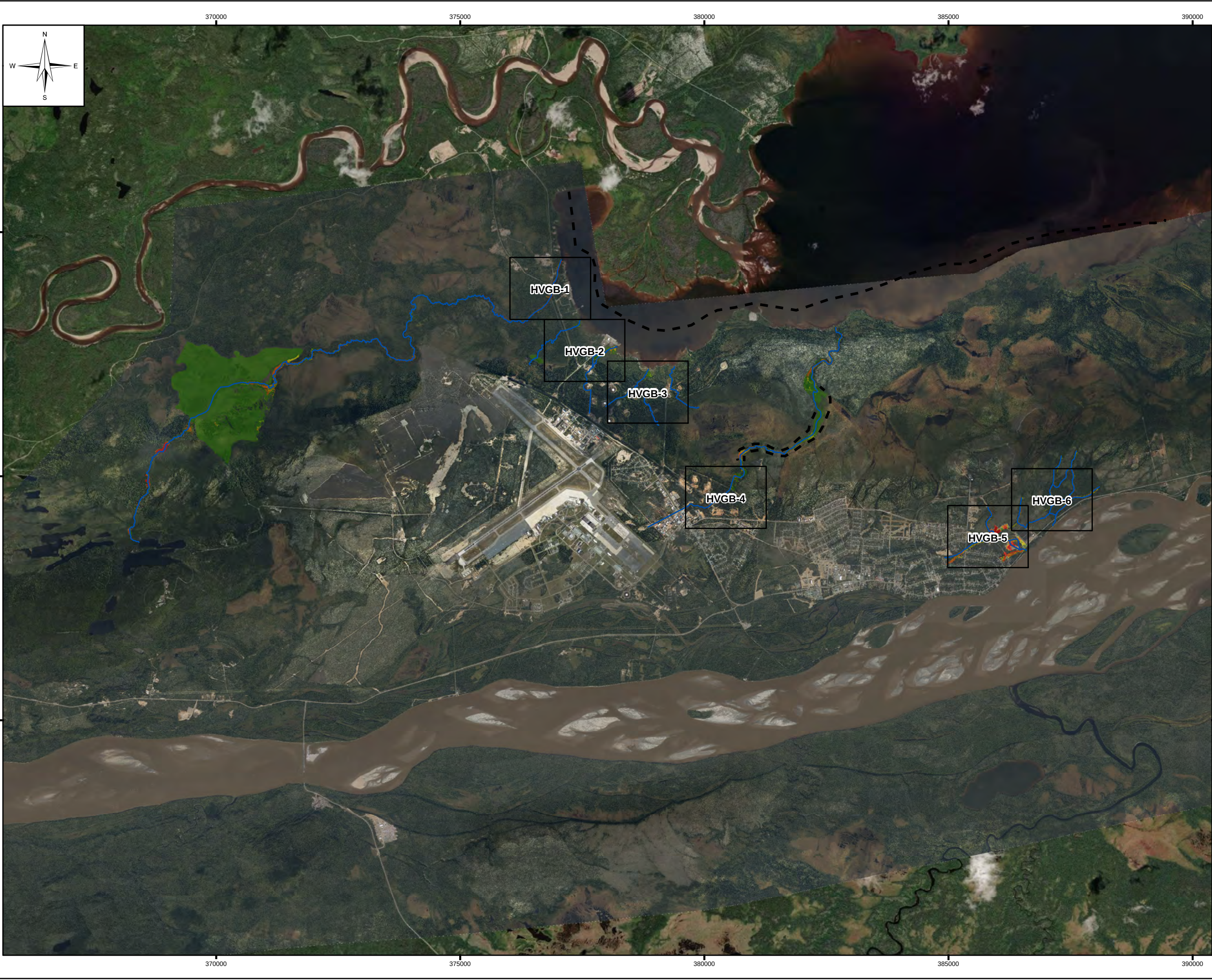




- LEGEND:
- Creek Centreline
 - Map Extents
 - Limit of Mapping
 - Low – Caution
 - Moderate – Danger for Some (Includes children, the elderly, and the infirm)
 - Significant – Danger for Most (Includes the general public)
 - Extreme – Danger for All (Includes the emergency services)

NOTES:

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



SCALE: 1:75,000 METRIC 11"x17"

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

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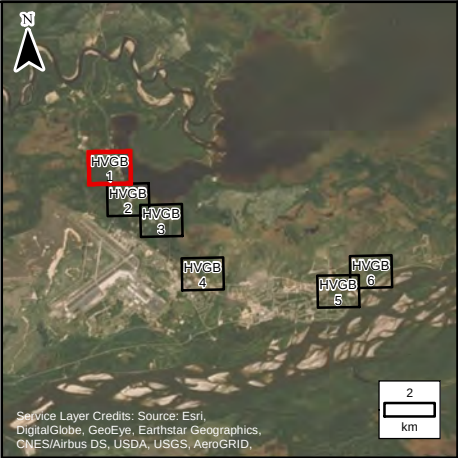
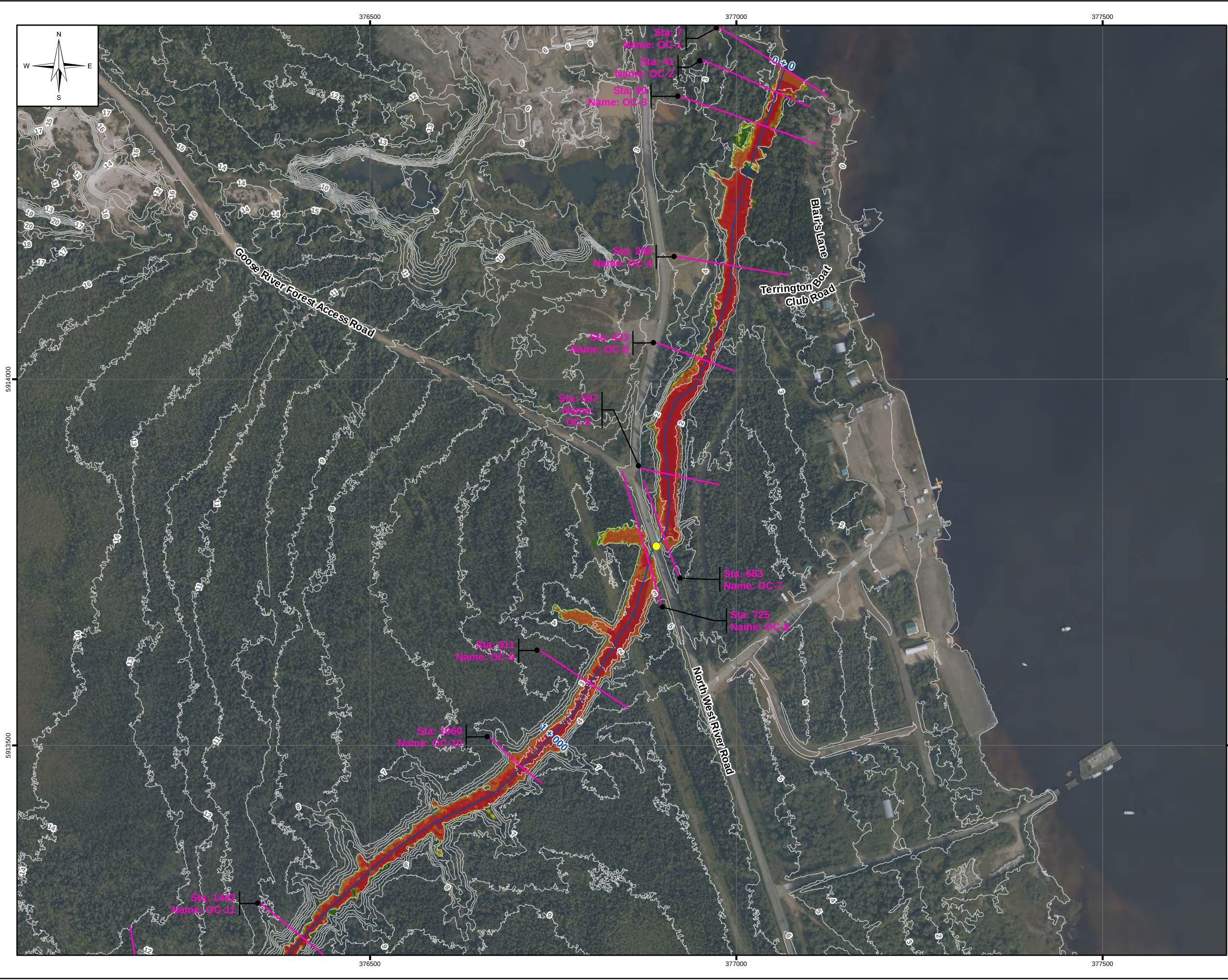
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KGS

GROUP

CONSULTING ENGINEERS

CHURCHILL RIVER FLOOD RISK AND FORECASTING		
OPEN WATER 1:20 YEAR FLOOD HAZARD FOR CURRENT CLIMATE, CURRENT DEVELOPMENT (CC-CD) CONDITIONS – CREEK OVERVIEW MAP		
JUNE 2020	FIGURE 5.1	REV: 0



LEGEND:

- Sta: 1252 Name: LC4-15 Cross Section
- Creek Centreline
- 1m LIDAR Contour
- Limit of Mapping
- Modelled Culverts
- Low – Caution
- Moderate – Danger for Some (Includes children, the elderly, and the infirm)
- Significant – Danger for Most (Includes the general public)
- Extreme – Danger for All (Includes the emergency services)

NOTES:

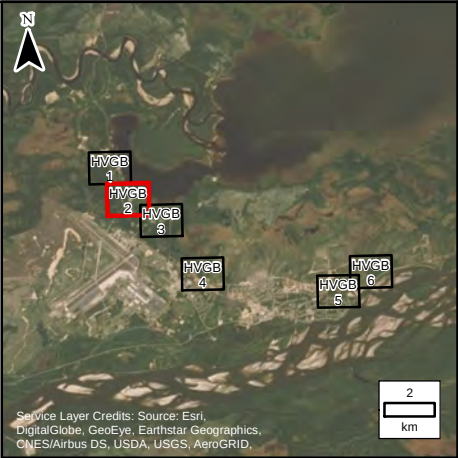
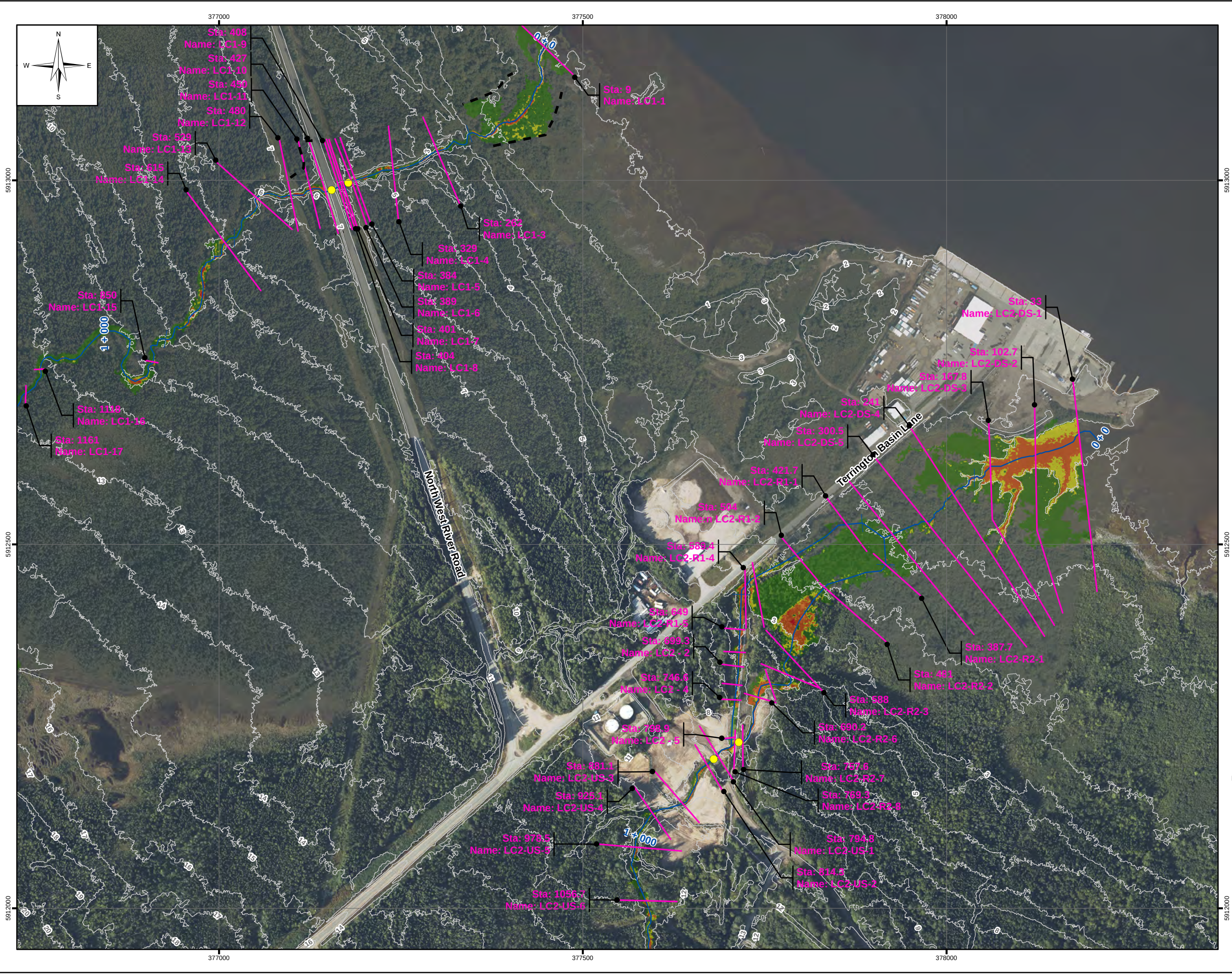
1. Imagery is supplied by ATLAS Geomatics and dated as September 11 – 13, 2019.
2. Topography shown was developed by KGS Group from the LiDAR captured by ATLAS Geomatics on September 11 – 13, 2019.



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

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

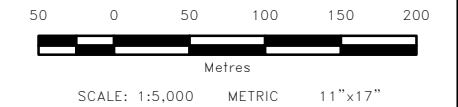
0	20/06/30	ISSUED WITH FINAL REPORT		DSB	MSW
NO.	YY/MM/DD	DESCRIPTION		ISSUED BY	CHECK BY
REVISIONS / ISSUE					
					
CHURCHILL RIVER FLOOD RISK AND FORECASTING					
OPEN WATER 1:20 YEAR FLOOD HAZARD FOR CURRENT CLIMATE, CURRENT DEVELOPMENT (CC-CD) – HVGB-1					
JUNE 2020		FIGURE 5.2		REV: 0	



LEGEND:

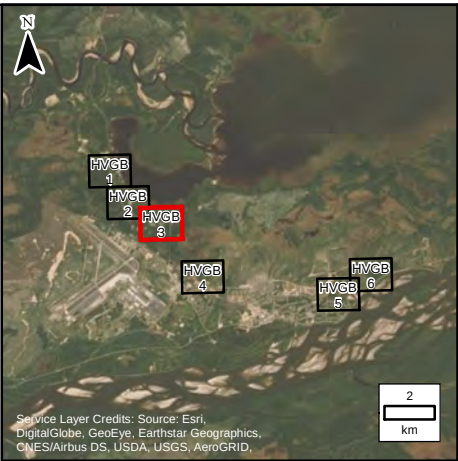
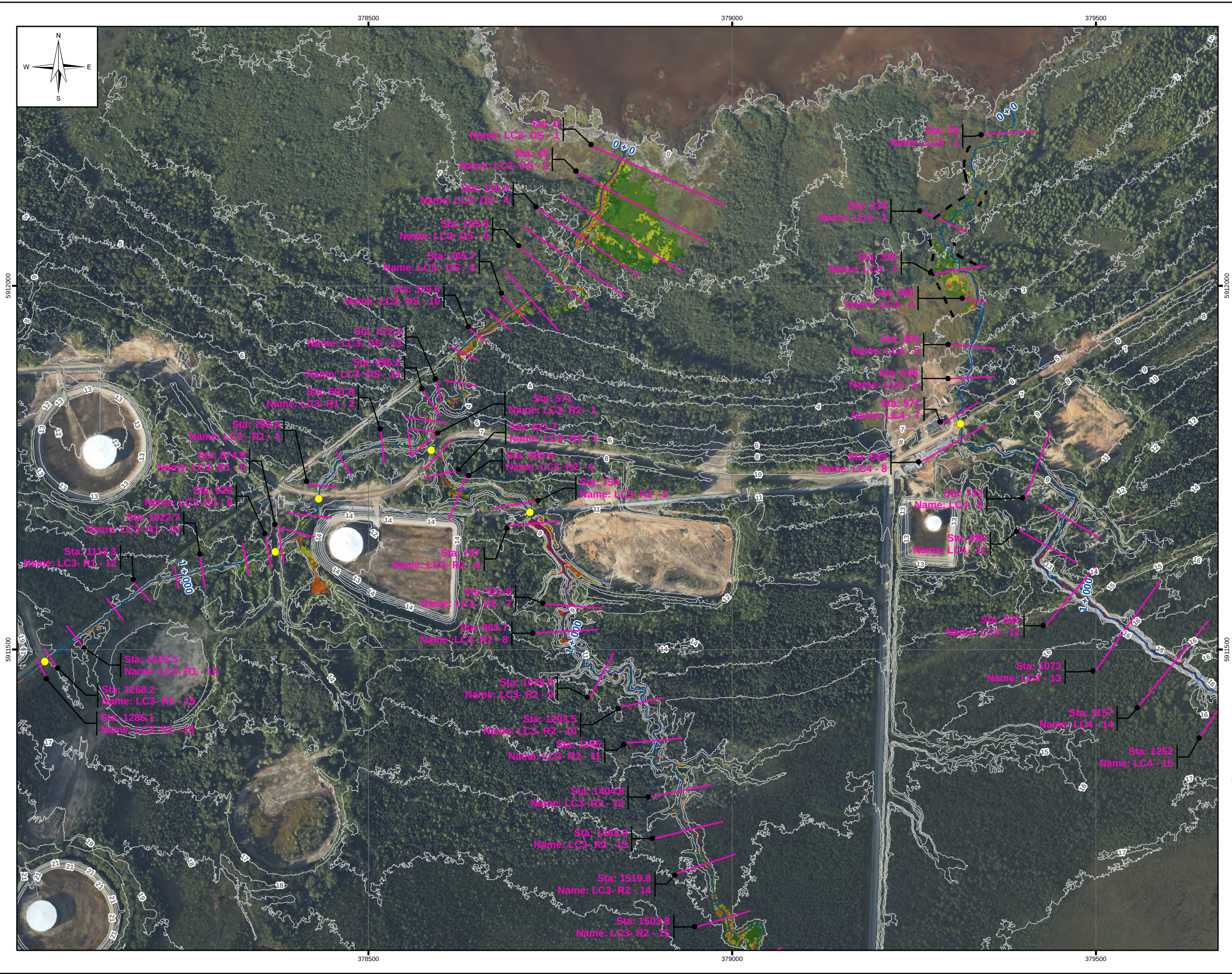
- Sta: 1252 Name: LC4-15 Cross Section
- Creek Centreline
- 1m LIDAR Contour
- Limit of Mapping
- Modelled Culverts
- Low – Caution
- Moderate – Danger for Some (Includes children, the elderly, and the infirm)
- Significant – Danger for Most (Includes the general public)
- Extreme – Danger for All (Includes the emergency services)

- NOTES:**
1. Imagery is supplied by ATLAS Geomatics and dated as September 11 – 13, 2019.
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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					
OPEN WATER 1:20 YEAR FLOOD HAZARD FOR CURRENT CLIMATE, CURRENT DEVELOPMENT (CC-CD) – HVGB-2					
JUNE 2020		FIGURE 5.2		REV: 0	

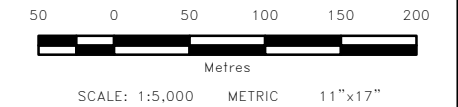


LEGEND:

- Cross Section
- Creek Centreline
- 1m LIDAR Contour
- Limit of Mapping
- Modelled Culverts
- Low – Caution
- Moderate – Danger for Some (Includes children, the elderly, and the infirm)
- Significant – Danger for Most (Includes the general public)
- Extreme – Danger for All (Includes the emergency services)

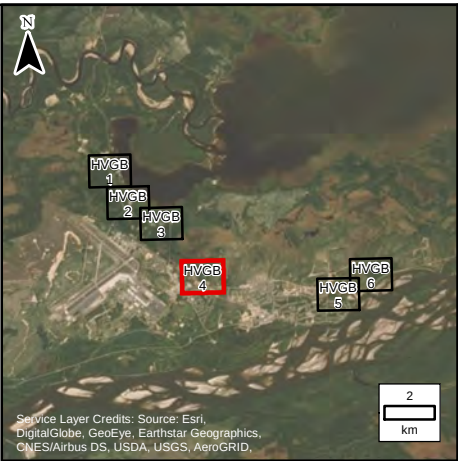
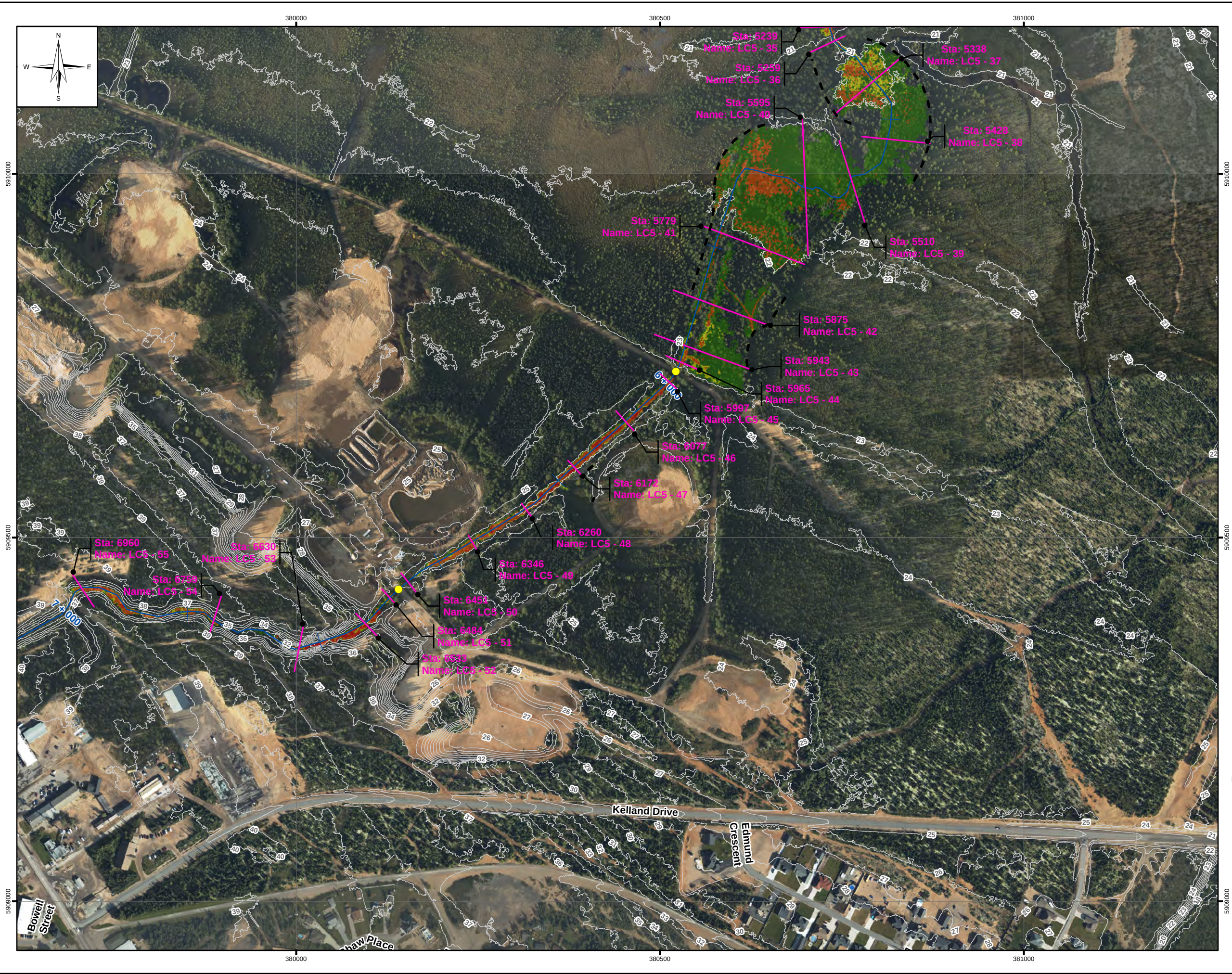
NOTES:

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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					
OPEN WATER 1:20 YEAR FLOOD HAZARD FOR CURRENT CLIMATE, CURRENT DEVELOPMENT (CC-CD) – HVGB-3					
JUNE 2020		FIGURE 5.2		REV:	0

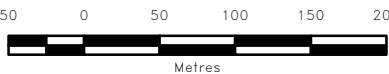


LEGEND:

- Sta: 1252 Name: LC4 - 15
- Cross Section
- Creek Centreline
- 1m LIDAR Contour
- Limit of Mapping
- Modelled Culverts
- Low - Caution
- Moderate - Danger for Some (Includes children, the elderly, and the infirm)
- Significant - Danger for Most (Includes the general public)
- Extreme - Danger for All (Includes the emergency services)

NOTES:

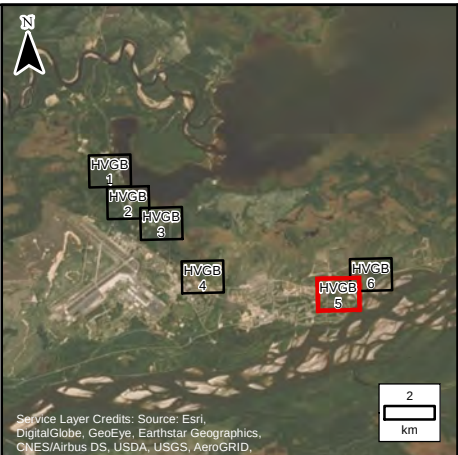
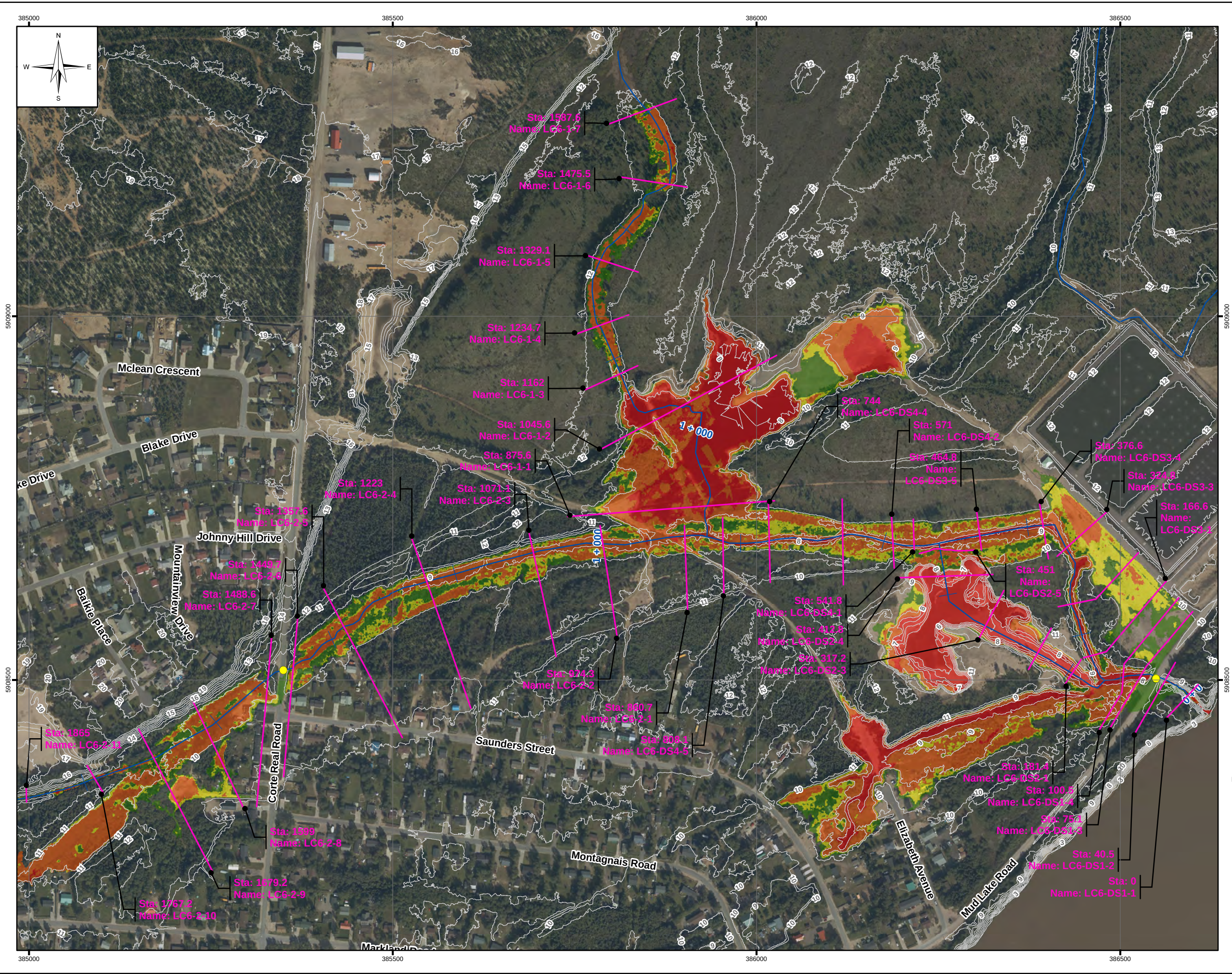
- Imagery is supplied by ATLAS Geomatics and dated as September 11 - 13, 2019.
- Topography shown was developed by KGS Group from the LIDAR captured by ATLAS Geomatics on September 11 - 13, 2019.



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

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

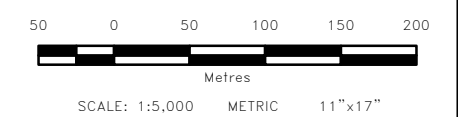
0	20/06/30	ISSUED WITH FINAL REPORT	DSB	MSW
NO.	YY/MM/DD	DESCRIPTION	ISSUED BY	CHECK BY
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CHURCHILL RIVER FLOOD RISK AND FORECASTING				
OPEN WATER 1:20 YEAR FLOOD HAZARD FOR CURRENT CLIMATE, CURRENT DEVELOPMENT (CC-CD) – HVGB-4				
JUNE 2020		FIGURE 5.2		REV: 0



LEGEND:

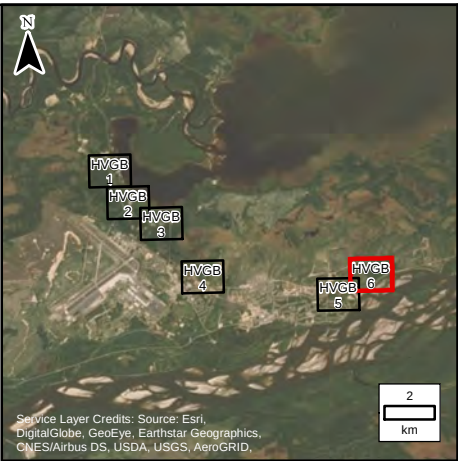
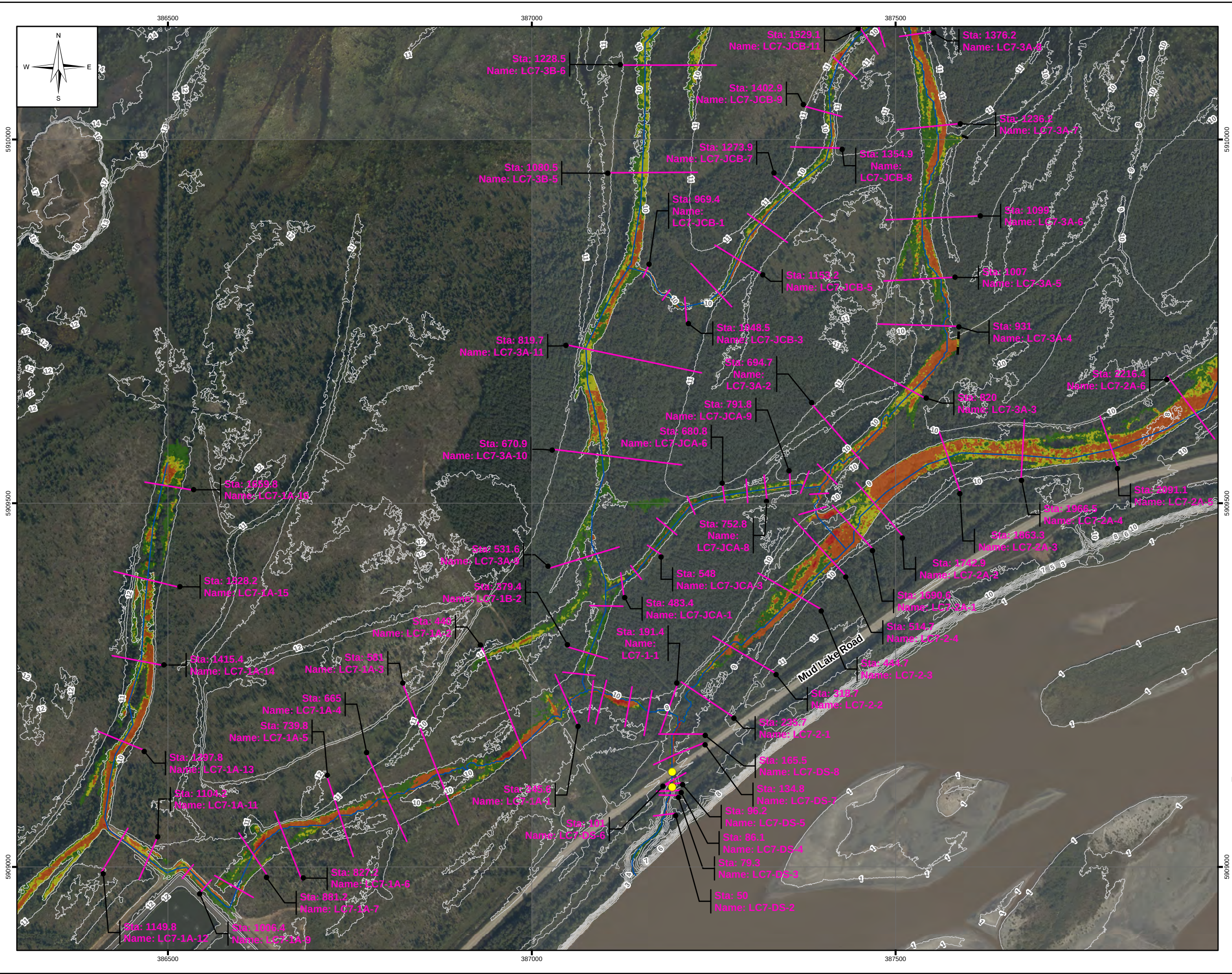
- Cross Section
- Creek Centreline
- 1m LIDAR Contour
- Limit of Mapping
- Modelled Culverts
- Low – Caution
- Moderate – Danger for Some (Includes children, the elderly, and the infirm)
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Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM) Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

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CHURCHILL RIVER FLOOD RISK AND FORECASTING				
OPEN WATER 1:20 YEAR FLOOD HAZARD FOR CURRENT CLIMATE, CURRENT DEVELOPMENT (CC-CD) – HVGB-5				
JUNE 2020		FIGURE 5.2		REV: 0



LEGEND:

- Sta: 1252 Name: LC4-15 Cross Section
- Creek Centreline
- 1m LIDAR Contour
- Limit of Mapping
- Modelled Culverts
- Low – Caution
- Moderate – Danger for Some (Includes children, the elderly, and the infirm)
- Significant – Danger for Most (Includes the general public)
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NOTES:

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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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KGS GROUP CONSULTING ENGINEERS

Churchill River Flood Risk and Forecasting

Newfoundland Labrador

Government of Newfoundland and Labrador

CHURCHILL RIVER FLOOD RISK AND FORECASTING

OPEN WATER 1:20 YEAR FLOOD HAZARD FOR CURRENT CLIMATE, CURRENT DEVELOPMENT (CC-CD) – HVGB-6

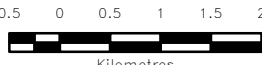
JUNE 2020	FIGURE 5.2	REV: 0
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LEGEND:

- Creek Centreline
- Map Extents
- Limit of Mapping
- Low – Caution
- Moderate – Danger for Some (Includes children, the elderly, and the infirm)
- Significant – Danger for Most (Includes the general public)
- Significant – Danger for Most (Includes the general public)

NOTES:
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SCALE: 1:75,000 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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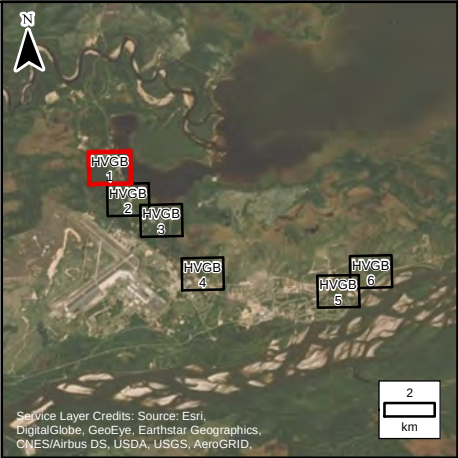
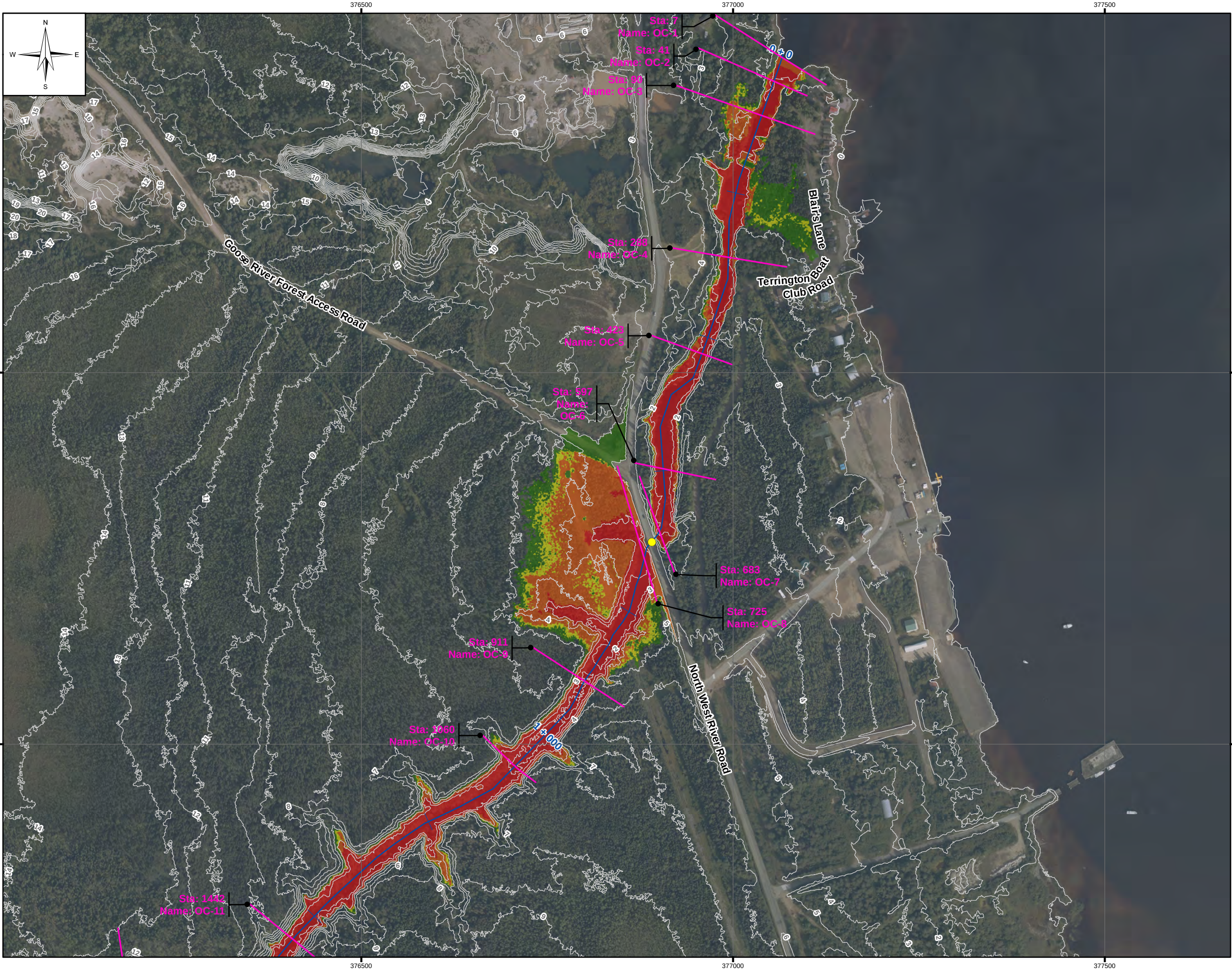
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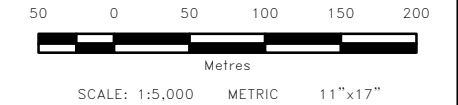
CHURCHILL RIVER FLOOD RISK AND FORECASTING		
OPEN WATER 1:100 YEAR FLOOD HAZARD FOR CURRENT CLIMATE, CURRENT DEVELOPMENT (CC-CD) CONDITIONS – CREEK OVERVIEW MAP		
JUNE 2020	FIGURE 5.3	REV: 0



LEGEND:

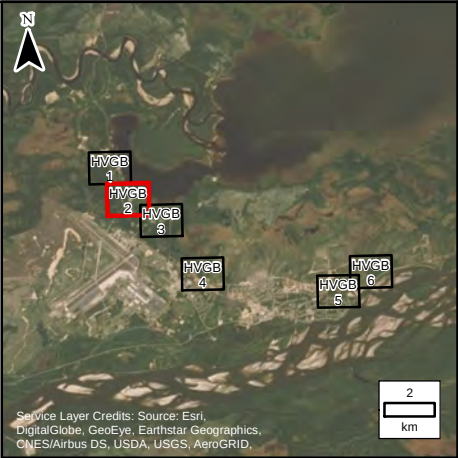
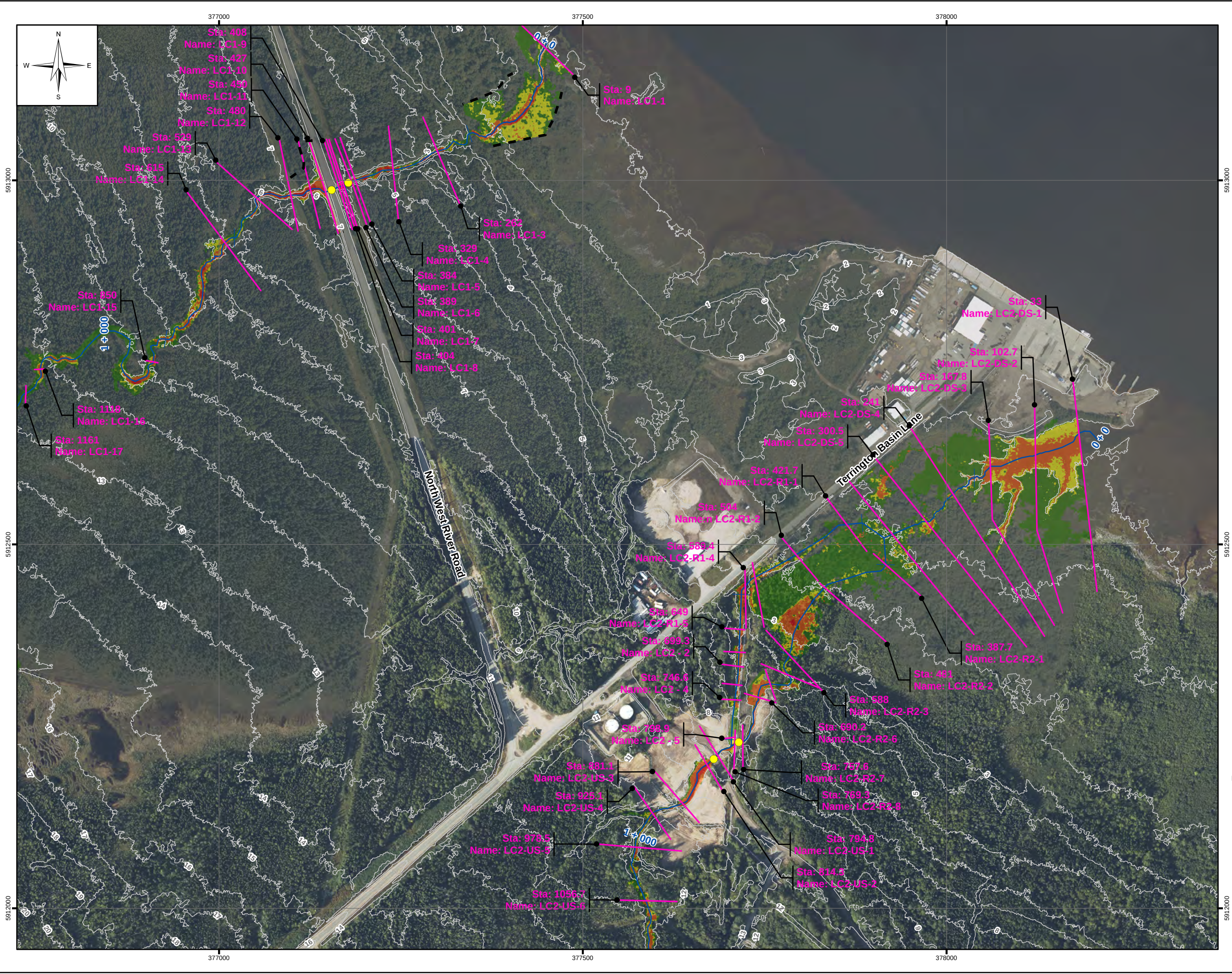
- Sta: 1252 Name: LC4-15 Cross Section
- Creek Centreline
- 1m LIDAR Contour
- Limit of Mapping
- Modelled Culverts
- Low – Caution
- Moderate – Danger for Some (Includes children, the elderly, and the infirm)
- Significant – Danger for Most (Includes the general public)
- Significant – Danger for Most (Includes the general public)

- NOTES:**
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CHURCHILL RIVER FLOOD RISK AND FORECASTING					
OPEN WATER 1:100 YEAR FLOOD HAZARD FOR CURRENT CLIMATE, CURRENT DEVELOPMENT (CC-CD) – HVGB-1					
JUNE 2020		FIGURE 5.4		REV:	0



LEGEND:

- Sta: 1252 Name: LC4-15 Cross Section
- Creek Centreline
- 1m LIDAR Contour
- Limit of Mapping
- Modelled Culverts
- Low - Caution
- Moderate - Danger for Some (Includes children, the elderly, and the infirm)
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SCALE: 1:5,000 METRIC 11"x17"

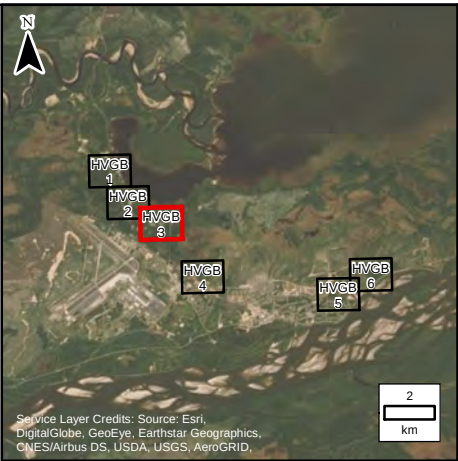
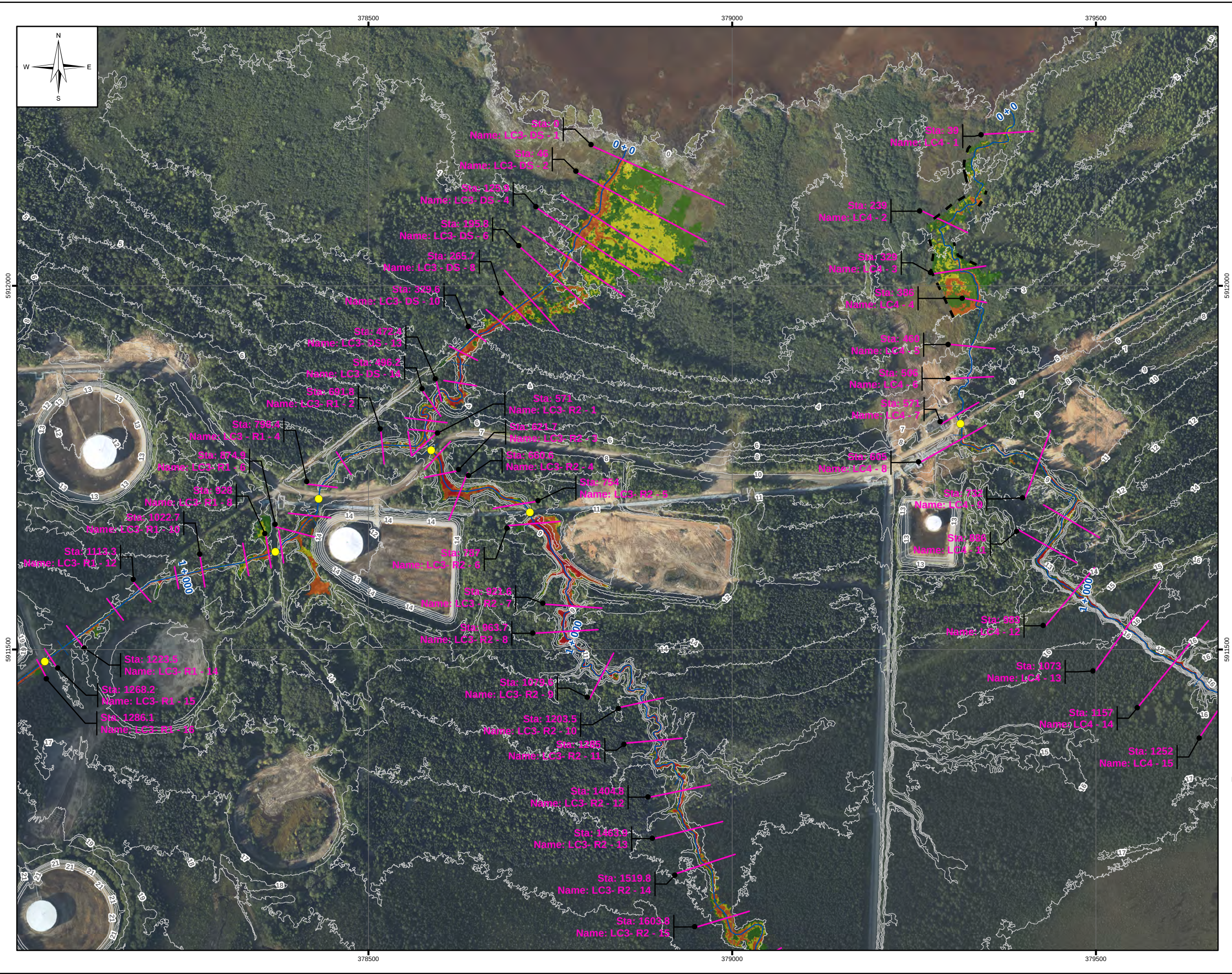
All units are metric and in metres unless otherwise specified.
Horizontal Projection: North American Datum 1983 CSRS (NAD83), Modified Transverse Mercator Projection (MTM)
Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

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CHURCHILL RIVER FLOOD RISK AND FORECASTING

OPEN WATER 1:100 YEAR FLOOD HAZARD FOR CURRENT CLIMATE, CURRENT DEVELOPMENT (CC-CD) - HVGB-2

JUNE 2020	FIGURE 5.4	REV: 0
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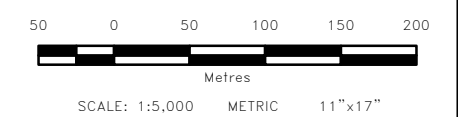


LEGEND:

- Cross Section
- Creek Centreline
- 1m LIDAR Contour
- Limit of Mapping
- Modelled Culverts
- Low - Caution
- Moderate - Danger for Some (Includes children, the elderly, and the infirm)
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- Significant - Danger for Most (Includes the general public)

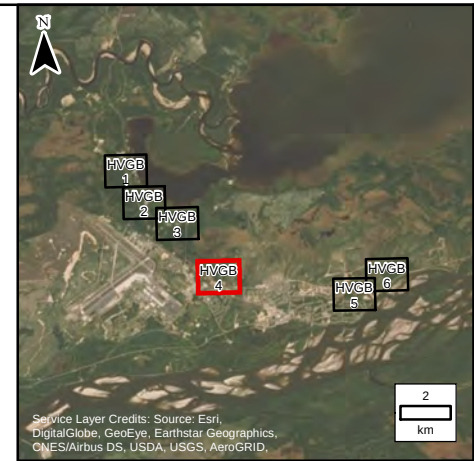
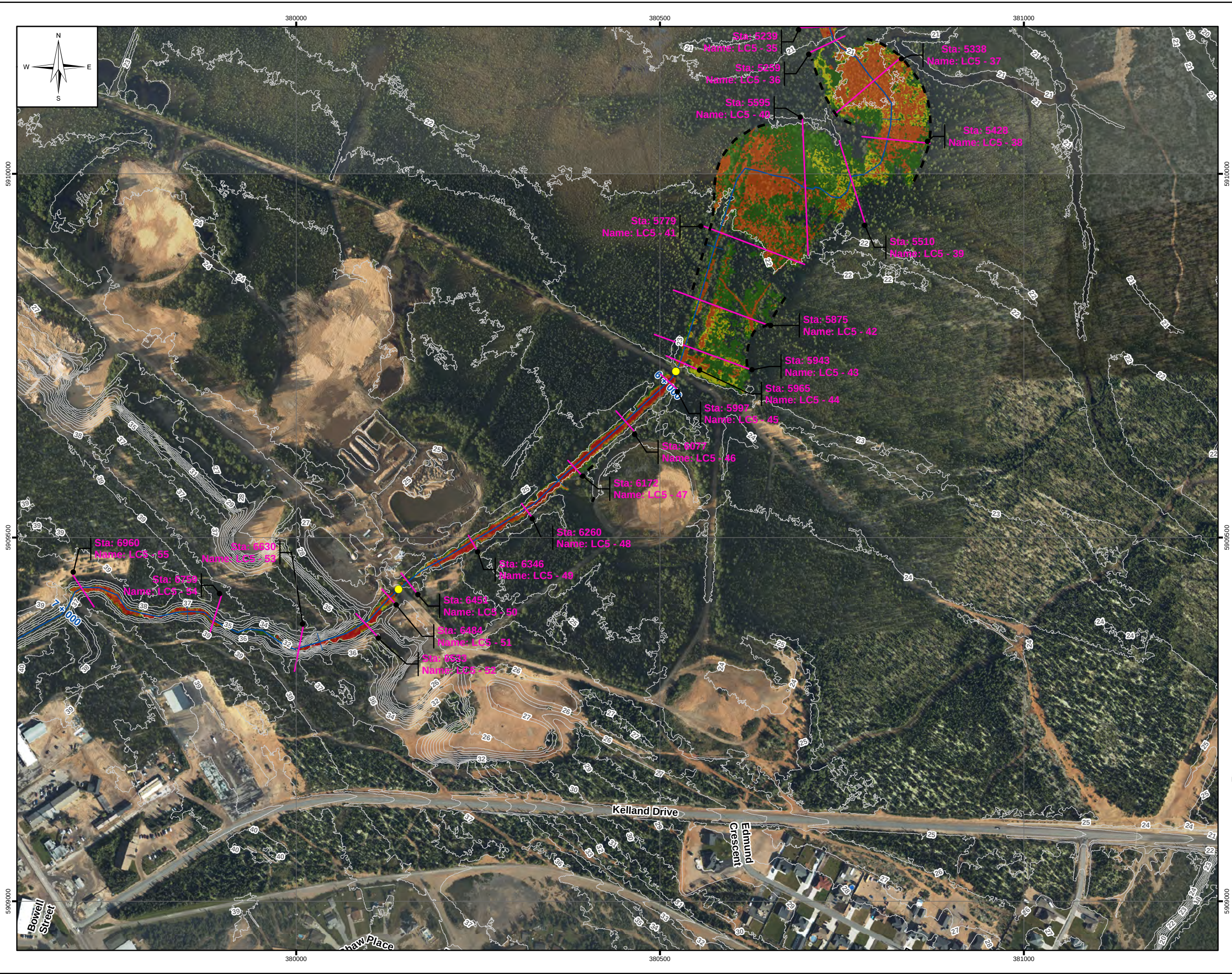
NOTES:

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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				
OPEN WATER 1:100 YEAR FLOOD HAZARD FOR CURRENT CLIMATE, CURRENT DEVELOPMENT (CC-CD) – HVGB-3				
JUNE 2020		FIGURE 5.4	REV:	0

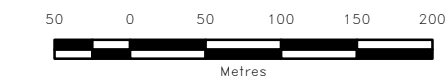


LEGEND:

- Sta: 1252
Name: LC4 - 15
- Cross Section
- Creek Centreline
- 1m LIDAR Contour
- Limit of Mapping
- Modelled Culverts
- Low - Caution
- Moderate - Danger for Some
(Includes children, the elderly,
and the infirm)
- Significant - Danger for Most
(Includes the general public)
- Significant - Danger for Most
(Includes the general public)

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Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

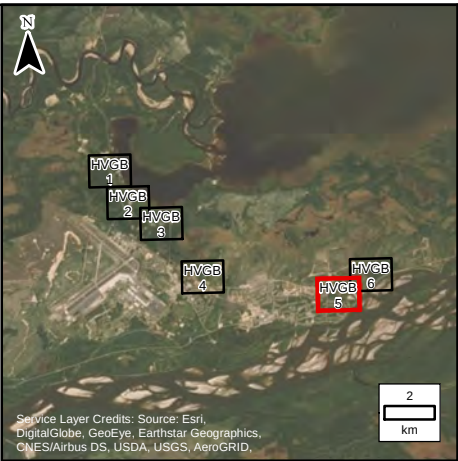
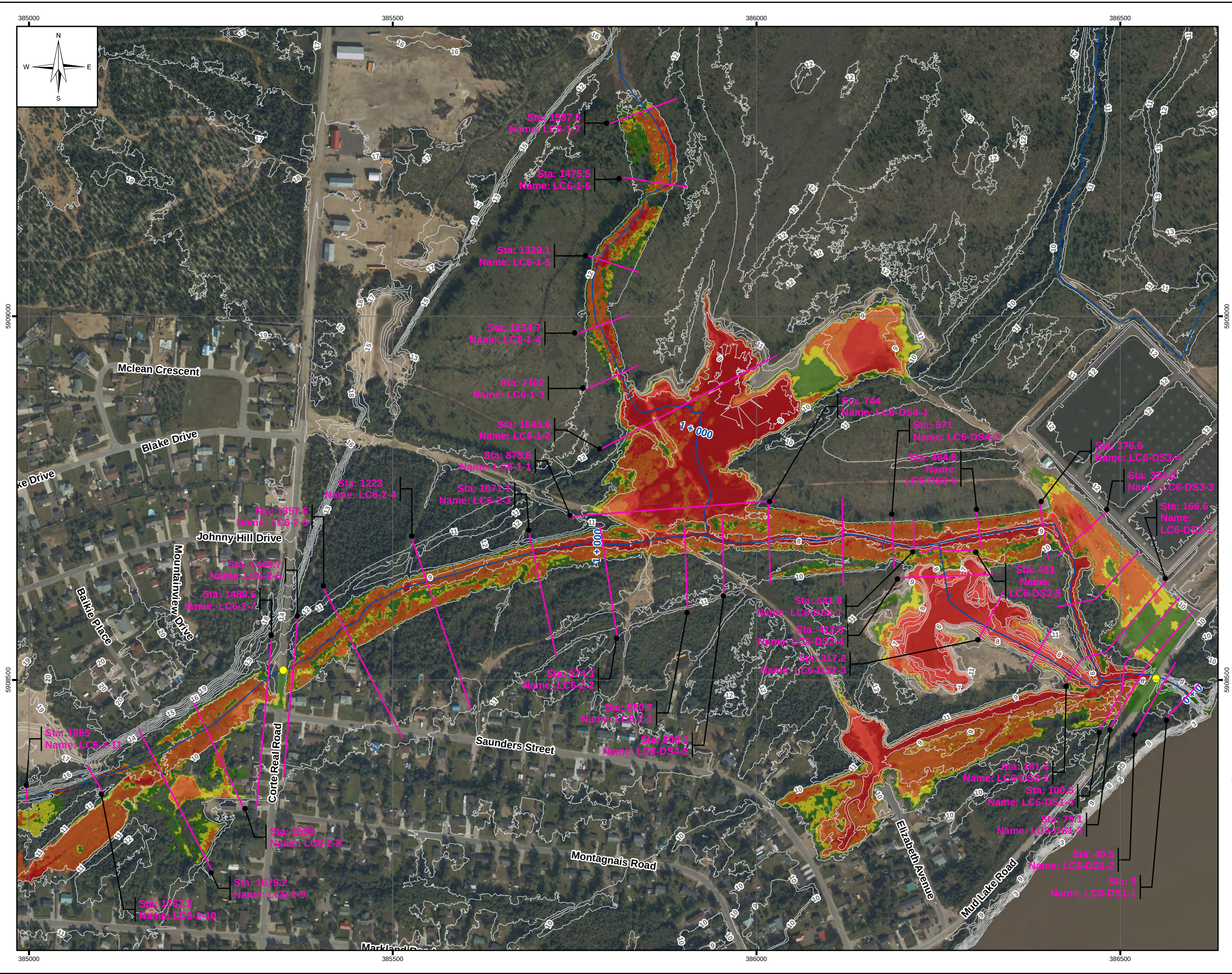
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CHURCHILL RIVER FLOOD RISK AND FORECASTING

OPEN WATER 1:100 YEAR FLOOD HAZARD FOR CURRENT CLIMATE, CURRENT DEVELOPMENT (CC-CD) - HVGB-4

JUNE 2020	FIGURE 5.4	REV: 0
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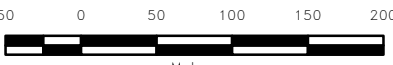


LEGEND:

- Cross Section
- Creek Centreline
- 1m LIDAR Contour
- Limit of Mapping
- Modelled Culverts
- Low - Caution
- Moderate - Danger for Some (Includes children, the elderly, and the infirm)
- Significant - Danger for Most (Includes the general public)
- Significant - Danger for Most (Includes the general public)

NOTES:

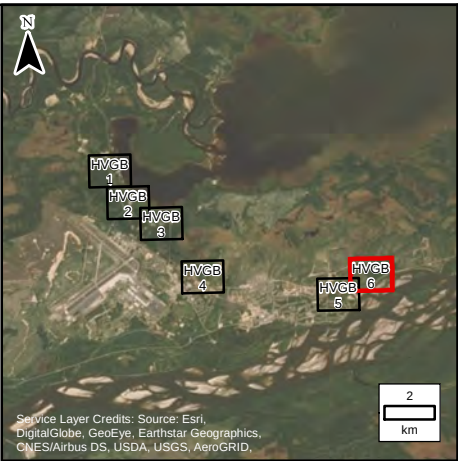
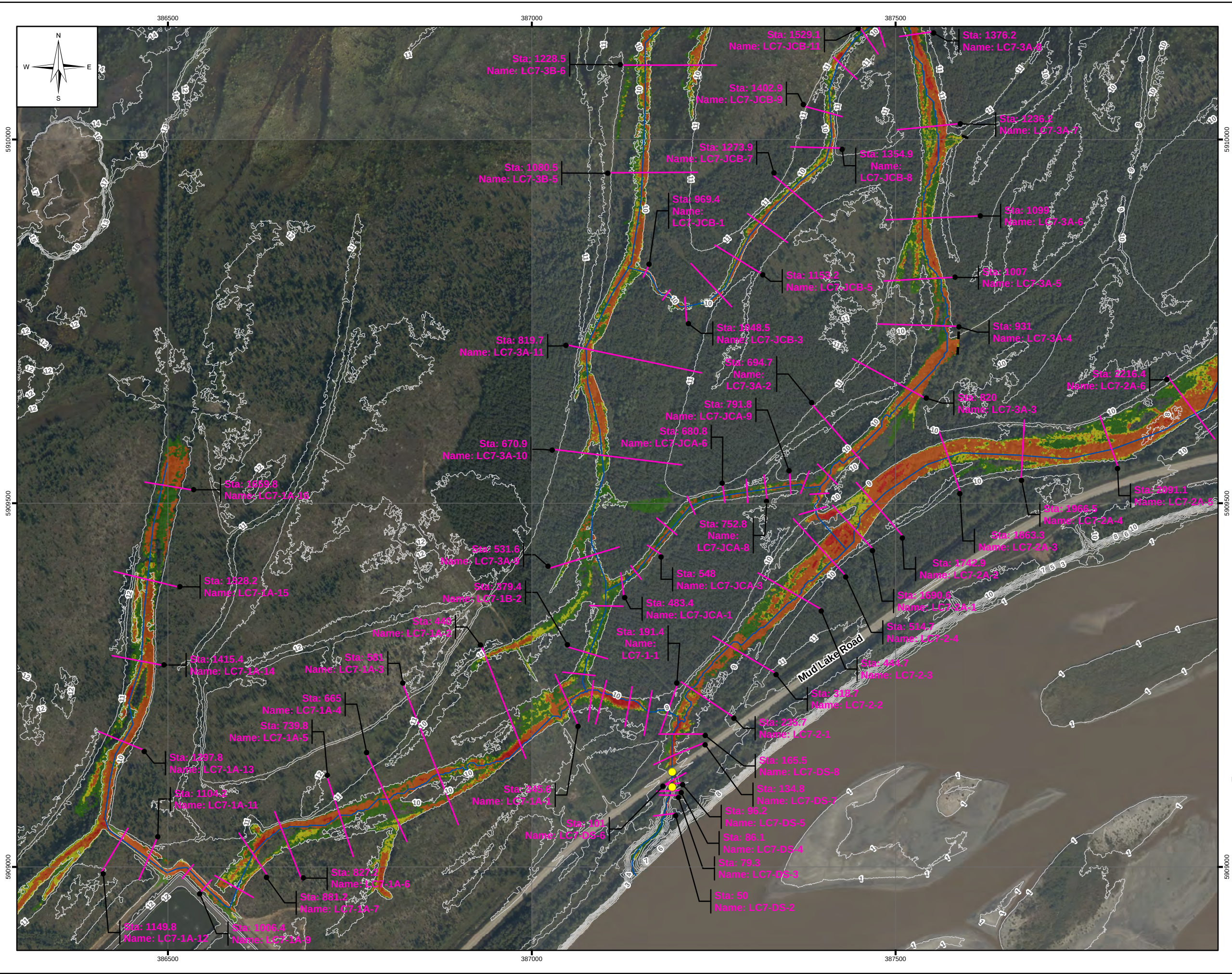
- Imagery is supplied by ATLAS Geomatics and dated as September 11 - 13, 2019.
- Topography shown was developed by KGS Group from the LiDAR captured by ATLAS Geomatics on September 11 - 13, 2019.



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

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Zone 4. Elevations are in metres above sea level (MSL), Canadian Geodetic Vertical Datum 2013 (CGVD2013).

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REVISIONS / ISSUE					
					
CHURCHILL RIVER FLOOD RISK AND FORECASTING					
OPEN WATER 1:100 YEAR FLOOD HAZARD FOR CURRENT CLIMATE, CURRENT DEVELOPMENT (CC-CD) – HVGB-5					
JUNE 2020		FIGURE 5.4		REV:	0

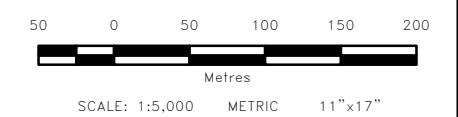


LEGEND:

- Cross Section
- Creek Centreline
- 1m LIDAR Contour
- Limit of Mapping
- Modelled Culverts
- Low – Caution
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NO.	YY/MM/DD	DESCRIPTION		ISSUED BY	CHECK BY
REVISIONS / ISSUE					
					
CHURCHILL RIVER FLOOD RISK AND FORECASTING					
OPEN WATER 1:100 YEAR FLOOD HAZARD FOR CURRENT CLIMATE, CURRENT DEVELOPMENT (CC-CD) – HVGB-6					
JUNE 2020		FIGURE 5.4		REV:	0