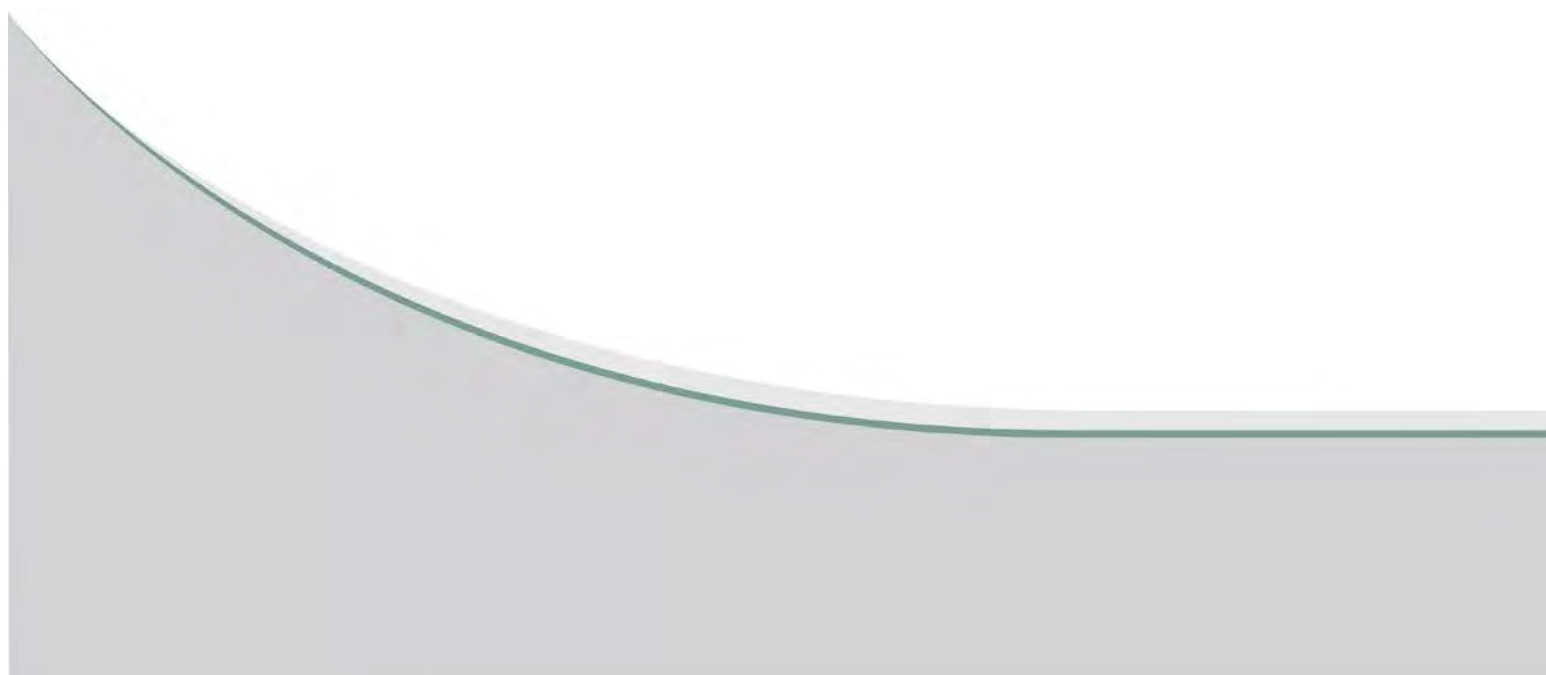
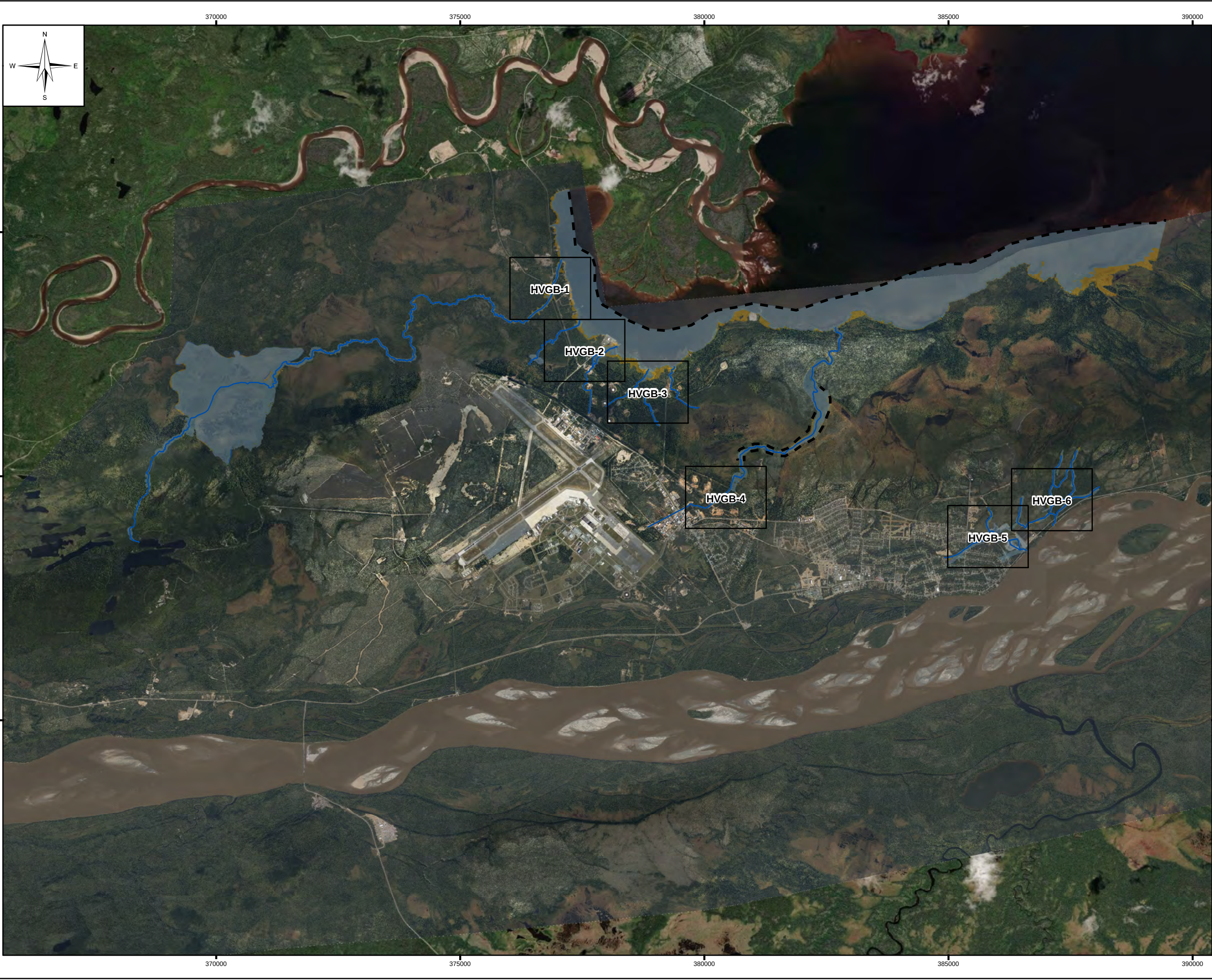


## **APPENDIX W**

### **COMPARISON OF CREEK CURRENT CLIMATE AND CLIMATE CHANGE FLOOD RISK MAPS**







- LEGEND:
- Creek Centreline
  - Map Extents
  - Limit of Mapping
  - 1:20 Year Current Climate Open Water Flood Zone
  - 1:20 Year Open Water Flood Zone CLC LC1

- NOTES:
- Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019, and by ESRI and DigitalGlobe, WV02 dated June 3, 2015.
  - Lake Melville shown at 0.22 metres.



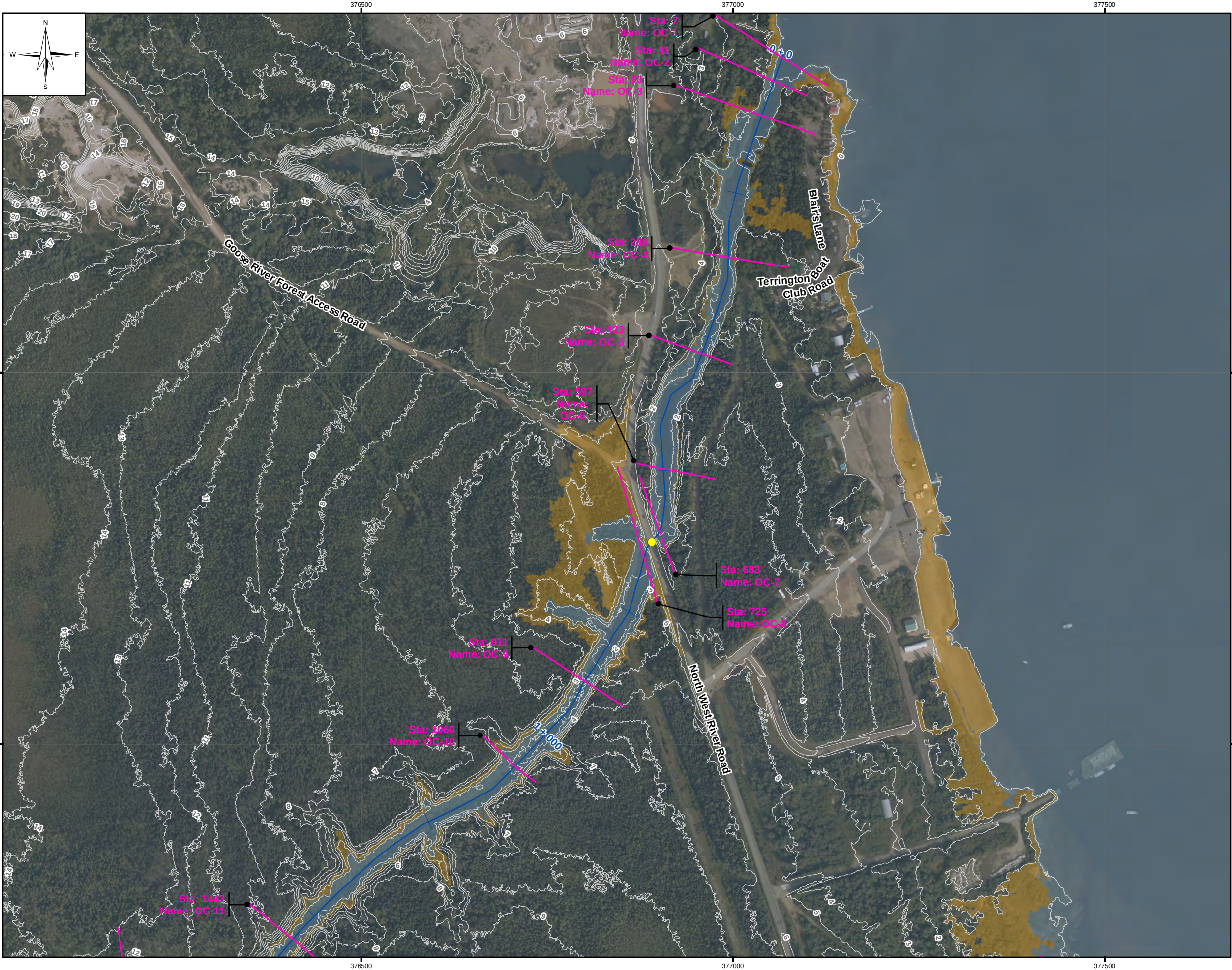
SCALE: 1:75,000 METRIC 11"x17"

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).

➡

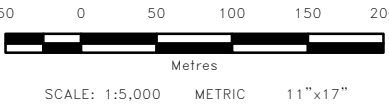
|                                                                                                                                       |          |                                                                                       |  |           |          |
|---------------------------------------------------------------------------------------------------------------------------------------|----------|---------------------------------------------------------------------------------------|--|-----------|----------|
| 0                                                                                                                                     | 20/06/30 | ISSUED WITH FINAL REPORT                                                              |  | DSB       | MSW      |
| NO.                                                                                                                                   | YY/MM/DD | DESCRIPTION                                                                           |  | ISSUED BY | CHECK BY |
| REVISIONS / ISSUE                                                                                                                     |          |                                                                                       |  |           |          |
|                                                  |          |  |  |           |          |
| CHURCHILL RIVER FLOOD RISK AND FORECASTING                                                                                            |          |                                                                                       |  |           |          |
| COMPARISON OF OPEN WATER 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) OVERVIEW MAP |          |                                                                                       |  |           |          |
| JUNE 2020                                                                                                                             |          | FIGURE 6.1                                                                            |  | REV: 0    |          |





- LEGEND:**
- Sta: 1252  
Name: LCA - 15  
AEP 1:20: 12.0 m  
AEP 1:100: 12.1 m
  - Creek Centreline
  - 1m LIDAR Contour
  - Limit of Mapping
  - Modelled Culverts
  - 1:20 Year Current Climate Open Water Flood Zone
  - 1:20 Year Climate Change Open Water Flood Zone

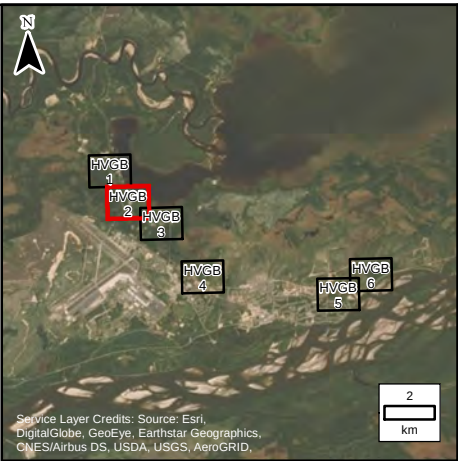
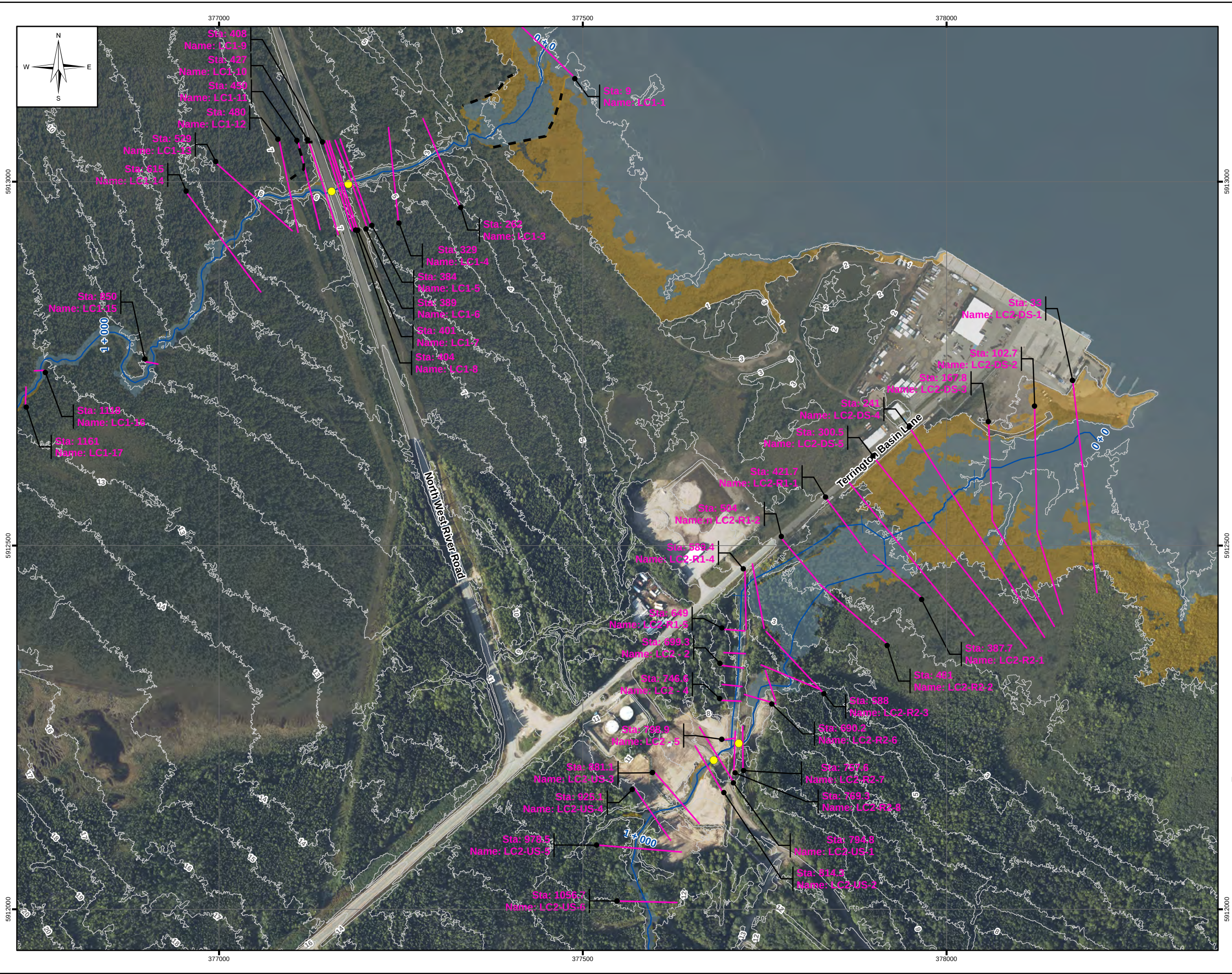
- NOTES:**
- Imagery is supplied by ATLAS Geomatics and dated as September 11 – 13, 2019.
  - Topography shown was developed by KGS Group from the LiDAR captured by ATLAS Geomatics on September 11 – 13, 2019.
  - Lake Melville shown at 0.22 metres.
  - Annotation not shown for all cross sections on maps HVGB-2, HVGB-3, HVGB-5 and HVGB-6 for clarity.



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

|                                                                                                                                   |          |                                                                                       |  |           |          |
|-----------------------------------------------------------------------------------------------------------------------------------|----------|---------------------------------------------------------------------------------------|--|-----------|----------|
| 0 20/06/30                                                                                                                        |          | ISSUED WITH FINAL REPORT                                                              |  | DSB       | MSW      |
| NO.                                                                                                                               | YY/MM/DD | DESCRIPTION                                                                           |  | ISSUED BY | CHECK BY |
| REVISIONS / ISSUE                                                                                                                 |          |                                                                                       |  |           |          |
|                                              |          |  |  |           |          |
| CHURCHILL RIVER FLOOD RISK AND FORECASTING                                                                                        |          |                                                                                       |  |           |          |
| COMPARISON OF OPEN WATER 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – HVGB-1 |          |                                                                                       |  |           |          |
| JUNE 2020                                                                                                                         |          | FIGURE 6.2                                                                            |  |           | REV: 0   |



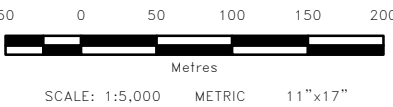


LEGEND:

- Sta: 1252  
Name: LC1-15  
AEP 1:20: 12.0 m  
AEP 1:100: 12.1 m
- Cross Section
- Creek Centreline
- 1m LIDAR Contour
- Limit of Mapping
- Modelled Culverts
- 1:20 Year Current Climate Open Water Flood Zone
- 1:20 Year Climate Change Open Water Flood Zone

NOTES:

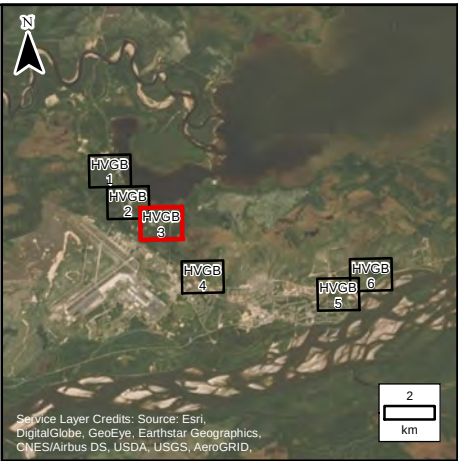
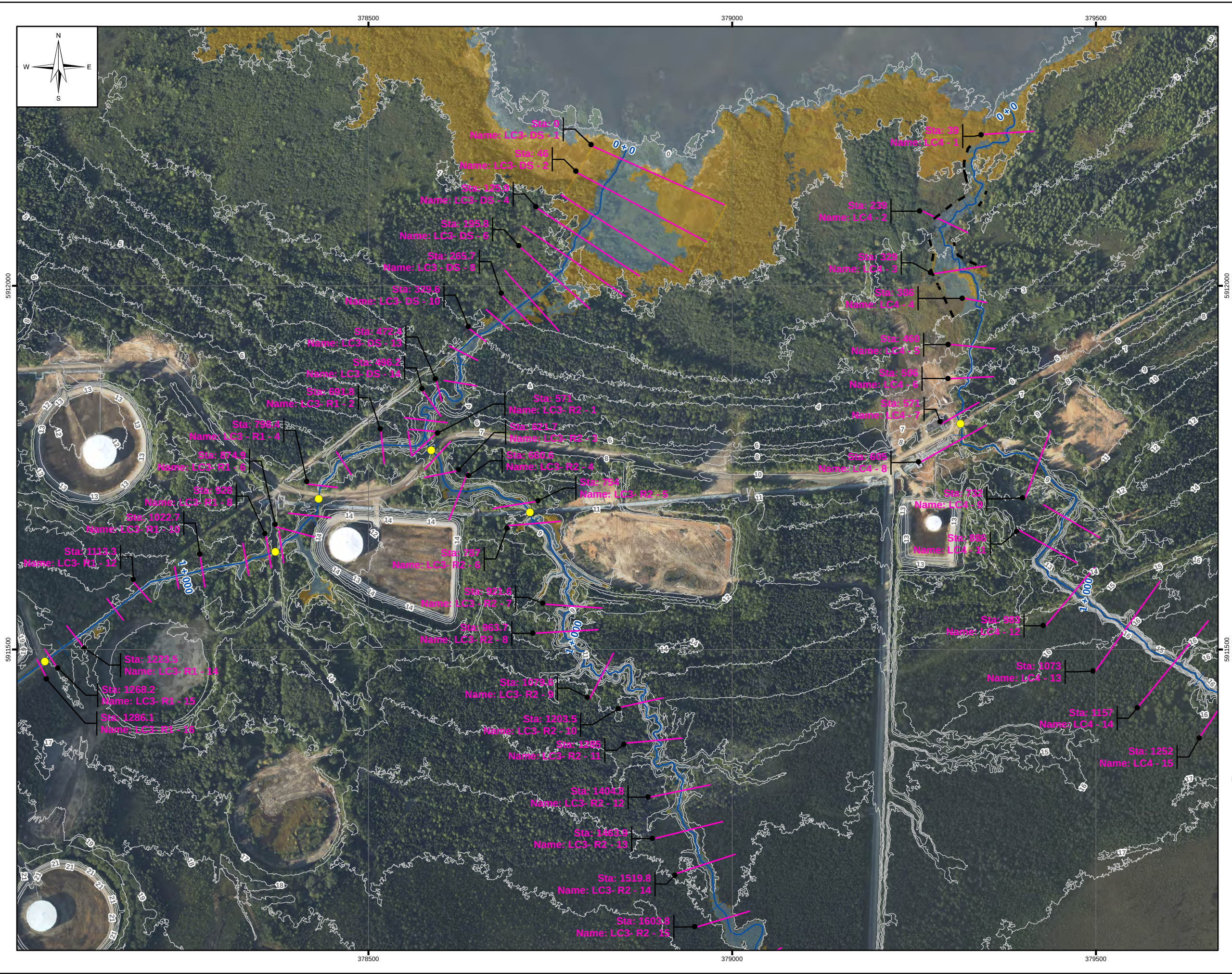
- Imagery is supplied by ATLAS Geomatics and dated as September 11 – 13, 2019.
- Topography shown was developed by KGS Group from the LiDAR captured by ATLAS Geomatics on September 11 – 13, 2019.
- Lake Melville shown at 0.22 metres.
- Annotation not shown for all cross sections on maps HVGB-2, HVGB-3, HVGB-5 and HVGB-6 for clarity.



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

|                                                                                                                                   |          |                                                                                       |  |           |          |
|-----------------------------------------------------------------------------------------------------------------------------------|----------|---------------------------------------------------------------------------------------|--|-----------|----------|
| 0 20/06/30                                                                                                                        |          | ISSUED WITH FINAL REPORT                                                              |  | DSB       | MSW      |
| NO.                                                                                                                               | YY/MM/DD | DESCRIPTION                                                                           |  | ISSUED BY | CHECK BY |
| REVISIONS / ISSUE                                                                                                                 |          |                                                                                       |  |           |          |
|                                              |          |  |  |           |          |
| CHURCHILL RIVER FLOOD RISK AND FORECASTING                                                                                        |          |                                                                                       |  |           |          |
| COMPARISON OF OPEN WATER 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – HVGB-2 |          |                                                                                       |  |           |          |
| JUNE 2020                                                                                                                         |          | FIGURE 6.2                                                                            |  | REV:      | 0        |



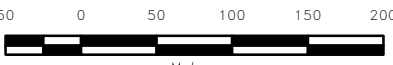


LEGEND:

- Sta: 1252  
Name: LC4 - 15  
AEP 1:20: 12.0 m  
AEP 1:100: 12.1 m
- Cross Section
- Creek Centreline
- 1m LIDAR Contour
- Limit of Mapping
- Modelled Culverts
- 1:20 Year Current Climate  
Open Water Flood Zone
- 1:20 Year Climate Change  
Open Water Flood Zone

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.
- Lake Melville shown at 0.22 metres.
- Annotation not shown for all cross sections on maps HVGB-2, HVGB-3, HVGB-5 and HVGB-6 for clarity.

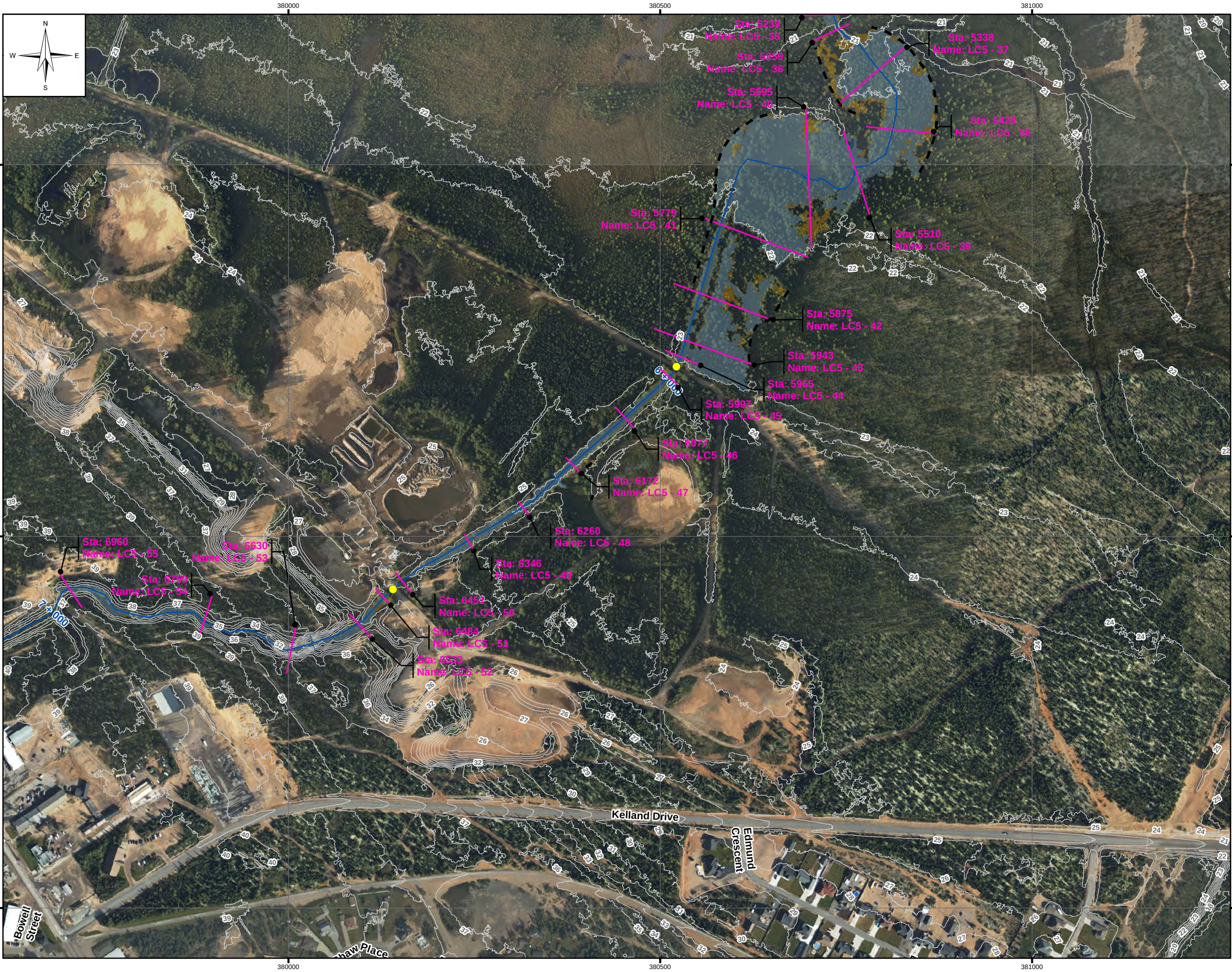


SCALE: 1:5,000 METRIC 11"x17"

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

|                                                                                                                                         |          |                                                                                       |  |           |           |
|-----------------------------------------------------------------------------------------------------------------------------------------|----------|---------------------------------------------------------------------------------------|--|-----------|-----------|
| 0 20/06/30                                                                                                                              |          | ISSUED WITH FINAL REPORT                                                              |  | DSB       | MSW       |
| NO.                                                                                                                                     | YY/MM/DD | DESCRIPTION                                                                           |  | ISSUED BY | CHECK BY  |
| REVISIONS / ISSUE                                                                                                                       |          |                                                                                       |  |           |           |
|                                                    |          |  |  |           |           |
| CHURCHILL RIVER FLOOD RISK<br>AND FORECASTING                                                                                           |          |                                                                                       |  |           |           |
| COMPARISON OF OPEN WATER 1:20 YEAR FLOOD ZONE<br>FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT<br>DEVELOPMENT (CC-CD) & (CLC-CD) – HVGB-3 |          |                                                                                       |  |           |           |
| JUNE 2020                                                                                                                               |          | FIGURE 6.2                                                                            |  |           | REV:<br>0 |



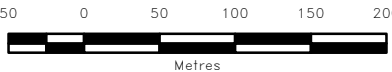


LEGEND:

- Sta: 1252  
Name: LC4 - 15  
AEP 1:20: 12.0 m  
AEP 1:100: 12.1 m
- Cross Section
- Creek Centreline
- 1m LIDAR Contour
- Limit of Mapping
- Modelled Culverts
- 1:20 Year Current Climate  
Open Water Flood Zone
- 1:20 Year Climate Change  
Open Water Flood Zone

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.
- Lake Melville shown at 0.22 metres.
- Annotation not shown for all cross sections on maps HVGB-2, HVGB-3, HVGB-5 and HVGB-6 for clarity.



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

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

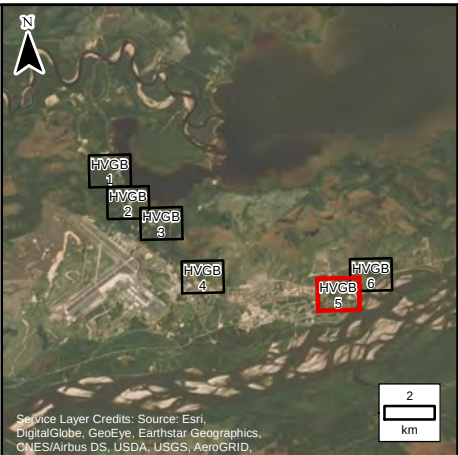
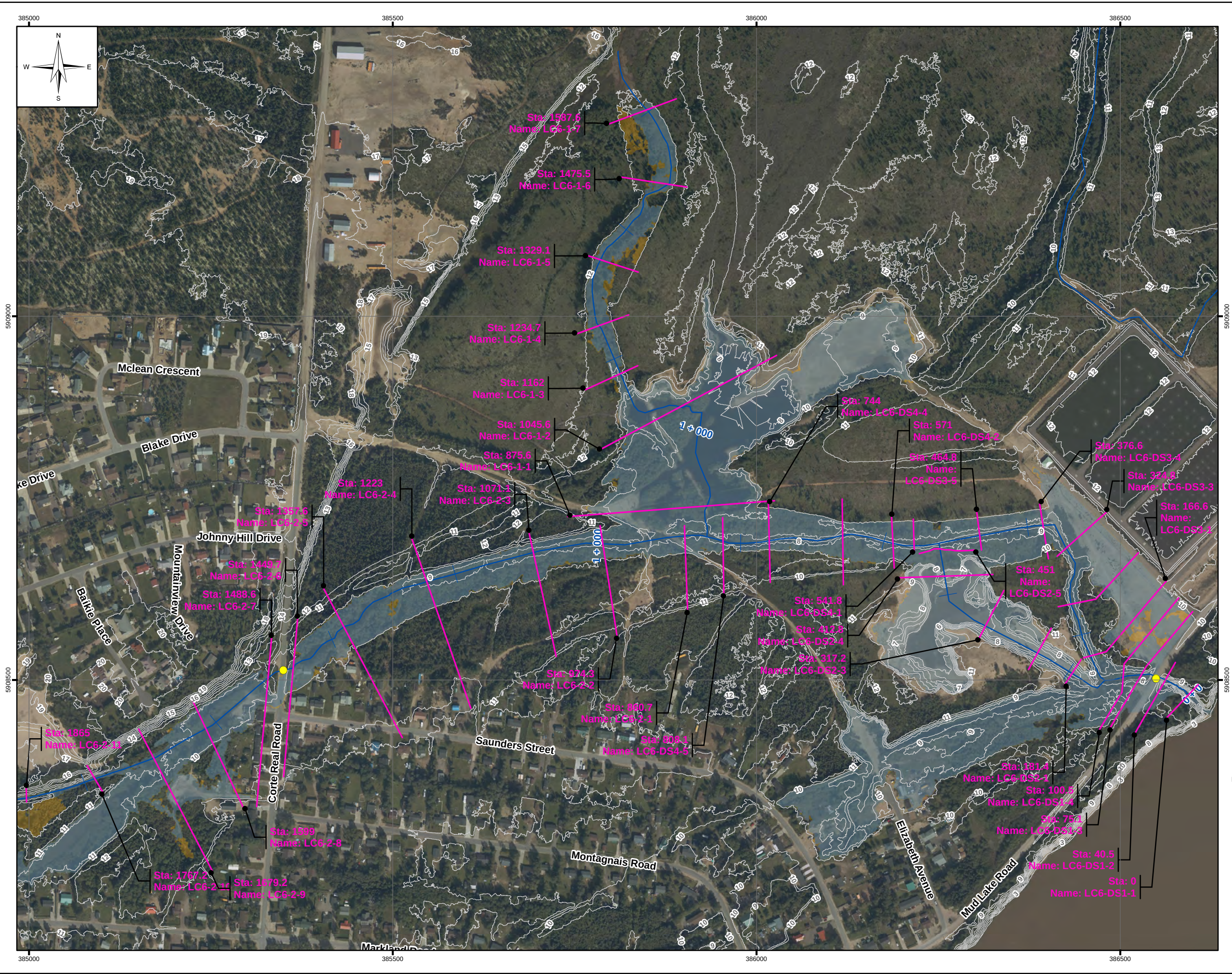
|                   |          |                          |           |          |
|-------------------|----------|--------------------------|-----------|----------|
| 0                 | 20/06/30 | ISSUED WITH FINAL REPORT | DSB       | MSW      |
| NO.               | YY/MM/DD | DESCRIPTION       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

CHURCHILL RIVER FLOOD RISK AND FORECASTING

COMPARISON OF OPEN WATER 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – HVGB-4

|           |            |        |
|-----------|------------|--------|
| JUNE 2020 | FIGURE 6.2 | REV: 0 |
|-----------|------------|--------|

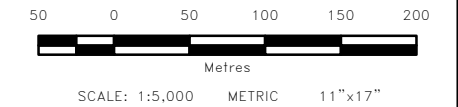




**LEGEND:**

- Sta: 1252  
Name: LC4-15  
AEP 1:20: 12.0 m  
AEP 1:100: 12.1 m
- Cross Section
- Creek Centreline
- 1m LIDAR Contour
- Limit of Mapping
- Modelled Culverts
- 1:20 Year Current Climate Open Water Flood Zone
- 1:20 Year Climate Change Open Water Flood Zone

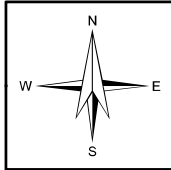
- NOTES:**
- Imagery is supplied by ATLAS Geomatics and dated as September 11 – 13, 2019.
  - Topography shown was developed by KGS Group from the LiDAR captured by ATLAS Geomatics on September 11 – 13, 2019.
  - Lake Melville shown at 0.22 metres.
  - Annotation not shown for all cross sections on maps HVGB-2, HVGB-3, HVGB-5 and HVGB-6 for clarity.



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

|                                                                                                                                   |          |                                                                                       |  |           |          |
|-----------------------------------------------------------------------------------------------------------------------------------|----------|---------------------------------------------------------------------------------------|--|-----------|----------|
| 0 20/06/30                                                                                                                        |          | ISSUED WITH FINAL REPORT                                                              |  | DSB       | MSW      |
| NO.                                                                                                                               | YY/MM/DD | DESCRIPTION                                                                           |  | ISSUED BY | CHECK BY |
| REVISIONS / ISSUE                                                                                                                 |          |                                                                                       |  |           |          |
|                                              |          |  |  |           |          |
| CHURCHILL RIVER FLOOD RISK AND FORECASTING                                                                                        |          |                                                                                       |  |           |          |
| COMPARISON OF OPEN WATER 1:20 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – HVGB-5 |          |                                                                                       |  |           |          |
| JUNE 2020                                                                                                                         |          | FIGURE 6.2                                                                            |  | REV:      | 0        |



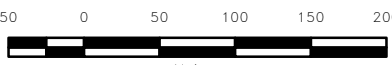


Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID,

Sta: 1252  
Name: LC4 - 15  
AEP 1:20: 12.0 m  
AEP 1:100: 12.1 m

- 

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.
3. Lake Melville shown at 0.22 metres.
4. Annotation not shown for all cross sections on maps HVGB-2, HVGB-3, HVGB-5 and HVGB-6 for clarity.



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

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).

1

0 | 20/06/30 | ISSUED WITH FINAL REPORT

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

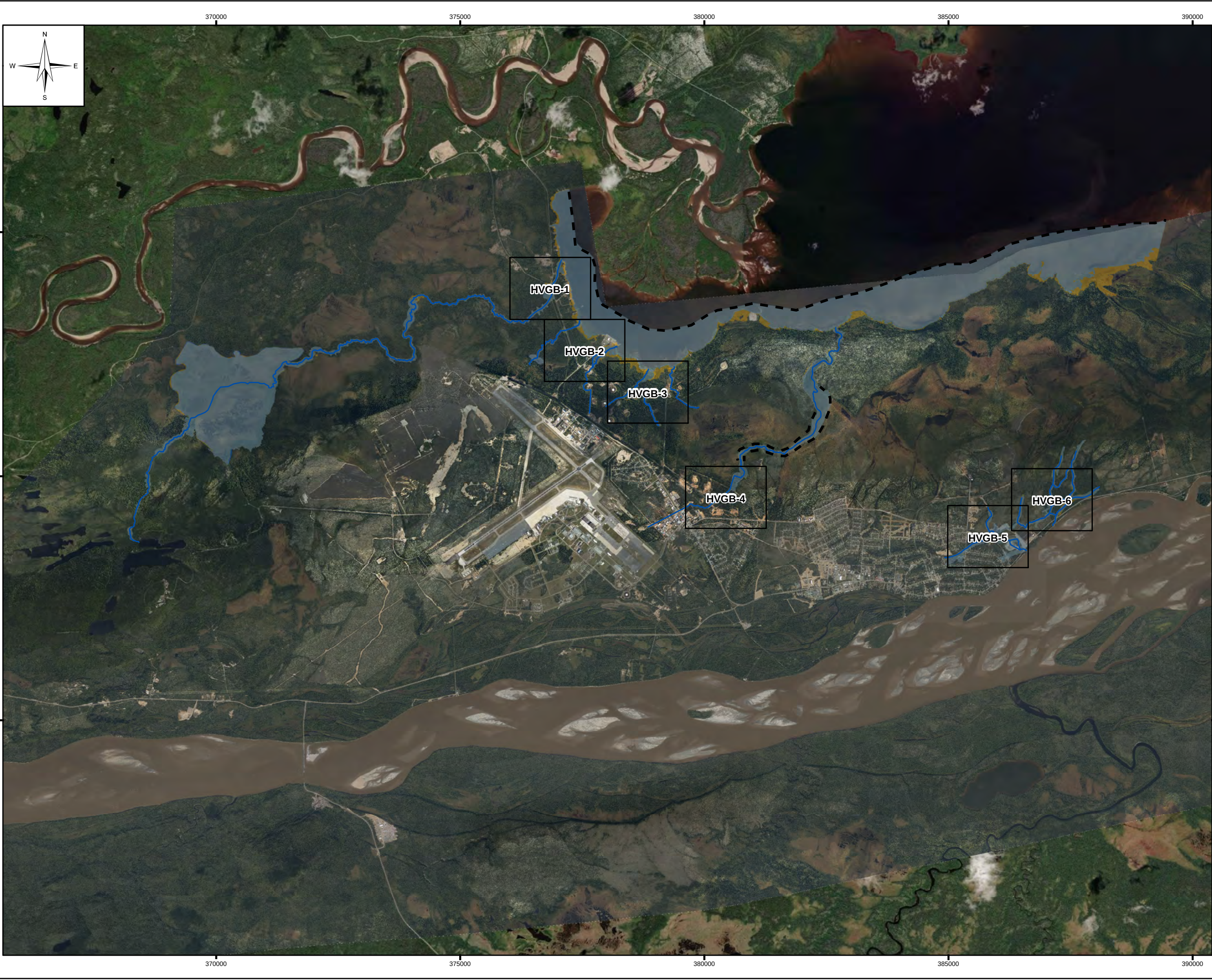
REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK  
AND FORECASTING

COMPARISON OF OPEN WATER 1:20 YEAR FLOOD ZONE  
FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT  
DEVELOPMENT (CC-CD) & (CLC-CD) - HVGB-6

|           |            |        |
|-----------|------------|--------|
| JUNE 2020 | FIGURE 6.2 | REV: 0 |
|-----------|------------|--------|





- LEGEND:
- Creek Centreline
  - Map Extents
  - Limit of Mapping
  - 1:100 Year Current Climate Open Water Flood Zone
  - 1:20 Year Climate Change Open Water Flood Zone

- NOTES:
- Imagery is supplied by ATGIS Geomatics and dated as September 11 – 13, 2019, and by ESRI and DigitalGlobe, WV02 dated June 3, 2015.
  - Lake Melville shown at 0.22 metres.



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).

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

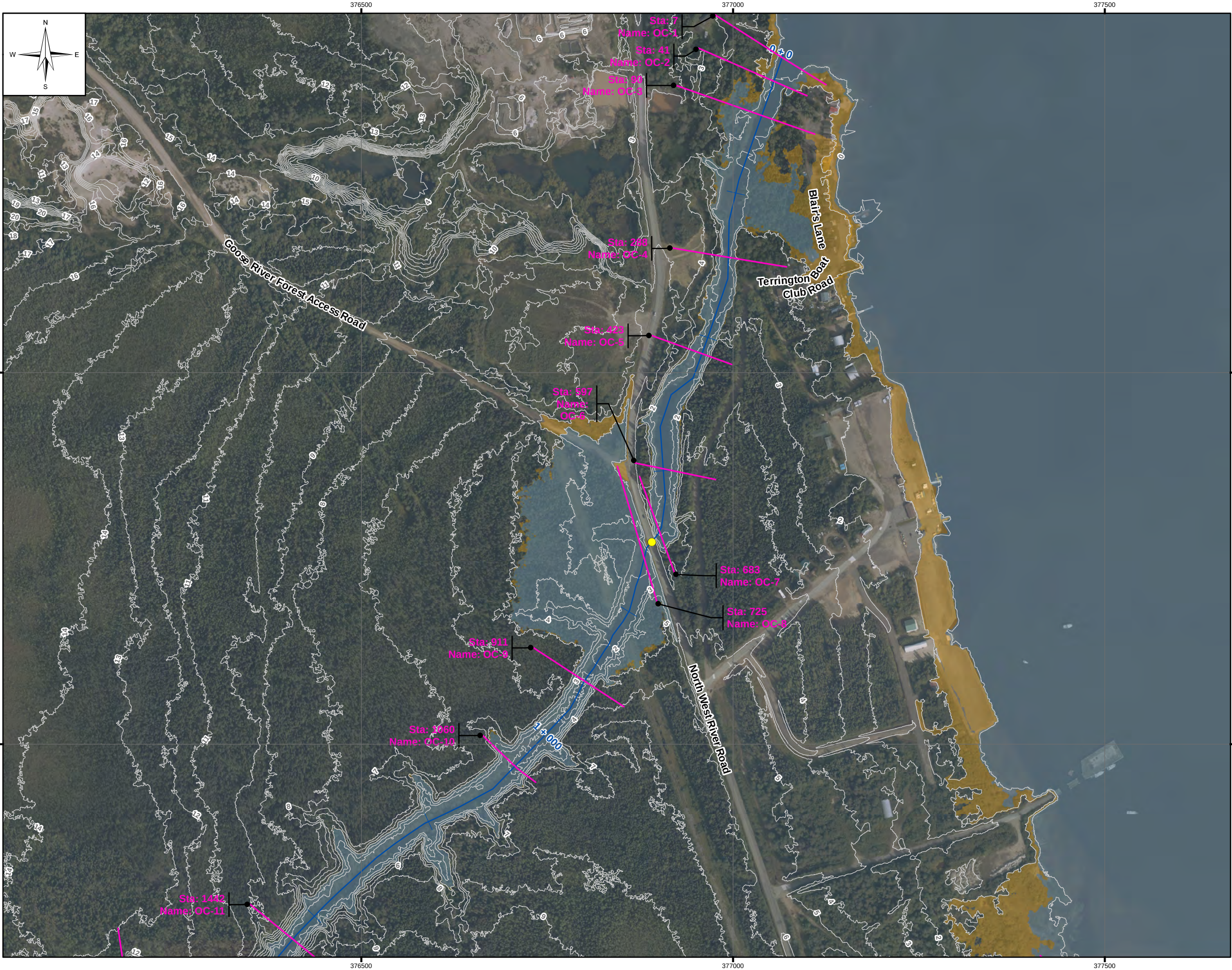
REVISIONS / ISSUE

CHURCHILL RIVER FLOOD RISK AND FORECASTING

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

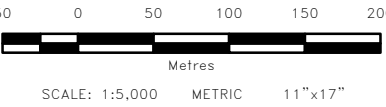
|           |            |        |
|-----------|------------|--------|
| JUNE 2020 | FIGURE 6.3 | REV: 0 |
|-----------|------------|--------|





- LEGEND:**
- Sta: 1252  
Name: LCA - 15  
AEP 1:20: 12.0 m  
AEP 1:100: 12.1 m
  - Cross Section
  - Creek Centreline
  - 1m LIDAR Contour
  - Limit of Mapping
  - Modelled Culverts
  - 1:100 Year Current Climate Open Water Flood Zone
  - 1:20 Year Climate Change Open Water Flood Zone

- 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.
  - Lake Melville shown at 0.22 metres.
  - Annotation not shown for all cross sections on maps HVGB-2, HVGB-3, HVGB-5 and HVGB-6 for clarity.



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

|                                     |          |             |           |
|-------------------------------------|----------|-------------|-----------|
| 0 20/06/30 ISSUED WITH FINAL REPORT |          | DSB         | MSW       |
| NO.                                 | YY/MM/DD | DESCRIPTION | ISSUED BY |
| REVISIONS / ISSUE                   |          |             |           |

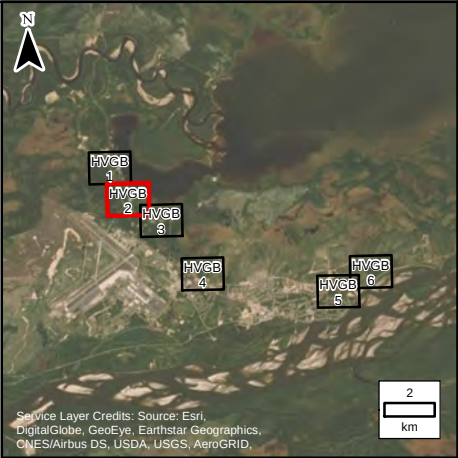
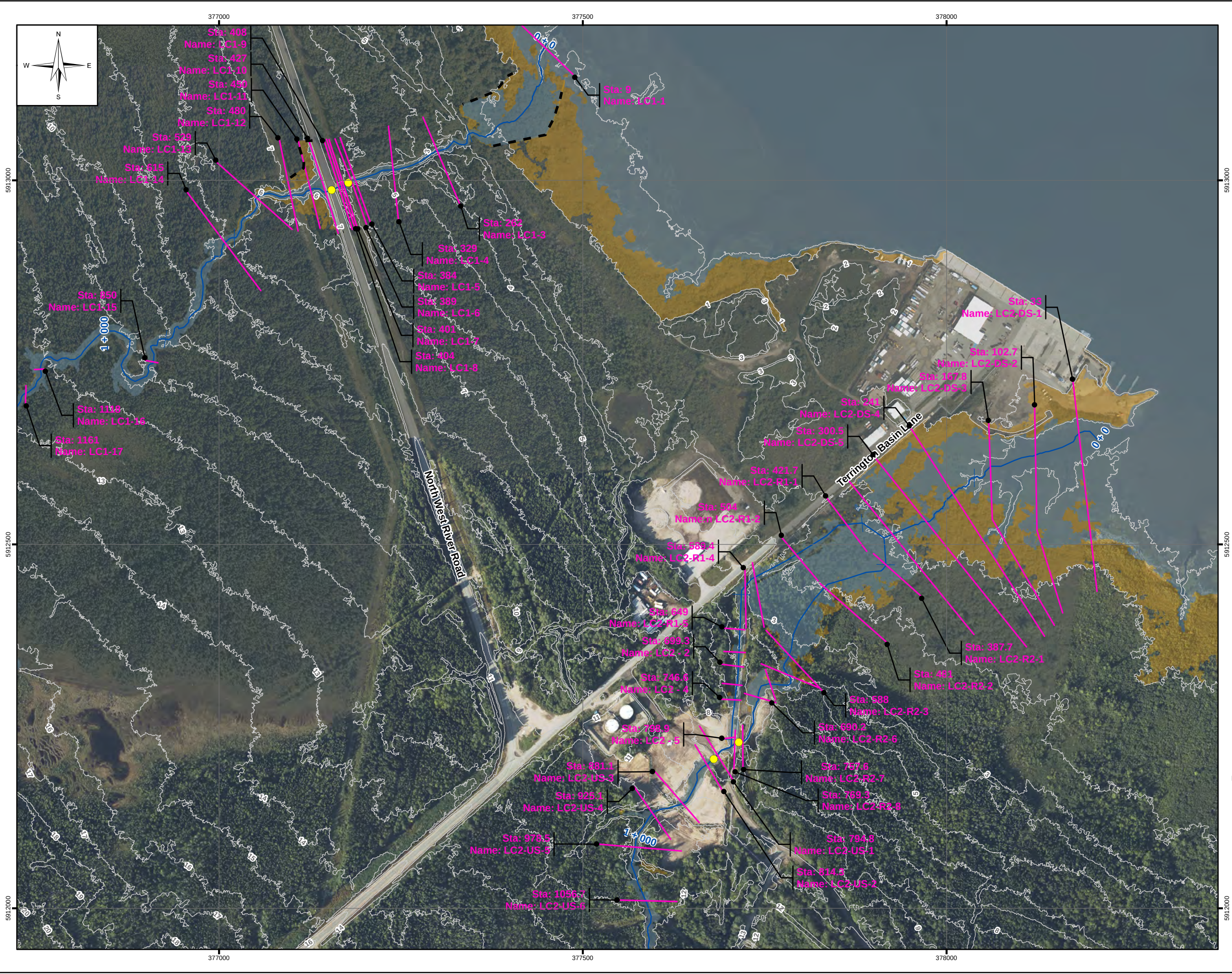


**CHURCHILL RIVER FLOOD RISK AND FORECASTING**

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

|           |            |        |
|-----------|------------|--------|
| JUNE 2020 | FIGURE 6.4 | REV: 0 |
|-----------|------------|--------|



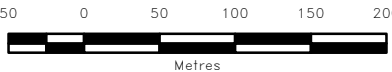


LEGEND:

- Sta: 1252  
Name: LC4 - 15  
AEP 1:20: 12.0 m  
AEP 1:100: 12.1 m
- Cross Section
- Creek Centreline
- 1m LIDAR Contour
- Limit of Mapping
- Modelled Culverts
- 1:100 Year Current Climate Open Water Flood Zone
- 1:20 Year Climate Change Open Water Flood Zone

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.
- Lake Melville shown at 0.22 metres.
- Annotation not shown for all cross sections on maps HVGB-2, HVGB-3, HVGB-5 and HVGB-6 for clarity.



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

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

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

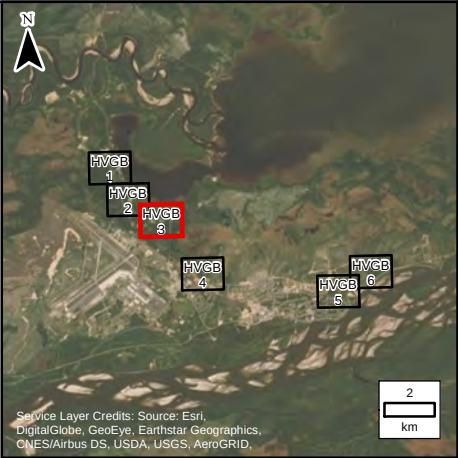
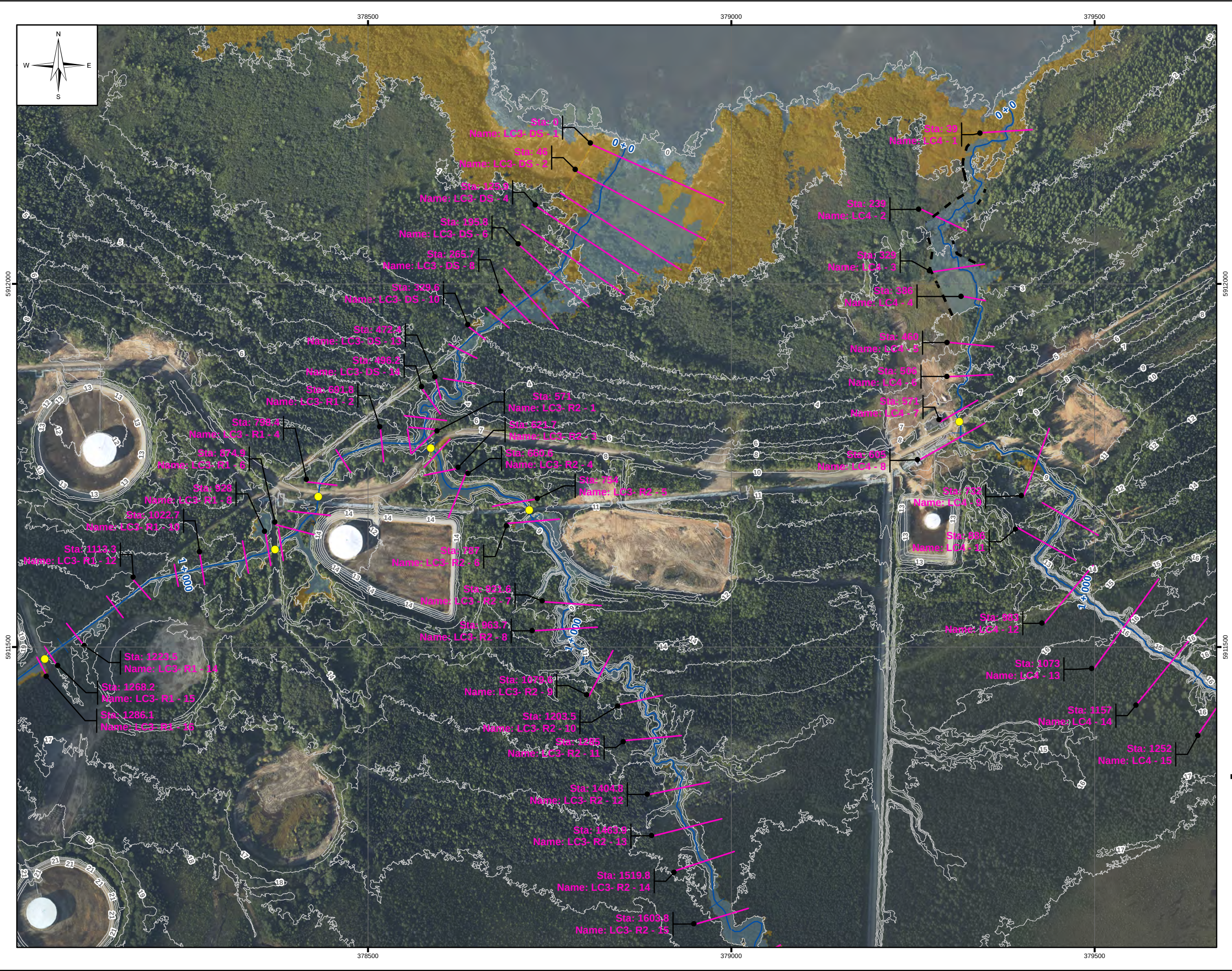
**KGS**  
GROUP  
CONSULTING  
ENGINEERS

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) - HVGB-2

|           |            |        |
|-----------|------------|--------|
| JUNE 2020 | FIGURE 6.4 | REV: 0 |
|-----------|------------|--------|



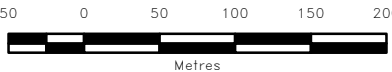


LEGEND:

- Sta: 1252  
Name: LC4 - 15  
AEP 1:20: 12.0 m  
AEP 1:100: 12.1 m
- Cross Section
- Creek Centreline
- 1m LIDAR Contour
- Limit of Mapping
- Modelled Culverts
- 1:100 Year Current Climate Open Water Flood Zone
- 1:20 Year Climate Change Open Water Flood Zone

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.
- Lake Melville shown at 0.22 metres.
- Annotation not shown for all cross sections on maps HVGB-2, HVGB-3, HVGB-5 and HVGB-6 for clarity.

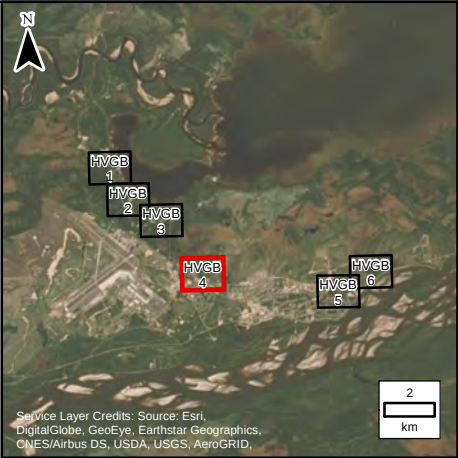
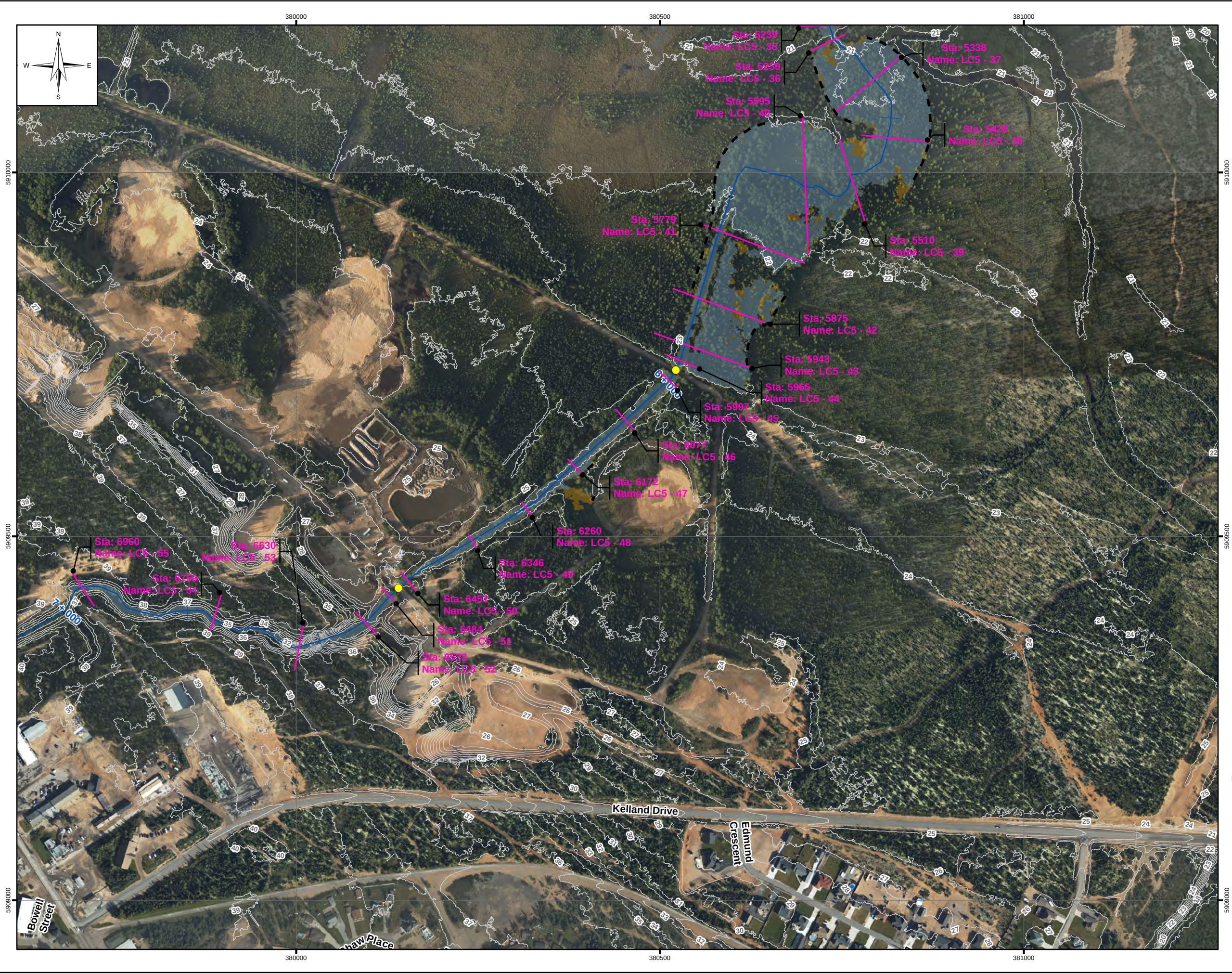


SCALE: 1:5,000 METRIC 11"x17"

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).

|                                                                                                                                    |          |                                                                                       |  |           |          |
|------------------------------------------------------------------------------------------------------------------------------------|----------|---------------------------------------------------------------------------------------|--|-----------|----------|
| Q                                                                                                                                  | 20/06/30 | ISSUED WITH FINAL REPORT                                                              |  | DSB       | MSW      |
| NO.                                                                                                                                | YY/MM/DD | DESCRIPTION                                                                           |  | ISSUED BY | CHECK BY |
| REVISIONS / ISSUE                                                                                                                  |          |                                                                                       |  |           |          |
|                                               |          |  |  |           |          |
| CHURCHILL RIVER FLOOD RISK AND FORECASTING                                                                                         |          |                                                                                       |  |           |          |
| COMPARISON OF OPEN WATER 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – HVGB-3 |          |                                                                                       |  |           |          |
| JUNE 2020                                                                                                                          |          | FIGURE 6.4                                                                            |  | REV:      | 0        |



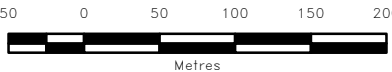


LEGEND:

- Sta: 1252  
Name: LC4 - 15  
AEP 1:20: 12.0 m  
AEP 1:100: 12.1 m
- Cross Section
- Creek Centreline
- 1m LIDAR Contour
- Limit of Mapping
- Modelled Culverts
- 1:100 Year Current Climate  
Open Water Flood Zone
- 1:20 Year Climate Change  
Open Water Flood Zone

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.
- Lake Melville shown at 0.22 metres.
- Annotation not shown for all cross sections on maps HVGB-2, HVGB-3, HVGB-5 and HVGB-6 for clarity.

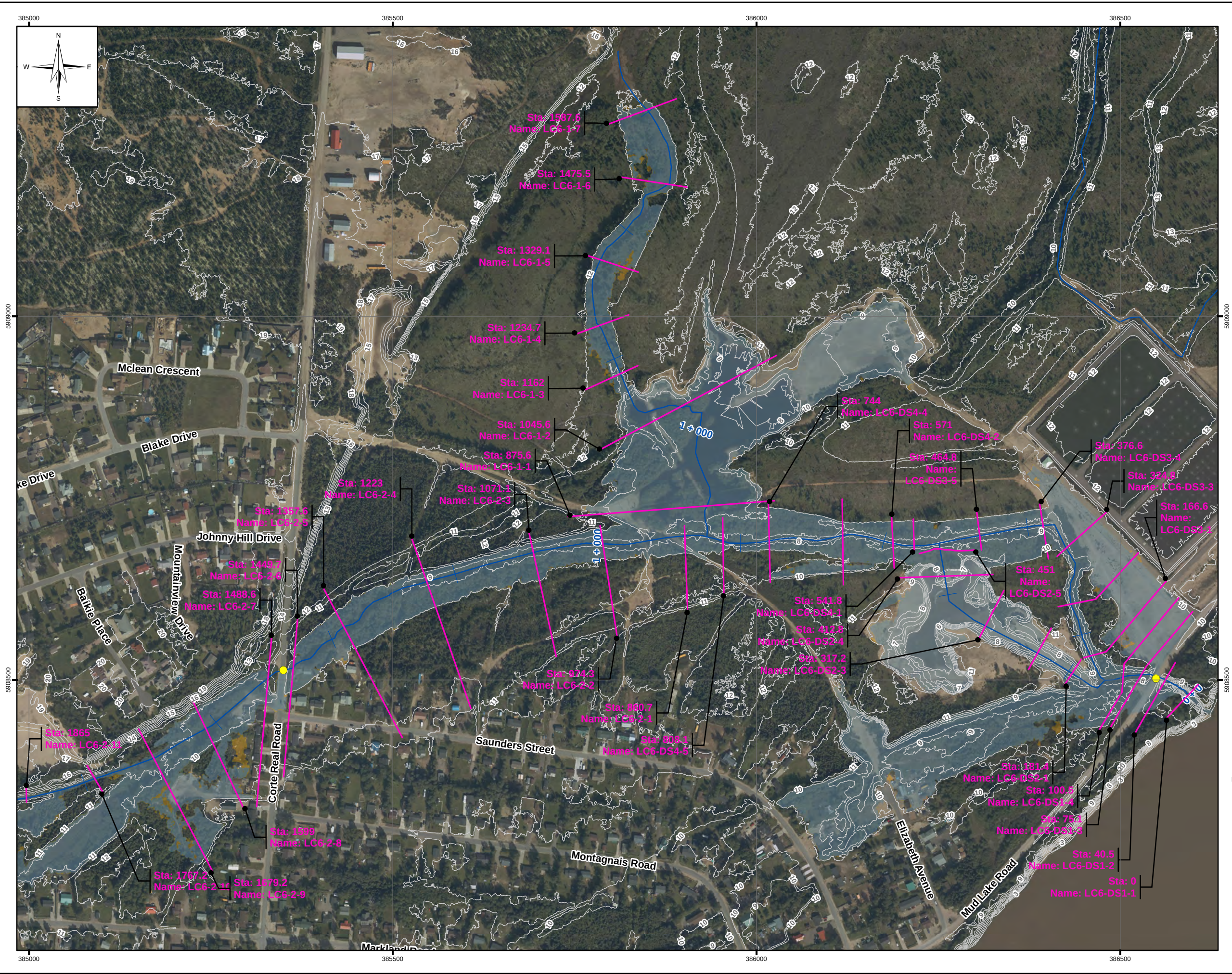


SCALE: 1:5,000 METRIC 11"x17"

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

|                                                                                                                                    |          |                                                                                       |           |          |
|------------------------------------------------------------------------------------------------------------------------------------|----------|---------------------------------------------------------------------------------------|-----------|----------|
| 0                                                                                                                                  | 20/06/30 | ISSUED WITH FINAL REPORT                                                              | DSB       | MSW      |
| NO.                                                                                                                                | YY/MM/DD | DESCRIPTION                                                                           | ISSUED BY | CHECK BY |
| REVISIONS / ISSUE                                                                                                                  |          |                                                                                       |           |          |
|                                               |          |  |           |          |
| CHURCHILL RIVER FLOOD RISK AND FORECASTING                                                                                         |          |                                                                                       |           |          |
| COMPARISON OF OPEN WATER 1:100 YEAR FLOOD ZONE FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT DEVELOPMENT (CC-CD) & (CLC-CD) – HVGB-4 |          |                                                                                       |           |          |
| JUNE 2020                                                                                                                          |          | FIGURE 6.4                                                                            |           | REV: 0   |





LEGEND:

- Sta: 1252  
Name: LC4-15  
AEP 1:20: 12.0 m  
AEP 1:100: 12.1 m
- Cross Section
- Creek Centreline
- 1m LIDAR Contour
- Limit of Mapping
- Modelled Culverts
- 1:100 Year Current Climate Open Water Flood Zone
- 1:20 Year Climate Change Open Water Flood Zone

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.
- Lake Melville shown at 0.22 metres.
- Annotation not shown for all cross sections on maps HVGB-2, HVGB-3, HVGB-5 and HVGB-6 for clarity.



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

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

**KGS**  
GROUP  
CONSULTING  
ENGINEERS

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) – HVGB-5

|           |            |        |
|-----------|------------|--------|
| JUNE 2020 | FIGURE 6.4 | REV: 0 |
|-----------|------------|--------|





 Modelled Culverts  
 1:100 Year Current Climate  
Open Water Flood Zone  
 1:20 Year Climate Change  
Open Water Flood Zone

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).

**KGS**  
GROUP  
CONSULTING  
ENGINEERS

Newfoundland  
Labrador

COMPARISON OF OPEN WATER 1:100 YEAR FLOOD ZONE  
FOR CURRENT CLIMATE/CLIMATE CHANGE, CURRENT  
DEVELOPMENT (CC-CD) & (CLC-CD) – HVGB-6

|           |            |        |
|-----------|------------|--------|
| JUNE 2020 | FIGURE 6.4 | REV: 0 |
|-----------|------------|--------|