



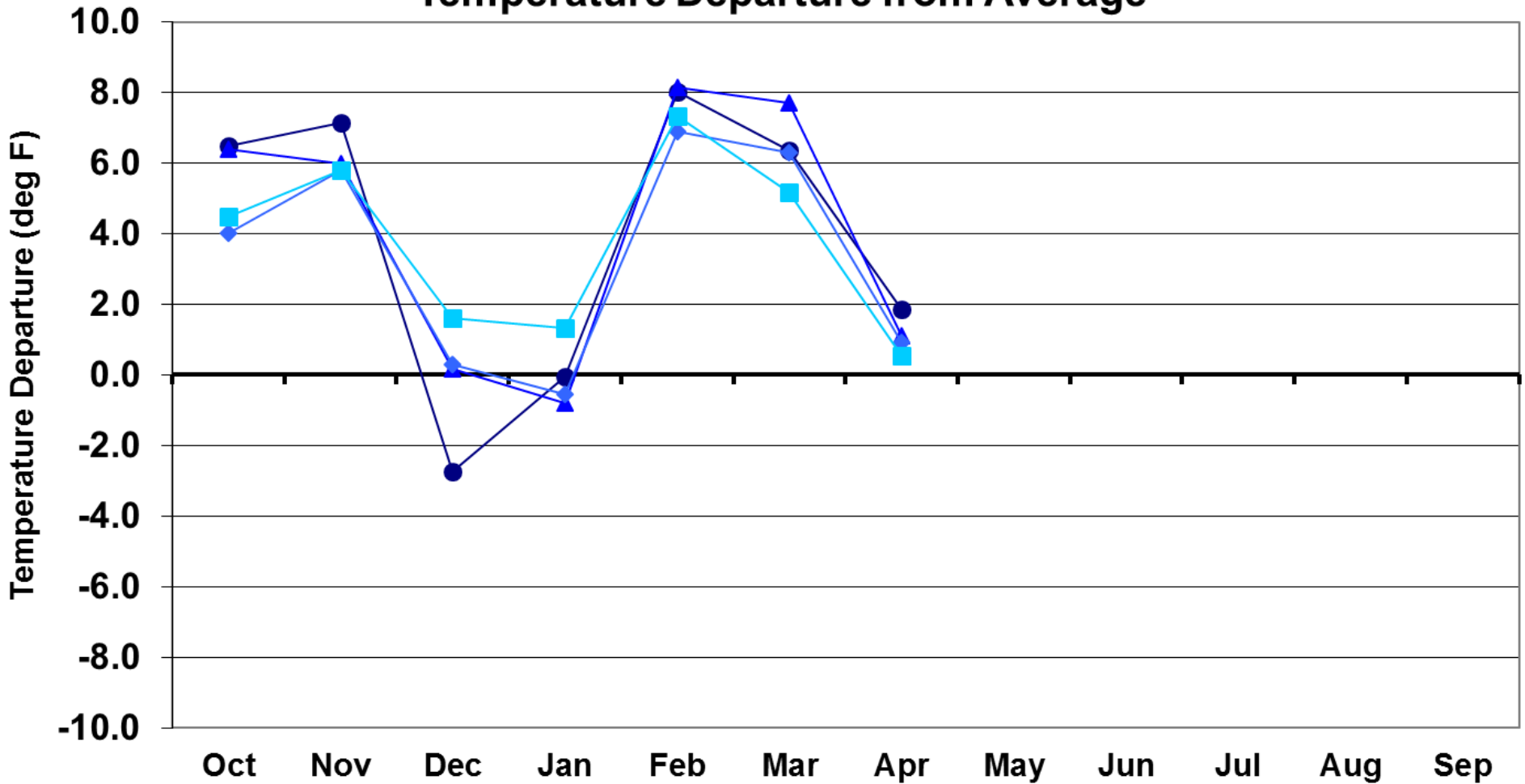
Climate Update

Becky Bolinger
Colorado Climate Center

Presented to
Water Availability Task Force
May 26, 2017
Denver, CO

Water Year 2017 Temperature Departures

Water Year 2017
Temperature Departure from Average



● Eastern Plains

▲ Foothills

◆ Mountains

■ Western Valleys

Apr 2017 Average Temperature History for Colorado (NCEI)

44.2 F (+1.7)

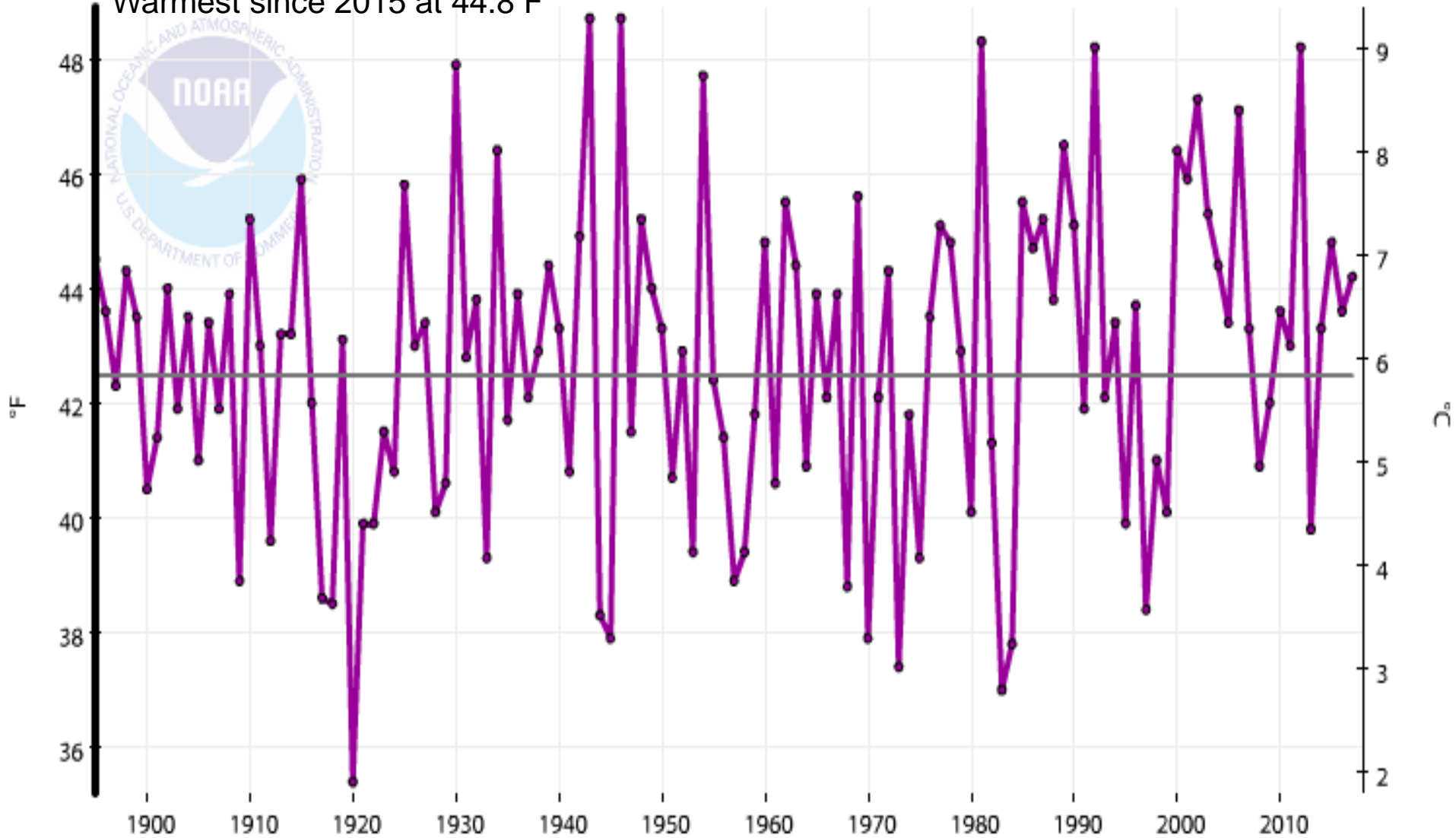
36th warmest on record

Warmest since 2015 at 44.8 F

Colorado, Average Temperature, April

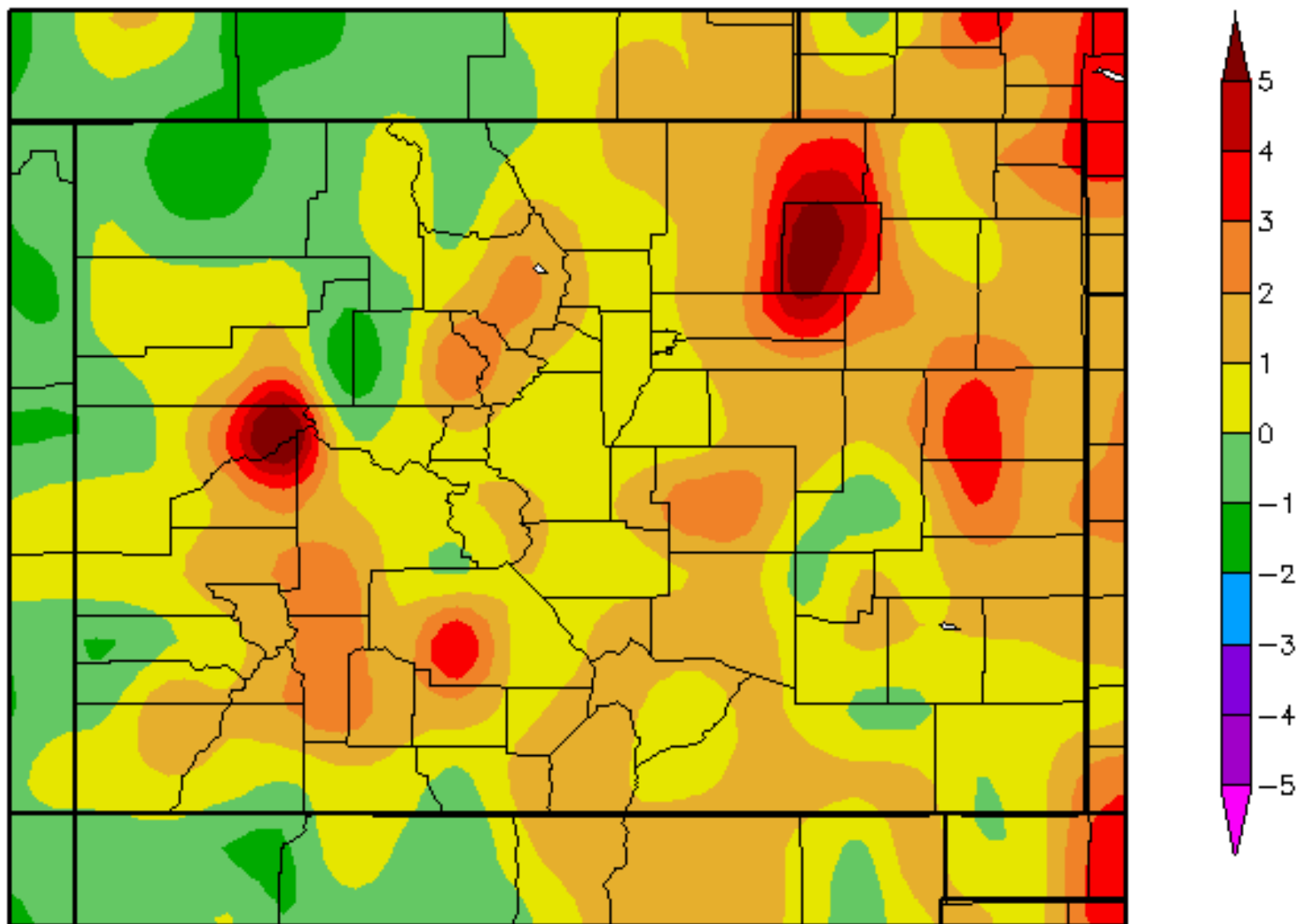
— 1901-2000
Mean: 42.5°F

● Avg Temperature



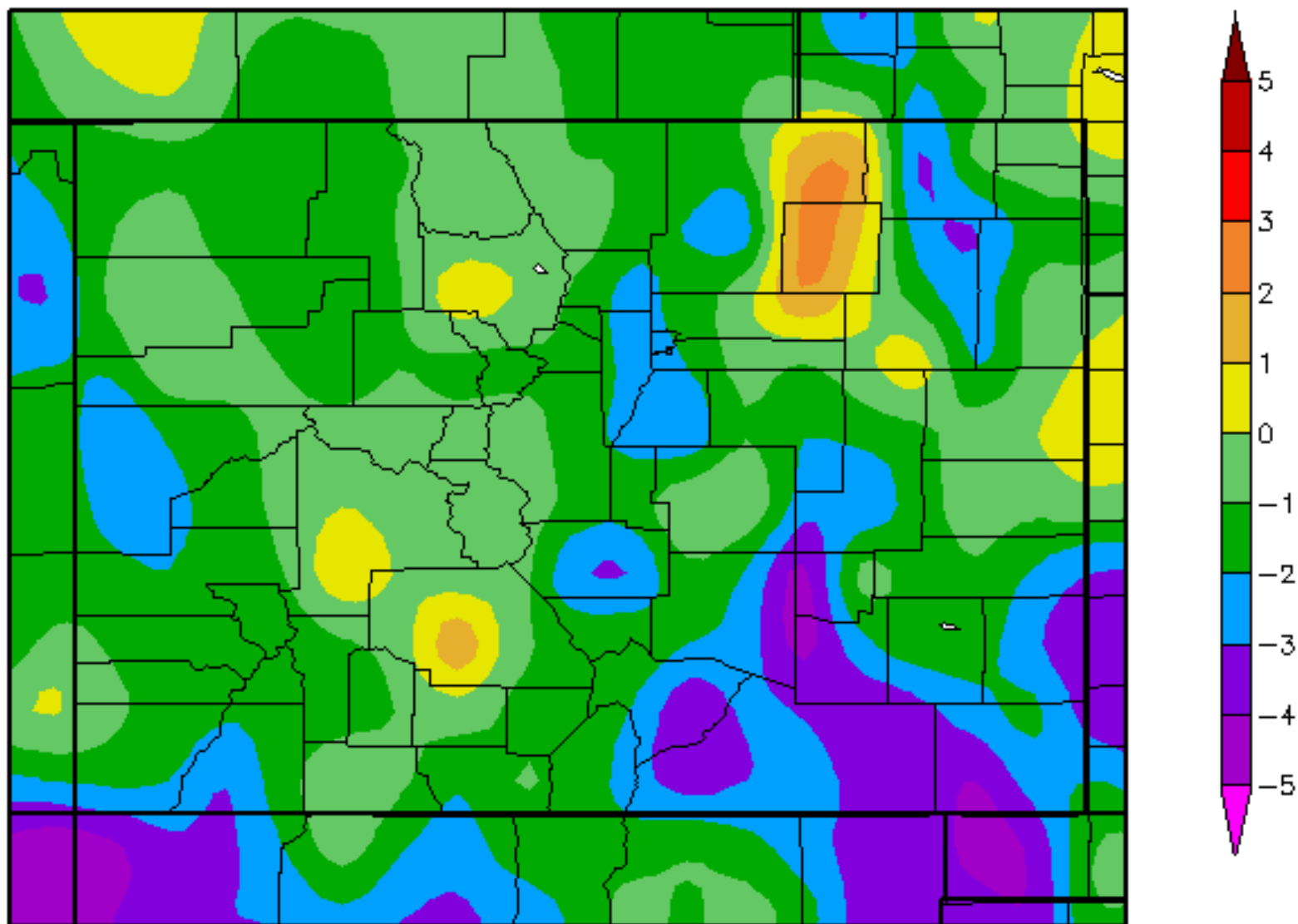
Departure from Normal Temperature (F)

4/1/2017 - 4/30/2017



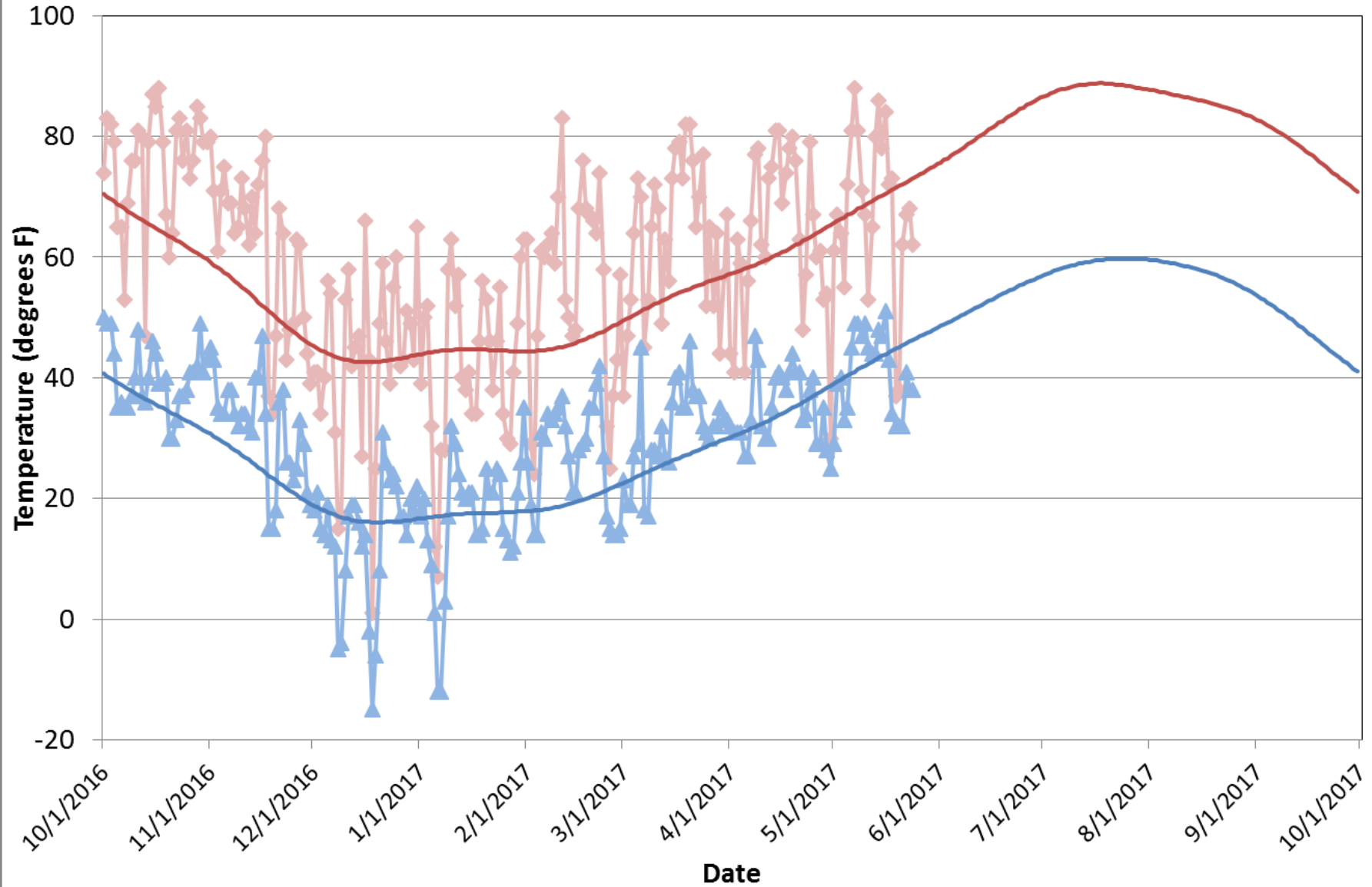
Departure from Normal Temperature (F)

5/1/2017 – 5/23/2017



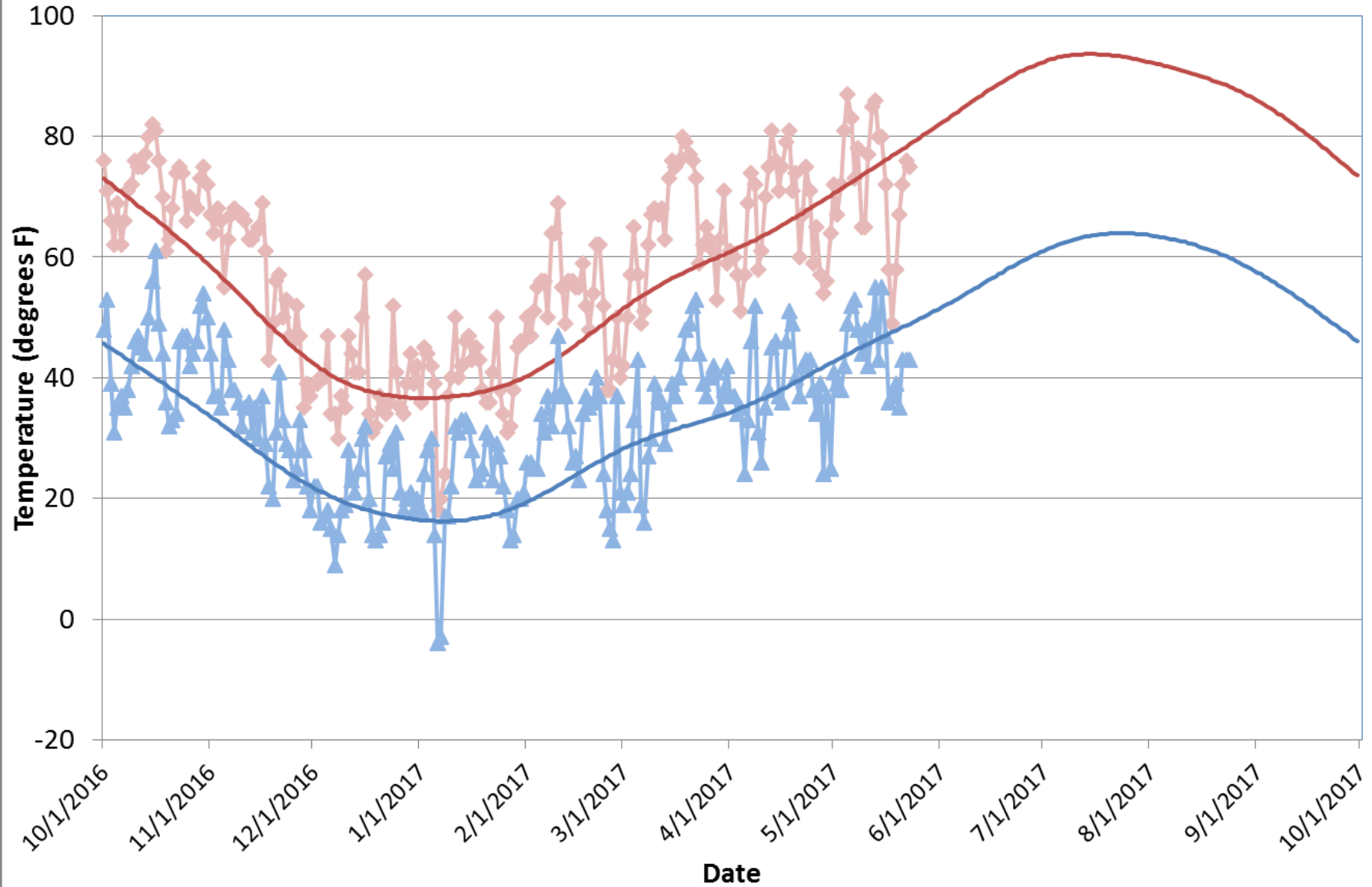
Denver-Stapleton Daily Max/Min Temperatures with Normals, Water Year 2017

Max Temperature Normal Max Temp Min Temperature Normal Min Temp

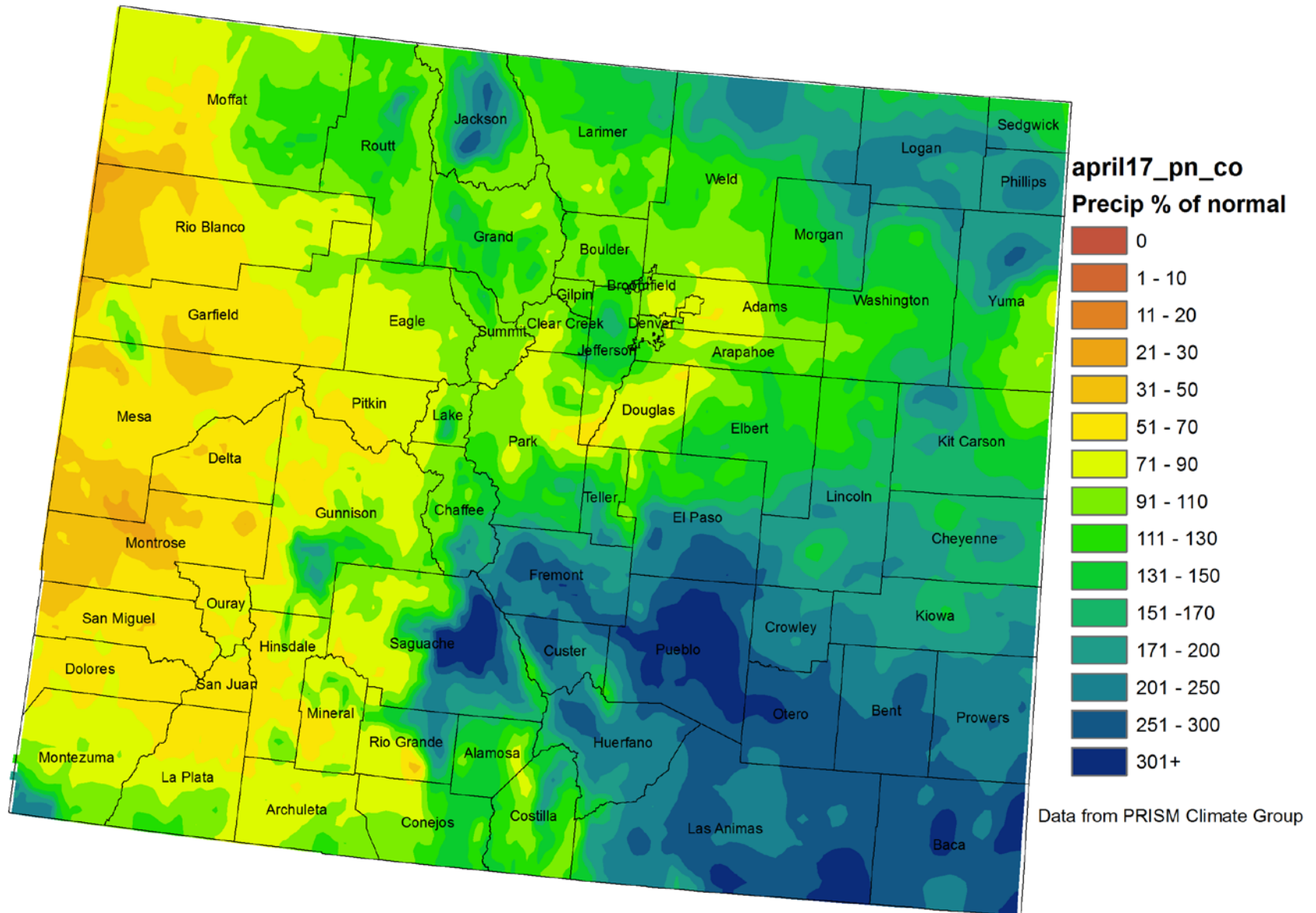


Grand Junction Daily Max/Min Temperature with Normals, WY 2017

Max Temperature Normal Max Temp Min Temperature Normal Min Temp



Colorado April 2017 Precipitation as a Percentage of Normal

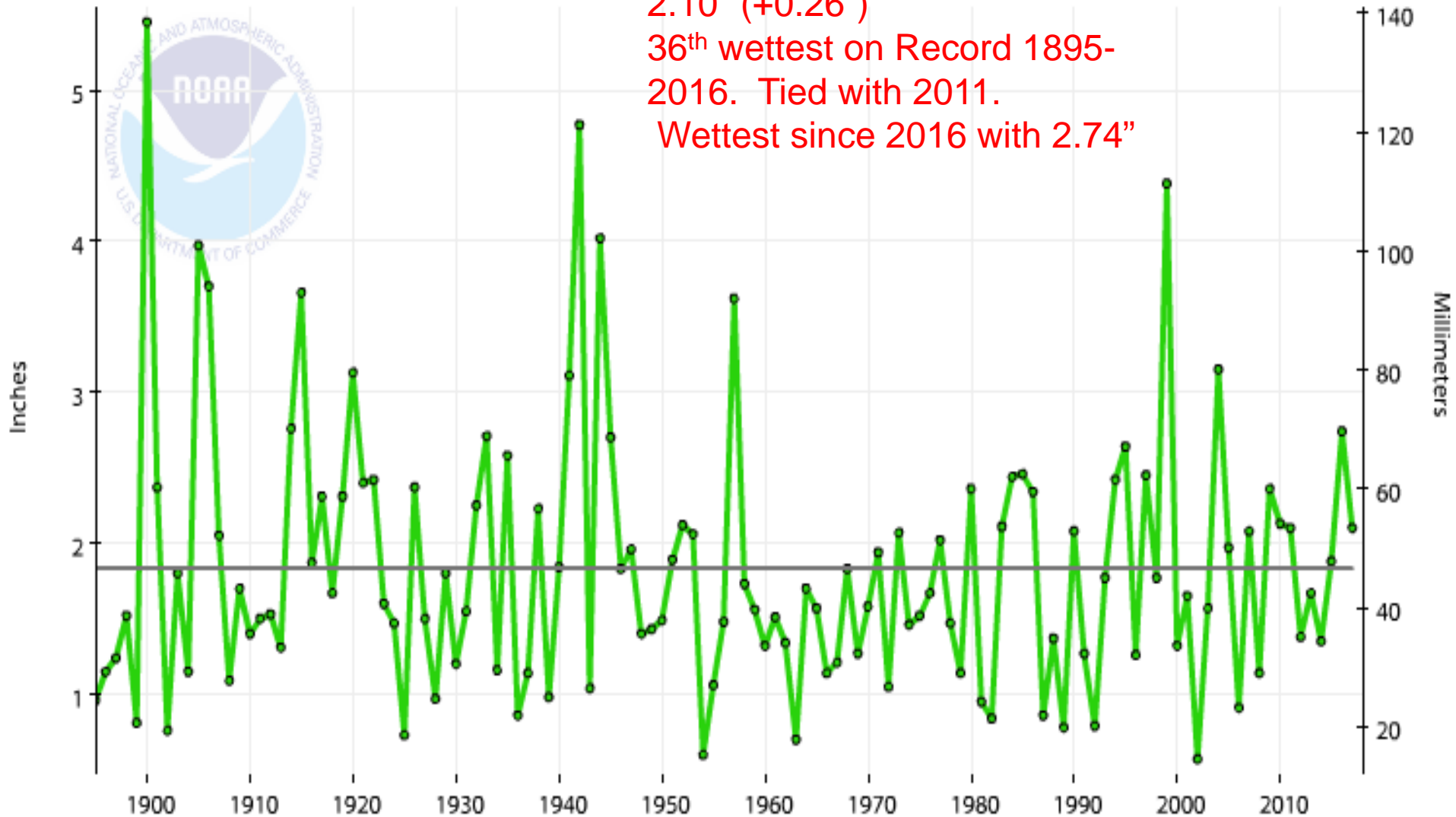


April 2017 Statewide Precipitation

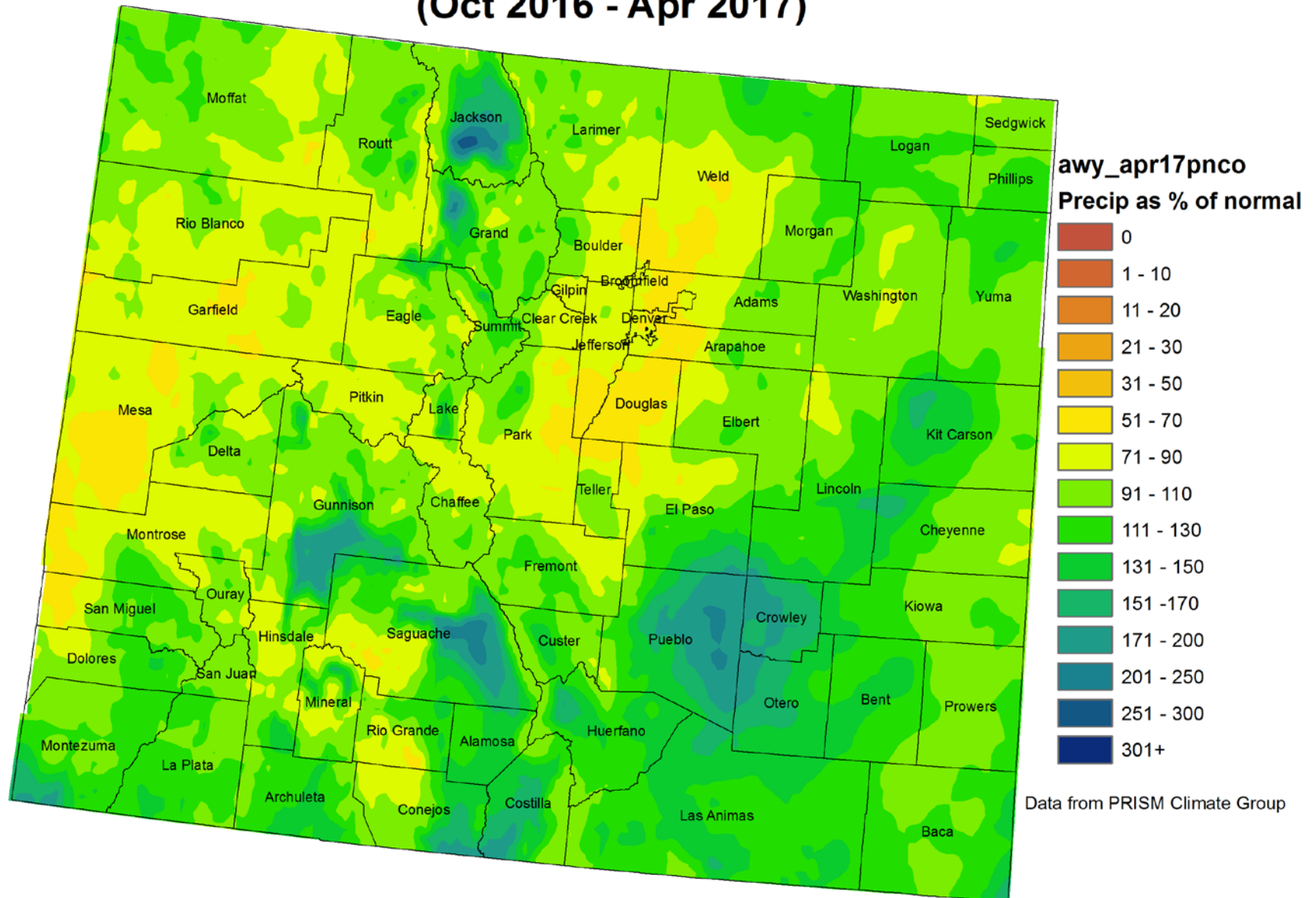
Colorado, Precipitation, April

— 1901-2000 Mean: 1.84" ■ Precip

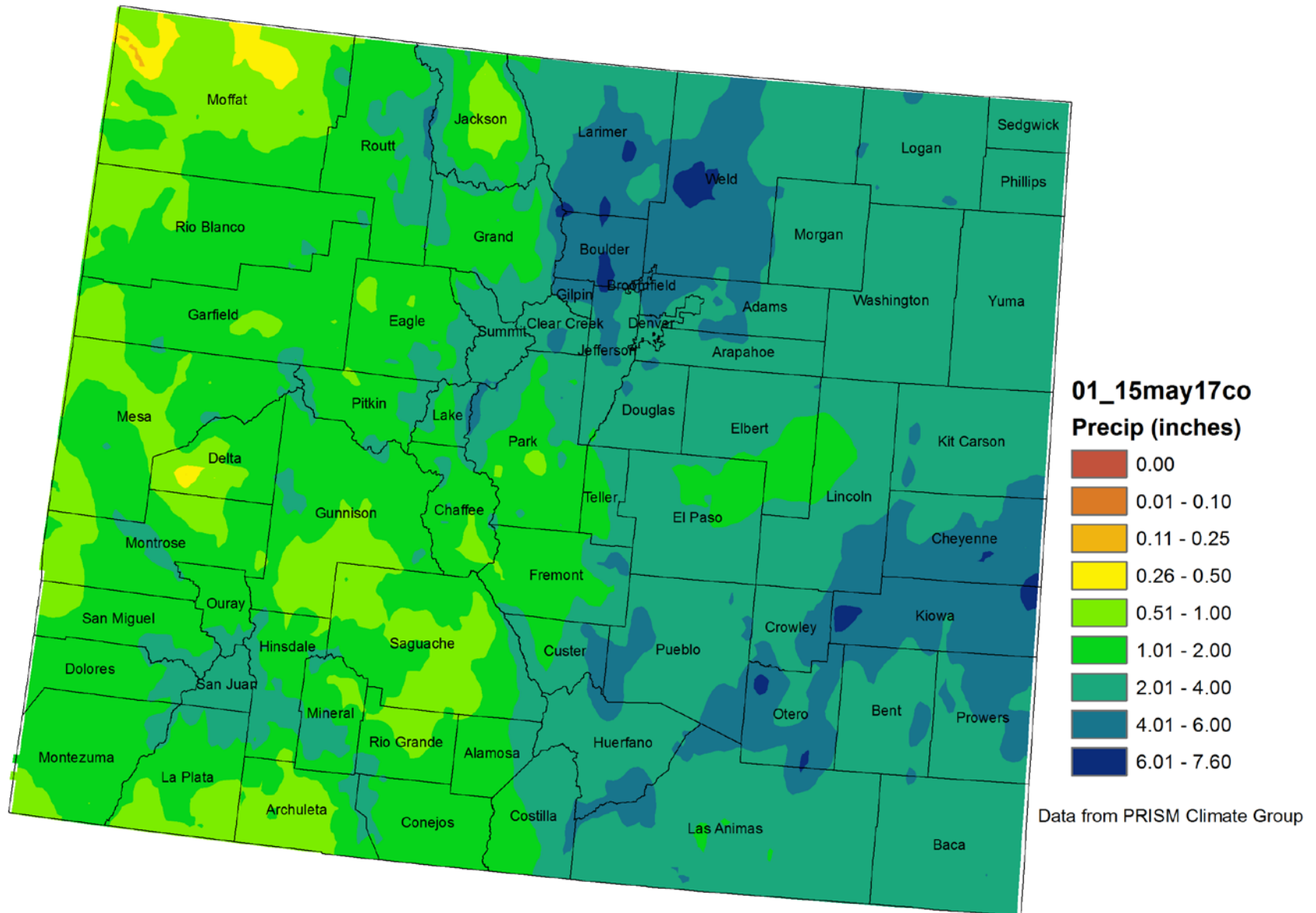
2.10" (+0.26")
36th wettest on Record 1895-2016. Tied with 2011.
Wettest since 2016 with 2.74"



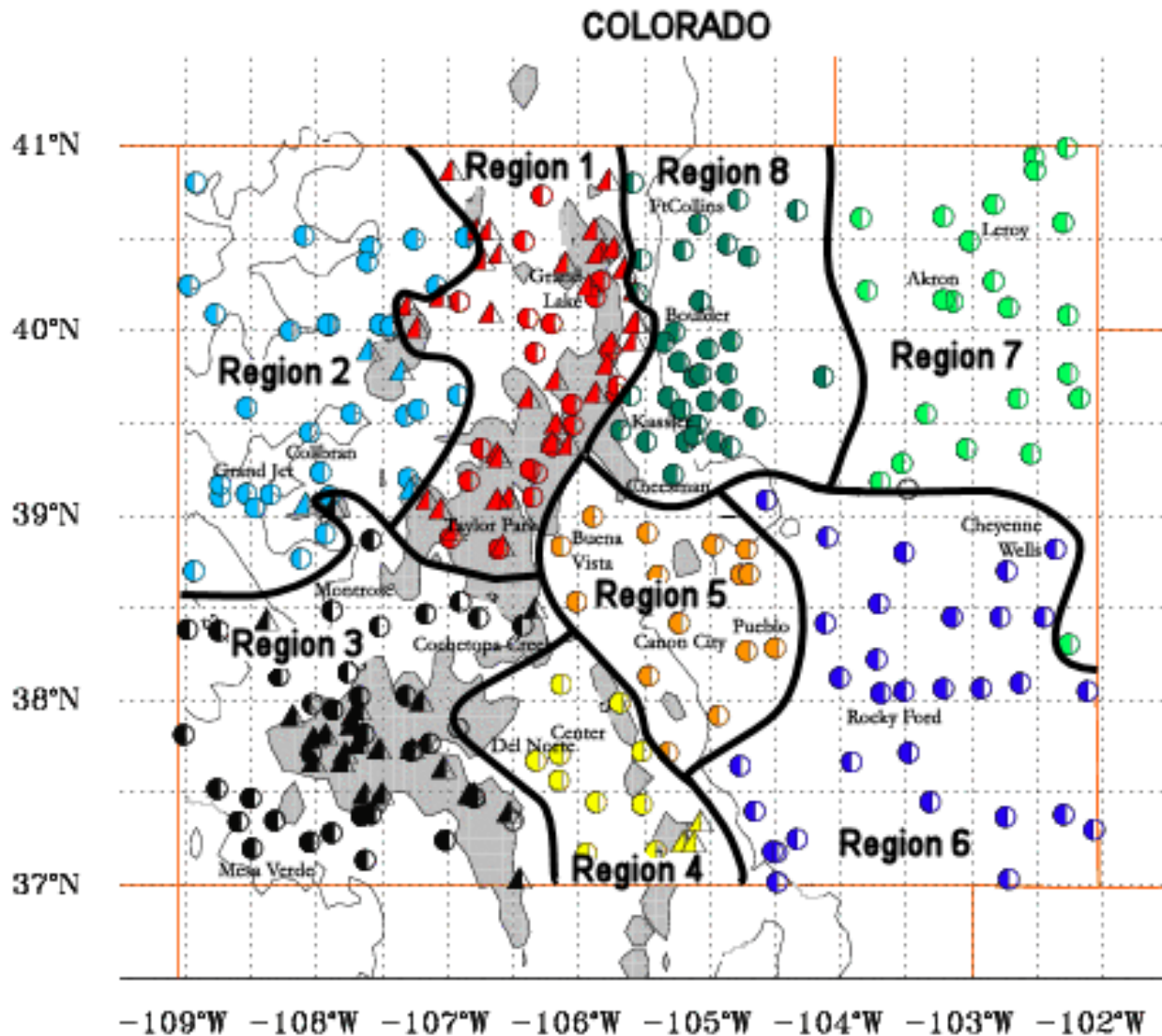
Colorado Water Year 2017 Precipitation as a Percentage of Normal (Oct 2016 - Apr 2017)



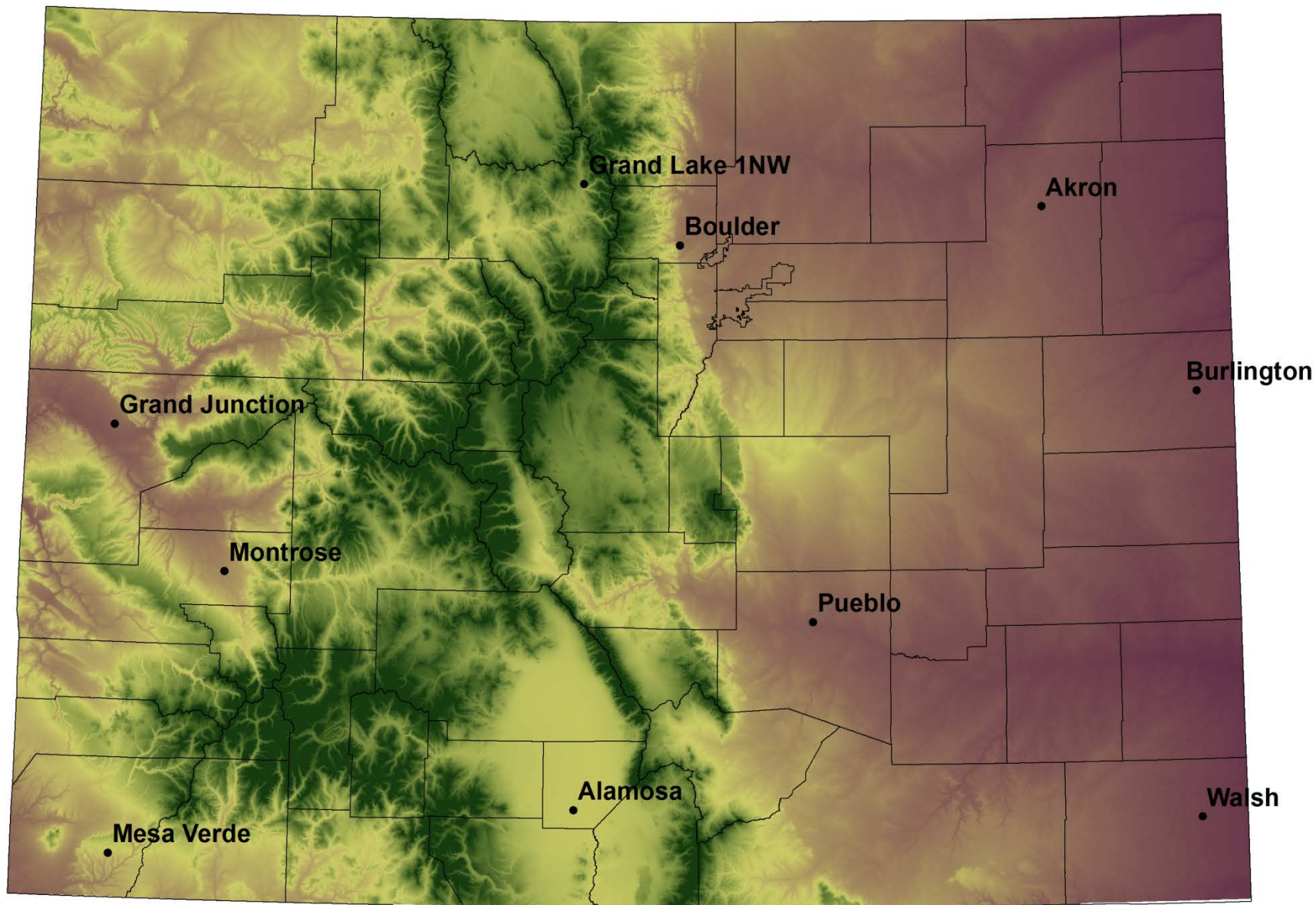
Colorado Month to Date Precipitation 1 - May 22 2017



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

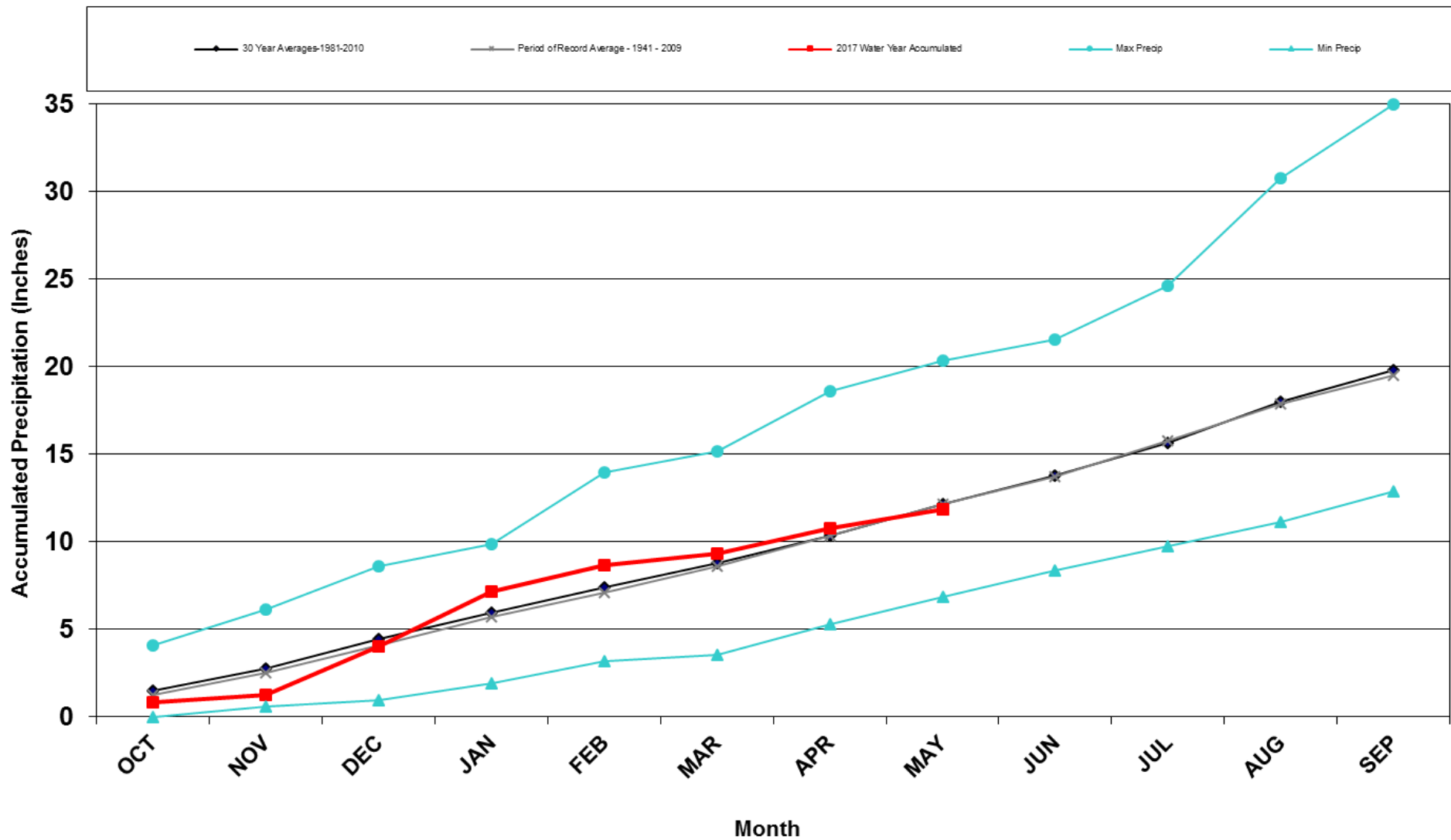


NWS Cooperative Stations for WATF



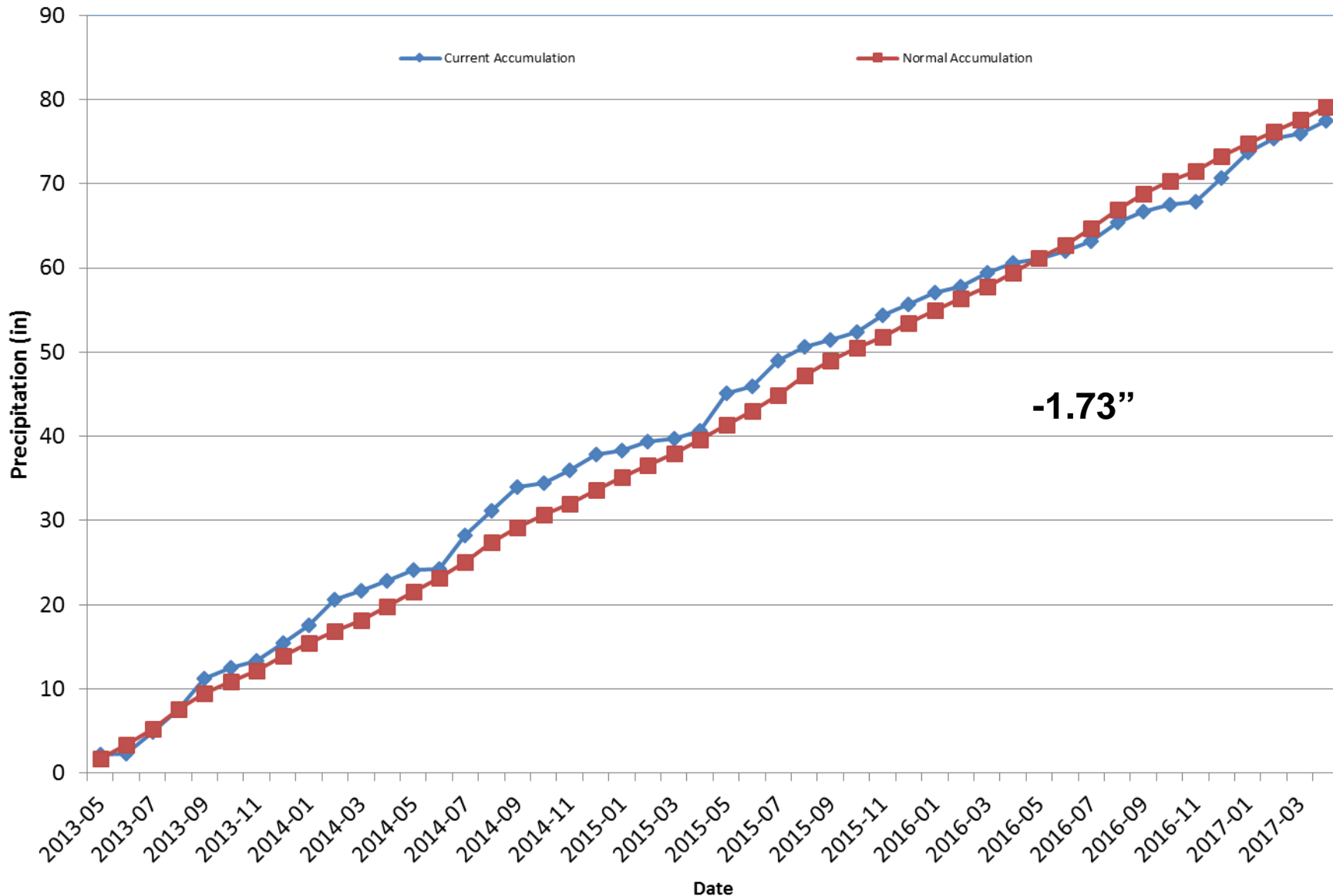
Division 1 – Grand Lake 1NW

Grand Lake 1 NW 2017 Water Year



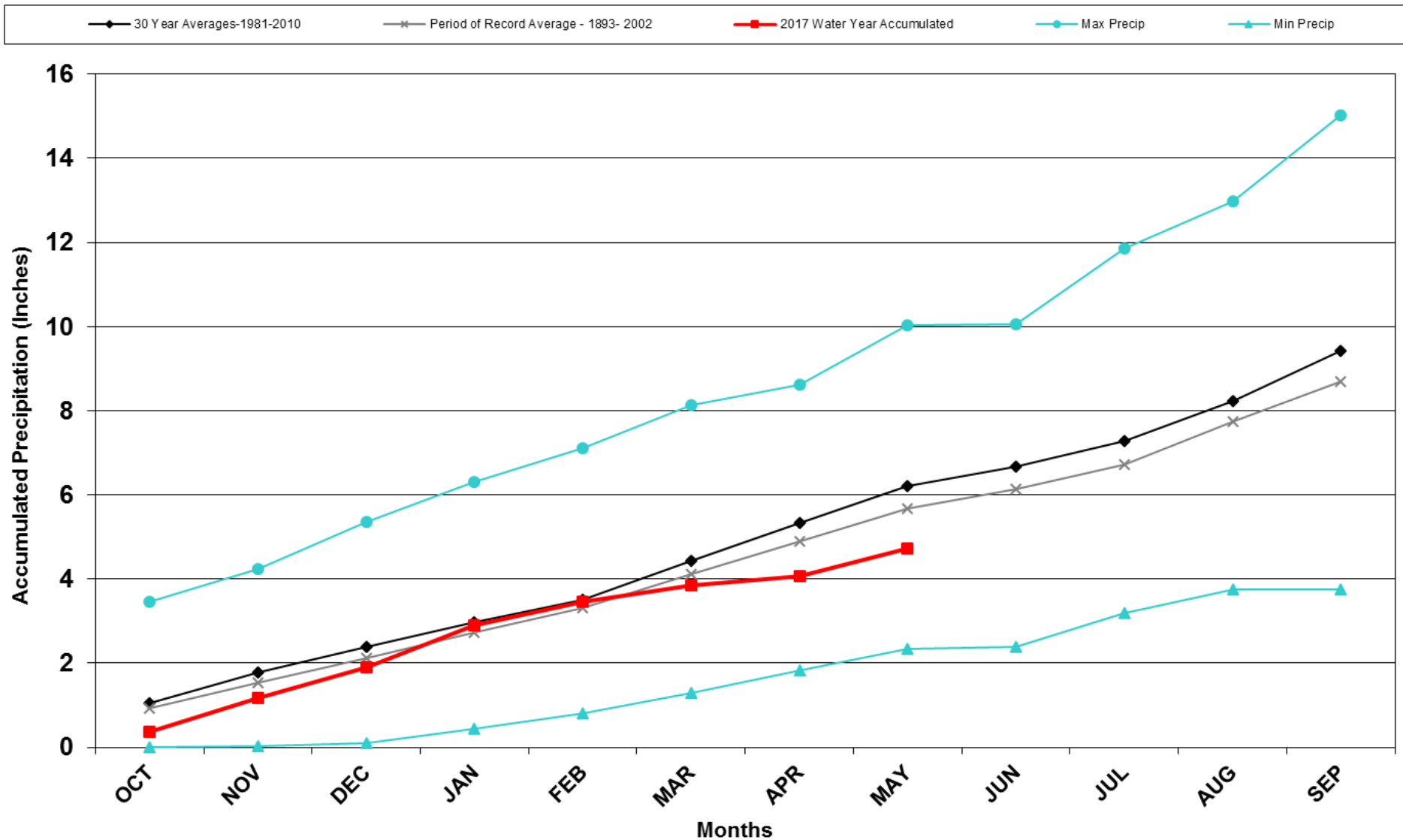
Division 1 – Grand Lake 1NW

Grand Lake 1NW Precipitation Accumulation



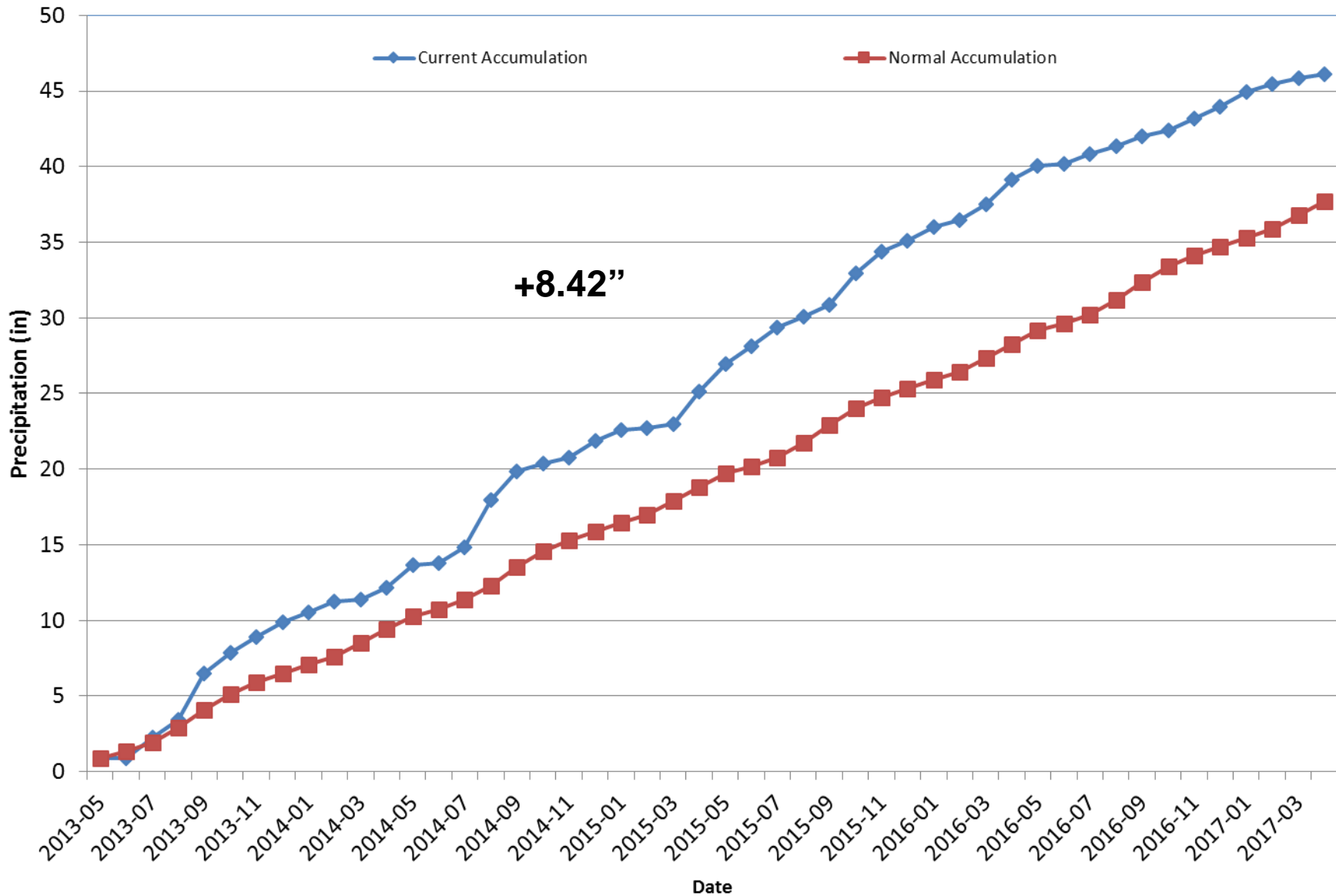
Division 2 – Grand Junction

Grand Junction WSFO 2017 Water Year



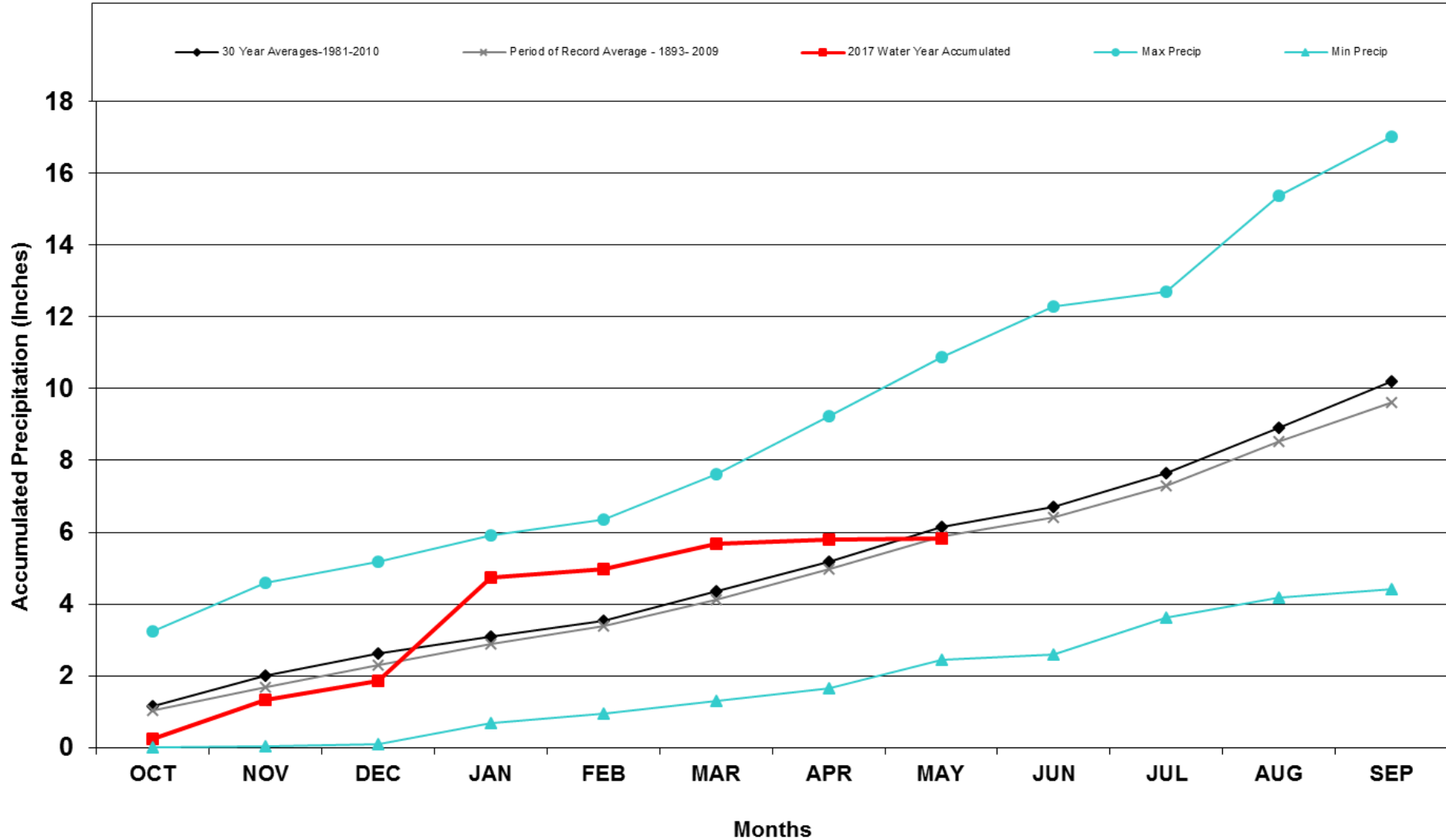
Division 2 – Grand Junction

Grand Junction Precipitation Accumulation



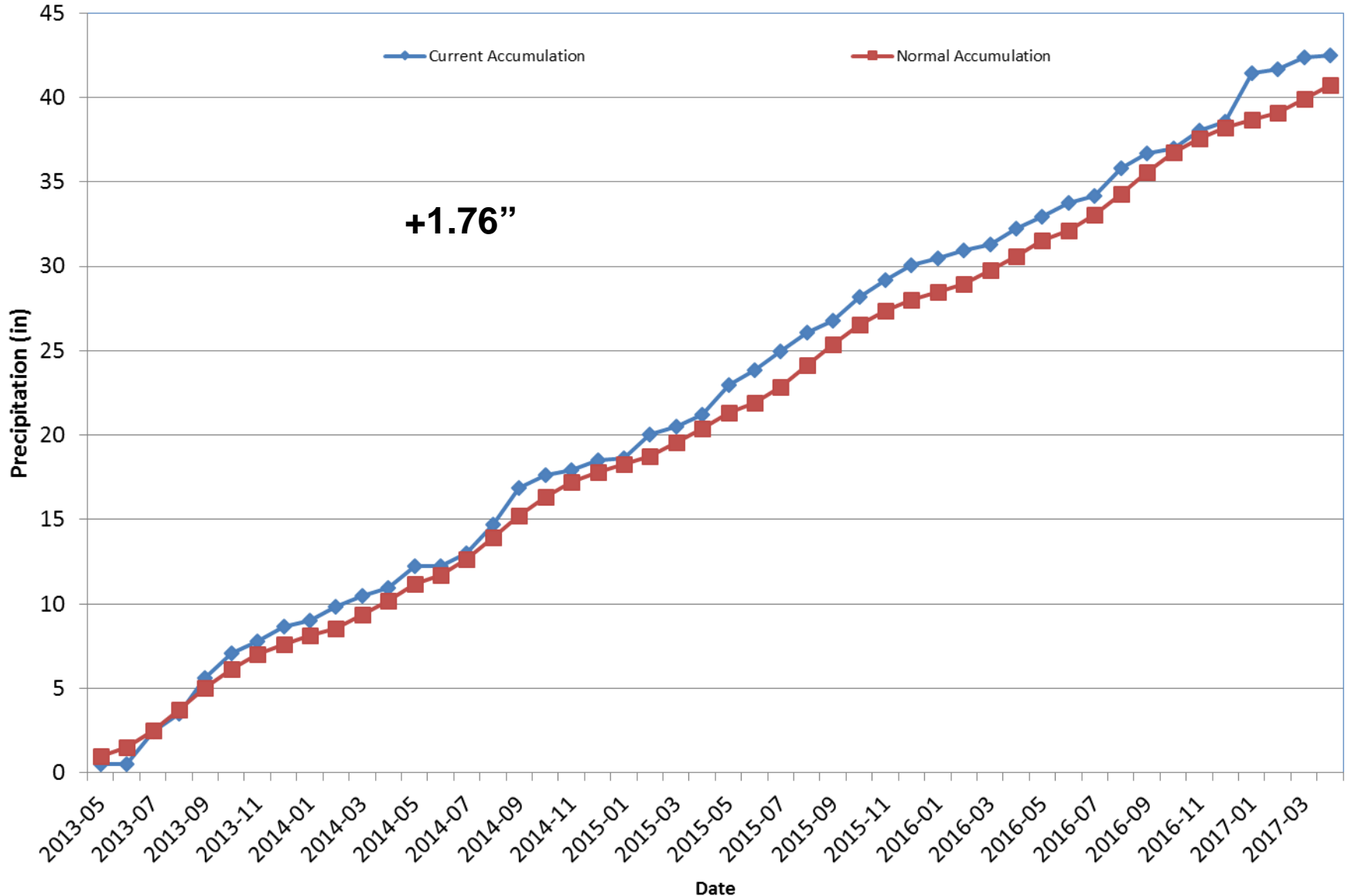
Division 3 – Montrose

Montrose #2 2017 Water Year



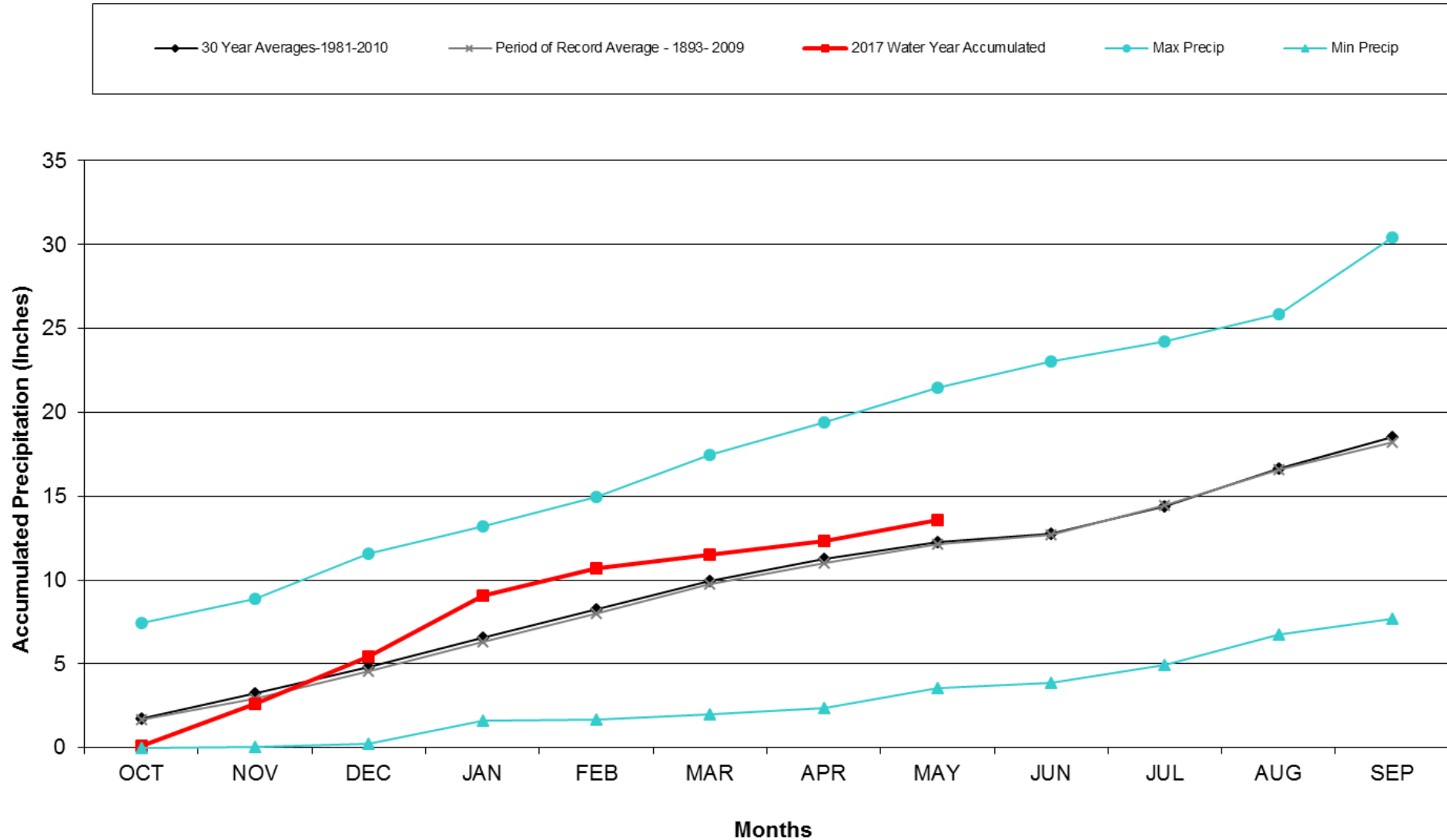
Division 3 – Montrose

Montrose #2 Precipitation Accumulation



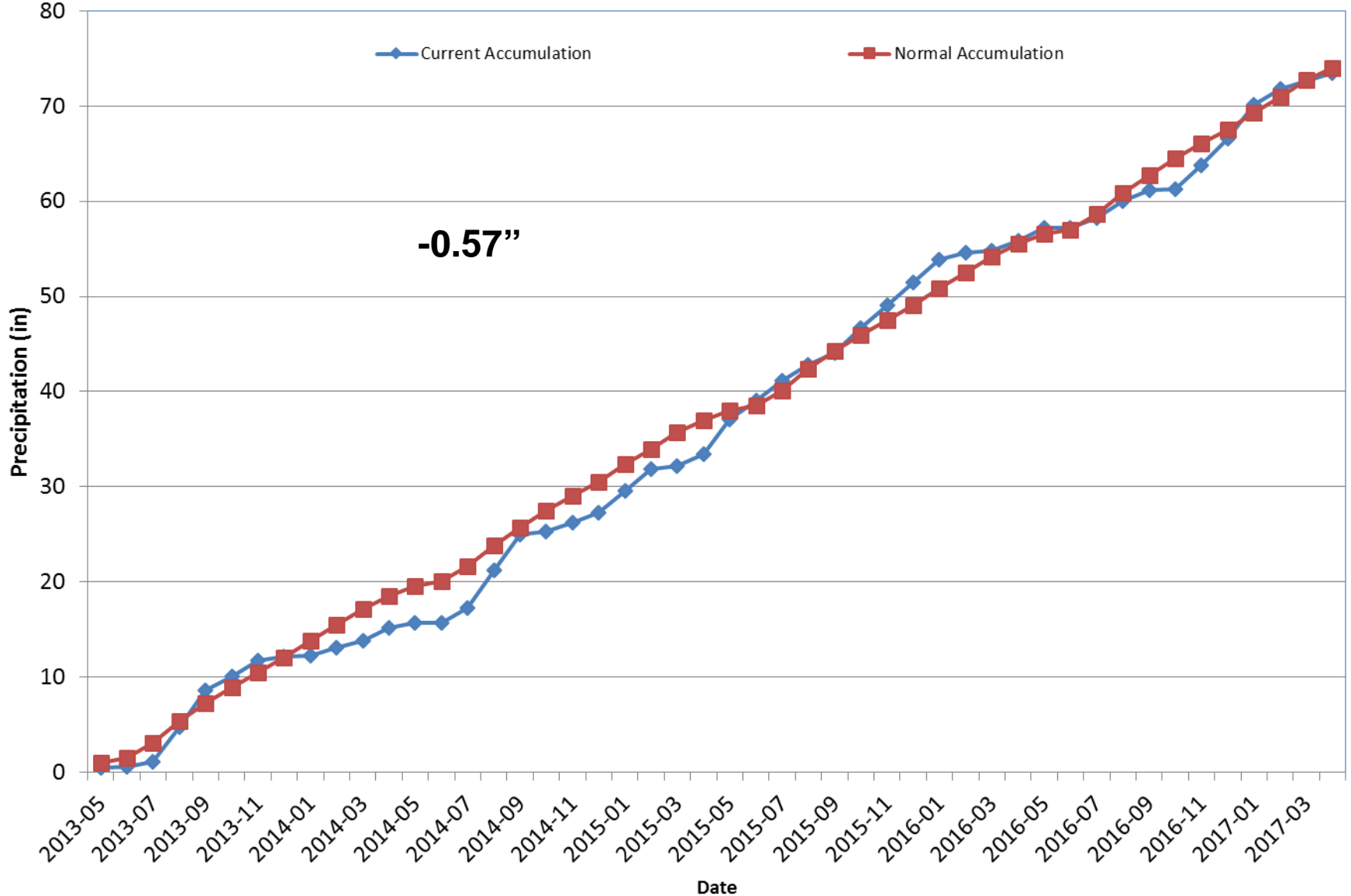
Division 3 – Mesa Verde NP

Mesa Verde NP 2017 Water Year



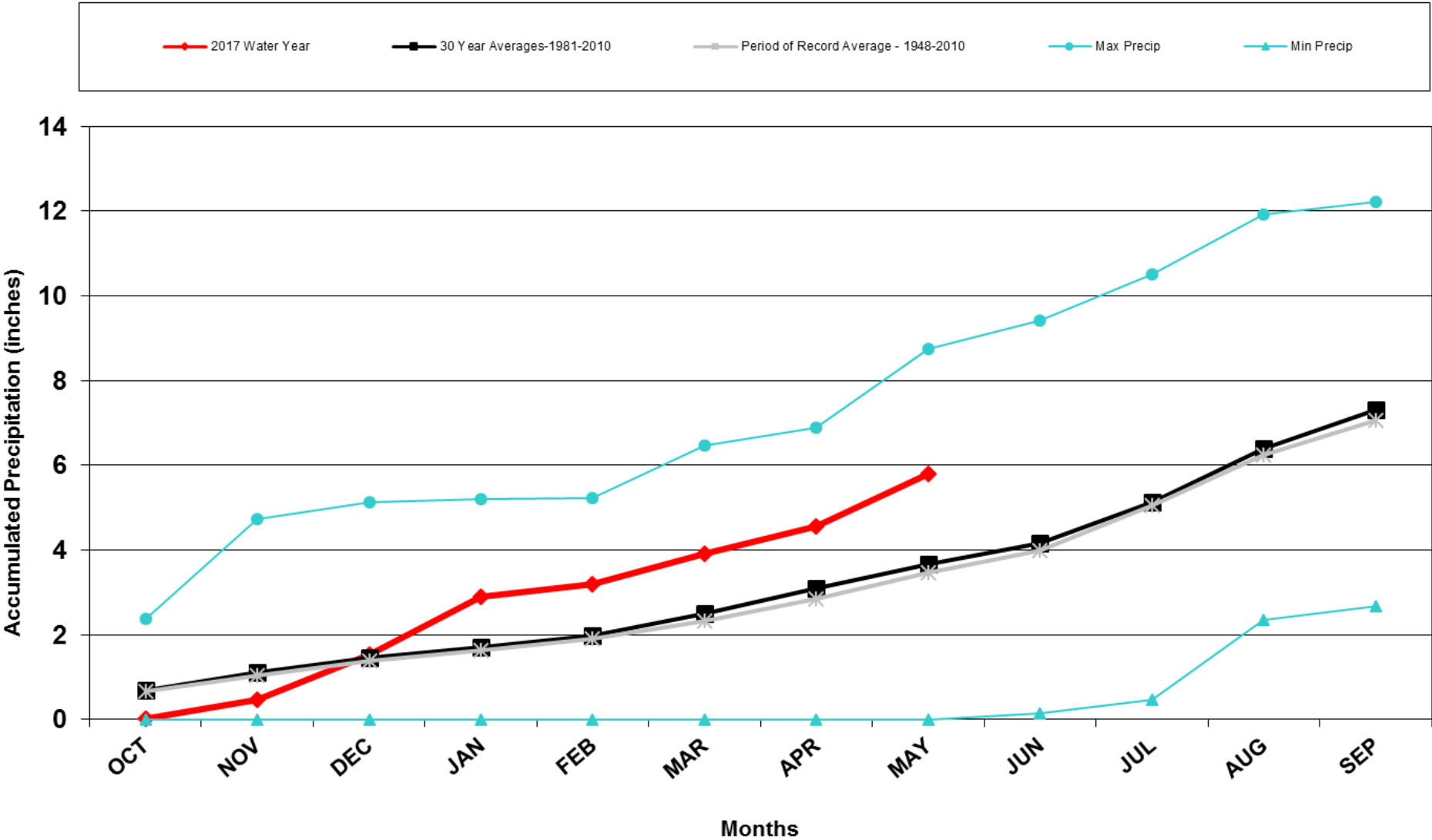
Division 3 – Mesa Verde NP

Mesa Verde NP Precipitation Accumulation



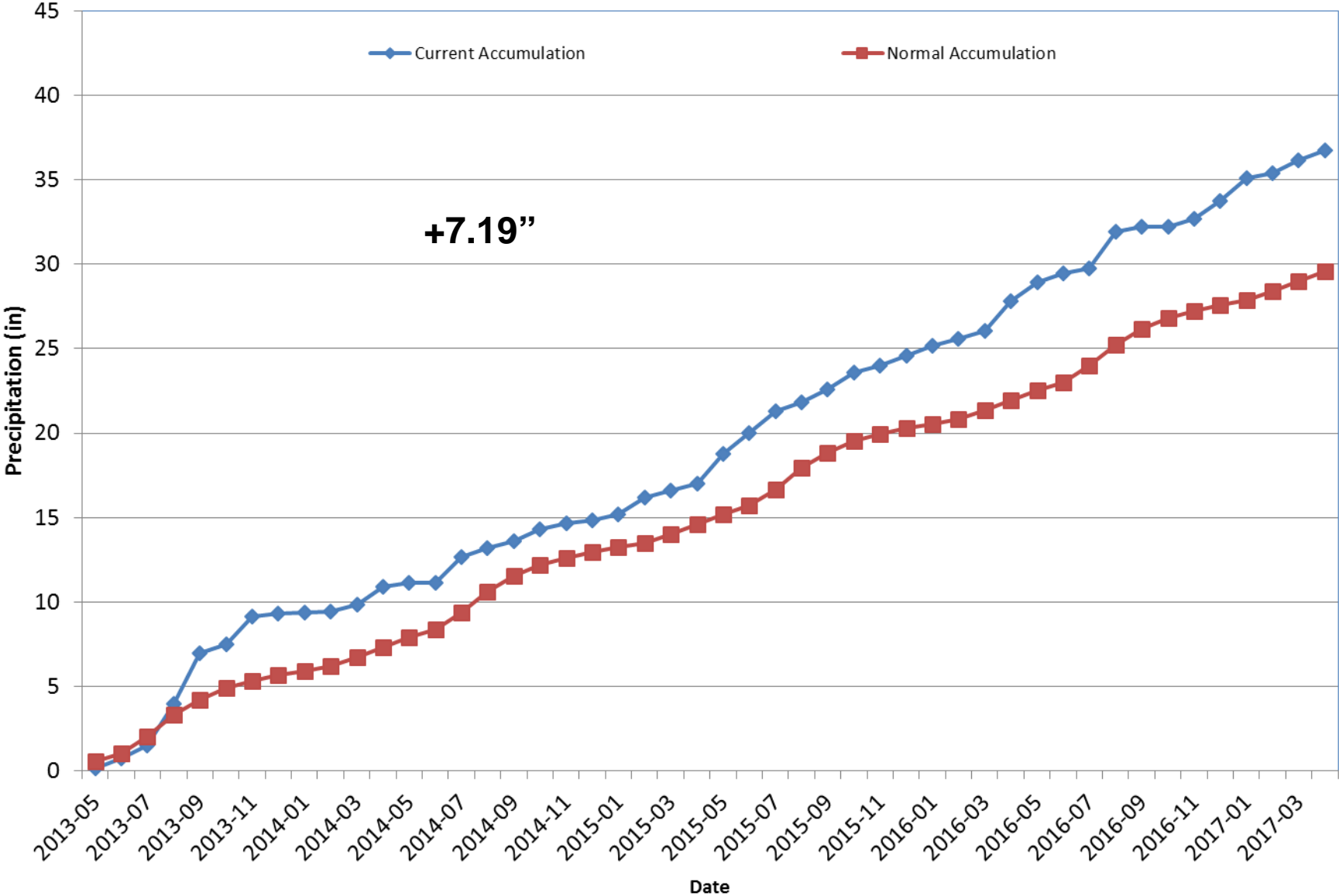
Division 4 – Alamosa

Alamosa WSO 2017 Water Year



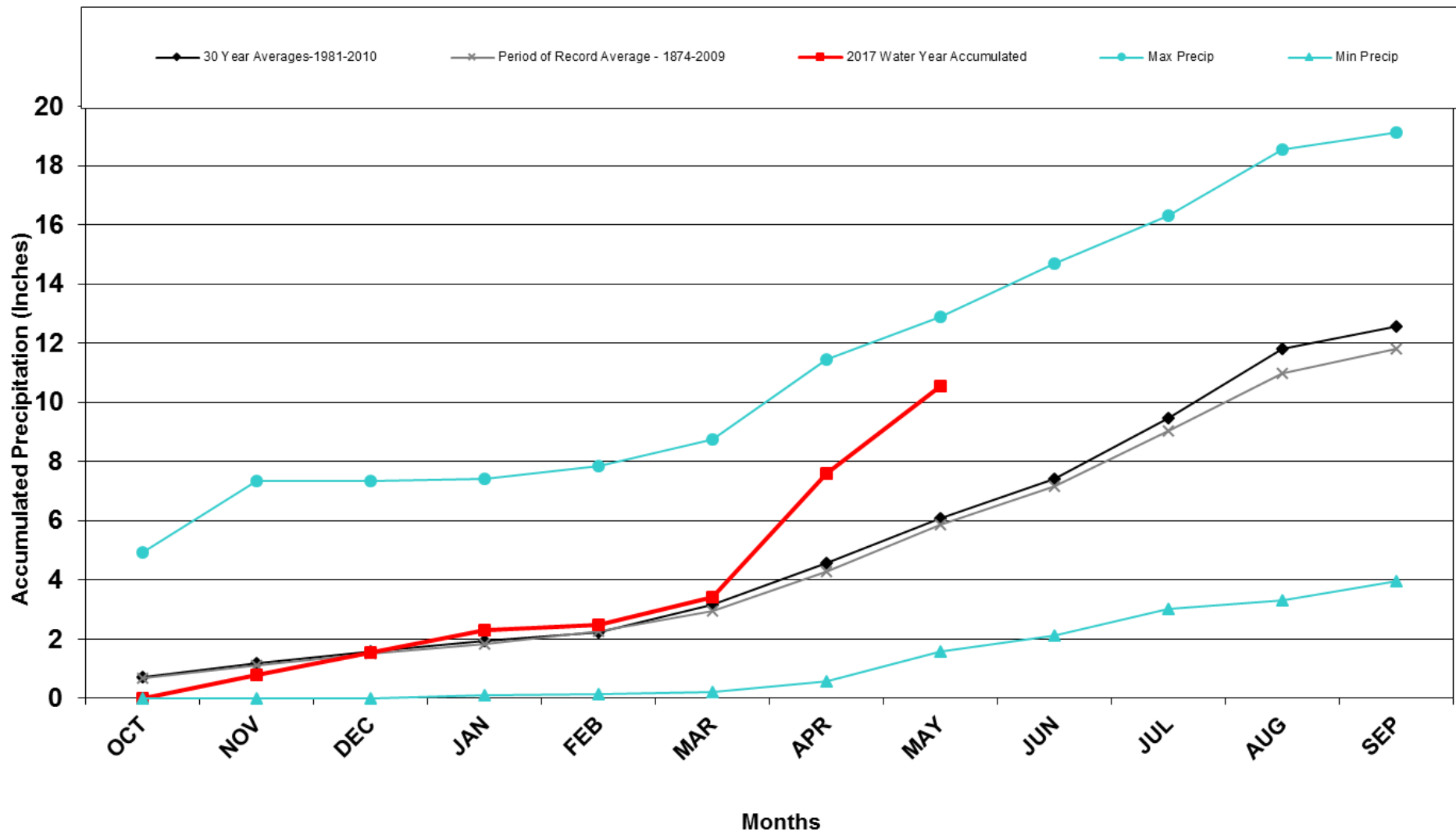
Division 4 – Alamosa

Alamosa WSO Precipitation Accumulation



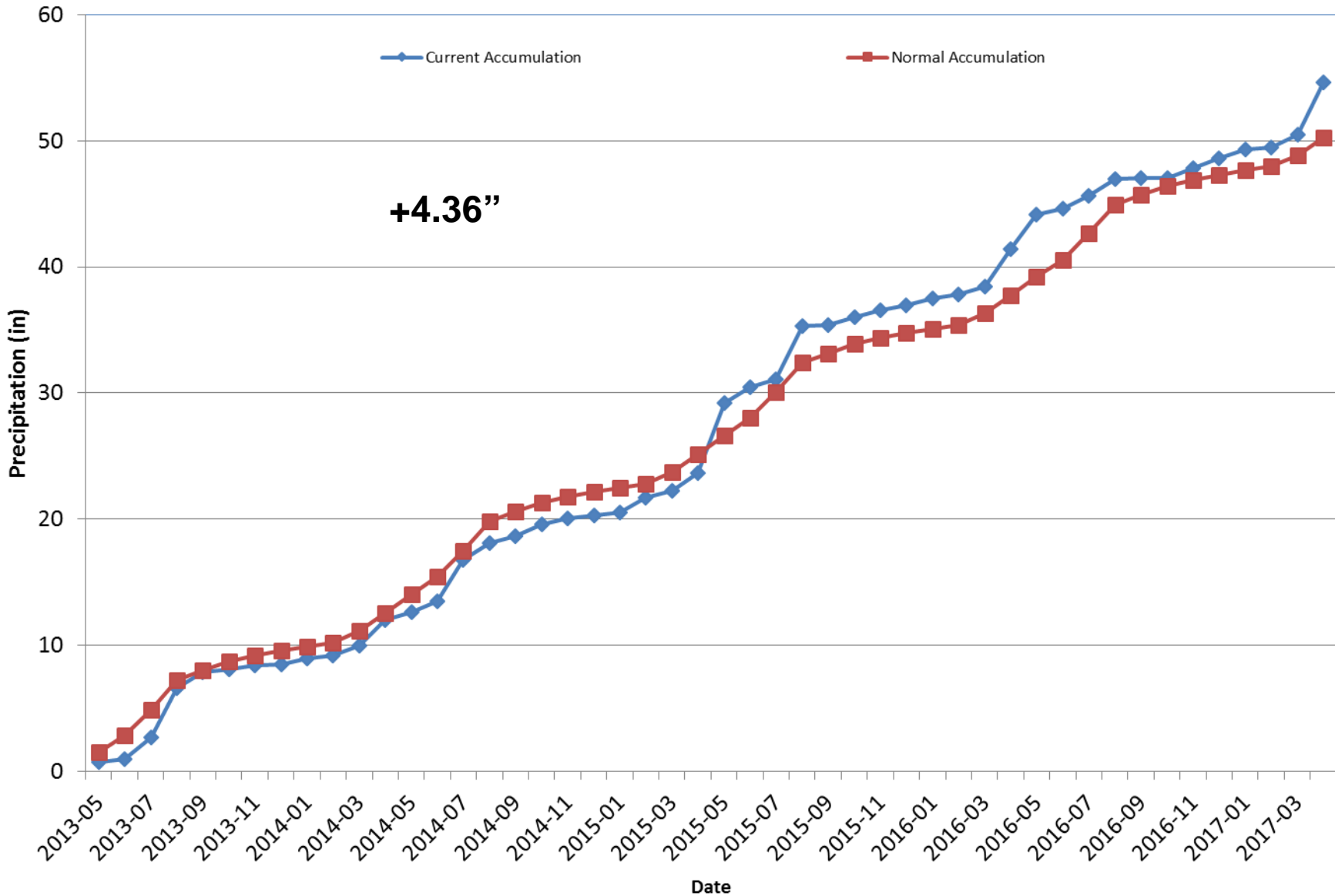
Division 5 – Pueblo

Pueblo WSO 2017 Water Year



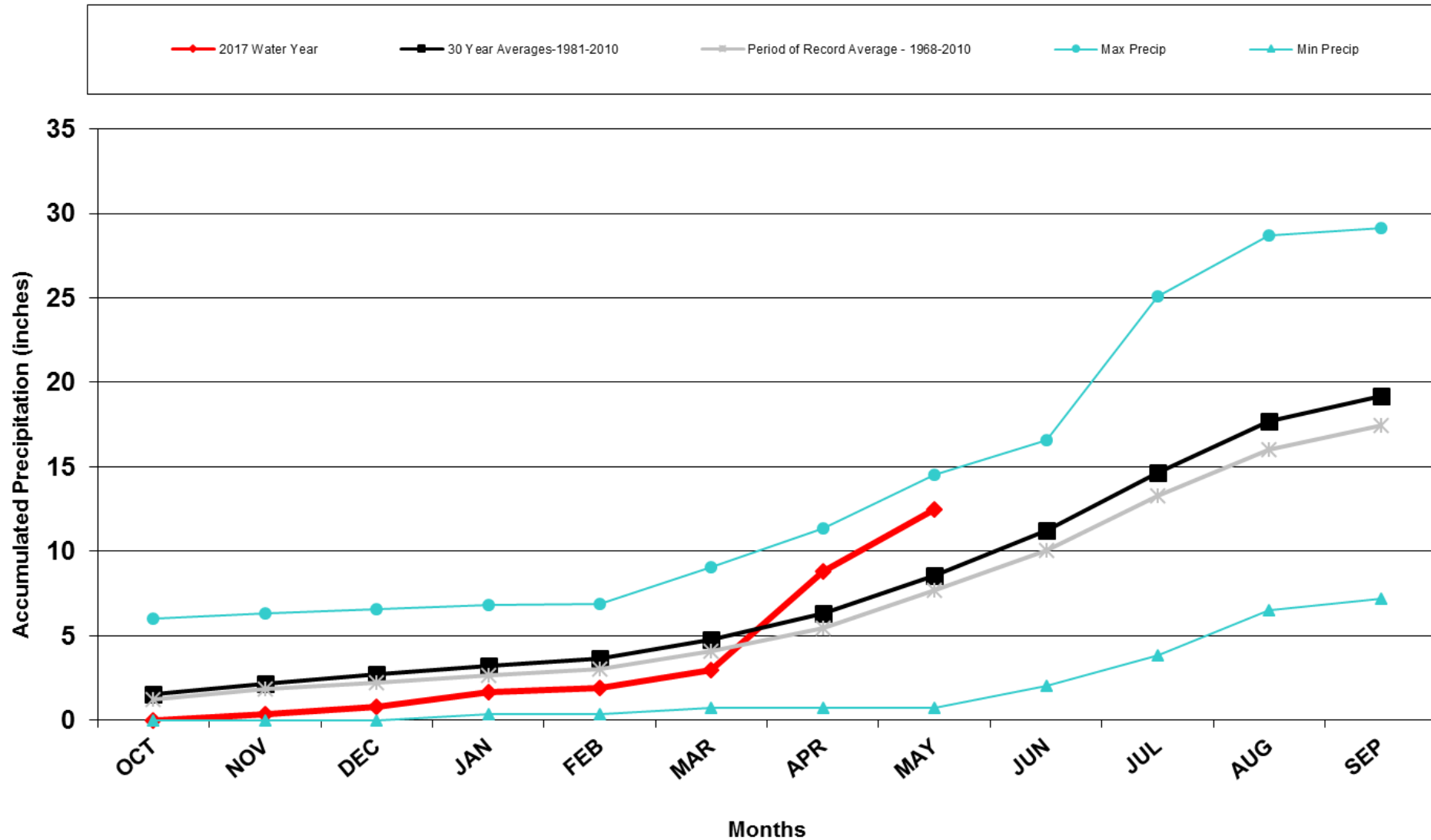
Division 5 – Pueblo

Pueblo Memorial AP Precipitation Accumulation



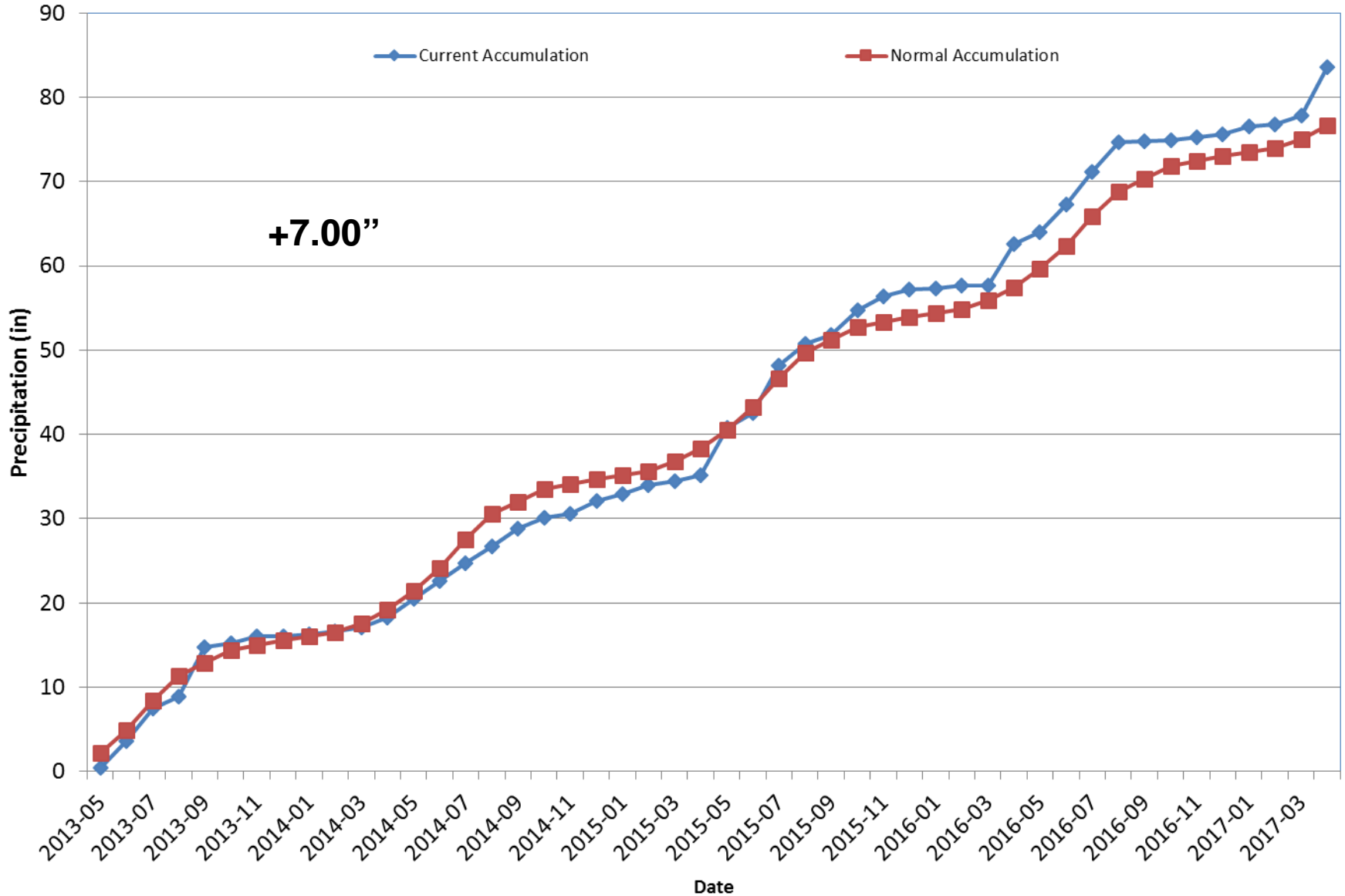
Division 6 - Walsh

Walsh 2017 Water Year



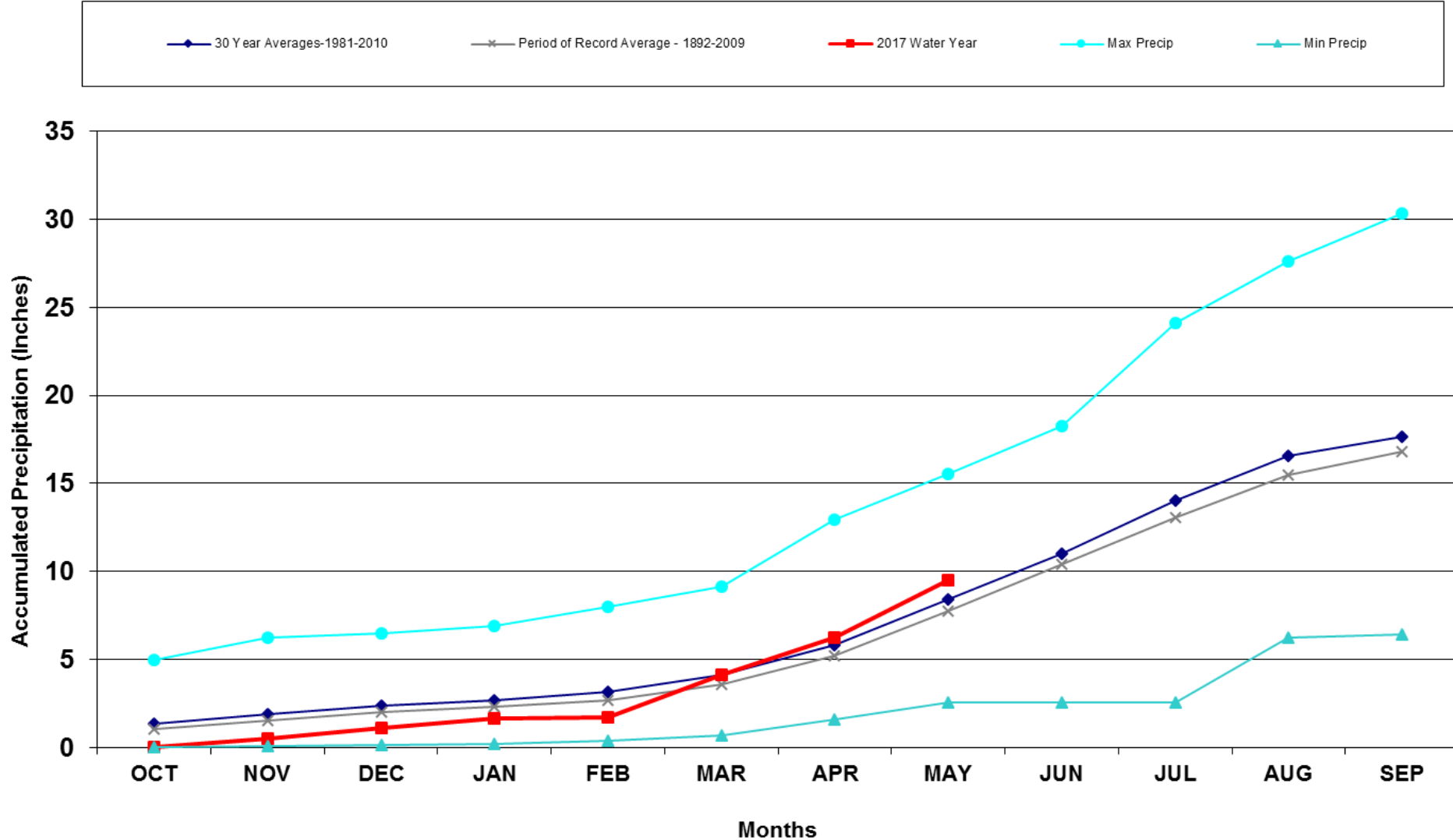
Division 6 - Walsh

Walsh 1W Precipitation Accumulation



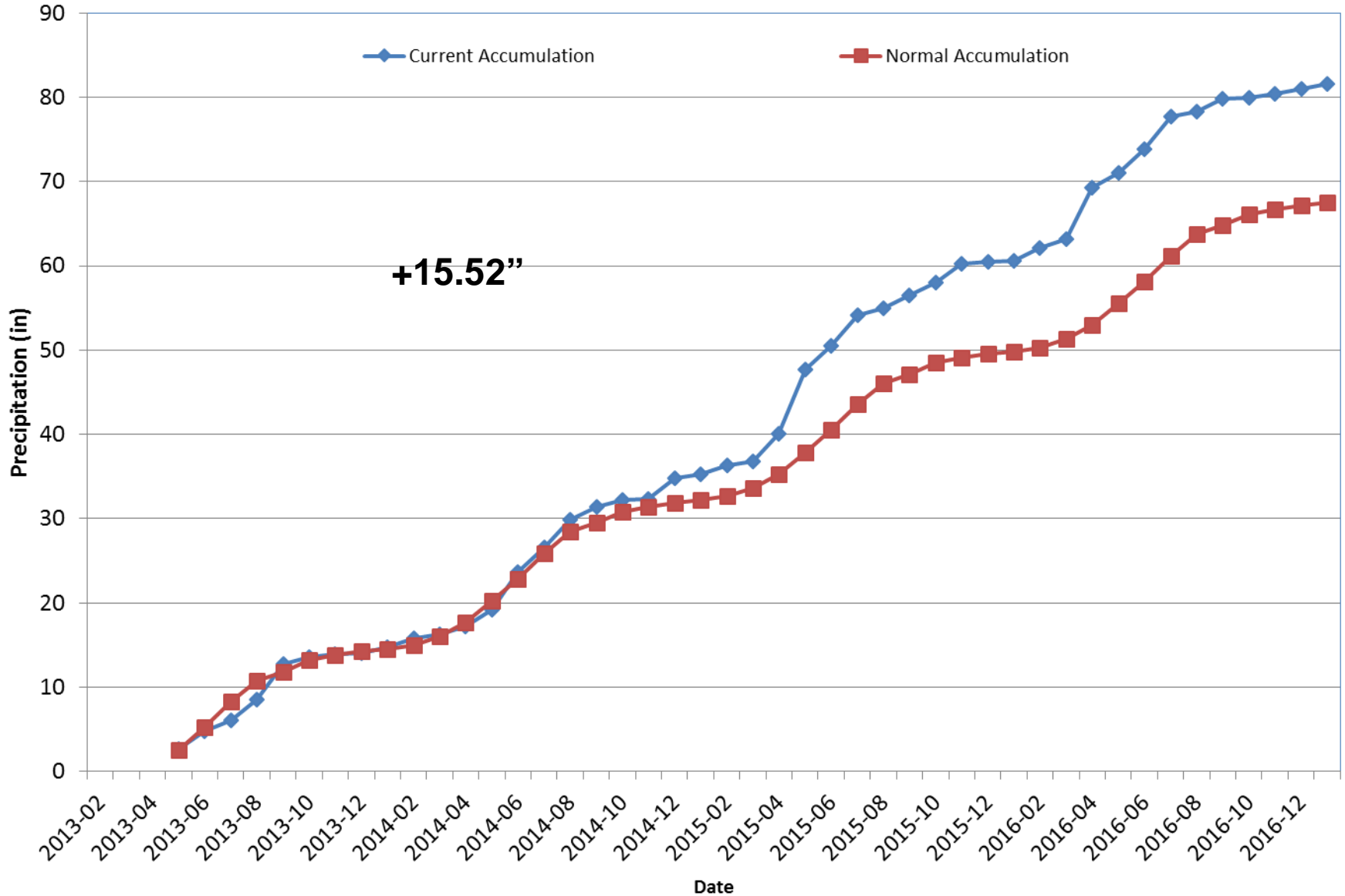
Division 6 - Burlington

Burlington 2017 Water Year



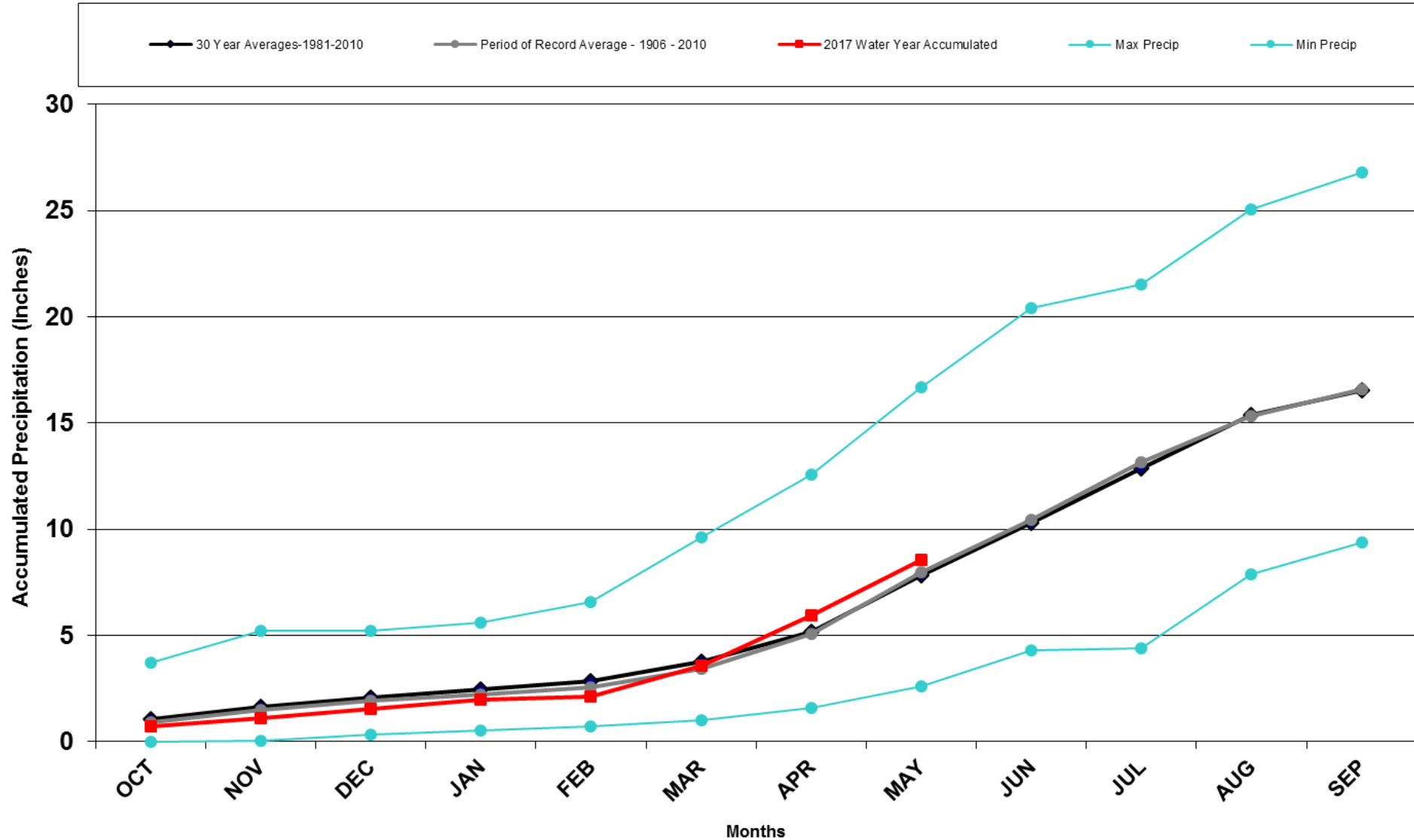
Division 6 - Burlington

Burlington, CO Precipitation Accumulation



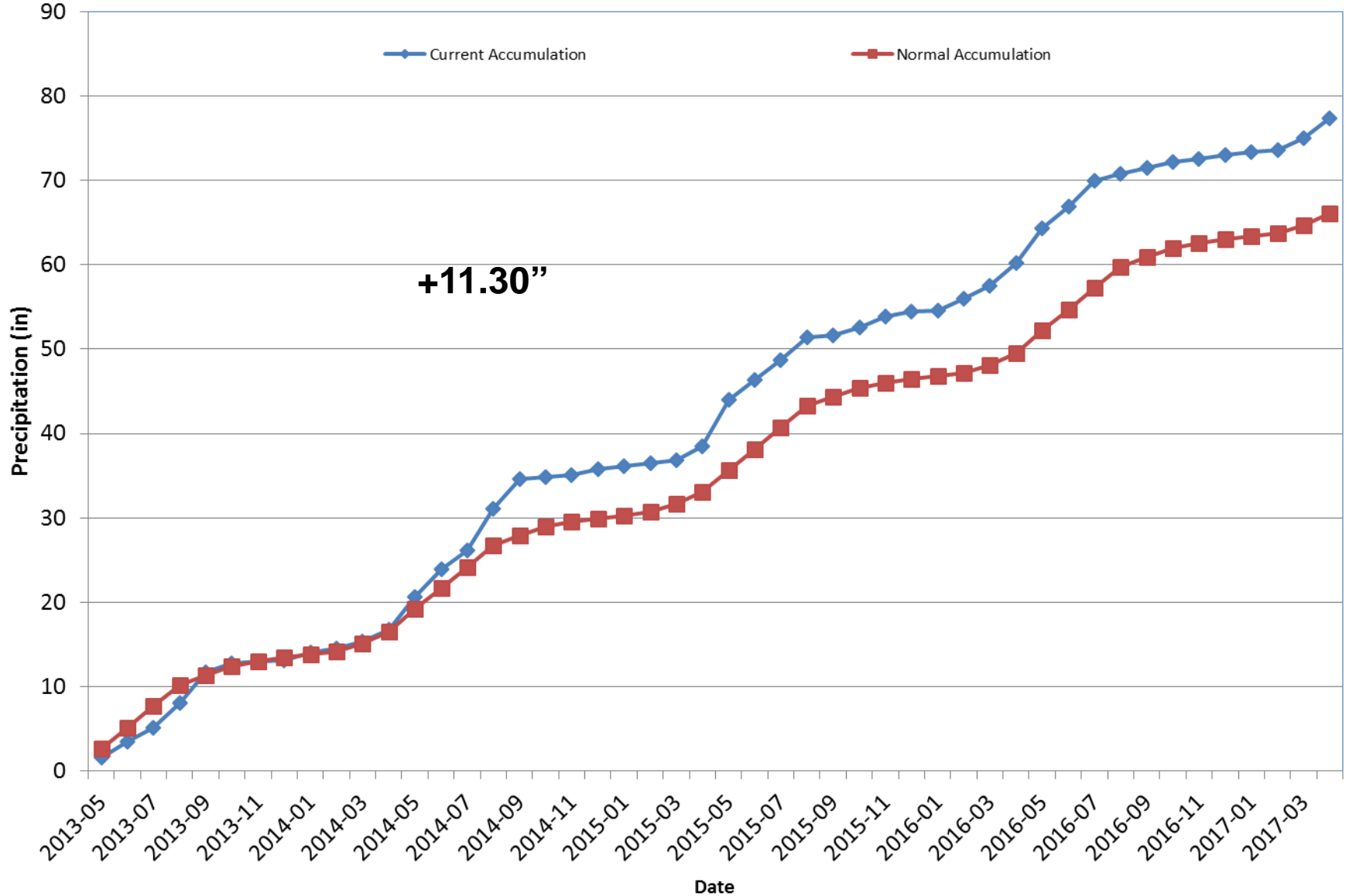
Division 7 – Akron

Akron 4E 2016 Water Year



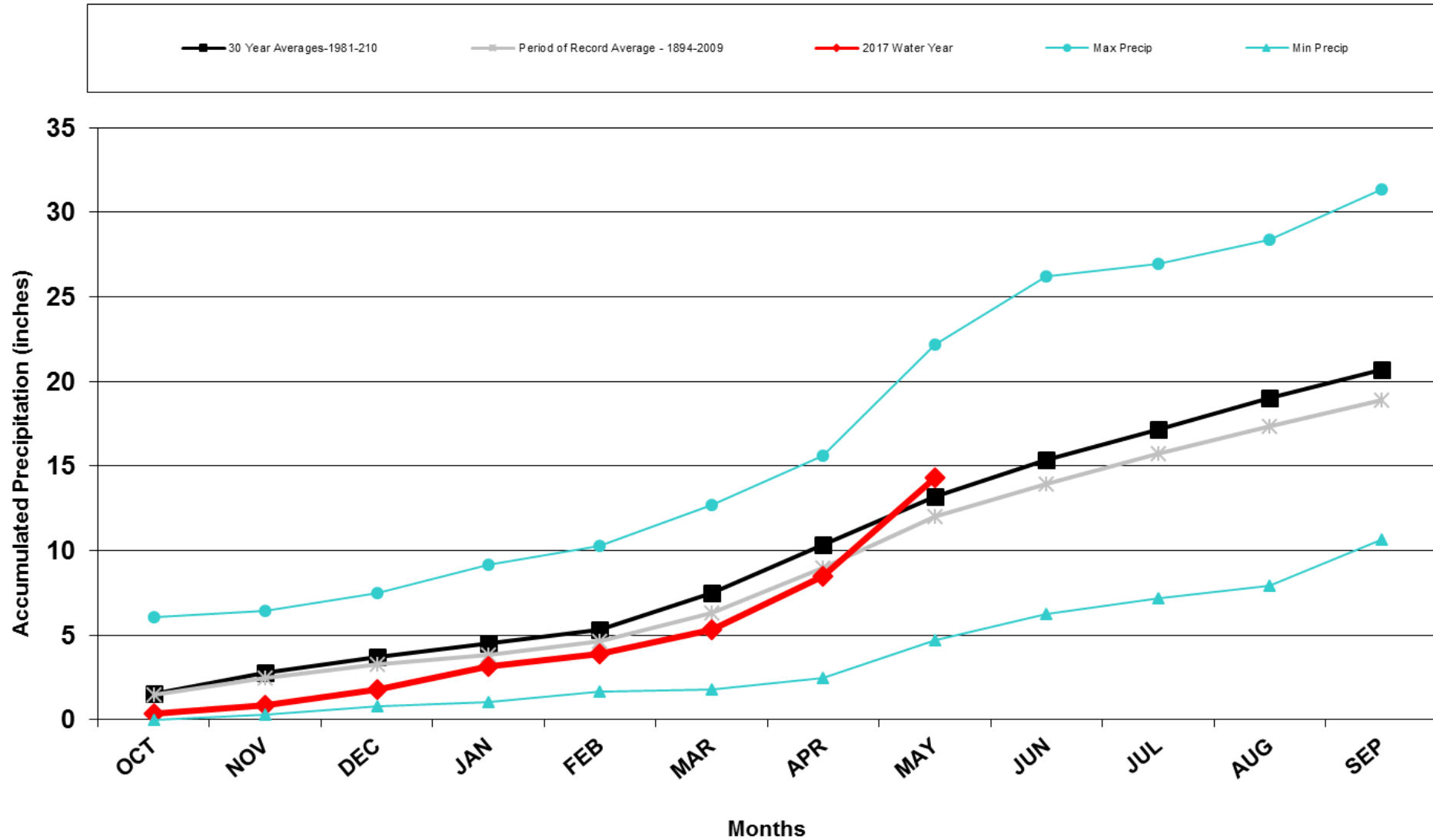
Division 7 – Akron

Akron 4E Precipitation Accumulation



Division 8 - Boulder

Boulder 2017 Water Year



Division 8 - Boulder

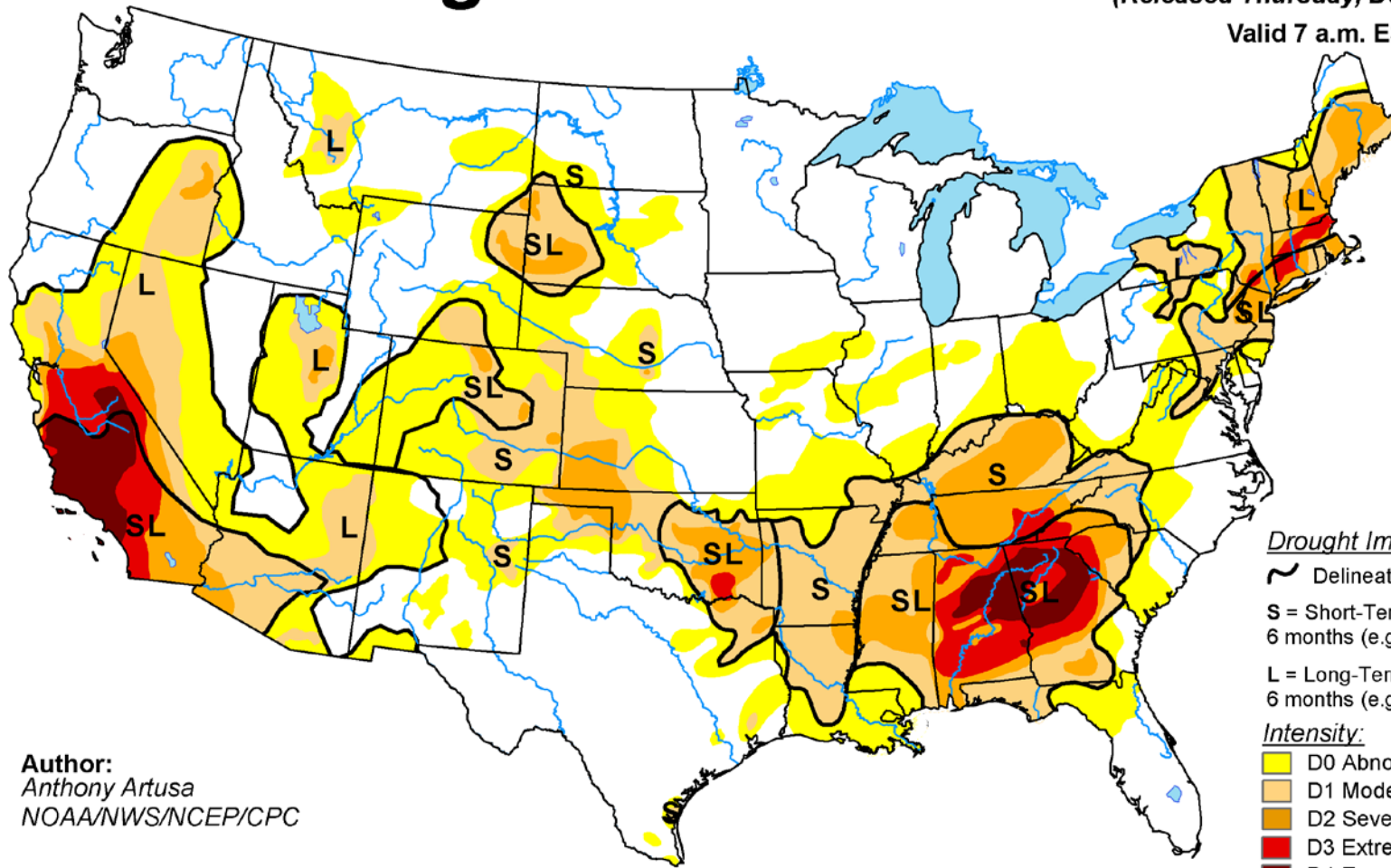
Boulder Precipitation Accumulation



U.S. Drought Monitor

December 13, 2016
(Released Thursday, Dec. 15, 2016)

Valid 7 a.m. EST



Author:
Anthony Artusa
NOAA/NWS/NCEP/CPC

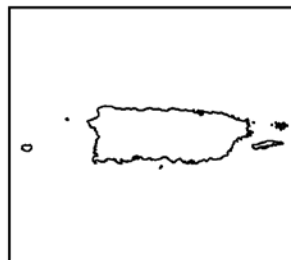
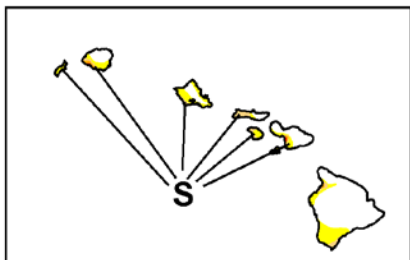
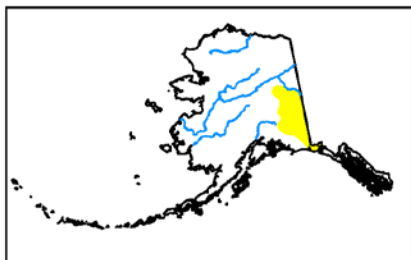
Drought Impact Types:

- ~ 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:

- 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.



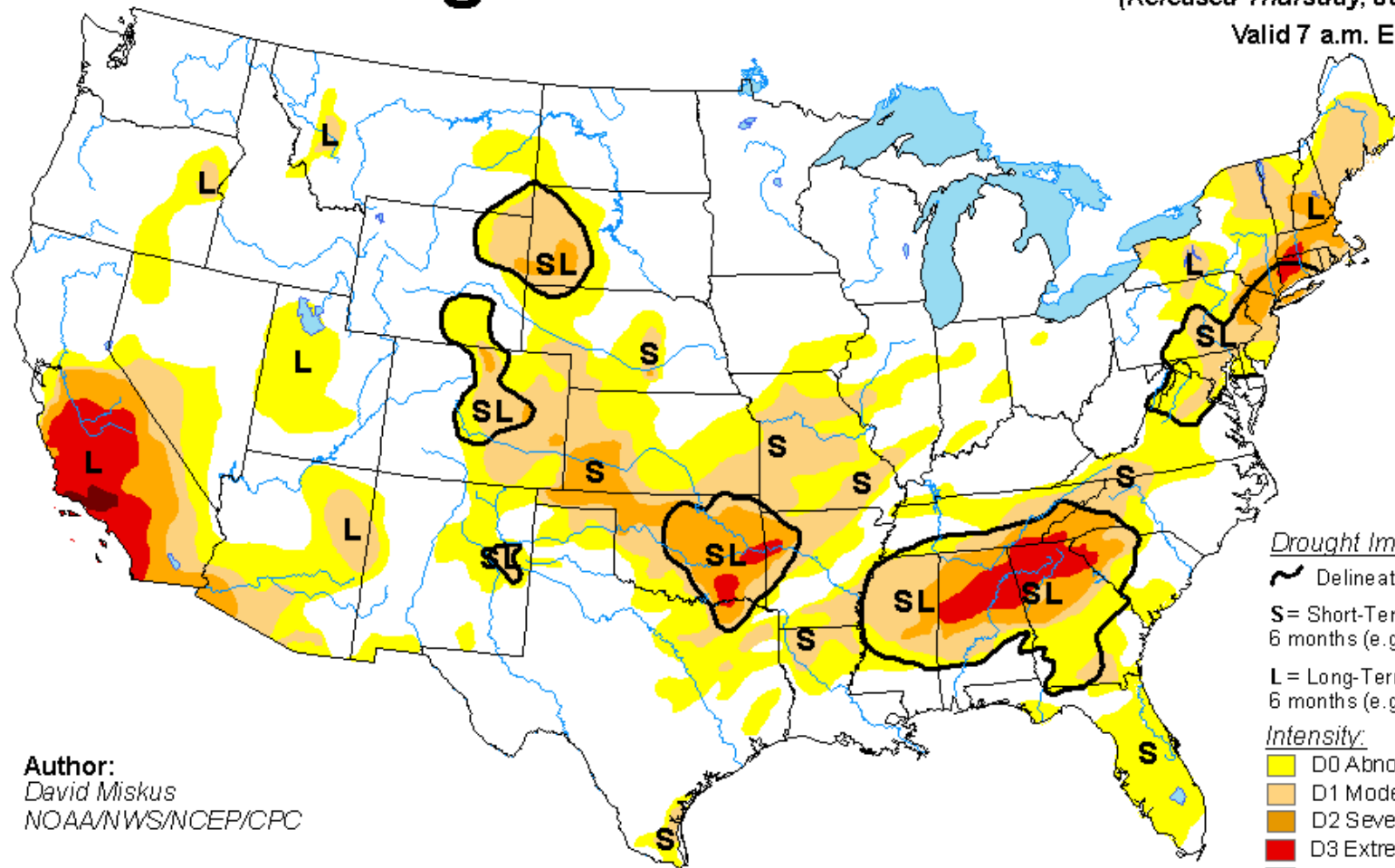
<http://droughtmonitor.unl.edu/>

U.S. Drought Monitor

January 10, 2017

(Released Thursday, Jan. 12, 2017)

Valid 7 a.m. EST



Author:
David Miskus
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:

D0 Abnormally Dry

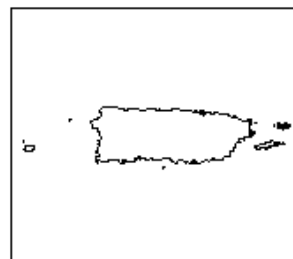
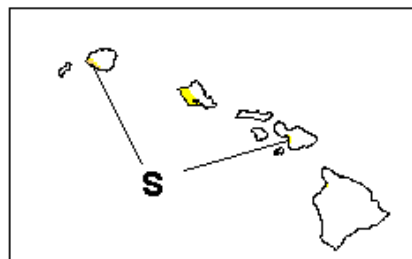
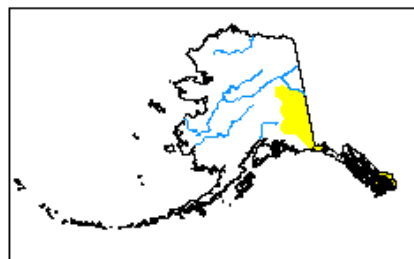
D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

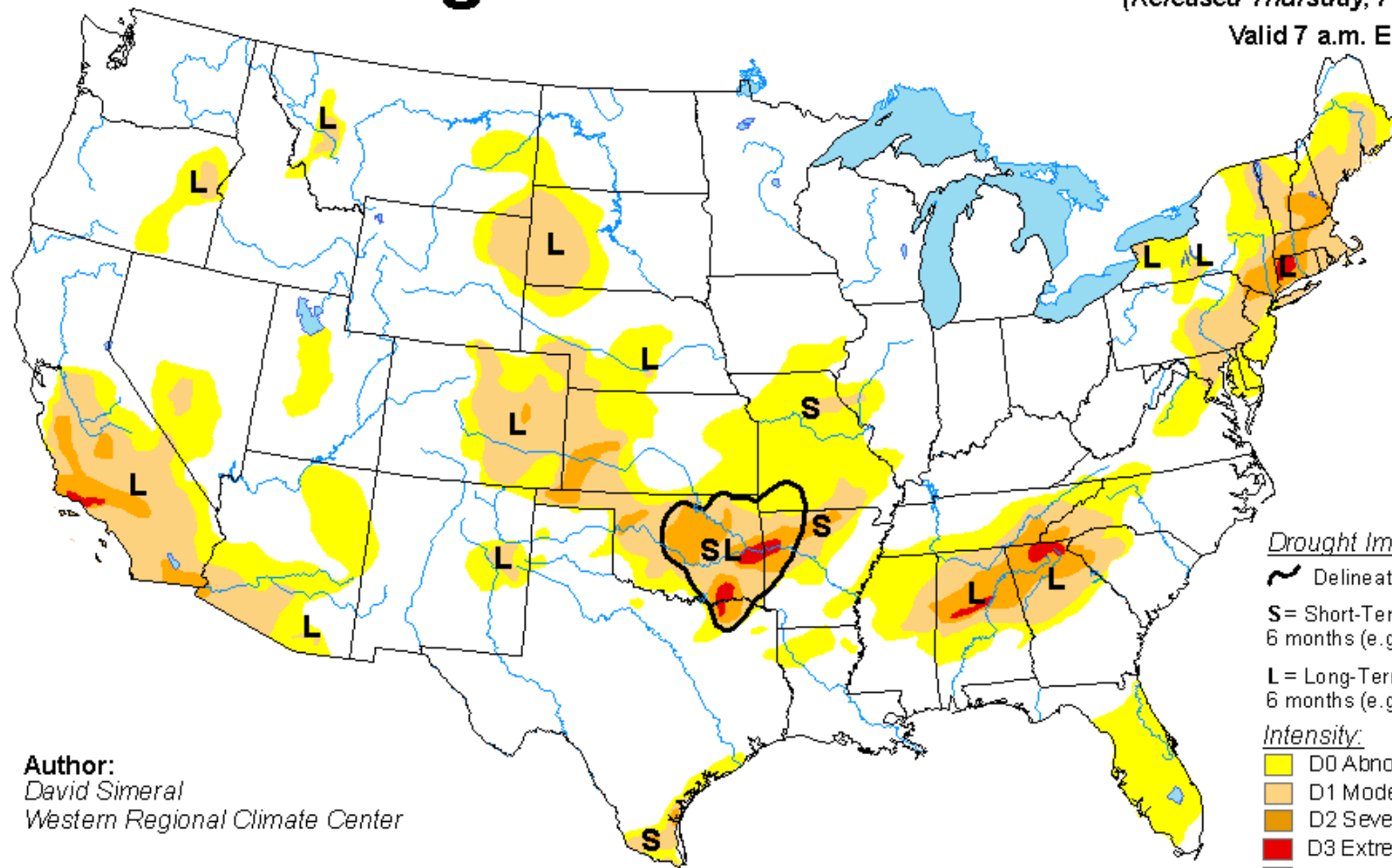
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.



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

U.S. Drought Monitor

February 7, 2017
 (Released Thursday, Feb. 9, 2017)
 Valid 7 a.m. EST



Author:
 David Simeral
 Western Regional Climate Center

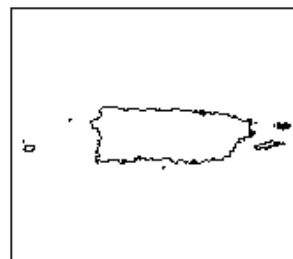
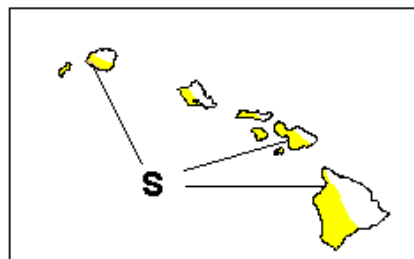
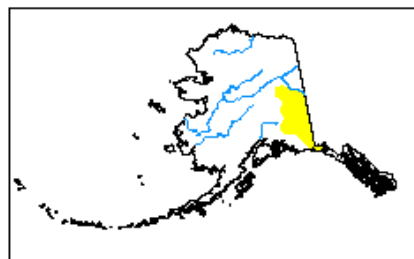
Drought Impact Types:

- 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:

- 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.



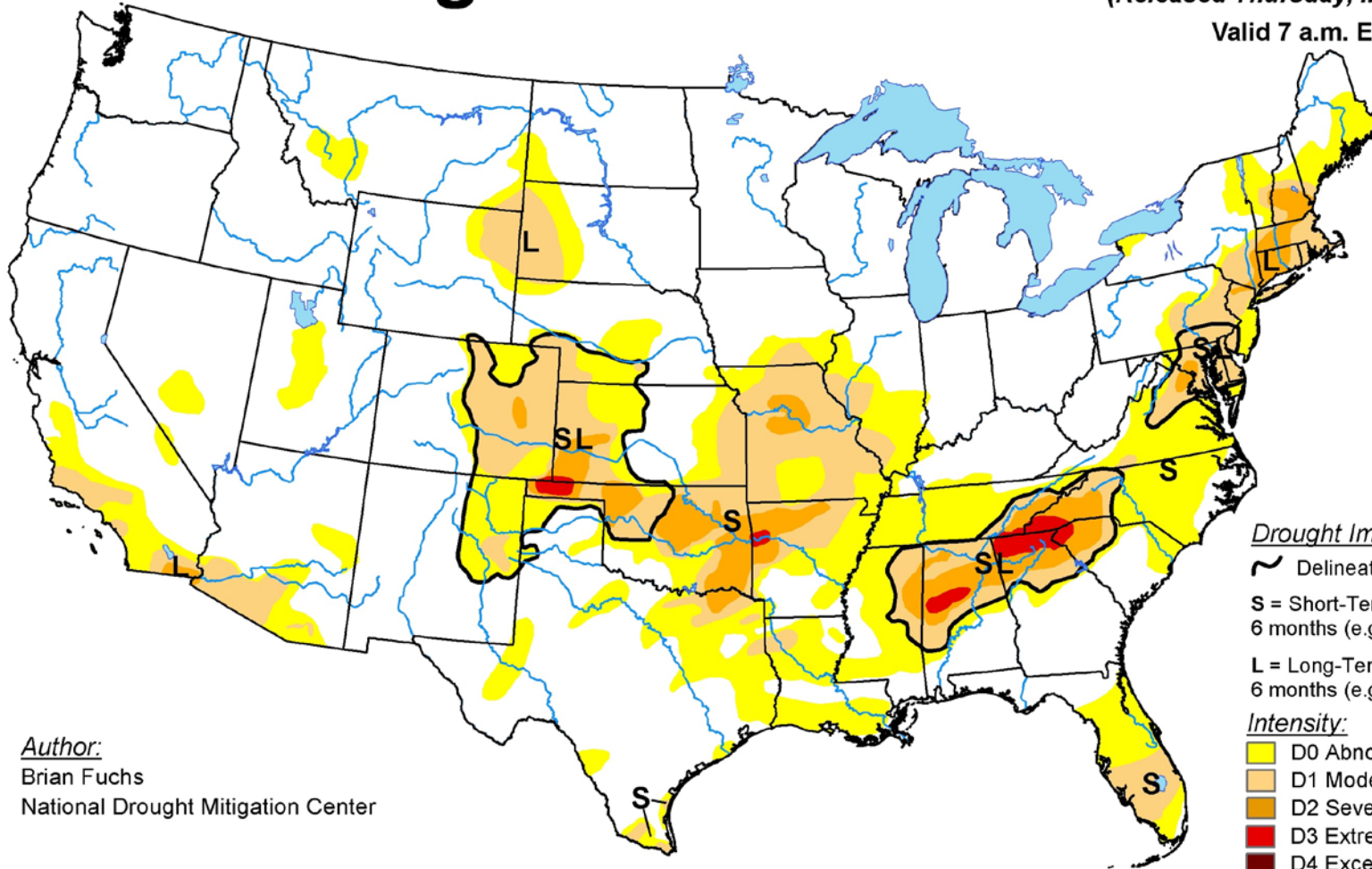
<http://droughtmonitor.unl.edu/>

U.S. Drought Monitor

March 7, 2017

(Released Thursday, Mar. 9, 2017)

Valid 7 a.m. EST



Author:
Brian Fuchs
National Drought Mitigation Center

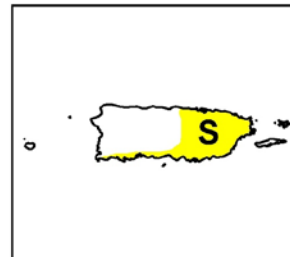
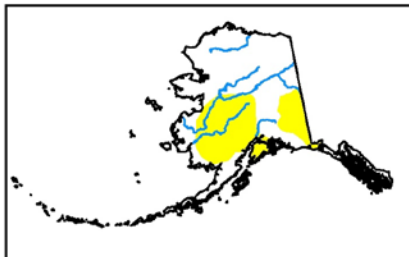
Drought Impact Types:

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Intensity:

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- D2 Severe Drought
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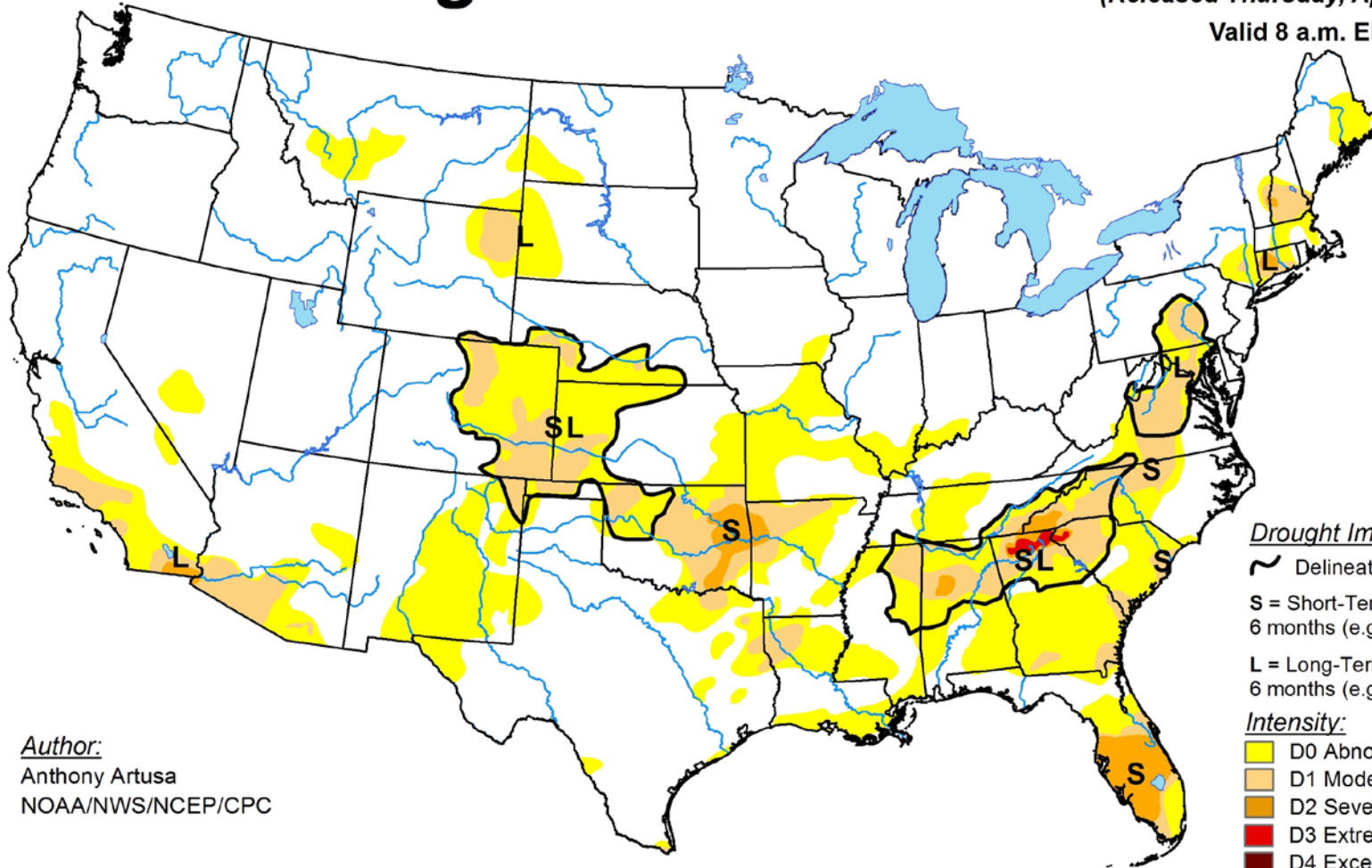
<http://droughtmonitor.unl.edu/>

U.S. Drought Monitor

April 11, 2017

(Released Thursday, Apr. 13, 2017)

Valid 8 a.m. EDT



Author:
Anthony Artusa
NOAA/NWS/NCEP/CPC

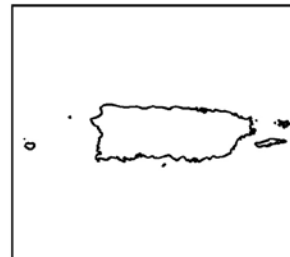
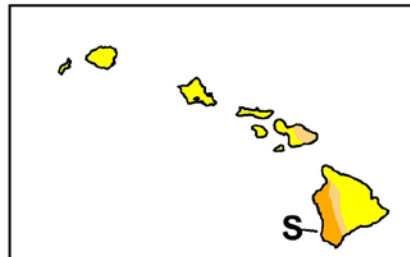
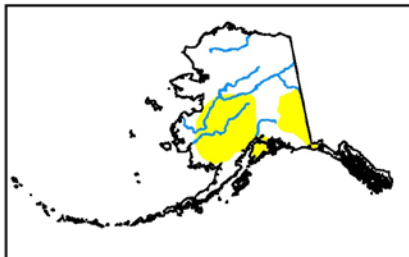
Drought Impact Types:

- ~ 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
- 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.



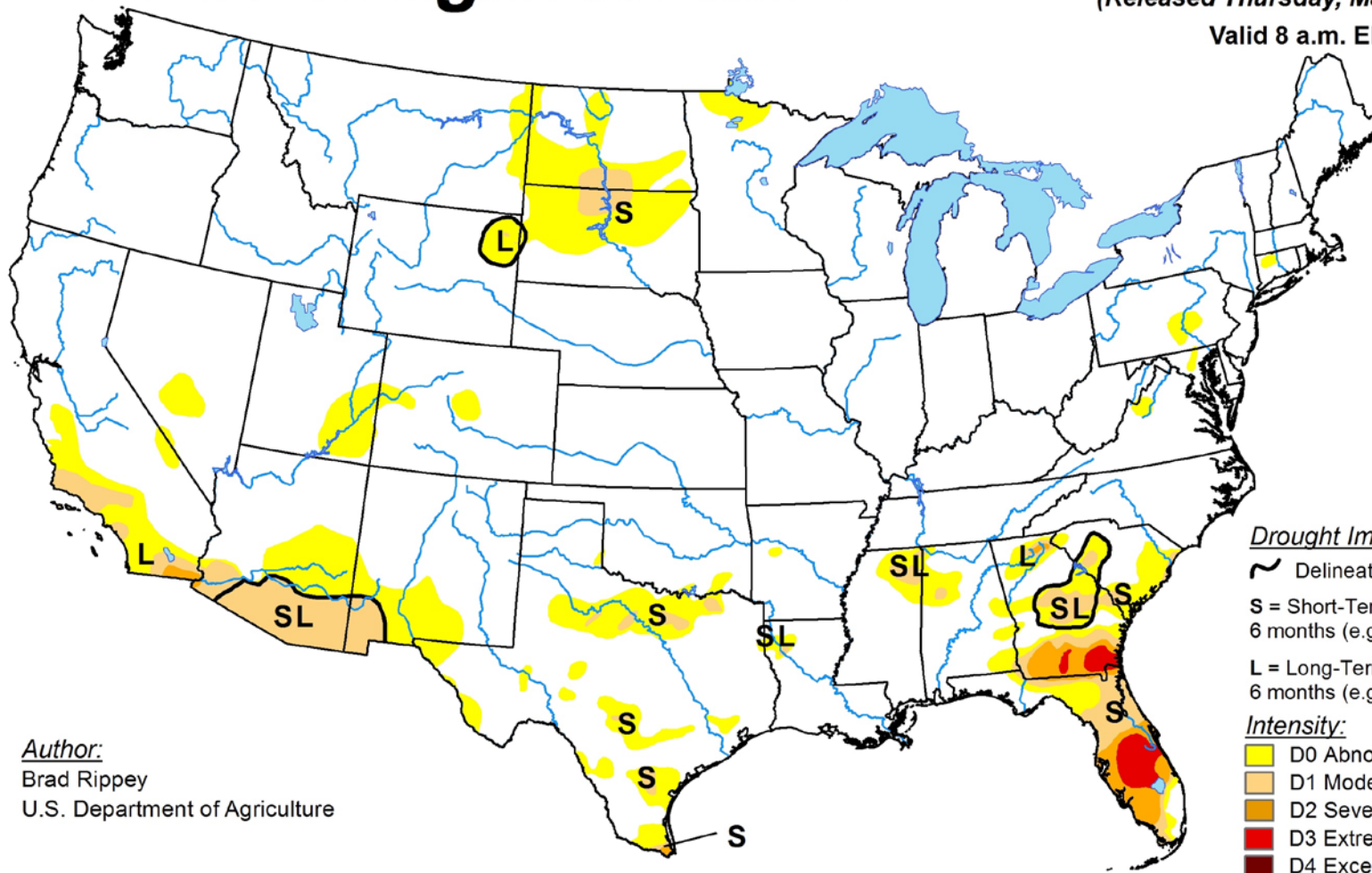
<http://droughtmonitor.unl.edu/>

U.S. Drought Monitor

May 23, 2017

(Released Thursday, May. 25, 2017)

Valid 8 a.m. EDT



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

Dark Orange D2 Severe Drought

Red D3 Extreme Drought

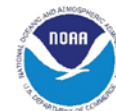
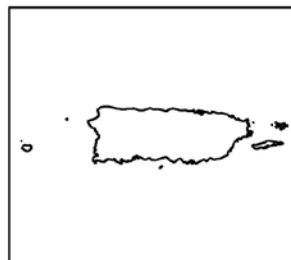
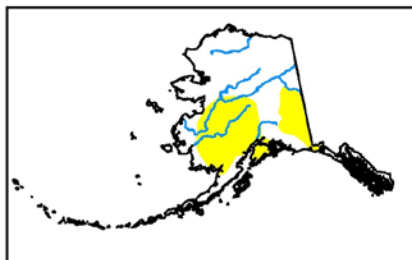
Dark Red D4 Exceptional Drought

Author:

Brad Rippey

U.S. Department of Agriculture

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

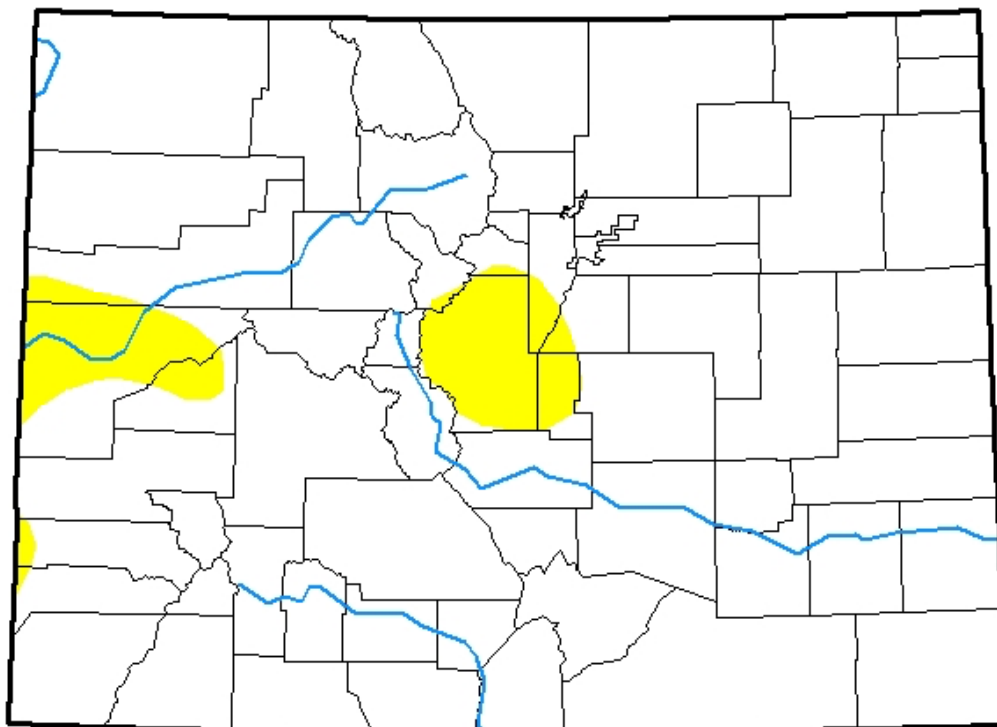
May 23, 2017

(Released Thursday, May. 25, 2017)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	94.30	5.70	0.00	0.00	0.00	0.00
Last Week <i>05-16-2017</i>	81.26	18.74	0.41	0.00	0.00	0.00
3 Months Ago <i>02-21-2017</i>	48.05	51.95	36.92	1.64	0.00	0.00
Start of Calendar Year <i>01-03-2017</i>	31.88	68.12	37.21	2.88	0.00	0.00
Start of Water Year <i>09-27-2016</i>	70.49	29.51	2.45	0.00	0.00	0.00
One Year Ago <i>05-24-2016</i>	96.17	3.83	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.

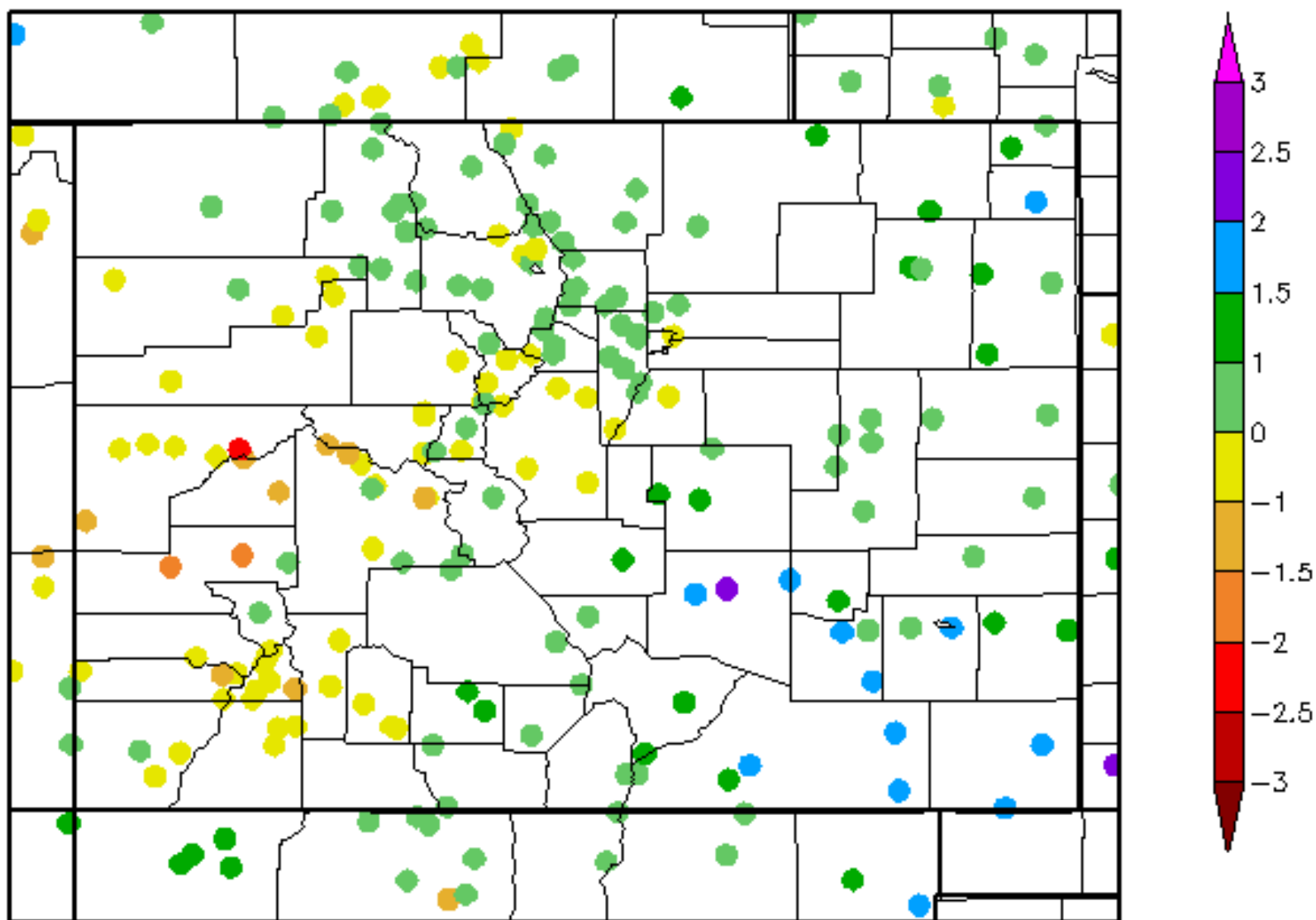
Author:

Brad Rippey
U.S. Department of Agriculture



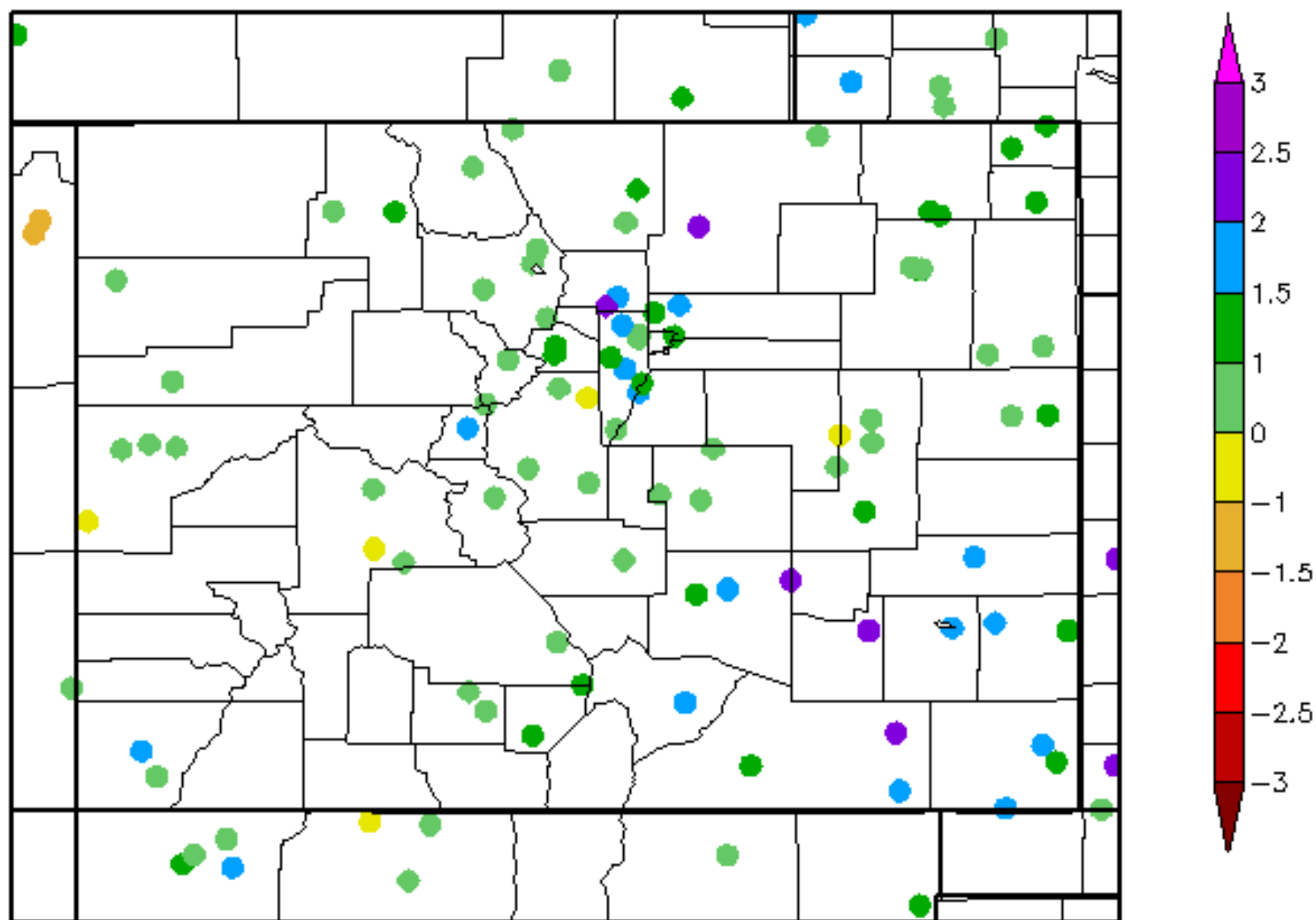
Monthly SPI

4/1/2017 - 4/30/2017



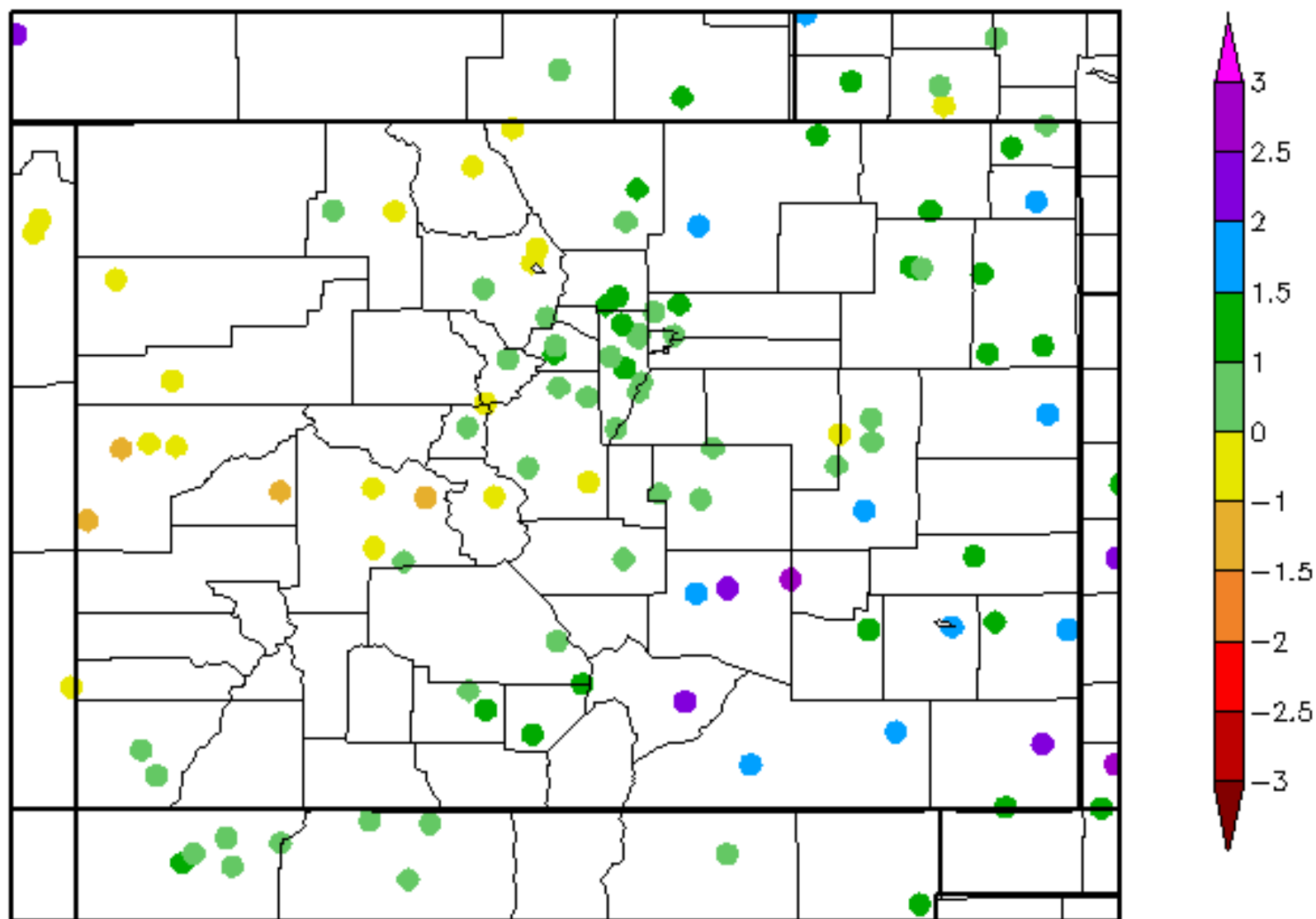
30 Day SPI

4/24/2017 - 5/23/2017



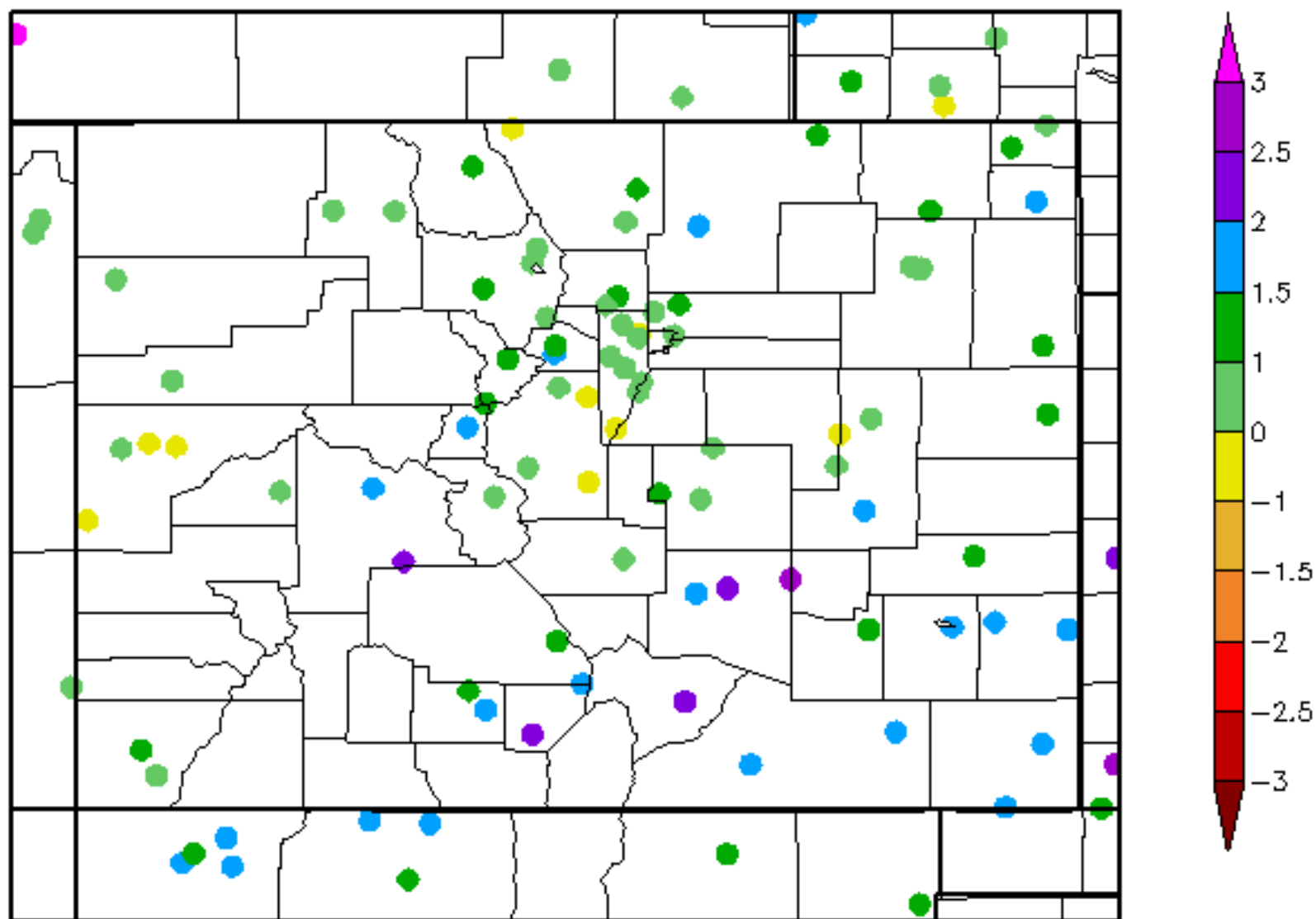
90 Day SPI

2/23/2017 - 5/23/2017



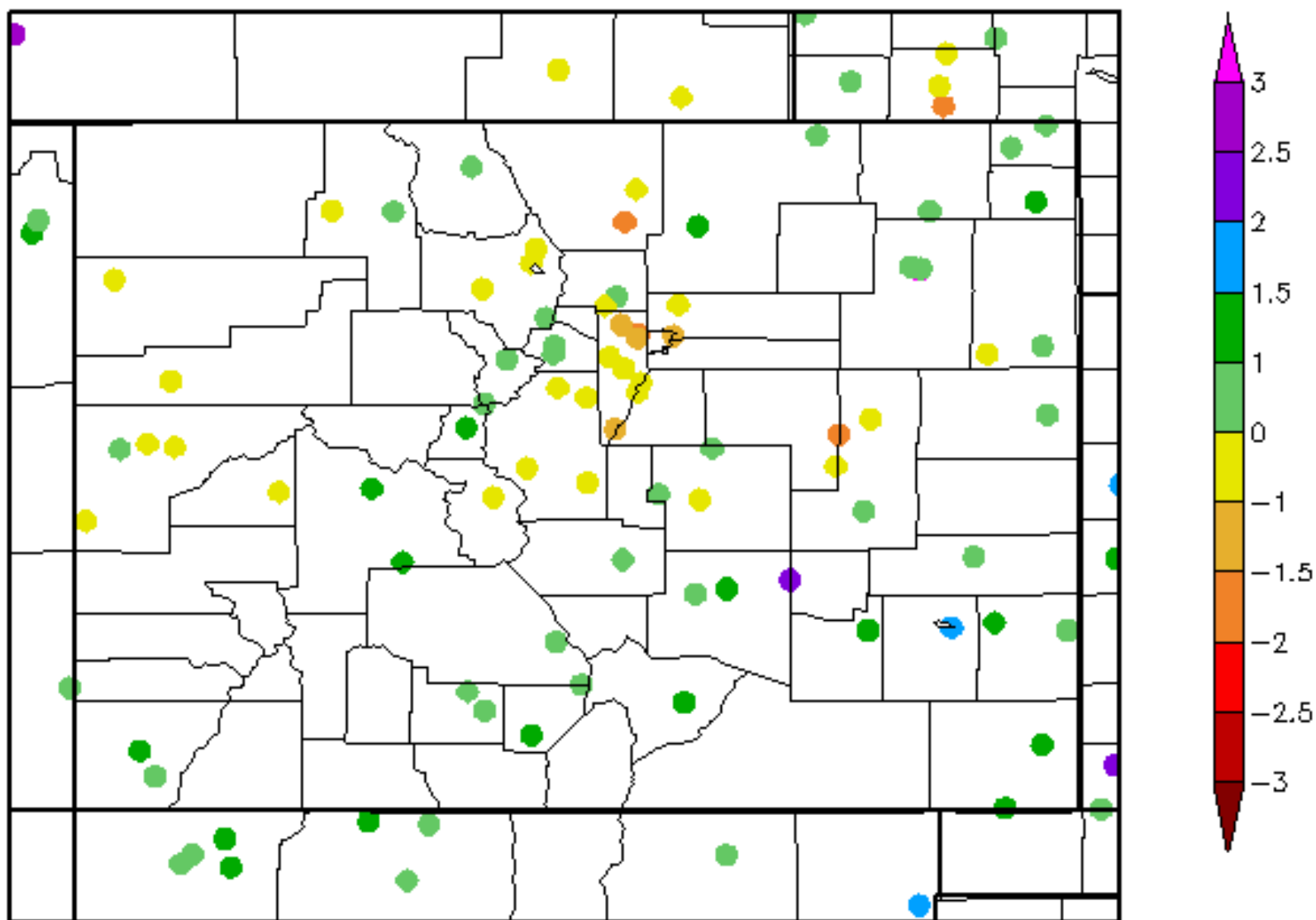
6 Month SPI

11/24/2016 - 5/23/2017



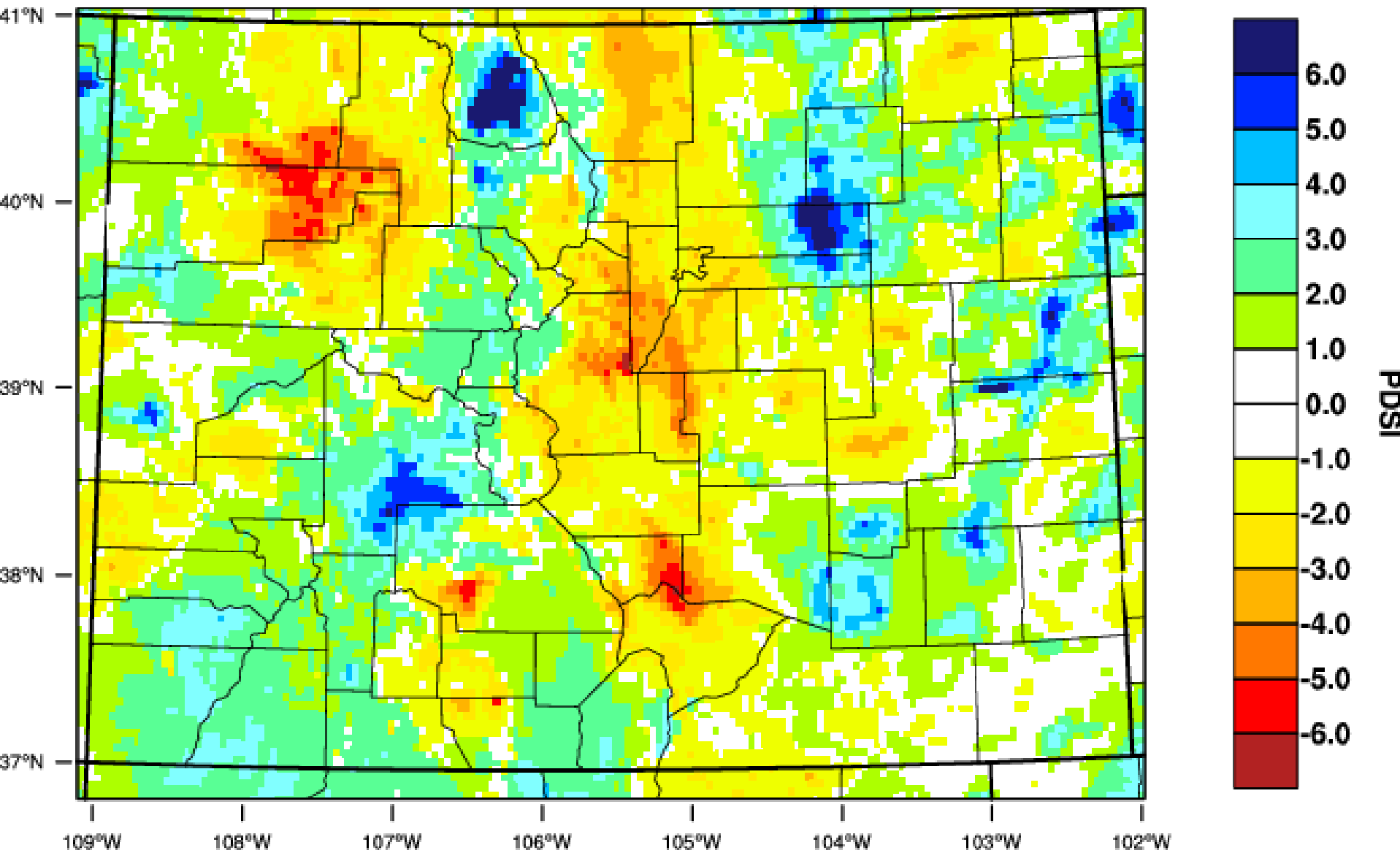
12 Month SPI

5/24/2016 - 5/23/2017



Colorado - PDSI

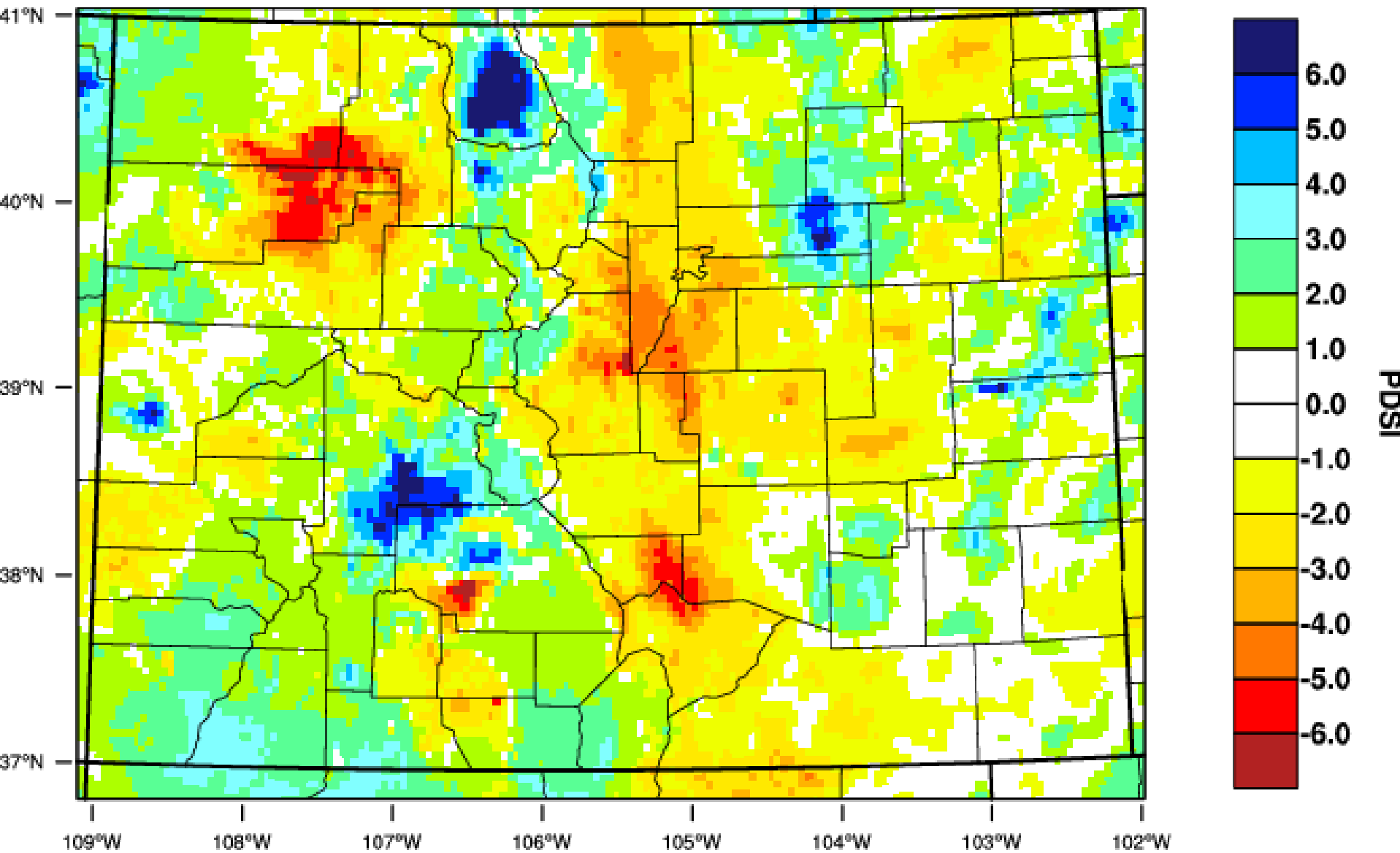
January 2017



WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 11 FEB 2017

Colorado - PDSI

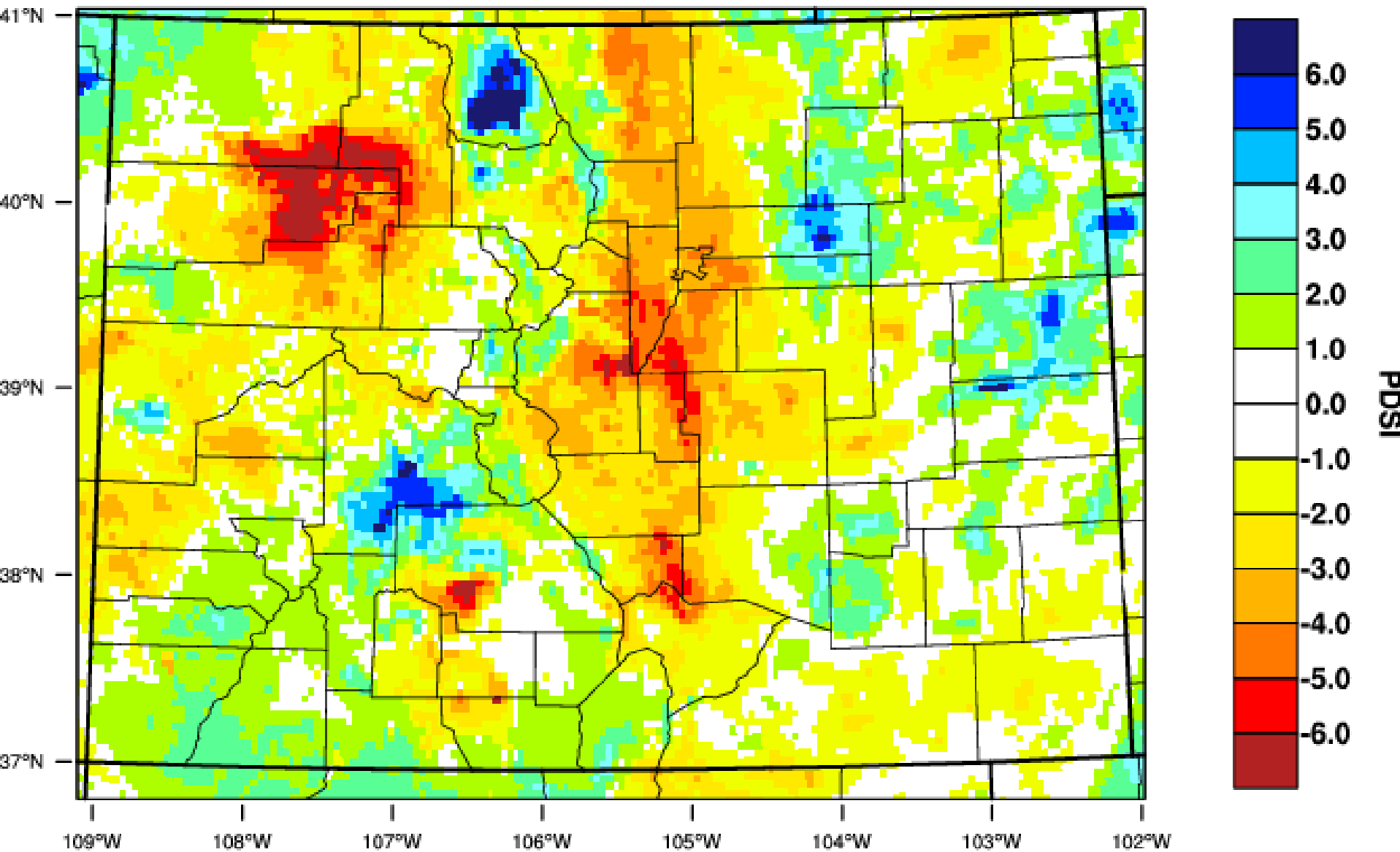
February 2017



WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 16 MAR 2017

Colorado - PDSI

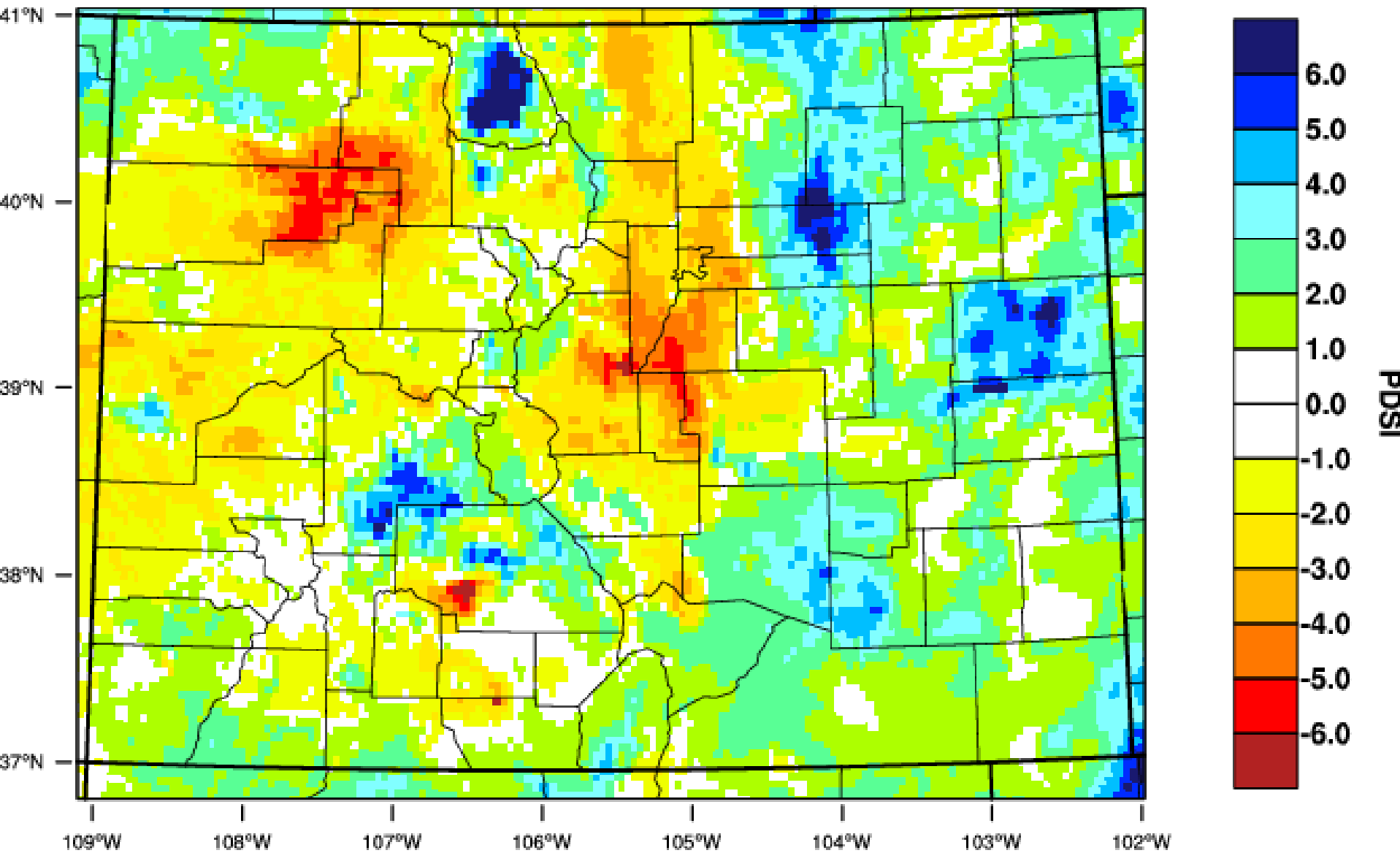
March 2017



WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 16 APR 2017

Colorado - PDSI

April 2017



WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 7 MAY 2017

Colorado Climate Center

Data and Power Point Presentations available for downloading

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

