

## Moisture Situation Update – March 31, 2016

### Synopsis:

Throughout the month of March, most of the province continued to experience warmer than normal temperatures, with many areas seeing a March this warm, less than once in 25 years (**Map-1**). A combination of warm weather, a late start to winter and below normal precipitation accumulations, lead to early “snow free” conditions across much of the province. In fact, by March 15<sup>th</sup> most agricultural areas south of the Yellowhead highway were snow free.

For those areas north of Red Deer, March marked a change in precipitation patterns, with many areas experiencing near normal to above normal accumulations for the month (**Map-2**).

Over winter precipitation accumulations were well below normal across most of the province with areas southeast of Edmonton, between Calgary and Medicine Hat, and through the eastern Peace Region experiencing at least one in 12-year lows (**Map 3**). However, on average winter precipitation accumulations only account for about 20-30% of the average annual precipitation accumulations and total over winter precipitation deficits do not exceed 70 mm in even the driest areas. From a cropping perspective, these shortfalls can effectively be eased by one good soaking rain or a few large spring snow storms.

Long term moisture deficits (365-days) show significantly dry areas through the northern Peace Region, across much of northern Alberta, and through many areas between Lethbridge and Medicine Hat (**Map 4**). These lands will benefit greatly from near normal precipitation accumulations over the coming few months, particularly if warmer than normal temperatures persist.

### Frost Probabilities:

With winter snows gone early and warmer than normal temperatures, producers are likely to be out on the land sooner this year. If so, late spring frosts may be a concern for early seeded crops.

As a general guideline, on average only about one in four years (25% chance) will most agricultural areas lying south of Grande Prairie expect to see frosts as low as -5 °C on or after about April 27<sup>th</sup> or frosts as low as -2 °C on or after about the 10<sup>th</sup> of May. For those areas north of Peace River, add about a 10 days to each of these dates. The table below lists these 25% frost probabilities for selected areas. Note, these dates will need to be adjusted earlier for low lying areas and those lands situated near the foothills, or at higher elevations.

### Dates beyond which the probability of a frost at the given temperature, drops to 25%

Location	Severity of Frost	
	-5°C	-2°C
La Crete	08-May	21-May
Grande Prairie A	29-April	11-May
Edmonton	26-April	09-May
Strathmore	30-April	12-May
Lethbridge	29-April	12-May
Medicine Hat	27-April	11-May

To investigate frost probabilities in your area log on to <http://agriculture.alberta.ca/acis/alberta-weather-data-viewer.jsp> and, select the “normals” tab.

Additional maps can be found at [www.agriculture.alberta.ca/maps](http://www.agriculture.alberta.ca/maps)

## **Moisture Situation Update – March 31, 2016**

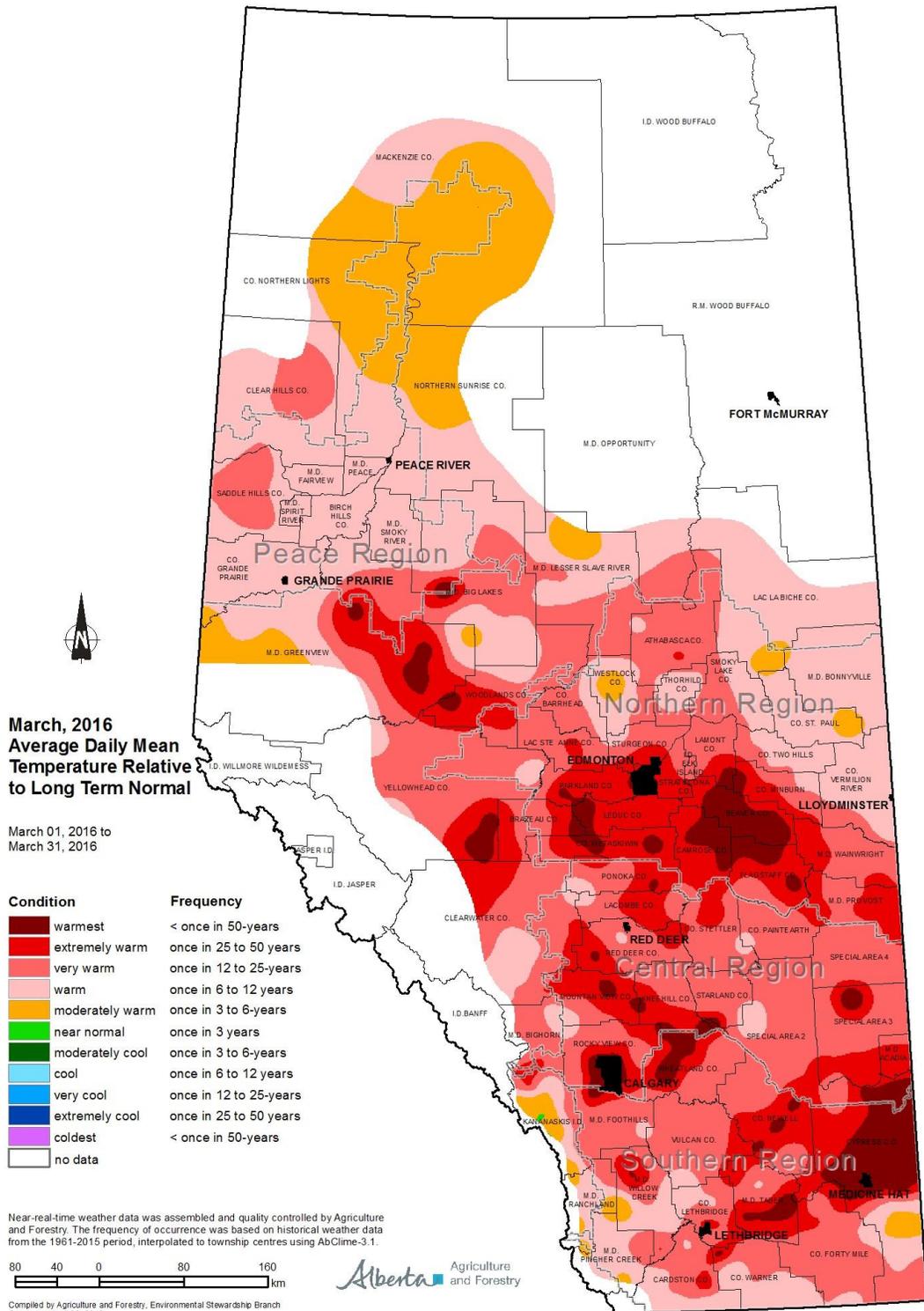
**Near-real-time hourly station** data can be viewed/downloaded at [www.agriculture.alberta.ca/stations](http://www.agriculture.alberta.ca/stations)

**Note:** Data has about a two hour lag and is displayed in MST.

Ralph Wright  
Manager, Agro-meteorological Applications and Modelling Section  
Alberta Agriculture and Forestry  
Phone: 780-446-6831

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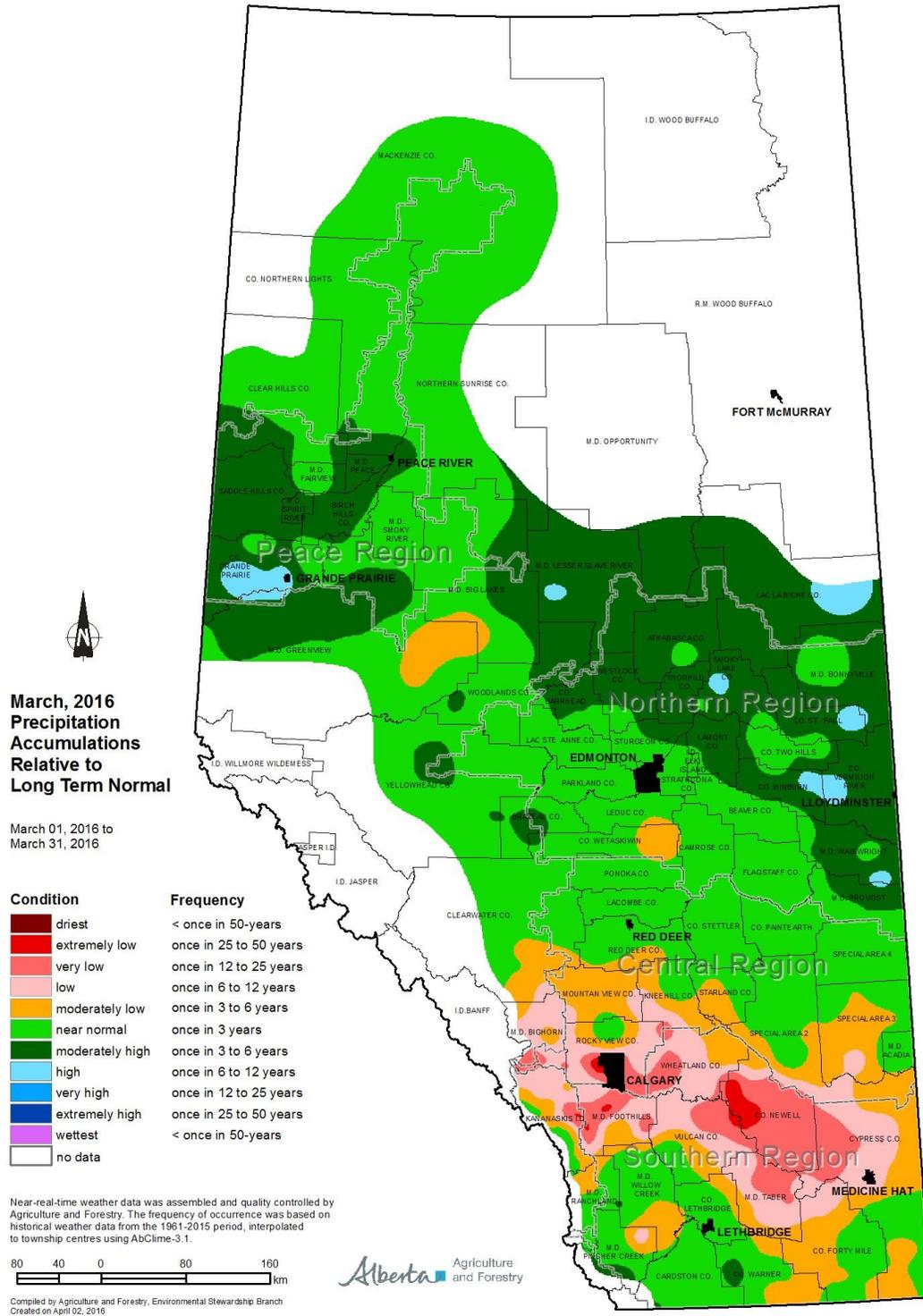
## Map 1



Visit [weatherdata.ca](http://weatherdata.ca) for additional maps and meteorological data

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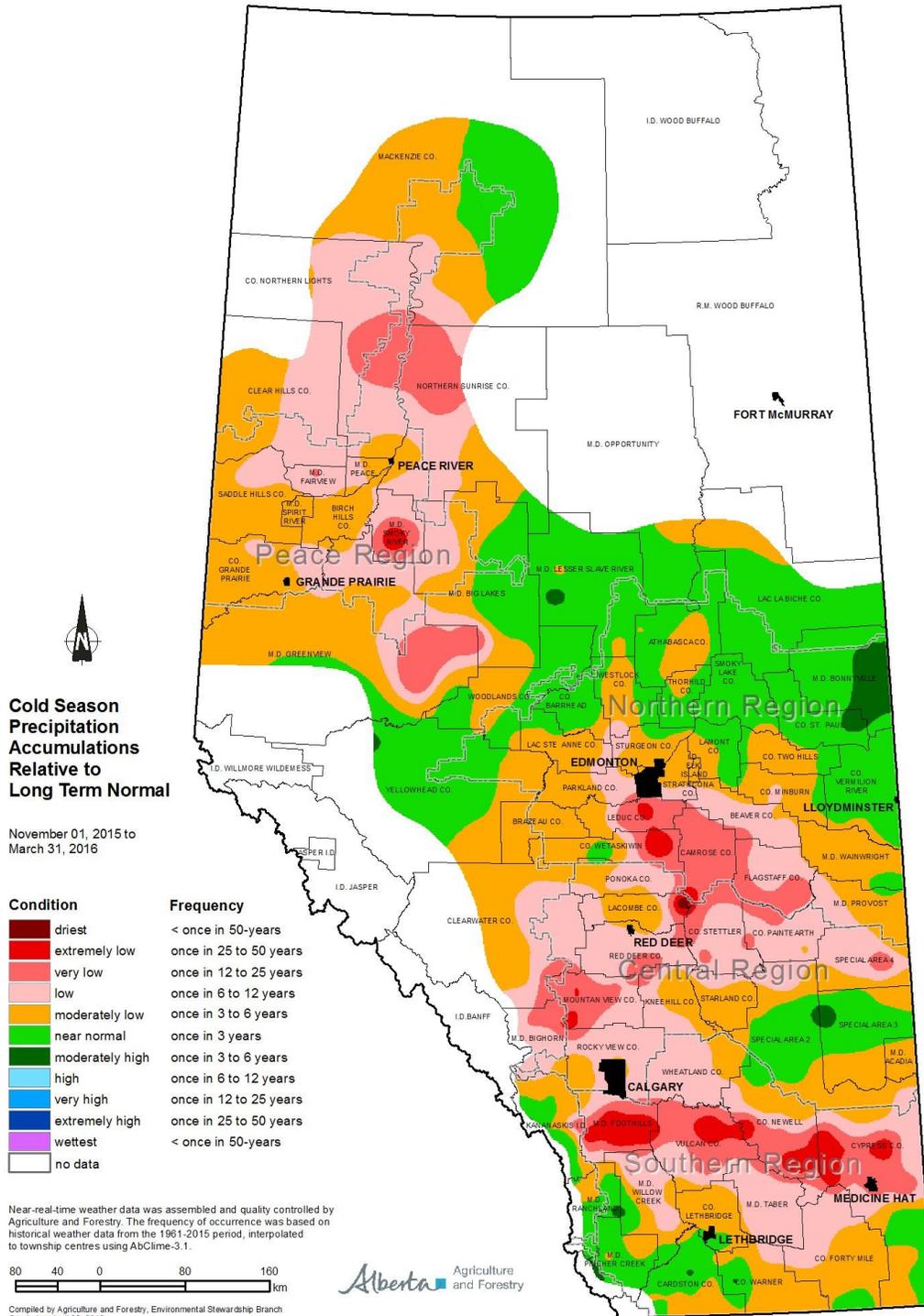
## Map 2



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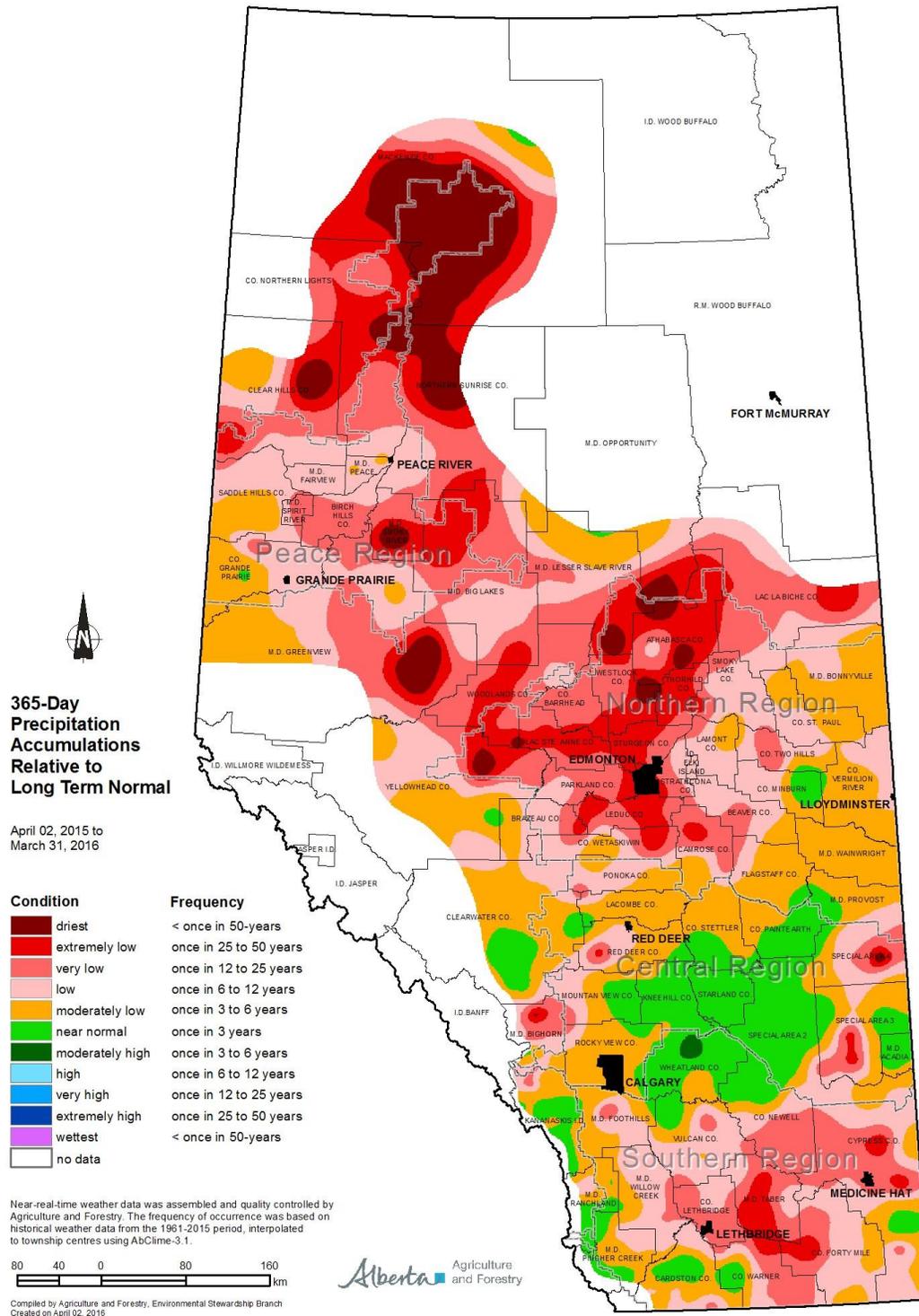
## Map 3



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## Map 4



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