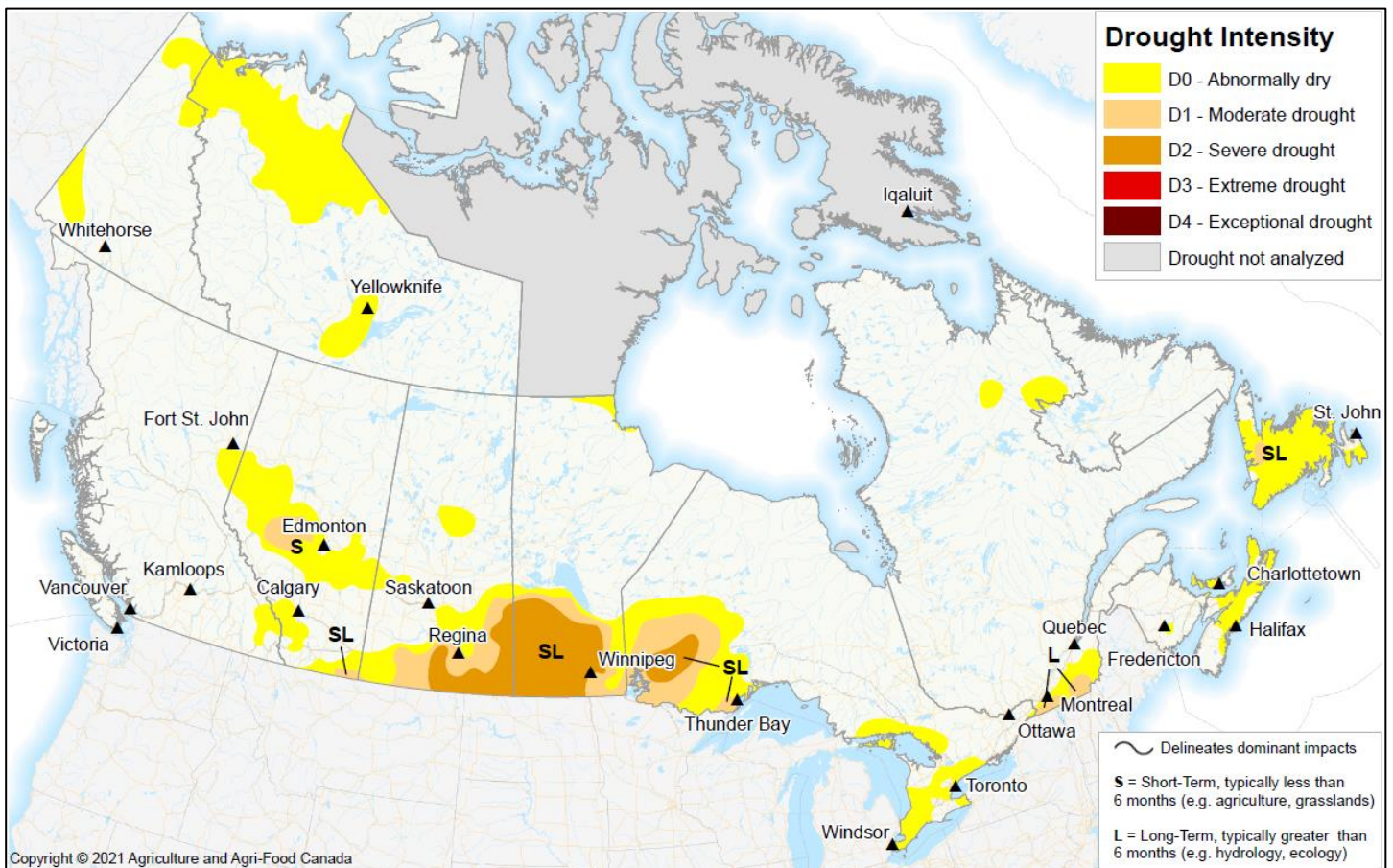


Canadian Drought Monitor

Conditions as of January 31, 2021



The majority of Canada experienced a warmer and drier than normal January. Large portions of the country experienced temperatures greater than 5 degrees Celsius above normal. Below-normal precipitation was received throughout the majority of the country with southern portions of British Columbia being the only notable exception. As a result of the warm, dry conditions, drought extent and severity increased in all previously identified dry regions.

In British Columbia, normal to above-normal precipitation was received in most parts of the province and only a small portion of the Peace River region and the southeastern Rockies remained Abnormally Dry (D0). January conditions throughout the Prairie region predominantly consisted of well above-normal temperatures, well below-normal precipitation, and high winds



resulting in expanded and deepening drought conditions across Saskatchewan and Manitoba, as well as the formation of new drought regions in Alberta. The lack of precipitation carried into northwestern Ontario led to the expansion of Moderate Drought (D1) and the emergence of Severe Drought (D2) in the region. Southern Ontario and Quebec faced dry conditions where previously reported, resulting in expanded Abnormally Dry (D0) and Moderate Drought (D1). The Atlantic region saw only minimal changes to D0 conditions and remained drought-free, barring a small D1 in Newfoundland. Conditions in northern regions of the country remained fairly consistent and resulted in only small expansions of Abnormally Dry (D0) conditions and the removal of drought. Approximately nineteen percent of the country was considered Abnormally Dry (D0) or in drought; this includes about forty-six percent of the agricultural landscape.

Pacific Region (BC)

Above-normal precipitation through much of British Columbia resulted in no change to the drought assessment. British Columbia continued to be drought-free with only two limited areas of Abnormally Dry (D0) conditions remaining. A small pocket of D0 conditions persisted near the Alberta border from Tumbler Ridge to Dawson Creek and from Cranbrook to Brisco; these remained in place as precipitation percentiles showed below-normal accumulations over the last two to three months. Short-term dry conditions have been developing in the Prince George and Kelowna-Penticton-Vernon areas, however these regions received adequate moisture before freeze-up thus alleviating current concerns for drought. As a result, these areas will continue to be monitored for any potential drought development in the coming months. The remainder of the province saw mostly near-normal precipitation and normal to above-normal streamflow values throughout January. Only two and a half percent of the province was considered to be Abnormally Dry (D0), which accounts for approximately seven percent of the agricultural landscape.

Prairie Region (AB, SK, MB)

Continued dry conditions throughout January led to further development of drought across the Prairies. Minimal precipitation in December and January across central areas of Alberta led to a slight degradation of conditions both northwest, south, and east of Edmonton. Although parts of central Alberta received more than ample precipitation during the growing season in 2020, some areas did not have adequate soil moisture going into freeze-up which led to the expansion of Abnormally Dry (D0) conditions. For this reason, Abnormally Dry (D0) conditions expanded and a small pocket of Moderate Drought (D1) was added northwest of Edmonton, including the communities of Edson and Whitecourt. This particular area experienced

precipitation below the 10th percentile over the last six months and below-normal precipitation in the past 90 days. Similar conditions of minimal precipitation stretched towards the Peace Region of Alberta into northeastern B.C. In southern Alberta, Abnormally Dry (D0) conditions persisted southwest of Calgary. This pocket expanded slightly south towards Pincher Creek to account for significantly dry conditions in the past two months. A pocket of D0 was also added south of Medicine Hat to include Milk River. Given the lack of snow cover and potential for increased evapotranspiration, southern Alberta will be monitored for further drought development in the coming months. Parts of central Saskatchewan received slightly below-normal precipitation going into winter, however adequate snowfall has recovered this moisture deficit; Saskatoon was removed from Abnormally Dry (D0) conditions as a result. The pocket of D0 surrounding La Ronge was reduced slightly for this reason as well and D0 was removed altogether from the area surrounding Meadow Lake. Abnormally Dry (D0) conditions and drought expanded slightly across southern Saskatchewan as short-term moisture deficits develop on top of previously reported long-term impacts. A small expansion of Moderate Drought (D1) westward towards Swift Current occurred as a result of both short and long-term lack of precipitation. Precipitation percentiles for the past two and six months show that moderately low precipitation, below the 20th percentile, was received in this area. The area in Severe Drought (D2) across parts of Saskatchewan and Manitoba expanded to include both Weyburn and Moose Jaw; these communities experienced long-term dryness for the past six months, classified as precipitation below the 5th percentile. Drought in Manitoba remained relatively unchanged. Moderate Drought (D1) and Severe Drought (D2) continued to cover much of the southern part of the province as a lack of precipitation in both the short- and long-term indicated drought. About thirty-five percent of the Prairie region was classified as either Abnormally Dry (D0), in Moderate Drought (D1) or in Severe Drought (D2); this includes nearly sixty percent of the region's agricultural landscape.

Central Region (ON, QC)

Minimal precipitation throughout the month of January worsened drought and Abnormally Dry (D0) conditions in parts of the central region, particularly in northwestern Ontario as well as southern Ontario and Quebec. Due to below-normal precipitation in northwestern Ontario over the last three months, an increase in Moderate Drought (D1) occurred near Rainy Lake; this area of D1 now spans from Lake of the Woods northeast to Osnaburgh House. A small pocket of D1 also remained southwest of Thunder Bay. Abnormally Dry (D0) conditions persisted through the northwest, with a slight expansion of D0 towards Red Rock. Severe Drought (D2) also emerged in the area surrounding Sioux Lookout and Dryden as precipitation was 50 to 75 percent below-normal in the last three months. These expansions come as precipitation percentiles show the area as receiving below-normal precipitation throughout the agricultural

year. In southern Ontario, additions and expansions to Abnormally Dry (D0) conditions were seen as well. Along the coast of Georgian Bay, an area from Elliot Lake to Parry Sound received between 20 to 50 percent below-normal precipitation in the last 90 days as well as minimal Snow Water Equivalent moisture; this led to the formation of an Abnormally Dry (D0) pocket. Areas of Abnormally Dry (D0) conditions that were previously reported along the southern tip of Ontario were expanded to include the area between La Salle in the south to Peterborough in the north; the pocket near Niagara Falls remained unchanged. This region received 10 to 25 percent below-normal precipitation in the past three months. Minimal expansions of D1 around Sherbrooke and St-Jean-sur-Richelieu took place in January as well. According to precipitation percentiles for the past 60 and 90 days, this area received precipitation below the 20th percentile. Abnormally Dry (D0) conditions also extended further north due to 25 to 50 percent below-normal precipitation reported in the last three months. Nearly sixteen percent of the Central region remains Abnormally Dry (D0), in Moderate Drought (D1) or in Severe Drought (D2); this includes approximately thirty-three percent of the agricultural landscape.

Atlantic Region (NS, NB, PE, NL)

In January, minimal changes were made to Abnormally Dry (D0) conditions. However, a pocket of Moderate Drought (D1) emerged in Newfoundland. In New Brunswick, a small pocket of D0 remained but was reduced slightly between Fredericton and Saint John due to near to above-normal precipitation in the last three months; the equated to precipitation above the 40th percentile. The Abnormally Dry (D0) conditions on Prince Edward Island remained, though slightly expanded further east to include Charlottetown, as streamflow and satellite-derived data showed precipitation well below-normal in the last three months. Most conditions remained the same across Nova Scotia, barring a slight expansion of Abnormally Dry (D0) conditions. As identified within 90-day satellite-derived data, below-normal precipitation northwest of Liverpool led to dry conditions in southern Nova Scotia. D0 conditions now cover a greater area of Cape Breton Island including the area surrounding Inverness. This area received only 60 to 85 percent of normal precipitation both in January and in the past three months. Newfoundland also saw an expansion of D0 across much of the island, excluding St. John's. A small area of Moderate Drought (D1) was also added around Pasadena due to significantly low precipitation in January and over the long-term; less than 40 percent of normal precipitation fell in the last month. Twenty-four percent of the Atlantic region is classified as Abnormally Dry (D0) or in Moderate Drought (D1); this includes close to thirty-four percent of the region's agricultural landscape.

Northern Region (YT, NT)

Conditions in Northern Canada remained relatively similar to last month. A large area of Abnormally Dry (D0) conditions persisted in northern Yukon and Northwest Territories as 25 percent below-normal precipitation was identified in the last three months. There were slight expansions of D0 near Beaver Creek, Yukon, as well as the area from Yellowknife to Hay River, NWT; this could be attributed to below-normal precipitation in the last three months. The Northern region is now considered drought-free as improved precipitation around Old Crow led to both the removal of Moderate Drought (D1) and a reduction in D0 conditions. Approximately fifteen percent of the Northern region is classified as Abnormally Dry (D0).