



Snow Survey and Water Supply Bulletin June 1st, 2014

The June 1st snow survey is now complete. Data from 23 snow courses and 51 snow pillows around the province and climate data from Environment Canada form the basis for the following report¹.

Weather

May weather featured a mix of hot, dry spells interspersed with unsettled, wetter conditions. Major rainfall events were limited, with the exception of the Central Interior and Cariboo Mountains which received considerable amounts of precipitation.

Temperatures through May were generally 1-3 °C above normal through western British Columbia (including Vancouver Island, South Coast, Central Coast, North Coast, Skeena, Okanagan/South Interior, and Central Interior/Chilcotin). Temperatures were nearer to normal in eastern British Columbia.

Drier than normal conditions were experienced in May through most of south-western British Columbia and South Interior. Precipitation was well above normal through the Upper Columbia, Central Interior/Cariboo, and Skeena/Bulkley. Near normal June precipitation was observed elsewhere in the province.

Snowpack

Periods of hotter weather through May led to rapid snow melt, particularly in the mid-elevation snow packs of the province. June 1st snow basin indices (Table 1) decreased since May 15th in western British Columbia and the Peace region. In the higher elevation terrain in eastern British Columbia, larger amounts of accumulated snow earlier in the season, some additional late season snowfall and delays in melt have led to increased June 1st snow basin indices since May 15th.

Snow basin indices are well below normal (<50%) in the Nechako, Lower Fraser, South Coast, Vancouver Island, Central Coast, and Skeena-Nass. In the Nechako and Peace, snow packs are below normal (50-60%). Near-normal (90-110%) snow basin indices are present in the North Thompson, Upper Columbia and East Kootenay, and above-normal (>120%) in the Upper Fraser, South Thompson, Lower Columbia, West Kootenay, Okanagan, and Similkameen. In the Similkameen and Okanagan, snow basin indices are based primarily on higher-elevation sites; mid-elevation snow is now gone in these watersheds, and the high indices are reflective of snow conditions in only a small portion of their watershed area.

1. Every effort is made to ensure that data reported on these pages are accurate. However, in order to update the graphs and indices as quickly as possible, some data may have been estimated. Please note that data provided on these pages are preliminary and subject to revision upon review.

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Table 1 - BC Snow Basin Indices – June 1, 2014

Basin	% of Normal	Basin	% of Normal
Upper Fraser	145	West Kootenay	130
Nechako	14	Okanagan-Kettle	123
Middle Fraser	50	Similkameen	167
Lower Fraser	36	South Coast	44
North Thompson	101	Vancouver Island	35
South Thompson	126	Central Coast	34
Upper Columbia	108	Peace	56
Lower Columbia	141	Skeena-Nass	16
East Kootenay	104		

Streamflow Conditions

Stream flow in many of the major river systems of the province has been above average through May. This includes the Fraser, North Thompson, South Thompson, Skeena, Similkameen, and Stikine River. In the Cariboo and North Thompson region, rapid snow melt and persistent rainfall led to high flows in tributary rivers, including the Quesnel River, Horesfly River, Clearwater River and North Thompson River. These rivers reached 5-year to 20-year return period flows in late-May. Over the same period, flows on the main stem of the Fraser River, from Prince George, through the Fraser Canyon, and into the Fraser Valley, reached a 5-year return period flow.

Outlook

In many of the watersheds of the province, high snow melt rates in May led to diminished quantities of remaining snow, and decreases in the remaining seasonal risk for flooding. This includes the Fraser River through to and including the Lower Mainland, North Thompson River, Okanagan, Similkameen, Peace and Skeena basins. Flood risk due to rapid snow melt is unlikely at this point, but is possible if areas receive extreme rainfall. On the South Thompson River and Shuswap Lake, higher elevation snow is still feeding on-going rises in river and lake levels, with a peak expected by mid-June.

Seasonal forecasts from Environment Canada continue to indicate an increased likelihood of above normal temperatures across British Columbia, particularly through south and south-west parts of the province.

With low seasonal snow packs on Vancouver Island, South Coast, Middle Fraser, Lower Fraser, Central Coast, Nechako, Skeena, and Peace, these regions are expected to transition into lower than normal flows into the summer. These regions are at increased risk for



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potential low stream flows this year, particularly if late-spring and summer weather is hot and dry.

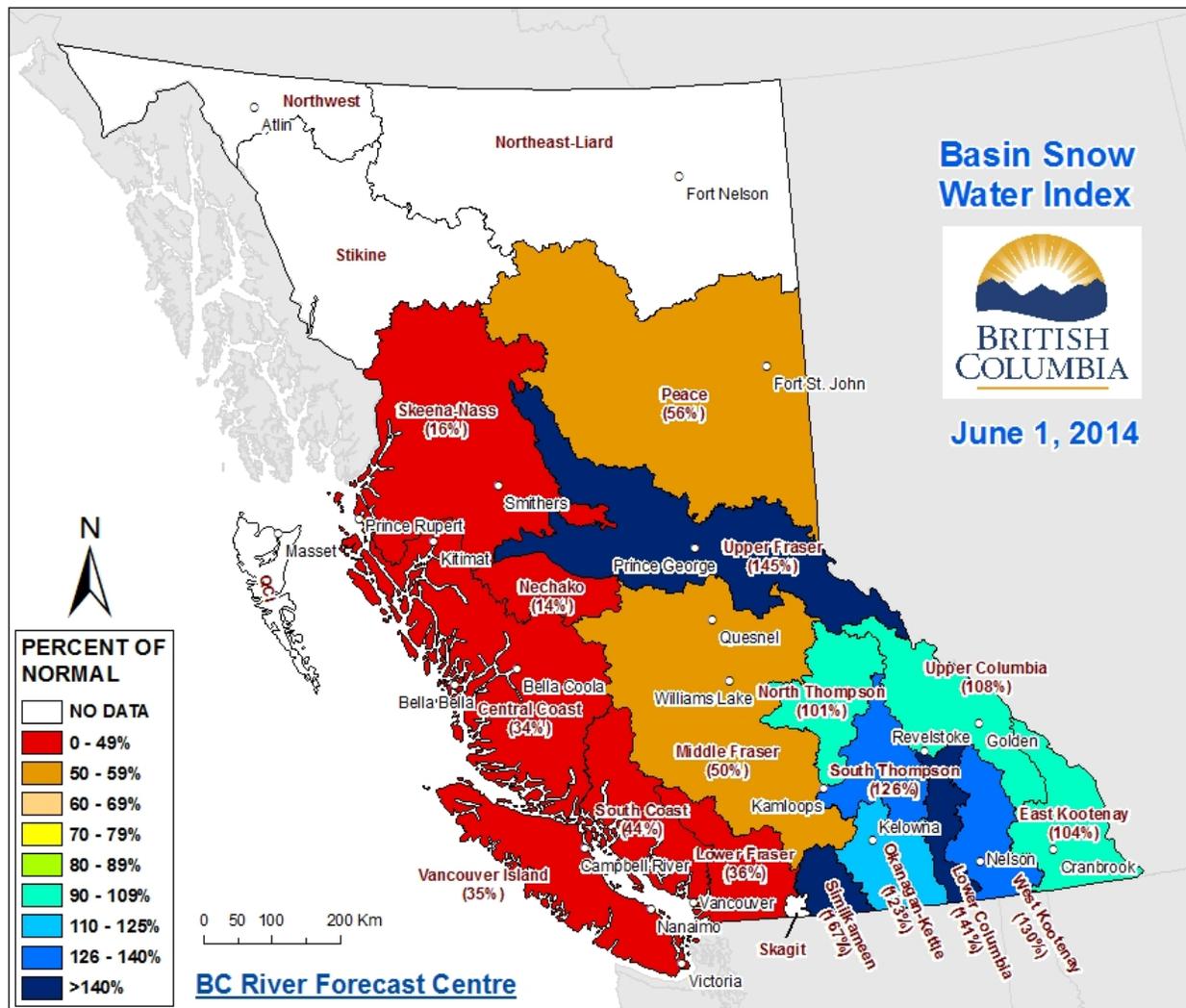
The River Forecast Centre will continue to monitor snow pack conditions and will provide an updated seasonal water supply and flood risk assessment in the June 15th 2014 Snow Bulletin, scheduled for release on June 23rd, 2014.

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Figure 1: Basin Snow Water Index – June 1st, 2014



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