

Title: Dawson City and Klondike Valley Flood Mapping Study
Composite Flood Hazard Map - Klondike River
0.5% Annual Exceedance Probability (AEP)

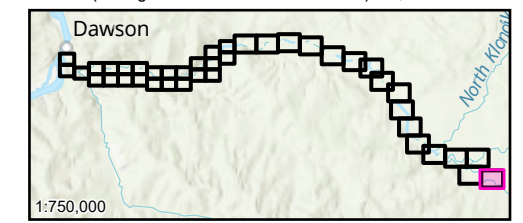
Client/Project:
Government of Yukon
Department of Environment
Water Resources Branch

Project: 123222713

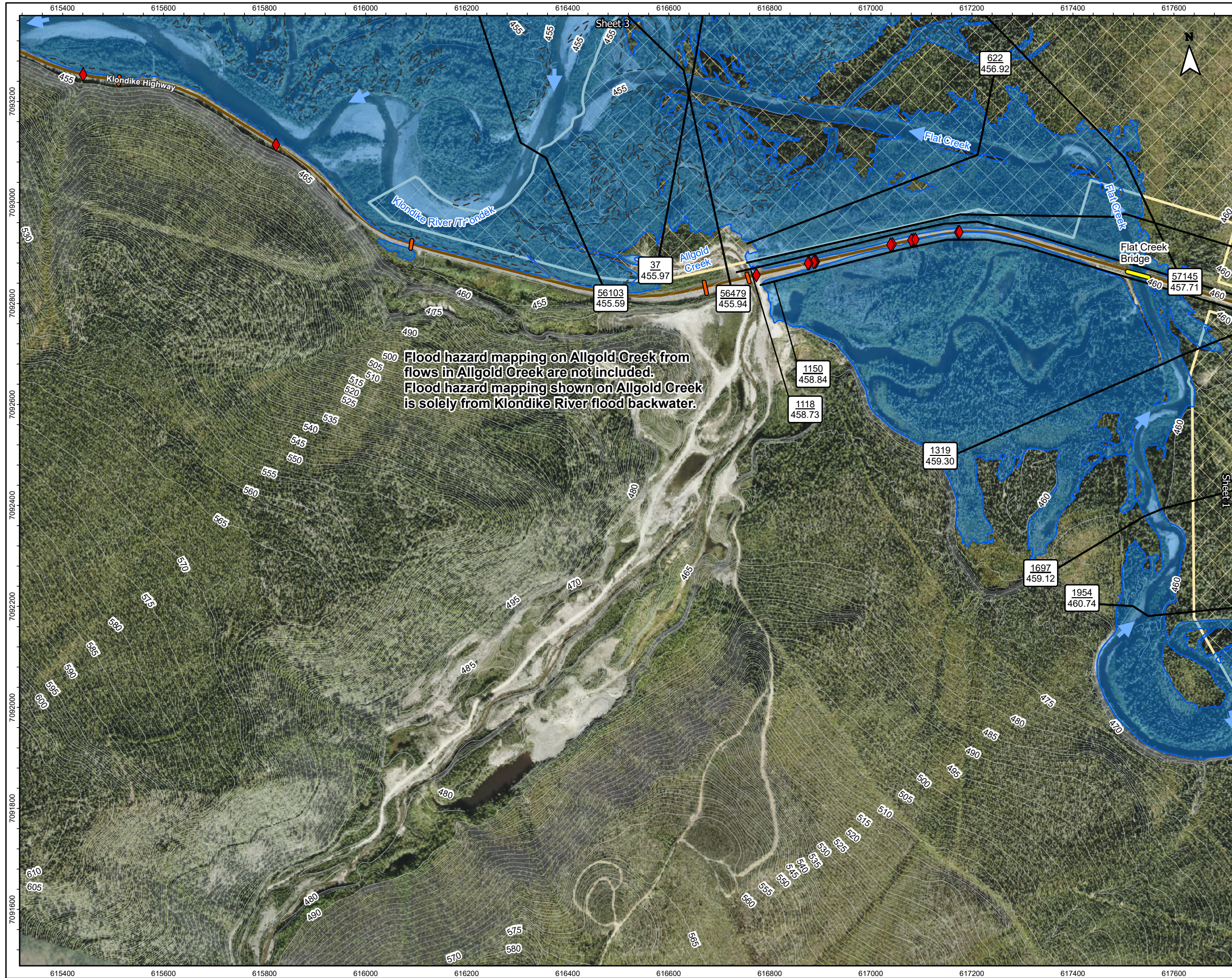
Project Location: Dawson, Yukon
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2026-03-06

- River Flow Direction
- Highway Kilometer Post
- HPW Drainage Culverts
- Cross-Section Number
WSE (m) Along Cross-Section
- Cross-Section Number
WSE (m) Along Cross-Section
(WSE in Dike Breach Scenario)
- Bridge
- Highway
- Local Road
- Major Contour (5m)
- Minor Contour (1m)
- Surveyed Cross-Sections
Used in Hydraulic Model
- Toe of Ice Jam
- Limit of Floodplain Mapping
- Tr'ondëk Hwëch'in Settlement
Land
- Inundation Under Modelled
Open Water Runs
- Composite Open Water and
Ice Jam Inundation Extent

Map Publication Date: 03/06/2026
0 100 200 300 400 m
(At original document size of 11x 17) 1:7,500



- Notes**
- Coordinate System: NAD 1983 CSRS UTM Zone 7N Vertical Datum: CGVD2013, Geoid: CGG2013a
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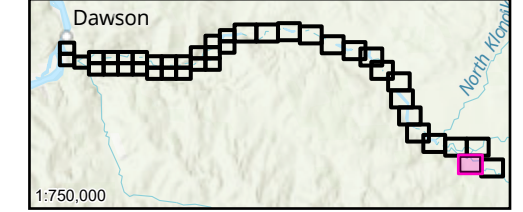
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- | | |
|--|--|
| River Flow Direction | Major Contour (5m) |
| Highway Kilometer Post | Minor Contour (1m) |
| HPW Drainage Culverts | Surveyed Cross-Sections Used in Hydraulic Model |
| Cross-Section Number
WSE (m) Along Cross-Section | Toe of Ice Jam |
| Cross-Section Number
WSE (m) Along Cross-Section
(WSE in Dike Breach Scenario) | Tr'ondëk Hwëch'in Settlement Land |
| Surveyed Culvert | Approximate 50% AEP Open Water Flood Inundation |
| Bridge | Inundation Under Modelled Open Water Runs |
| Highway | Inundation Under Modelled Breakup Ice Jam Runs |
| | Composite Open Water and Ice Jam Inundation Extent |

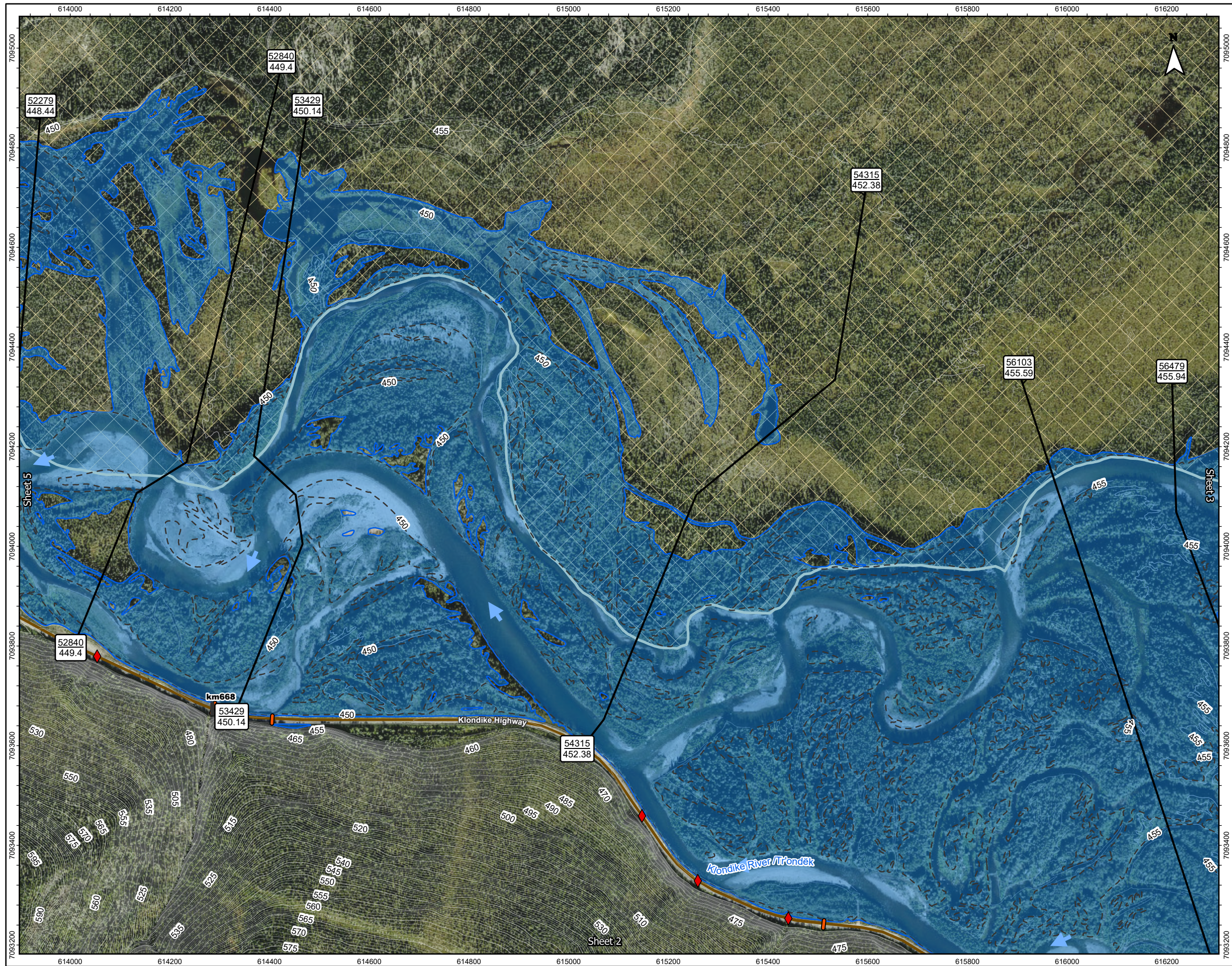
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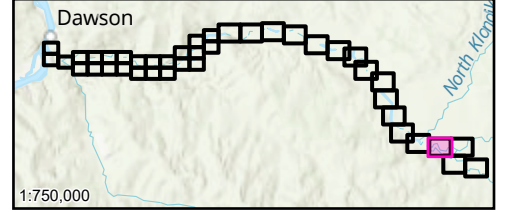
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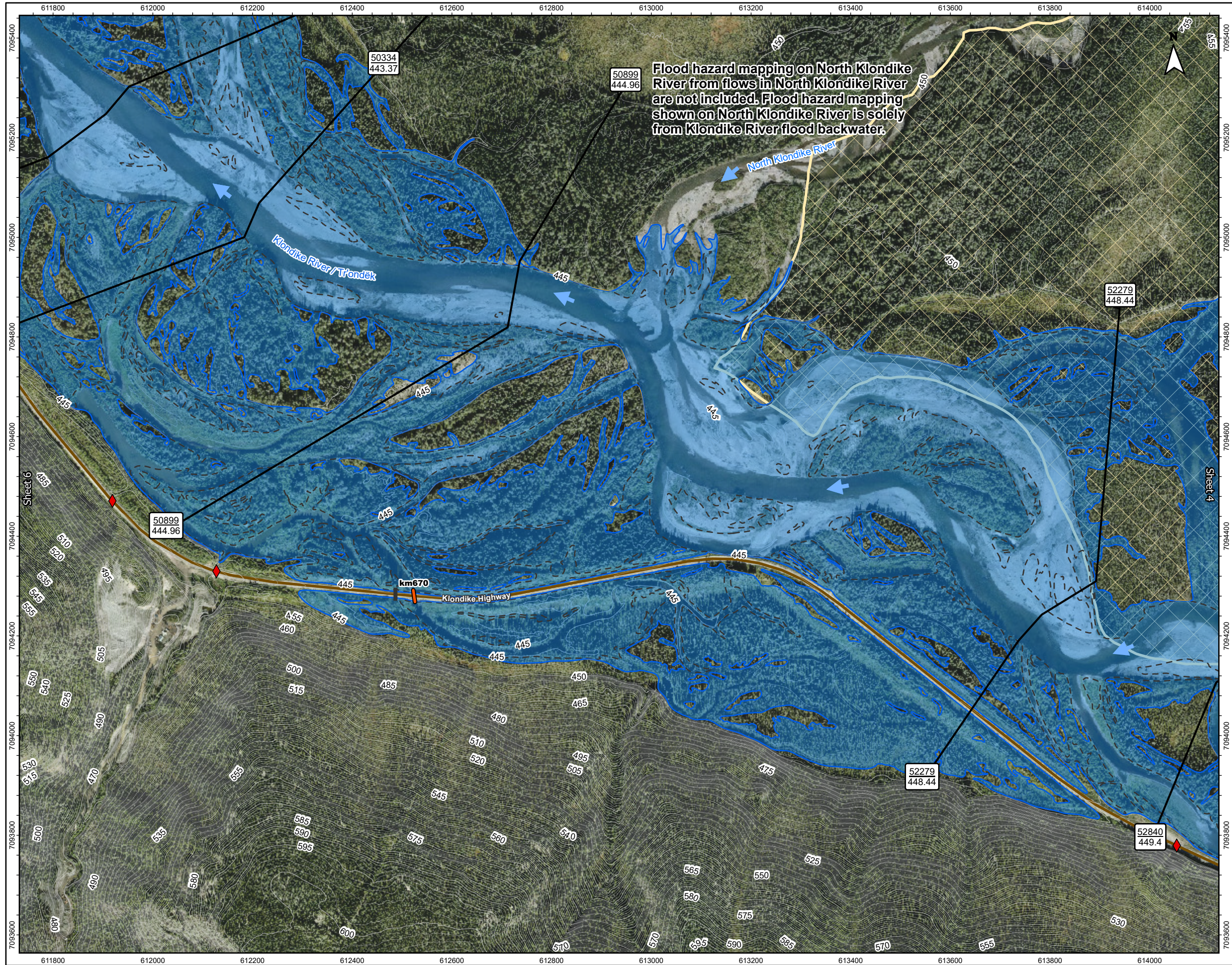
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- Surveyed Cross-Sections
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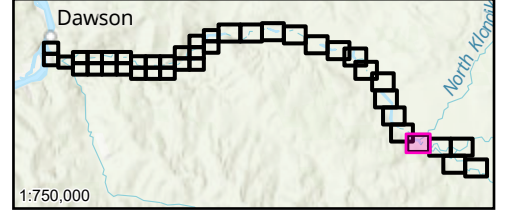
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- Inundation Under Modelled
Breakup Ice Jam Runs
- Composite Open Water and
Ice Jam Inundation Extent

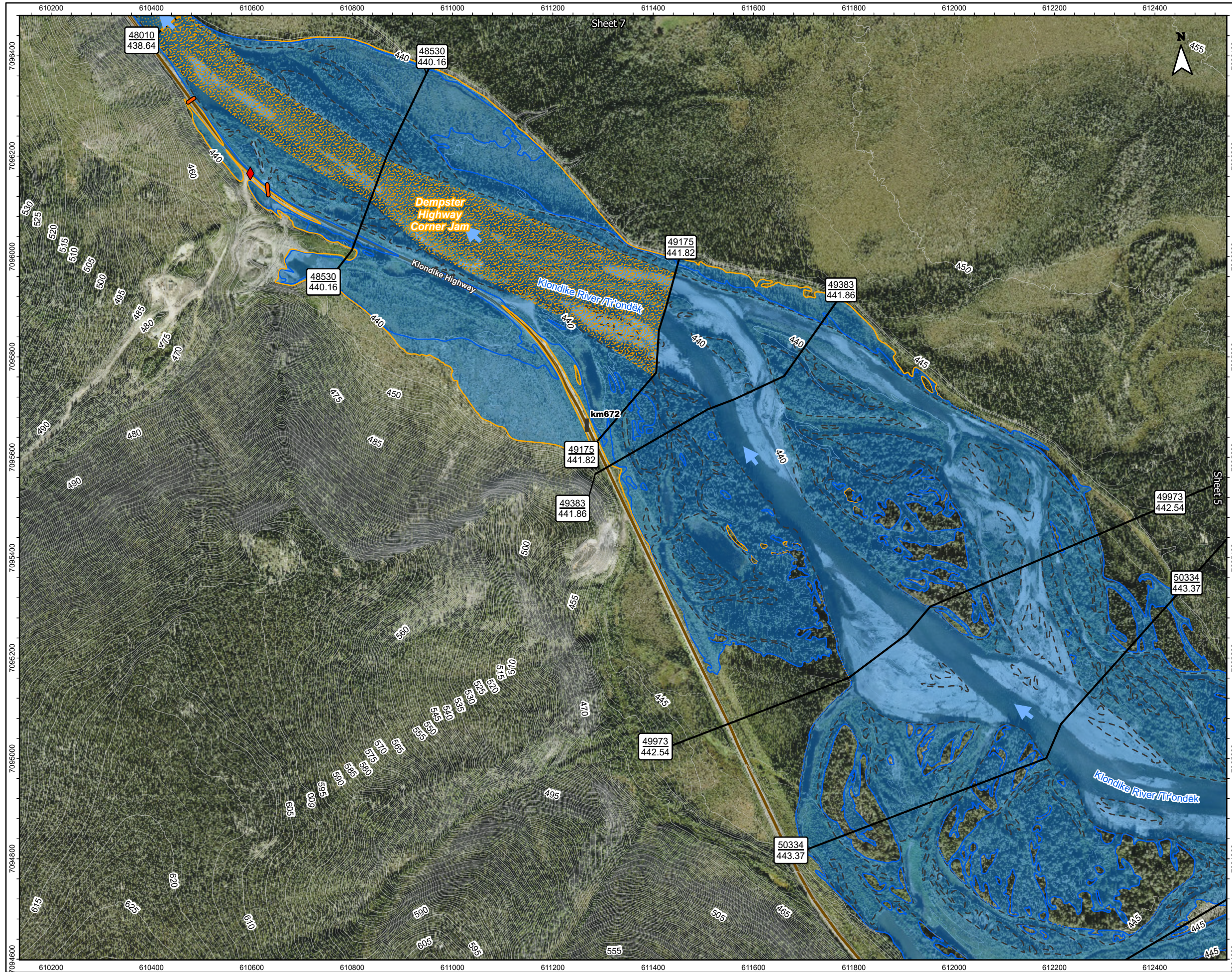
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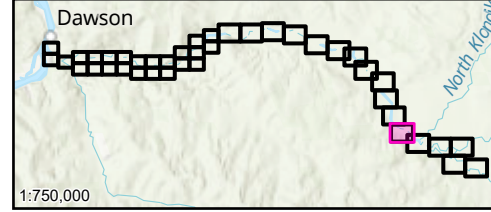
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Water Resources Branch

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Project Location: Dawson, Yukon
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- Cross-Section Number
WSE (m) Along Cross-Section
(WSE in Dike Breach Scenario)
- Surveyed Culvert
- Highway
- Major Contour (5m)
- Minor Contour (1m)
- Surveyed Cross-Sections
Used in Hydraulic Model
- Toe of Ice Jam
- 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
- Potential Presence of Ice
Debris During Jam Scenario
- Ice Jamming Extents

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Figure No. **KR-0.5-07** Sheet 07 of 41

Title: **Dawson City and Klondike Valley Flood Mapping Study
Composite Flood Hazard Map - Klondike River
0.5% Annual Exceedance Probability (AEP)**

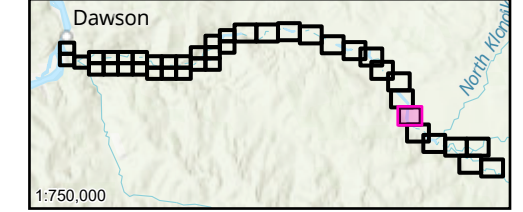
Client/Project:
Government of Yukon
Department of Environment
Water Resources Branch

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

- River Flow Direction
- Highway Kilometer Post
- Toe of Ice Jam
- Tr'ondëk Hwëch'in Settlement Land
- Cross-Section Number
WSE (m) Along Cross-Section
- Cross-Section Number
WSE (m) Along Cross-Section
(WSE in Dike Breach Scenario)
- 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
- Potential Presence of Ice Debris During Jam Scenario
- Ice Jamming Extents
- Surveyed Culvert
- Bridge
- Highway
- Local Road
- Major Contour (5m)
- Minor Contour (1m)

Map Publication Date: 03/06/2026
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Notes

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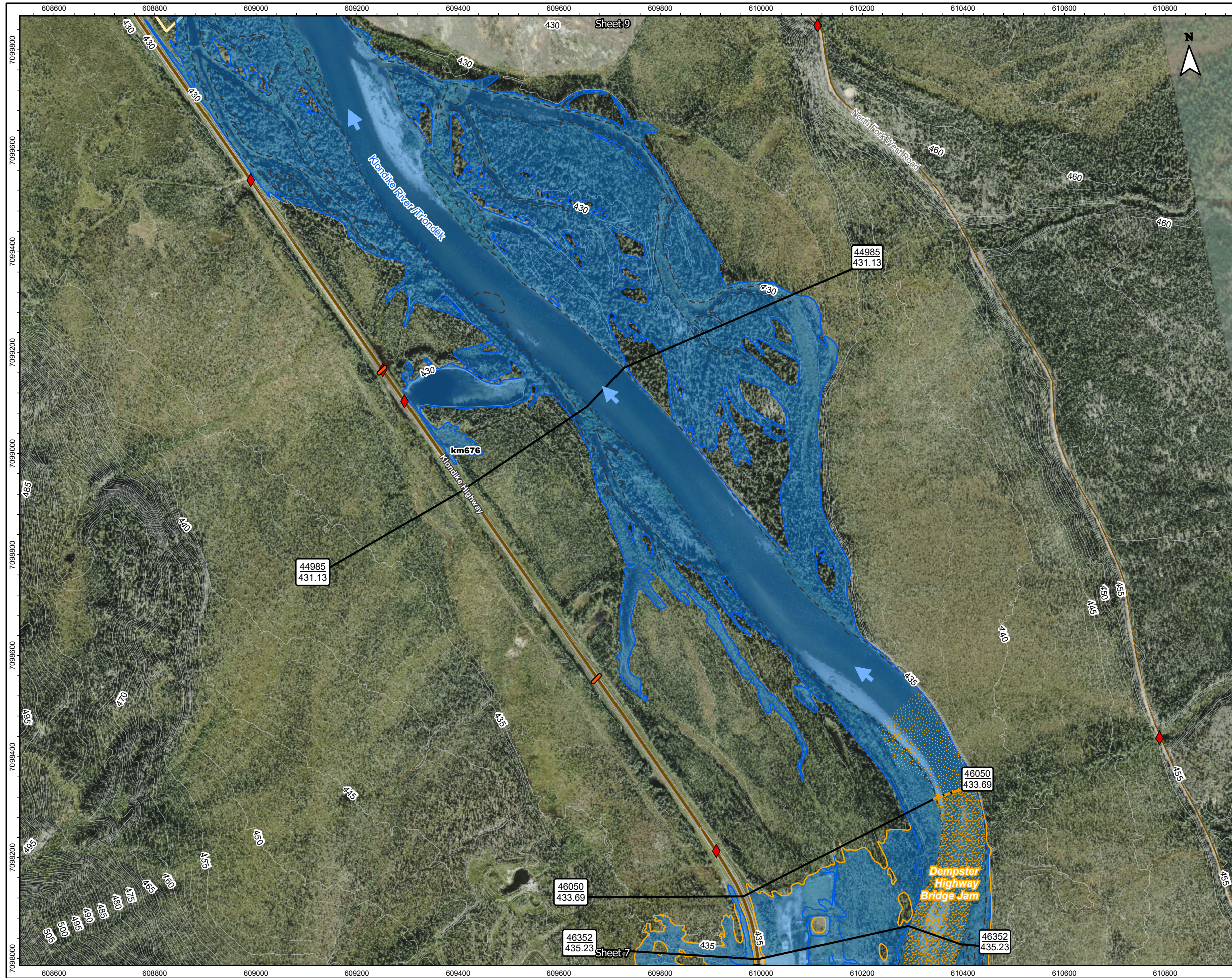


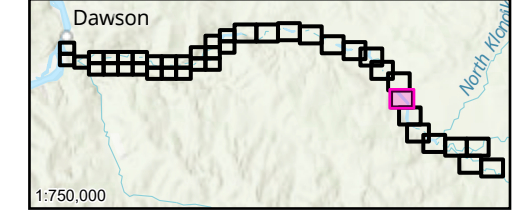
Figure No. **KR-0.5-08** Sheet 08 of 41
 Title: **Dawson City and Klondike Valley Flood Mapping Study Composite Flood Hazard Map - Klondike River 0.5% Annual Exceedance Probability (AEP)**

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

- River Flow Direction
- Highway Kilometer Post
- HPW Drainage Culverts
- Cross-Section Number
WSE (m) Along Cross-Section
- Cross-Section Number
WSE (m) Along Cross-Section
(WSE in Dike Breach Scenario)
- Surveyed Culvert
- Highway
- Local Road
- Major Contour (5m)
- Minor Contour (1m)
- Surveyed Cross-Sections Used in Hydraulic Model
- Toe of Ice Jam
- Tr'ondëk 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
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- Ice Jamming Extents

Map Publication Date: 03/06/2026
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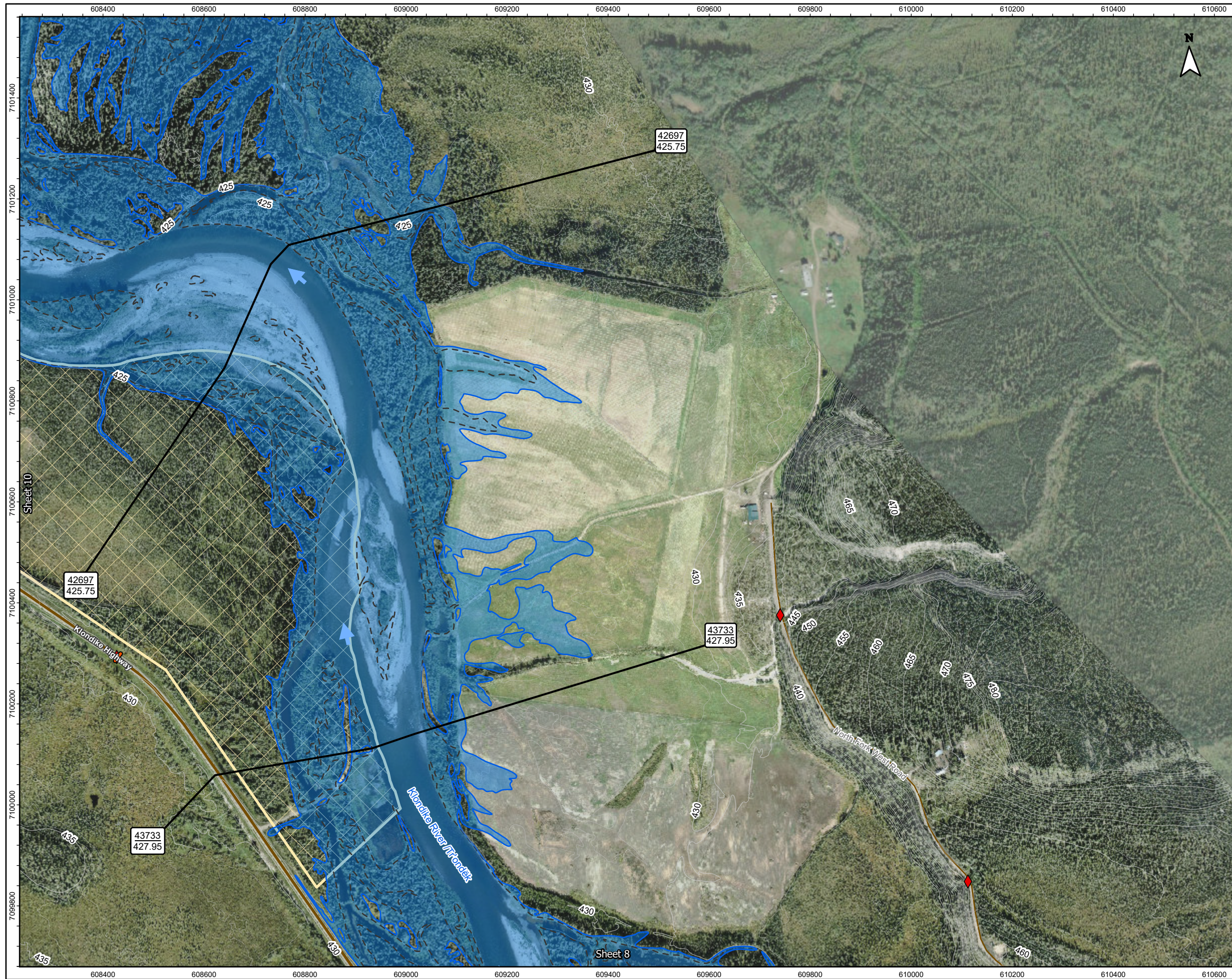


Figure No. **KR-0.5-09** Sheet 09 of 41

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Composite Flood Hazard Map - Klondike River
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Project: 123222713

Project Location: Dawson, Yukon

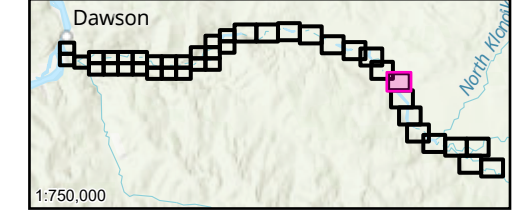
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- Approximate 50% AEP Open
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Map Publication Date: 03/06/2026

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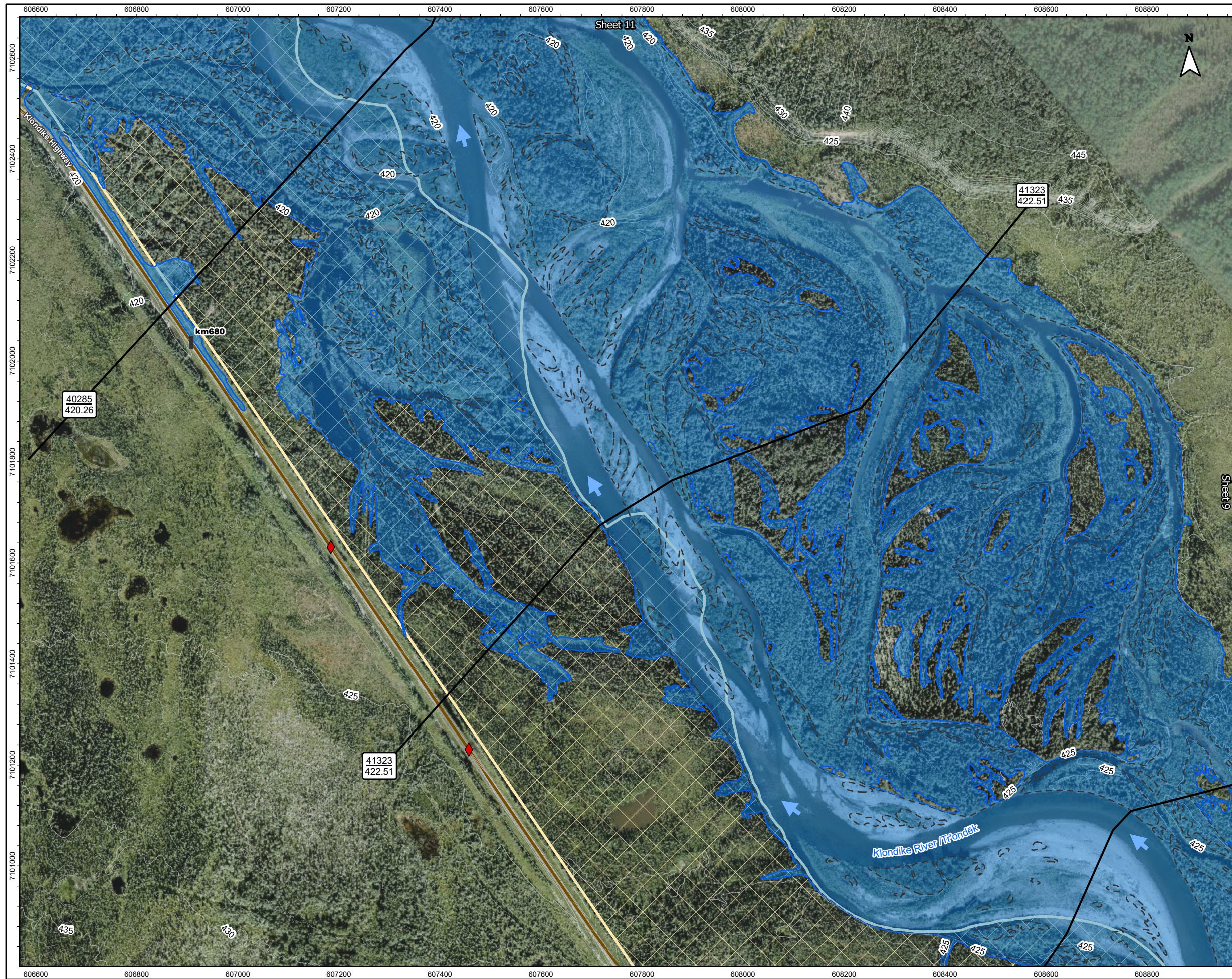


Figure No. **KR-0.5-10** Sheet 10 of 41

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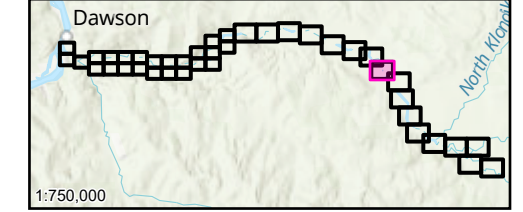
Client/Project:
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Project: 123222713

Project Location: Dawson, Yukon
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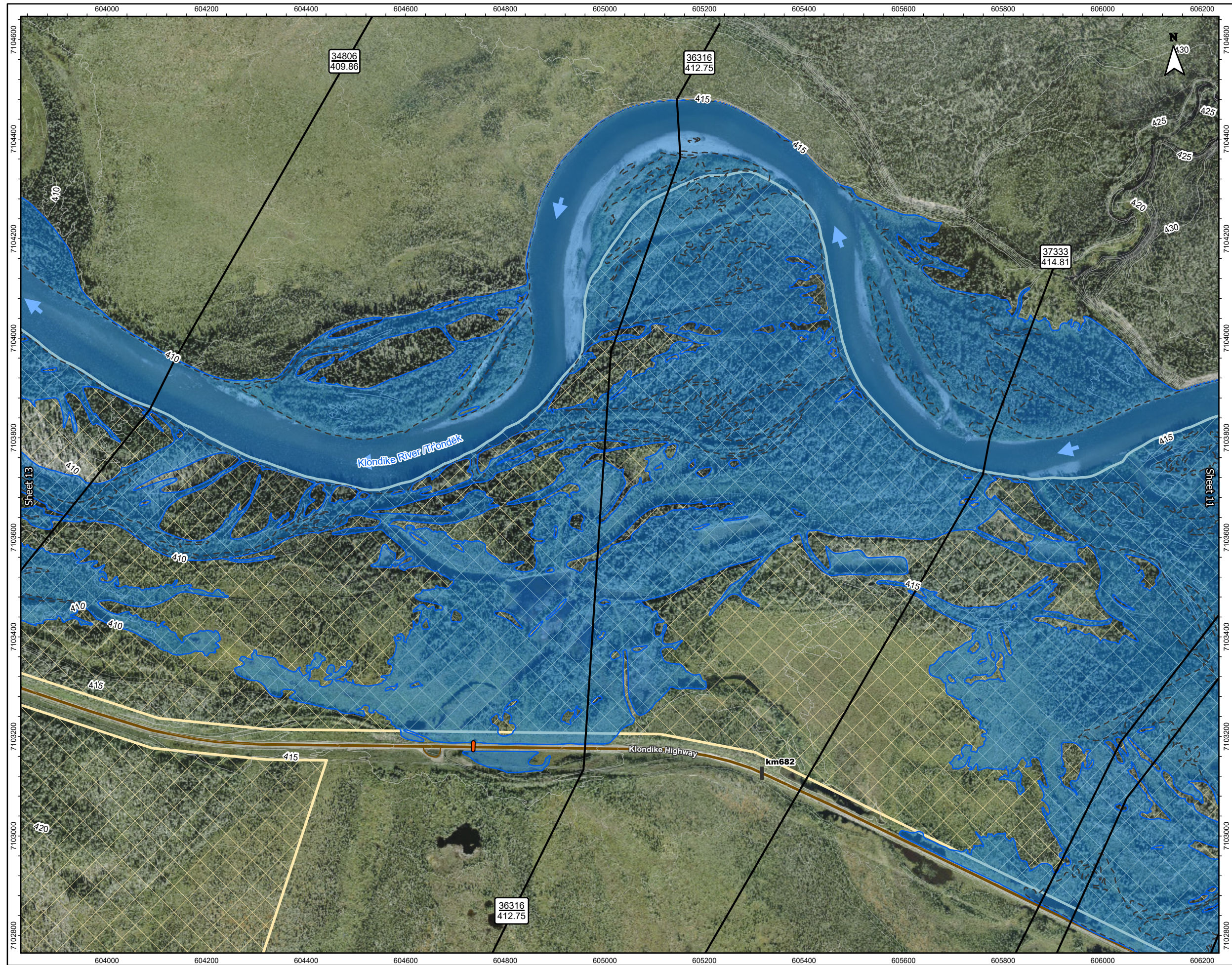
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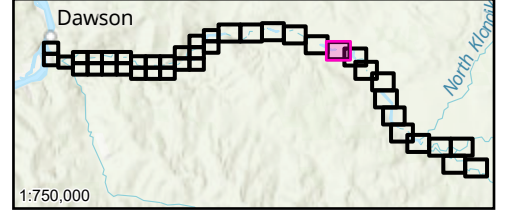
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Project: 123222713

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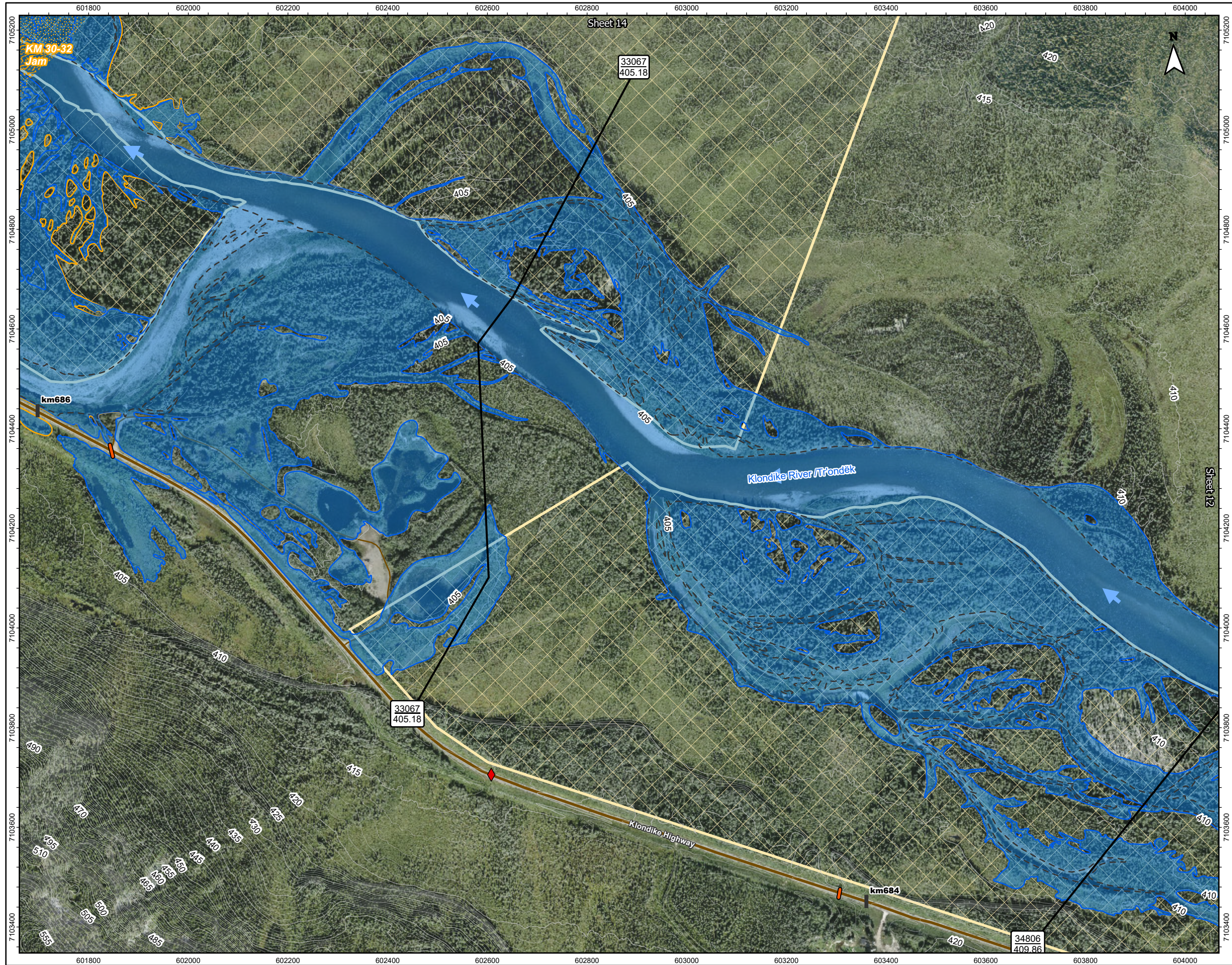


Figure No. **KR-0.5-13** Sheet 13 of 41

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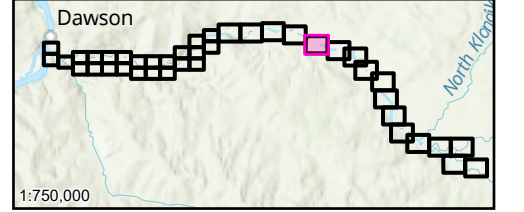
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2026-03-06

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

Map Publication Date: 03/06/2026

0 100 200 300 400 m

(At original document size of 11x 17) 1:7,500



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
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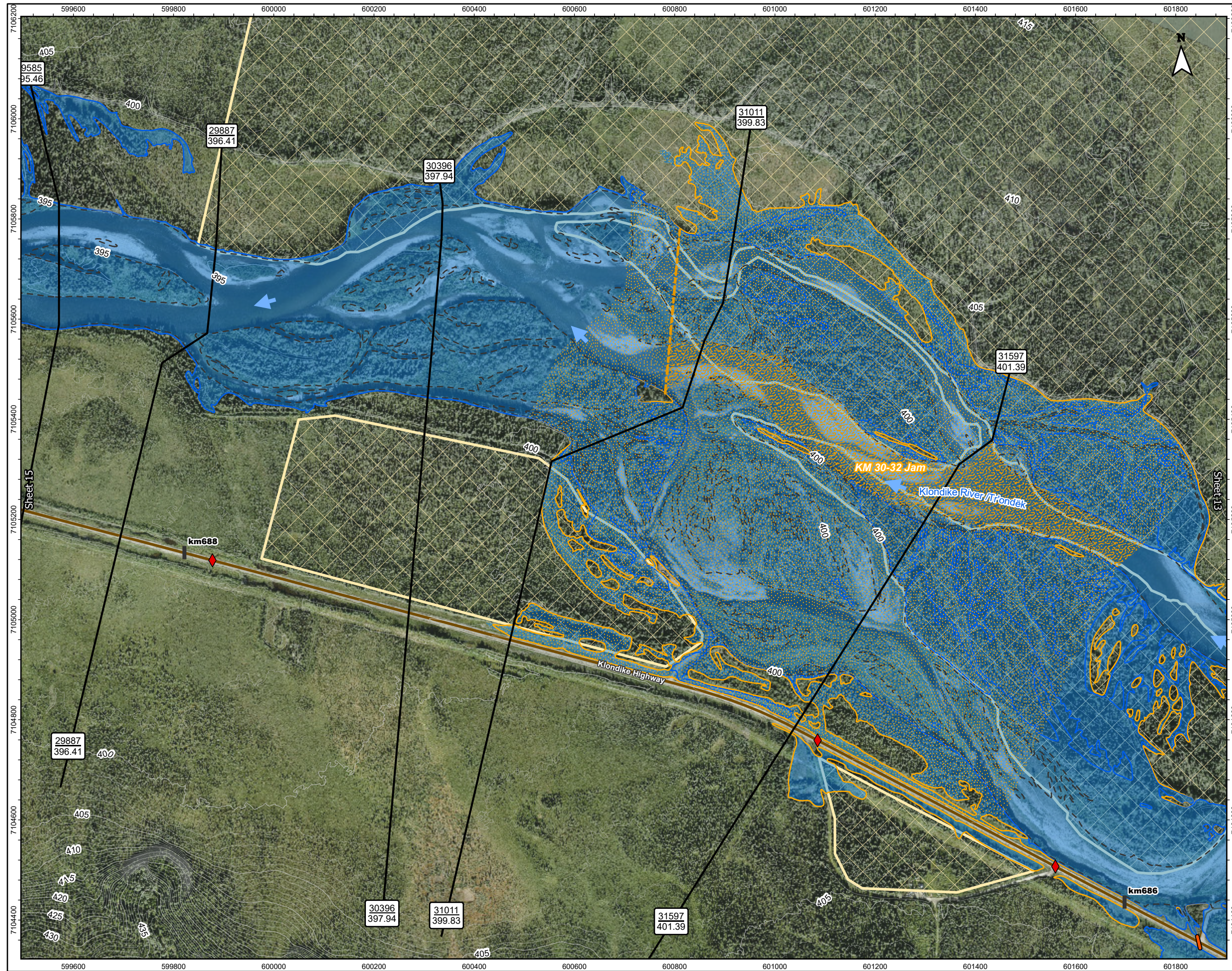


Figure No. **KR-0.5-14** Sheet 14 of 41

Title: **Dawson City and Klondike Valley Flood Mapping Study
Composite Flood Hazard Map - Klondike River
0.5% Annual Exceedance Probability (AEP)**

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

Project: 123222713

Project Location: Dawson, Yukon

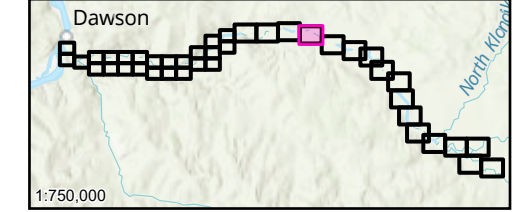
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2026-03-06

- River Flow Direction
- Highway Kilometer Post
- HPW Drainage Culverts
- Cross-Section Number
WSE (m) Along Cross-Section
- Cross-Section Number
WSE (m) Along Cross-Section
(WSE in Dike Breach Scenario)
- Surveyed Culvert
- Highway
- Local Road
- Major Contour (5m)
- Minor Contour (1m)
- Surveyed Cross-Sections
Used in Hydraulic Model
- Toe of Ice Jam
- Tr'ondëk 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
- Potential Presence of Ice
Debris During Jam Scenario
- Ice Jamming Extents

Map Publication Date: 03/06/2026

0 100 200 300 400 m

(At original document size of 11x 17) 1:7,500

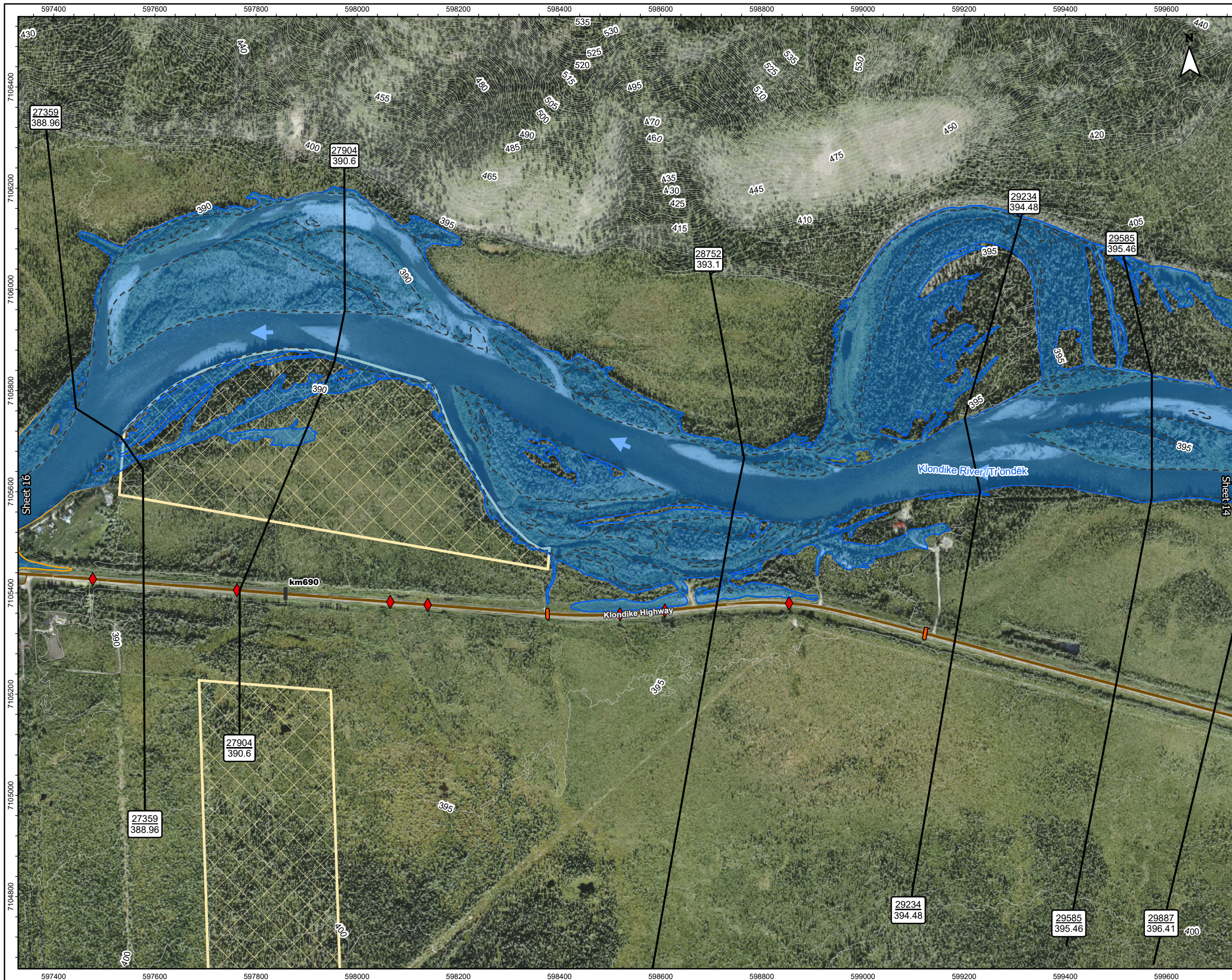


Notes

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Title: Dawson City and Klondike Valley Flood Mapping Study
Composite Flood Hazard Map - Klondike River
0.5% Annual Exceedance Probability (AEP)

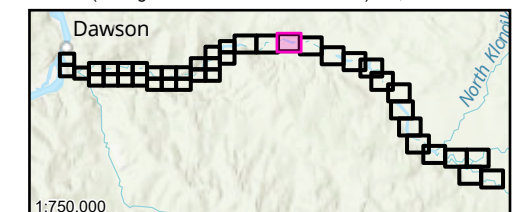
Client/Project:
Government of Yukon
Department of Environment
Water Resources Branch

Project: 123222713

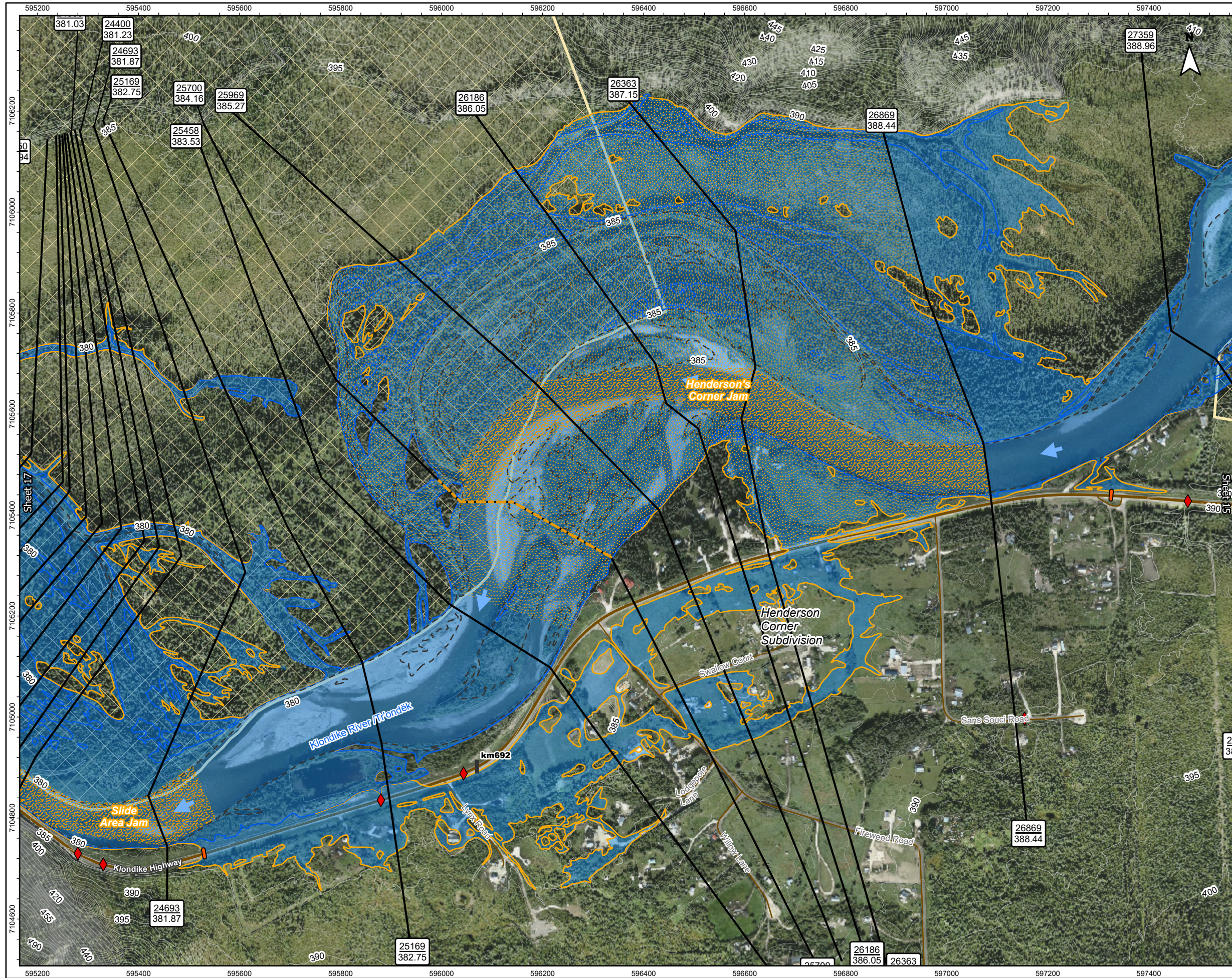
Project Location: Dawson, Yukon
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2026-03-06

- River Flow Direction
- Highway Kilometer Post
- HPW Drainage Culverts
- Cross-Section Number
WSE (m) Along Cross-Section
- Cross-Section Number
WSE (m) Along Cross-Section
(WSE in Dike Breach Scenario)
- Surveyed Culvert
- Highway
- Local Road
- Major Contour (5m)
- Minor Contour (1m)
- Surveyed Cross-Sections
Used in Hydraulic Model
- Toe of Ice Jam
- Tr'ondëk 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

Map Publication Date: 03/06/2026
0 100 200 300 400 m
(At original document size of 11x 17) 1:7,500



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
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Title: Dawson City and Klondike Valley Flood Mapping Study
Composite Flood Hazard Map - Klondike River
0.5% Annual Exceedance Probability (AEP)

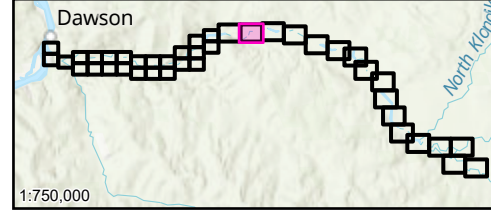
Client/Project:
Government of Yukon
Department of Environment
Water Resources Branch

Project: 123222713

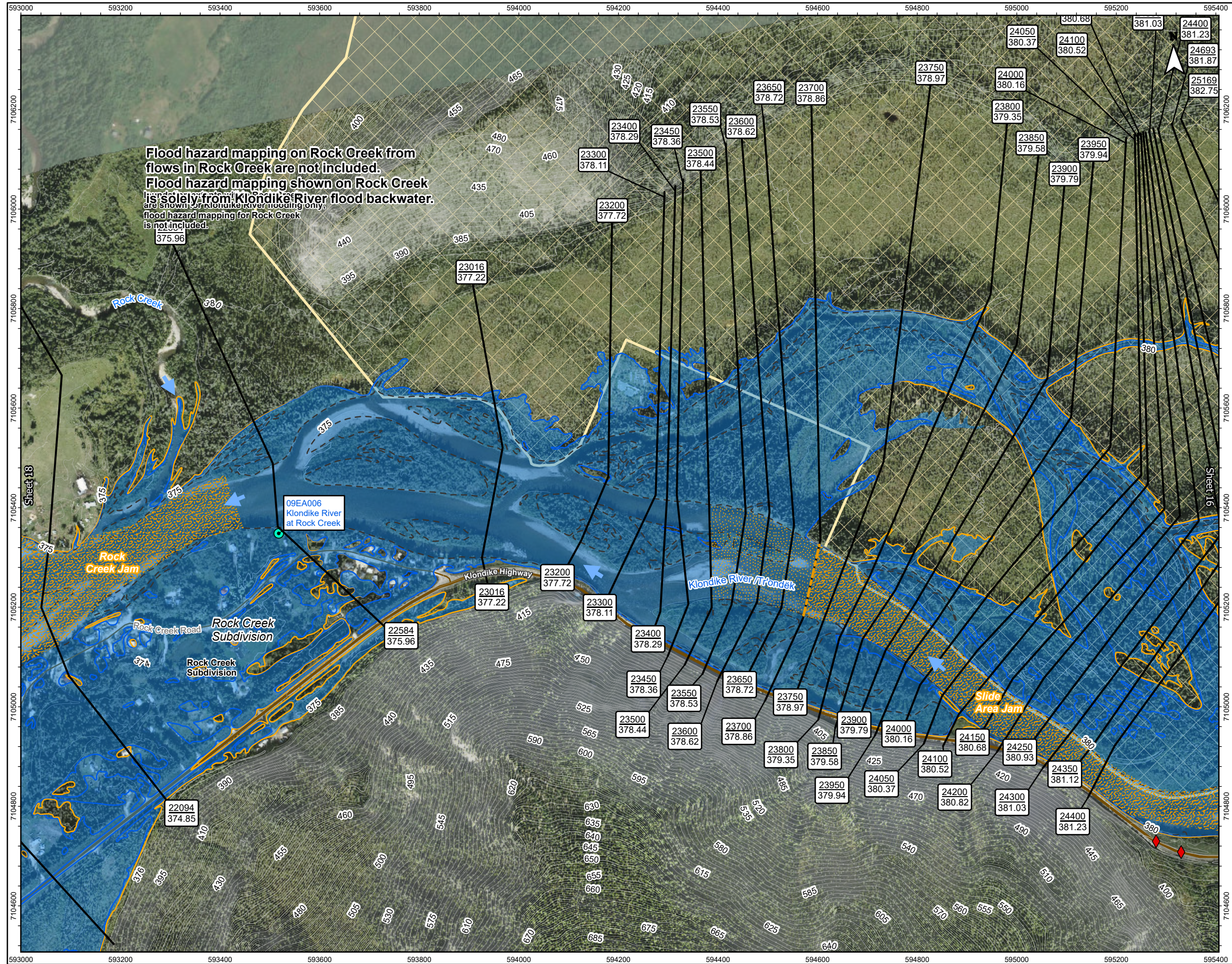
Project Location: Dawson, Yukon
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2026-03-06

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

Map Publication Date: 03/06/2026
0 100 200 300 400 m
(At original document size of 11x 17) 1:7,500



- 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 - Klondike River
0.5% Annual Exceedance Probability (AEP)**

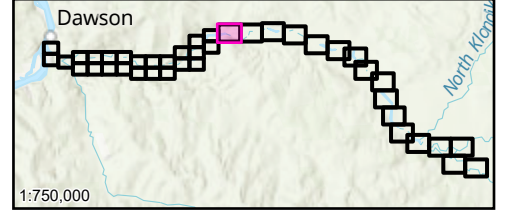
Client/Project:
Government of Yukon
Department of Environment
Water Resources Branch

Project: 123222713

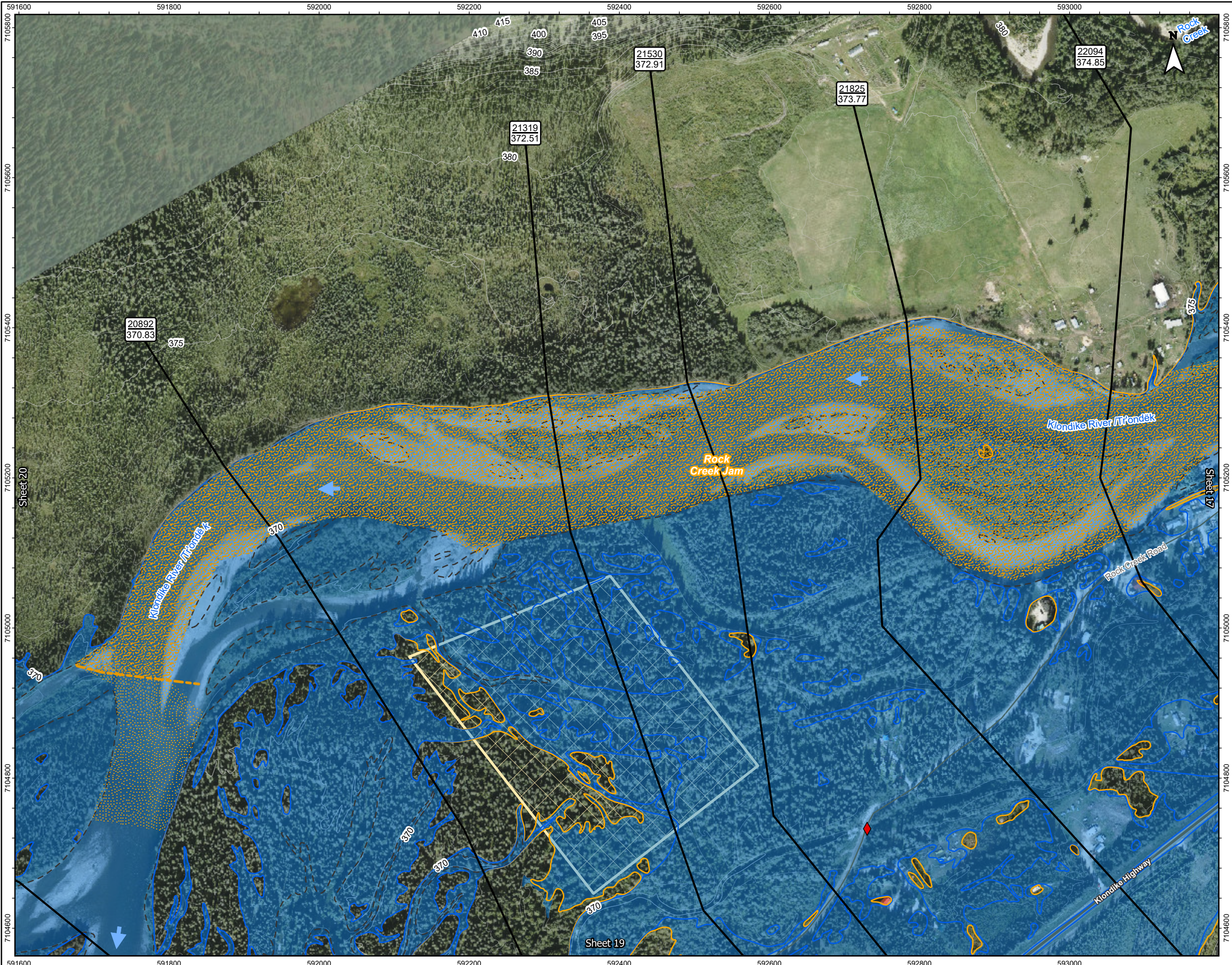
Project Location: Dawson, Yukon
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2026-03-06

- River Flow Direction
- WSC Stations
- Highway Kilometer Post
- HPW Drainage Culverts
- Cross-Section Number
WSE (m) Along Cross-Section
- Cross-Section Number
WSE (m) Along Cross-Section
(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
- T'ondék 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
- Potential Presence of Ice
Debris During Jam Scenario
- Ice Jamming Extents

Map Publication Date: 03/06/2026
0 100 200 300 400 m
(At original document size of 11x 17) 1:7,500



- Notes
- 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 - Klondike River
0.5% Annual Exceedance Probability (AEP)

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

Project: 123222713

Project Location: Dawson, Yukon

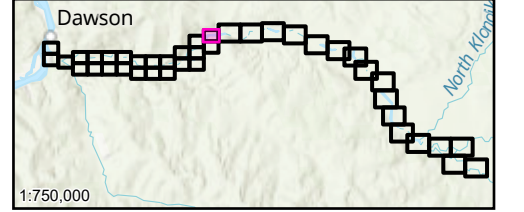
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2026-03-06

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

Map Publication Date: 03/06/2026

0 50 100 150 200 250 m

(At original document size of 11x 17) 1:5,000



- Notes**
1. Coordinate System: NAD 1983 CSRS UTM Zone 7N Vertical Datum: CGVD2013, Geoid: CGG2013a
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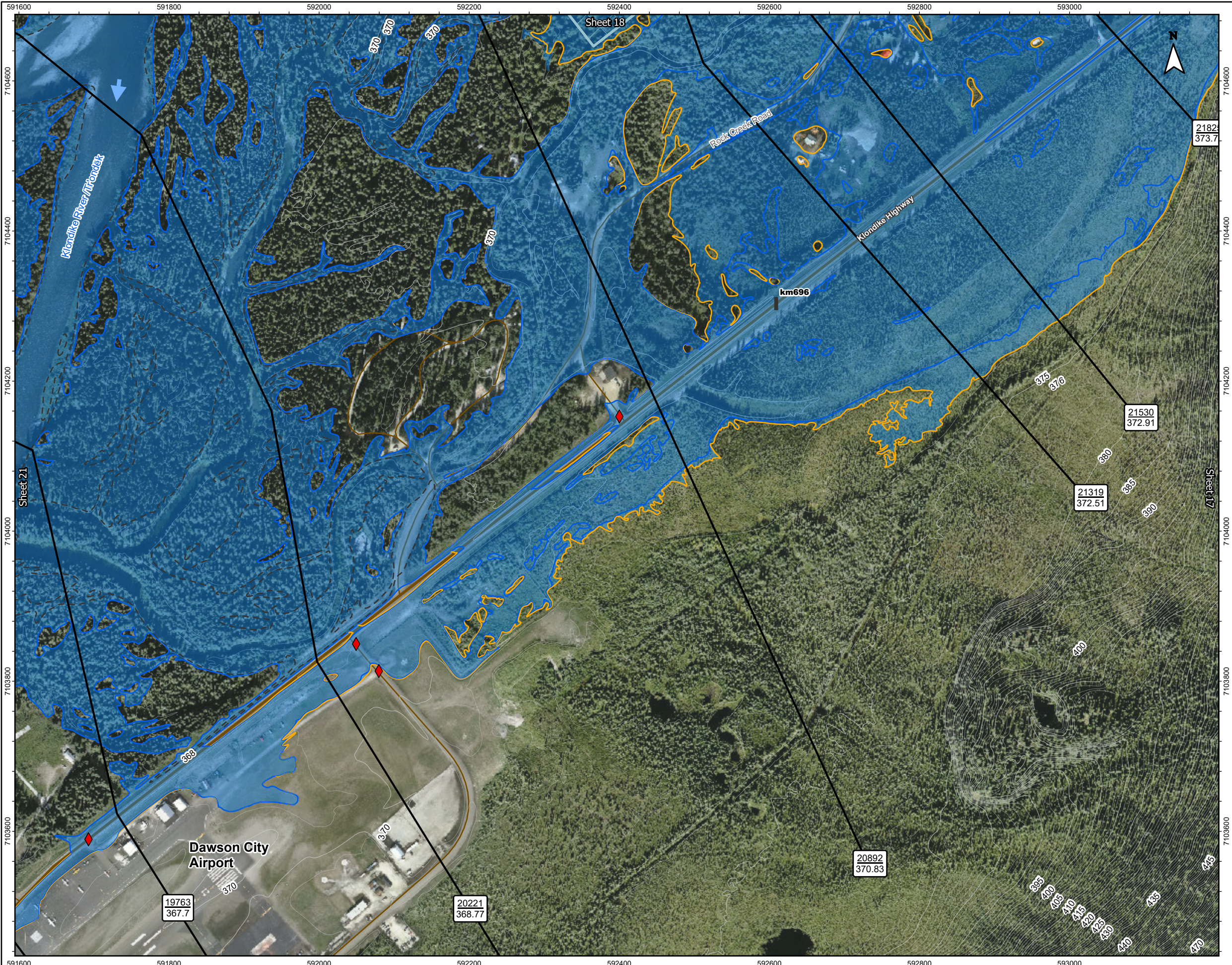


Figure No. **KR-0.5-19** Sheet 19 of 41

Title: **Dawson City and Klondike Valley Flood Mapping Study
Composite Flood Hazard Map - Klondike River
0.5% Annual Exceedance Probability (AEP)**

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

Project: 123222713

Project Location: Dawson, Yukon

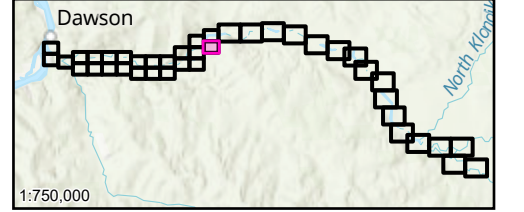
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2026-03-06

- | | | | |
|--|--|--|--|
| | River Flow Direction | | Minor Contour (1m) |
| | Highway Kilometer Post | | Surveyed Cross-Sections Used in Hydraulic Model |
| | HPW Drainage Culverts | | Toe of Ice Jam |
| | Cross-Section Number
WSE (m) Along Cross-Section | | Tr'ondëk Hwëch'in Settlement Land |
| | Cross-Section Number
WSE (m) Along Cross-Section
(WSE in Dike Breach Scenario) | | Approximate 50% AEP Open Water Flood Inundation |
| | 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 |

Map Publication Date: 03/06/2026

0 50 100 150 200 250 m

(At original document size of 11x 17) 1:5,000



- Notes
1. Coordinate System: NAD 1983 CSRS UTM Zone 7N Vertical Datum: CGVD2013, Geoid: CGG2013a
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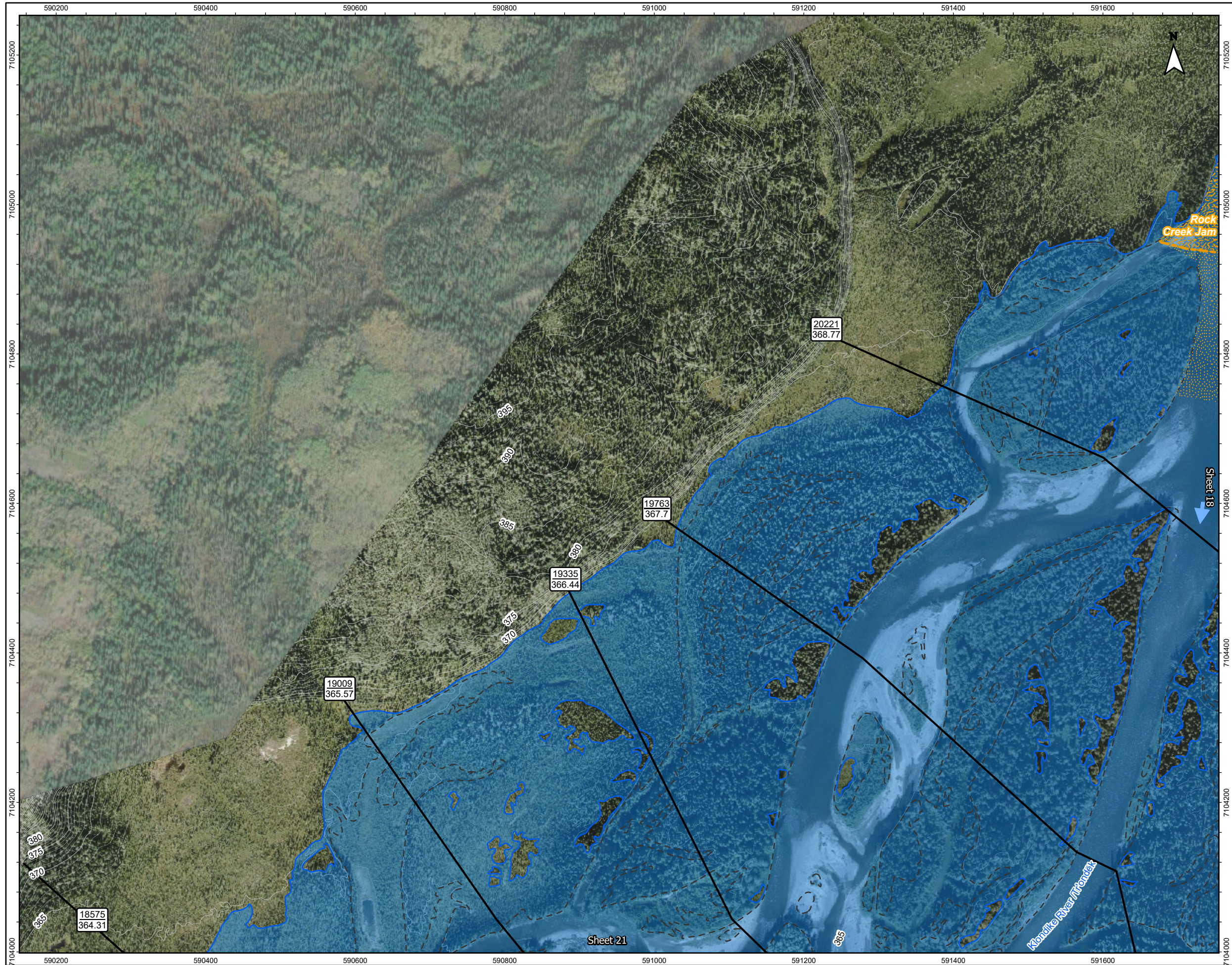


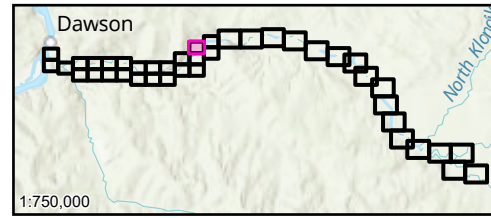
Figure No. **KR-0.5-20** Sheet 20 of 41
 Title: **Dawson City and Klondike Valley Flood Mapping Study Composite Flood Hazard Map - Klondike River 0.5% Annual Exceedance Probability (AEP)**

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

- River Flow Direction
- Toe of Ice Jam
- Highway Kilometer Post
- 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)
- Potential Presence of Ice Debris During Jam Scenario
- Minor Contour (1m)
- Ice Jamming Extents
- Surveyed Cross-Sections Used in Hydraulic Model

Map Publication Date: 03/06/2026
 0 50 100 150 200 250 m
 (At original document size of 11x 17) 1:5,000



- Notes
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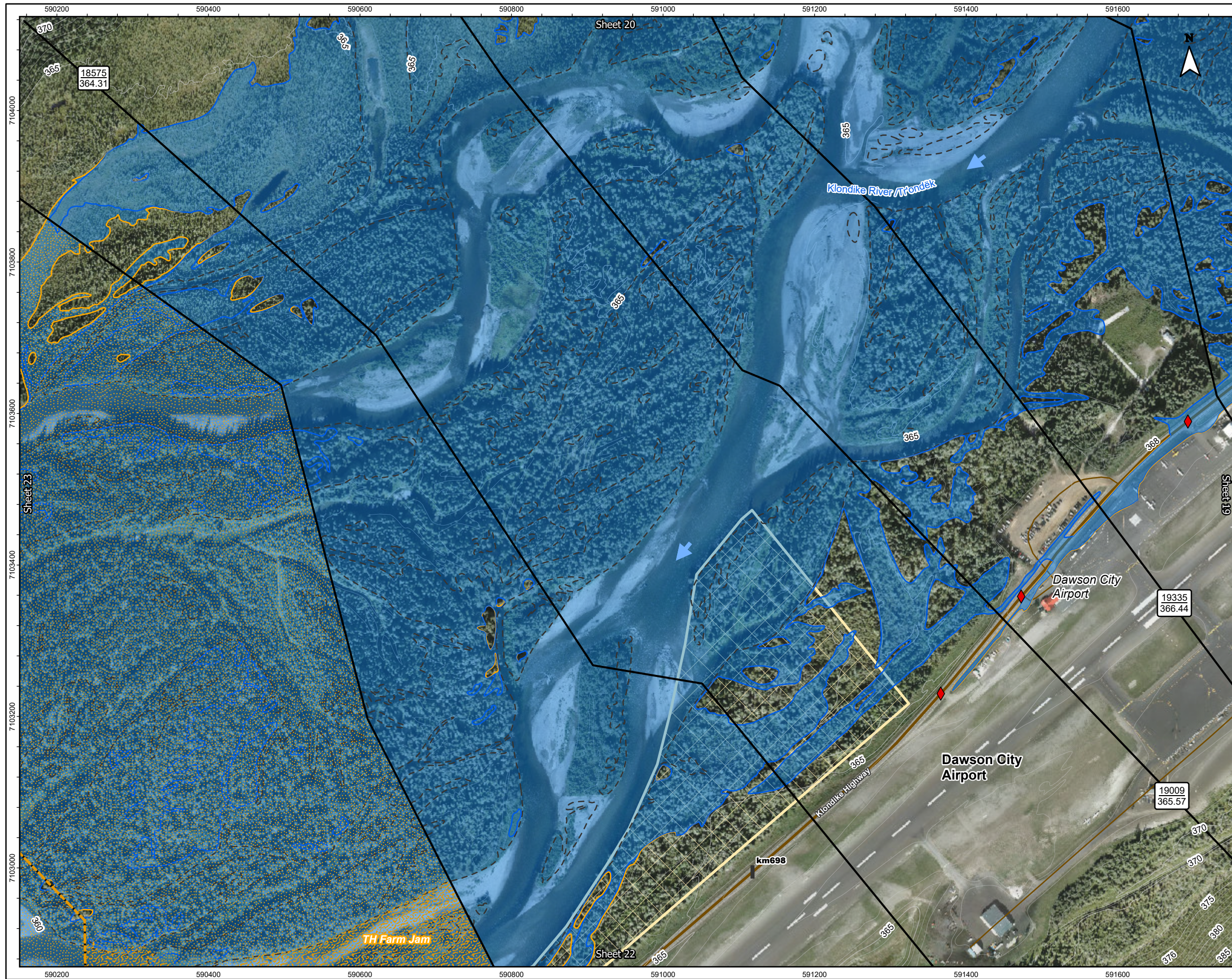


Figure No. **KR-0.5-21** Sheet 21 of 41

Title: **Dawson City and Klondike Valley Flood Mapping Study
Composite Flood Hazard Map - Klondike River
0.5% Annual Exceedance Probability (AEP)**

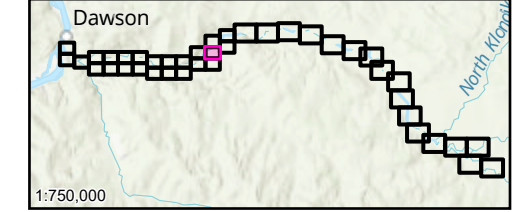
Client/Project:
**Government of Yukon
Department of Environment
Water Resources Branch**

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

- River Flow Direction
- Highway Kilometer Post
- HPW Drainage Culverts
- Cross-Section Number
WSE (m) Along Cross-Section
- Cross-Section Number
WSE (m) Along Cross-Section
(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
- Tr'ondëk 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
- Potential Presence of Ice
Debris During Jam Scenario
- Ice Jamming Extents

Map Publication Date: 03/06/2026
0 50 100 150 200 250 m
(At original document size of 11x 17) 1:5,000



Notes

1. Coordinate System: NAD 1983 CSRS UTM Zone 7N Vertical Datum: CGVD2013, Geoid: CGG2013a
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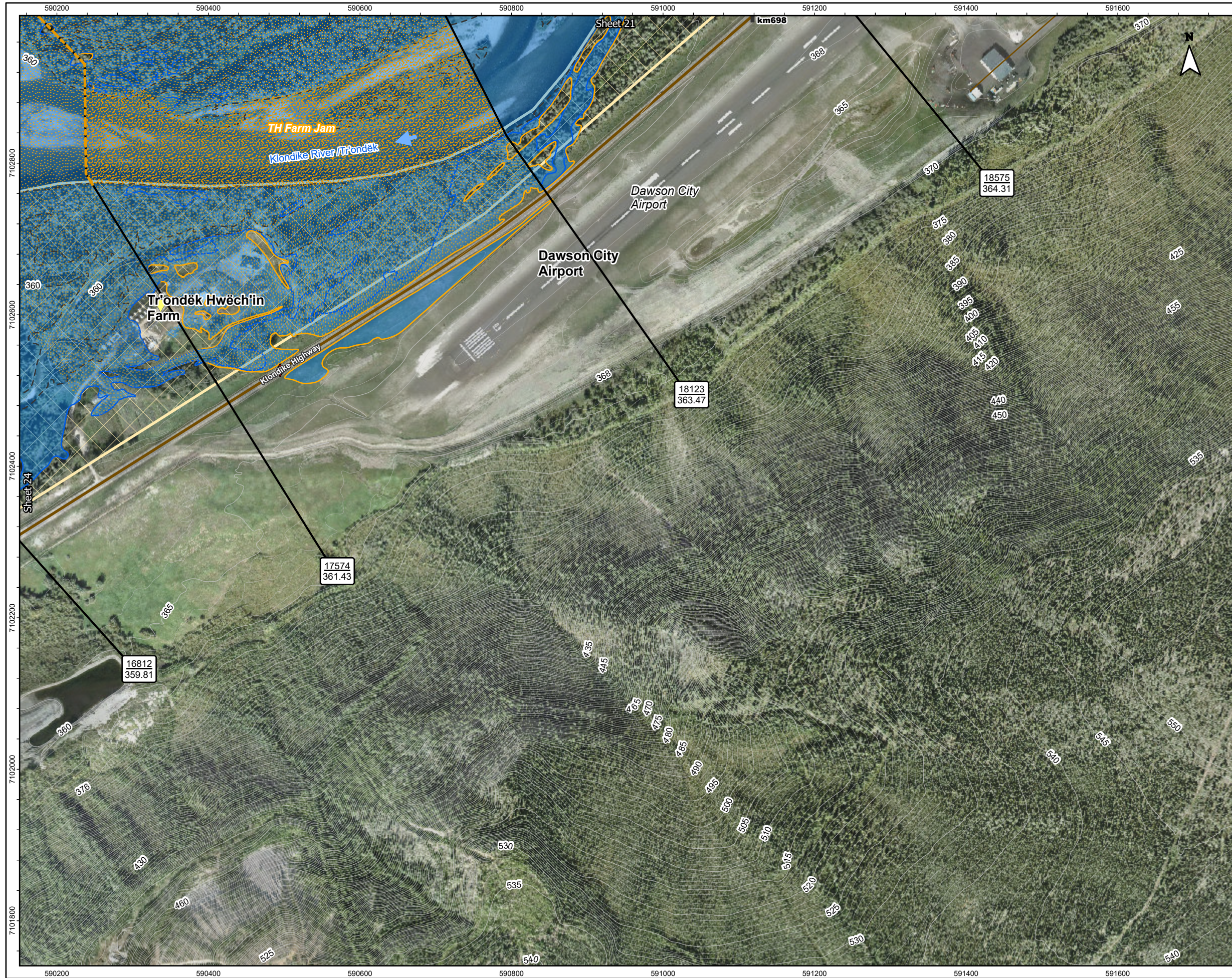


Figure No. **KR-0.5-22** Sheet 22 of 41

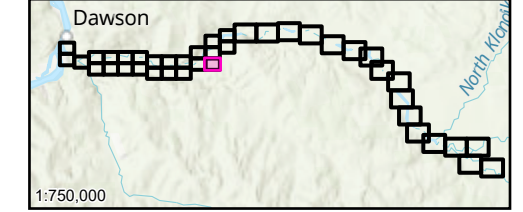
Title: **Dawson City and Klondike Valley Flood Mapping Study
Composite Flood Hazard Map - Klondike River
0.5% Annual Exceedance Probability (AEP)**

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

- River Flow Direction
- Highway Kilometer Post
- HPW Drainage Culverts
- Point of Interest
- Cross-Section Number
WSE (m) Along Cross-Section
- Cross-Section Number
WSE (m) Along Cross-Section
(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
- Tr'ondëk 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
- Potential Presence of Ice
Debris During Jam Scenario
- Ice Jamming Extents

Map Publication Date: 03/06/2026
0 50 100 150 200 250 m
(At original document size of 11x 17) 1:5,000



Notes
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5. The content of these Composite Flood Hazard Maps is based on the methods, assumptions, limitations, and analysis documented in the Dawson City and Klondike Valley Flood Mapping Study produced for Yukon Government. Composite Hazard Maps are based on the available data which is current to the time the maps were produced. Such data contains inherent limitations given that the climatic conditions and geomorphic conditions are constantly evolving and cannot be predicted with certainty.

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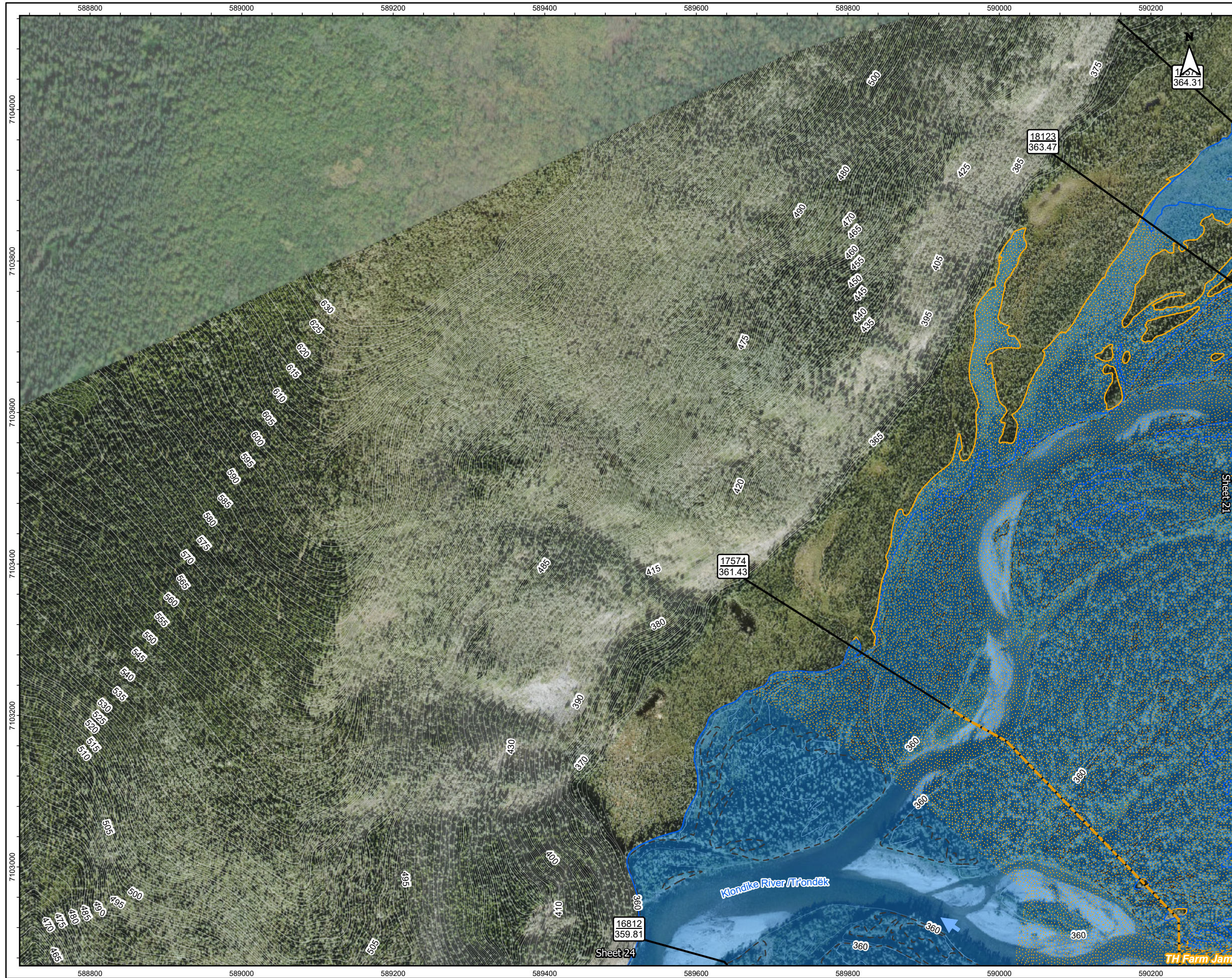


Figure No. **KR-0.5-23** Sheet 23 of 41

Title: **Dawson City and Klondike Valley Flood Mapping Study Composite Flood Hazard Map - Klondike River 0.5% Annual Exceedance Probability (AEP)**

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

Project: 123222713

Project Location: Dawson, Yukon

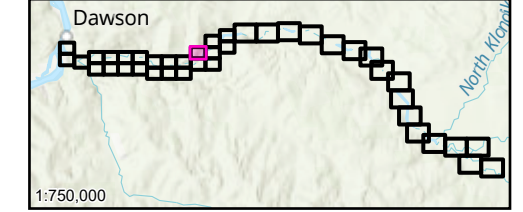
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2026-03-06

- River Flow Direction
- Toe of Ice Jam
- Highway Kilometer Post
- 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)
- Potential Presence of Ice Debris During Jam Scenario
- Minor Contour (1m)
- Surveyed Cross-Sections Used in Hydraulic Model
- Ice Jamming Extents

Map Publication Date: 03/06/2026

0 50 100 150 200 250 m

(At original document size of 11x 17) 1:5,000



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 August, 2024 and topographical and bathymetric data that was collected in June and September 2024.
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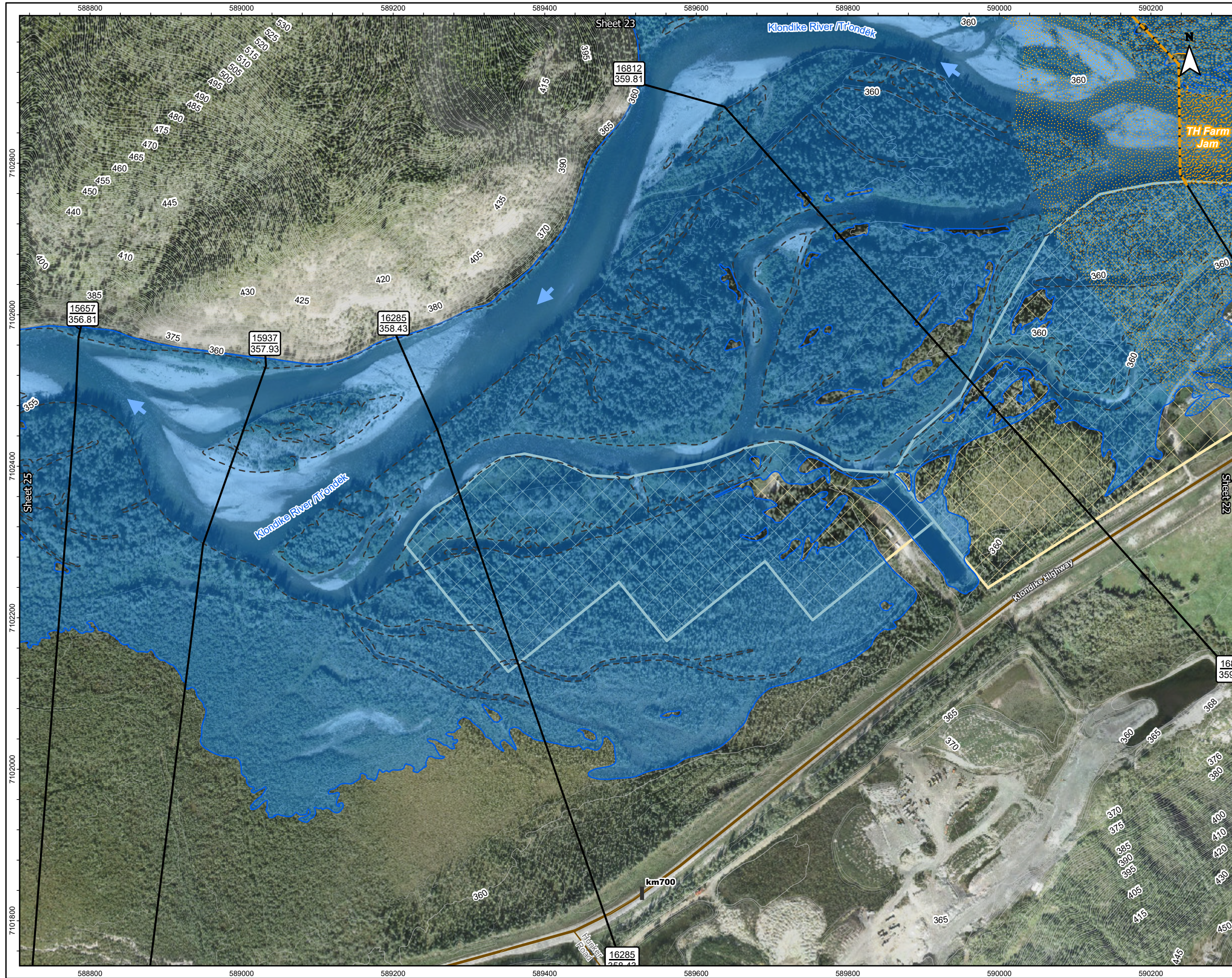


Figure No. **KR-0.5-24** Sheet 24 of 41

Title: **Dawson City and Klondike Valley Flood Mapping Study
Composite Flood Hazard Map - Klondike River
0.5% Annual Exceedance Probability (AEP)**

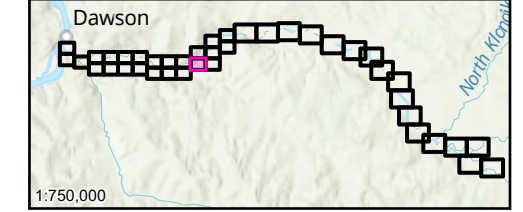
Client/Project:
Government of Yukon
Department of Environment
Water Resources Branch

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

- River Flow Direction
- Toe of Ice Jam
- Tr'ondék Hwëch'in Settlement Land
- Highway Kilometer Post
- 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
- Potential Presence of Ice Debris During Jam Scenario
- Ice Jamming Extents
- Highway
- Local Road
- Major Contour (5m)
- Minor Contour (1m)
- Surveyed Cross-Sections Used in Hydraulic Model

Map Publication Date: 03/06/2026
0 50 100 150 200 250 m
(At original document size of 11x 17) 1:5,000



- 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
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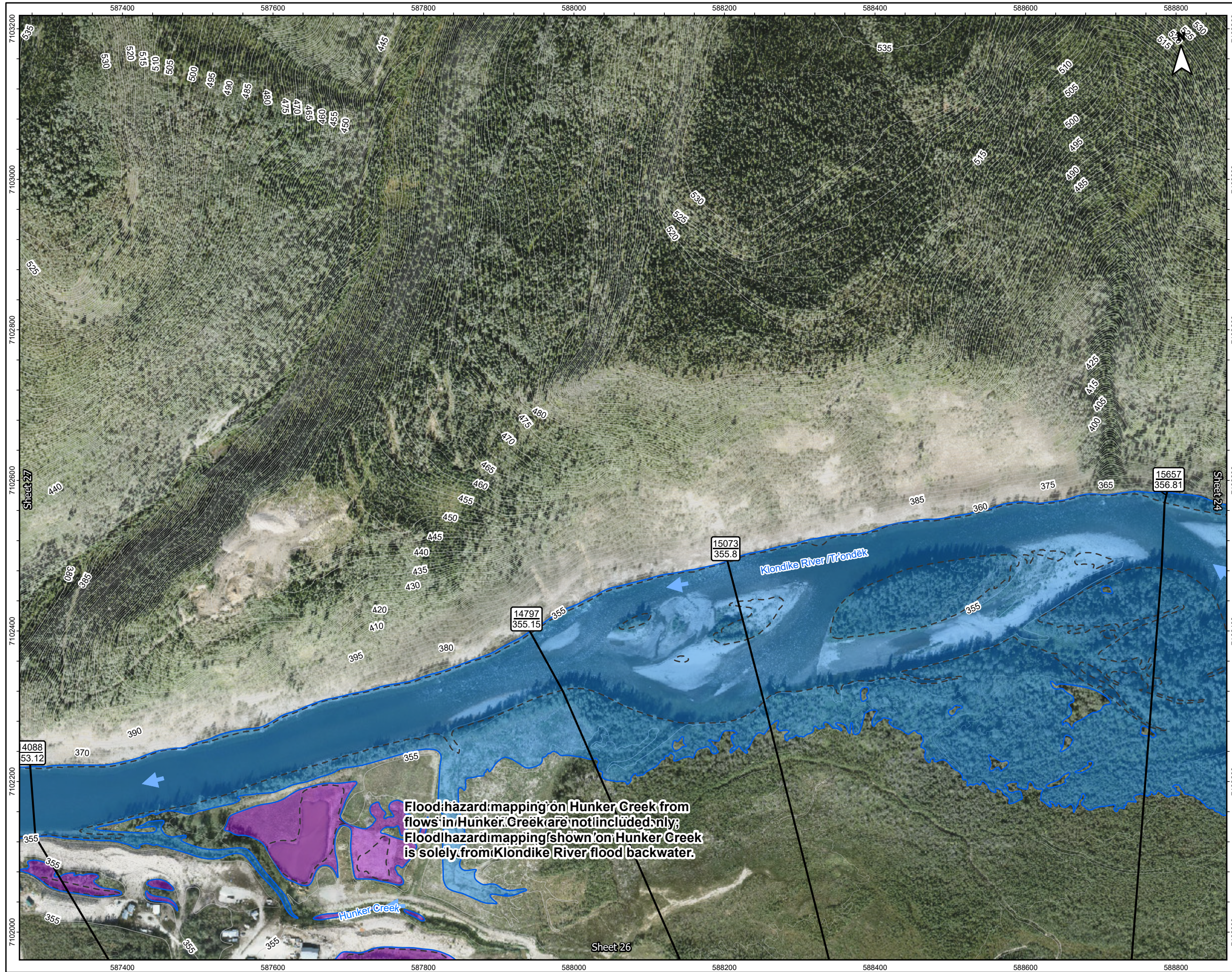


Figure No. **KR-0.5-25** Sheet 25 of 41

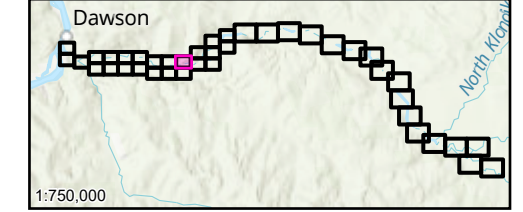
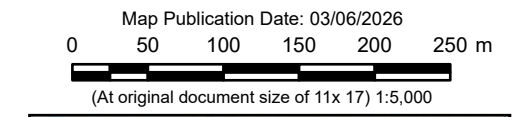
Title: **Dawson City and Klondike Valley Flood Mapping Study Composite Flood Hazard Map - Klondike River 0.5% Annual Exceedance Probability (AEP)**

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

- River Flow Direction
- Surveyed Cross-Sections Used in Hydraulic Model
- Highway Kilometer Post
- Toe of Ice Jam
- Cross-Section Number WSE (m) Along Cross-Section
- Approximate 50% AEP Open Water Flood Inundation
- Cross-Section Number WSE (m) Along Cross-Section (WSE in Dike Breach Scenario)
- Inundation Under Modelled Open Water Runs
- Inundation Under Modelled Breakup Ice Jam Runs
- Surveyed Culvert
- Composite Open Water and Ice Jam Inundation Extent
- Major Contour (5m)
- Inundation Extent From Subsurface Seepage
- Minor Contour (1m)



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 August, 2024 and topographical and bathymetric data that was collected in June and September 2024.
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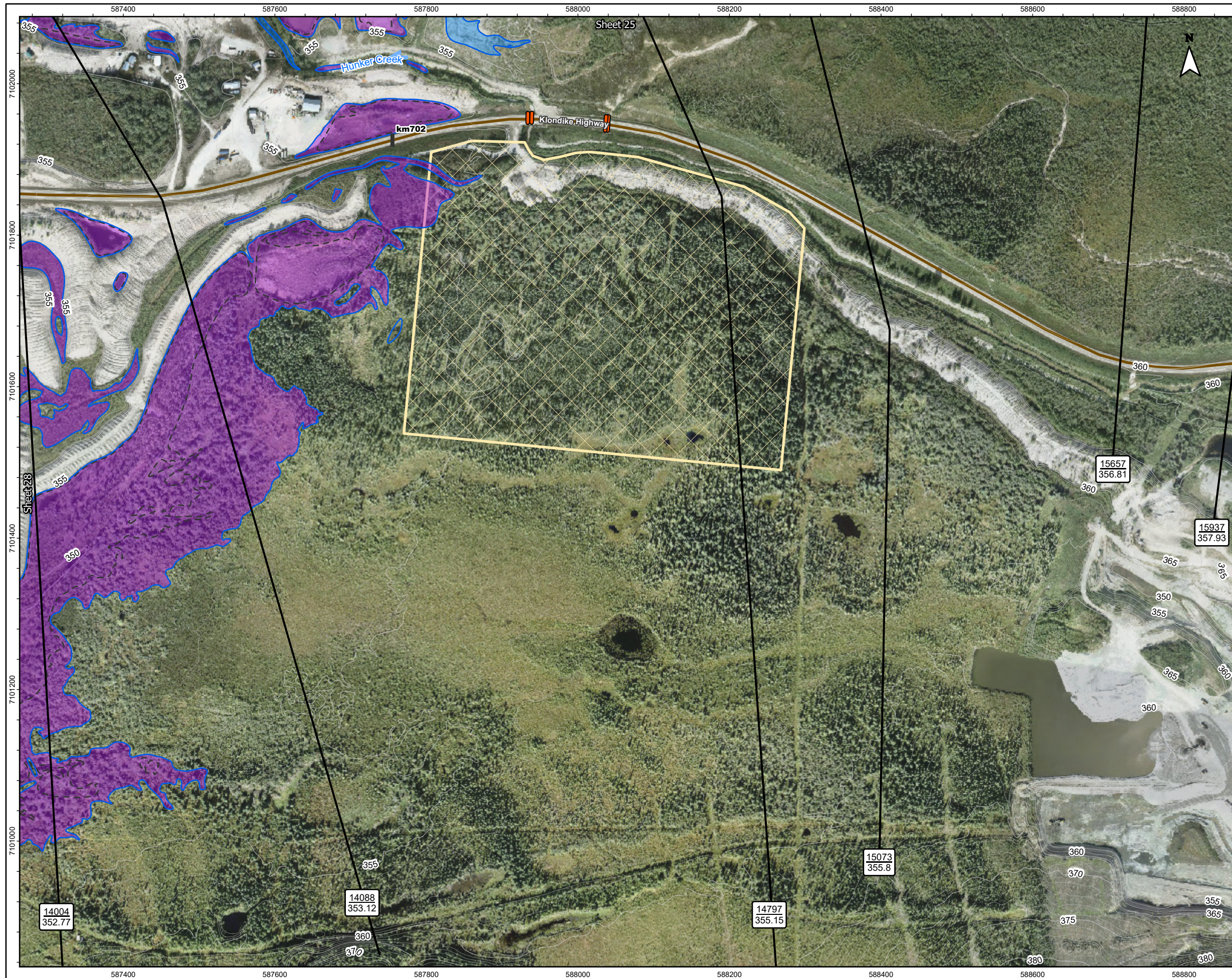


Figure No. **KR-0.5-26** Sheet 26 of 41

Title: **Dawson City and Klondike Valley Flood Mapping Study
Composite Flood Hazard Map - Klondike River
0.5% Annual Exceedance Probability (AEP)**

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

Project: 123222713

Project Location: Dawson, Yukon

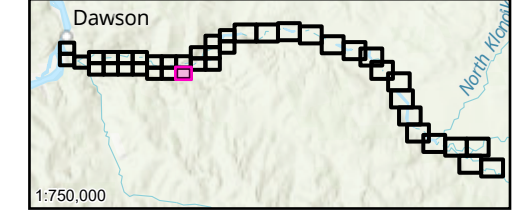
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2026-03-06

- River Flow Direction
- Surveyed Cross-Sections Used in Hydraulic Model
- Toe of Ice Jam
- Tr'ondëk Hwëch'in Settlement Land
- Cross-Section Number
WSE (m) Along Cross-Section
- Approximate 50% AEP Open Water Flood Inundation
- 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
- Surveyed Culvert
- Inundation Extent From Subsurface Seepage
- Highway
- Major Contour (5m)
- Minor Contour (1m)

Map Publication Date: 03/06/2026

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(At original document size of 11x 17) 1:5,000

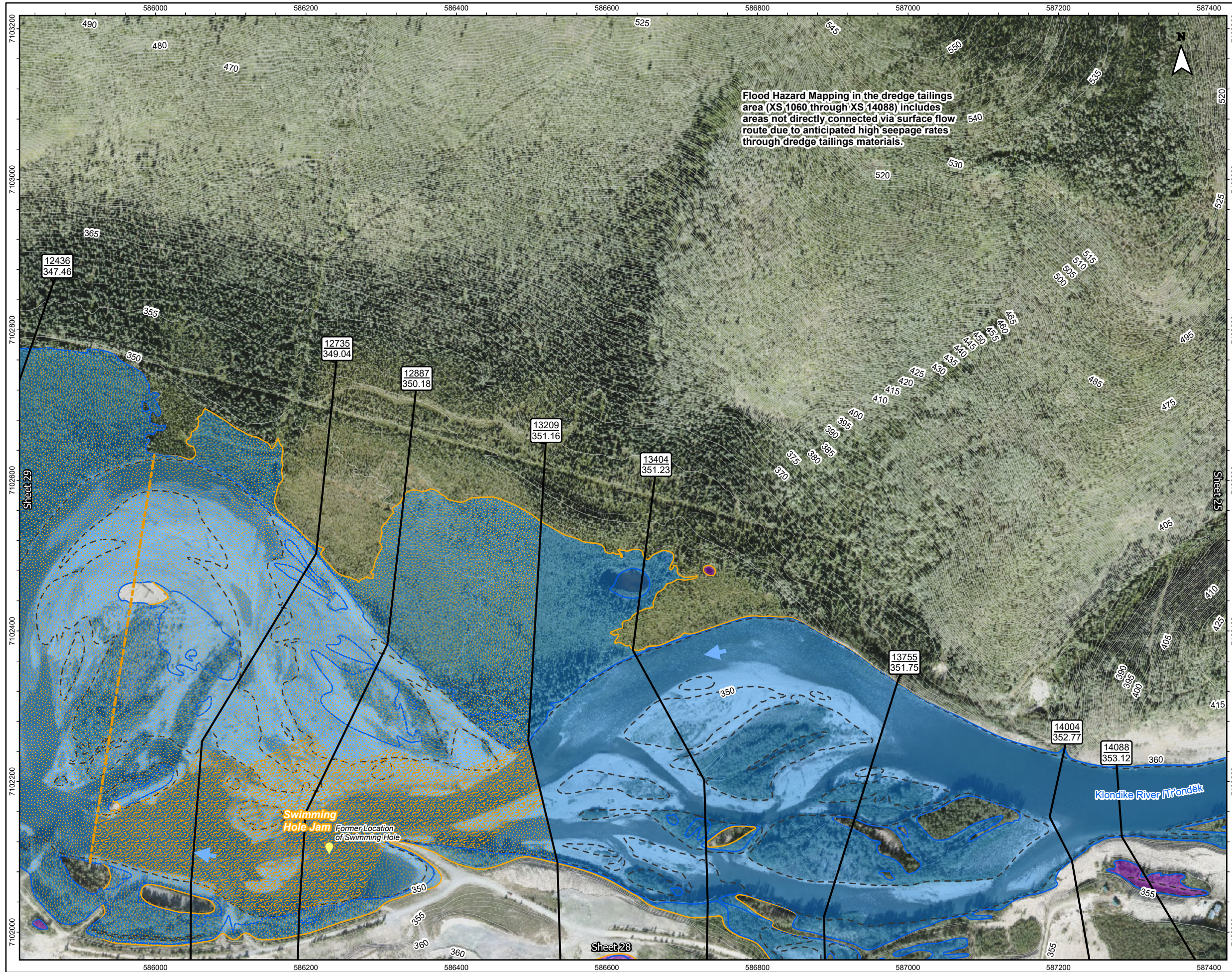


Notes

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 data collected in August, 2024 and topographical and bathymetric data that was collected in June and September 2024.
4. 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.
5. The content of these Composite Flood Hazard Maps is based on the methods, assumptions, limitations, and analysis documented in the Dawson City and Klondike Valley Flood Mapping Study produced for Yukon Government. Composite Hazard Maps are based on the available data which is current to the time the maps were produced. Such data contains inherent limitations given that the climatic conditions and geomorphic conditions are constantly evolving and cannot be predicted with certainty.

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Flood Hazard Mapping in the dredge tailings area (XS 1060 through XS 14088) includes areas not directly connected via surface flow route due to anticipated high seepage rates through dredge tailings materials.

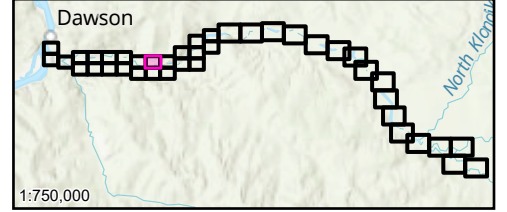
Title: Dawson City and Klondike Valley Flood Mapping Study
Composite Flood Hazard Map - Klondike River
0.5% Annual Exceedance Probability (AEP)

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

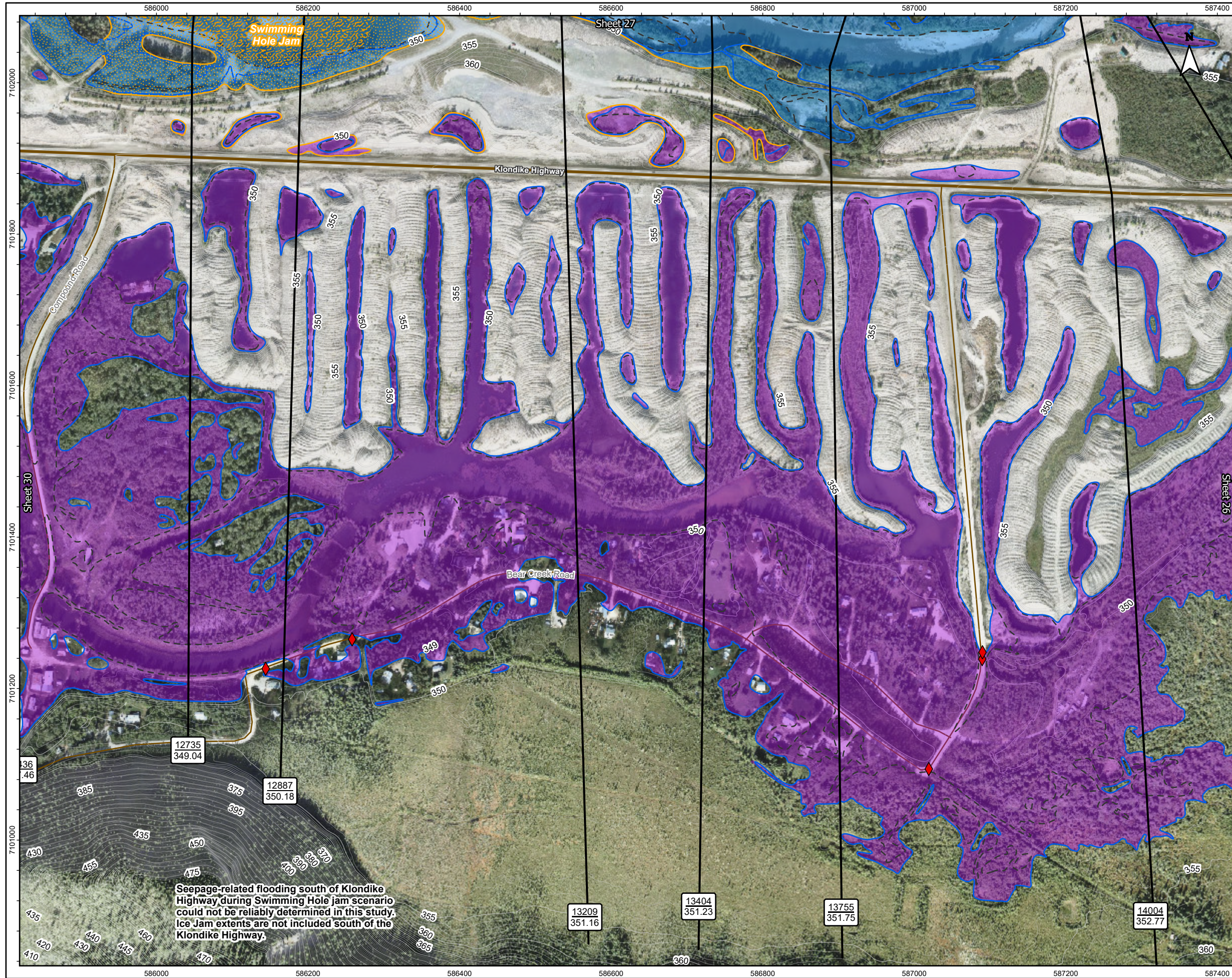
Project: 123222713
Project Location: Dawson, Yukon
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2026-03-06

- River Flow Direction
- Highway Kilometer Post
- Point of Interest
- Cross-Section Number
WSE (m) Along Cross-Section
- Cross-Section Number
WSE (m) Along Cross-Section
(WSE in Dike Breach Scenario)
- Major Contour (5m)
- Minor Contour (1m)
- Surveyed Cross-Sections
Used in Hydraulic Model
- Toe of Ice Jam
- 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

Map Publication Date: 03/06/2026
0 50 100 150 200 250 m
(At original document size of 11x 17) 1:5,000



- Notes**
1. Coordinate System: NAD 1983 CSRS UTM Zone 7N Vertical Datum: CGVD2013, Geoid: CGG2013a
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Seepage-related flooding south of Klondike Highway during Swimming Hole jam scenario could not be reliably determined in this study. Ice Jam extents are not included south of the Klondike Highway.

Title: Dawson City and Klondike Valley Flood Mapping Study
Composite Flood Hazard Map - Klondike River
0.5% Annual Exceedance Probability (AEP)

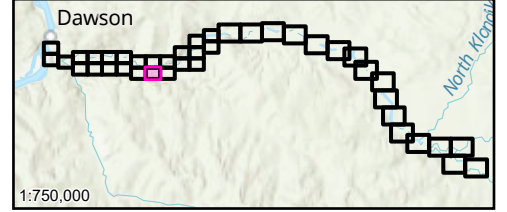
Client/Project:
Government of Yukon
Department of Environment
Water Resources Branch

Project: 123222713

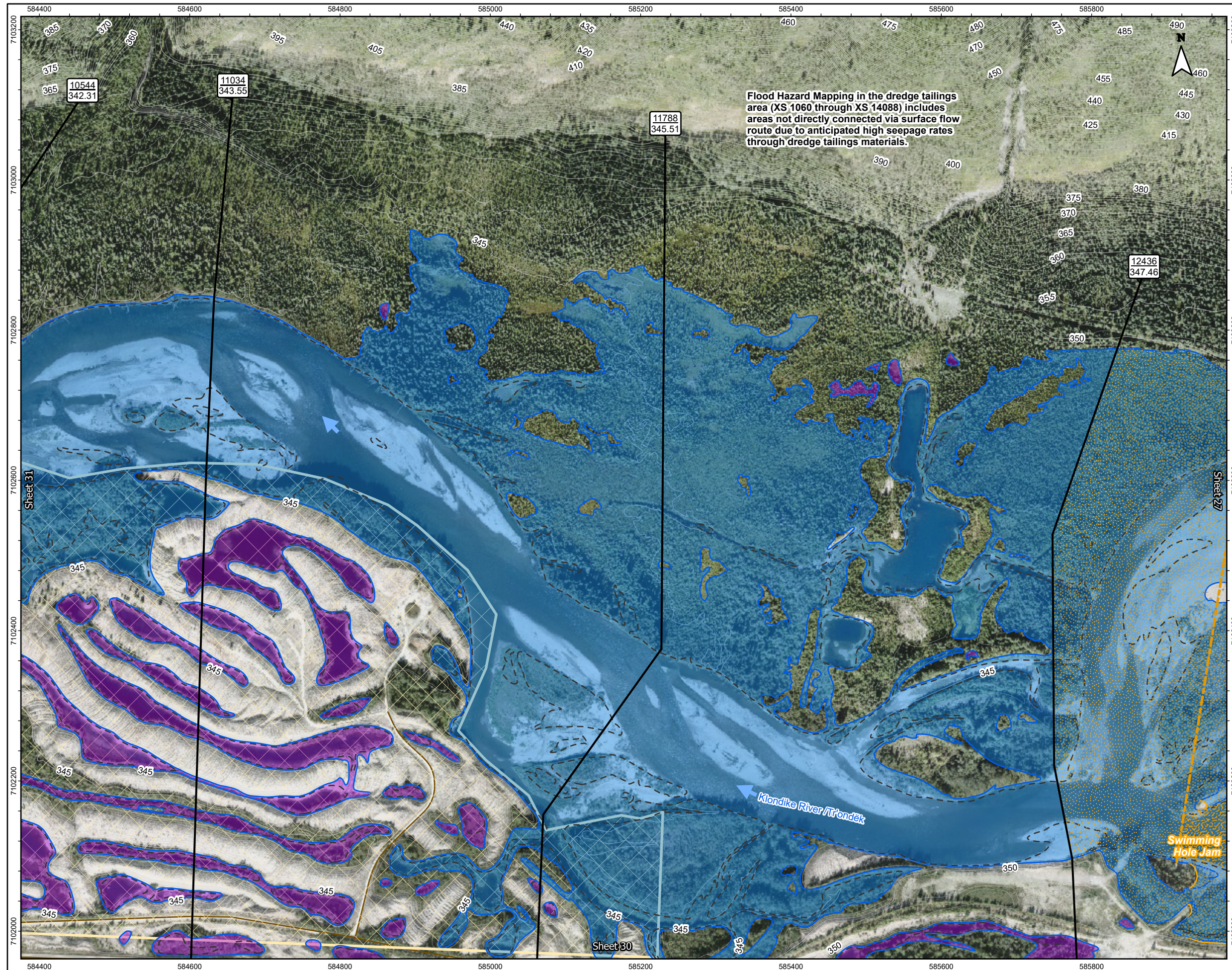
Project Location: Dawson, Yukon
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2026-03-06

- River Flow Direction
- Highway Kilometer Post
- HPW Drainage Culverts
- Cross-Section Number WSE (m) Along Cross-Section
- Cross-Section Number WSE (m) Along Cross-Section (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
- 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

Map Publication Date: 03/06/2026
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(At original document size of 11x 17) 1:5,000



- Notes**
- 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 - Klondike River
0.5% Annual Exceedance Probability (AEP)

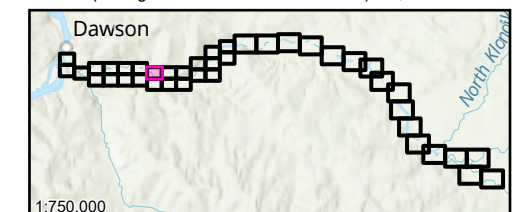
Client/Project:
Government of Yukon
Department of Environment
Water Resources Branch

Project: 123222713

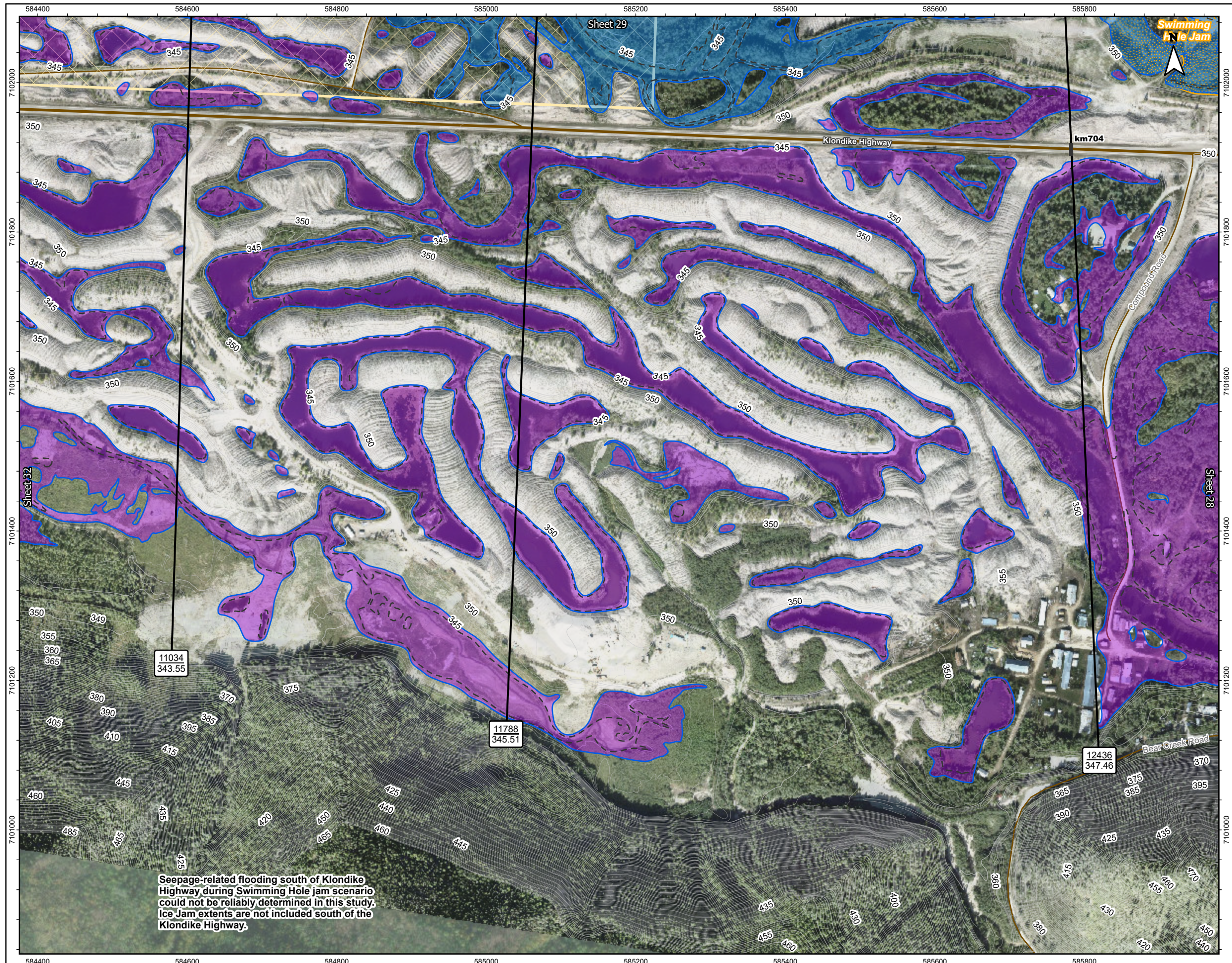
Project Location: Dawson, Yukon
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2026-03-06

- River Flow Direction
- Toe of Ice Jam
- Highway Kilometer Post
- Tr'ondék Hwëch'in Settlement Land
- Cross-Section Number
WSE (m) Along Cross-Section
- Approximate 50% AEP Open Water Flood Inundation
- Cross-Section Number
WSE (m) Along Cross-Section
(WSE in Dike Breach Scenario)
- Inundation Under Modelled Open Water Runs
- Inundation Under Modelled Breakup Ice Jam Runs
- Highway
- Local Road
- Composite Open Water and Ice Jam Inundation Extent
- Inundation Extent From Subsurface Seepage
- 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
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(At original document size of 11x 17) 1:5,000



- Notes**
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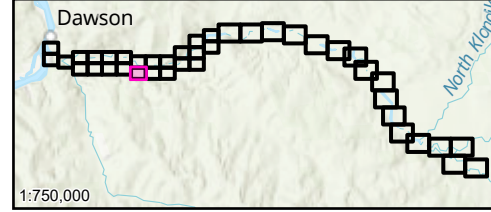


Seepage-related flooding south of Klondike Highway during Swimming Hole jam scenario could not be reliably determined in this study. Ice Jam extents are not included south of the Klondike Highway.

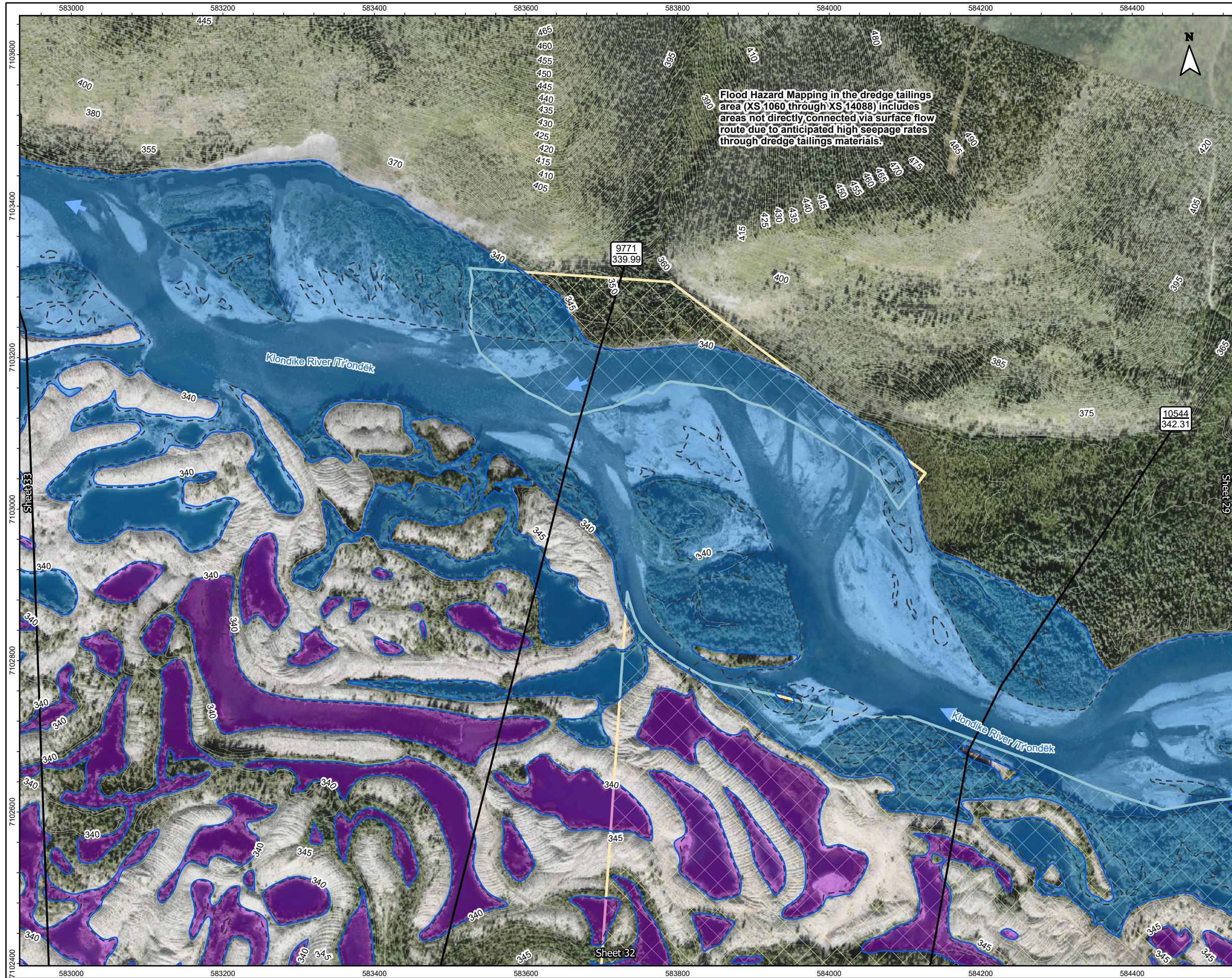
Figure No. **KR-0.5-30** Sheet 30 of 41
 Title: **Dawson City and Klondike Valley Flood Mapping Study Composite Flood Hazard Map - Klondike River 0.5% Annual Exceedance Probability (AEP)**
 Client/Project: Government of Yukon, Department of Environment, Water Resources Branch
 Project: 123222713
 Project Location: Dawson, Yukon
 Prepared by MANDERSON on 2026-03-06
 Requested by JMUIRHEAD on 2024-03-30
 Review by JMUIRHEAD on 2026-03-06

- River Flow Direction
- Toe of Ice Jam
- Tr'ondék 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
- Highway Kilometer Post
- Surveyed Cross-Sections Used in Hydraulic Model
- Cross-Section Number WSE (m) Along Cross-Section
- Cross-Section Number WSE (m) Along Cross-Section (WSE in Dike Breach Scenario)
- Highway
- Local Road
- Major Contour (5m)
- Minor Contour (1m)

Map Publication Date: 03/06/2026
 0 50 100 150 200 250 m
 (At original document size of 11x 17) 1:5,000



- Notes
- 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 - Klondike River
0.5% Annual Exceedance Probability (AEP)

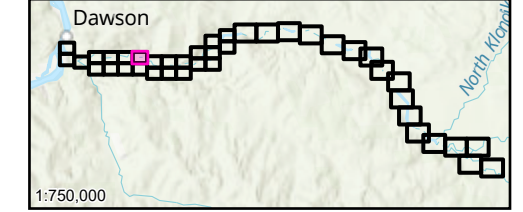
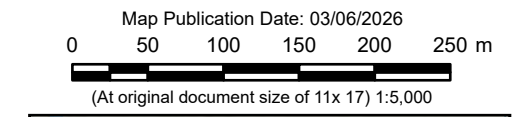
Client/Project:
Government of Yukon
Department of Environment
Water Resources Branch

Project: 123222713

Project Location: Dawson, Yukon

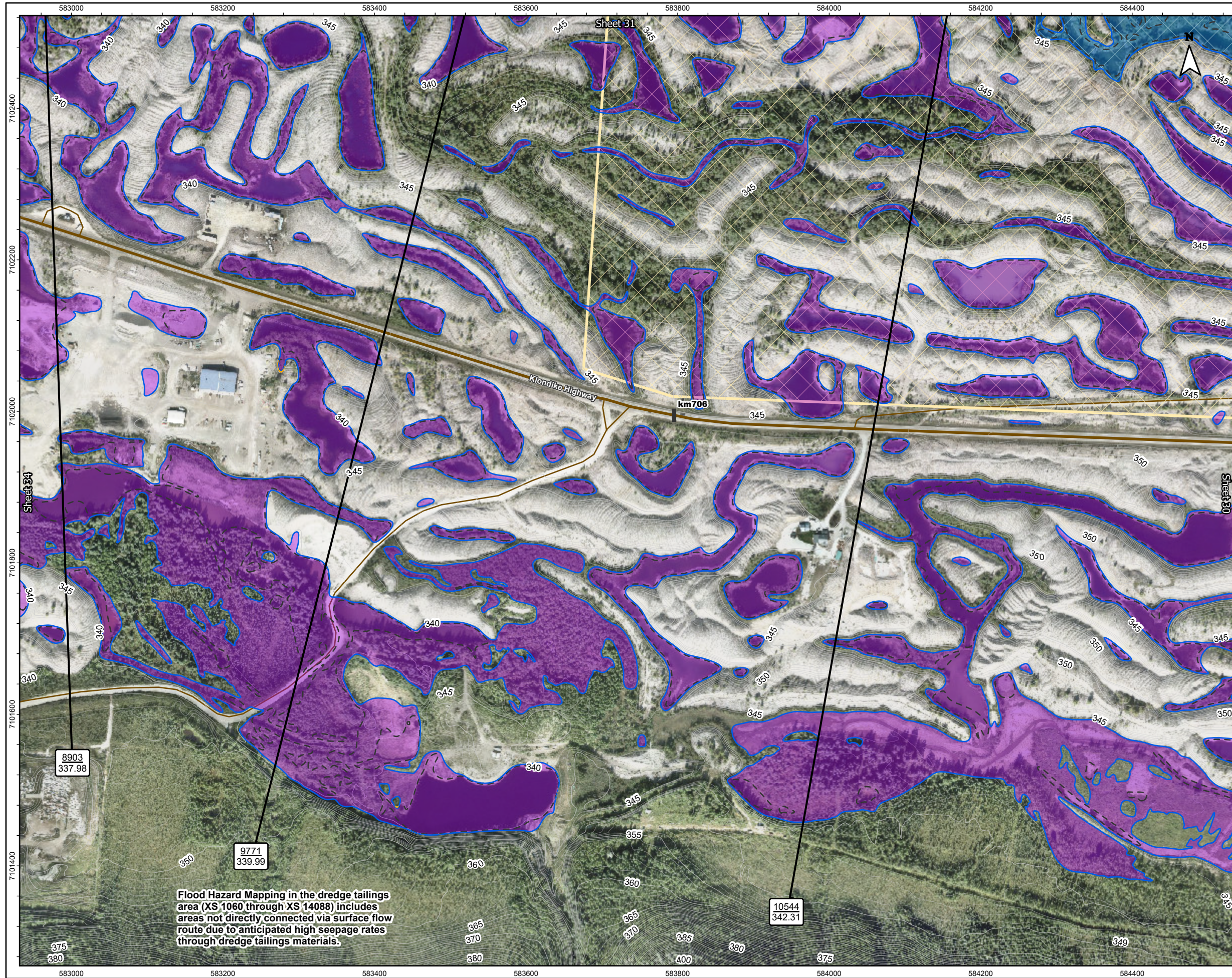
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2026-03-06

- River Flow Direction
- Toe of Ice Jam
- Highway Kilometer Post
- Tr'ondëk Hwëch'in Settlement Land
- Cross-Section Number
WSE (m) Along Cross-Section
- Approximate 50% AEP Open Water Flood Inundation
- Cross-Section Number
WSE (m) Along Cross-Section
(WSE in Dike Breach Scenario)
- Inundation Under Modelled Open Water Runs
- Inundation Under Modelled Breakup Ice Jam Runs
- Major Contour (5m)
- Composite Open Water and Ice Jam Inundation Extent
- Minor Contour (1m)
- Inundation Extent From Subsurface Seepage
- Surveyed Cross-Sections Used in Hydraulic Model



Notes

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Title: Dawson City and Klondike Valley Flood Mapping Study
Composite Flood Hazard Map - Klondike River
0.5% Annual Exceedance Probability (AEP)

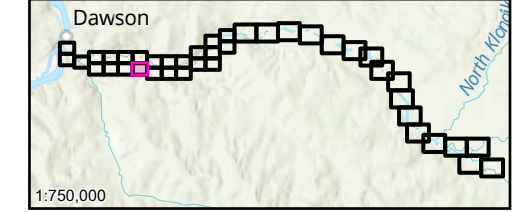
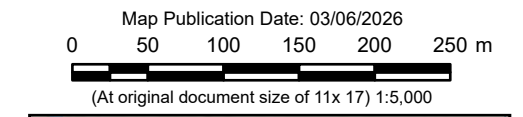
Client/Project:
Government of Yukon
Department of Environment
Water Resources Branch

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

- River Flow Direction
- Surveyed Cross-Sections Used in Hydraulic Model
- Toe of Ice Jam
- Tr'ondëk Hwëch'in Settlement Land
- Cross-Section Number WSE (m) Along Cross-Section
- Approximate 50% AEP Open Water Flood Inundation
- Cross-Section Number WSE (m) Along Cross-Section (WSE in Dike Breach Scenario)
- Inundation Under Modelled Open Water Runs
- Inundation Under Modelled Breakup Ice Jam Runs
- Highway
- Local Road
- Major Contour (5m)
- Minor Contour (1m)
- Composite Open Water and Ice Jam Inundation Extent
- Inundation Extent From Subsurface Seepage



- 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 August, 2024 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.
 - The content of these Composite Flood Hazard Maps is based on the methods, assumptions, limitations, and analysis documented in the Dawson City and Klondike Valley Flood Mapping Study produced for Yukon Government. Composite Hazard Maps are based on the available data which is current to the time the maps were produced. Such data contains inherent limitations given that the climatic conditions and geomorphic conditions are constantly evolving and cannot be predicted with certainty.

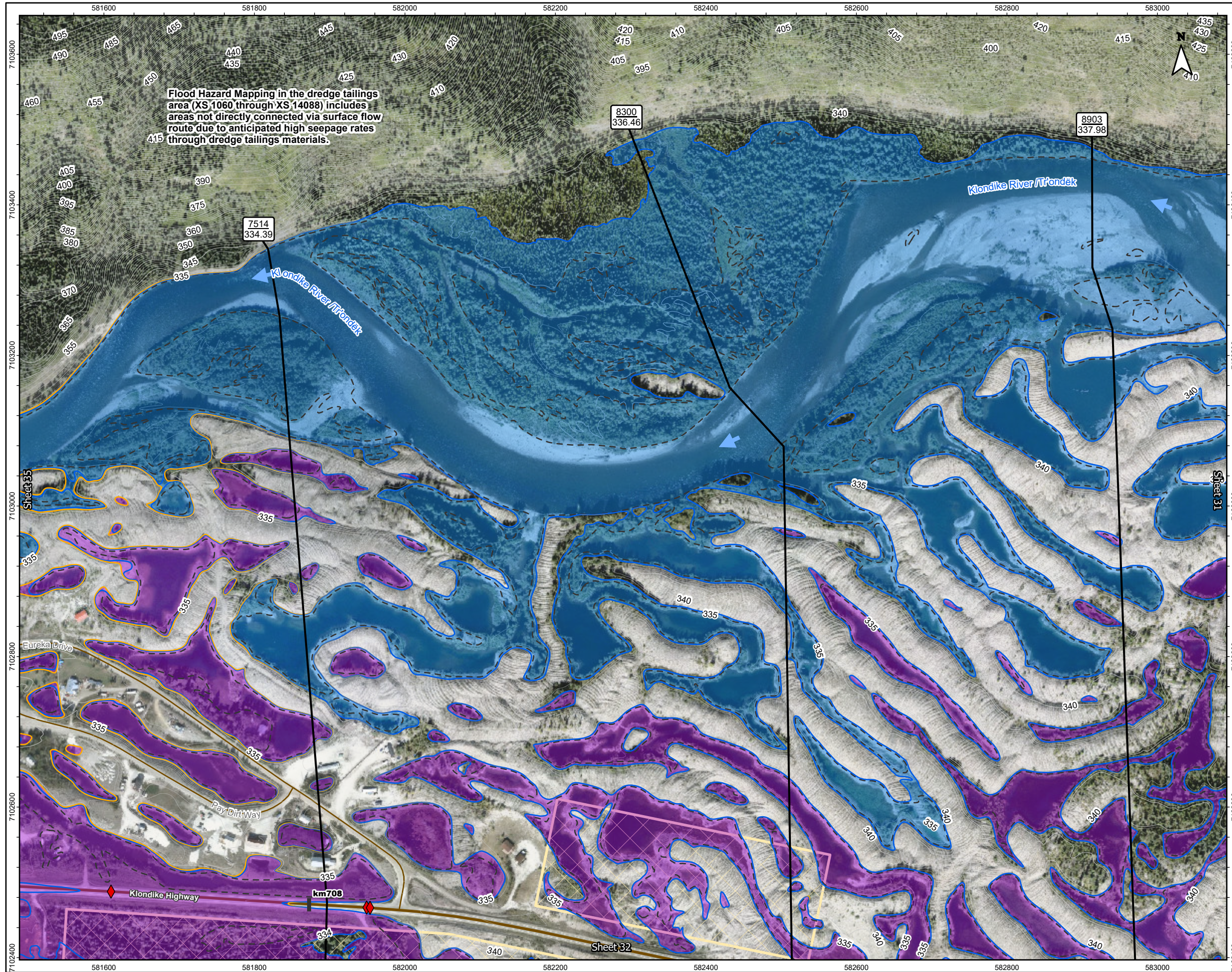


Figure No. **KR-0.5-33** Sheet 33 of 41

Title: **Dawson City and Klondike Valley Flood Mapping Study Composite Flood Hazard Map - Klondike River 0.5% Annual Exceedance Probability (AEP)**

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

Project: 123222713

Project Location: Dawson, Yukon

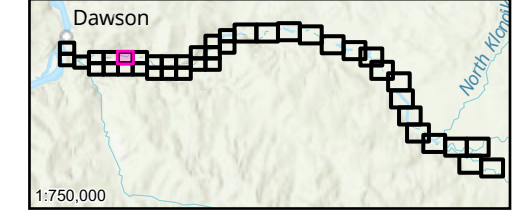
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2026-03-06

- River Flow Direction
- Highway Kilometer Post
- HPW Drainage Culverts
- Cross-Section Number
WSE (m) Along Cross-Section
- Cross-Section Number
WSE (m) Along Cross-Section
(WSE in Dike Breach Scenario)
- Highway
- Local Road
- Major Contour (5m)
- Minor Contour (1m)
- Surveved Cross-Sections Used in Hydraulic Model
- Toe of Ice Jam
- Tr'ondëk 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

Map Publication Date: 03/06/2026

0 50 100 150 200 250 m

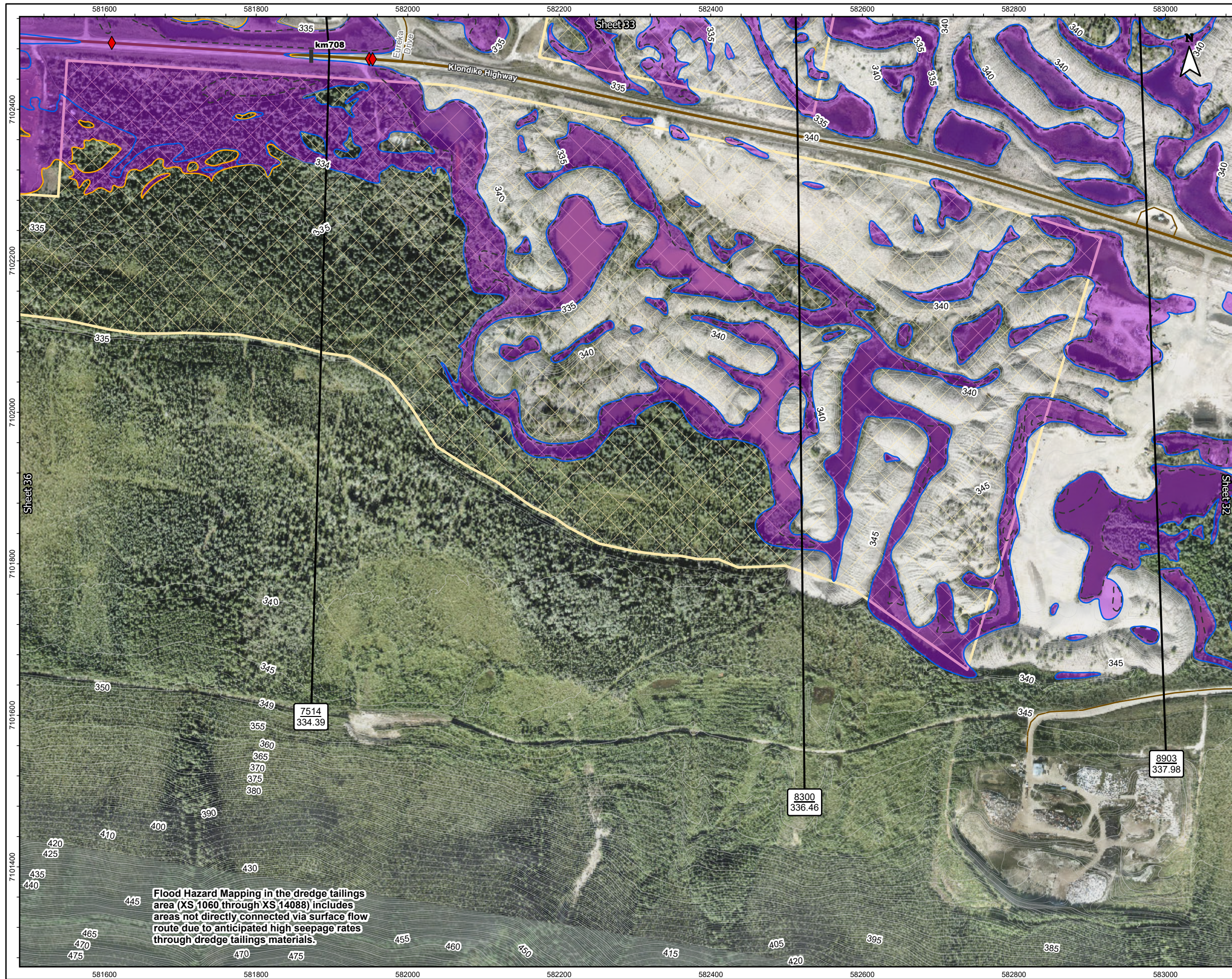
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Notes

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 August, 2024 and topographical and bathymetric data that was collected in June and September 2024.
4. 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.
5. The content of these Composite Flood Hazard Maps is based on the methods, assumptions, limitations, and analysis documented in the Dawson City and Klondike Valley Flood Mapping Study produced for Yukon Government. Composite Hazard Maps are based on the available data which is current to the time the maps were produced. Such data contains inherent limitations given that the climatic conditions and geomorphic conditions are constantly evolving and cannot be predicted with certainty.

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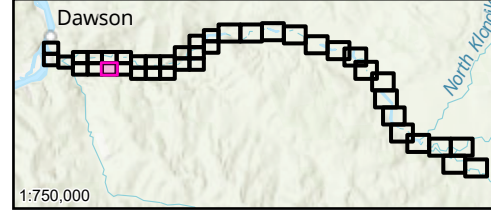


Flood Hazard Mapping in the dredge tailings area (XS 1060 through XS 14088) includes areas not directly connected via surface flow route due to anticipated high seepage rates through dredge tailings materials.

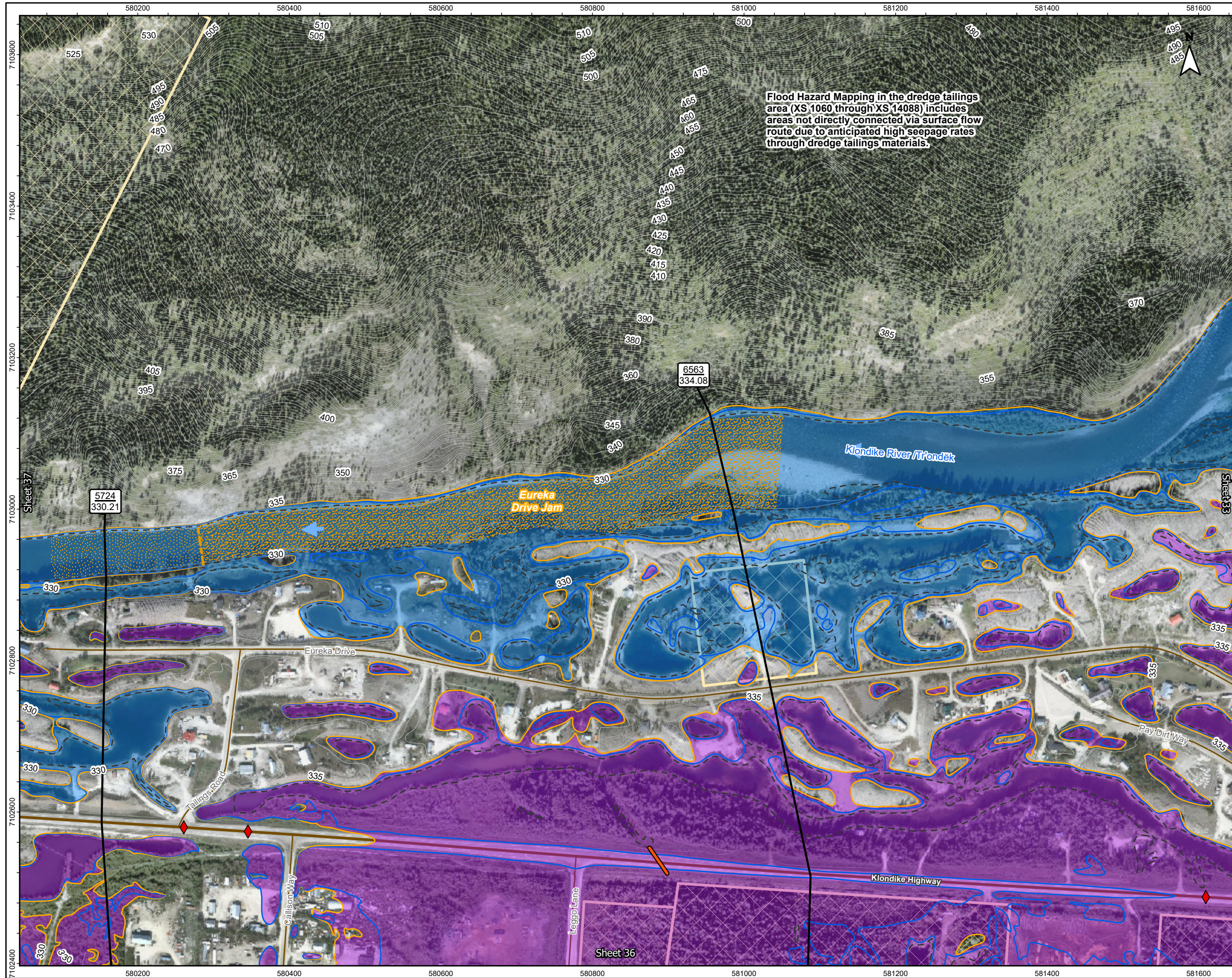
Figure No. **KR-0.5-34** Sheet 34 of 41
 Title: **Dawson City and Klondike Valley Flood Mapping Study Composite Flood Hazard Map - Klondike River 0.5% Annual Exceedance Probability (AEP)**
 Client/Project: **Government of Yukon Department of Environment Water Resources Branch**
 Project: **123222713**
 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

- River Flow Direction
- Highway Kilometer Post
- HPW Drainage Culverts
- Cross-Section Number WSE (m) Along Cross-Section
- Cross-Section Number WSE (m) Along Cross-Section (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
- Tr'ondëk Hwëch'in Settlement Land
- Approximate 50% AEP Open Water Flood Inundation
- Inundation Under Modelled Open Water Runs
- Inundation Under Modelled Breakup Ice Jam Runs
- Inundation Extent From Subsurface Seepage

Map Publication Date: 03/06/2026
 0 50 100 150 200 250 m
 (At original document size of 11x 17) 1:5,000



- 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 August, 2024 and topographical and bathymetric data that was collected in June and September 2024.
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Title: Dawson City and Klondike Valley Flood Mapping Study
Composite Flood Hazard Map - Klondike River
0.5% Annual Exceedance Probability (AEP)

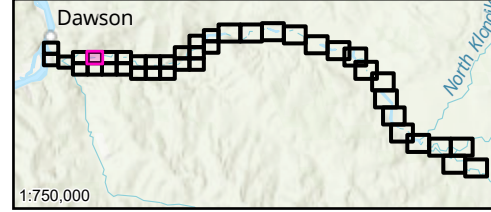
Client/Project:
Government of Yukon
Department of Environment
Water Resources Branch

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

- River Flow Direction
- Highway Kilometer Post
- HPW Drainage Culverts
- Cross-Section Number
WSE (m) Along Cross-Section
- Cross-Section Number
WSE (m) Along Cross-Section
(WSE in Dike Breach Scenario)
- Surveyed Culvert
- Highway
- Local Road
- Major Contour (5m)
- Minor Contour (1m)
- Surveyed Cross-Sections
Used in Hydraulic Model
- Toe of Ice Jam
- Tr'ondëk 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

Map Publication Date: 03/06/2026
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(At original document size of 11x 17) 1:5,000



- 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
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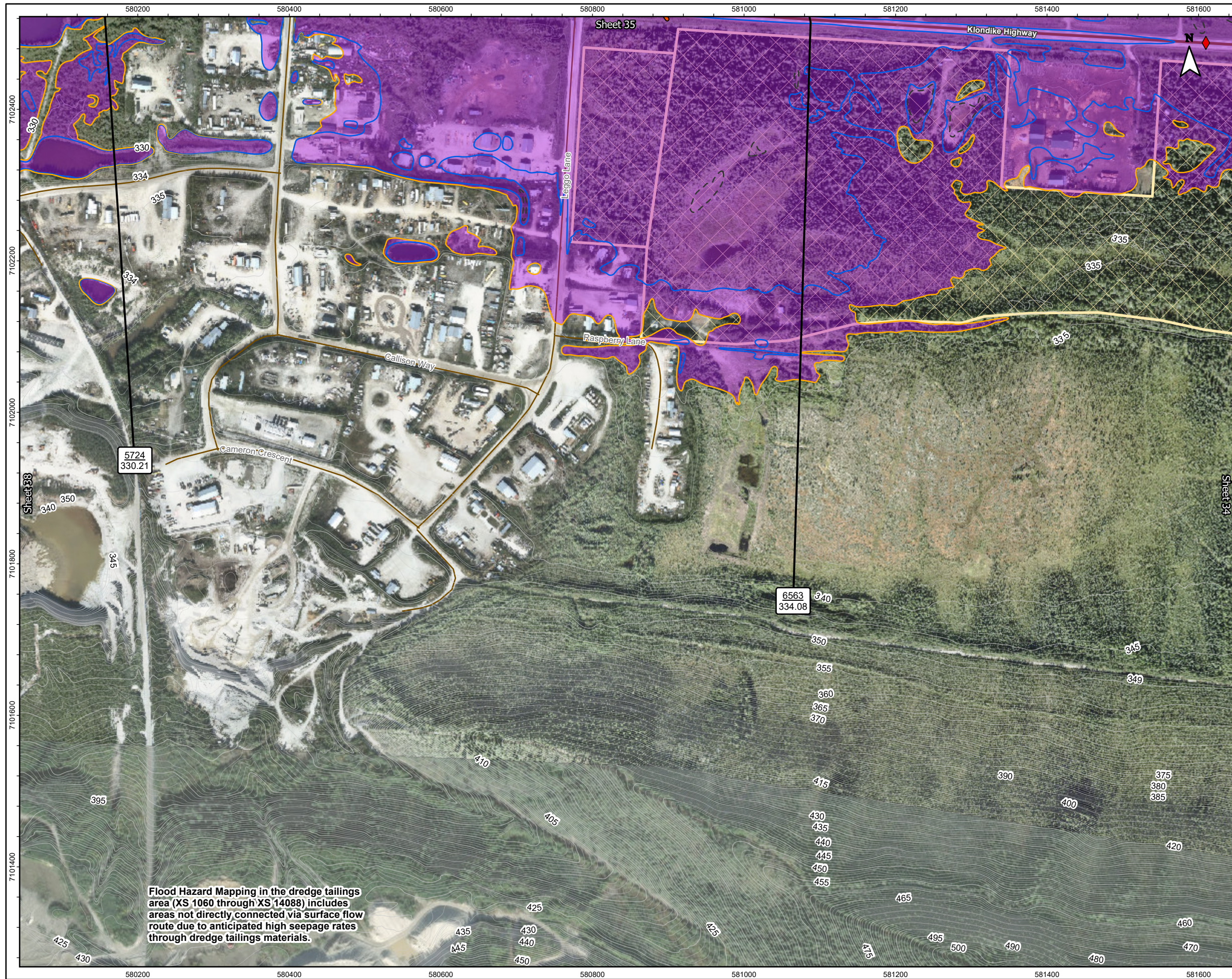


Figure No. **KR-0.5-36** Sheet 36 of 41

Title: **Dawson City and Klondike Valley Flood Mapping Study
Composite Flood Hazard Map - Klondike River
0.5% Annual Exceedance Probability (AEP)**

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

Project: 123222713

Project Location: Dawson, Yukon

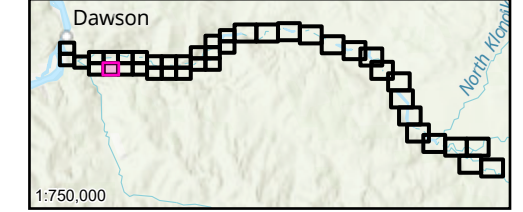
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2026-03-06

- | | | | |
|--|---|--|--|
| | River Flow Direction | | Major Contour (5m) |
| | Highway Kilometer Post | | Minor Contour (1m) |
| | HPW Drainage Culverts | | Surveyed Cross-Sections
Used in Hydraulic Model |
| | Cross-Section Number
WSE (m) Along Cross-Section | | Toe of Ice Jam |
| | Cross-Section Number
WSE (m) Along Cross-Section
(WSE in Dike Breach
Scenario) | | Tr'ondëk Hwëch'in Settlement
Land |
| | Surveyed Culvert | | Approximate 50% AEP Open
Water Flood Inundation |
| | Highway | | Inundation Under Modelled
Open Water Runs |
| | Local Road | | Inundation Under Modelled
Breakup Ice Jam Runs |
| | | | Inundation Extent From
Subsurface Seepage |

Map Publication Date: 03/06/2026

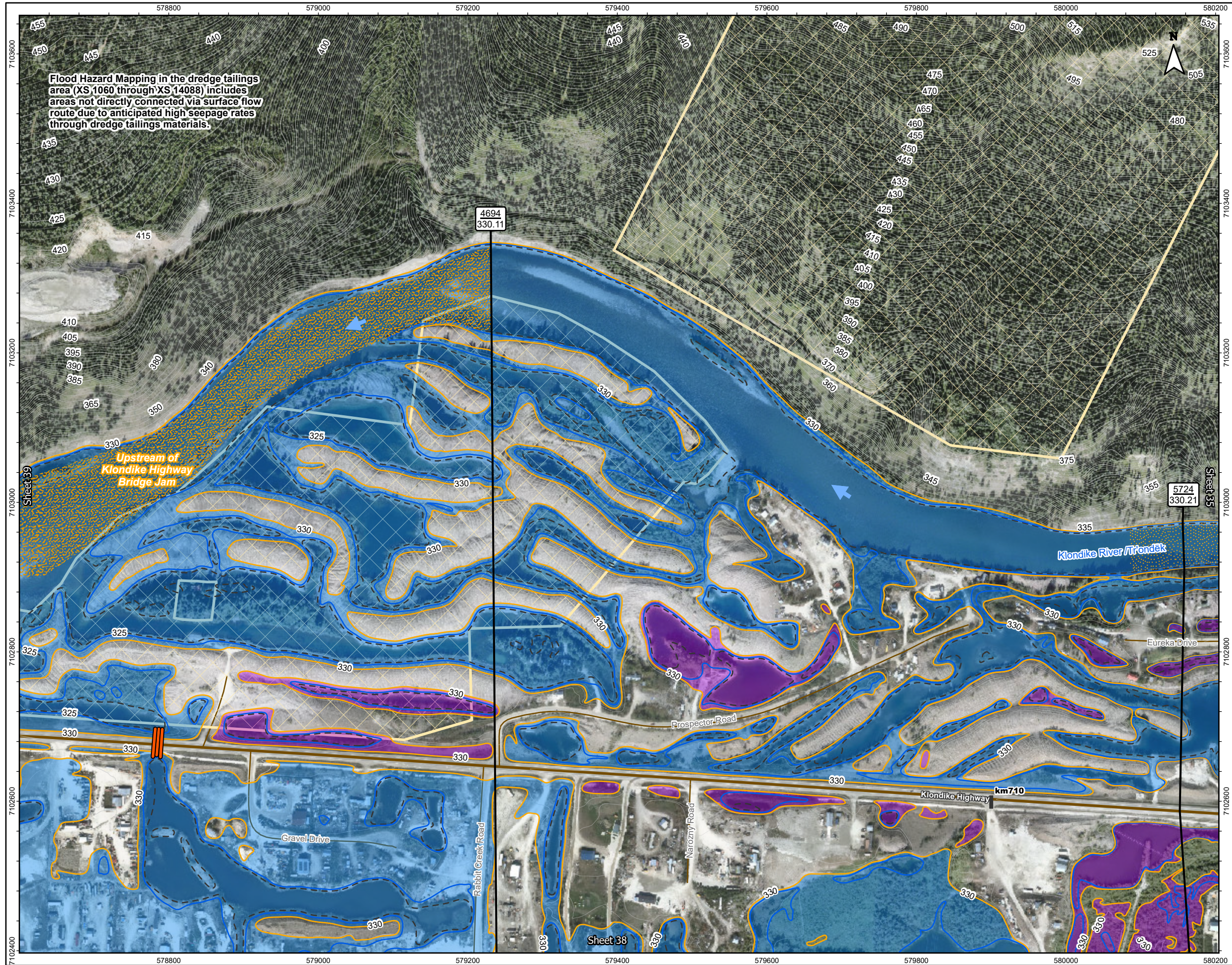
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(At original document size of 11x 17) 1:5,000



- 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 August, 2024 and topographical and bathymetric data that was collected in June and September 2024.
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Title: Dawson City and Klondike Valley Flood Mapping Study
Composite Flood Hazard Map - Klondike River
0.5% Annual Exceedance Probability (AEP)

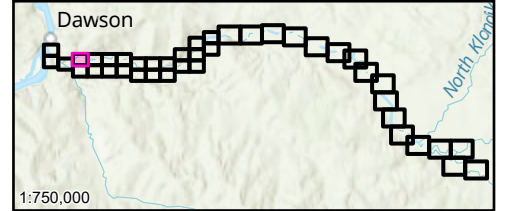
Client/Project:
Government of Yukon
Department of Environment
Water Resources Branch

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

- River Flow Direction
- Toe of Ice Jam
- Highway Kilometer Post
- Tr'ondék Hwëch'in Settlement Land
- Cross-Section Number
WSE (m) Along Cross-Section
- Approximate 50% AEP Open Water Flood Inundation
- Cross-Section Number
WSE (m) Along Cross-Section
(WSE in Dike Breach Scenario)
- Inundation Under Modelled Open Water Runs
- Inundation Under Modelled Breakup Ice Jam Runs
- Surveyed Culvert
- 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)
- Minor Contour (1m)
- Surveyed Cross-Sections Used in Hydraulic Model
- Ice Jamming Extents

Map Publication Date: 03/06/2026
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(At original document size of 11x 17) 1:5,000



Notes
1. Coordinate System: NAD 1983 CSRS UTM Zone 7N Vertical Datum: CGVD2013, Geoid: CGG2013a
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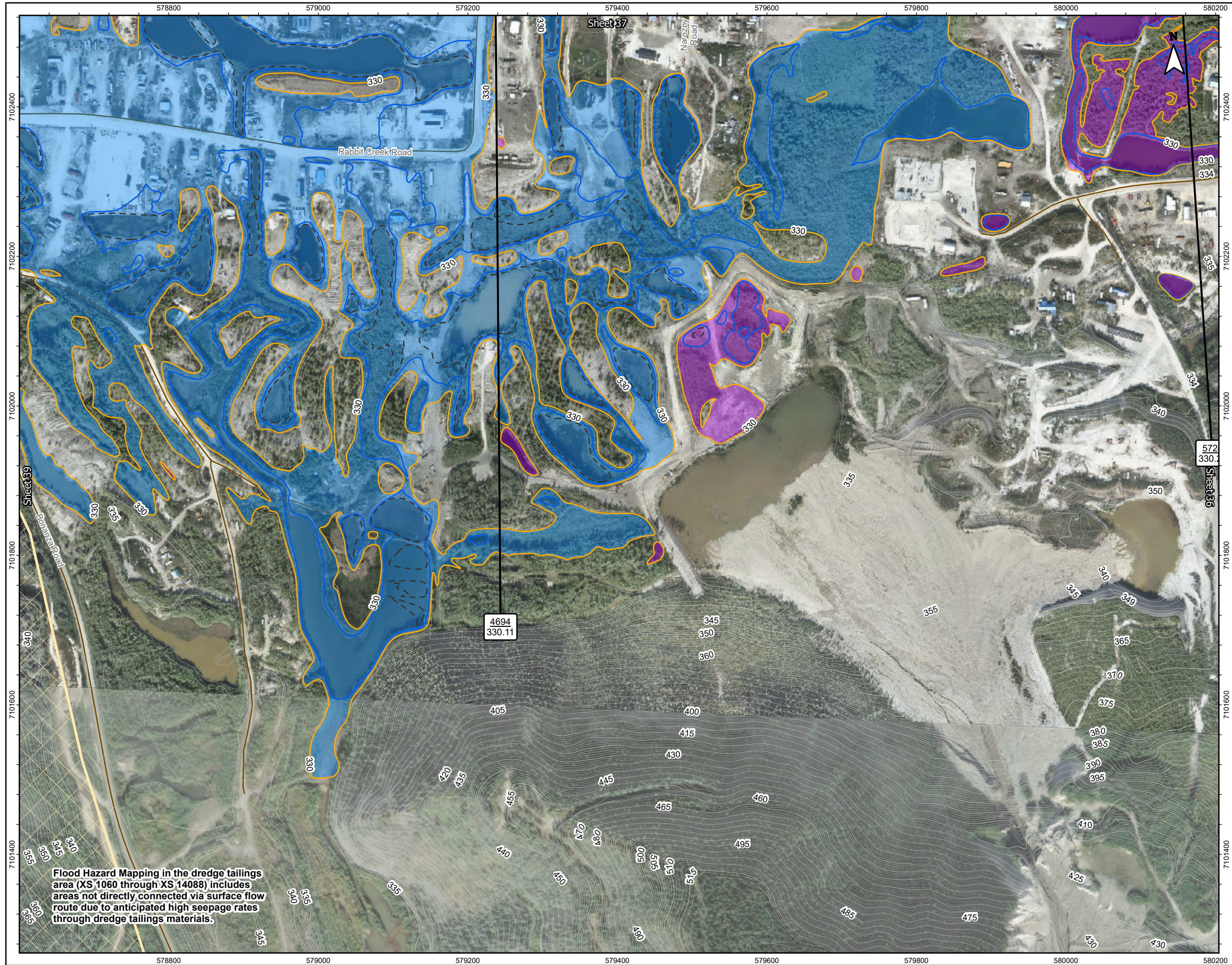


Figure No. **KR-0.5-38** Sheet 38 of 41

Title: **Dawson City and Klondike Valley Flood Mapping Study Composite Flood Hazard Map - Klondike River 0.5% Annual Exceedance Probability (AEP)**

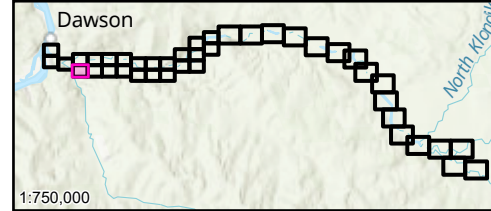
Client/Project: **Government of Yukon Department of Environment Water Resources Branch**

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

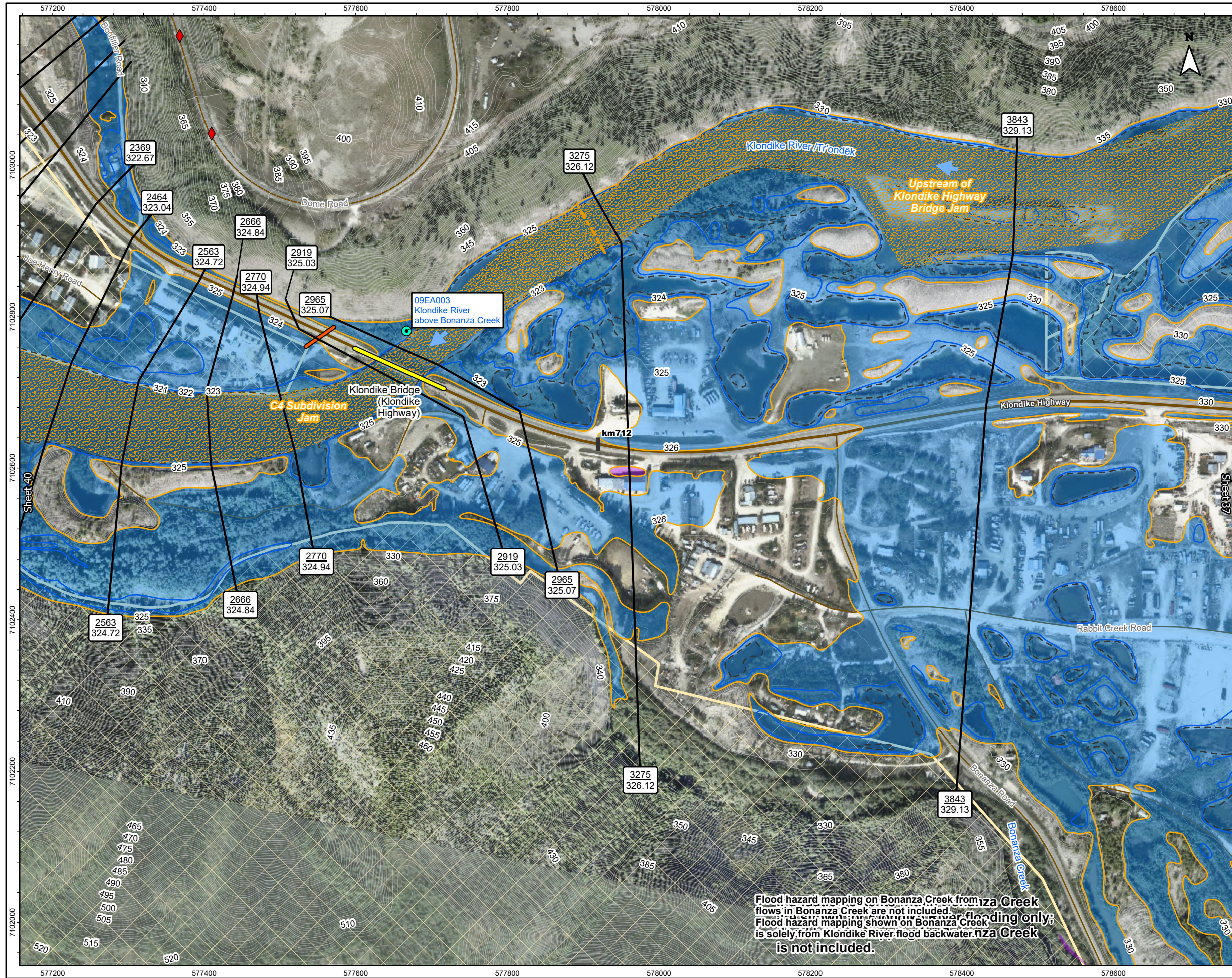
- River Flow Direction
- Toe of Ice Jam
- Highway Kilometer Post
- Tr'ondék Hwëch'in Settlement Land
- Approximate 50% AEP Open Water Flood Inundation
- Cross-Section Number 57 WSE (m) Along Cross-Section 517.2
- Cross-Section Number 22140 WSE (m) Along Cross-Section (WSE in Dike Breach Scenario) 330.26 (320.04)
- Cross-Section Number 4694 WSE (m) Along Cross-Section 330.11
- Inundation Under Modelled Open Water Runs
- Inundation Under Modelled Breakup Ice Jam Runs
- Local Road
- Composite Open Water and Ice Jam Inundation Extent
- Major Contour (5m)
- Inundation Extent From Subsurface Seepage
- Minor Contour (1m)
- Surveyed Cross-Sections Used in Hydraulic Model

Map Publication Date: 03/06/2026
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 (At original document size of 11x 17) 1:5,000



- 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
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Flood Hazard Mapping in the dredge tailings area (XS 1060 through XS 14088) includes areas not directly connected via surface flow route due to anticipated high seepage rates through dredge tailings materials.

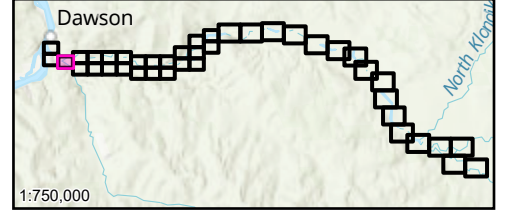


Client/Project:
 Government of Yukon
 Department of Environment
 Water Resources Branch

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

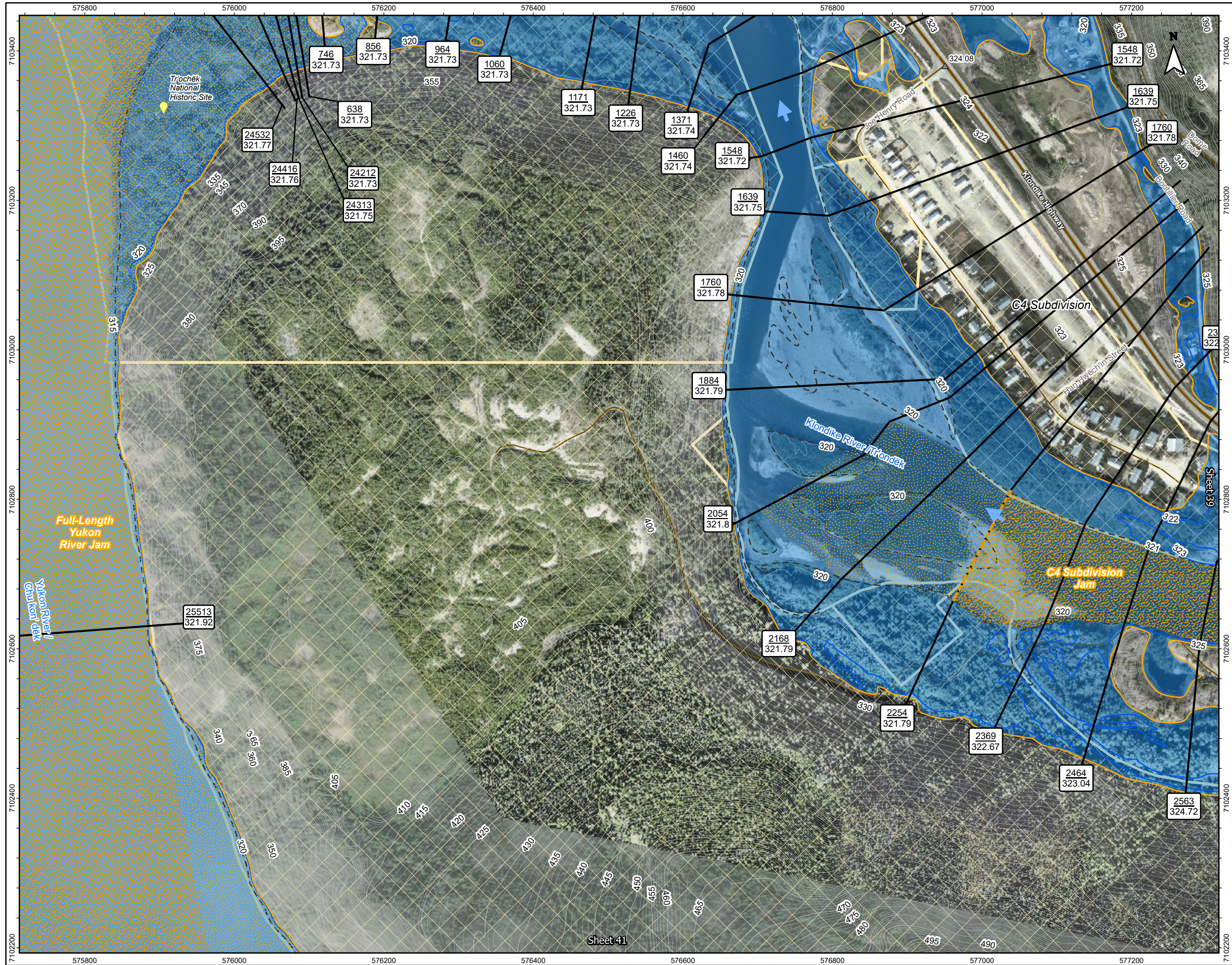
- River Flow Direction
- WSC Stations
- Highway Kilometer Post
- HPW Drainage Culverts
- Cross-Section Number WSE (m) Along Cross-Section
- Cross-Section Number WSE (m) Along Cross-Section (WSE in Dike Breach Scenario)
- Surveyed Culvert
- Bridge
- Highway
- Local Road
- Major Contour (5m)
- Minor Contour (1m)
- Surveyed Cross-Sections Used in Hydraulic Model
- Toe of Ice Jam
- Tr'ondék 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

Map Publication Date: 03/06/2026
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 (At original document size of 11x 17) 1:5,000



Notes
 1. Coordinate System: NAD 1983 CSRS UTM Zone 7N Vertical Datum: CGVD2013, Geoid: CGG2013a
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Flood hazard mapping on Bonanza Creek from Niza Creek flows in Bonanza Creek are not included. Flood hazard mapping shown on Bonanza Creek is solely from Klondike River flood backwater. Niza Creek is not included.



Title: Dawson City and Klondike Valley Flood Mapping Study
Composite Flood Hazard Map - Klondike River
0.5% Annual Exceedance Probability (AEP)

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

Project: 123222713

Project Location: Dawson, Yukon

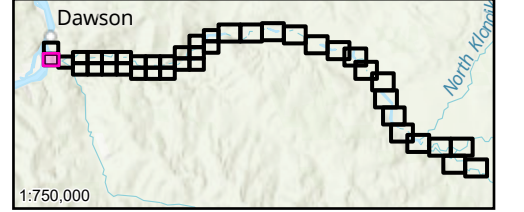
Prepared by JMUIRHEAD on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2026-03-06

- River Flow Direction
- Ground Elevations of Interest
- Highway Kilometer Post
- Point of Interest
- Cross-Section Number
WSE (m) Along Cross-Section
- Cross-Section Number
WSE (m) Along Cross-Section
(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
- Tr'ondëk 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
- Potential Presence of Ice
Debris During Jam Scenario
- Ice Jamming Extents

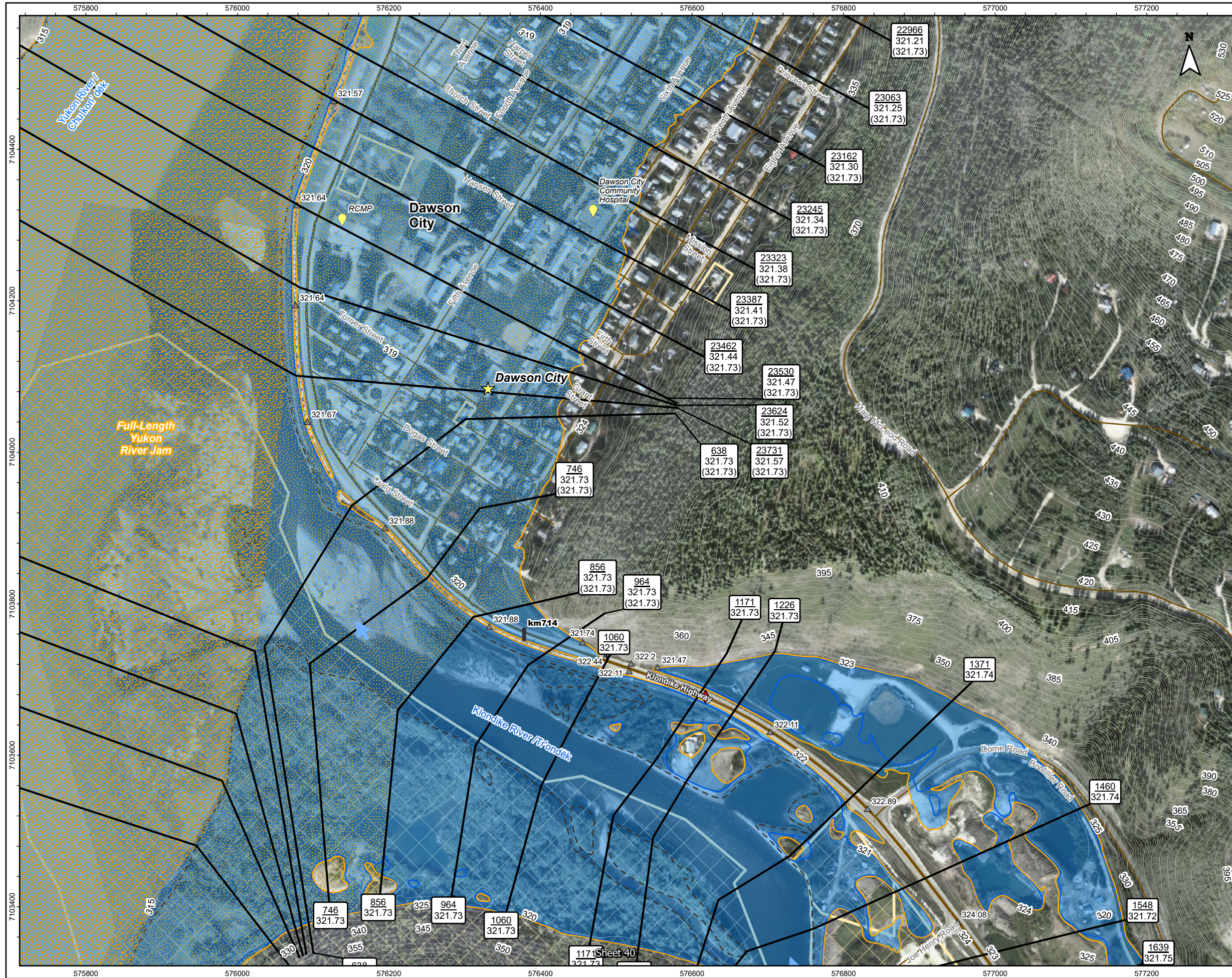
Map Publication Date: 03/06/2026

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- Notes**
- 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 - Klondike River
0.5% Annual Exceedance Probability (AEP)**

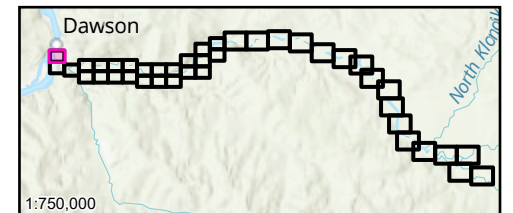
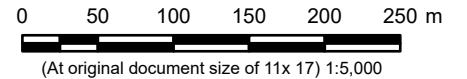
Client/Project:
Government of Yukon
Department of Environment
Water Resources Branch

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

- | | |
|--|--|
| River Flow Direction | Minor Contour (1m) |
| Ground Elevations of Interest | Surveyed Cross-Sections Used in Hydraulic Model |
| Highway Kilometer Post | Toe of Ice Jam |
| HPW Drainage Culverts | Tr'ondëk Hwëch'in Settlement Land |
| Municipality | Approximate 50% AEP Open Water Flood Inundation |
| Point 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 |

Map Publication Date: 03/06/2026



- Notes**
1. Coordinate System: NAD 1983 CSRS UTM Zone 7N Vertical Datum: CGVD2013a, Geoid: CGG2013a
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