

Agricultural Moisture Situation Update

June 29, 2022

Synopsis

Since the last report, June 21, 2022, further rains have fallen across many areas with a large swath of land stretching across the province, between Athabasca and Olds, receiving well over 40 mm of rain (**Map 1**). Parts of Southern Alberta received much needed and further moisture (5 to 15 mm), with a few pockets getting less than 3 mm.

Recent thunderstorm activity has been particularly intense with hail and impressive cloud formations, which in some cases at spun off violet funnel clouds. As such the amounts of rain portrayed in **Map 1** likely underestimates moisture for those areas that lay across the path of these damaging storms.

Precipitation over the past 30-days

Over the past 30-days, most of the province has received enough rain to make dramatic improvements to soil moisture reserves and bring an abrupt end to acute crop moisture shortages. This is particularly true for much of southern Alberta where some lands had been subjected to several successive years of moisture shortages.

Since the start of June, most of the provinces growing areas have received at least 75 mm of moisture and a large area through the central and western portions of the province have received over 125 mm of rain (**Map 2**). Excessive moisture may be building in through those areas that have received over 150 mm of rain (**Map 2**). For perspective, some lands have seen a June this wet less than once in 50 years (**Map 3**), with about 60% of the province between the Yellowhead Highway and the US border experiencing a June this wet less than once in 6-12 years.

Dry areas are lingering through parts of the Special Areas, with some stations reporting less than 60 mm of rain (**Map 2**). While this has been enough to encourage growth, previously dry conditions have left little moisture reserves in the ground for the days ahead and more rain is needed very soon.

Growing season precipitation

Since the start of the growing season most agricultural lands have received at least near normal moisture with parts of the north-central Peace Region and most lands lying between Edmonton and Calgary estimated to have at least one in 6-12 year highs (**Map 4**). These lands are losing their capacity to absorb further moisture and are at an elevated risk of receiving excess moisture. This is particularly true as the first two weeks in July are historically one of the wettest periods in the year (**Map 6**). Since April 1 2022 some areas have received in excess of 200 mm (**Map 5**) with much of this falling during the past 3-weeks (**Map 2**).

Soil moisture reserves relative to long term normal (map 7)

In general, soil moisture reserves are at least near normal, with the exception of some lands through the Special Areas and those lying along the Milk River Ridge (**Map 7**). For these areas, July historically marks the beginning of a drying trend (**Map 6**). These locales, along with most of Southern Alberta, will need further rain in the coming days and weeks to insure that good crop growth is maintained ahead of the generous June rains.

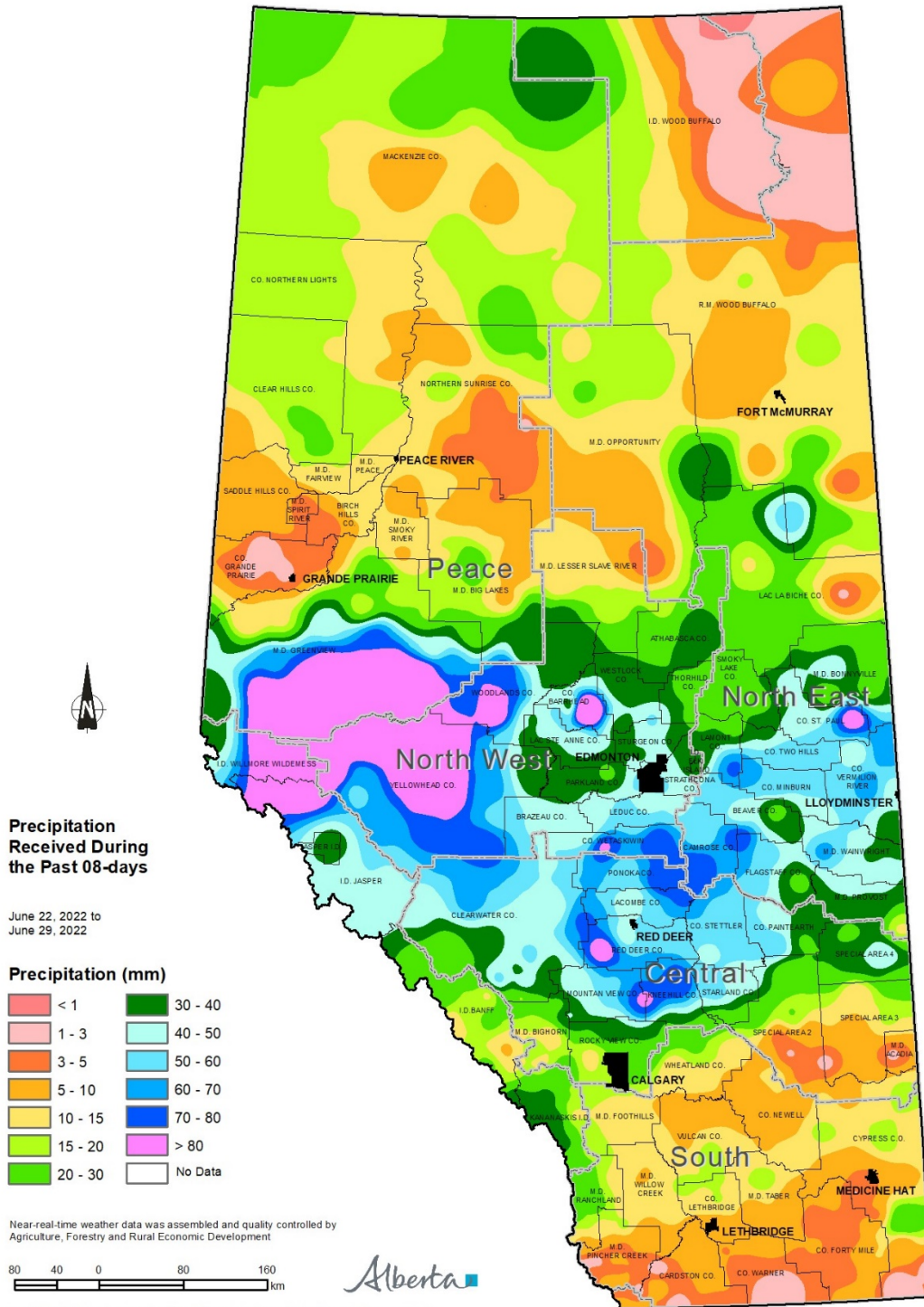
In contrast, many parts of the Central Region and north central Peace Region have above average soil moisture reserves, with some lands having reserves this high on average less than once in 12 to 25 years.

Perspective

June rains have been more than timely and of sufficient quantity to bring hope and optimism to many producers.

Going forward, warm weather and further rains will be needed across much of southern Alberta. In sharp contrast, many other widely scattered areas have very good moisture reserves and warm and dry weather would be welcome as July 2022 unfolds in the days ahead.

Map 1



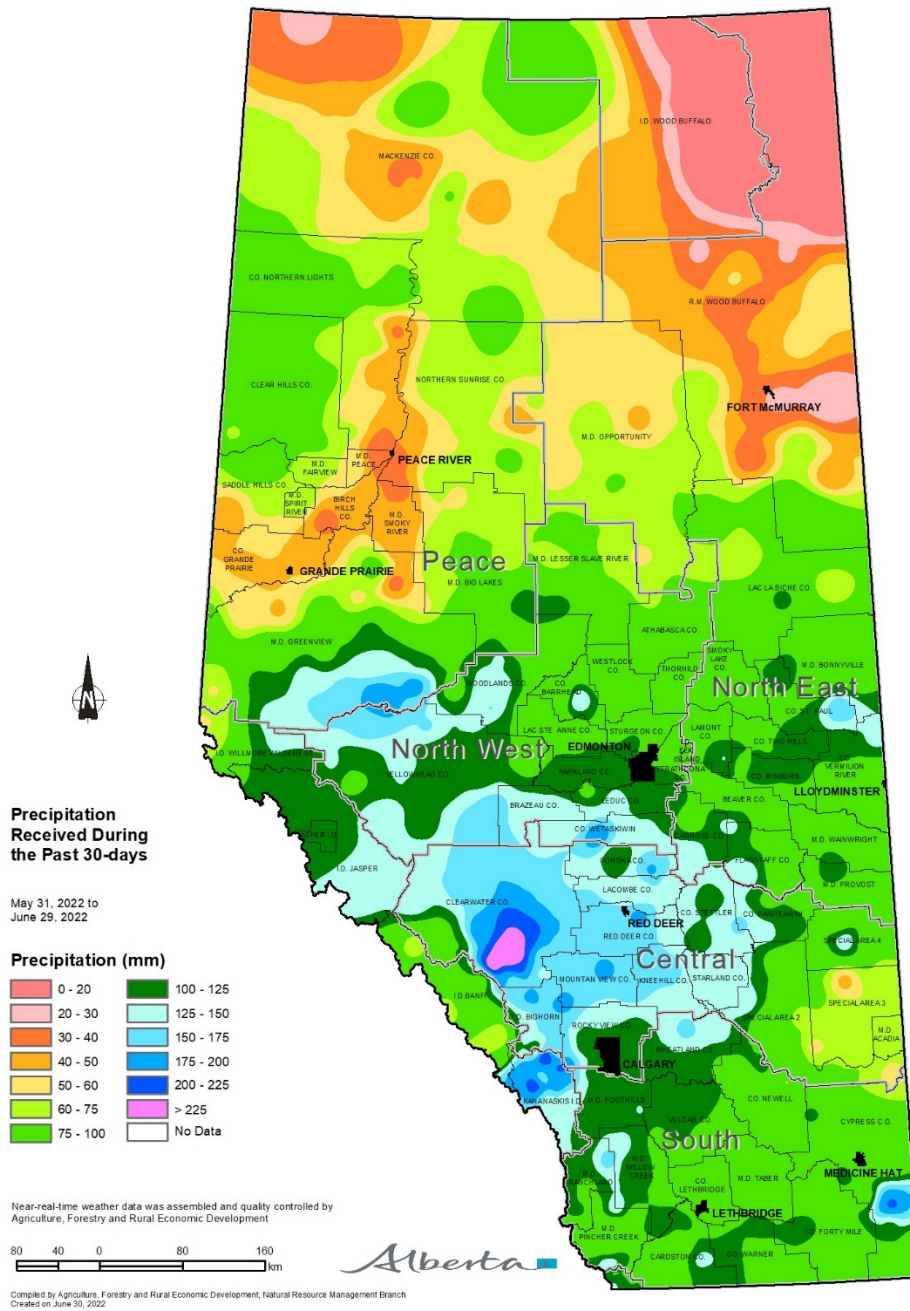
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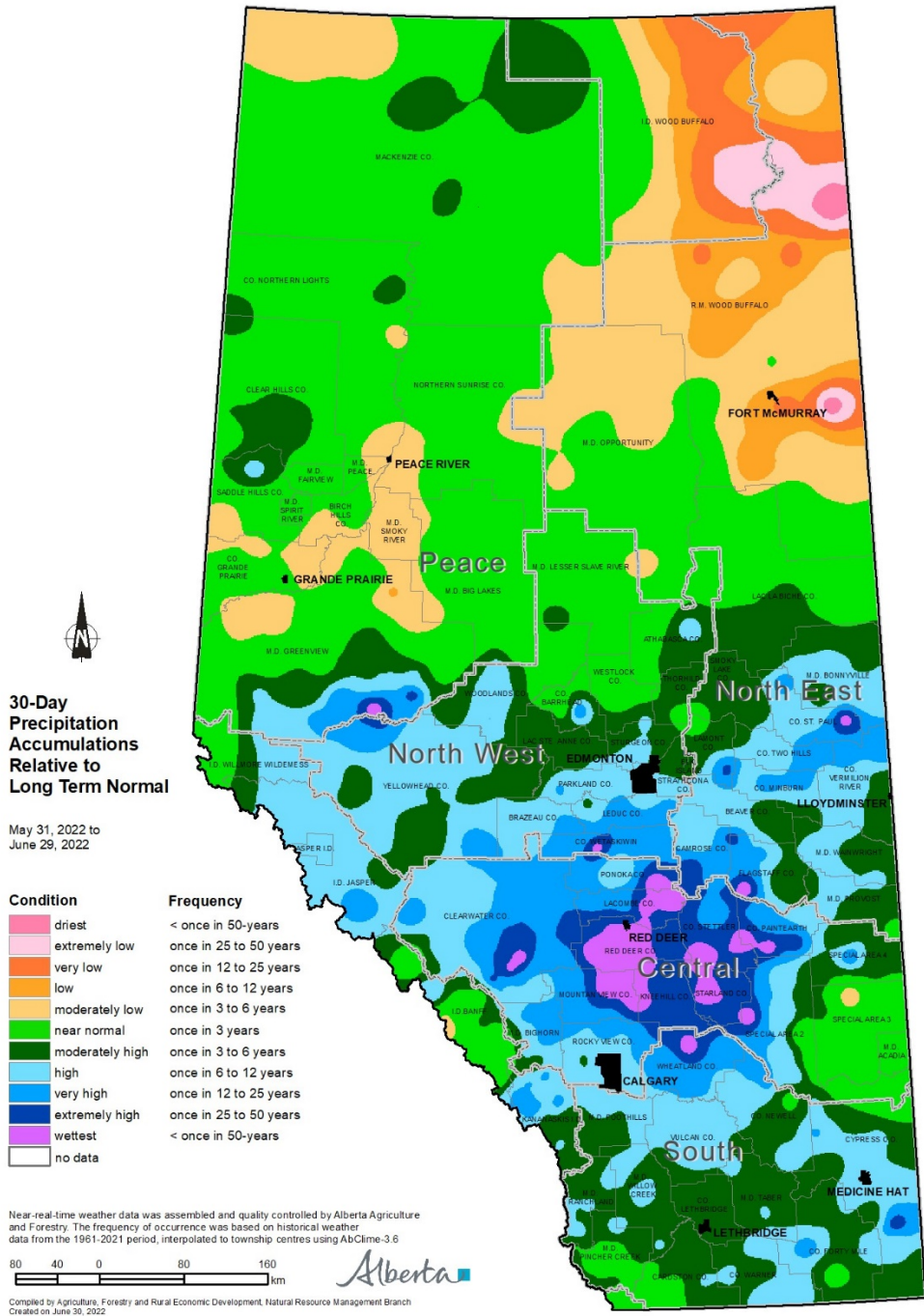


Map 2



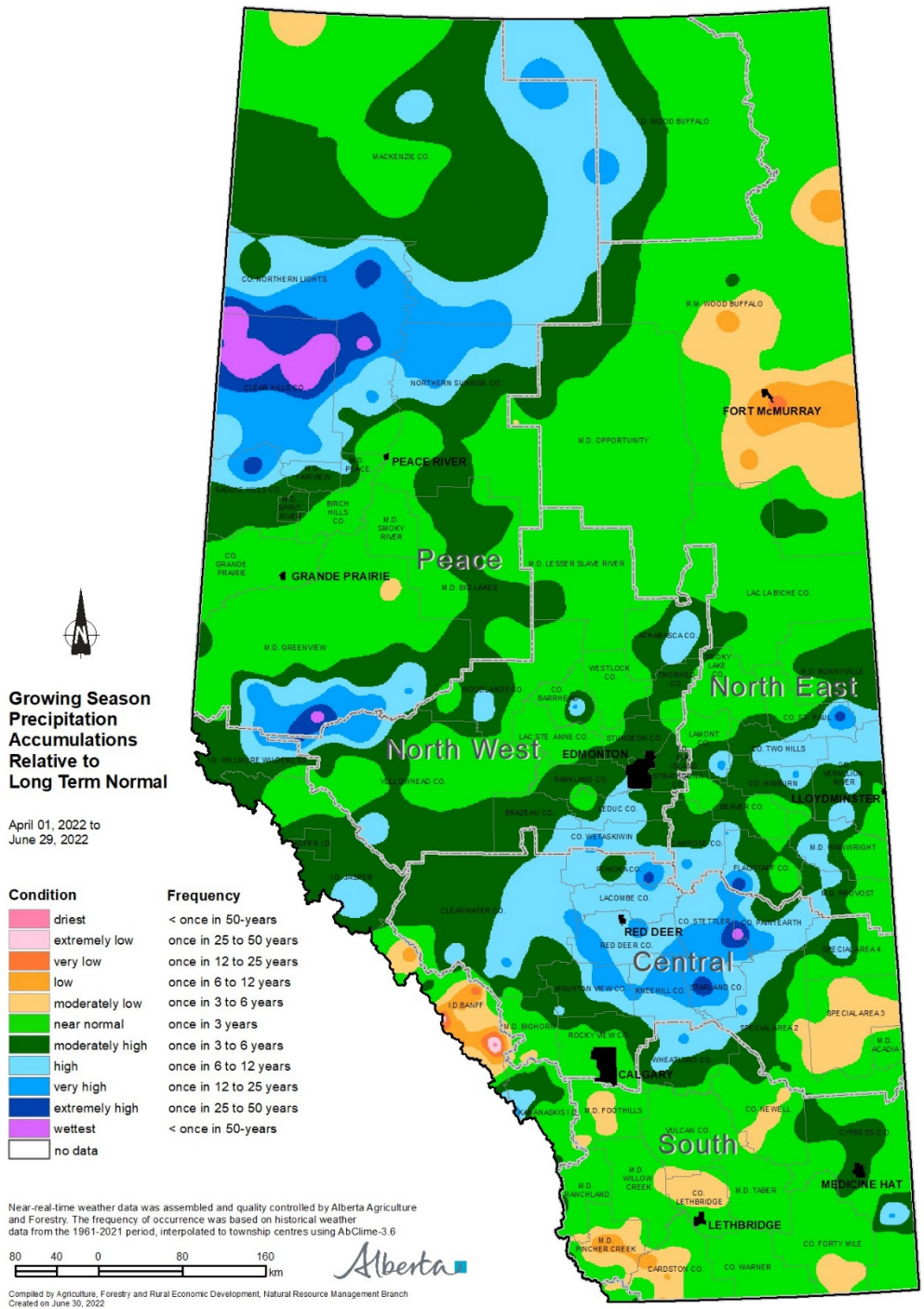
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Map 3



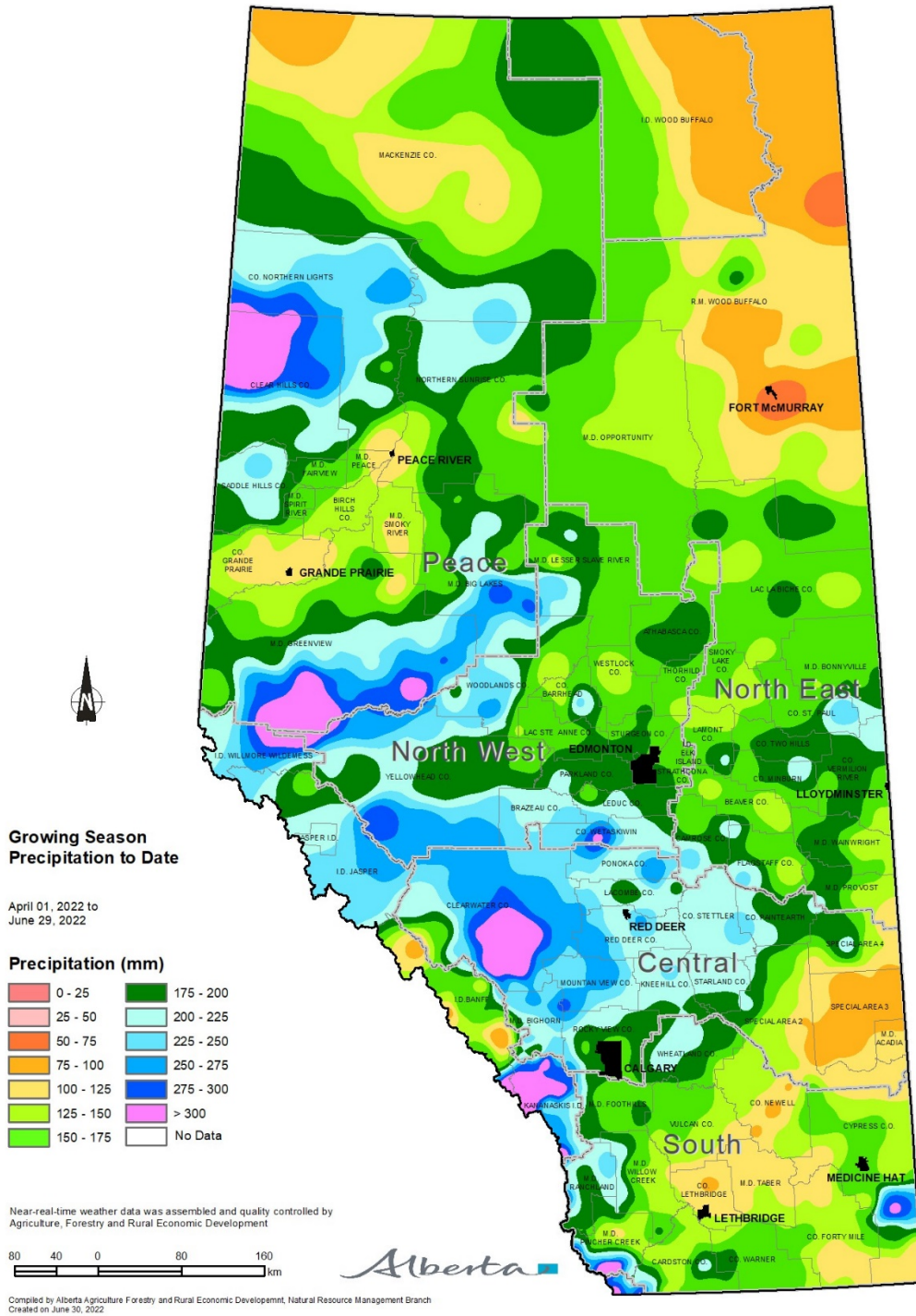
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Map 4



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Map 5



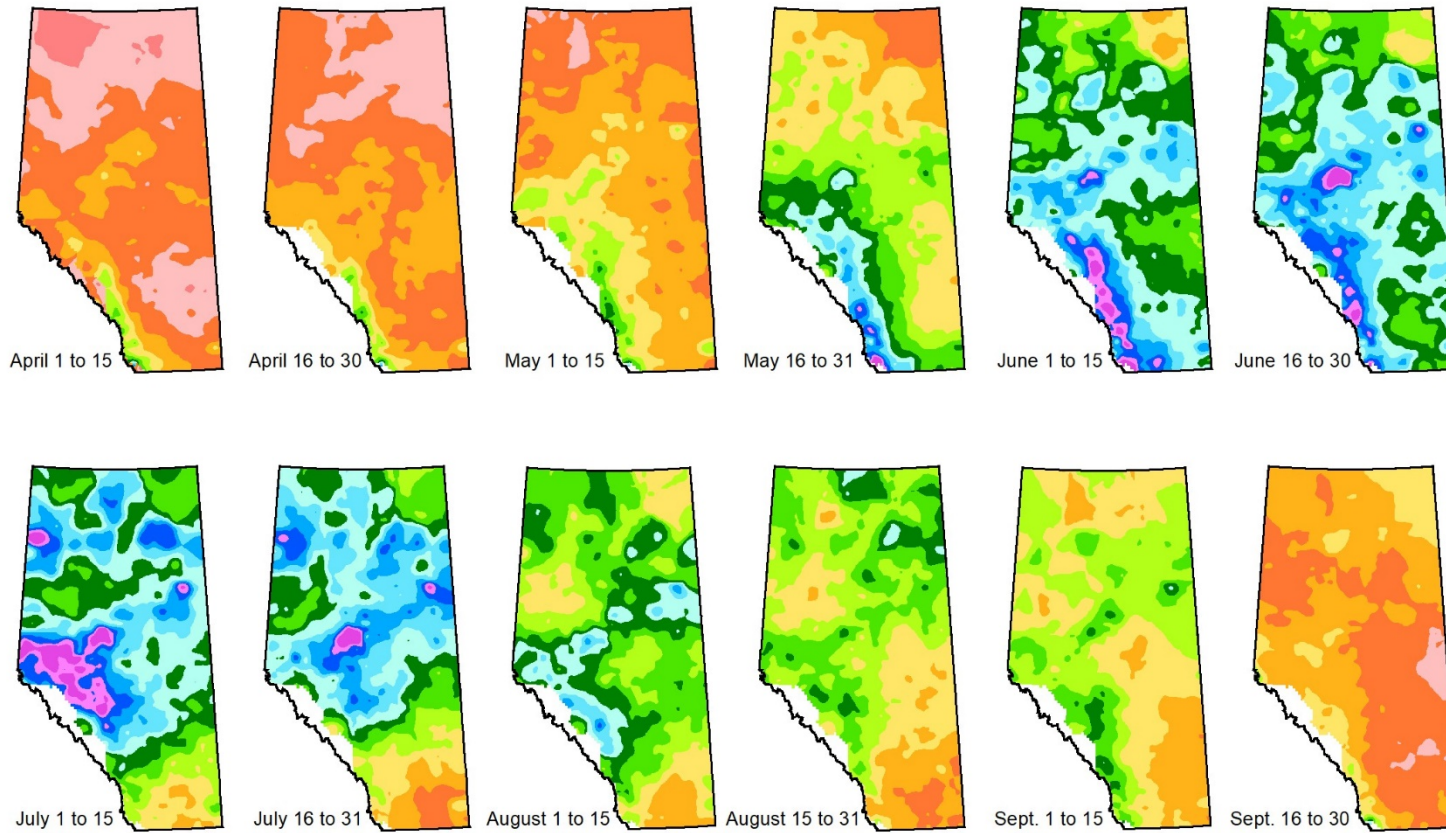
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Map 6



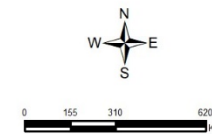
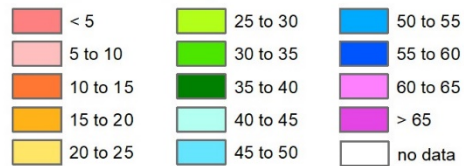
Normal Semi-Monthly Growing Season Precipitation Accumulations

1991-2020

Weather data was assembled and quality controlled by Agriculture Forestry and Rural Economic Development then interpolated to township centres using AbClimate-3.6

Compiled by Agriculture, Forestry and Rural Economic Development, Natural Resource Management Branch
Created on March 29, 2022

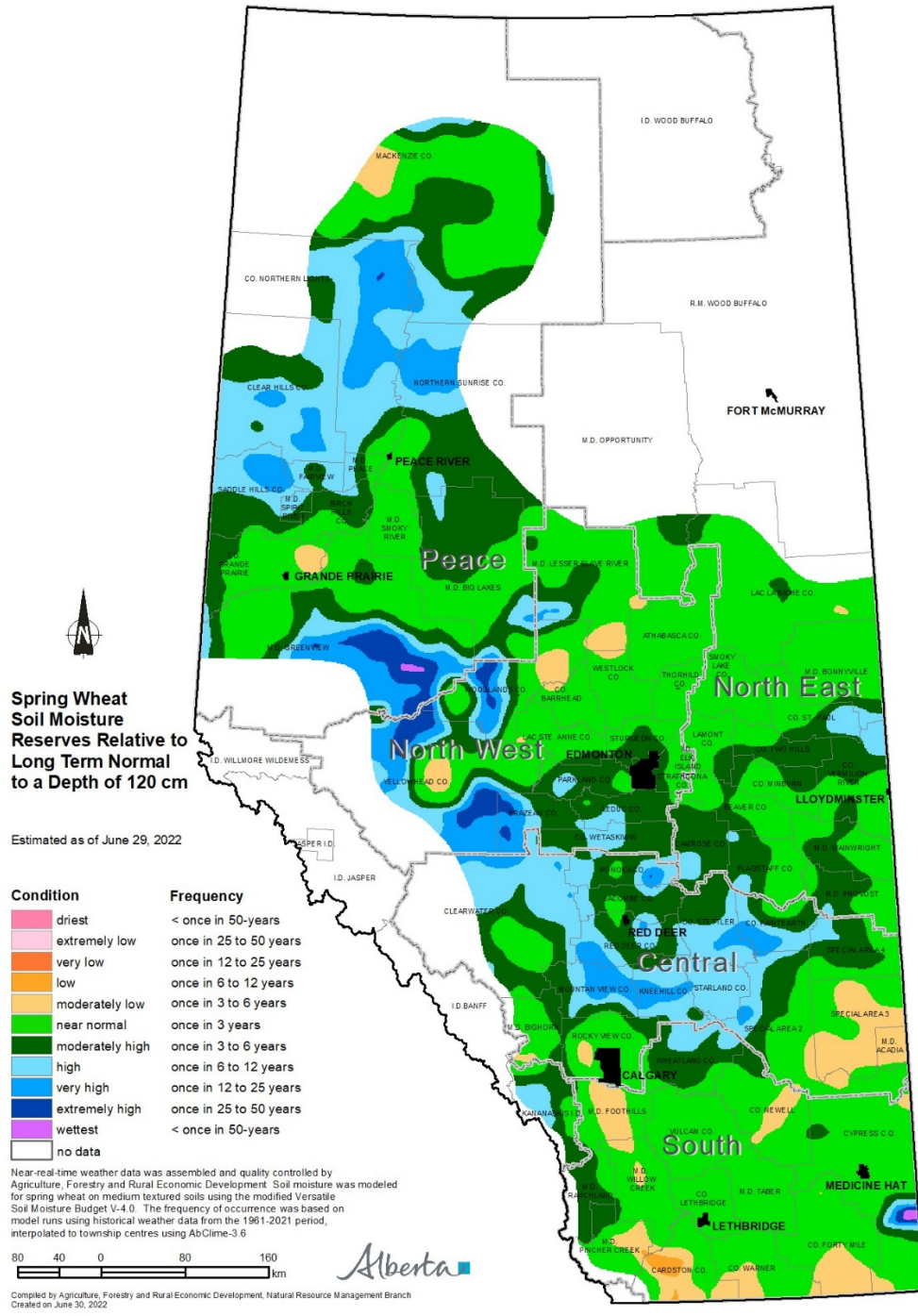
Precipitation (mm)



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Map 7



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