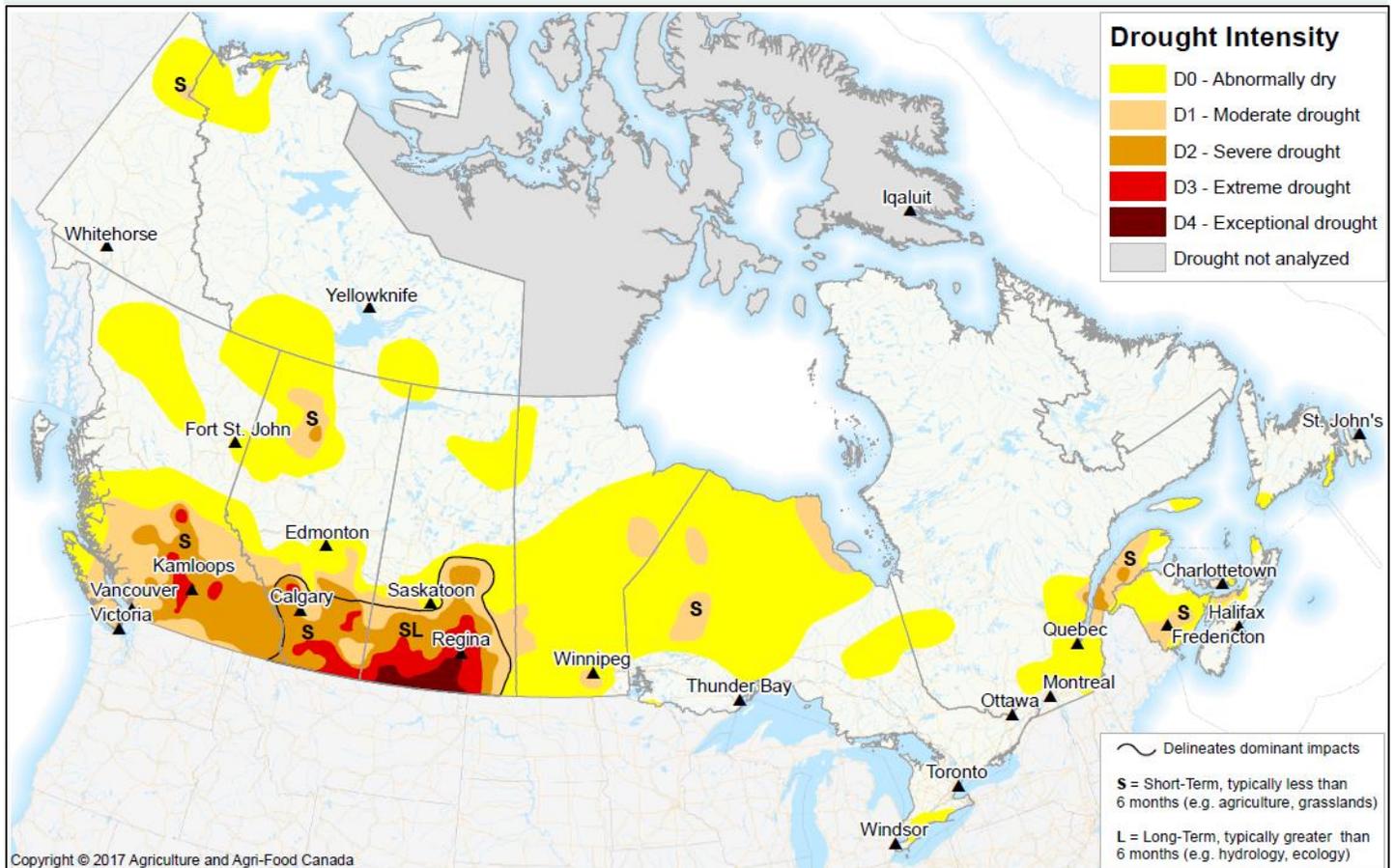


# Canadian Drought Monitor

Conditions as of September 30, 2017



Drought conditions continued to degrade across Canada as much of the country experienced below average precipitation during the month of September. This resulted in the expansion of the drought throughout much of Western Canada, prompting concerns regarding spring soil moisture and water supplies. The summer has been hot and dry with a persistent ridge of high pressure bringing a warm air mass over southern B.C., Alberta and Saskatchewan. Fall conditions, although cooler, have remained extremely dry for much of this region. The hardest hit areas in central British Columbia and the southern Prairies have received less than sixty percent of average precipitation since April 1. Many regions within the southern prairies have seen 90-day precipitation accumulations in the bottom 5 values recorded in approximately 100 years. In British Columbia, these severe precipitation deficits have helped to fuel the largest wildfire season on record in the province's history, affecting about 2.5 million acres of land. Although at this time of year there is limited impact on crop production in many of the hardest



hit areas, surface water supplies and forage shortages are resulting in significant concern as the region heads into the winter. Significant precipitation deficits and extremely dry soils exist resulting in concern for forage and pasture recovery. As drought conditions continue to persist or expand in the southern Prairies, seeding of winter crops has been reduced and livestock have been pulled off pastures. Due to minimal precipitation in the past 2 months, drought conditions have become more severe and extensive in southern Alberta and Saskatchewan. In addition to drought conditions throughout much of Western Canada, agricultural regions of Ontario and Quebec began to experience drier conditions, following a wet spring and early summer. Dry conditions expanded in southern Ontario, with a drought emergence in eastern Quebec. Atlantic Canada experienced persistent drought concerns, particularly in New Brunswick.

## **Pacific Region (BC)**

Drought conditions throughout southern and central regions of British Columbia continued to deteriorate due to dry conditions in September. The majority of the region is still classified in a drought status with an expanded region of Severe (D2) and Extreme Drought (D3) in the central and southeastern regions. The province remained under a voluntary 30% water reduction set by the Government of British Columbia. The Severe Drought (D2) pocket was significantly expanded due to persisting drought conditions including poor soil moisture and extremely poor streamflow. Continued precipitation deficit and hydrological drought impacts led to the expansion of the Extreme Drought (D3) pocket south of Merritt and the addition of a D3 pocket surrounding Shuswap Lake. Dry conditions in northern B.C. were expanded with an Abnormally Dry (D0) pocket emerging near the province's northern border with Alberta and the Northwest Territories. Short-term precipitation deficit led to the development of a D0 pocket around Fort St. John, prompting a water conservation effort by the Government of British Columbia. The D0 pocket between Williston Lake and Dease Lake persisted.

## **Prairie Region (AB, SK, MB)**

Drought intensified in southern Alberta due to continued precipitation deficits, with very little September precipitation. Much of southern Alberta received less than 2 mm of precipitation all month. Longer term, over the course of three months, July through September, various locations received near record low precipitation including the Lethbridge region where three month rainfall totals were only 15 mm, rating the driest on record. Significant deterioration of conditions led to the expansion of the Severe Drought (D2) pocket across a large area in the southern half of the province as well as the persisting of the Moderate Drought (D1) and Abnormally Dry (D0) conditions. Extreme Drought (D3) conditions emerged in Lethbridge and two pockets east of Calgary. In northwestern Alberta, the Abnormally Dry (D0) pocket was expanded, along with the addition of D1 pocket along Peace River. A D2 pocket emerged around Bison Lake. Southern Saskatchewan continued to experience severe drought conditions. Extreme Drought (D3) and Exceptional Drought (D4) pockets surrounding Regina continued to persist due to extremely minimal precipitation. Much of the remaining southern Saskatchewan region continued to experience pockets of persistent D1 and D2 conditions. Conditions in

Manitoba remained consistent from the previous month's assessment, with some improvement in moisture conditions.

## **Central Region (ON, QC)**

Much of Central Canada received below normal precipitation and well above normal temperatures throughout September, a welcome change for many in central and eastern Ontario, who have been experiences near record precipitation this summer. However, southern Ontario and eastern Quebec are now experiencing dry or drought conditions due to the warm temperatures and precipitation deficits. The Abnormally Dry (D0) pocket in southwestern Ontario was expanded north of Lake Erie, as parts of this region have received 120mm below average rainfall since July 1. Satellite-derived data indicated persistent dryness in northern Ontario, as the D0 pocket east of James Bay was expanded. Drought conditions in southeastern Quebec continued to worsen throughout September, impacting soil moisture and causing dormancy of some plants. Agricultural yield efficiencies were impacted due to the lack of water and many producers have suffered significant losses. A small Severe Drought (D2) pocket developed within the region previously rated under Moderate Drought (D1) along the coast of the St. Lawrence River.

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

Conditions in Atlantic Canada improved throughout much of the region with adequate rainfall replenishing soil moisture in each province with the exception of New Brunswick. Some regions of Newfoundland and Nova Scotia improved due to late month precipitation. Moderate Drought (D1) persisted in southern New Brunswick and a small area along the Northumberland Strait in Nova Scotia, with insignificant agricultural impacts. Abnormally dry (D0) conditions persisted in Prince Edward Island and the southern part of Newfoundland.

## **Northern Region (YT, NT)**

Conditions in northern Canada remained similar to the previous month's assessment. Streamflow across the region was generally good except for the area surrounding Great Slave Lake. This, along with poor soil moisture, led to the development of an Abnormally Dry (D0) pocket south of Fort Simpson. Similarly to last month, satellite-derived data indicated that the region south of Mackenzie Bay continued to remain dry as a D0 pocket. A small D0 pocket south of Great Slave Lake in the Northwest Territories also persisted.

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