

**Title:** Dawson City and Klondike Valley Flood Mapping Study  
Composite Flood Hazard Map - Yukon River  
5% Annual Exceedance Probability (AEP)

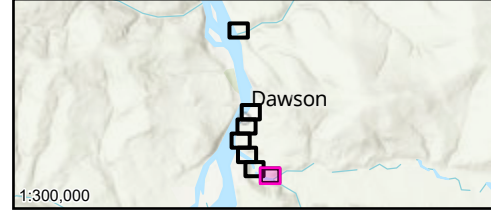
**Client/Project:**  
Government of Yukon  
Department of Environment  
Water Resources Branch

**Project:** 123222713

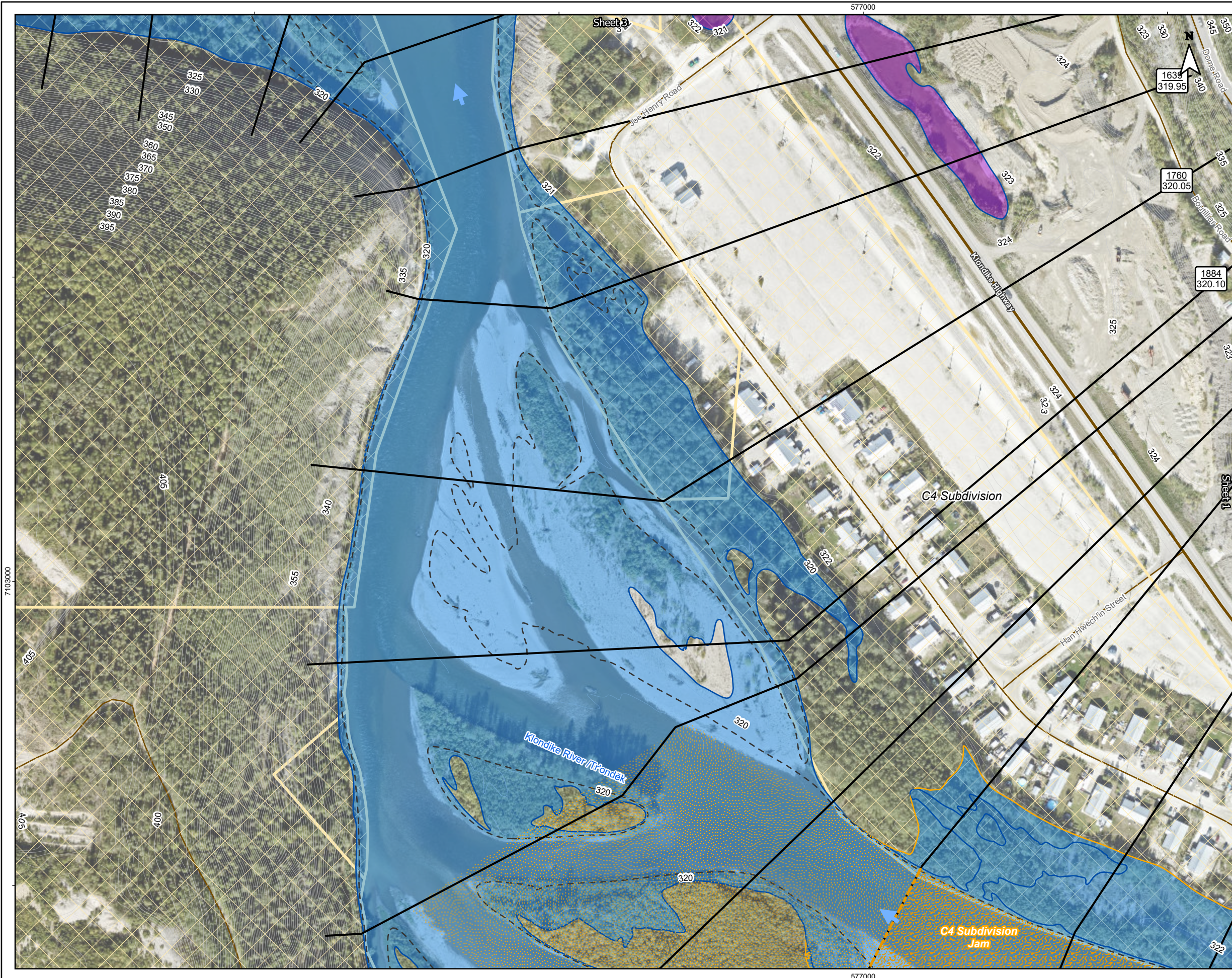
**Project Location:** Dawson, Yukon  
Prepared by MANDERSON on 2026-03-06  
Requested by JMUIRHEAD on 2024-03-30  
Review by JMUIRHEAD on 2026-03-06

- |  |   |  |  |
|--|---|--|--|
|  | WSC Stations  |  | Minor Contour (1m)                                   |
|  | Ground Elevations of Interest   |  | Surveyed Cross-Sections Used in Hydraulic Model      |
|  | HPW Drainage Culverts   |  | Tr'ondék Hwëch'in Settlement Land                    |
|  | Cross-Section Number<br>WSE (m) Along Cross-Section                               |  | Approximate 50% AEP Open Water Flood Inundation      |
|  | Cross-Section Number<br>WSE (m) Along Cross-Section (WSE in Dike Breach Scenario) |  | Inundation Under Modelled Open Water Runs            |
|  | Bridge  |  | Inundation Under Modelled Breakup Ice Jam Runs       |
|  | Surveyed Culvert Location   |  | Composite Open Water and Ice Jam Inundation Extent   |
|  | Highway   |  | Inundation Extent From Subsurface Seepage            |
|  | Local Road  |  | Potential Presence of Ice Debris During Jam Scenario |
|  | Major Contour (5m)  |  | Ice Jamming Extents                                  |

Map Publication Date: 03/06/2026  
0 25 50 75 100 125 m  
(At original document size of 11x 17) 1:2,500



- Notes**
1. Coordinate System: NAD 1983 CSRS UTM Zone 7N Vertical Datum: CGVD2013, Geoid: CGG2013a
  2. Data Sources: GeoYukon, Canada Lands Survey (CLS) CCM 982, CANVEC.
  3. Flood hazard extents shown on these maps are based on LiDAR collected in July, 2019 and topographical and bathymetric data that was collected in June and September 2024.
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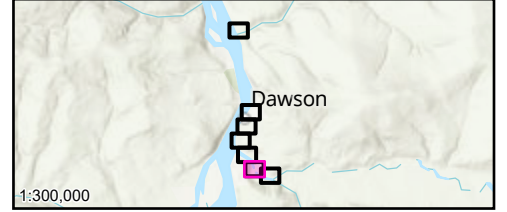
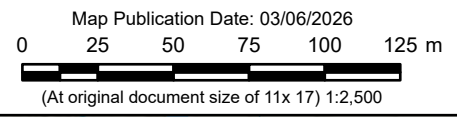
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5% Annual Exceedance Probability (AEP)

**Client/Project:**  
Government of Yukon  
Department of Environment  
Water Resources Branch

**Project:** 123222713

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Prepared by MANDERSON on 2026-03-06  
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- ▲ Ground Elevations of Interest
- 57 Cross-Section Number
- 517.2 WSE (m) Along Cross-Section
- 22140 Cross-Section Number
- 320.26 WSE (m) Along Cross-Section
- 320.04 WSE in Dike Breach Scenario
- Highway
- Local Road
- Major Contour (5m)
- Minor Contour (1m)
- Surveyed Cross-Sections Used in Hydraulic Model
- Toe of Ice Jam
- Trondëk Hwëch'in Settlement Land
- Approximate 50% AEP Open Water Flood Inundation
- Inundation Under Modelled Open Water Runs
- Inundation Under Modelled Breakup Ice Jam Runs
- Composite Open Water and Ice Jam Inundation Extent
- Inundation Extent From Subsurface Seepage
- Potential Presence of Ice Debris During Jam Scenario
- Ice Jamming Extents



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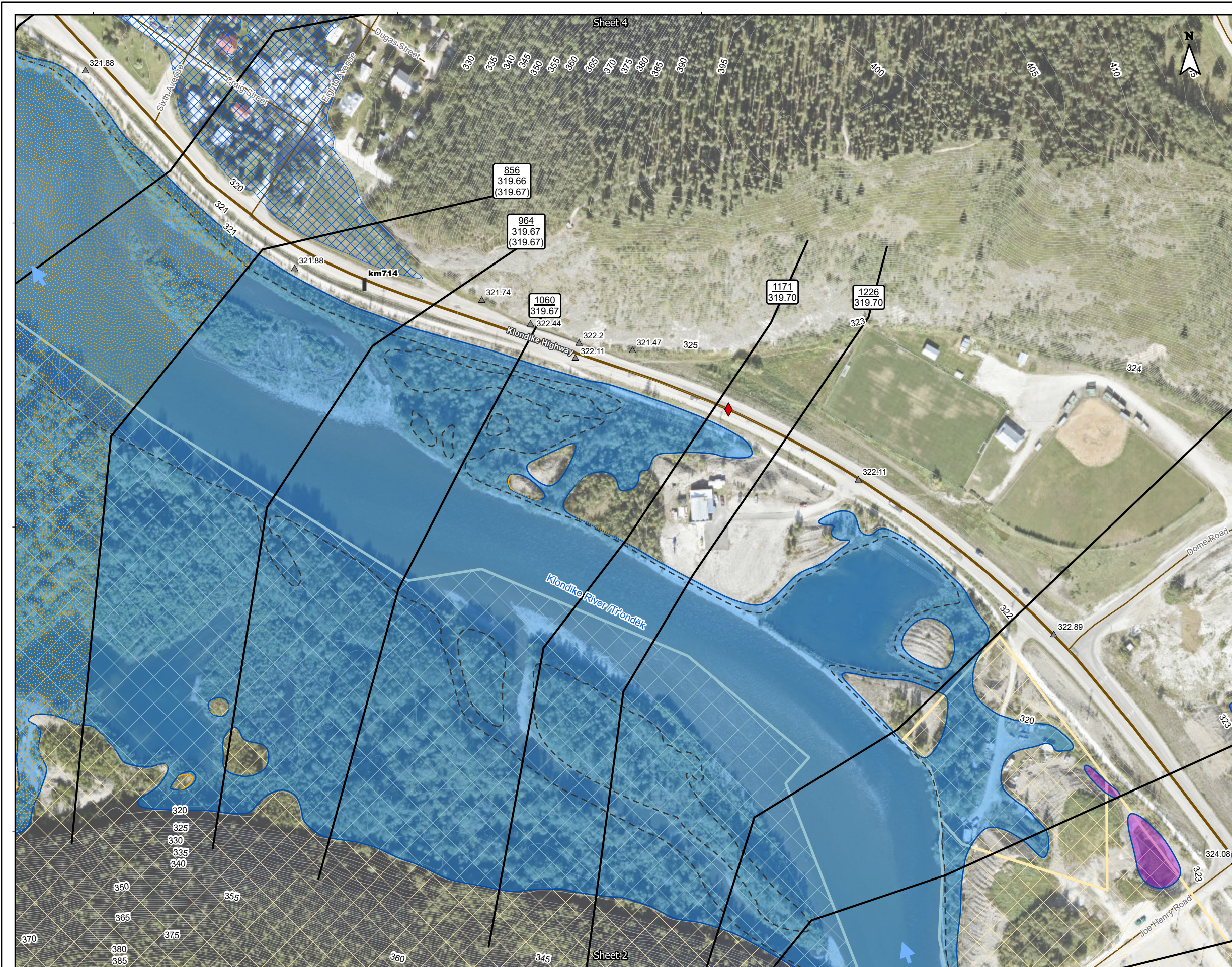


Figure No. **DC-5-03** Sheet 03 of 07

Title: **Dawson City and Klondike Valley Flood Mapping Study  
Composite Flood Hazard Map - Yukon River  
5% Annual Exceedance Probability (AEP)**

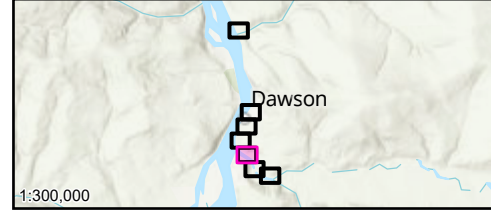
Client/Project:  
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Project: 123222713

Project Location: Dawson, Yukon  
Prepared by MANDERSON on 2026-03-06  
Requested by JMUIRHEAD on 2024-03-30  
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- |   |  |
|---|--|
| Highway Kilometer Post  | Surveyed Cross-Sections Used in Hydraulic Model      |
| Ground Elevations of Interest   | Trondëk Hwëch'in Settlement Land                     |
| HPW Drainage Culverts   | Approximate 50% AEP Open Water Flood Inundation      |
| Cross-Section Number<br>WSE (m) Along Cross-Section                               | Inundation Under Modelled Open Water Runs            |
| Cross-Section Number<br>WSE (m) Along Cross-Section (WSE in Dike Breach Scenario) | Inundation Under Modelled Breakup Ice Jam Runs       |
| Highway   | Composite Open Water and Ice Jam Inundation Extent   |
| Local Road  | Inundation Extent From Subsurface Seepage            |
| Major Contour (5m)  | Inundation Under Dike Breach Scenario                |
| Minor Contour (1m)  | Potential Presence of Ice Debris During Jam Scenario |

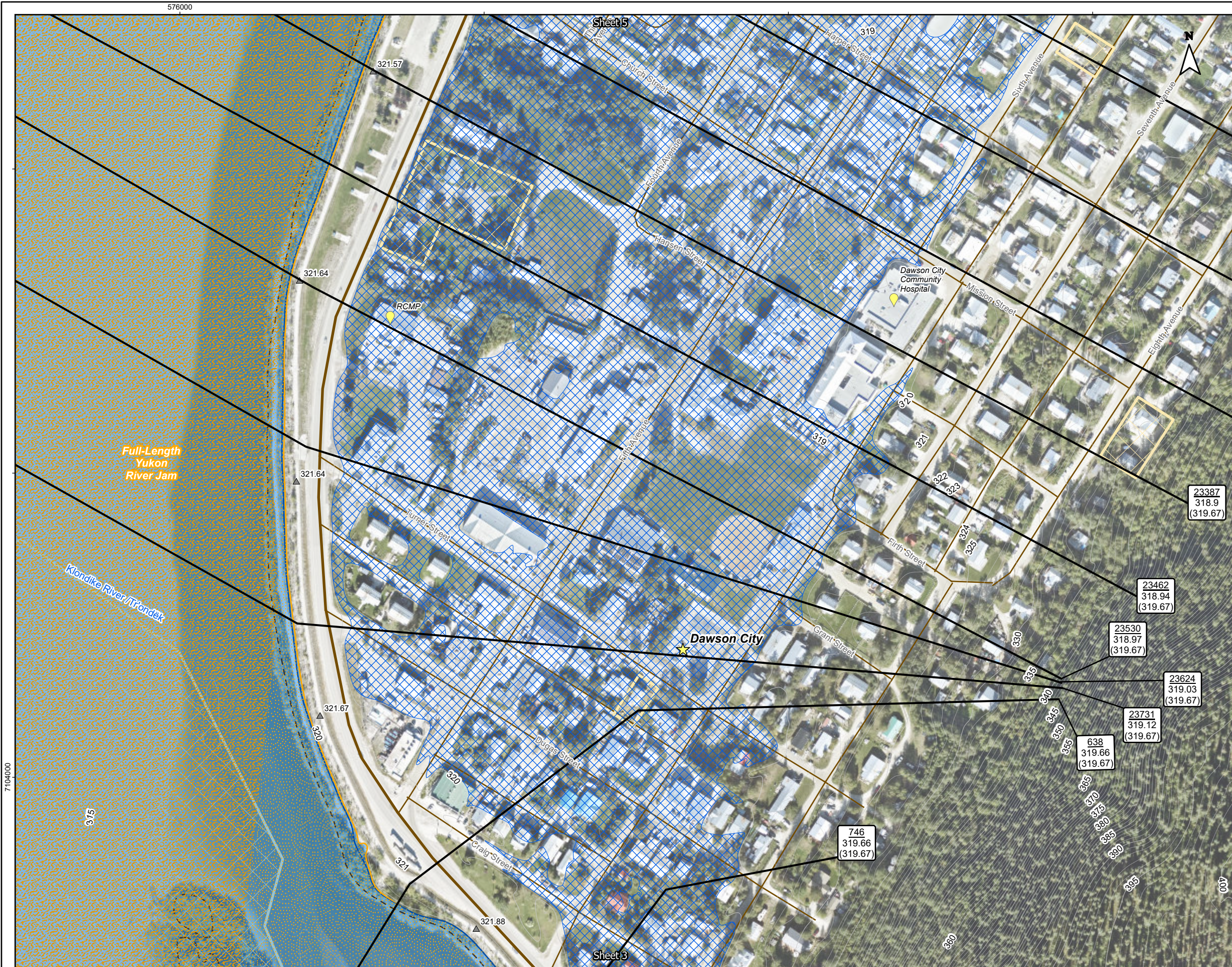
Map Publication Date: 03/06/2026  
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- Notes**
1. Coordinate System: NAD 1983 CSRS UTM Zone 7N Vertical Datum: CGVD2013, Geoid: CGG2013a
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**Title:** Dawson City and Klondike Valley Flood Mapping Study  
Composite Flood Hazard Map - Yukon River  
5% Annual Exceedance Probability (AEP)

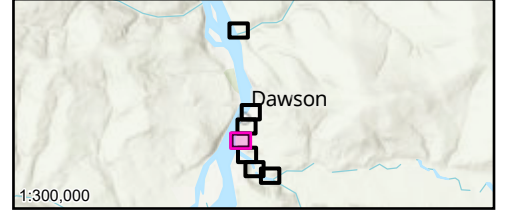
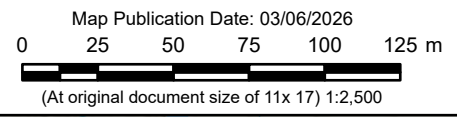
**Client/Project:**  
Government of Yukon  
Department of Environment  
Water Resources Branch

**Project:** 123222713

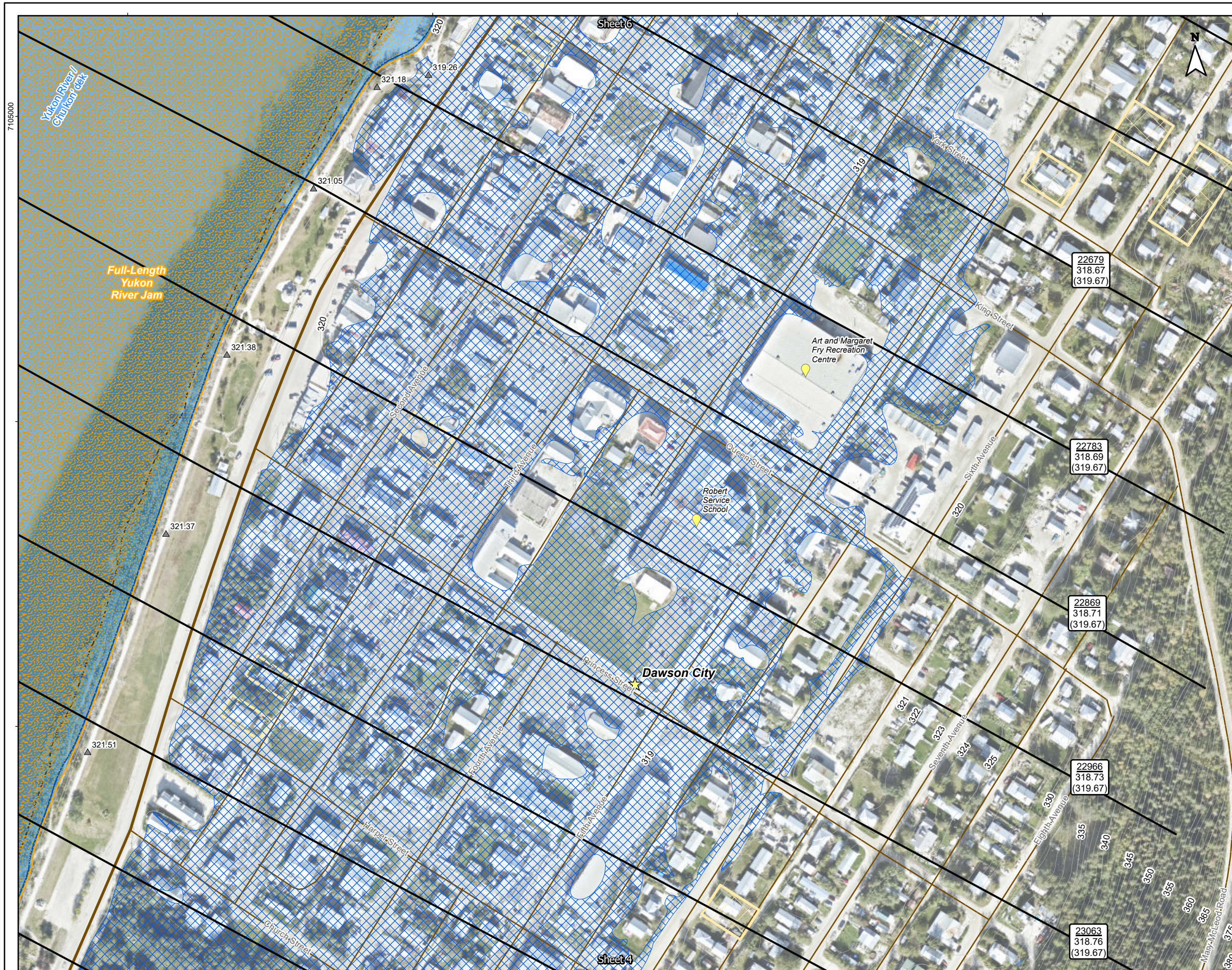
**Project Location:** Dawson, Yukon

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Review by JMUIRHEAD on 2026-03-06

- |                                 |  |
|---------------------------------|--|
| ★ Municipality                  | — Surveyed Cross-Sections Used in Hydraulic Model      |
| 📍 Point of Interest             | 🏠 Trondék Hwëch'in Settlement Land                     |
| ▲ Ground Elevations of Interest | - - - Approximate 50% AEP Open Water Flood Inundation  |
| 57<br>517.2                     | 57<br>517.2  |
| 22140<br>320.26<br>(320.04)     | 22140<br>320.26<br>(320.04)                            |
| — Highway                       | — Inundation Under Modelled Open Water Runs            |
| — Local Road                    | — Inundation Under Modelled Breakup Ice Jam Runs       |
| — Major Contour (5m)            | — Composite Open Water and Ice Jam Inundation Extent   |
| — Minor Contour (1m)            | — Inundation Under Dike Breach Scenario                |
|                                 | — Potential Presence of Ice Debris During Jam Scenario |
|                                 | — Ice Jamming Extents                                  |



- Notes**
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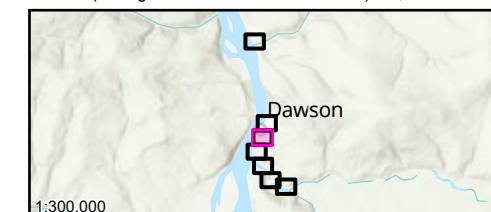
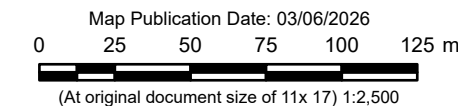
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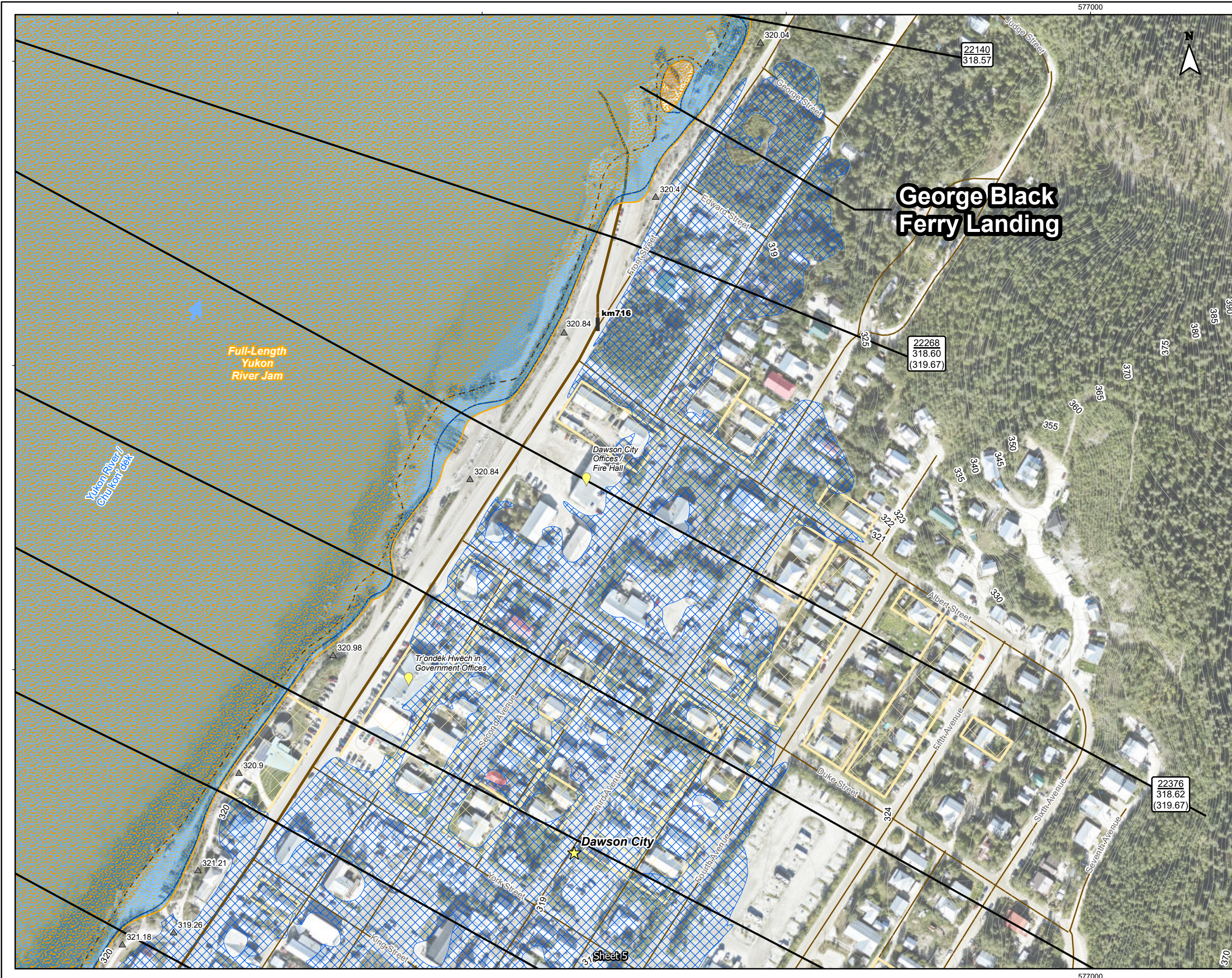
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Prepared by MANDERSON on 2026-03-06  
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- |  |  |  |  |
|--|--|--|--|
|  | River Flow Direction   |  | Surveyed Cross-Sections Used in Hydraulic Model      |
|  | Municipality   |  | Trondék Hwëch'in Settlement Land                     |
|  | Point of Interest  |  | Approximate 50% AEP Open Water Flood Inundation      |
|  | Ground Elevations of Interest  |  | Inundation Under Modelled Open Water Runs            |
|  | Cross-Section Number WSE (m) Along Cross-Section                               |  | Inundation Under Modelled Breakup Ice Jam Runs       |
|  | Cross-Section Number WSE (m) Along Cross-Section (WSE in Dike Breach Scenario) |  | Composite Open Water and Ice Jam Inundation Extent   |
|  | Highway  |  | Inundation Under Dike Breach Scenario                |
|  | Local Road   |  | Potential Presence of Ice Debris During Jam Scenario |
|  | Major Contour (5m)   |  | Ice Jamming Extents                                  |
|  | Minor Contour (1m)   |  |  |



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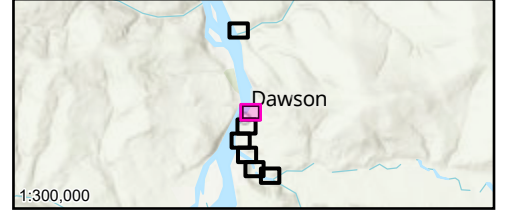
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- |  |  |
|--|--|
| River Flow Direction   | Minor Contour (1m)                                   |
| Municipality   | Surveyed Cross-Sections Used in Hydraulic Model      |
| Point of Interest  | Tr'ondëk Hwëch'in Settlement Land                    |
| Highway Kilometer Post   | Approximate 50% AEP Open Water Flood Inundation      |
| Ground Elevations of Interest  | Inundation Under Modelled Open Water Runs            |
| Cross-Section Number<br>WSE (m) Along Cross-Section                                  | Inundation Under Modelled Breakup Ice Jam Runs       |
| Cross-Section Number<br>WSE (m) Along Cross-Section<br>(WSE in Dike Breach Scenario) | Composite Open Water and Ice Jam Inundation Extent   |
| Highway  | Inundation Under Dike Breach Scenario                |
| Local Road   | Potential Presence of Ice Debris During Jam Scenario |
| Major Contour (5m)   | Ice Jamming Extents                                  |

Map Publication Date: 03/06/2026

0 25 50 75 100 125 m

(At original document size of 11x 17) 1:2,500



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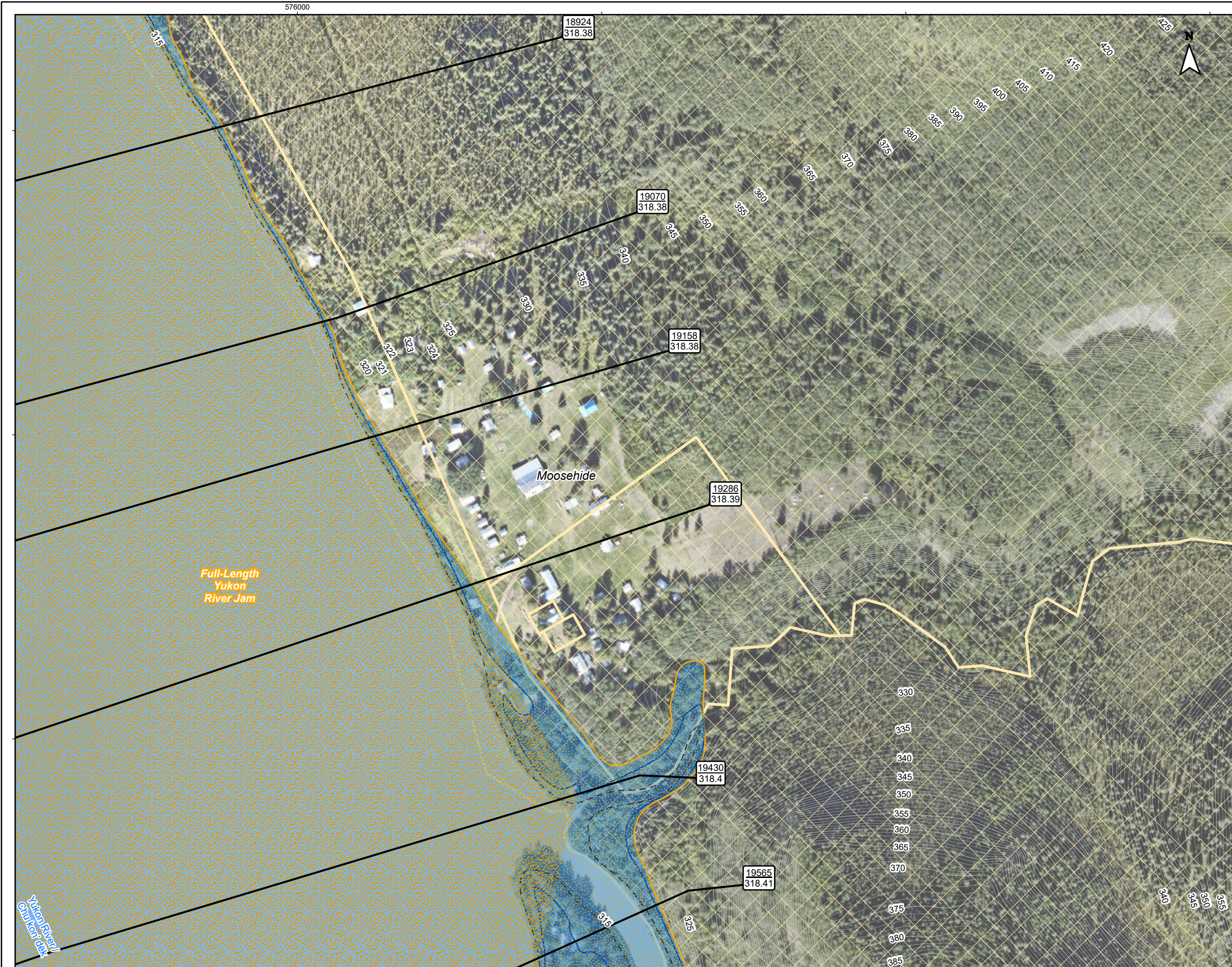


Figure No. **DC-5-07** Sheet 07 of 07

Title: **Dawson City and Klondike Valley Flood Mapping Study  
Composite Flood Hazard Map - Yukon River  
5% Annual Exceedance Probability (AEP)**

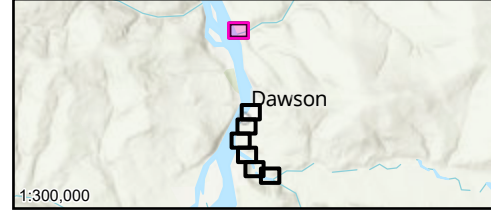
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- River Flow Direction
- Trondëk Hwëch'in Settlement Land
- Ground Elevations of Interest
- Approximate 50% AEP Open Water Flood Inundation
- Cross-Section Number  
WSE (m) Along Cross-Section
- Inundation Under Modelled Open Water Runs
- Cross-Section Number  
WSE (m) Along Cross-Section  
(WSE in Dike Breach Scenario)
- Inundation Under Modelled Breakup Ice Jam Runs
- Composite Open Water and Ice Jam Inundation Extent
- Major Contour (5m)
- Minor Contour (1m)
- Surveyed Cross-Sections Used in Hydraulic Model
- Potential Presence of Ice Debris During Jam Scenario
- Ice Jamming Extents

Map Publication Date: 03/06/2026  
0 25 50 75 100 125 m  
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