



Climate Update



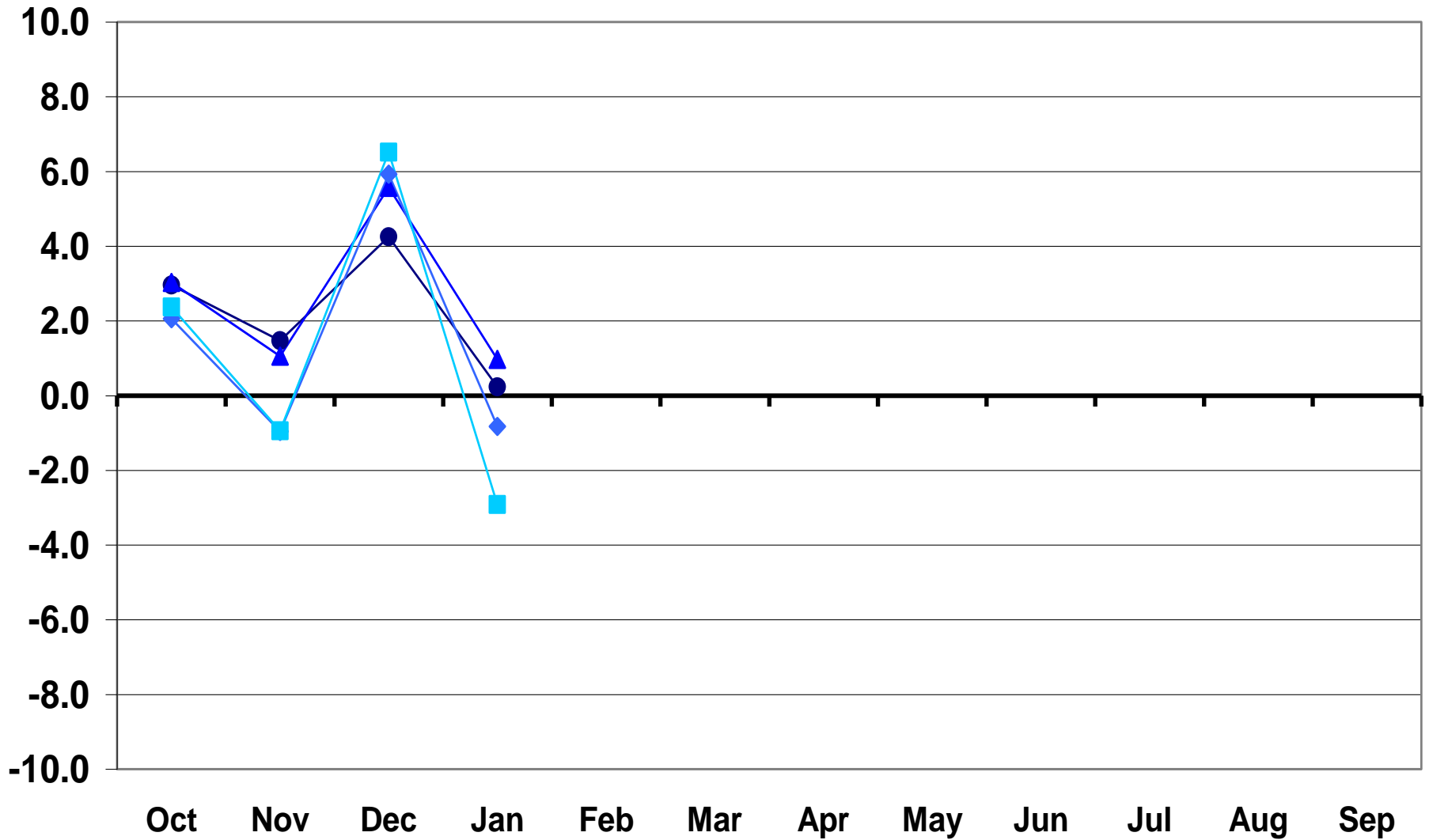
Wendy Ryan
Colorado Climate Center

Atmospheric Science Department
Colorado State University

Presented to
Water Availability Task Force
February 16th 2011
Denver, CO

Prepared by Wendy Ryan

Water Year 2011 Temperature Departure by Region



● Eastern Plains

▲ Foothills

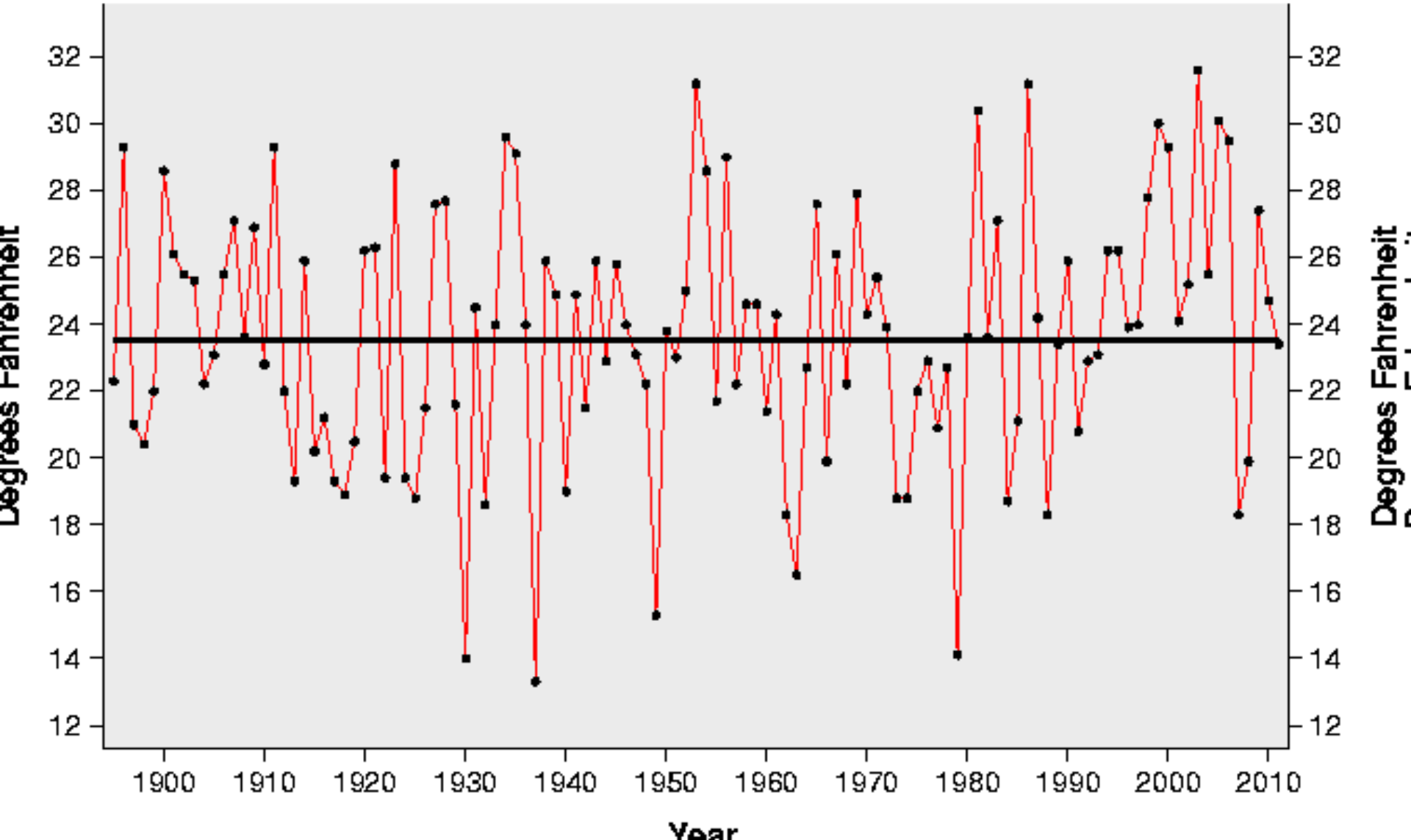
◆ Mountains

■ Western Valleys

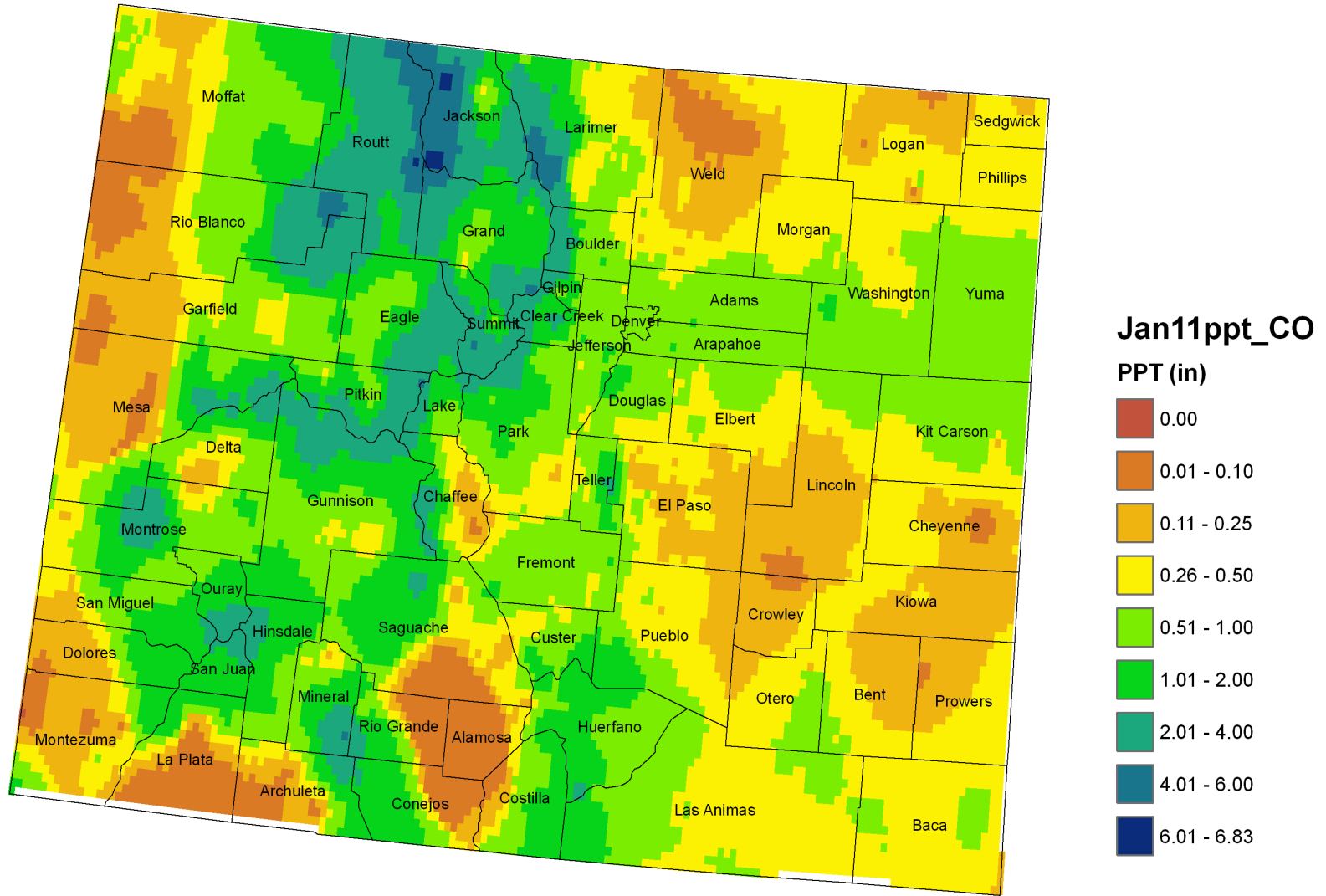
January Average Temperature History for Colorado (NCDC)

— Actual Temperature
— Average Temperature

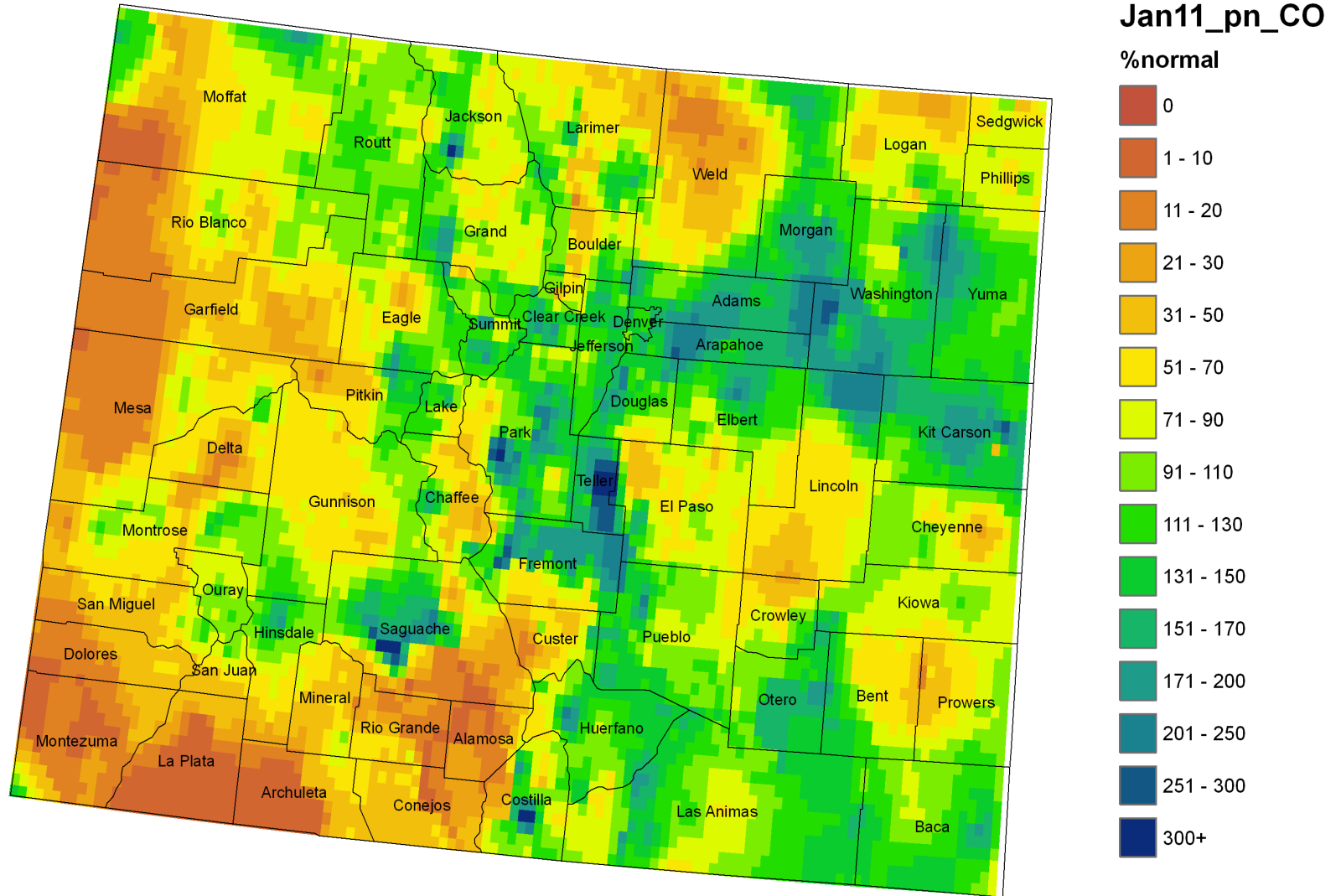
23.4 Degrees ranks 53rd coolest for the period (1895-2011)



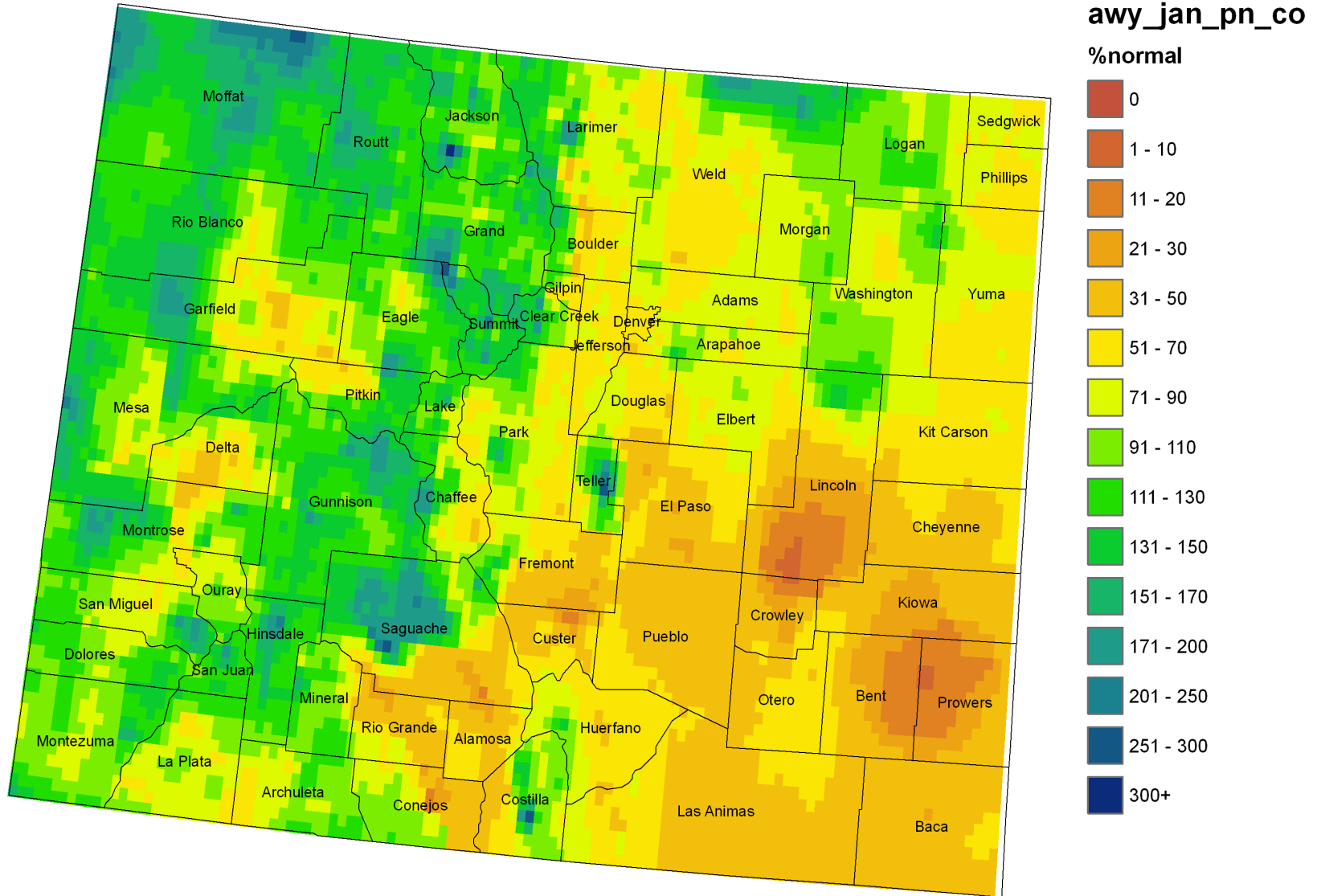
Colorado Precipitation (in) January 2011



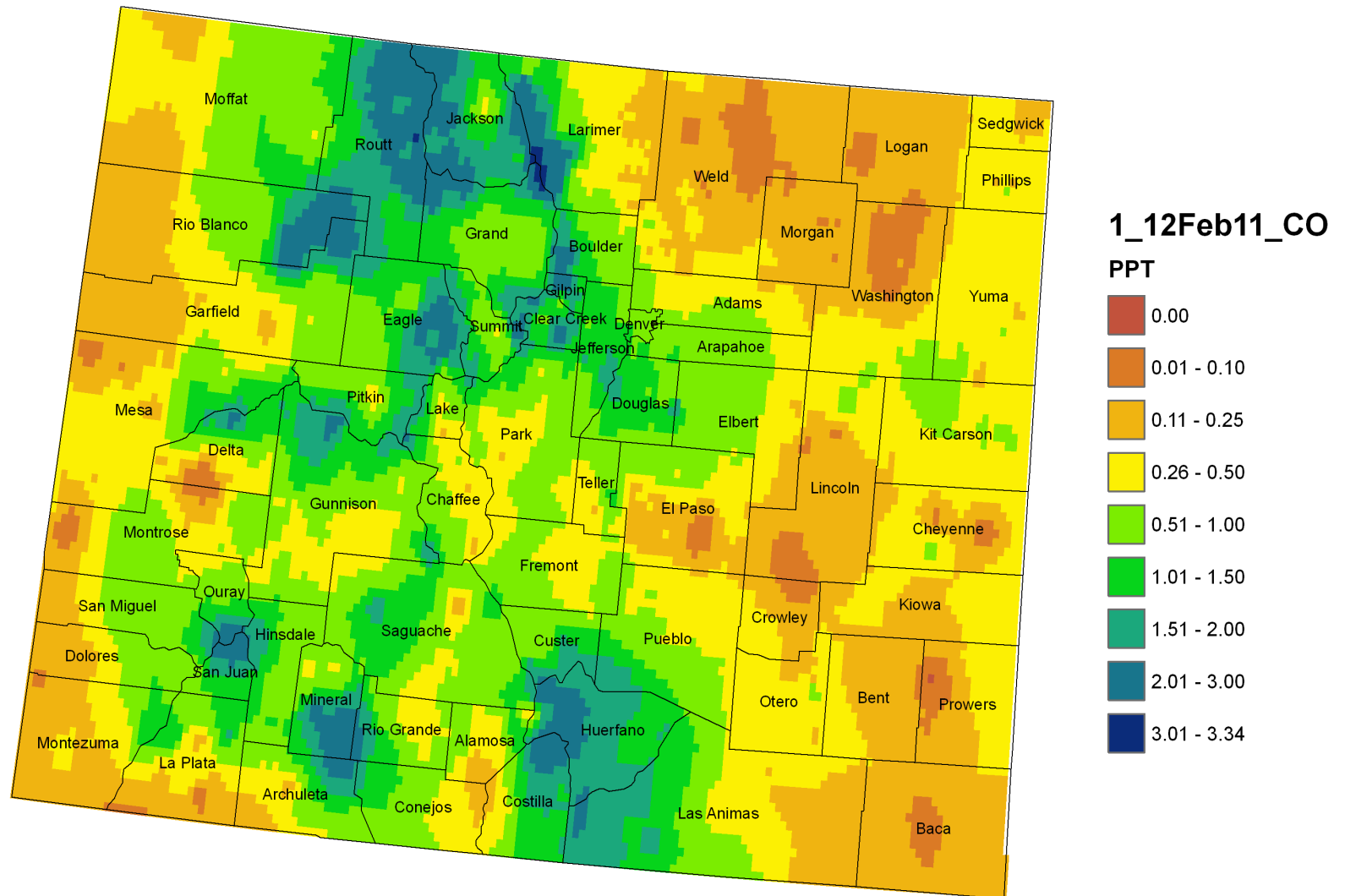
Colorado Precipitation as Percentage of Normal January 2011



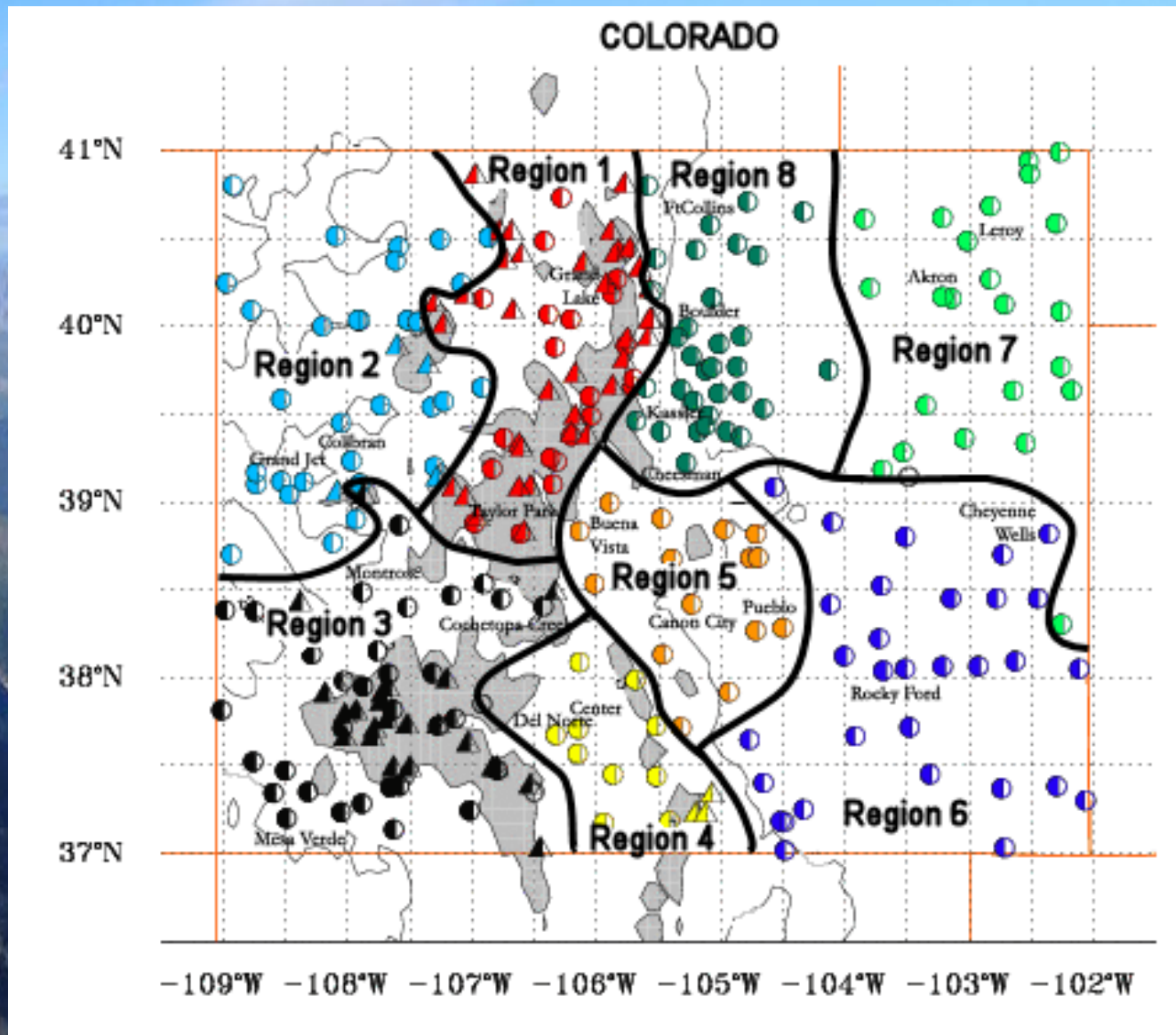
Colorado Water Year 2011 Precipitation as Percentage of Normal Oct 10 - Jan 11



Colorado Month To Date Precipitation (in) 1 - 12 February 2011

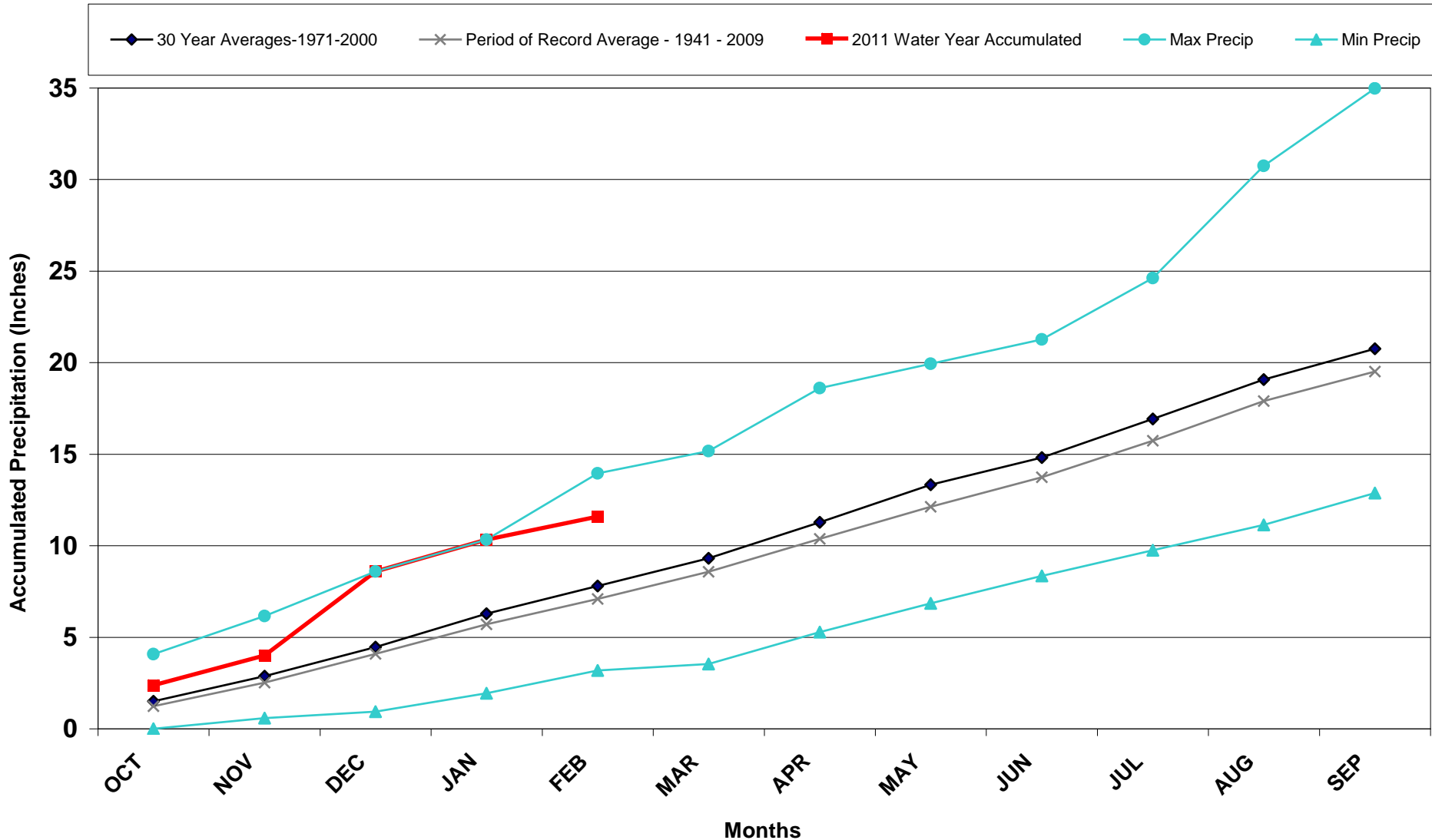


Climate divisions defined by Dr. Klaus Wolter of NOAA's Climate Diagnostic Center in Boulder, CO



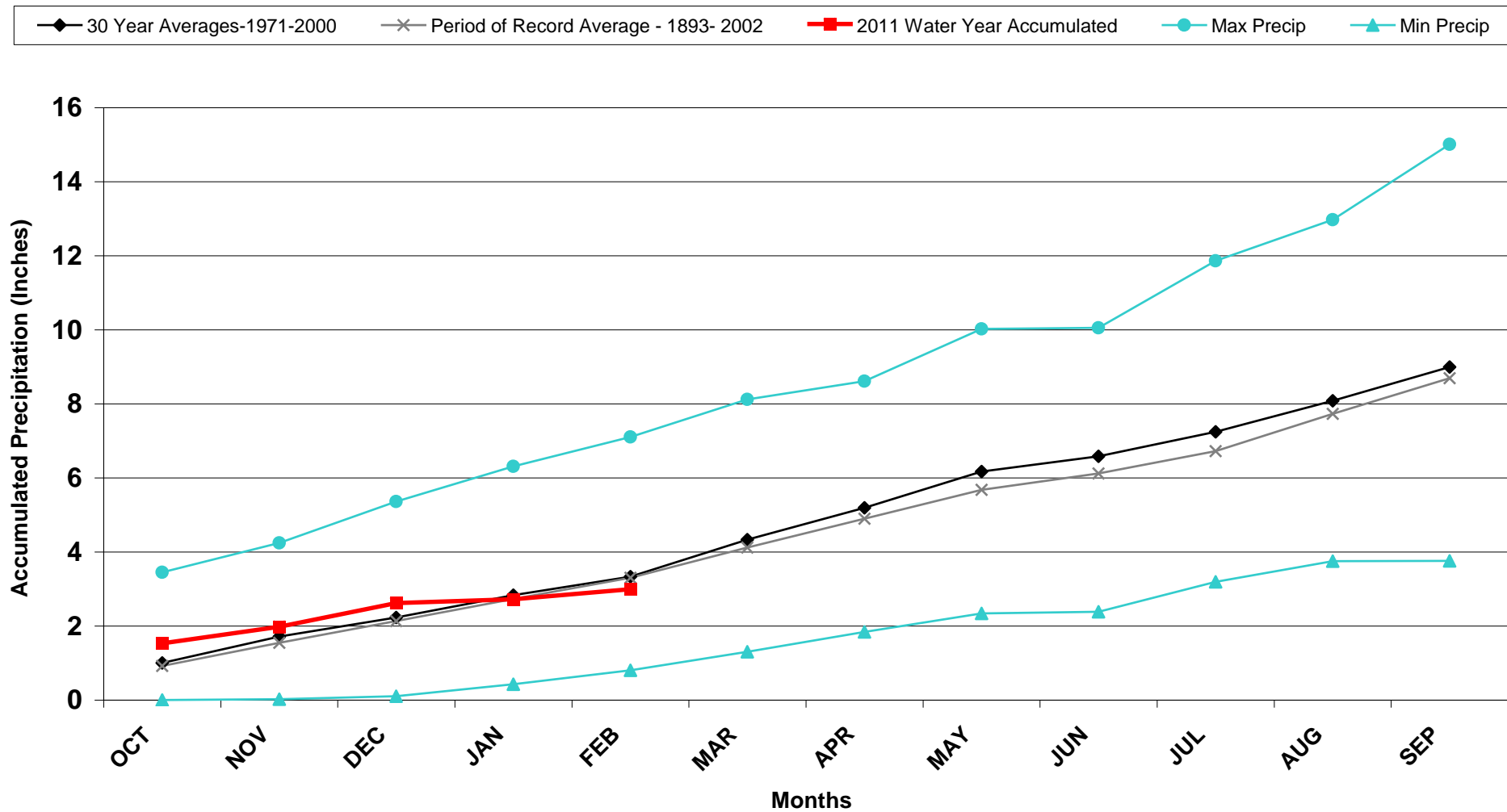
Division 1 – Grand Lake 1NW

Grand Lake 1 NW 2011 Water Year



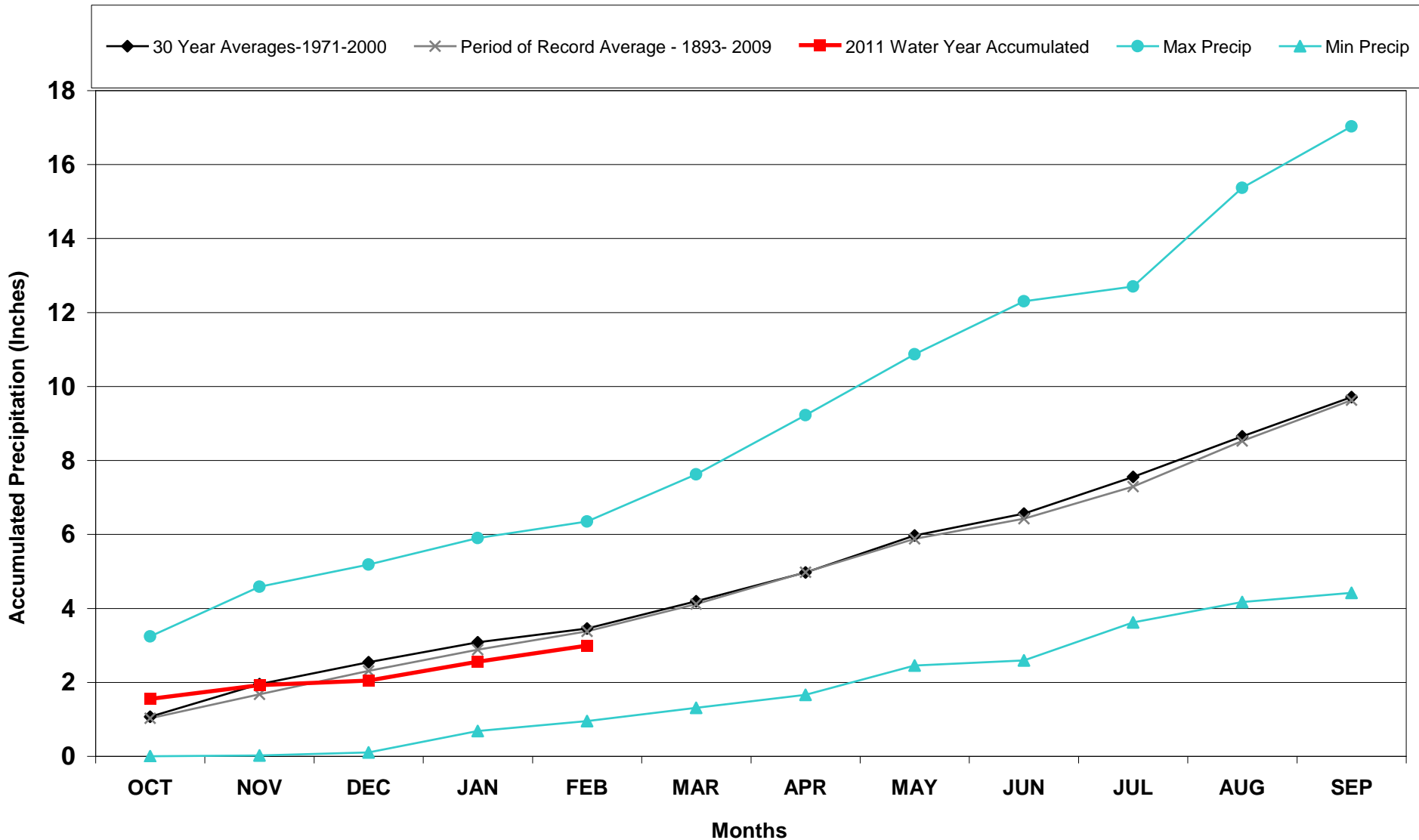
Division 2 – Grand Junction

Grand Junction WSFO 2011 Water Year



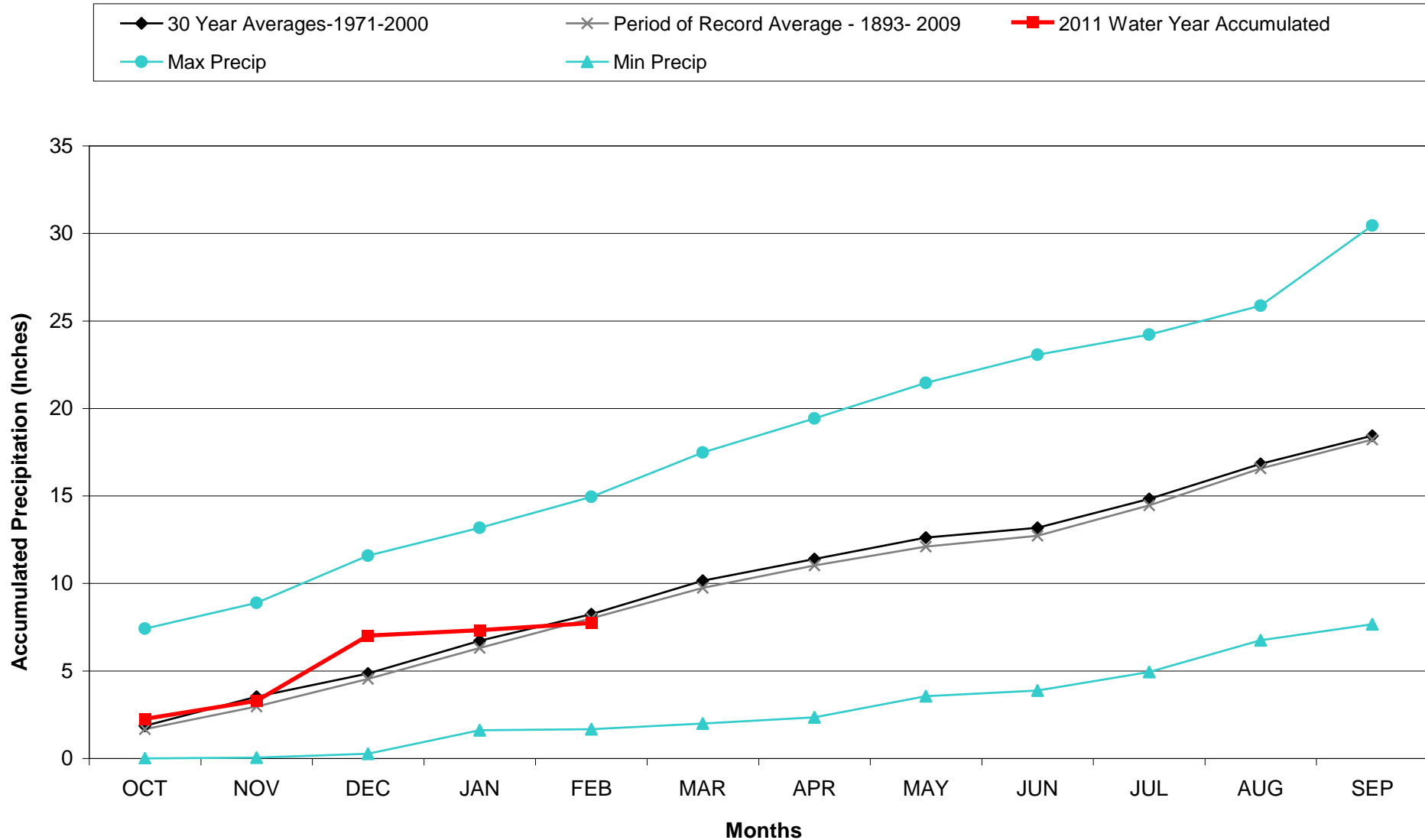
Division 3 – Montrose

Montrose #2 2011 Water Year



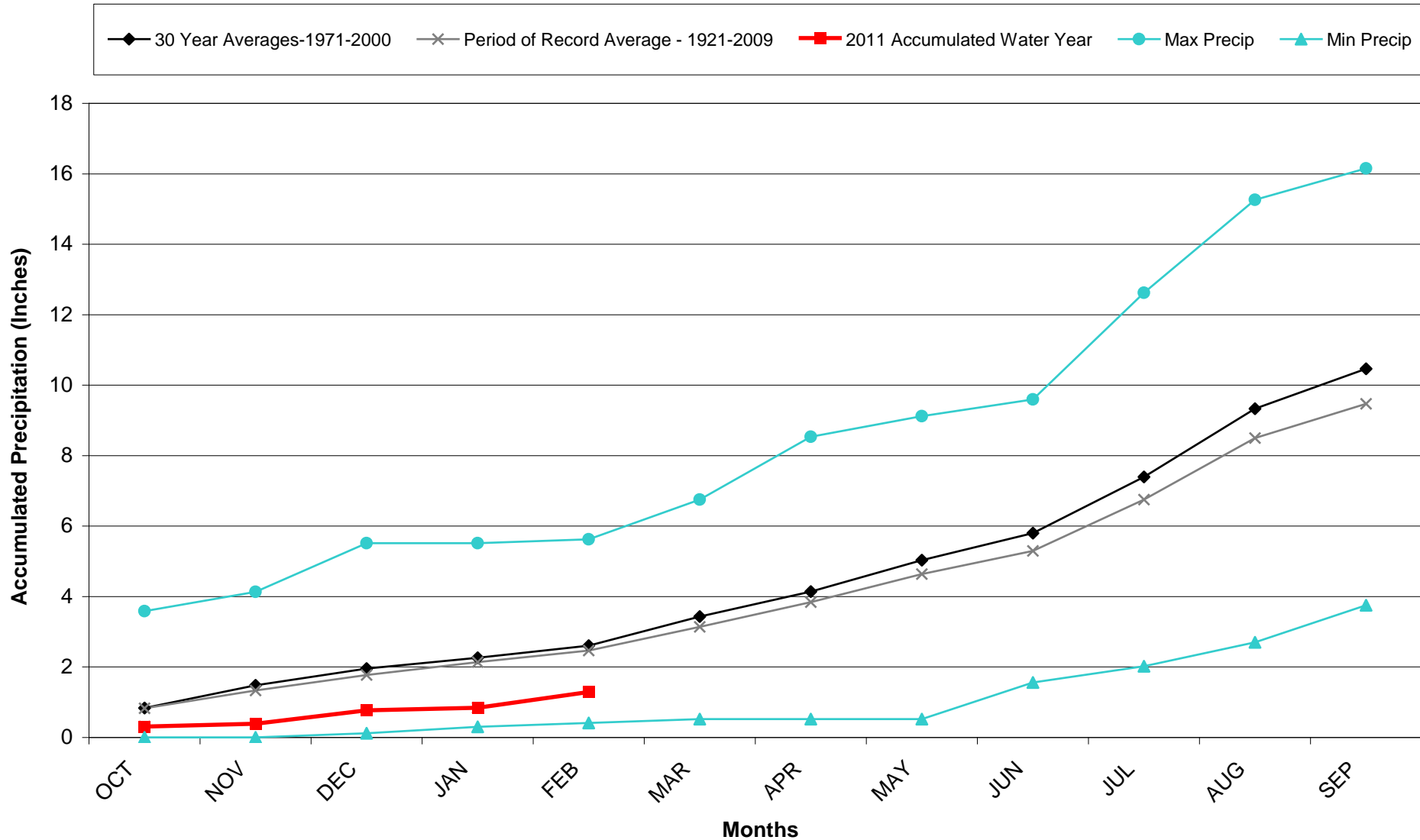
Division 3 – Mesa Verde NP

Mesa Verde NP 2011 Water Year



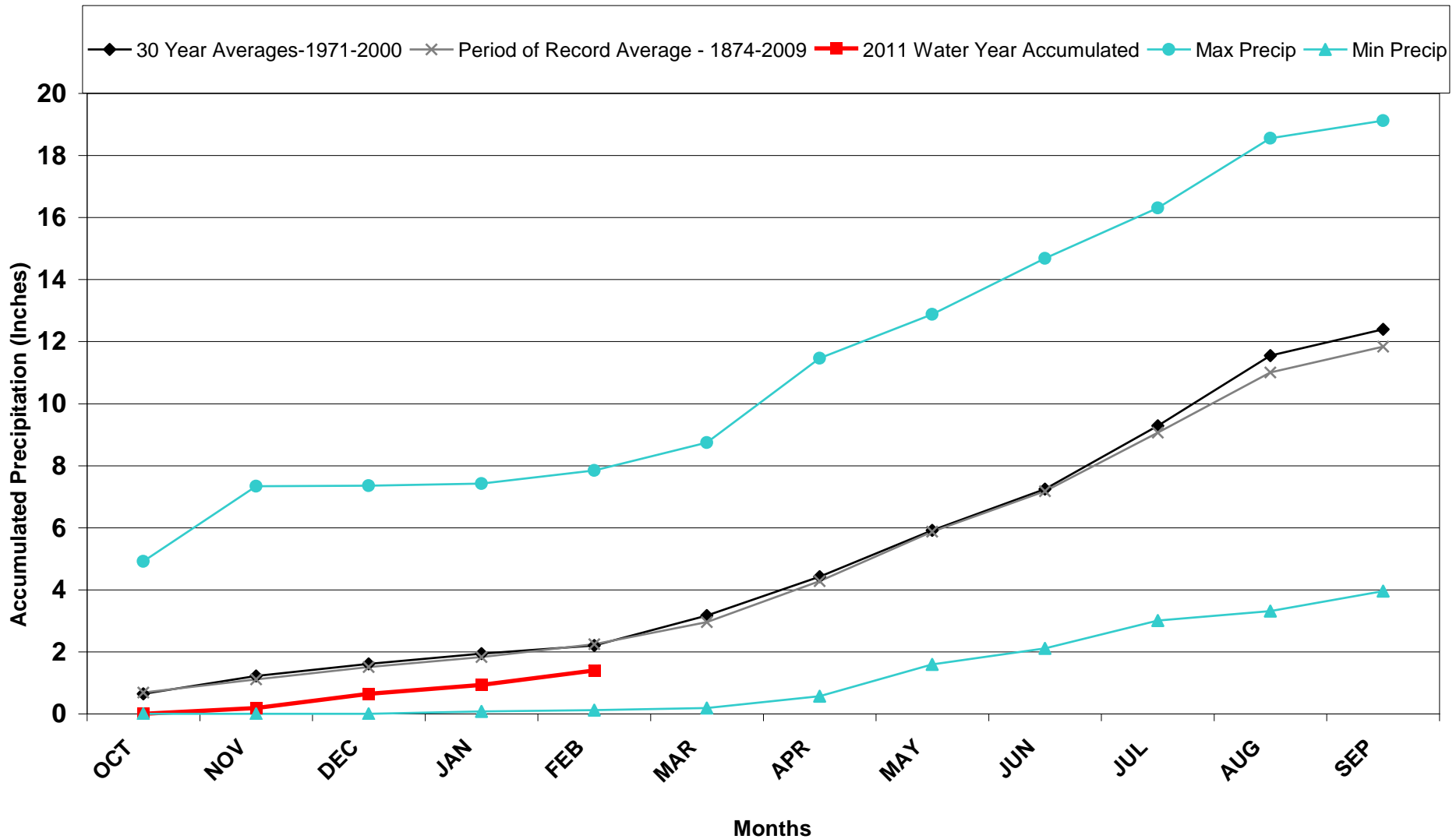
Division 4 – Del Norte

Del Norte 2011 Water Year



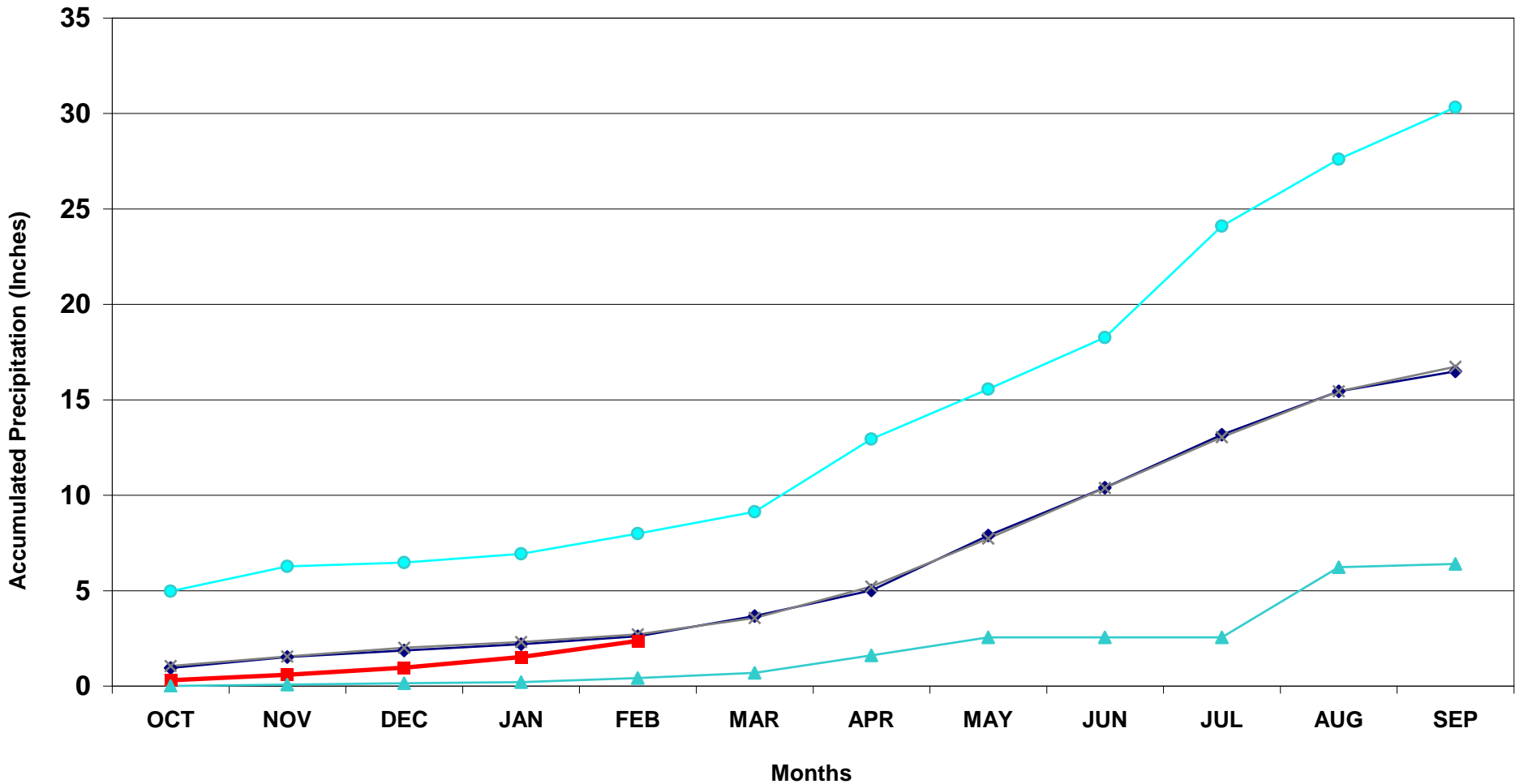
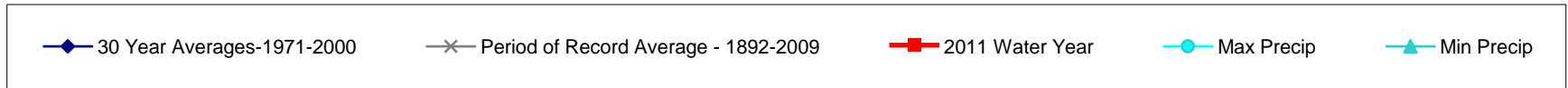
Division 5 – Pueblo

Pueblo WSO 2011 Water Year



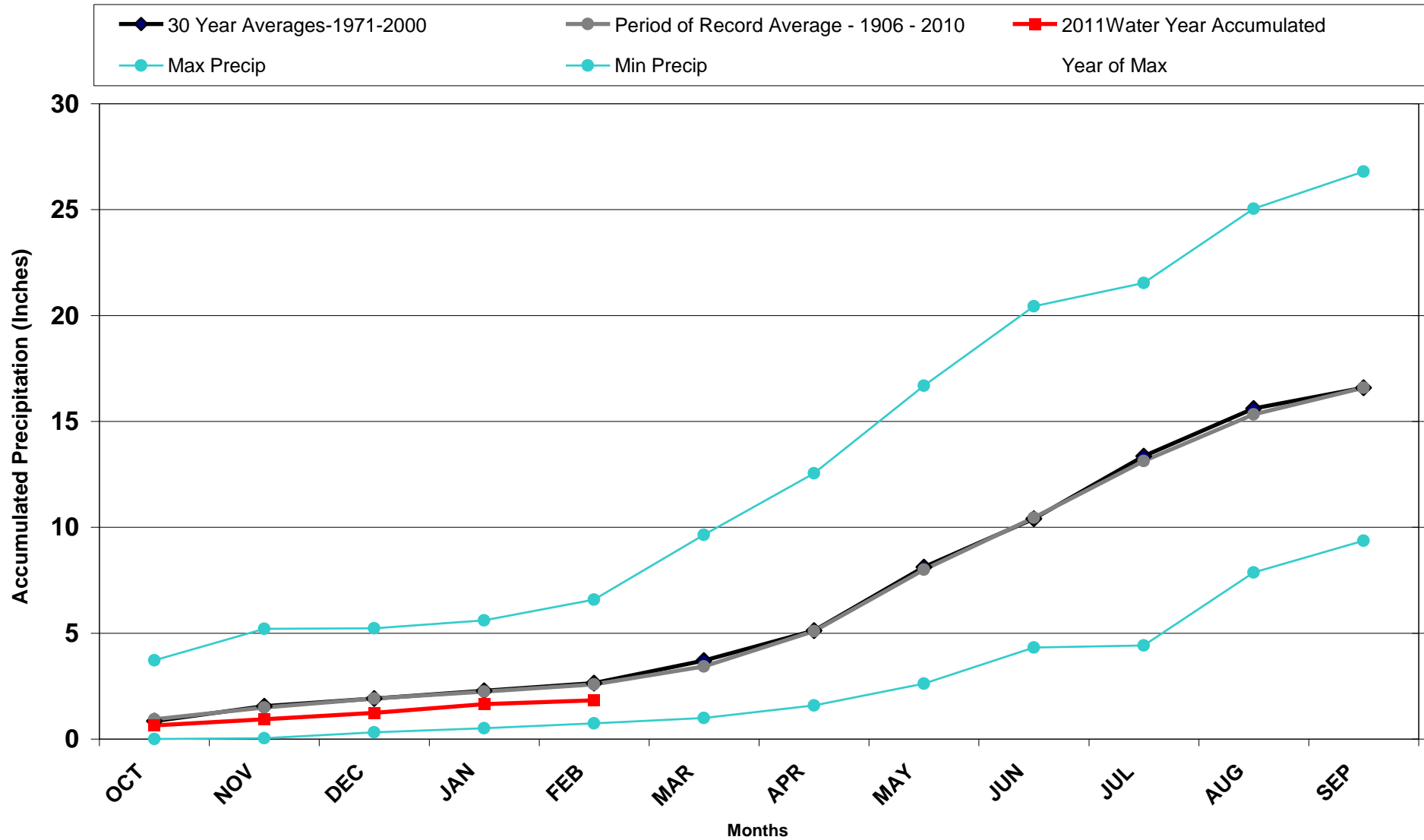
Division 6 - Burlington

Burlington 2011 Water Year



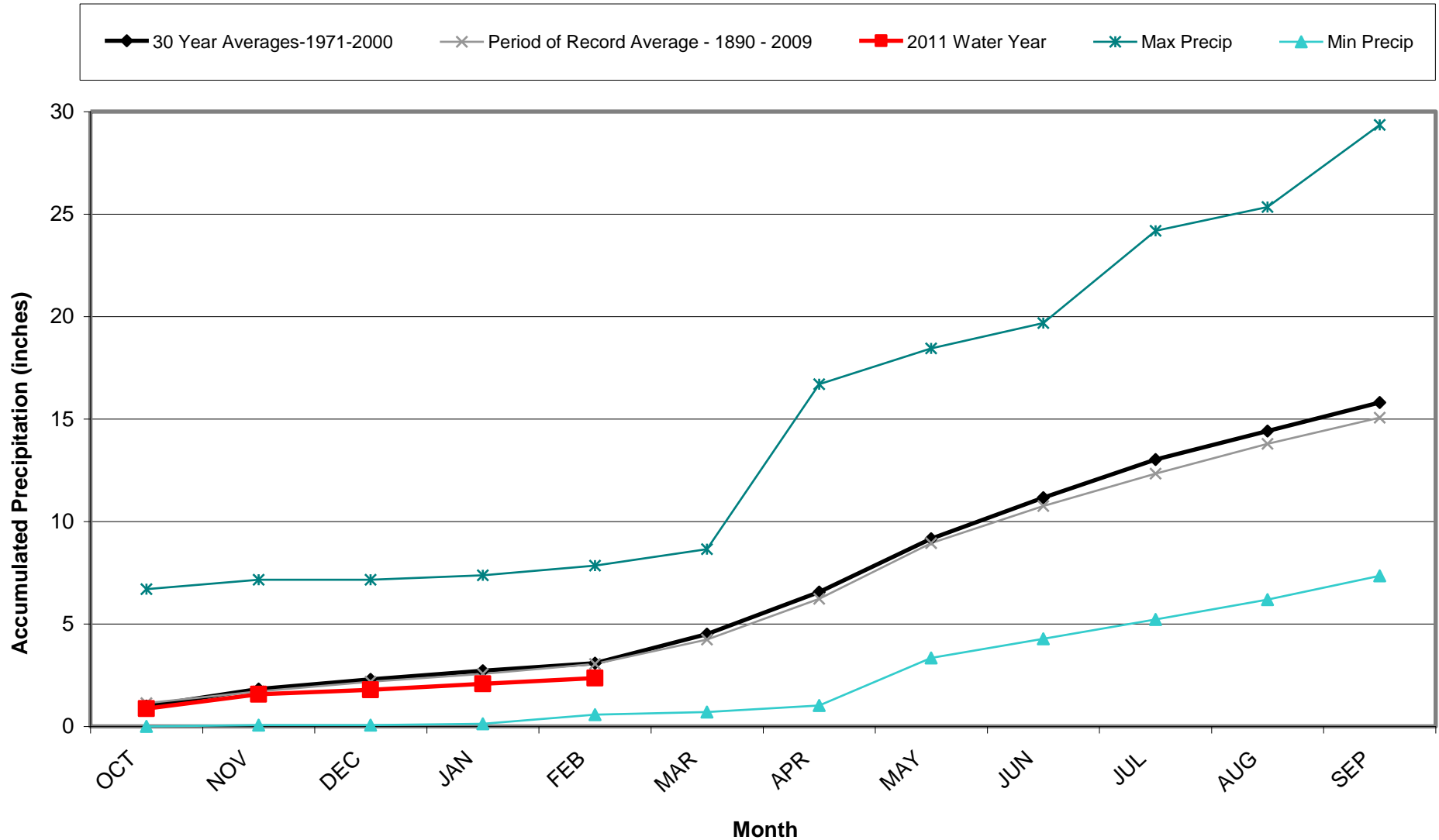
Division 7 – Akron

Akron 4E 2011 Water Year



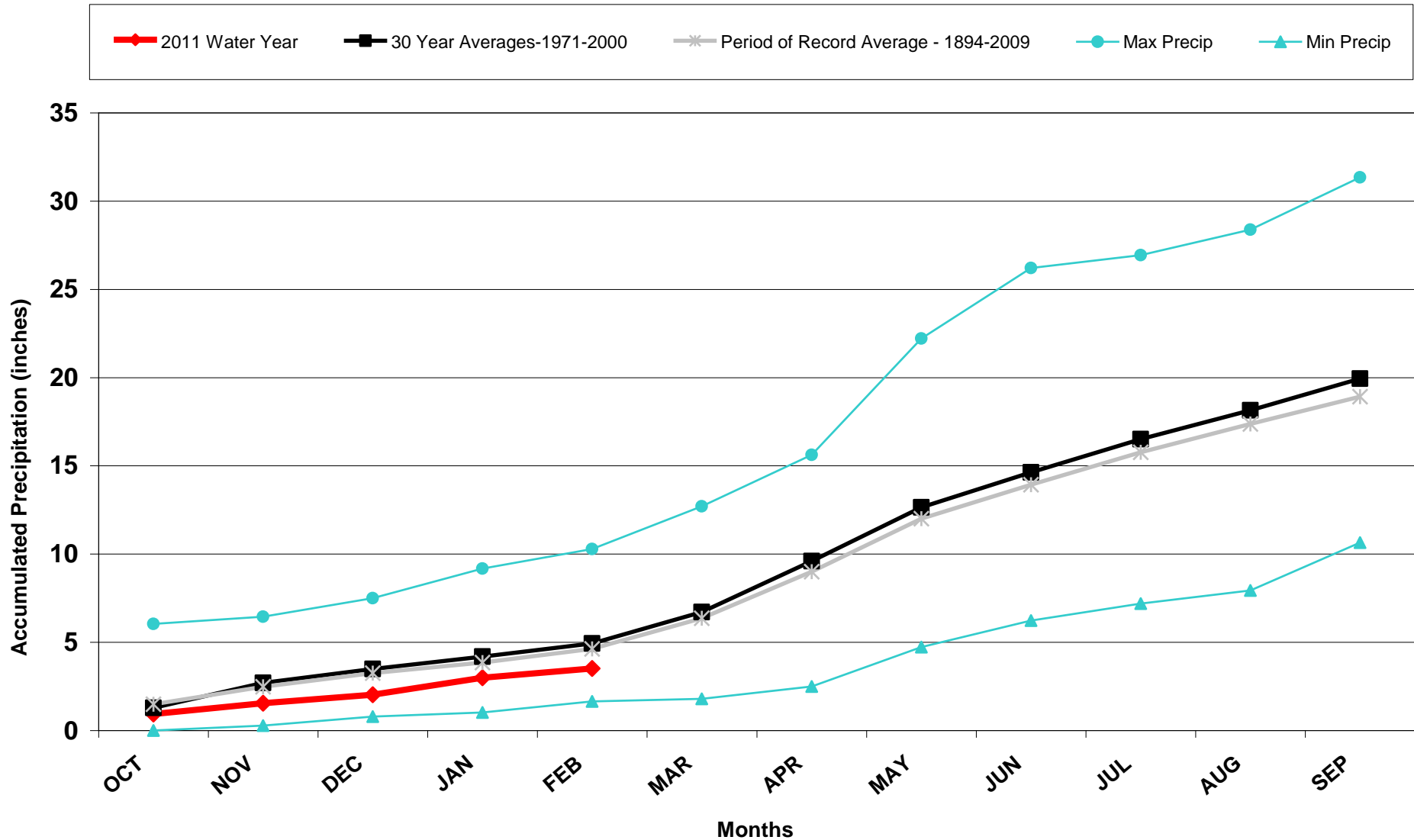
Division 8 – Fort Collins

Fort Collins 2011 Water Year



Division 8 - Boulder

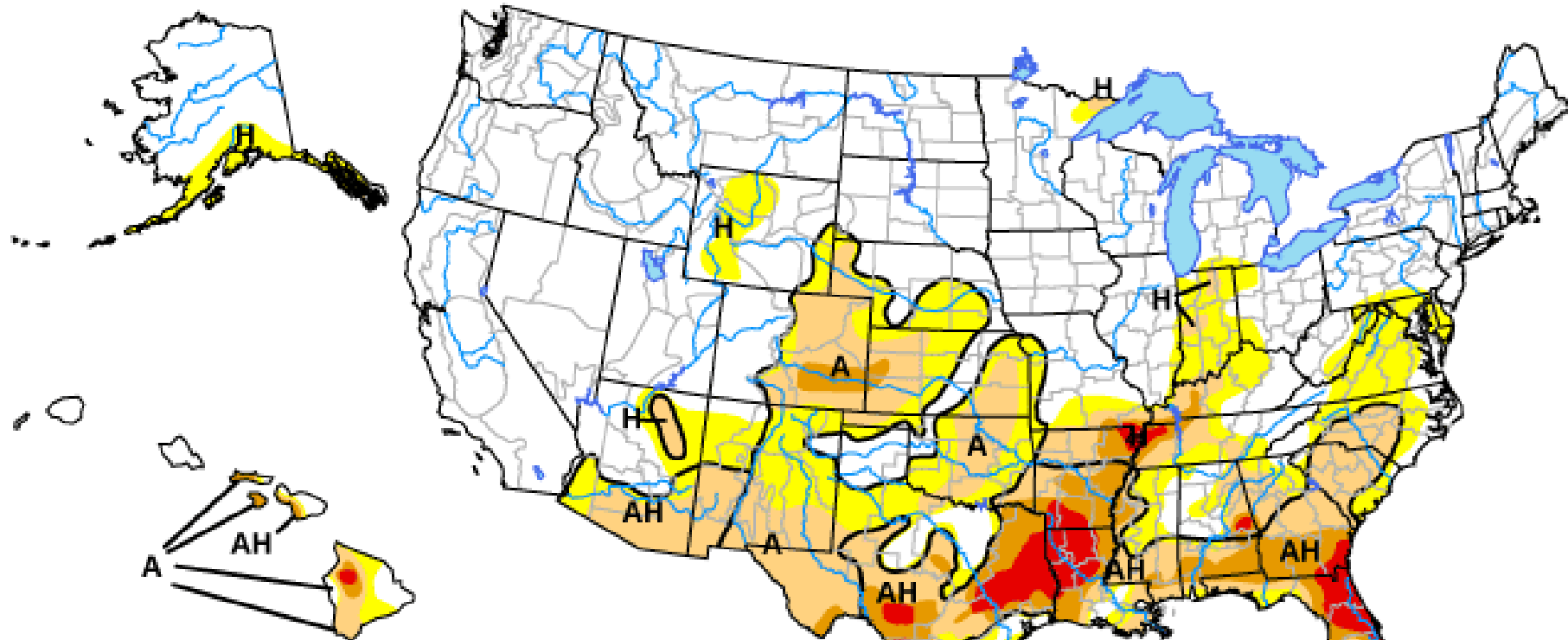
Boulder 2011 Water Year








U.S. Drought Monitor

January 11, 2011

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
- 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>

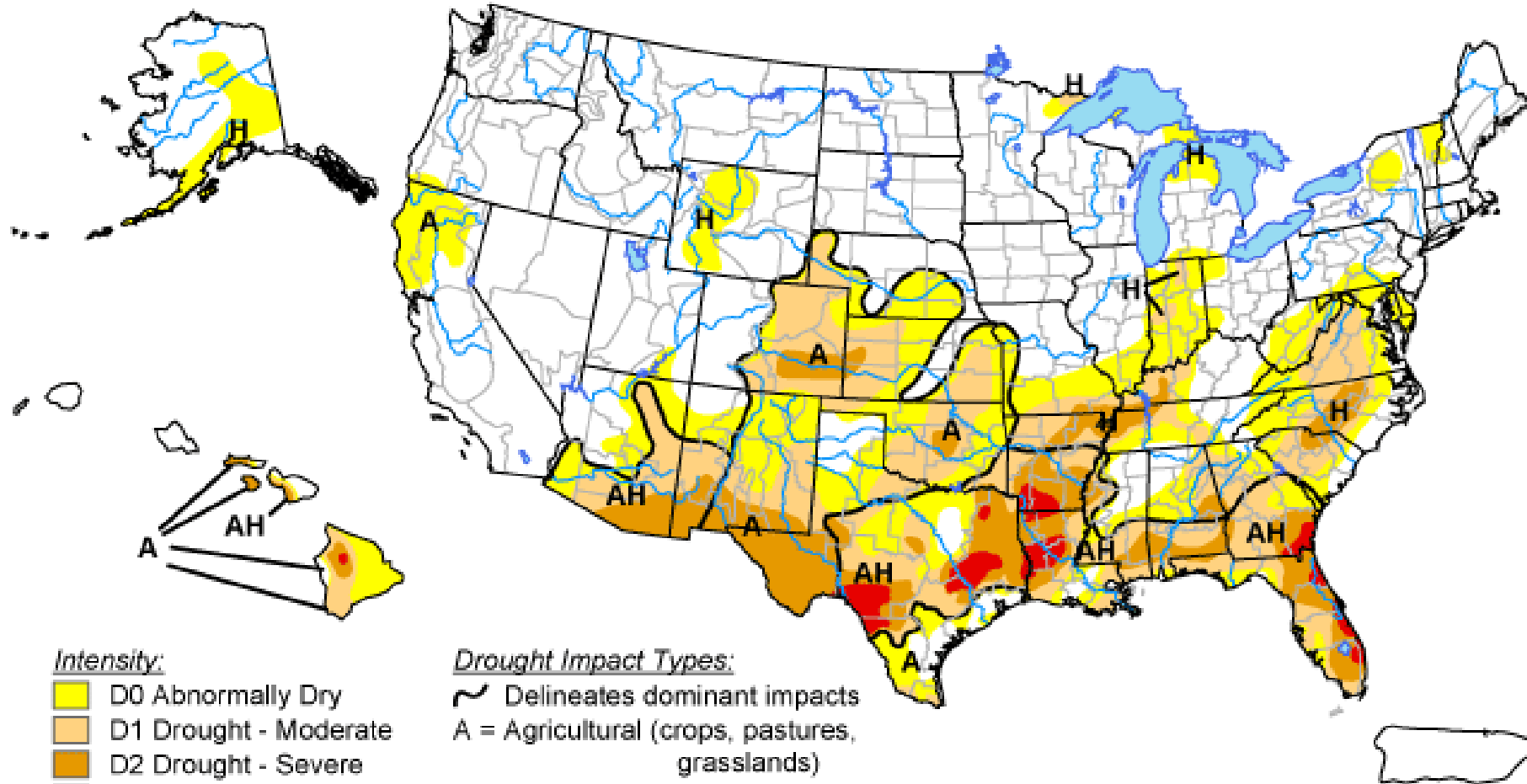
Released Thursday, January 13, 2011

Author: Brian Fuchs, National Drought Mitigation Center






U.S. Drought Monitor

February 8, 2011


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
- 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>



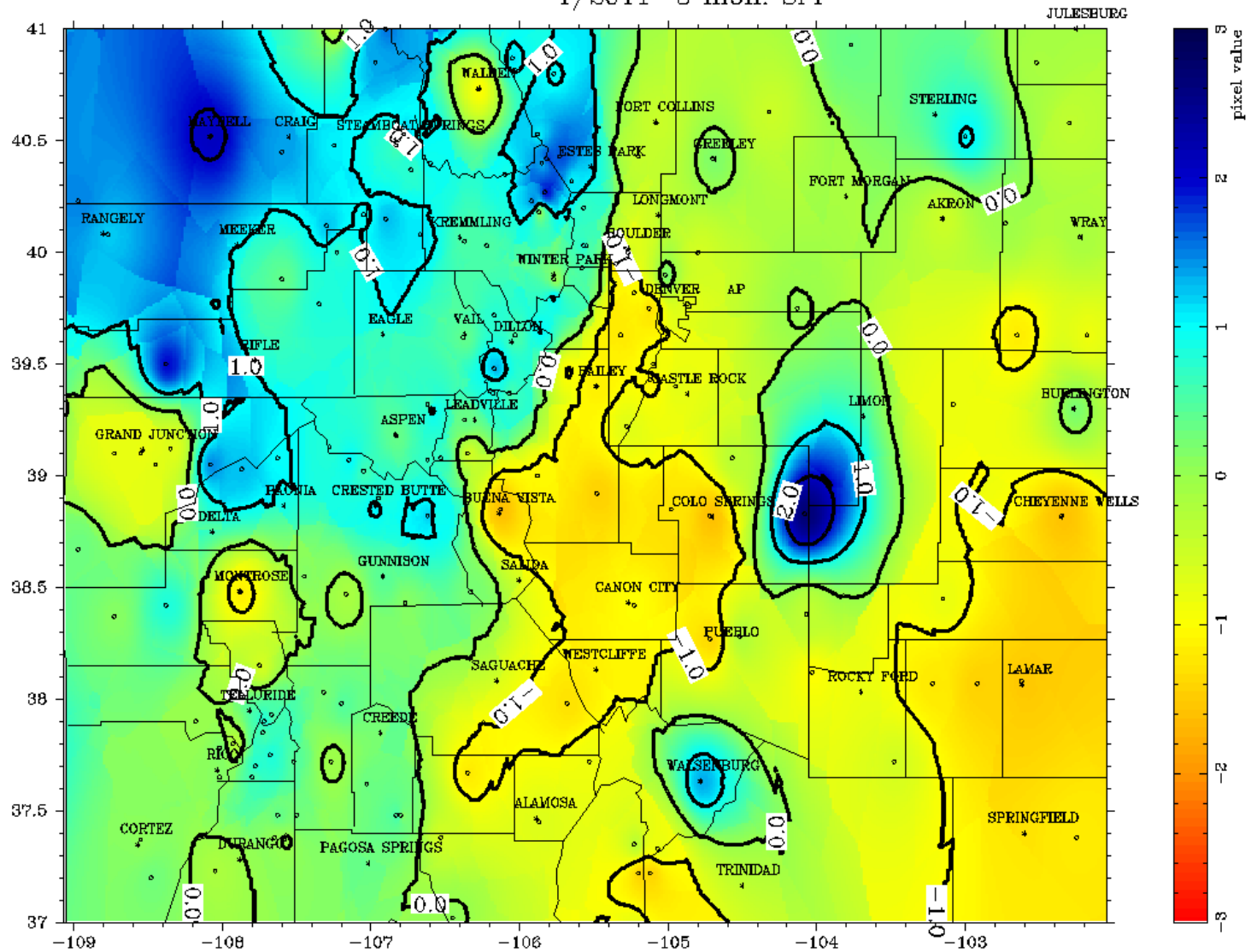
Released Thursday, February 10, 2011

Author: Matthew Rosencrans, NOAA/NWS/NCEP/CPC

3 Month SPI

Colorado

1/2011 3 mon. SPI



100 % < 2.0	15 % < -1.0
87 % < 1.0	0 % < -2.0
52 % < 0.0	0 % < -3.0

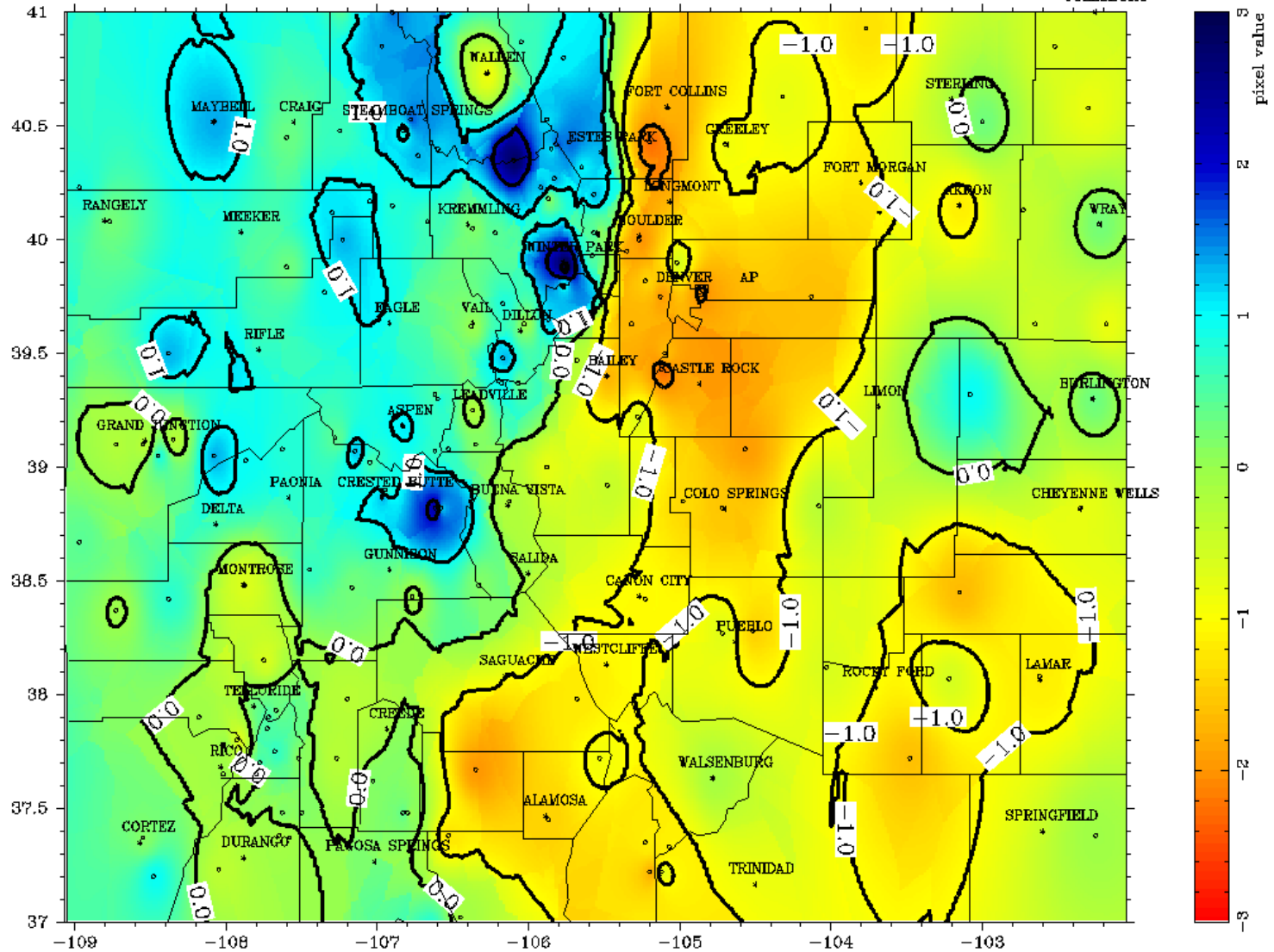
Produced by:
Colorado Climate Center
Fort Collins, CO

6 Month SPI

Colorado

1/2011 6 mon. SPI

JULESBURG



100 % < 2.0 24 % < -1.0
93 % < 1.0 0 % < -2.0
60 % < 0.0 0 % < -3.0

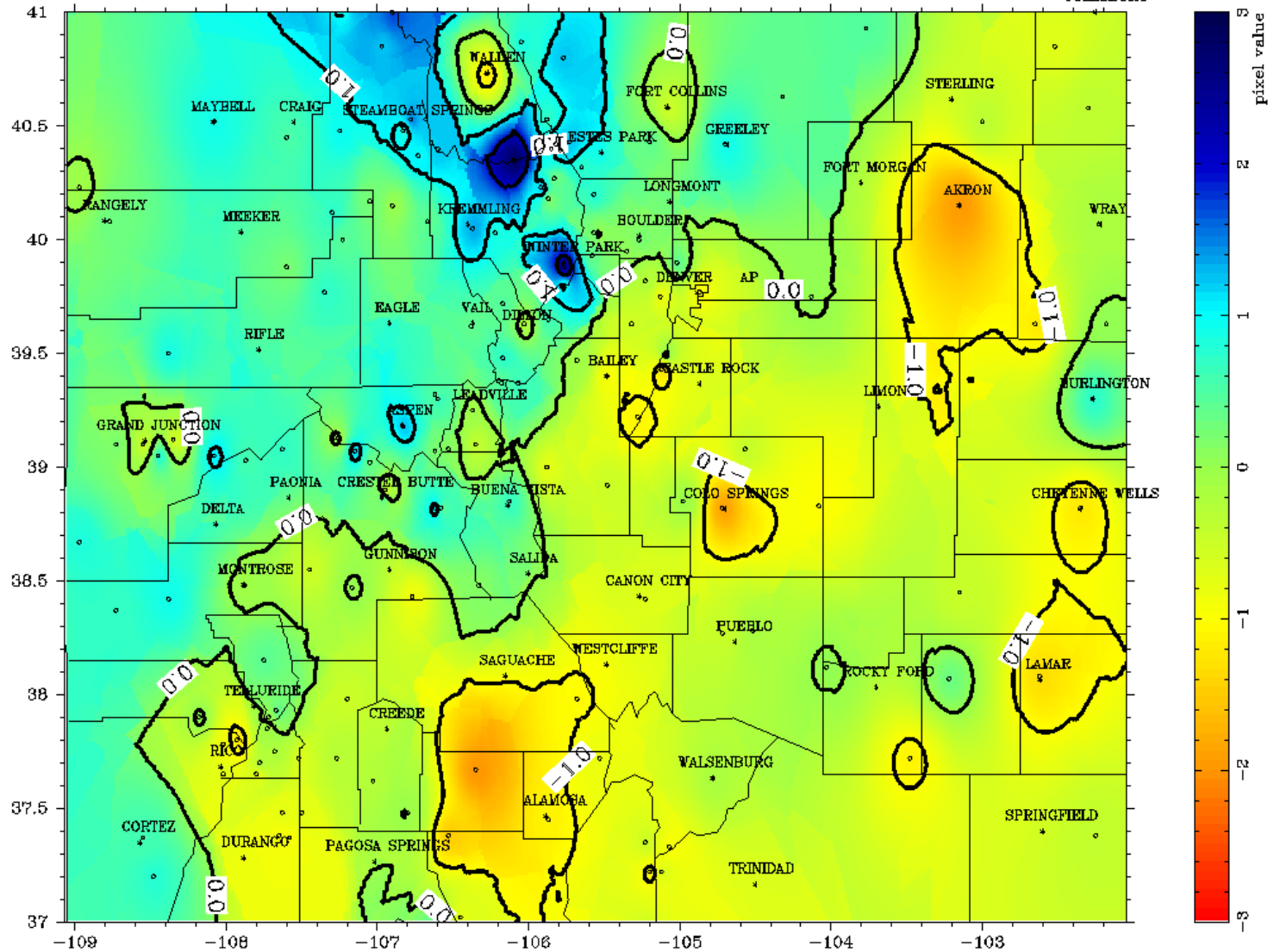
Produced by:
Colorado Climate Center
Fort Collins, CO

12 Month SPI

Colorado

1/2011 12 mon. SPI

JULESBURG

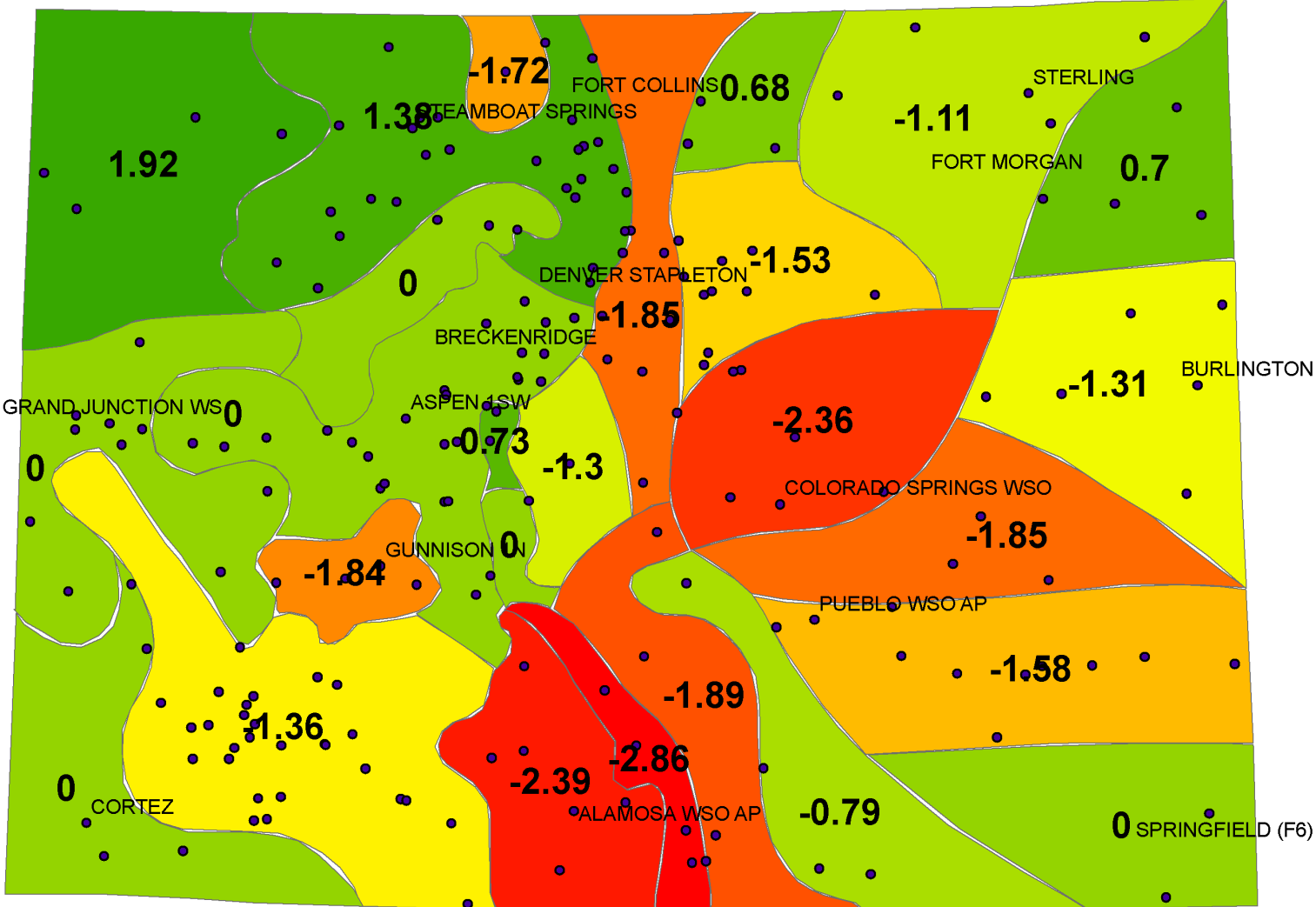


100 % < 2.0
96 % < 1.0
58 % < 0.0

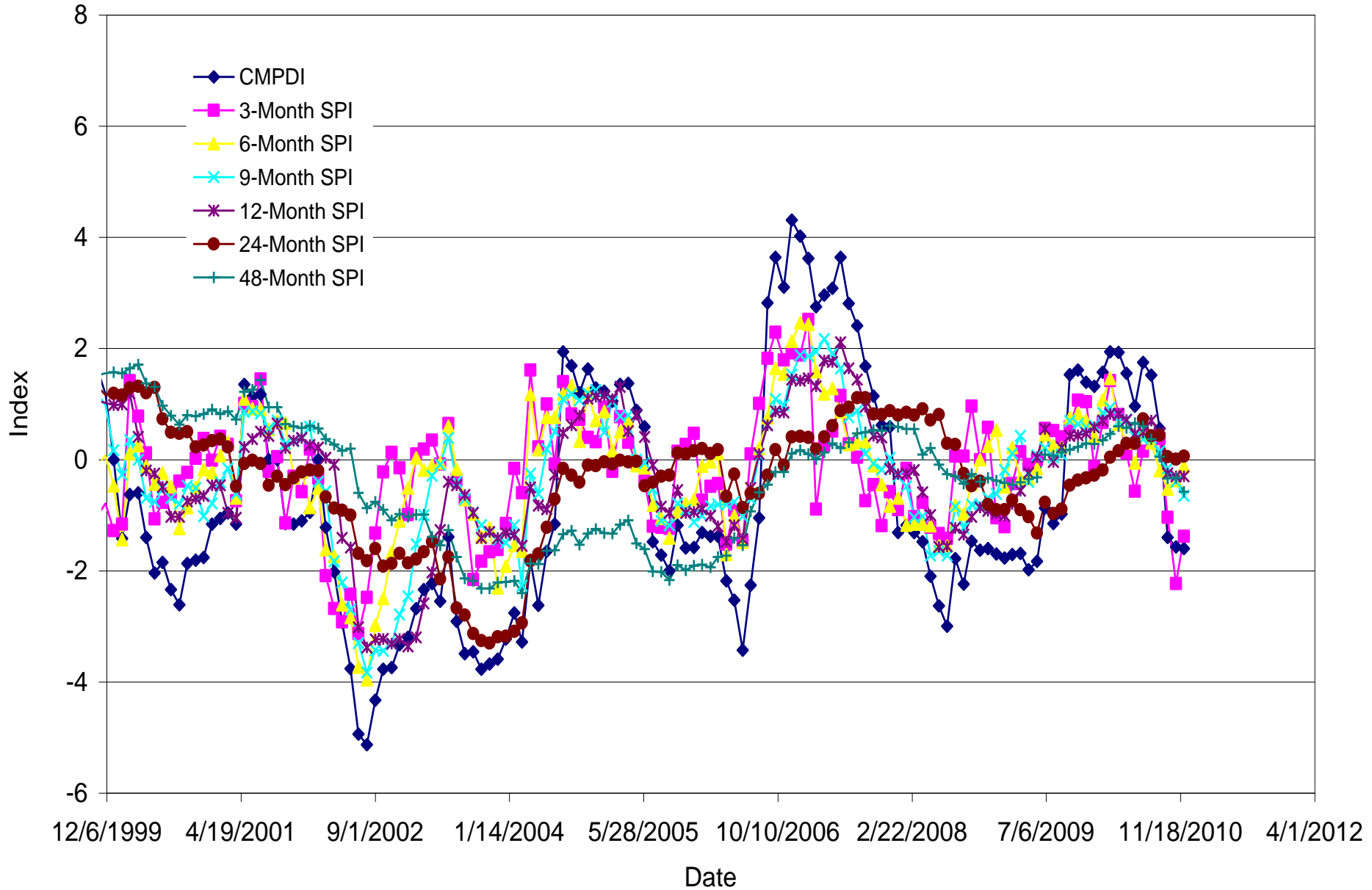
8 % < -1.0
0 % < -2.0
0 % < -3.0

Produced by:
Colorado Climate Center
Fort Collins, CO

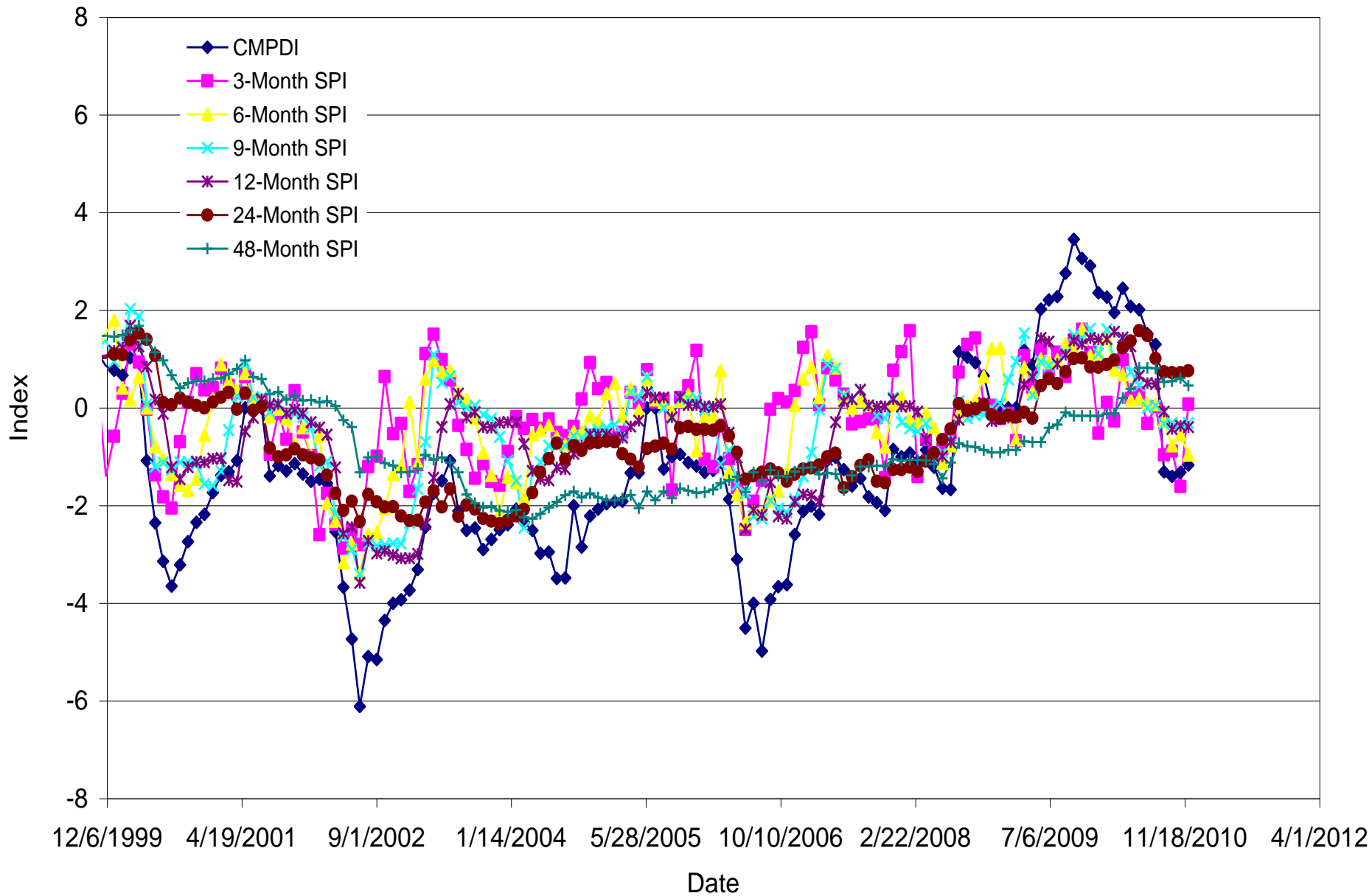
Modified Palmer Drought Severity Index for Colorado January 2011



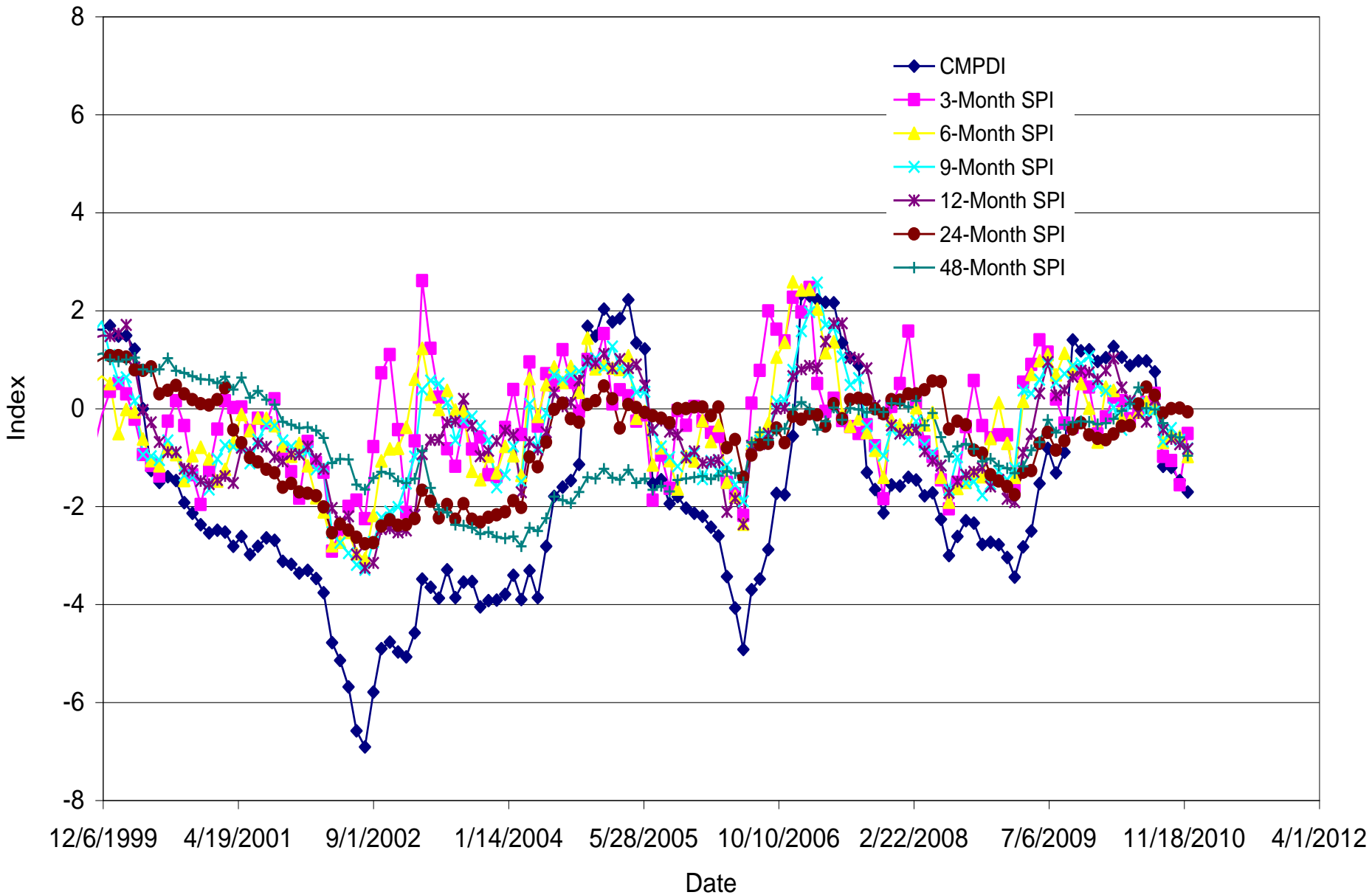
Region 2: Arkansas Drainage - Valley Bottom Drought Indices Time Series



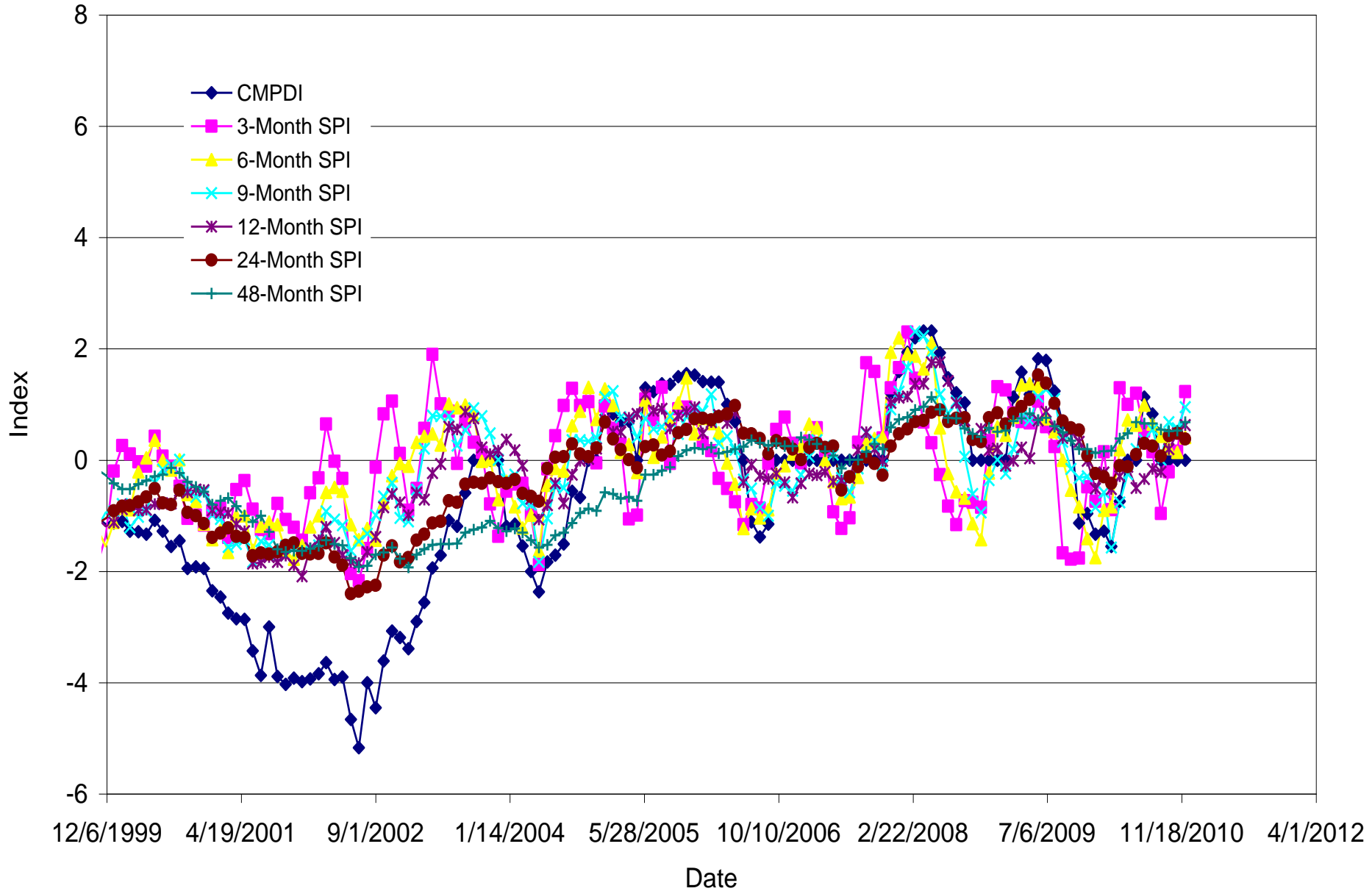
Region 10: Platte Drainage - Lower Plains Drought Indices Time Series



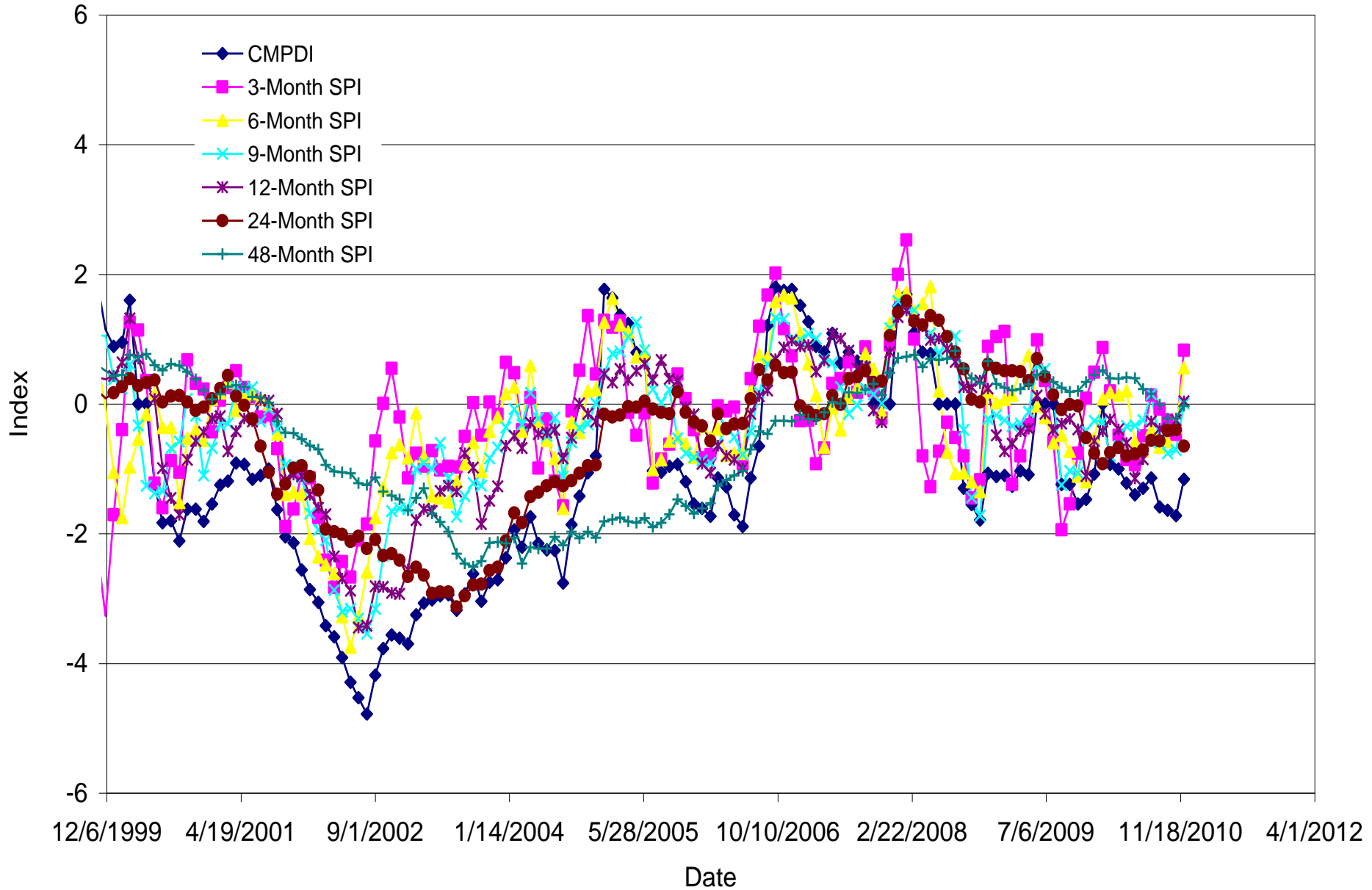
Region 14: Platte Drainage - Front Range Foothills Drought Indices Time Series



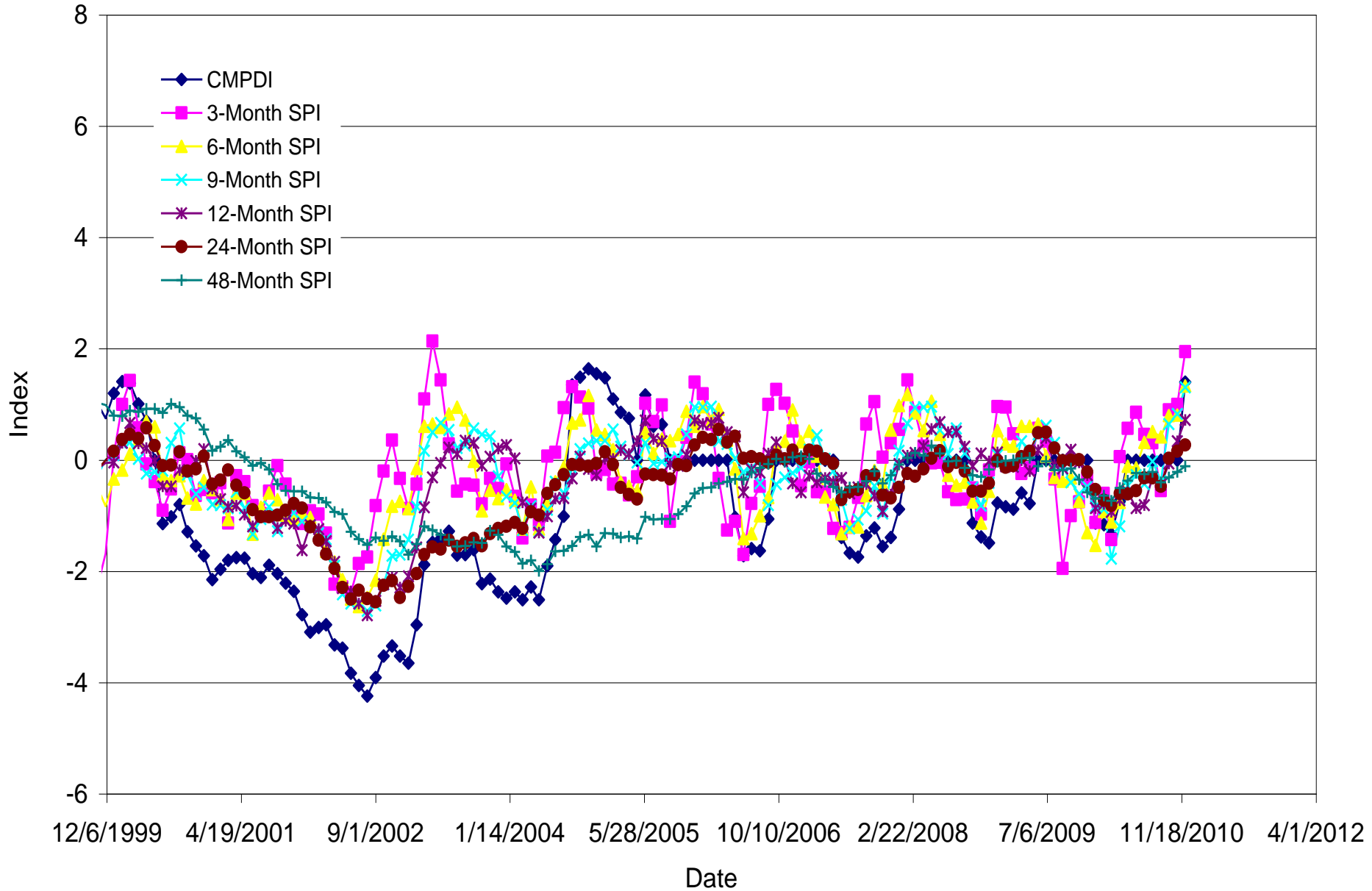
Region 22: Colorado Drainage-Upper Valley Drought Indices Time Series



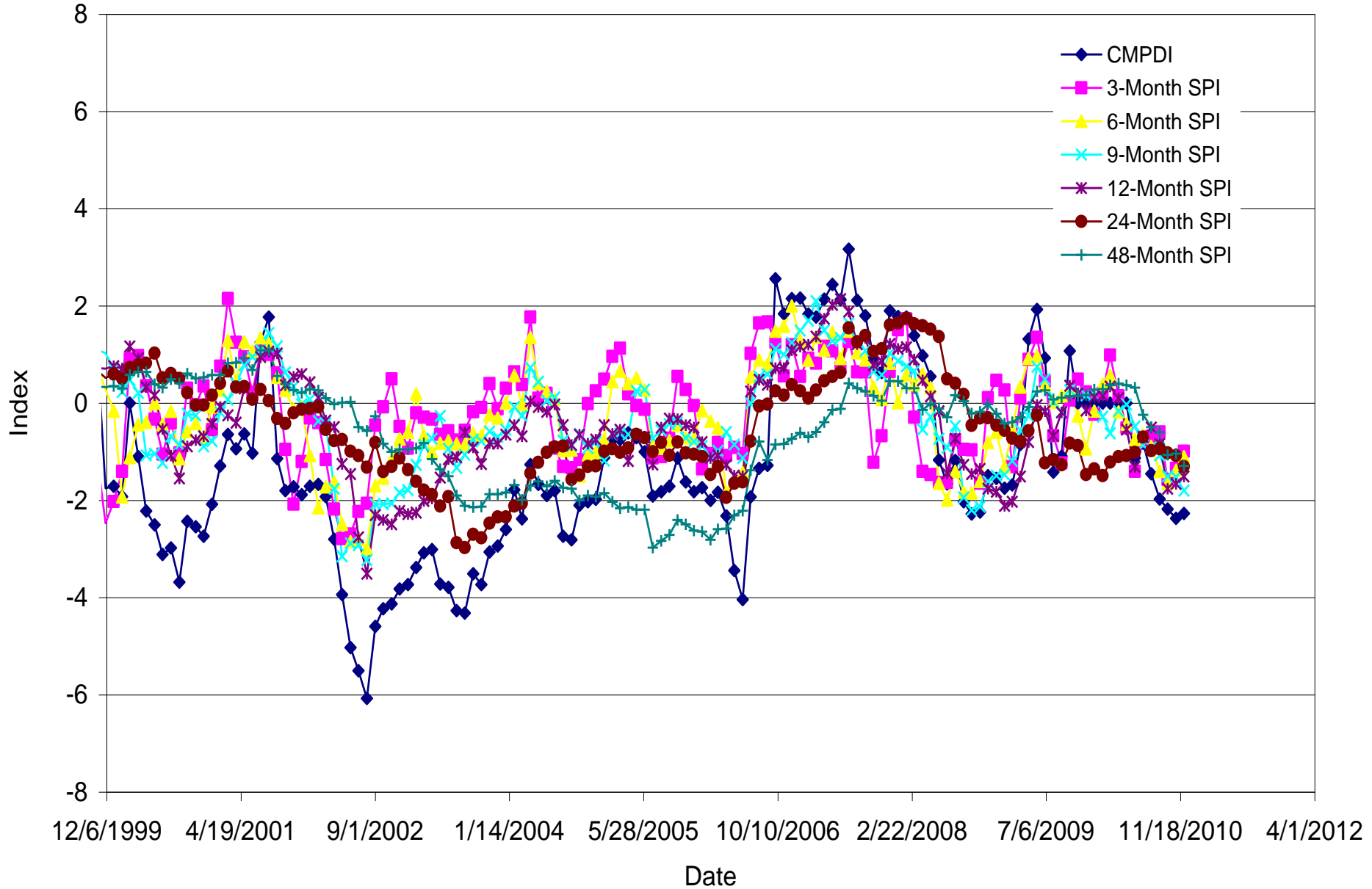
Region 23: Colorado Drainage - San Juans Drought Indices Time Series



Region 25: Northern Mountains Drought Indices Time Series



Region 17: Rio Grande Drainage: San Luis Valley



Colorado Climate Center



Data and Power Point Presentations available for downloading

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