

COMMUNITY MEETING

Frequently Asked Questions

TOWN DYKE
UPGRADE

As part of the ongoing responsibility to protect the greater community from flood risk from the Fraser River, the City has recently initiated a process to assess design options to upgrade the portion of the flood protection system from Young Road at the Hope Slough to Chilliwack Mountain. The portion located through Skwah First Nation land requires special consideration and will not be part of this study. The City appreciates that community members have a number of questions regarding these works. The FAQ section below overviews project questions heard to date.

Q. What is the City's process for this project?

- A.** The City knows the importance of communicating with community members in advance of design. Technical work has not yet been initiated and the City is currently facilitating community dialogue that will inform the design options where possible, including today's community meeting. Where necessary, one on one meetings will be held with individual homeowners to discuss site specific issues.

Q. What is the history of the dyke and why is it not relocated?

- A.** The specific date of construction is not known, but records indicate the dyke was established along its alignment approximately a century ago. The East dyke and Town dykes were built along the Fraser River in the late 1800's and early 1900's following the 1894 flood event. This includes the portion of dyke through Skwah First Nation reserve. Under the last major upgrade program (the Fraser River Flood Control Program begun in 1968), the Province of BC and Federal Government upgraded the dykes and the City was given responsibility for on-going maintenance. The funding agreement (dated 1973) specifies that the City was responsible for securing dyke rights-of-way except for those dyke sections on First Nations land. The City is collaborating with Provincial and Federal governments to help resolve the current right-of-way issue.

There are significant issues that currently influence the potential to relocate the dyke. One is the stability and erosion risk posed by the Fraser River. The existing wing dyke on Island 22 is already vulnerable to erosion and engineering studies have recommended a minimum 300 meter setback from the Fraser River for any flood protection works in this general area.

A second significant issue is that the City does not have the right to access or construct works on Skwah First Nation land. Study and dialogue has occurred in the past on possible alternatives, but no resolution has been found to date.

The third significant issue is the ability and resources to implement an alternative. Any alternative alignment will require a very lengthy process of property acquisitions or agreements, extensive study and design, and very extensive capital investment that would not be easily funded; certainly not by the City alone. Meanwhile, the City has a responsibility to protect the community from flood risk and prior study determined that the consequences of a breach in the City flood protection system would be extensive. Not to dismiss the possibilities for alternative solutions in the future, the City has a responsibility to protect the community in a timely manner. As such, the City is acting on what is currently within its means, yet continuing to explore possibilities for future consideration.

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Q. How do First Nations fit into this process?

- A. Both the Skwah First Nation and Shxwhá:y Village are important community members with whom the City will dialogue with. The City does not have access to the dyke on Skwah First Nation land so the Town Dyke initiative does not currently include any works on the portion through Skwah First Nation. Skwah First Nation will undertake its own independent study to look at flood protection for its land. The City will continue to dialogue with Skwah First Nation on potential collaborative solutions.

Q. We have heard about the potential for emergency works. What is that about?

- A. The City hopes that emergency protection will not be required, but until permanent works are in place the City will need to respond in the best way possible with temporary works in the event of a flood threat. Temporary, or emergency, works in themselves will be challenging and requires significant thought and preparation. These works can only be installed where the City has rights to access and where a suitable corridor and working space is available. A component of this Town Dyke initiative includes a review of potential emergency (temporary) works should they be required in the short term. A high level review of options is underway.

Q. Then can we leave Town dyke low and rely on emergency measures?

- A. In the event of a flood threat the City will have very little time to respond. It is not practical to rely on emergency measures for the entire length of Town Dyke. Permanent works need to be installed to the greatest extent possible. Emergency measures will not provide the same level of protection as permanent works and are a last resort.

Q. Why proceed with dyke design now?

- A. The Town dyke project is a necessary part of planned improvements to our 50 km of dyke in order to meet the dyke standards set by the Provincial Government. Provincial legislation designates the City of Chilliwack as the local Dyking Authority responsible for the dyke system. The City has been upgrading the Fraser River dykes over the past number of years and has completed the portion between the Rosedale Bridge and Hope Slough. The Town dyke is the next critical component in a multi-phased program.

Q. When will the Town dyke be constructed?

- A. There is no schedule yet to construct the works. Funding must first be secured before construction can proceed. We are preparing the preliminary design for us to seek funding from senior levels of government.

Q. Who is protected by the dyke?

- A. As part of the overall dyke system, the Town dyke helps protect 40,000 residents, vital services, and extensive commercial businesses. In addition, the dyke protects City water and sewer infrastructure, as well as BC Hydro, Telus, CN Railway and Trans-Canada Highway.

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Q. What is at risk if the dykes aren't raised?

- A.** The 2009 study by BGC Engineering estimated the potential damages and losses at over \$1 billion (based on \$475M building structure damage and \$520M of business losses), not including agricultural losses.

Q. We understand there is to be some kind of pump station and gate on the Hope Slough. Some are calling it a dam. How will this structure function and will it impact fish?

- A.** As a separate design initiative from the Town Dyke, there are long-term plans to install an emergency control structure on the Hope Slough at Young Road. Regardless of the dykes being upgraded, without an emergency control on the Hope Slough, flood risk will remain to the community if water were to back up the Hope Slough. A control on the Hope Slough is required regardless of the dykes location. A review of configuration options for this structure is currently underway.

Under normal operating conditions the gate will be fully open and the pump station not active, thereby allowing natural flows and fish migration. Only in the event of a significant flood threat would the gate be closed. And then pumping would only be activated as necessary to prevent flooding on the internal side of the gate. And if activated, it will only remain activated for the duration of the flood threat, which may be in the order of one to three weeks. Outside of this activation period, there will be no risk or impediment to fish.

While it is not known with certainty how frequently this control structure would need to be activated, statistically there is less than a one percent chance of it needing to be activated each year.

Potential impacts to the environment and fish are significant considerations in design decisions and approvals from the Provincial and Federal Governments. There are pump station configurations that are fish friendly. Environmental specialists are involved in the review process and no construction would be permitted without approvals from the Provincial Ministry of Environment and Federal Department of Fisheries and Oceans.

