Moisture Situation Update – January 15, 2018

Synopsis:

This winter, the weather has been highly variable. Cold snowy weather arrived in late October, which persisted throughout November. The trend abruptly ended with an unusually warm start to December, which was sufficient to significantly reduce the depth of existing snowpacks. In recent weeks, the warm December weather has been abruptly interrupted by two major cold snaps, that in some areas, sent the mercury to well below -40°C.

The first cold snap arrived on or about December 24th and persisted for about 10 days. During this intense cold, temperatures dipped below -40°C throughout much of the northern Peace Country, as well as across the central parts of Southern Alberta (see map 1).

Warm weather returned abruptly on about January 3rd for a brief eight day period, with day time highs exceeding the freezing mark in many locales, which again was sufficiently warm enough to result in a visible degradation of the existing snow pack.

The second cold snap lasted about three days and began on about Jan 10th, forcing the mercury to dive below -40°C, across most the Peace Region and throughout many areas north of the Yellowhead Highway, roughly between Slave Lake and Lloydminster (see Map 2). Again, this cold weather ended abruptly, with temperatures rising to well over 0°C over the past few days.

Since early December, drier than normal conditions have persisted in the central, northwest and northeastern parts of the province, and near to above normal precipitation has fallen across most of the Peace and southern portions of the province. Since the start of winter (November 1), precipitation has been highly variable across the province, with most parts of Southern Alberta and much of the Peace Region experiencing near normal precipitation accumulations (see map 3). In contrast, relatively dry winter conditions have persisted throughout much of the central, northwest and northeastern portions of the province, with accompanying snow packs estimated to be well below normal for this time of year.

Much of the snow pack in the central parts of the province, has been converted largely to ice, with a thin surface cover of remaining snow (see map 4). Note that this map depicts water equivalent in a snow pack, and **not** the depth of snow cover. For example, in some areas a 10-20 mm water equivalent may describe a 2 cm layer of ice, with a few mm of snow remaining on top, or in those areas that have recently received relatively fresh snow, the snow depth could be in the 10 to 20 cm range.

At this point it remains to be seen what Mother Nature has in store for us as we ride out the remainder of the winter, in anticipation of spring. At least the days are getting longer now.

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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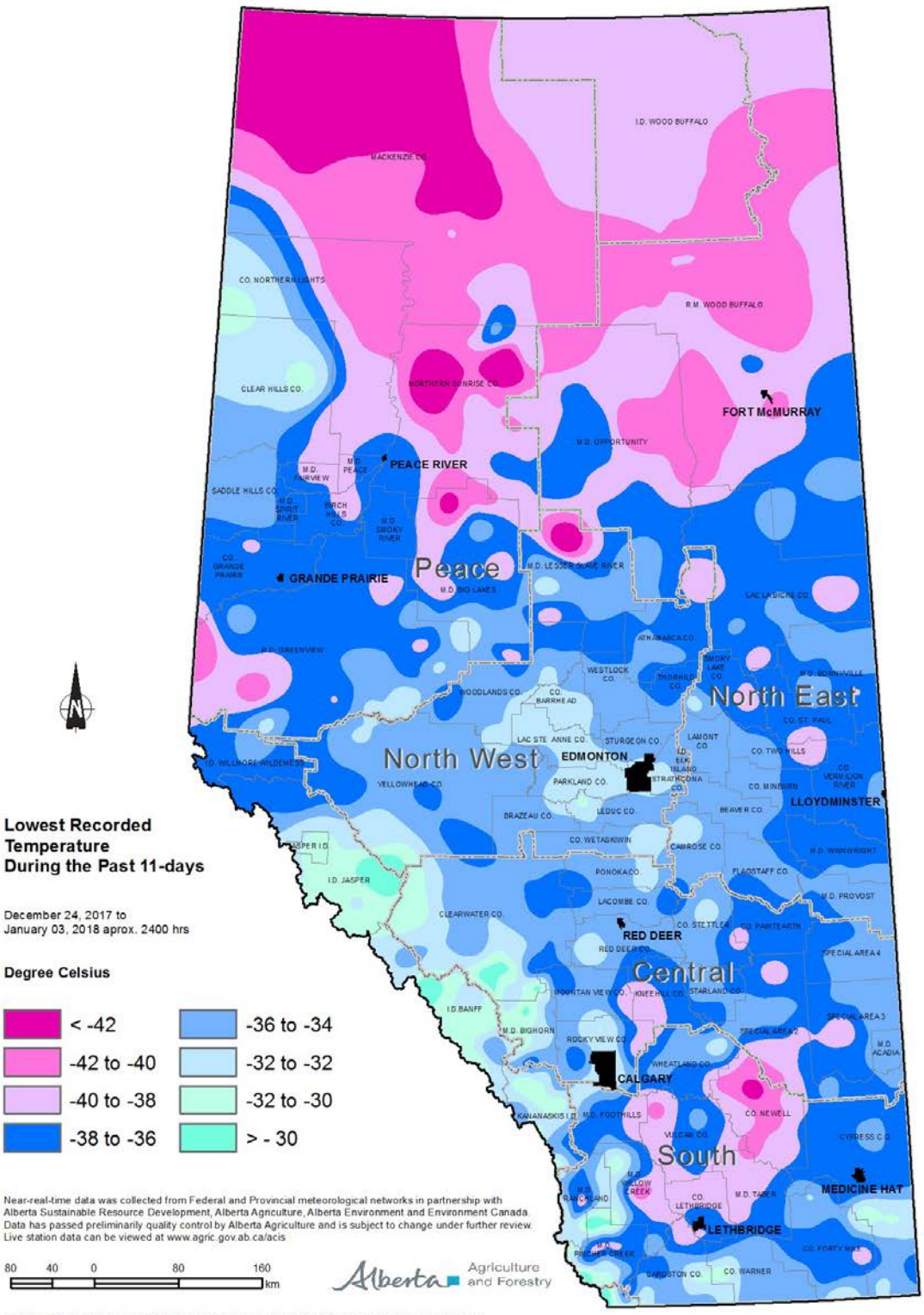
Map 1



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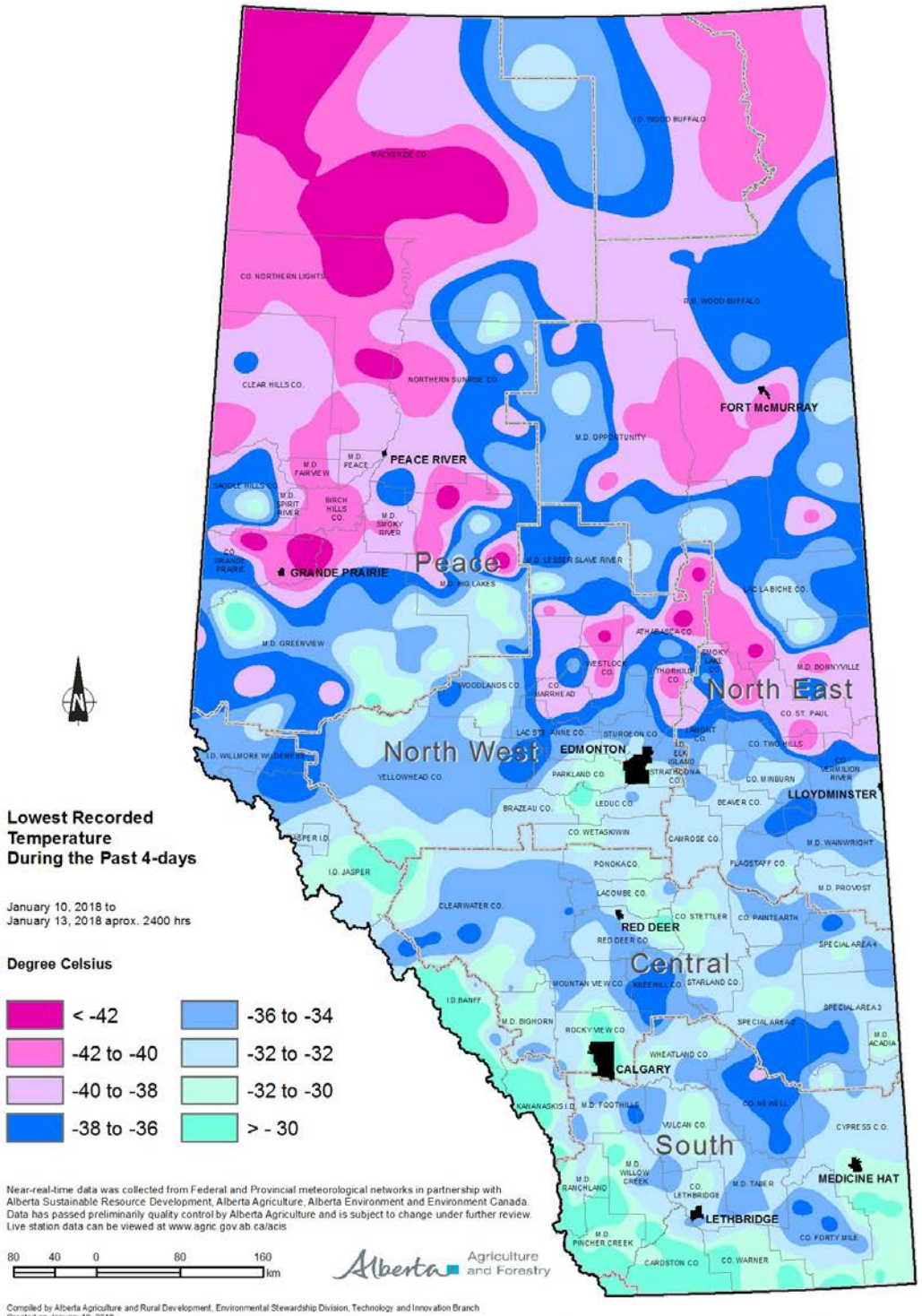
Map 2



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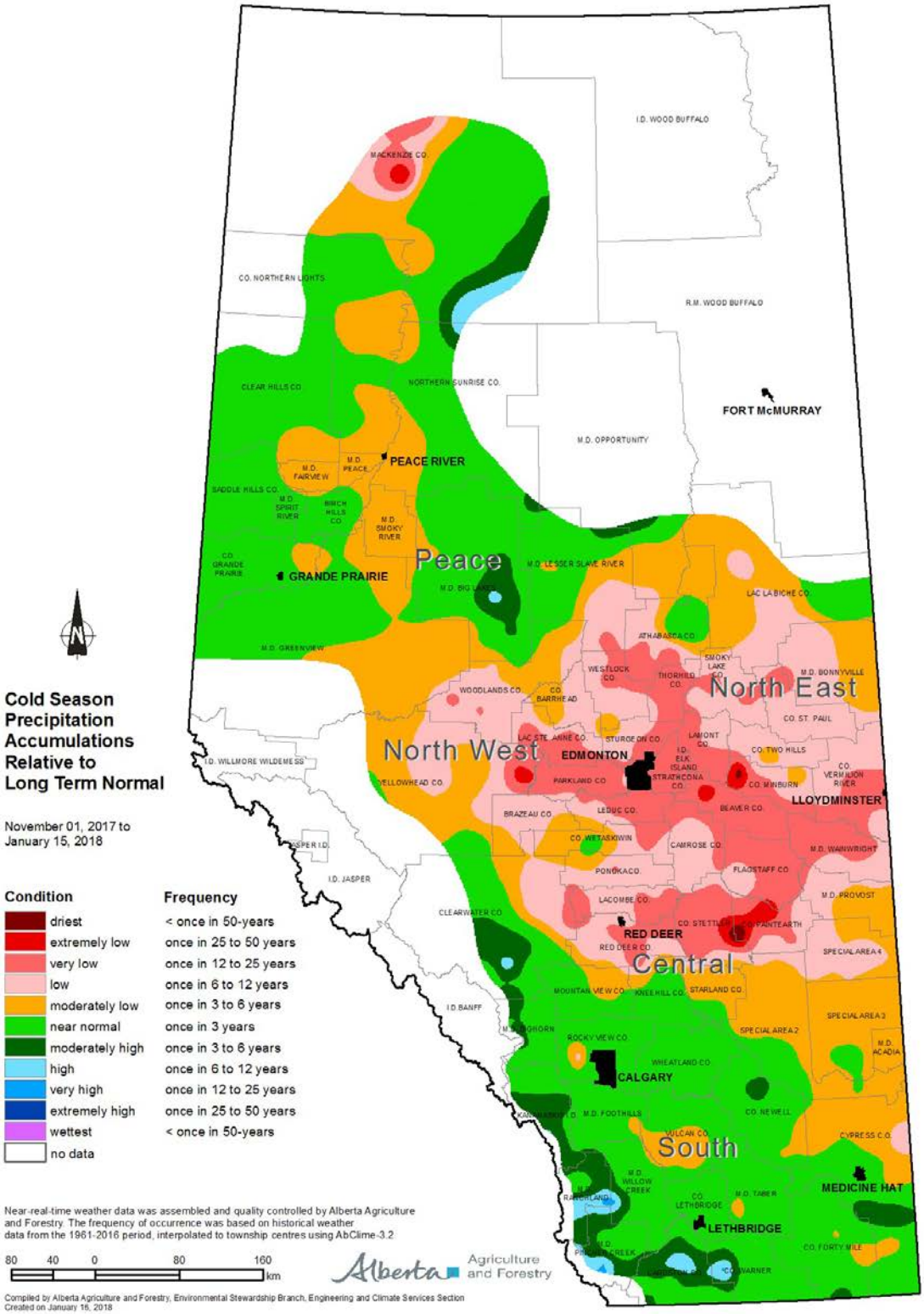
Map 3



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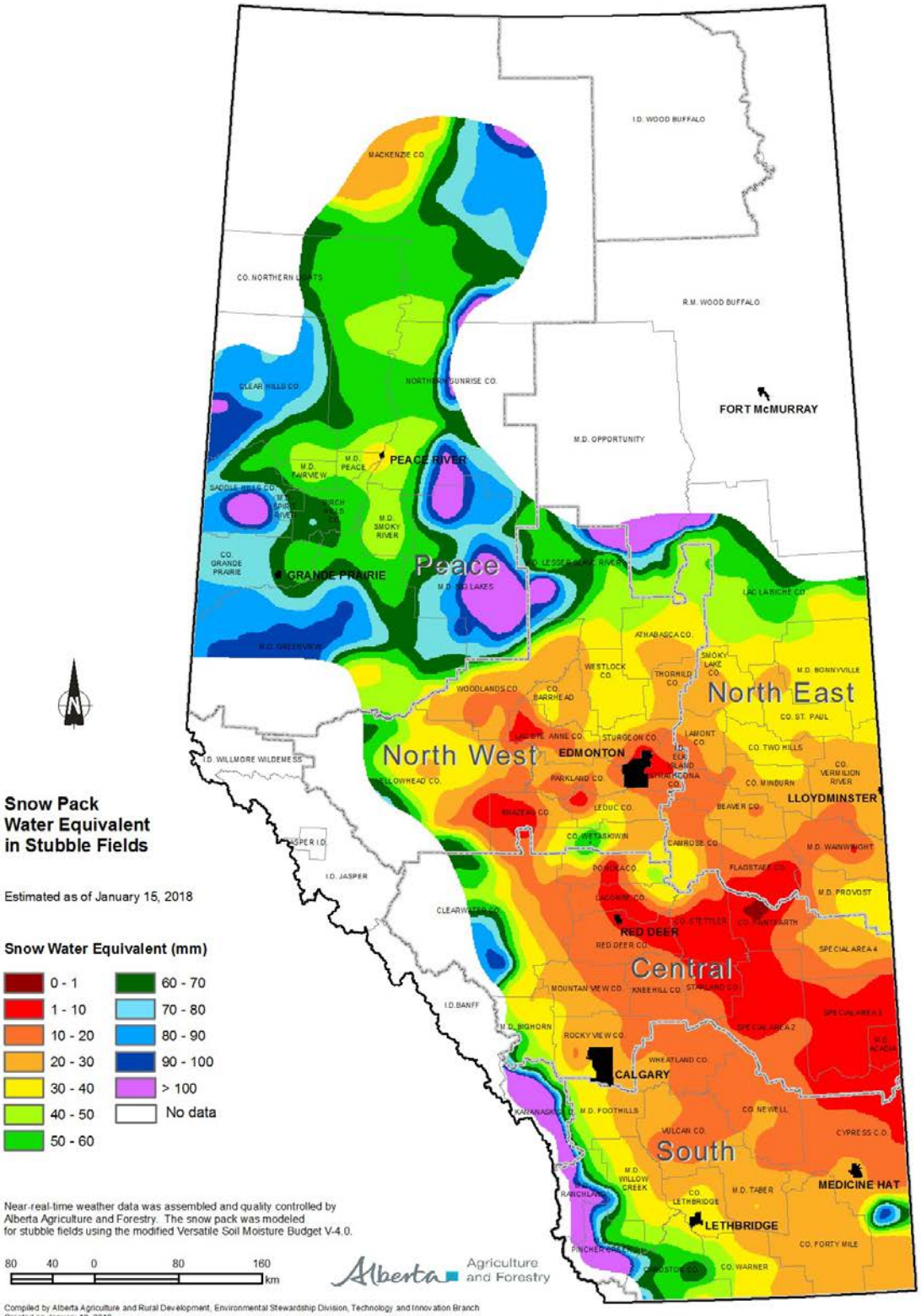
Map 4



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