

What We Heard Report

Project overview

The City of Greenwood, similar to other communities along the Kettle River and Boundary watershed, have experienced an increase in flood severity and frequency in recent years.

In 2019, the City received a grant from the Community Emergency Preparedness Fund for Flood Risk Assessment, Flood Mapping and Flood Mitigation Planning Study. The study was completed in 2021 and the City received additional funding to complete the detailed design for flood mitigation.

As part of their commitment to the community for the flood mitigation project, the City hosted a resident session and public open house for residents who may be affected by the flood mitigation to learn about the project. An online survey was also available to gather feedback from residents who were unable to attend an in-person event.

The study goals:

- To assess the extent of 1:200-year flood events
- To analyze flood risks in the study area
- To provide recommendations to prevent flooding (flood mitigation).

The recommended flood mitigation plan for the City of Greenwood is creek dredging combined with widening to prevent overland flooding and reduce the elevation of the groundwater table.

Engagement Overview

In August 2022, an information package was provided to property owners adjacent to the flood mitigation site. Property owners were invited to attend a resident engagement session followed by a public open house the following evening.

In these sessions, residents were able to:

- Learn about the project background, considerations, design, and timelines
- Learn about the causes and types of flooding in the City of Greenwood
- Learn about flood simulation techniques and 1:200-year flood guidelines
- Understand flood mitigation techniques and considerations
- Ask questions of the project team



- Share feedback about the project and the flood mitigation recommendations to consider within the final design.

The resident session was held on August 9, 2022 from 4:30 – 6:30 pm and a community open house was held on August 10 from 4:30 – 6:30 at the McArthur Centre Community Hall. The events were attended by the CAO and Project Team. Two residents attended the resident session, and 35 people attended the open house including The City Council, City staff and the Project Team. Event attendees had the opportunity to share their experiences with flooding, key concerns and ask questions of the Project Team and complete a feedback form.

In conjunction with the in-person events, the City hosted an online survey on [Greenwood City | Municipal Website – The Smallest Incorporated City in Canada](#) to solicit feedback from residents who were unable to attend the in-person events. Input from the resident meeting, open house and online survey is included in the sections below and will be used to help inform the final design for the Greenwood Flood Mitigation Planning Study.

What we asked

1. What do you want to learn or are concerned with regarding flood mitigation in Greenwood?
2. How were you impacted by the floods in 2017 & 2018?
3. If you live in the 1:200-year flood plain, how would a flood impact your household or business?
4. What are your concerns or questions?
5. How satisfied are you with today's session?
 - Clarity of information provided
 - Format of today's session
 - Opportunity to provide my input
 - Opportunity to hear others' input
 - What did you like about today's session?
 - Session location and time
6. Is there anything we could do to improve future sessions?

What we heard

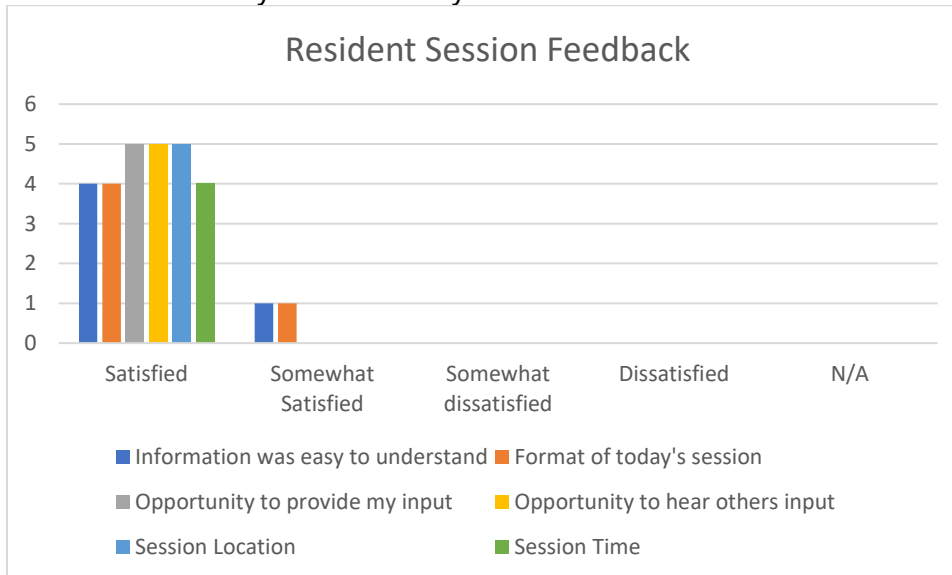
Key themes that we heard from the resident session and open house included:



- **Timeline:** What is the timeline for the Greenwood Flood Mitigation project? How long will construction take?
- **Floodplain Mapping:** Were the 2017 / 2018 floods at the level of the 1:200-year flood shown in the flood plain map?
- **Aquatic water habitat and vegetation:** Have you considered impact on aquatic and vegetation?
- **Impact of logging and reforestation:** on the flood plain and planning.
- **Location for dredging and widening:** Where will dredging and widening start and finish?
- **Construction:** How long will construction take?
- **Maintenance:** Will there be long term maintenance and monitoring?

Session Feedback

How satisfied are you with today's session?



How did you hear about the session?

- Social media, city chat on Facebook, internet, Gazette

What did you like about today's session?

- Nice community building



- Length of time was adequate
- Open minded people I talked to
- Flexibility re: time, opportunity to talk 1:1 with engineer

Is there anything we could do to improve future sessions?

- Give more time to know when it is happening



Question & Answer (Q & A) Record

The following is a record of questions asked by residents and answers provided by ISL staff and the City of Greenwood which were captured during the resident information session and open house on August 9 & 10, 2022.

1. What is the timeline for the Greenwood Flood Mitigation project?
 - In 2019, the City of Greenwood received a grant from the Community Emergency Preparedness Fund for Flood Risk Assessment, Flood Mapping and Flood Mitigation Planning Study.
 - In 2021, the City received in additional funding for the detailed design which is the phase we are currently in.
 - We expect the detailed design to be complete by the end of 2022 and then we can apply for environmental permitting which we expect to take 12-24 months. Once permitting is received we can apply for funding for construction.
2. What is a flood plain map?
 - A floodplain map shows the area that can be expected to flood, on average, once every 200 years. This is called the 200-year flood. These maps show where water is ponding on the surface. Below grade basements outside of this area may still flood due to groundwater flooding.
 - The floodplain maps show the location of the normal channel of a water course, surrounding features or developments, ground elevation contours, flood levels and floodplain limits. The areas indicated in purple show the deep-water channels and in blue indicate shallow water flooding.
3. Were the 2017 & 2018 floods a 1:200-year flood?
 - The 1:200-year floodplain mapping is a larger flood event than the 2017 and 2018 floods.
4. Have you considered the aquatic water habitat and vegetation and trees on the banks?
 - The Province of British Columbia is very protective of our water supply and as part of the detailed design, ISL Engineering's Environmental team have been fully engaged in the environmental evaluation, risks, and impacts. The detailed design includes an environmental design which is reviewed and approved through the B.C. Ministry of Environment.
5. How long will construction take?
 - It is early in the project to determine the timing for construction. This will be determined after the final design and funding is in place.



6. Where will dredging and creek widening start and finish?
 - We are in the design phase of the project and the final location for the start and finish of the dredging and widening has not been finalized. Early planning indicates it will be approximately from the rail trail culvert down to the West Kootenay Power Building.
7. Will there be long term maintenance and monitoring of the dredging?
 - The project will provide an operation, maintenance and surveillance plan which will identify the procedures needed to monitor the infill of the creek and plan for future dredging.

Summary of Survey Input

The Greenwood Flood Mitigation Study Survey was shared to residents by the City of Greenwood electronically from August 2 – 16. Paper copies were also available for residents to complete at the information session and open house. The following summarizes the information captured in the survey.

A total of 9 feedback forms were submitted.

- 95% of respondents live in the City of Greenwood
 - 26% have been impacted by flooding in the City of Greenwood
 - 58% live, have a business or care from someone in the flood zone indicated in the flood maps
1. If evacuated due to flooding, do you or anyone in your household have mobility issues or require assistance to get to a safe location
 - Two households indicated they have someone in the household with mobility issues.
 - One household indicated mobility issues for two adults and small pets
 2. If you are evacuated due to flooding, do you have access to a safe roadway outside of the flood zone to leave your home?
 - Yes (7), No (1)
 - One indicated they had an evacuation route if informed early enough to go to the highway to get out of the City
 - One indicated they would use Highway 3



3. If you are evacuated from your home due to flooding will you require short term emergency housing?
 - Yes (3)
 - No (4)
 - Possibly (2), one resident indicated it depends on how bad the flooding is

4. If your business is located within the flood zone, please share any questions or concerns.
 - No responses



5. Are you aware of any areas within the floodplain that have cultural, environmental, or other significance?
 - No (5)
 - It was used by Indigenous People for sure. This place must have been paradise.
 - Greenwood's historical downtown with its businesses, library, museum, etc.
 - Ohairi Park

6. Do you have any additional comments or questions?
 - Please dig a swim hole at my house :)
 - I wish there was an opportunity to purchase all property for sale along the riparian creek corridor and dedicate it to parkland for climate mitigation. I think my property is impacted on Kimberly street because of the sewage and mains will back up and get overwhelmed
 - I need to be notified by cell, not by social media or e-mail.

