

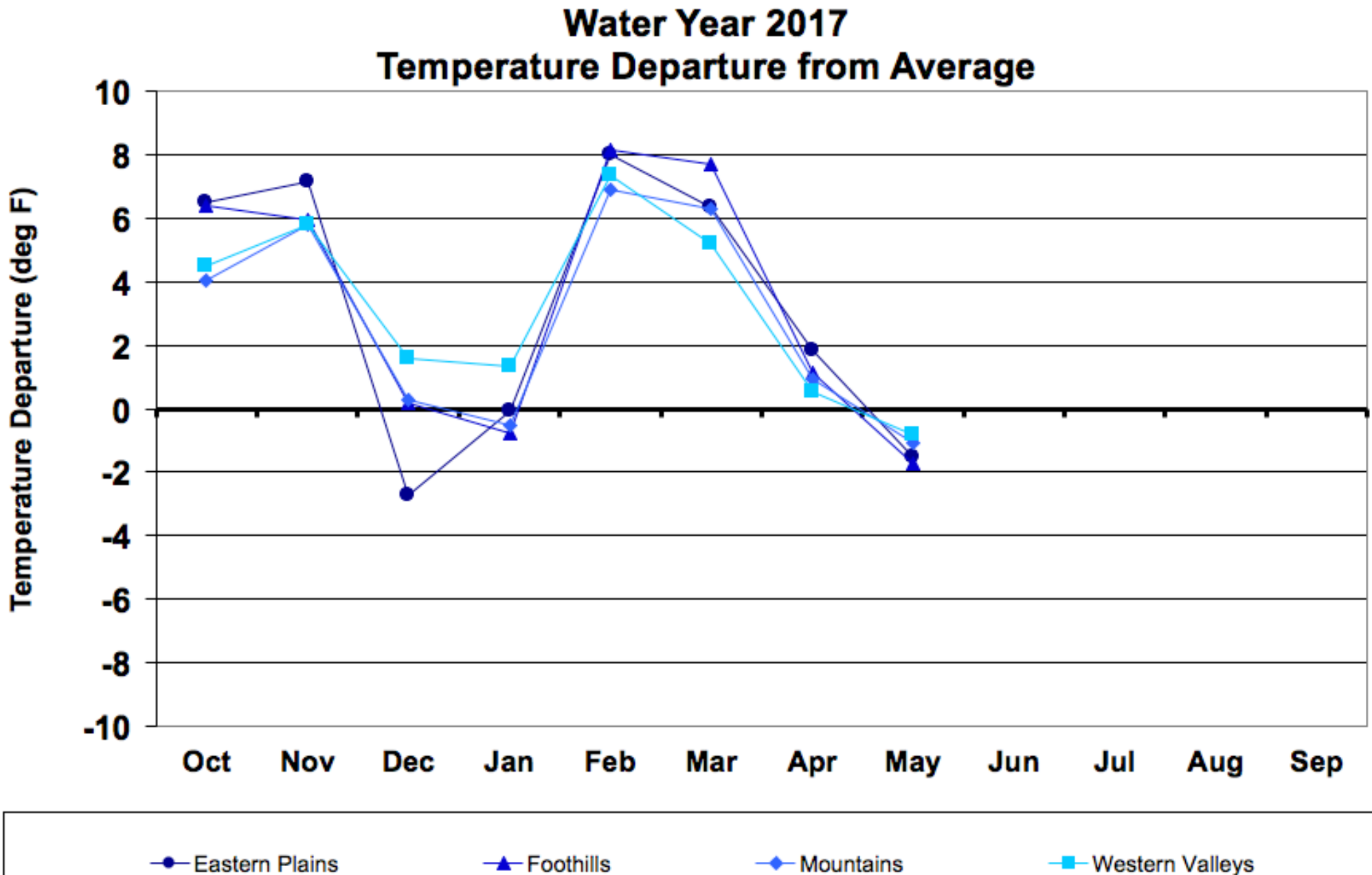


Climate Update

Becky Bolinger
Colorado Climate Center

Presented to
Water Availability Task Force
June 21, 2017
Denver, CO

Water Year 2017 Temperature Departures



May 2017 Average Temperature History for Colorado (NCEI)

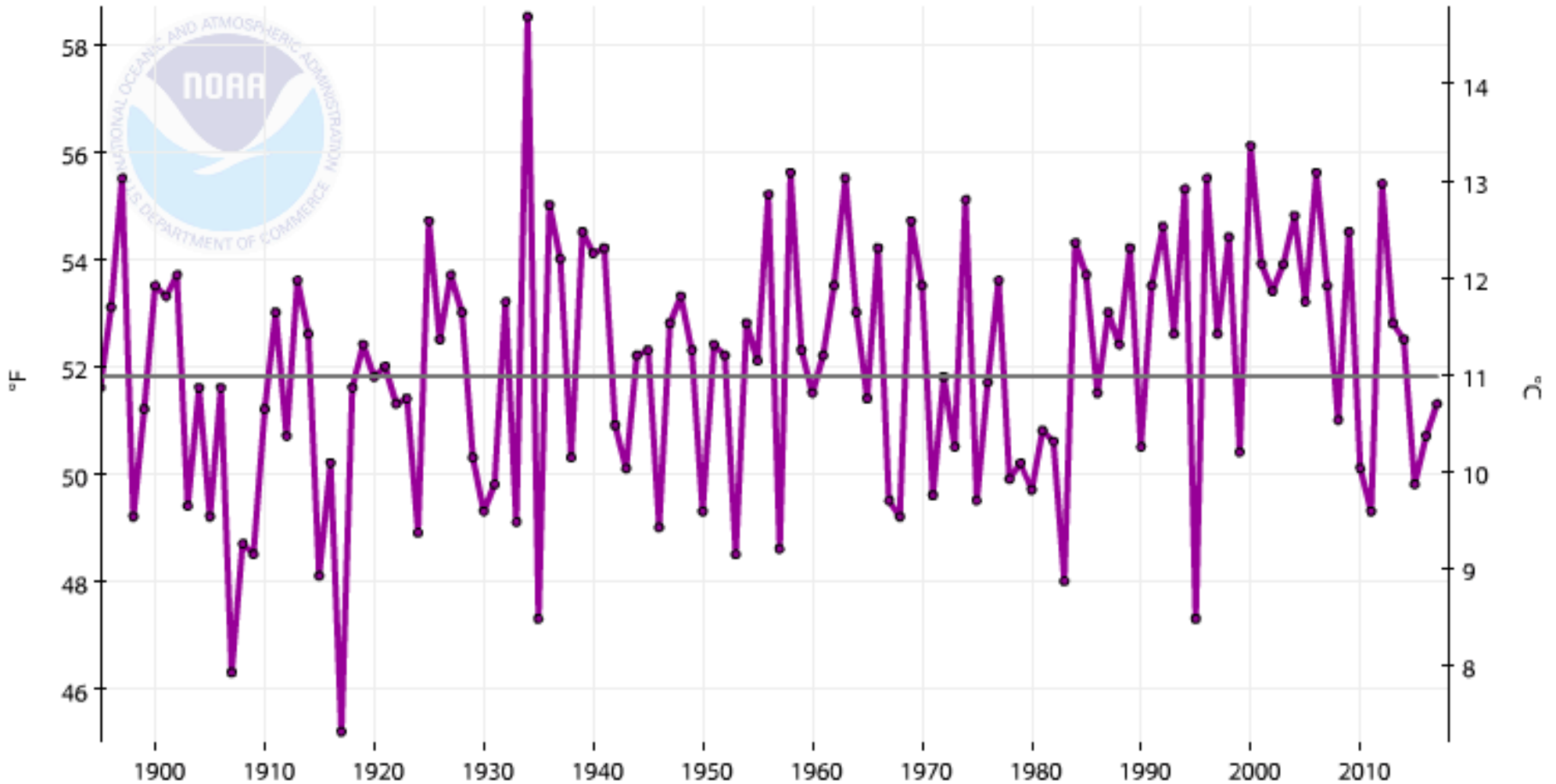
51.3 F (-0.5)

45th coolest on record

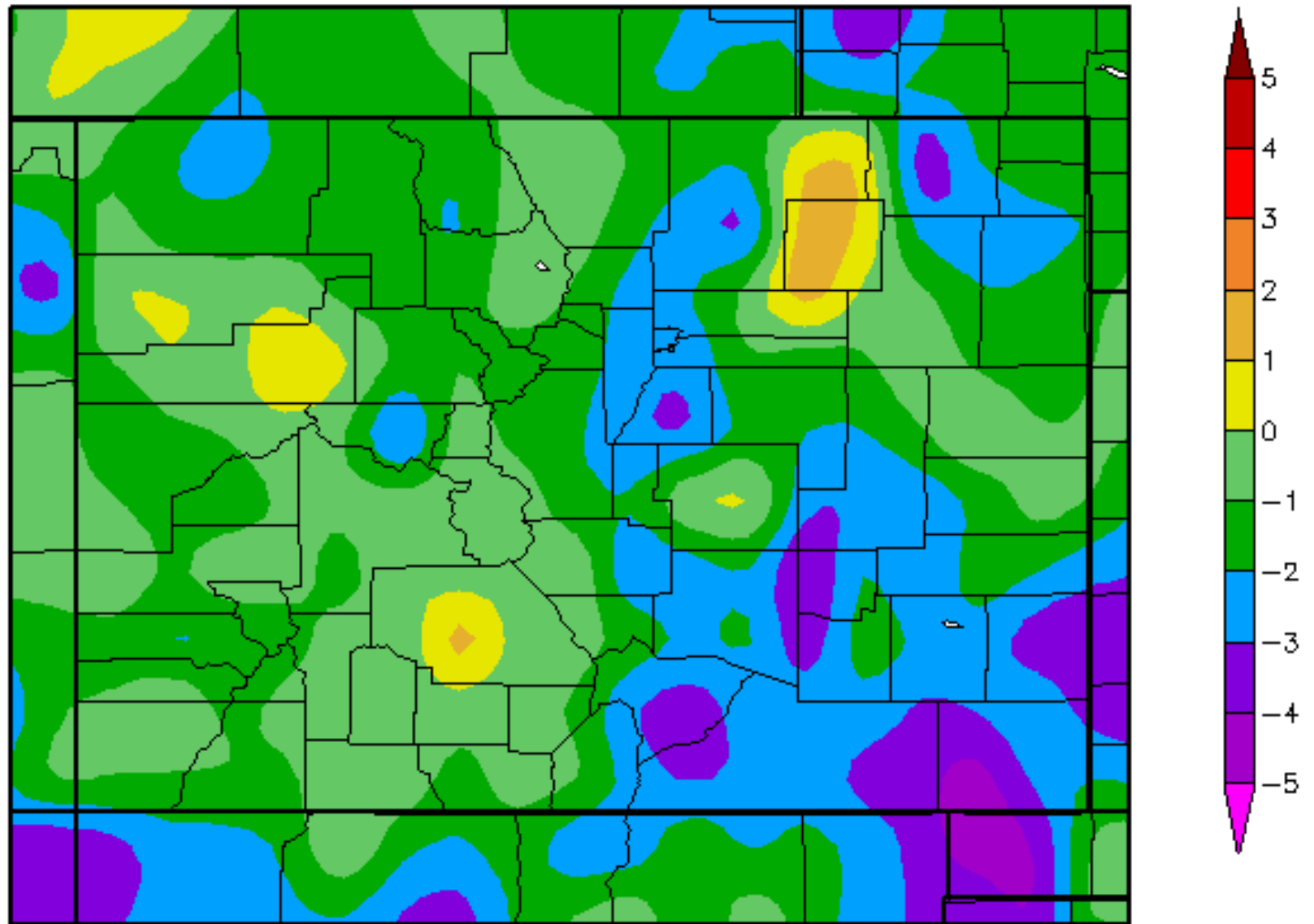
Coollest since 2016 at 50.7 F

Colorado, Average Temperature, May

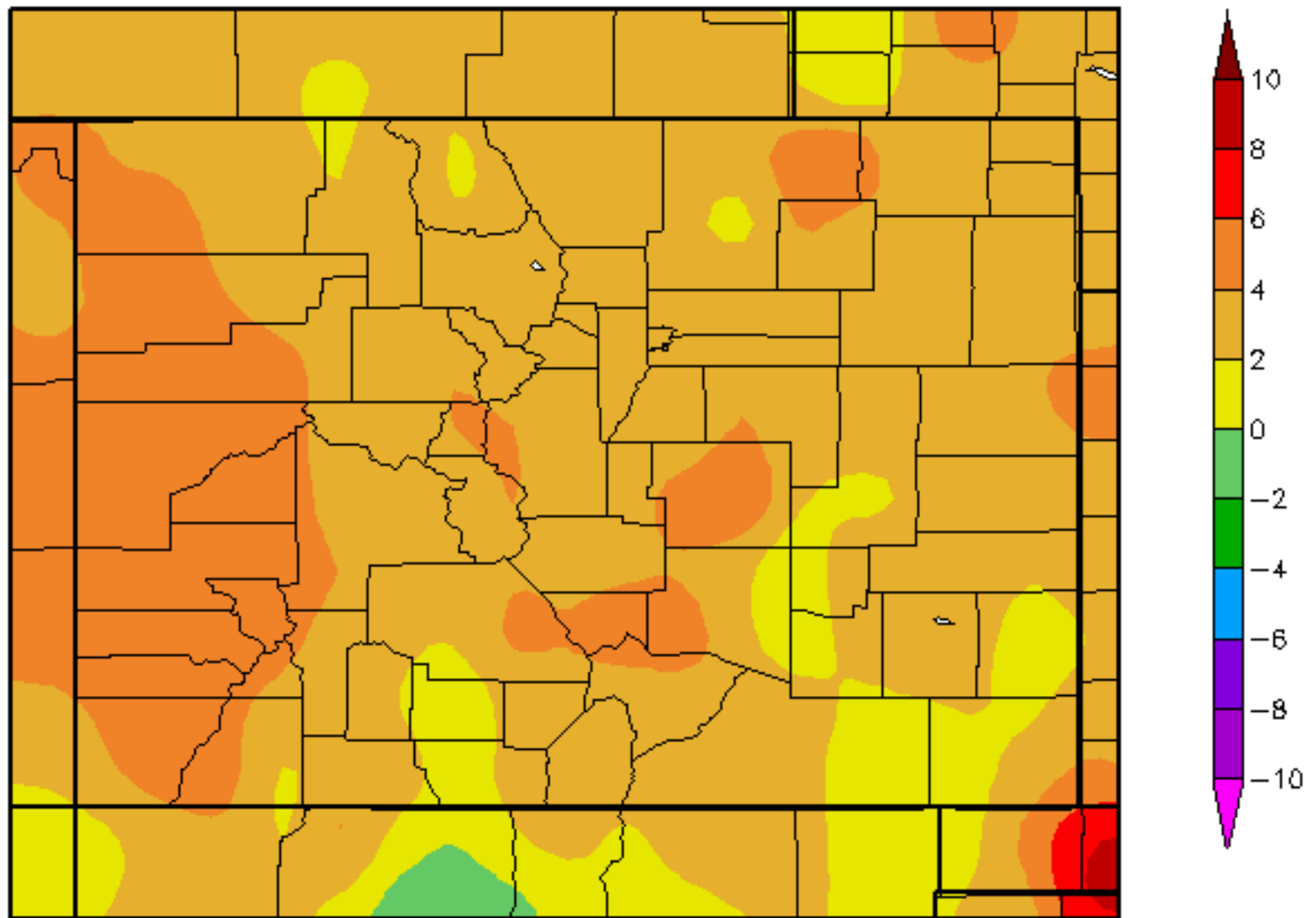
— 1901-2000 Mean: 51.8°F
—●— Avg Temperature



Departure from Normal Temperature (F) 5/1/2017 – 5/31/2017



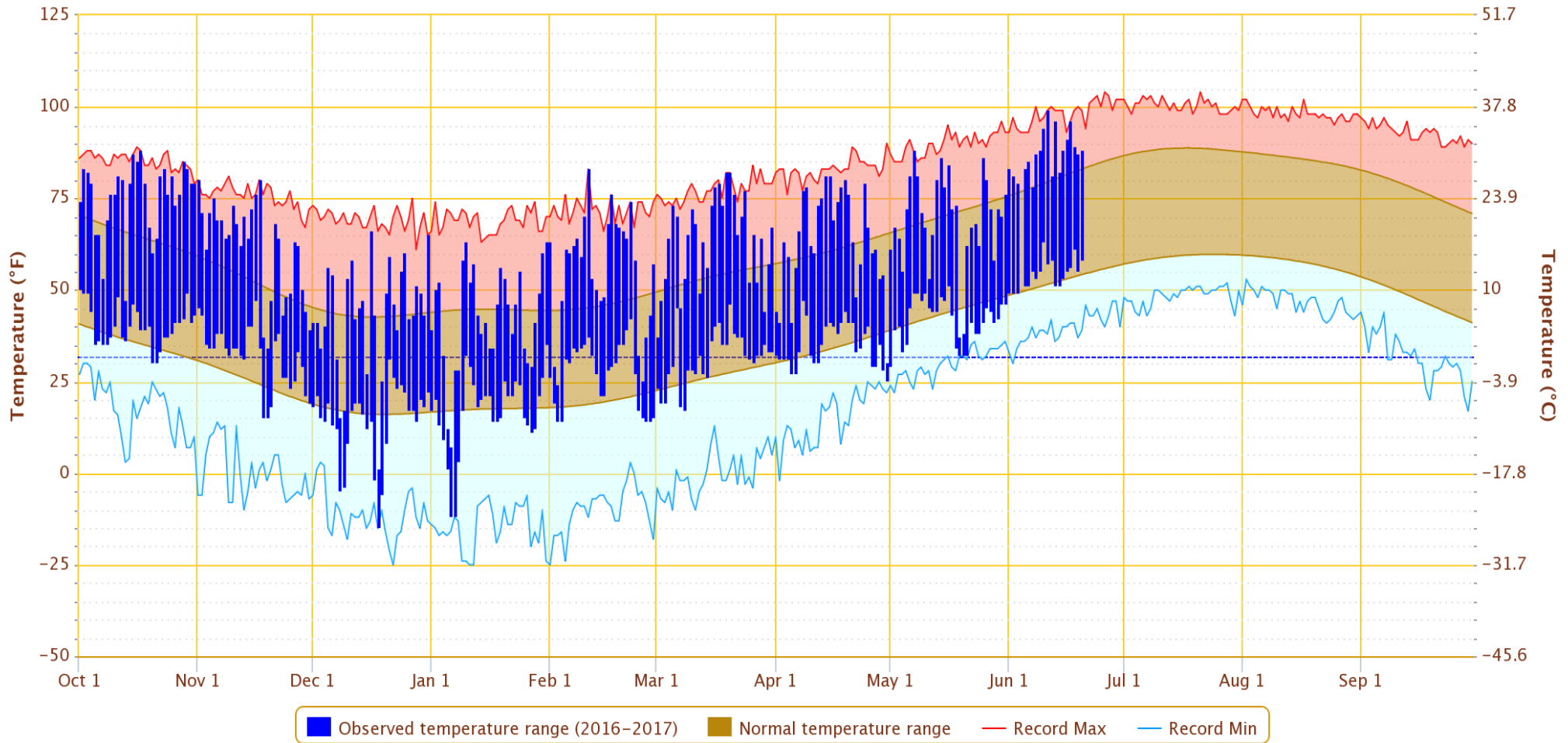
Departure from Normal Temperature (F) 6/1/2017 - 6/19/2017



Daily Max/Min Temperature WY2017, with normals - Denver

Daily Temperature Data – DENVER STAPLETON, CO

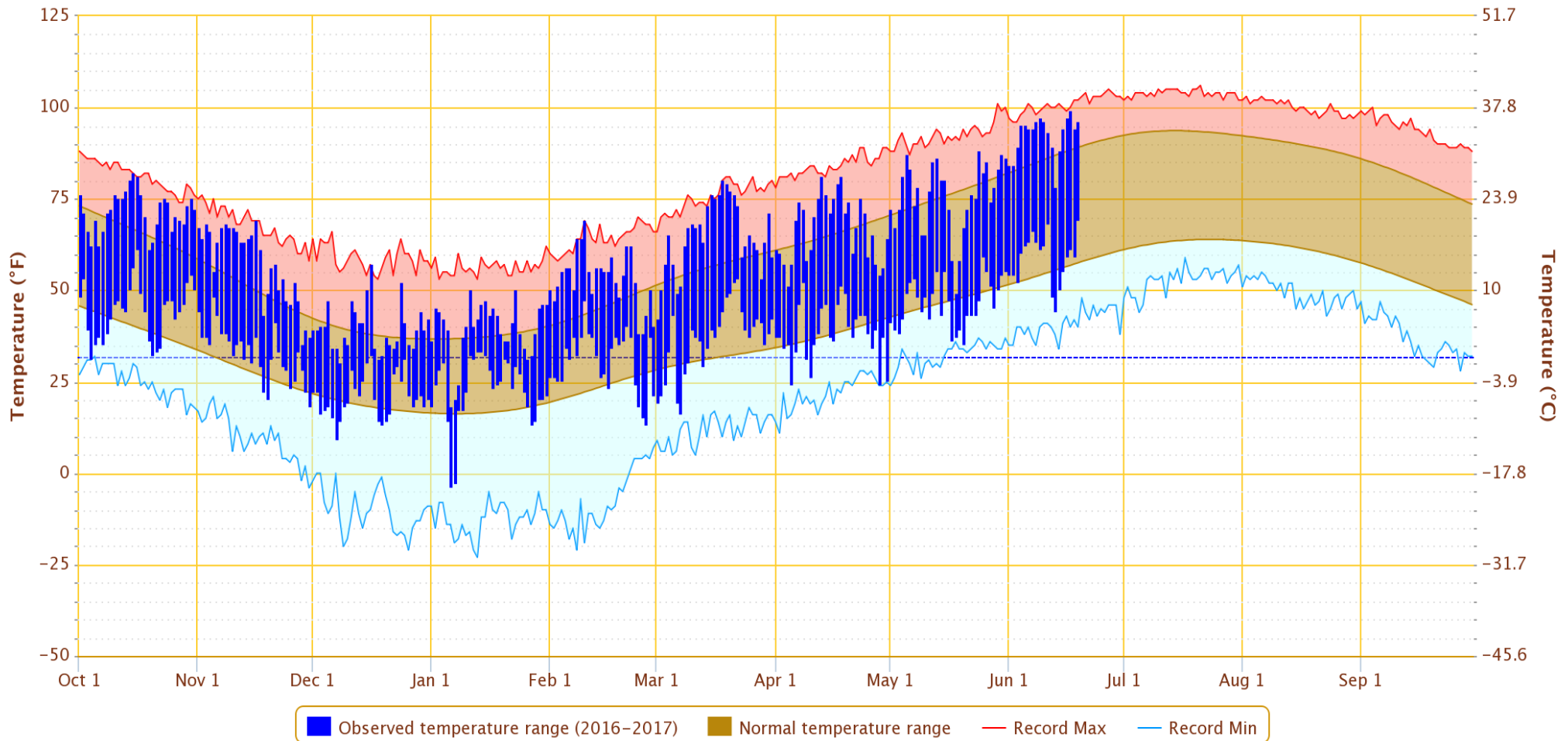
Period of Record – 1948-01-01 to 2017-06-20. Normals period: 1981-2010. Click and drag to zoom chart.



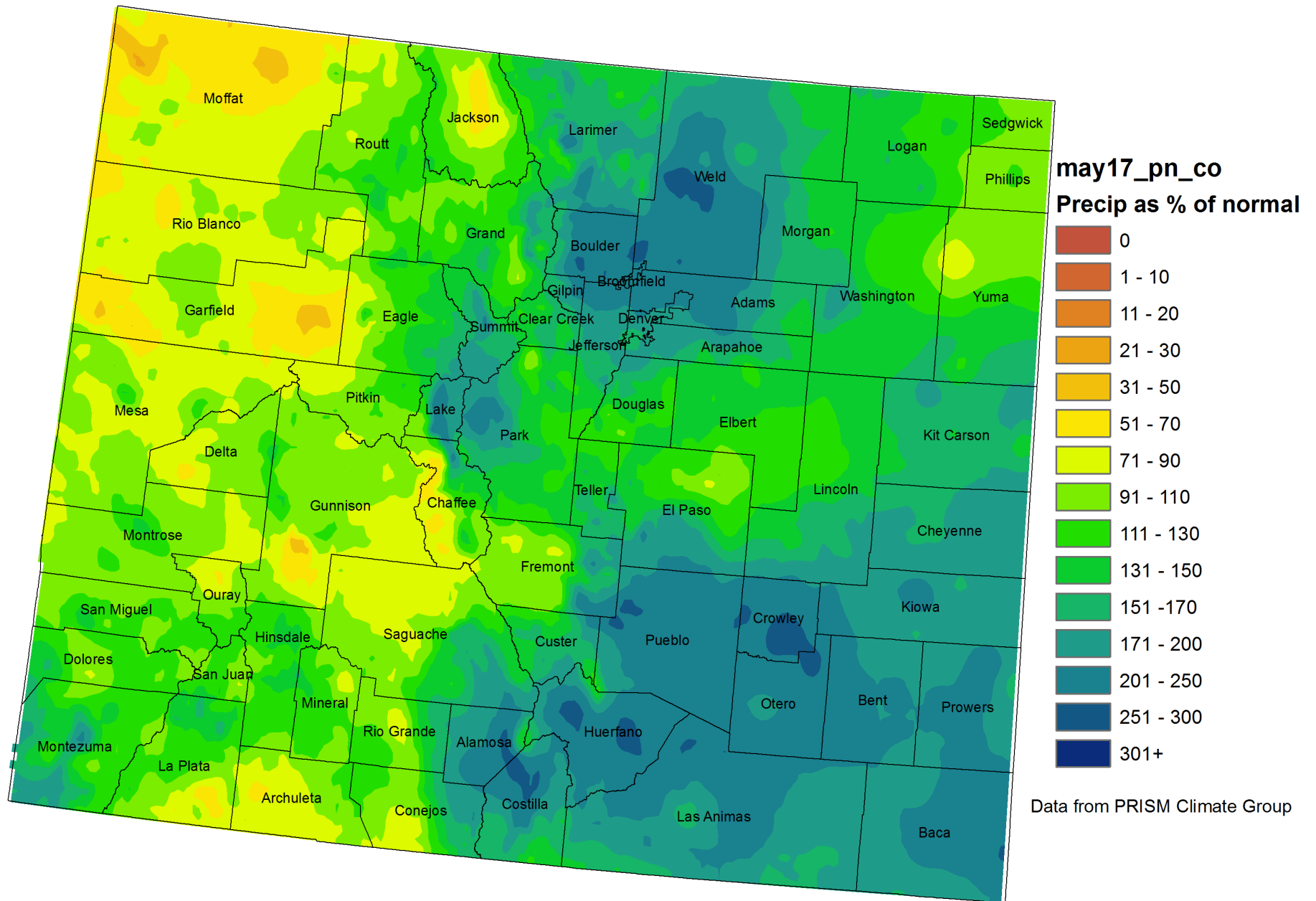
Daily Max/Min Temperature WY2017, with normals - GJT

Daily Temperature Data – GRAND JUNCTION WALKER FLD, CO

Period of Record – 1900-01-01 to 2017-06-19. Normals period: 1981-2010. Click and drag to zoom chart.



Colorado May 2017 Precipitation as a Percentage of Normal



May 2017 Average Precipitation History for Colorado (NCEI)

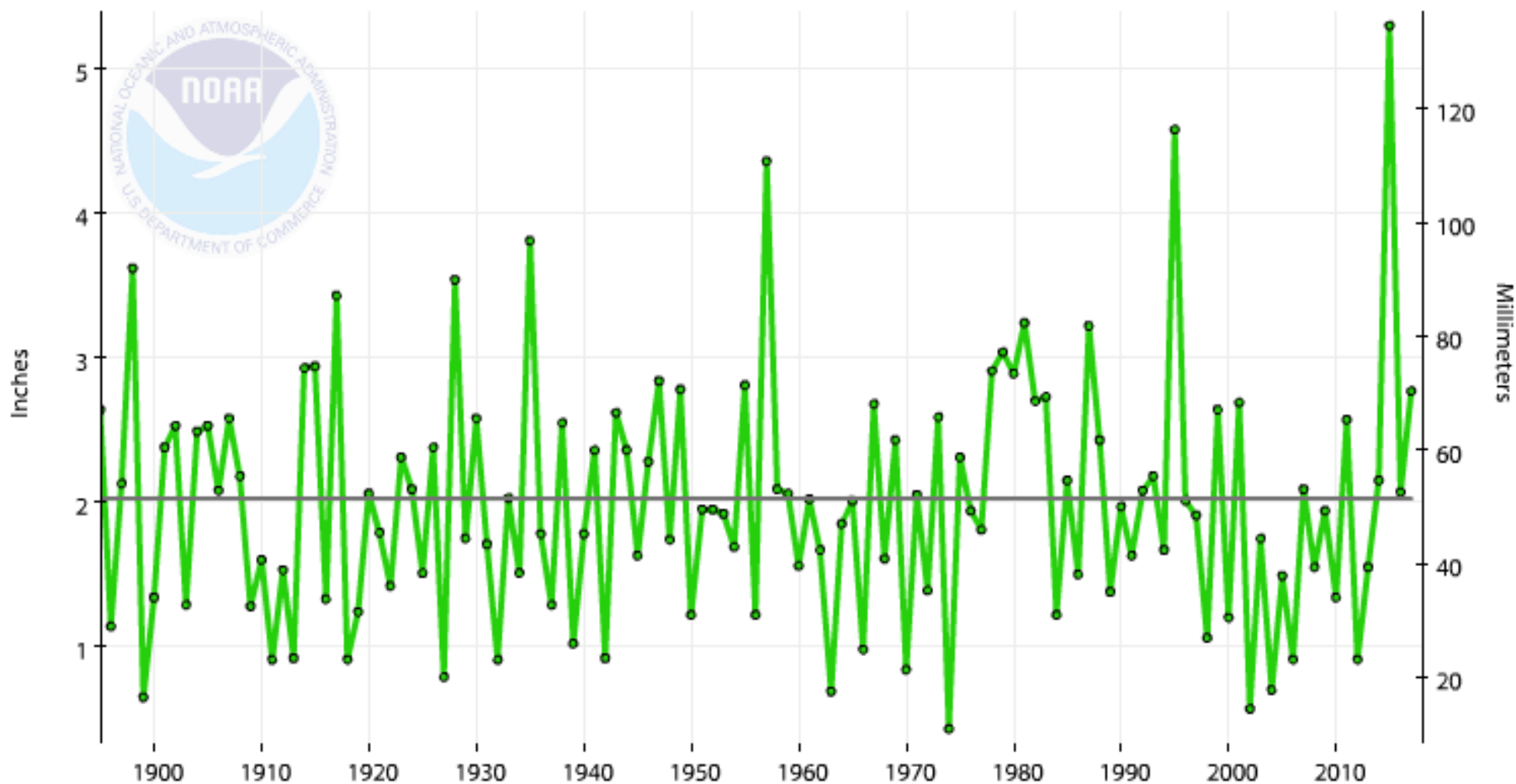
2.77" (+0.75")

18th wettest on record

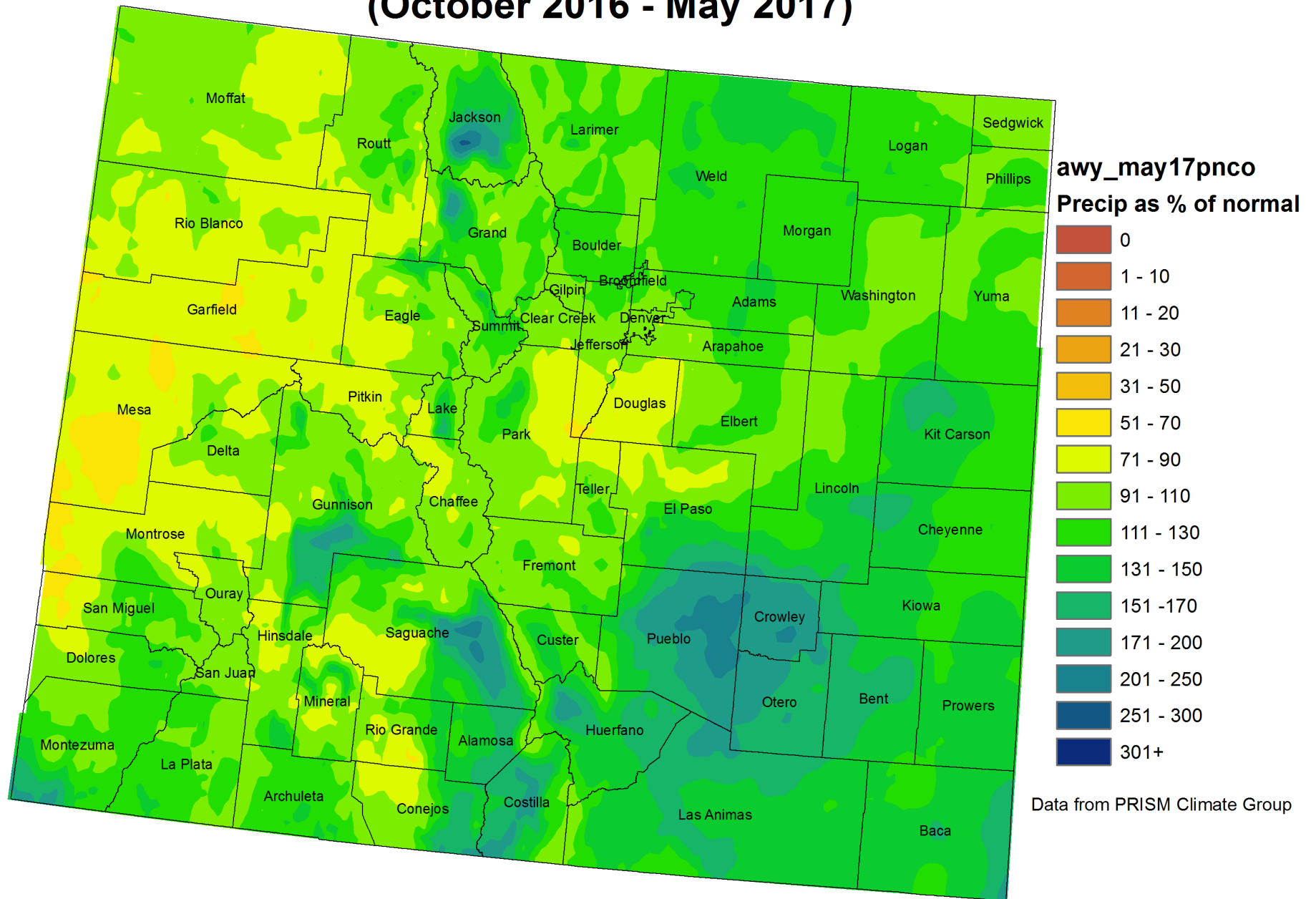
Wettest since 2015 with 5.30"

Colorado, Precipitation, May

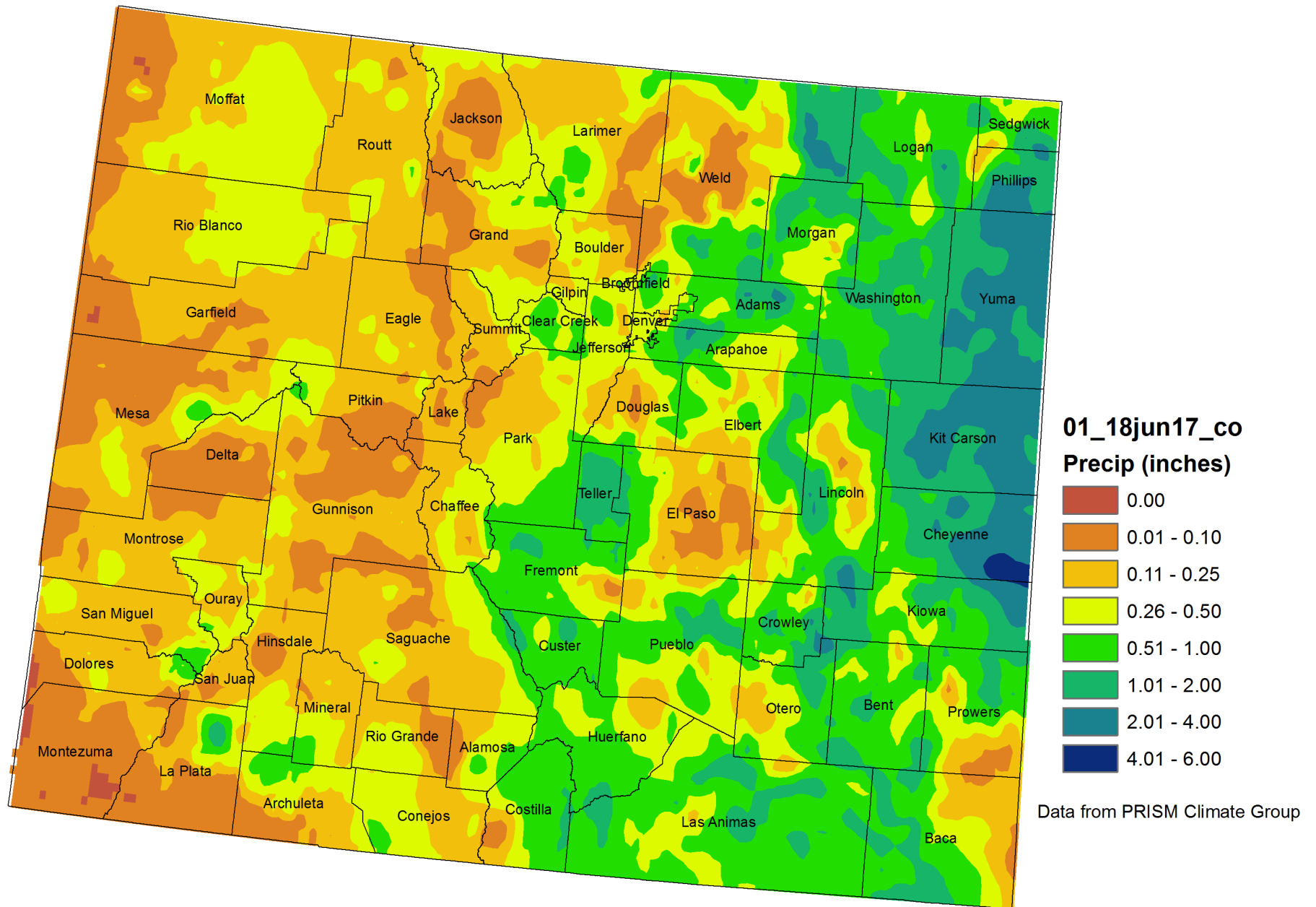
— 1901-2000 Mean: 2.02" ● Precip



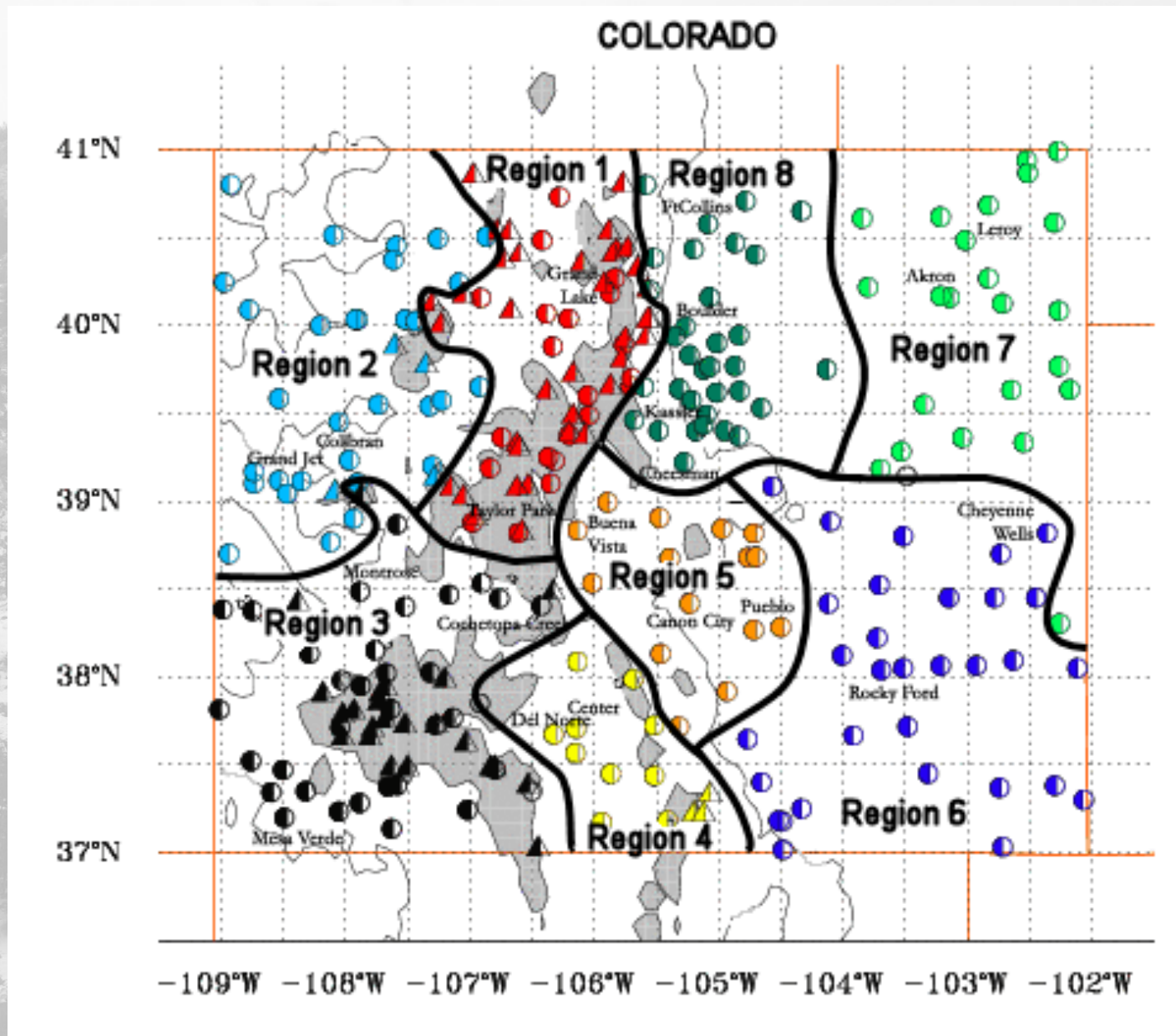
Colorado Water Year 2017 Precipitation as a Percentage of Normal (October 2016 - May 2017)



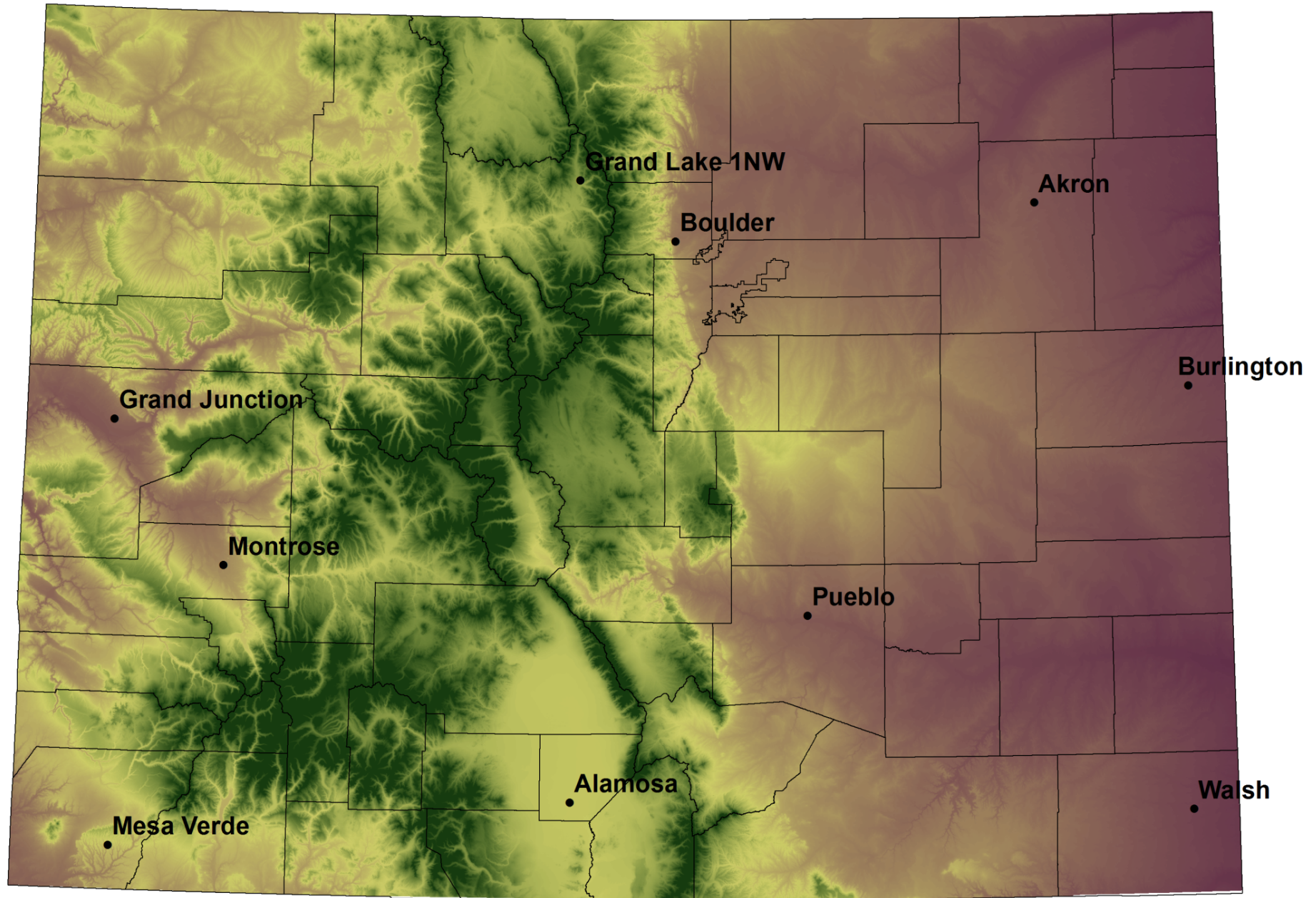
Colorado Month to Date Precipitation 1 - 18 June 2017 7AM MDT



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

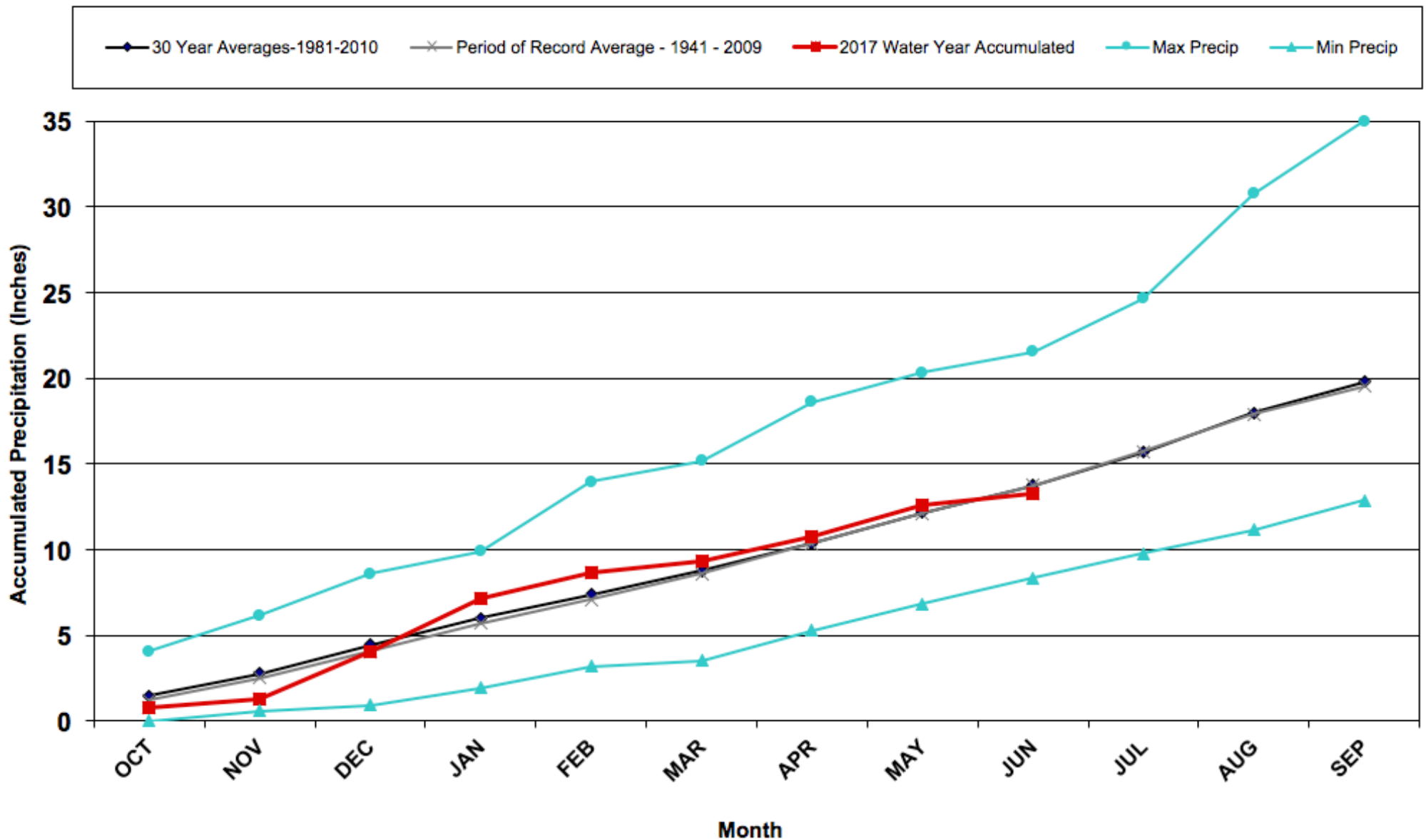


NWS Cooperative Stations for WATF



Division 1 – Grand Lake 1NW

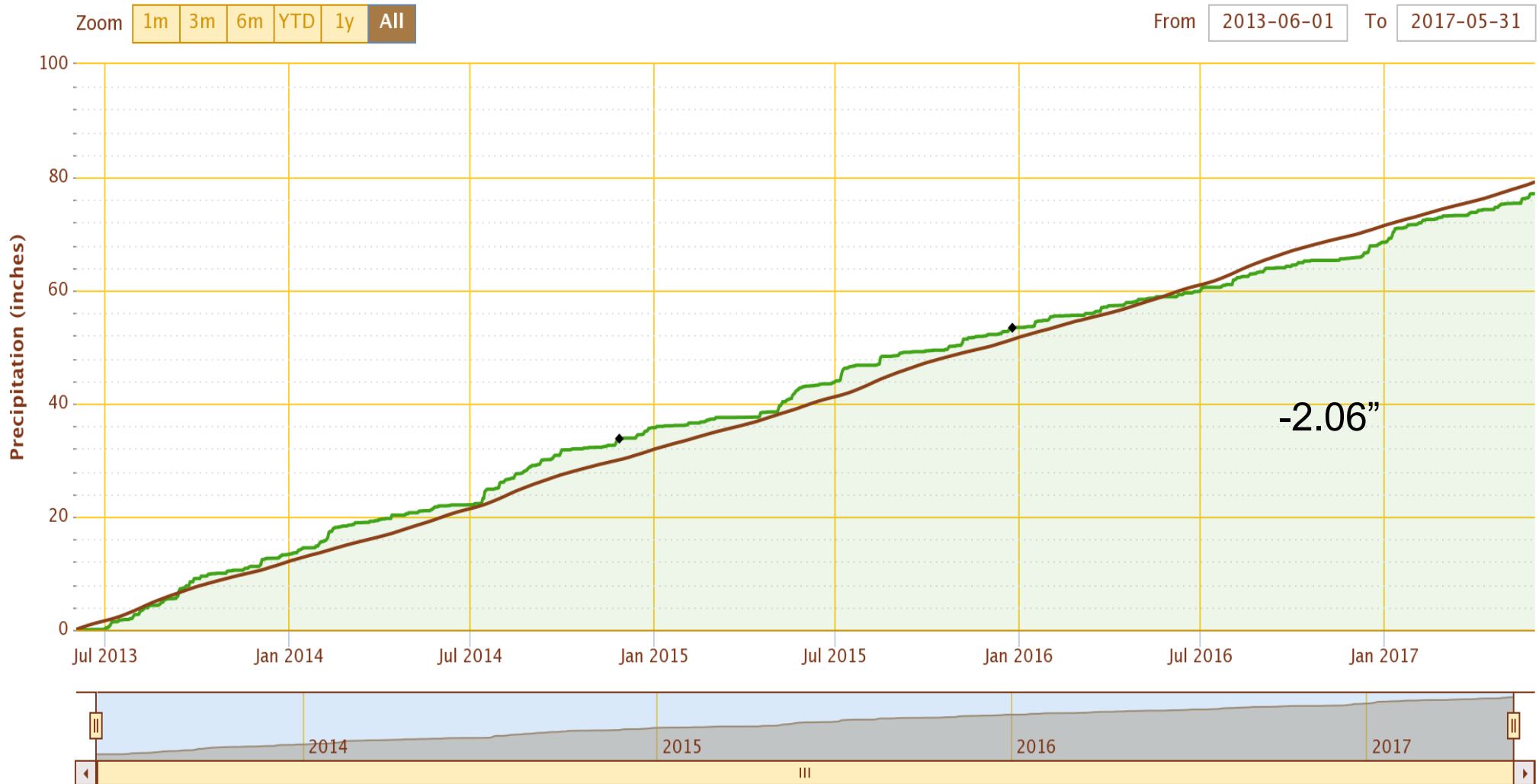
Grand Lake 1 NW 2017 Water Year



Division 1 – Grand Lake 1NW

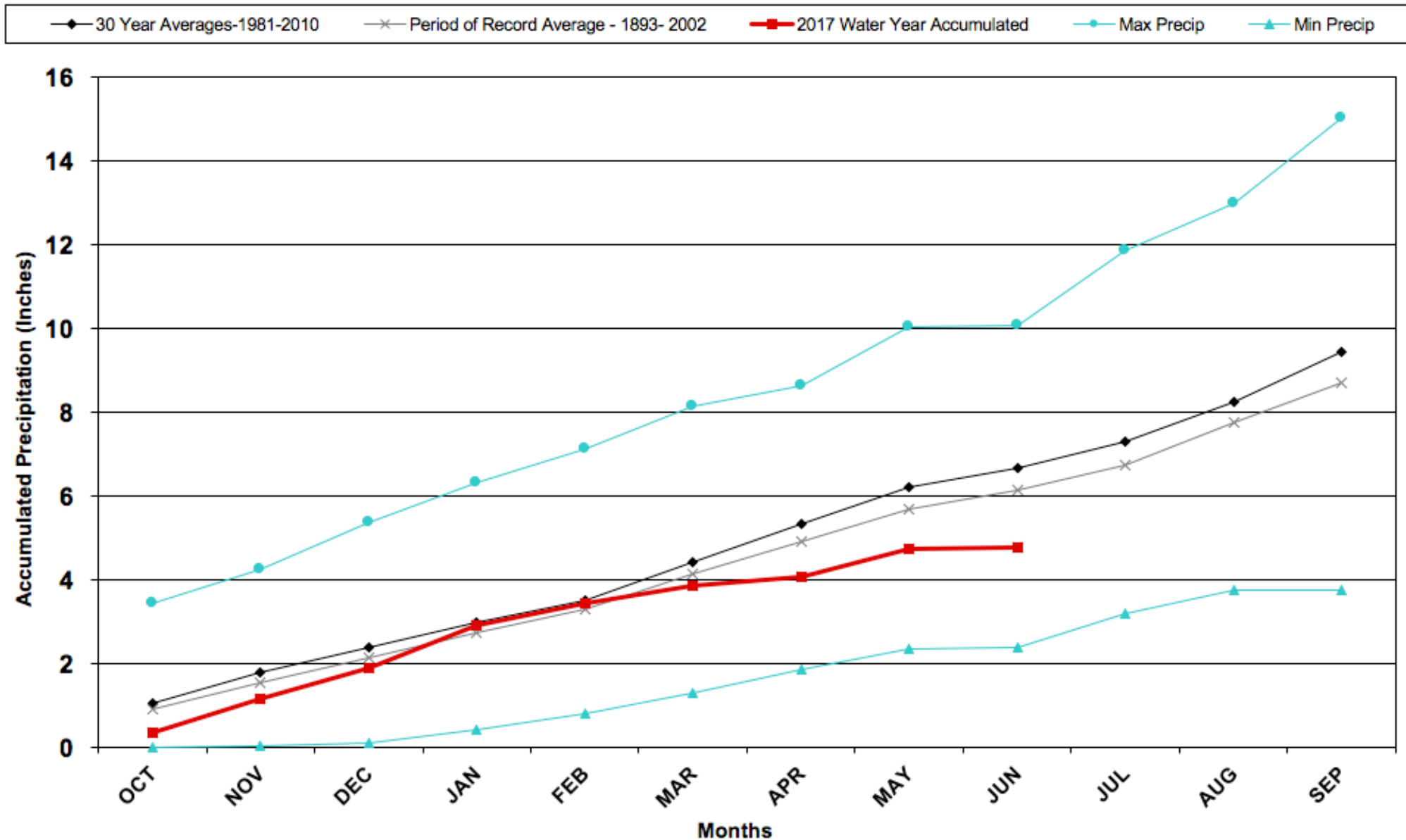
Accumulated Precipitation – GRAND LAKE 1 NW, CO

Use navigation tools above and below chart to change displayed range; green/black diamonds represent subsequent/missing values



Division 2 – Grand Junction

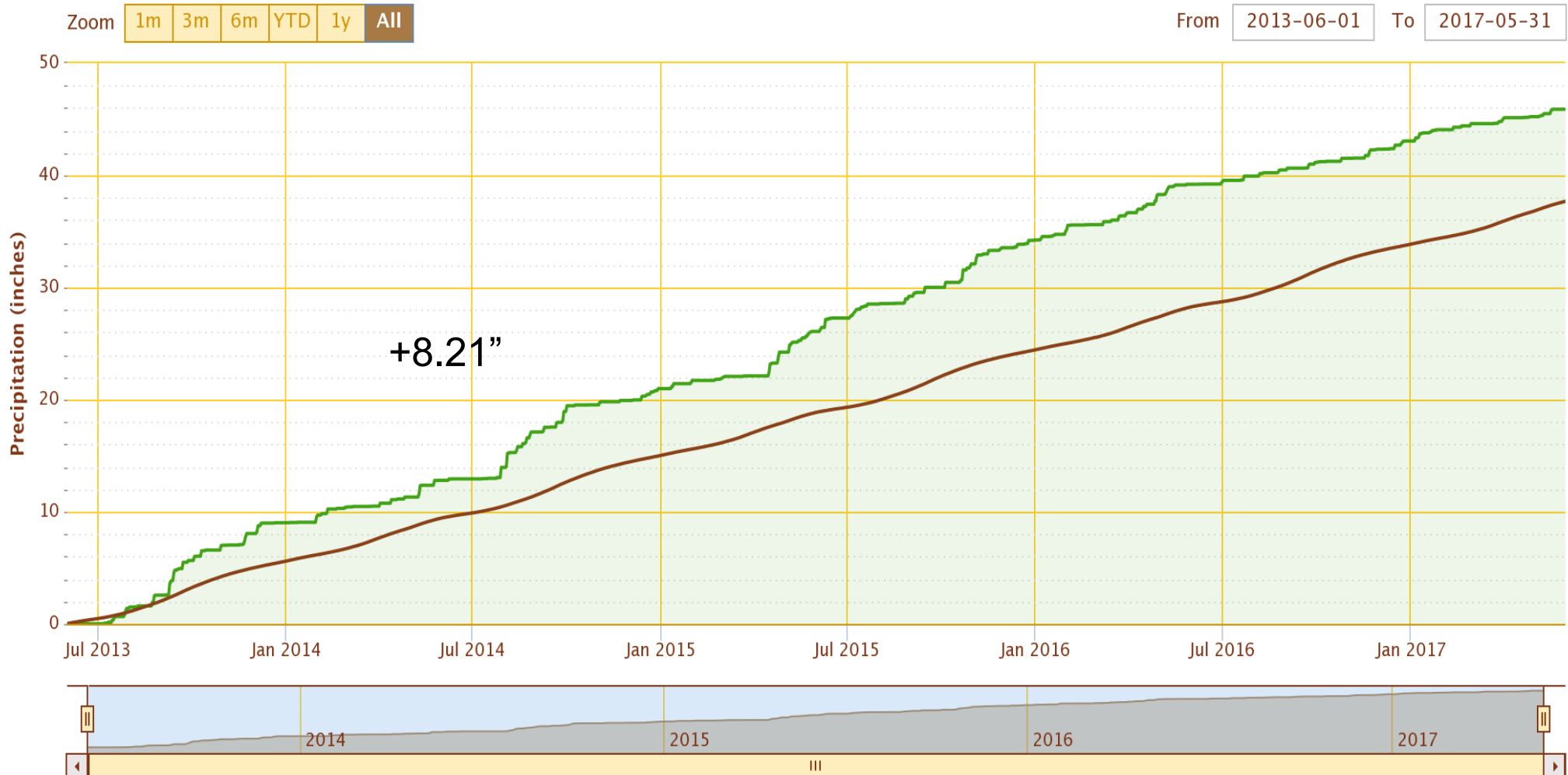
Grand Junction WSFO 2017 Water Year



Division 2 – Grand Junction

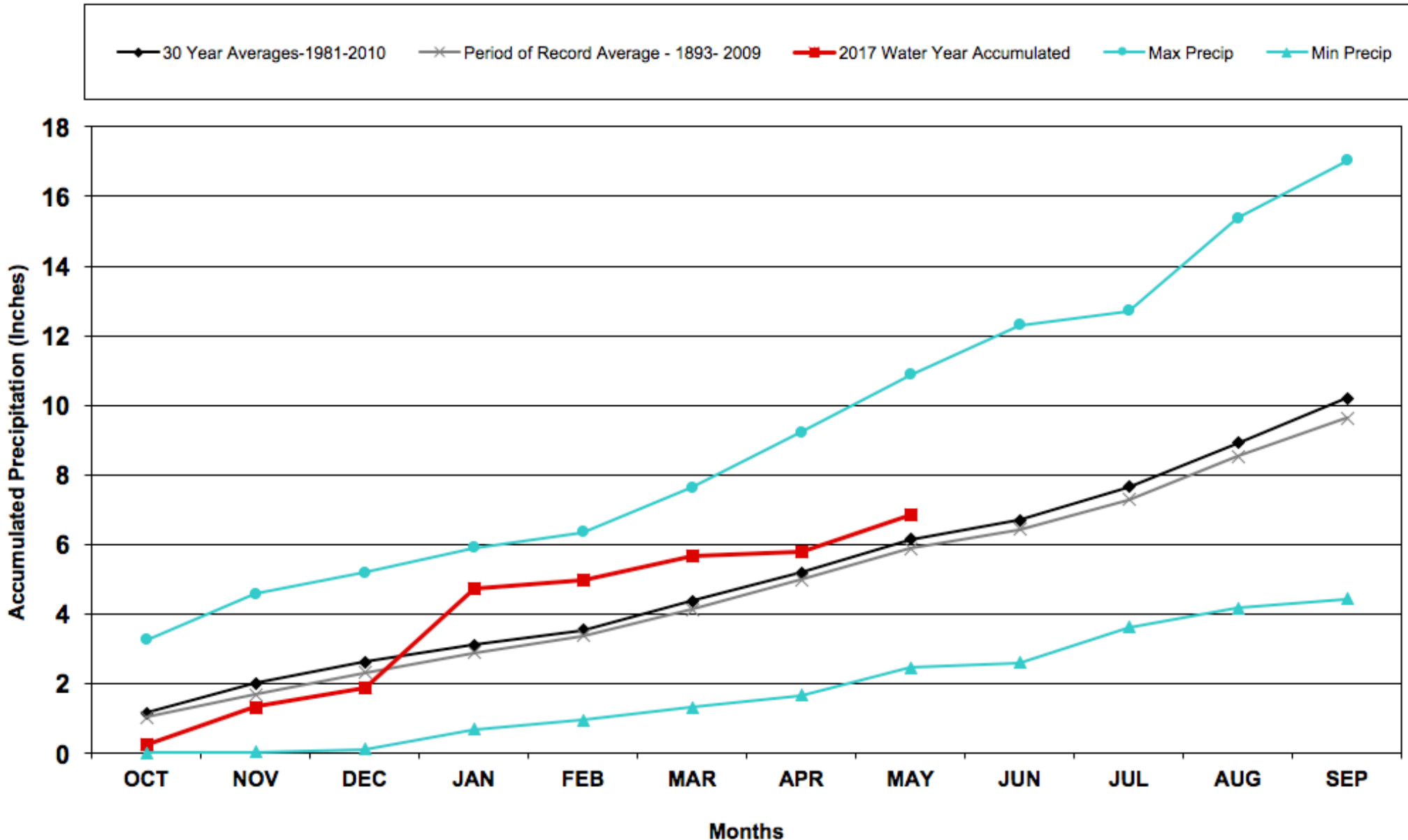
Accumulated Precipitation – GRAND JUNCTION WALKER FLD, CO

Use navigation tools above and below chart to change displayed range; green/black diamonds represent subsequent/missing values



Division 3 – Montrose

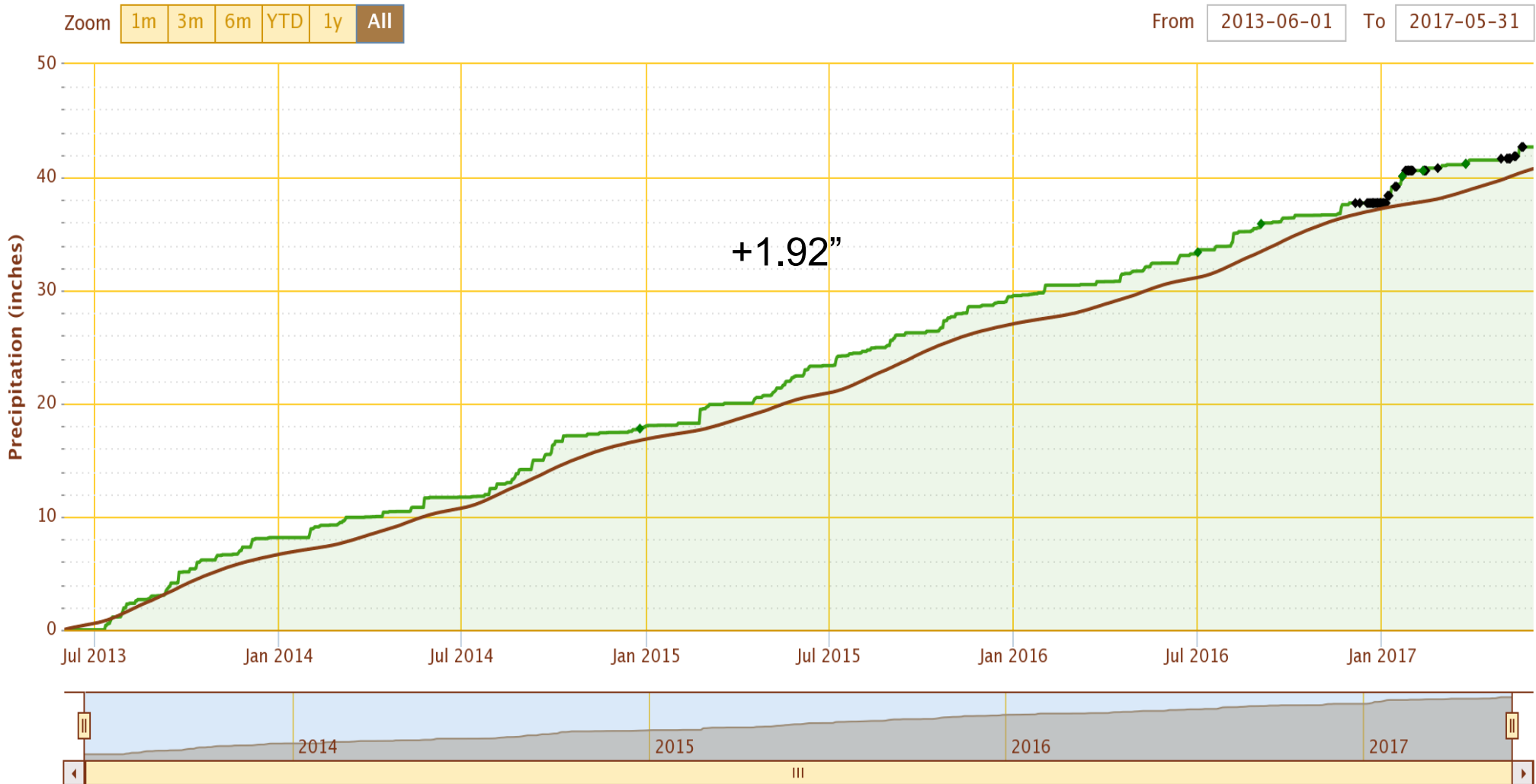
Montrose #2 2017 Water Year



Division 3 – Montrose

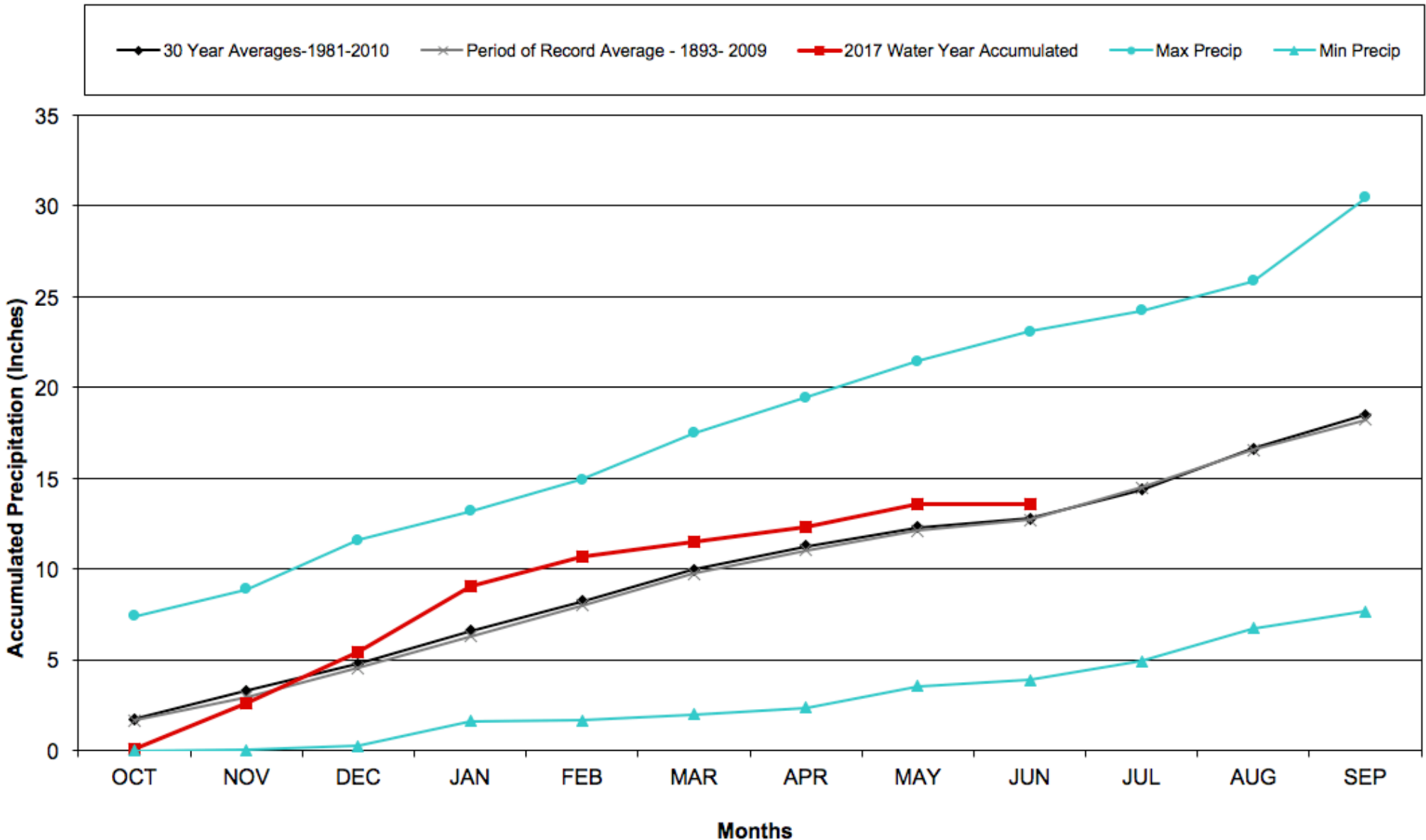
Accumulated Precipitation – MONTROSE #2, CO

Use navigation tools above and below chart to change displayed range; green/black diamonds represent subsequent/missing values



Division 3 – Mesa Verde NP

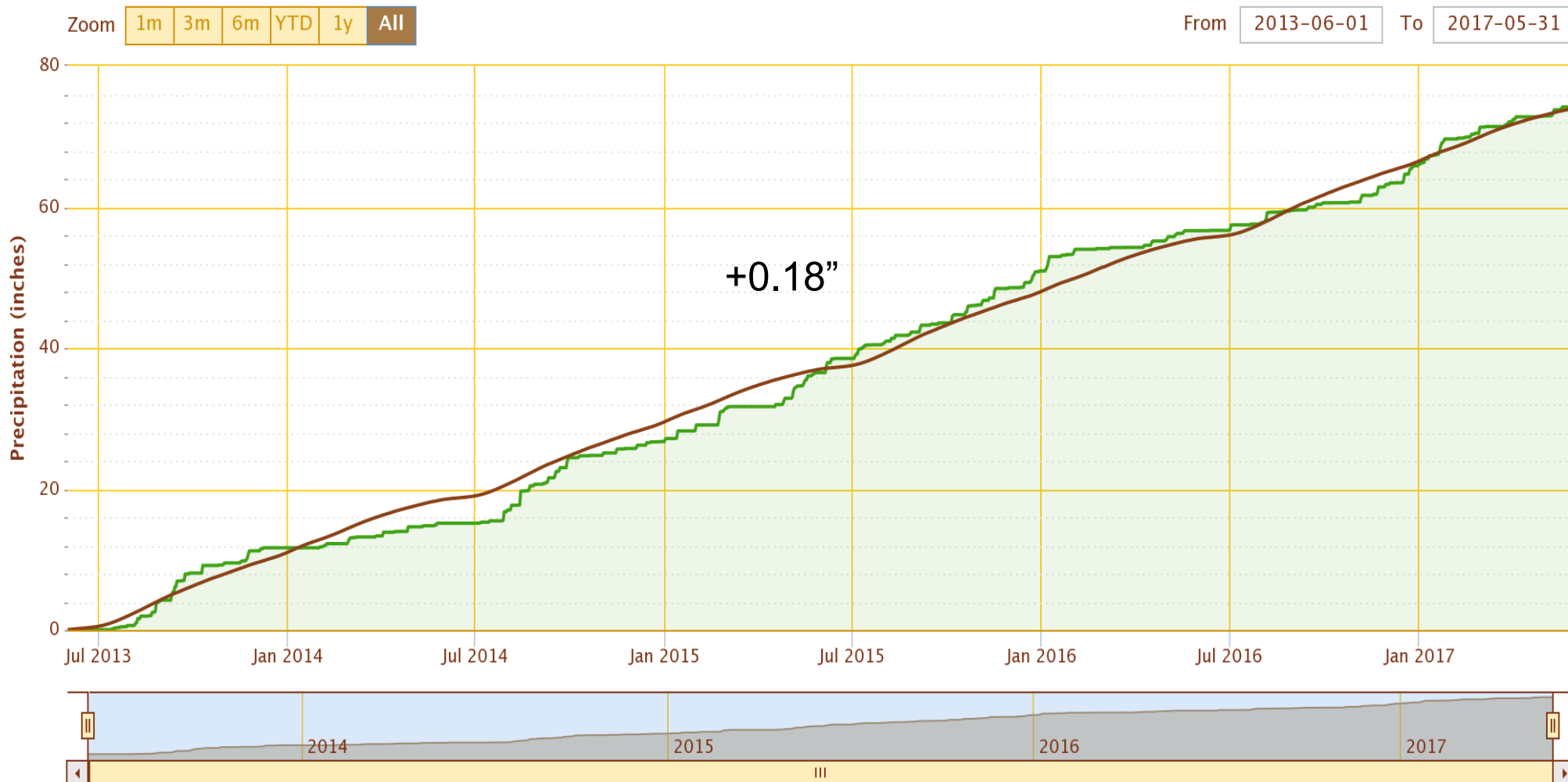
Mesa Verde NP 2017 Water Year



Division 3 – Mesa Verde NP

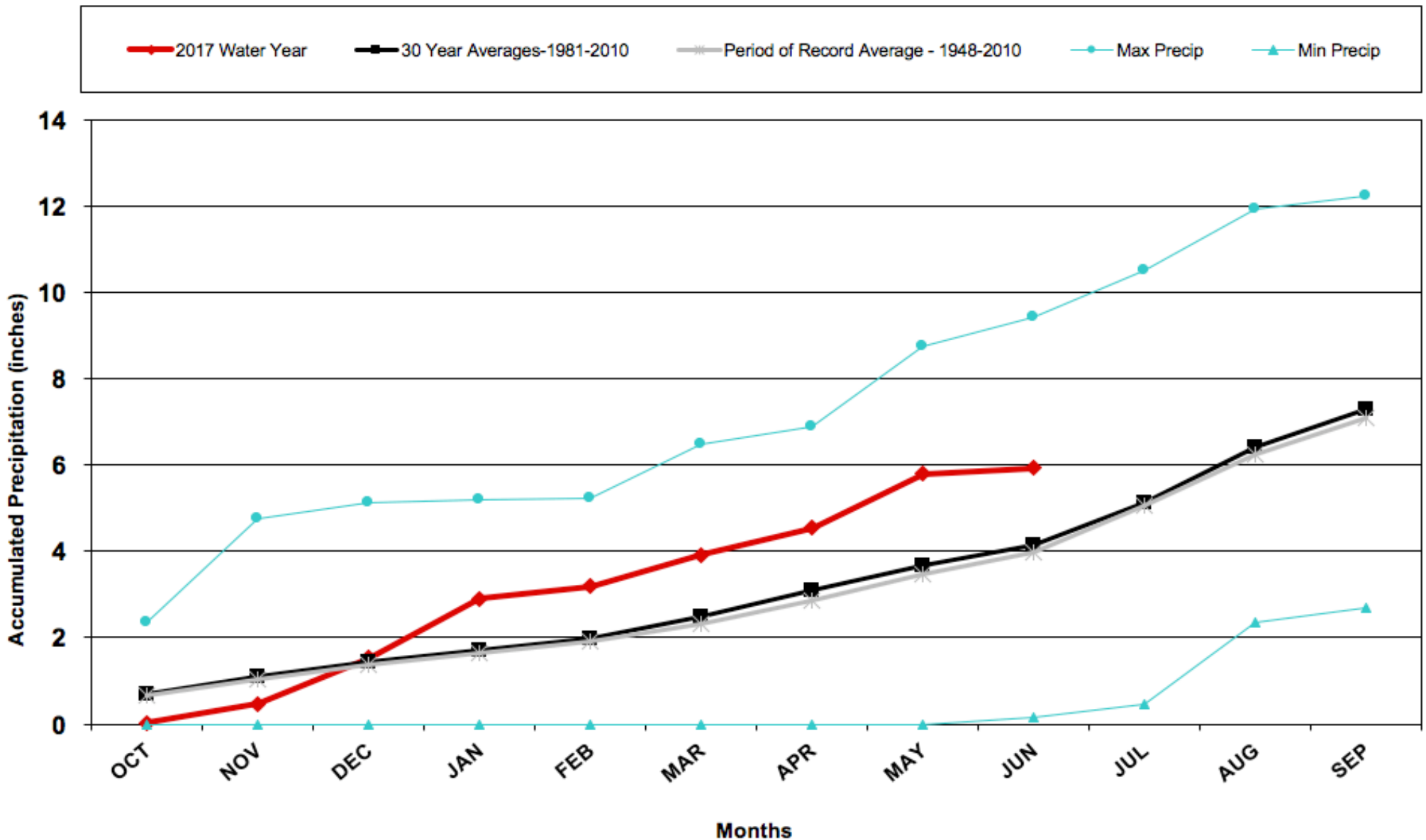
Accumulated Precipitation – MESA VERDE NP, CO

Use navigation tools above and below chart to change displayed range; green/black diamonds represent subsequent/missing values



Division 4 – Alamosa

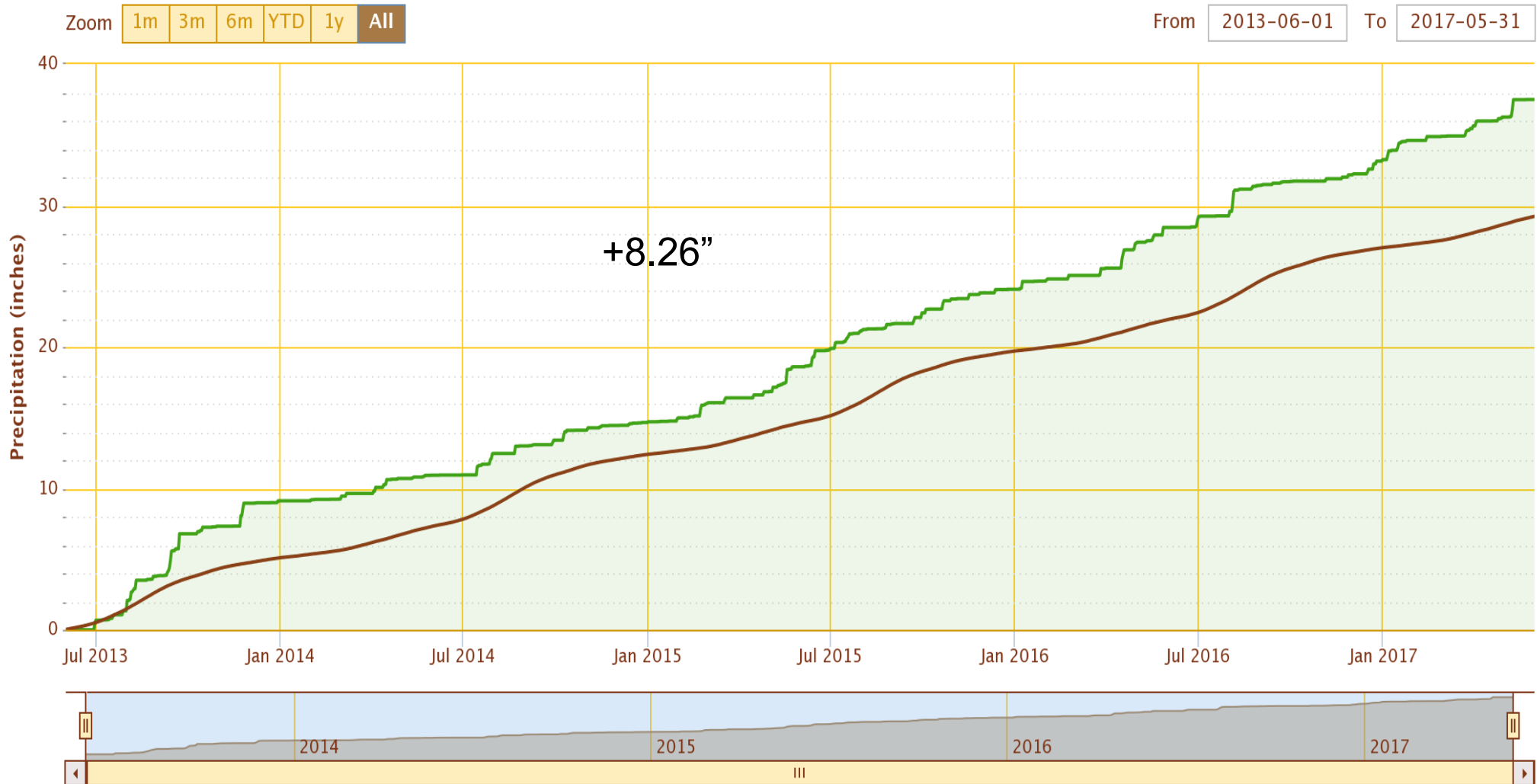
Alamosa WSO 2017 Water Year



Division 4 – Alamosa

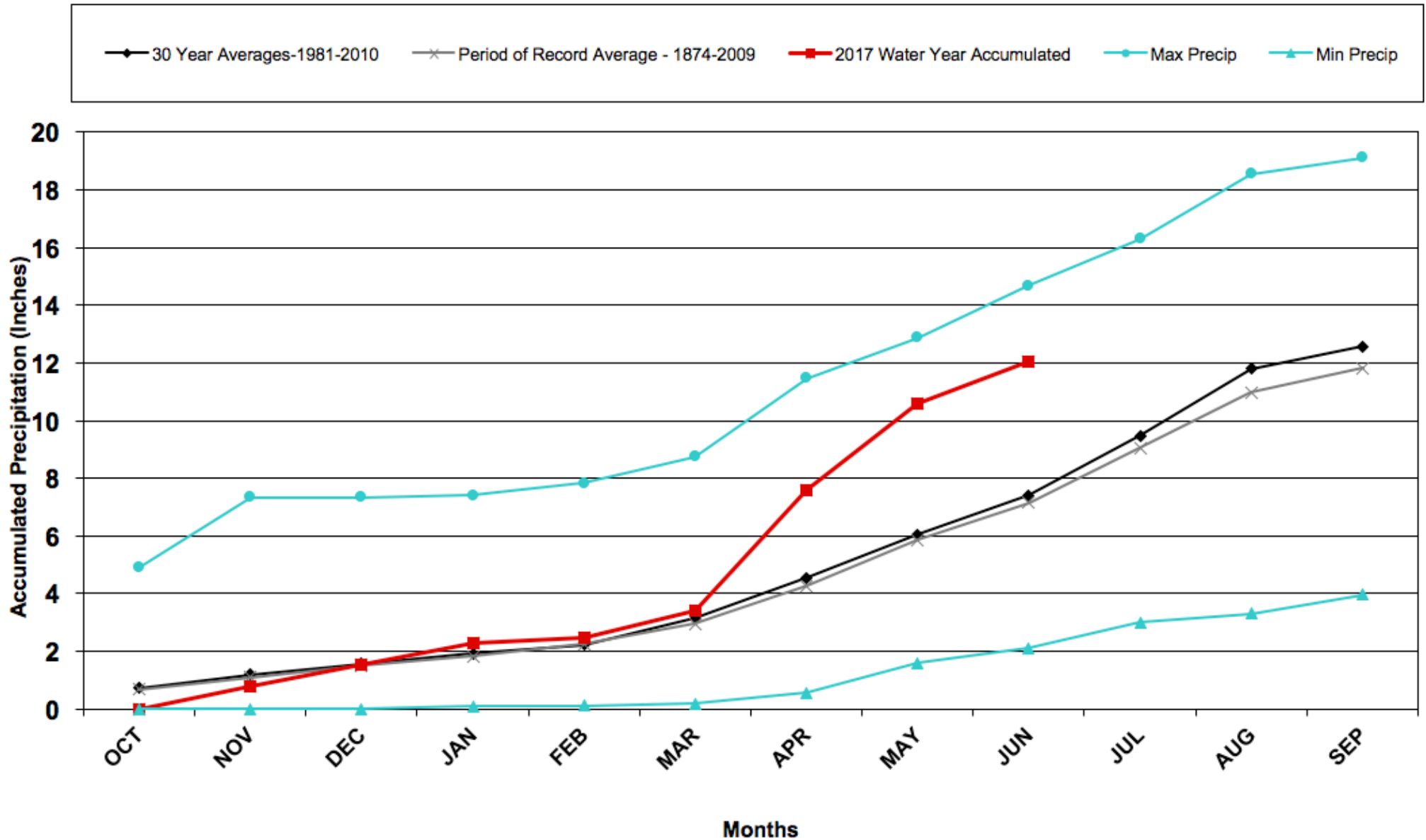
Accumulated Precipitation – ALAMOSA SAN LUIS AP, CO

Use navigation tools above and below chart to change displayed range; green/black diamonds represent subsequent/missing values



Division 5 – Pueblo

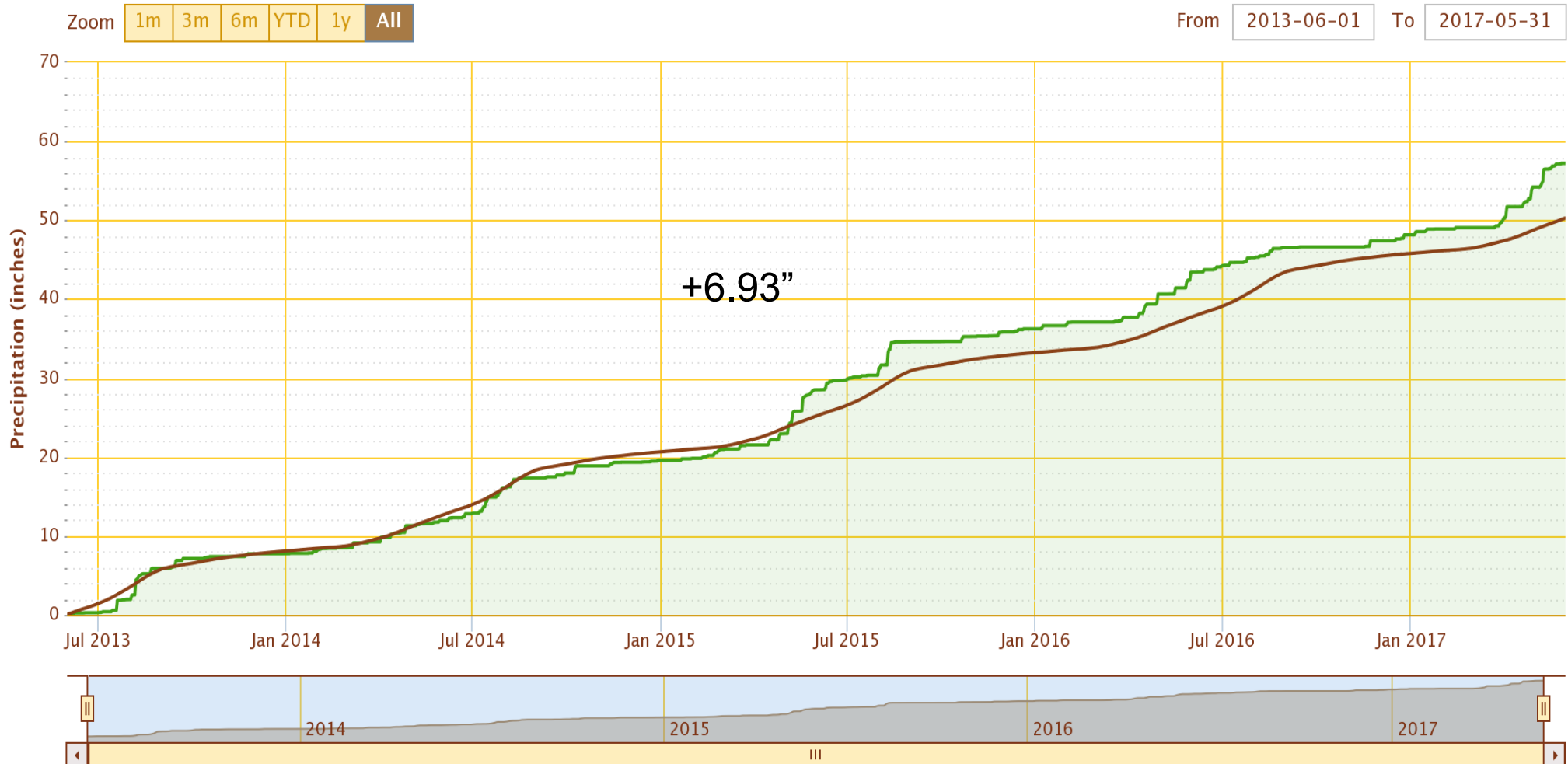
Pueblo WSO 2017 Water Year



Division 5 – Pueblo

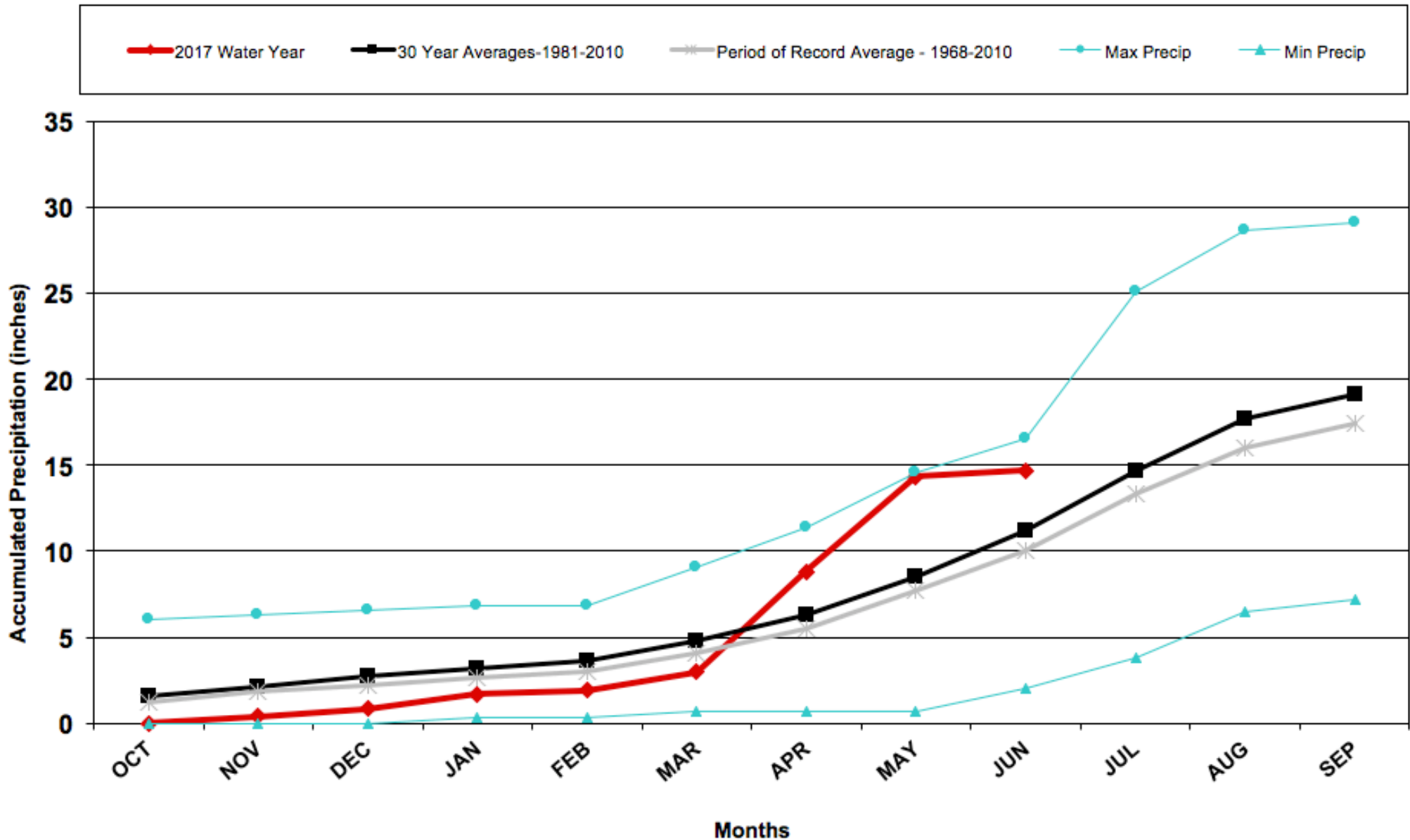
Accumulated Precipitation – PUEBLO MEM AP, CO

Use navigation tools above and below chart to change displayed range; green/black diamonds represent subsequent/missing values



Division 6 - Walsh

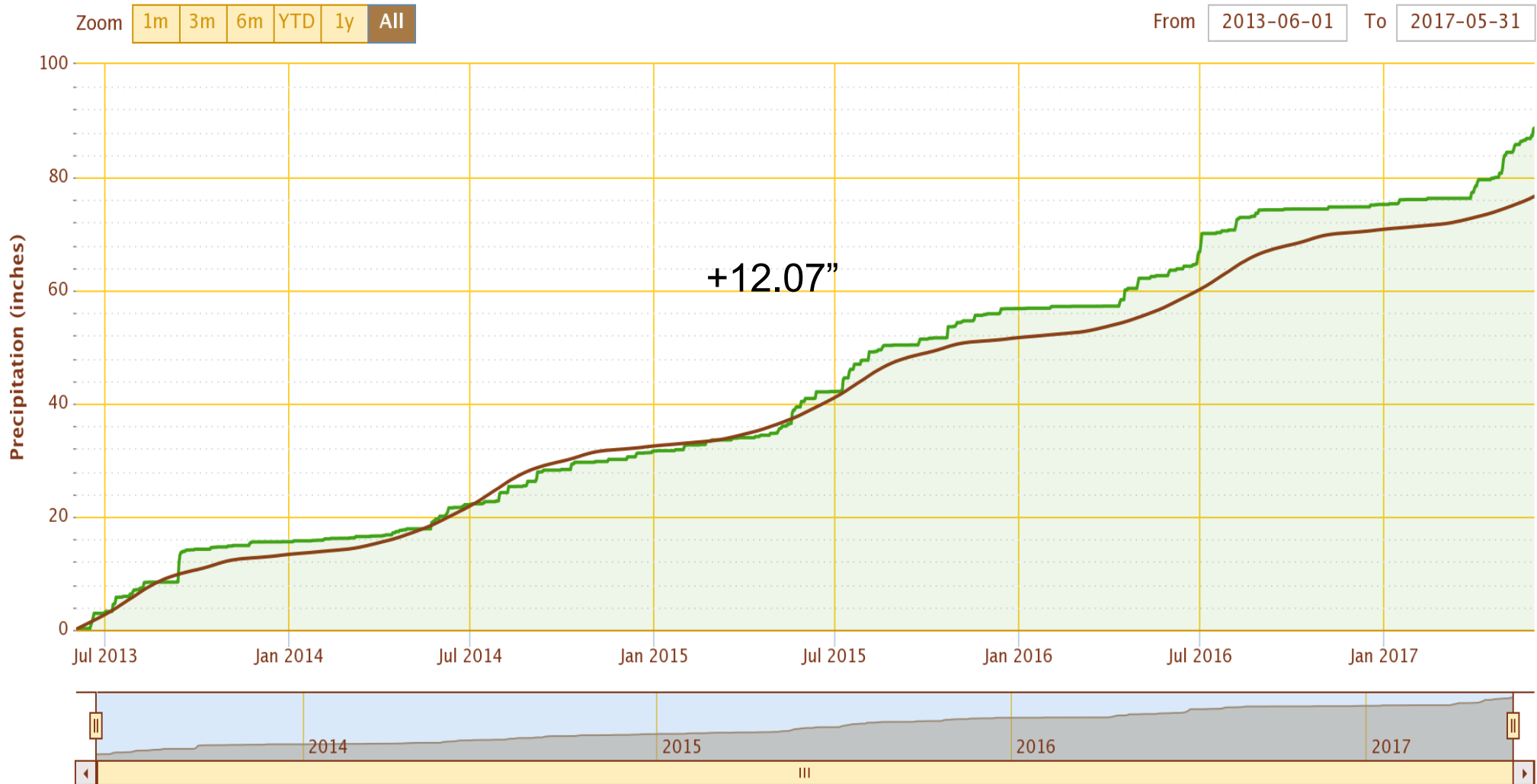
Walsh 2017 Water Year



Division 6 - Walsh

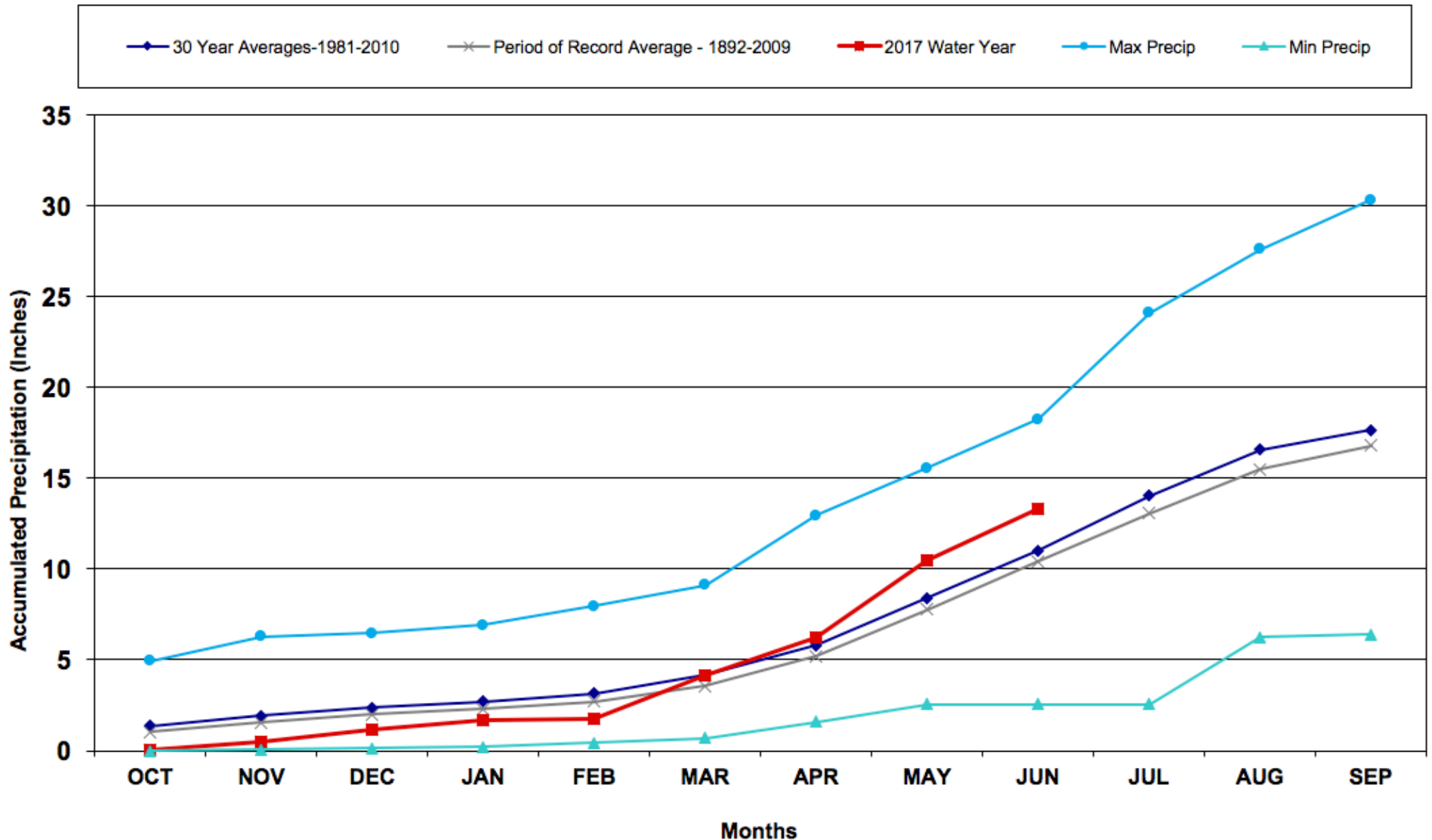
Accumulated Precipitation - WALSH 1 W, CO

Use navigation tools above and below chart to change displayed range; green/black diamonds represent subsequent/missing values



Division 6 - Burlington

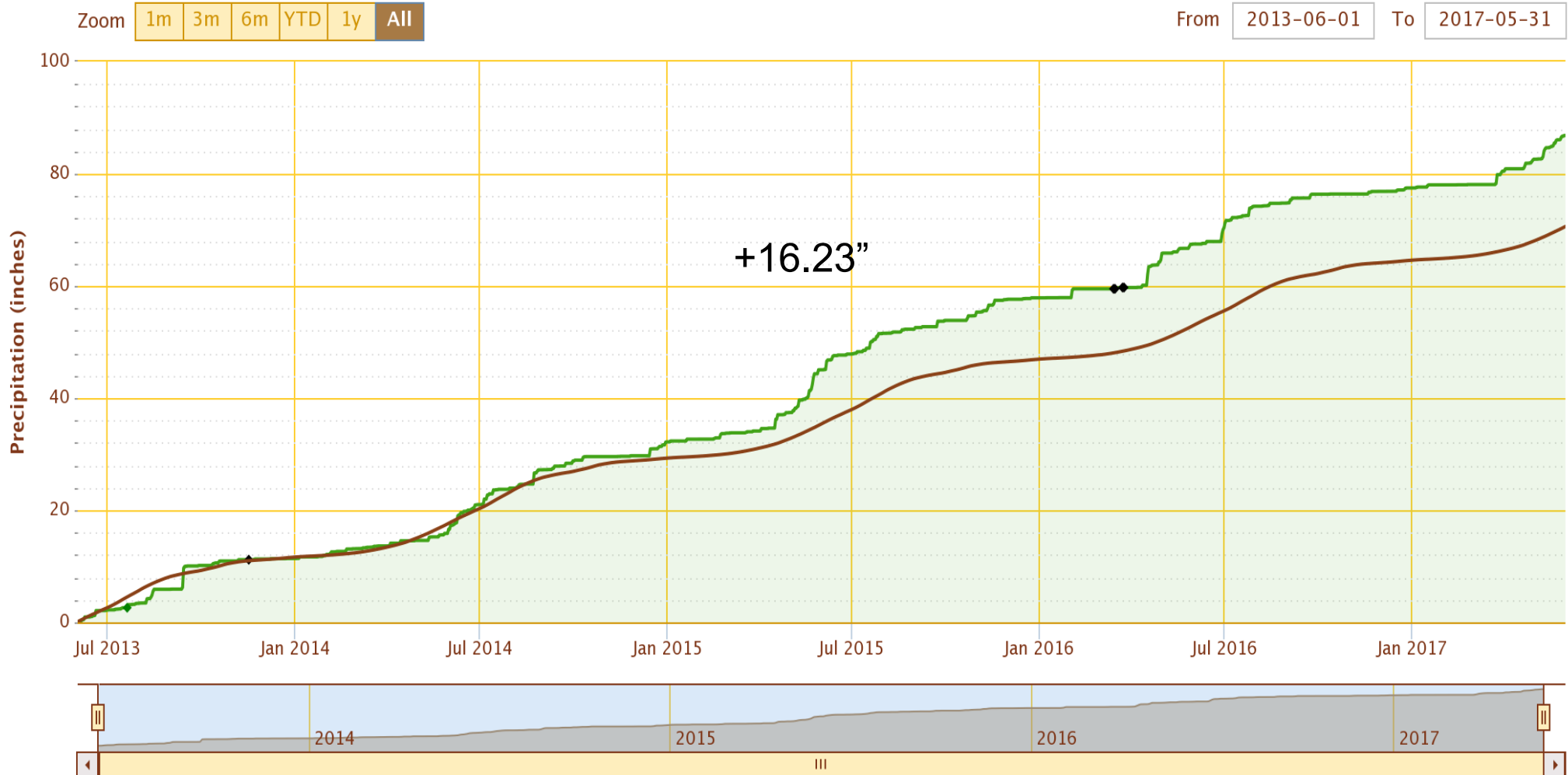
Burlington 2017 Water Year



Division 6 - Burlington

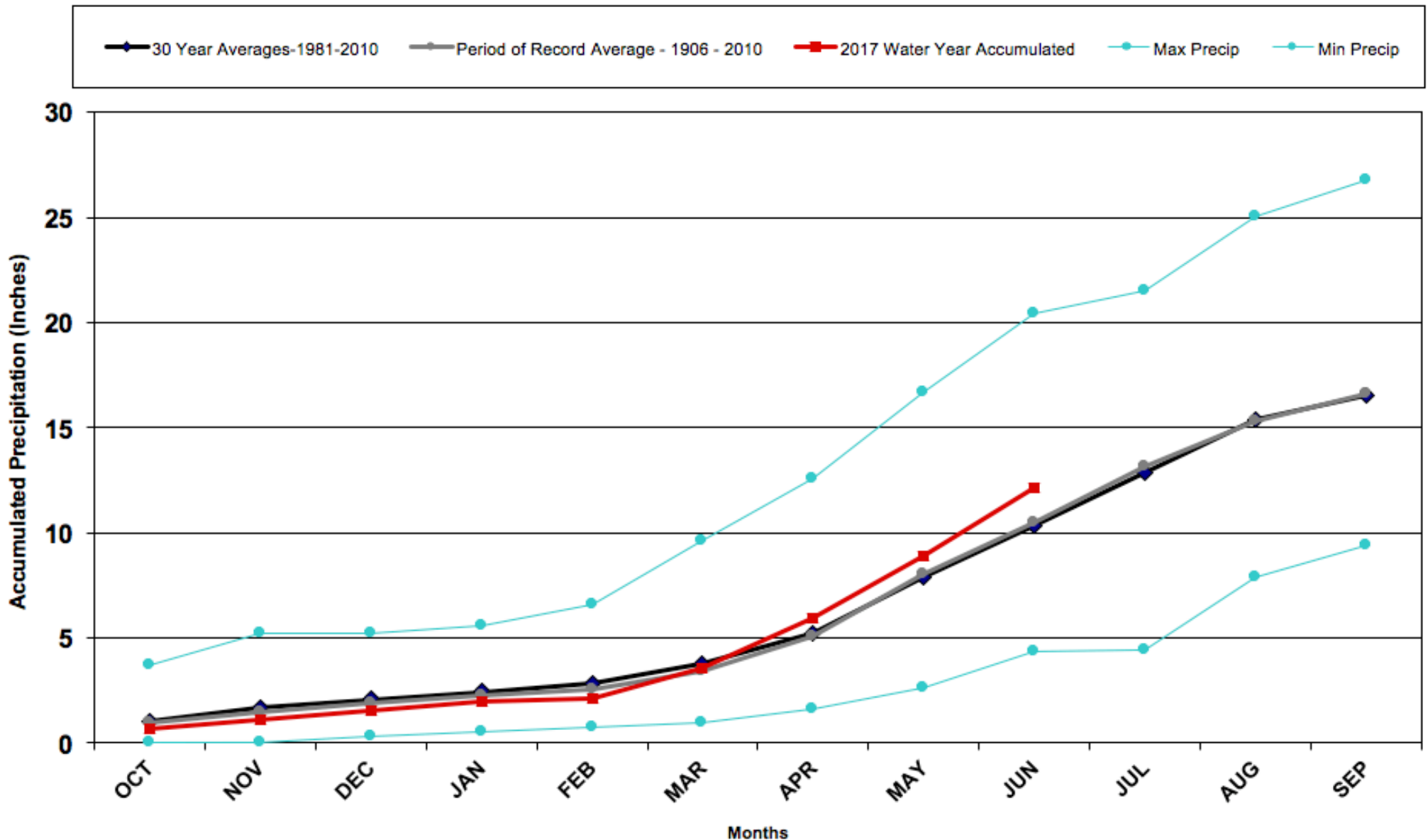
Accumulated Precipitation – BURLINGTON, CO

Use navigation tools above and below chart to change displayed range; green/black diamonds represent subsequent/missing values



Division 7 – Akron

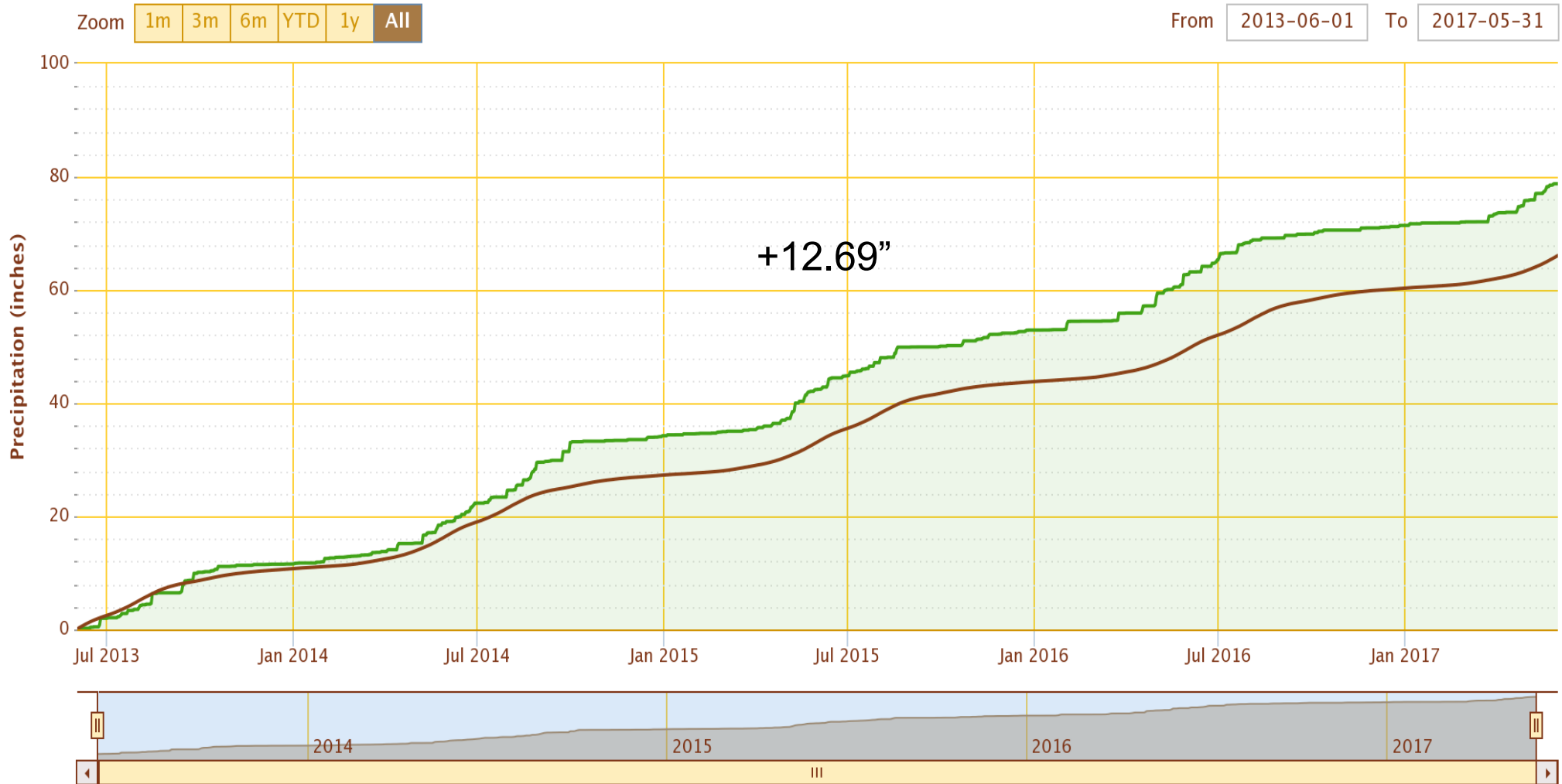
Akron 4E 2016 Water Year



Division 7 – Akron

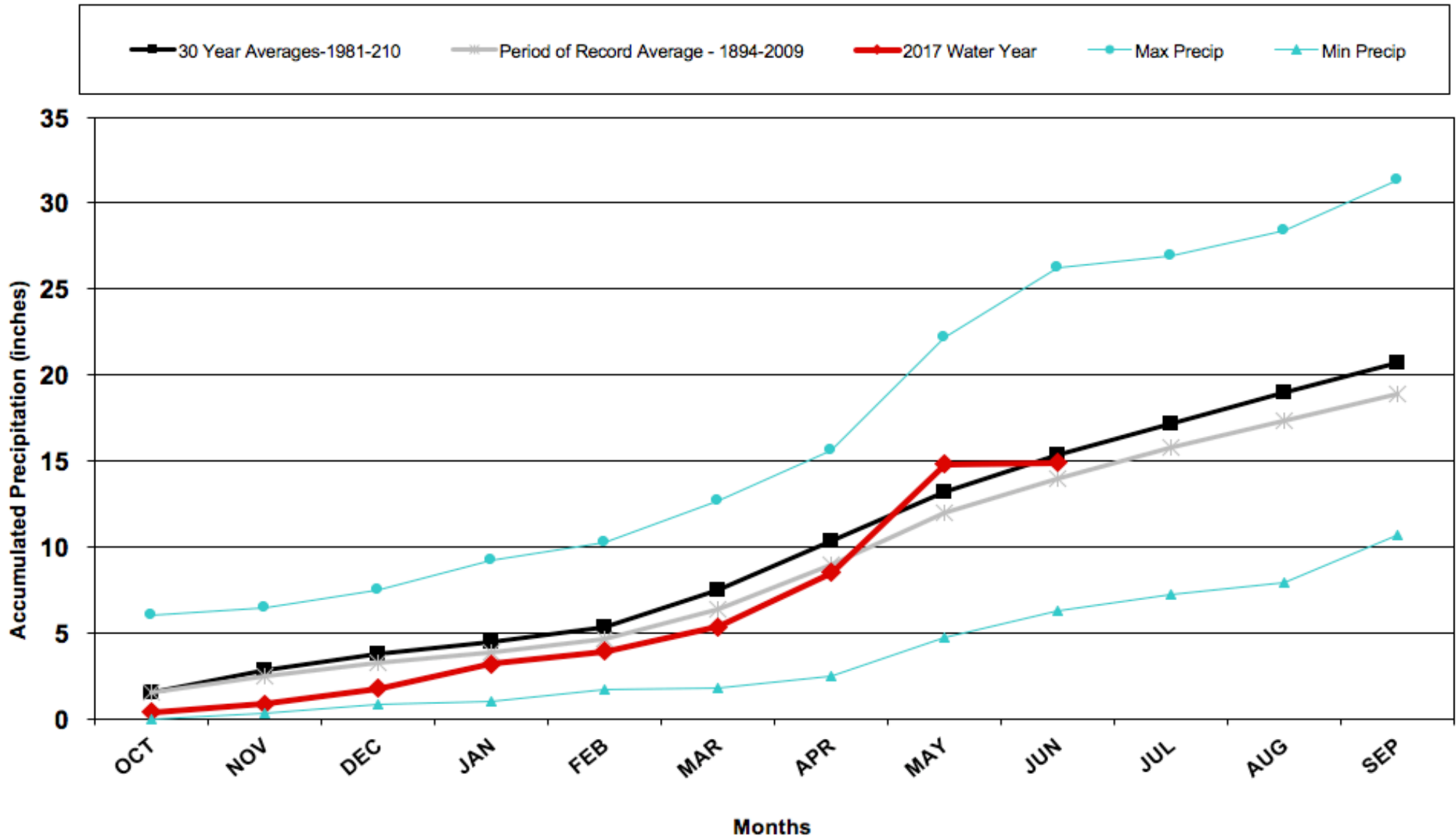
Accumulated Precipitation – AKRON 4 E, CO

Use navigation tools above and below chart to change displayed range; green/black diamonds represent subsequent/missing values



Division 8 - Boulder

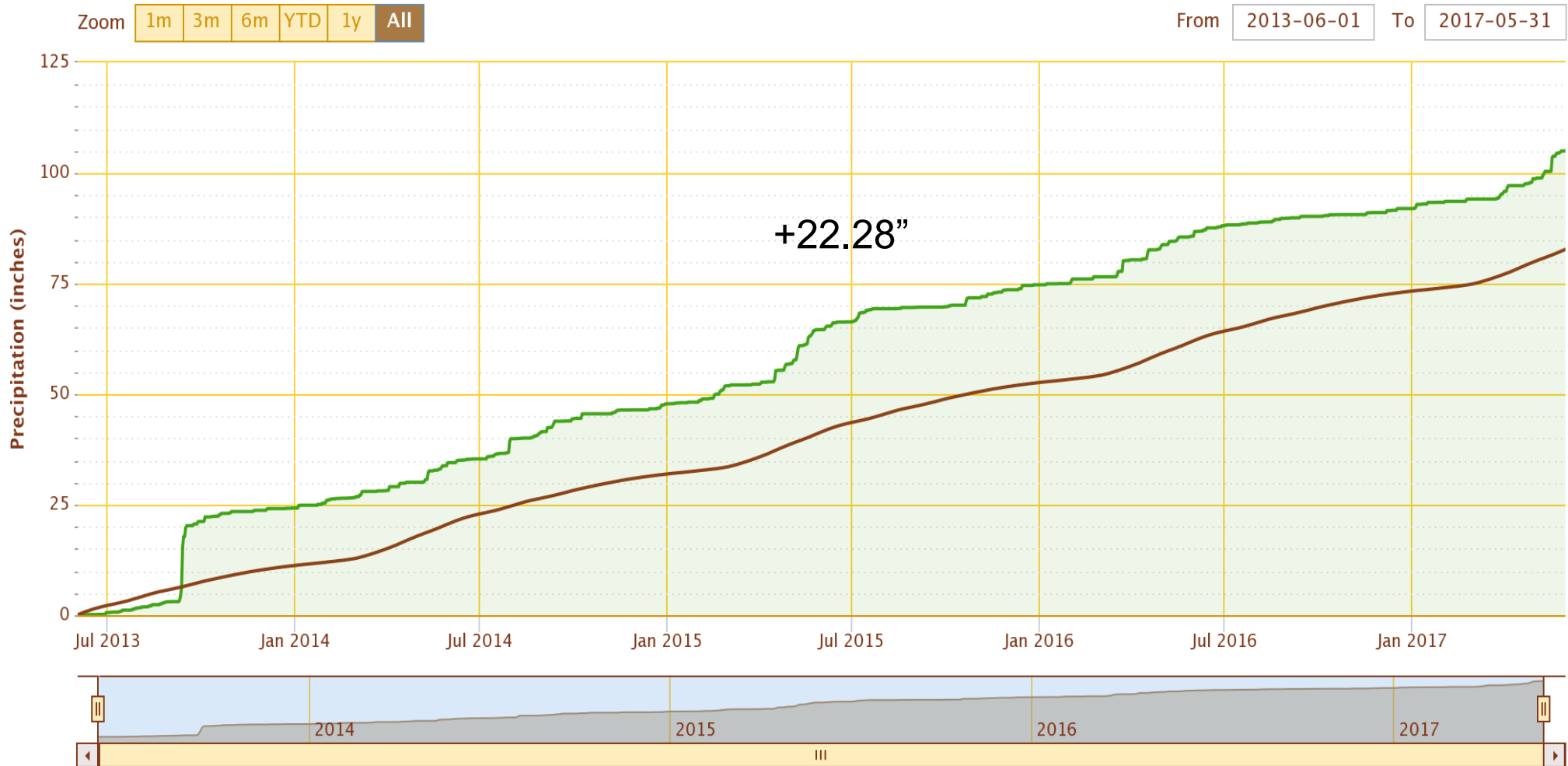
Boulder 2017 Water Year



Division 8 - Boulder

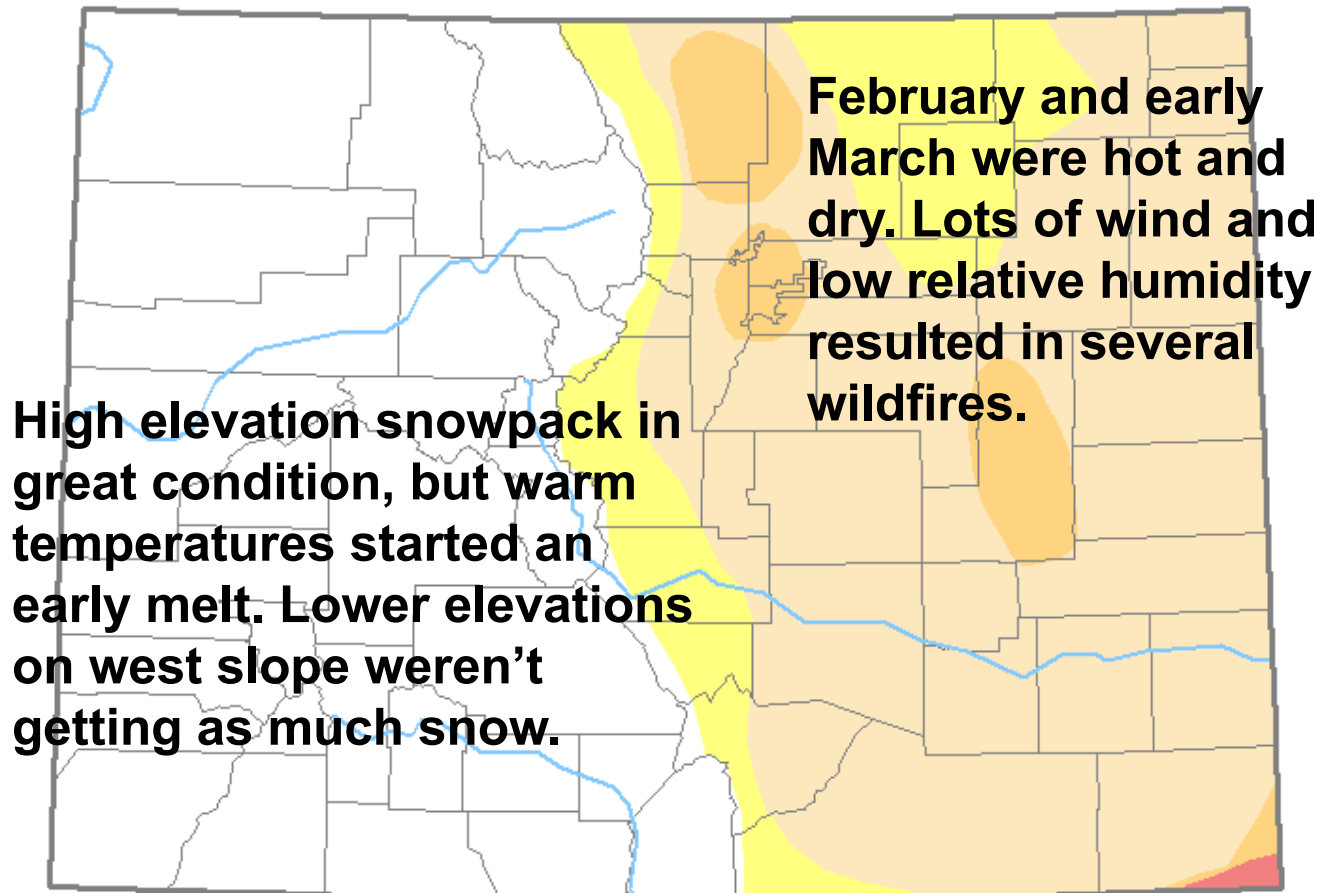
Accumulated Precipitation – BOULDER, CO

Use navigation tools above and below chart to change displayed range; green/black diamonds represent subsequent/missing values








U.S. Drought Monitor Colorado

March 14, 2017
(Released Thursday, Mar. 16, 2017)
Valid 8 a.m. EDT



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:

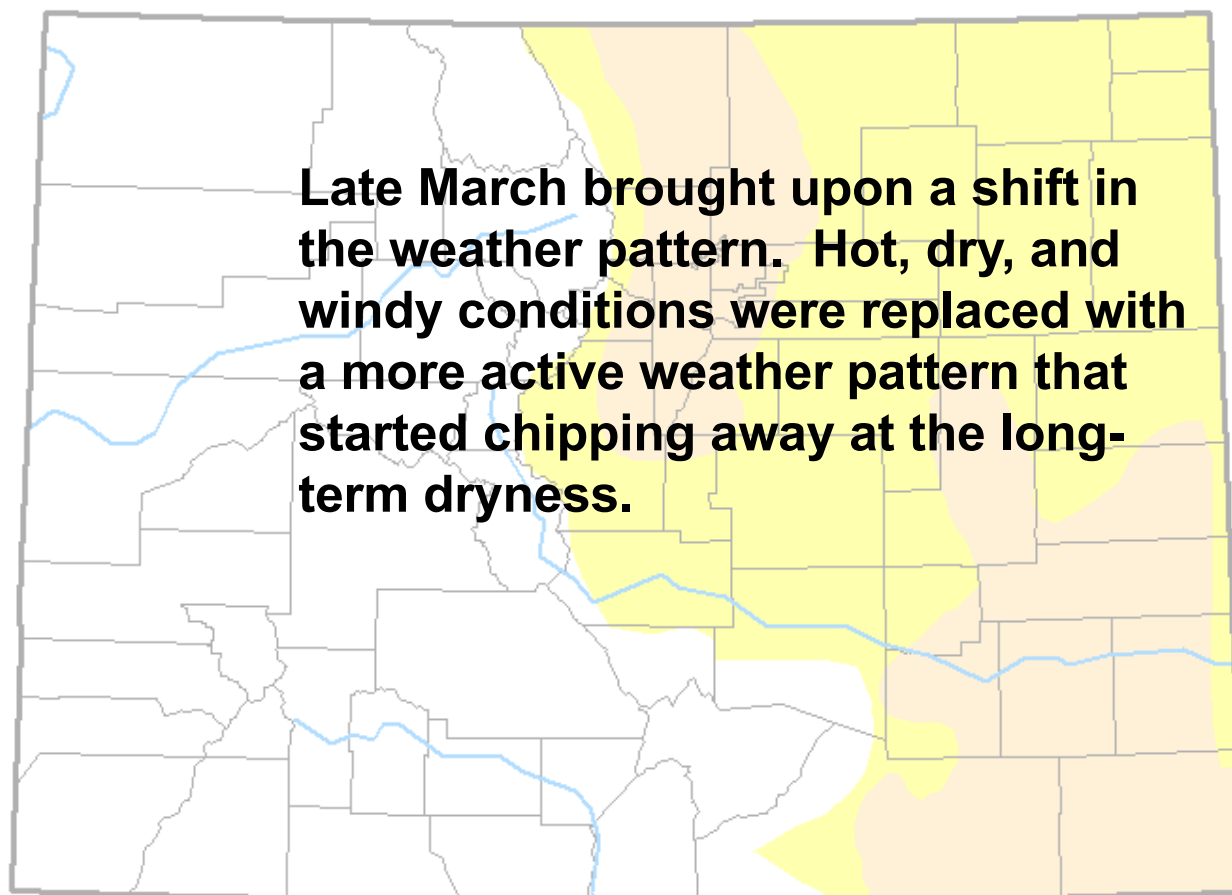
Brian Fuchs
National Drought Mitigation Center








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

U.S. Drought Monitor Colorado

April 11, 2017
(Released Thursday, Apr. 13, 2017)
Valid 8 a.m. EDT



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:

Anthony Artusa
NOAA/NWS/NCEP/CPC



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

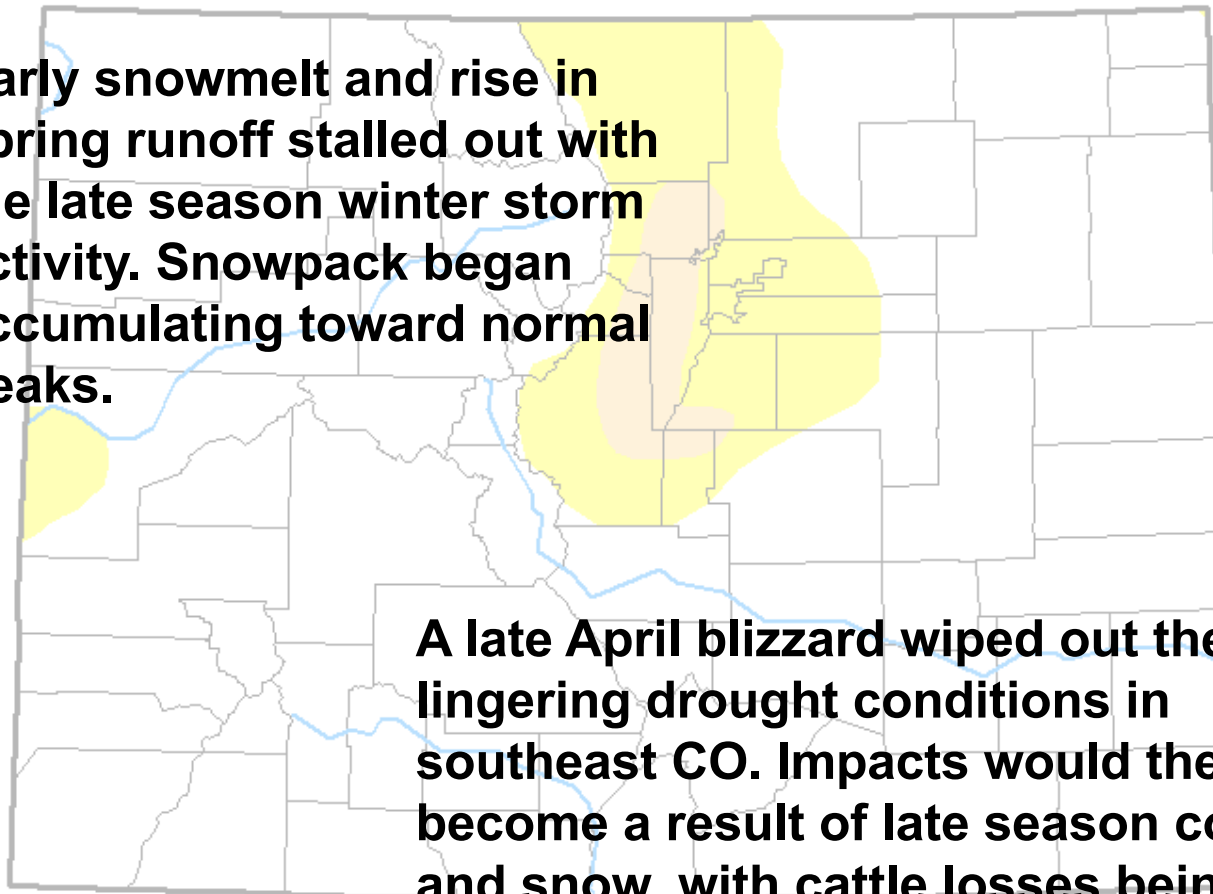
U.S. Drought Monitor Colorado

May 9, 2017

(Released Thursday, May. 11, 2017)



Valid 8 a.m. EDT

Early snowmelt and rise in spring runoff stalled out with the late season winter storm activity. Snowpack began accumulating toward normal peaks.



A late April blizzard wiped out the lingering drought conditions in southeast CO. Impacts would then become a result of late season cold and snow, with cattle losses being the largest reported impact.

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:

Brian Fuchs
National Drought Mitigation Center

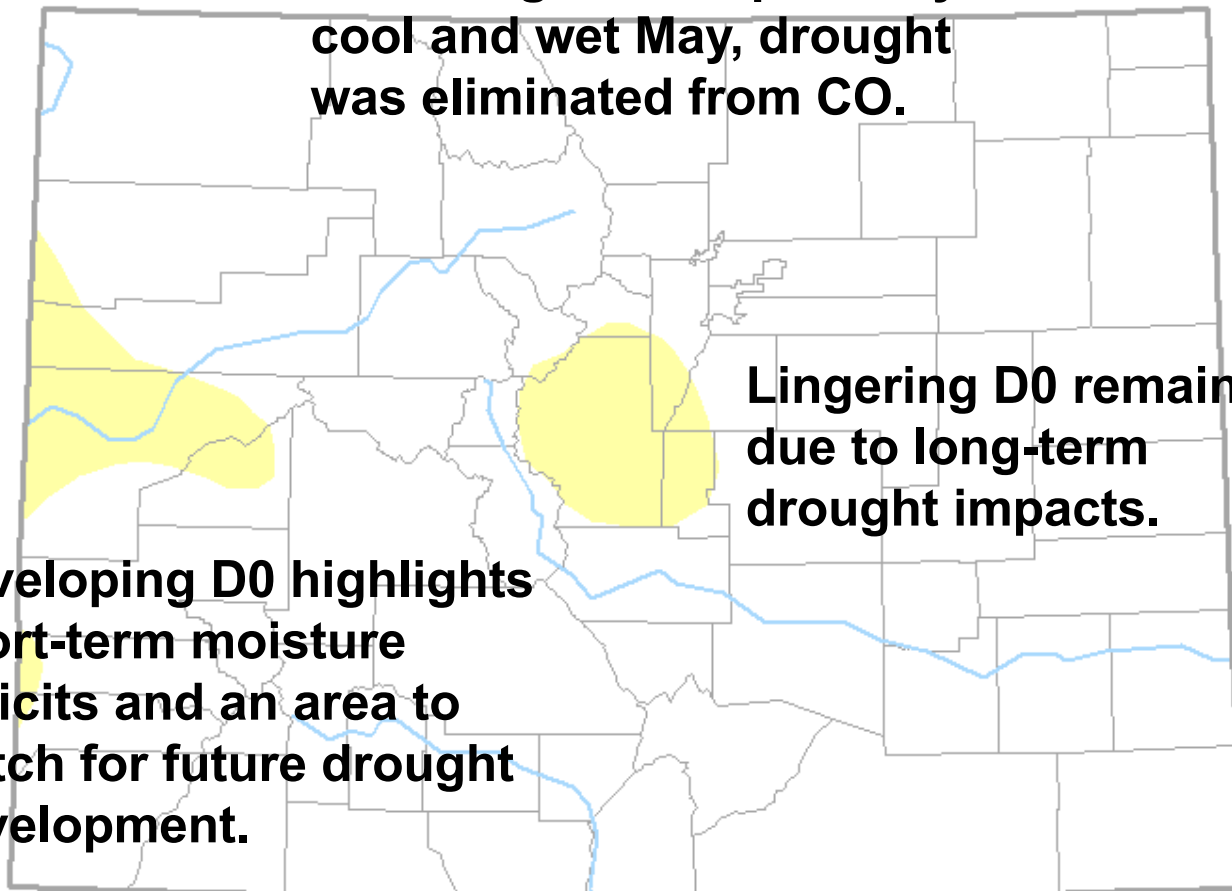


<http://droughtmonitor.unl.edu/>





U.S. Drought Monitor Colorado

June 13, 2017
(Released Thursday, Jun. 15, 2017)
Valid 8 a.m. EDT

Following an exceptionally cool and wet May, drought was eliminated from CO.



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:

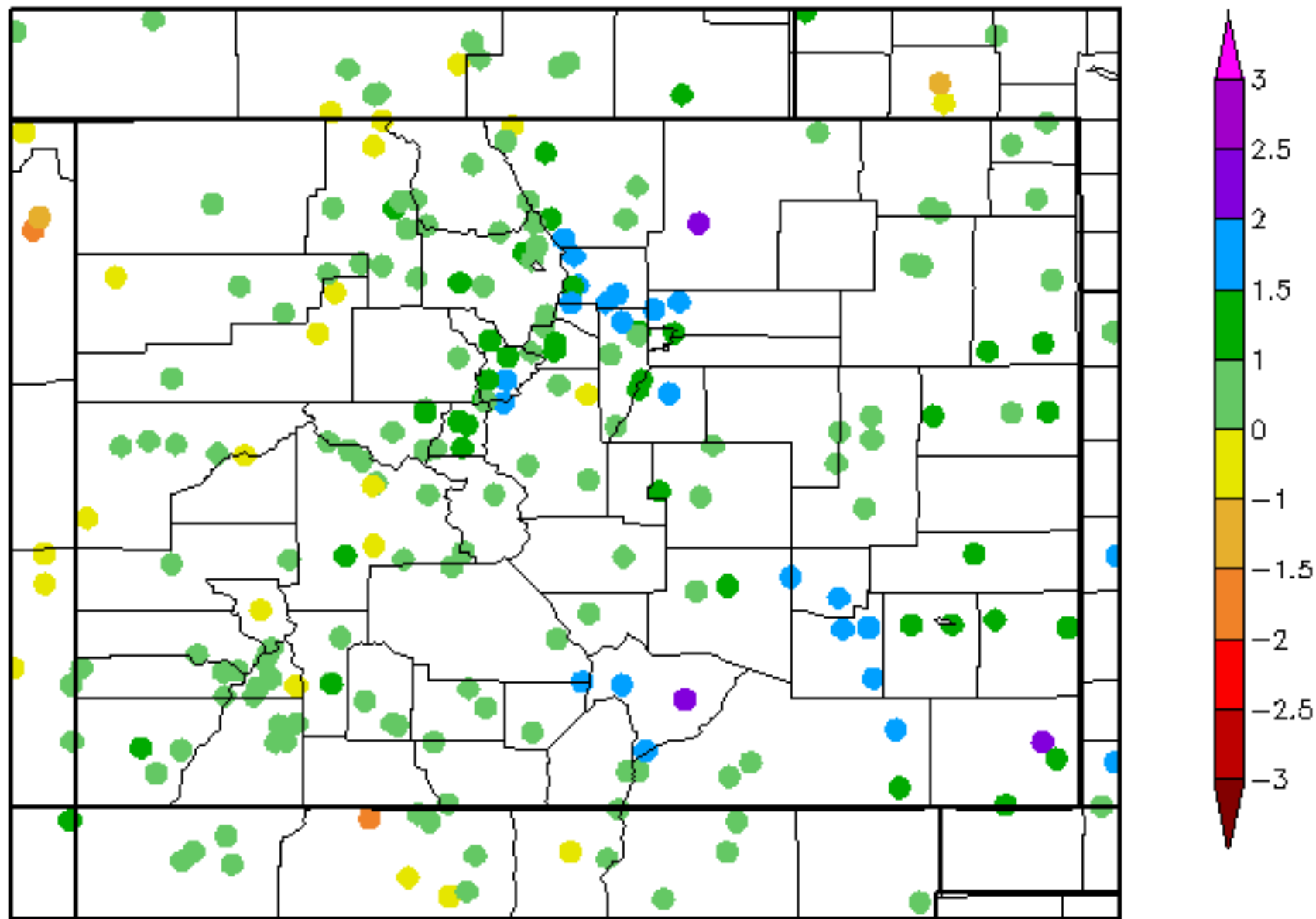
David Miskus
NOAA/NWS/NCEP/CPC



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

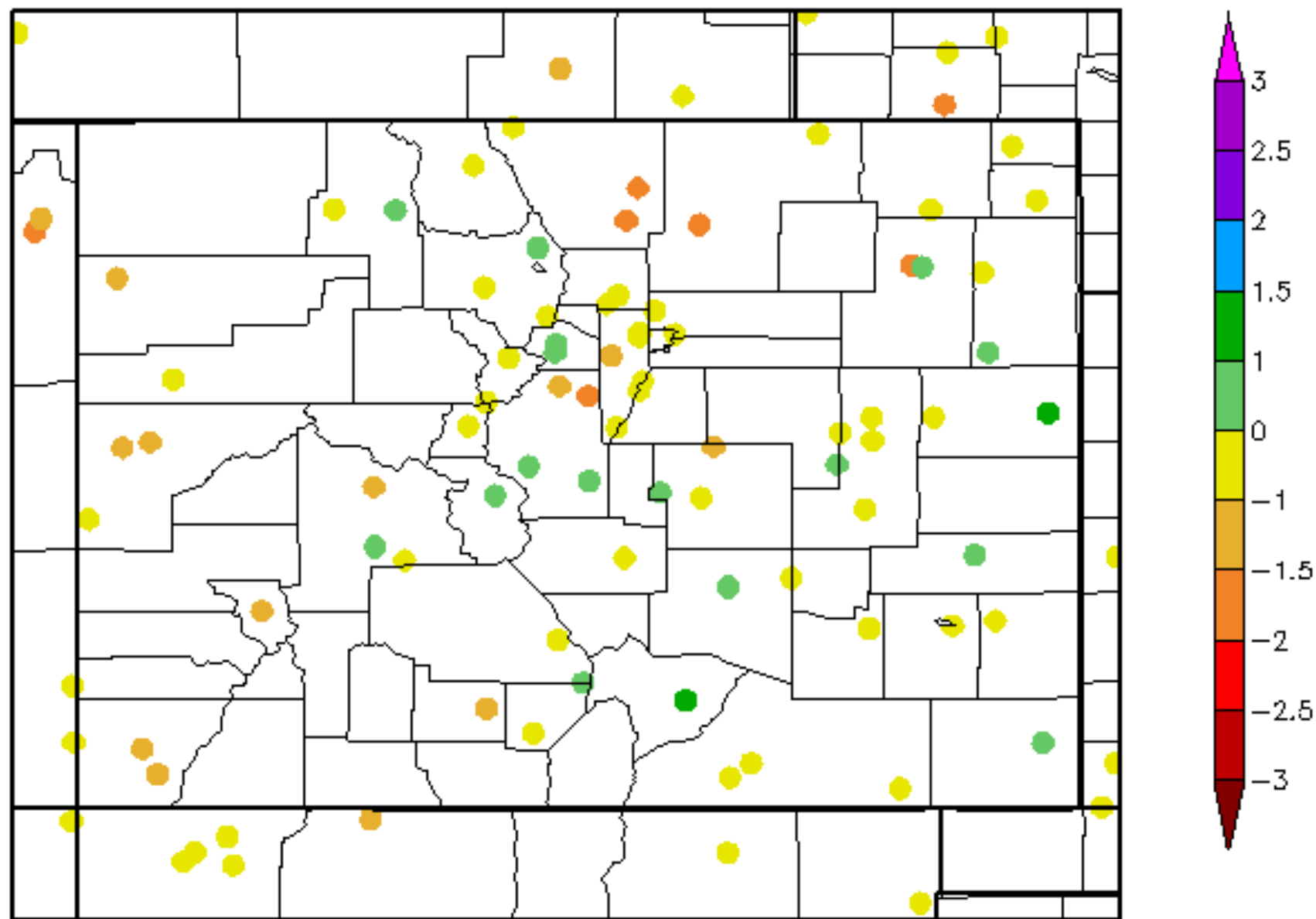
Monthly SPI

5/1/2017 - 5/31/2017



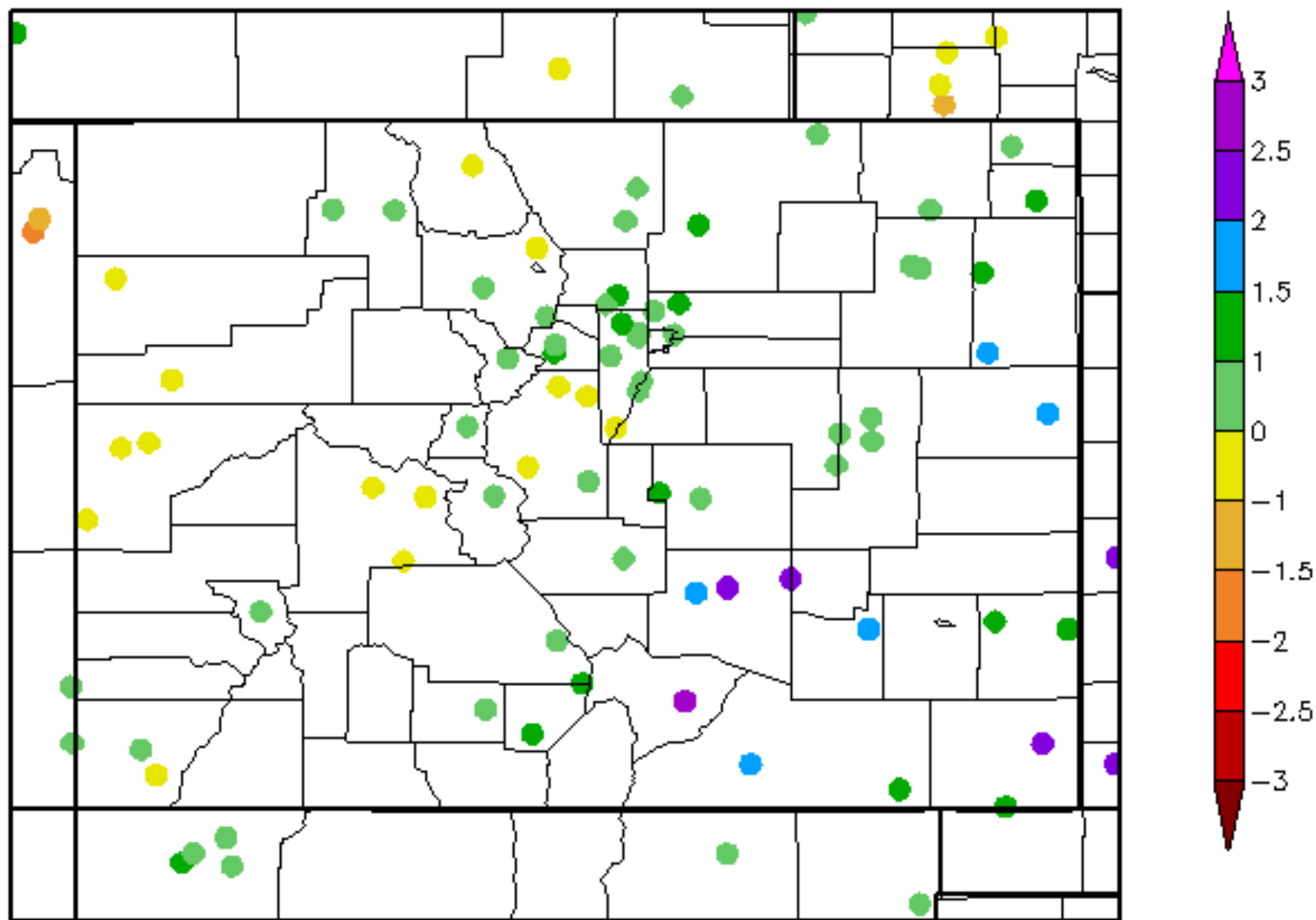
30 Day SPI

5/21/2017 - 6/19/2017



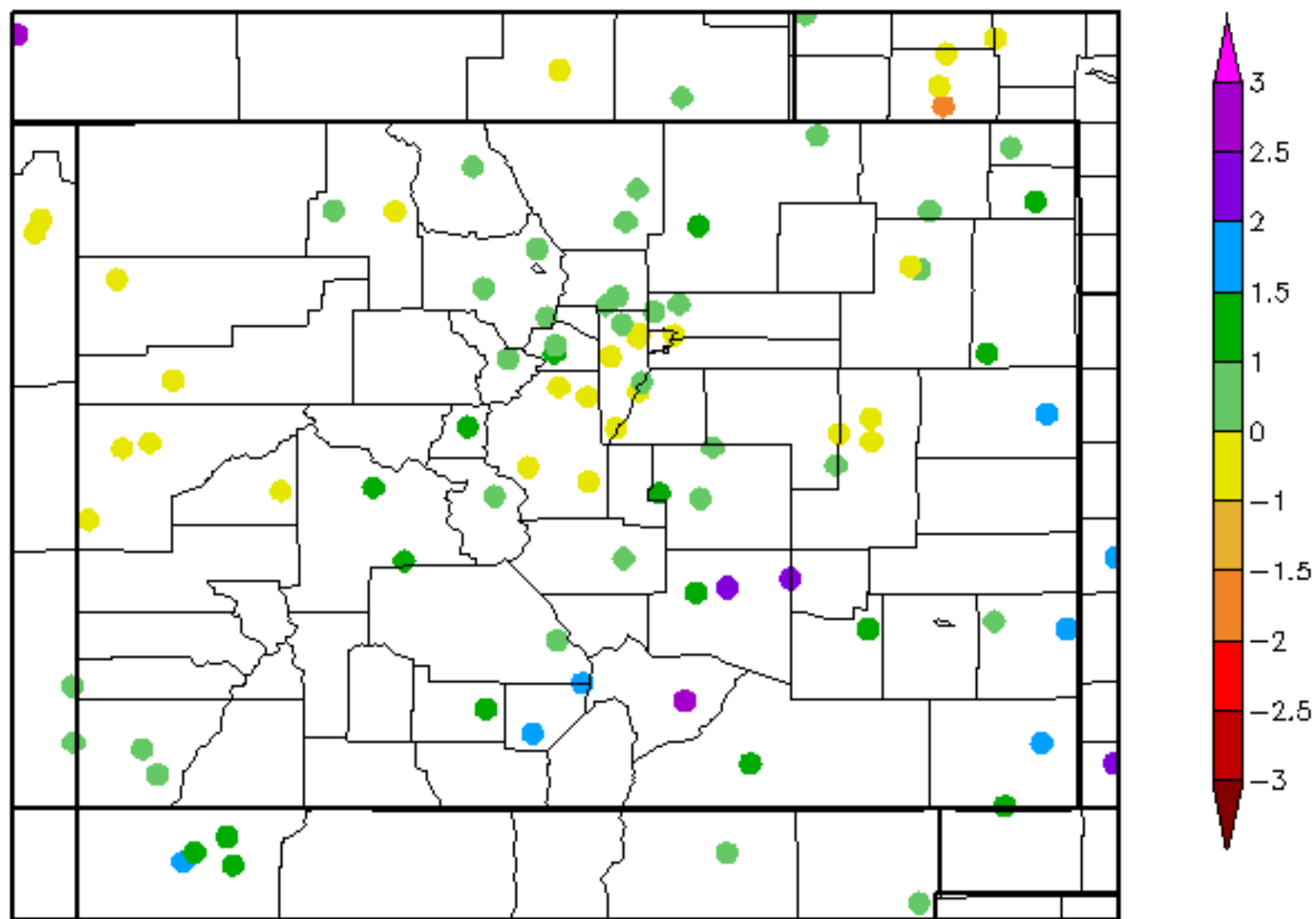
90 Day SPI

3/21/2017 - 6/18/2017



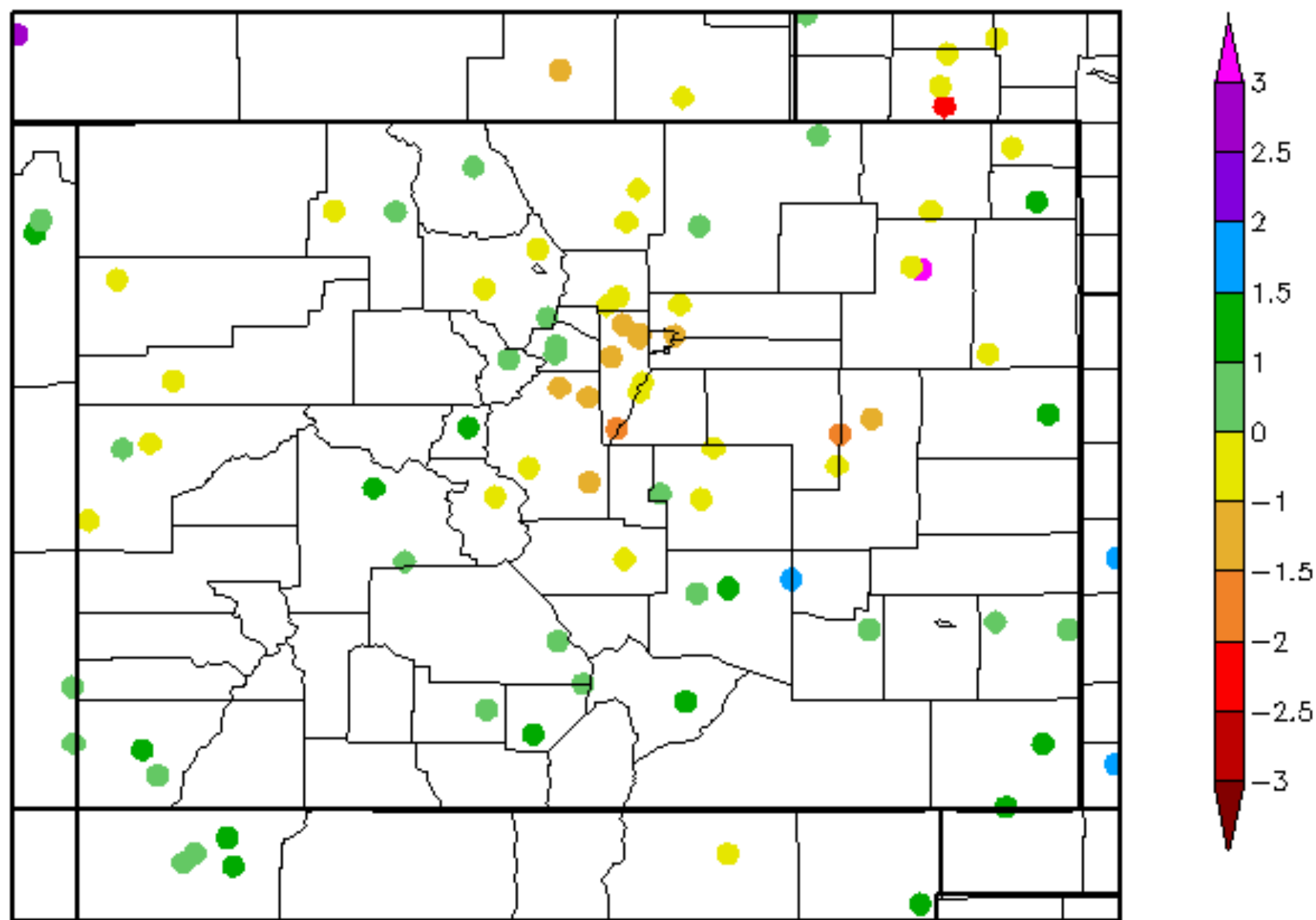
6 Month SPI

12/19/2016 - 6/18/2017



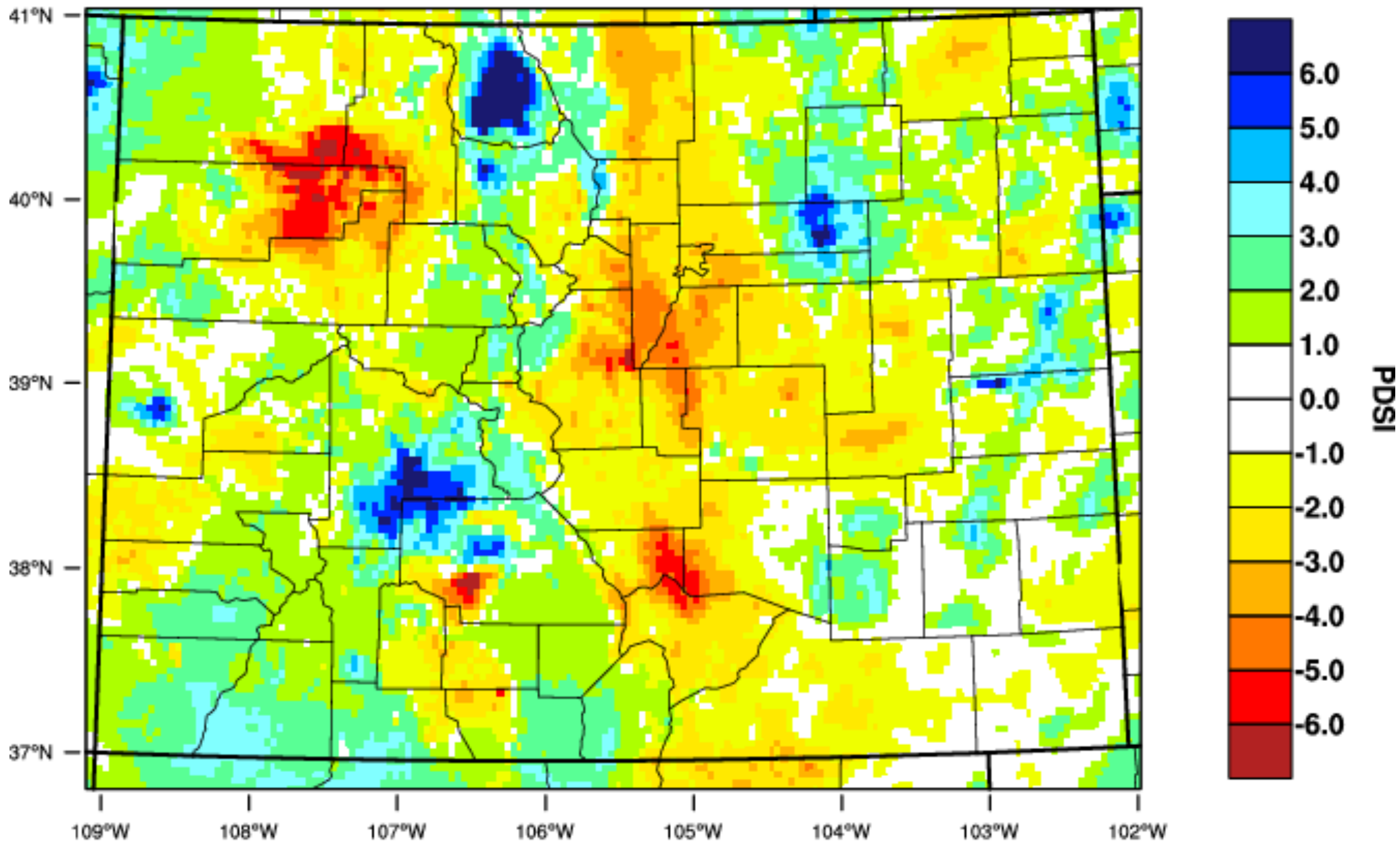
12 Month SPI

6/19/2016 - 6/18/2017



Colorado - PDSI

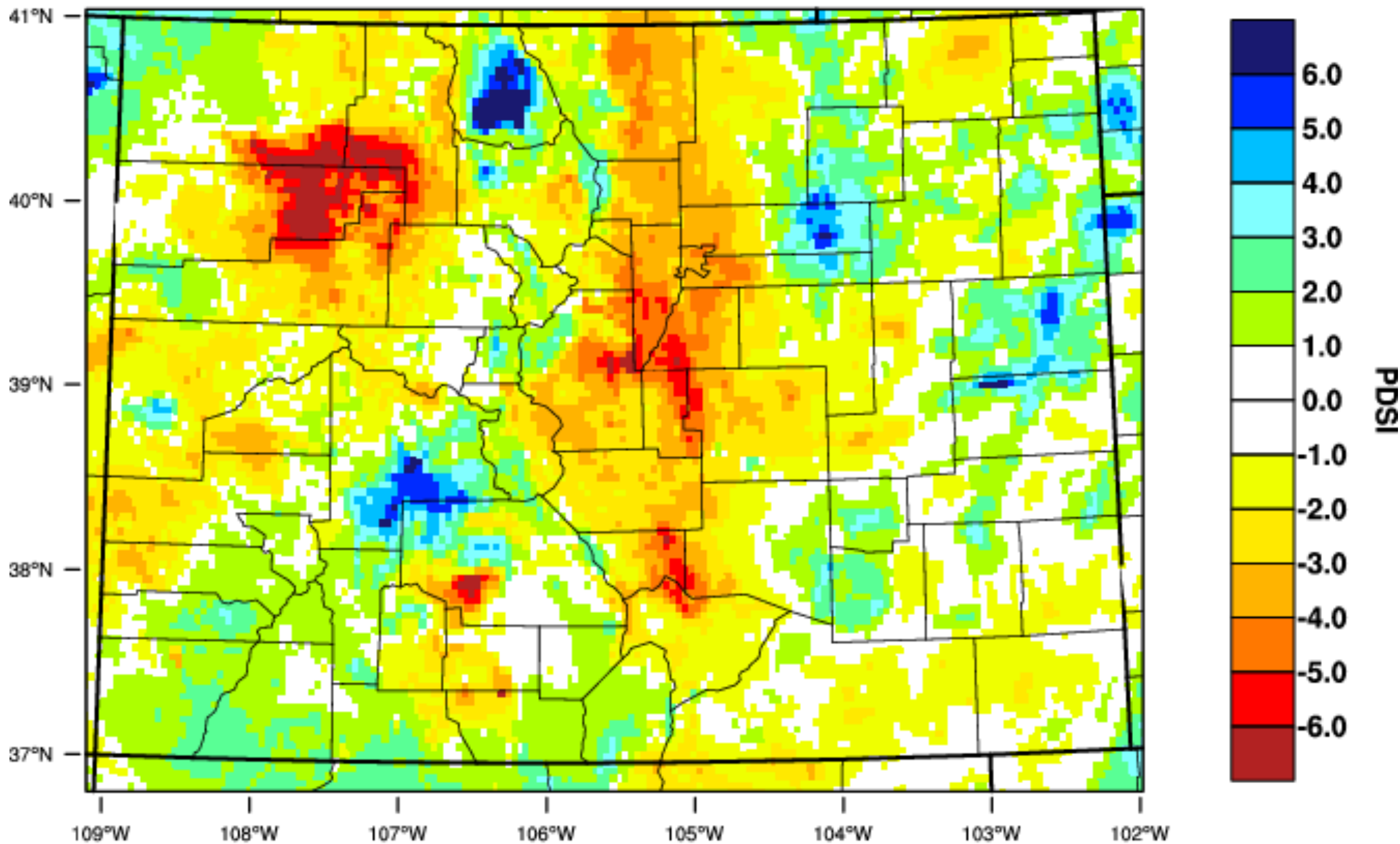
February 2017



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

Colorado - PDSI

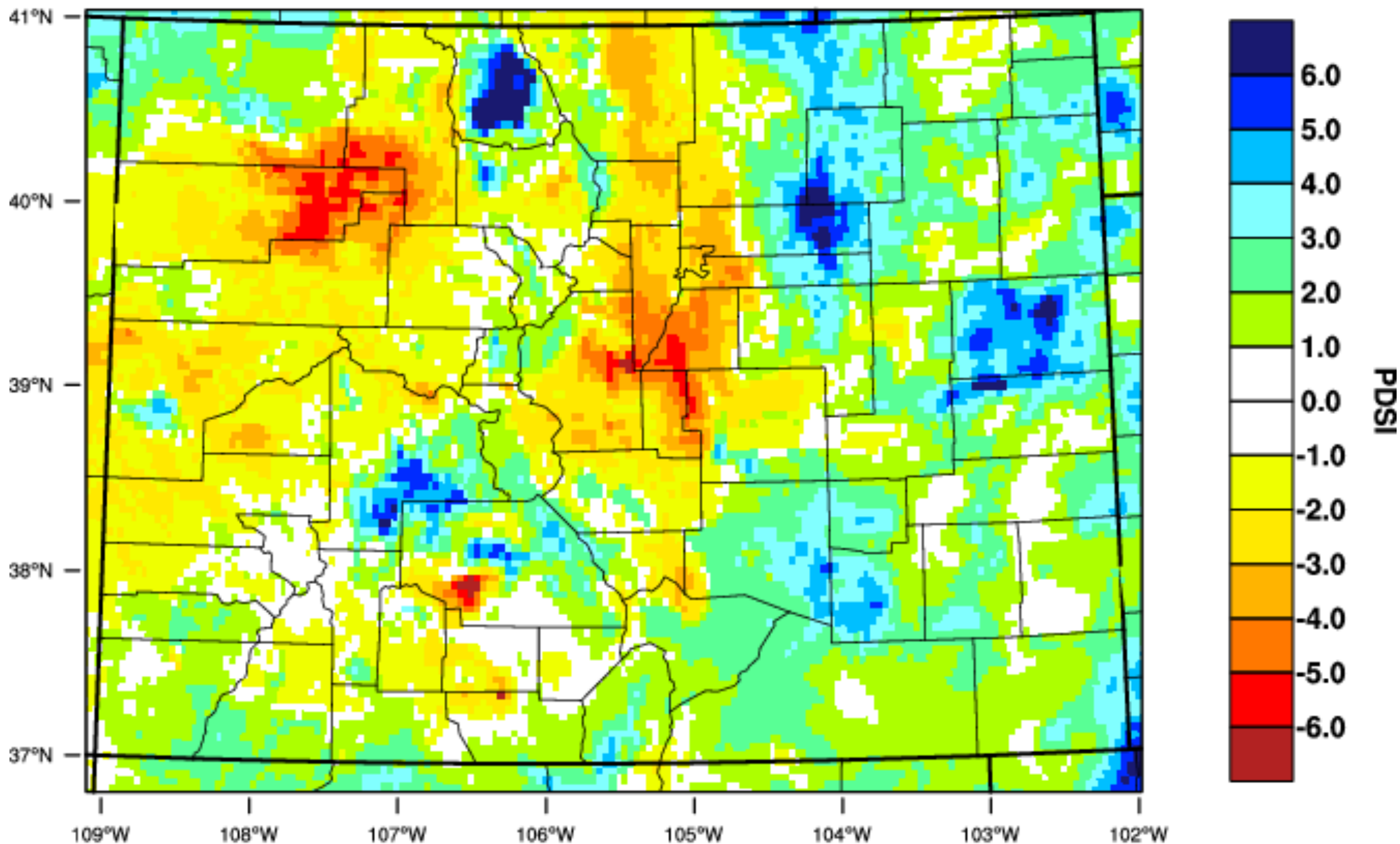
March 2017



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

Colorado - PDSI

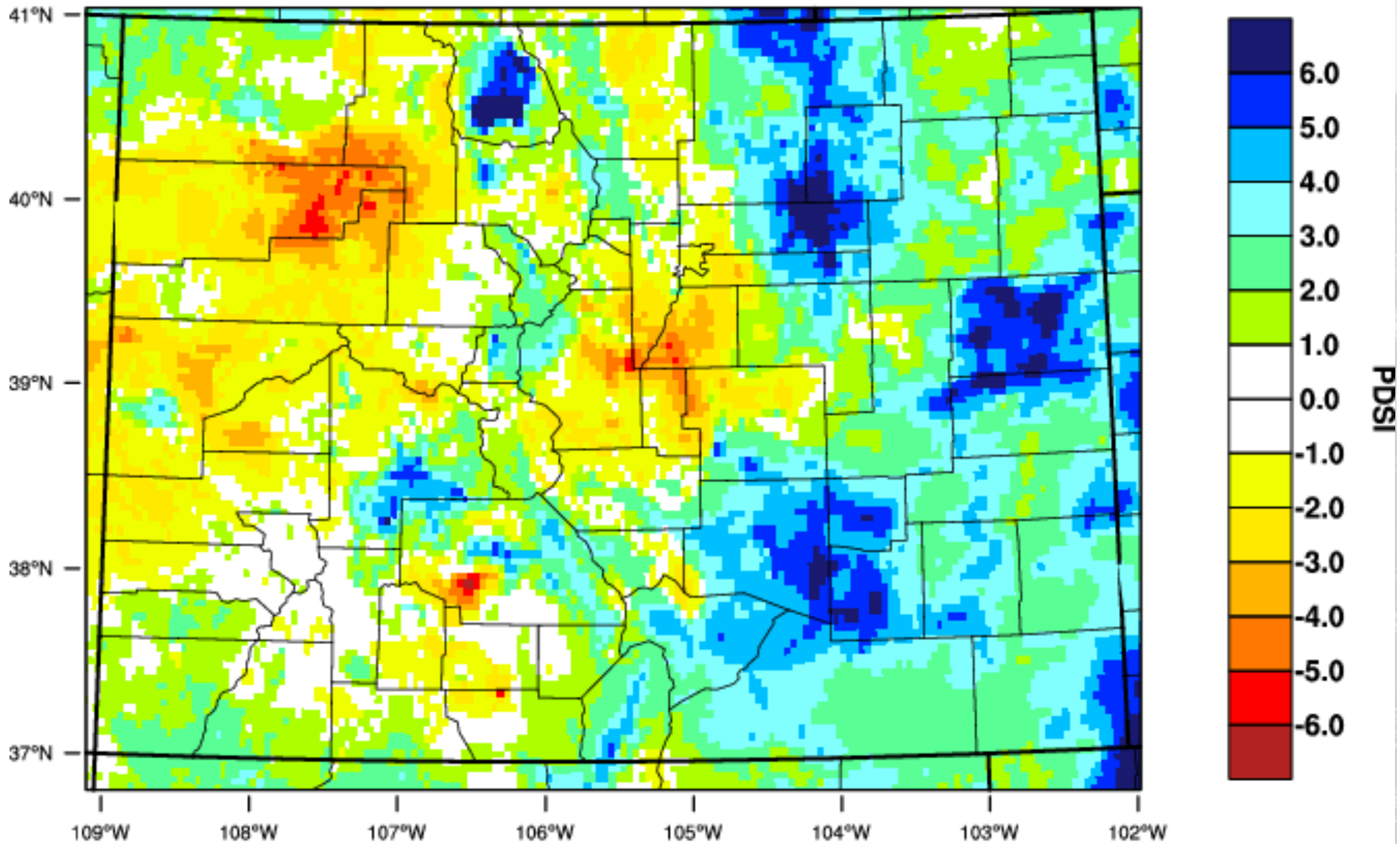
April 2017



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

Colorado - PDSI

May 2017



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

Colorado Climate Center

Archived WATF presentations can be found at:
http://climate.colostate.edu/ccc_archive.html

