

# Climate Update

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Colorado Climate Center**

**Atmospheric Science Department  
Colorado State University**

**Presented to Water  
Availability Task Force  
June 26, 2008  
Denver, CO**

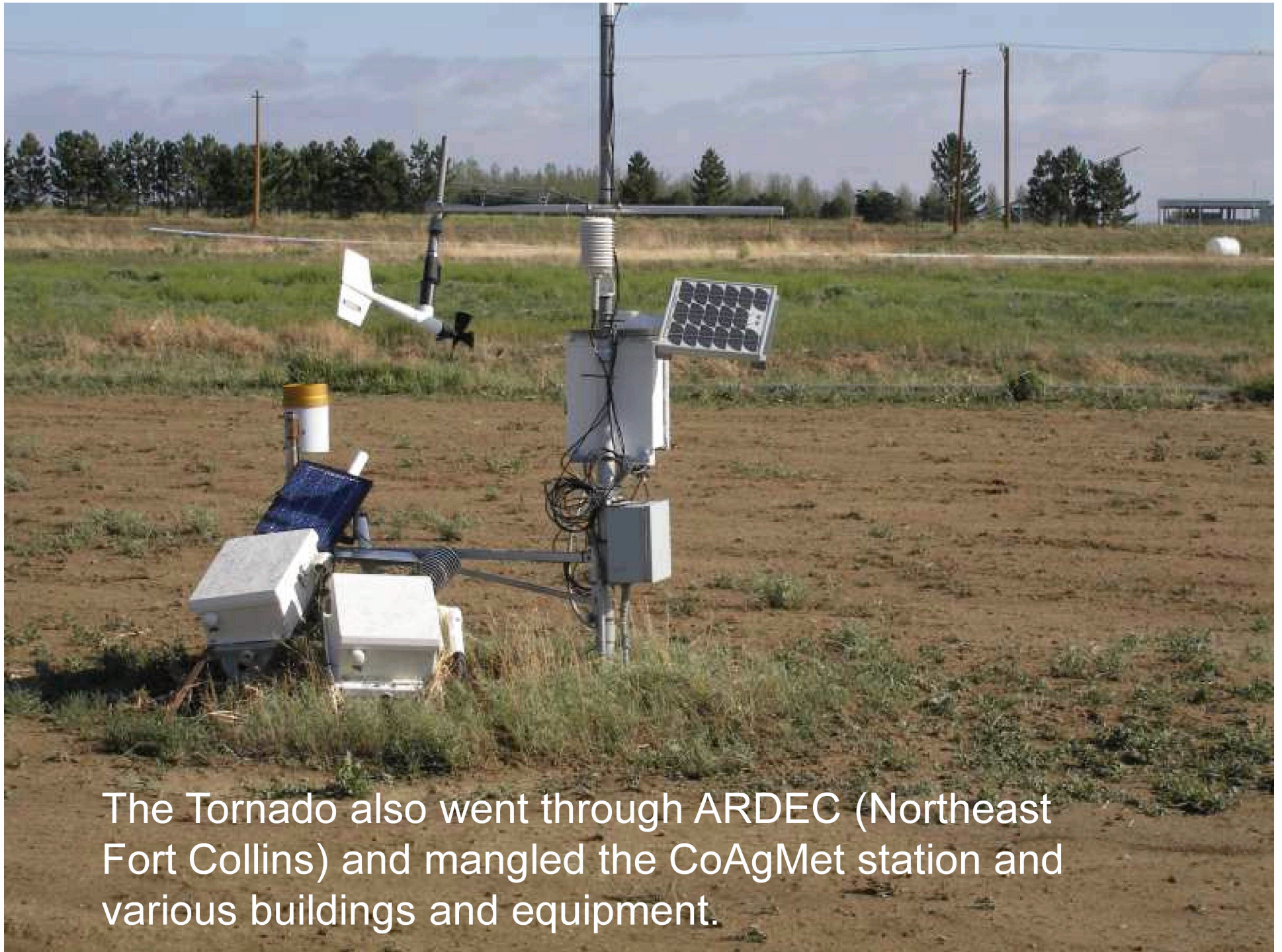


**Colorado  
State  
University**  
*Knowledge to Go Places*

**Prepared by Odie Bliss**

# May 22, 2008 Tornado

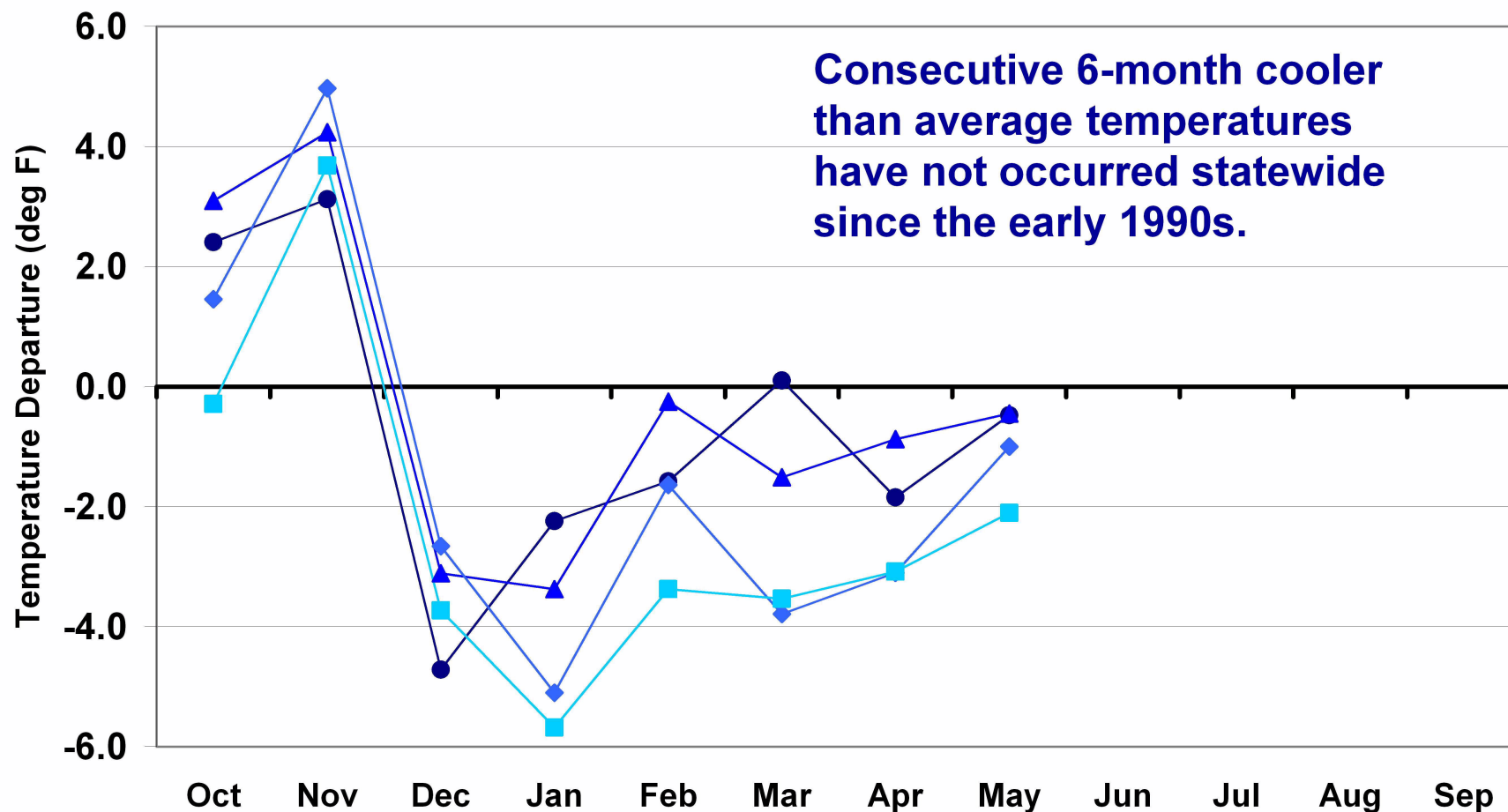
- Unusual path traveled from southeast to northwest (from Platteville, CO to Laramie, WY)
- Hit east side of Windsor pretty hard
- 1 loss of life; ~800 homes damaged; numerous businesses, churches, etc.
- Small to Large damaging hail in the storm system



The Tornado also went through ARDEC (Northeast Fort Collins) and mangled the CoAgMet station and various buildings and equipment.

# Water Year 2008 Temperature Departures

Water Year 2008



Consecutive 6-month cooler than average temperatures have not occurred statewide since the early 1990s.

● Eastern Plains

▲ Foothills

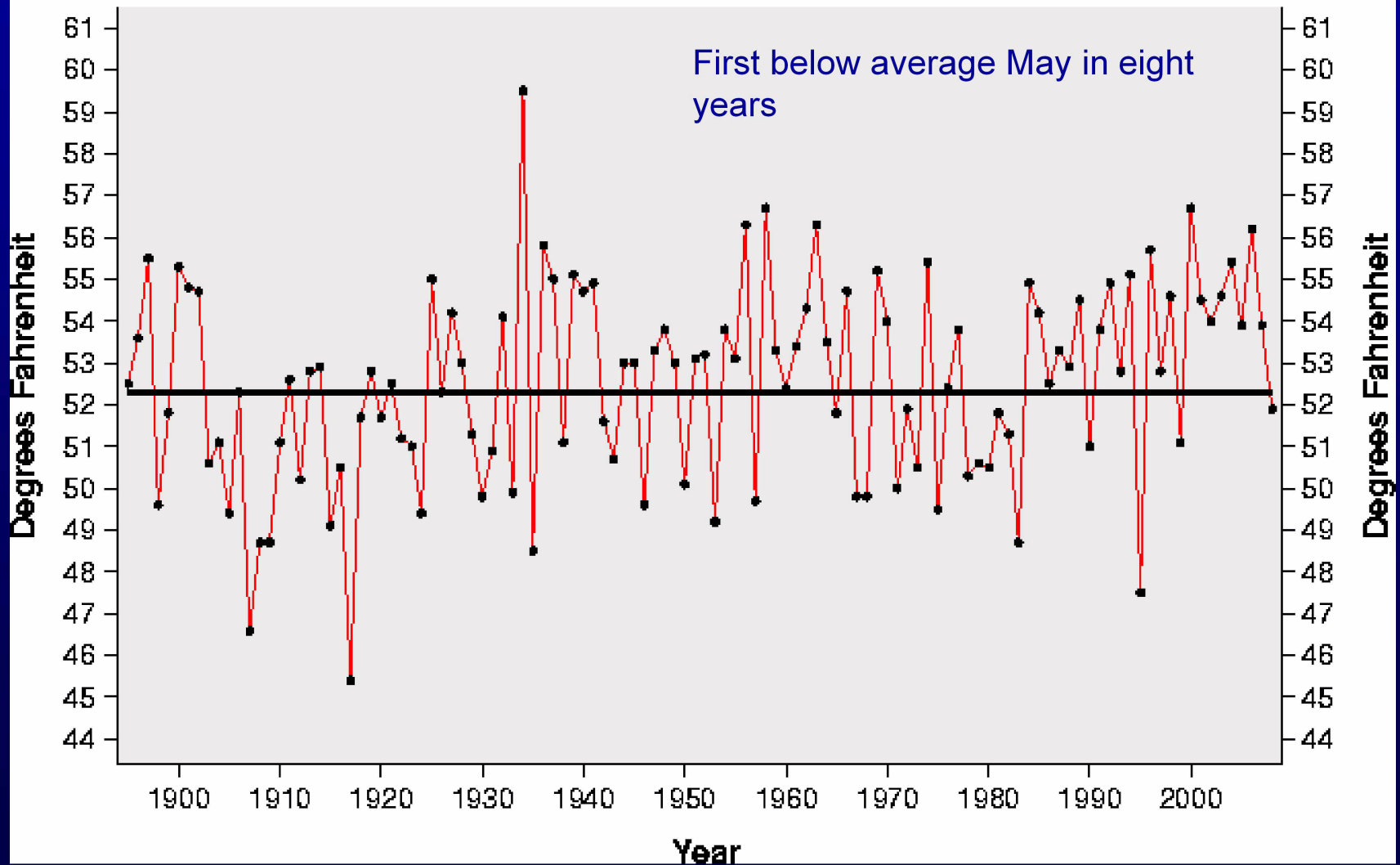
◆ Mountains

■ Western Valleys

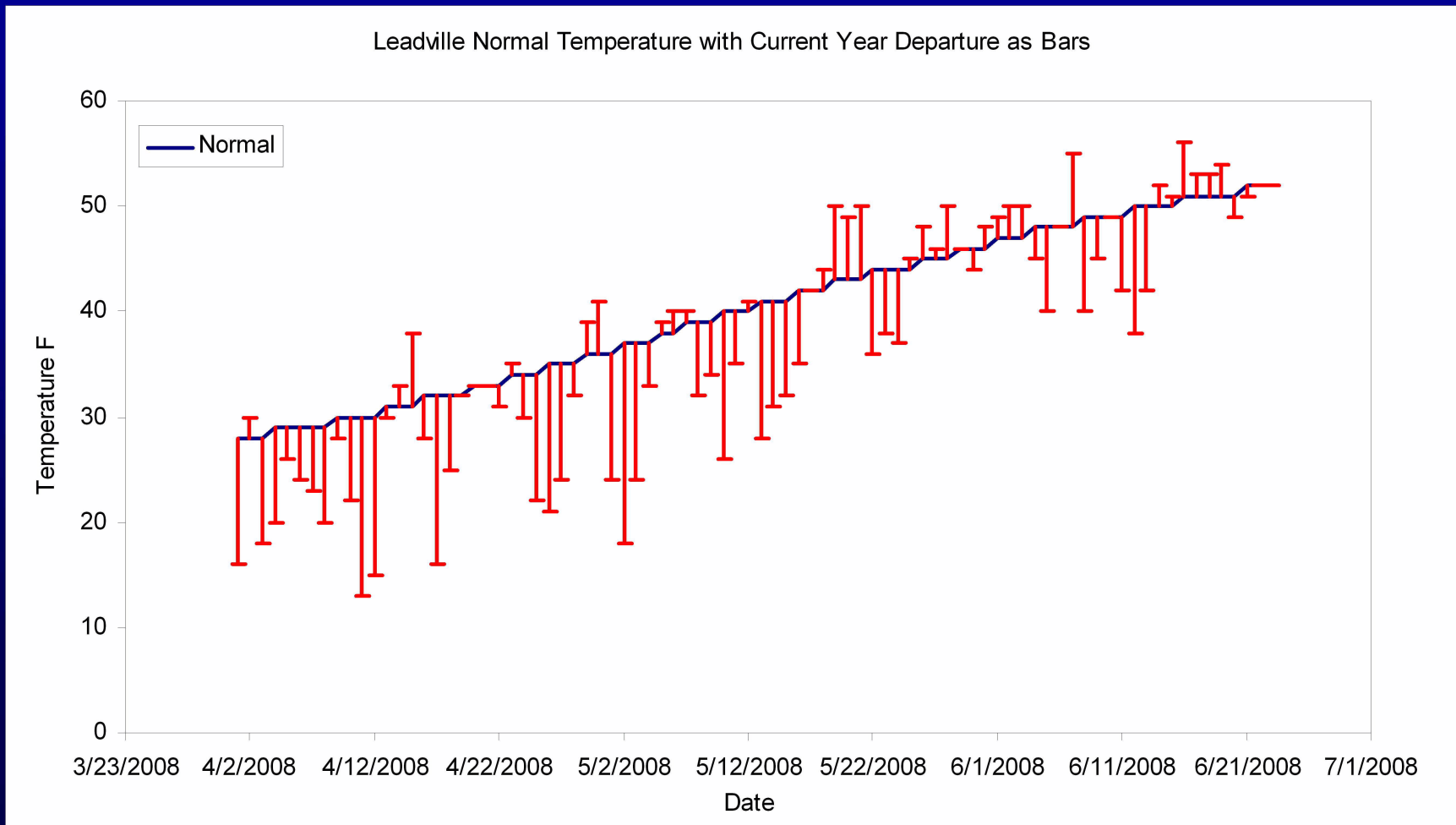
# May Average Temperature History for Colorado (NCDC)

— Actual Temperature  
— Average Temperature

May 2008: 51.9 deg F Rank: 46th coolest in 114 years. Period of record 1895-2008

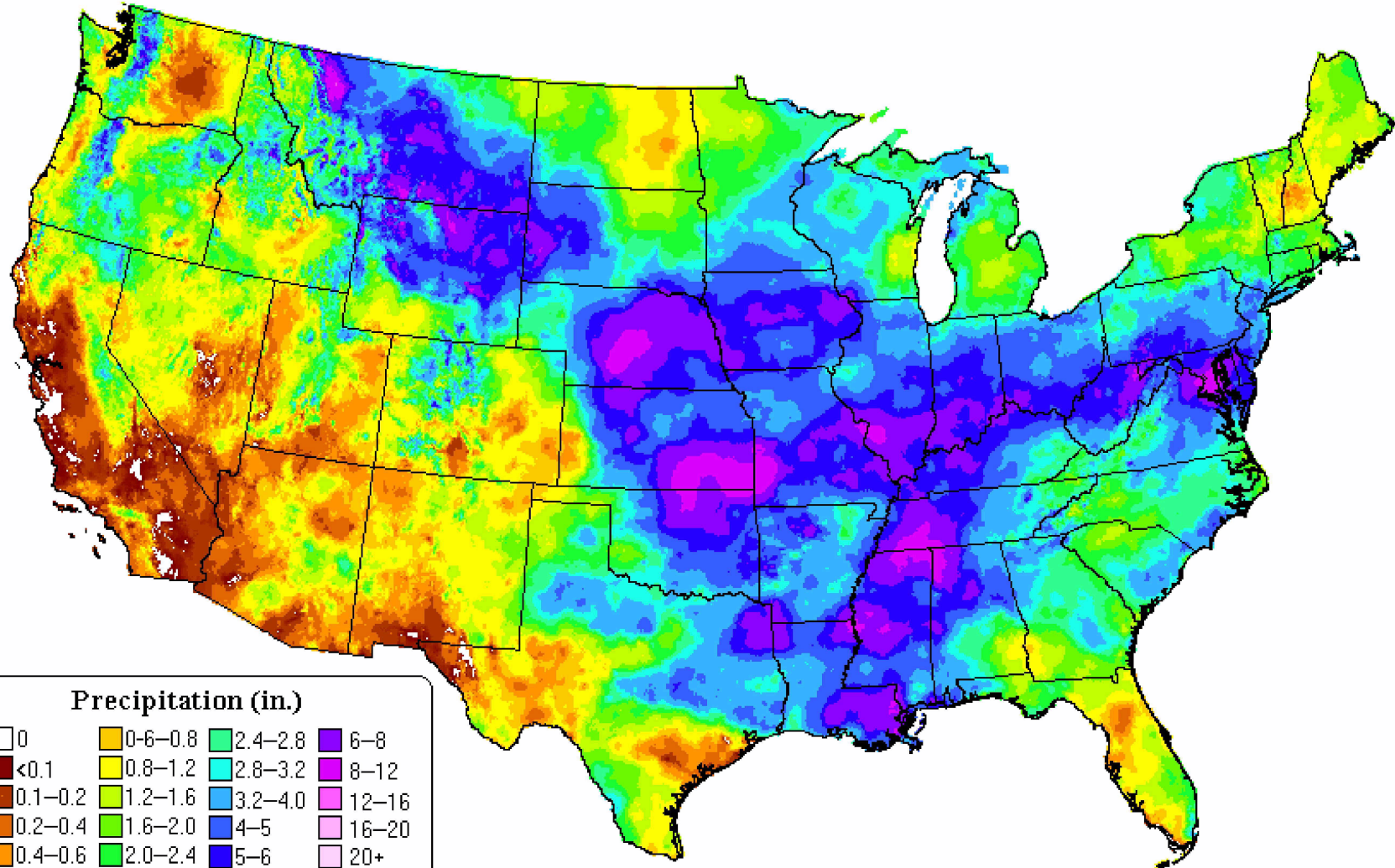


Late spring temperatures have been only slightly below average. With alternating warmer and colder than average temperatures all spring, snow melt has been delayed and large peaks in runoff that could have caused flooding have largely been averted.



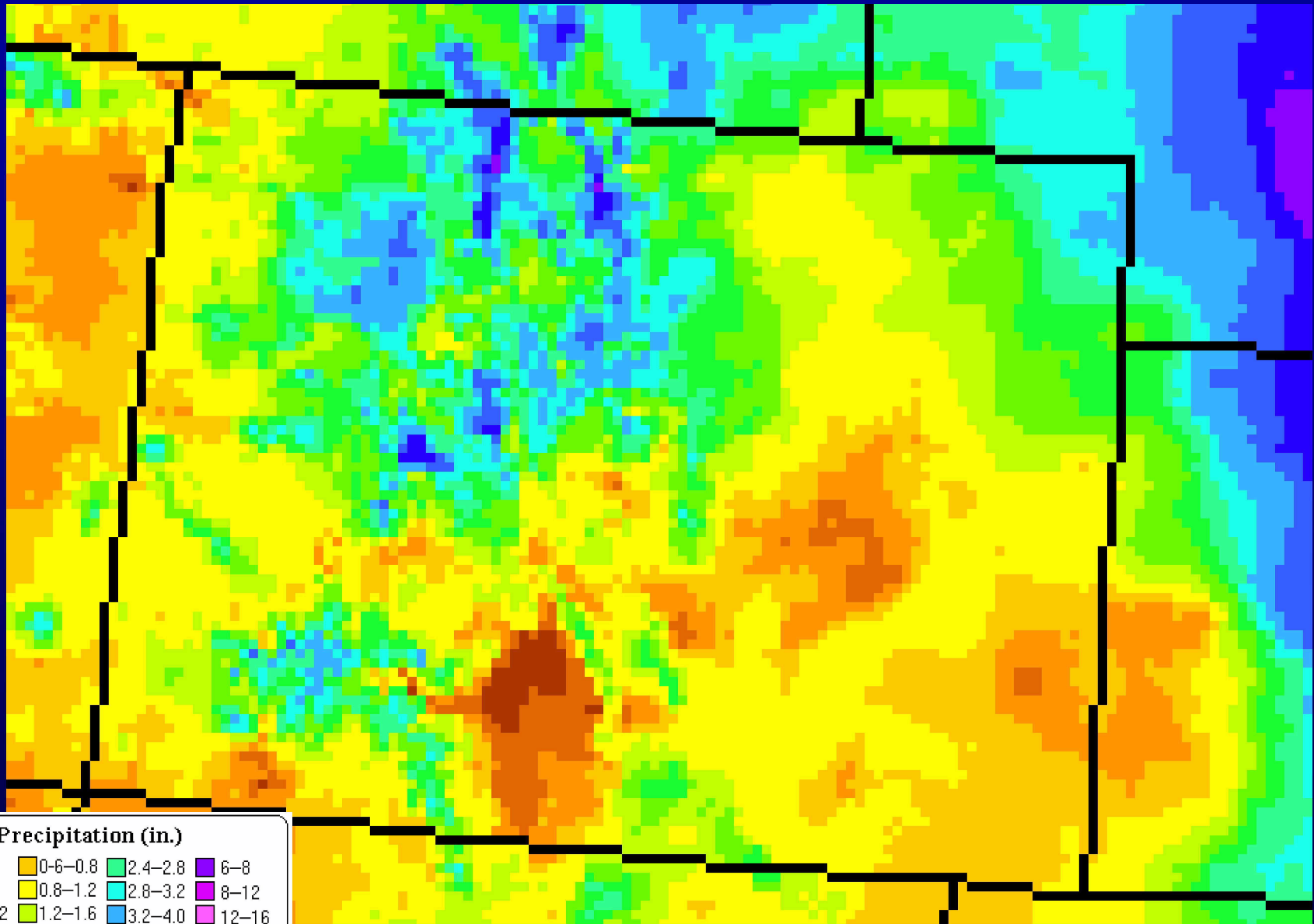
# May 2008 Precipitation (inches)

Precipitation: May 2008  
Provisional Data



Copyright (c) 2008, PRISM Group, Oregon State University  
<http://www.prismclimate.org> - Map created Jun 12 2008

# May 2008 Precipitation (inches)



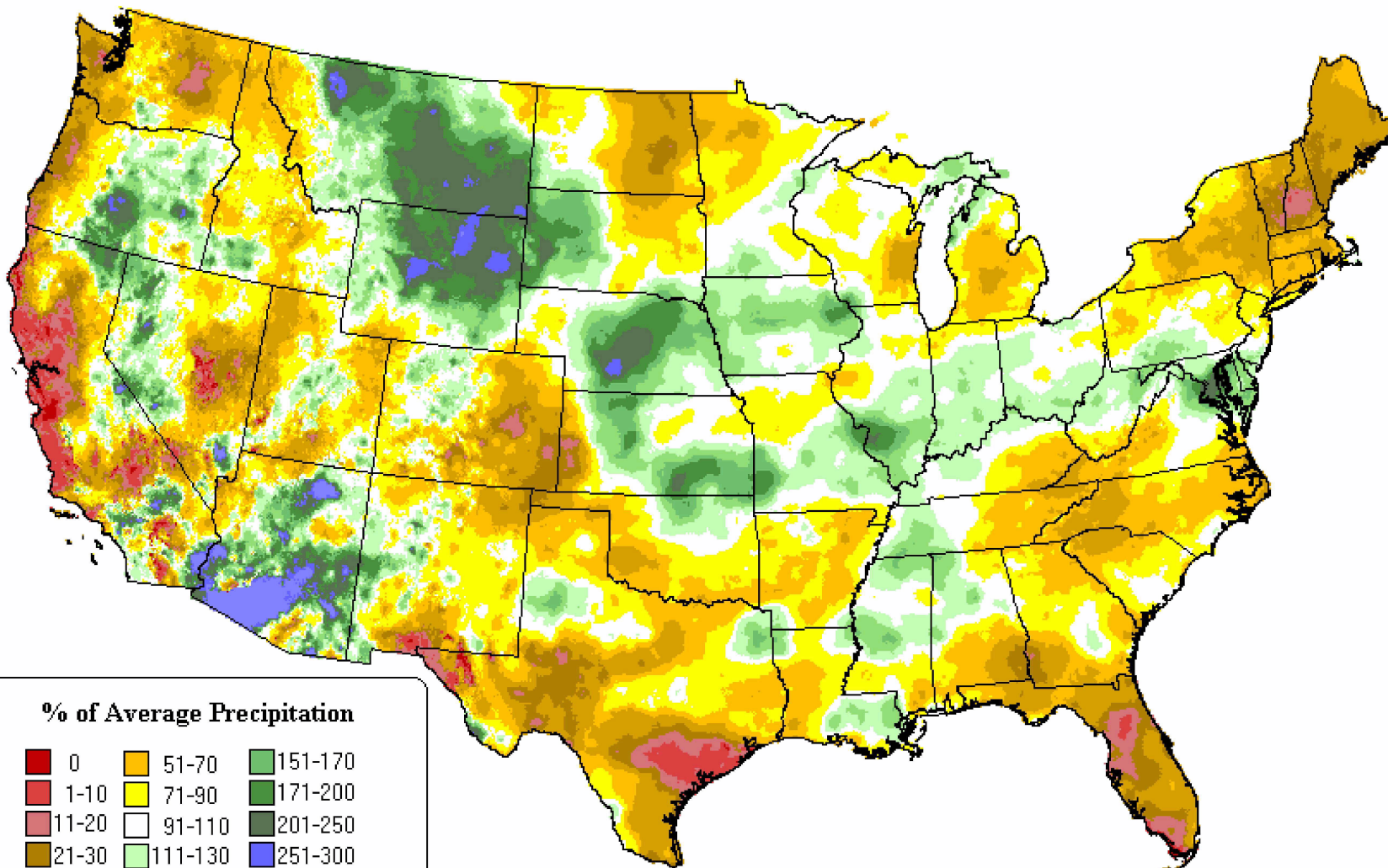
## Precipitation (in.)

0	0-6-0.8	2.4-2.8	6-8
<0.1	0.8-1.2	2.8-3.2	8-12
0.1-0.2	1.2-1.6	3.2-4.0	12-16
0.2-0.4	1.6-2.0	4-5	16-20
0.4-0.6	2.0-2.4	5-6	20+



# May 2008 Percent of Average (Prism)

1-month Percent of Average Precipitation: May 2008  
Provisional Data

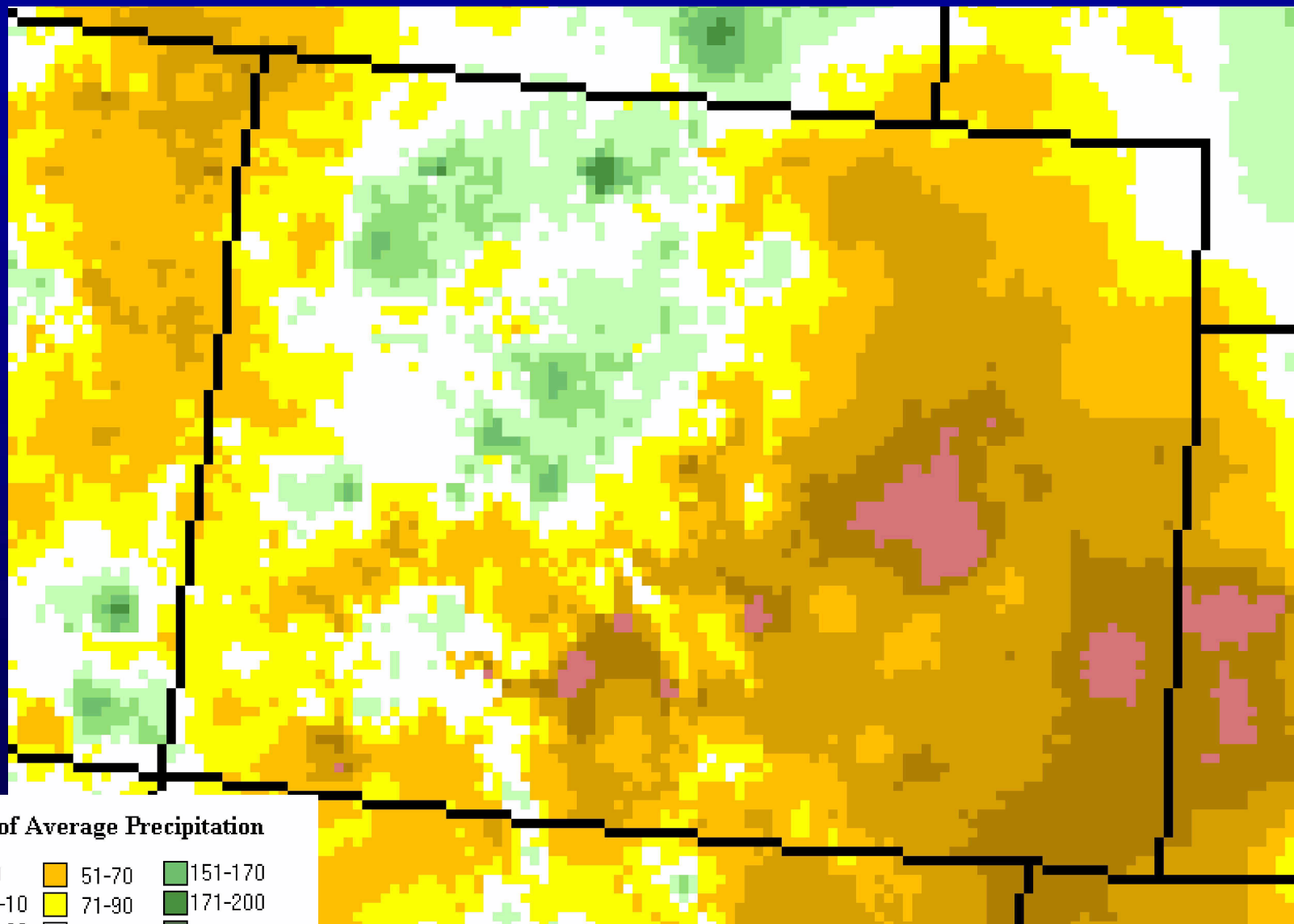


## % of Average Precipitation

0	51-70	151-170
1-10	71-90	171-200
11-20	91-110	201-250
21-30	111-130	251-300
31-50	131-150	301+

Copyright (c) 2008, PRISM Group, Oregon State University  
<http://www.prismclimate.org> - Map created Jun 12 2008

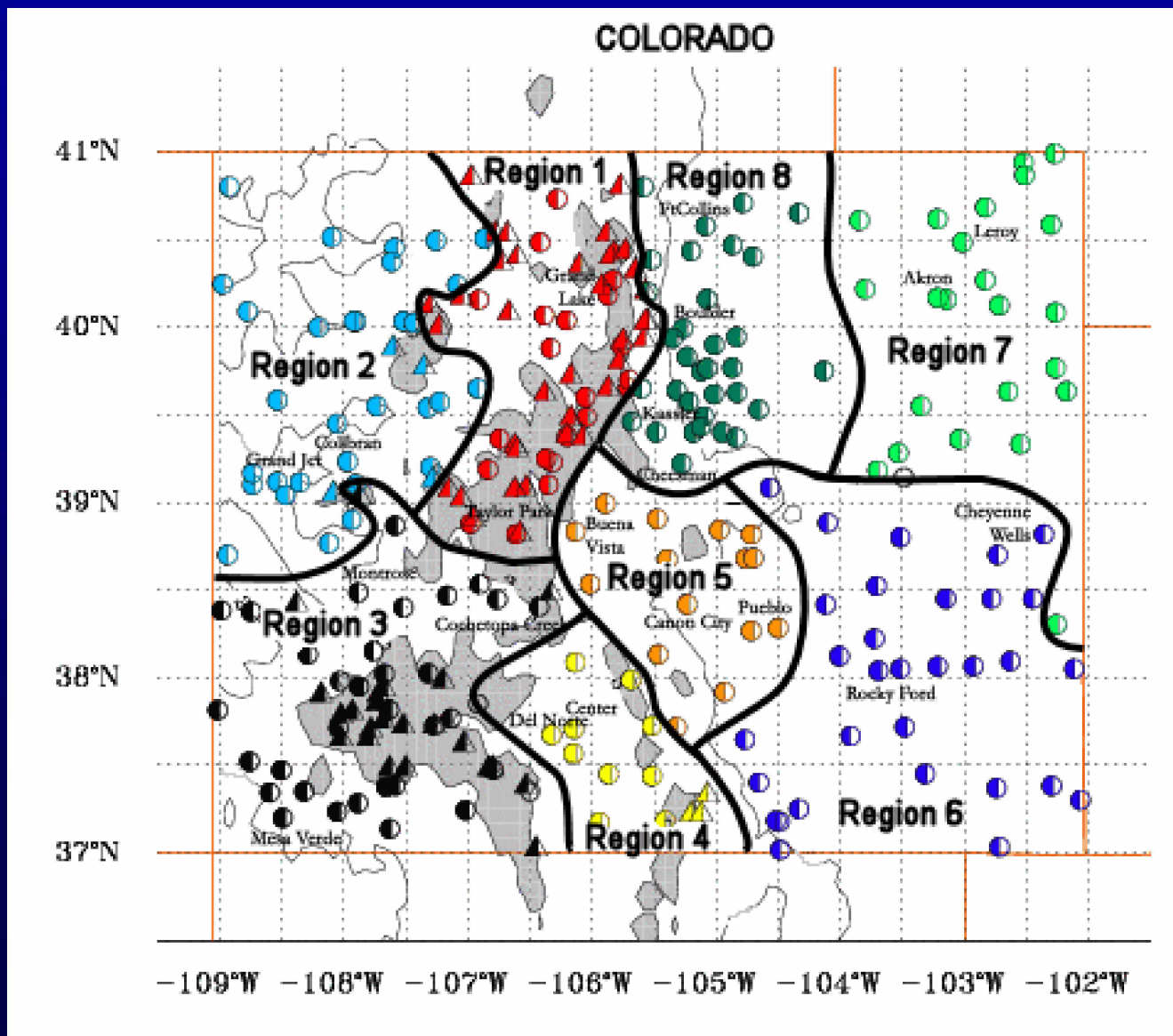
# May 2008 Percent of Average (Prism)



## % of Average Precipitation

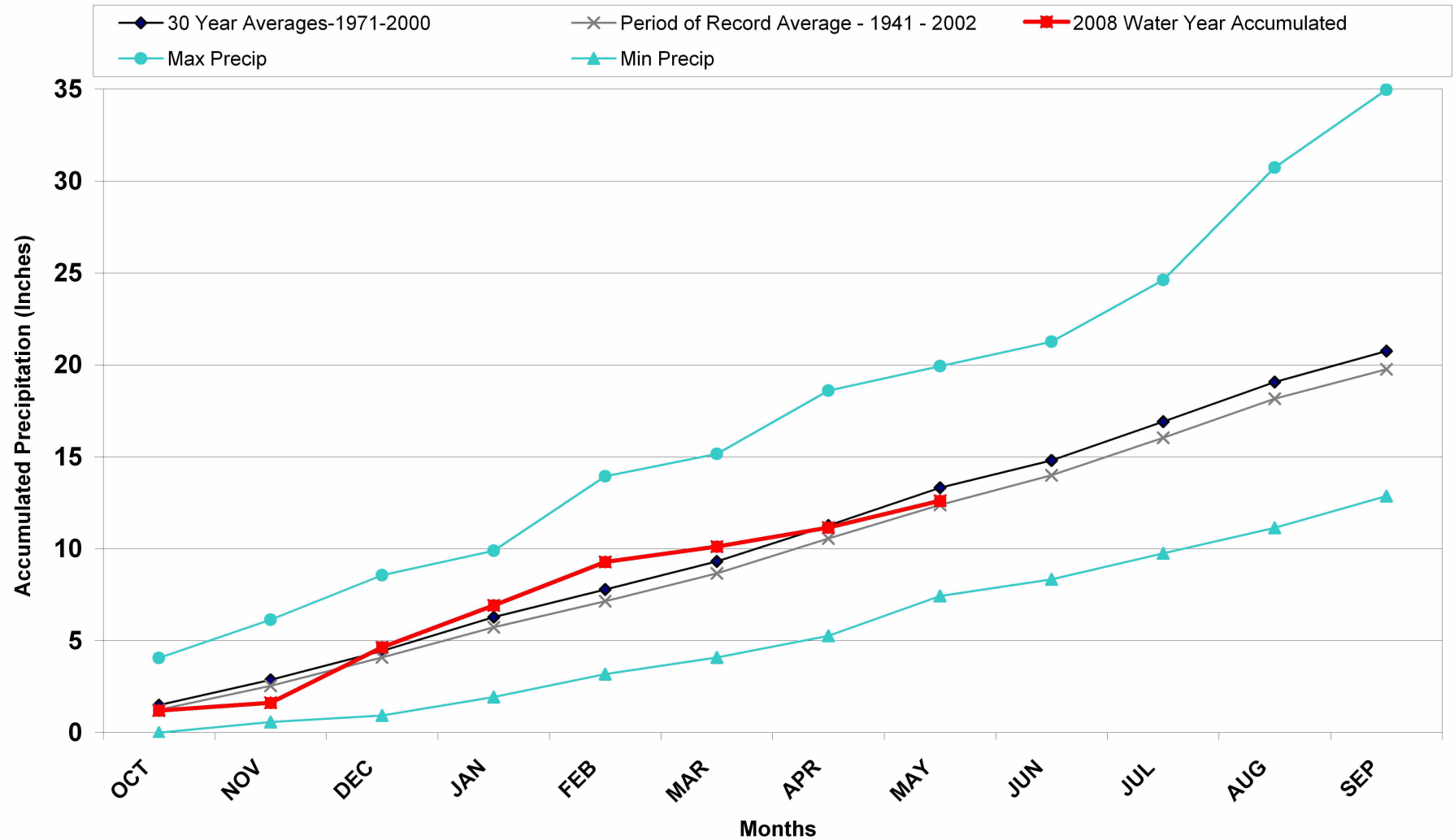
0	51-70	151-170
1-10	71-90	171-200
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21-30	111-130	251-300
31-50	131-150	301+

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



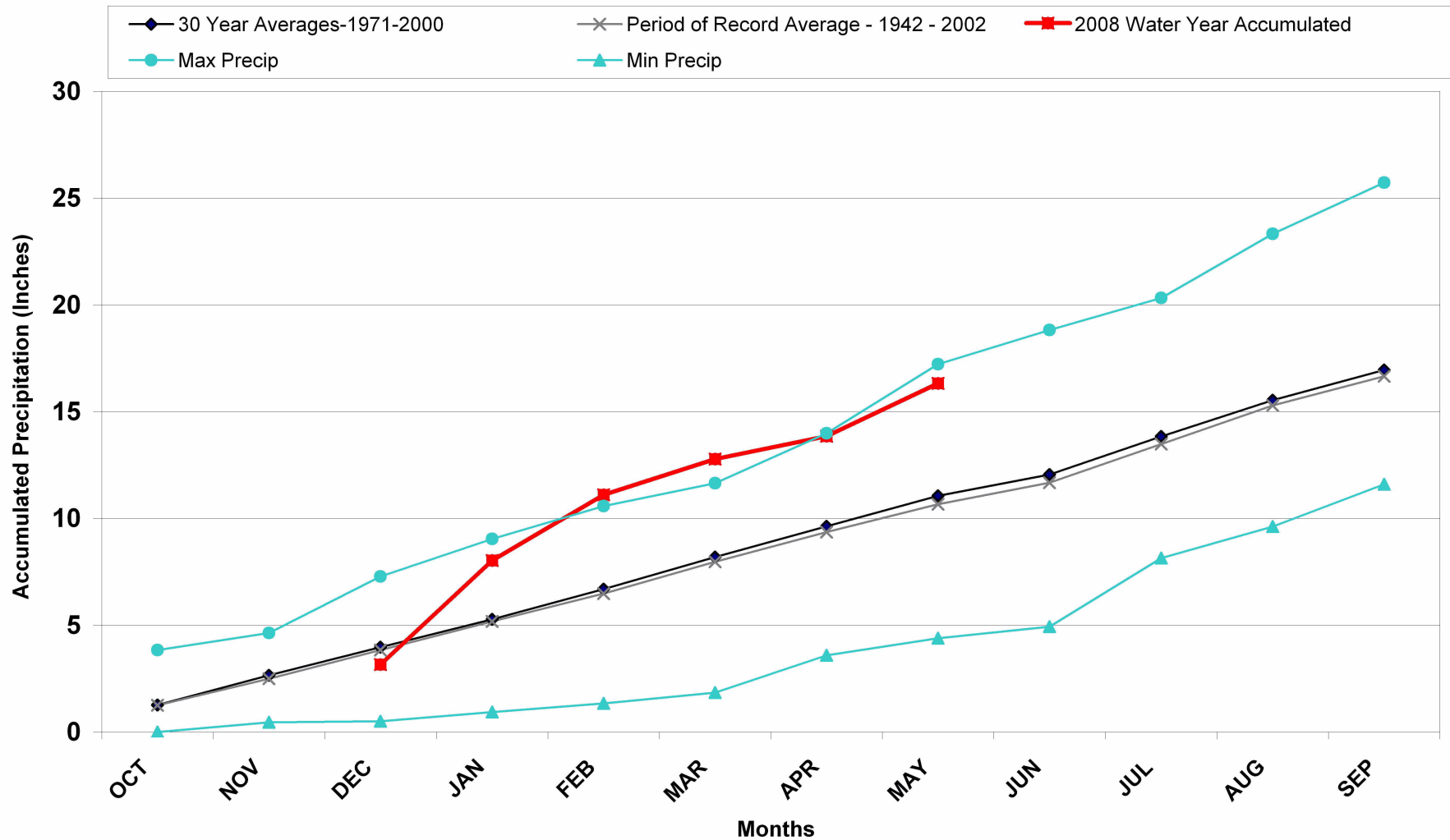
# Division 1– Grand Lake 1NW

## Grand Lake 1 NW 2008 Water Year



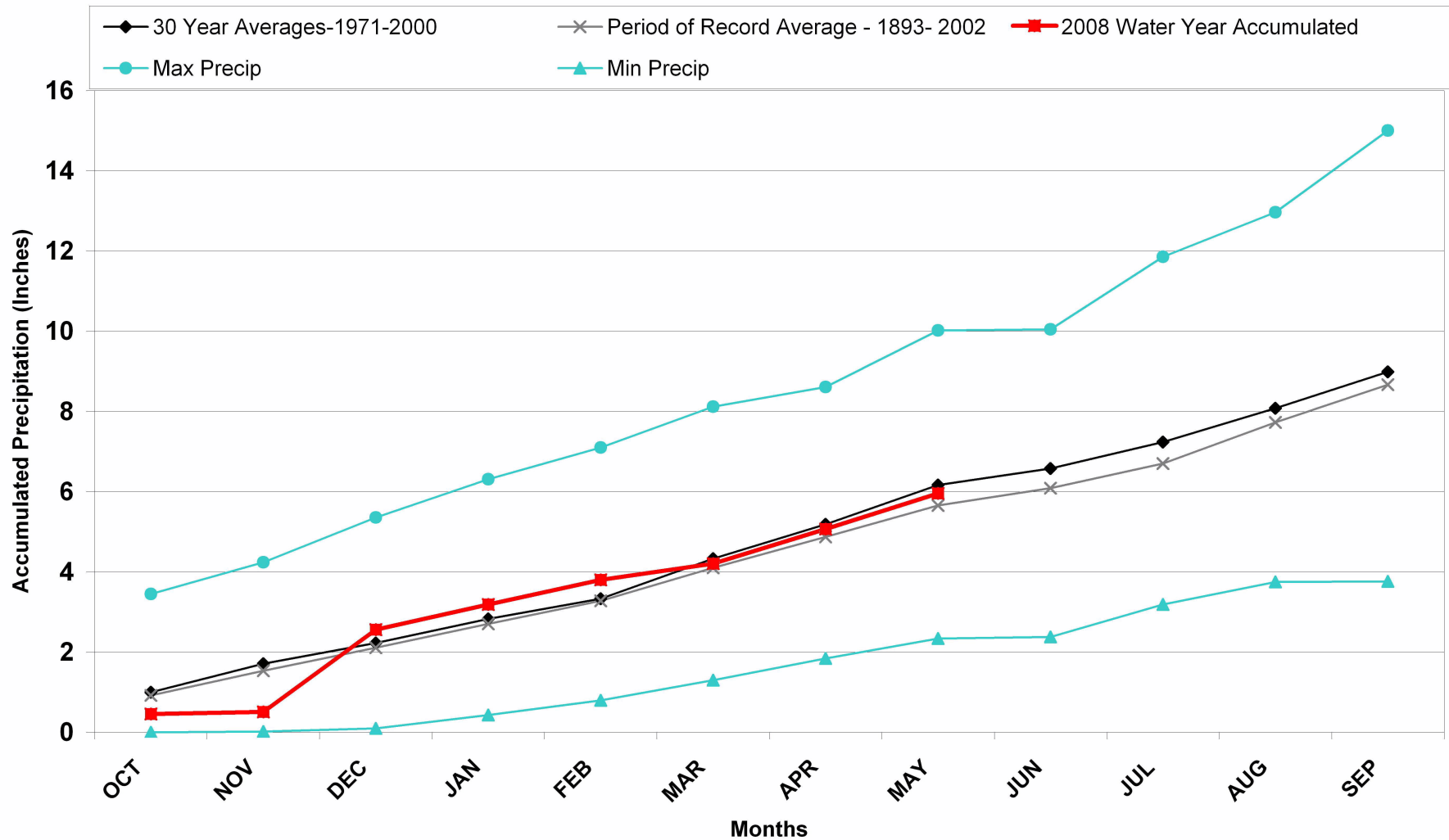
# Division 1 – Taylor Park

## Taylor Park 2008 Water Year



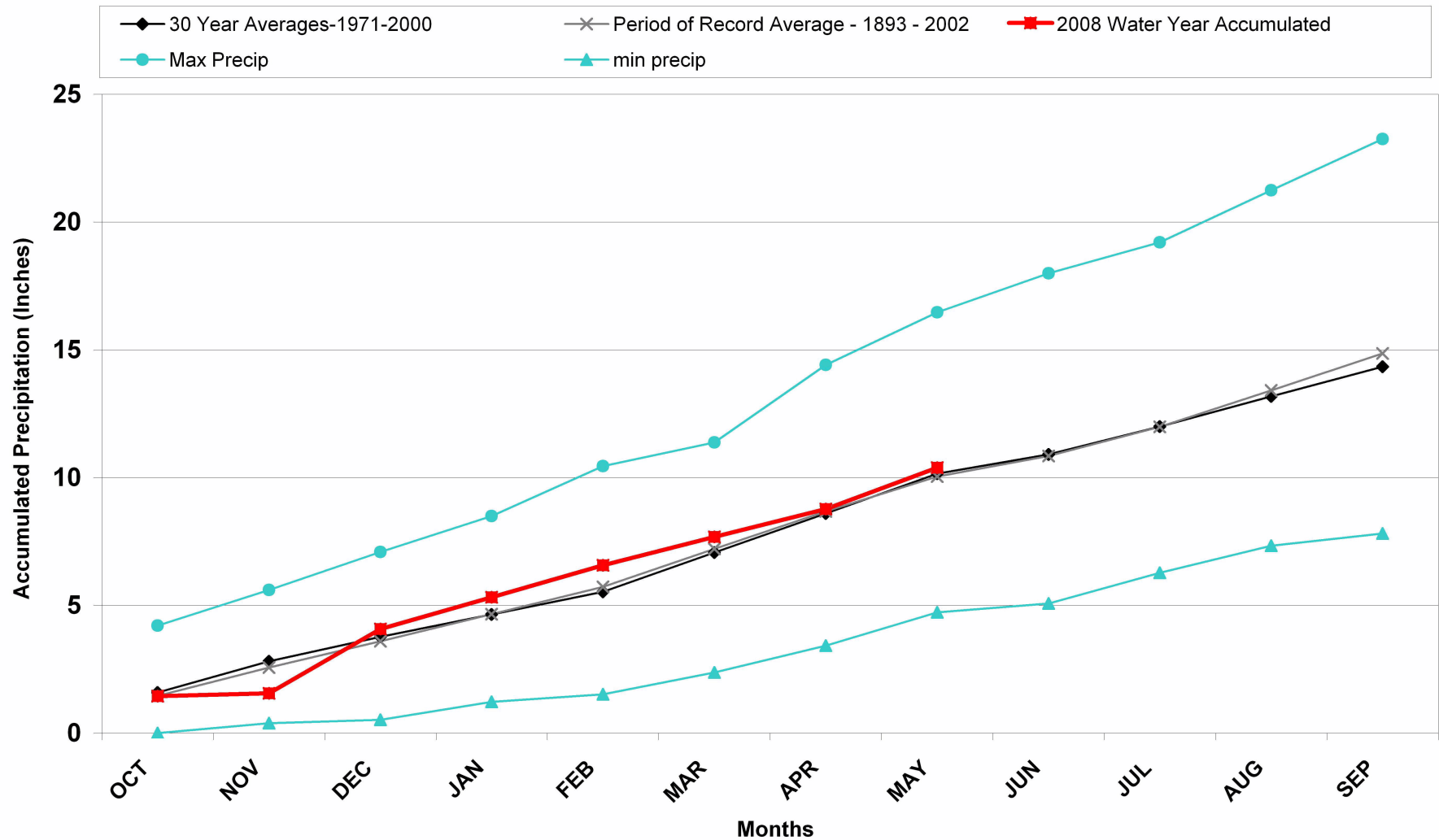
# Division 2 – Grand Junction

## Grand Junction WSFO 2008 Water Year



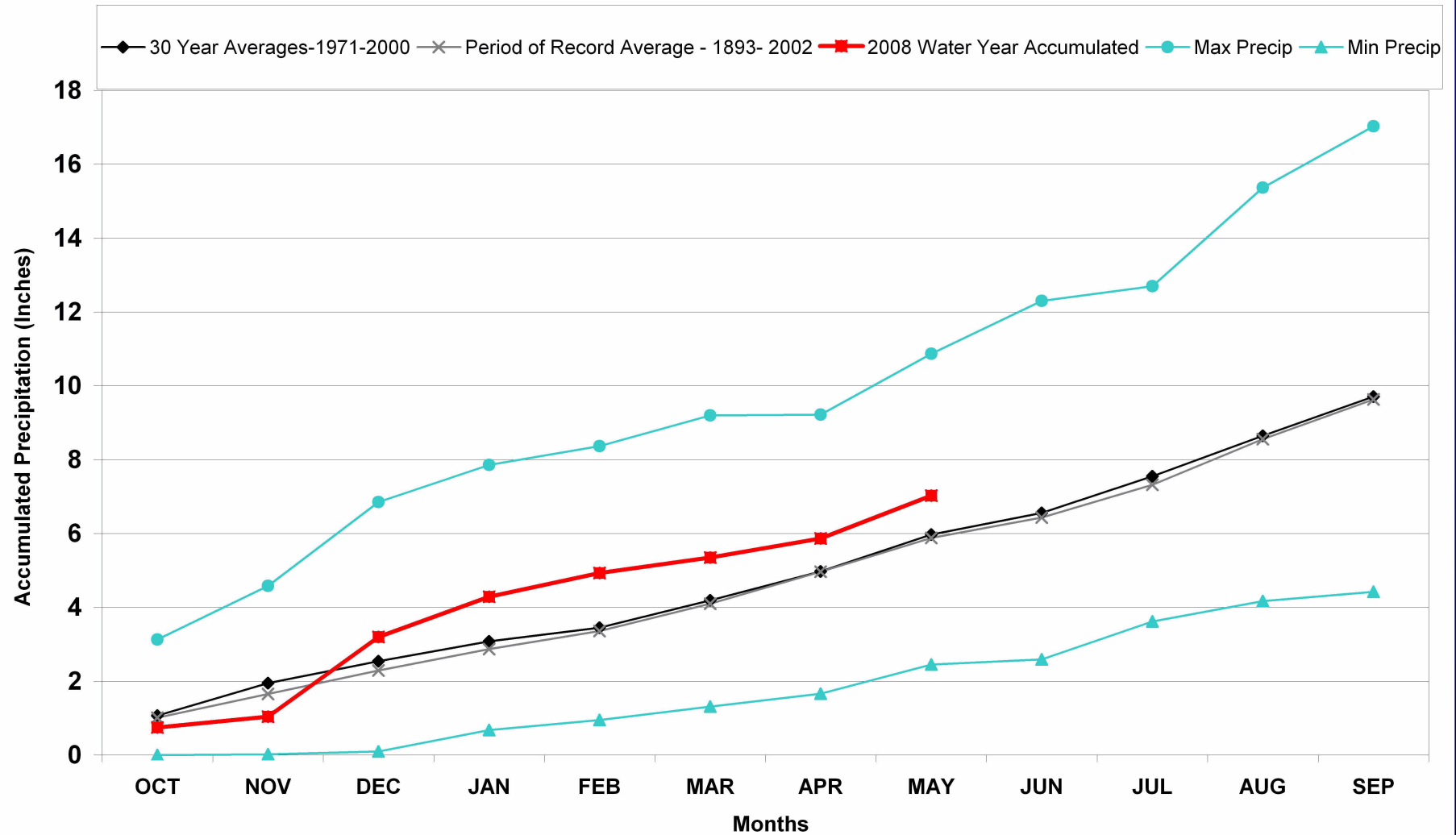
# Division 2 – Collbran

## Collbran 2SW 2008 Water Year



# Division 3 – Montrose

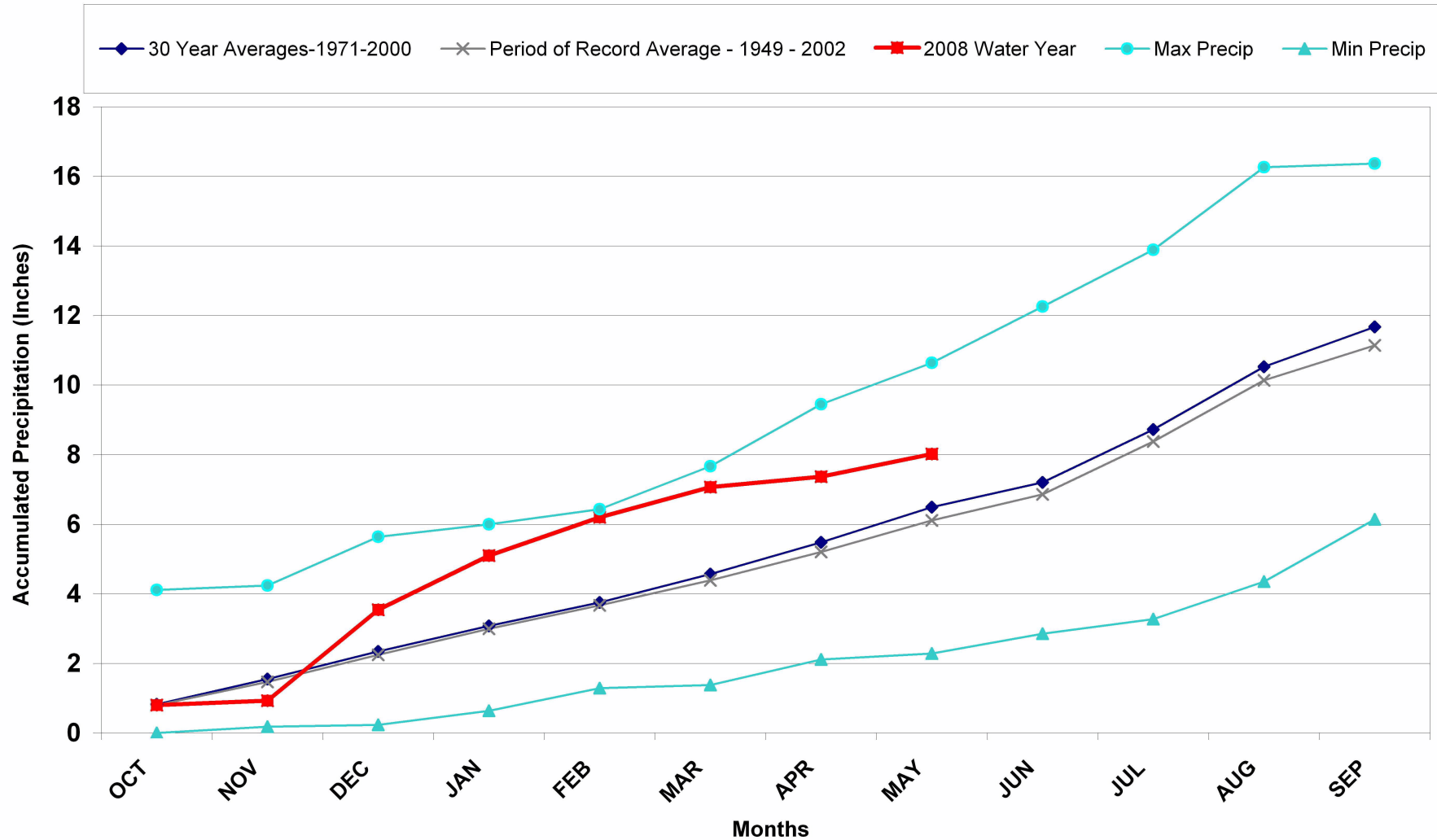
## Montrose #2 2008 Water Year





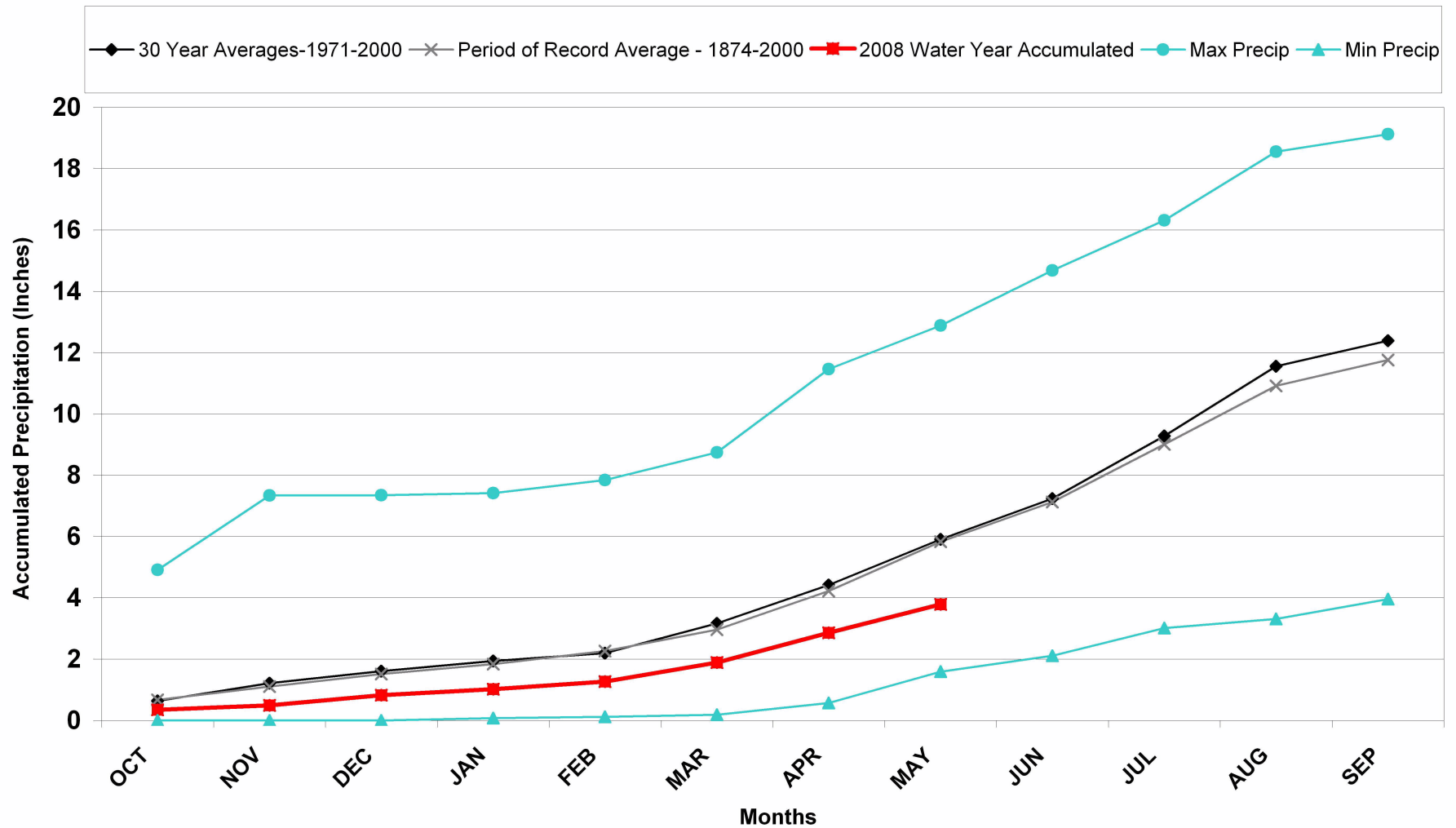
# Division 3 – Cochetopa Creek

## Cochetopa Creek 2008 Water Year



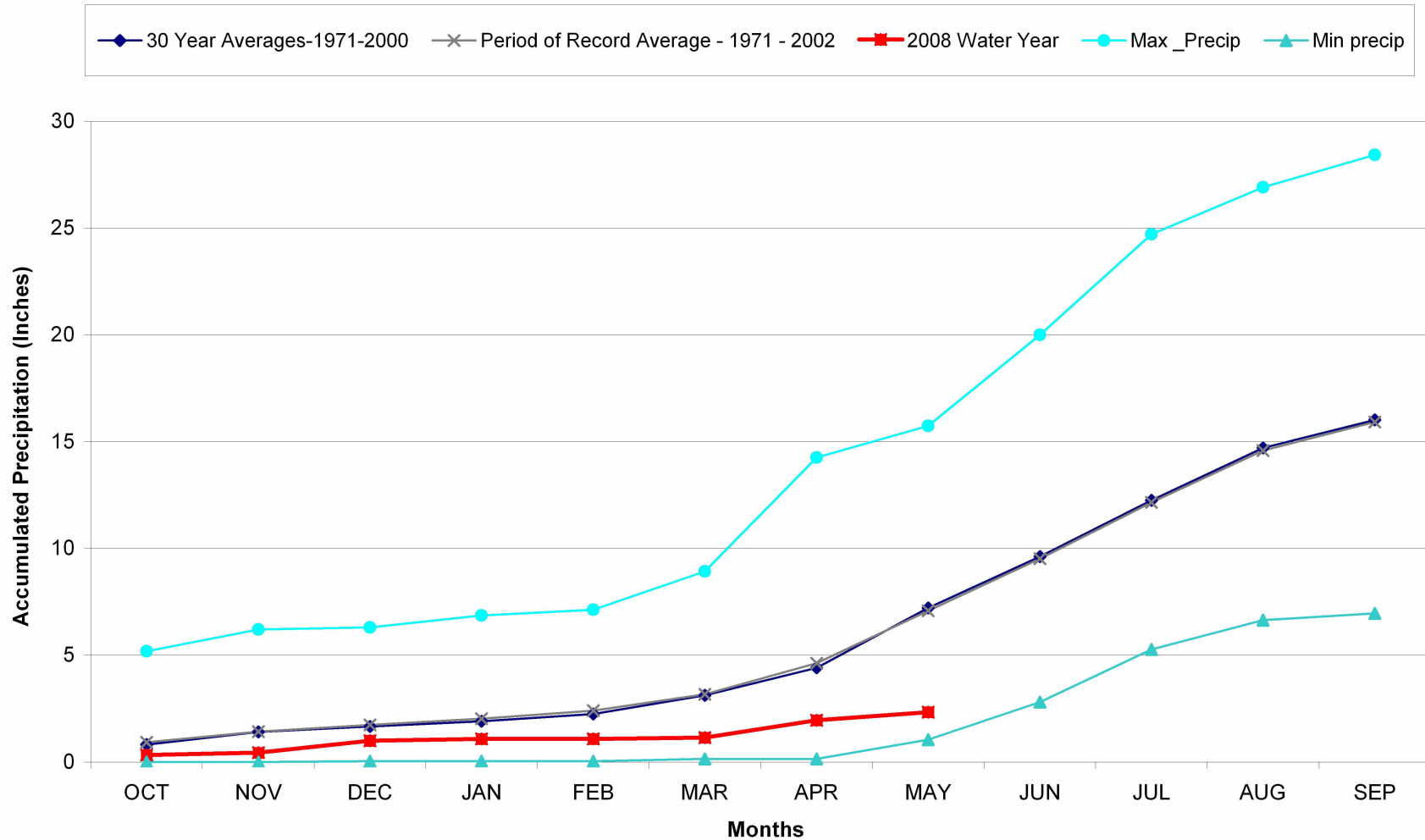
# Division 5 – Pueblo

## Pueblo WSO 2008 Water Year



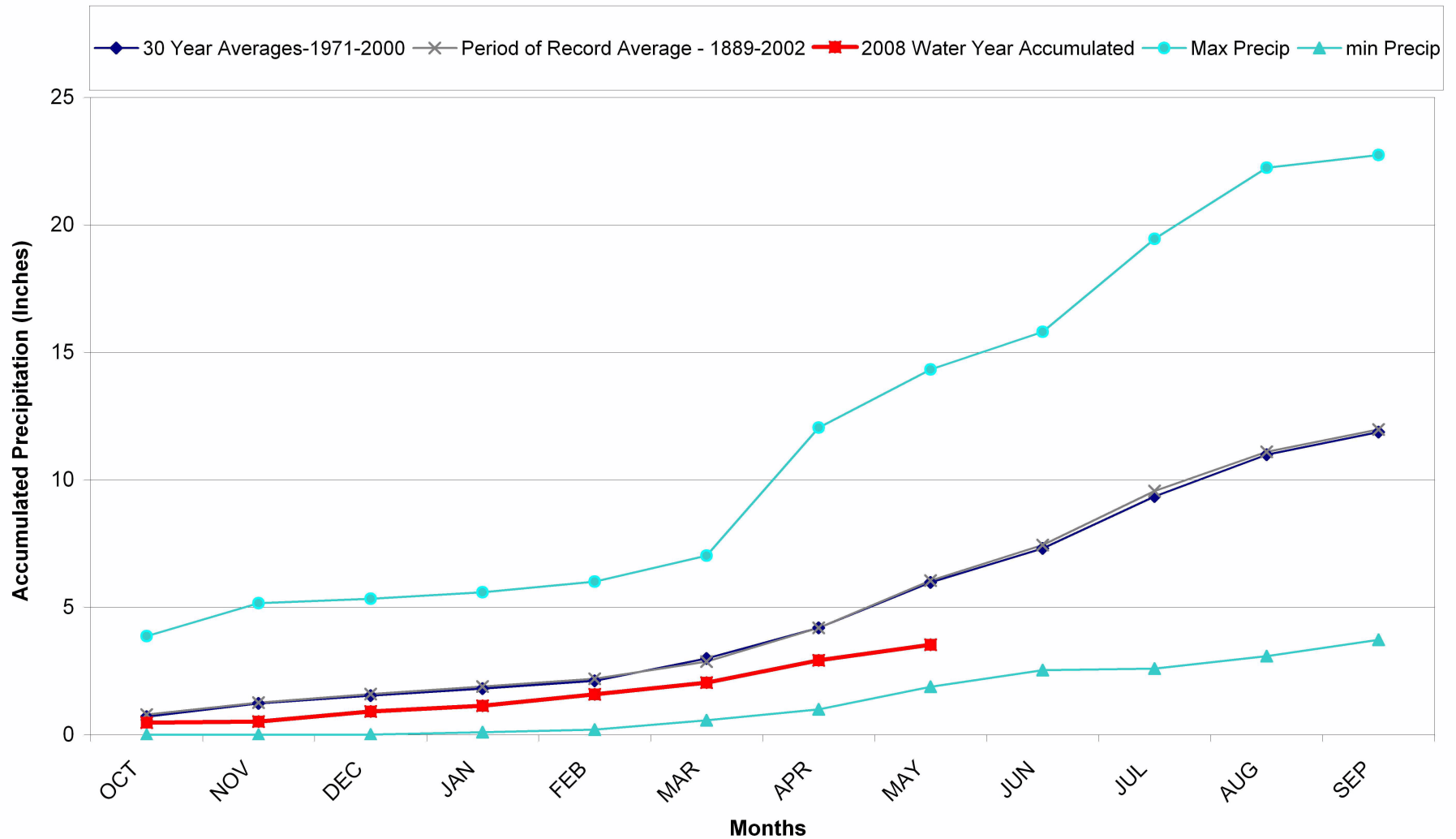
# Division 6 – Cheyenne Wells

## Cheyenne Wells 2008 Water Year



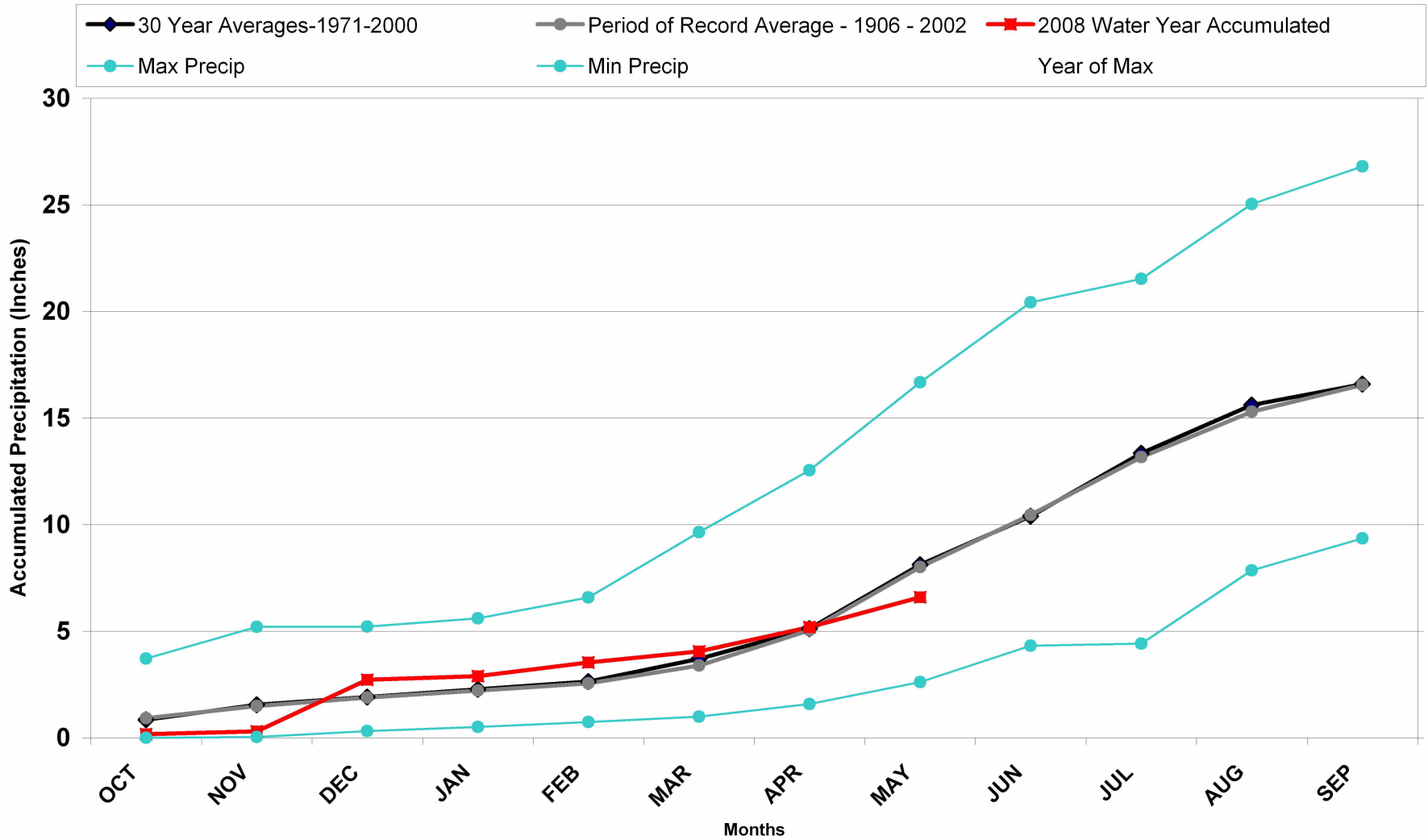
# Division 6 – Rocky Ford

## Rocky Ford 2008 Water Year



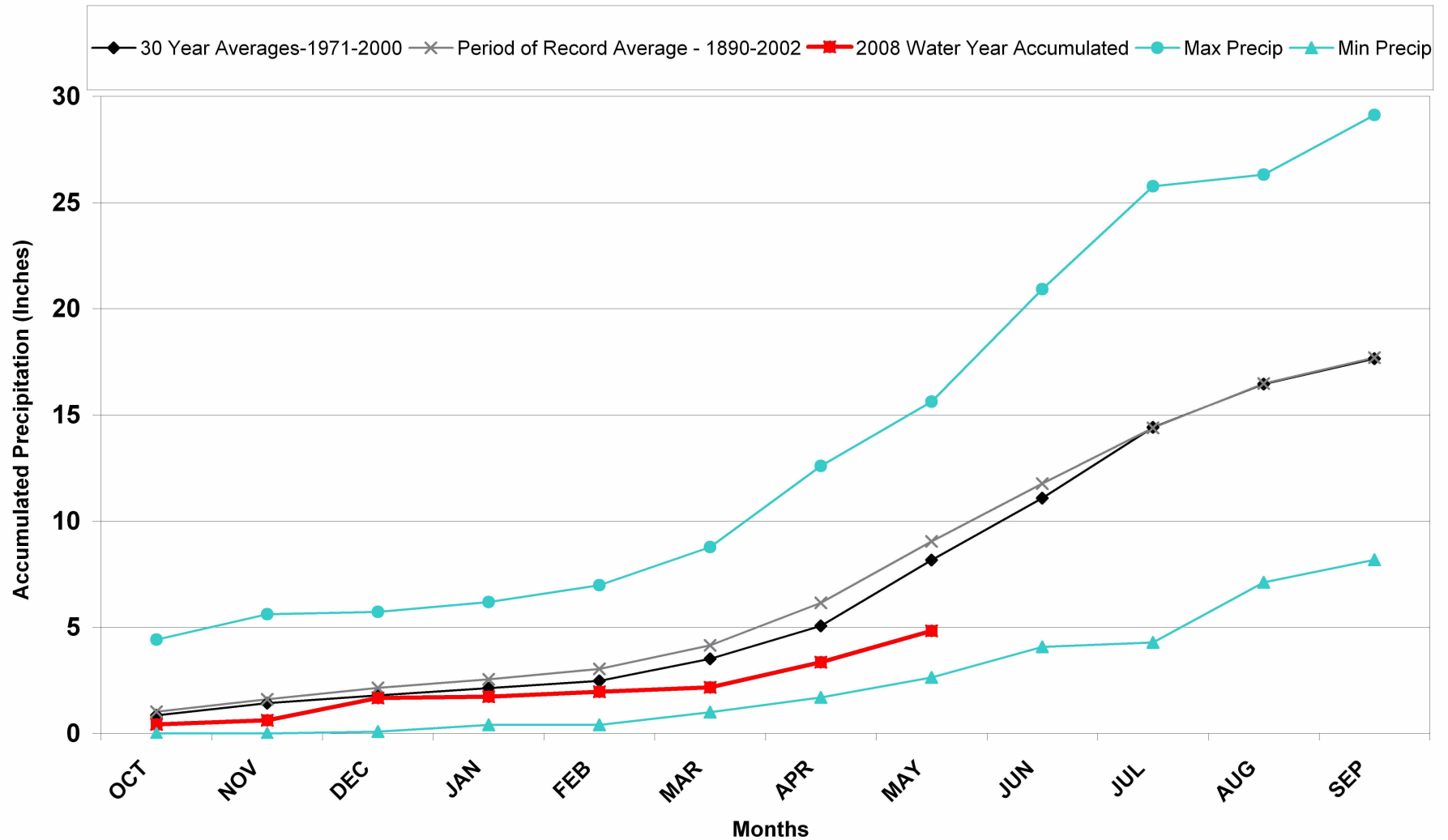
# Division 7 – Akron

## Akron 4E 2008 Water Year



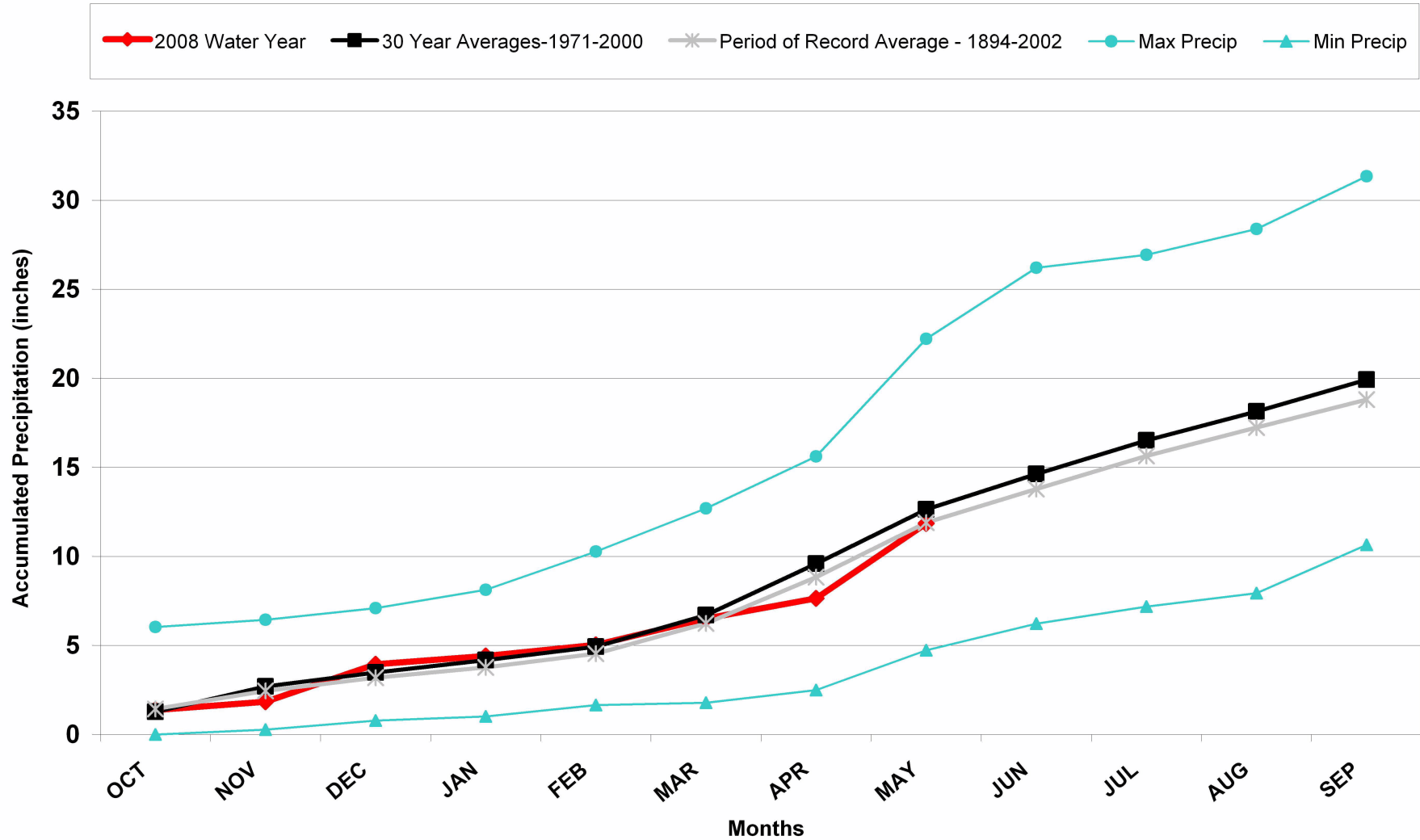
# Division 7 – Leroy

## Leroy 5SW 2008 Water Year



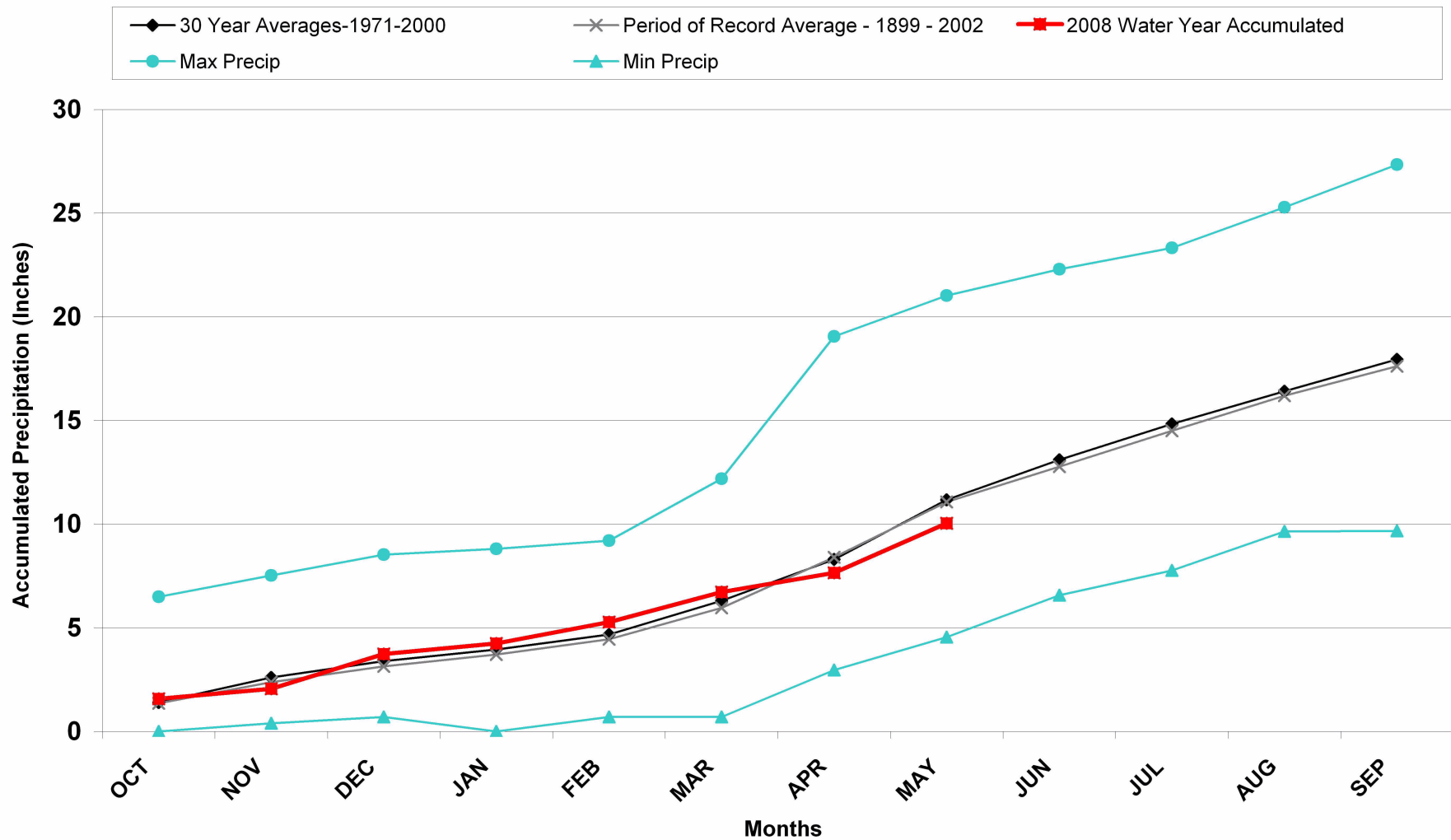
# Division 8 – Boulder

## Boulder 2008 Water Year



# Division 8 – Kassler

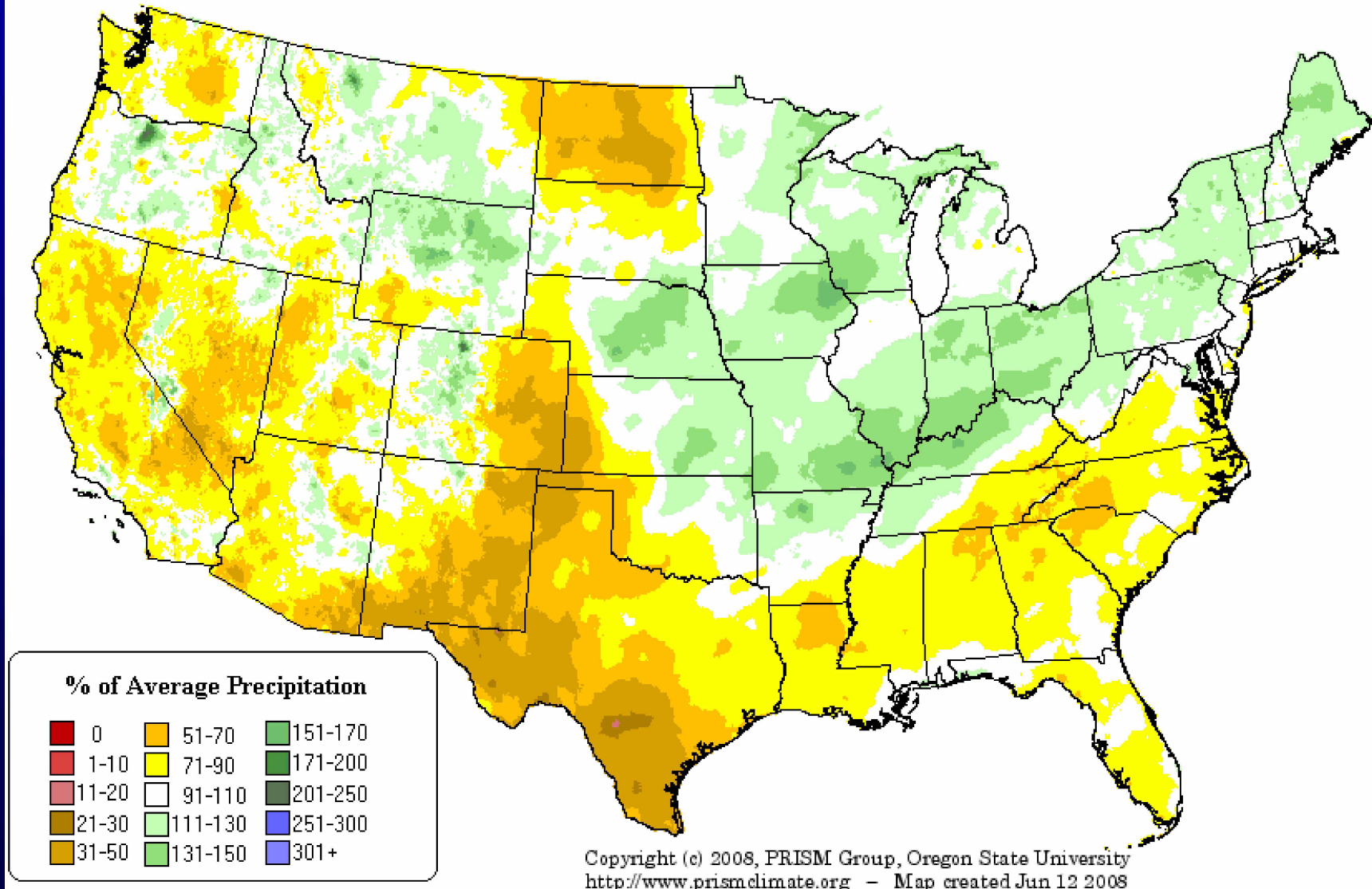
## Kassler 2008 Water Year



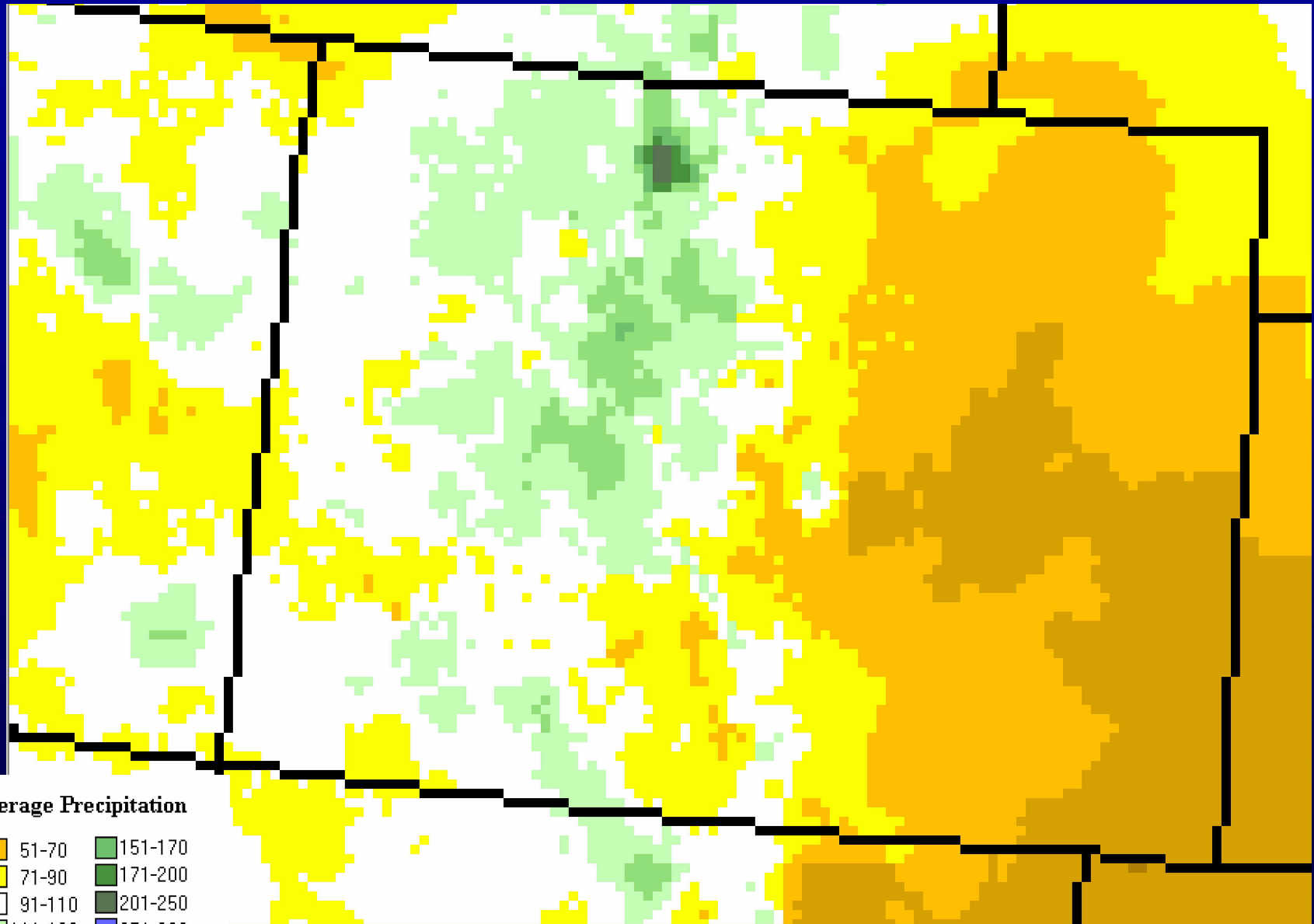


# Water Year 2008 (Oct 07-May 08) Prism

8-month Percent of Average Precipitation: May 2008  
Provisional Data



# Water Year 2008 (Oct 07-May 08) Prism



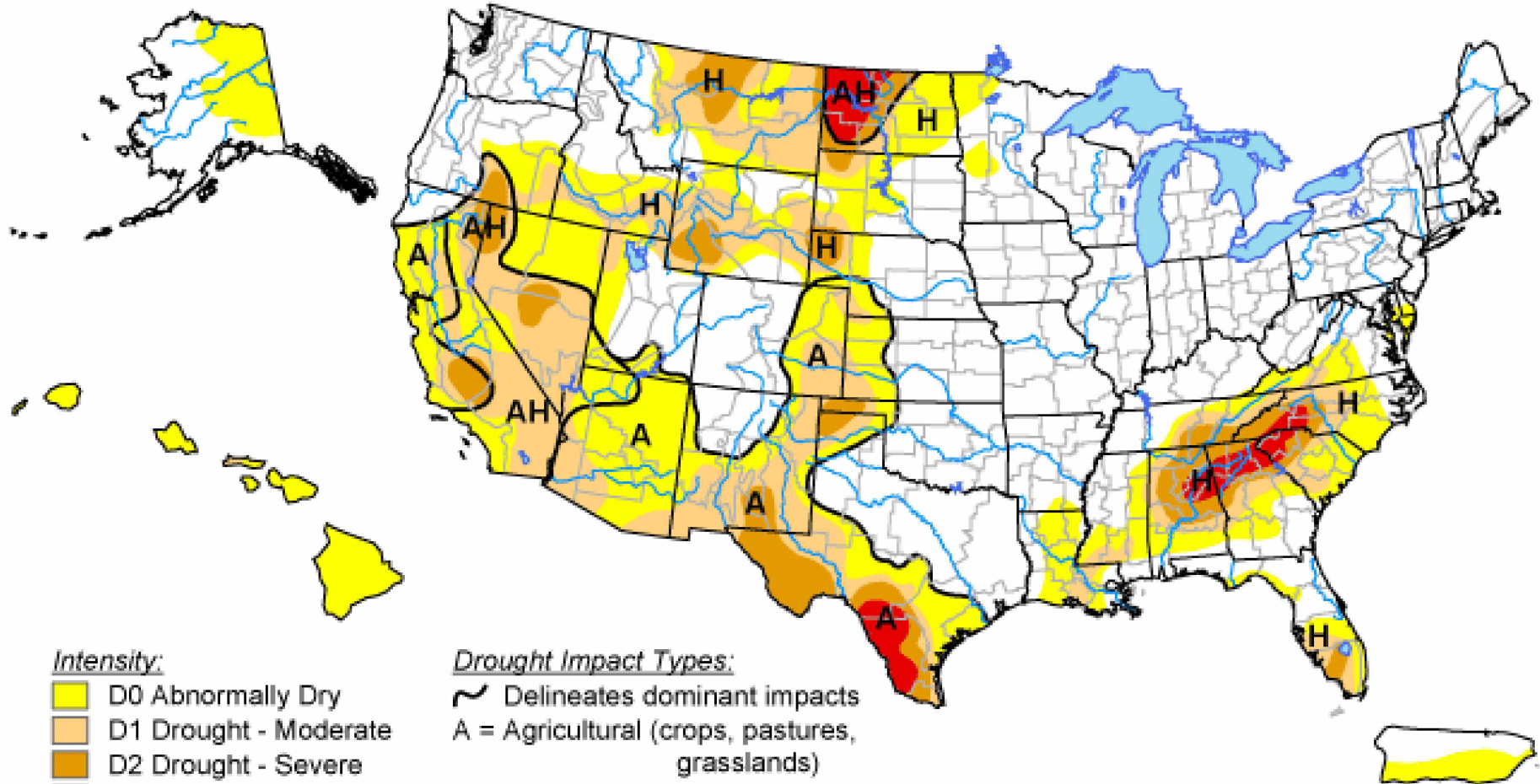
**% of Average Precipitation**

0	51-70	151-170
1-10	71-90	171-200
11-20	91-110	201-250
21-30	111-130	251-300
31-50	131-150	301+






# U.S. Drought Monitor

May 13, 2008


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>

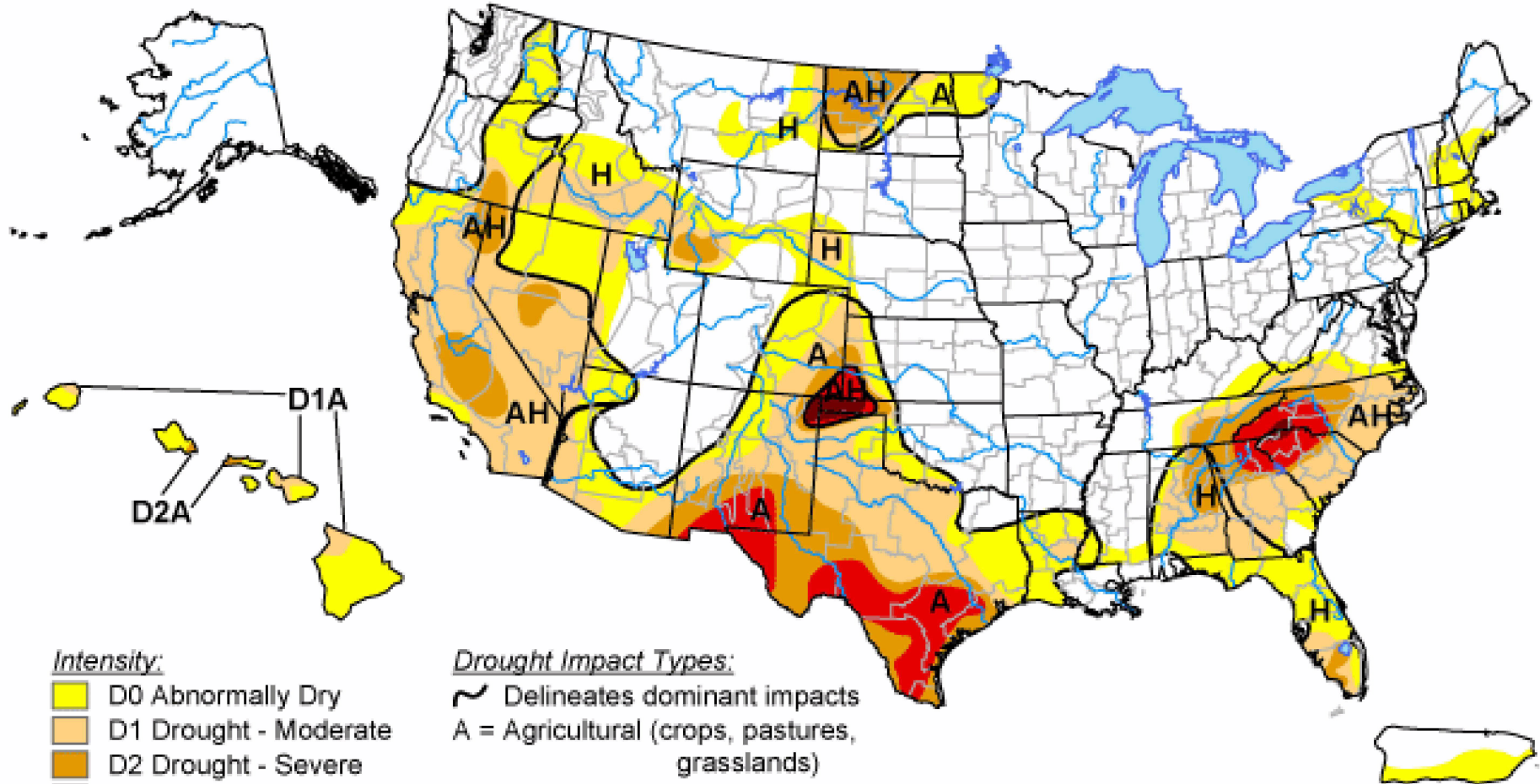


Released Thursday, May 15, 2008  
Author: Michael James, JAWF/CPC/NOAA






# U.S. Drought Monitor

June 17, 2008


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, June 19, 2008

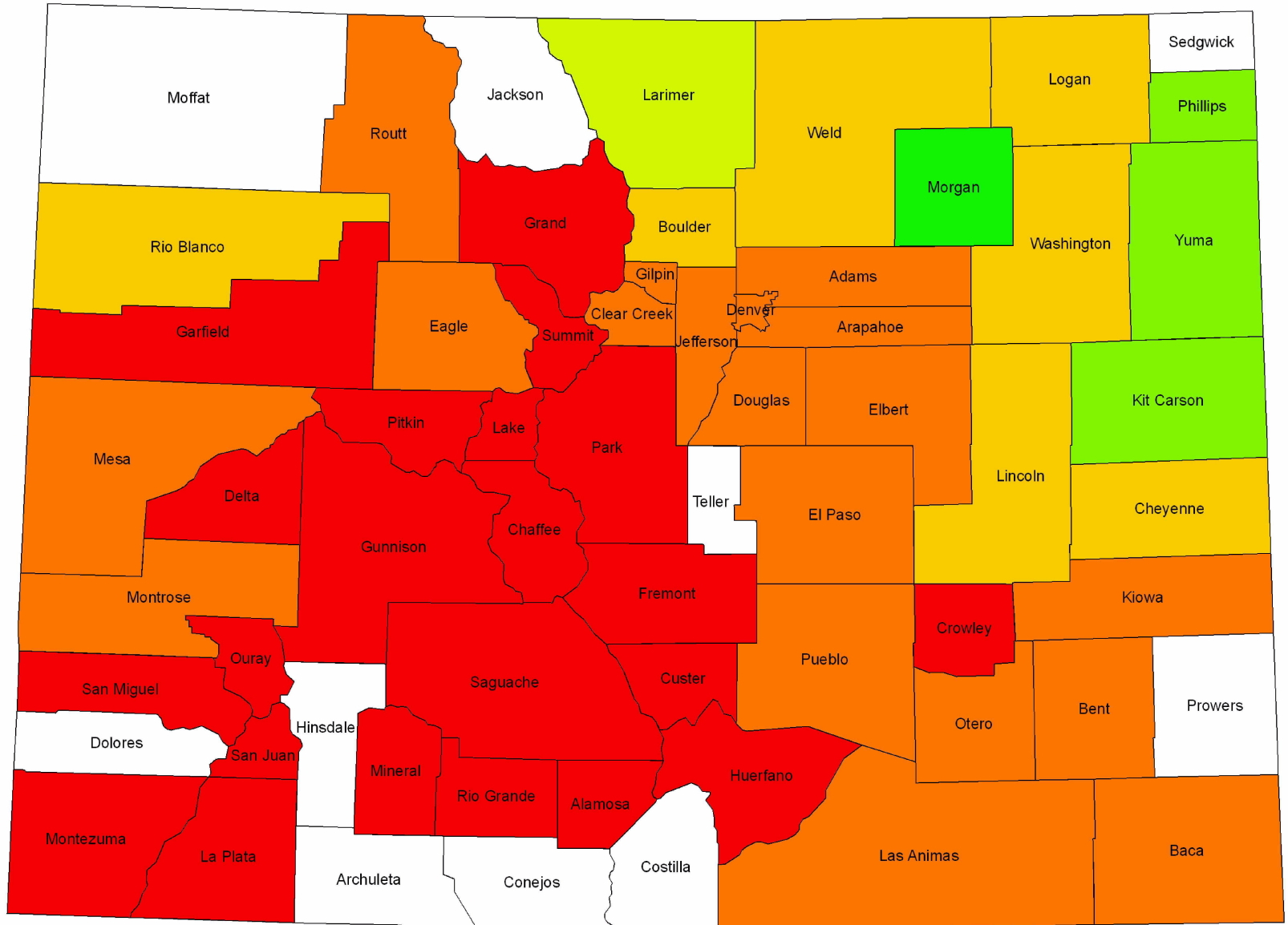
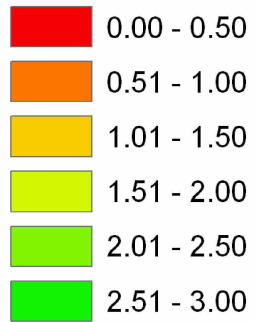
Author: Rich Tinker, CPC/NOAA

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

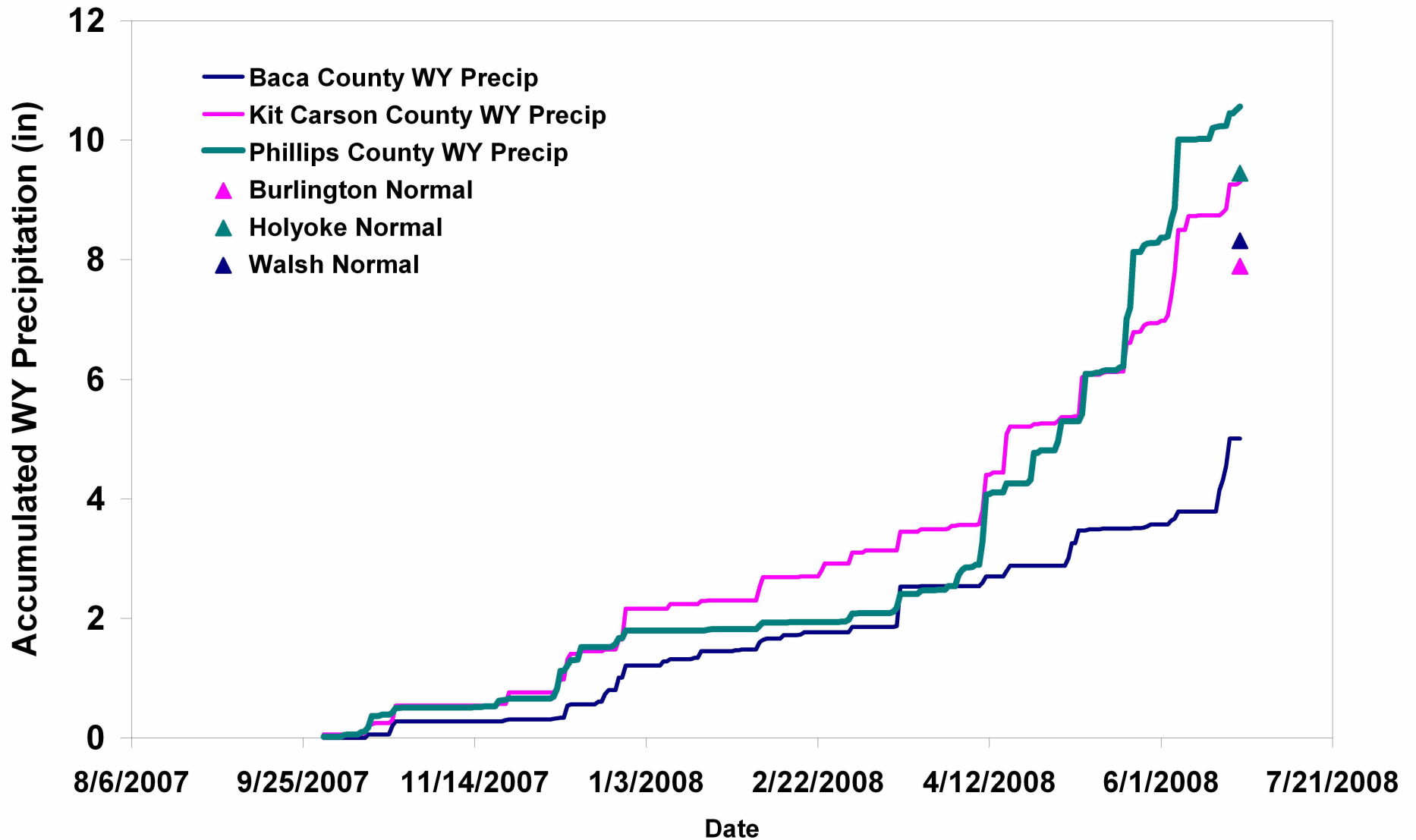
# Average Cocorahs June 1- June 24 2008 Precipitation by County

## Colorado\_Counties

CO\_county\_avgppt\_1\_24June08.JUNE\_PPT

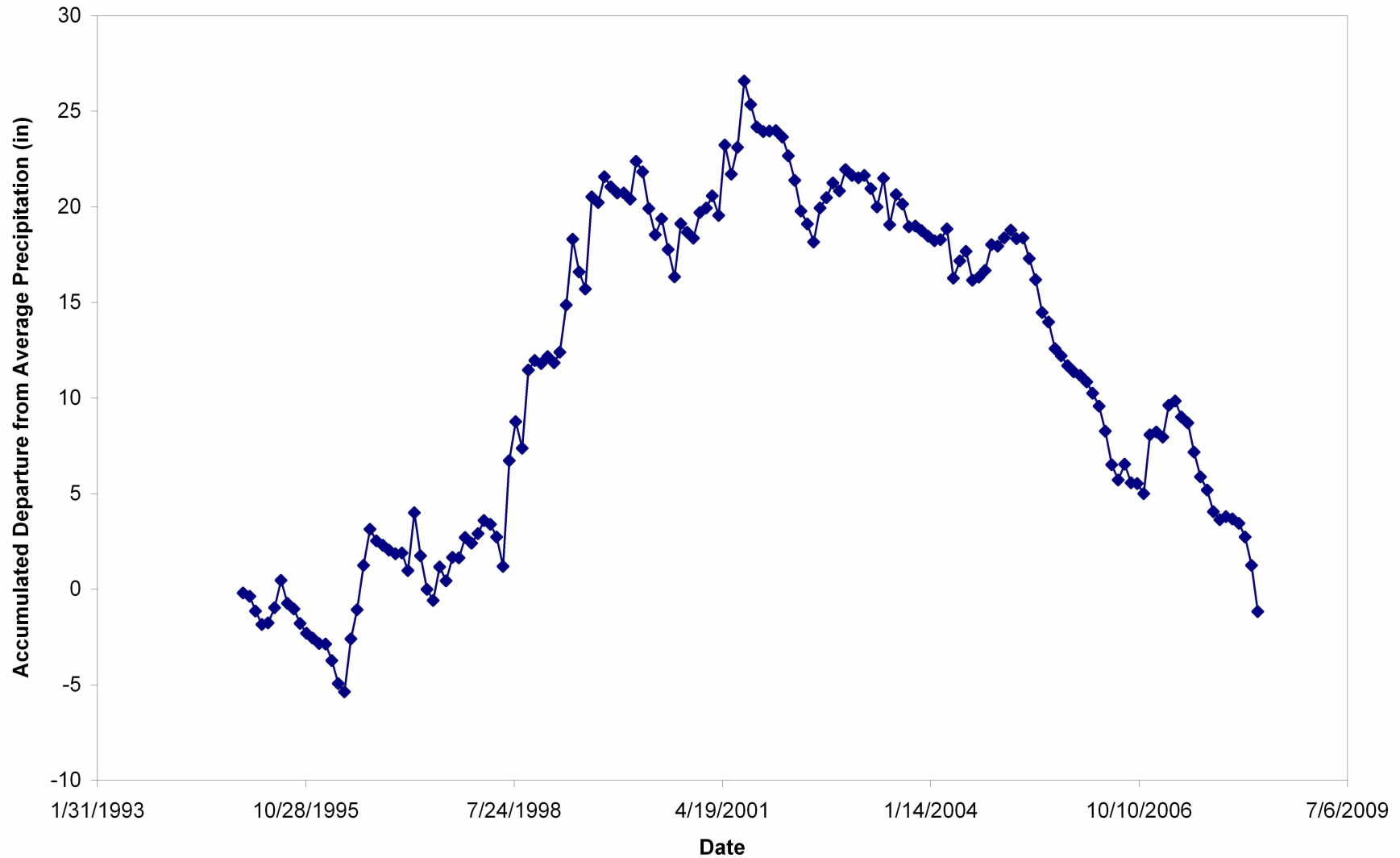


## CoCoRaHS Accumulated WY Precipitation for Selected Counties



# Campo Accumulated Precipitation Deficit

Campo, CO Accumulated Departure from Average



# Drought Monitor Archives

Maps

Tables

1999 Archive

GIS Data

Select an area and click the 'Update' button to view the archive.

Contiguous United States

Region

Northeast

State

Alabama

Update

## Drought Severity

D0 Abnormally Dry

D1 Drought - Moderate

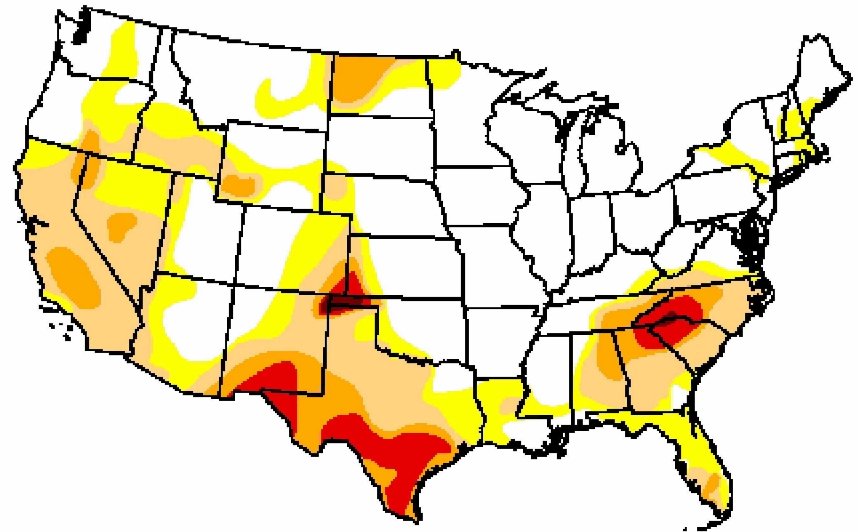
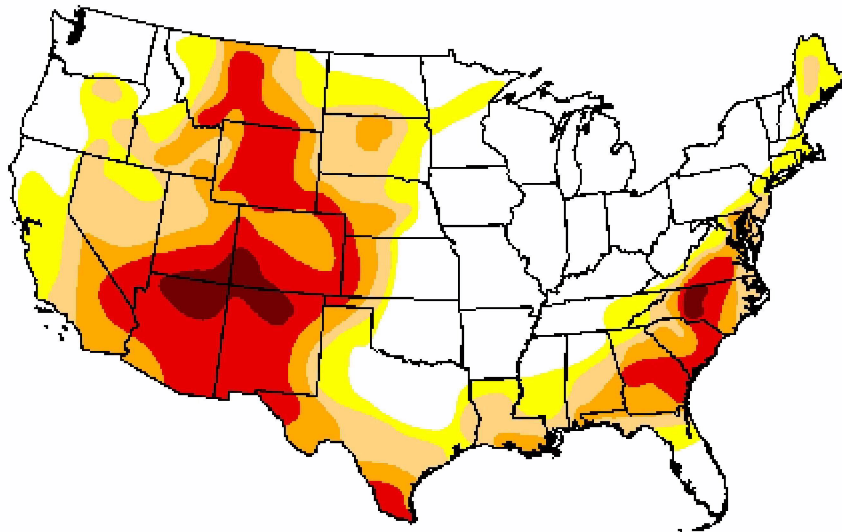
D2 Drought - Severe

D3 Drought - Extreme

D4 Drought - Exceptional

June 18, 2002

June 17, 2008





# Summary

- Cool weather has continued for Colorado
- No prolonged spring heat waves to produce large peak flows.
- Delayed snowmelt generally good for water supplies.
- Severe weather has been a problem for parts of eastern Colorado.

# Summary continued

- Western Slope drying now underway.
- Drought vulnerability continues over SE Colorado.
- Next anticipated weather change – onset of “North American Monsoon” with increased chances of precipitation, especially over SW and Central Colorado.

# Colorado Climate Center

**Data and Power Point Presentations  
available for downloading**

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

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

