



New Mexico Drought Monitor Working Group

Friday, June 29, 2018

Andy Church
Meteorologist
NWS Albuquerque





From the US Drought Monitor...

*“The map and associated statistics will be released to the public between 7:30 and 8:00 am Central Time each Thursday. Up until that time, all maps/figures/statistics associated with the final USDM map for the week are **100% embargoed** until the official release time. This has been the long standing policy of the US Drought Monitor. ”*

About the USDM

NM Drought Monitor Working Group



Albuquerque
WEATHER FORECAST OFFICE

- *U.S. Drought Monitor maps come out every Thursday morning at 8:30 Eastern Time, based on data through 7 a.m. Eastern Standard Time (8 a.m. Eastern Daylight Time) the preceding Tuesday. The map is based on measurements of climatic, hydrologic and soil conditions as well as reported impacts and observations from more than 450 contributors around the country.*
- *Eleven climatologists from the partner organizations take turns serving as the lead author each week.*
- *The authors examine all the data and use their best judgment to reconcile any differences in what different sources are saying.*
- ***The USDM is an analysis of drought and does not include any forecast information***

Current Drought Monitor

NM Drought Monitor Working Group



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U.S. Drought Monitor New Mexico

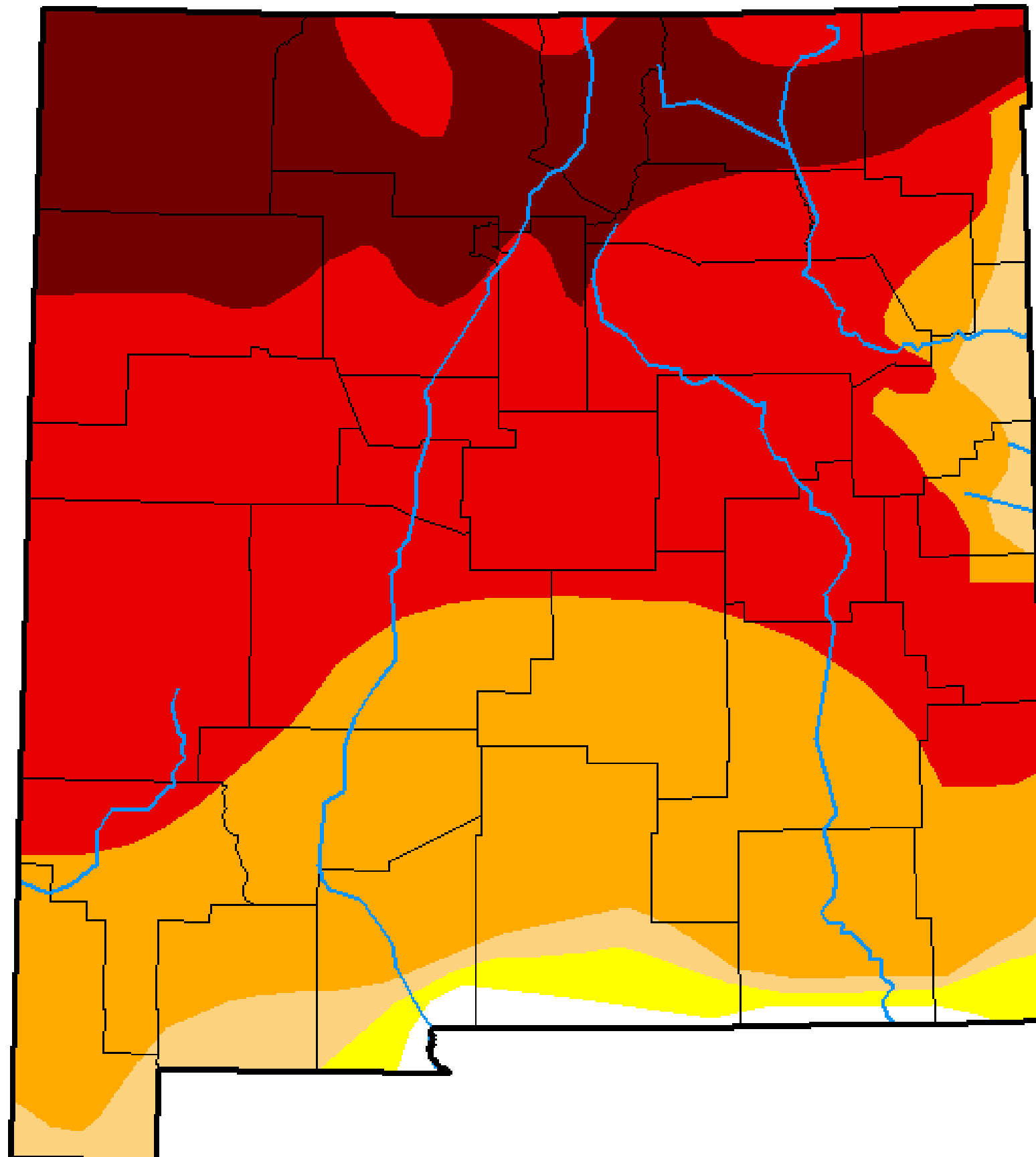
June 19, 2018

(Released Thursday, Jun. 21, 2018)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	1.36	98.64	96.30	91.26	60.89	18.02
Last Week <i>06-12-2018</i>	0.10	99.90	98.65	92.39	62.97	18.17
3 Months Ago <i>03-20-2018</i>	0.08	99.92	98.64	77.89	25.60	0.00
Start of Calendar Year <i>01-02-2018</i>	7.01	92.99	45.97	4.76	0.00	0.00
Start of Water Year <i>09-26-2017</i>	85.16	14.84	0.00	0.00	0.00	0.00
One Year Ago <i>06-20-2017</i>	75.26	24.74	6.56	0.00	0.00	0.00



Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:

Brian Fuchs
National Drought Mitigation Center



<http://droughtmonitor.unl.edu/>

Current Drought Monitor

NM Drought Monitor Working Group



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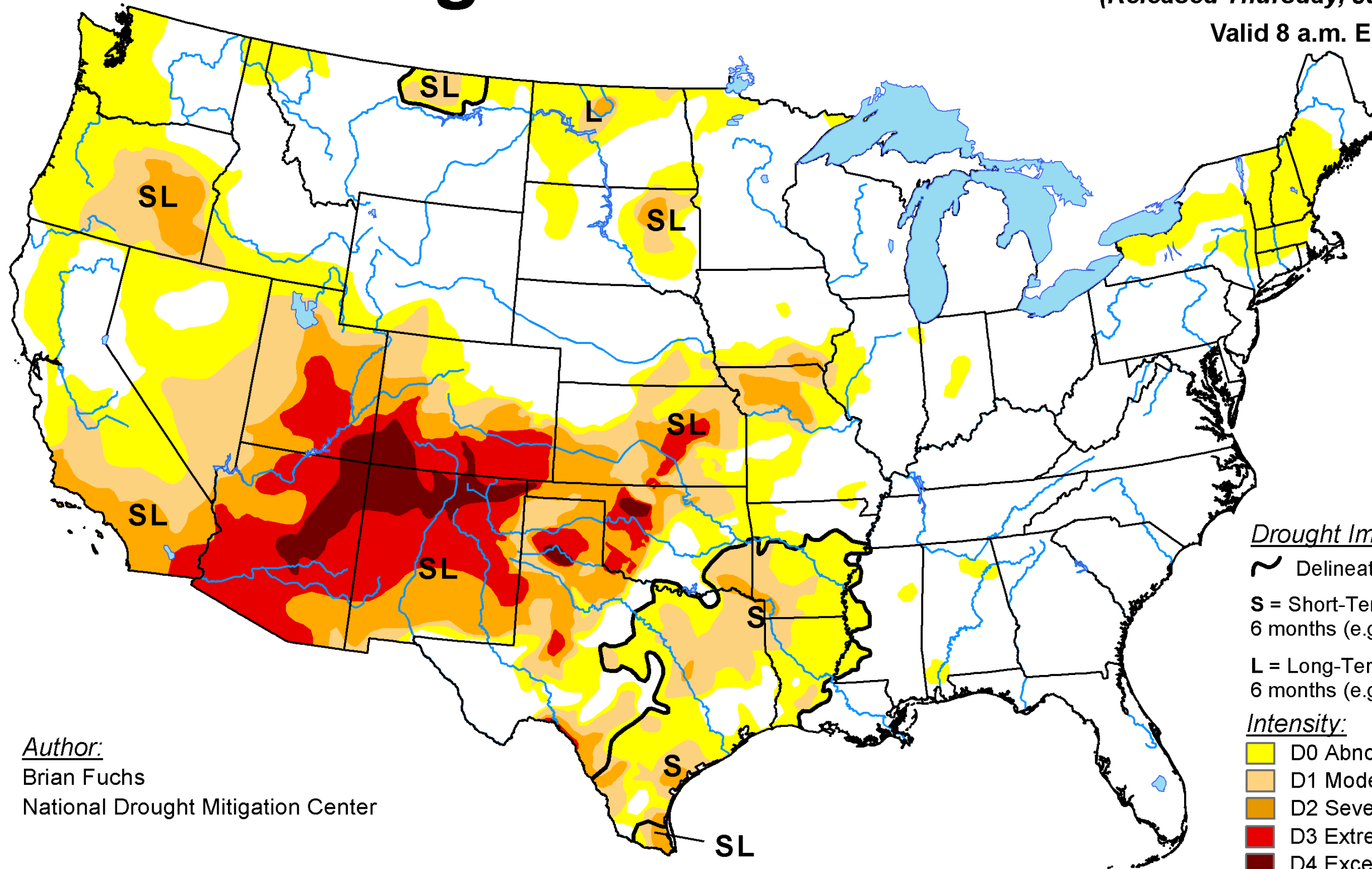
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U.S. Drought Monitor

June 19, 2018

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Author:
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National Drought Mitigation Center

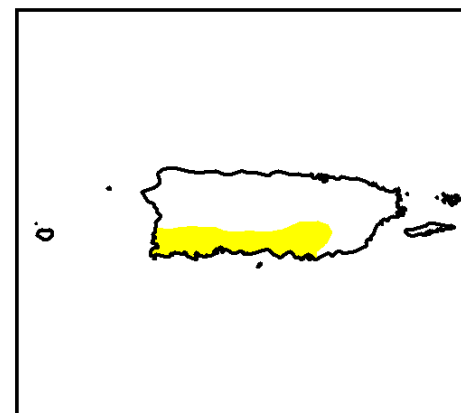
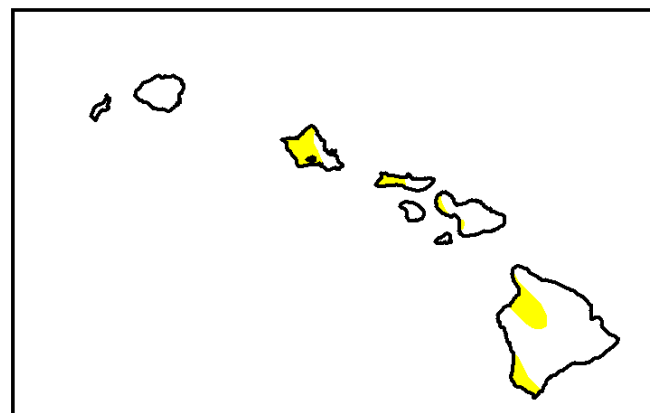
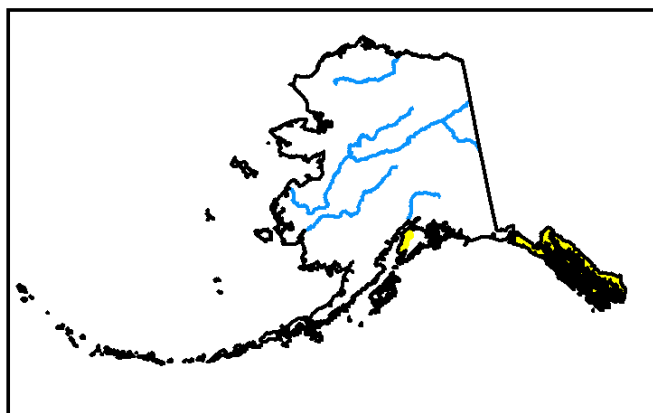
Drought Impact Types:

- ~ Delineates dominant impacts
- S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)
- L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

Intensity:

- Yellow: D0 Abnormally Dry
- Light Orange: D1 Moderate Drought
- Orange: D2 Severe Drought
- Red: D3 Extreme Drought
- Dark Red: D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.



<http://droughtmonitor.unl.edu/>

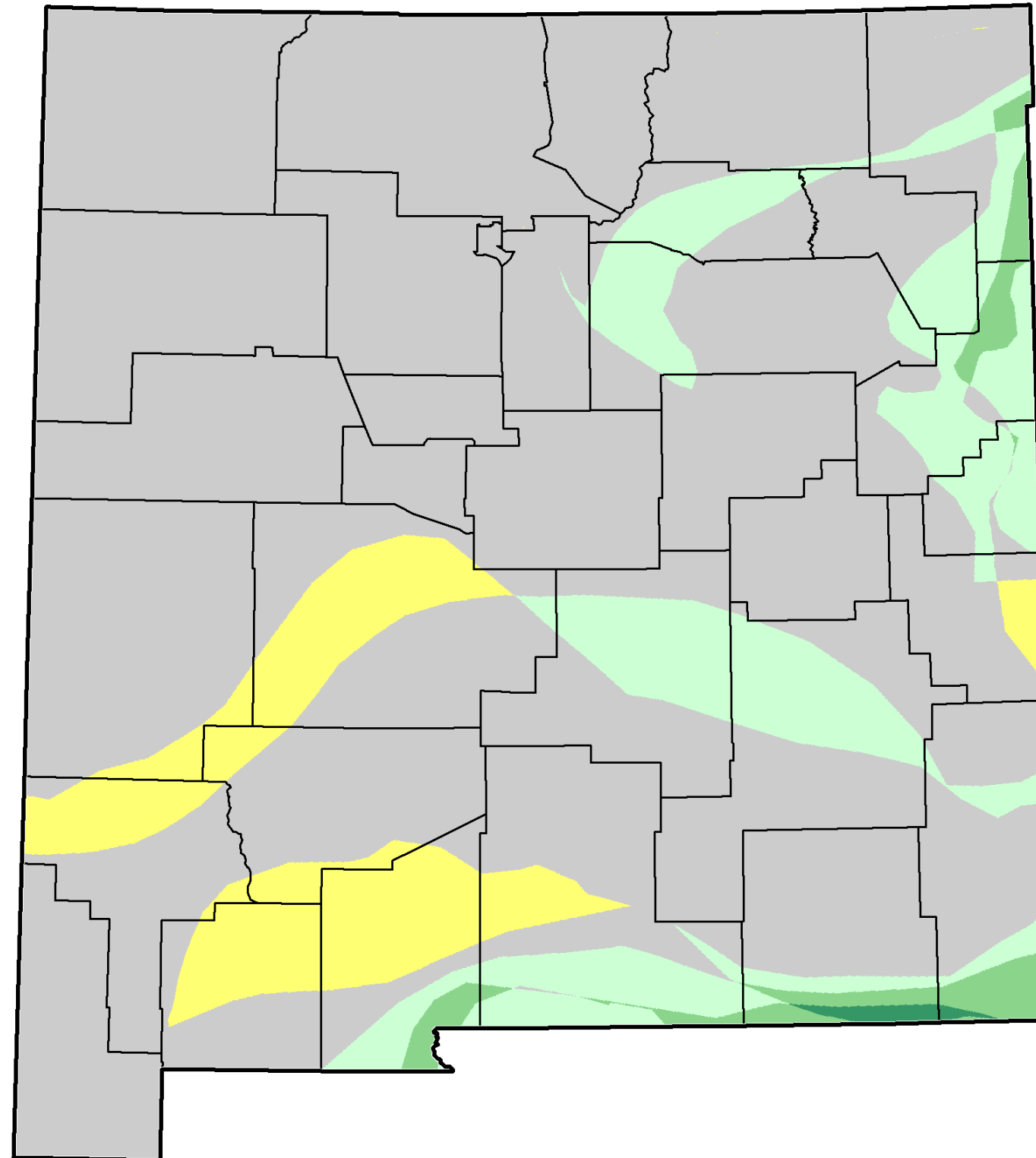
One Month Change

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U.S. Drought Monitor Class Change - New Mexico 1 Month



June 19, 2018
compared to
May 22, 2018



- 5 Class Degradation
- 4 Class Degradation
- 3 Class Degradation
- 2 Class Degradation
- 1 Class Degradation
- No Change
- 1 Class Improvement
- 2 Class Improvement
- 3 Class Improvement
- 4 Class Improvement
- 5 Class Improvement

<http://droughtmonitor.unl.edu>

30-Day Precipitation % of Normal



Albuquerque

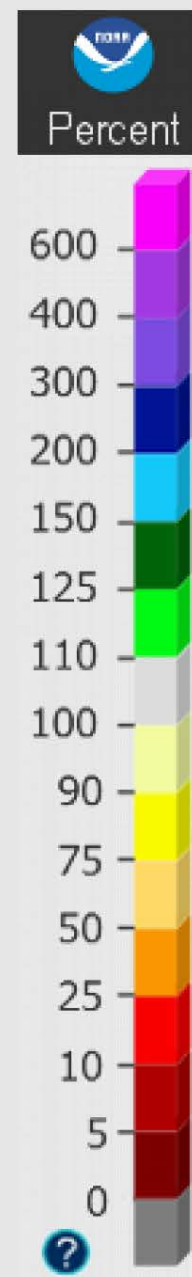
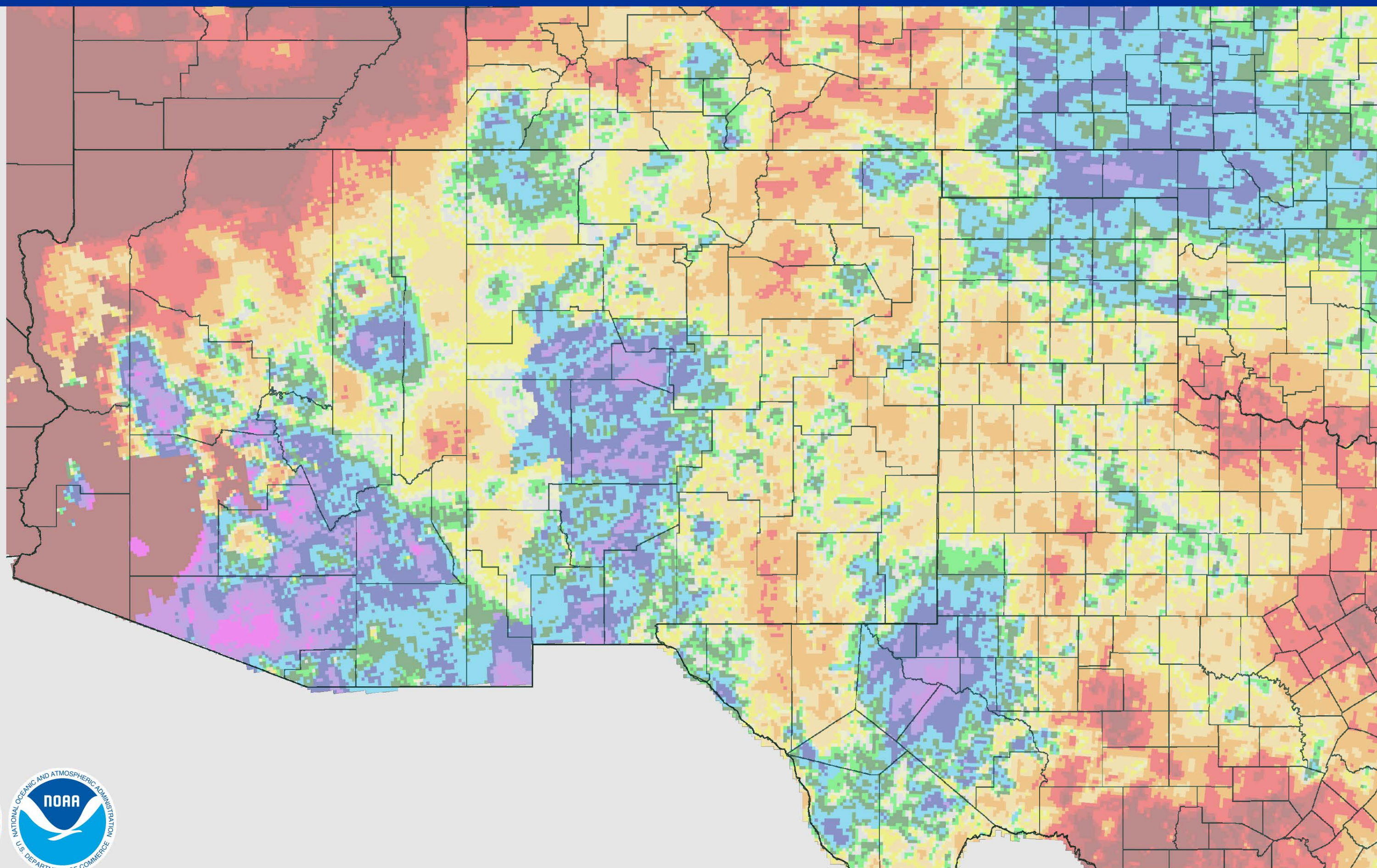
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June 25, 2018 30-Day Percent Precipitation

Created on: June 26, 2018 - 12:39 UTC

Valid on: June 25, 2018 12:00 UTC



60-Day Precipitation % of Normal



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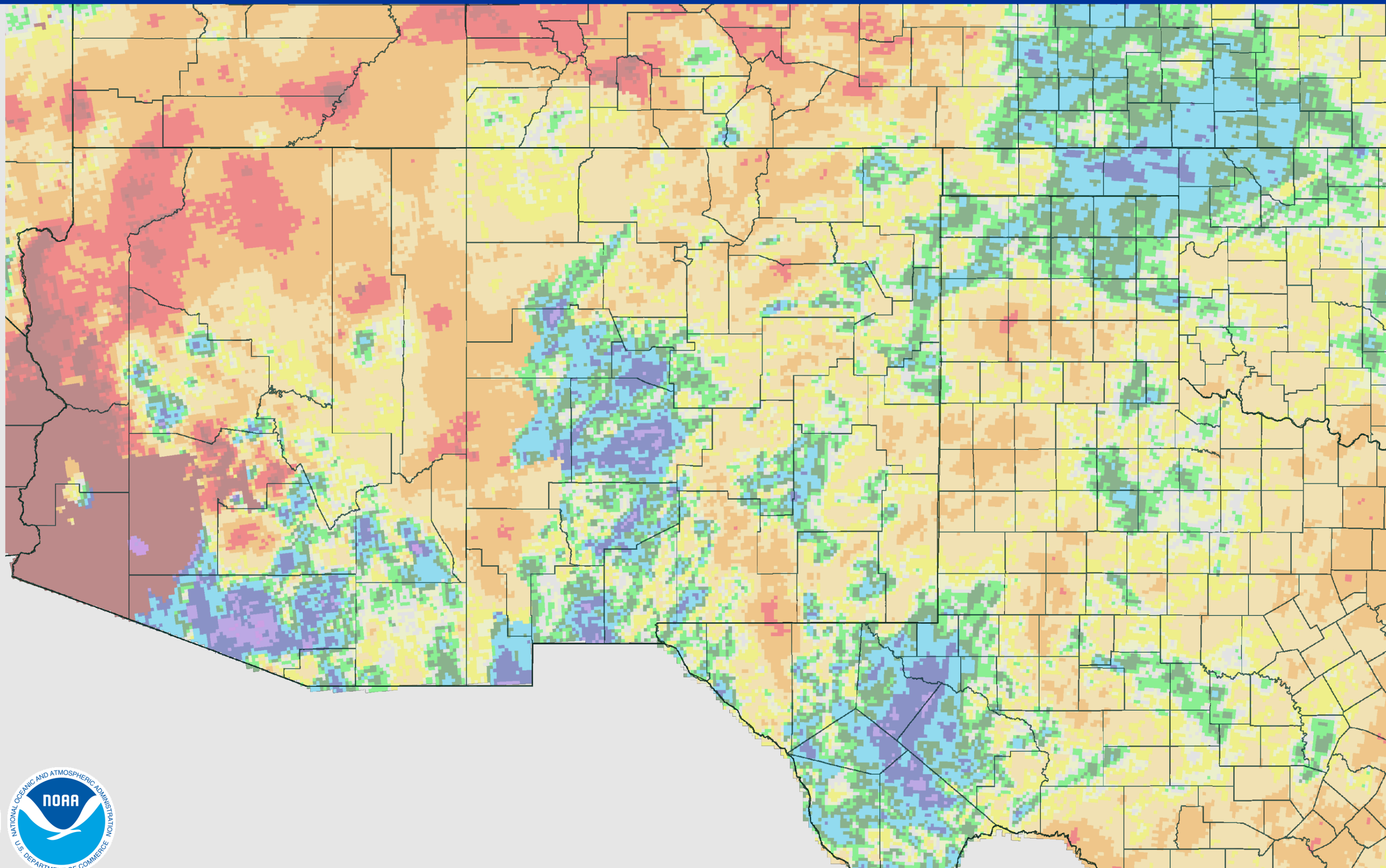
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June 25, 2018 60-Day Percent Precipitation

Created on: June 26, 2018 - 12:39 UTC

Valid on: June 25, 2018 12:00 UTC



90-Day Precipitation % of Normal



Albuquerque

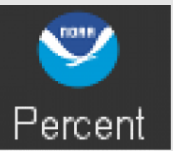
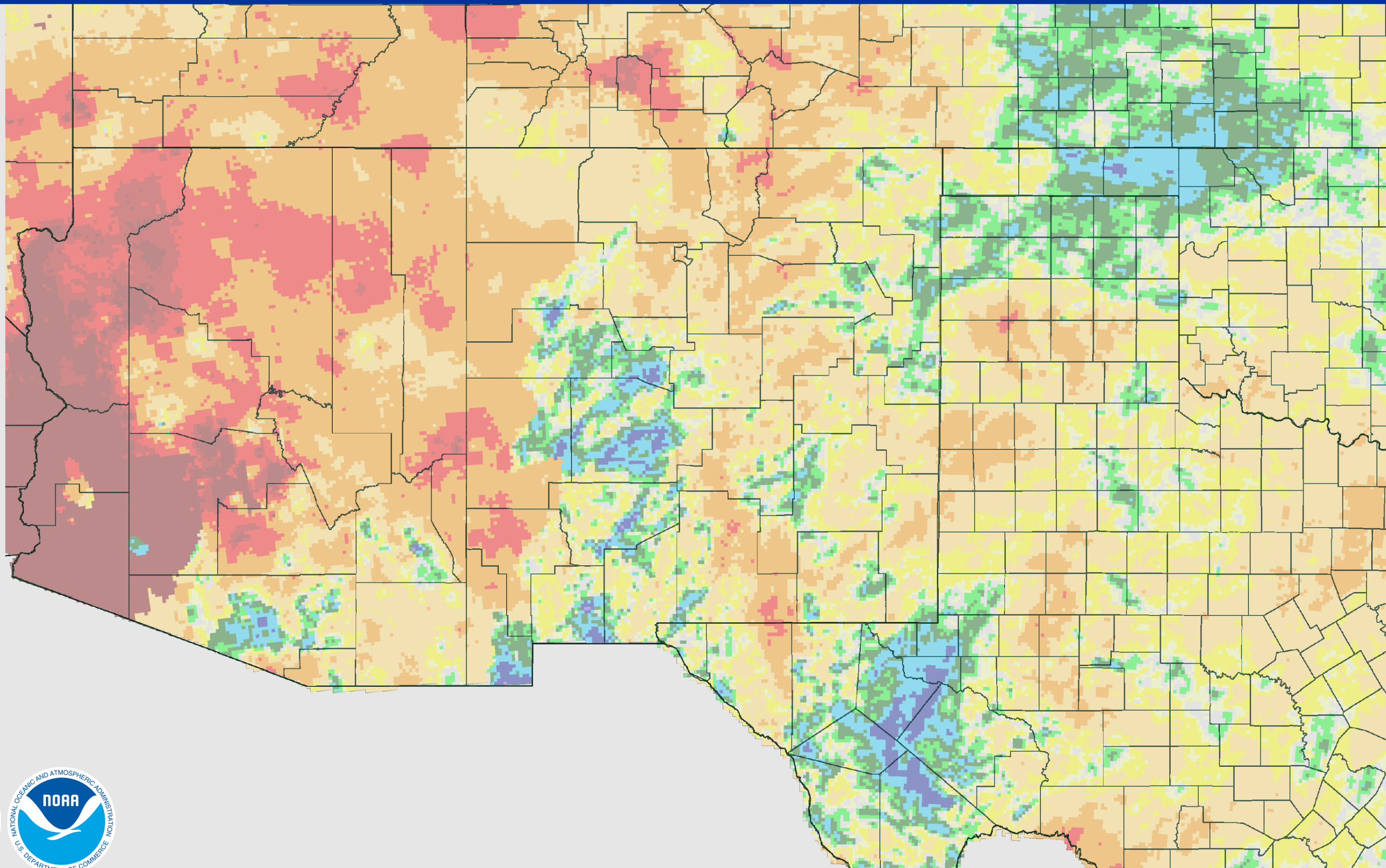
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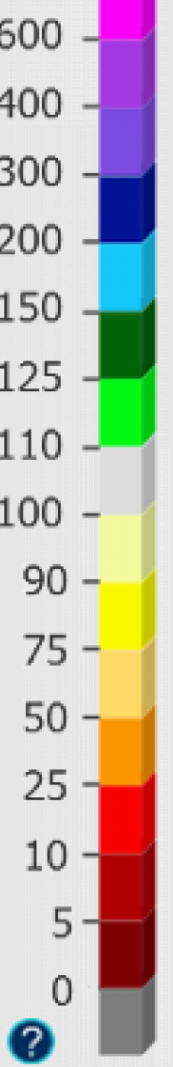
June 25, 2018 90-Day Percent Precipitation

Created on: June 26, 2018 - 12:39 UTC

Valid on: June 25, 2018 12:00 UTC



Percent



180-Day Precipitation % of Normal



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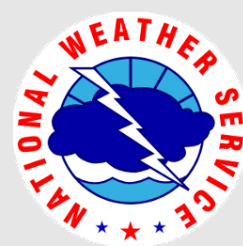
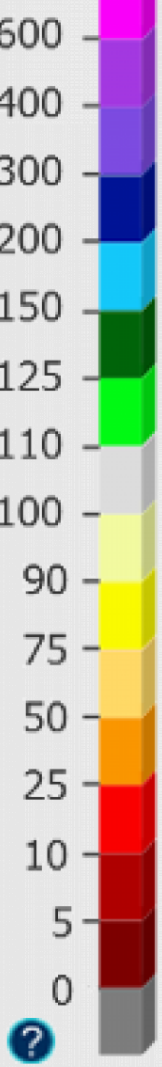
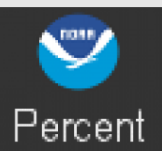
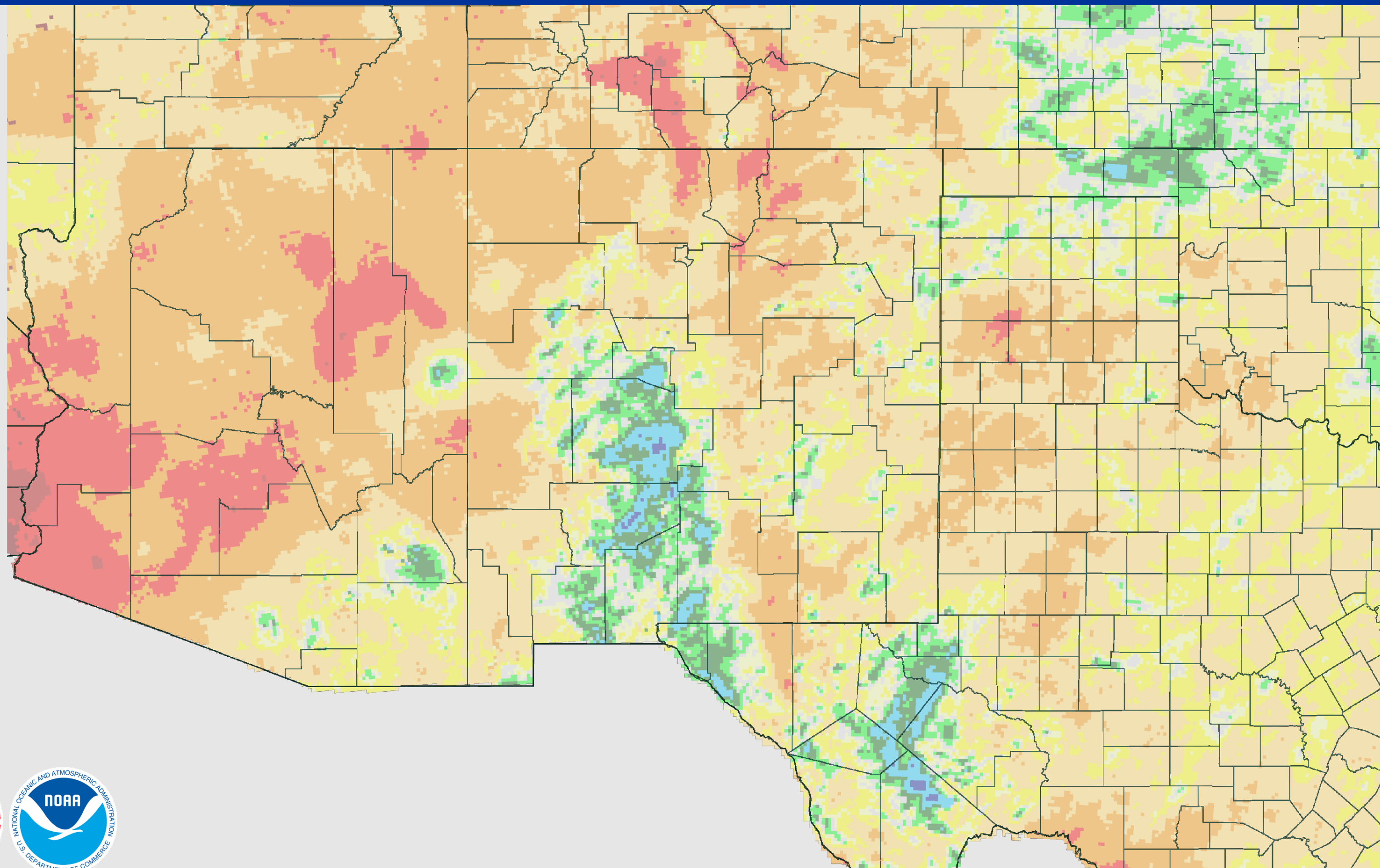
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June 25, 2018 180-Day Percent Precipitation

Created on: June 26, 2018 - 12:39 UTC

Valid on: June 25, 2018 12:00 UTC



WY Precipitation % of Normal



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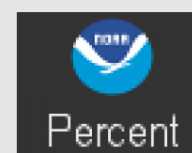
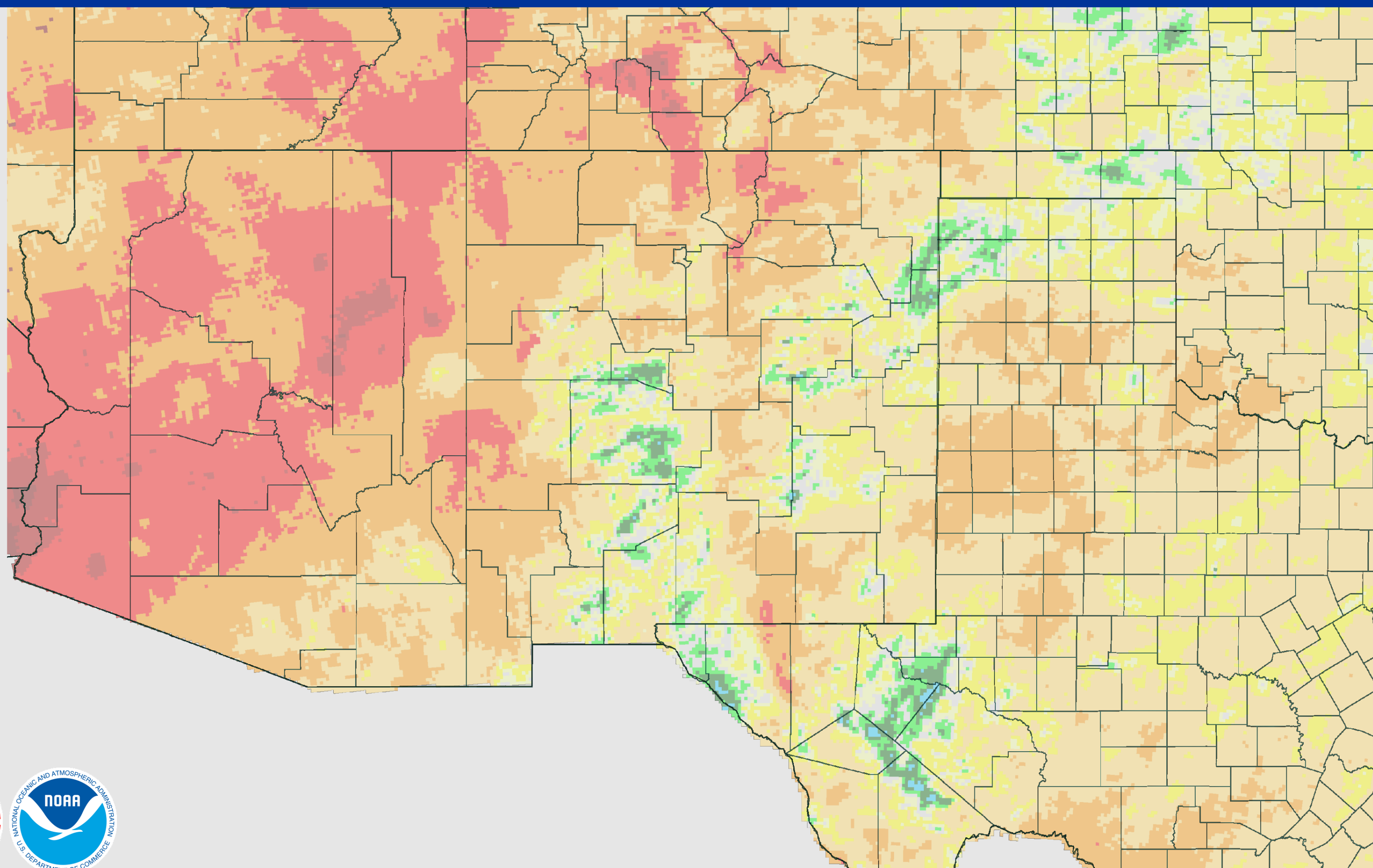
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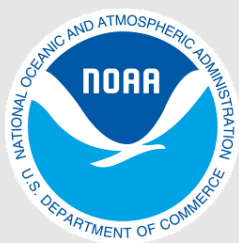
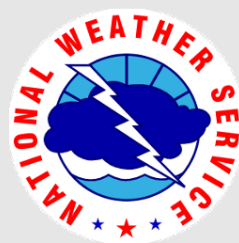
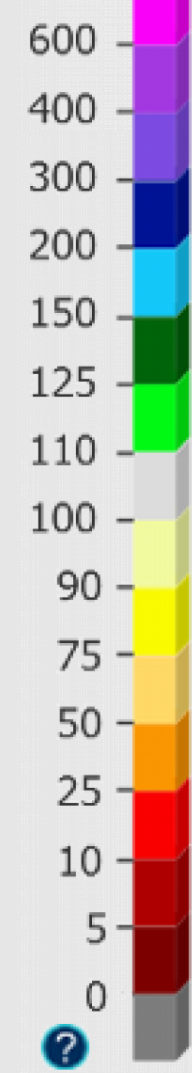
June 25, 2018 Water Year to Date (Oct. 1) Percent Precipitation

Created on: June 26, 2018 - 12:39 UTC

Valid on: June 25, 2018 12:00 UTC



Percent



30-120 Day Stand. Pcpn Index (SPI)

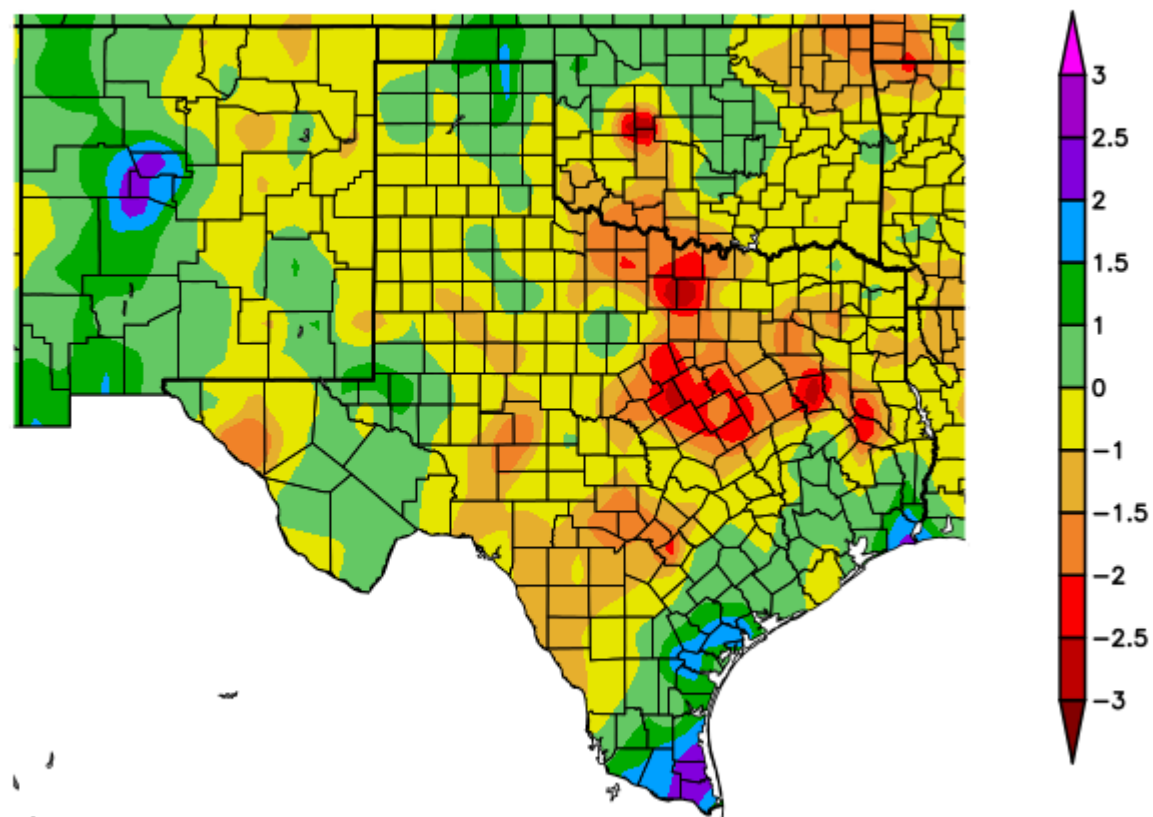


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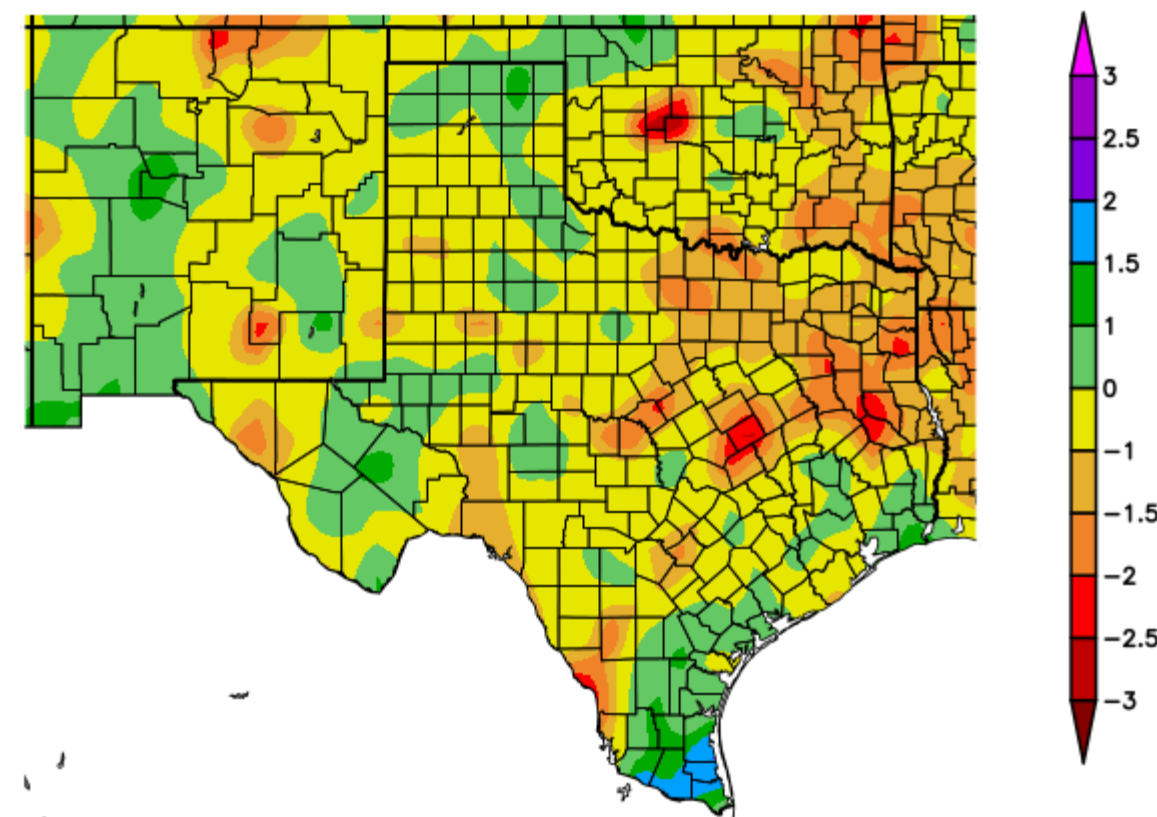
30 Day SPI
5/26/2018 - 6/24/2018



Generated 6/25/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

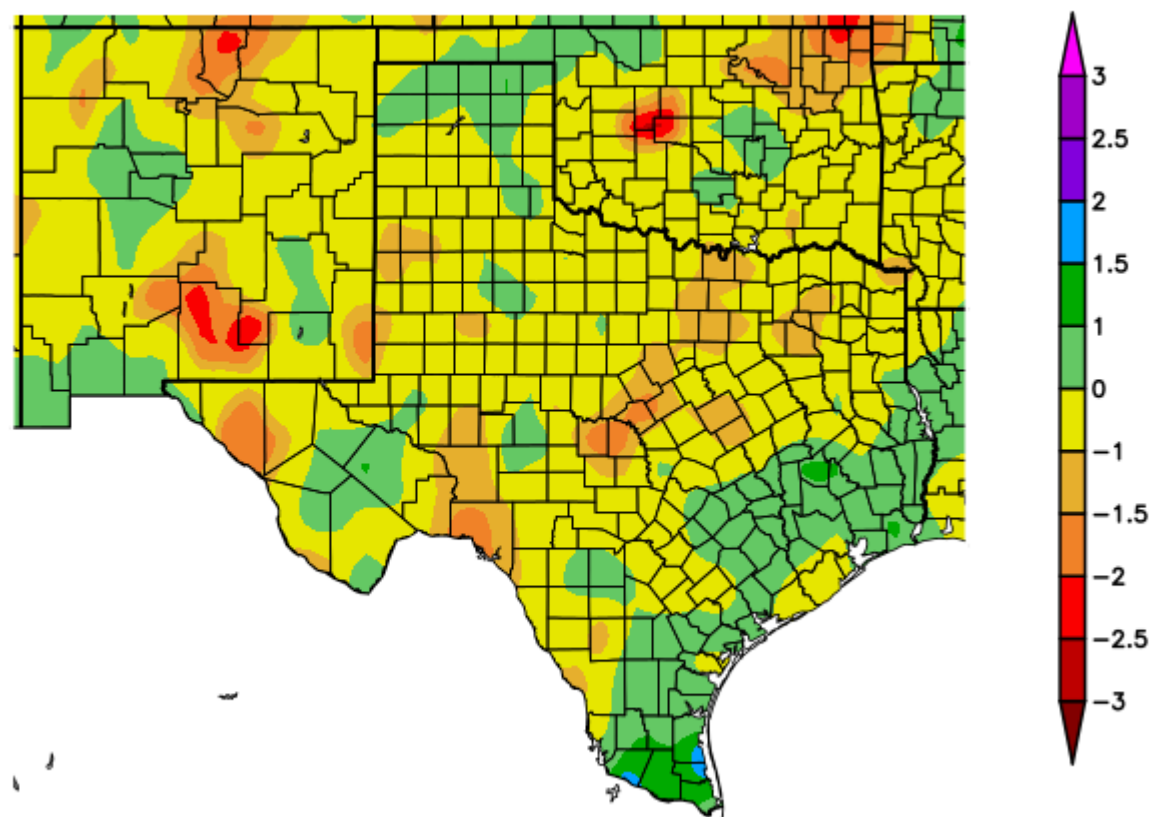
60 Day SPI
4/26/2018 - 6/24/2018



Generated 6/25/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

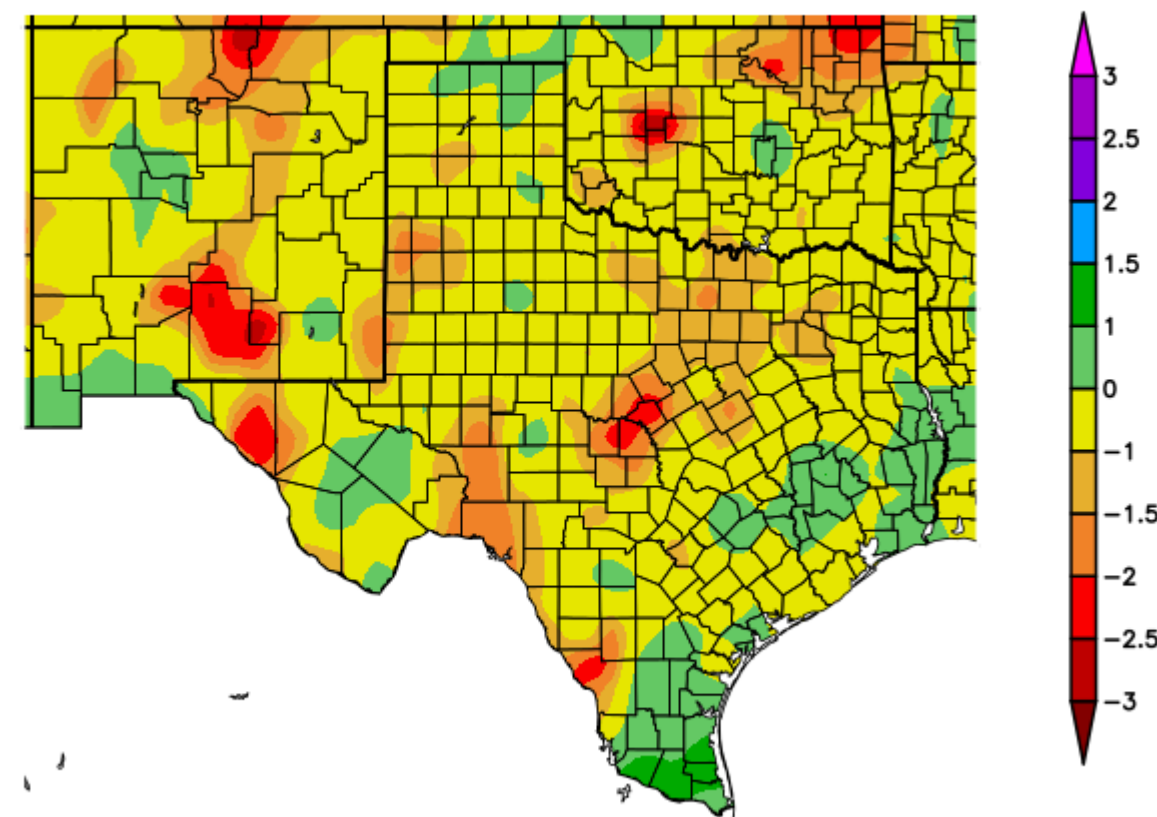
90 Day SPI
3/27/2018 - 6/24/2018



Generated 6/25/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

120 Day SPI
2/25/2018 - 6/24/2018



Generated 6/25/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

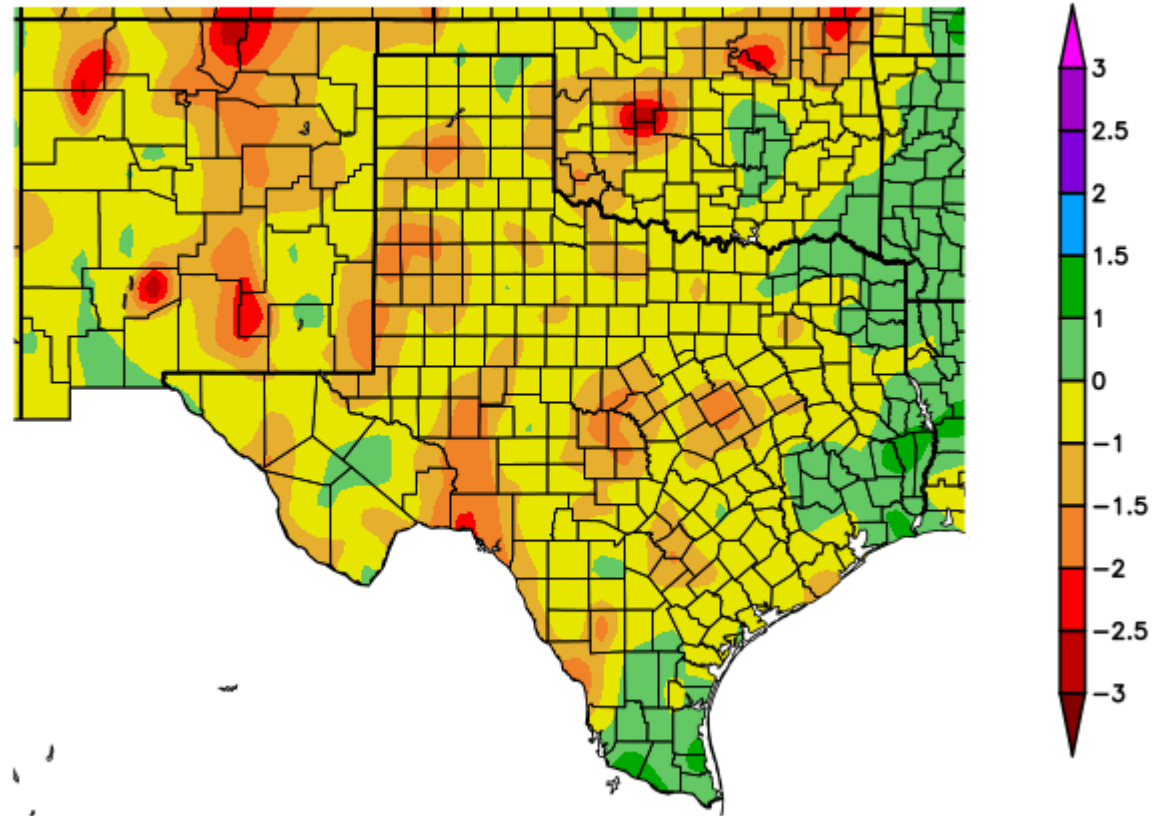
Other SPI Values



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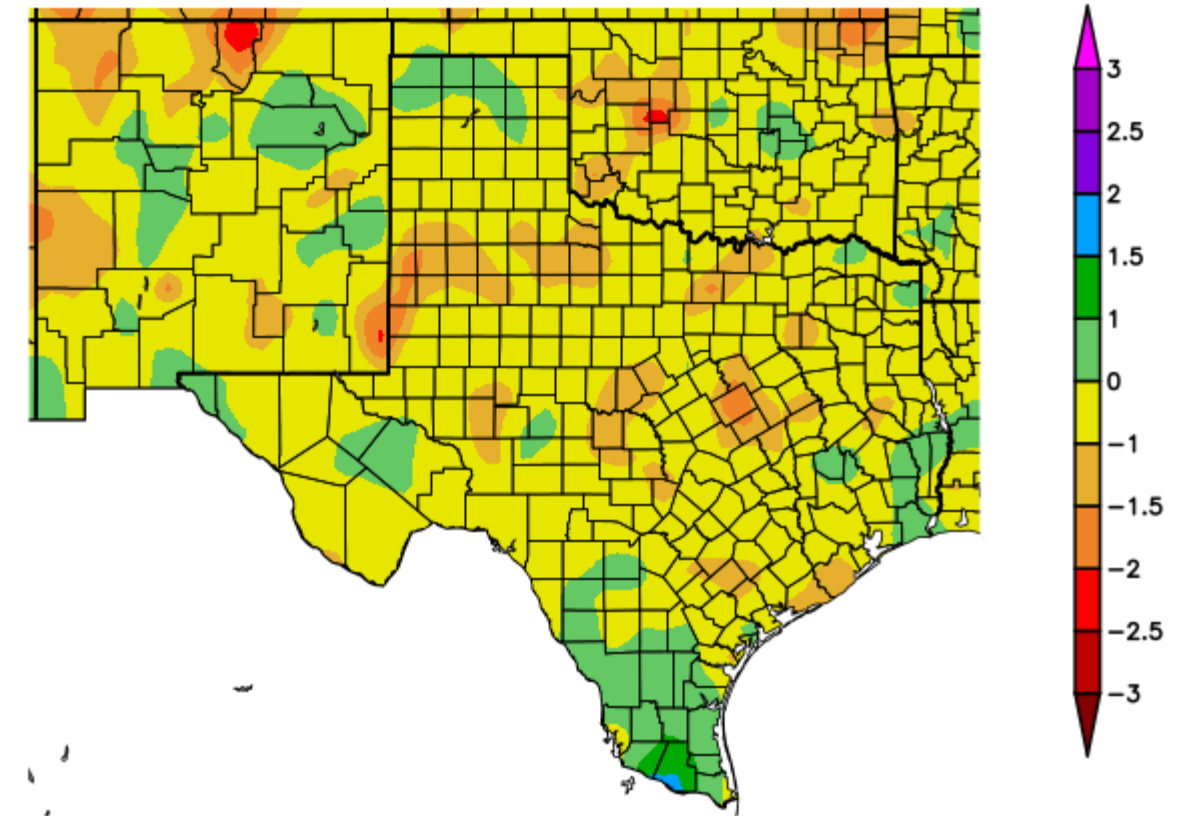
6 Month SPI
12/25/2017 - 6/24/2018



Generated 6/25/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

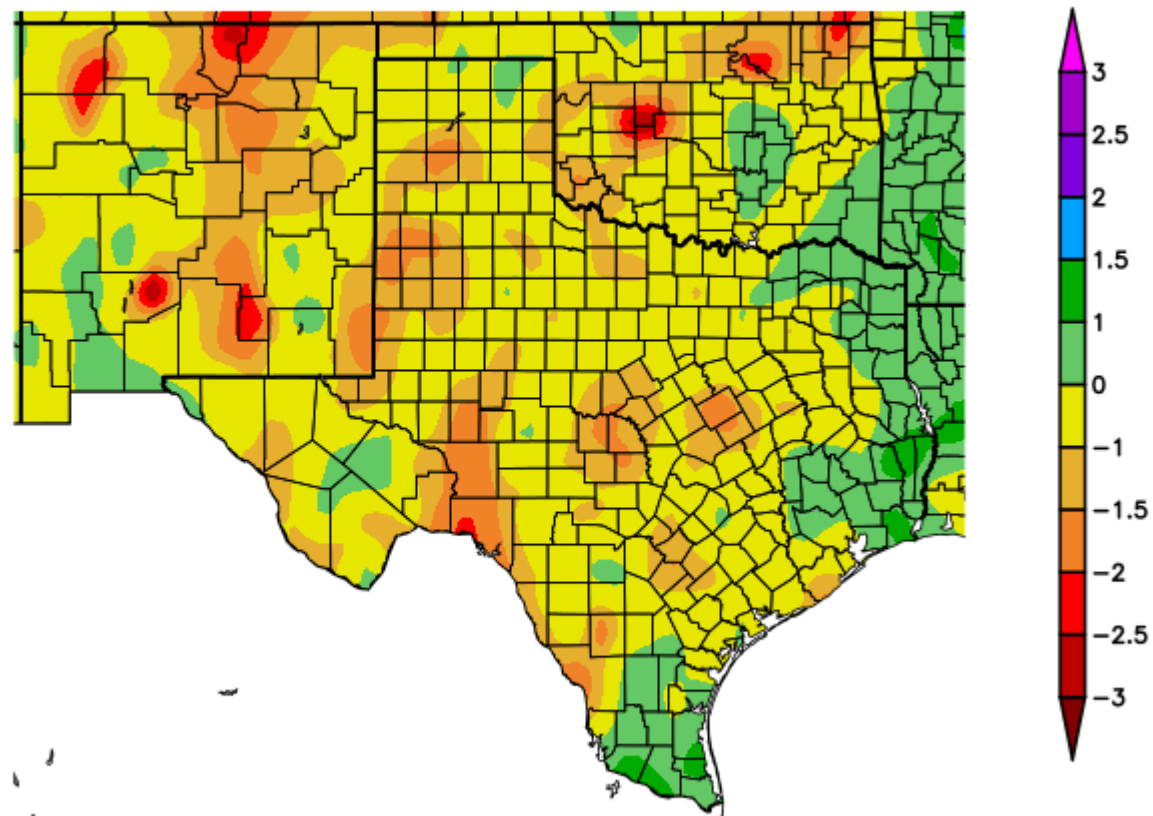
9 Month SPI
9/25/2017 - 6/24/2018



Generated 6/25/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

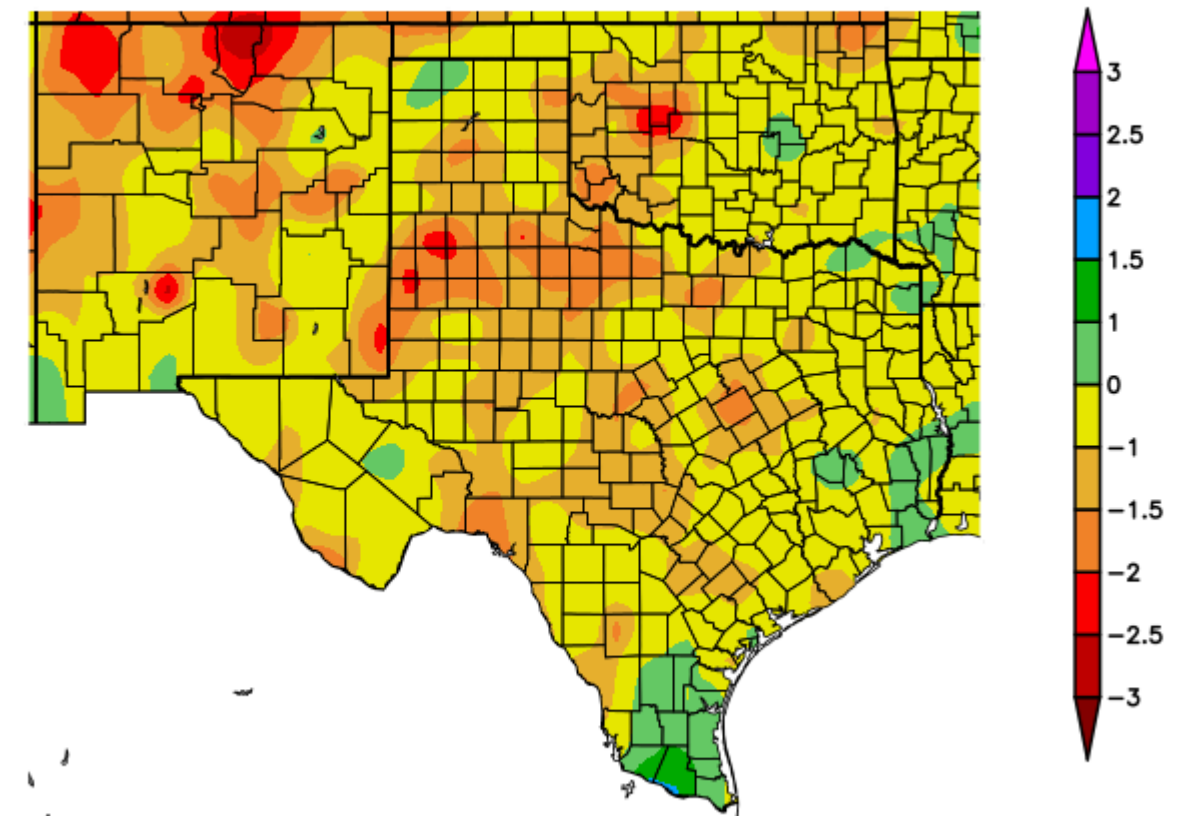
Year-to-Date SPI
1/1/2018 - 6/24/2018



Generated 6/25/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

Water Year SPI
10/1/2017 - 6/24/2018



Generated 6/25/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

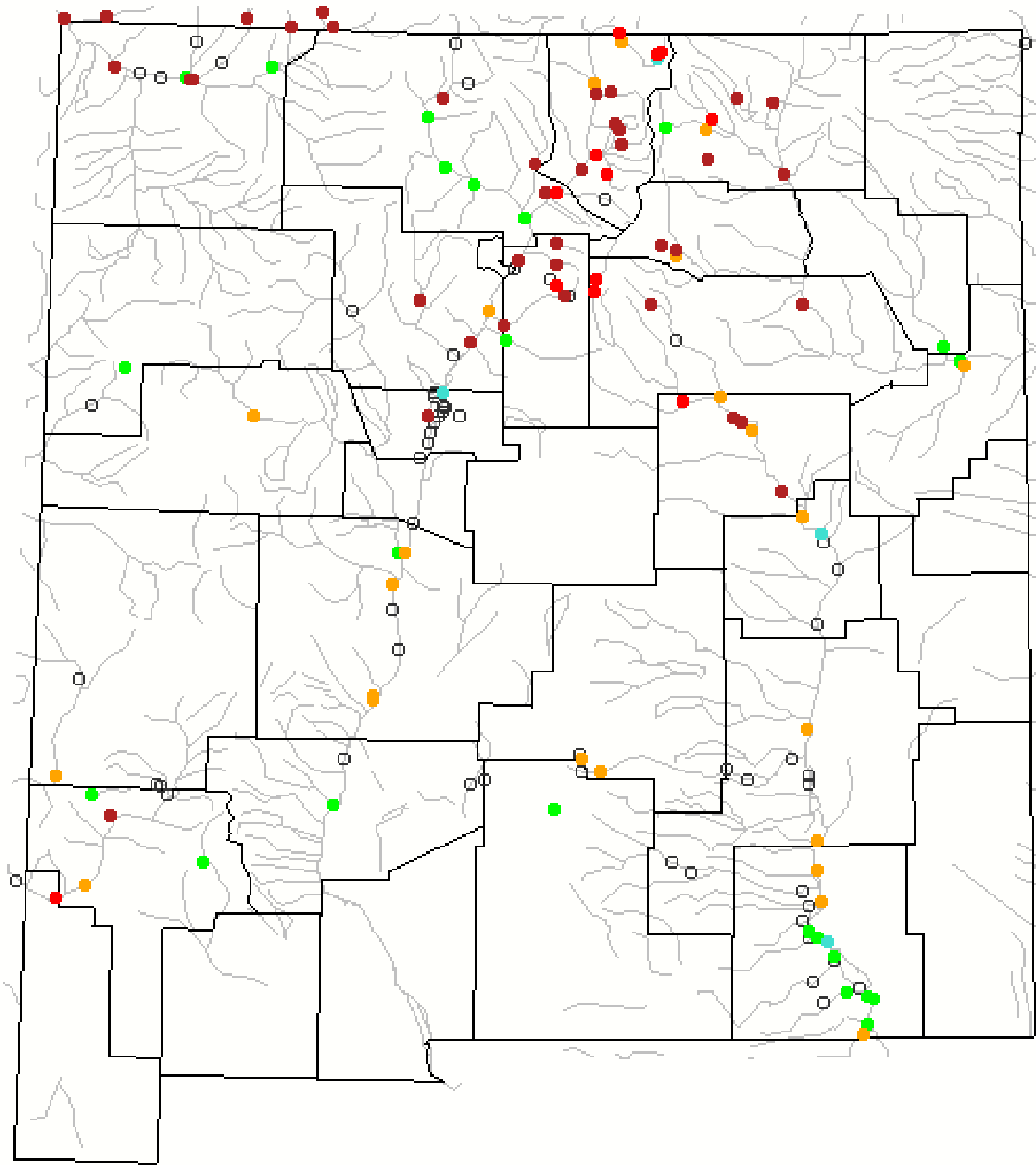
USGS 28-Day Streamflow

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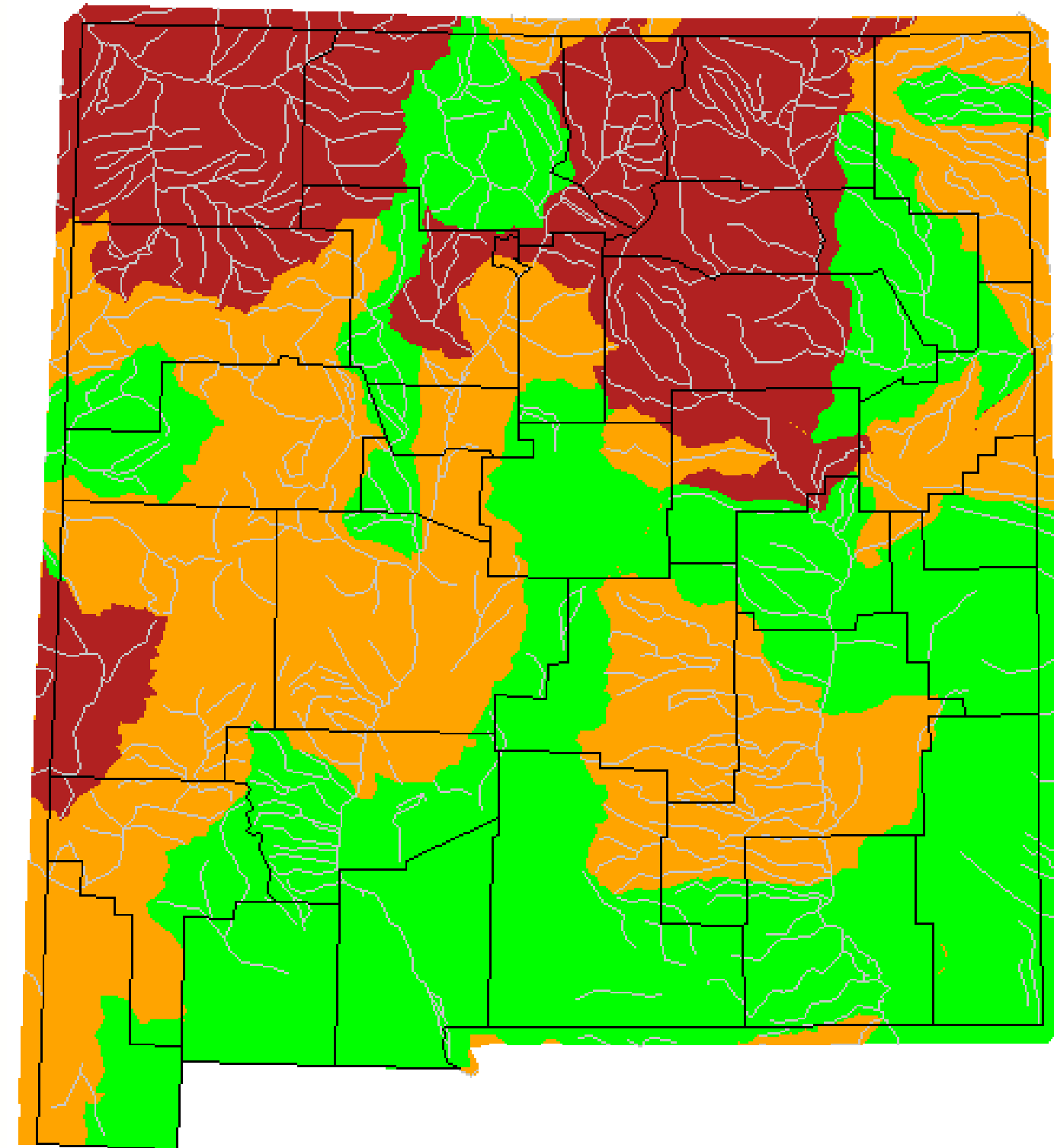
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Monday, June 25, 2018



Explanation - Percentile classes							
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not-ranked

Monday, June 25, 2018



Explanation - Percentile classes							
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	No Data

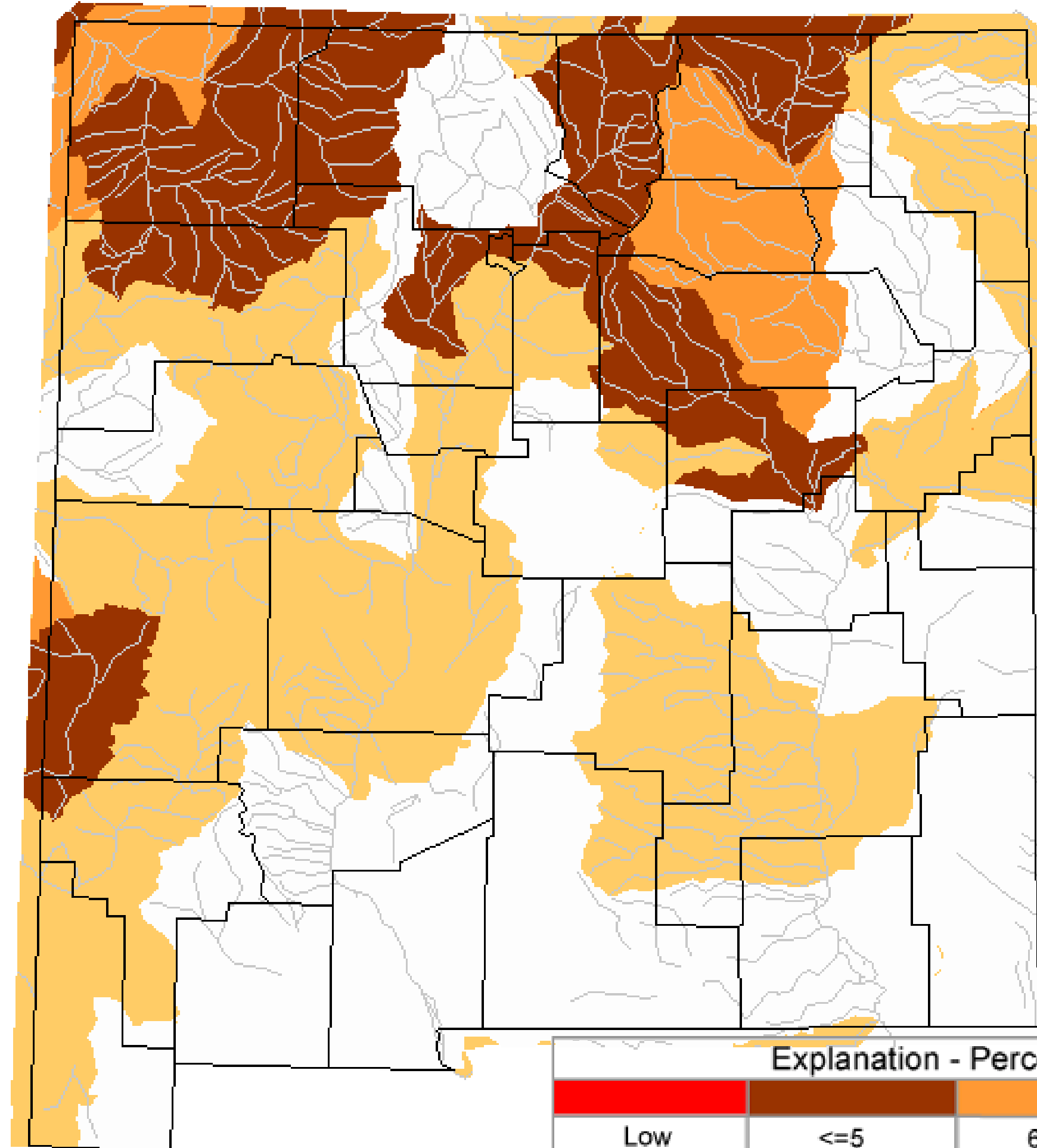
USGS 28-Day Streamflow

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Monday, June 25, 2018



Explanation - Percentile classes				
Low	<=5	6-9	10-24	Insufficient data for a hydrologic region
Extreme hydrologic drought	Severe hydrologic drought	Moderate hydrologic drought	Below normal	



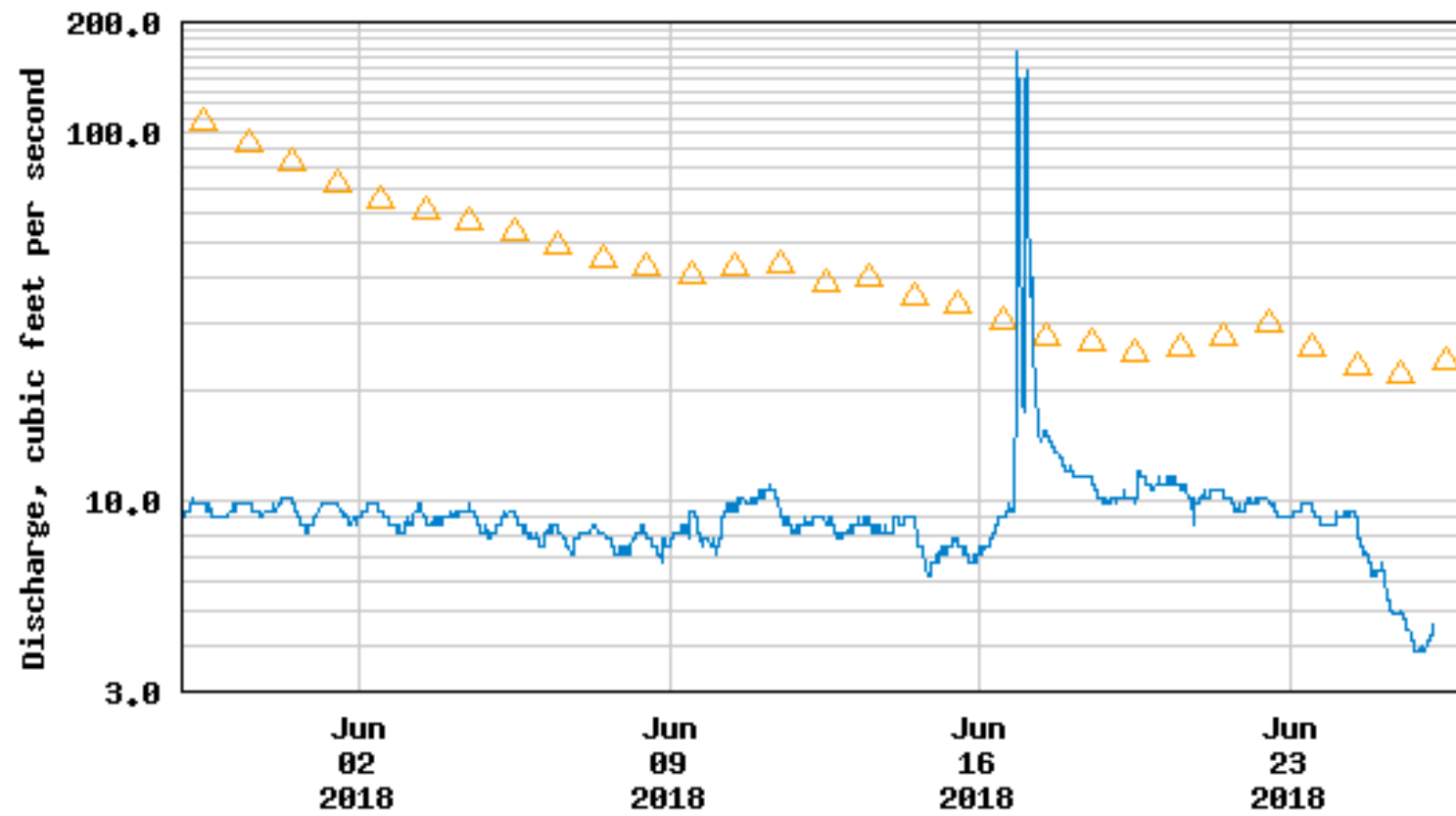
USGS 28-Day Streamflow

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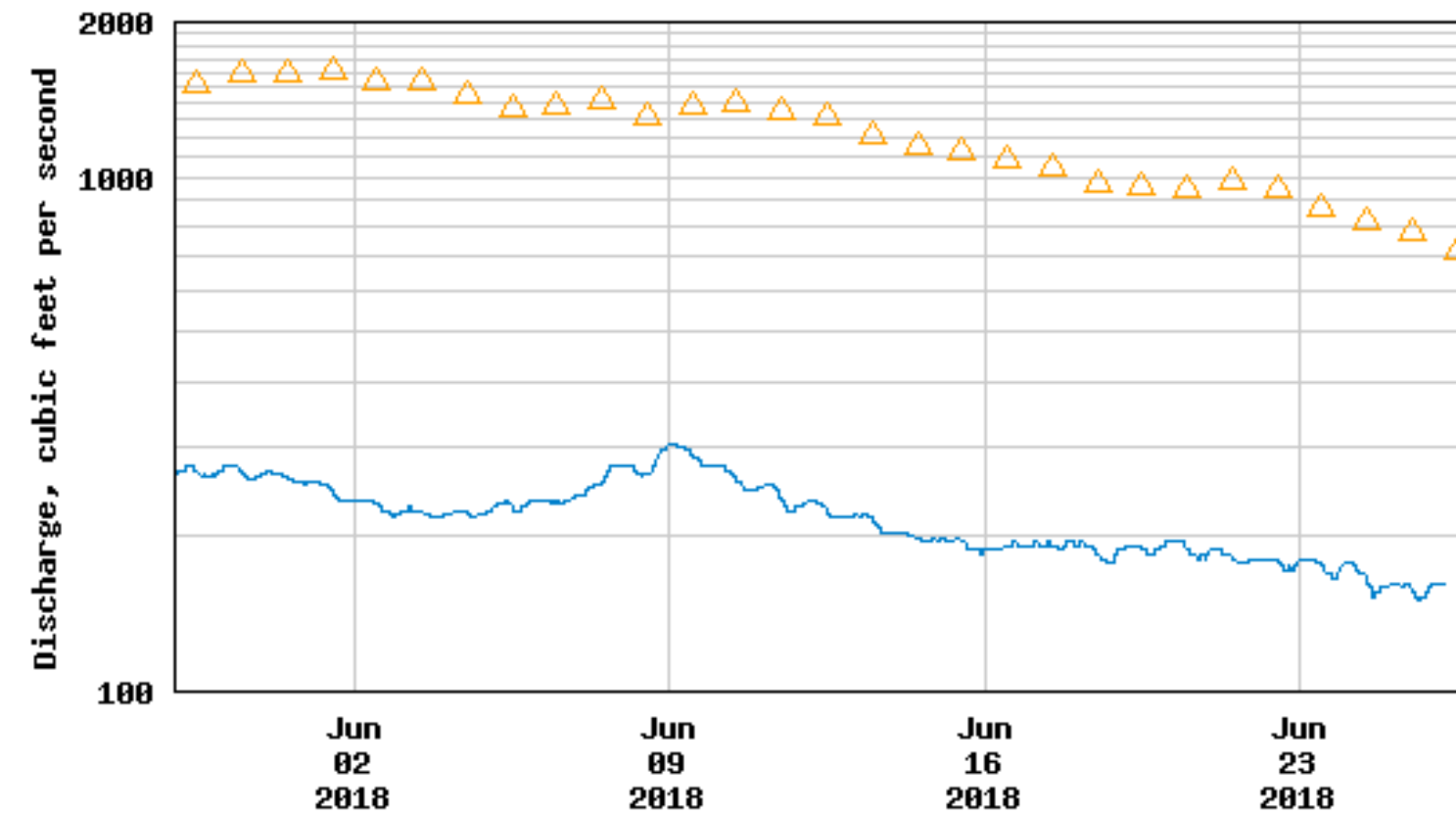
USGS 08324000 JEMEZ RIVER NEAR JEMEZ, NM



----- Provisional Data Subject to Revision -----

△ Median daily statistic (62 years) — Discharge

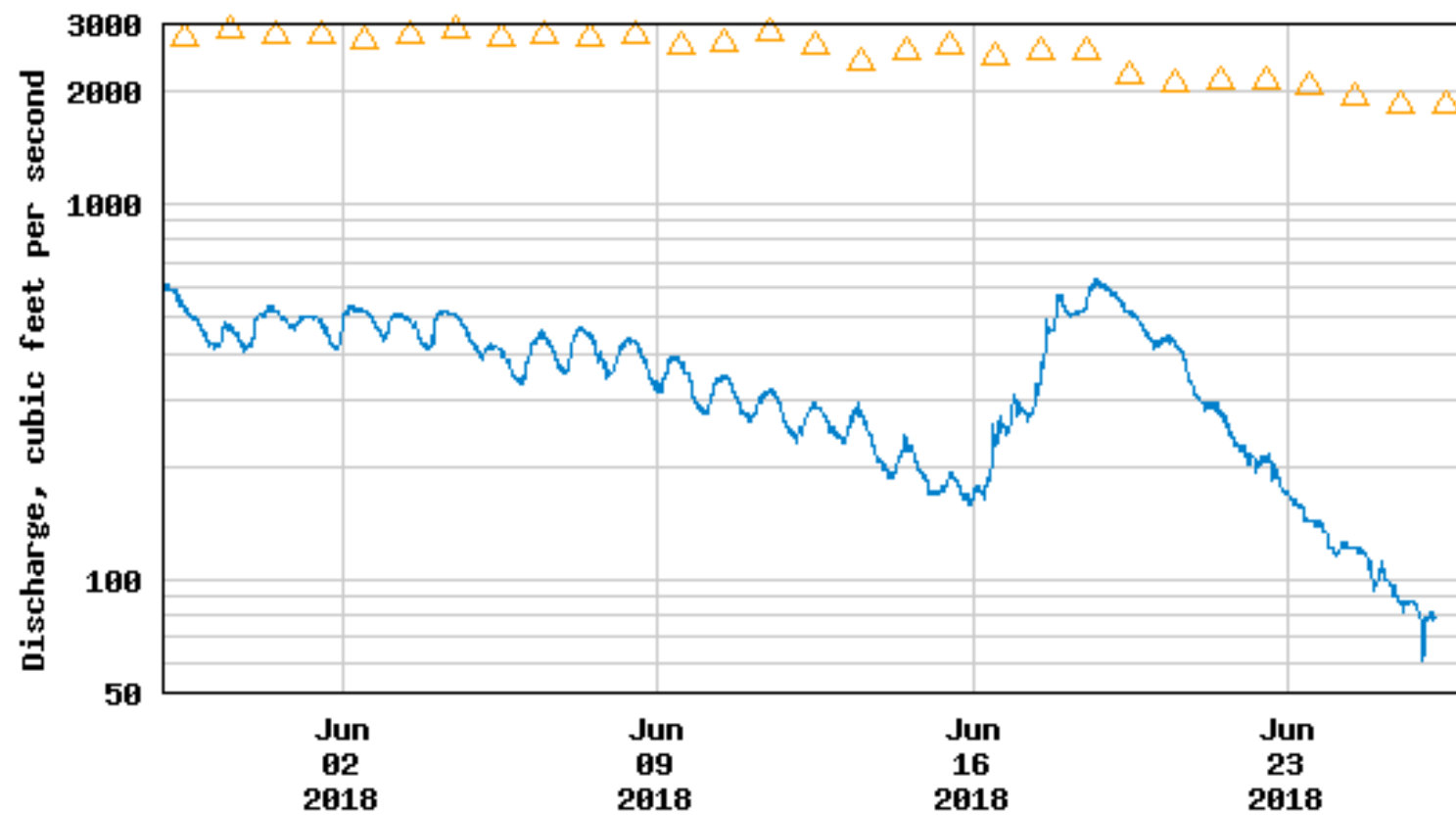
USGS 08279500 RIO GRANDE AT EMBUDO, NM



----- Provisional Data Subject to Revision -----

△ Median daily statistic (87 years) — Discharge

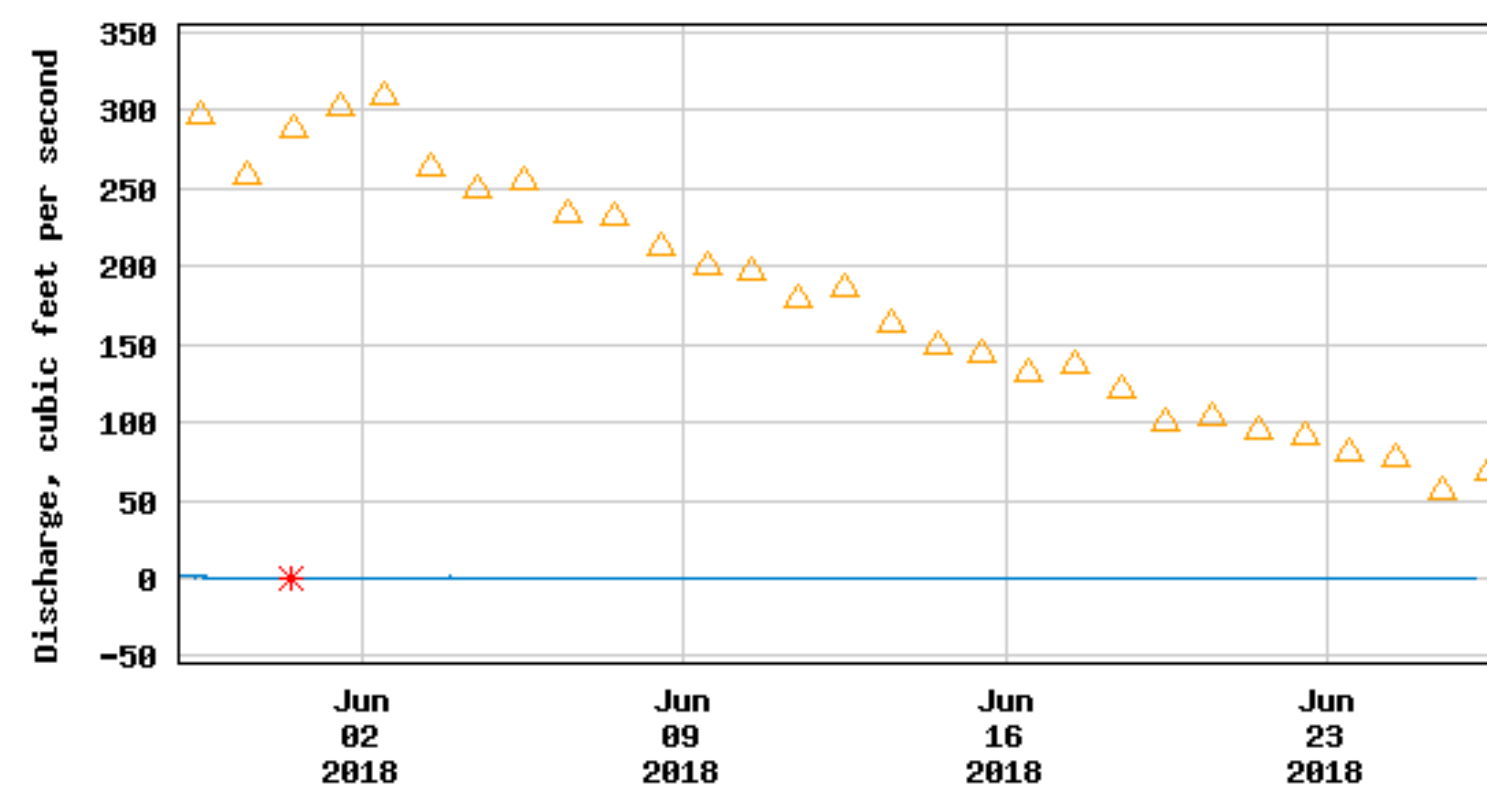
USGS 09364500 ANIMAS RIVER AT FARMINGTON, NM



----- Provisional Data Subject to Revision -----

△ Median daily statistic (92 years) — Discharge

USGS 08379500 PECOS RIVER NEAR ANTON CHICO, NM



----- Provisional Data Subject to Revision -----

△ Median daily statistic (88 years) * Measured discharge
— Discharge

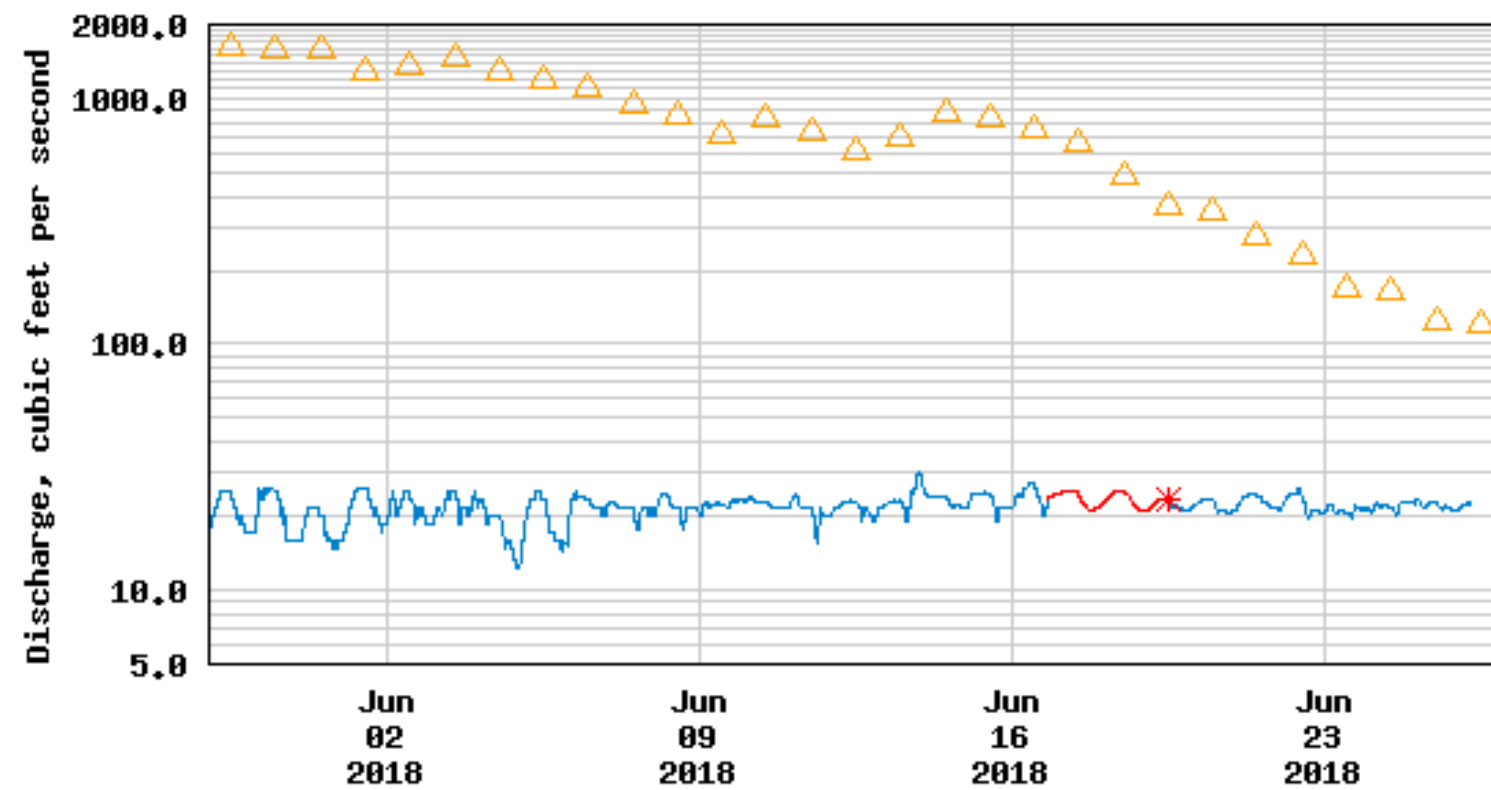
USGS 28-Day Streamflow

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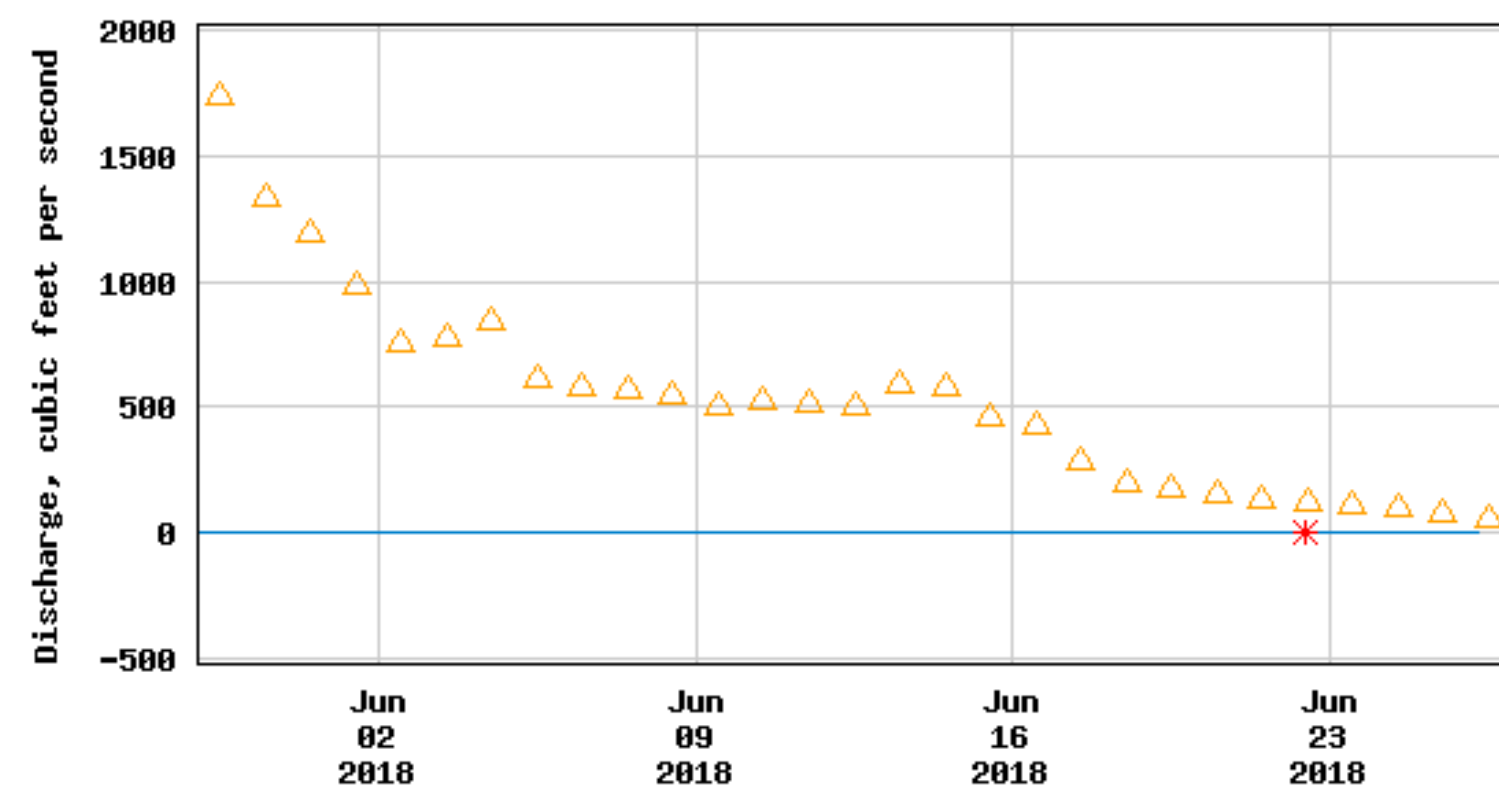
USGS 08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM



----- Provisional Data Subject to Revision -----

△ Median daily statistic (53 years) — Estimated discharge
— Discharge * Measured discharge

USGS 08355490 RIO GRANDE ABOVE US HWY 380 NR SAN ANTONIO, NM



----- Provisional Data Subject to Revision -----

△ Median daily statistic (11 years) * Measured discharge
— Discharge

Evaporative Demand Drought Index (EDDI)

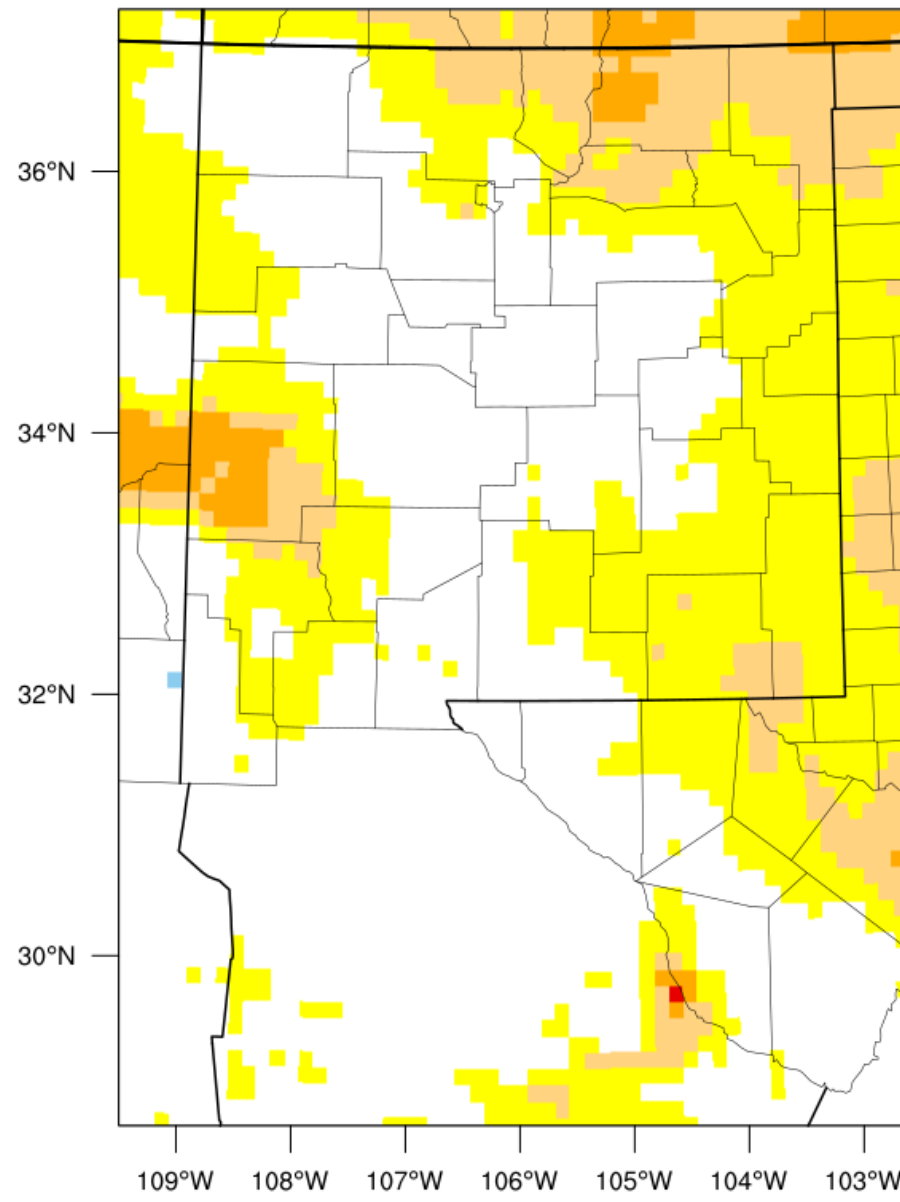


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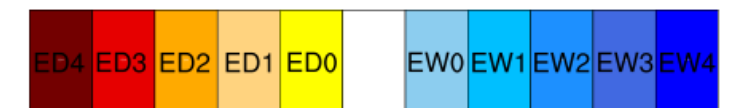
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1-month EDDI categories for June 20, 2018



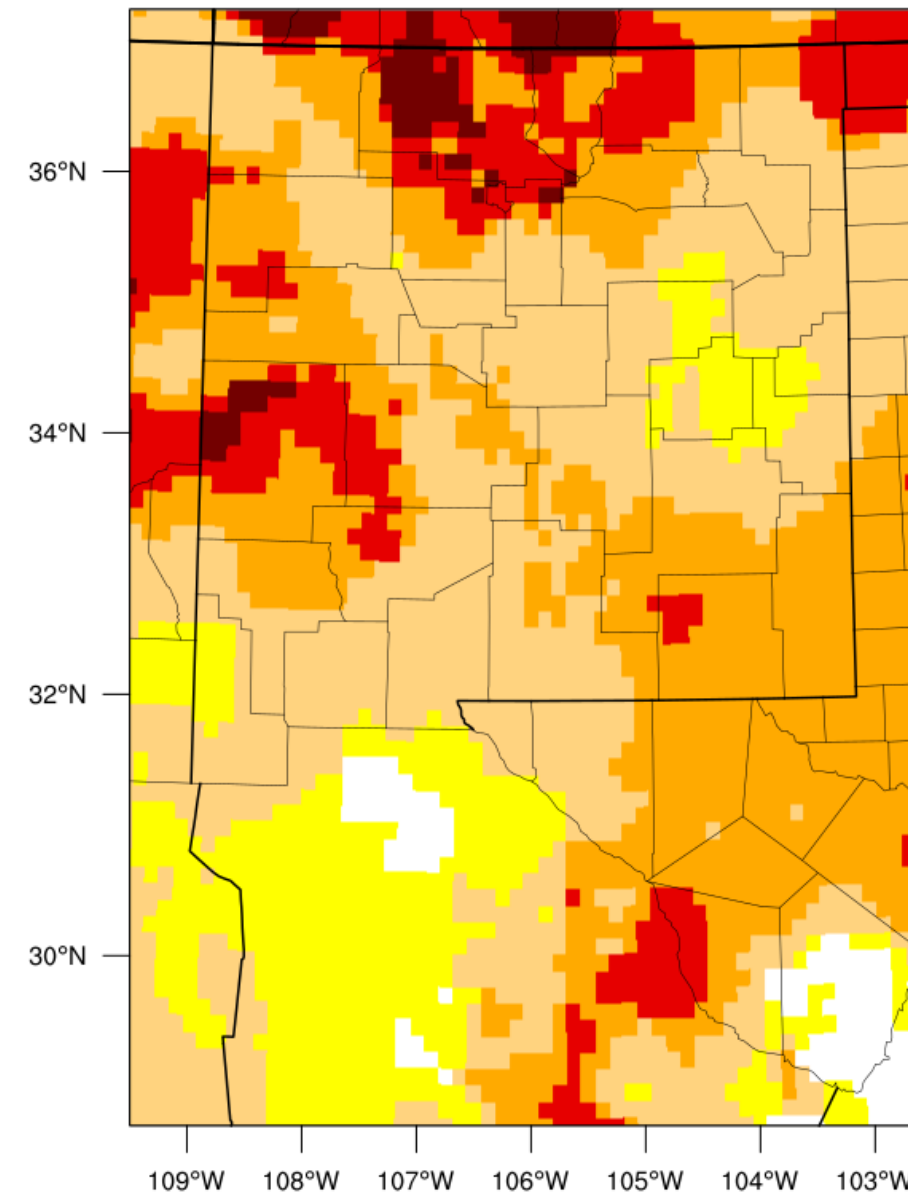
Drought categories Wetness categories



100% 98% 95% 90% 80% 70% 30% 20% 10% 5% 2% 0%
(EDDI-percentile category breaks: 100% = driest; 0% = wettest)

Generated by NOAA/ESRL/Physical Sciences Division

3-month EDDI categories for June 20, 2018



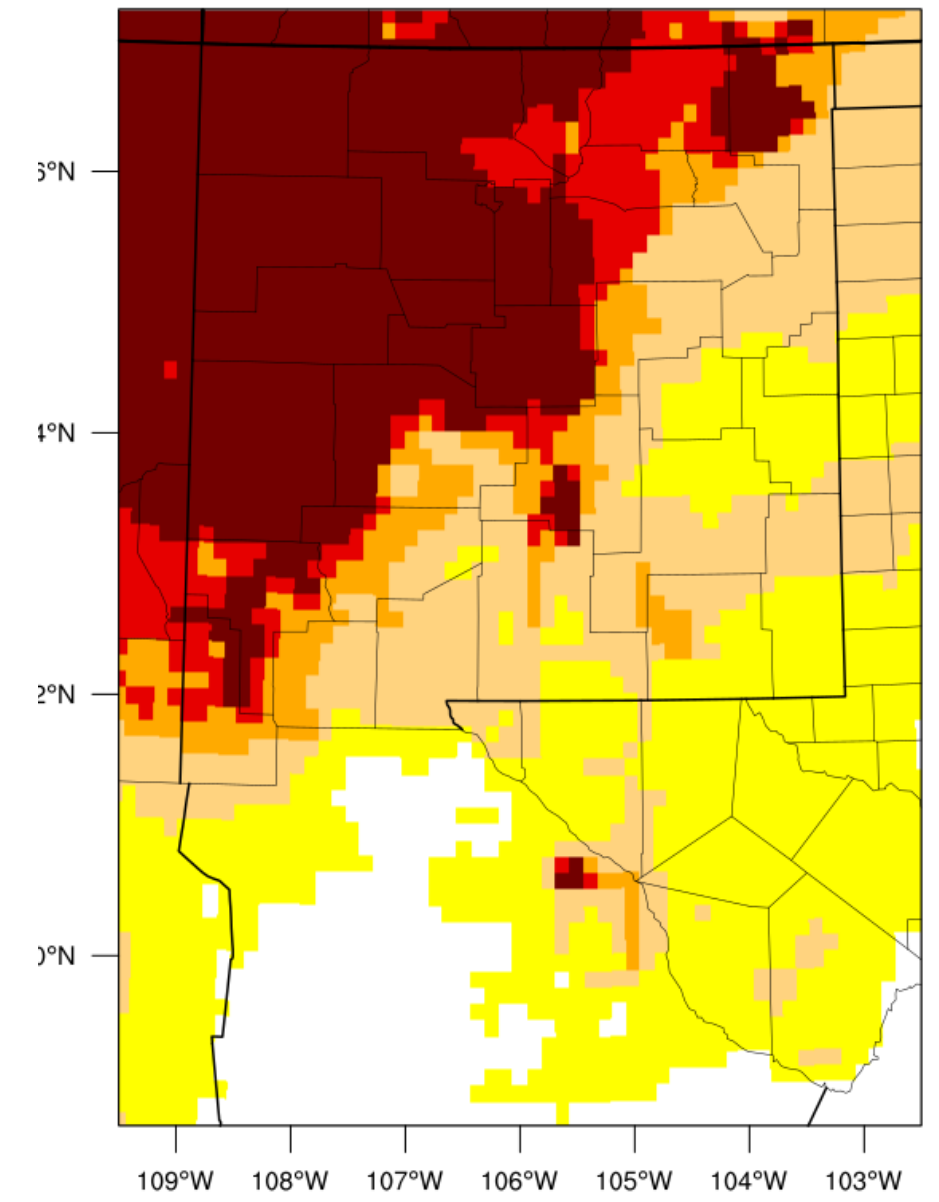
Drought categories Wetness categories



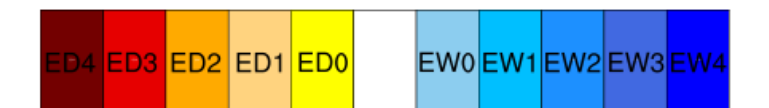
100% 98% 95% 90% 80% 70% 30% 20% 10% 5% 2% 0%
(EDDI-percentile category breaks: 100% = driest; 0% = wettest)

Generated by NOAA/ESRL/Physical Sciences Division

6-month EDDI categories for March 21, 2018



Drought categories Wetness categories



100% 98% 95% 90% 80% 70% 30% 20% 10% 5% 2% 0%
(EDDI-percentile category breaks: 100% = driest; 0% = wettest)

Generated by NOAA/ESRL/Physical Sciences Division

<https://www.esrl.noaa.gov/psd/eddi/>

Season in Perspective

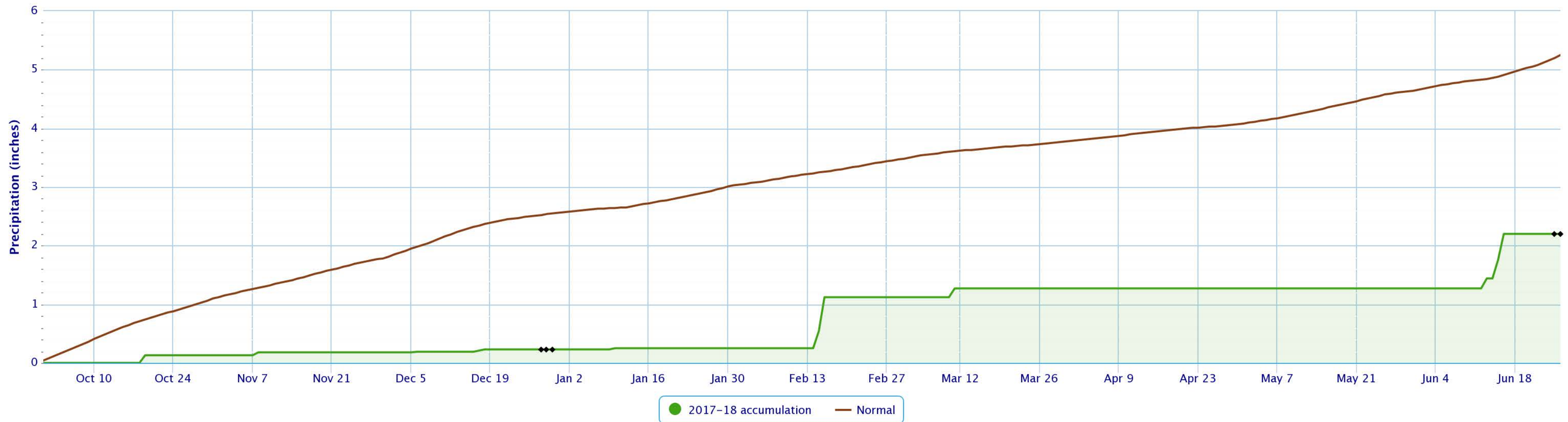
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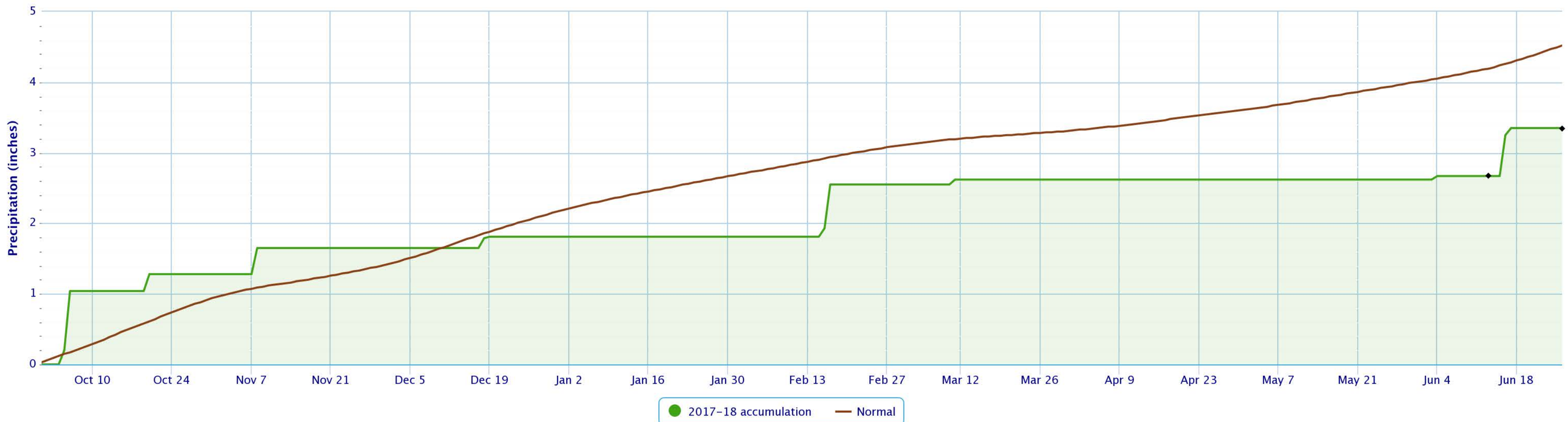
Accumulated Precipitation - TRUTH OR CONSEQUENCES MUNICIPAL AP, NM

Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values



Accumulated Precipitation - STATE UNIVERSITY, NM

Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values



Powered by ACIS

Season in Perspective

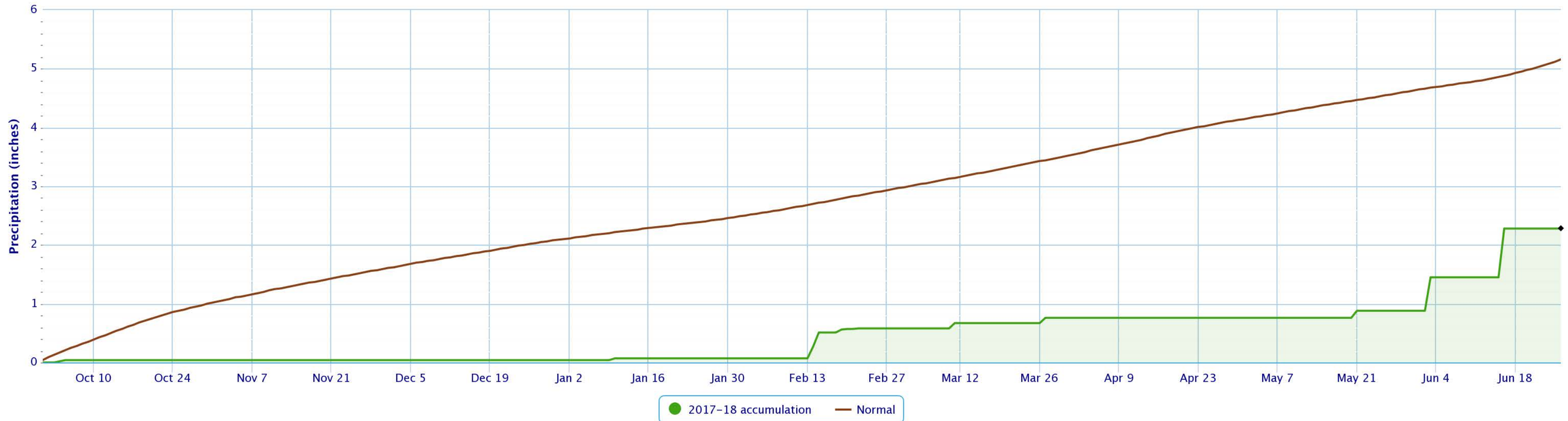
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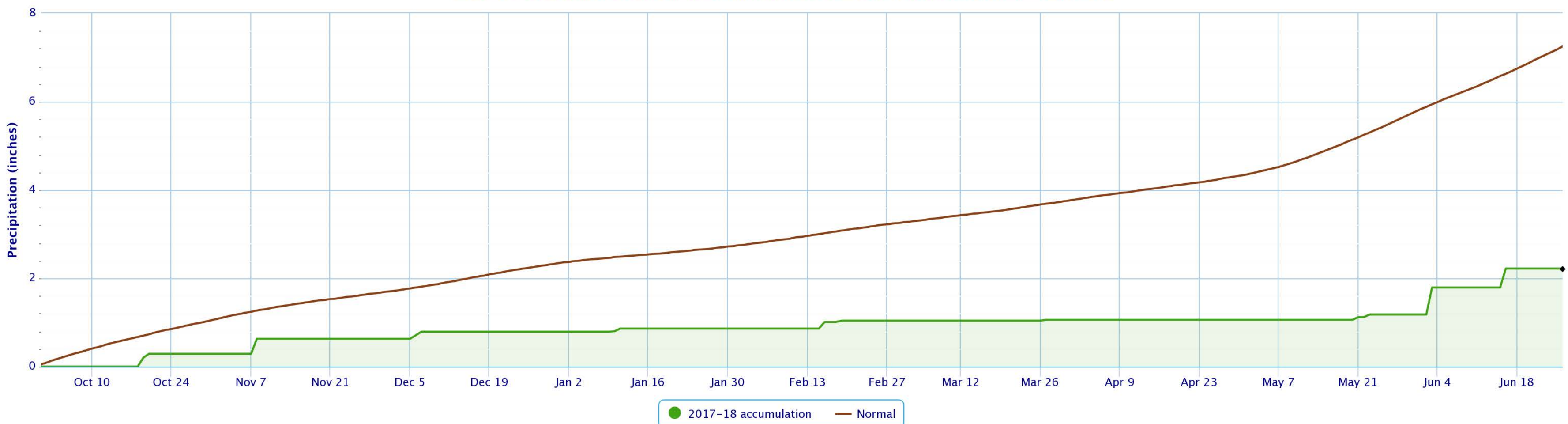
Accumulated Precipitation – Albuquerque Area, NM (ThreadEx)

Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values



Accumulated Precipitation – CAVERN CITY AP, NM

Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values



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Season in Perspective

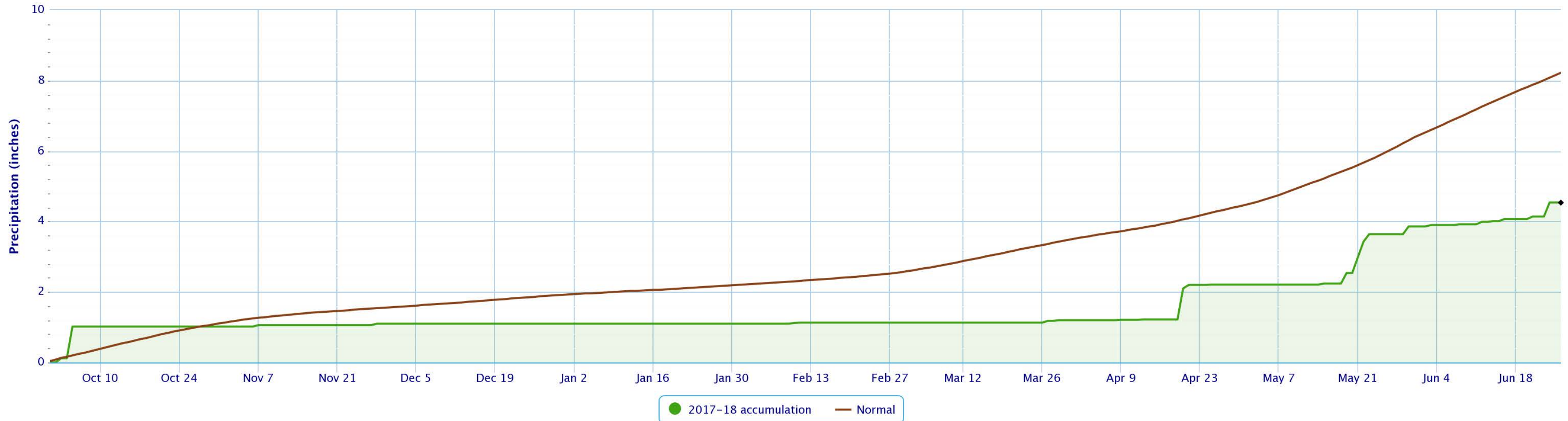
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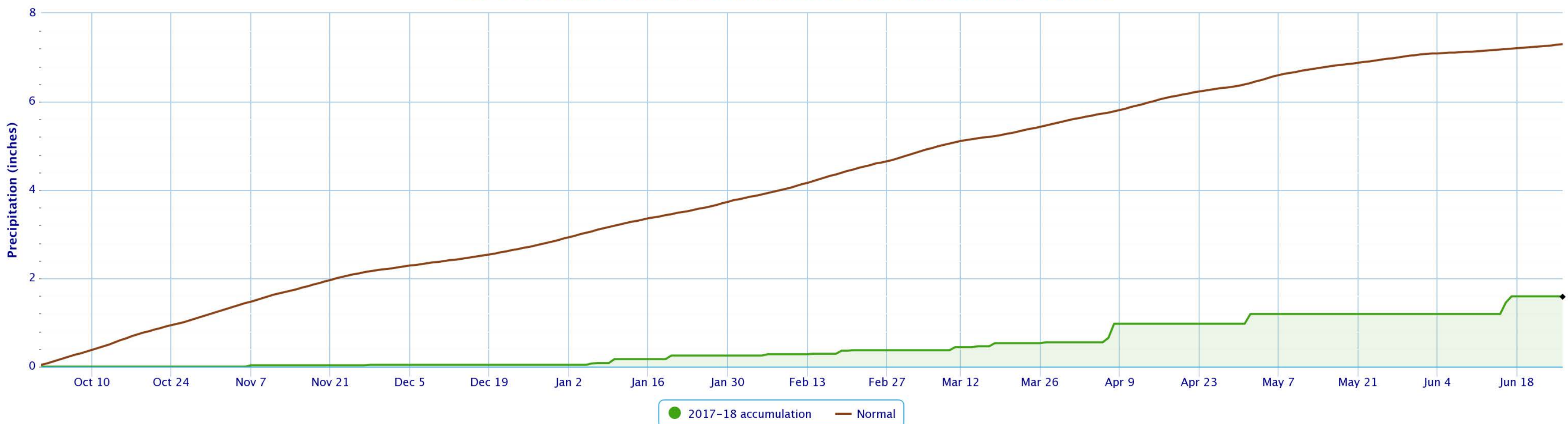
Accumulated Precipitation – Clayton Area, NM (ThreadEx)

Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values



Accumulated Precipitation – FARMINGTON FOUR CORNERS REGIONAL AP, NM

Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values



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Niño Region SST Departures (-°C)

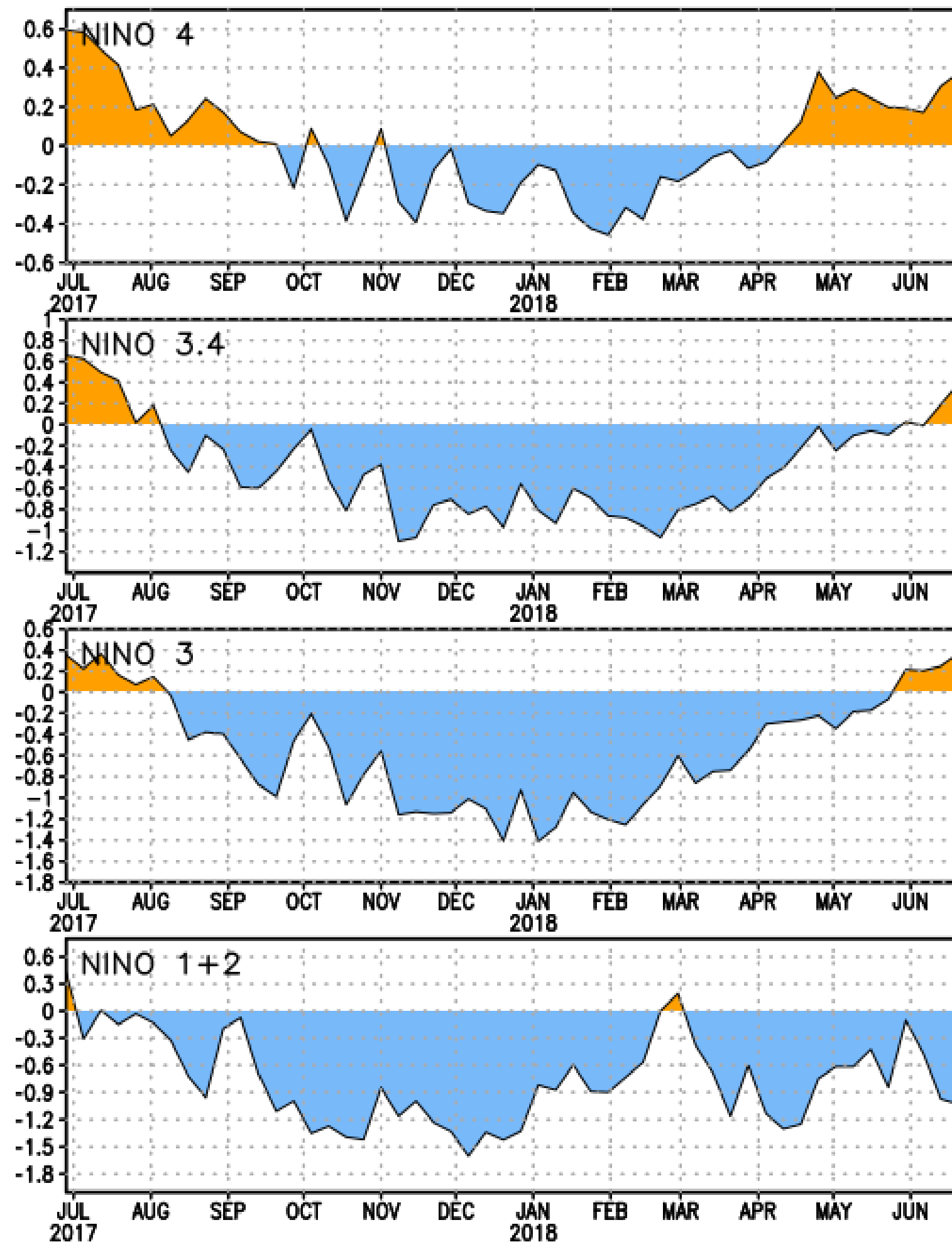


Albuquerque

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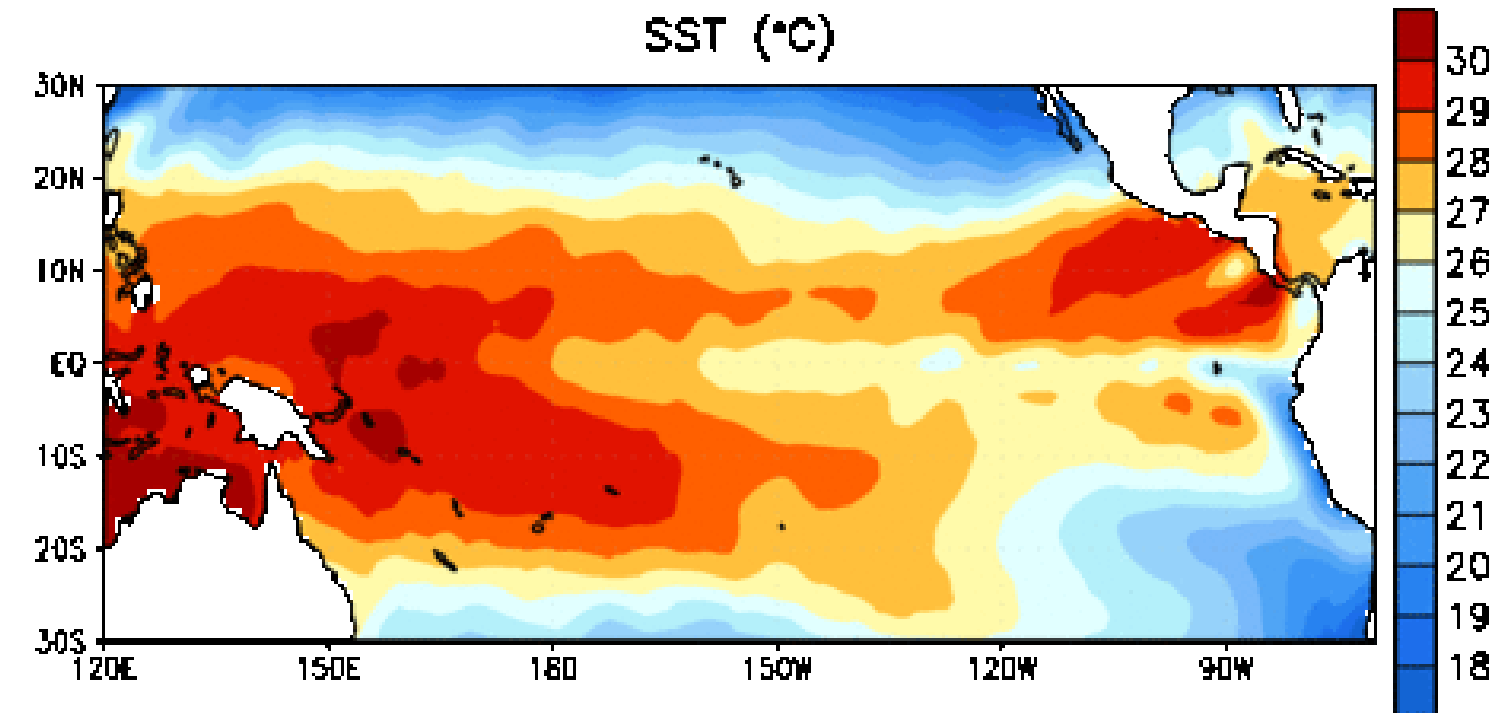
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SST Anomalies



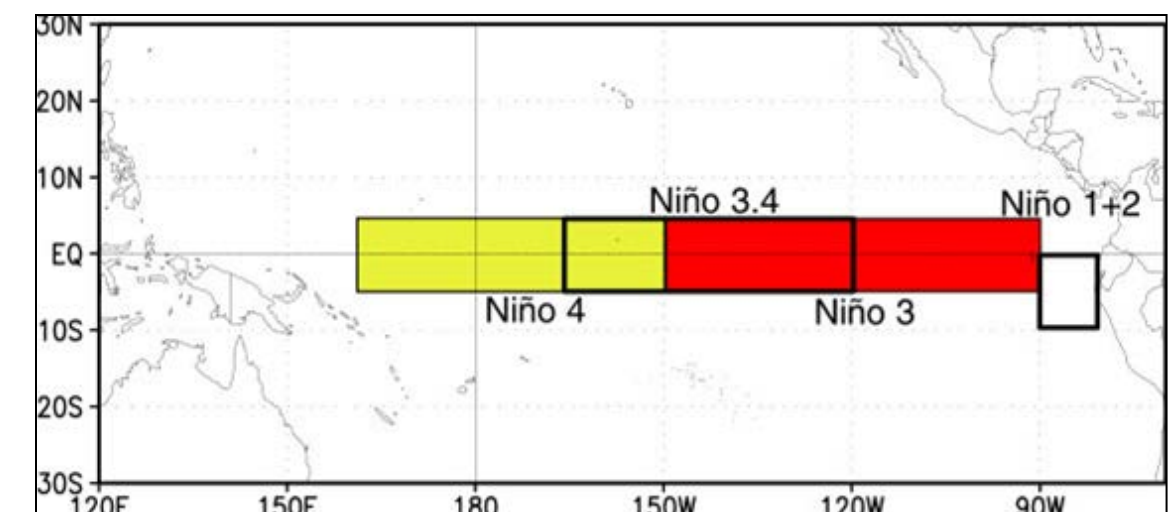
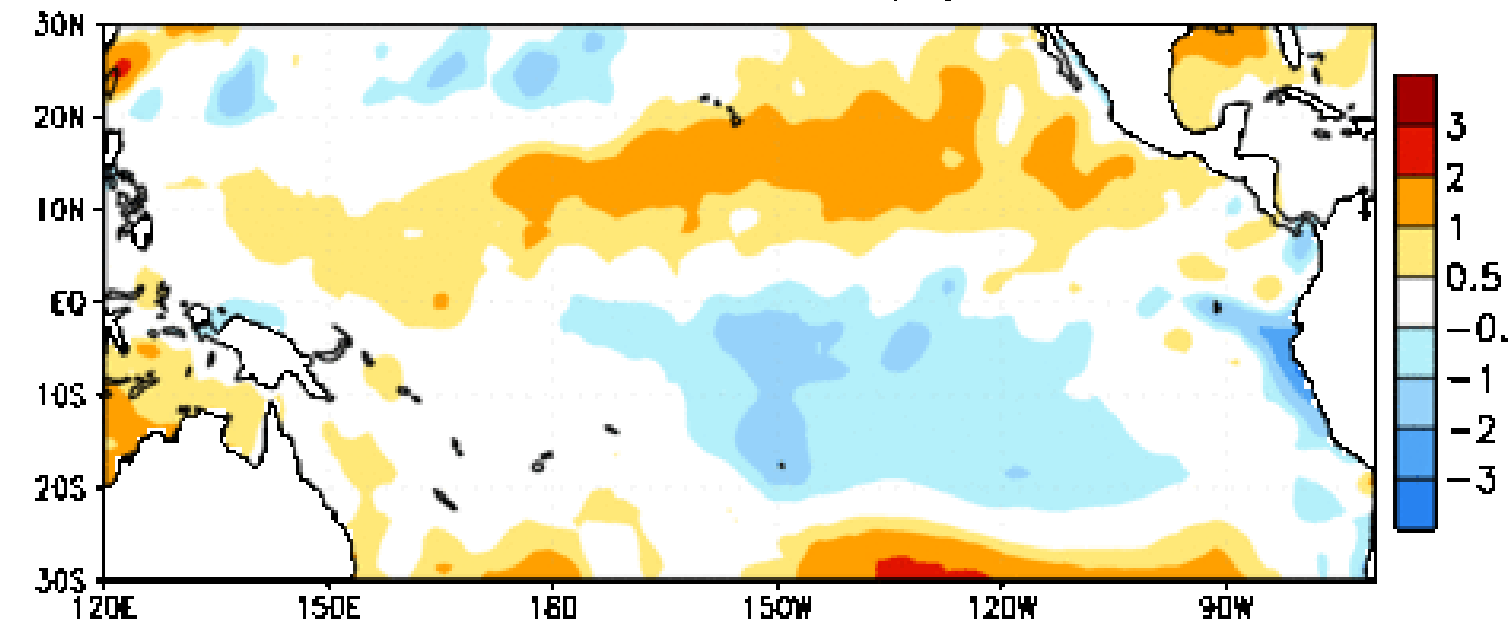
Week centered on 04 APR 2018

SST (°C)



Week centered on 04 APR 2018

SST Anomalies (°C)

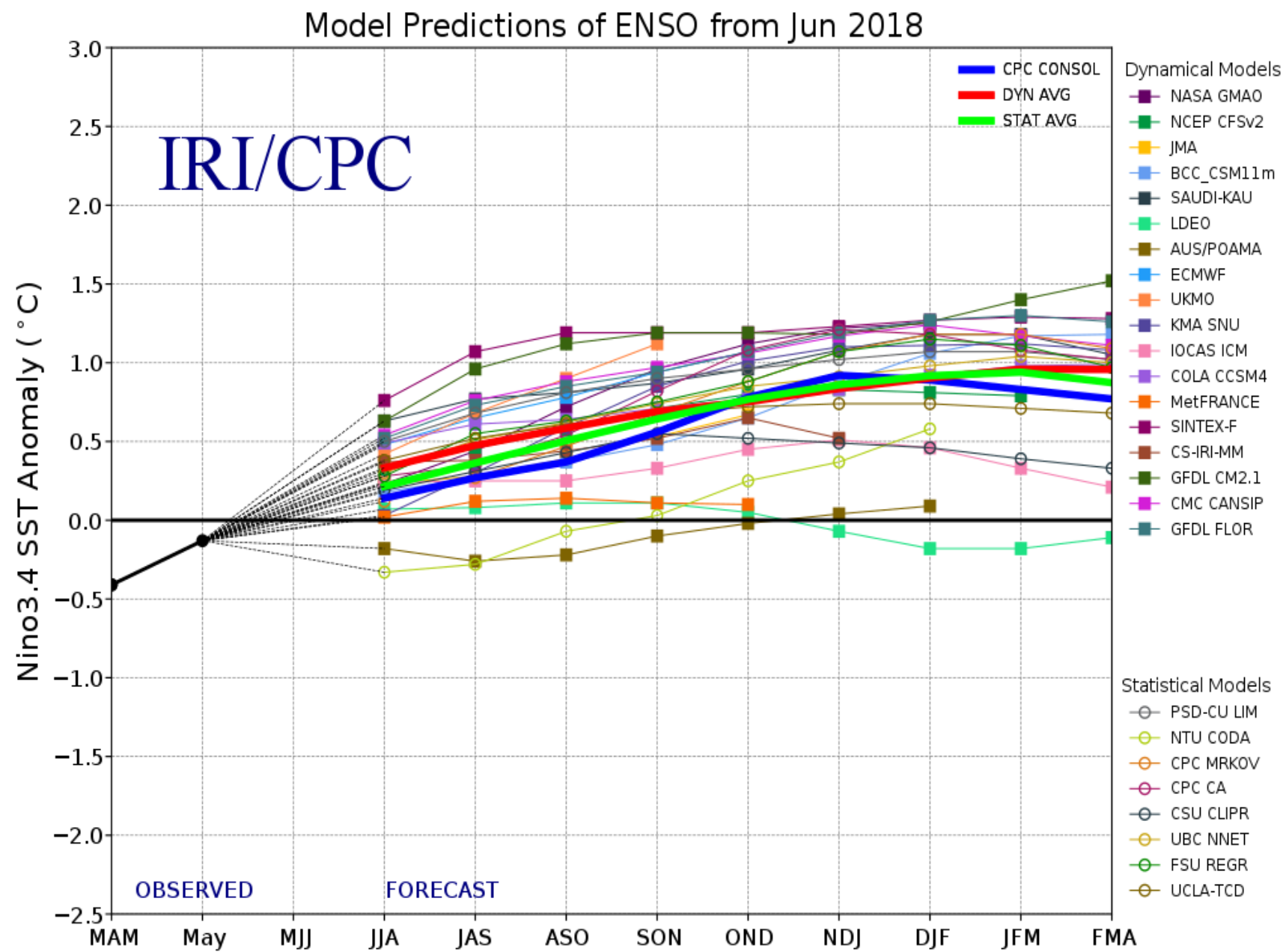


ENSO Models

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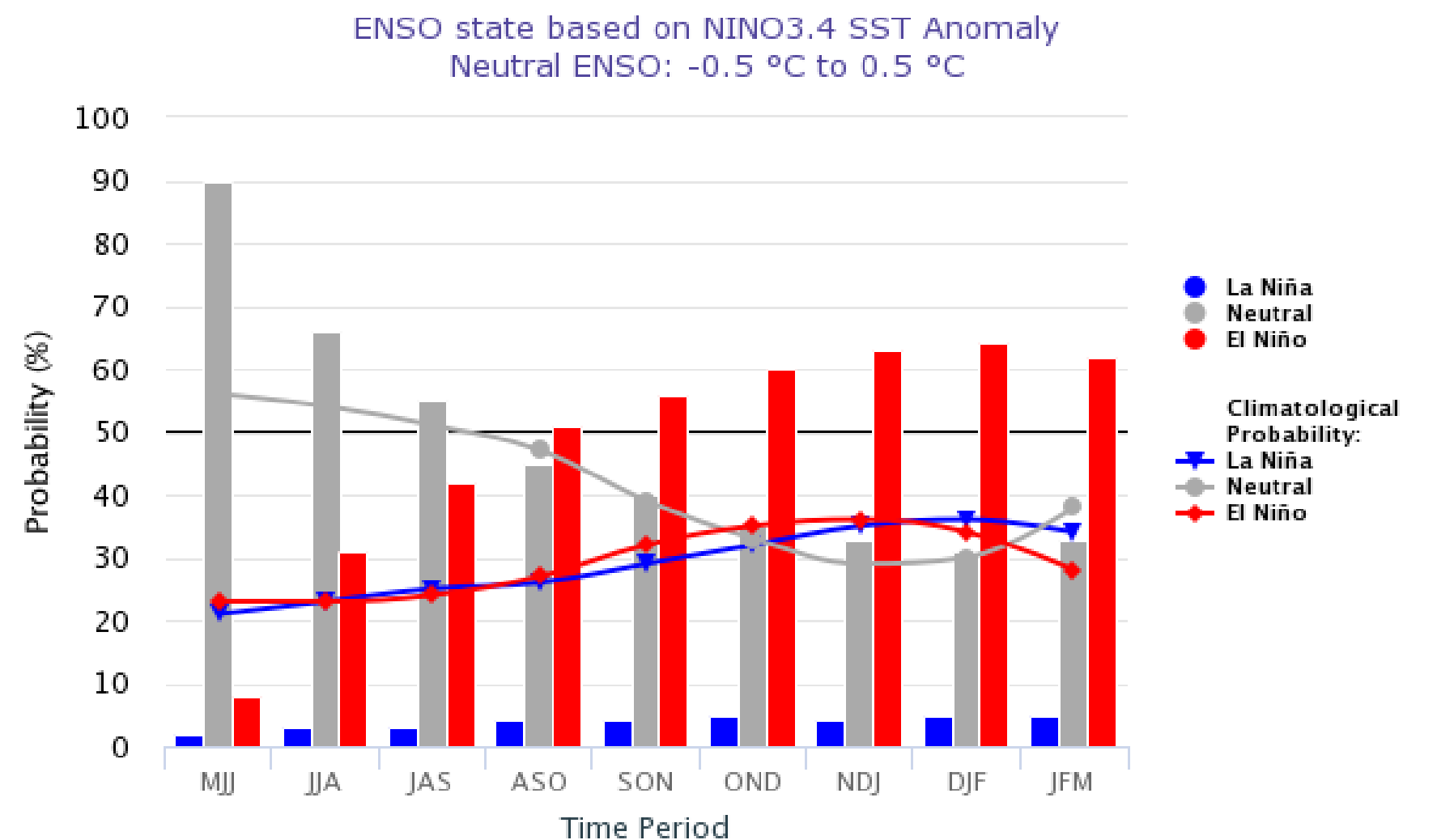
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The majority of models predict ENSO-neutral through summer 2018, with El Niño favored by August-October 2018.

Figure provided by the International Research Institute (IRI) for Climate and Society

Early-Jun CPC/IRI Official Probabilistic ENSO Forecasts

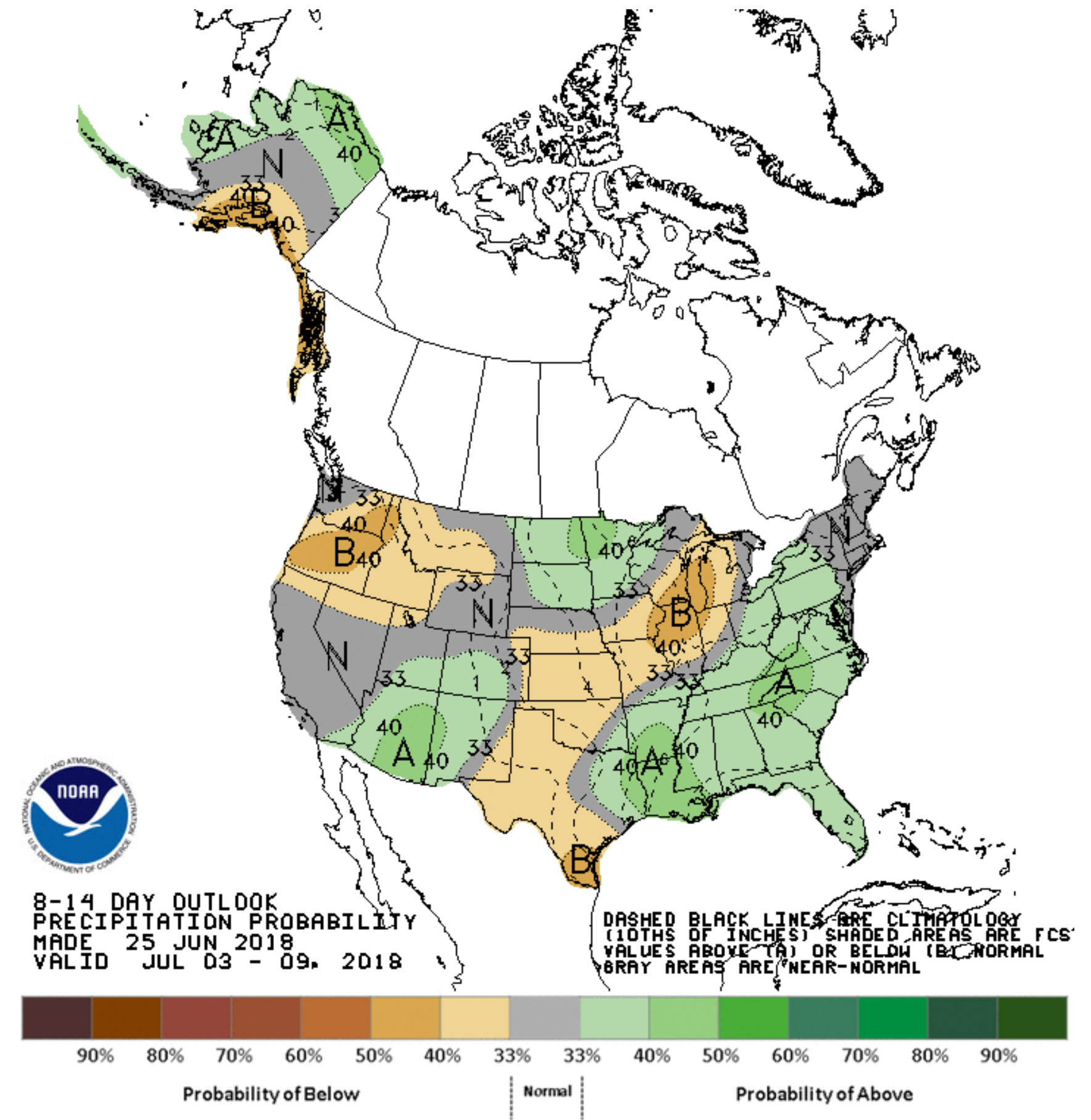
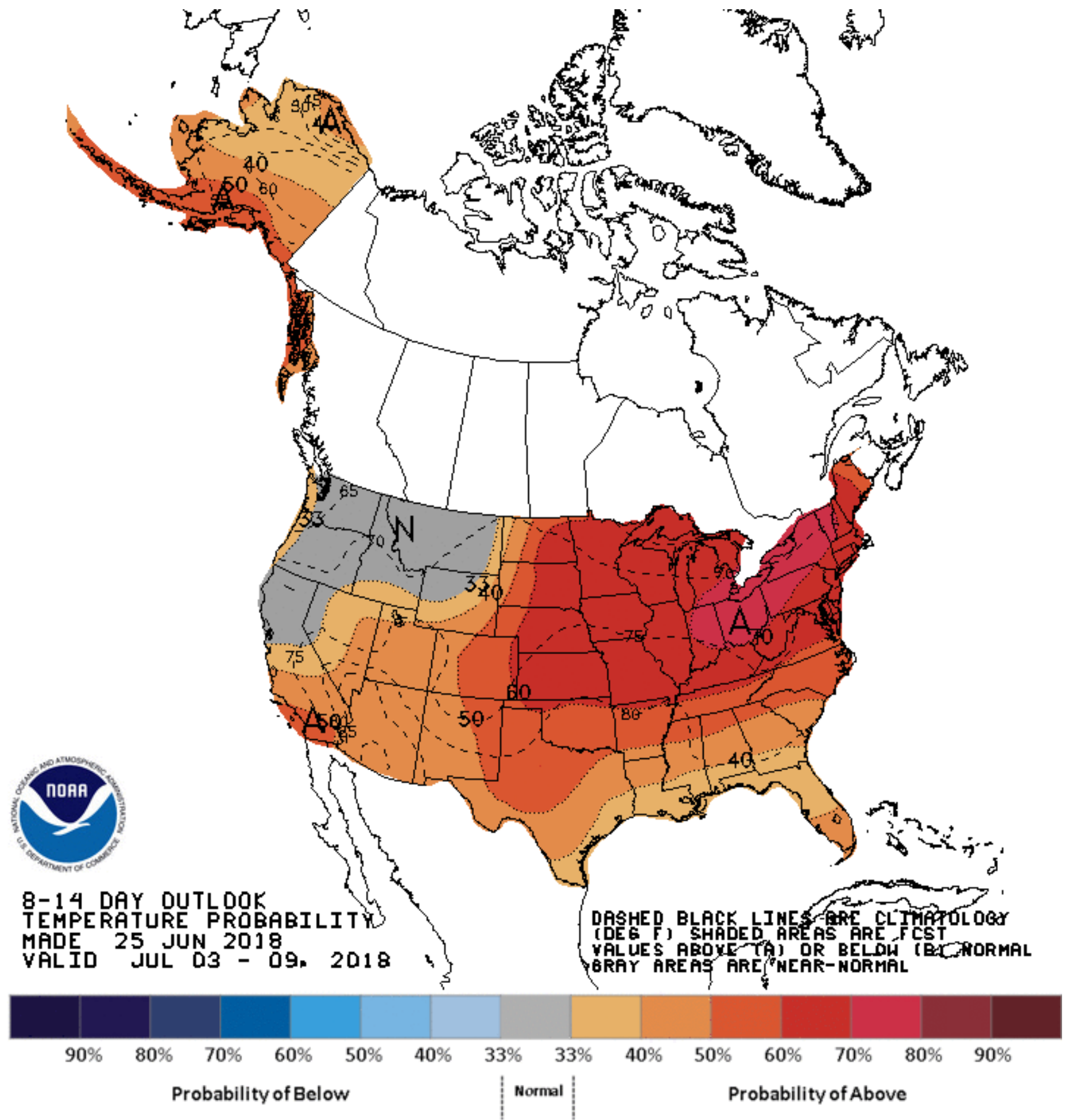


8-14 Day Outlook



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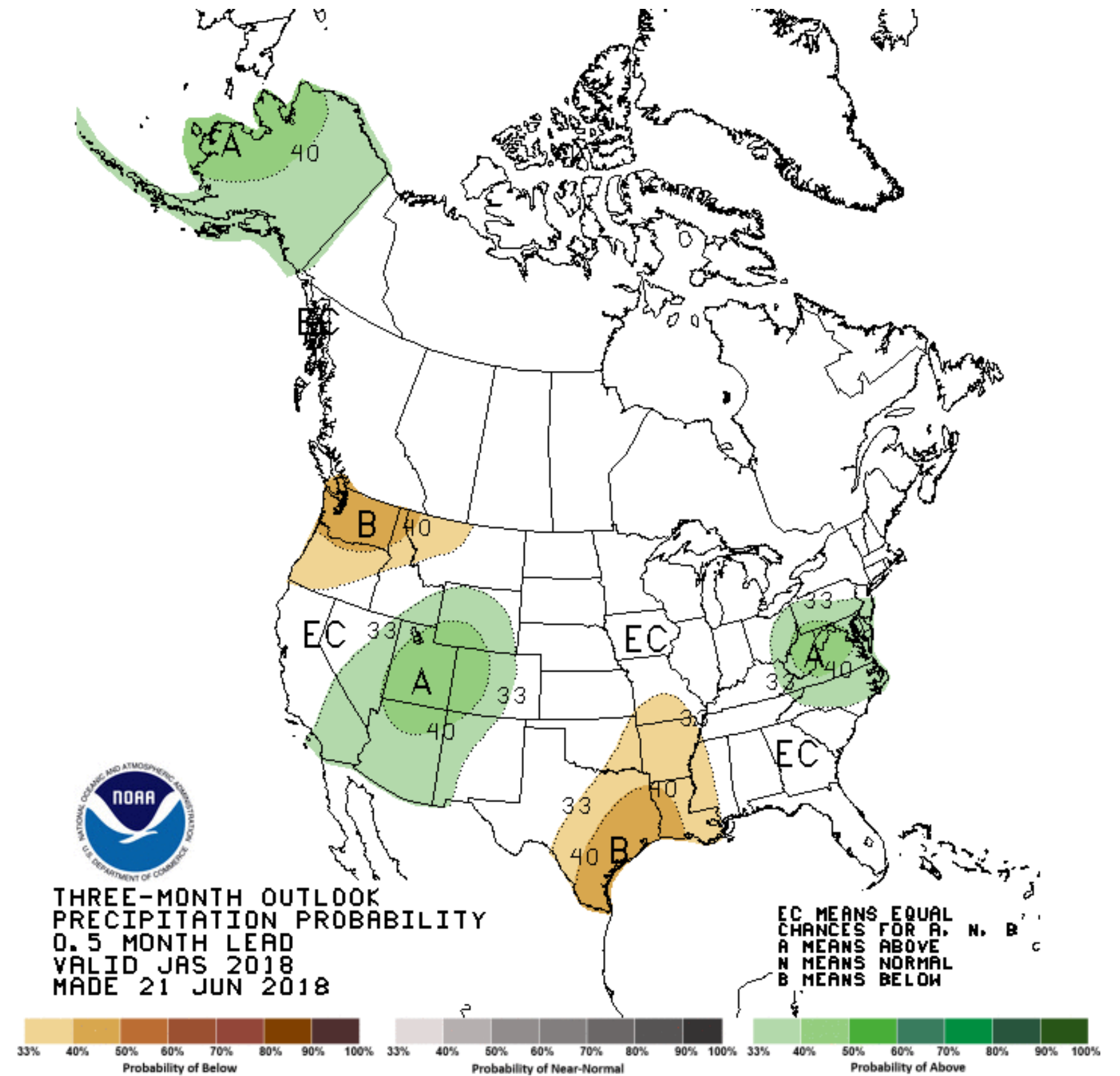
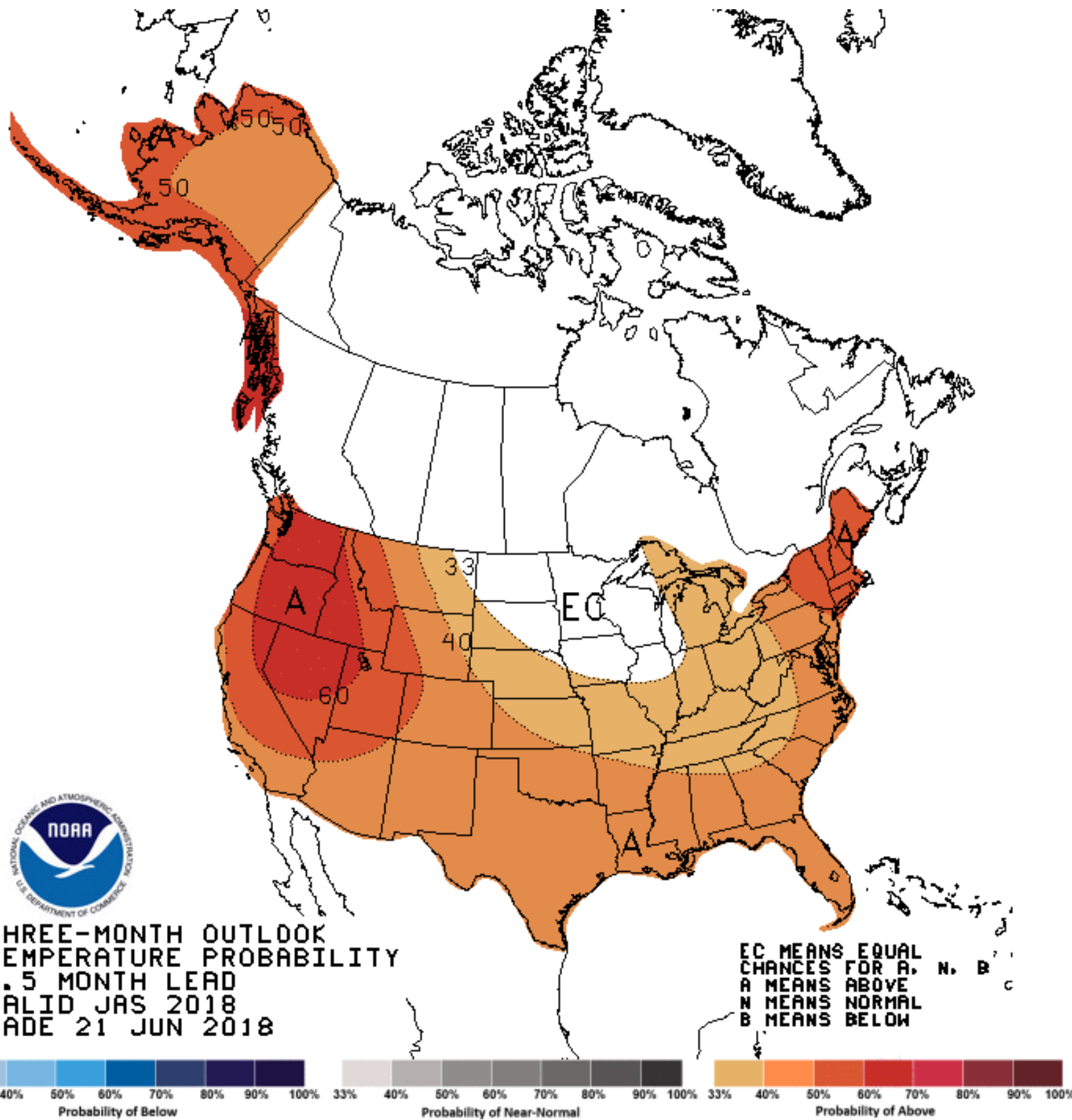
Three Month Outlook

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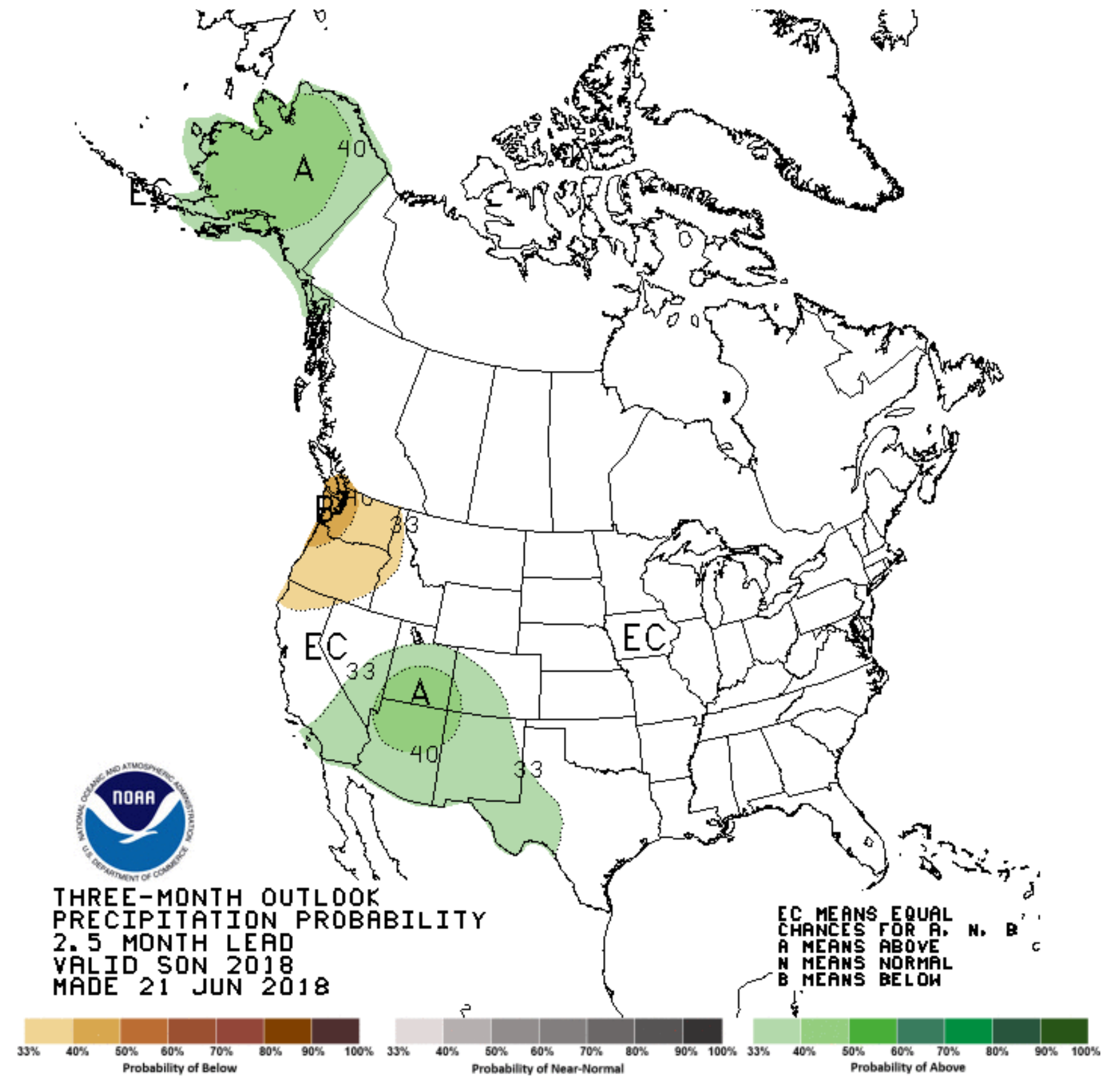
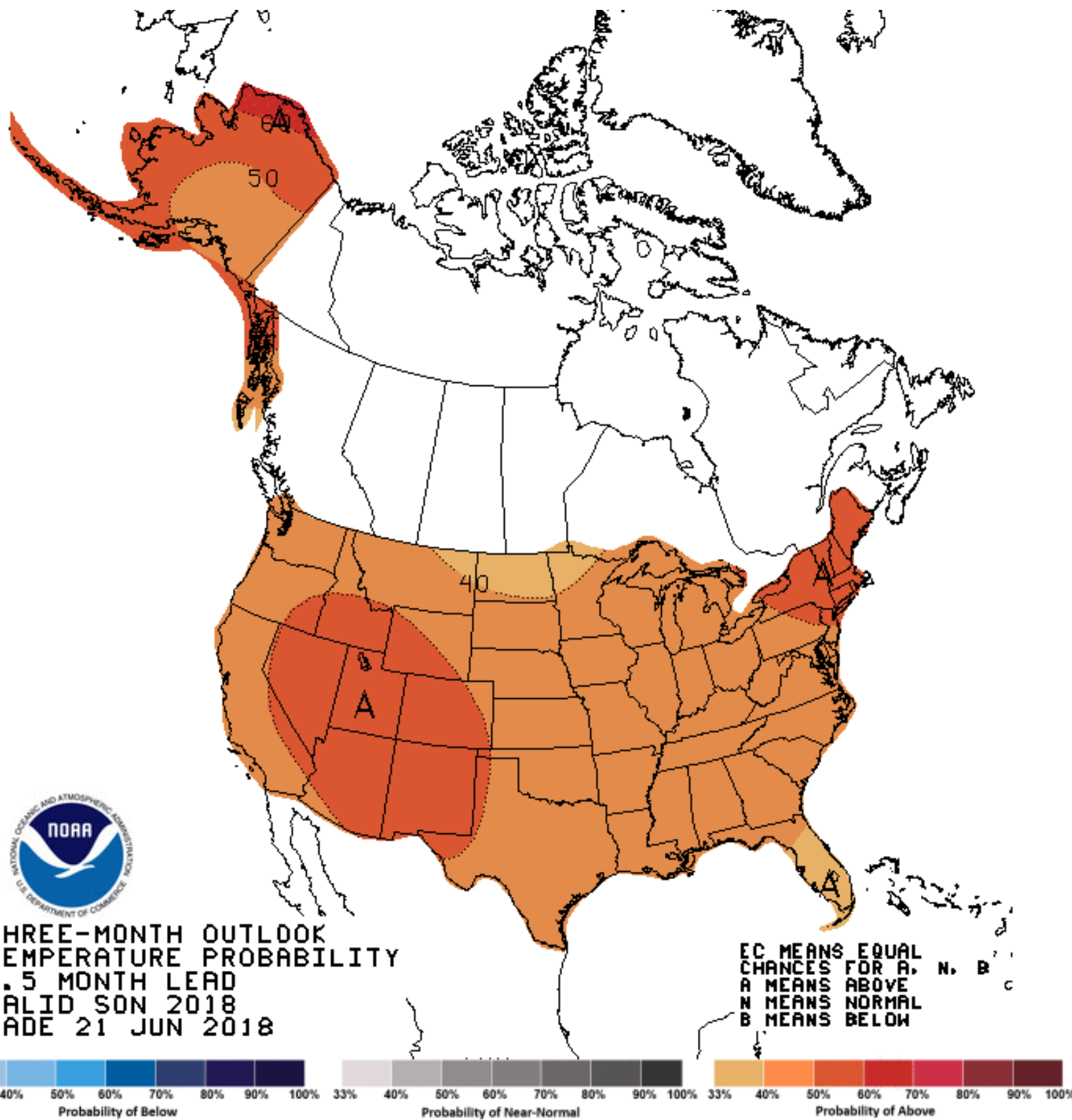
Extended Outlook



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Drought Outlook

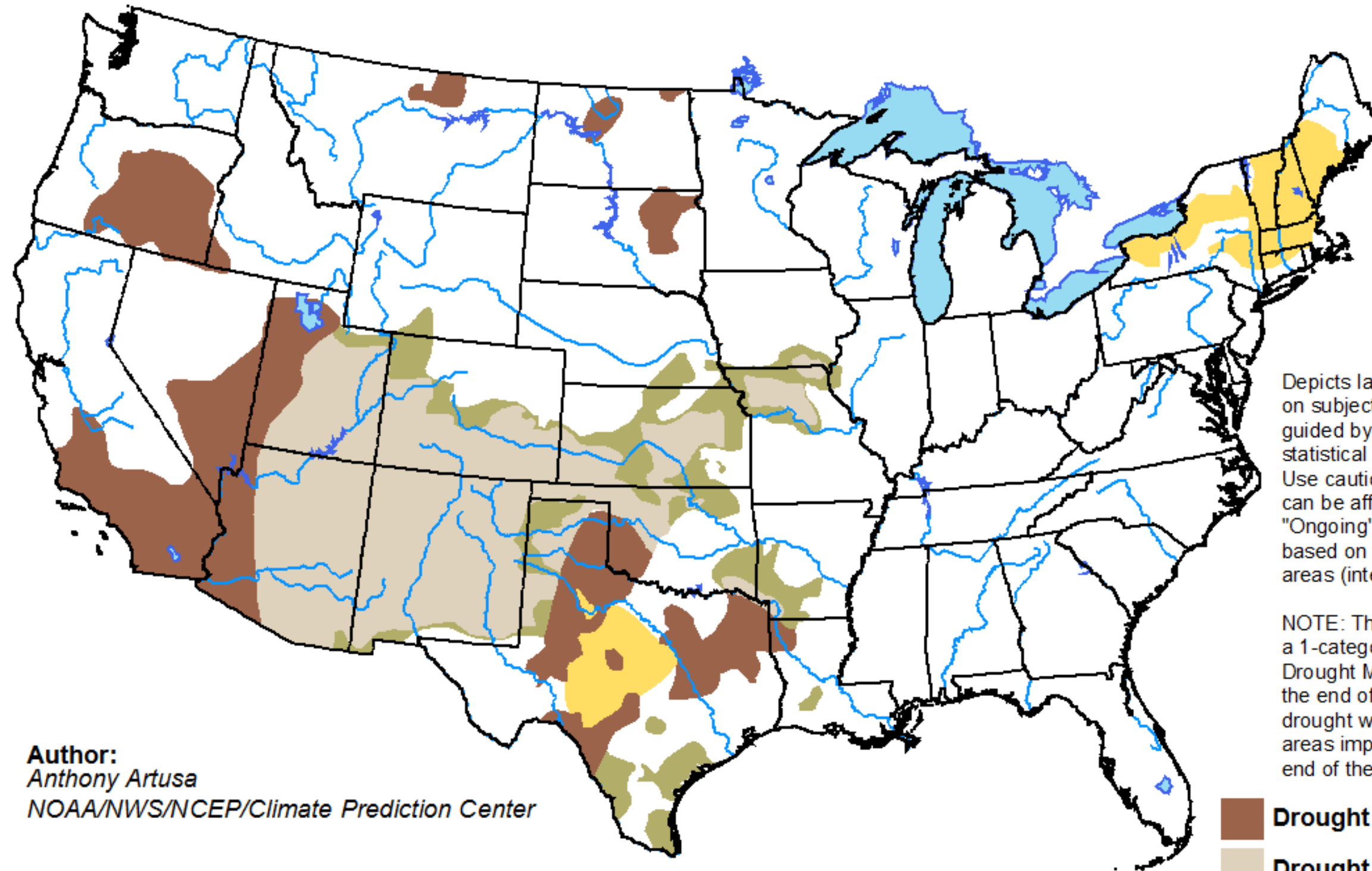
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U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period

Valid for June 21 - September 30, 2018
Released June 21, 2018

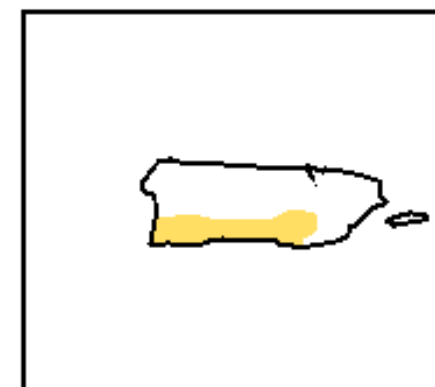
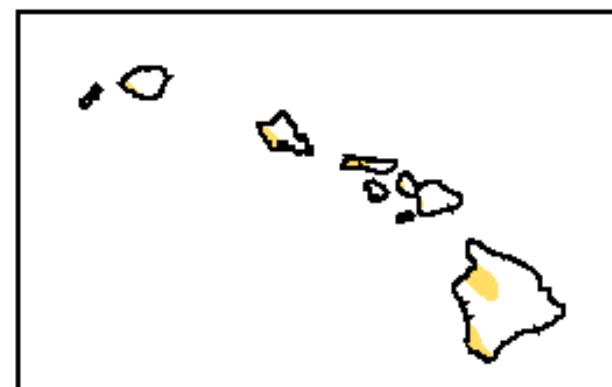
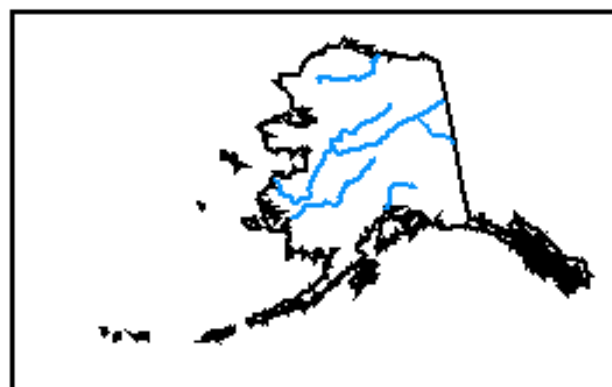


Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

Author:
Anthony Artusa
NOAA/NWS/NCEP/Climate Prediction Center

- Drought persists
- Drought remains but improves
- Drought removal likely
- Drought development likely



<http://go.usa.gov/3eZ73>

More Information

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- US Drought Monitor:
<http://droughtmonitor.unl.edu/CurrentMap.aspx>
- NWS Forecast Offices:
 - <http://www.weather.gov/abq> Albuquerque
 - <http://www.weather.gov/epz> El Paso/Santa Teresa
 - <http://www.weather.gov/maf> Midland/Odessa
- USGS Streamflow Conditions:
<https://nm.water.usgs.gov/infodata/waterwatch.html>
- New Mexico Climate Center:
<https://weather.nmsu.edu/>
- Western Regional Climate Center:
<https://wrcc.dri.edu/>
- Drought.gov
- USDA/NRCS Snow Data:
<https://www.wcc.nrcs.usda.gov/gis/snow.html>



New Mexico Drought Monitor Working Group

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Recommendations

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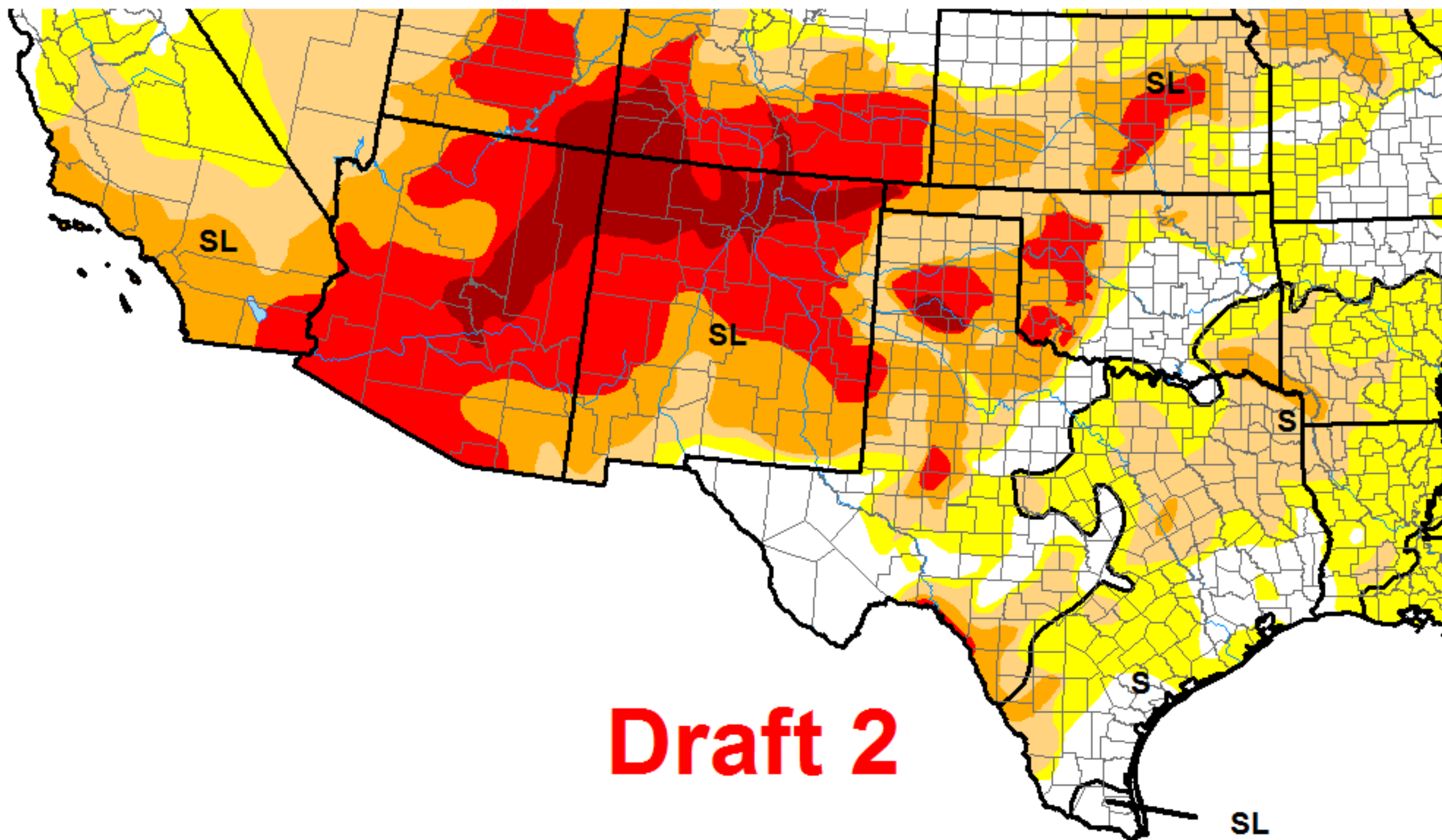


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U.S. Drought Monitor

June 26, 2018

Valid 7 a.m. EDT



Draft 2

Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

Drought Impact Types:

- Delineates dominant impacts
- S = Short-term, typically <6 months (e.g. agricultural, grasslands)
- L = Long-term, typically >6 months (e.g. hydrological, ecology)
- (No type = Both impacts)



Released Thursday, June 28, 2018

Author: Richard Heim, NOAA/NESDIS/NCEI