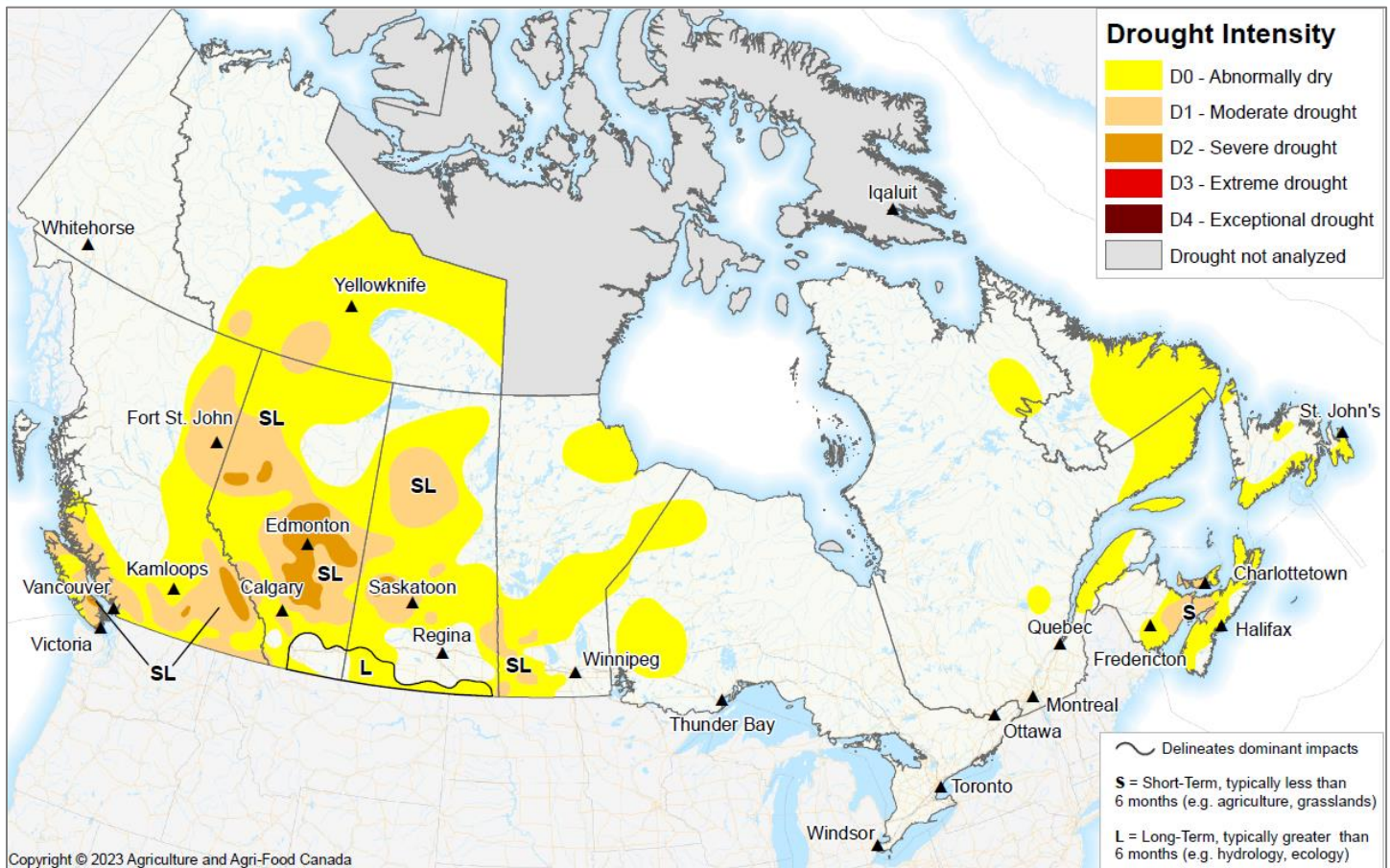


Canadian Drought Monitor

Conditions as of April 30, 2023



As we began to shift into spring, conditions across Canada were significantly variable in April. Exceptionally high precipitation was reported across the Central Region of Canada with large portions of Ontario and southern Quebec reporting more between 100 to 150 mm. Short-term dryness continued in Atlantic Canada with monthly precipitation deficits of more than 60 mm and 3-month deficits now over 100 mm for much of the region. Precipitation deficits persisted in parts of the Prairies, especially northern agricultural areas of Alberta and Saskatchewan. Both long-term and short-term precipitation deficits have led to continued drought impacts despite recent snowmelt. In British Columbia, a number of atmospheric rivers brought substantial rainfall to the coastal regions improving drought conditions, however Moderate Drought (D1)



continued across much of the southern portion of the province due to both short-term and long-term precipitation deficits and related impacts.

At the end of the month, 34% of the country was classified as Abnormally Dry (D0) or in Moderate to Severe Drought (D1 to D2), including 61% of the country's agricultural landscape. There was no Extreme or Exceptional Drought (D3 or D4) reported this month.

Pacific Region (BC)

Temperatures in the Pacific Region were average to slightly below-average through much of April. At the end of the month, a high-pressure ridge developed and set daily maximum temperature records for this time of year. The unseasonably warm temperatures at the end of the month resulted in rapid snowmelt and increased stream flow in many regions.

In direct contrast to March, where precipitation was well below-normal in most regions of the province, April precipitation was above to well above-normal. Abnormally high precipitation accumulations on Vancouver Island and along coastal British Columbia resulted in continued improvement of drought conditions. This region saw a substantial reduction in Moderate Drought (D1) along northern and central coastal areas as well as limited improvement on Vancouver Island. Southern and central interior parts of the province received slightly below-normal precipitation in April, however snowmelt continued to provide good stream flow resulting in minimal change to drought conditions. As of May 1st, provincial snowpack was near-normal at 97% of average; approximately 8.5% of the snowpack melted, more than double the normal of 4% by May 1st. Overall, the majority of southern British Columbia remained in Moderate Drought (D1), with a few small pockets of Severe Drought (D2). These drought conditions represent both long-term (greater than 6 months) and short-term precipitation deficits. However, Severe (D2) and Moderate Drought (D1) conditions continued to improve.

At the end of the month, 48% of the Pacific Region was considered Abnormally Dry (D0) or in Moderate to Severe Drought (D1 to D2), including 75% of the region's agricultural landscape.

Prairie Region (AB, SK, MB)

A couple of snowstorms passed through southeastern portions of the Prairies this month, one of which led to significant snowfall amounts upwards of 45 cm or more in select locations. However, remaining areas of the Prairies saw less precipitation than normal for April, with some areas reporting an expansion of Moderate (D1) and Severe Drought (D2). Temperatures

across central and eastern parts of the Prairie region continued to be significantly below normal, leading to delays in snowmelt.

Dry conditions persisted across much of Alberta for the month of April, continuing a dry pattern from the past nine months. Going into the winter, a number of areas across Alberta reported soil moisture reserves dropping to 1-in-50 year lows. Despite cold temperatures delaying snow melt into April and providing much needed moisture to southern Alberta, this area received less than 60% of normal precipitation this month. A stretch from Calgary to Edmonton received the least amount of precipitation this month, reporting less than 40% of average precipitation. Producers reported the need to haul and pump water in these areas this month, expressing concerns for a lack of soil moisture and groundwater reserves. The Edmonton area also reported several grassfires at the end of the month, likely due in part to the delay in vegetation greening up. Given these ongoing concerns and a distinct lack of spring moisture as of the end of April, a large area of Severe Drought (D2) remained across much of Alberta, with some portions stretching further east towards Lloydminster and further south towards Calgary and the Special Areas. Moderate Drought (D1) was also expanded northwestward into the Peace Region of Alberta due to below-normal precipitation in both the short- and long-term as well as low soil moisture reserves.

A couple of late spring snow events brought moisture to southern and southeastern parts of Saskatchewan this month. Weyburn reported an unofficial snowfall record of more than 60 cm of snow from one of these storm systems. Overall, much of southern Saskatchewan reported more than 150% of normal precipitation this month. Mid-month high temperatures finally allowed snowmelt to occur across much of the province, with southwestern parts of the province reporting localized overland flooding. However, despite the significant but short-term flooding, there was concern of how much moisture got into the soil due to the quick snowmelt. There was limited soil moisture reported across much of western Saskatchewan with the dry fall and spring seasons, leading to continued concern for pasture recovery; above-normal precipitation will be needed to replenish ground moisture. While drought and Abnormally Dry (D0) conditions improved across southern Saskatchewan this month, small pockets of Moderate (D1) and Severe Drought (D2) persisted in western and central parts of the province. Conditions in northern parts of Saskatchewan remained relatively unchanged this month as longer-term precipitation deficits persisted.

Despite receiving moisture from April snow events, parts of southern Manitoba continued to report below-normal precipitation this month, though less than previously reported in March and February. As a result, Moderate Drought (D1) was minorly improved across southwestern Manitoba. Flood concerns around the Red River basin developed this month as snowmelt

began across southern Manitoba and neighbouring North Dakota. Due to this and the improved monthly precipitation, Abnormally Dry (D0) conditions were reduced in the southeastern corner of the province, including the area surrounding Winnipeg.

At the end of the month, 65% of the Prairie Region was classified as Abnormally Dry (D0) or in Moderate to Severe Drought (D1 to D2), including 78% of the region's agricultural landscape.

Central Region (ON, QC)

The month of April brought variable weather to Central regions of the country including a significant ice storm, mid-month high temperatures, and a late month system bringing snow to the region. Overall conditions continued to improve the drought situation in southern Ontario as the area reported near- to above-normal precipitation this month. Longer-term concerns have nearly diminished entirely as significant short-term moisture helped to alleviate long-term deficits. All remaining Abnormally Dry (D0) and Moderate Drought (D1) pockets were removed from southern Ontario as a result. Moderate Drought (D1) was also removed in northwestern Ontario due to above-normal April precipitation. In contrast, parts of eastern Quebec including the Gaspé Peninsula saw an expansion of Abnormally Dry (D0) conditions due to precipitation deficits from the last three months; this area reported between 25-50% of their normal 3-month precipitation amount.

At the end of the month, 10% of the Central Region was classified as Abnormally Dry (D0), including 7% of the region's agricultural landscape. There was no drought reported in Central Canada this month.

Atlantic Region (NS, NB, PE, NL)

Conditions across large parts of the Atlantic Region remained significantly dry this month, continuing the pattern of dryness since February. Southeastern New Brunswick, much of P.E.I. and central portions of Nova Scotia were reported as the driest areas across the Atlantic Region in the past three months, having only received between 40 and 60% of normal precipitation. Although an early month storm brought some moisture to the region, impacts from the significant dryness started to show up in the form of grass fires, significant snow melt and low streamflows. A few locations recorded their driest April on record, including Sydney, Nova Scotia which received only 15% of normal moisture this month. These dry conditions also extended into parts of Newfoundland and Labrador, with large areas of the province reporting less than half of their normal precipitation for April. As a result of these drying trends,

Abnormally Dry (D0) conditions and Moderate Drought (D1) expanded significantly to cover much of the central Atlantic Region. Abnormally Dry (D0) conditions also extended to include the southern coast of Newfoundland.

At the end of the month, 49% of the Atlantic Region was classified as Abnormally Dry (D0) or in Moderate Drought (D1), including 77% of the region's agricultural landscape.

Northern Region (YT, NT)

Conditions across Northern Canada remained relatively unchanged in April, though above-normal precipitation began to break down the Moderate Drought (D1) across much of southern Northwest Territories. All of the Yukon and most of the NWT reported above-normal precipitation in the past 3-6 months, with the exception of a couple pockets south and southwest of Yellowknife, NWT. Additionally, a drier trend emerged in eastern NWT, which led to a small expansion of Abnormally Dry (D0) conditions towards Nunavut. No concerns of drought were reported in the Yukon this month, but an area around Watson Lake will be watched as fires in the area were reported.

At the end of the month, 22% of the Northern Region was classified as Abnormally Dry (D0) or in Moderate Drought (D1).