

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

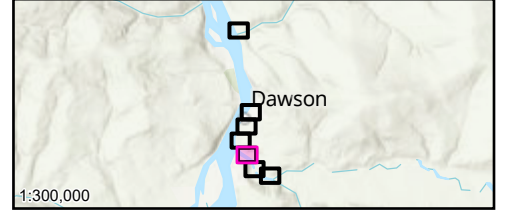
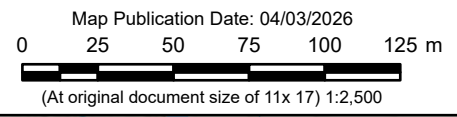
**Client/Project:**  
Government of Yukon  
Department of Environment  
Water Resources Branch

**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

- ▲ Ground Elevations of Interest
- ▬ Highway Kilometer Post
- ◆ HPW Drainage Culverts
- 57  
517.2 Cross-Section Number
- 22140  
320.26  
(320.04) WSE (m) Along Cross-Section (in Channel)
- 22140  
320.26  
(320.04) WSE (m) Along Cross-Section (in Dawson City)
- Highway
- Local Road
- Major Contour (5m)
- Minor Contour (1m)
- Surveyed Cross-Sections Used in Hydraulic Model
- Toe of Ice Jam
- ▭ Tr'ondëk Hwëch'in Settlement Land
- - - Approximate 50% AEP Open Water Flood Inundation
- ▭ Inundation Under Modelled Open Water Runs
- ▭ Inundation Under Modelled Breakup Ice Jam Runs
- ▭ Composite Open Water and Ice Jam Inundation Extent
- ▭ Inundation Extent From Subsurface Seepage
- ▭ Area Protected by Dike
- ▭ Potential Presence of Ice Debris During Jam Scenario
- ▭ Ice Jamming Extents



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