

Colorado Climate Center – *WATF Climate Update*

Becky Bolinger

Water Availability Task Force
July 24, 2018 – Durango, CO



Colorado State University



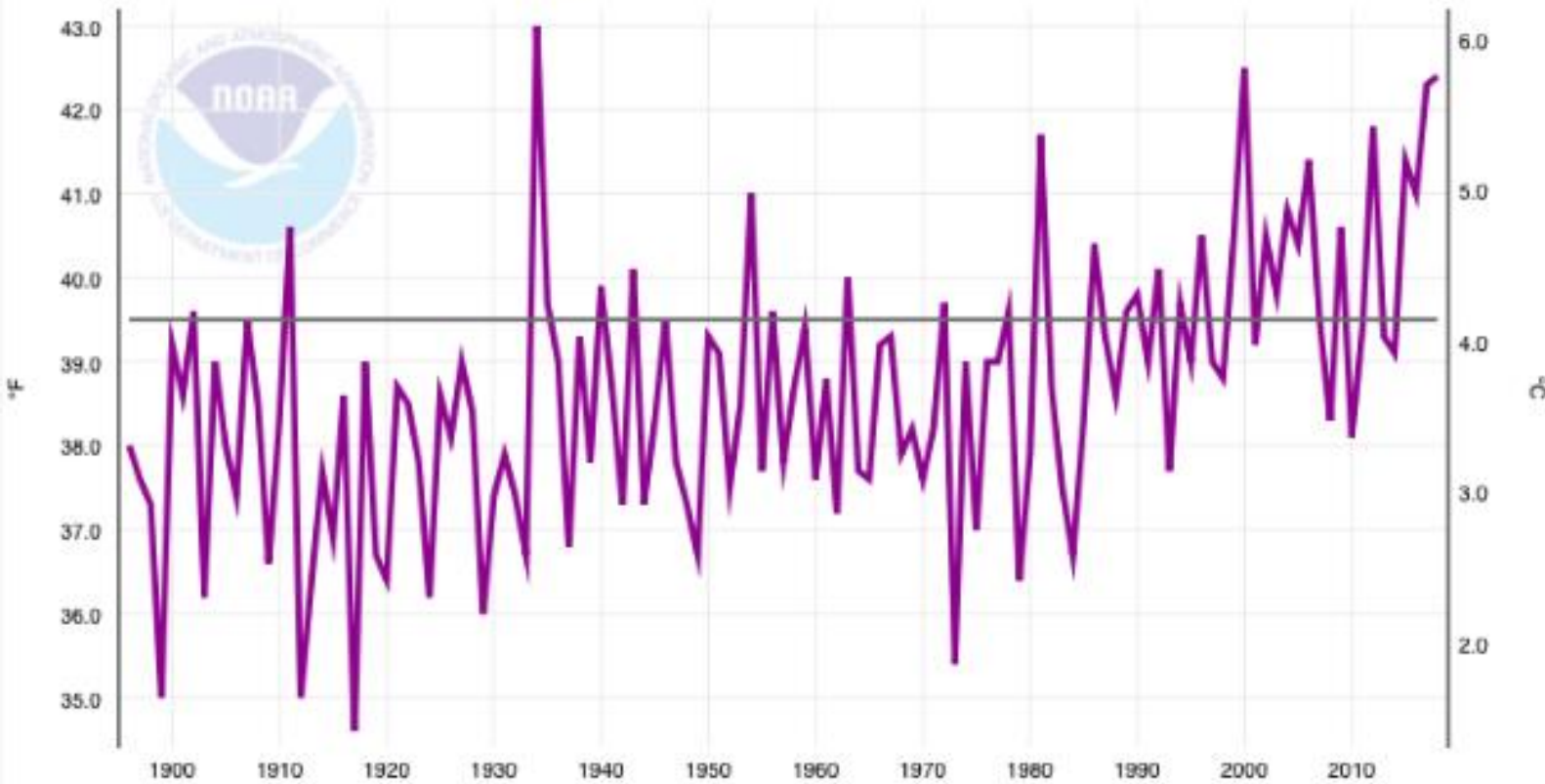
Water Year 2018 – Temperature



3rd Warmest in 123-year record
 +2.9°F above 39.5°F average

Colorado, Average Temperature, October-June

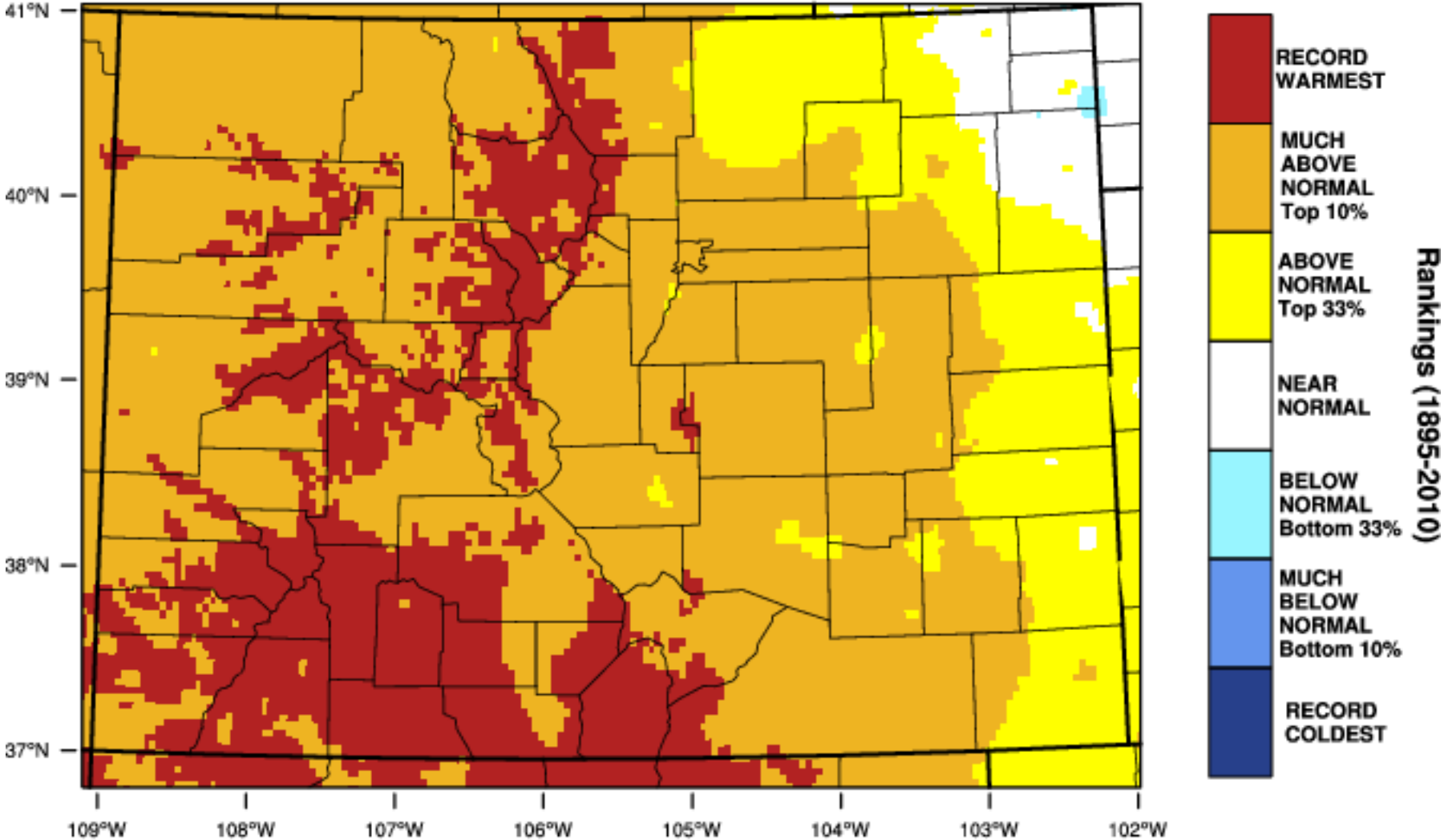
Avg Temperature 1981-2010 Mean: 39.5°F



MONTH	RANK
Oct 2017	near average
Nov 2017	1 st warmest
Dec 2017	8 th warmest
Jan 2018	8 th warmest
Feb 2018	near average
Mar 2018	25 th warmest
Apr 2018	near average
May 2018	2 nd warmest
Jun 2018	3 rd warmest



Colorado - Mean Temperature October-June 2018 Percentile

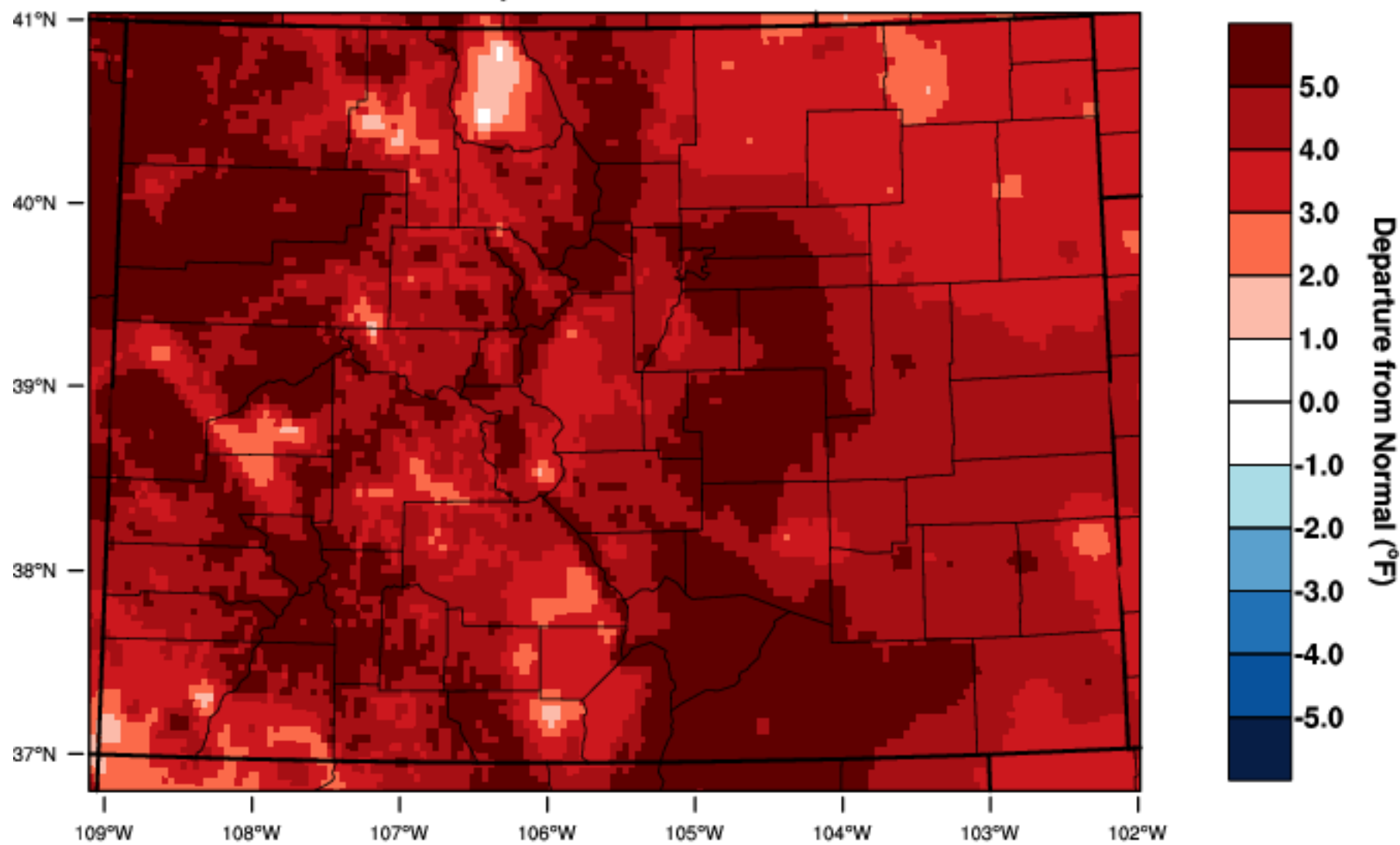


WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 16 JUL 2018



Colorado - Mean Temperature

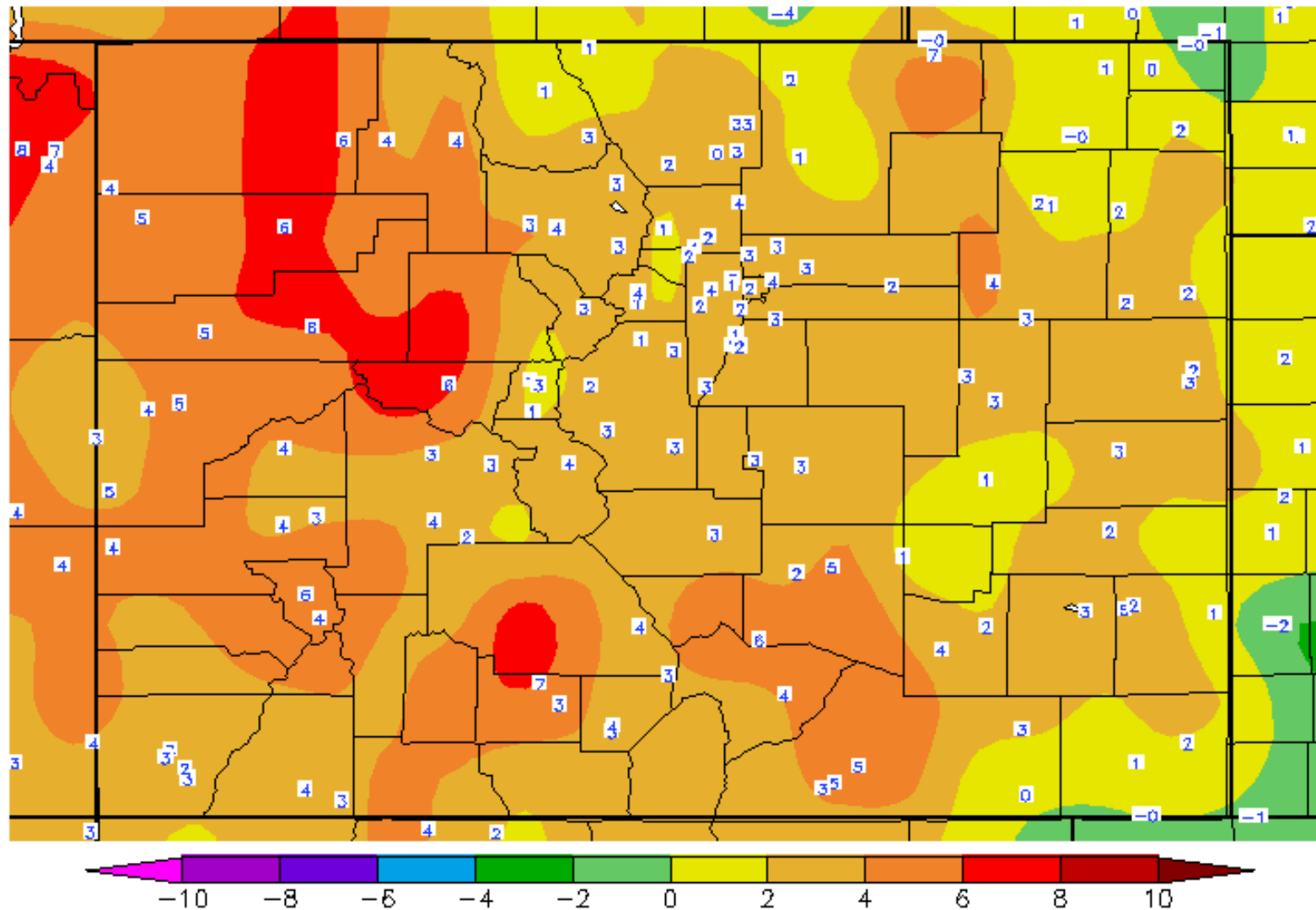
June 2018 Departure from 1981-2010 Normal



WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 16 JUL 2018



Ave. Temperature dep from Ave (deg F)
7/1/2018 - 7/22/2018



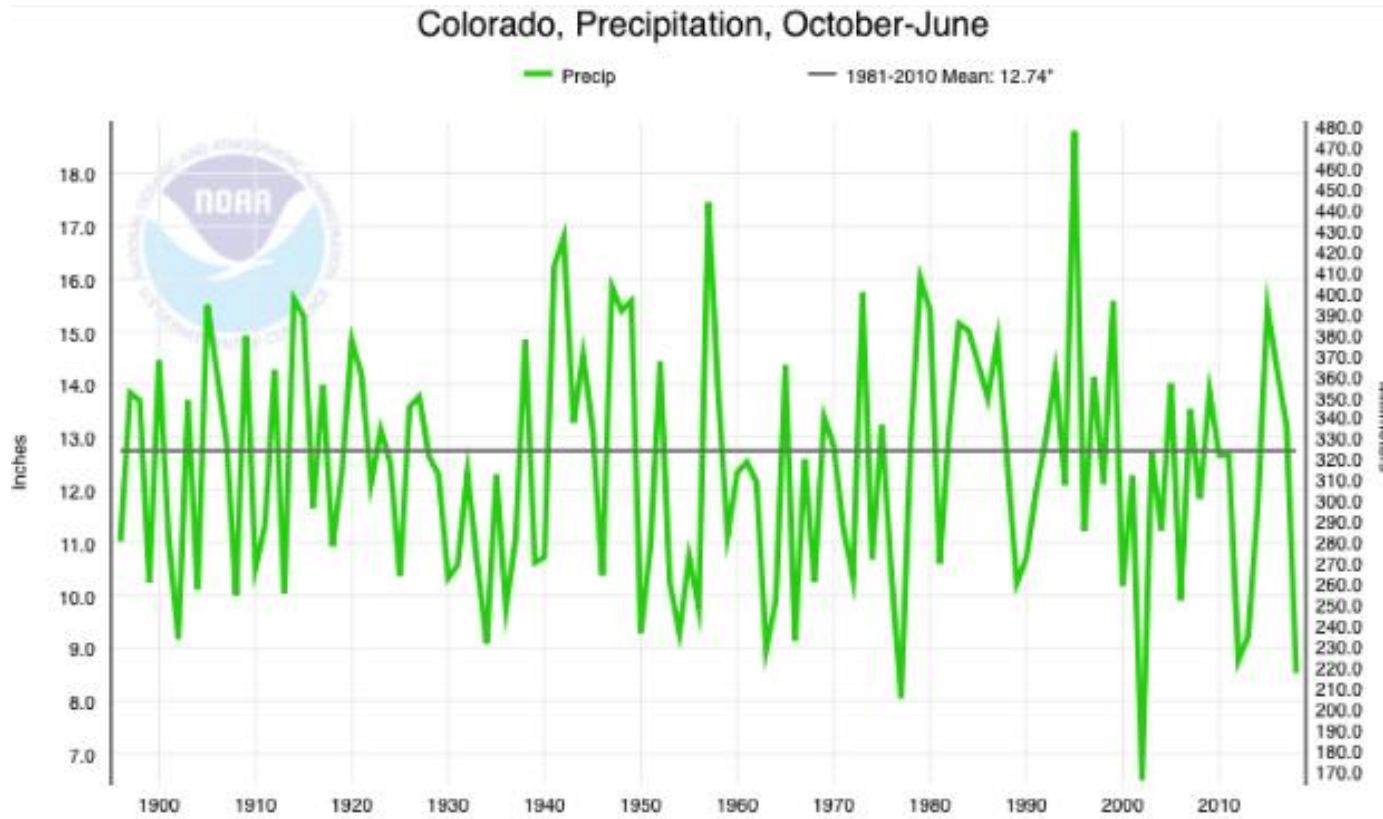
Generated 7/23/2018 at WRCC using provisional data.
NOAA Regional Climate Centers



Water Year 2018 – Precipitation



3rd driest in 123-year record
 -4.21" below 12.74" average

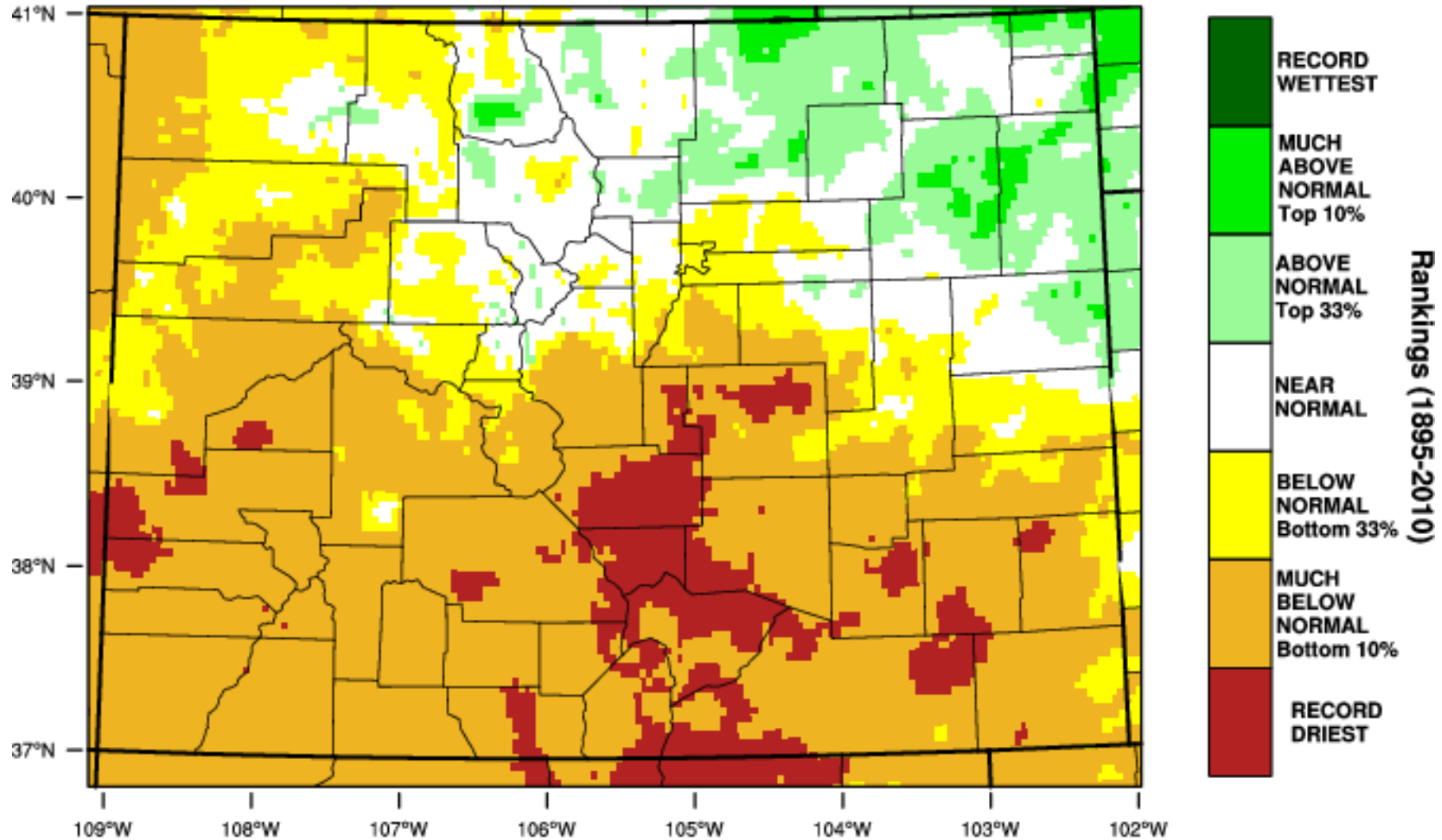


MONTH	RANK
Oct 2017	37 th driest
Nov 2017	18 th driest
Dec 2017	7 th driest
Jan 2018	37 th driest
Feb 2018	near average
Mar 2018	26 th driest
Apr 2018	34 th driest
May 2018	38 th driest
Jun 2018	26 th driest



Colorado - Precipitation

October-June 2018 Percentile

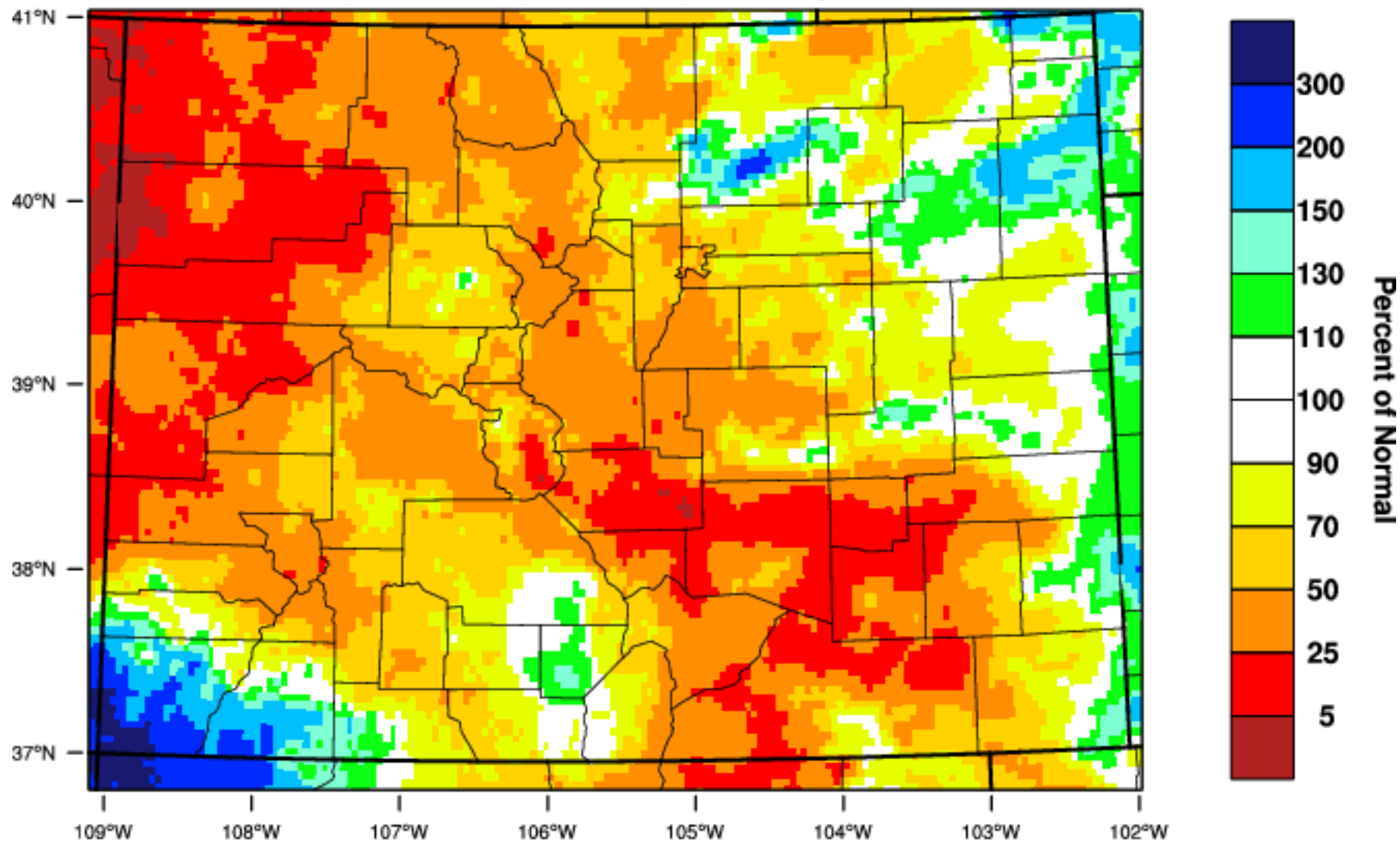


WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 16 JUL 2018



Colorado - Precipitation

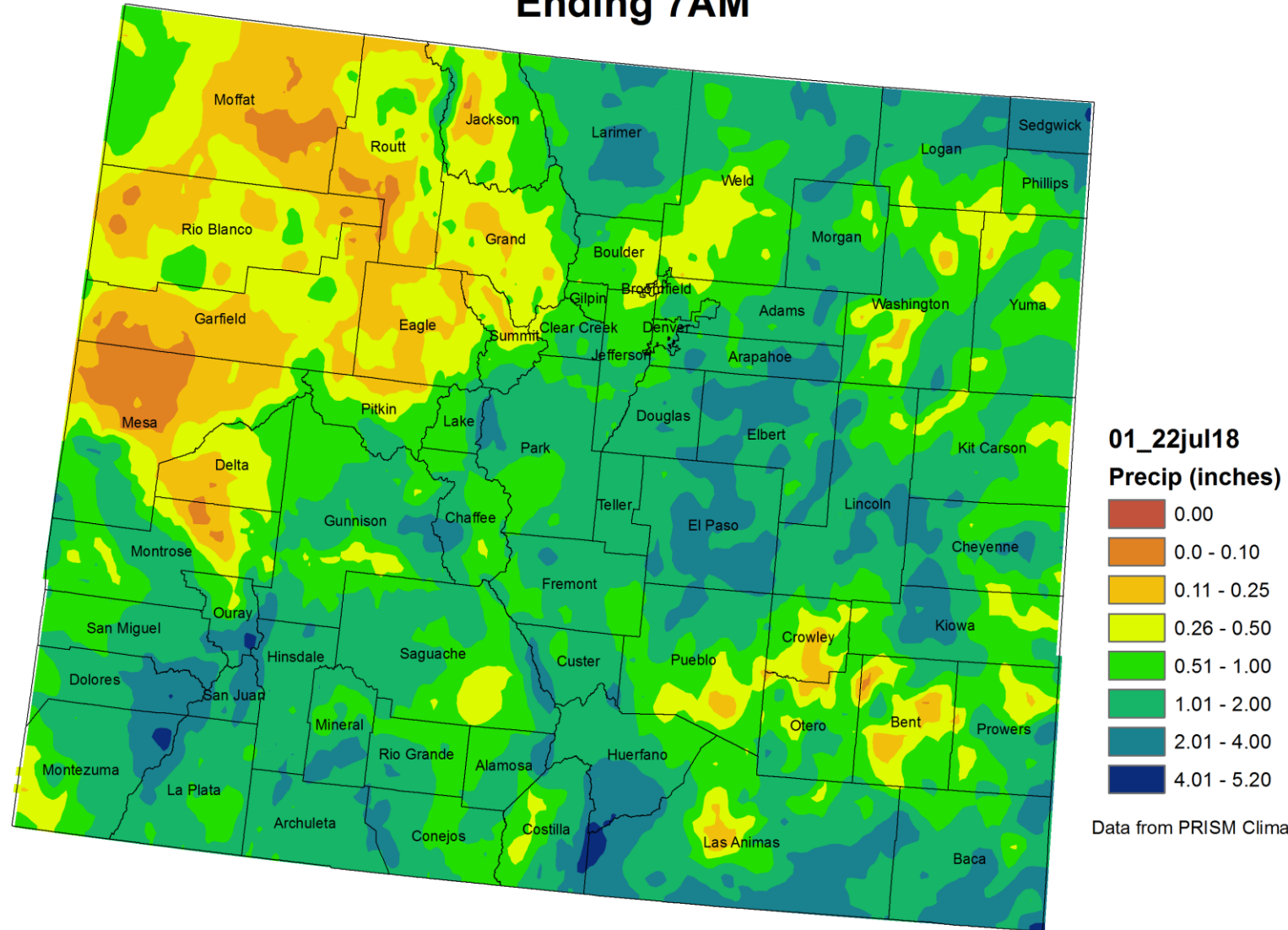
June 2018 Percent of 1981-2010 Normal



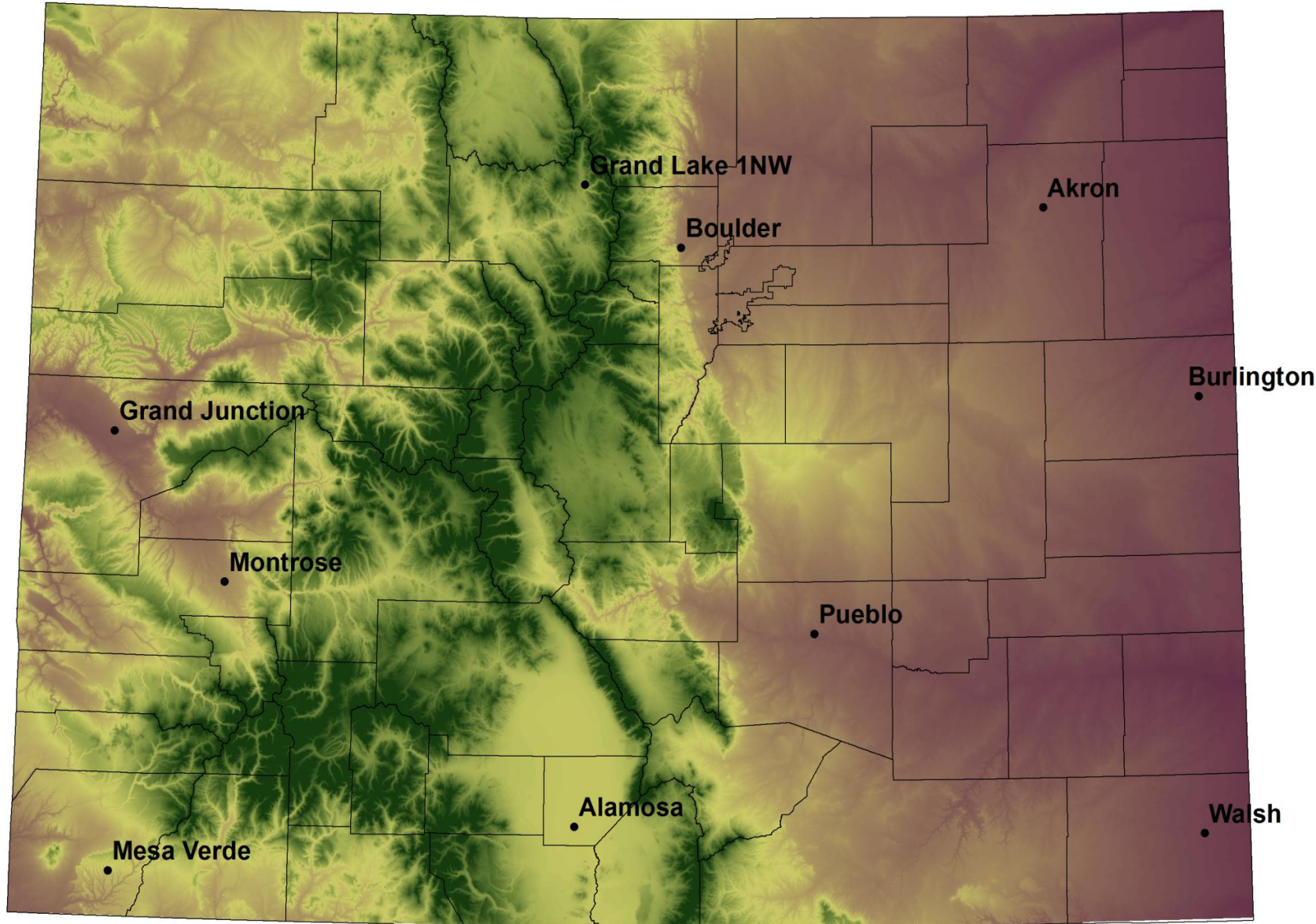
WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 16 JUL 2018



Colorado Month to Date Precipitation 1 - 22 July 2018 Ending 7AM



NWS Cooperative Stations for WATF



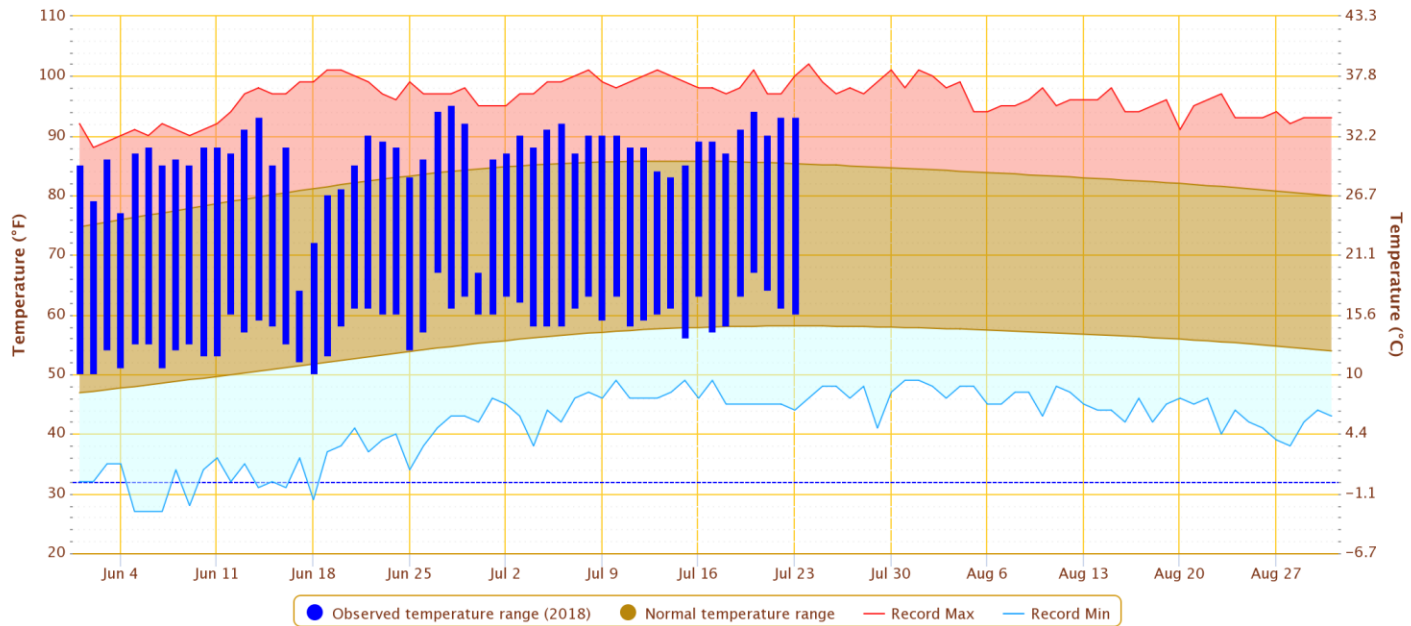
Water Year 2018 –
Station Updates

SPECIAL EDITION:
SOUTHWEST CO



Daily Temperature Data – MESA VERDE NP, CO

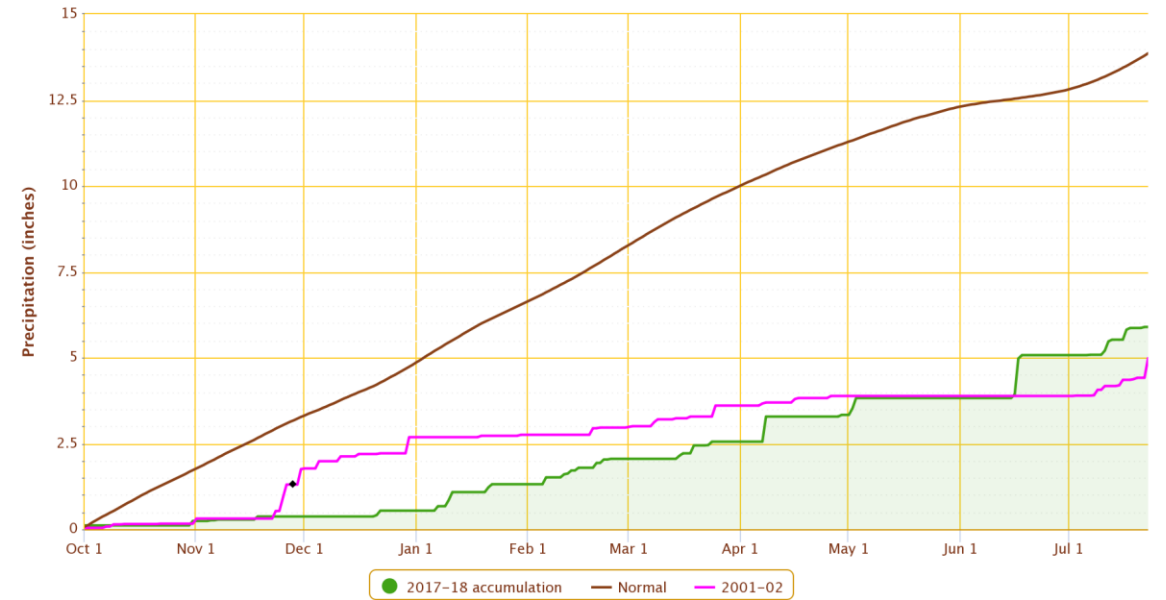
Period of Record – 1922-02-16 to 2018-07-23. Normals period: 1981-2010. Click and drag to zoom chart.



Powered by ACIS

Accumulated Precipitation – MESA VERDE NP, CO

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

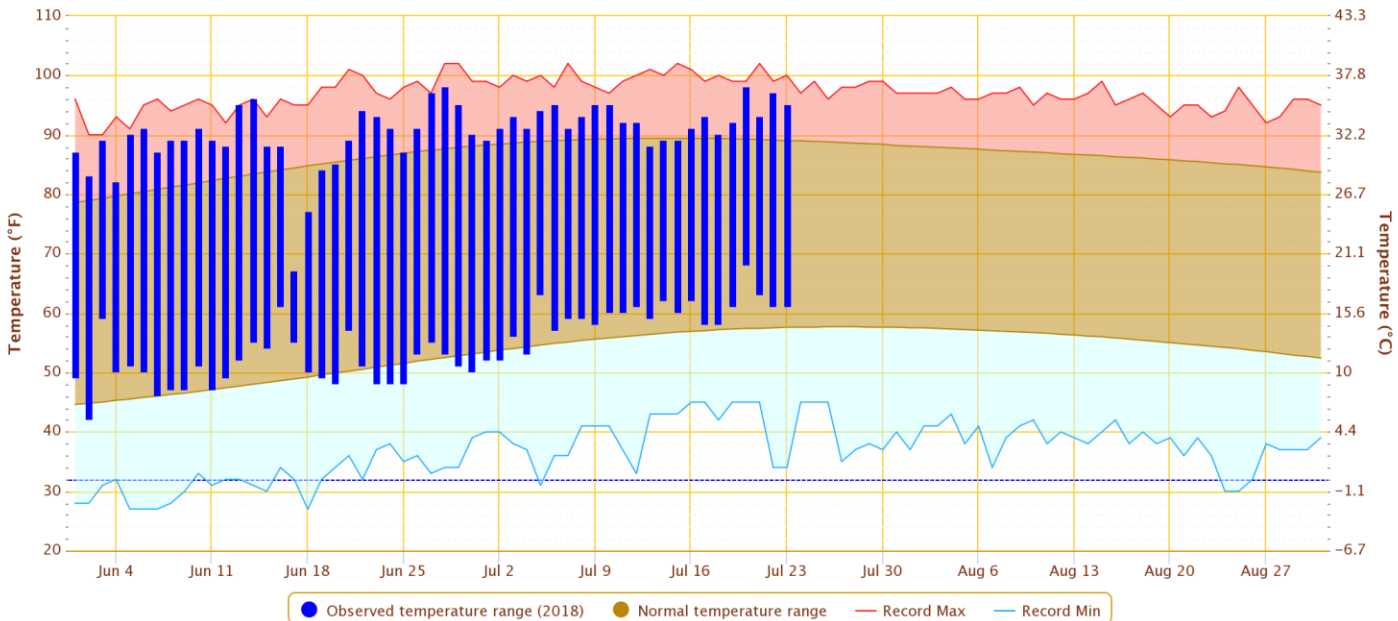


Powered by ACIS



Daily Temperature Data – CORTEZ, CO

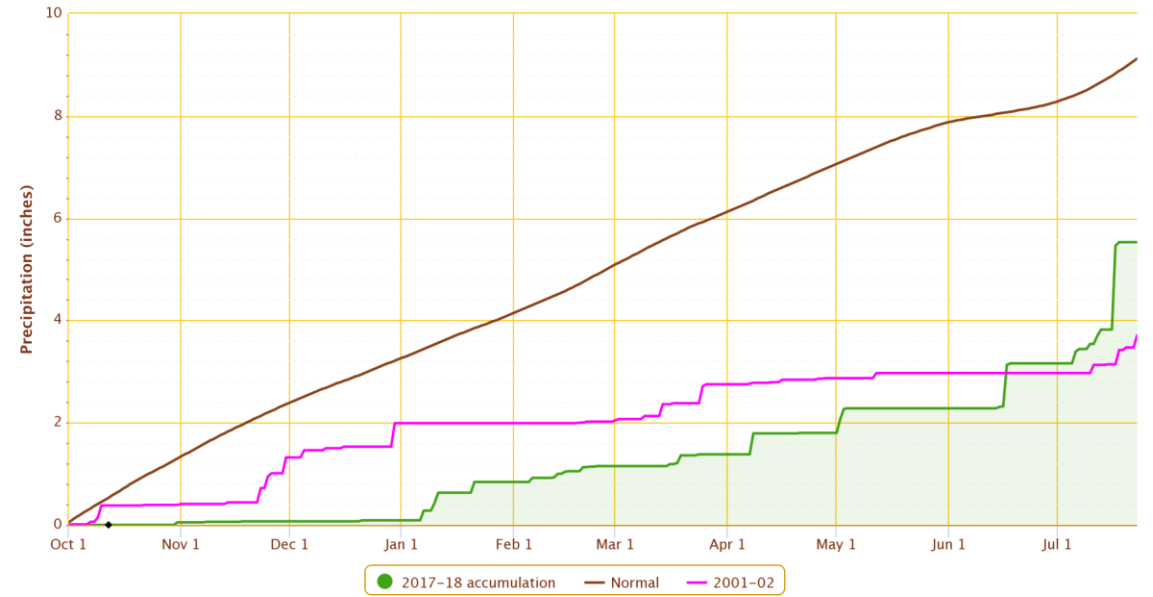
Period of Record – 1911-04-01 to 2018-07-23. Normals period: 1981-2010. Click and drag to zoom chart.



Powered by ACIS

Accumulated Precipitation – CORTEZ, CO

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

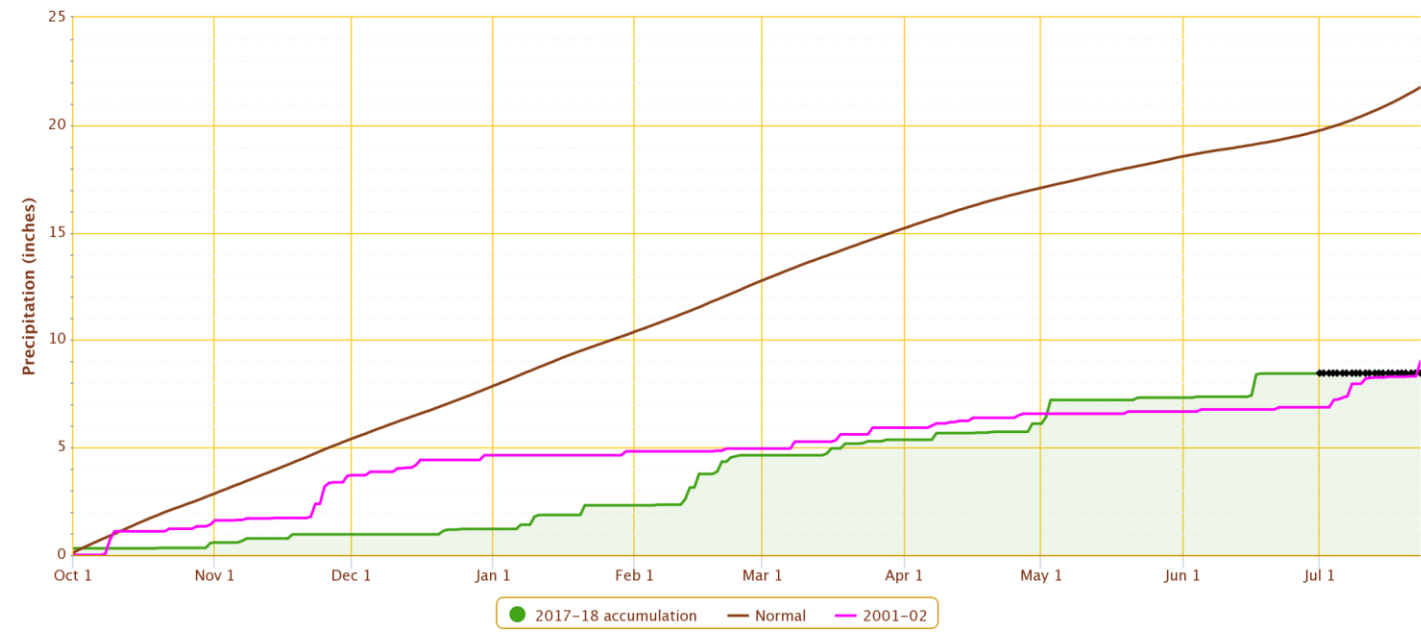


Powered by ACIS



Accumulated Precipitation – LEMON DAM, CO

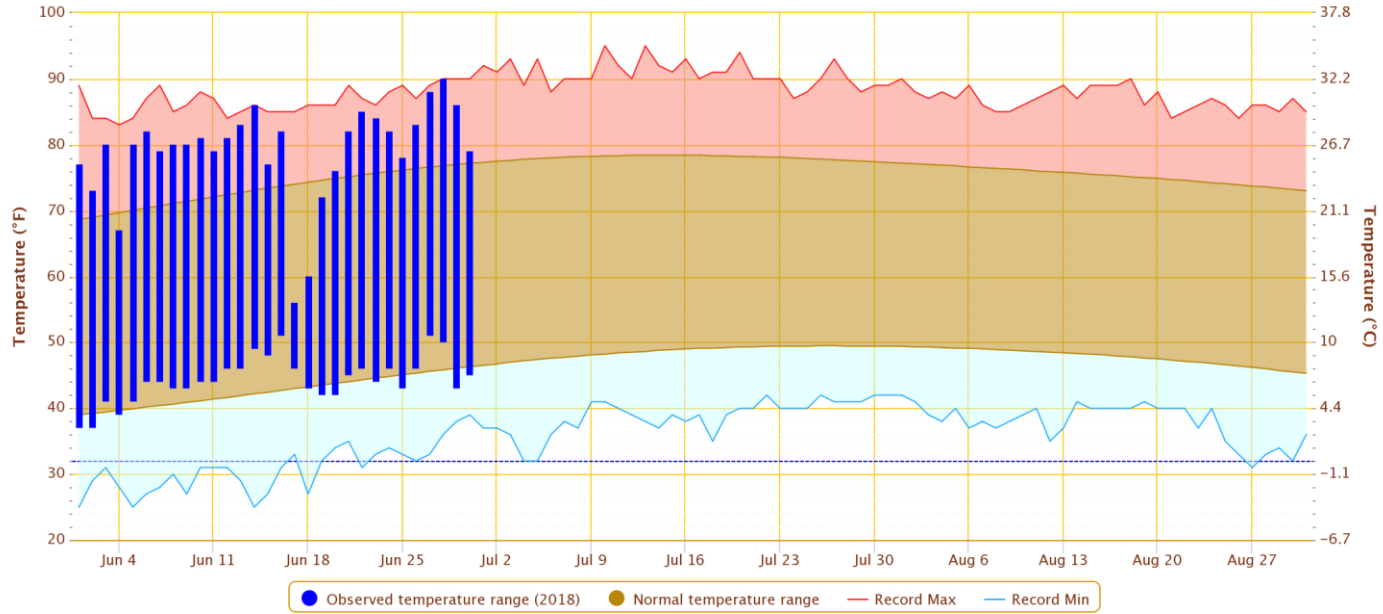
Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values



Powered by ACIS

Daily Temperature Data – LEMON DAM, CO

Period of Record – 1982-04-01 to 2018-06-30. Normals period: 1981-2010. Click and drag to zoom chart.

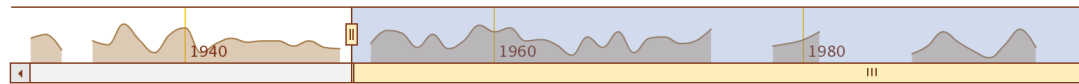
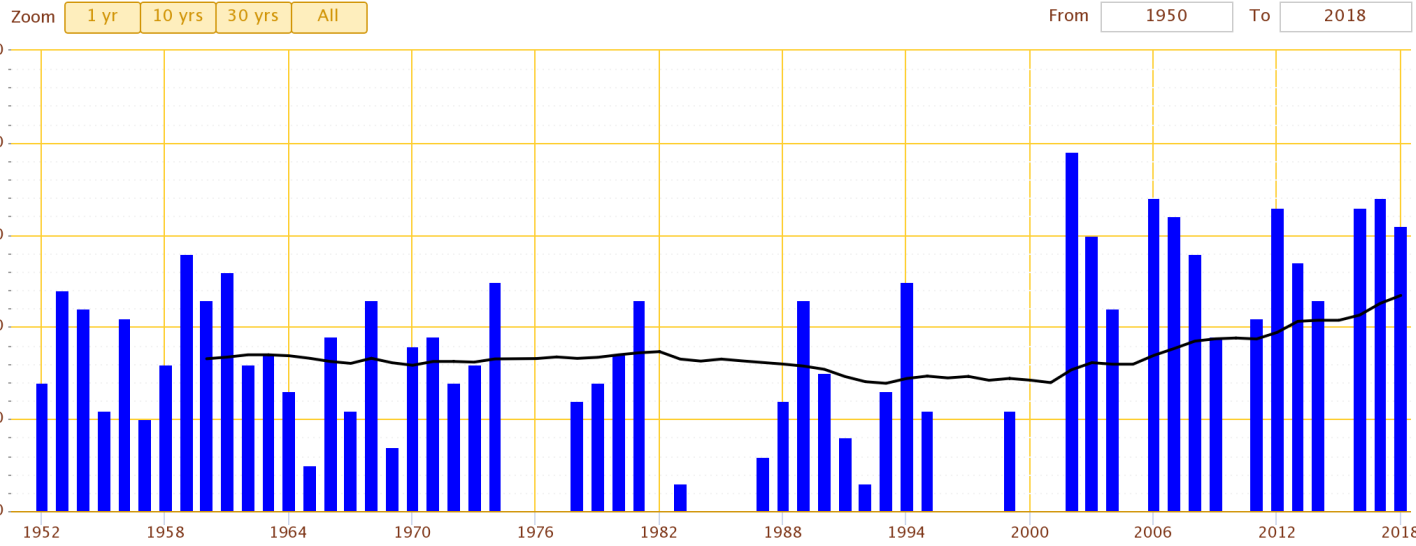


Powered by ACIS



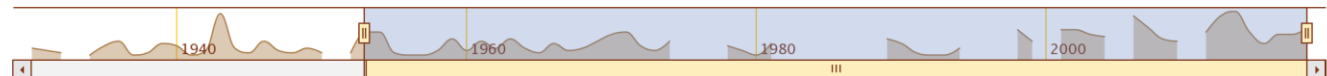
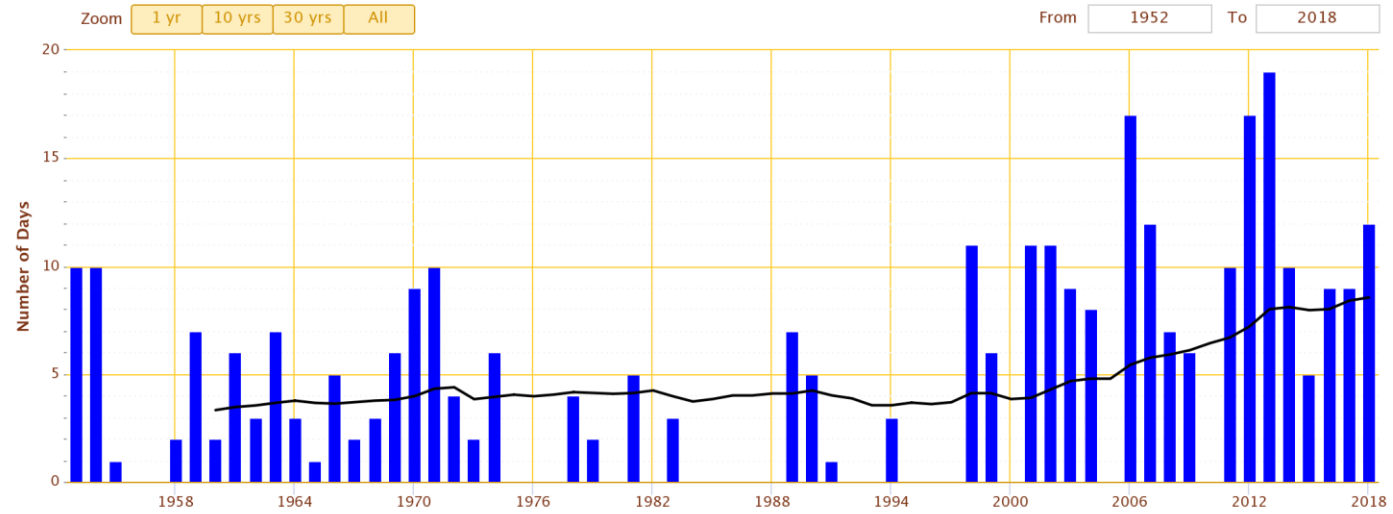
Number of Days Max Temperature ≥ 90 Jan 1 to Jul 22 - CORTEZ, CO

Use navigation tools above and below chart to change displayed range



Number of Days Min Temperature ≥ 60 Jan 1 to Jul 22 - CORTEZ, CO

Use navigation tools above and below chart to change displayed range



Powered by ACIS

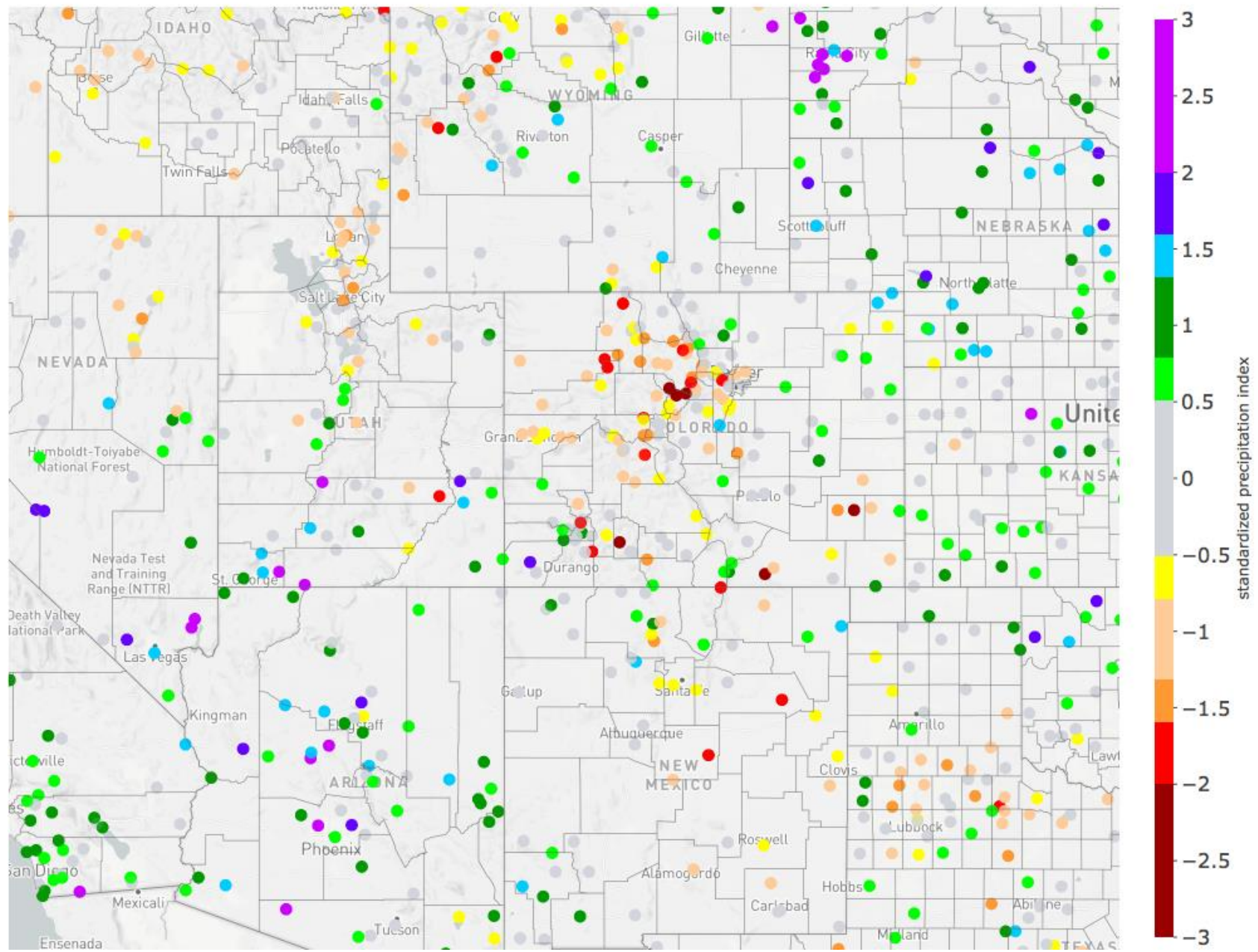




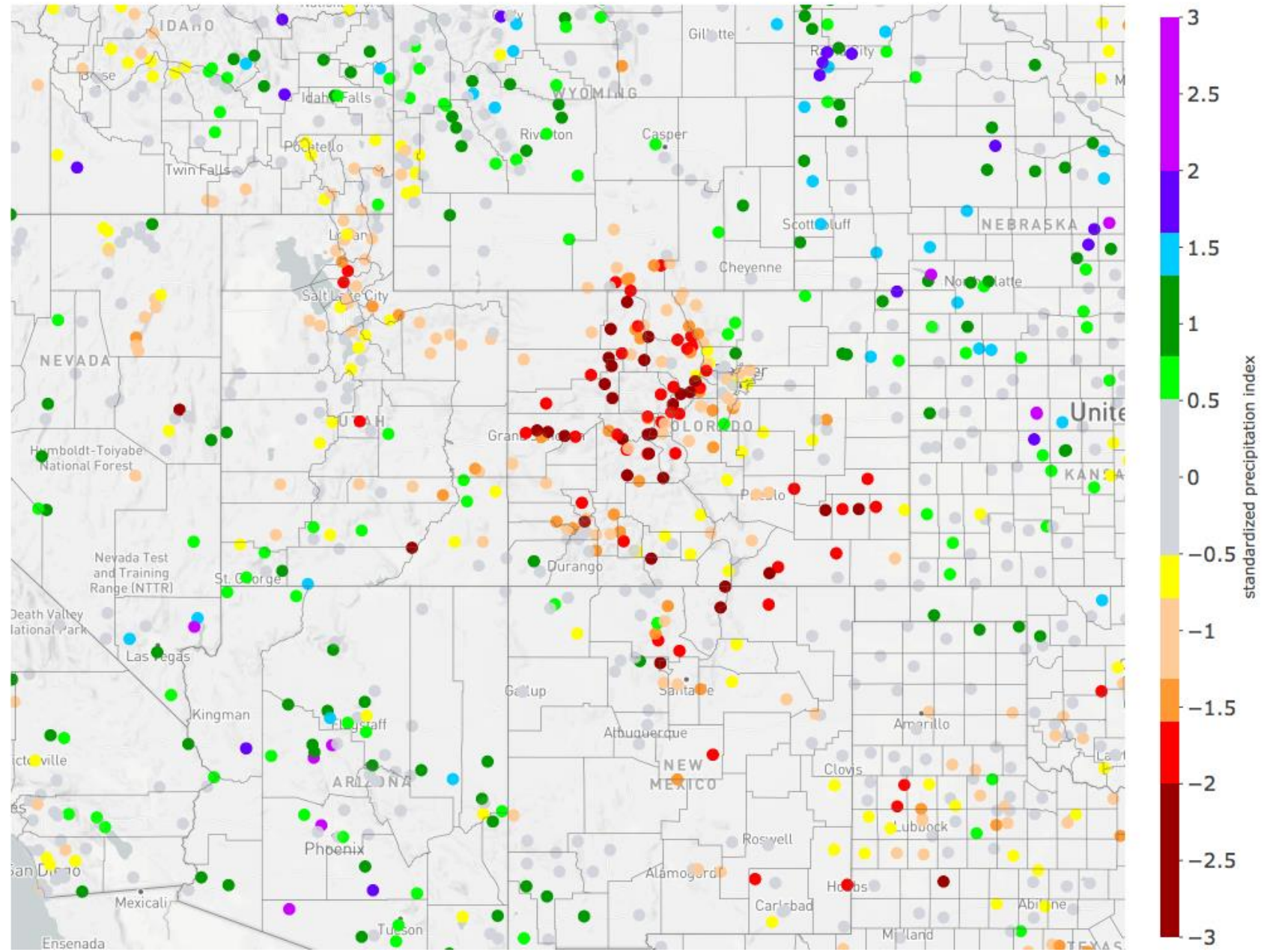
Colorado Drought



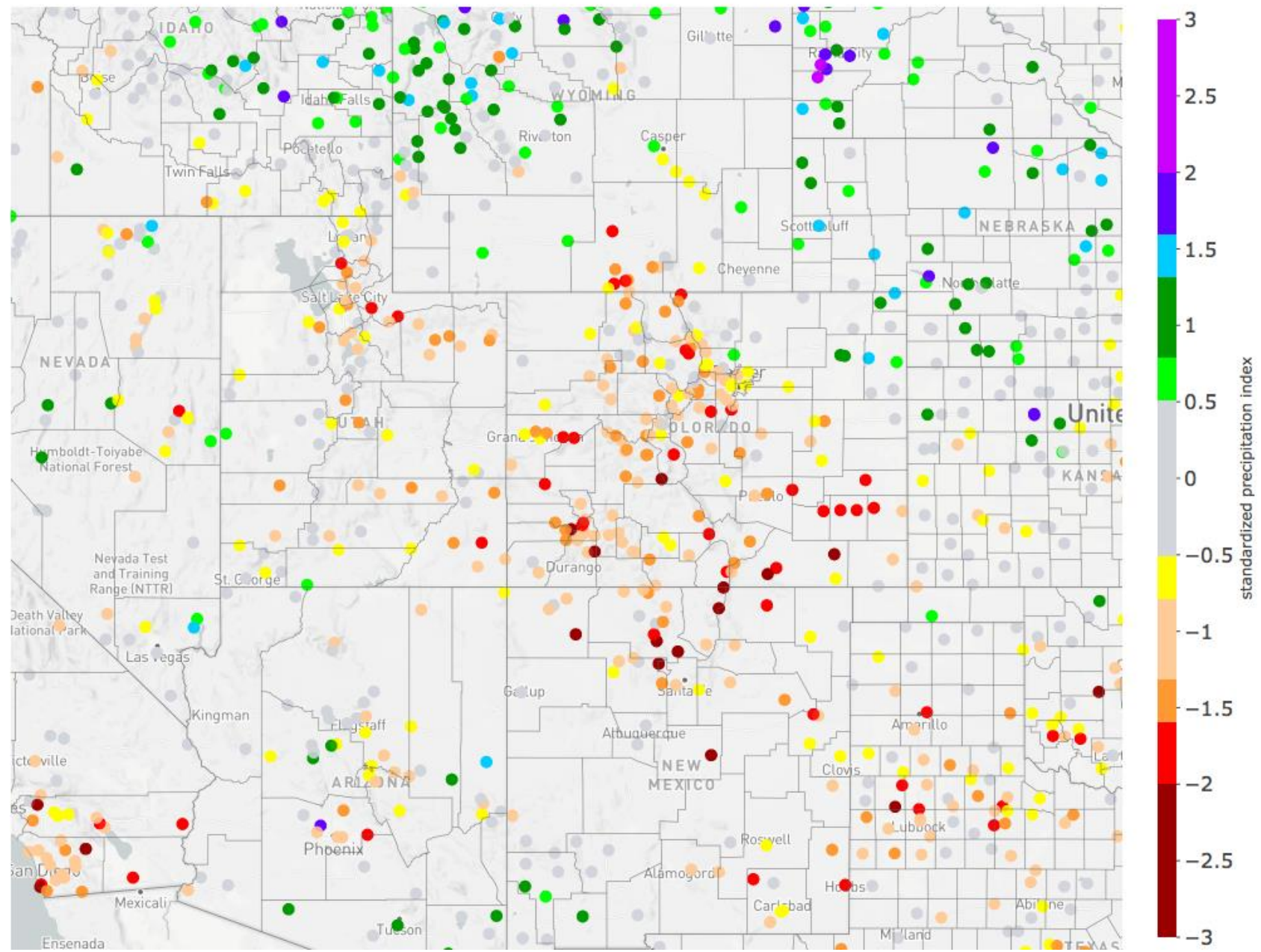
30-day Standardized Precipitation Index



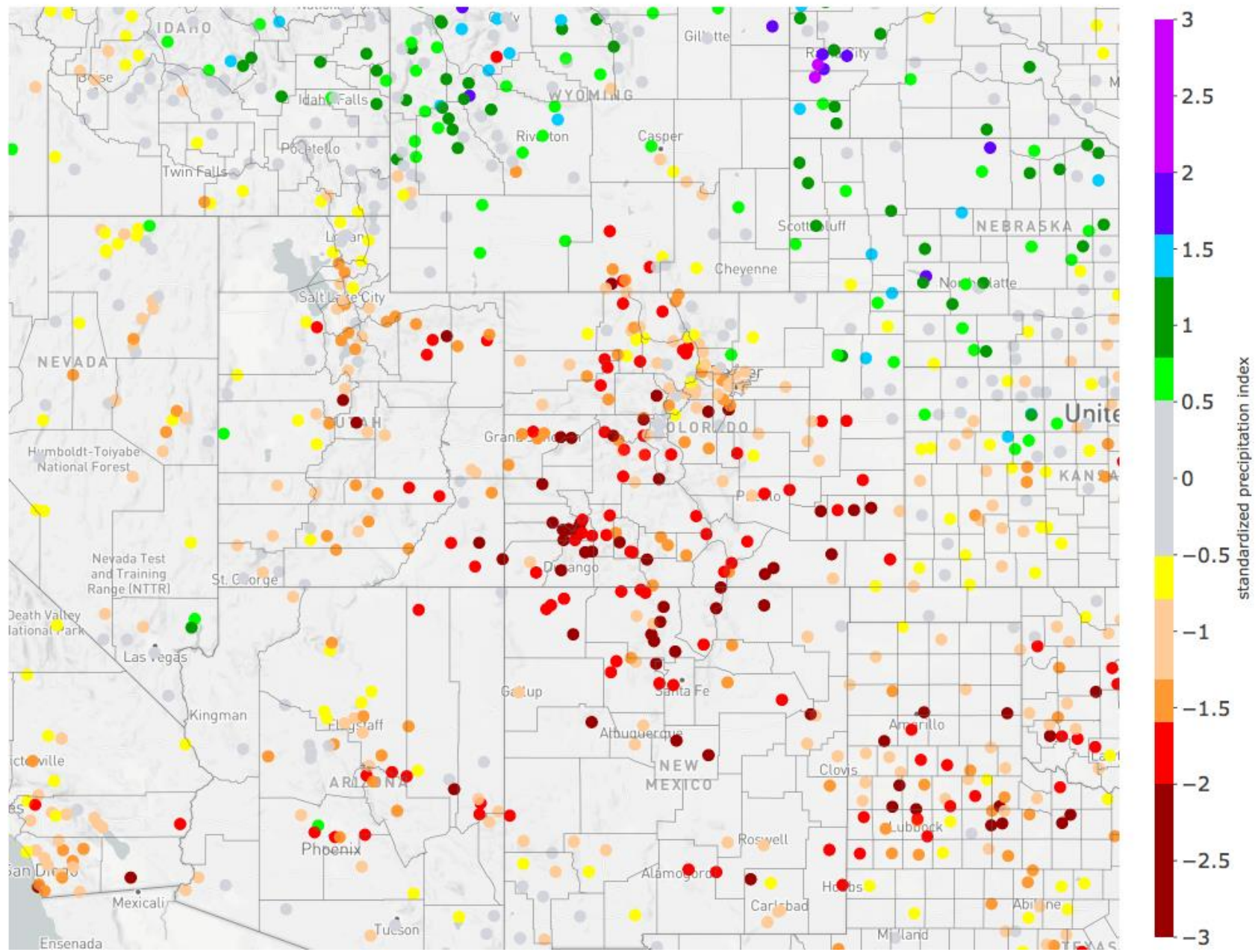
90-day Standardized Precipitation Index



6-month Standardized Precipitation Index

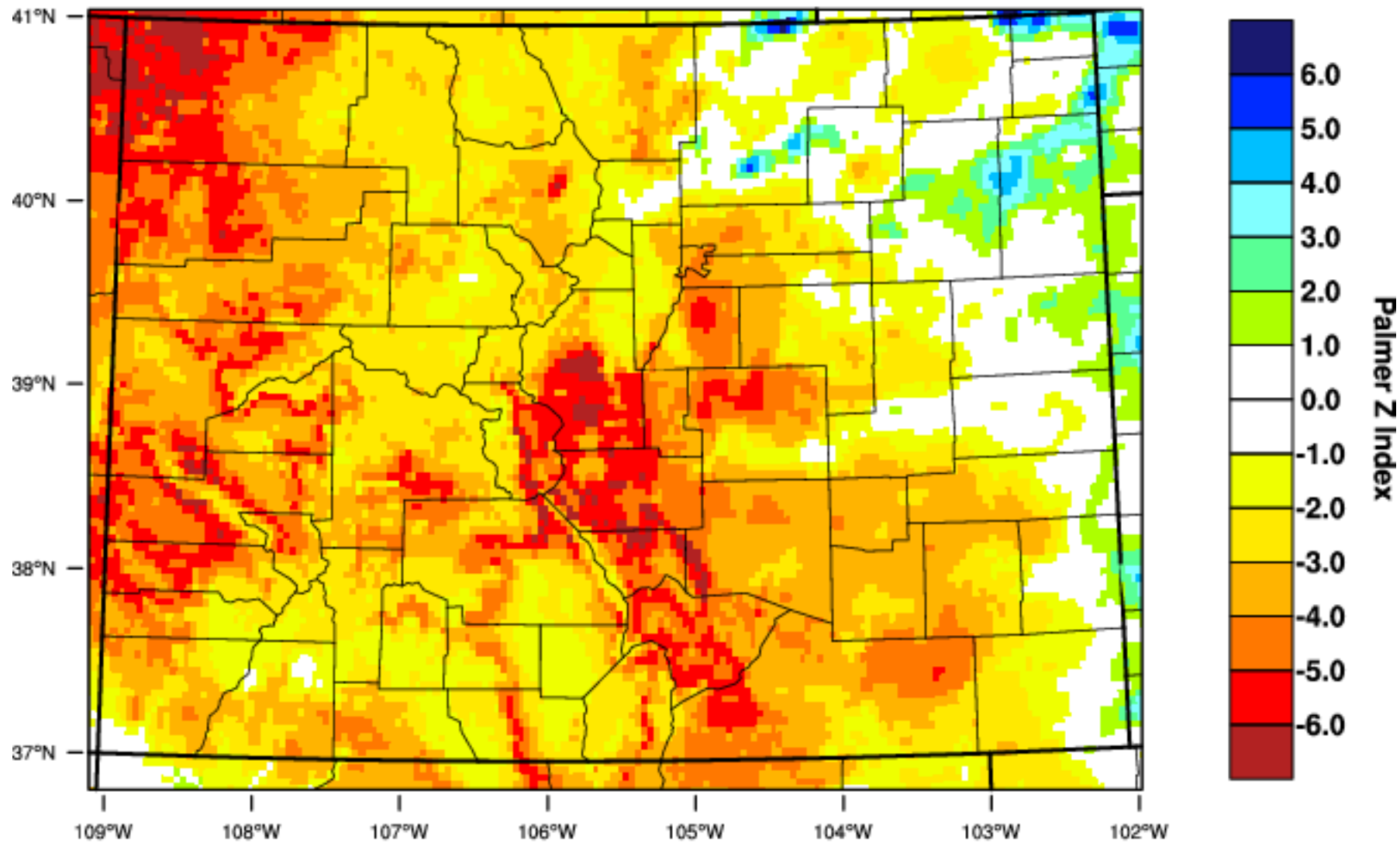


9-month Standardized Precipitation Index



Colorado - Palmer Z-Index

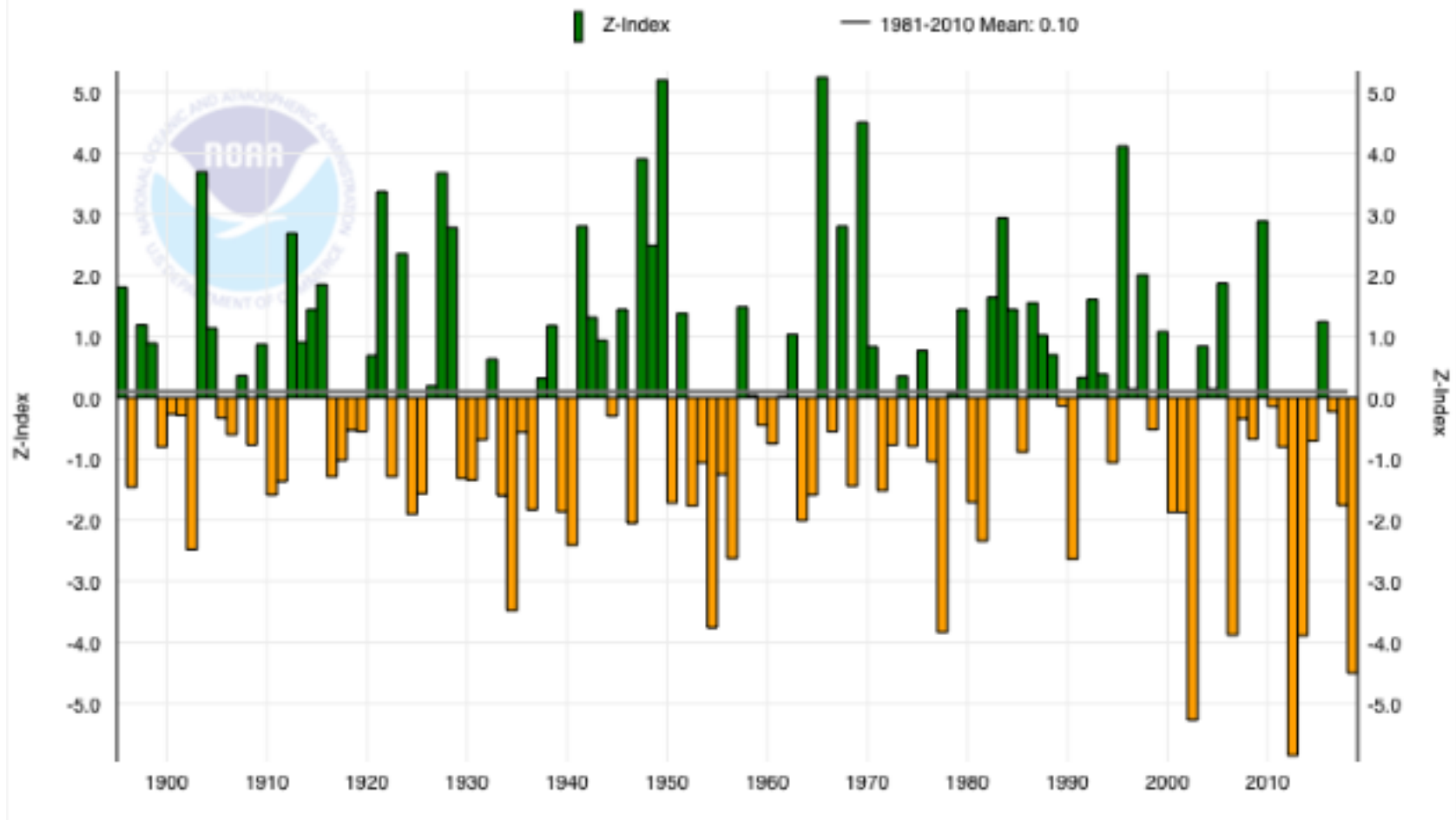
June 2018



WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 16 JUL 2018

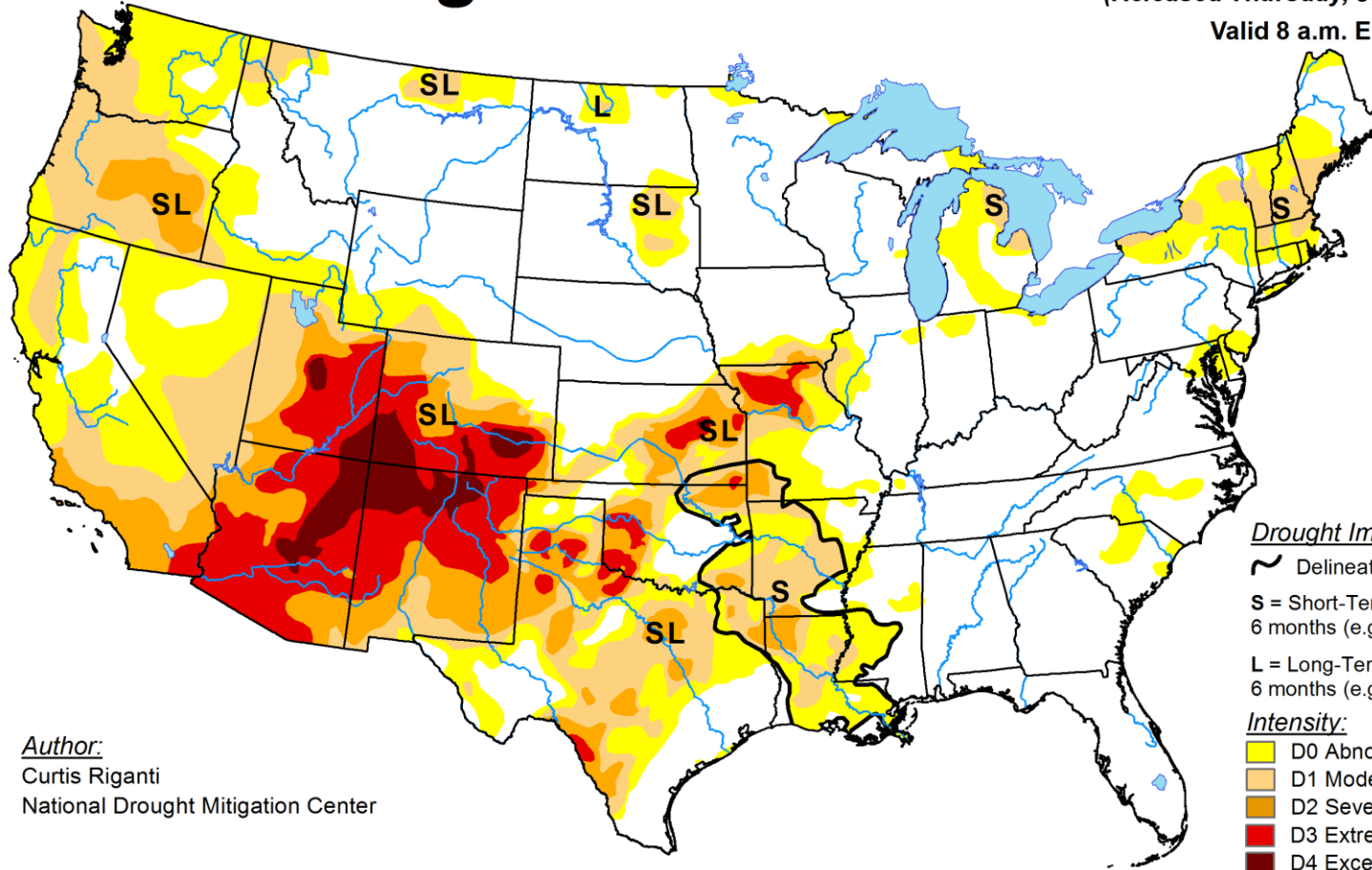


Colorado, Palmer Z-Index, June



U.S. Drought Monitor

July 17, 2018
(Released Thursday, Jul. 19, 2018)
Valid 8 a.m. EDT



Author:
Curtis Riganti
National Drought Mitigation Center

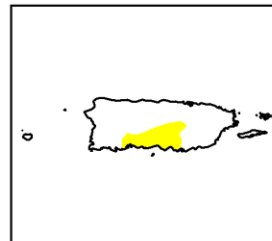
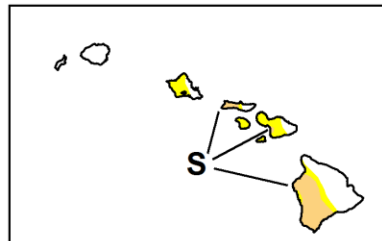
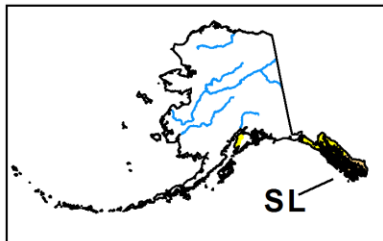
Drought Impact Types:

- ~ 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.

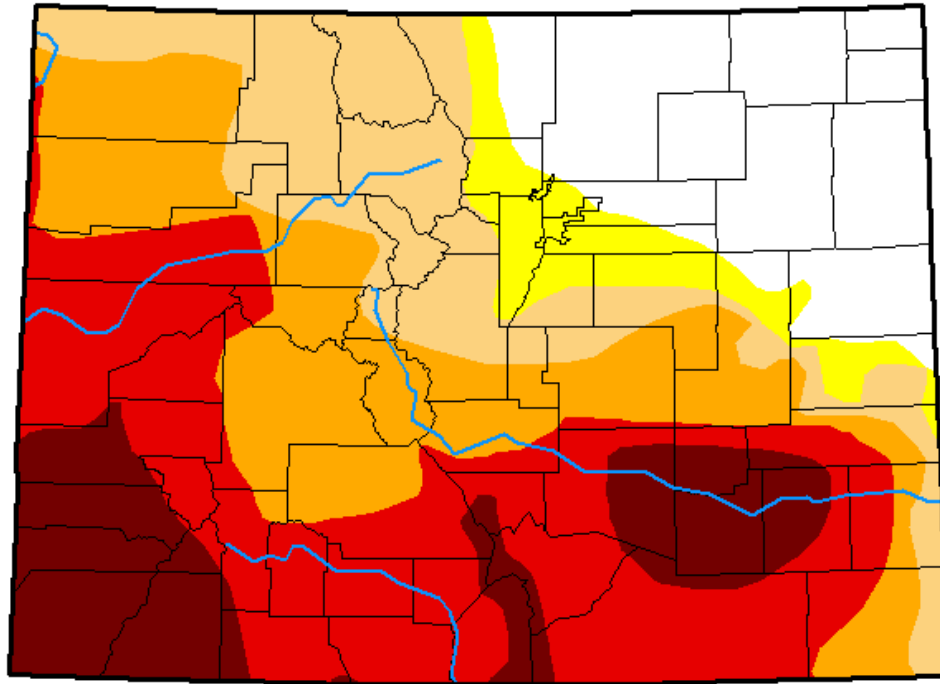


<http://droughtmonitor.unl.edu/>



U.S. Drought Monitor Colorado

July 17, 2018
(Released Thursday, Jul. 19, 2018)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	17.50	82.50	76.96	60.62	40.08	13.32
Last Week <i>07-10-2018</i>	17.50	82.50	77.11	60.62	40.08	13.32
3 Months Ago <i>04-17-2018</i>	15.74	84.26	69.17	53.65	24.42	3.87
Start of Calendar Year <i>01-02-2018</i>	6.57	93.43	33.53	7.27	0.00	0.00
Start of Water Year <i>09-26-2017</i>	67.63	32.37	3.72	0.00	0.00	0.00
One Year Ago <i>07-18-2017</i>	64.47	35.53	0.00	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:

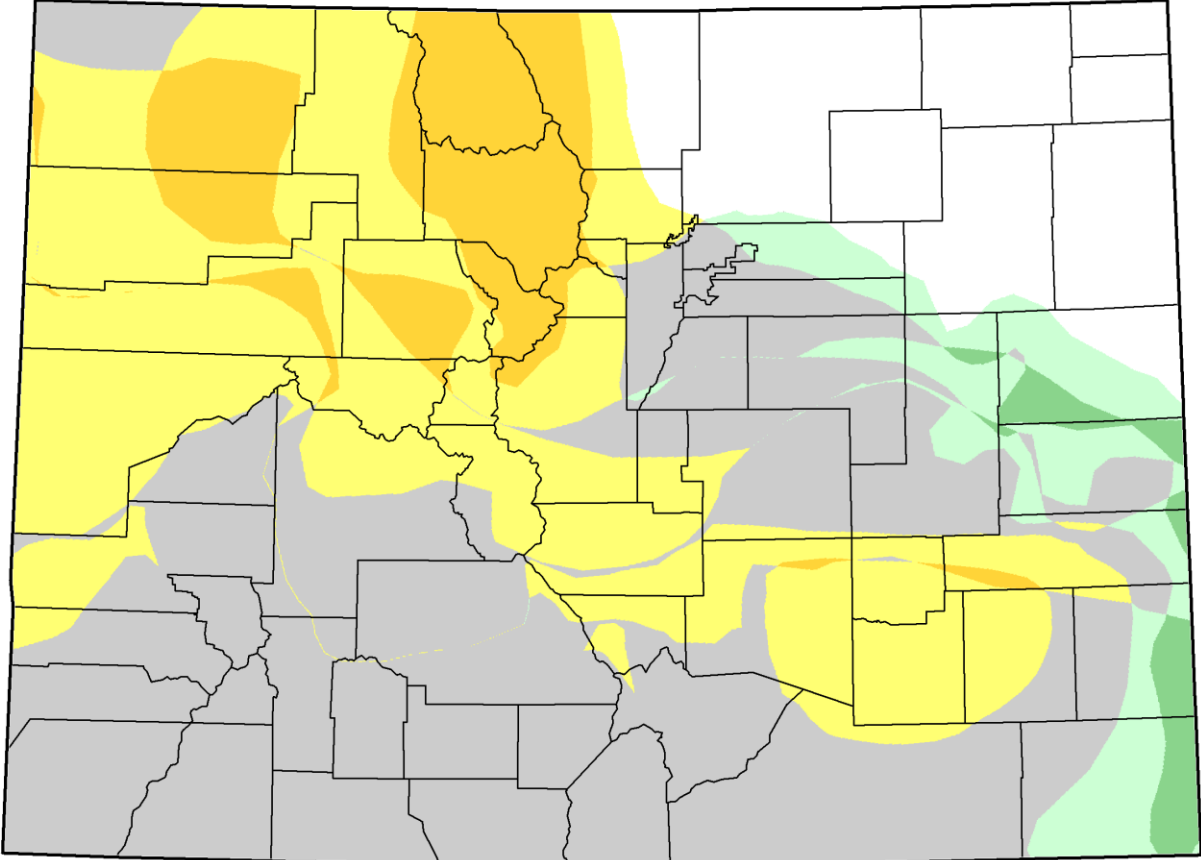
Curtis Riganti
National Drought Mitigation Center














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



U.S. Drought Monitor Class Change - Colorado 2 Months

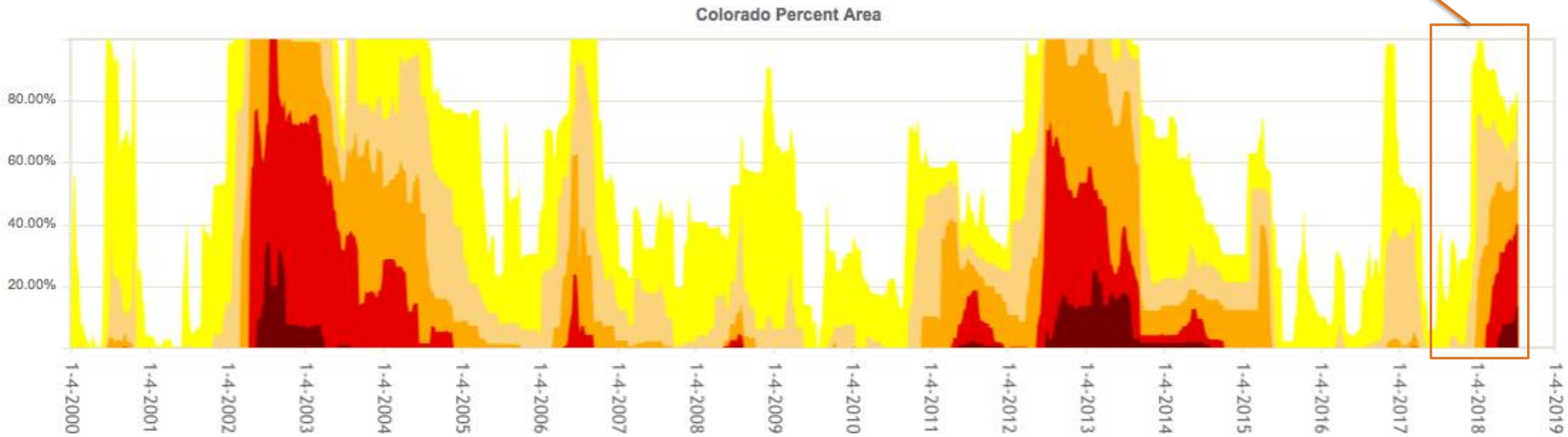
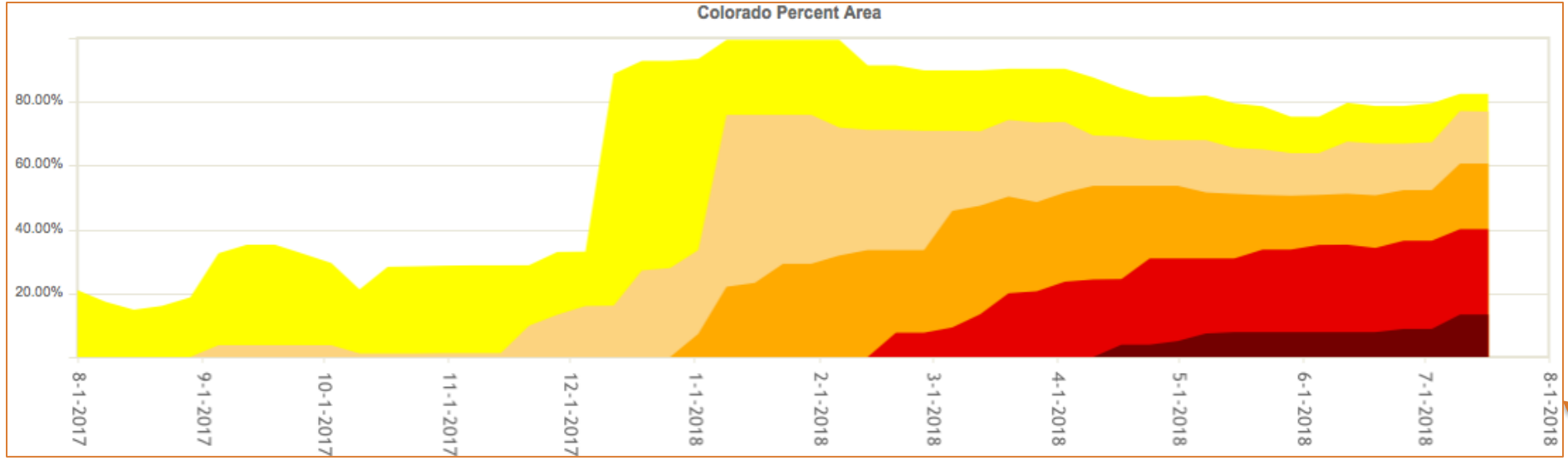


-  5 Class Degradation
-  4 Class Degradation
-  3 Class Degradation
-  2 Class Degradation
-  1 Class Degradation
-  No Change
-  1 Class Improvement
-  2 Class Improvement
-  3 Class Improvement
-  4 Class Improvement
-  5 Class Improvement

July 17, 2018
compared to
May 22, 2018

<http://droughtmonitor.unl.edu>

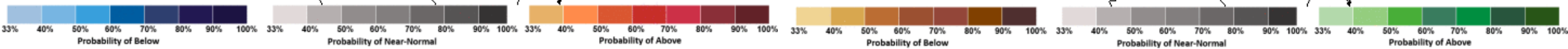
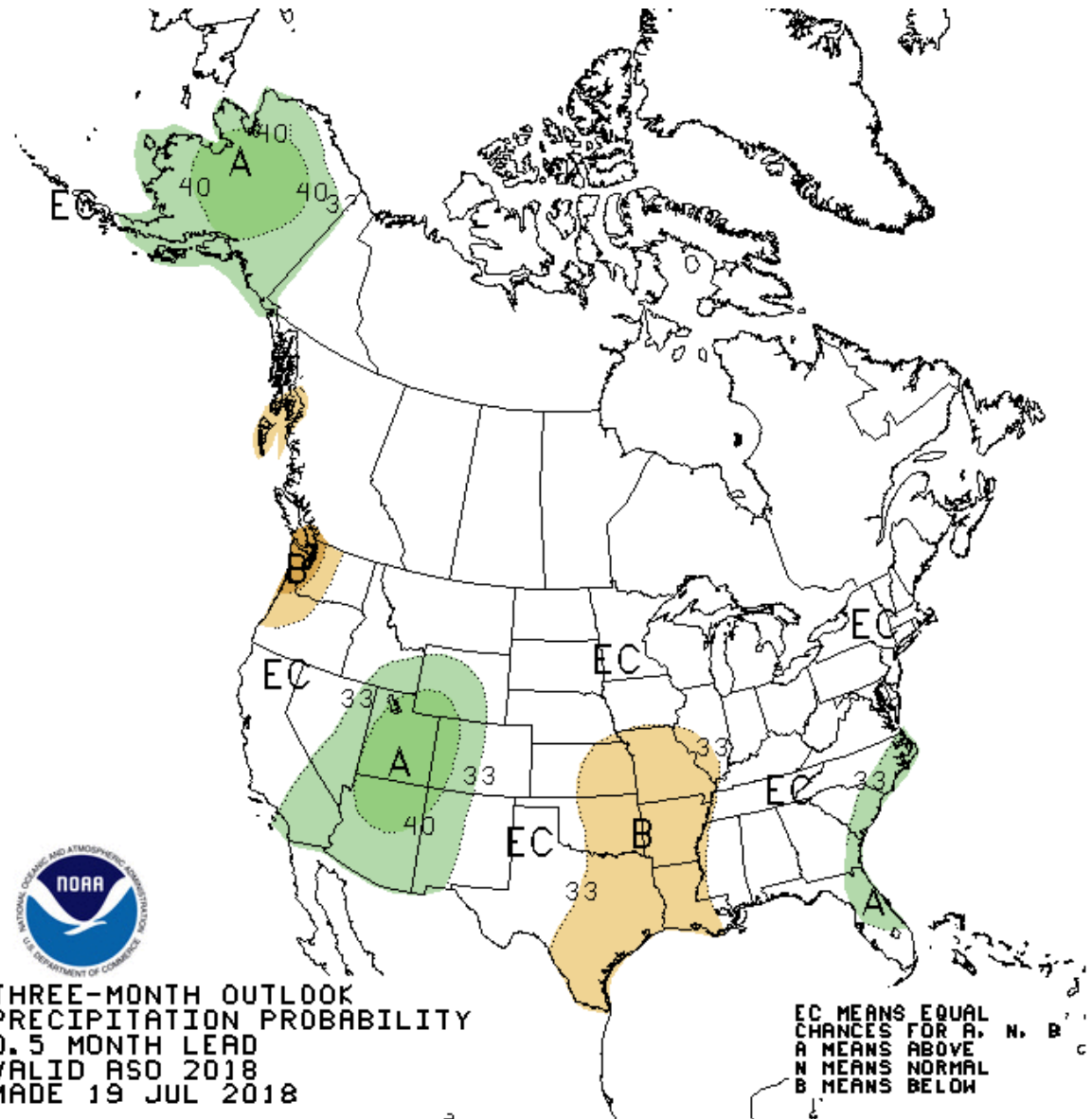
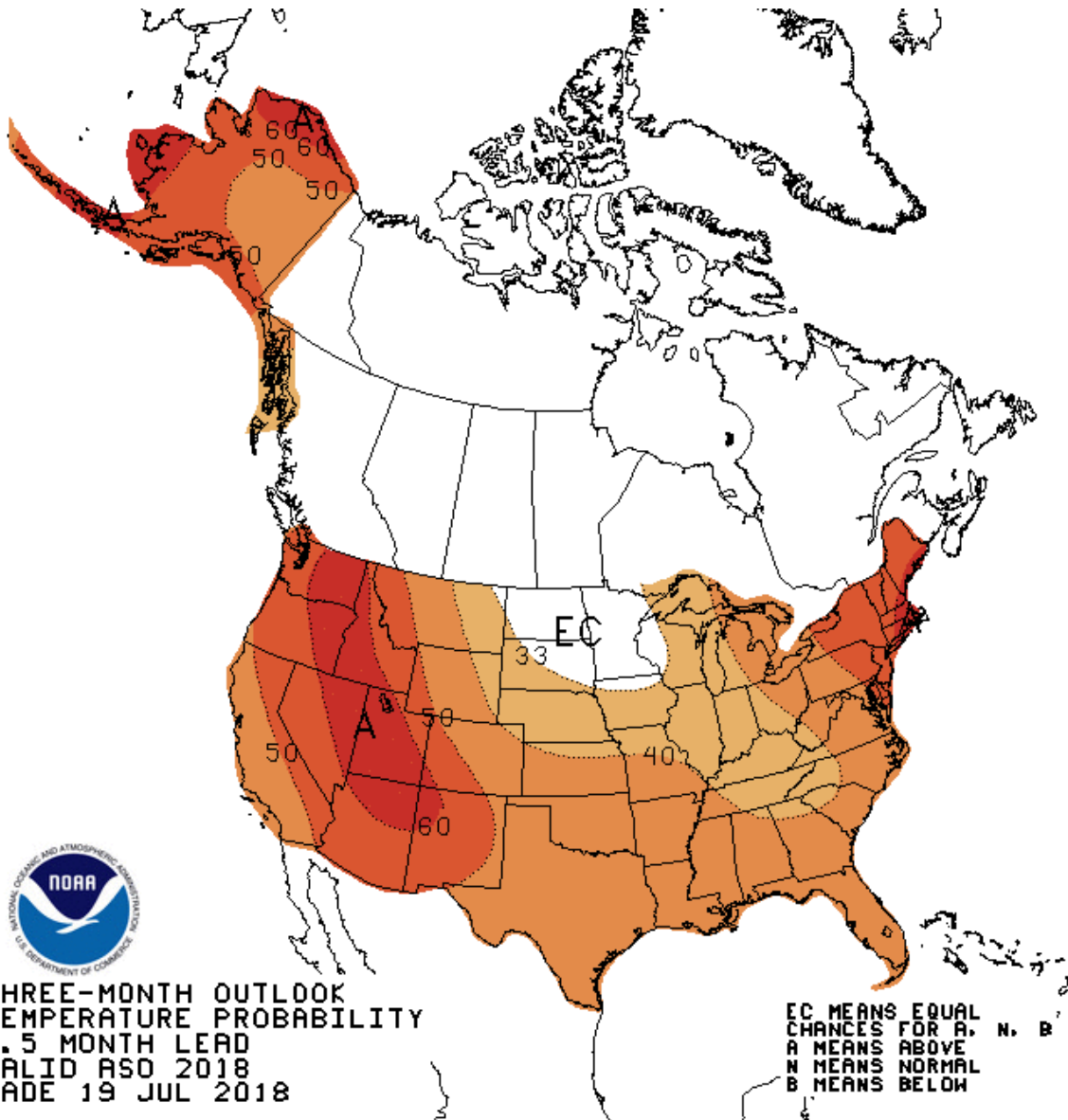




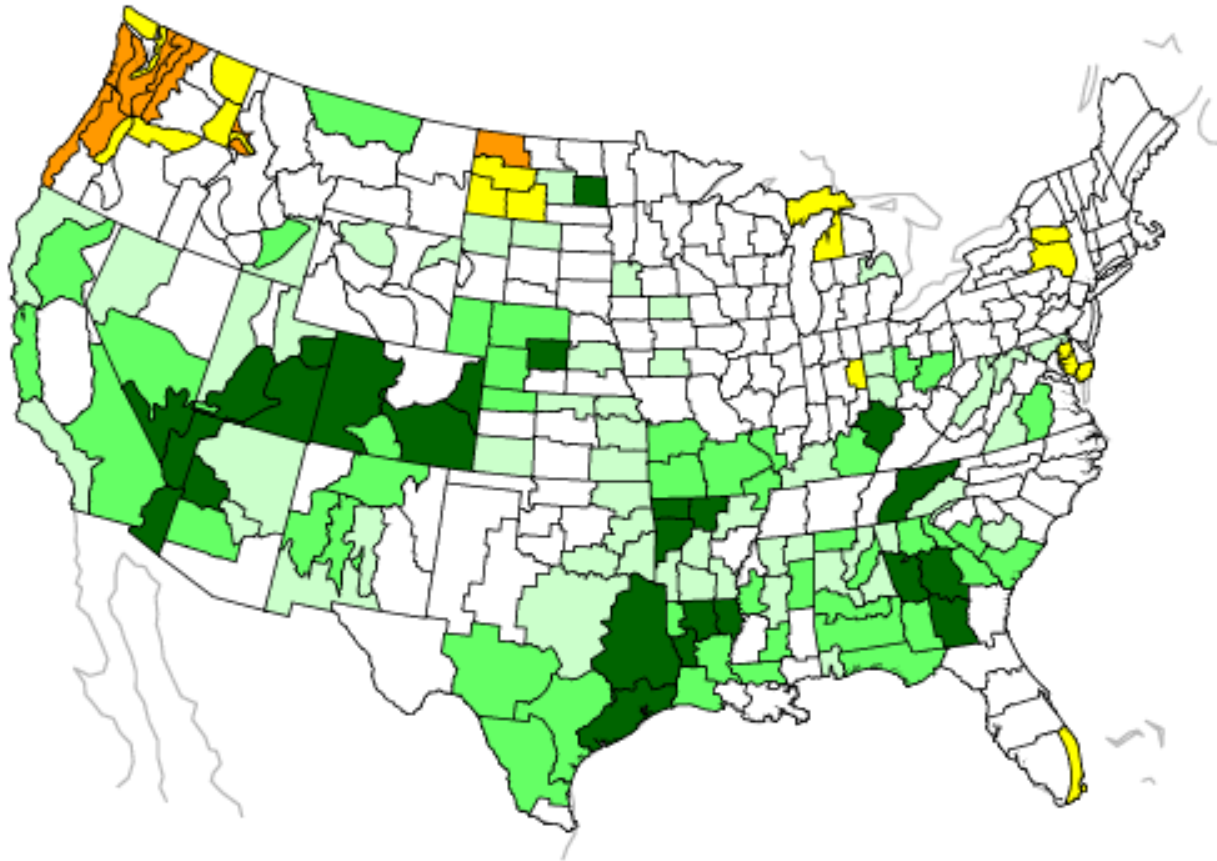


Outlook





SON Precipitation During El Niño
Increased Risk of Wet or Dry Extremes



Percent (%) Increase in Risk

NOAA/ESRL/PSD

El Niño Watch Issued

*What can El Niño
mean for Colorado?*



Becky.Bolinger@colostate.edu

**To view this and other presentations:
http://climate.colostate.edu/ccc_archive.html**

Thank you



Colorado State University