

Agricultural Moisture Situation Update

May 23, 2022

Synopsis

Late last week, just ahead of the May long weekend, a major storm system swept across Alberta, bringing the promise of much needed rain to many dry areas across the province. However, once the clouds cleared and the weather warmed, the precipitation it left in its wake was highly variable and for many, perhaps not as much as hoped for and needed (**Map 1**). Large parts of the south-half of the province received less than 10 mm of moisture, with some lands south of a line running east to west, through Red Deer, along with parts of the North East Region receiving less than 5 mm. Fortunately for the Peace Region, most areas stayed dry which allowed seeding to continue, following an exceptionally wet start to spring.

Growing Season precipitation as of May 23, 2022

Since April 1, the start of this year's growing season, most lands south of the TransCanada Highway remain exceptionally dry with some areas experiencing 1 in 50 year lows so far (**Map 2**). Most lands in the central parts of the Southern Region have received less than 20 mm (**Map 3**). The driest areas are in and around Lethbridge, where some stations have recorded less than 10 mm since April 1, 2022. Areas in need of immediate moisture (< 40 mm of precipitation since the start of April) extend up to at least Red Deer and throughout parts of the North East.. In contrast, most of the Peace Region has been wet, with many lands receiving 100 mm or more since the start of April.

Soil Moisture Reserves Relative to Normal as of May 23, 2022

With the exception of the Peace Region, soil moisture reserves remain below average throughout many of the province's growing areas, (**Map 4**). Across the Peace Region, warm dry weather is needed to help speed seeding operations, which are currently lagging behind due to cold and wet weather.

In sharp contrast, large parts of the Southern Region have extremely low reserves, along with a large pocket that is growing in the North East Region and western portions of the North West and Central Regions.

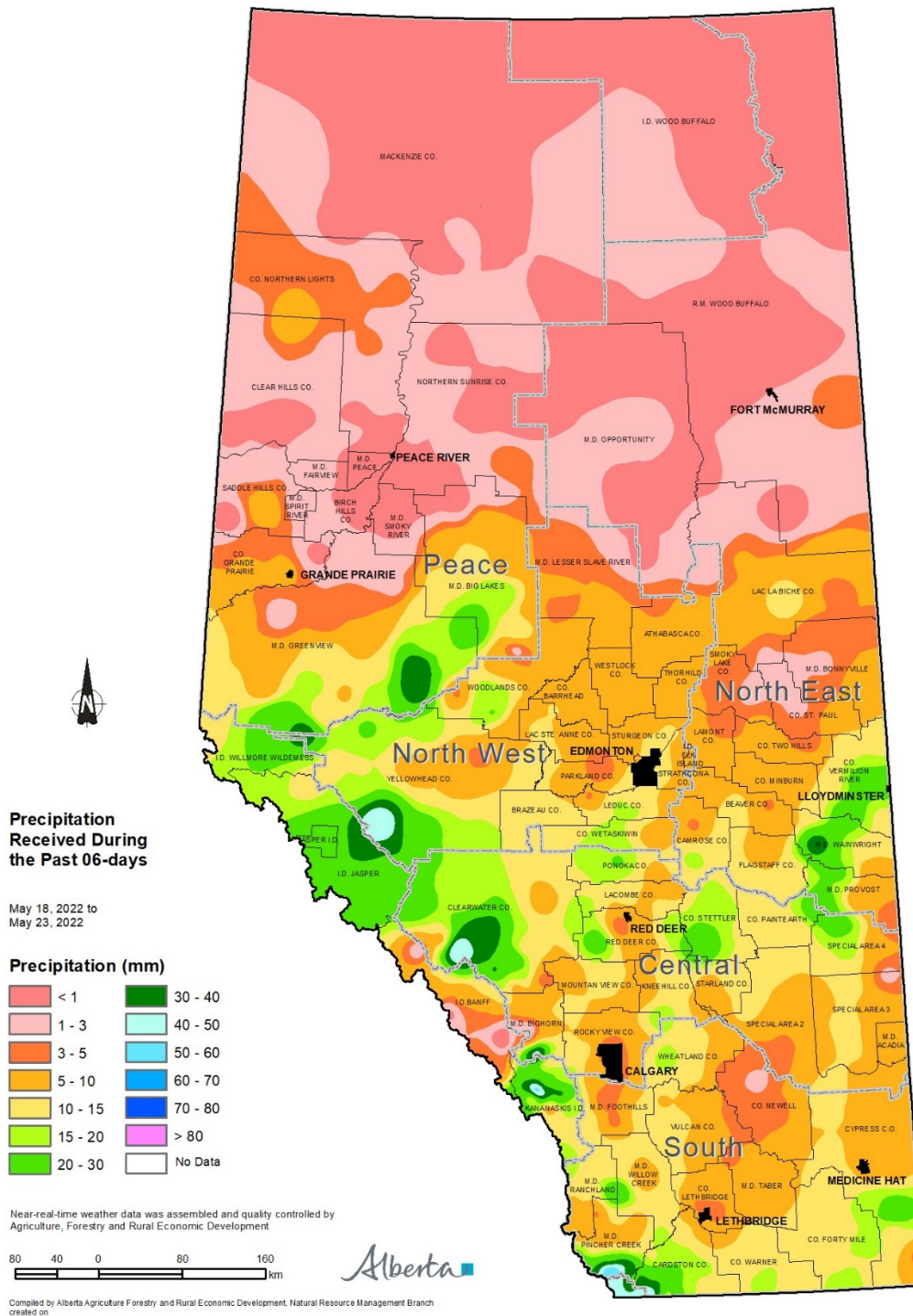
Perspective

Rain and warm temperatures are needed very soon in those areas of **Map 3** that have received less than 40 mm (light orange) since the start of the growing season. The need for moisture is even more acute in those areas south of the "Red Deer Line" that have received less than 30 mm (dark orange and pink on Map 3)).

The end of May typically marks a dramatic shift in rainfall patterns as the weather warms and thunderstorm activity becomes an important moisture source. June is on average the wettest month of the year in Alberta. Hopefully this June brings these rains as many pastures and hay lands are extremely dry and recently seeded crops are seeking moisture to germinate and grow.

Most of Alberta's agricultural lands, with the exception of the Peace Region will need at least near normal, well timed rainfall in the days and weeks to follow as soil moisture reserves are well below average. This means many crops are now solely reliant on rainfall for growth. However, at this point a significant wet spell, lasting a few days, that delivers 50 to 75 mm of rain would be sufficient to replenish soil moisture reserves and give crops the reserves they need to withstand short duration dry spells and hot weather.

Map 1



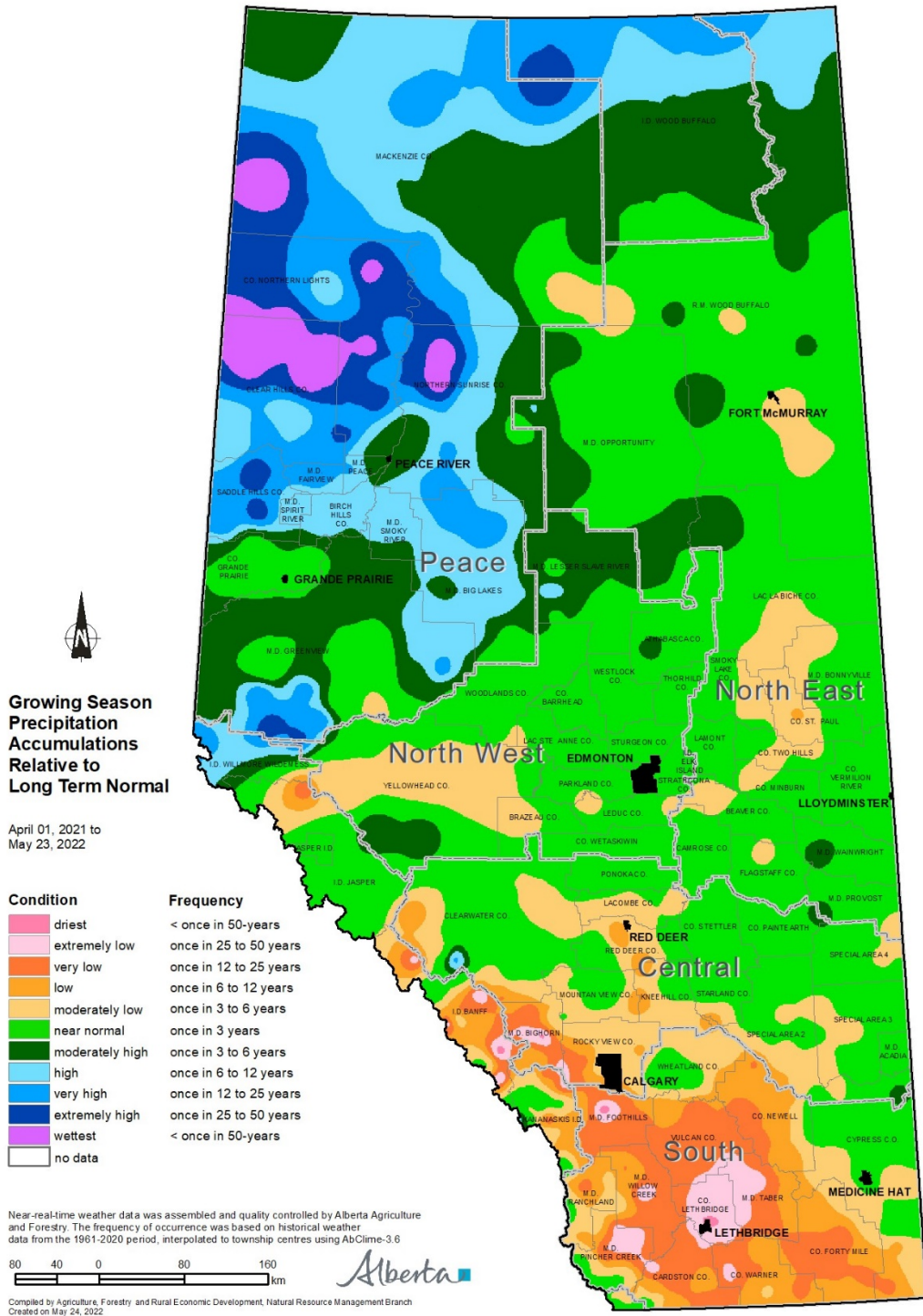
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Map 2



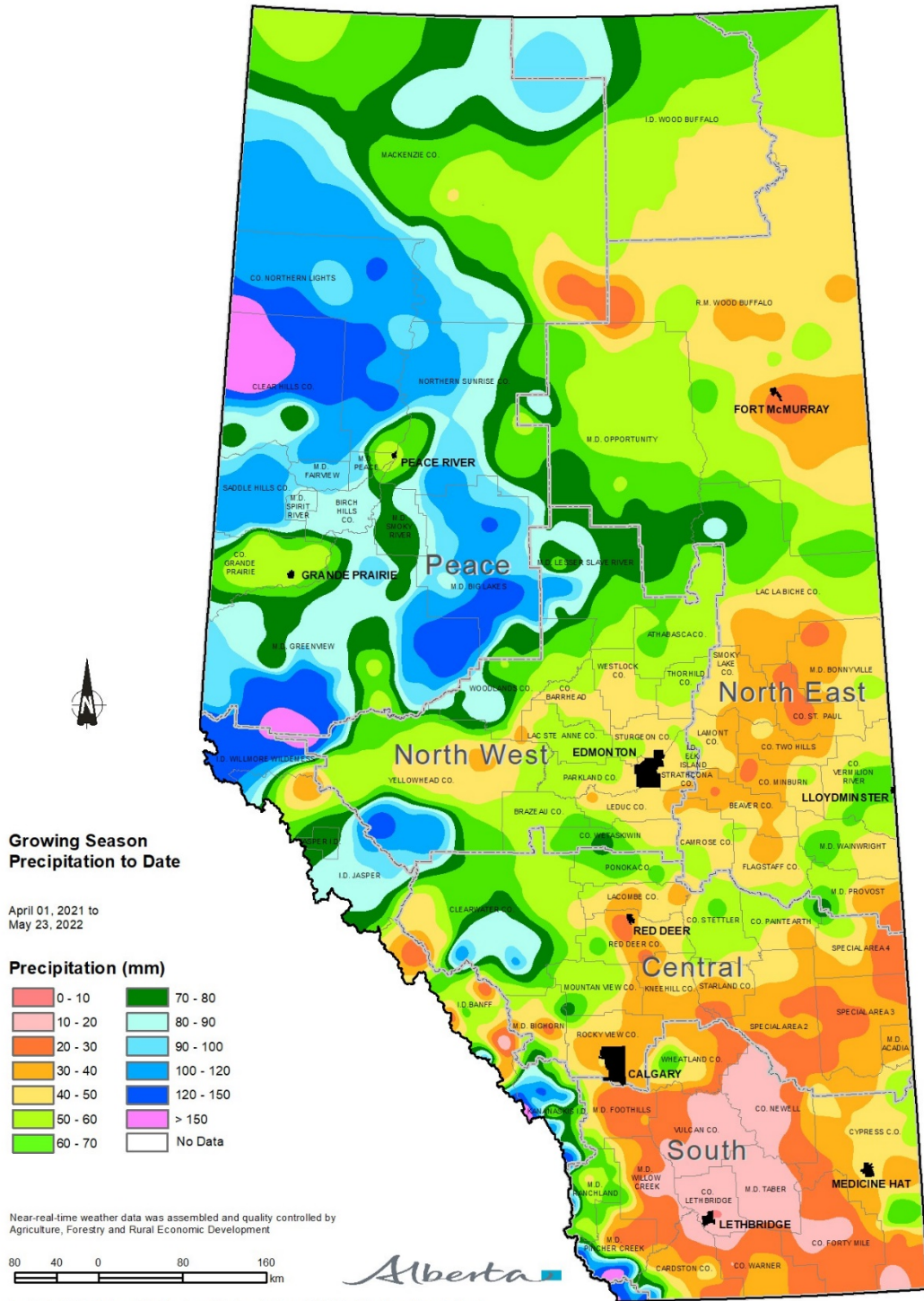
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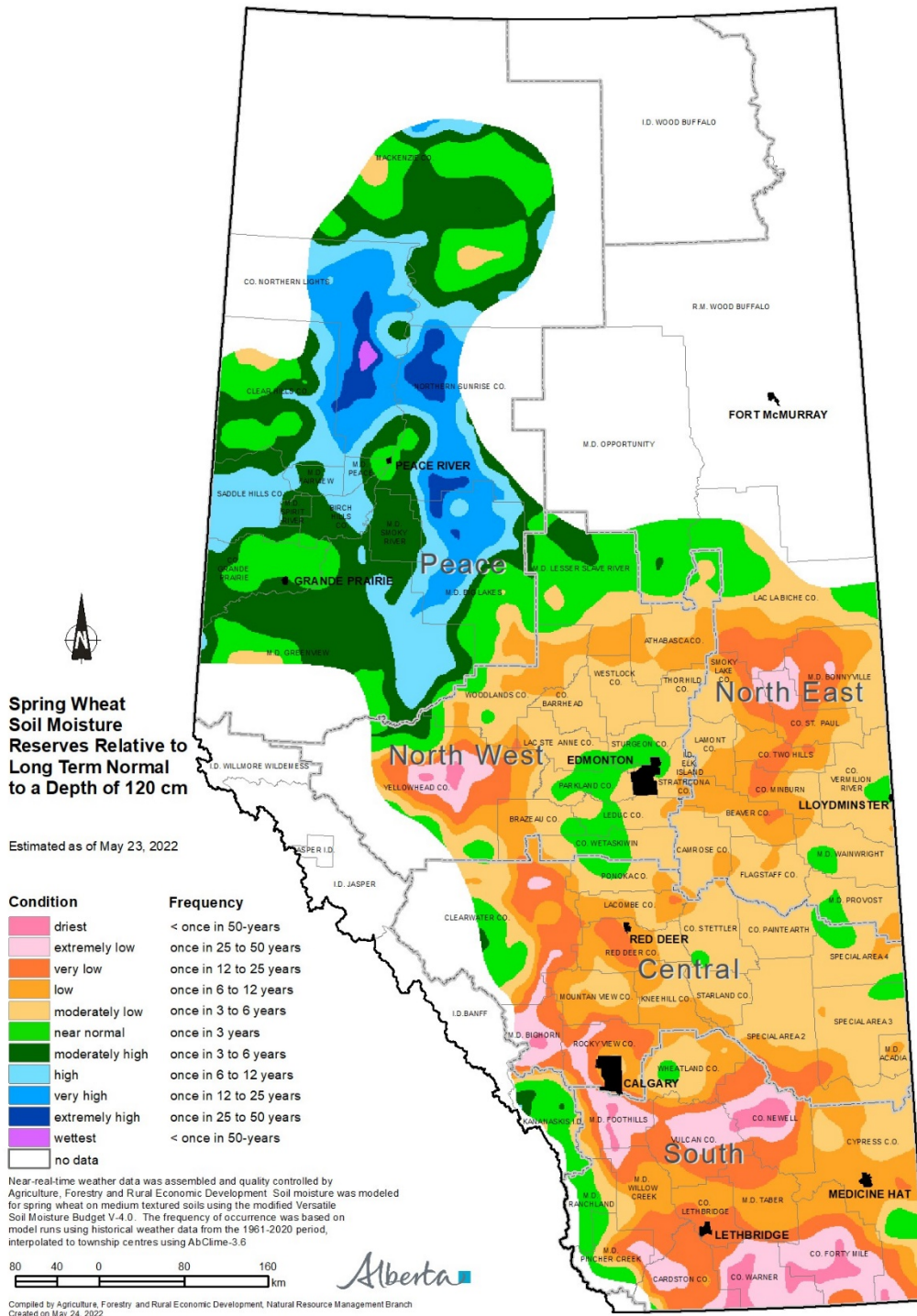


Map 3



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Map 4



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