

BC premier Horgan says flooding disaster was unforeseen, but scientists have issued dire warnings for decades

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Premier John Horgan and deputy premier Mike Farnworth this week said the high winds and torrential rains that caused catastrophic flooding, landslides, displaced 17,000 people and caused at least one death so far were unprecedented and an event not previously contemplated. “Even the experts were just completely surprised by it,” said Horgan. “I think all British Columbians fully understand that now we have to better prepare for events like this. But we couldn't have even imagined it six months ago.”

But scientists have been [warning for more than 30 years](#) that climate change poses a threat to B.C. — rising sea levels and more droughts, flooding and landslides. There have been numerous reports and studies in the past decades warning of the effects of climate change, including [a 2018 B.C. auditor general report](#) that concluded the provincial government was not adequately managing the risks posed by climate change, and that key climate-driven risk areas, such as flooding and wildfires, required additional attention.

The audit found the government had not comprehensively assessed the risks posed by climate change and didn't have a plan to move forward. The report highlighted that increased fall and winter precipitation — in the form of high-intensity, short-duration rainfall events, also called atmospheric rivers — is expected to increase flooding in coast mountain rivers and streams and may result in more frequent landslides that generate debris flows and floods.

This is exactly what happened earlier this week, with an atmospheric river [dropping a deluge of rainfall](#) in a short period and resulted in the [province declaring a state of emergency](#) .

[A 2019 preliminary climate risk assessment](#) commissioned by the province also cites atmospheric rivers as a risk.

“The NDP continually display a cavalier attitude when it comes to extreme events in our province and the challenges that British Columbians might face,” B.C. Liberal Leader Shirley Bond charged Thursday in the legislature.

Farnworth defended the government's actions, including its decision not to use a public alert system that can send messages to mobile phones, reiterating that the “storm” was unprecedented.

Exactly what the status of climate change risk assessment, planning and mitigation is in the province is not clear.

B.C. Ministry of Environment officials said Thursday a climate preparedness and adaptation strategy is expected to be finalized early next year, with a B.C. flood strategy to be completed by mid-2022, a response, in part, to the auditor general's report. Costs for the plan have not been determined, said officials.

A B.C. [government report released in 2012](#), when the B.C. Liberals were in power, found that dike improvements to combat rising sea levels in an area south of the Port Mann Bridge, would alone cost \$9.5 billion by the end of this century.

While it is the federal and provincial governments that hold the purse strings, responsibility for mitigation largely falls on cash-strapped municipalities. In the past five years, about \$51 million has gone into planning, mapping and mitigation projects from the province to communities through the Union of B.C. Municipalities. That has included money to Merritt and Princeton — about \$1 million — both of which experienced extreme flooding this past week. But it is not clear how much money would be needed to protect those communities from extreme flooding in a new, climate-changed world.

Brett Gilley, an associate professor of earth, ocean and atmospheric sciences at the University of British Columbia, notes that effects of climate change can compound. For example, hot and dry weather weakens trees that are then more susceptible to landslides, said Gilley. He says because there is not an infinite supply of funding, authorities have to prioritize spending to the most high-risk areas.

Gilley says the rebuild that will be required after this weather event is an opportunity to upgrade. "It's not easy and requires a lot of geotechnical engineering work, and it's very expensive," noted Gilley.

The non-profit organization Fraser Basin Council has been facilitating [an initiative since 2016 to upgrade flood risk](#) assessments of the Lower Fraser River and come up with a mitigation plan and implementation and cost-sharing strategy. The initiative includes about 60 participants: all levels of government, First Nations and organizations such as TransLink. The strategy was initially meant to be completed by 2018, but remains in the planning stages.

Steve Litke, the Fraser Basin's senior program manager for watersheds and water resources, says some of the players are interested in expanding the risk assessment and planning to include events such as atmospheric rivers, and also to include a larger geographic area and more watersheds.

Litke said funding to respond to increased risks from climate change is a challenge that has not been helped by strained budgets as a result of the COVID-19 pandemic.