Water Availability and Drought Conditions Report

MAY 2025

Executive Summary

- This Water Availability and Drought Conditions Report provides an update on conditions throughout Manitoba for May 2025.
- Precipitation conditions over the past month, three-month, and twelve-month periods are as follows:
  - During May 2025, most of Manitoba was severely to extremely dry. The southwest and northeast corners experienced normal to above normal precipitation conditions.
  - Over the past three months (March, April, May), most of Manitoba was severely to extremely dry. The very southwest and northeast corners experienced normal to above normal precipitation conditions.
  - Over the past 12 months, Manitoba observed moderately dry to mostly normal precipitation conditions, with small areas of severely dry or above normal precipitation conditions.
- As of May 31, 2025, water levels in rivers and lakes across Manitoba ranged from much below normal (<10th percentile) to normal (25th – 75th percentile). Below normal precipitation is leading to the onset of hydrological drought and some rivers and lakes have fallen below their normal range (10th – 25th percentile) for this time of year. Precipitation will be needed to prevent hydrological drought from further developing.
- The April 30, 2025 Canadian Drought Monitor assessment expanded the areas classified as abnormally dry (D0) to moderate drought (D1). Improvement was seen in the southwest and northeast areas that received above normal precipitation. Given the warm and dry conditions in May, continued degradation of the classification across central and eastern Manitoba is expected for the end of May assessment.
- There are currently no concerns over reservoir water supplies. Provincial water supply reservoirs are at or above full supply levels.
- Dugouts are in better condition than expected given the low levels of moisture, however, lower water levels for livestock availability are present in The Pas and Swan River areas. The warm dry weather has provided good seeding conditions for agricultural producers. However, precipitation is also needed to maintain or improve on-farm water supplies and to prevent agricultural drought impacts.
- Manitoba Agriculture's soil moisture map for May 25, 2025 shows moisture across southern Manitoba at the 0 - 120 cm depth is a mix of optimal to wet conditions, with pockets of dry or very wet conditions. Soil moisture in eastern Manitoba and the Swan River area decreased compared to the end of April.
- The Manitoba government declared a provincial state of emergency May 28, 2025 due to the severe wildfire situation. Over 17,000 residents and several communities remain at risk. The wildfires have also caused significant air quality issues across the province. As of May 31, Level 3 fire and travel restrictions were in place across much of the province including all provincial parks and all burn permit areas. Refer to the fire and travel restriction maps found at: www.gov.mb.ca/conservation_fire/Restrictions/index.html. Several municipalities continue to implement burning restrictions. Visit www.manitoba.ca/wildfire/burn_conditions.html to view current burning restrictions. As of June 1, 2025 the fire danger level is very high to extreme across most of the province. Manitobans and visitors are urged to exercise caution and comply with all posted restrictions to prevent wildfires.
- For further information on the Manitoba Wildfire Service, situation updates, restrictions and other important wildfire links, go to www.gov.mb.ca/wildfire or follow the Manitoba government on X (formerly Twitter) at https://twitter.com/mbgov.

Drought Indicators

Precipitation Indicator

Precipitation is assessed to determine the severity of meteorological dryness and is an indirect measurement of agricultural dryness.

Three precipitation indicators are calculated to represent short term (one month; Figure 1), medium term (three months; Figure 2) and long term (12 months; Figure 3) conditions. The indicators compare current monthly precipitation totals to historical data to calculate the per cent of median precipitation that occurred over the past one, three or twelve months. Historical medians are computed from 45 years of data (1971 – 2015).

Due to large distances between meteorological stations in northern Manitoba, the interpolated contours in this region are based on limited observations and should be interpreted with caution.

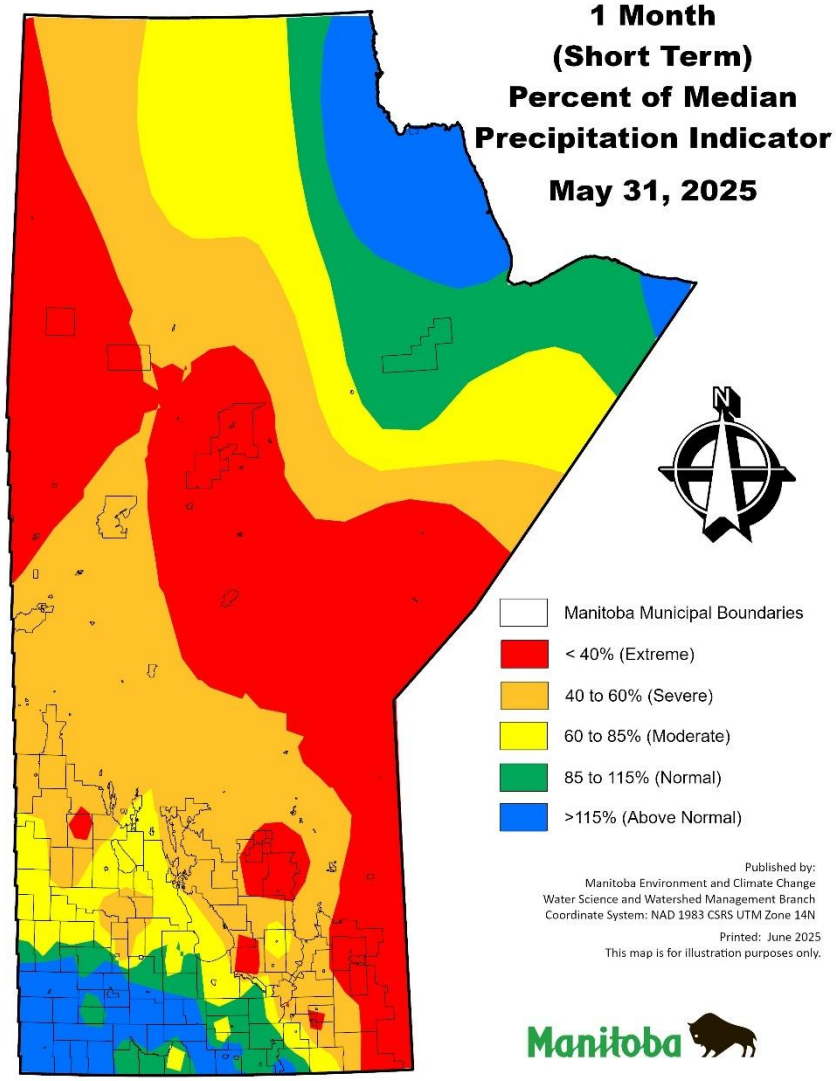

Figure 1: One month (short term) per cent of median precipitation indicator.

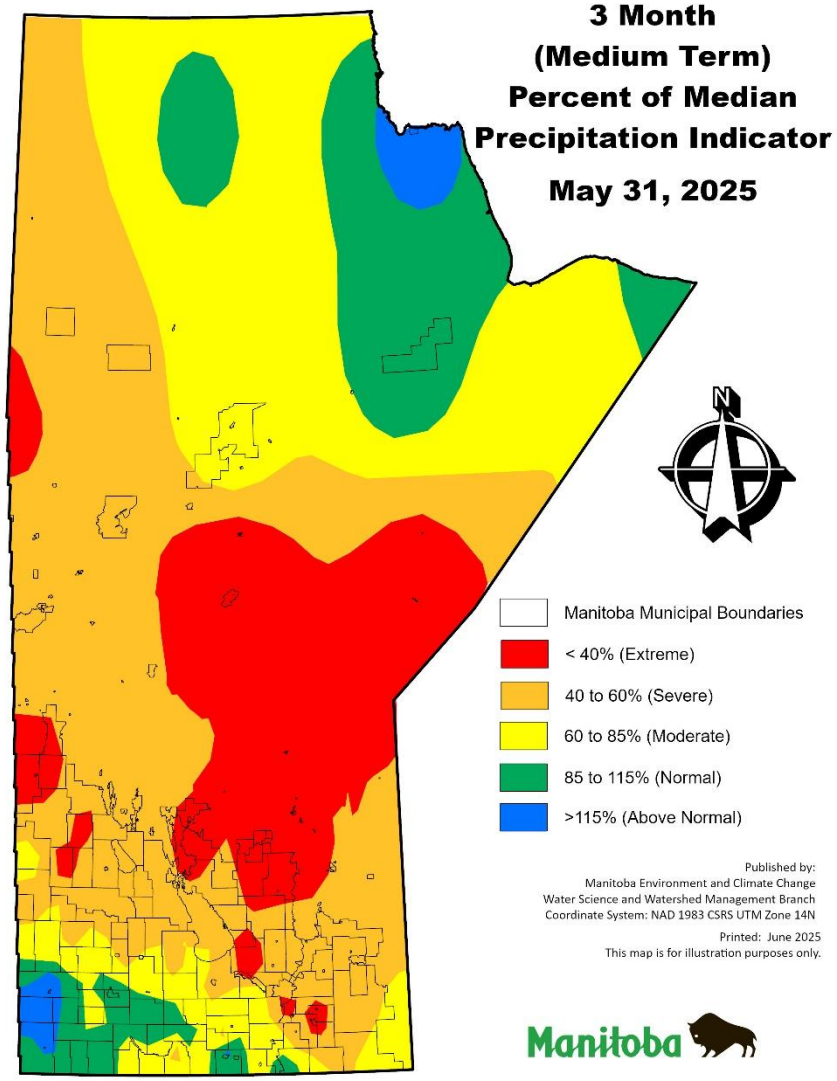

Figure 2: Three month (medium term) per cent of median precipitation indicator.

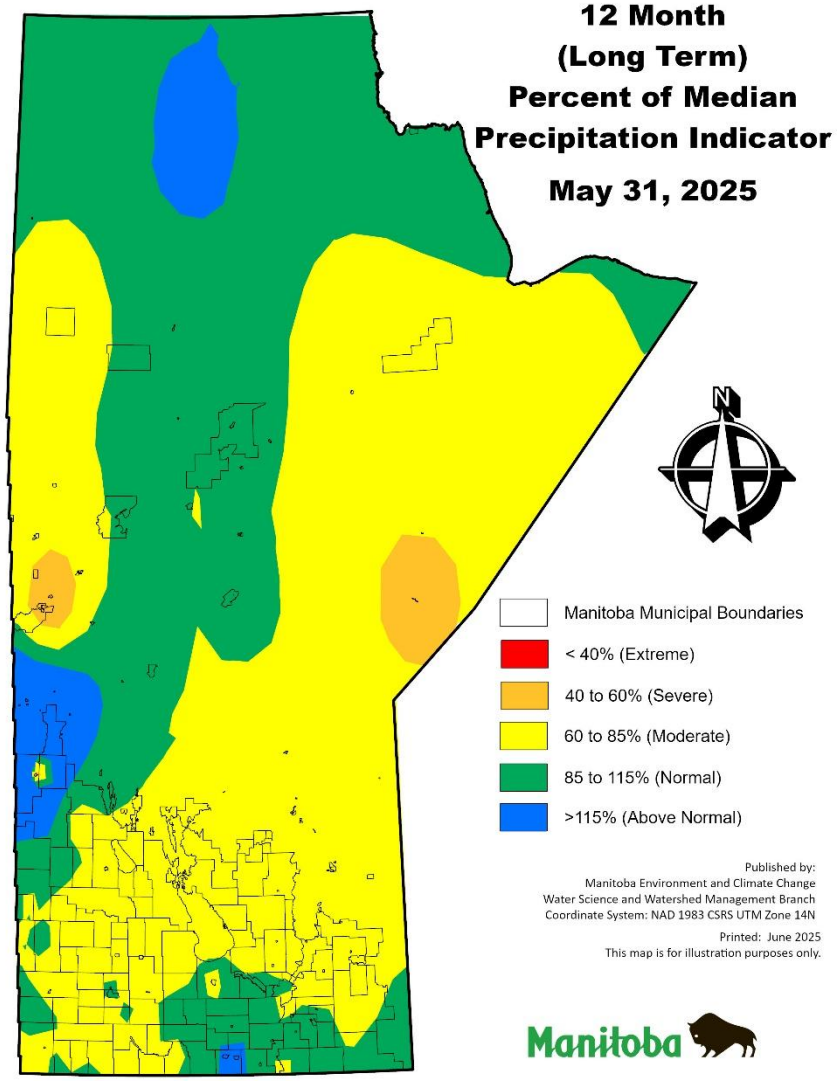

Figure 3: Twelve month (long term) per cent of median precipitation indicator.

Streamflow & Lake Level Indicator

The streamflow and lake level indicator is based on average daily flows and levels compared to historical values for that particular day.

This indicator is used to determine the severity of hydrological dryness in a watershed and is summarized on Figure 4, representing hydrological conditions for May 31, 2025.

Streamflow and lake level percentile plots for all of the rivers and lakes included on Figure 4 are available on the Manitoba Drought Monitor website under the *Drought Indicator Map* tab.

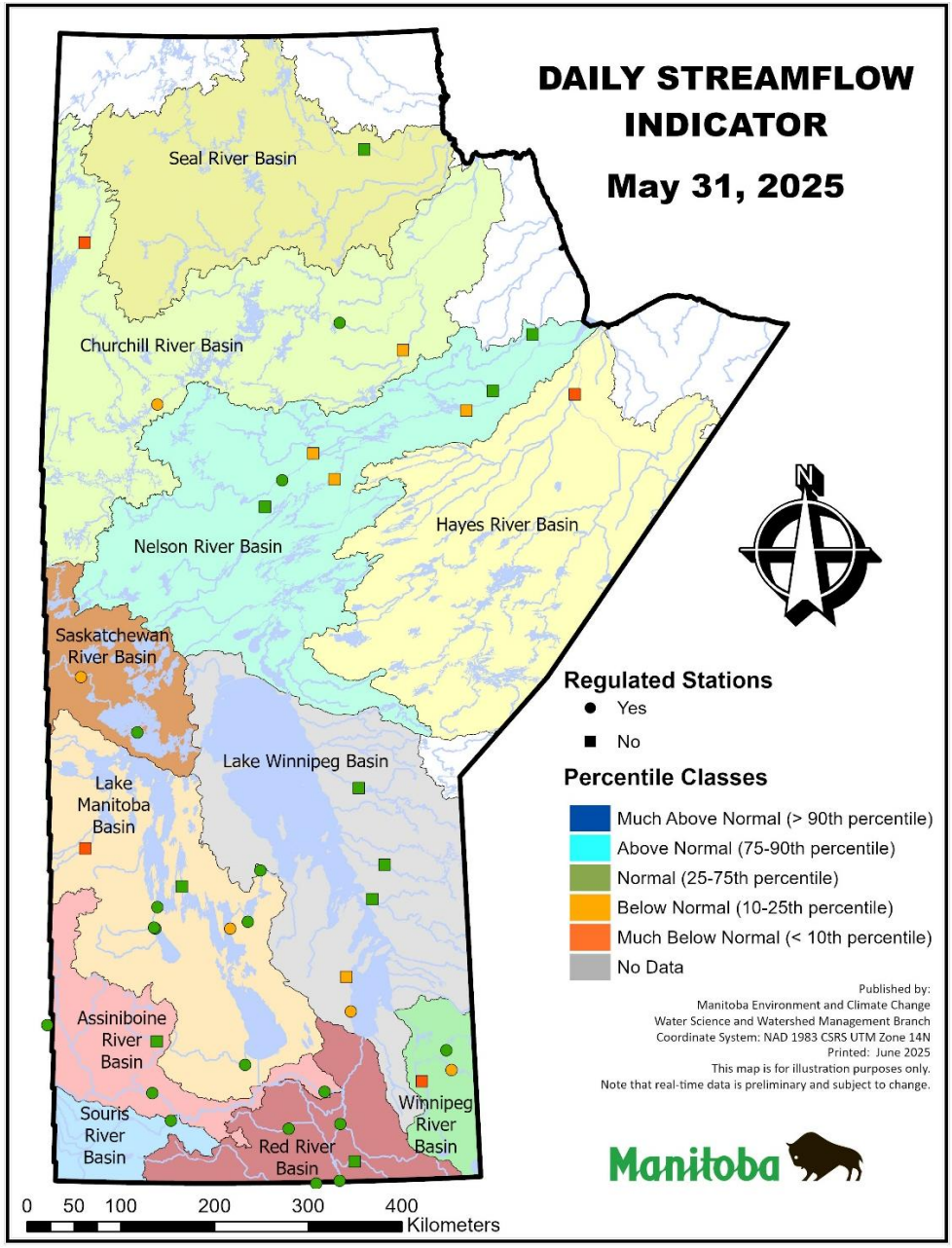

Figure 4: Daily streamflow and lake level indicator for May 31, 2025.

Canada and United States Drought Monitors

The Canadian Drought Monitor and the United States Drought Monitor map the extent and intensity of drought conditions across Canada and the continental U.S.A.

Drought Monitor assessments are based on a suite of drought indicators, impacts data and local reports as interpreted by federal, provincial/state and academic scientists.

The Canadian and United States Drought Monitor maps use the following classification system:

- D0 (Abnormally Dry) – represents an event that occurs every three to five years;
- D1 (Moderate Drought) – five to 10 year event;
- D2 (Severe Drought) – 10 to 20 year event;
- D3 (Extreme Drought) – 20 to 50 year event; and
- D4 (Exceptional Drought) – 50+ year event.

Additionally, the map indicates the duration of drought as either short-term (S; less than six months) or long-term (L; more than six months) (Figure 5).

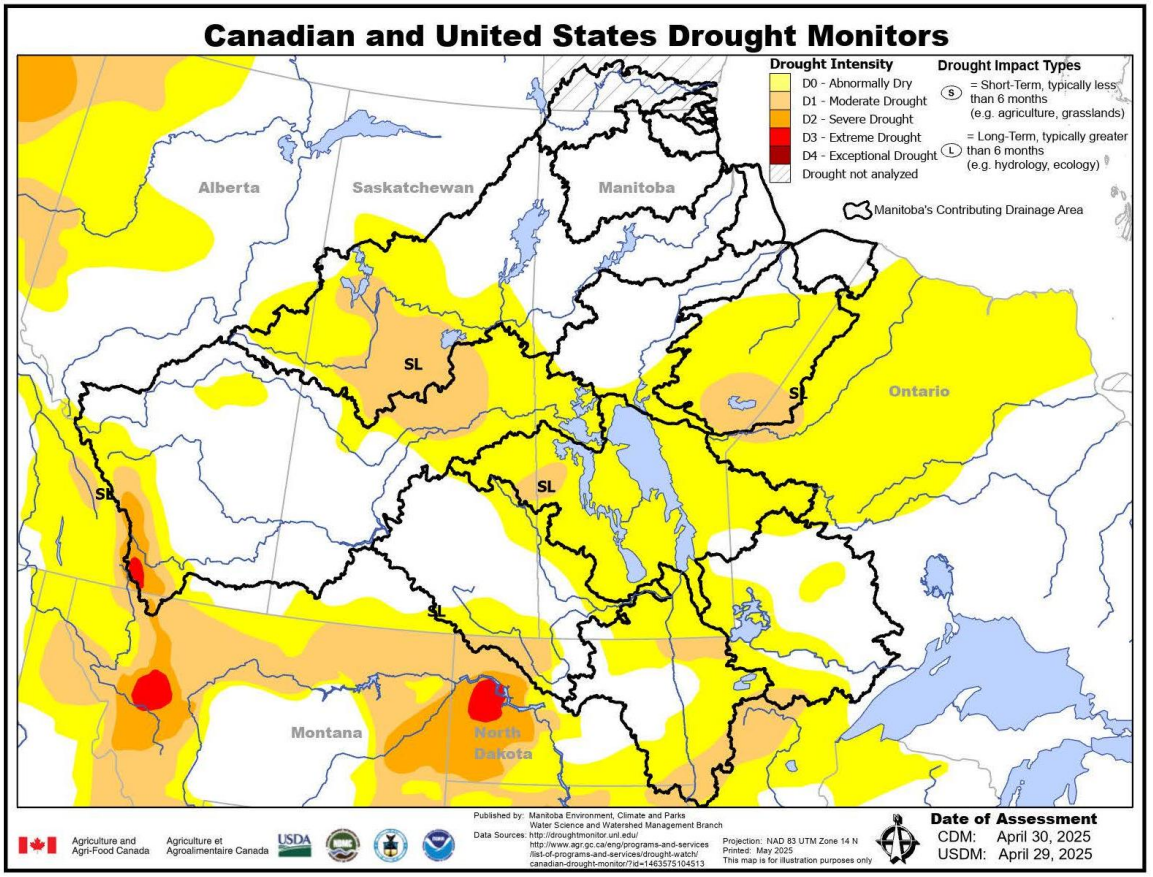

Figure 5: Canadian and United States Drought Monitors' classification of short-term (S) and long-term (L) drought conditions assessed as of April 30, 2025.

Water Availability

Reservoir Conditions

Table 1: Water Supply Reservoir Levels and Storages – May 31, 2025 (Southern and Western Manitoba).

Water Supply Reservoir Levels and Storages - May 31, 2025								
Lake or Reservoir	**Community Supplied**	**Target Level (feet)**	**Latest Observed Level (feet)**	**Observed date**	**Supply Status (Recent - Target) (feet)**	**Storage at Target Level (acre-feet)**	**Storage at Observed Level (acre-feet)**	**Supply Status (observed storage/target storage) (%)**
Lake of the Prairies (Shellmouth)*[1]	Brandon, Portage, Cartier Regional Water Co-op	1,402.5	1402.32	May 31, 2025	-0.18	300,000	297,834	99%
Lake Wahtopanah (Rivers)*	Rivers	1,536.0	1536.83	May 31, 2025	+0.83	24,500	26,371	108%
Minnewasta (Morden)*	Morden	1,082.0	1082.16	May 31, 2025	+0.16	3,150	3,174	101%
Stephenfield*	Carman, Pembina Valley Water Co-op	972.0	972.42	May 31, 2025	+0.42	3,810	4,009	105%
Vermilion*	Dauphin	1,274.0	1274.15	May 31, 2025	+0.15	2,600	2,635	101%
Goudney (Pilot Mound)*		1,482.0	1482.25	May 31, 2025	+0.25	450	463	103%
Jackson Lake*		1,174.0	1173.94	May 31, 2025	-0.06	2,990	2,976	100%
Manitou (Mary Jane)*		1,537.0	1537.00	May 31, 2025	-0.00	1,150	1,150	100%
Turtlehead (Deloraine)*	Deloraine	1,772.0	1771.29	May 31, 2025	-0.71	1,400	1,364	97%
Lake Irwin*		1,178.0	1178.52	May 31, 2025	+0.52	3,800	4,139	109%
Minnedosa*[1]		1,681.5	1682.08	May 31, 2025	+0.58	1,558	1,709	110%
Boissevain*	Boissevain	1,697.0	1698.59	May 31, 2025	+1.59	505	638	126%
Elgin*		1,532.0	1532.04	May 31, 2025	+0.04	520	523	101%
St. Malo*		840.0	840.40	May 31, 2025	+0.40	1,770	1,836	104%
Kenton Reservoir		1,448.0	1447.94	May 31, 2025	-0.06	600	596	99%
Killarney Lake		1,615.0	1615.58	May 31, 2025	+0.58	7,360	7,629	104%

[1] Summer target level and storage
* Real-time water level gauge

On-Farm Water Supply

On-farm water supply updates from Manitoba Agriculture's Crop Report Issue 5 (May 27, 2025) are as follows:

- Dugouts are in better condition than expected given the low levels of moisture, however lower water levels for livestock availability are present at The Pas and Swan River.

Soil Moisture

A regional representation of soil moisture conditions for the top 120 cm relative to the field capacity is shown on Figure 6.

The colours on the map represent measured soil moisture values from automated instruments at sites across Manitoba. Qualitative range (very dry to very wet) is based on the amount of current soil moisture relative to field capacity. Field Capacity is defined as the maximum amount of moisture the soil can hold when drainage due to gravity stops.

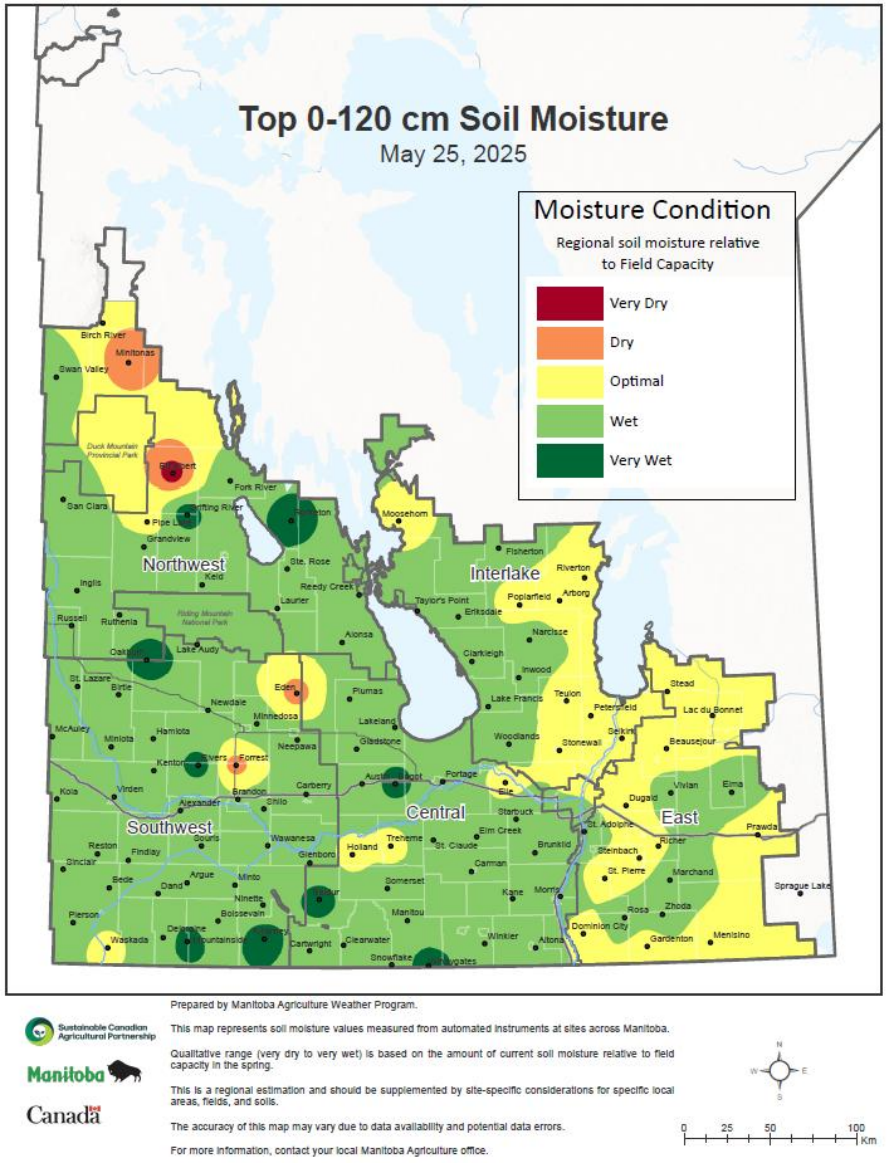

Figure 6: Manitoba Agriculture's May 25, 2025 mapping of soil moisture conditions in the top 0 – 120 cm.

Wildfires

Manitoba is experiencing a severe wildfire situation. The Manitoba government declared a provincial state of emergency May 28, 2025 under the Emergency Measures Act due to rapidly spreading wildfires and extreme fire conditions. Over 17,000 residents and several communities remain at risk. The wildfires have also caused significant air quality issues across the province.

As of May 31, Level 3 fire and travel restrictions were in place across much of the province including all provincial parks and all burn permit areas. Refer to the fire and travel restriction maps found at: www.gov.mb.ca/conservation_fire/Restrictions/index.html. Several municipalities continue to implement burning restrictions. Visit www.manitoba.ca/wildfire/burn_conditions.html to view current burning restrictions. As of June 1, 2025 the fire danger level produced by Natural Resources Canada is very high to extreme across most of the province (Figure 7). Manitobans and visitors are urged to exercise caution and comply with all posted restrictions to prevent wildfires.

For further information on the Manitoba Wildfire Service, situation updates, restrictions and other important wildfire links, go to www.gov.mb.ca/wildfire or follow the Manitoba government on X (formerly Twitter) at https://twitter.com/mbgov.

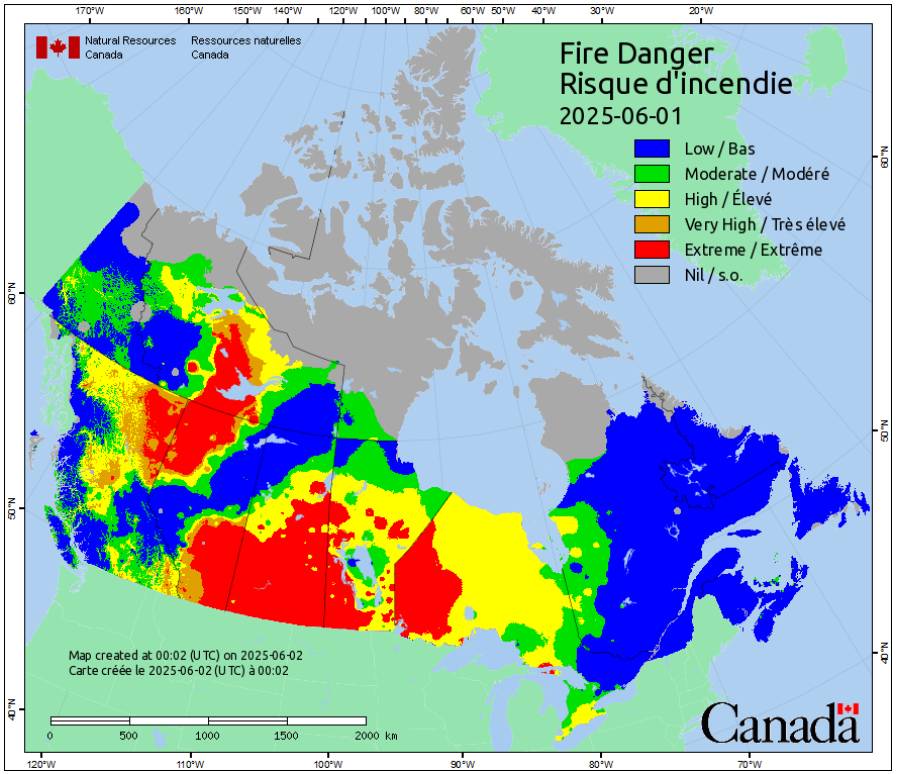

Figure 7: Fire Danger mapping by Natural Resources Canada.

Impacts due to Dry Conditions

The most significant impact due to meteorological drought conditions is severe wildfire risk and active fires and across much of Manitoba. Wildfire risk will remain high until relieved by precipitation.

Below normal precipitation is leading to the onset of hydrological drought and some rivers and lakes have fallen below their normal range for this time of year. Precipitation will be needed to prevent hydrological drought from further developing.

The warm dry weather has provided good seeding conditions for agricultural producers. However, precipitation is also needed to maintain or improve on-farm water supplies and to prevent agricultural drought impacts.

Past reports, drought mapping and other information and resources are available on the Manitoba Drought Monitor website.

For further information, please contact:

Mark Lee, P.Eng.
Manager, Surface Water Management Section,
Water Science and Watershed Management Branch,
Manitoba Environment and Climate Change
Box 14, 14 Fultz Blvd., Winnipeg, Manitoba, R3Y 0L6
Ph. (204) 391-1623
E-mail: Mark.Lee@gov.mb.ca

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Manitoba Transportation and Infrastructure:
Reservoir level information:
https://www.gov.mb.ca/mit/floodinfo/index.html

Manitoba Wildfire Service:
https://www.gov.mb.ca/sd/fire/

Manitoba Agriculture:
Crop Reports:
http://www.gov.mb.ca/agriculture/crops/seasonal-reports/crop-report-archive/index.html
Topsoil moisture conditions:
https://www.gov.mb.ca/agriculture/weather/weather-conditions-and-reports.html

Environment and Climate Change Canada:
Flow and lake level information:
http://www.wateroffice.ec.gc.ca/index_e.html

Agriculture and Agri-Food Canada:
Canadian Drought Monitor:
https://agriculture.canada.ca/en/agriculture-and-environment/drought-watch-and-agroclimate/canadian-drought-monitor

United States Drought Monitor:
https://droughtmonitor.unl.edu/