

FLOOD REPORT FOR MANITOBA

July 12, 2014 – 09:00

The wind forecast for today and tomorrow calls for strong northwest winds resulting in the following wind warnings:

- **For Today:** A moderate-high lake wind effect warning for the south basin of Lake Winnipeg and the east shoreline of Lake Manitoba's north basin, a moderate lake wind effect warning for the south shorelines of Lake Manitoba, Lake Winnipegosis and Dauphin Lake.
- **For Tomorrow:** A high lake wind effect warning for the south basin of Lake Winnipeg and the south shorelines of Lake Manitoba, a moderate-high lake wind warning for the eastern shoreline of Lake Manitoba's north basin, and a moderate lake wind effect warning for the south shorelines of Lake Winnipegosis and Dauphin Lake.

Flood Warning*:

- Assiniboine River
- Qu'Appelle River
- Souris River
- Lake Manitoba
- Lake St. Martin
- Dauphin Lake

Flood Watch*:

- 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 Brandon crested at 9:00 am this morning; water levels were measured at 1,183.07 feet and a flow of 38,870 cfs. The top of the permanent flood protection dikes in Brandon are constructed based off 1,184.5 feet, measured at 1st Street.

- The water level on the Assiniboine River at Brandon crested approximately 0.07 ft above the forecasted level, but the metered flow was higher than what was forecasted. The Souris River has maintained high flows and was metered at approximately 13,000 cfs in Wawanesa this morning. The higher flows on the Assiniboine and Souris Rivers have resulted in an upwards revision to the forecast for the second crest on the lower Assiniboine River.
- The Assiniboine River inflow to the Portage Reservoir is now forecasted to reach its second crest at 52,000-53,000 cfs on July 14-15. These flows will be managed by diverting up to 35,000 cfs through the Portage Diversion for a short duration; flows on the lower Assiniboine River downstream of Portage will be maintained at 18,000 cfs until the second crest has passed.
- The wind forecast for today and tomorrow calls for strong northwest winds, on Lake Manitoba, Lake Winnipeg Lake Winnipegosis, and Dauphin Lake (see attached maps for illustration of forecasted wind effect on lakes).

Weather

- Environment Canada has issued a severe thunderstorm watch for all of southern Manitoba:
Conditions are favourable for the development of dangerous thunderstorms that may be capable of producing damaging wind gusts and large hail. A sunny and warm summer day in southern Manitoba will be interrupted this afternoon by a fast moving cold front coming in from the northern Prairies. This cold front will bring gusty northwest winds of 60 or 70 km/h. More importantly, this cold front will push a line of potentially severe thunderstorms through southern Manitoba this afternoon. These thunderstorms may bring local wind gusts of 100 km/h, large hail, and brief but intense rainfall. The cold front and line of thunderstorms will pass south of the province by evening.
 Source: http://weather.gc.ca/warnings/index_e.html?prov=mb
- Environment Canada has issued a strong wind warning for Lake Manitoba, Lake Winnipeg, Lake Winnipegosis, and Lake of the Woods for today, tonight and tomorrow. 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 751.5 feet; the computed natural level is 752 feet. Flow in the Floodway channel is approximately 880 cfs. Flow upstream of the Floodway inlet is 26,210 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 15.9 feet James Avenue datum, with flows on the Red River at 43,150 cfs. The combined operation of the Portage Diversion, Shellmouth Dam and the Red River Floodway is providing a 5.6 foot reduction in water levels at James

Avenue. Water levels in Winnipeg will continue to decline and are forecasted to drop below 14 feet James by July 20, 2014.

Assiniboine River

- 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 have resulted in record high water levels, above 2011 levels, between Shellmouth Dam and St. Lazare. The Assiniboine River has crested and is dropping at St. Lazare, Miniota, Virden, Griswold, and Brandon.
- The Assiniboine River at Brandon crested at 9:00 am this morning; water levels were measured at 1,183.07 feet and a flow of 38,870 cfs. The top of the permanent flood protection dikes in Brandon are constructed based off 1,184.5 feet, measured at 1st Street.
- The water level on the Assiniboine River at Brandon crested approximately 0.07 ft above the forecasted level, but the metered flow was higher than what was forecasted. The Souris River has maintained high flows and was metered at approximately 13,000 cfs in Wawanesa this morning. The higher flows on the Assiniboine and Souris Rivers have resulted in an upwards revision to the forecast for the second crest on the lower Assiniboine River.
- The Assiniboine River inflow to the Portage Reservoir is now forecasted to reach its second crest at 52,000-53,000 cfs on July 14-15. These flows will be managed by diverting up to 35,000 cfs through the Portage Diversion for a short duration; flows on the lower Assiniboine River downstream of Portage will be maintained at 18,000 cfs until the second crest has passed.
- The water level on the Shellmouth Reservoir declined to 1,415.7 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 14,510 cfs today; outflows from the reservoir are approximately 15,330 cfs. Outflows include 1,120 cfs of conduit flow and 14,210 cfs of spillway flow. Shellmouth Dam inflow, reservoir level, and outflow have crested and are declining.
- The flow on the Qu'Appelle River at Welby this morning dropped to 9,320 cfs. The flow on the Assiniboine River near Russell decreased to 15,850 cfs.
- This morning, flow on the Assiniboine River upstream of the Portage Diversion decreased to approximately 47,600 cfs, flow on the Portage Diversion was 29,600 cfs and flow on the Assiniboine River downstream of the diversion was 18,000 cfs.
- The Portage Diversion, Assiniboine River dikes, and temporary flood protection measures downstream are holding up well, and their condition being monitored regularly. Crews are on call to respond to trouble spots.
- Residents in Winnipeg are advised that while the water level at James is declining, the Assiniboine River west of Route 90 is expected to rise to a level similar to the 2011 peak water level.

Souris River

- Oak Lake and the Plum Lakes are at high levels resulting in high flows on the Plum Creek, which flows into the Souris River at the Town of Souris. Flow on the Plum Creek this morning increased to 1,690 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 859.5 feet and the lake appears to be near crest; winds are affecting the water level on the lake and causing a lower reading at the gauge. 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 814.2 feet at the Steeprock gauge, while the water level at the Westbourne gauge was 814.3 feet. These water levels are affected by winds on the lake. 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 13,600 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 Lake St. Martin gauge is registering a real-time water level reading of 803.3 feet, winds are affecting the water level on the lake and causing a higher reading at the gauge. Flow through the Lake St. Martin Emergency Outlet Channel is estimated at 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 through the winter, thus allowing for higher outflows from Lake Manitoba. 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 716.1 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 10, 2014 the flow at Slave Falls was 92,140 cfs.
- Downstream, Manitoba Hydro's latest forecast from July 11, is that the lakes on the Winnipeg River could rise to peak by the following amounts by July 17, 2014:
 - Nutimik Lake is at 908.0 feet today, and is forecasted to increase by 0.2 feet.
 - Dorothy Lake is forecasted to increase by 0.15 feet.
 - Margaret/Eleanor Lake is forecasted to increase by 0.15 feet.
 - Sylvia Lake is forecasted to increase by 0.1 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 98,250 cfs on July 10, 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 Saskatchewan River at The Pas is near crest today at 70,020 cfs and a water level of 855.1 feet.
- The flow on the Carrot River at Turnberry is at 4,730 cfs, and the water level increased by 0.3 feet. The Carrot River near The Pas is at 856.7 feet today, and is near crest.
- Red Deer Lake was measured at 863.7 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 week.

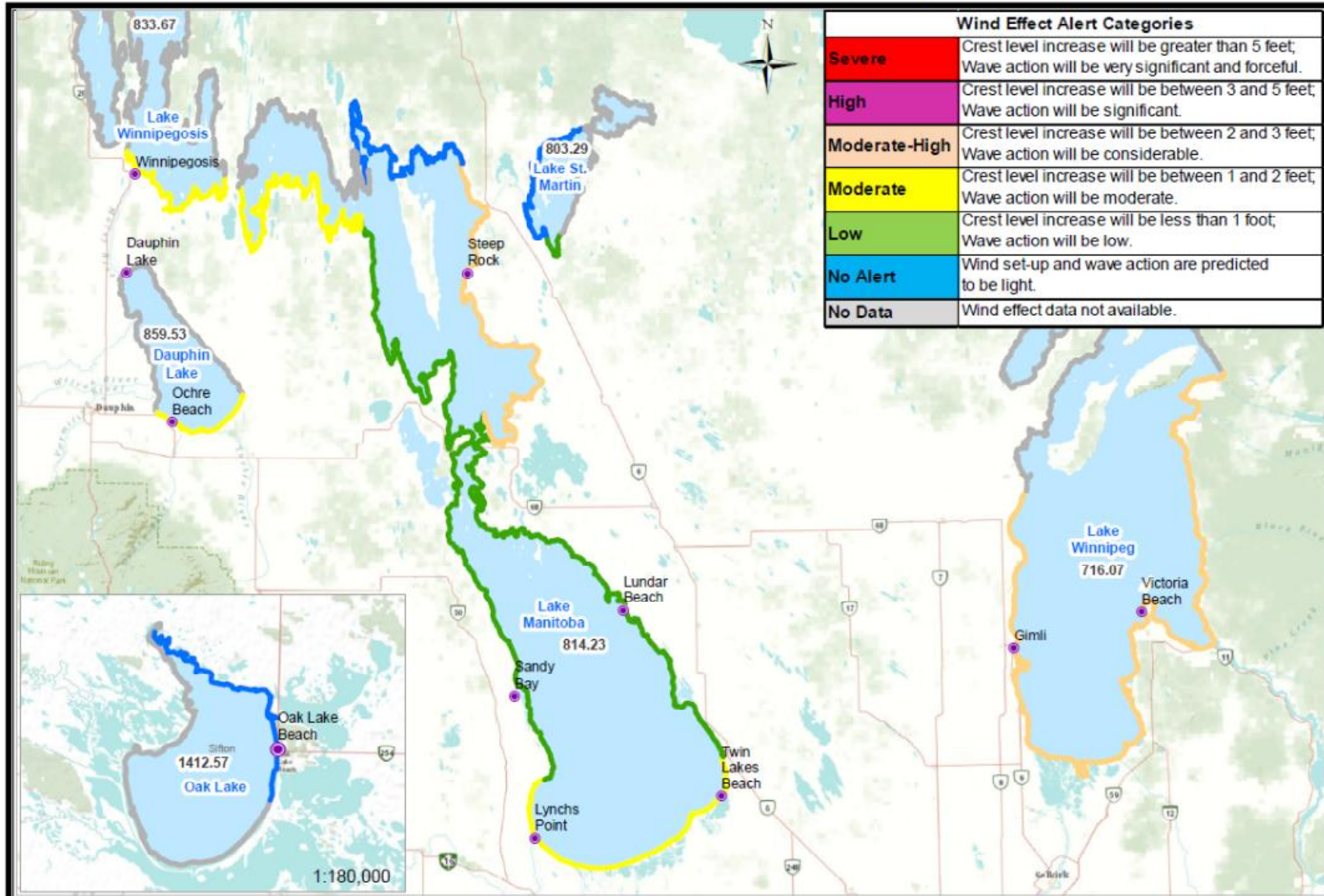
***Definitions**

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 12 PM, 2014

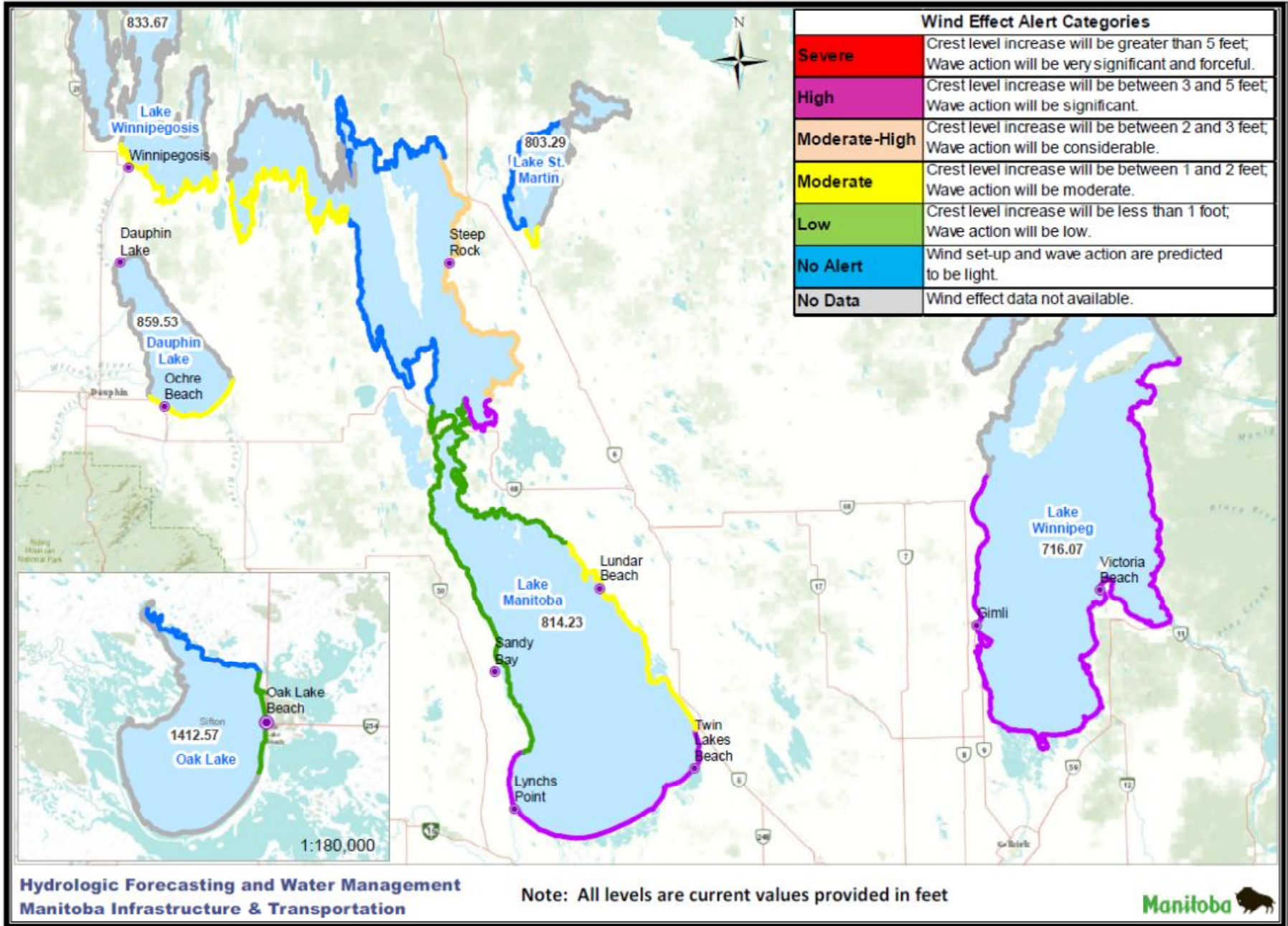


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Manitoba Infrastructure & Transportation

Note: All levels are current values provided in feet



Manitoba Lake Wind Effect Forecast for July 13 AM, 2014



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