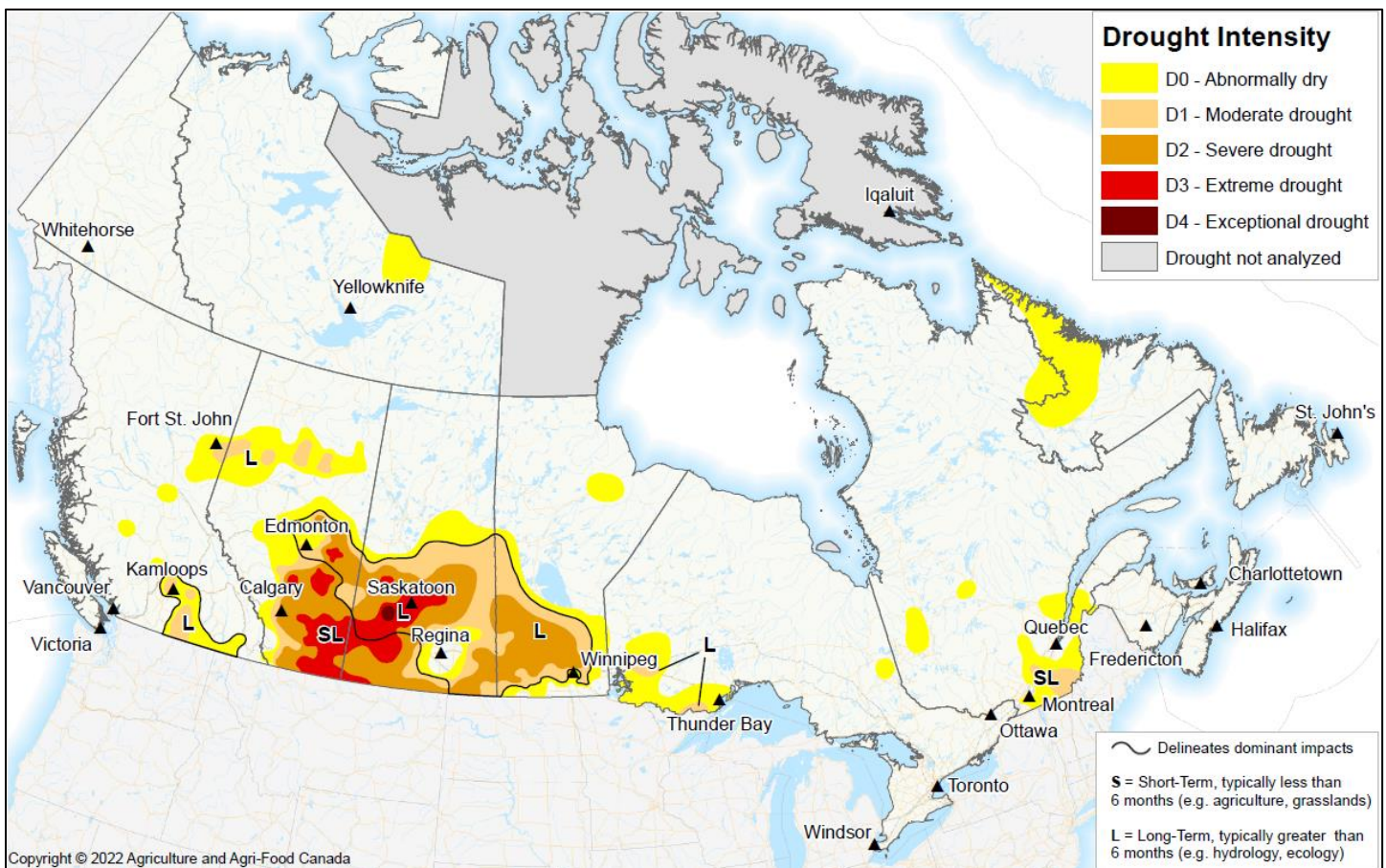


# Canadian Drought Monitor

Conditions as of February 28, 2022



As La Niña conditions persisted in February, above-normal precipitation led to significant improvement to drought conditions across much of the country by the end of the month. Temperatures were above-normal along the coasts, but more than 5 degrees colder in parts of the interior of the country. The Pacific Region received near- to slightly below-normal precipitation, but due to significant rainfall in the last 6 to 12 months, there are no concerns in the low precipitation regions. Small improvements were made to the drought in higher precipitation areas including the southeast and central regions of the province. The Prairie Region continued to have the most significant drought in the country, but above-normal precipitation helped to improve long-term moisture conditions across most of the region. The most significant improvements were in the northern agricultural regions of Alberta and



Saskatchewan as well as southern Manitoba. In contrast, southern Alberta continued to see a lack of precipitation; this, coupled with lingering long-term deficits led to a small expansion of Severe Drought (D3) in this area. Central Canada received near- to above-normal precipitation in February, resulting in the region remaining drought free with the exception of a small area of southeastern Quebec. With above-normal precipitation, small improvements were made: Moderate Drought (D1) and Abnormally Dry (D0) pockets were reduced. Changes to drought across Atlantic and Northern Canada were minimal given continued significant precipitation across both regions.

At the end of the month, sixteen percent of the country was classified as Abnormally Dry (D0) or in Moderate to Exceptional Drought (D1 to D4), including sixty-five percent of the country's agricultural landscape.

## **Pacific Region (BC)**

Despite below-normal precipitation for much of British Columbia in February, drought conditions remained relatively unchanged. Although below-normal precipitation fell in coastal regions, this area continued to have a significant moisture surplus from fall precipitation. Abnormally Dry (D0) conditions and Moderate Drought (D1) persisted in the southern Interior, including Kamloops, Salmon Arm, Kelowna and Penticton, as long-term precipitation deficits remained. However, these conditions have improved due to significant moisture in the last 6 months; these changes include reductions of Moderate Drought (D1) and Abnormally Dry (D0) conditions. Moderate Drought (D1) and Abnormally Dry (D0) conditions also improved across central B.C. as up to 115 to 150 percent of normal precipitation fell in the last 3 months. Moderate Drought (D1) was alleviated in northeastern BC due to above-normal precipitation in the past 90 days.

At the end of the month, eight percent of the Pacific region was considered Abnormally Dry (D0) or in Moderate Drought (D1), including thirty-six percent of the region's agricultural landscape.

## **Prairie Region (AB, SK, MB)**

Although February is historically the driest month of the year across the Prairies, precipitation trended above-normal this month across most of the region. Numerous precipitation events tracked across northern Alberta and southern Saskatchewan and Manitoba, resulting in up to 200 percent of normal precipitation in the last 28 days. High February precipitation along with

above normal precipitation from previous months has resulted in substantial snow cover and therefore significant improvement to drought conditions. Although much of central Saskatchewan and Alberta were some of the driest areas before winter freeze-up, indices and models show significant improvements in moisture levels in these areas throughout the winter. In the last 6 months, central parts of the Prairies that were once considered to have had Moderately Low to Exceptionally Low precipitation are now showing Near Normal to Below Normal moisture levels. These vast improvements from above-normal winter precipitation led to widespread reductions to drought from Edmonton to Saskatoon, stretching towards Winnipeg. A significant portion of the Extreme Drought (D3) across the region was reduced, along with all but one pocket of Exceptional Drought (D4) near Rosetown, Saskatchewan. The remaining categories of Drought (D2 and D1) were also reduced in February. Although southern Manitoba was one of the hardest hit regions in the 2021 growing season, significant improvement took place in the last 6 months. While long-term deficits from the past 1 to 2 years still remain, the severity of these impacts has reduced significantly with the much-needed winter moisture. In the last 365 days, much of southern Manitoba was only considered to have Below Normal moisture.

Contrary to the significant precipitation across most of the Prairies, southern Alberta remained dry. This area had a significant lack of snow cover for most of February as well as limited precipitation: only 40 to 60 percent of normal precipitation fell in the last two months. Although a lack of snow cover isn't uncommon in this area throughout the winter, this, coupled with the lack of moisture, led to a developing concern of dry conditions in the area. As a result, Extreme Drought (D3) was slightly expanded towards Lethbridge and will be monitored in the upcoming months for any further degradation.

It is important to note that although much of the Prairie region received ample precipitation throughout the winter, there is still concern for moisture levels going into the 2022 growing season. Because the 2021 summer drought was so severe, water supplies were depleted, leading to low reservoirs and an impact to irrigation. Without significant runoff in the 2022 spring melt, the Prairies remain vulnerable to further water supply concerns going into the growing season.

At the end of the month, forty-five percent of the Prairie Region was classified as Abnormally Dry (D0) or in Moderate to Exceptional Drought (D1 to D4), including ninety percent of the region's agricultural landscape.

## **Central Region (ON, QC)**

Most of the Central Canada received normal to above normal precipitation in February, with some areas reporting Exceptionally High precipitation. Good winter precipitation has resulted in no new Abnormally Dry (D0) or drought regions forming, and helped to improve the small regions that remained as either Abnormally Dry (D0) or in Moderate Drought (D1). Two small regions remained in drought as a result of longer term deficits: the northwest region of Ontario adjacent to the Manitoba border and a small area in southern Quebec. Long-term precipitation indicators as well as some hydrometric indicators show deficits in portions of northwestern Ontario. Moisture received this winter has not been enough to make up the significant deficits from the Severe Drought (D2) conditions of last summer. Pockets of Moderate Drought (D1) remained in Dryden and southwest of Thunder Bay. Abnormally Dry (D0) and Moderate Drought (D1) conditions improved along the southeastern border of Quebec as precipitation in February was reported at 115 to 150 percent of normal. Long-term precipitation deficits in this region continued, however, resulting in small pockets of Moderate Drought (D1) east of Montreal towards Sherbrooke and the Trois-Rivieres region.

At the end of the month, seven percent of the Central Region was classified as Abnormally Dry (D0) or in Moderate Drought (D1), including twenty-two percent of the region's agricultural landscape.

## **Atlantic Region (NS, NB, PE, NL)**

Above-normal precipitation throughout February alleviated the one small pocket of Abnormally Dry (D0) conditions in the Fredericton area. In fact, moisture levels across nearly all of the Atlantic Region remained well above-normal in the last 6 months. In the last two months alone, nearly all of Nova Scotia and Newfoundland received between 150 to 200 percent of normal precipitation. This substantial precipitation has resulted in no drought throughout much of the region. However, Abnormally Dry (D0) conditions emerged throughout northern portions of Labrador as slightly below-normal precipitation fell in the last 2 to 3 months.

For February, only seventeen percent of the Atlantic Region was classified as Abnormally Dry (D0). None of the agricultural landscape had drought or Abnormally Dry (D0) conditions this month.

## **Northern Region (YT, NT)**

Excellent streamflow and well above-normal precipitation during February resulted in the Northern Region remaining drought free. Much of the Northwest Territories received precipitation of 45 to 70 mm above-normal since January 1. In the southern Yukon, 115 to 150 percent of normal precipitation was received improving moisture conditions throughout the region. Abnormally dry (D0) conditions emerged northeast of Yellowknife as below-normal precipitation was received during the last 3 months. Temperatures were near-normal to warmer than normal in Yukon, however it was 5 degrees colder than normal in the eastern half of Northwest Territories.

Only two percent of the Northern Region was classified as Abnormally Dry (D0).