

**Title:** Dawson City and Klondike Valley Flood Mapping Study  
Composite Flood Hazard Map - Yukon River  
1% Annual Exceedance Probability (AEP)

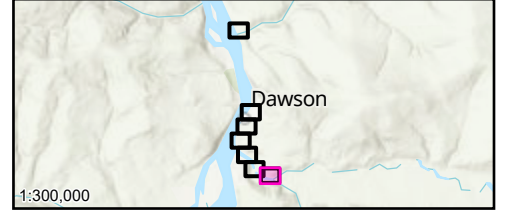
**Client/Project:**  
Government of Yukon  
Department of Environment  
Water Resources Branch

**Project:** 123222713

**Project Location:** Dawson, Yukon  
Prepared by MANDERSON on 2025-07-29  
Requested by JMUIRHEAD on 2024-03-30  
Review by JMUIRHEAD on 2025-07-29

- WSC Stations
- HPW Drainage Culverts
- Cross-Section Number WSE (m) Along Cross-Section
- Surveyed Culvert Location
- Bridge
- Highway
- Local Road
- Major Contour (5m)
- Minor Contour (1m)
- Surveyed Cross-Sections Used in Hydraulic Model
- Tr'ondëk Hwëch'in Settlement Land
- Inundation Under Modelled Open Water Runs
- Inundation Under Modelled Breakup Ice Jam Runs
- Approximate 50% AEP Open Water Flood Inundation
- Composite Open Water and Ice Jam Inundation Extents
- Ice Coverage in Breakup Jam Scenarios

Map Publication Date: 7/29/2025  
0 25 50 75 100 125 m  
(At original document size of 11x 17) 1:2,500



- Notes**
- Coordinate System: NAD 1983 CSRS UTM Zone 7N Vertical Datum: CGVD2013, Geoid: CGG2013a
  - Data Sources: GeoYukon, Canada Lands Survey (CLS) CCM 982, CANVEC
  - 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.
  - 50% AEP inundation lines are based on the 50% AEP flow estimate simulation in the hydraulic model which has been calibrated for higher AEP flood events and therefore should be considered approximate.
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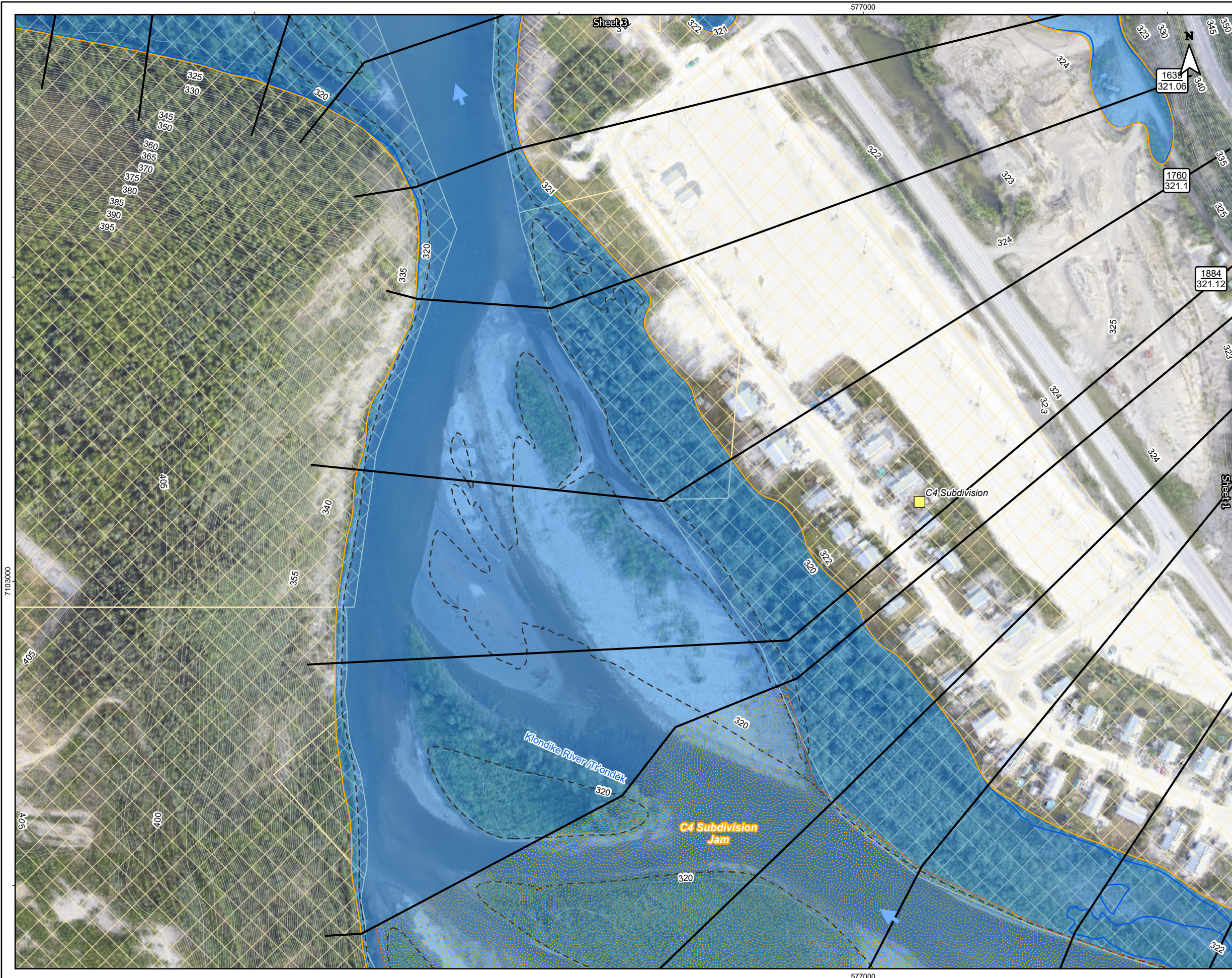


Figure No. **DC-1-02** Sheet 02 of 07

Title: **Dawson City and Klondike Valley Flood Mapping Study  
Composite Flood Hazard Map - Yukon River  
1% Annual Exceedance Probability (AEP)**

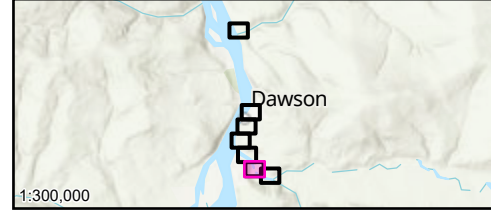
Client/Project:  
Government of Yukon  
Department of Environment  
Water Resources Branch

Project: 123222713

Project Location: Dawson, Yukon  
Prepared by MANDERSON on 2025-07-29  
Requested by JMUIRHEAD on 2024-03-30  
Review by JMUIRHEAD on 2025-07-29

- 57  
517.2 Cross-Section Number WSE (m) Along Cross-Section
- Highway
- Local Road
- Major Contour (5m)
- Minor Contour (1m)
- Surveyed Cross-Sections Used in Hydraulic Model
- Tr'ondëk Hwëch'in Settlement Land
- Inundation Under Modelled Open Water Runs
- Inundation Under Modelled Breakup Ice Jam Runs
- Approximate 50% AEP Open Water Flood Inundation
- Composite Open Water and Ice Jam Inundation Extents
- Ice Coverage in Breakup Jam Scenarios

Map Publication Date: 7/29/2025  
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(At original document size of 11x 17) 1:2,500



Notes  
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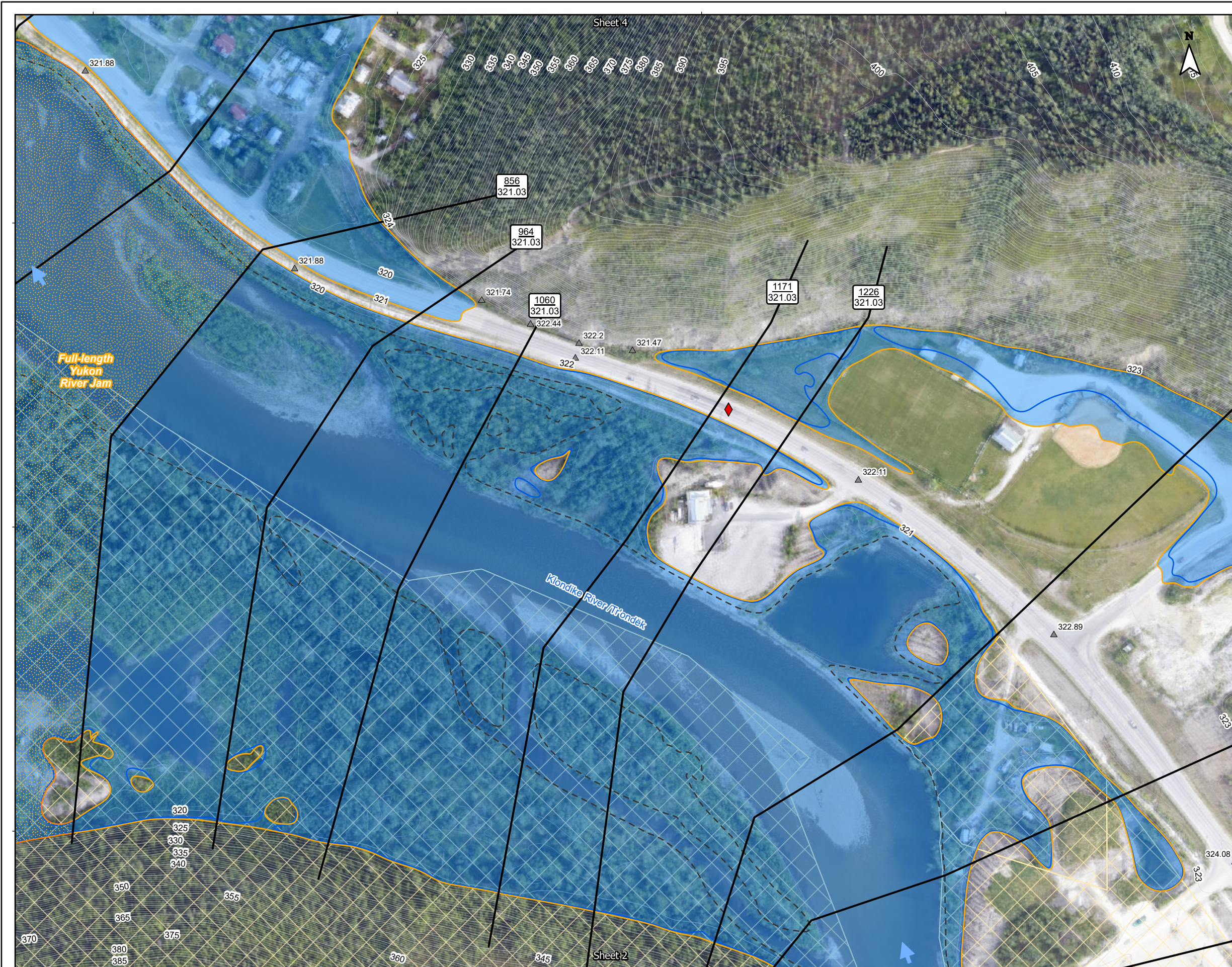


Figure No. **DC-1-03** Sheet 03 of 07

Title: **Dawson City and Klondike Valley Flood Mapping Study  
Composite Flood Hazard Map - Yukon River  
1% Annual Exceedance Probability (AEP)**

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

Project: 123222713

Project Location: Dawson, Yukon

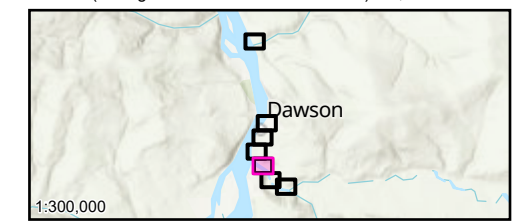
Prepared by MANDERSON on 2025-07-29  
Requested by JMUIRHEAD on 2024-03-30  
Review by JMUIRHEAD on 2025-07-29

- ▲ Ground Elevations of Interest
- ◆ HPW Drainage Culverts
- 57 / 517.2 Cross-Section Number WSE (m) Along Cross-Section
- Highway
- Local Road
- Major Contour (5m)
- Minor Contour (1m)
- Surveyed Cross-Sections Used in Hydraulic Model
- Tr'ondëk Hwëch'in Settlement Land
- Inundation Under Modelled Open Water Runs
- Inundation Under Modelled Breakup Ice Jam Runs
- Approximate 50% AEP Open Water Flood Inundation
- Composite Open Water and Ice Jam Inundation Extents
- Ice Coverage in Breakup Jam Scenarios

Map Publication Date: 7/29/2025

0 25 50 75 100 125 m

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



**Notes**

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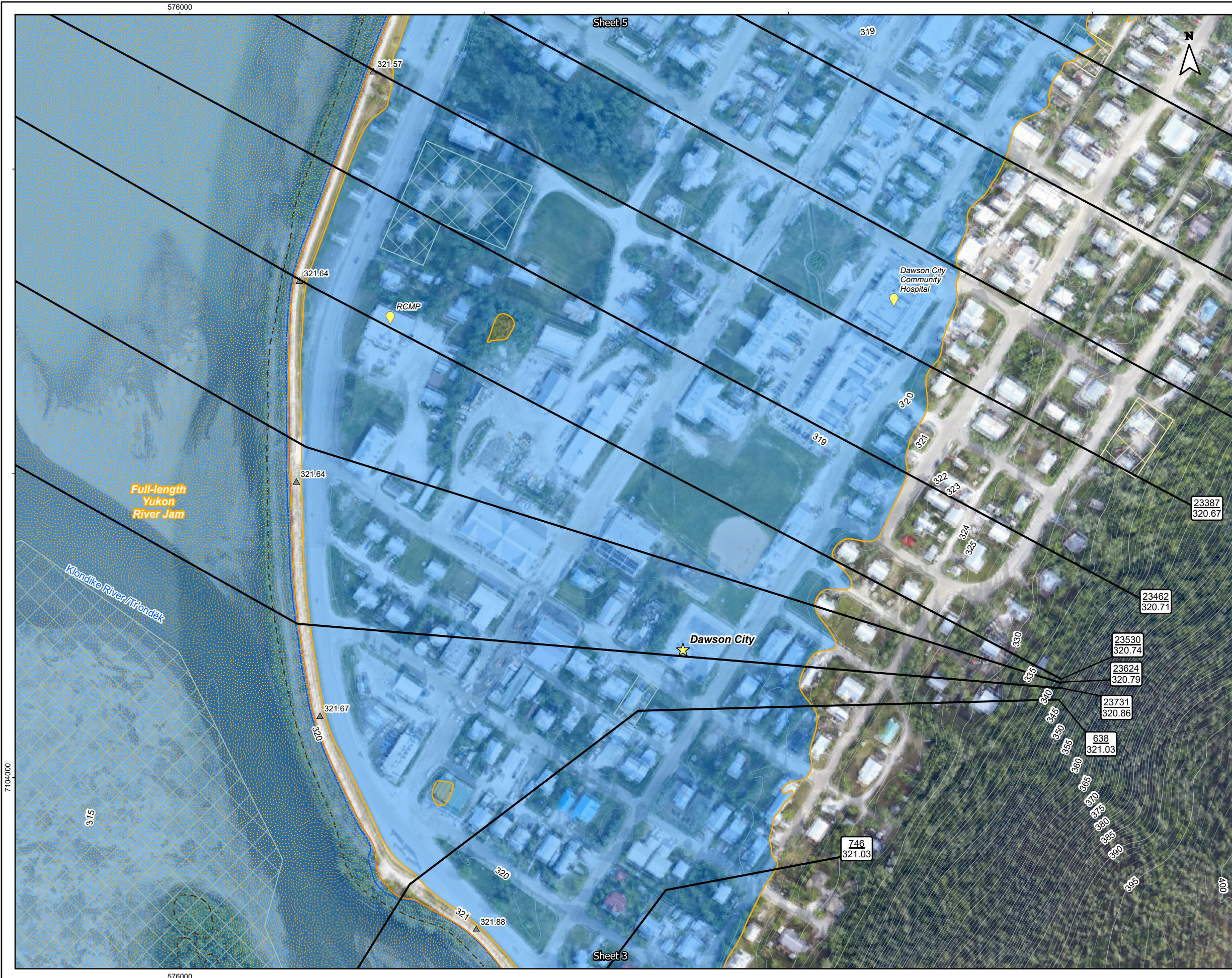


Figure No. **DC-1-04** Sheet 04 of 07

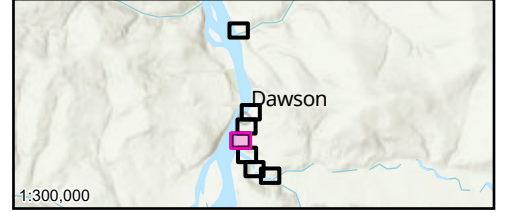
Title: **Dawson City and Klondike Valley Flood Mapping Study  
Composite Flood Hazard Map - Yukon River  
1% Annual Exceedance Probability (AEP)**

Client/Project:  
Government of Yukon  
Department of Environment  
Water Resources Branch  
  
Project: 123222713

Project Location: Dawson, Yukon  
Prepared by MANDERSON on 2025-07-29  
Requested by JMUIRHEAD on 2024-03-30  
Review by JMUIRHEAD on 2025-07-29

- ★ Point of Interest
- ▲ Ground Elevations of Interest
- 57 / 517.2 Cross-Section Number WSE (m) Along Cross-Section
- Highway
- Local Road
- Major Contour (5m)
- Minor Contour (1m)
- Surveyed Cross-Sections Used in Hydraulic Model
- Tr'ondëk Hwëch'in Settlement Land
- Inundation Under Modelled Open Water Runs
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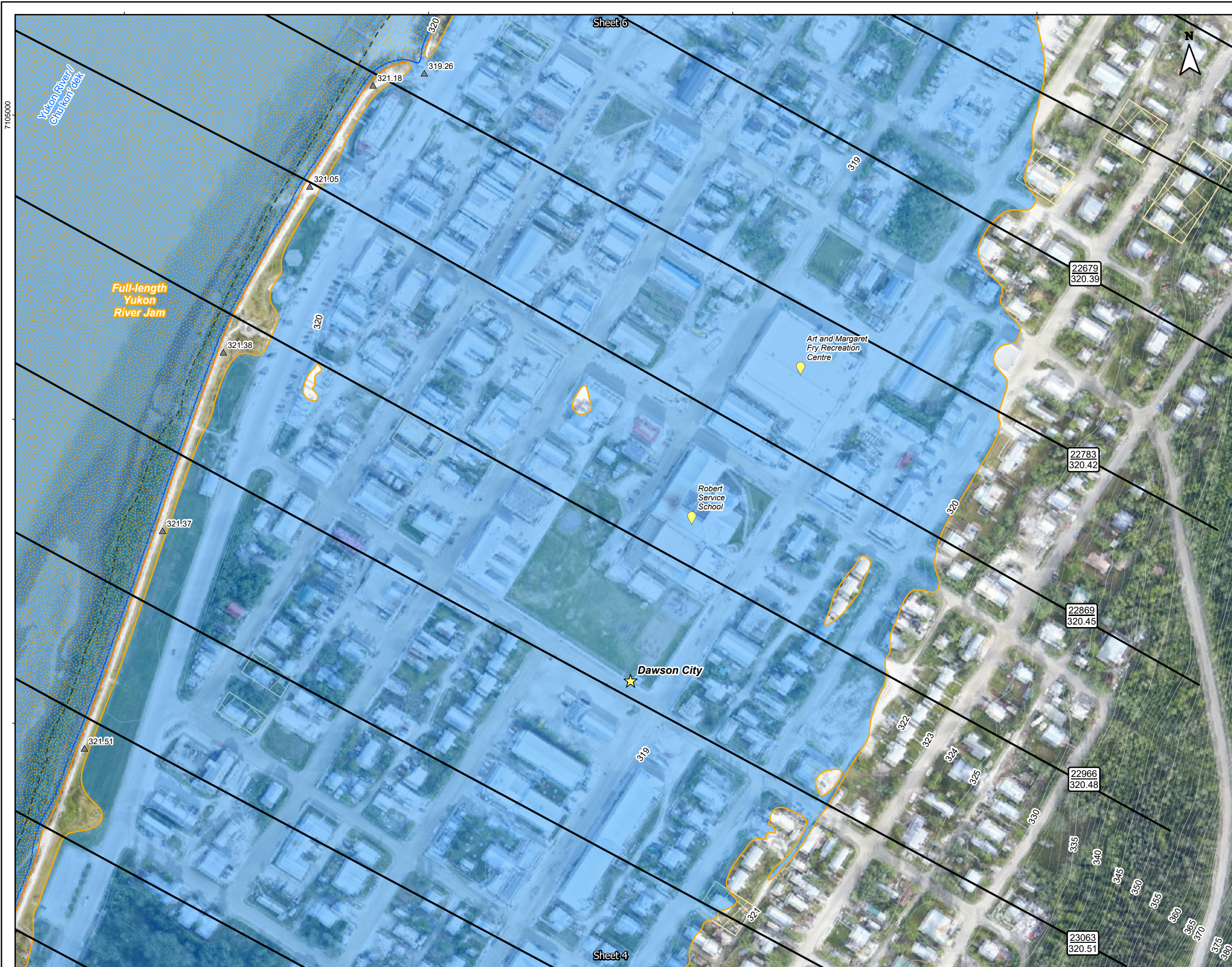


Figure No. **DC-1-05** Sheet 05 of 07

Title: **Dawson City and Klondike Valley Flood Mapping Study  
Composite Flood Hazard Map - Yukon River  
1% Annual Exceedance Probability (AEP)**

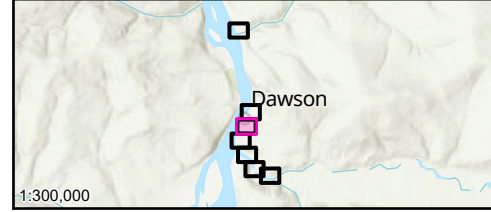
Client/Project:  
Government of Yukon  
Department of Environment  
Water Resources Branch

Project: 123222713

Project Location: Dawson, Yukon  
Prepared by MANDERSON on 2025-07-29  
Requested by JMUIRHEAD on 2024-03-30  
Review by JMUIRHEAD on 2025-07-29

- |  |   |
|--|---|
| River Flow Direction                             | Surveyed Cross-Sections Used in Hydraulic Model     |
| Point of Interest                                | Tr'ondëk Hwëch'in Settlement Land                   |
| 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      |
| Highway  | Approximate 50% AEP Open Water Flood Inundation     |
| Local Road                                       | Composite Open Water and Ice Jam Inundation Extents |
| Major Contour (5m)                               | Ice Coverage in Breakup Jam Scenarios               |
| Minor Contour (1m)                               |   |

Map Publication Date: 7/29/2025  
0 25 50 75 100 125 m  
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Figure No. **DC-1-06** Sheet 06 of 07

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Composite Flood Hazard Map - Yukon River  
1% Annual Exceedance Probability (AEP)**

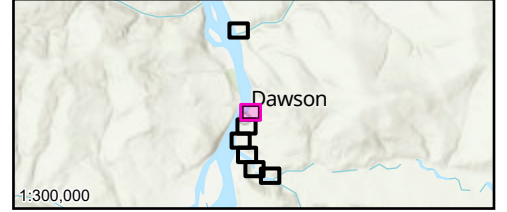
Client/Project:  
Government of Yukon  
Department of Environment  
Water Resources Branch

Project: 123222713

Project Location: Dawson, Yukon  
Prepared by MANDERSON on 2025-07-29  
Requested by JMUIRHEAD on 2024-03-30  
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- River Flow Direction
- Point of Interest
- Ground Elevations of Interest
- Cross-Section Number WSE (m) Along Cross-Section
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- Local Road
- Major Contour (5m)
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Composite Flood Hazard Map - Yukon River  
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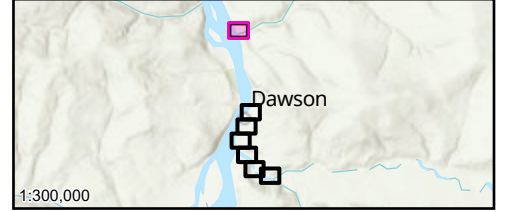
**Client/Project:**  
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**Project:** 123222713

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- River Flow Direction
- Cross-Section Number WSE (m) Along Cross-Section
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- Minor Contour (1m)
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