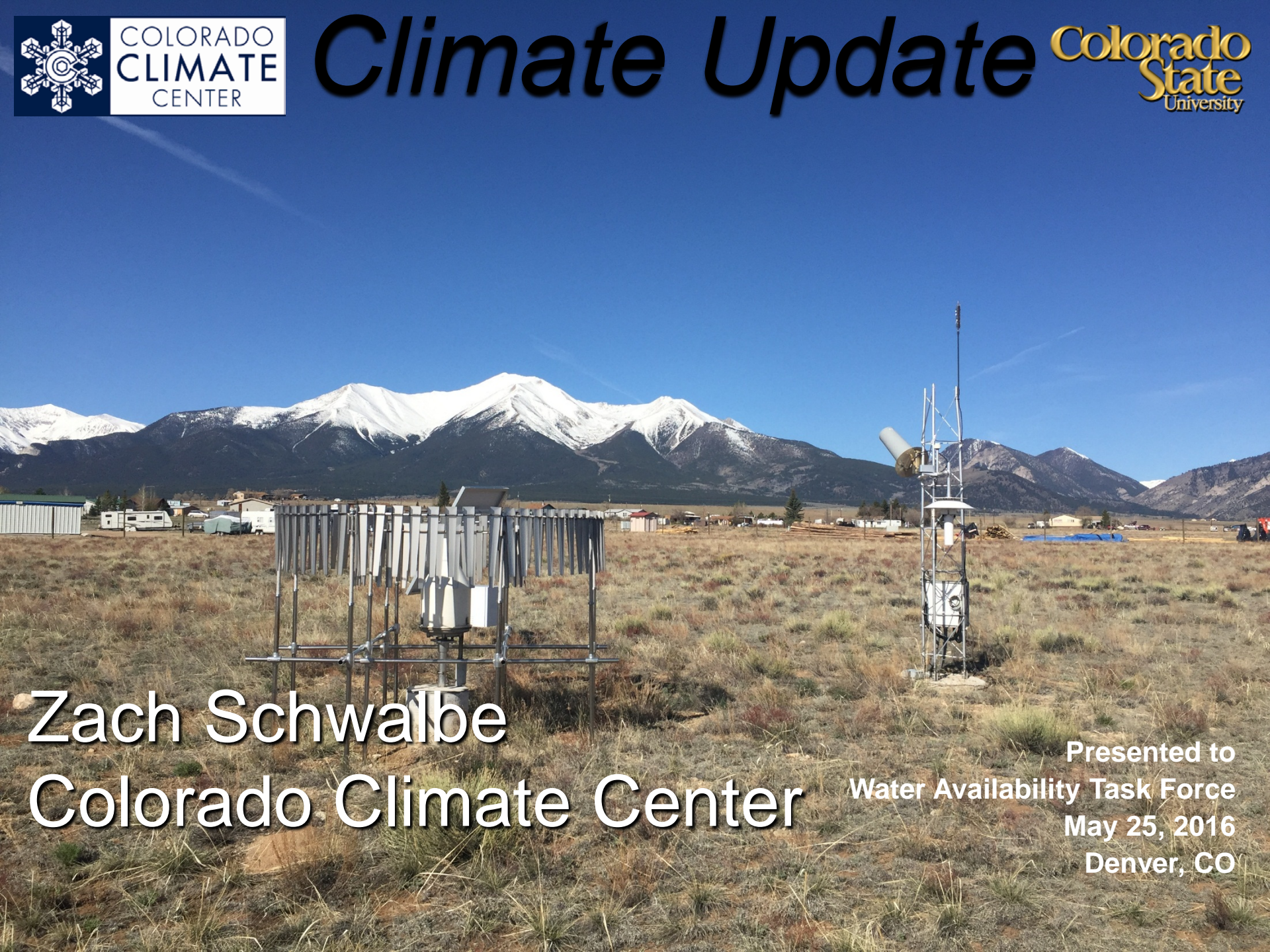




Climate Update

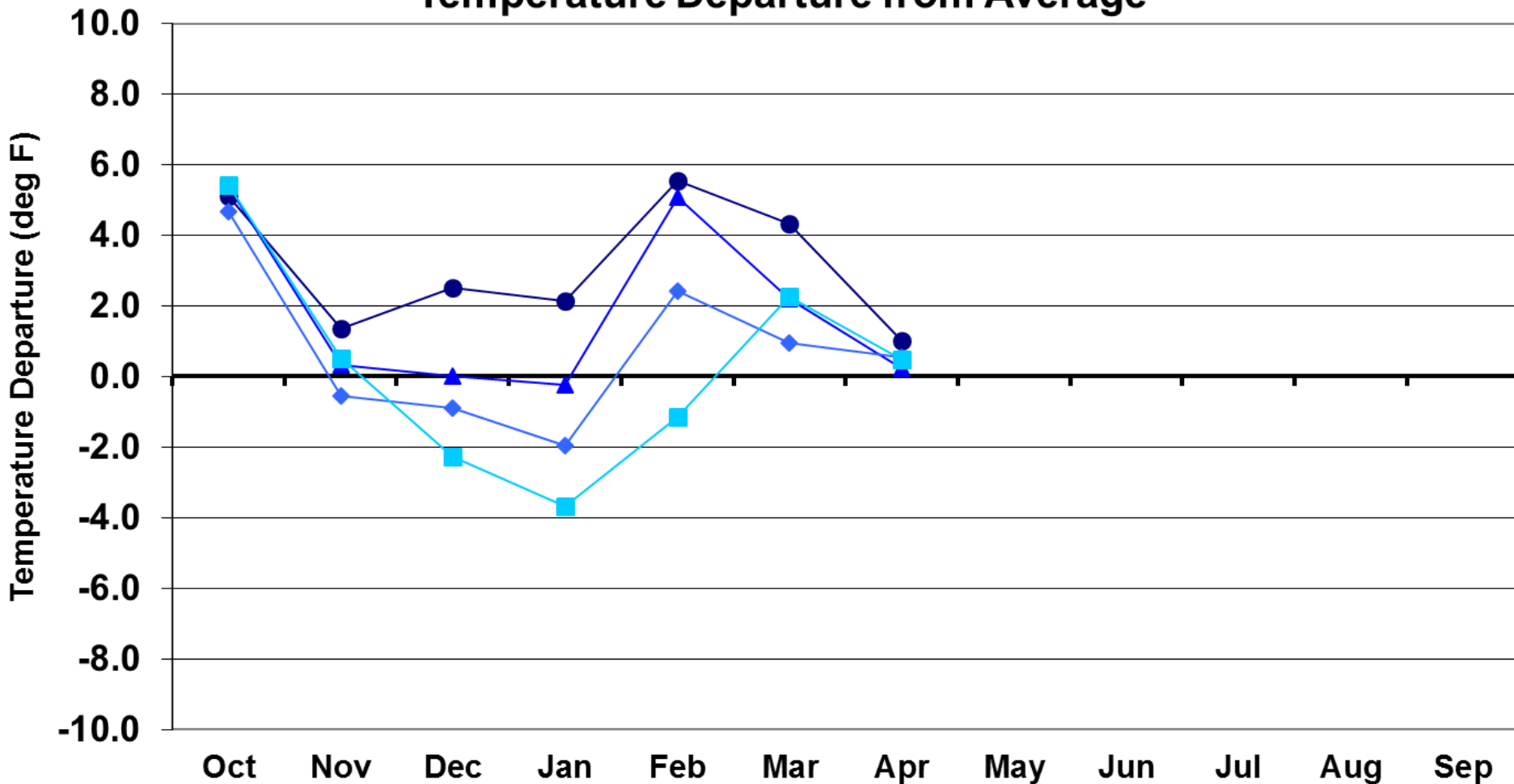


Zach Schwalbe
Colorado Climate Center

Presented to
Water Availability Task Force
May 25, 2016
Denver, CO

Water Year 2016 Temperature Departures

Water Year 2016
Temperature Departure from Average



● Eastern Plains

▲ Foothills

◆ Mountains

■ Western Valleys

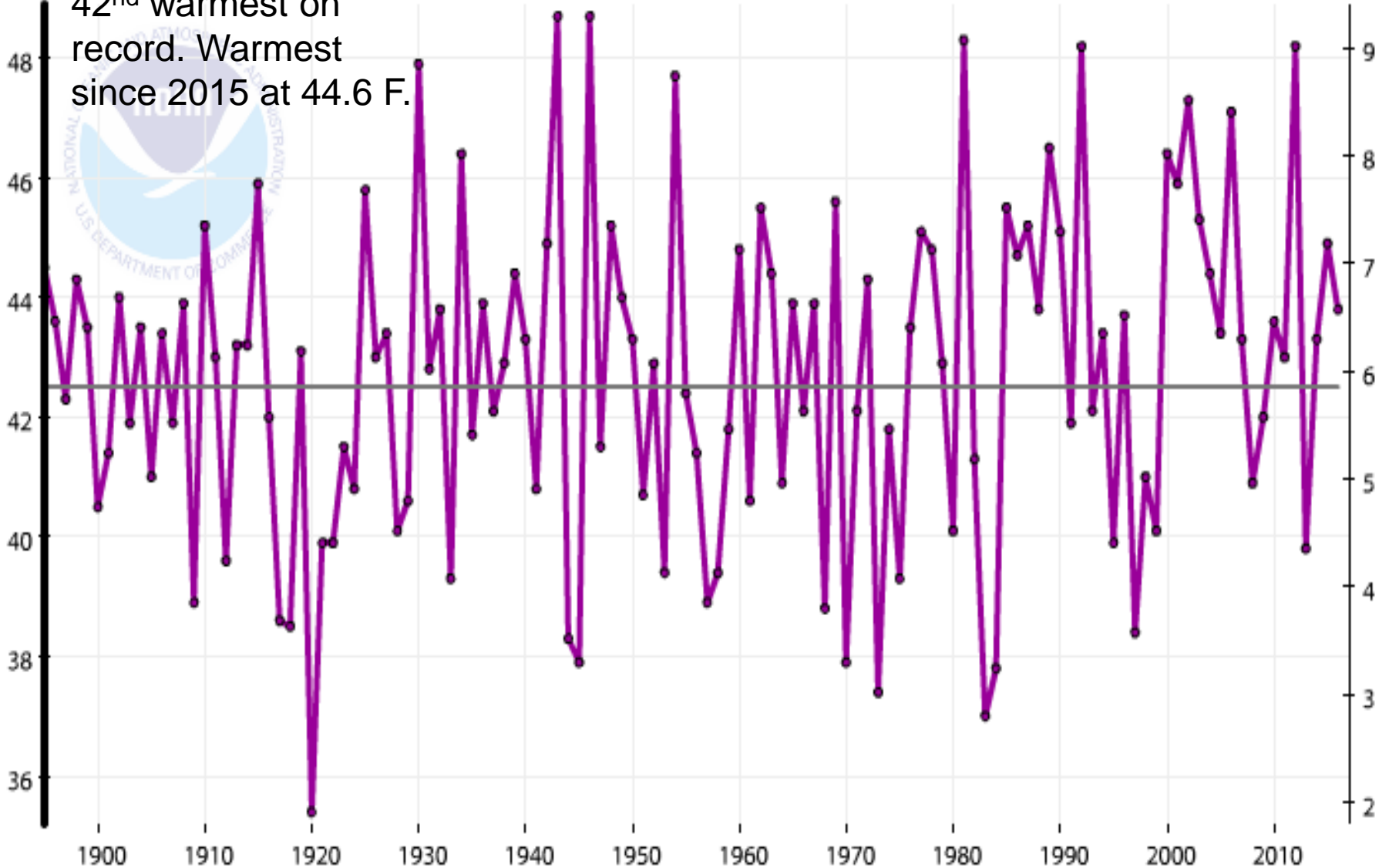
April 2016 Average Temperature History for Colorado (NCEI)

Colorado, Average Temperature, April

43.8 F (+1.3)

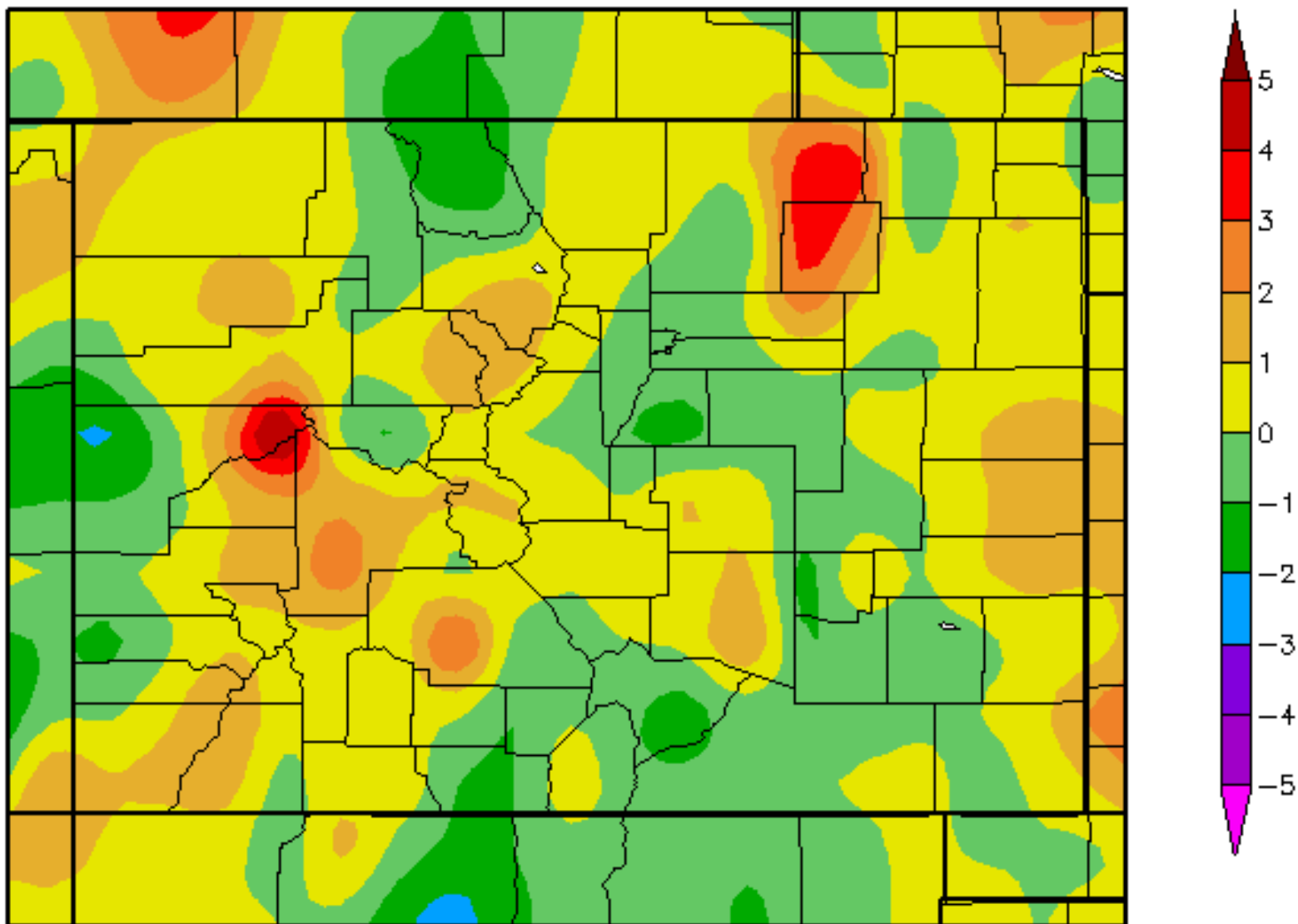
42nd warmest on record. Warmest since 2015 at 44.6 F.

— 1901-2000 Avg: 42.5°F —●— Avg Temperature



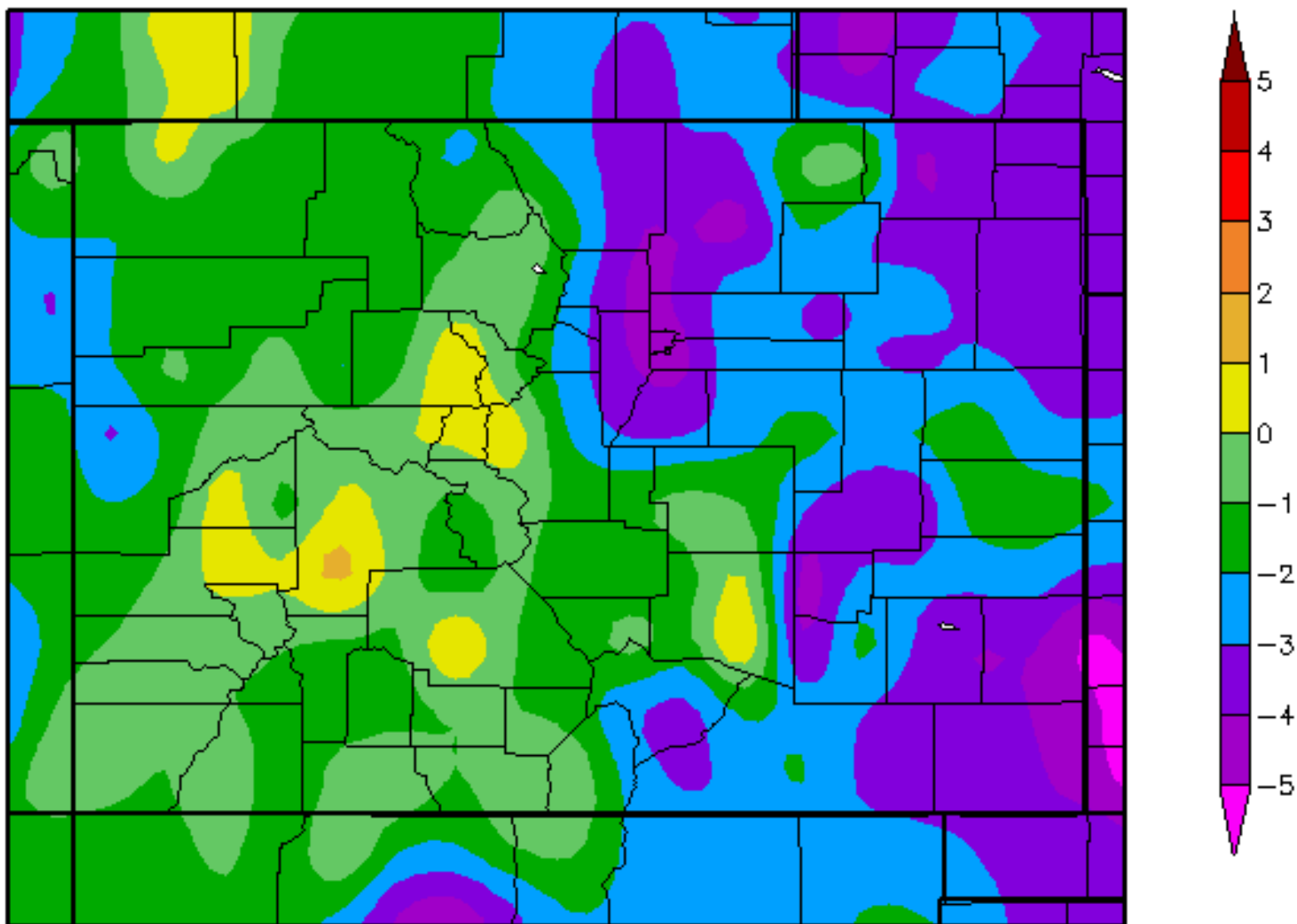
Departure from Normal Temperature (F)

4/1/2016 - 4/30/2016



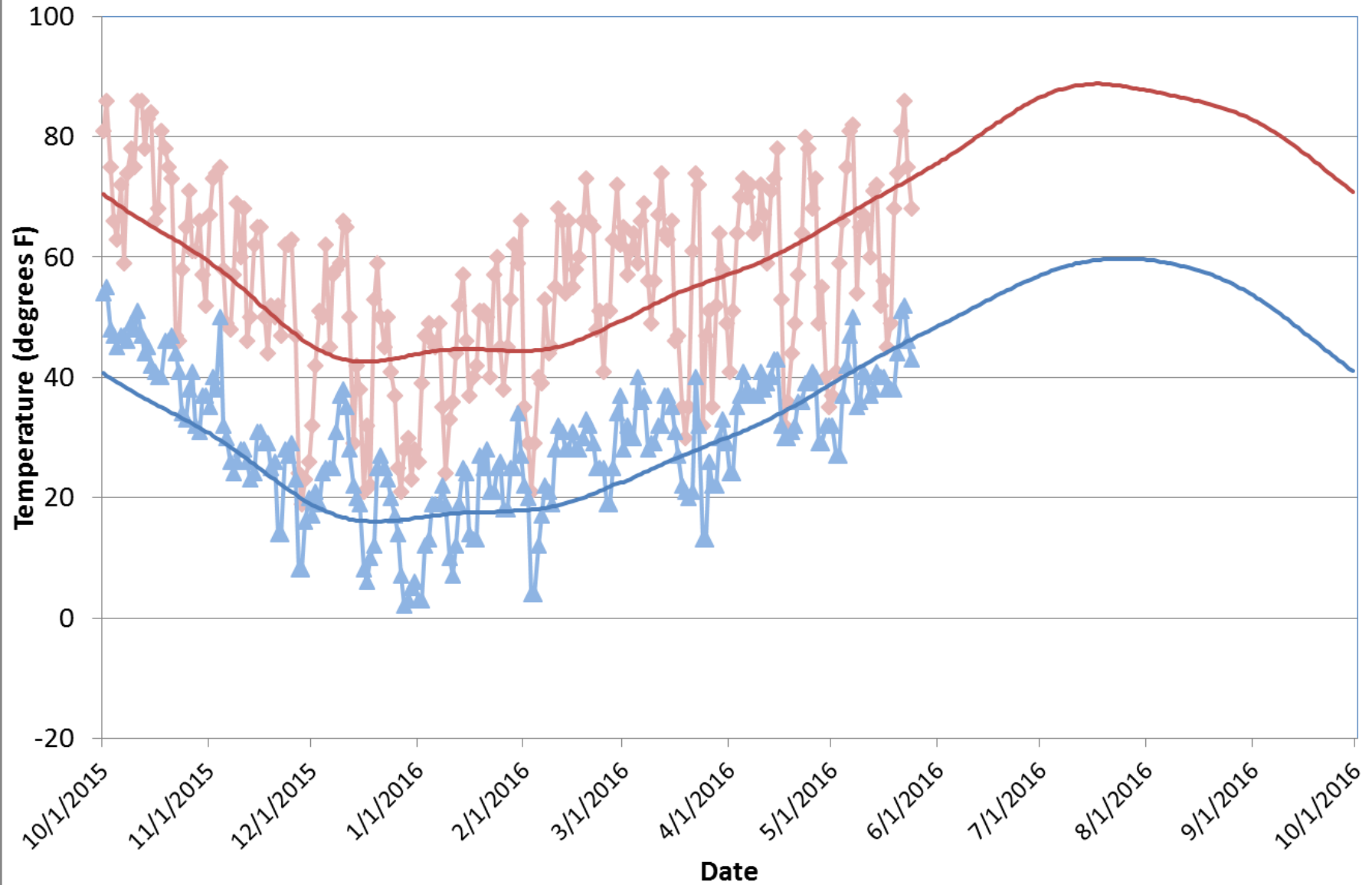
Departure from Normal Temperature (F)

5/1/2016 – 5/24/2016



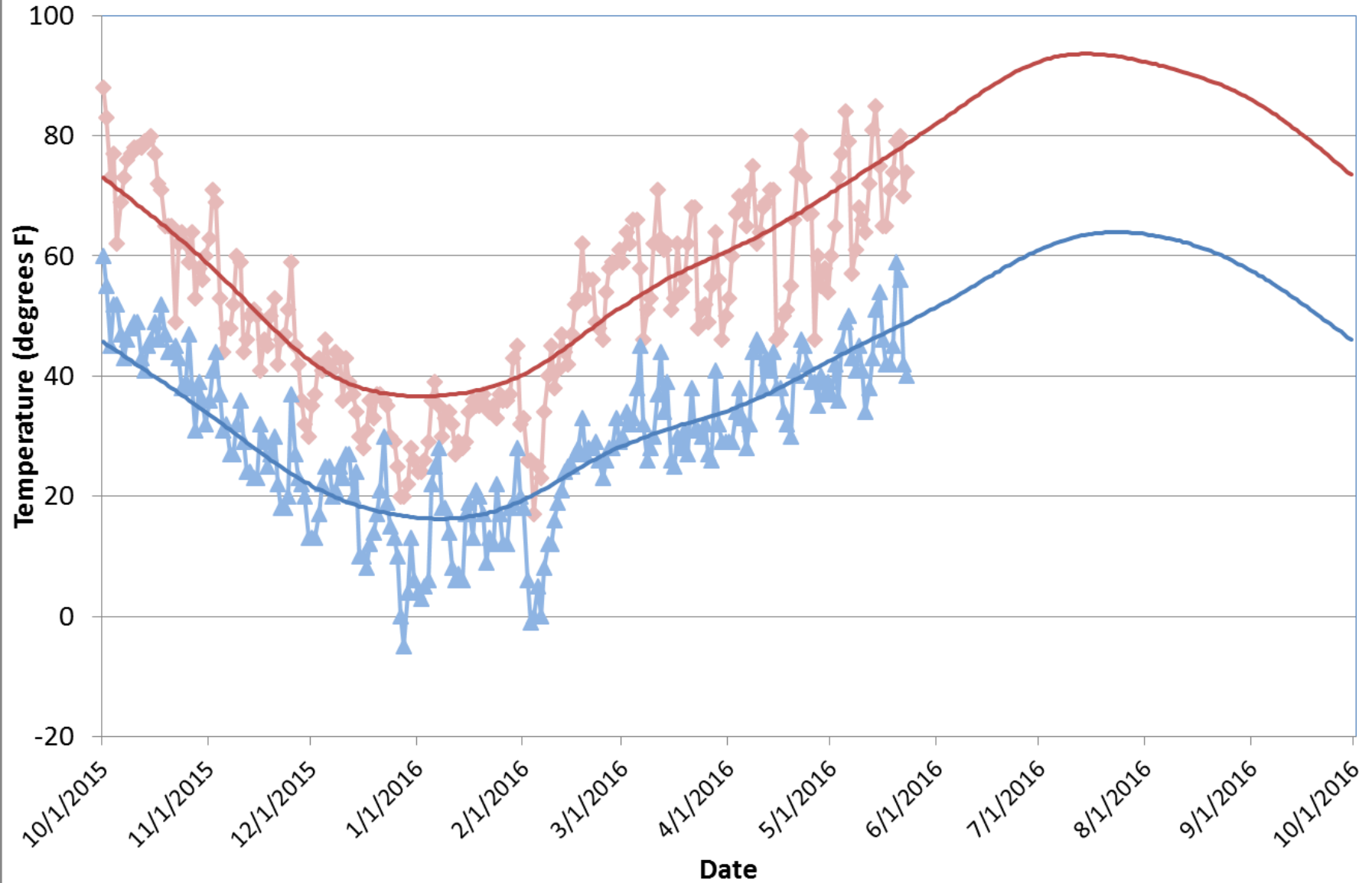
Denver-Stapleton Daily Max/Min Temperatures with Normals, Water Year 2016

Max Temperature Normal Max Temp Min Temperature Normal Min Temp

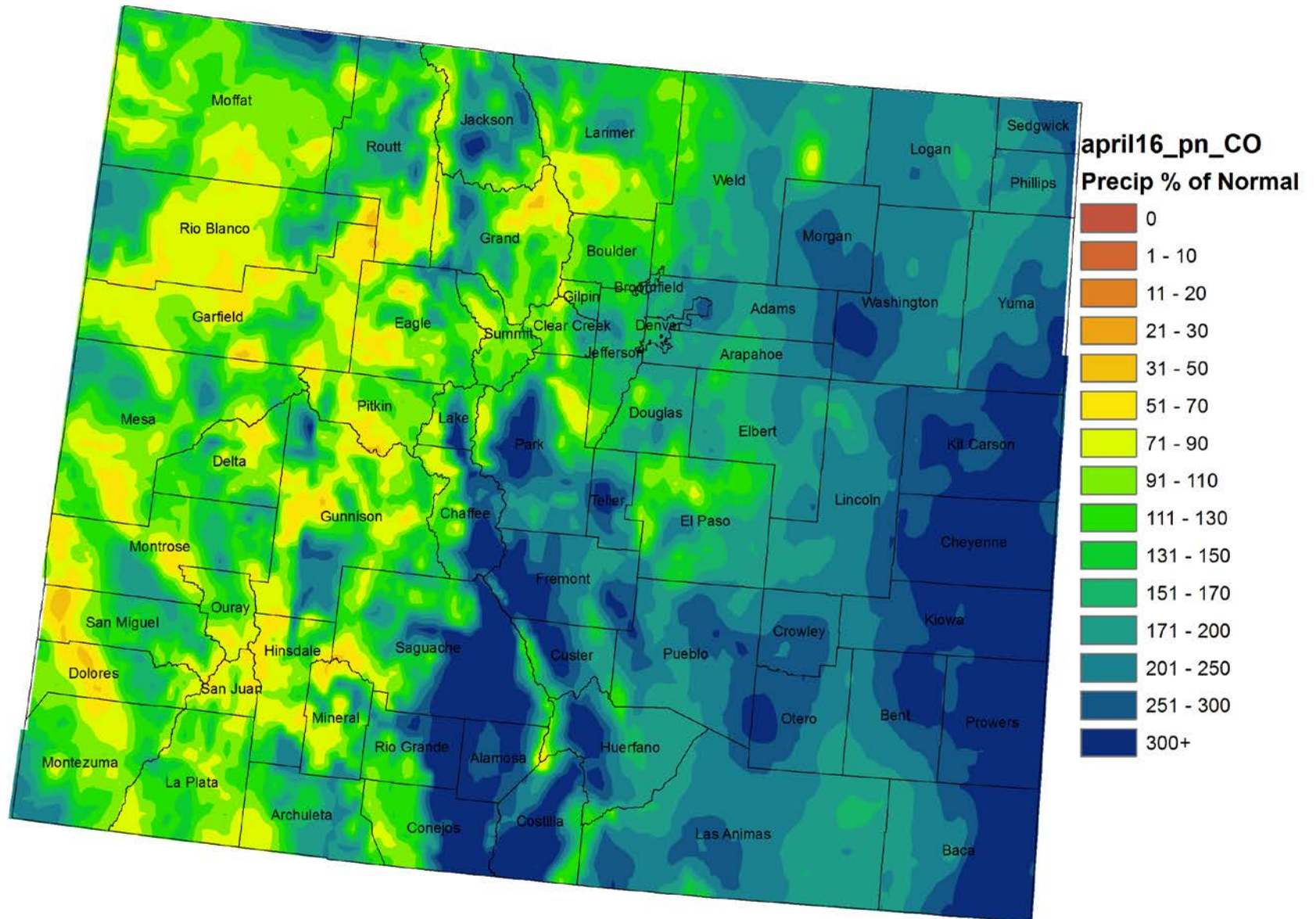


Grand Junction Daily Max/Min Temperature with Normals, WY 2016

Max Temperature Normal Max Temp Min Temperature Normal Min Temp



Colorado April 2016 Precipitation as a Percentage of Normal



April 2016 Statewide Precipitation

Colorado, Precipitation, April

2.67" (+0.83")

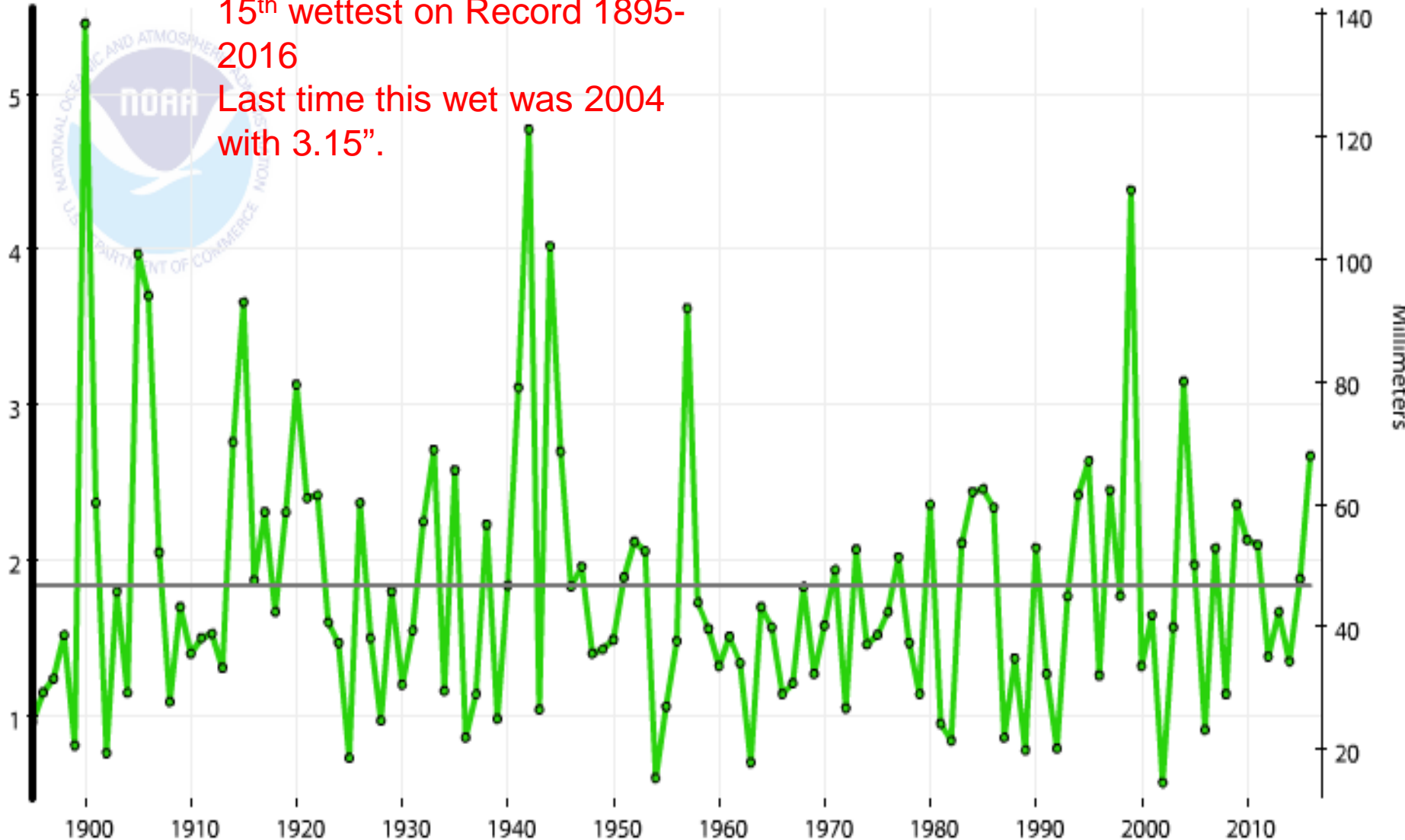
15th wettest on Record 1895-

2016

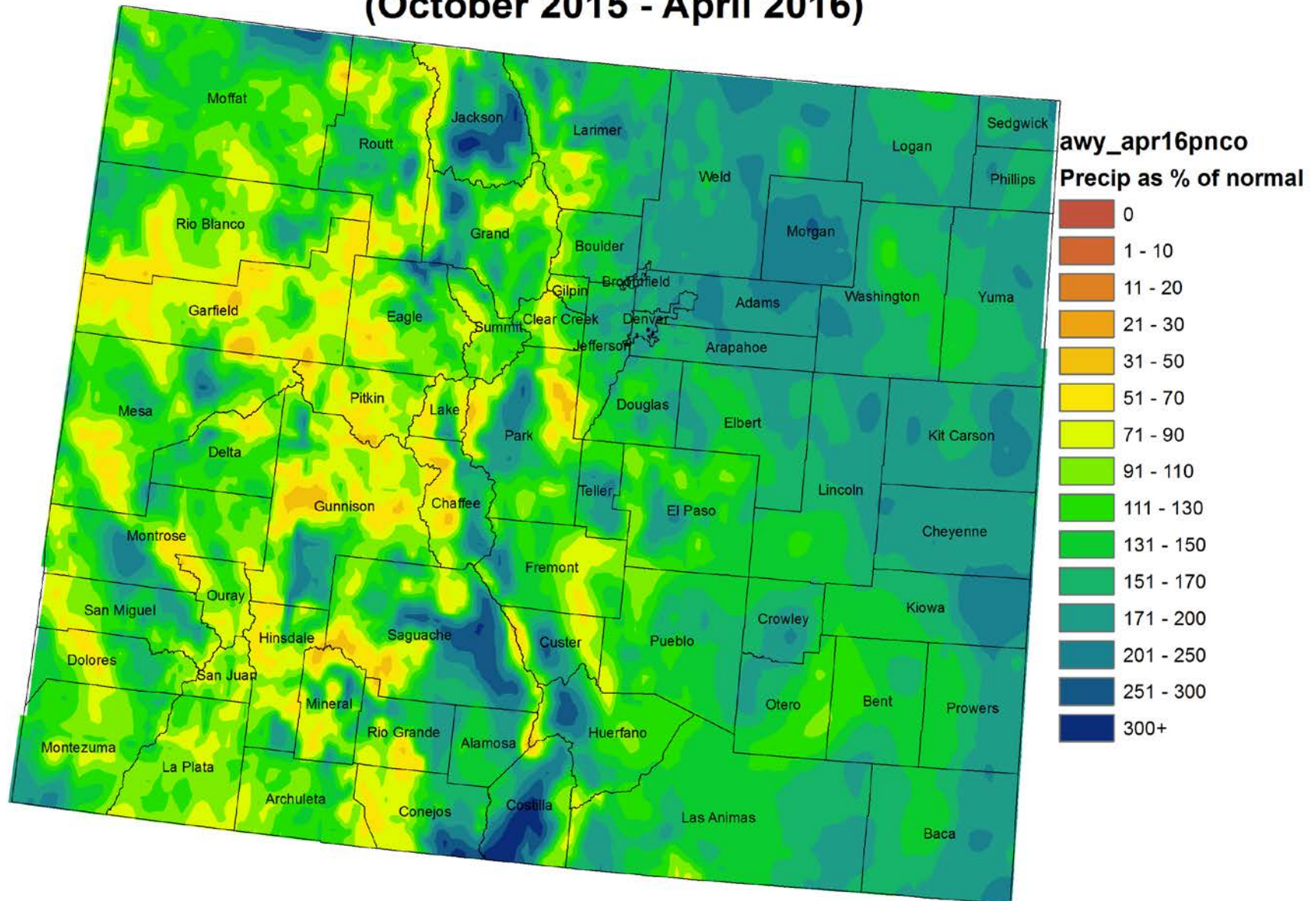
Last time this wet was 2004

with 3.15".

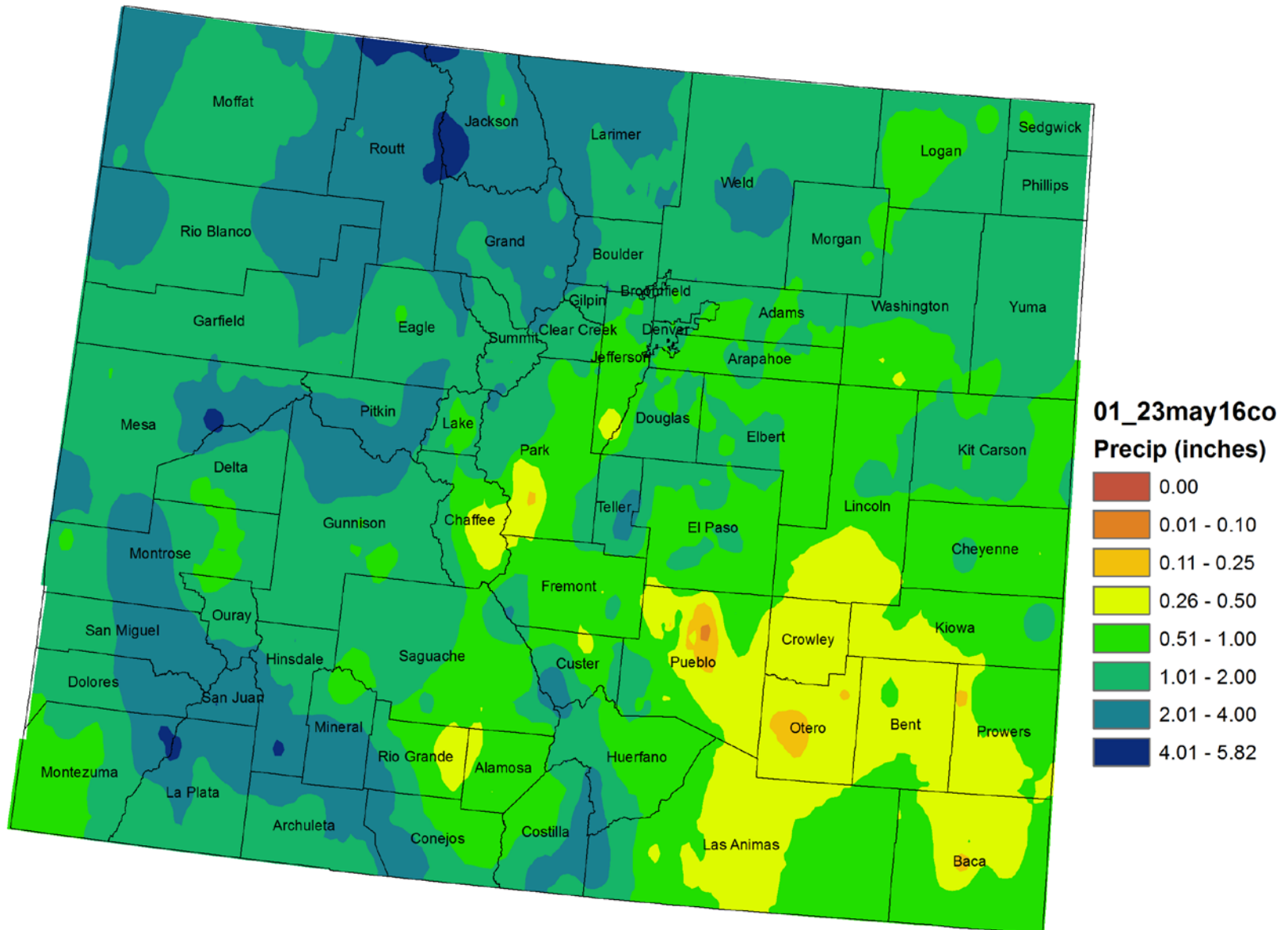
— 1901-2000
Avg: 1.84" ●— Precip



Colorado Water Year 2016 Precipitation as a Percentage of Normal (October 2015 - April 2016)



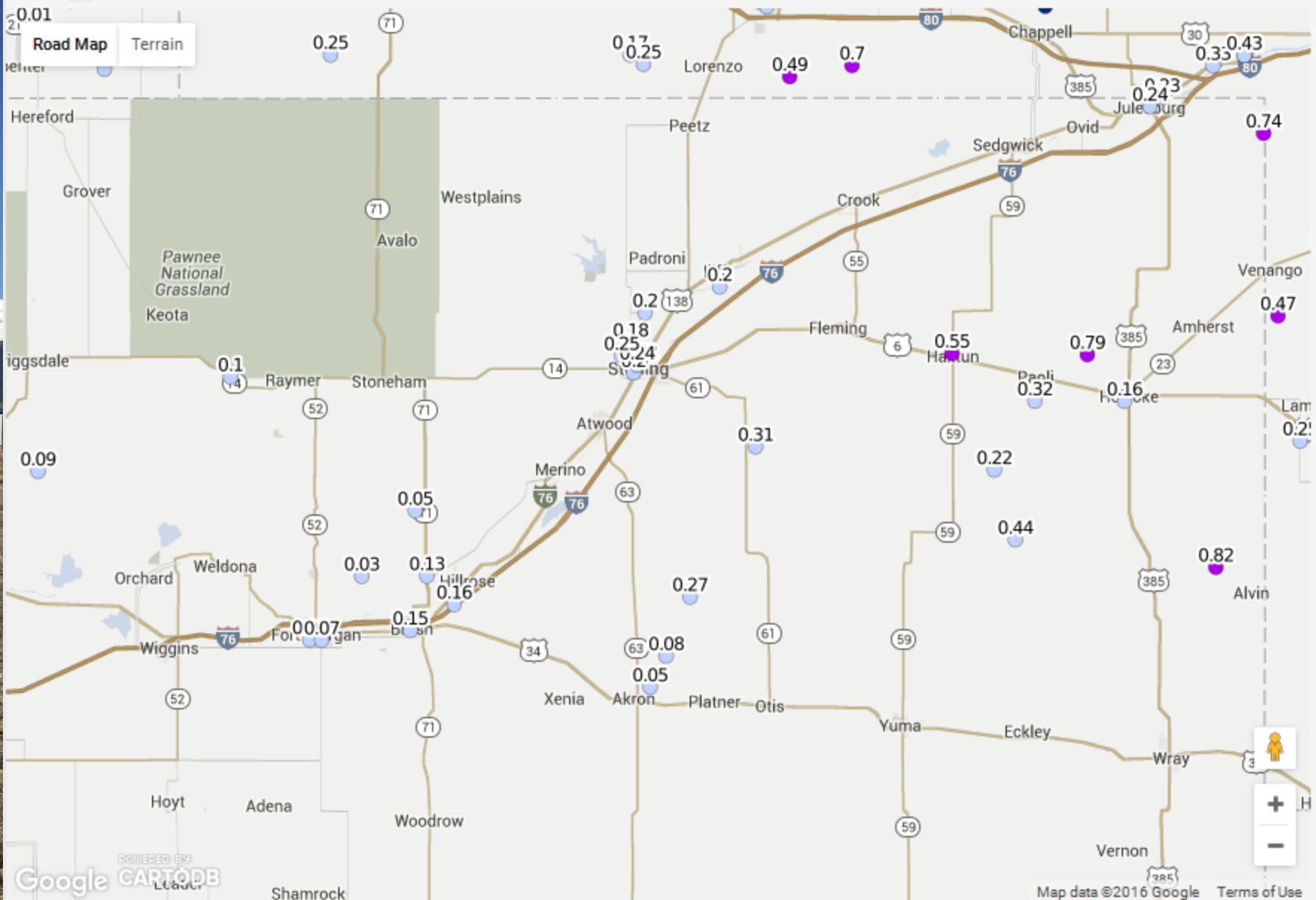
Colorado Month to Date Precipitation 1 - 23 May 2016



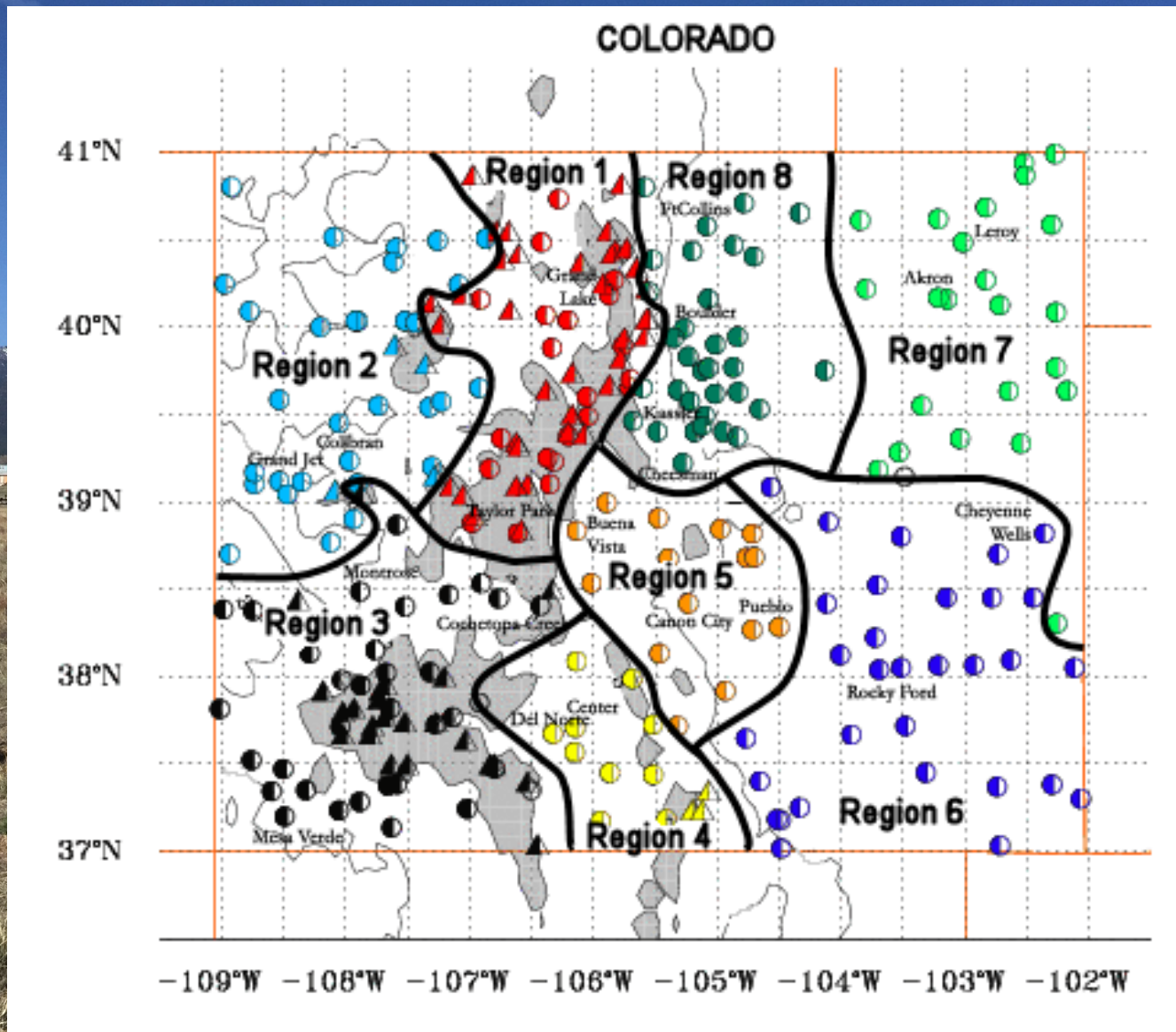


Precipitation for 2016-05-25 values in inches

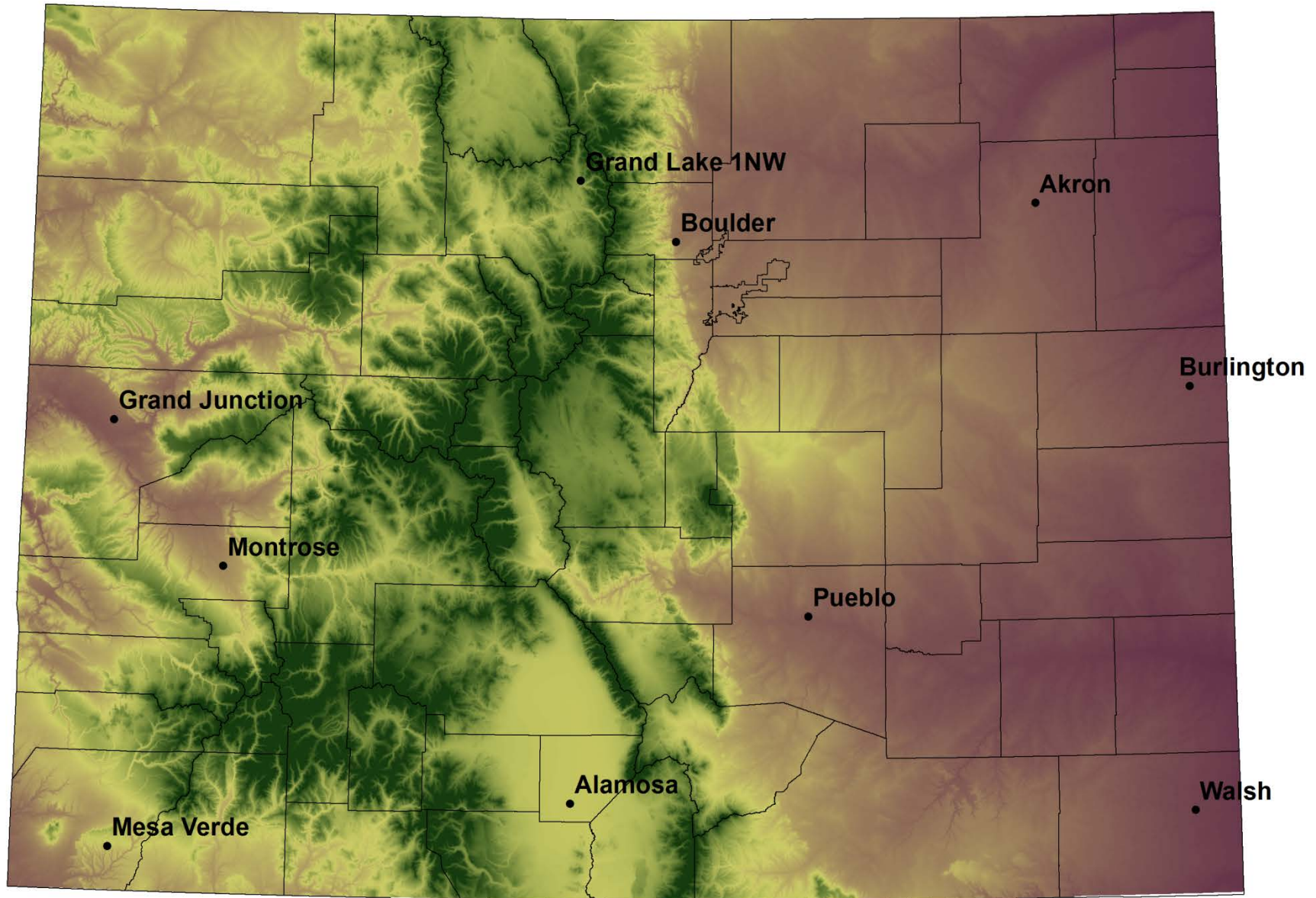
Zero
 Trace
 0.01 - 0.45"
 0.46 - 0.90"
 0.91 - 2.25"
 2.26 - 5.40"
 5.41 - 8.10"
 8.11 - 9.00"



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

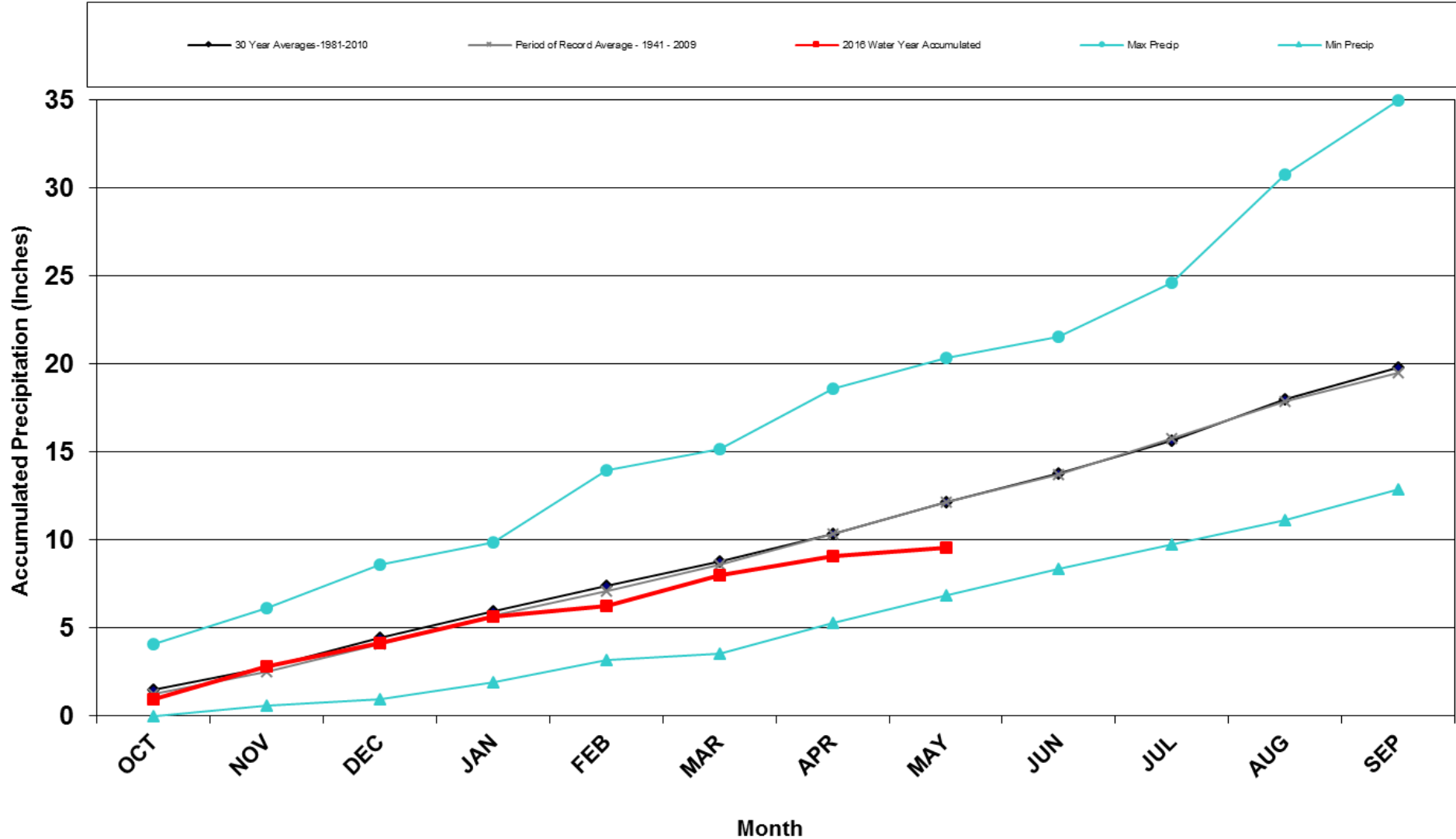


NWS Cooperative Stations for WATF



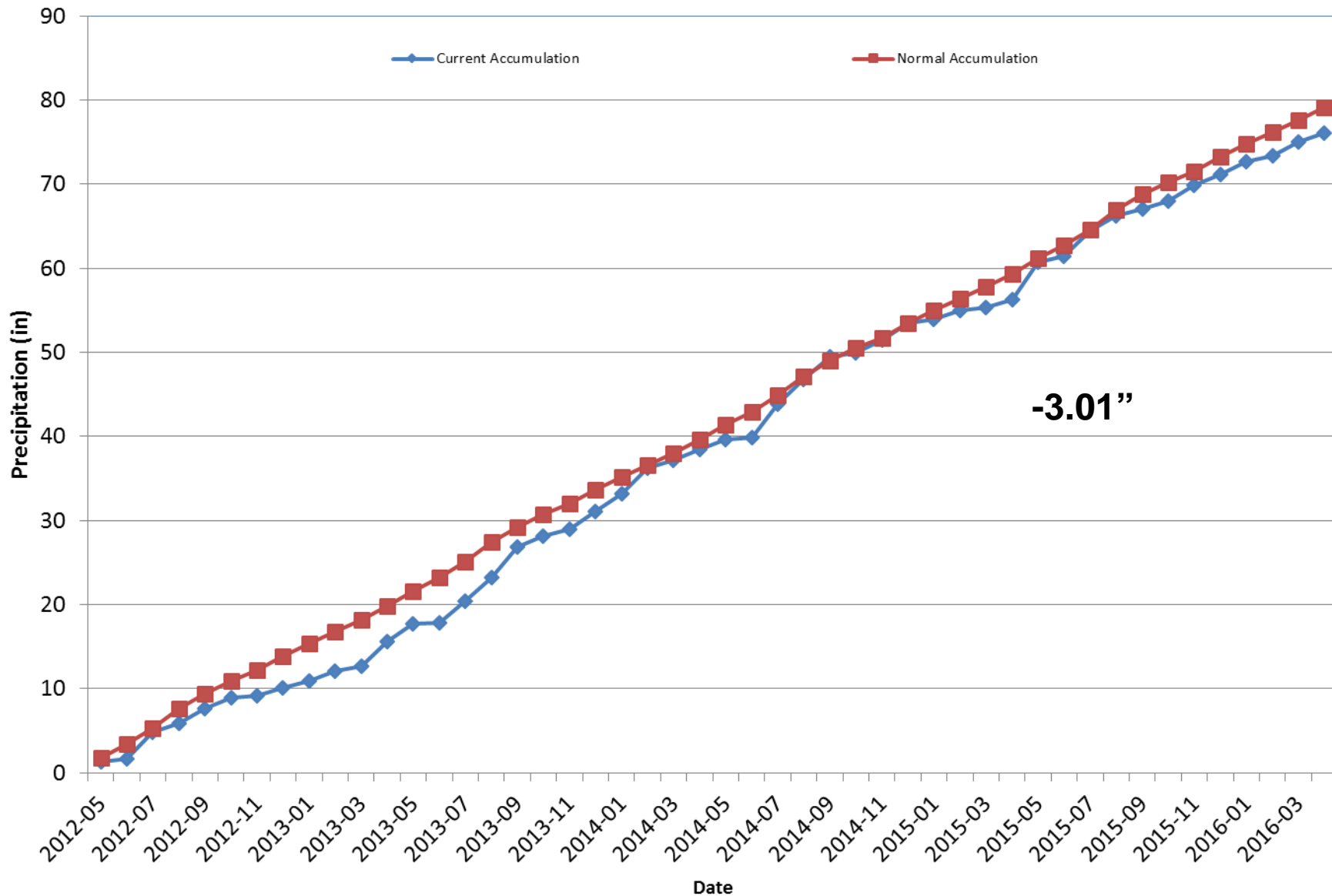
Division 1 – Grand Lake 1NW

Grand Lake 1 NW 2016 Water Year



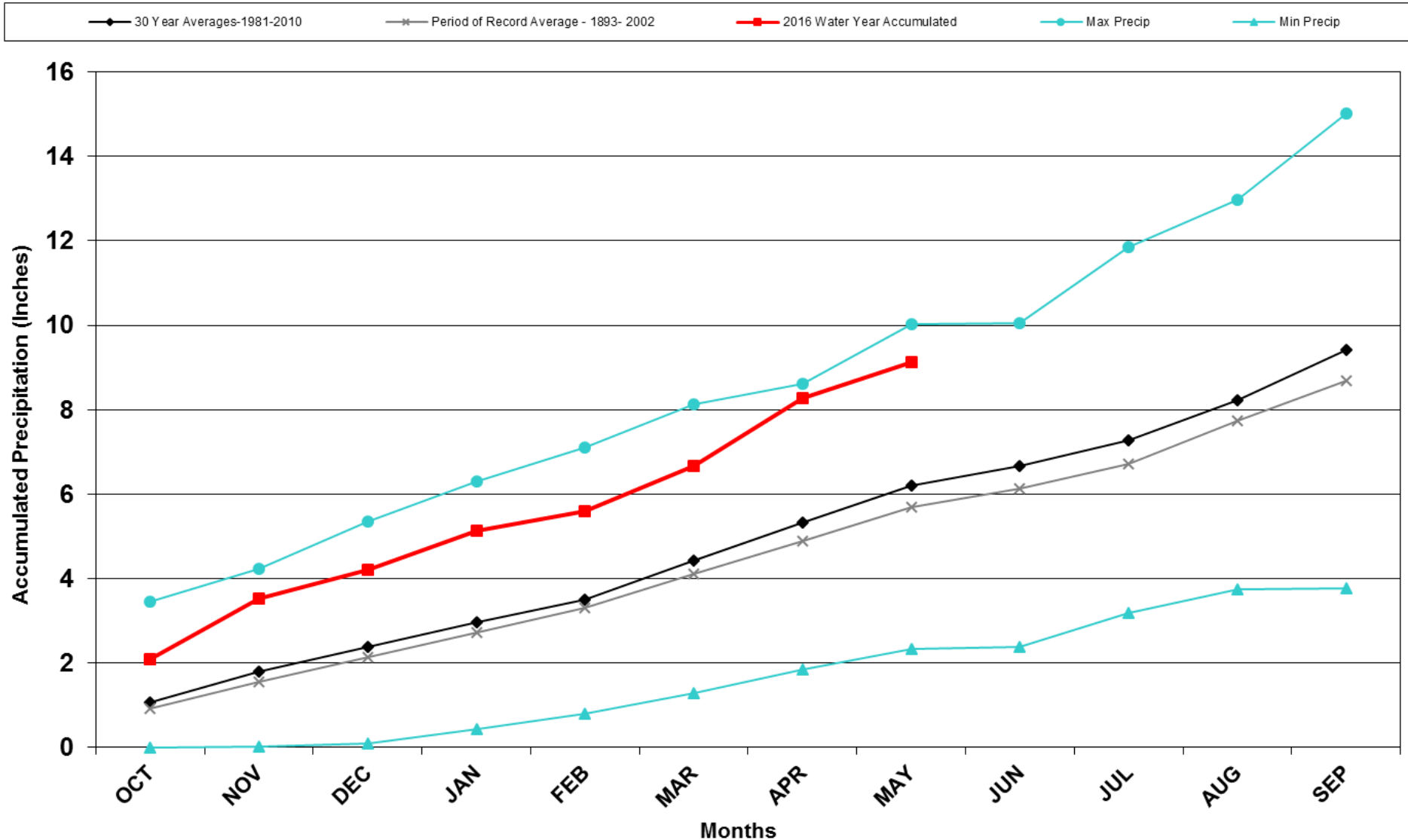
Division 1 – Grand Lake 1NW

Grand Lake 1NW Precipitation Accumulation



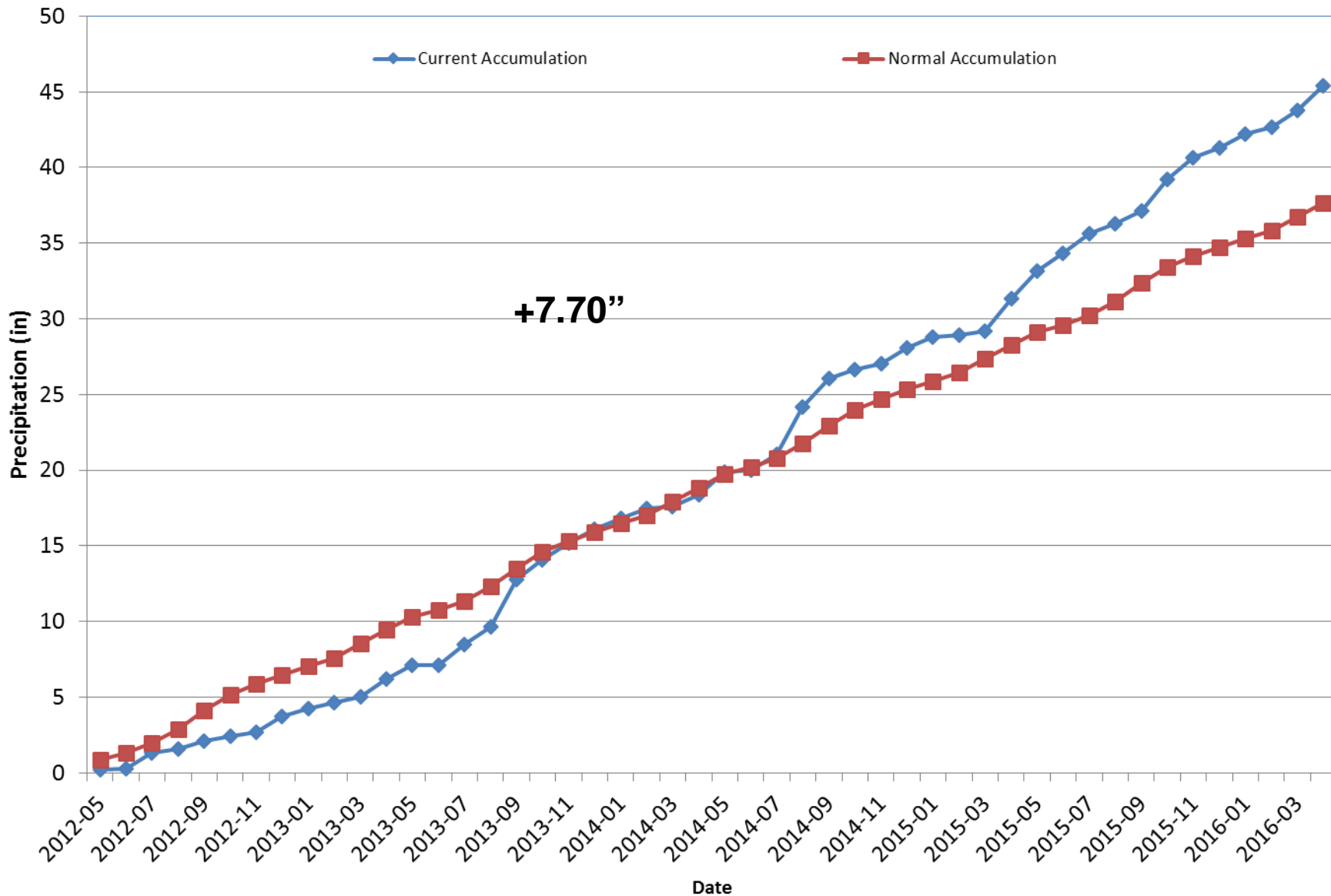
Division 2 – Grand Junction

Grand Junction WSFO 2016 Water Year



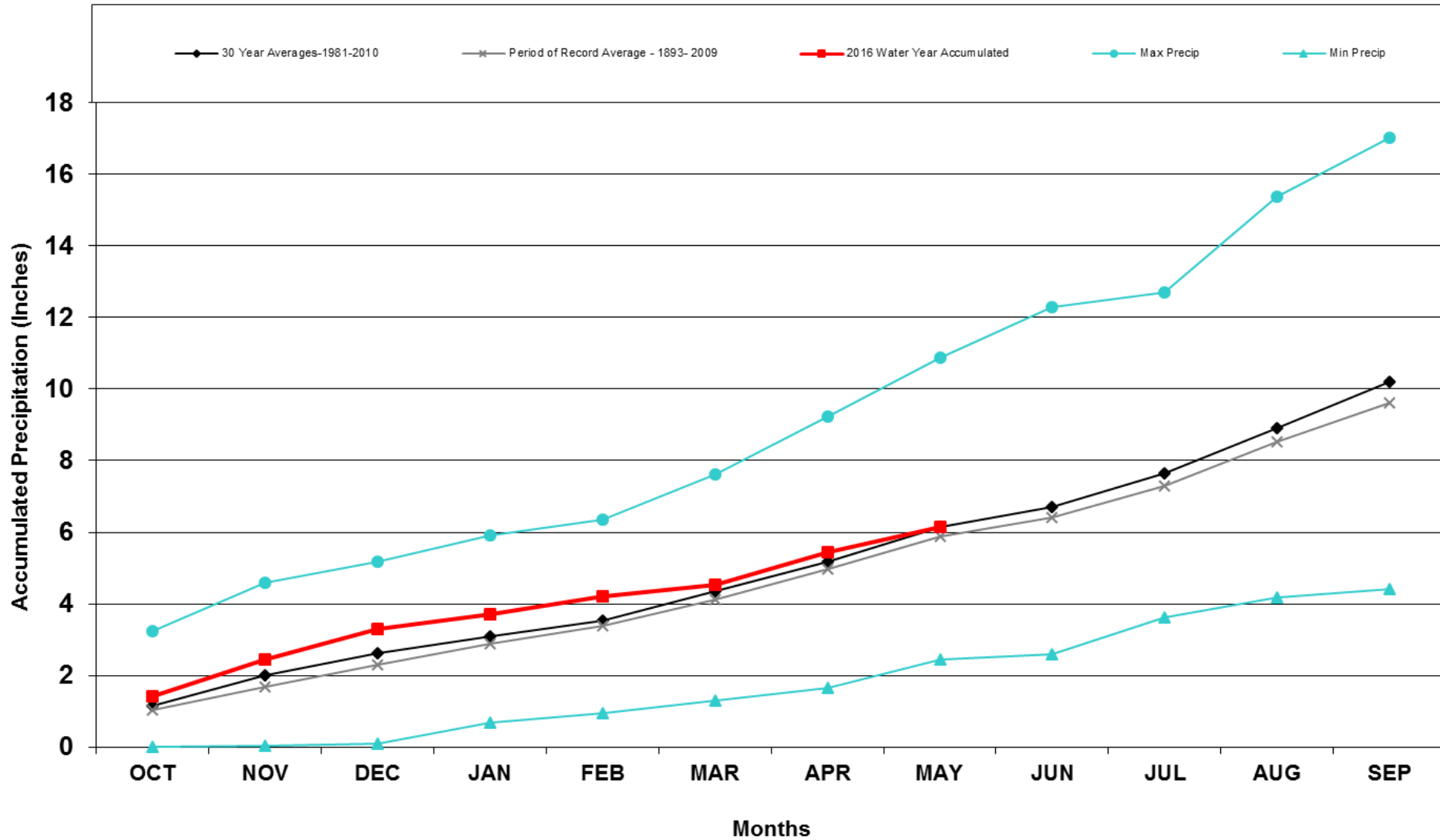
Division 2 – Grand Junction

Grand Junction Precipitation Accumulation



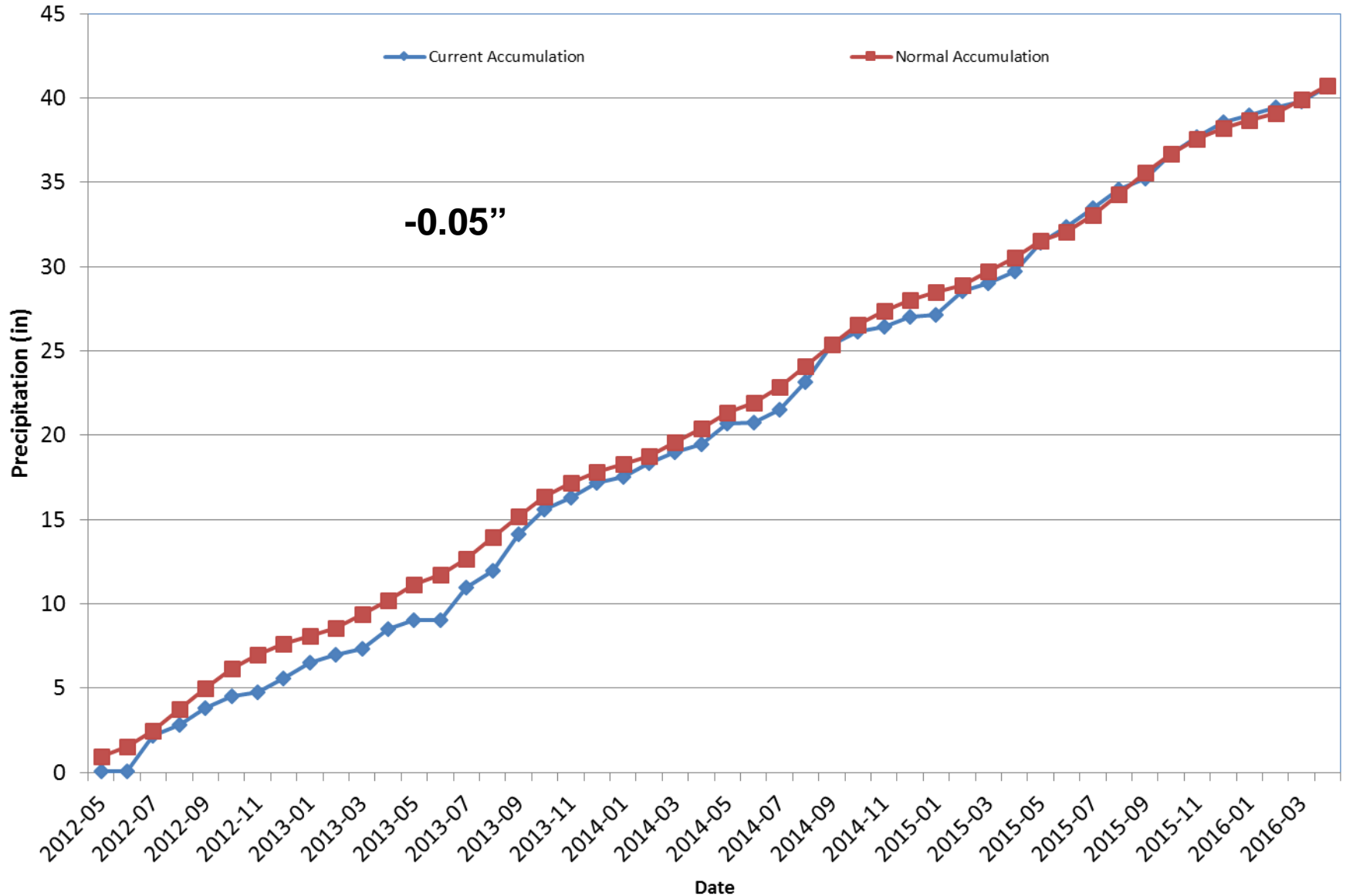
Division 3 – Montrose

Montrose #2 2016 Water Year



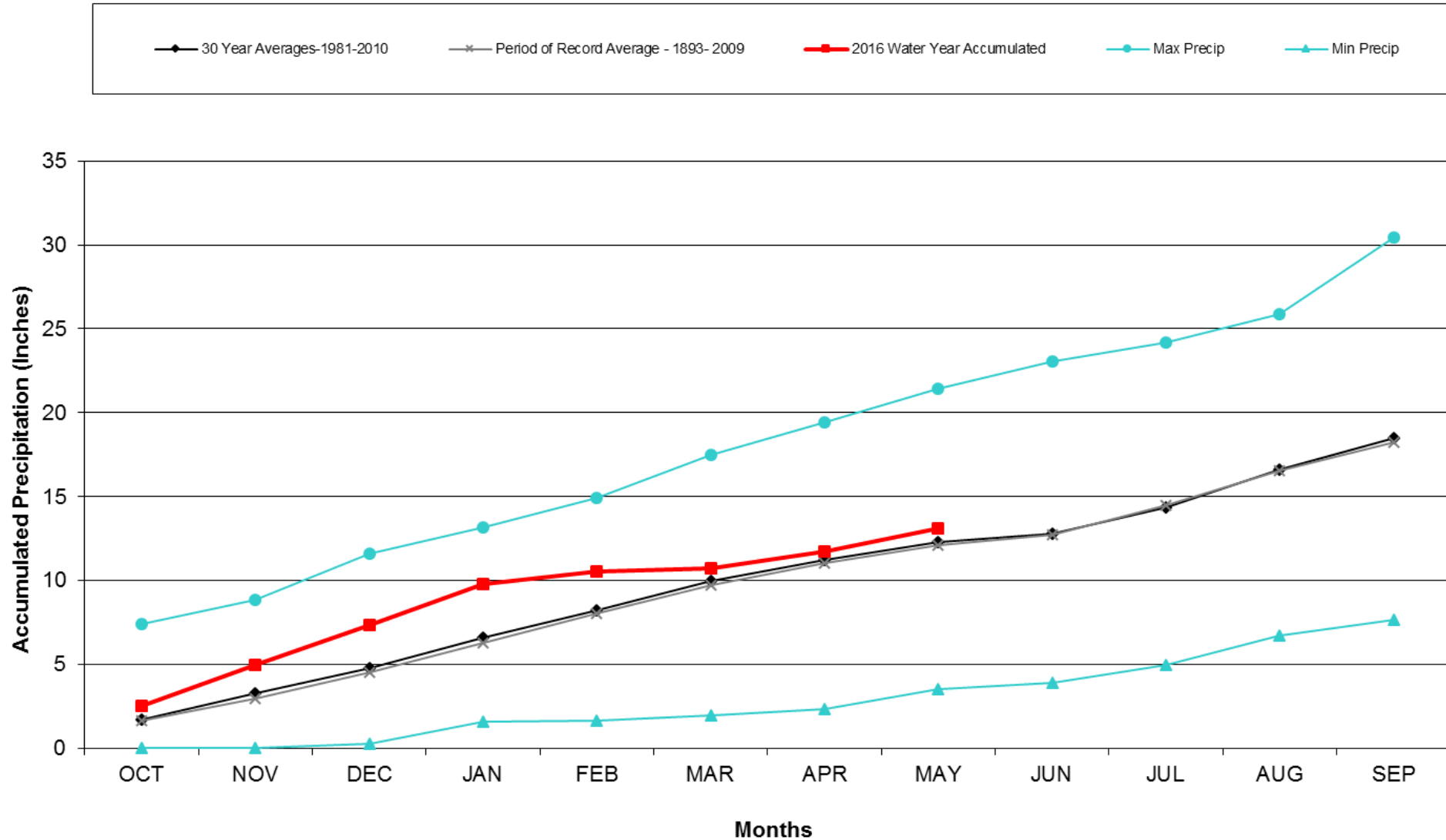
Division 3 – Montrose

Montrose #2 Precipitation Accumulation



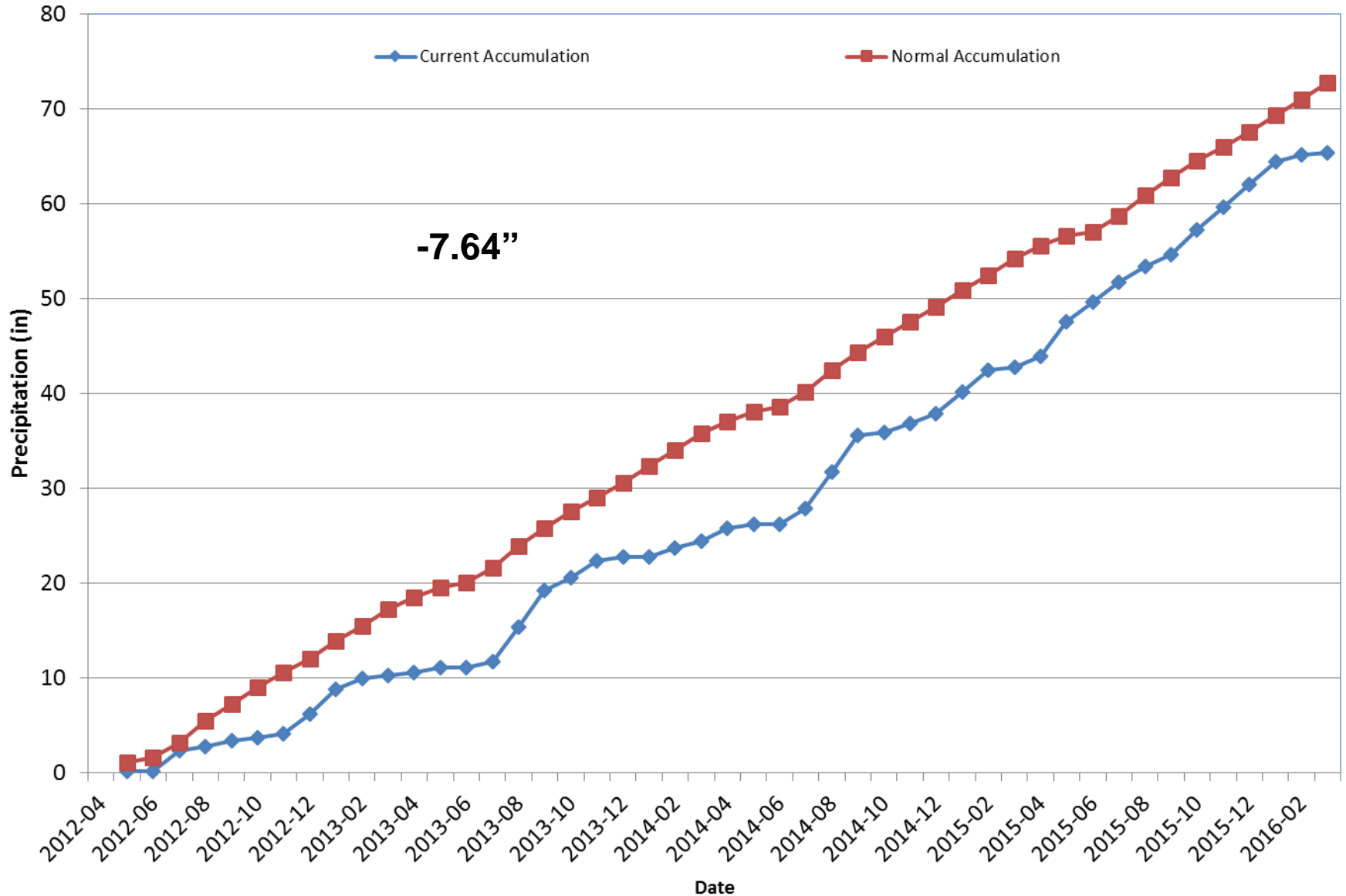
Division 3 – Mesa Verde NP

Mesa Verde NP 2016 Water Year



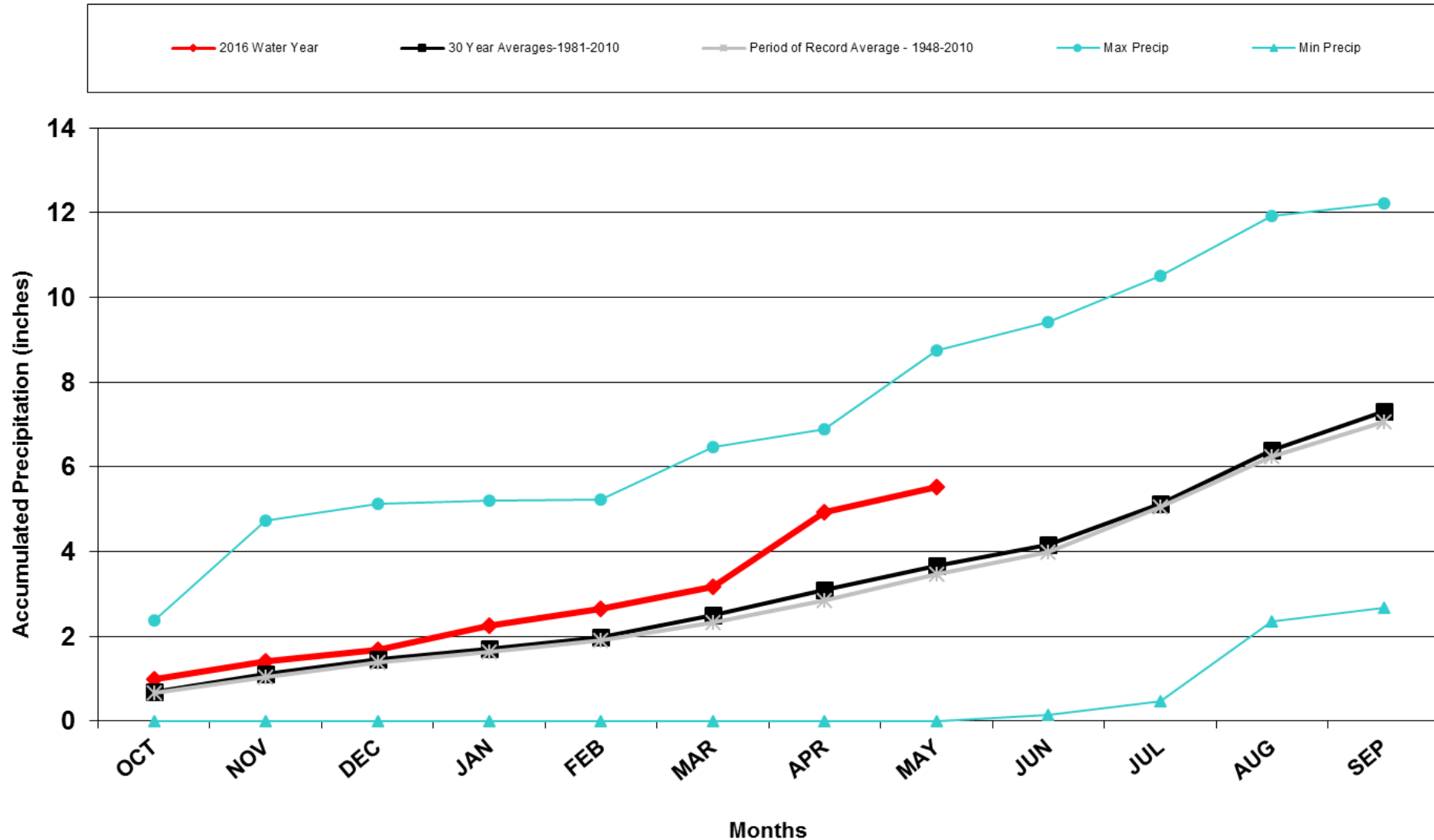
Division 3 – Mesa Verde NP

Mesa Verde NP Precipitation Accumulation



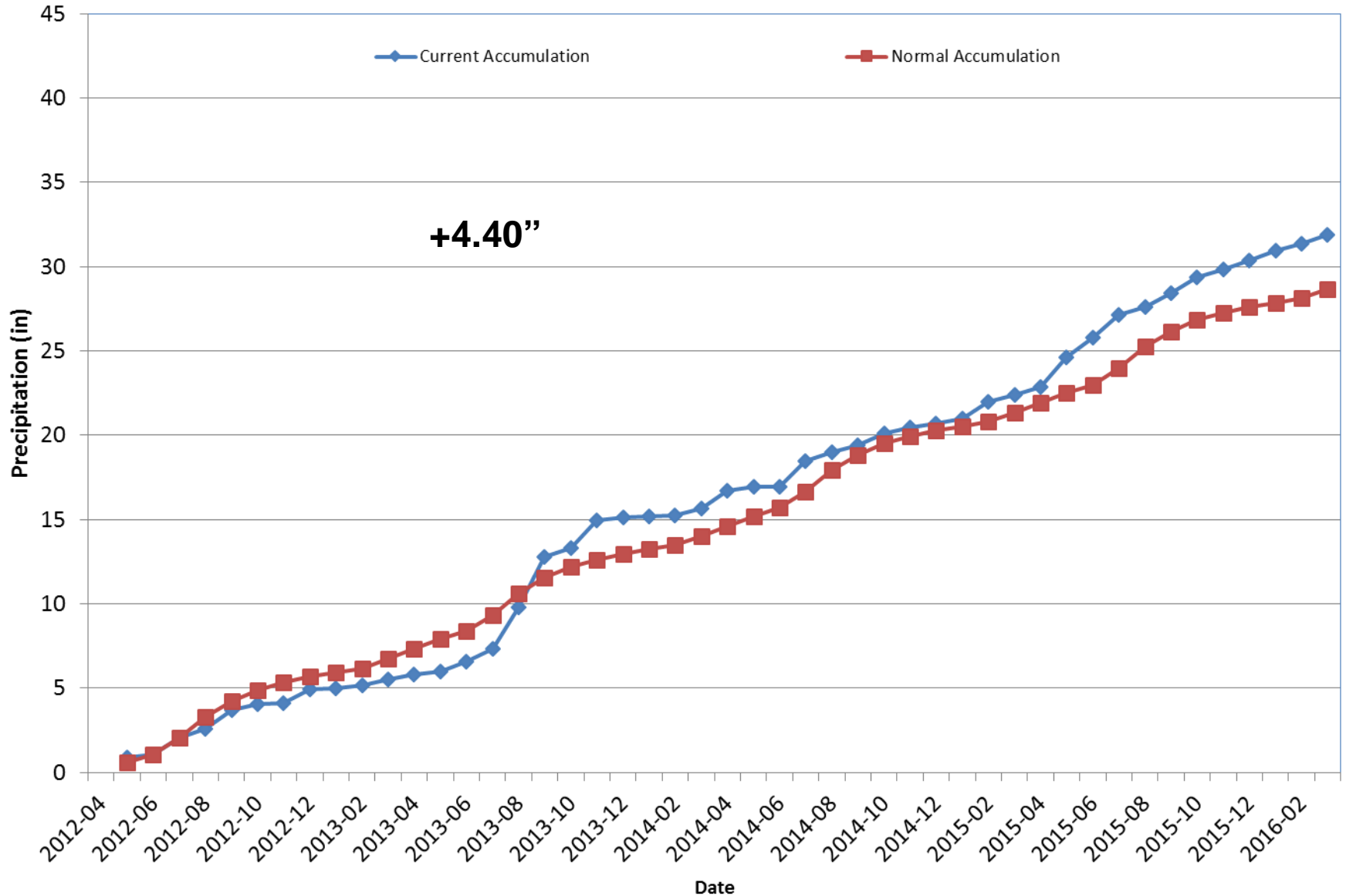
Division 4 – Alamosa

Alamosa WSO 2016 Water Year



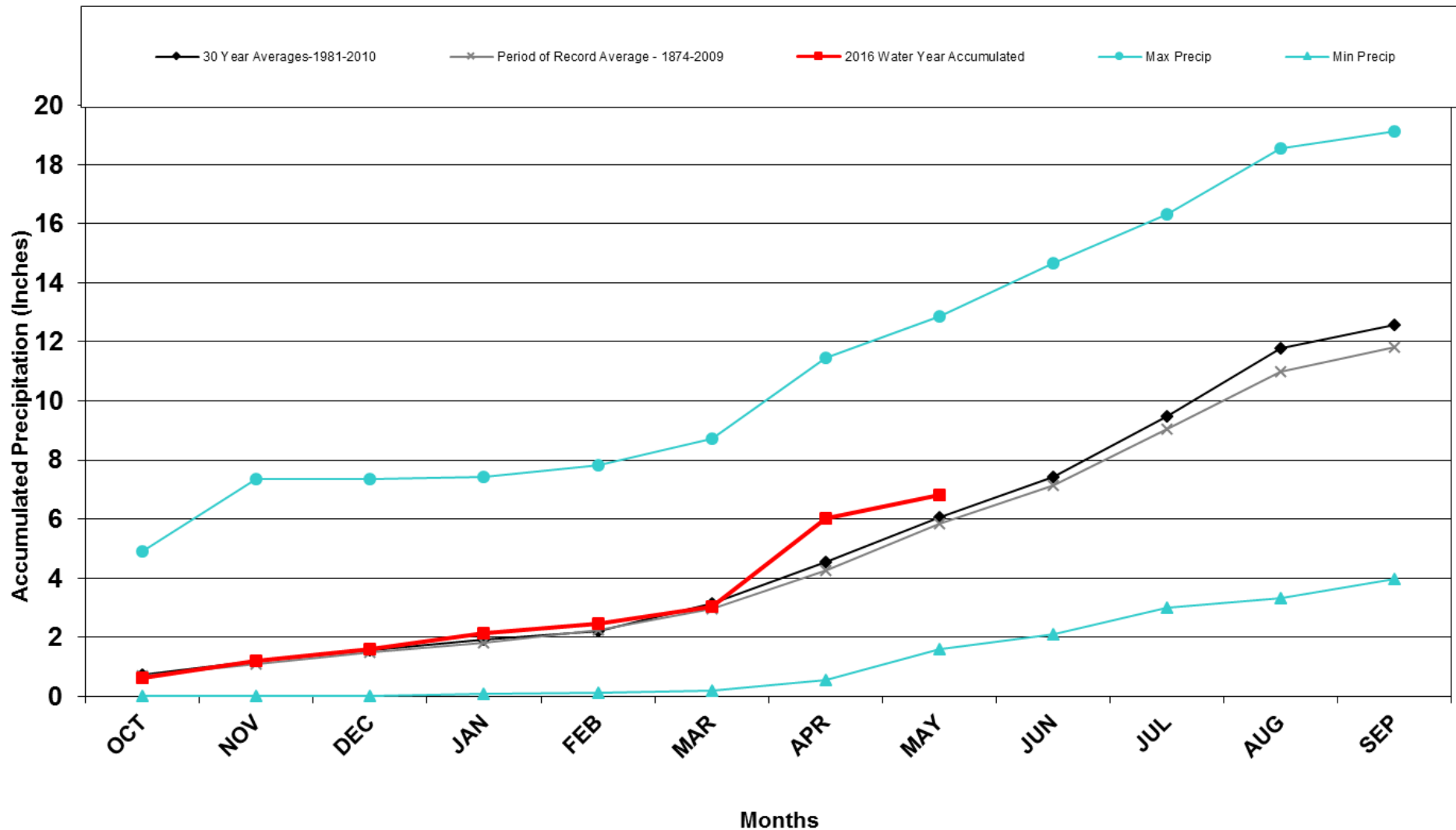
Division 4 – Alamosa

Alamosa WSO Precipitation Accumulation



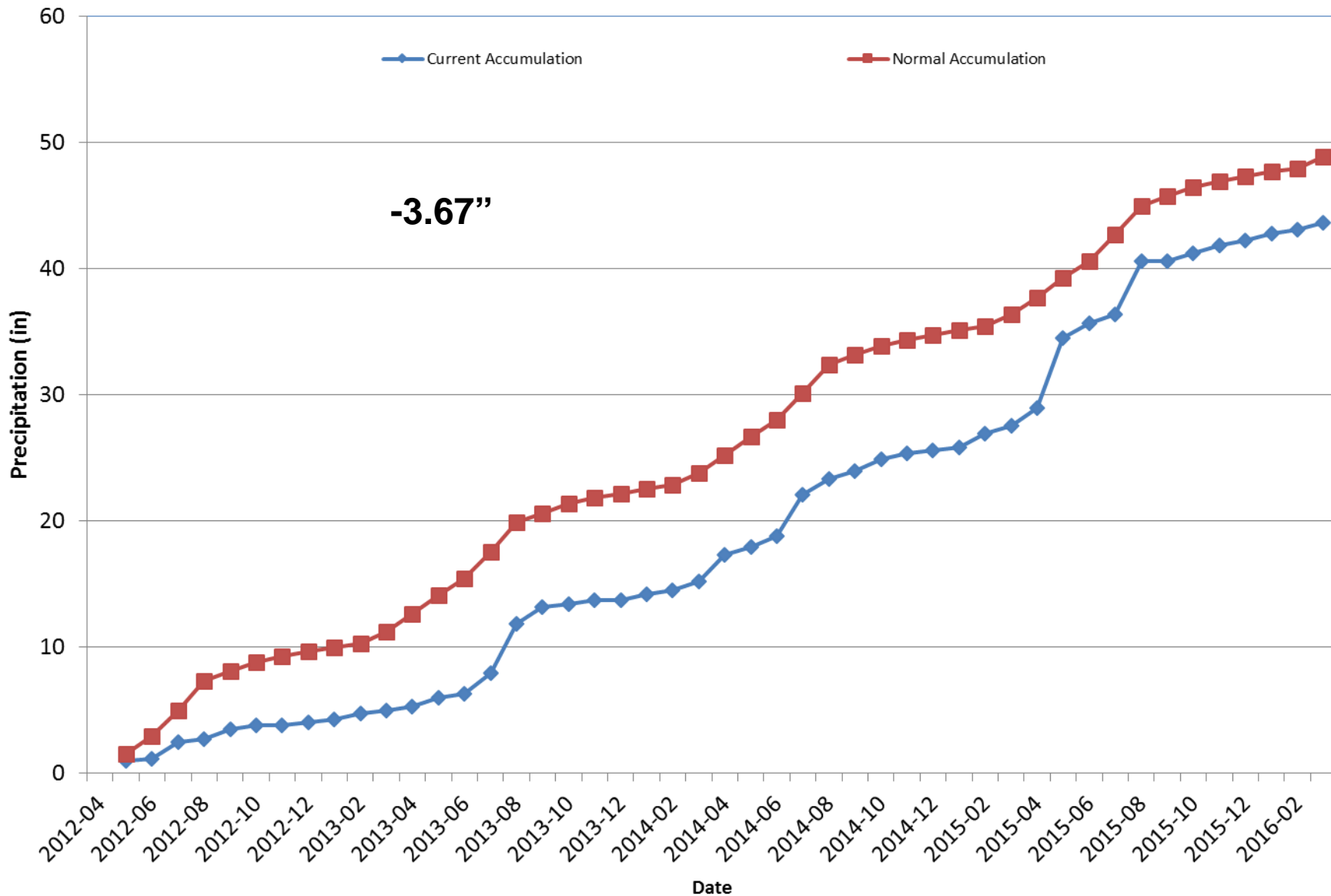
Division 5 – Pueblo

Pueblo WSO 2016 Water Year



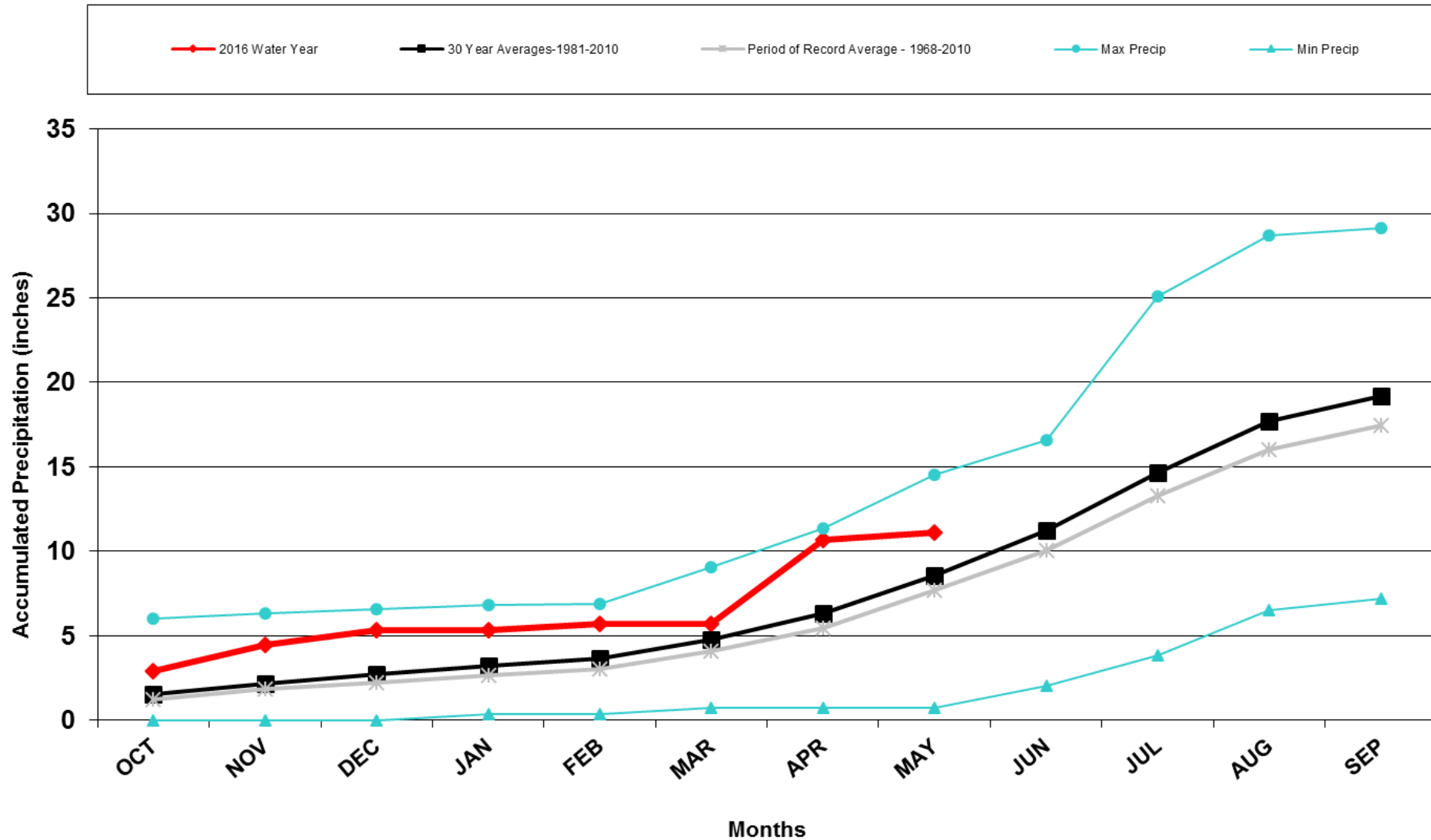
Division 5 – Pueblo

Pueblo Memorial AP Precipitation Accumulation



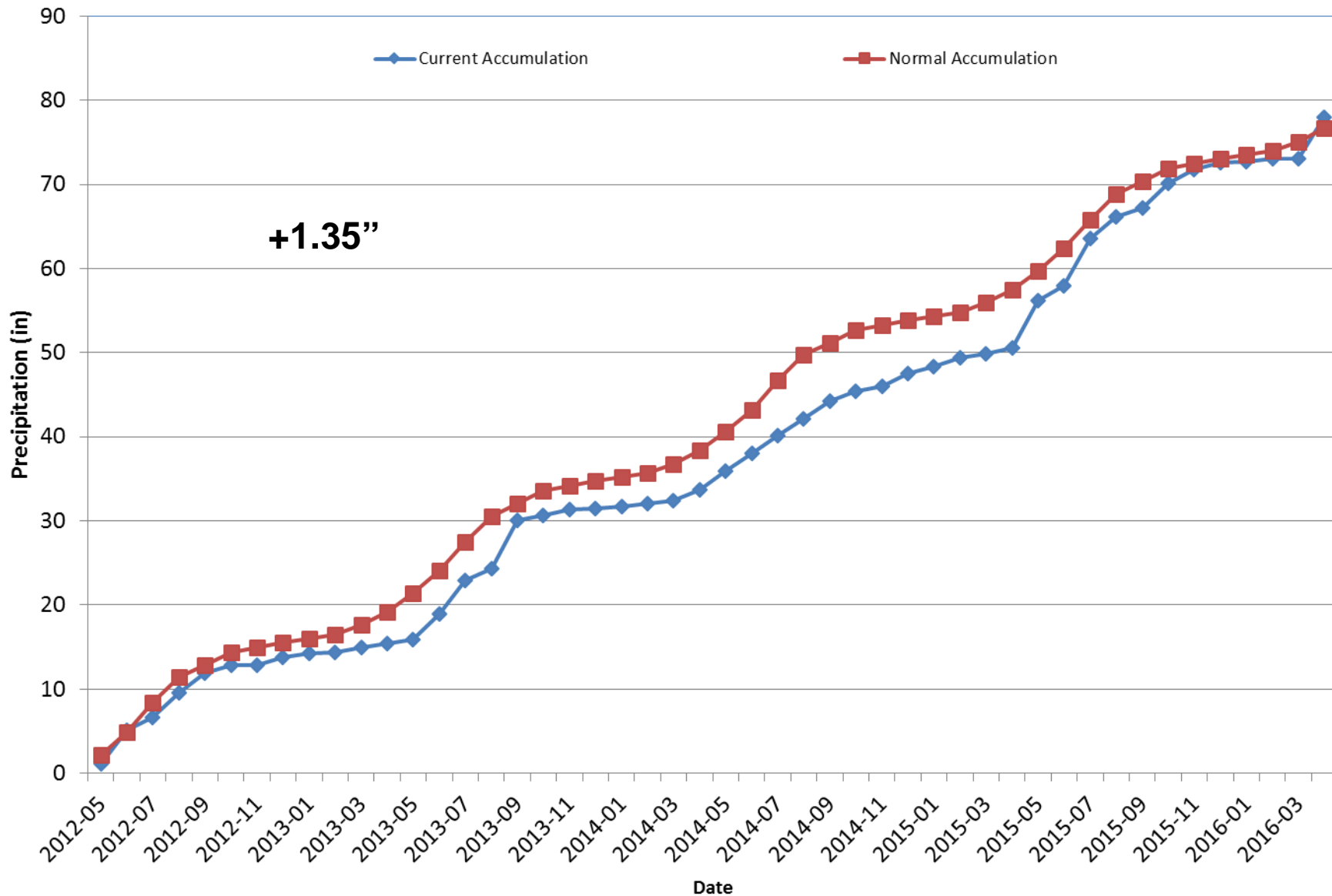
Division 6 - Walsh

Walsh 2016 Water Year



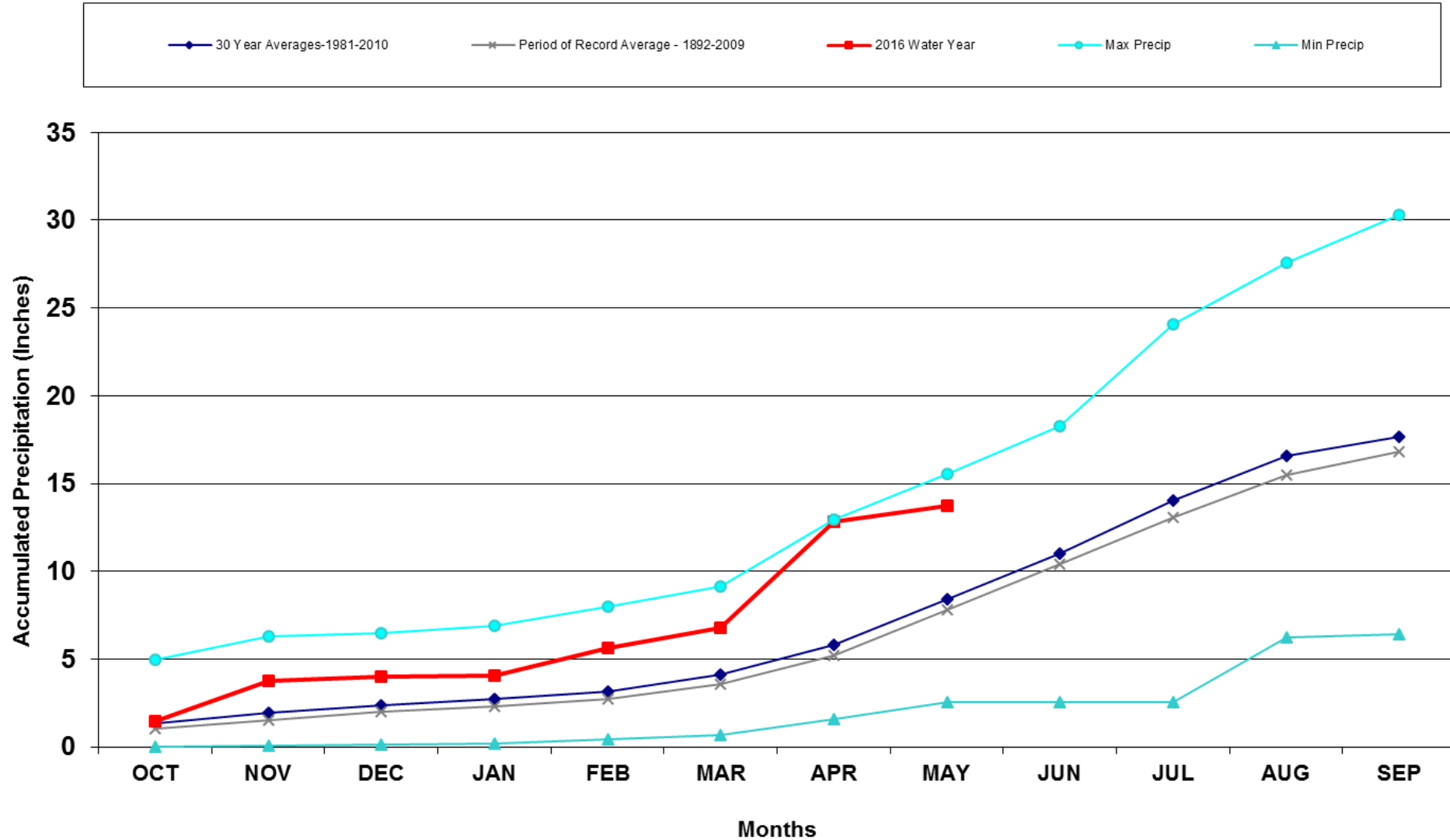
Division 6 - Walsh

Walsh 1W Precipitation Accumulation



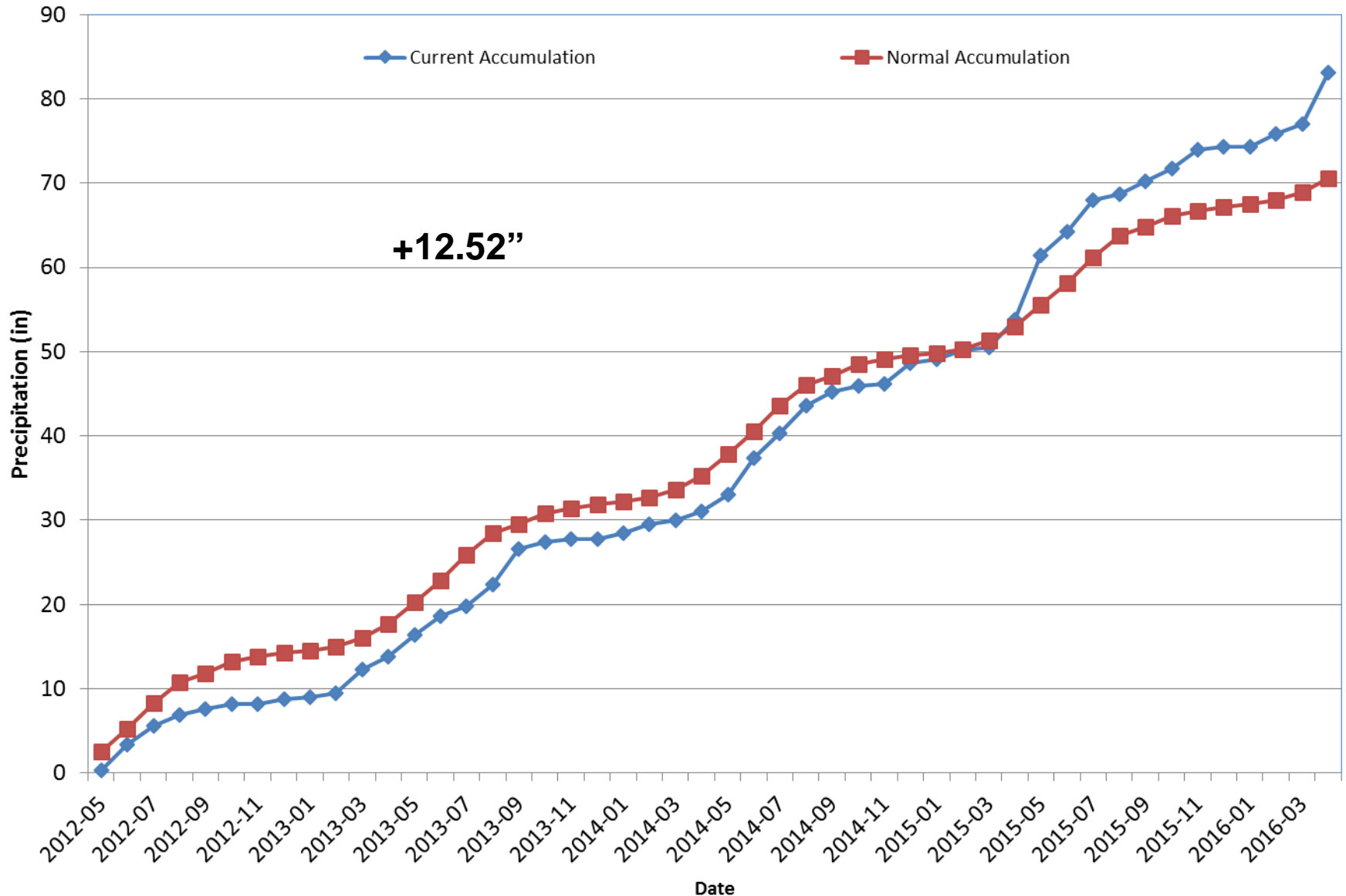
Division 6 - Burlington

Burlington 2016 Water Year



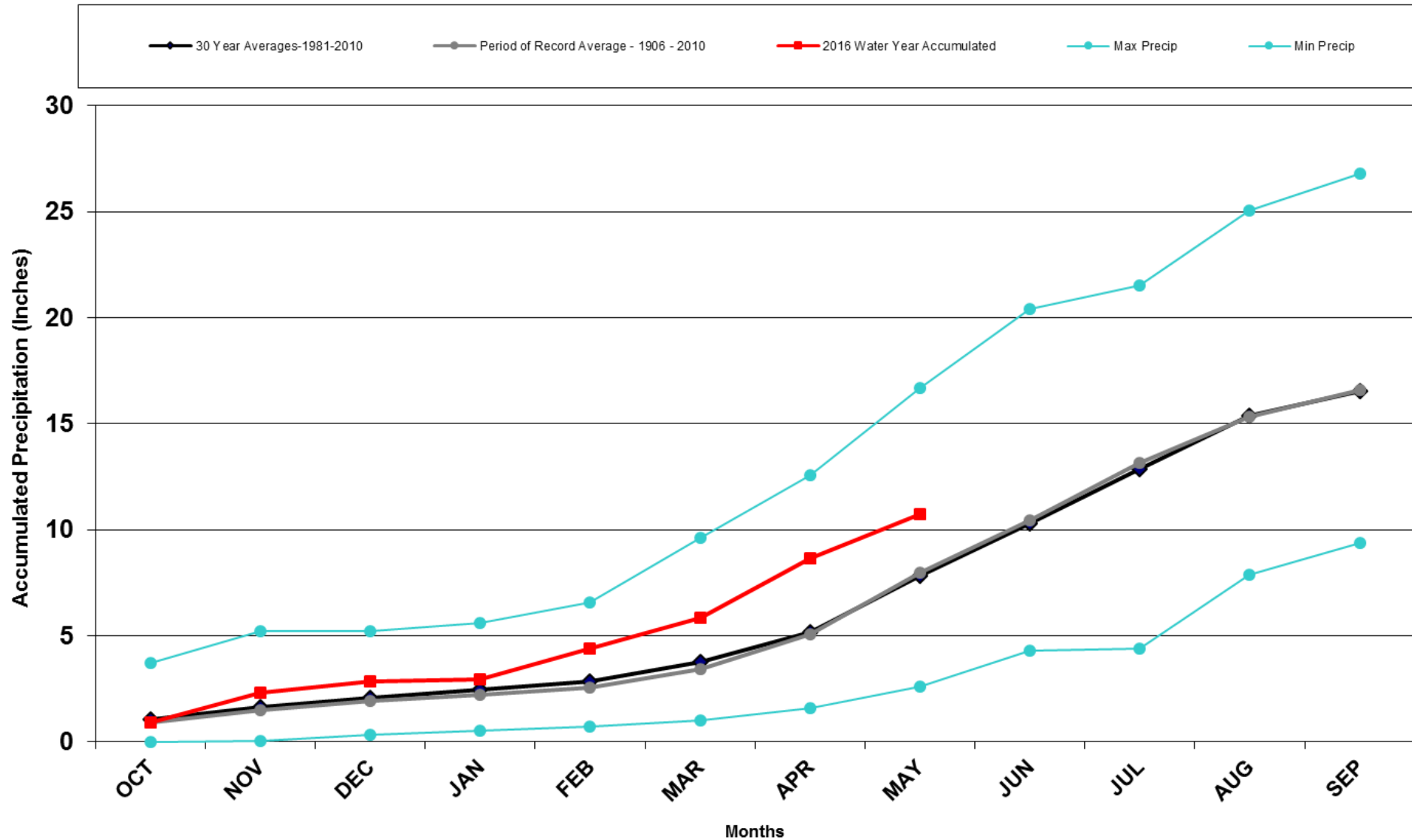
Division 6 - Burlington

Burlington, CO Precipitation Accumulation



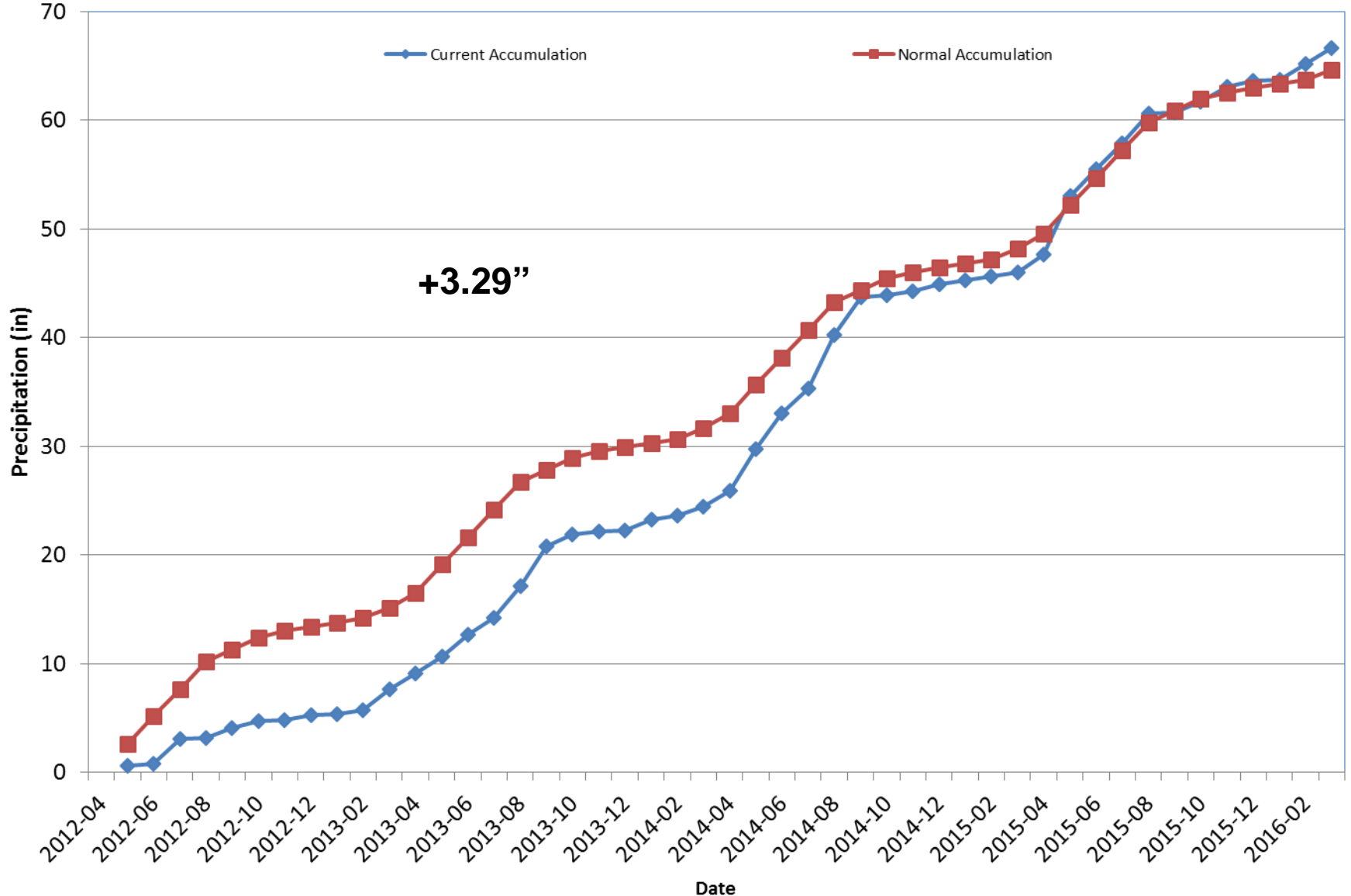
Division 7 – Akron

Akron 4E 2016 Water Year



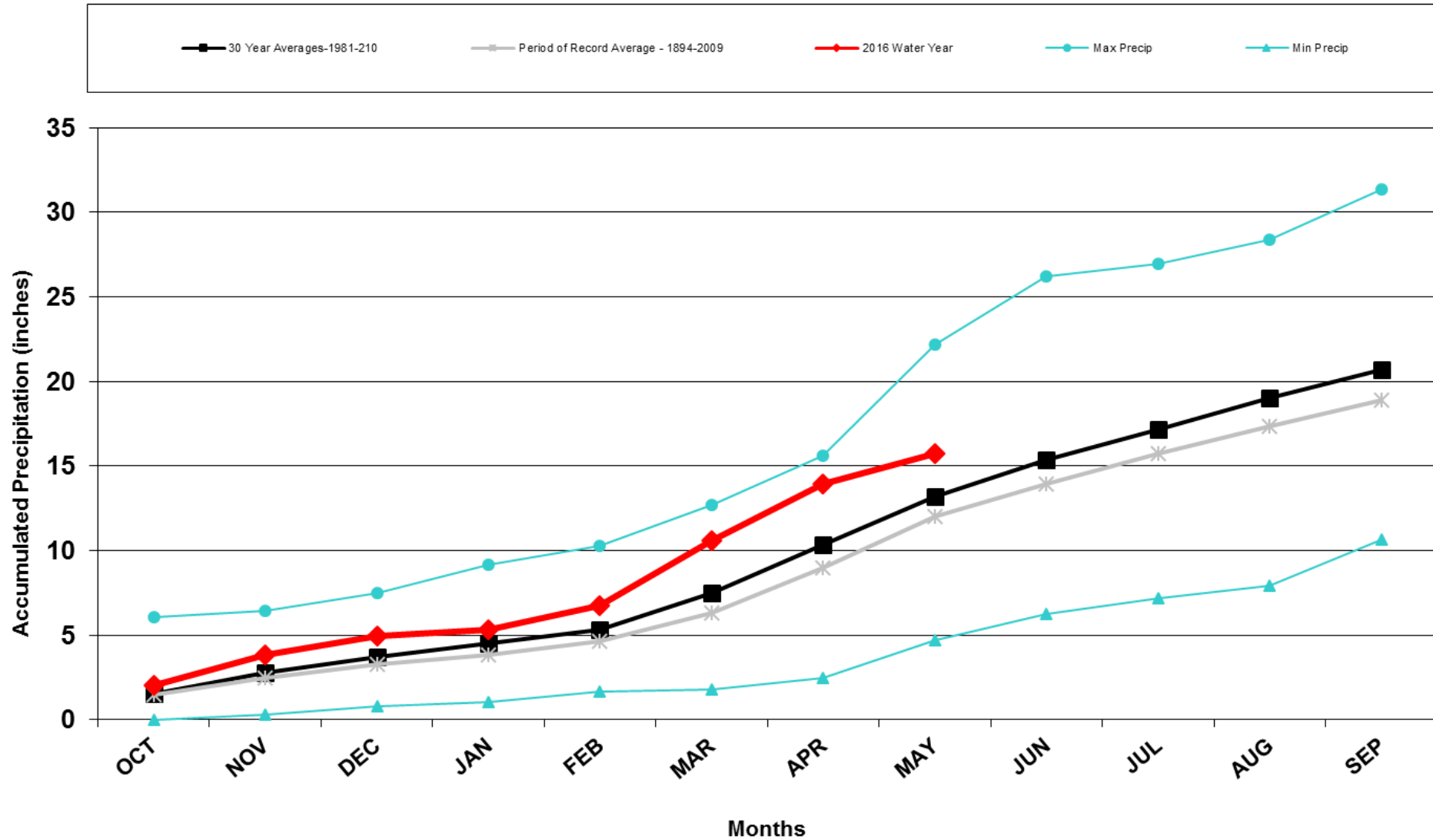
Division 7 – Akron

Akron 4E Precipitation Accumulation



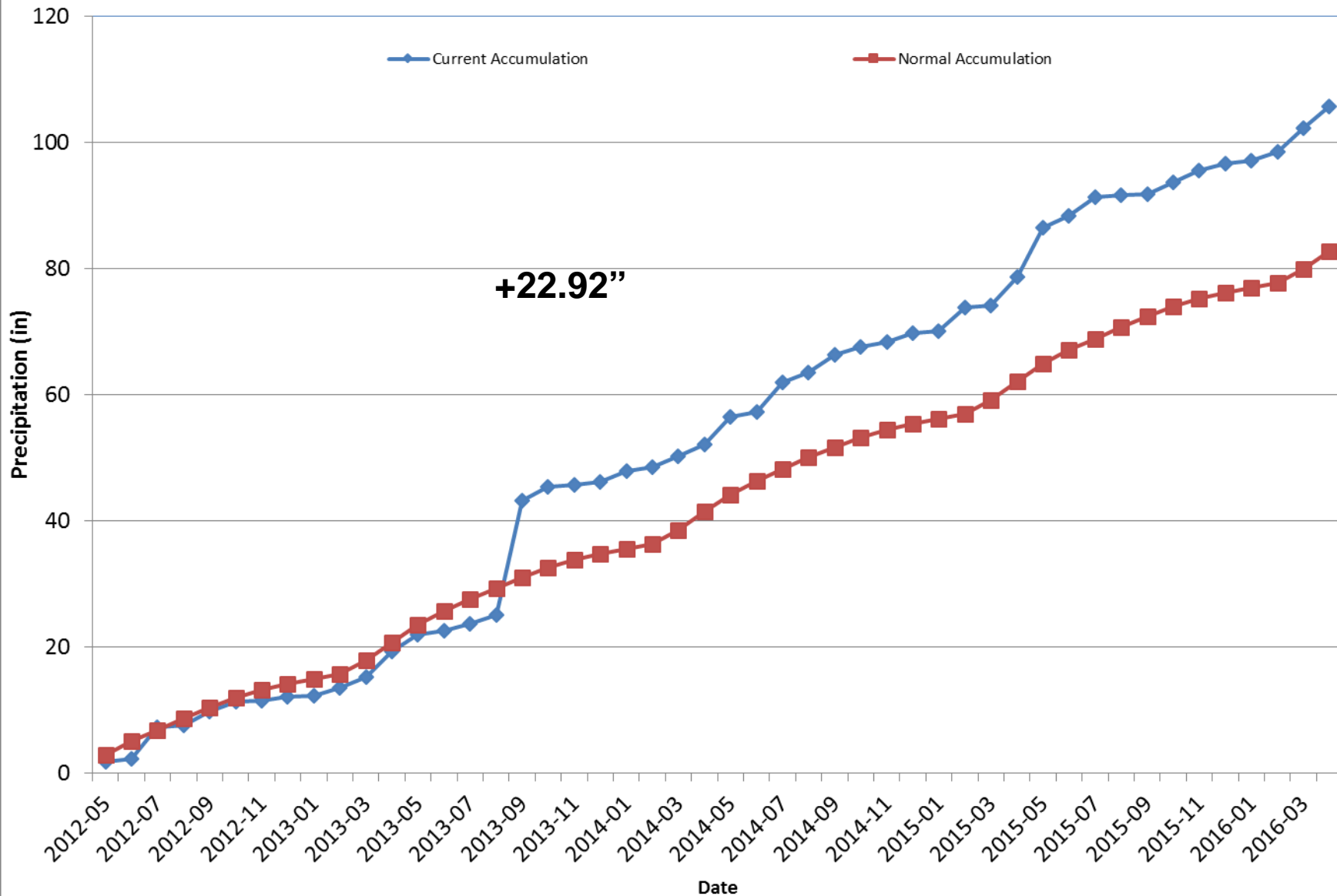
Division 8 - Boulder

Boulder 2016 Water Year



Division 8 - Boulder

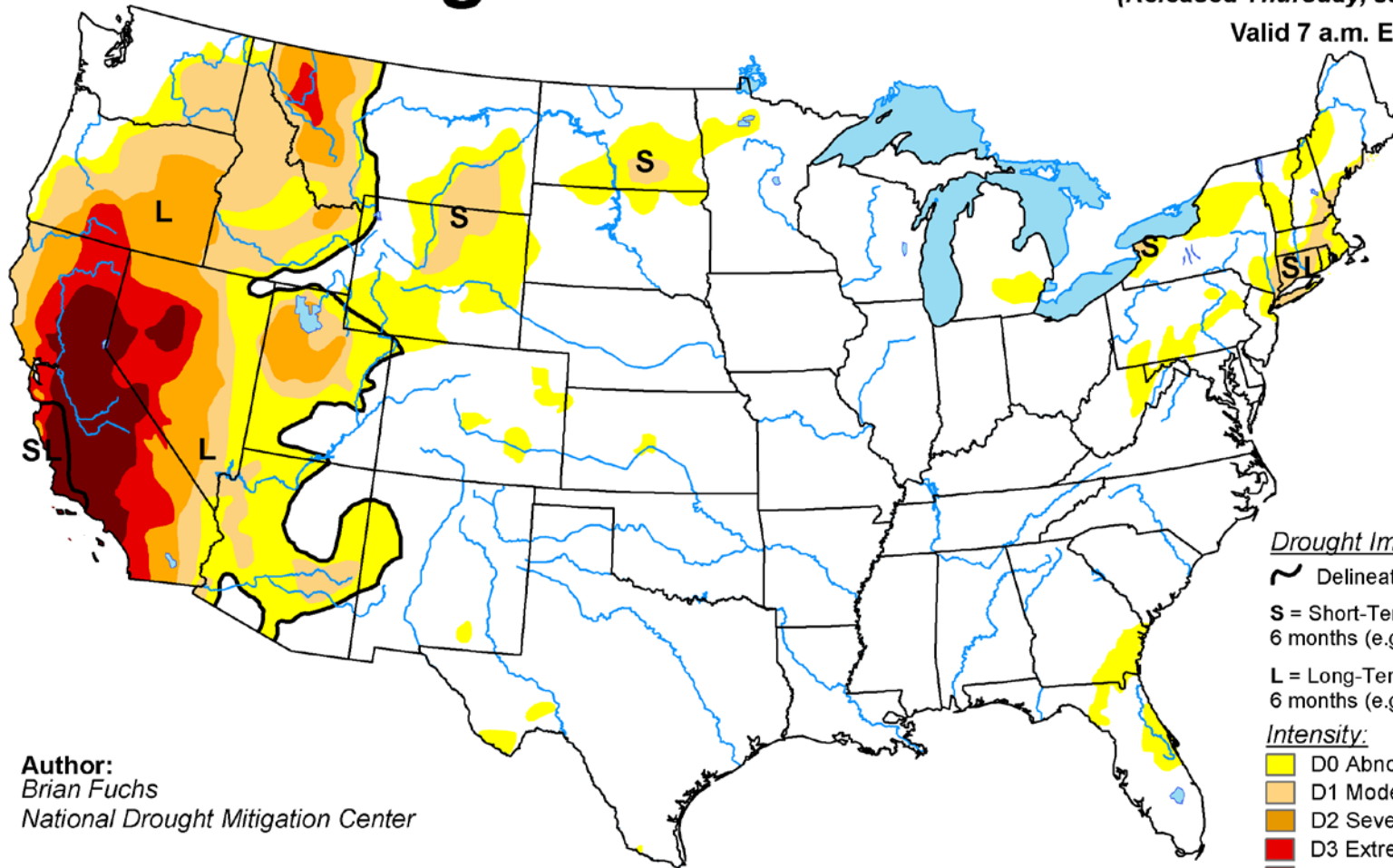
Boulder Precipitation Accumulation



U.S. Drought Monitor

January 12, 2016
(Released Thursday, Jan. 14, 2016)

Valid 7 a.m. EST



Author:
Brian Fuchs
National Drought Mitigation Center

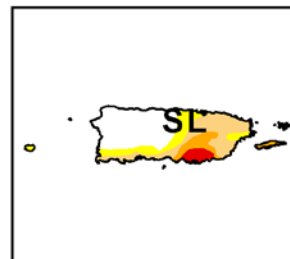
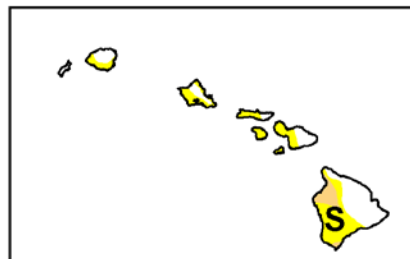
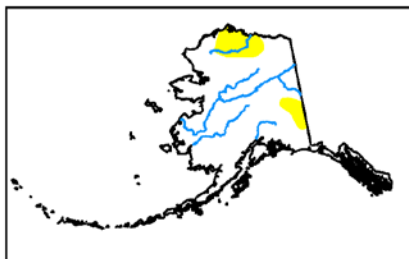
Drought Impact Types:

- ~ 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.

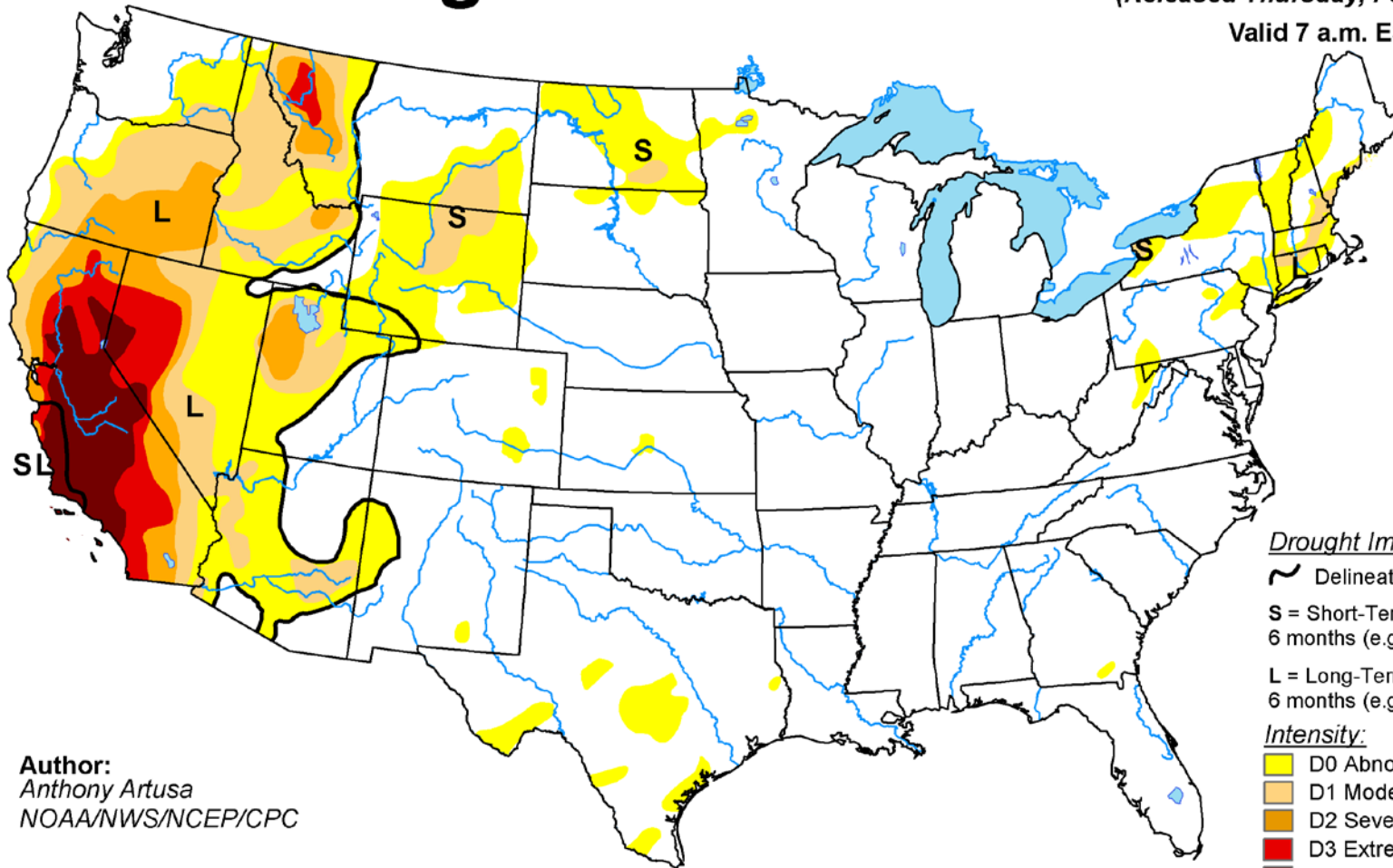


<http://droughtmonitor.unl.edu/>

U.S. Drought Monitor

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

Valid 7 a.m. EST



Author:
Anthony Artusa
NOAA/NWS/NCEP/CPC

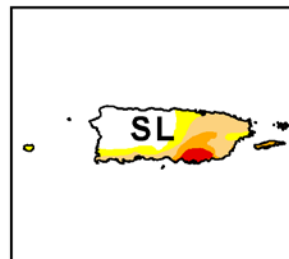
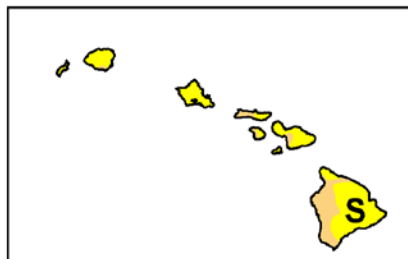
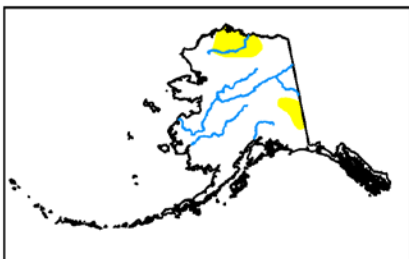
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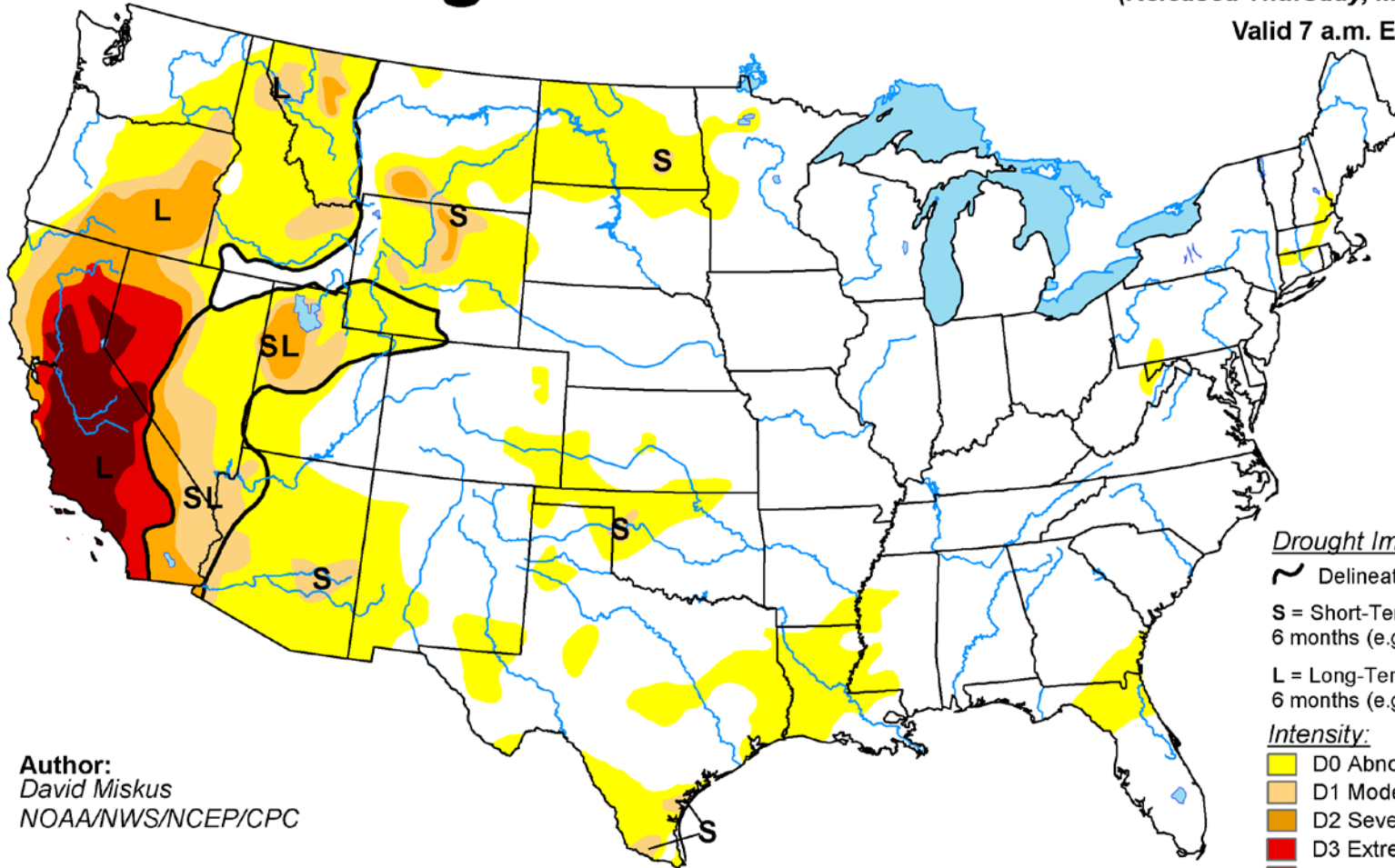
<http://droughtmonitor.unl.edu/>

U.S. Drought Monitor

March 8, 2016

(Released Thursday, Mar. 10, 2016)

Valid 7 a.m. EST



Author:
David Miskus
NOAA/NWS/NCEP/CPC

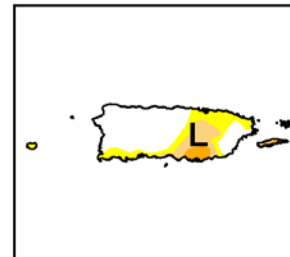
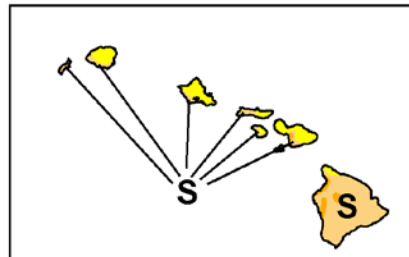
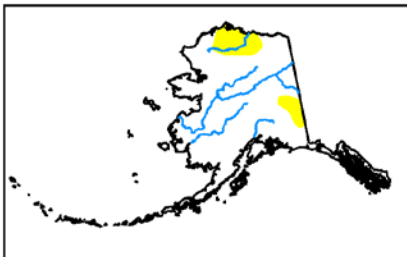
Drought Impact Types:

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

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



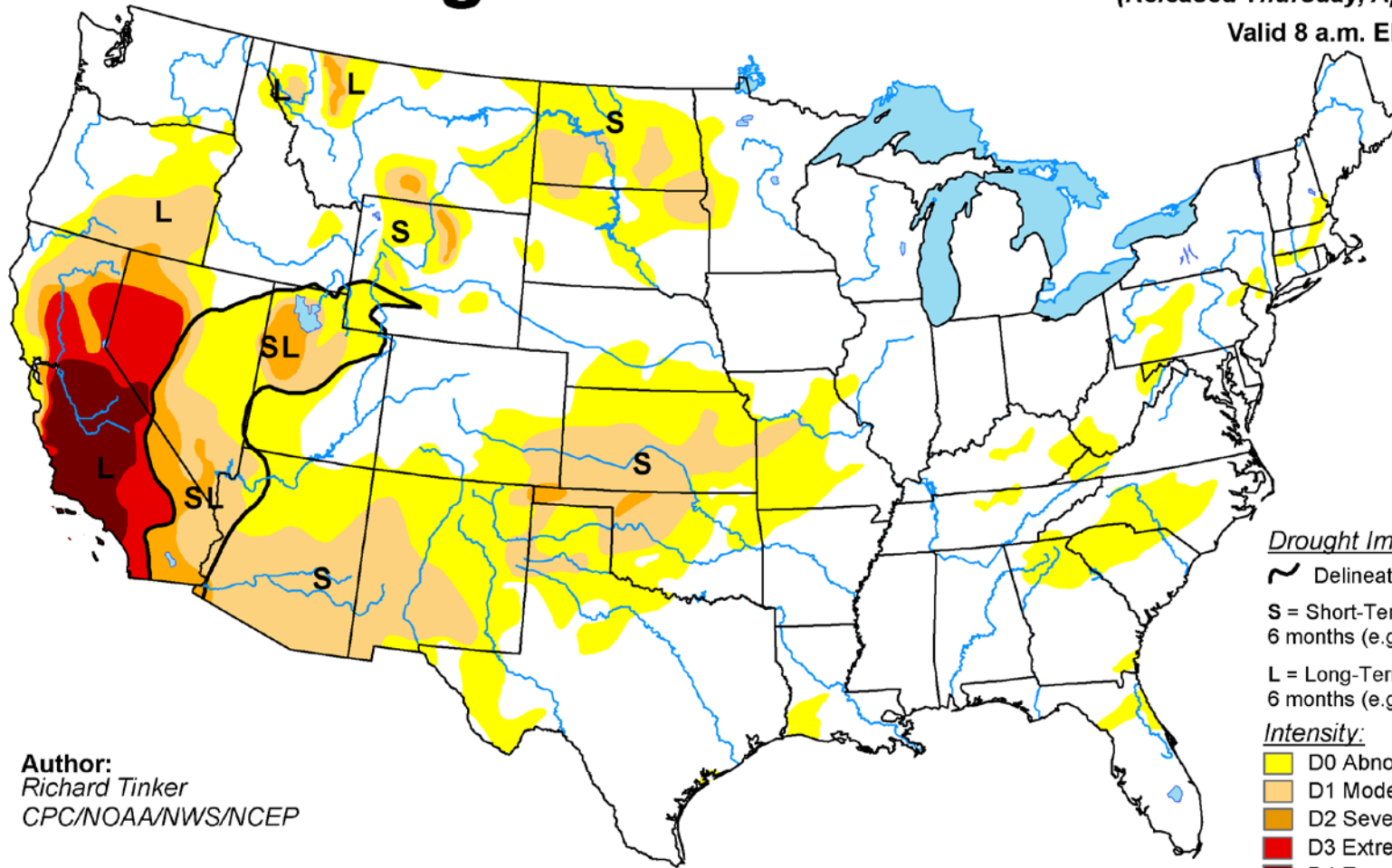
<http://droughtmonitor.unl.edu/>

U.S. Drought Monitor

April 12, 2016

(Released Thursday, Apr. 14, 2016)

Valid 8 a.m. EDT



Author:
Richard Tinker
CPC/NOAA/NWS/NCEP

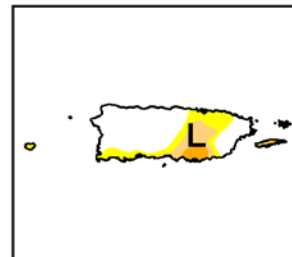
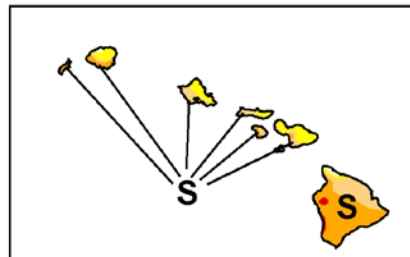
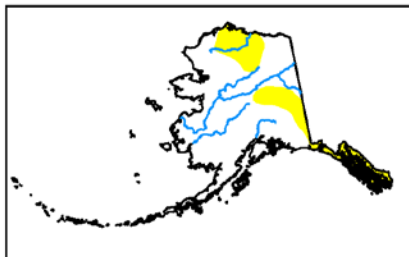
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- ~ Delineates dominant impacts
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The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.



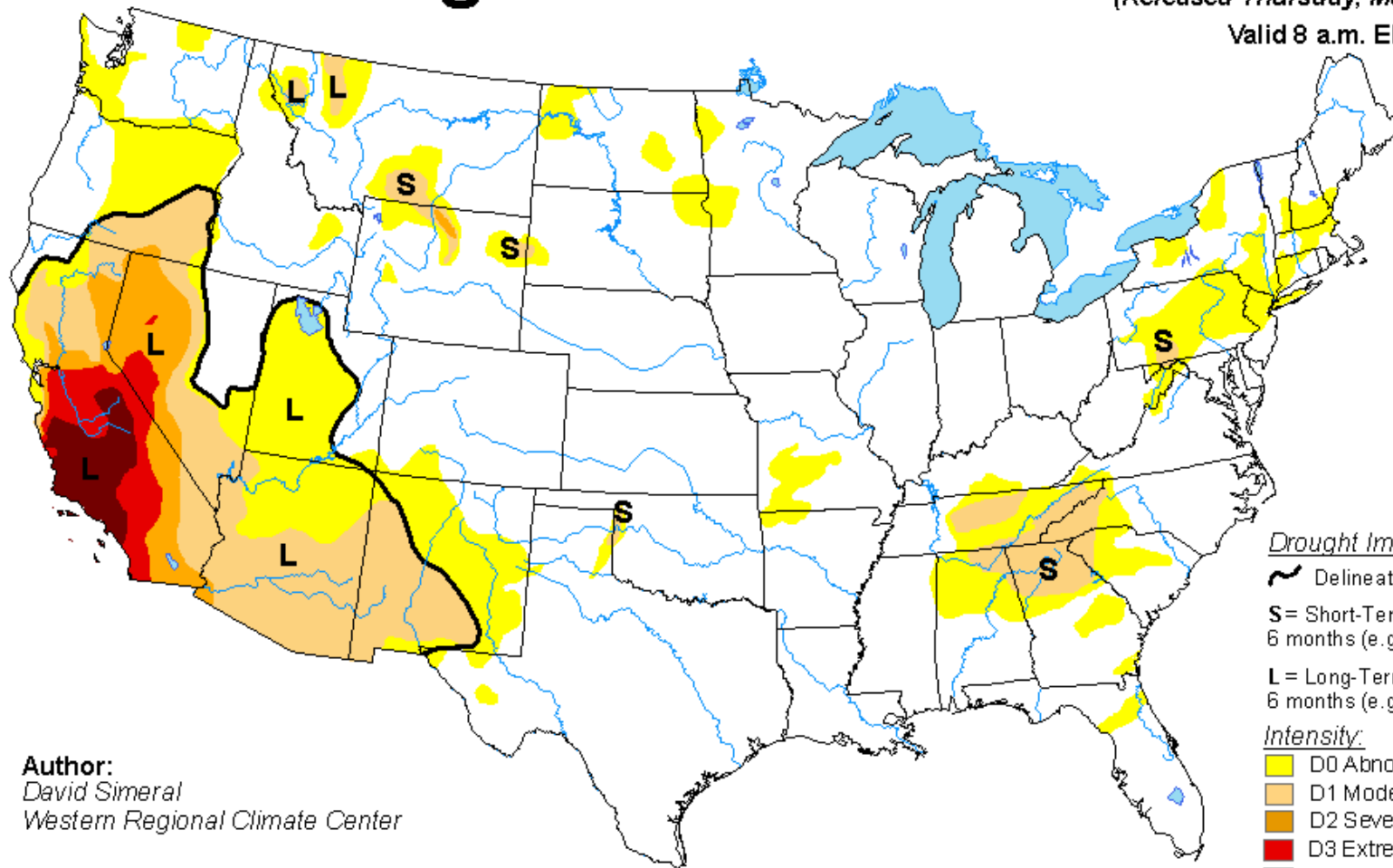
<http://droughtmonitor.unl.edu/>

U.S. Drought Monitor

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:

 D0 Abnormally Dry

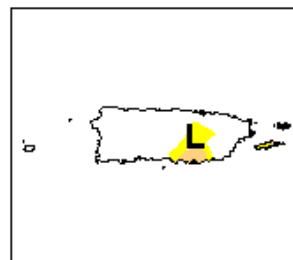
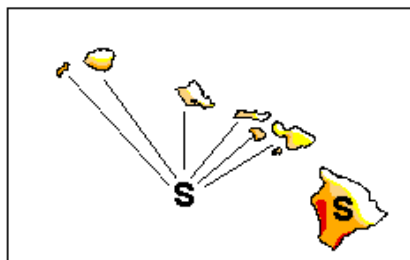
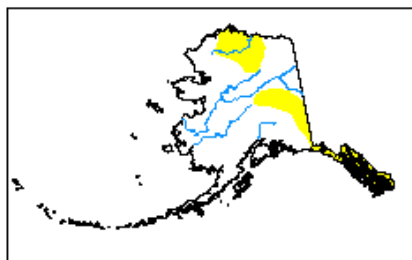
 D1 Moderate Drought

 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

Colorado

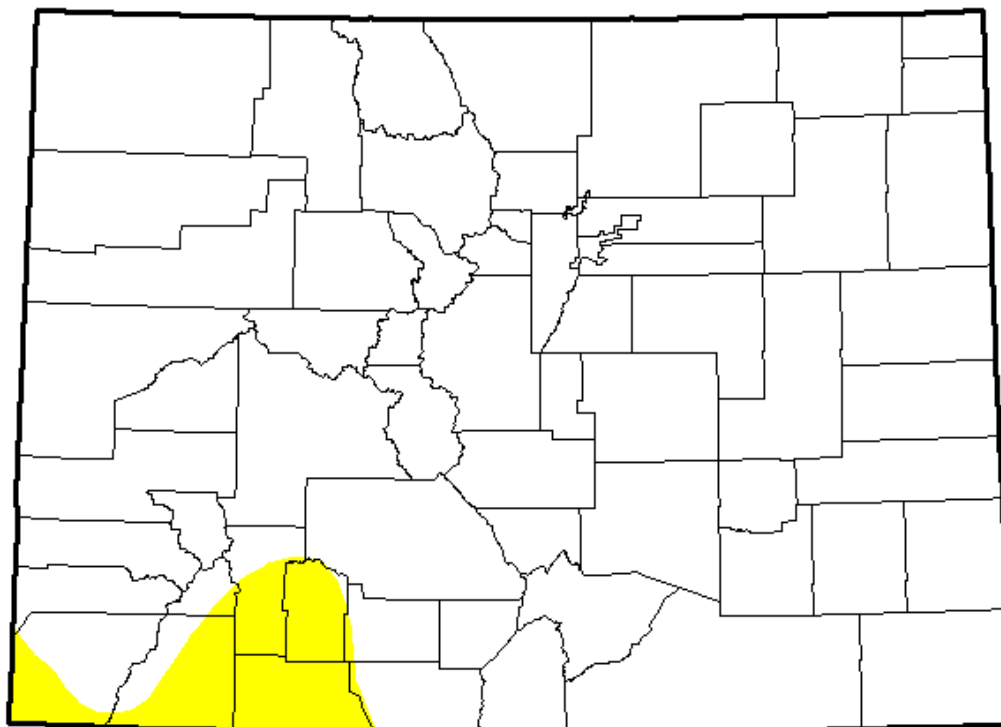
May 17, 2016

(Released Thursday, May. 19, 2016)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	95.22	4.78	0.00	0.00	0.00	0.00
Last Week <i>5/10/2016</i>	95.22	4.78	0.00	0.00	0.00	0.00
3 Months Ago <i>2/16/2016</i>	92.65	7.35	0.00	0.00	0.00	0.00
Start of Calendar Year <i>12/29/2015</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>5/19/2015</i>	43.28	56.72	39.64	6.46	0.00	0.00



Intensity:



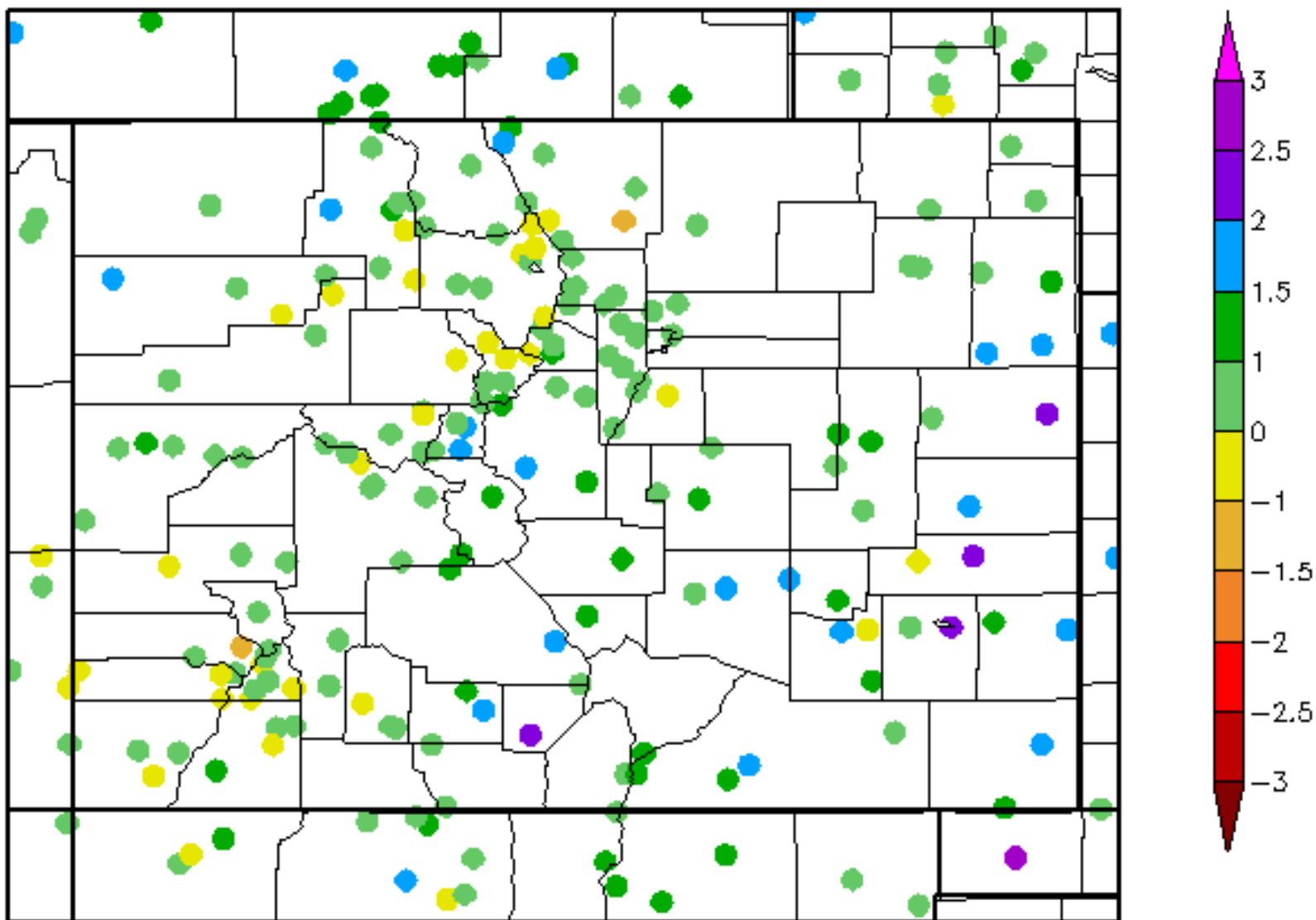
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
David Simeral
Western Regional Climate Center



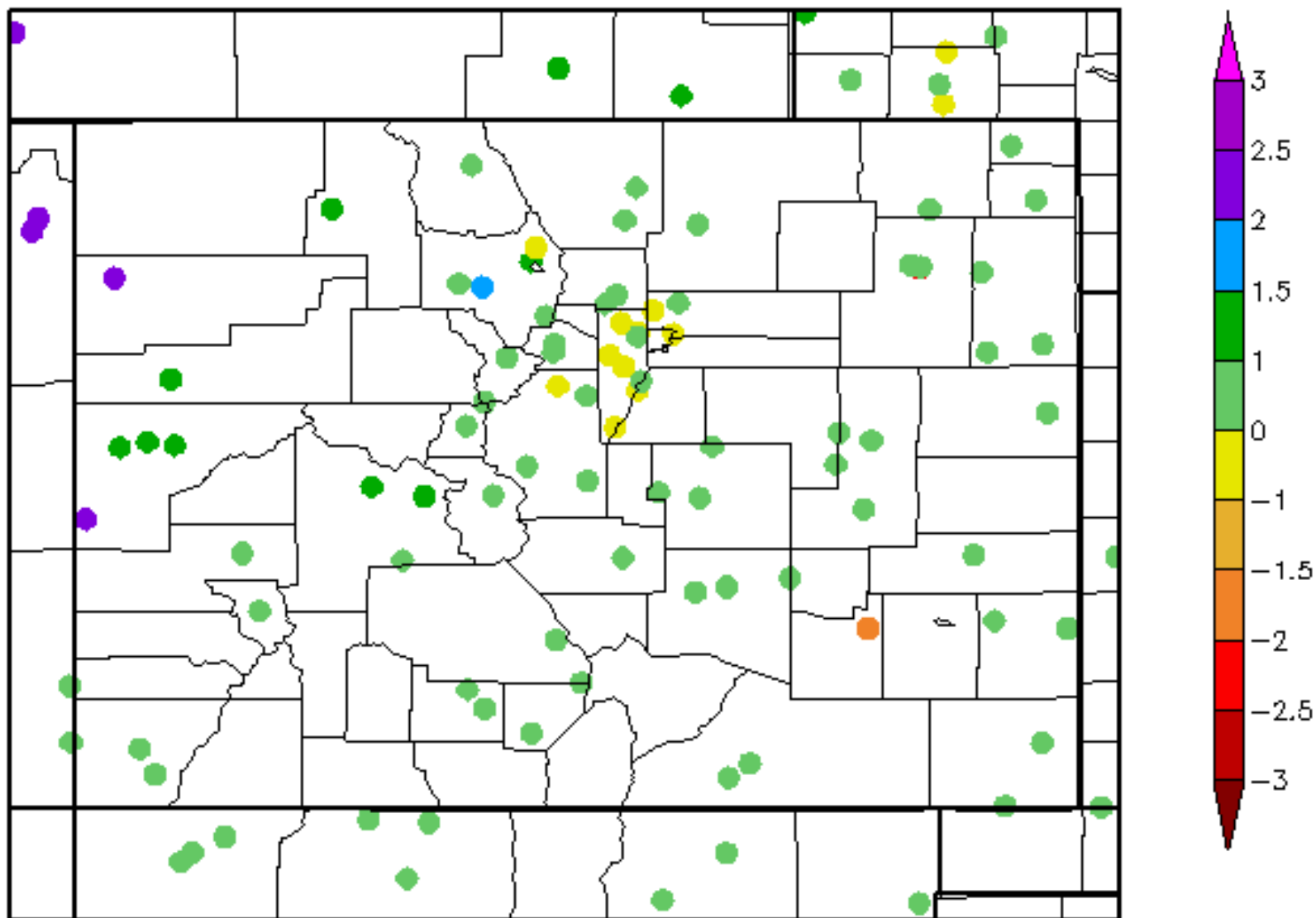
Monthly SPI

4/1/2016 - 4/30/2016



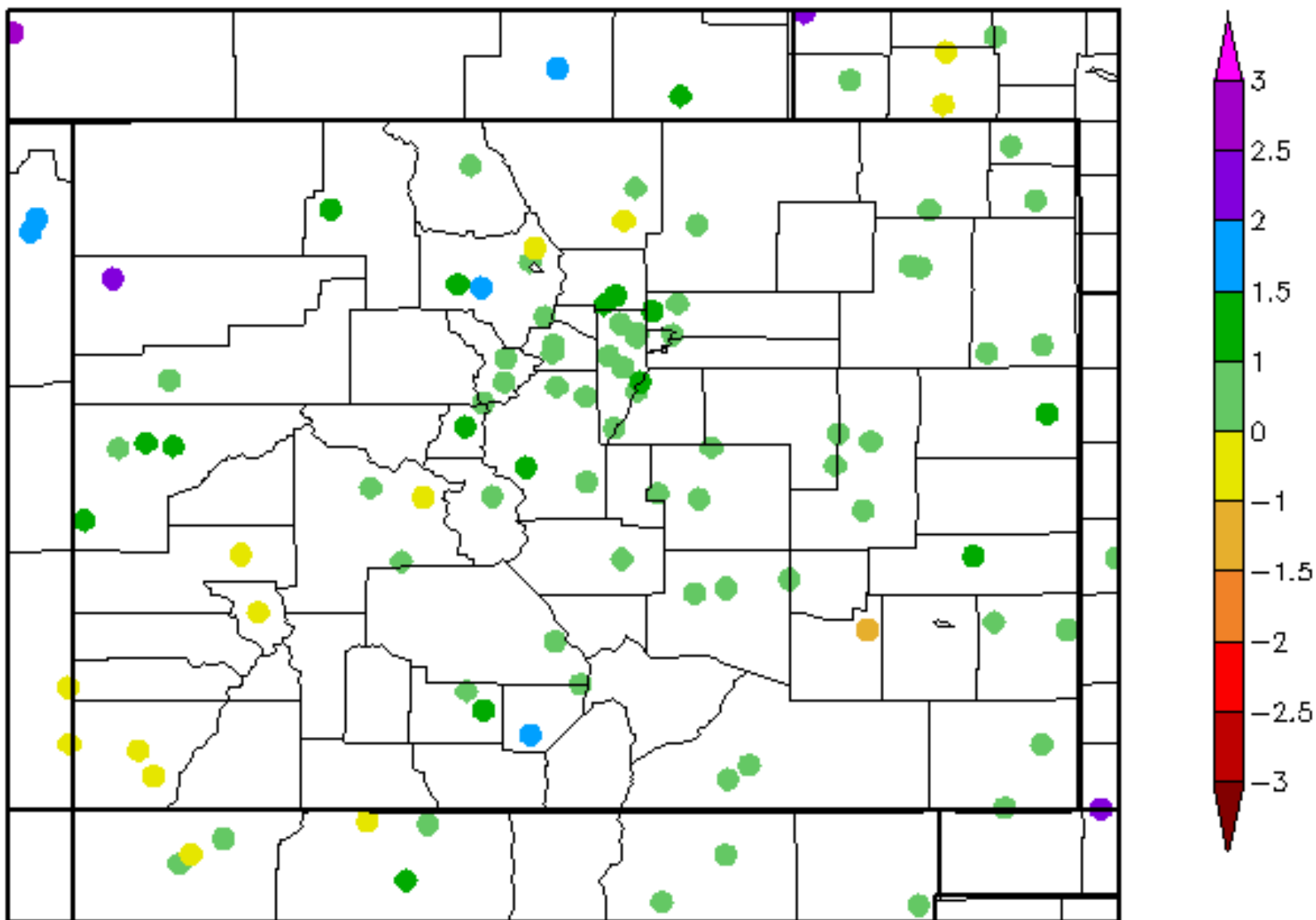
30 Day SPI

4/24/2016 - 5/23/2016



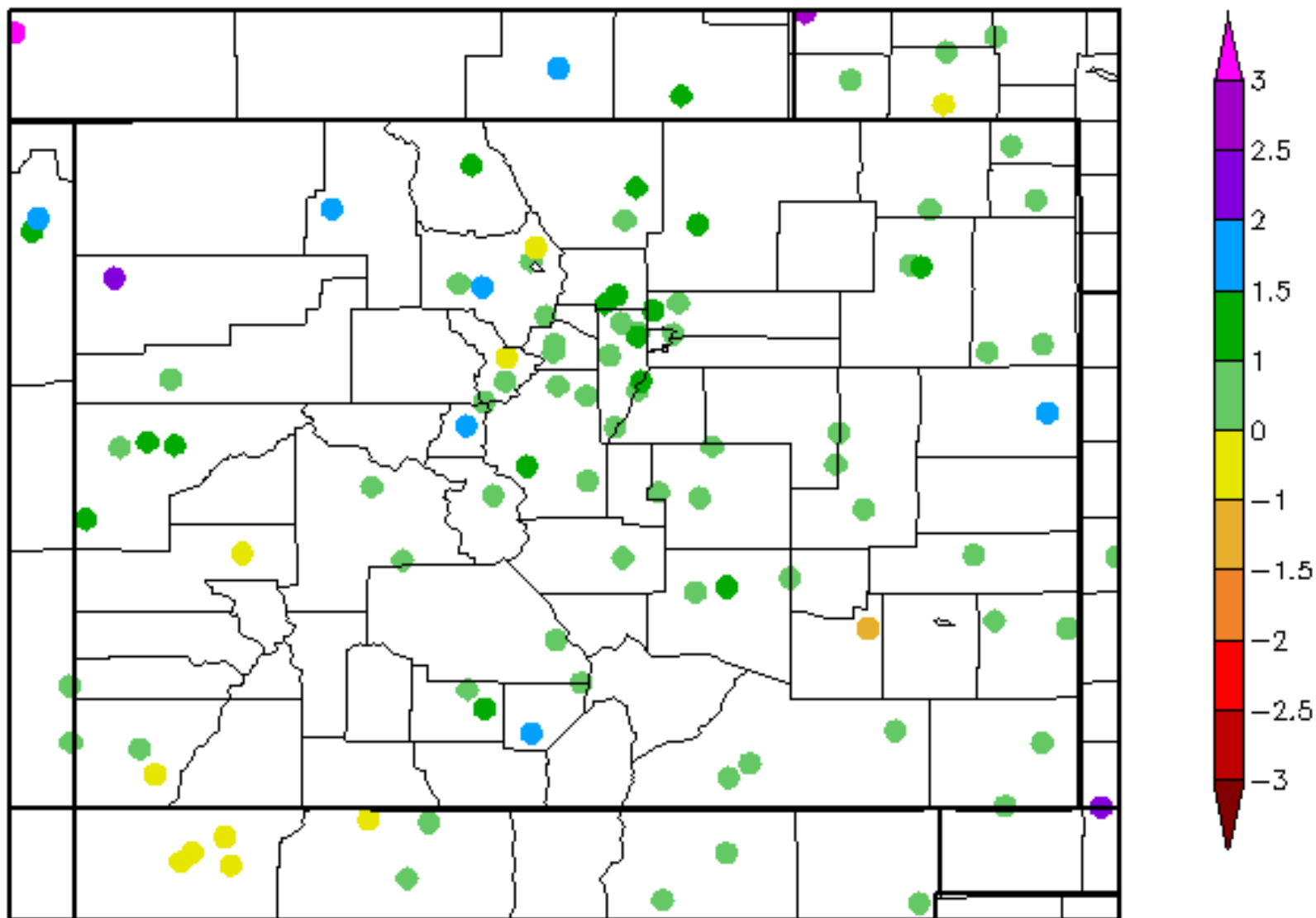
90 Day SPI

2/24/2016 - 5/23/2016



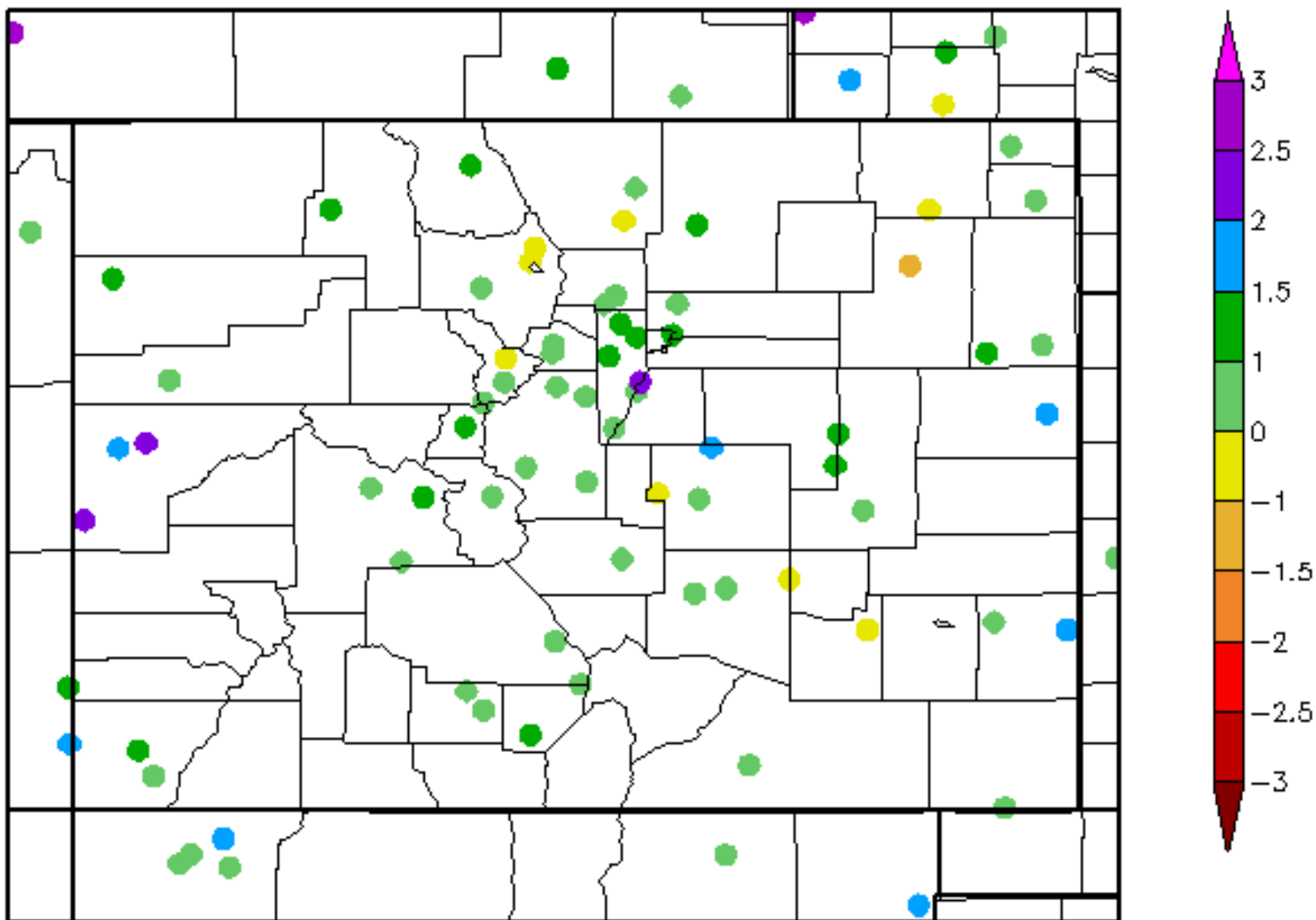
6 Month SPI

11/24/2015 - 5/23/2016



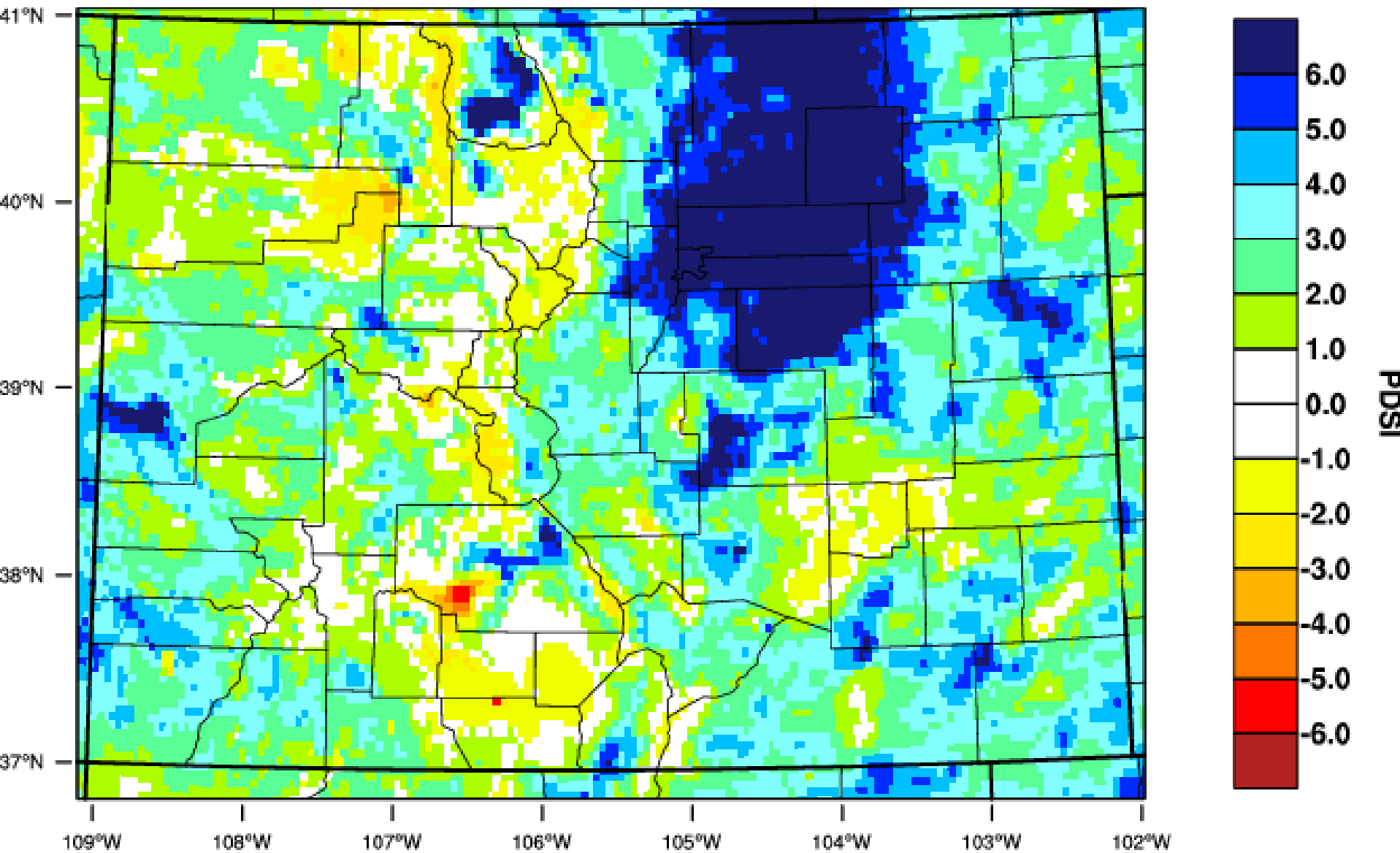
12 Month SPI

5/23/2015 - 5/22/2016



Colorado - PDSI

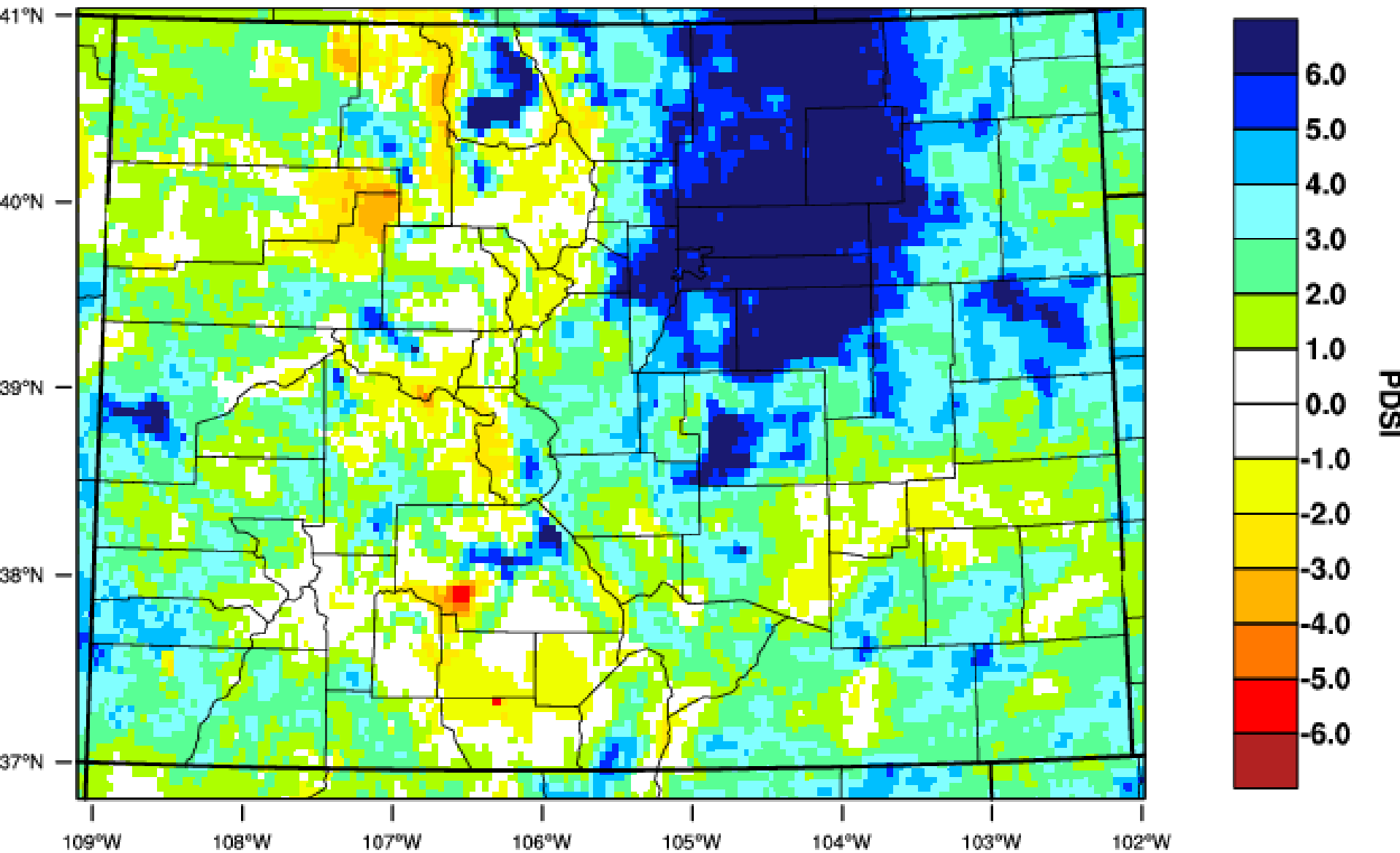
January 2016



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

Colorado - PDSI

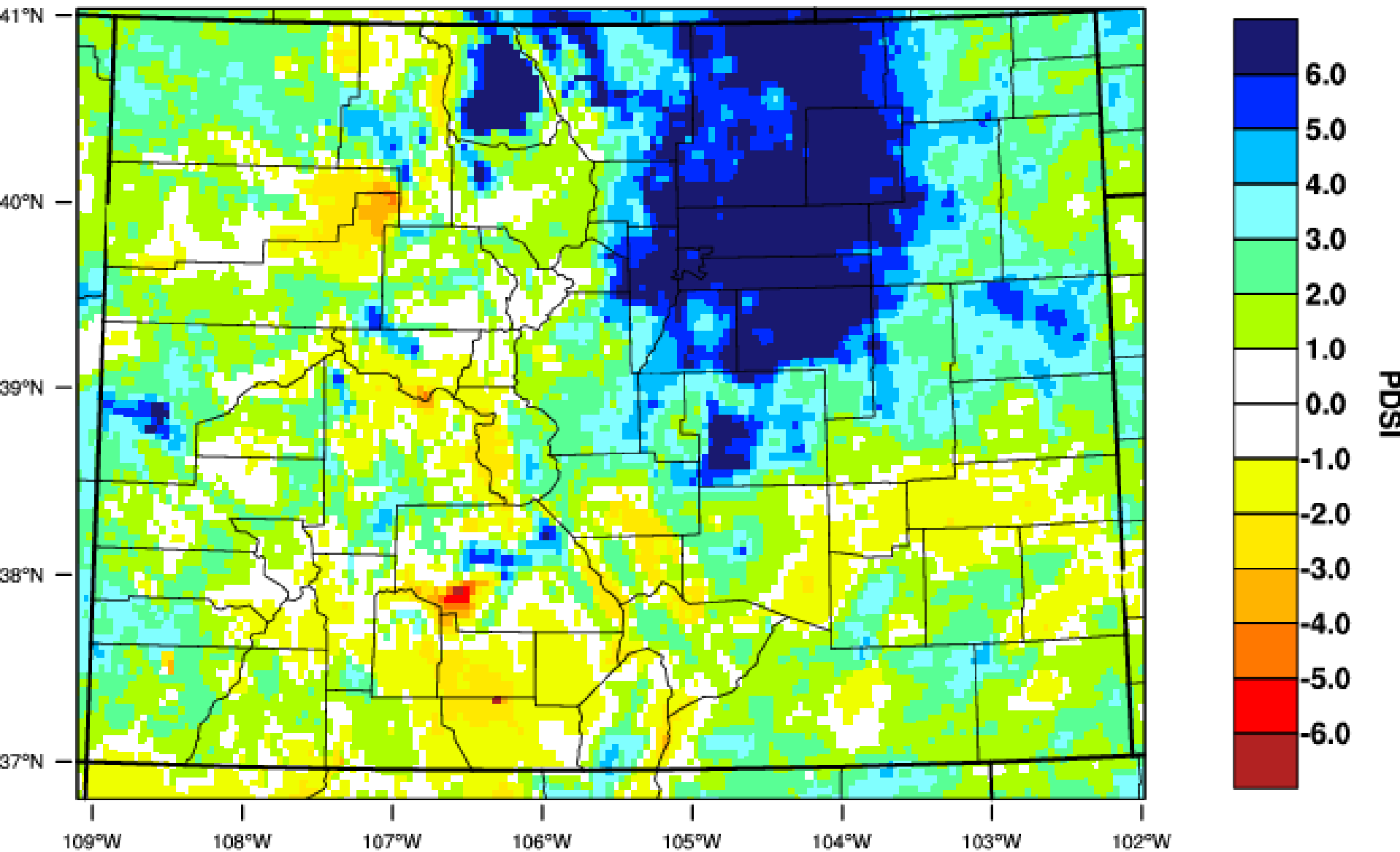
February 2016



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

Colorado - PDSI

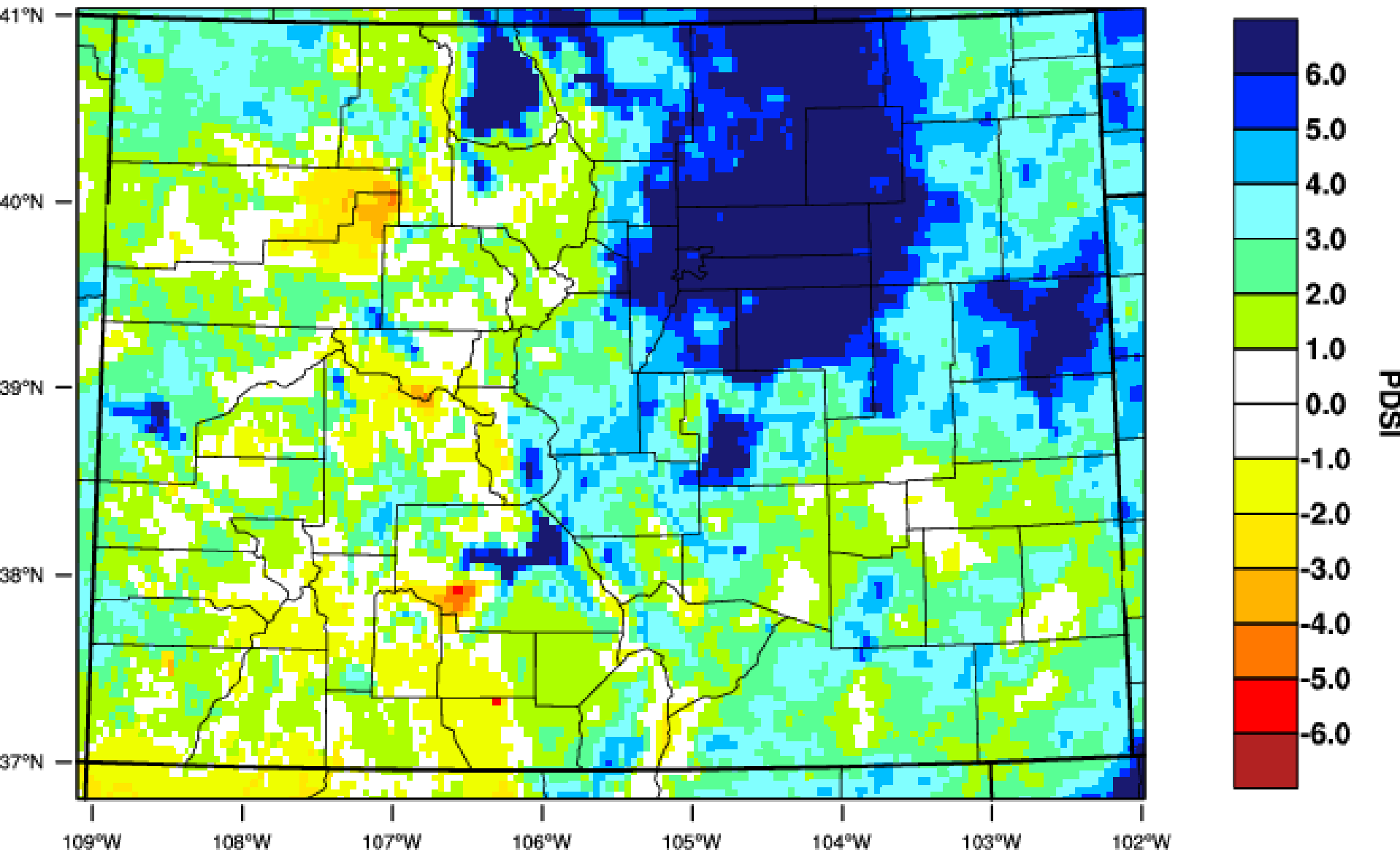
March 2016



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

Colorado - PDSI

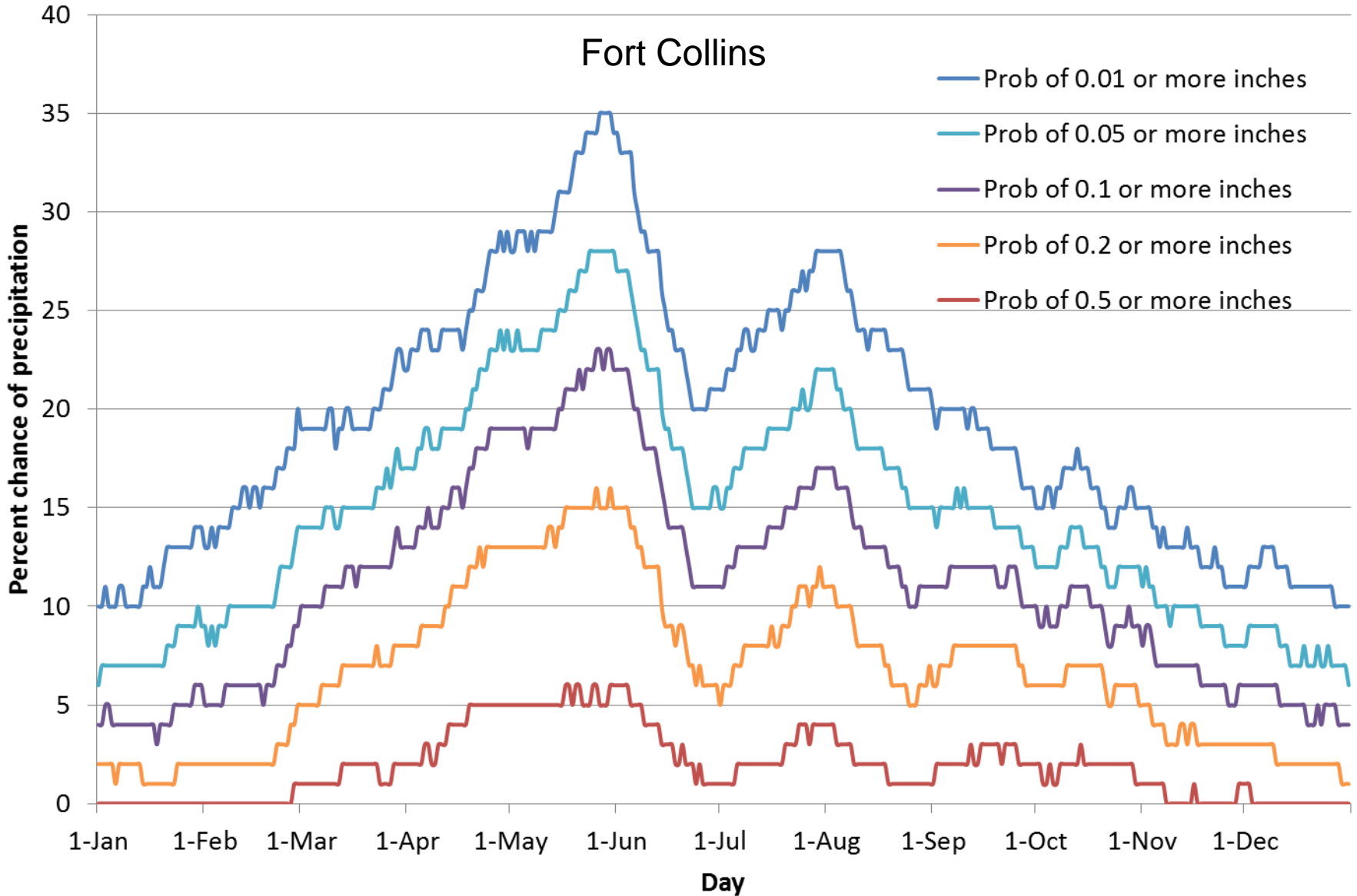
April 2016



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

Percent Chance of Precipitation each Day

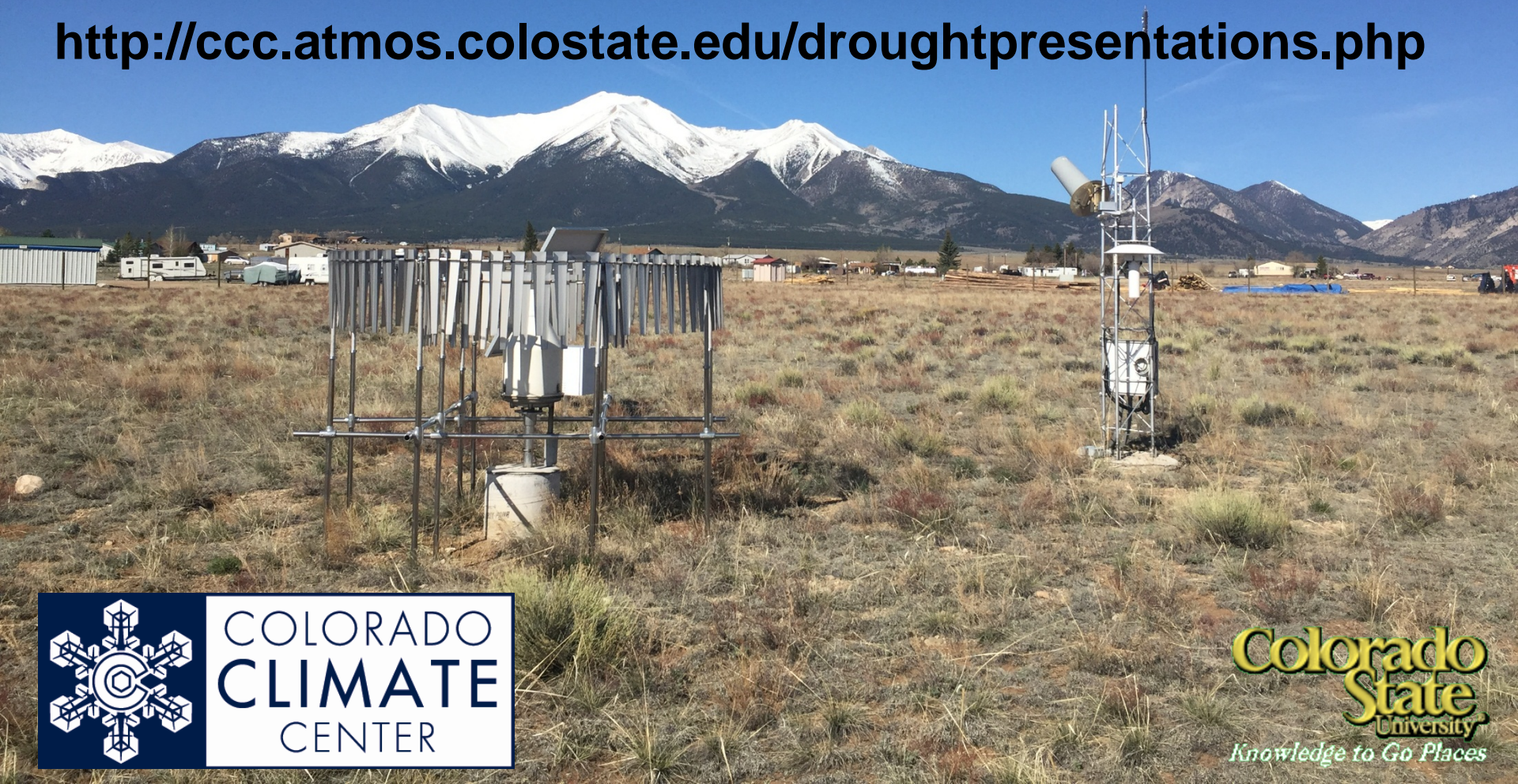
Fort Collins



Colorado Climate Center

Data and Power Point Presentations available for downloading

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



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