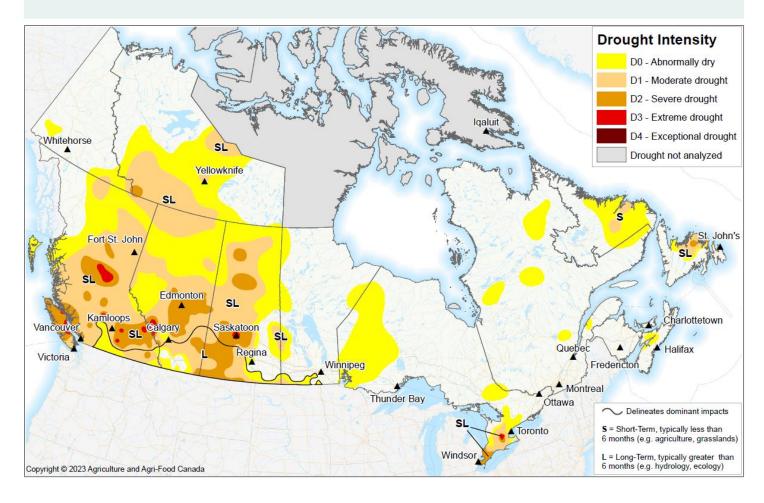
# **Canadian Drought Monitor**

Conditions as of December 31, 2022



Drought conditions continued to improve in most regions across the county in December. Above-normal precipitation in south central British Columbia and the western Prairies resulted in improved conditions. Below-normal precipitation fell across parts of coastal and northern British Columbia, western Alberta, southern Manitoba, southern Ontario and Nova Scotia; as such, many of these areas saw slightly worsening drought conditions. Northern Alberta and eastern regions of Quebec and New Brunswick received higher than normal precipitation. Despite near-normal precipitation in most regions this month, the precipitation received was not sufficient to make a significant impact on drought conditions. However, drought conditions improved slightly in Interior British Columbia, western Alberta and central Saskatchewan, with Severe (D2) and Extreme (D3) areas receding due to improved moisture levels. Drought

conditions also improved around the Ottawa area and the Gaspé region of Quebec but small areas of Severe (D2) and Extreme (D3) drought remained in southern portions of Ontario. Temperatures continued to be much colder than normal across Western Canada this month, while Eastern Canada experienced slightly above-normal temperatures.

At the end of the month, forty-two percent of the country was classified as Abnormally Dry (D0) or in Moderate to Extreme Drought (D1 to D3), including sixty-four percent of the country's agricultural landscape. There was no Exceptional Drought (D4) reported this month.

#### Pacific Region (BC)

Despite some significant precipitation and storm activity late December, coastal areas of British Columbia continued to see below-normal precipitation. However, the southern Interior received above-normal precipitation amounts, slightly improving lingering drought conditions.

Moisture deficits across coastal areas of the province continued to grow through December despite some significant storm activity. Many coastal communities received less than half of their average December precipitation. For example, Tofino, on Vancouver Island, received only 43 percent of normal precipitation for December. Prince Rupert also reported significantly lower precipitation amounts this month as 120 mm fell compared to the average 294 mm, which represents 44 percent of normal precipitation. In comparison, a sizable portion of the south central and eastern regions of the province, including Princeton, Summerland, Revelstoke and Cranbrook, received well above-average December precipitation. As a result of this recent precipitation, drought conditions improved slightly across southern regions of Vancouver Island, the lower Mainland, south-central parts of the Interior and southeastern portions of the province.

At the end of the month, eighty-seven percent of the Pacific Region was considered Abnormally Dry (D0) or in Moderate to Extreme Drought (D1 to D3), including nearly one hundred percent of the region's agricultural landscape.

## Prairie Region (AB, SK, MB)

Above-normal precipitation fell across much of the western Prairie Region this month, with southern Manitoba and the Alberta foothills receiving amounts slightly below normal. The monthly precipitation did little to affect the current drought situation to any significant extent as long-term precipitation deficits remained across most of the region. Changes this month

included the removal of Extreme Drought (D3) across Alberta and southern Saskatchewan as well as a reduction to portions of Severe Drought (D2).

Northern areas of the Prairies continued to see below-normal precipitation this month. These deficits continued to grow over the last 6 months, which roughly equate to 50 to 75 percent below-normal precipitation since July. As a result, two pockets of Severe Drought (D2) were placed in northern Saskatchewan.

As 2022 ended, many areas across the Prairie Region reported a fairly dry year. La Ronge, Saskatoon and Red Deer all reported in their top 10 driest years, while Key Lake, Saskatchewan and Banff, Alberta both reported their driest years on record. However, in contrast, Winnipeg received 150 percent of its normal annual amount, making it the wettest year on record. At the end of the month, sixty-nine percent of the Prairie Region was classified as Abnormally Dry (D0) or in Moderate to Extreme Drought (D1 to D3), including seventy-seven percent of the region's agricultural landscape.

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

Above-normal precipitation was reported across nearly the entire Central Region this month, with the exception of Southern Ontario and small portions of northern Ontario and Quebec. While the shorter-term precipitation helped to alleviate drought concerns in central parts of Ontario, long-term precipitation deficits remained in southern parts of the province. Moderately low precipitation amounts were reported around Windsor and Chatham-Kent since July, while exceptionally low precipitation amounts persisted around Kitchener-Waterloo over the same time period. These extremely low levels of precipitation led to ongoing Severe and Extreme Drought (D2 and D3) to persist in these areas, in addition to a larger pocket of Moderate Drought (D1) across much of southern Ontario.

In contrast, moisture levels across much of central Ontario and southern Quebec improved in December. Abnormally Dry (D0) and Moderate Drought (D1) conditions around Ottawa were removed as very high precipitation amounts fell this month. Additionally, conditions on the Gaspé Peninsula also improved as Moderate Drought (D1) was no longer warranted and as such, was removed.

At the end of the month, sixteen percent of the Central Region was classified as Abnormally Dry (D0) or in Moderate to Extreme Drought (D1 to D3), including twenty-five percent of the region's agricultural landscape.

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

December precipitation across the Atlantic Region was variable, with slightly drier than normal precipitation across parts of Nova Scotia and Newfoundland and Labrador, and above-normal precipitation in New Brunswick; this trend has persisted for the past 3 to 6 months. Much of New Brunswick reported moderately high to extremely high precipitation amounts since July. However, the northeastern corner of Newfoundland continued to report very low precipitation in the same timeframe, which led to Severe Drought (D2) persisting through December. The Atlantic Region saw higher than average temperatures in December, with the warmest temperatures in northwestern New Brunswick.

Limited drought changes were made in Atlantic Canada this month. Moderate Drought (D1) and Abnormally Dry (D0) conditions were pulled away from western Newfoundland and Severe Drought (D2) was slightly reduced along the northeastern corner of the island. The southern half of Labrador reported 3-month precipitation deficits of 50 to 75 percent below normal, which led to the formation of two small Moderate Drought (D1) pockets and a small expansion to Abnormally Dry (D0) conditions.

At the end of the month, twenty-nine percent of the Atlantic Region was classified as Abnormally Dry (D0) or in Moderate to Severe Drought (D1 to D2), including fifteen percent of the region's agricultural landscape.

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

Drought in Northern Canada remained fairly stable in December, with limited changes occurring. Above-normal precipitation fell across much of the region this month, but overall precipitation deficits did not change significantly. In the Yukon, Dawson reported 192 percent of normal precipitation since September 1<sup>st</sup>, while Watson Lake reported much drier conditions at 50 percent of normal. Both Mayo and Dawson received above-average precipitation this month, seeing roughly 150 percent and 200 percent of normal precipitation, respectively. In contrast, Old Crow received less than 70 percent of normal precipitation; however, this only accounts to a difference of 6 mm of precipitation. Much of the region saw near-normal temperatures this month, with southern areas reporting slightly colder than normal conditions while northern parts of the Yukon and Northwest Territories experienced temperatures as high as 4 to 5 degrees warmer than normal.

