



Climate Update

**Wendy Ryan
Colorado Climate Center**

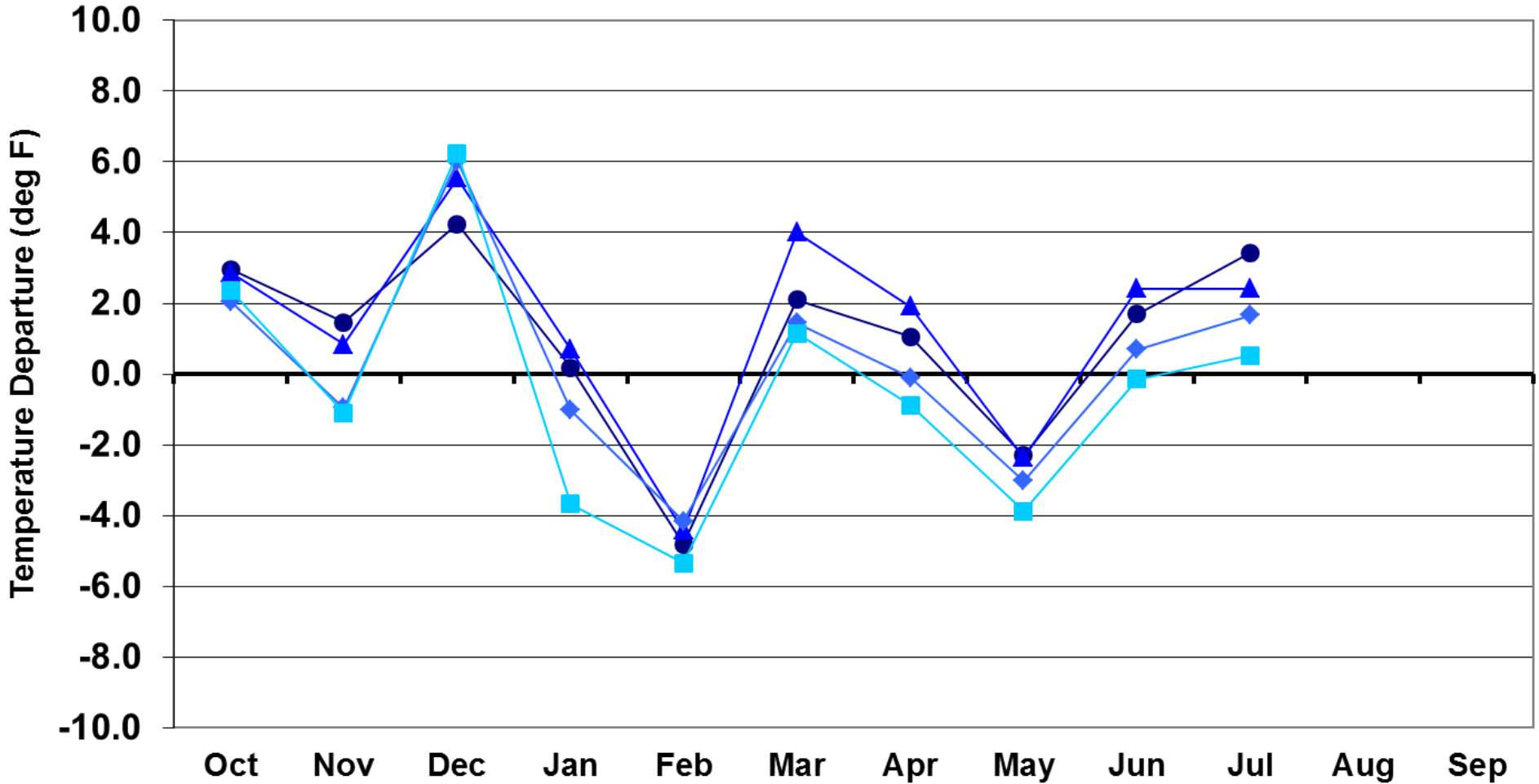
**Atmospheric Science Department
Colorado State University**

**Presented to
Water Availability Task Force
August 17th 2011
Denver, CO**

Prepared by Wendy Ryan

Water Year 2011 Temperature Departures

Water Year 2011



● Eastern Plains

▲ Foothills

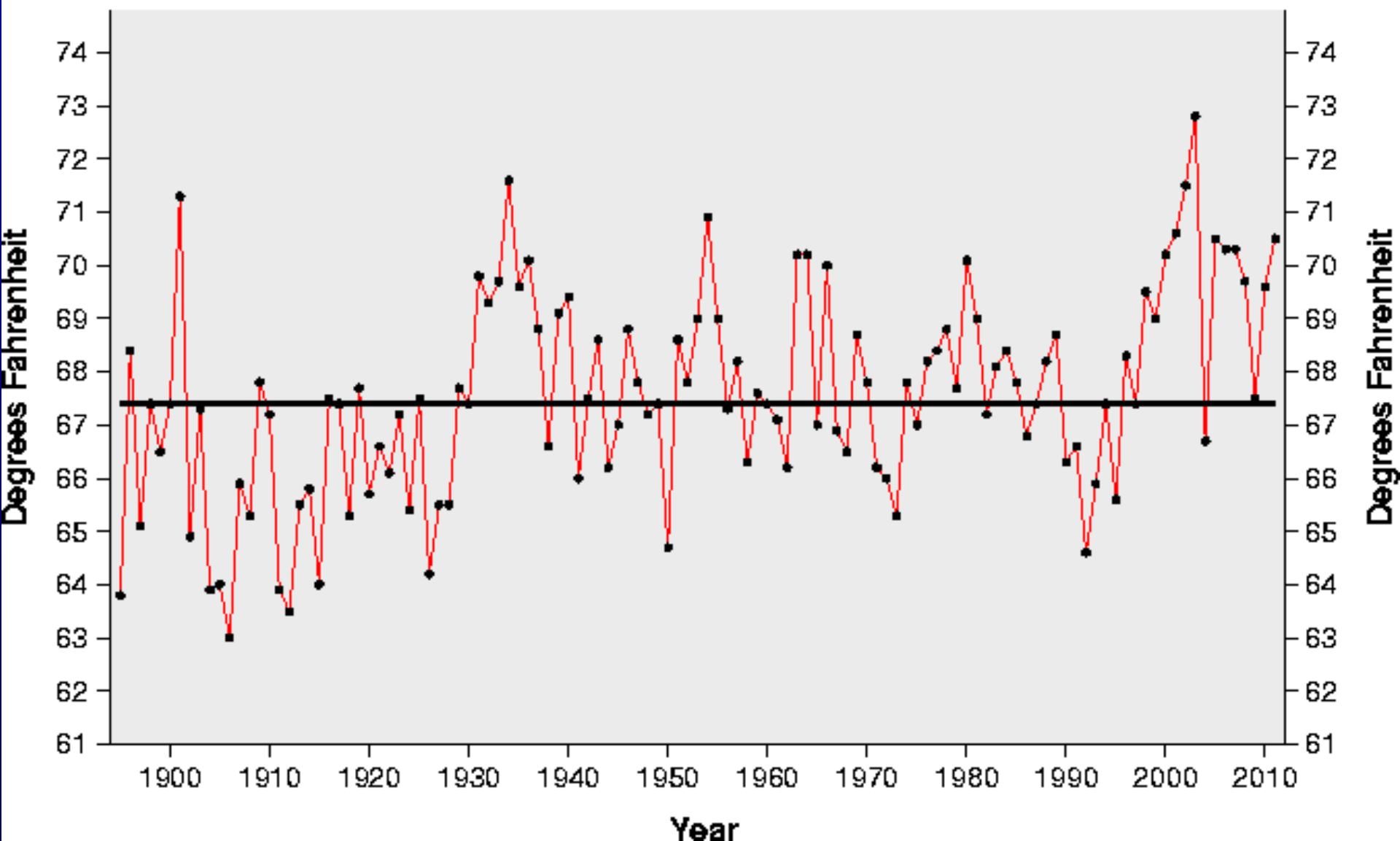
◆ Mountains

■ Western Valleys

July Average Temperature History for Colorado (NCDC)

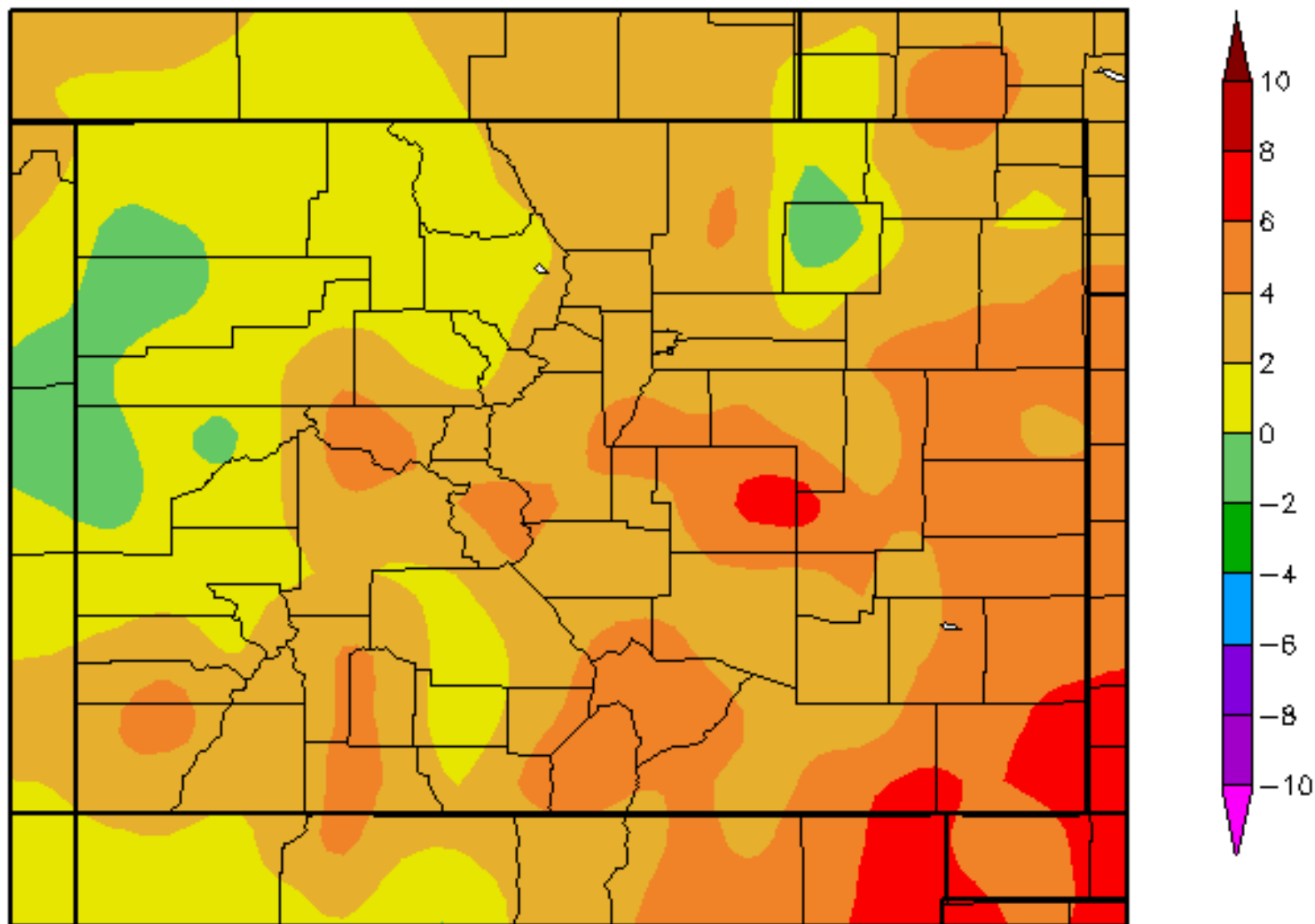
— **Actual Temperature**
— **Average Temperature**

70.5 Degrees ranks 7th warmest for the period (1895-2011) tied with 2005.



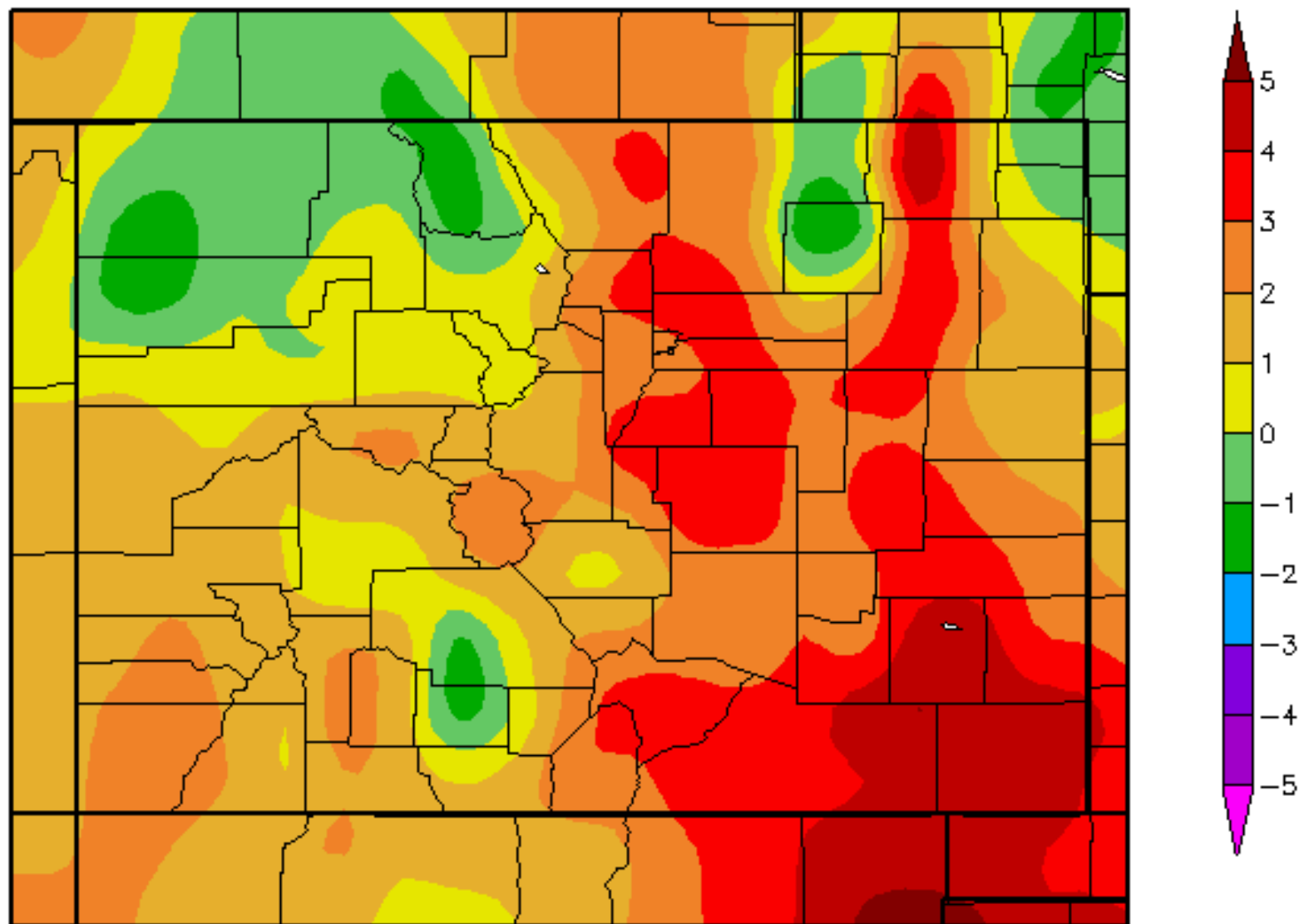
Departure from Normal Temperature (F)

7/1/2011 - 7/31/2011

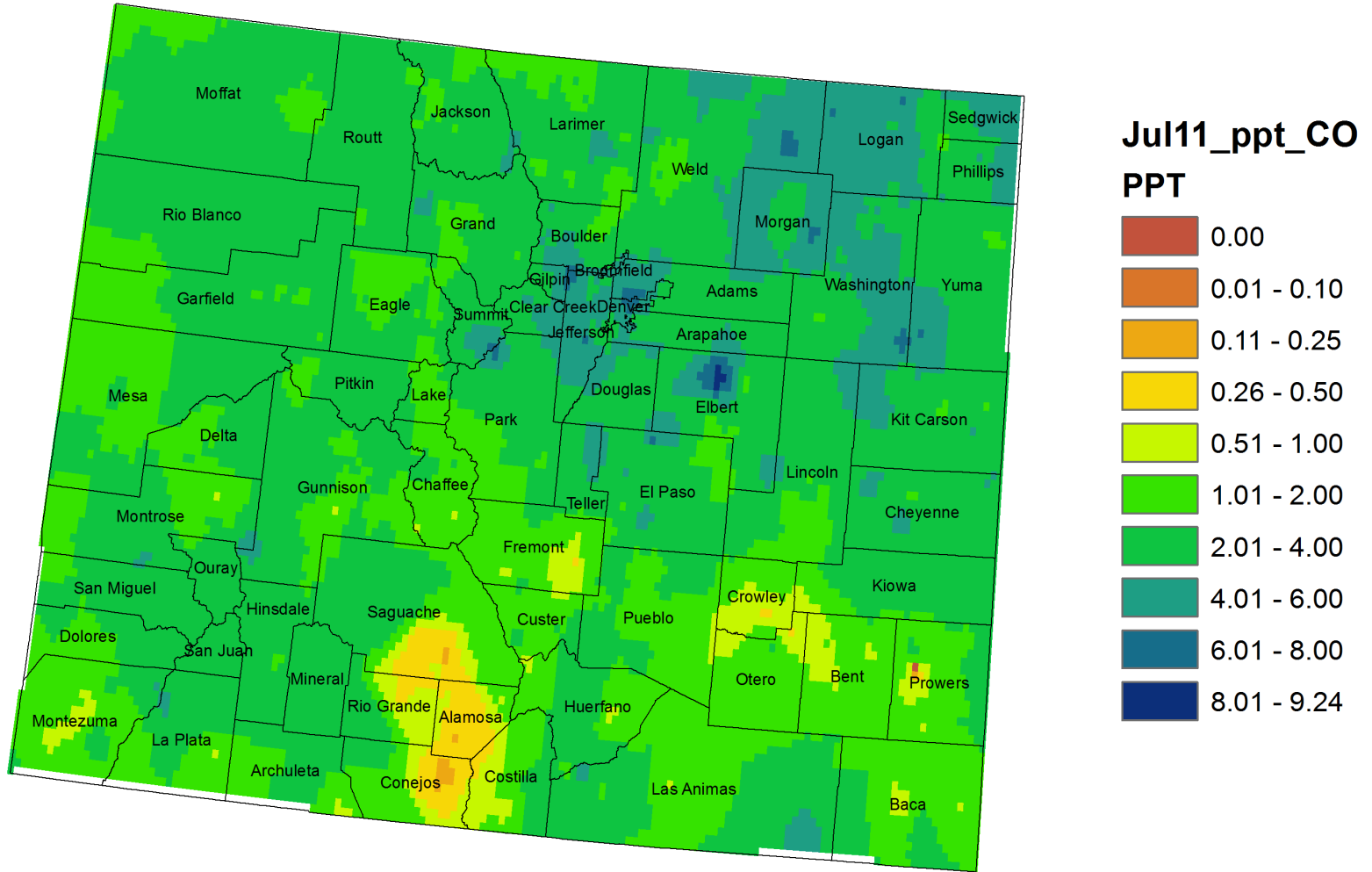


Departure from Normal Temperature (F)

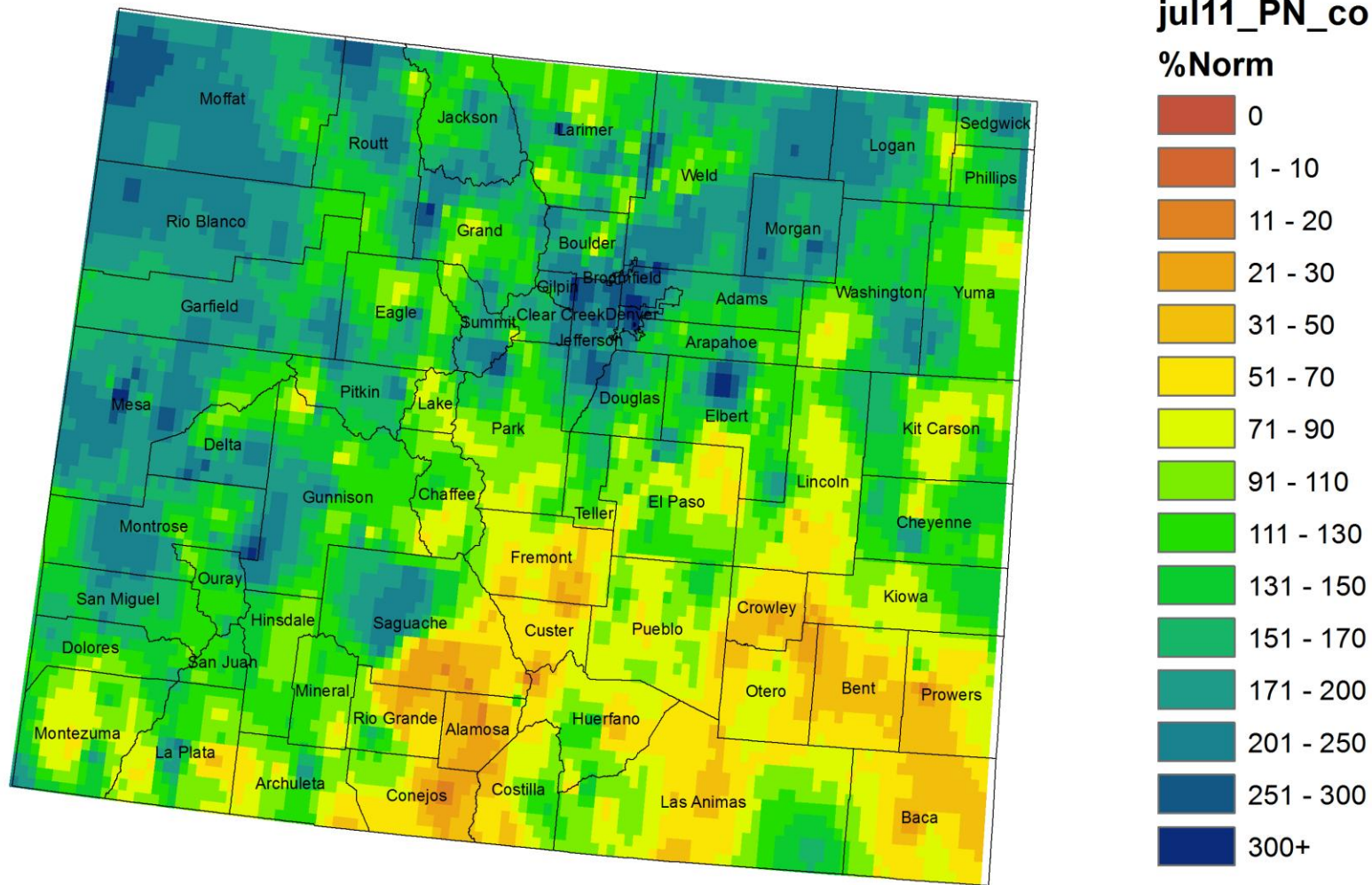
8/1/2011 – 8/15/2011



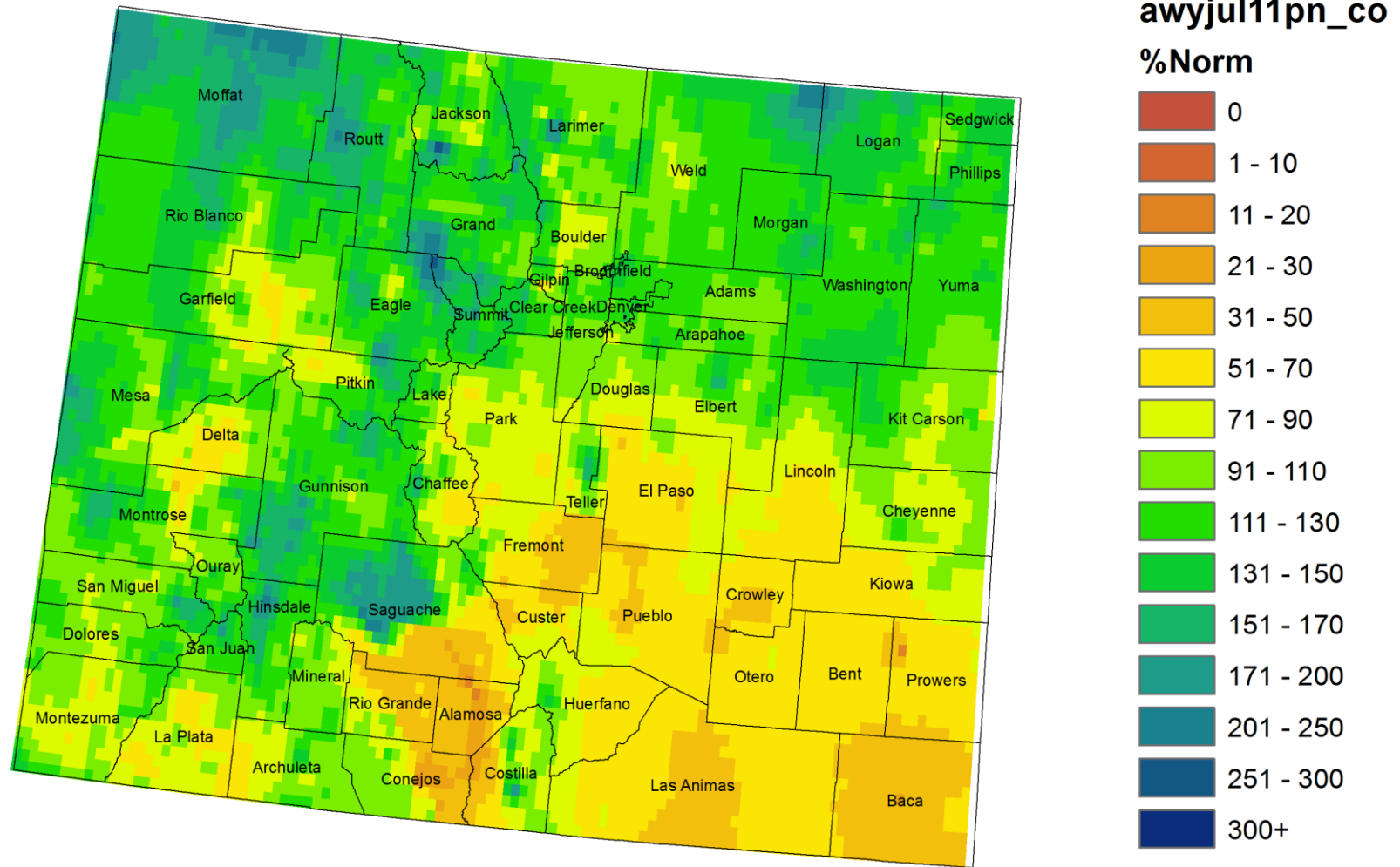
Colorado July 2011 Precipitation (in)



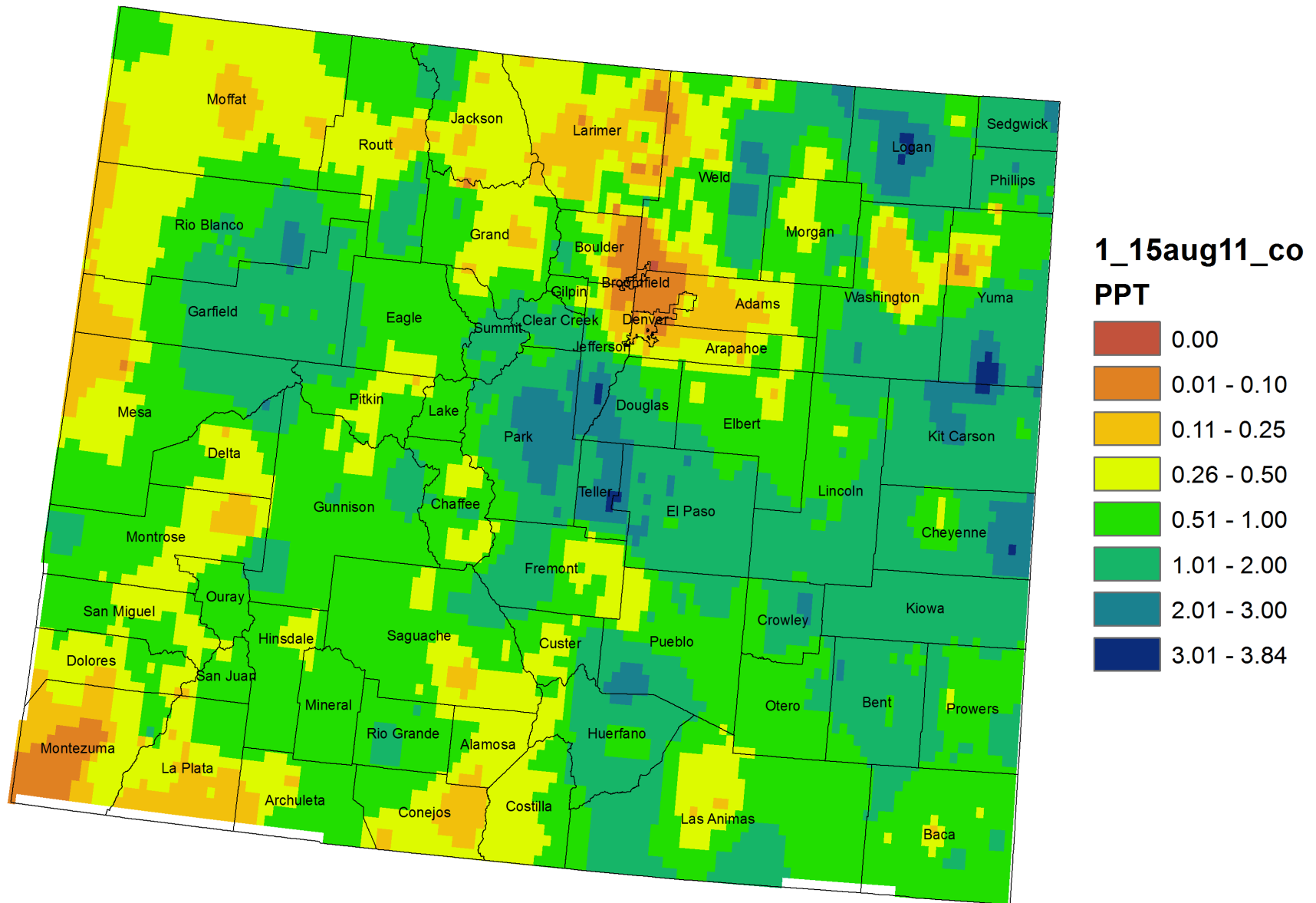
Colorado July 2011 Precipitation as Percentage of Normal



Water Year 2011 Precipitation as Percentage of Normal (Oct 10 - Jul 11)

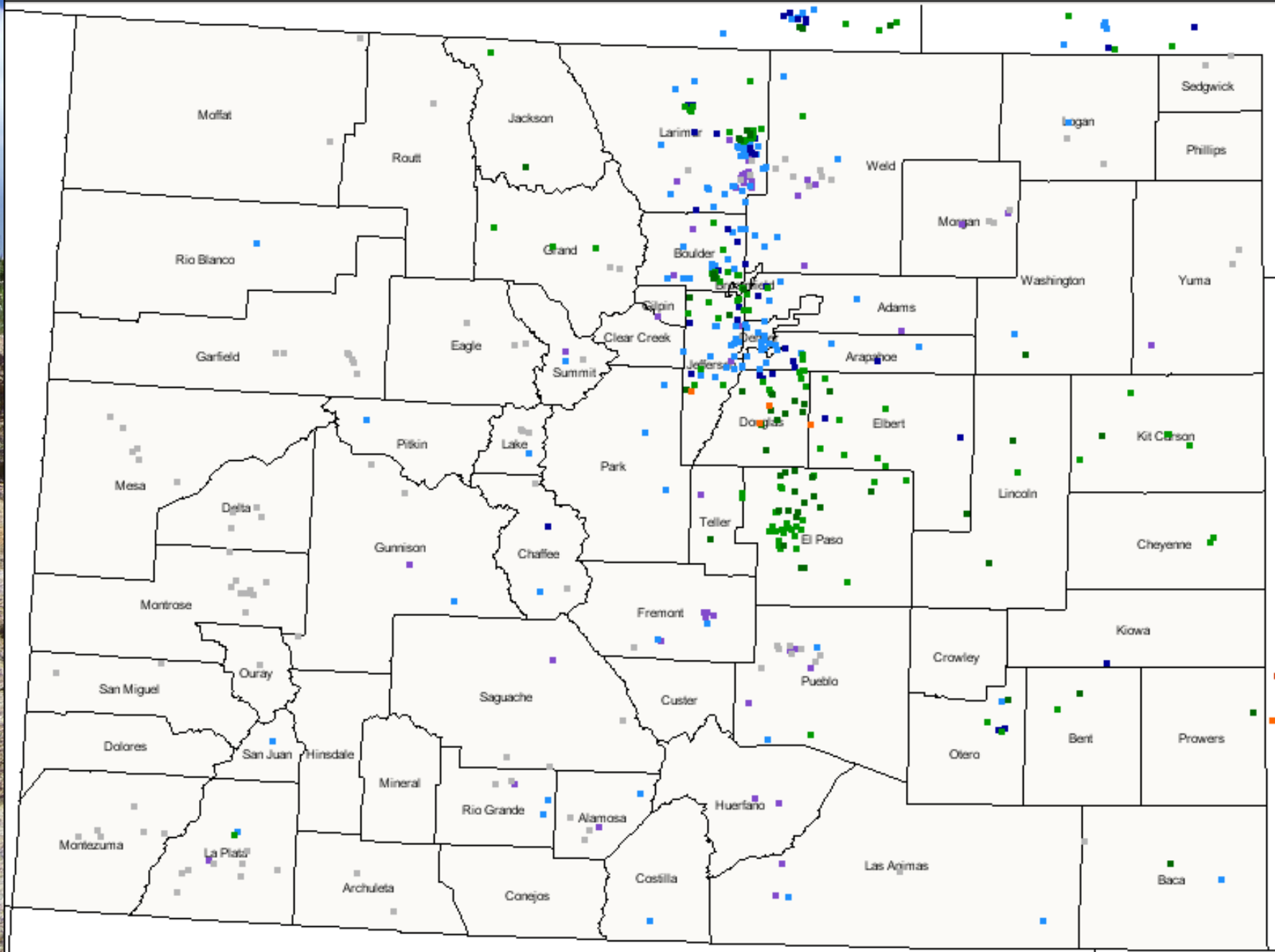


Colorado Month to Date Precipitation (in) 1 - 15 August 2011

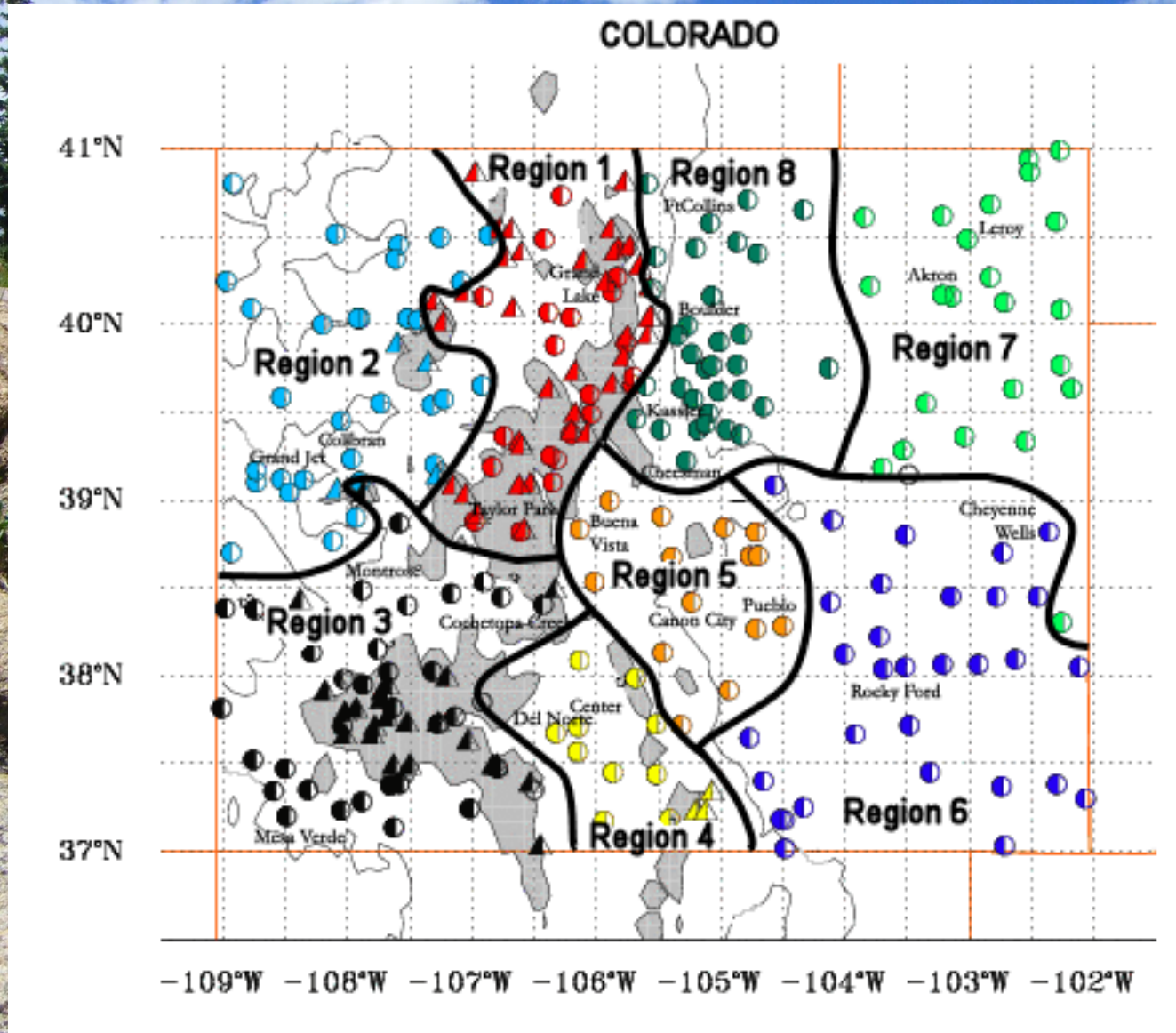


Daily Precipitation (inches x.xx), for the 24 hour period ending ~7:00 am

Colorado 8/17/2011

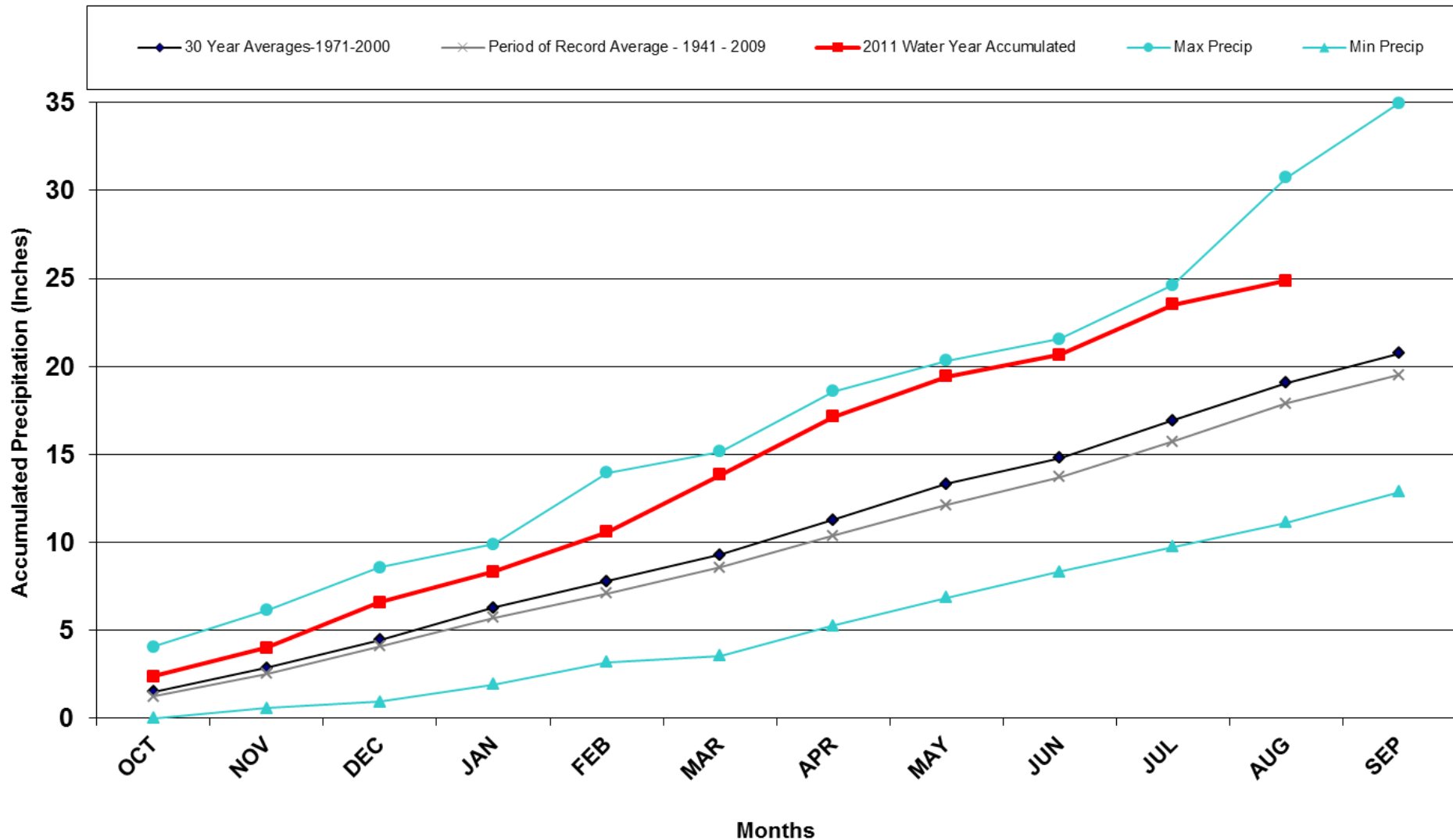


Climate divisions defined by Dr. Klaus Wolter of NOAA's Climate Diagnostic Center in Boulder, CO



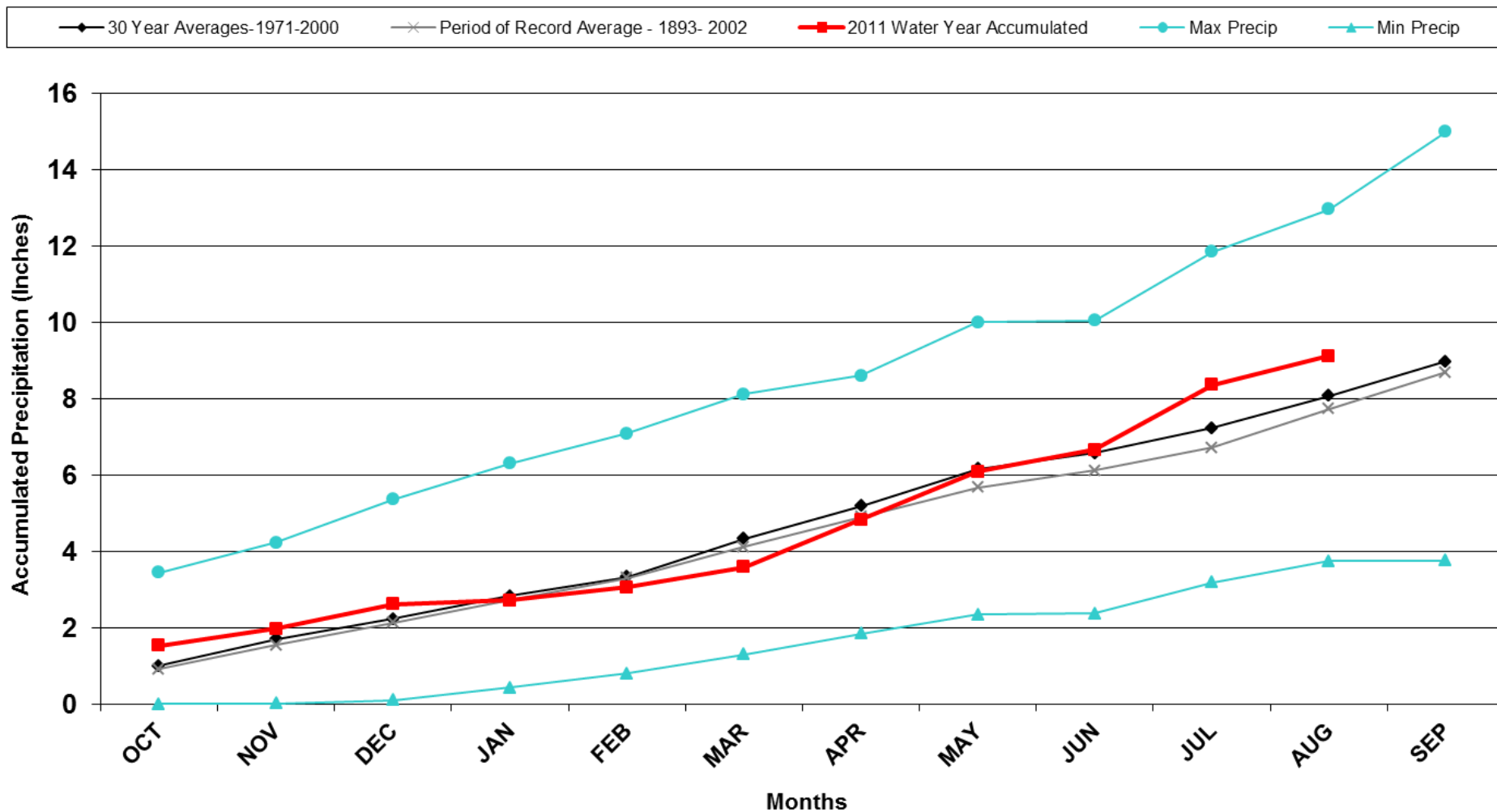
Division 1 – Grand Lake 1NW

Grand Lake 1 NW 2011 Water Year



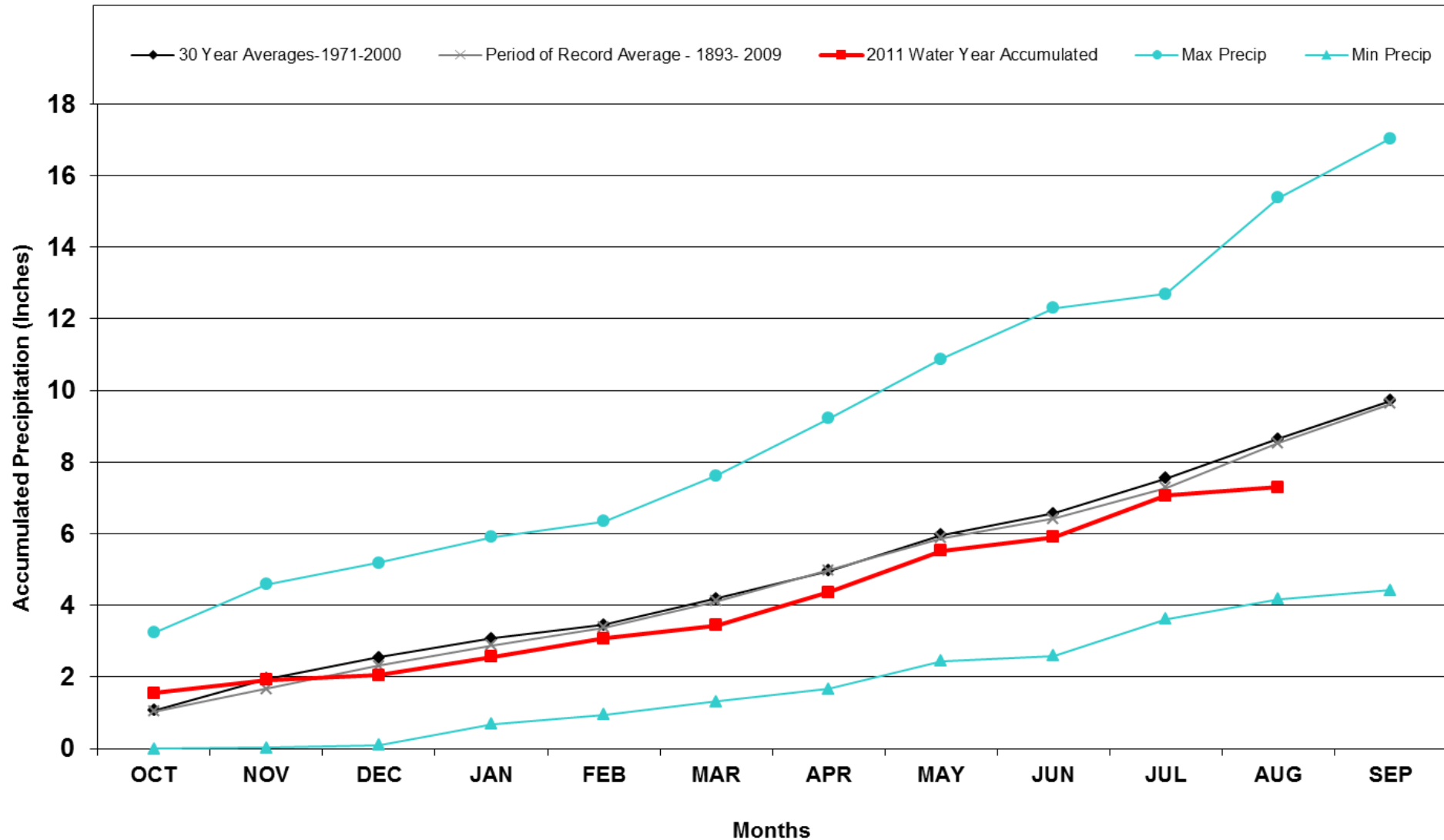
Division 2 – Grand Junction

Grand Junction WSFO 2011 Water Year



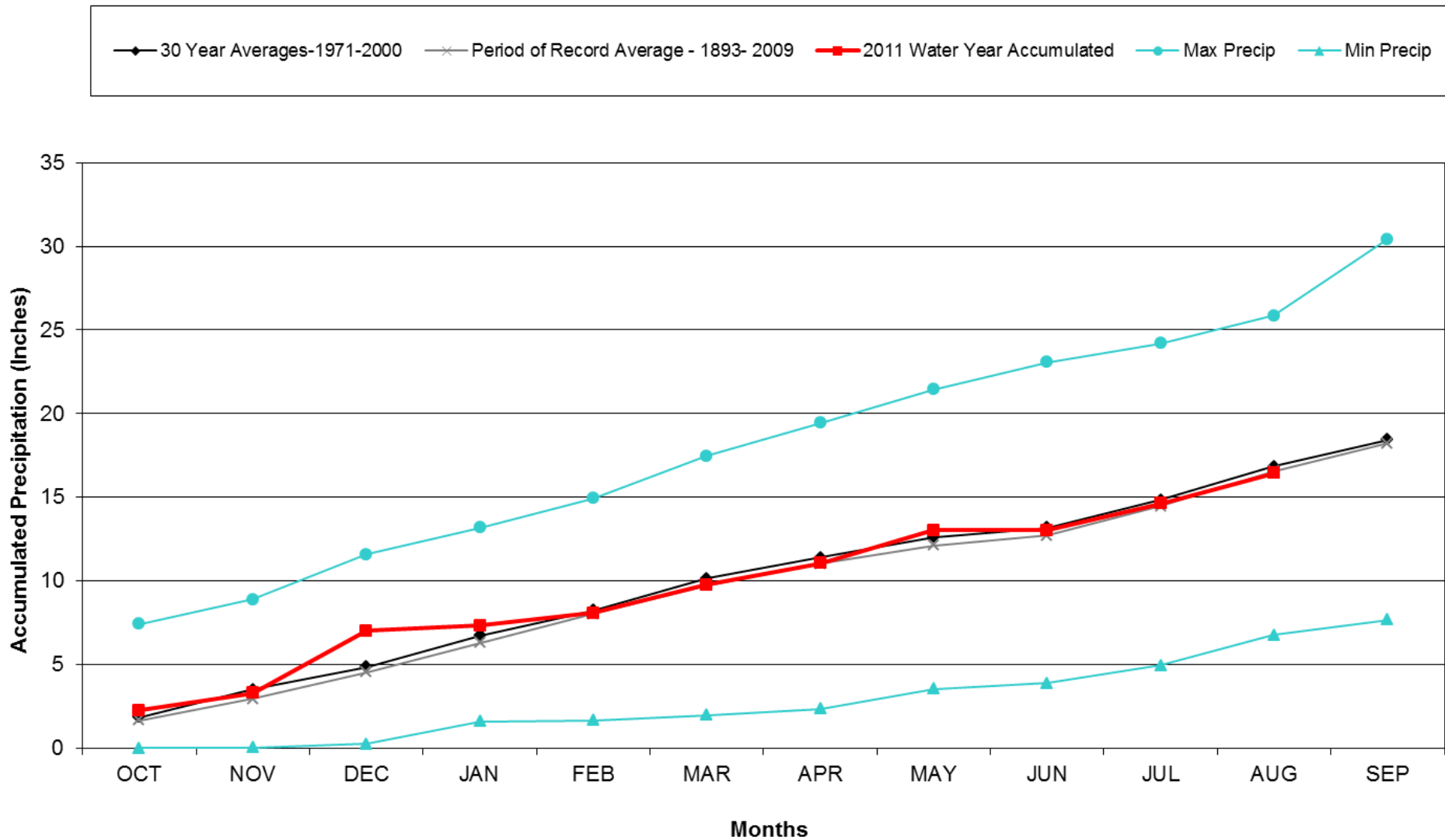
Division 3 – Montrose

Montrose #2 2011 Water Year



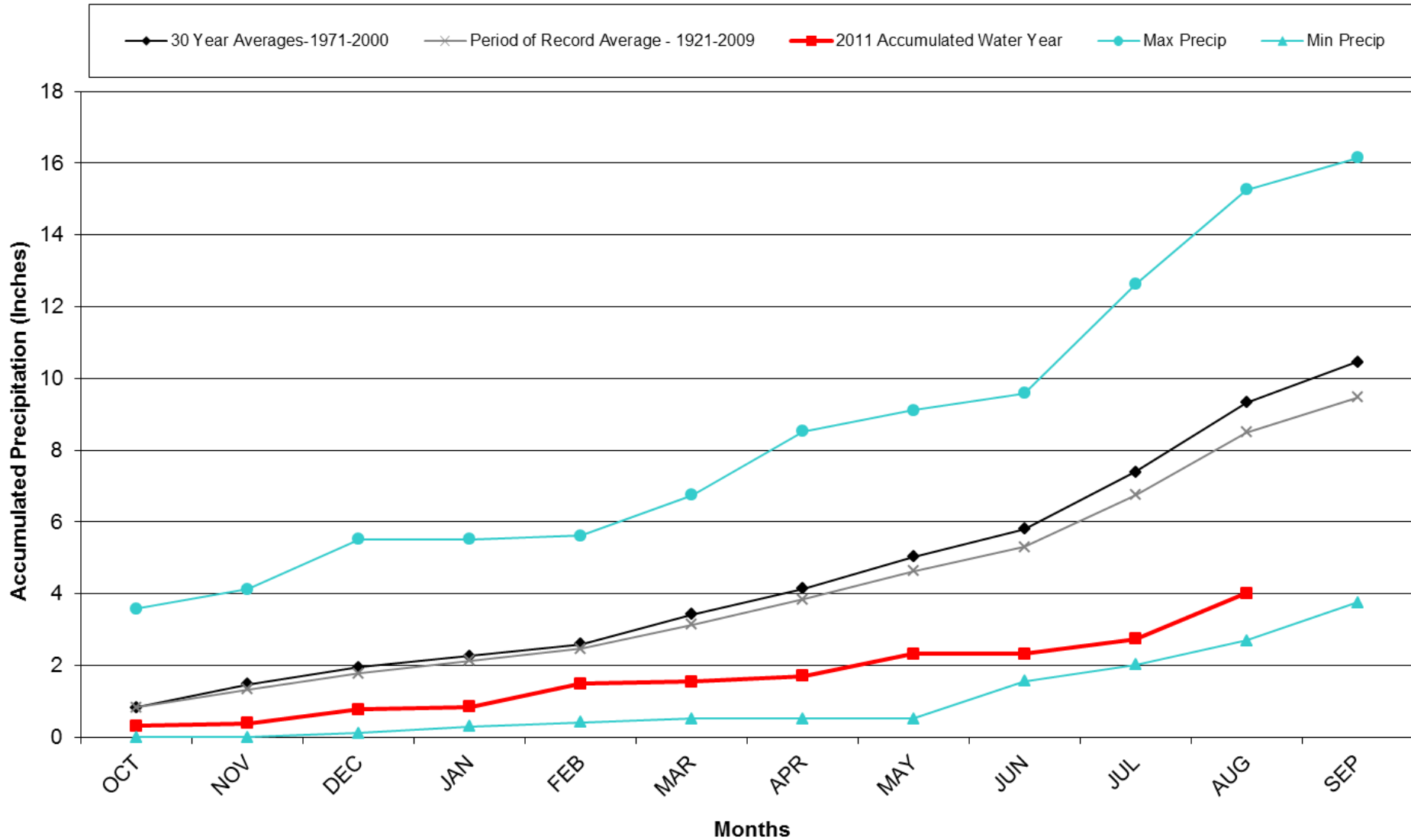
Division 3 – Mesa Verde NP

Mesa Verde NP 2011 Water Year



Division 4 – Del Norte

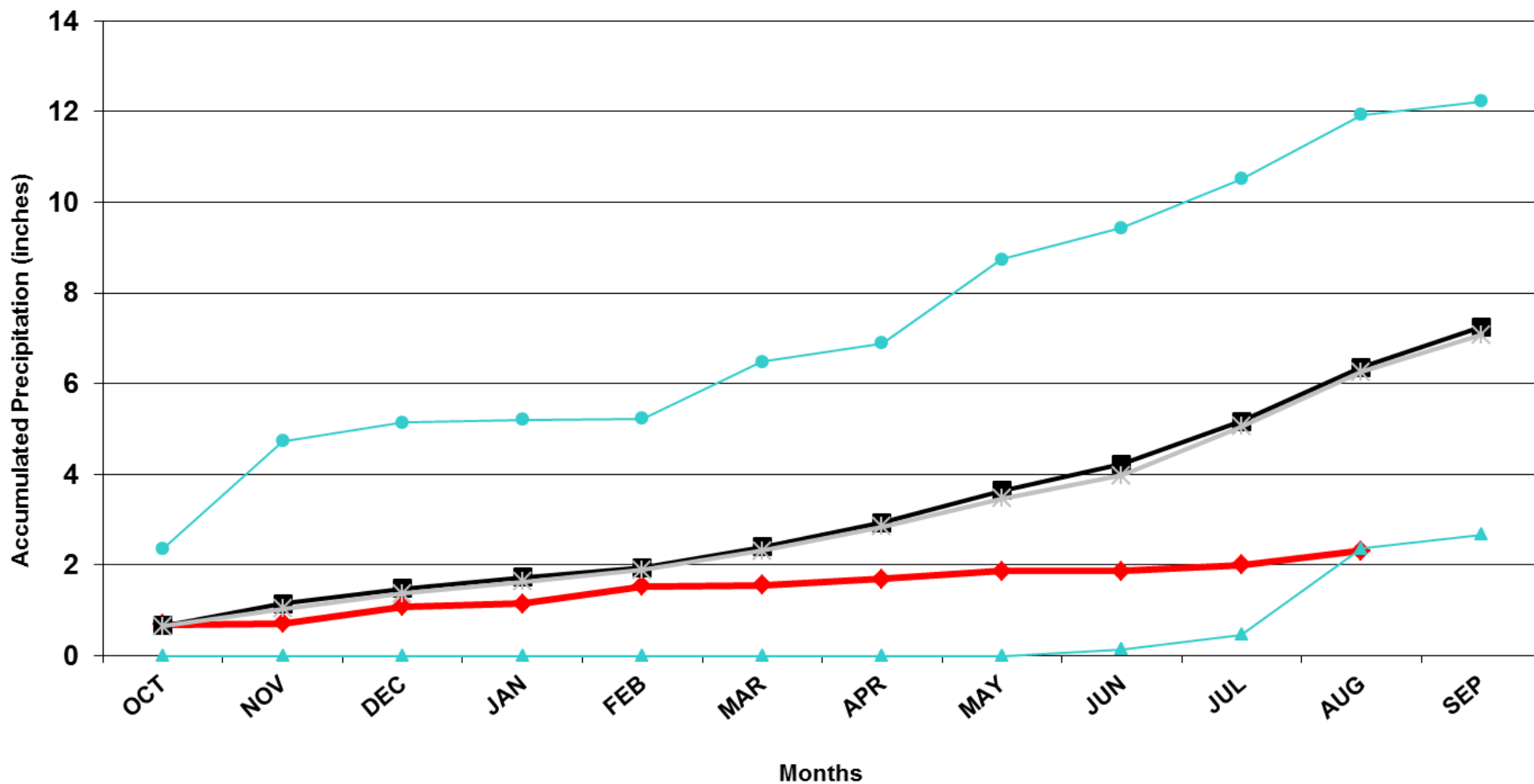
Del Norte 2011 Water Year



Division 4 – Alamosa

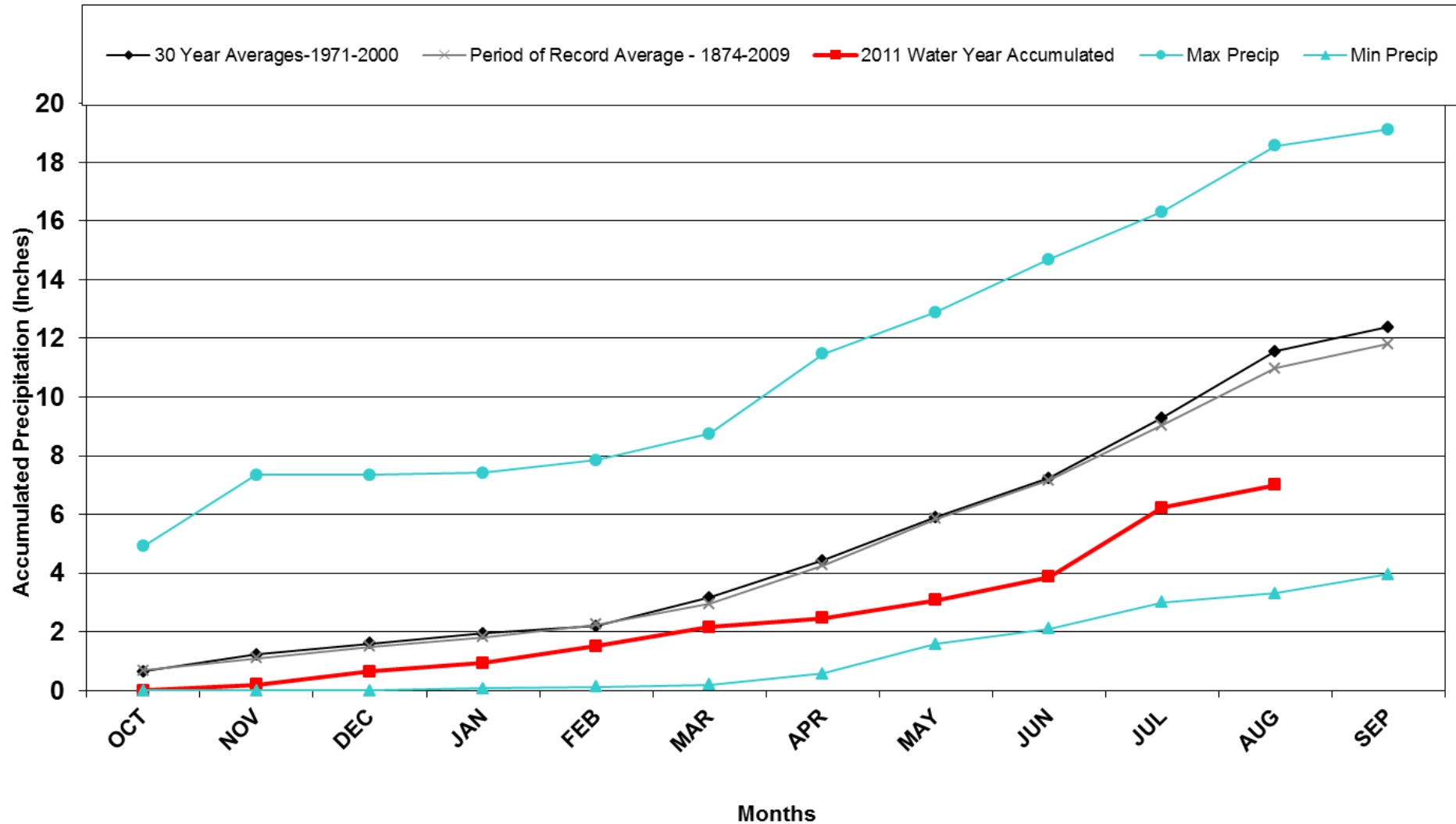
Alamosa 2011 Water Year

2011 Water Year 30 Year Averages-1971-2000 Period of Record Average - 1948-2010 Max Precip Min Precip



Division 5 – Pueblo

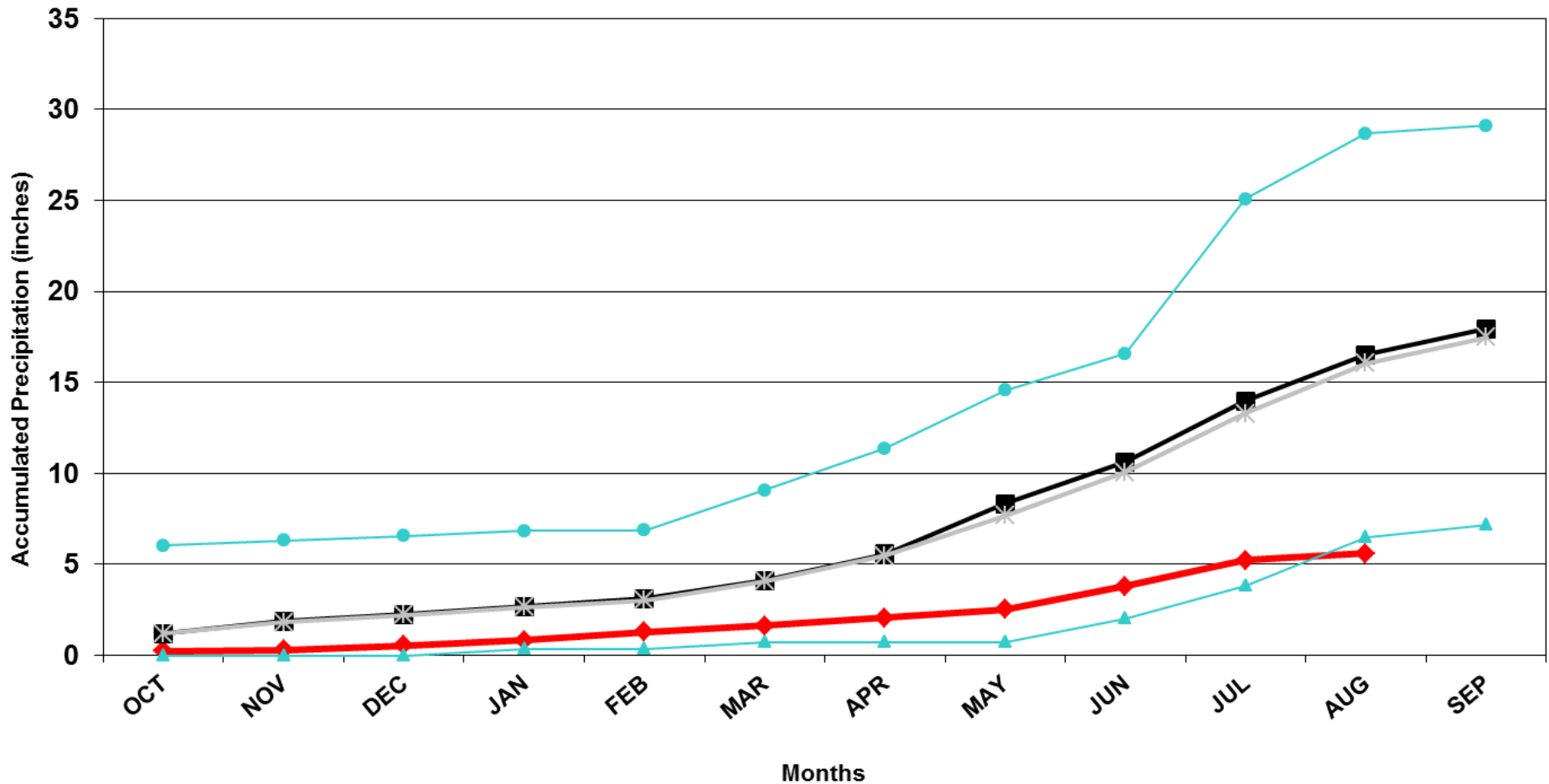
Pueblo WSO 2011 Water Year



Division 6 - Walsh

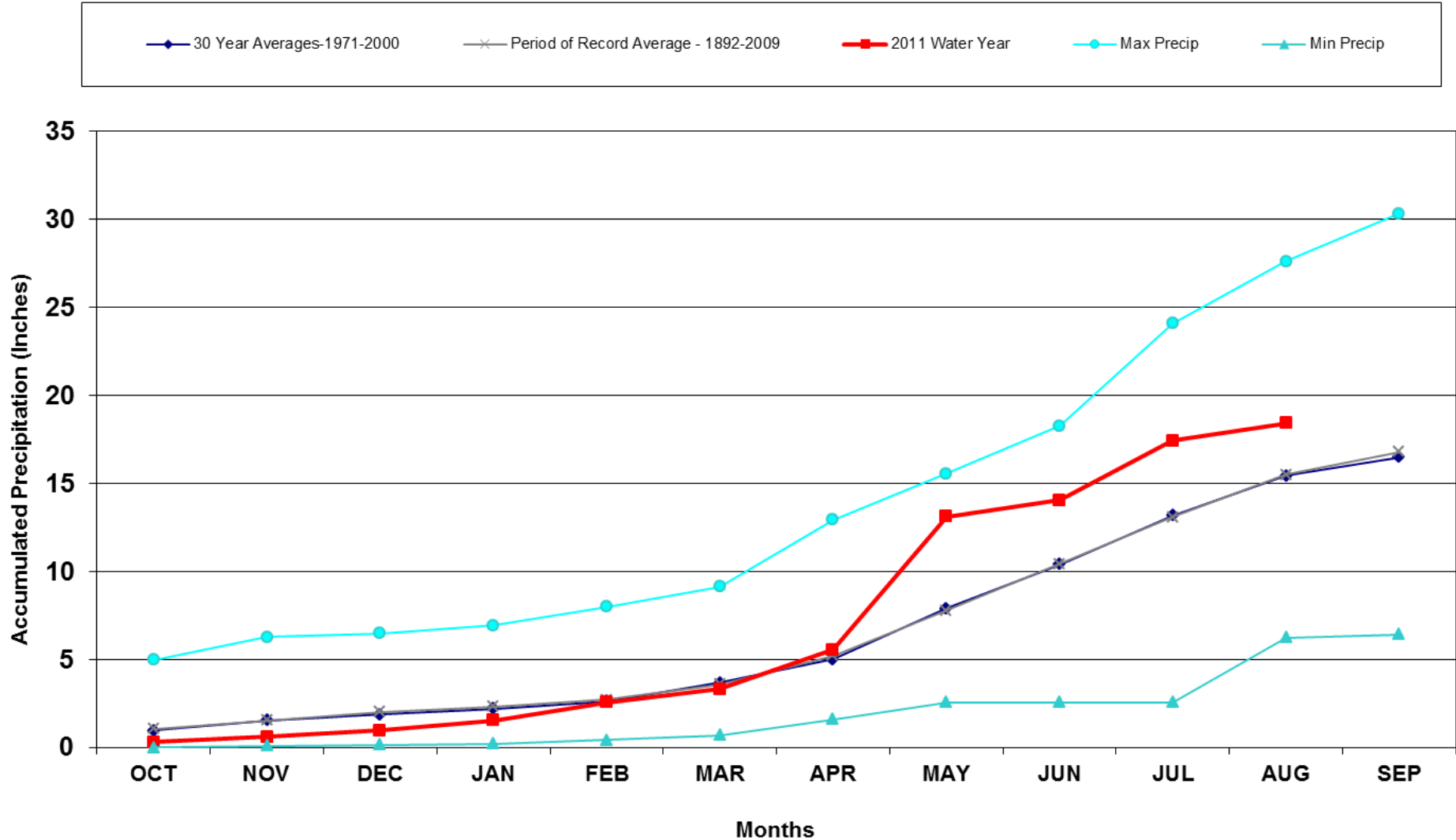
Walsh 2011 Water Year

2011 Water Year 30 Year Averages-1971-2000 Period of Record Average - 1968-2010 Max Precip Min Precip



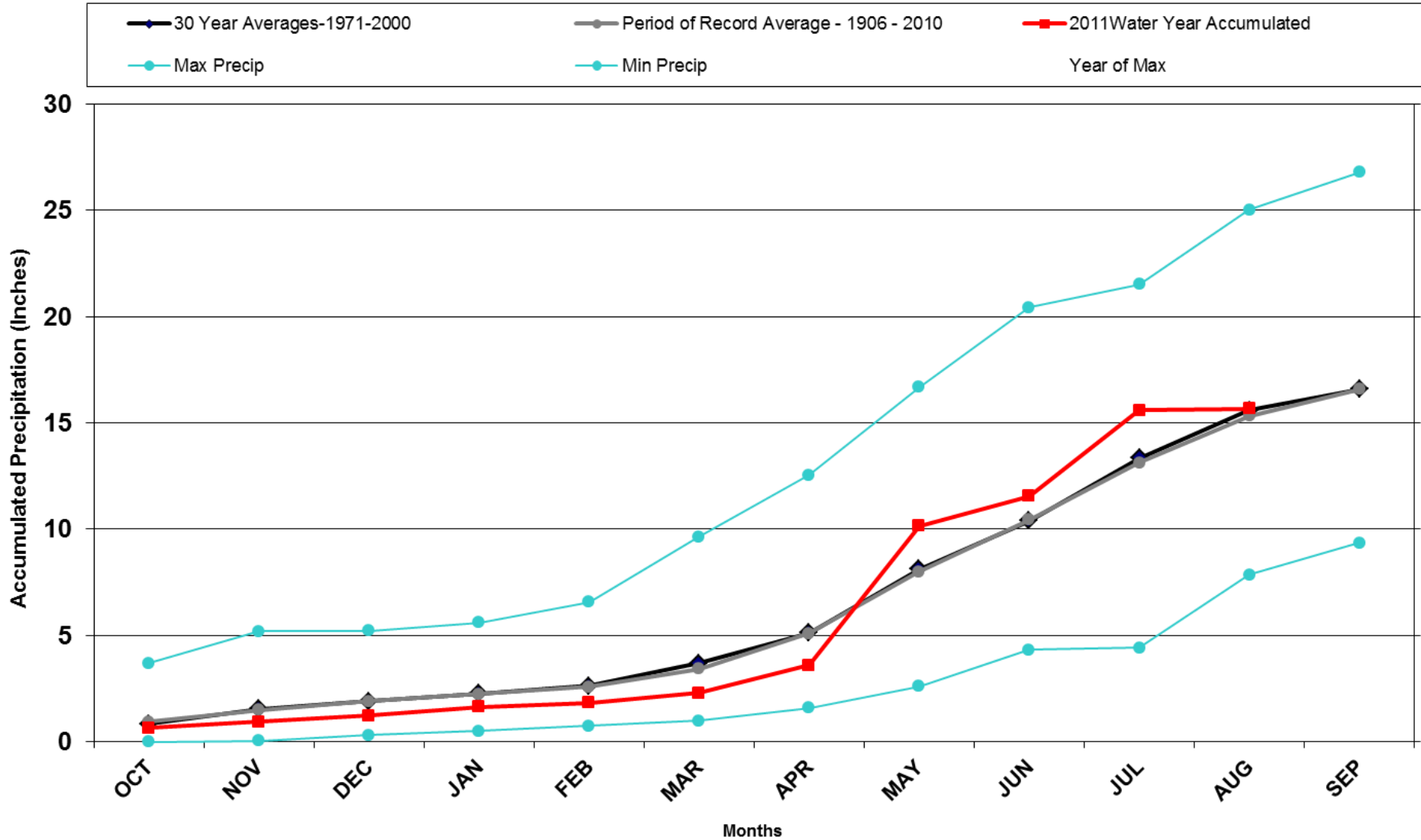
Division 6 - Burlington

Burlington 2011 Water Year



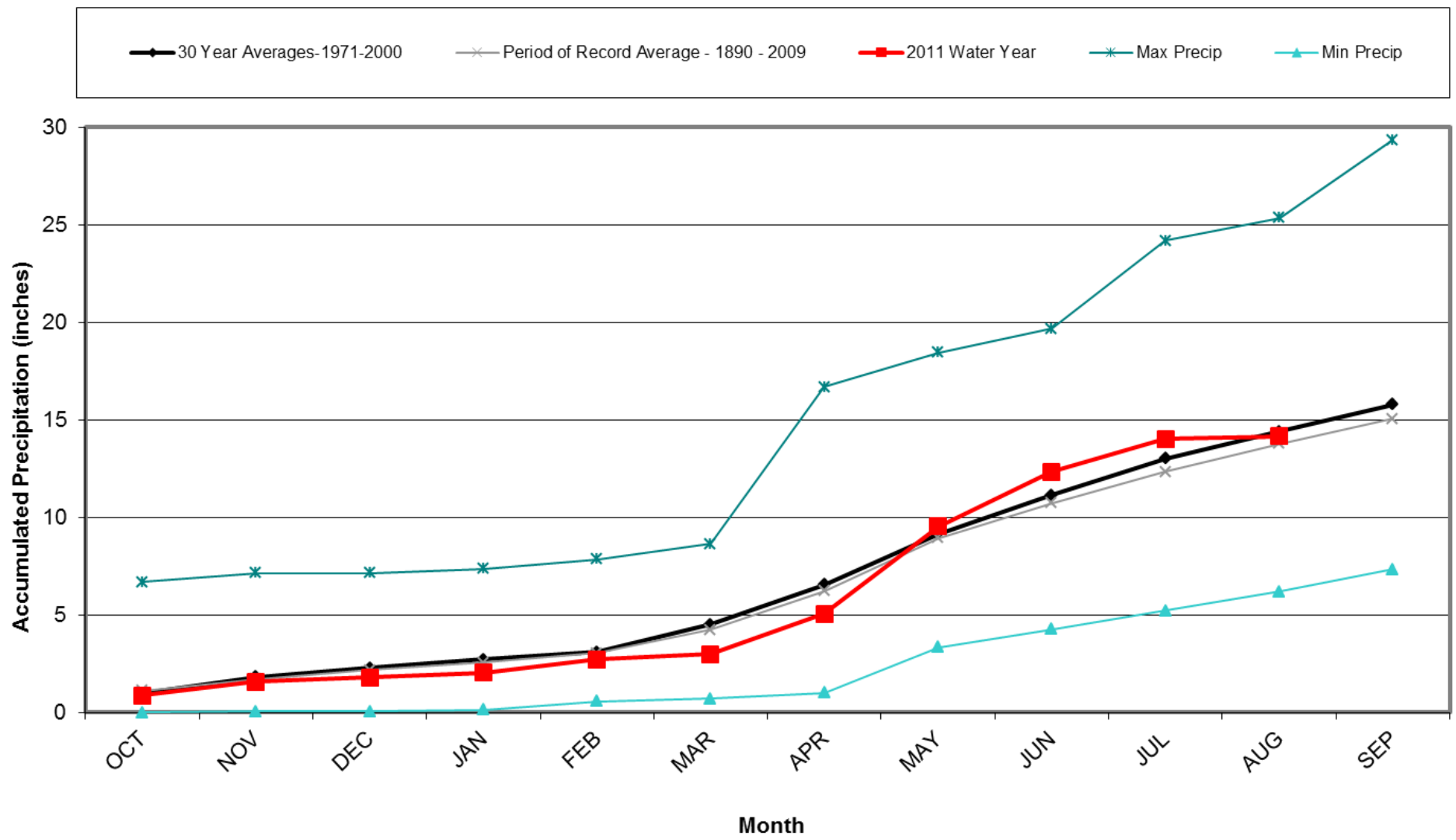
Division 7 – Akron

Akron 4E 2011 Water Year



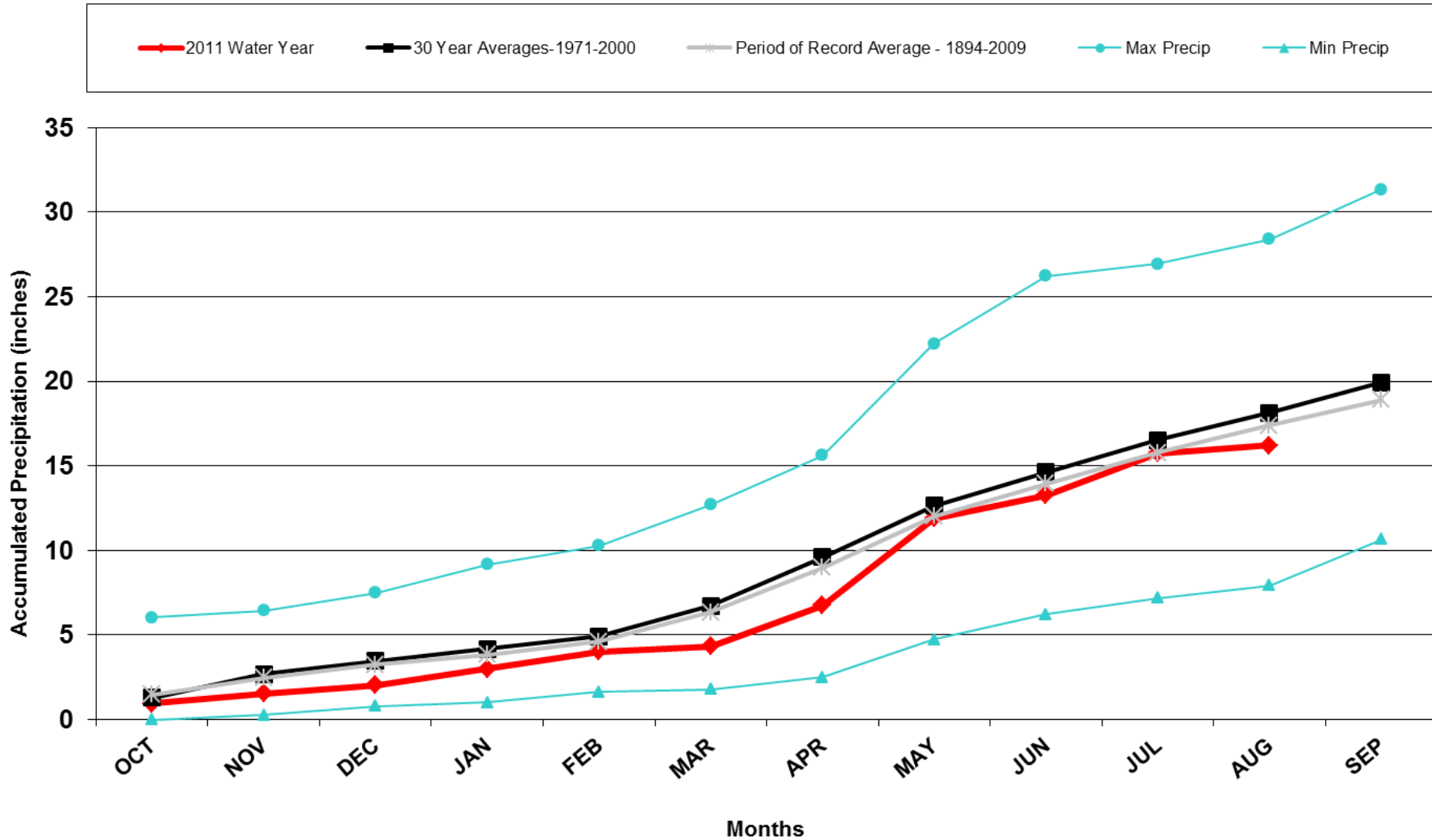
Division 8 – Fort Collins

Fort Collins 2011 Water Year



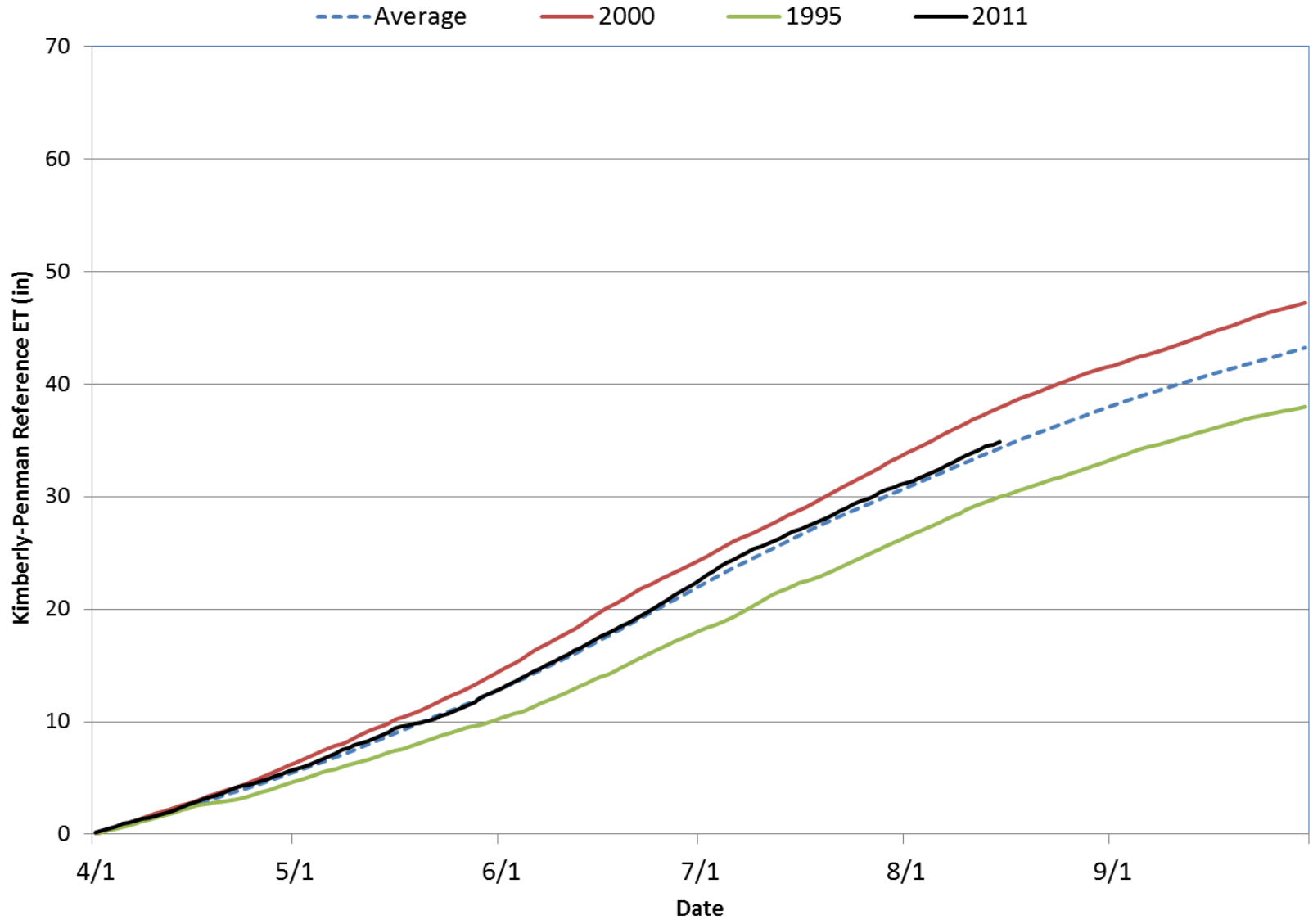
Division 8 - Boulder

Boulder 2011 Water Year



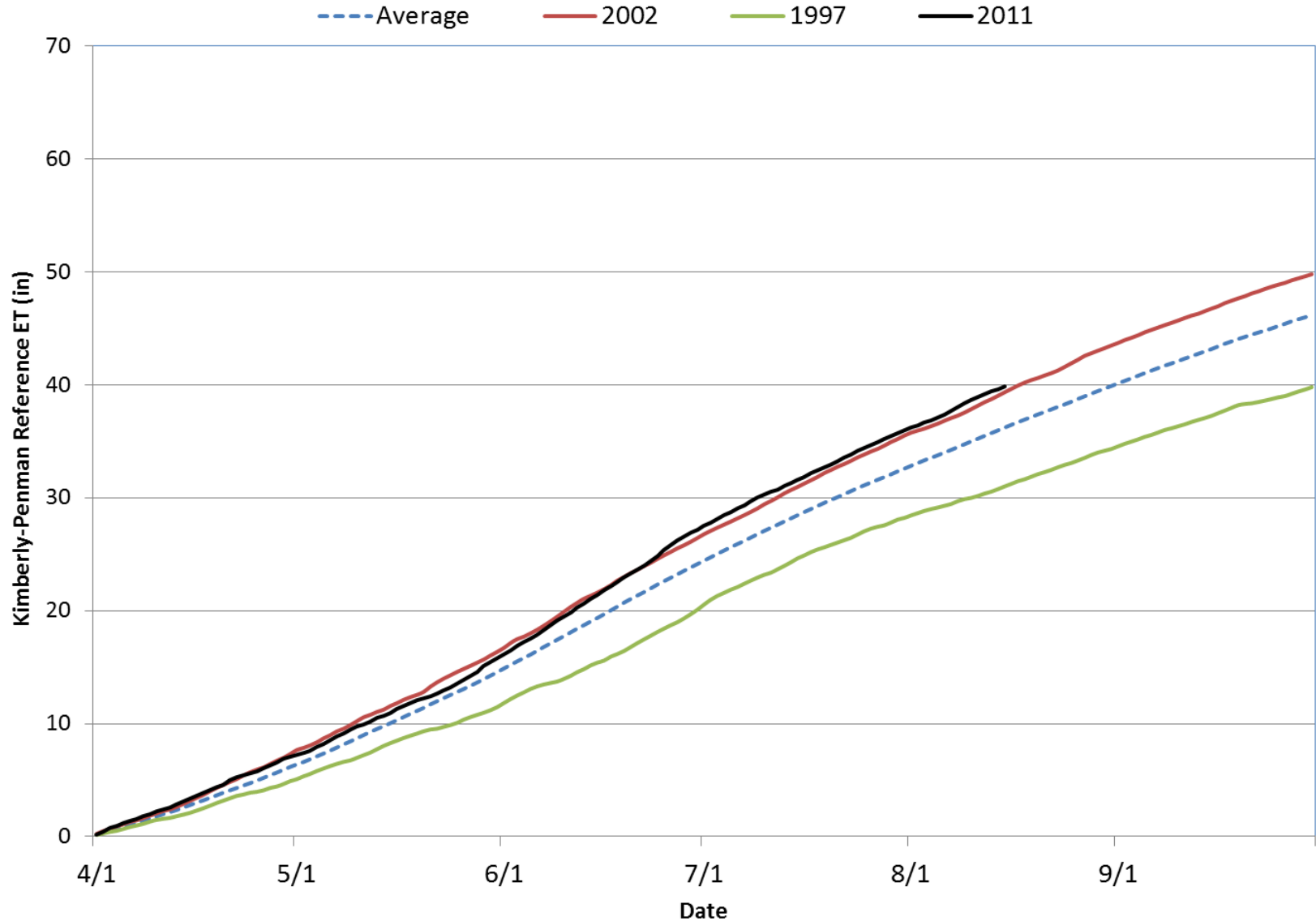
Cortez Reference ET – SW CO

CTZ01 Kimberly-Penman Reference ET (1992 - 2011)



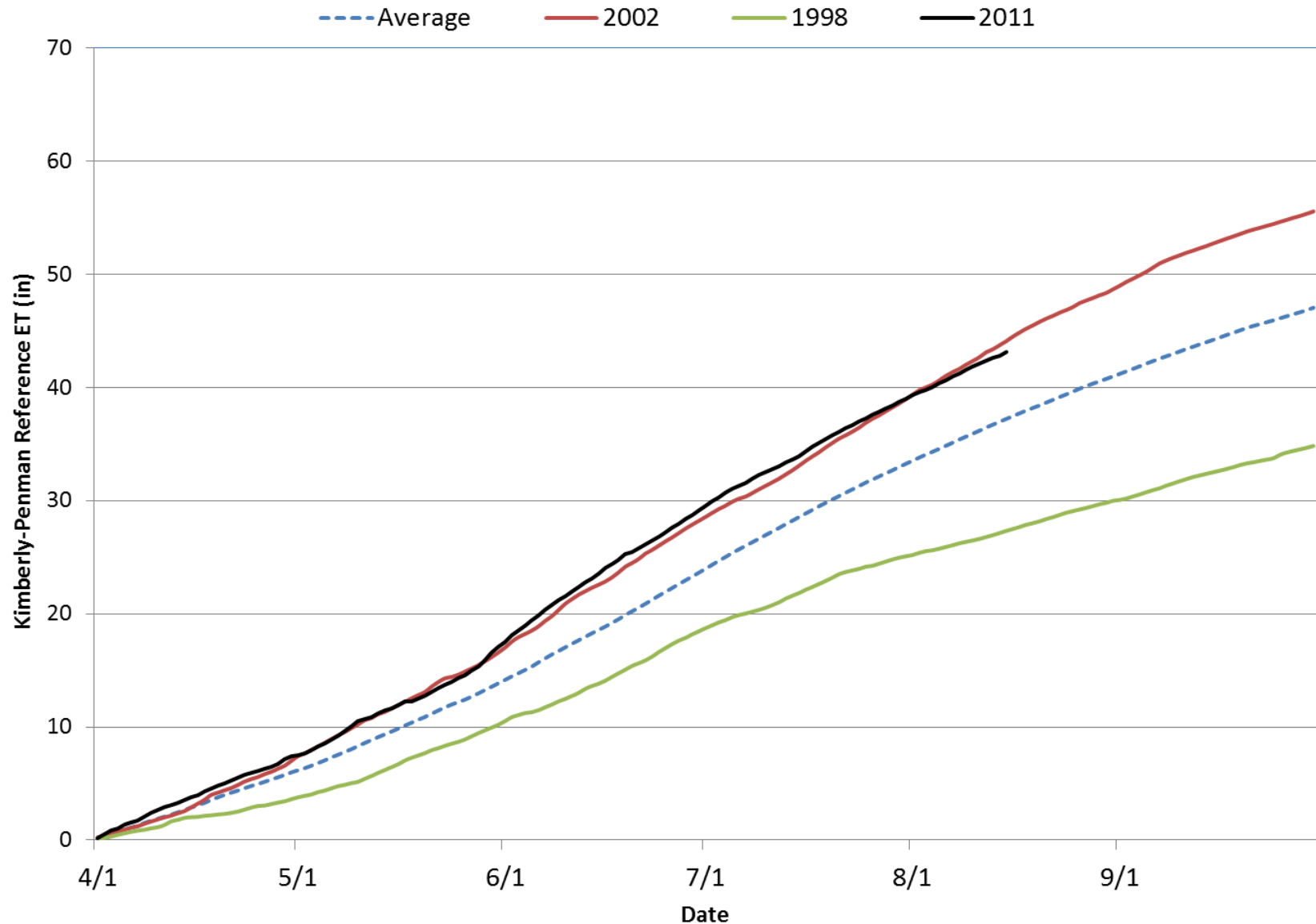
Center Reference ET - SLV

CTR01 Kimberly-Penman Reference ET (1994 - 2011)



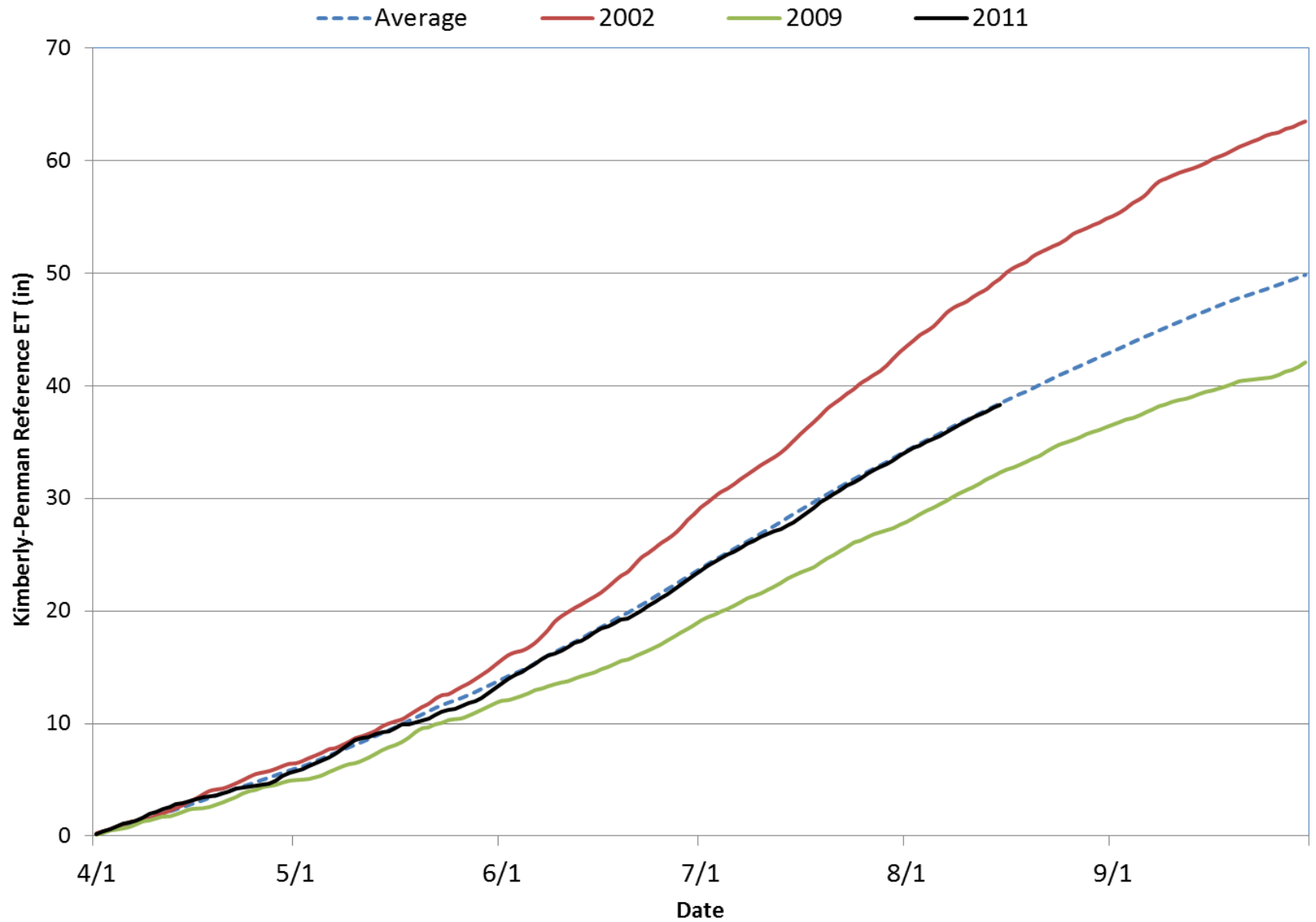
Avondale Reference ET – AR Basin

AVN01 Kimberly-Penman Reference ET (1993 - 2011)



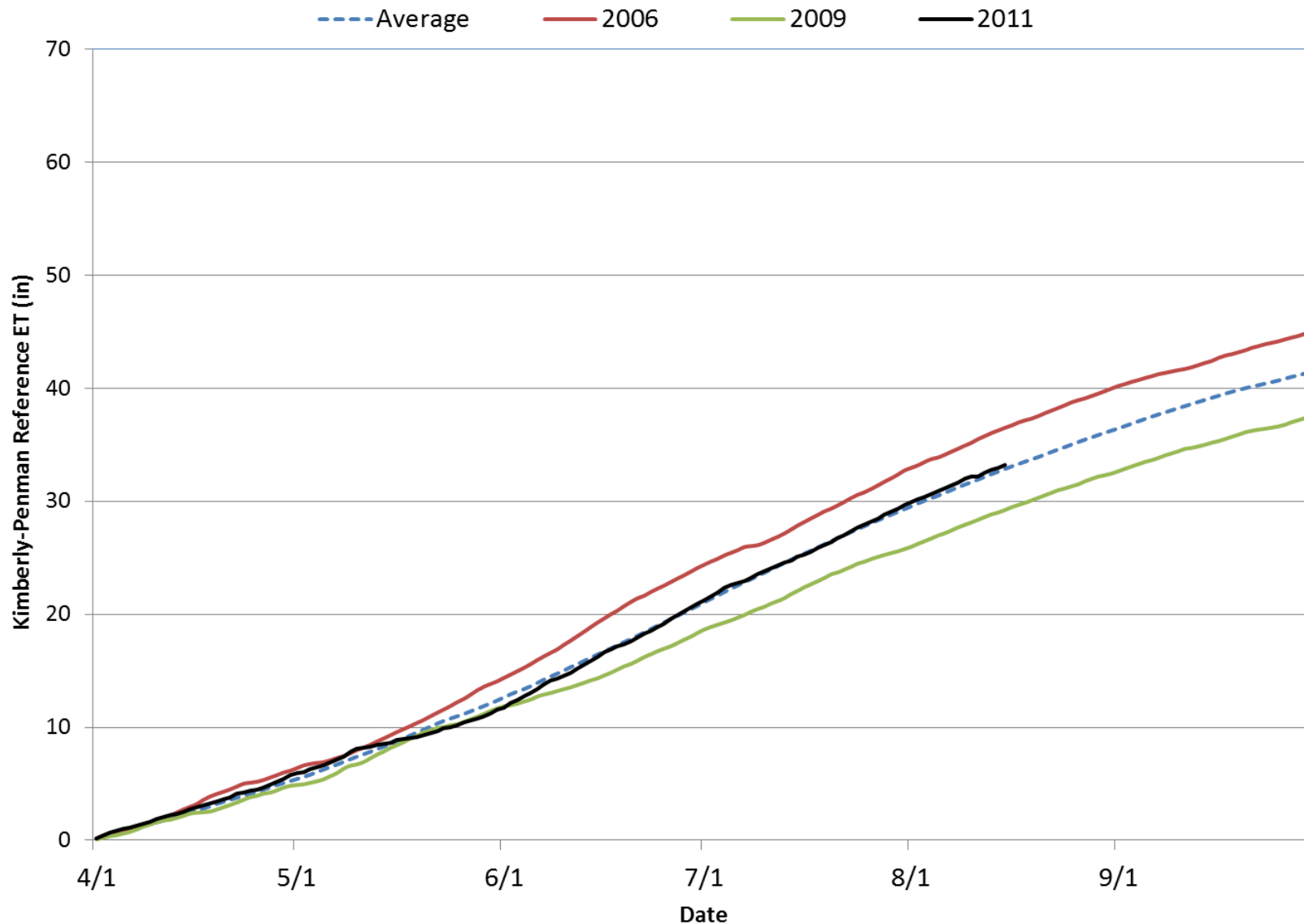
Idalia Reference ET – Eastern CO

IDL01 Kimberly-Penman Reference ET (1992 - 2011)



Lucerne Reference ET – N. Front Range

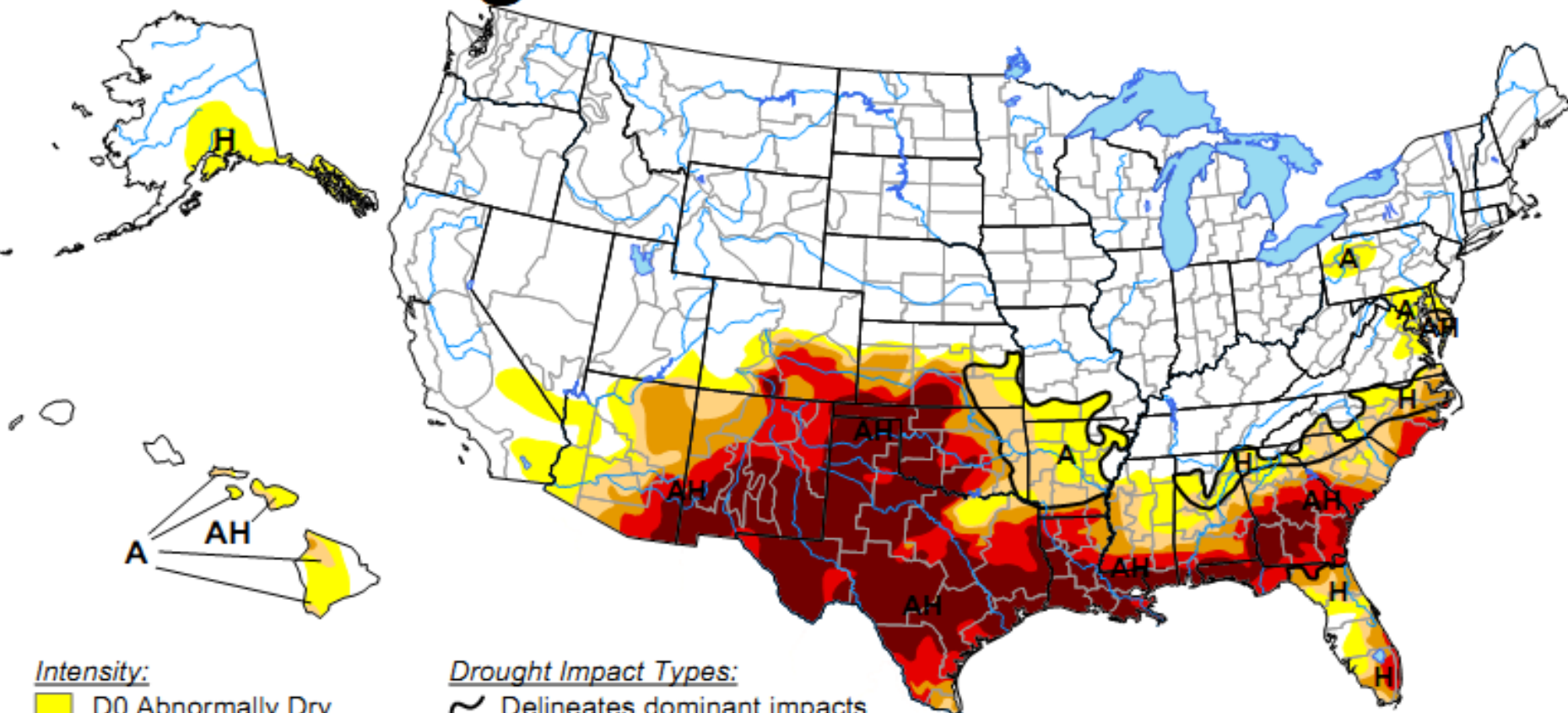
LCN01 Kimberly-Penman Reference ET (1992 - 2011)








U.S. Drought Monitor

July 12, 2011


Valid 8 a.m. EDT



Intensity:

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

Drought Impact Types:

-  Delineates dominant impacts
- A = Agricultural (crops, pastures, grasslands)
- H = Hydrological (water)

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

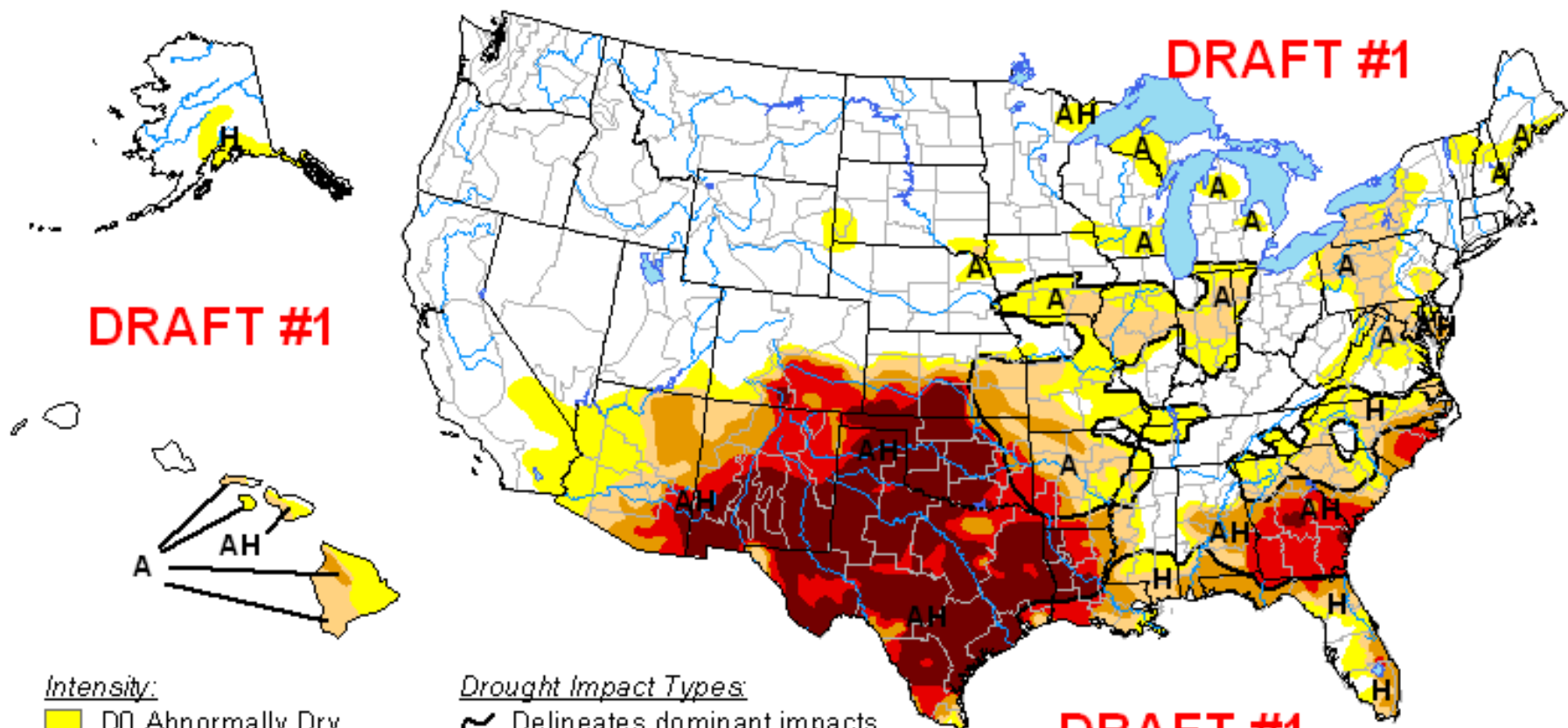
<http://drought.unl.edu/dm>








Released Thursday, July 14, 2011
Author: David Miskus, NOAA/NWS/NCEP/CPC

U.S. Drought Monitor


August 16, 2011
Valid 8 a.m. EDT



Intensity:

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

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<http://drought.unl.edu/dm>

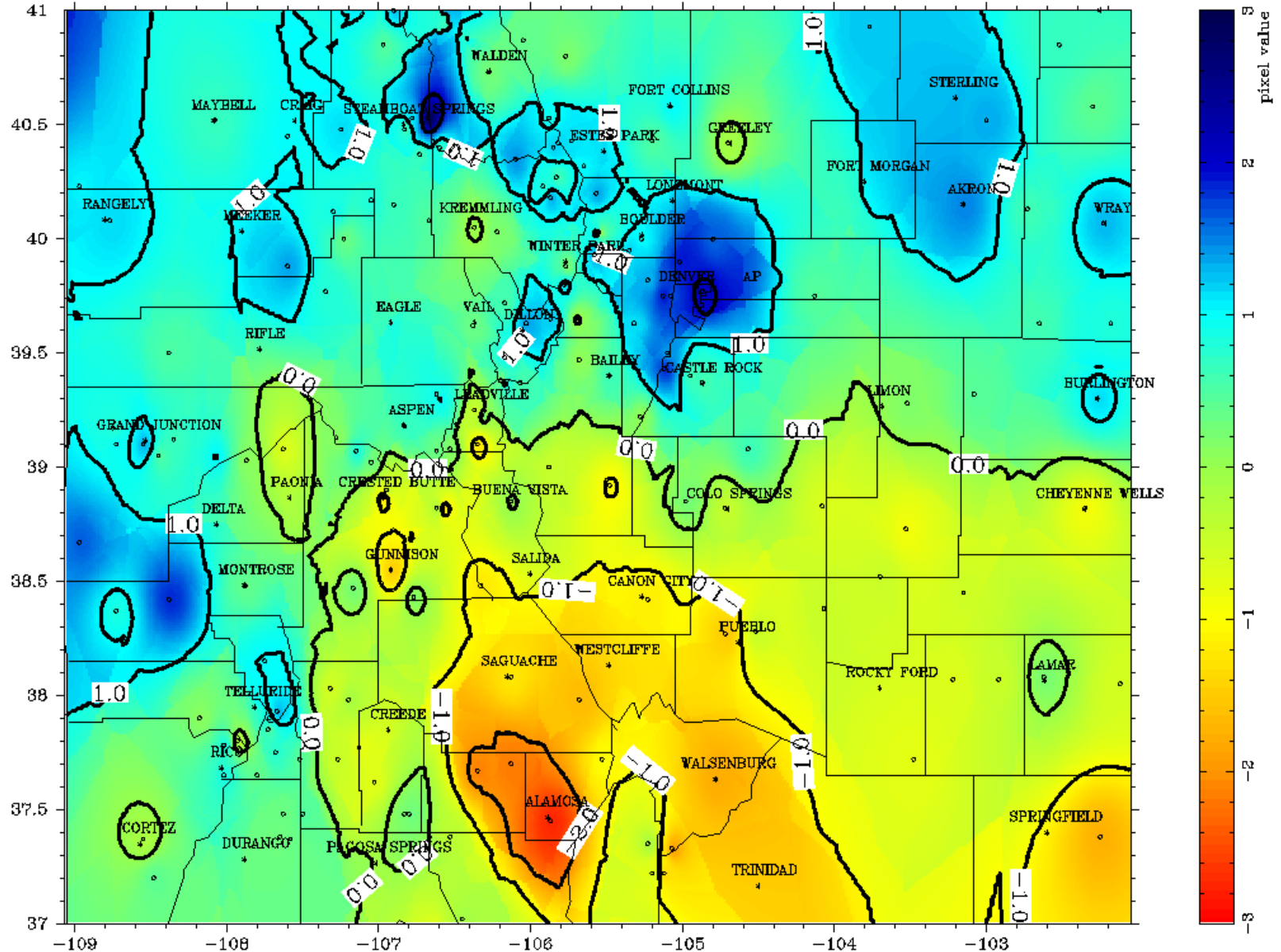


Released Thursday, August 18, 2011
Author: Laura Edwards, Western Regional Climate Center

Colorado

7/2011 3 mon. SPI

JULESBURG



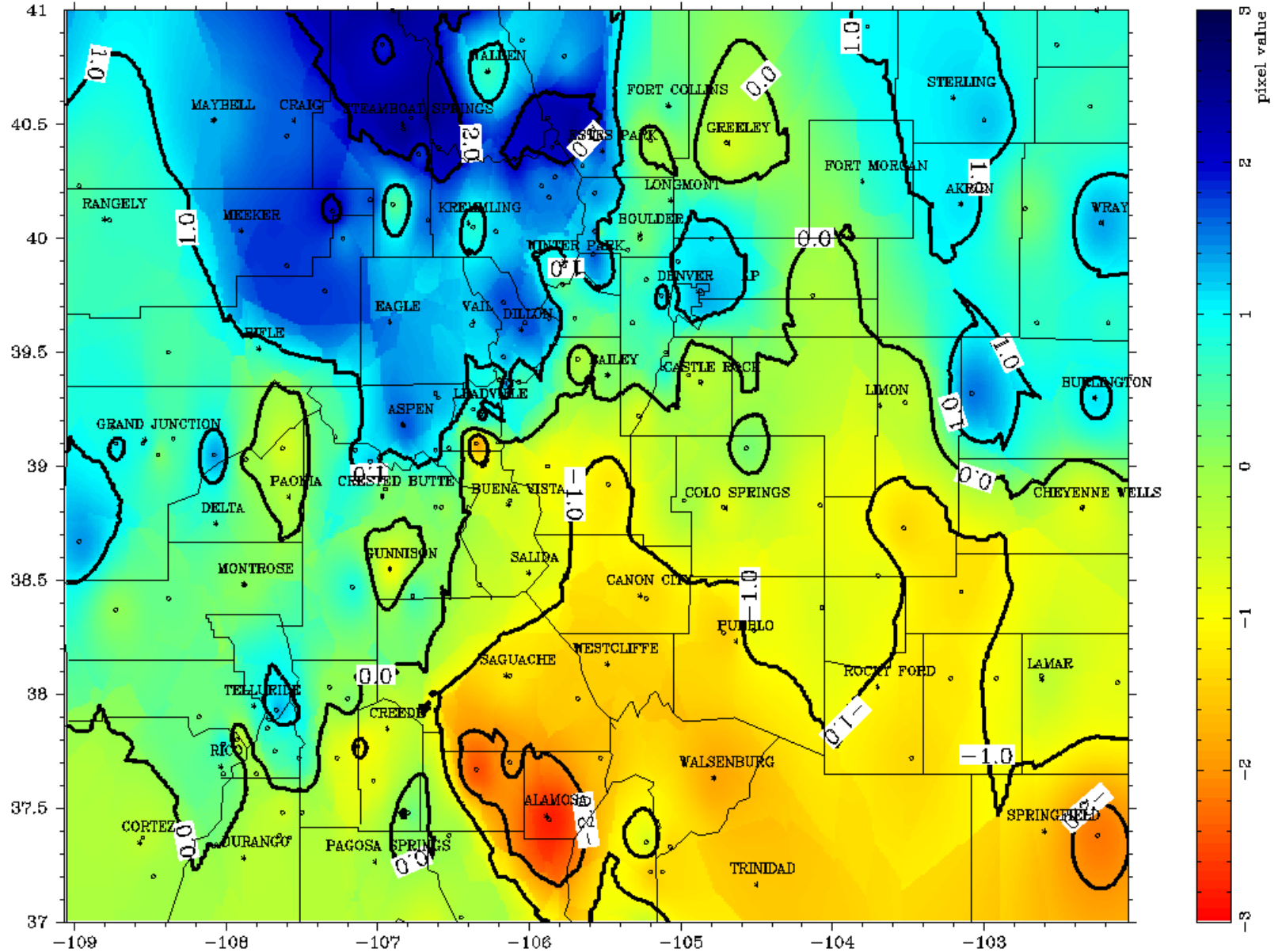
100 % < 2.0	12 % < -1.0
84 % < 1.0	1 % < -2.0
39 % < 0.0	0 % < -3.0

Produced by:
Colorado Climate Center
Fort Collins, CO

Colorado

7/2011 6 mon. SPI

JULESBURG



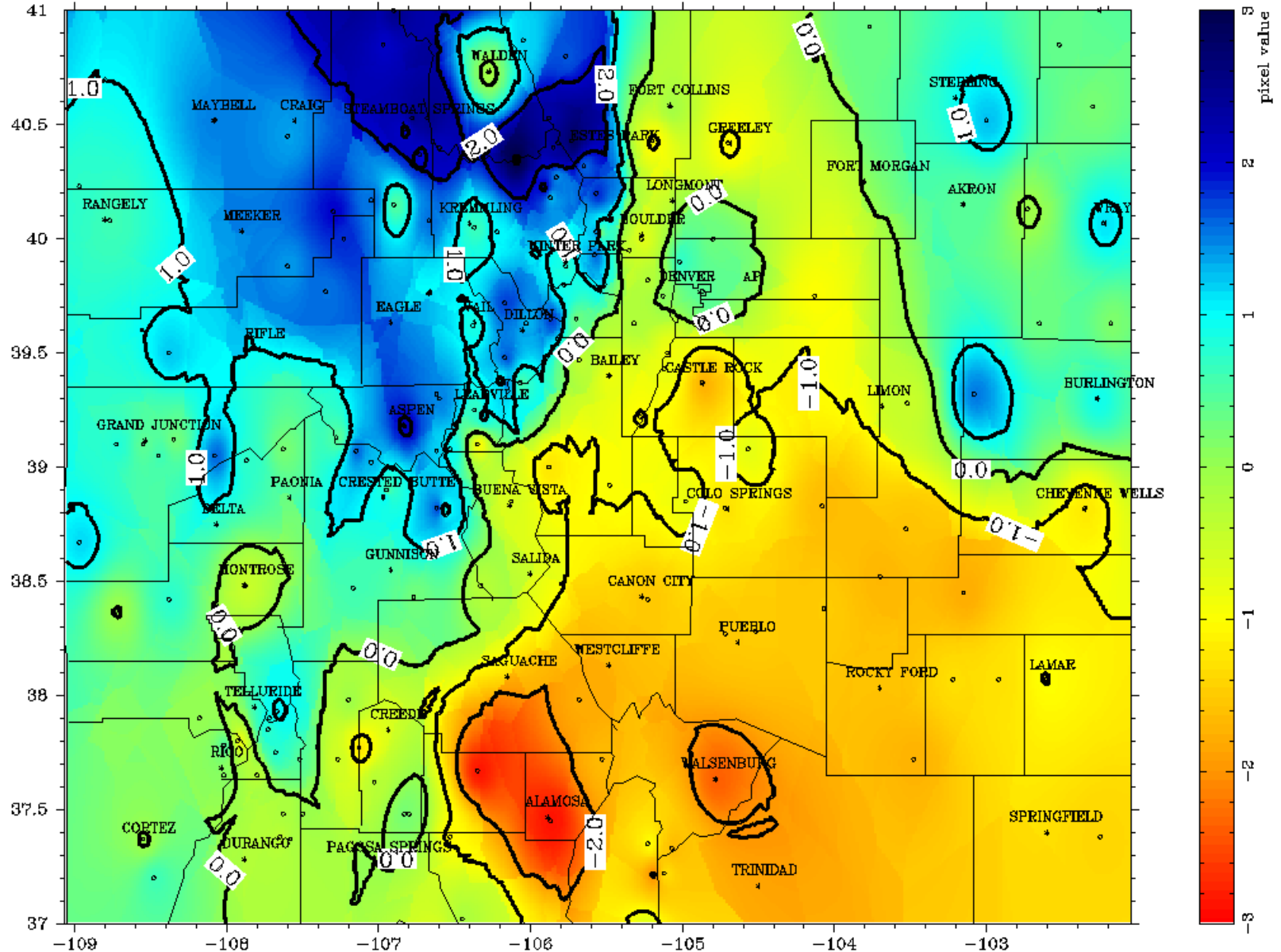
98 % < 2.0 20 % < -1.0
 79 % < 1.0 1 % < -2.0
 46 % < 0.0 0 % < -3.0

Produced by:
 Colorado Climate Center
 Fort Collins, CO

Colorado

7/2011 12 mon. SPI

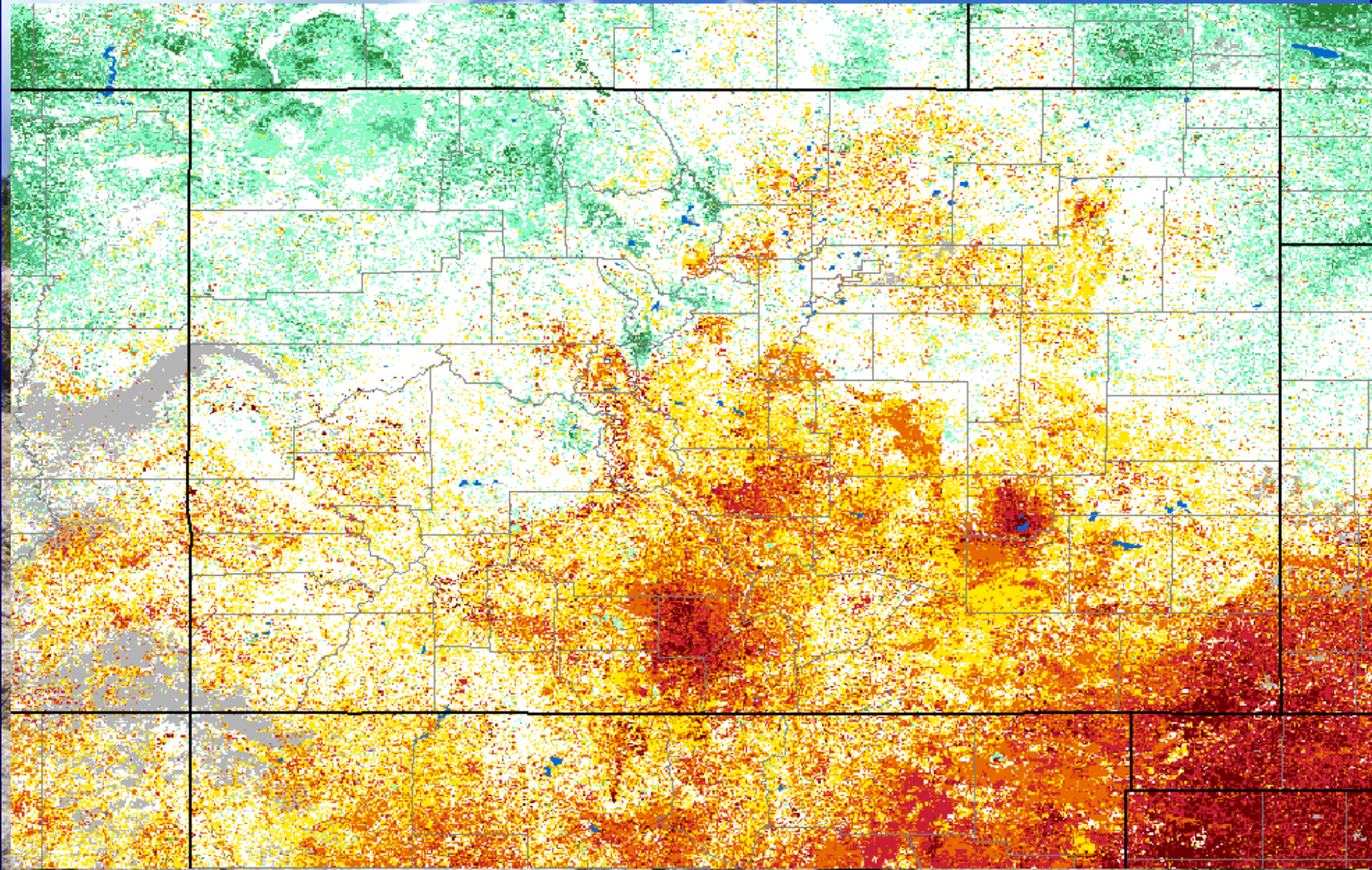
JULESBURG



97 % < 2.0 30 % < -1.0
81 % < 1.0 2 % < -2.0
49 % < 0.0 0 % < -3.0

Produced by:
Colorado Climate Center
Fort Collins, CO

eModis VegDRI: 8/14/11



Colorado Climate Center



COLORADO
CLIMATE
CENTER

**Colorado
State
University**
Knowledge to Go Places

Data and Power Point Presentations available for
downloading

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