

Ministry of Water, Land and Resource Stewardship

UPDATE: Flood Warning – Chilcotin River from Hanceville to Fraser River, Fraser River from Chilcotin River to Big Bar

Flood Watch – Fraser River from Big Bar to Hope

High Streamflow Advisory – Fraser River downstream of Hope

Issued: 4:00 PM August 5, 2024

Note: The Chilcotin landslide and dam breach is a rapidly changing situation. Please check [EmergencyInfoBC](#) for information on current evacuation alerts and orders.

The River Forecast Centre is upgrading to a **Flood Warning** for:

- Fraser River from Chilcotin River confluence to Big Bar

The River Forecast Centre is maintaining a **Flood Warning** for:

- Chilcotin River from Hanceville to confluence with Fraser River

The River Forecast Centre is maintaining a **Flood Watch** for:

- Fraser River from Big Bar downstream to Hope

The River Forecast Centre is maintaining a **High Streamflow Advisory** for:

- Fraser River downstream of Hope

Synopsis:

Late in the evening of July 30, 2024, a large landslide occurred on the Chilcotin River about 30 kilometres upstream of the Fraser River confluence, causing a complete blockage of the river's flow. The landslide site is roughly 22 kilometres upstream from the Farwell Canyon Bridge/Forest Service Road.

At about 9:00 AM on August 5, flow started to move over (overtop) the surface of the landslide and enter the river channel downstream. The flow in the river channel increased rapidly over the following hours and as of early afternoon on August 5 appears to be continuing to gain volume and momentum.

As water re-enters the riverbed below the slide site, water levels are increasing extremely quickly along the Chilcotin River. Water levels are also expected to increase rapidly in the Fraser

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River immediately below the confluence as the water from behind the dam reaches the Fraser, which is now occurring.

Preliminary modelling has been conducted to provide potential peak flow rates and water levels along the Chilcotin River and Fraser River at locations at and downstream of the landslide through to Hope. This modelling was generated for a range of scenarios from the worst-case scenario of a one hour dam breach (i.e., if the lake behind the dam drained extremely rapidly over the course of one hour), to a much more gradual scenario of lake drainage over 24 hours.

While the River Forecast Centre continues to monitor conditions closely and will provide updates if conditions warrant, **based on current information** flow conditions appear to be tracking in a pattern generally similar to, or slower than, the six hour dam breach model scenario. In this case, estimated flows are expected to be similar to, or below, typical freshet peak levels along most of the mainstem of the Fraser River south to Hope. However, estimated flows are expected to be substantially above typical freshet flows along the Chilcotin River downstream of the landslide to the mouth of the Chilcotin River where it meets the Fraser River. Estimated flows may also be above typical freshet flows in the Fraser River close to the Chilcotin River confluence (i.e., where the Chilcotin River enters the Fraser River).

A summary of downstream conditions from the six hour dam breach scenario, in which the lake behind the dam drains over the course of six hours, includes:

Chilcotin River at Farwell Canyon Bridge: estimated travel time following sudden dam failure: 5 hours. Estimated peak flow: 6,820 m³/s. Estimated typical freshet peak flow: 300 m³/s. Peak height (above current): 10.5 m.

Chilcotin River at Fraser Confluence: estimated travel time following sudden dam failure: 6 hours. Estimated peak flow: 8,273 m³/s. Estimated typical freshet peak flow: 340 m³/s. Peak height (above current): 7.5 m.

Fraser River at Lillooet: estimated travel time following sudden dam failure: 16.5 hours. Estimated peak flow: 5,128 m³/s. Estimated current flow: 1,800 m³/s. Estimated typical freshet peak flow: 5,400 m³/s. Peak height (above current): 4 m.

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Fraser River at Lytton: estimated travel time following sudden dam failure: 22.5 hours.

Estimated peak flow: 5,357 m³/s. Estimated typical freshet peak flow: 5,440 m³/s. Peak height (above current): 3.3 m.

Fraser River at Boston Bar: estimated travel time following sudden dam failure: 26 hours.

Estimated peak flow: 5,182 m³/s. Estimated typical freshet peak flow: 8,600 m³/s. Peak height (above current): 2.6 m.

Fraser River at Hope: estimated travel time following sudden dam failure: 30.5 hours.

Estimated peak flow: 5,047 m³/s. Current flow: 2,750 m³/s. Typical freshet peak flow: 8,680 m³/s. Peak height (above current): 1 m.

In addition to increased river flows and water levels, significant quantities of debris and sediment will also be mobilized as flow continues to move past the landslide.

The [River Forecast Centre](#) continues to monitor the conditions and will provide updates as conditions warrant.

For information on how to prepare for flood hazards, visit [PreparedBC](#).

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A **High Streamflow Advisory** means that river levels are rising or expected to rise rapidly, but that no major flooding is expected. Fast-flowing bodies of water increase risk to life safety. Minor flooding in low-lying areas is possible.

A **Flood Watch** means that river levels are rising and will approach or may exceed bankfull. Flooding of areas adjacent to affected rivers may occur.

A **Flood Warning** means that river levels have exceeded bankfull or will exceed bankfull imminently, and that flooding of areas adjacent to the rivers affected will result.