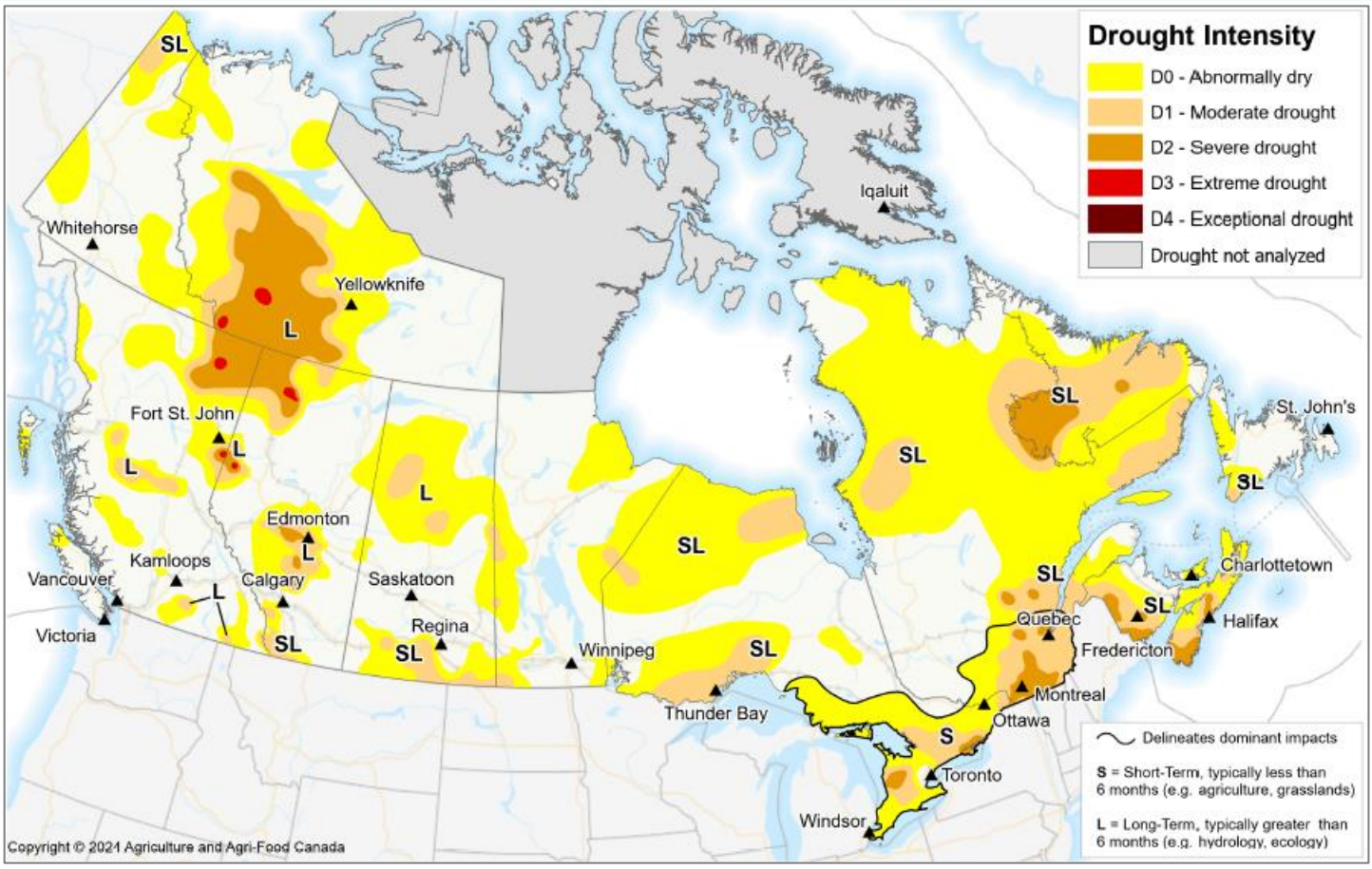
Canadian Drought Monitor

Conditions as of November 30, 2024



Above normal to well above normal precipitation and cooler temperatures were experienced throughout much of Western Canada in November helping to reduce drought conditions. The most significant drought areas in Western Canada continued to be in central Alberta, and along the northern Alberta and British Colombia border, where long-term precipitation deficits continue. Central, and Eastern Canada received below normal precipitation and above normal temperatures resulting in worsening drought conditions this month. Drought expanded significantly through southern Ontario and southern Quebec, with large regions of Severe Drought (D2) emerging in both provinces. In Atlantic Canada, below normal precipitation through southern regions along with low surface water and water supply have resulted in the

expansion of drought conditions including the addition of Severe Drought (D2) conditions in New Brunswick and Nova Scotia.

At the end of the month, 51% of the country was classified as Abnormally Dry (D0) or in Moderate to Extreme Drought (D1 to D3), including 48% of the country's agricultural landscape.

Pacific Region (BC)

In November, continued above normal seasonal precipitation has improved drought conditions across much of British Columbia. Much of the Pacific Region received normal to above normal precipitation and slightly above normal temperatures. However, southern portions of Vancouver Island and parts of the Central Interior received below normal precipitation, with western areas of the Central Interior received less than 40% of normal precipitation. Some northern regions including the Smithers and Fort St. John areas recorded more than 150% of normal precipitation in November.

Drought conditions continued to improve in Southern British Columbia with timely fall rains alleviating precipitation deficits across much of Vancouver Island, the Lower Mainland, Southern Interior and parts of the southeast. This resulted in the removal of Abnormally Dry (D0) to Moderate Drought (D1) conditions. Southeastern British Columbia received significant precipitation over the past 90 days which improved in drought conditions leaving only a small pocket of Moderate Drought (D1) around Creston. Drought conditions remained, although reduced in area, in the Okanagan Valley due to continued long-term impacts. In the Central Interior near Prince George, significant rainfall in November helped alleviate both short and long-term drought conditions, reducing Abnormally Dry (D0) and Moderate Drought (D1) conditions and removing Severe Drought (D2) areas. The Prince George area remains in Moderate Drought (D1) due to impacts from longer-term precipitation deficits including below normal water levels and stream flows. In the Northwest, heavy rains brought more than 200mm of precipitation by the end of the month which raised river levels around Kitimat, Stewart, Terrace, and Prince Rupert, with some rivers exceeding their 20-year flow triggering flood warnings. Northeastern British Columbia received significant precipitation over the past month, which improved Abnormally Dry (D0) to Extreme Drought (D3) conditions across the region. The area of Extreme Drought (D3) was significantly reduced due to improved short-term precipitation deficits; however, long-term drought impacts remain.

At the end of the month, 31% of the Pacific Region was classified as Abnormally Dry (D0) or in Moderate to Extreme Drought (D1 to D3), including 35% of the region's agricultural landscape.

Prairie Region (AB, SK, MB)

The western Prairies experienced cooler than normal November temperatures while eastern Manitoba experienced above normal temperatures. Well above normal precipitation was received with noteworthy snow events late in November. A sizable portion of the Prairie region received over 200% of normal monthly precipitation, which helped reduce or alleviate drought conditions in many regions. Normal or above normal precipitation was received across most of Alberta in November. The exception being the Foothills region in southwestern Alberta that received less than 60% of normal precipitation this month, leading to continued short and long-term precipitation deficits. Saskatchewan and Manitoba also experienced significant improvements to drought conditions in November, with large swaths of Abnormally Dry (D0) to Severe Drought (D2) areas being reduced.

Most of Alberta received well above normal precipitation, with sizable portions of southern and northwest regions exceeding 150% of normal monthly precipitation. However, fall precipitation deficits persist in central and northern portions of the province. The southwest corner of the province and along the Foothills region recorded less than 85% of normal precipitation. Mean monthly temperatures across most of the province were below normal, except in the northeast where they were slightly above normal. In southwestern Alberta, drought conditions worsened with continued below normal precipitation in the Foothills. All other regions of the province experienced improved drought severity and extent. In central Alberta, short-term precipitation deficits began to ease, with well above normal precipitation, leading to improved drought conditions, including a significant reduction of Severe Drought (D2) areas and the removal of Extreme Drought (D3) that had persisted for much of the year. The west-central region also saw a reduction in Abnormally Dry (D0) conditions around Lloydminster. Northern Alberta experienced minor improvements in drought conditions this month including the Peace River region which saw reductions in Abnormally Dry (D0) to Extreme Drought (D3) conditions; however, long-term impacts and drought conditions persist in this region.

Saskatchewan recorded more than 150% of normal precipitation across agricultural areas in November, with a substantial portion of that area recording more than 200% of normal precipitation. Mean monthly temperatures were slightly below normal in southwest and south-central areas and above normal in east-central areas and the north. Southwestern Saskatchewan remained snow-free until mid-November, a stark contrast to the historical average of 40cm of snow for this time of year. However, the final two weeks of the month provided significant snow accumulations throughout the province. As a result of reduced precipitation deficits and the addition of significant snow, southern Saskatchewan saw some improvements to drought conditions specifically, the removal of Severe Drought (D2) conditions. However, Abnormally Dry (D0) and Moderate Drought (D1) areas remained, with pockets of Moderate Drought (D1) remaining around Swift Current, Moose Jaw and along southcentral areas near Canada/U.S.A. border. In northern Saskatchewan, drought conditions also improved with the removal of two pockets of Severe Drought (D2) conditions, one north of Buffalo Narrows and another in the area northeast of La Ronge that extends towards the Saskatchewan/Manitoba border.

Most of Manitoba's agricultural extent recorded more than 115% of normal precipitation in November, with south-central Manitoba recording more than 200% of normal precipitation. The southwest was the only location in the province that received below normal precipitation this past month. Most of the province experienced warmer than normal temperatures, with the southwest being near normal and the northeast seeing temperatures more than 5 degrees Celsius above normal. Given the above normal precipitation received in November and adequate soil moisture reserves throughout the province, short-term drought conditions improved significantly across central Manitoba particularly in the central region ending this month drought-free. Only a few Moderate Drought (D1) pockets remain in the province. These include areas around Flinn Flon and The Pas in the northwest, Island Lake in the northeast, Swan Valley in the west central region and the southwestern corner of the province. Many of these regions have seen continued improvement through the fall season, however, long term precipitation deficits remain.

At the end of the month, 39% of the Prairie Region was classified as Abnormally Dry (D0) or in Moderate to Severe Drought (D1 to D2), including 34% of the region’s agricultural landscape.

Central Region (ON, QC)

In November, Central Canada received higher precipitation across northwestern Ontario and central Quebec, while southern Ontario and southern Quebec received well below normal precipitation. Overall, the fall season was dry in southern Ontario and southern Quebec having received well below to below normal precipitation (40-85%), this is a distinct change from the above normal precipitation received during the summer months. Central portions of southern Ontario, the northern shore of Lake Ontario and throughout southwestern Quebec received only 40 to 60% of normal precipitation. Mean monthly temperatures were above normal in the Central Region. Southern Ontario and southern Quebec saw temperatures up to 3 degrees Celsius warmer than normal while areas in the north saw temperatures more than 5 degrees Celsius above normal.

Dry conditions through southern portions of Ontario and Quebec through the fall have deepened short-term precipitation deficits leading to the expansion of Moderate Drought (D1) conditions and the emergence of two pockets of Severe Drought (D2) west of the Greater Toronto Area and around Kingston. There was also significant expansion of Severe Drought (D2) in Southern Quebec, around Montreal. Drought conditions improved across northwestern Ontario, including Hudson's Bay, resulting in a reduction of Abnormally Dry (D0) to Severe Drought (D2) conditions. Similarly, drought conditions across northern Quebec improved slightly, with a minor reduction in Severe Drought (D2) conditions.

At the end of the month, 69% of the Central Region was classified as being Abnormally Dry (D0) or in Severe Drought (D2), including 84% of the region’s agricultural landscape.

Atlantic Region (NS, NB, PE, NL)

Precipitation in the Atlantic Region varied in November, with southwestern New Brunswick and southern Nova Scotia recording below normal precipitation while the rest of the region recorded normal to above normal precipitation. The Maritimes continued to face dry conditions, with southern New Brunswick and Nova Scotia recording less than 85% of normal monthly precipitation and reports of low water levels and wells going dry in parts of Nova Scotia. Newfoundland and Labrador received mostly above normal precipitation, except for in southwest Labrador, where precipitation was below normal (60 to 85%). Mean monthly temperatures were warmer than normal, with Charlo and Bas-Carquet in New Brunswick experiencing their warmest Novembers on record. In Labrador, temperatures were 2 to 4 degrees Celsius above normal with many locations reporting this November was in the top 5 warmest on record.

Eastern New Brunswick, Western Prince Edward Island and Cape Breton, Nova Scotia, received near to above normal precipitation. Drought conditions worsened in western New Brunswick and both southern and central Nova Scotia due to below normal precipitation over the past 60 days, which resulted in the emergence of pockets of Severe Drought (D2) in those areas. In western New Brunswick, some areas recorded 30% of normal precipitation in the past 90 days resulting in the emergence of three pockets of Severe Drought (D2). In Nova Scotia, Halifax recorded 64% of normal precipitation and nearby Lake Major reported below normal water levels which triggered mandatory water restrictions for surrounding communities. Reports of dry wells and the need for increased water delivery in central Nova Scotia reflected the worsening drought condition and impacts. In Newfoundland and Labrador changes in drought conditions were variable. Southwest Labrador saw growing short-term precipitation deficits, having only received between 60% and 85% of normal precipitation resulting in the emergence of two Severe Drought (D2) pockets around Labrador City and Happy Valley-Goose Bay. Three consecutive storms brought above-normal precipitation to eastern Newfoundland and northern Labrador; these alleviated Abnormally Dry (D0) conditions across eastern Newfoundland. However, the rest of Newfoundland missed this much needed precipitation and Moderate Drought (D1) persisted in the Northern Peninsula and Severe Drought (D2) in the southern tip.

At the end of the month, 72% of the Atlantic Region was classified as Abnormally Dry (D0) or in Severe Drought (D2), including 75% of the region’s agricultural landscape.

Northern Region (YT, NT)

Temperatures across the Northern Region were variable in November with cooler temperatures experienced in the southern Yukon and parts of the Northwest Territories. The rest of the Northern region saw above normal temperatures of up to 5 degrees Celsius above normal this month. Near or above normal precipitation was recorded across much of the northern region in November. However Southern portions of the Northwest Territories, south of Great Slave Lake, continued to receive below normal precipitation.

Overall, the extent of drought was reduced across the N.W.T with the Extreme Drought (D3) areas most reduced. Areas north and east of Great Slave Lake, where above normal precipitation was received, there have reports of rising water levels in the Snare, Lockhart and Coppermine River because of recent snowfall and rain reducing moisture deficits. Rising water levels in the Snare River have allowed Yellowknife to gradually return to predominantly hydro-based power. These improved conditions resulted in a slight reduction in Abnormally Dry (D0) to Severe Drought (D2) areas. Similarly, Extreme Drought (D3) conditions were reduced near the N.W.T.- Alberta and B.C border. Across the rest of the Northwest Territories, droughts remained unchanged or worsened slightly due to growing precipitation deficits. Norman Wells, has declared a humanitarian local state of emergency due to severe drought along the Mackenzie River, resulting in lower water levels and the increased cost of fuel and supplies.

In the Yukon, drought conditions remained relatively unchanged. South-central Yukon received record-setting snowpack, primarily near Whitehorse at the end of October which eliminated drought concerns. This region received approximately 300% of the historical average for this time of year and nearly half the average annual snowpack.

At the end of the month,42% of the Northern Region was classified as Abnormally Dry (D0) or in Moderate to Extreme Drought (D1 to D3).