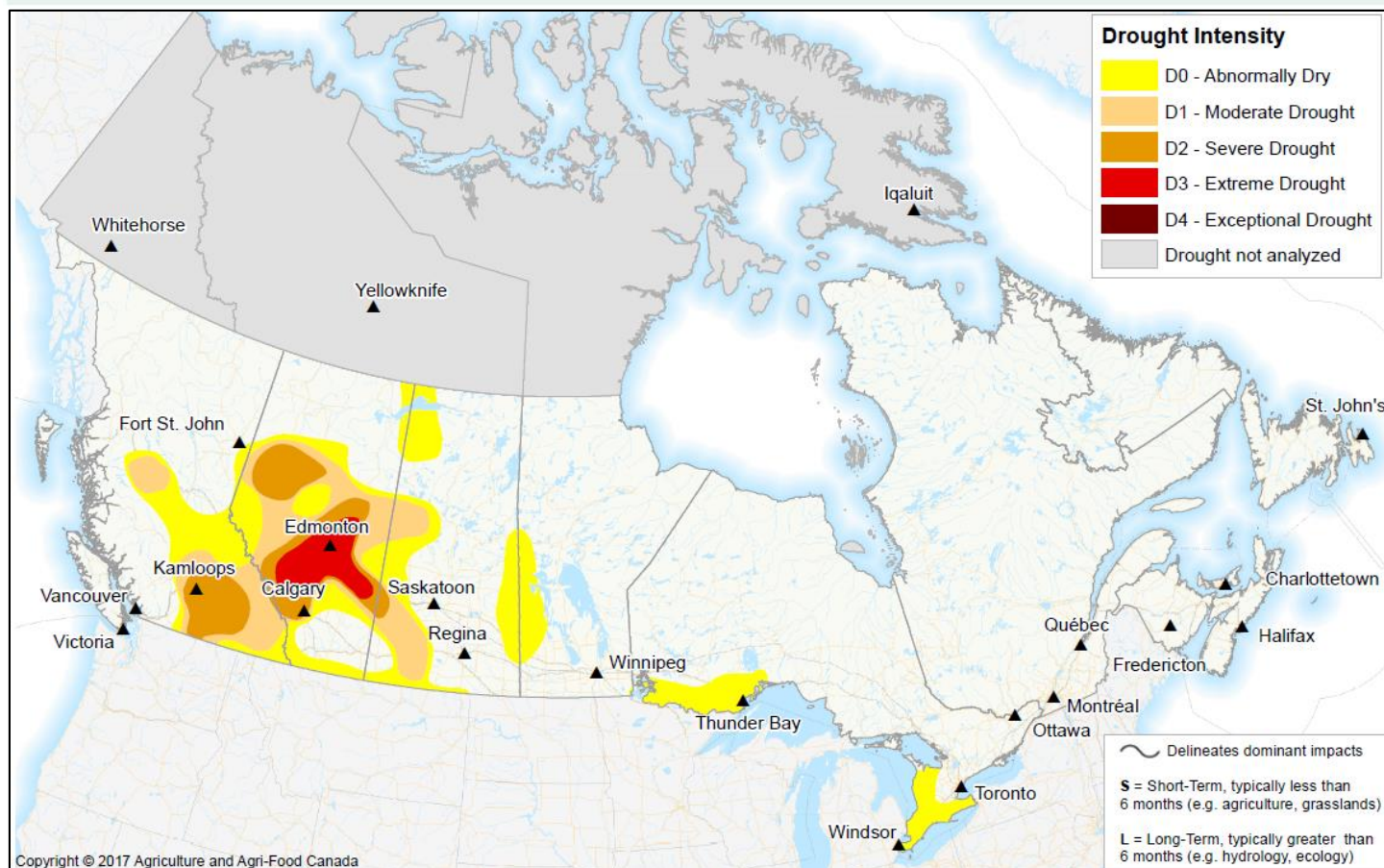


# Canadian Drought Monitor

Conditions as of November 30, 2009



Central and northern regions of Alberta remain the most significant drought region in Canada, in both size and severity. Southern interior regions of British Columbia are still classified in D2 (Severe Drought). As of November 30 the percentage of land area in Canada, excluding the Arctic regions north of the 60th parallel, classified as drought or abnormally dry, had been reduced to approximately 15%. The percentage of agricultural area classified as drought or abnormally dry increased from 35% to 40%.

In general, precipitation was well above normal in western British Columbia, well below normal across the Prairies, and normal to below normal throughout much of Eastern Canada. Vancouver Island and southern coastal areas of British Columbia received upwards of 200% of normal in November, triggering floods and evacuation orders. In contrast, much of central and northern Alberta received less than 40% of normal, which intensified drought conditions and

compounded severe moisture deficits. Much of the region has received less than 60% of normal rainfall since the beginning of June 2009.

Monthly average temperatures were 4.0-5.0°C (7.2-9.0°F) above normal throughout most of the Canadian landscape. November 2009 was one of the warmest on record across the Prairies and northwestern Ontario, with some areas experiencing departures of more than 7°C (12.6°F) above normal. The September to November (autumn) season was ranked the second warmest autumn across the country since 1948. The warm November allowed harvesting operations in northern agricultural regions to resume after being abruptly halted in October. The roller coaster of temperature swings is expected to continue, with December forecast to be colder than normal.

## **Pacific Region (BC)**

Drought continues to linger in the southern interior of British Columbia where precipitation deficits remain. Precipitation was below normal in November, and has been less than 75% of normal for the past six months. This resulted in a continuation of the D1 (Moderate Drought) and D2 (Severe Drought) classifications. Greater than average snowfall and spring runoff is needed to bring creeks and rivers back to normal levels. Areas in westcentral British Columbia also remained under 75% of normal precipitation over the past six months, resulting in a persistence of the D1 (Moderate Drought) classification. In contrast, much improvement was reported along the Southern Coast and on Vancouver Island, where upwards of 200% of normal rainfall was received over the last month; prompting localized flooding and evacuation alerts. As a result of the intense rain along the Southern Coast and Vancouver Island, all drought classifications were removed from the region.

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

Drought concern continues for much of central and northern Alberta due to less than 40% of normal precipitation over the last month, combined with the long-term effects of less than 60% of normal precipitation, and Standardized Precipitation Index (SPI) values of less than -2.00 from December 1, 2008. This resulted in an expansion of the D3 (Extreme Drought) and D2 (Severe Drought) classifications accordingly. Some areas within this region have annual precipitation deficits of over 250 mm (nearly ten inches), half of the expected normal. Soil moisture reserves are extremely low and many natural water bodies have been significantly reduced, with some creeks and sloughs becoming dry. March to September river volumes ranked fourth lowest at Edmonton and tenth lowest at Calgary in 91 years of record. The prolonged drought has also increased tree mortality, which has become problematic in some urban areas and along the southern boreal region. During the growing season, drought held back crop development during the germination period, and throughout the summer, cool conditions held back crop growth, leading to a harvest that was delayed by up to three weeks. For these areas, well above average snowfall and spring precipitation is needed to bring soil

moisture and water reserves to near normal, otherwise it is likely that the drought will persist into next growing season. In north-western Alberta, the extent of drought in the Peace River Region remained constant, continuing to be assessed in a D2 (Severe Drought), with less than 60% of normal precipitation over the past six months.

In Saskatchewan, conditions remained relatively unchanged. Drought regions in southwestern Saskatchewan expanded eastward due to precipitation being less than 60% of normal over the past three months, and less than 70% of normal precipitation since December 2008. This resulted in a continuation of the D1 (Moderate Drought) classification. A small portion along the Saskatchewan-Alberta border remains classified in D2 (Severe Drought). Areas in west-central Saskatchewan were classified as D1 (Moderate Drought) due to less than 40% of normal precipitation over the past three months. As in Alberta, significant snowfall and spring precipitation is needed to bring soil moisture reserves to near normal.

Other areas of note include D0 (Abnormally Dry) areas in north-western and south-western Ontario. Both regions have received less than 60% of normal precipitation over the past three months. The D0 classification along the Saskatchewan-Manitoba border has expanded northward to include areas that have a SPI value of less than -2.00 for the past month, and have received less than 60% of normal precipitation over the past three months.