

Moisture Situation Update – May 7, 2018

Synopsis:

Province wide, winter snows lingered well into the third week in April, under the presence of unusually cold air that dominated the skies over the past several weeks (**see map 1**). April 20th marked an abrupt end to the cold spell, with overnight lows finally remaining above the freezing mark. On April 28th, day time temperatures had soared into the high 20's, laying the land largely snow free. Since then, above average temperatures and persistent winds have prevailed, helping to dry the land quickly and warm up the soils, ahead of seeding.

While the snowpack melted a few weeks later than usual, over winter precipitation accumulations were not considered to be excessive, with most of the province seeing near to below normal accumulations since late October (**see map 2**). Some exceptions include parts of southern Alberta, and portions of the Peace Region, where accumulations were above normal in some areas.

For southern Alberta, the lingering snows were very unusual, but this was a result of cooler than normal temperatures that arrived in late January and persisted until mid-April (see map 3). In contrast, most years will experience periodic warm episodes during the winter, with melt episodes significantly reducing the spring snowpacks ahead of the final melt. This simply did not happen this year and a sudden rise in temperatures in late April resulted in a rapid melt, leading to overland flooding in many locales.

In the wake of retreating snows, soil moisture reserves are variable across the province, ranging from very low in pockets between Calgary and Lethbridge and also through parts of the Northern Peace Region and up to high across parts of the North East, North West and Southern Peace regions (see map 4). Where reserves are well below normal, rain will be needed soon to encourage vigorous pasture growth, following a delayed start to this year's grazing season.

Perspective

Looking back as far as 1961, on several occasions much of the north-half of the province has experienced snow packs that persisted well into the third week in April. In fact, during the 60's and 70's many areas saw eight out of 20 years with snow packs lingering into the last week of April. 1974 was the highest snow fall year, with up to 3 times more snow accumulating over winter as compared to 2018 levels. Interestingly enough in these years, just like 2018, snows retreated rapidly on or about the 20th of April.

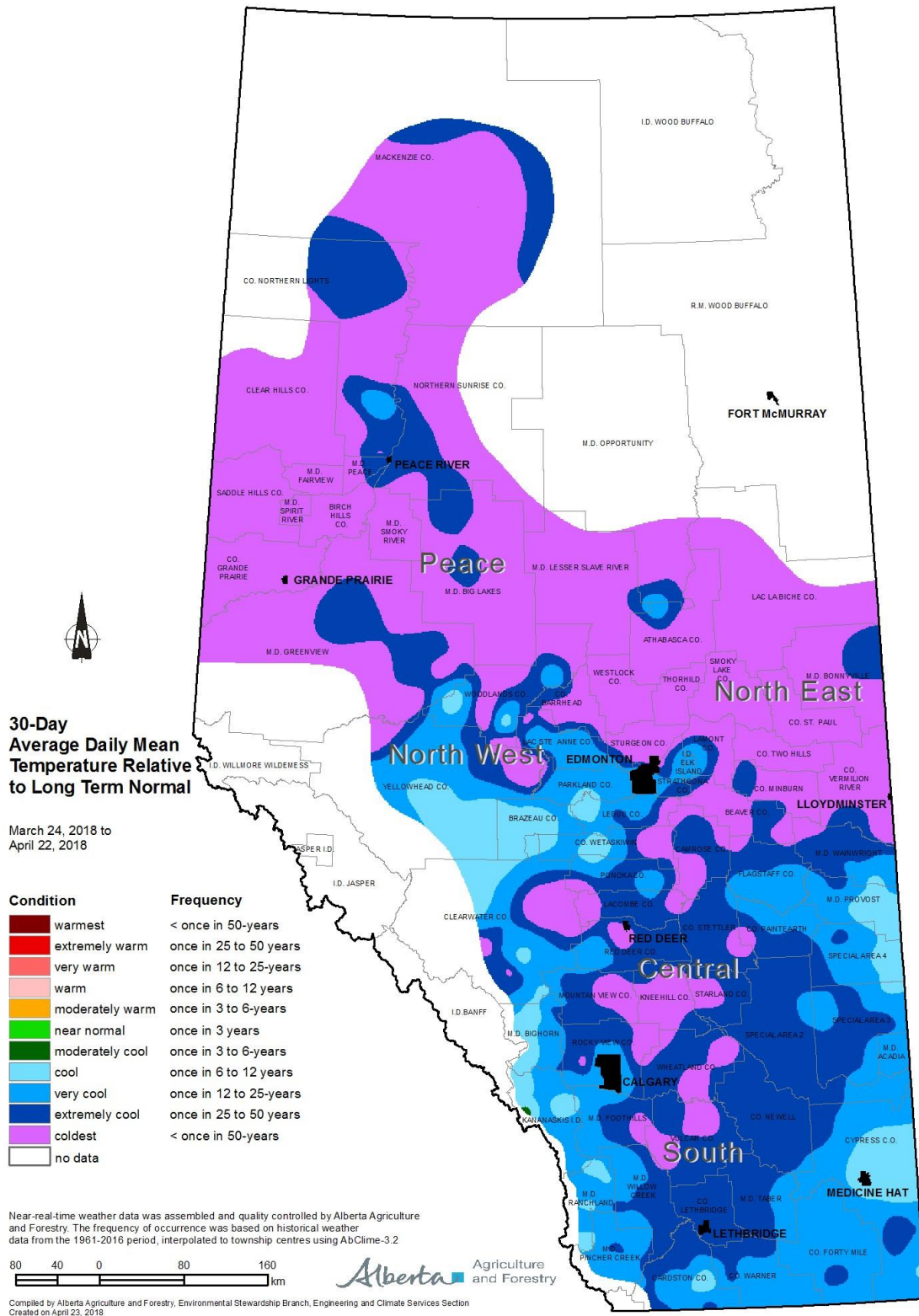
Near-real-time hourly station data can be viewed/downloaded at www.agriculture.alberta.ca/stations

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

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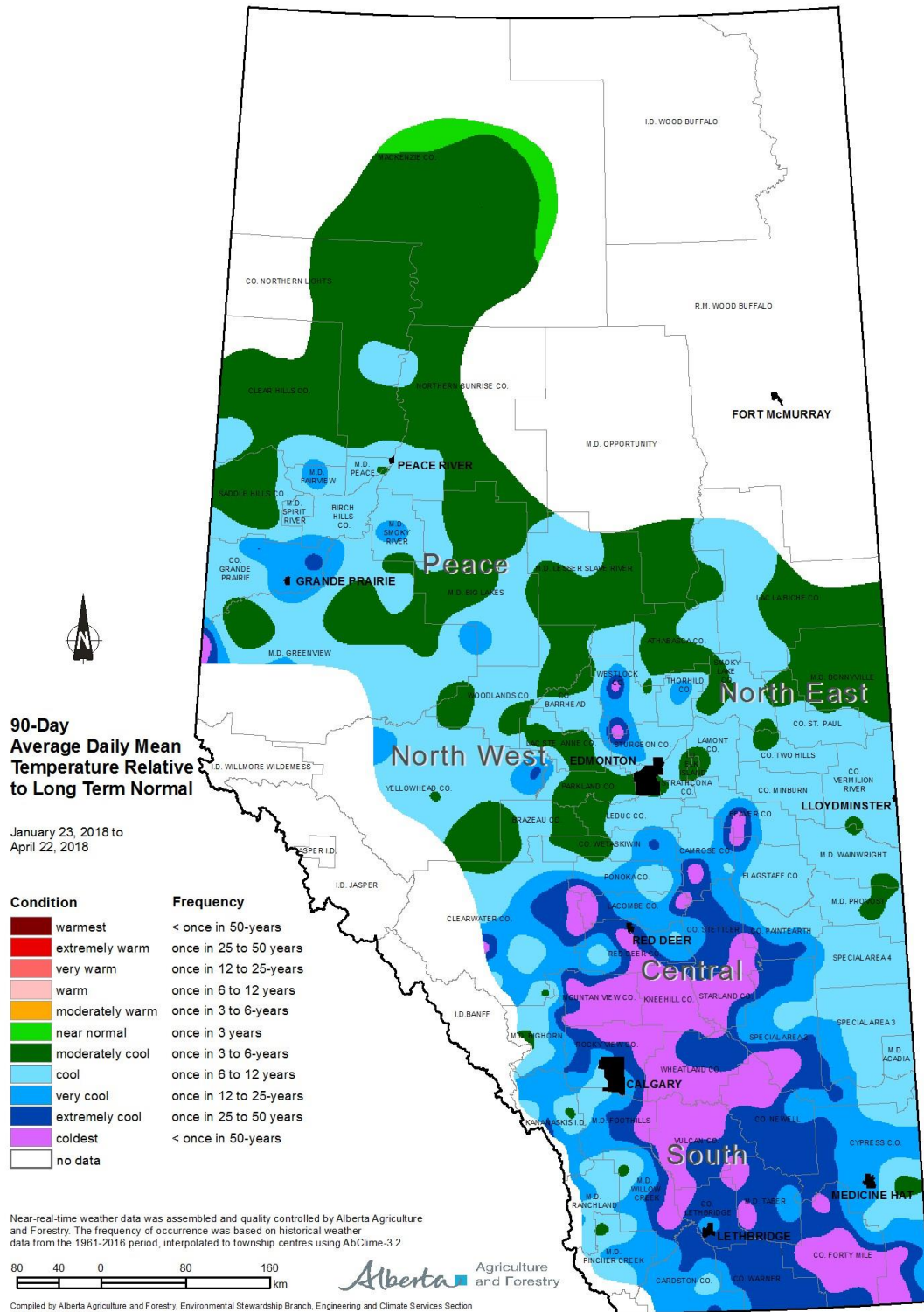
Map 1



Visit weatherdata.ca for additional maps and meteorological data

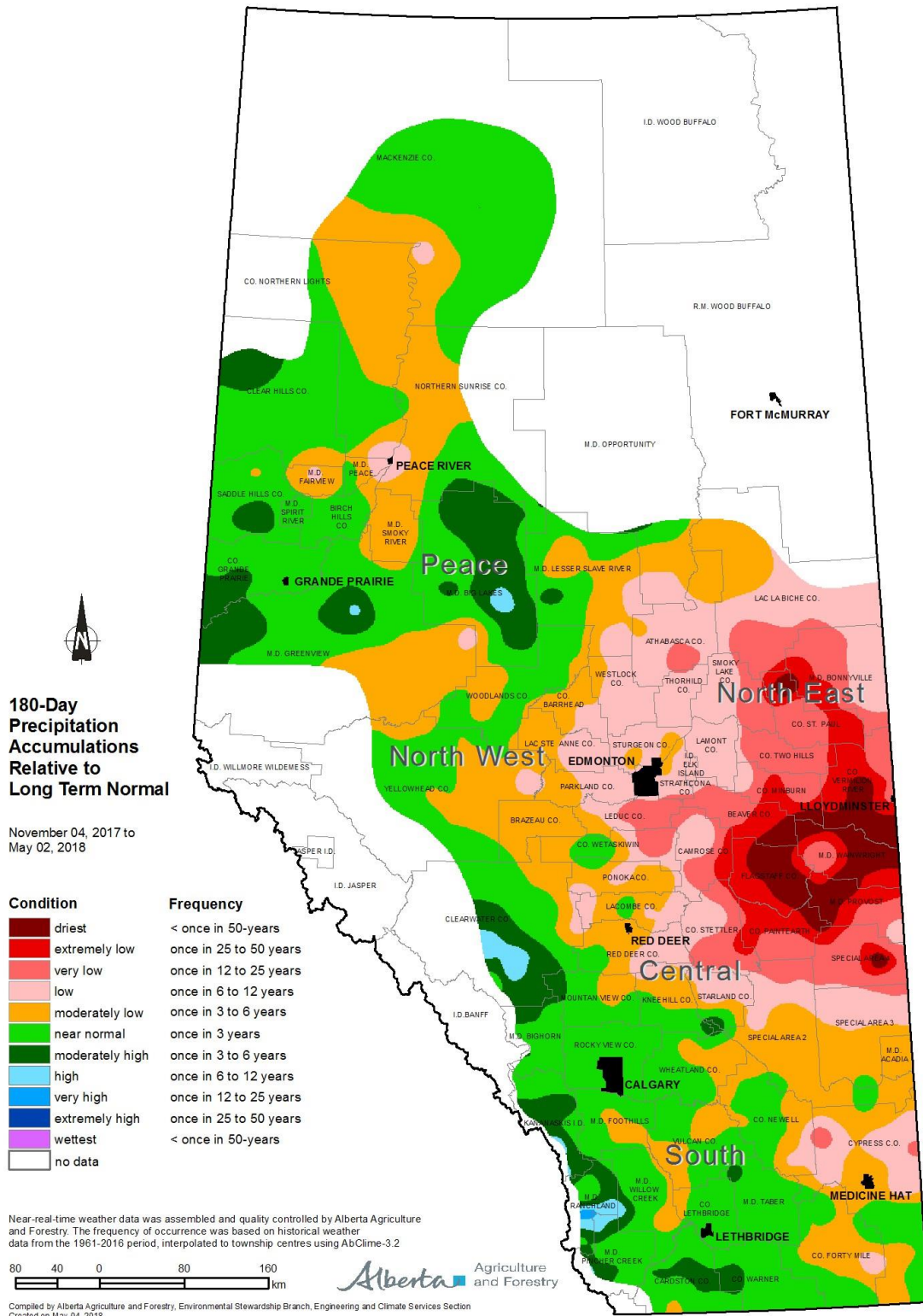
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Map 2



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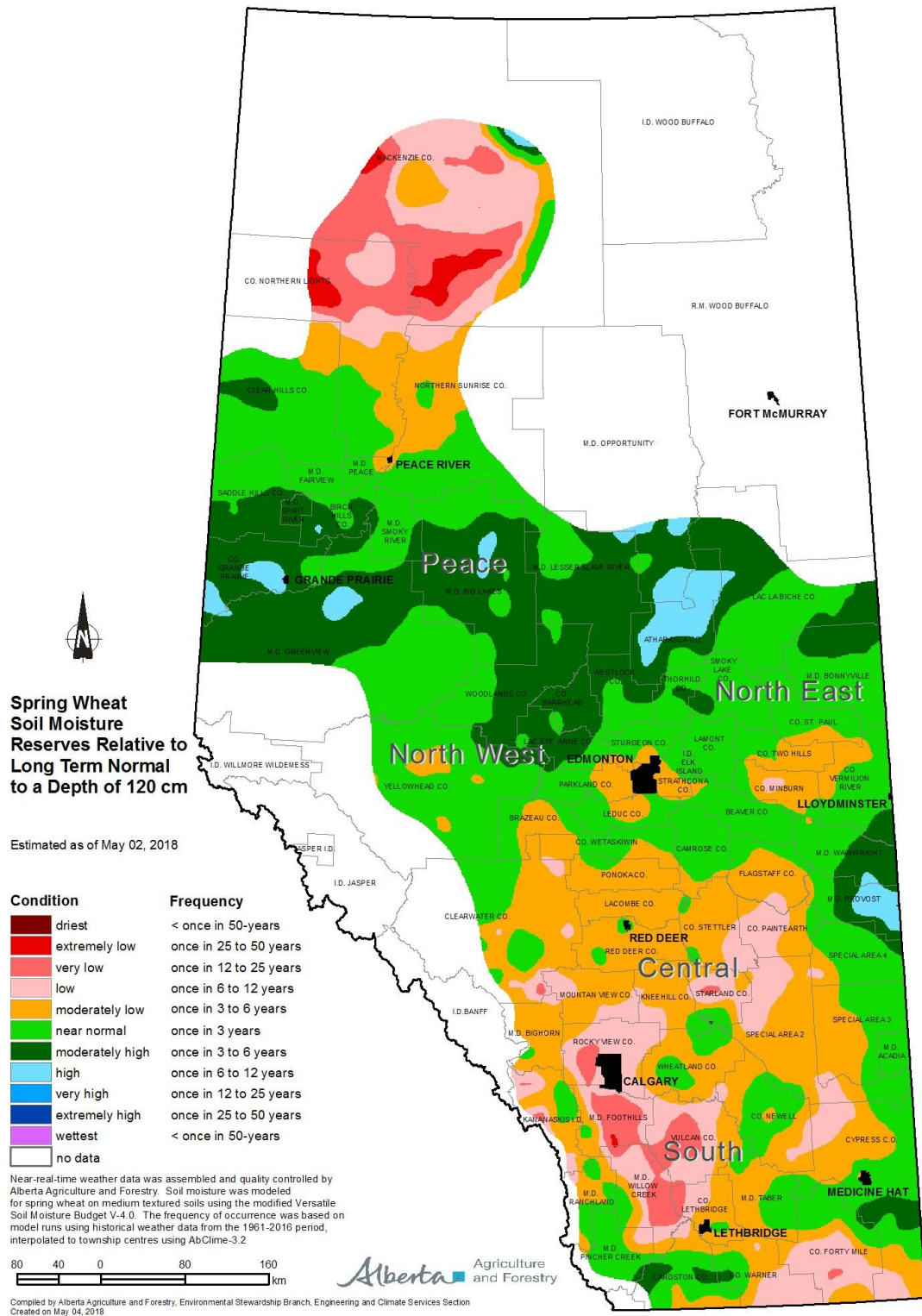
Map 3



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Map 4



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