



# Flood Hazard Mapping Public Engagement

## What We Heard: Teslin

October 2024



# Table of contents

Table of contents .....	1
Background .....	3
Engagement process .....	4
Purpose.....	4
How we engaged .....	4
Who responded? .....	5
What we heard.....	6
Key comments on the draft flood hazard maps .....	6
How survey respondents intend to use the information presented in the flood hazard maps.....	6
Impacts of flooding on local infrastructure, housing, an insurance and desired mitigations.....	6
Additional follow up was requested.....	7
Discussions with Local Leadership and administration about the maps.....	7
Key comments on the draft flood hazard maps .....	7
Snow melt impact on water levels.....	9
Monitoring snowpack in Teslin Lake watershed.....	8
Flood scenarios and flow rates.....	8
Timeline for updating flood maps.....	9
Flood scenarios in Smarchville .....	8



Regional-scale flood mapping study would be helpful for Regional Land Use  
Planning process ..... 9  
Permitting and vulnerability of water wells and septic systems..... 9  
Historical flooding.....10  
Influence on development plans .....10  
Follow-up on climate change research..... 9  
Flooding impacts on groundwater resources.....10  
Planned village infrastructure improvements to mitigate flood risk .....10  
Infrastructure vulnerability.....10  
Access issues during flood scenarios ..... 11  
Berm for flood protection .....11  
Next Steps.....11



# Background

Flooding is becoming more common in the Yukon due to climate change and an associated increase in extreme weather events. The Government of Yukon is working to better understand flooding in the territory to help build safer, more resilient communities.

**This report summarizes the public input on the draft Flood Hazard Maps prepared for areas of interest along Teslin Lake in the Traditional Territory of the Teslin Tlingit Council (TTC). Mapped areas include (from south to north) Morley Bay, the Village of Teslin, Deadman Creek, Brook's Brook, and Johnson's Crossing.** The project is being led by the Government of Yukon—Water Resources Branch (WRB). Input was sought from June 11 to July 5, 2024.

The engineering consulting firm, WSP, was retained by WRB to generate flood maps, which show areas that may be covered by water or where the water reaches during a specific flood event. 3Pikas, a local planning and engagement firm, supported engagement planning, facilitation and documentation.

This 'what we heard' report summarizes feedback and comments we heard regarding the draft maps. Other topics raised during engagement, also summarized in this report, included historical and potential future impacts of flooding in the community, desired next steps and other concerns.

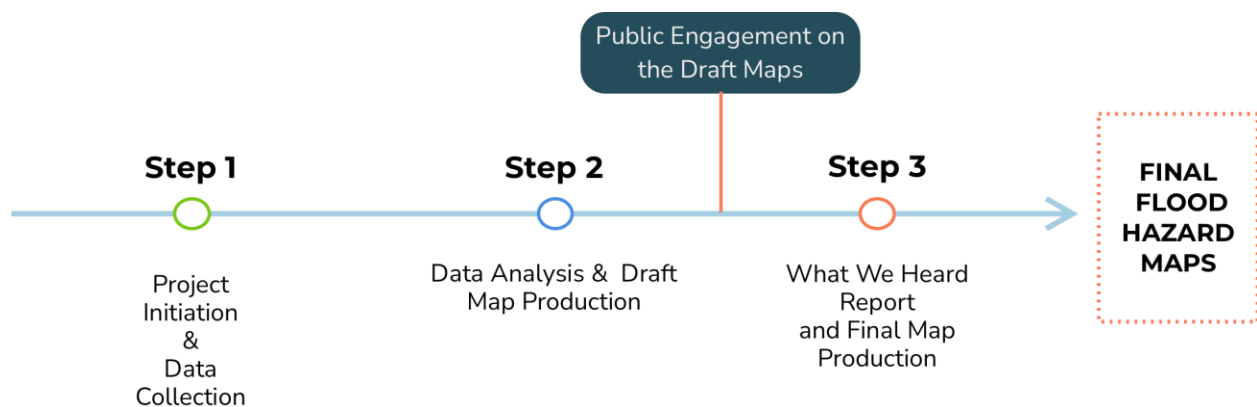


# Engagement process

We received feedback from the community at the following engagement events:

- open house in Teslin held June 13, 2024 at the Teslin Recreation Centre;
- technical meetings at the Village of Teslin (VoT) and TTC Lands and Resources offices held June 13, 2024; and
- online survey from June 11 to July 5, 2024.

**FIGURE 1: PROJECT OVERVIEW**



## Purpose

The input on the draft maps will help inform updates and improvements to the final maps, which are anticipated to be published in early fall 2024.

## How we engaged

We engaged the public using the following:

### Engagement Launch:

- The Teslin draft flood hazard maps public launch was on June 11, 2024.
- The launch included a [news release](#) on the Government of Yukon website and social media advertisements.



- The news release and advertisements included information about the project, public open house dates, and links to the [Flood Atlas](#) website where the draft maps were published.
- Notifications were given to TTC and VoT.

#### **Flood Atlas:**

- The Government of Yukon Flood Atlas webpage was updated on June 11. Visitors to the webpage could view and download the draft maps, complete the online survey, and see details on the in-person project open house planned in Teslin.

#### **Online Survey:**

- An online public survey was carried out from June 11 to July 5, 2024.

#### **Open Houses:**

- An open house was conducted at the Teslin Recreation Centre on June 13, 2024.

#### **Government Notification:**

- Targeted meetings with Teslin Tlingit Council Lands and Resources, and Village of Teslin (Mayor and CAO) representatives were organized by WRB.

## Who responded?

The engagement had the following participation:

- 4 respondents to the survey
- 2 in person attendees at the open house



# What we heard

From the open house and survey, we heard comments and questions on a range of topics, which are summarized below.

## Key comments on the draft flood hazard maps

- Two survey respondents indicated that the maps fit with their experiences.
- One indicated that the maps differ a little from their experience but did not specify what was different.
- One respondent indicated that new development may spur the need for new areas to be mapped, however no specific areas were mentioned.
- One respondent indicated that they would like to see local street names included in the final maps, and that hard copies should be made available to the public.
- Maps fit well with experience of flooding of lakeshore properties in the Village of Teslin in 2022.

## How survey respondents intend to use the information presented in the flood hazard maps

- Readiness and insurance were the most common answers, with all respondents including readiness.
- One respondent expressed a concern that insurance companies do not provide flood insurance in the Yukon.

## Impacts of flooding on local infrastructure, housing and insurance, and desired mitigations

- We heard that lakeshore properties and public lands in the old village area of Teslin should have additional armoring to protect from flooding.



## Additional follow up was requested

- One respondent indicated that they would like to have follow up communications from the Government after major flood events are over.
- One respondent indicated that they did not know how to interpret the mapping around their home and that they would like to follow up with the project team about their questions.

## Discussions with local leadership and administration

During discussions with a VoT staff representative, the VoT Mayor, and TTC staff representatives, we heard the following comments.

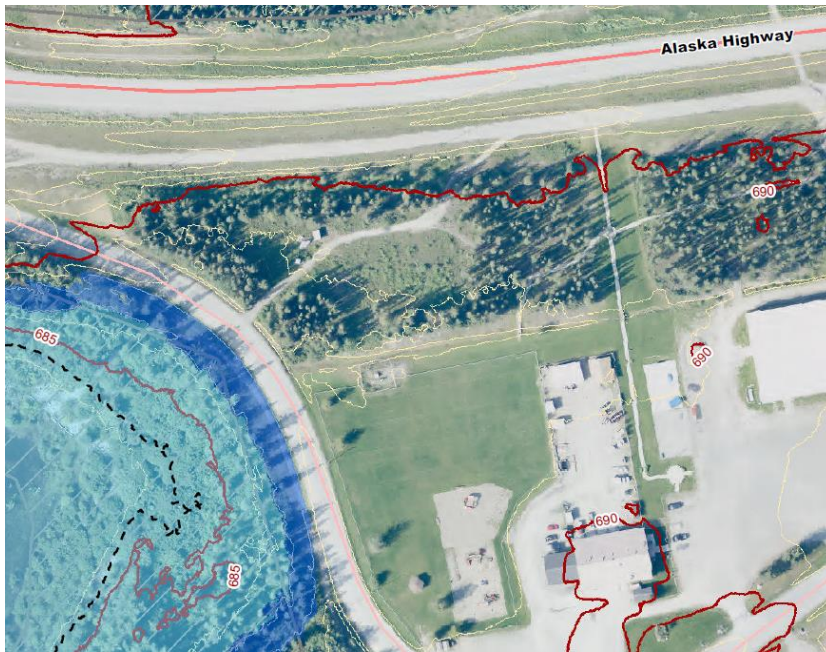
### Key comments on the draft flood hazard maps

- **Friendship Park flooding:** Friendship Park flooded in 2022 due to a culvert connection across Nisutlin Drive, this is not captured in 1% flood scenario maps (see Figure 2).
  - **WRB response:** This input is accounted for in the final maps (see Figure 3).

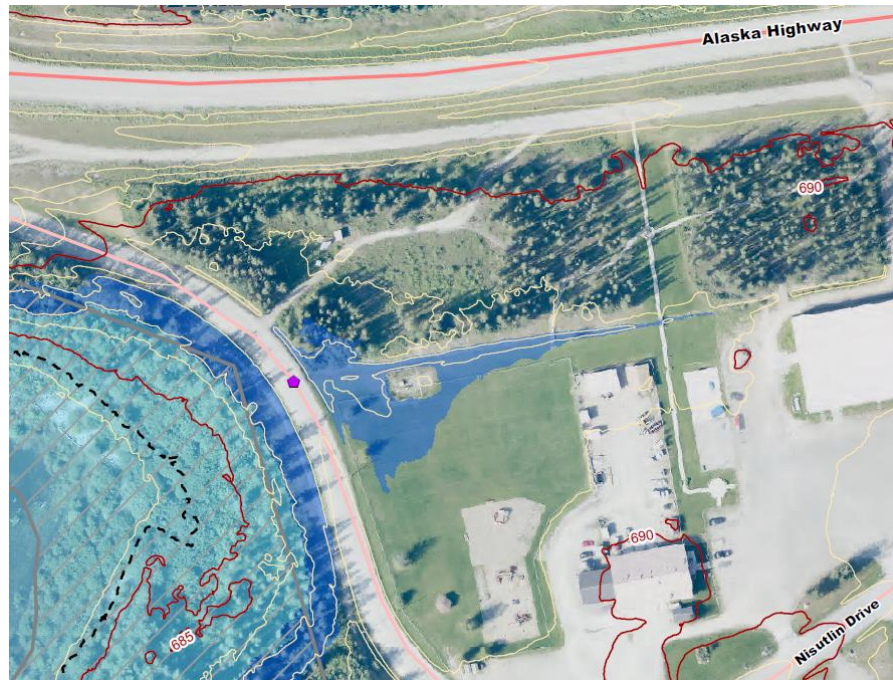




**FIGURE 2: DRAFT MAP SHOWING FRIENDSHIP PARK IN TESLIN (1% FLOOD EXTENT)**



**FIGURE 3: FINAL MAP SHOWING FRIENDSHIP PARK IN TESLIN (1% FLOOD EXTENT, ACCOUNTING FOR CULVERT)**



## Snow melt impact on water levels

- It was observed that there is a significant impact of snowpack, particularly in the mountains, on lake water levels.
- We heard from TTC that there is significant local and Indigenous Knowledge regarding how snowpack influences water levels.

## Timeline for updating flood maps

- Interest was expressed in how the maps will be updated, and with what frequency.
  - **WRB response:** It is anticipated that the maps will be updated occasionally to incorporate recent water level data and evolving best practices. The process for updates will be confirmed after the first round of flood maps are completed for all identified flood-prone communities.

## Regional-scale flood mapping study would be helpful for Regional Land Use Planning process

- TTC asked if there is interest in a regional-scale flood mapping study. TTC expressed that mapping at this scale would be useful for the Regional Land Use Planning process that is initiated.
  - **WRB response:** The potential for regional-scale flood mapping in the Yukon is being explored with our federal funding partners.

## Permitting and vulnerability of water wells and septic systems

- TTC expressed that there is a need for coordination of land use, permitting, and zoning with flood maps due to infrastructure vulnerability, especially with onsite serviced private lots (i.e., well and septic systems). This was echoed by the Village of Teslin.
- It was observed that building codes could evolve to account for flood risk.
- It was suggested that some areas may need restrictions on septic fields, and that pump outs may be more appropriate in particularly flood prone areas.



- It was suggested that YG guidance for flood prone properties should be developed.

## Historical flooding

- There was mention of potential flooding at the Recreation Centre parking area in 1962. This area was infilled during the initial development of the Alaska Highway.

## Influence on development plans

- TTC emphasized that the flood maps will influence future development plans for Brooks Brook and Morley Bay.
- Meeting areas at Brooks Brook are being upgraded and are potentially vulnerable to flooding.

## Flooding impacts on groundwater resources

- Community wells experienced changes in groundwater quality during the 2022 flood.
- There was a notable change in water quality at the Nursing Station.
- There is a need for advice and best practices for residents to protect their wells from flooding.
- The Village is considering installing new water wells, as the existing wells were sandbagged during the 2022 flood and are vulnerable to flooding.

## Infrastructure vulnerability

- Village of Teslin expressed concern about the risk to the Village's lift station on Jackson Avenue during the 2022 floods. A lift station outage would trigger an evacuation order.
- The Village expressed a desire for additional mitigation measures to defend this and other infrastructure.



## Access issues during flood scenarios

- Sawmill Road is blocked in some mapped flood events, and this is the only access to and from the subdivision.
- Both TTC and VoT discussed how this issue supports the rationale for a Phase 2 Airport Connector Road for secondary access/egress to Sawmill subdivision.

## Berms for flood protection

- Discussion about additional locations for adding berms in the Village of Teslin to protect Lift Station and George Johnston Museum.

# Next Steps

The public engagement on the draft flood hazard maps prompted constructive discussions and input from TTC Lands and Resources and the Village of Teslin. The engagement on the draft maps also elicited input from the online survey and open house.

The project team thanks everyone who contributed to this important project. This input helped WRB and their technical consultant, WSP, as they finalized the maps. The feedback will also help the Government of Yukon and its partners with other initiatives informed by the flood maps.

The Water Resources Branch's commitments to the Teslin community going forward include:

- Reviewing modelled flood extents for any areas where local knowledge of 2022 flooding did not match with what was shown on the draft map for the 1% flood event.
- Continuing collaboration with TTC on mapping flood hazards in their Traditional Territories and applying the mapping to land planning decisions.
- Continuing correspondence with the Village of Teslin, including responding to any follow-up questions.



- Updating Teslin area residents when the final flood hazard maps are released and exploring ways to ensure that the maps are an easily accessible resource for the public to use.

