

Provincial Freshet and Flood Status

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Dashboard #

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Freshet 6 -
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Provincial Summary

Temperatures have remained cool across the Province, leading to reduced snowmelt rates at lower and mid-elevations and snow accumulation over higher terrain. Areas in northeast BC have experienced high flows due to snowmelt and rainfall. Other areas have experienced seasonal to below seasonal streamflow. Seasonal flood hazards across the province are significant this spring due to heavy snowpacks and a delay in the snowmelt season. May 15th snowpack is the highest the province has experienced since 2012. No significant warming is expected in the next 7 days, and streamflow is expected remain relatively stable over the May long weekend and into next week. Weather continues to be the key driver of river runoff and whether flooding will occur.

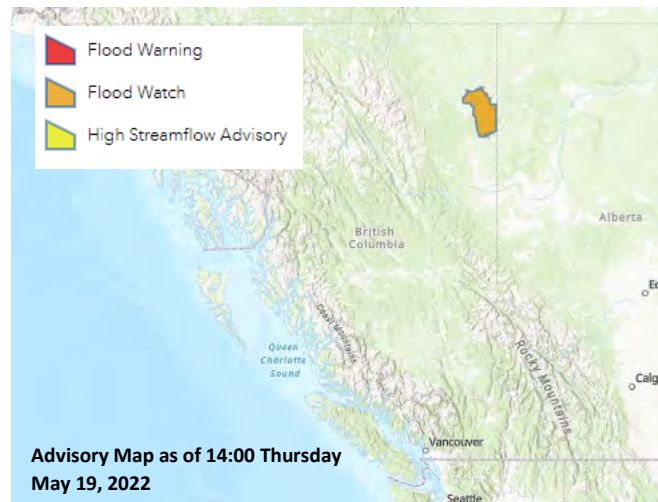
Weather (Current and Forecast)

Temperatures have been below seasonal for the past month. Weather forecasts for the upcoming week indicate a mix of drier weather with the potential for periods of unsettled weather and showers, particularly in the South Interior and Northeast BC. Temperatures are expected warm slightly, trending to more seasonal conditions, with potential for warming to above normal temperatures in areas of Southeast BC late next week.

Flood Warnings and Advisories

There is currently a Flood Watch in effect for the Fontas River.

For up-to-date advisories, please consult the [Current Flood Warnings and Advisories](#) map, as these may change at any time.



River Conditions and Outlook

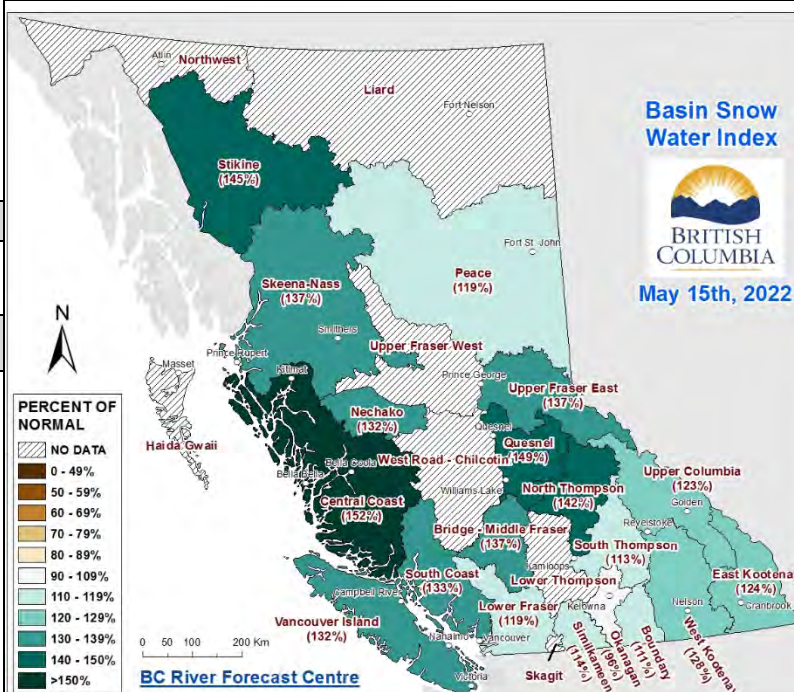
With reduced snowmelt rates, rivers across BC are flowing at seasonal to below seasonal levels over the past few weeks. Rivers are forecast to maintain near-normal to below-normal flows over the upcoming week and then increase slightly from a brief warm spell mid next-week. Localized high flows are anticipated in the BC Interior particularly from mid-elevation areas which still have significant snowpack. This includes areas around the Thompson Plateau, Cariboo, tributaries near Quesnel and Prince George, and the Peace and Northeast.

High snowpacks increase seasonal flood risk, however flooding is also possible in areas without elevated snow. Weather plays an important role in whether flooding occurs, and cooler spring weather, periods of extreme heat, and wet weather can all exacerbate flood risk. The cooler temperatures through April and in early May have increased the risk of significant flooding if an extended period of heat or extreme heat occurs later in May or early June.

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



The May 15th Snow Basin Indices for BC showed a significant increase since May 1st due to colder than normal weather, additional snow accumulation and a delay in the onset of melting for high elevation snowpacks. For May 15th, the overall provincial Snow Basin Index was at 128% of normal, with 129% in the Fraser Basin.

Extremely high snowpack is present in the interior mountains of BC, particularly in the Upper Fraser, Quesnel, North Thompson, Stikine, Skeena-Nass, and Central Coast watersheds. High snowpack is present in the Upper Columbia, West Kootenay, East Kootenay, South Coast and Nechako. Other areas of the province have nearer to normal to moderate snowpacks.

The provincial snowpack for May 15th is the highest observed since 2012. In comparison to 2012, this year has more snow concentrated into the key tributaries of the Fraser River.

Additional information can be accessed at the [Snow Conditions](#) webpage. Future snow bulletins are scheduled for release on June 8, and June 17th.

Active Floods of Note

There are no active floods of note

Resources

Emergency Management BC (EMBC) continues to support communities and First Nations 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 EMBC provides information on [how to be prepared](#).

Ministry of Forests 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.

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 2021, the CLEVER model includes outputs for 311 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.