

Agricultural Moisture Situation Update

April 25, 2024

Synopsis

Since the last report (April 17, 2024), it's been relatively warm and dry with precipitation ranging from 0 mm across most of the agricultural lands to just over 10 mm across the far northern portions of the province (**Map 1**). Exceptions do exist along the extreme eastern portions of the province's agricultural areas with the most (5-10 mm) falling through parts of the Special Areas and less than 5 mm falling elsewhere in this zone. Here this moisture was welcome, but given the lack of snowmelt runoff, this is still not enough to reverse the long standing drying trend and meaningful moisture is needed immediately and in the weeks ahead.

Over the next several days, conditions are expected to turn cooler and with this comes the promise of precipitation. Currently looking into next week, various forecast models are all indicating a cool down, along with conditions that are favorable for moisture, particularly across the southern Peace Region on down through most of the Central Region. It's still too early to tell where and if this moisture will fall, but this certainly means that hot dry weather is not likely and that some areas will likely see much needed rain.

60-day Precipitation Trends

Over the past 60-days most lands across the province, lying south of Red Deer have been trending from near to well above normal for precipitation accumulations during this time of year (**Map 2**). Some lands north of Lethbridge see the last 60-day period, this wet on average less than once in 6 to 12 years. Maximum recorded amounts in these "wet" areas range from 50 to 60 mm (**Map 3**), which have been enough to help improve soil moisture reserves, but more will be needed as surface water supplies are critically low in many areas due to several years of persistent drought.

Most lands across the agricultural areas, lying north of Red Deer are still critically dry. Many parts of the central Peace Region and the border lands between the North West and North East Regions are trending to one in 50 year lows. These dry conditions have been exacerbated by below normal snowpack development along with an early melt. Many areas did not see appreciable filling of surface water supplies (rivers, lakes dugouts, etc.) and unusually wet weather will be needed to fill them.

Soil Moisture Reserves

Currently soil moisture reserves are well below normal throughout most of the agricultural areas, with the exception of the Southern Region and the extreme southern Peace Region (**Map 4**). However bear in mind that on the map, the definition of "normal" lies between a one in three year dry and a one in three year wet. Thus its likely many of the "normal" areas on this map are still below the statistical average and are in fact, on the dry side of "normal". Areas of one in 50-year lows are currently emerging across parts of the Peace Region and parts of the North East.

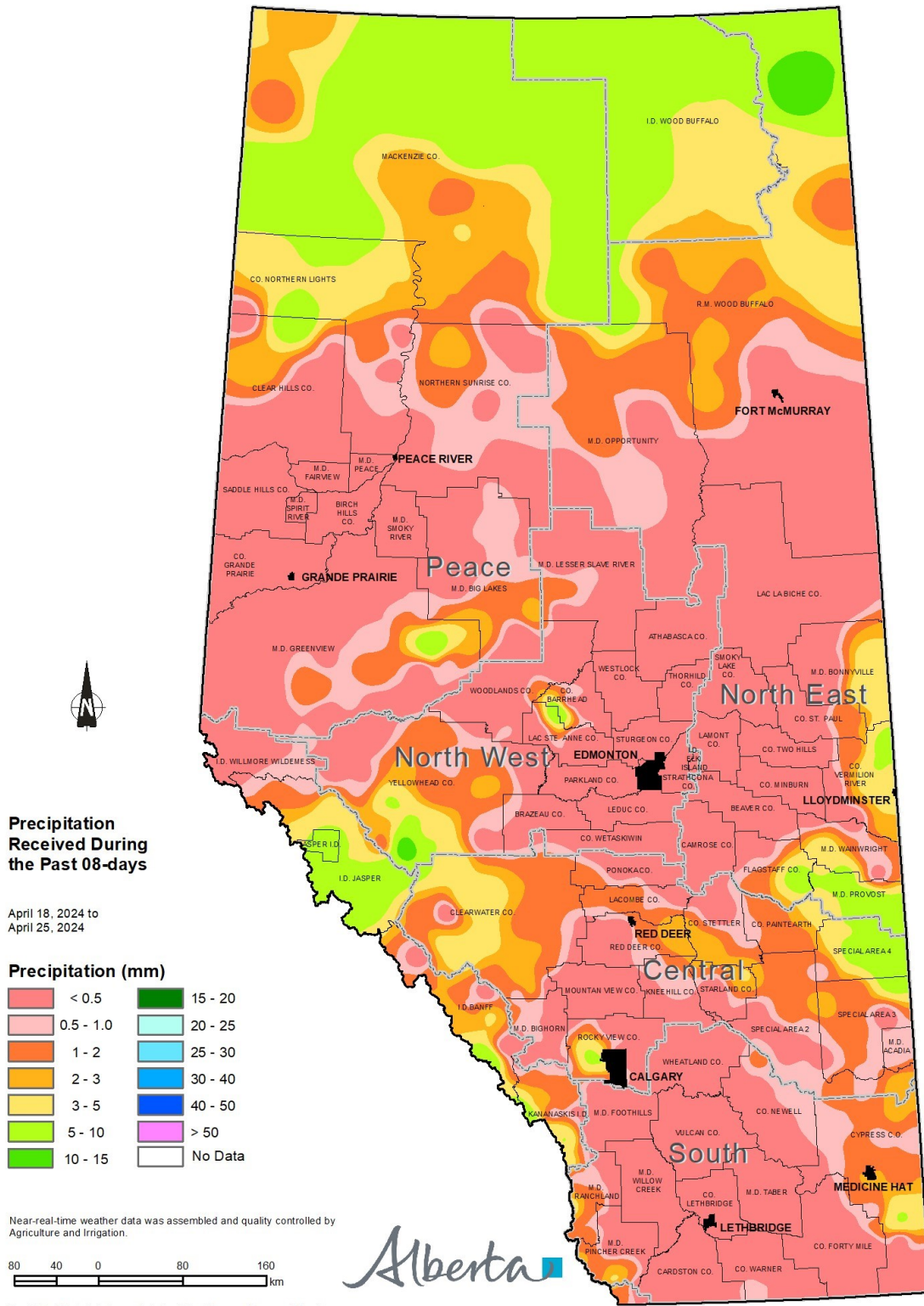
Soil moisture levels historically increase rapidly in the spring and this trend persists well into June. Thus if precipitation remains below average, these areas are likely to expand rapidly.

Soil moisture reserves relative to normal are down about 50 mm or more across most of the agricultural areas, with the exception of the Southern Region (**Map 5**). What is needed now is a wet period that delivers 50 to 75 mm of precipitation. If this came over a few days, it would likely be enough to build reserves to near normal and help plants through short duration dry spells in the near term. Pasture lands weekend by last year's drought are beginning to break dormancy and need moisture soon to minimize further declines in yield potential.

Perspective

Simply put, precipitation, be it rain or snow is desperately needed now across most of the province. Thankfully the wet season lies ahead and there is still time to get moisture ahead of the spring green up. We have been here before many times in recent years, where we were faced with a dry start to the season and the ever-present fear that it would remain dry. The weather of last week, last month or even last year is not a good predictor of the weather next week, next month, or next year. Local forecasts are generally reliable only for a few days and nobody knows for sure what May will bring, let alone June and July. For now all we can do is watch the skies and hope the moisture comes soon! At least at the time of writing (April 26th), the forecast for next week appears favorable.

Map 1



Visit weatherdata.ca for additional maps and meteorological data

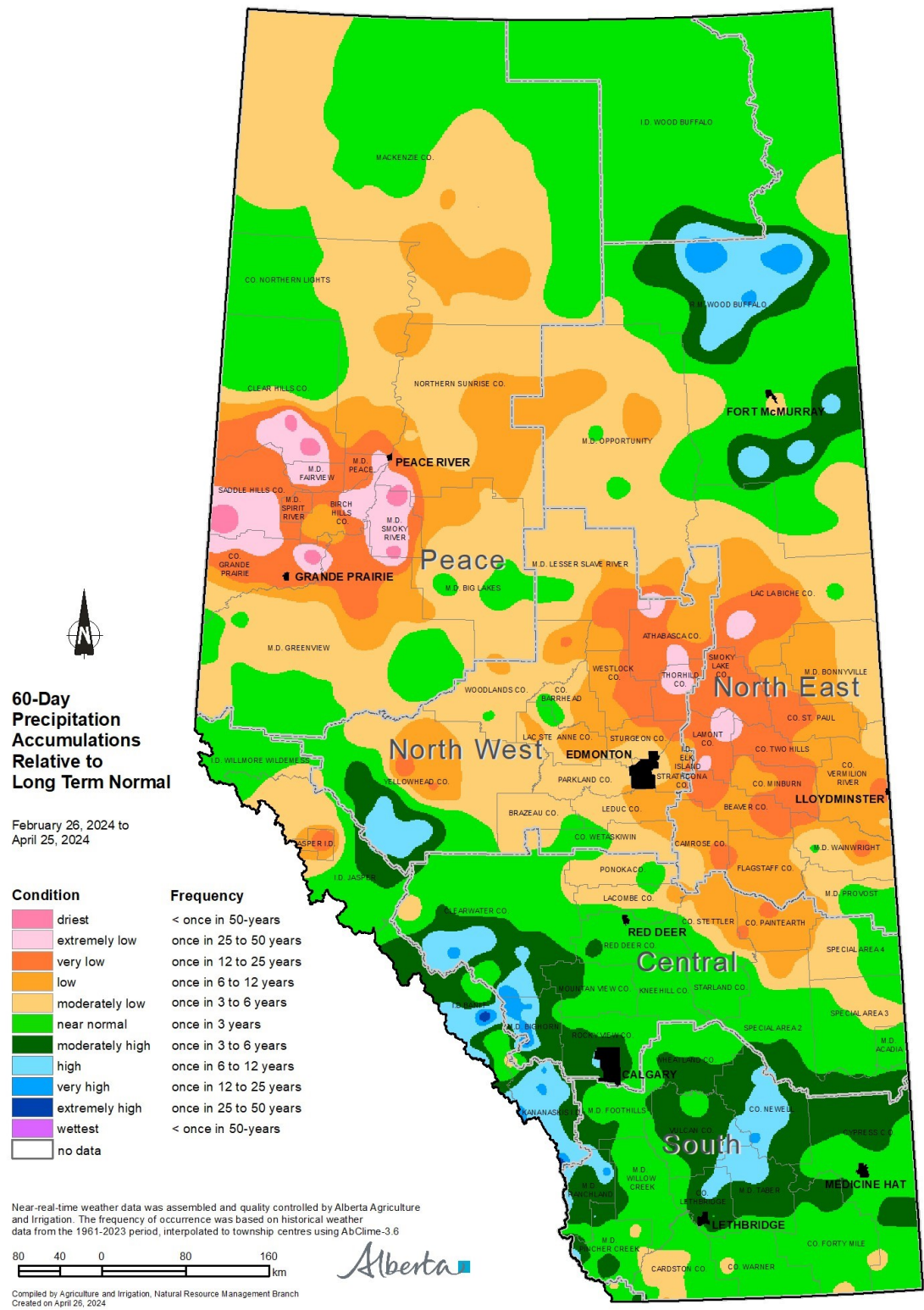
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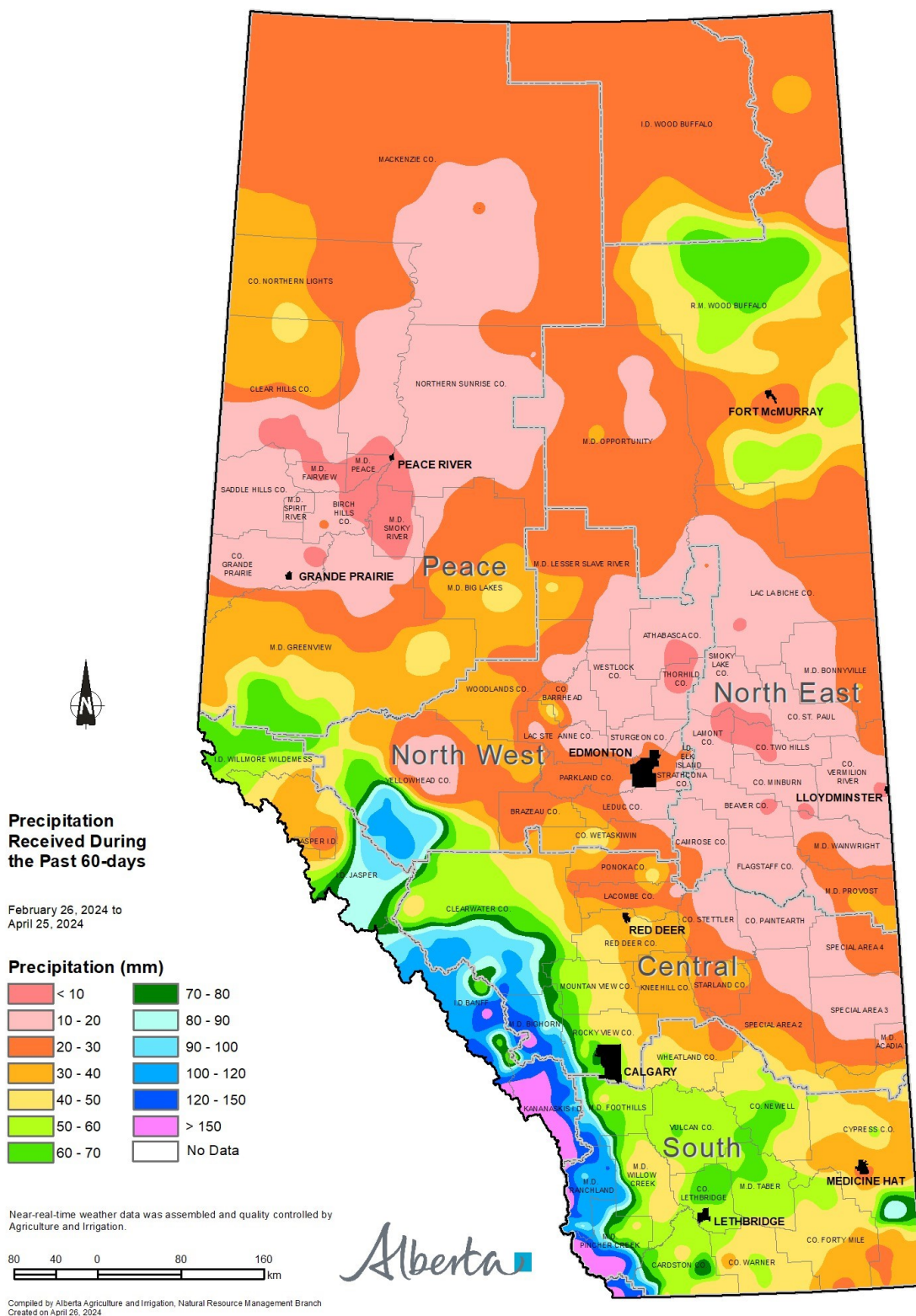
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Map 2



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Map 3



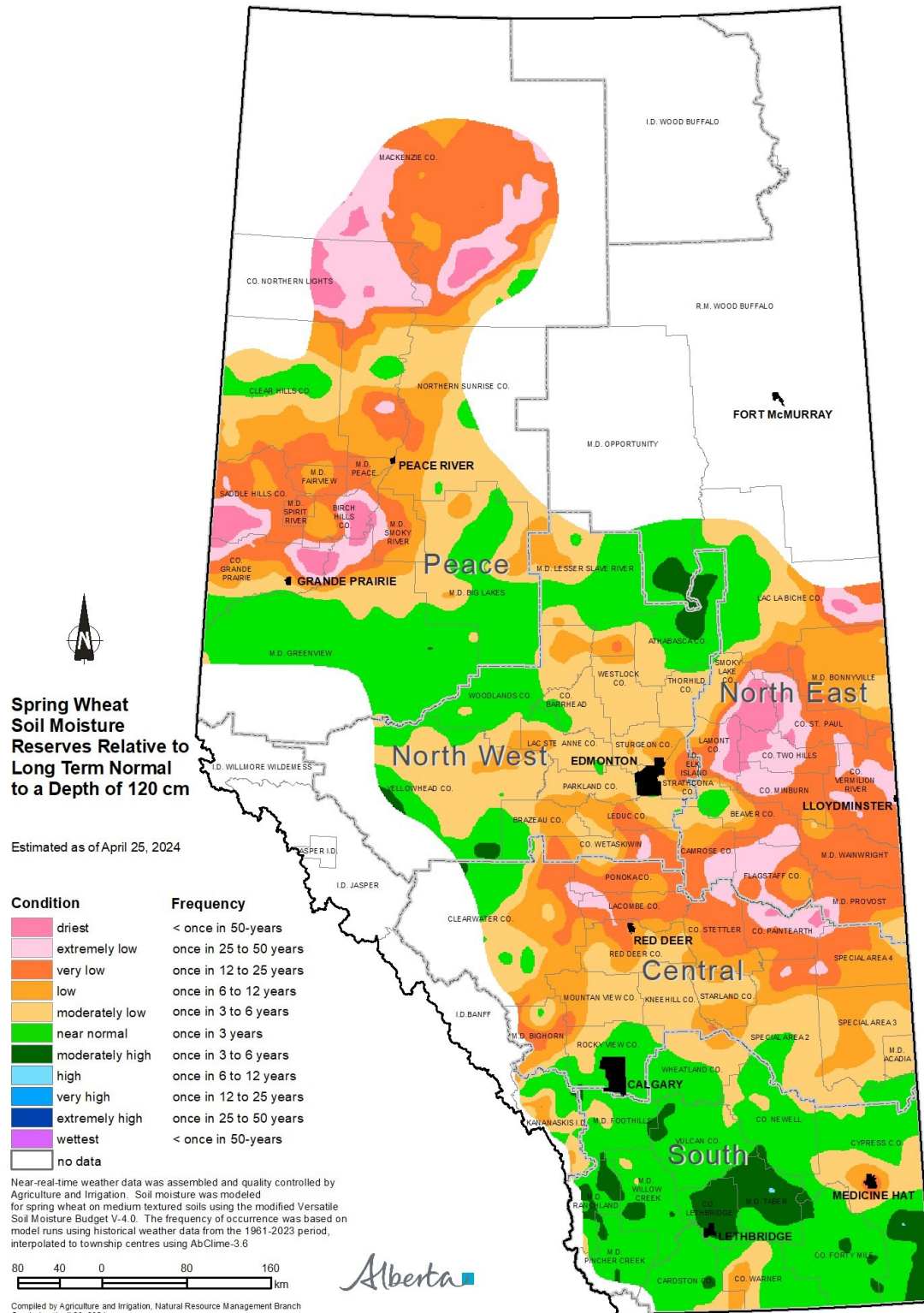
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Map 4



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Map 5

