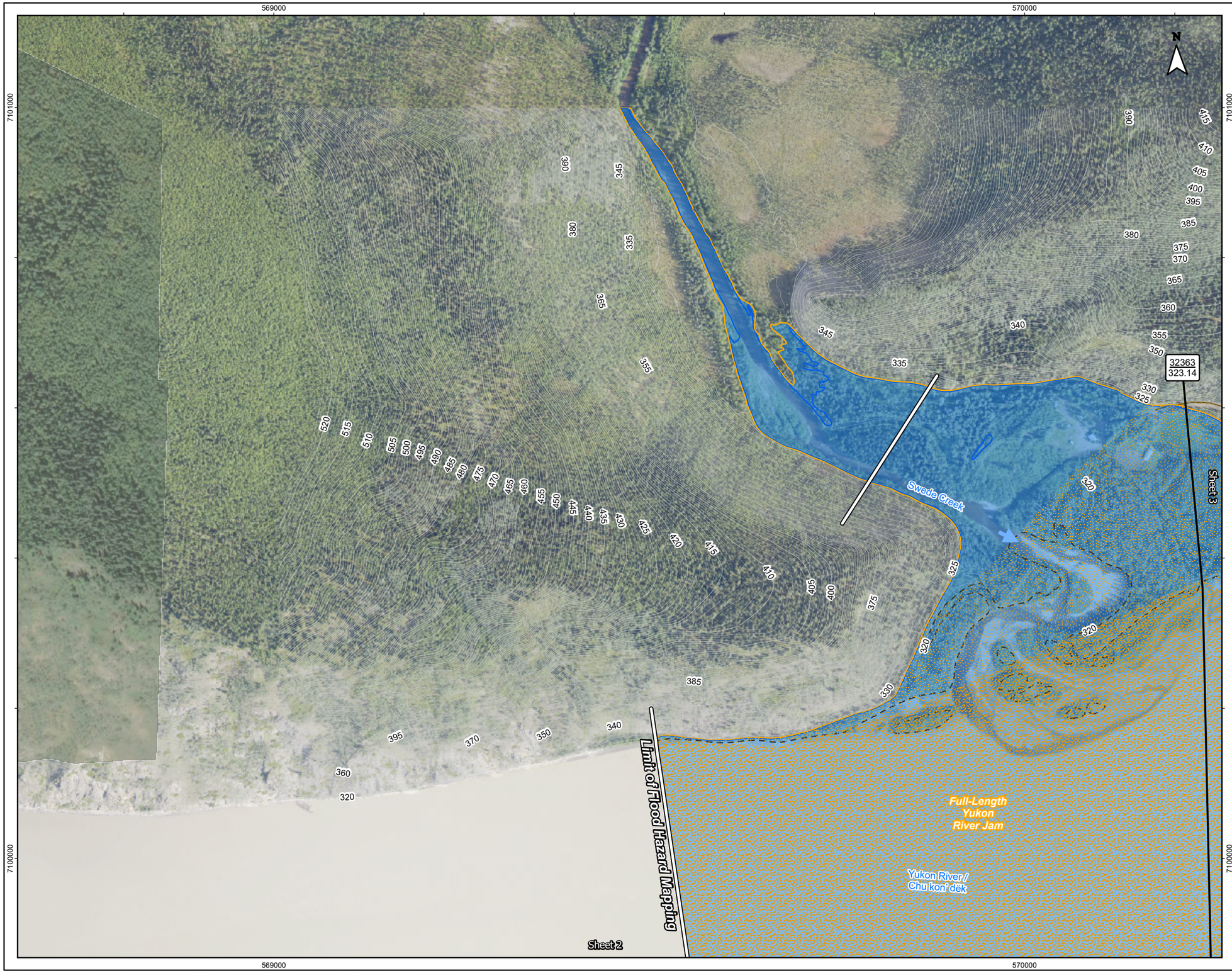


Figure No.

YR-0.5-01 **Sheet 01 of 19**

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

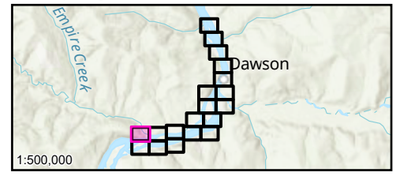
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2026-03-06

- Highway Kilometer Post
- 57 / 517.2 — Cross-SEction Number / WSE (m) Along Cross-Section
- 22140 / 320.26 / (320.04) — Cross-Section Number / 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
- Toe of Ice Jam
- Limit of Floodplain Mapping
- 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
- Inundation Under Dike Breach Scenario
- 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 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.

Canada

Stantec

Yukon

This project is funded in part by the Government of Canada

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.

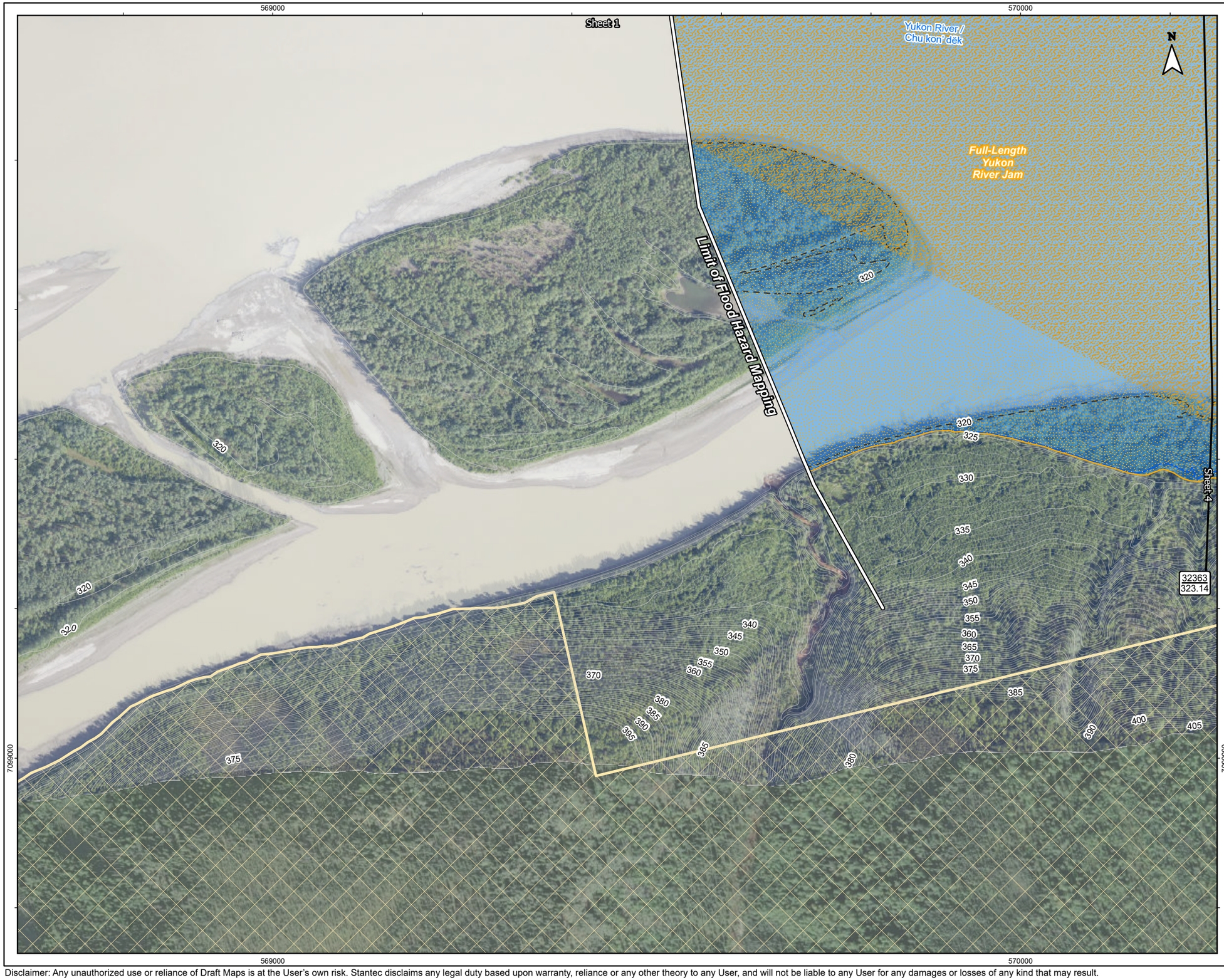


Figure No.

YR-0.5-02 **Sheet 02 of 19**

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

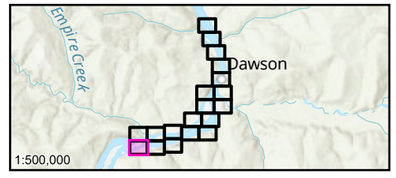
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2026-03-06

- Highway Kilometer Post
- 57 / 517.2 — Cross-SEction Number / WSE (m) Along Cross-Section
- 22140 / 320.26 / (320.04) — 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
- Limit of Floodplain Mapping
- 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
- Inundation Under Dike Breach Scenario
- 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 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.

Canada

Stantec

Yukon

This project is funded in part by the Government of Canada

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.

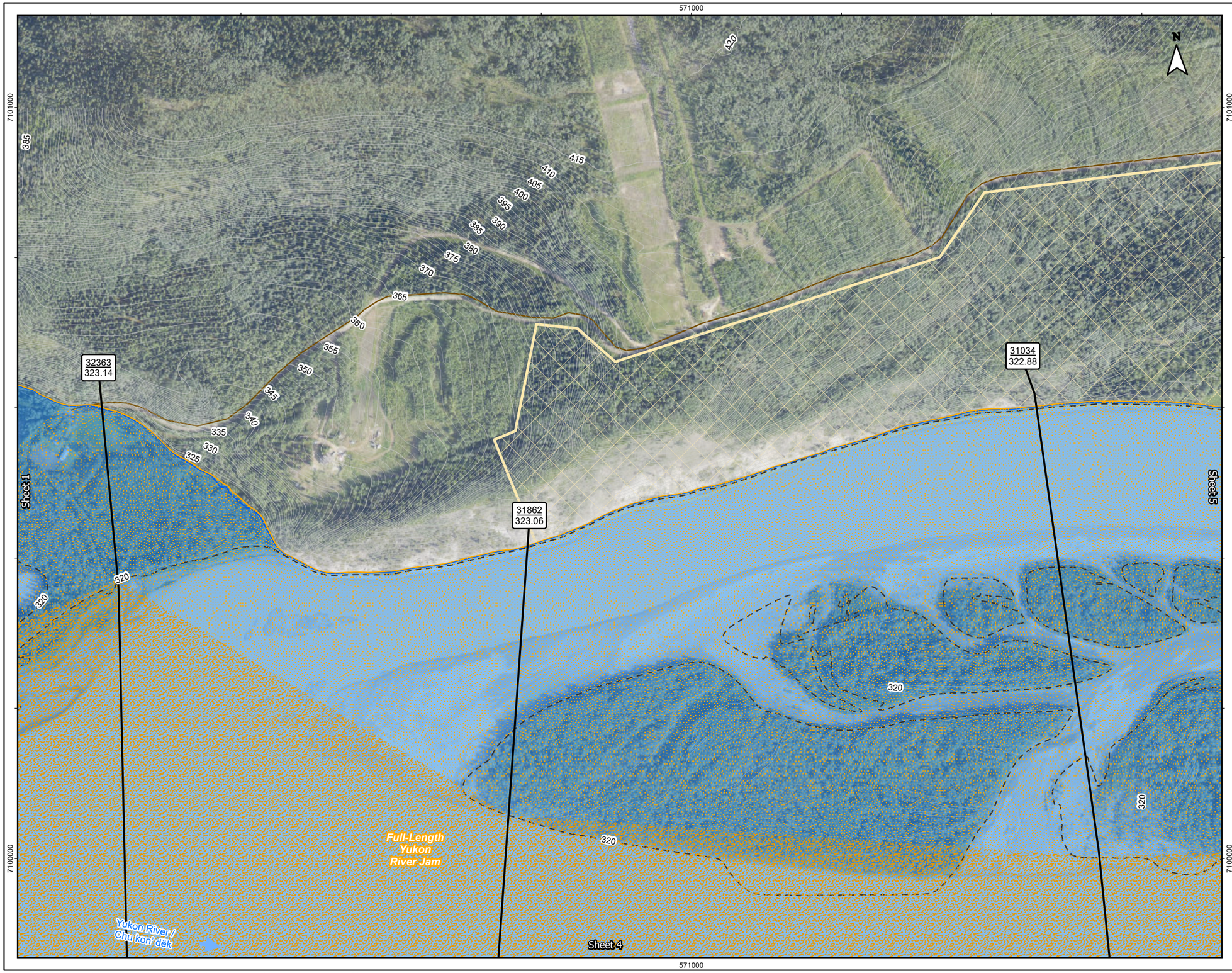


Figure No.

YR-0.5-03 **Sheet 03 of 19**

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

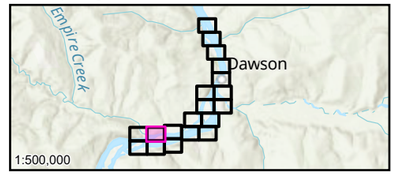
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2026-03-06

- River Flow Direction
- Highway Kilometer Post
- 57 / 517.2 — Cross-SEction Number / WSE (m) Along Cross-Section
- 22140 / 320.26 / (320.04) — Cross-Section Number / 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
- 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
- Inundation Under Dike Breach Scenario
- 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 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.

Canada

Stantec

Yukon

This project is funded in part by the Government of Canada

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.

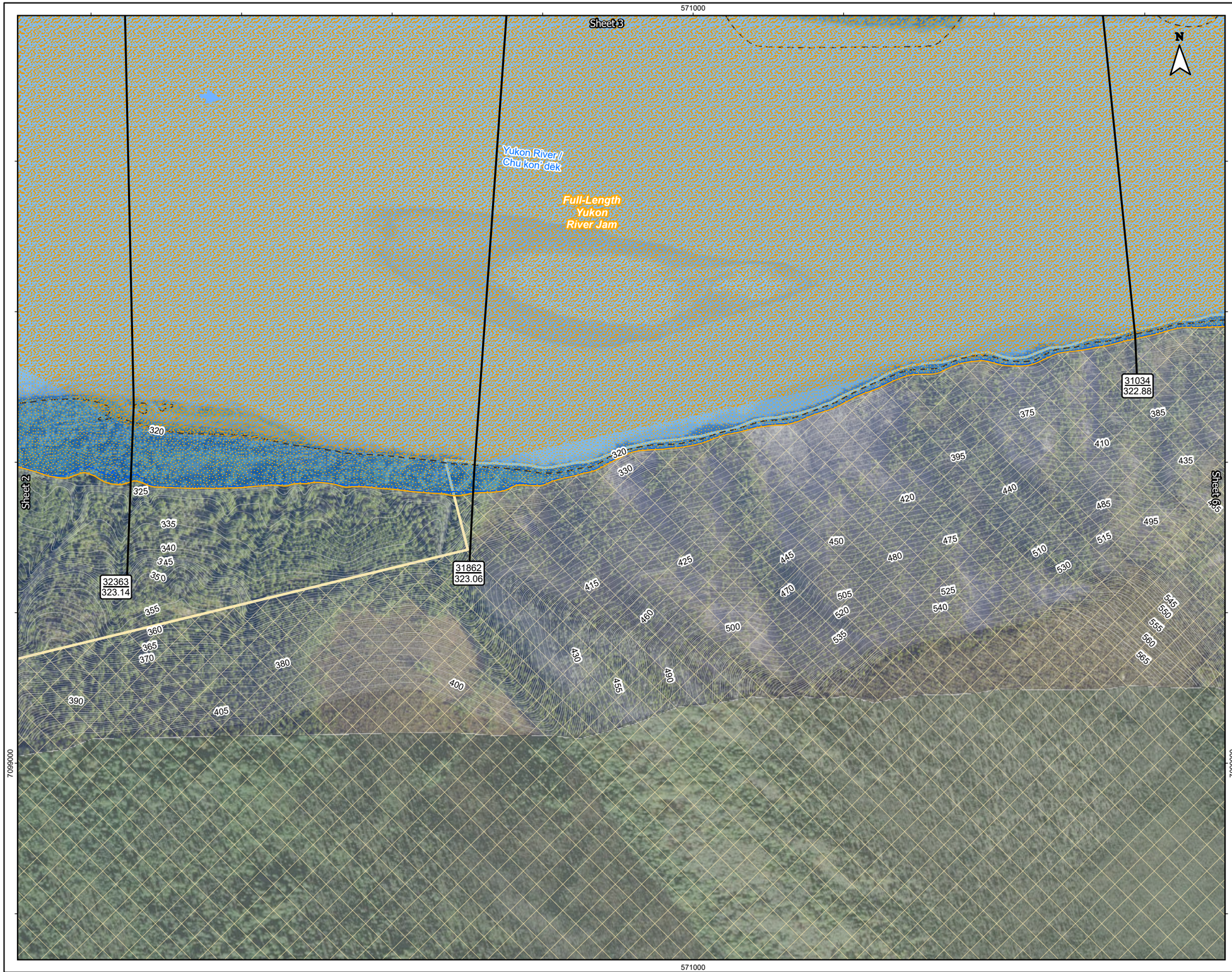


Figure No.

YR-0.5-04 **Sheet 04 of 19**

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

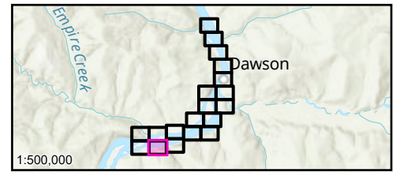
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2026-03-06

- River Flow Direction
- Highway Kilometer Post
- 57 / 517.2 — Cross-SEction Number / WSE (m) Along Cross-Section
- 22140 / 320.26 / (320.04) — 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
- 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
- Inundation Under Dike Breach Scenario
- 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 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.

Canada

Stantec

Yukon

This project is funded in part by the Government of Canada

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.

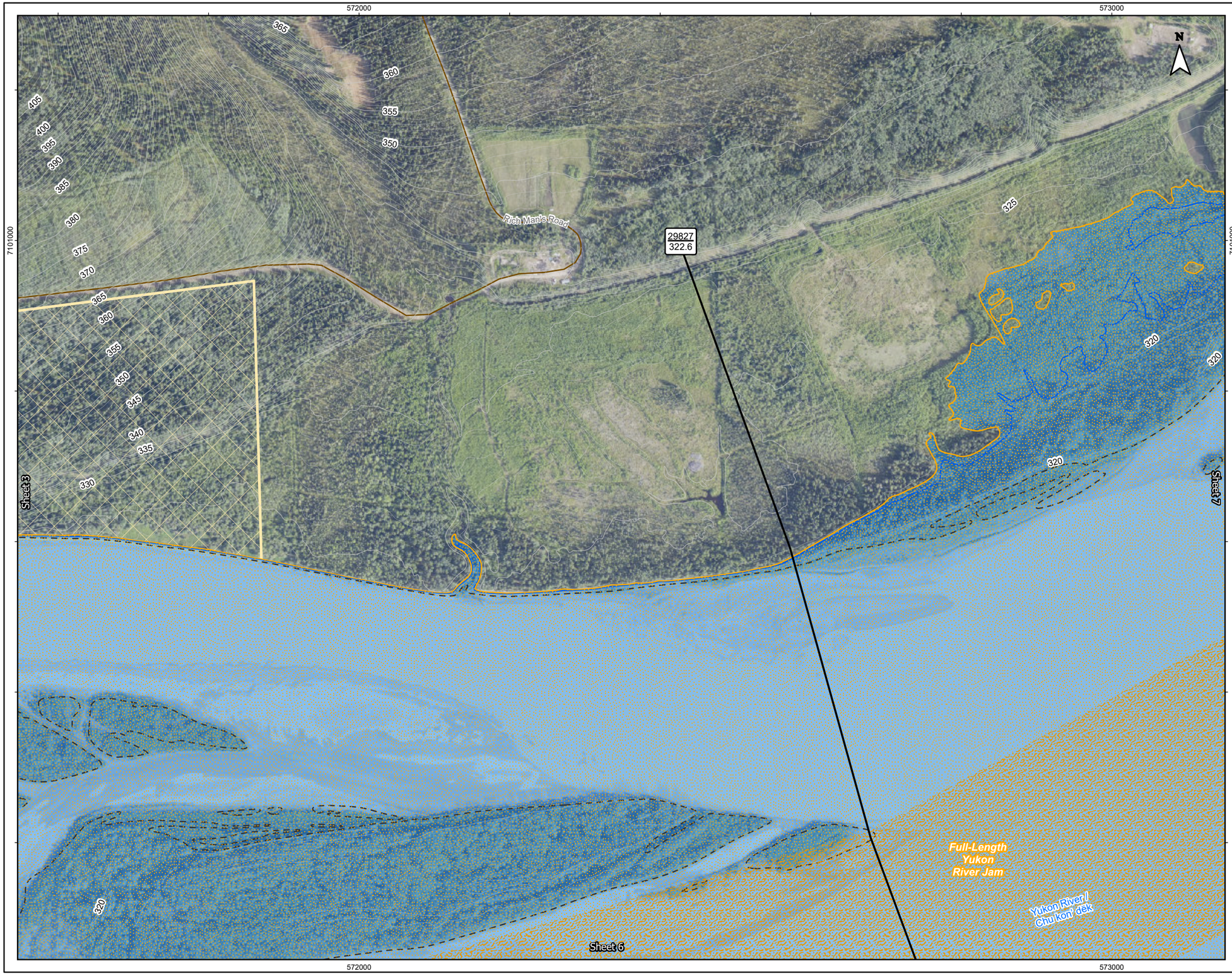


Figure No.

YR-0.5-05 **Sheet 05 of 19**

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

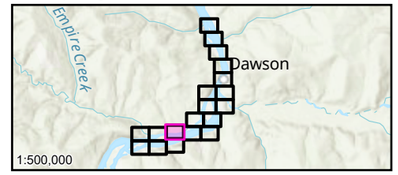
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2026-03-06

- Highway Kilometer Post
- 57 / 517.2 — Cross-SEction Number / WSE (m) Along Cross-Section
- 22140 / 320.26 / (320.04) — Cross-Section Number / 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
- 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
- Inundation Under Dike Breach Scenario
- 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 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.

Canada

Stantec

Yukon

This project is funded in part by the Government of Canada

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.

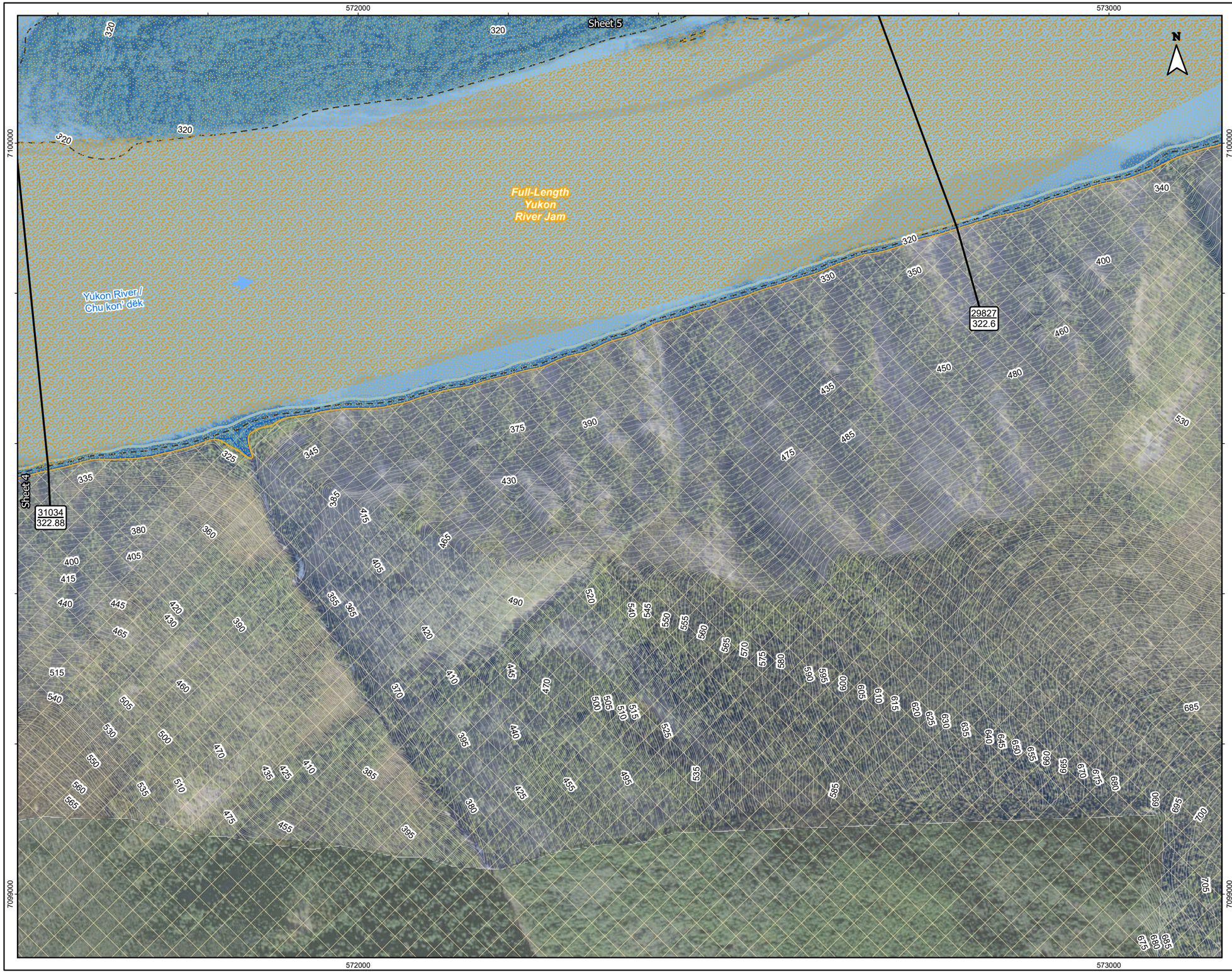


Figure No.

YR-0.5-06

Sheet 06 of 19

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

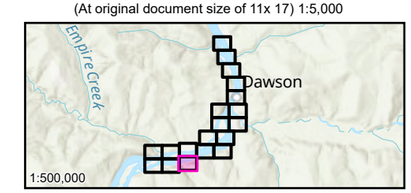
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2026-03-06

- River Flow Direction
- Highway Kilometer Post
- 57 / 517.2 — Cross-SEction Number / WSE (m) Along Cross-Section
- 22140 / 320.26 (320.04) — 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
- 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
- Inundation Under Dike Breach Scenario
- 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 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.

Canada

Stantec

Yukon

This project is funded in part by the Government of Canada

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.

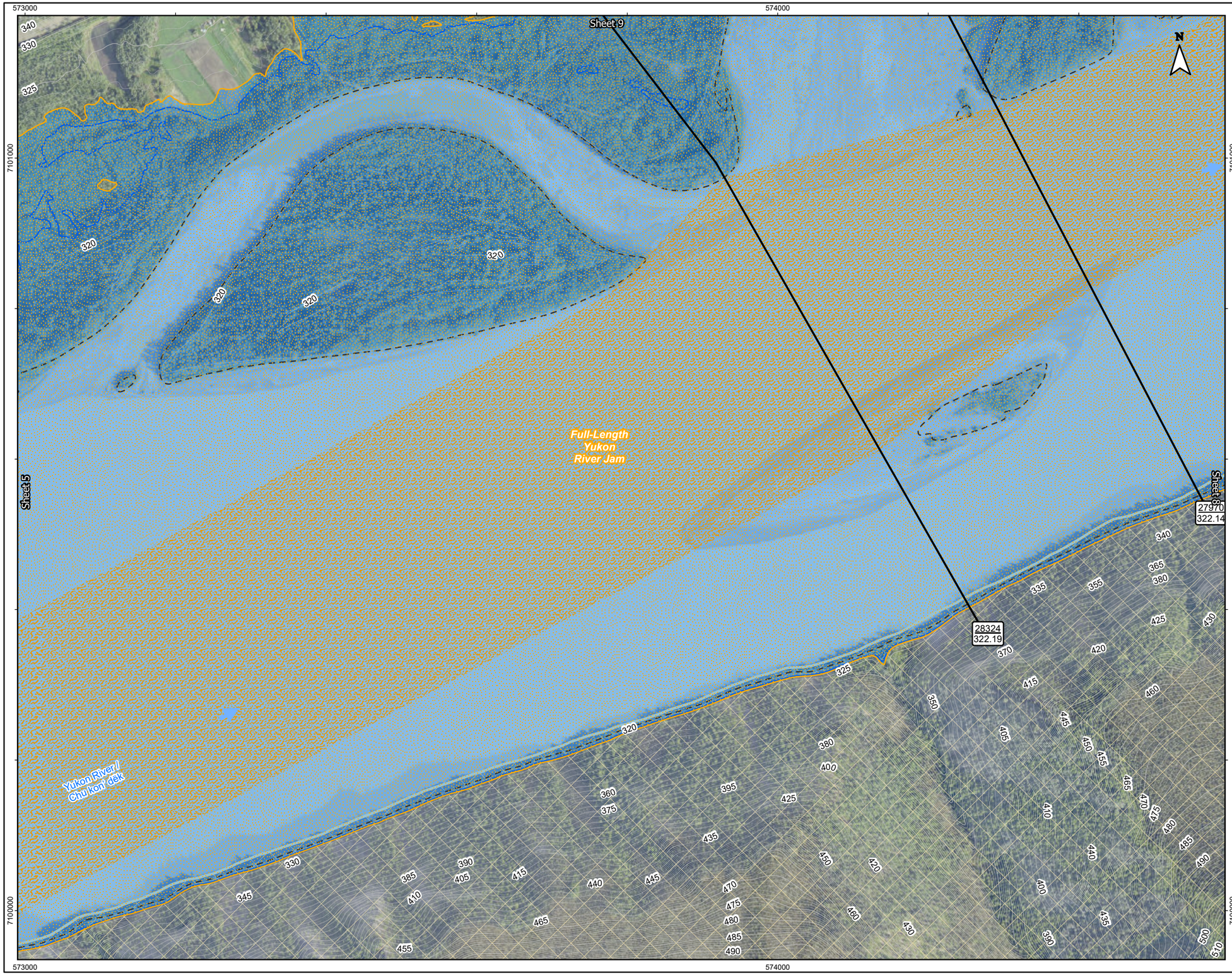


Figure No.

YR-0.5-07 **Sheet 07 of 19**

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

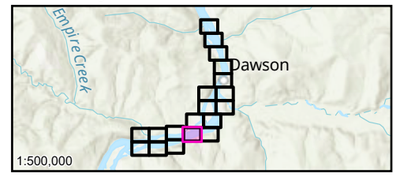
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2026-03-06

- River Flow Direction
- Highway Kilometer Post
- 57 / 517.2 — Cross-SEction Number / WSE (m) Along Cross-Section
- 22140 / 320.26 / (320.04) — 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
- 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
- Inundation Under Dike Breach Scenario
- 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 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.

Canada

Stantec

Yukon

This project is funded in part by the Government of Canada

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.

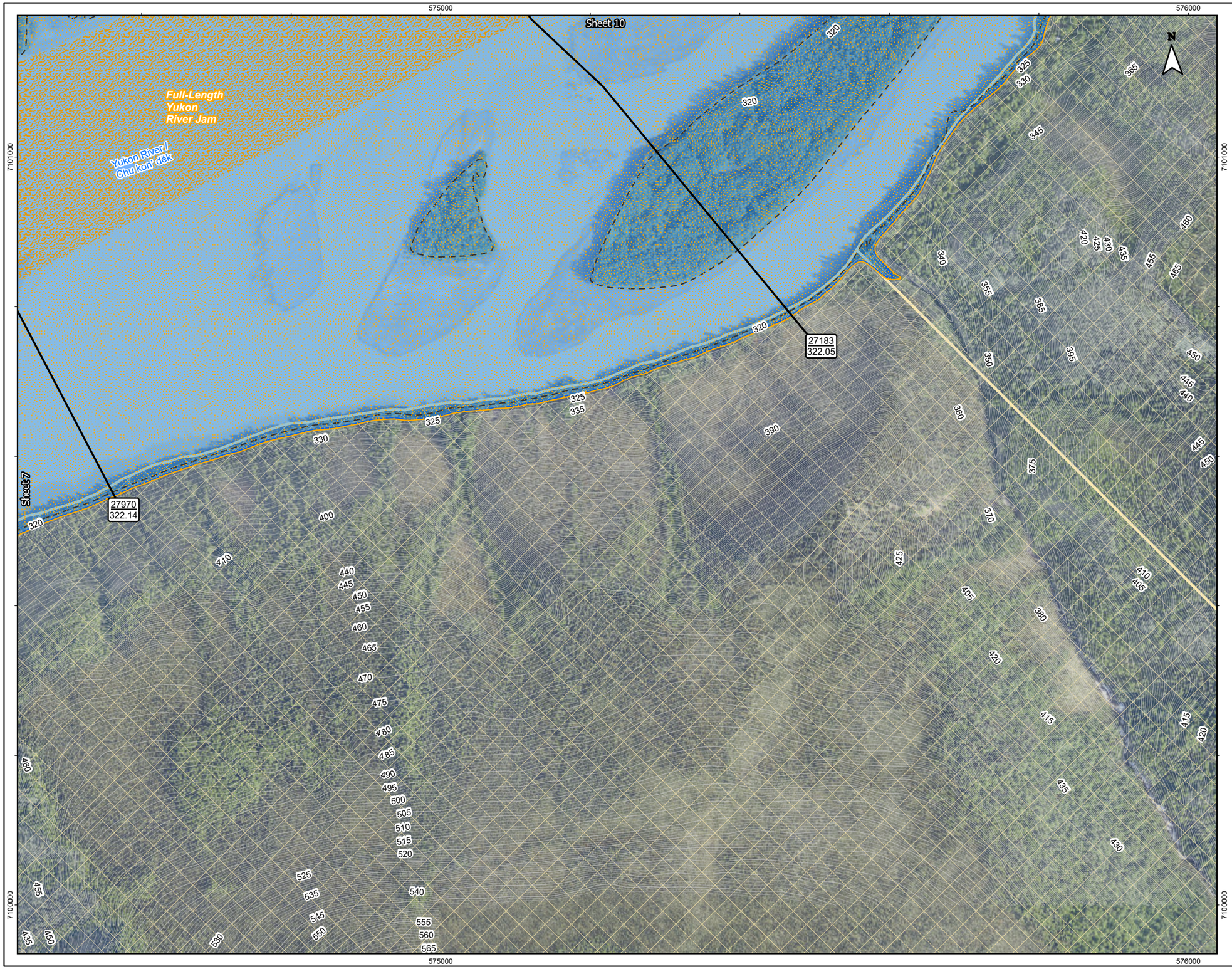


Figure No.

YR-0.5-08 **Sheet 08 of 19**

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

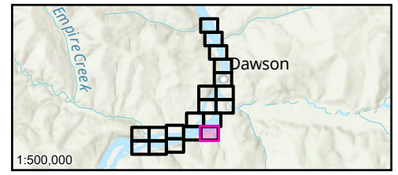
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2026-03-06

- River Flow Direction
- Highway Kilometer Post
- 57 / 517.2 — Cross-SEction Number / WSE (m) Along Cross-Section
- 22140 / 320.26 / (320.04) — 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
- 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
- Inundation Under Dike Breach Scenario
- 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 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.

Canada

Stantec

Yukon

This project is funded in part by the Government of Canada

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.

574000

7102000

27183
322.05

27970
322.14

28324
322.19

Kokopelli Road

Golf Course Road

370 365 360 355 350 345 340 335 330 325 320 315

Sheet 10

Sheet 7

Full-Length
Yukon
River Jam

574000

Figure No.

YR-0.5-09 **Sheet 09 of 19**

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

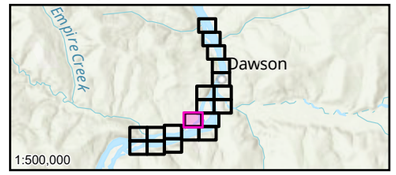
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2026-03-06

- Highway Kilometer Post
- 57 / 517.2 — Cross-SEction Number / WSE (m) Along Cross-Section
- 22140 / 320.26 / (320.04) — Cross-Section Number / 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
- 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
- Inundation Under Dike Breach Scenario
- 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 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.

Canada

Stantec

Yukon

This project is funded in part by the Government of Canada

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.

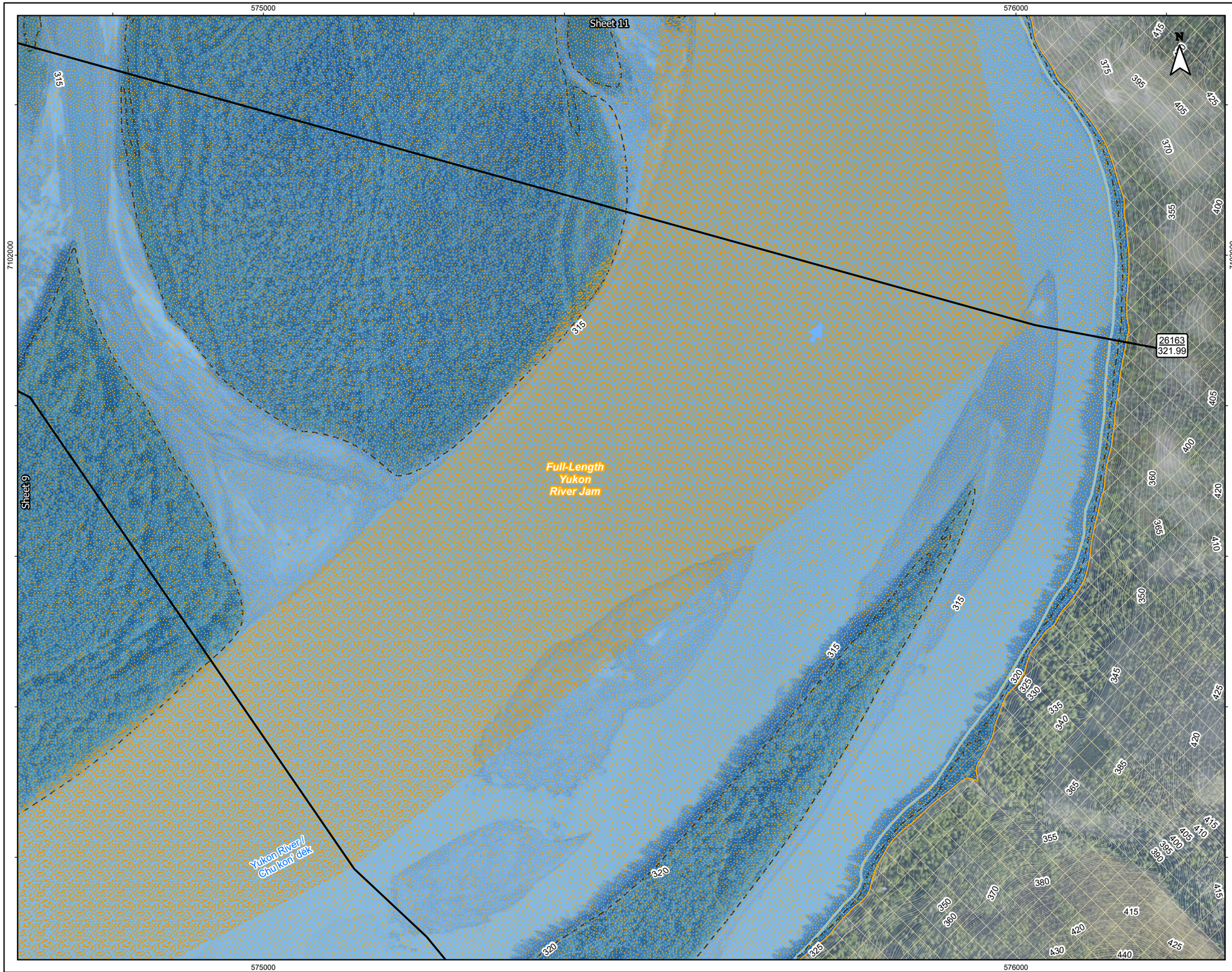


Figure No.

YR-0.5-10 **Sheet 10 of 19**

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

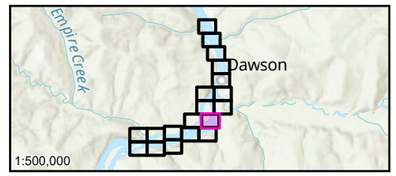
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2026-03-06

- River Flow Direction
- Highway Kilometer Post
- 57 / 517.2 — Cross-SEction Number / WSE (m) Along Cross-Section
- 22140 / 320.26 / (320.04) — 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
- 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
- Inundation Under Dike Breach Scenario
- 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 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.

Canada

Stantec

Yukon

This project is funded in part by the Government of Canada

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.

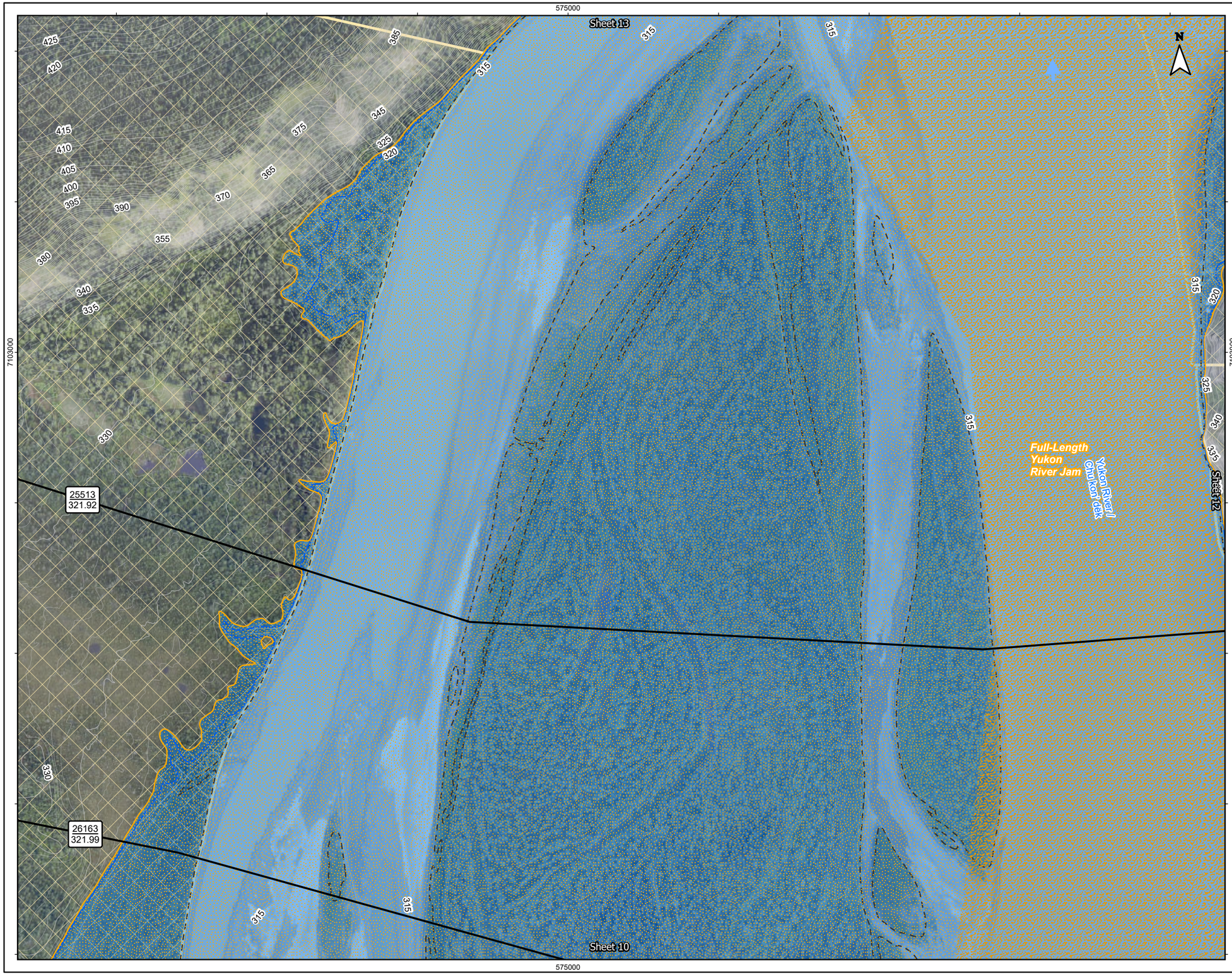


Figure No.

YR-0.5-11 **Sheet 11 of 19**

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

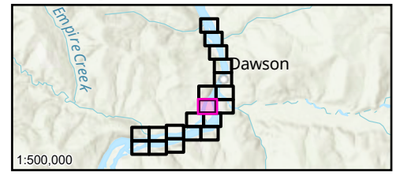
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2026-03-06

- River Flow Direction
- Highway Kilometer Post
- 57 / 517.2 — Cross-SEction Number / WSE (m) Along Cross-Section
- 22140 / 320.26 / (320.04) — 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
- 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
- Inundation Under Dike Breach Scenario
- 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 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.

Canada

Stantec

Yukon

This project is funded in part by the Government of Canada

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.

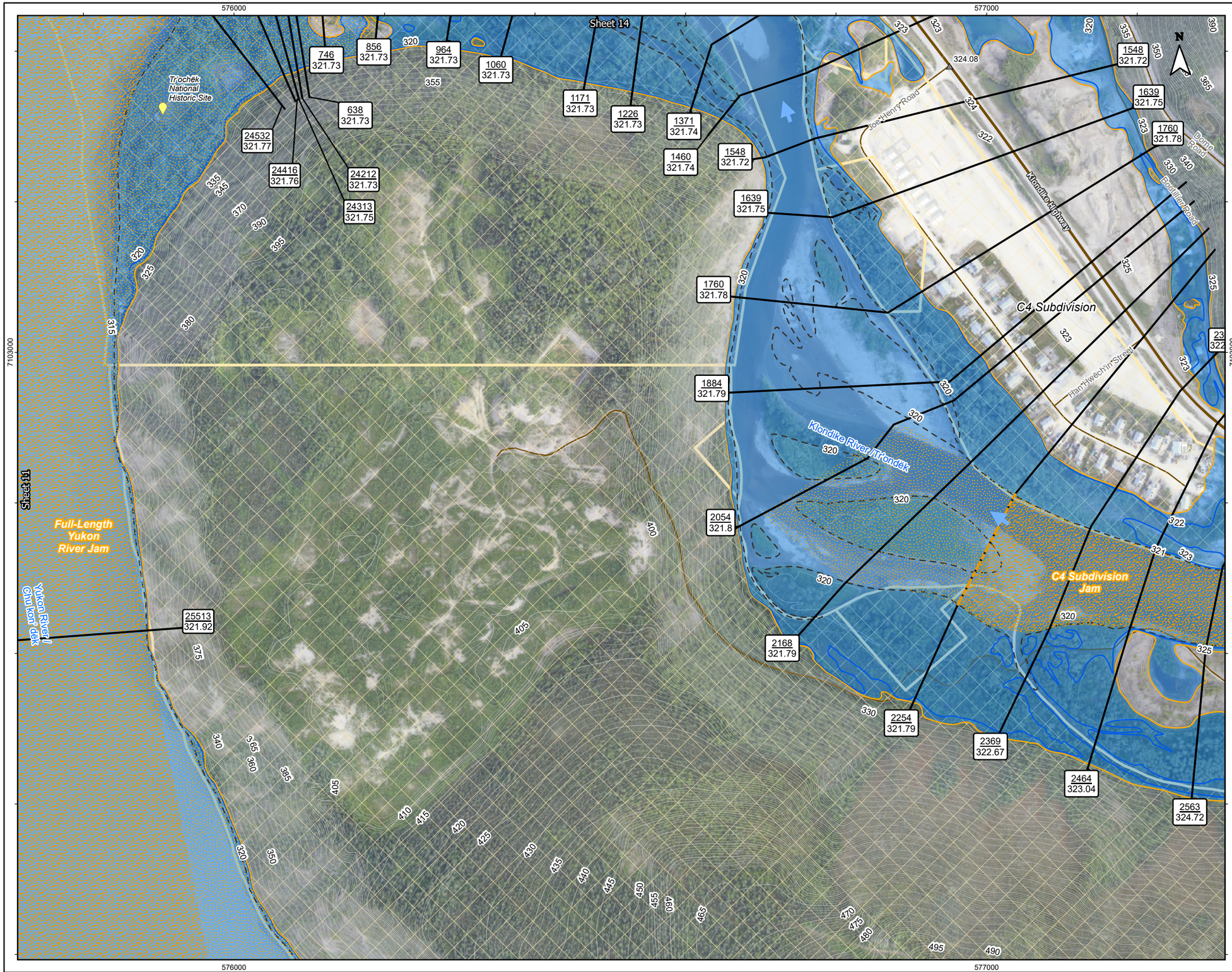


Figure No.

YR-0.5-12 **Sheet 12 of 19**

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

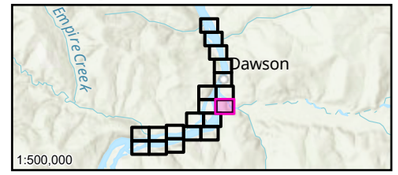
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2026-03-06

- Ground Elevations of Interest
- Highway Kilometer Post
- Point of Interest
- 57 / 517.2 — Cross-SEction Number / WSE (m) Along Cross-Section
- 22140 / 320.26 / (320.04) — Cross-Section Number / WSE (m) Along Cross-Section (WSE in Dike Breach Scenario)
- Highway
- Local Road
- Major Contour (5m)
- Minor Contour (1m)
- Surveyed Cross-Sections Used in Hydraulic Model
- Toe of Ice Jam
- Tr'ondëk Hwëch'in Settlement Land
- Approximate 50% AEP Open Water Flood Inundation
- Inundation Under Modelled Open Water Runs
- Inundation Under Modelled Breakup Ice Jam Runs
- Composite Open Water and Ice Jam Inundation Extent
- Inundation Extent From Subsurface Seepage
- Inundation Under Dike Breach Scenario
- 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 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.

Canada

Stantec

Yukon

This project is funded in part by the Government of Canada

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.

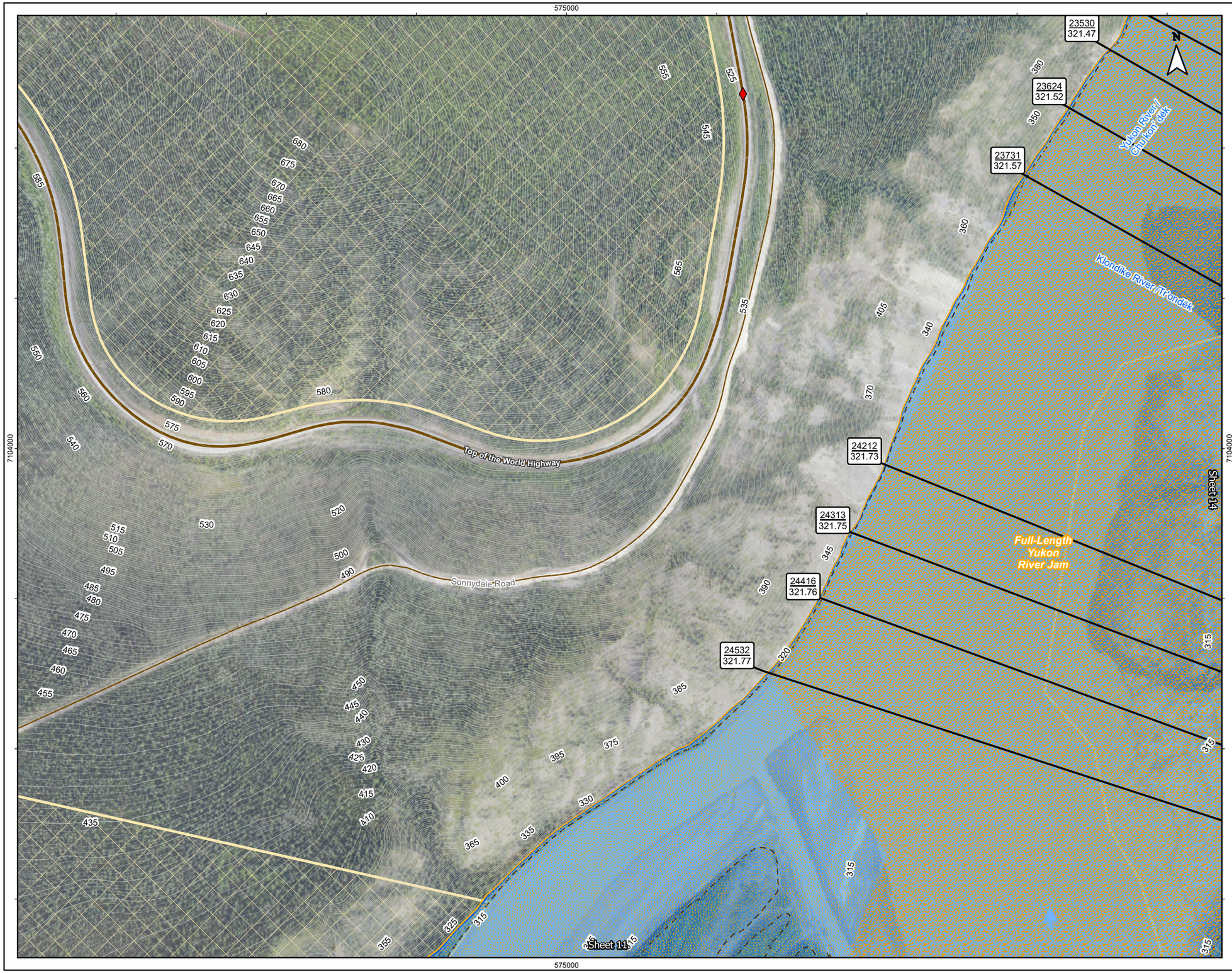


Figure No.

YR-0.5-13 **Sheet 13 of 19**

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

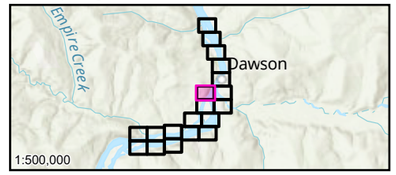
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2026-03-06

- River Flow Direction
- Highway Kilometer Post
- HPW Drainage Culverts
- 57 / 517.2 — Cross-SEction Number / WSE (m) Along Cross-Section
- 22140 / 320.26 / (320.04) — Cross-Section Number / WSE (m) Along Cross-Section (WSE in Dike Breach Scenario)
- Highway
- Local Road
- Major Contour (5m)
- Minor Contour (1m)
- Surveyed Cross-Sections Used in Hydraulic Model
- Toe of Ice Jam
- Tr'ondëk Hwëch'in Settlement Land
- Approximate 50% AEP Open Water Flood Inundation
- Inundation Under Modelled Open Water Runs
- Inundation Under Modelled Breakup Ice Jam Runs
- Composite Open Water and Ice Jam Inundation Extent
- Inundation Extent From Subsurface Seepage
- Inundation Under Dike Breach Scenario
- 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 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.

Canada

Stantec

Yukon

This project is funded in part by the Government of Canada

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.

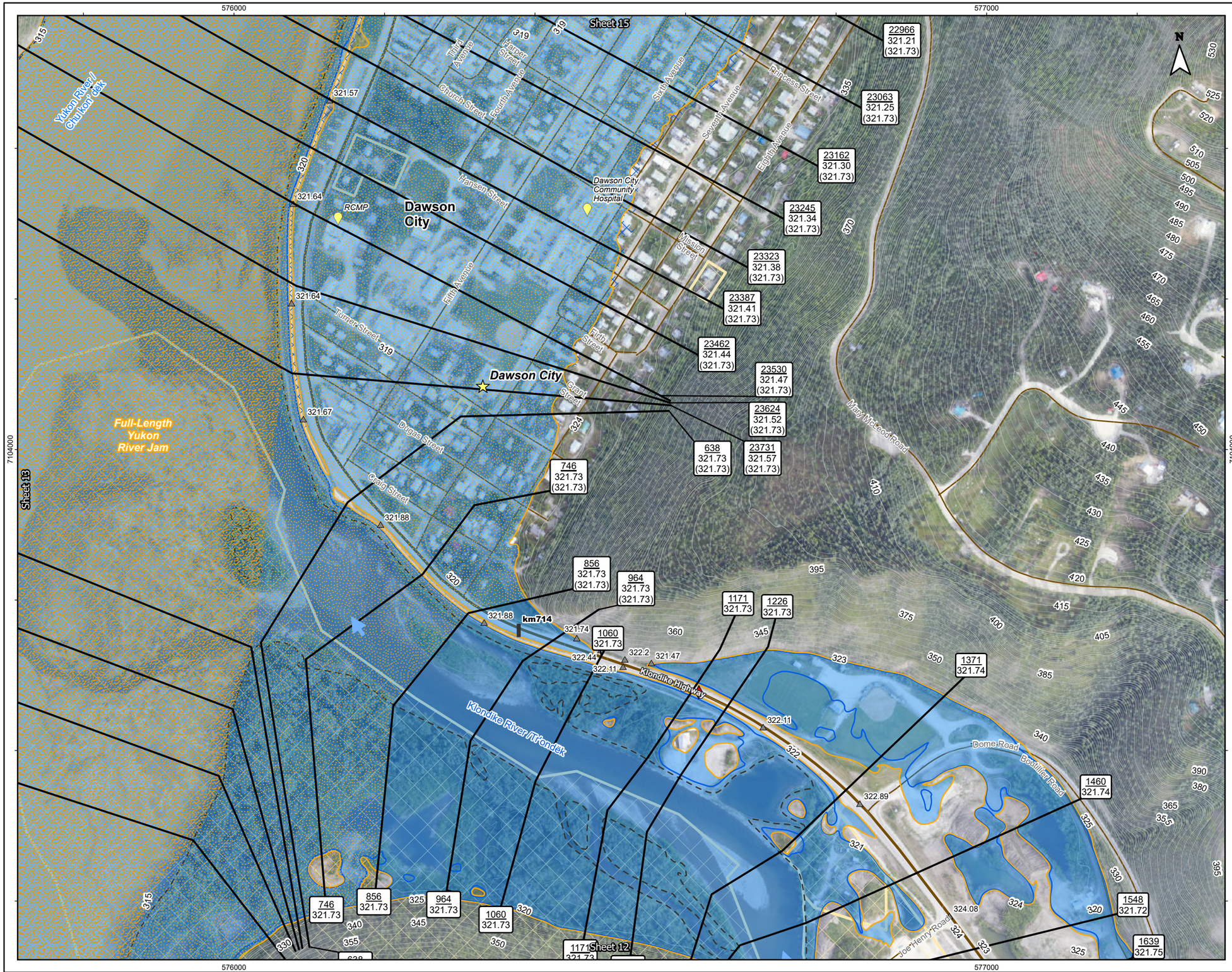


Figure No.

YR-0.5-14 **Sheet 14 of 19**

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

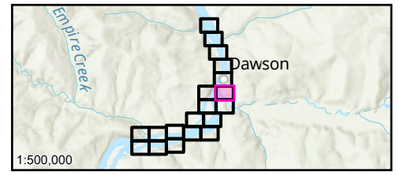
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2026-03-06

- Ground Elevations of Interest
- Highway Kilometer Post
- HPW Drainage Culverts
- Municipality
- Point of Interest
- 57 / 517.2 — Cross-SEction Number / WSE (m) Along Cross-Section
- 22140 / 320.26 / (320.04) — Cross-Section Number / WSE (m) Along Cross-Section (WSE in Dike Breach Scenario)
- Highway
- Local Road
- Major Contour (5m)
- Minor Contour (1m)
- Surveyed Cross-Sections Used in Hydraulic Model
- Toe of Ice Jam
- Tr'ondëk Hwëch'in Settlement Land
- Approximate 50% AEP Open Water Flood Inundation
- Inundation Under Modelled Open Water Runs
- Inundation Under Modelled Breakup Ice Jam Runs
- Composite Open Water and Ice Jam Inundation Extent
- Inundation Extent From Subsurface Seepage
- Inundation Under Dike Breach Scenario
- 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 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.

Canada

Stantec

Yukon

This project is funded in part by the Government of Canada

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.

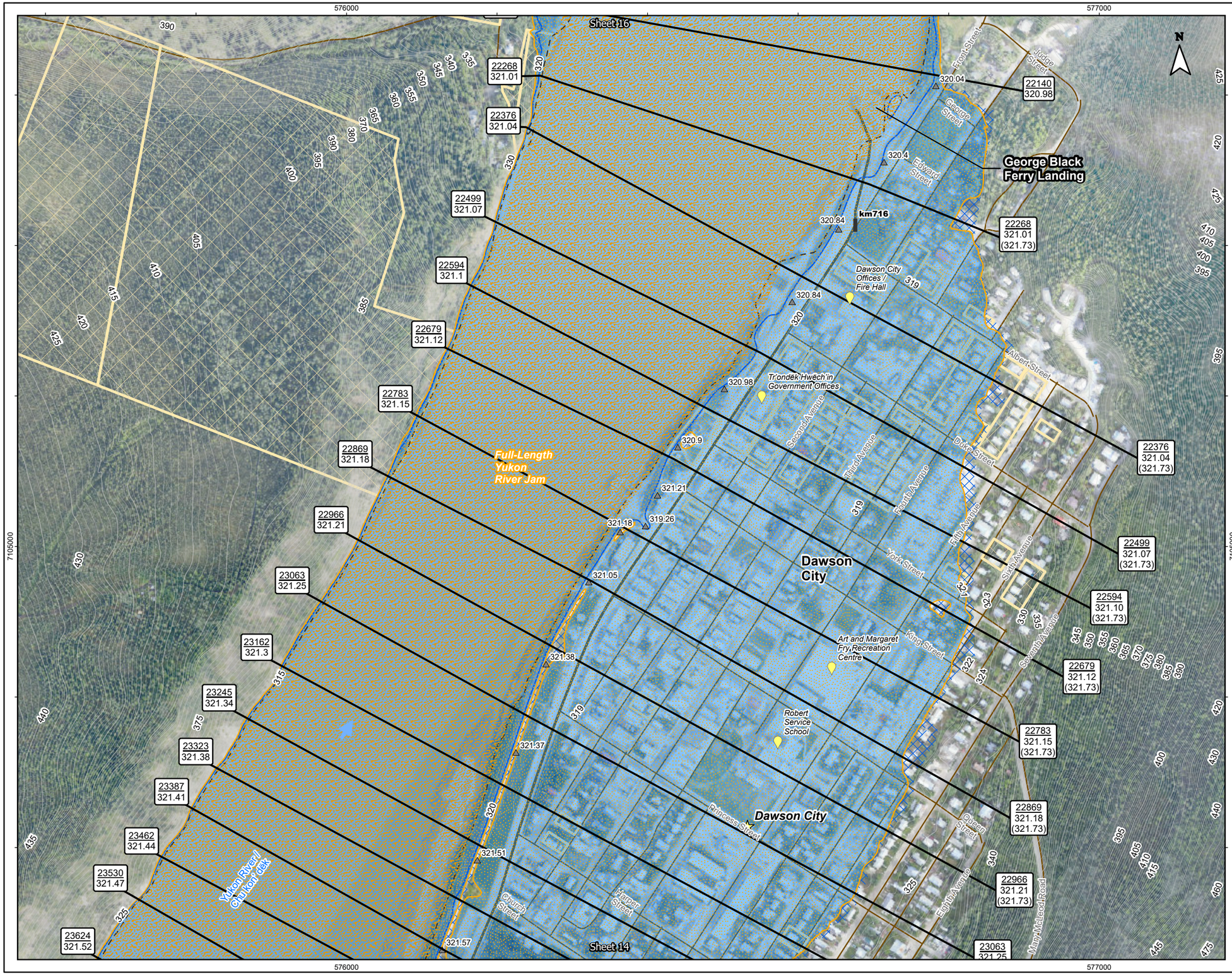


Figure No.

YR-0.5-15 **Sheet 15 of 19**

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

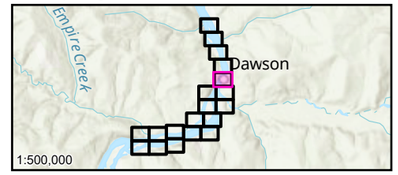
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2026-03-06

- River Flow Direction
- Ground Elevations of Interest
- Highway Kilometer Post
- Municipality
- Point of Interest
- 57 / 517.2 — Cross-SEction Number / WSE (m) Along Cross-Section
- 22140 / 320.26 / (320.04) — Cross-Section Number / WSE (m) Along Cross-Section (WSE in Dike Breach Scenario)
- Highway
- Local Road
- Major Contour (5m)
- Minor Contour (1m)
- Surveyed Cross-Sections Used in Hydraulic Model
- Toe of Ice Jam
- Tr'ondëk Hwëch'in Settlement Land
- Approximate 50% AEP Open Water Flood Inundation
- Inundation Under Modelled Open Water Runs
- Inundation Under Modelled Breakup Ice Jam Runs
- Composite Open Water and Ice Jam Inundation Extent
- Inundation Extent From Subsurface Seepage
- Inundation Under Dike Breach Scenario
- 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 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.

Canada

Stantec

Yukon

This project is funded in part by the Government of Canada

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.

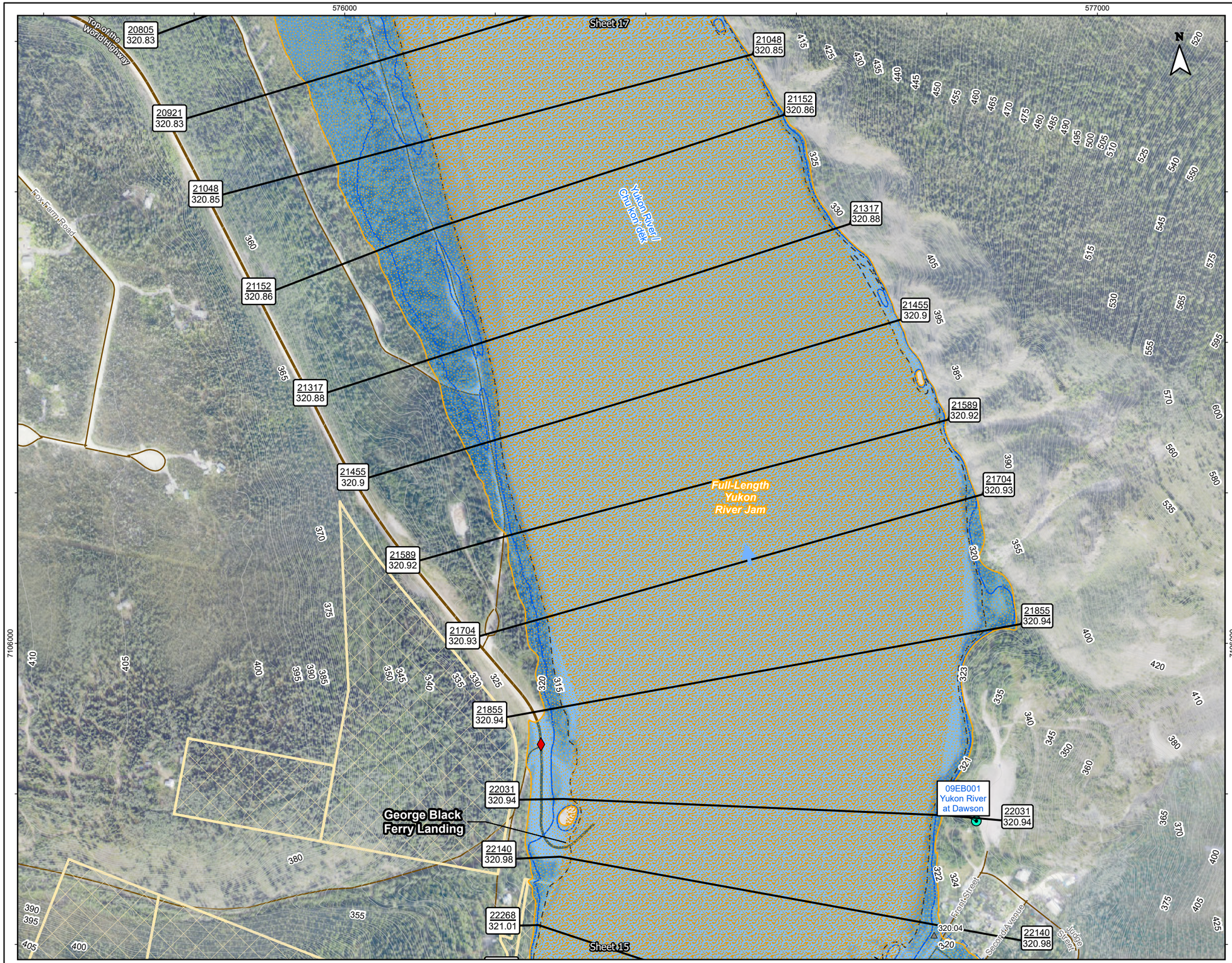


Figure No.

YR-0.5-16 **Sheet 16 of 19**

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

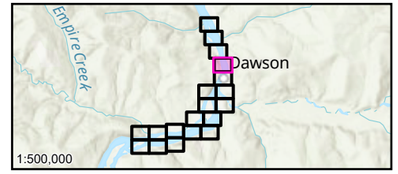
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2026-03-06

- River Flow Direction
- WSC Stations
- Ground Elevations of Interest
- Highway Kilometer Post
- HPW Drainage Culverts
- 57 / 517.2 — Cross-SEction Number / WSE (m) Along Cross-Section
- 22140 / 320.26 / (320.04) — Cross-Section Number / WSE (m) Along Cross-Section (WSE in Dike Breach Scenario)
- Highway
- Local Road
- Major Contour (5m)
- Minor Contour (1m)
- Surveyed Cross-Sections Used in Hydraulic Model
- Toe of Ice Jam
- Tr'ondëk Hwëch'in Settlement Land
- Approximate 50% AEP Open Water Flood Inundation
- Inundation Under Modelled Open Water Runs
- Inundation Under Modelled Breakup Ice Jam Runs
- Composite Open Water and Ice Jam Inundation Extent
- Inundation Extent From Subsurface Seepage
- Inundation Under Dike Breach Scenario
- 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 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.

Canada

Stantec

Yukon

This project is funded in part by the Government of Canada

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.

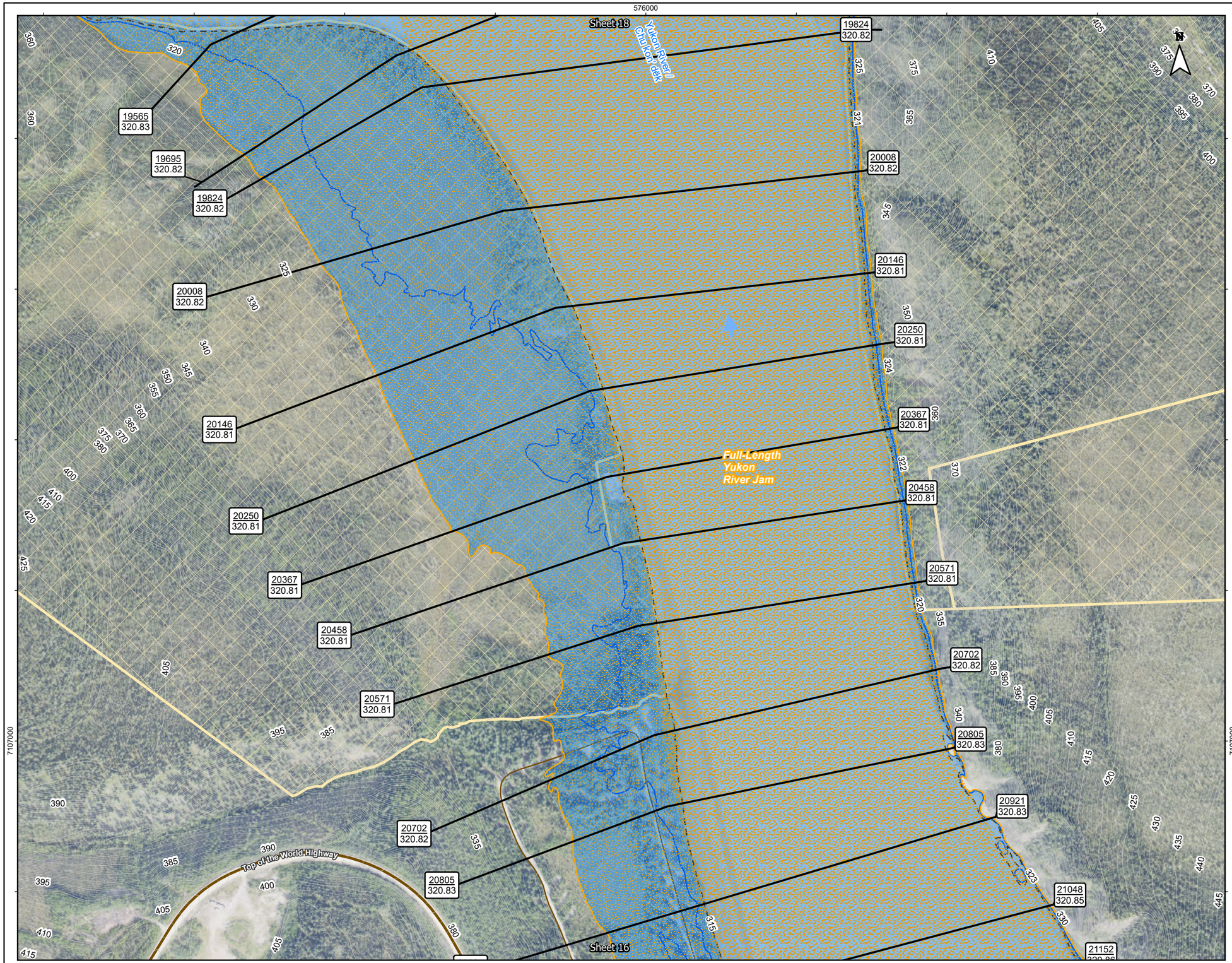


Figure No.

YR-0.5-17 **Sheet 17 of 19**

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

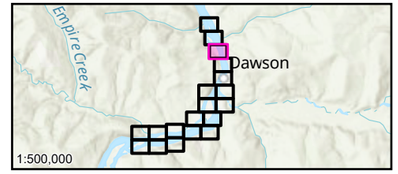
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2026-03-06

- River Flow Direction
- Highway Kilometer Post
- 57 / 517.2 — Cross-SEction Number / WSE (m) Along Cross-Section
- 22140 / 320.26 / (320.04) — Cross-Section Number / WSE (m) Along Cross-Section (WSE in Dike Breach Scenario)
- Highway
- Local Road
- Major Contour (5m)
- Minor Contour (1m)
- Surveyed Cross-Sections Used in Hydraulic Model
- Toe of Ice Jam
- Tr'ondëk Hwëch'in Settlement Land
- Approximate 50% AEP Open Water Flood Inundation
- Inundation Under Modelled Open Water Runs
- Inundation Under Modelled Breakup Ice Jam Runs
- Composite Open Water and Ice Jam Inundation Extent
- Inundation Extent From Subsurface Seepage
- Inundation Under Dike Breach Scenario
- 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 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.

Canada

Stantec

Yukon

This project is funded in part by the Government of Canada

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.

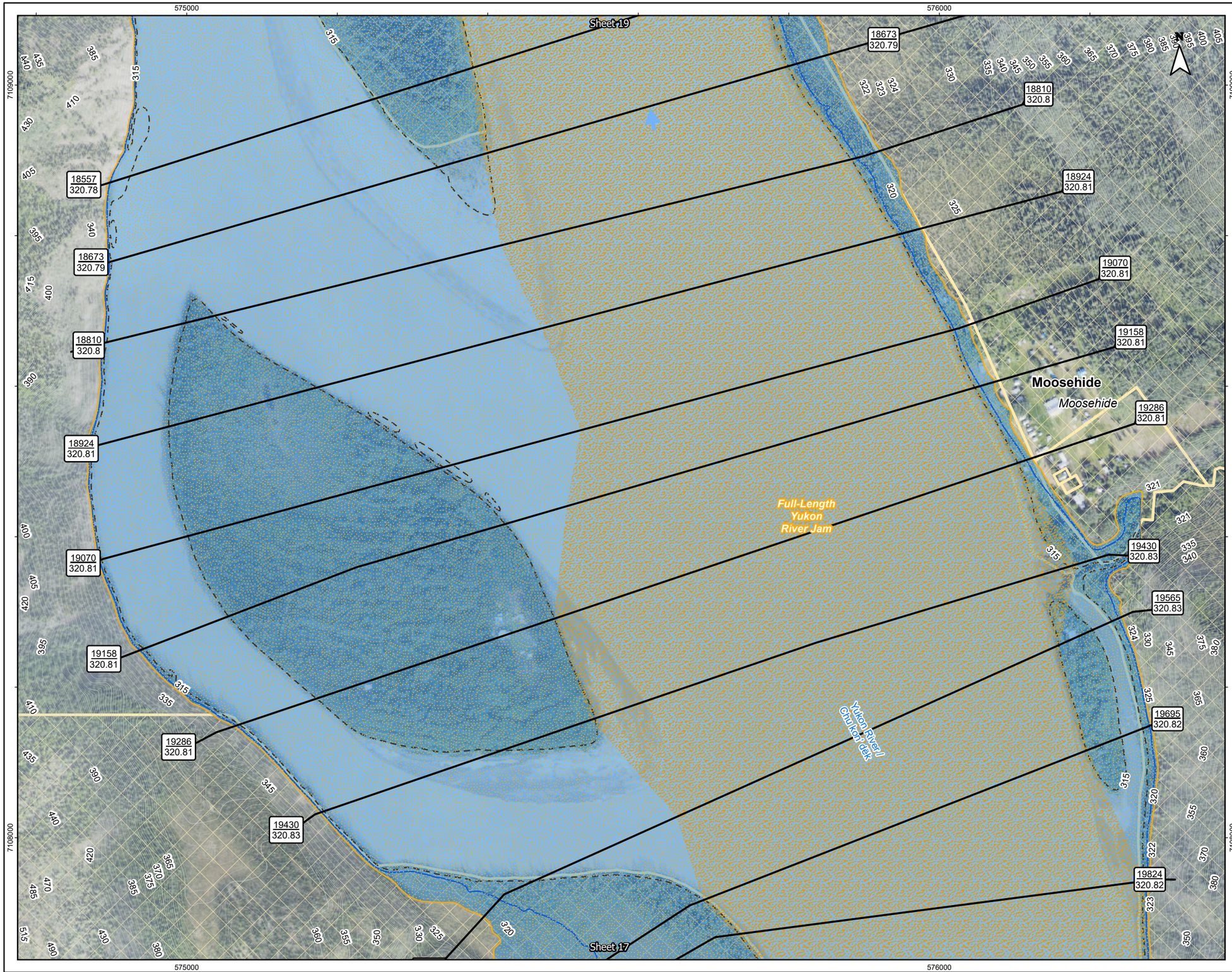


Figure No.

YR-0.5-18 **Sheet 18 of 19**

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

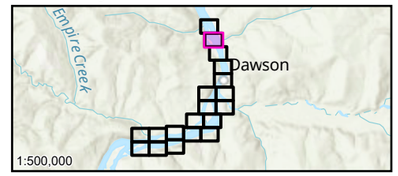
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2026-03-06

- River Flow Direction
- Highway Kilometer Post
- 57 / 517.2 — Cross-SEction Number / WSE (m) Along Cross-Section
- 22140 / 320.26 / (320.04) — 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
- 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
- Inundation Under Dike Breach Scenario
- 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 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.

Canada

Stantec

Yukon

This project is funded in part by the Government of Canada

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.

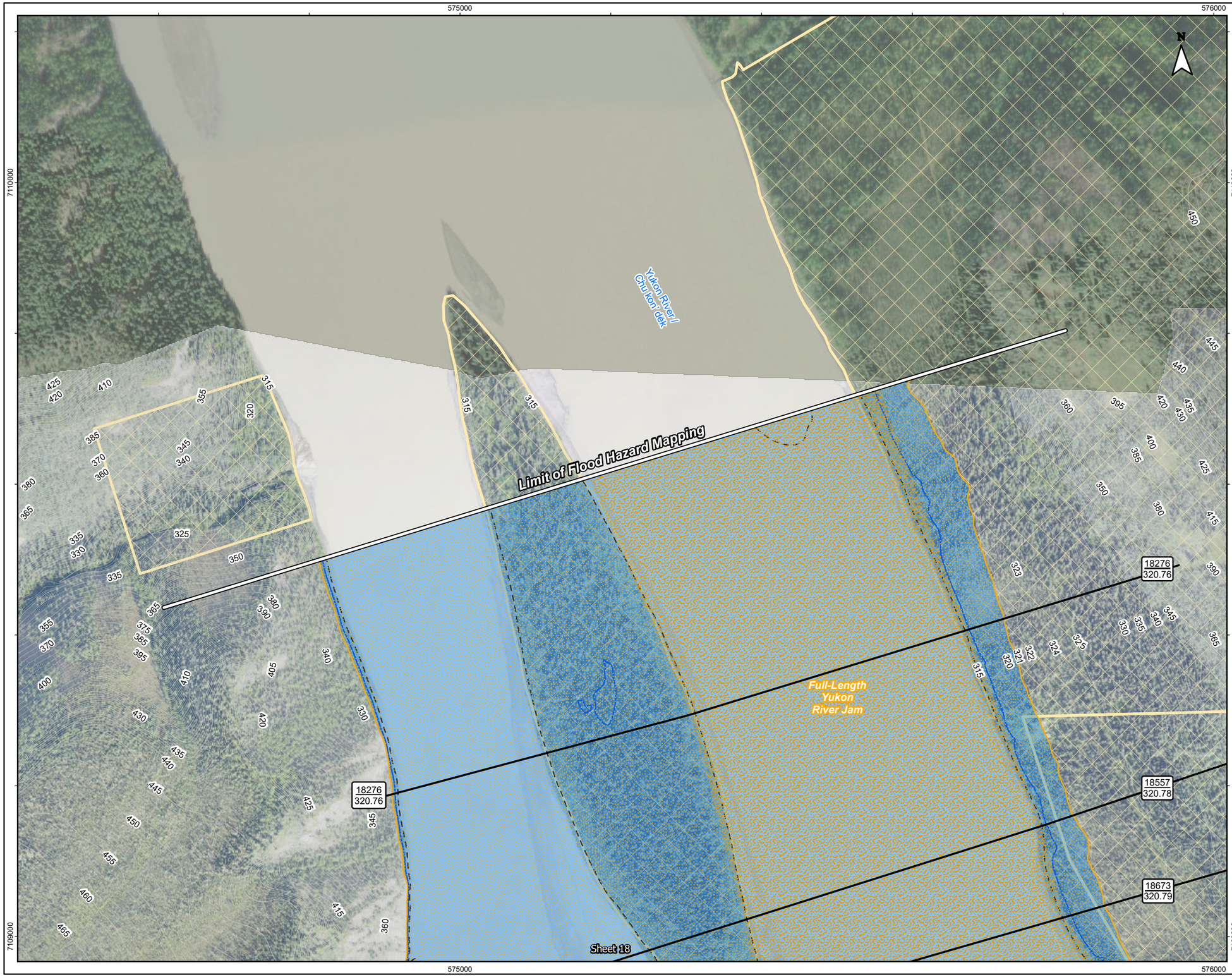


Figure No.

YR-0.5-19 **Sheet 19 of 19**

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

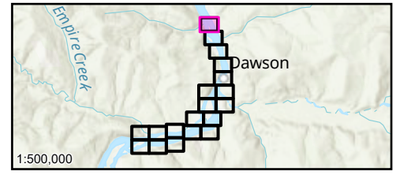
Prepared by MANDERSON on 2026-03-06
Requested by JMUIRHEAD on 2024-03-30
Review by JMUIRHEAD on 2026-03-06

- River Flow Direction
- Highway Kilometer Post
- 57 / 517.2 — Cross-SEction Number / WSE (m) Along Cross-Section
- 22140 / 320.26 / (320.04) — 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
- Limit of Floodplain Mapping
- 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
- Inundation Under Dike Breach Scenario
- 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 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.

Canada

Stantec

Yukon

This project is funded in part by the Government of Canada

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.