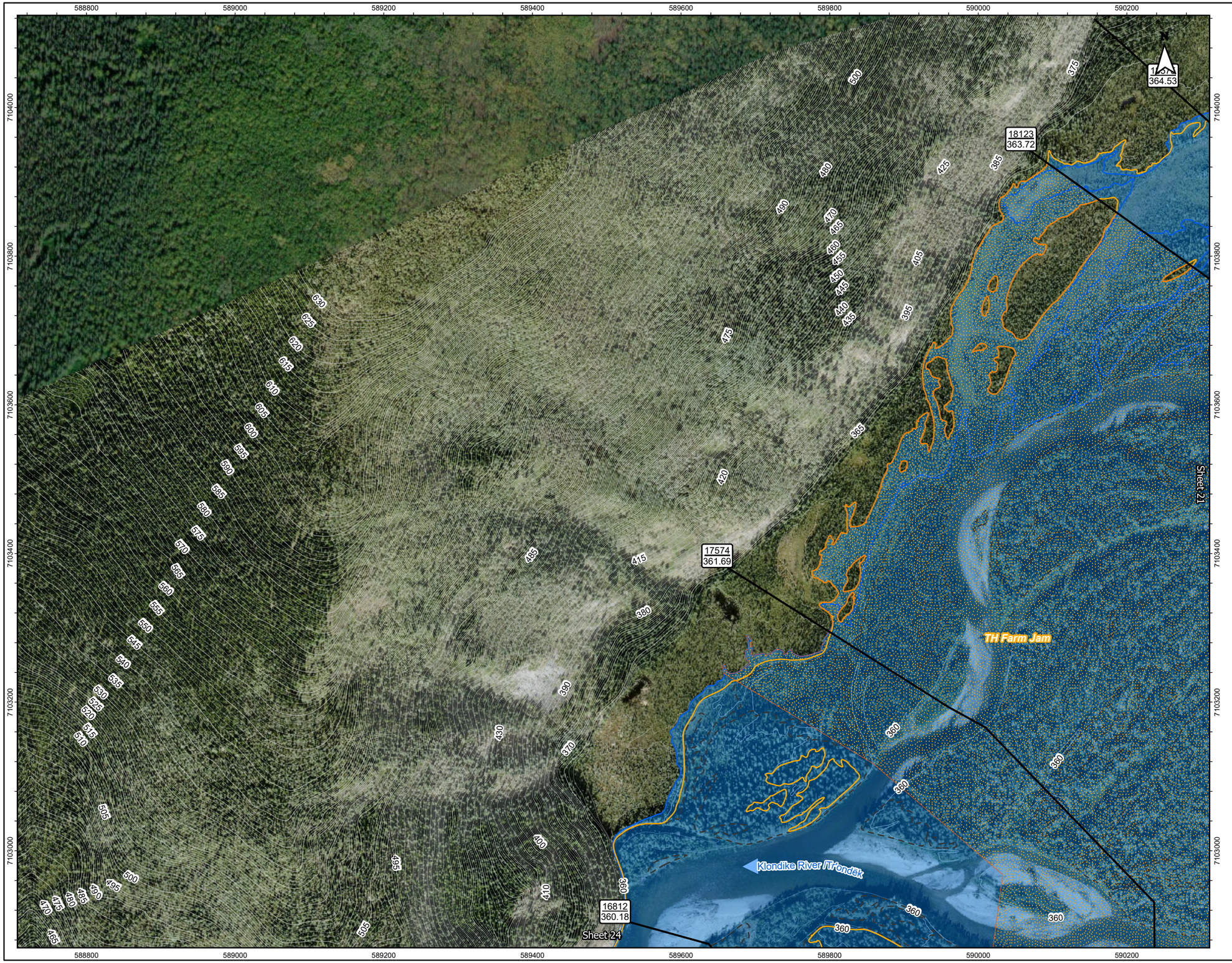


Figure No.

KR-0.5CC-23

Sheet 23 of 41

Title: **Dawson City and Klondike Valley Flood Mapping Study**
Composite Flood Hazard Map - Klondike River
0.5% Annual Exceedance Probability (AEP) with Factor of Safety for Climate Change

Client/Project:

Government of Yukon
Department of Environment
Water Resources Branch

Project: 123222713

Project Location:

Dawson, Yukon

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

57 / 517.2 — Cross-Section Number WSE (m) Along Cross-Section

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

Approximate 50% AEP Open Water Flood Inundation

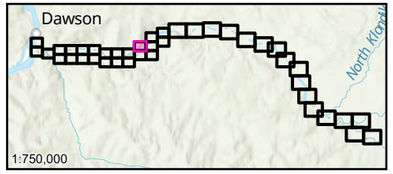
Composite Open Water and Ice Jam Inundation Extent

Ice Coverage in Breakup Jam Scenarios

Map Publication Date: 7/29/2025

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 Draft Maps is based on the methods, assumptions, limitations, and analysis documented in the Dawson City and Klondike Valley Flood Mapping Study (Stantec 2025) produced for Yukon Government. Composite Hazard Maps are based on the assumptions and analysis presented in Stantec 2025 which were 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.

Canada

Stantec

Yukon

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