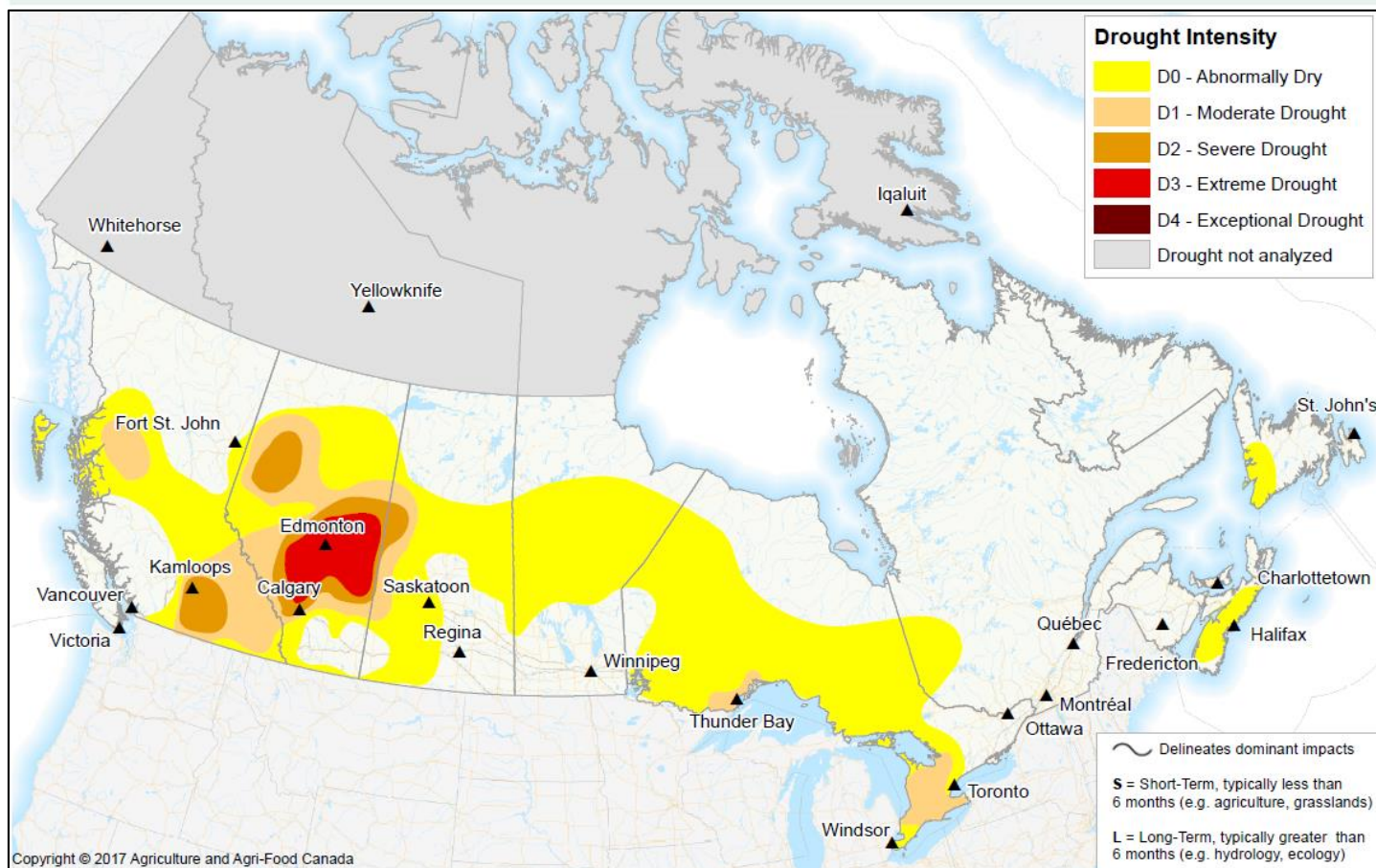


# Canadian Drought Monitor

Conditions as of February 28, 2010



Drought remains a significant concern in Alberta, British Columbia, and portions of western Saskatchewan. Southern Ontario continues to receive below-normal precipitation and has become an area of concern. As snowpack begins to melt, runoff should help improve water supplies and soil moisture for the spring season. However, well below normal snowpack in many regions of the country, including those regions suffering from intense drought situations, will result in little to no improvement and will intensify the drought concerns. As of February 28, 37% of the country (excluding Arctic regions above 60°N) was classified D0 or greater, with the D0 accounting for 27%. This was an increase of 13% from January. About 54% of Canada's agricultural area was rated D0 or higher, an increase of 8% from 46% last month.

**Precipitation:** In general, precipitation was below average across the country in February. Much of the drought area in western Canada (including northern British Columbia), the majority of



the Prairies, and Ontario all received less than 40% of average. Prince Edward Island, northern Nova Scotia, and western Newfoundland were all below 60% of average. Normal levels of precipitation were reported in south-central British Columbia, western Manitoba, southern Nova Scotia, and northeast Newfoundland. In the prairie region, most surface water supplies rely on spring runoff to recharge. Below-normal snowfall this winter will likely result in reduced surface water supplies. Typically, by the end of February, more than two-thirds of the yearly snow fall has accumulated.

Temperature: Temperatures in February were above normal in British Columbia, Quebec, the Maritimes, and the Territories. Some places in the far north were more than 10°C (18°F) warmer than normal. Although temperatures were 2-3°C (3.6-5.4°F) warmer than normal, causing a lack of some cover during the Winter Olympics, they were manageable. Temperatures were near normal across the Prairies and northwest and southern Ontario, and below normal in southern Saskatchewan. Many places along the U.S. border were more than 5°C (9°F) colder than normal.

Regional Highlights: Across the Prairie region, winter precipitation has been well below normal. The majority of central Alberta has been mired in a Severe Drought or Extreme Drought classification since last spring. Much of these areas are suffering from precipitation deficits of nearly 300 mm (almost 12 inches) below average. Central Alberta and much of western Saskatchewan had very low soil moisture before freeze up, and less than 60% of normal precipitation since November 2009. Although runoff is expected to be near normal, greater than average snowfall is needed during March and into April to partially recover from 2009, and to begin to recharge surface water supplies. As a result, drought is expected to persist across this region. With soil moisture at extreme lows throughout much of the region, cattle producers are increasingly concerned as they near the end of their winter feed supplies. Drought has lasting impacts on livestock producers because of the immediate impacts on forage production, and often prolonged effects on rangeland productivity. Producers in the severe drought region are facing pasture conditions that do not have sufficient grass for cattle to graze. Depending upon the spring moisture levels and pasture condition, pasture re-growth this year will likely be insufficient for cattle production. Even with higher than normal spring precipitation, producers should expect lower hay and pasture yields and a delayed start to the grazing season.

The Southern Interior of British Columbia continues to be dry with well below normal snowpack and low streamflow, resulting in a Moderate Drought or Severe Drought classification. Precipitation deficits of 130 mm (more than five inches) remain in south-central British Columbia. Mountain snowpack in the Okanagan and Kootenay is about 70-80% of normal, and in the Lower Fraser, 60-70% of normal. Low-elevation snow is generally absent and mid-elevation snowpack throughout interior valleys is well below normal, following the unusually warm and dry weather in January and February; as a result, the D1 (Moderate Drought) and D2 (Severe Drought) classifications persist. The drought in the summer of 2009 resulted in very low river and lake levels, and depleted groundwater storage in the southern interior. Therefore, well above normal snowpack and runoff is needed by April to fully replenish the diminished groundwater and reservoir storage across most of the region. In west-central British Columbia,

only 60% of average precipitation has been reported over the past six months, so the D1 (Moderate Drought) classification remains.

Conditions have generally degraded across western Saskatchewan, the Alberta Peace River Region, and parts of Ontario. The severe drought in central Alberta expanded into a portion of western Saskatchewan. This region reported less than 40% of normal precipitation over the winter beginning in November 2009. Drought conditions have also continued in the Peace River Region of northern Alberta, which has received less than 60% of normal precipitation since March 2009. In southern Ontario, precipitation deficits range up to 250 mm (nearly ten inches) since September 2009, about half of normal. In addition, low streamflow advisories were issued by the Ontario Ministry of Natural Resources. As a result, the D1 (Moderate Drought) classification remains. D1 (Moderate Drought) was added in northwest Ontario, where precipitation has been less than 60% of average over the past six months. Near Thunder Bay, several systems have tracked across the northern States, just missing Ontario and creating a sharp transition from conditions farther south in the U.S. Abnormally Dry (D0) areas expanded across central Manitoba and northern Ontario. Many areas have also had less than 60% of normal precipitation since November 2009.

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