

Colorado Climate Center – *WATF Climate Update*

Becky Bolinger

Water Availability Task Force
May 17, 2018



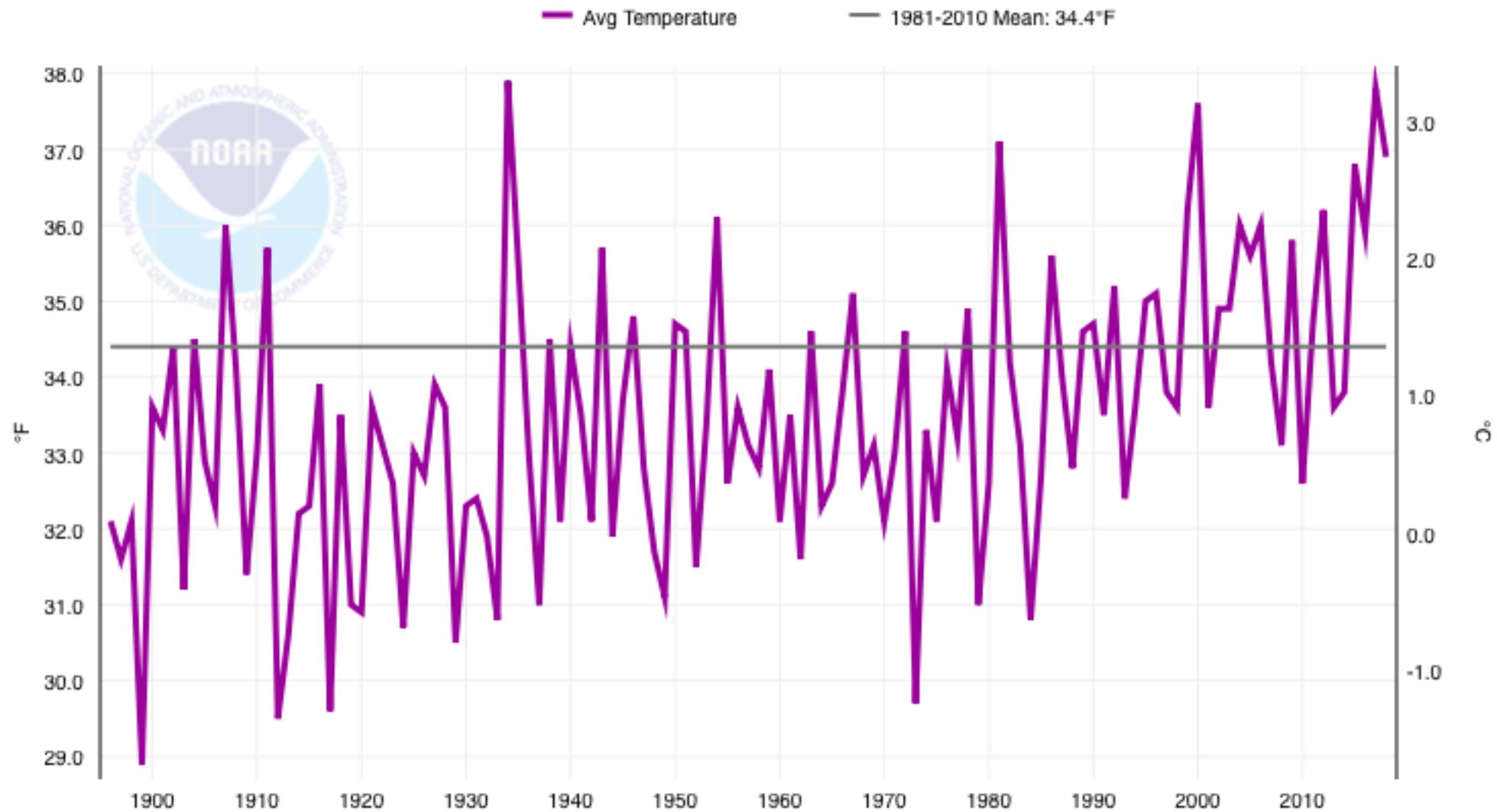
Colorado State University

Water Year 2018 – Temperature

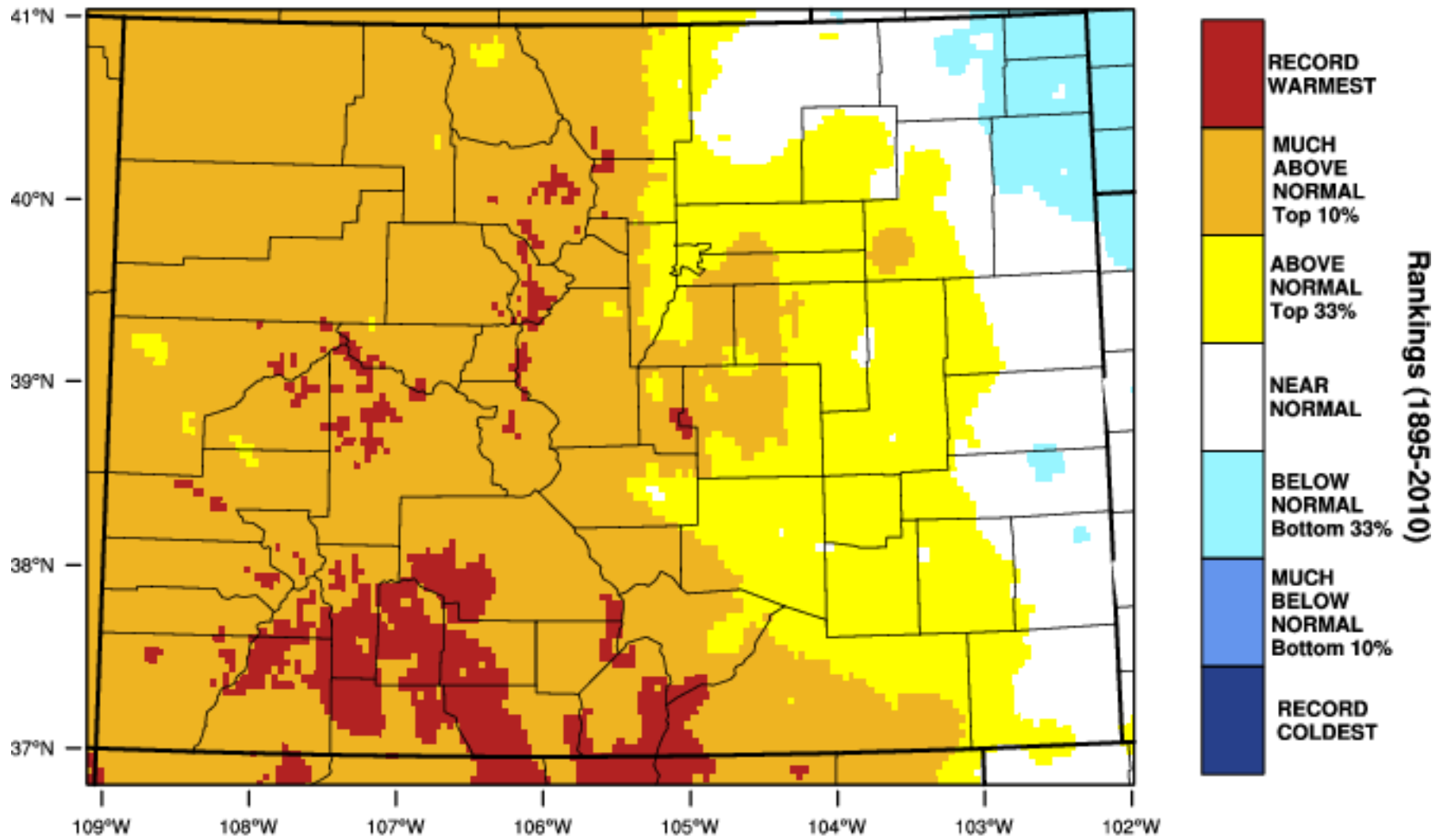


5th Warmest in 123-year record - +3.5°F above 34.4°F average

Colorado, Average Temperature, October-April



Colorado - Mean Temperature October-April 2018 Percentile

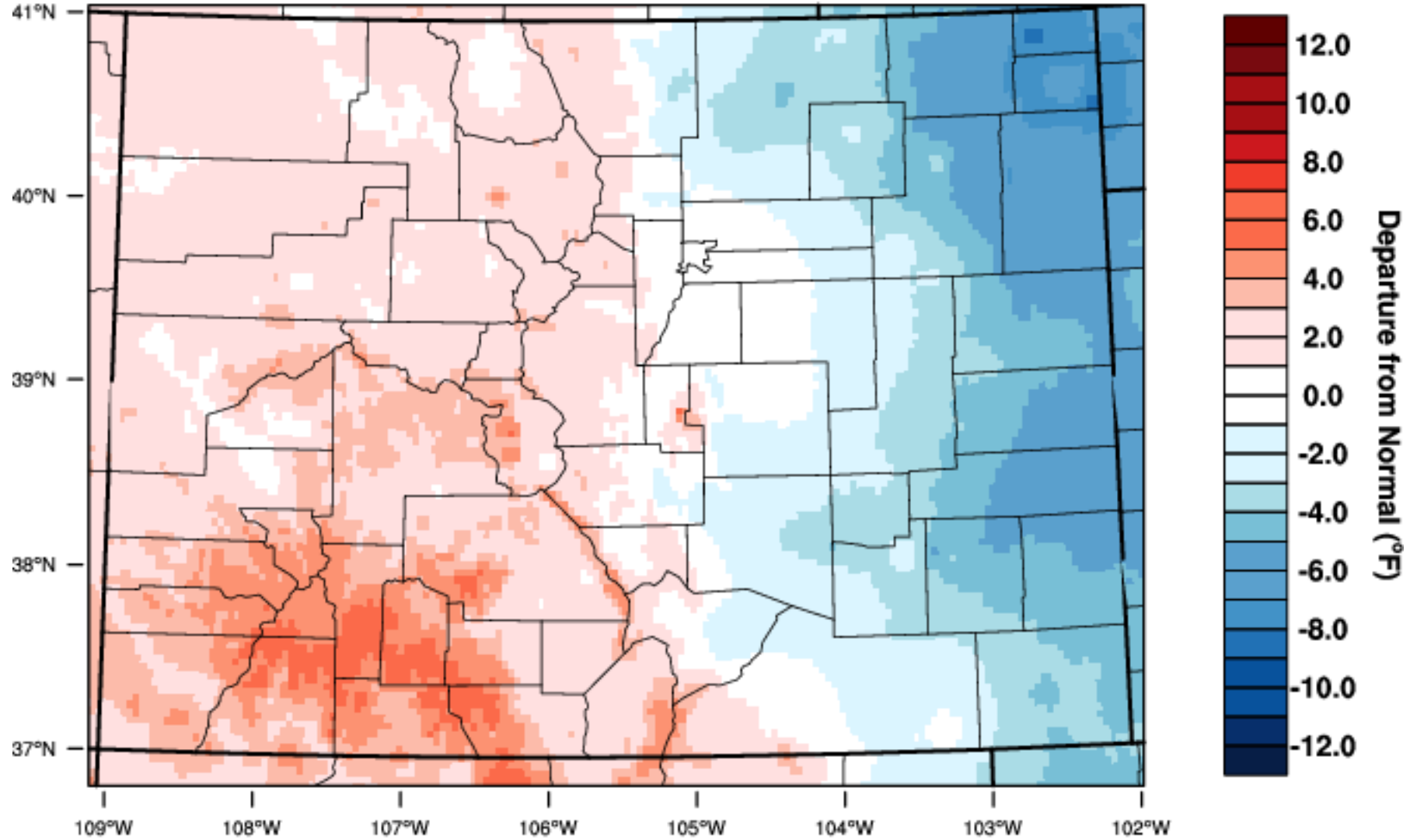


WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 16 MAY 2018



Colorado - Mean Temperature

April 2018 Departure from 1981-2010 Normal

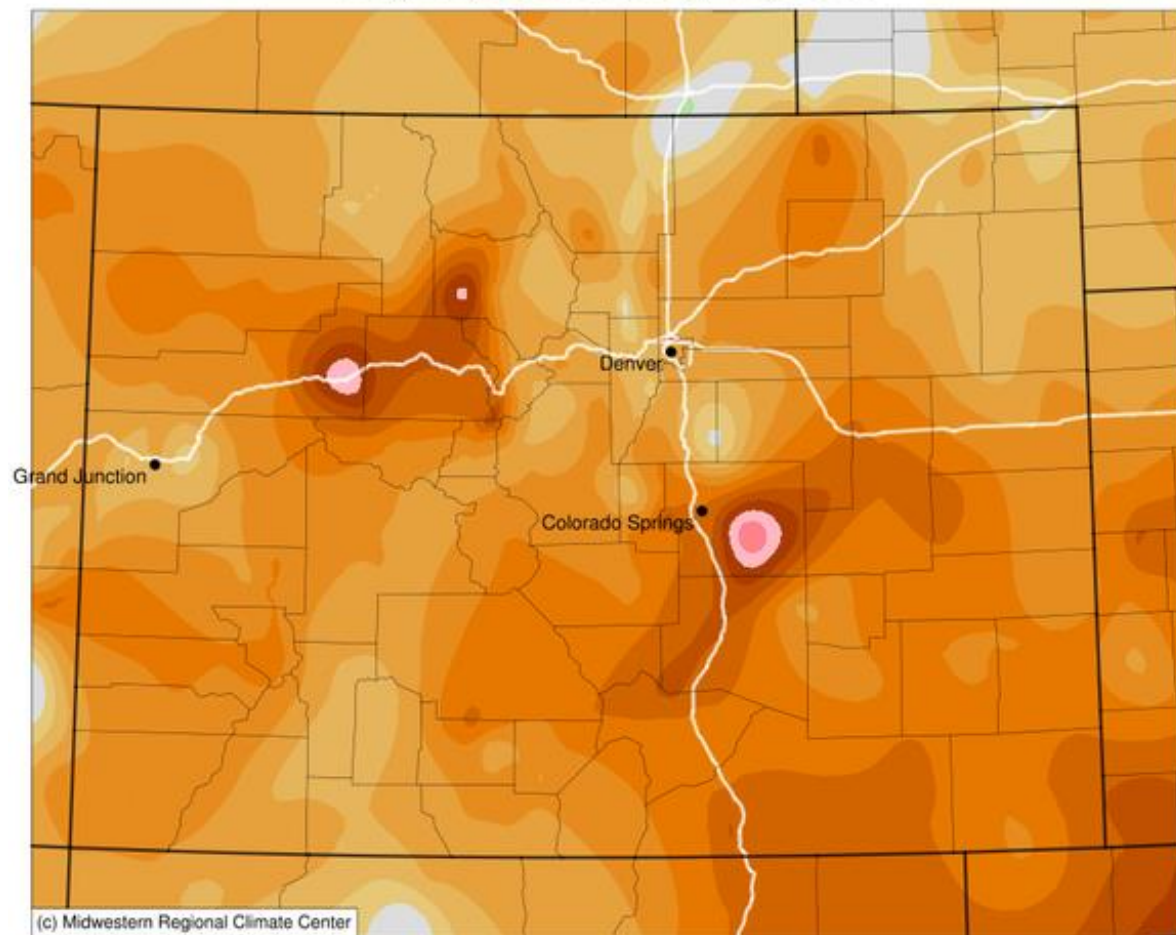


WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 16 MAY 2018



Average Temperature (°F): Departure from 1981-2010 Normals

May 01, 2018 to May 16, 2018



-5

0

5

10

Stations from the following networks used: WBAN, COOP, GHCN, CoCoRaHS,

Midwestern Regional Climate Center
cli-MATE: MRCC Application Tools Environment
Generated at: 5/16/2018 5:41:46 PM CDT

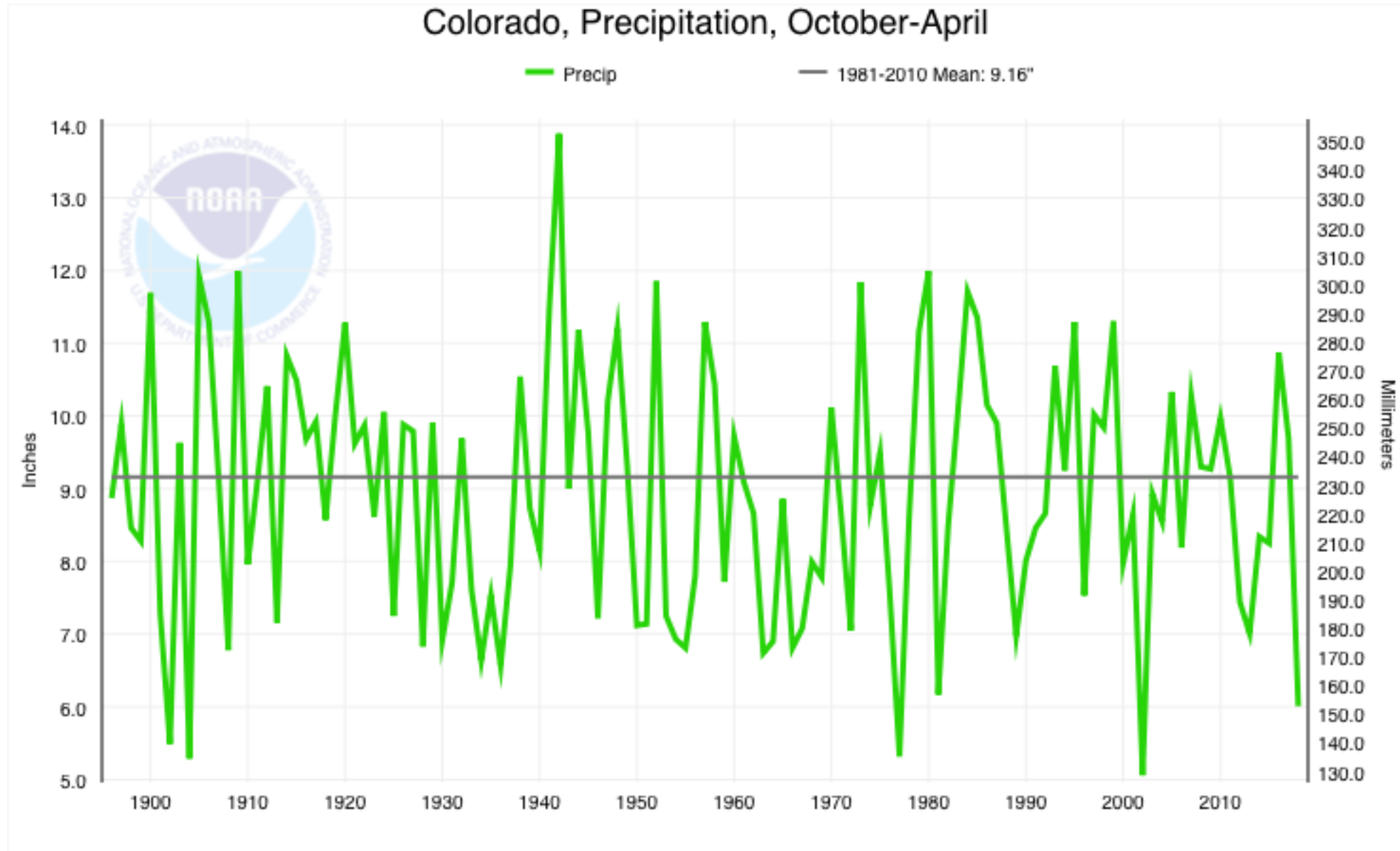




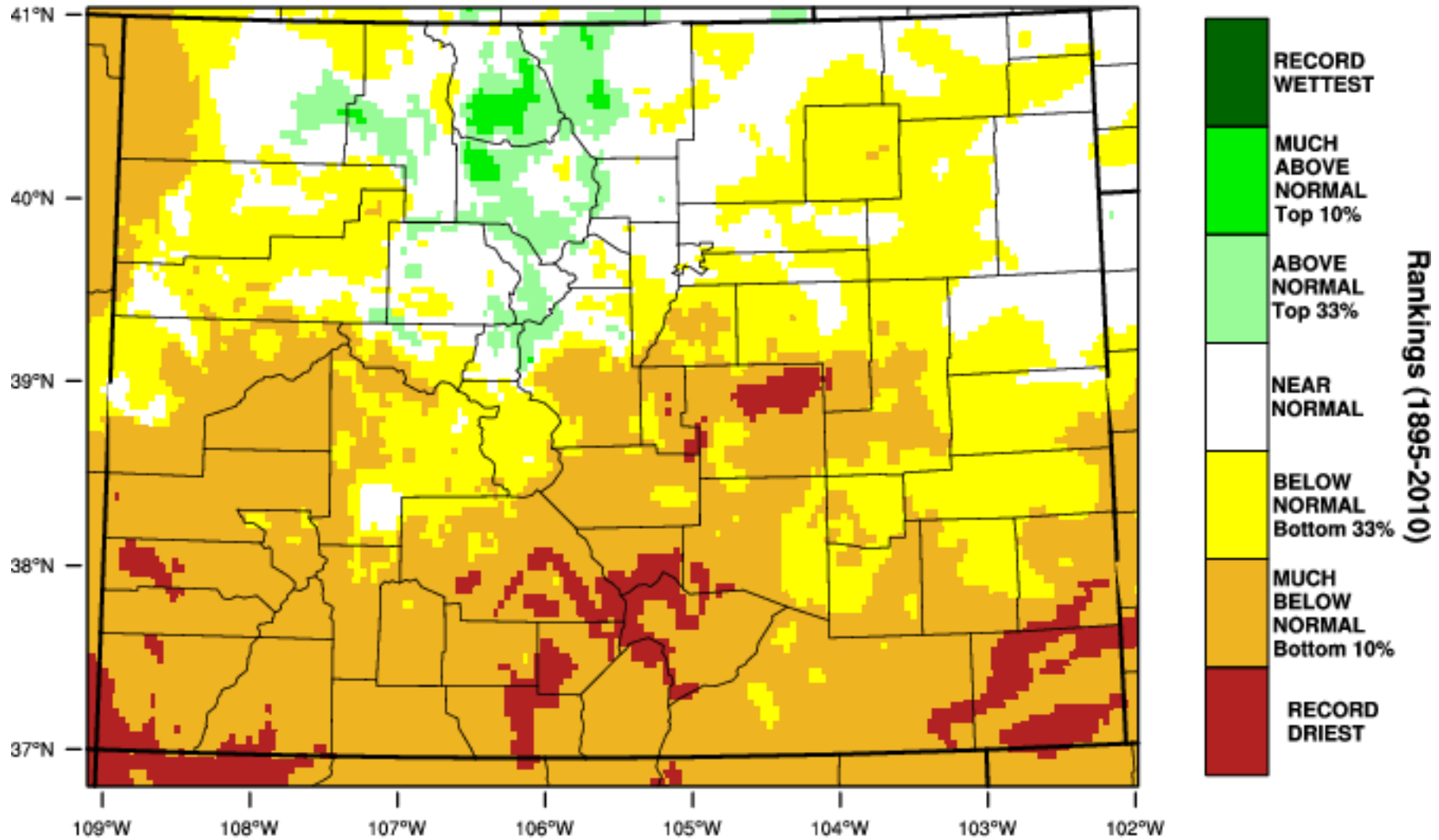
Water Year 2018 – Precipitation



5th driest in 123-year record - -3.15" below 9.16" average



Colorado - Precipitation October-April 2018 Percentile

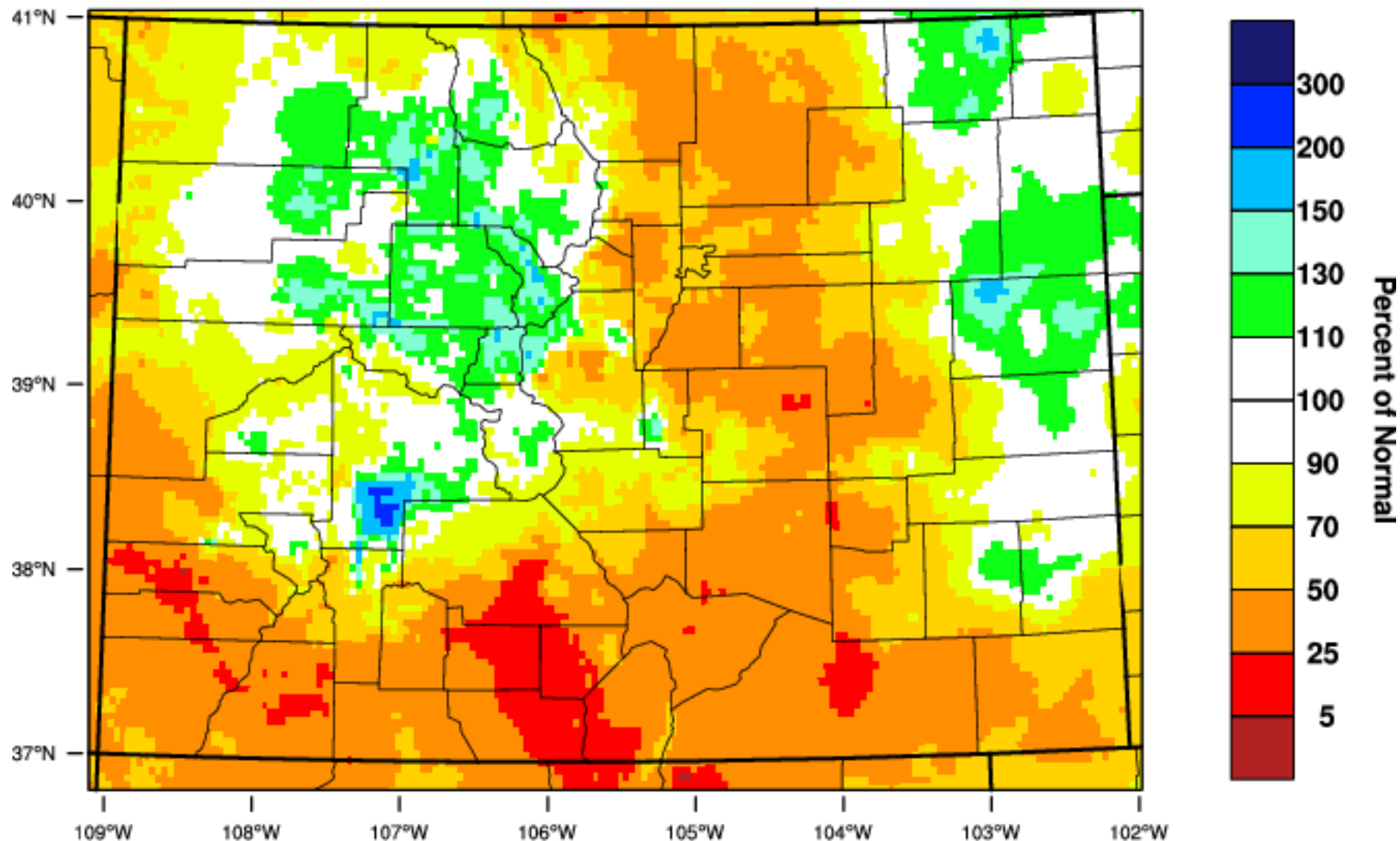


WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 16 MAY 2018



Colorado - Precipitation

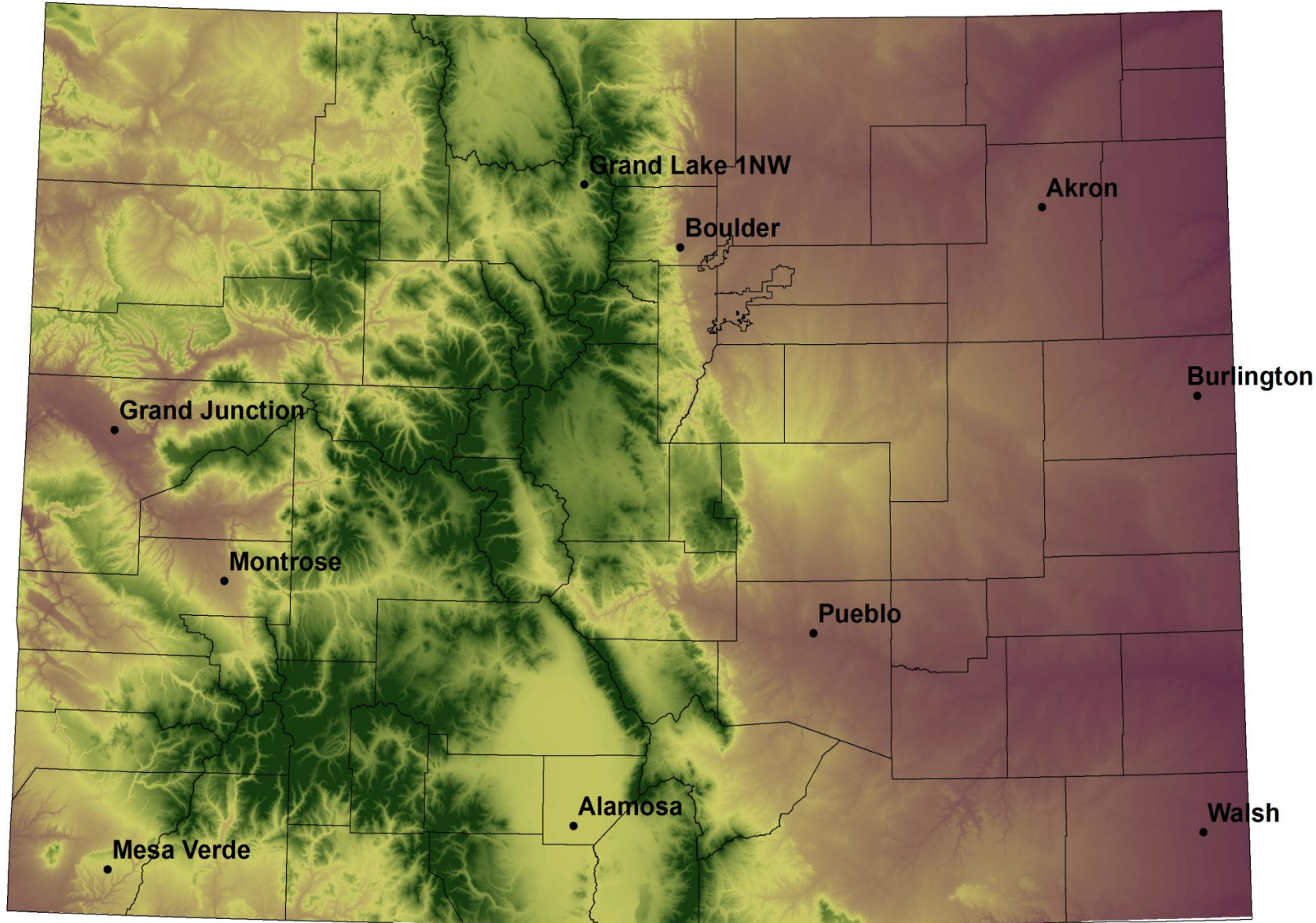
April 2018 Percent of 1981-2010 Normal



WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 16 MAY 2018



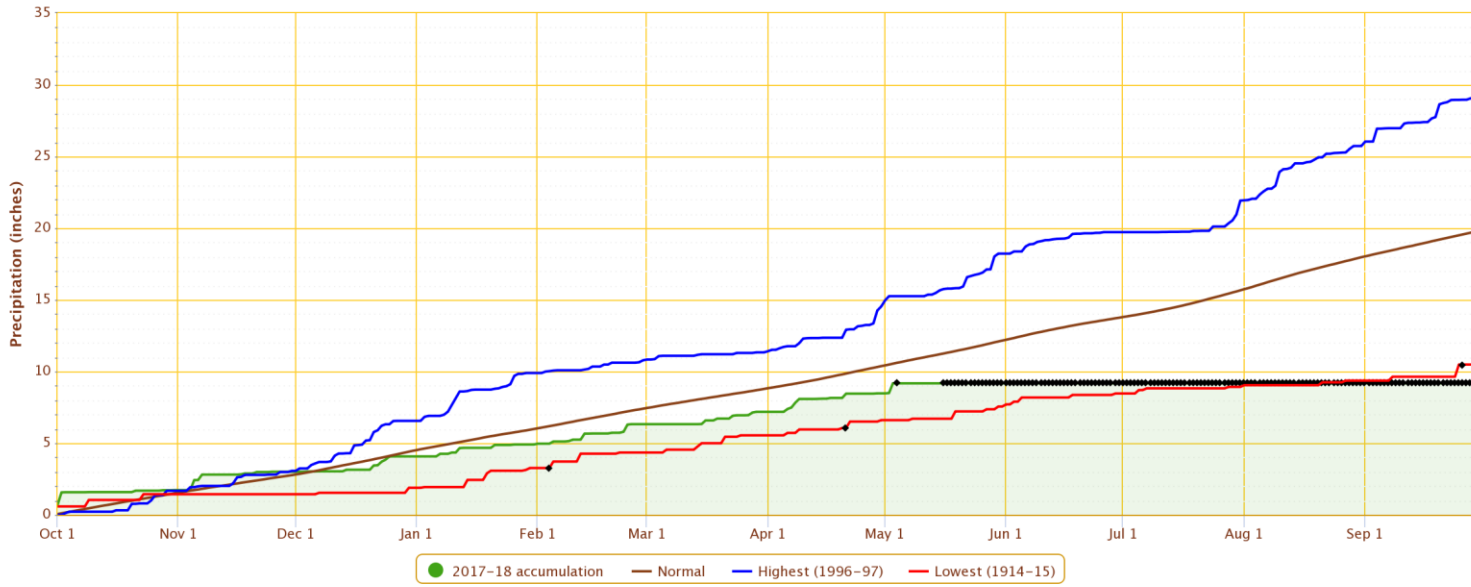
NWS Cooperative Stations for WATF



Water Year 2018 – Station Updates



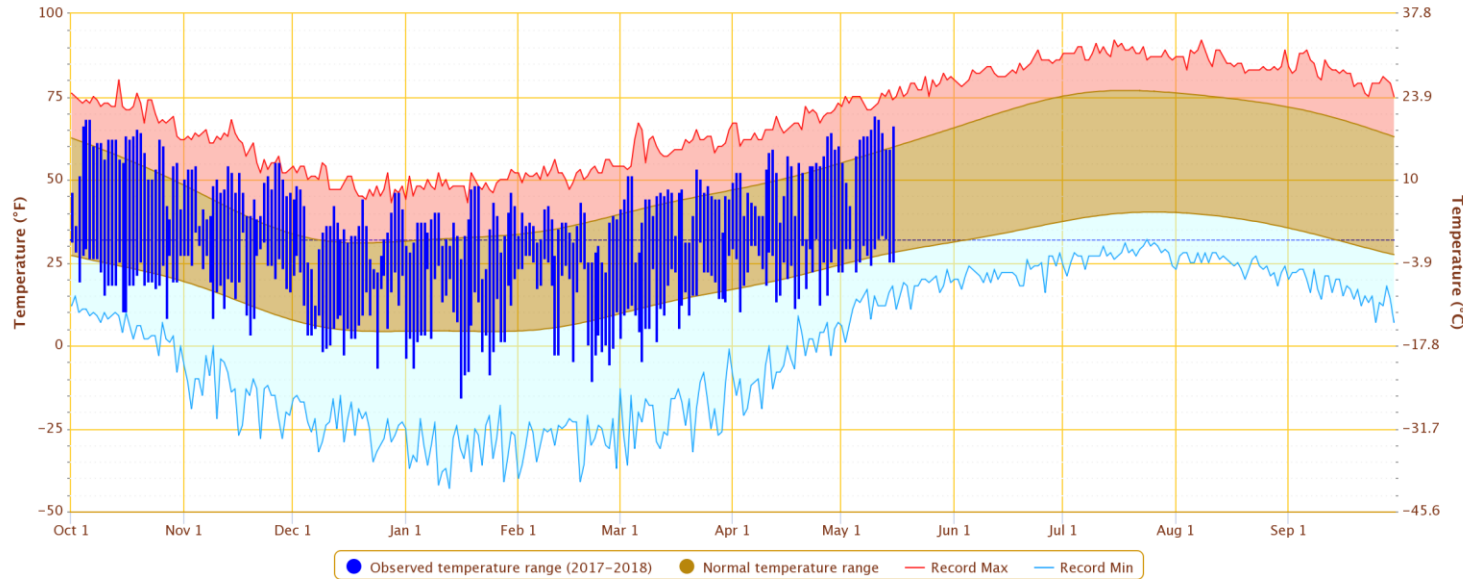
Accumulated Precipitation – GRAND LAKE 1 NW, CO
 Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values



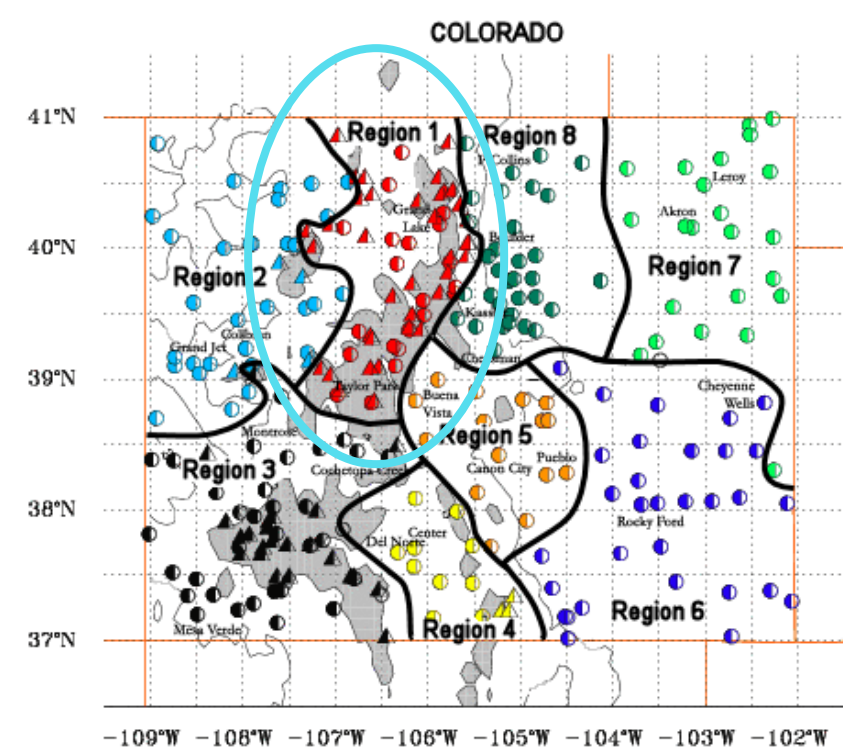
Powered by ACIS

Daily Temperature Data – GRAND LAKE 1 NW, CO

Period of Record – 1939-10-01 to 2018-05-15. Normals period: 1981-2010. Click and drag to zoom chart.

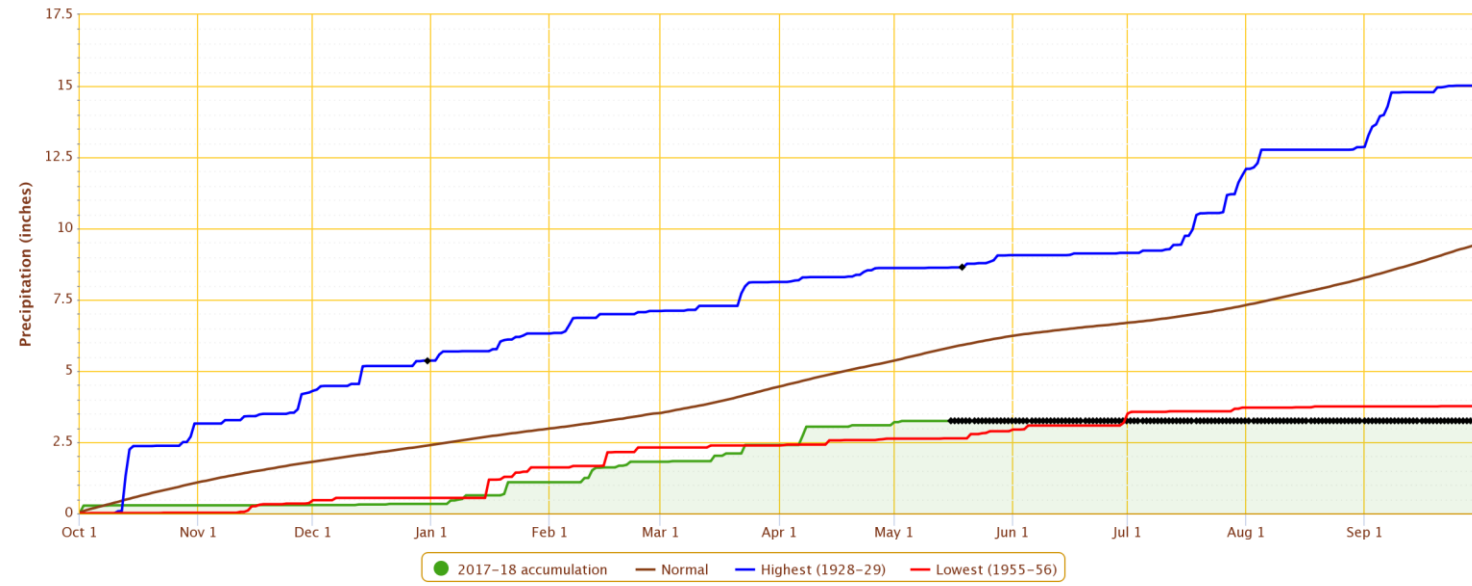


Powered by ACIS



Accumulated Precipitation – GRAND JUNCTION WALKER FIELD, CO

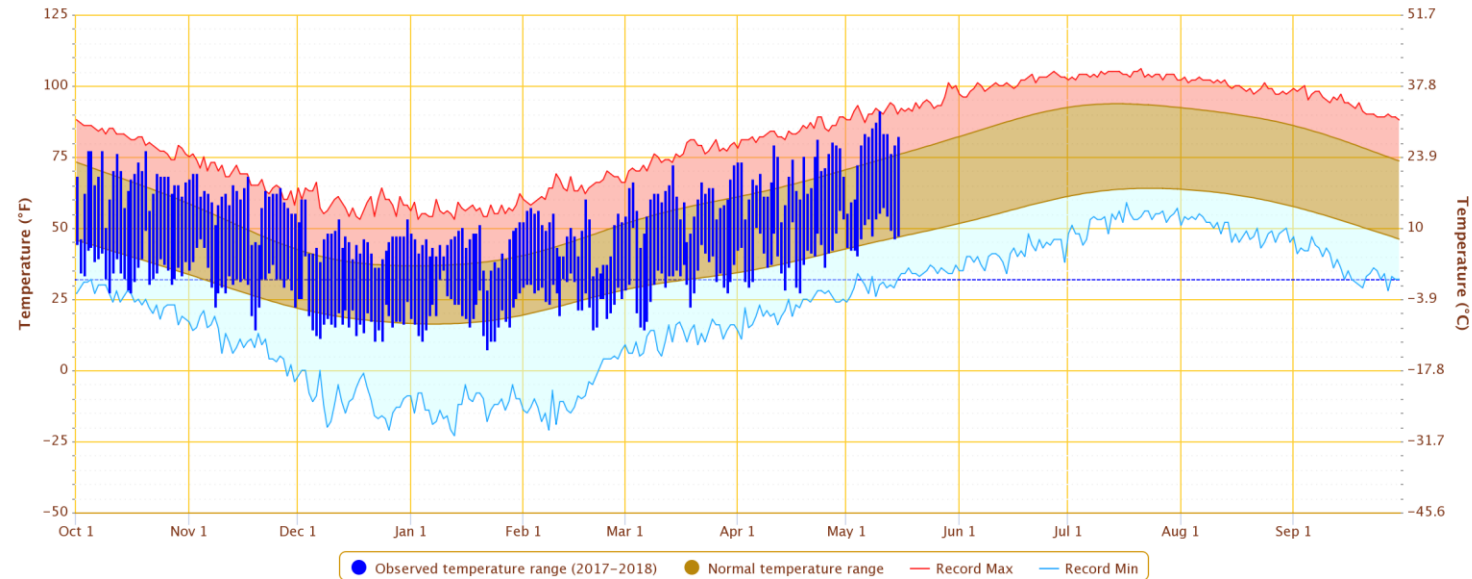
Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values



Powered by ACIS

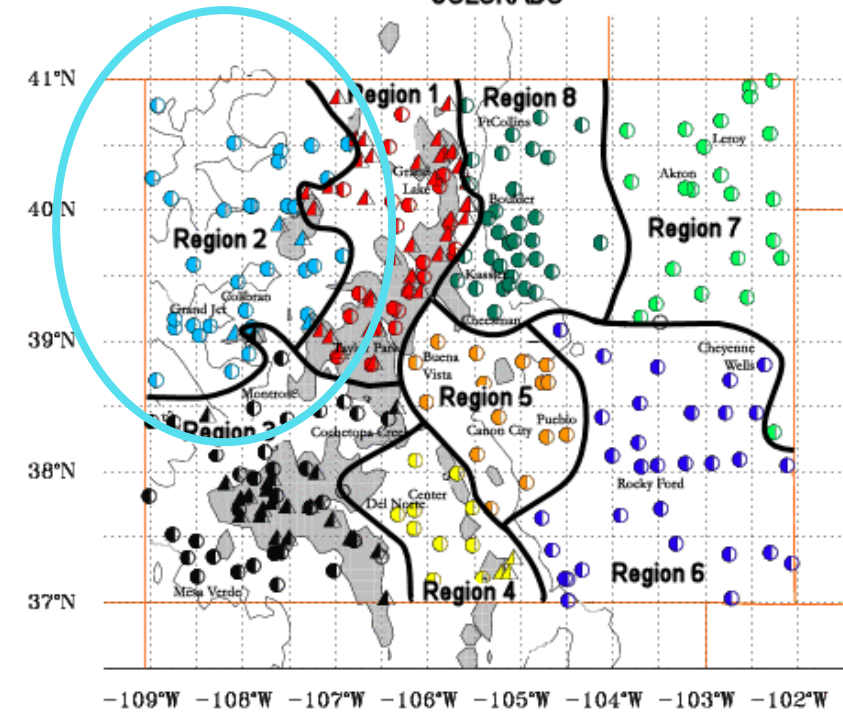
Daily Temperature Data – GRAND JUNCTION WALKER FIELD, CO

Period of Record – 1900-01-01 to 2018-05-15. Normals period: 1981-2010. Click and drag to zoom chart.



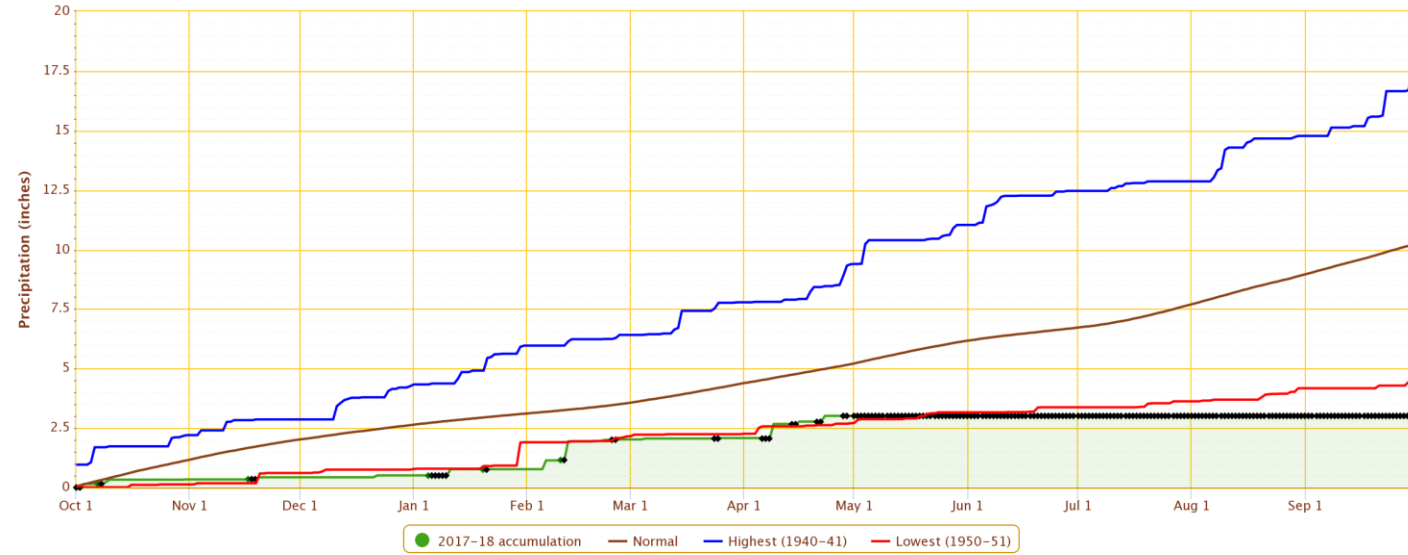
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COLORADO



Accumulated Precipitation – MONTROSE NO 2, CO

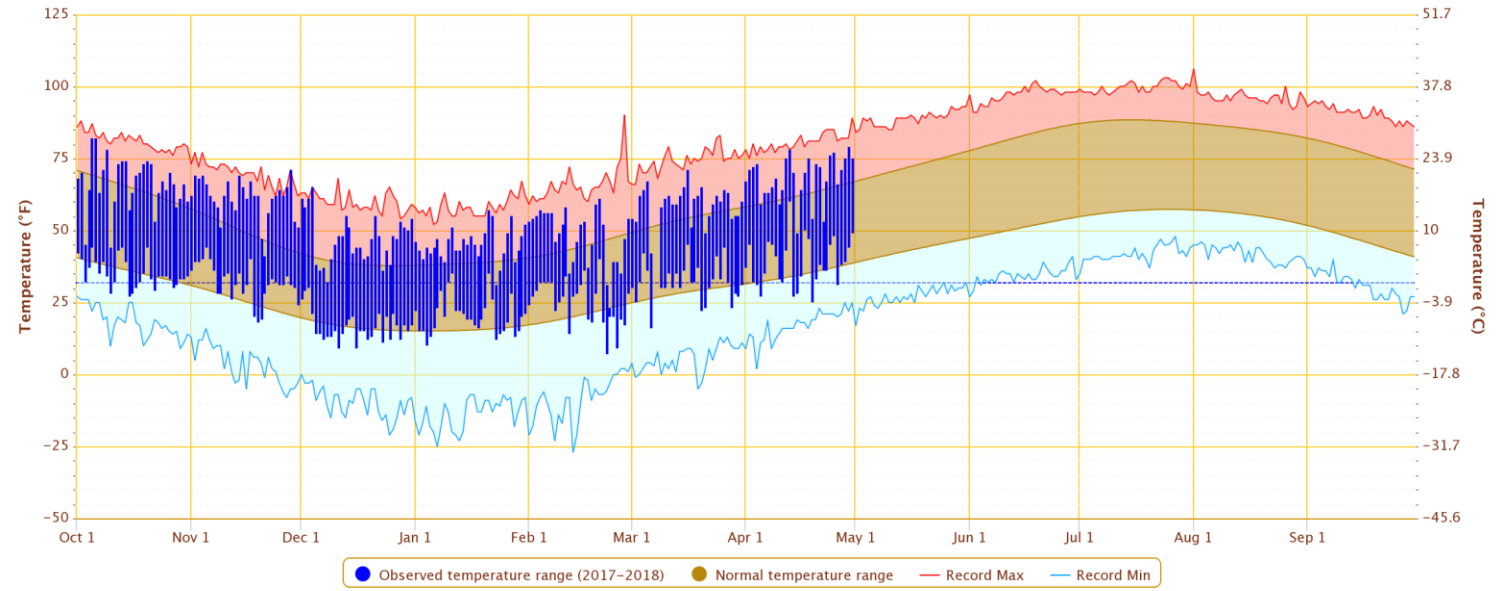
Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values



Powered by ACIS

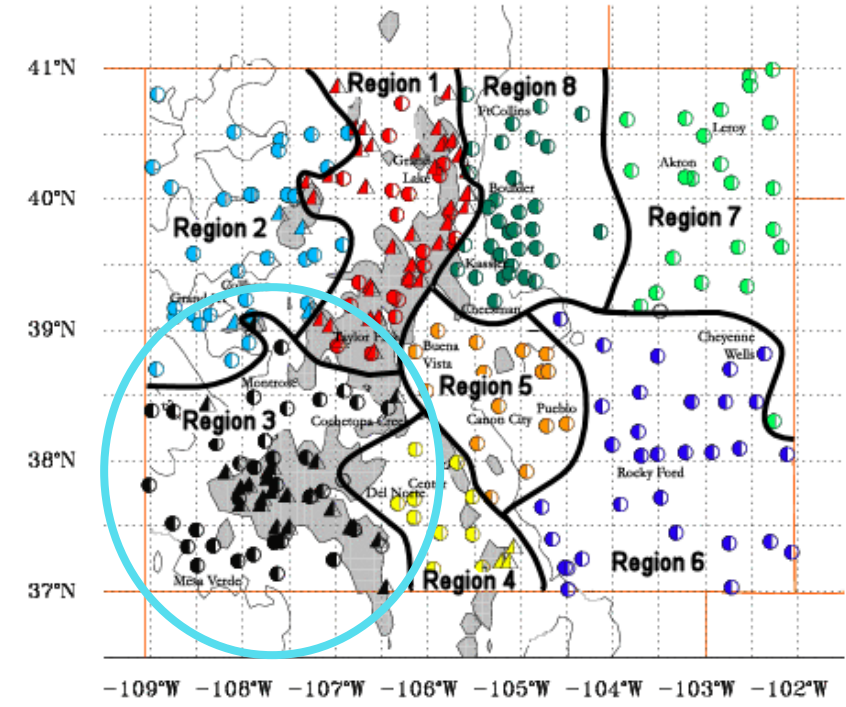
Daily Temperature Data – MONTROSE NO 2, CO

Period of Record – 1895-10-01 to 2018-04-30. Normals period: 1981-2010. Click and drag to zoom chart.



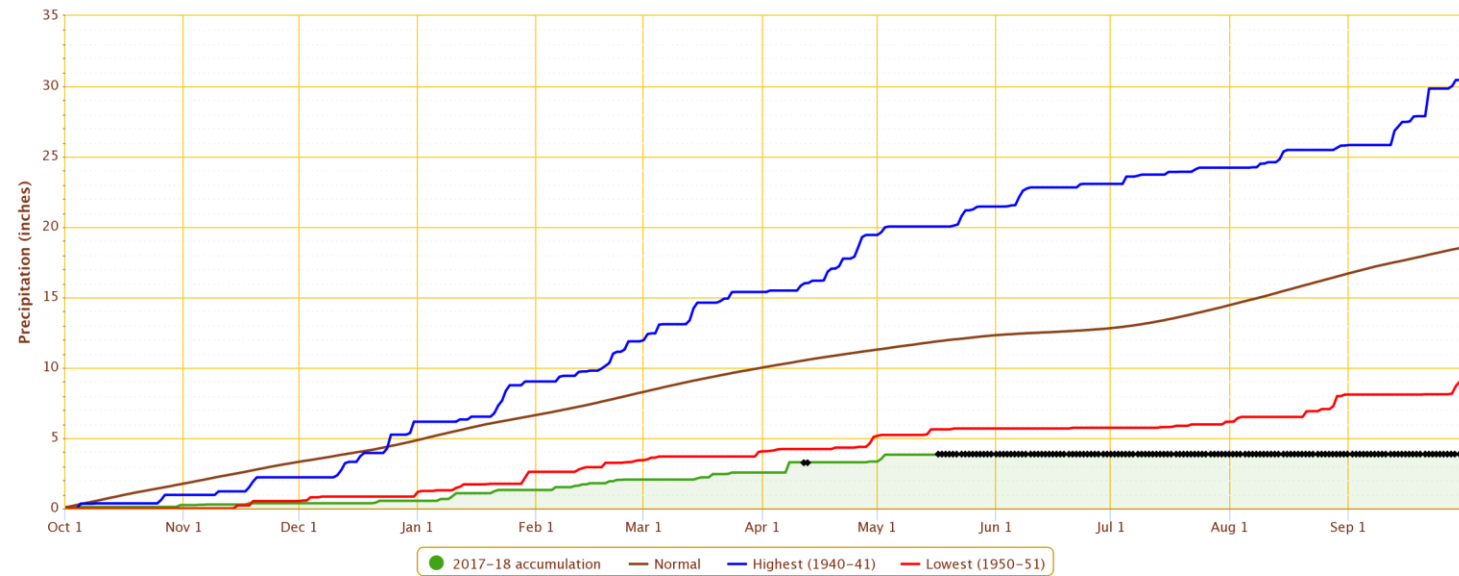
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Accumulated Precipitation – MESA VERDE NP, CO

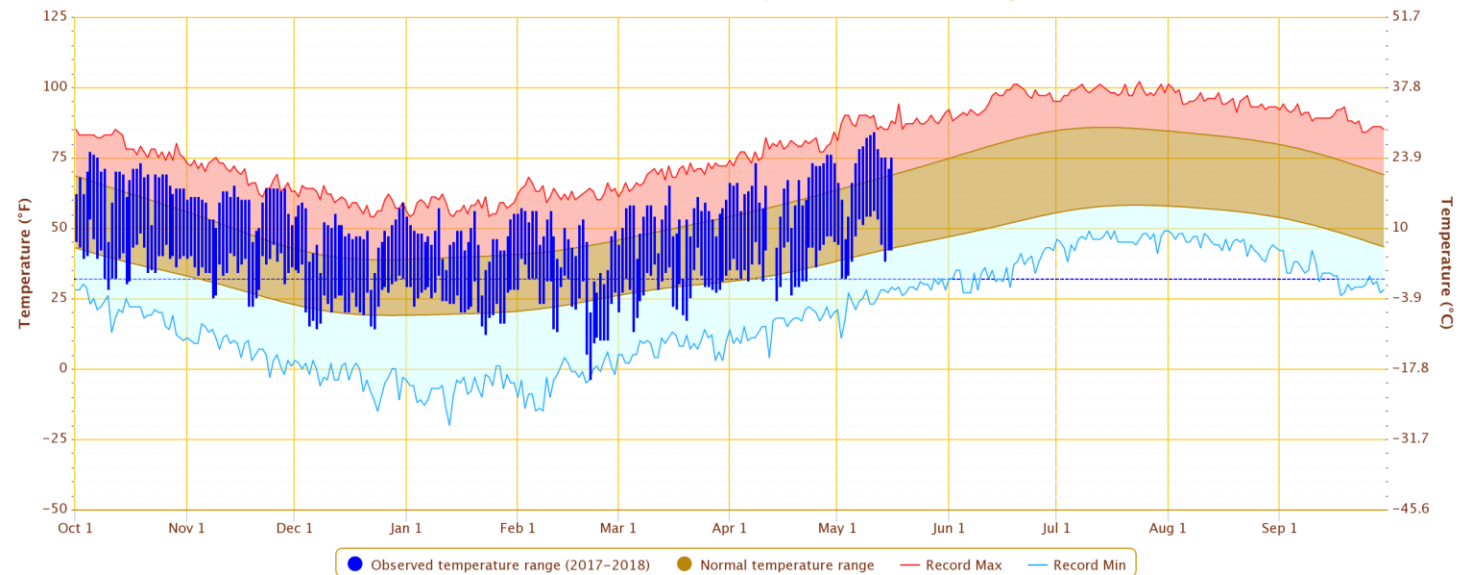
Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values



Powered by ACIS

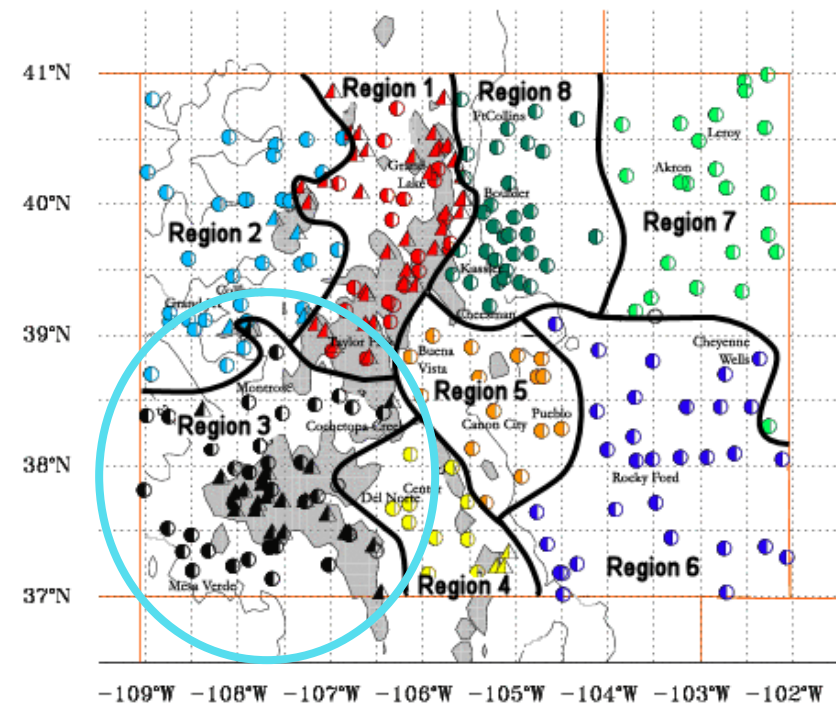
Daily Temperature Data – MESA VERDE NP, CO

Period of Record – 1922-02-16 to 2018-05-16. Normals period: 1981-2010. Click and drag to zoom chart.



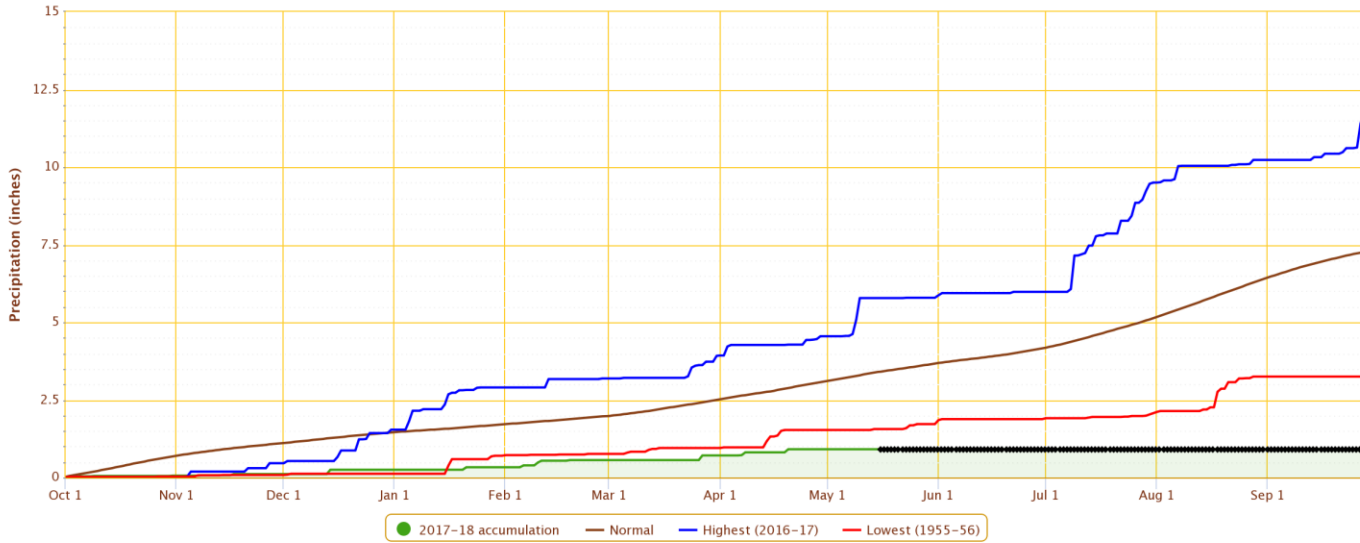
Powered by ACIS

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Accumulated Precipitation – ALAMOSA SAN LUIS VALLEY REGIONAL AP, CO

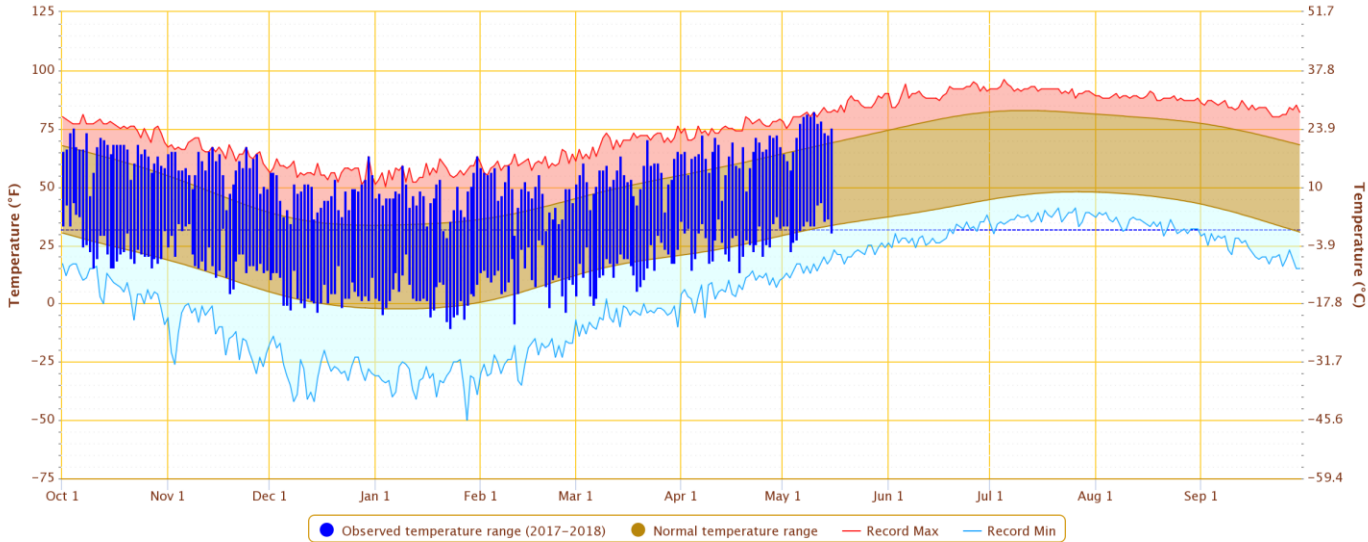
Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values



Powered by ACIS

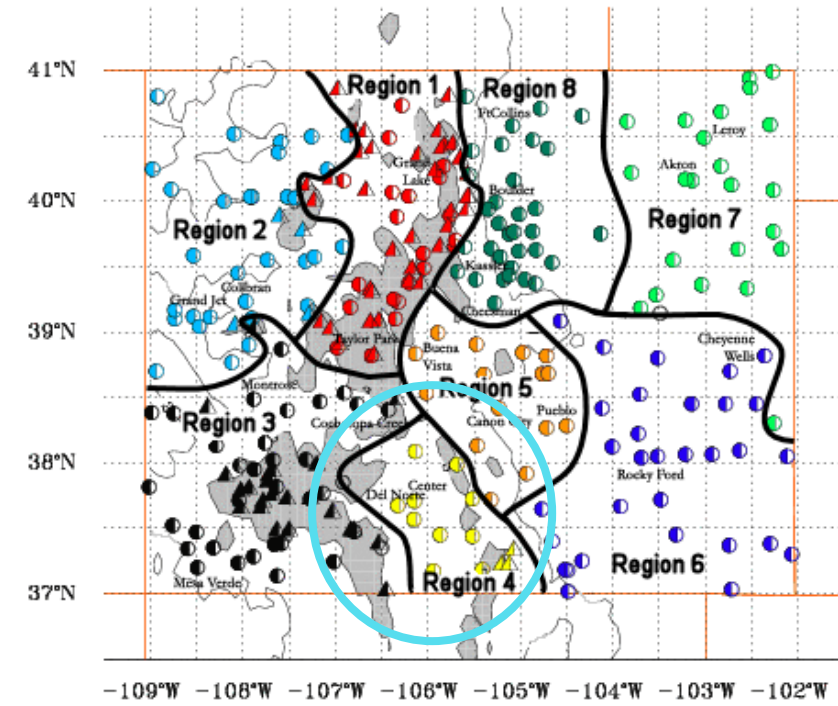
Daily Temperature Data – ALAMOSA SAN LUIS VALLEY REGIONAL AP, CO

Period of Record – 1948-01-01 to 2018-05-15. Normals period: 1981-2010. Click and drag to zoom chart.



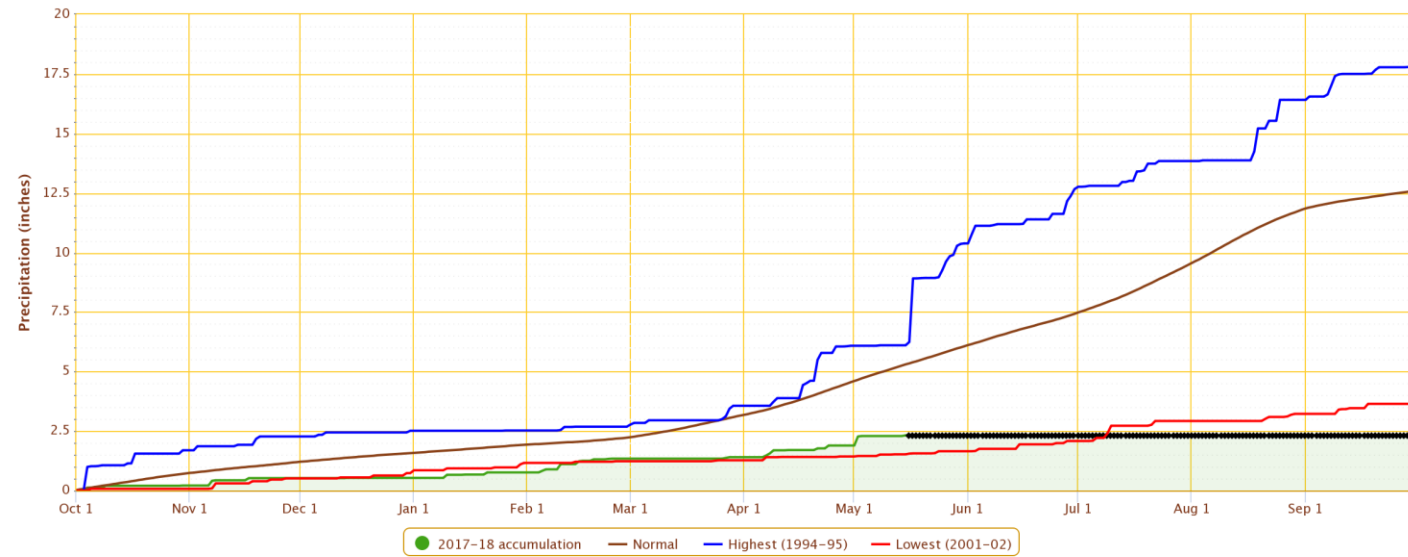
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Accumulated Precipitation – PUEBLO MEMORIAL AP, CO

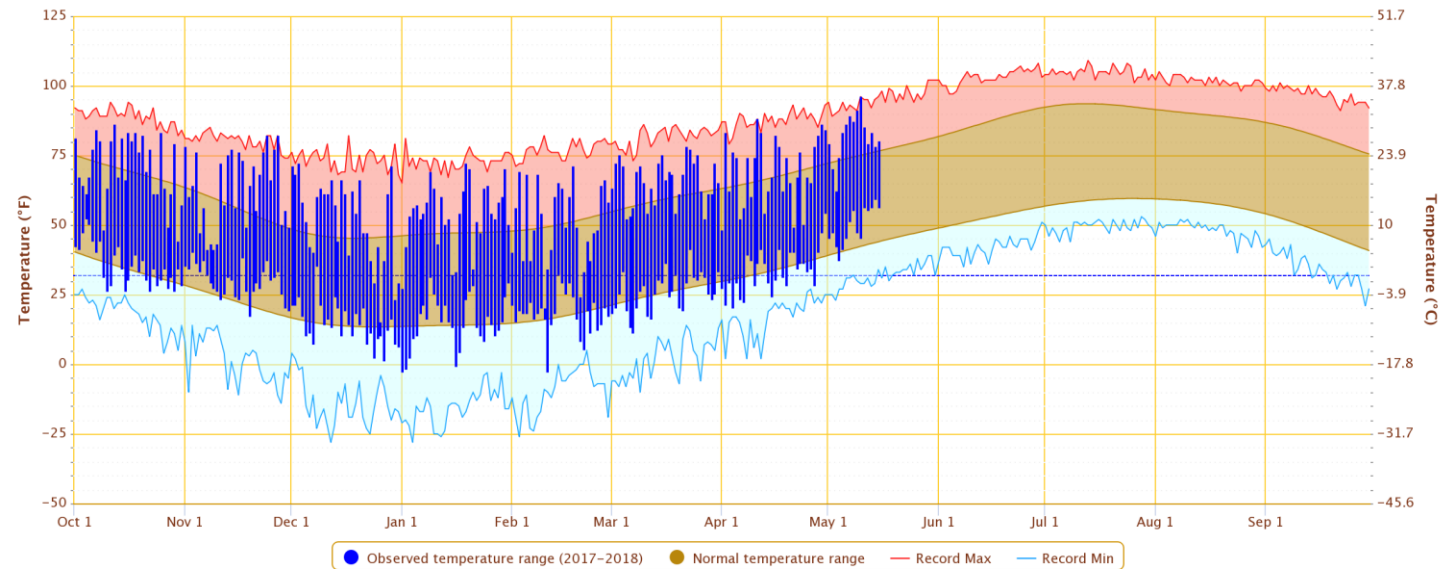
Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values



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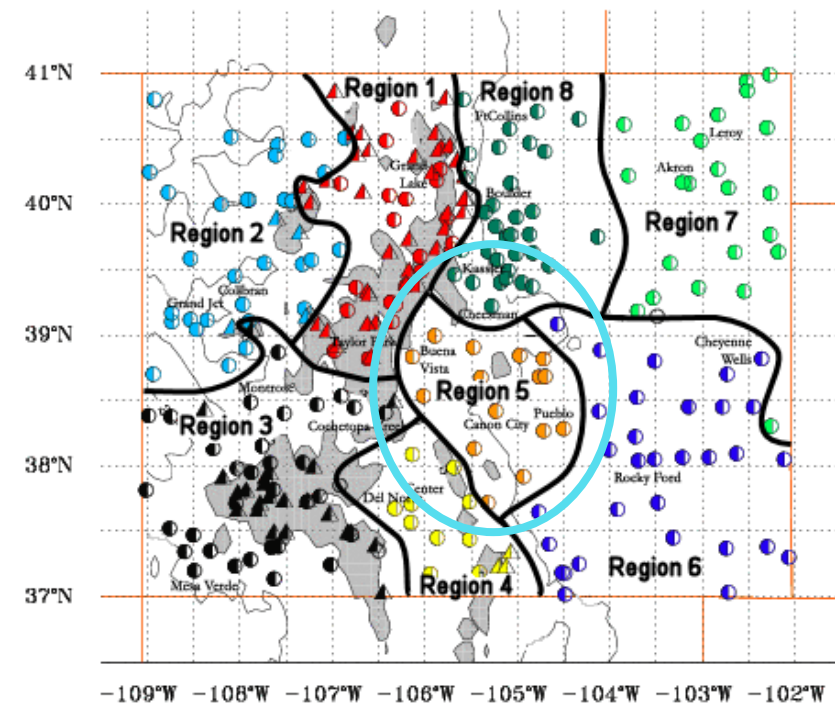
Daily Temperature Data – PUEBLO MEMORIAL AP, CO

Period of Record – 1954-06-16 to 2018-05-15. Normals period: 1981-2010. Click and drag to zoom chart.



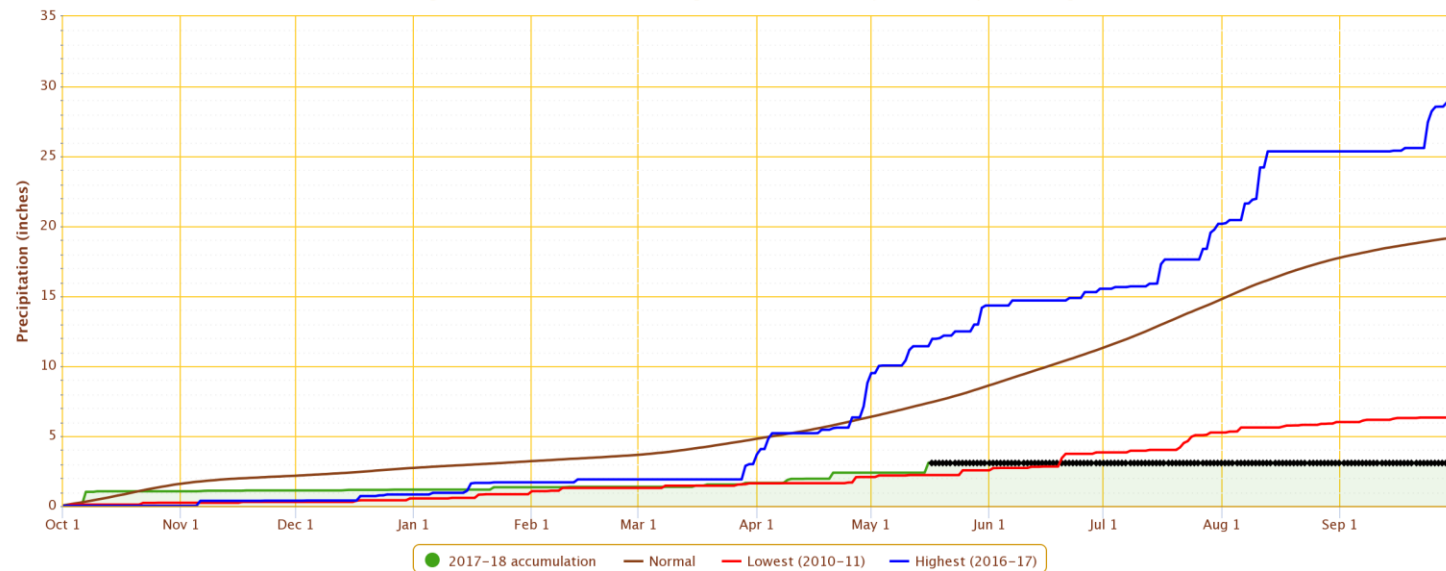
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Accumulated Precipitation – WALSH 1 W, CO

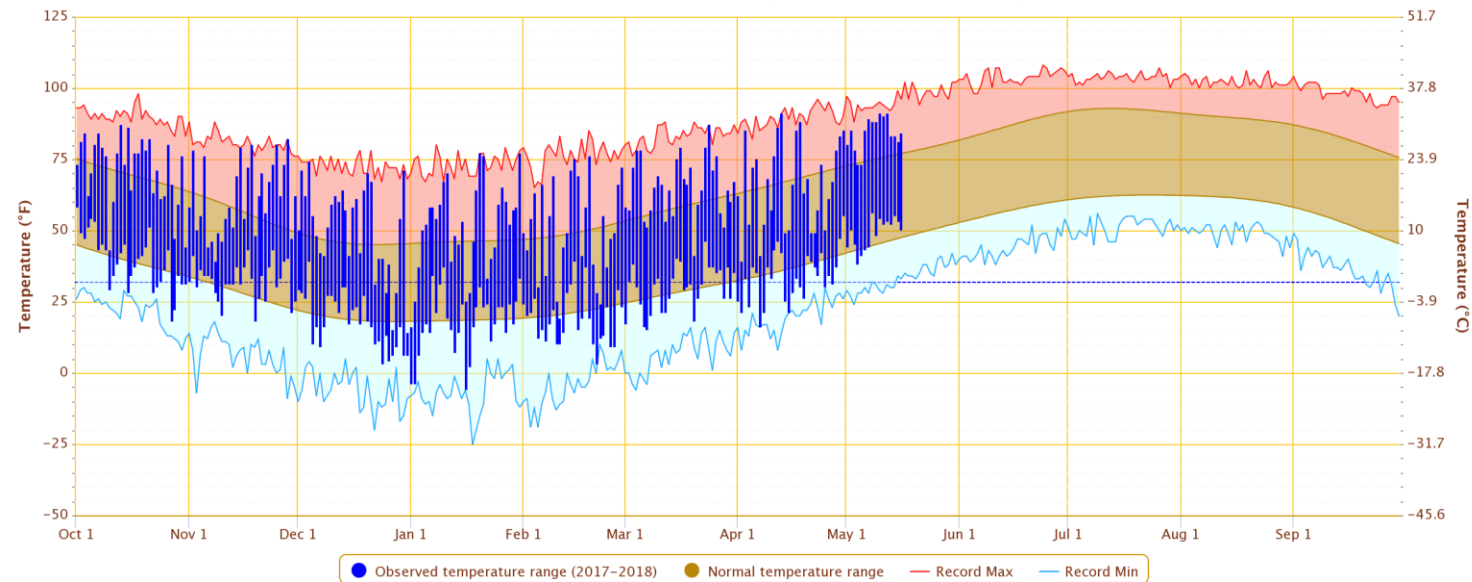
Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values



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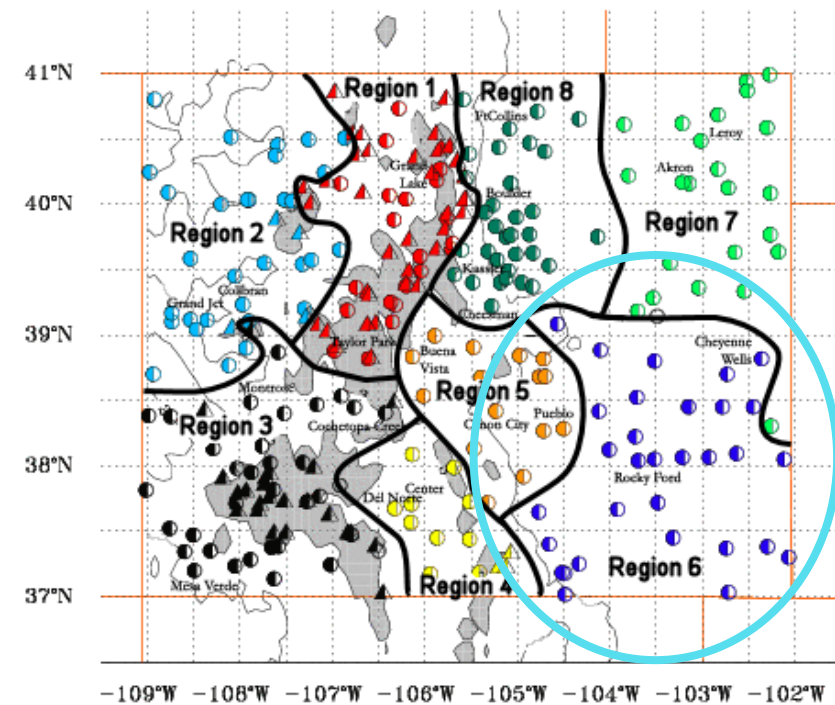
Daily Temperature Data – WALSH 1 W, CO

Period of Record – 1967-09-01 to 2018-05-16. Normals period: 1981-2010. Click and drag to zoom chart.



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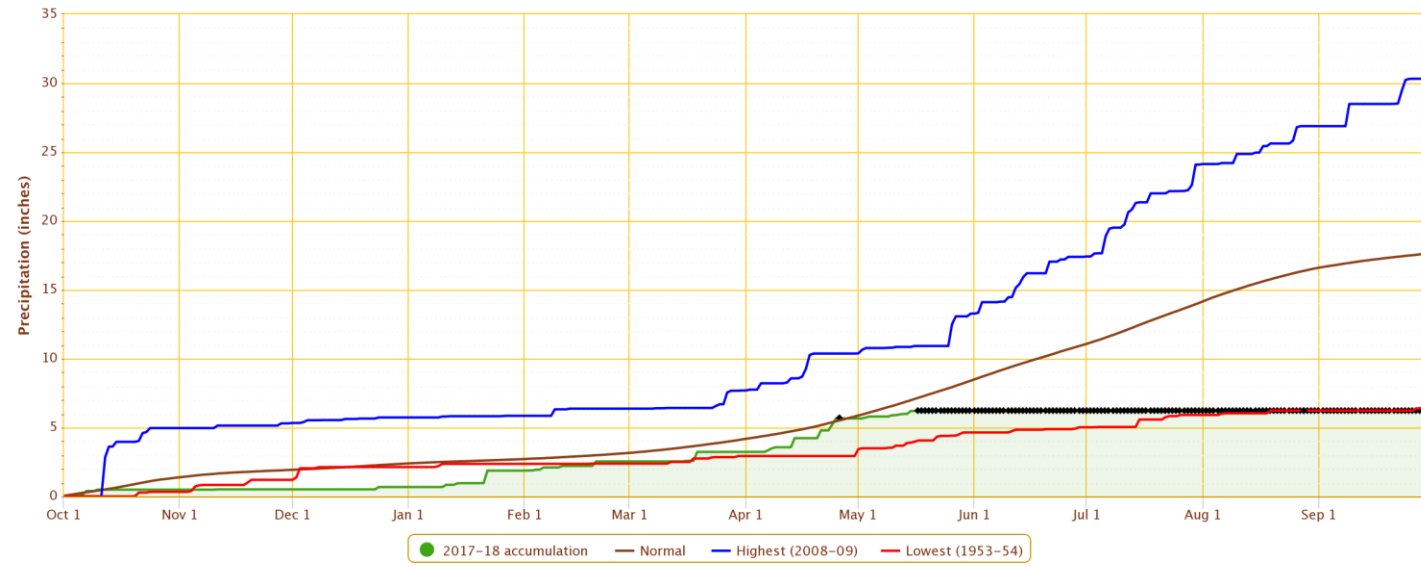


-109°W -108°W -107°W -106°W -105°W -104°W -103°W -102°W



Accumulated Precipitation – BURLINGTON, CO

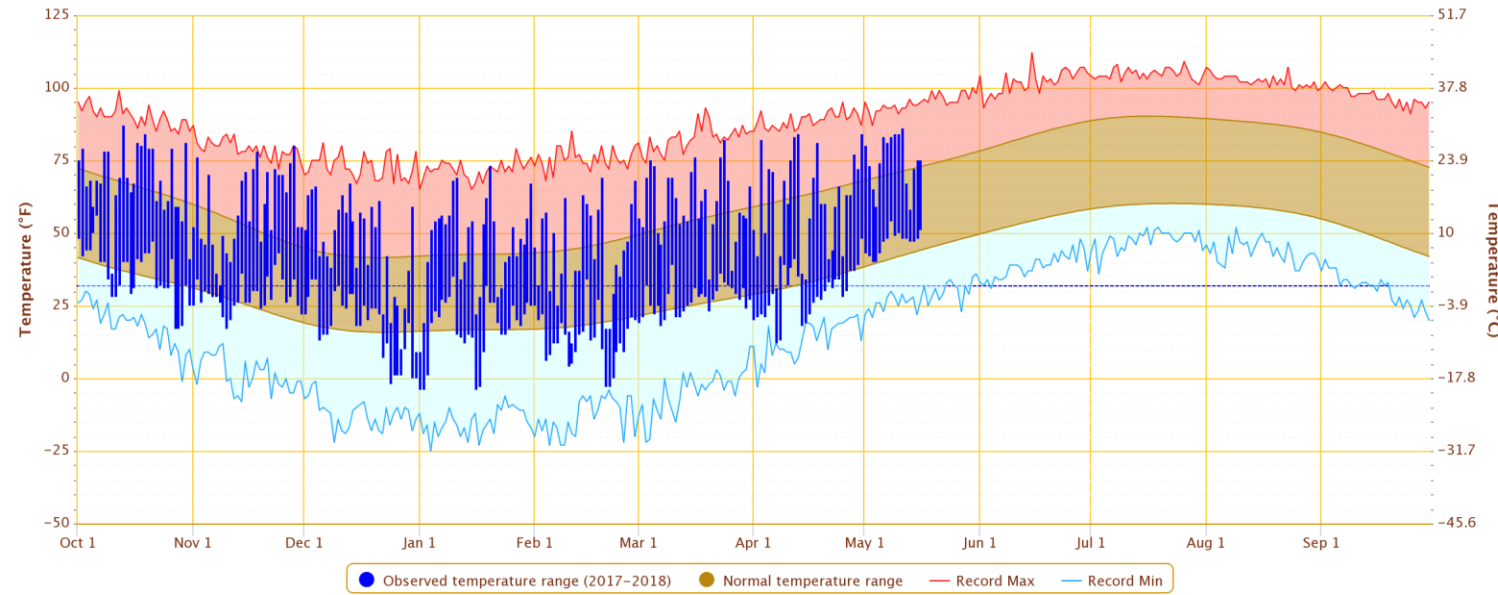
Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values



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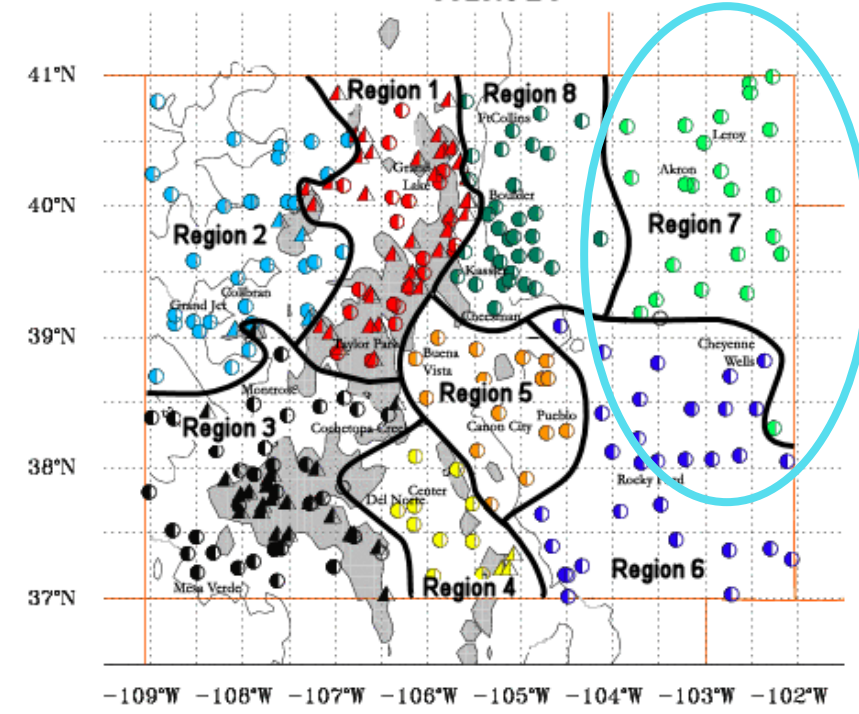
Daily Temperature Data – BURLINGTON, CO

Period of Record – 1903-12-01 to 2018-05-16. Normals period: 1981-2010. Click and drag to zoom chart.



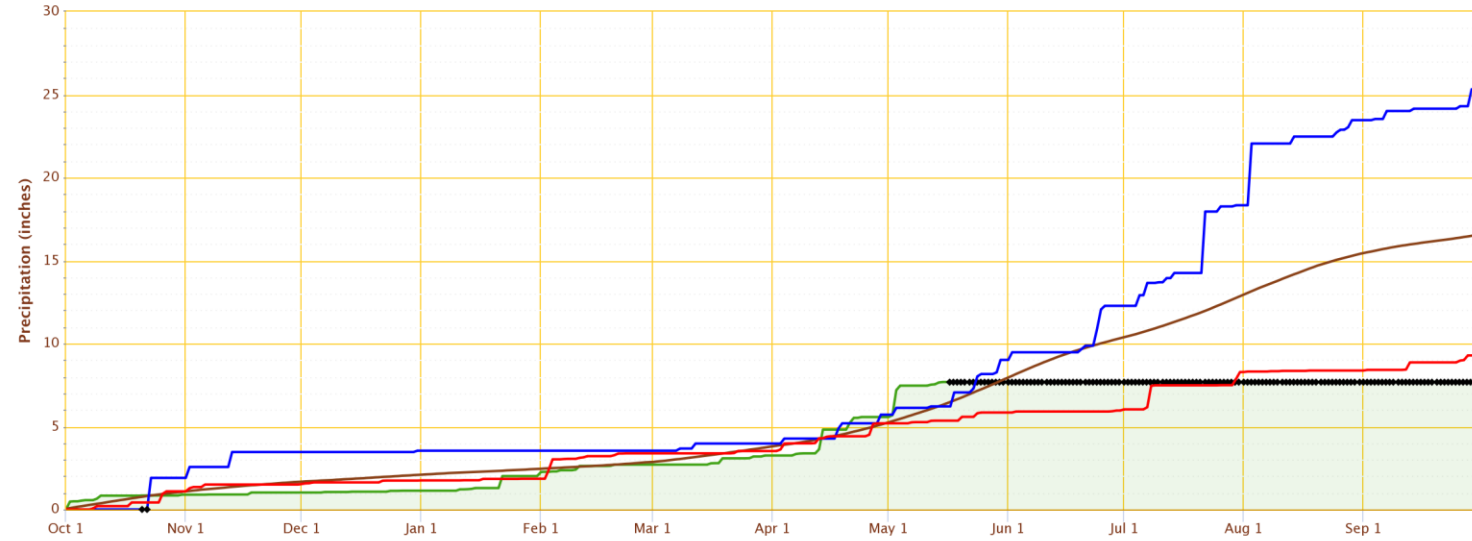
Powered by ACIS

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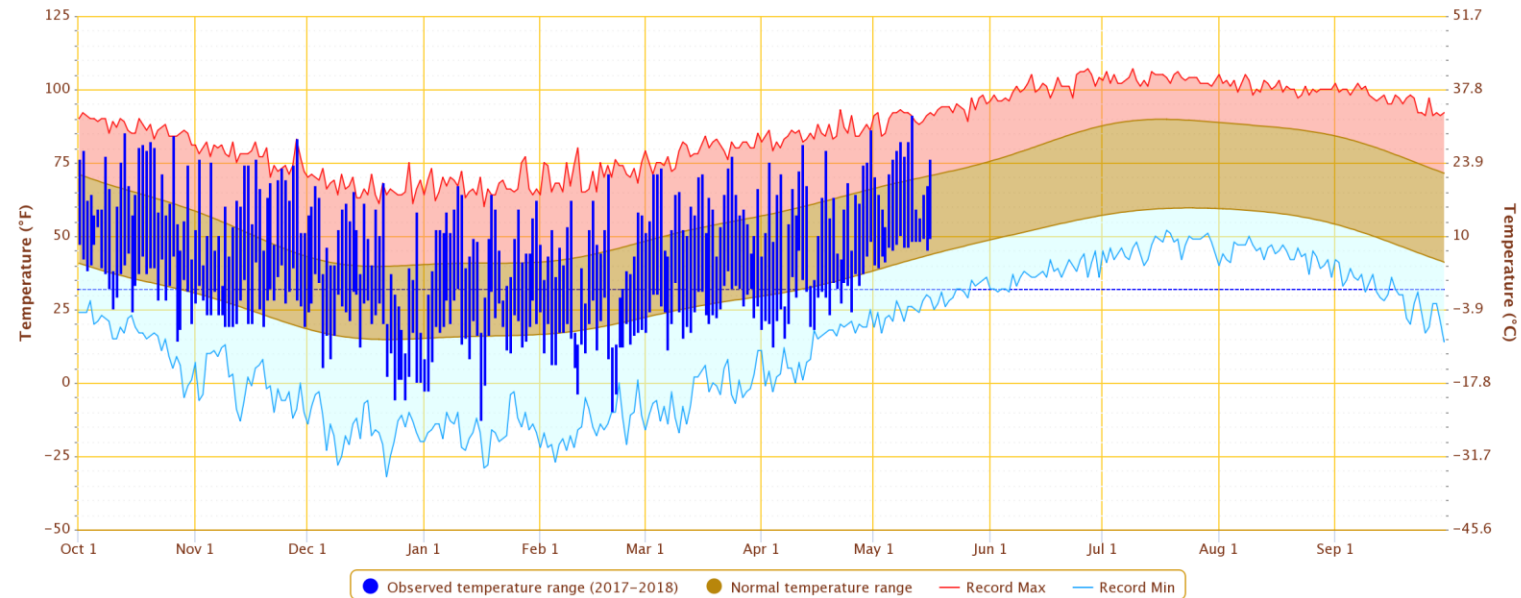
Accumulated Precipitation – AKRON 4 E, CO

Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values



Daily Temperature Data – AKRON 4 E, CO

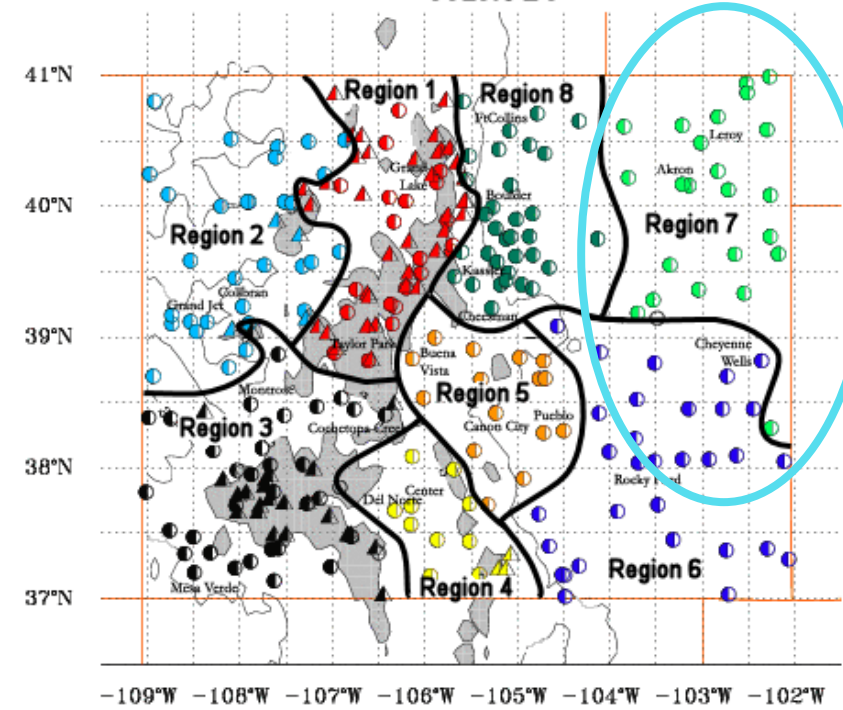
Period of Record – 1893-06-01 to 2018-05-16. Normals period: 1981-2010. Click and drag to zoom chart.



● Observed temperature range (2017-2018) ● Normal temperature range — Record Max — Record Min

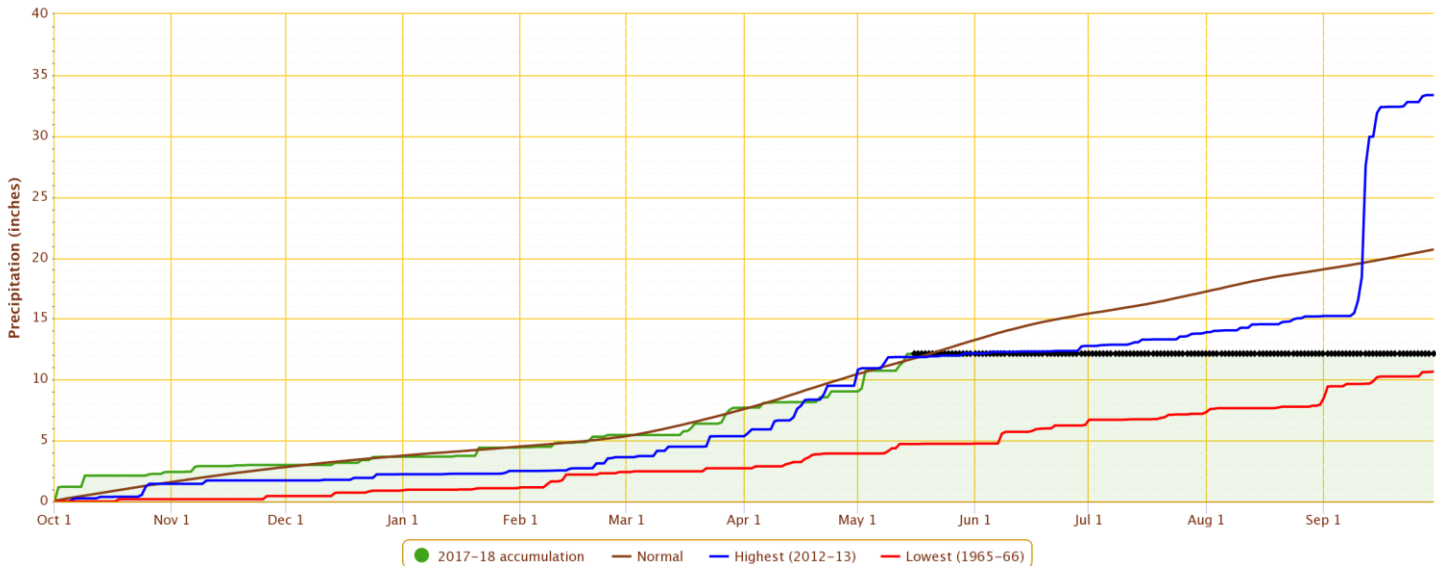
Powered by ACIS

COLORADO



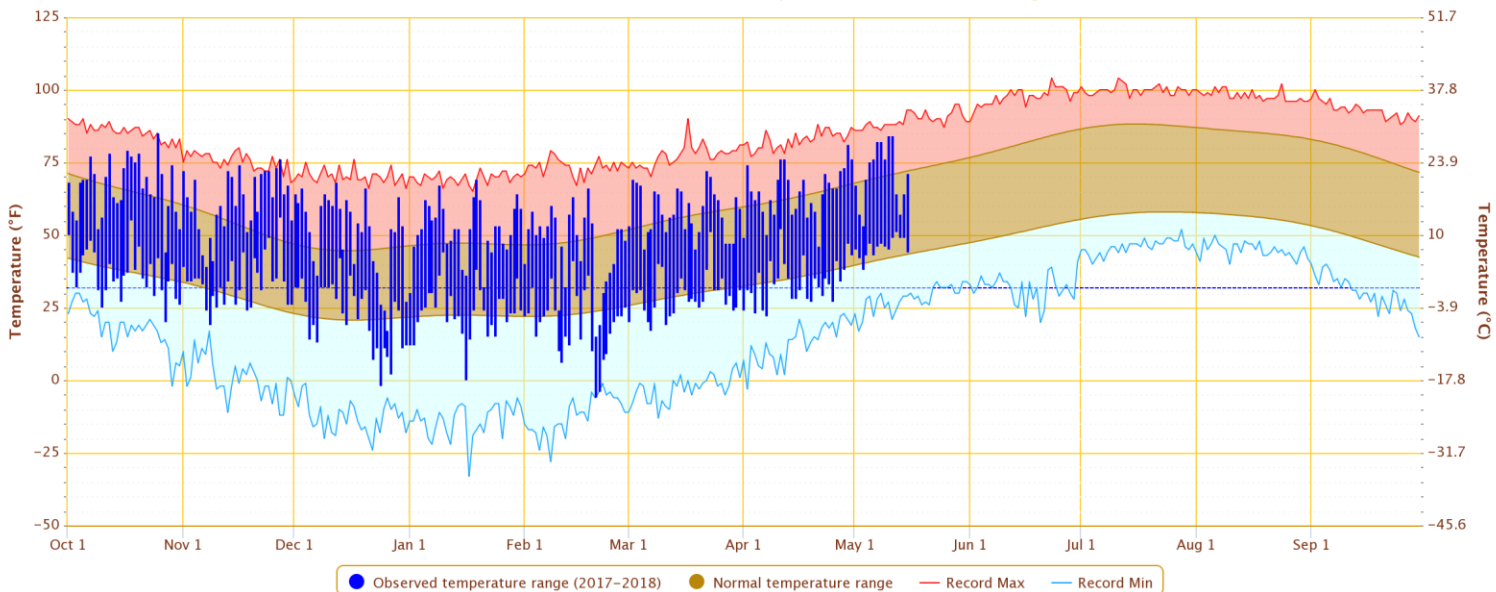
Accumulated Precipitation - BOULDER, CO

Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values

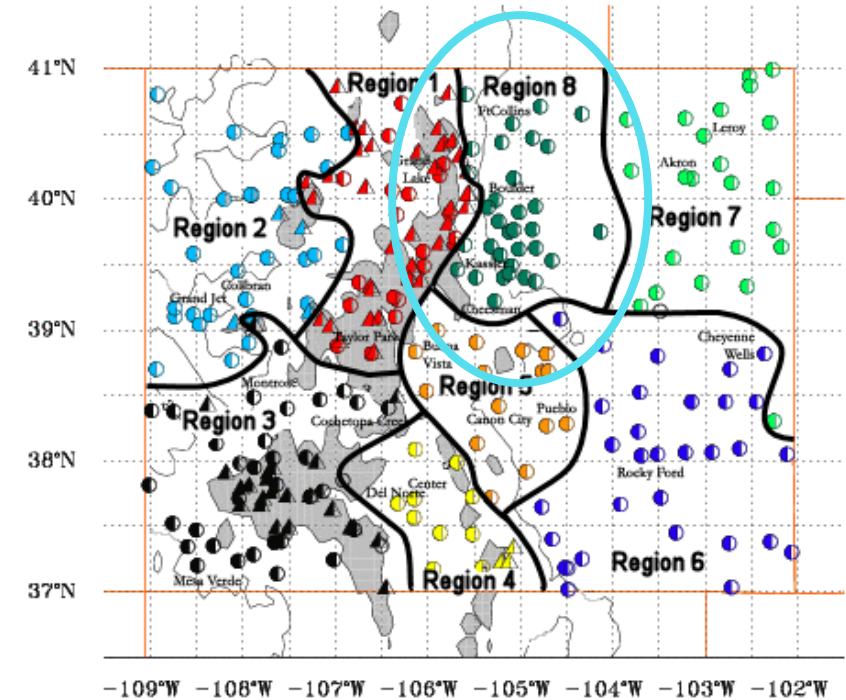


Daily Temperature Data - BOULDER, CO

Period of Record - 1893-10-01 to 2018-05-15. Normals period: 1981-2010. Click and drag to zoom chart.



COLORADO

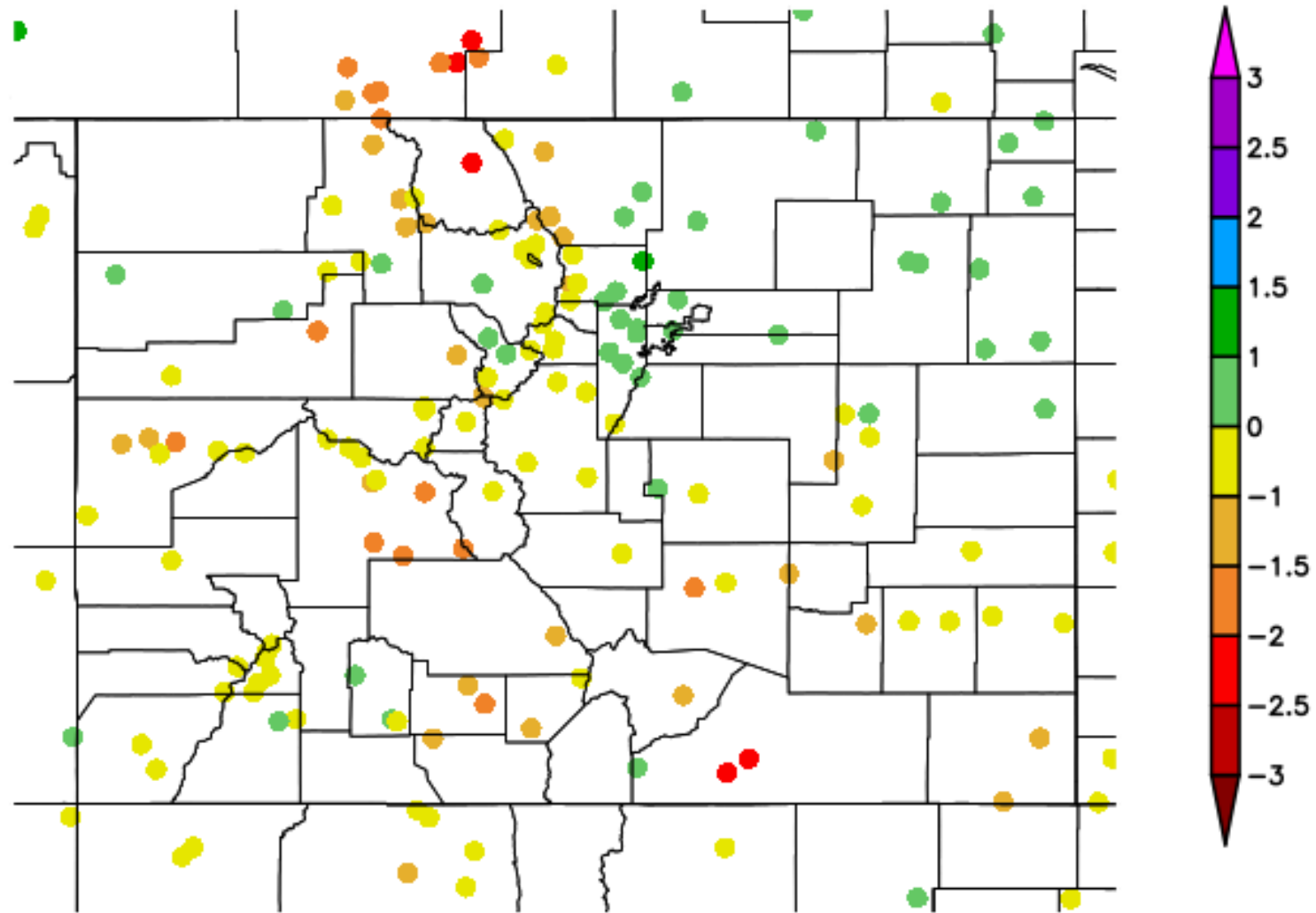




Colorado Drought



30 Day SPI 4/15/2018 - 5/14/2018

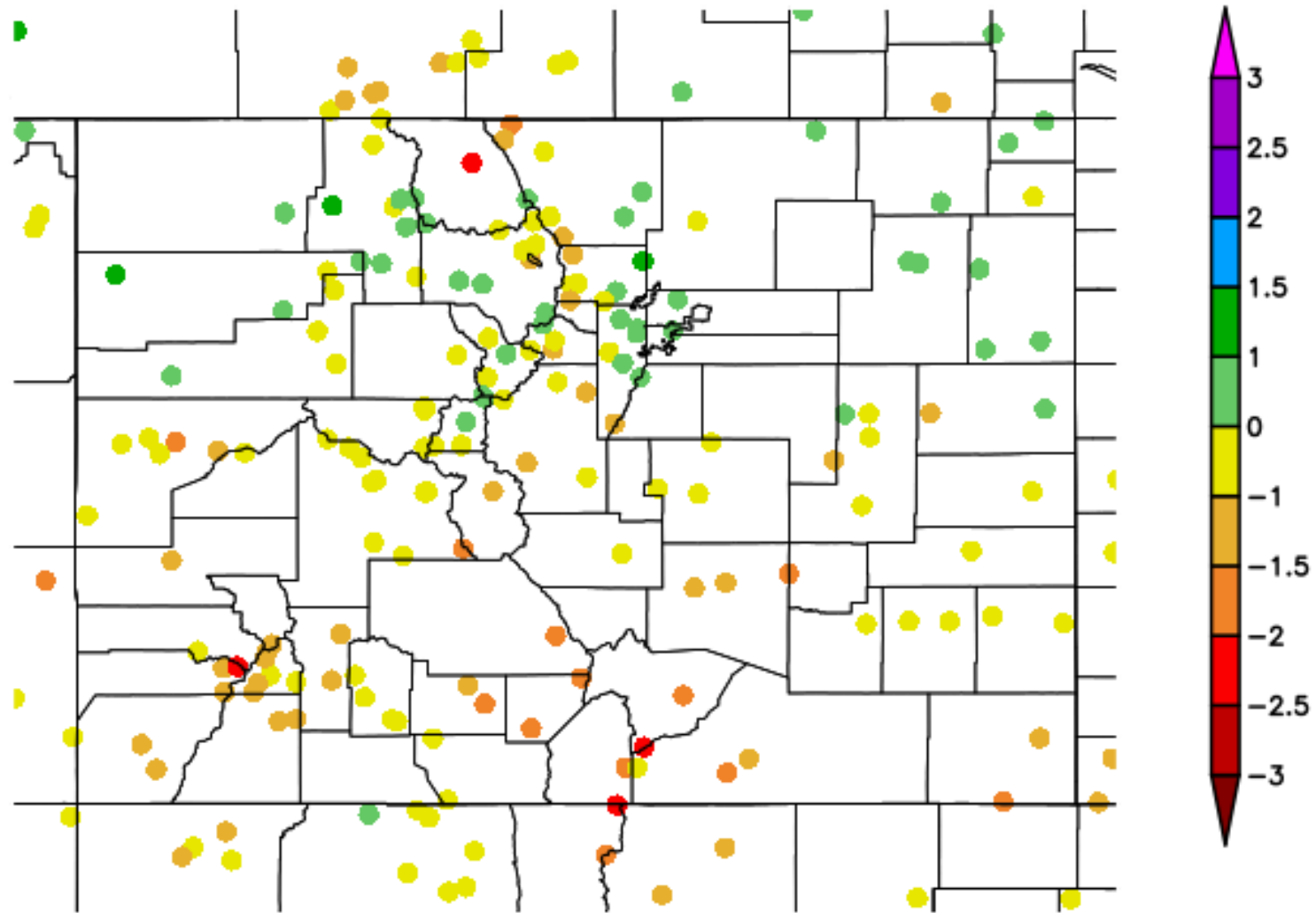


Generated 5/15/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers



90 Day SPI 2/15/2018 - 5/15/2018

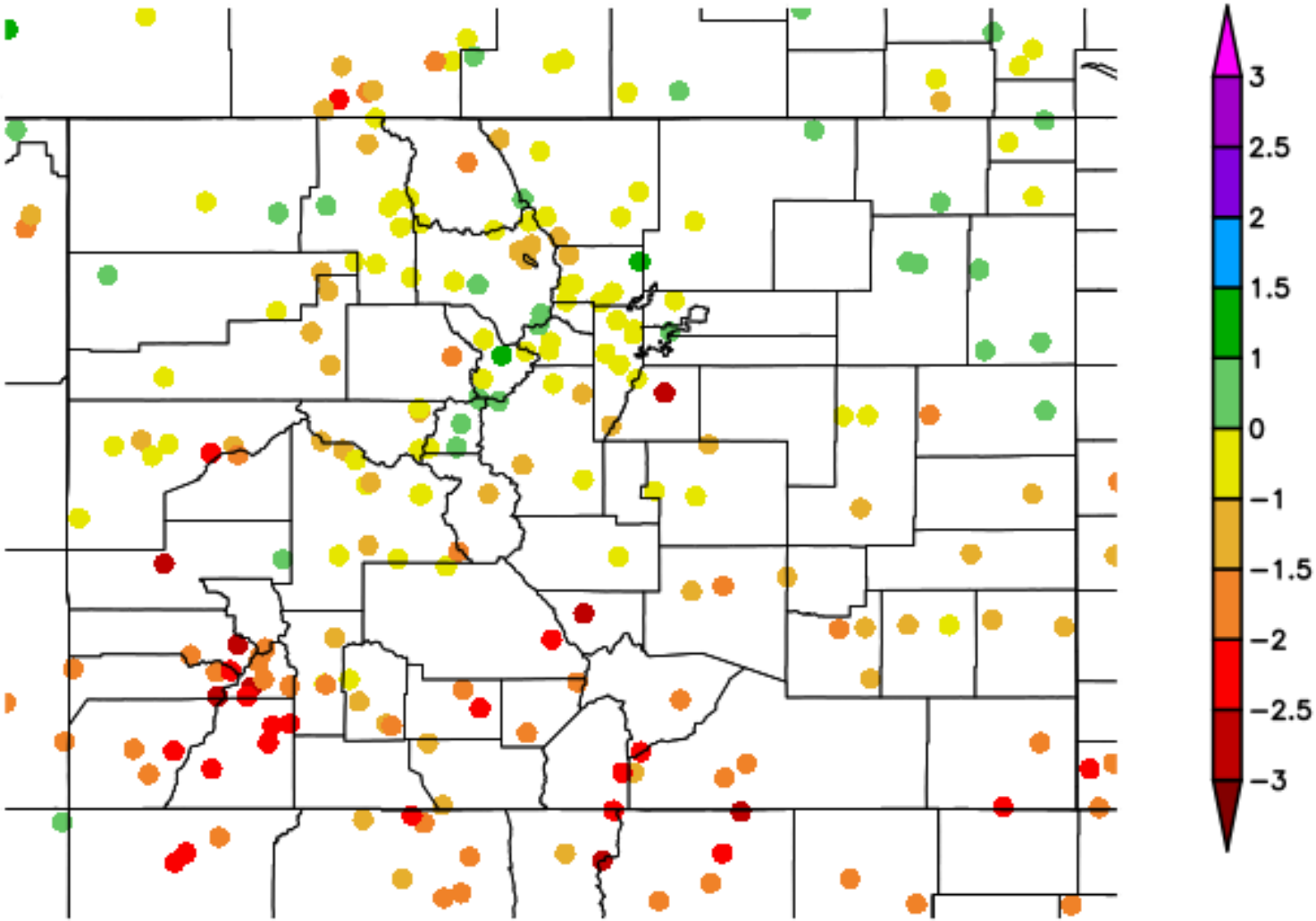


Generated 5/16/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers



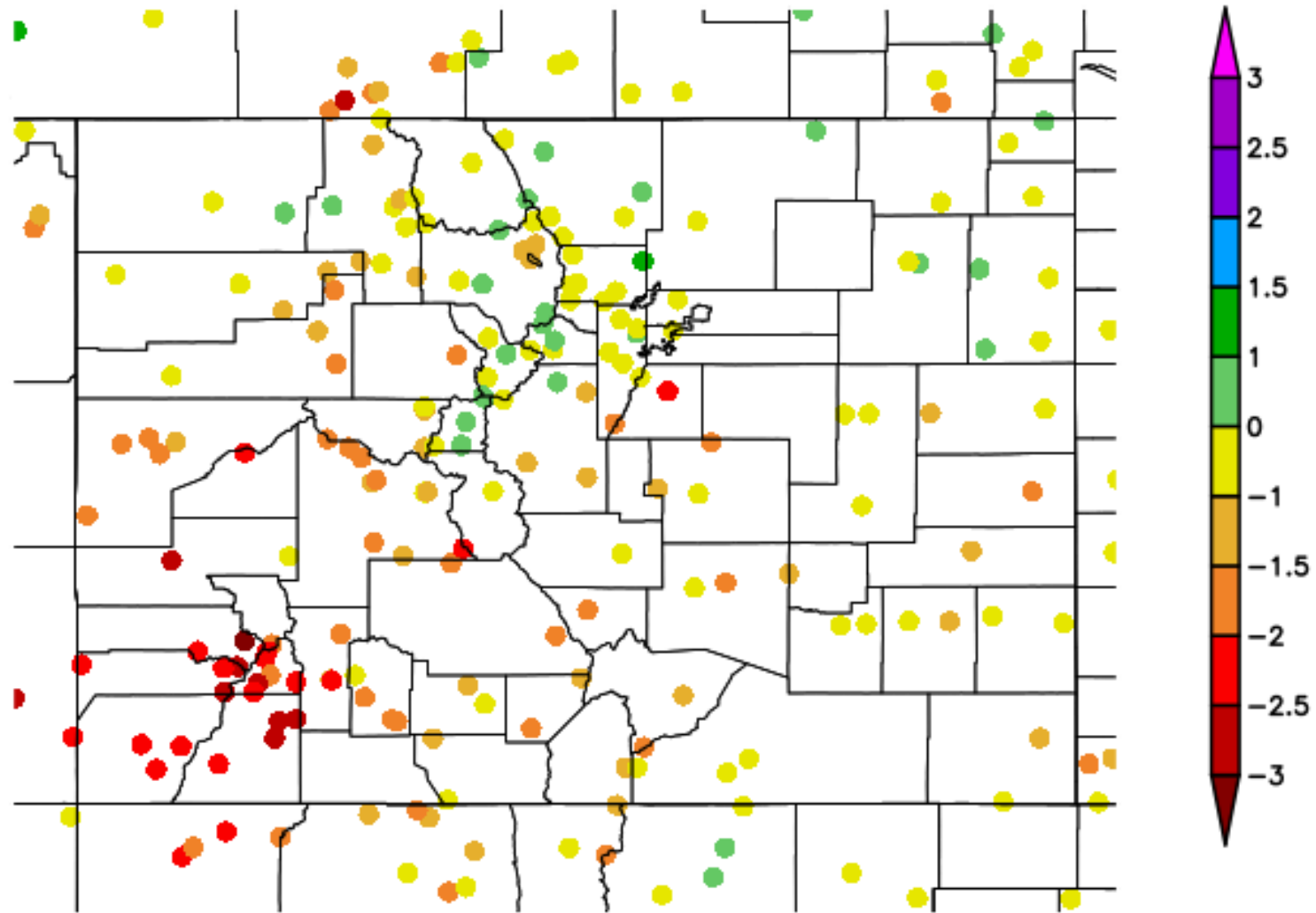
6 Month SPI 11/15/2017 - 5/14/2018



Generated 5/15/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

9 Month SPI 8/16/2017 - 5/15/2018



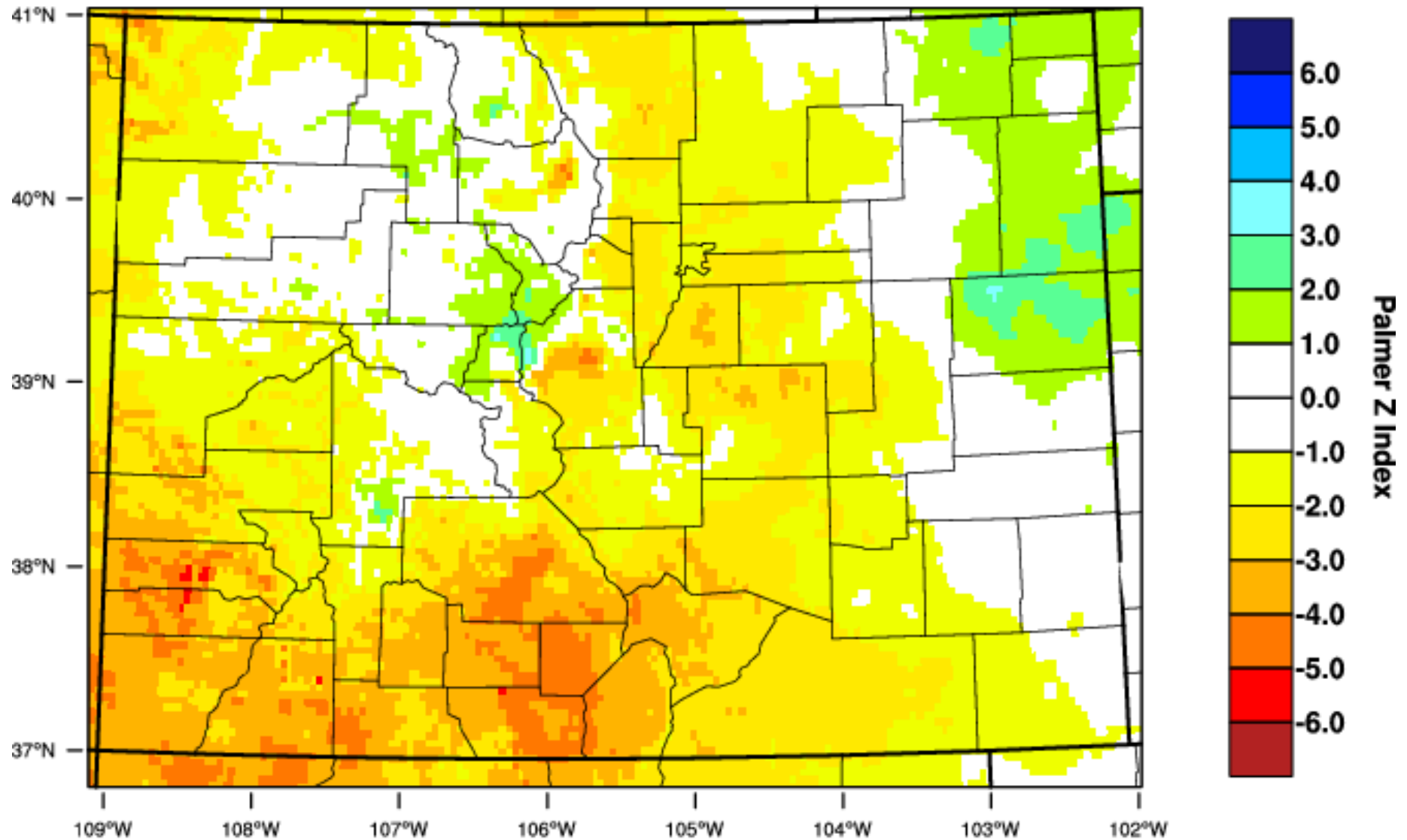
Generated 5/16/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers



Colorado - Palmer Z-Index

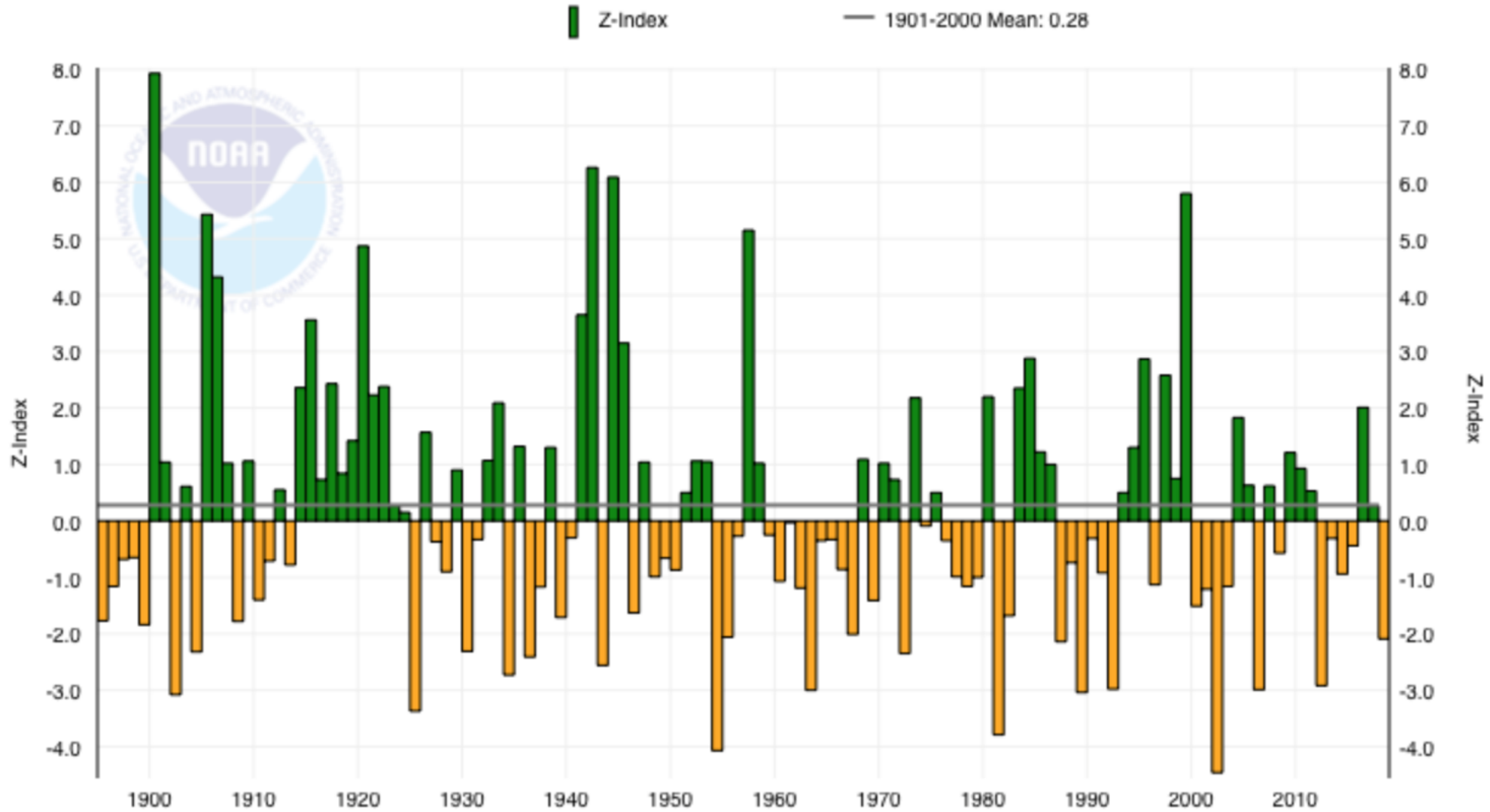
April 2018



WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 16 MAY 2018



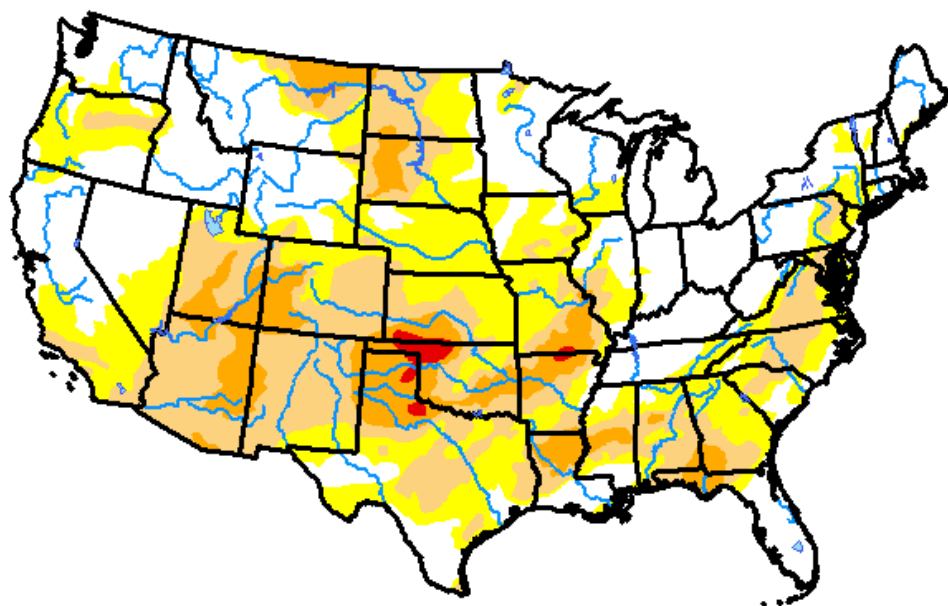
Colorado, Palmer Z-Index, April



U.S. Drought Monitor

Continental U.S. (CONUS)

January 16, 2018
 (Released Thursday, Jan. 18, 2018)
 Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	39.07	60.93	33.04	10.03	0.64	0.00
Last Week <i>01-09-2018</i>	42.20	57.80	32.07	8.70	0.46	0.00
3 Months Ago <i>10-17-2017</i>	62.25	37.75	12.48	2.98	0.82	0.00
Start of Calendar Year <i>01-02-2018</i>	44.46	55.54	27.70	7.46	0.83	0.00
Start of Water Year <i>09-26-2017</i>	63.07	36.93	13.81	4.99	2.36	0.87
One Year Ago <i>01-17-2017</i>	60.50	39.50	19.26	6.77	2.39	0.11

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

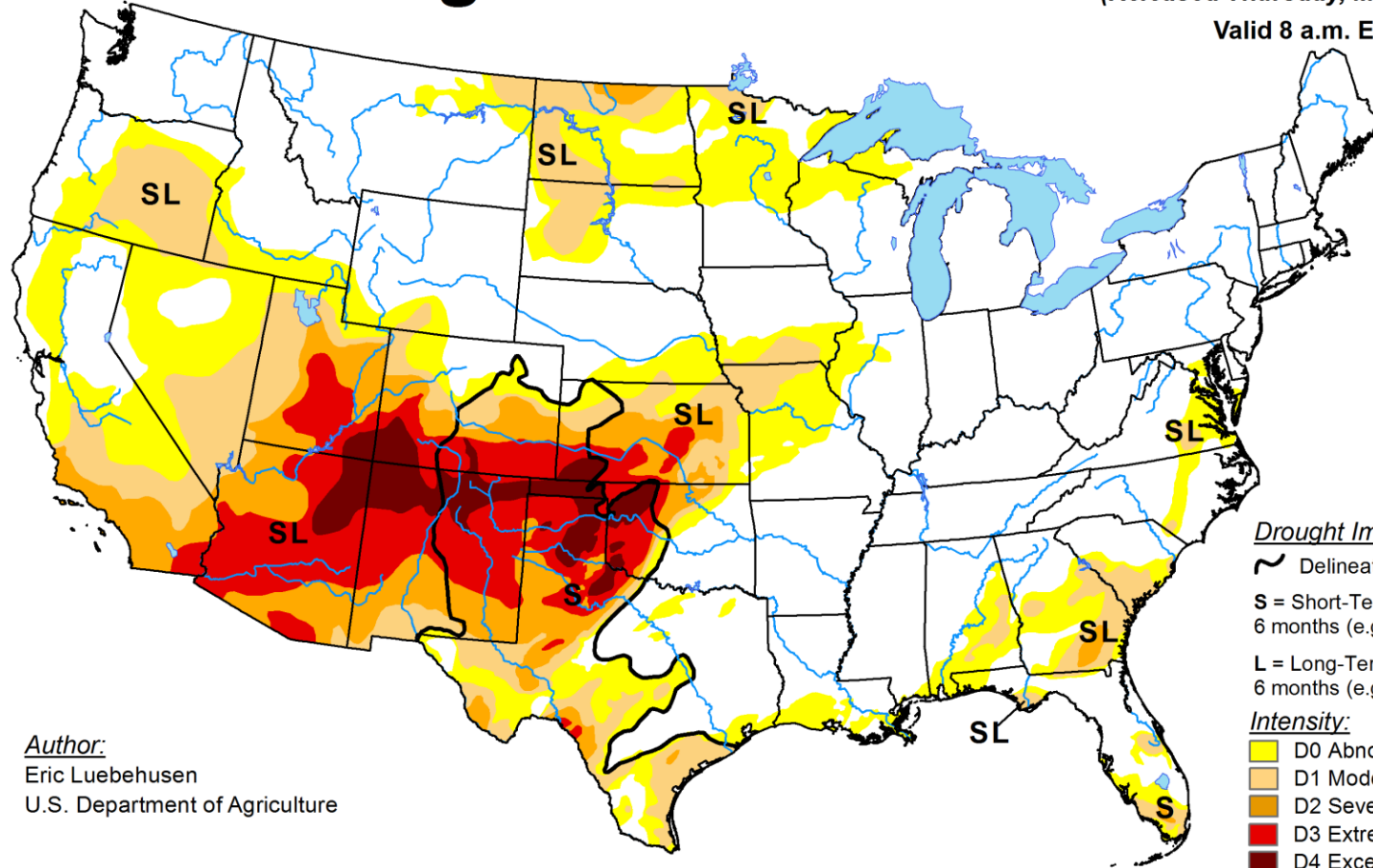


<http://droughtmonitor.unl.edu/>



U.S. Drought Monitor

May 15, 2018
 (Released Thursday, May. 17, 2018)
 Valid 8 a.m. EDT



Author:
 Eric Luebehusen
 U.S. Department of Agriculture

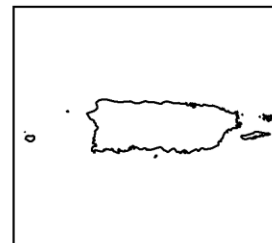
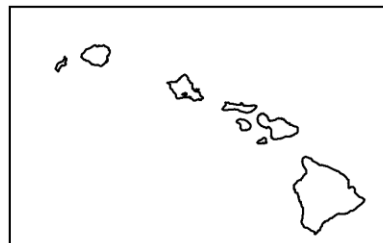
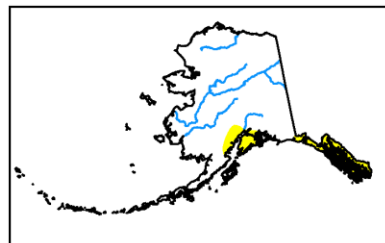
Drought Impact Types:

- ~ 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

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

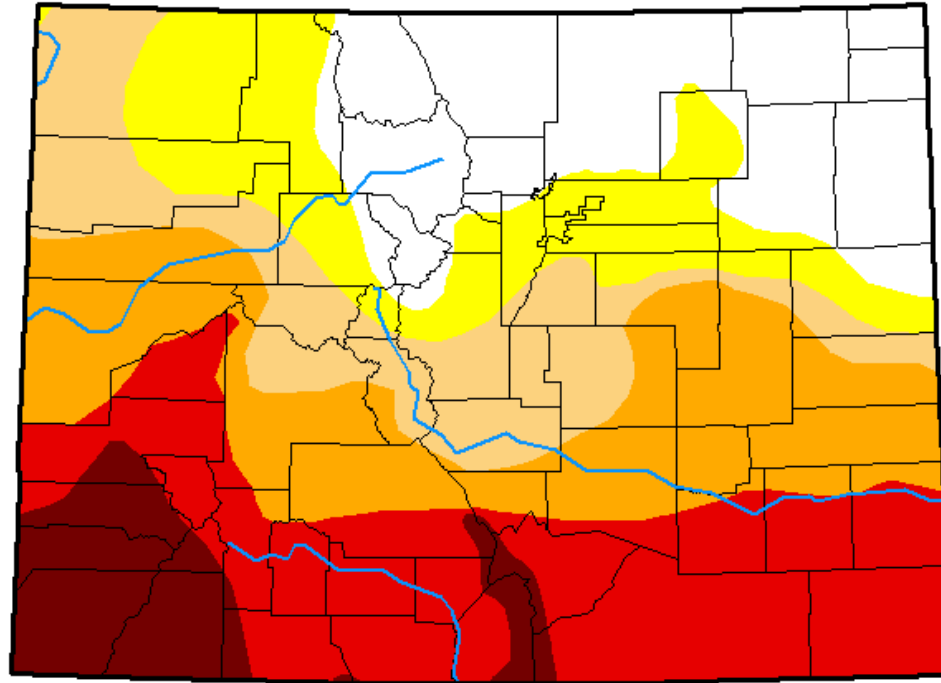


<http://droughtmonitor.unl.edu/>



U.S. Drought Monitor Colorado

May 15, 2018
(Released Thursday, May. 17, 2018)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	20.49	79.51	65.53	51.14	30.89	7.79
Last Week <i>05-08-2018</i>	18.02	81.98	67.98	51.57	30.89	7.40
3 Months Ago <i>02-13-2018</i>	8.59	91.41	71.18	33.51	0.00	0.00
Start of Calendar Year <i>01-02-2018</i>	6.57	93.43	33.53	7.27	0.00	0.00
Start of Water Year <i>09-26-2017</i>	67.63	32.37	3.72	0.00	0.00	0.00
One Year Ago <i>05-16-2017</i>	81.26	18.74	0.41	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:

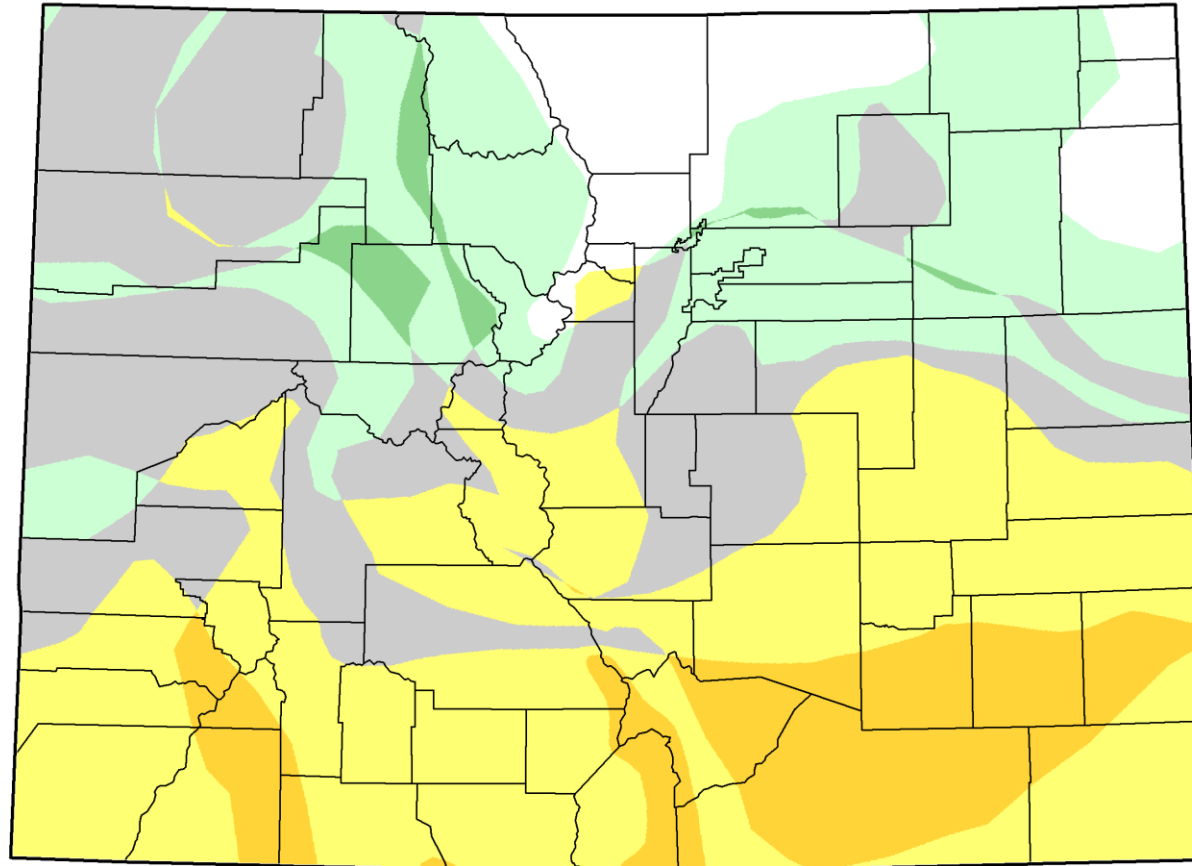
Eric Luebehusen
U.S. Department of Agriculture



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



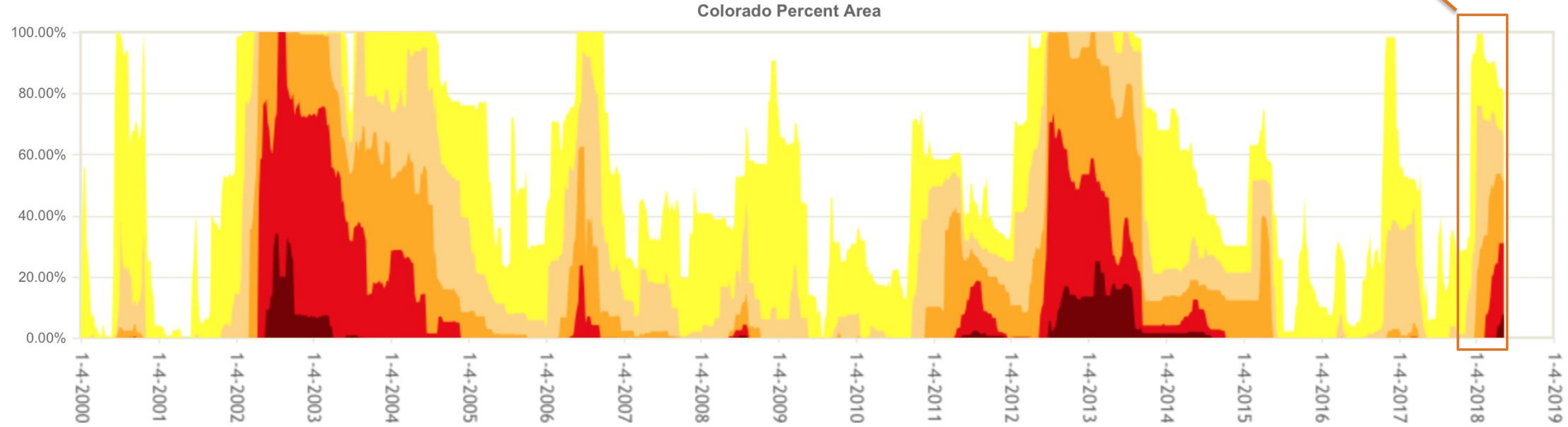
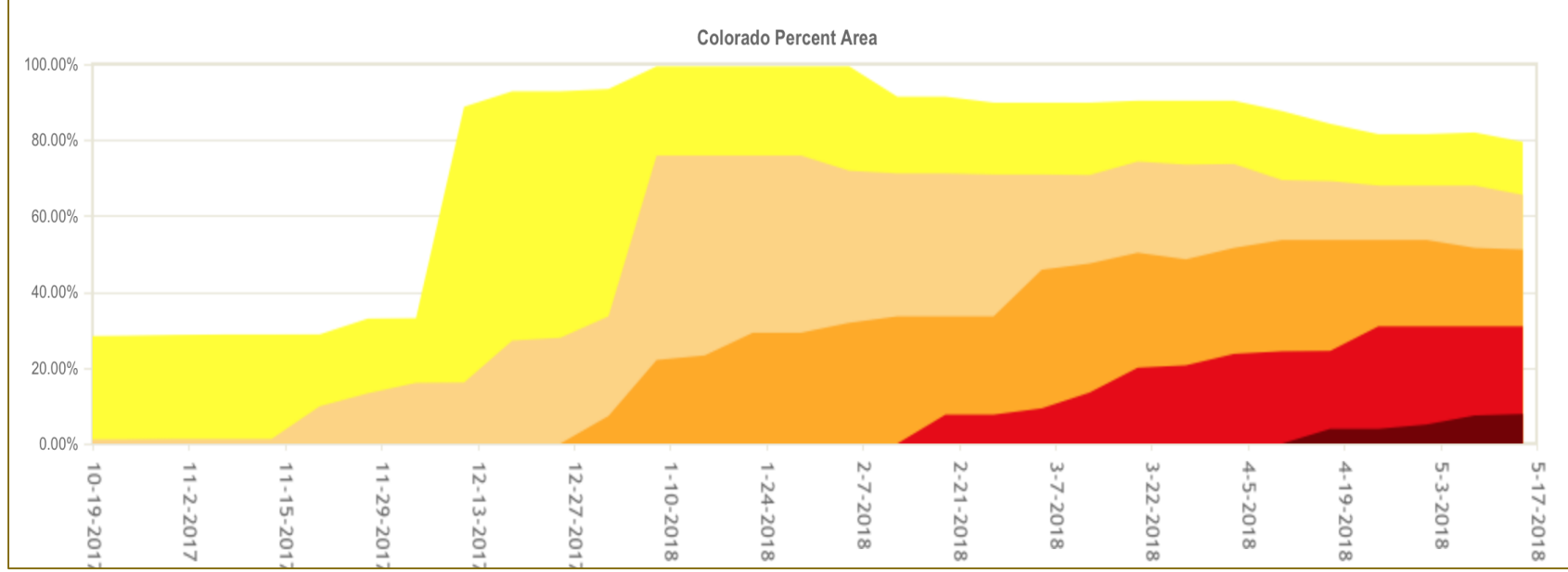
U.S. Drought Monitor Class Change - Colorado 3 Months



May 15, 2018
compared to
February 20, 2018

<http://droughtmonitor.unl.edu>





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**To view this and other presentations:
http://climate.colostate.edu/ccc_archive.html**

Thank you



Colorado State University