

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

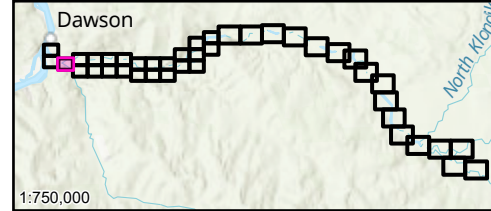
Client/Project:  
Government of Yukon  
Department of Environment  
Water Resources Branch

Project: 123222713

Project Location: Dawson, Yukon  
Prepared by MANDERSON on 2026-04-03  
Requested by JMUIRHEAD on 2024-03-30  
Review by JMUIRHEAD on 2026-04-03

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

Map Publication Date: 04/03/2026  
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.

Flood hazard mapping on Bonanza Creek from flows in Bonanza Creek are not included. Flood hazard mapping shown on Bonanza Creek is solely from Klondike River flood backwater.