

Ministry of Water, Land and Resource Stewardship

High Streamflow Advisory – Vancouver Island, South Coast, Lower Mainland, Lower Fraser Valley

Issued: 12:15 PM December 02, 2023

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

- Vancouver Island
- South Coast, including the Sunshine Coast, Howe Sound, North Shore Mountains
- Metro Vancouver
- Lower Fraser Valley, including up to Hope and the Coquihalla Summit, and neighboring basins

Weather Synopsis:

A series of Pacific storms is expected to impact coastal British Columbia this weekend and into next week with the most impactful storm (an atmospheric river) making landfall on Monday, bringing heavy rain as it moves across Southern B.C. Moderate precipitation (20-50 mm) is expected through Sunday; and with lower freezing levels much of this precipitation will fall as snow at mid-to-high elevations across Vancouver Island and the Coastal Mountains. A storm hitting Washington/Oregon on Sunday has the potential to swing north to southern Vancouver Island and Lower Mainland with moderate precipitation, but there is low confidence in its path at this time.

Starting Monday afternoon, the more intense storm will make landfall raising the freezing level and bringing heavy precipitation peaking Monday evening and tapering into Tuesday. Two-day event totals are forecast to be 150-250 mm (300 mm higher end scenario) for West Vancouver Island and locally in the Coastal Mountains. Moderate to heavy rainfall is expected for Inland Vancouver Island, Howe Sound, Metro Vancouver and the Fraser Valley up to Chilliwack with forecast event totals of 60-100 mm (150 mm higher end scenario). The system will shift Tuesday bringing moderate to heavy rain into the Fraser Valley up to Hope and the Coquihalla Summit, with event totals of 40-100 mm (120 mm higher end scenario).

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The Monday storm system will bring a wave of warmer air, quickly elevating freezing levels and increasing the possibility of snow melt and rain-on-snow where snow has accumulated. On top of the forecast heavy rainfall, additional runoff inputs from rain-on-snow may be substantial.

The upcoming storm system should be regarded with a high degree of caution, as even relatively minor shifts in storm track and characteristics may have substantial impacts on related flood hazard.

River Conditions:

These storm systems come after more than a week of drier-than-normal conditions. However, the first few systems may precondition the ground with wetter soil conditions and initiate modest streamflow increases in advance of the larger storm on Monday. River levels are expected to rise quickly beginning on Monday in areas receiving the brunt of the storm with flows likely peaking Tuesday into Wednesday. Additional rainfall and snowmelt may prolong high flows and extend flood risk into next week. Current forecasting is suggesting that flows are expected to be highest for West Vancouver Island, the North Shore Mountains, and the Lower Fraser Valley, however this could shift into nearby areas if higher than forecasted rainfall occurs in other areas.

Uncertainty remains high about the specific storm track and rainfall amounts, as well as the significance of rain-on-snow inputs. Flows equivalent to 2-year to 5-year return periods are possible, with potential for higher ranges if higher end precipitation scenarios occur. Minor flooding in low-lying areas is expected. Snowmelt and heavy runoff may cause pooling and localized flooding in areas with poor drainage (i.e., where stream channels and drainage structures are impacted by snow, ice, or debris).

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

Fast-flowing rivers pose increased risk to life safety. Be alert to road conditions, check [DriveBC](#) for current conditions, and do not drive through flooded areas. 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.