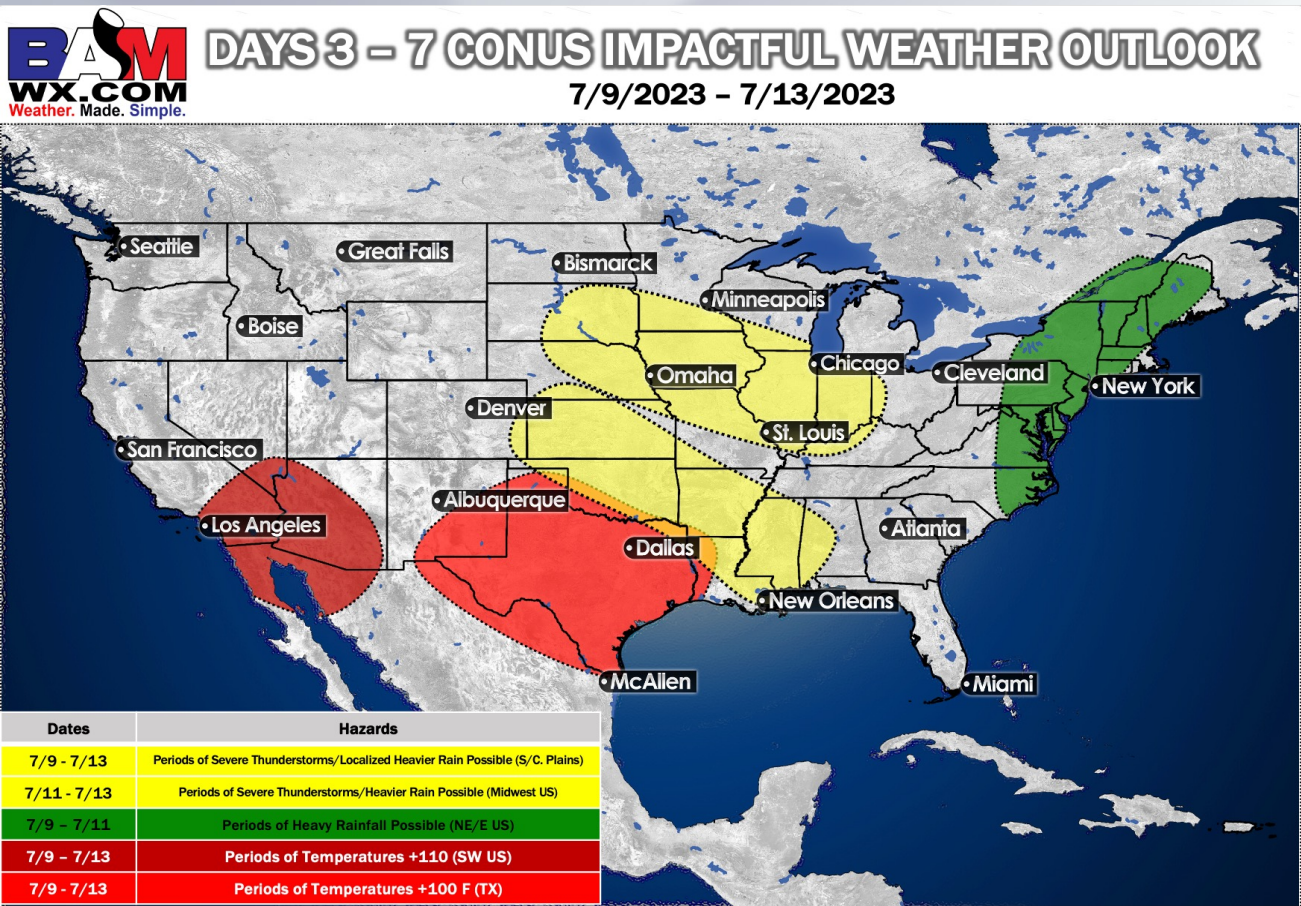
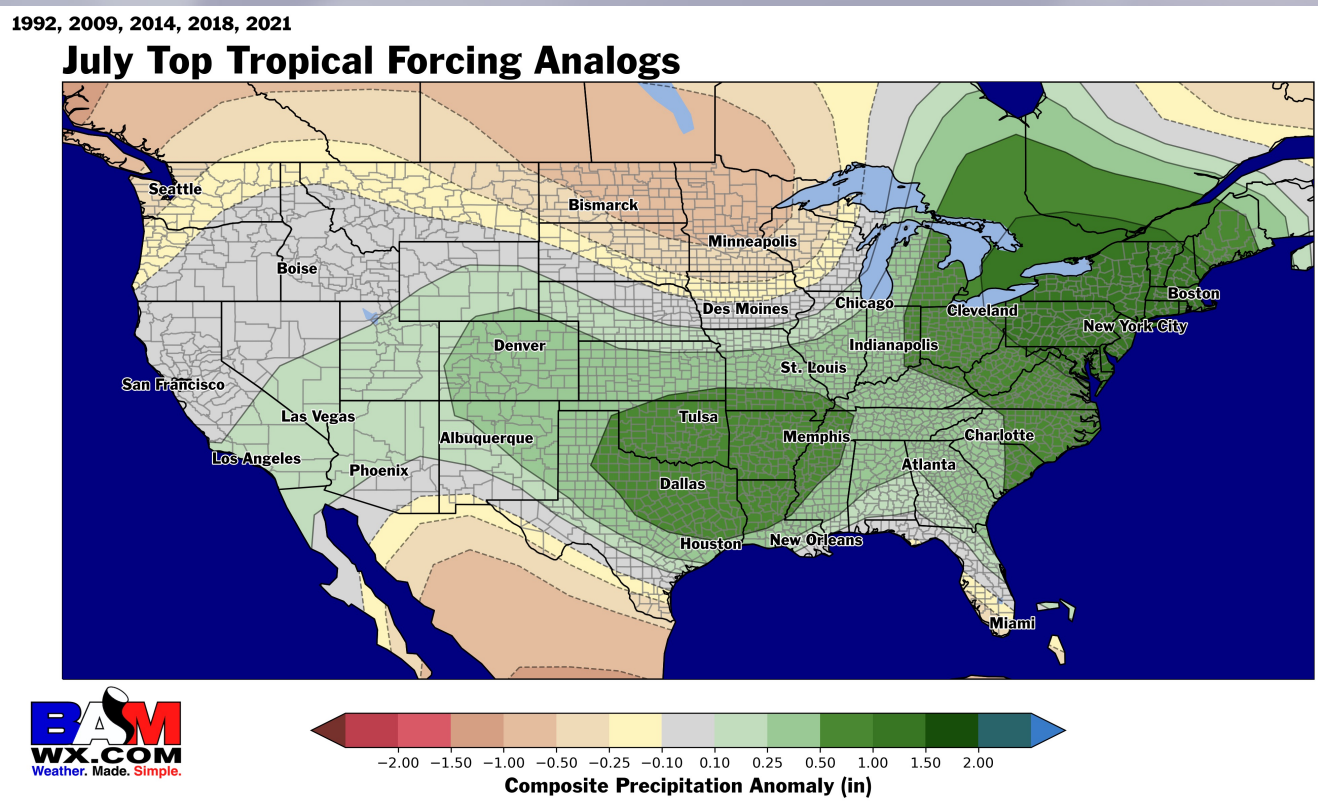


Days 3-7 Impactful Weather Outlook



Top Late July Tropical Forcing Rain Analogs



Targeted Storm/Front Dates

July 7	Storm System / Cold Front
July 8 - 10	Storm System / Cold Front
July 11 - 13	Storm System / Cold Front
July 15 - 17	Storm System
July 19 - 21	Storm System

JULY MTD:

CONUS Temps:
+1.7 F
PWCDDs:
75.7

### Temperature Notes

Expect temperatures in the Upper Midwest and N Plains to be cooler than normal this week and into week 2

The 100+ F temperatures have returned for most of TX and into S OK associated with the high pressure over the S US.

Associated with the cold fronts the C Plains can expect to have periods of temperatures as much as 10-20 degrees below normal between 7/7 – 7/9.

At the very end of week 2 and into the start of week 3 a brief 3-5 day warm up may occur for the E US but the cooler air is then expected to return.

### Precipitation Notes

This morning a few lines of thunderstorms/showers are working through NE, KS, and OK. These storms are bringing heavier rainfall totals to some locations.

In the NE US between 7/9 – 7/10 expect chances for heavy rainfall totals associated with the passage of a low-pressure system.

As a result of the flow pattern TX and S OK may continue to be a bit drier than usual as we progress into the weekend and next week. While the active pattern is expected to continue as we work into week 2 for the W Plains, C Plain and OHV.

Areas such as N/C MO, IA, and N IL still are leaning drier but there are chances as we work through week 1 and into the start of week 2 with the opportunity for some showers/thunderstorms.

Signals/Analogues are pointing to the middle/end of July being wetter for much of the S and E US while the Upper Midwest may average out at below normal for rainfall.



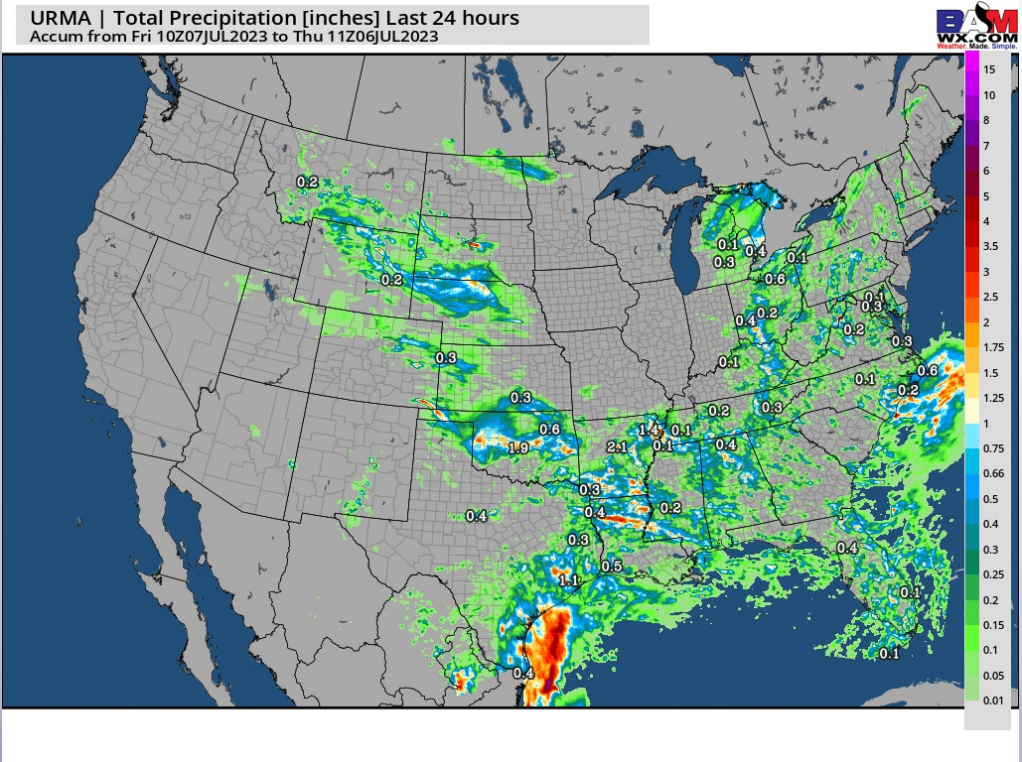
# BAM OBSERVED DAY PRECIP TOTALS:

PREPARED BY: BRET WALTS & XANDER LOWRY

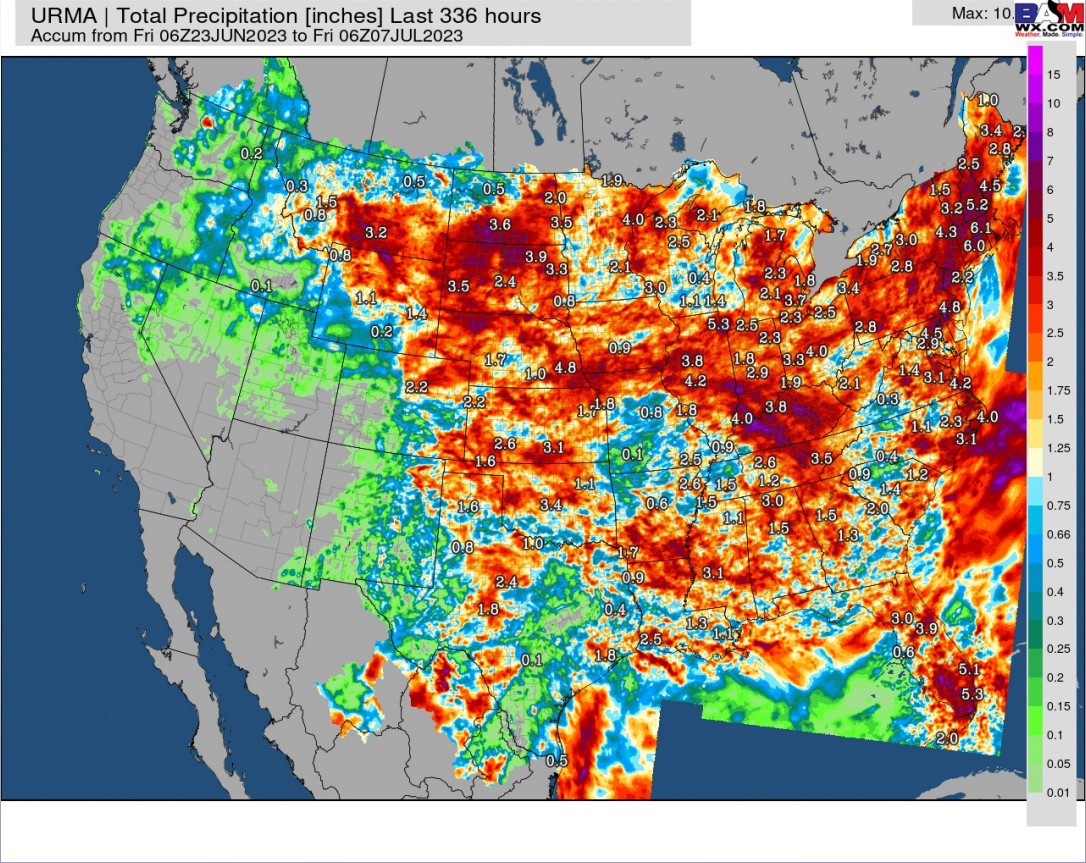
July 7, 2023



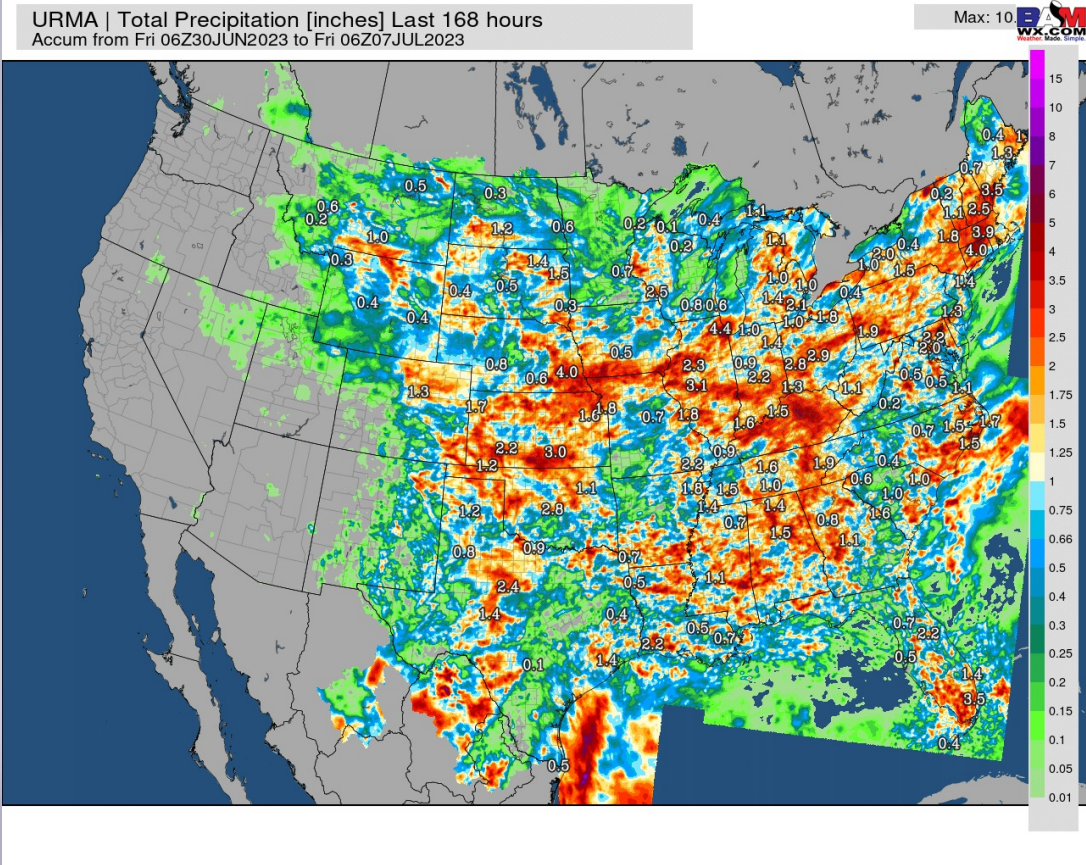
## LAST 24 HOURS



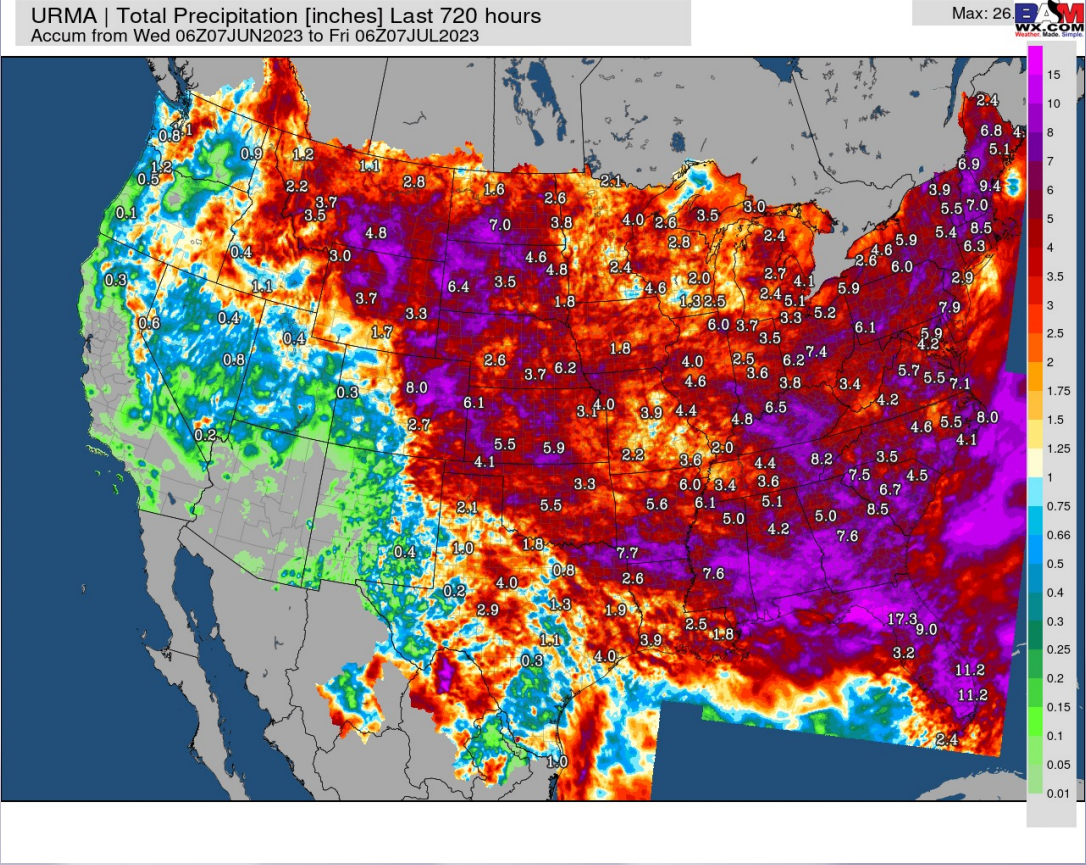
## LAST 2 WEEKS



## LAST 7 DAYS



## LAST 30 DAYS





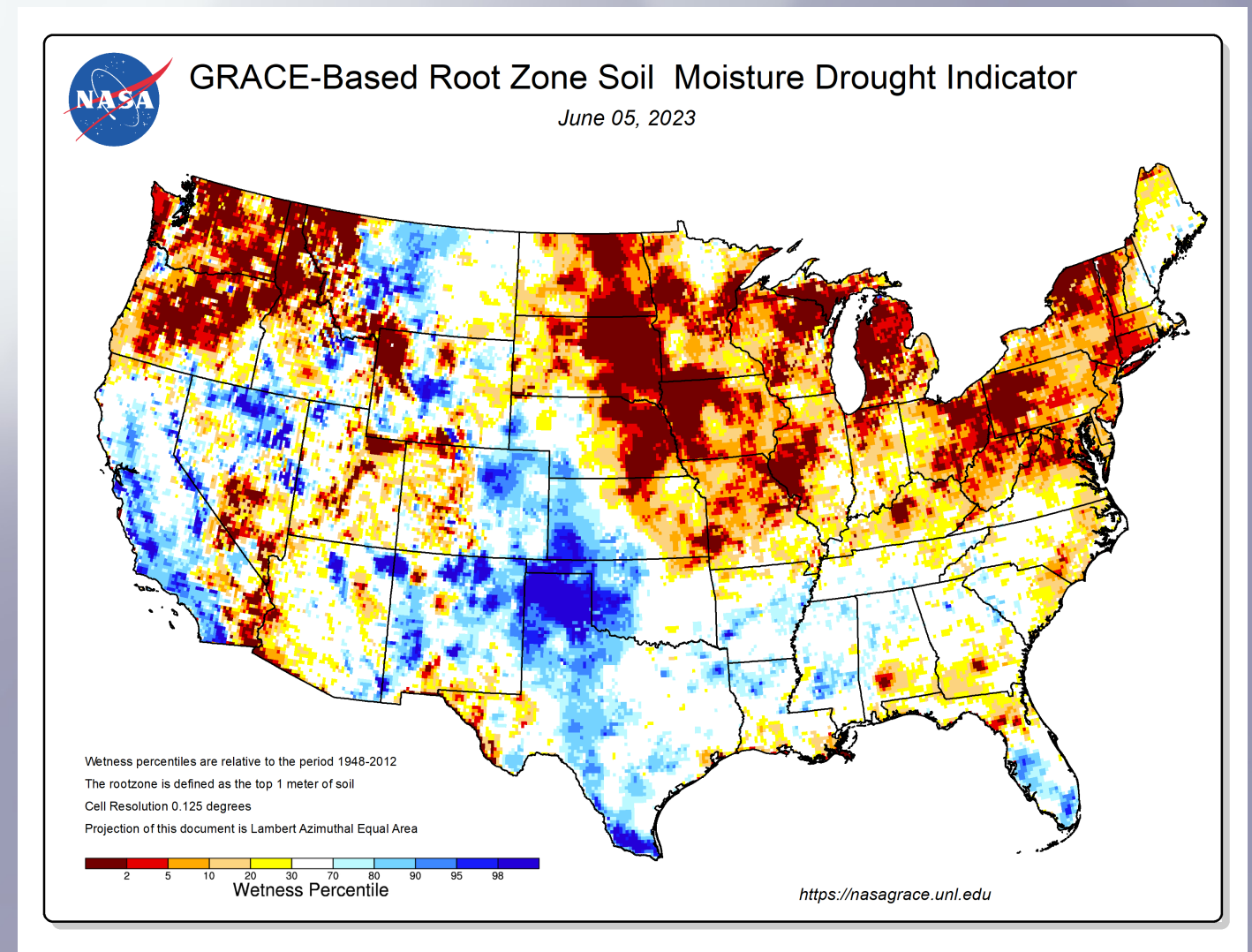
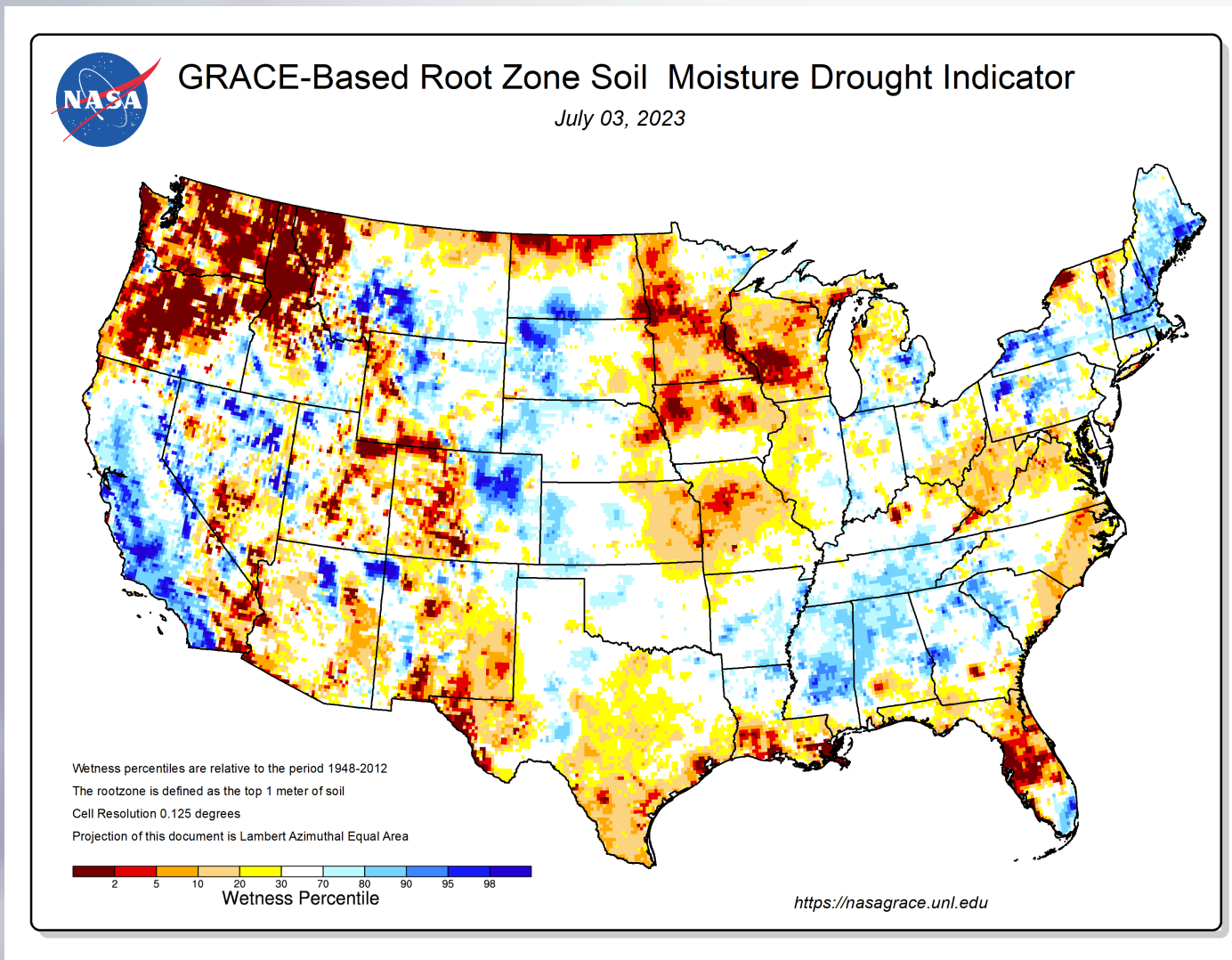
# LATEST SOIL MOISTURE VS 1 MONTH AGO:

PREPARED BY: BRET WALTS & XANDER LOWRY

July 7, 2023

## CURRENT SOIL MOISTURE

## LAST MONTH



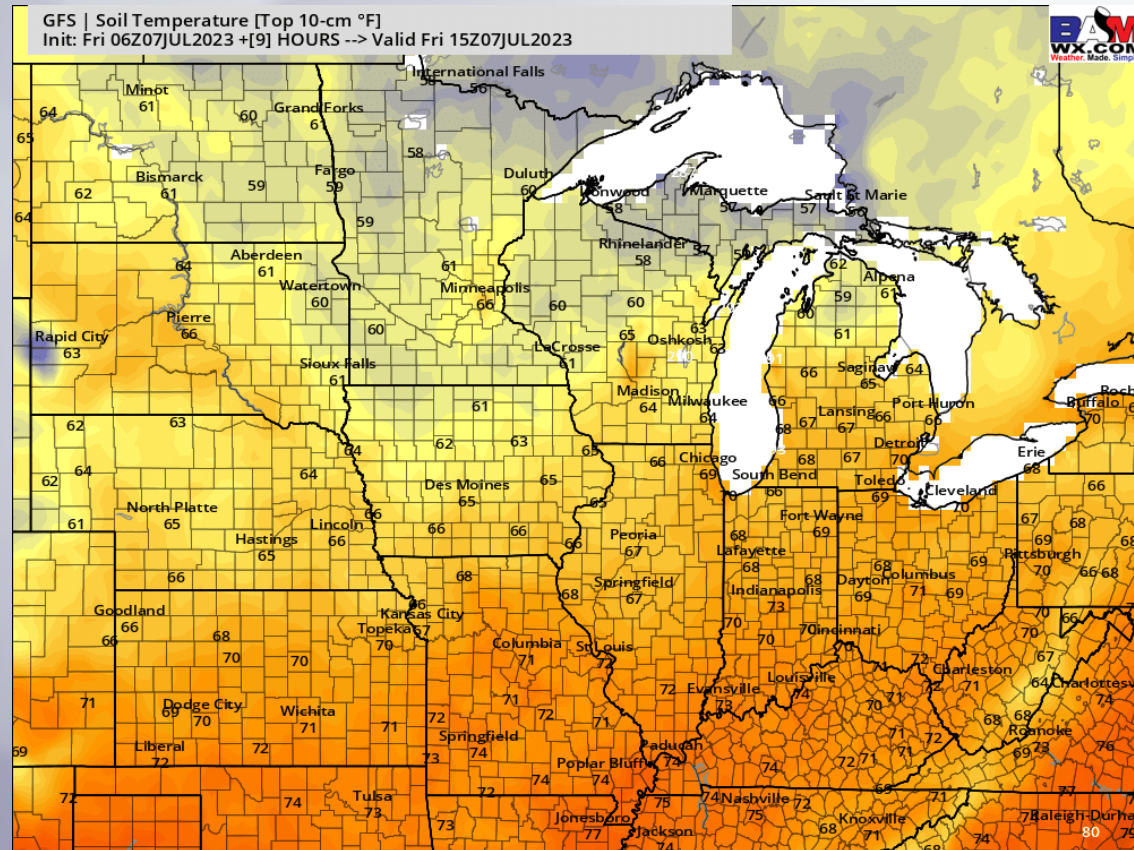


# SOIL TEMPERATURE FORECASTS

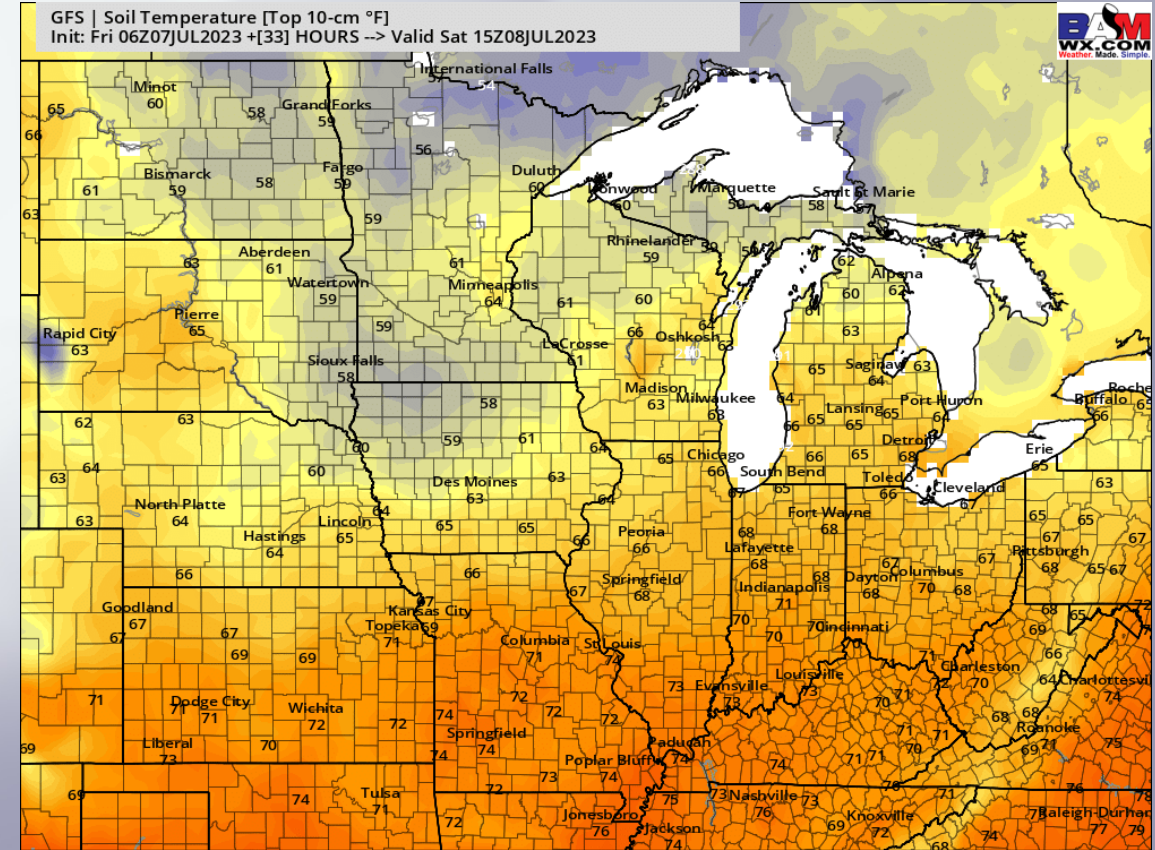
PREPARED BY: BRET WALTS & XANDER LOWRY

July 7, 2023

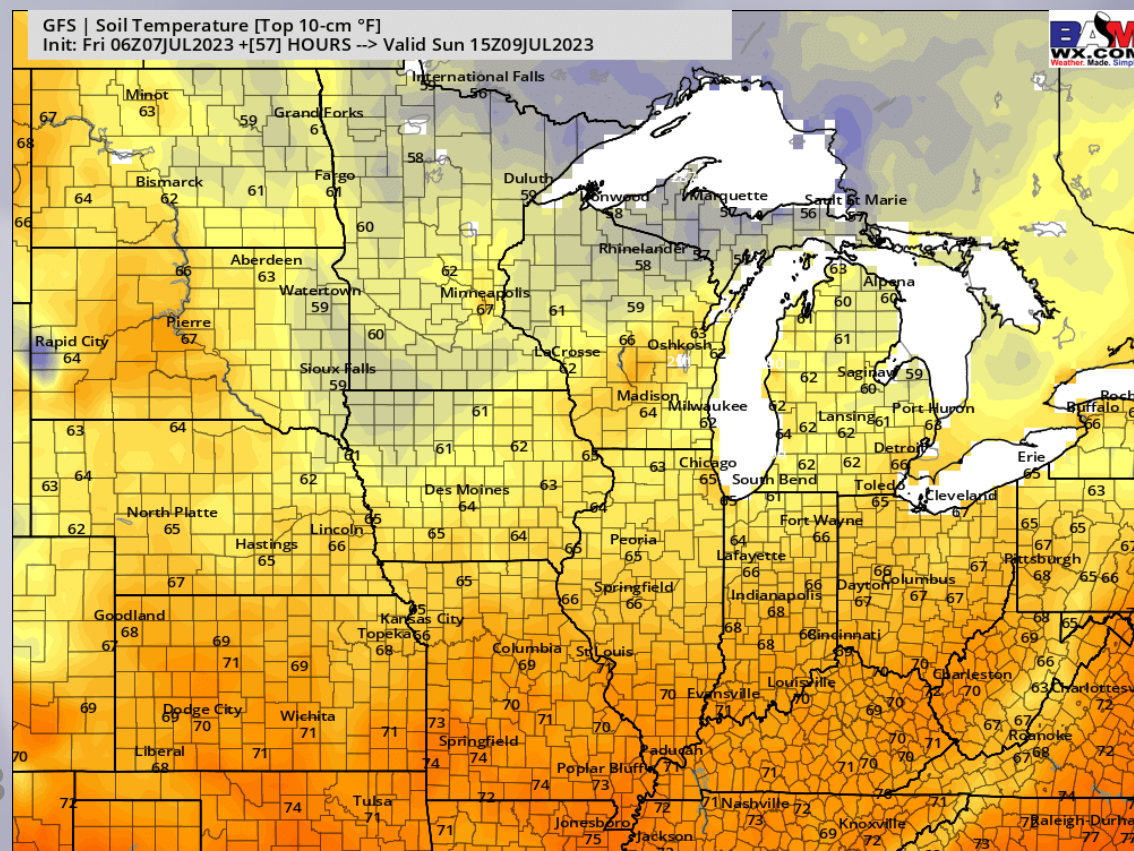
**FRIDAY 7/7**



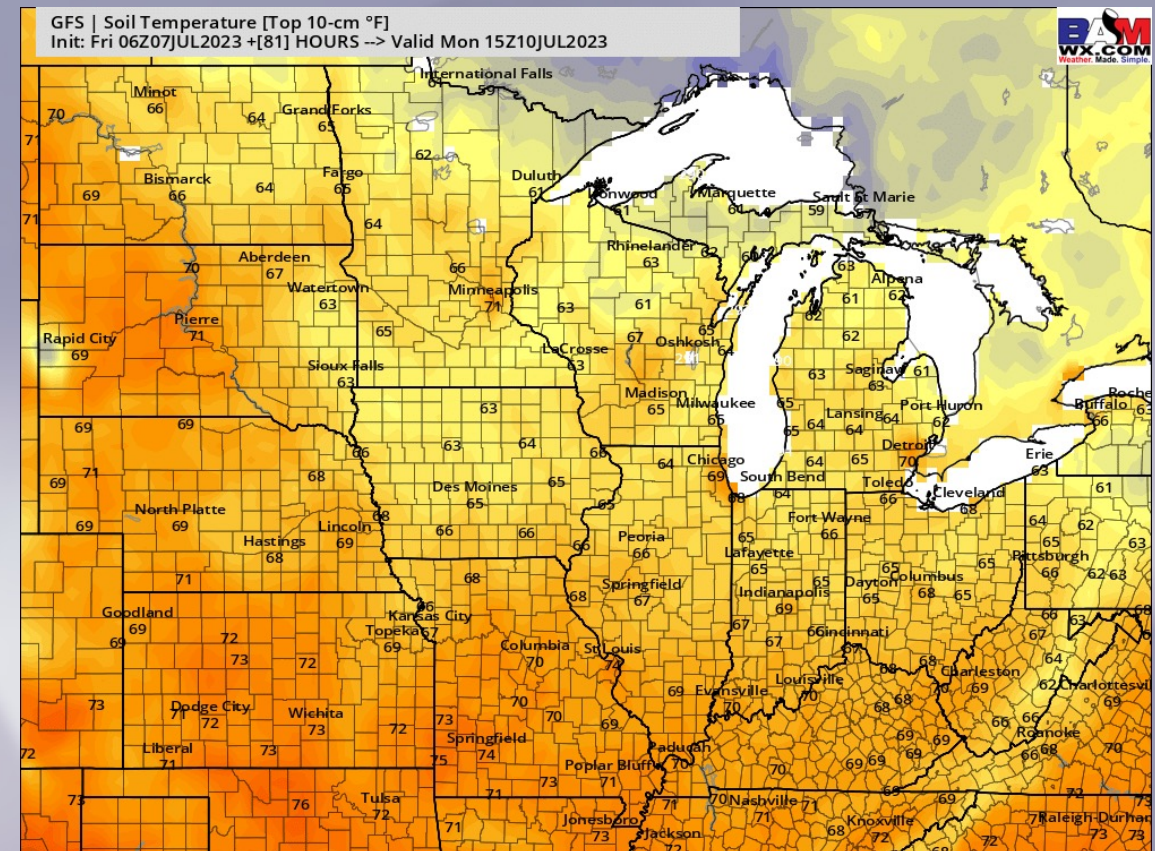
**SATURDAY 7/8**



**SUNDAY 7/9**



**MONDAY 7/10**



7/7/23

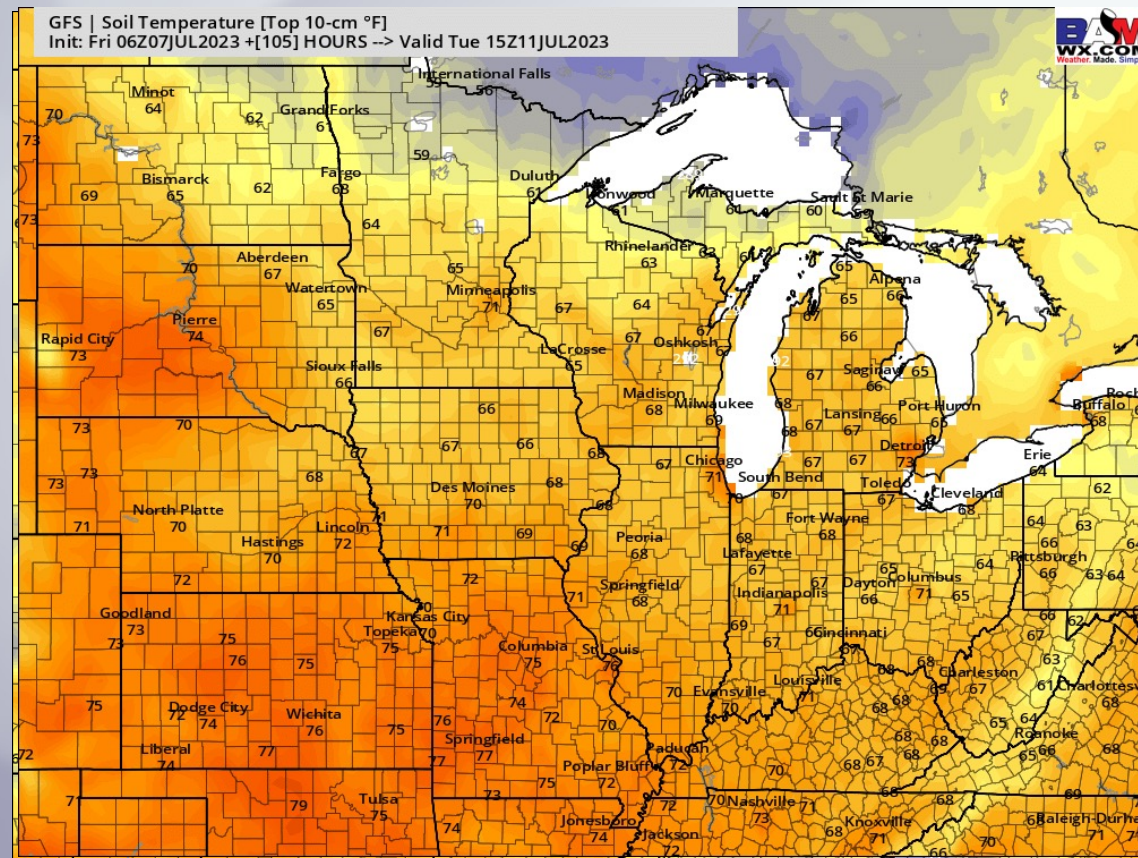


# SOIL TEMPERATURE FORECASTS

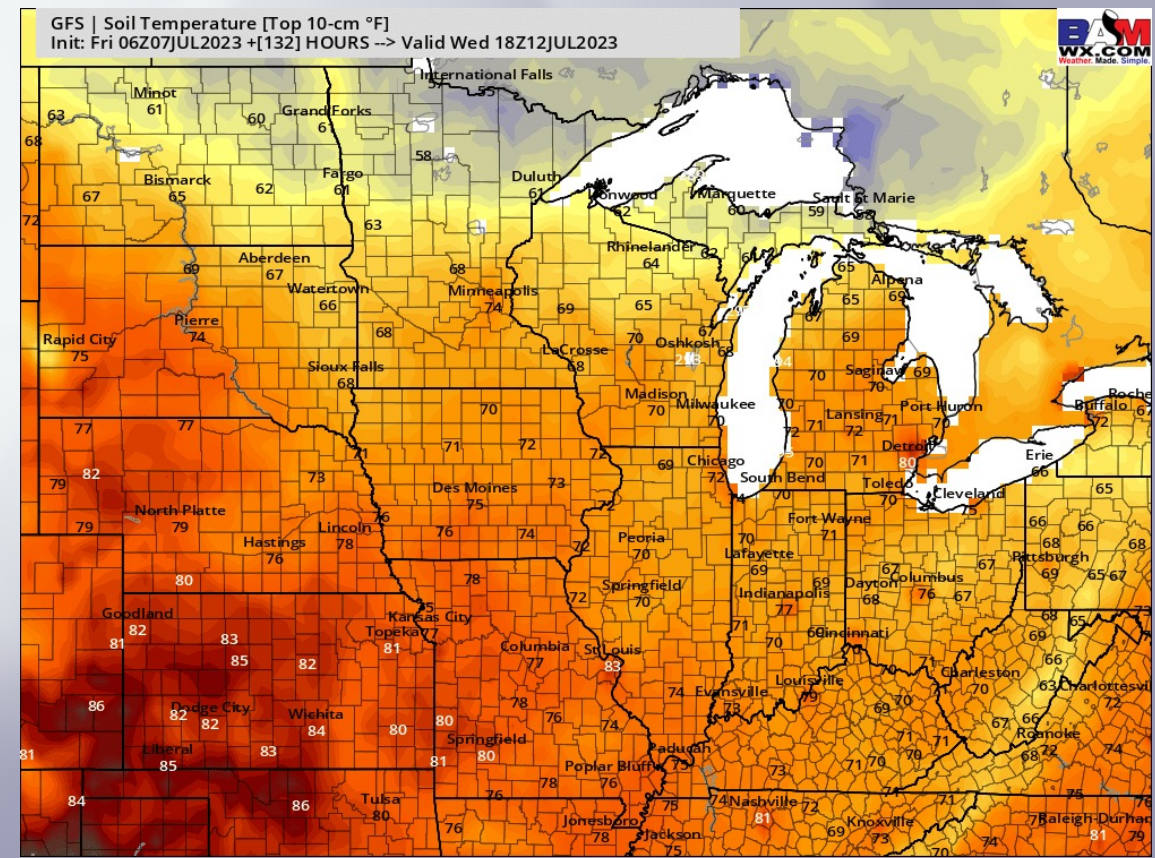
PREPARED BY: BRET WALTS & XANDER LOWRY

July 7, 2023

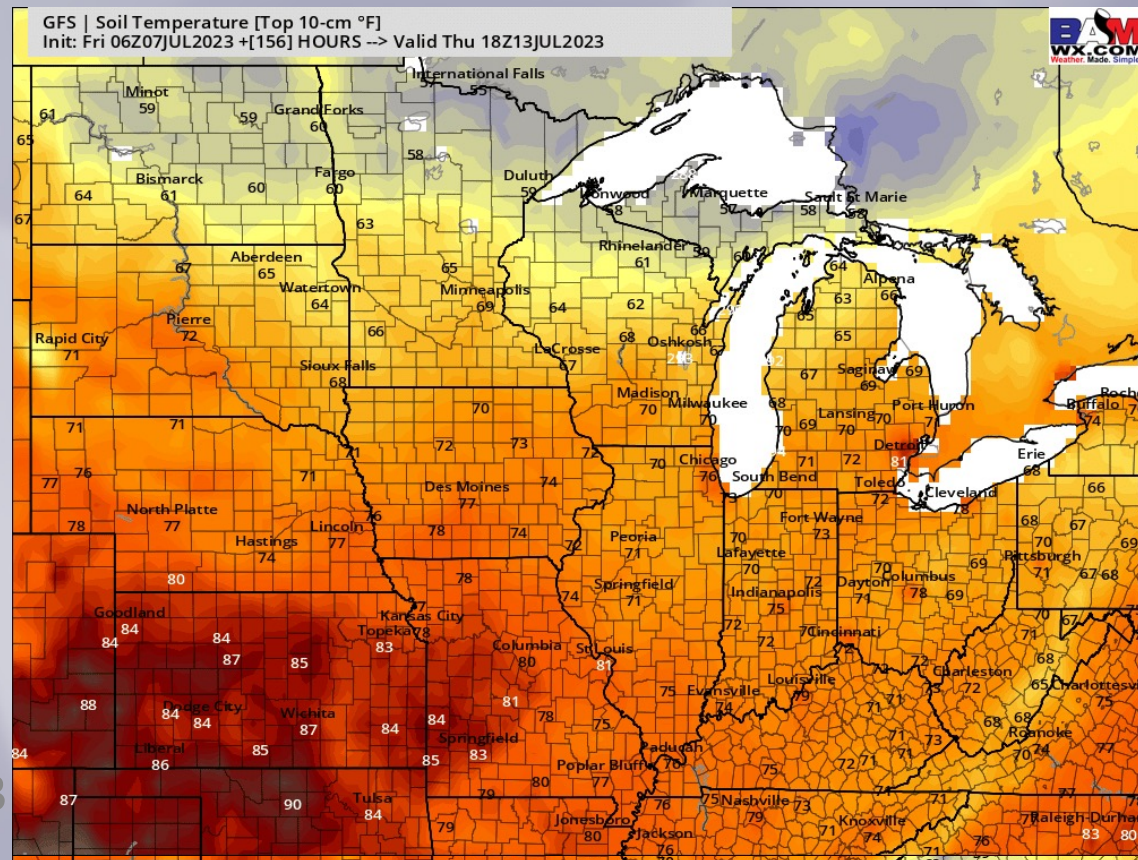
**TUESDAY 7/11**



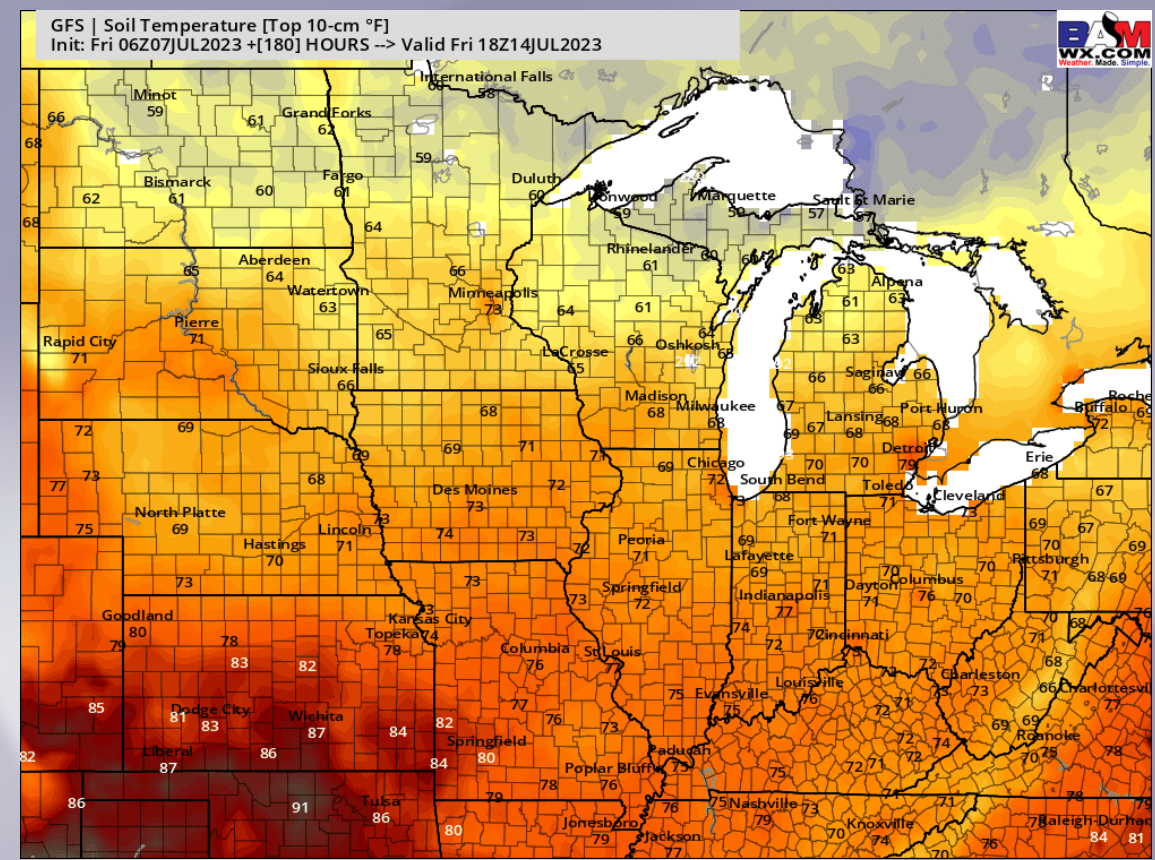
**WEDNESDAY 7/12**



**THURSDAY 7/13**



**FRIDAY 7/14**



7/7/23



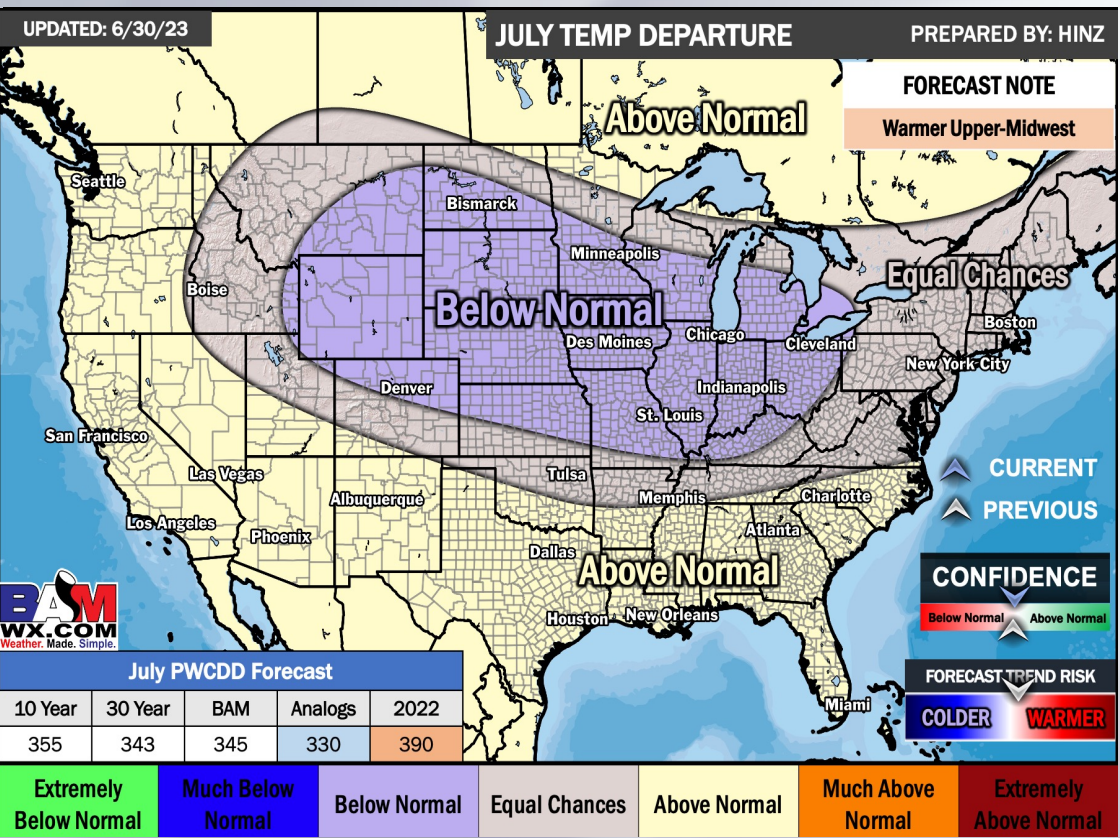
# Monthly Outlooks + PWCDD Data

PREPARED BY: BRET WALTS

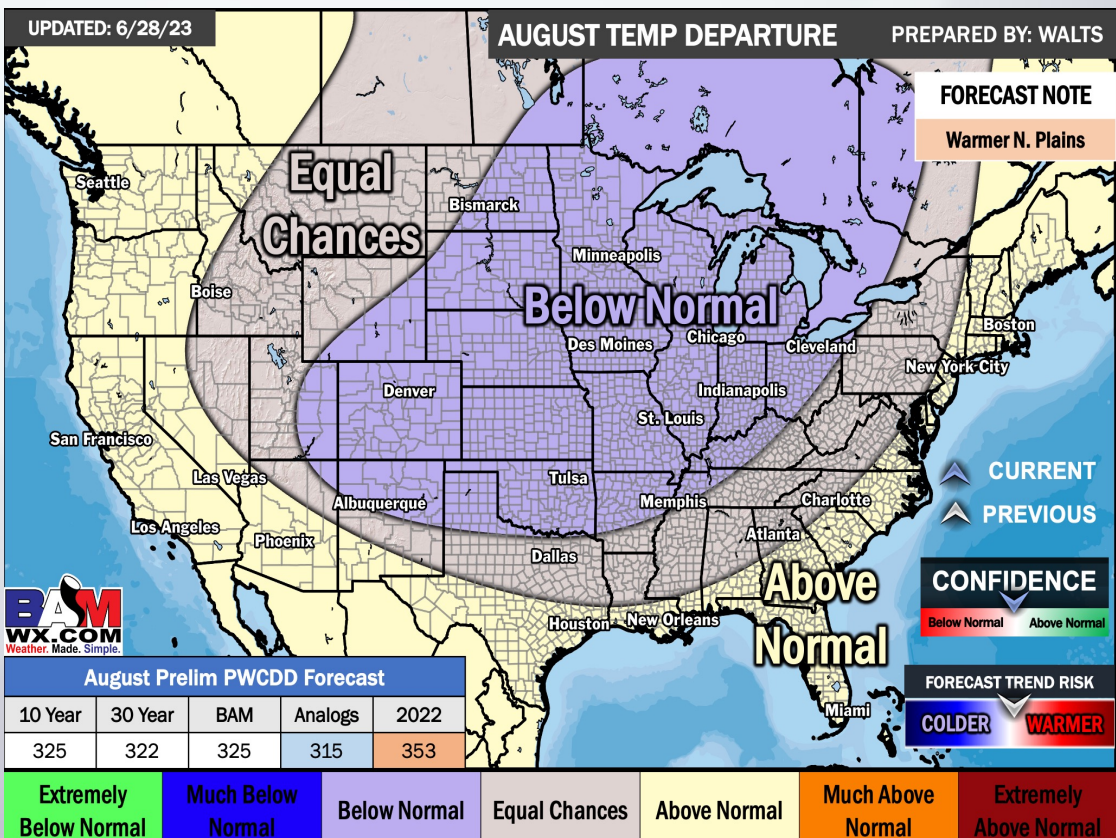
July 7, 2023



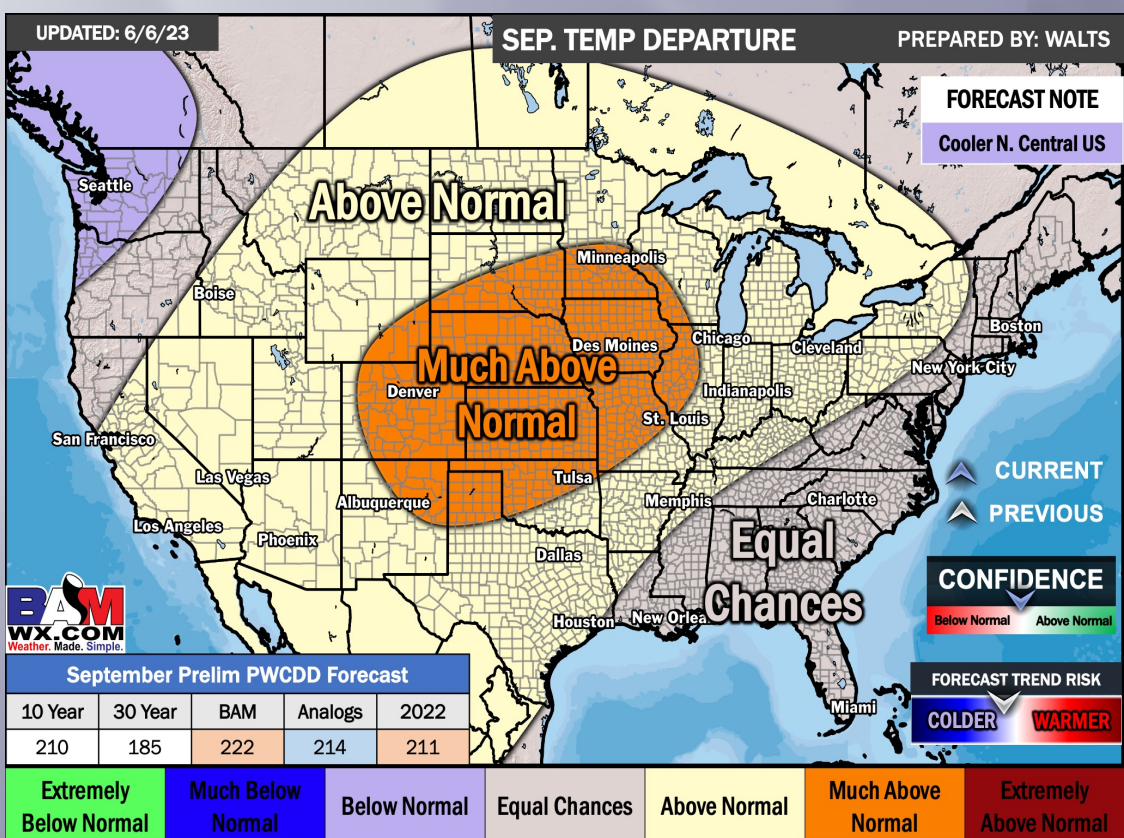
## JULY TEMP



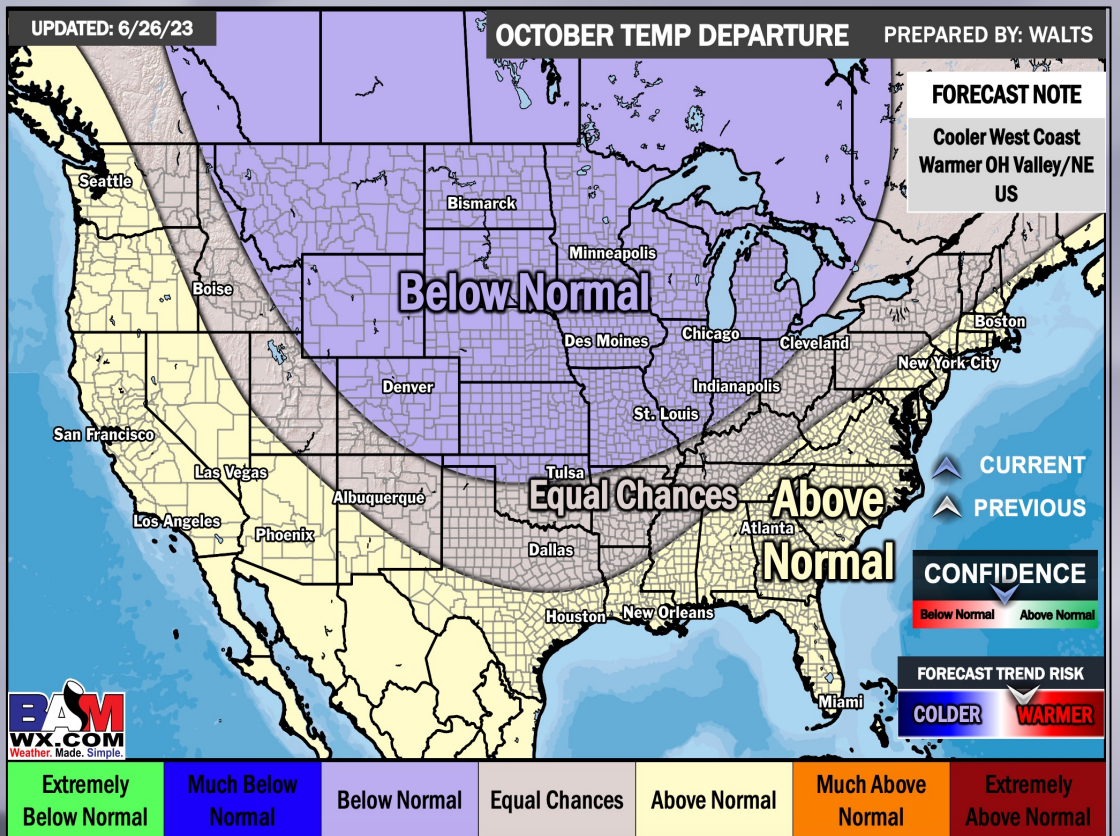
## AUGUST TEMP



## SEPTEMBER TEMP



## OCTOBER TEMP



## PWCDD MONTHLY AND SEASONAL FORECAST

	JULY	AUGUST	SEPTEMBER
30 YEAR	343	322	185
10 YEAR	355	325	210
LAST YEAR	390	353	211
BAM FORECAST	365	335	222



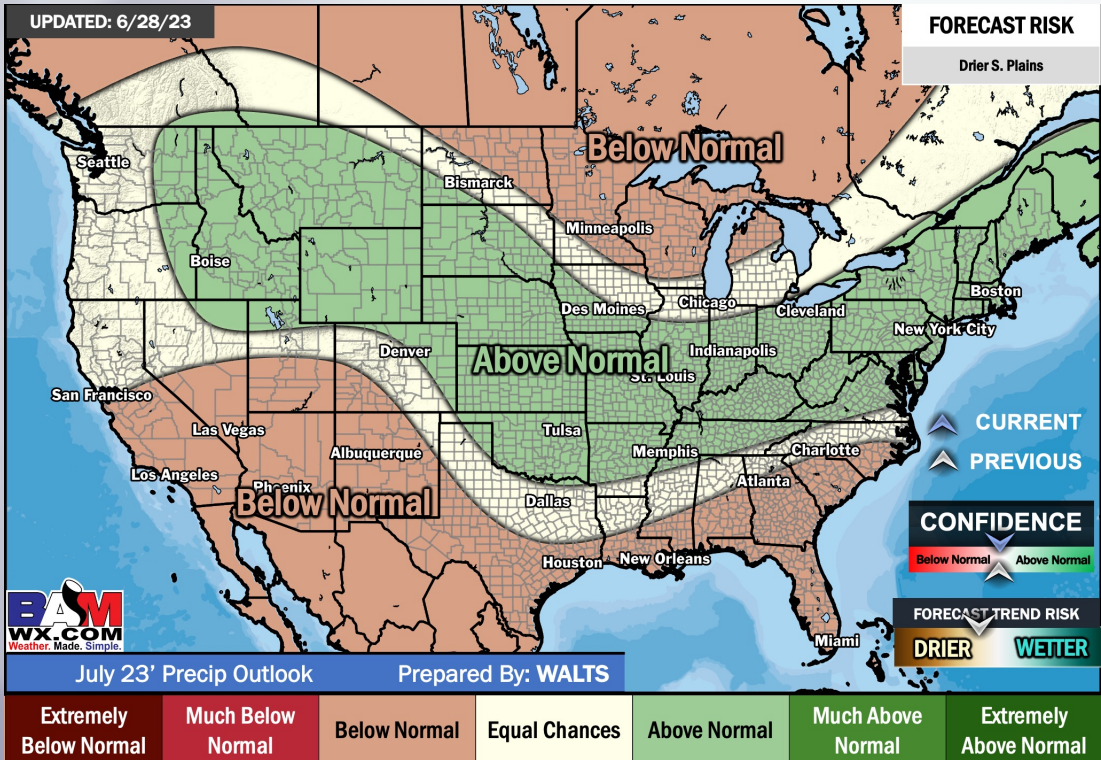
# Monthly Precipitation Outlooks

PREPARED BY: BRET WALTS

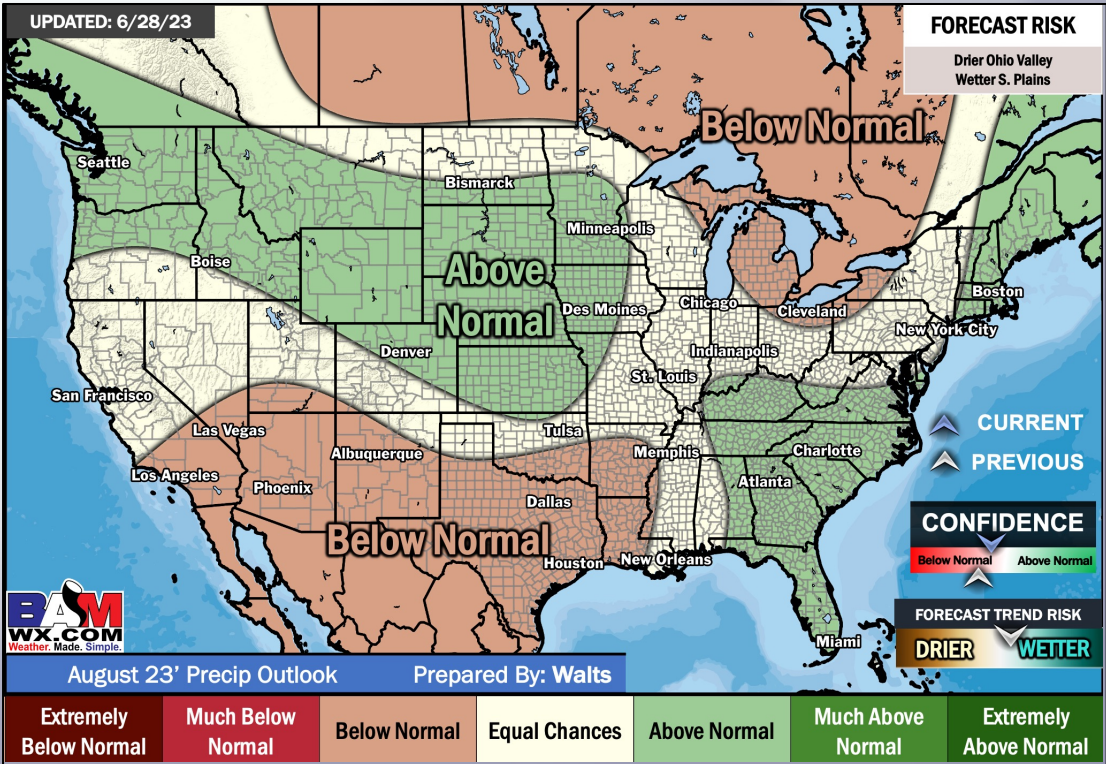
July 7, 2023



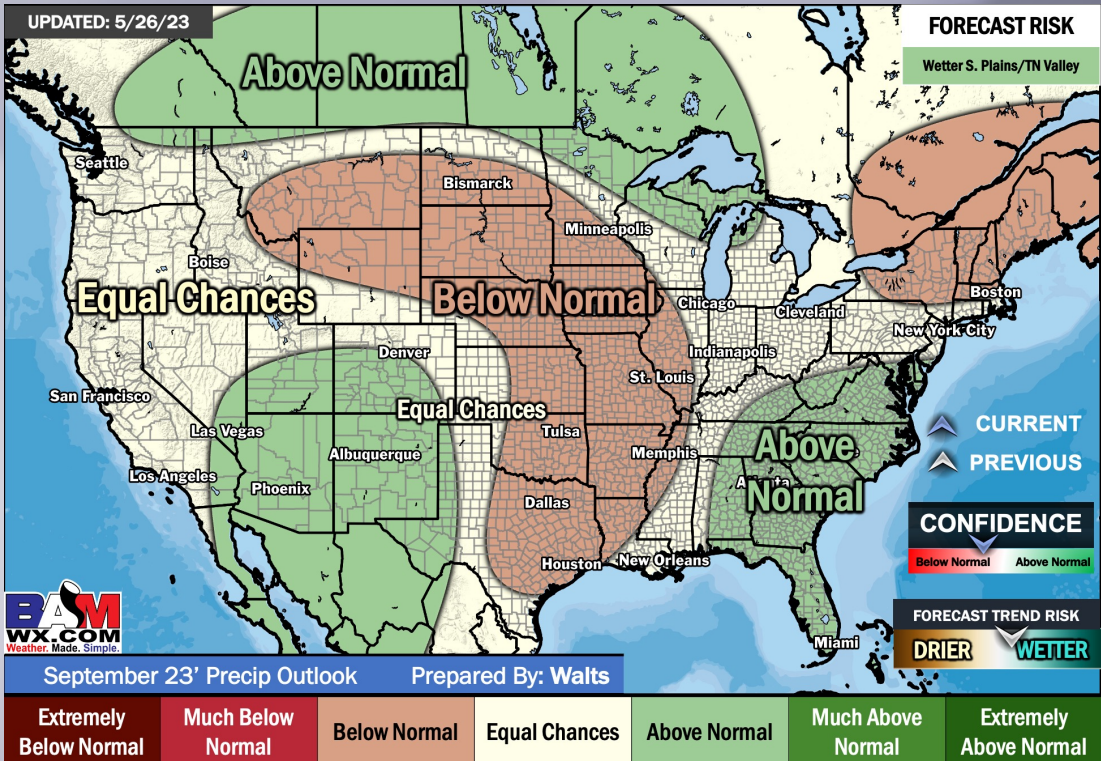
## JULY PRECIP



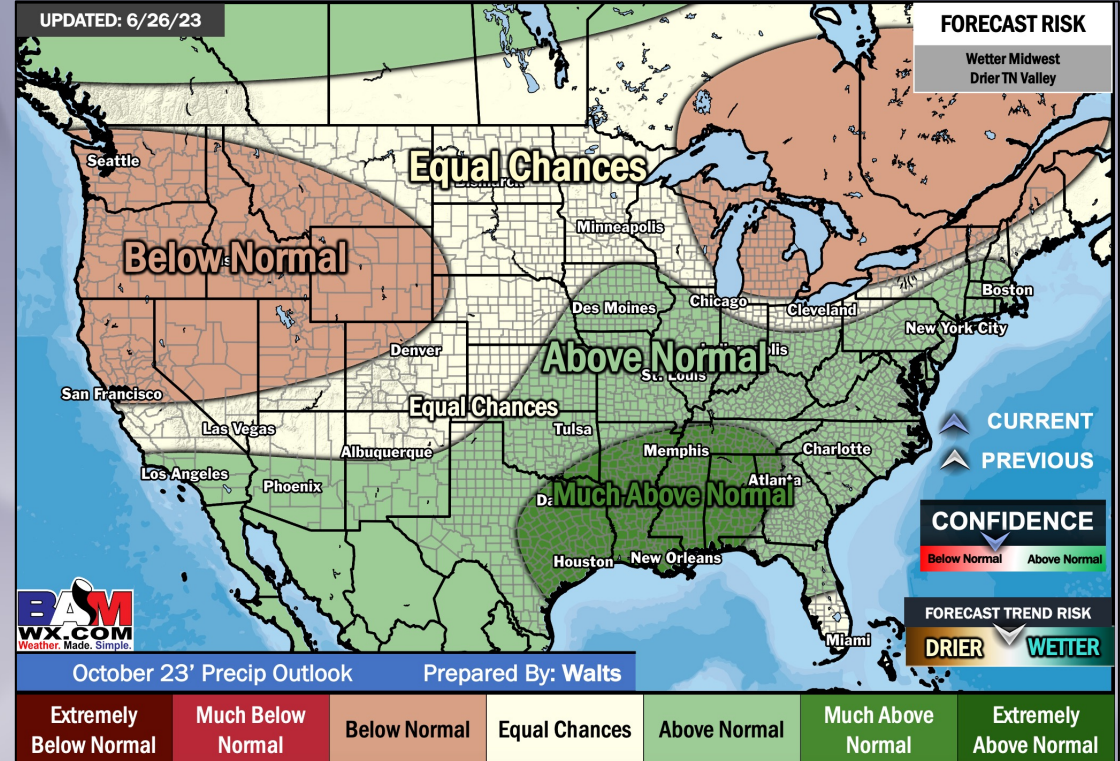
## AUG. PRECIP



## SEP. PRECIP



## OCT. PRECIP





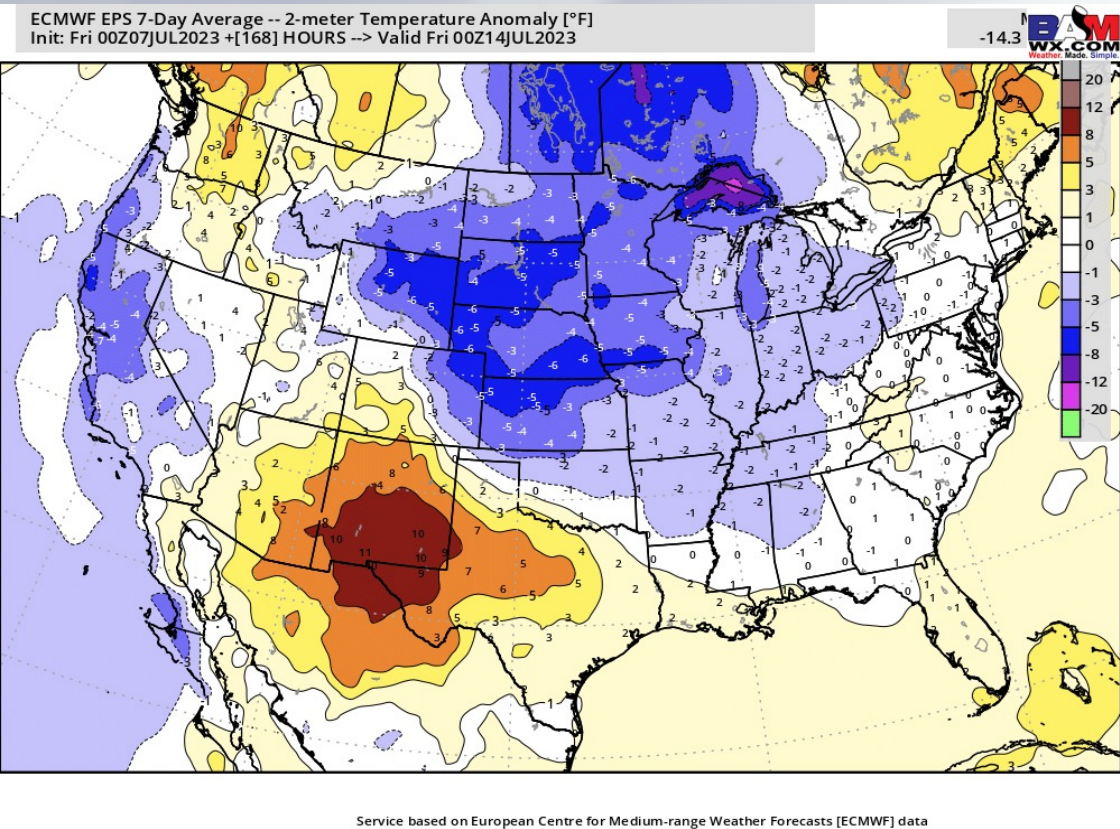
# BAM FORECAST TEMP DEPARTURES NEXT 2 WEEKS

PREPARED BY: BRET WALTS & XANDER LOWRY

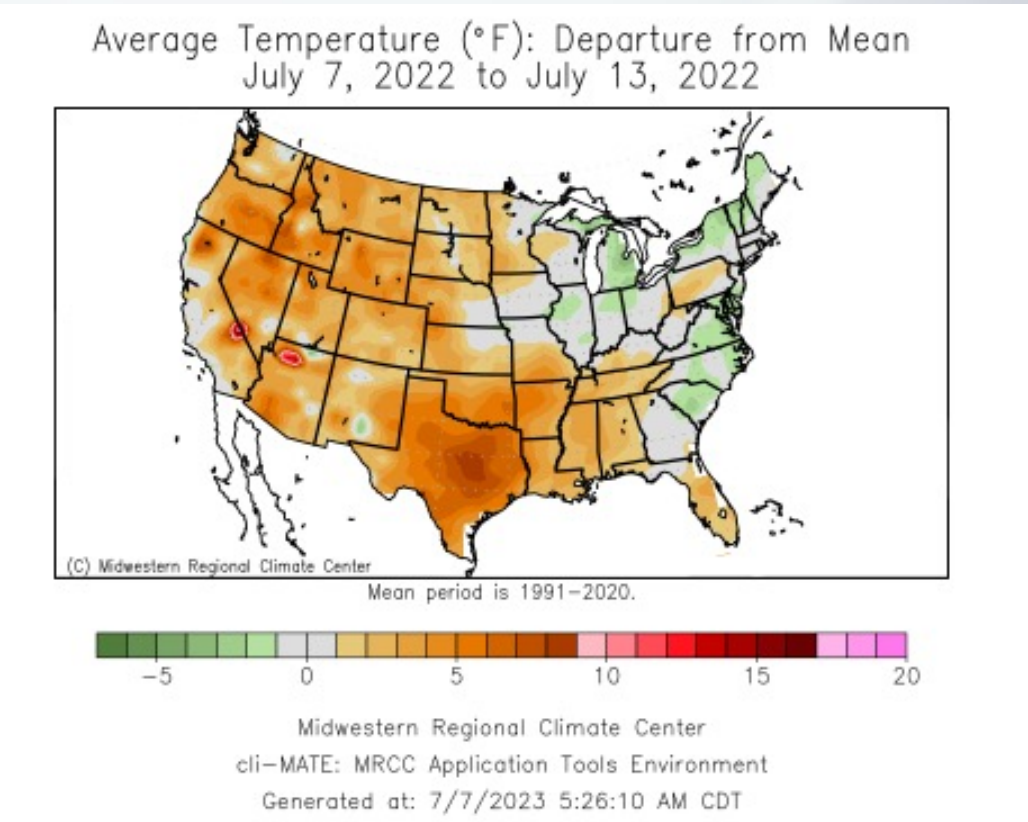
July 7, 2023



## Week 1 Temp Diff. vs Average July 7 – 13, 2023



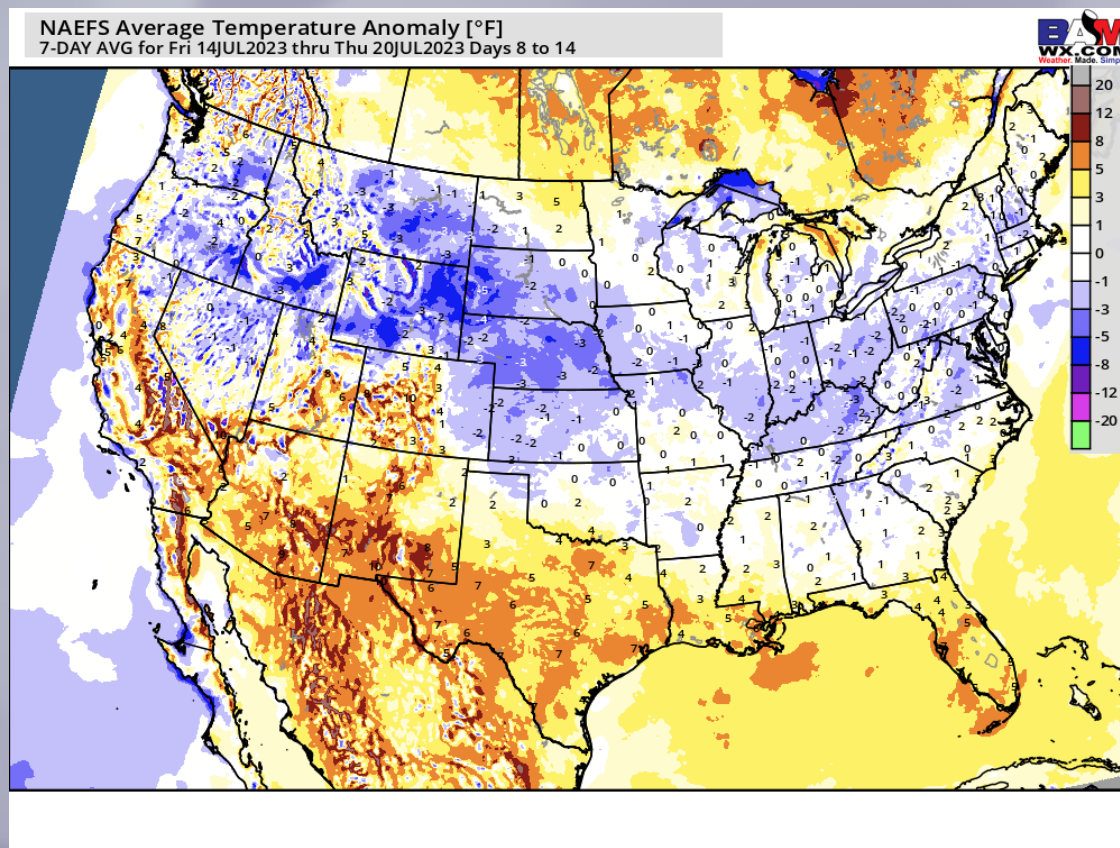
## Last Year Week 1



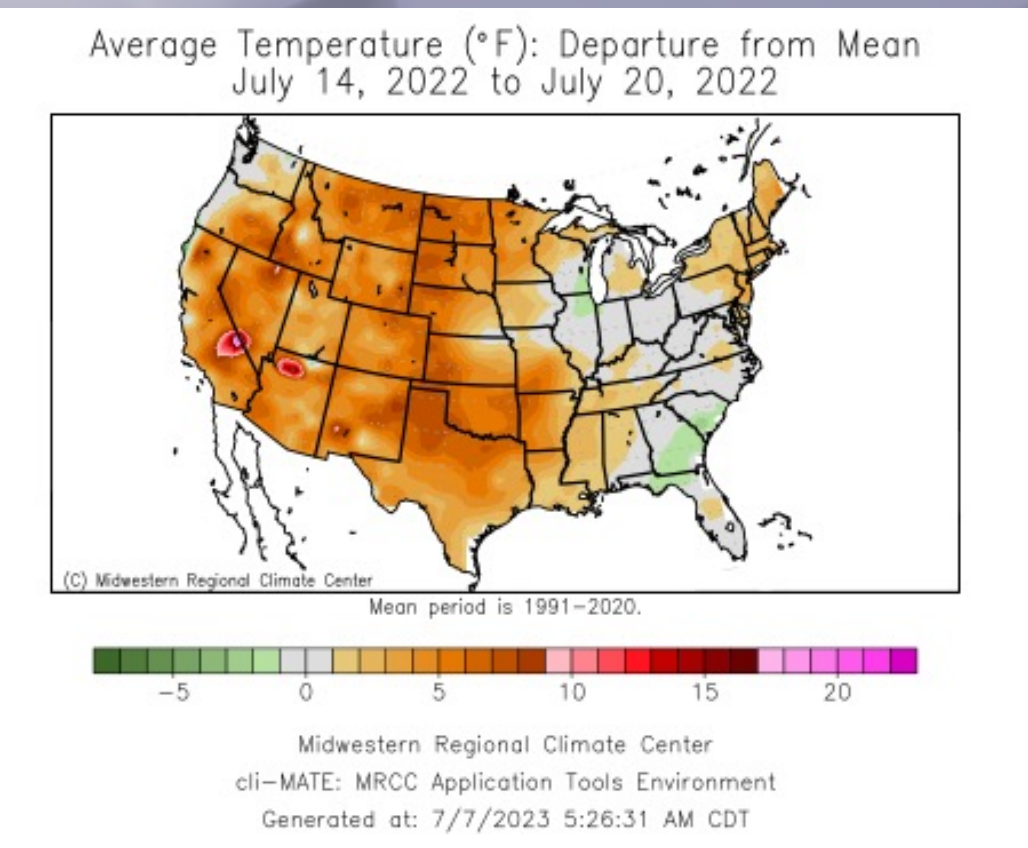
## Week 1 PWCDDs Data

10 Year	79.8
30 Year	74.9
2022	80.5
<b>BAM 2023</b>	<b>82.0</b>

## Week 2 Temp Diff. vs Average July 14 – 20, 2023



## Last Year Week 2



## July PWCDD Data

MTD	75.7
RANK	11 <sup>nd</sup> /72
1 <sup>st</sup> = <b>WARMEST</b>    72 <sup>nd</sup> = <b>COLDEST</b>	
2022	390
<b>BAM JULY:</b>	<b>365</b>

## Week 2 PWCDD Data

10 Year	82.4
30 Year	77.8
2022	93.2
<b>BAM 2023</b>	<b>94.0</b>



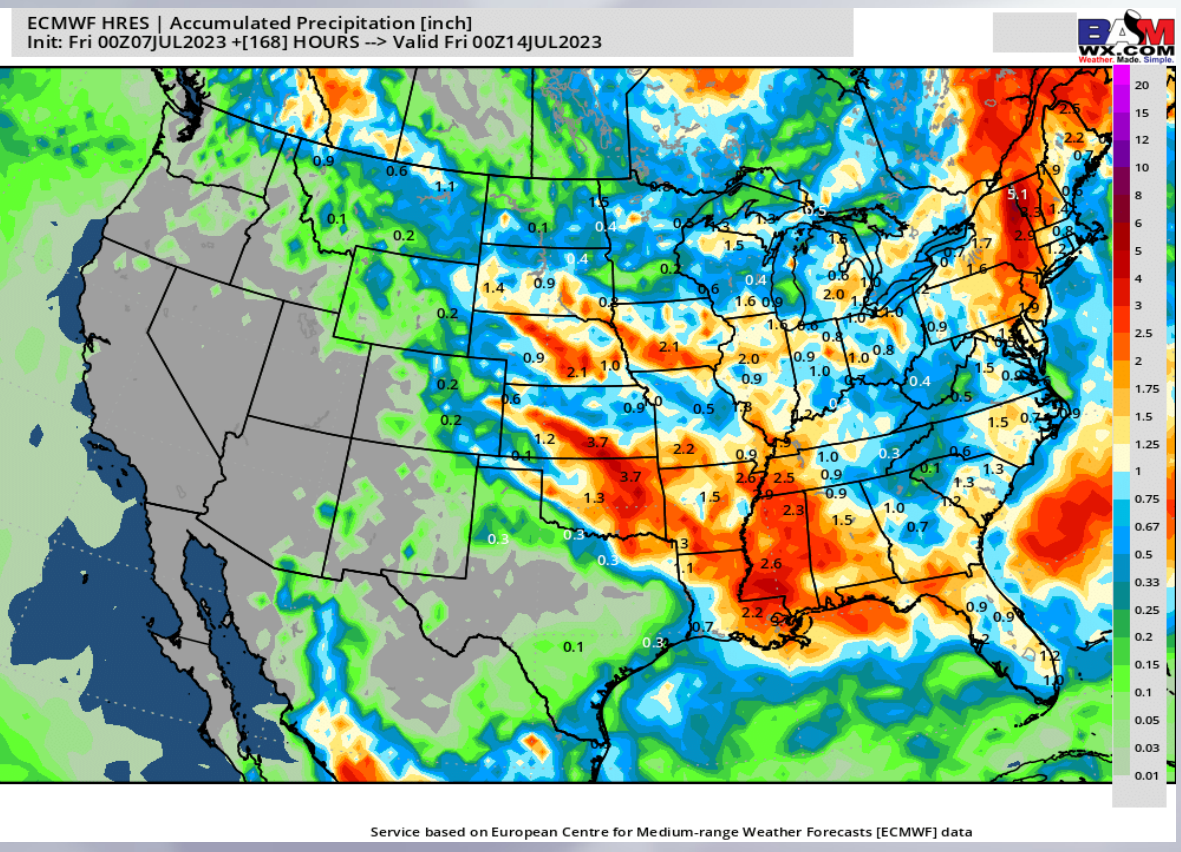
# BAM FORECAST PRECIP DEPARTURES NEXT 2 WEEKS

PREPARED BY: BRET WALTS & XANDER LOWRY

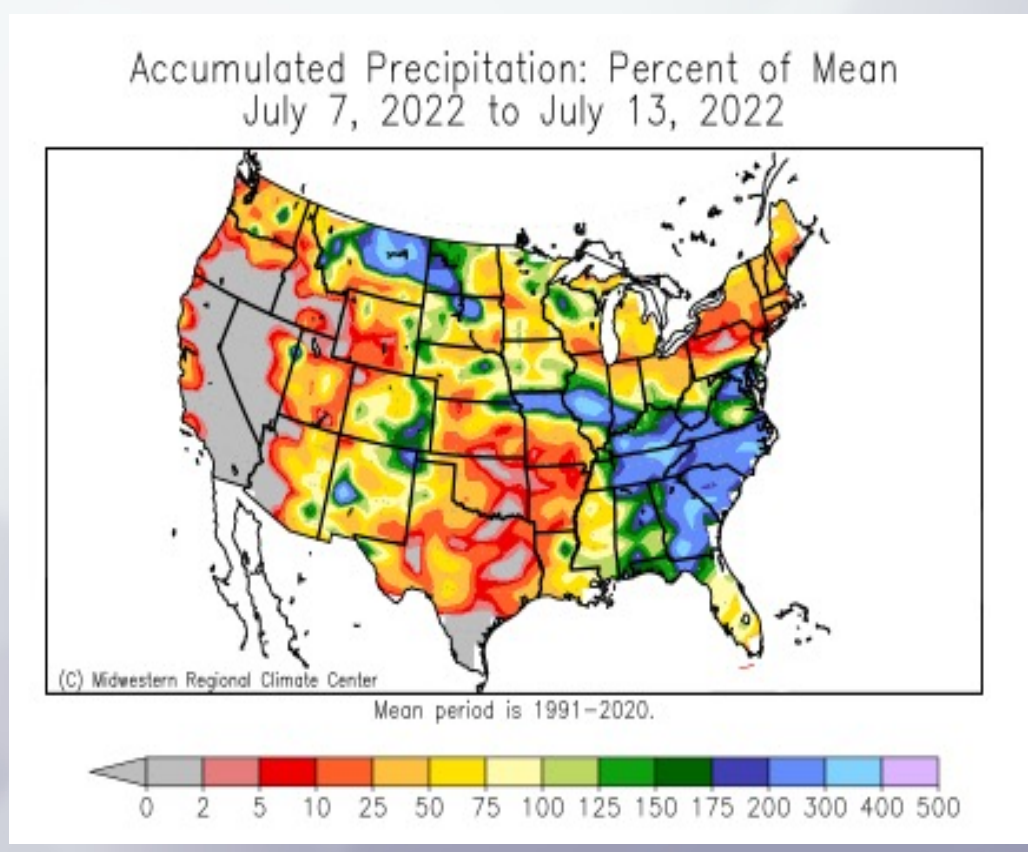
July 7, 2023



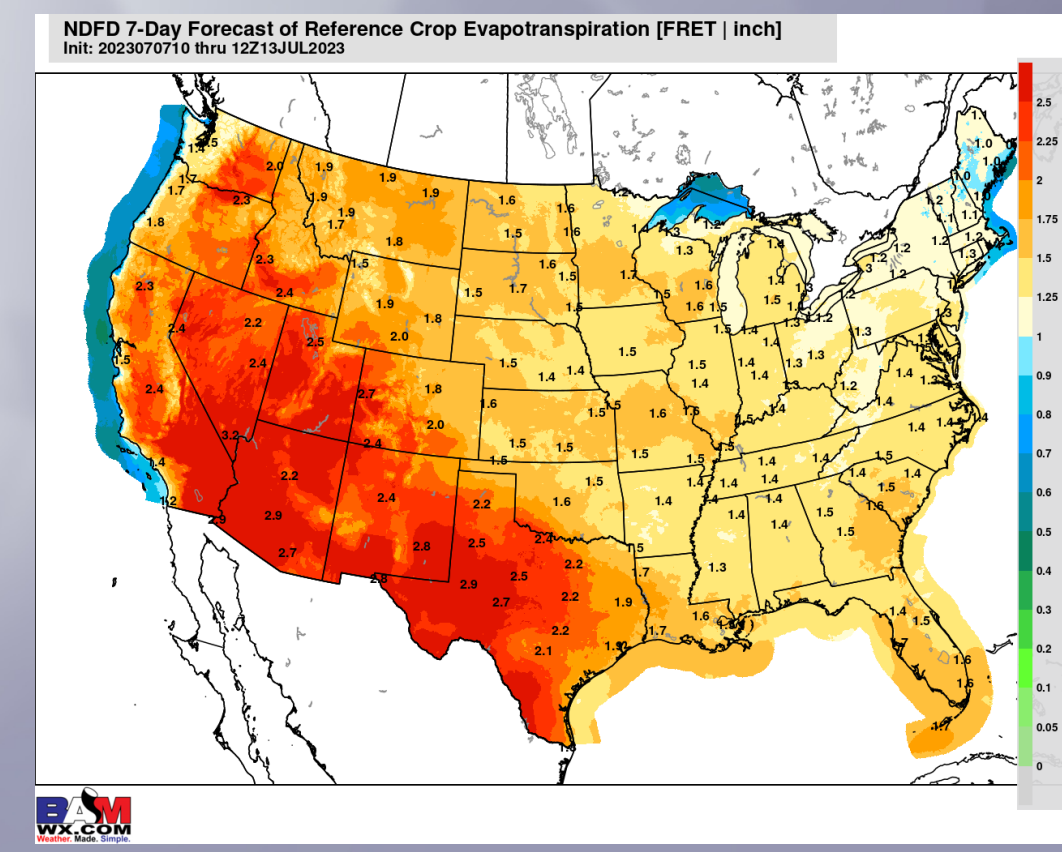
## Week 1 Total Precip July 7 – 13, 2023



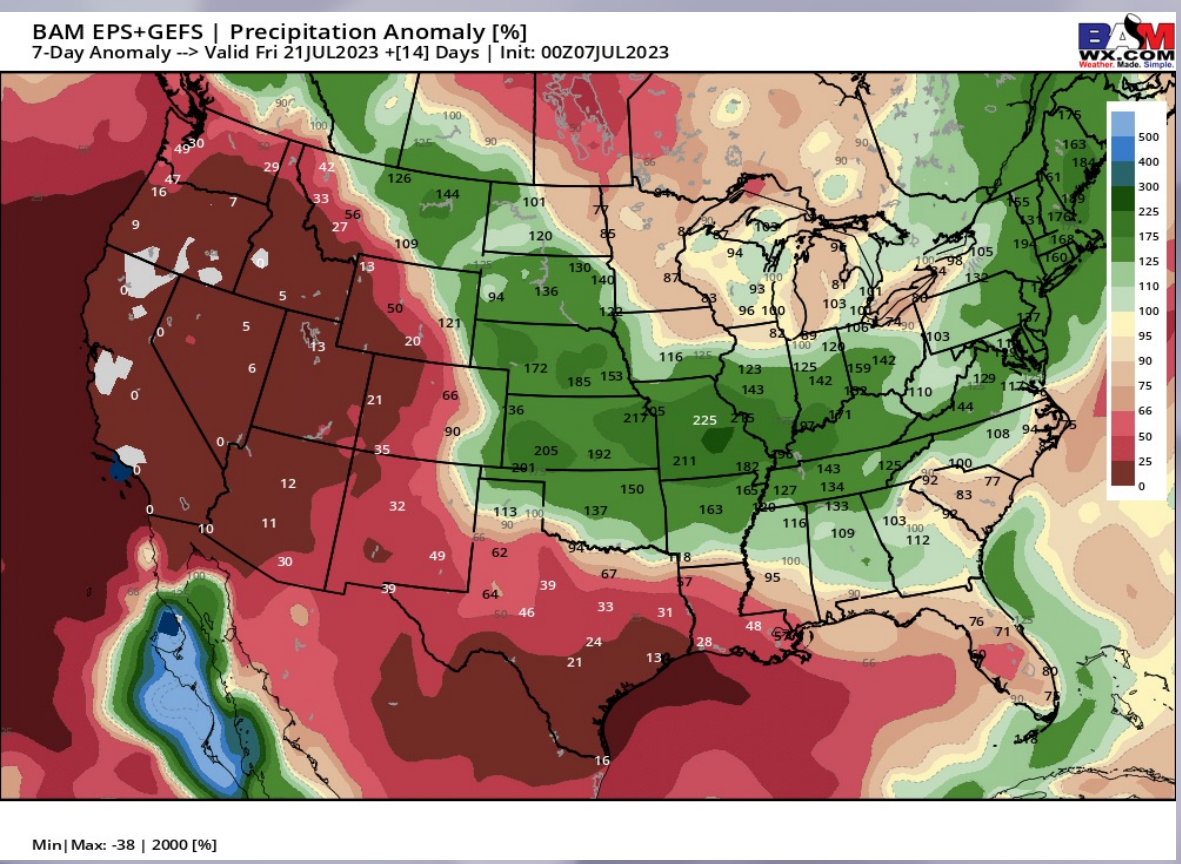
## Last Year Week 1 % of Normal Precip



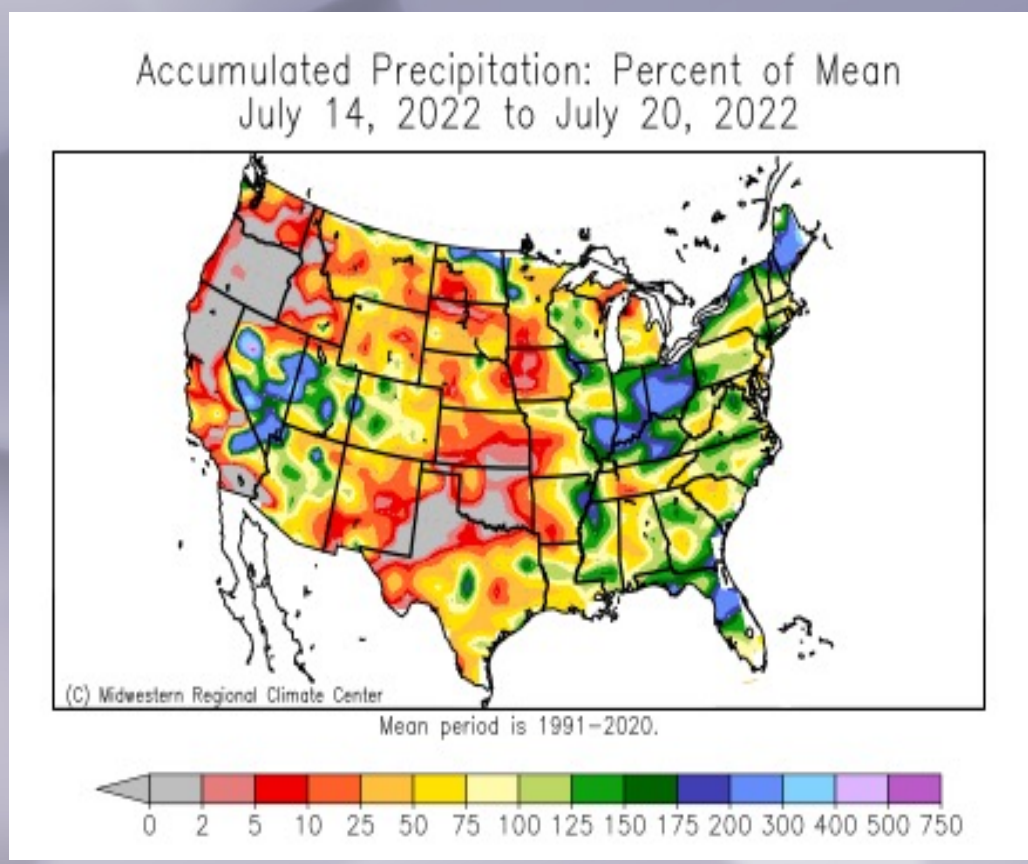
## Week 1 Evapotranspiration



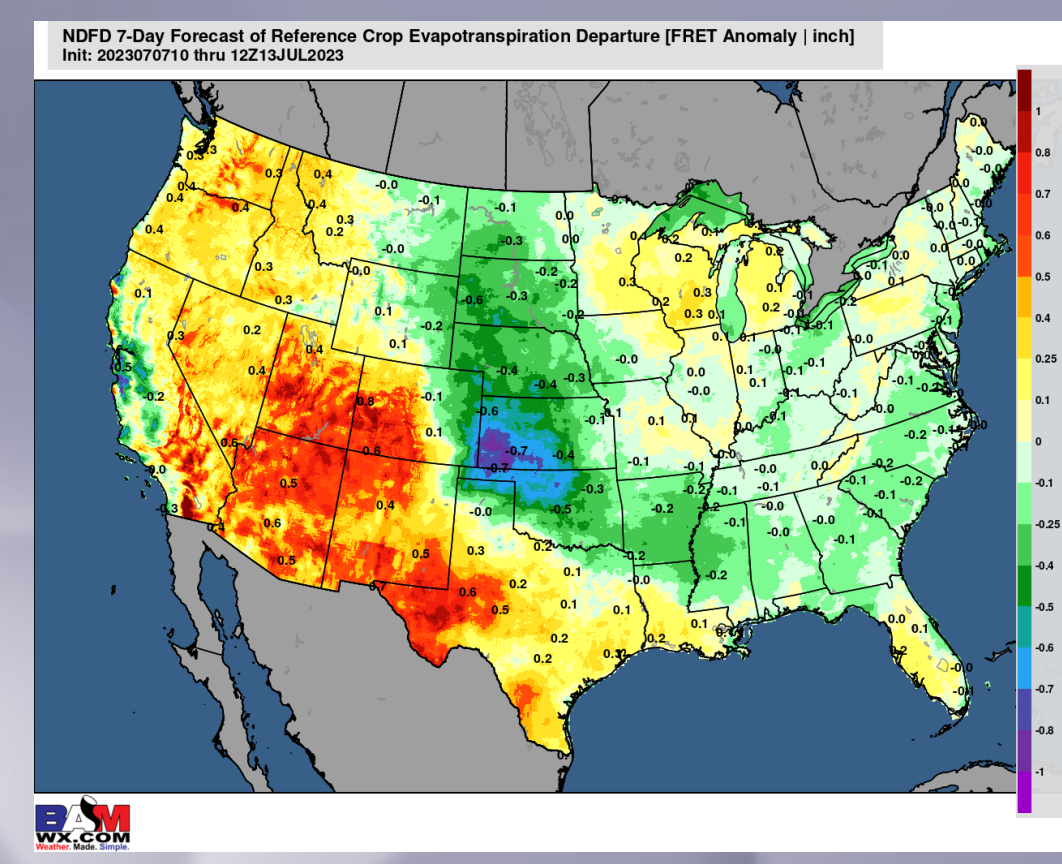
## Week 2 % of Normal Precip: July 14 – 20, 2023



## Last Year Week 2 % of Normal Precip



## Week 1 ET Rate Departure





# BAM WEEKS 3/4 OUTLOOK

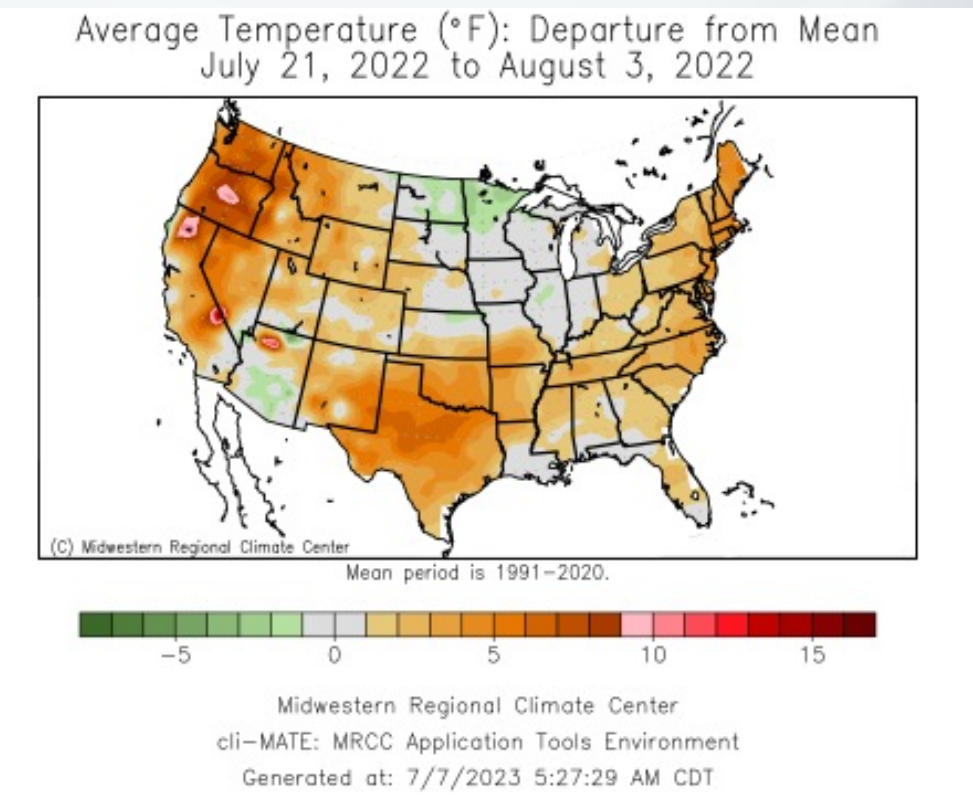
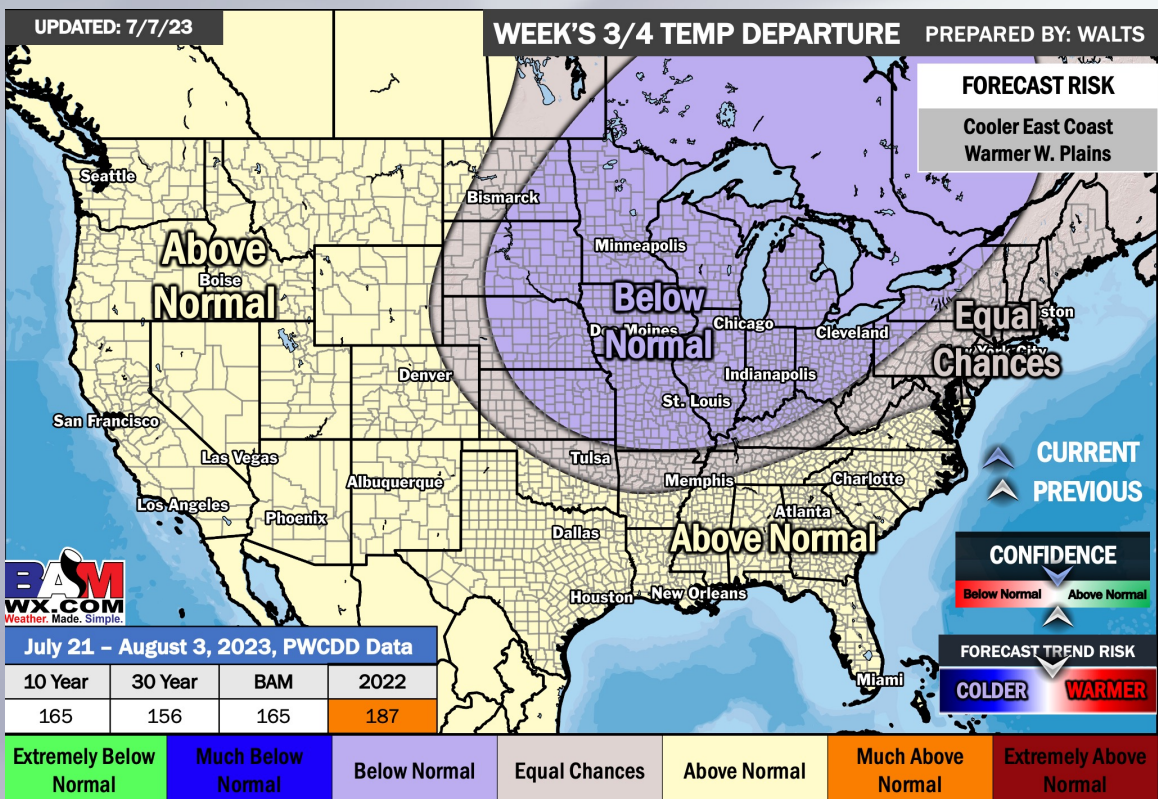
PREPARED BY: BRET WALTS

July 7, 2023



## TEMPERATURE FORECAST

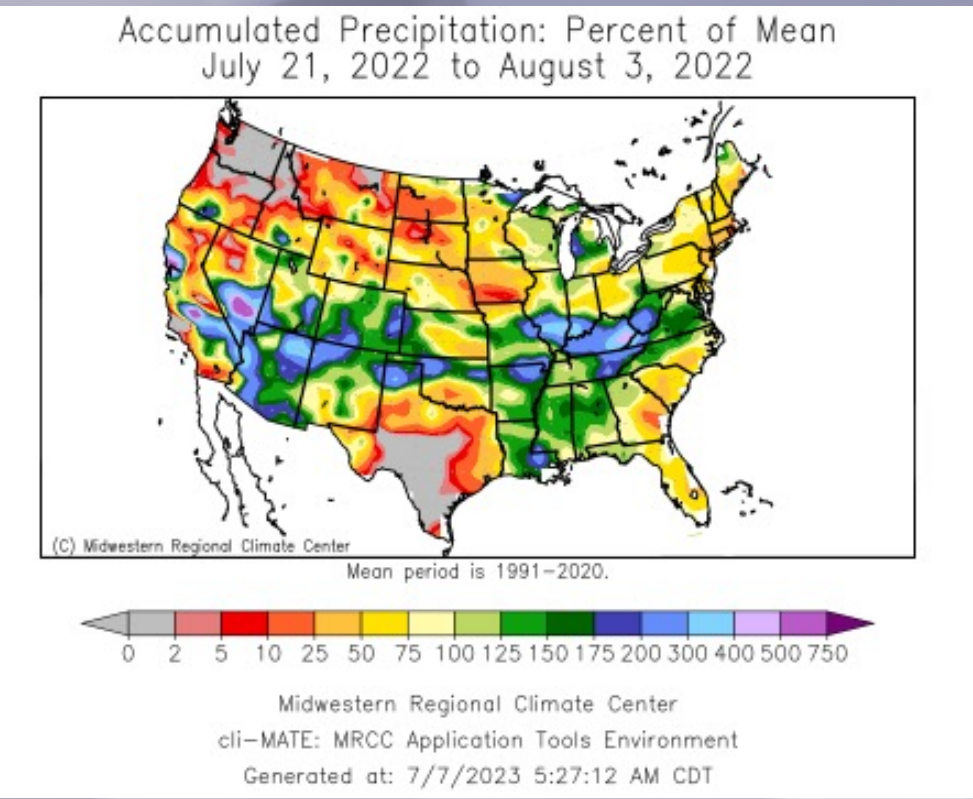
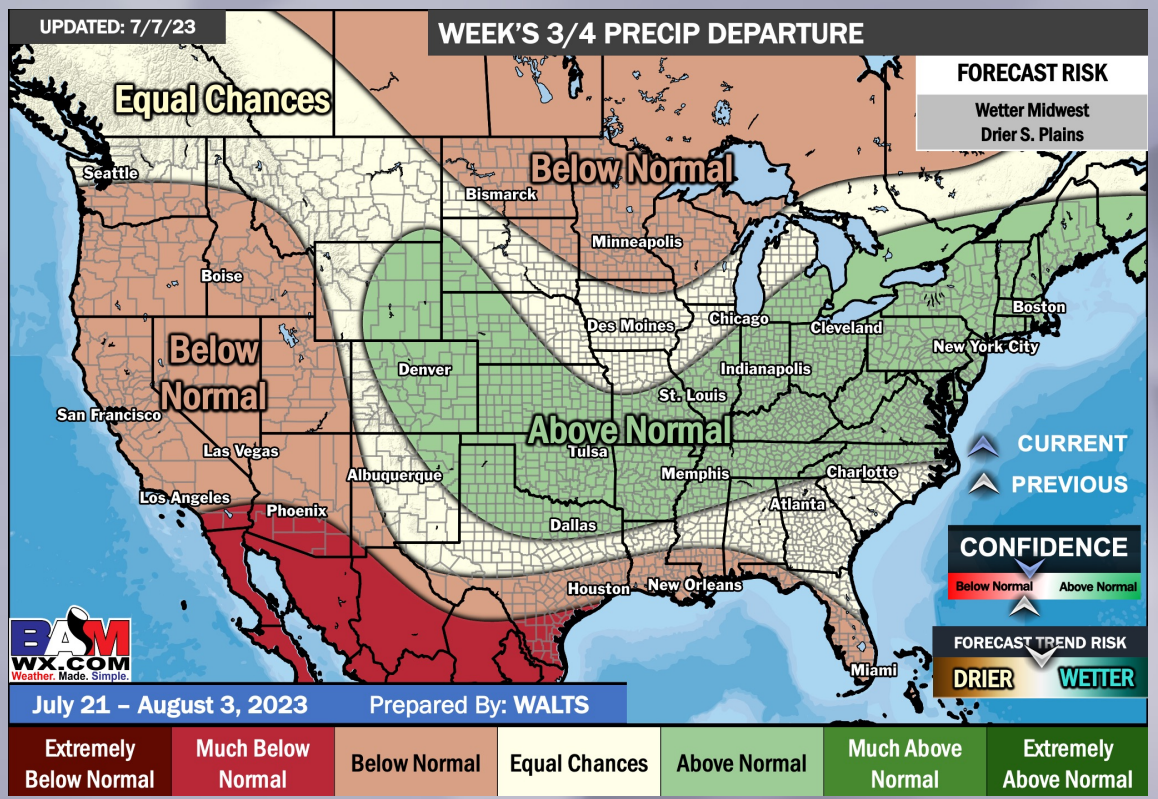
July 21 – Aug 3, 2023



- **PATTERN DRIVERS/Analog:** +East Asia, -NAO/AO, El Niño, +SOI, Tropical Forcing
- **FAVORED EVOLUTION:** The predominant driver in this period is looking to be an MJO evolution into the cooler phases of 6/7/8. Historically phase 6/8 are two of the cooler phases in the summer months and years like 2018, 2014 and 2009 reflected this in late June. However, the SOI remaining positive would still support the risk of some southern/southeast US warmth at times which can keep cooling demand a little higher while the Ag Belt remains cooler than normal. If there is any warmth for the Ag Belt, it's likely early in the period with residual MJO phase 5 influence.
- **RISKS:** Warmer W. Plains (East Asia/+SOI), Cooler East Coast (MJO)

## PRECIPITATION FORECAST

July 21 – Aug 3, 2023



- ## TEMPS
- ## PRECIP
- **PATTERN DRIVERS/Analog:** East Asia, -NAO/AO, El Niño, +SOI, Tropical Forcing
  - **FAVORED EVOLUTION:** With the cooler idea continuing along with MJO phase 6/7/8 influence, it's likely the southern jet stream will be dominant again. The best gradient in temperatures with cooler air north and warmer air south will set up through parts of the Central Plains and the Ohio Valley. The Upper-Midwest and parts of the N. Plains will continue to deal with suppression and drier risks. Overall, the storm track will be similar to early July with the SW and S. Plains and through the OH Valley being wetter than normal. Some MJO analogs split flow more and are more seasonable to drier in KS/MO into OK as a risk to watch.
  - **RISKS:** Drier S. Plains/KS/MO (Suppression), Wetter Midwest (+SOI).