

FLOOD REPORT FOR MANITOBA

July 10, 2014 – 09:00

The wind forecast for today results in a moderate to moderate-high wind warning for the northern shorelines of Lake Manitoba. Strong south winds will also affect Lake Winnipegosis, Lake Winnipeg, and Dauphin Lake.

Flood Warning*:

- Assiniboine River, from Shellmouth Dam to Portage Reservoir
- All points along the Winnipeg River System, including Nutimik Lake
- Qu'Appelle River
- Souris River
- Lake Manitoba
- Lake St. Martin
- Dauphin Lake

Flood Watch*:

- Assiniboine River, from Portage Reservoir to Headingley
- Red Deer Lake
- Lake Winnipeg

High Water Advisory*:

- Red River
- Saskatchewan River
- Swan River
- Red Deer River
- Streams and drains in the Souris River Basin
- Streams and drains in the Parkland region
- Streams and drains in the Assiniboine Basin, from Holland upstream

Summary

- The Assiniboine River at the Portage Reservoir crested at approximately 52,100 cfs near midnight Wednesday. Yesterday's peak inflow was only slightly less than the 2011 peak inflow of 52,300 cfs. At crest last night, flow on the Portage Diversion was approximately 34,100 cfs and flow on the Assiniboine River downstream of the diversion was approximately 18,000 cfs.
- This morning, flow on the Assiniboine River upstream of the Portage Diversion was approximately 51,240 cfs, flow on the Portage Diversion was 33,140 cfs and flow on the Assiniboine River downstream of the diversion was 18,000 cfs.

- The condition of the Portage Diversion, Assiniboine River dikes, and temporary flood protection measures downstream are being monitored regularly. Crews are on call to respond to trouble spots.
- An updated forecast for the Assiniboine River was issued on flood sheets yesterday evening. The forecast has been fine-tuned based on additional flow measurements on the Assiniboine River.
- The new forecast information indicates that the Assiniboine River at Miniota is near crest. The second crest on the Assiniboine River at Brandon is expected to be 34,000-36,000 cfs between July 11 and July 13. The peak flow at Brandon in 2011 was 36,730 cfs, and the first summer crest earlier this week was 34,330 cfs.
- The second crest on the Assiniboine River at Portage is forecasted at 46,000-47,500 cfs between July 14 and July 16.
- The wind forecast for today results in a moderate to moderate-high wind warning for the northern shorelines of Manitoba (see attached map for illustration of forecasted wind effect on lakes). Strong south winds will also affect Lake Winnipegosis, Lake Winnipeg, and Dauphin Lake.
 - The winds on Lake Manitoba could increase water levels by 2-3 feet along with considerable wave action on northern shorelines.

Weather

- A mix of sun and cloudy is forecasted for southern Manitoba with temperatures around 30° Celsius. Showers and thunderstorms are likely for later in the day throughout southern and northwestern Manitoba.
- Winds will become northwest and westerly on Friday with slightly lower temperatures. Areas in southwestern and northwestern Manitoba may see wind gusts in the vicinity of 40 – 60 km/h on Friday.
- Environment Canada has issued a strong wind warning for Lake Winnipegosis and the northern basin of Lake Winnipeg for today, tonight and into Friday. The latest marine wind conditions can be viewed at: http://weather.gc.ca/marine/region_e.html?mapID=04

Red River

- The Red River Floodway continues to operate as per established operating protocols. The water level above the Floodway inlet this morning was at 751.9 feet; the computed natural level is 752.5 feet. Flow in the Floodway channel is approximately 1,160 cfs. Flow upstream of the Floodway inlet is 30,160 cfs. The Red River Floodway is being operated under Rule 1, which means that water levels on the river upstream of the Floodway inlet remain below natural levels.
- Levels in Winnipeg decreased to 16.4 feet James Avenue datum, with flows on the Red River at 44,900 cfs. The combined operation of the Portage Diversion and the Red River Floodway is providing a 5 foot reduction in water levels at James Avenue. Water levels

in Winnipeg are forecasted to stabilize at 16.5 feet James Avenue for a few days and then decline. The water level at James Avenue is forecasted to drop below 14 feet by July 20, 2014.

Assiniboine River

- The Assiniboine River at the Portage Reservoir crested at approximately 52,100 cfs near midnight Wednesday. Yesterday's peak inflow was only slightly less than the 2011 peak inflow of 52,300 cfs. At crest last night, flow on the Portage Diversion was approximately 34,100 cfs and flow on the Assiniboine River downstream of the diversion was approximately 18,000 cfs.
- This morning, flow on the Assiniboine River upstream of the Portage Diversion was approximately 51,240 cfs, flow on the Portage Diversion was 33,140 cfs and flow on the Assiniboine River downstream of the diversion was 18,000 cfs.
- The condition of the Portage Diversion, Assiniboine River dikes, and temporary flood protection measures downstream are being monitored regularly. Crews are on call to respond to trouble spots.
- Overbank flooding is occurring in the Assiniboine River valley in all reaches between the Shellmouth Dam and Brandon. High flows on the upper Assiniboine River and the Qu'Appelle River will result in record high water levels, above 2011 levels, between Shellmouth Dam and St. Lazare. Officials in this area are advised to undertake necessary flood protection measures.
- The water level on the Shellmouth Reservoir is stable at 1,416.0 feet; the summer target level is 1402.5 feet and the crest of the spillway is at 1408.5 feet. Inflows to the reservoir are approximately 15,870 cfs today; outflows from the reservoir are approximately 16,470 cfs. Outflows include 1,120 cfs of conduit flow and 15,360 cfs of spillway flow. Shellmouth Dam inflow has crested and is declining, the reservoir level and outflow are near crest.
- The gauge on the Qu'Appelle River at Welby, Saskatchewan was overwhelmed by water early on Sunday morning as the river approached crest. Since the gauge was inundated, the crest was not able to be measured but indications are that it was a record high flow, well above the previous record flow of approximately 13,000 cfs.
- The flow on the Qu'Appelle River at Welby this morning dropped to 11,230 cfs. The flow on the Assiniboine River near Russell increased to 16,180 cfs.
- An updated forecast for the Assiniboine River was issued on flood sheets yesterday evening. The forecast has been fine-tuned based on additional flow measurements on the Assiniboine River.
- The new forecast information indicates that the Assiniboine River at Miniota is near crest. The second crest on the Assiniboine River at Brandon is expected to be 34,000-36,000 cfs between July 11 and July 13. The peak flow at Brandon in 2011 was 36,730 cfs, and the first summer crest earlier this week was 34,330 cfs.

- The second crest on the Assiniboine River at Portage is forecasted at 46,000-47,500 cfs between July 14 and July 16.

Souris River

- The Souris River has crested at Melita, Souris and Wawanesa and is declining.
- Oak Lake and the Plum Lakes are at high levels resulting in high flows on the Plum Creek. Flow on the Plum Creek this morning increased to 1,050 cfs.
- Whitewater Lake has decreased slightly to a water level of 1633.4 feet. The lake is normally a closed basin with no outflow, but the water level is high enough to spill naturally into Medora Creek.

Parkland Region

- The flows on streams in the Parkland Region remain high but continue to decline.
- Flows on tributaries to Dauphin Lake remain high. The water level gauge on Dauphin Lake is reporting a water level of 859.8 feet and the lake appears to be near crest. The forecasted peak water level on Dauphin Lake is 860.0-860.4 feet. Flood stage on Dauphin Lake is 858 feet and the summer target level is 855 feet. The peak water level in 2011 was 861.14 feet.

Manitoba Lakes

- The Lake Manitoba water level this morning was at approximately 813.9 feet at the Steeprock gauge, while the water level at the Westbourne gauge was 814.1 feet. These water levels are affected by winds on the lake; the wind-eliminated lake level is estimated at 814 feet. The forecasted peak water level on Lake Manitoba is 814.6 feet in early August.
- The Fairford River Water Control Structure is being operated for maximum possible discharge; outflow from Lake Manitoba is approximately 13,410 cfs. The estimated natural outflow from Lake Manitoba at the current lake level, if the Fairford River Water Control Structure and associated channel improvements hadn't been constructed, is approximately 5,500 cfs.
- Lake Manitoba is currently approximately 1.3 feet below unregulated levels (the levels that would have occurred in the absence of all provincial water control infrastructure) because of the high outflows from the Lake through the Fairford River Water Control Structure.
- The water level on Lake St. Martin is at 803.3 feet. Flow through the Lake St. Martin Emergency Outlet Channel on Sunday is approximately 4,500 cfs. The lake has dropped due to the additional outflow through the Lake St. Martin Emergency Outlet Channel.
- Operation of the Lake St. Martin Emergency Outlet Channel increases total outflow from Lake St. Martin, directly lowering levels, and will allow the Fairford River Water Control Structure to remain at maximum discharge longer, thus allowing for higher outflows from

Lake Manitoba later in the year. The Lake St. Martin Emergency Outlet Channel is expected to stay open until the spring of 2015.

- Lake Winnipeg is at a wind-eliminated water level of 716 feet and Manitoba Hydro's latest forecast indicates that the lake will rise to 716.6 feet by late July. The water level regulation range for Lake Winnipeg is between 711 and 715 feet. Manitoba Hydro is operating its structures at the outlet of Lake Winnipeg to allow for maximum possible outflow from the lake.

Eastern Region

- The Winnipeg River system is experiencing very high flows due to significantly higher than normal precipitation in eastern Manitoba and northern-western Ontario. On July 8, 2014 the flow at Slave Falls was 92,350 cfs.
- Downstream, Manitoba Hydro's latest forecast from July 8, is that the lakes on the Winnipeg River could rise to peak by the following amounts by July 21, 2014:
 - Nutimik Lake is at 908.1 feet today, and is forecasted to increase by 0.33 feet.
 - Dorothy Lake is forecasted to increase by 0.26 feet.
 - Margaret/Eleanor Lake is forecasted to increase by 0.23 feet.
 - Sylvia Lake is forecasted to increase by 0.16 feet.
- Natalie Lake, at Seven Sisters is being maintained at 896 feet to provide further relief from high water conditions upstream. This is a foot lower than normal high water operating procedures and 3.5 ft lower than normal water operating procedures. Flow at Seven Sisters was 98,670 cfs on July 8, 2014.
- Manitoba Hydro reports that water levels at Lac du Bonnet will be managed between 835.3 and 836 feet, measured at the forebay of McArthur Falls. Water levels around 835.3 feet will be maintained over the next week or two.
- Many other lakes in Whiteshell Provincial Park, such as Falcon, West Hawk, and Caddy, are higher than the desirable range but below the peak water level experienced earlier this spring. Where water control structures are present, they are being operated to provide maximum flood relief.
- Water level information for the lakes in the Whiteshell Provincial Park is available at: http://www.gov.mb.ca/mit/floodinfo/floodoutlook/forecast_centre/lakes/lake_levels/2010/whiteshell_lakes_2012-2014.pdf

The Pas and Northern Manitoba

- The flow on the Saskatchewan River at The Pas today is 69,900 cfs and the water level is at 855.1 feet. The peak on the Saskatchewan River is forecasted at approximately 70,600 cfs, or a water level of 855.3 feet, from July 10-12.
- The flow on the Carrot River at Turnberry is at 4,400 cfs, and the water level increased by 0.5 feet. The Carrot River near The Pas is at 856.6 feet today, and is forecasted to peak at 856.8.

- Red Deer Lake was measured at 863.8 feet yesterday. Flood stage on the lake is 864.5 feet. The lake is projected to peak at a wind-eliminated water level of 864-864.25 feet between July 10 and 15.
- Cormorant Lake is at 844.6 feet this morning; the lake is forecasted to rise to 844.8-845.2 feet in the next two weeks.

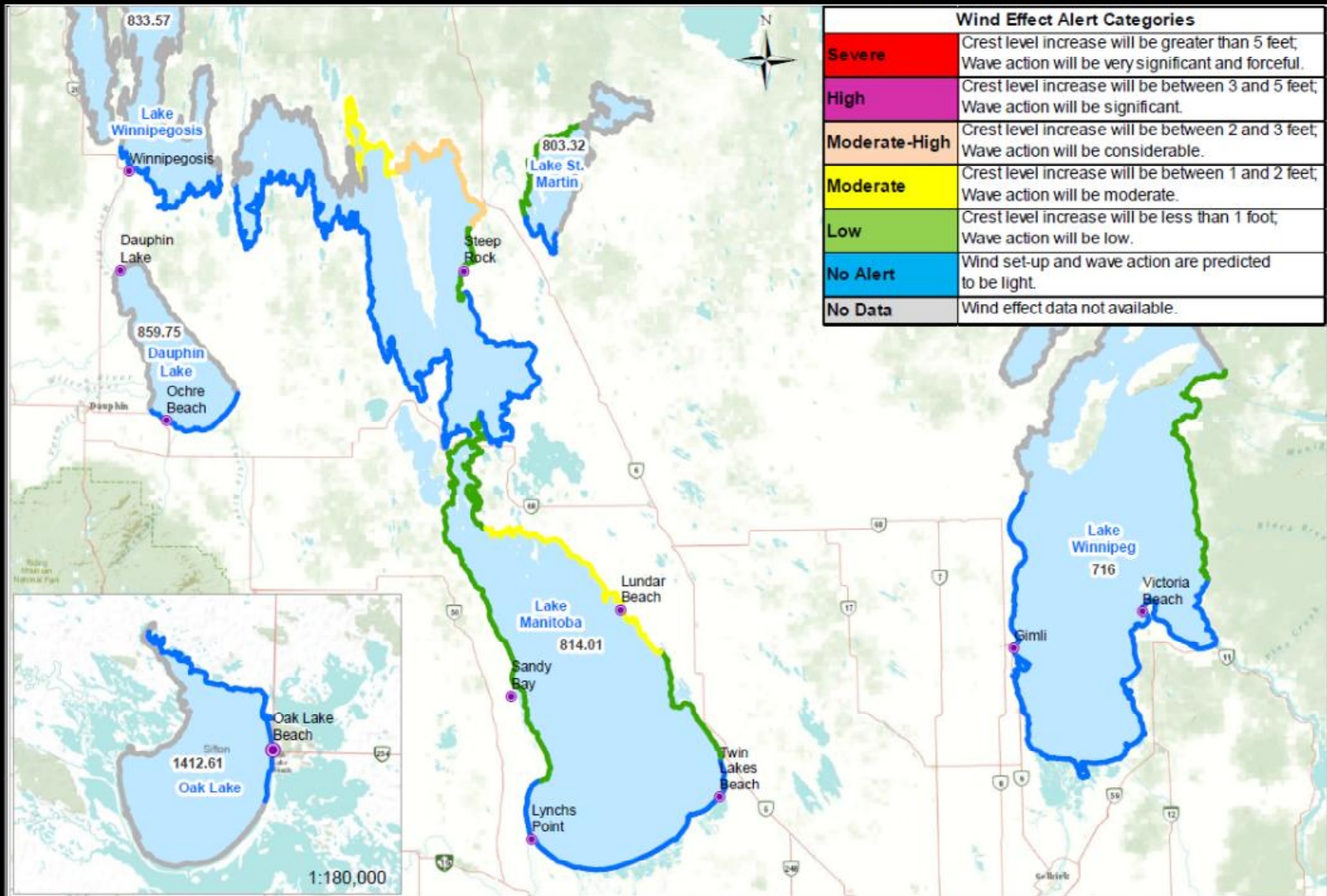
***Definitions**

Flood Warning: A flood warning is issued when river or lake levels are exceeding or are expected to be exceeding flood stage within the next 24 hours.

Flood Watch: A flood watch is issued when river or lake levels are approaching and likely to reach flood stage, but likely not within the next 24 hours.

High Water Advisory: A high water advisory is issued when a heavy storm or high flows are expected and may cause water levels to rise, but not necessarily reach flood stage. A high water advisory can be an early indicator for conditions that may develop into a flood watch or flood warning.

Manitoba Lake Wind Effect Forecast for July 10 PM, 2014



Hydrologic Forecasting and Water Management
Manitoba Infrastructure & Transportation

Note: All levels are current values provided in feet

