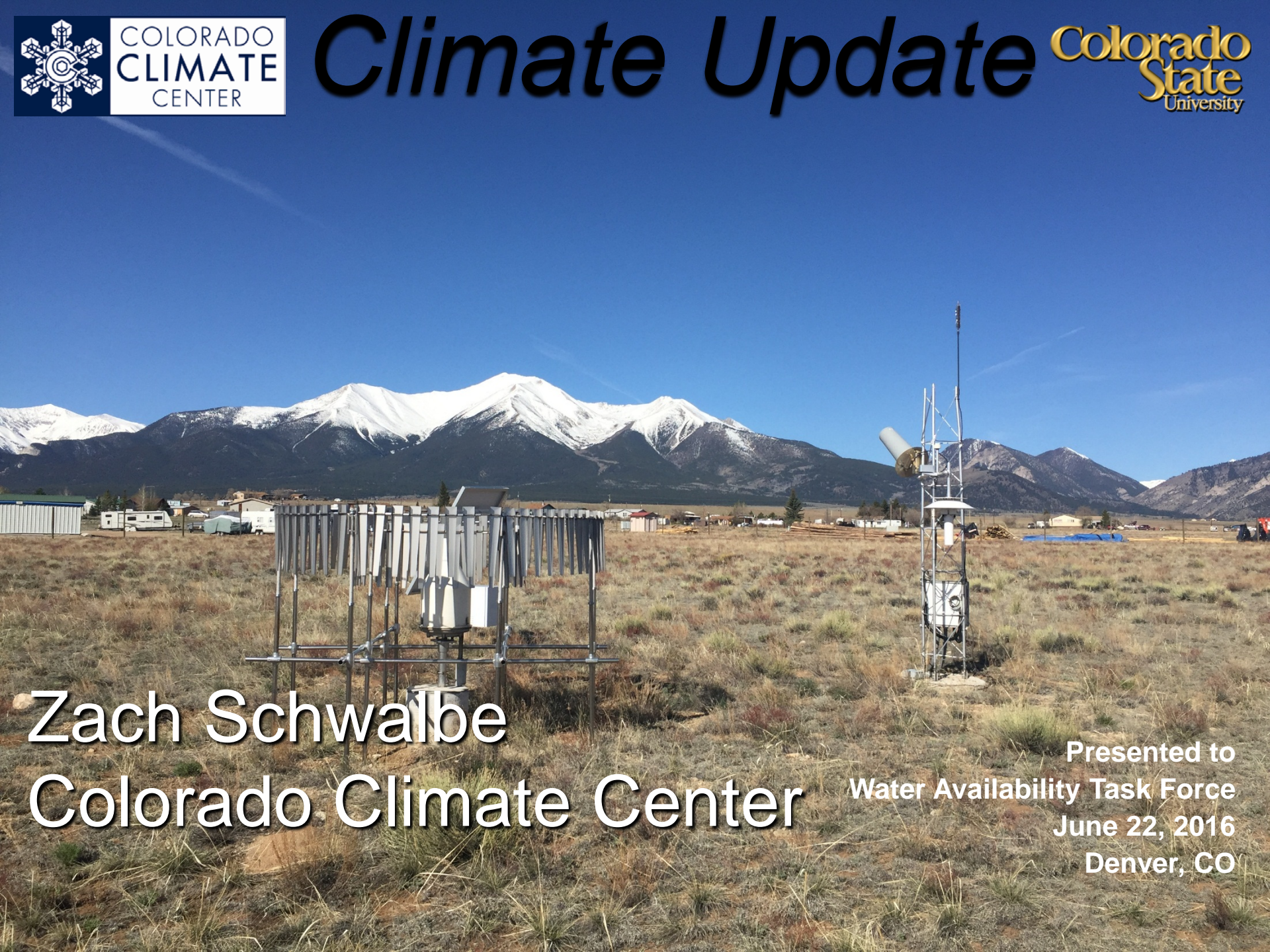




Climate Update

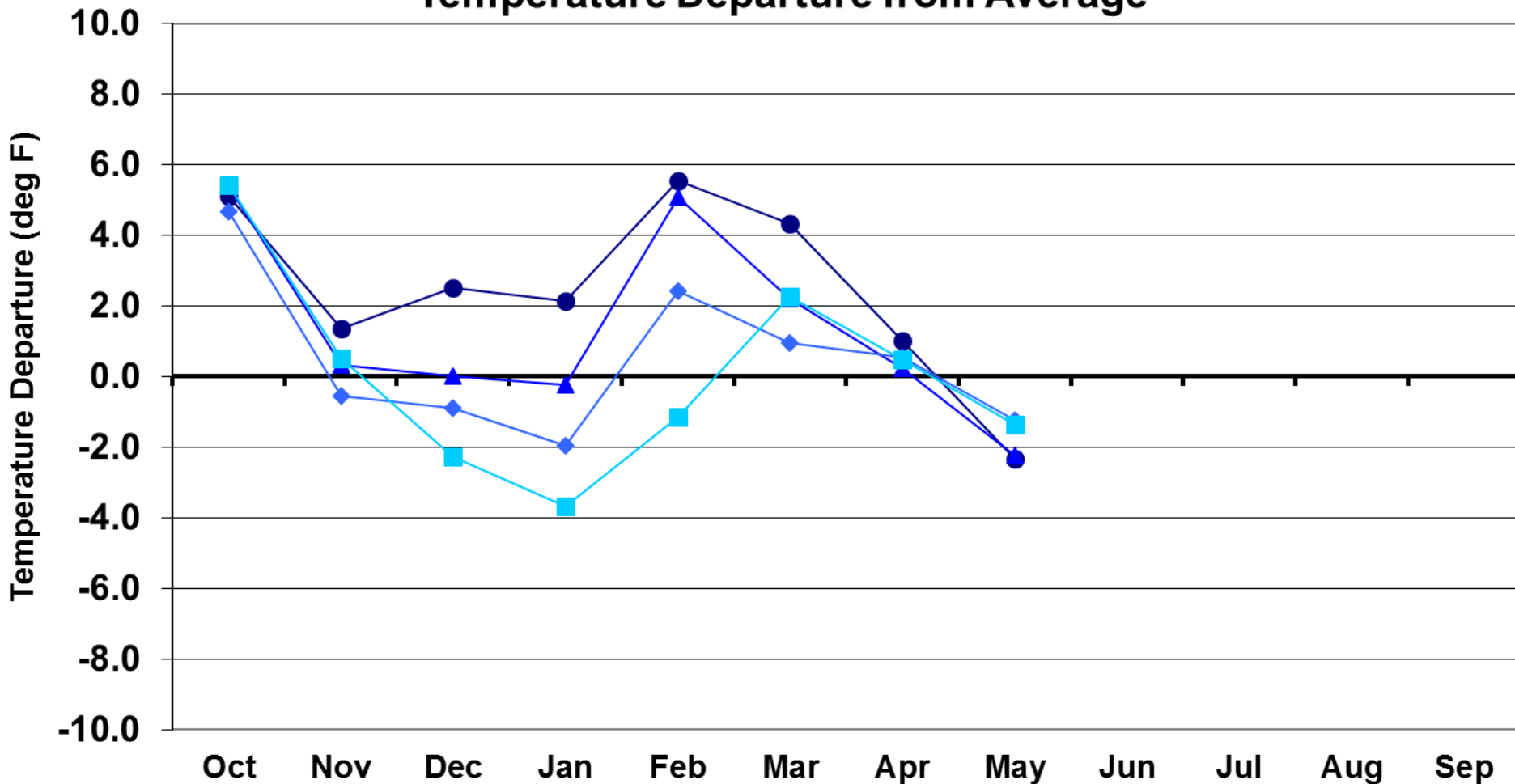


Zach Schwalbe
Colorado Climate Center

Presented to
Water Availability Task Force
June 22, 2016
Denver, CO

Water Year 2016 Temperature Departures

Water Year 2016
Temperature Departure from Average



● Eastern Plains

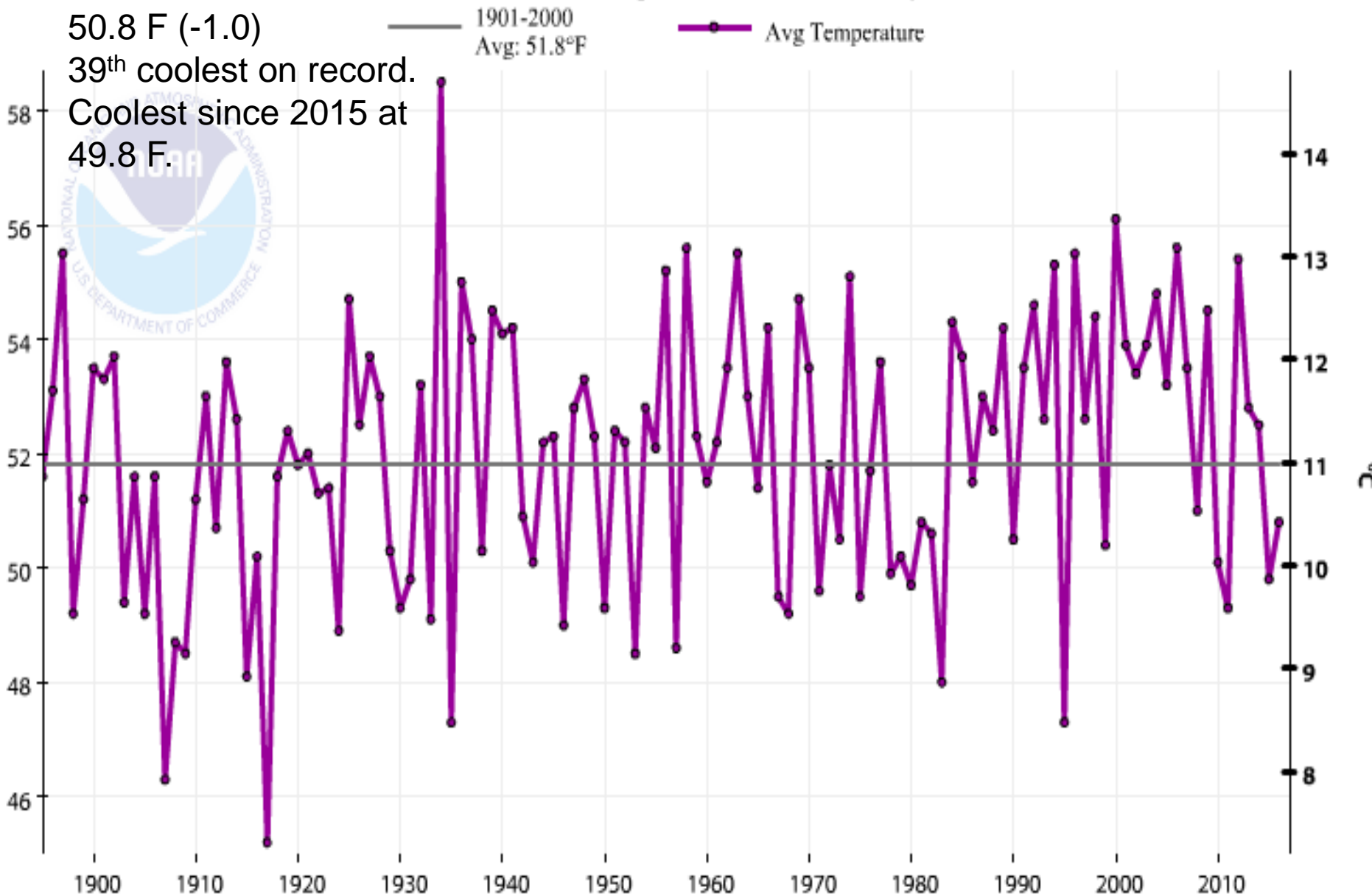
▲ Foothills

◆ Mountains

■ Western Valleys

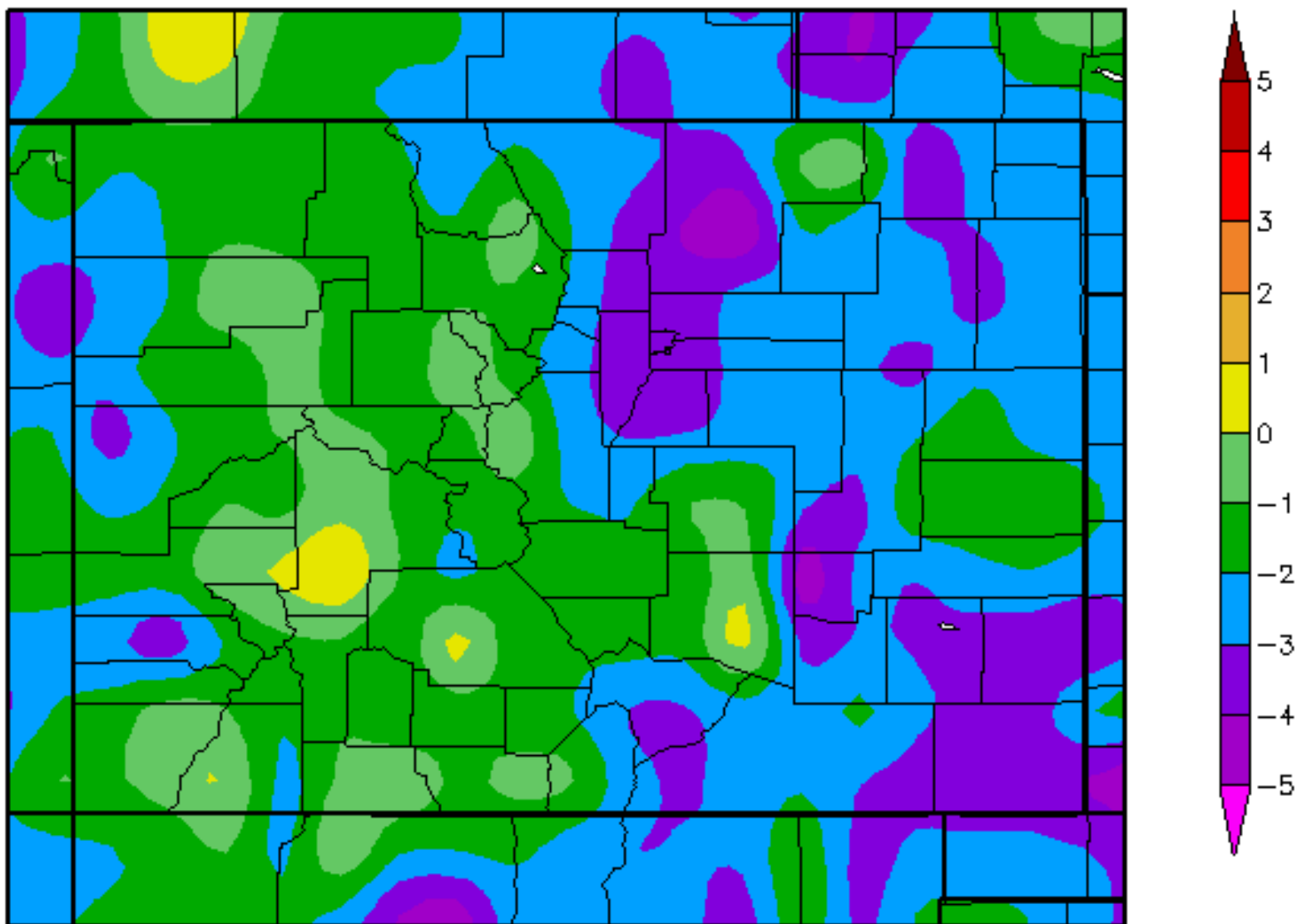
May 2016 Average Temperature History for Colorado (NCEI)

Colorado, Average Temperature, May



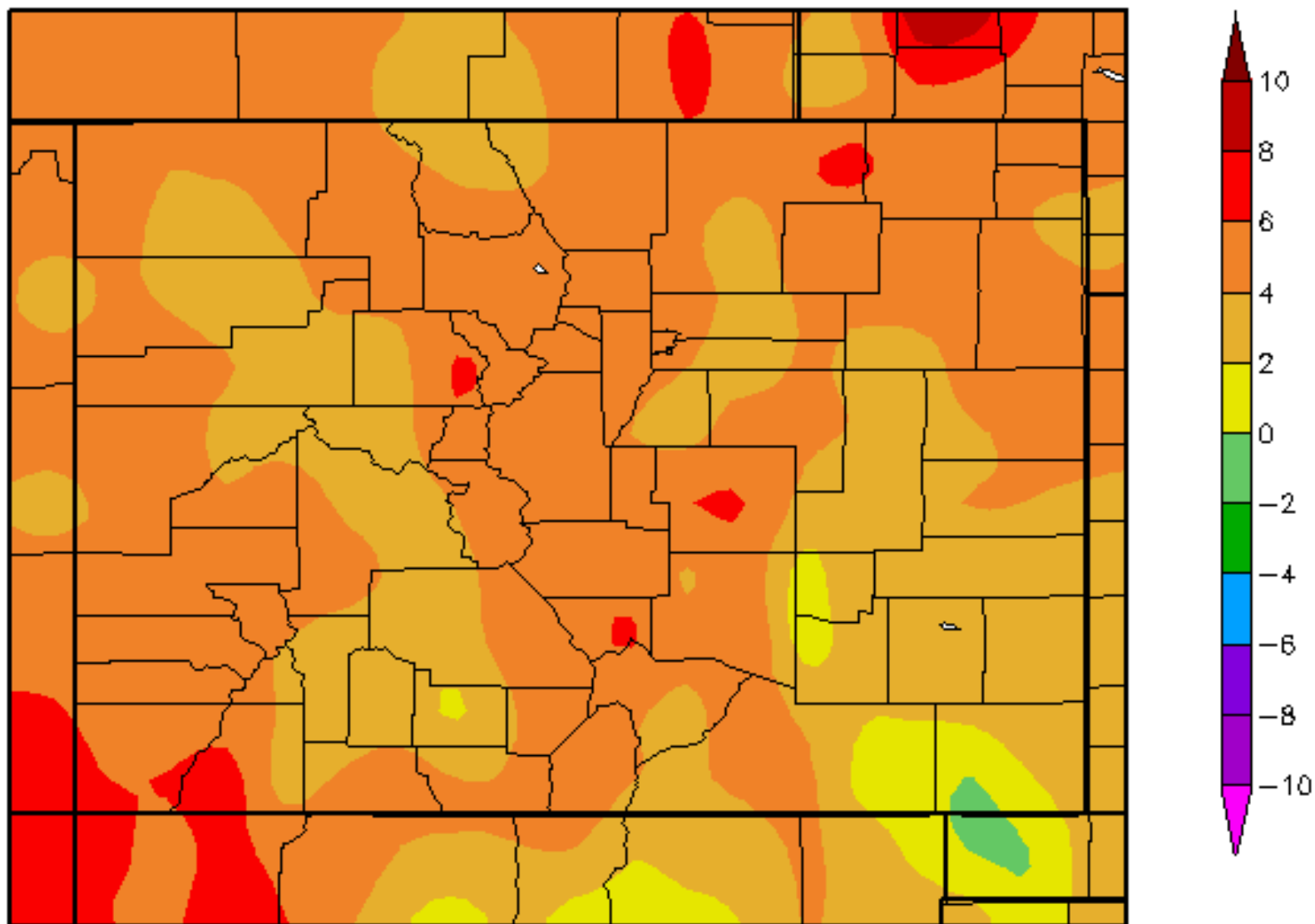
Departure from Normal Temperature (F)

5/1/2016 – 5/31/2016



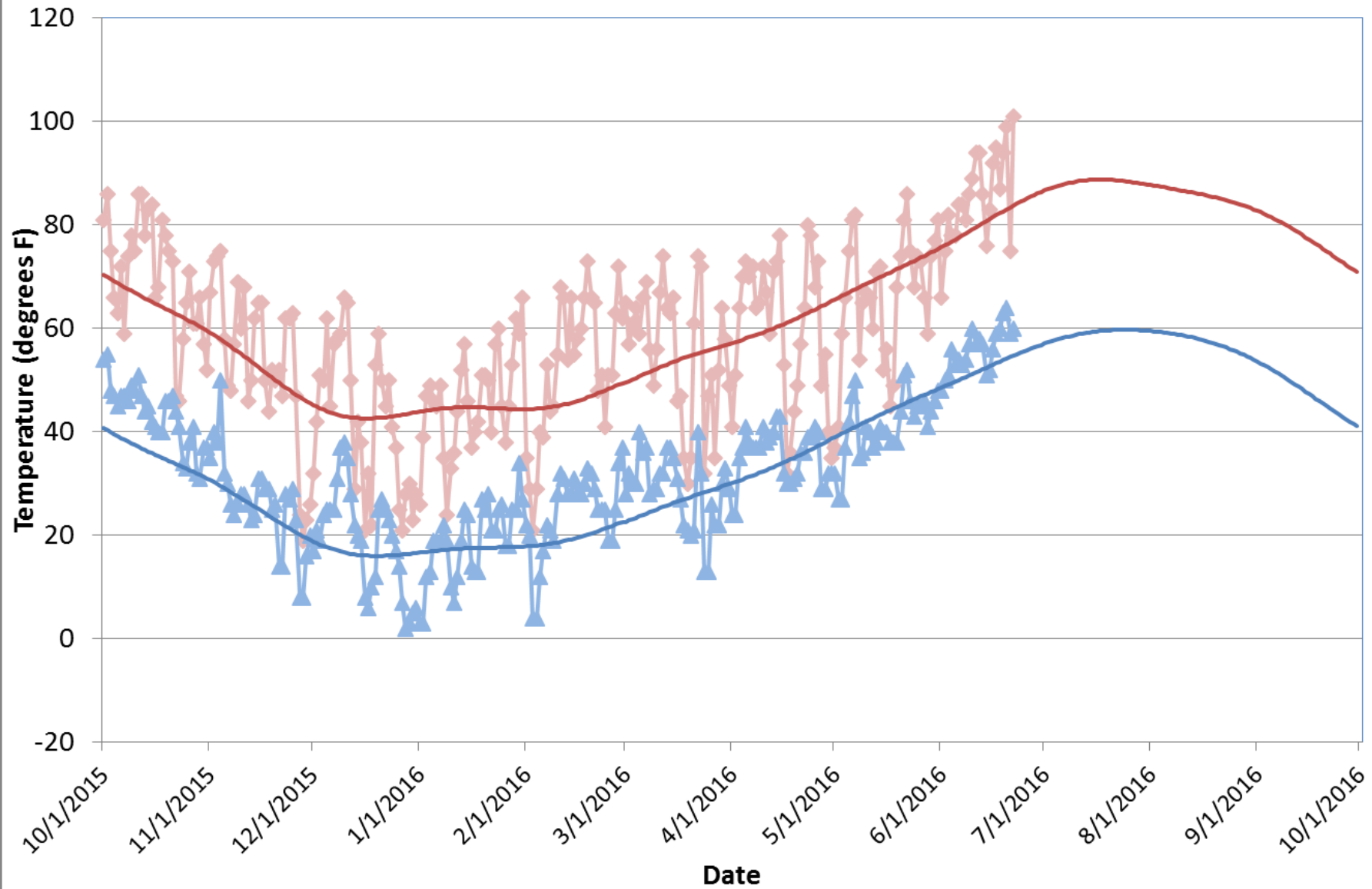
Departure from Normal Temperature (F)

6/1/2016 - 6/21/2016



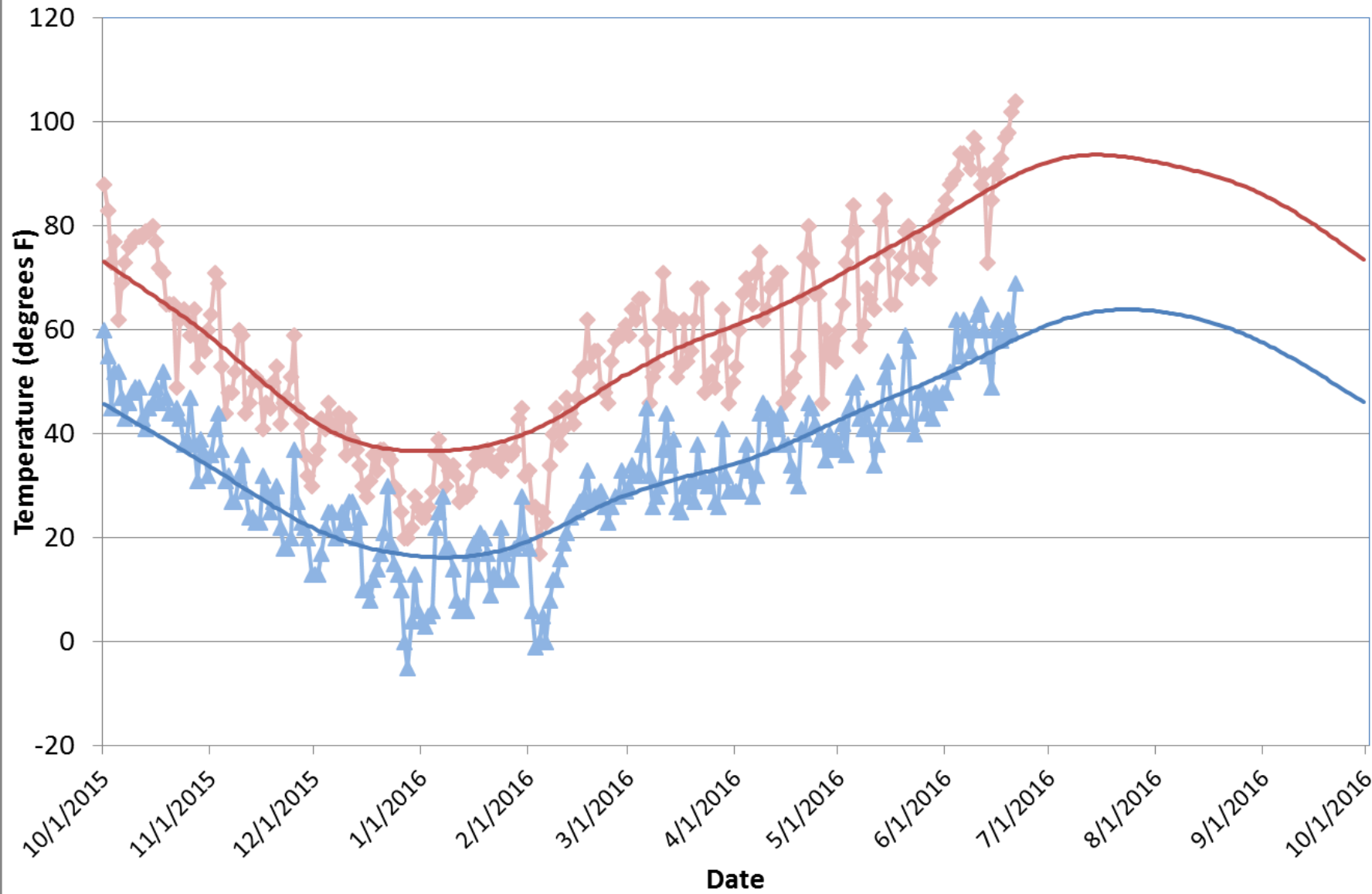
Denver-Stapleton Daily Max/Min Temperatures with Normals, Water Year 2016

Max Temperature Normal Max Temp Min Temperature Normal Min Temp

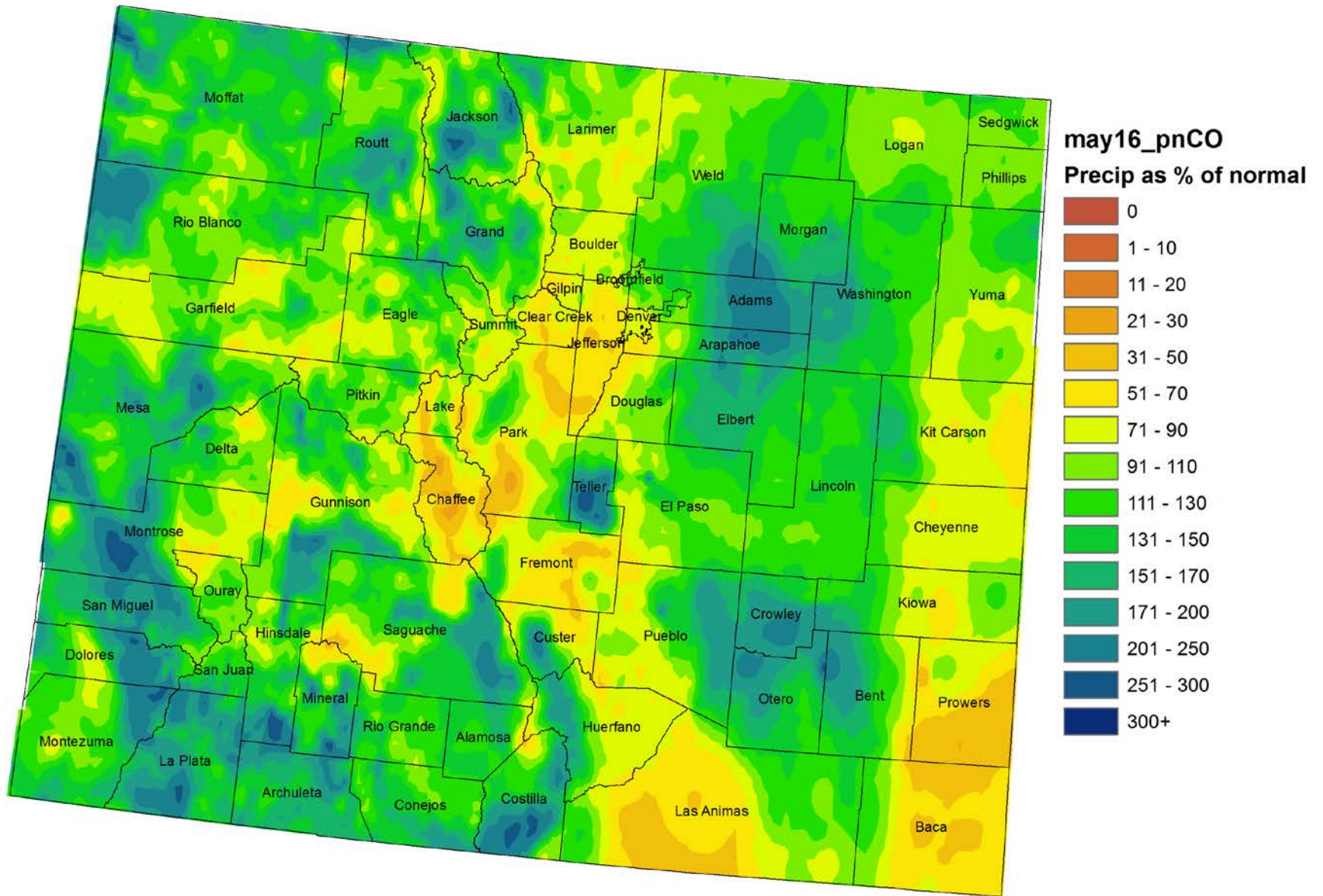


Grand Junction Daily Max/Min Temperature with Normals, WY 2016

Max Temperature Normal Max Temp Min Temperature Normal Min Temp



Colorado May 2016 Precipitation as a Percentage of Normal



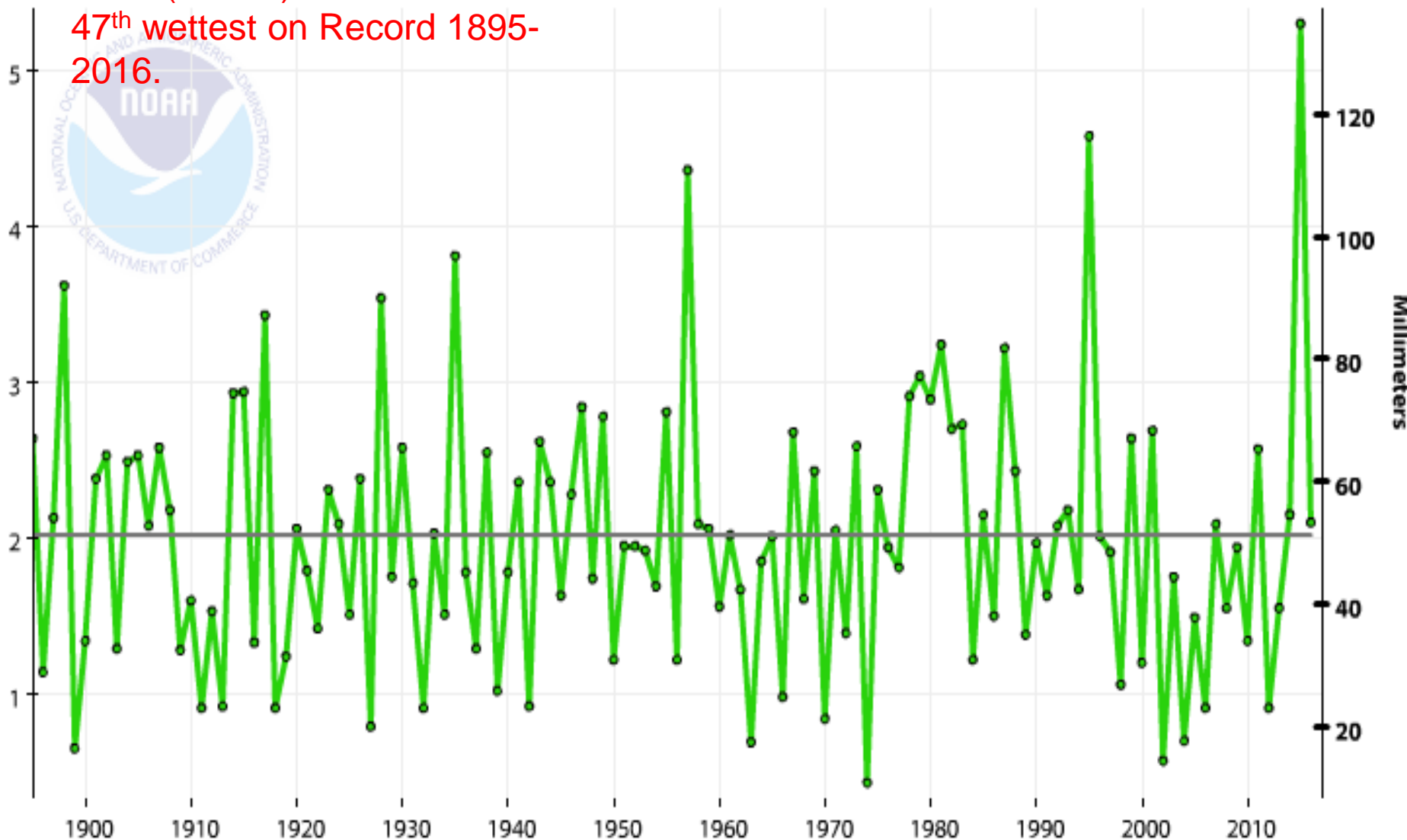
May 2016 Statewide Precipitation

Colorado, Precipitation, May

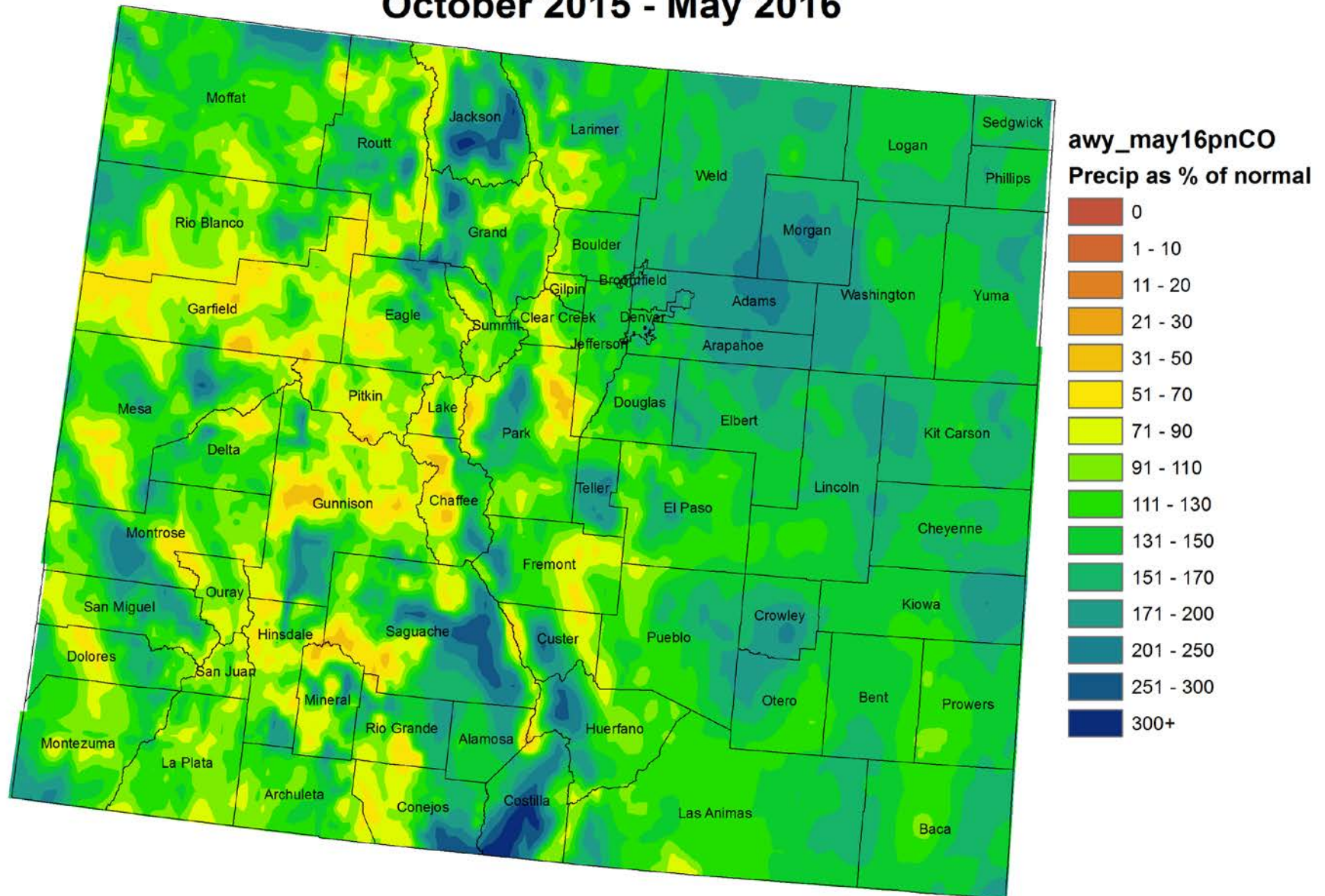
— 1901-2000 Avg: 2.02" —●— Precip

2.10" (+0.08")

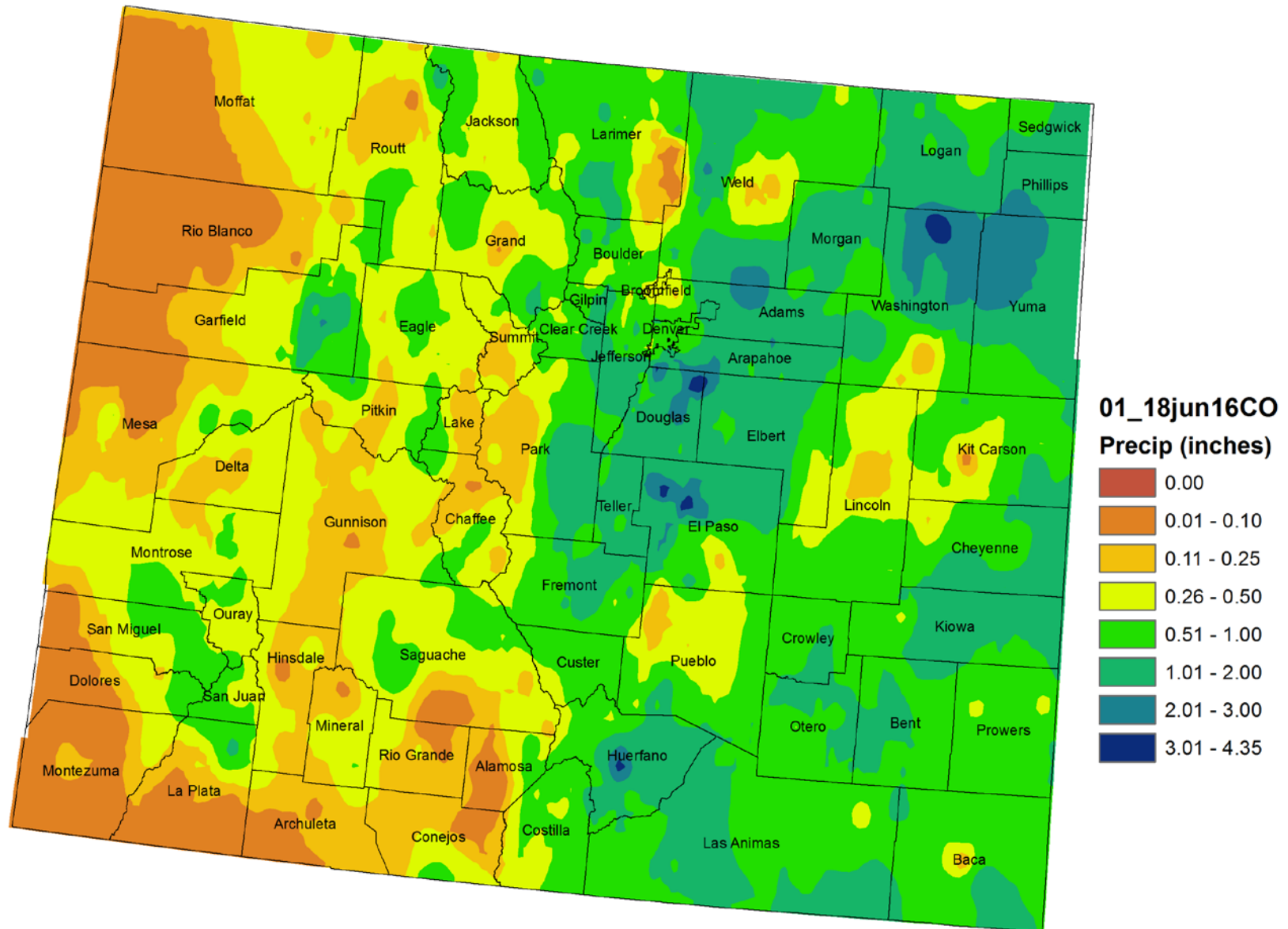
47th wettest on Record 1895-2016.



Colorado Water Year 2016 Precipitation as a Percentage of Normal October 2015 - May 2016

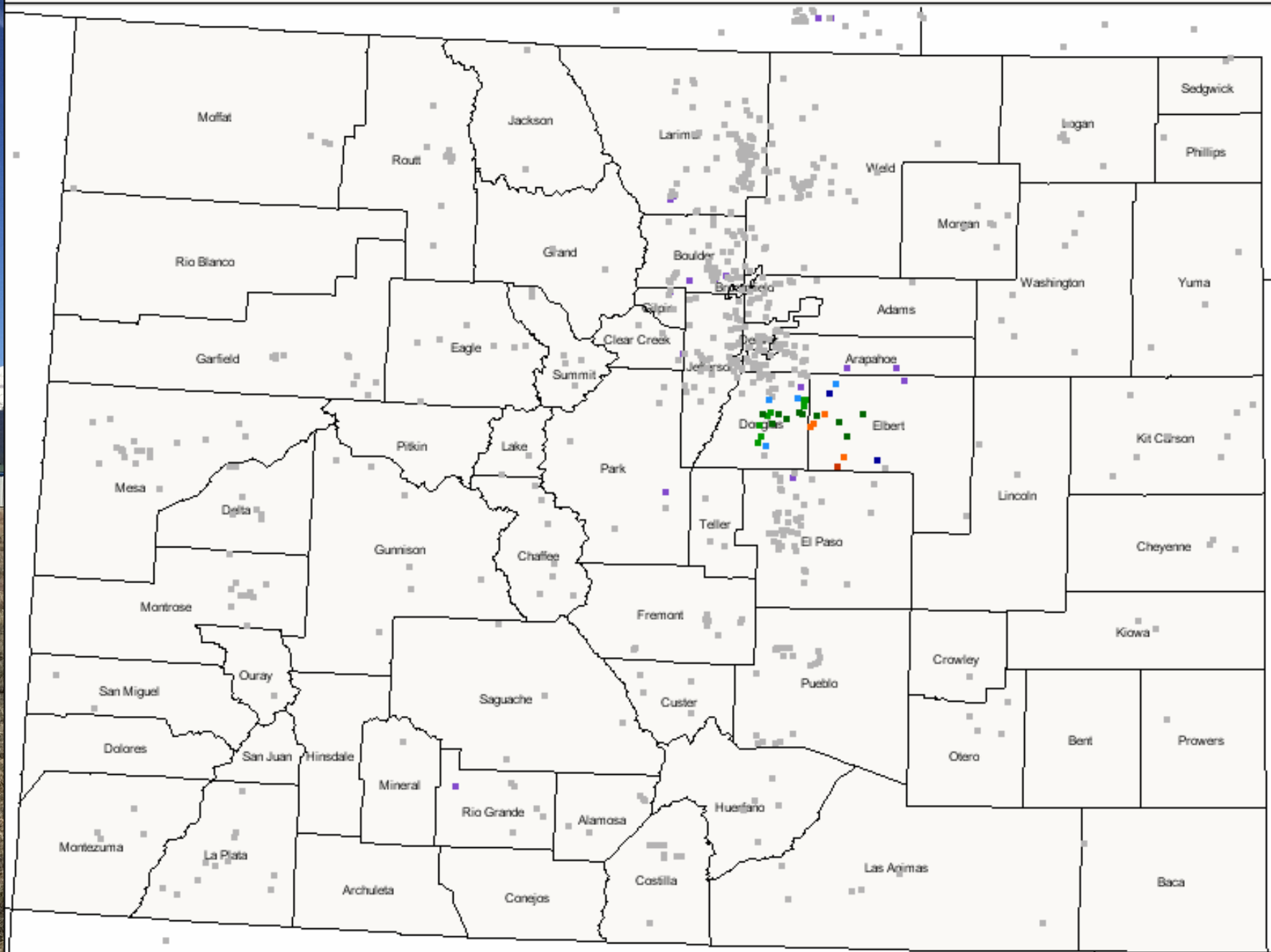
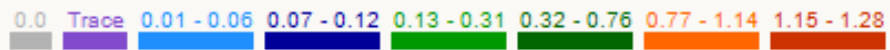


Colorado Month to Date Precipitation 1 - 18 June 2016



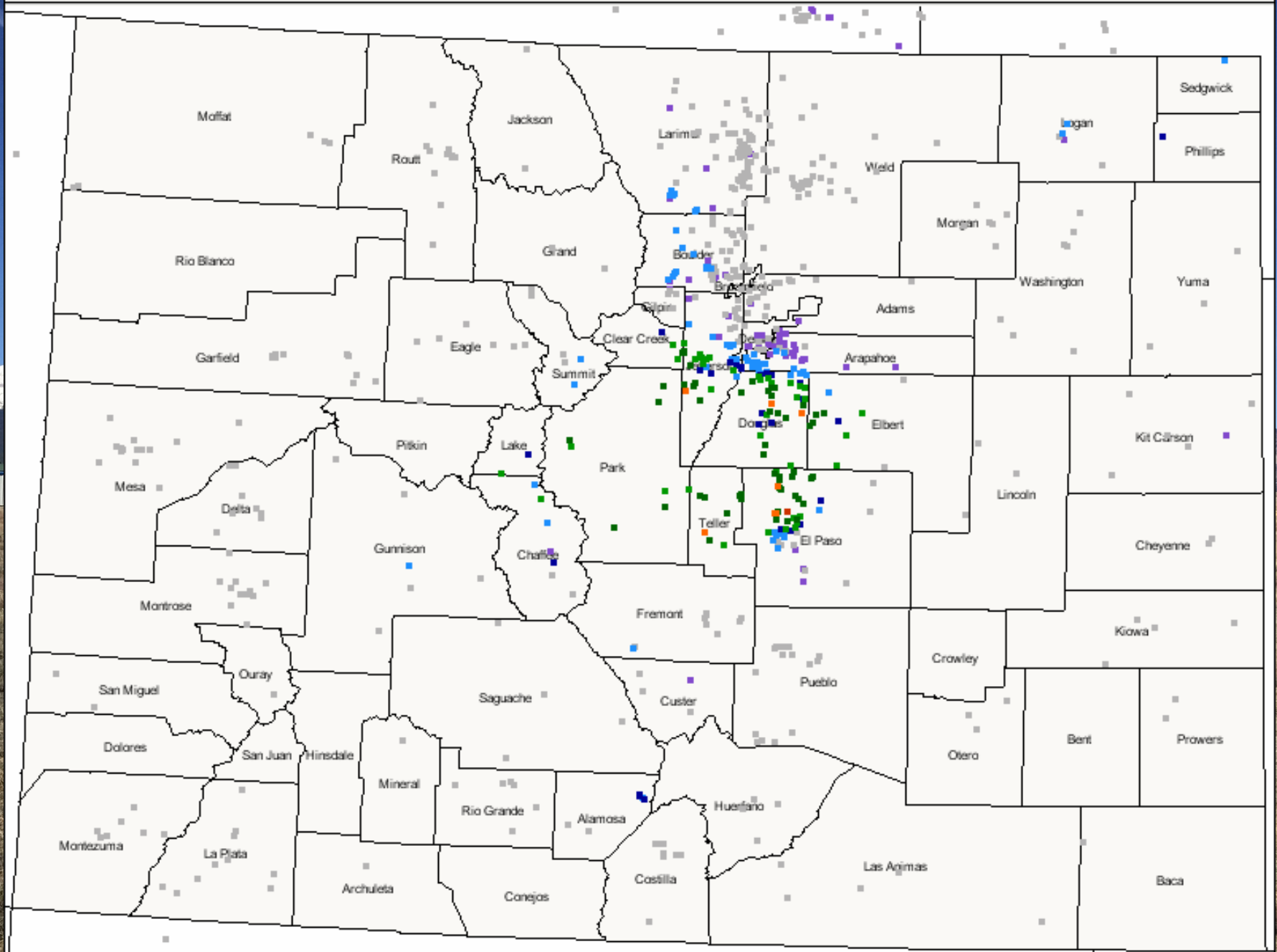
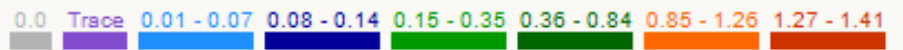
Daily Precipitation (inches x.xx), for the 24 hour period ending ~7:00 am

Colorado 6/20/2016



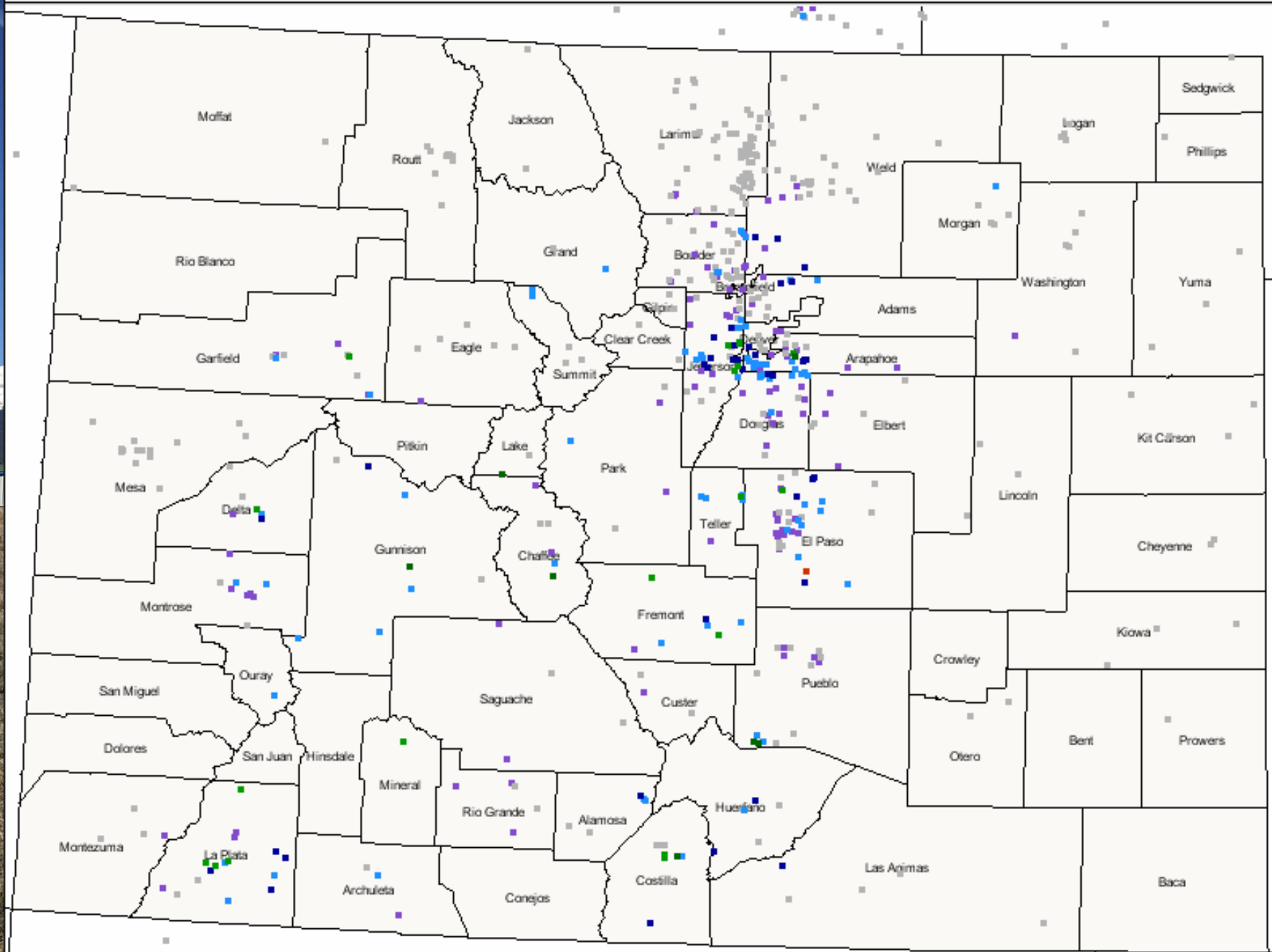
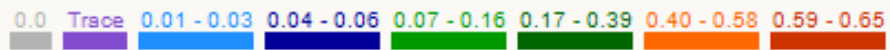
Daily Precipitation (inches x.xx), for the 24 hour period ending ~7:00 am

Colorado 6/21/2016

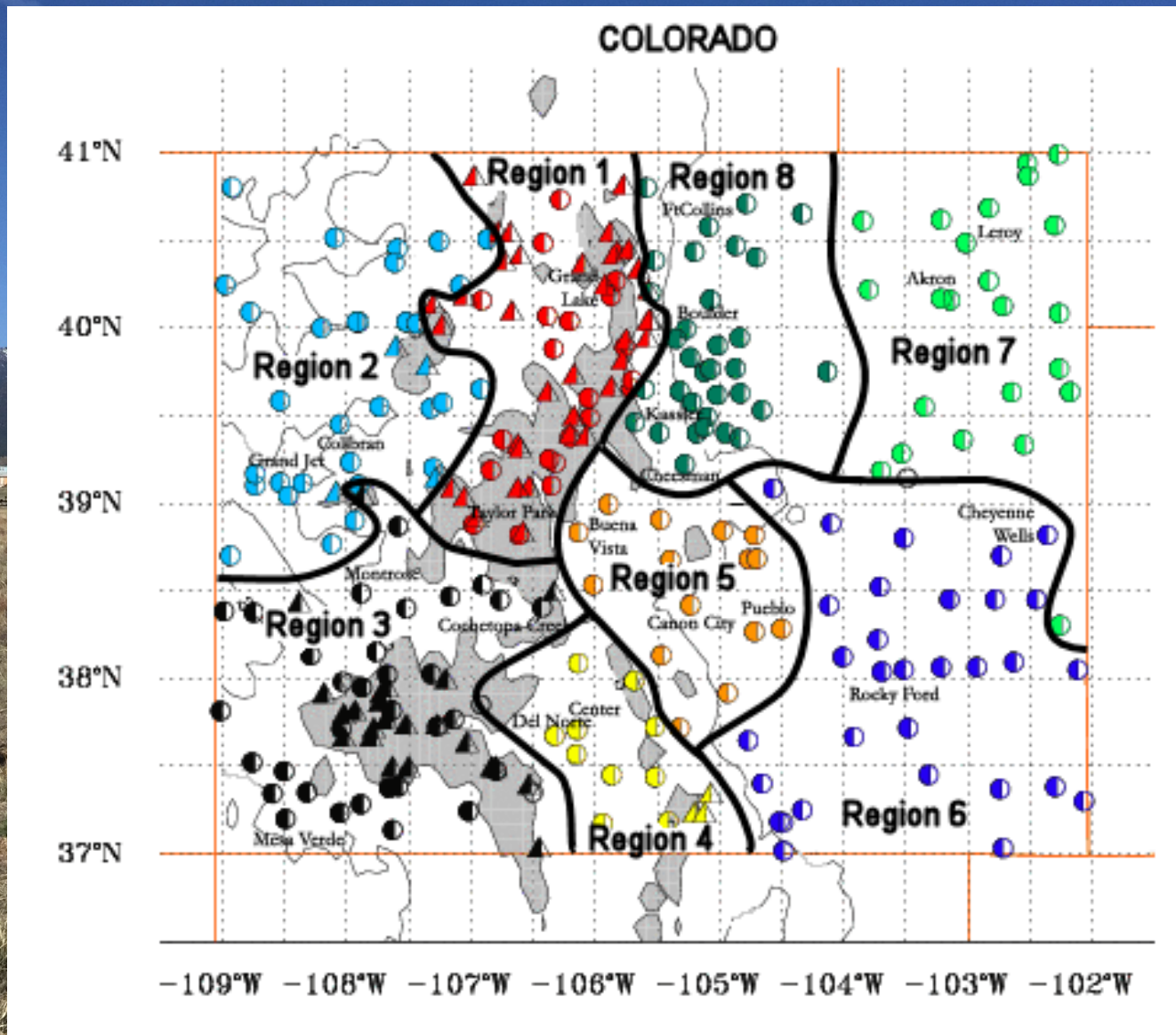


Daily Precipitation (inches x.xx), for the 24 hour period ending ~7:00 am

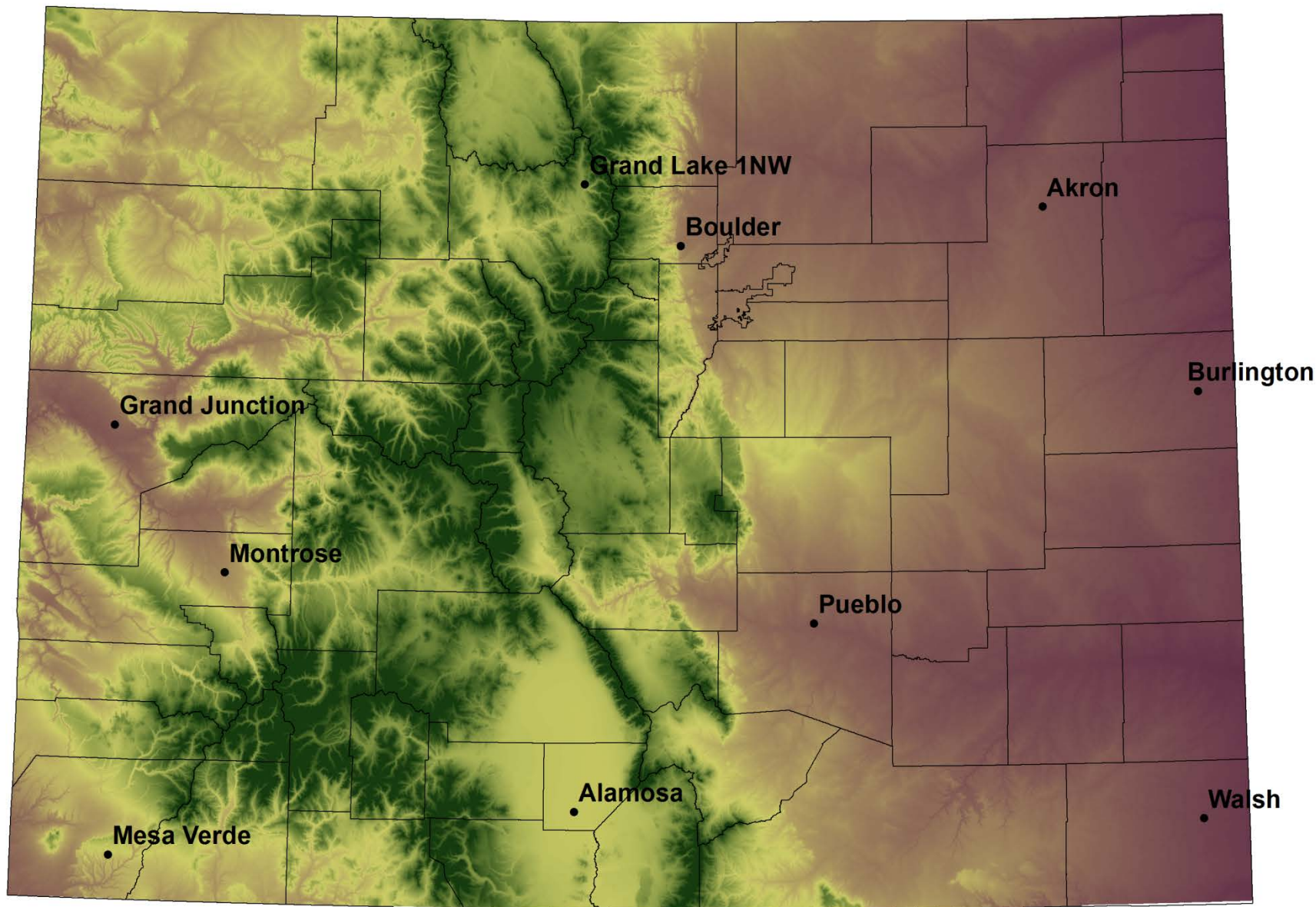
Colorado 6/22/2016



Climate divisions defined by Dr. Klaus Wolter of NOAA's Climate Diagnostic Center in Boulder, CO

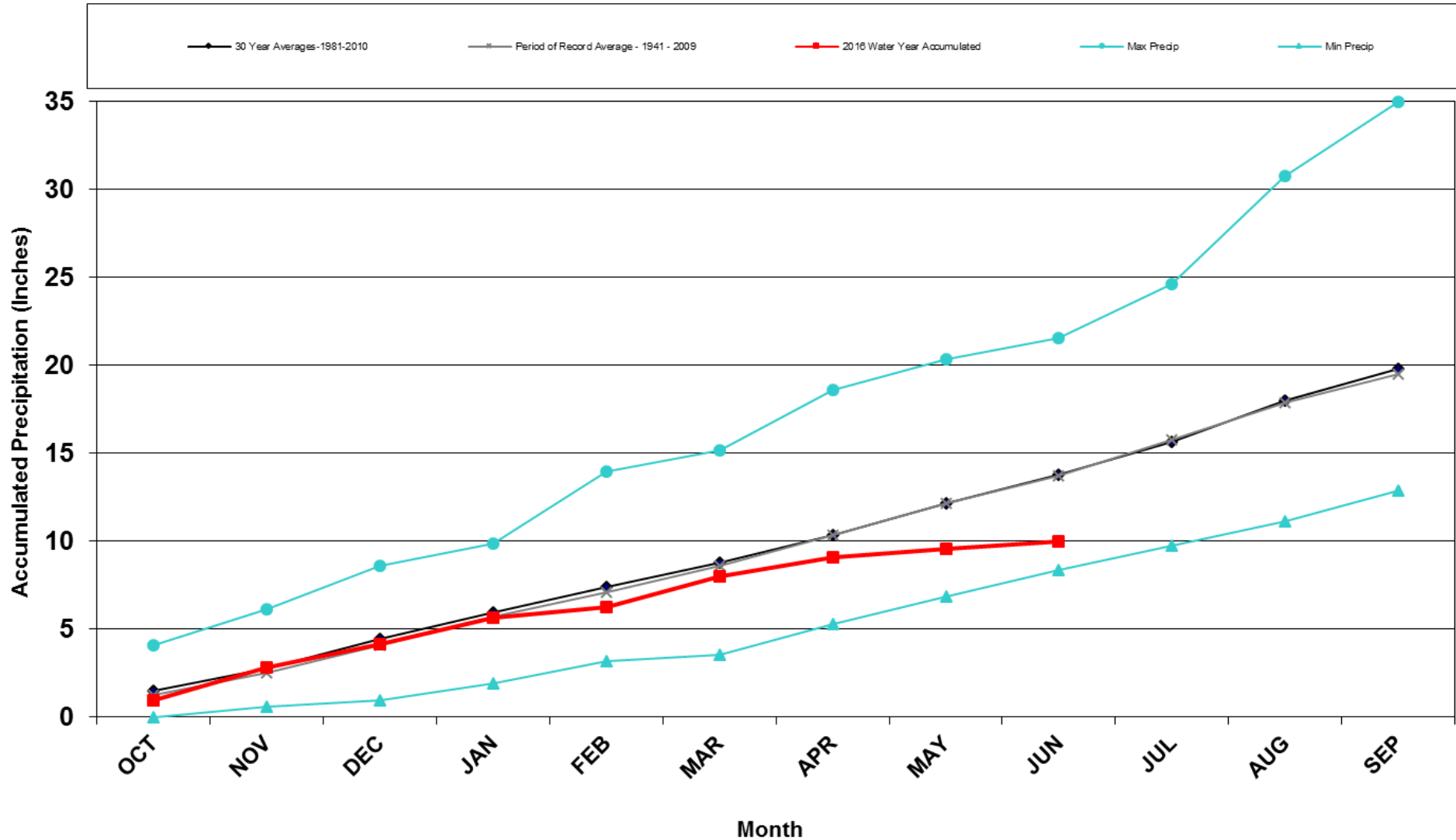


NWS Cooperative Stations for WATF



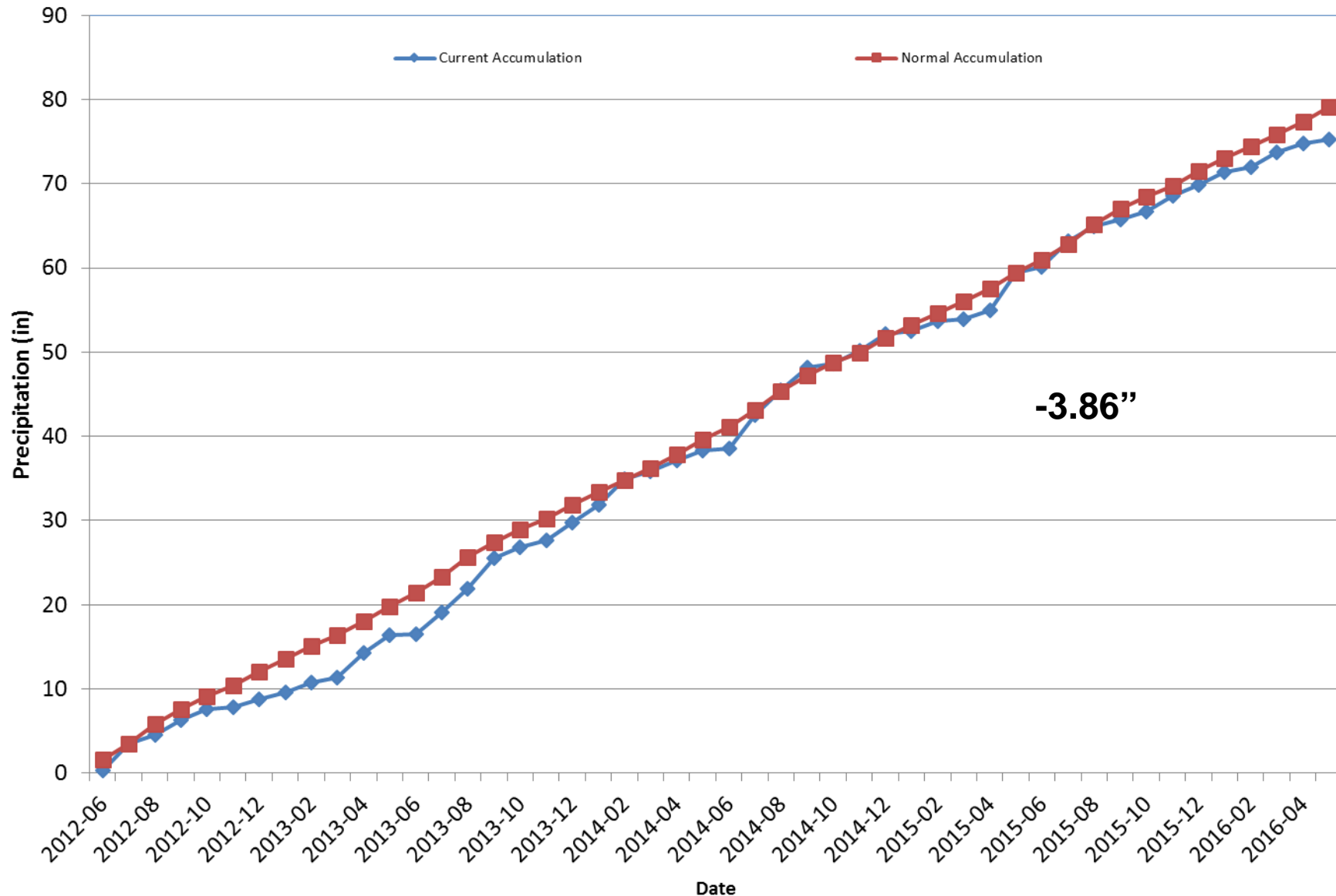
Division 1 – Grand Lake 1NW

Grand Lake 1 NW 2016 Water Year



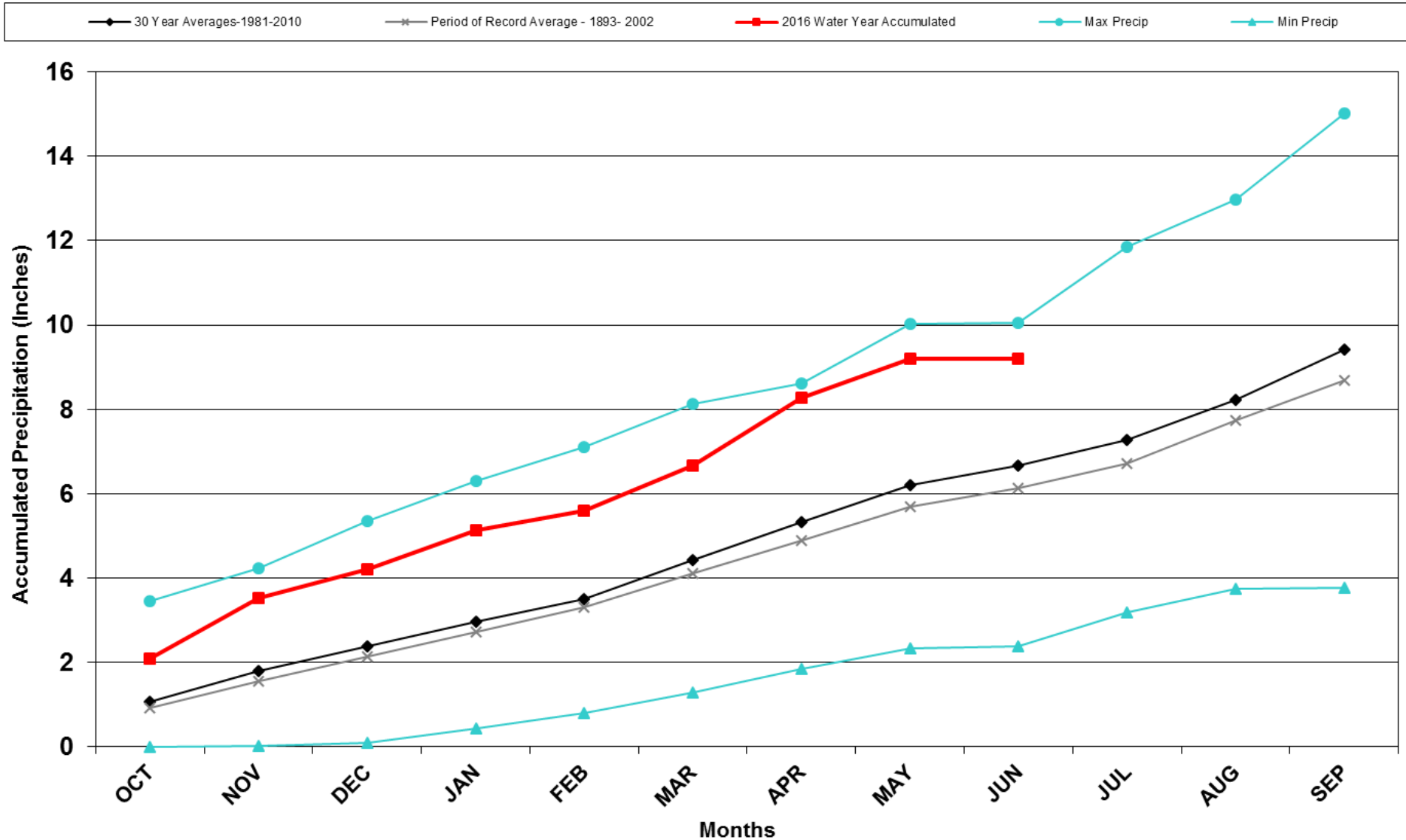
Division 1 – Grand Lake 1NW

Grand Lake 1NW Precipitation Accumulation



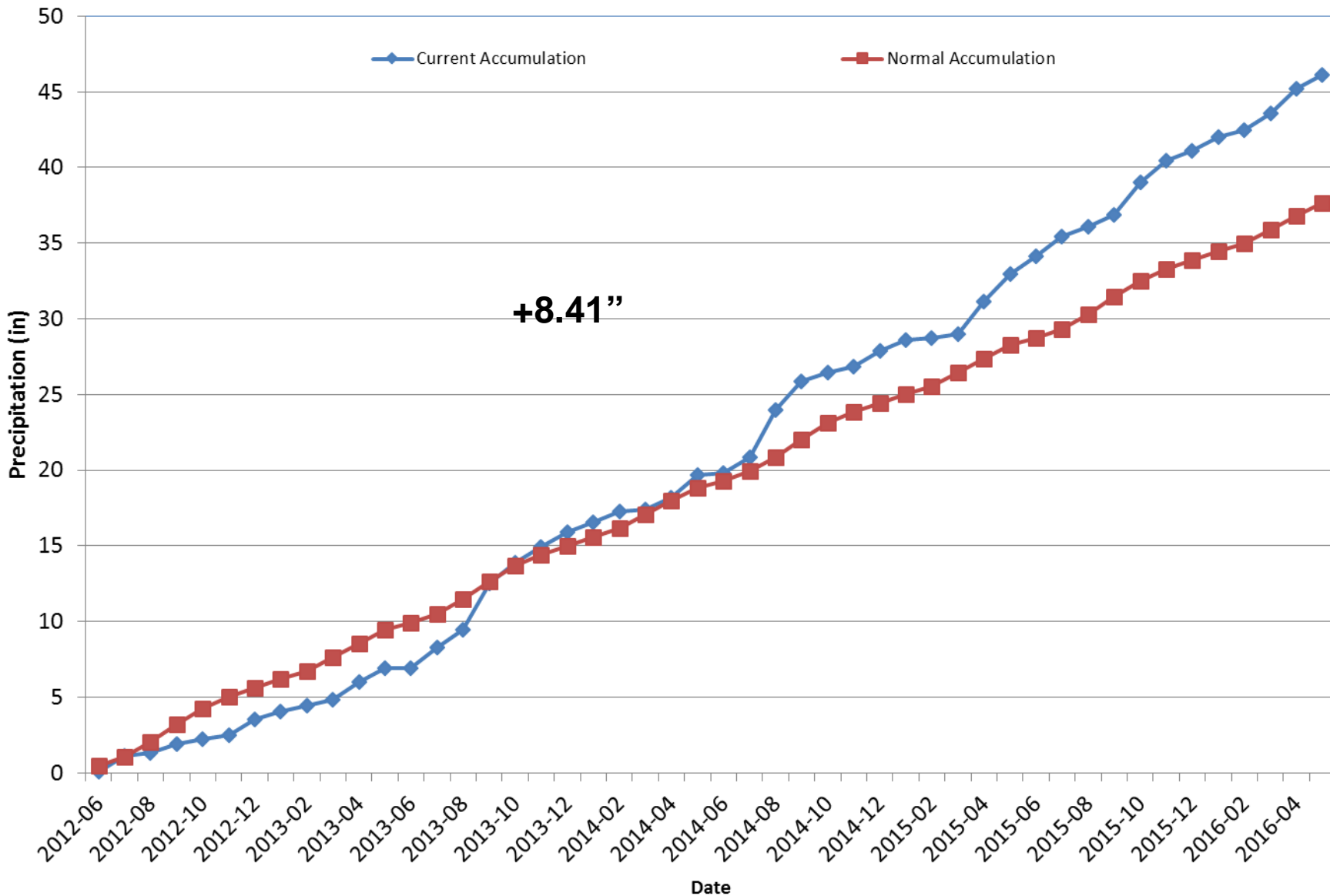
Division 2 – Grand Junction

Grand Junction WSFO 2016 Water Year



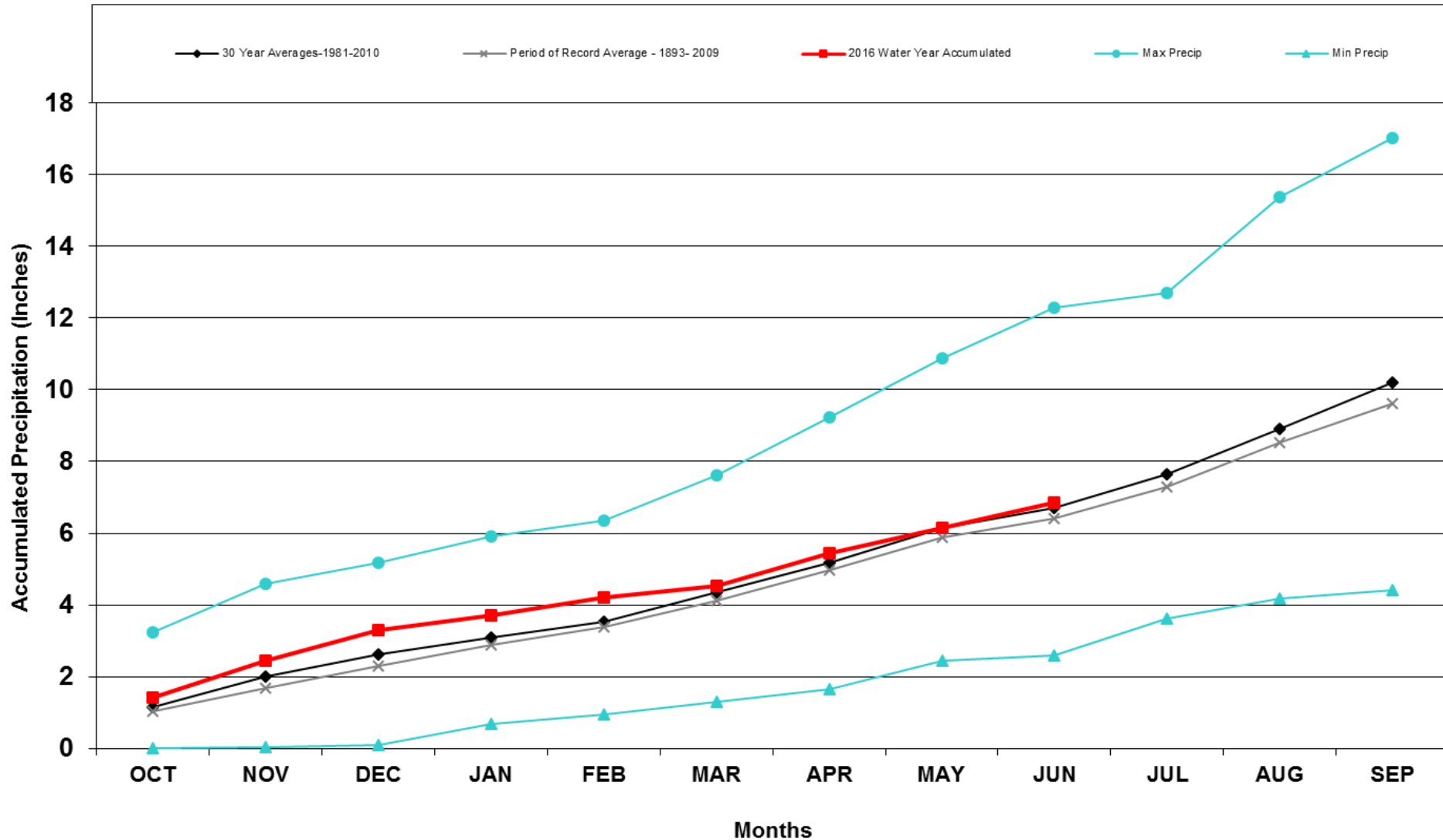
Division 2 – Grand Junction

Grand Junction Precipitation Accumulation



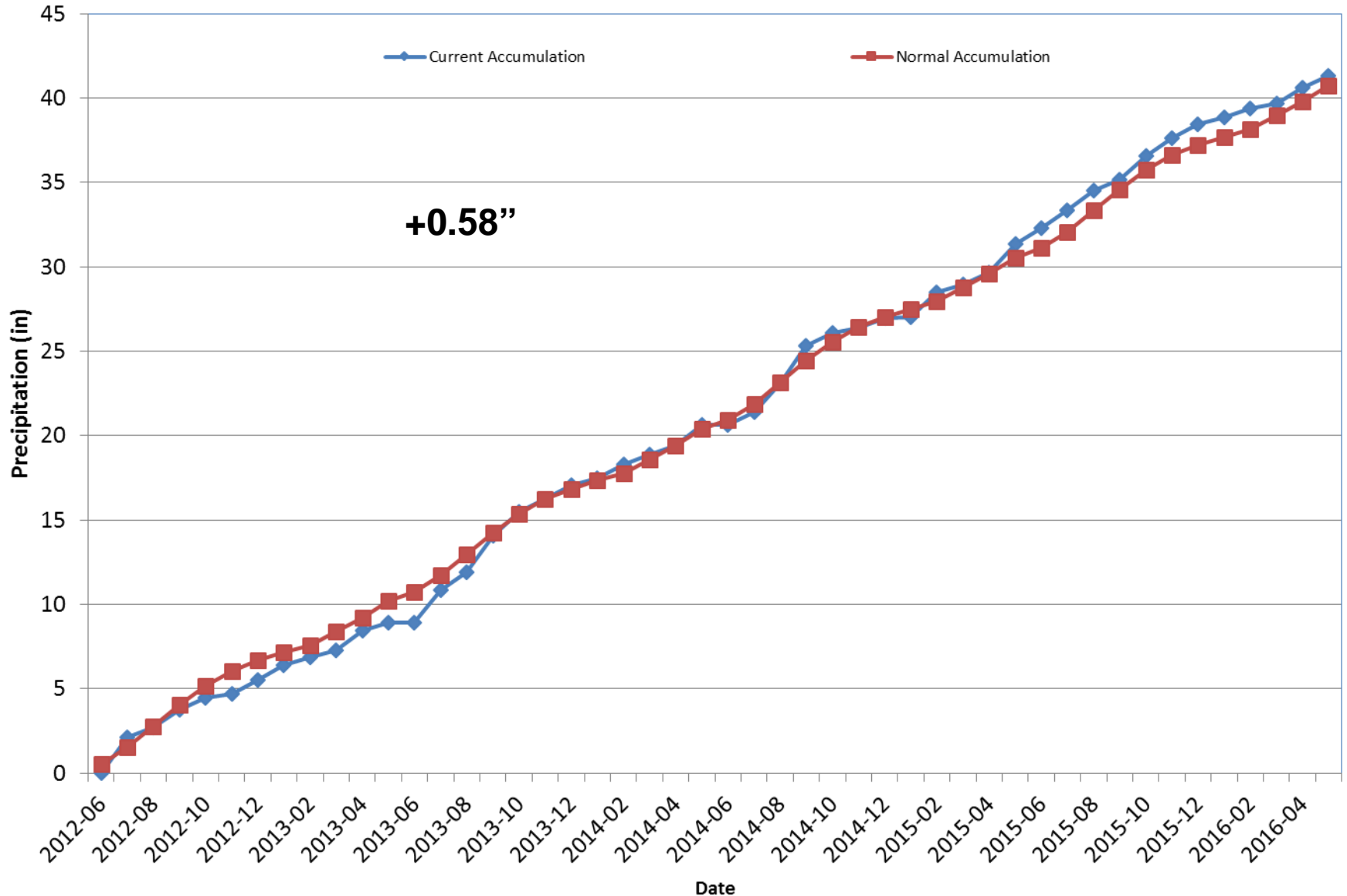
Division 3 – Montrose

Montrose #2 2016 Water Year



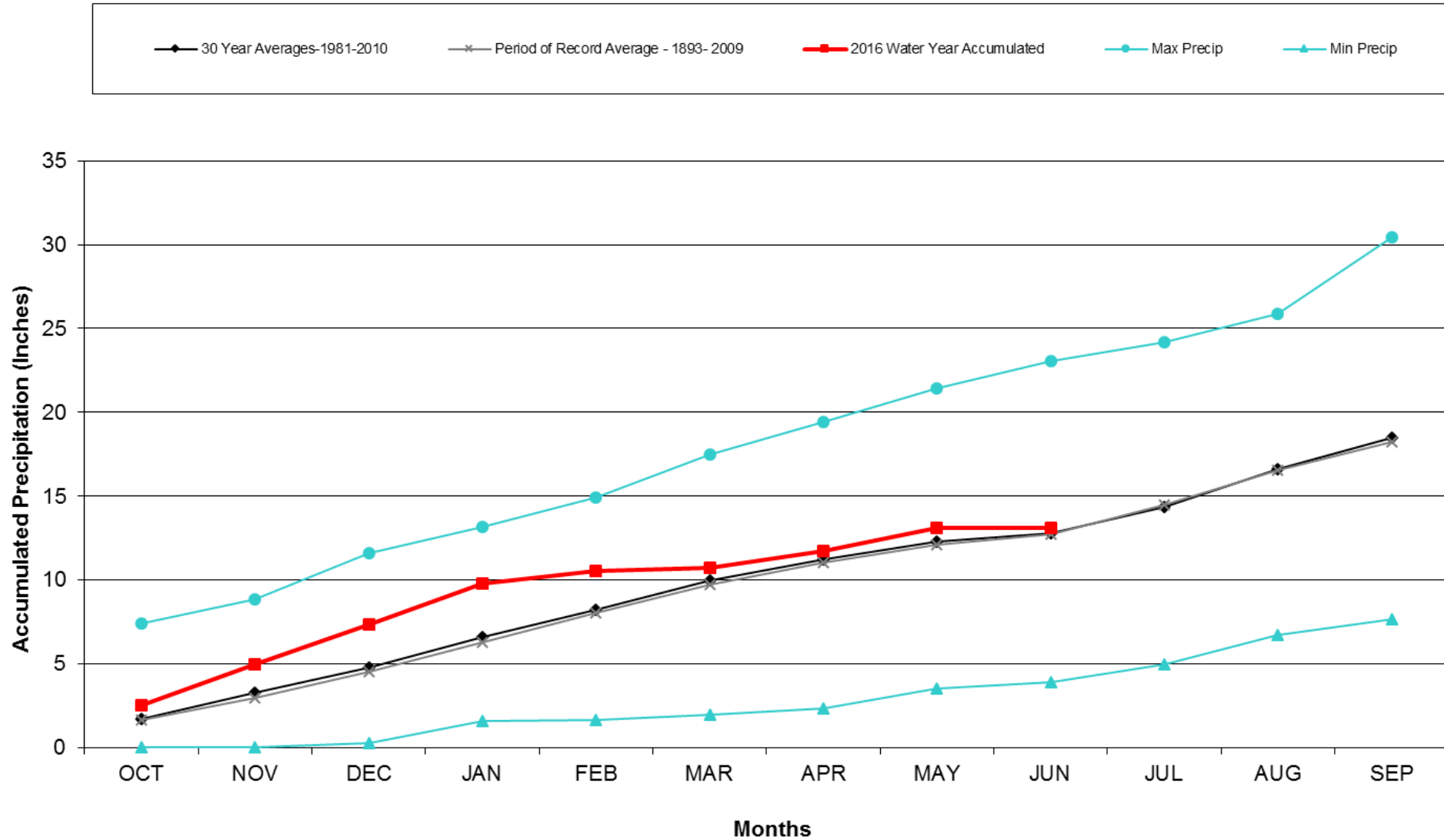
Division 3 – Montrose

Montrose #2 Precipitation Accumulation



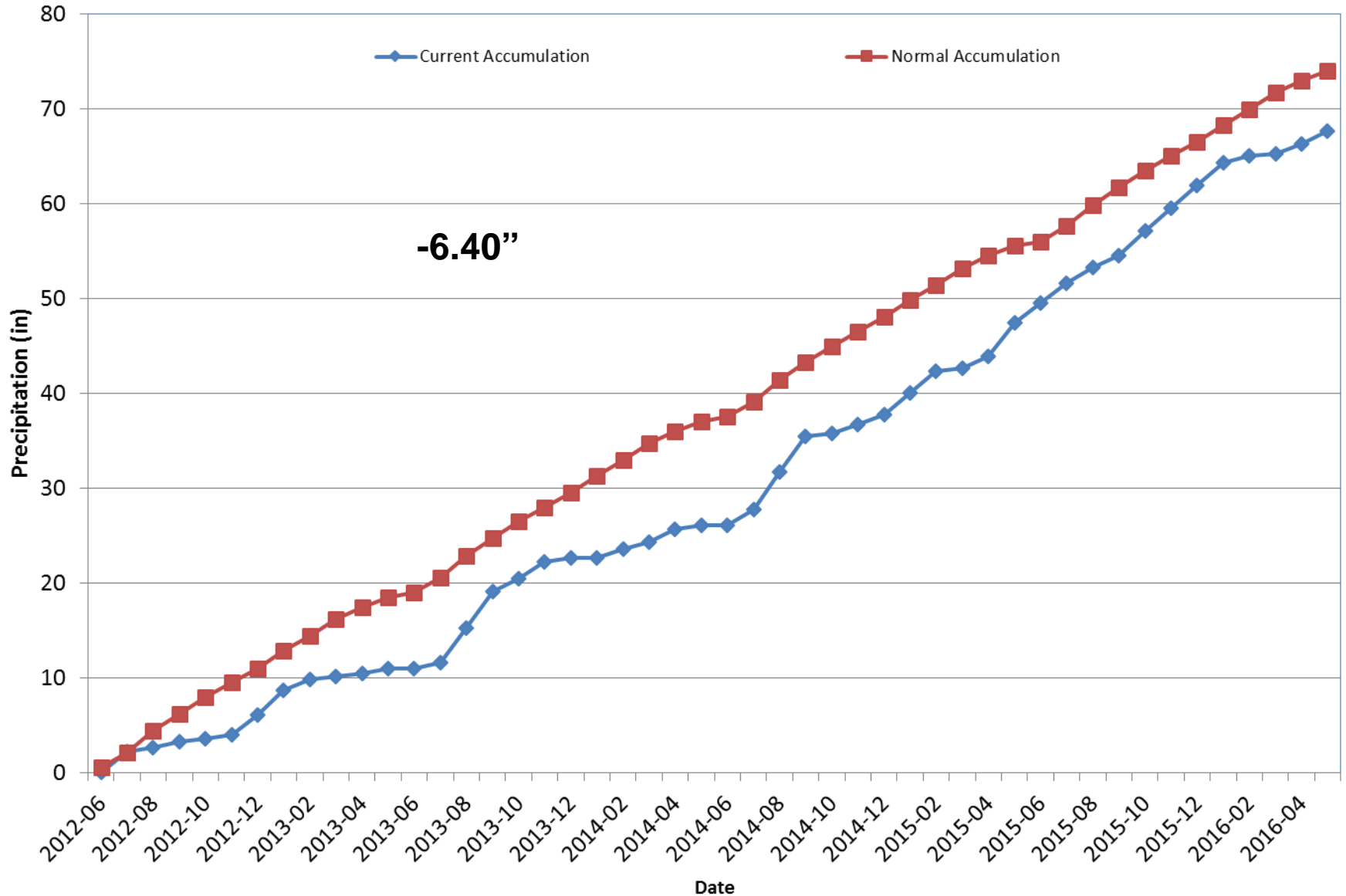
Division 3 – Mesa Verde NP

Mesa Verde NP 2016 Water Year



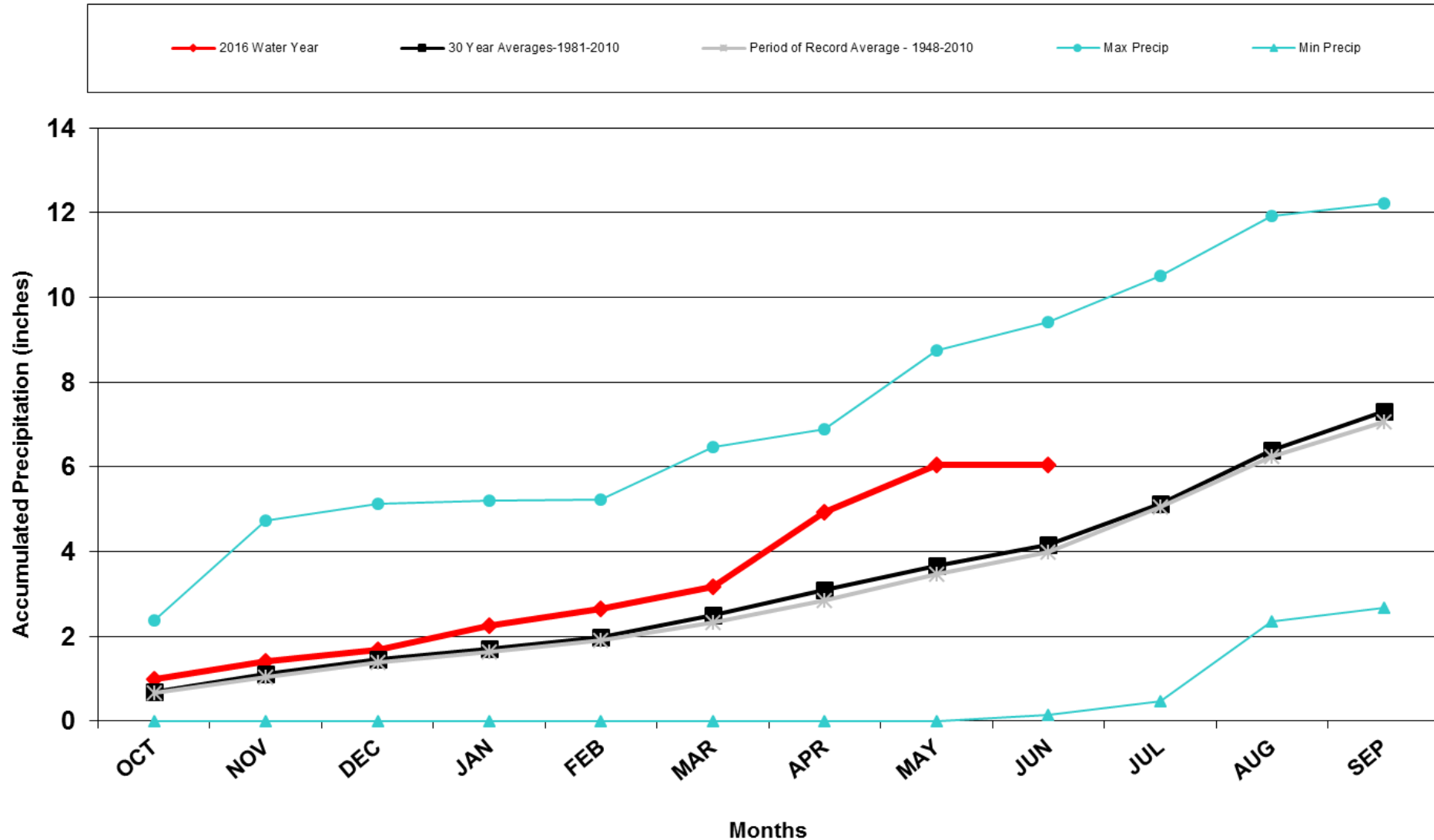
Division 3 – Mesa Verde NP

Mesa Verde NP Precipitation Accumulation



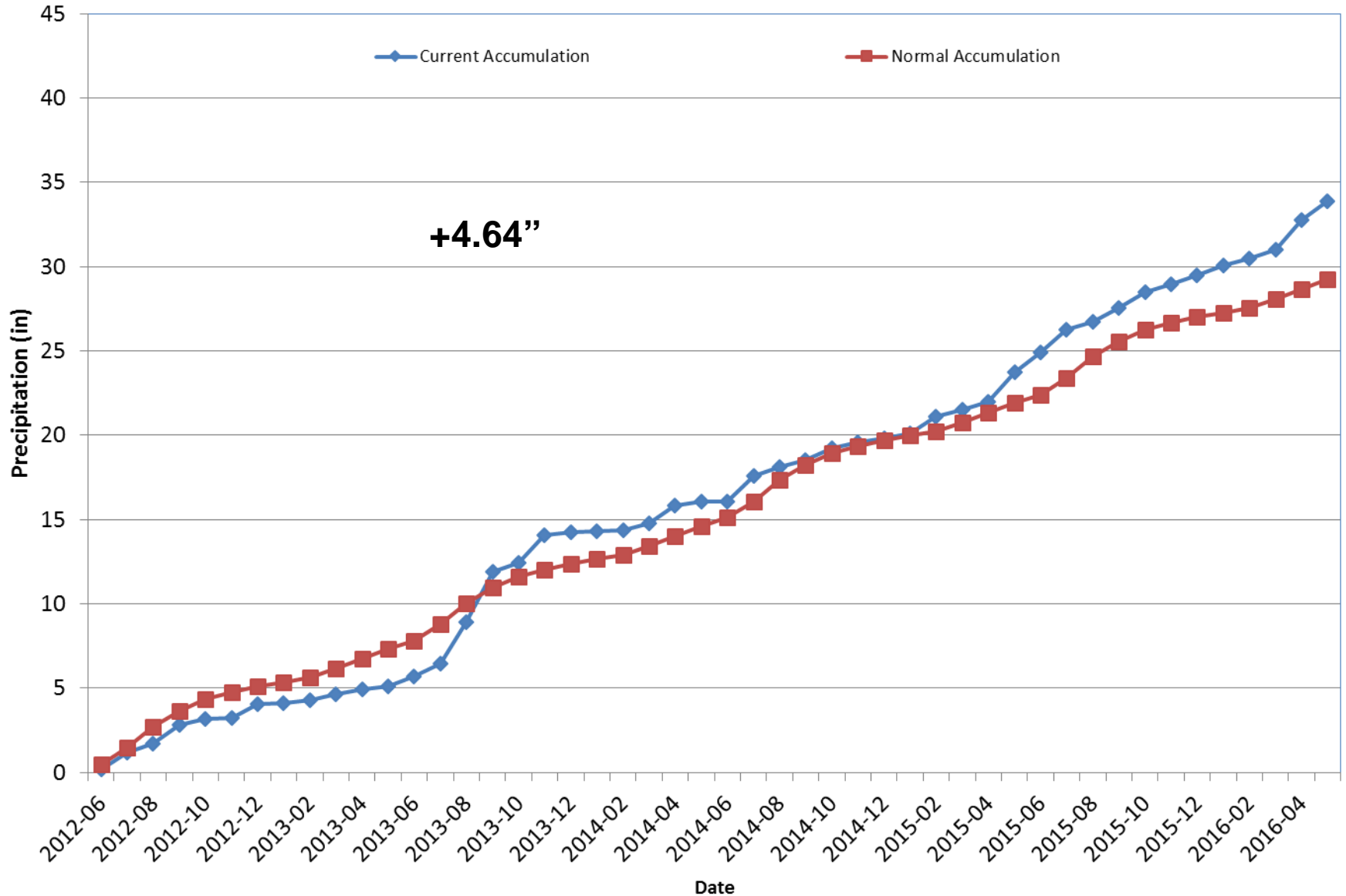
Division 4 – Alamosa

Alamosa WSO 2016 Water Year



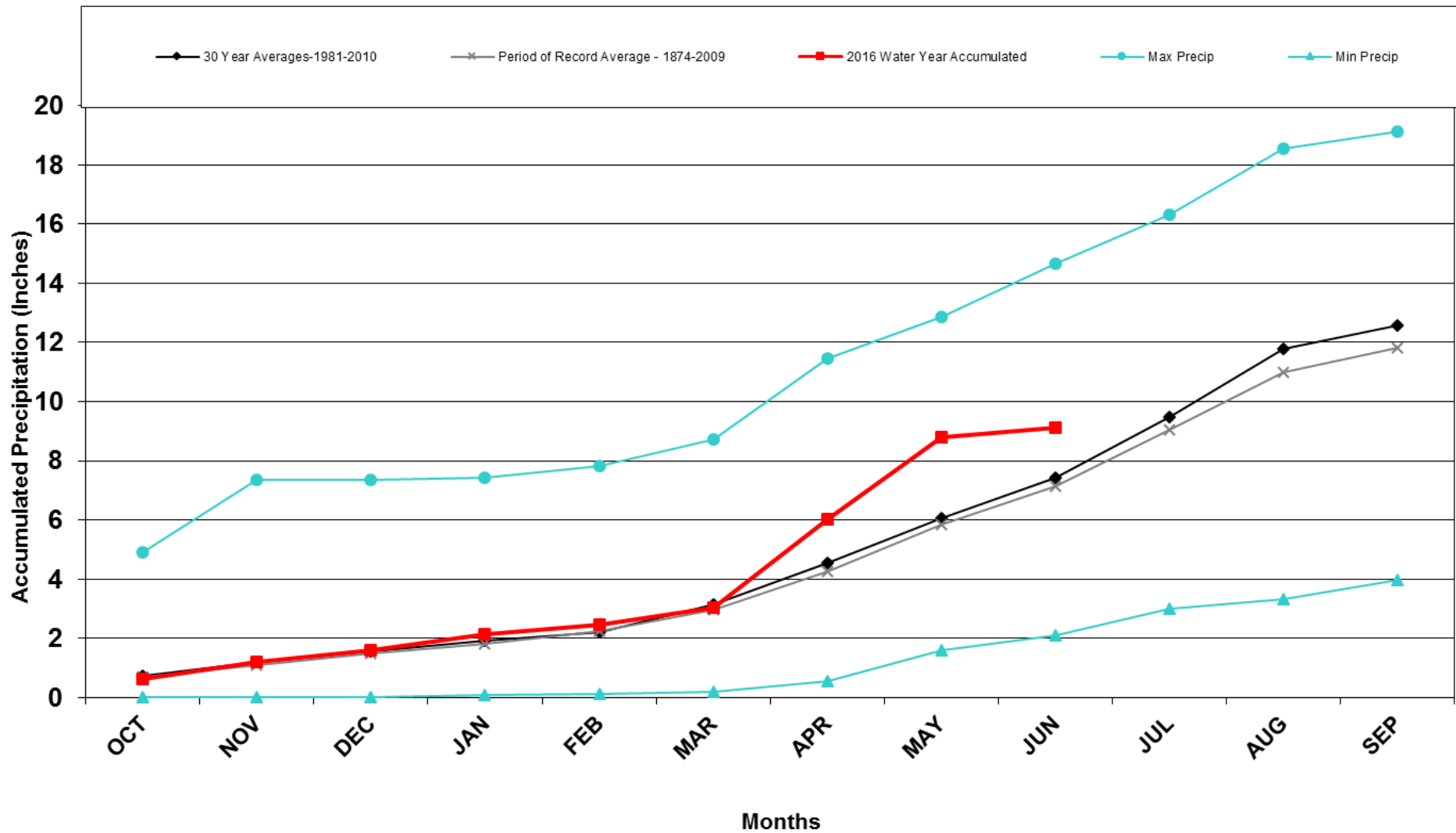
Division 4 – Alamosa

Alamosa WSO Precipitation Accumulation



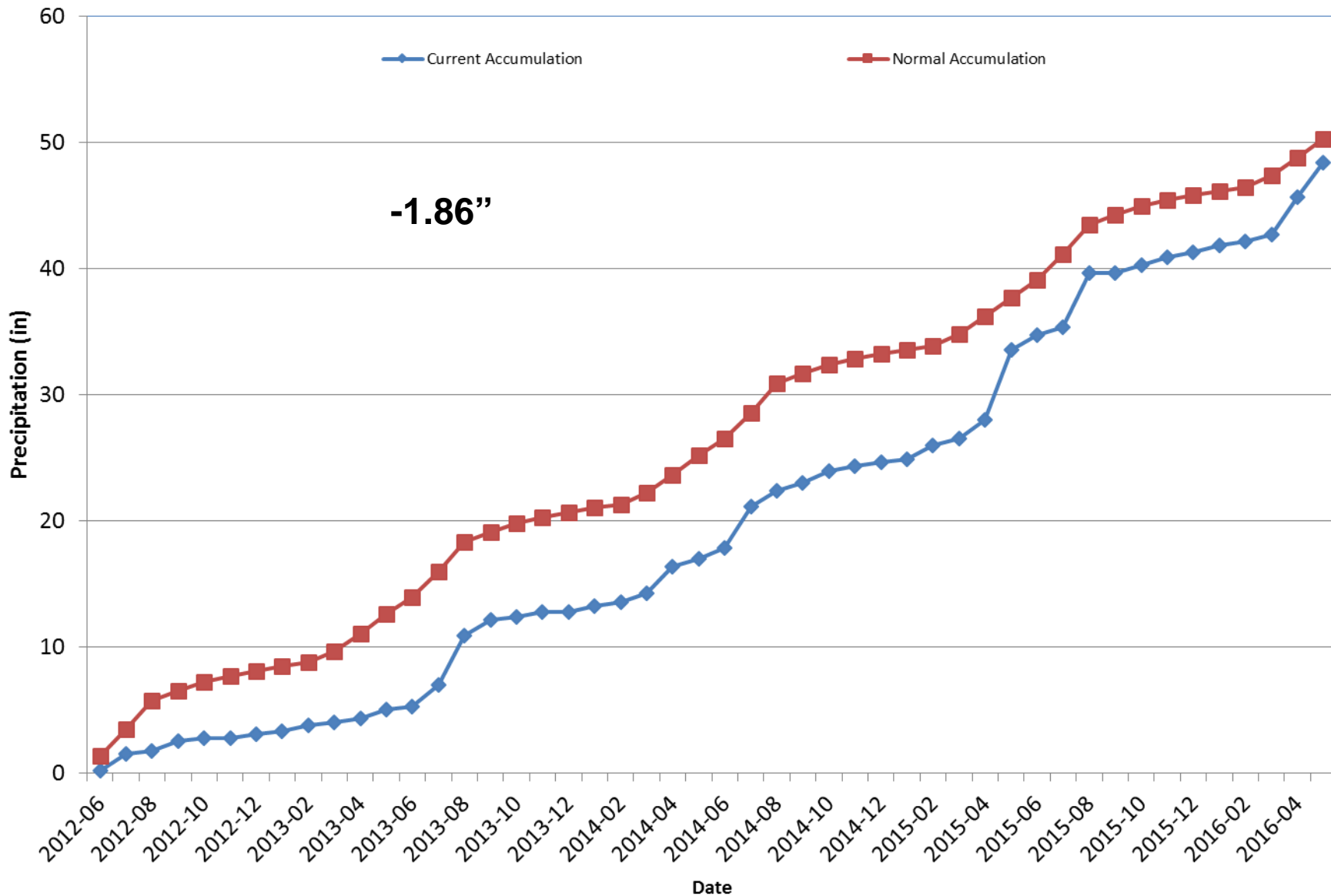
Division 5 – Pueblo

Pueblo WSO 2016 Water Year



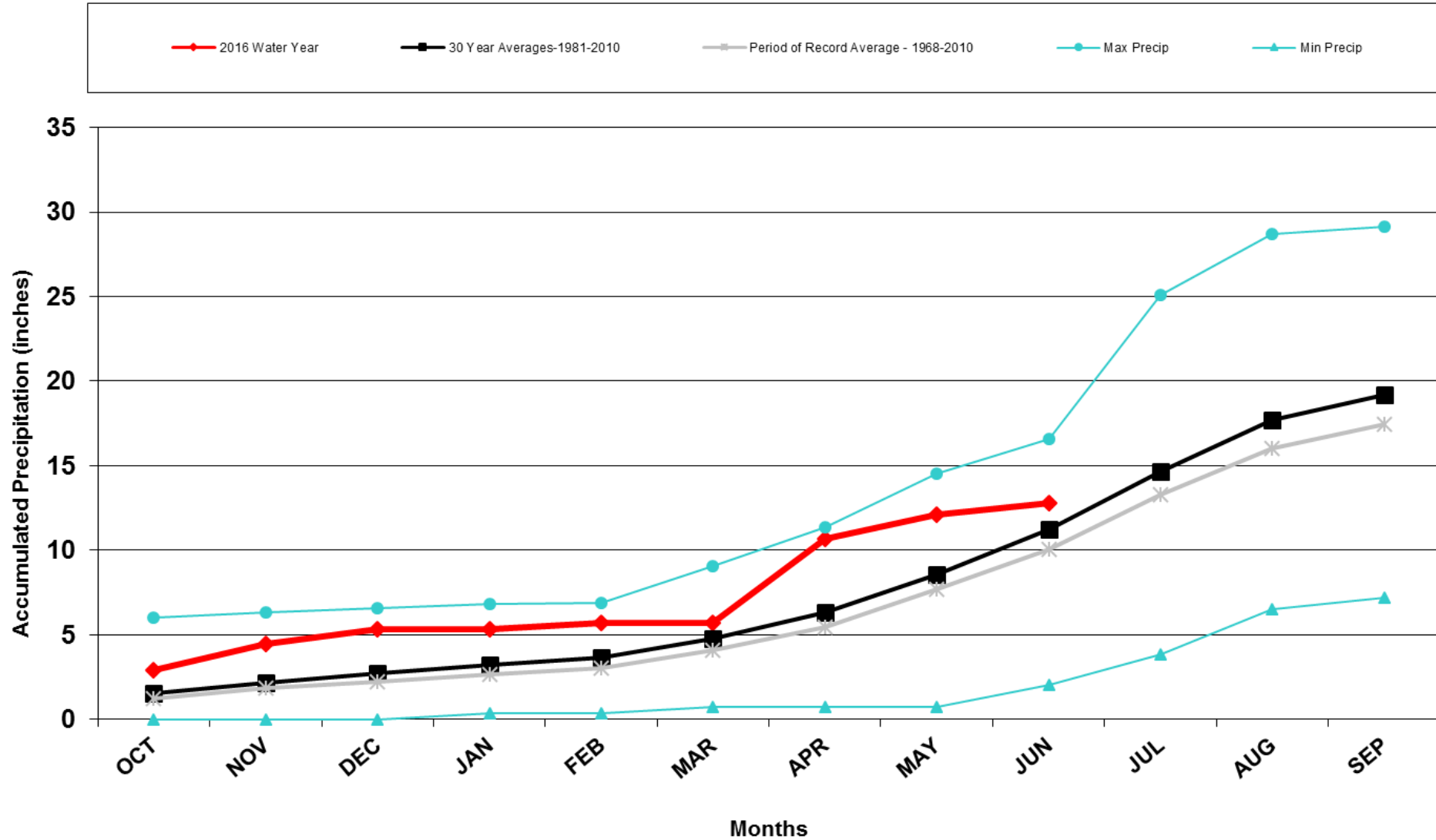
Division 5 – Pueblo

Pueblo Memorial AP Precipitation Accumulation



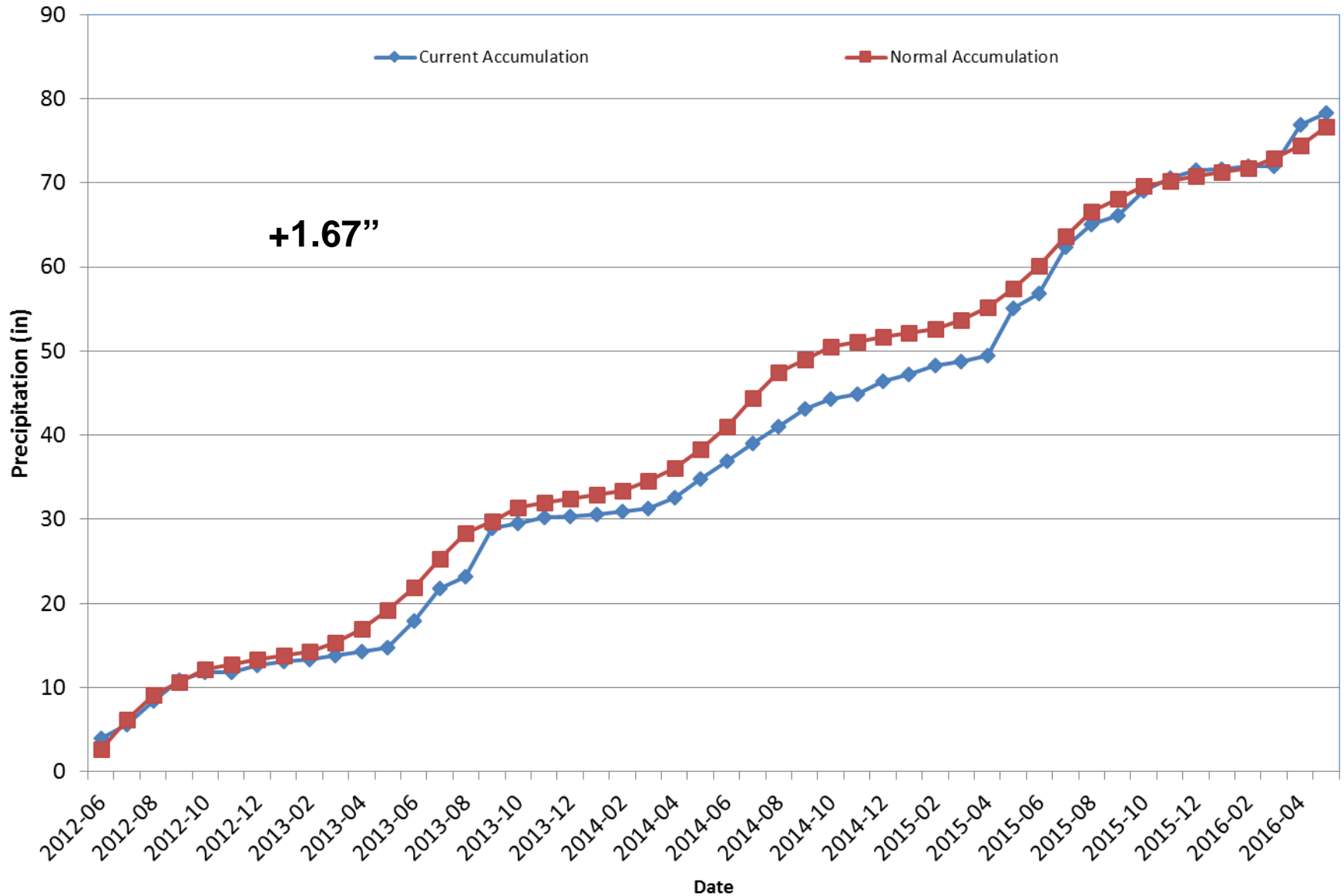
Division 6 - Walsh

Walsh 2016 Water Year



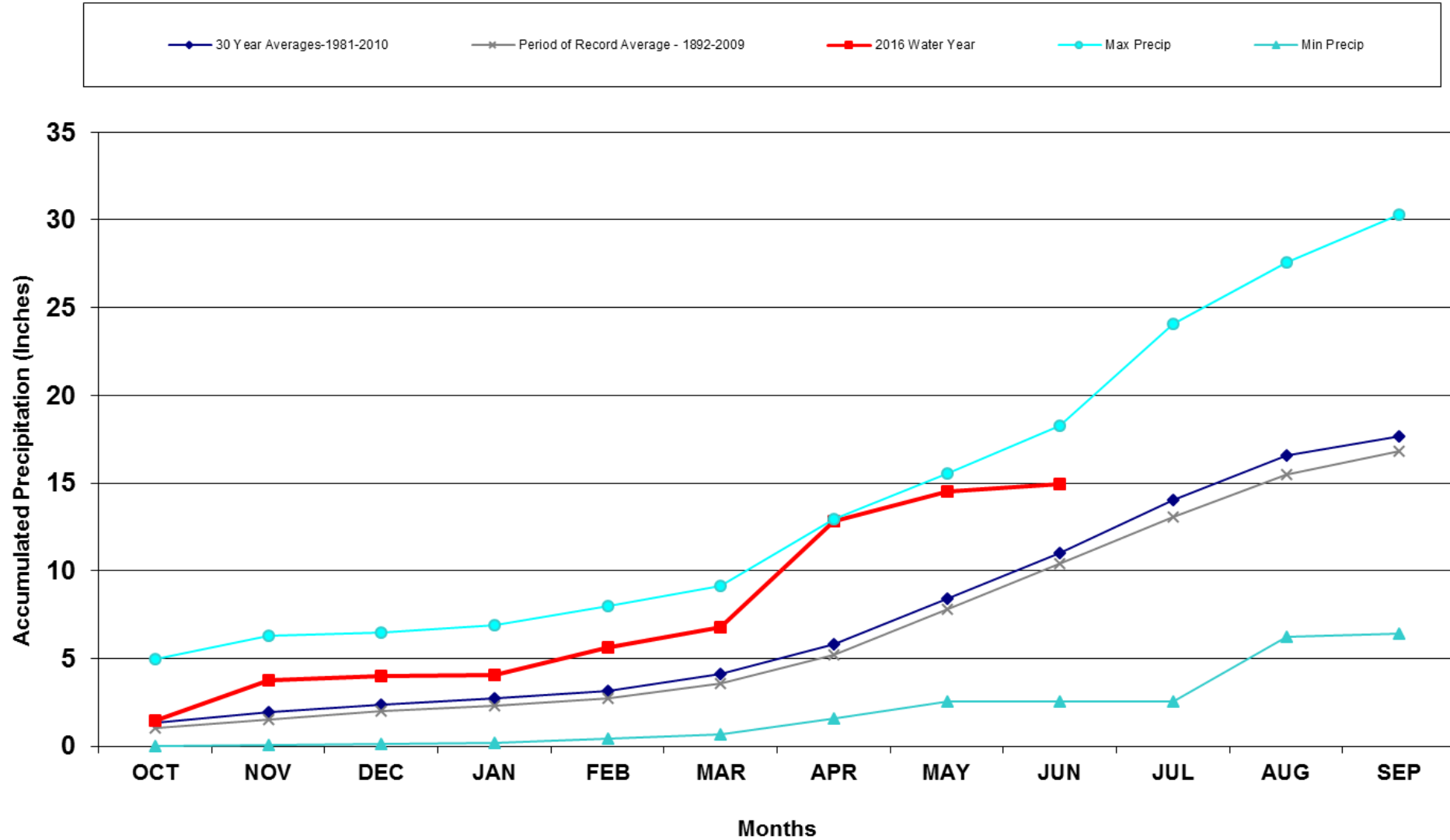
Division 6 - Walsh

Walsh 1W Precipitation Accumulation



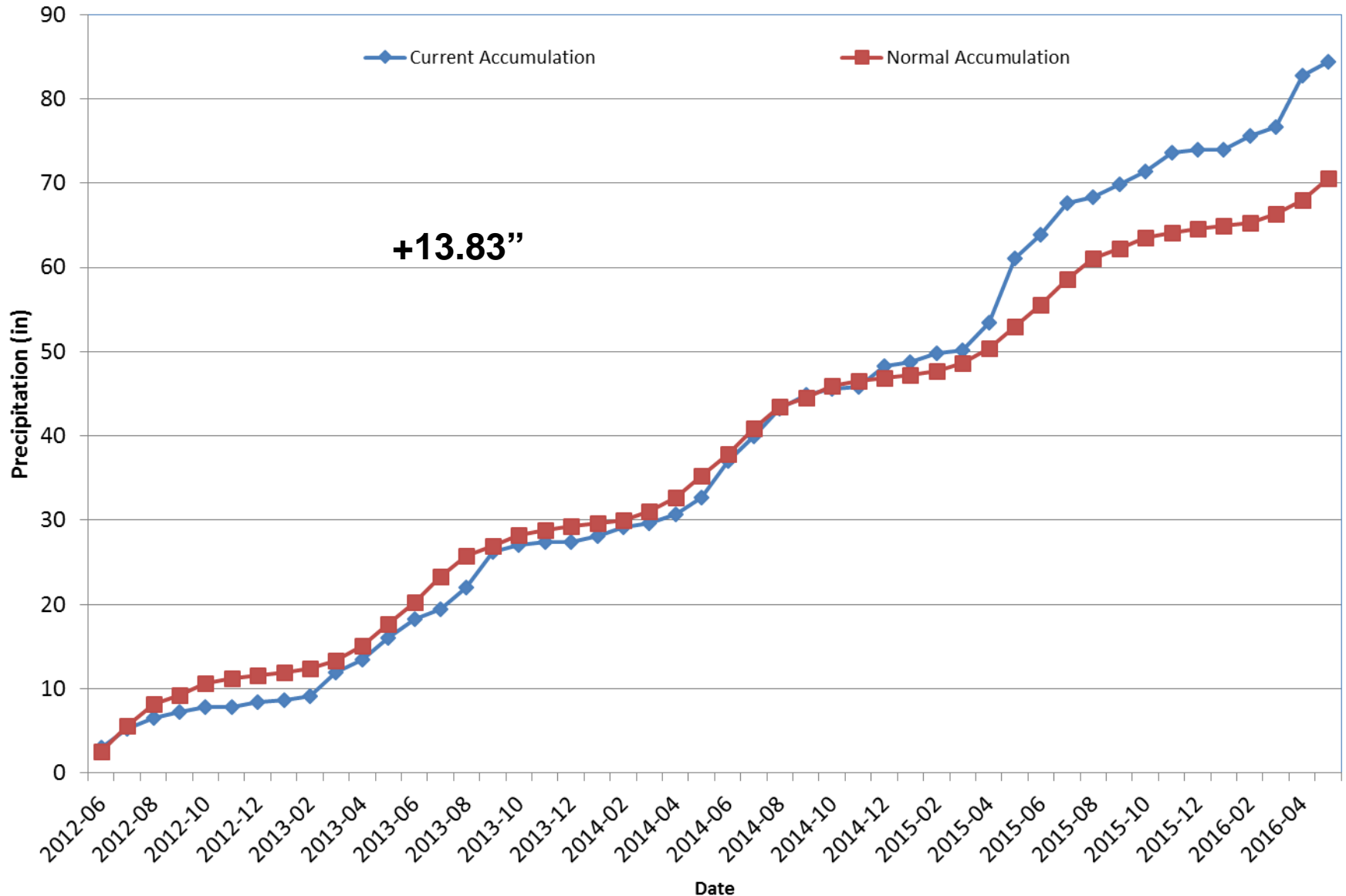
Division 6 - Burlington

Burlington 2016 Water Year



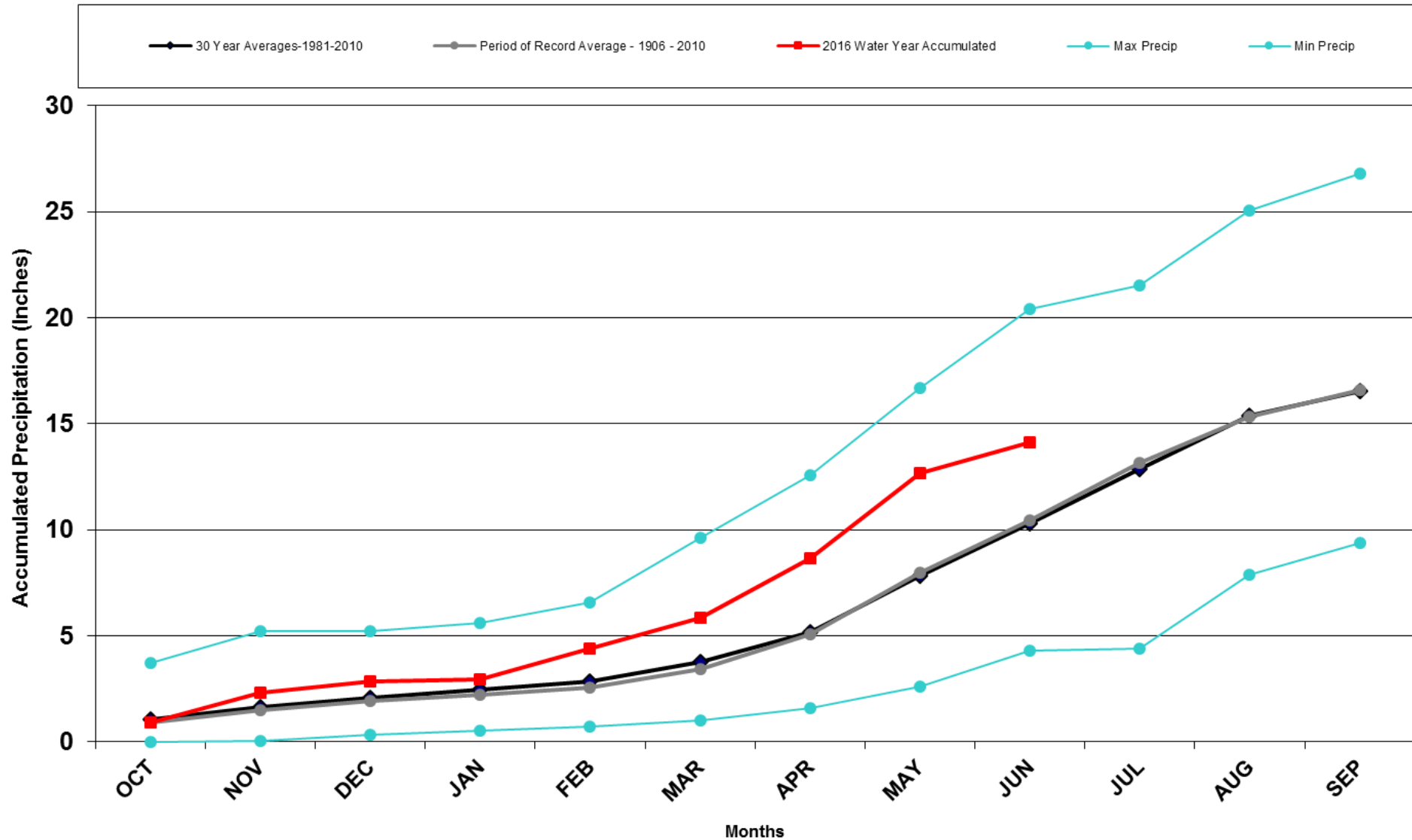
Division 6 - Burlington

Burlington, CO Precipitation Accumulation



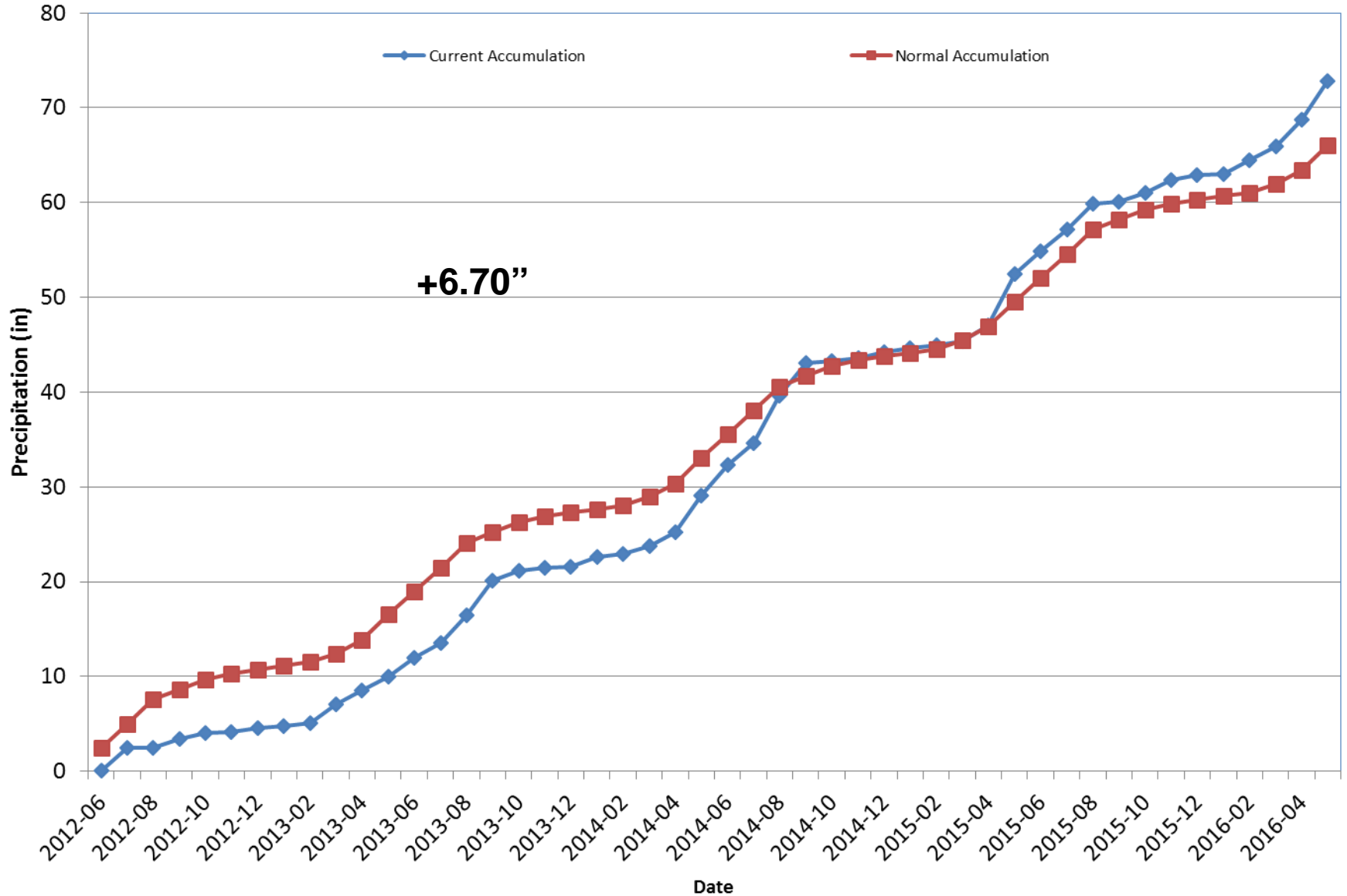
Division 7 – Akron

Akron 4E 2016 Water Year



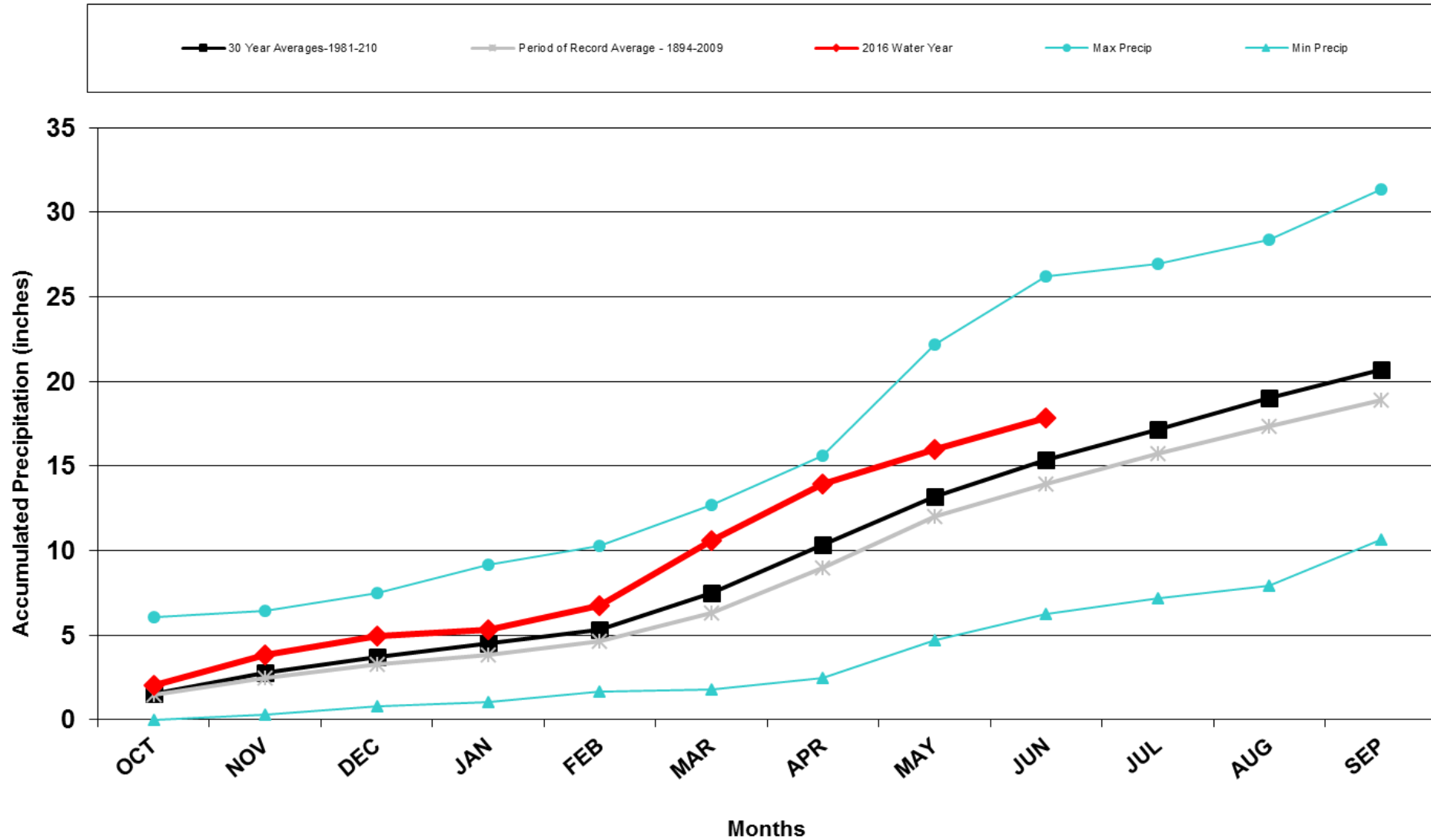
Division 7 – Akron

Akron 4E Precipitation Accumulation



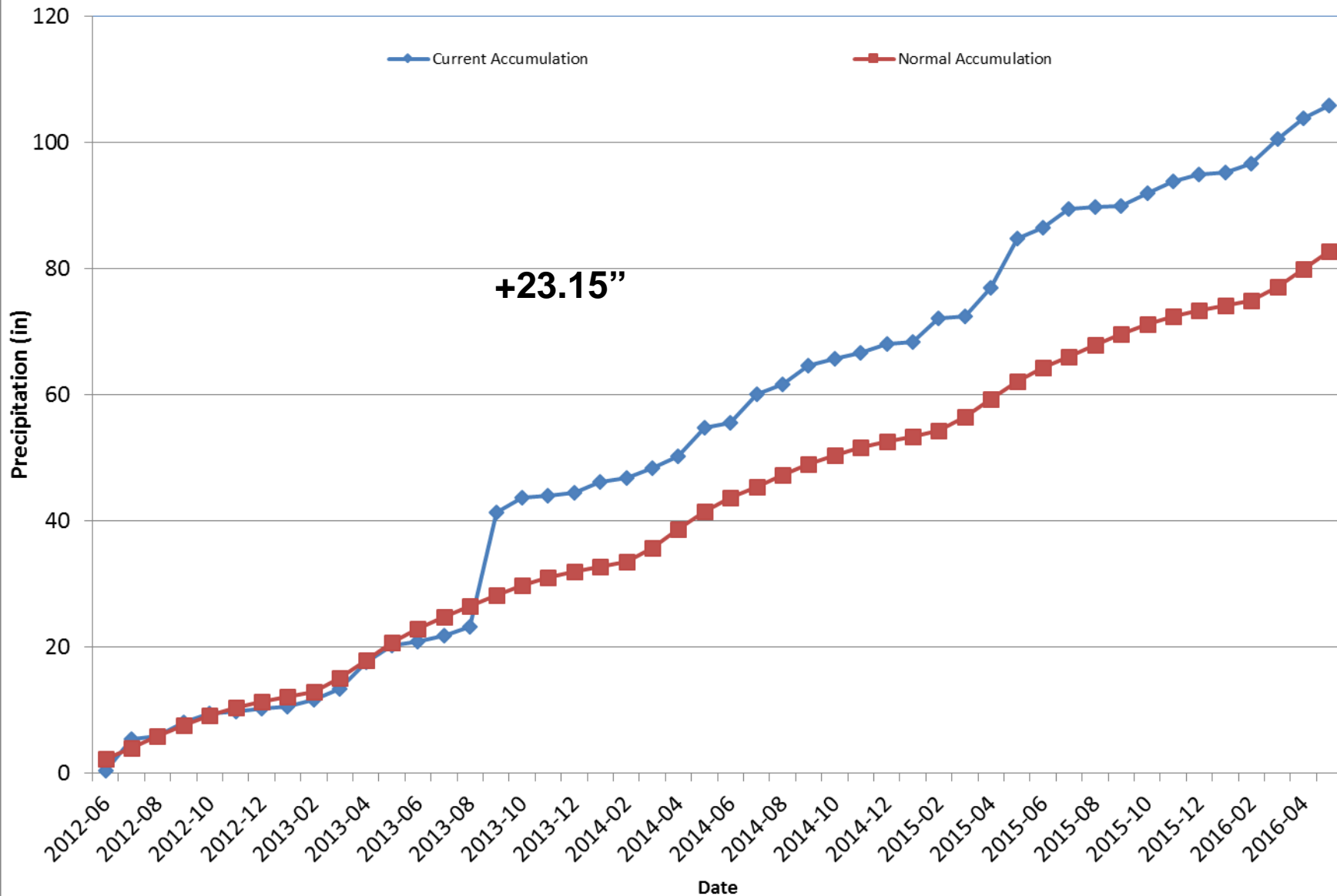
Division 8 - Boulder

Boulder 2016 Water Year



Division 8 - Boulder

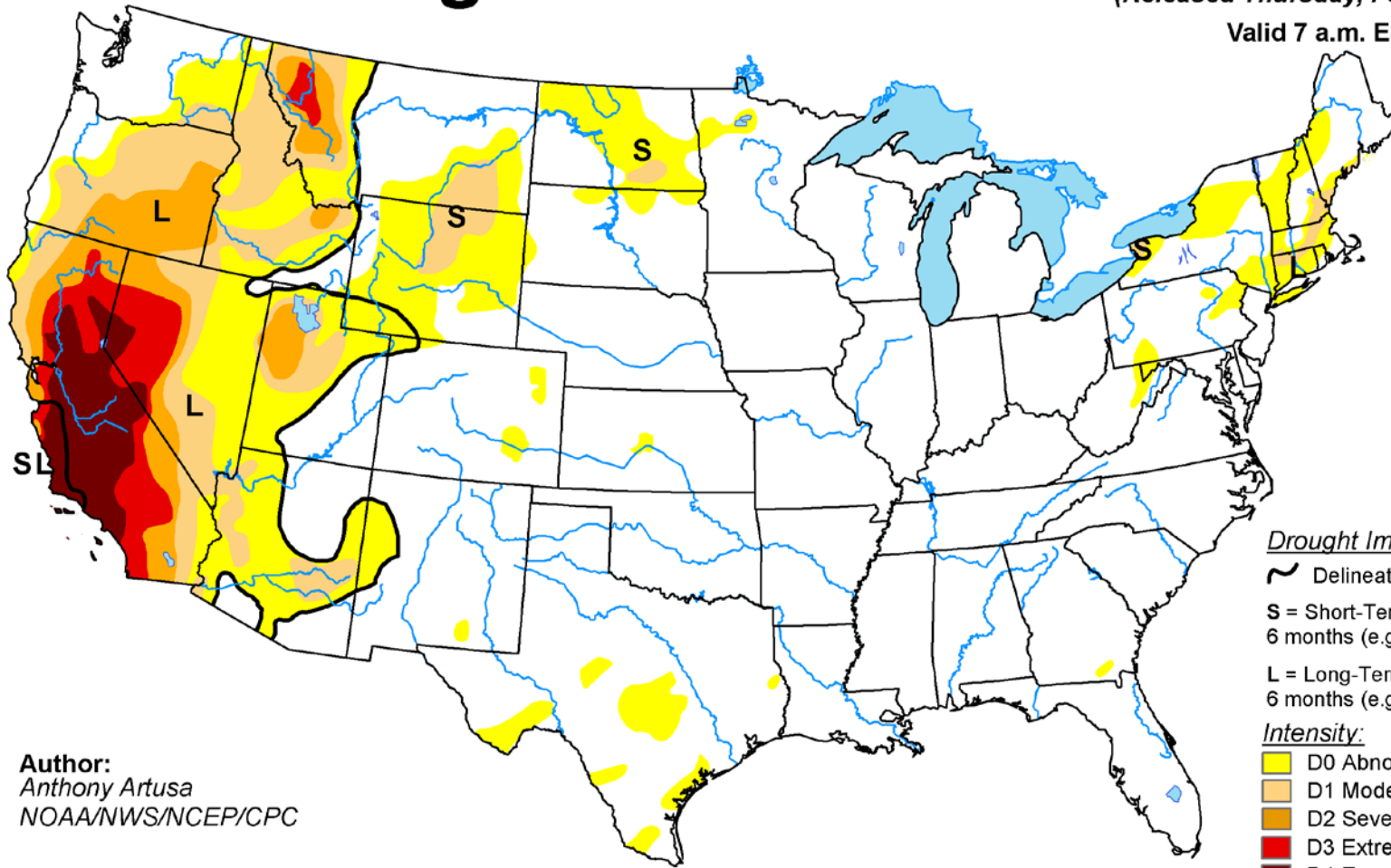
Boulder Precipitation Accumulation



U.S. Drought Monitor

February 9, 2016
(Released Thursday, Feb. 11, 2016)

Valid 7 a.m. EST



Author:
Anthony Artusa
NOAA/NWS/NCEP/CPC

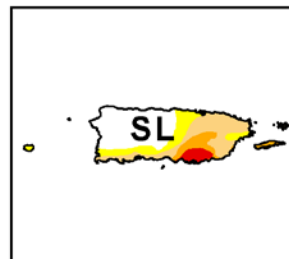
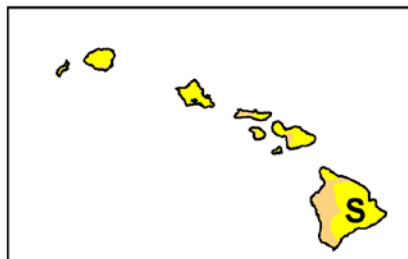
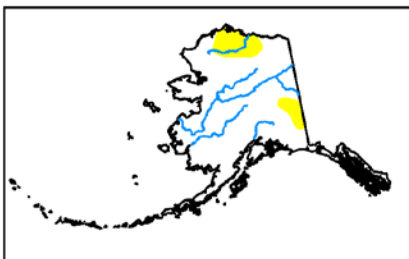
Drought Impact Types:

- ~ 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.



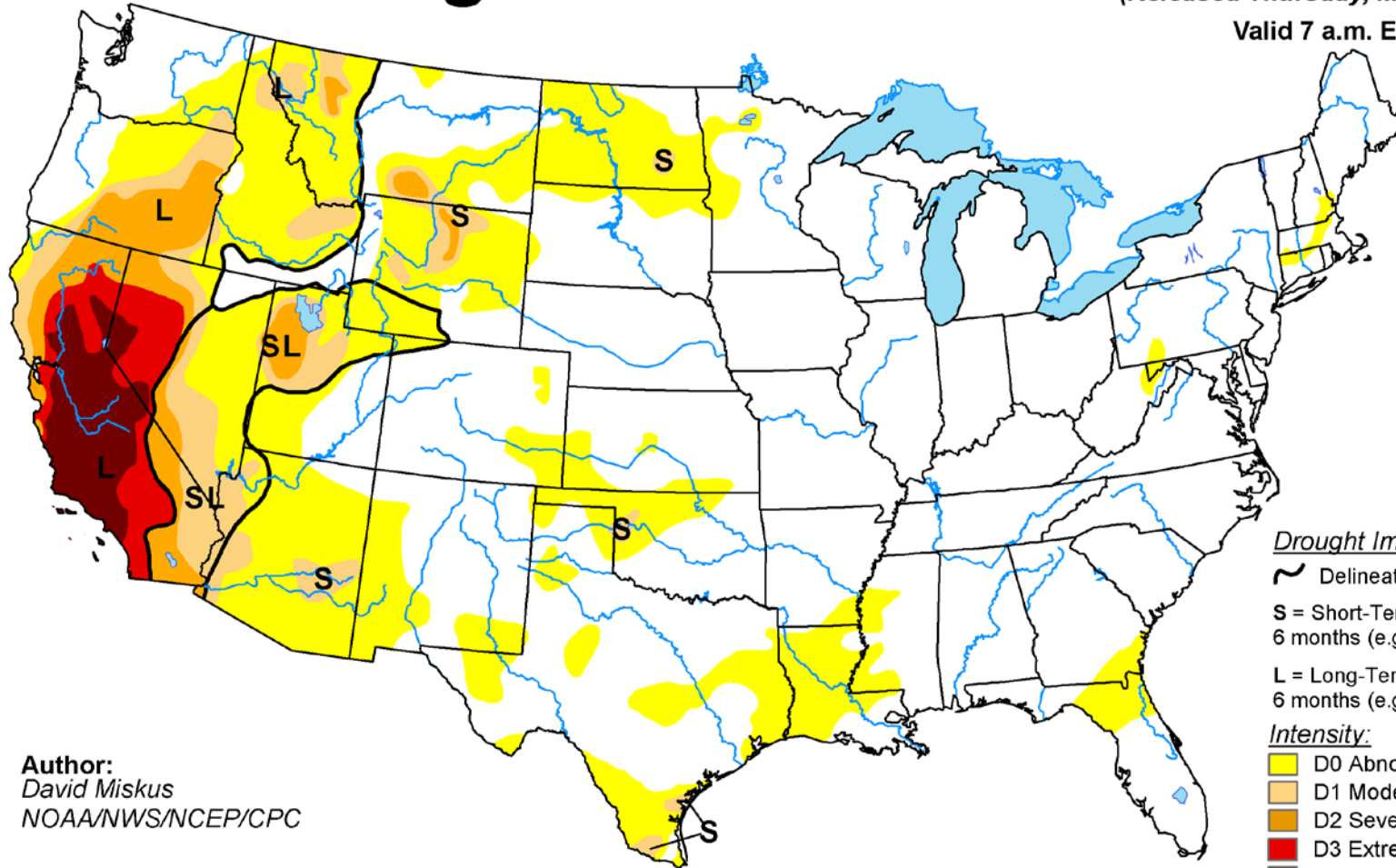
<http://droughtmonitor.unl.edu/>

U.S. Drought Monitor

March 8, 2016

(Released Thursday, Mar. 10, 2016)

Valid 7 a.m. EST



Author:
David Miskus
NOAA/NWS/NCEP/CPC

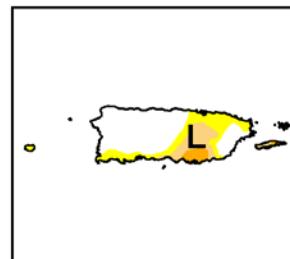
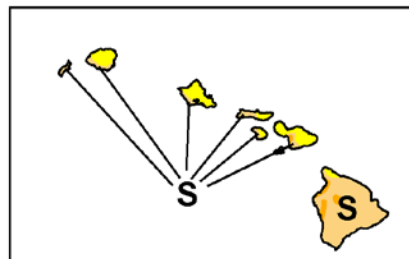
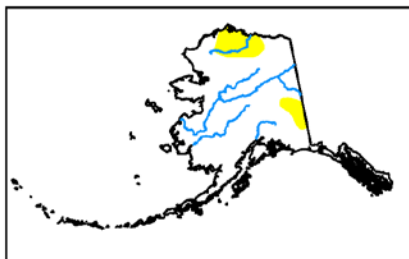
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The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.



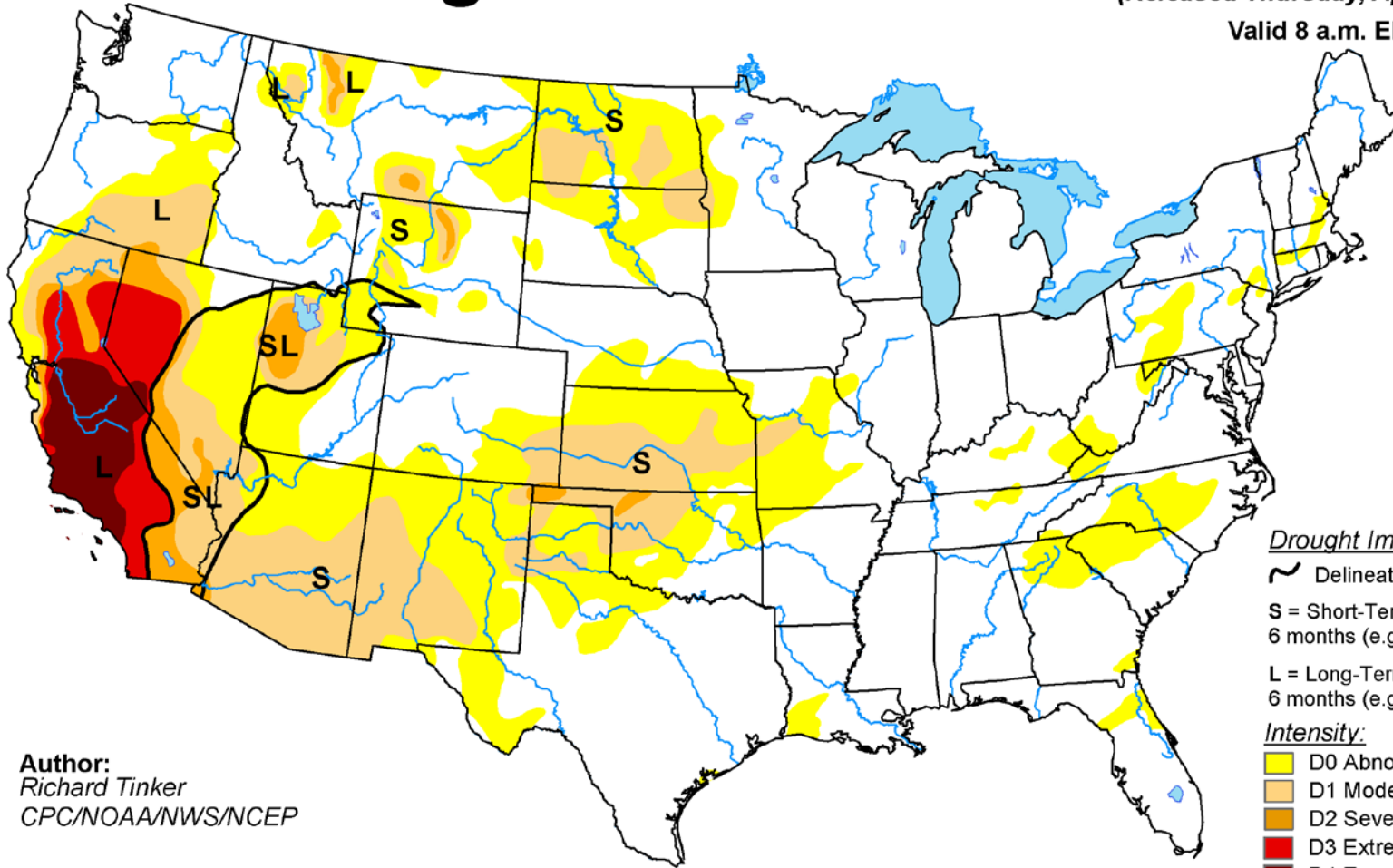
<http://droughtmonitor.unl.edu/>

U.S. Drought Monitor

April 12, 2016

(Released Thursday, Apr. 14, 2016)

Valid 8 a.m. EDT



Author:
Richard Tinker
CPC/NOAA/NWS/NCEP

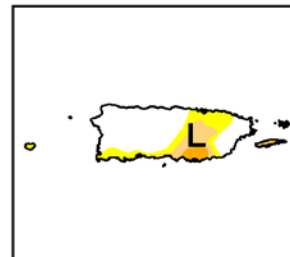
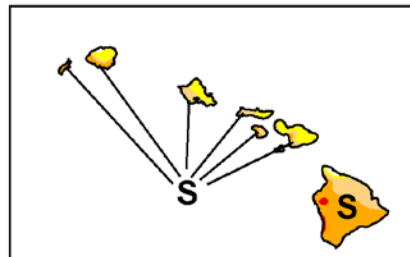
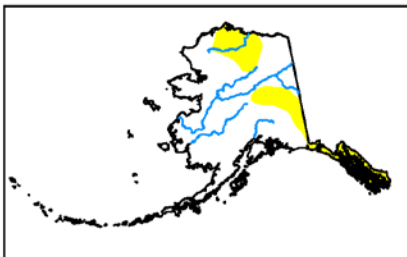
Drought Impact Types:

- ~ 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:

- 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.



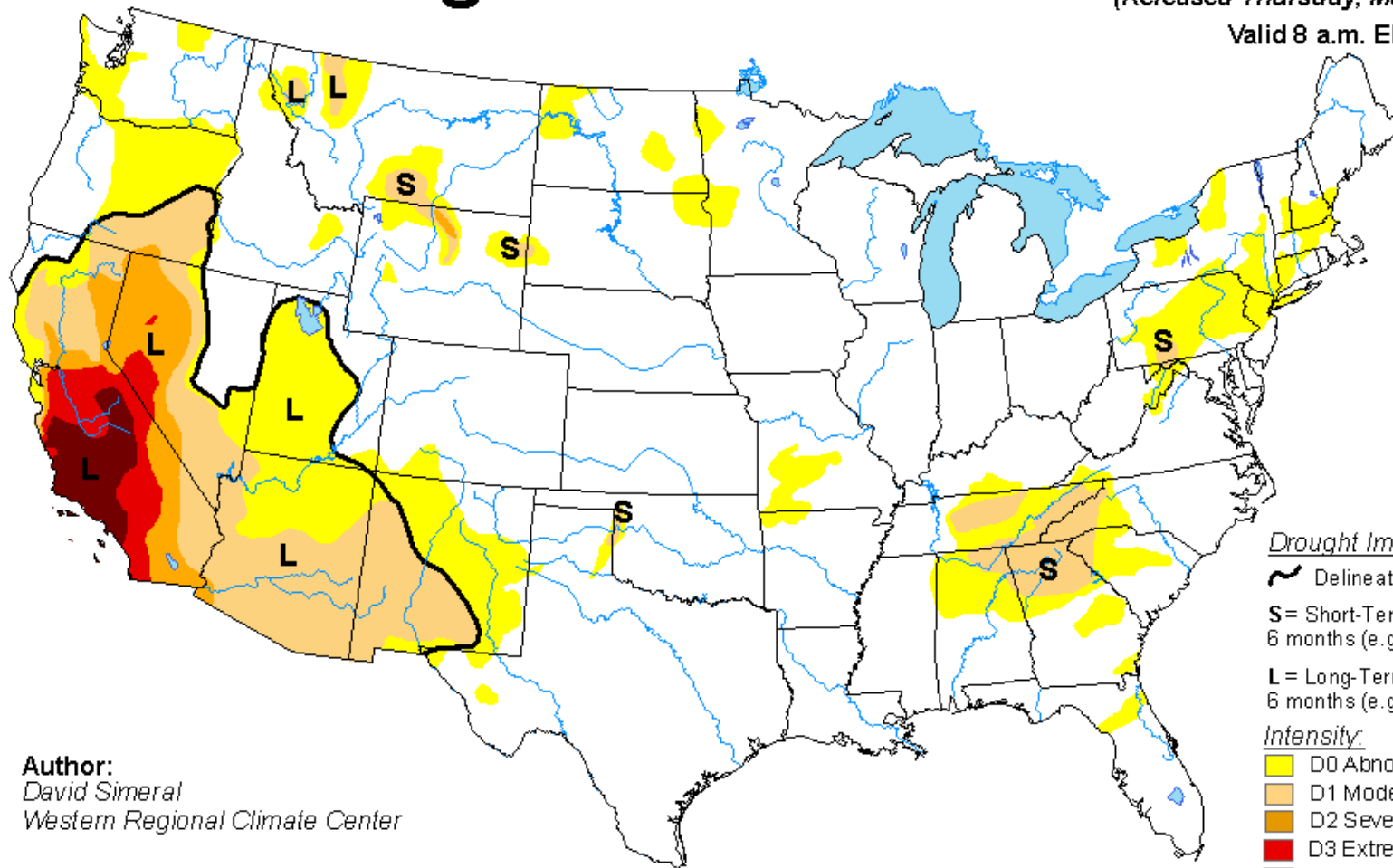
<http://droughtmonitor.unl.edu/>

U.S. Drought Monitor

May 17, 2016

(Released Thursday, May. 19, 2016)

Valid 8 a.m. EDT



Author:
David Simeral
Western Regional Climate 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

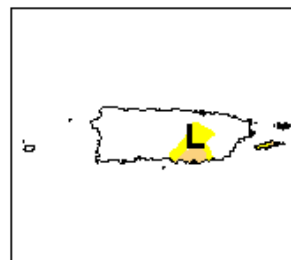
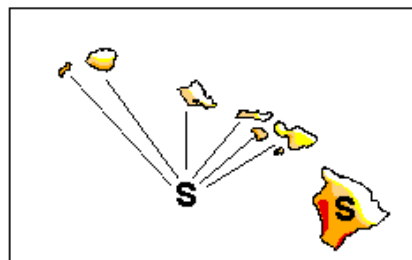
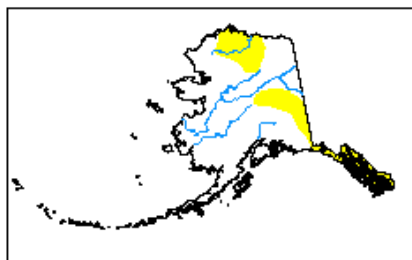
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Dark Orange: D2 Severe Drought

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.



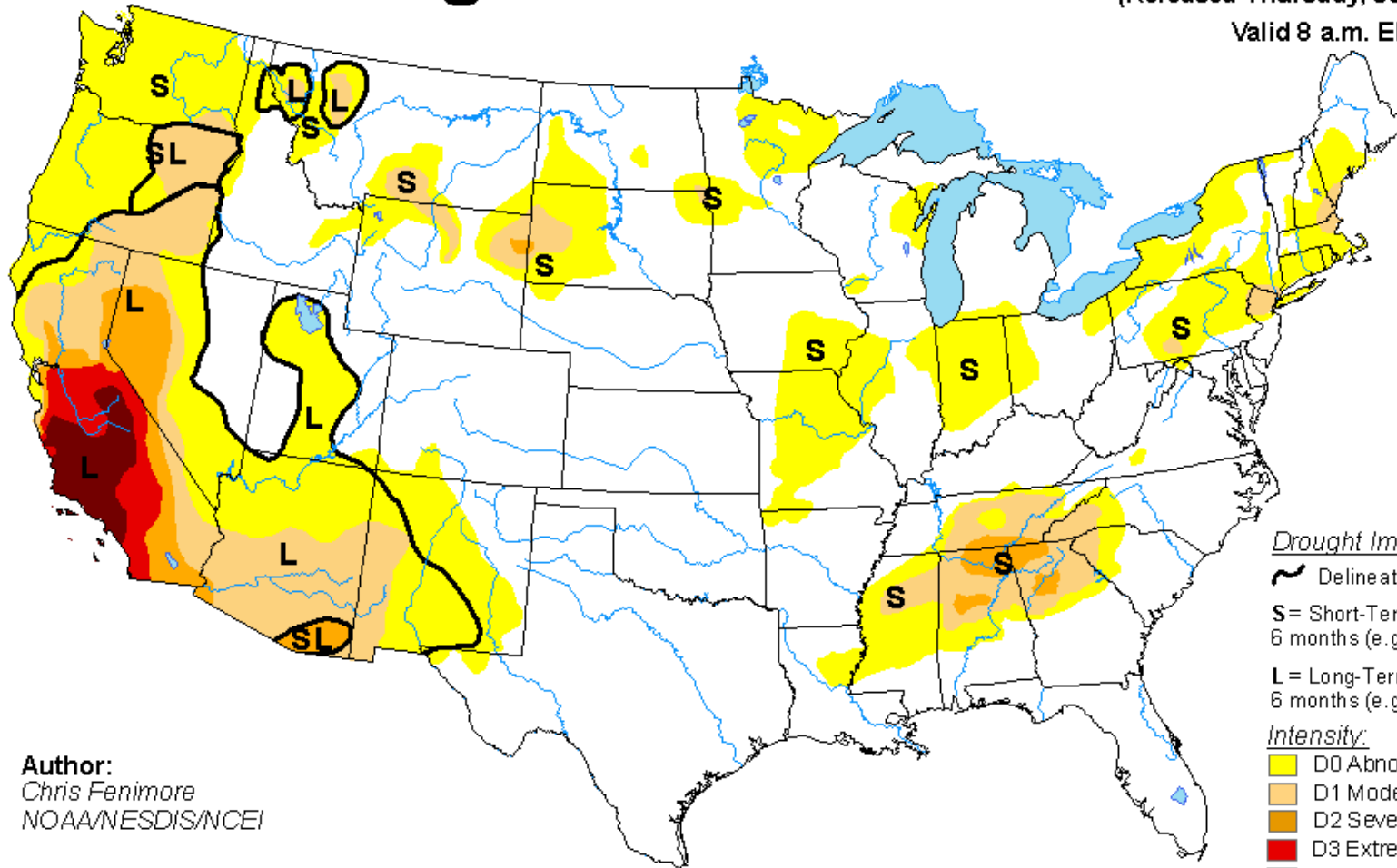
<http://droughtmonitor.unl.edu/>

U.S. Drought Monitor

June 14, 2016


(Released Thursday, Jun. 16, 2016)

Valid 8 a.m. EDT








Author:
Chris Fenimore
NOAA/NESDIS/NCEI

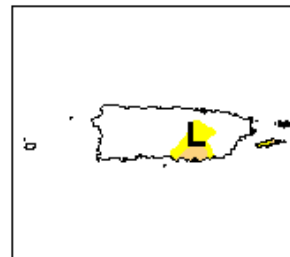
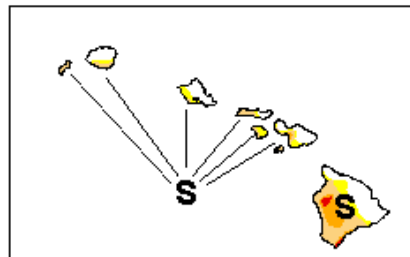
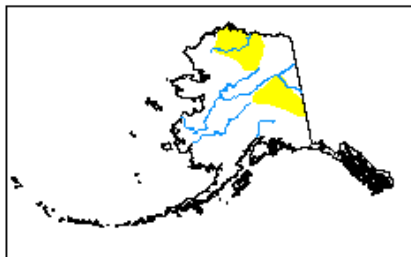
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Intensity:

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-  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.



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

U.S. Drought Monitor

Colorado

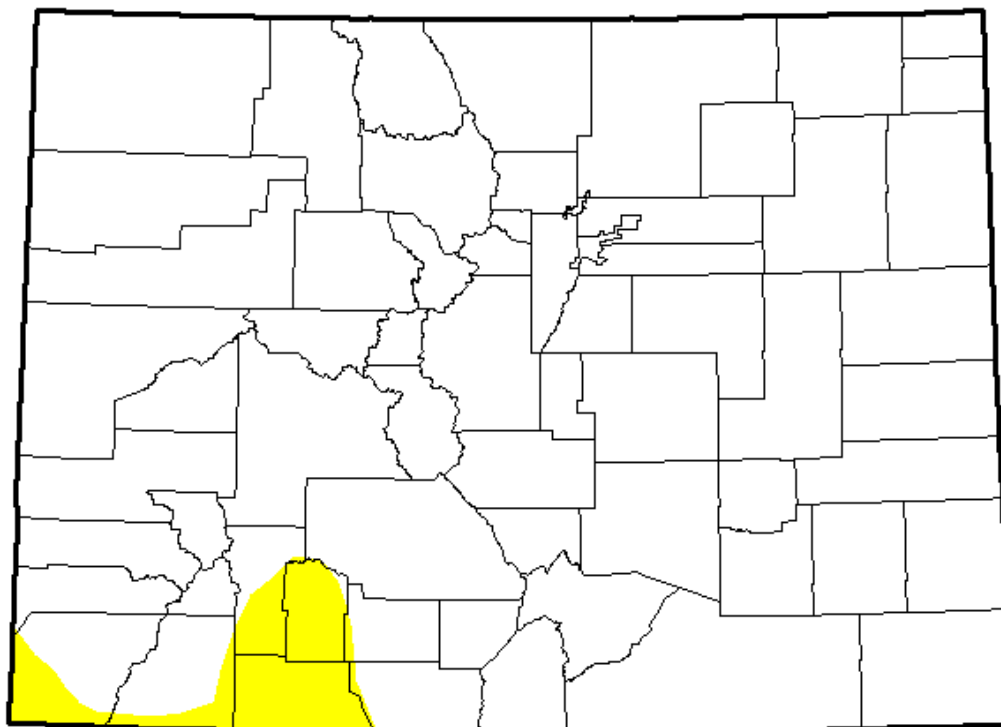
June 14, 2016

(Released Thursday, Jun. 16, 2016)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	96.17	3.83	0.00	0.00	0.00	0.00
Last Week <i>6/7/2016</i>	96.17	3.83	0.00	0.00	0.00	0.00
3 Months Ago <i>3/15/2016</i>	72.25	27.75	0.03	0.00	0.00	0.00
Start of Calendar Year <i>1/22/2015</i>	90.02	9.98	0.00	0.00	0.00	0.00
Start of Water Year <i>9/29/2015</i>	71.49	28.51	0.00	0.00	0.00	0.00
One Year Ago <i>6/16/2015</i>	74.22	25.78	0.00	0.00	0.00	0.00



Intensity:



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

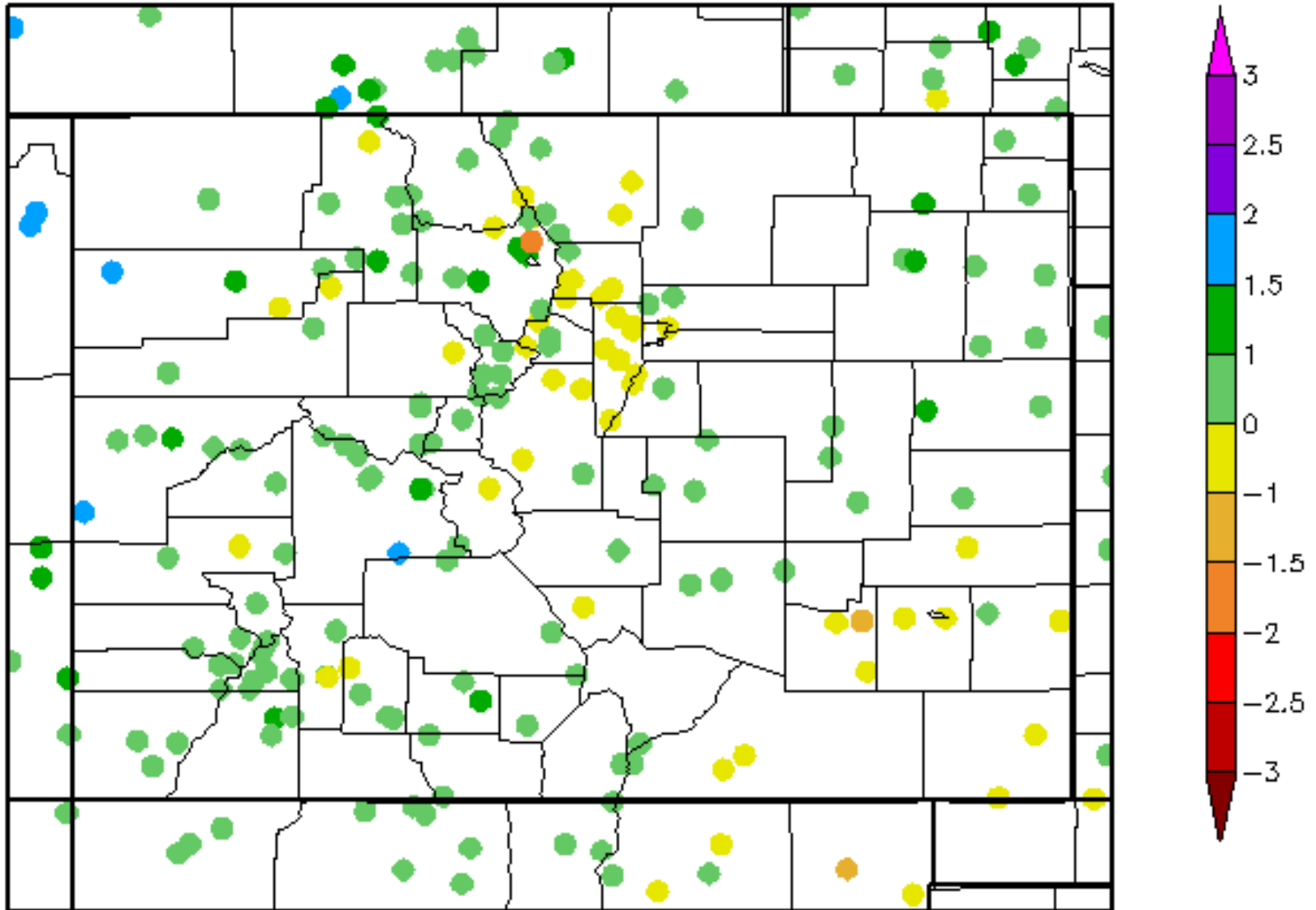
Author:

Chris Fenimore
NOAA/NESDIS/NCEI



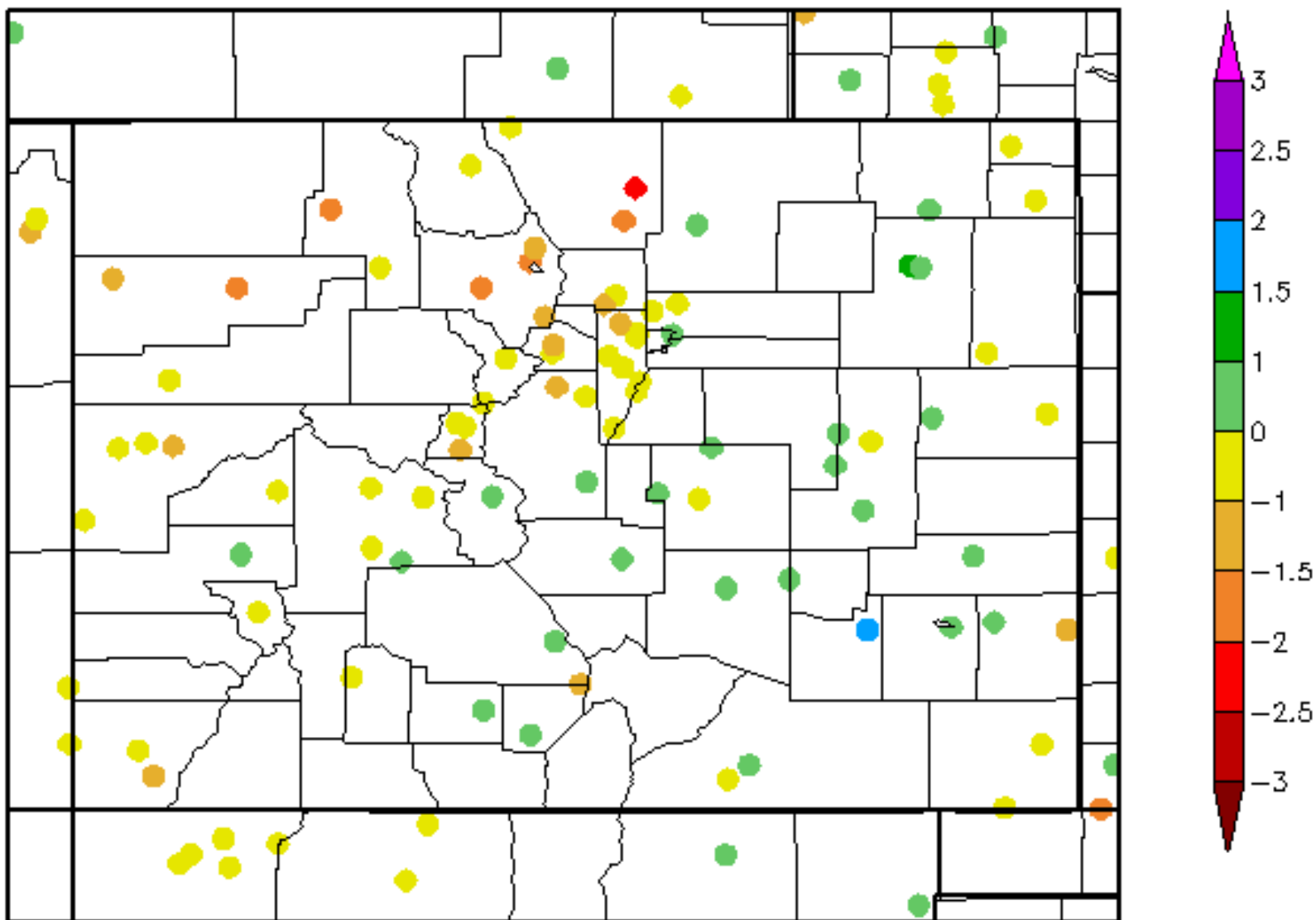
Monthly SPI

5/1/2016 - 5/31/2016



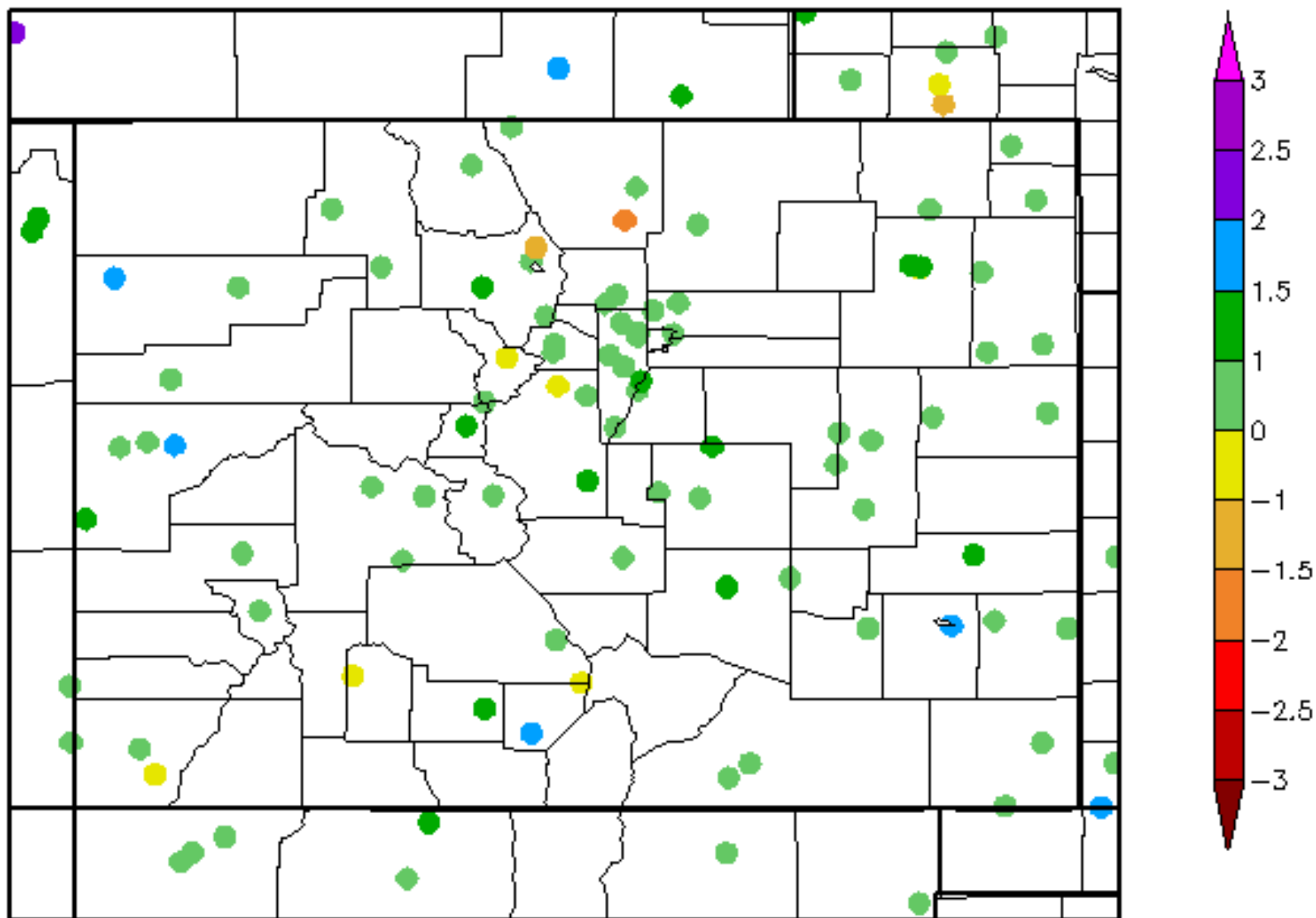
30 Day SPI

5/23/2016 - 6/21/2016



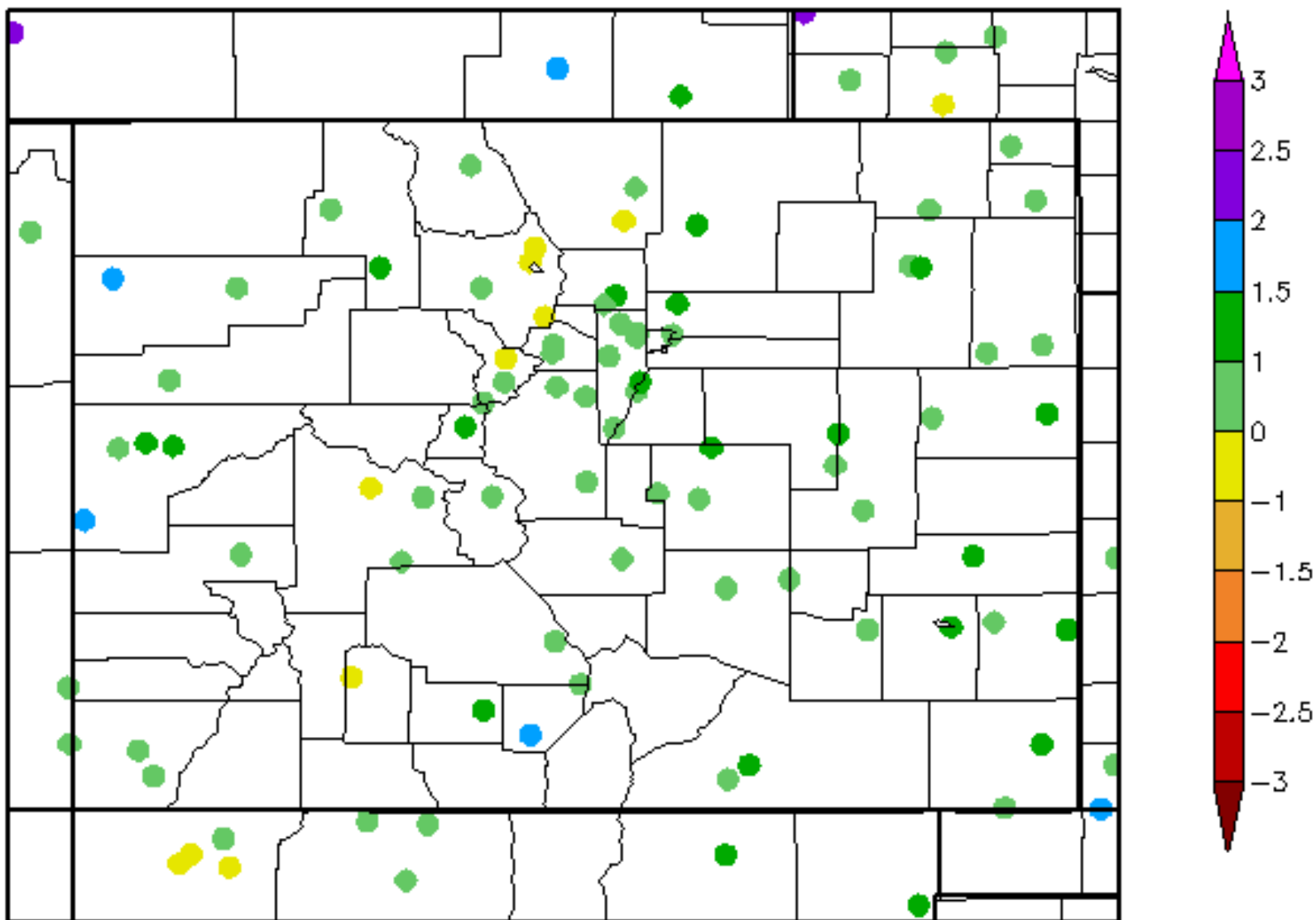
90 Day SPI

3/24/2016 - 6/21/2016



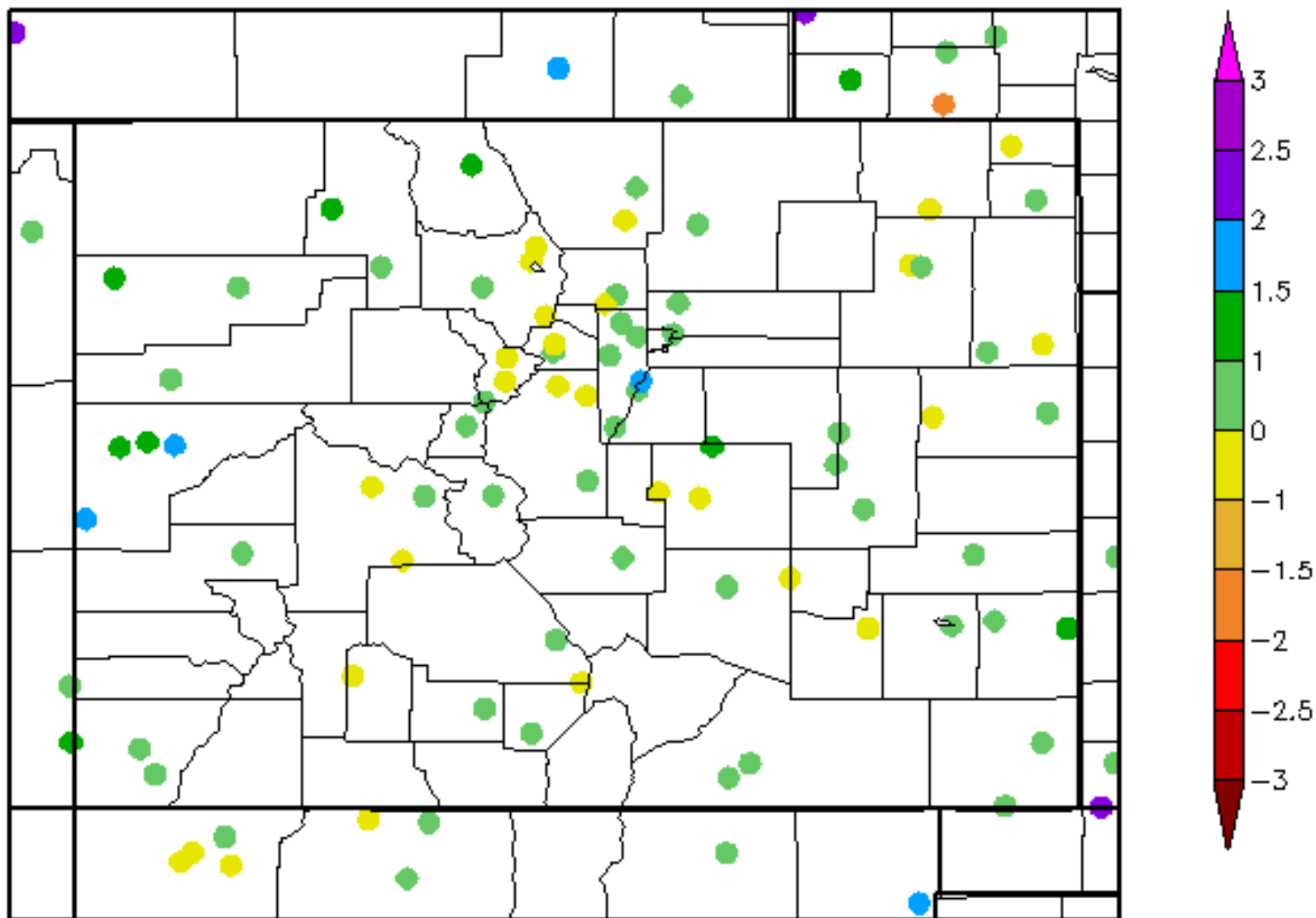
9 Month SPI

9/22/2015 - 6/21/2016



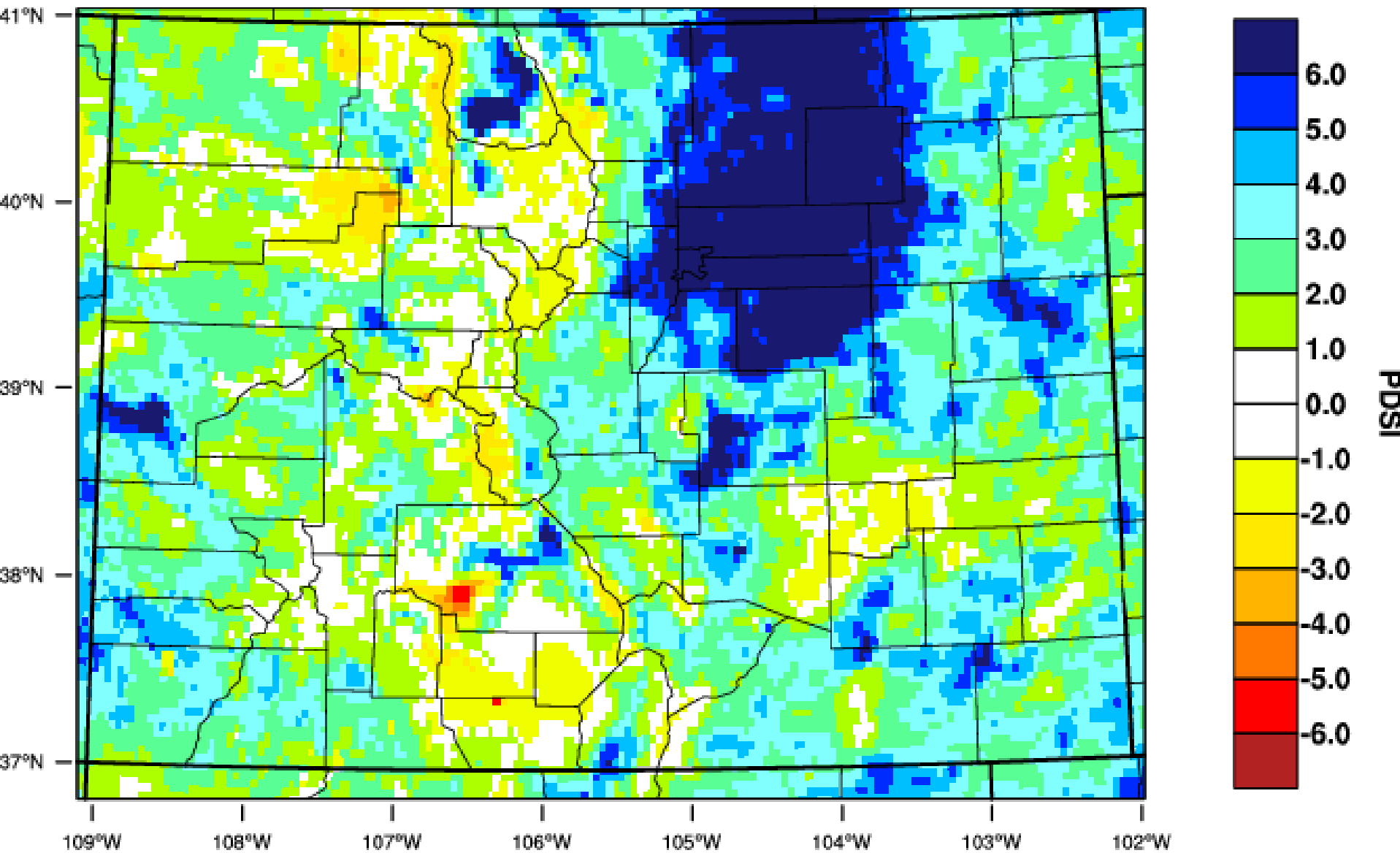
12 Month SPI

6/22/2015 - 6/21/2016



Colorado - PDSI

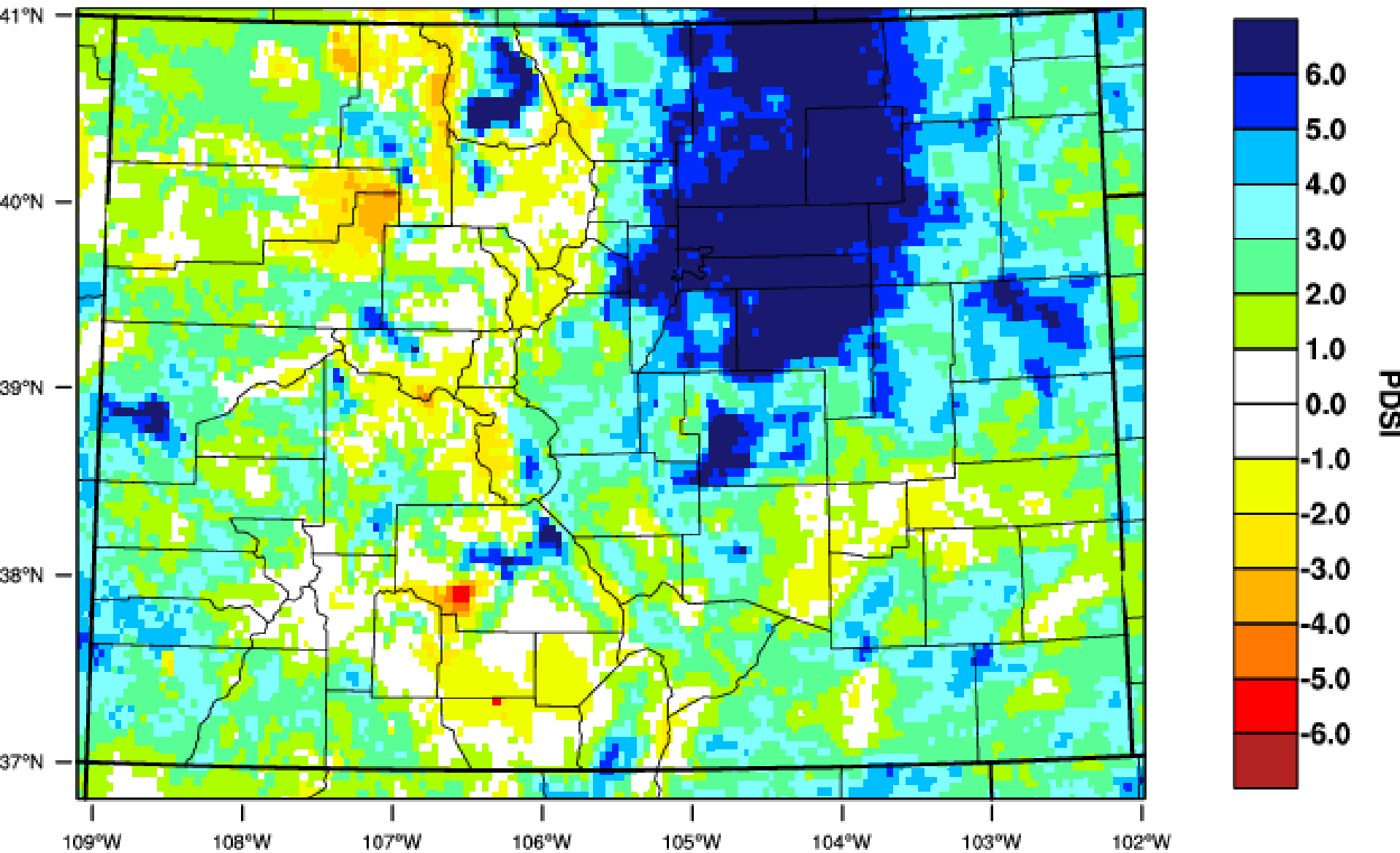
January 2016



WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 16 FEB 2016

Colorado - PDSI

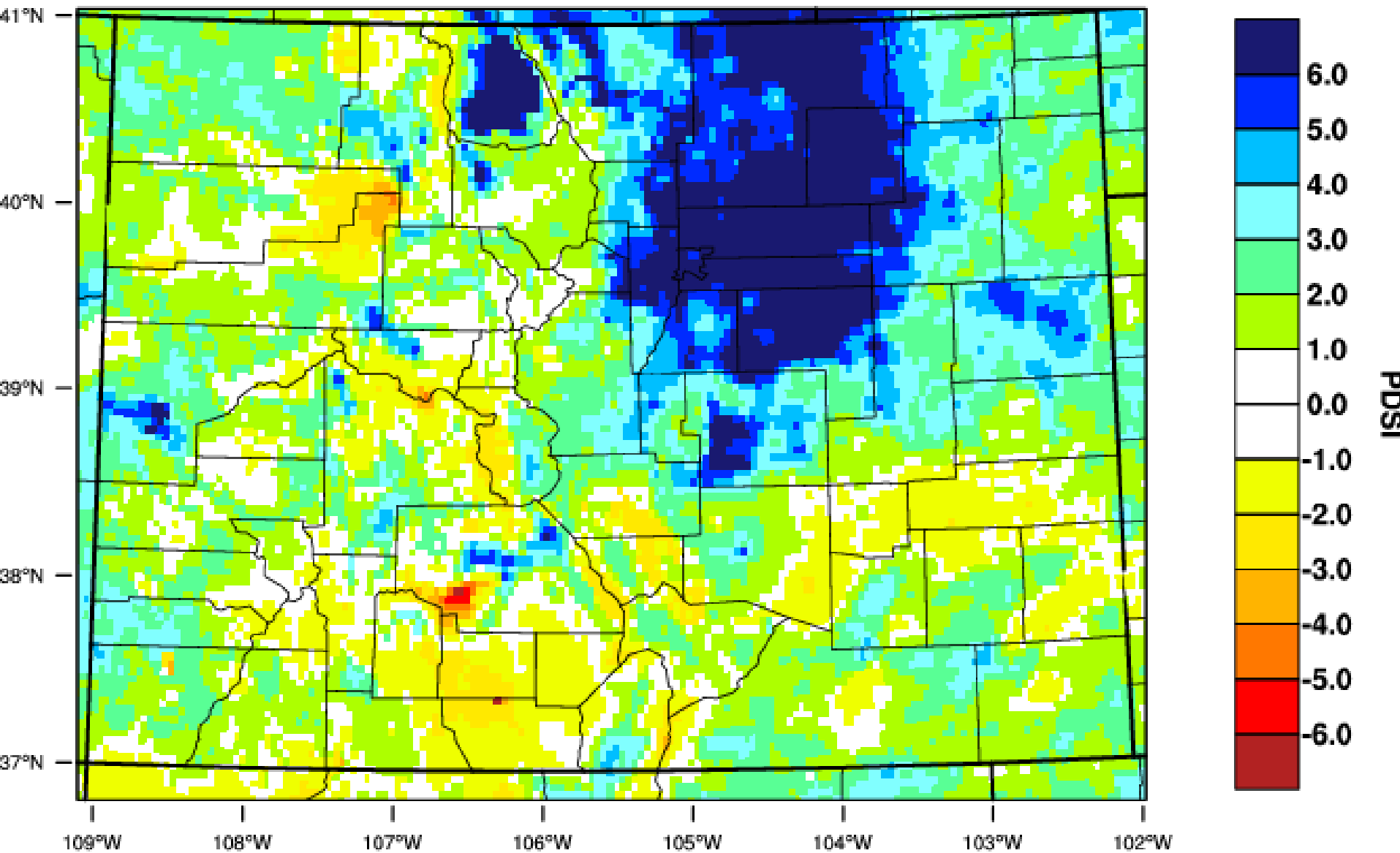
February 2016



WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 16 MAR 2016

Colorado - PDSI

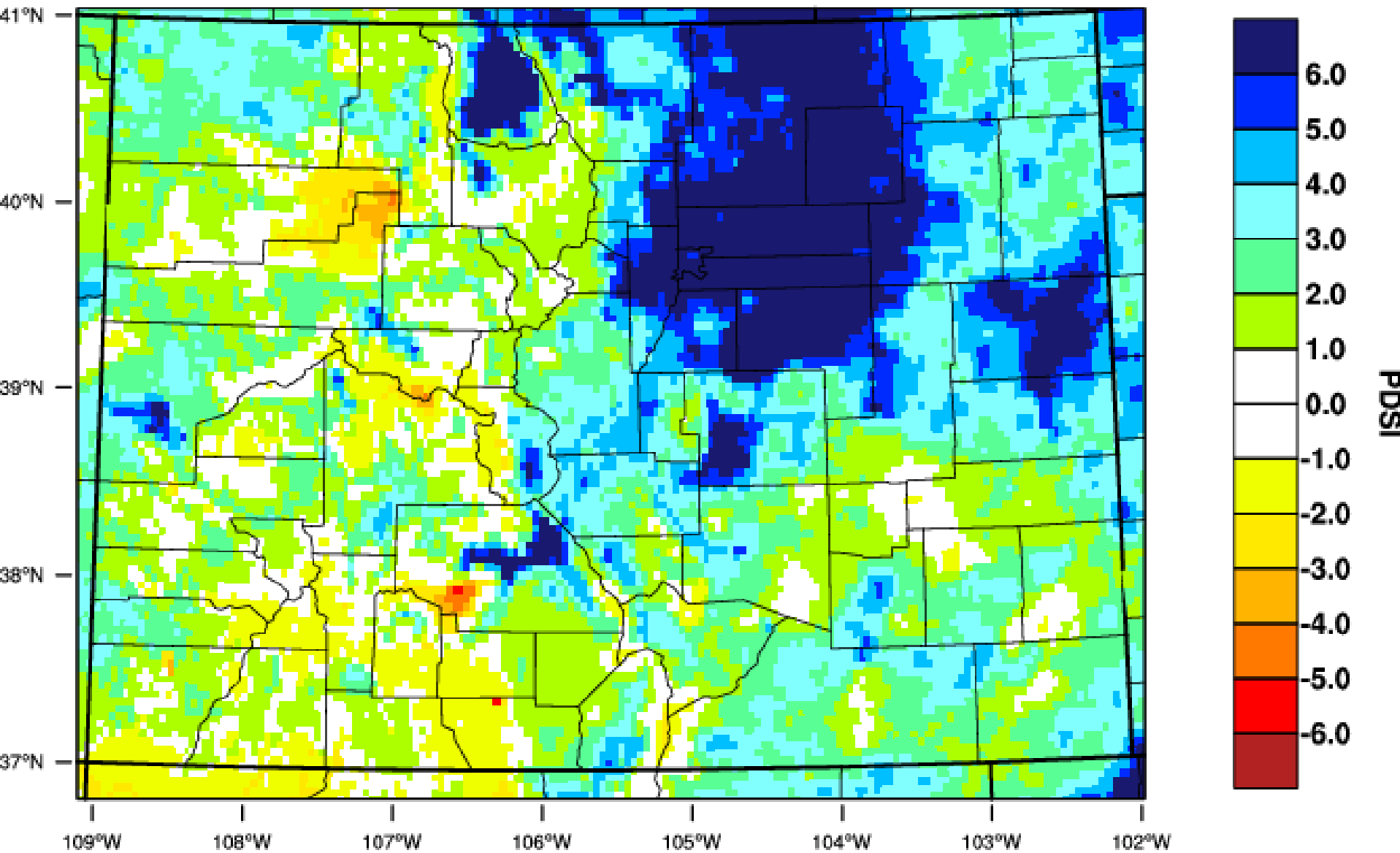
March 2016



WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 11 APR 2016

Colorado - PDSI

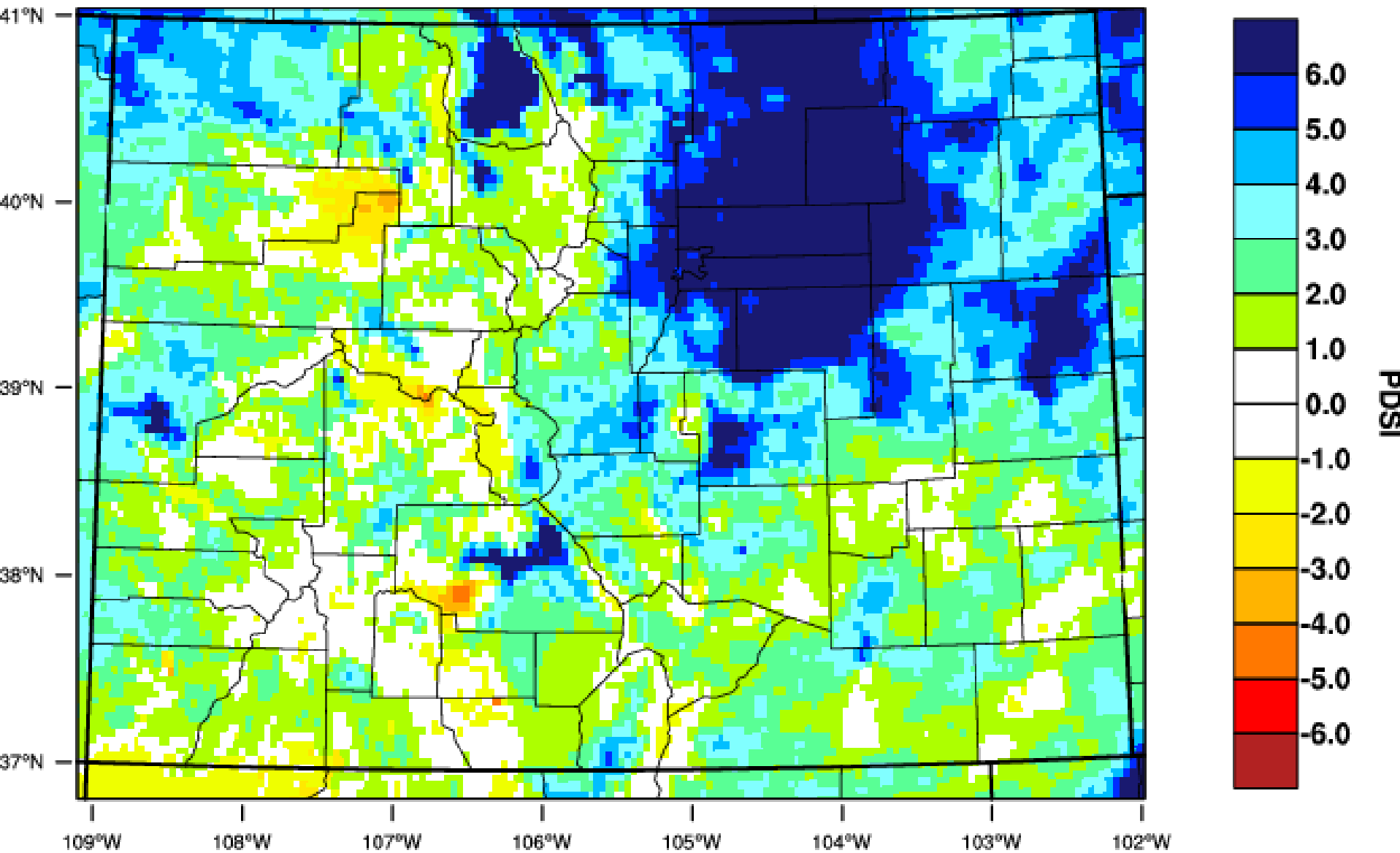
April 2016



WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 16 MAY 2016

Colorado - PDSI

May 2016

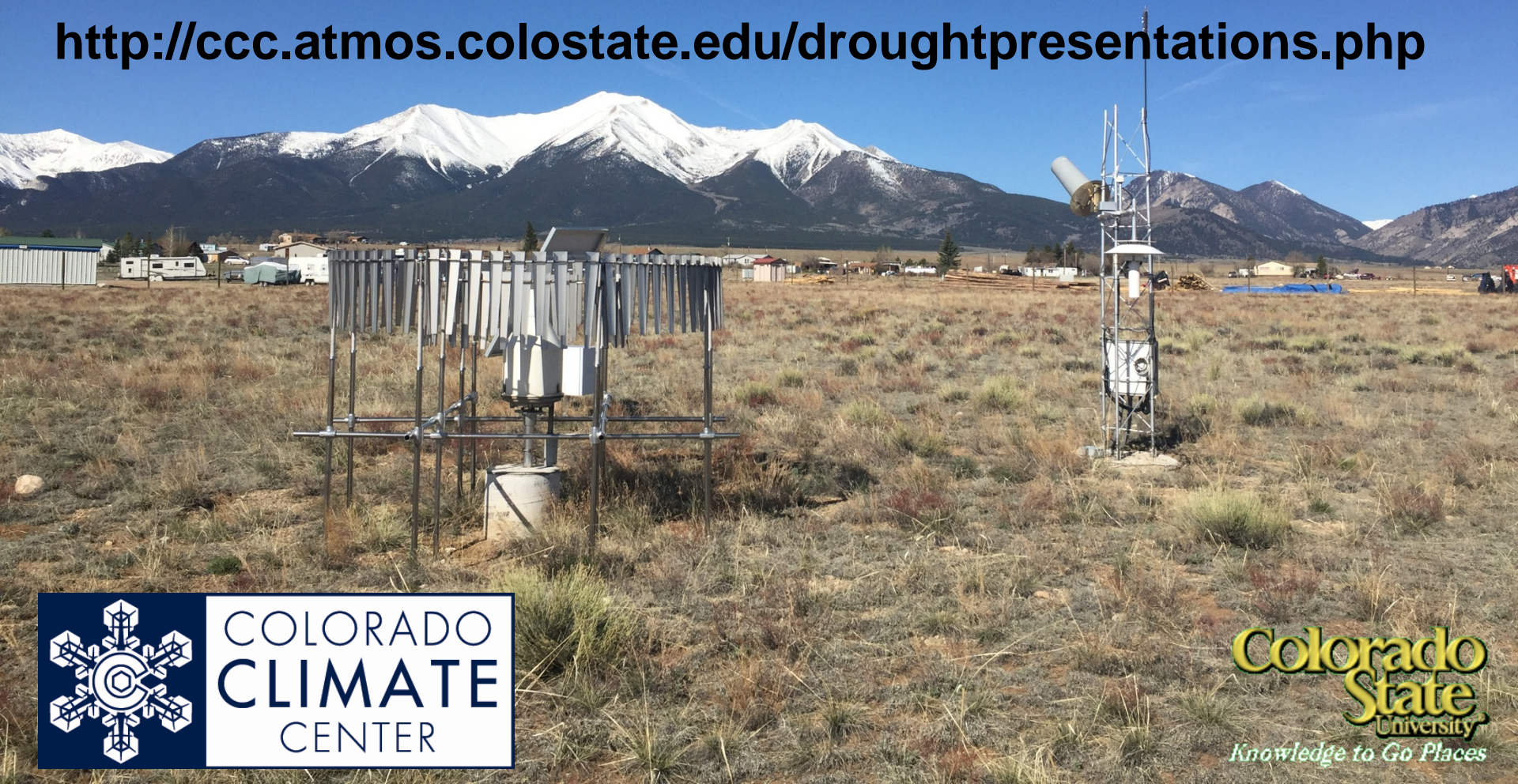


WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 16 JUN 2016

Colorado Climate Center

Data and Power Point Presentations available for downloading

<http://ccc.atmos.colostate.edu/droughtpresentations.php>



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