

Moisture Situation Update – January 8, 2012

Synopsis:

Most of Alberta has been experiencing unusually warm and dry winter weather, with temperatures and snowpack accumulations for some areas at record extremes over the entire period of observation (1961-2011).

60-day temperatures relative to normal as of January 8th, 2012 -see map

- Over the past 60-days (November 10, 2011 to January 8, 2012), average daily temperatures relative to normal are classified as being **at least 1** in 12-year highs across most of the province, with several areas, being the warmest during the 51-year period of observation (1961-2011).

60-day precipitation accumulations relative to normal as of January 8th, 2012 -see map

- Over the same 60-day period, precipitation accumulations are estimated to be **at least 1** in 3-year lows for most areas east of Highway 2, with parts of east-central Alberta being the driest during the entire period of observation (1961-2011).

Snowpacks relative to long term normal as of January 8th, 2012 -see map

- Warm weather has also lead to unseasonable snowpack losses, with many areas east of Highway 2 and south of the Yellowhead Highway classified as being **at least 1** in 12-year lows, with large parts of east central Alberta not seeing snowpacks this low during the entire 1961-2011 observation period.

Perspective:

- Across Alberta's agricultural areas the 6-month period, between October to March, is Alberta's dry season and only accounts for about 24 to 30 % of average annual precipitation, ranging from about 100 mm across the Central Region to upwards of 140 mm across the Peace Region. A dry winter receiving only 50% of average precipitation accumulations amounts to a deficit of 50 to 70 mm. This can easily be made up in the spring or early summer, with above average accumulations.
- February is typically the driest month of the year across the agricultural areas of Alberta, with 50-year averages ranging from 5 to 10 mm across parts of the Special Areas, to 20 to 30 mm across much of the Peace Region.
- It is very difficult to reliably predict what the remainder of the winter will be like.
- History has shown that Alberta is a land of extremes and dramatic swings between prolonged dry, wet, warm and cold periods are not uncommon.

Additional Maps can be found at <http://www.agric.gov.ab.ca/app116/quick.jsp>.

Near-real-time hourly station data can be viewed/downloaded at <http://www.agric.gov.ab.ca/app116/stationview.jsp>.

Note: Data has about a two hour lag and is displayed in MST (add one hour for daylight savings time)













Ralph Wright

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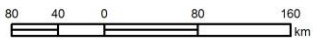
Head, Agrometeorology Applications and Modelling Section, ARD

**60-Day
Average Daily Mean
Temperature Relative
to Long Term Normal**

November 10, 2011 to
January 08, 2012

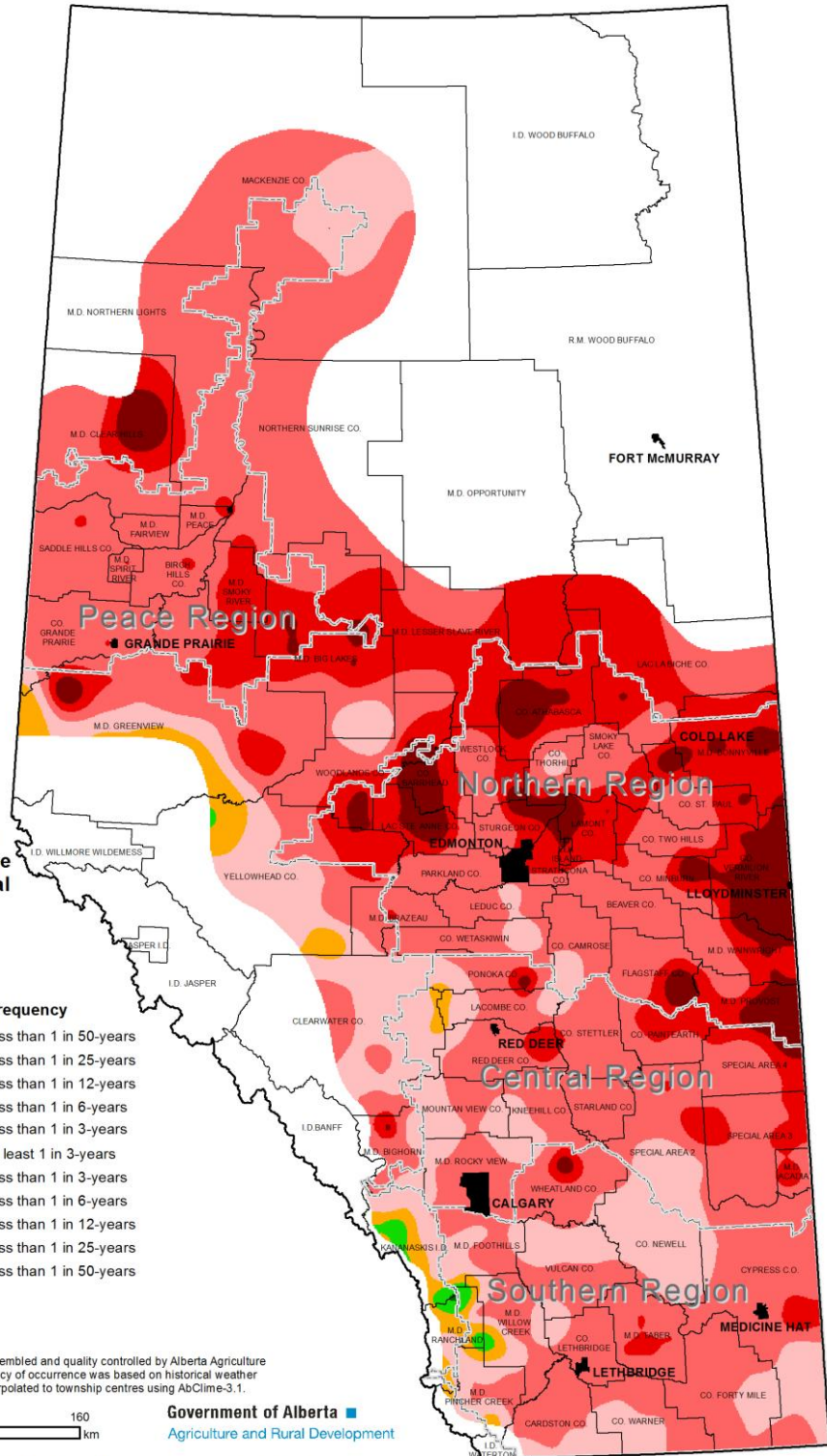
Condition	Frequency
 warmest	less than 1 in 50-years
 extremely warm	less than 1 in 25-years
 very warm	less than 1 in 12-years
 warm	less than 1 in 6-years
 moderately warm	less than 1 in 3-years
 near normal	at least 1 in 3-years
 moderately cool	less than 1 in 3-years
 cool	less than 1 in 6-years
 very cool	less than 1 in 12-years
 extremely cool	less than 1 in 25-years
 coldest	less than 1 in 50-years
 no data	

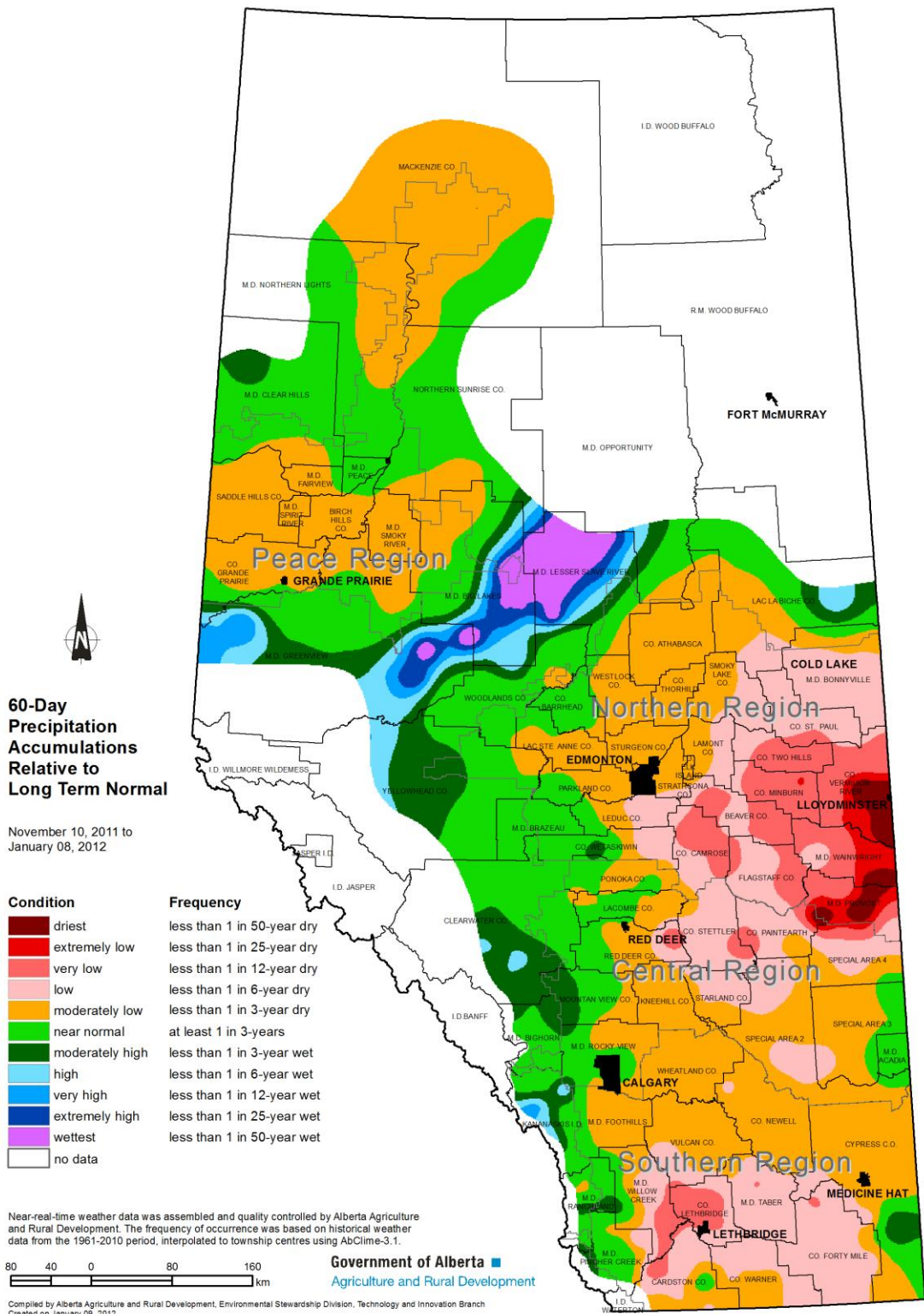
Near-real-time weather data was assembled and quality controlled by Alberta Agriculture and Rural Development. The frequency of occurrence was based on historical weather data from the 1961-2010 period, interpolated to township centres using AbClima-3.1.



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Agriculture and Rural Development













Compiled by Alberta Agriculture and Rural Development, Environmental Stewardship Division, Technology and Innovation Branch
Created on January 09, 2012



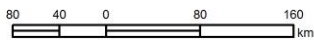


Snow Pack Accumulations In Stubble Fields Relative to Long Term Normal

Estimated as of January 08, 2012

Condition	Frequency
 driest	less than 1 in 50-year dry
 extremely low	less than 1 in 25-year dry
 very low	less than 1 in 12-year dry
 low	less than 1 in 6-year dry
 moderately low	less than 1 in 3-year dry
 near normal	at least 1 in 3-years
 moderately high	less than 1 in 3-year wet
 high	less than 1 in 6-year wet
 very high	less than 1 in 12-year wet
 extremely high	less than 1 in 25-year wet
 wettest	less than 1 in 50-year wet
 no data	

Near-real-time weather data was assembled and quality controlled by Alberta Agriculture and Rural Development. The snow pack was modeled for stubble fields using the Modified Versatile Soil Moisture Budget V-2.0. The frequency of occurrence was based on model runs using historical weather data from the 1961-2010 period, interpolated to township centres using AbClima-3.1.



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