

Climate Update

**Nolan Doesken
State Climatologist
Colorado Climate Center**

**Atmospheric Science Department
Colorado State University**

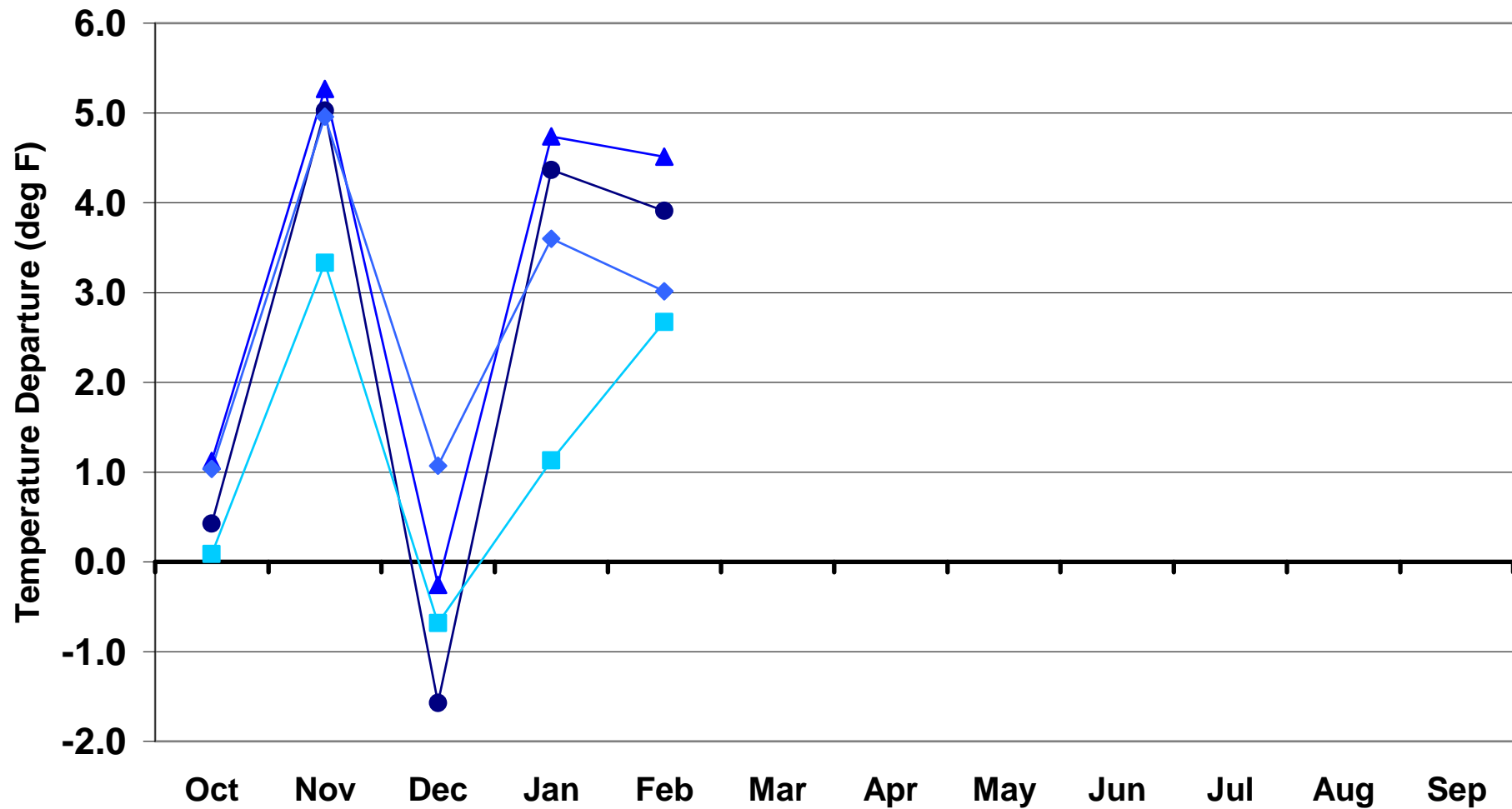
**Presented to
Water Availability Task Force
March 20, 2009
Denver, CO**

Prepared by Wendy Ryan



Water Year 2009 Temperature Departures

Water Year 2009



● Eastern Plains

▲ Foothills

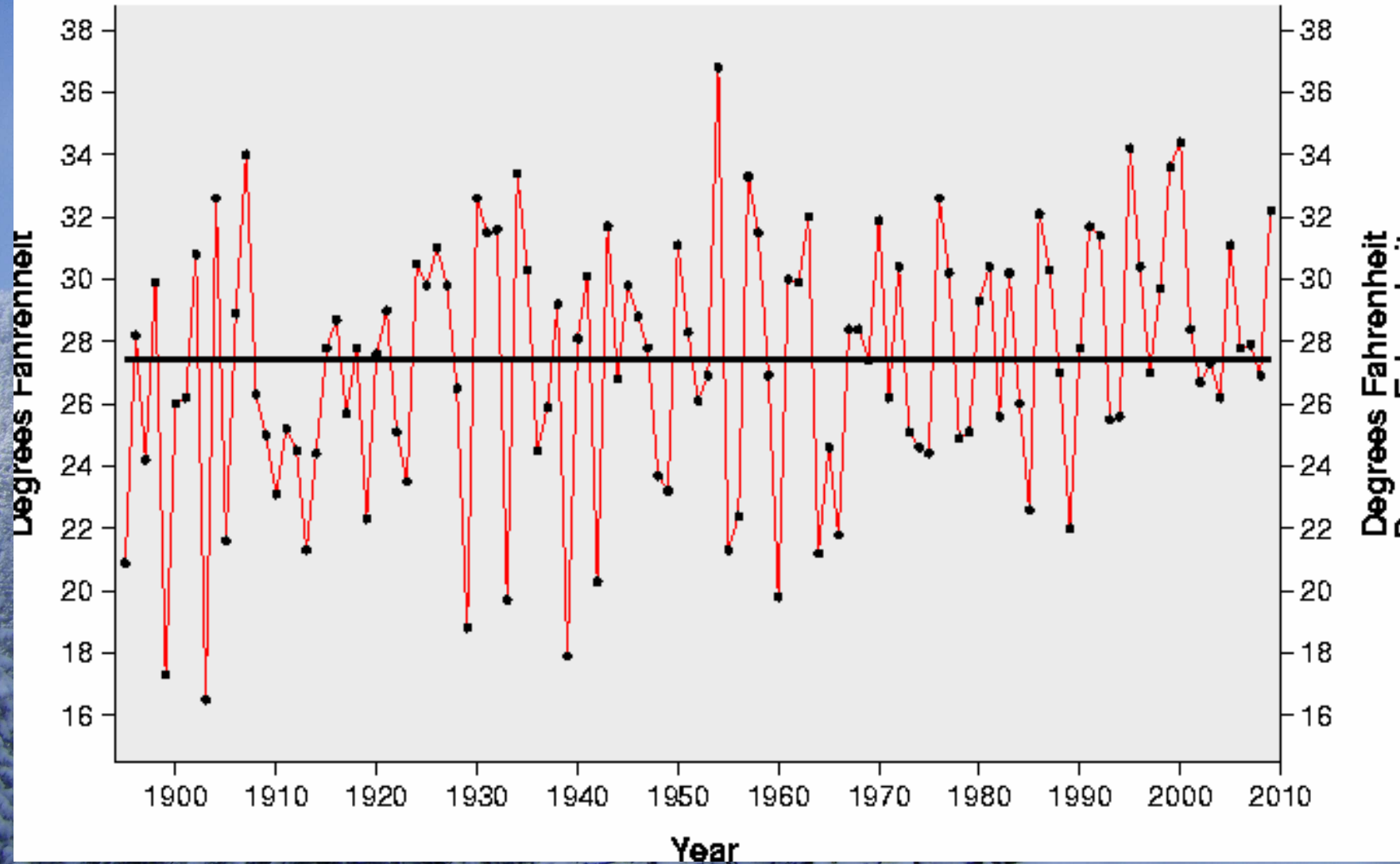
◆ Mountains

■ Western Valleys

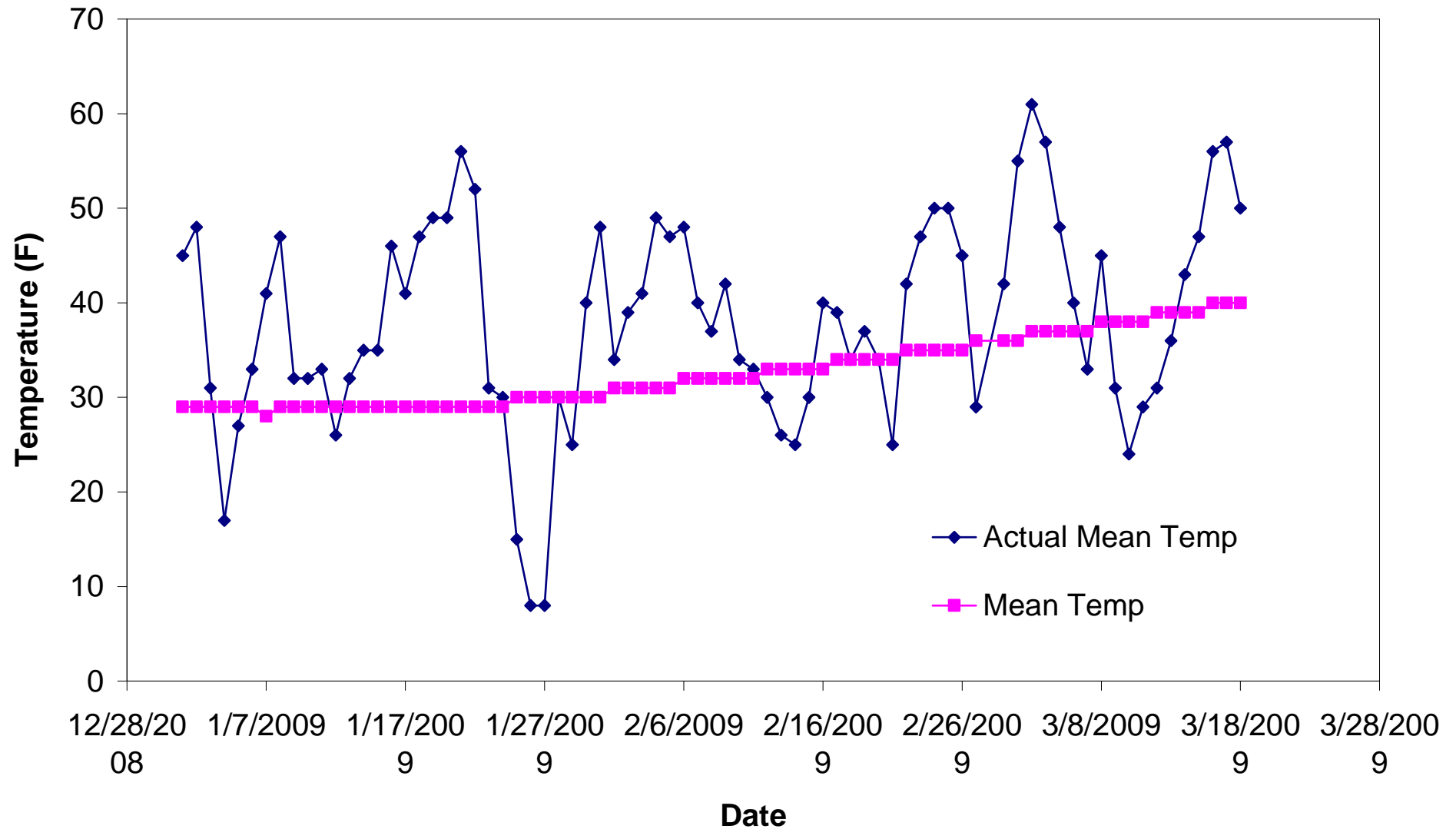
February Average Temperature History for Colorado (NCDC)

— Actual Temperature
— Average Temperature

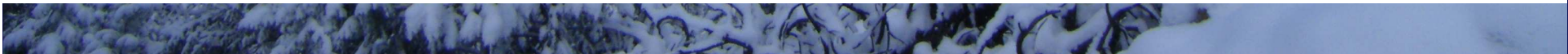
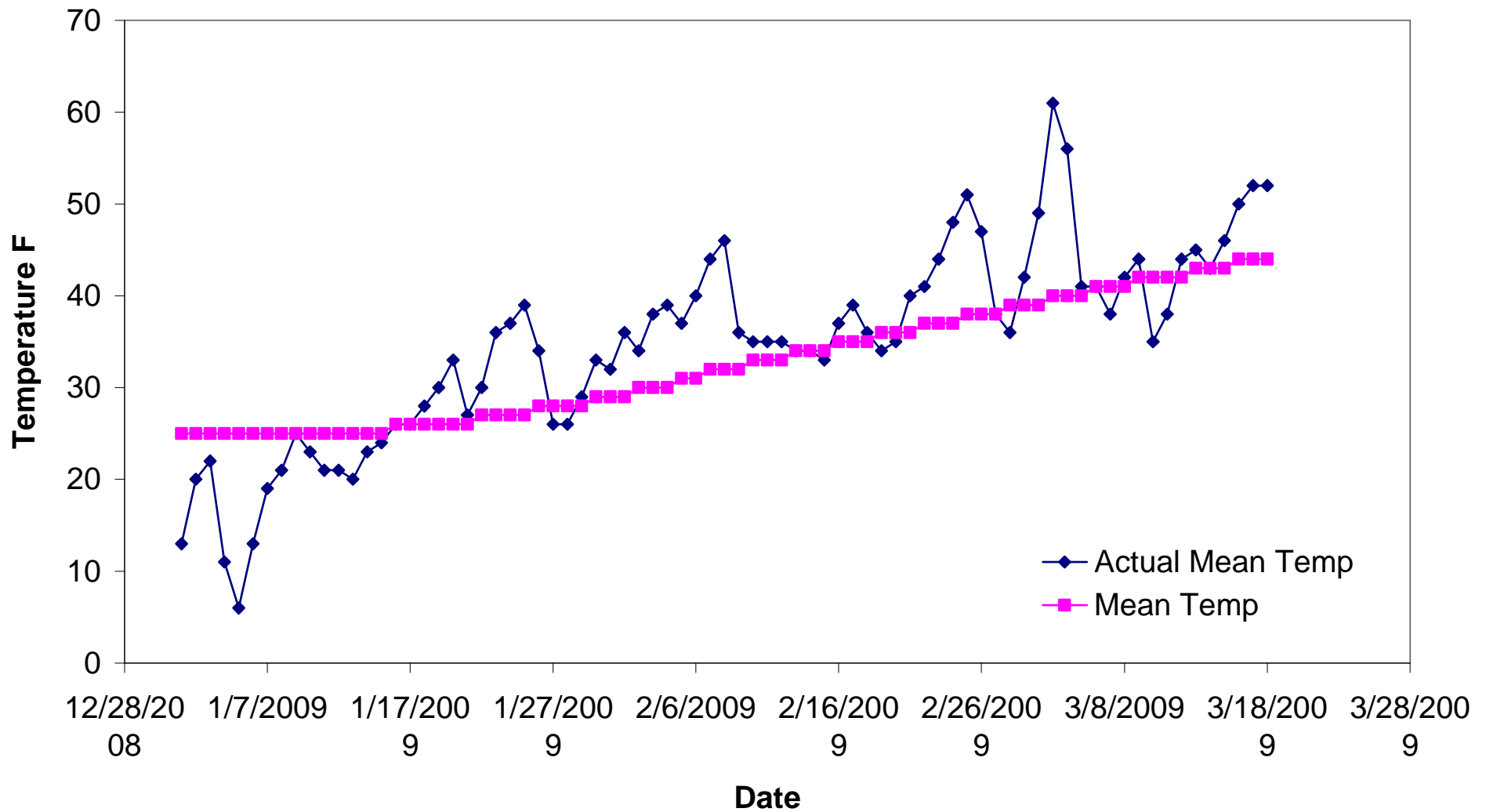
Rank: 27.2 degrees is 105th coolest for period of record 1895-2009



Denver, CO Jan 1 - Mar 18 2009 Mean and Actual Daily Temperature



Grand Junction Jan 1 - Mar 18 2009 Mean and Actual Daily Temperatures



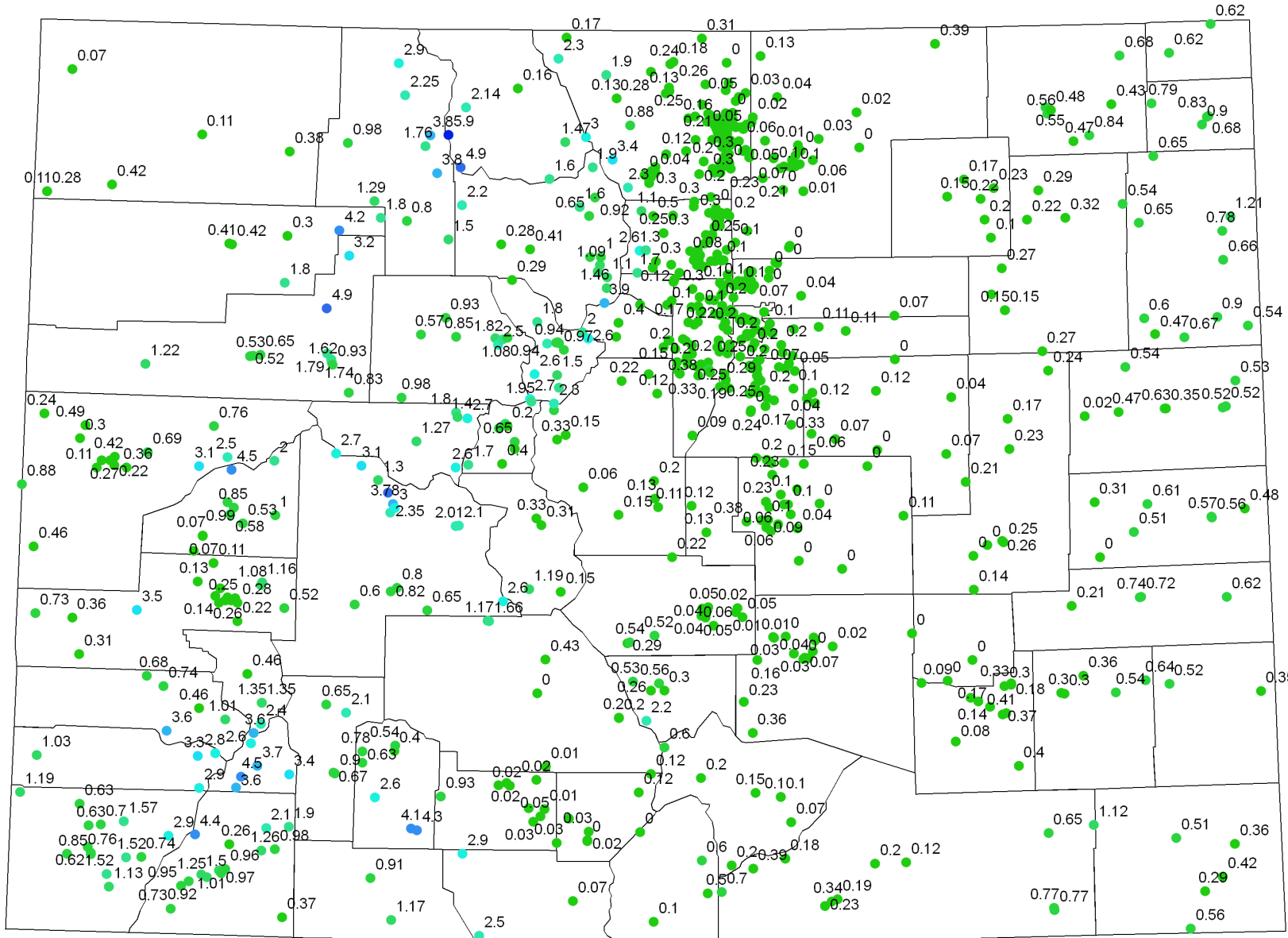
February 2009 Precipitation

Legend

Feb_09_all.txt Events

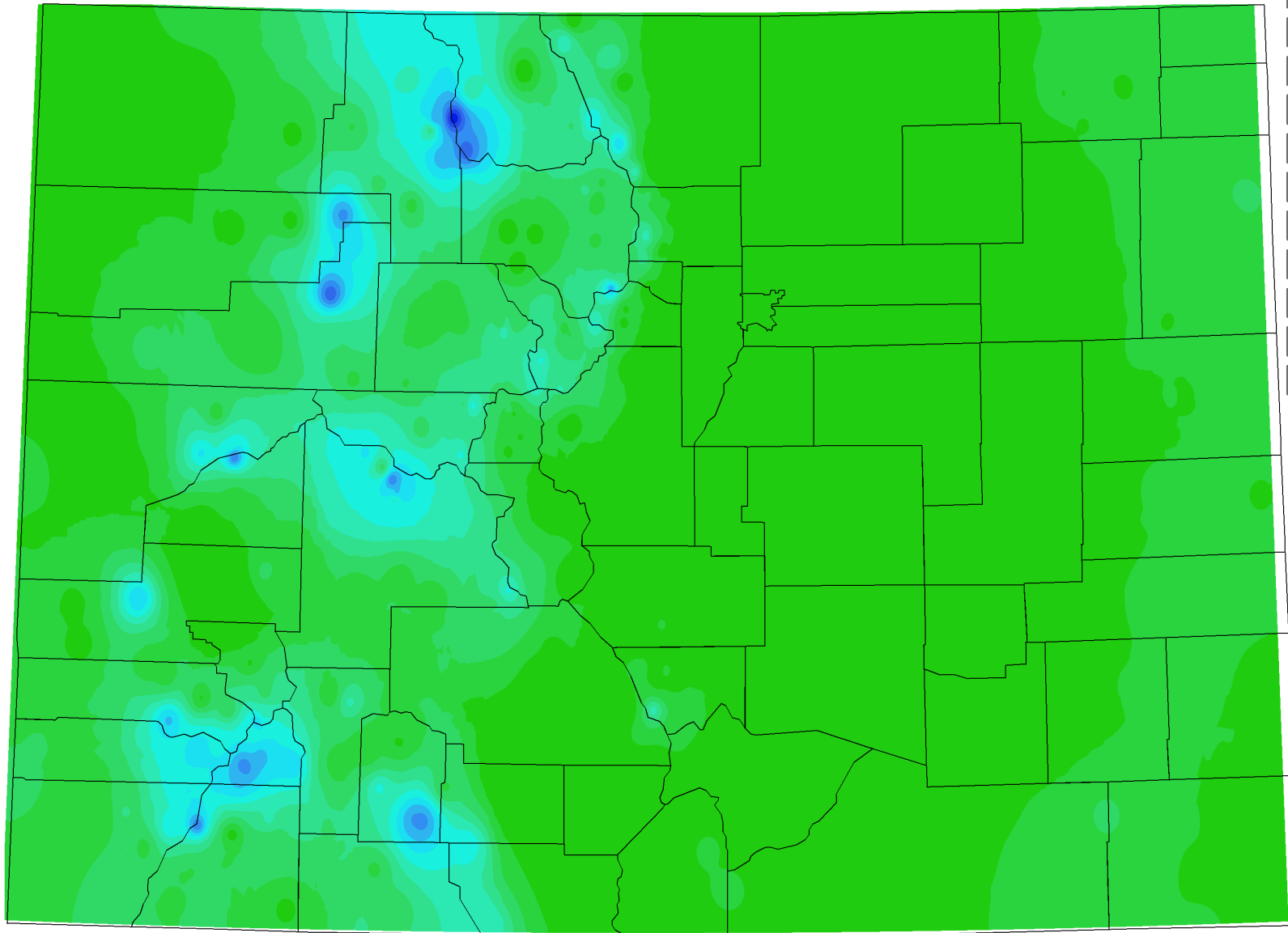
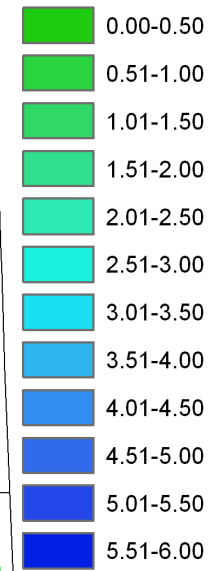
Feb

- 0.00 - 0.50
- 0.51 - 1.00
- 1.01 - 1.50
- 1.51 - 2.00
- 2.01 - 2.50
- 2.51 - 3.00
- 3.01 - 3.50
- 3.51 - 4.00
- 4.01 - 4.50
- 4.51 - 5.00
- 5.01 - 5.50
- 5.51 - 6.00

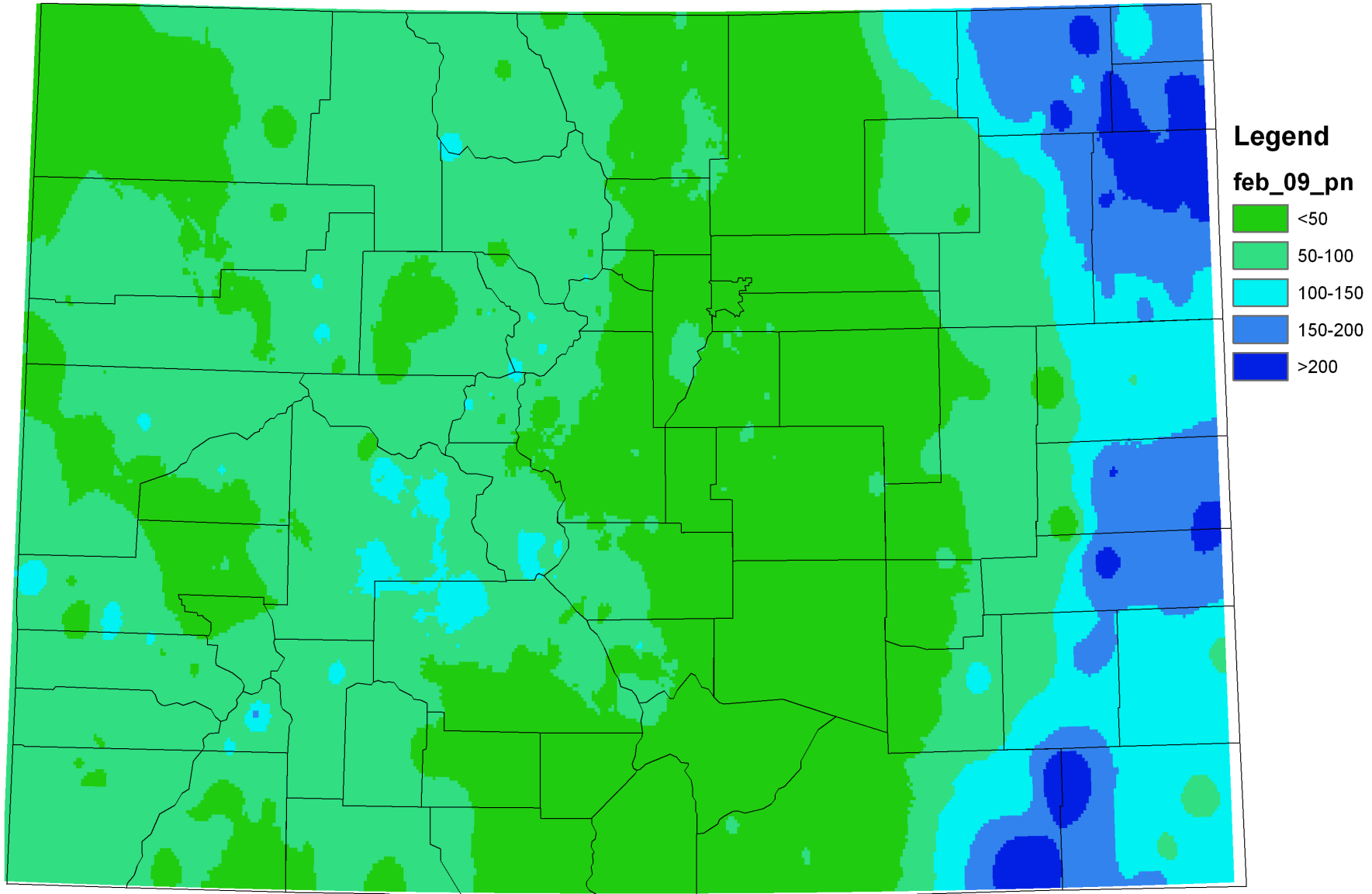


February 2009 Precipitation

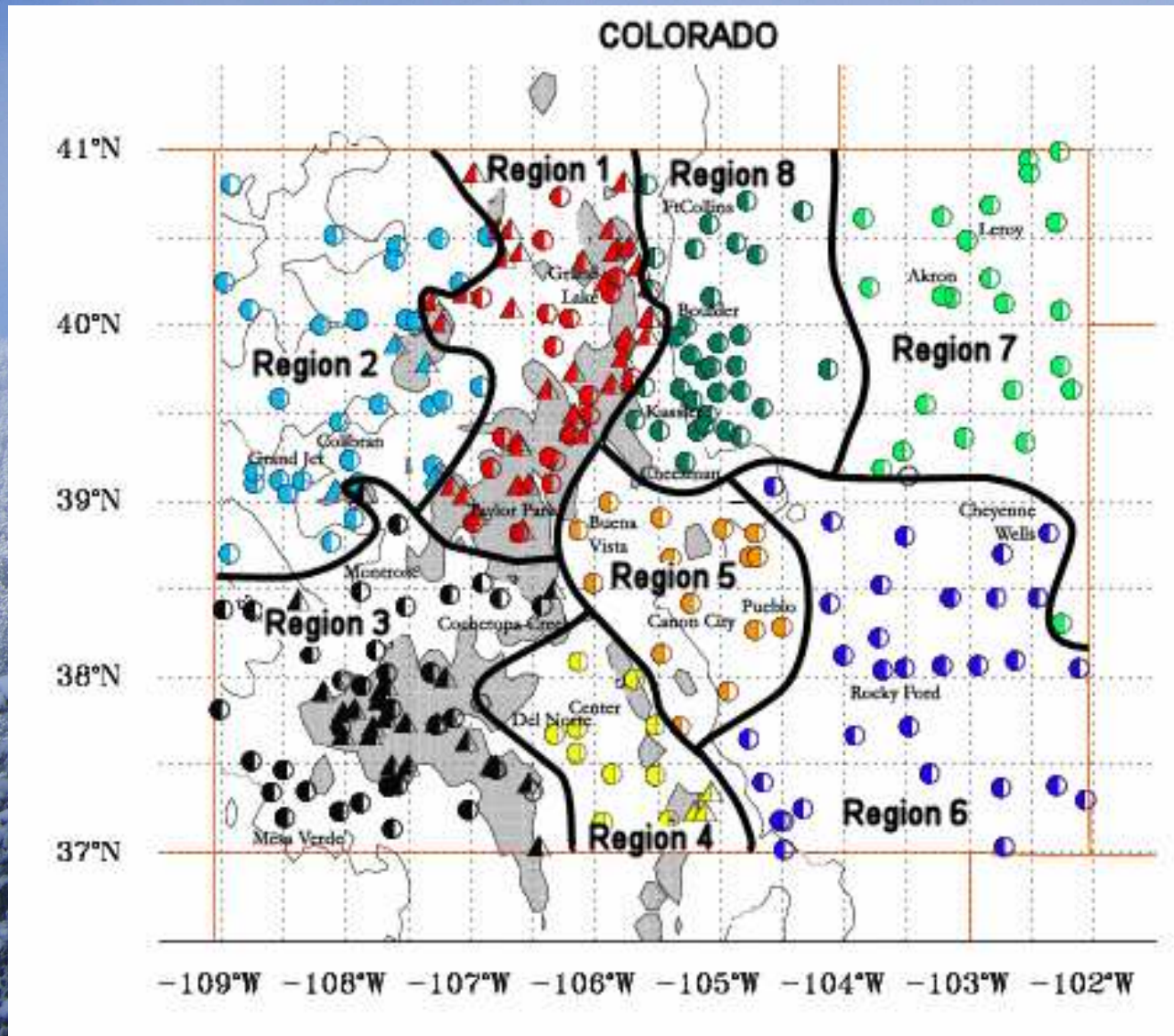
Legend



February 2009 Precipitation as Percent of Normal

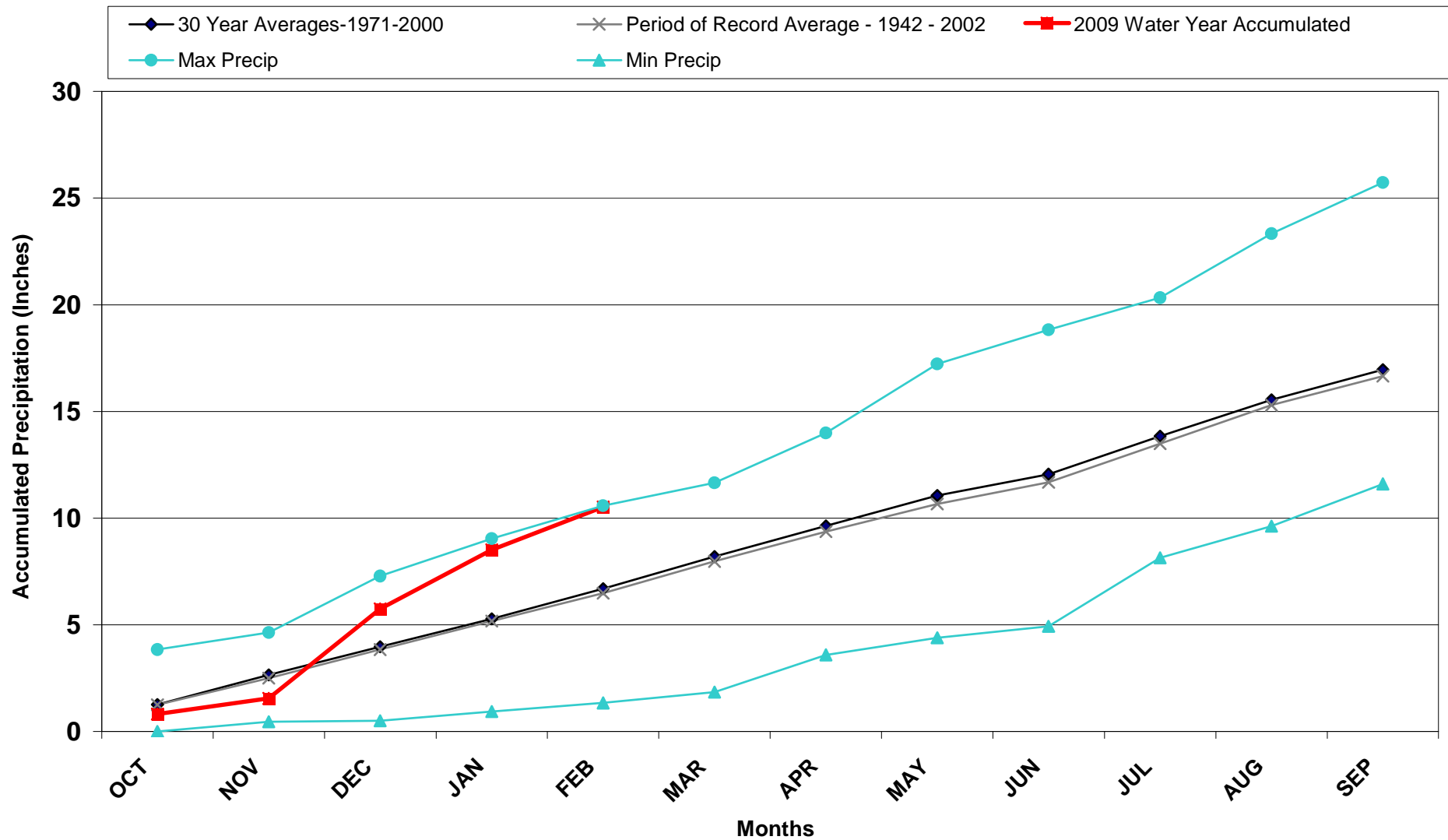


Climate divisions defined by Dr. Klaus Wolter of NOAA's Climate Diagnostic Center in Boulder, CO



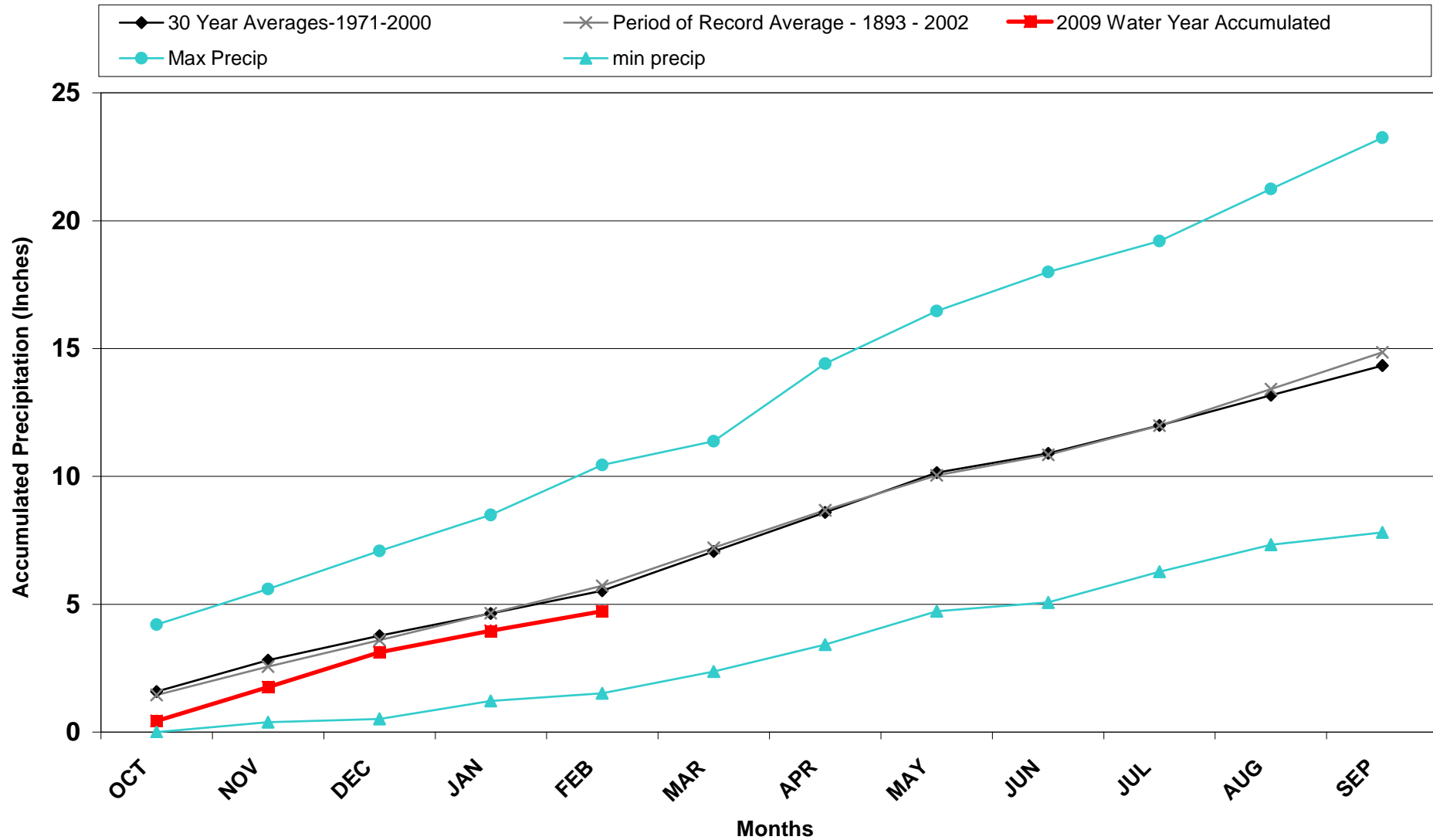
Division 1 – Taylor Park

Taylor Park 2009 Water Year



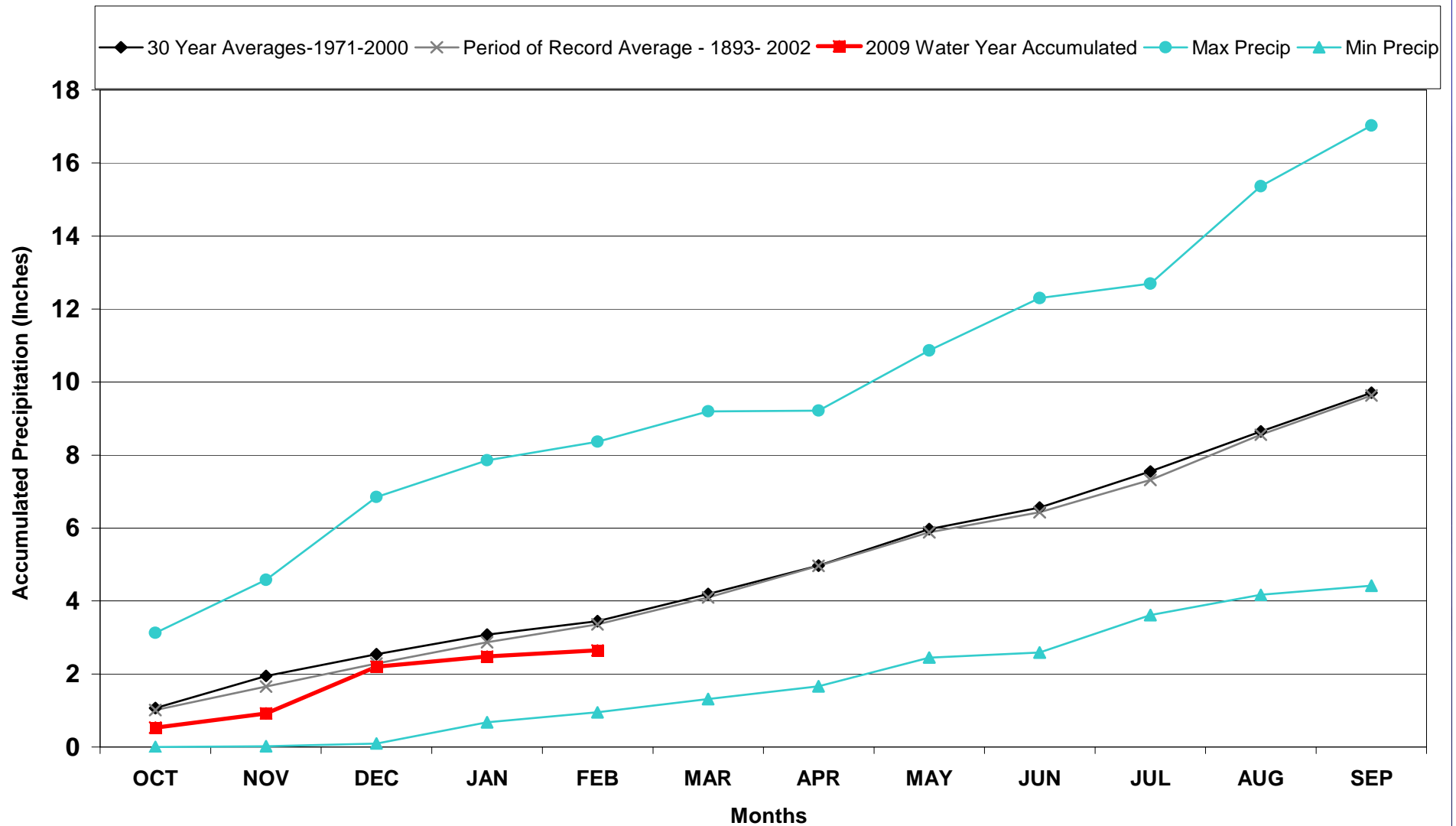
Division 2 – Collbran

Collbran 2SW 2009 Water Year



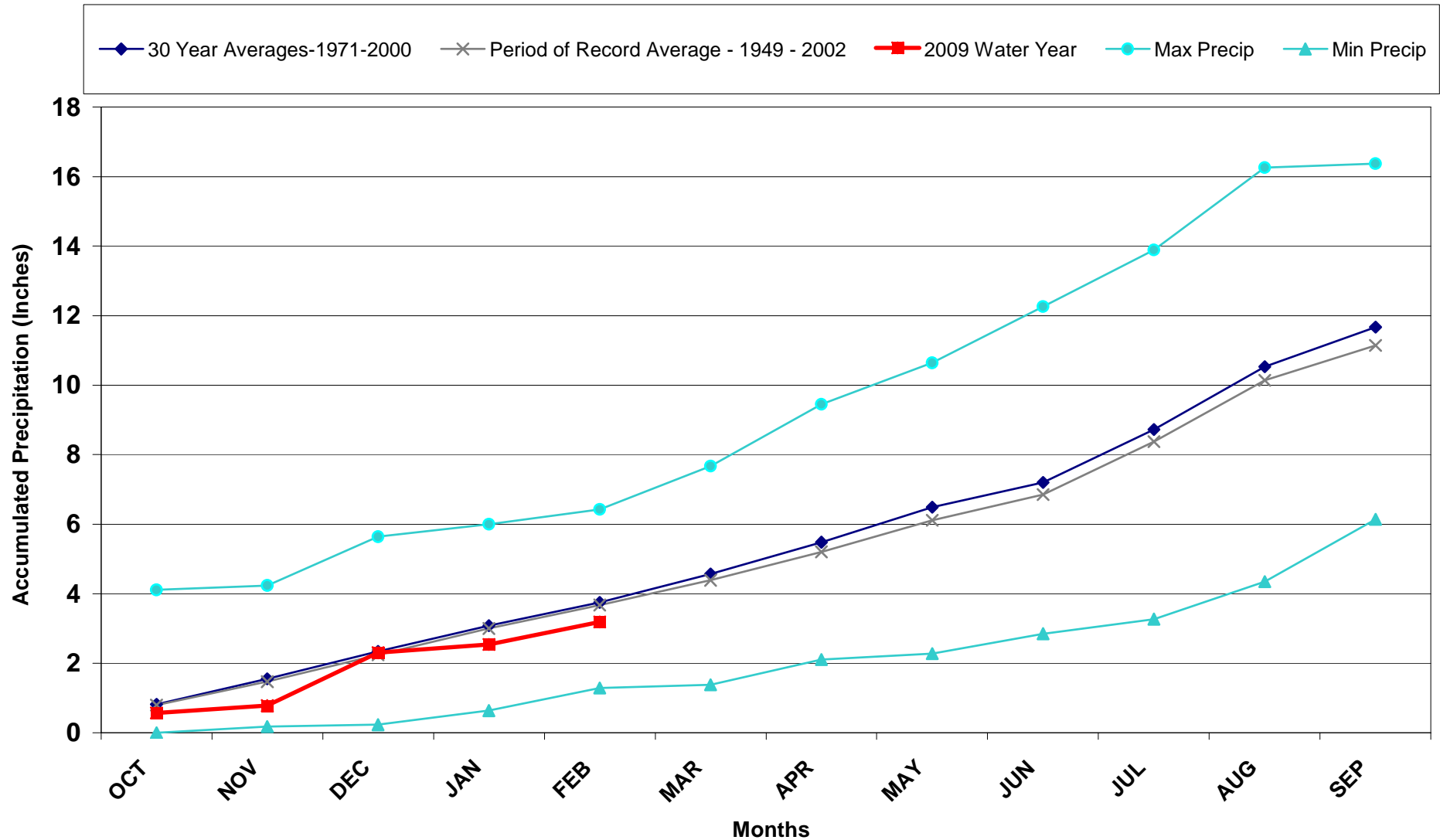
Division 3 – Montrose

Montrose #2 2009 Water Year



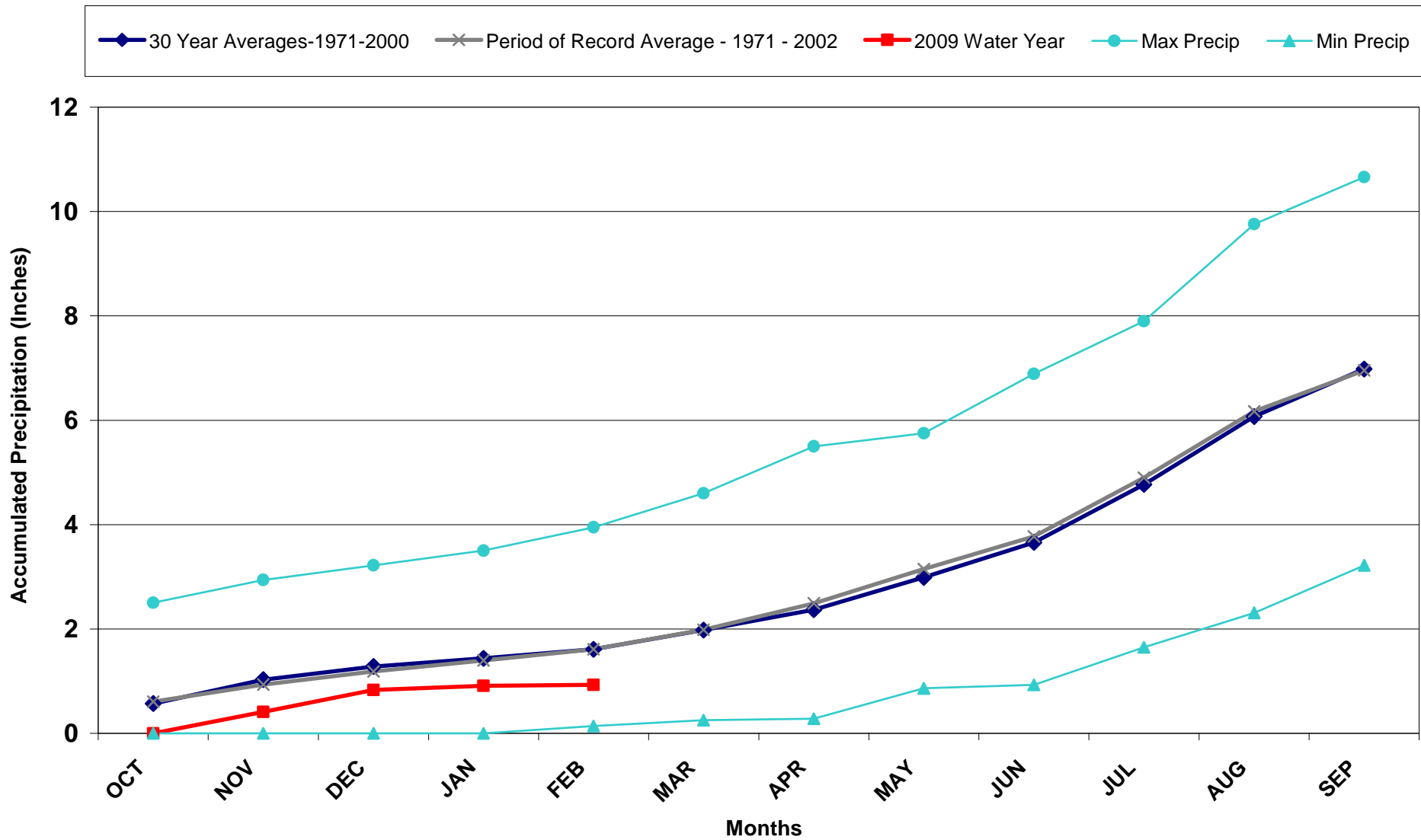
Division 3 – Cochetopa Creek

Cochetopa Creek 2009 Water Year



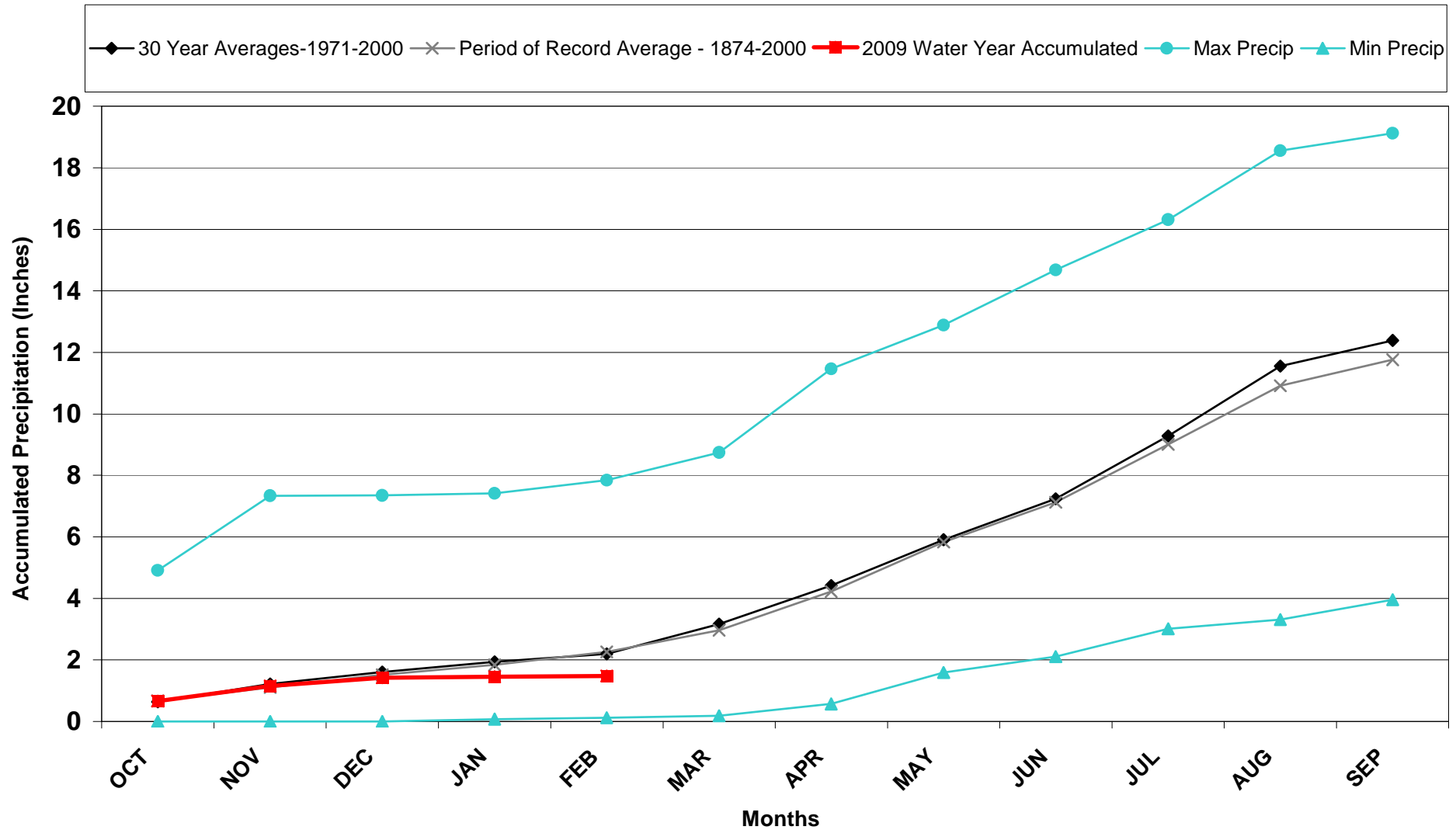
Division 4 – Center

Center 4SSW 2009 Water Year



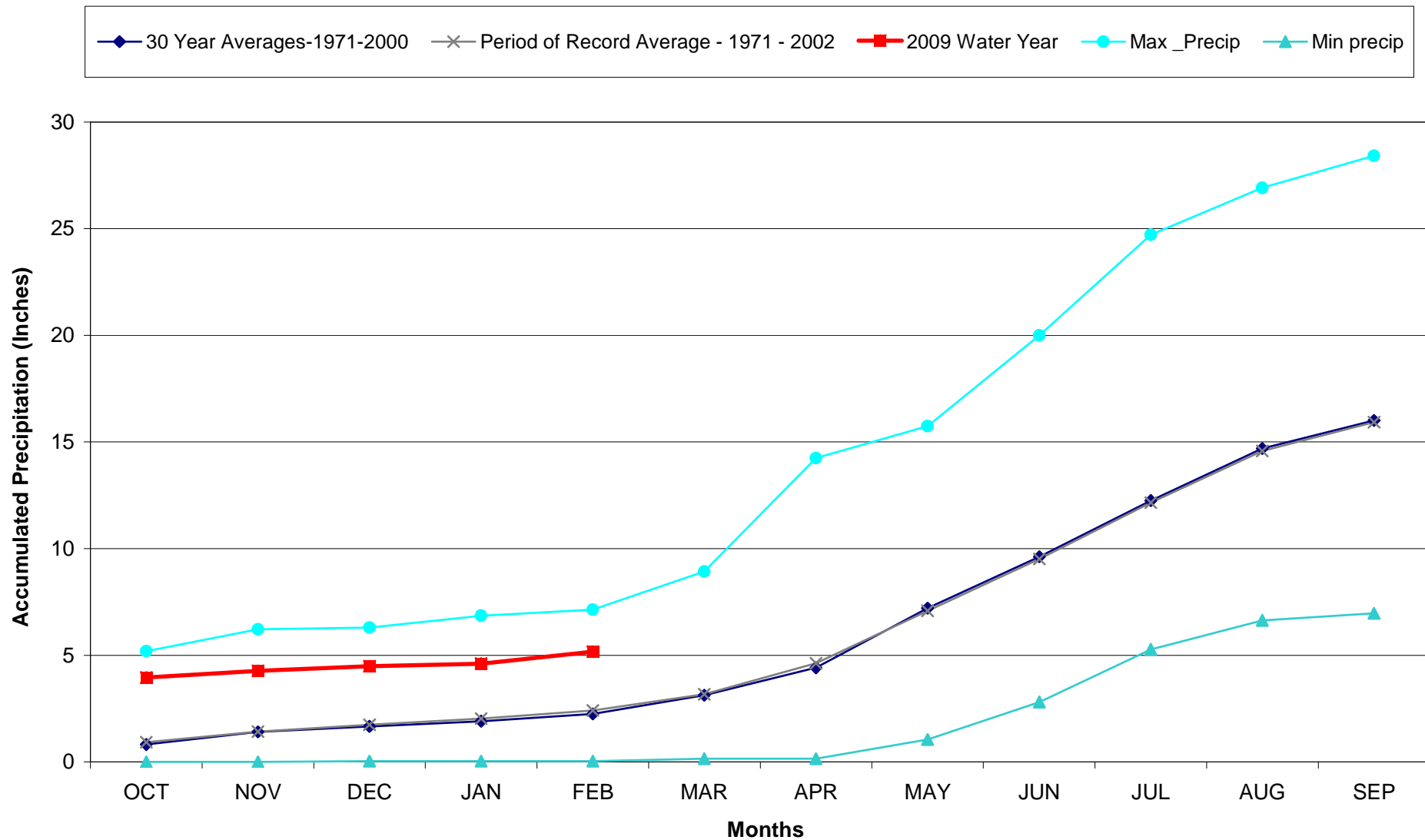
Division 5 – Pueblo

Pueblo WSO 2009 Water Year



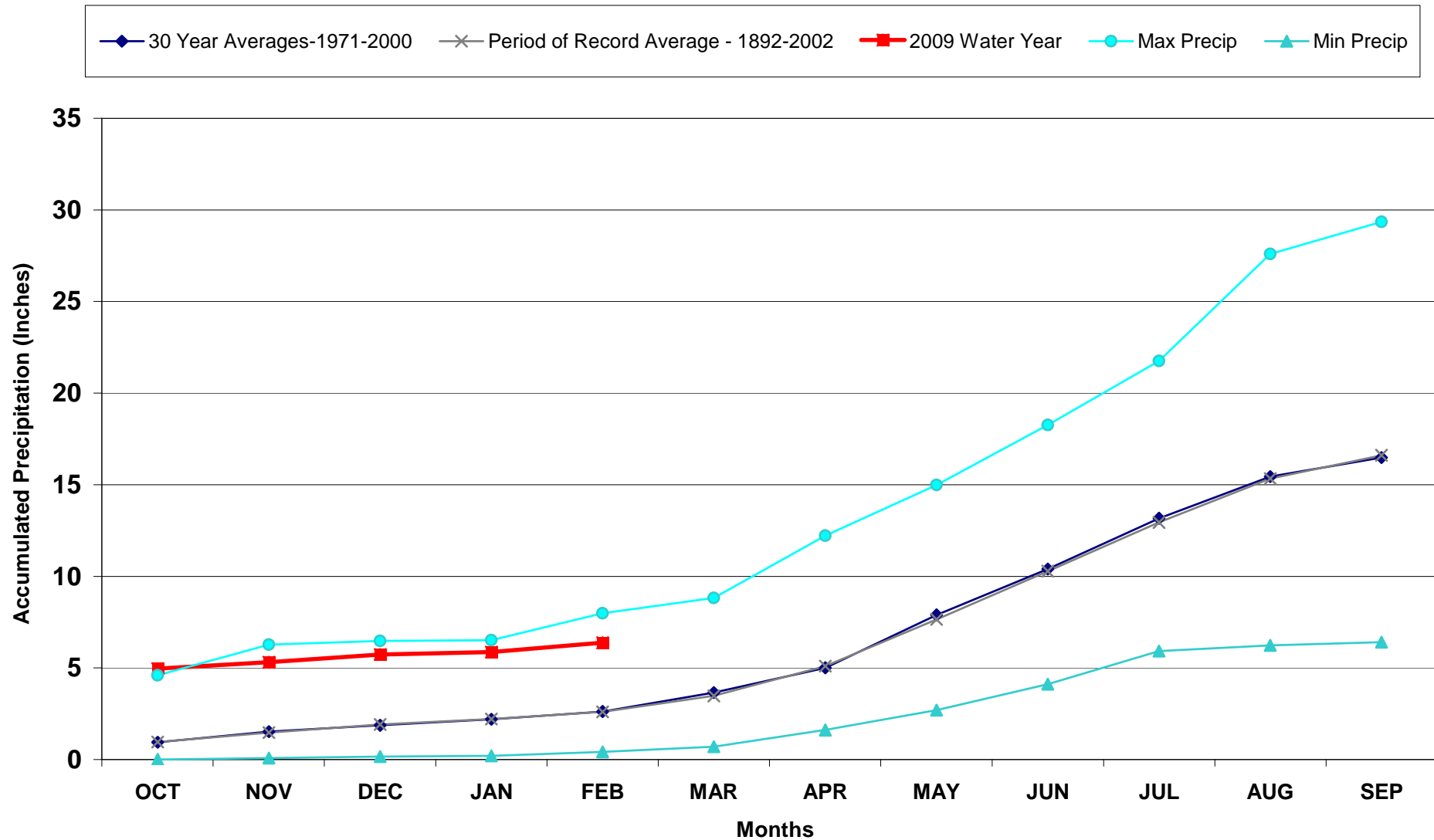
Division 6 – Cheyenne Wells

Cheyenne Wells 2009 Water Year



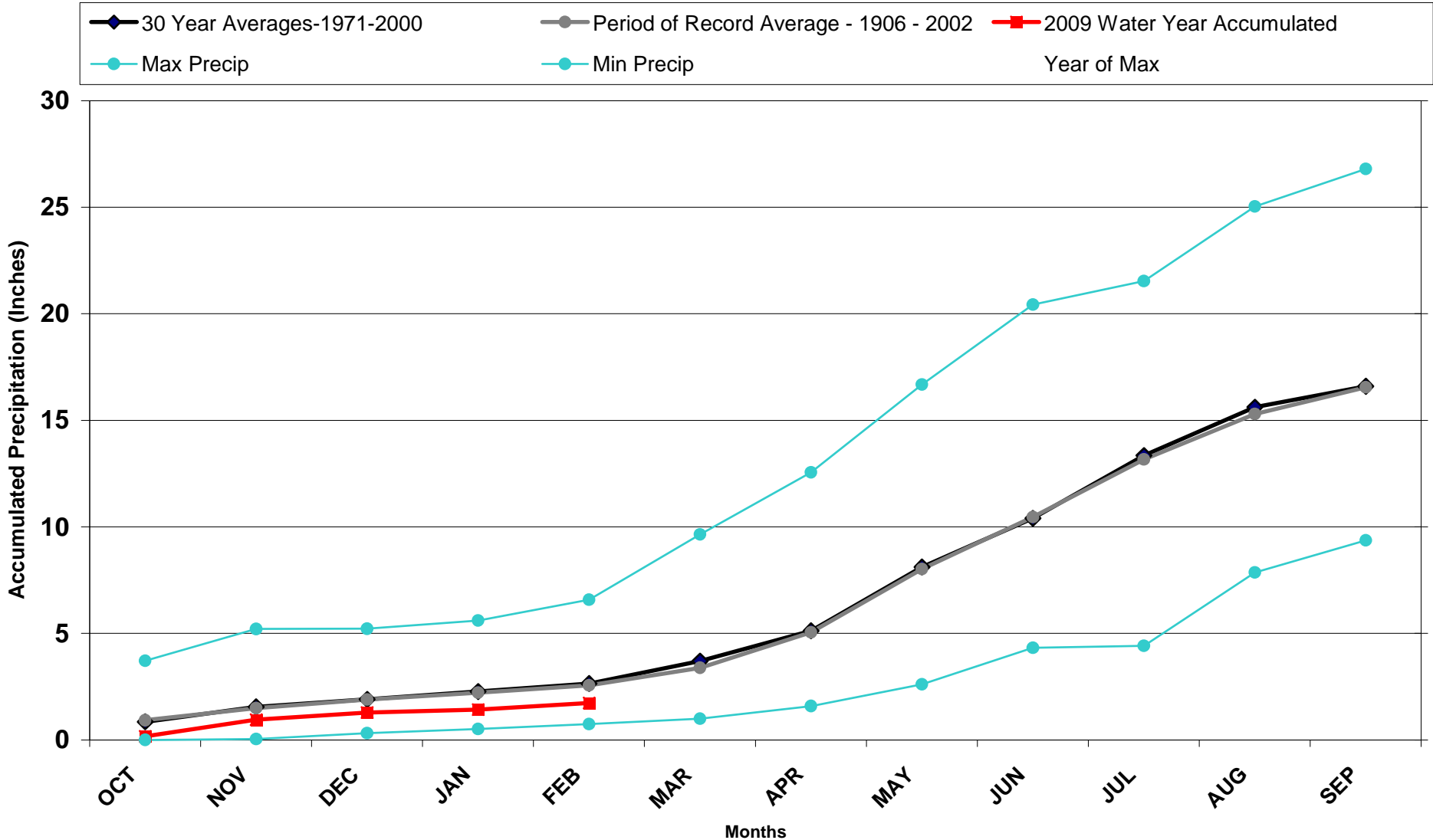
Division 6 - Burlington

Burlington 2009 Water Year



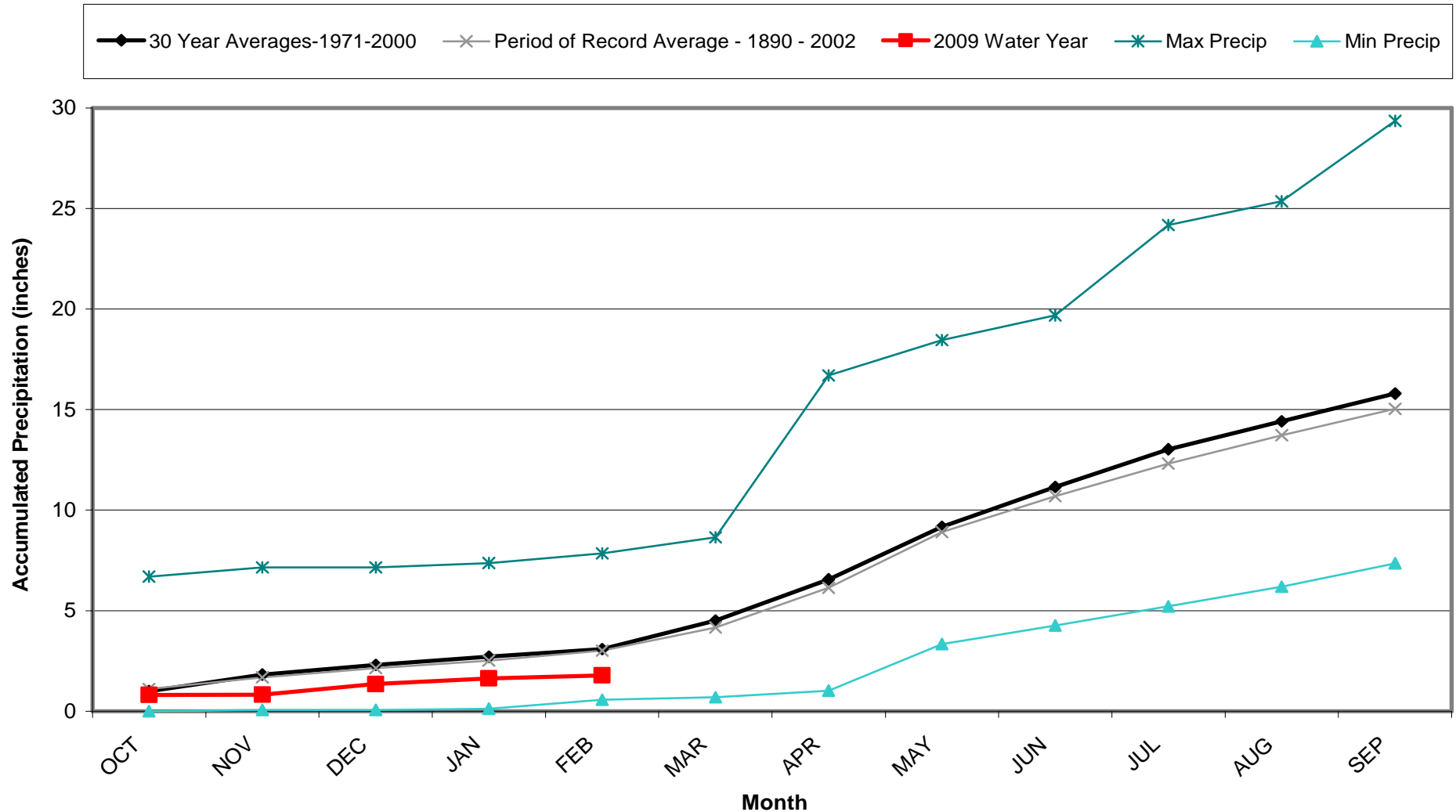
Division 7 – Akron

Akron 4E 2009 Water Year



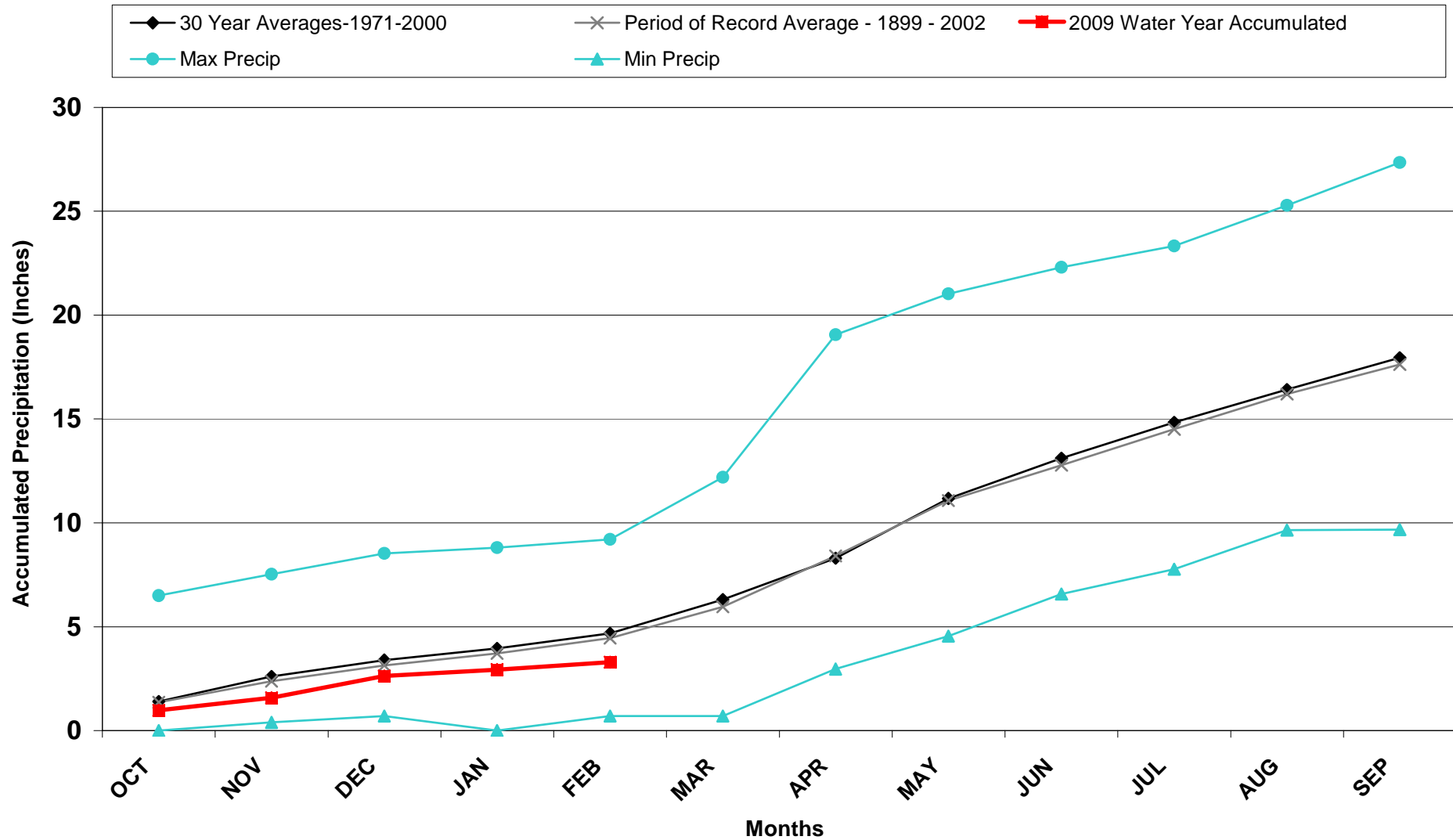
Division 8 – Fort Collins

Fort Collins 2009 Water Year



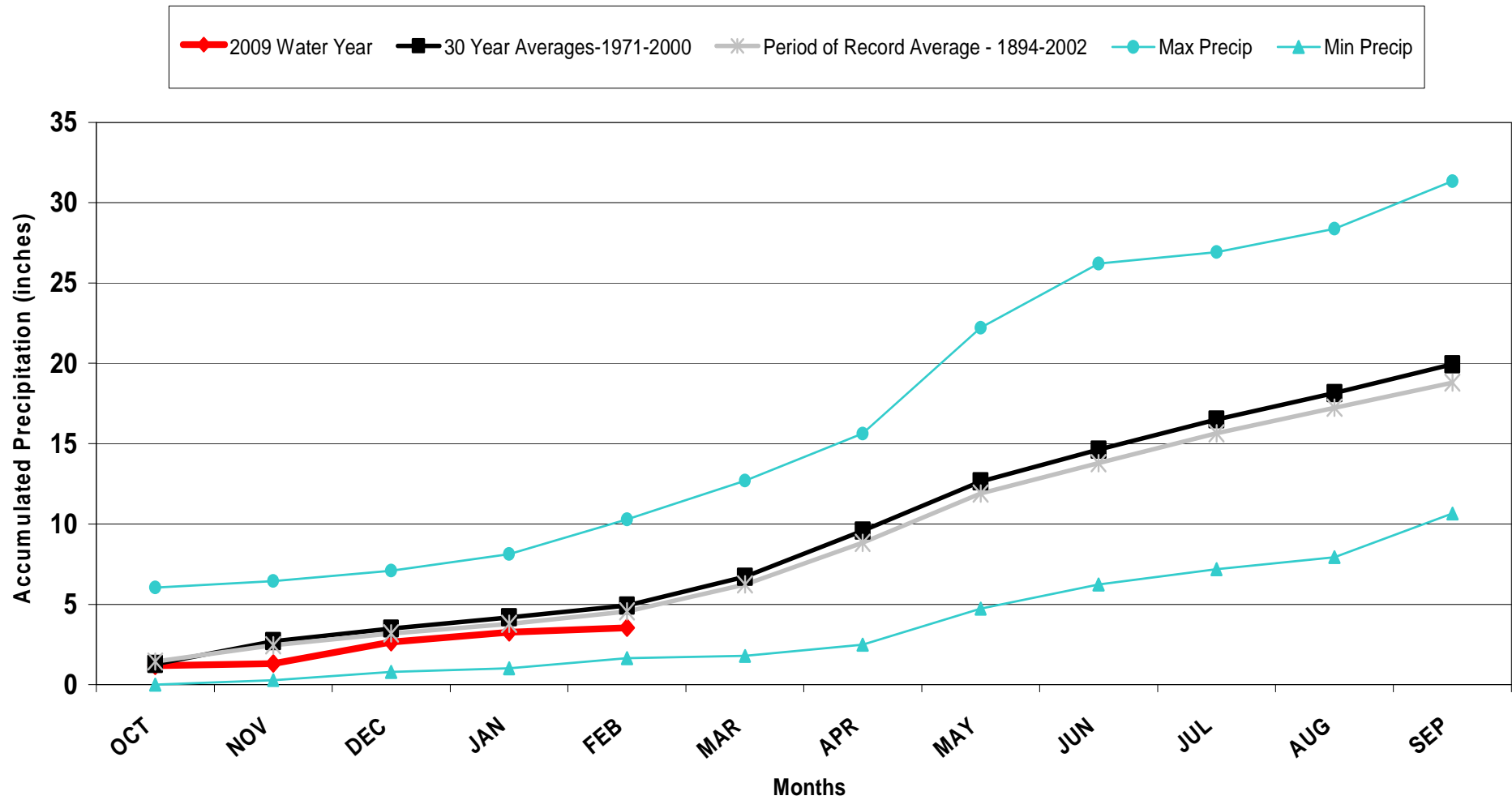
Division 8 – Kassler

Kassler 2009 Water Year

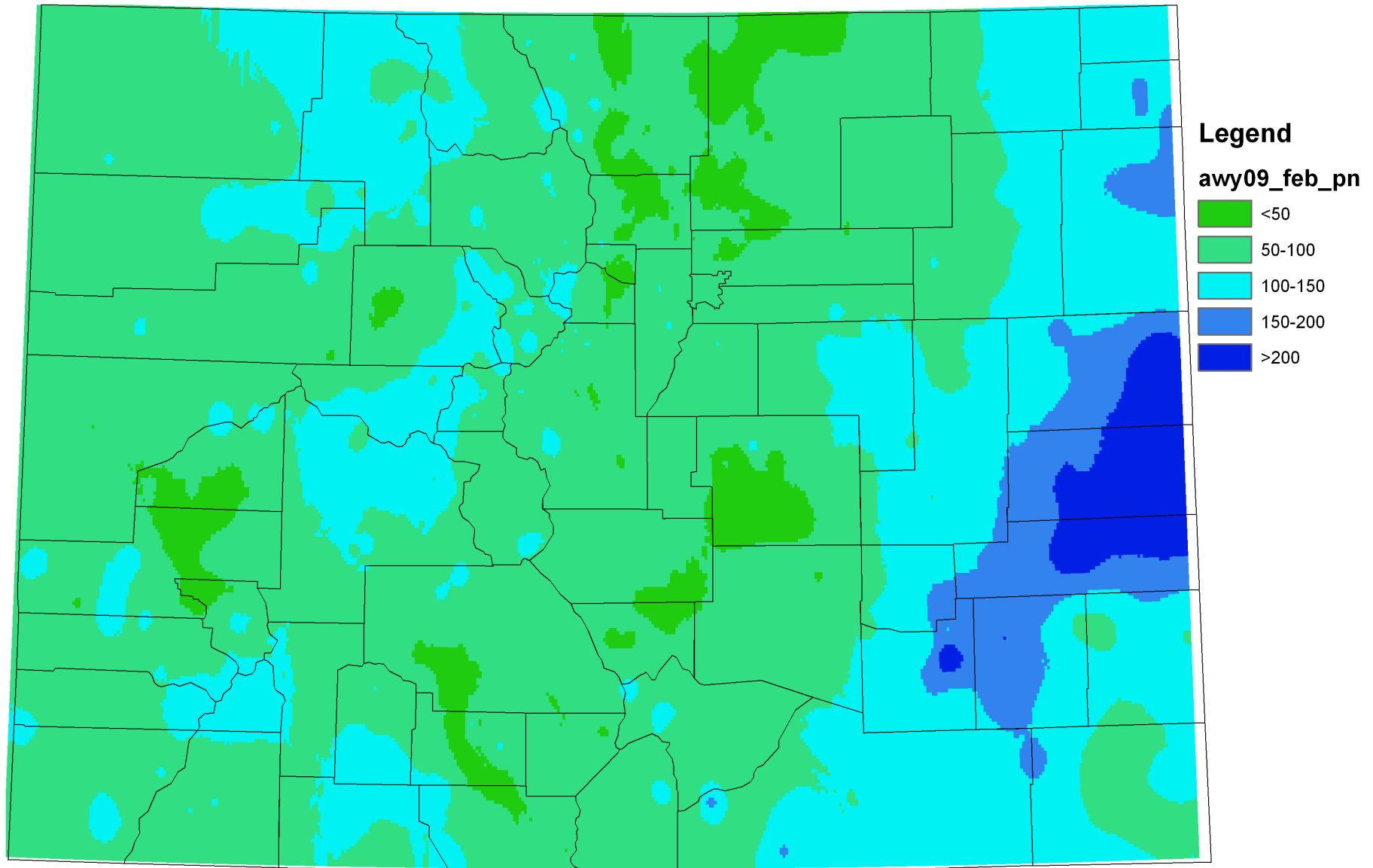


Division 8 - Boulder

Boulder 2009 Water Year

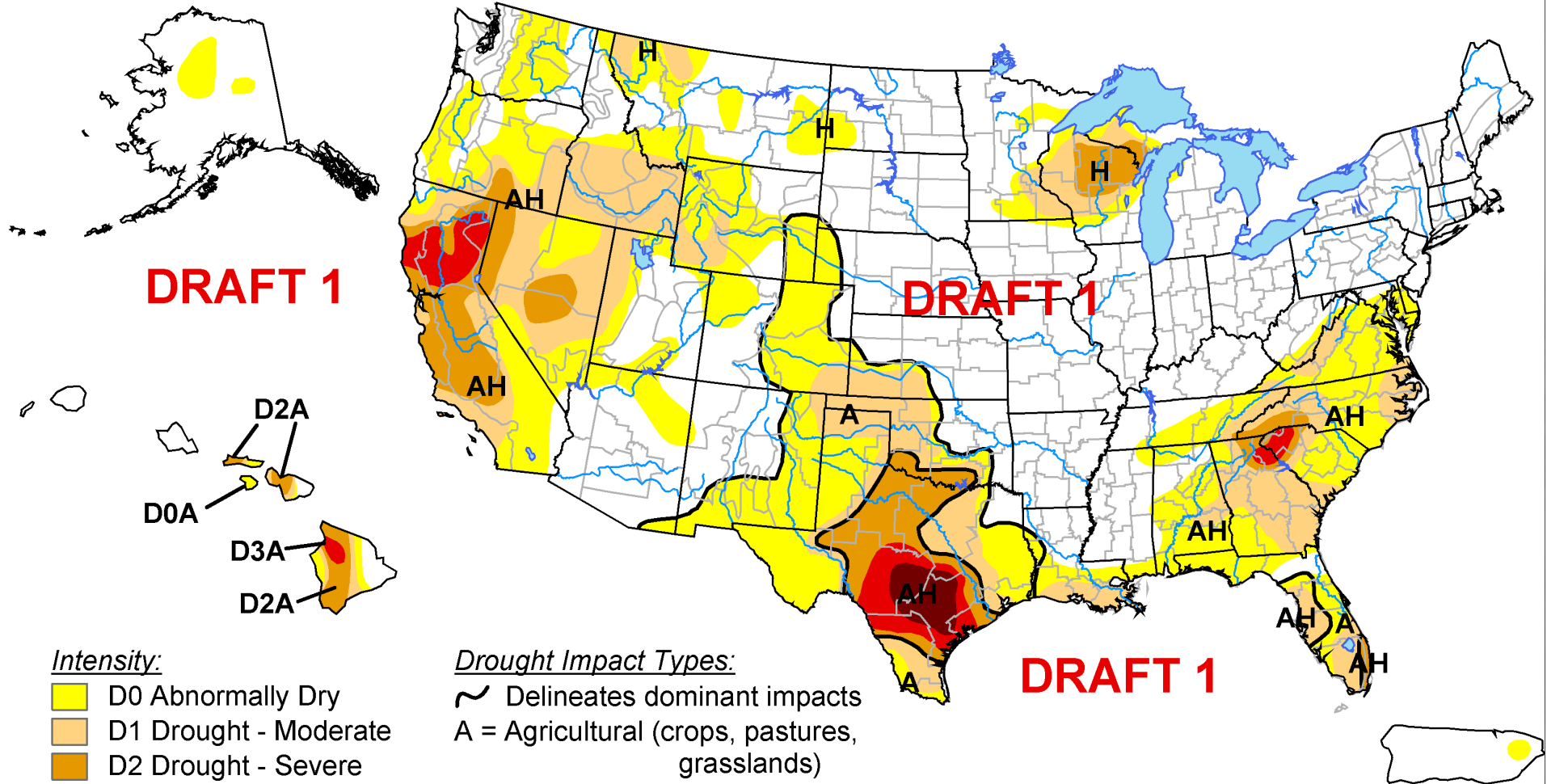


2009 Water Year Precipitation as Percent of Normal Oct 08 - Feb 09








U.S. Drought Monitor


February 24, 2009
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.

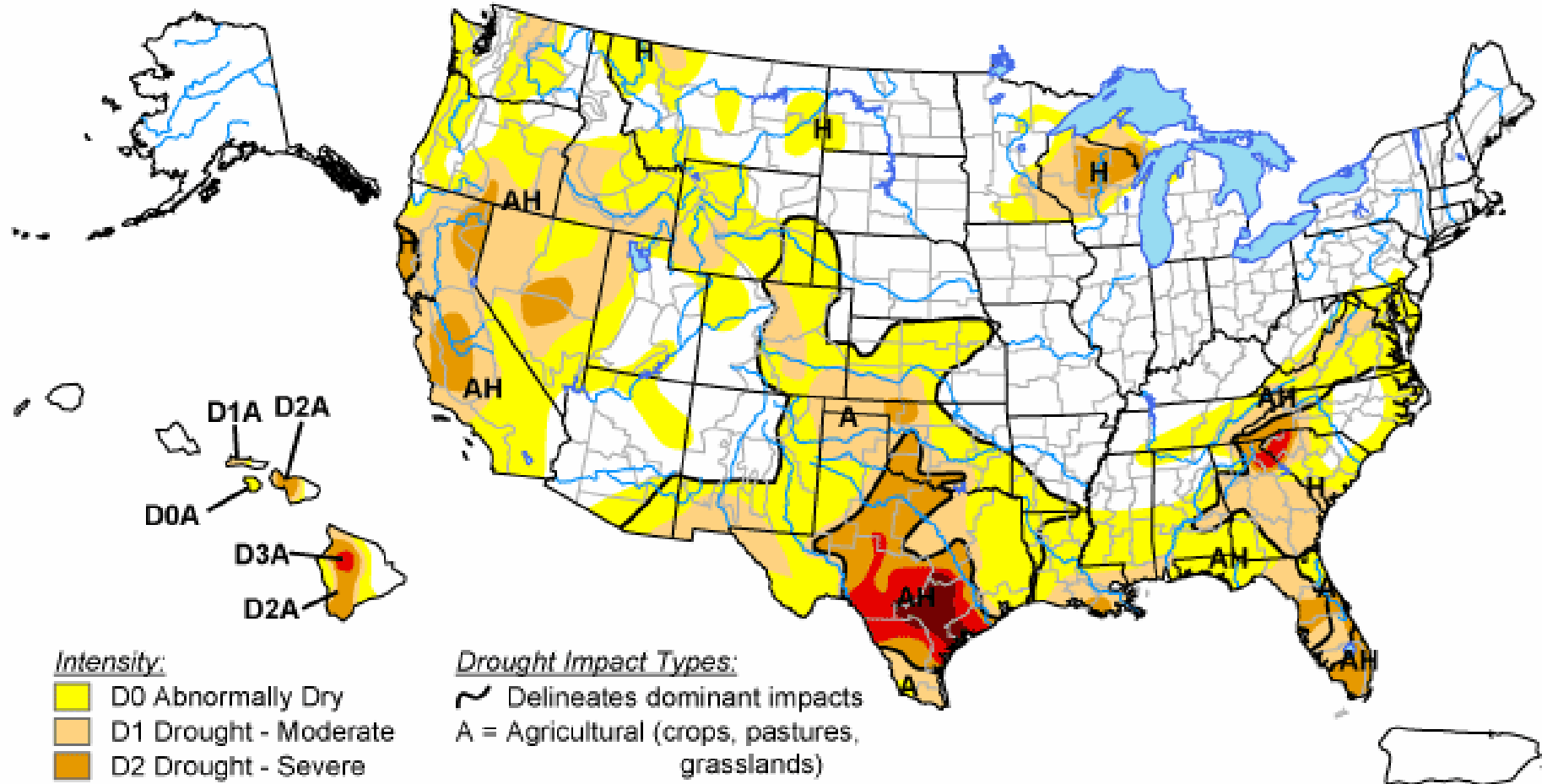
<http://drought.unl.edu/dm>








Released Thursday, February 26, 2009
Author: Rich Tinker, Climate Prediction Center, NOAA

U.S. Drought Monitor


March 17, 2009
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.



Released Thursday, March 19, 2009

Author: Laura Edwards, Western Regional Climate Center

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

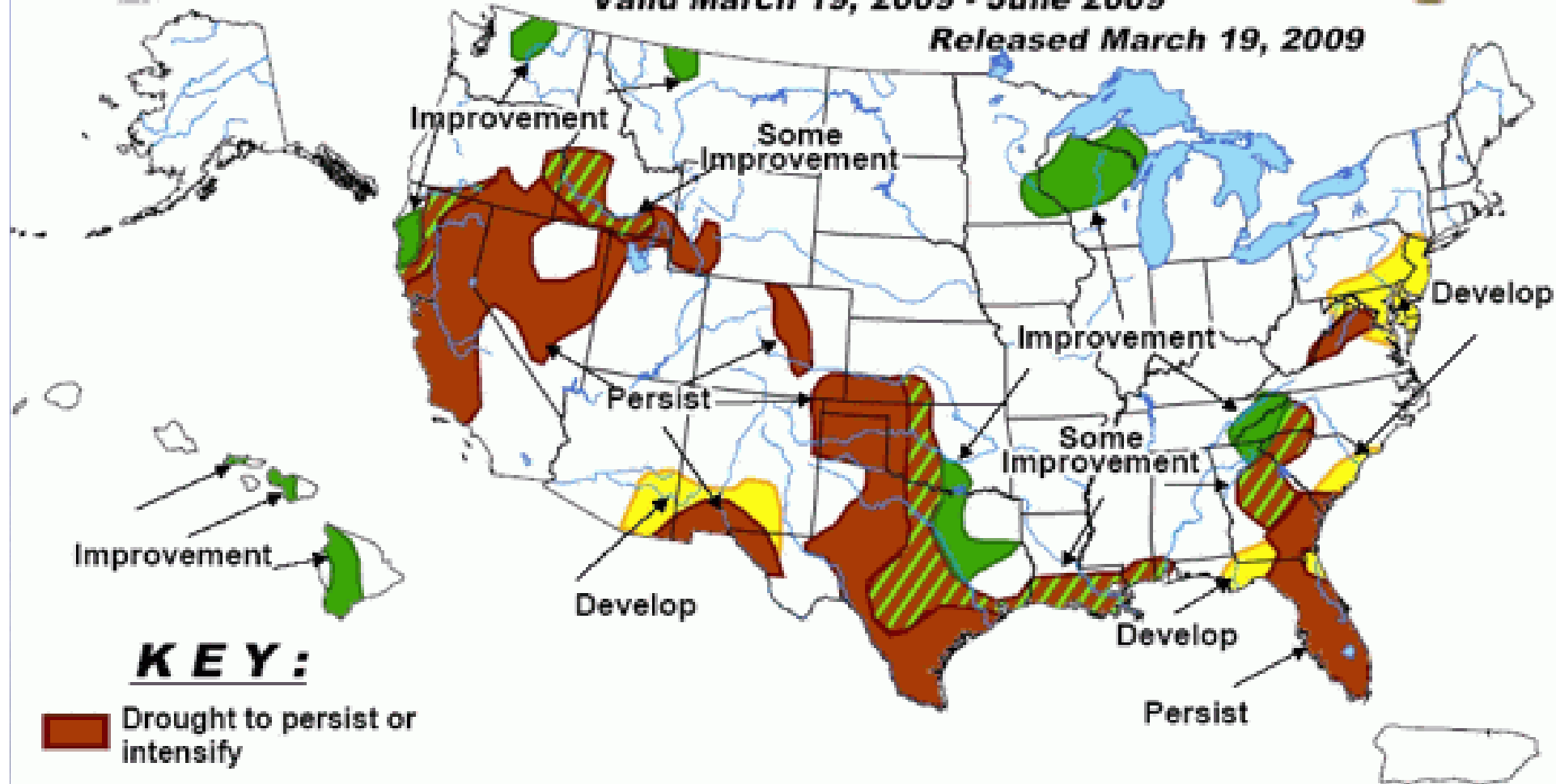


U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

Valid March 19, 2009 - June 2009

Released March 19, 2009



KEY:

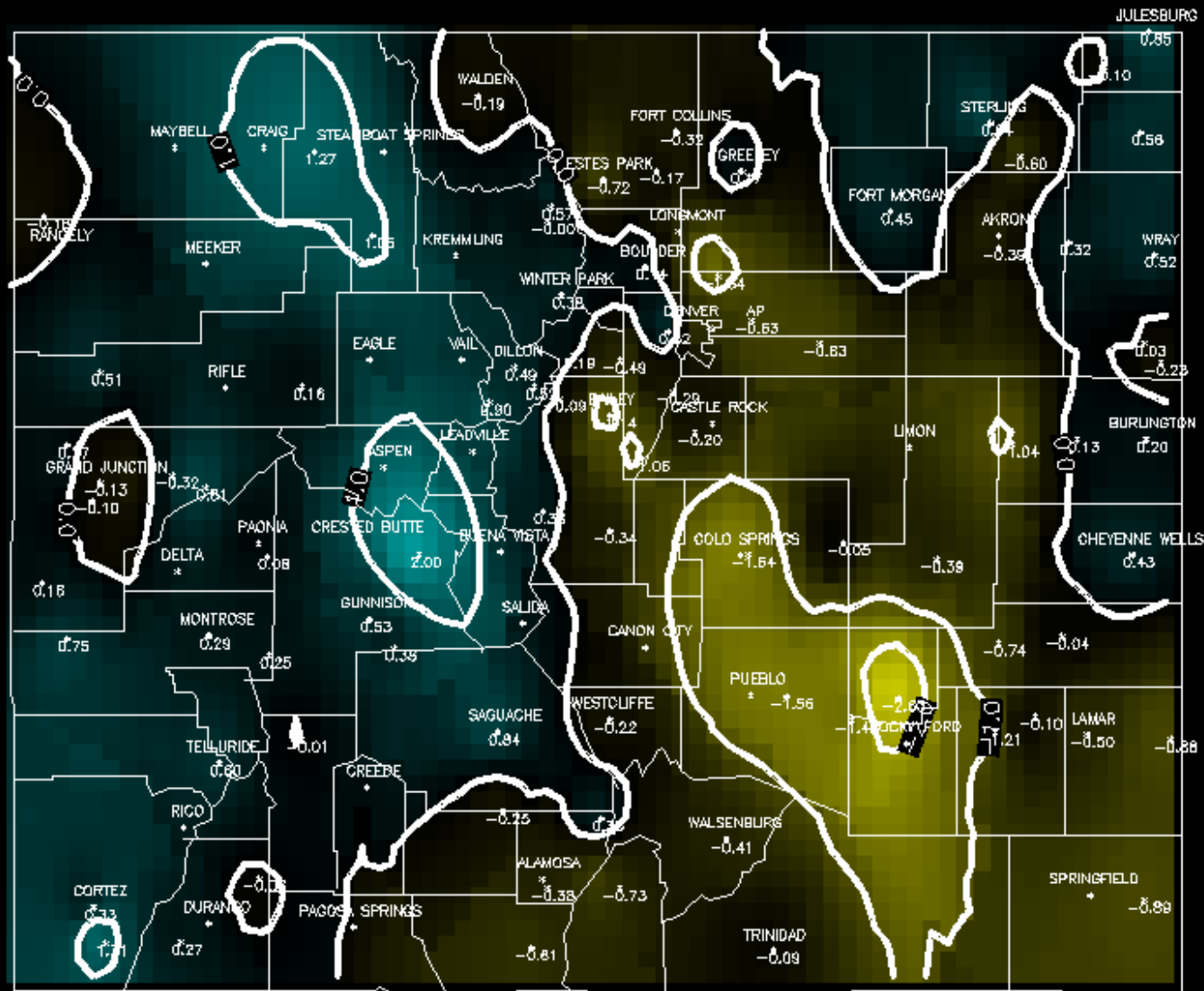
-  Drought to persist or intensify
-  Drought ongoing, some improvement
-  Drought likely to improve, impacts ease
-  Drought development likely

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events – such as individual storms – cannot be accurately forecast more than a few days in advance. Use caution for applications – such as crops – that can be affected by such events. “Ongoing” drought areas are approximated from the Drought Monitor (D1 to D4 intensity). For weekly drought updates, see the latest U.S. Drought Monitor. NOTE: the green improvement areas imply at least a 1-category improvement in the Drought Monitor intensity levels, but do not necessarily imply drought elimination.

3-month SPI

Colorado

2/2009 3 mon. SPI



100% < 2.0
 96% < 1.0
 48% < 0.0

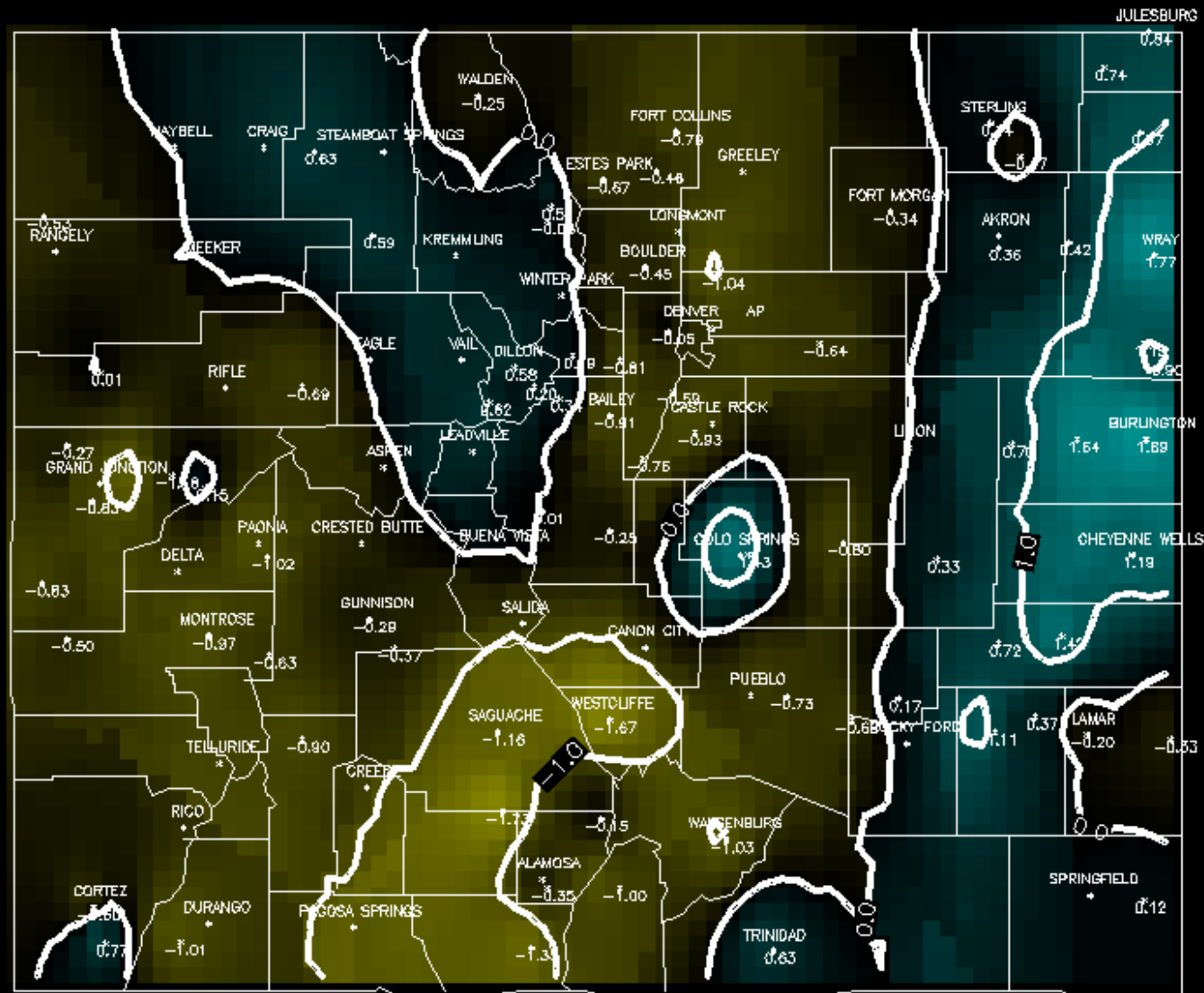
8% < -1.0
 0.3% < -2.0
 0% < -3.0

Produced by:
 Colorado Climate Center
 Fort Collins, CO

6-month SPI

Colorado

2/2009 6 mon. SPI



100% < 2.0
 95% < 1.0
 83% < 0.0

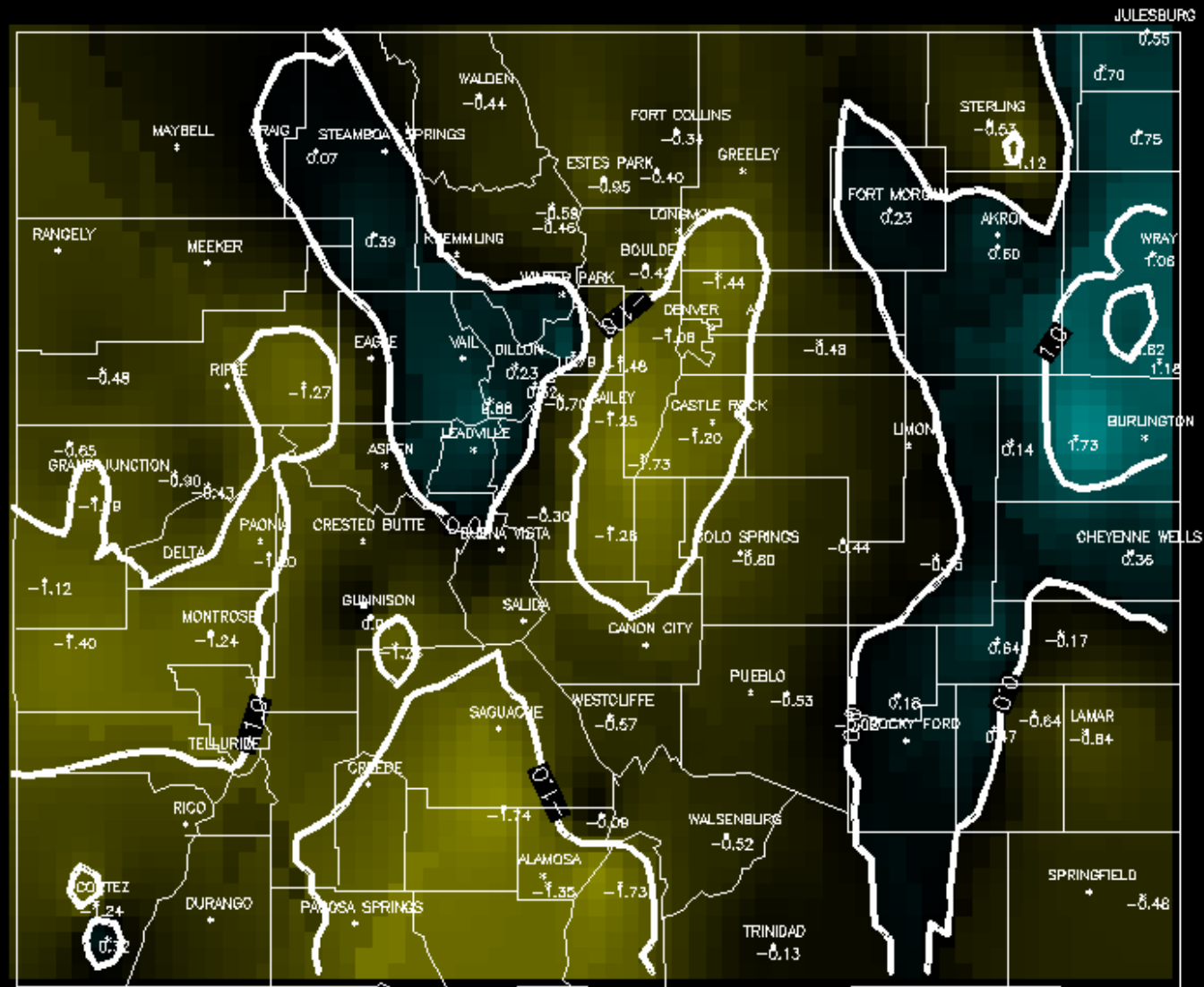
6% < -1.0
 0% < -2.0
 0% < -3.0

Produced by:
 Colorado Climate Center
 Fort Collins, CO

12-month SPI

Colorado

2/2009 12 mon. SPI

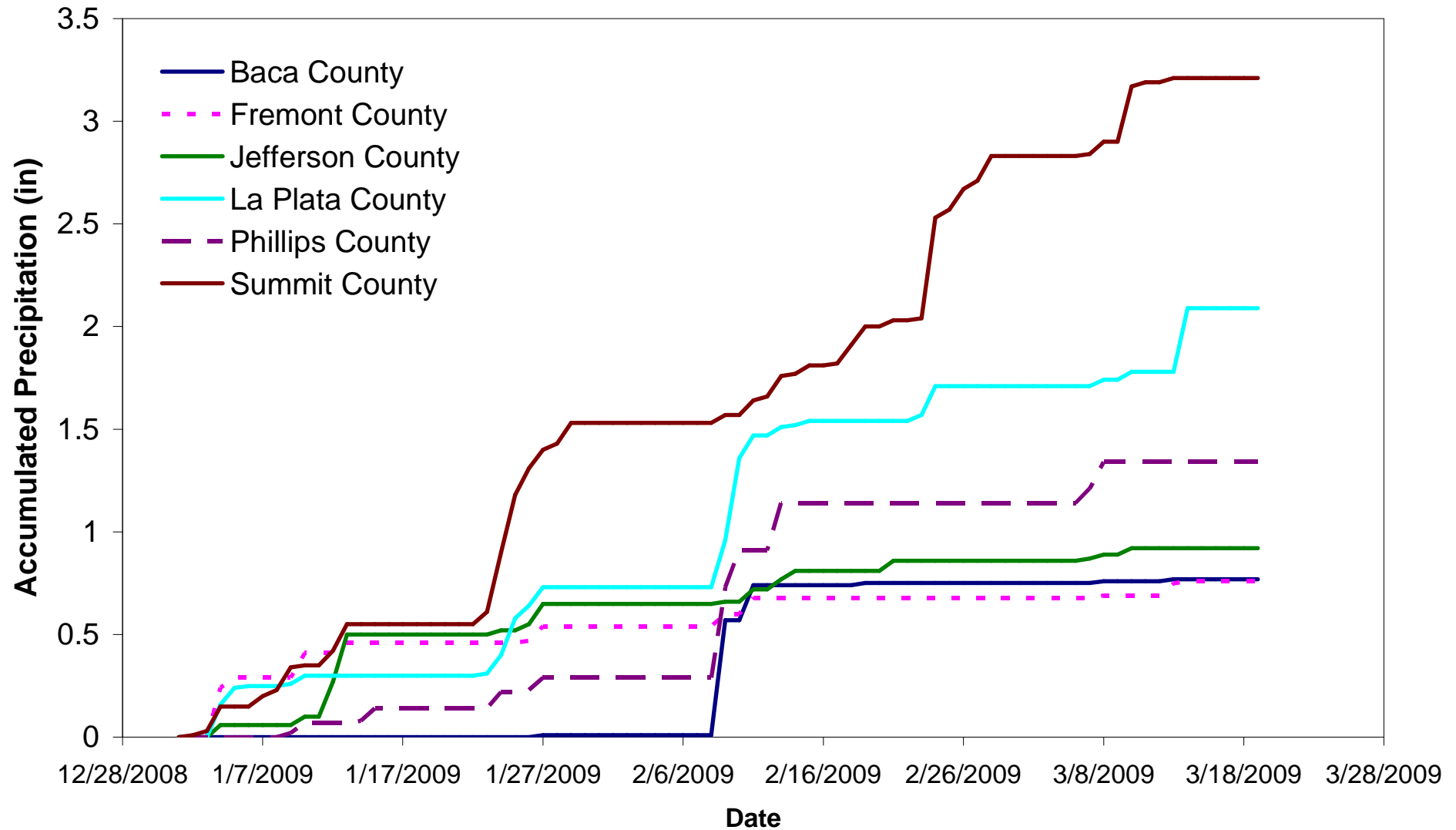


100% < 2.0
95% < 1.0
78% < 0.0

18% < -1.0
0% < -2.0
0% < -3.0

Produced by:
Colorado Climate Center
Fort Collins, CO

CoCoRaHS Accumulated Daily Precipitation for Selected Counties (Jan 1 - Mar 19, 2009)



Colorado Climate Center

Data and Power Point Presentations
available for downloading

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

- click on “Drought Resources”
- then click on “Presentations”

**Colorado
State
University**
Knowledge to Go Places

