Climate Update

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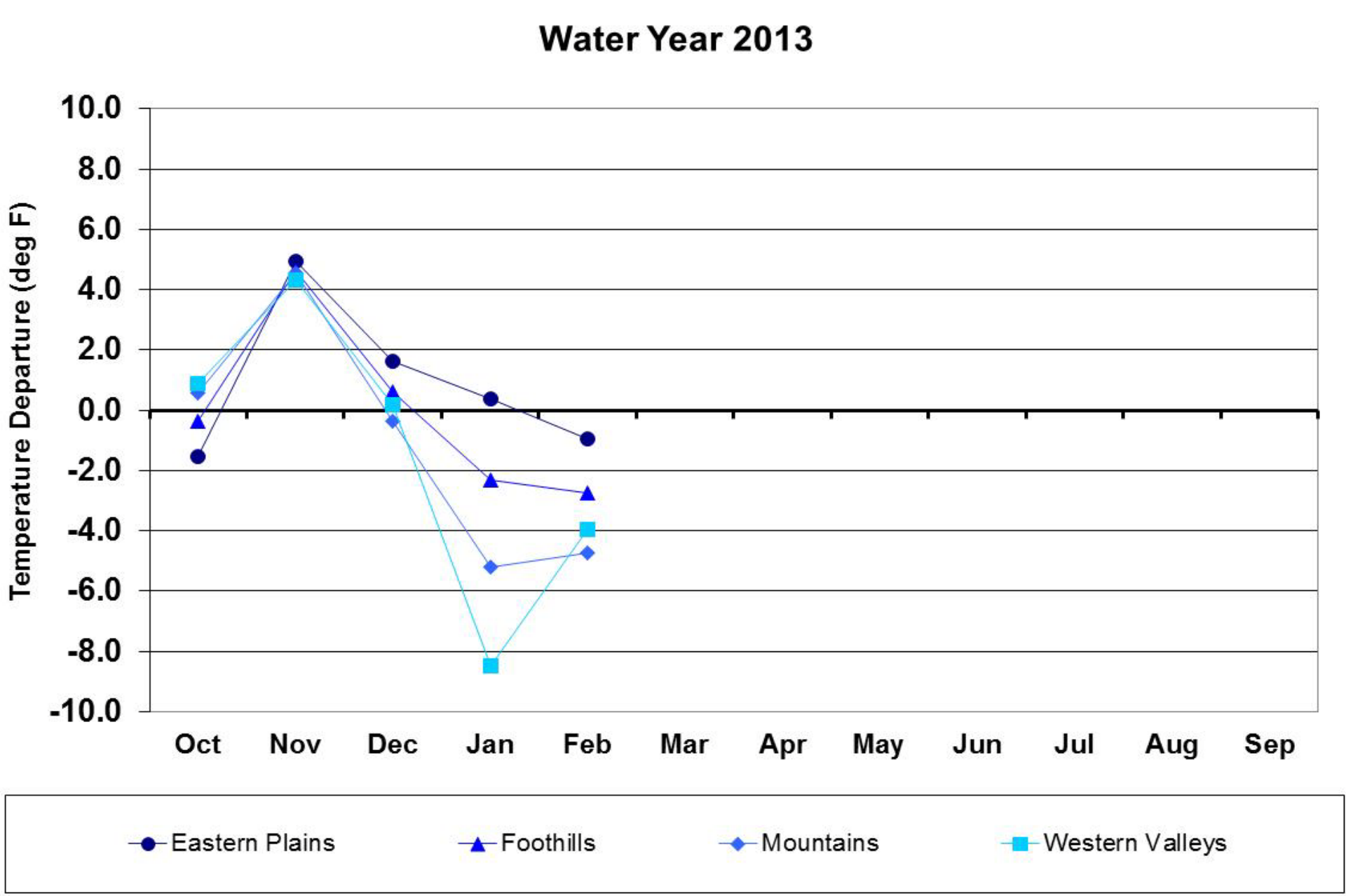
Colorado Climate Center

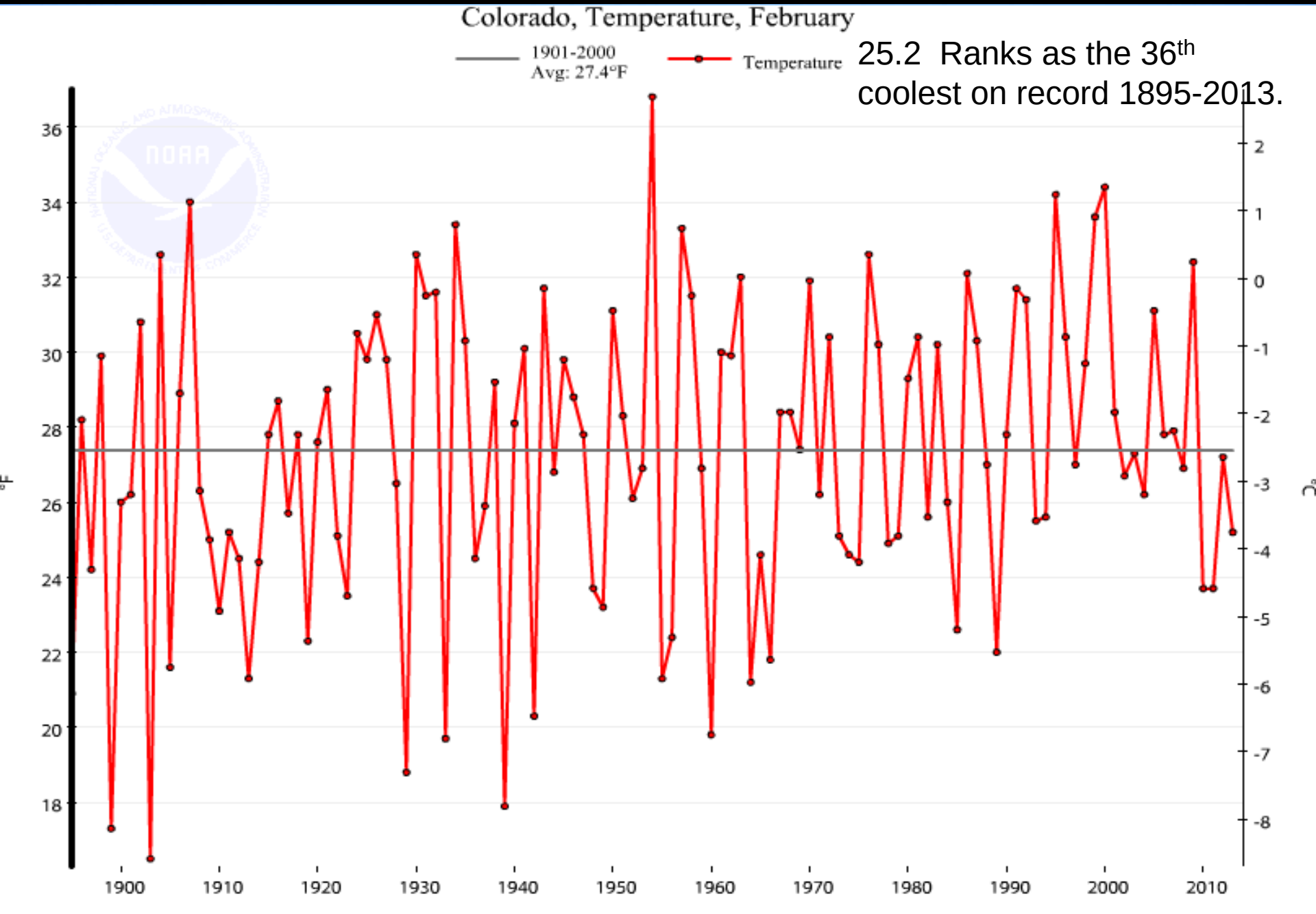
Atmospheric Science Department
Colorado State University

Presented to
Water Availability Task Force
21 March 2013
Denver, CO

Water Year 2013 Temperature Departures

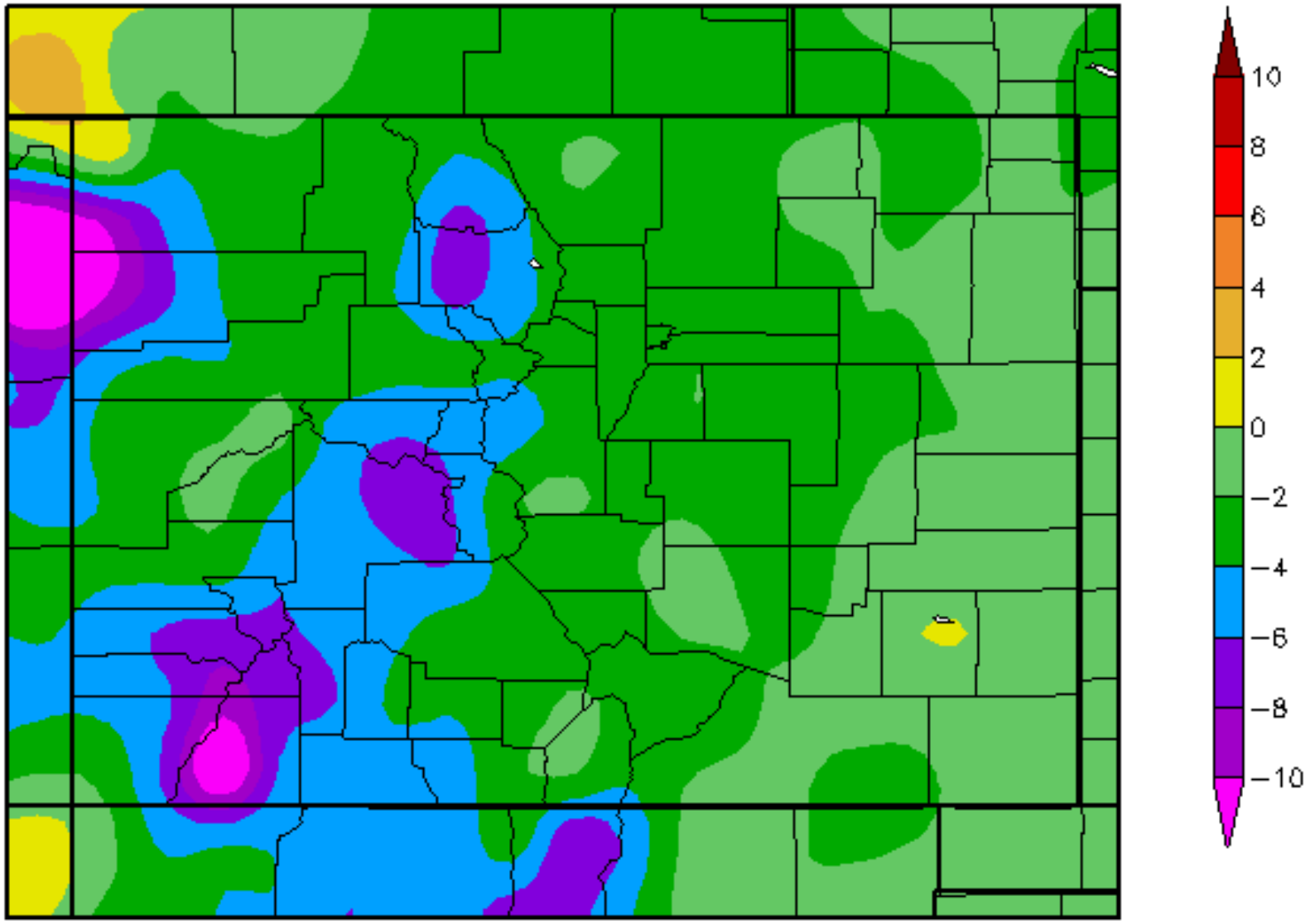


February Average Temperature History for Colorado (NCDC)



25.2 Ranks as the 36th coolest on record 1895-2013.

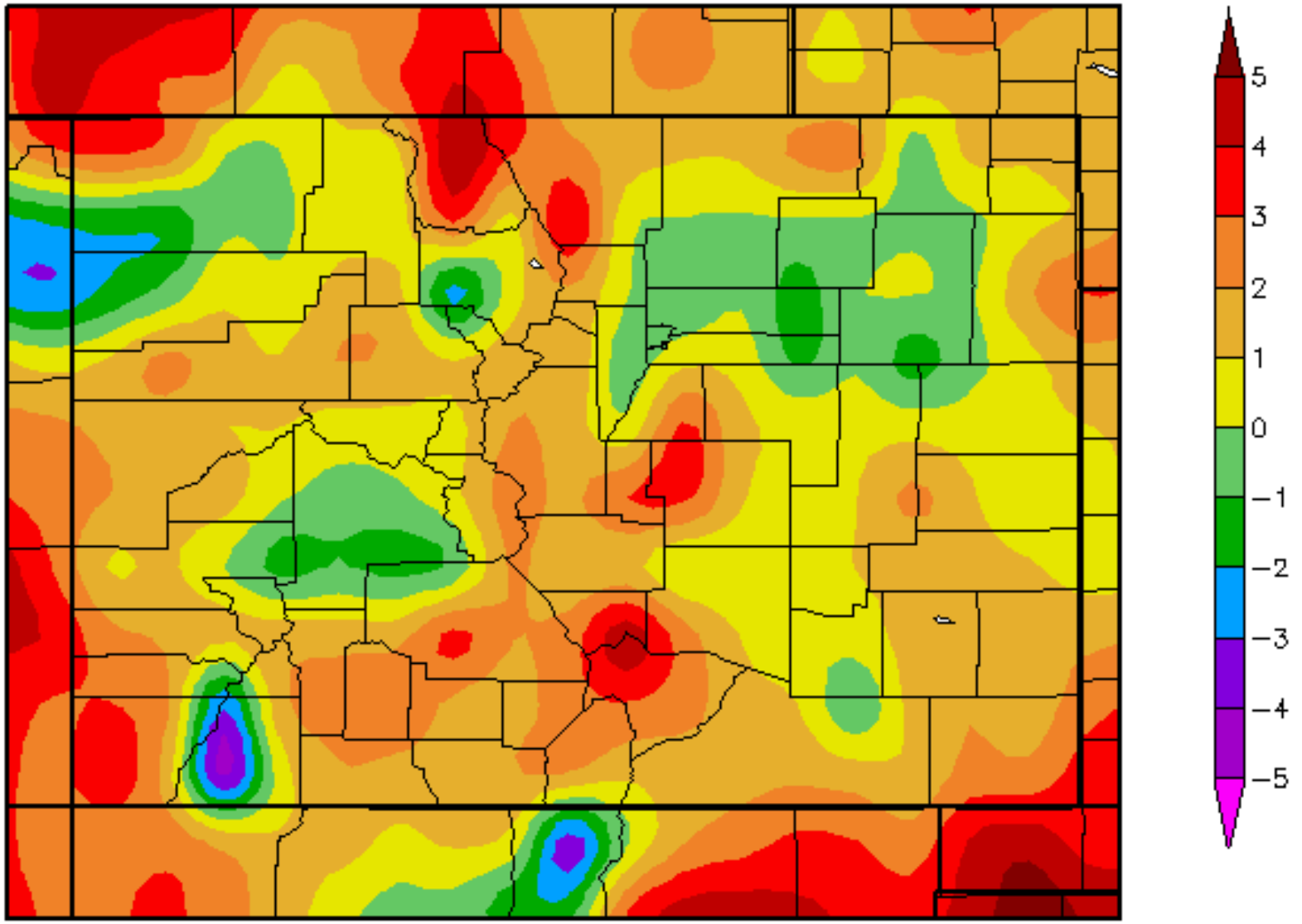
Departure from Normal Temperature (F)
2/1/2013 – 2/28/2013



Generated 3/11/2013 at HPRCC using provisional data.

Regional Climate Centers

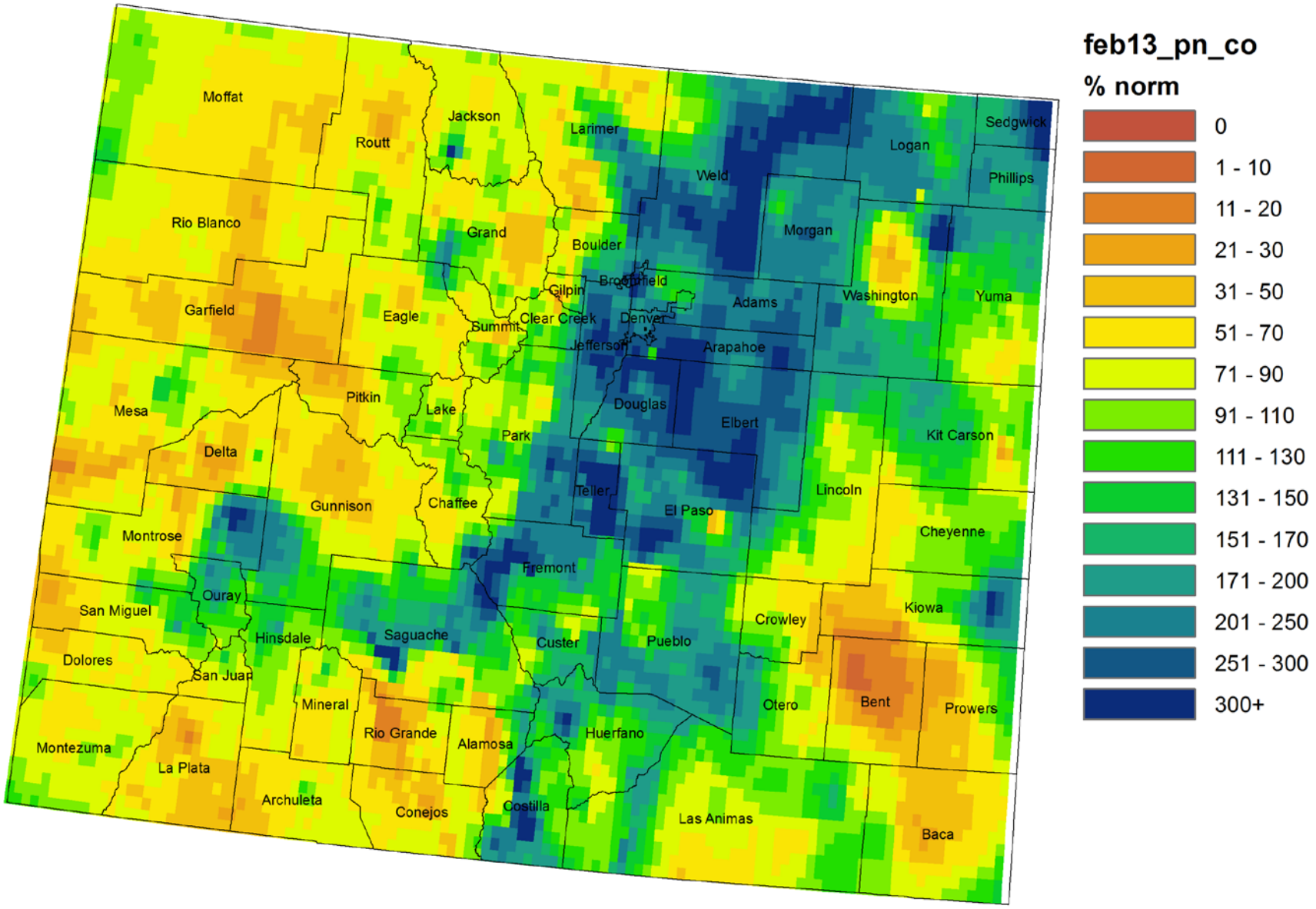
Departure from Normal Temperature (F)
3/1/2013 – 3/19/2013



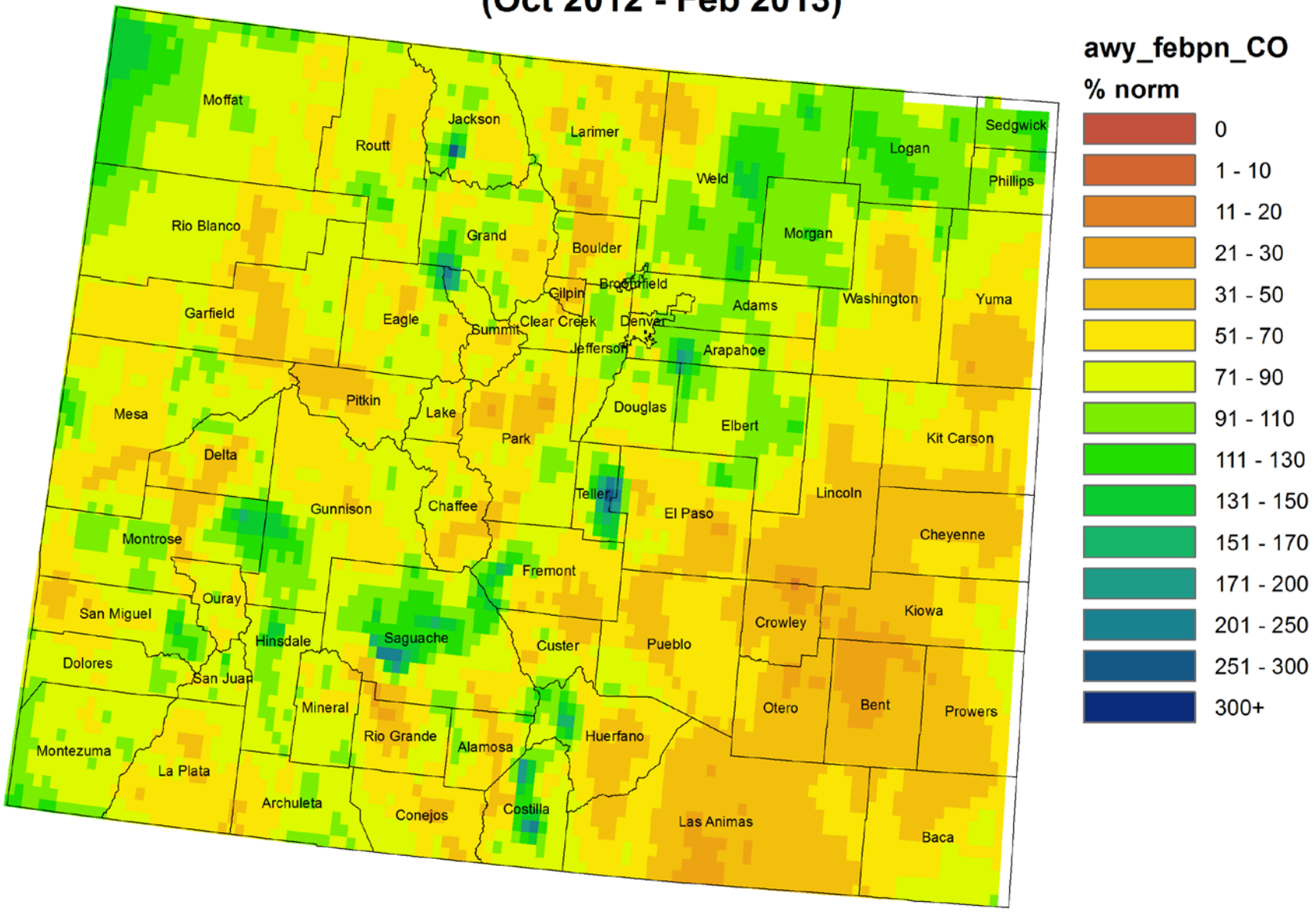
Generated 3/20/2013 at HPRCC using provisional data.

Regional Climate Centers

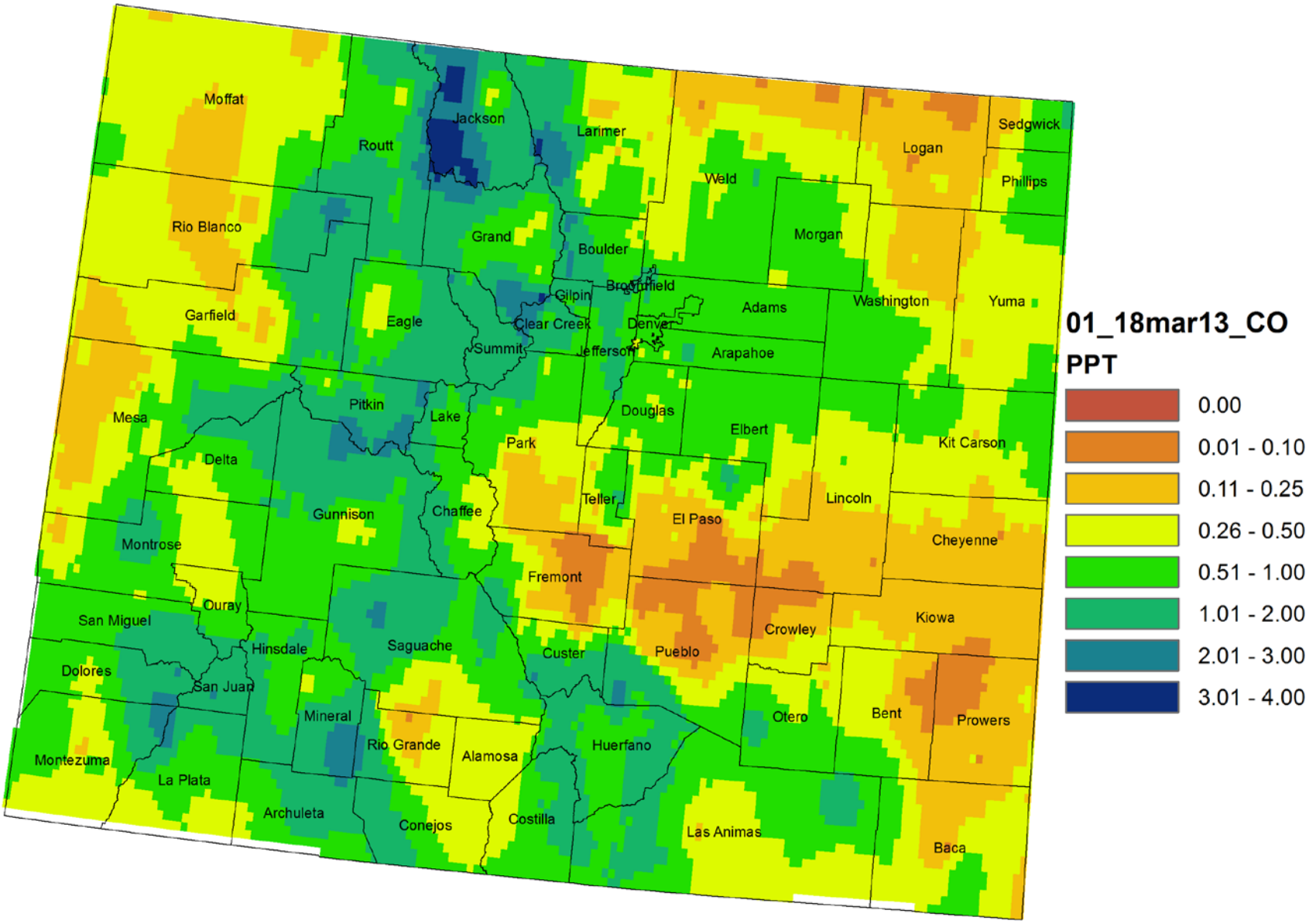
Colorado February 2013 Precipitation as a Percentage of Normal



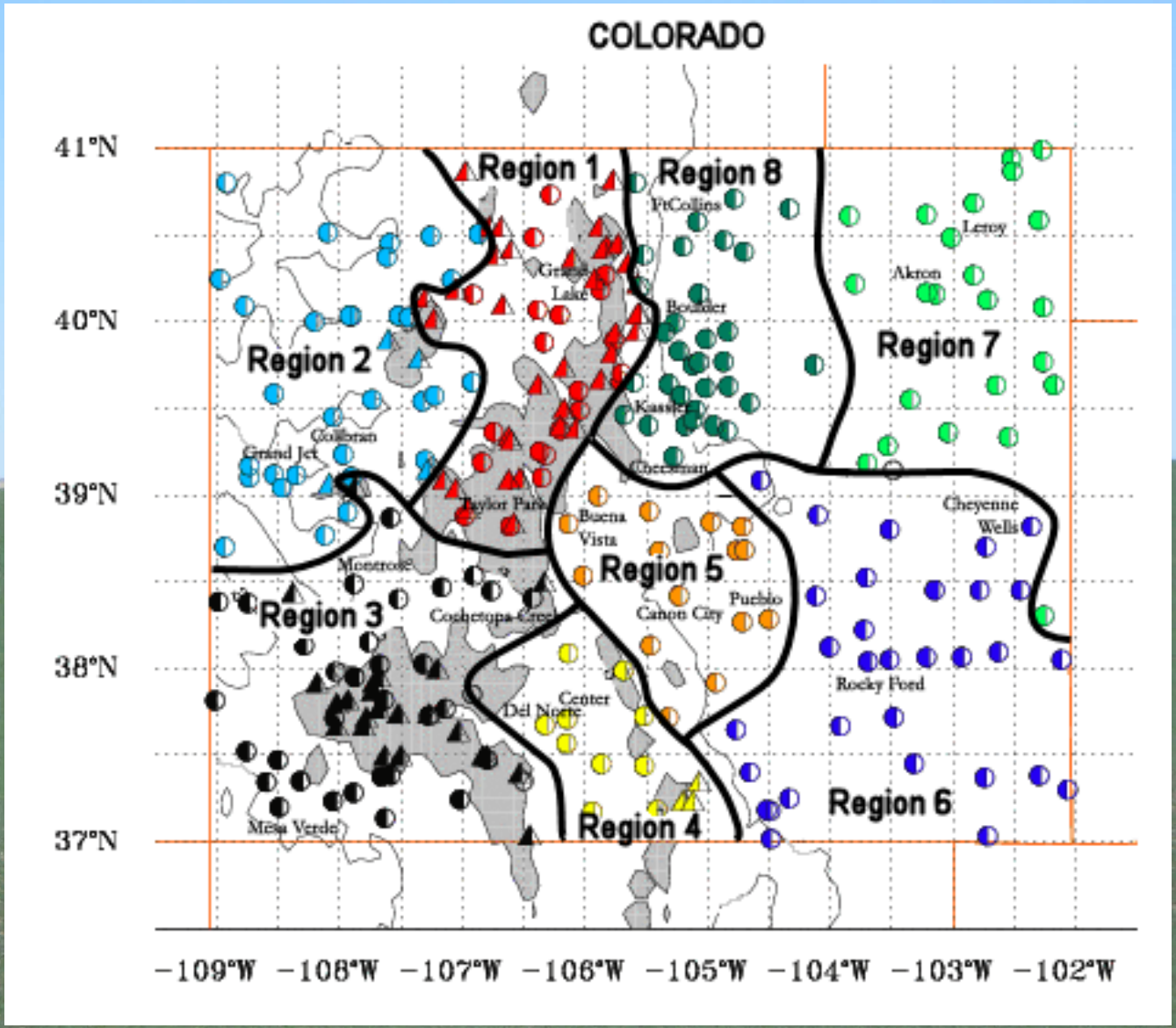
Colorado Water Year 2013 Precipitation as a Percentage of Normal (Oct 2012 - Feb 2013)



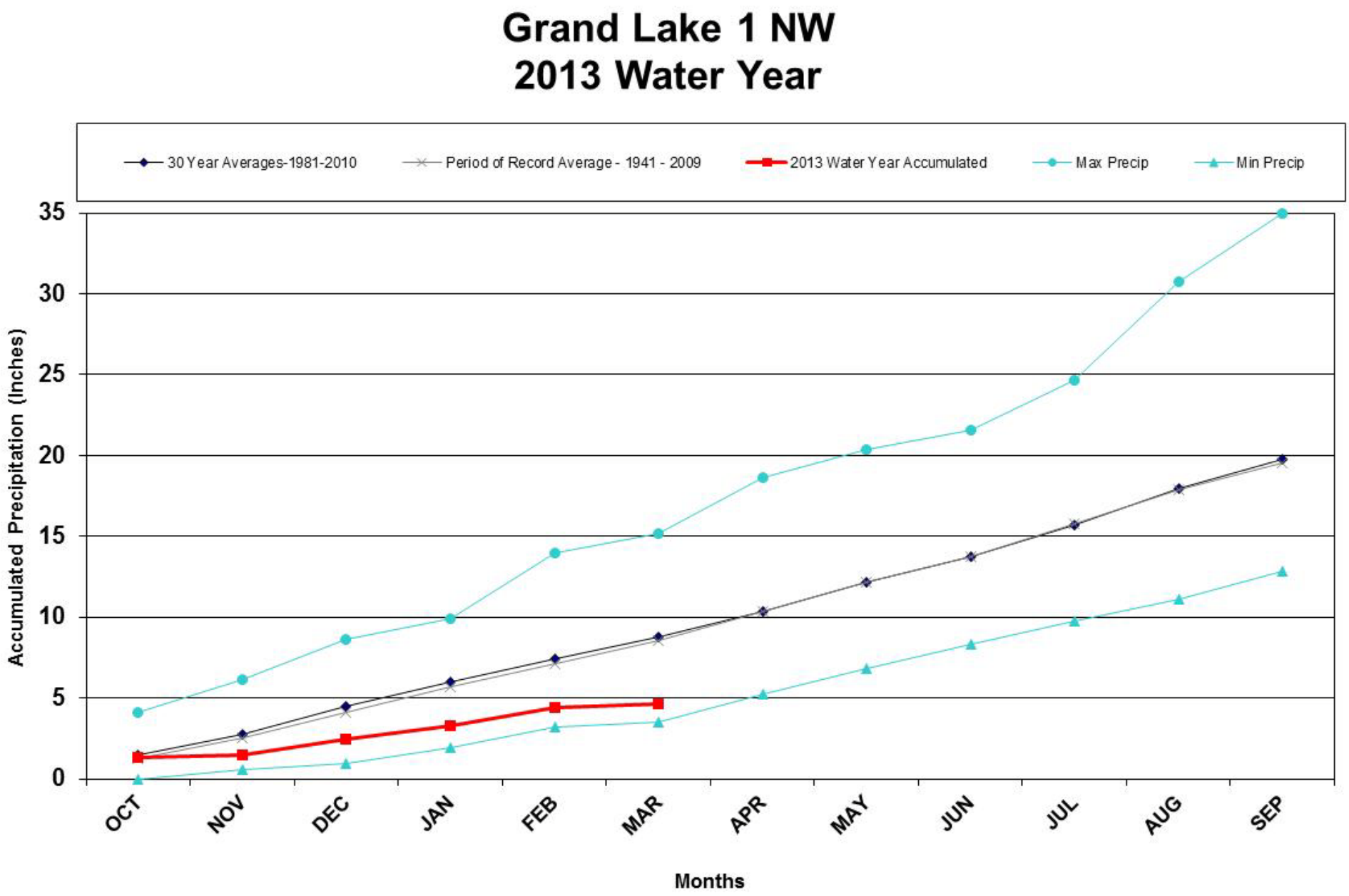
Colorado Month to Date Precipitation (in)
1 - 18 March 2013



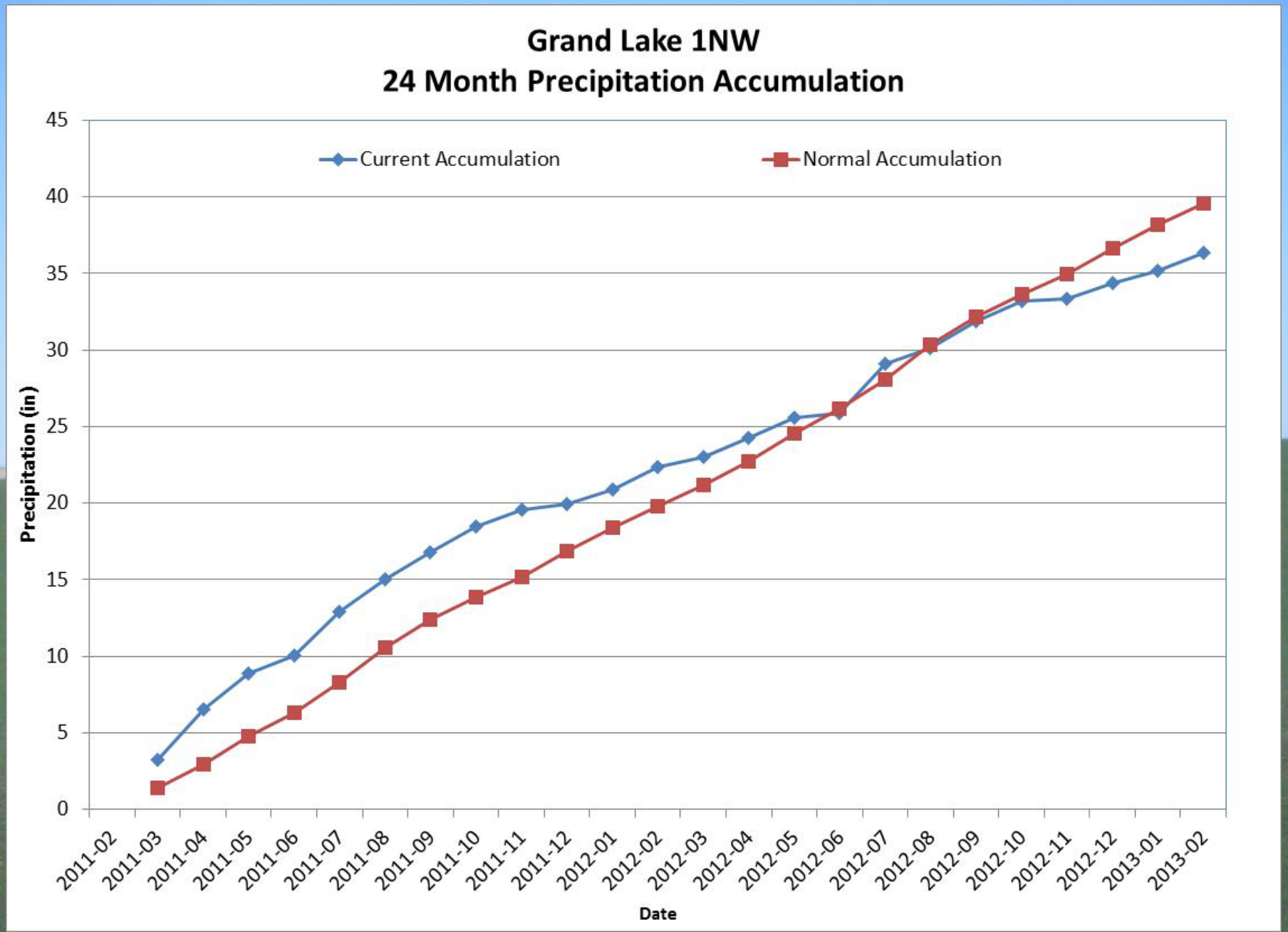
Climate divisions defined by Dr. Klaus Wolter of NOAA's Climate Diagnostic Center in Boulder, CO



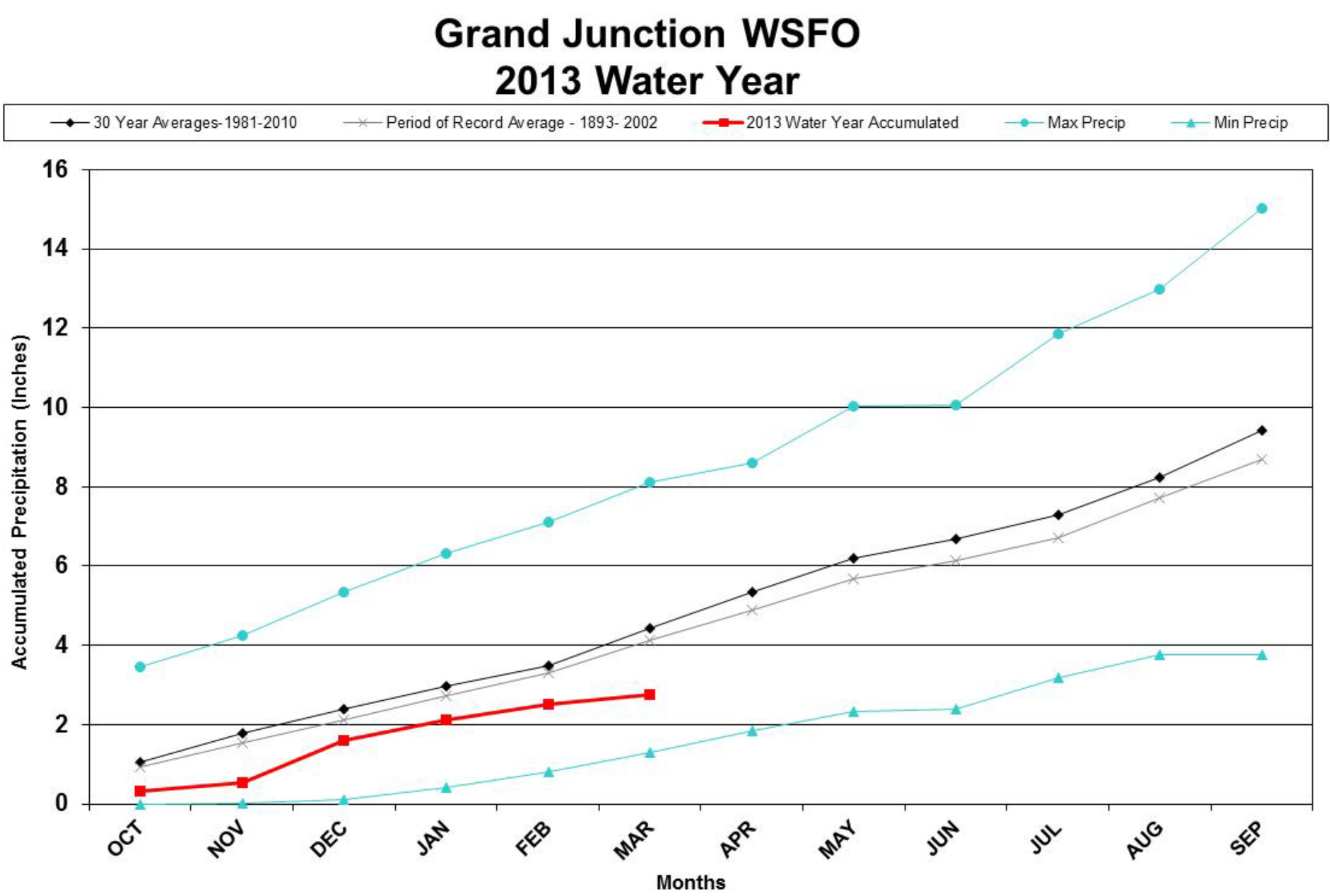
Division 1 – Grand Lake 1NW



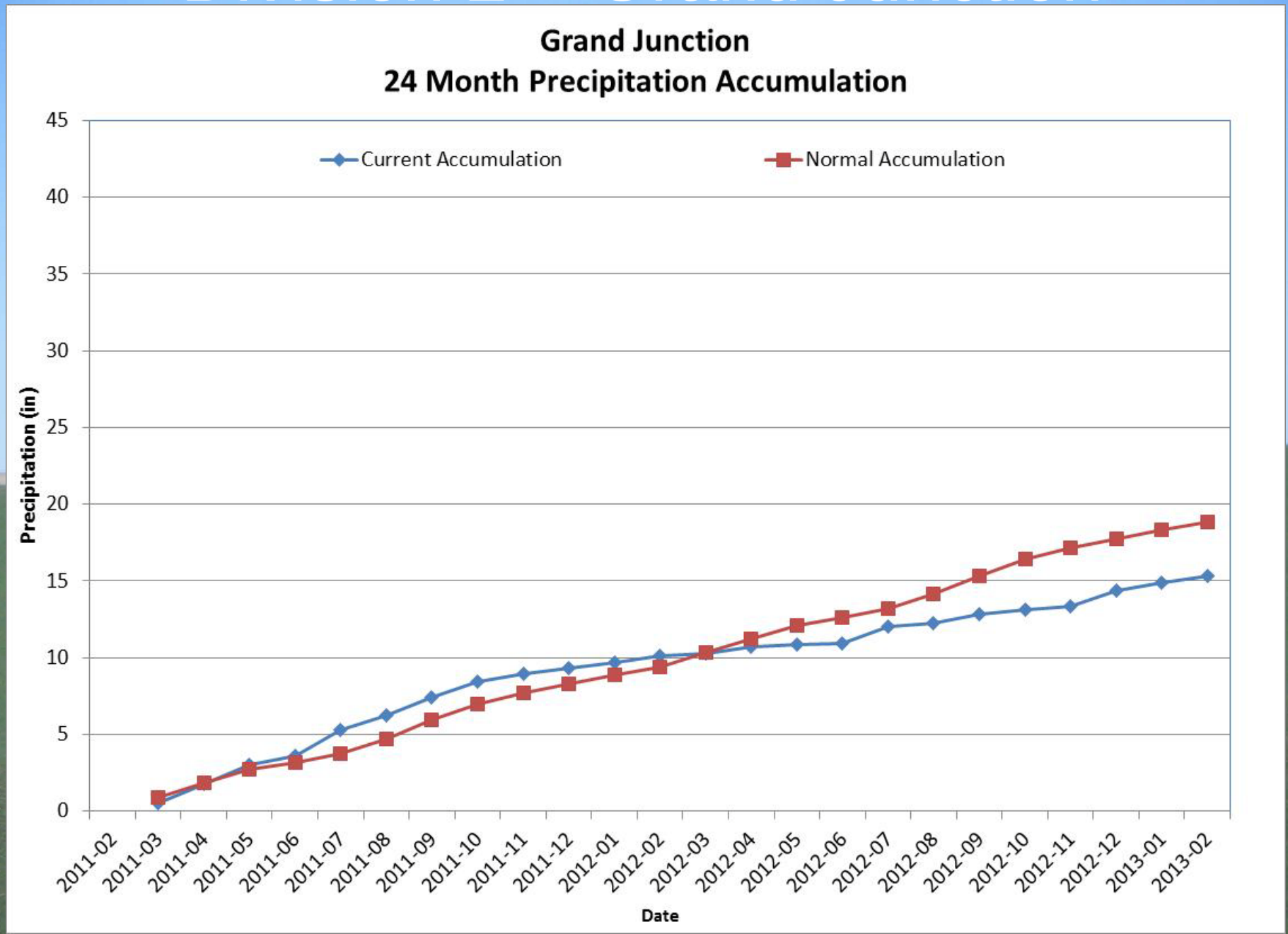
Division 1 – Grand Lake 1NW



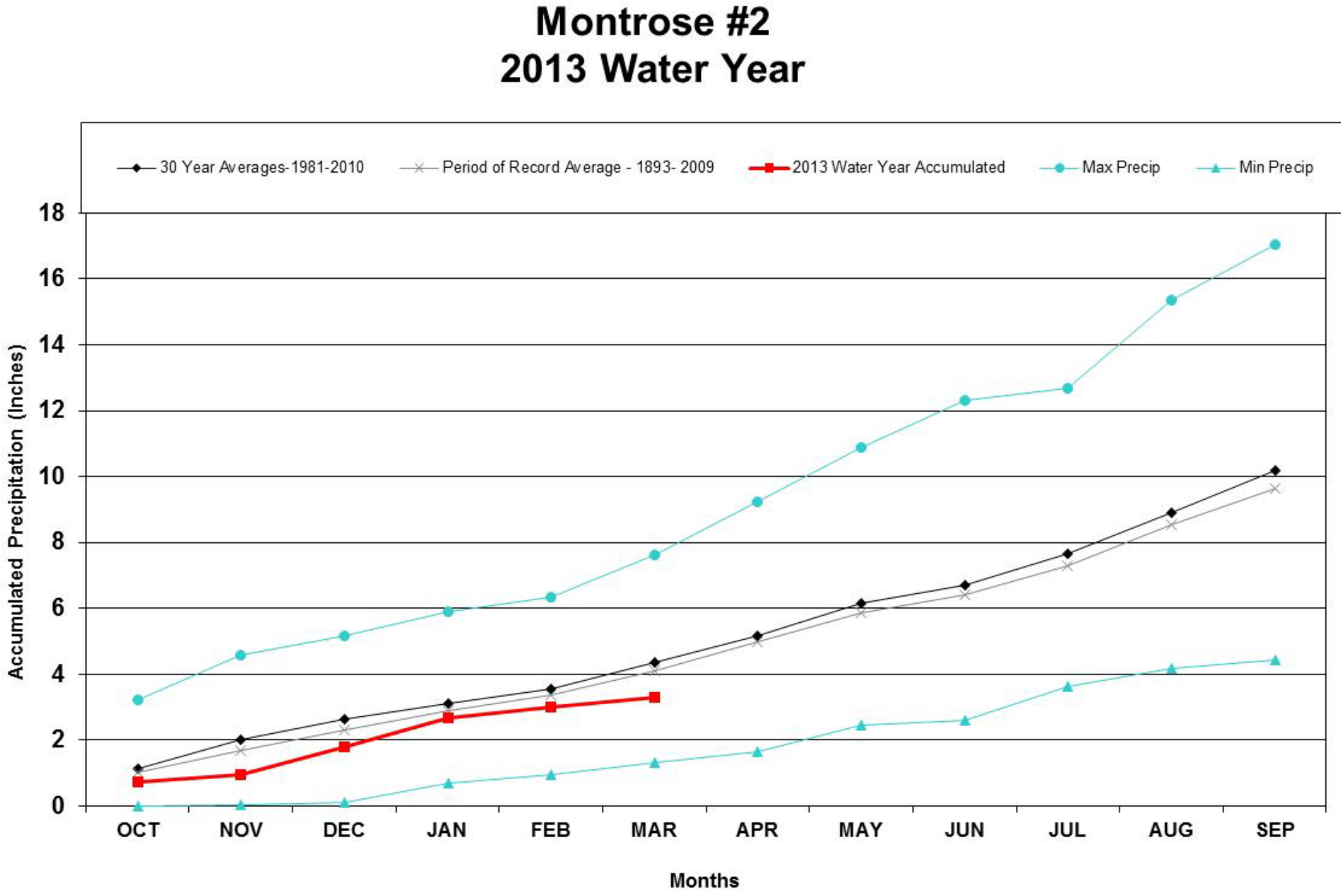
Division 2 – Grand Junction



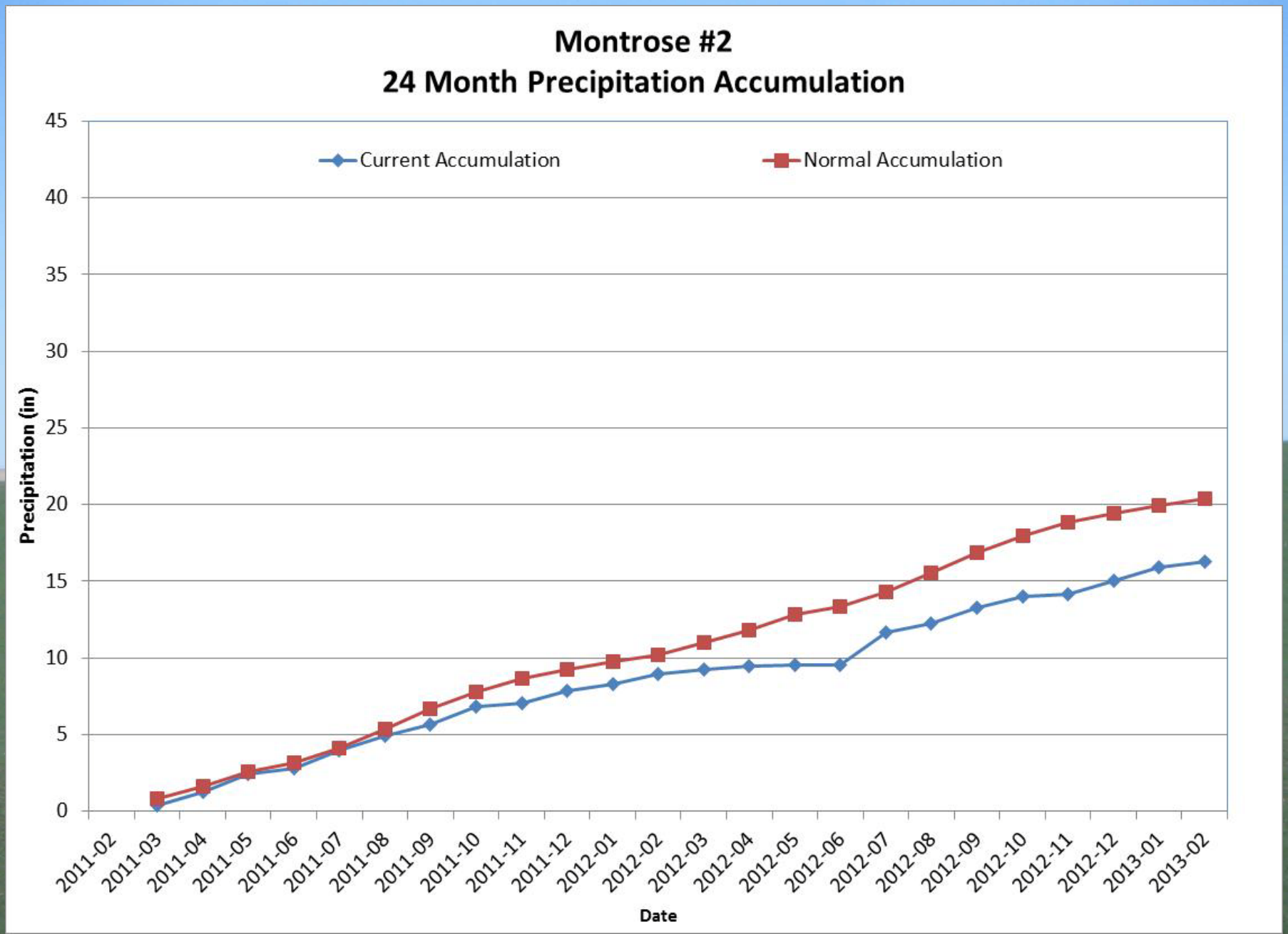
Division 2 – Grand Junction



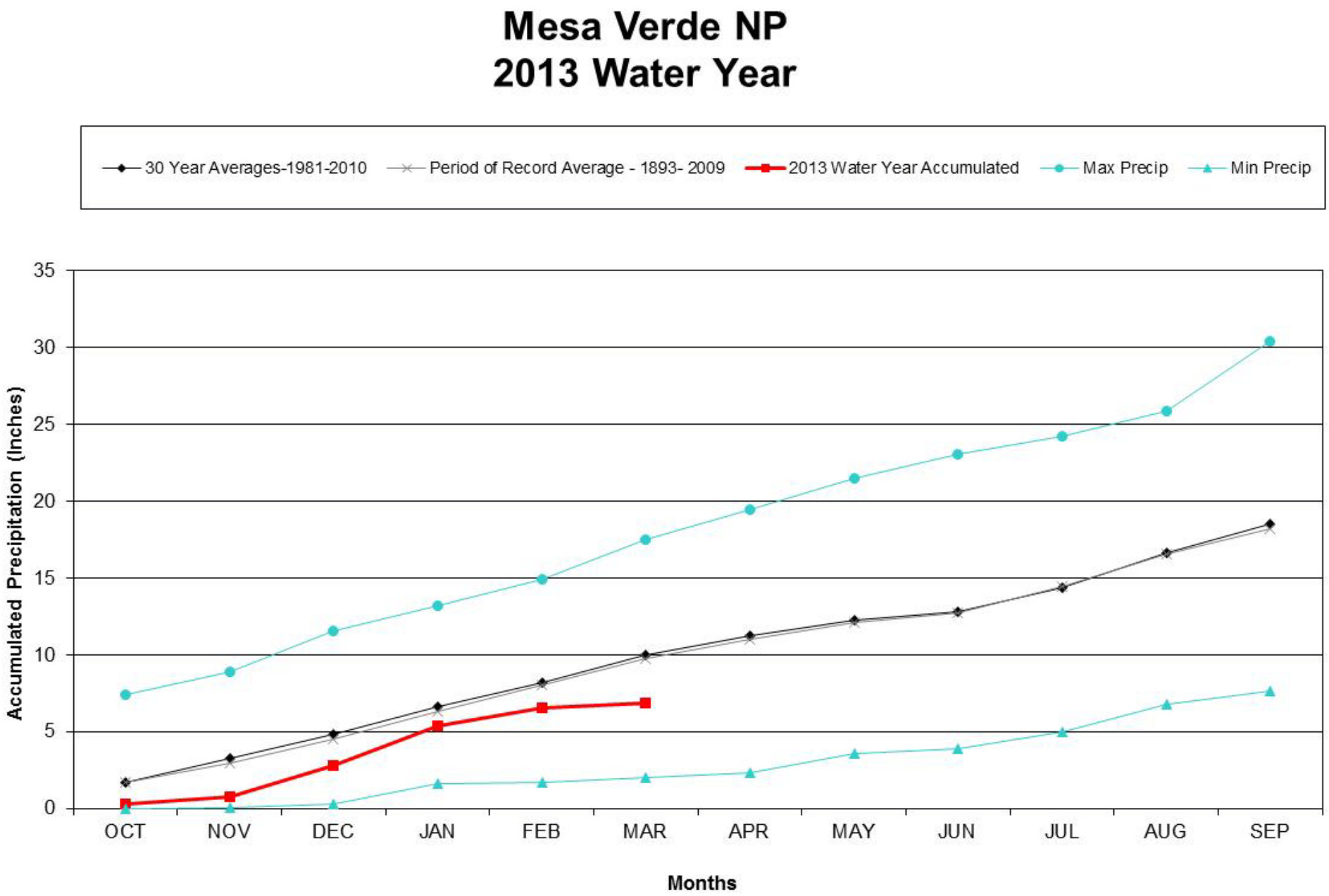
Division 3 – Montrose



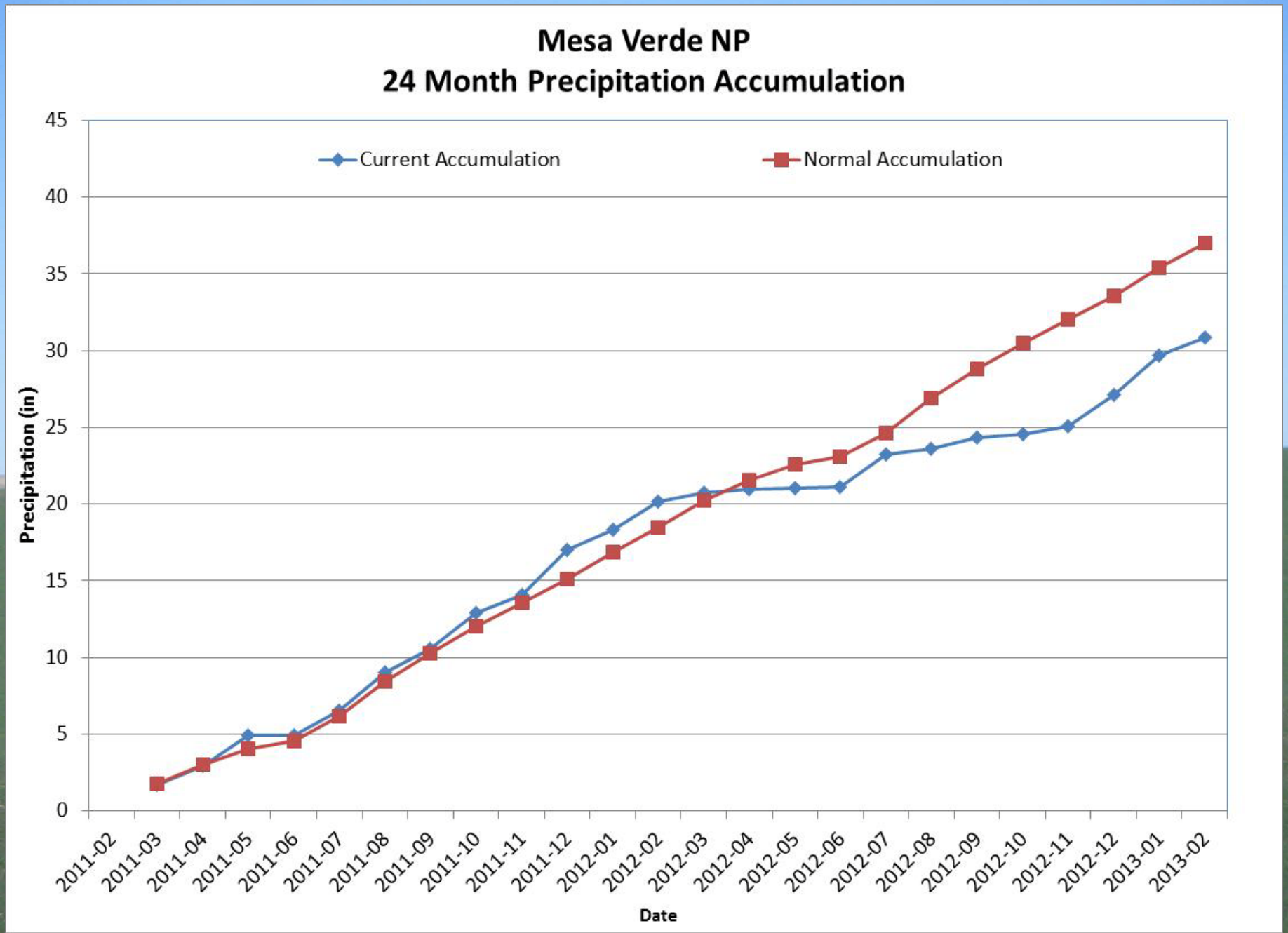
Division 3 – Montrose



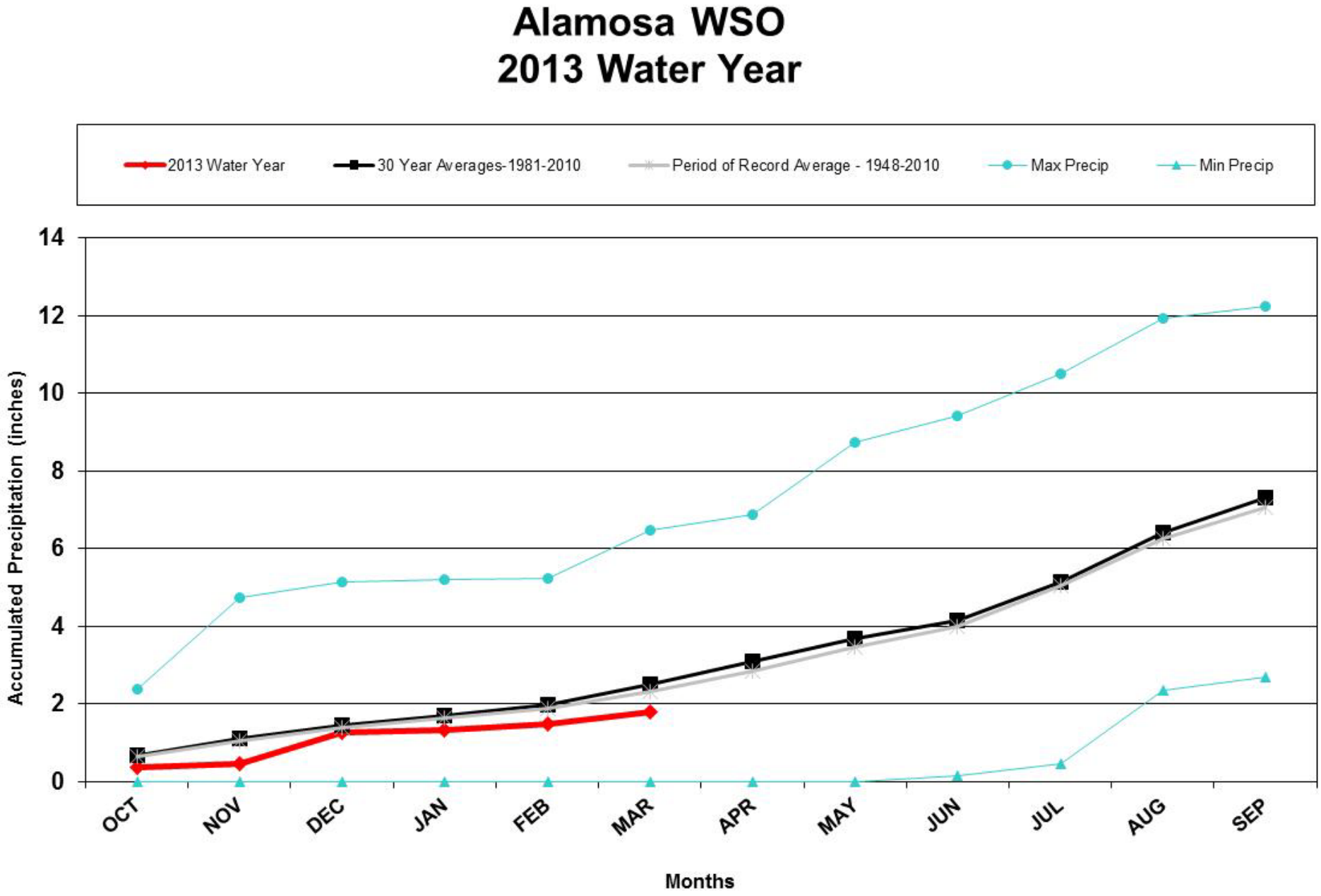
Division 3 – Mesa Verde NP



Division 3 – Mesa Verde NP



Division 4 – Alamosa



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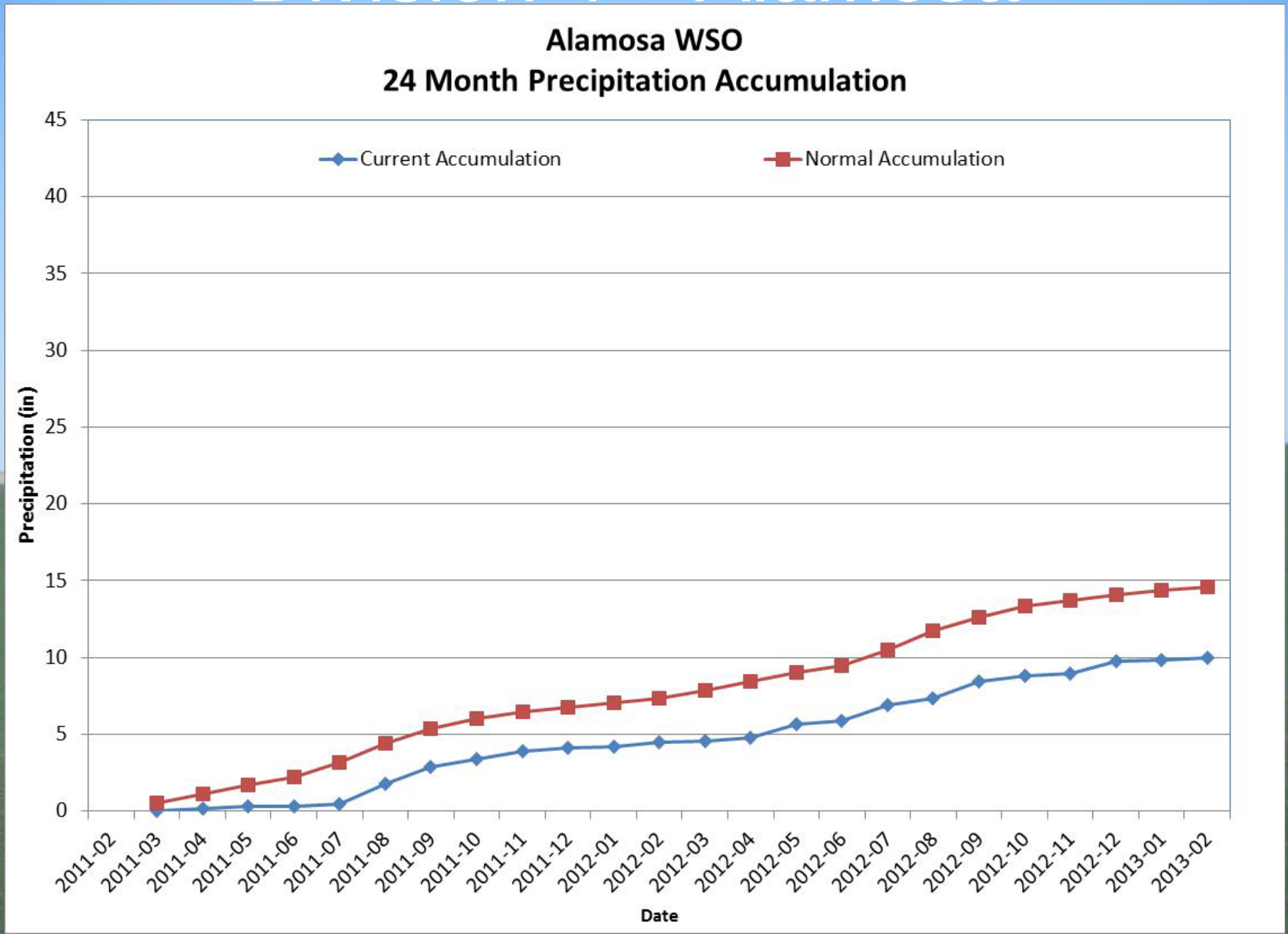
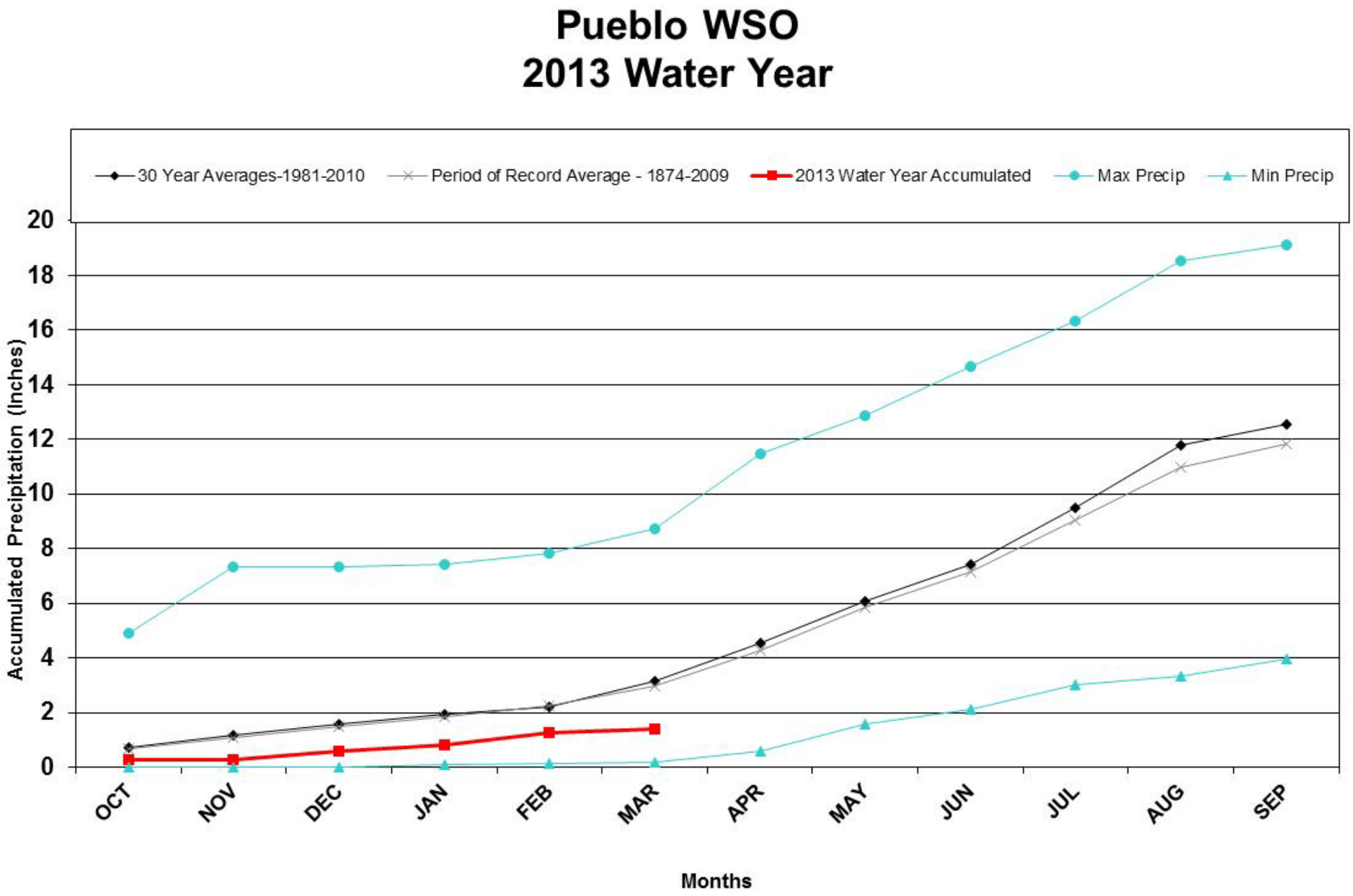


Division 5 – Pueblo



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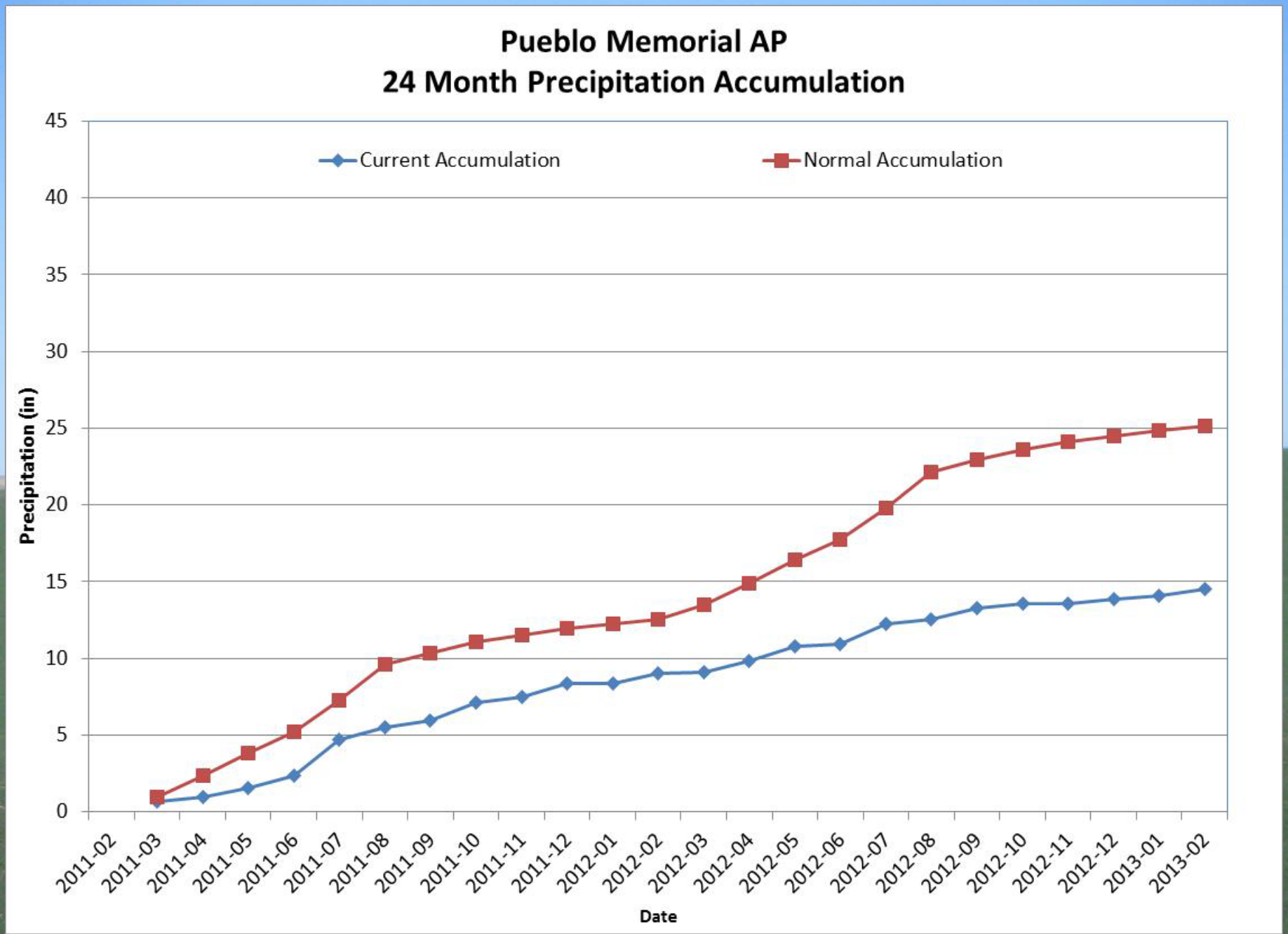
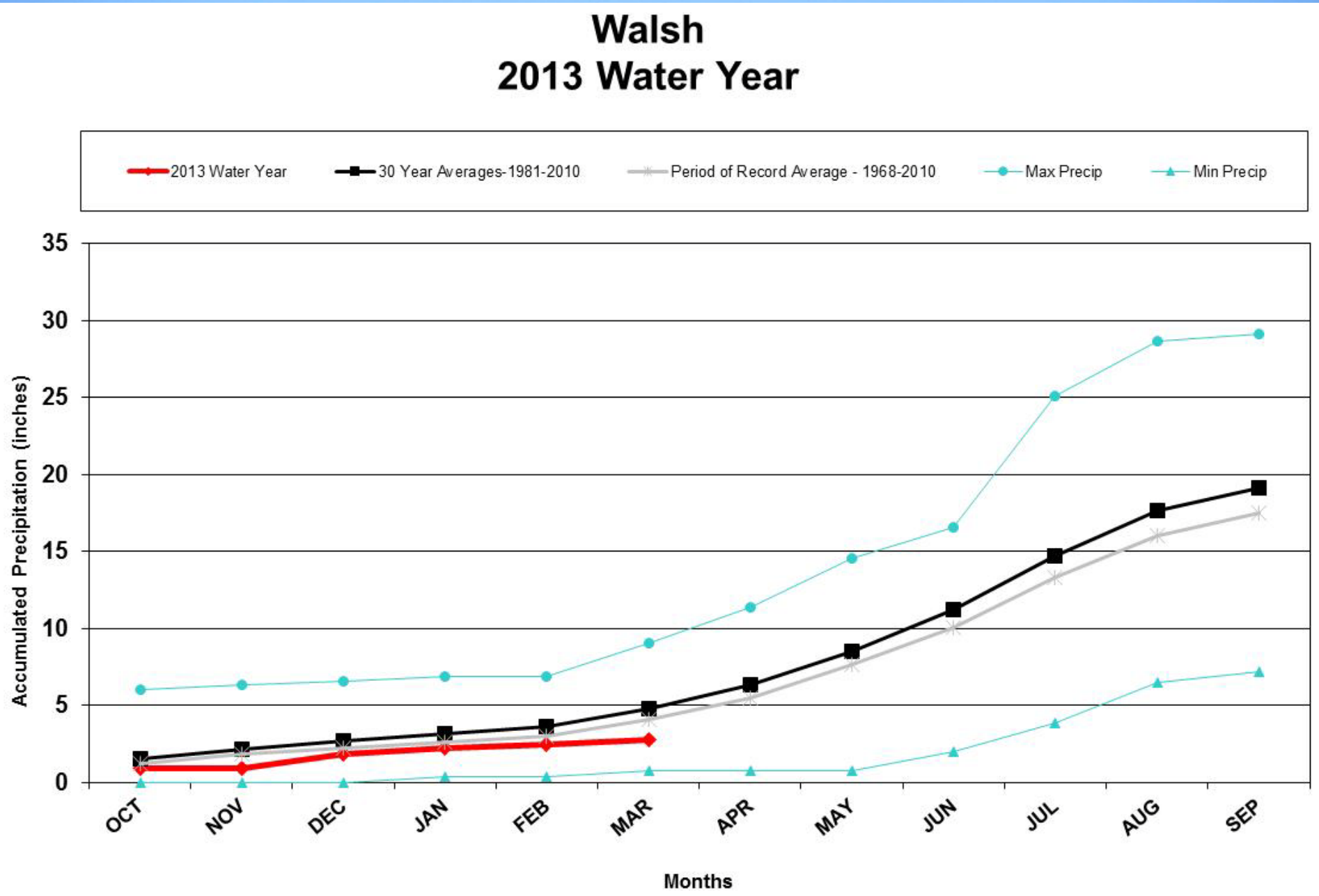
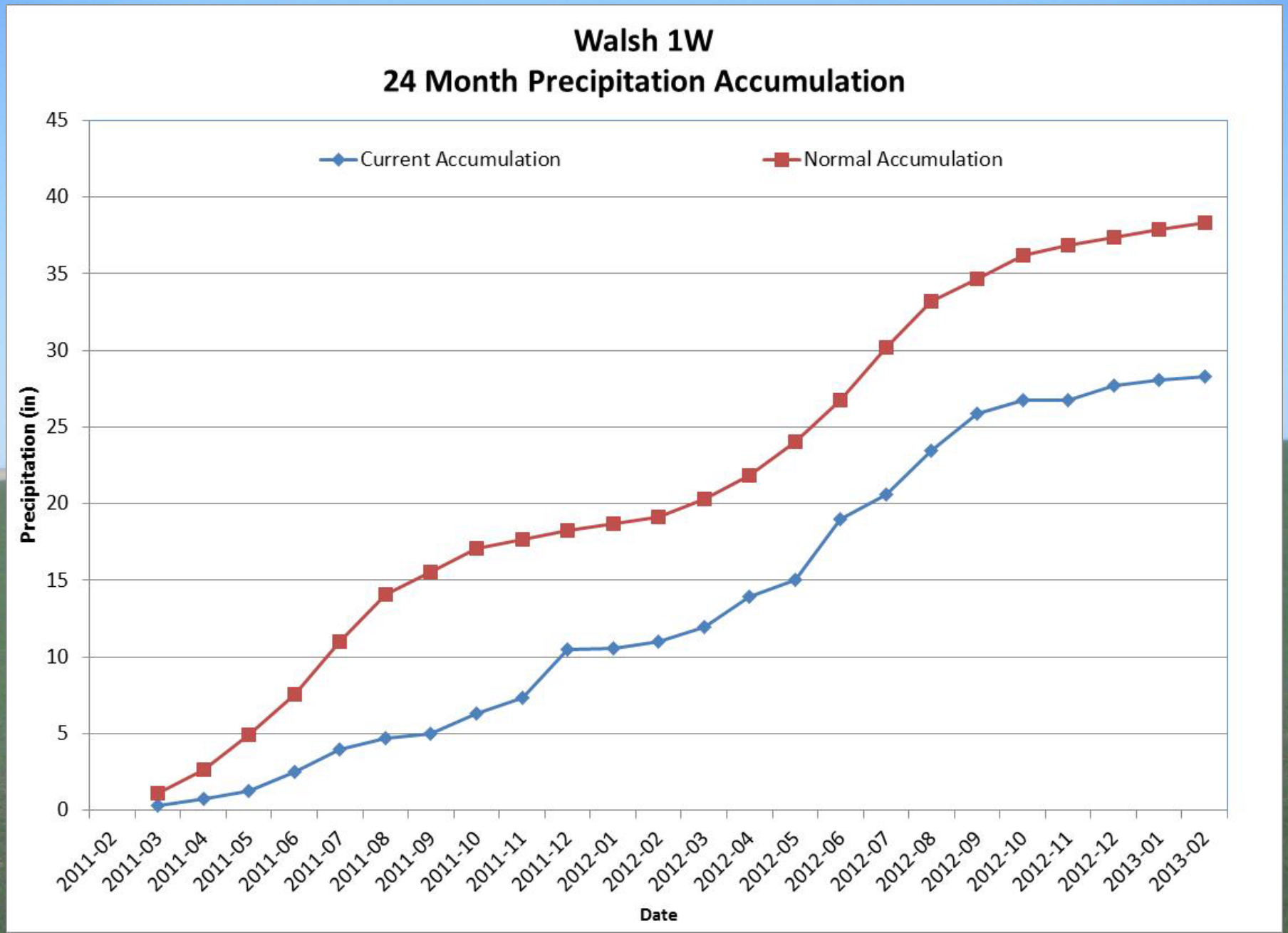


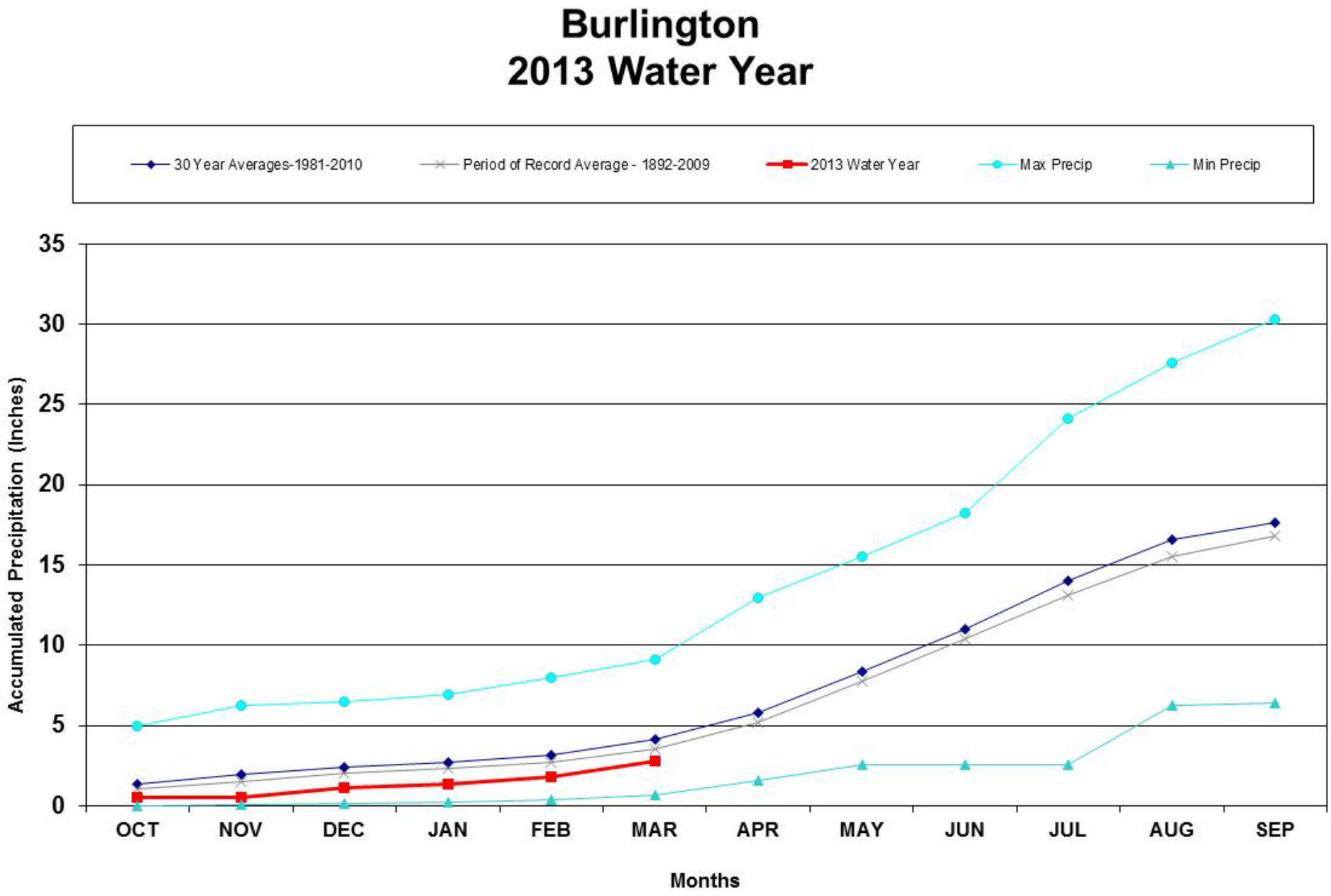
Division 6 - Walsh



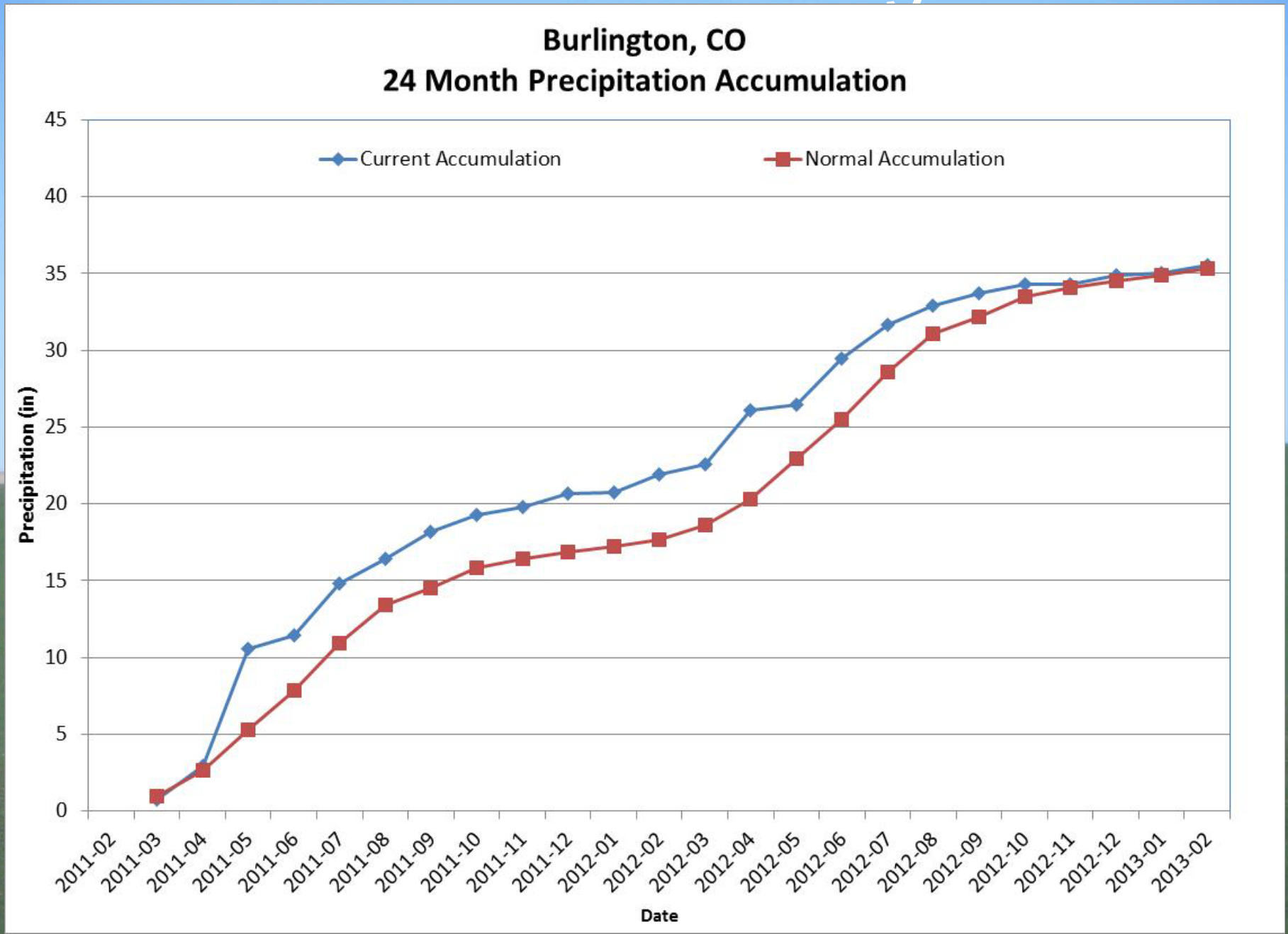
Division 6 - Walsh



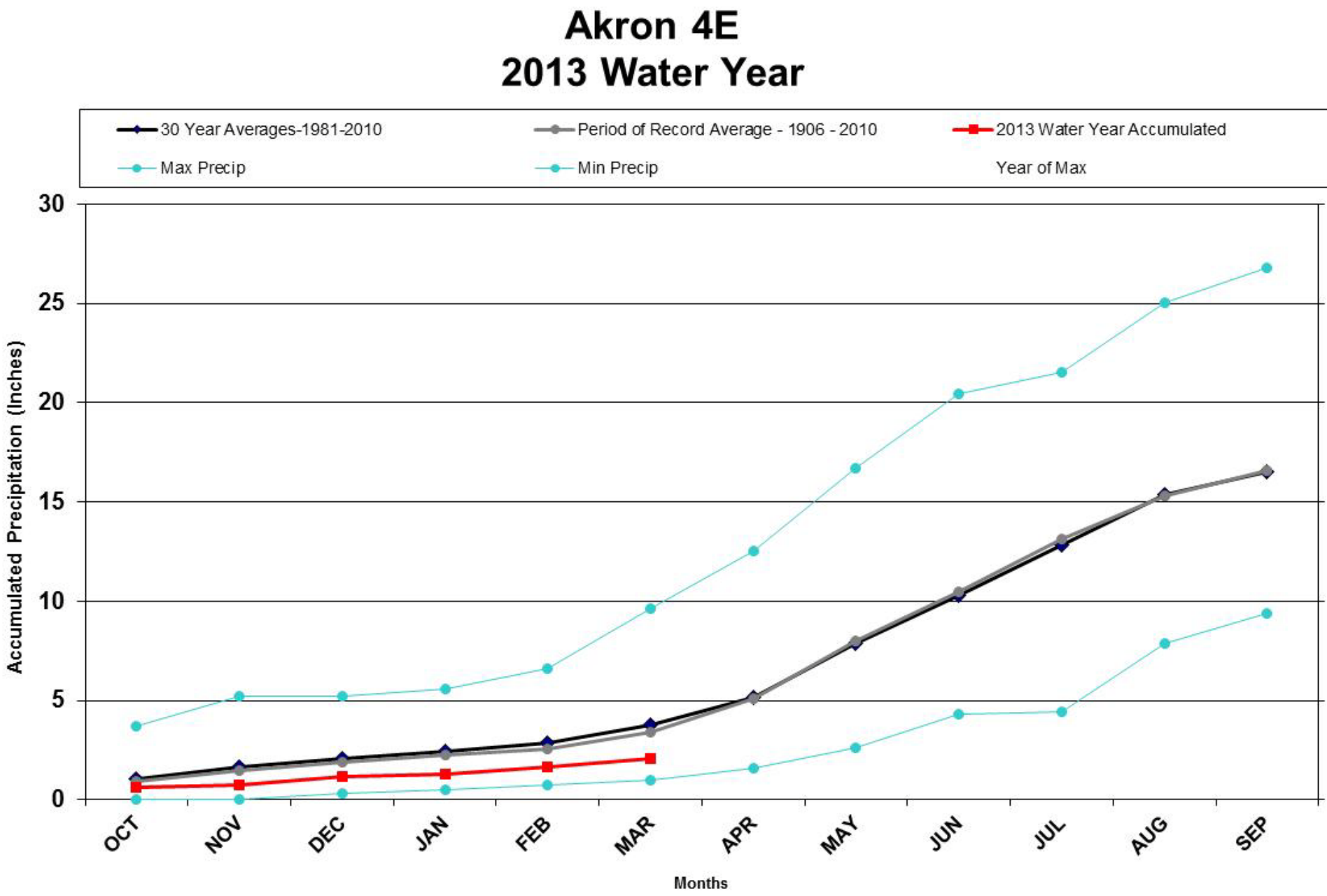
Division 6 - Burlington



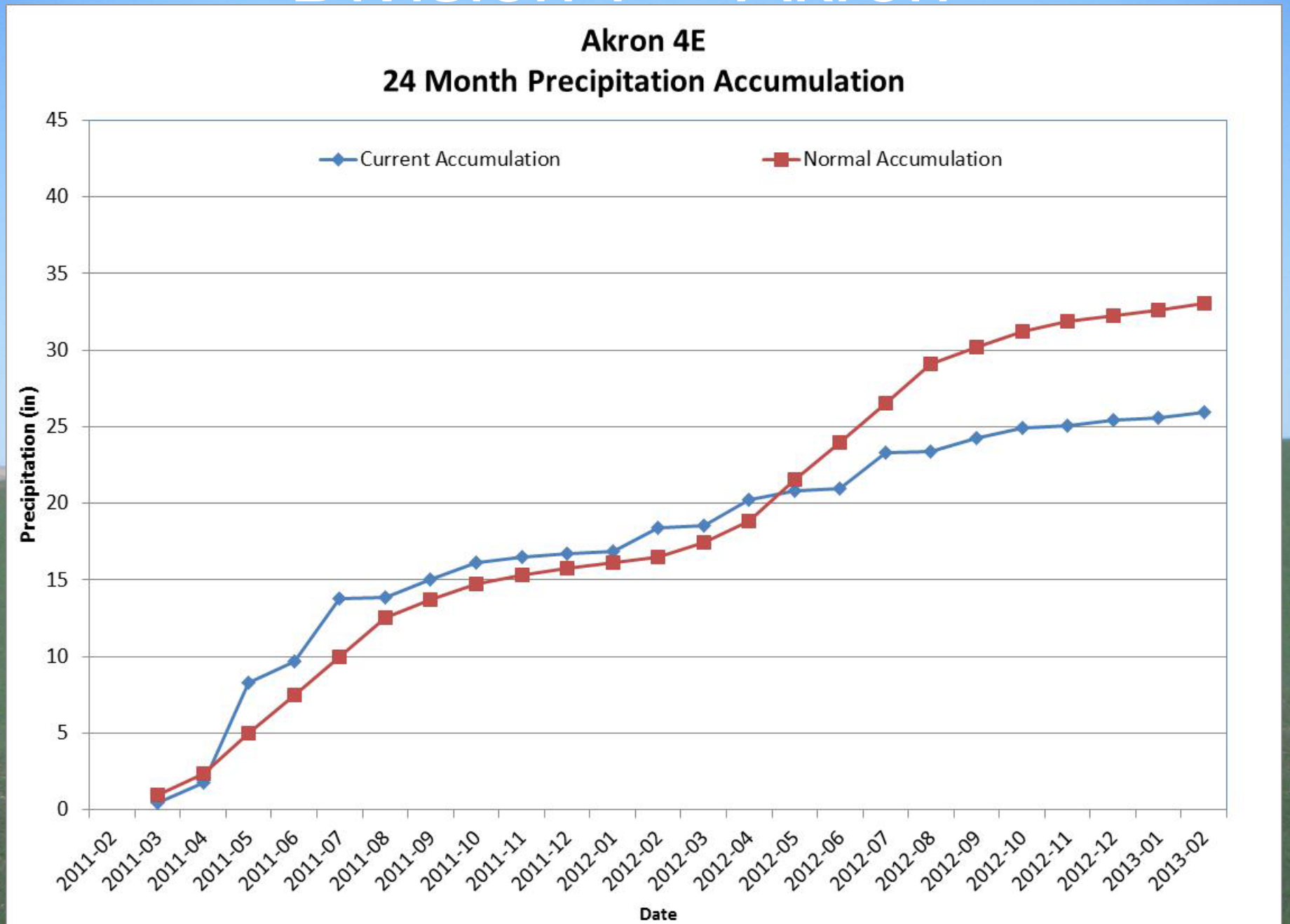
Division 6 - Burlington



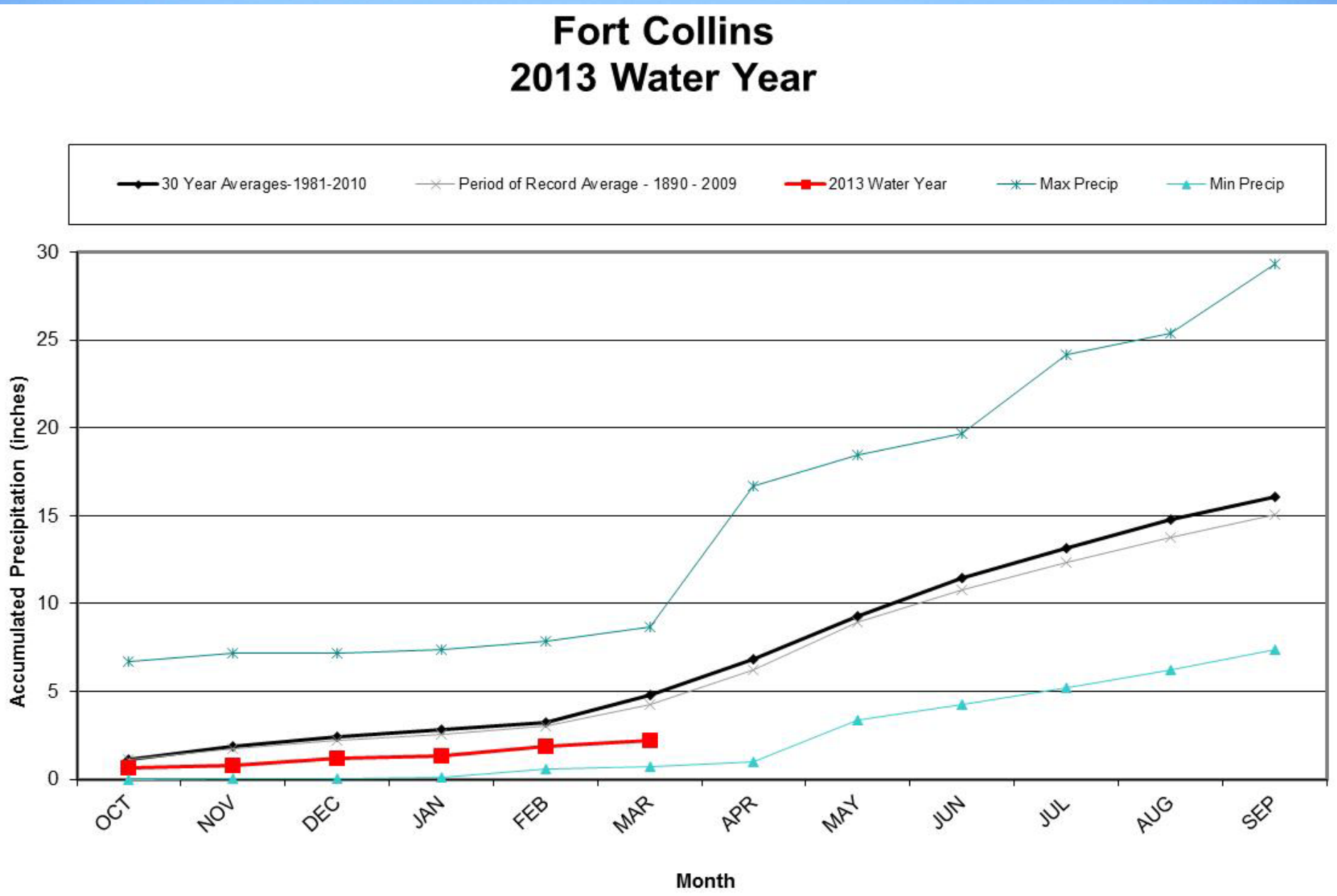
Division 7 – Akron



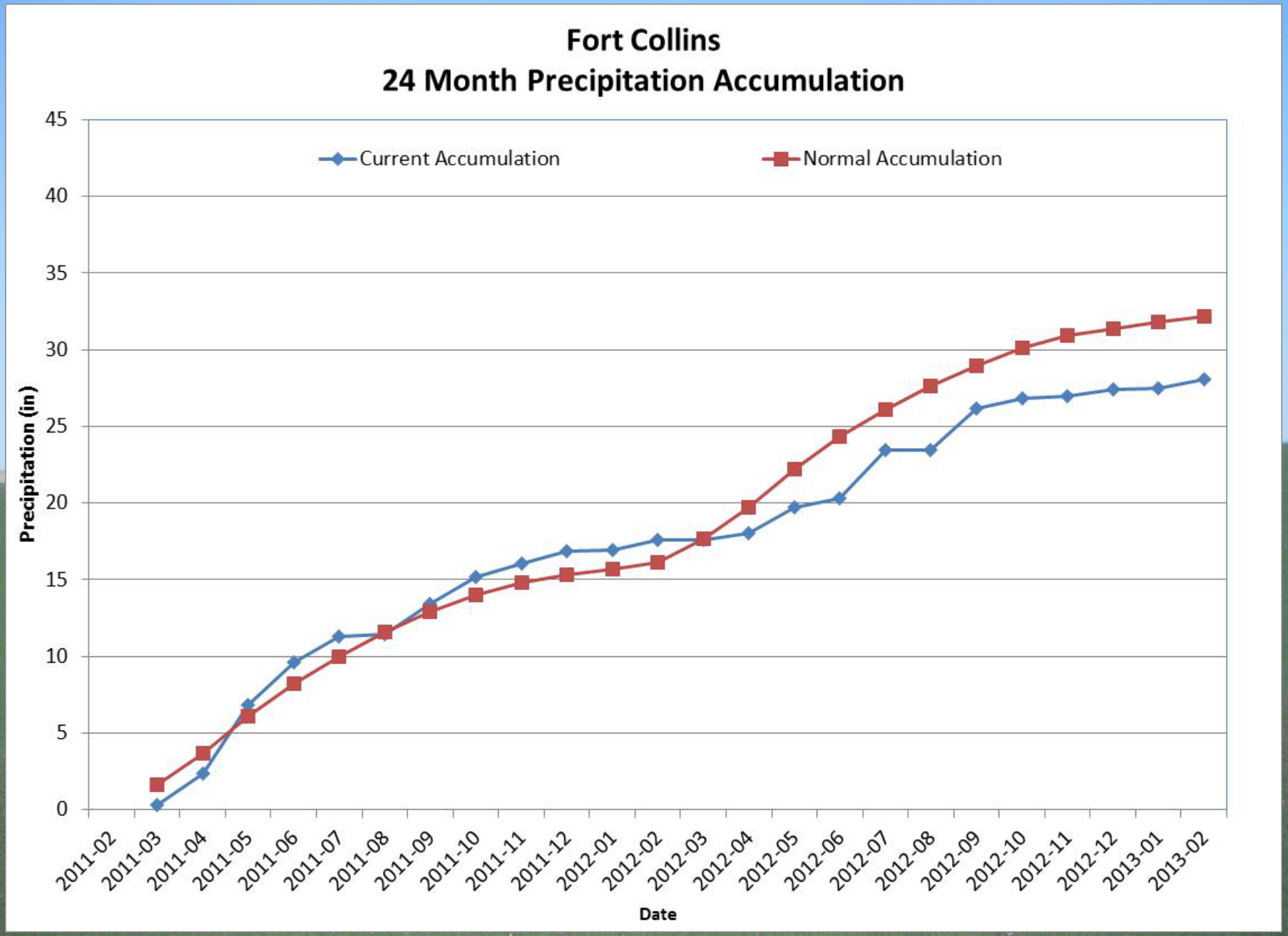
Division 7 – Akron



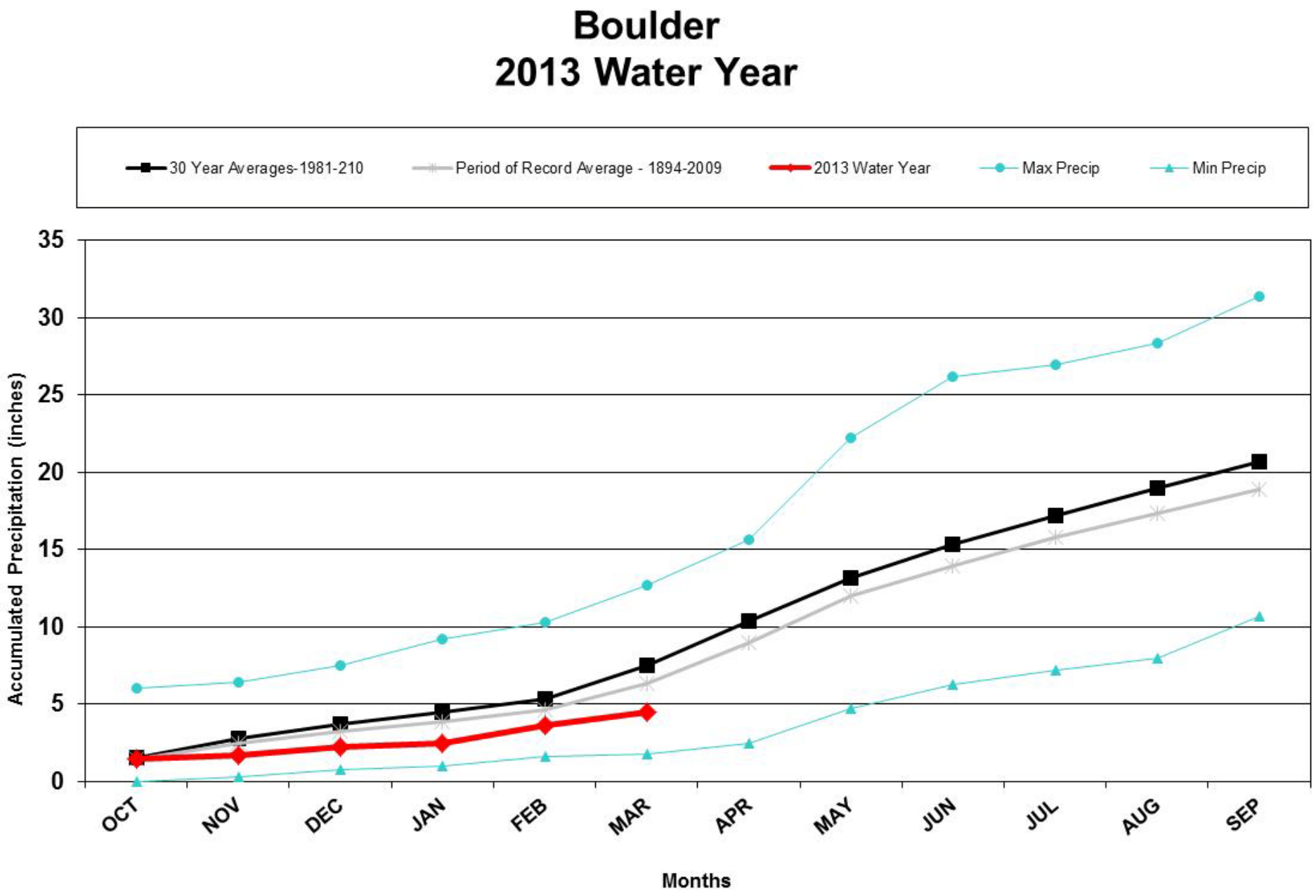
Division 8 – Fort Collins



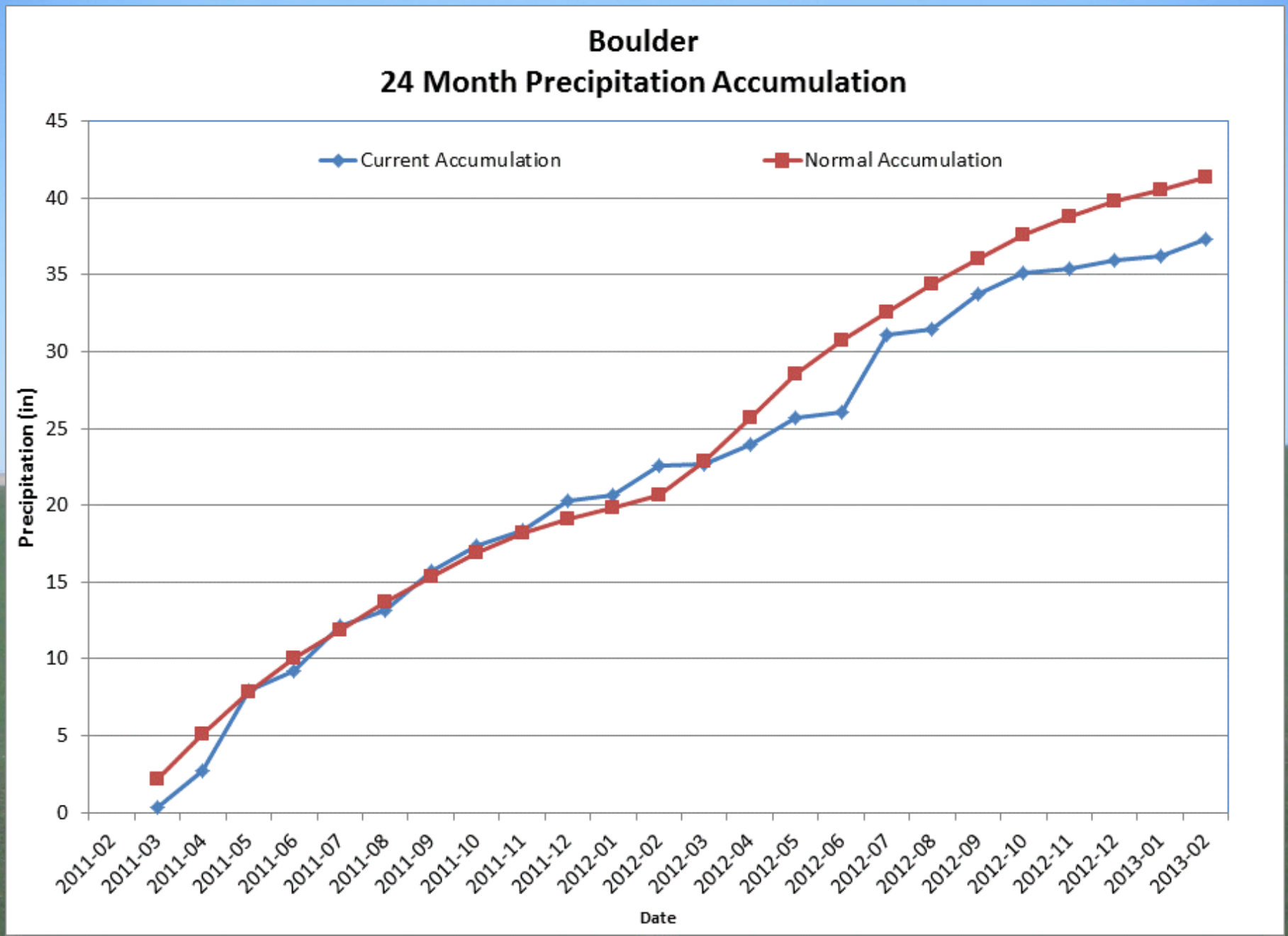
Division 8 – Fort Collins



Division 8 - Boulder

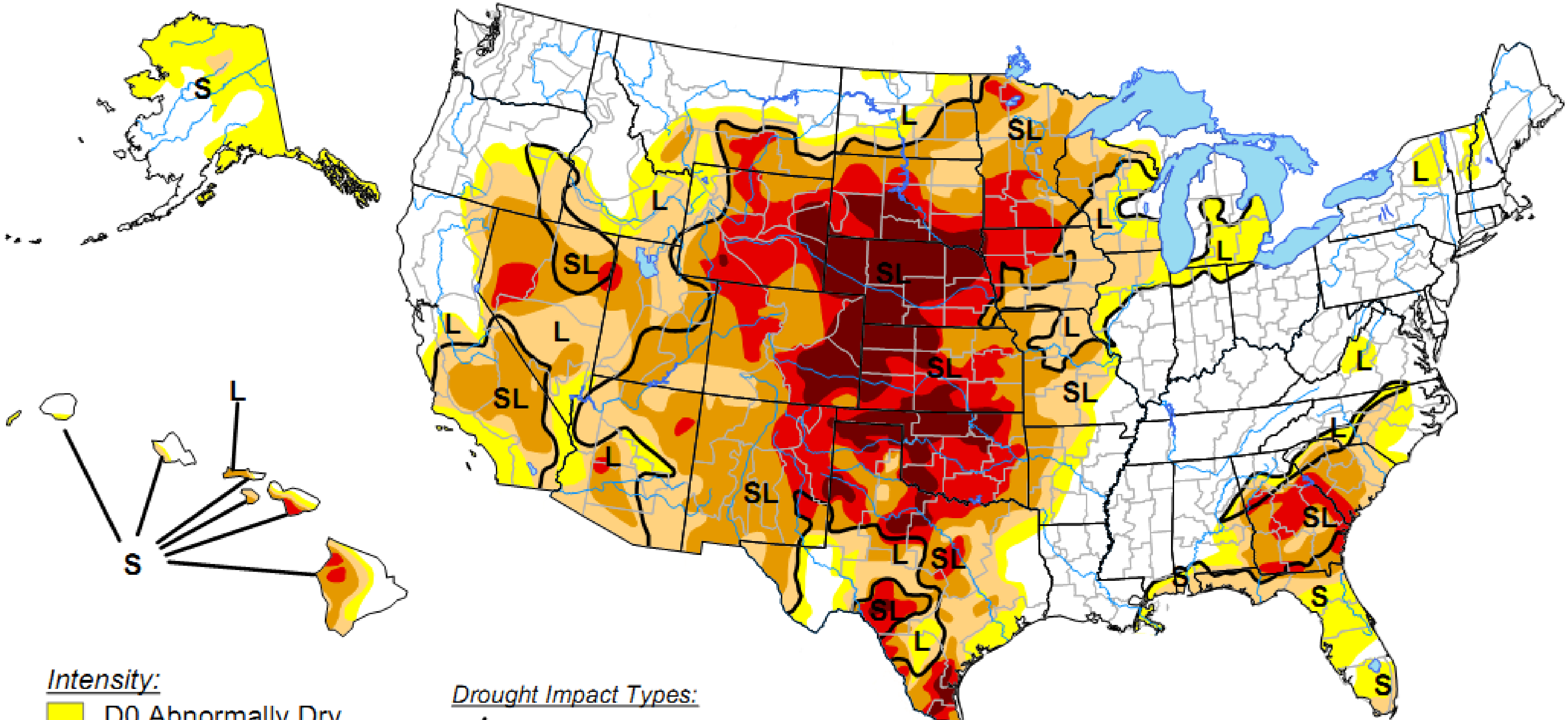


Division 8 - Boulder



U.S. Drought Monitor

February 12, 2013
Valid 7 a.m. EST



Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

Drought Impact Types:

~ Delineates dominant impacts

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

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

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

USDA — National Drought Mitigation Center

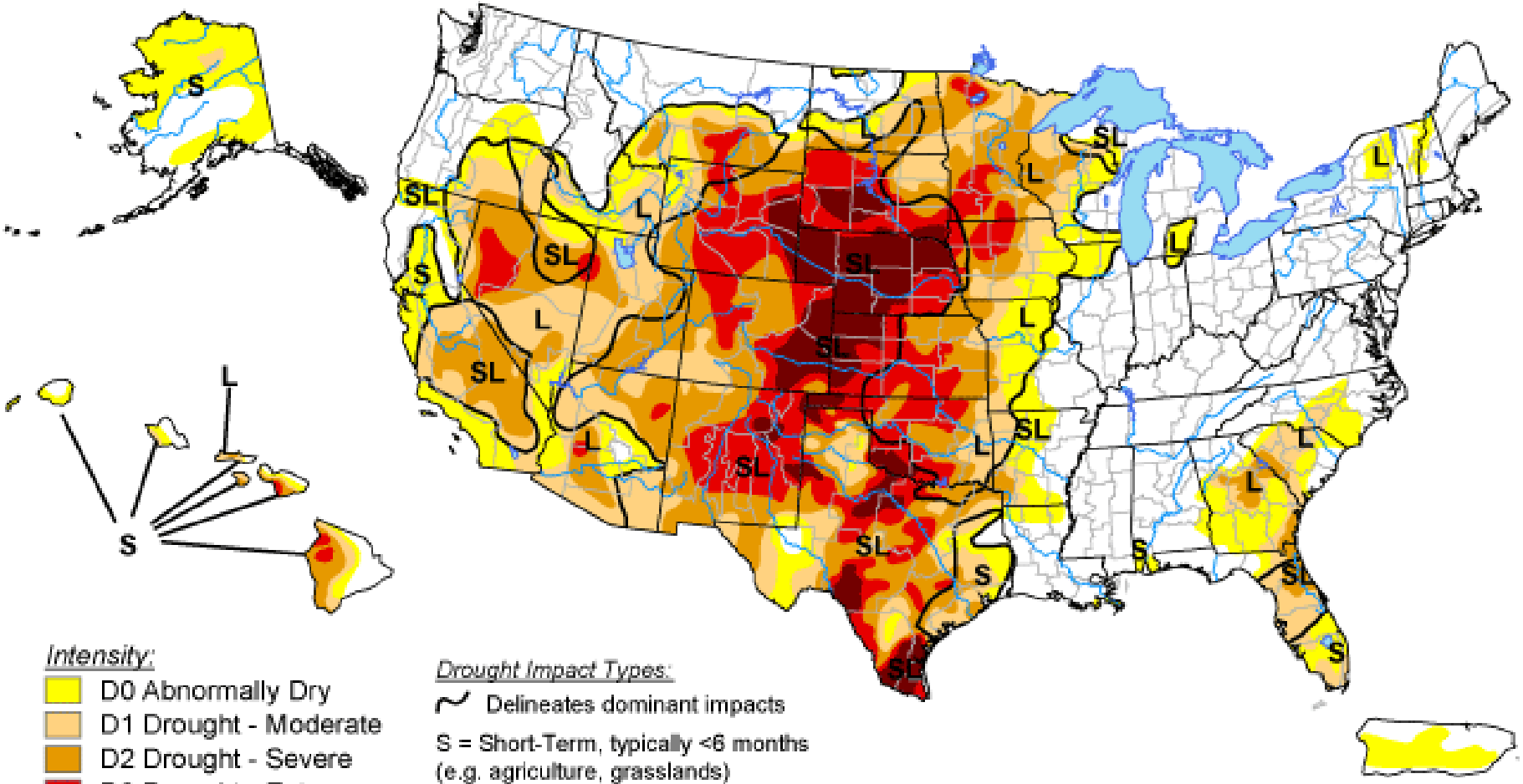
http://droughtmonitor.unl.edu/

Released Thursday, February 14, 2013

Author: Michael Brewer/L. Love-Brotak, NOAA/NESDIS/NCDC

U.S. Drought Monitor

March 19, 2013
Valid 7 a.m. EDT



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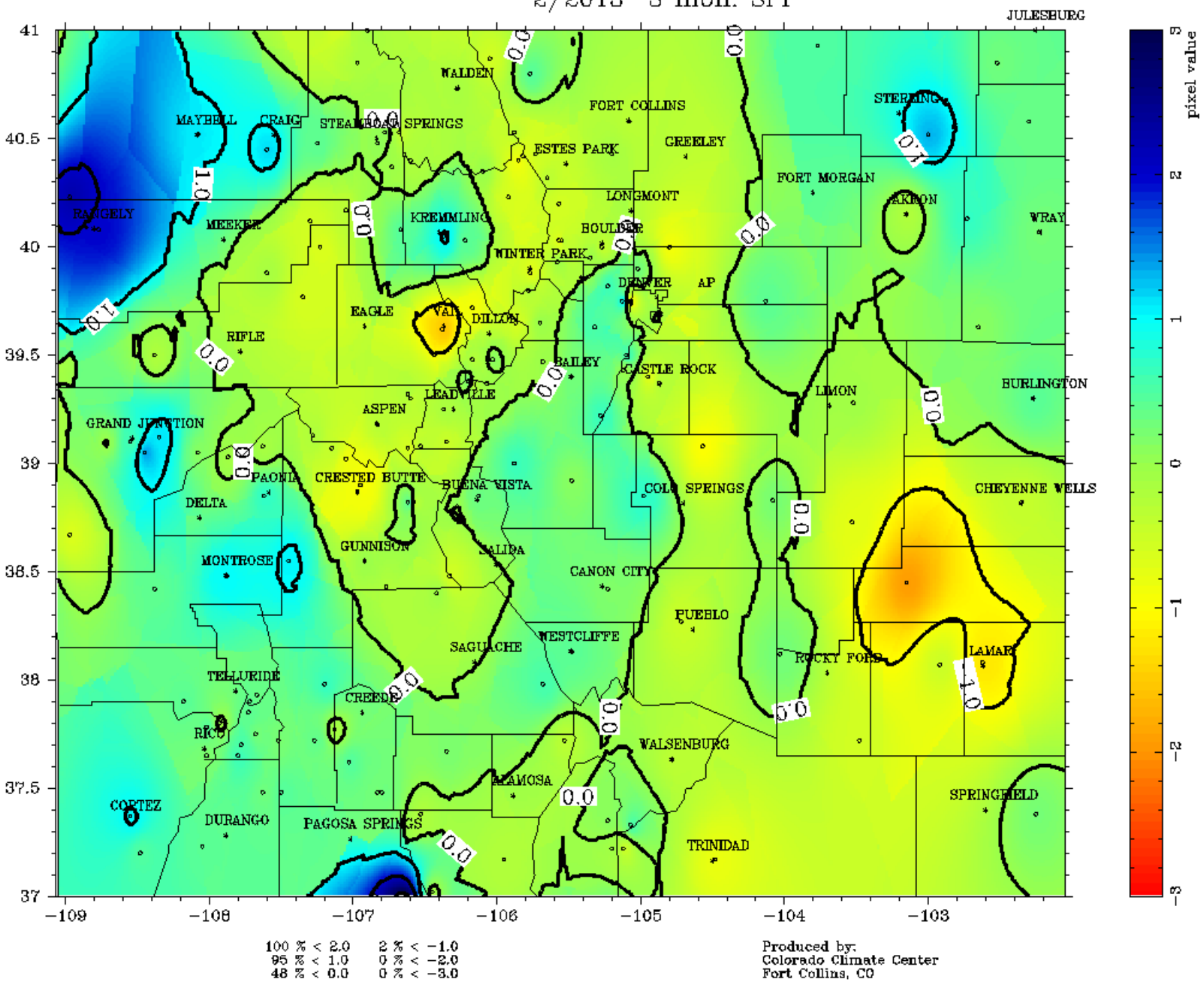
http://droughtmonitor.unl.edu/

Released Thursday, March 21, 2013

Author: Anthony Artusa, NOAA/NWS/NCEP/CPC

Colorado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JULESBURG
WALDEN
FORT COLLINS
STERLING
MAYBELL
CRAIG
STEAMBOAT SPRINGS
ESTES PARK
GREELEY
FORT MORGAN
LONGMONT
RANGELY
MEEKER
KREMMLING
BOULDER
AKRON
WRAY
WINTER PARK
DENVER AP
EAGLE
VAIL
DILLON
RIFLE
BAILEY
CASTLE ROCK
LIMON
BURLINGTON
LEADVILLE
ASPEN
GRAND JUNCTION
PAONIA
CRESTED BUTTE
BUENA VISTA
COLO SPRINGS
CHEYENNE WELLS
DELTA
SALIDA
GUNNISON
MONTROSE
CANON CITY
PUEBLO
WESTCLIFFE
SAGUACHE
ROCKY FORD
LAMAR
TELLURIDE
CREEDE
RICO
WALSENBURG
ALAMOSA
SPRINGFIELD
CORTEZ
DURANGO
PAGOSA SPRINGS
TRINIDAD
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40.5
40
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39
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37.5
37
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−103
pixel value
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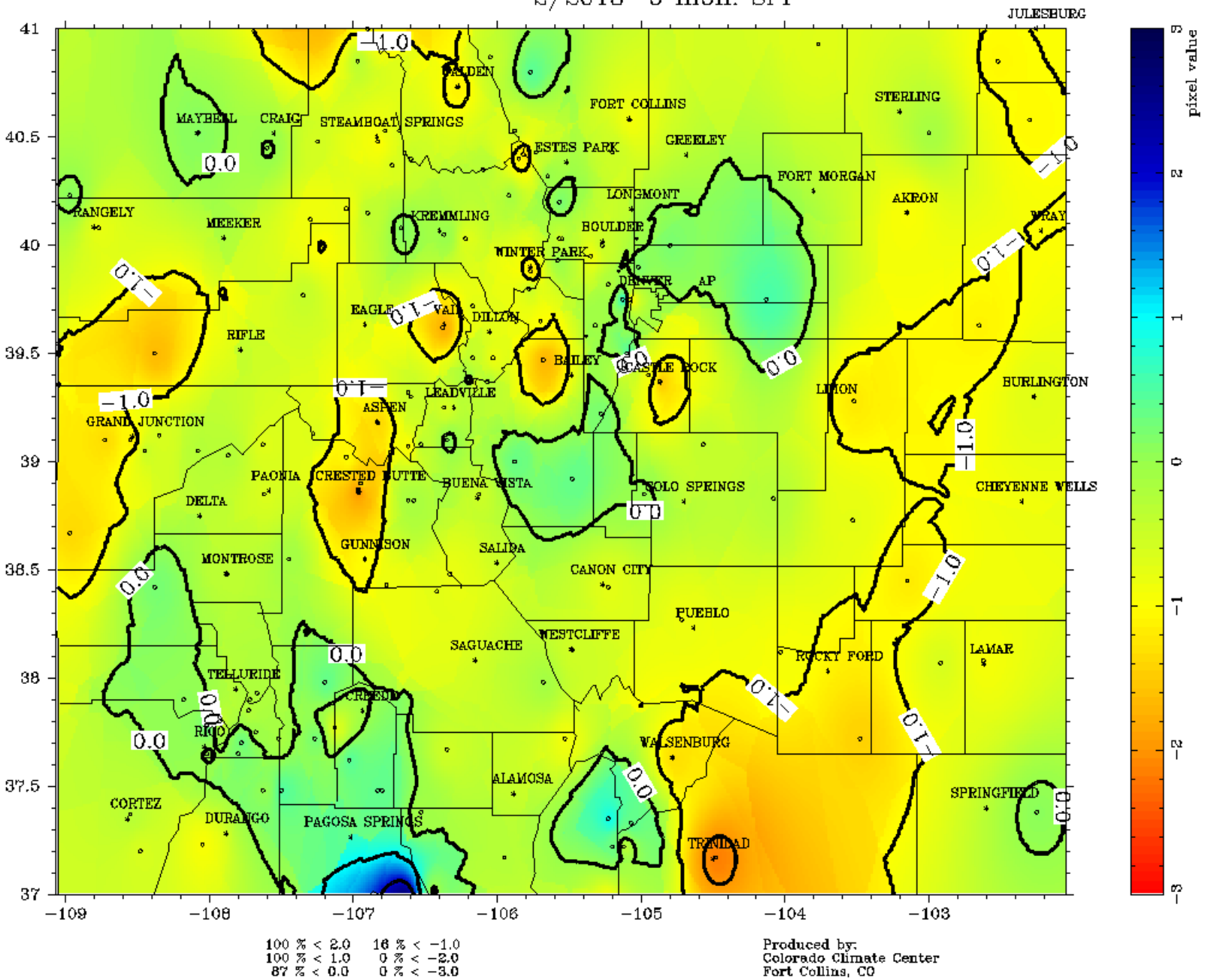
−2
−3
100 % < 2.0
95 % < 1.0
48 % < 0.0
2 % < −1.0
0 % < −2.0
0 % < −3.0
Produced by:
Colorado Climate Center
Fort Collins, CO

Colorado


2/2013 6 mon. SPI
JULESBURG
STERLING
FORT COLLINS
GREELEY
FORT MORGAN
AKRON
LONGMONT
BOULDER
WINTER PARK
DENVER AP
ESTES PARK
KREMMLING
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LAMAR
SPRINGFIELD
BURLINGTON
LIMON
CHEYENNE WELLS
CORTEZ
DURANGO
PAGOSA SPRINGS
pixel value
100 % < 2.0
100 % < 1.0
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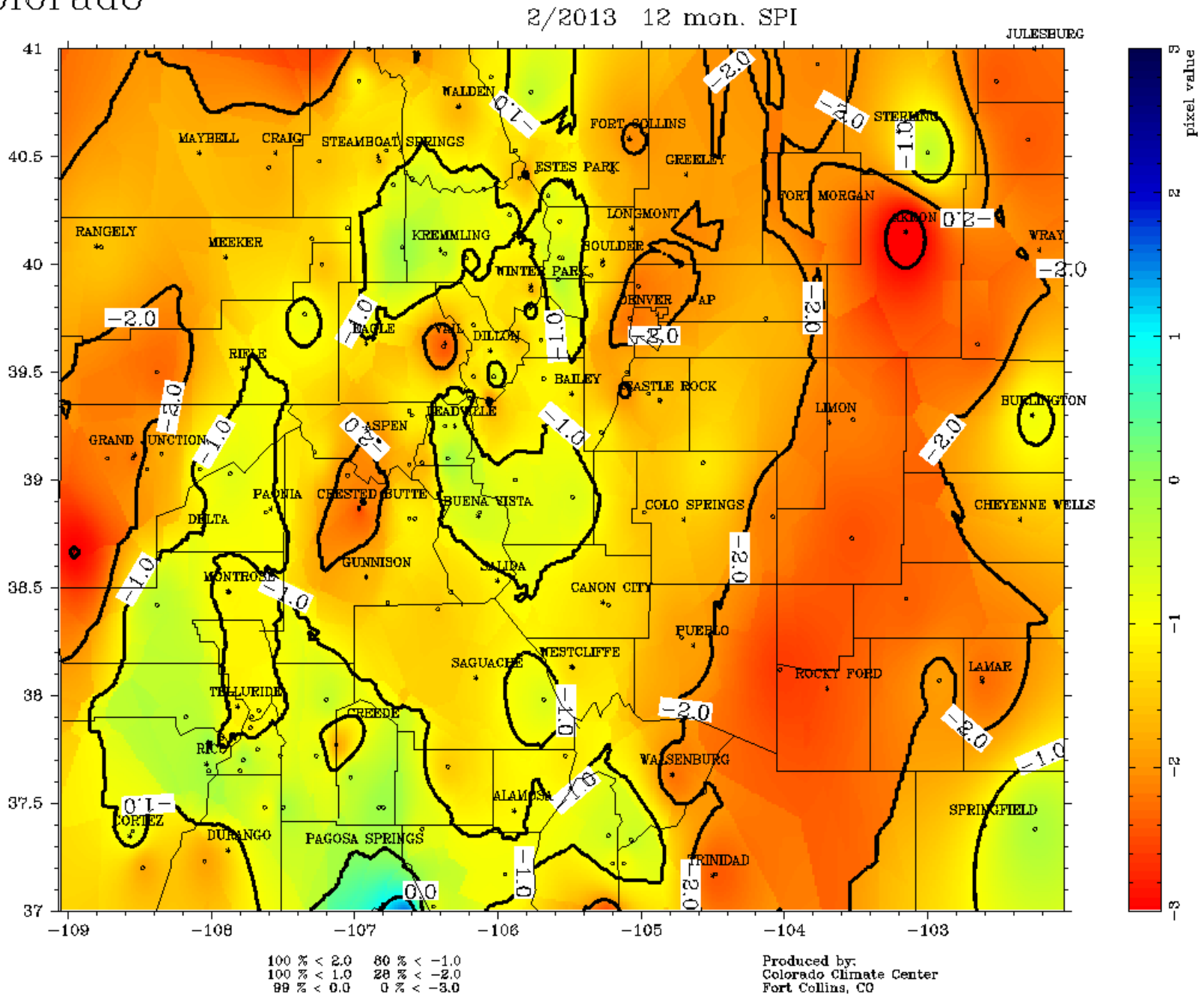
0 % < -3.0
Produced by:
Colorado Climate Center
Fort Collins, CO

Colorado


2/2013 12 mon. SPI
JULESBURG
WALDEN
MAYBELL
CRAIG
STEAMBOAT SPRINGS
FORT COLLINS
STERLING
ESTES PARK
GREELEY
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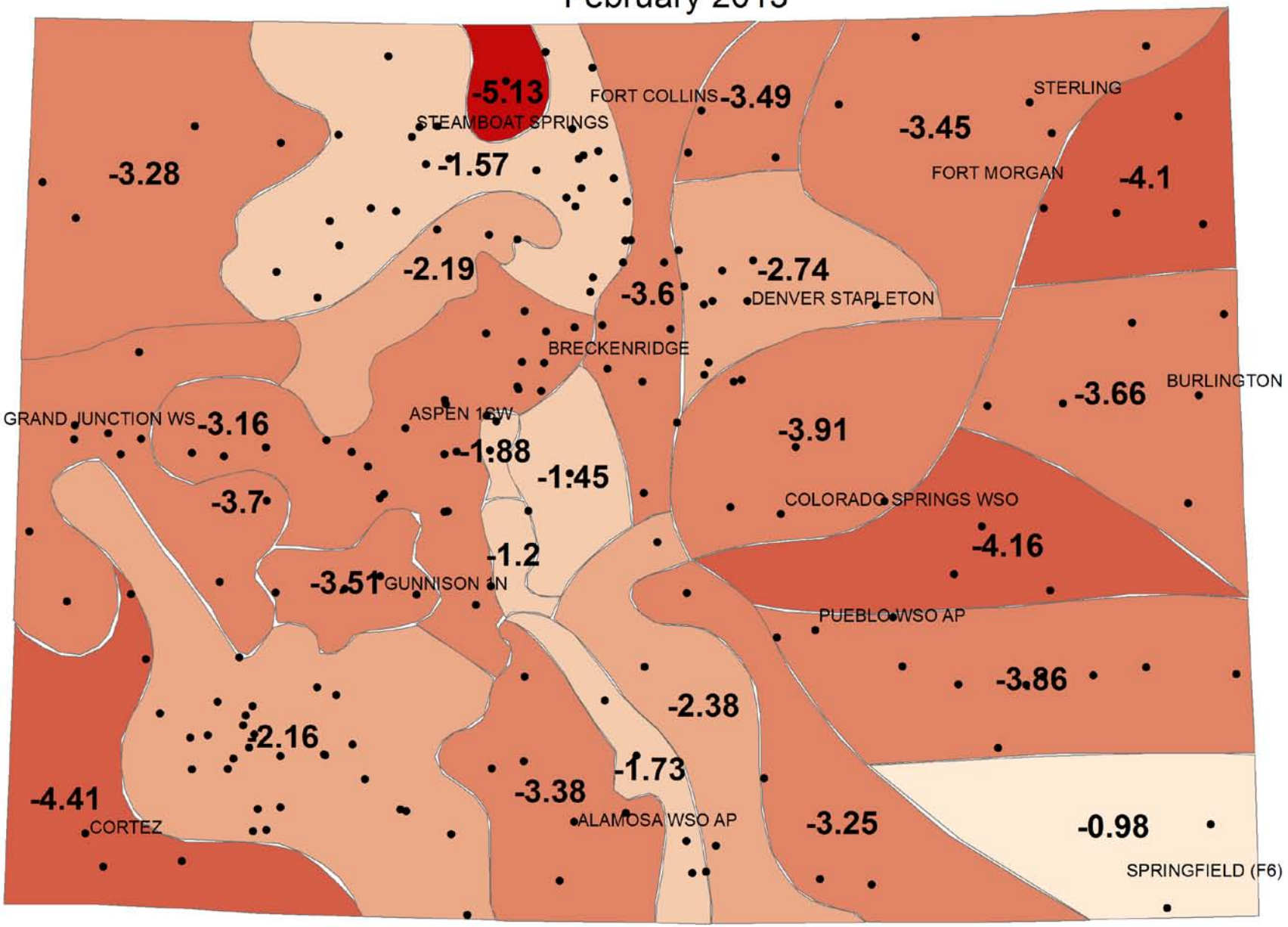
pixel value
100 % < 2.0 80 % < -1.0
100 % < 1.0 20 % < -2.0
99 % < 0.0 0 % < -3.0
Produced by:
Colorado Climate Center
Fort Collins, CO

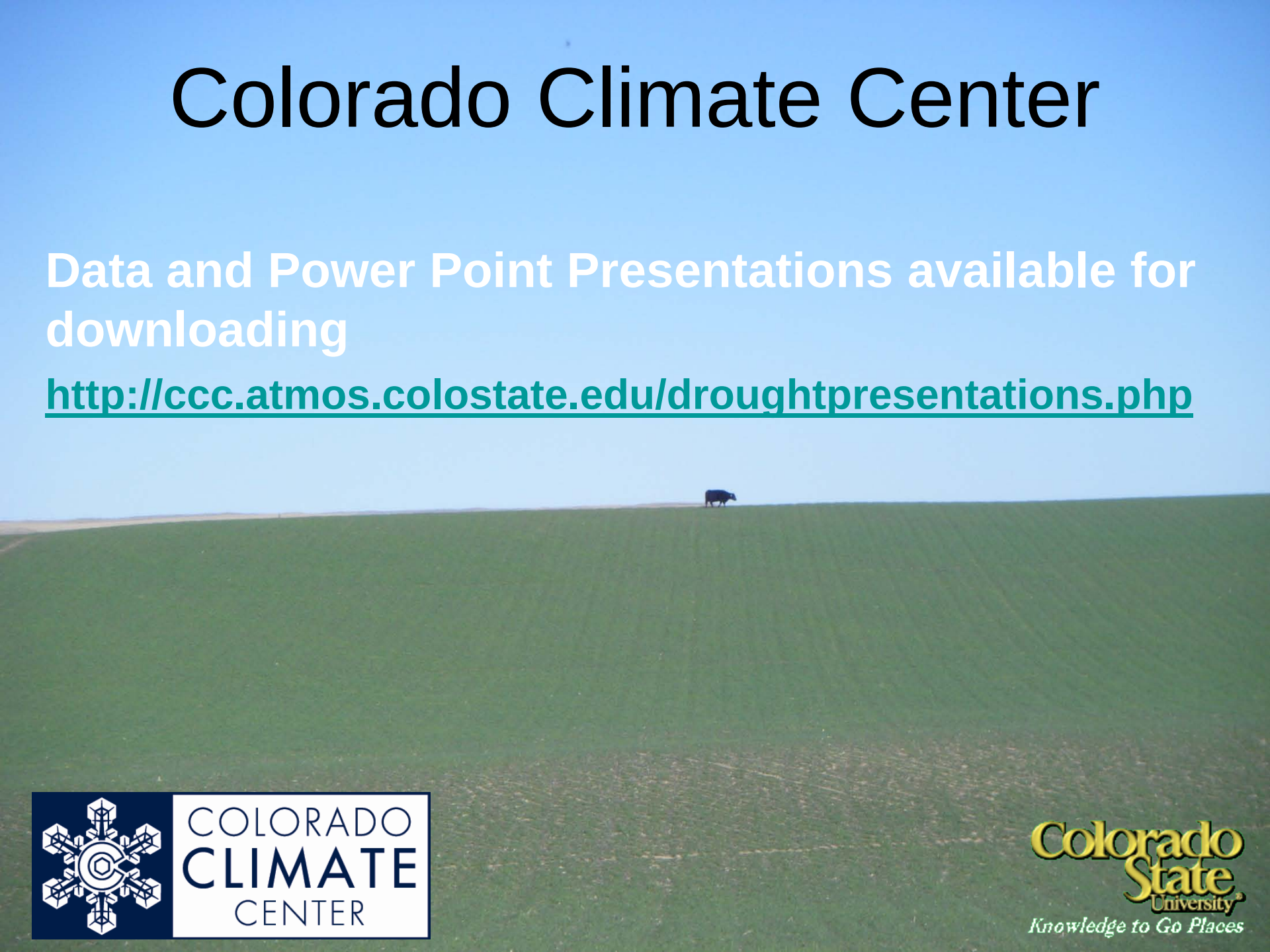
Modified Palmer Drought Severity Index for Colorado
February 2013



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