

Figure No. **KR-1-01** Sheet 01 of 41

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

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

Project: 123222713

Project Location: Dawson, Yukon

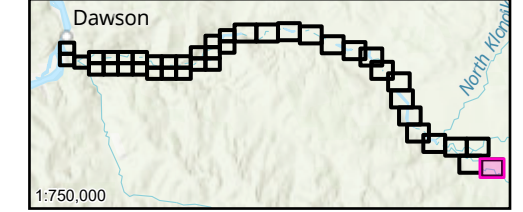
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 20226-03-06

- River Flow Direction
- HPW Drainage Culverts
- Highway Kilometer Post
- 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
- Limit of Flood Hazard
Mapping
- Tr'ondëk Hwëch'in Settlement
Land
- Inundation Under Modelled
Open Water Runs
- Composite Open Water and
Ice Jam Inundation Extents

Map Publication Date: 03/06/2026

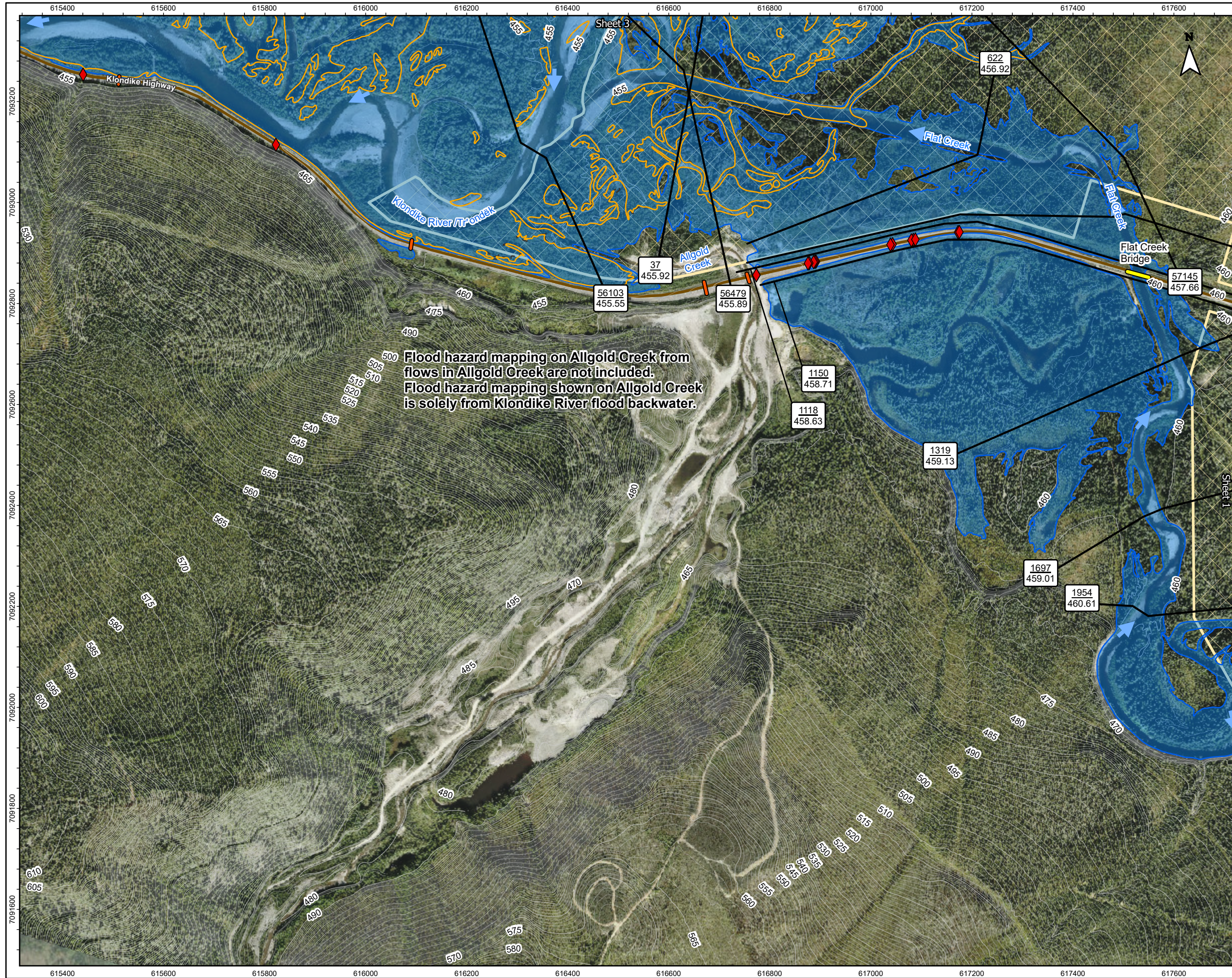
0 100 200 300 400 m

(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
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.



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

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

Project: 123222713

Project Location: Dawson, Yukon

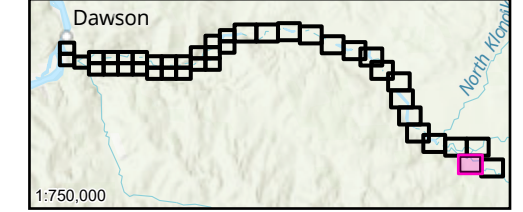
Prepared by MANDERSON on 2026-03-06
 Requested by JMUIRHEAD on 2024-03-30
 Review by JMUIRHEAD on 20226-03-06

- | | |
|--|---|
| River Flow Direction | Major Contour (5m) |
| HPW Drainage Culverts | Minor Contour (1m) |
| Highway Kilometer Post | Surveyed Cross-Sections Used in Hydraulic Model |
| 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 |
| Surveyed Culvert Location | Inundation Under Modelled Open Water Runs |
| Bridge | Inundation Under Modelled Breakup Ice Jam Runs |
| Highway | Composite Open Water and Ice Jam Inundation Extents |

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
 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.

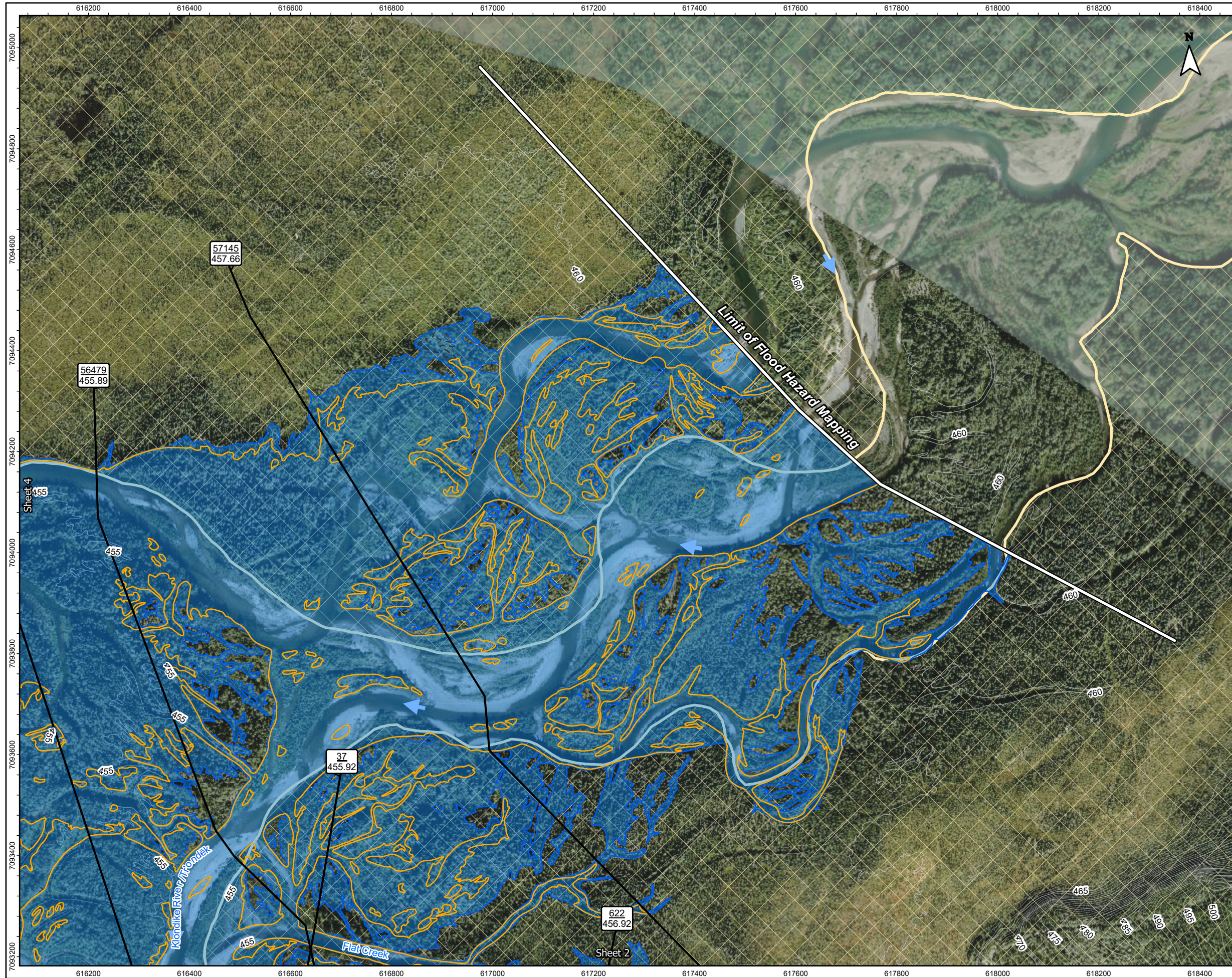


Figure No. **KR-1-03** Sheet 03 of 41

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

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

Project: 123222713

Project Location: Dawson, Yukon

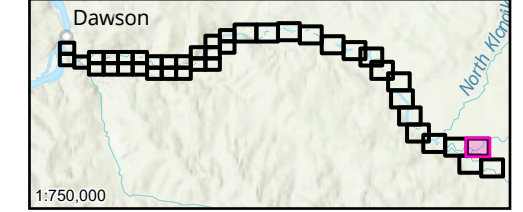
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 20226-03-06

- River Flow Direction
- Limit of Flood Hazard Mapping
- 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
- Composite Open Water and Ice Jam Inundation Extents
- Major Contour (5m)
- Minor Contour (1m)
- Surveyed Cross-Sections Used in Hydraulic Model

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
- 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.

Disclaimer: Any unauthorized use or reliance of Draft Maps is at the User's own risk. Stantec disclaims any legal duty based upon warranty, reliance or any other theory to any User, and will not be liable to any User for any damages or losses of any kind that may result.

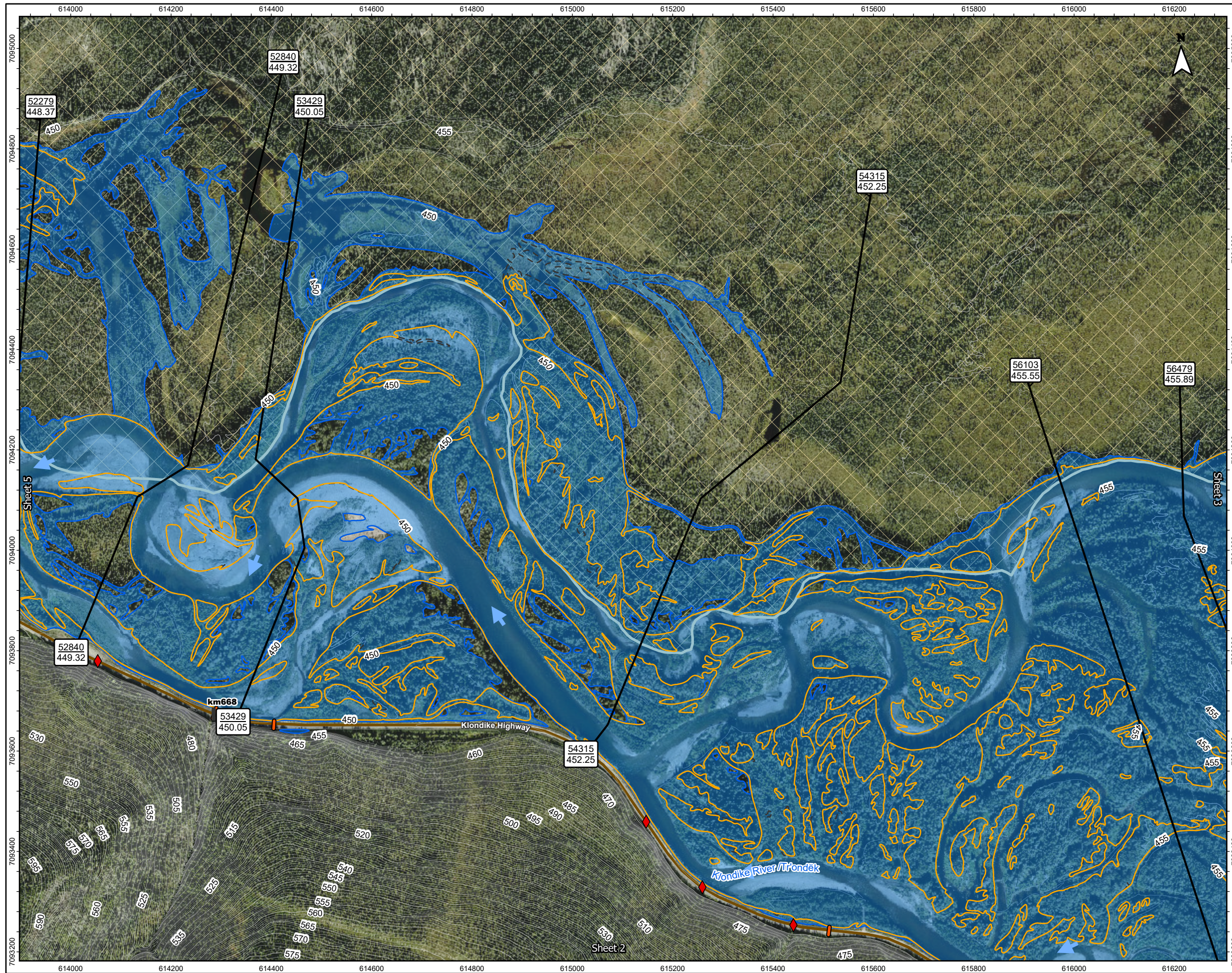


Figure No. **KR-1-04** Sheet 04 of 41

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

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

Project: 123222713

Project Location: Dawson, Yukon

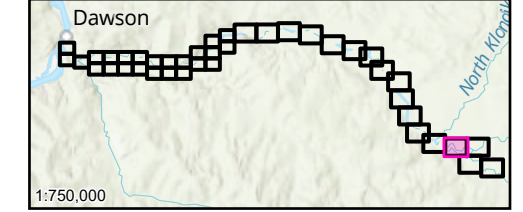
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 20226-03-06

- River Flow Direction
- HPW Drainage Culverts
- Highway Kilometer Post
- Cross-Section Number
WSE (m) Along Cross Section
- Cross-Section Number
WSE (m) Along Cross-Section
(WSE in Dike Breach
Scenario)
- Surveyed Culvert Location
- Highway
- Major Contour (5m)
- Minor Contour (1m)
- Surveyed Cross-Sections
Used in Hydraulic Model
- 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 Extents

Map Publication Date: 03/06/2026

0 100 200 300 400 m

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

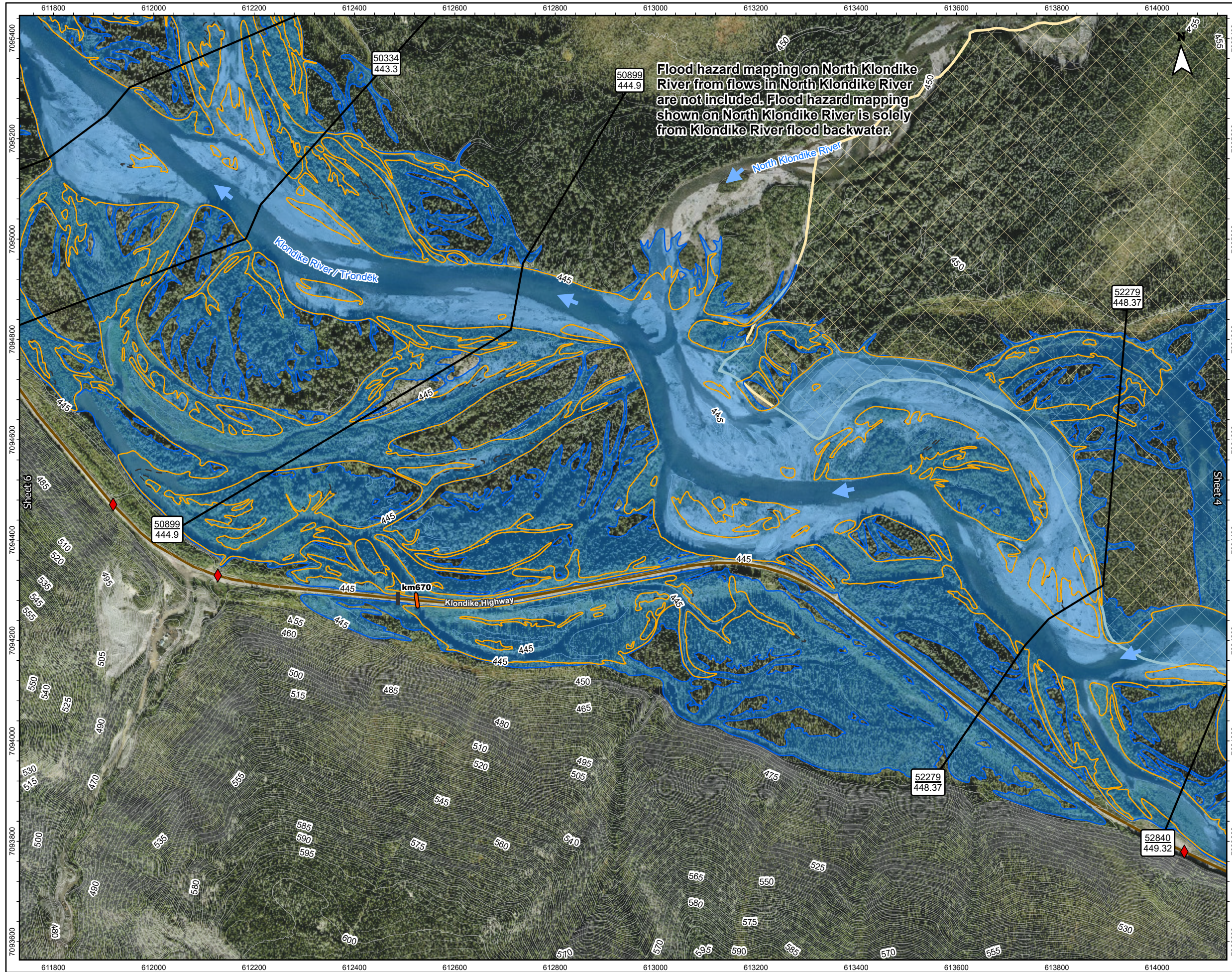


Notes

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
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.

Disclaimer: Any unauthorized use or reliance of Draft Maps is at the User's own risk. Stantec disclaims any legal duty based upon warranty, reliance or any other theory to any User, and will not be liable to any User for any damages or losses of any kind that may result.





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

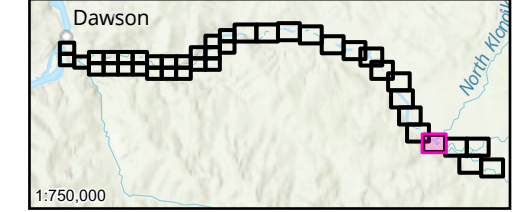
Client/Project:
Government of Yukon
Department of Environment
Water Resources Branch

Project: 123222713

Project Location: Dawson, Yukon
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 20226-03-06

- River Flow Direction
- HPW Drainage Culverts
- Highway Kilometer Post
- Cross-Section Number
WSE (m) Along Cross Section
- Cross-Section Number
WSE (m) Along Cross-Section
(WSE in Dike Breach Scenario)
- Surveyed Culvert Location
- Highway
- Major Contour (5m)
- Minor Contour (1m)
- Surveyed Cross-Sections
Used in Hydraulic Model
- 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 Extents

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
 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.

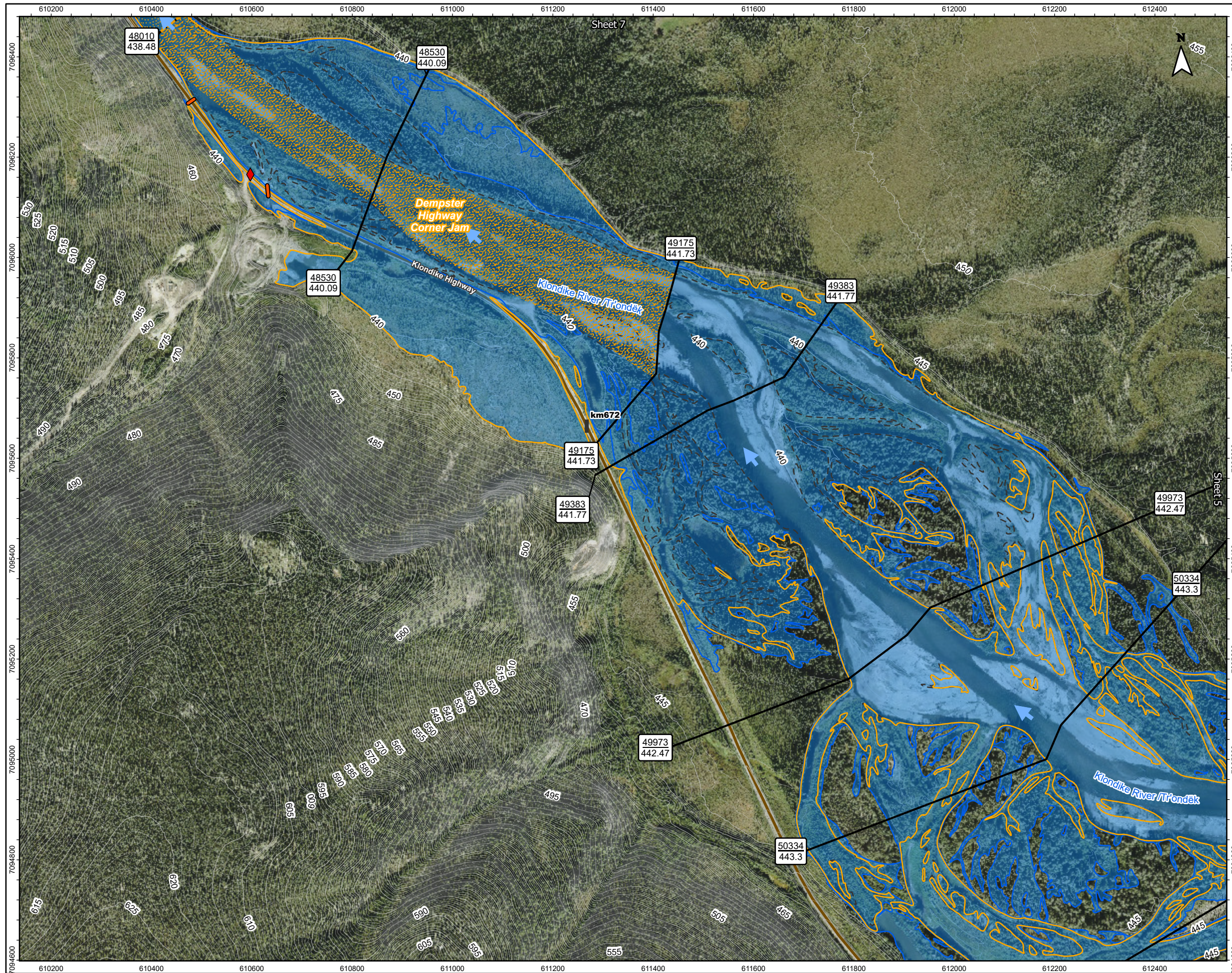


Figure No. **KR-1-06** Sheet 06 of 41

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

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

Project: 123222713

Project Location: Dawson, Yukon

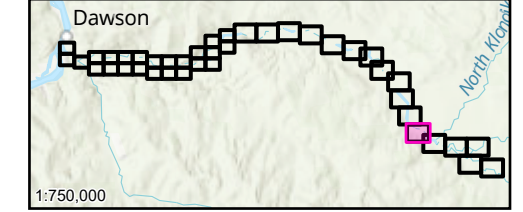
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 20226-03-06

- River Flow Direction
- HPW Drainage Culverts
- Highway Kilometer Post
- Cross-Section Number
WSE (m) Along Cross Section
- Cross-Section Number
WSE (m) Along Cross-Section
(WSE in Dike Breach
Scenario)
- Surveyed Culvert Location
- 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 Extents
- 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

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.



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

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

Project: 123222713

Project Location: Dawson, Yukon

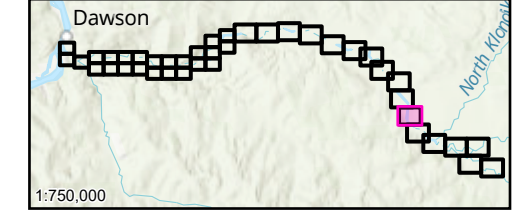
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2022-03-06

- River Flow Direction
- Highway Kilometer Post
- Cross-Section Number
WSE (m) Along Cross Section
- Cross-Section Number
WSE (m) Along Cross-Section
(WSE in Dike Breach Scenario)
- Surveyed Culvert Location
- Bridge
- 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 Extents
- 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

1. Coordinate System: NAD 1983 CSRS UTM Zone 7N Vertical Datum: CGVD2013, Geoid: CGVD2013a
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.

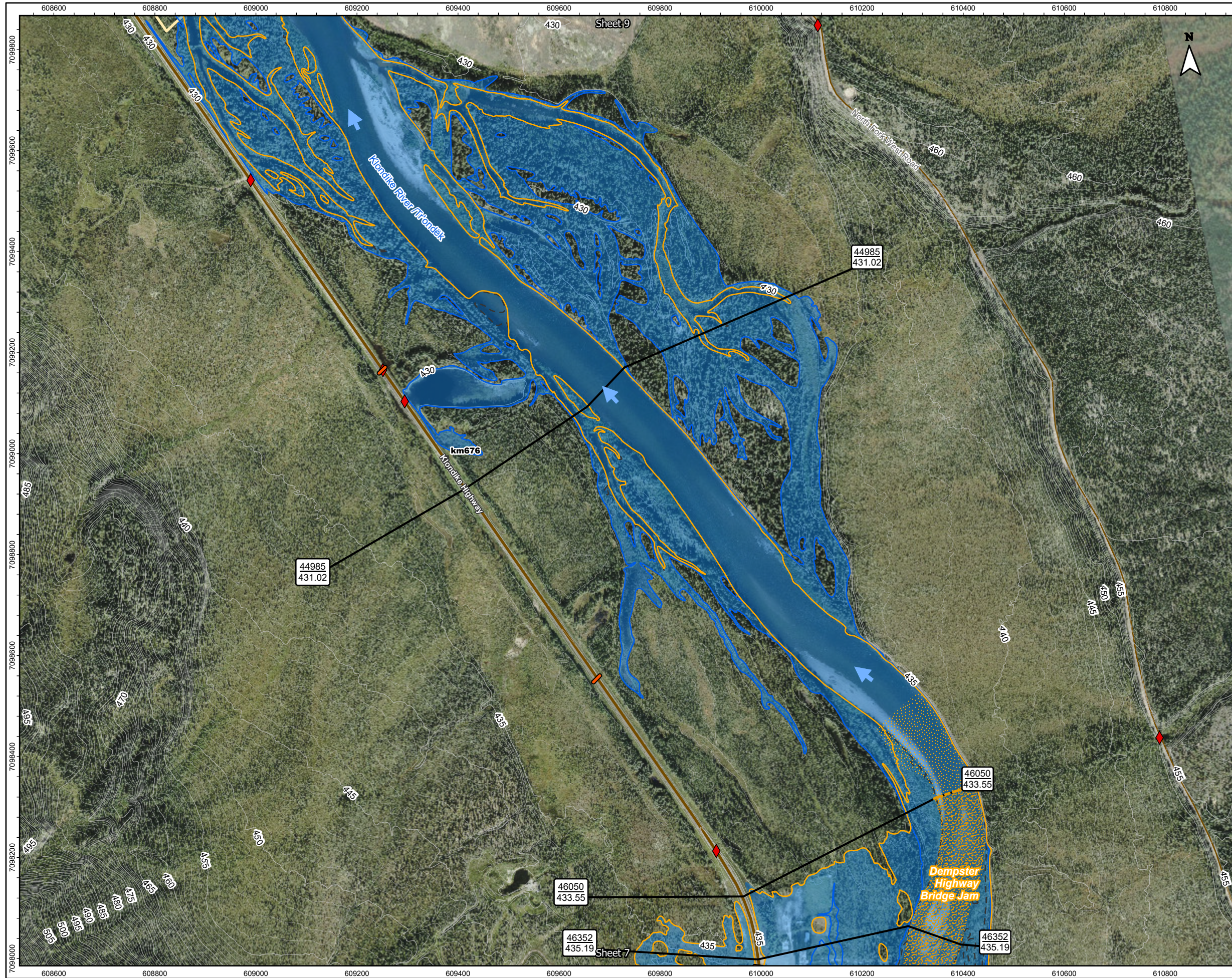


Figure No. **KR-1-08** Sheet 08 of 41

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

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

Project: 123222713

Project Location: Dawson, Yukon

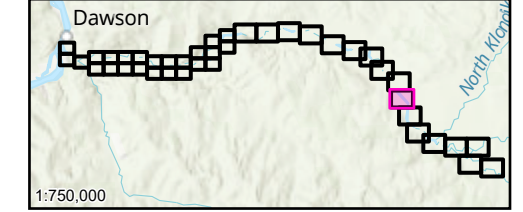
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 20226-03-06

- River Flow Direction
- HPW Drainage Culverts
- Highway Kilometer Post
- Cross-Section Number
WSE (m) Along Cross Section
- Cross-Section Number
WSE (m) Along Cross-Section
(WSE in Dike Breach Scenario)
- Surveyed Culvert Location
- 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 Extents
- 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
- 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.

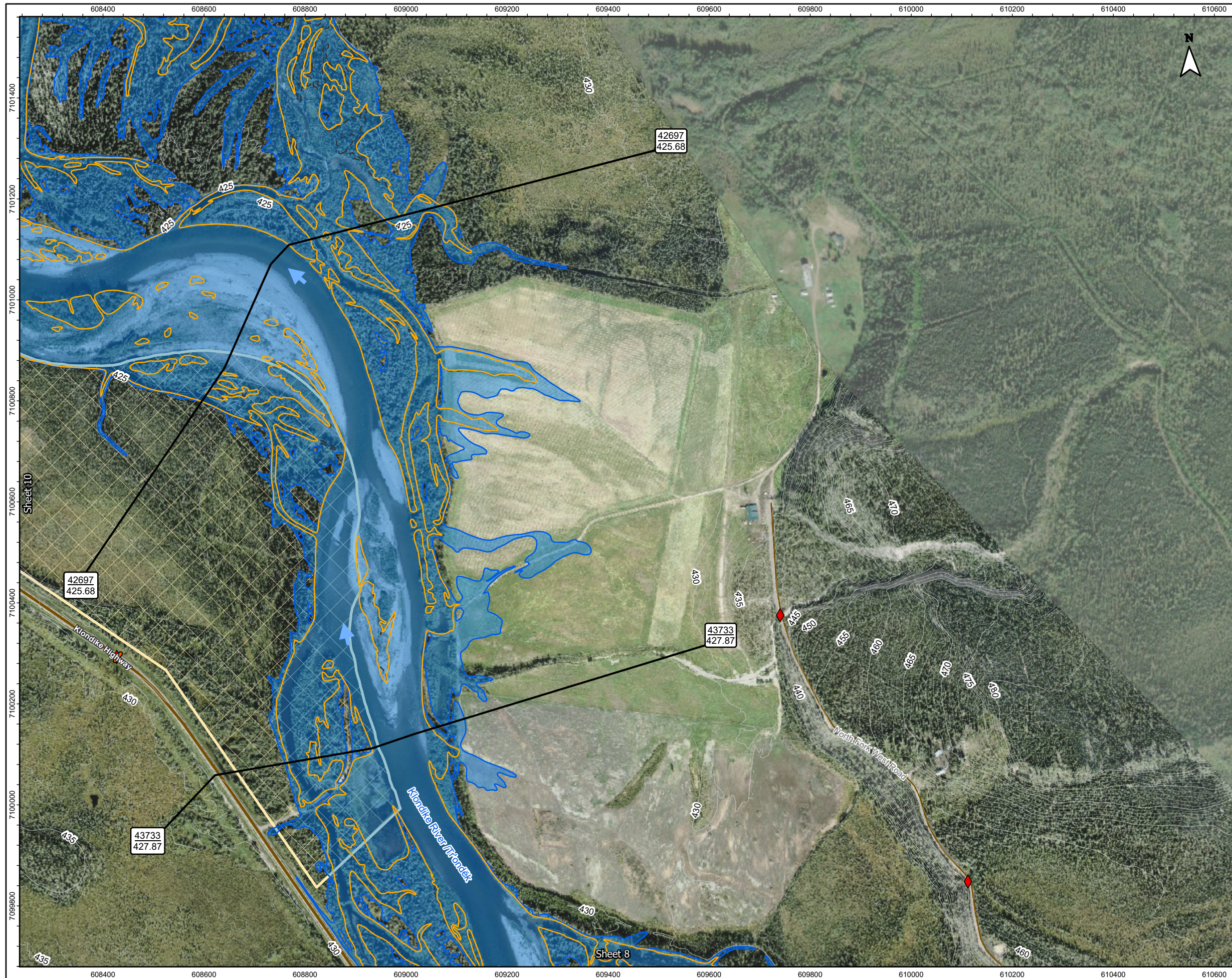


Figure No. **KR-1-09** Sheet 09 of 41

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

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

Project: 123222713

Project Location: Dawson, Yukon

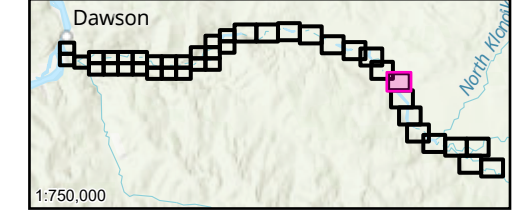
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 20226-03-06

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

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
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.

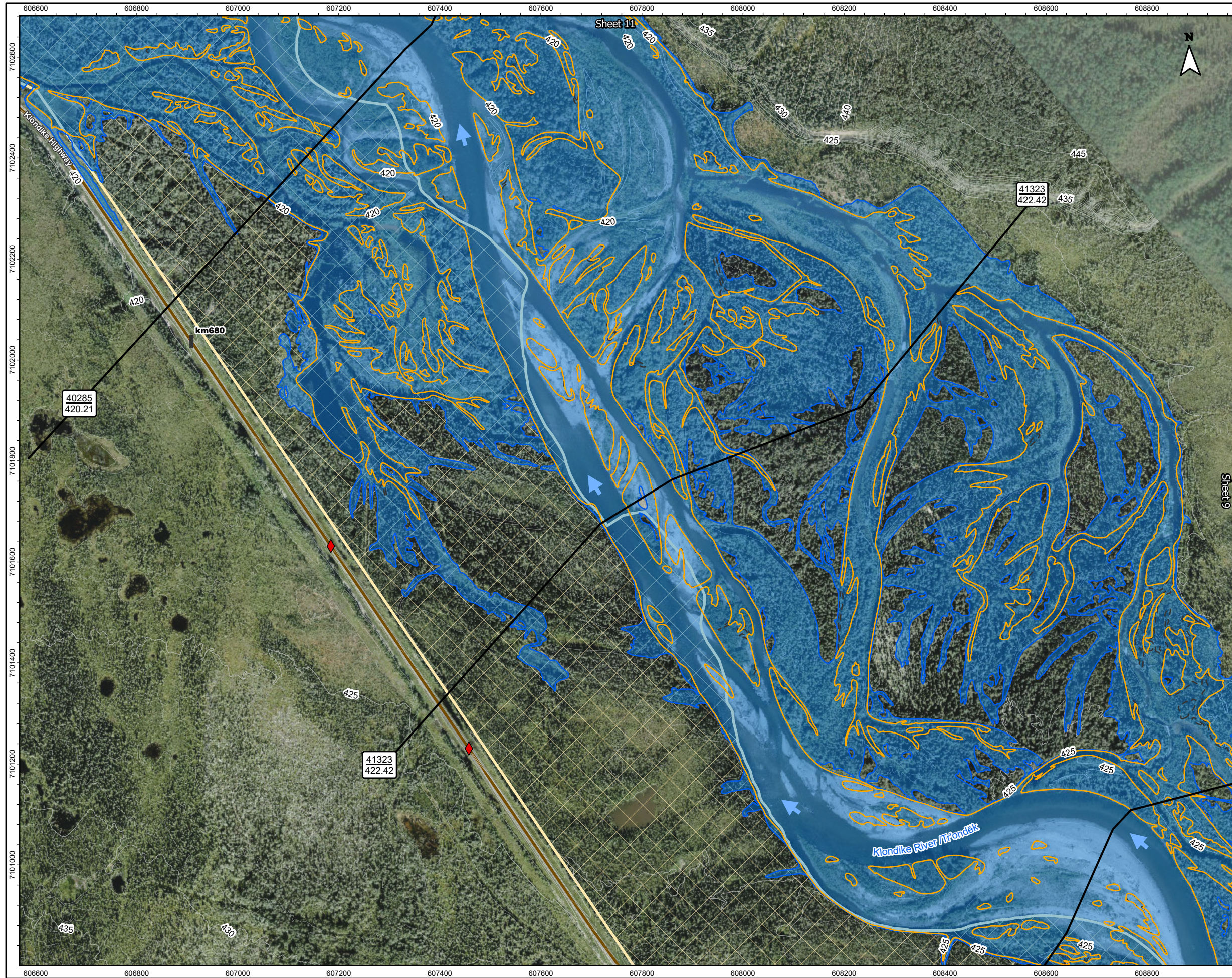


Figure No. **KR-1-10** Sheet 10 of 41

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

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

Project: 123222713

Project Location: Dawson, Yukon

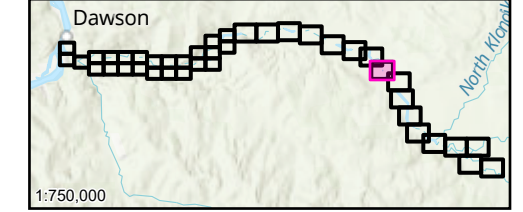
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 20226-03-06

- | | | | |
|--|--|--|---|
| | River Flow Direction | | Minor Contour (1m) |
| | HPW Drainage Culverts | | Surveyed Cross-Sections Used in Hydraulic Model |
| | 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 |
| | Highway | | Inundation Under Modelled Breakup Ice Jam Runs |
| | Major Contour (5m) | | Composite Open Water and Ice Jam Inundation Extents |

Map Publication Date: 03/06/2026

0 100 200 300 400 m

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

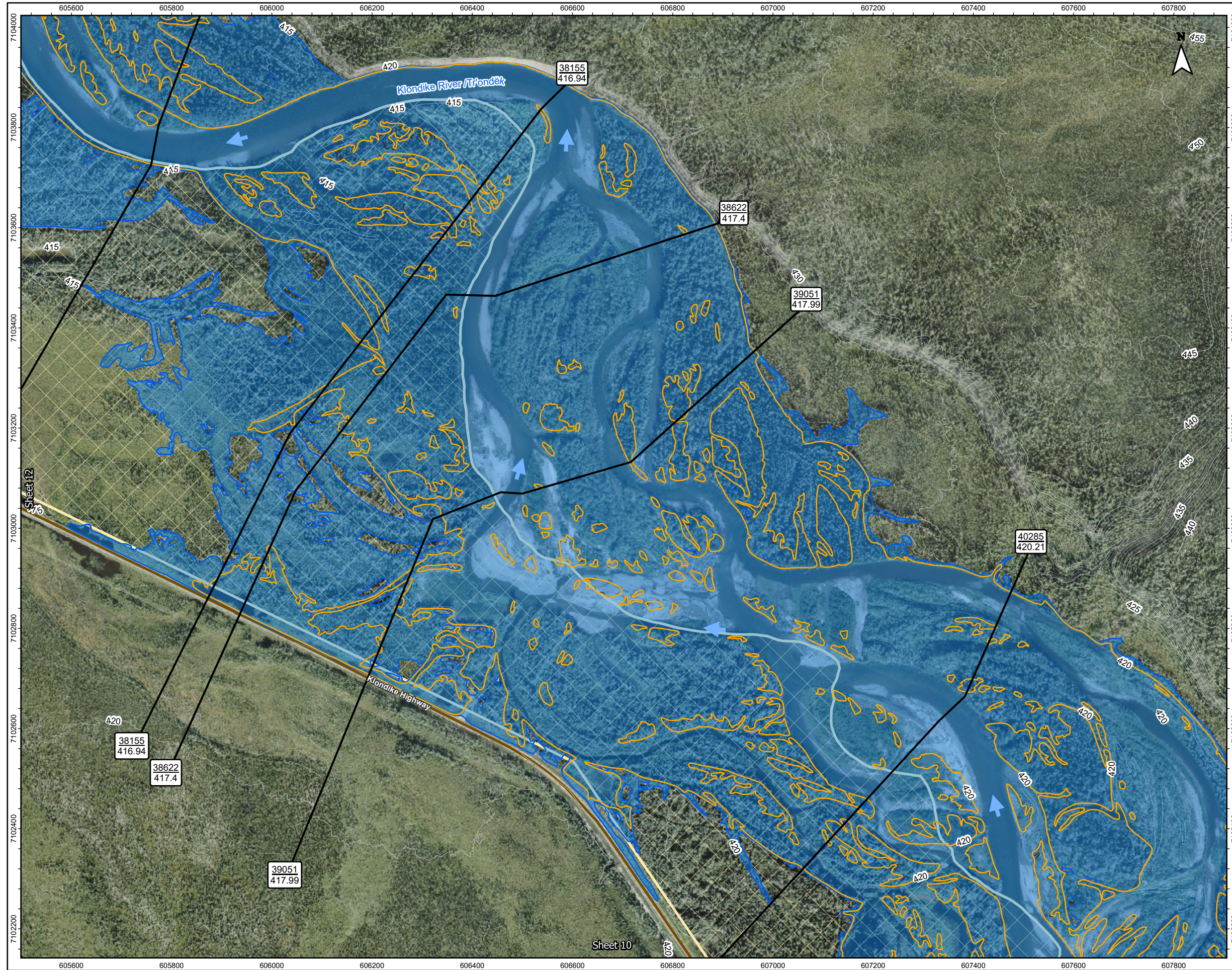


Notes

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



This project is funded in part by the Government of Canada



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

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

Project: 123222713

Project Location: Dawson, Yukon

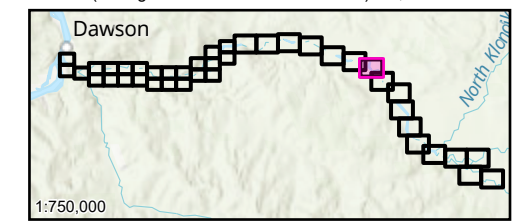
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 20226-03-06

- River Flow Direction
- Surveyed Cross-Sections Used in Hydraulic Model
- 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 Breakup Scenario)
- Inundation Under Modelled Open Water Runs
- Inundation Under Modelled Breakup Ice Jam Runs
- Composite Open Water and Ice Jam Inundation Extents
- Highway
- Major Contour (5m)
- 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
 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.

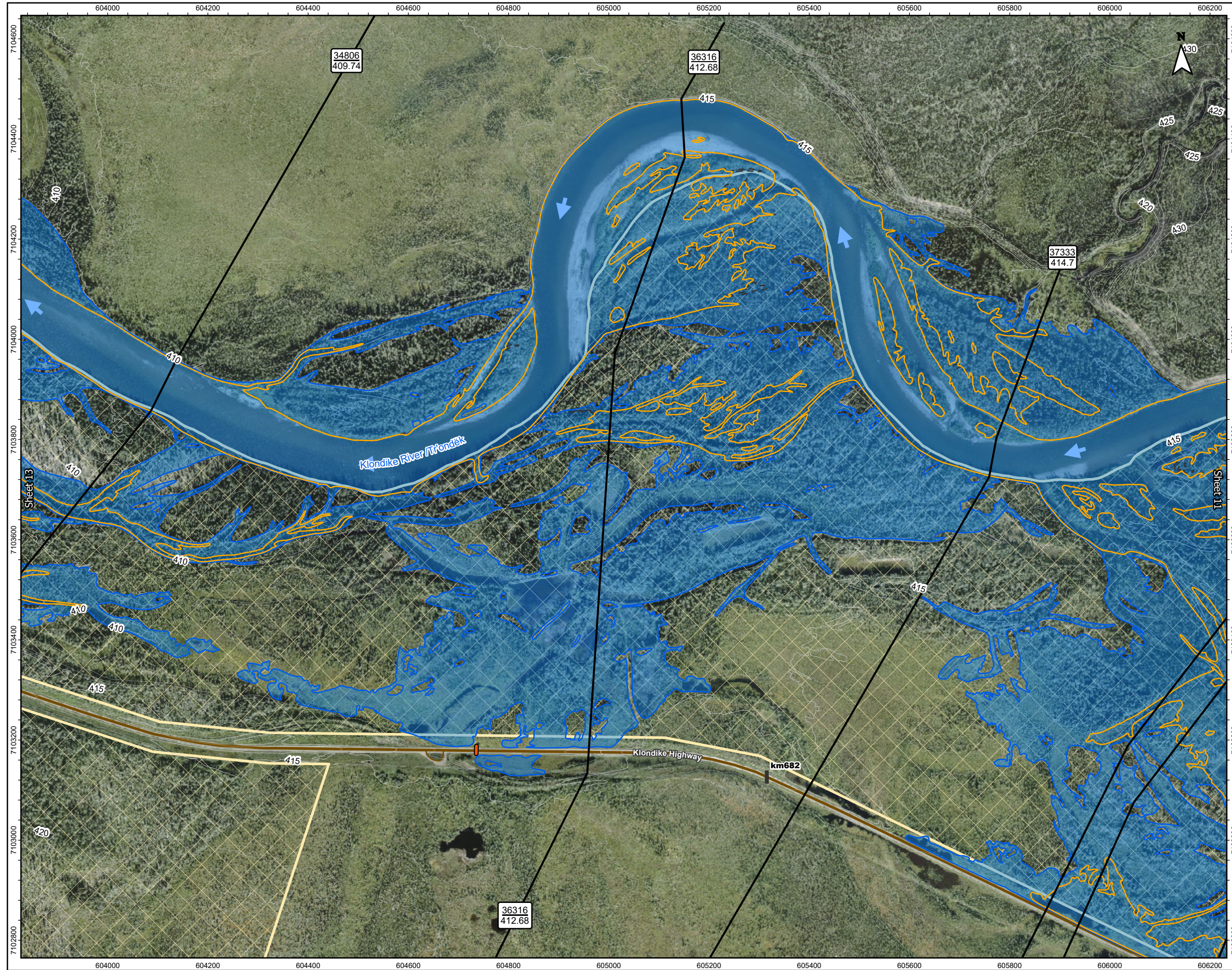


Figure No. **KR-1-12** Sheet 12 of 41

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

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

Project: 123222713

Project Location: Dawson, Yukon

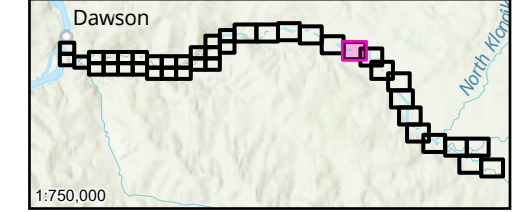
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 20226-03-06

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

Map Publication Date: 03/06/2026

0 100 200 300 400 m

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

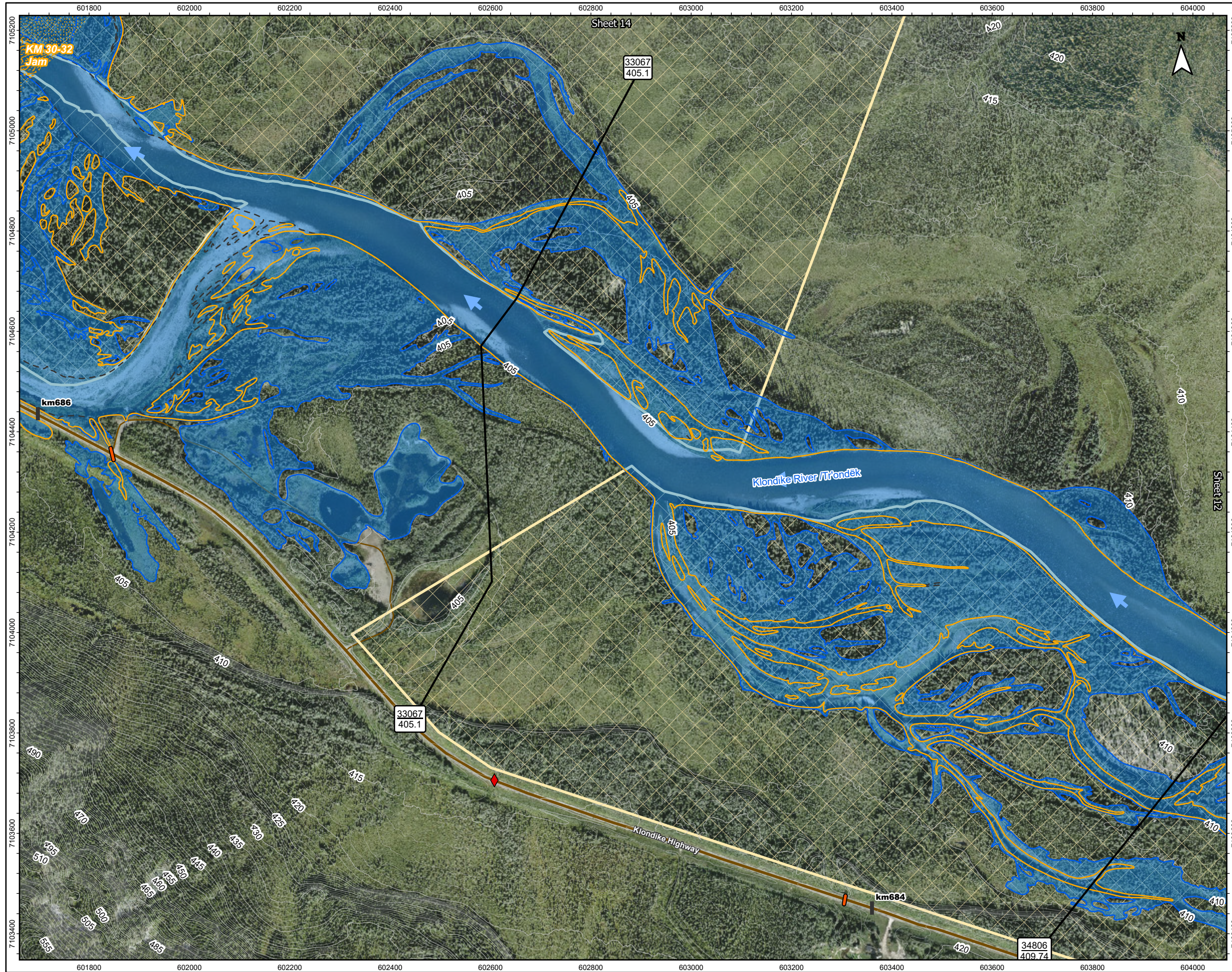


Notes

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
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.



Disclaimer: Any unauthorized use or reliance of Draft Maps is at the User's own risk. Stantec disclaims any legal duty based upon warranty, reliance or any other theory to any User, and will not be liable to any User for any damages or losses of any kind that may result.



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

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

Project: 123222713

Project Location: Dawson, Yukon

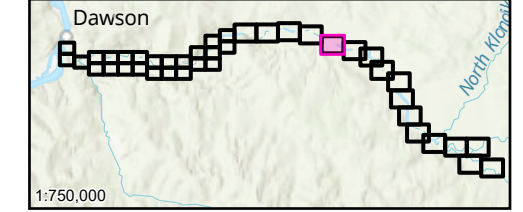
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 20226-03-06

- River Flow Direction
- HPW Drainage Culverts
- Highway Kilometer Post
- Cross-Section Number
WSE (m) Along Cross Section
- Cross-Section Number
WSE (m) Along Cross-Section
(WSE in Dike Breach Scenario)
- Surveyed Culvert Location
- Highway
- Local Road
- Major Contour (5m)
- Minor Contour (1m)
- Surveyed Cross-Sections
Used in Hydraulic Model
- T'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 Extents
- 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**
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.

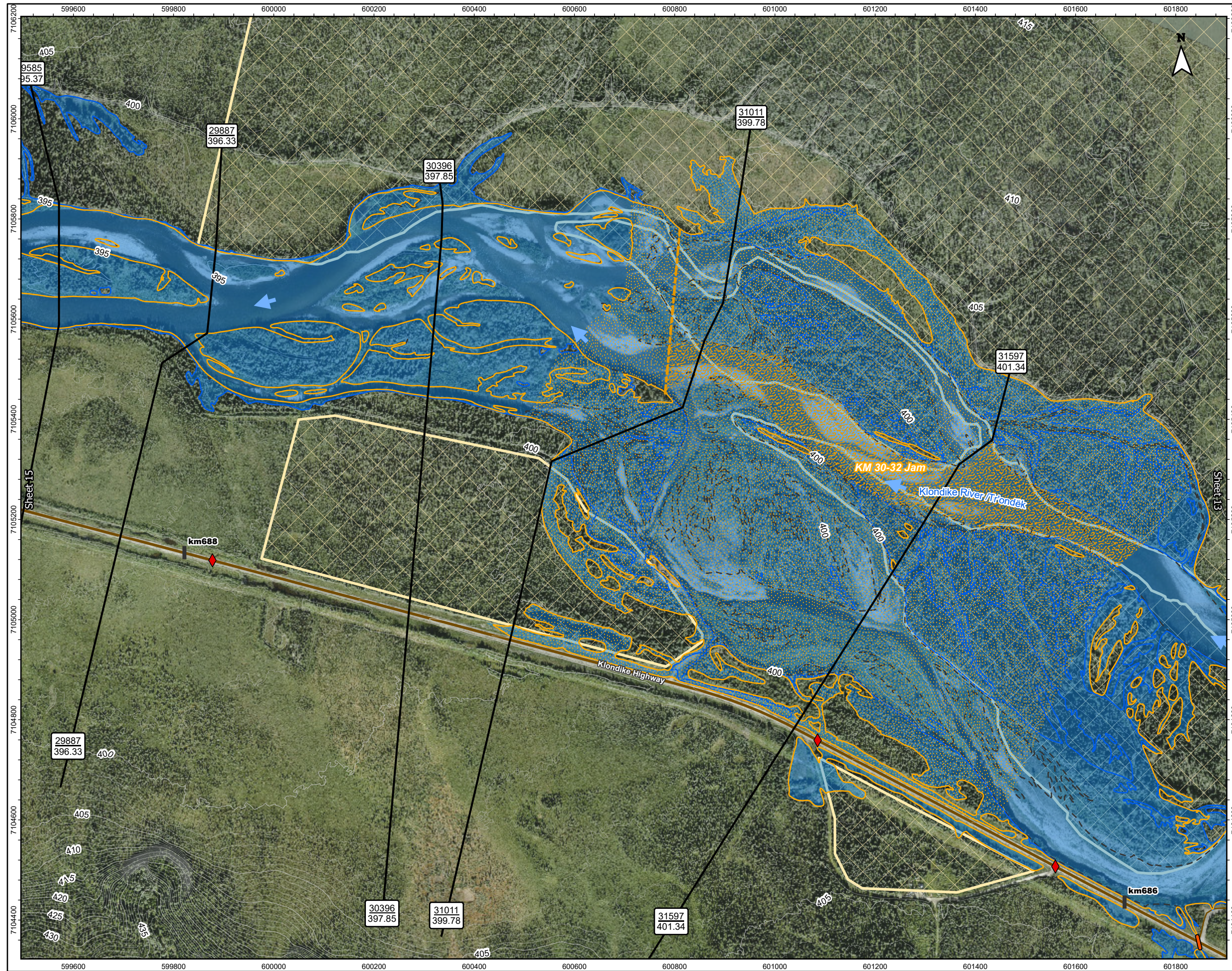


Figure No. **KR-1-14** Sheet 14 of 41

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

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

Project: 123222713

Project Location: Dawson, Yukon

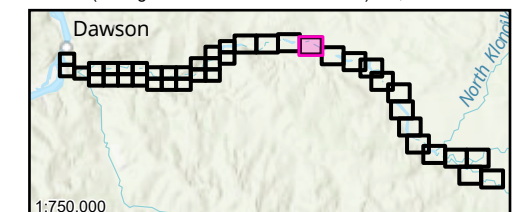
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 20226-03-06

- River Flow Direction
- HPW Drainage Culverts
- Highway Kilometer Post
- Cross-Section Number
WSE (m) Along Cross Section
- Cross-Section Number
WSE (m) Along Cross-Section
(WSE in Dike Breach Scenario)
- Surveyed Culvert Location
- 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 Extents
- 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

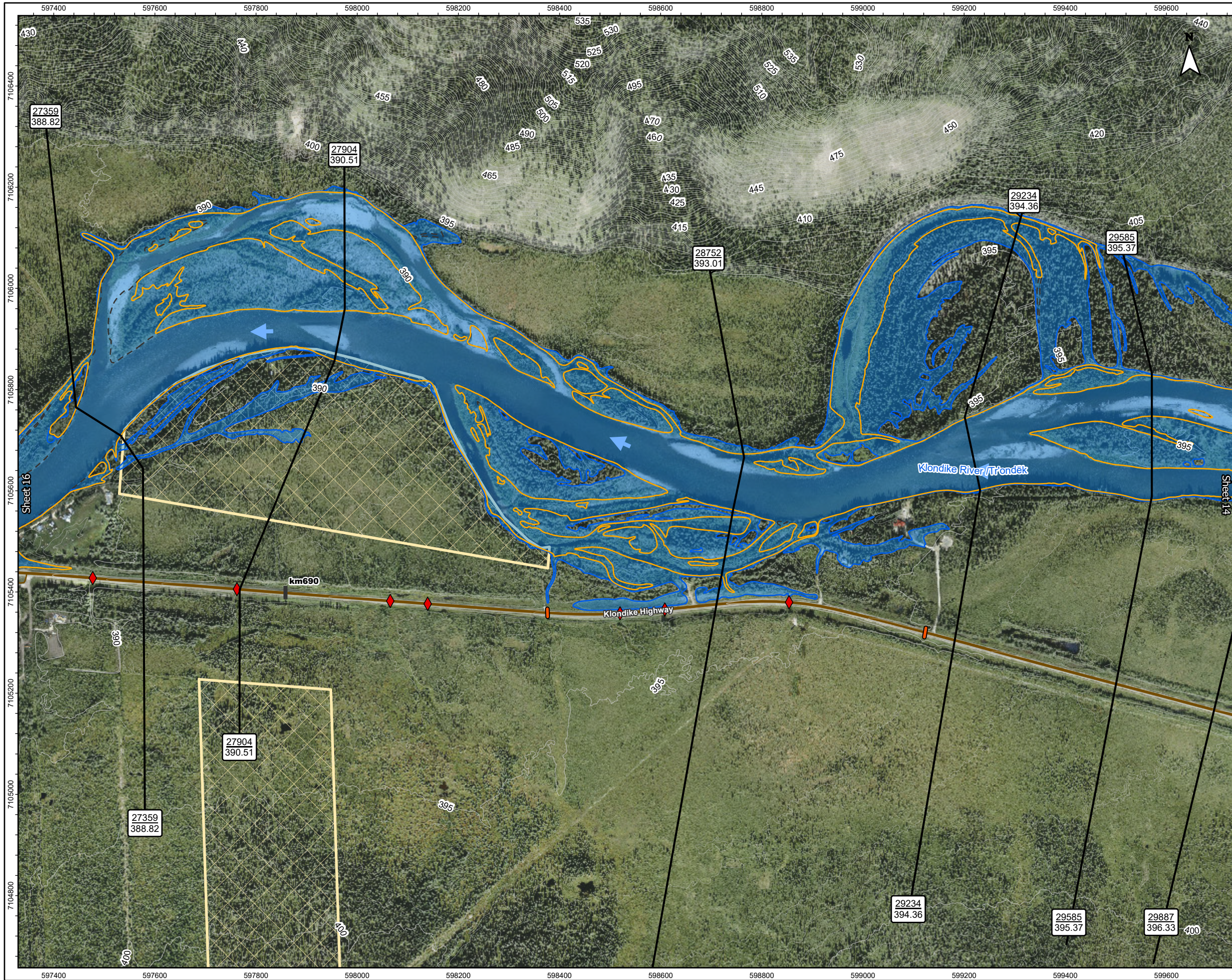


Notes

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



Disclaimer: Any unauthorized use or reliance of Draft Maps is at the User's own risk. Stantec disclaims any legal duty based upon warranty, reliance or any other theory to any User, and will not be liable to any User for any damages or losses of any kind that may result.



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

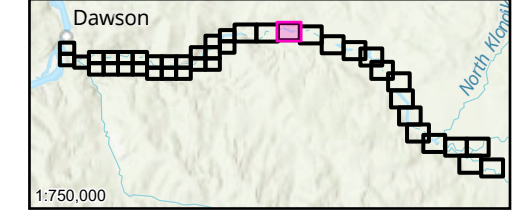
Client/Project:
Government of Yukon
Department of Environment
Water Resources Branch

Project: 123222713

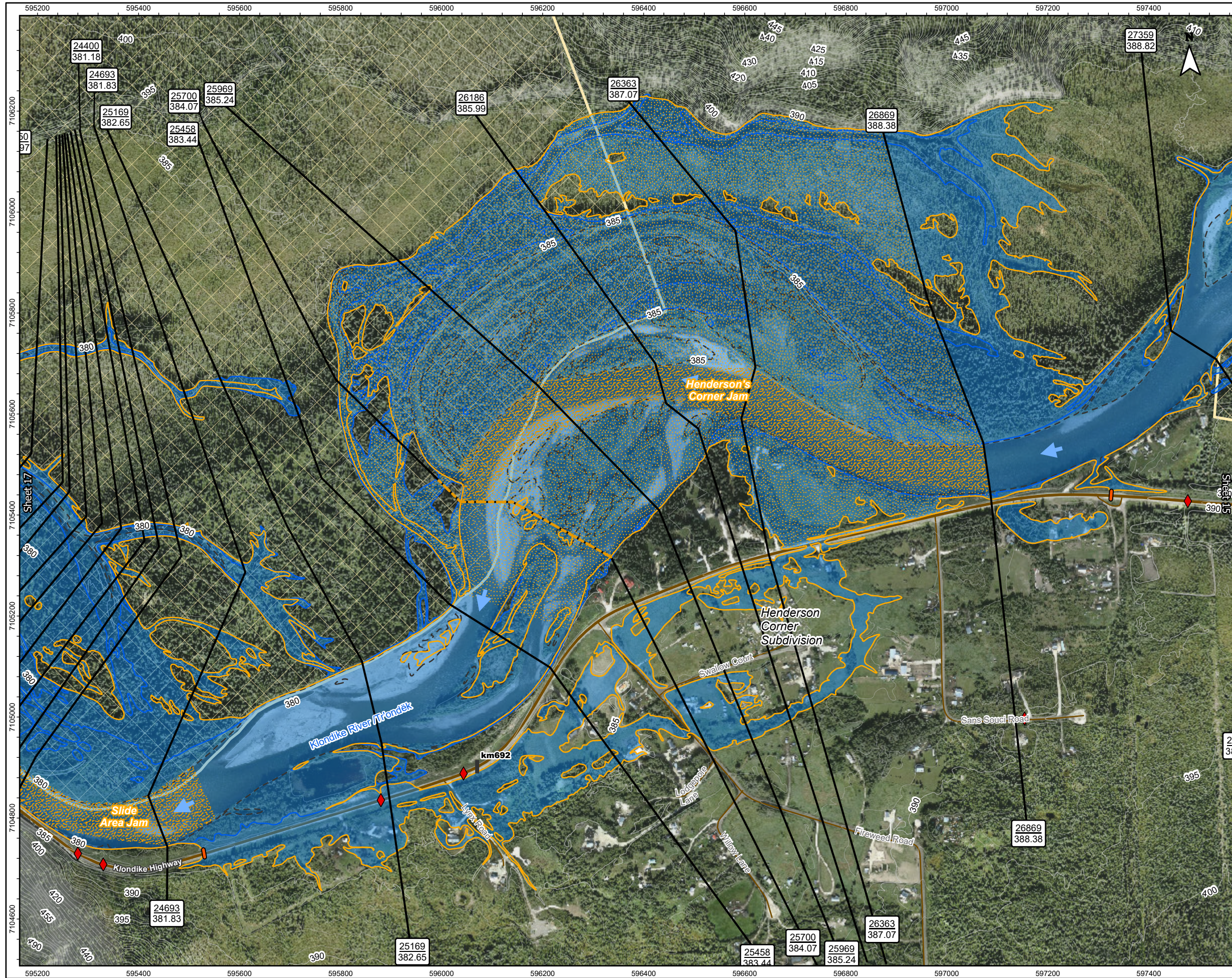
Project Location: Dawson, Yukon
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 20226-03-06

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

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
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.



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

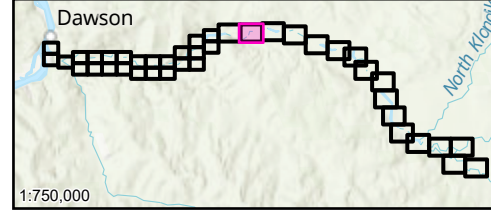
Client/Project:
Government of Yukon
Department of Environment
Water Resources Branch

Project: 123222713

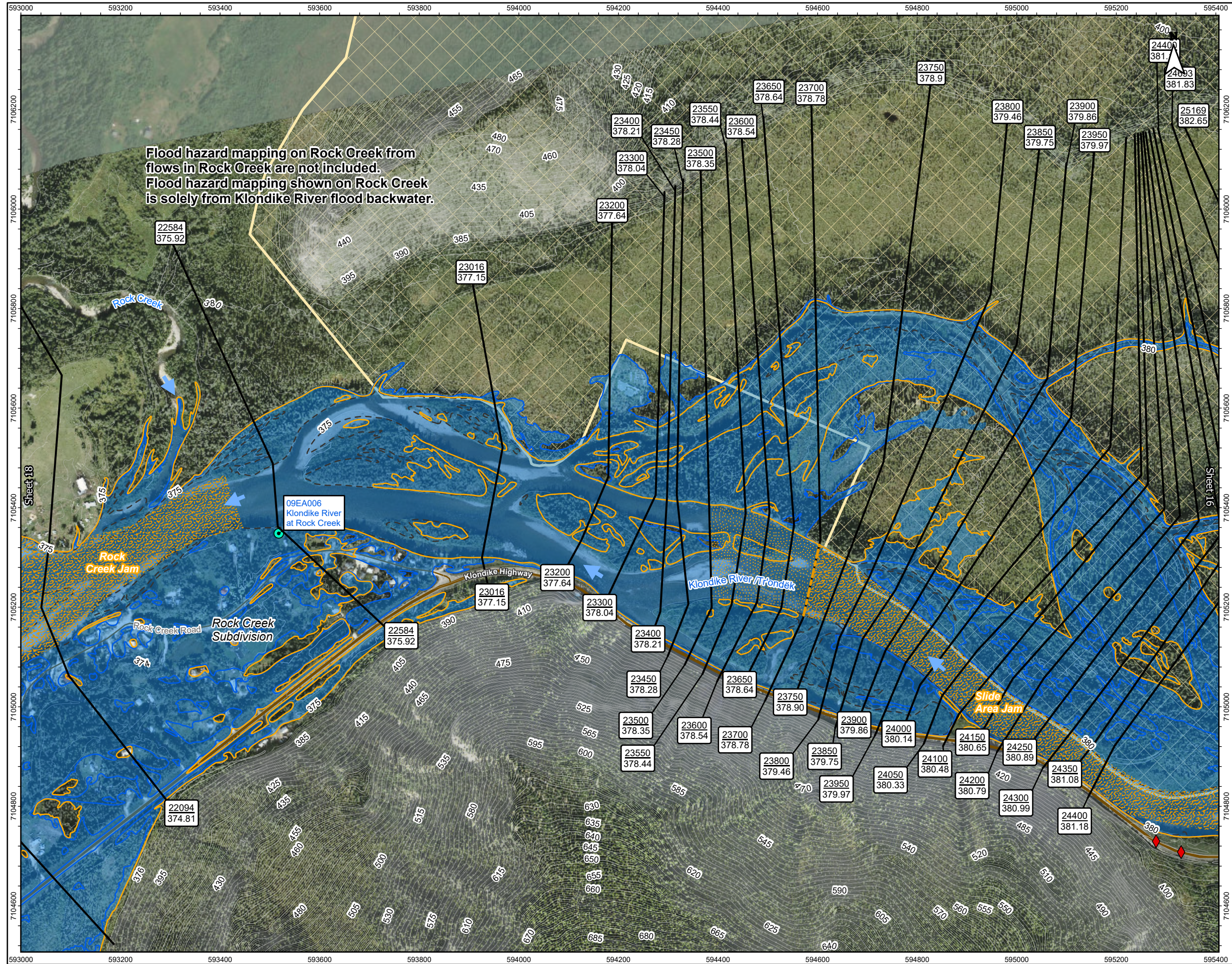
Project Location: Dawson, Yukon
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 20226-03-06

- River Flow Direction
- HPW Drainage Culverts
- Highway Kilometer Post
- Cross-Section Number
WSE (m) Along Cross Section
- Cross-Section Number
WSE (m) Along Cross-Section
(WSE in Dike Breach Scenario)
- Surveyed Culvert Location
- Highway
- Local Road
- Major Contour (5m)
- Minor Contour (1m)
- Surveyed Cross-Sections
Used in Hydraulic Model
- Toe of Ice Jam
- T'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 Extents
- 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**
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.



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

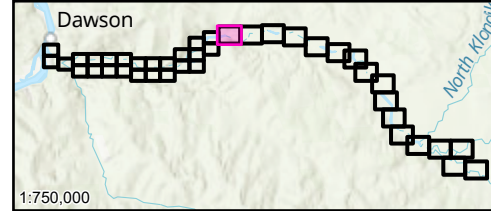
Client/Project:
 Government of Yukon
 Department of Environment
 Water Resources Branch

Project: 123222713

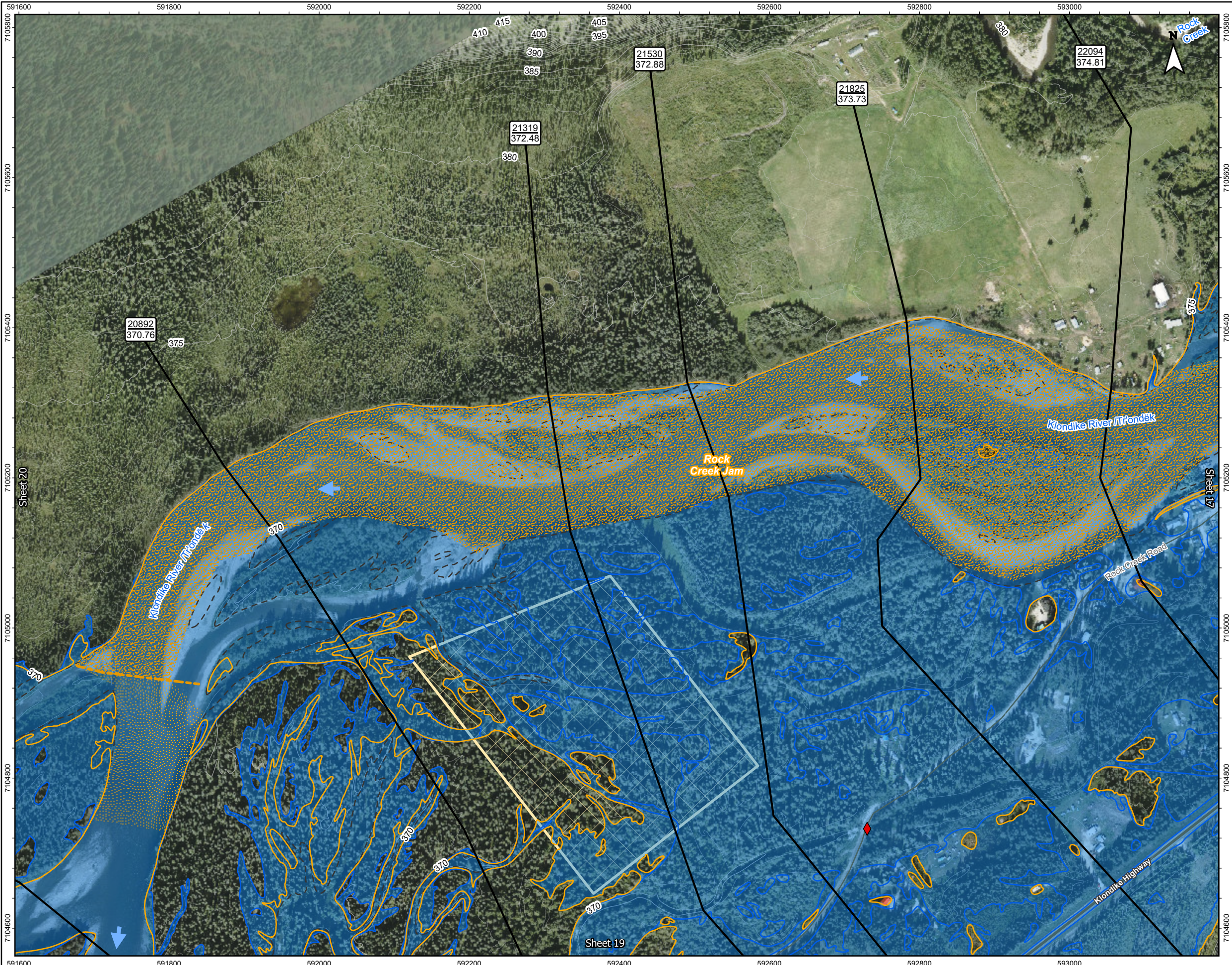
Project Location: Dawson, Yukon
 Prepared by MANDERSON on 2026-03-06
 Requested by JMUIRHEAD on 2024-03-30
 Review by JMUIRHEAD on 20226-03-06

- River Flow Direction
- WSC Stations
- HPW Drainage Culverts
- Highway Kilometer Post
- 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 Extents
- 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
 - 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.



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

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

Project: 123222713

Project Location: Dawson, Yukon

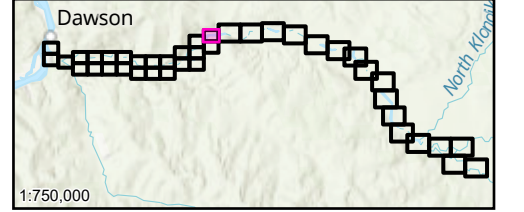
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 20226-03-06

- River Flow Direction
- HPW Drainage Culverts
- Highway Kilometer Post
- 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 Extents
- 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

- 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.

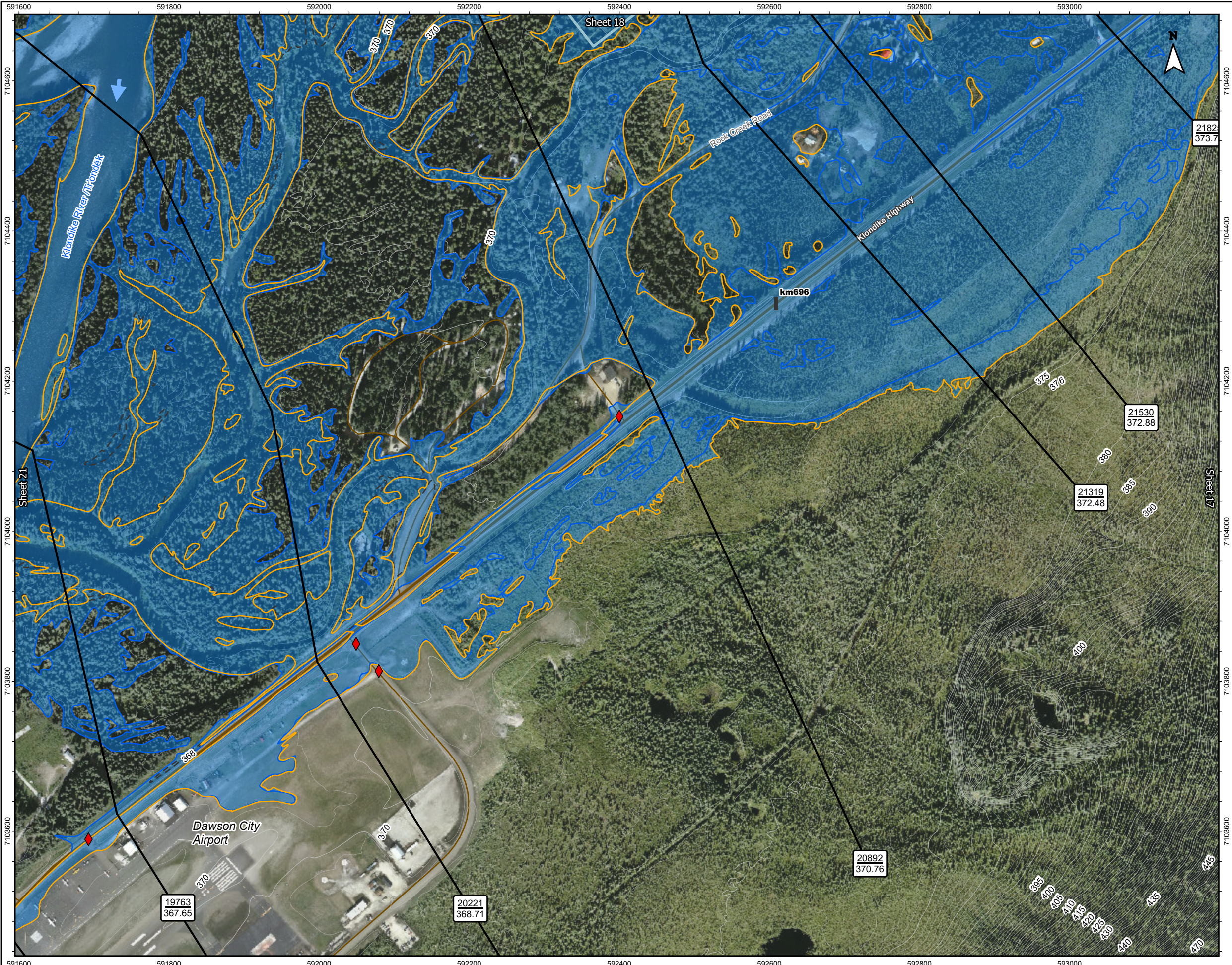


Figure No. **KR-1-19** Sheet 19 of 41

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

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

Project: 123222713

Project Location: Dawson, Yukon

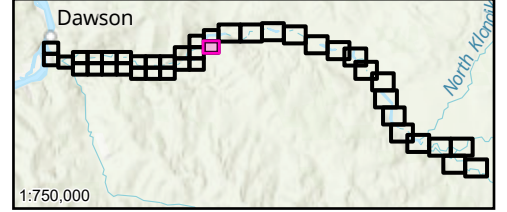
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 20226-03-06

- River Flow Direction
- HPW Drainage Culverts
- Highway Kilometer Post
- Cross-Section Number
- Cross-Section Number
- Highway
- Local Road
- Major Contour (5m)
- Minor Contour (1m)
- Surveyed Cross-Sections Used in Hydraulic Model
- 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 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

- 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.



Disclaimer: Any unauthorized use or reliance of Draft Maps is at the User's own risk. Stantec disclaims any legal duty based upon warranty, reliance or any other theory to any User, and will not be liable to any User for any damages or losses of any kind that may result.

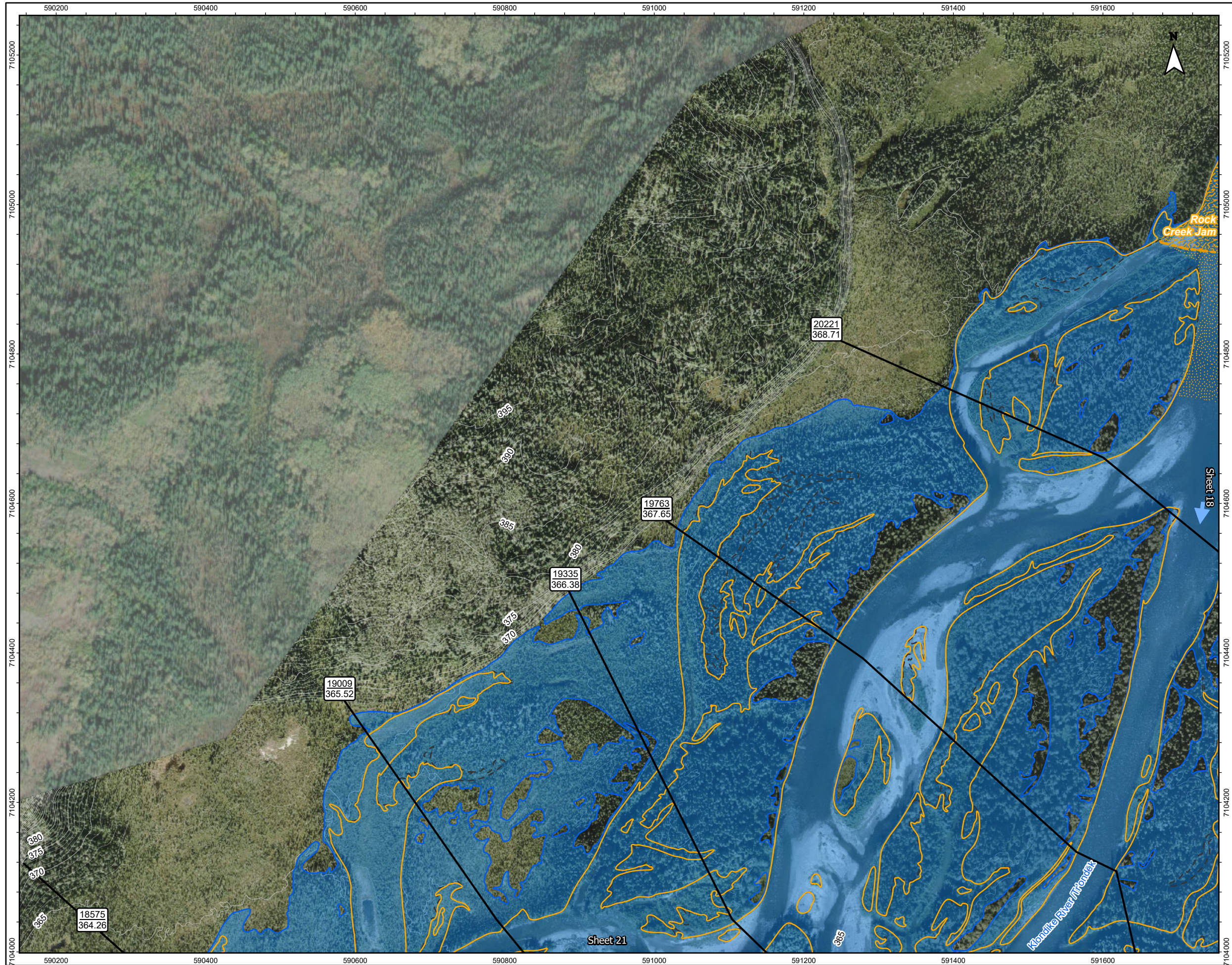


Figure No. **KR-1-20** Sheet 20 of 41

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

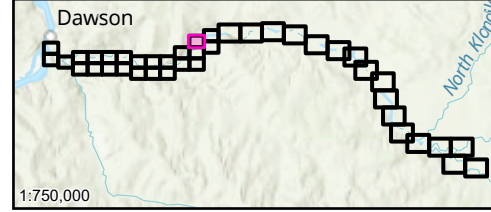
Client/Project:
Government of Yukon
Department of Environment
Water Resources Branch

Project: 123222713

Project Location: Dawson, Yukon
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 20226-03-06

- 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 Extents
- 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
 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.



Disclaimer: Any unauthorized use or reliance of Draft Maps is at the User's own risk. Stantec disclaims any legal duty based upon warranty, reliance or any other theory to any User, and will not be liable to any User for any damages or losses of any kind that may result.

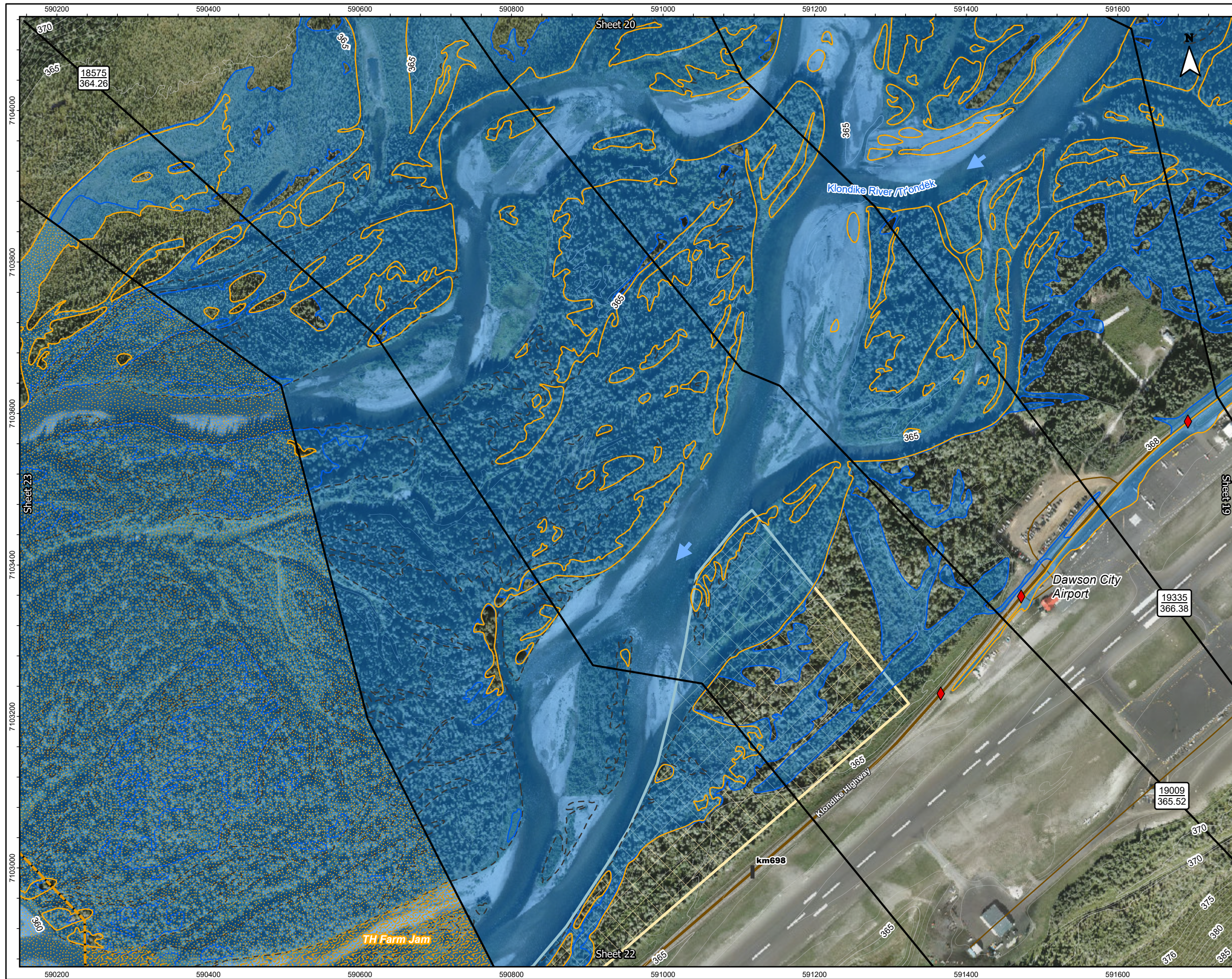


Figure No. **KR-1-21** Sheet 21 of 41

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

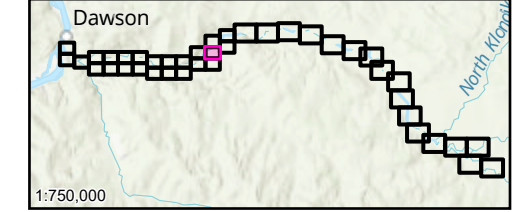
Client/Project:
**Government of Yukon
Department of Environment
Water Resources Branch**

Project: 123222713

Project Location: Dawson, Yukon
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 20226-03-06

- River Flow Direction
- HPW Drainage Culverts
- Highway Kilometer Post
- 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 Extents
- 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
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.

Disclaimer: Any unauthorized use or reliance of Draft Maps is at the User's own risk. Stantec disclaims any legal duty based upon warranty, reliance or any other theory to any User, and will not be liable to any User for any damages or losses of any kind that may result.

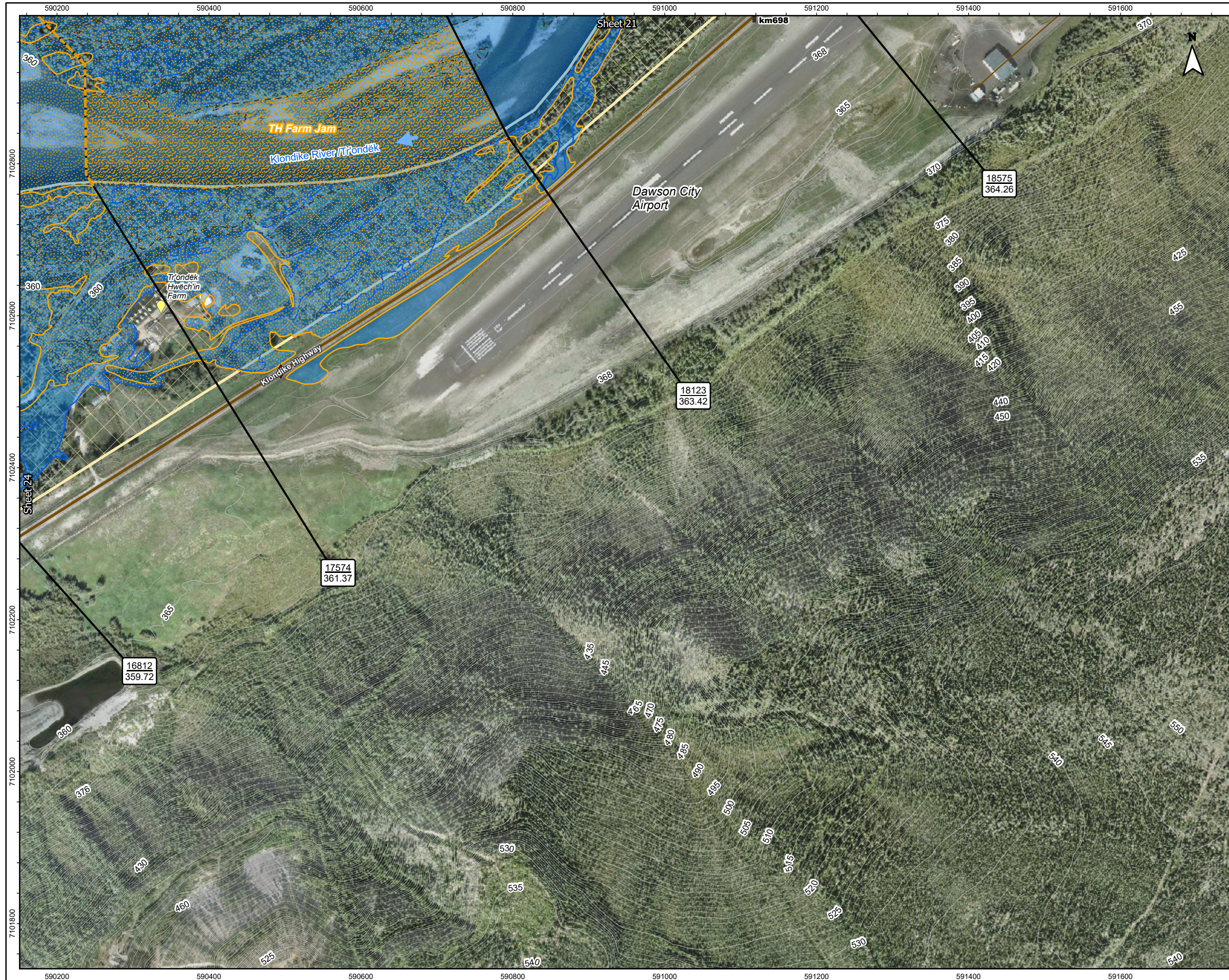


Figure No. **KR-1-22** Sheet 22 of 41

Title: **Dawson City and Klondike Valley Flood Mapping Study
Composite Flood Hazard Map - Klondike 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 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 20226-03-06

- River Flow Direction
- HPW Drainage Culverts
- Point of Interest
- Highway Kilometer Post
- 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 Extents
- 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
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.

Disclaimer: Any unauthorized use or reliance of Draft Maps is at the User's own risk. Stantec disclaims any legal duty based upon warranty, reliance or any other theory to any User, and will not be liable to any User for any damages or losses of any kind that may result.

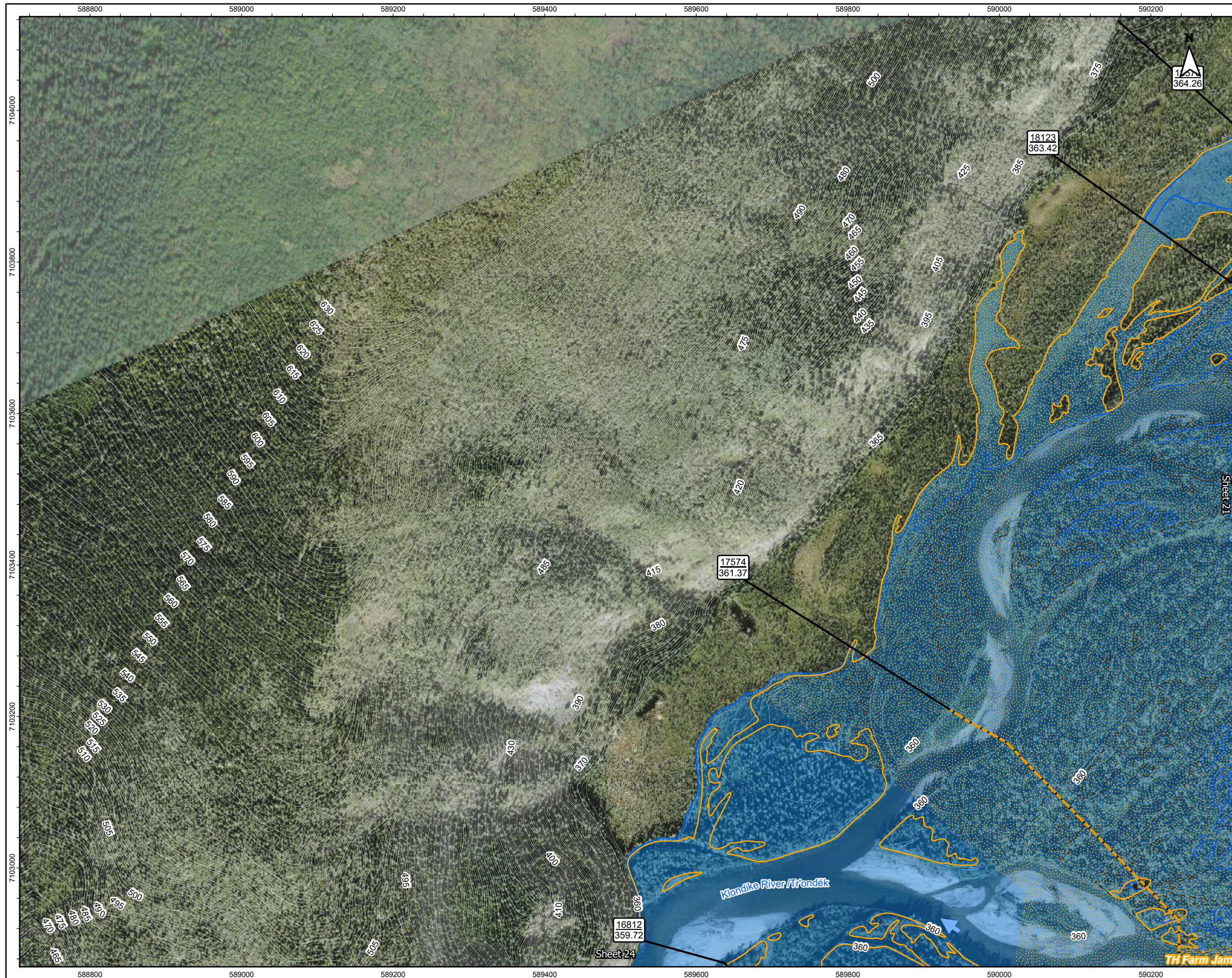


Figure No. **KR-1-23** Sheet 23 of 41

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

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

Project: 123222713

Project Location: Dawson, Yukon

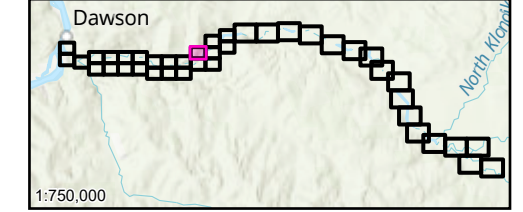
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 20226-03-06

- River Flow Direction
- Highway Kilometer Post
- 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 Extents
- Potential Presence of Ice
Debris During Jam Scenario
- Ice Jamming Extents

Map Publication Date: 03/06/2026

0 50 100 150 200 250 m

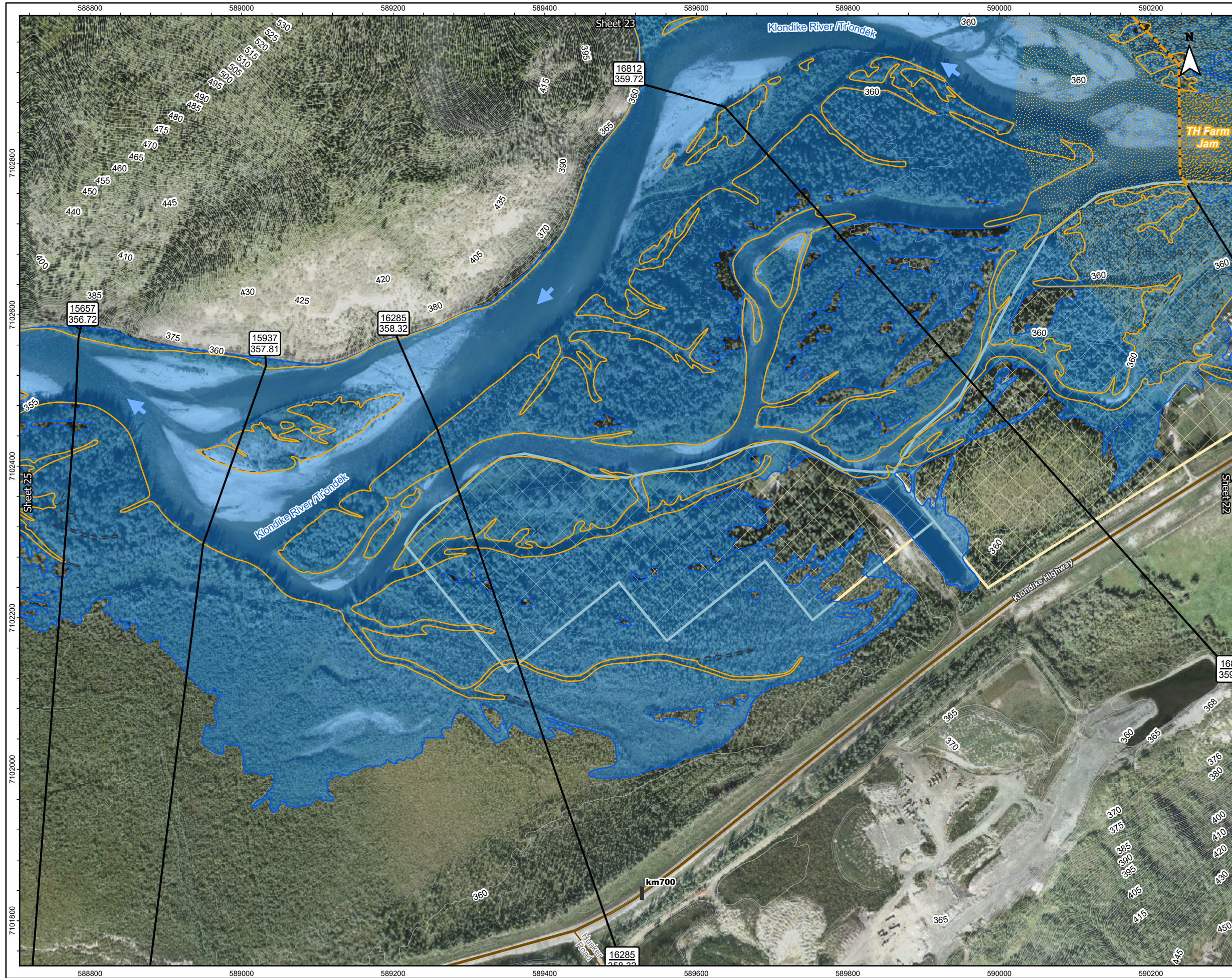
(At original document size of 11x 17) 1:5,000



Notes

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





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

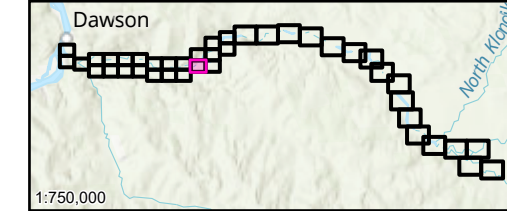
Client/Project:
Government of Yukon
Department of Environment
Water Resources Branch

Project: 123222713

Project Location: Dawson, Yukon
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 20226-03-06

- 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
- Major Contour (5m)
- Minor Contour (1m)
- Surveyed Cross-Sections Used in Hydraulic Model
- Composite Open Water and Ice Jam Inundation Extents
- 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: CGVD2013a, 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.

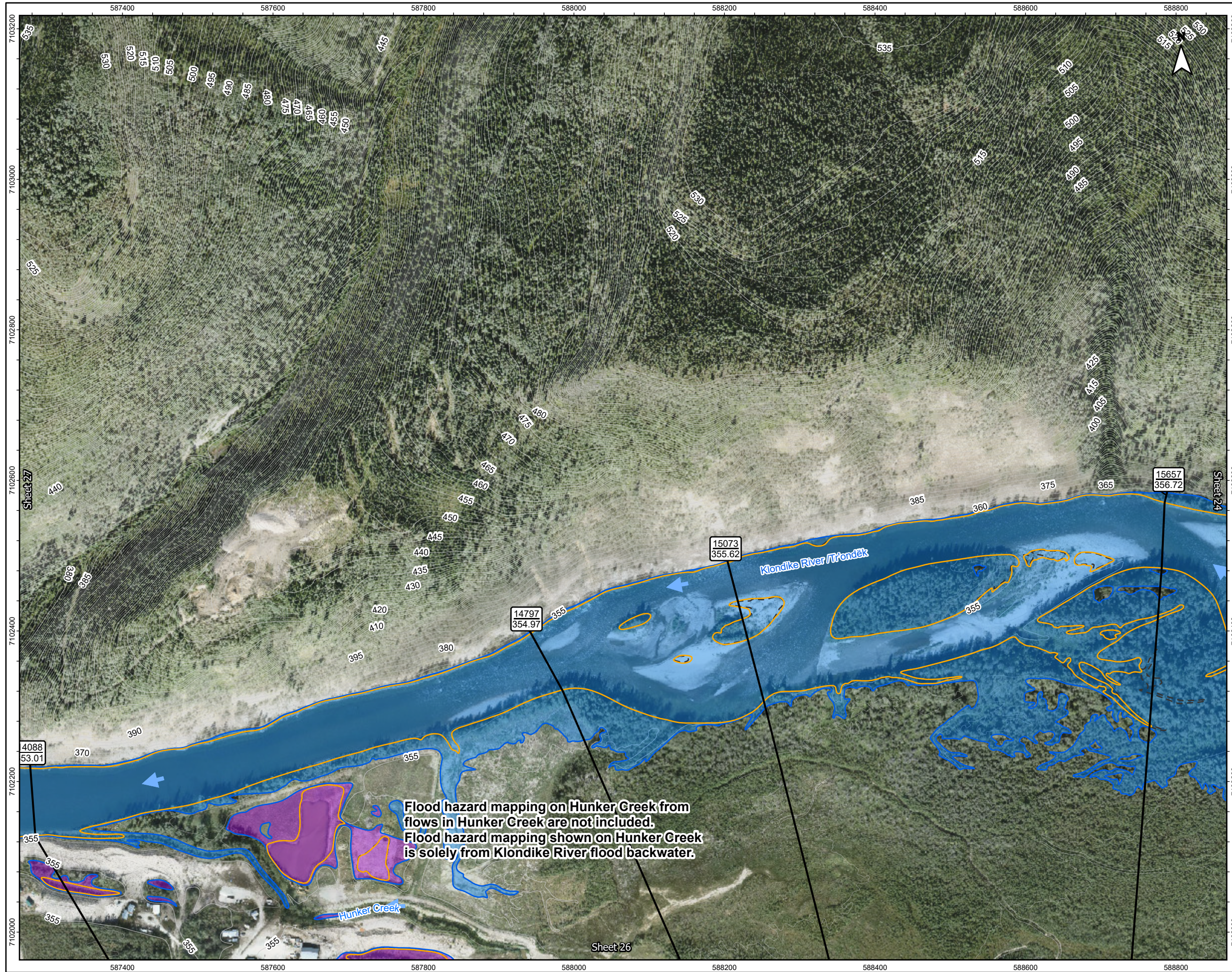


Figure No. **KR-1-25** Sheet 25 of 41

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

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

Project: 123222713

Project Location: Dawson, Yukon

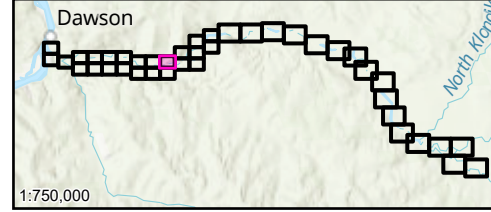
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 20226-03-06

- River Flow Direction
- Surveyed Cross-Sections Used in Hydraulic Model
- 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
- Surveyed Culvert Location
- Composite Open Water and Ice Jam Inundation Extents
- Major Contour (5m)
- Inundation Extent from Subsurface Seepage
- 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
- 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.

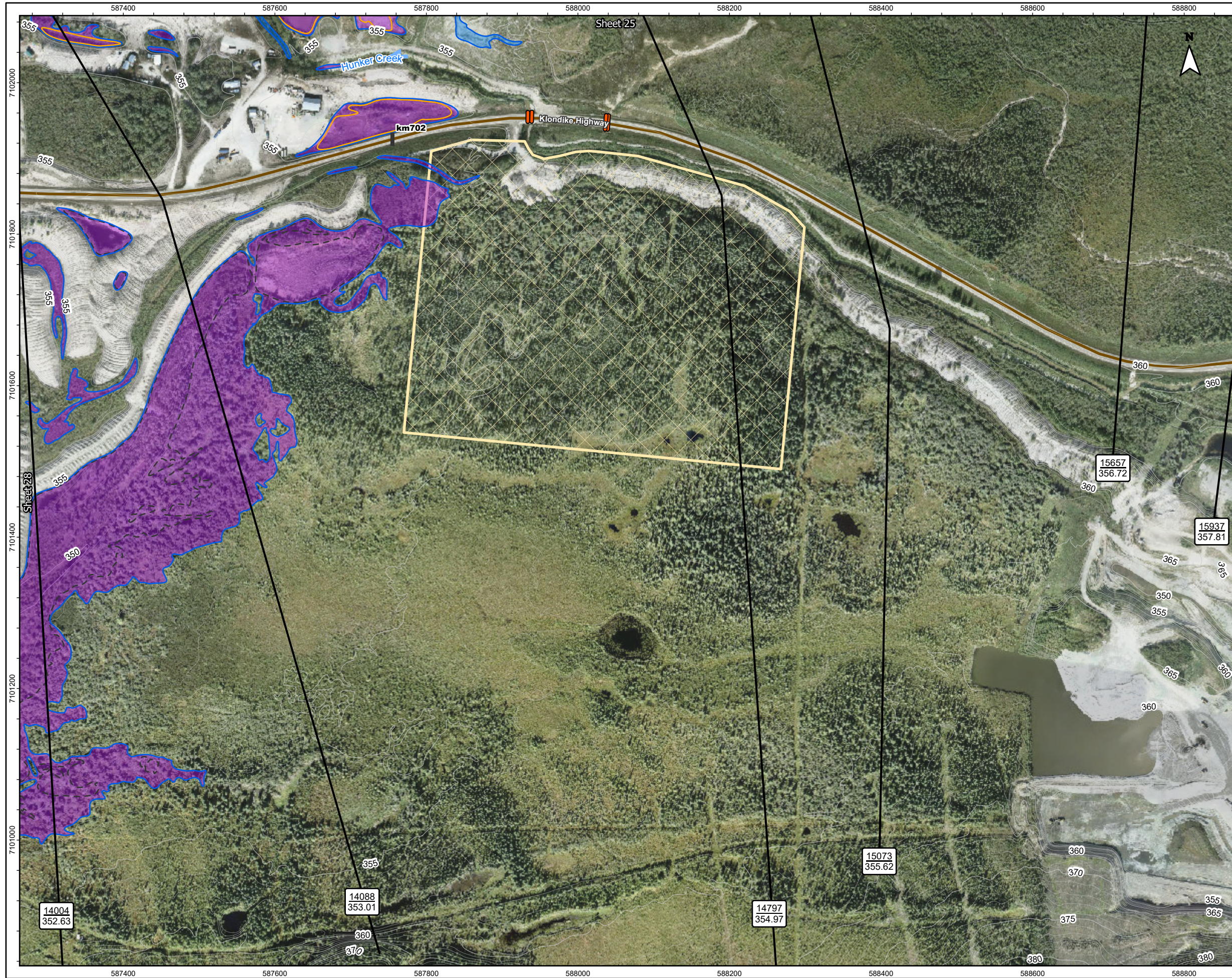


Figure No. **KR-1-26** Sheet 26 of 41

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

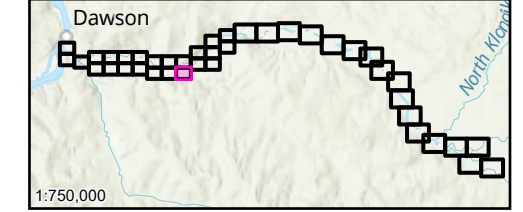
Client/Project:
Government of Yukon
Department of Environment
Water Resources Branch

Project: 123222713

Project Location: Dawson, Yukon
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 20226-03-06

- River Flow Direction
- Surveyed Cross-Sections Used in Hydraulic Model
- Tr'ondëk 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
- Surveyed Culvert Location
- Composite Open Water and Ice Jam Inundation Extents
- Highway
- Inundation Extent from Subsurface Seepage
- 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

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.

Disclaimer: Any unauthorized use or reliance of Draft Maps is at the User's own risk. Stantec disclaims any legal duty based upon warranty, reliance or any other theory to any User, and will not be liable to any User for any damages or losses of any kind that may result.



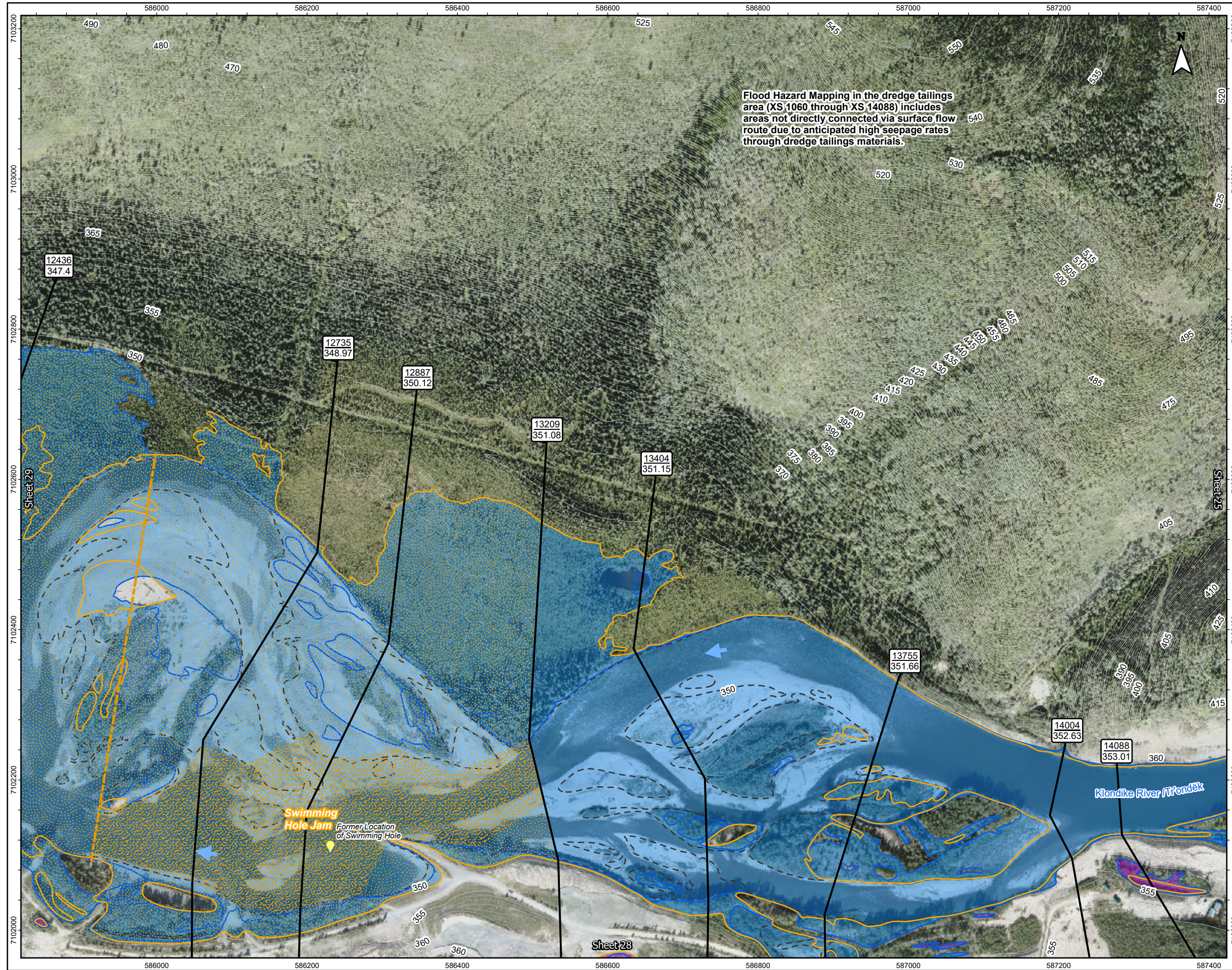


Figure No. **KR-1-27** Sheet 27 of 41

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

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

Project: 123222713

Project Location: Dawson, Yukon

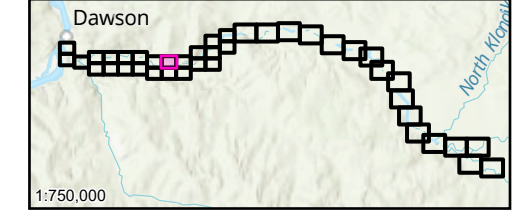
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 20226-03-06

- River Flow Direction
- Point of Interest
- Highway Kilometer Post
- 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 Extents
- Inundation Extent from
Subsurface Seepage
- Potential Presence of Ice
Debris During Jam Scenario
- Ice Jamming Extents

Map Publication Date: 03/06/2026

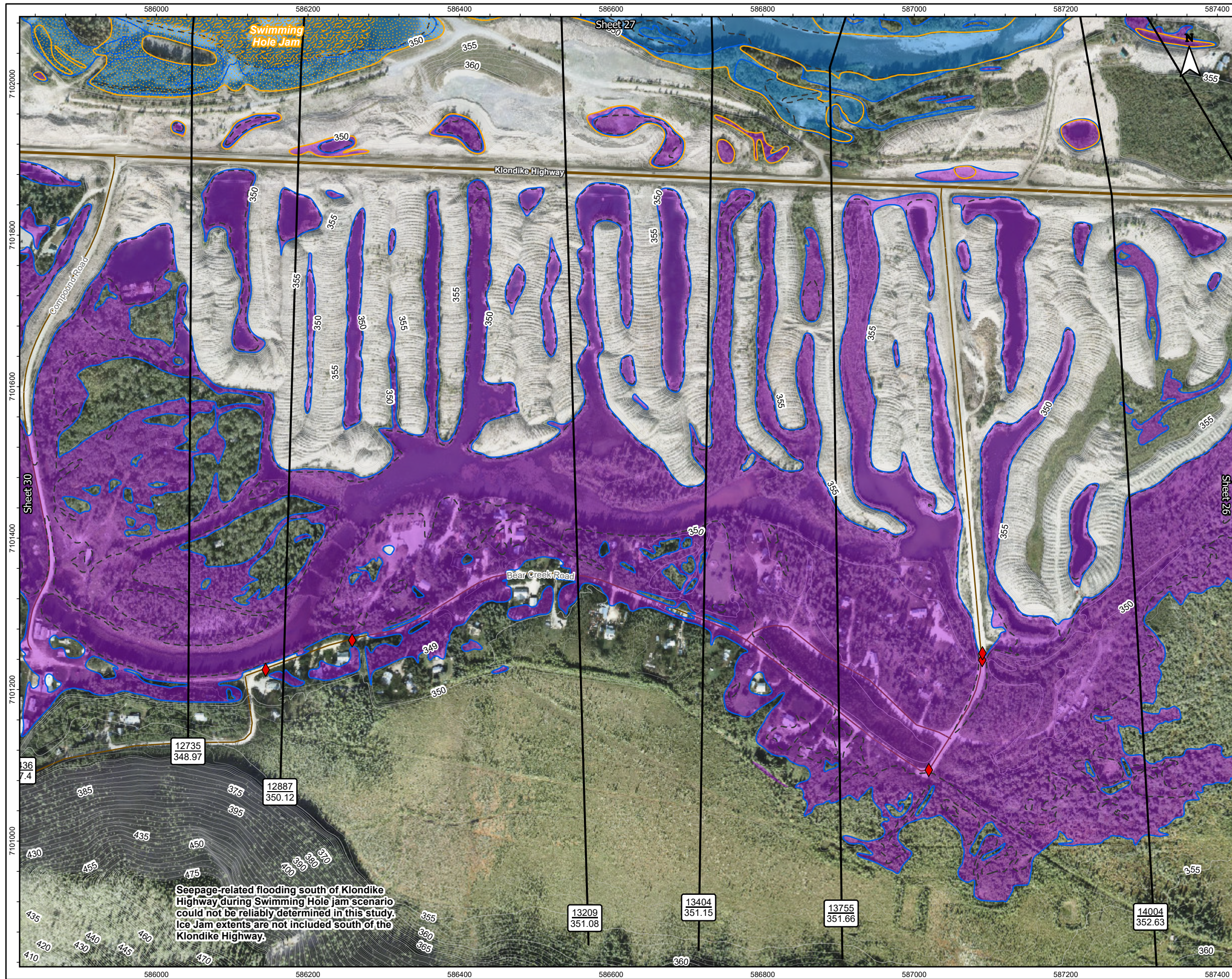
0 50 100 150 200 250 m

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



Notes

- 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.

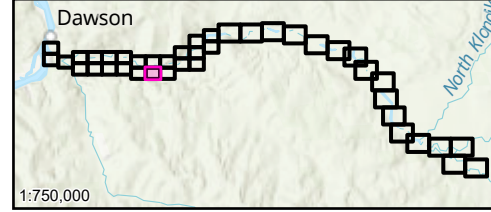


Seepage-related flooding south of Klondike Highway during Swimming Hole jam scenario could not be reliably determined in this study. Ice Jam extents are not included south of the Klondike Highway.

Figure No. **KR-1-28** Sheet 28 of 41
 Title: **Dawson City and Klondike Valley Flood Mapping Study Composite Flood Hazard Map - Klondike 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 2026-03-06, Requested by JMUIRHEAD on 2024-03-30, Review by JMUIRHEAD on 20226-03-06

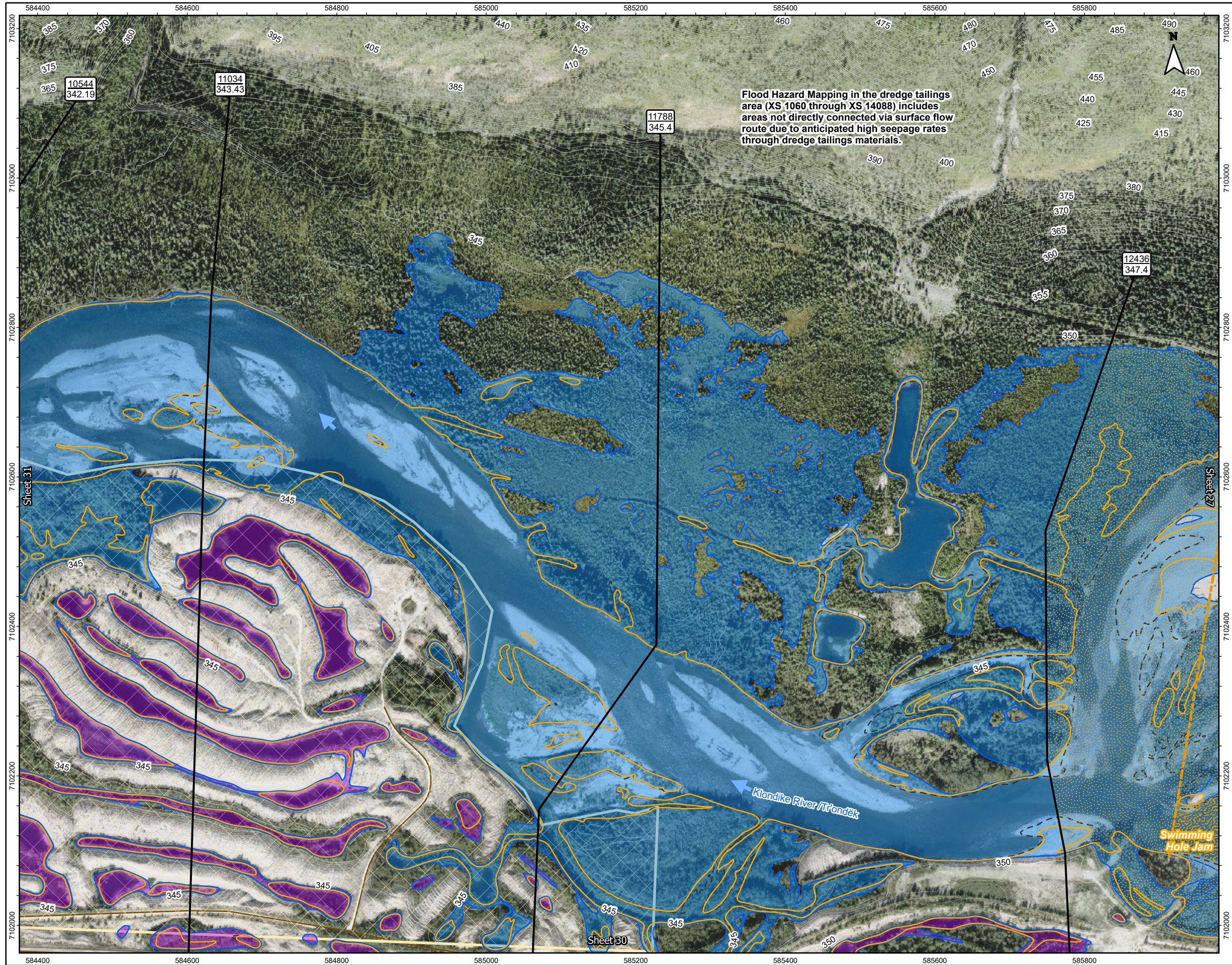
- River Flow Direction
- HPW Drainage Culverts
- Highway Kilometer Post
- Cross-Section Number WSE (m) Along Cross Section
- Cross-Section Number WSE (m) Along Cross-Section (WSE in Dike Breach Scenario)
- Highway
- Local Road
- Major Contour (5m)
- Minor Contour (1m)
- Surveyed Cross-Sections Used in Hydraulic Model
- 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 Extents
- 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**
- 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.





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

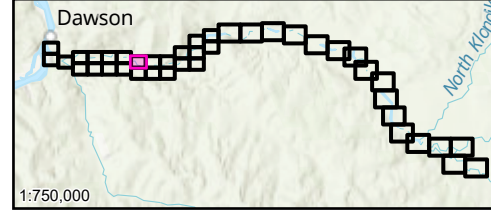
Client/Project:
Government of Yukon
Department of Environment
Water Resources Branch

Project: 123222713

Project Location: Dawson, Yukon
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 20226-03-06

- 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
- Highway
- Composite Open Water and Ice Jam Inundation Extents
- Local Road
- Inundation Extent from Subsurface Seepage
- 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.
 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.

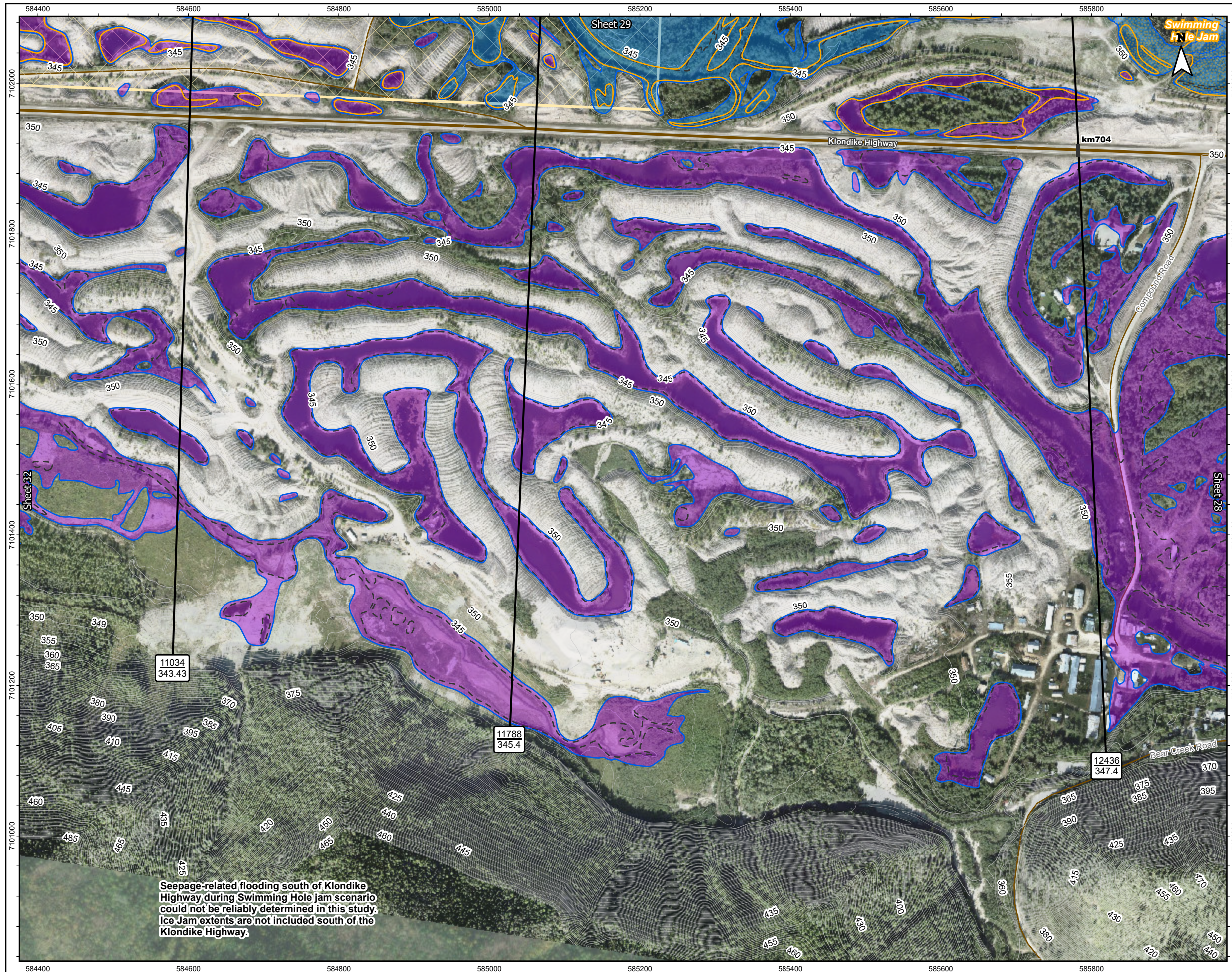


Figure No. **KR-1-30** Sheet 30 of 41

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

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

Project: **123222713**

Project Location: **Dawson, Yukon**

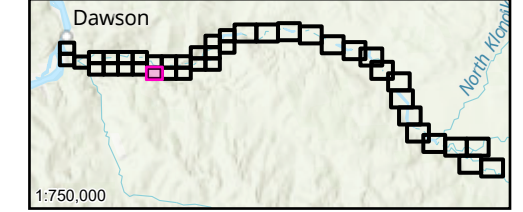
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2022-03-06

- River Flow Direction
- Tr'ondék Hwëch'in Settlement Land
- Highway Kilometer Post
- 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) 320.26 (320.04)
- Highway
- Local Road
- Major Contour (5m)
- Minor Contour (1m)
- Surveyed Cross-Sections Used in Hydraulic Model
- Inundation Under Modelled Open Water Runs
- Inundation Under Modelled Breakup Ice Jam Runs
- Composite Open Water and Ice Jam Inundation Extents
- 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



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.

- 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.

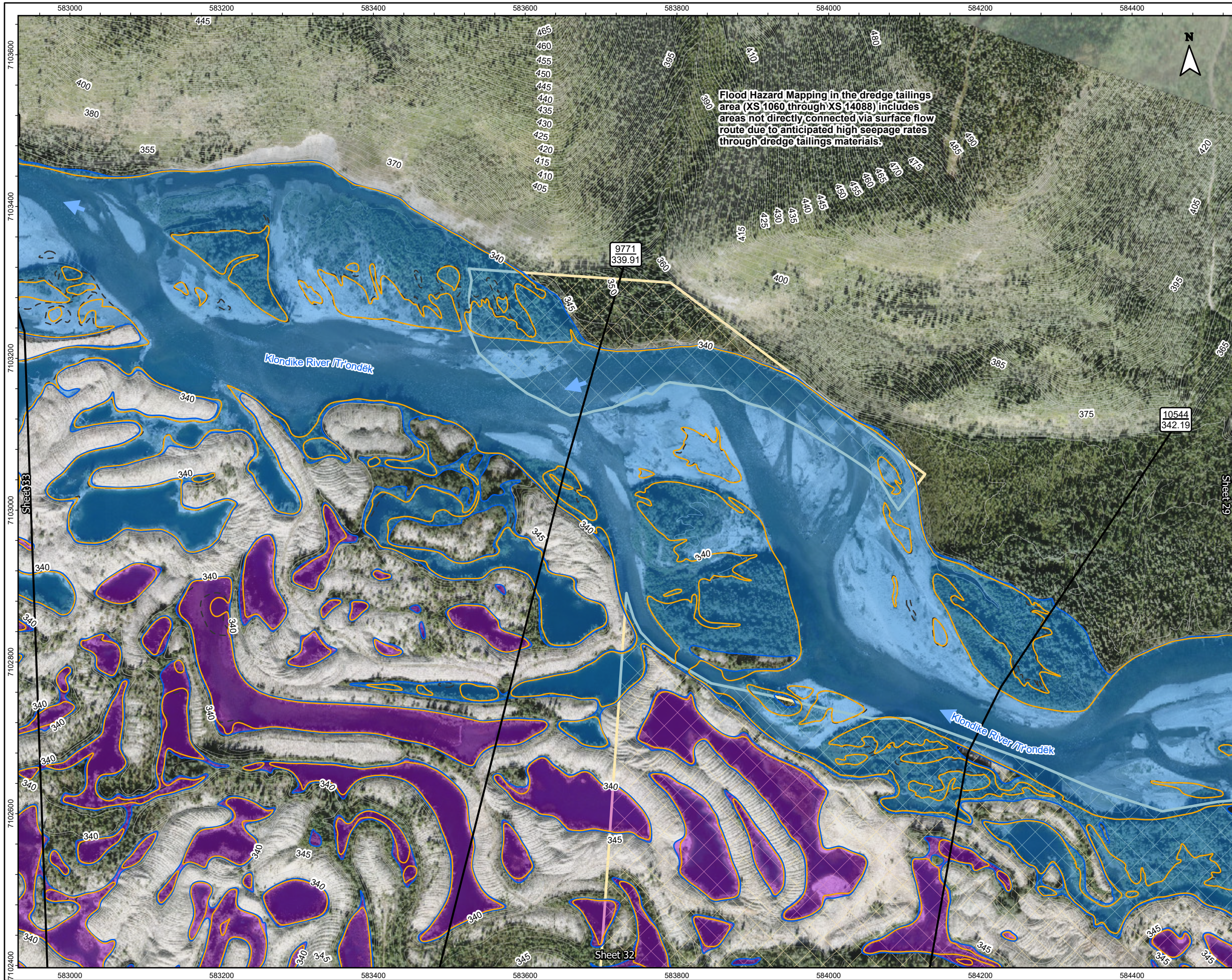


Figure No. **KR-1-31** Sheet 31 of 41

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

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

Project: 123222713

Project Location: Dawson, Yukon

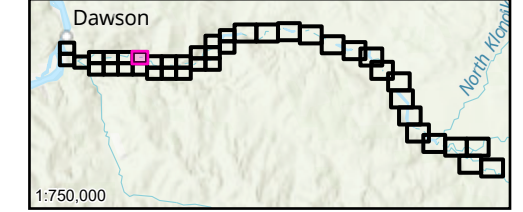
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2022-03-06

- River Flow Direction
- Tr'ondëk Hwëch'in Settlement Land
- Highway Kilometer Post
- Approximate 50% AEP Open Water Flood Inundation
- Cross-Section Number 57, WSE (m) Along Cross Section 517.2
- Inundation Under Modelled Open Water Runs
- Cross-Section Number 22140, WSE (m) Along Cross-Section 320.26 (320.04)
- Inundation Under Modelled Breakup Ice Jam Runs
- Major Contour (5m)
- Composite Open Water and Ice Jam Inundation Extents
- Minor Contour (1m)
- Inundation Extent from Subsurface Seepage
- Surveyed Cross-Sections Used in Hydraulic Model

Map Publication Date: 03/06/2026

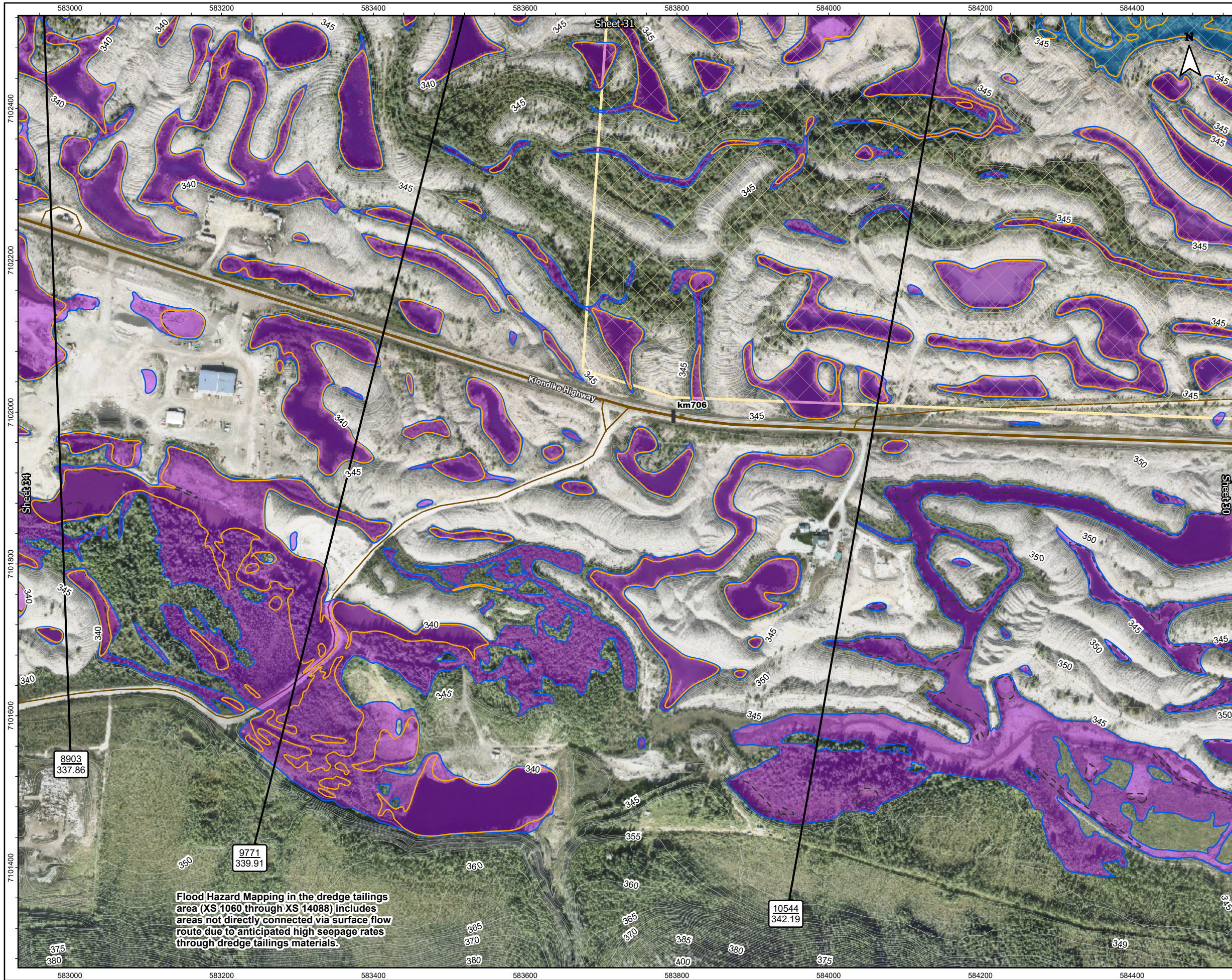
0 50 100 150 200 250 m

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



Notes

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



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

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

Project: 123222713

Project Location: Dawson, Yukon

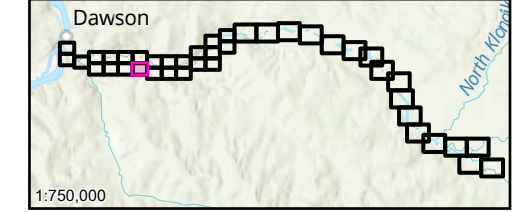
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 20226-03-06

- River Flow Direction
- Highway Kilometer Post
- 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
- 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 Extents
- Inundation Extent from Subsurface Seepage

Map Publication Date: 03/06/2026

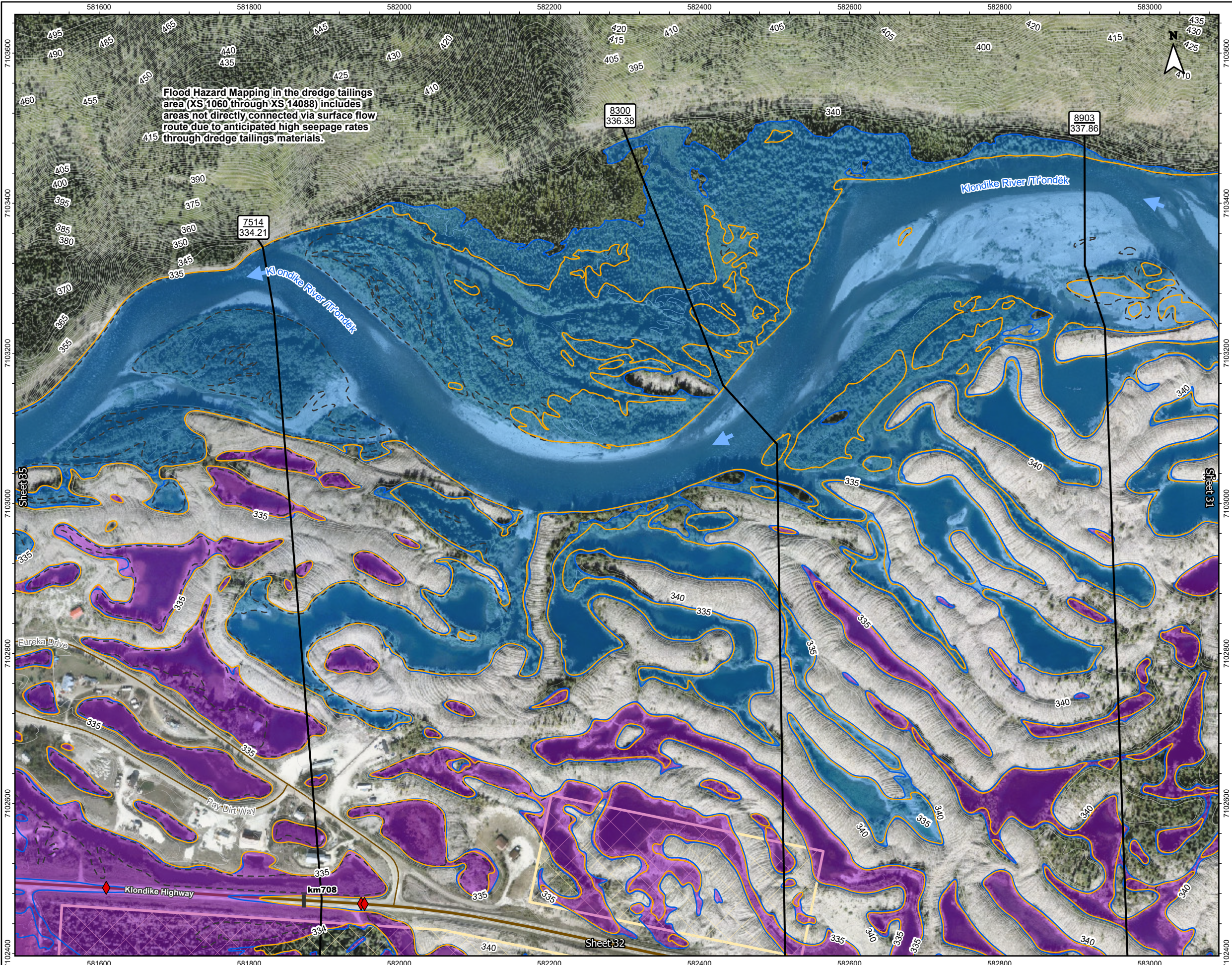
0 50 100 150 200 250 m

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



Notes

- 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.



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

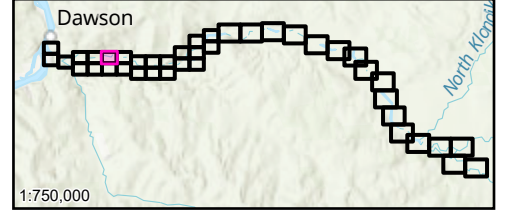
Client/Project:
Government of Yukon
Department of Environment
Water Resources Branch

Project: 123222713

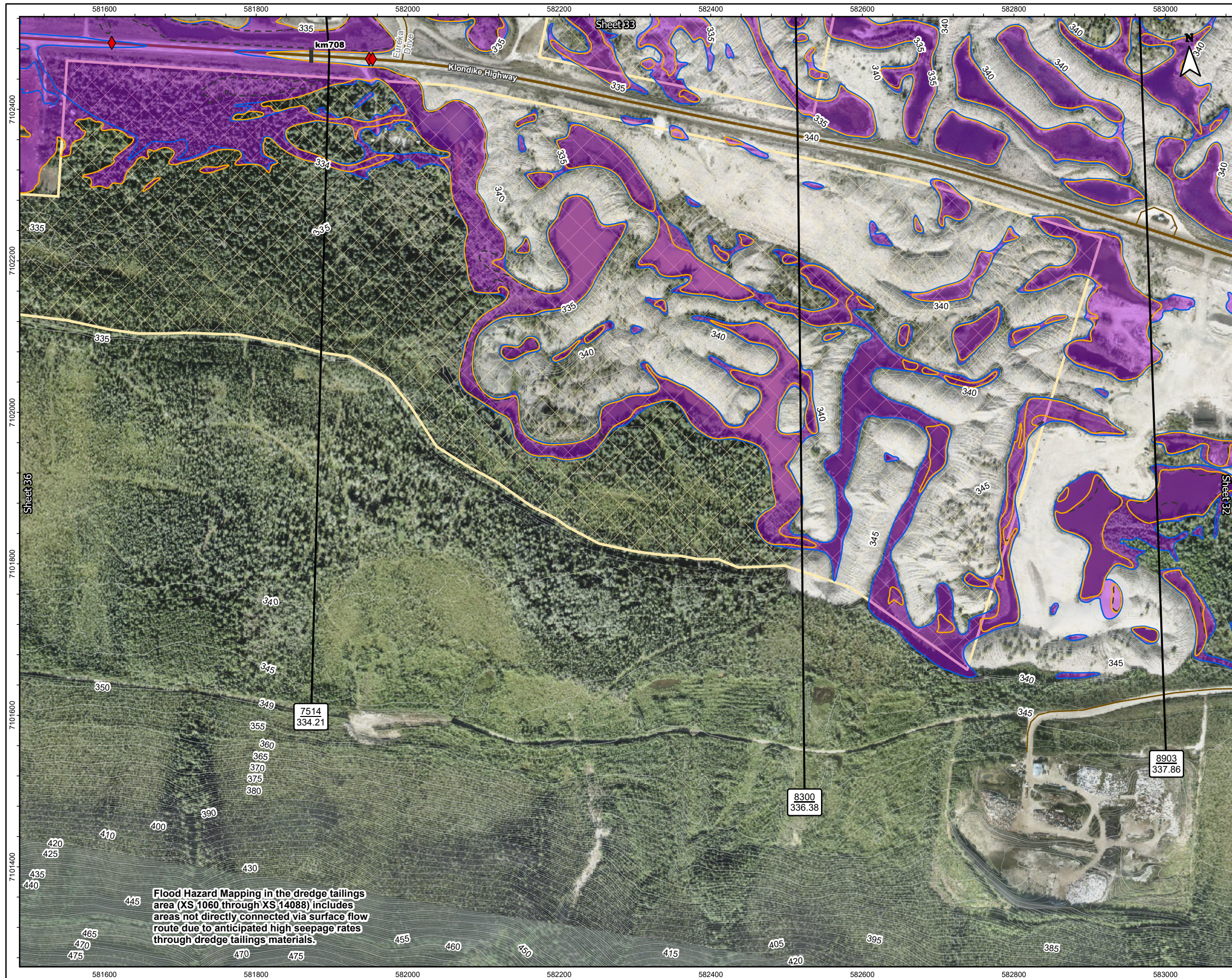
Project Location: Dawson, Yukon

- | | |
|--|---|
| River Flow Direction | Minor Contour (1m) |
| HPW Drainage Culverts | Surveyed Cross-Sections Used in Hydraulic Model |
| 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 |
| Highway | Inundation Under Modelled Breakup Ice Jam Runs |
| Local Road | Composite Open Water and Ice Jam Inundation Extents |
| Major Contour (5m) | 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.
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.



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

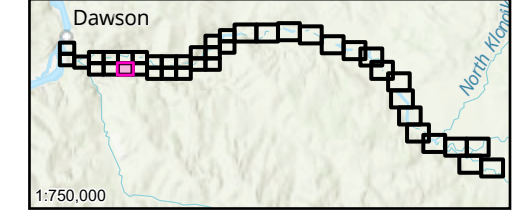
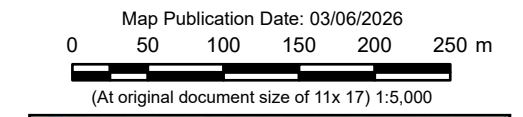
Client/Project:
Government of Yukon
Department of Environment
Water Resources Branch

Project: 123222713

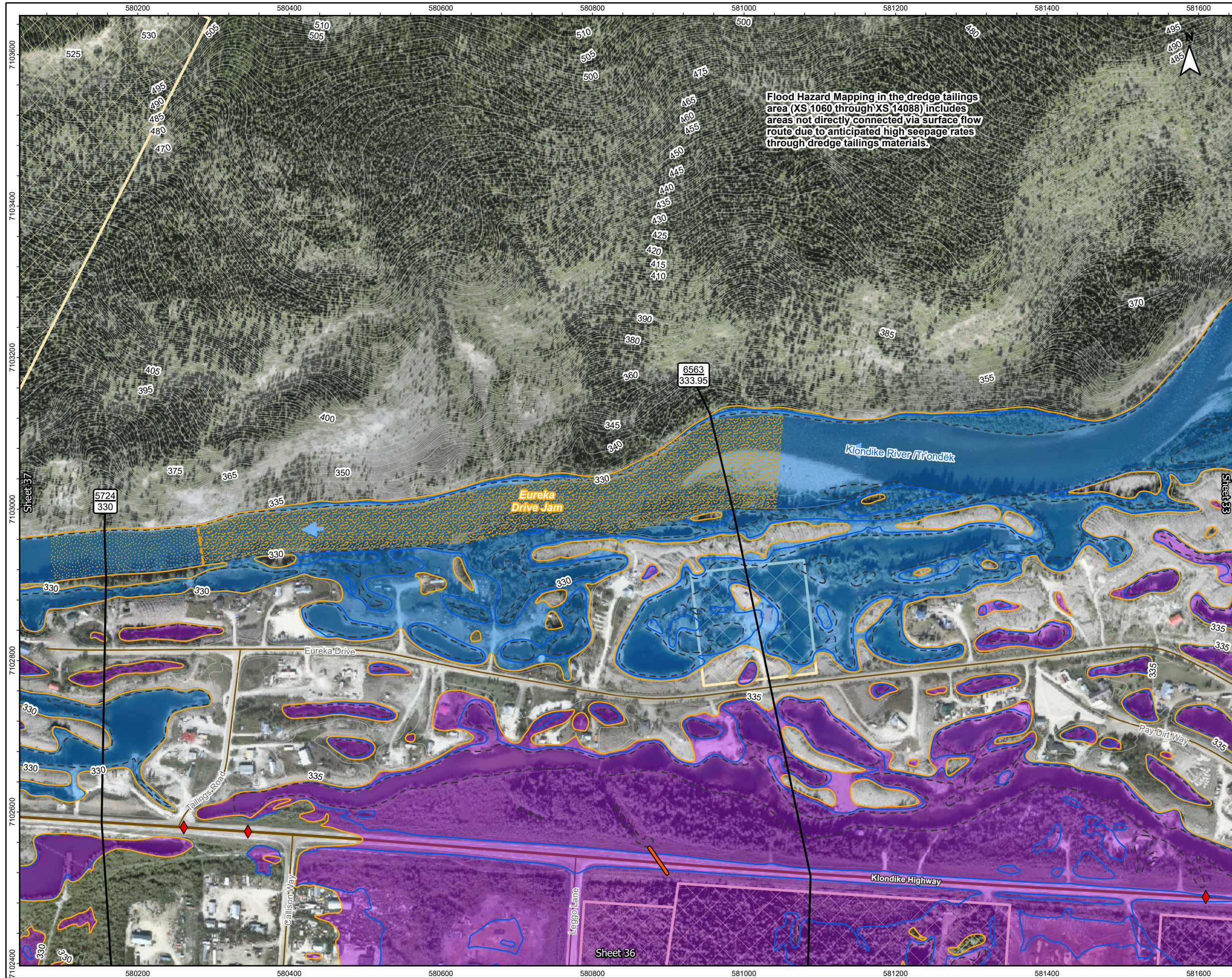
Project Location: Dawson, Yukon

Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 20226-03-06

- | | |
|--|---|
| River Flow Direction | Minor Contour (1m) |
| HPW Drainage Culverts | Surveyed Cross-Sections Used in Hydraulic Model |
| 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 |
| Highway | Inundation Under Modelled Breakup Ice Jam Runs |
| Local Road | Composite Open Water and Ice Jam Inundation Extents |
| Major Contour (5m) | Inundation Extent from Subsurface Seepage |



- 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.



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
1% Annual Exceedance Probability (AEP)

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

Project: 123222713

Project Location: Dawson, Yukon

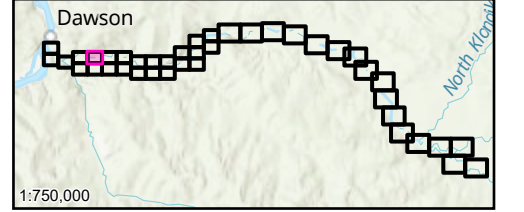
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 20226-03-06

- River Flow Direction
- HPW Drainage Culverts
- Highway Kilometer Post
- Cross-Section Number
- WSE (m) Along Cross Section
- Cross-Section Number
- WSE (m) Along Cross-Section (WSE in Dike Breach Scenario)
- Surveyed Culvert Location
- 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 Extents
- 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**
- 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.

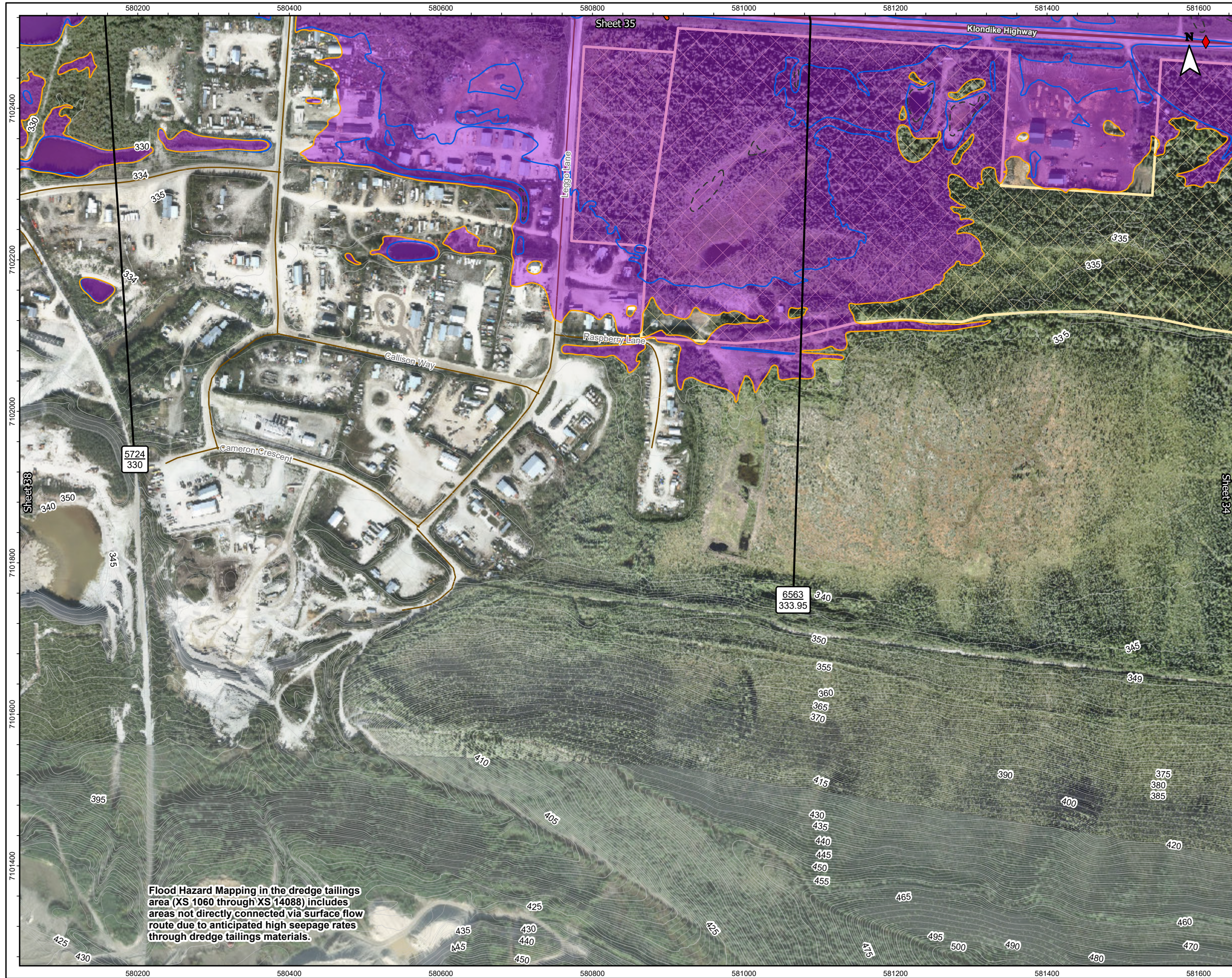


Figure No. **KR-1-36** Sheet 36 of 41

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

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

Project: 123222713

Project Location: Dawson, Yukon

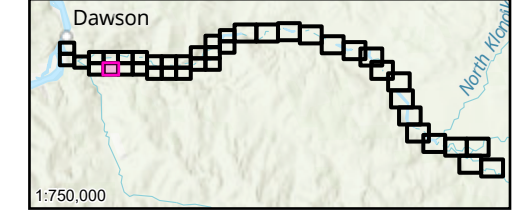
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 20226-03-06

- River Flow Direction
- HPW Drainage Culverts
- Highway Kilometer Post
- Cross-Section Number
- WSE (m) Along Cross Section
- Cross-Section Number
- WSE (m) Along Cross-Section (WSE in Dike Breach Scenario)
- Surveyed Culvert Location
- Highway
- Local Road
- Major Contour (5m)
- Minor Contour (1m)
- Surveyed Cross-Sections Used in Hydraulic Model
- 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 Extents
- 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.
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.

Disclaimer: Any unauthorized use or reliance of Draft Maps is at the User's own risk. Stantec disclaims any legal duty based upon warranty, reliance or any other theory to any User, and will not be liable to any User for any damages or losses of any kind that may result.



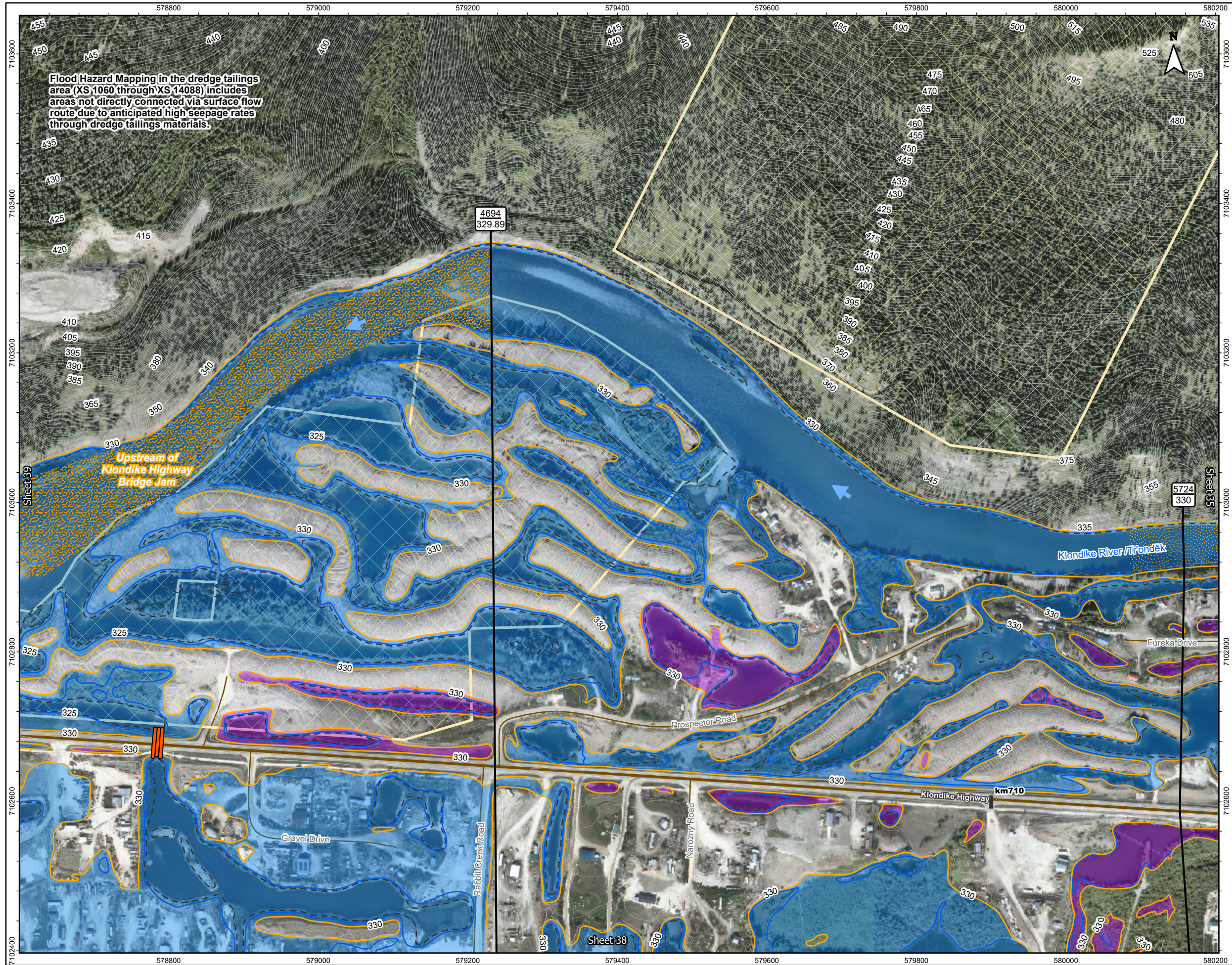


Figure No. **KR-1-37** Sheet 37 of 41

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

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

Project: 123222713

Project Location: Dawson, Yukon

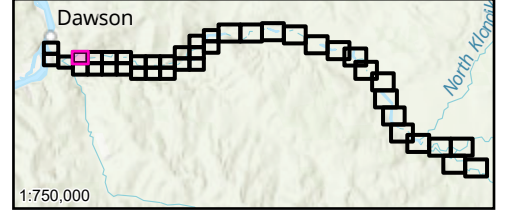
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 20226-03-06

- River Flow Direction
- Surveyed Cross-Sections Used in Hydraulic Model
- Tr'ondëk Hwëch'in Settlement Land
- Highway Kilometer Post
- Approximate 50% AEP Open Water Flood Inundation
- Cross-Section Number WSE (m) Along Cross Section
- 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
- Composite Open Water and Ice Jam Inundation Extents
- Inundation Extent from Subsurface Seepage
- Surveyed Culvert Location
- Highway
- Local Road
- Major Contour (5m)
- Minor Contour (1m)
- Potential Presence of Ice Debris During Jam Scenario
- Ice Jamming Extents

Map Publication Date: 03/06/2026

0 50 100 150 200 250 m

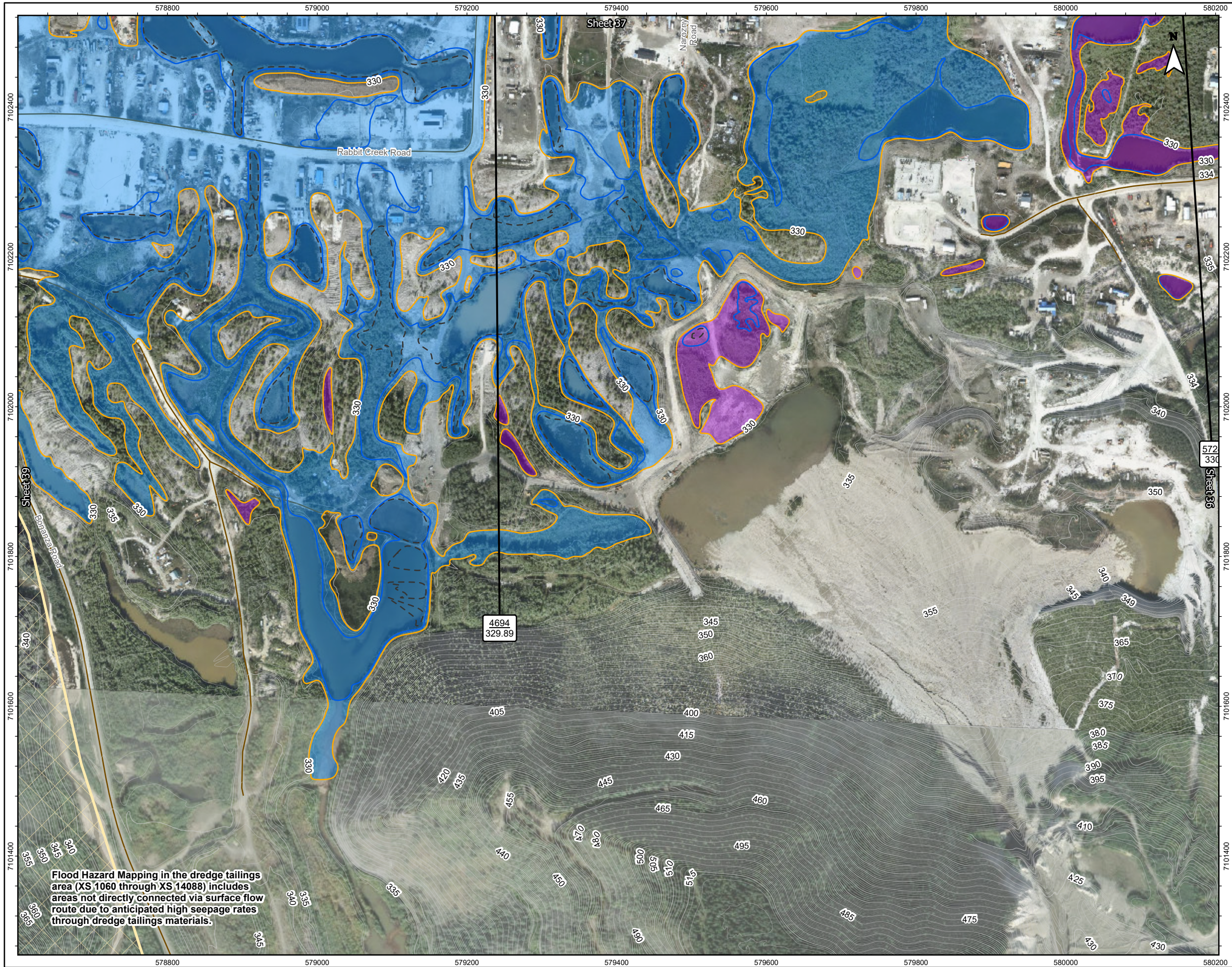
(At original document size of 11x 17) 1:5,000



Notes

- 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.

Disclaimer: Any unauthorized use or reliance of Draft Maps is at the User's own risk. Stantec disclaims any legal duty based upon warranty, reliance or any other theory to any User, and will not be liable to any User for any damages or losses of any kind that may result.

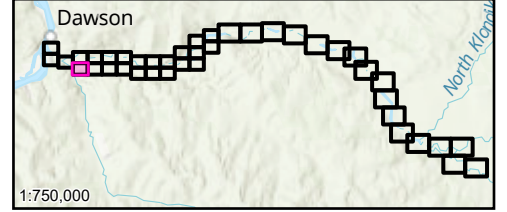


Flood Hazard Mapping in the dredge tailings area (XS 1060 through XS 14088) includes areas not directly connected via surface flow route due to anticipated high seepage rates through dredge tailings materials.

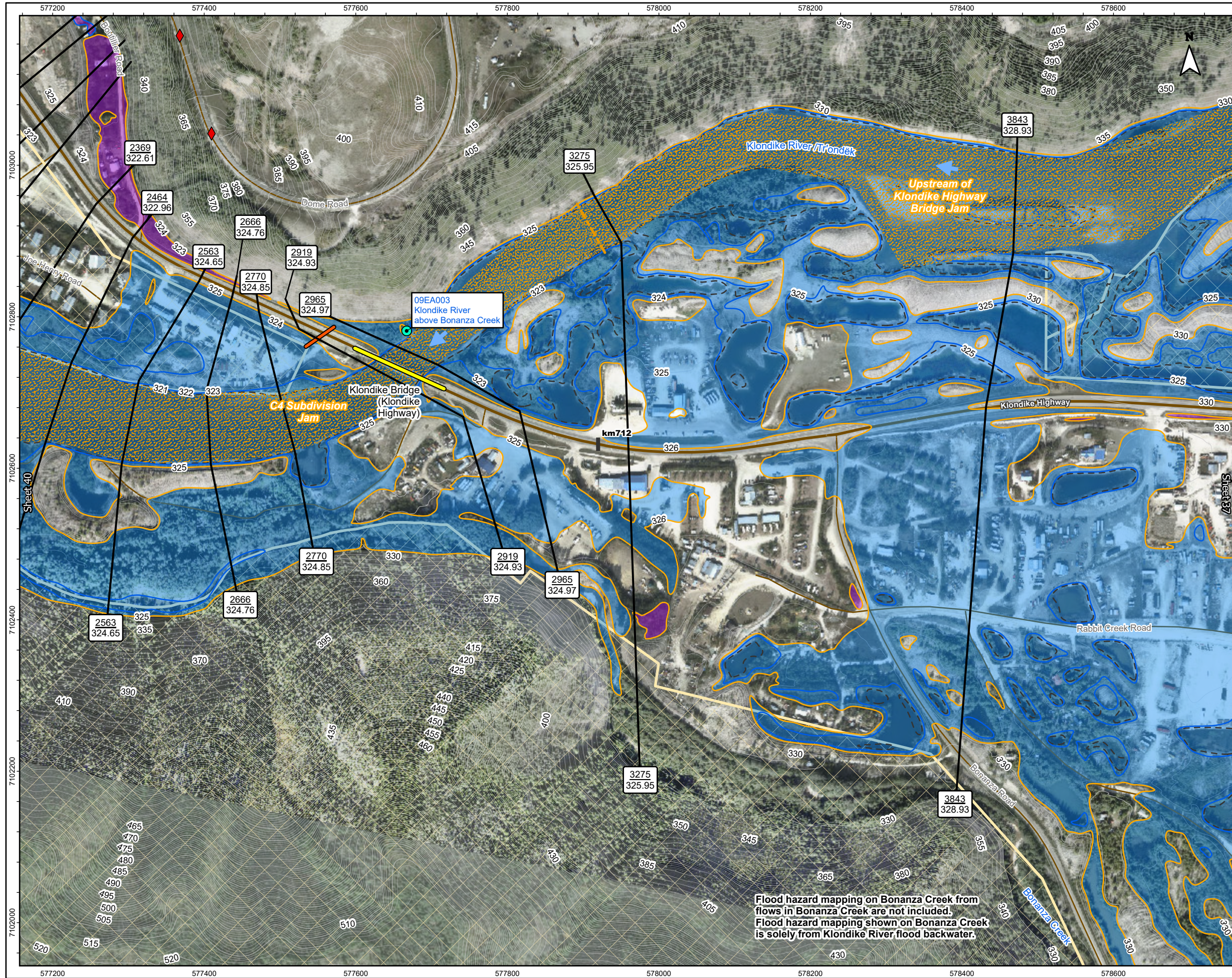
Figure No. **KR-1-38** Sheet 38 of 41
 Title: **Dawson City and Klondike Valley Flood Mapping Study Composite Flood Hazard Map - Klondike River 1% Annual Exceedance Probability (AEP)**
 Client/Project: Government of Yukon, Department of Environment, Water Resources Branch
 Project: 123222713
 Project Location: Dawson, Yukon
 Prepared by MANDERSON on 2026-03-06, Requested by JMUIRHEAD on 2024-03-30, Review by JMUIRHEAD on 20226-03-06

- River Flow Direction
- Highway Kilometer Post
- Cross-Section Number
- WSE (m) Along Cross Section
- WSE (m) Along Cross-Section (WSE in Dike Breach Scenario)
- Local Road
- Major Contour (5m)
- Minor Contour (1m)
- Surveyed Cross-Sections Used in Hydraulic Model
- 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 Extents
- 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.
 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.



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

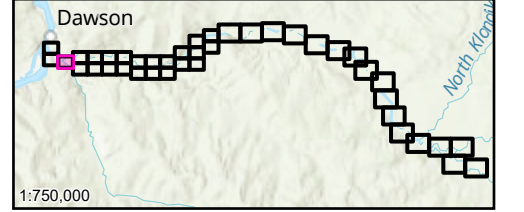
Client/Project:
Government of Yukon
Department of Environment
Water Resources Branch

Project: 123222713

Project Location: Dawson, Yukon
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 20226-03-06

- River Flow Direction
- WSC Stations
- HPW Drainage Culverts
- Highway Kilometer Post
- Cross-Section Number
- WSE (m) Along Cross Section
- Bridge
- 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 Extents
- 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
 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.



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

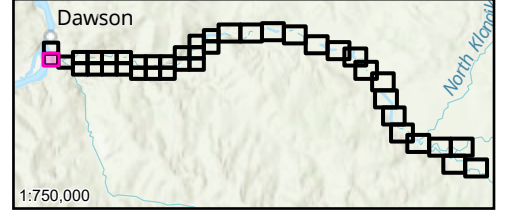
Client/Project:
 Government of Yukon
 Department of Environment
 Water Resources Branch

Project: 123222713

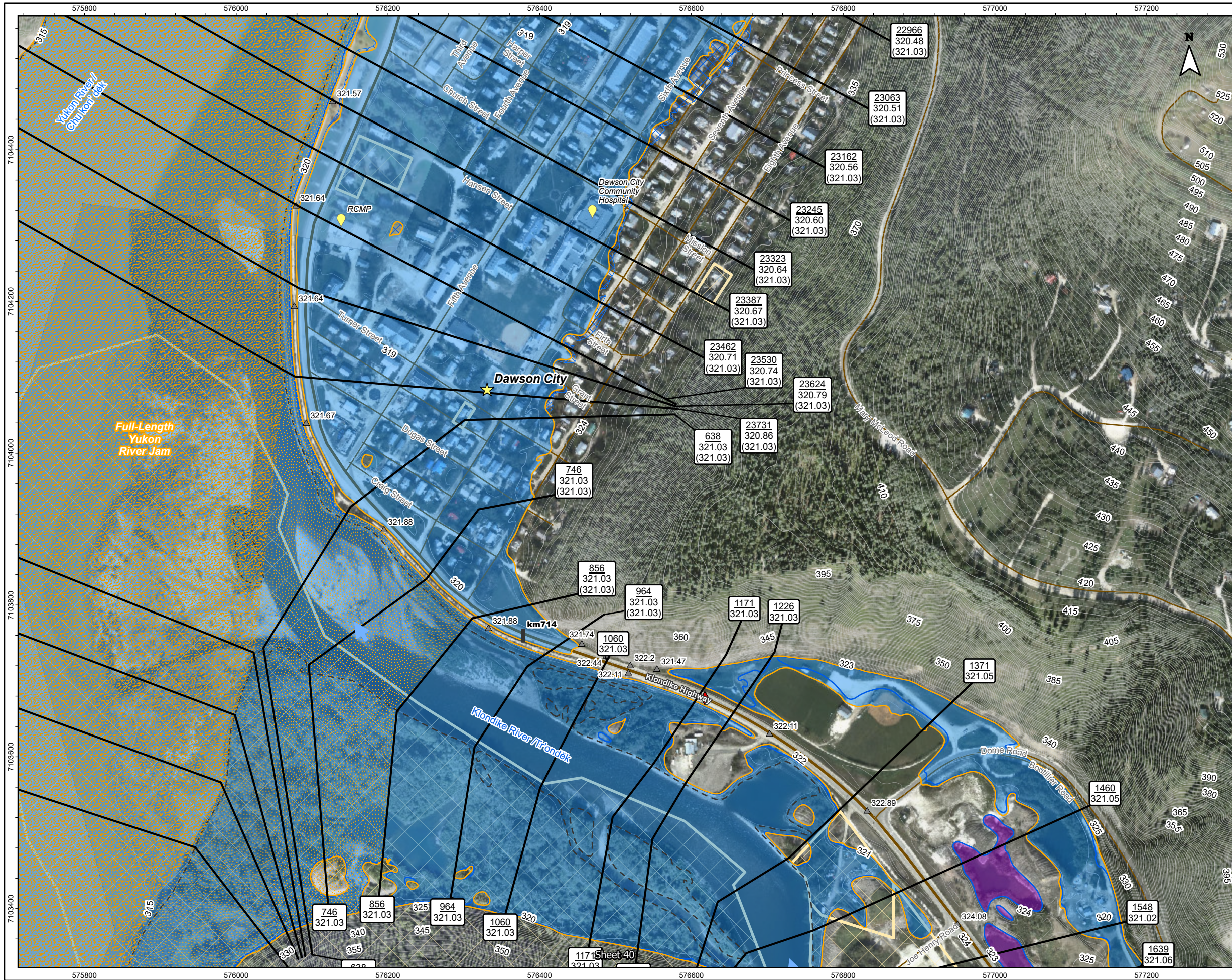
Project Location: Dawson, Yukon

- | | | | |
|--|--|--|--|
| | River Flow Direction | | Surveyed Cross-Sections Used in Hydraulic Model |
| | Ground Elevations of Interest | | Toe of Ice Jam |
| | Point of Interest | | Tr'ondëk 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 |
| | Highway | | Composite Open Water and Ice Jam Inundation Extents |
| | Local Road | | Inundation Extent from Subsurface Seepage |
| | 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
 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.



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

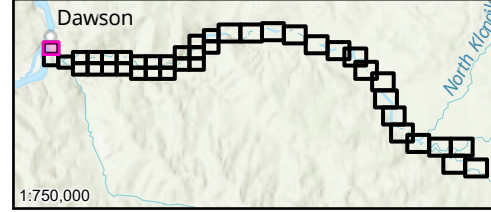
Client/Project:
Government of Yukon
Department of Environment
Water Resources Branch

Project: 123222713

Project Location: Dawson, Yukon
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 20226-03-06

- River Flow Direction
- Ground Elevations of Interest
- HPW Drainage Culverts
- Municipality
- Point of Interest
- Highway Kilometer Post
- 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
- Tr'ondëk Hwëch'in Settlement Land
- Approximate 50% AEP Open Water Flood Inundation
- Inundation Under Dike Breach Scenario
- Inundation Under Modelled Open Water Runs
- Inundation Under Modelled Breakup Ice Jam Runs
- Composite Open Water and Ice Jam Inundation Extents
- 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: CGVD2013a, 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.