

Lake of the Woods Control Board Special Bulletin – June 26, 2014

This bulletin will be sent out daily through the high water period. For further information, please contact the Lake of the Woods Control Board at 1-800-661-5922. The [Basin Data page](#) of the LWCB [website](#) will be updated by 11:00 a.m. and again at 3:00 p.m., 7 days a week through the high water period. For further information, please contact the Lake of the Woods Control Board at 1-800-661-5922 or email Secretariat@lwcb.ca.

Disclaimer: There is large uncertainty associated with forecasted inflows and lake levels as meteorological conditions can change rapidly and computer models are never completely accurate. Actual lake level changes could be higher or lower if the actual rainfall amounts differ from forecast amounts. Preparations for rising water should be made with a conservative margin for error.

WEATHER OUTLOOK

The precipitation forecast for the basin has evolved considerably over the past couple of days. There is general agreement among US, Canadian, and Ontario weather agencies that a system entering from the plains states will bring rainfall across the Winnipeg River drainage basin with showers for most areas and potentially heavy rainfall from local thunderstorms. Environment Canada's Storm Prediction Centre advises that rainfall amounts on Friday will range from 10 mm to 20 mm (0.4-0.8 in) with the possibility of up to 50 mm (2 in) of rain locally due to thunderstorms. Further rainfall on Saturday could bring an additional 20- 50 mm (1-2 in) with local thunderstorms again. A second low pressure system, arriving from the Prairie Provinces, has the potential to enter the basin on Sunday bringing an additional 15 mm of rainfall into Monday. Some forecasts have rainfall being heavier in the vicinity of Lake of the Woods and lighter towards Rainy Lake and points east.

If the forecasts are accurate, the additional rainfall will result in a swift rise in inflow to rivers and lakes across the basin as conditions are already nearly saturated in many areas. Lake and river levels will likely rise faster than forecast earlier this week in response.

Rainy Lake

Hourly data from gauges on Rainy Lake and in the upper Rainy River above the dam indicate that the lake and upper river were close to levelling off over the past two days as inflow to the lake declined. However, if the forecast rainfall for the Rainy River drainage basin over the weekend comes to pass, hydrologic model results indicate that inflow will again climb sharply, leading to quickly rising lake level for Rainy Lake. The hydrologic forecast for Rainy Lake has shifted to have a rise of 32-52 (13- 20 in) over the next 7 days based on the assumption of significant rainfall. The actual rise in Rainy Lake level and its tributary rivers will depend upon the rainfall received in the local watershed, and so could be more or less than the forecast rise. (Note that the June 19 forecast under similar conditions significantly over-estimated the 7-day lake rise.) The 7-day lake level rise estimation is not to a peak elevation, further lake level rise beyond 7 days is likely if the rainfall forecast is accurate.

Lake of the Woods

Water has been flowing into Lake of the Woods approximately 30-40% faster than it can be released from the dams in Kenora over the past several days. However, as with Rainy Lake, the forecast rainfall over the weekend is expected to have inflow rising again very quickly. Based on hydrologic model results that incorporate the significant rainfall, Lake of the Woods water level is forecast to rise between

15 and 25cm (6-10 in) over the next 7 days. The 7-day rise estimation is not to a peak elevation, further lake level rise beyond 7 days is likely if the rainfall forecast is accurate. High winds may cause temporary but significant shifts in the local water level due to wind setup.

Winnipeg River in Ontario

The rate of outflow from Lake of the Woods has levelled off over the past few days around 1470 m³/s, and the level below Norman Dam has not been increasing on a daily-average basis over the past two days. Flow from the fully opened dams in Kenora is still expected to rise gradually as the rising lake level forces greater flow through the sluices at Norman Dam, from 1470 m³/s to near 1500 m³/s over the next week. However, the influence of upstream rocky shoal areas may be controlling the rate of flow through the channel from the lake to Norman dam. If flow does increase with the rising lake level, the Winnipeg River levels near Kenora will rise on the order of 5-10 cm (2-4 in), with smaller increases towards Minaki which will be closer to 2-4 cm (1-2 in). If locally heavy rainfall occurs this weekend it will likely result in additional, but temporary, level rise.

Lac Seul

The forecast for Ear Falls and Sioux Lookout has also developed to include wet weather over the next 5 days, with showers and thunderstorms possible Friday through Monday. As with the Lake of the Woods basin, the rise in lake level will depend on the rain received. The forecast rise in Lac Seul and Lost Lake levels is 15-25 cm (6-10 in) over the next 7 days if significant rainfall in the forecast occurs in the local basin. The Lake of the Woods Control Board reviewed basin conditions, including for Lac Seul and the English River, on June 25th during an emergency Regulation call. It determined that Lac Seul outflow should be increased from 600 m³/s to at least 650 m³/s on Monday June 30th if the weekend rainfall is likely to lead to the level of Lac Seul exceeding 356.90 m (1170.9 ft), up from current 356.75 m (1170.4 ft). Further details on the current regulation strategy are available at:

<http://www.lwcb.ca/regulation/LWCBStrategy2014Jun18.pdf>.

Middle English River and Pakwash

The level at Pakwash Lake remains high following last week's Lac Seul outflow increase and rainfall this week, but is close to levelling off. Chukuni and Troutlake River flows have peaked. However, heavy local rainfall could have local levels rising again this weekend. As stated above, the flow from Lac Seul could be increased on Monday, June 30th, which would raise Pakwash Lake level.

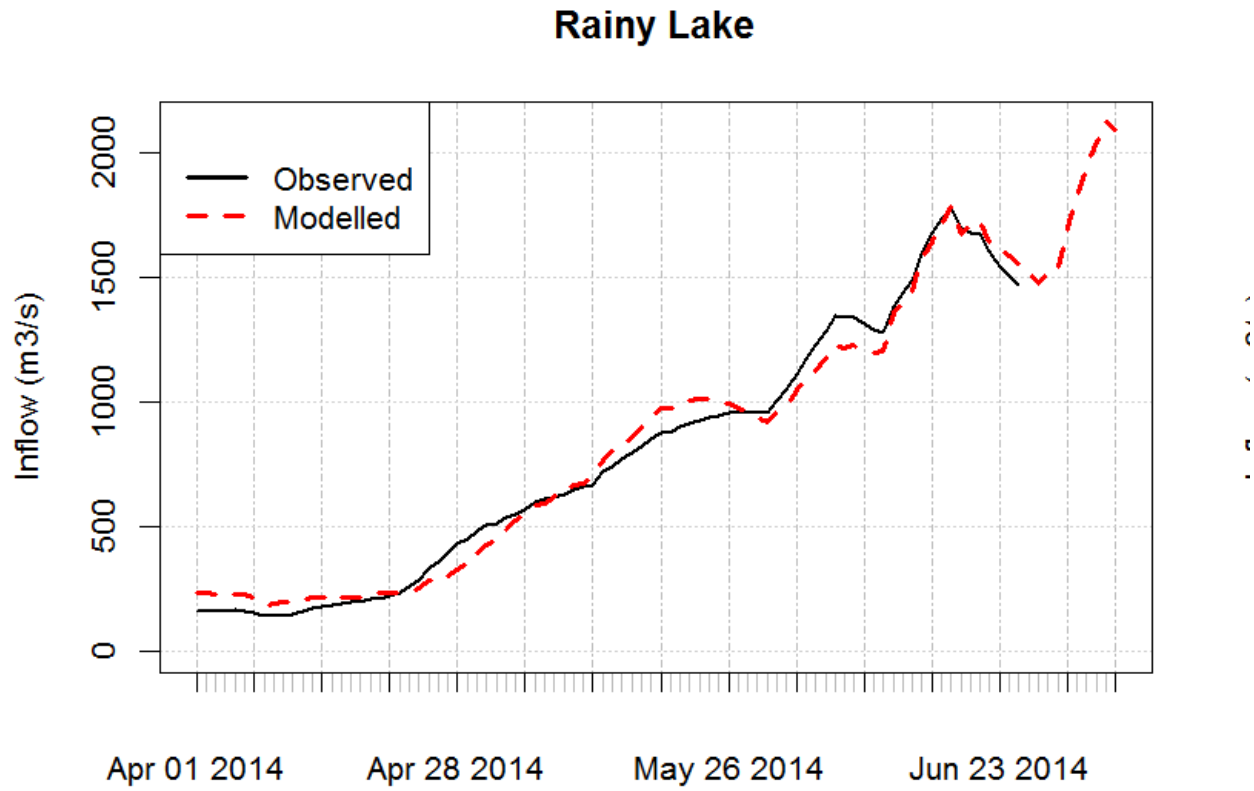
The level of the English River at Grassy Narrows has climbed to its highest point of the year following rainfall over the past week combined with the Lac Seul outflow increase to 600 m³/s on June 18. Wabigoon River flow has declined sharply from its peak but additional rainfall over the past few days has slowed this decline. Additional rise in water level at Grassy Narrows is possible over the next week if there is a Lac Seul outflow increase and/or additional significant rainfall.

Winnipeg River in Manitoba

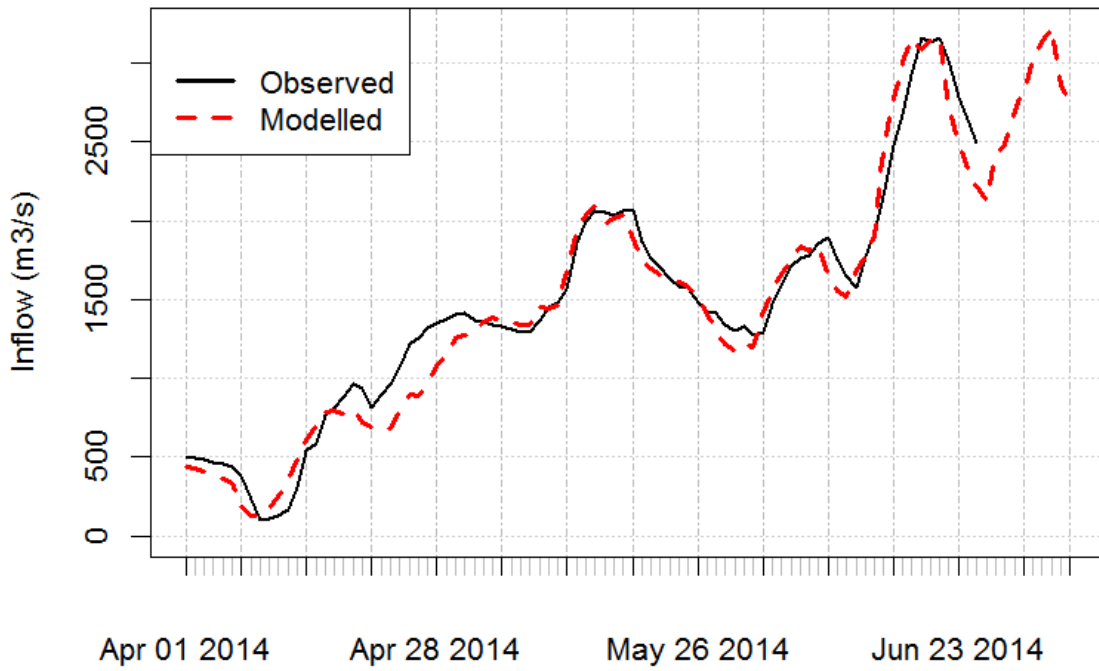
Below its confluence with the English River, Winnipeg River flows are exceptionally high entering Manitoba and through the Whiteshell. Flow at Slave Falls dam is near 2425 m³/s, roughly a one-in-twenty year high for late June (95th percentile). Nutimik is now higher than the peak level experienced in the fall of 1992, and about 3 cm shy of the 1974 record level of 276.82 m (908.2 ft). Over the next week, flow is expected to continue to rise as the flow increases from Lac Seul arrive (normally two week lag time). The level at Nutimik Lake is expected to rise 5-10 cm (2-4 in) over the next week, but this forecast

is subject to many uncertainties and the actual rise may be higher or lower. Locally heavy rainfall will raise levels further.

Modelled and Observed 7-day average Inflow by Major Lake (including 10-day forecast)



Lake of the Woods



Lac Seul

