Provincial Freshet and Flood Status

Date: June 20, 2024: 5pm

FINAL 2024 SPRING FRESHET BULLETIN

Dashboard #	Provincial Lead Contact: Director, River Forecast Centre & Flood Safety	Media Relations contact: Communications Director
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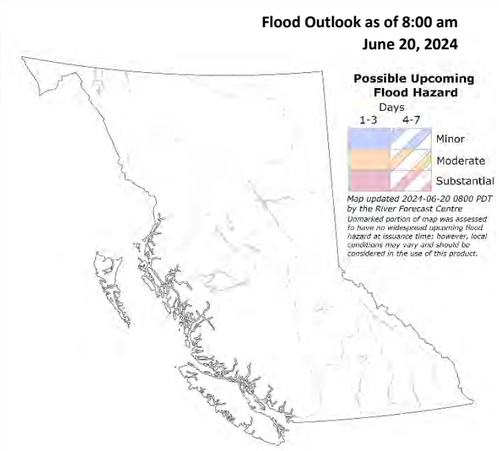
Provincial Summary

Spring freshet season is waning. The June 15 snowpack is well below normal across most of the province, and only 20% of the annual accumulated snow now remains. Despite recent rainfall, many areas of central and northern B.C. continue to experience longer-term precipitation deficits. Rivers around the province are stable, with the potential for modest rises into the weekend with warming weather and an increased rate of snowmelt (in areas where snow remains). Moderate to heavy rainfall in eastern or north-eastern B.C. on Sunday-Monday may contribute to increased streamflow, potentially exacerbated in areas with recent severe burns. Due to limited remaining snowpack, snowmelt related seasonal flood hazard has now largely passed.

Weather (Current and Forecast)

An upper-low pressure system last weekend brought moderate to heavy rainfall across the Peace Region and in the far north-east of BC. This has brought some positive benefits to soil moisture; however, it was not sufficient to provide relief to long term precipitation deficits in the region. Dry conditions are expected today and Friday across the B.C. coast. In the B.C. Interior, scattered showers are possible in the afternoon on Thursday and Friday. A warming trend over the weekend will bring seasonal to above-seasonal temperatures across the province. A wrap-around low-pressure system on Sunday-Monday may bring moderate to heavy rainfall across eastern or north-east B.C.

Flood Outlook



Heavy rainfall is possible over the Sunday-Monday period in east or north-east B.C.; recent severely burned areas may experience higher runoff.

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

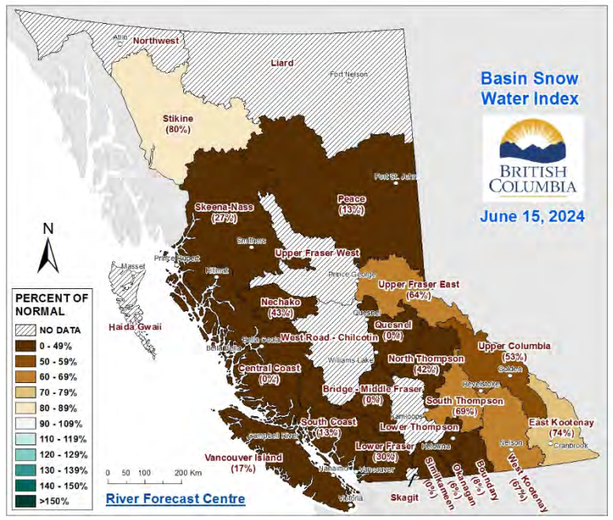
River levels are declining in most areas of the province. Streamflow conditions vary, with two-thirds of streamflow gauging locations reporting below normal, well below normal or record low flow for this time of year. Approximately one-third of streamflow gauges are flowing at typical seasonal levels. Warm weather this weekend is expected to increase snowmelt rates in high elevation areas where snow remains. This may lead to modest increases in streamflow, particularly in rivers in the Rocky Mountains, Cariboo Mountains, Interior Ranges and Coast Mountains.

Snowpack is now diminished, and snowmelt related flood hazard is limited. On-going seasonal flood hazards related to extreme rainfall remain possible.

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 15, the provincial snowpack was well below normal, with a provincial average of 38% of normal. Nearly 80% of the province's annual snowpack has now melted. With little remaining snow, seasonal flood hazard from snowmelt is limited.

The *June 15 Snow and Water Supply Bulletin* is the final bulletin of the 2024 snow season.

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.