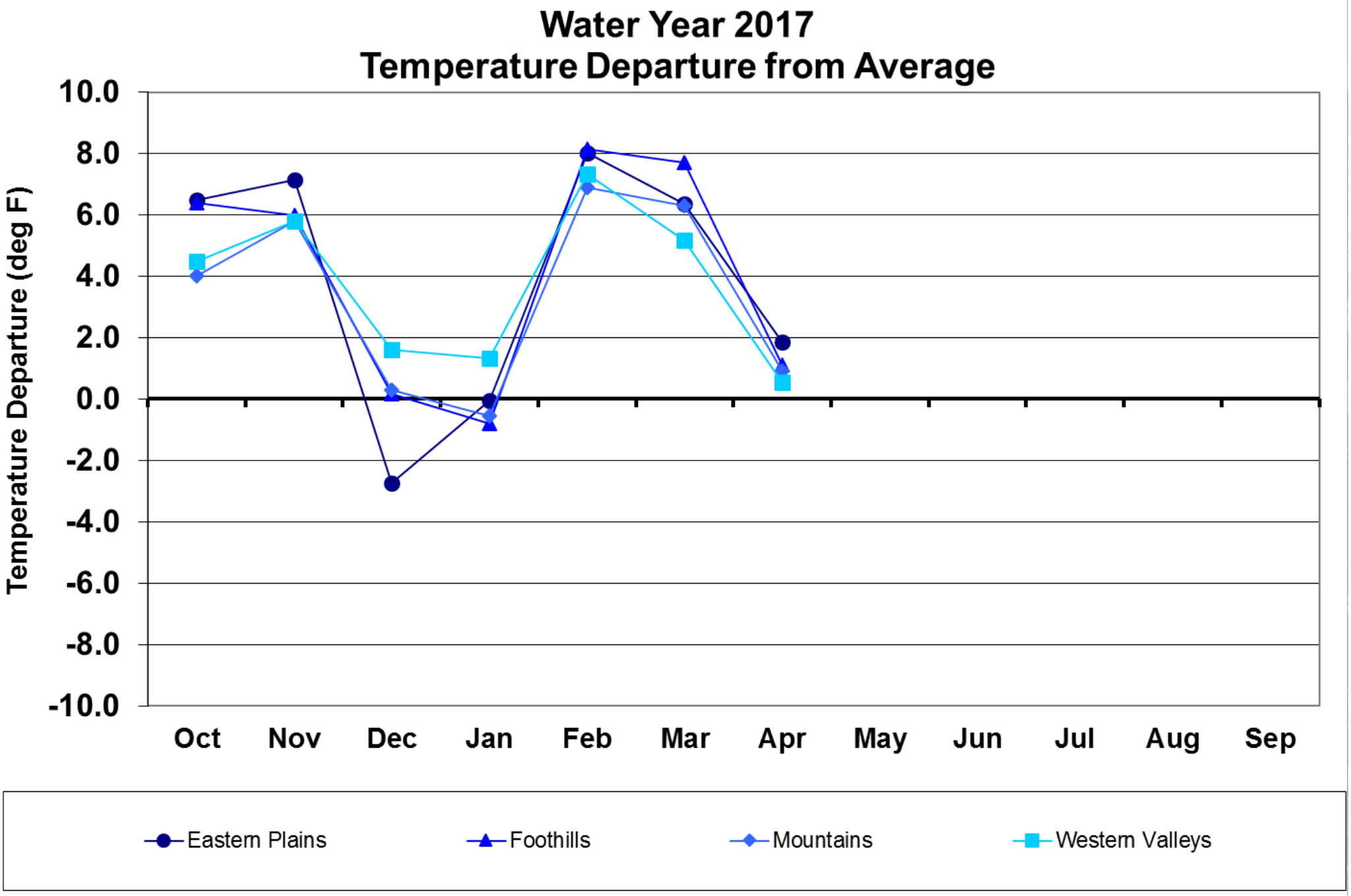
Climate Update

Becky Bolinger
Colorado Climate Center

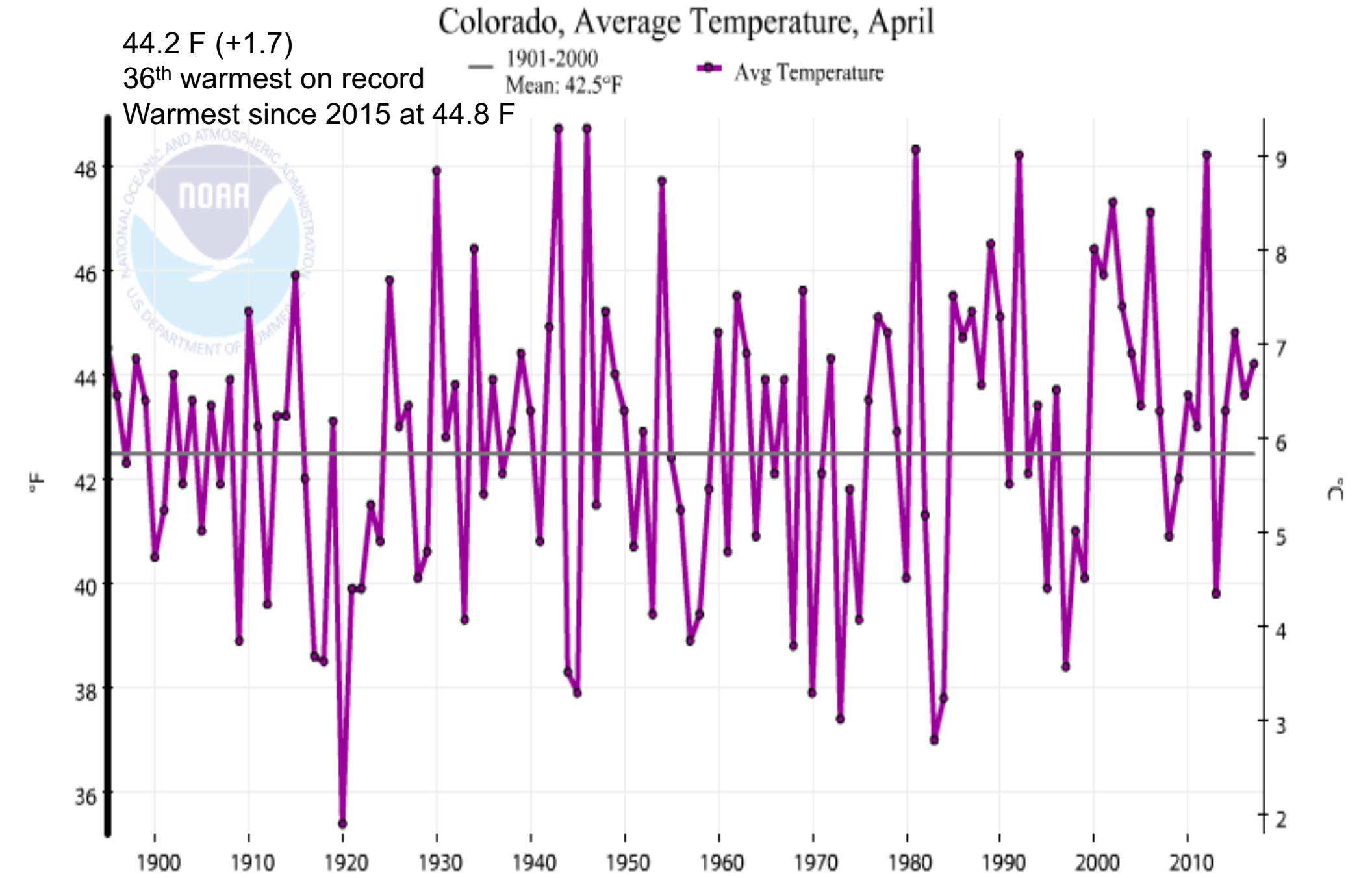
Presented to
Water Availability Task Force
May 26, 2017
Denver, CO

Water Year 2017 Temperature Departures

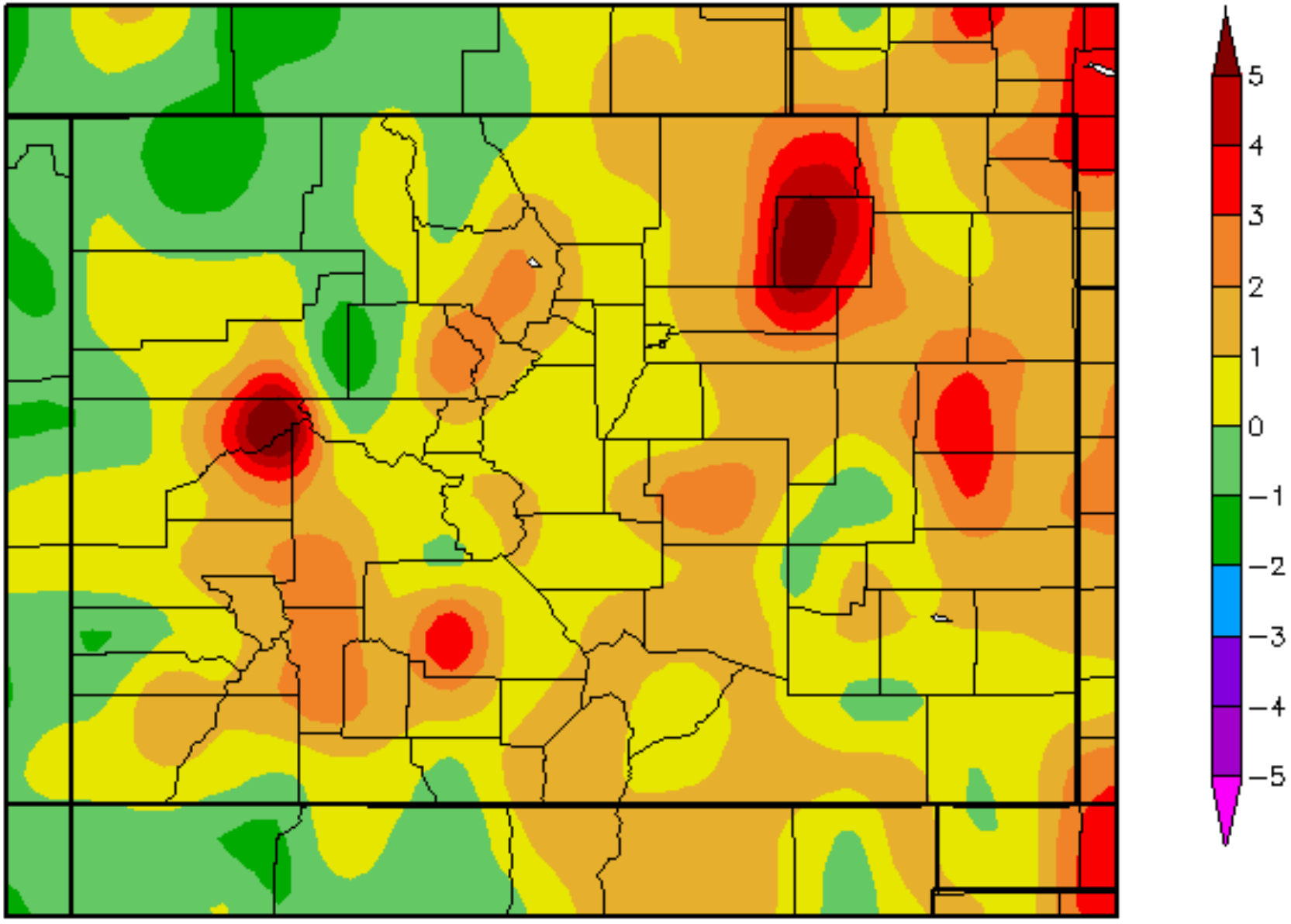


Apr 2017 Average Temperature History for Colorado (NCEI)

44.2 F (+1.7)
36th warmest on record
Warmest since 2015 at 44.8 F



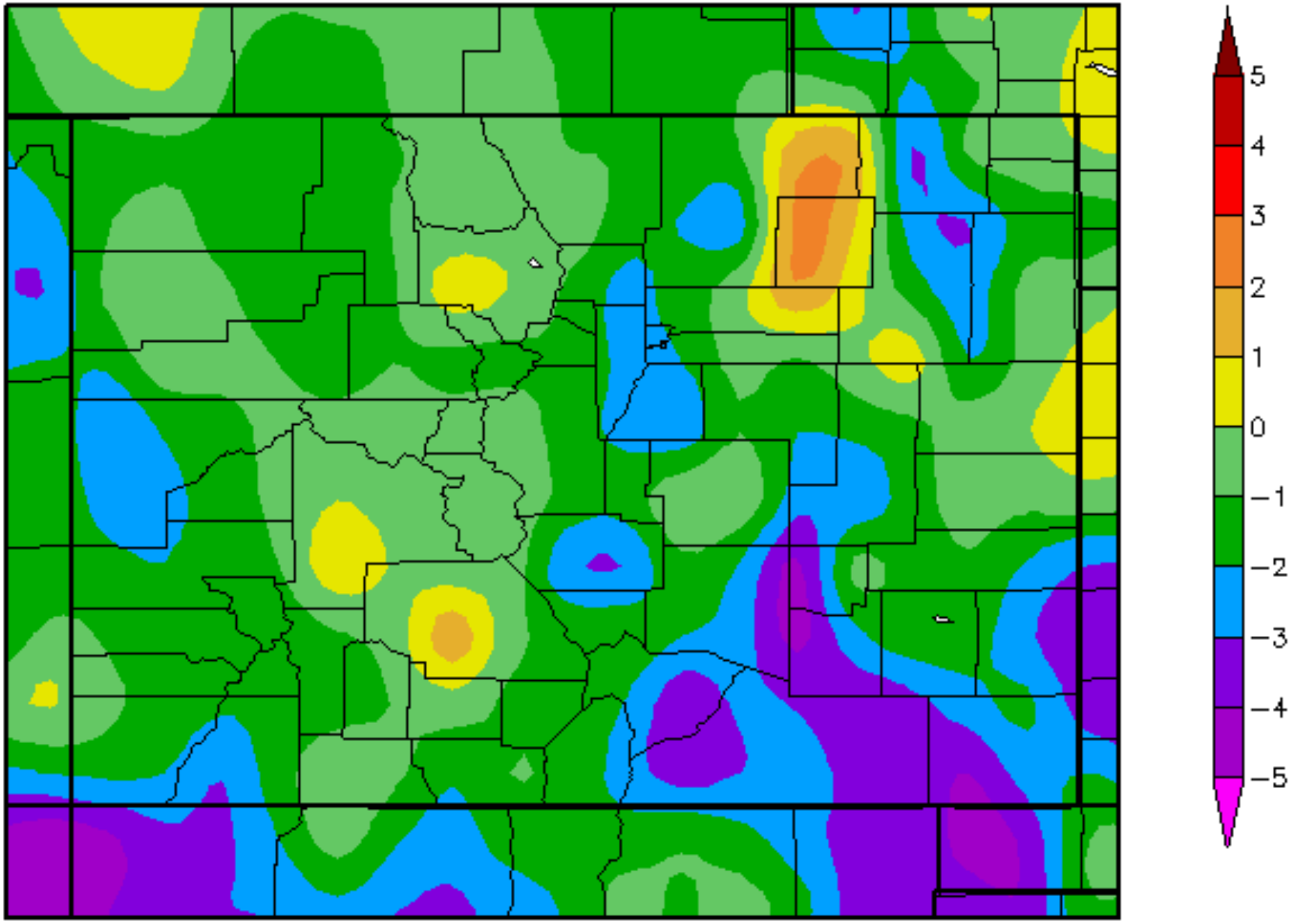
Departure from Normal Temperature (F)
4/1/2017 – 4/30/2017



Generated 5/11/2017 at HPRCC using provisional data.

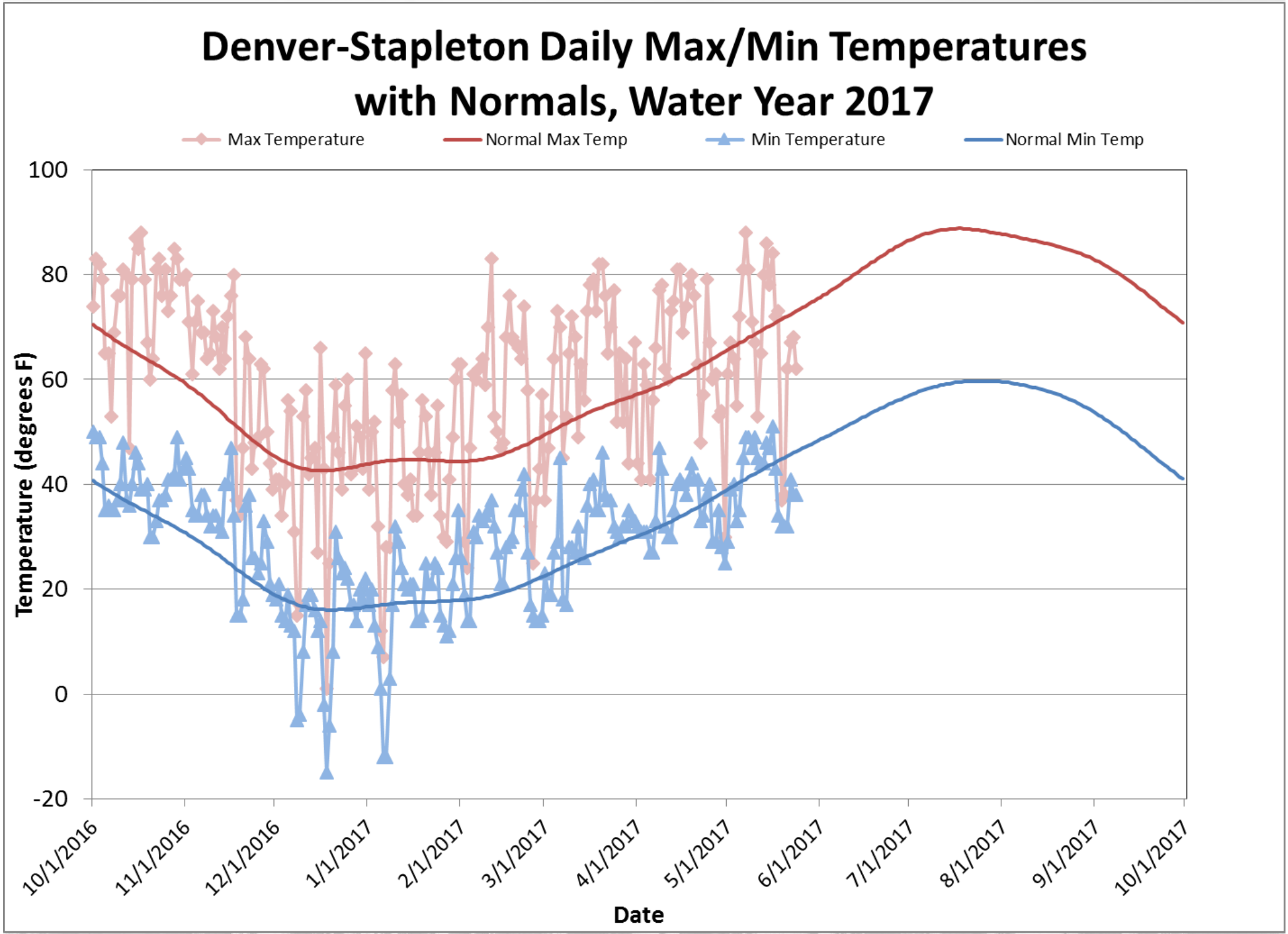
Regional Climate Centers

Departure from Normal Temperature (F)
5/1/2017 – 5/23/2017

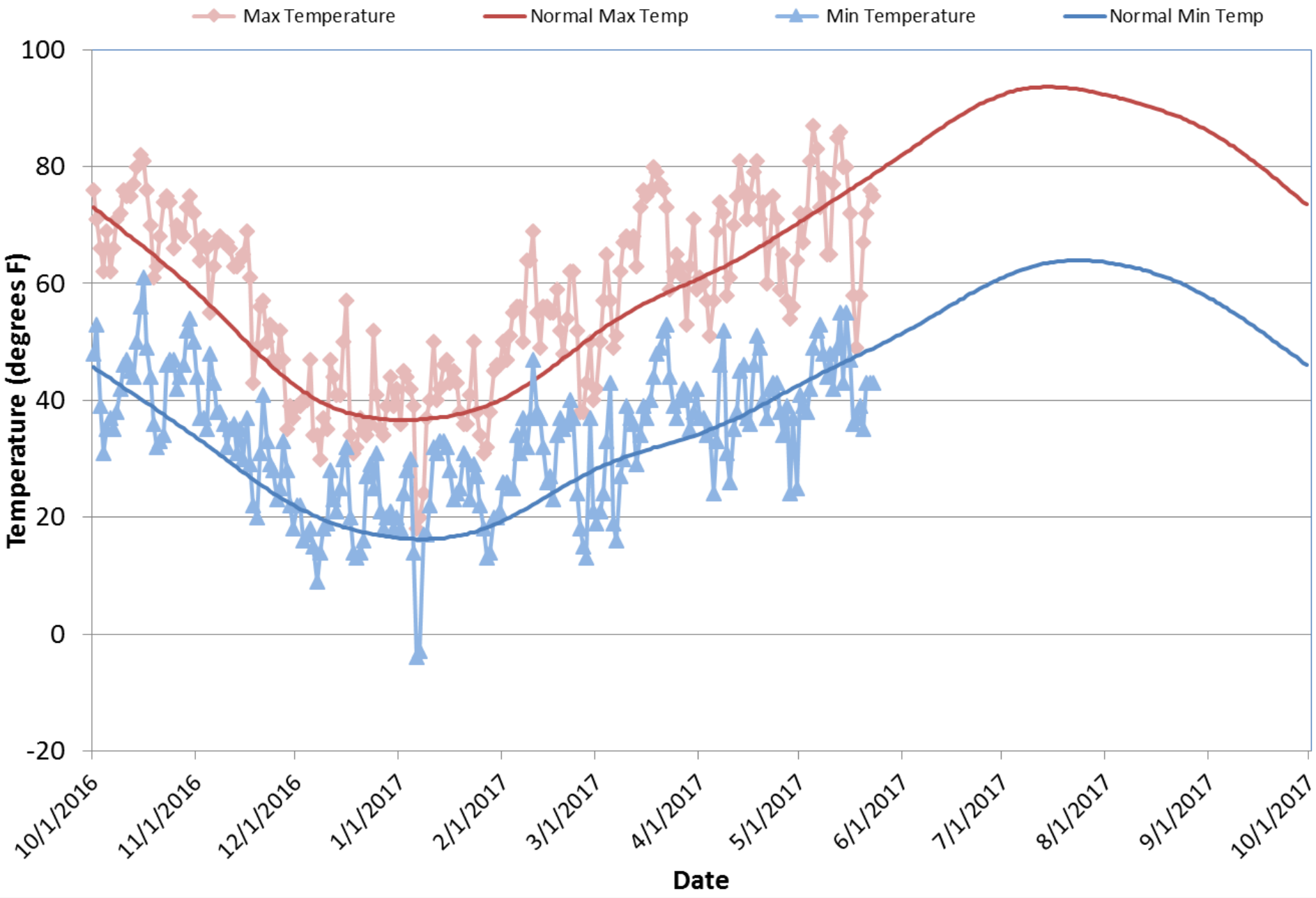


Generated 5/24/2017 at HPRCC using provisional data.

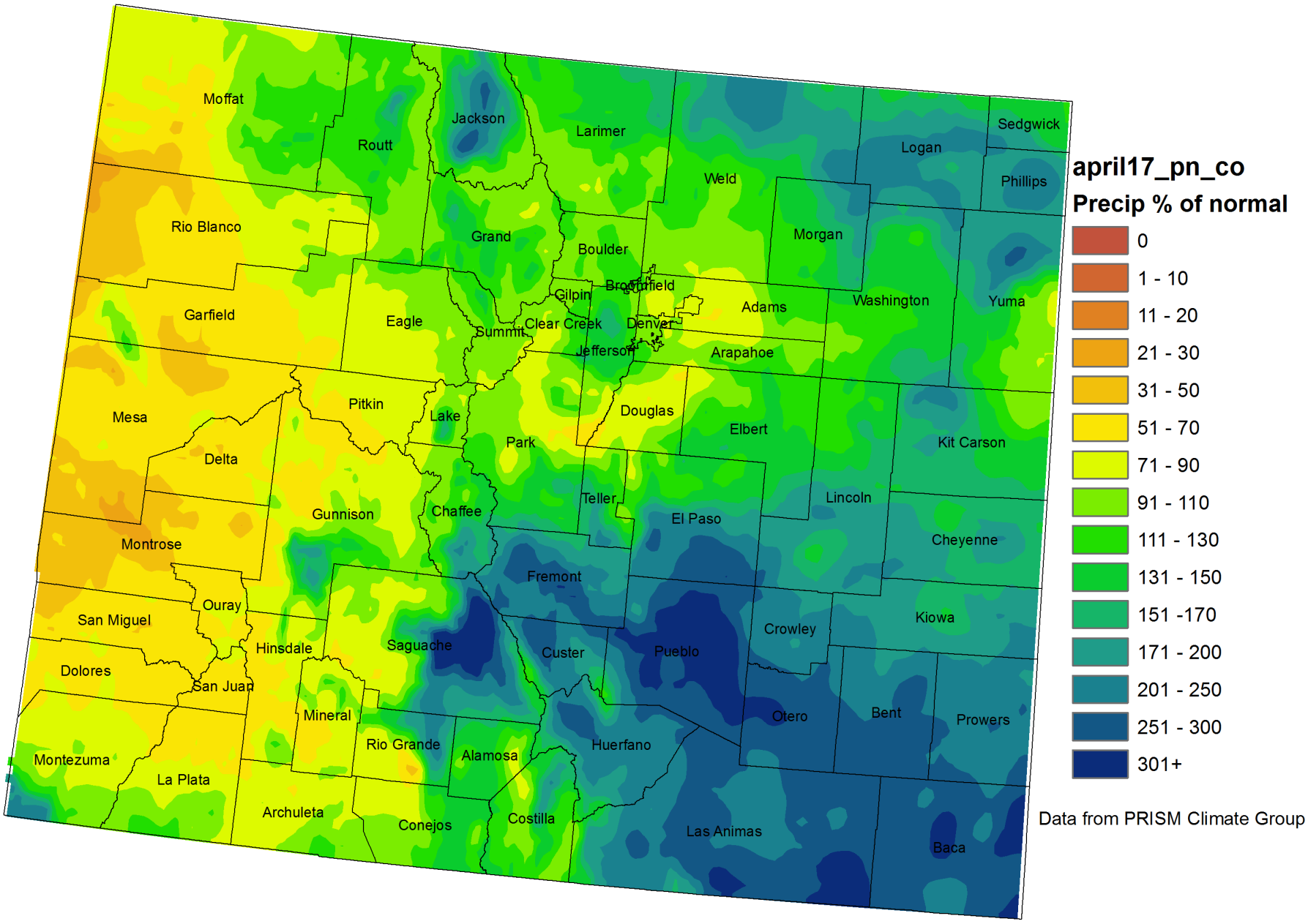
Regional Climate Centers


Denver-Stapleton Daily Max/Min Temperatures with Normals, Water Year 2017
Max Temperature
Normal Max Temp
Min Temperature
Normal Min Temp
100
80
60
40
20
0
-20
Temperature (degrees F)
10/1/2016
11/1/2016
12/1/2016
1/1/2017
2/1/2017
3/1/2017
4/1/2017
5/1/2017
6/1/2017
7/1/2017
8/1/2017
9/1/2017
10/1/2017
Date

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

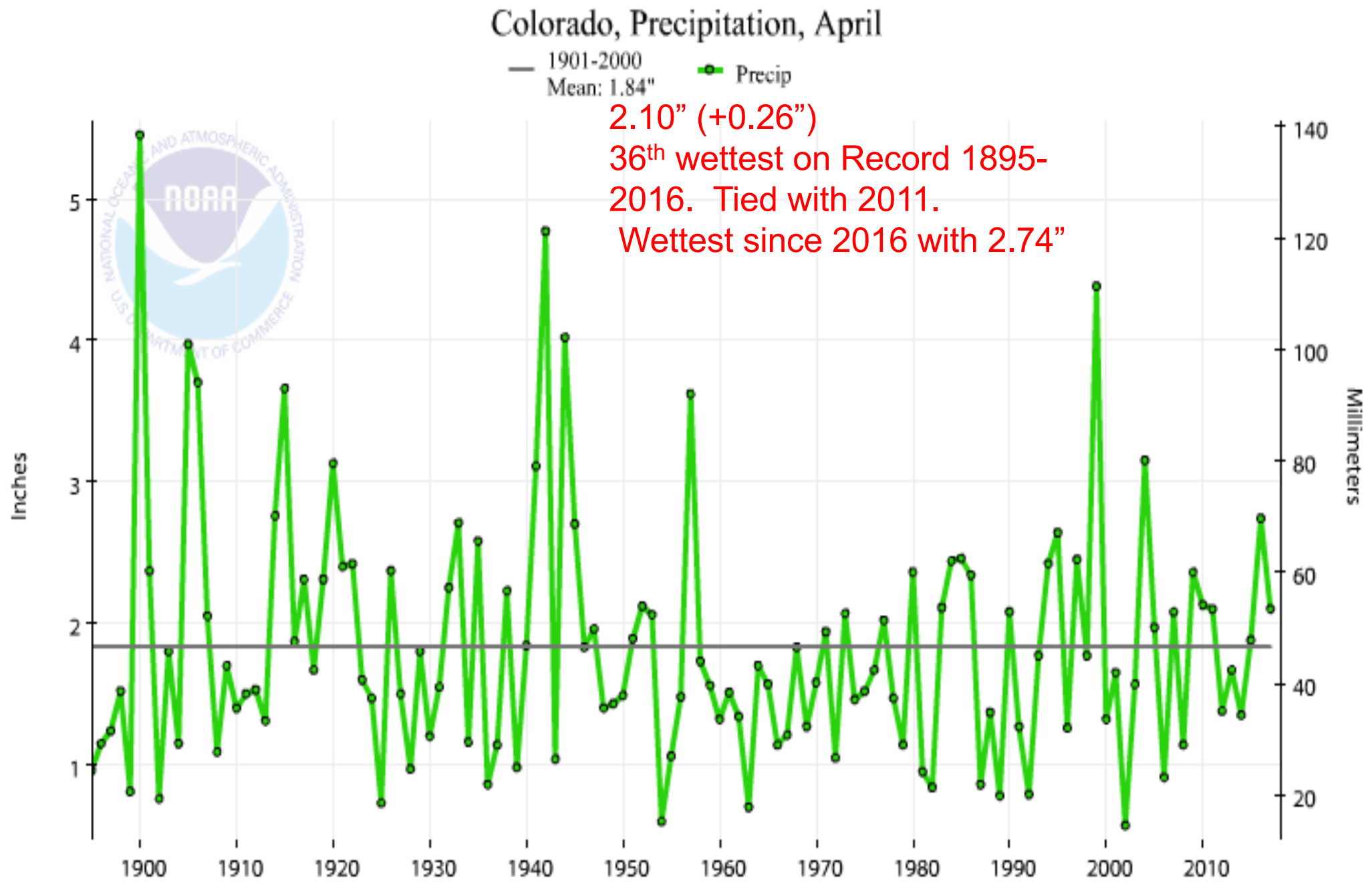


Colorado April 2017 Precipitation as a Percentage of Normal

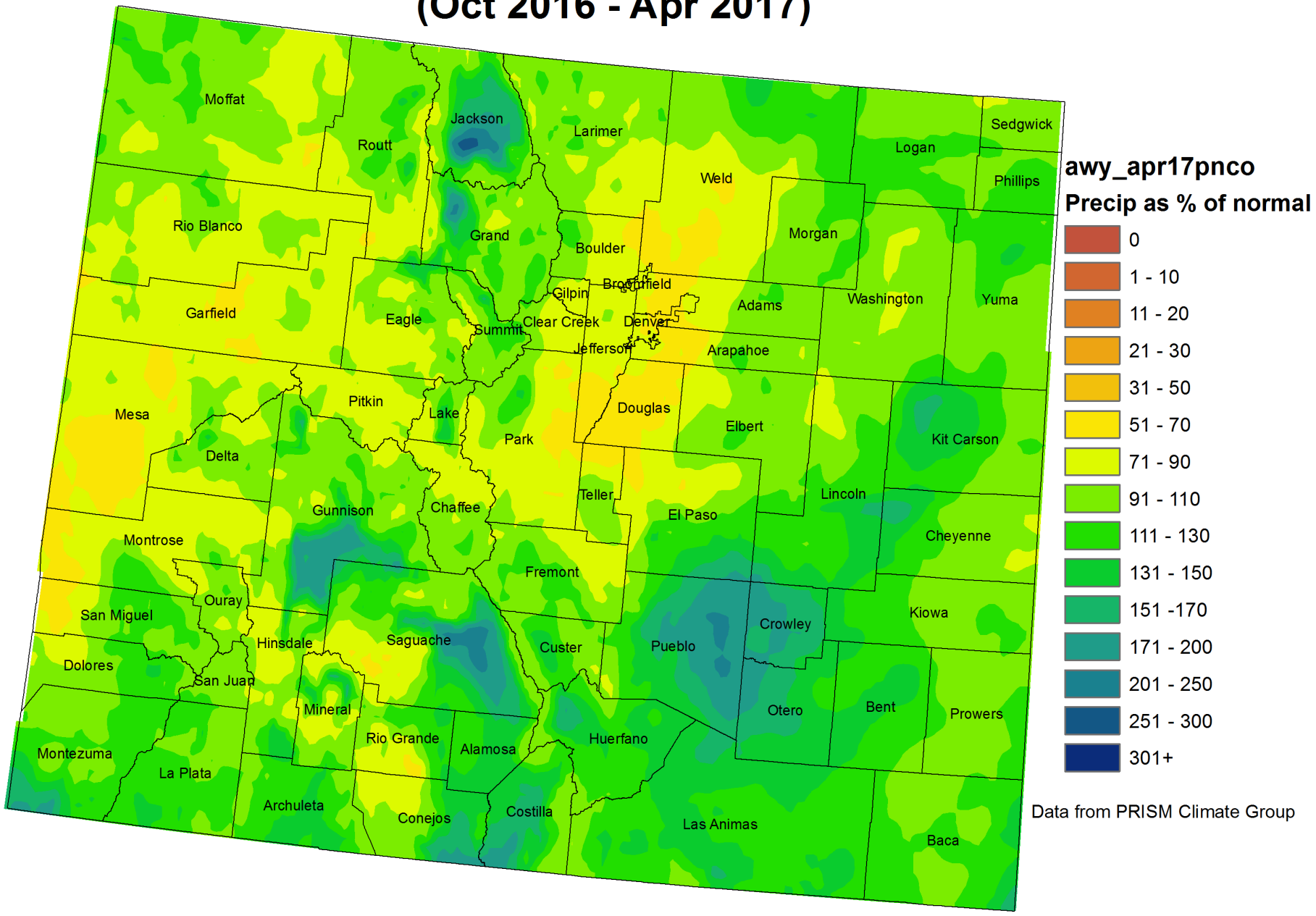


Data from PRISM Climate Group

April 2017 Statewide Precipitation

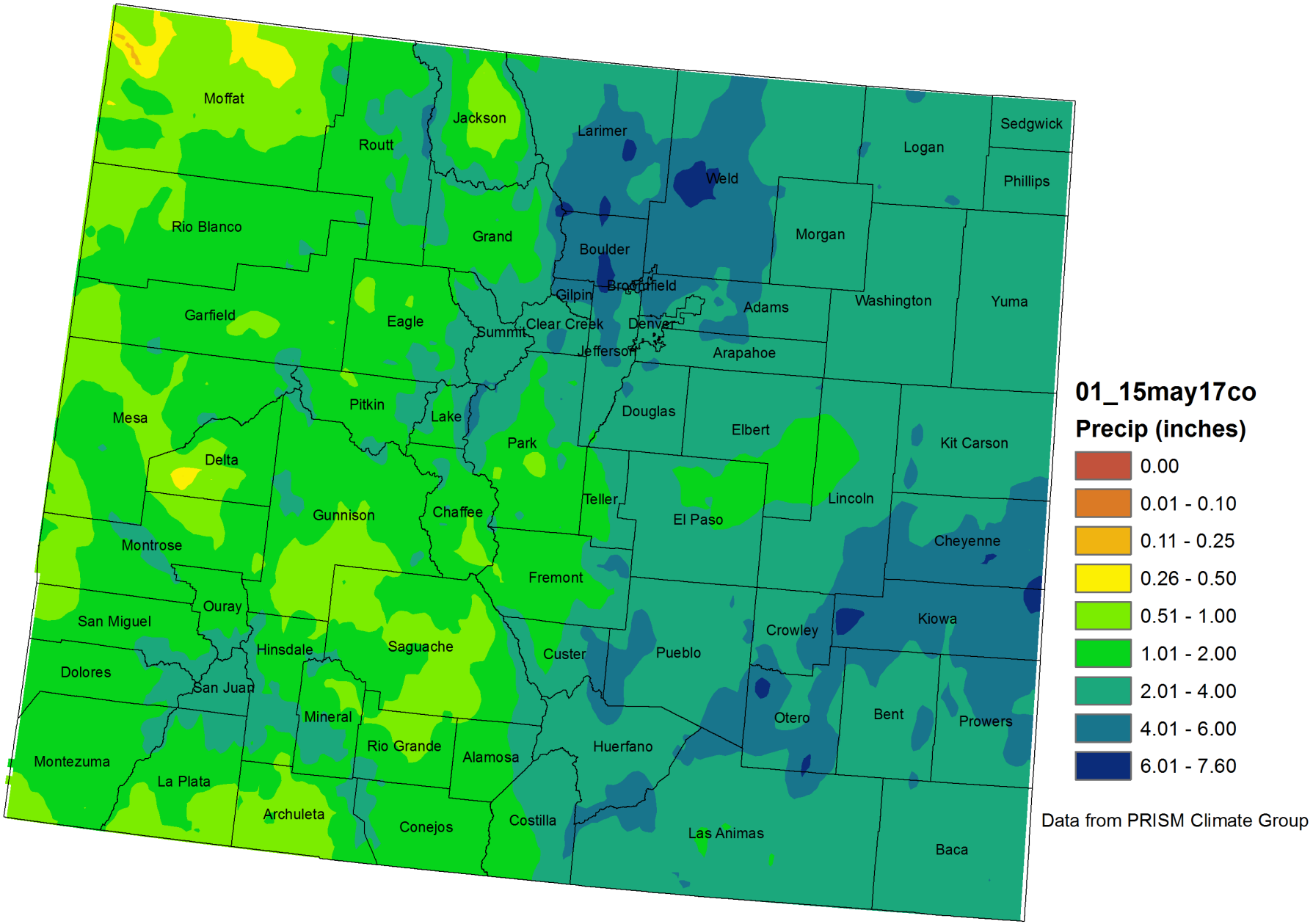


Colorado Water Year 2017 Precipitation as a Percentage of Normal (Oct 2016 - Apr 2017)



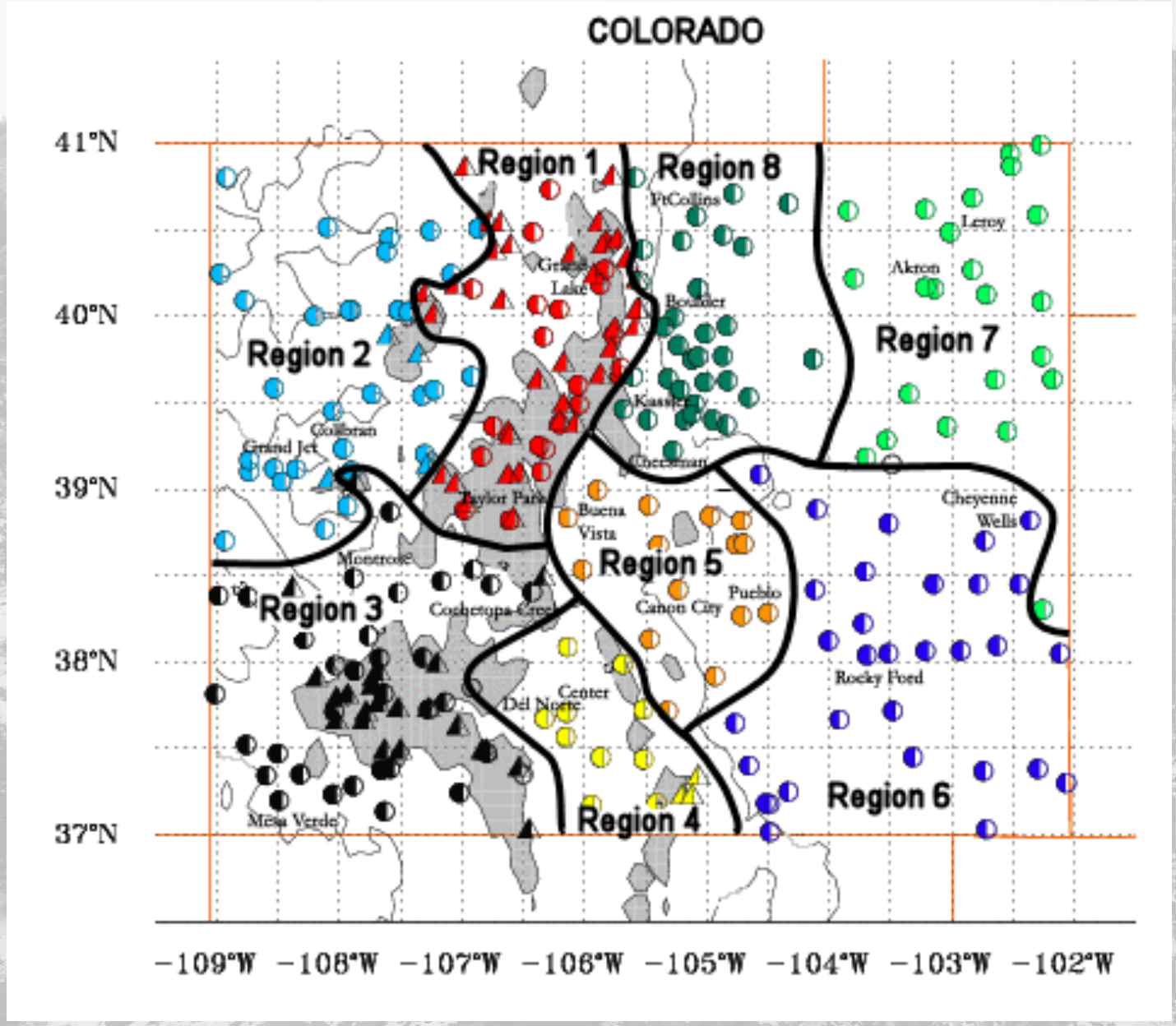
Data from PRISM Climate Group

Colorado Month to Date Precipitation
1 - May 22 2017

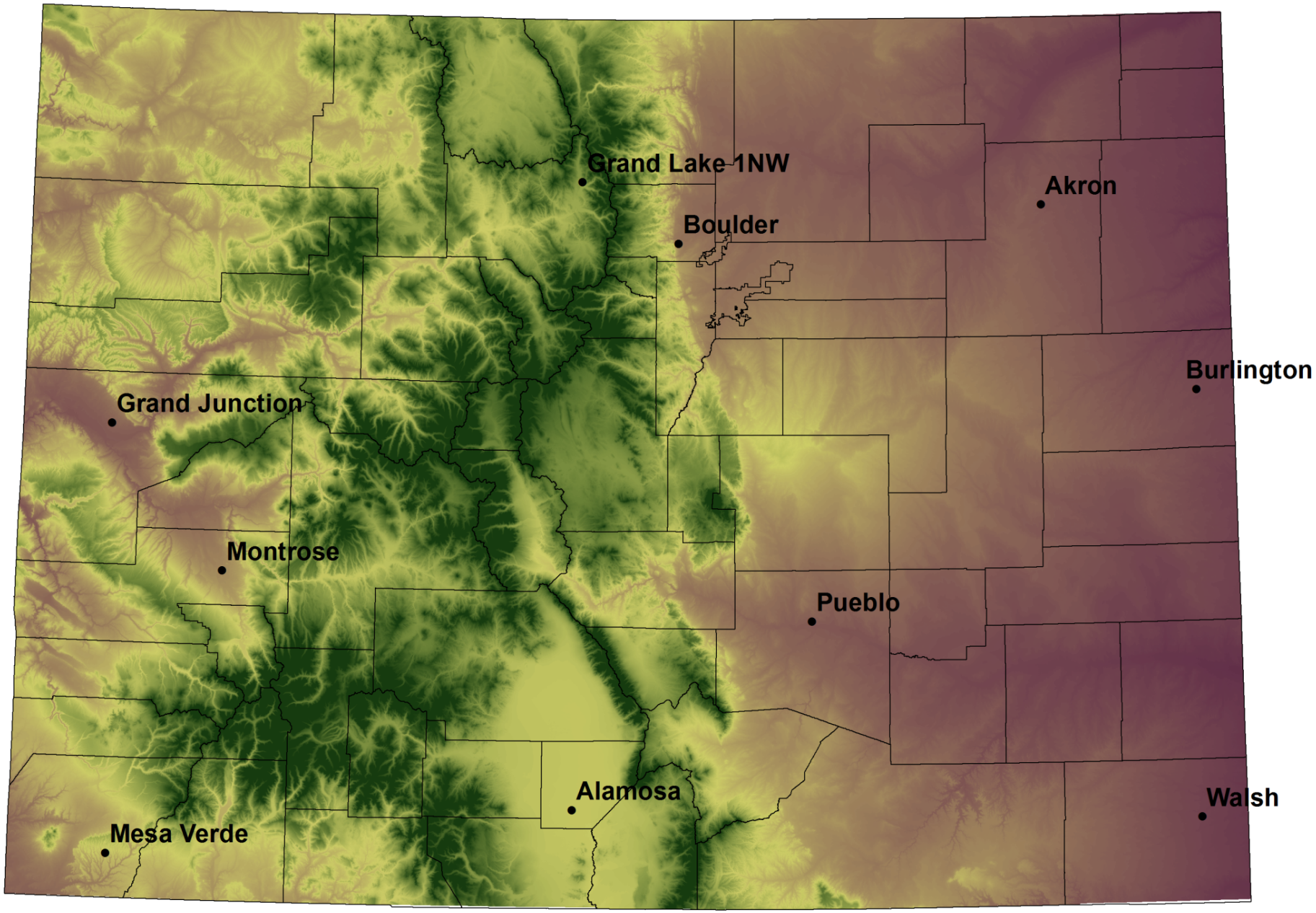


Data from PRISM Climate Group

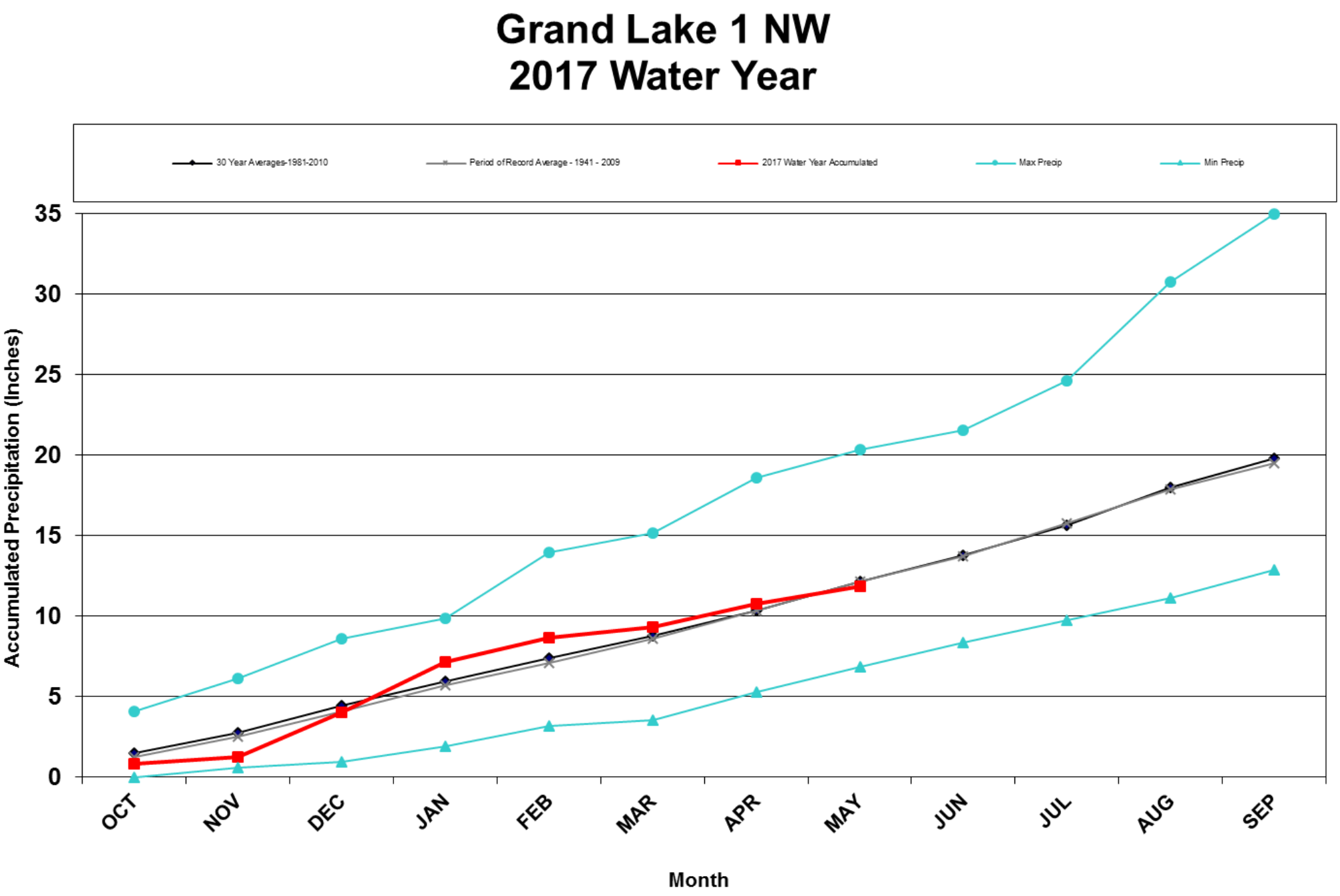
Climate divisions defined by Dr. Klaus Wolter of NOAA's Climate Diagnostic Center in Boulder, CO



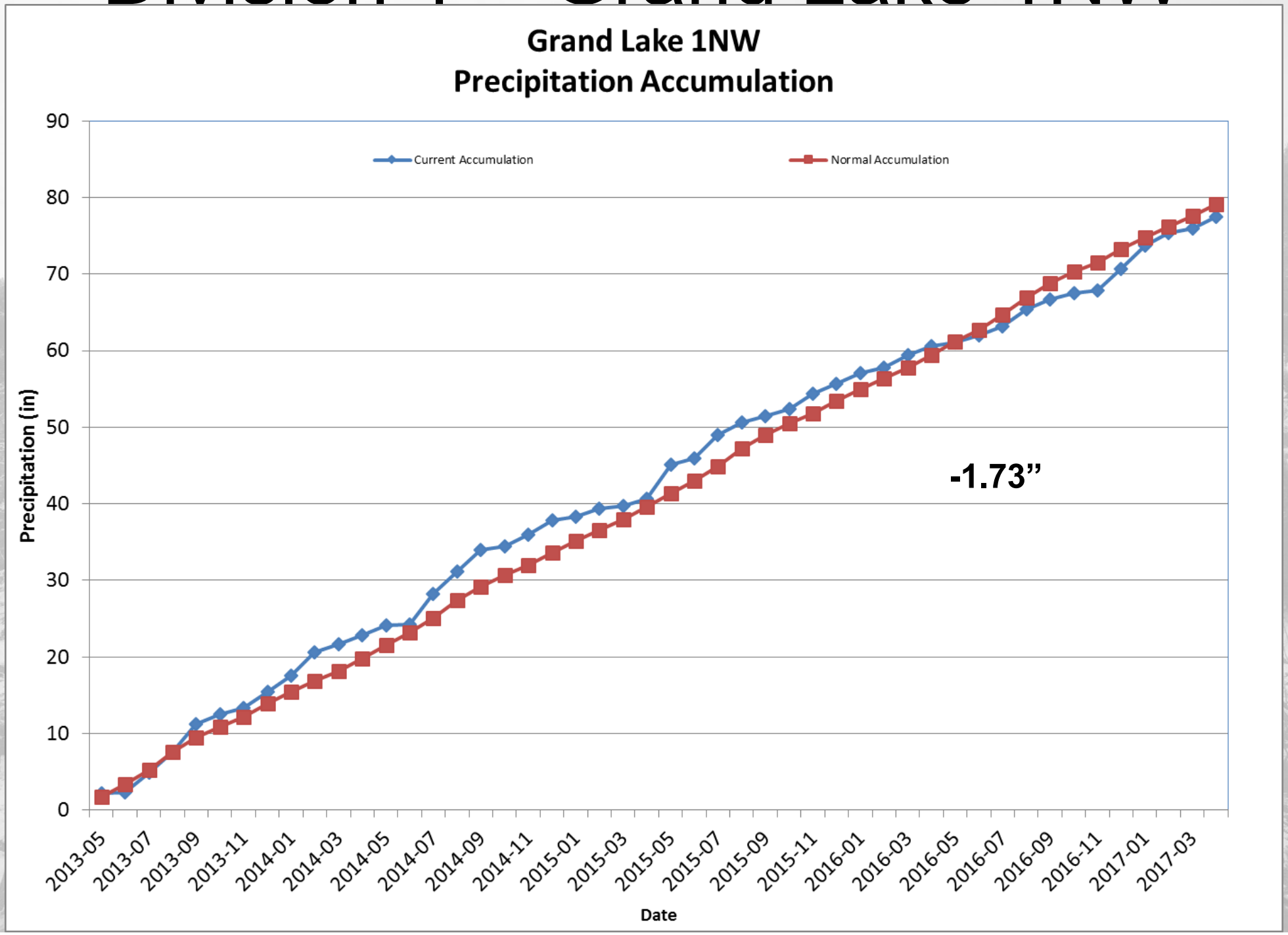
NWS Cooperative Stations for WATF



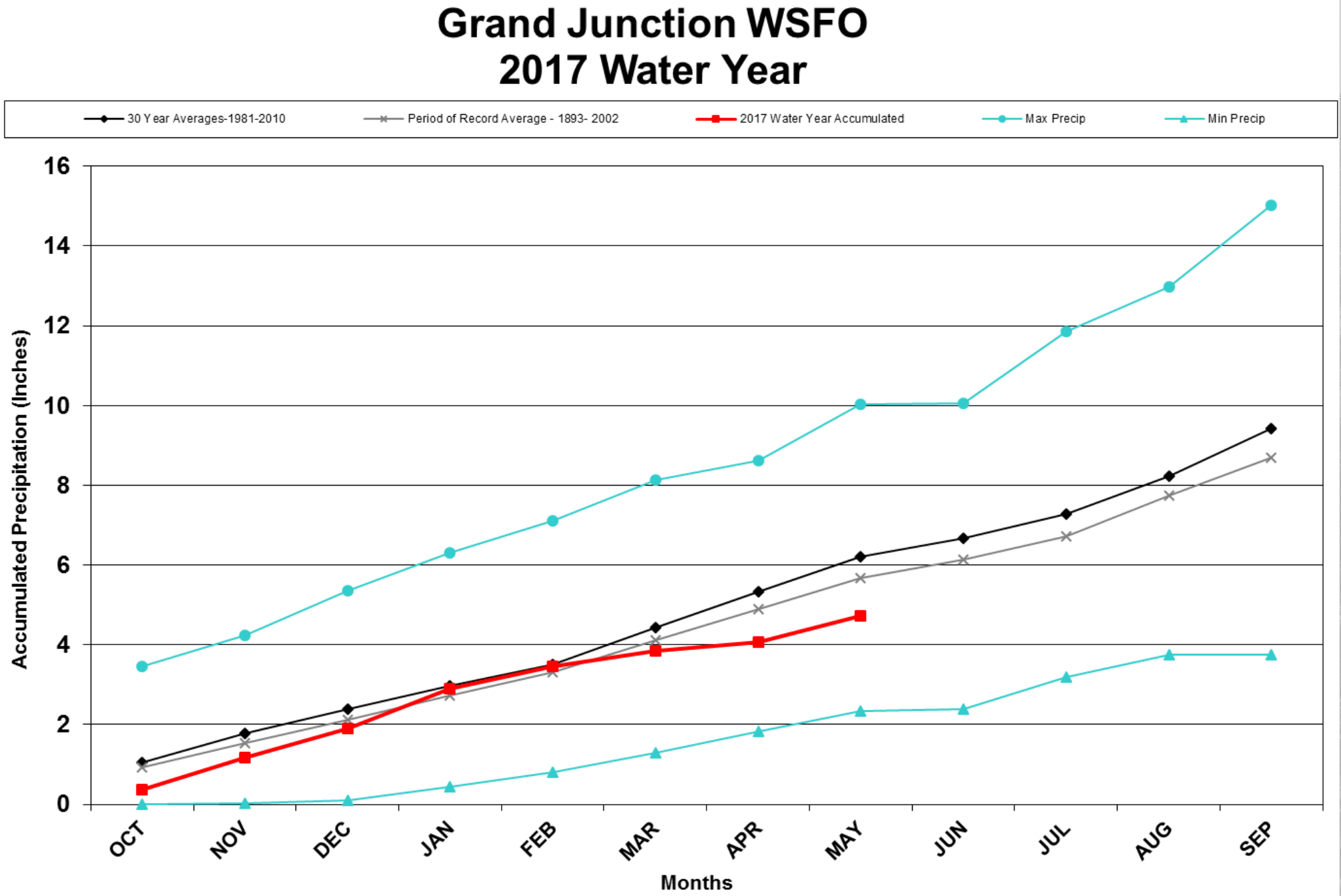
Division 1 – Grand Lake 1NW



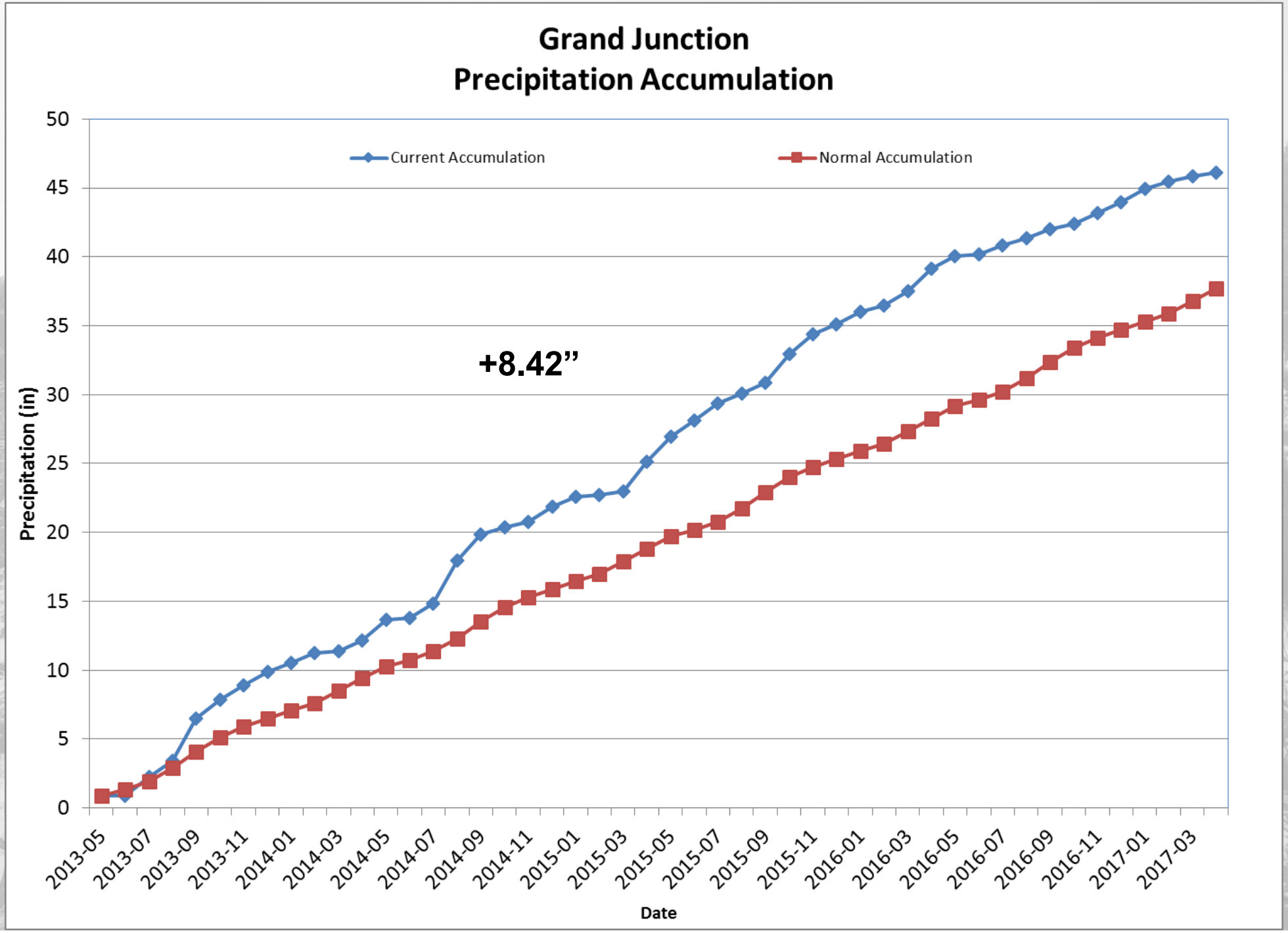
Division 1 – Grand Lake 1NW



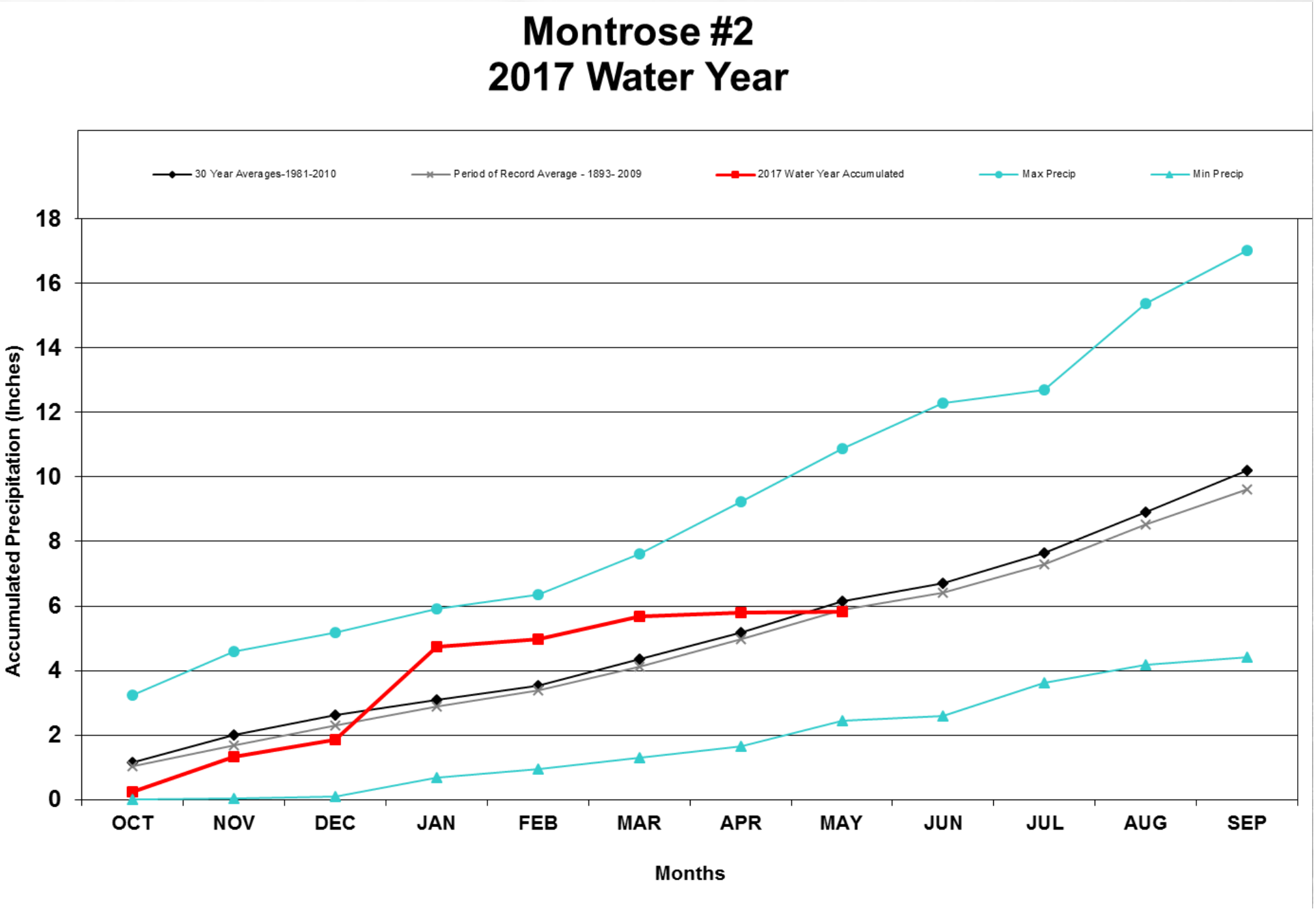
Division 2 – Grand Junction



Division 2 – Grand Junction



Division 3 – Montrose



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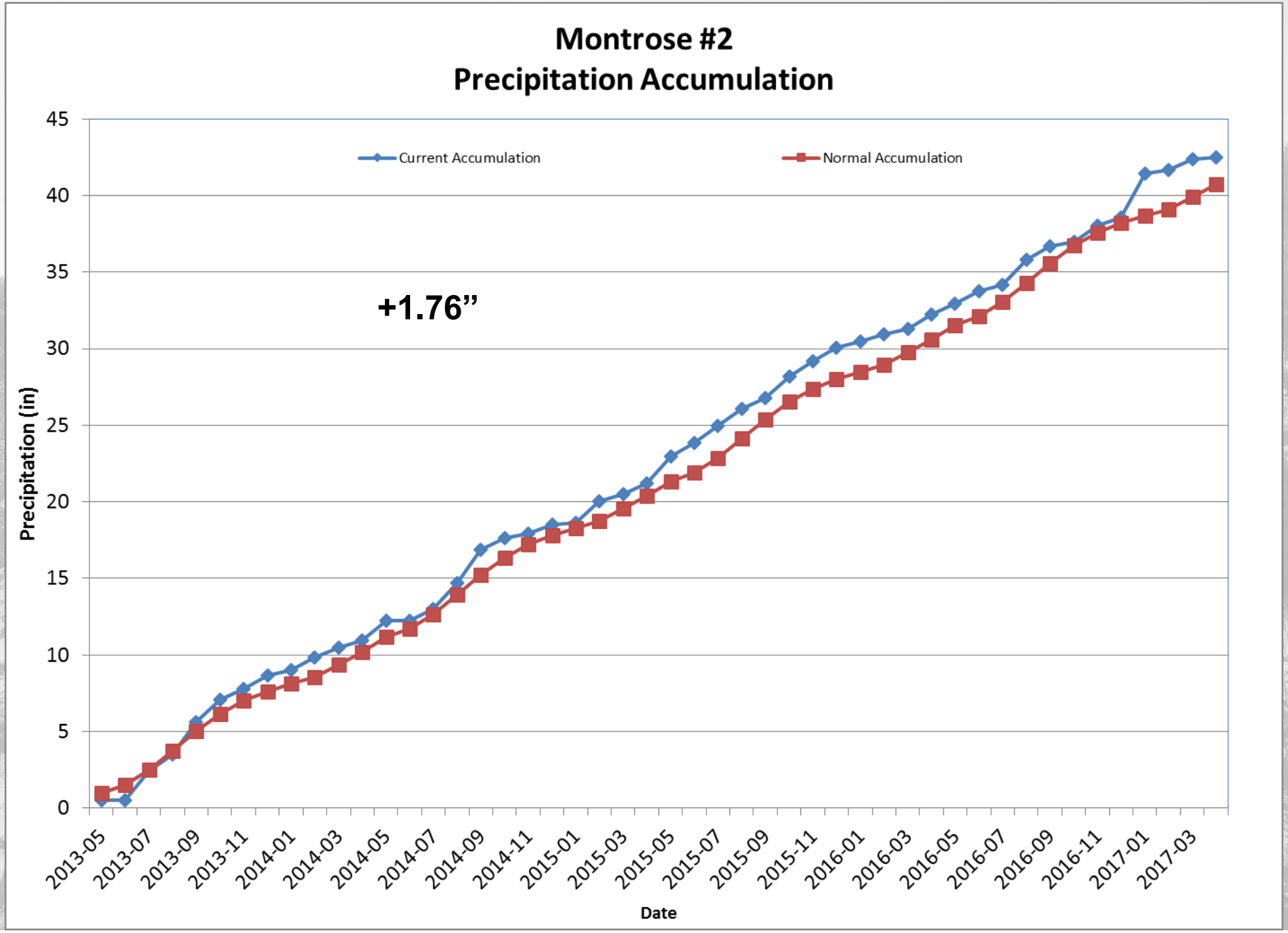
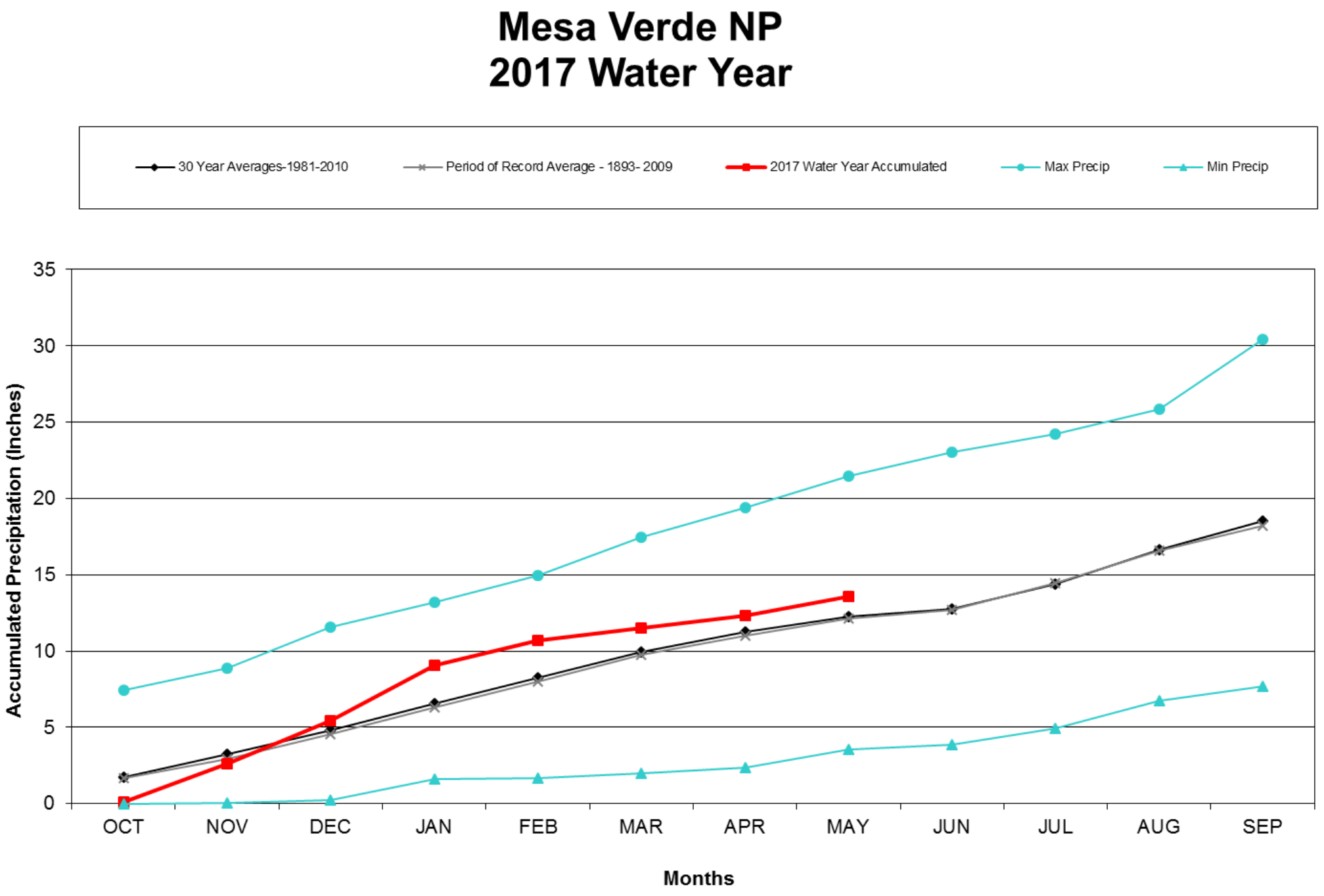


Division 3 – Mesa Verde NP



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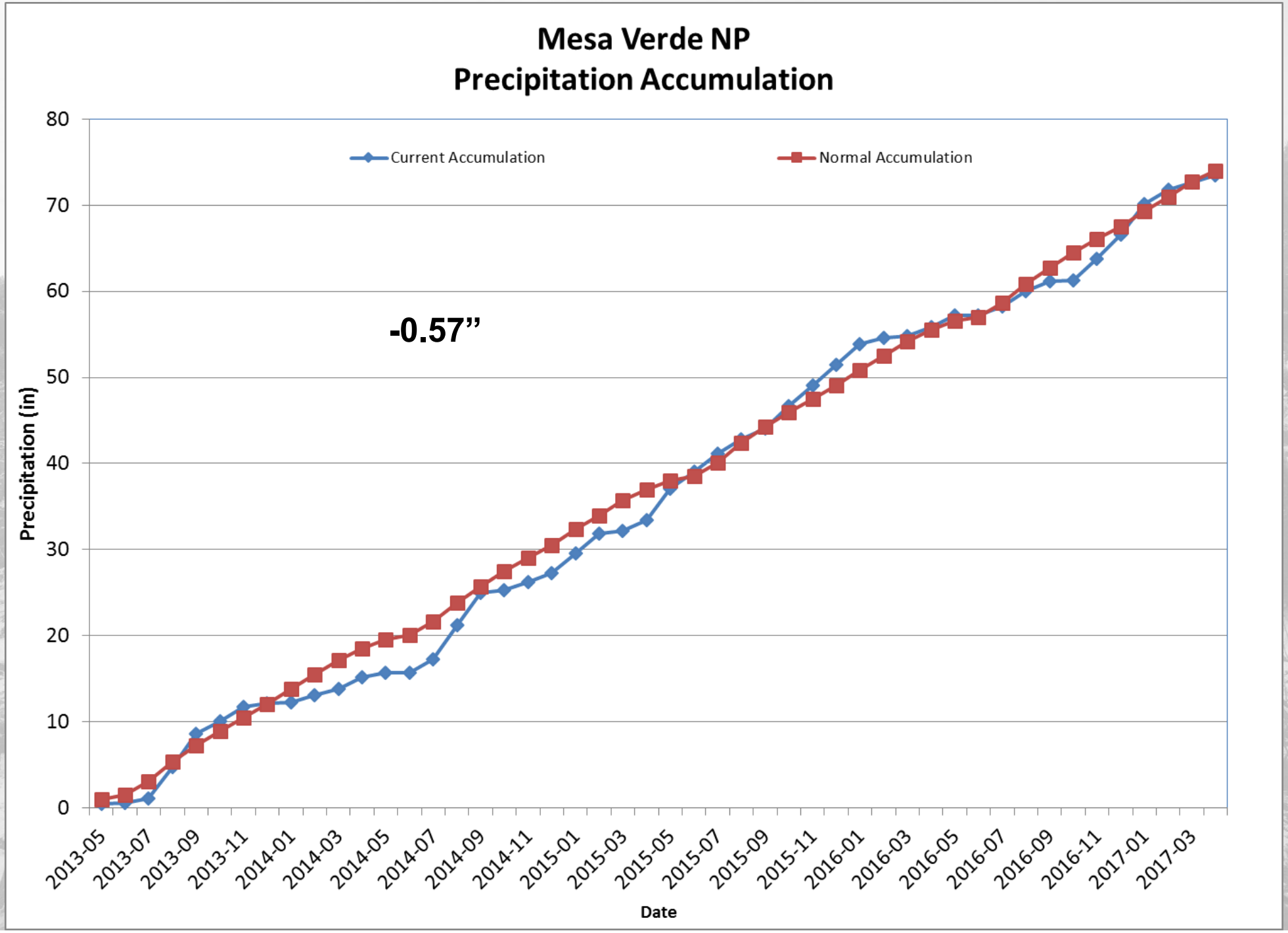
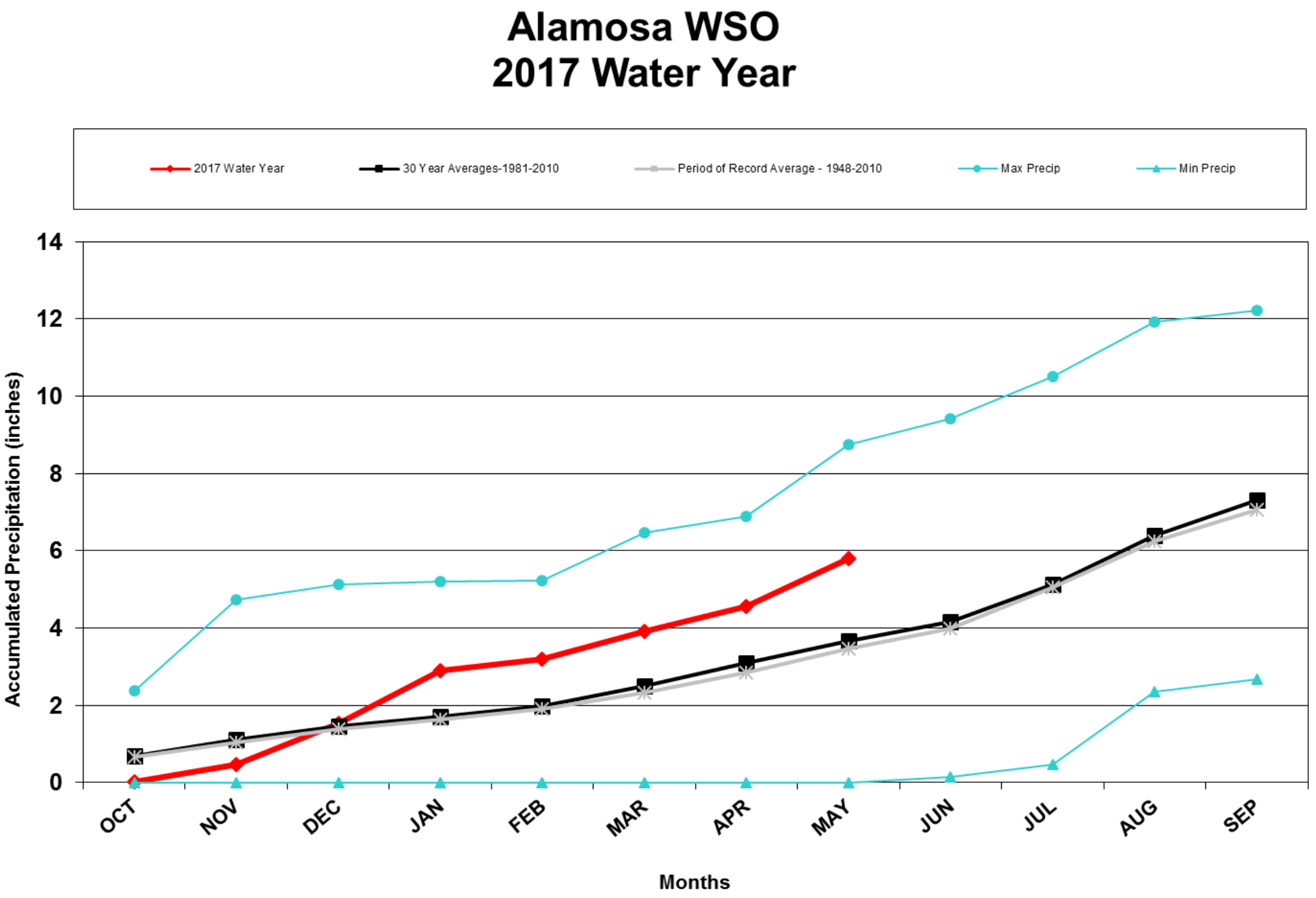


Division 4 – Alamosa



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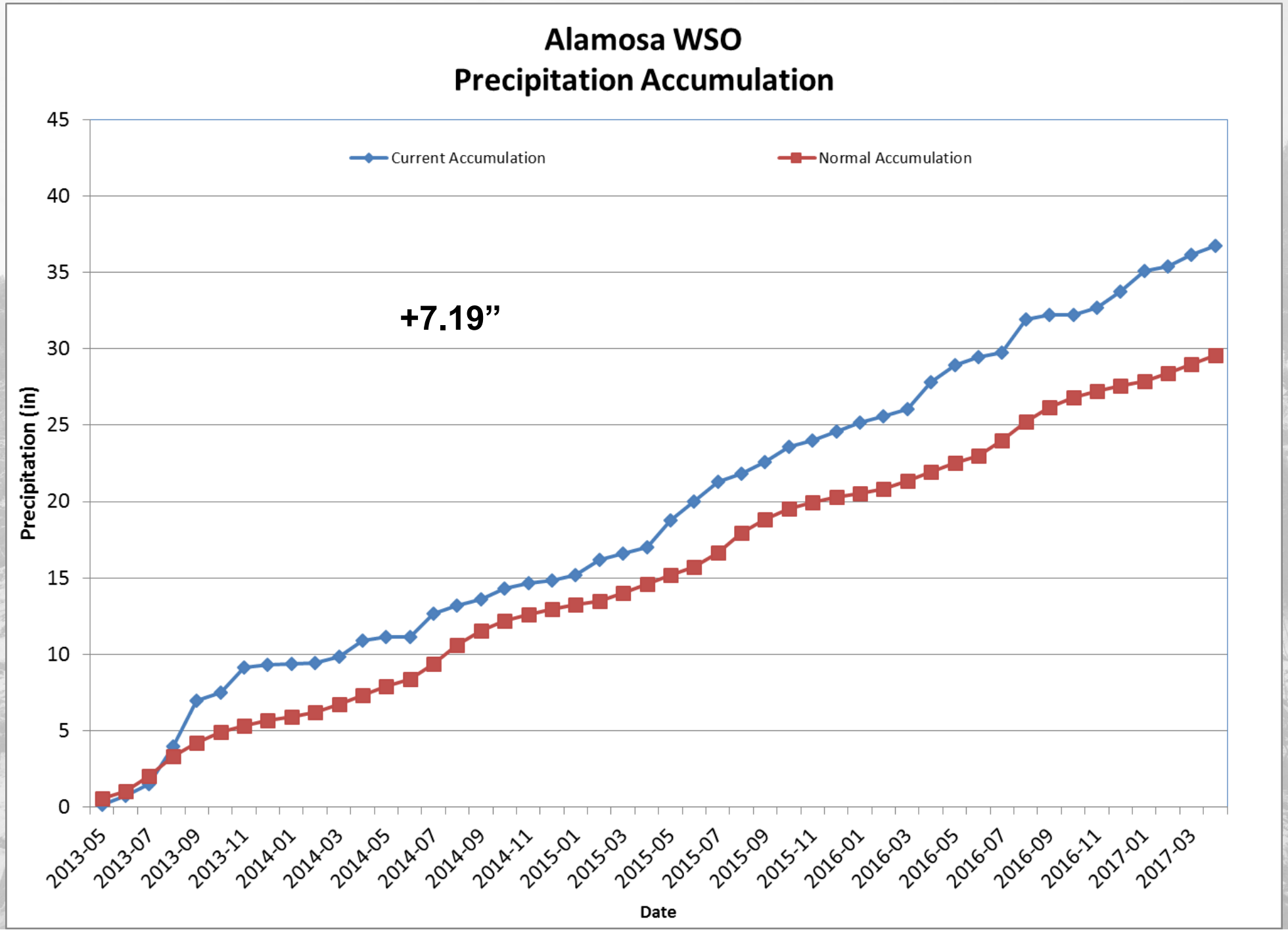
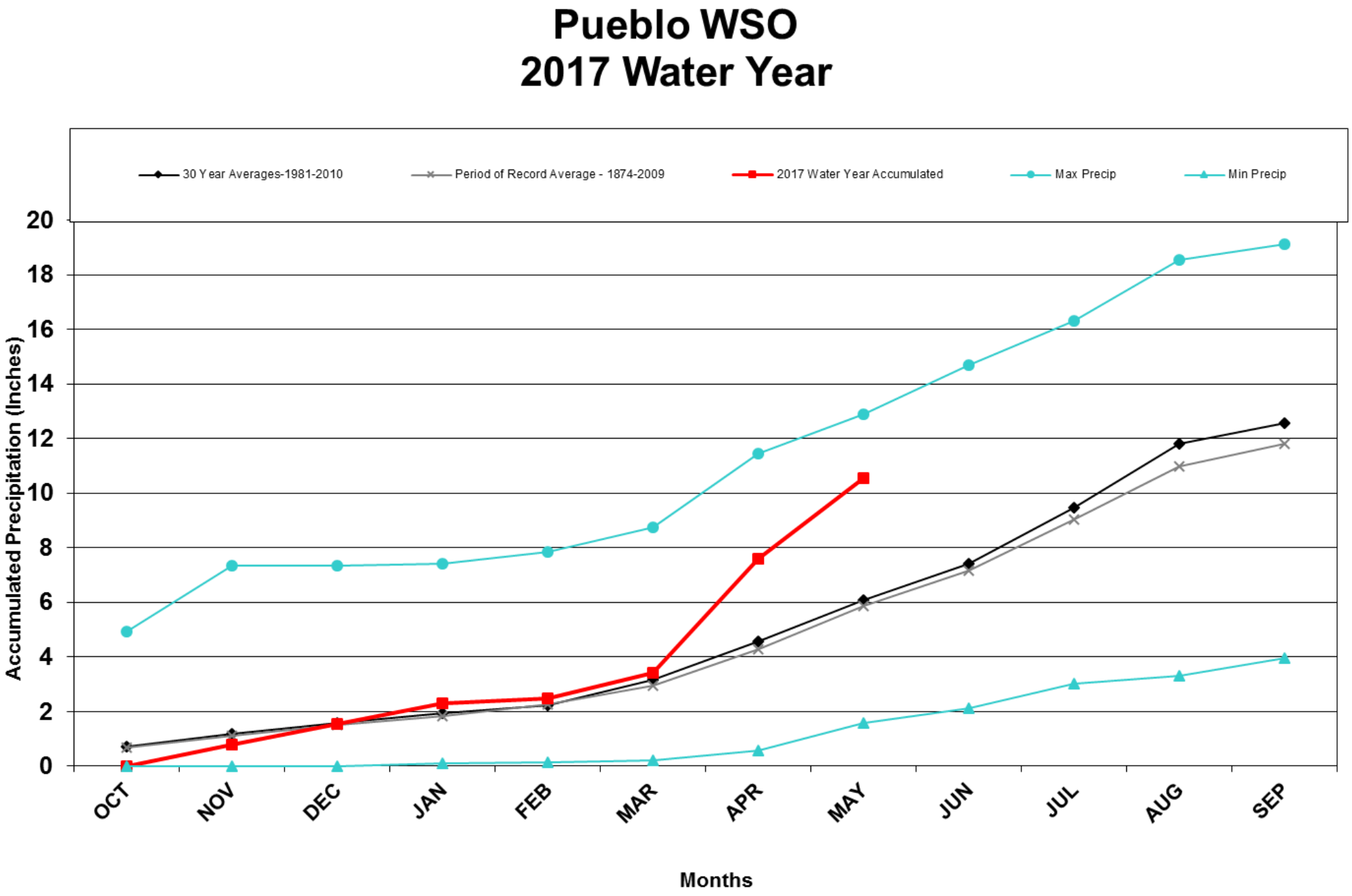
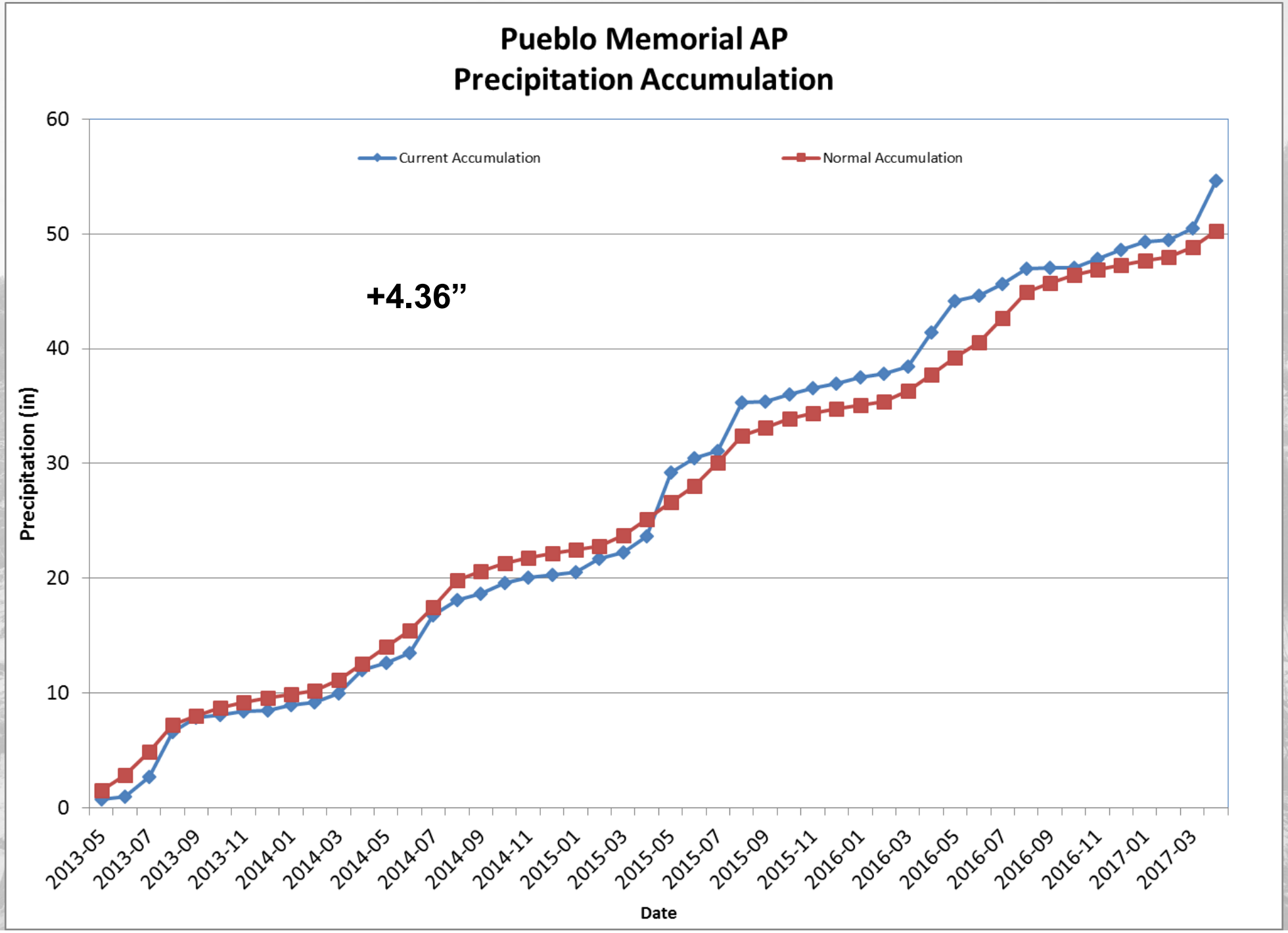


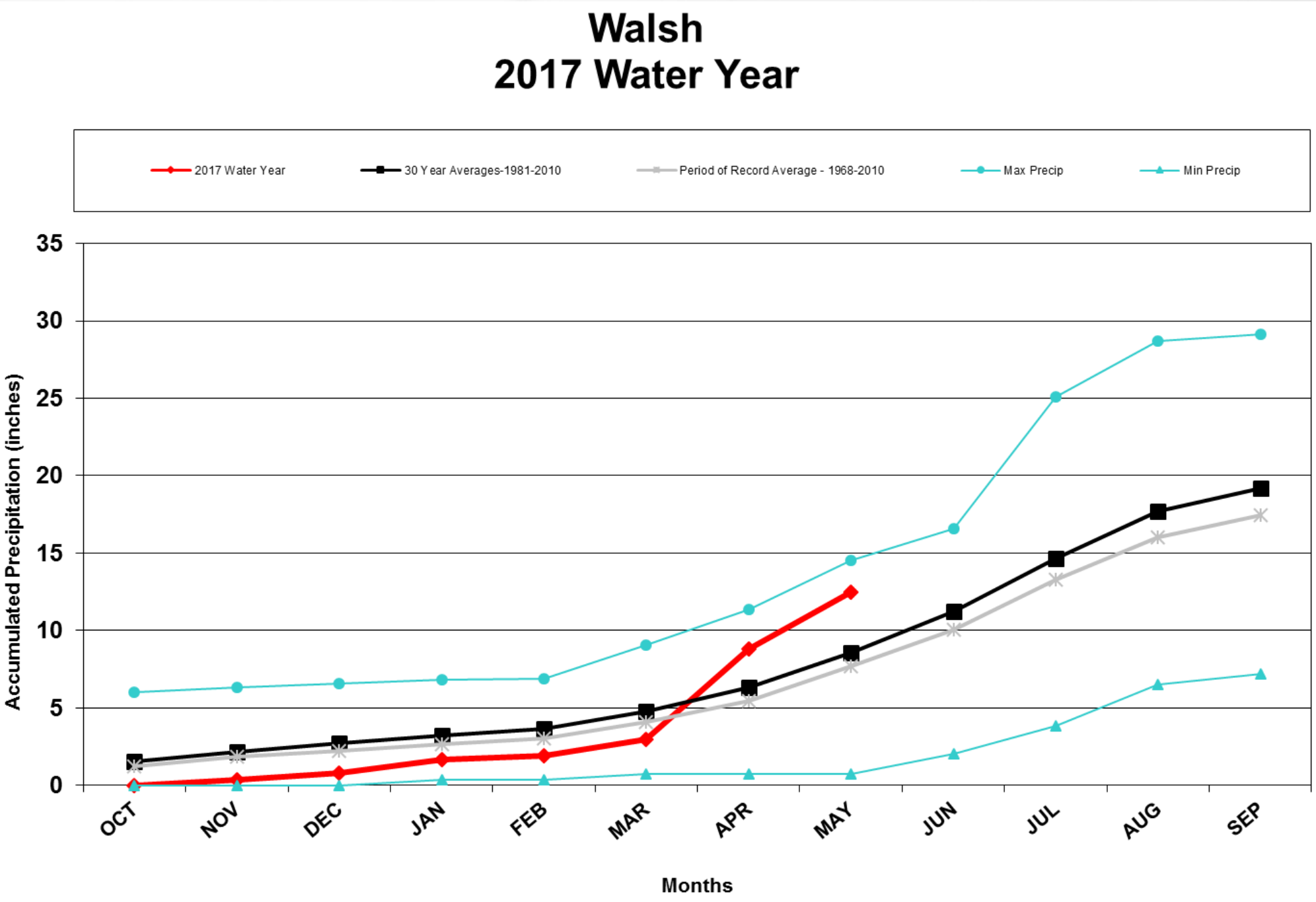
Division 5 – Pueblo



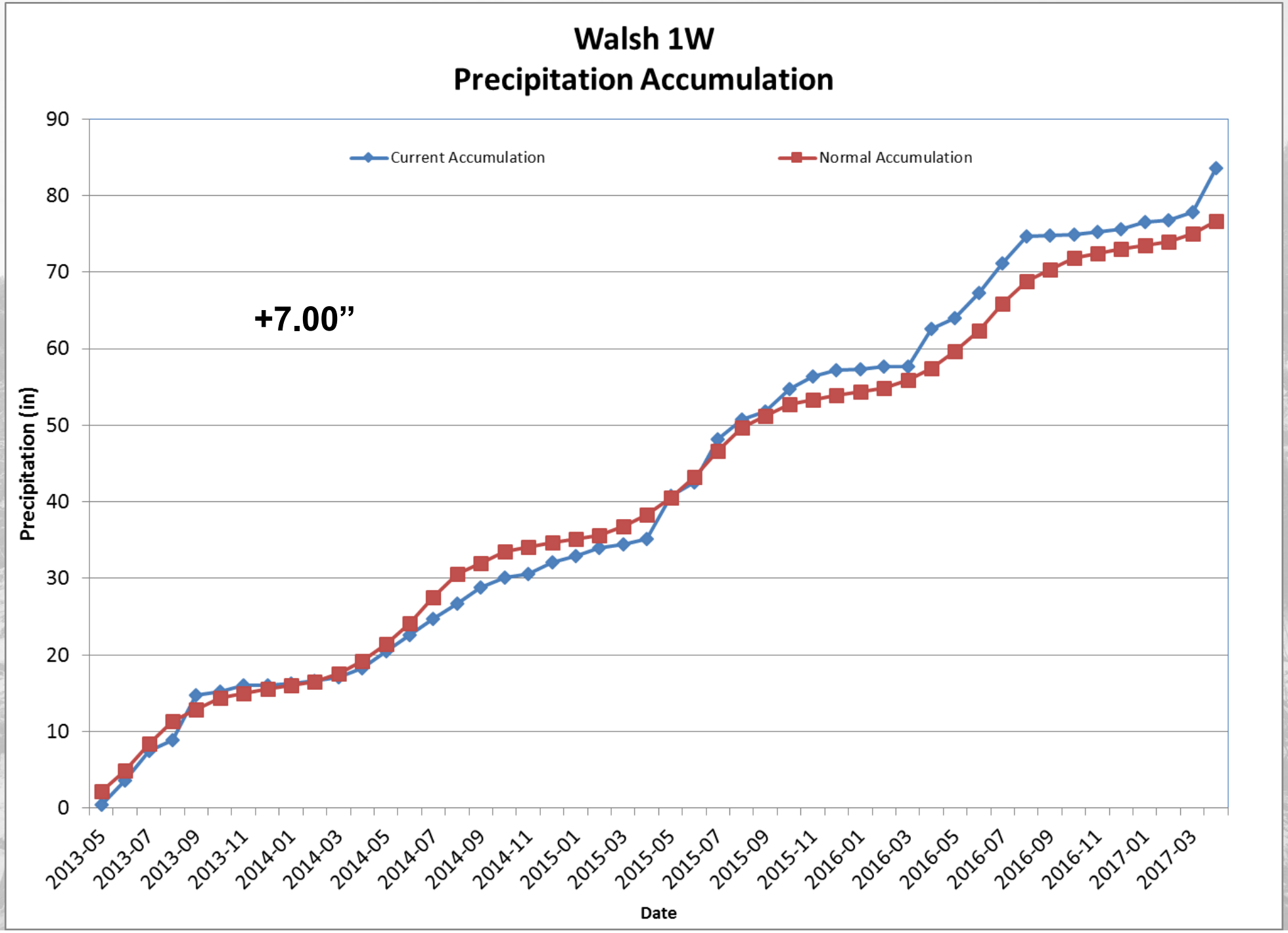
Division 5 – Pueblo



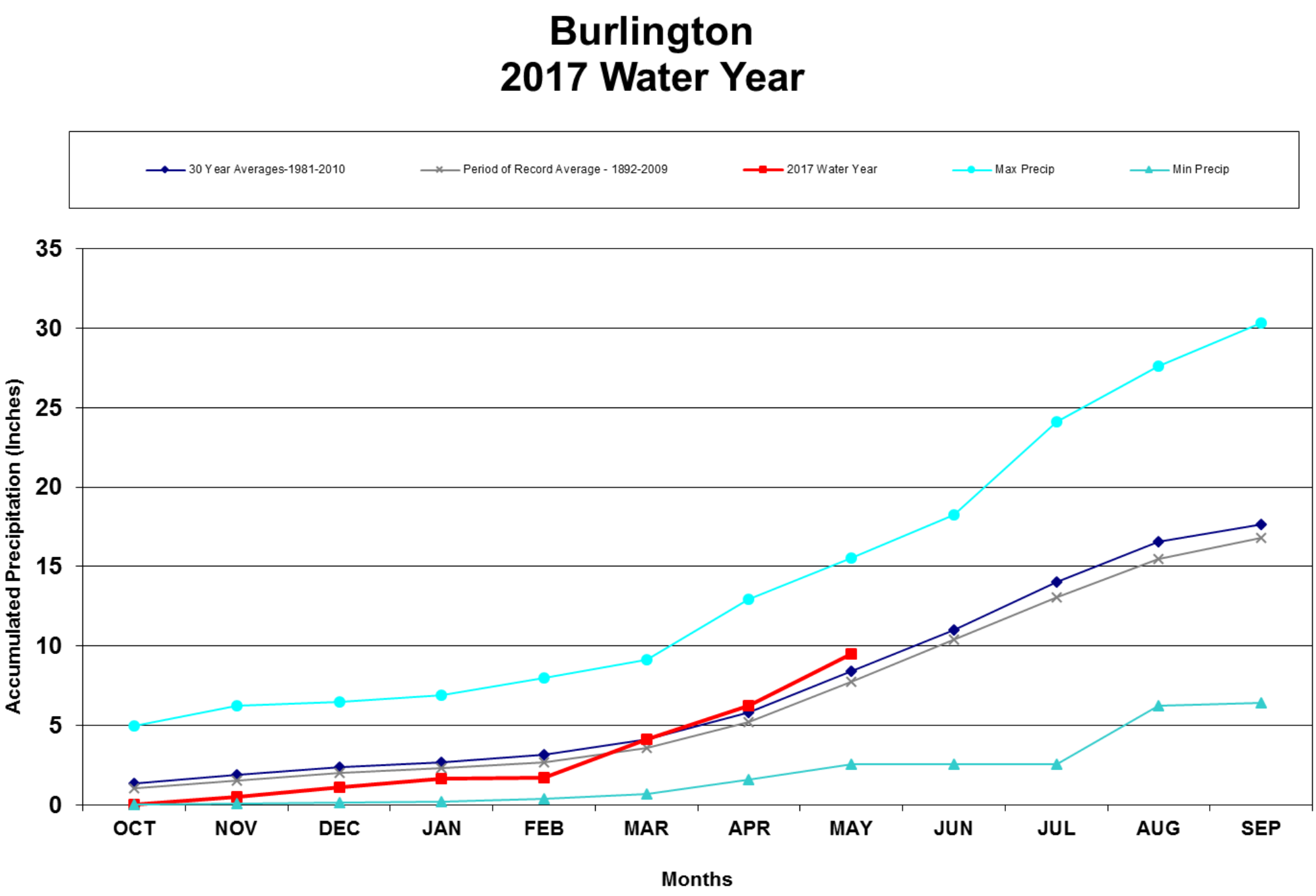
Division 6 - Walsh



Division 6 - Walsh



Division 6 - Burlington



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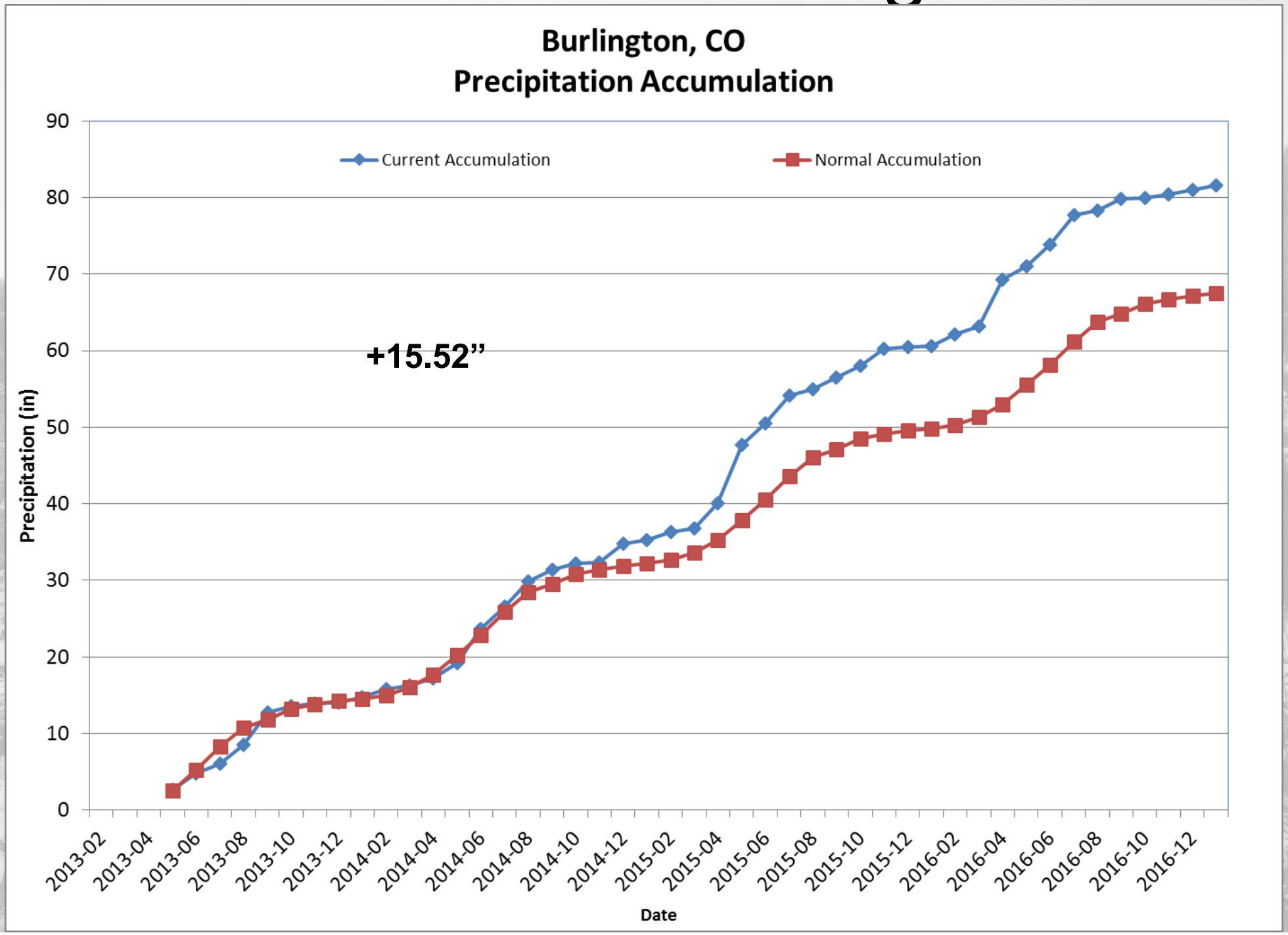
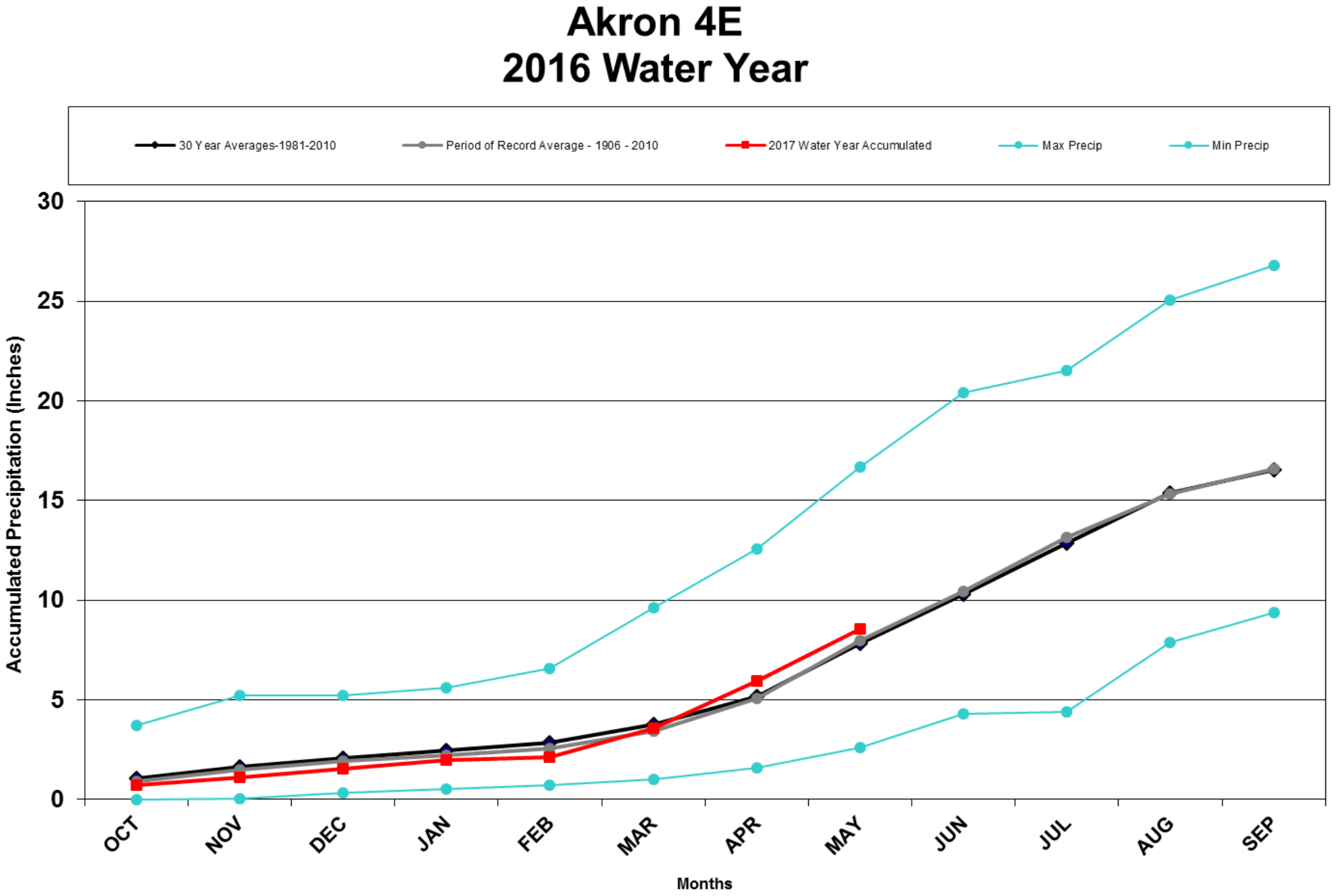
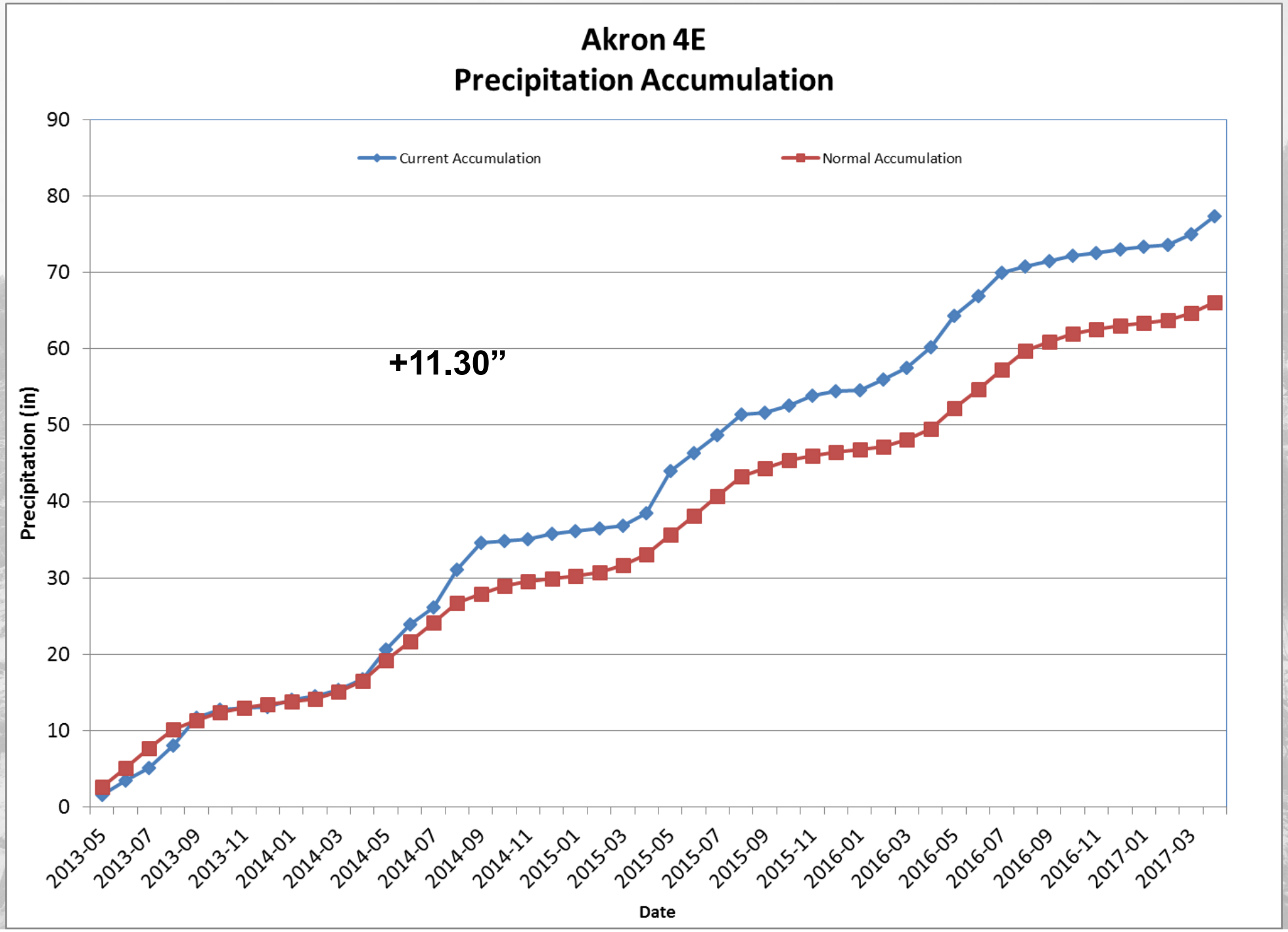


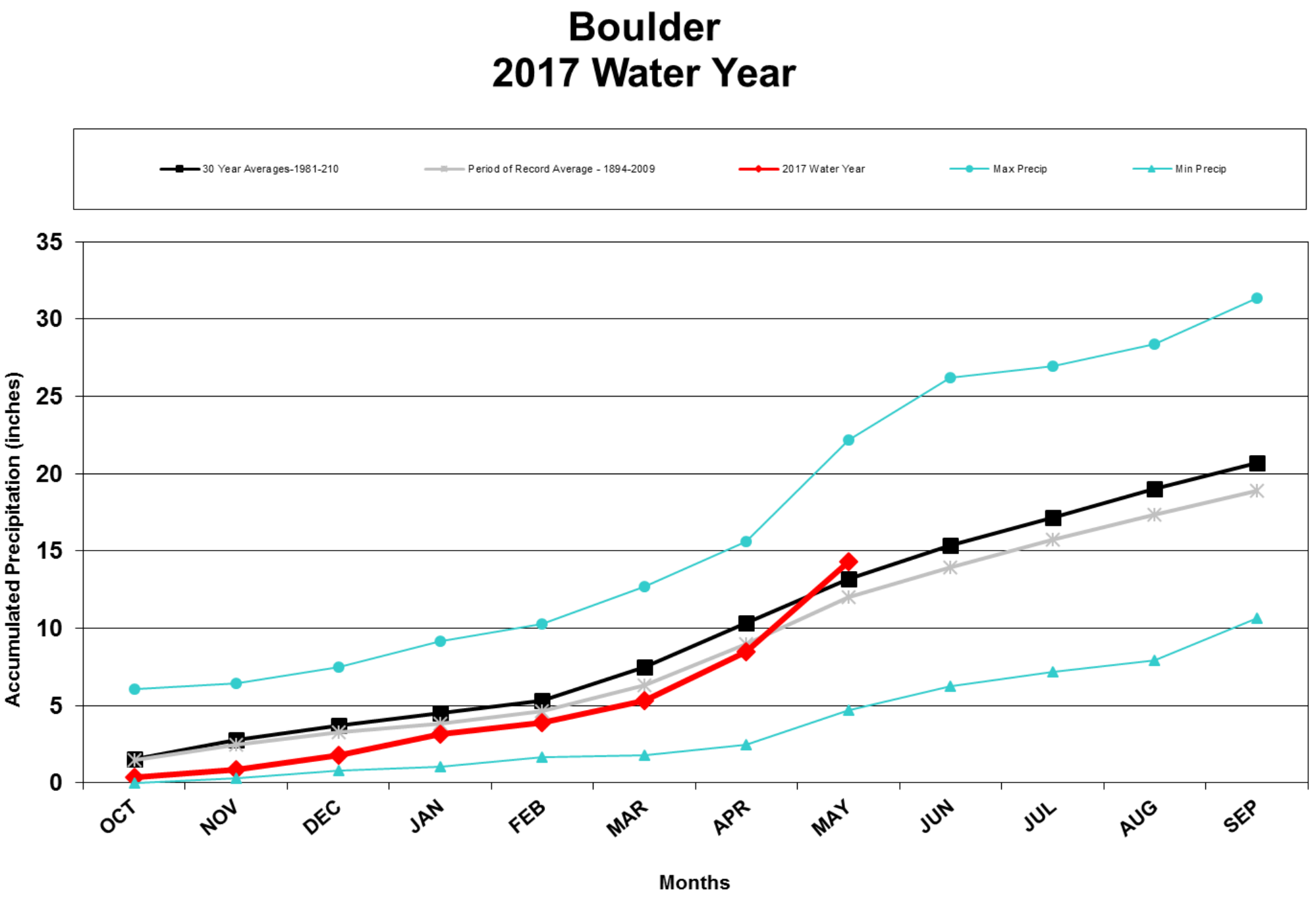
Division 7 – Akron



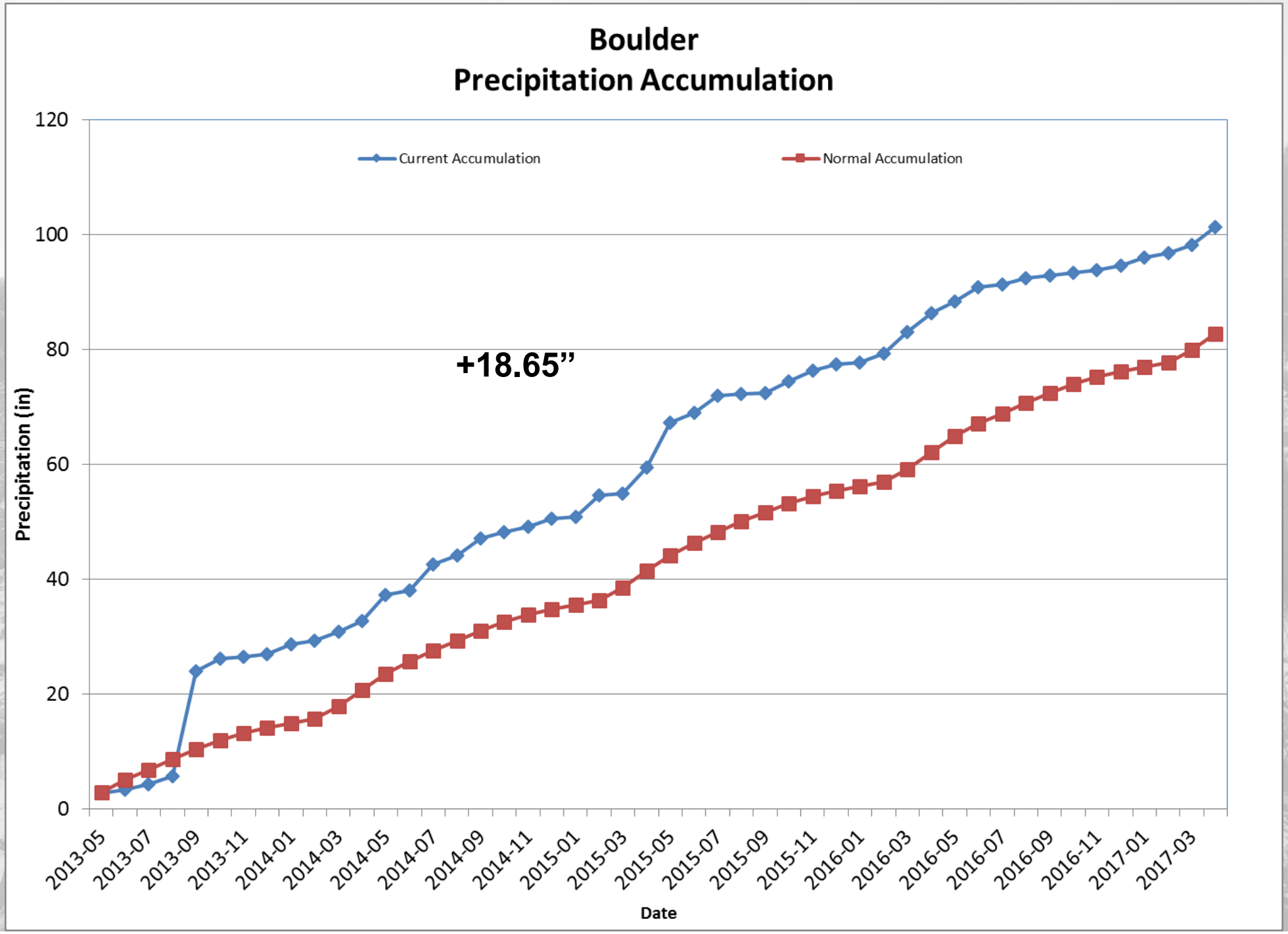
Division 7 – Akron



Division 8 - Boulder



Division 8 - Boulder

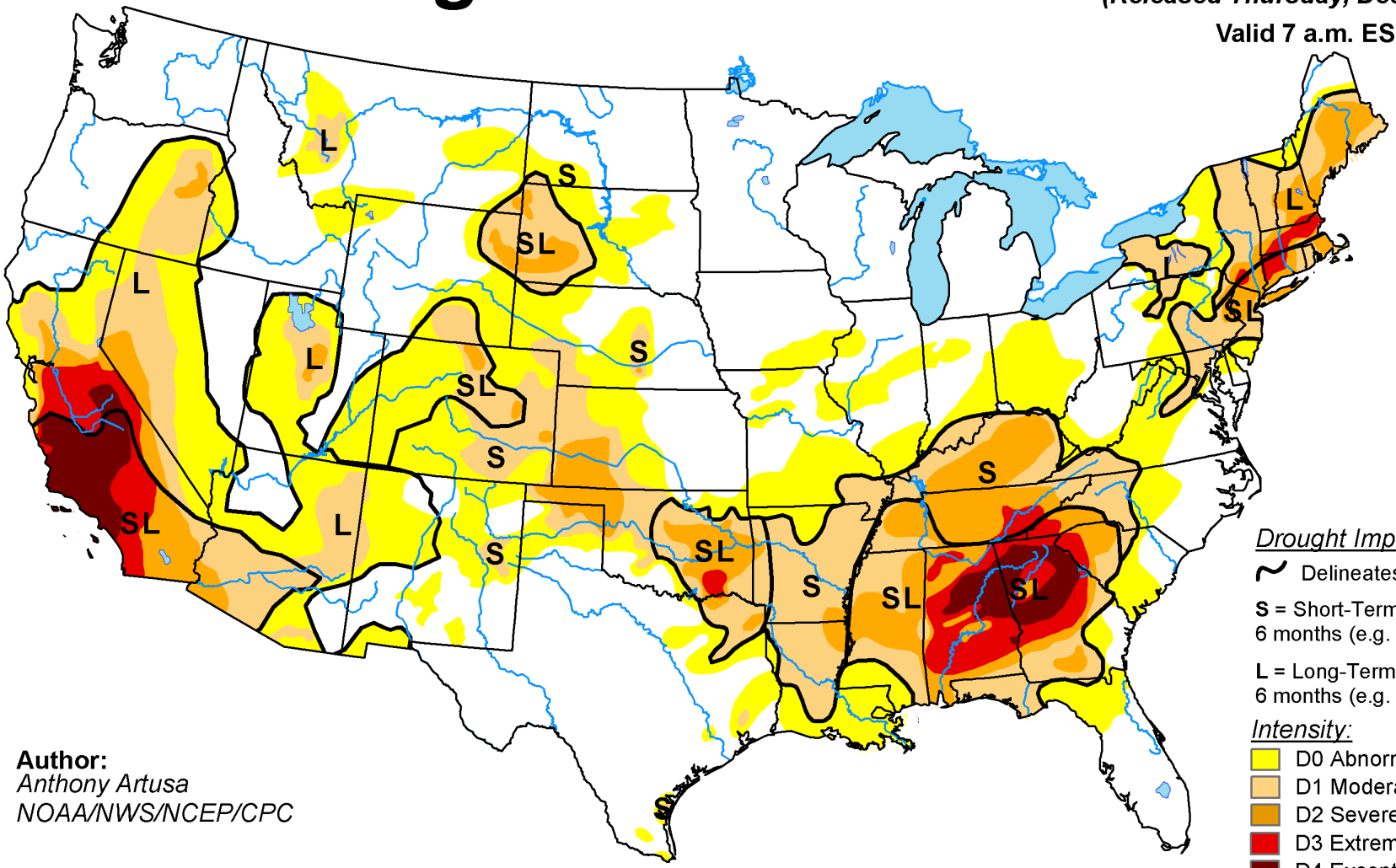


U.S. Drought Monitor

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

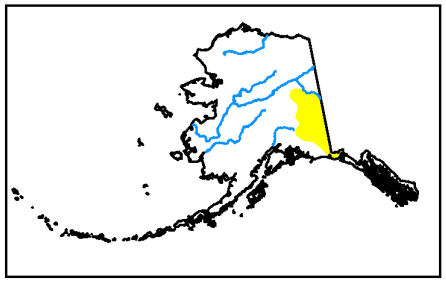
S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)

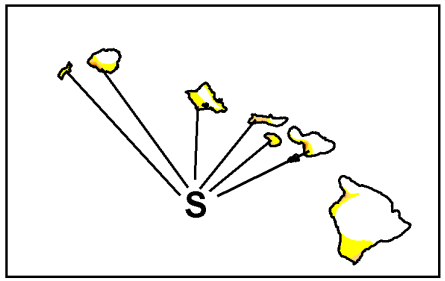
L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

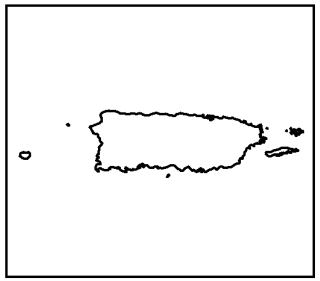
Intensity:

- 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.







USDA National Drought Mitigation Center

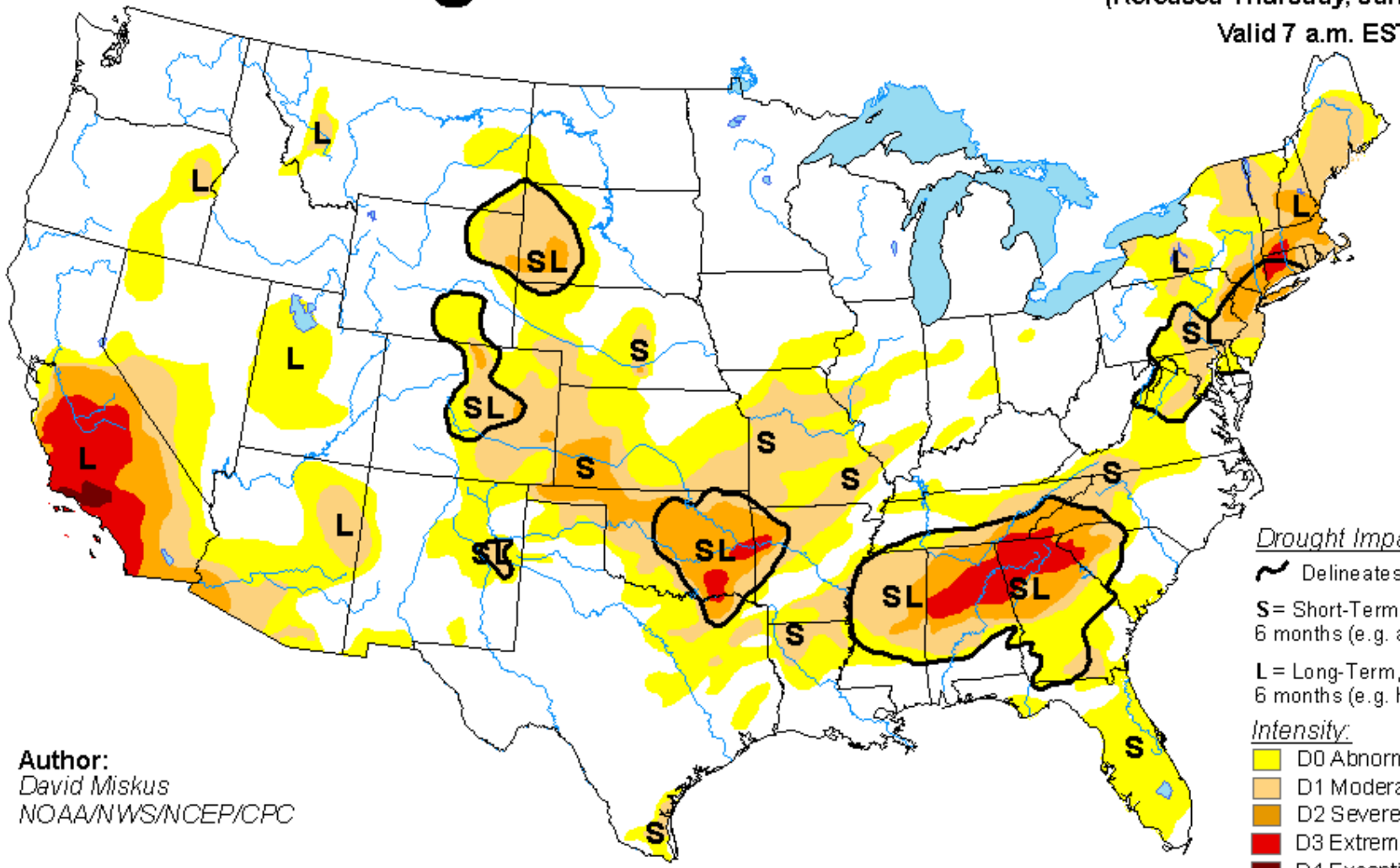
http://droughtmonitor.unl.edu/

U.S. Drought Monitor

January 10, 2017

(Released Thursday, Jan. 12, 2017)

Valid 7 a.m. EST



Author:
David Miskus
NOAA/NWS/NCEP/CPC

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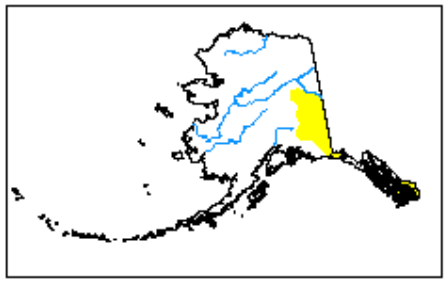
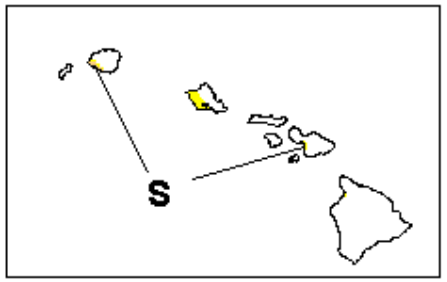
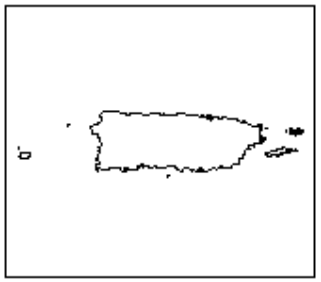






USDA

National Drought Mitigation Center

NOAA

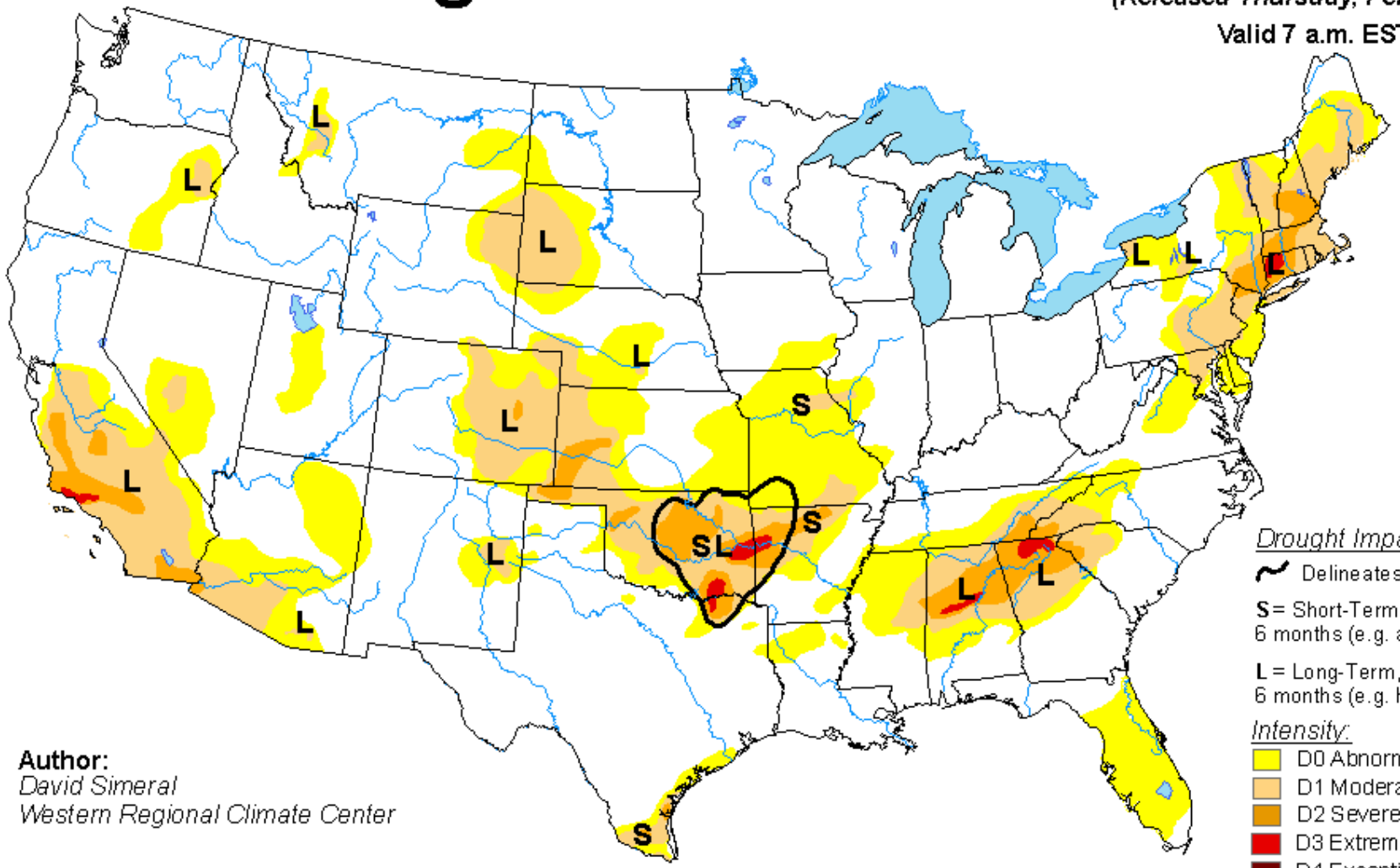
http://droughtmonitor.unl.edu/

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:

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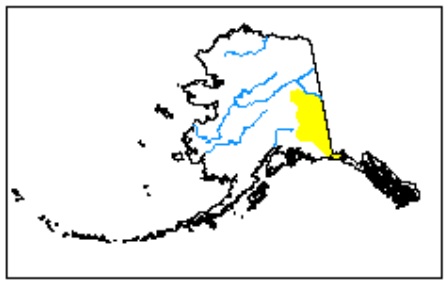
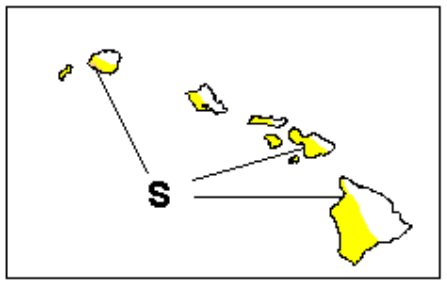
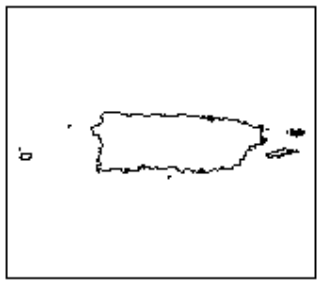






USDA

National Drought Mitigation Center

NOAA

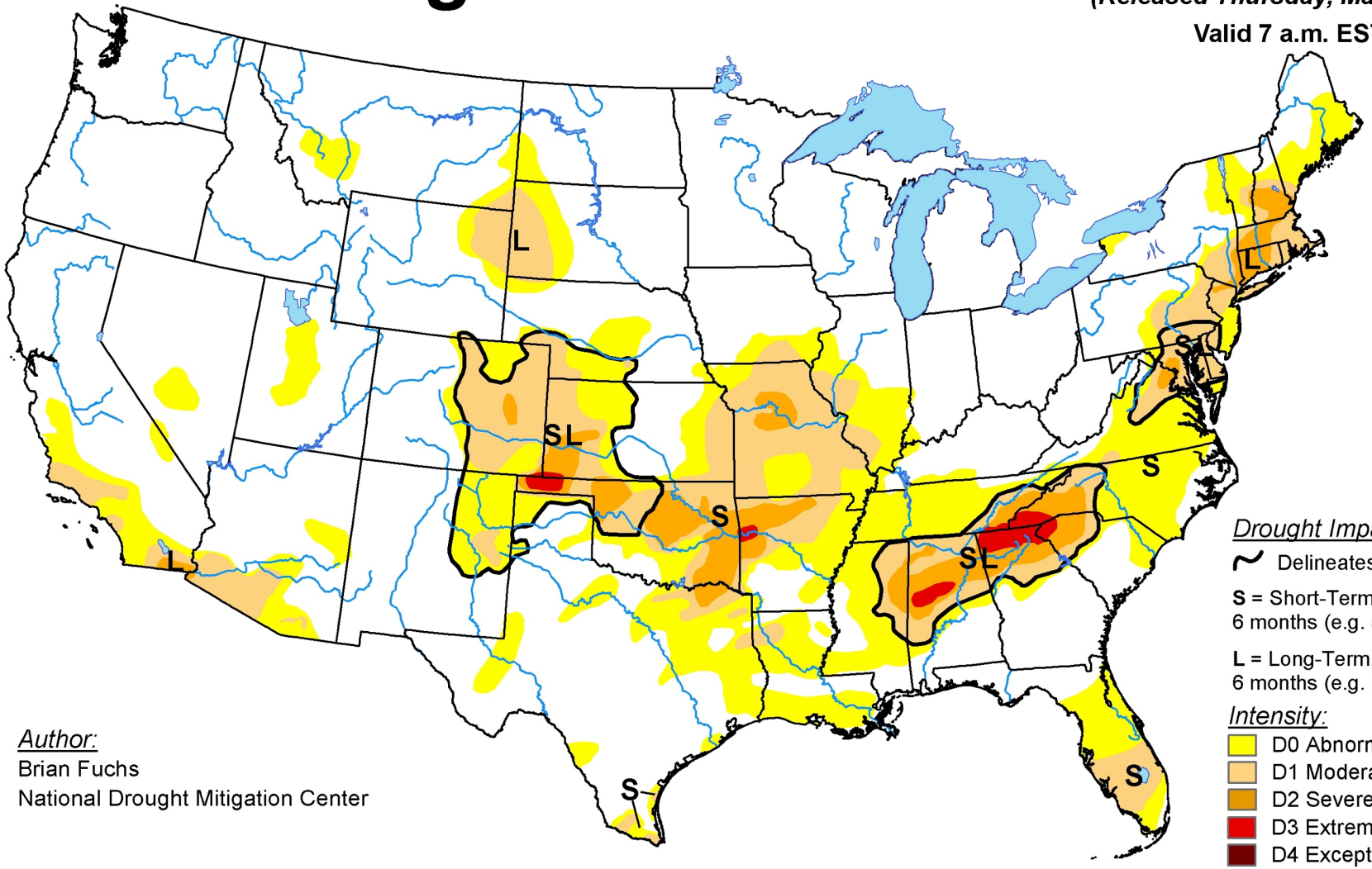
http://droughtmonitor.unl.edu/

U.S. Drought Monitor

March 7, 2017

(Released Thursday, Mar. 9, 2017)

Valid 7 a.m. EST



Author:
Brian Fuchs
National Drought Mitigation Center

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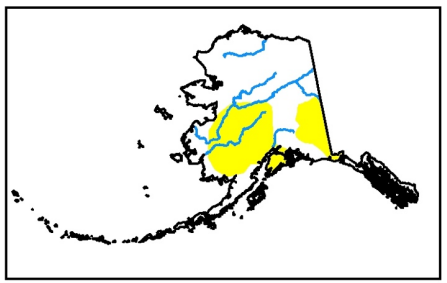
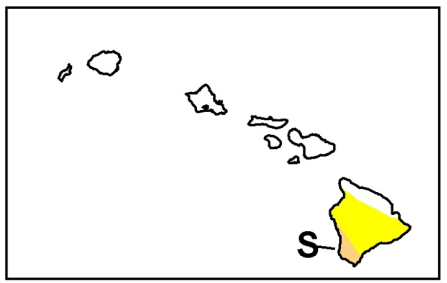
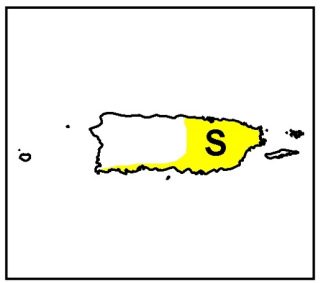






USDA NDMC

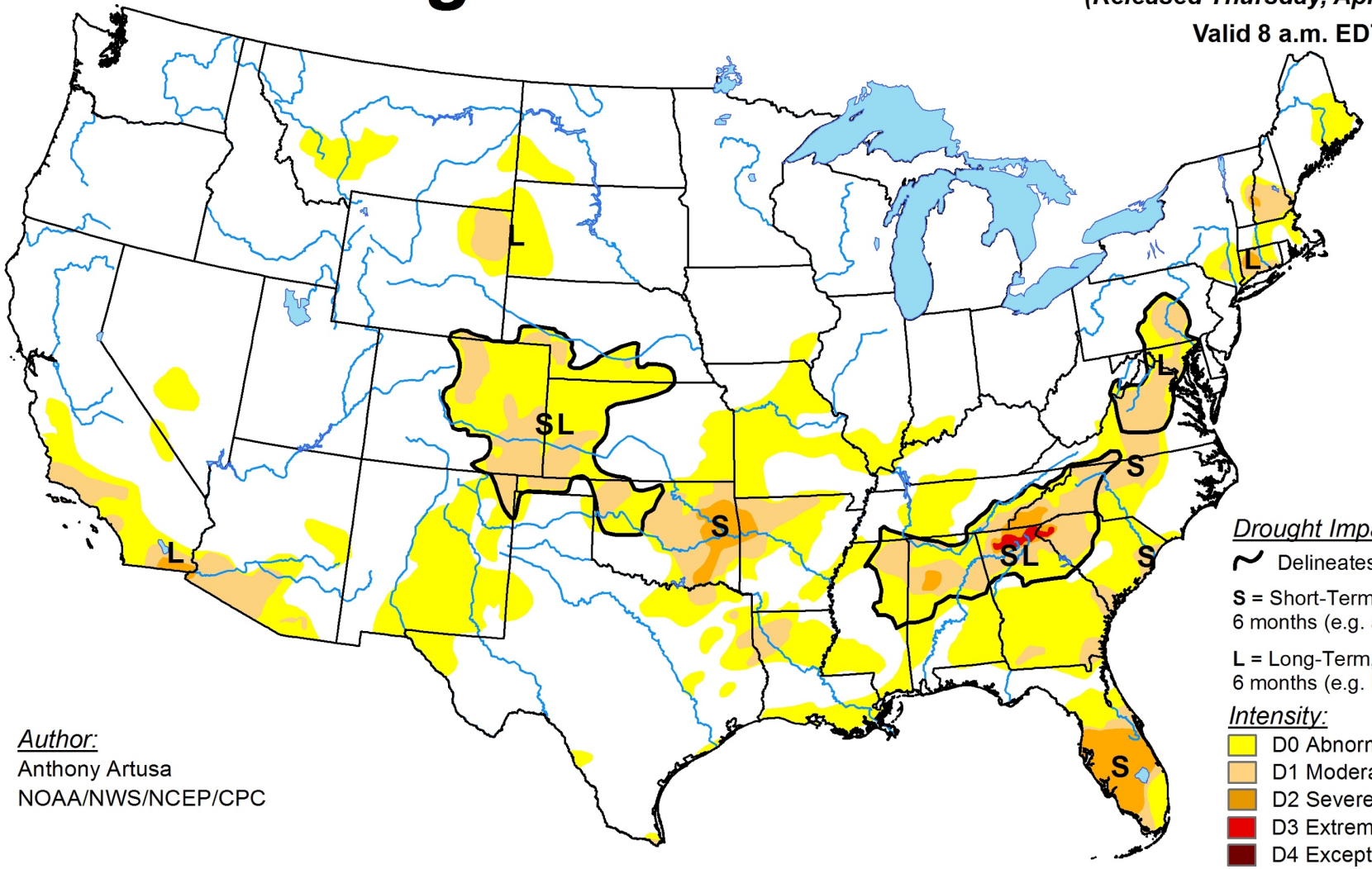
http://droughtmonitor.unl.edu/

U.S. Drought Monitor

April 11, 2017

(Released Thursday, Apr. 13, 2017)

Valid 8 a.m. EDT



Author:
Anthony Artusa
NOAA/NWS/NCEP/CPC

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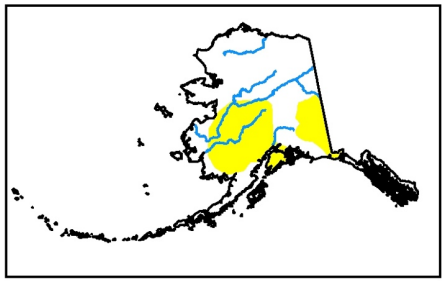
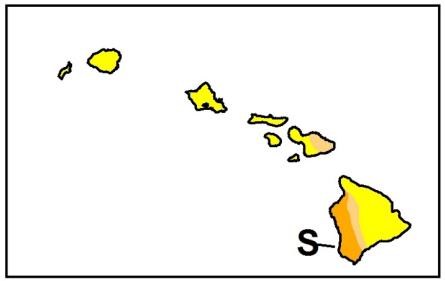
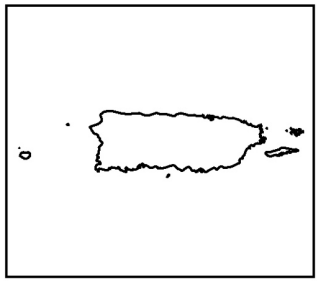
- D4 Exceptional Drought







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

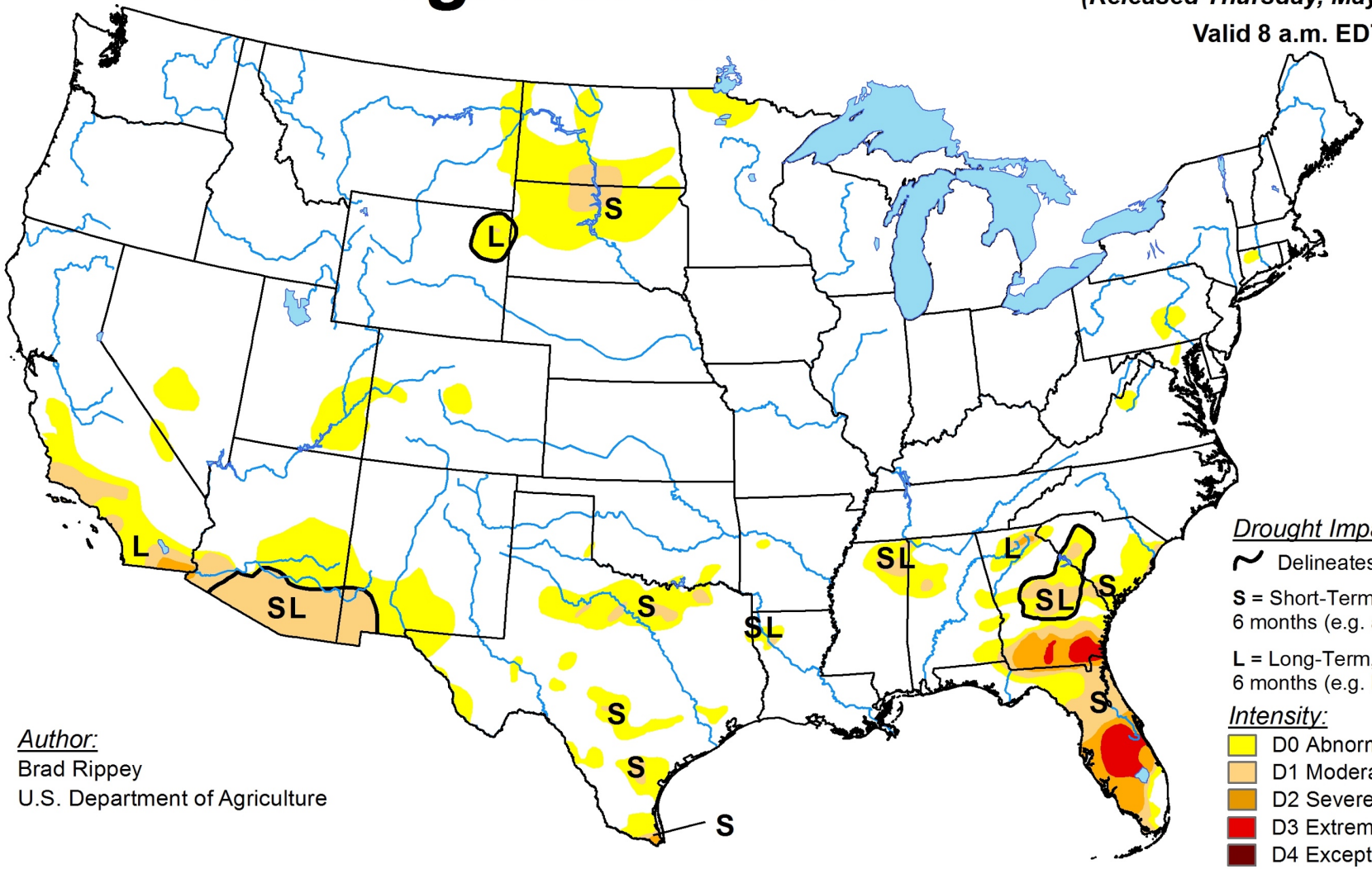
http://droughtmonitor.unl.edu/

U.S. Drought Monitor

May 23, 2017

(Released Thursday, May. 25, 2017)

Valid 8 a.m. EDT



Author:
Brad Rippey
U.S. Department of Agriculture

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

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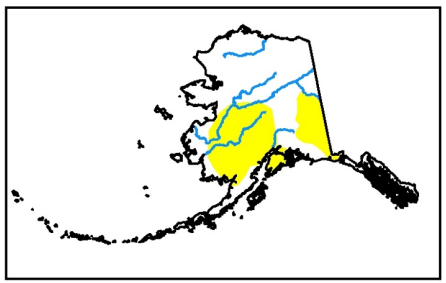
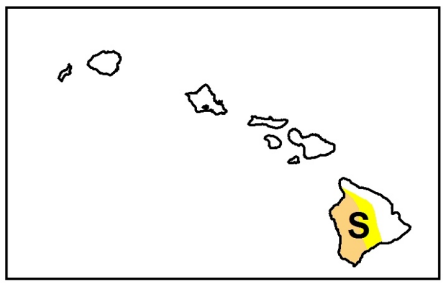
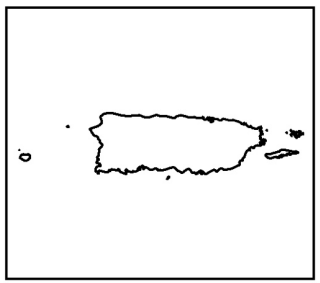




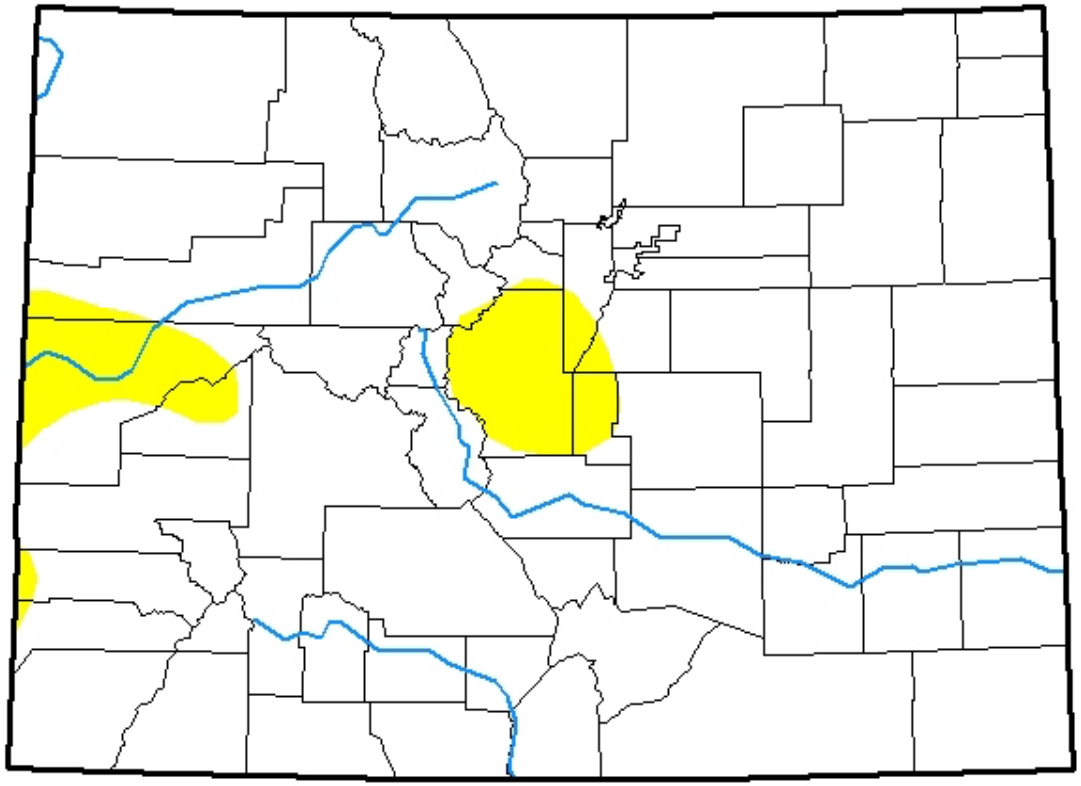


USDA NDMC

http://droughtmonitor.unl.edu/

U.S. Drought Monitor

Colorado



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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 *05-16-2017*	81.26	18.74	0.41	0.00	0.00	0.00
3 Months Ago *02-21-2017*	48.05	51.95	36.92	1.64	0.00	0.00
Start of Calendar Year *01-03-2017*	31.88	68.12	37.21	2.88	0.00	0.00
Start of Water Year *09-27-2016*	70.49	29.51	2.45	0.00	0.00	0.00
One Year Ago *05-24-2016*	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.

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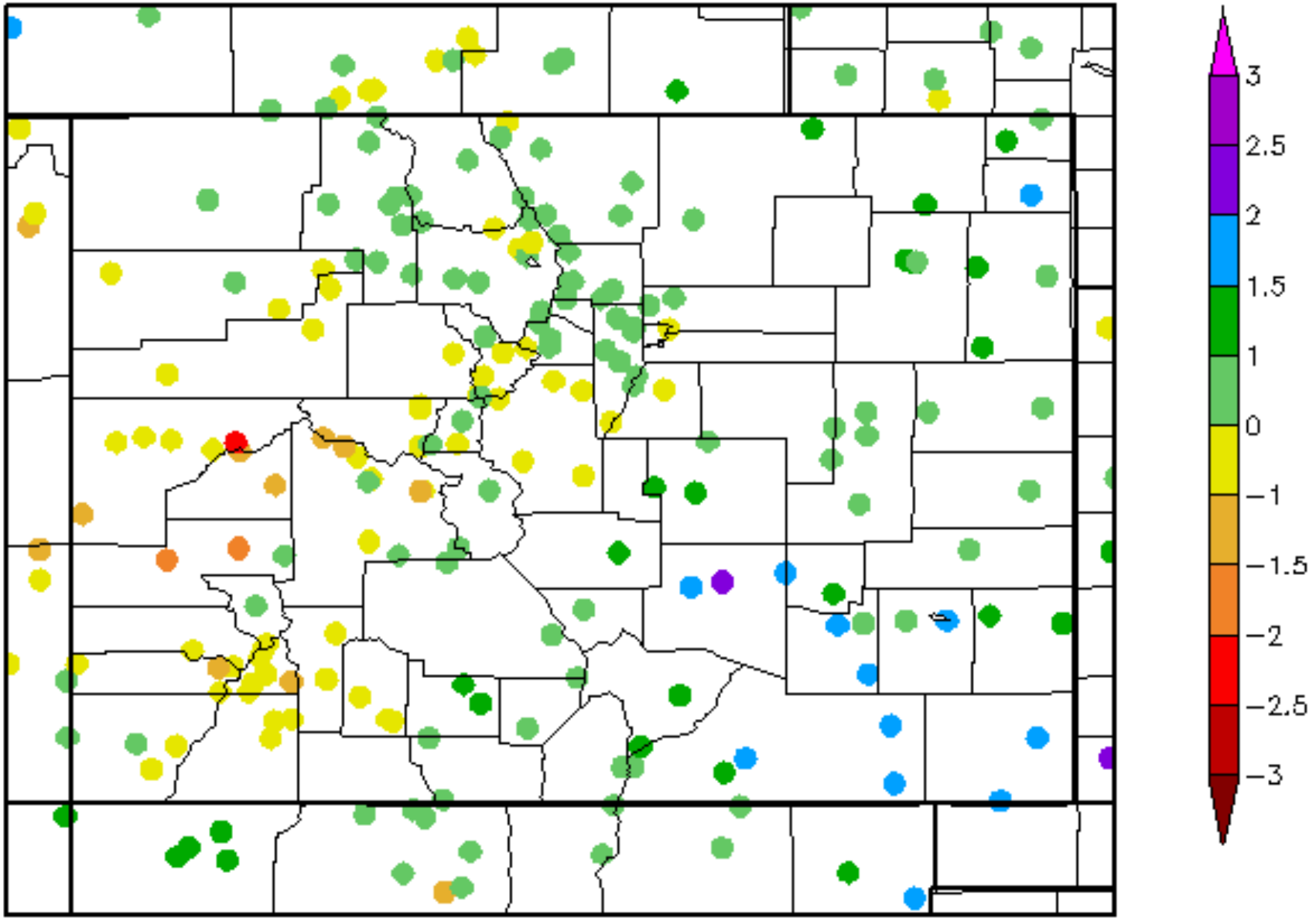
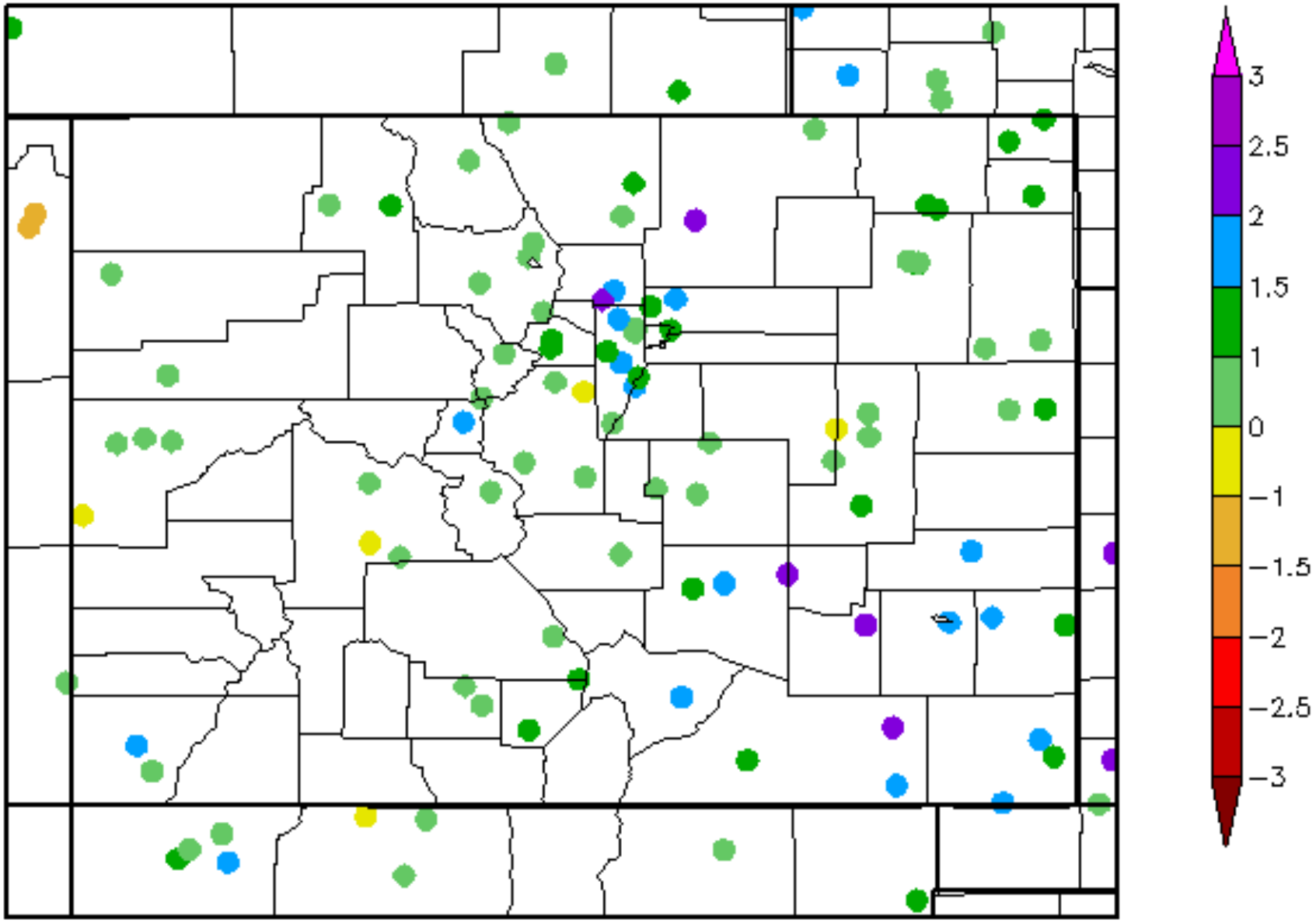
Monthly SPI
4/1/2017 – 4/30/2017



Generated 5/11/2017 at HPRCC using provisional data.

Regional Climate Centers

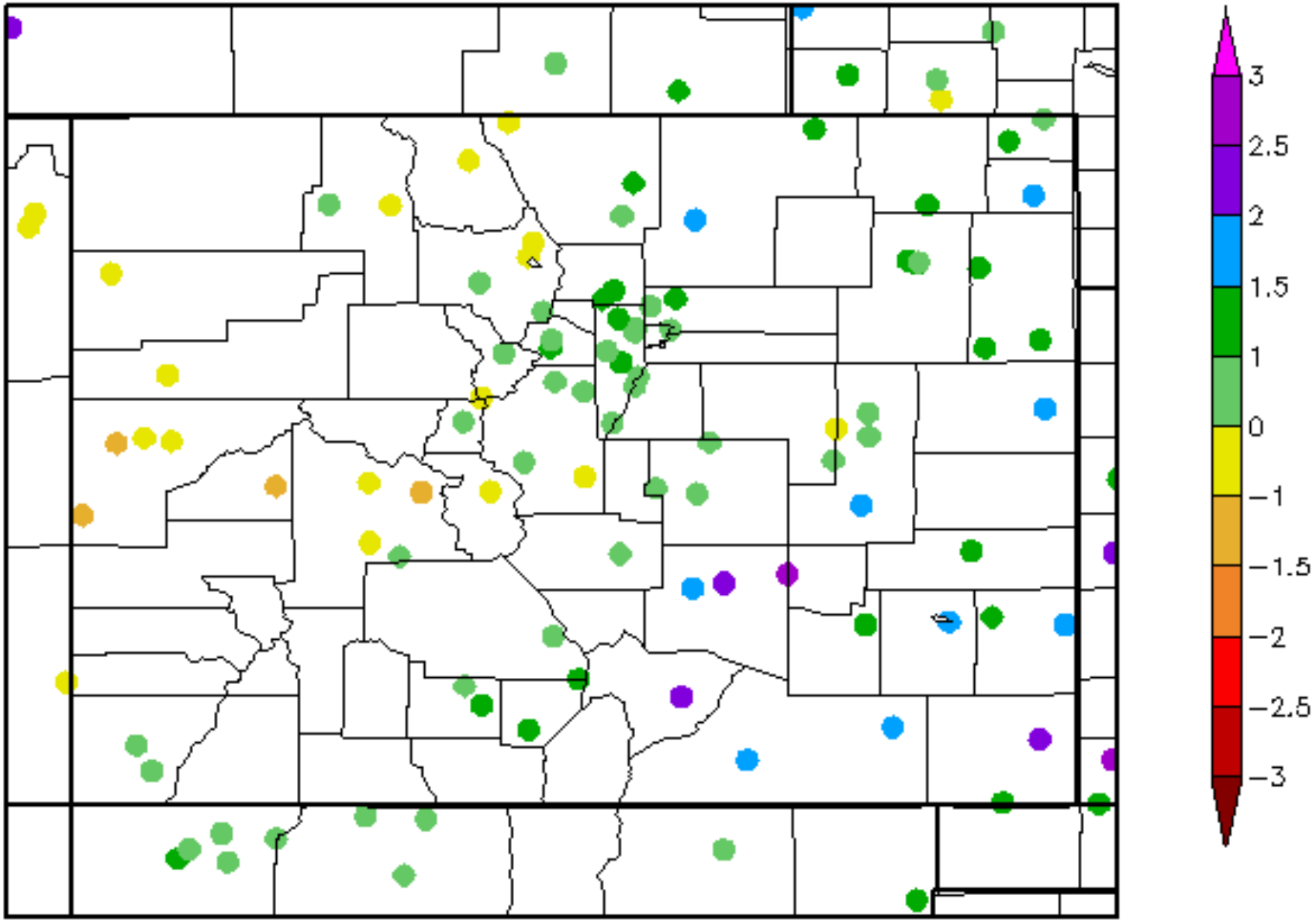
30 Day SPI
4/24/2017 – 5/23/2017



Generated 5/24/2017 at HPRCC using provisional data.

Regional Climate Centers

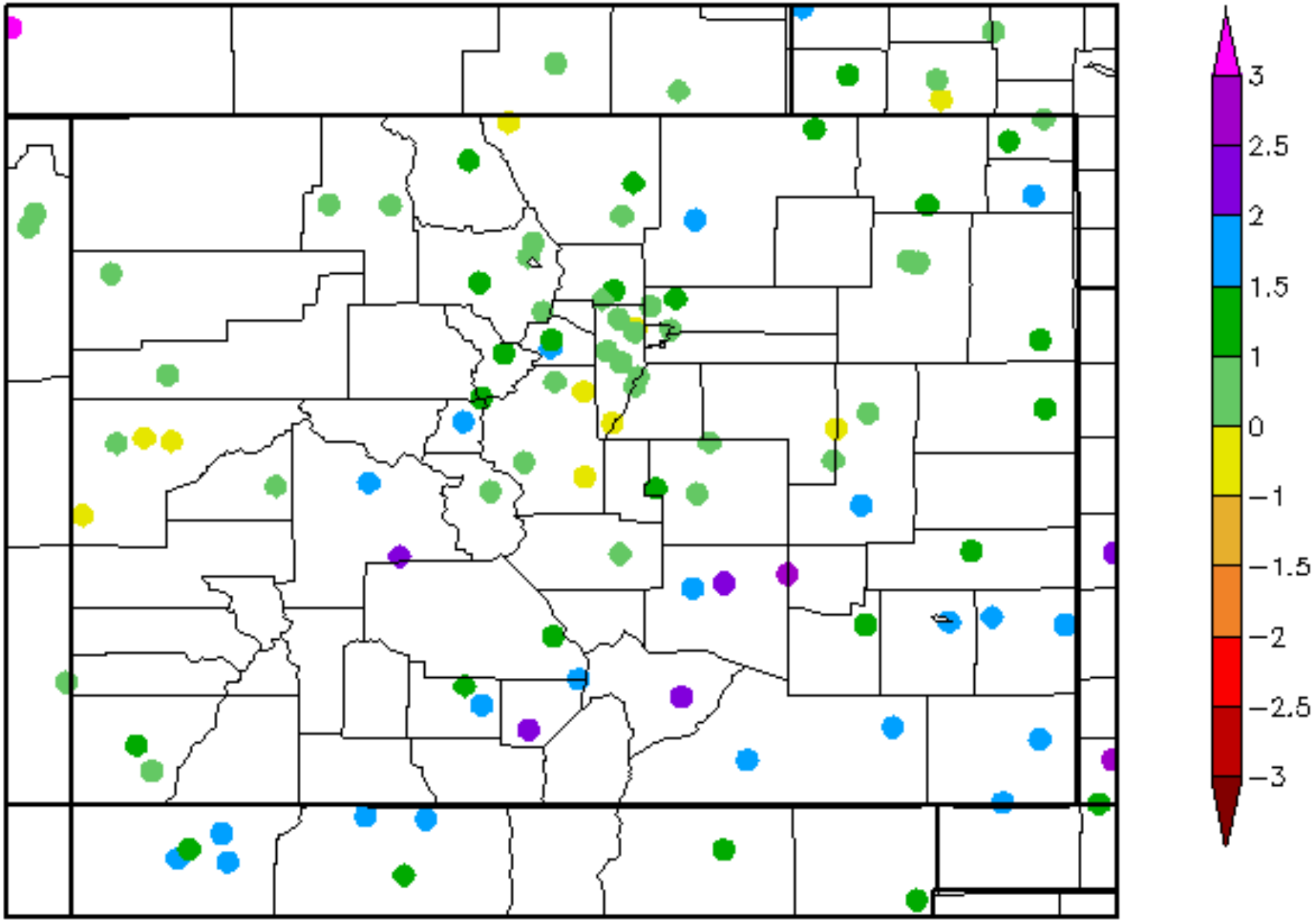
90 Day SPI
2/23/2017 – 5/23/2017



Generated 5/24/2017 at HPRCC using provisional data.

Regional Climate Centers

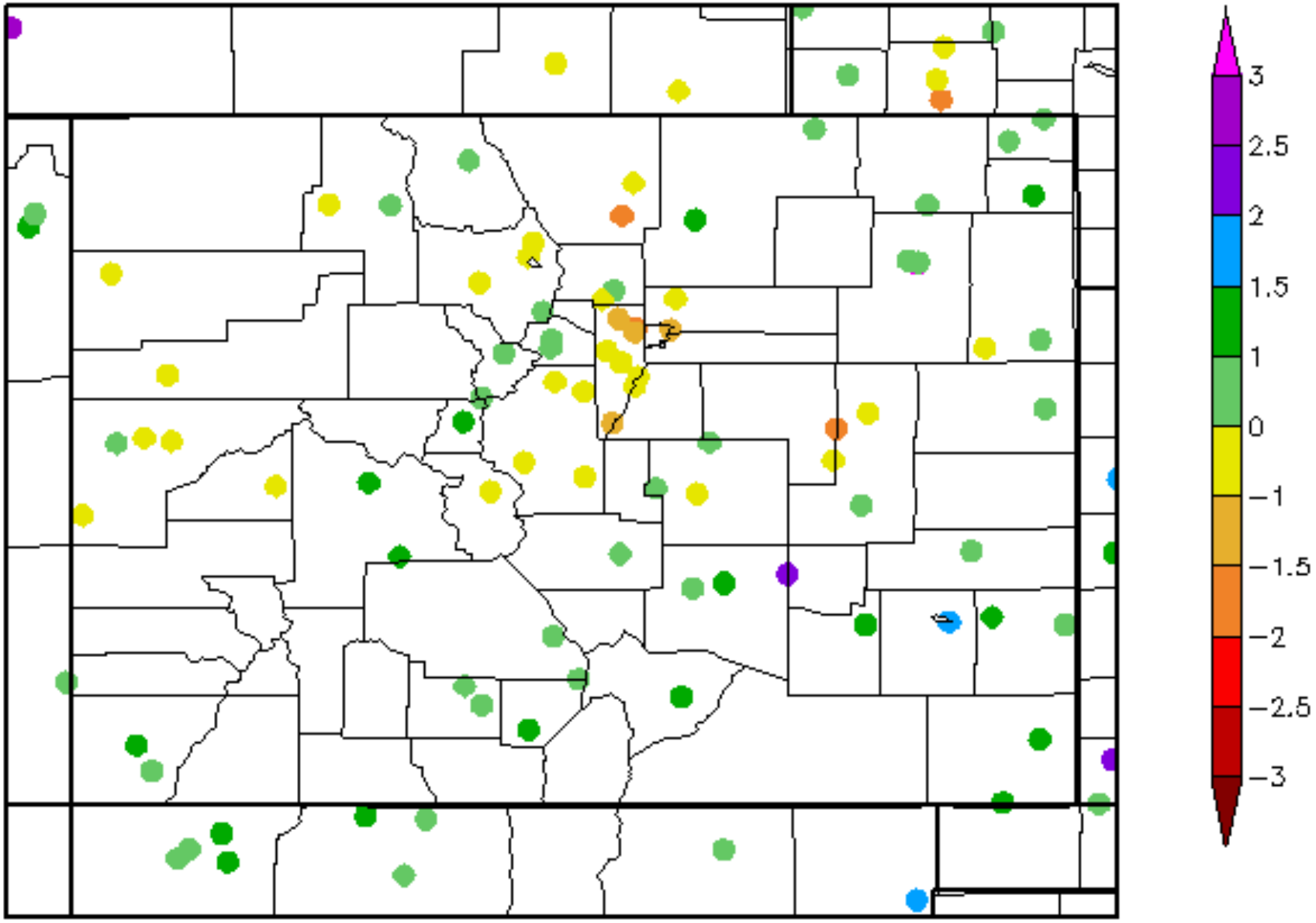
6 Month SPI
11/24/2016 – 5/23/2017



Generated 5/24/2017 at HPRCC using provisional data.

Regional Climate Centers

12 Month SPI
5/24/2016 – 5/23/2017



Generated 5/24/2017 at HPRCC using provisional data.

Regional Climate Centers

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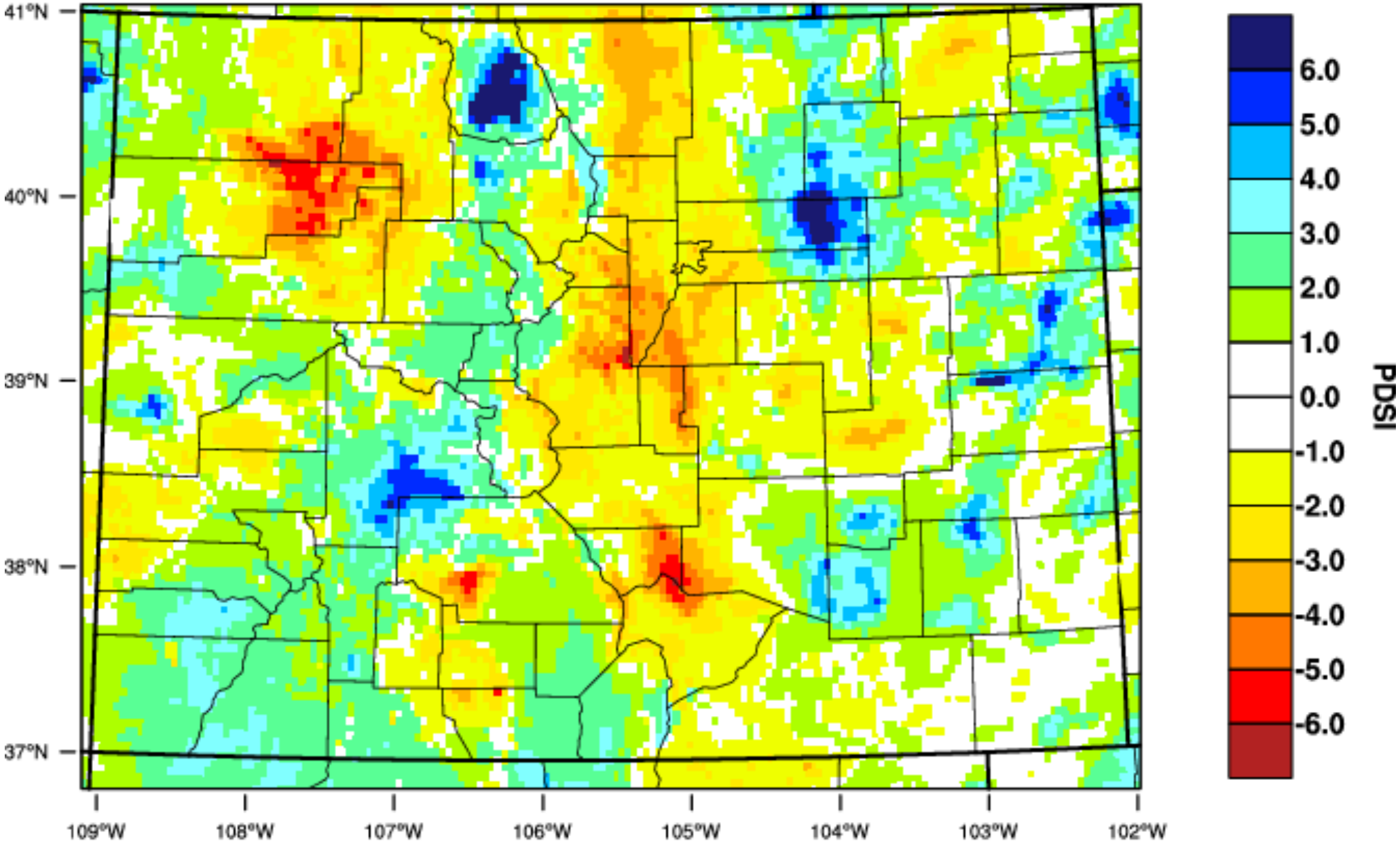
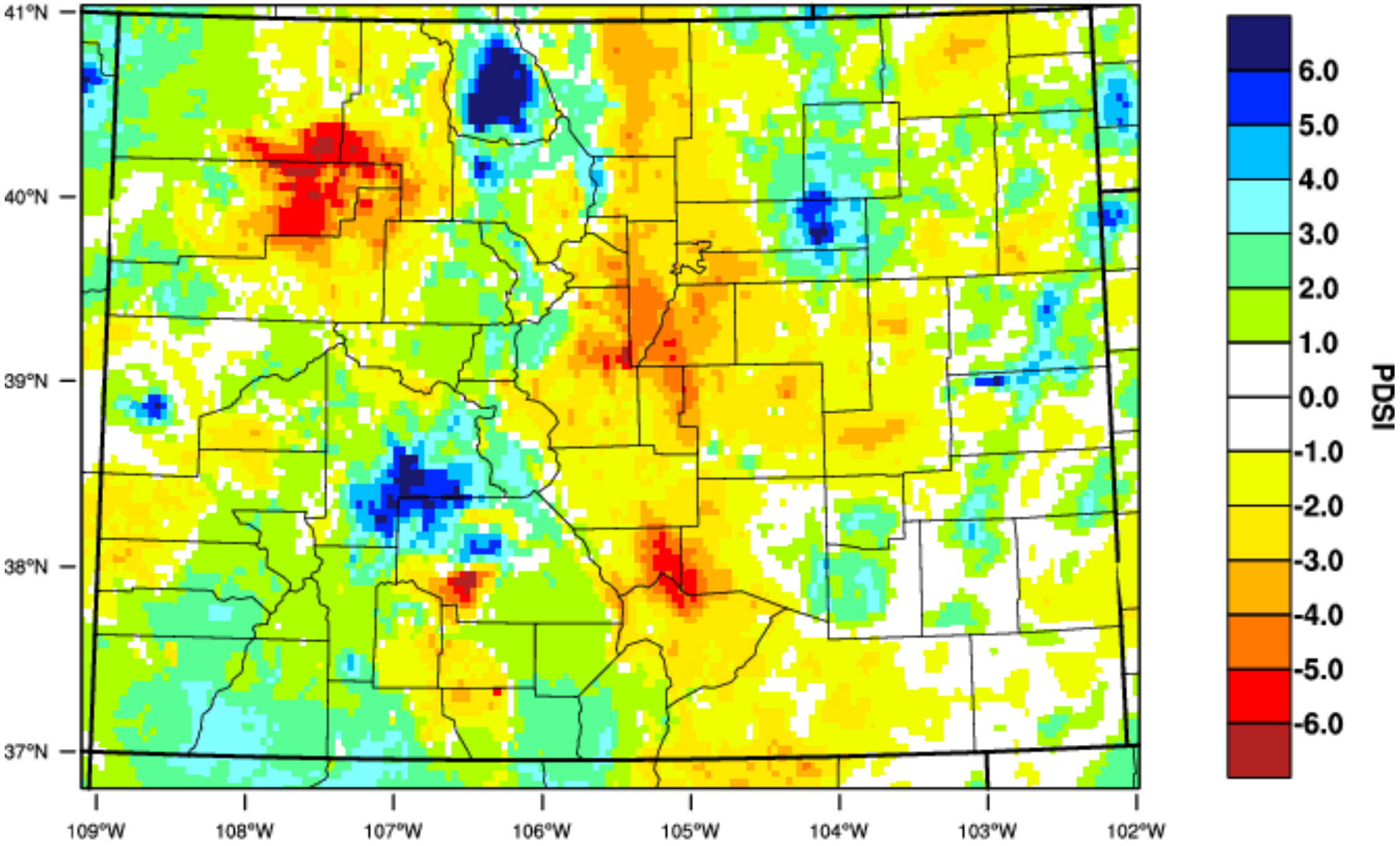
January 2017



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

Colorado - PDSI

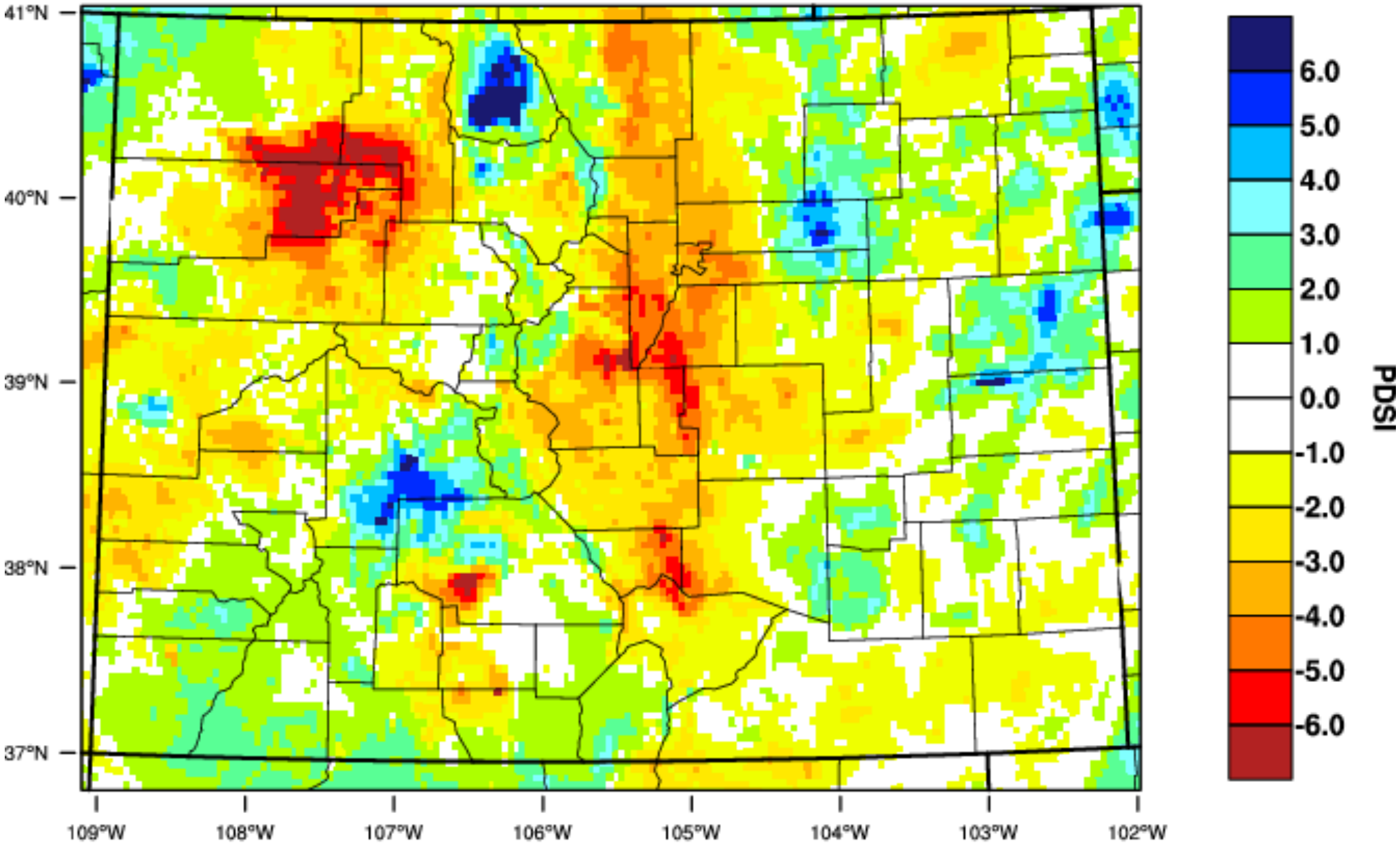
February 2017



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

Colorado - PDSI

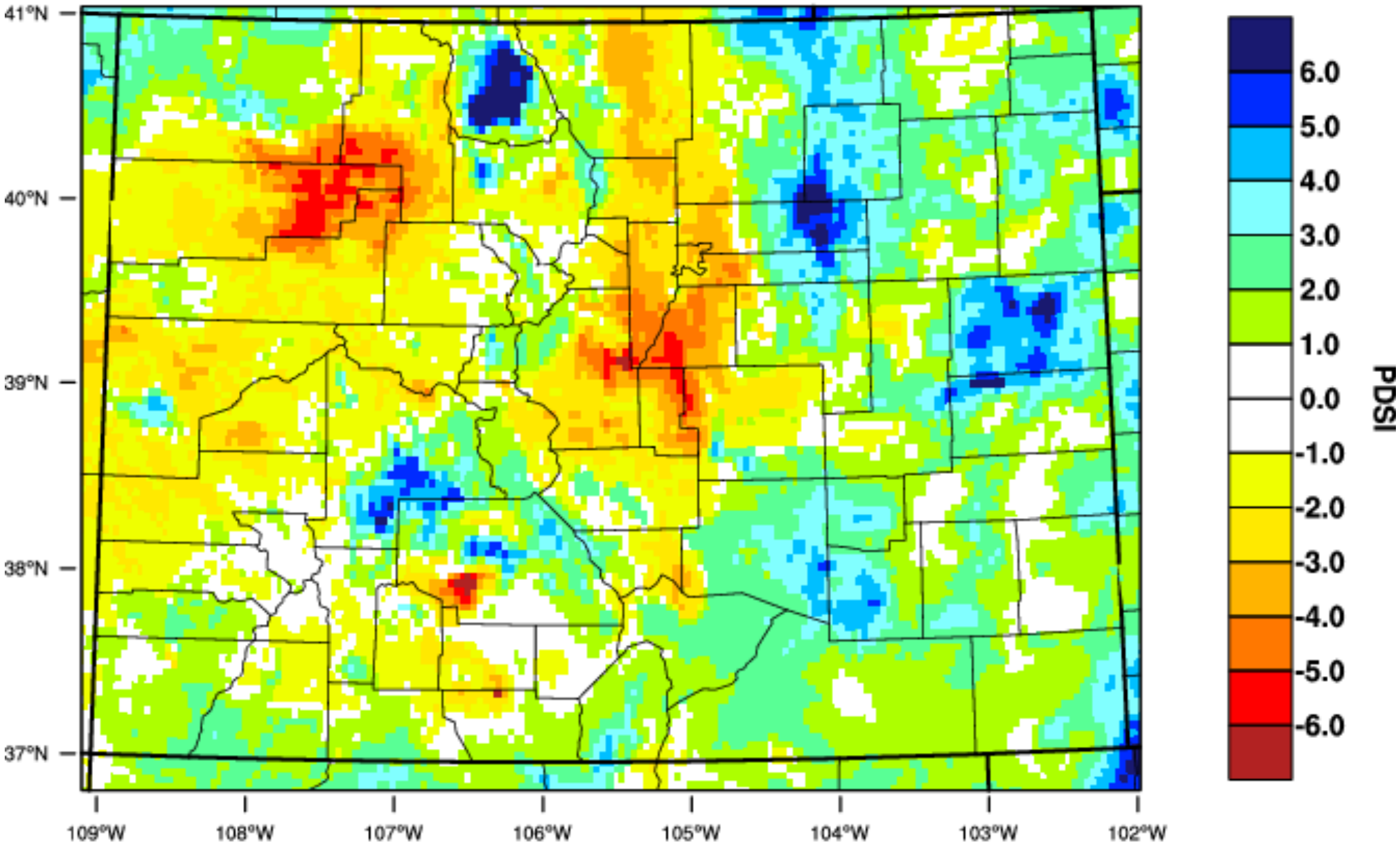
March 2017



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

COLORADO CLIMATE CENTER

Colorado State University
Knowledge to Go Places