Agricultural Moisture Situation Update
June 22, 2022

Synopsis

Early last week, a major storm system swept through Alberta, essentially bringing an abrupt end to what was a very long dry spell that will put 2021 in the history books amongst a handful of Alberta's most wide spread and severe droughts, looking back as far and 1901. The last report (June 16, 2022) came on the heels of this system and detailed the magnitude and extent of these recent rains. Since that time, wet weather has continued to prevail across many areas bringing further moisture to those areas that still needed it (**Map 1**). Over the next few days another system is set to sweep into the province bringing significant rainfall (30-80mm) across the central parts of the province, and lesser, but still much appreciated moisture to the south. While the moisture has been welcome for the most part, there are several reports of localized intense and damaging storms bringing hail and overland flooding.

Precipitation over the past 30-days

The significance of the recent rains to the Agriculture industry cannot be overstated. For at least the short term, crops are getting the moisture they need as they gather strength and build biomass ahead of this year's harvest.

Over the past 30-days, many areas of the province received at least 80 mm of moisture with most of this coming over the past 10-days (**Map 2**). For some lands east of Calgary, accumulations this great over this time frame, are estimated to occur on average less than once in 50-years (**Map 3**).

Precipitation over the past 90-days

Currently, there are few agricultural areas in acute need of moisture, and this is particularly true given the forecast for further wet weather over the next few days. As another moisture laden system bears down on the province, attention should begin to focus on areas that are trending to the wetter side of the spectrum as excess moisture may become a concern hampering critical field operations. Historically across most of the province lying north of Olds, the last two weeks of June and the first two weeks of July mark the wettest 4-week period in the year.

Map 4 shows that parts of the northern Peace Region and the foothill areas between the US border and Edson have received in excess of 175 mm of moisture, with the much of this falling in more recent days (map 2). These areas currently have reduced capacity to absorb excess moisture and now lie with an elevated risk for runoff.

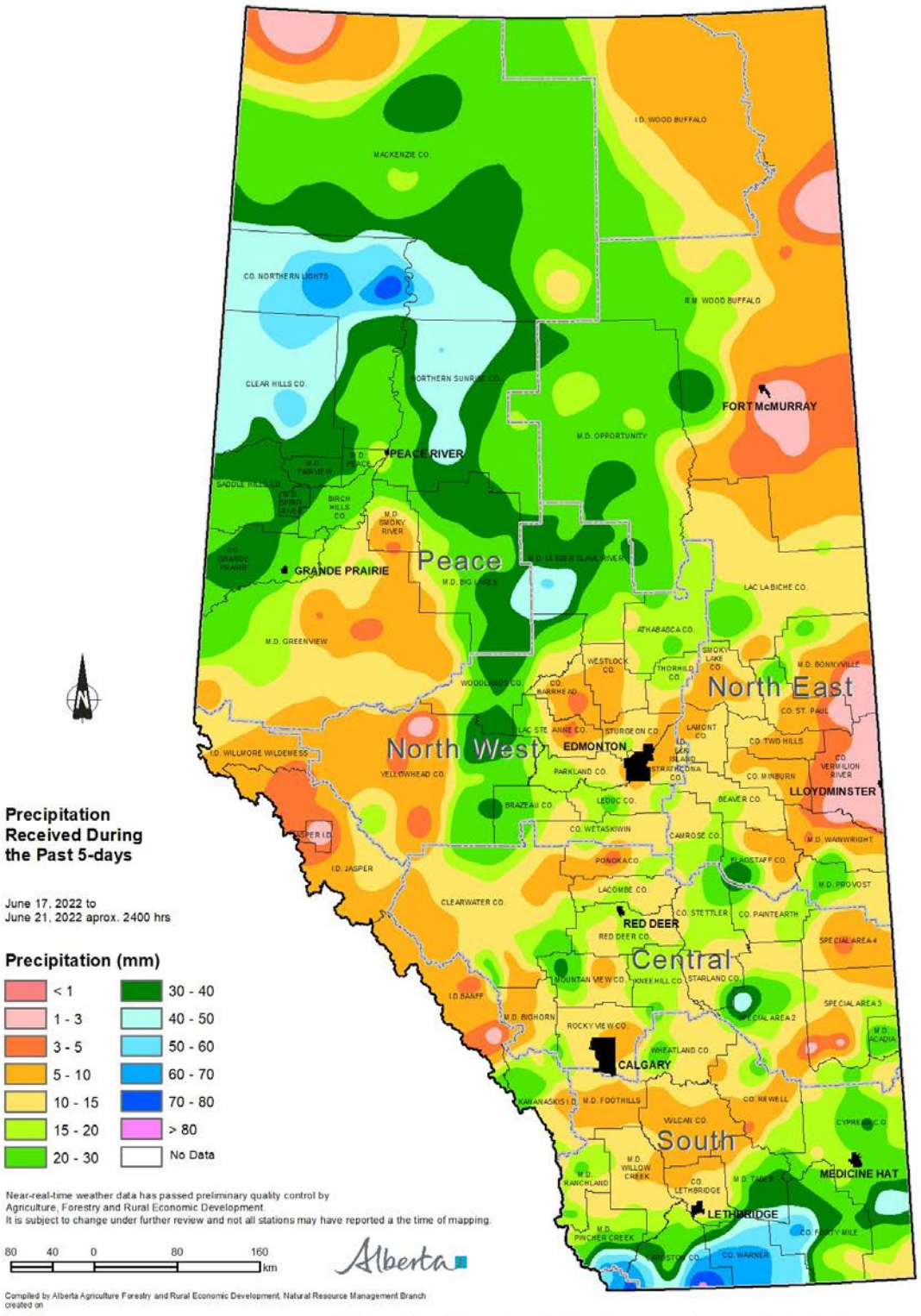
Perspective

It is not uncommon to see abrupt ends to severe droughts in Alberta. The drought across the south in 2001, was followed by an unusually wet year in 2002 (**Map 5**), while in sharp contrast, in 2002 the central parts of the province were hit hard by hot dry weather that entered both years into Alberta's history books as being very difficult years to farm.

This 2022 cropping season has only just begun and its story is yet to be written. At this time, we are more than grateful for the moisture. Crops are actively growing and now developing the capacity to use water rapidly. In fact, a well-established crop can use 5 to 8 mm of water per day on moist soils, and even more if is hot and windy. Moving forward if we can receive near normal weather patterns in July and August it will more than likely lead many producers to a memorable harvest.

https://open.alberta.ca/publications/moisture-situation-update

Map 1



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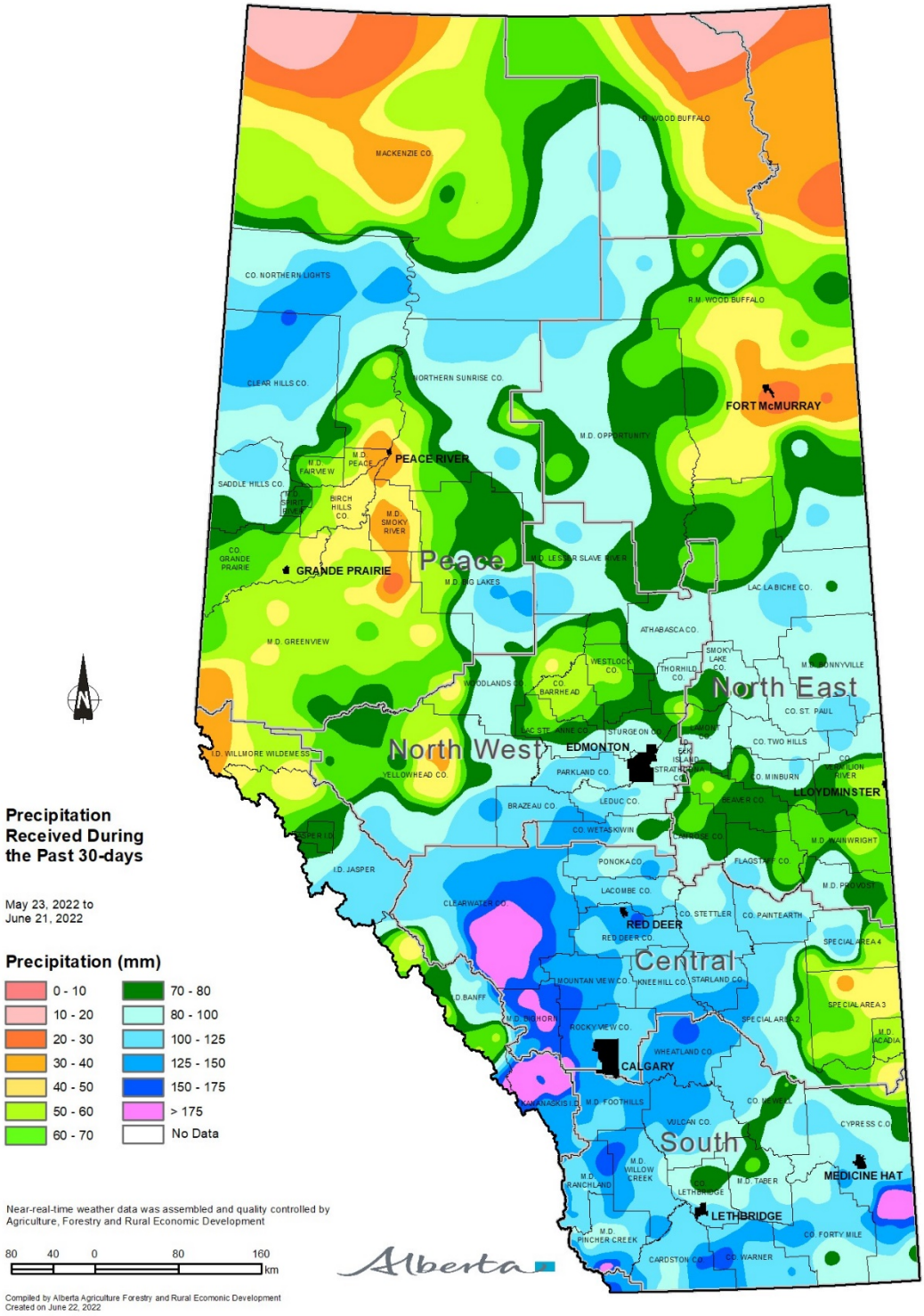
Map 2



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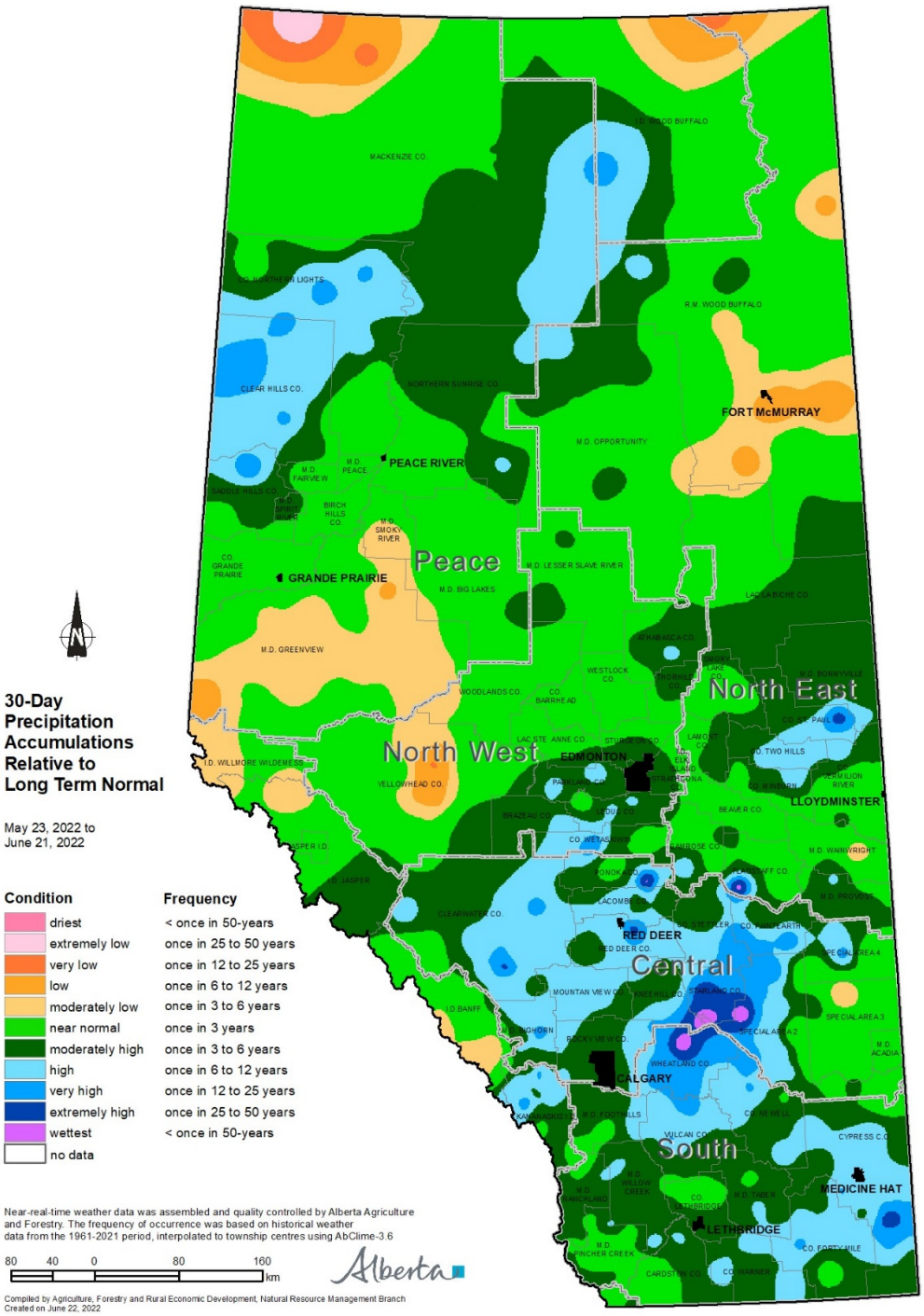
Map 3



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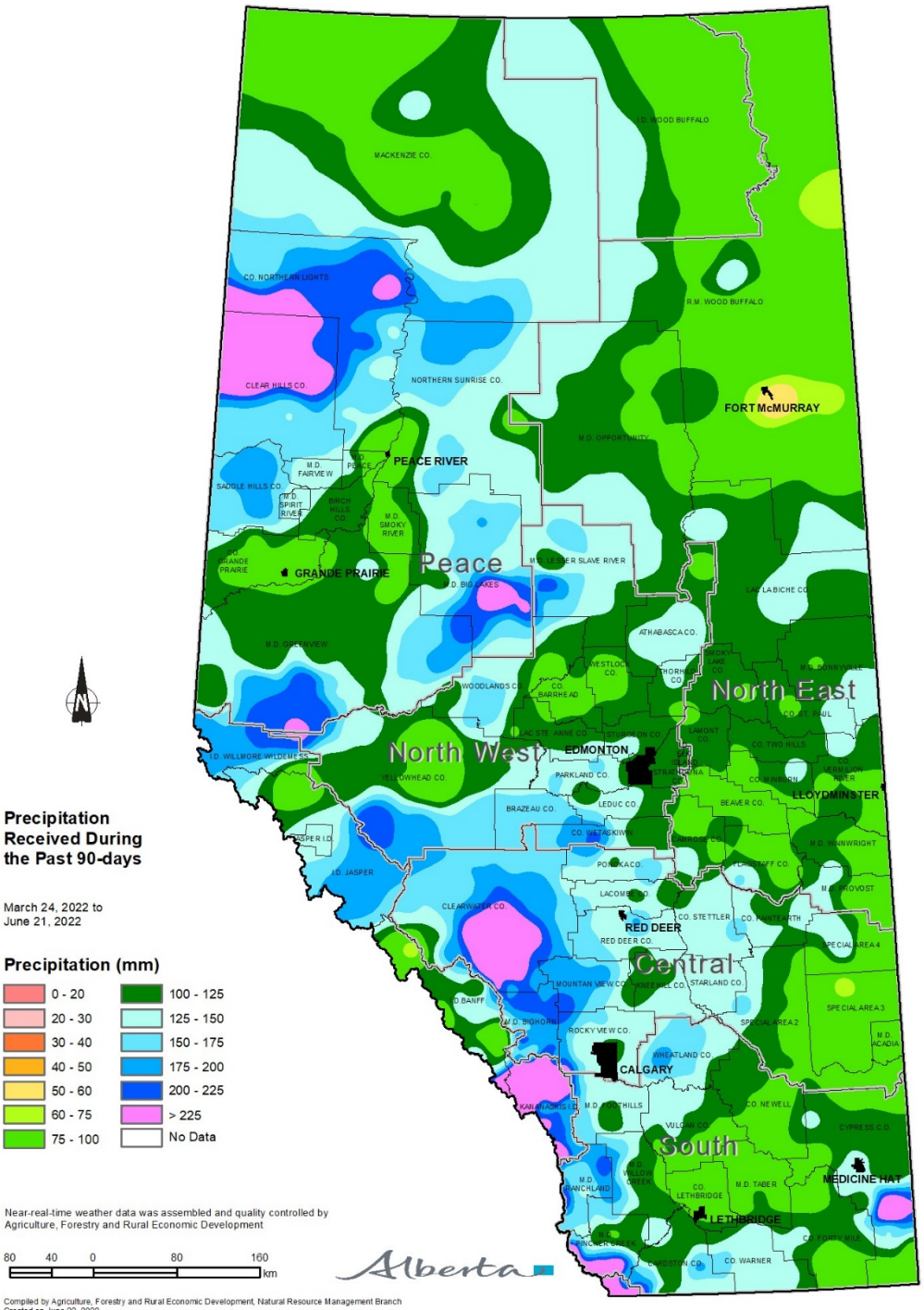
Map 4



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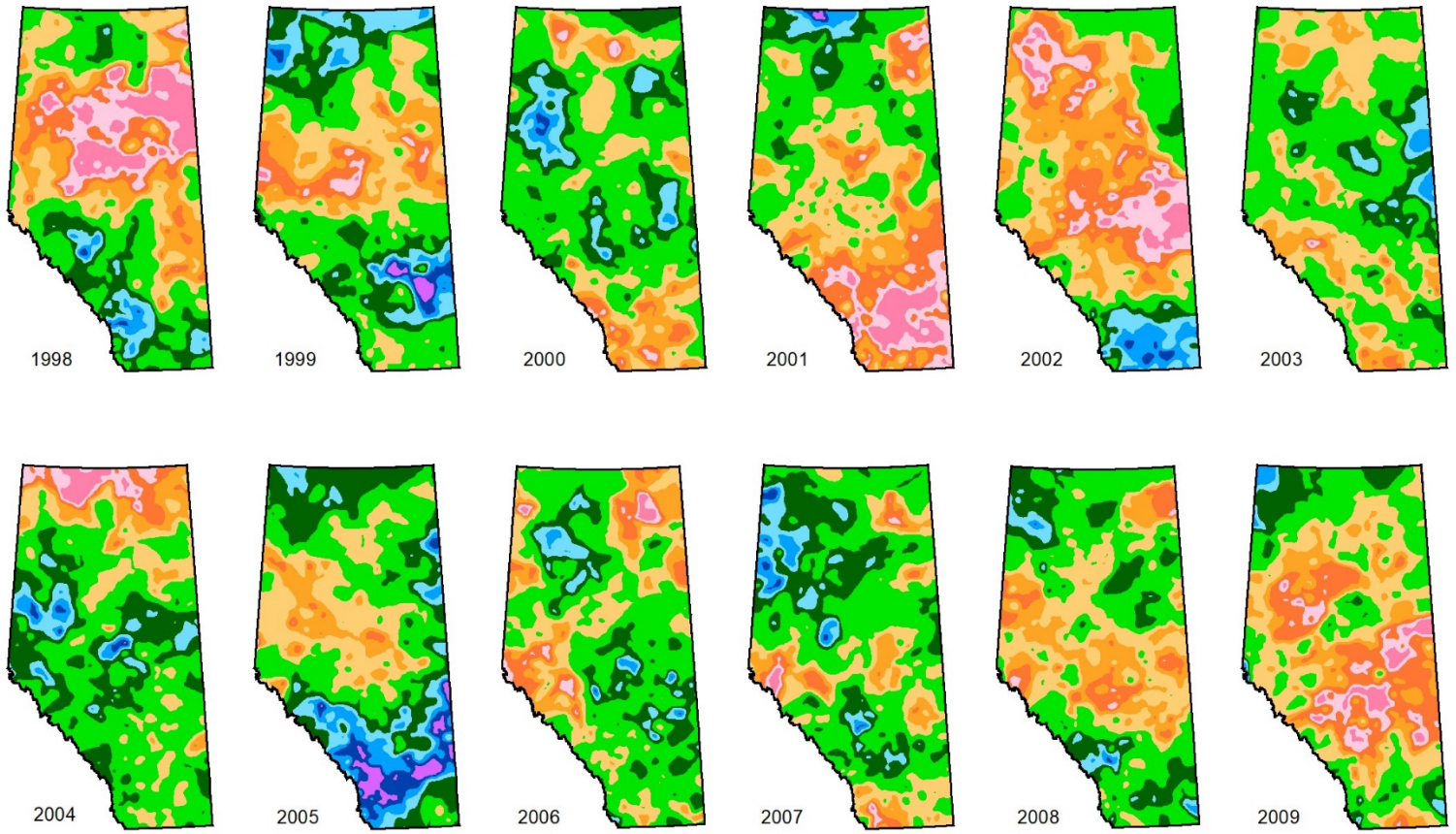
Map 5



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