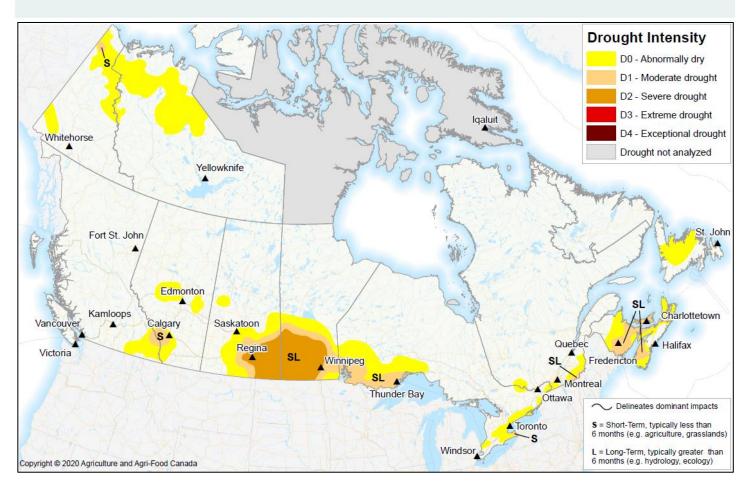
# **Canadian Drought Monitor**

Conditions as of November 30, 2020



The picture of drought across Canada changed only minimally in the month of November. Much of any remaining drought across B.C. was removed, and many parts of Alberta and western Saskatchewan saw improvements from adequate November moisture. Drought Conditions remained in in the eastern Prairies due to both long term and short term precipitation deficits. The eastern Prairies went into freeze up with below normal soil moisture and had received minimal snow as of the end of November. Central Canada saw the degradation of conditions and expansions of Moderate Drought (D1) and Abnormally Dry (D0) conditions in Ontario while there were some improvements in northern Quebec and on the Gaspé peninsula. Although Atlantic Canada continued to experience significant dry conditions, there were slight improvements in the last month. Northern Canada experienced below-average precipitation,



with the development of a small Moderate Drought (D1) area. Approximately fifteen percent of the country was considered Abnormally Dry (D0) or in drought; this includes nearly forty percent of the agricultural landscape.

## Pacific Region (BC)

British Columbia received adequate precipitation in the month of November which led to further reduction in Abnormally Dry (D0) conditions overall. Previously-reported pockets of Abnormally Dry (D0) conditions around Fort Nelson and on Haida Gwaii were removed as these areas received near- to above-normal precipitation amounts this month. Additionally, streamflow in these regions also reported High to Very High values, indicating adequate moisture levels. Between 115 – 150 percent above-normal precipitation was received over the last two months in the Okanagan region and as a result, the Abnormally Dry (D0) conditions were removed in this area as well. Although much of the province saw improvement in moisture levels, the southeastern corner continued to have precipitation deficits. Within the past three months, the region from Golden to Canal Flats and towards the Rocky Mountains received 50 – 75mm below-normal precipitation. In the same timeframe, however, a stretch from Grand Forks to Cranbrook and Fernie saw near-normal precipitation. As a result, the Severe Drought (D2) classification was removed along the B.C.-Alberta border, but the Moderate Drought (D1) and Abnormally Dry (D0) conditions remained in place. Only four percent of the province was classified as Abnormally Dry (D0) or Moderate Drought (D1), down six percent compared to last month; this includes approximately eight percent of the agricultural landscape.

## Prairie Region (AB, SK, MB)

Drought conditions across the Prairies followed an east-west division in the month of November, where much of Alberta and western Saskatchewan received ample precipitation, but eastern Saskatchewan and much of southern Manitoba continued to miss out on muchneeded moisture. In Alberta, the extent of Abnormally Dry (D0) conditions was reduced significantly barring a few pockets that remained near Edmonton, Vegreville and in the foothills west of Calgary. These dry areas remained in place as they received precipitation below the 40<sup>th</sup> percentile in the last 90 days. The Standardized Precipitation Evapotranspiration Index (SPEI) indicated lingering dryness still remained around the foothills of Calgary and an area west of Edmonton over the past three months, but recent snowfall helped to alleviate these concerns, leading to a one-class drought improvement in these areas. As such, the Moderate Drought (D1) remained from Banff to High River, but the Severe Drought (D2) in this area and the D1 pocket near Edmonton were removed. The greatest precipitation amounts this month were seen across parts of western and central Saskatchewan, where they received more than 200 percent above-normal precipitation. This moisture led to a reduction in Abnormally Dry (D0) and Moderate Drought (D1) conditions from the southwest corner towards North Battleford. However, minimal improvement occurred east of Moose Jaw, where Moderate Drought (D1) and Severe Drought (D2) persisted given a lack of moisture over the last year. Moderate Drought (D1) now extends from Mortlach, Saskatchewan, through Manitoba and into northwestern Ontario. Severe Drought (D2) remained relatively the same, spanning from Regina, to as far north as Swan Lake, MB and as far east as Winnipeg; this area received less than 60 percent of normal precipitation in the last three months. The northern Prairies remained untouched by drought as streamflow trended above-normal and the region received plenty of precipitation over the previous three months. Nearly twenty-three percent of the Prairie region was classified as either Abnormally Dry (D0), in Moderate Drought (D1) or in Severe Drought (D2); this includes forty-eight percent of the region's agricultural landscape.

## Central Region (ON, QC)

The central region experienced minimal change in November, barring a few areas in northwestern and southern Ontario. Streamflow levels degraded in the northwest region this month; because of this, in addition to only 50 percent of normal precipitation falling in the last 3 months, Moderate Drought (D1) formed once again around Lake of the Woods towards Thunder Bay. Abnormally Dry (D0) conditions were also expanded slightly in the area. In southern Ontario, pockets of Abnormally Dry (D0) conditions formed from Windsor to Sarnia and expanded slightly to stretch from Woodstock to Newburgh. These areas received 50mm less than normal precipitation since October, equating to approximately 25 percent belownormal. This also extended towards Niagara Falls, where a small pocket of Moderate Drought (D1) remained. In addition to these areas, small pockets of D0 developed around Petawawa and Brockville to Cornwall, given low precipitation in the last 30 days. Although conditions in southern Quebec didn't drastically change in November with near-normal precipitation, much of the previously reported drought remained in place; this includes an area of Abnormally Dry (D0) conditions stretching from Granby to St-Georges and a persisting Moderate Drought (D1) pocket south of Sherbrooke. This area currently holds a precipitation deficit of 220-325mm in the past year, resulting in minimal improvement even with near-normal precipitation. Conditions on the Gaspé Peninsula, however, have improved greatly given 115-150 percent of normal precipitation falling over the last two months. Eight percent of the Central region remains in either Abnormally Dry (D0) or in Moderate Drought (D1); this includes twenty-three percent of the agricultural landscape.

#### Atlantic Region (NS, NB, PE, NL)

Moisture deficits continued to improve slightly in the Atlantic region, but much of the abnormally dry conditions remained in place. Significant rainfall across the Gaspé Peninsula reached into northwestern New Brunswick, which helped to alleviate any previous concern of drought. Not only did 100-125mm of precipitation fall in this area over the past thirty days, but satellite-derived data indicated that all three levels of soil moisture (Surface-level, Root Zone and Groundwater) contained adequate moisture. Small improvements were made in central New Brunswick towards Nova Scotia, but the majority of the previously-defined drought areas remained. Less than 50mm of precipitation fell across this region in November, even much less so across P.E.I. at only 15mm or less. As a result, Moderate Drought (D1) lingered across all of P.E.I and southern New Brunswick, from Pointe-Sapin to Forest City. This also included parts of northern Nova Scotia from Amherst to Antigonish, as well as an ever-persisting pocket in the Annapolis Valley. Many of these areas are highlighted in the SPEI as fairly dry in both short-term and longer-term time frames. Abnormally Dry (D0) conditions expanded in Newfoundland from as far south as Granite Lake to Twillingate as satellite-derived data shows dryness in this area in the last three months. Almost twenty-eight percent of the Atlantic region is classified as Abnormally Dry (D0) or in Moderate Drought (D1); this includes nearly eighty-one percent of the region's agricultural landscape.

#### Northern Region (YT, NT)

Conditions in the Northern region of Canada worsened in the month of November. A small pocket of Moderate Drought (D1) developed around Old Crow, as only 31.6 percent of normal precipitation fell since September, ranking it at its 3rd driest Autumn since record keeping began in the area. In addition, satellite-derived data reported this area stretching south along the Yukon-N.W.T. border and towards Great Bear Lake as receiving only 50 percent of normal precipitation since September; this led to the expansion of Abnormally Dry (D0) conditions. A small stretch of Abnormally Dry (D0) conditions was also added from the Yukon-U.S.A. border towards Burwash Landing, given that this station reported only 31.2 percent of normal precipitation, equal to its 2nd driest Autumn on record. The remainder of the Northern region was unaffected by drought. Approximately fifteen percent of the Northern region is classified as Abnormally Dry (D0) or in Moderate Drought (D1).

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