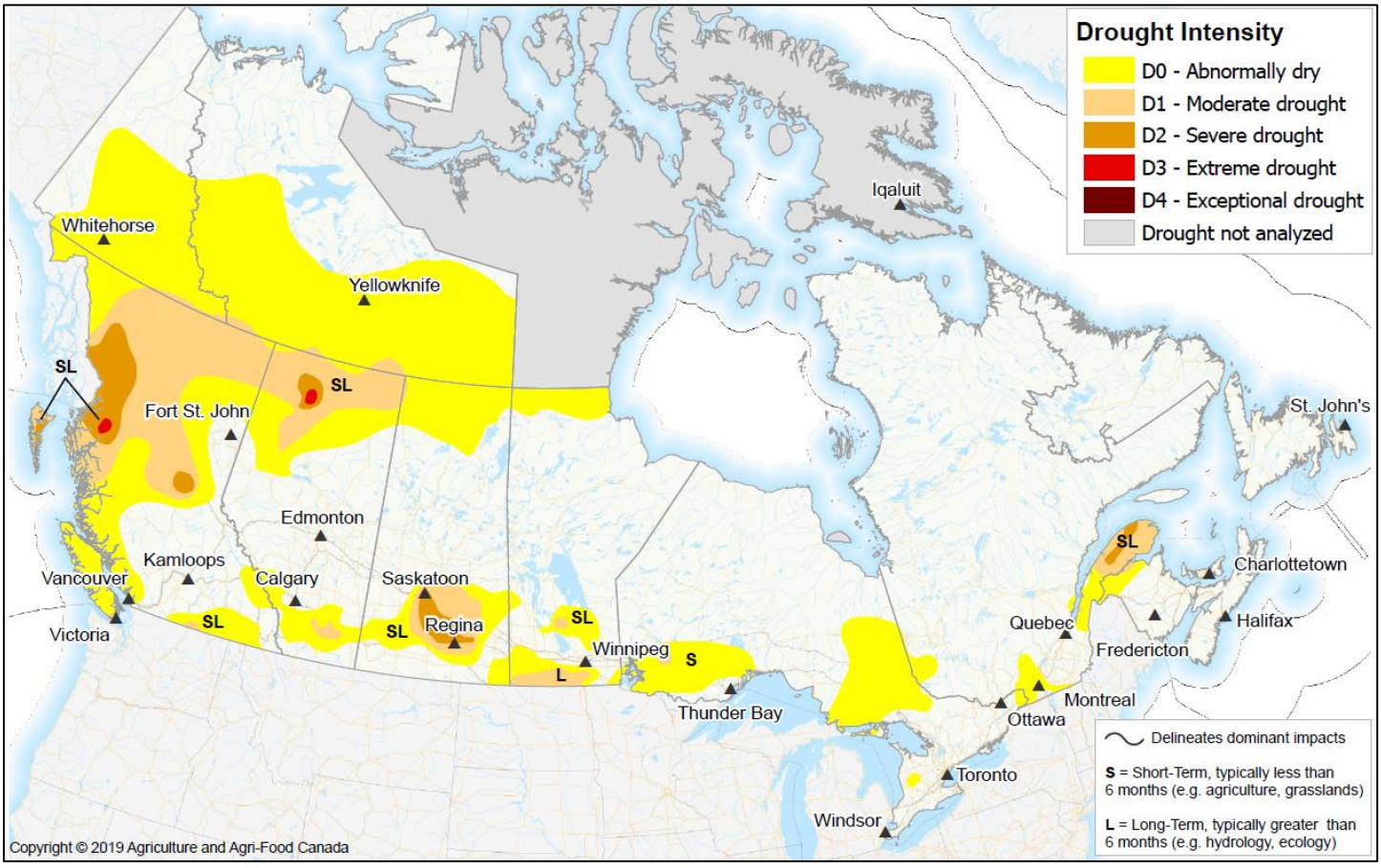
Canadian Drought Monitor

Conditions as of December 31, 2018



Drought conditions continued to improve in December with early winter snow and rain beginning to replenish the moisture deficits from the summer. Improvements have been gradual but have resulted in the removal or shrinking of some of the D1 and D2 regions particularly in the southern British Columbia and the southern Prairies. Despite improvement large pockets of Drought remain, particularly in northern British Columbia, the Prairie Region and the Gaspe region of Quebec. Conditions in Central and Atlantic Canada remained generally unchanged, as fall moisture was adequate to sustain a dry December in most areas. Northern Canada continued to experience abnormally dry conditions with no known impacts. Although the drought in western Canada is less of a concern at this time, based on the time of year and limited short term impacts, if abnormally dry conditions continue through the winter, spring soil moisture and water supplies will be impacted.

Pacific Region (BC)

Precipitation in northern British Columbia was inadequate to replenish long-term deficits throughout December, however; the southern regions of the province continued to benefit from above normal precipitation that helped alleviate drought conditions and recharge soil moisture and streamflow. Precipitation levels measured by snow pillows indicated conditions to be average, or above average, for much of the southern regions. Despite recent improvement, small Moderate Drought (D1) pockets persisted near the coastal regions and along the southern border due to continued precipitation and soil moisture deficits. Severe (D2) and Extreme (D3) Drought persisted in the northern half of the province due to long-term moisture deficits in the region, having accumulated greater than 100mm below normal precipitation over the past six months.

Prairie Region (AB, SK, MB)

An abnormally dry December resulted in persisting drought across the Prairie Region. December precipitation was below 40 percent of normal throughout much of the agricultural region in the Prairies. Temperatures in the southern half of the region fluctuated between very cold and abnormally warm, which coupled with the limited snowpack in many areas resulted in exposed soils leading to moisture loss through evaporation and freeze drying. Despite recent dryness, there has been some improvement in isolated regions including portions of southern Alberta, where precipitation over the past three months was adequate to improve long-term Abnormally Dry (D0) and Moderate Drought (D1) conditions between Red Deer to Calgary. Northern Alberta has received well below normal precipitation for several months, resulting in Extreme Drought (D3) conditions persisting near High Level and Severe Drought (D2) conditions extending south toward Grande Prairie. A D1 pocket persisted in the southeastern-most region of the province where precipitation throughout December was inadequate to fully replenish moisture deficits from the summer. Despite significant improvement in the fall, the winter begun with significant precipitation deficits. Much of southern Saskatchewan received less than 40% of average precipitation during the month; thus drought conditions remained, with the classification of D1 and D2 remaining relatively unchanged. Exceptionally low precipitation in southern Manitoba resulted in enduring D1 conditions. Despite early winter improvements to drought conditions in the Prairie region, dugouts and other natural water sources will require normal snowfall and runoff to replenish the resource this winter. Livestock feed shortages also challenged producers in the region as a lingering impact of this summer's drought.

Central Region (ON, QC)

Conditions in Central Canada improved as a result of moderate to high amounts of precipitation Central Canada also received well below normal precipitation throughout December, however above normal precipitation during the fall period has resulted in average long term conditions for most regions. Drought conditions therefore have remained similar to the previous month's

assessment. Abnormally Dry (D0) pockets remained in the regions that experienced the greatest deficits over the past year, and developed in regions that have been dry since November. Precipitation in the Gaspe region was inadequate to replenish long-term deficits; thus, Moderate (D1) and Severe (D2) Drought persisted.

Atlantic Region (NS, NB, PE, NL)

Atlantic Canada benefitted from a dry month following months of excess moisture. By the end of the month, streamflow was reported to be above normal across the region. Abnormally Dry (D0) conditions remained limited to a small region of northern New Brunswick. This region had been experiencing small moisture deficits since the summer with minimal agricultural impacts.

Northern Region (YT, NT)

Abnormally Dry (D0) conditions persisted in Northern Canada throughout December. Satellite-derived data indicated that the southern half of Yukon Territory and the Northwest Territories had received less than twenty-five percent of their average precipitation since October 1st. By the end of the month, streamflow across the region was high, indicating that there have been no hydrological impacts. Moderate Drought (D1) persisted along the southernmost borders of the territories.