Provincial Freshet and Flood Status

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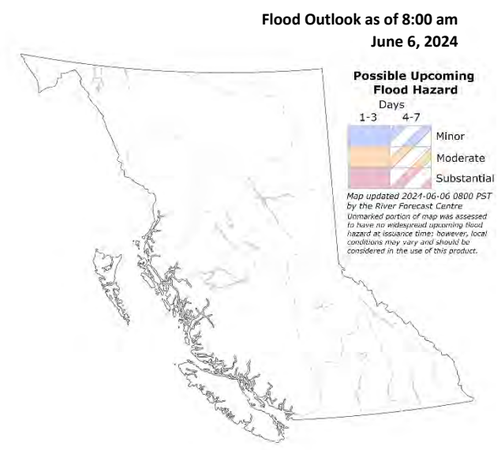
Provincial Summary

Spring freshet continues across the province. Wetter weather last weekend across south-west B.C. has led to above normal seasonal flows. Cooler temperatures in May have led to a moderated snow melt season. Current snowpack, as of June 1st, is 57% of normal, and many of the larger watersheds of the province are into the peak period of the freshet season. Increased snowmelt runoff due to warm temperatures this weekend and next week will lead to modest rises in river levels, particularly in southern BC. No flood hazard is currently anticipated.

Weather (Current and Forecast)

The building of a high-pressure ridge will bring clear skies and seasonal to seasonably hot temperatures. Temperatures are forecast to reach to upper 20°C to low-30°C across the South Interior and south-east B.C. on Friday and Saturday, and the low-to-mid 20°C in other regions of southern and central B.C. The ridge is expected to break down and shift eastward on Sunday. A rebuilding of the high-pressure ridge on Monday could lead to continued warmer than seasonal temperatures throughout southern B.C.

Flood Outlook



Modest increases in streamflow are expected over the weekend and into next week due to increased snowmelt runoff. Flows are expected to remain below levels of concern and no flood hazard is anticipated.

Warnings and advisories may change at any time. For up-to-date information, please consult the Current Flood Warnings and Advisories map.

Active Floods of Note

There are currently no floods of note.

Resources

The Ministry of Emergency Management and Climate Readiness (EMCR) continues to support First Nations and communities throughout the province with seasonal readiness, preparedness, and response. This includes the coordination of flood-related resources and asset deployments where they are needed most. The public is encouraged to understand their seasonal flood hazards, and EMCR provides information on how to be prepared.

Ministry of Water, Land and Resource Stewardship staff throughout the province continue to support emergency management efforts through their roles and responsibilities as outlined in the Provincial Flood Emergency Plan. See DriveBC for current information on road and highway conditions and closures.

Additional emergency information is available through EmergencyInfoBC.

River Conditions and Outlook

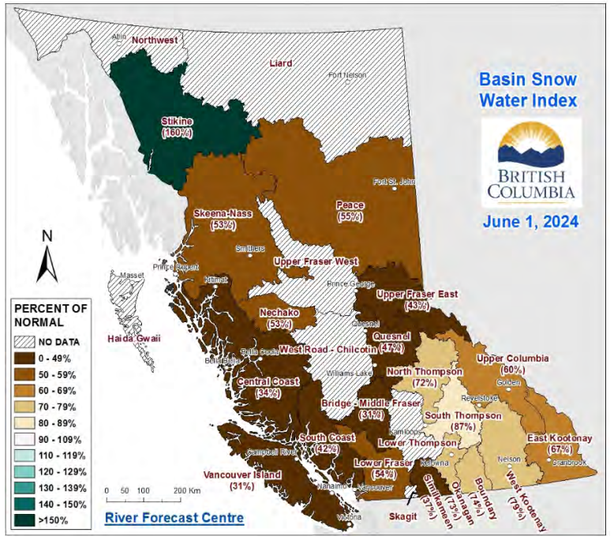
With cooler weather over the past 2-3 weeks, snowmelt rates are moderate across the province. Recent rain events increased flows for coastal areas, bringing streams to normal to well above normal conditions for this time of year. Streamflow in the interior and northern regions continue to see mainly normal to well below normal conditions. Recent rainfall has increased flows in parts of the interior, but low snowpack and long-term precipitation deficits continue to keep water levels low.

Warmer weather into the weekend will increase snowmelt runoff in areas that still have snowpack remaining. Mountainous regions of the province, including the Upper Fraser, Cariboo Mountains, North Thompson, South Thompson, Columbia, Kootenays, Coast Mountains and Fraser River mainstem are all expected to see modest increases in flows over the weekend and potentially into early next week.

The River Forecast Centre public website is updated daily and should be consulted by those seeking up-to-date information.

*All model outputs are subject to uncertainty, change, and revision.

Snow Conditions



As of June 1st, the provincial snowpack was well below normal, with a provincial average of 57% of normal.

A cool and wetter period of weather through the middle of May has eased snowmelt rates and led to brief periods of snow accumulation over higher terrain. Despite very low peak snow accumulations this season the rate of snowmelt has been slower than normal over the past 3-4 weeks, and the remaining snowpack is now greater than was observed on June 1st of last year (2023). A little over half of the annual provincial snow accumulation has now melted.

Typically, the peak of the snowmelt freshet season occurs around the period when half of the provincial snowpack has melted. The freshet season is currently in this window of time, and elevated streamflow from snowmelt runoff is expected to continue for another few weeks.

The *June 15th Snow and Water Supply Bulletin* is scheduled to be released on Thursday, June 20th.

Additional information can be accessed at the Snow Conditions webpage.

Definitions:

Flood Warnings and Advisories	
High Streamflow Advisory	River levels are rising or expected to rise rapidly, but no major flooding is expected. Minor flooding in low-lying areas is possible.
Flood Watch	River levels are rising and will approach or may exceed bankfull. Flooding of areas adjacent to affected rivers may occur.
Flood Warning	River levels have exceeded bankfull or will exceed bankfull imminently. Flooding of areas adjacent to the rivers affected will result.
Hydrometrics and Forecasting	
Hydrometric Conditions	Current water flow and/or level conditions, based on the federal Water Survey of Canada (WSC) hydrometric gauge station sites indicating flood conditions in BC, based on a total of 247 WSC stations, binned by flood frequency analysis.
Forecast Return Period	Forecast (estimated) future water flow and/or level conditions, based on the BC River Forecast Centre's hydrologic models. The primary spring freshet flood forecasting model is the Channel Links Evolution Efficient Routing (CLEVER) model. For spring 2023, the CLEVER model includes outputs for 348 sites. The return period values represent the inverse measure of the probability of a particular flow occurring in any given year. For example, a 50-year flow has a probability of 1/50 or a 2% chance of occurring in any given year, a 100-year flow has a 1/100=1% chance of occurring in any given year, a 20-year flow has a 1/20 or 5% chance of occurring in any given year, a 5-year flow has a 1/5=20% chance each year, etc.
Flood Frequency Analysis	Statistical analysis of historic peak flows used to understand the frequency or probability of extreme flows.
Snow Basin Index	Estimated average snow water equivalent (e.g., amount of water contained in the snowpack) across a watershed basin relative to its historic average.