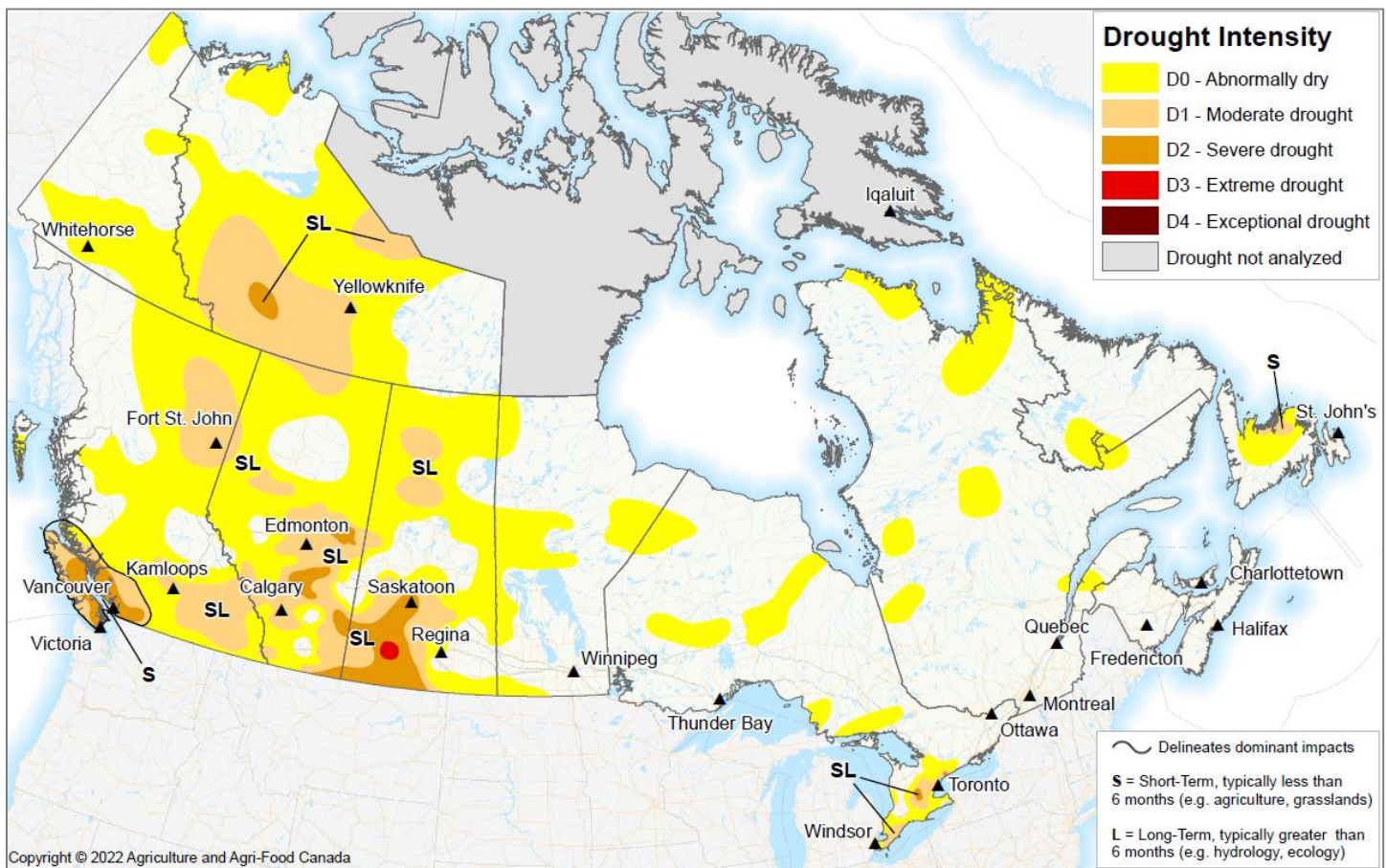


Canadian Drought Monitor

Conditions as of September 30, 2022



Western Canada continued to receive below-normal precipitation and well above-normal temperatures throughout September, while conditions throughout Eastern Canada varied. In Western Canada, drought continued to intensify through the month with much of the region stuck below a series of high pressure ridges resulting in above-normal temperatures and well below-normal monthly precipitation. Southwestern British Columbia saw the largest degradation of conditions with record temperatures being achieved and extremely low precipitation leading to low stream flow, surface water supply concerns and extremely poor soil moisture. Alberta and Western Saskatchewan also degraded with less than 40 percent of normal precipitation and above-normal temperatures. Some areas of this region have been consistently in drought for more than 18 months. Drought continued to expand in Southern



Ontario as well, with intensification of drought conditions along Lake Ontario as Severe Drought (D2) expanded from the central region of Southern Ontario to include an area northeast of Toronto.

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

Pacific Region (BC)

Significant portions of the Pacific Region recorded abnormally high temperatures and extremely low precipitation throughout September. Much of Vancouver Island and the Lower Mainland reported less than 10 mm of accumulated precipitation in September which is less than 40 percent of the expected amount. Monthly temperature anomalies across the region were 2 to 5 degrees above normal, with areas between Kamloops and Whistler showing departures of greater than 5 degrees above the average September temperature. Victoria and Abbotsford both reported their driest and warmest September on record, while Kelowna reported its second driest September on record.

As a result of the ongoing moisture deficit, poor streamflow and abnormally high temperatures, voluntary water conservation regulations were recommended across southern coastal areas, the Lower Mainland and into the southern Interior region. Two months of extremely low precipitation resulted in streams throughout the region being reduced substantially. Many streams dried up resulting in the death of thousands of salmon. Water supply concerns were also raised in some regions of the province. Wildfires continued in the southeast corner this month, more than other regions in the province. In the northeast portion of the province, dry conditions persisted as well; with what little precipitation was received, it quickly evaporated due to the high temperatures.

Overall drought conditions continued to worsen throughout the Pacific Region this month due to the abnormally high temperatures and lack of precipitation. Pockets of Moderate Drought (D1) stretched across the Rockies towards the Okanagan, while Moderate Drought (D1) extended across Vancouver Island and into the Lower Mainland. Severe Drought (D2) also emerged surrounding Vancouver towards Abbotsford along with the eastern coast of Vancouver Island; streamflow in these areas were Low to Very Low by the end of the month. Abnormally Dry (D0) conditions were seen in central areas of the province and on Haida Gwaii and Moderate Drought (D1) spread across the Peace River region towards Fort Nelson.

At the end of the month, sixty-seven percent of the Pacific Region was considered Abnormally Dry (D0) or in Moderate to Severe Drought (D1 to D2), including ninety-six percent of the region's agricultural landscape.

Prairie Region (AB, SK, MB)

Dry conditions across the Prairie Region in September continued to intensify the ongoing drought. Most of the region received less than 40 percent of normal September rainfall, with central Alberta and southwestern Saskatchewan receiving the least. Above-normal temperatures throughout the region resulted in high moisture loss as well. Western Saskatchewan and much of Alberta reported monthly temperature anomalies between 2 and 4 degrees warmer than normal.

The province of Alberta saw the greatest degradation of drought conditions in the region this month, with a significant expansion of Moderate Drought (D1) and the development of a couple pockets of Severe drought (D2) as warm, dry weather dominated. Despite some reprieve from drought in the late spring and early summer seasons which provided adequate moisture for annual crops, drought conditions re-emerged and the cumulative impacts from last year's drought and this year's late season drought resulted in concerns. Producers across much of southern and central Alberta reported a lack of feed carried over from last year as well as feed availability for this winter. Pastures continued to struggle, and producers reported surface water supply concerns with an increase in water hauling. Given these impacts along with the lack of moisture and above-normal temperatures, Moderate Drought (D1) was substantially expanded to include most of central Alberta and southern parts of the province. Pockets of Severe Drought (D2) also emerged around Red Deer and northeast of Edmonton. As a result of significantly low streamflow, poor soil moisture and lack of precipitation, Abnormally Dry (D0) and Moderate Drought (D1) pockets were also extended across northern Alberta. As of September 30, ninety-two percent of Alberta's agricultural region was in drought, up significantly from seventy percent in August.

Drought conditions persisted throughout the western half of Saskatchewan with this region receiving less than 40 percent of normal precipitation. Temperatures were above-normal across the province, with La Ronge, in northern Saskatchewan, reporting its second driest and second warmest September on record. While dry conditions have allowed harvest operations to progress rapidly, pastures continued to struggle and water supplies were low. Many pastures were not suitable to graze cattle, with additional concern for next year if significant winter precipitation is not received. On farm surface water supplies remained low with significant concern for winter and spring water availability. Regions like the southeast, which received

ample precipitation in the spring, need rain to replenish water supplies, soil moisture and rejuvenate pastures prior to freeze up. Streamflow across much of southern and central regions of the province are at record low levels. The continued drought impacts and increasing precipitation deficits led to an expansion of all drought classes across southwestern and central parts of the province, with the addition of an Extreme Drought (D3) pocket forming around Swift Current. Abnormally Dry (D0) and Moderate Drought (D1) were also slightly expanded across northern Saskatchewan as 40 to 85 percent of normal precipitation fell since July.

Manitoba continued to experience both dry and wet conditions. Western regions received below-normal precipitation for the second straight month following extremely wet conditions earlier in the year. Eastern parts of the province continued to receive adequate precipitation and most areas in the east had good to surplus soil moisture. Temperatures were also closer to normal across Manitoba, though still slightly above normal overall. Winnipeg is expected to break the record for the wettest year since 1962. As a result of recent dry conditions, however, Abnormally Dry (D0) classifications slightly expanded in both southwestern and west central Manitoba.

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

Central Region (ON, QC)

Much of Central Canada received below-normal precipitation through September, however northern agricultural regions from southeastern Quebec towards Thunder Bay saw near- to above-normal monthly rainfall. Much of Southern Ontario continued to receive below-normal precipitation resulting in an expansion of Moderate Drought (D1) in the region. Communities around Kitchener-Waterloo continued to have the largest precipitation deficits both short- and long-term for this region, and as such, Severe Drought (D2) remained. Severe Drought (D2) also appeared in the Whitby and Oshawa region given both short- and long-term moisture deficits. A few stretches of Abnormally Dry (D0) conditions persisted in September throughout much of the region, but southern Quebec and southwestern Ontario remained completely drought-free due to ample moisture in the last two months.

At the end of the month, fourteen percent of the Central Region was classified as Abnormally Dry (D0) or in Moderate to Severe Drought (D1 to D2), including nineteen percent of the region's agricultural landscape.

Atlantic Region (NS, NB, PE, NL)

Atlantic Canada experienced significant precipitation as a result of Hurricane Fiona, which impacted central portions of the region, including much of Nova Scotia, P.E.I. and western Newfoundland. These areas saw between 100 to 200 mm of rain from this single event with monthly totals representing more than 150 percent of normal. This rainfall helped to improve Abnormally Dry (D0) conditions throughout southern and central regions of Nova Scotia. Contrary to the significant rainfall through central parts of the region impacted by the hurricane, western and eastern edges of the region remained dry this month. As a result, Abnormally Dry (D0) and Moderate Drought (D1) conditions in northeastern parts of Newfoundland as well as Abnormally Dry (D0) pockets in parts of Labrador remained.

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

Northern Region (YT, NT)

Much of the southern Yukon and Northwest Territories remained dry with September precipitation occurring primarily along the Arctic coastlines. A few communities reported their driest September on record, including Yellowknife and Fort Simpson. Above-normal temperatures occurred across Northern Canada this month, with the warmest temperatures recorded along southern NWT and southwestern Yukon. The 2022 wildfire season in the Northwest Territories has been one of the most severe in the past five years, nearly doubling the five-year average area burnt. As of the end of August, 238 fires burned nearly 4,300 square kilometers of land, compared to a five-year average of around 2,300 square kilometers. The wildfire season was still considered to be active by the end of September as more than 100 active wildfires were still burning across the Northwest Territories. Given the ongoing dry weather, Abnormally Dry (D0) and Moderate Drought (D1) conditions continued to expand substantially, covering more than half of the Northwest Territories and parts of the Yukon. In addition, a small Severe Drought (D2) pocket formed around Fort Simpson representing both recent and seasonal precipitation deficits.

Northern coastlines received ample moisture this month, helping to alleviate short-term dryness in northern NWT and northern Yukon. Old Crow reported its wettest September on record seeing more than 250 percent above normal.

At the end of the month, fifty percent of the Northern Region was classified as Abnormally Dry (D0) or in Moderate to Severe Drought (D1 to D2).

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