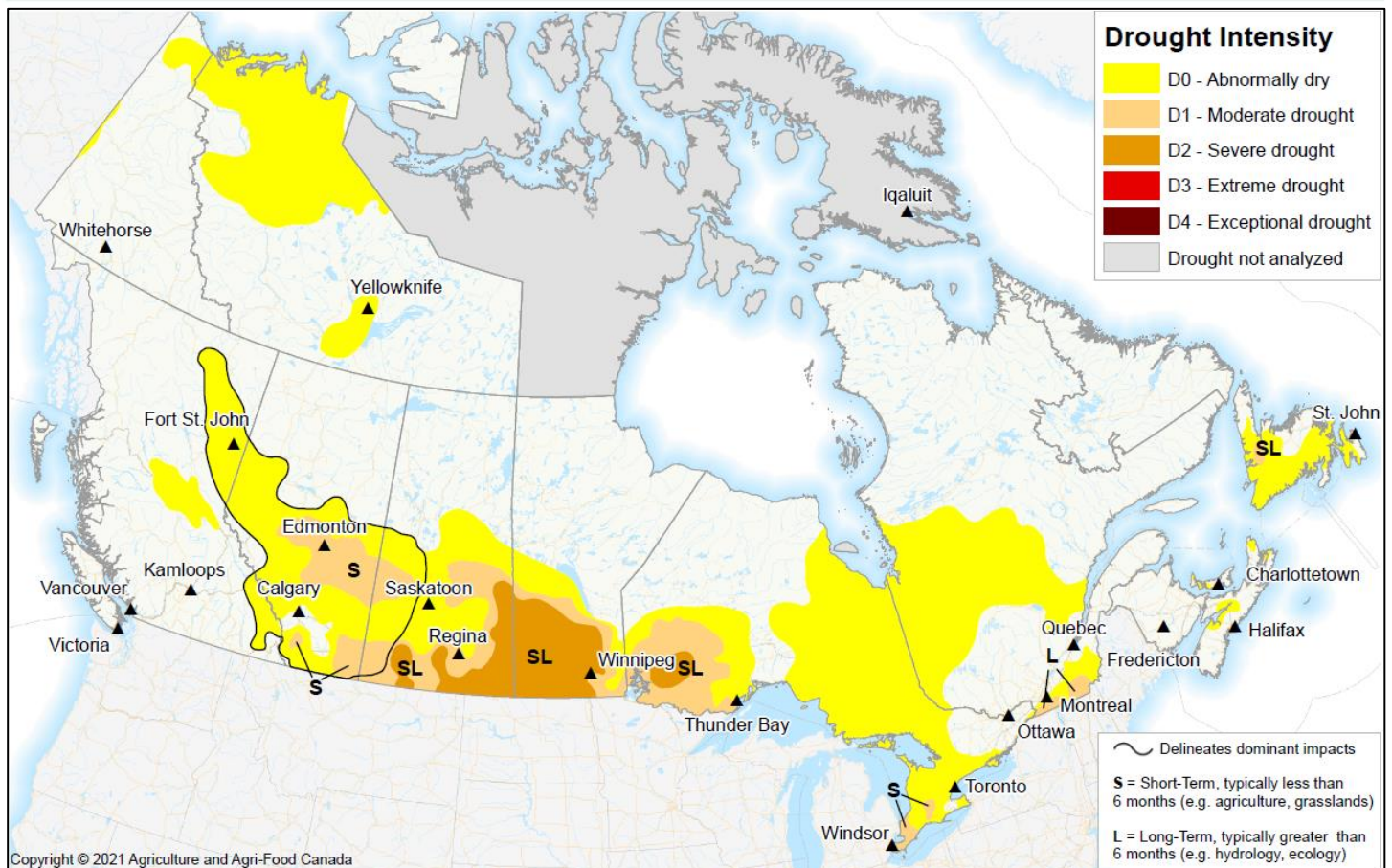


Canadian Drought Monitor

Conditions as of February 28, 2021



In the month of February, large portions of the Canadian Prairies and southern Ontario received below- to well below-average precipitation, increasing the drought severity and extent. Western Canada experienced well below-average temperatures, with some regions experiencing more than 7 degrees Celsius colder than average. Precipitation was also well below-average, particularly in the agricultural regions of the Prairies; this led to significant expansions of drought and dry conditions throughout Alberta, Saskatchewan and Manitoba. Portions of interior British Columbia also received below-average precipitation resulting in the development of Abnormally Dry (D0) conditions in northeastern British Columbia. Central Canada also experienced cooler than average temperatures and below-average precipitation through February. As a result, a large area of D0 was added in central Ontario into Quebec and



existing dry conditions in southern Ontario were expanded. Atlantic Canada received above-average temperatures and precipitation leading to improvements to dry conditions, especially in Nova Scotia and Prince Edward Island. The northern regions of Canada saw only minimal expansion of dry conditions following below-average precipitation in the last three months. Approximately thirty-five percent of the country was considered Abnormally Dry (D0) or in drought; this includes seventy-five percent of the agricultural landscape.

Pacific Region (BC)

In the month of February, British Columbia saw some expansions of Abnormally Dry (D0) conditions, though the province continued to be drought-free. In the northeastern corner of the province, precipitation received in the last three months was 25 to 75 percent below-average; this led to the expansion of Abnormally Dry (D0) conditions from Fort St. John towards Fort Nelson. Included in this expansion was Chetwynd which recorded its third driest December to February period on record with only 50.9 percent of average precipitation. A pocket of D0 also developed surrounding Prince George; this area received 25 to 50 percent below-average precipitation over the past 3 months. This represents the second driest three-month period on record from December to February for this region. Further south along the Alberta border, Abnormally Dry (D0) conditions expanded and now span from Golden to Cranbrook. In the area surrounding Golden, 90-day precipitation percentiles show below- to well below-average precipitation. Fourteen percent of the province was considered to be Abnormally Dry (D0), which accounts for nearly thirty-two percent of the agricultural landscape.

Prairie Region (AB, SK, MB)

The month of February brought well below-average precipitation in addition to well below-average temperatures across the Prairies. In fact, a dry spell during which no measurable precipitation was received across all of southern Saskatchewan and Manitoba lasted 25 to 30 days. For this reason, abnormally dry and drought conditions intensified and developed further west to cover much of the region. There was a widespread expansion of Abnormally Dry (D0) conditions in the central and southern Prairies, particularly in Alberta and Saskatchewan, as dry conditions have persisted over the last several months. In southwestern Alberta, a small pocket of Moderate Drought (D1) was added surrounding Claresholm and towards the west. This area received extremely low precipitation in the last two months as precipitation was between the second and fifth percentiles. In the southeast corner of Alberta, Moderate Drought (D1) expanded from the U.S. border north to include Medicine Hat. A lack of precipitation in the last three months, according to very low precipitation percentiles and the Standardized Precipitation Evapotranspiration Index (SPEI), led to the degradation in this area. In central

Alberta, Moderate Drought (D1) expanded surrounding Edmonton due to moderately low to very low precipitation percentiles in the last six months. This pocket of drought expanded further east towards the Saskatchewan border and reached as far as North Battleford due to exceptionally low precipitation percentiles in the last three months. North Battleford had its driest month on record, with only five percent of average precipitation in February, and its driest three-month period from December to February. Moderate Drought (D1) also expanded in eastern Saskatchewan towards Prince Albert and Humboldt where very low to extremely low precipitation was received in the last three months. Prince Albert had its fourth driest three-month period on record, going back 134 years, with only 49 percent of average precipitation from December to February. Meanwhile in southern Saskatchewan, Severe Drought (D2) expanded further west to include the area of Swift Current to Shaunavon. These regions received exceptionally low precipitation, below the second percentile, in the past 90 days and are now at a significant precipitation deficit since September. Areas west of this region received sufficient moisture earlier this winter and therefore saw expansions of Moderate Drought (D1) rather than Severe Drought (D2). Manitoba continues to experience Severe Drought (D2) throughout much of the agriculture portion of the province. The drought region expanded towards the north, as precipitation was exceptionally low in the last three months. Extreme Drought (D3) did not develop in southern Manitoba as we have not yet seen impacts of the severe precipitation deficits given the current winter season. However, there is the potential for rapid degradation of drought should conditions continue as spring approaches. About sixty percent of the Prairie region was classified as either Abnormally Dry (D0), in Moderate Drought (D1) or in Severe Drought (D2); this includes nearly ninety-three percent of the region's agricultural landscape.

Central Region (ON, QC)

Below-average precipitation across the Central region led to significant expansions of Abnormally Dry (D0) conditions and continued and worsening drought throughout the month of February. Northwestern Ontario received less than 75mm of precipitation in the last 90 days resulting in Moderate Drought (D1) to expand slightly eastwards and Severe Drought (D2) to persist around Dryden. Abnormally Dry (D0) conditions developed in central Ontario, from Sudbury to Timmins and towards Val-d'Or, QC, where 50 to 75 percent below-average precipitation, below the second percentile, was received in the last two months and 25 to 50 percent below-average precipitation in the last three months. Furthermore, a substantial area of D0 conditions developed further north as far as James Bay and into Quebec towards the St. Lawrence River. In southern Ontario, Abnormally Dry (D0) conditions also expanded and now cover nearly all of the southern region, with the exception of a small pocket west of Niagara Falls. This degradation was the result of precipitation below the 20th percentile in the last three

months. Pockets of Moderate Drought (D1) were added surrounding Chatham, including Windsor and Sarnia, and from Stratford towards St. Thomas. These areas saw precipitation below the fifth percentile in the last three months. In addition to the expansion of Abnormally Dry (D0) conditions in central Quebec, pockets of Moderate drought (D1) remained around Sherbrooke and St-Jean-sur-Richelieu. However, previously-reported D0 pockets in northern Quebec were removed as satellite-derived data identified near- to above-average precipitation in the last 90 days. Thirty-eight percent of the Central region remains Abnormally Dry (D0), in Moderate Drought (D1) or in Severe Drought (D2); this includes nearly fifty-nine percent of the agricultural landscape.

Atlantic Region (NS, NB, PE, NL)

The Atlantic region saw improvements to dry conditions in February, particularly in Nova Scotia and PEI, as above-average precipitation was received throughout the month. In Nova Scotia, Abnormally Dry (D0) conditions were reduced throughout much of the mainland and on Cape Breton Island. However, pockets remained around North Sydney and Chéticamp on Cape Breton Island and on the mainland from New Minas towards Truro. This area received below-average precipitation in the last 60 to 90 days. In PEI, Abnormally Dry (D0) conditions were reduced slightly, though an area remained from Summerside to Tignish. New Brunswick no longer experienced D0 conditions as a pocket previously reported around Oromocto was removed; slightly above-average precipitation, about 10 to 25 percent above-average, was received in the area within the last three months. Satellite-derived data for the past three months also showed near-average precipitation in parts of Newfoundland's interior, which led to the reduction of D0 as well as slight shifts across the west coast of the island. Only a small pocket of drought persisted in Newfoundland surrounding Pasadena. Almost sixteen percent of the Atlantic region is classified as Abnormally Dry (D0) or in Moderate Drought (D1); this includes approximately eighteen percent of the region's agricultural landscape.

Northern Region (YT, NT)

Only minimal changes were seen in the Northern region in the month of February as Abnormally Dry (D0) conditions expanded slightly. A large expanse of D0 remained in northern Yukon and NWT including Old Crow, YT which had its fifth driest February on record. This pocket expanded to the northern coast as well as slightly further south to include Fort Good Hope and Tulita, NWT. This change was the result of only 25 to 50 percent of average precipitation being received in the last three months. Abnormally Dry (D0) conditions also remained in the area from Yellowknife to Hay River, NWT and slight changes were made to a

pocket of D0 along the Alaska border. Approximately twenty percent of the Northern region is classified as Abnormally Dry (D0).

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