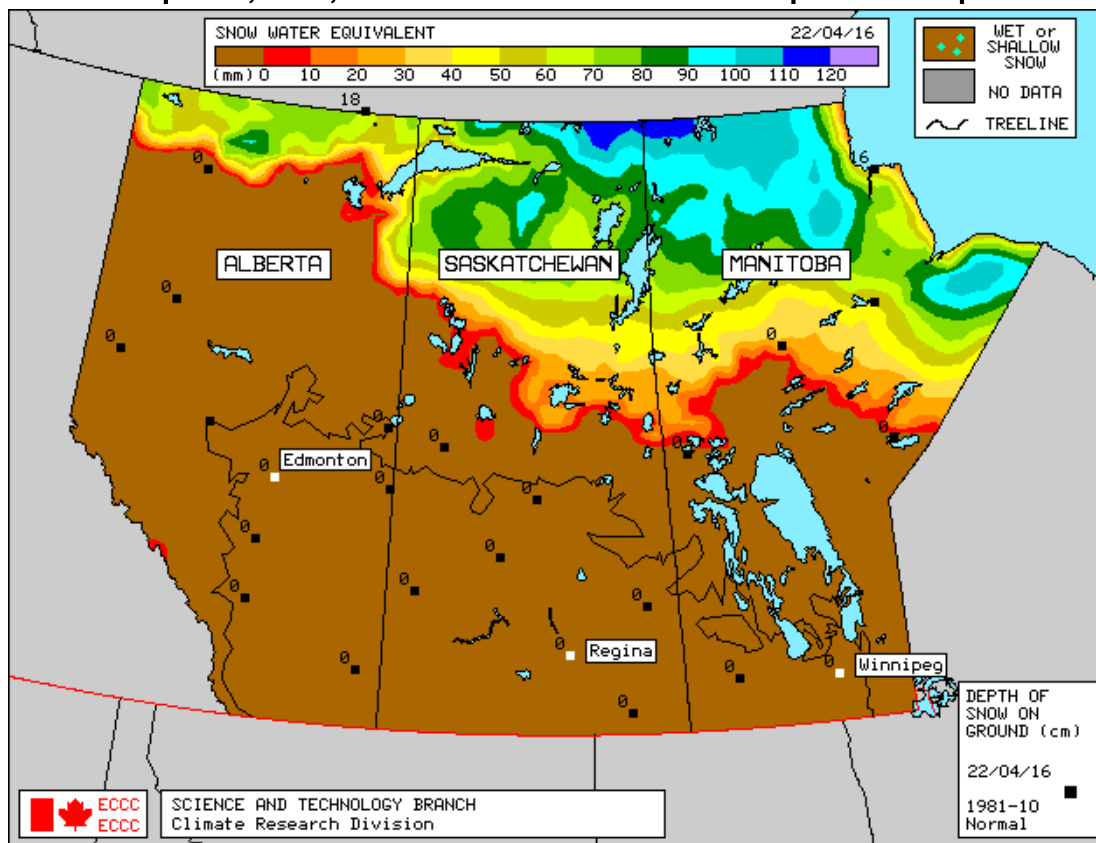


Spring Runoff Update – April 26, 2016

Well above seasonal temperatures early last week resulted in a rapid melt of the snowpack that was remaining in the Assiniboine, Swan, and Red Deer River basins. This area was wetter than normal in the fall of 2015 and had above normal snowfall in March and early April. While flows are all in recession and generally now within channel capacities, high flows that may pose a danger still persist in these basins.

As shown below, as of late last week the snowpack had generally melted completely in all areas south of a line extending from Buffalo Narrows to Cumberland House.

April 22, 2016, Satellite Derived Snow Water Equivalent Map



Assiniboine Basin

All tributary and main stem watercourses are now in recession following the rapid melt of the snowpack that remained across northern portions of the basin last week.

Good Spirit Lake is still rising (0.04 m over the past 24-hours) and is expected to peak near 485.2 m next week. The lake is at 485.0 m this morning, which is equal to the elevation of the weir crest at the outlet structure. Therefore flow over the weir will self-initiate today.

Fishing Lake peaked at 530.41 m late last week and has been holding steady. The natural outlet channel is currently matching the inflow rate and will begin to draw down the lake as inflows recede further later this week. Once outflows from Shellmouth Dam are staged down the Water Security Agency (WSA) will open the constructed outlet works to accelerate the rate of recession at Fishing Lake.

Both Good Spirit and Fishing Lakes have deteriorating ice covers on them. As these ice covers breakup pieces of ice could become mobile during a significant wind event. With high water at both lakes, this situation could create a risk to some properties around the lakes.

Qu'Appelle River

Buffalo Pound Lake is being maintained near 509.47 m, which is the top of its summer operating range.

WSA is continuing to move water from Lake Diefenbaker down the Qu'Appelle River to bring Pasqua and Echo Lakes up to near the top of their desirable summer operating range (478.84 to 479.15 m) in time for recreation season. These lakes are expected to see an increase of about 0.3 m over the next month.

Last Mountain Lake peaked late last week and has been holding steady near 490.25 m, which is near the top of its desirable summer operating range (489.66 to 490.27 m).

Mission and Katepwa Lakes have been holding steady at about 478.26 m, lower than typical summer operating levels but well within their desirable summer operating range of 478.08 to 478.38 m.

Crooked Lake is within the April and May operating range at 451.73 m and is dropping slowly to within the desirable summer operating range (451.41 to 451.71 m).

Round Lake is at a record low level for this time of year and may remain at or near record low levels through 2016 if conditions remain dry. WSA is unable to operate the Round lake Control Structure as land control agreements are not in place with the federal government and First Nations in the area.

Quill Lakes

The Quill Lakes peaked late last week at 520.71 m and have been holding steady at that elevation. This is about 0.06 m above the record peak observed in 2015. Rainfall could push water levels higher in 2016.

Southwest

A late winter snow event resulted in snow accumulations of 20 cm in the Cypress Hills yesterday with 30-35 mm of water equivalent. With mild temperatures forecasted for the area through to the weekend, this snow is expected to melt slowly. This will result in most of this moisture infiltrating rather than running off the landscape and generating streamflow.

Saskatchewan River System

Flows in the South Saskatchewan River are well below normal, near lower decile, for this time of year but rising in response to snowmelt in the mountains that occurred last week. Lake Diefenbaker is currently being held near 552.5 m and will be brought up to 553.0 m for June 1. Flows on the North Saskatchewan River are also below normal, but not as low as on the South Saskatchewan. WSA's 10-day forecast for the Saskatchewan River System can be found here: <https://www.wsask.ca/Lakes-and-Rivers/Provincial-Forecast/>

Weather Forecast

No significant precipitation accumulations are expected within the province over the next five days. Highest accumulations over this period are expected to be in the southwest and along the US border where up to 5 mm is expected over this period.

Next Update

This will be the final Spring Runoff Update for the season. WSA will however make information available if a significant runoff event is forecasted or occurring. The publication of Water Supply Condition and Outlook reports will resume in early May.

