

Climate Update

Nolan Doesken
State Climatologist
Atmospheric Science Department
Colorado State University

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

Presented to Water Availability
Task Force, Denver, CO, July 24, 2007

Prepared by Odie Bliss
Photo by Wendy Ryan



Colorado
State
University
Knowledge to Go Places

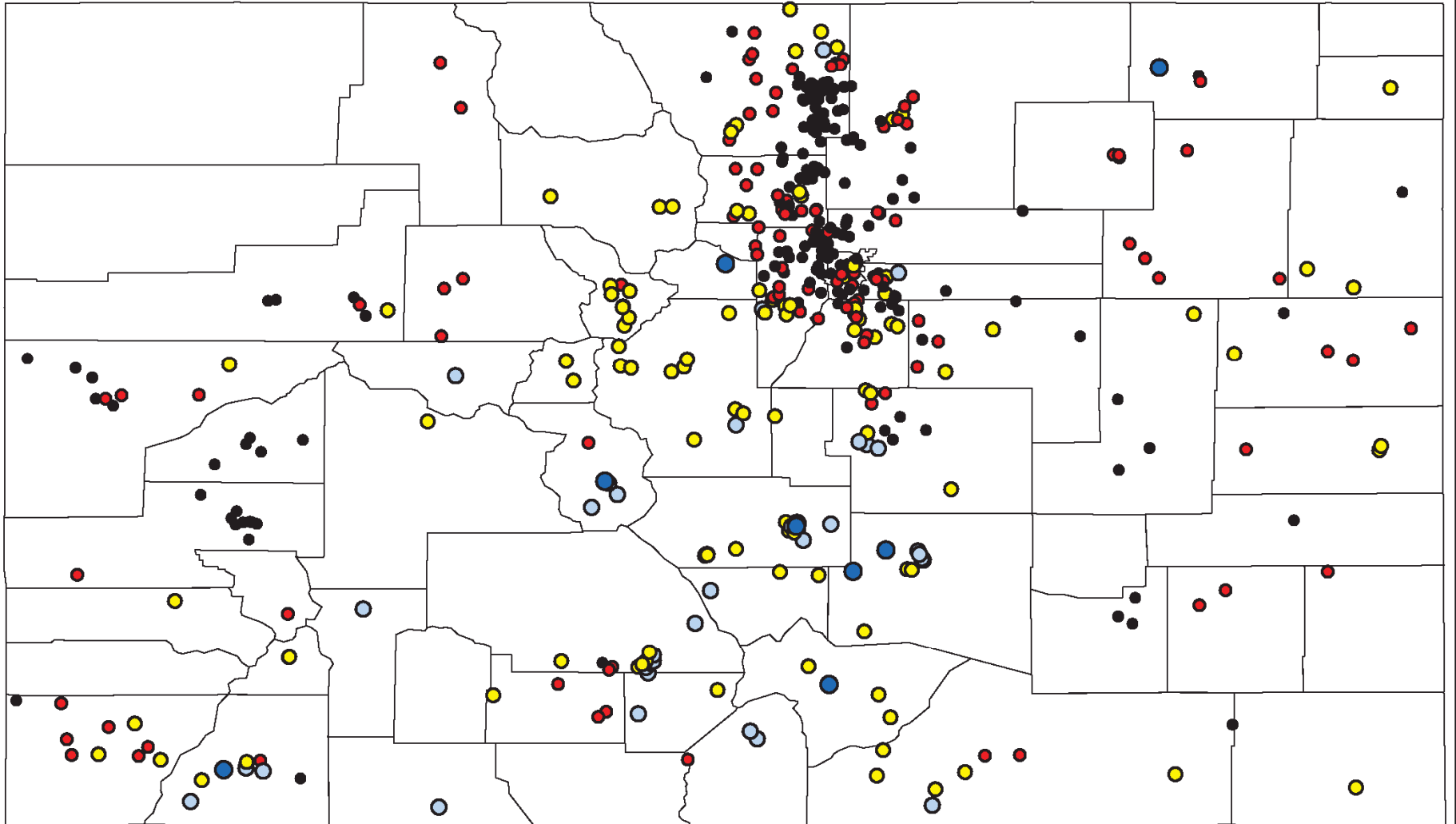
July2007Precip

(Inches)

- 0.00- 0.50
- 0.51 - 1.00
- 1.01 - 2.00
- 2.01 - 3.00
- >3.00

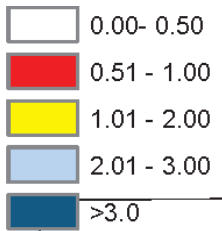
CoCoRaHS July 1 - July 23 Precipitation with Stations >20 reports

COLORADO

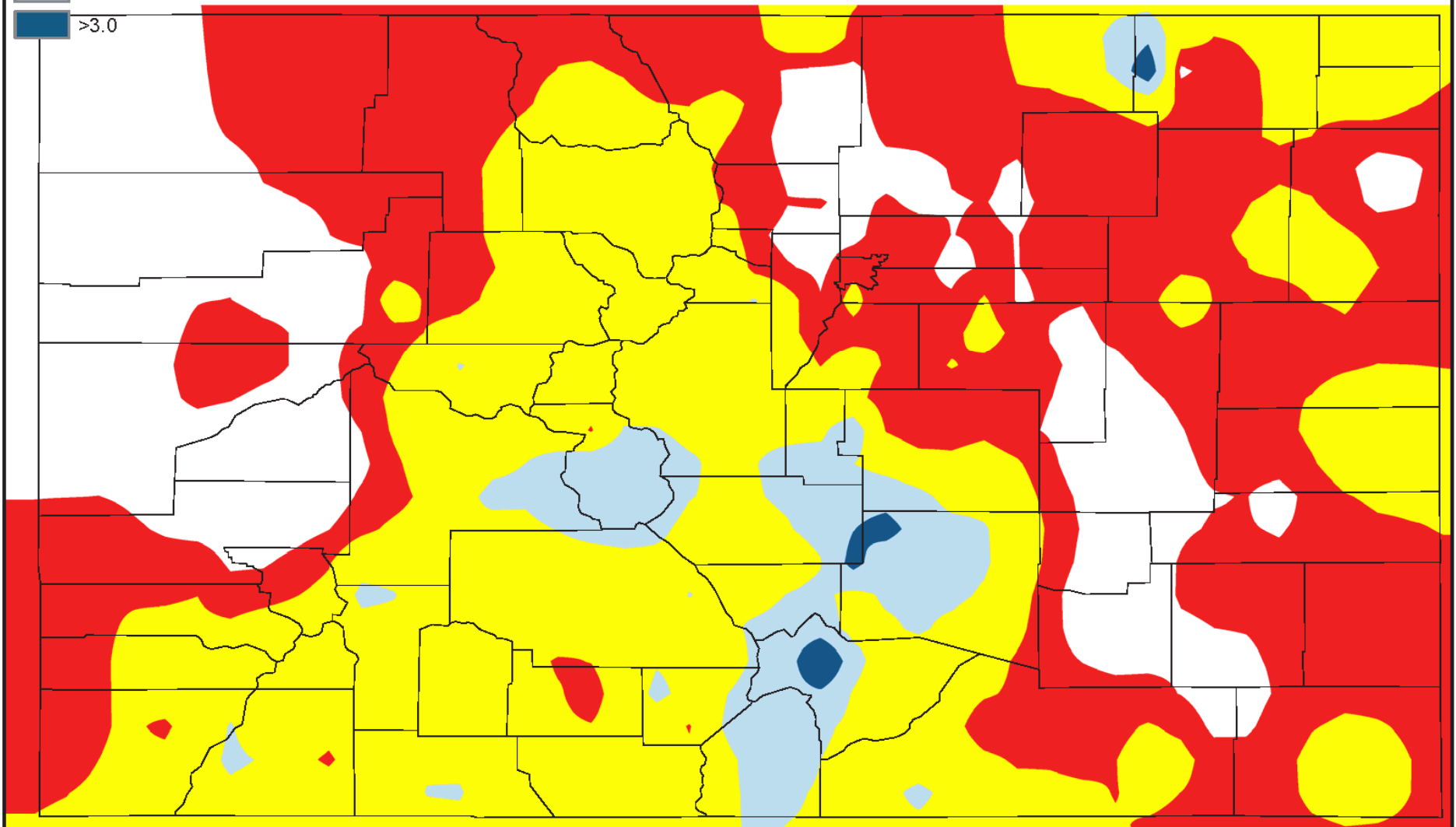


Precipitation (inches)

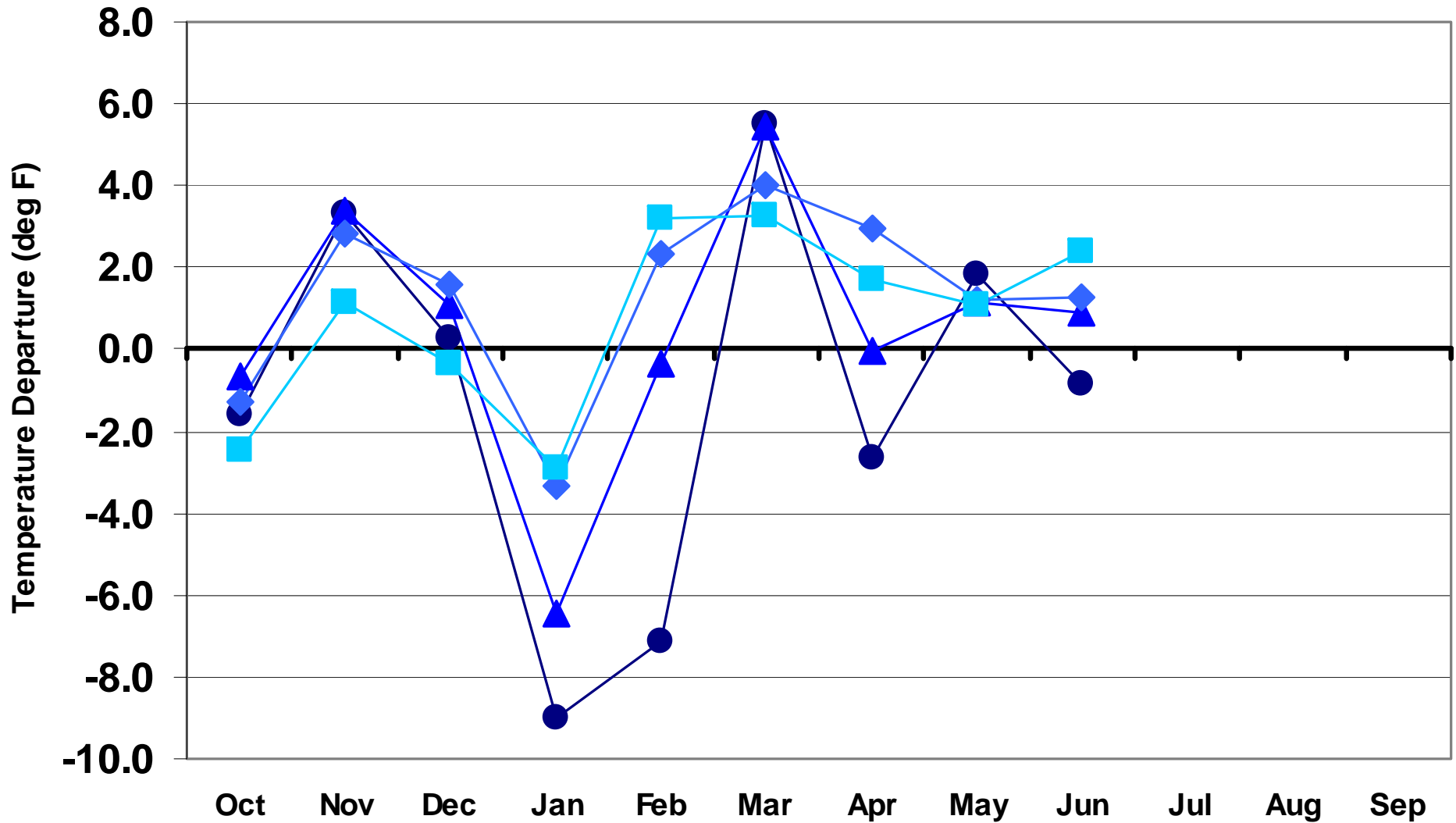
CoCoRaHS July 1 - July 23 Precipitation with Stations >20 reports



COLORADO



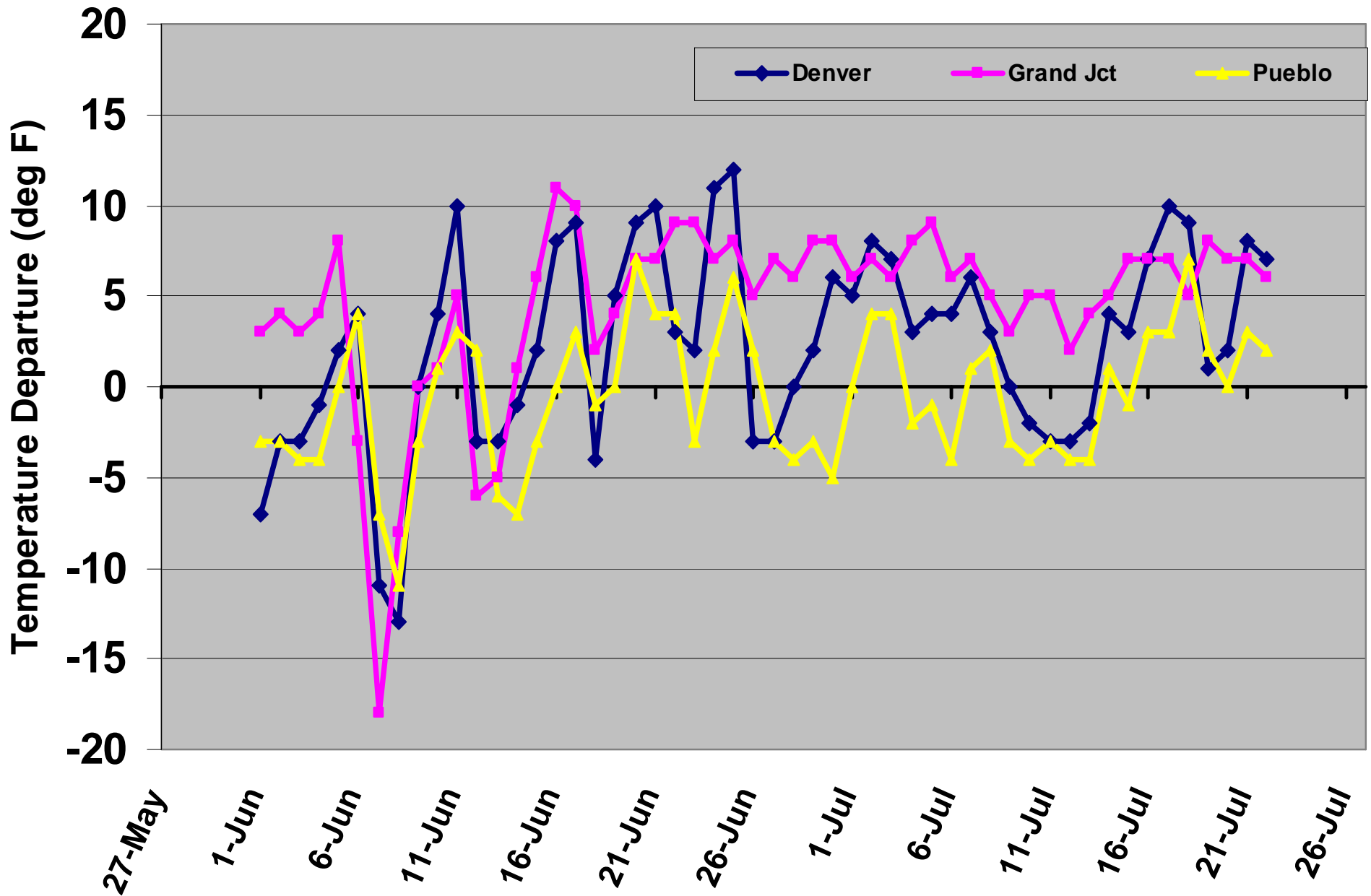
Water Year 2007 Temperature Departures



● Eastern Plains ▲ Foothills ◆ Mountains ■ Western Valleys

Temperature Departures from Average for June/July 2007

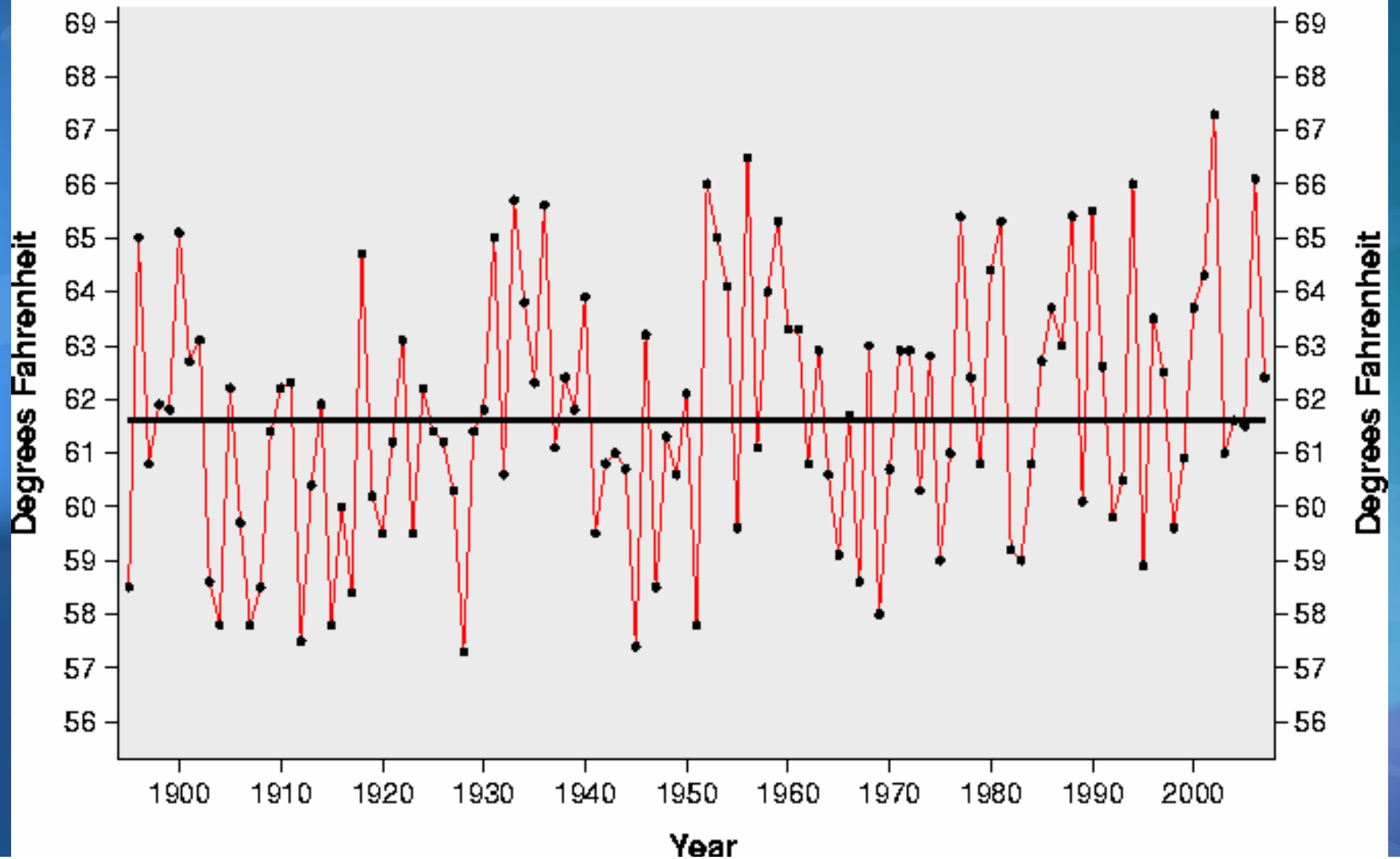
Denver, Grand Junction and Pueblo



June Average Temperature History for Colorado

— Actual Temperature
— Average Temperature

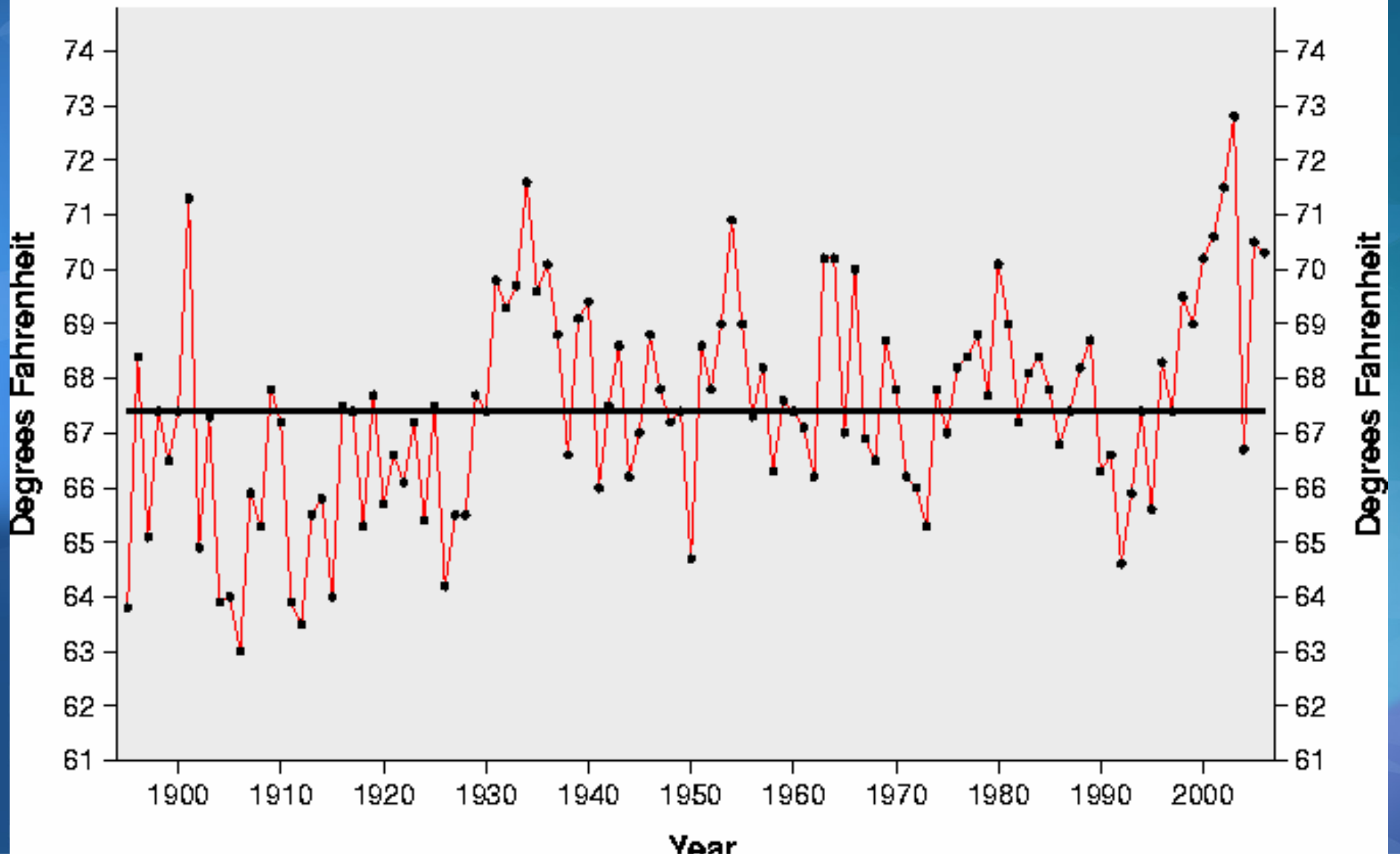
June Period of record 1895-2007



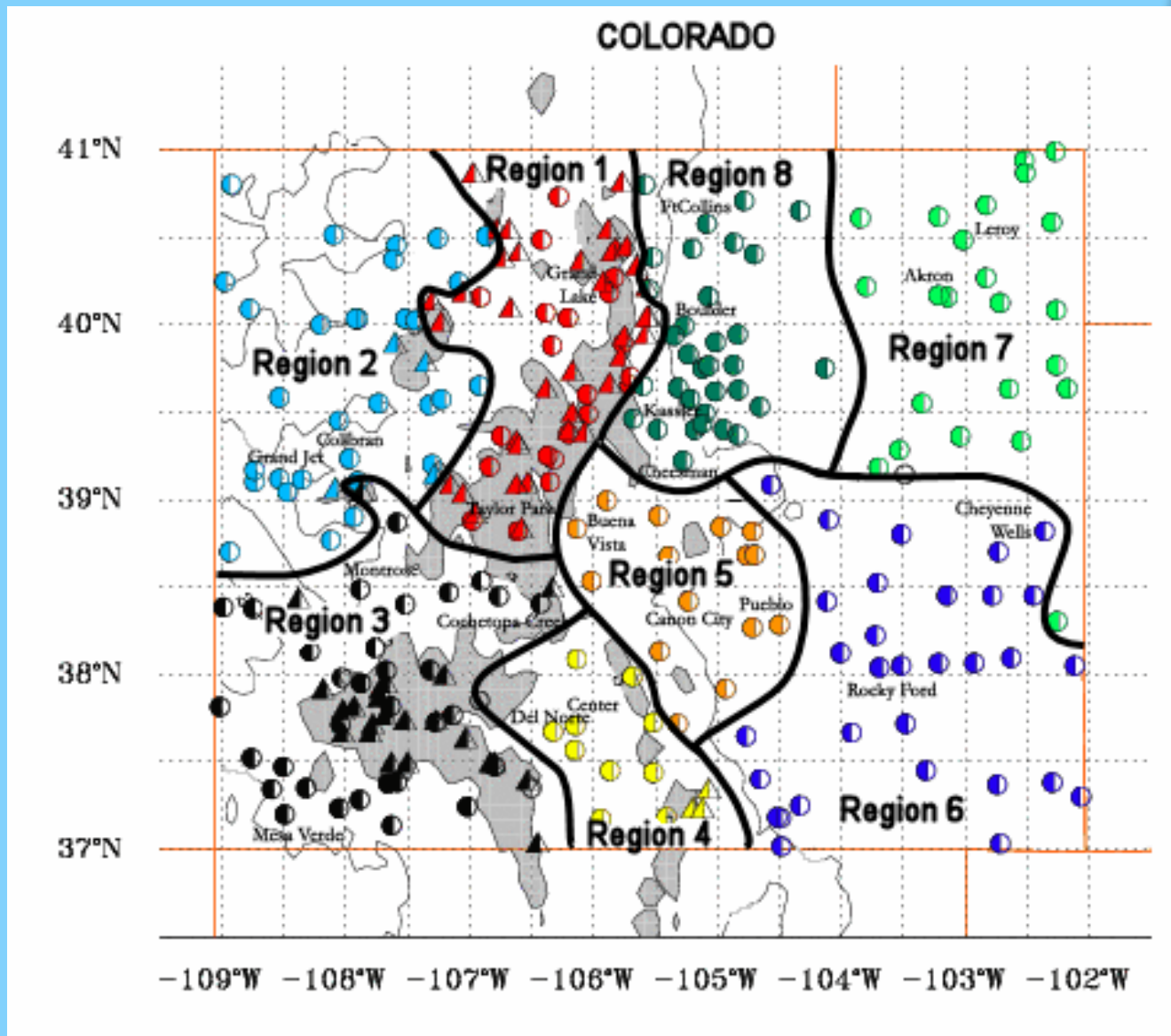
July Average Temperature History for Colorado

— Actual Temperature
— Average Temperature

July Period of record 1895-2006

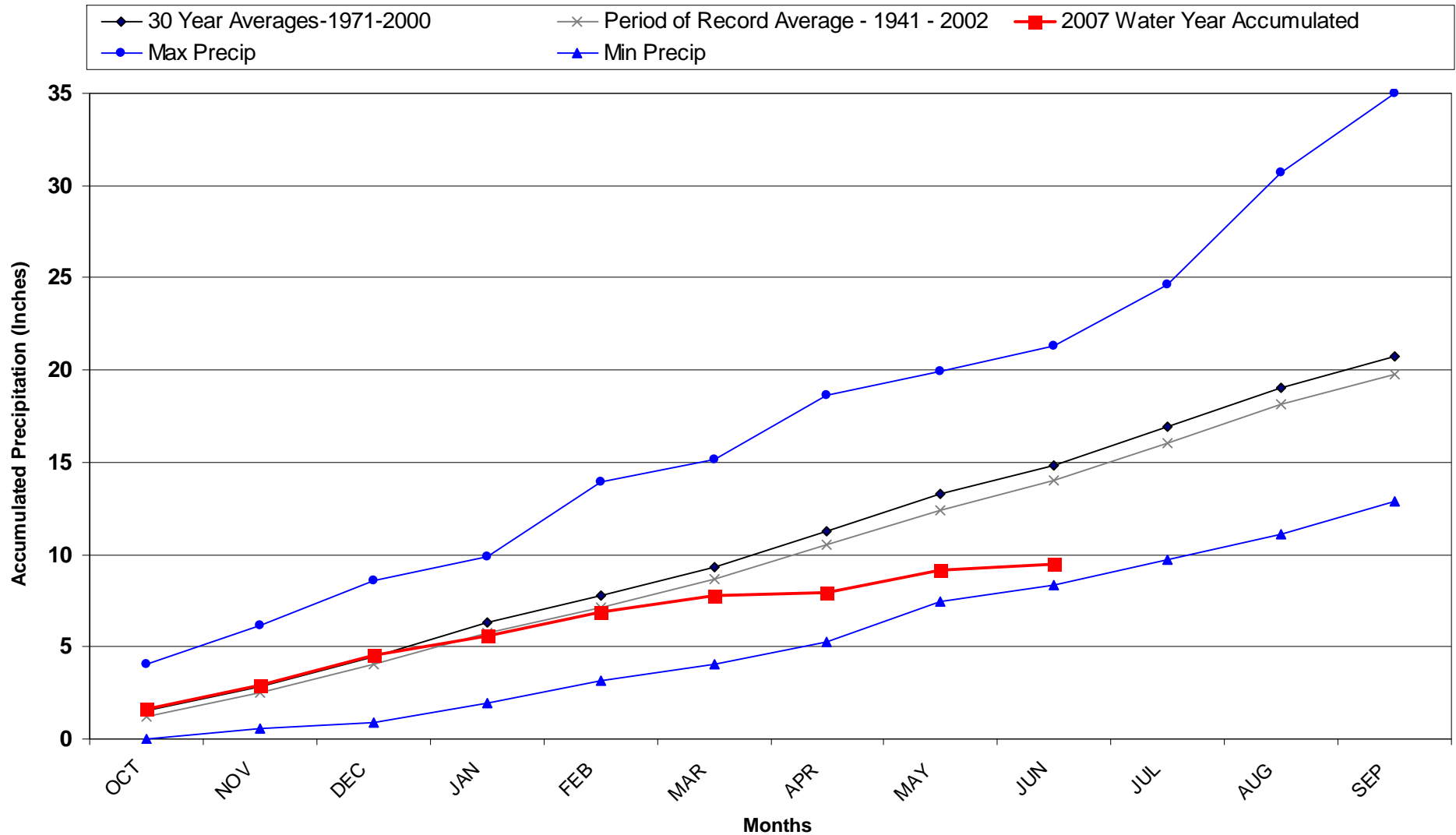


Climate divisions defined by Dr. Klaus Wolter of NOAA's Climate Diagnostic Center in Boulder, CO



Division 1 – Grand Lake 1NW

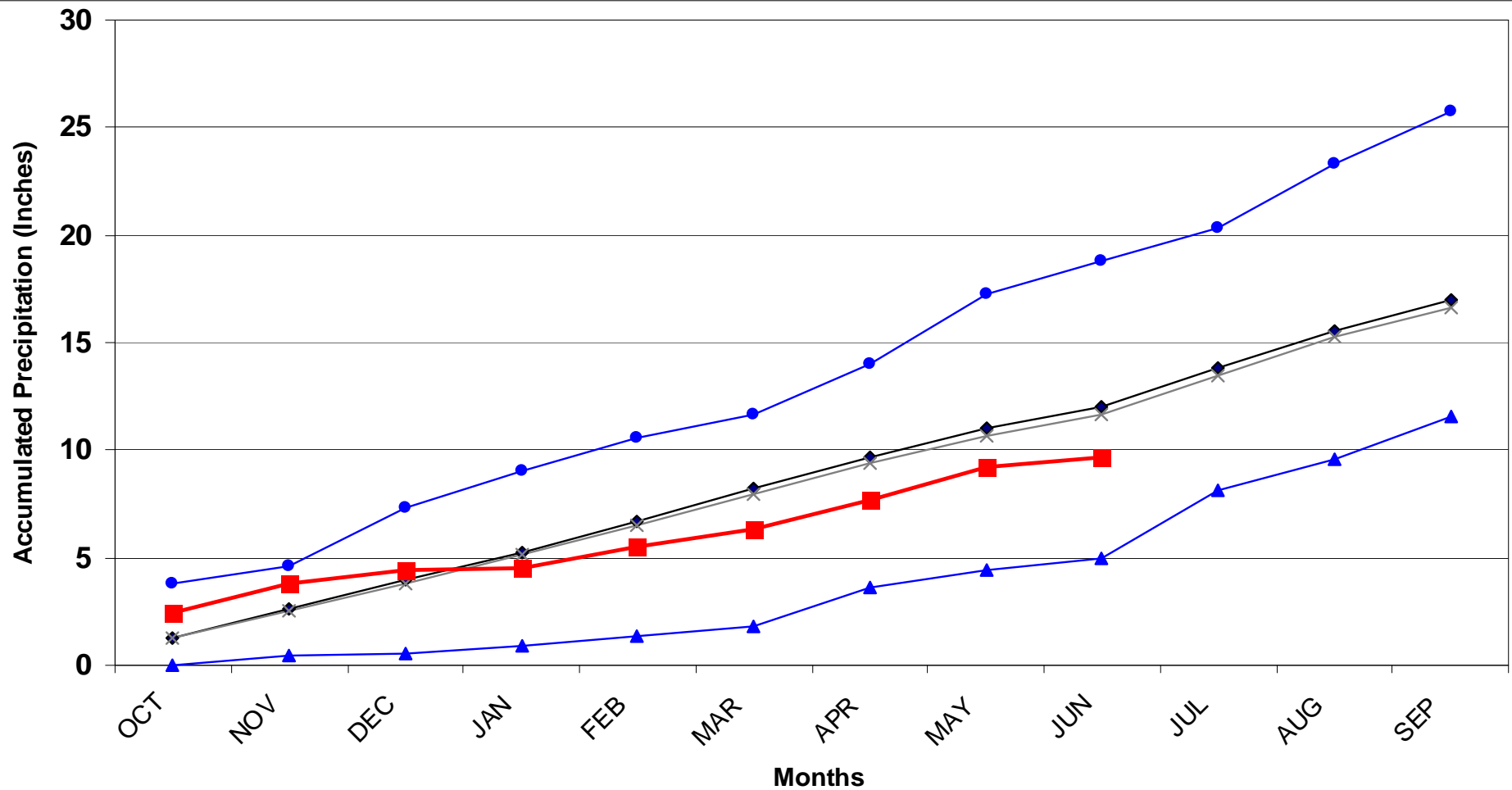
Grand Lake 1 NW 2007 Water Year



Division 1 – Taylor Park

Taylor Park 2007 Water Year

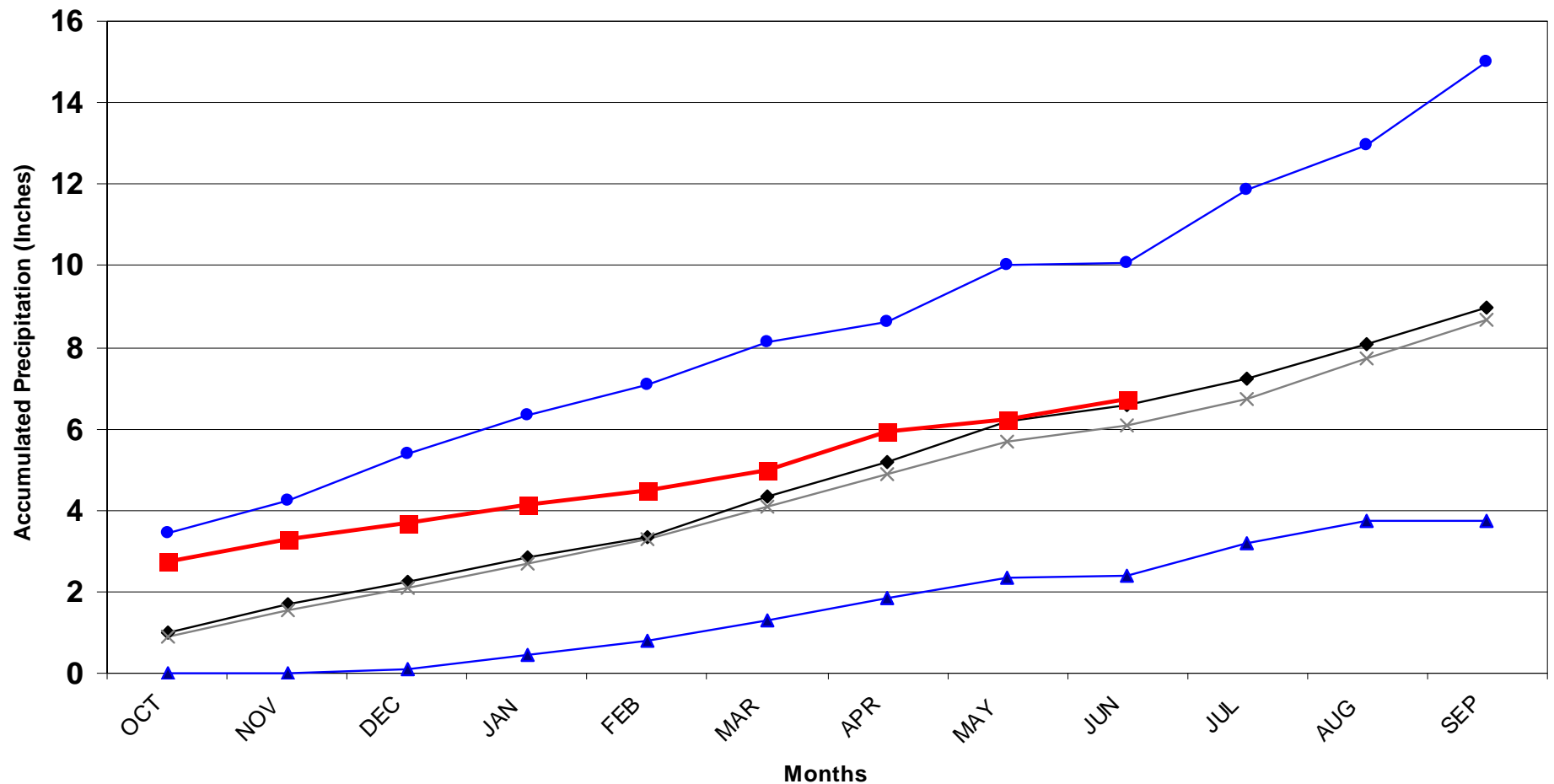
◆ 30 Year Averages-1971-2000 ✕ Period of Record Average - 1942 - 2002 ■ 2007 Water Year Accumulated
● Max Precip ▲ Min Precip



Division 2 – Grand Junction

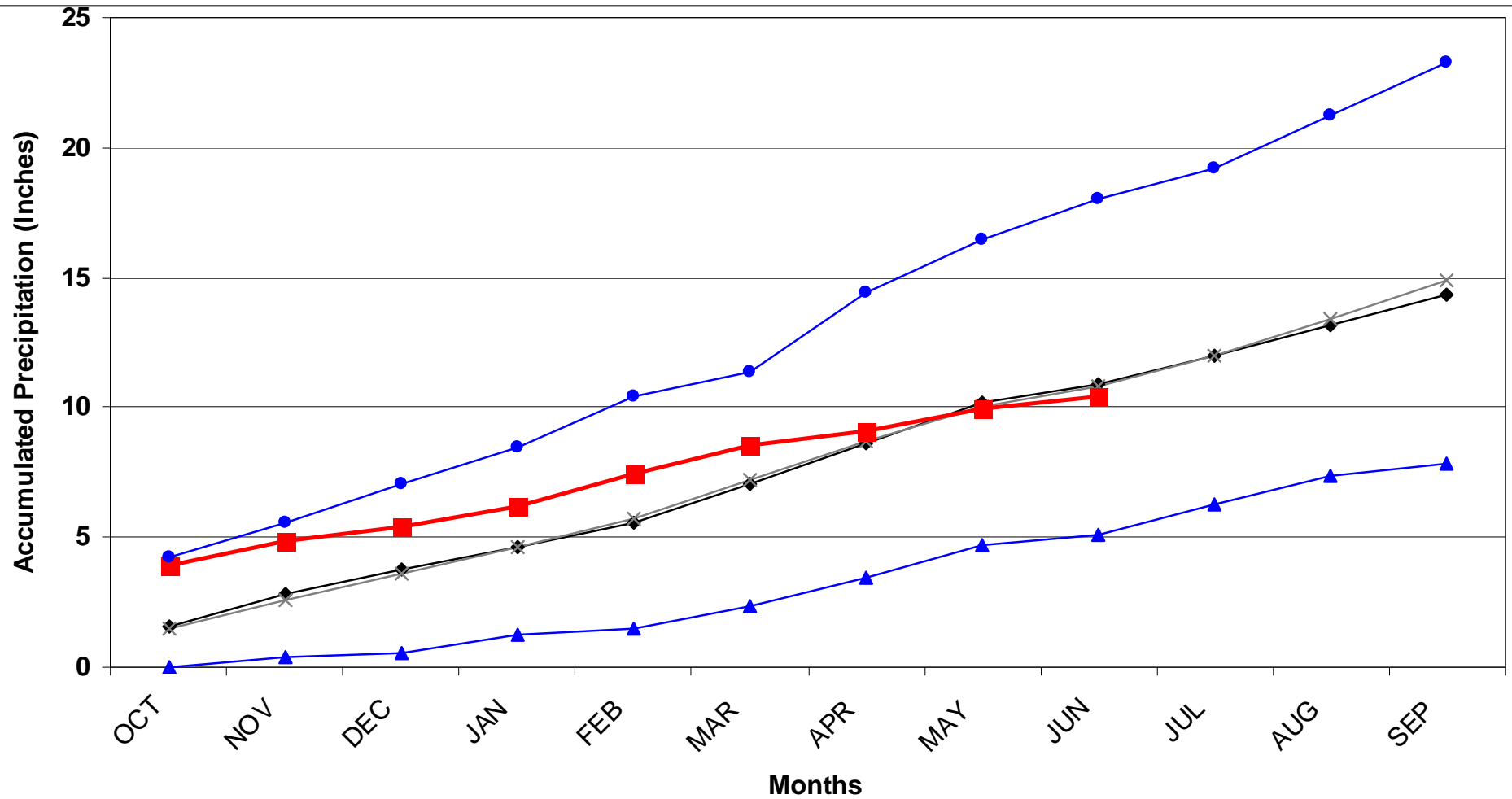
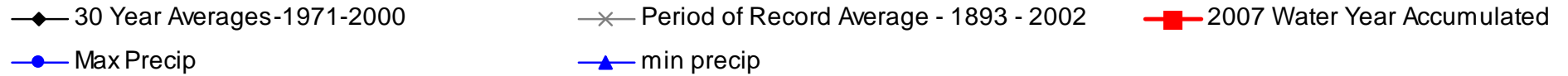
Grand Junction WSFO 2007 Water Year

◆ 30 Year Averages-1971-2000 ✕ Period of Record Average - 1893- 2002 ■ 2007 Water Year Accumulated
● Max Precip ▲ Min Precip



Division 2- Collbran

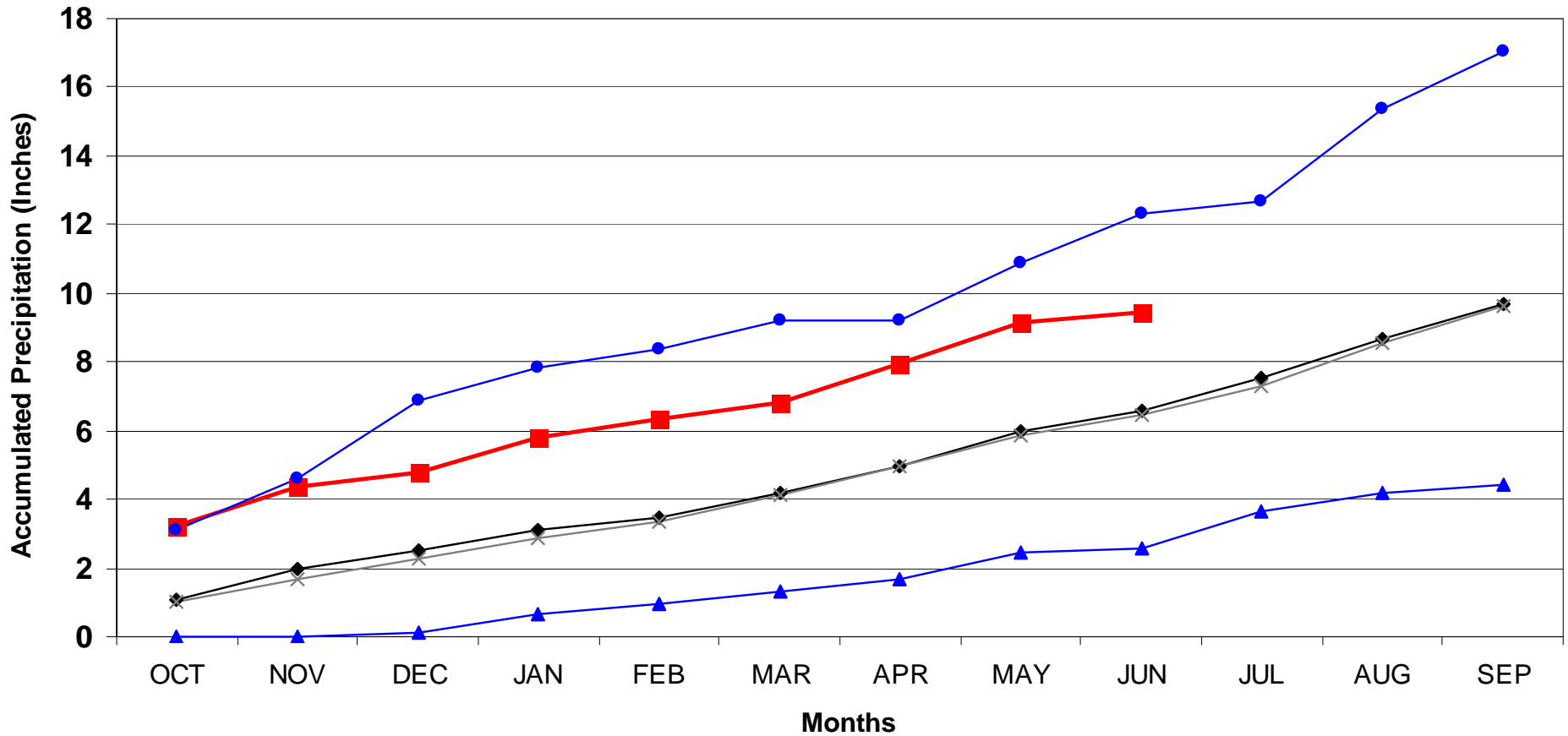
Collbran 2SW 2007 Water Year



Division 3 – Montrose

Montrose #2 2007 Water Year

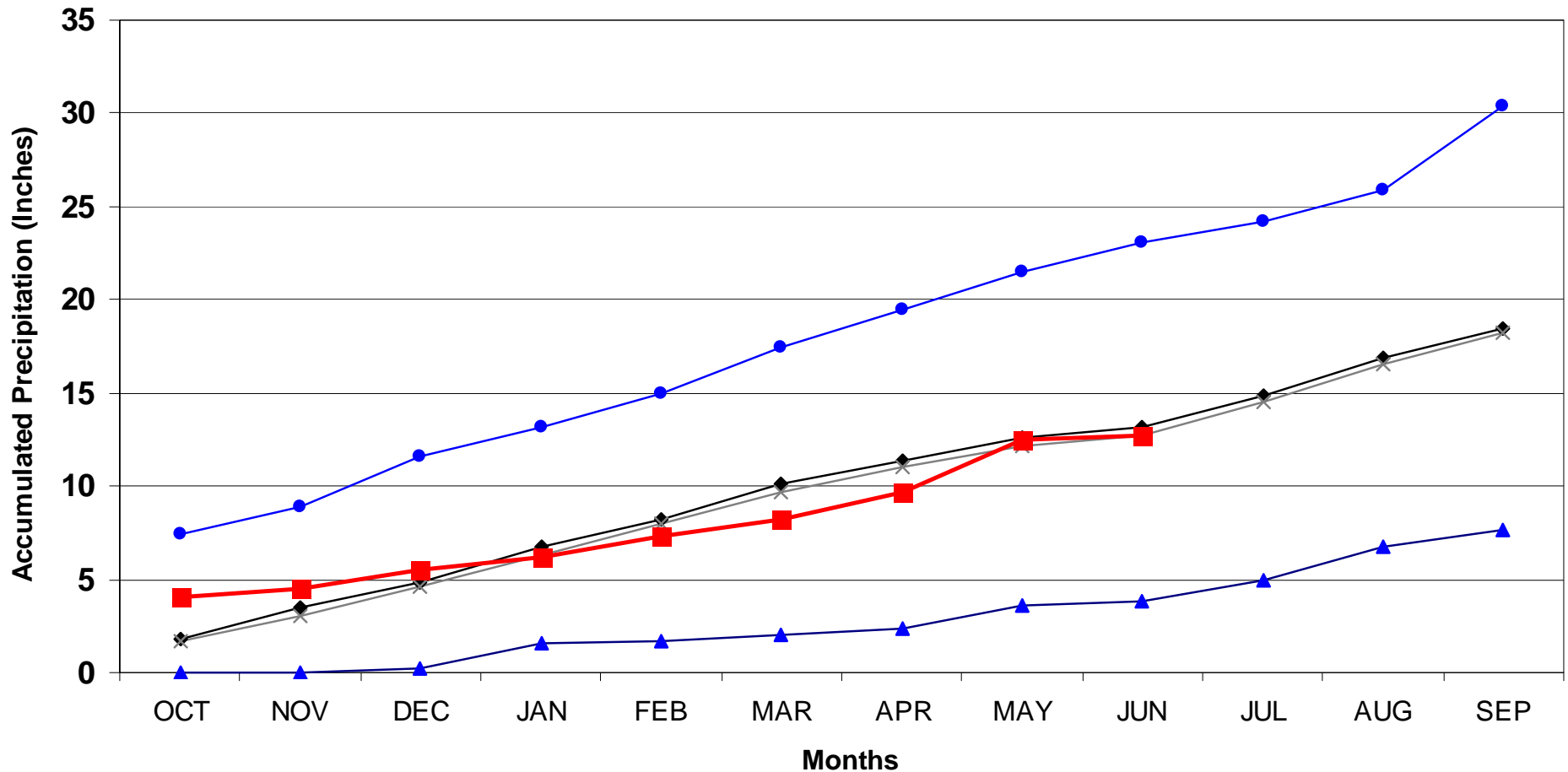
◆ 30 Year Averages-1971-2000 ✕ Period of Record Average - 1893- 2002 ■ 2007 Water Year Accumulated
● Max Precip ▲ Min Precip



Division 3 – Mesa Verde

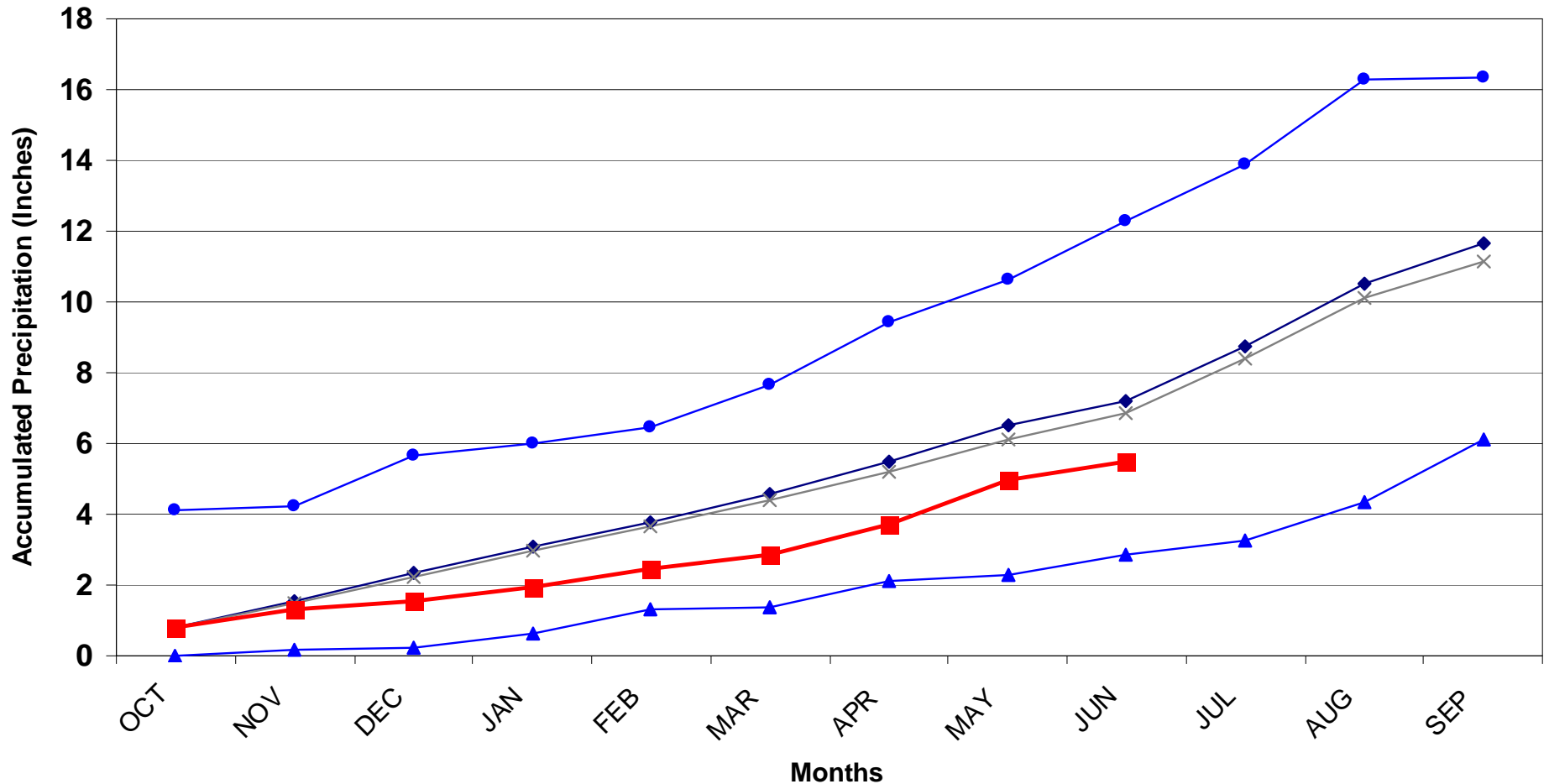
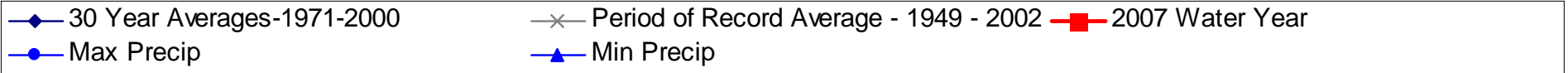
Mesa Verde NP 2007 Water Year

◆ 30 Year Averages-1971-2000 ✕ Period of Record Average - 1893- 2002 ■ 2007 Water Year Accumulated
● Max Precip ▲ Min Precip



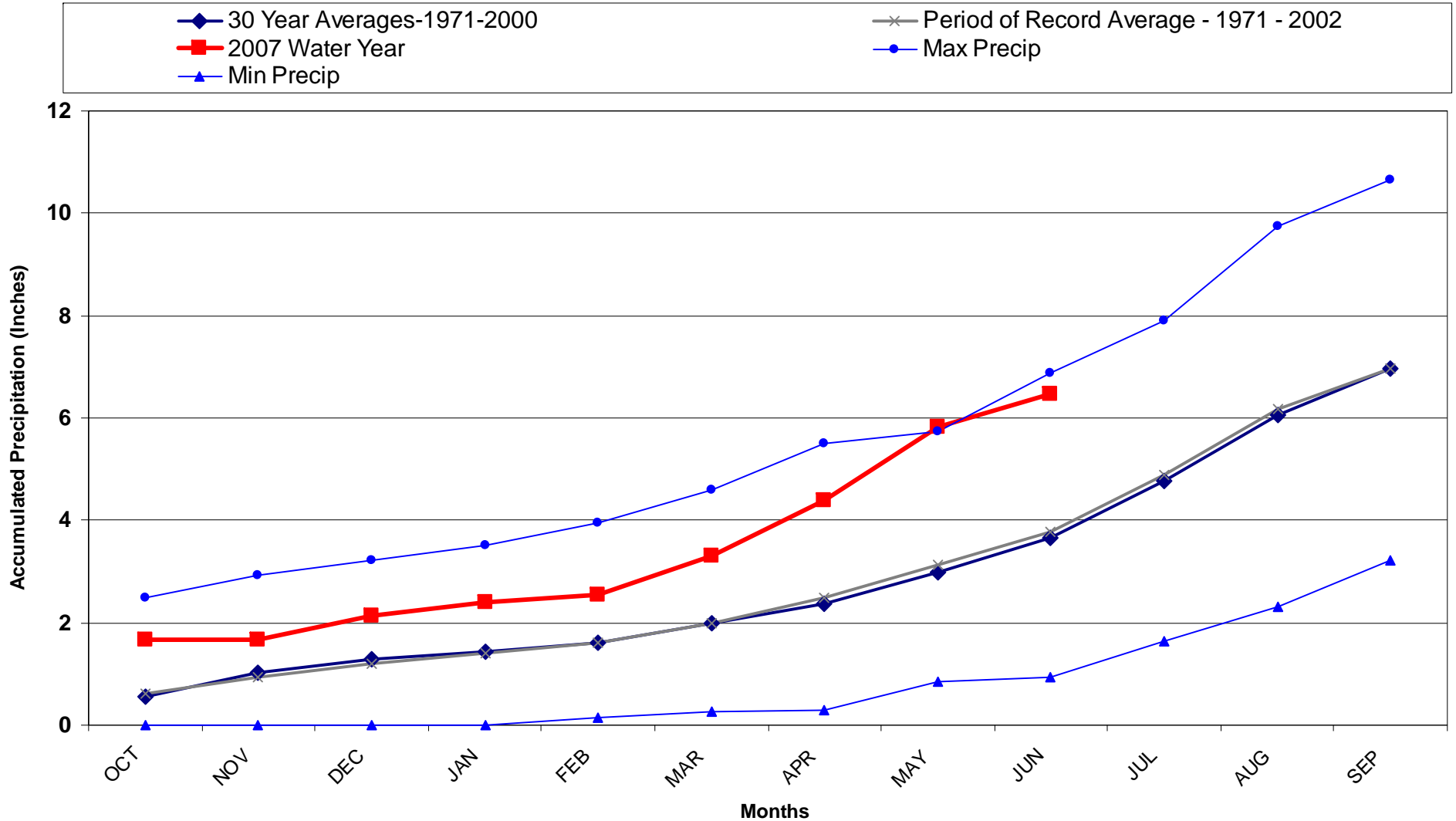
Division 3 – Cochetopa Creek

Cochetopa Creek 2007 Water Year



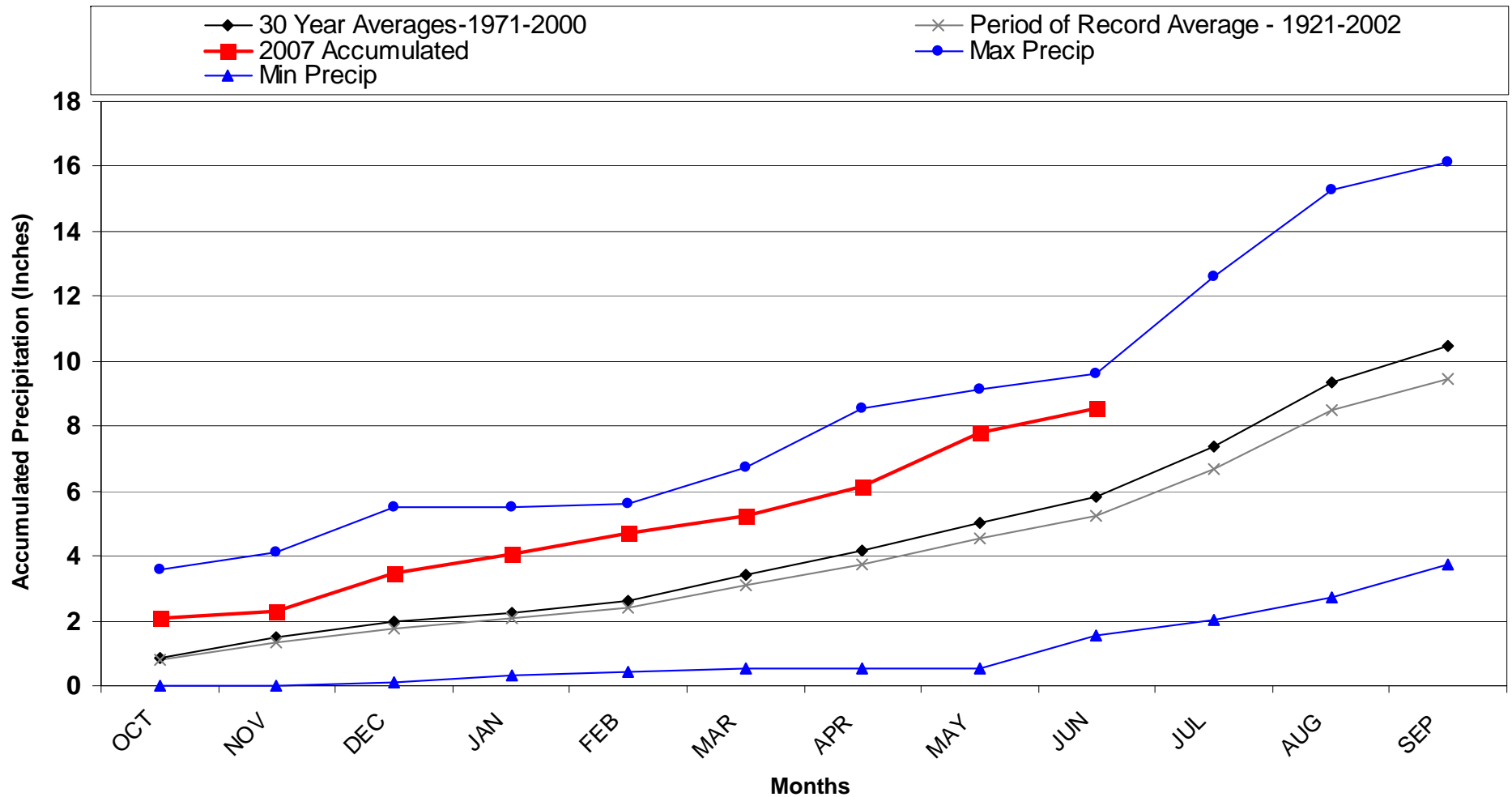
Division 4 – Center

Center 4SSW 2007 Water Year



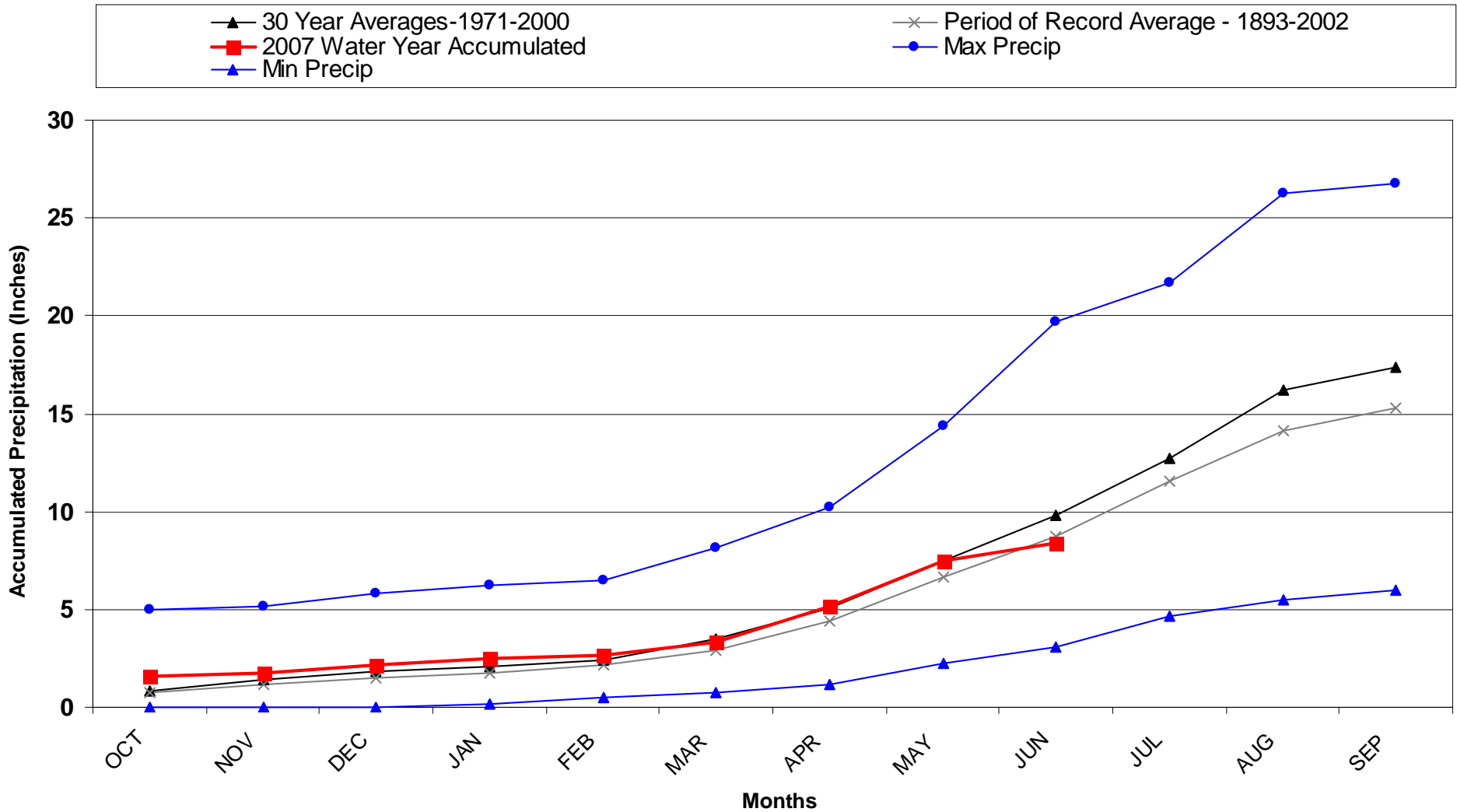
Division 4 – Del Norte

Del Norte 2007 Water Year



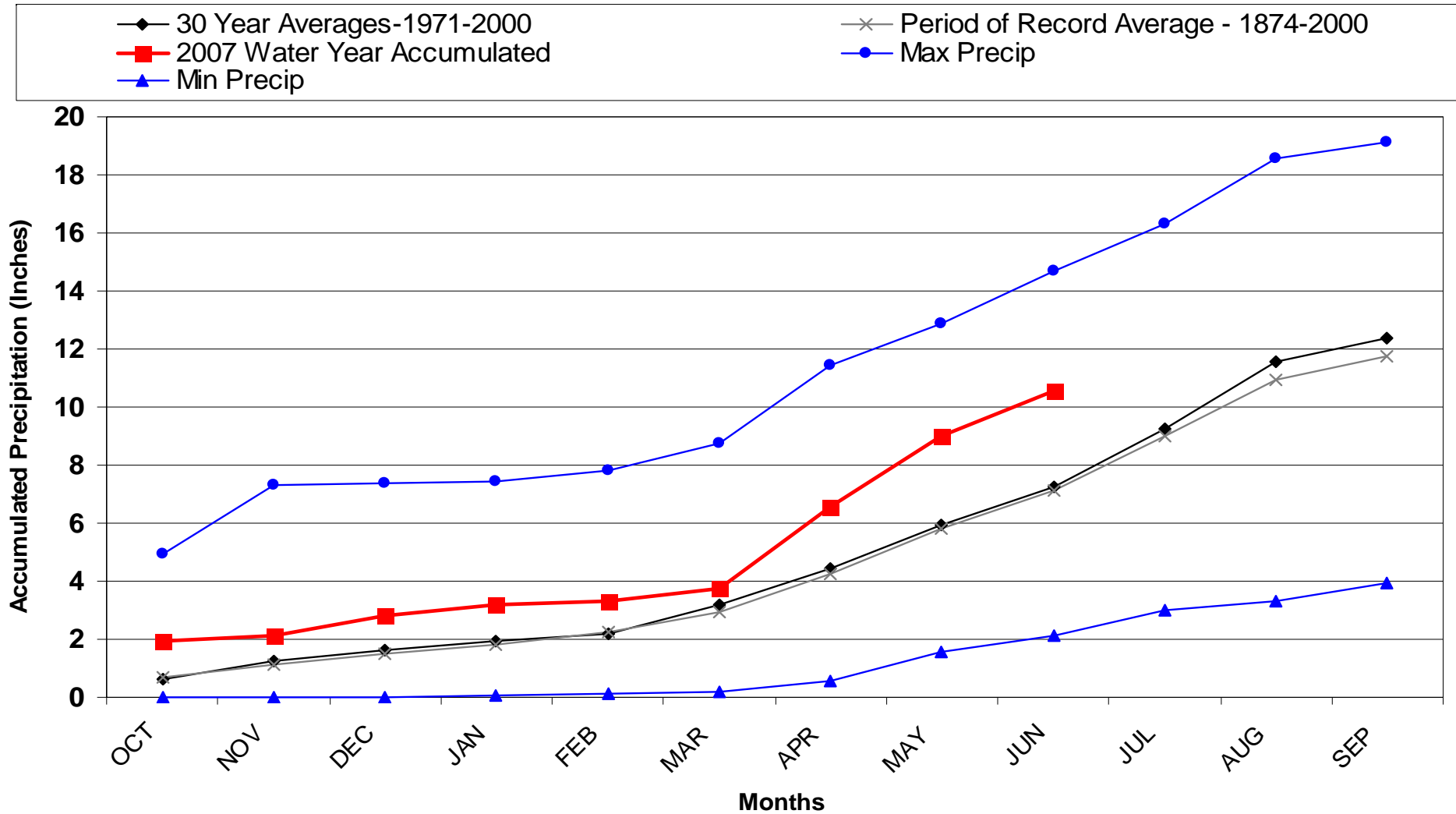
Division 5 – Colorado Springs

Colorado Springs 2007 Water Year



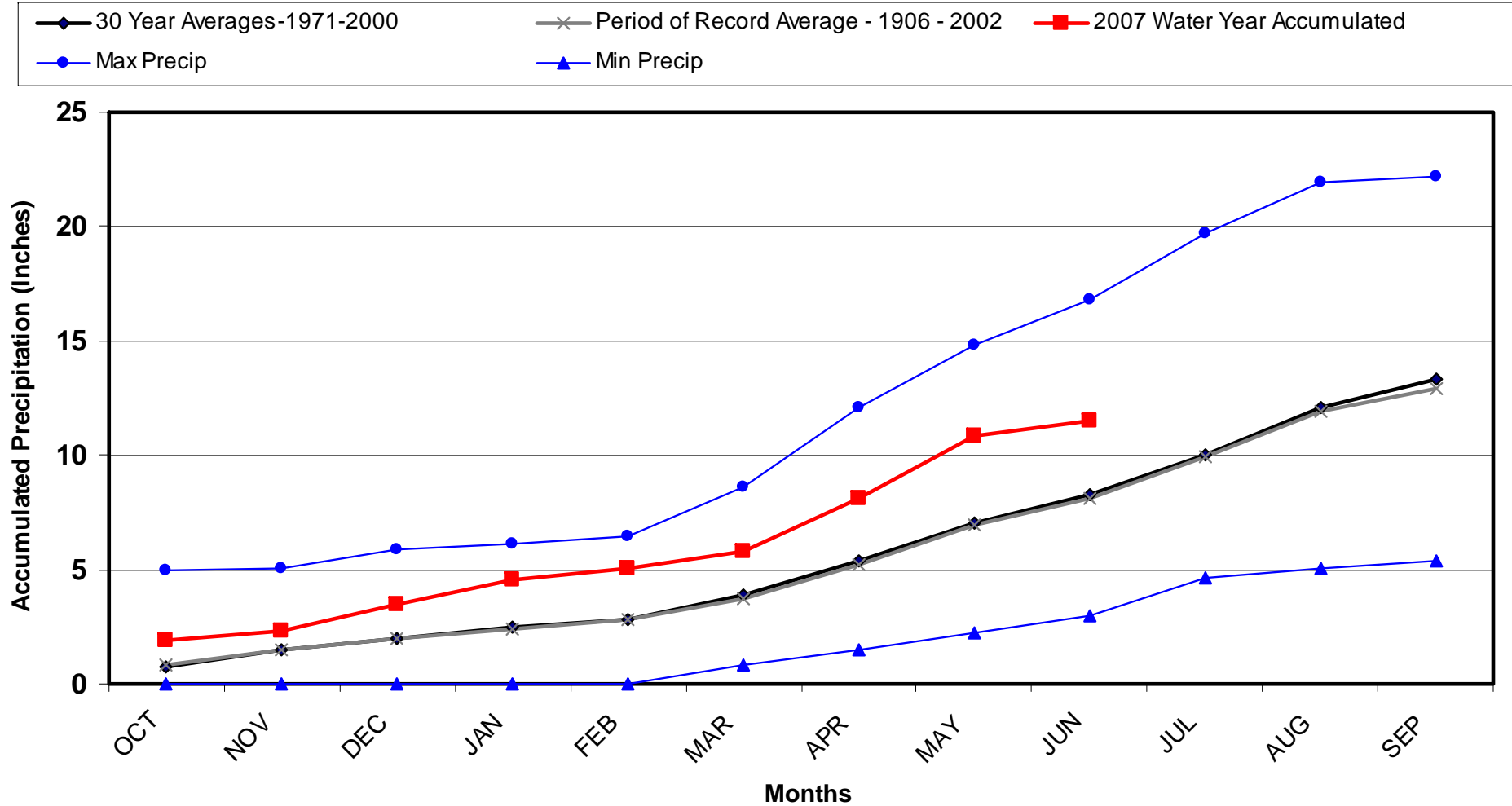
Division 5 – Pueblo

Pueblo WSO 2007 Water Year



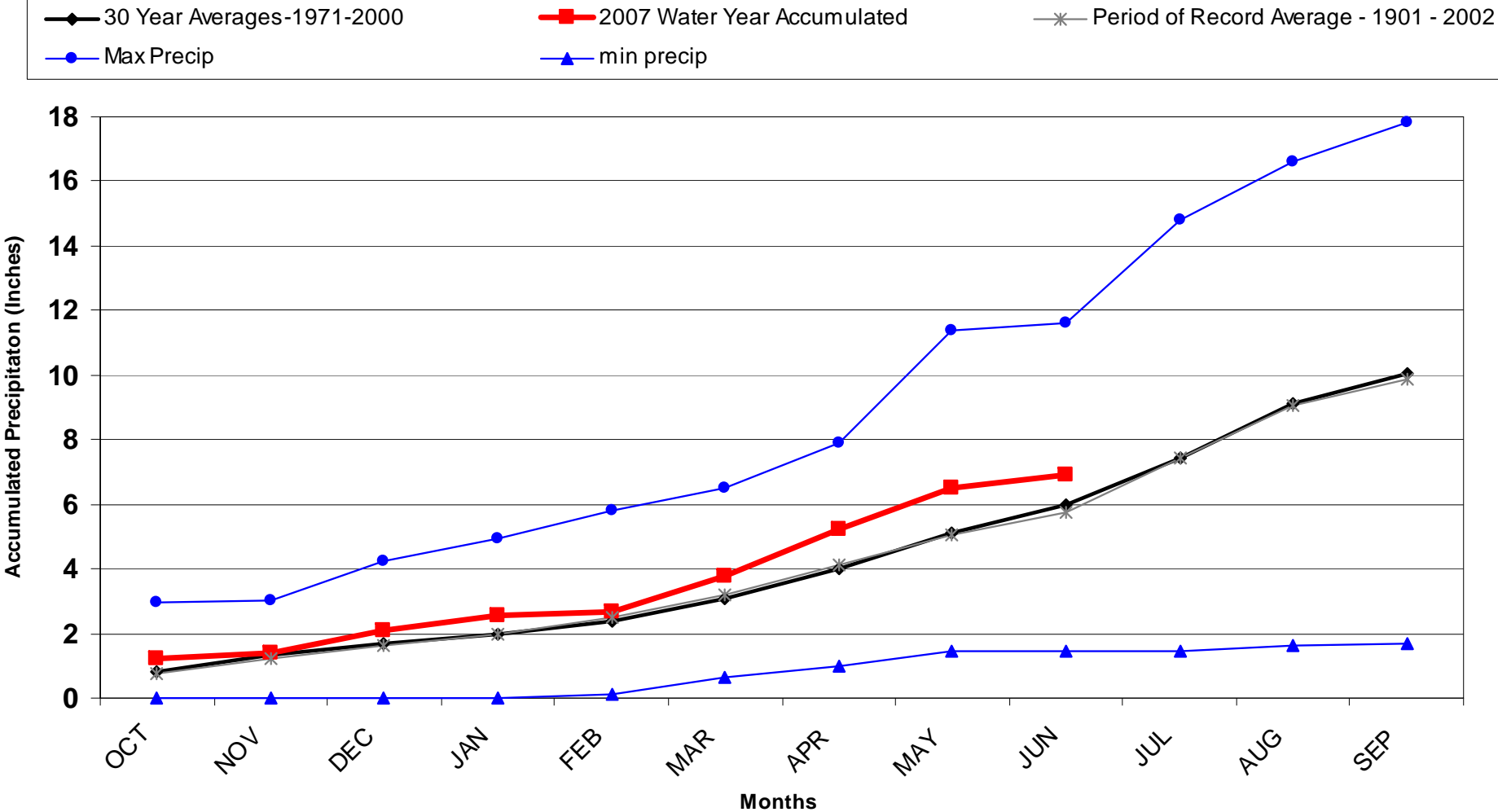
Division 5 – Canon City

Canon City 2007 Water Year



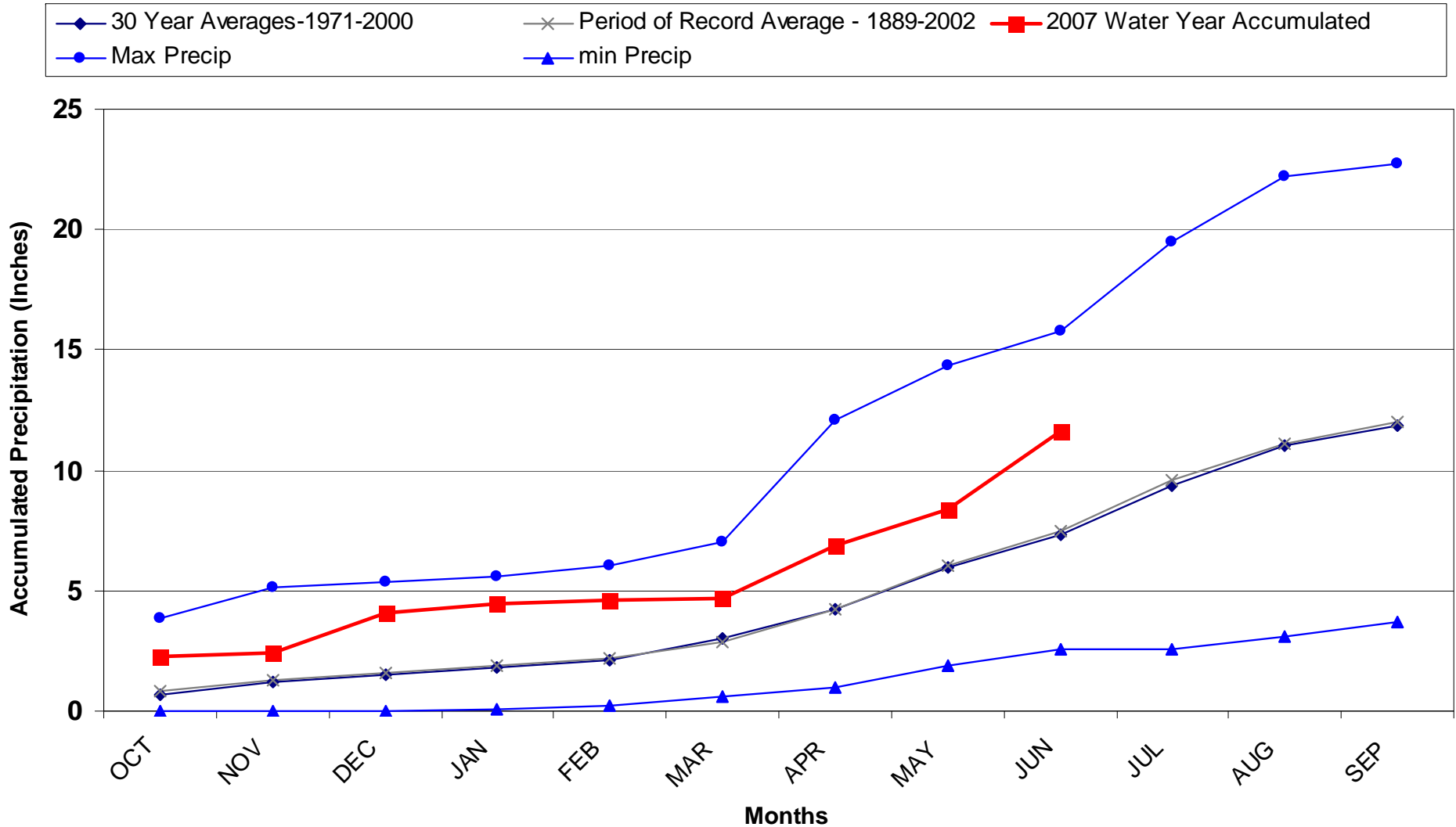
Division 5 – Buena Vista

Buena Vista 2007 Water Year



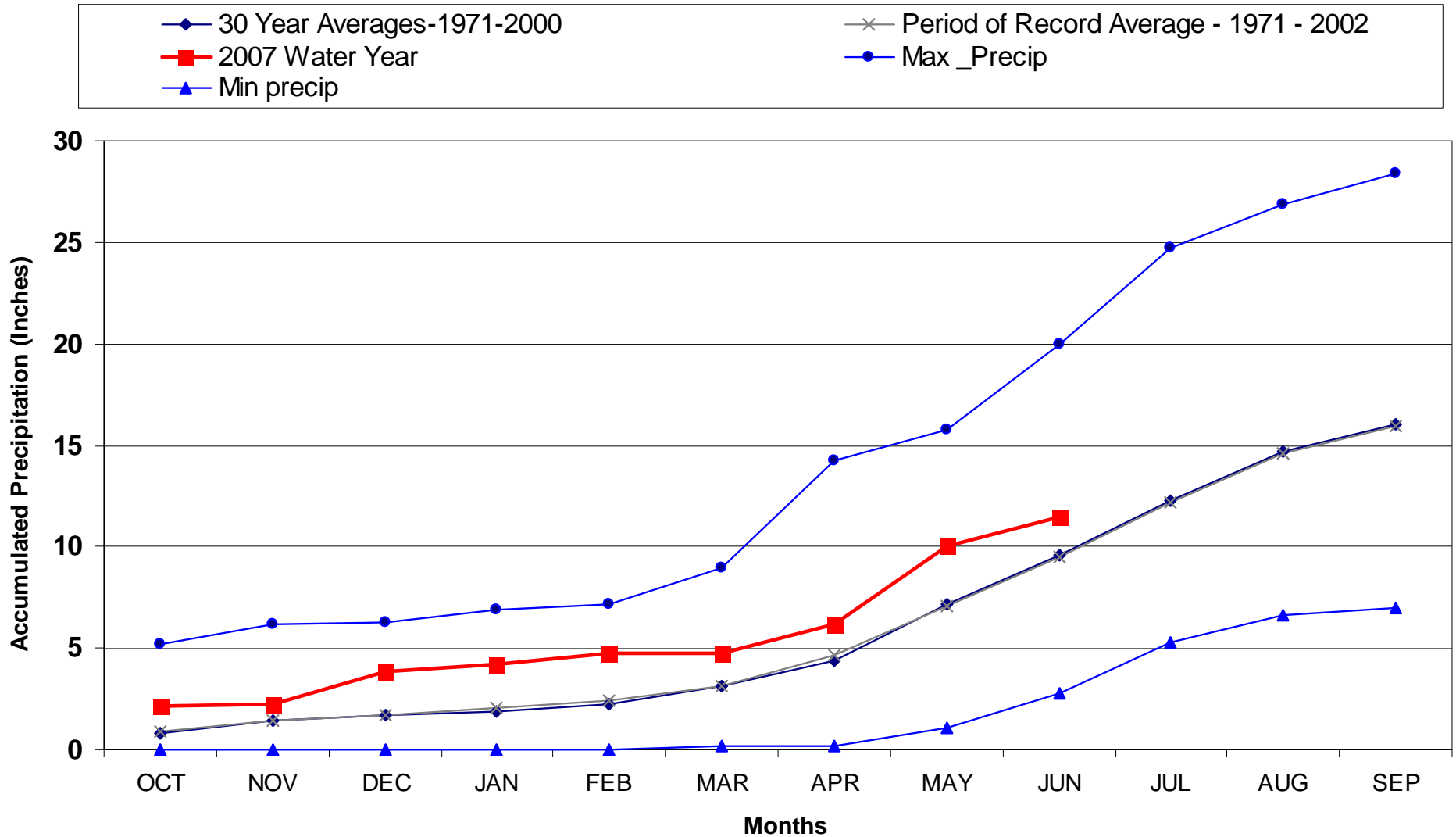
Division 6 – Rocky Ford

Rocky Ford 2007 Water Year



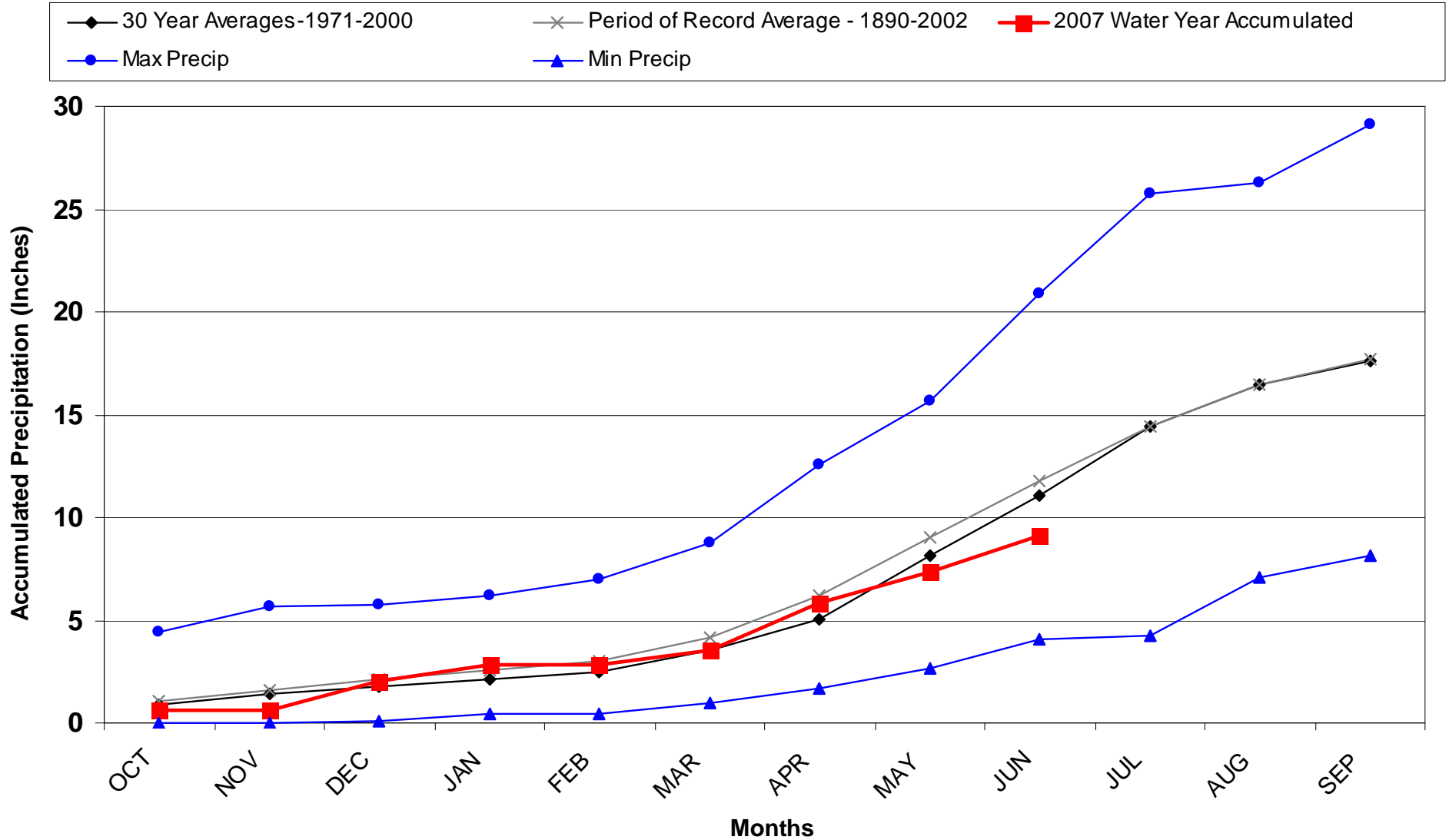
Division 6 – Cheyenne Wells

Cheyenne Wells 2007 Water Year



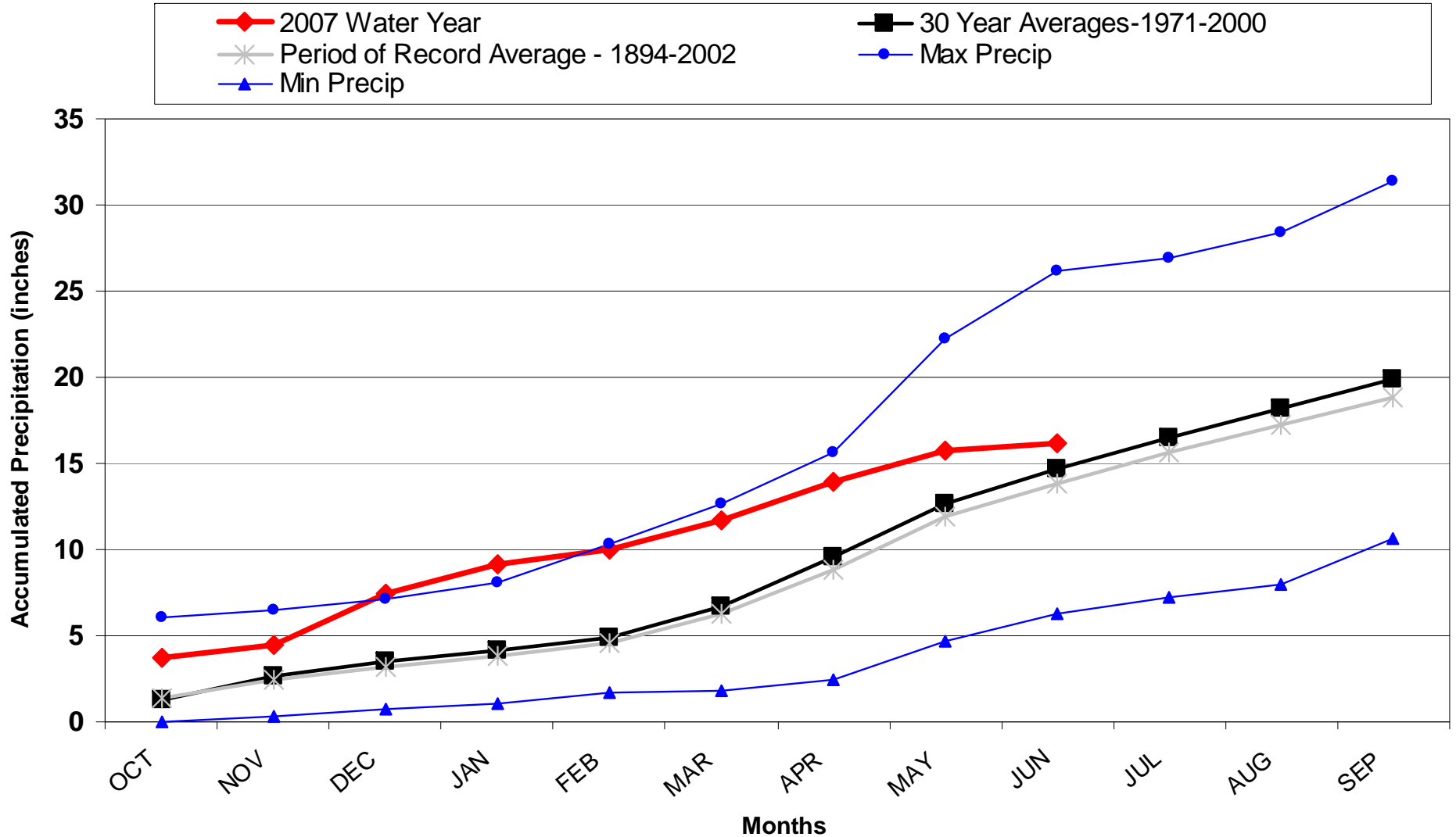
Division 7 – Leroy

Leroy 5SW 2007 Water Year



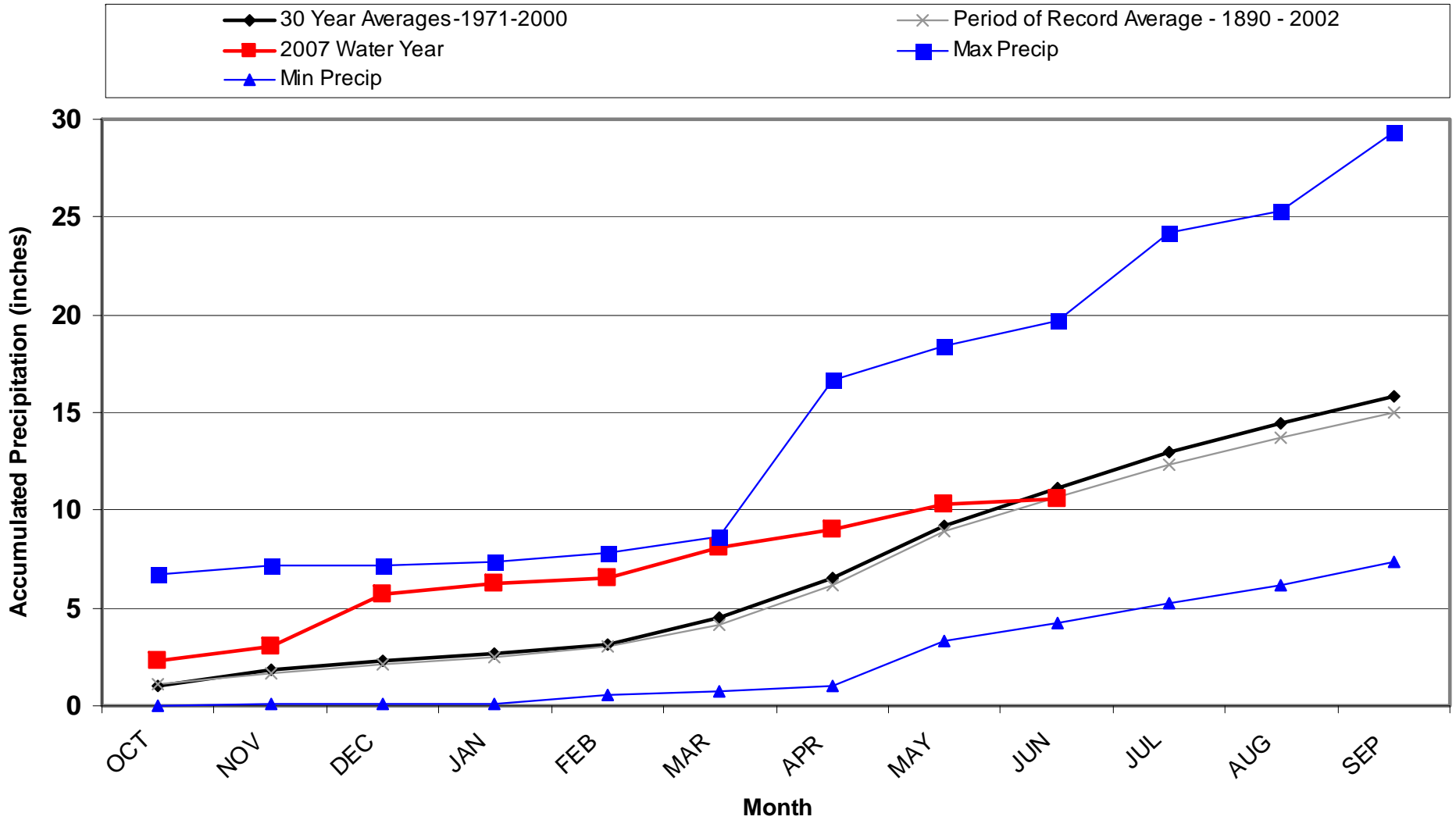
Division 8 – Boulder

Boulder 2007 Water Year



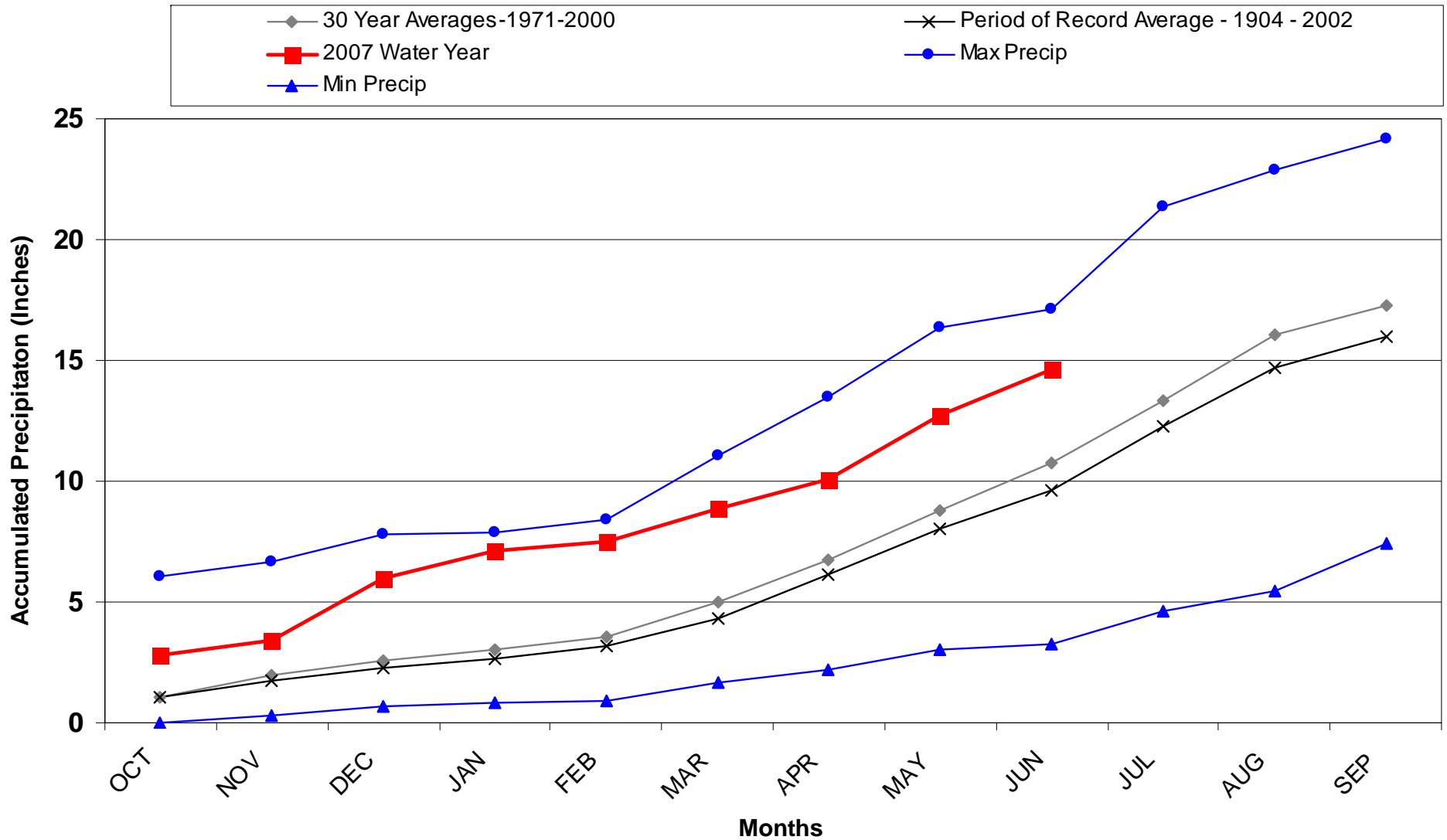
Division 8 – Fort Collins

Fort Collins 2007 Water Year



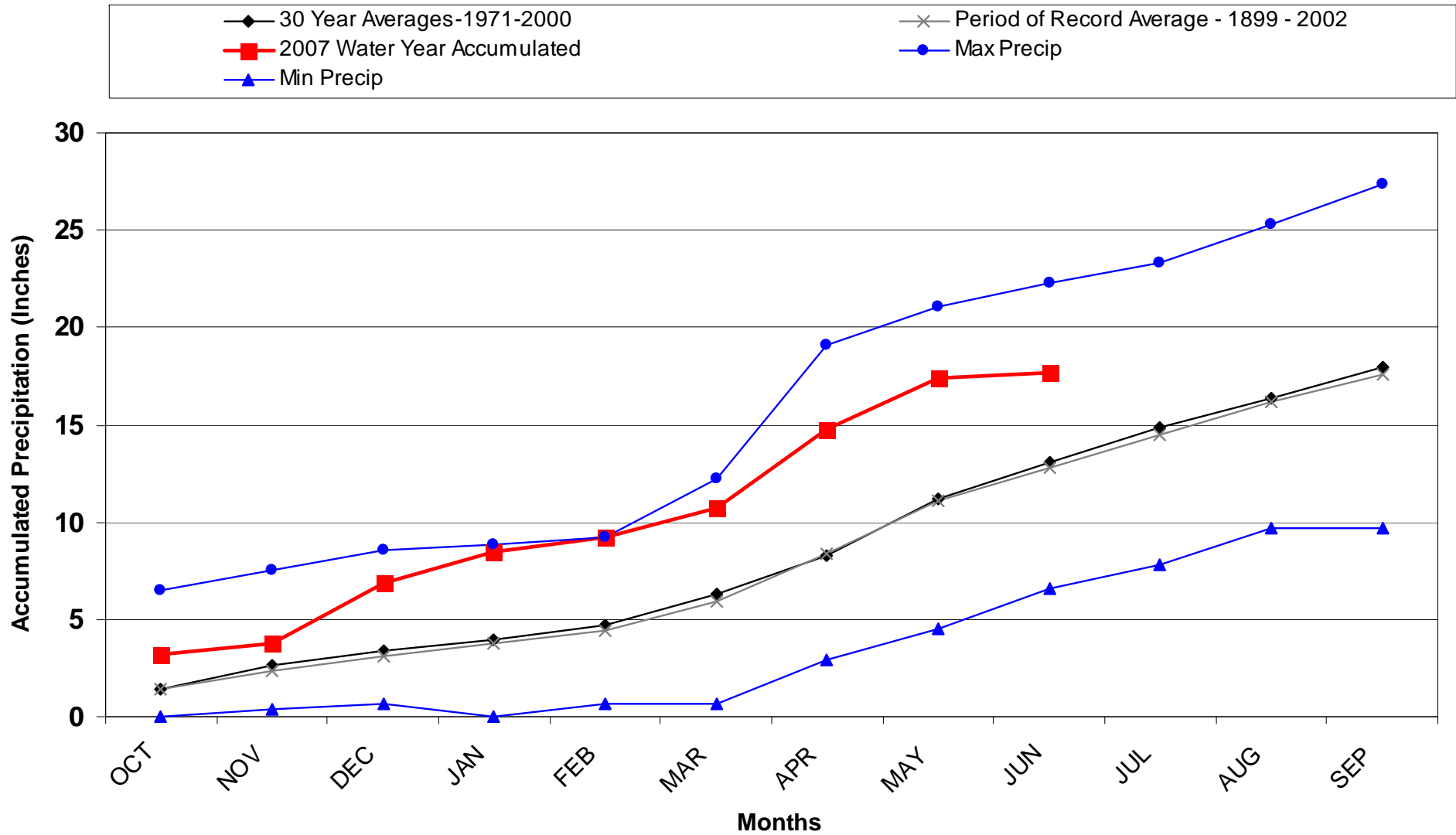
Division 8 – Cheesman

Cheesman 2007 Water Year



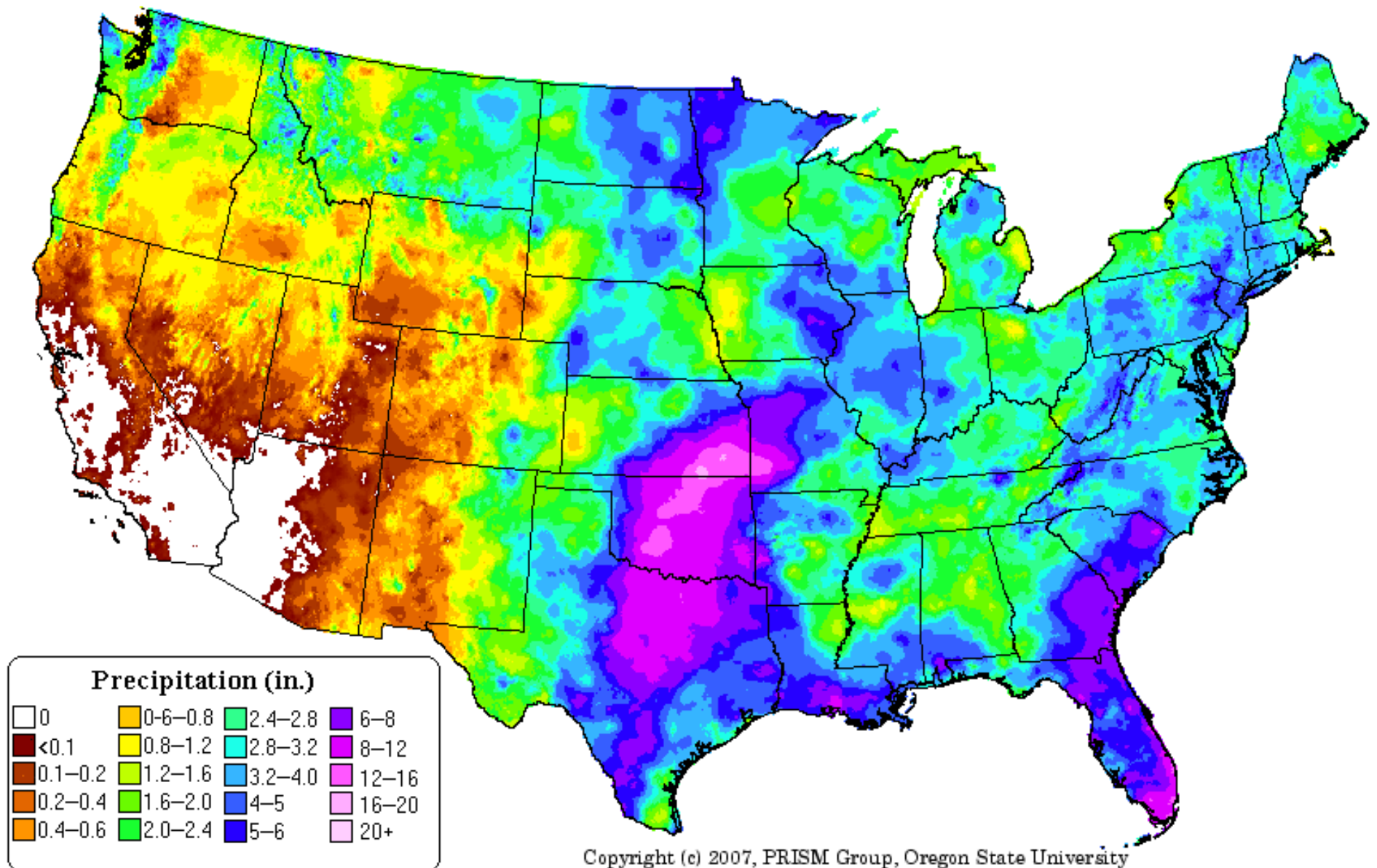
Division 8 – Kassler

Kassler 2007 Water Year



June 2007 Precipitation (Prism)

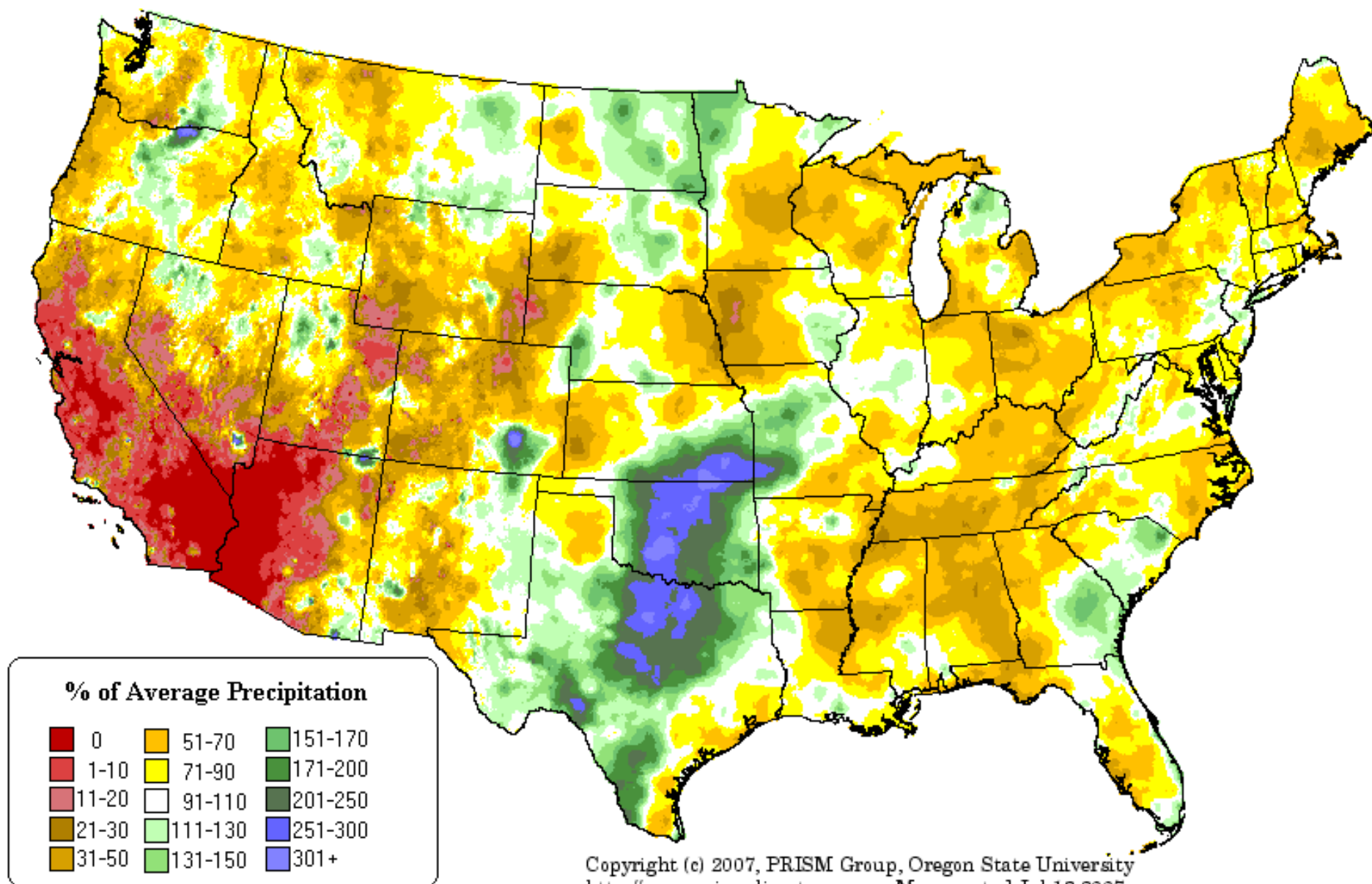
Precipitation: Jun 2007
Provisional Data



Copyright (c) 2007, PRISM Group, Oregon State University
<http://www.prismclimate.org> - Map created Jul 12 2007

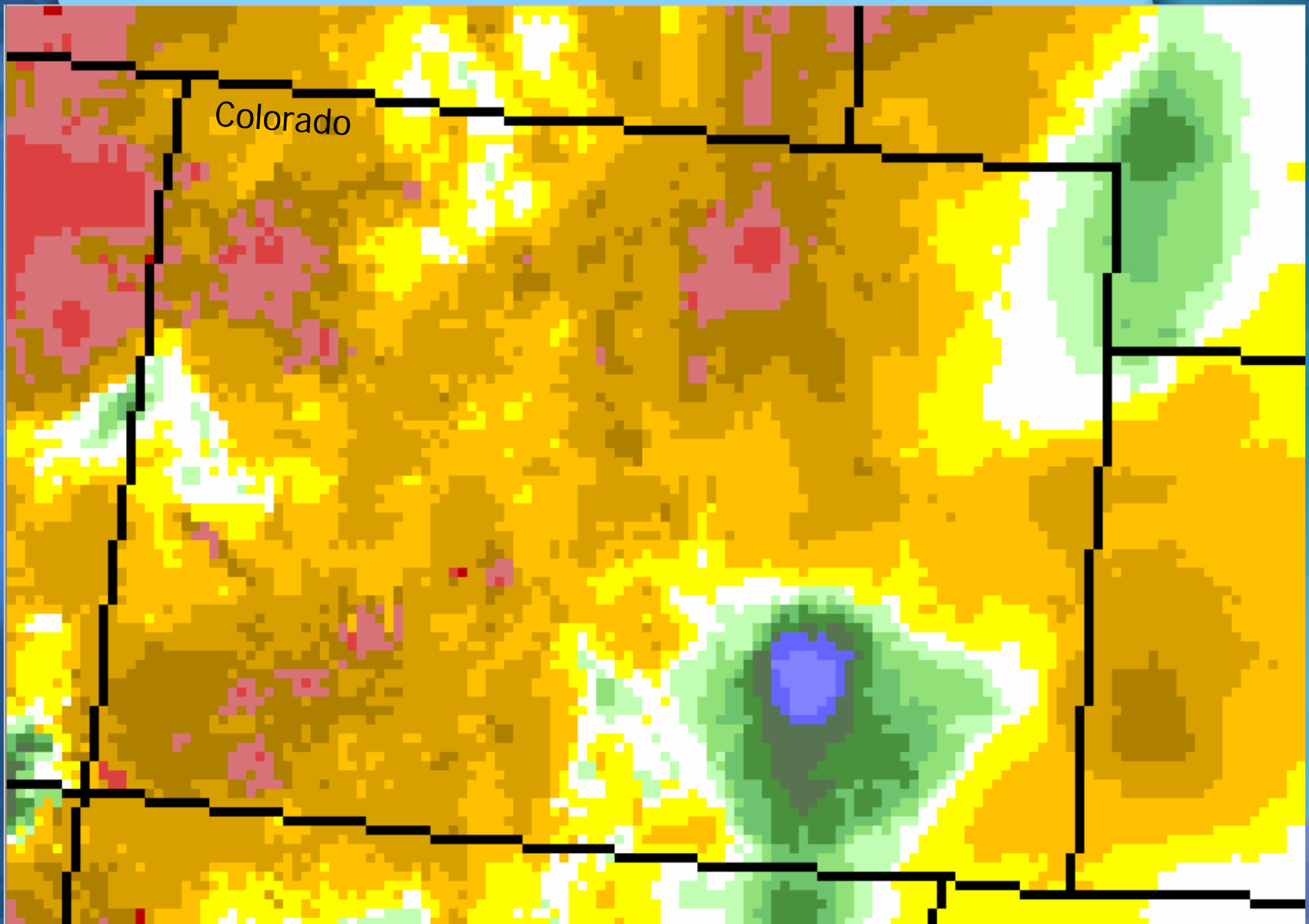
June 2007 Percent of Average (Prism)

1-month Percent of Average Precipitation: Jun 2007
Provisional Data

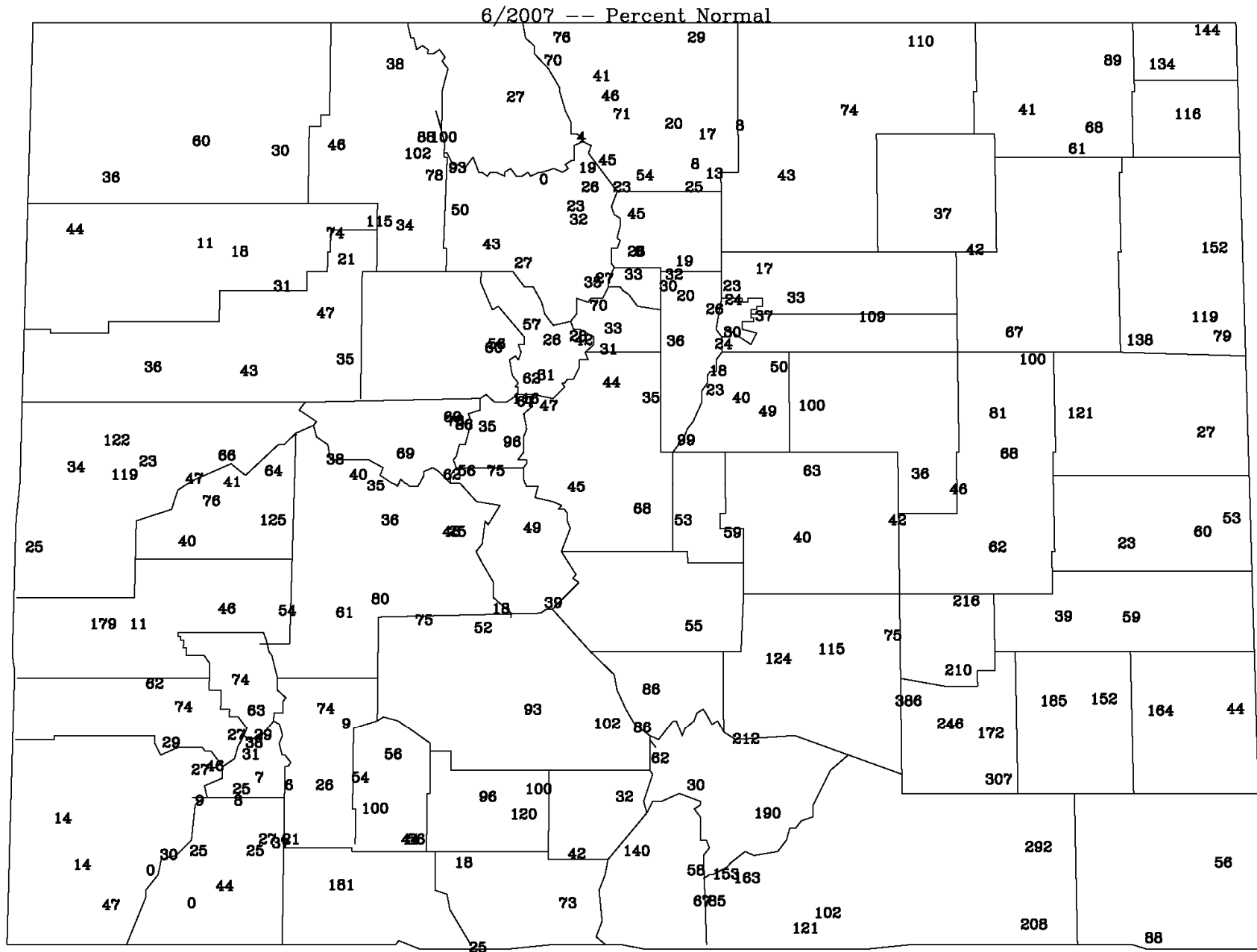


Copyright (c) 2007, PRISM Group, Oregon State University
<http://www.prismclimate.org> - Map created Jul 13 2007

June 2007 Percent of Average (Prism)

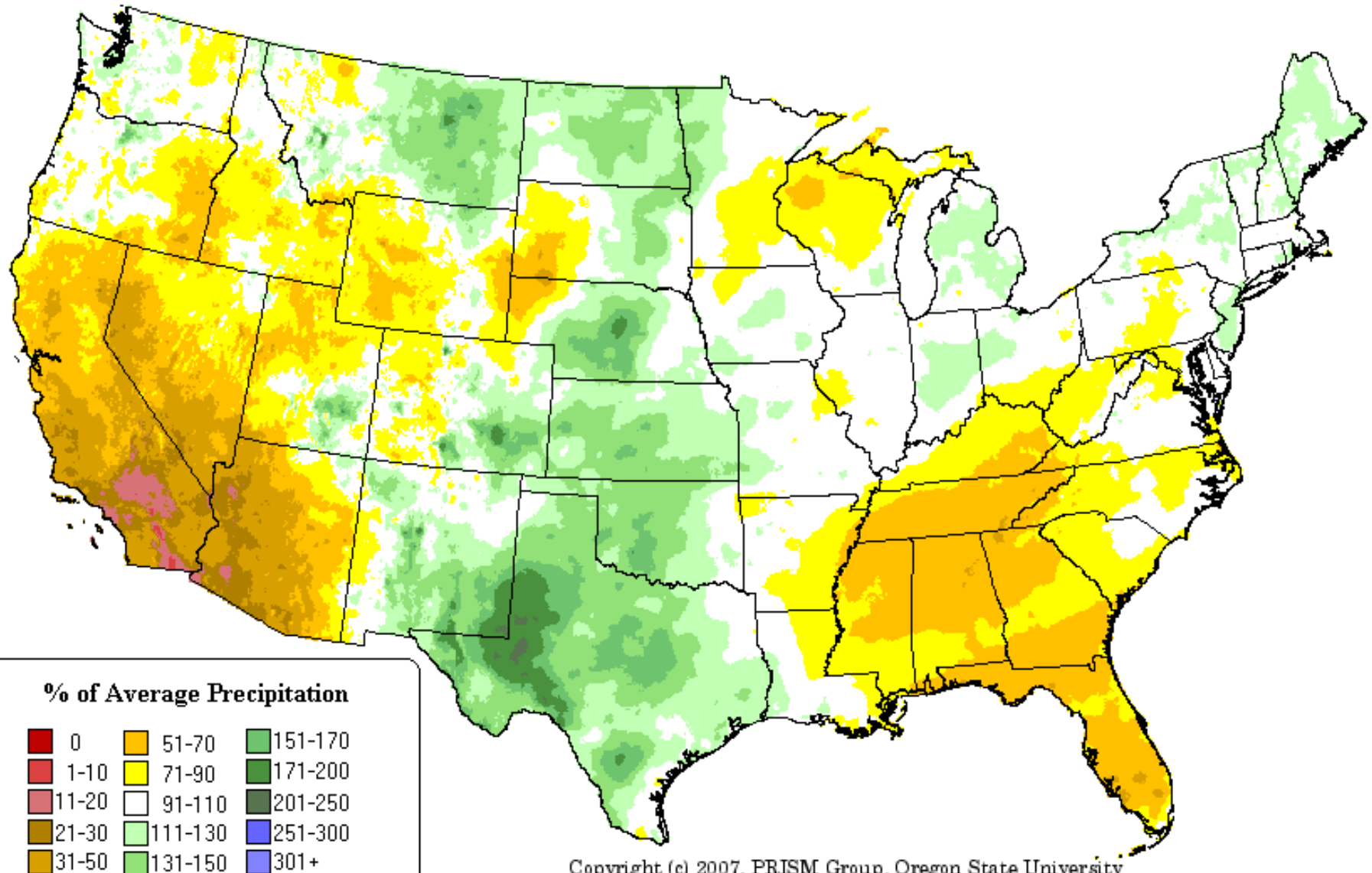


June 2007 Percent of Average



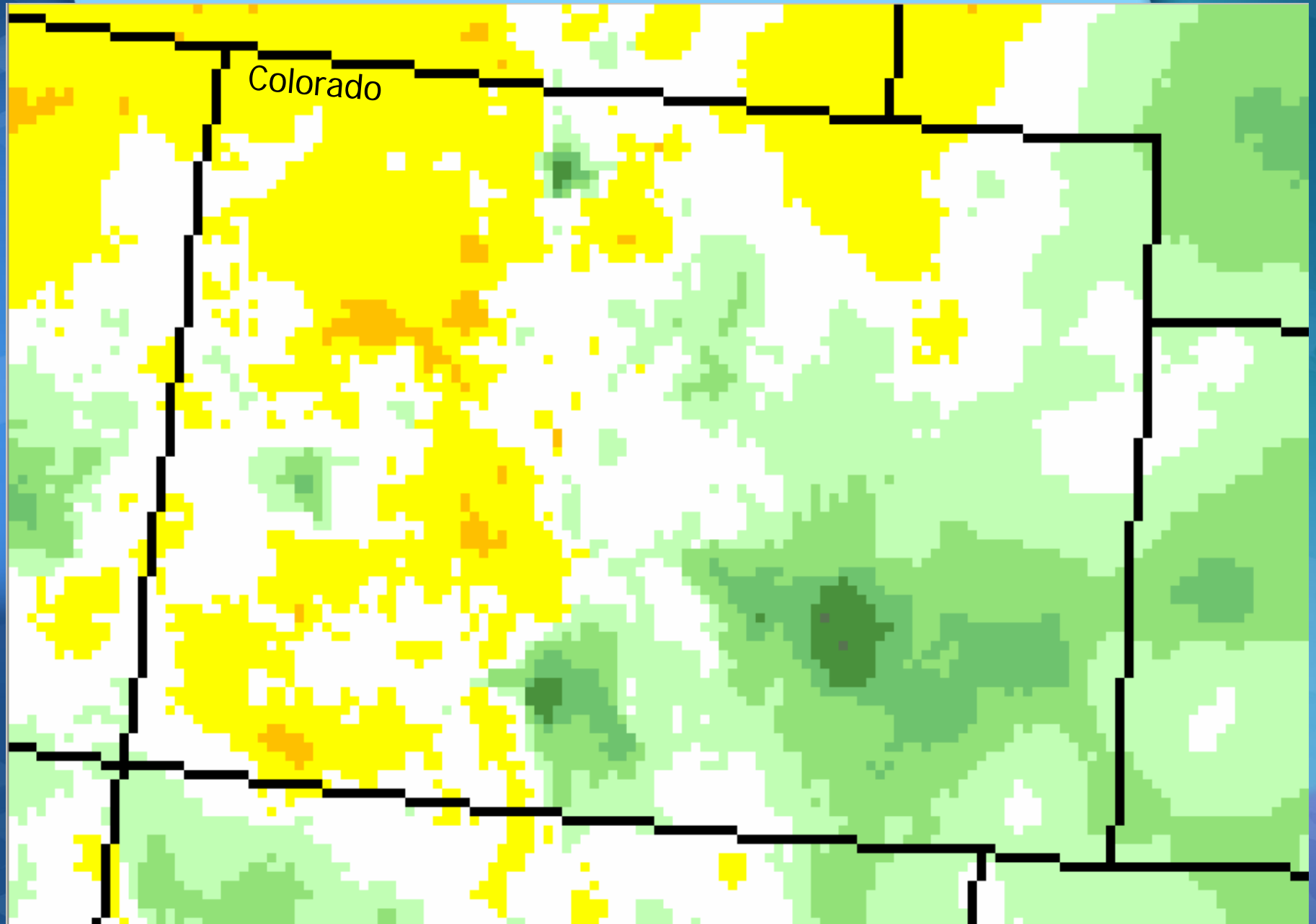
Water Year 2007 (Oct-Jun) Prism

9-month Percent of Average Precipitation: Jun 2007
Provisional Data

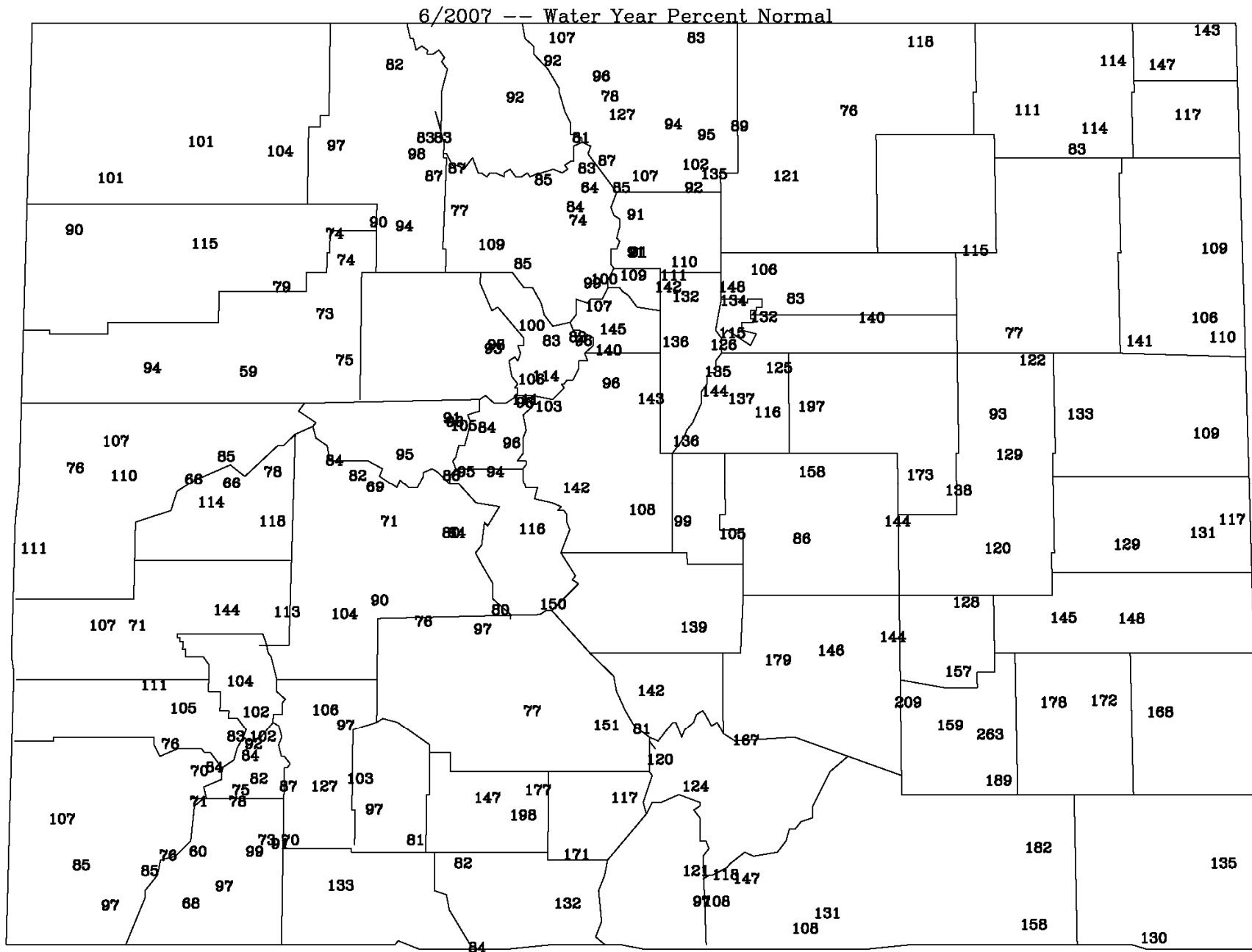


Copyright (c) 2007, PRISM Group, Oregon State University
<http://www.prismclimate.org> - Map created Jul 13 2007

Water Year 2007 (Oct-Jun) Prism



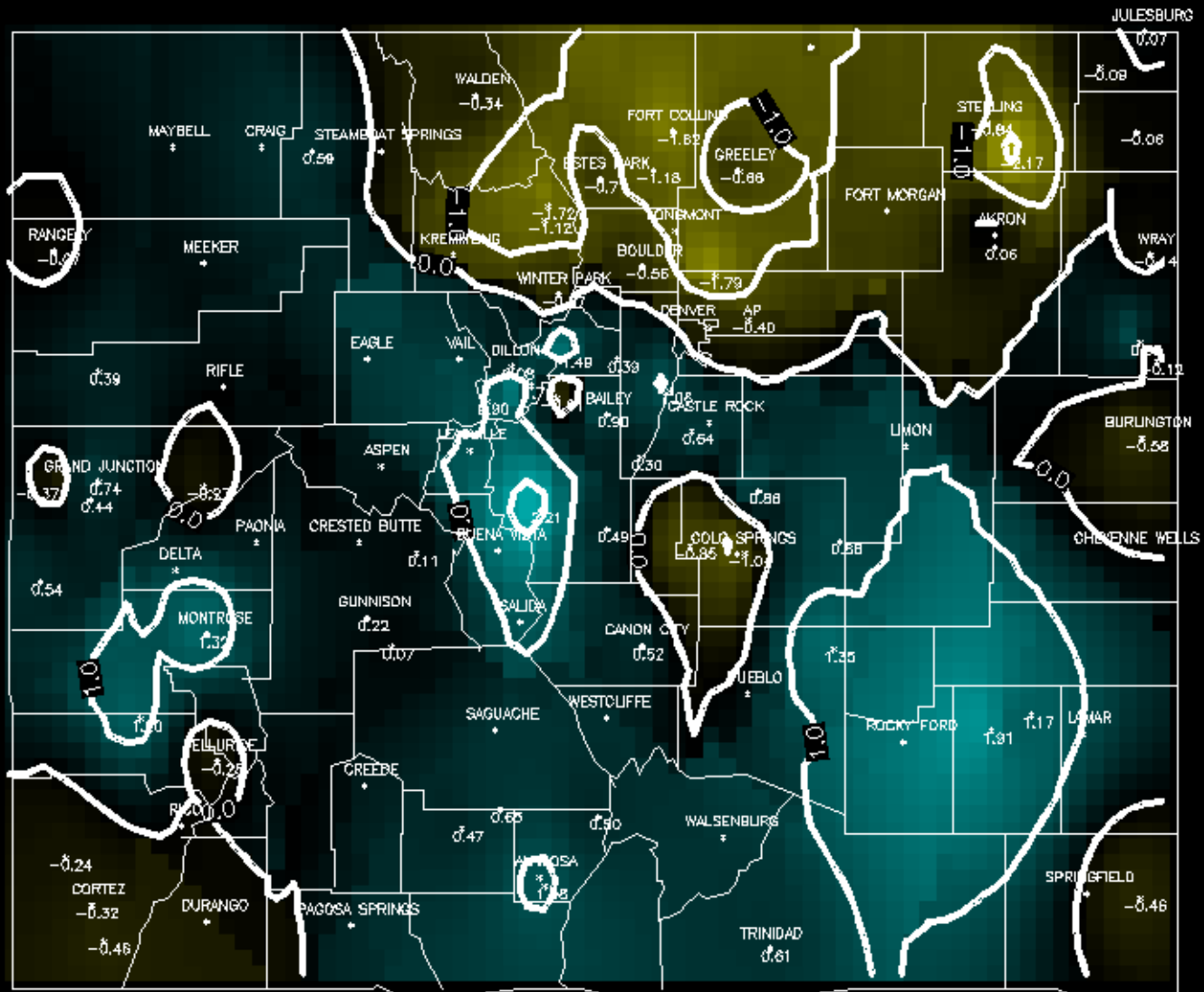
Water Year 2007 (Oct-Jun)



24 Month SPI

Colorado

6/2007 24 mon. SPI



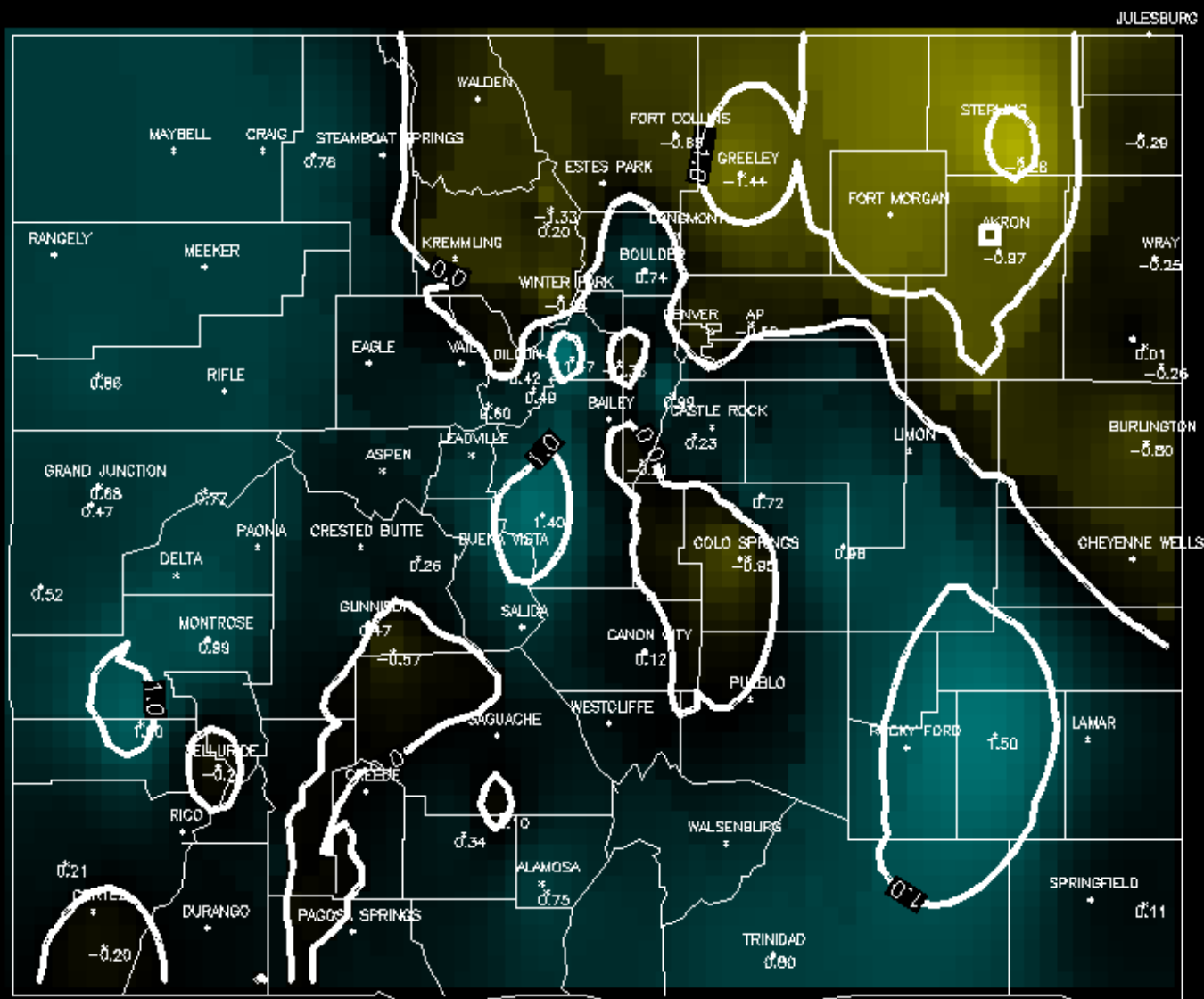
100 % < 2.0	8 % < -1.0
88 % < 1.0	0 % < -2.0
31 % < 0.0	0 % < -3.0

Produced by:
Colorado Climate Center
Fort Collins, CO

48 Month SPI

Colorado

6/2007 48 mon. SPI

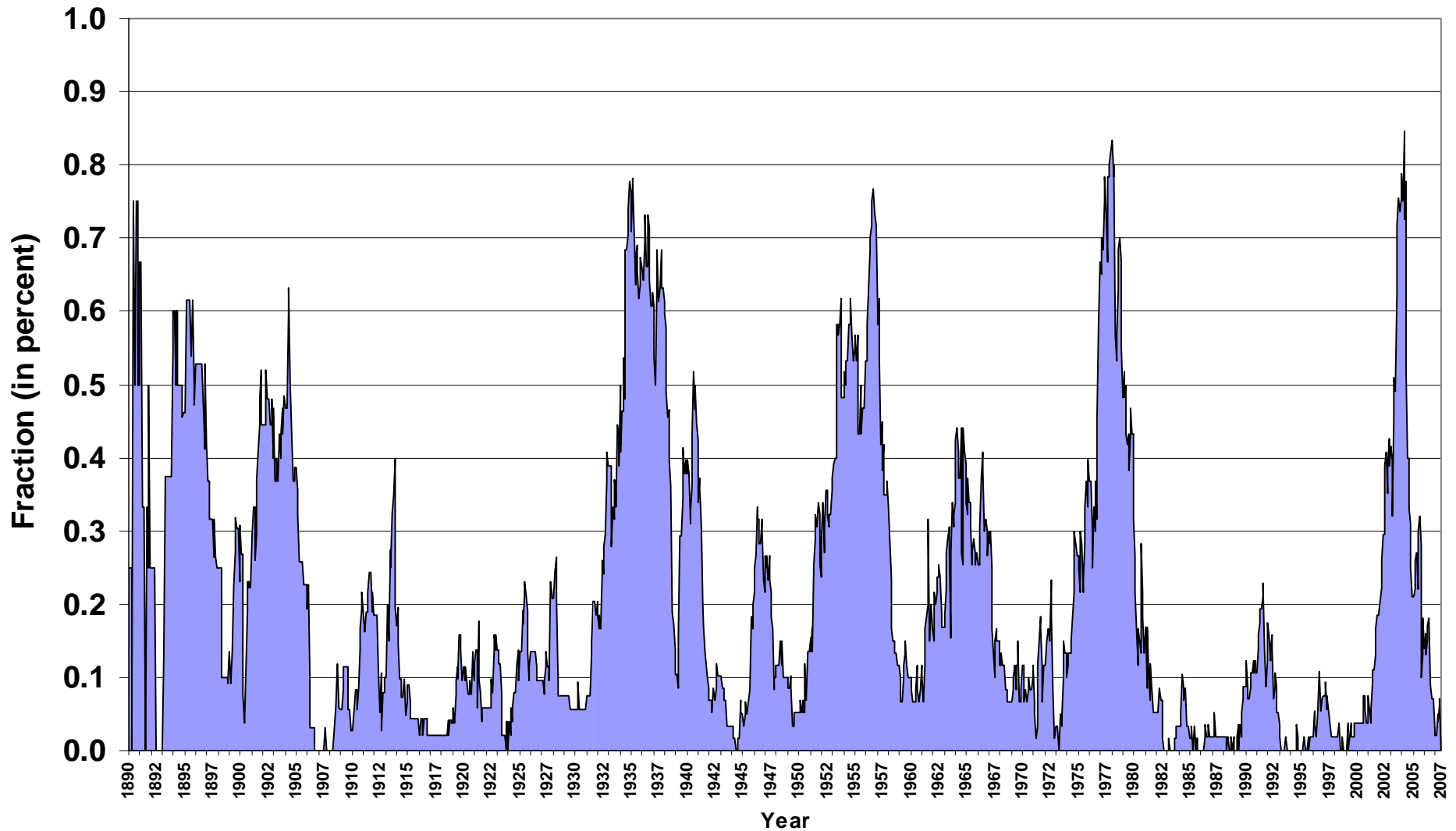


100 % < 2.0
85 % < 1.0
31 % < 0.0
7 % < -1.0
0 % < -2.0
0 % < -3.0

Produced by:
Colorado Climate Center
Fort Collins, CO

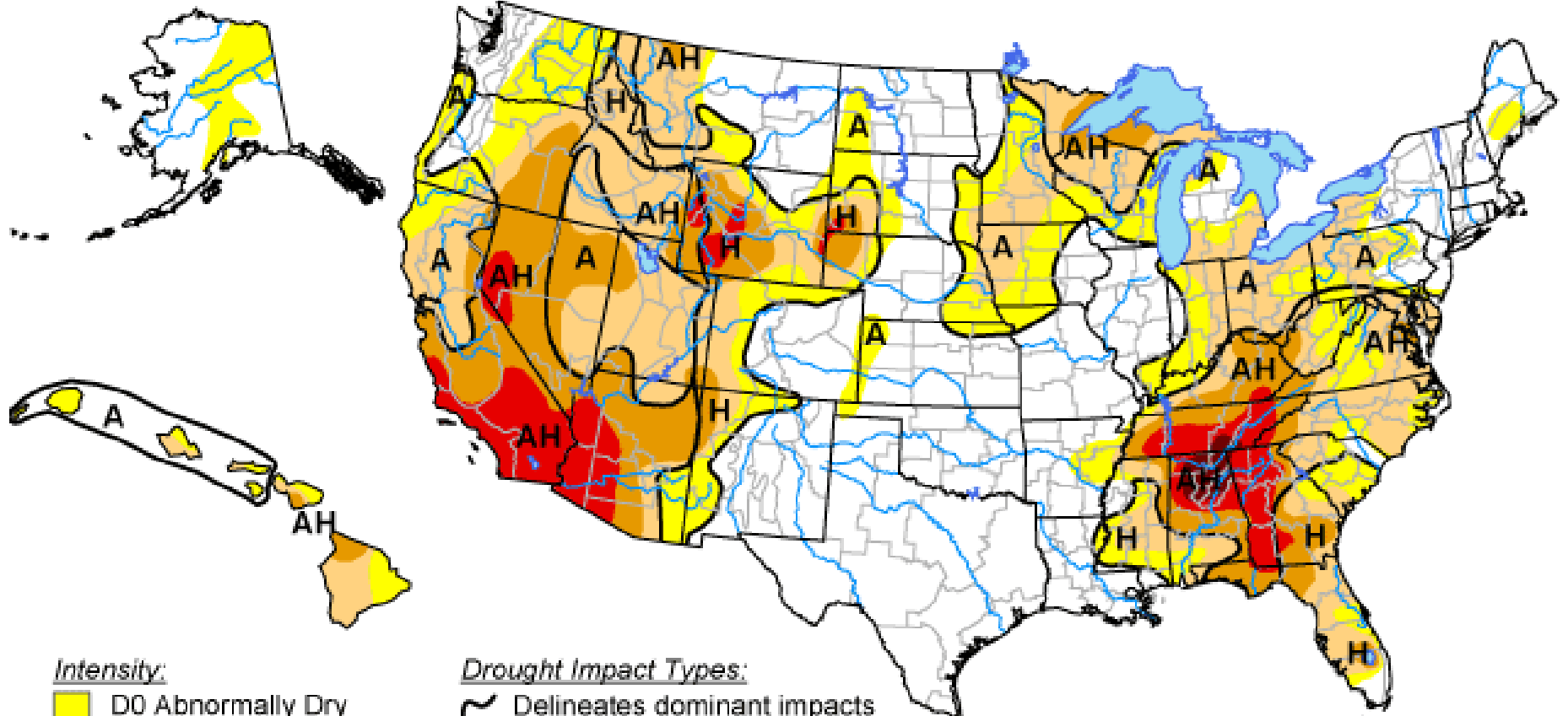
Standardized Precipitation Index

Fraction of Colorado in Drought Based on 48 month SPI (1890 - June 2007)







U.S. Drought Monitor


July 17, 2007
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, July 19, 2007

Author: Brad Rippey, U.S. Department of Agriculture

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

Colorado Climate Center

Data and Power Point Presentations available for downloading

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

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

