



Landslide Hazard Information for Stúqált's - Upper Lillooet



Located within Stúqált's – the Upper Lillooet River Valley, the Qwelqwelústen (Mount Meager) Volcanic Complex is one of the most geologically unstable areas in North America. In August 2010, warm weather triggered the collapse of approximately 53 million cubic meters of rock and debris from the south flank of Qwelqwelústen (Mount Meager), generating the largest historic landslide in Canada. The debris flow traveled over 12 kilometres, temporarily blocked both the Lillooet River and Meager Creek, and destroyed most of the access road and the bridge over the Lillooet River.

The Upper Lillooet River Valley is a landslide hazard zone due to its proximity to the Meager Complex. Researchers are studying the area and have provided guidance on landslide hazard ratings based on weather and precipitation, informed by prior natural hazard events.

Risk management measures (including road closures) are in place to protect the public. It is important to be informed so you can make good decisions about traveling safely within the Upper Lillooet River Valley.

HAZARD LEVELS FOR LANDSLIDES AND DEBRIS FLOWS ARE SIGNIFICANTLY HIGHER DURING:

- Spring freshets and runoff
- Summer hot temperatures triggering snow and glacier melt at high elevations.
- Autumn rain on snow events

VEHICLE ACCESS TO THE UPPER LILLOOET RIVER VALLEY IS RESTRICTED WHEN:

- Risk of landslides, mud flows, debris flows, and flooding is **HIGH** to **EXTREME**
- Snow avalanche risk is high

OTHER ACCESS RESTRICTIONS

- Motorized access is prohibited on the Lillooet South FSR from April 1-June 15 and September 16-November 30 to protect grizzly bears (Wildlife Act)
- Public access is restricted year-round beyond 24km on the Lillooet South FSR due to landslide hazard (Forest Service Road Use Regulation, Sec 6)



Ministry of
Forests

HIGH hazard is triggered by:

Max daily temp $\geq 30^{\circ}\text{C}$ or
 Max daily temp $\geq 25^{\circ}\text{C}$ and 6-day average temp $\geq 30^{\circ}\text{C}$

24hr rainfall $\geq 50\text{mm}$ and
 48hr rainfall $\geq 75\text{mm}$

Max daily temp $\geq 25^{\circ}\text{C}$,
 6-day average temp $\geq 25^{\circ}\text{C}$,
 and 24hr rainfall $\geq 20\text{mm}$

EXTREME hazard is triggered by:

Max daily temp $\geq 35^{\circ}\text{C}$

24hr rainfall $\geq 70\text{mm}$ and
 48hr rainfall $\geq 100\text{mm}$

When landslide hazard is **HIGH**:

Travel not recommended past 20km on the Lillooet River FSR (north)

Overnight camping is not recommended anywhere along the Lillooet River FSR or Lillooet South FSR

When landslide hazard is **EXTREME**:

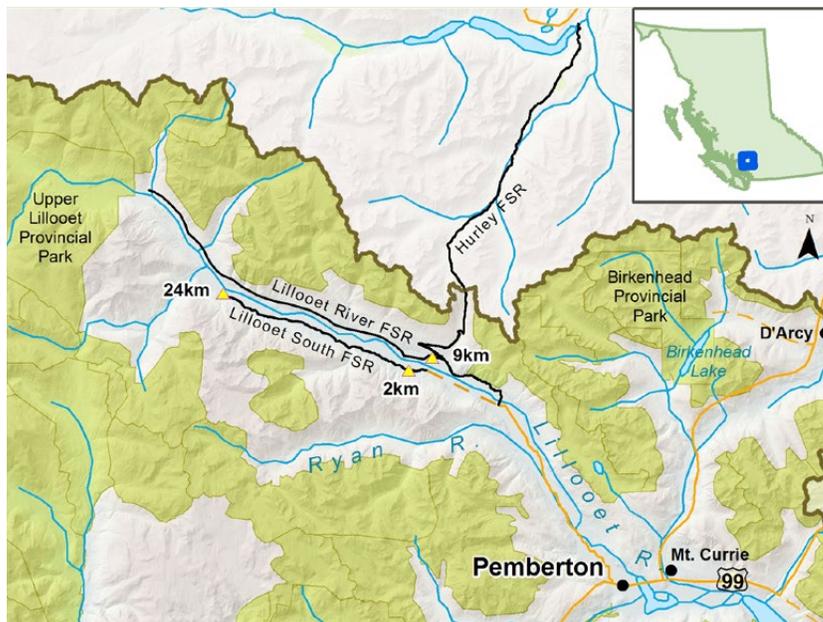
Public access to the entire Upper Lillooet River Valley is restricted

Gates locked at 9.2 km on the Lillooet River FSR & 2km on the Lillooet South FSR

The exception to these access closures is for industrial users that are operating under a natural hazards operational safety plan consistent with existing guidelines.

Be aware that you may become trapped up valley should events occur that prevent egress, or if you are out for an extended time and landslide hazard changes. The Upper Lillooet Valley is steep-sided and narrow, making rapid retreat challenging if not impossible in the event of a landslide or debris flow. Based on previous years' data, **there is a high likelihood that landslide hazard will be HIGH or EXTREME during July and August**, and that access restrictions will be in place. Plan accordingly.

Year	# days HIGH hazard	# days EXTREME hazard
2018	30	9
2019	17	0
2020	17	2
2021	33	12
2022	25	10
2023	37	14



Lillooet River FSR 9 km Gate: closed during periods of extreme landslide hazard, and snow avalanche hazard.

Lillooet South FSR 2 km Gate: closed to motorized vehicles April 1st - June 15th and Sept 16th - Nov 30th as per *Wildlife Act*, and during periods of extreme landslide hazard.

Lillooet South FSR 24 km Gate: closed year round to public access due to landslide hazard, as per *Forest Service Road Use Regulation Sec 6*



Overnight camping is not recommended

along the valley bottom past the confluence of North Creek and the Lillooet River when the landslide hazard level is MODERATE and is not recommended anywhere along the Lillooet Valley when landslide hazard level is **HIGH**.

Boaters should also be aware of landslide hazards and should exit quickly if a sudden drop in water level or significant colour change is observed within the river.

More information:

- Information on forest service road conditions in the Sea to Sky Natural Resource District, including updates on road closures, can be found here: [Road Conditions in the Sea to Sky District - Province of British Columbia \(gov.bc.ca\)](https://www.gov.bc.ca/road-conditions)
- For more information on landslide risk management see report here: [UL OSP Mar10.12 \(gov.bc.ca\)](https://www.gov.bc.ca/ul-osp-mar10-12)
- For more on Simon Fraser University's Centre for Natural Hazards Research, see here: [Centre for Natural Hazards Research - Simon Fraser University \(sfu.ca\)](https://www.sfu.ca/cnhr)

kukwstum'lhcka'ap (We thank you folks)