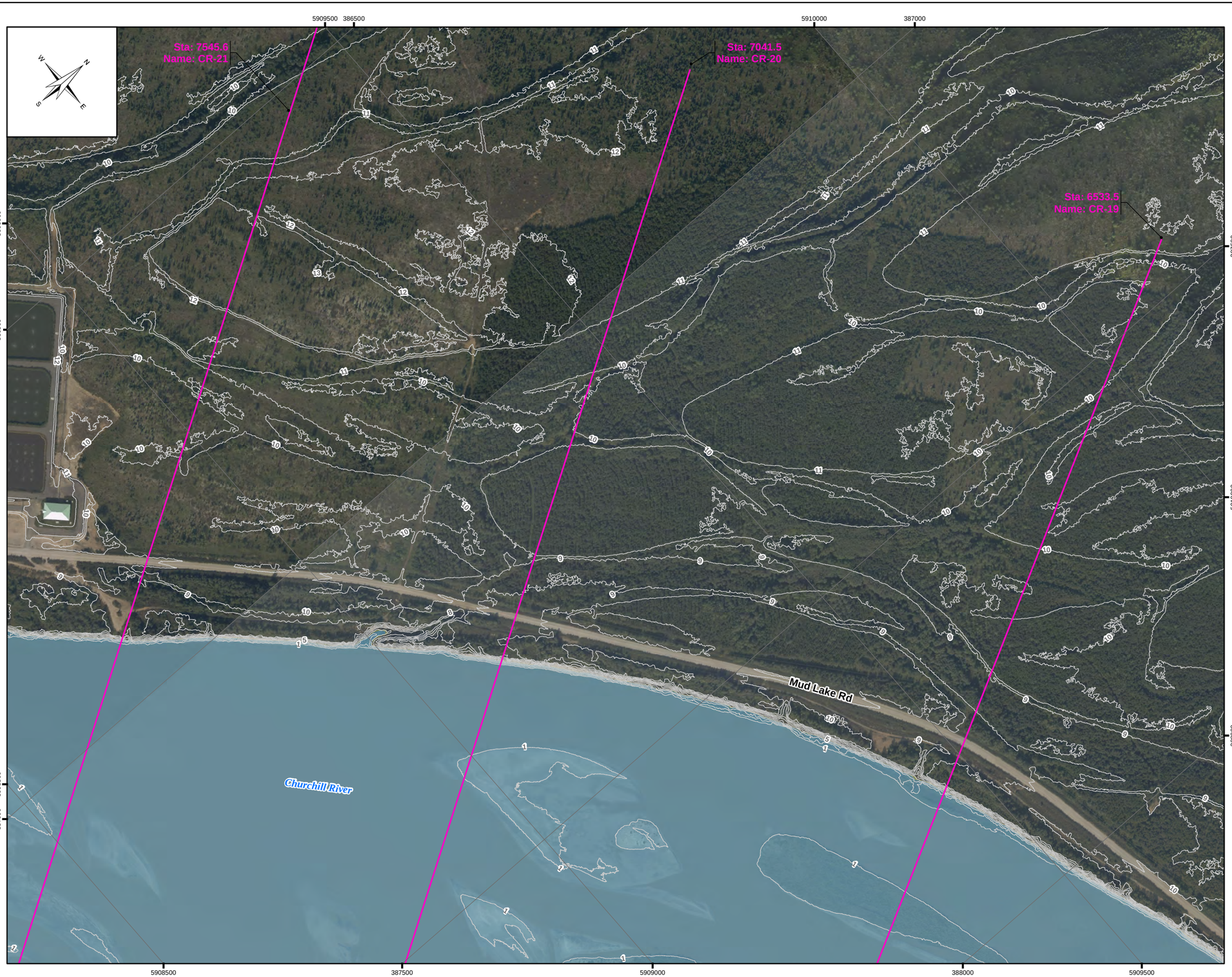
Newfoundland Labrador

# 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

JUNE 2020 | FIGURE 5.8 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.8_11x17.mxd
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
- 1:100 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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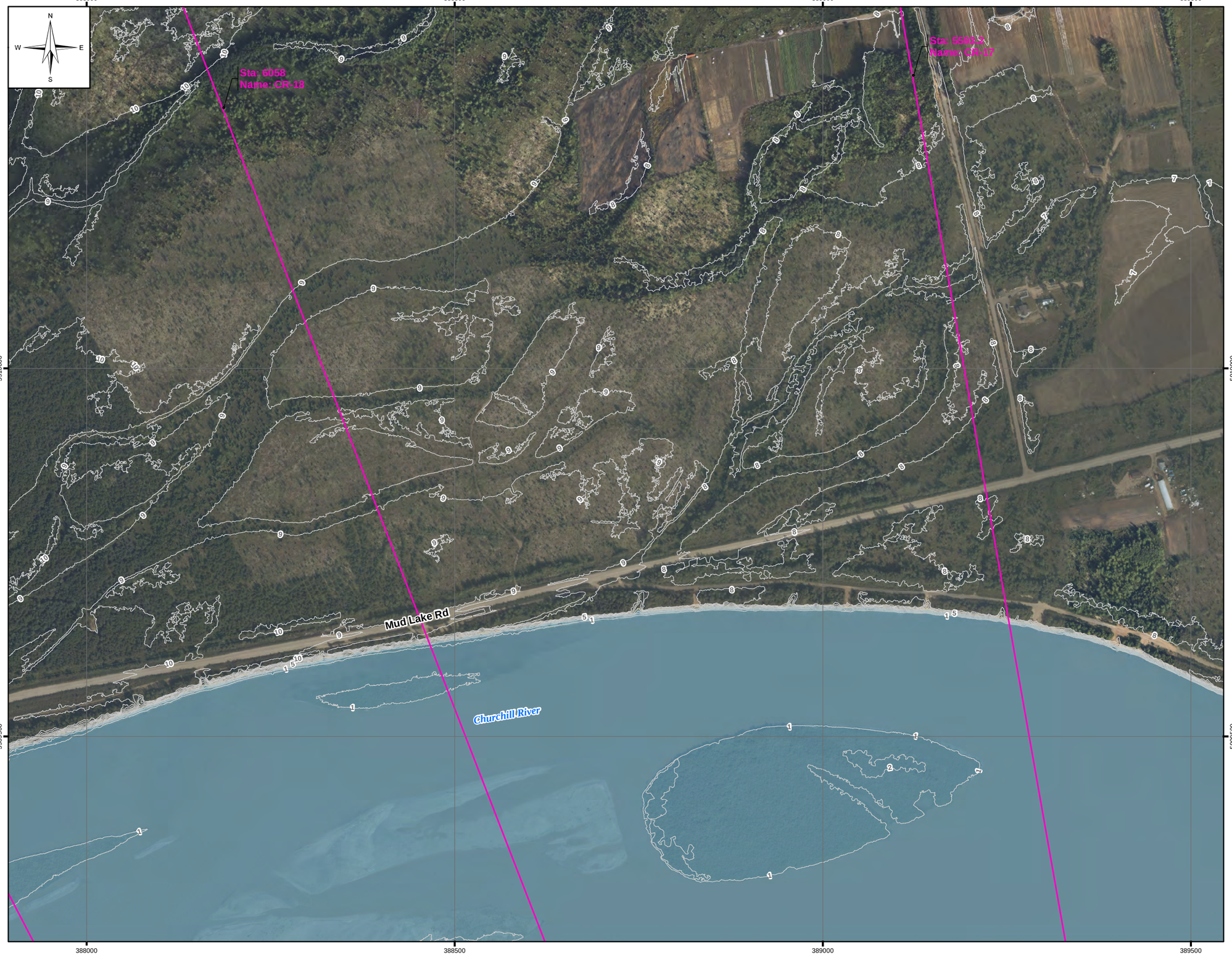
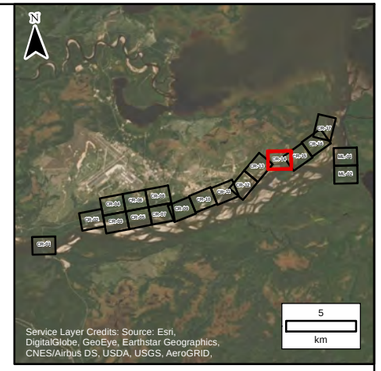
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.8 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.8_11x17.mxd
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
- 1:100 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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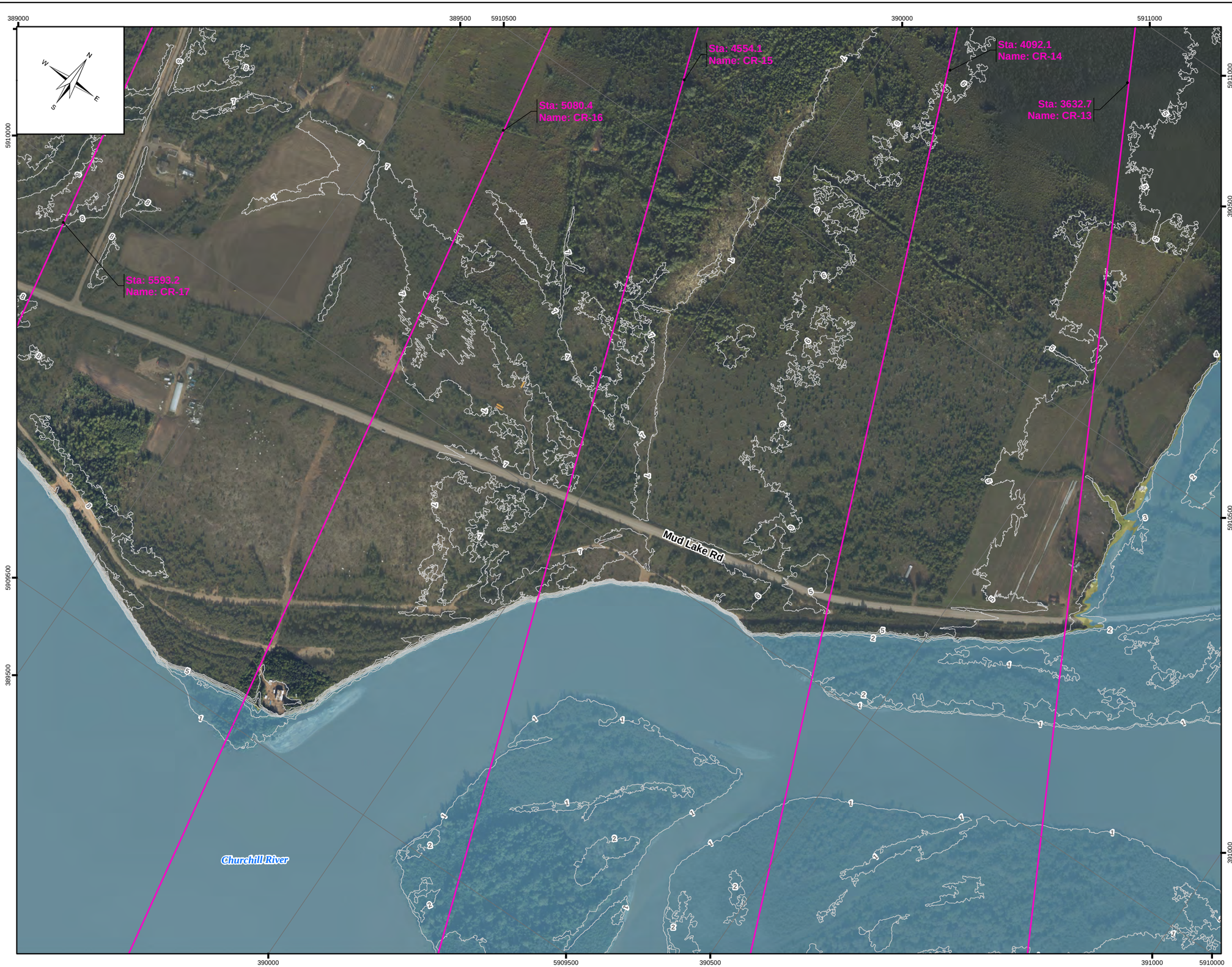
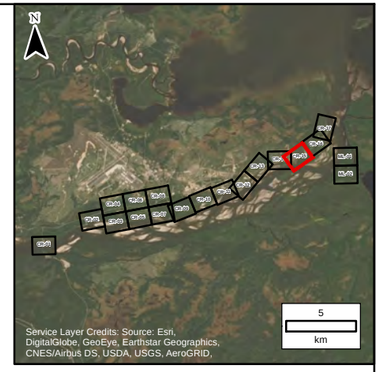
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF ICE-AFFECTED 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – CR-14

JUNE 2020 | FIGURE 5.8 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.8_11x17.mxd
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
- 1:100 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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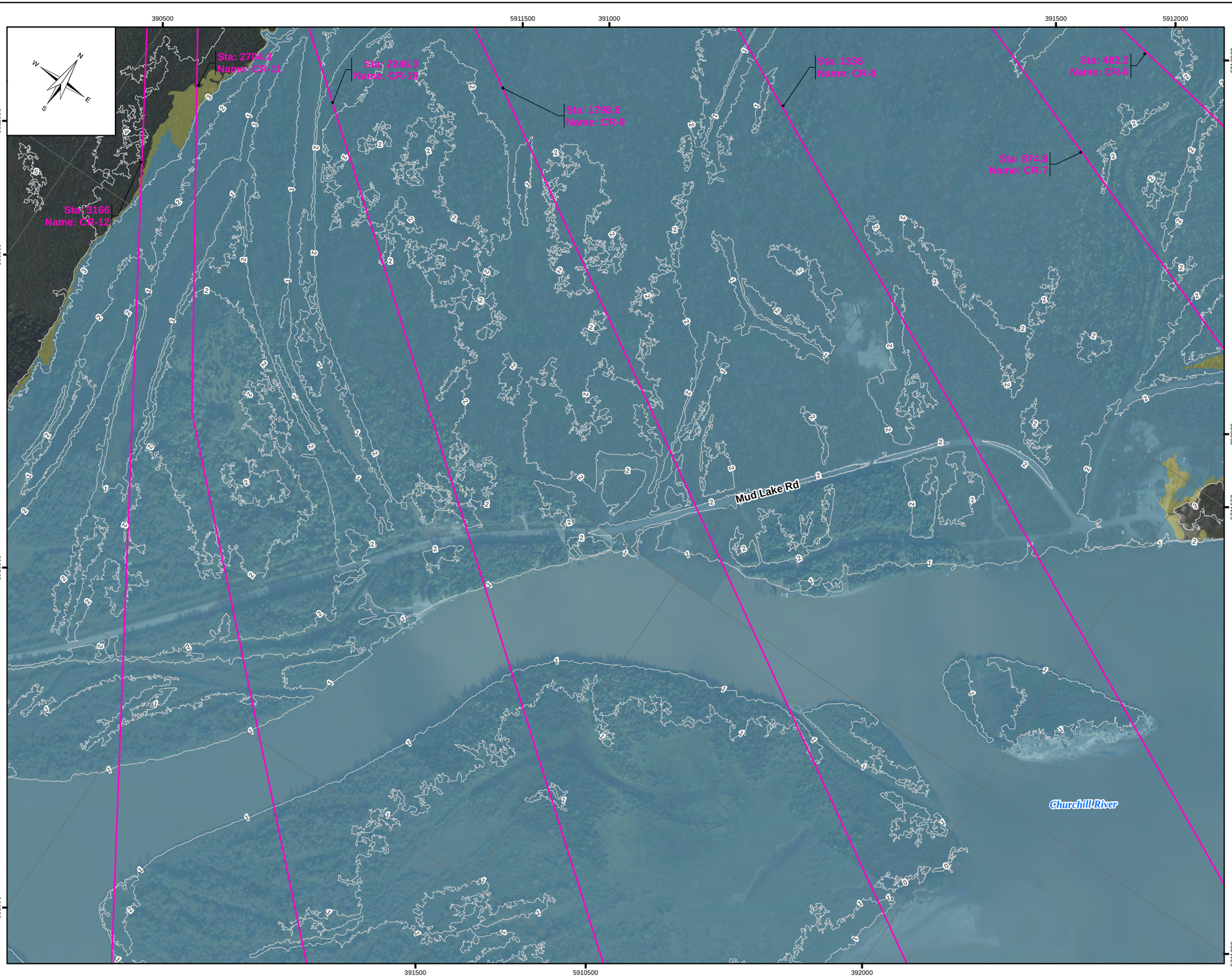
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.8 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.8_11x17.mxd
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
- 1:100 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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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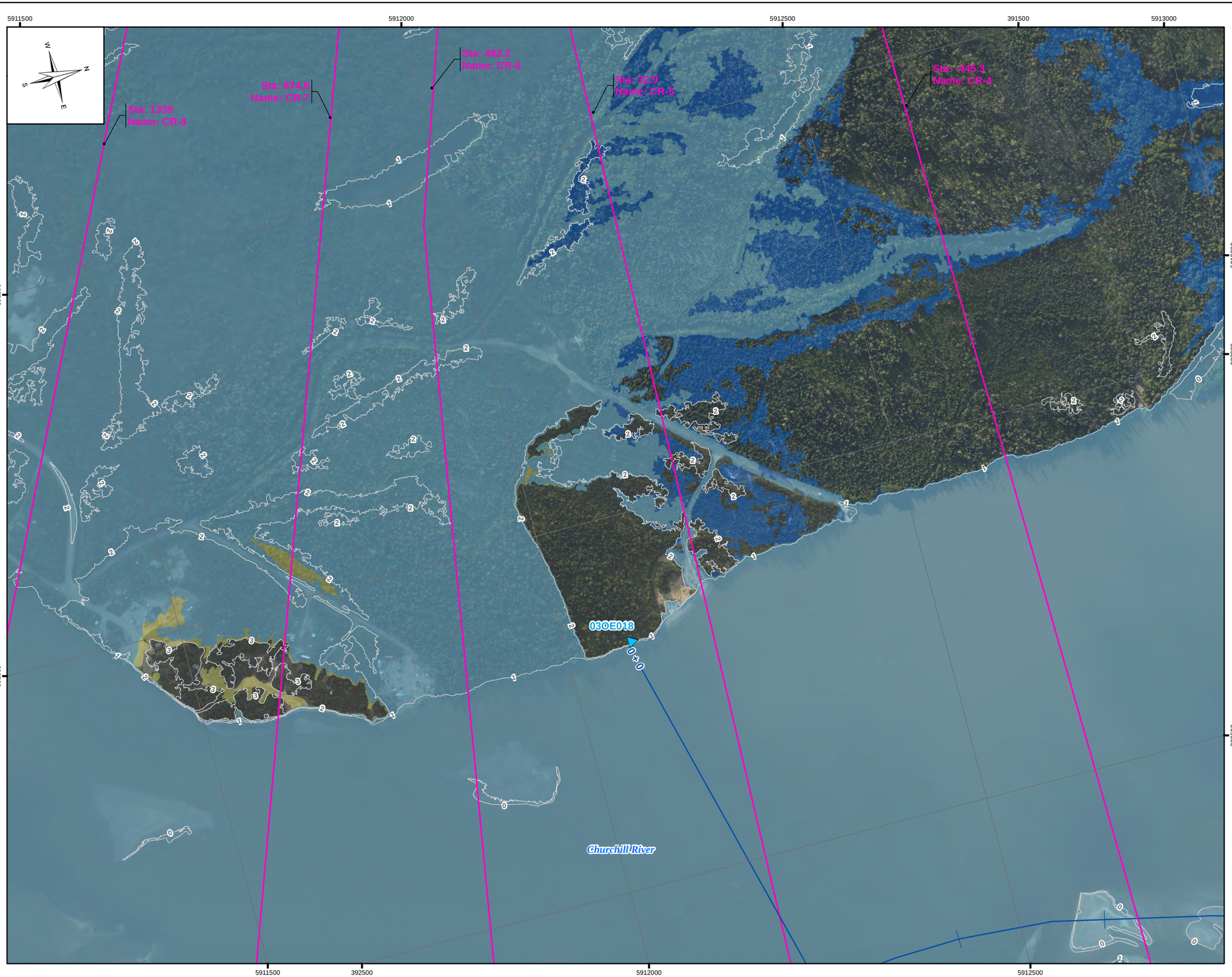
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

JUNE 2020 | FIGURE 5.8 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.8_11x17.mxd
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
- 1:100 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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-17

JUNE 2020 | FIGURE 5.8 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.8_11x17.mxd
11"x17" PLOT SCALE 1:1

393000 393500 394000

5910500 5910000 5909500

N W E S

Sta: 2055.9
Name: ML1-2

Sta: 1812
Name: ML1-1

Sta: 2250
Name: ML1-3

Sta: 2548.6
Name: ML1-4

Churchill River

Sta: 1335
Name: CR-8

Sta: 3296.7
Name: ML1-5

Sta: 1798.6
Name: CR-9

Sta: 3555.5
Name: ML1-6

3+000

Sta: 2246.3
Name: CR-10

Sta: 3529.7
Name: ML2-1


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 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.

50 0 50 100 150 200
Metres

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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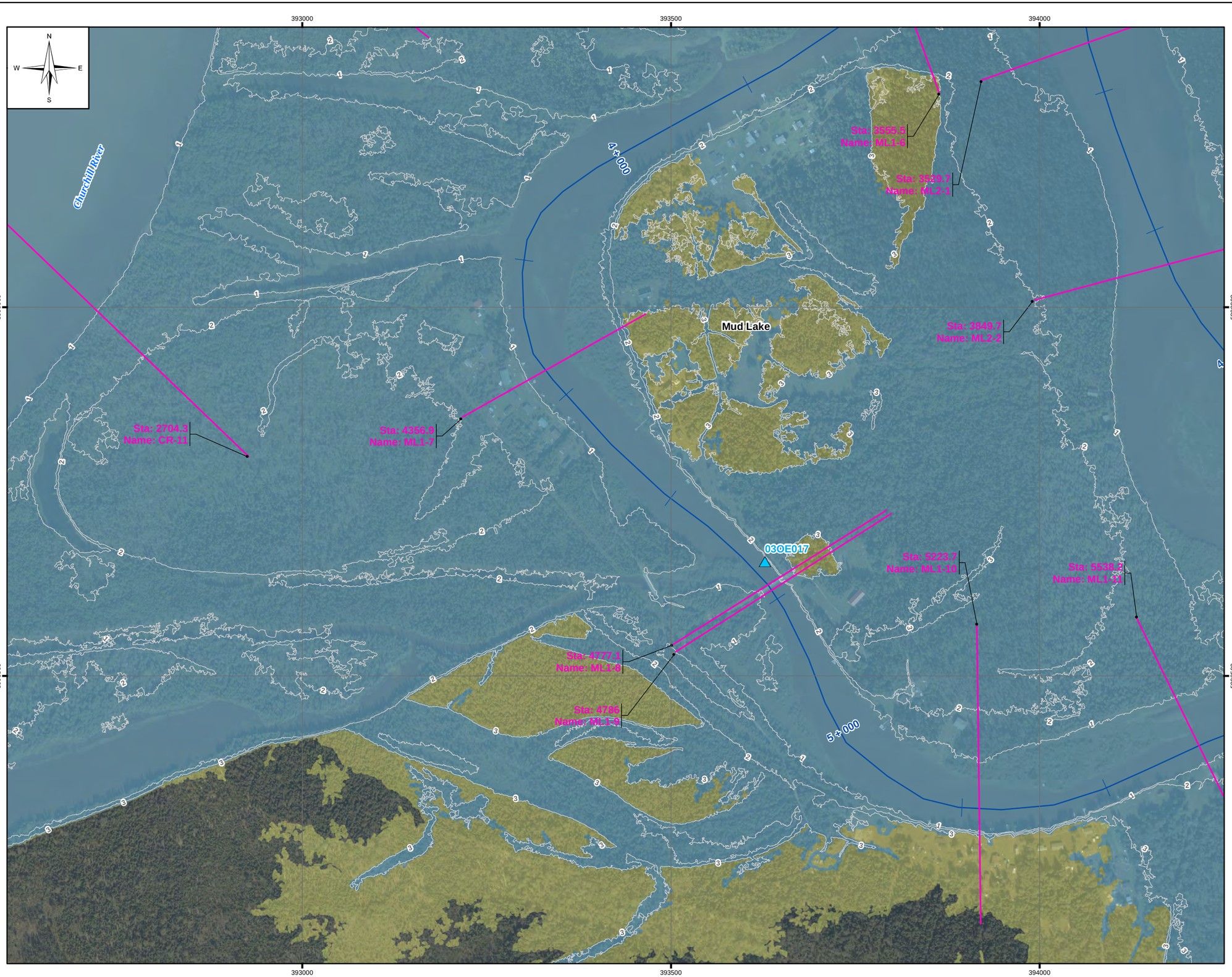
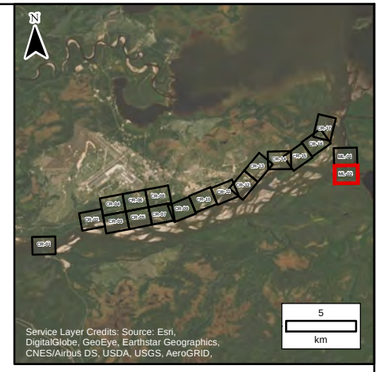
# CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF 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

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.8_11x17.mxd
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
- 1:100 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.

50 0 50 100 150 200
Metres

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

All units are metric and in metres unless otherwise specified. Horzontal 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) – ML-02

JUNE 2020 | FIGURE 5.8 | REV: 0

FileName: P:\Projects\2018\18-3217-001\Dwg\GIS\MXD\Flood_Mapping\18-3217-001_Fig5.8_11x17.mxd
11"x17" PLOT SCALE 1:1