



CLIMATE CHANGE ADAPTATION PROGRAM

Fraser Valley Regional Snapshot

Supplement to the Farm Flood Readiness Toolkit

Funding for this project has been provided by the Governments of Canada and British Columbia through the Canadian Agricultural Partnership, a federal-provincial-territorial initiative. The program is delivered by the Investment Agriculture Foundation of BC.

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Supplement to the Farm Flood Readiness Toolkit

This snapshot provides an overview of flood risk and resources specific to **Fraser Valley** producers. Visit the [Climate & Agriculture Initiative BC](#) website to download the complete [Farm Flood Readiness Toolkit](#).

Agricultural operations in the Fraser Valley are exposed to varying levels of flood risk, largely depending on their location.

Factors that will influence the flood hazard at a farm include:

- Its proximity to water bodies. The Fraser River presents a significant flood risk, but other rivers (e.g., Chilliwack, Nooksack and Sumas) and even smaller creeks or streams can flood surrounding areas under certain conditions.
- Its proximity to dikes. Properties located near dikes have a relatively high flood hazard. Although dikes are protective infrastructure, all dikes have the potential to fail or overtop.
- If its location is prone to flooding from upland areas, overland flow and stormwater ponding (this depends on its soil, land cover, surrounding topography, etc.).
- The depth of its underlying groundwater table if prone to rising water tables and groundwater flooding.

Research completed in 2017 estimated the [potential agricultural losses](#) from a severe Fraser River flood event at \$1.6 billion from a combination of lost farm-gate sales, damage to farm infrastructure and equipment, and crop losses. More localized events can also impact individual farm businesses and result in substantial financial losses.

In November of 2021, [severe flooding](#) occurred in parts of the Fraser Valley. The impacts were devastating for farms in the flooded area and, at the time of this update, sector damages were still being assessed.

Climate Change Projections and Region Flood Hazard

Climate change is anticipated to increase the magnitude and frequency of Fraser River annual peak flows and shift their occurrence earlier in the spring.

Recent studies project that peak flows in the Fraser River will increase in the order of 16% by the 2050s¹. This means that, in the event of a freshet flood, floodwaters will be deeper and spread farther.

Climate change is also creating more unpredictable localized flooding. The increasing frequency of extreme/severe rain events, which can occur with little or no warning, also increases the risk of localized flooding. This underscores the need to be prepared to respond quickly to different types of flood risks within the Fraser Valley.

Flood Maps

Reviewing flood maps can be helpful for better understanding your risk — particularly in a changing climate. Both simple interactive and detailed flood maps are available. These can be used to assess how a flood event might affect your property and the surrounding area.

For more information about Fraser River flood mapping and to see alternative flood scenarios, explore [Fraser Basin Council regional flood maps](#).

¹ Northwest Hydraulic Consultants for the Fraser Basin Council. [Hydraulic Modelling and Mapping in BC's Lower Mainland: A Lower Mainland Flood Management Strategy Project](#). North Vancouver, BC, 2019.



Mission, BC
Photo by I. Smith

Flood Planning and Mitigation

Local governments, First Nations and others in the Fraser Valley are participating in the Lower Mainland Flood Management Strategy, an initiative led by the Fraser Basin Council to reduce flood risk and improve flood resilience for communities along BC's Lower Fraser River and south coast.

This [long-term strategy](#) will address flood mitigation priorities, structural and non-structural options, and funding and decision-making options. As part of this strategy, [flood hazard maps](#) were updated in 2019.

Each local government has its own approach to planning for, and addressing, flood risk. The ability of local governments to invest in efforts to reduce flood risk is dependent on planning and available funding resources.

Flood Monitoring

Real-time river monitoring data for the Fraser River is available through the provincial [River Forecast Centre](#). The [City of Chilliwack website](#) also provides up-to-date information. The River Forecast Centre also provides generalized forecasts to [warn of localized flooding](#) based on weather patterns and forecasts.

Flow and water-level forecasts are used to determine when to issue flood advisories, evacuation alerts and evacuation orders. (See **Fact Sheet 5: Flood Evacuation Alerts and Evacuation Orders** in the [Farm Flood Readiness Toolkit](#).)

Communication During an Emergency

In the event of an emergency, a local government may activate an Emergency Operations Centre (EOC). An EOC is the communications and coordination hub for all emergency-related planning activities within a local government's jurisdiction.

For information or advice during periods of flood threat or flood emergency, contact your local government's general inquiries phone number or contacts they've identified on their website and social media feeds.

For key contacts and resources pertaining to agricultural flood preparedness in the Fraser Valley, see the table on the following page.

In the event of an emergency where health, safety or property is in jeopardy and immediate action is required, call 911.

Key flood resources and contacts for the Fraser Valley

Organization	Contacts	Online Resources
Fraser Valley Regional District (electoral areas)	604-702-5000	Fraser Valley website Facebook @FraserValleyRD Twitter @FraserValleyRD
City of Abbotsford	604-853-2281 Emergency Coordinator: 604-853-3566	Abbotsford website Facebook @CityofAbbotsford Twitter @City_Abbotsford
City of Chilliwack	604-792-9311 Emergency Coordinator: 604-792-8713 Freshet Information Line: 604-793-2757	Chilliwack website Facebook @Chilliwack Twitter @City_Chilliwack Fraser River Flood Protection
District of Hope	604-869-5671 After Hours Emergency: 604-869-6020	Hope website Facebook @DistrictofHope Twitter @DistrictofHope
District of Kent-Agassiz	604-796-2235 After Hours Emergencies: 1-866-951-3718	Kent-Agassiz website Facebook @DOKAgassiz Twitter @KentBC1
District of Mission	604-820-3793	Mission website Facebook @DistrictofMission Twitter @Mission_BC Fraser River Flood Preparedness and Response Plan (May 2017)
Village of Harrison Hot Springs	604-796-2171 After Hours Emergencies: 1-866-924-5173	Harrison Hot Springs website Facebook @VillageofHarrisonHotSprings
BC Ministry of Agriculture, Food and Fisheries	AgriService BC: 1-888-221-7141	Flood resources for agriculture

*This regional snapshot is a supplement to the [Farm Flood Readiness Toolkit](#). It is current as of January 2022.
For funding acknowledgements and disclaimers, please download the toolkit from the CAI website at www.ClimateAgricultureBC.ca.*

