

Snow Survey and Water Supply Bulletin – January 1st, 2014

The January 1st snow survey is now complete. Data from 84 snow courses and 51 snow pillows around the province and climate data from Environment Canada have been used to form the basis for the following report¹.

Weather

Weather across British Columbia has been variable during the early portion of the snow accumulation season (October to December). For the southern sections of the province, precipitation conditions were drier than long-term average conditions in October and December and wetter than average conditions in November. The interior and northern sections of the province experienced progressively wetter conditions from October through to December with greater than average precipitation in the north.

Temperature trends from October to December were variable for most areas of the province. In November and December, persistent Arctic air masses caused temperatures to be below long-term average conditions for the northern areas of the province. In the south and on the coast, temperatures were close to average for October and December and above average for November.

Snowpack

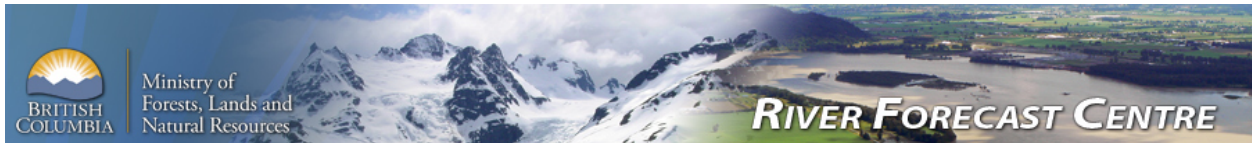
Snow pack conditions are variable across the province at this time. Snow basin indices range from a low of 7% of normal on Vancouver Island, to a high of 167% in the Liard (Table 1). The River Forecast Centre is currently estimating values for four snow pillows, and the January 1, 2014 estimates can be found in Table 2.

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

Basin	Percent of Normal	Basin	Percent of Normal
Upper Fraser	151	Okanagan-Kettle	115
Nechako	59	Similkameen	80
Middle Fraser	93	South Coast	37
Lower Fraser	57	Vancouver Island	7
North Thompson	98	Central Coast	78
South Thompson	95	Skagit	No Data
Upper Columbia	88	Peace	121
Lower Columbia	90	Skeena-Nass	94
East Kootenay	93	Stikine	117
West Kootenay	82	Northeast-Liard	167

Higher than average snow packs persist in the north and northeast (Upper Fraser, Peace, Stikine, and Liard) and lower than average conditions occur in the southwest of the province (Lower Fraser, South and Central Coast, and Vancouver Island). After low accumulation early in the season, several precipitation events through December resulted in most of the interior snow pack at average or close to average. The variable nature of snow distribution

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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reflects the mixed trends in precipitation and temperature experienced in the province during the early accumulation period of winter 2013-2014.

Table 2 - January 1 Automated Snow Pillow Estimates

Snow Pillow ID	Snow Pillow Name	Observation Date	Estimated Snow Water Equivalent (mm)
1D18P	Disappointment Lake	01-Jan	295
1E08P	Azure River	01-Jan	585
1E10P	Kostal Lake	01-Jan	403
4A27P	Kwadacha River	01-Jan	203

Outlook

Early winter 2013-2014 has been characterized by neutral ENSO conditions. The Climate Prediction Centre at the U.S. National Weather Service/NOAA has forecast continued neutral conditions through spring or summer 2014. In general, neutral ENSO conditions result in average weather conditions, though local weather conditions may vary from the long-term average through the province.

Seasonal forecasts from Environment Canada indicate most of the province may experience cooler than average conditions for the period January to March 2014. Eastern sections of the province may expect above average precipitation during this time, while the central and western sections of the province may experience average precipitation conditions.

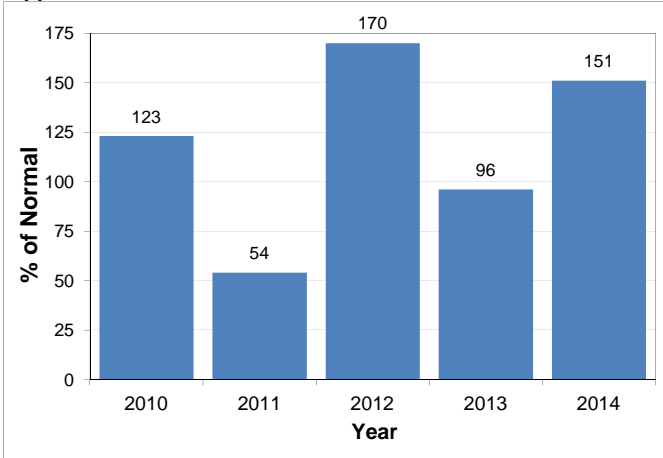
By early January, generally about 50% of the annual BC snowpack has accumulated. Conditions in the Upper Fraser, Peace, Liard, and Stikine indicate the potential for increased flood risk. However, the January bulletin represents an early assessment of BC snow conditions and the outlook for spring freshet can change substantially over the next three or four months. Conditions in the northeast will be closely monitored to assess seasonal flood risk. Conditions in the southwest of the province may pose a risk for lower flows during freshet and into the summer. Conditions in the southern interior are close to average indicating the flood risk is typical for this time of year. At this point there are no strong indications of a high likelihood of extreme wet or dry seasonal weather through the rest of the accumulation season.

The River Forecast Centre will continue to monitor snow pack conditions and will provide an updated seasonal flood risk forecast in the February 2014 bulletin.

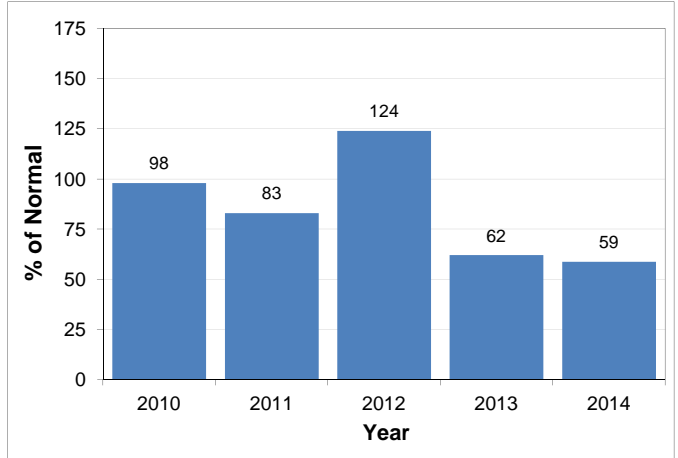
Produced by: BC River Forecast Centre
January 8, 2014

Snow Basin Index Graphs - January 1, 2014

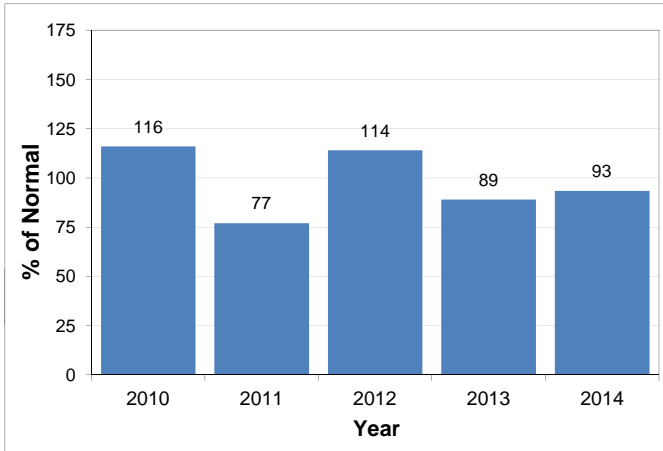
Upper Fraser



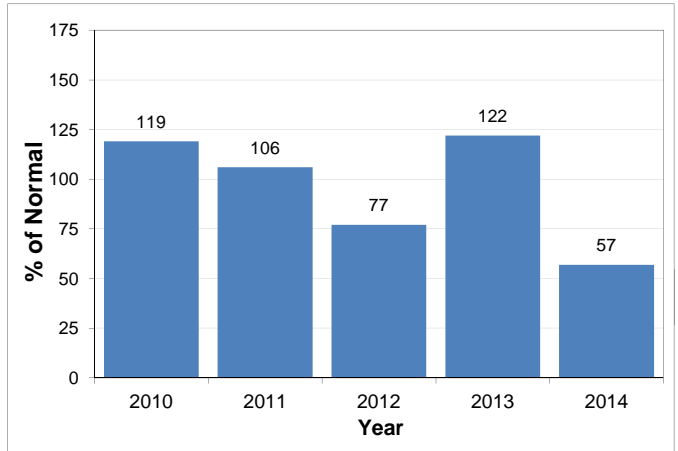
Nechako



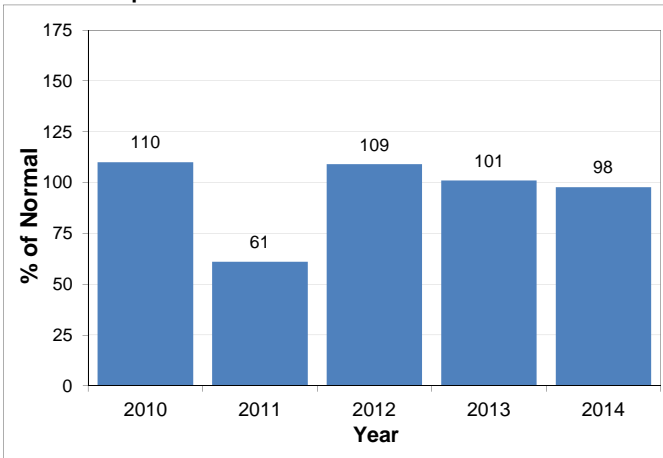
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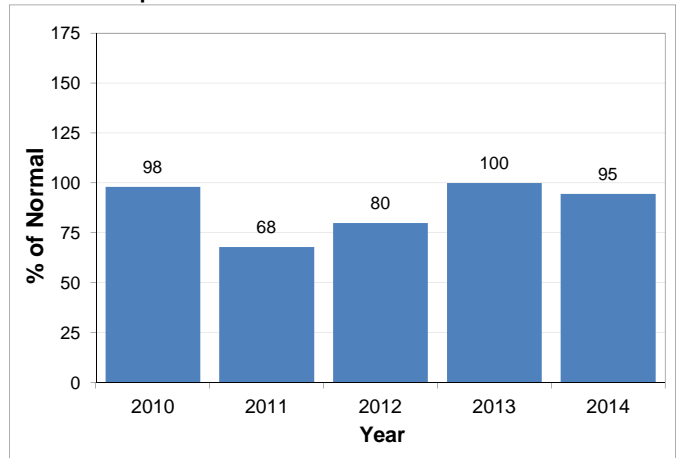
Lower Fraser



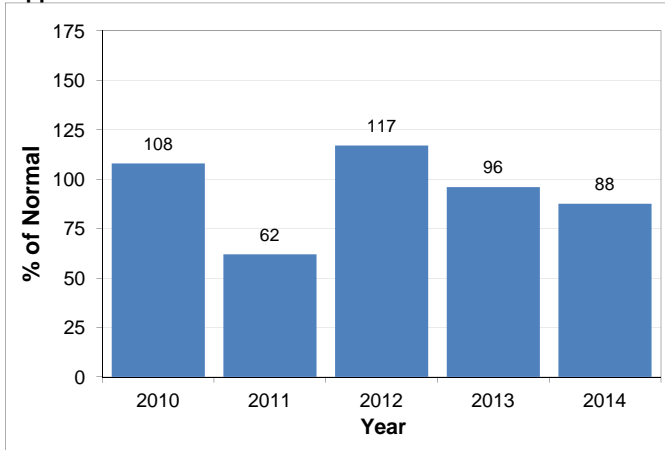
North Thompson



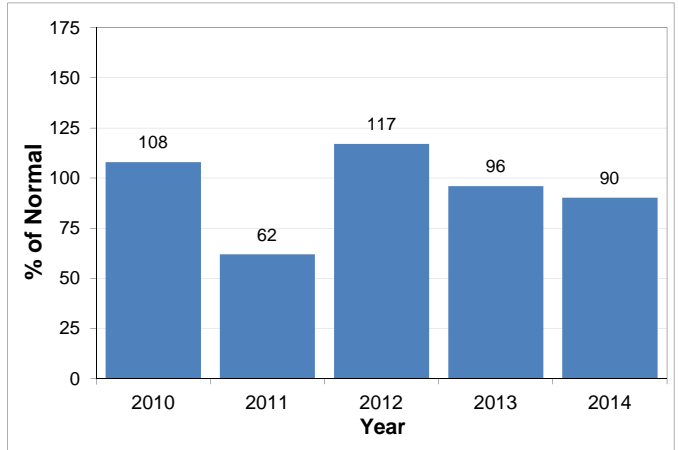
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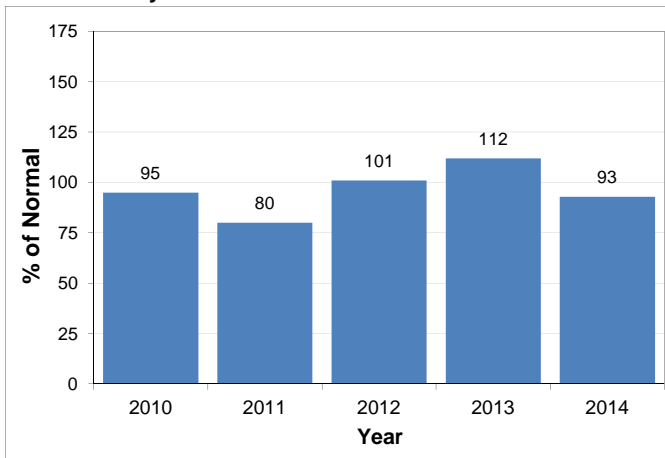
Upper Columbia



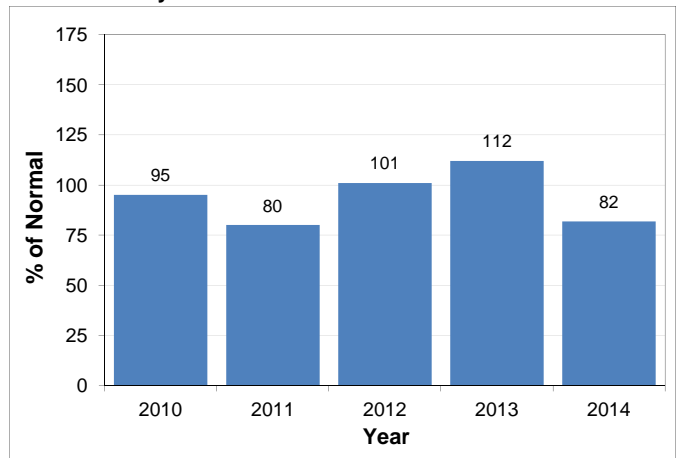
Lower Columbia



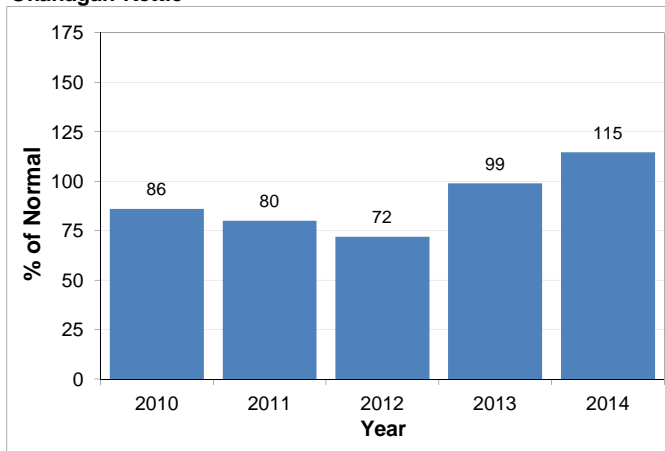
East Kootenay



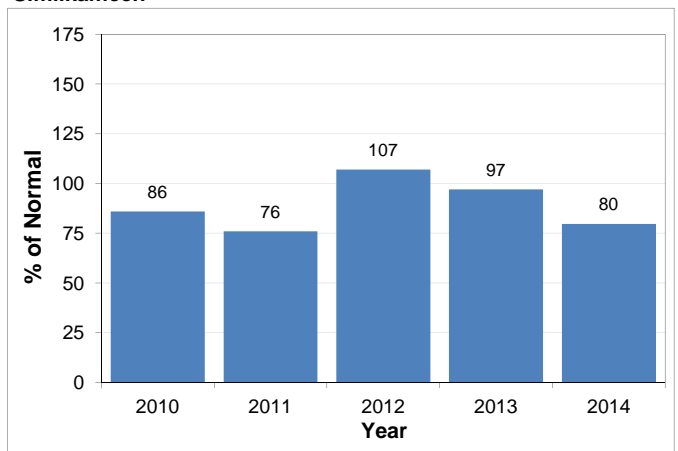
West Kootenay



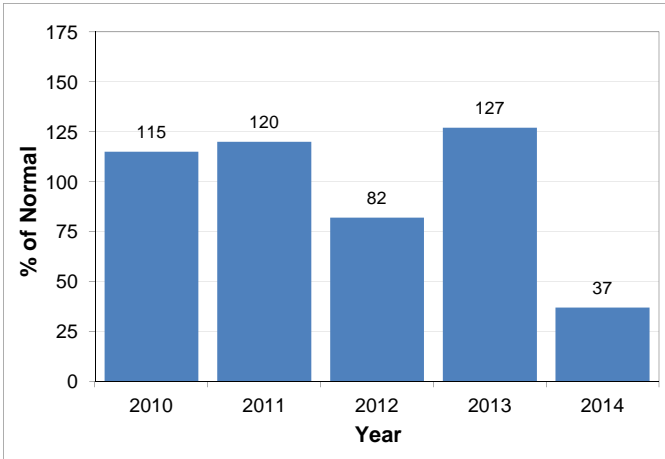
Okanagan-Kettle



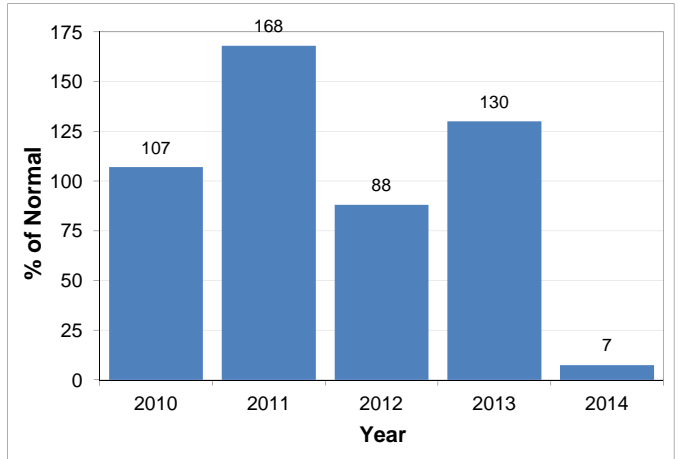
Similkameen



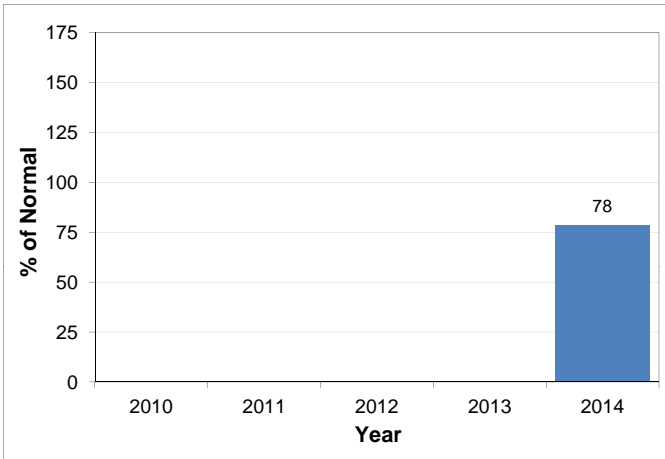
South Coast



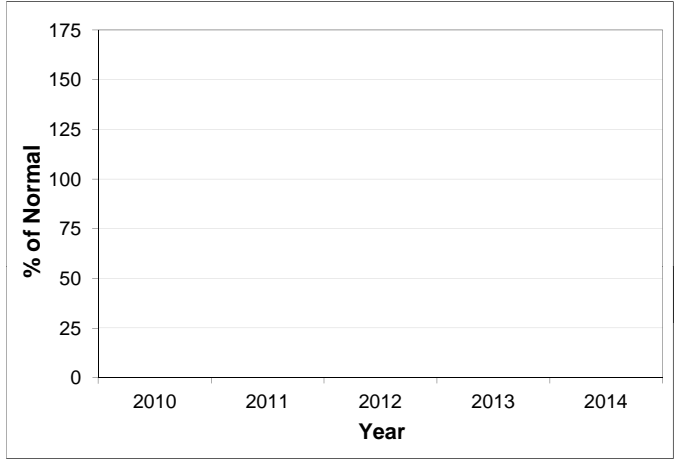
Vancouver Island



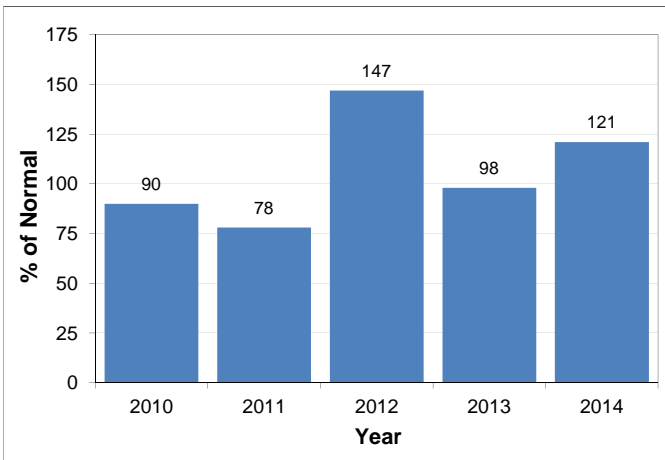
Central Coast



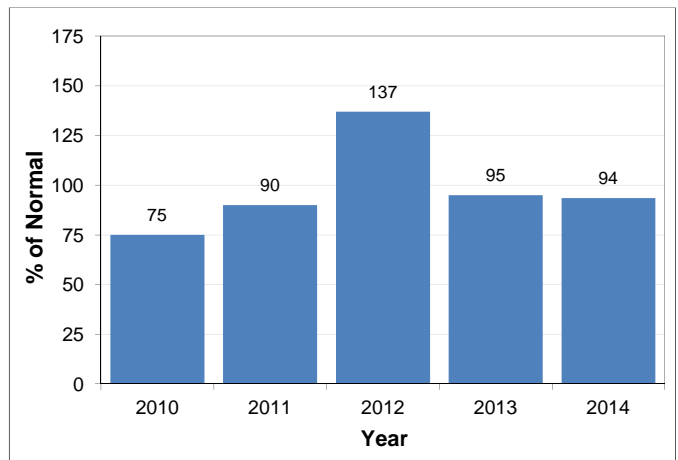
Skagit



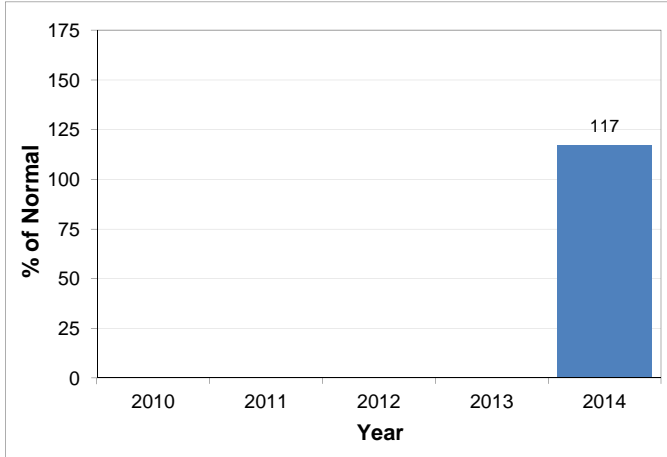
Peace



Skeena-Nass



Stikine



Northeast-Liard

