



# *Climate Update*

**Wendy Ryan**  
**Colorado Climate Center**

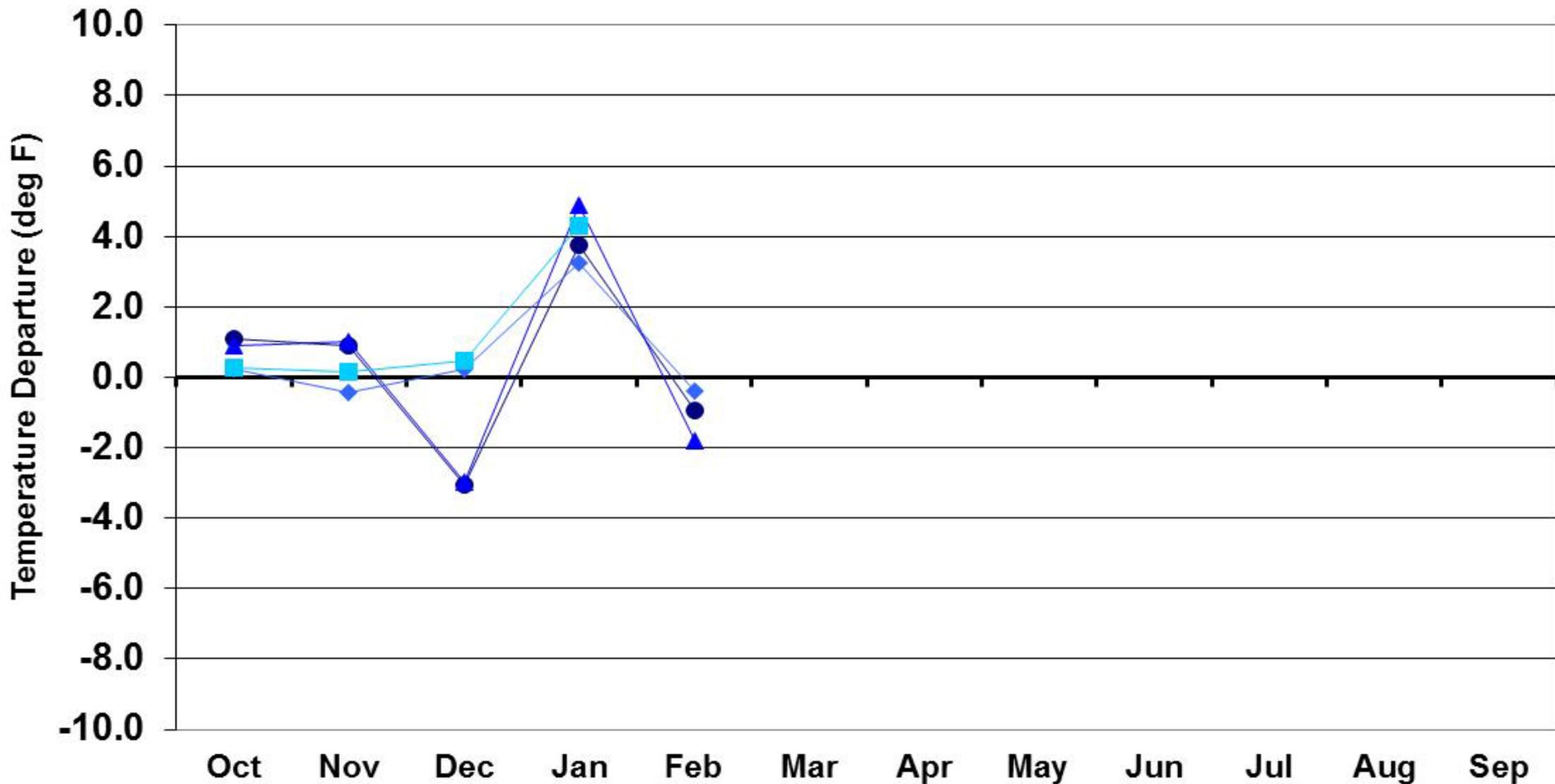
**Atmospheric Science Department**  
**Colorado State University**

Presented to  
Water Availability Task Force  
March 22, 2012  
Denver, CO

Prepared by Wendy Ryan

# Water Year 2012 Temperature Departures

Water Year 2012



● Eastern Plains

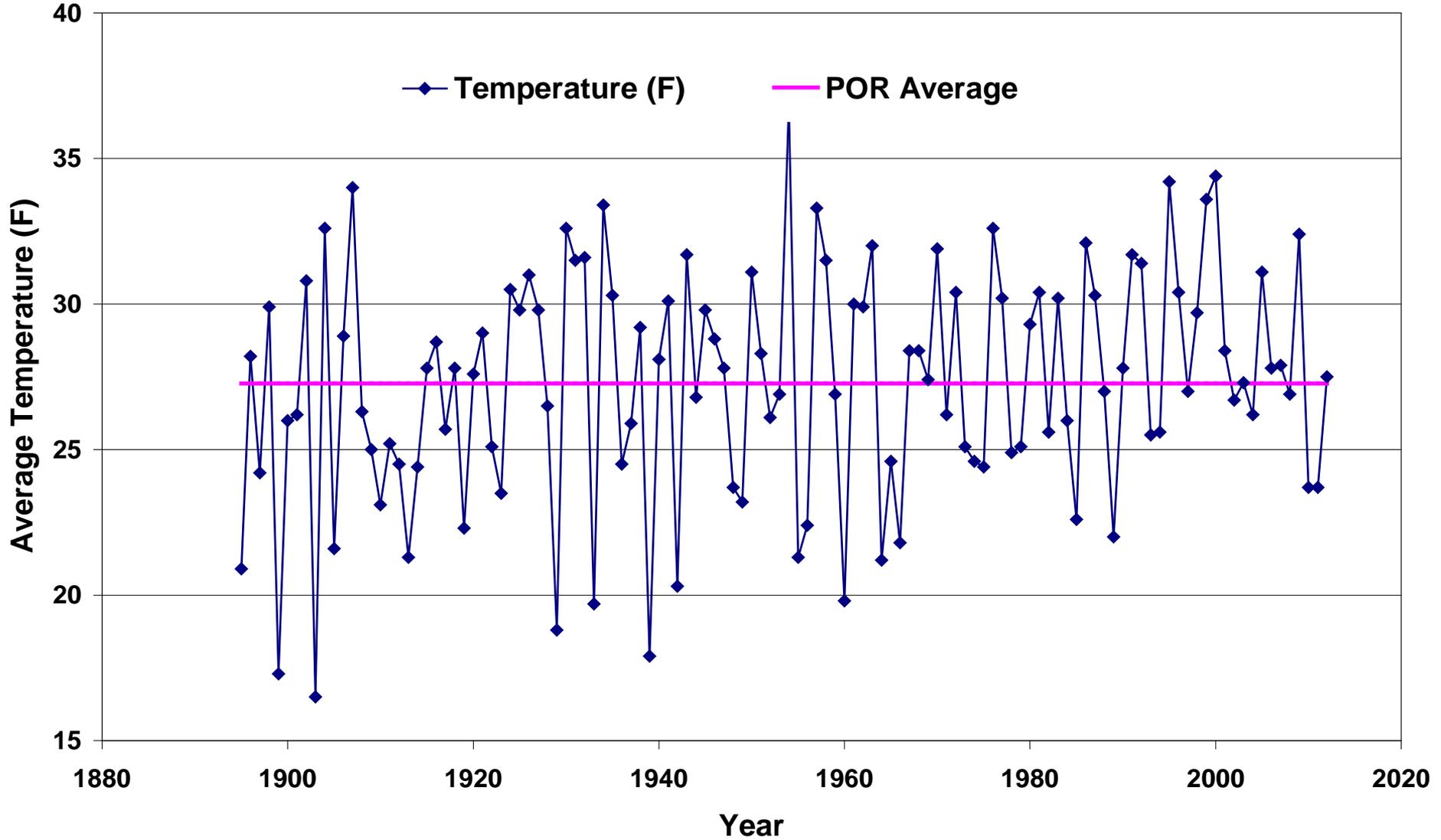
▲ Foothills

◆ Mountains

■ Western Valleys

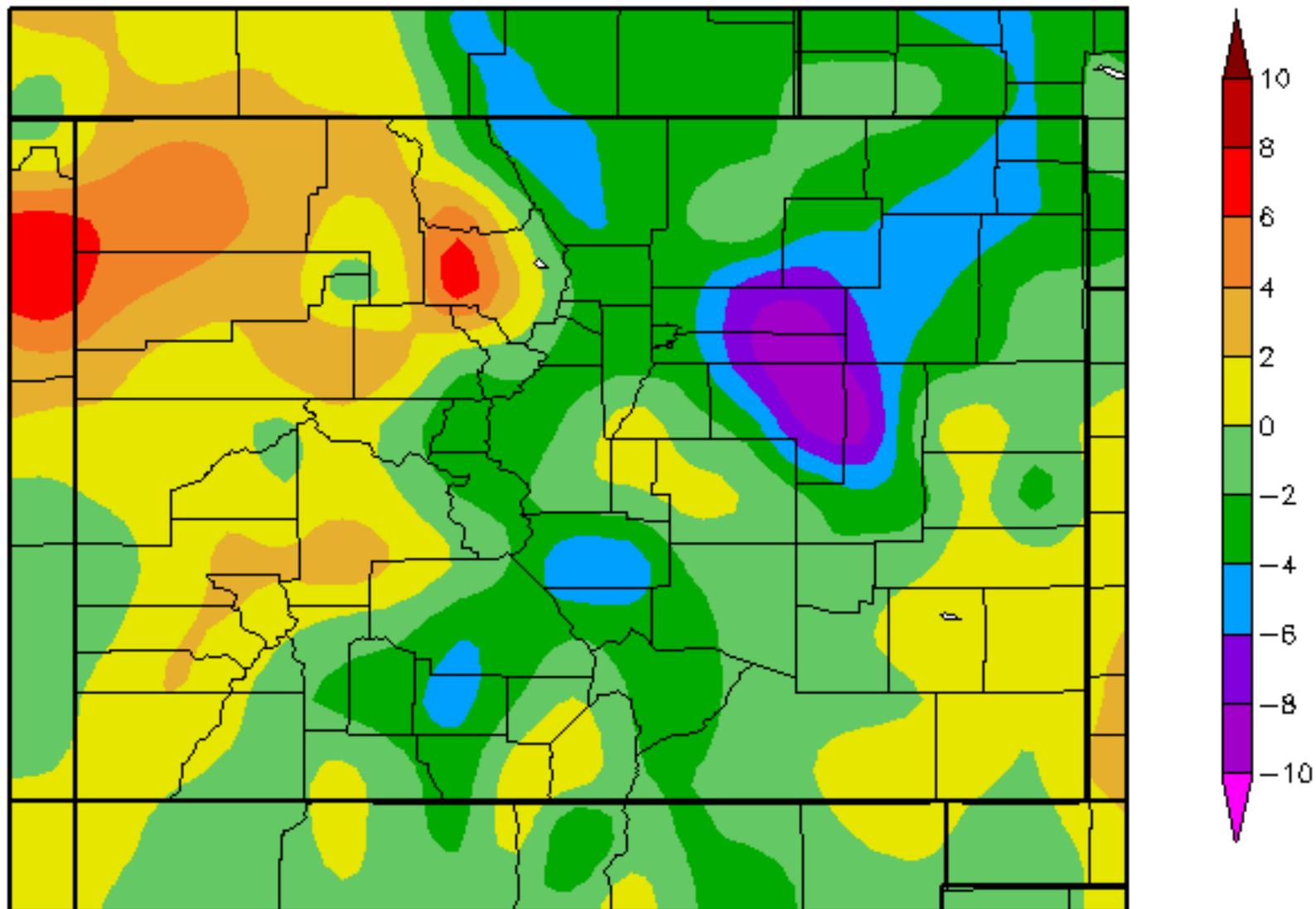
# February Average Temperature History for Colorado (NCDC)

27.5 Ranks as the 60<sup>th</sup> warmest on record  
1895-2012.



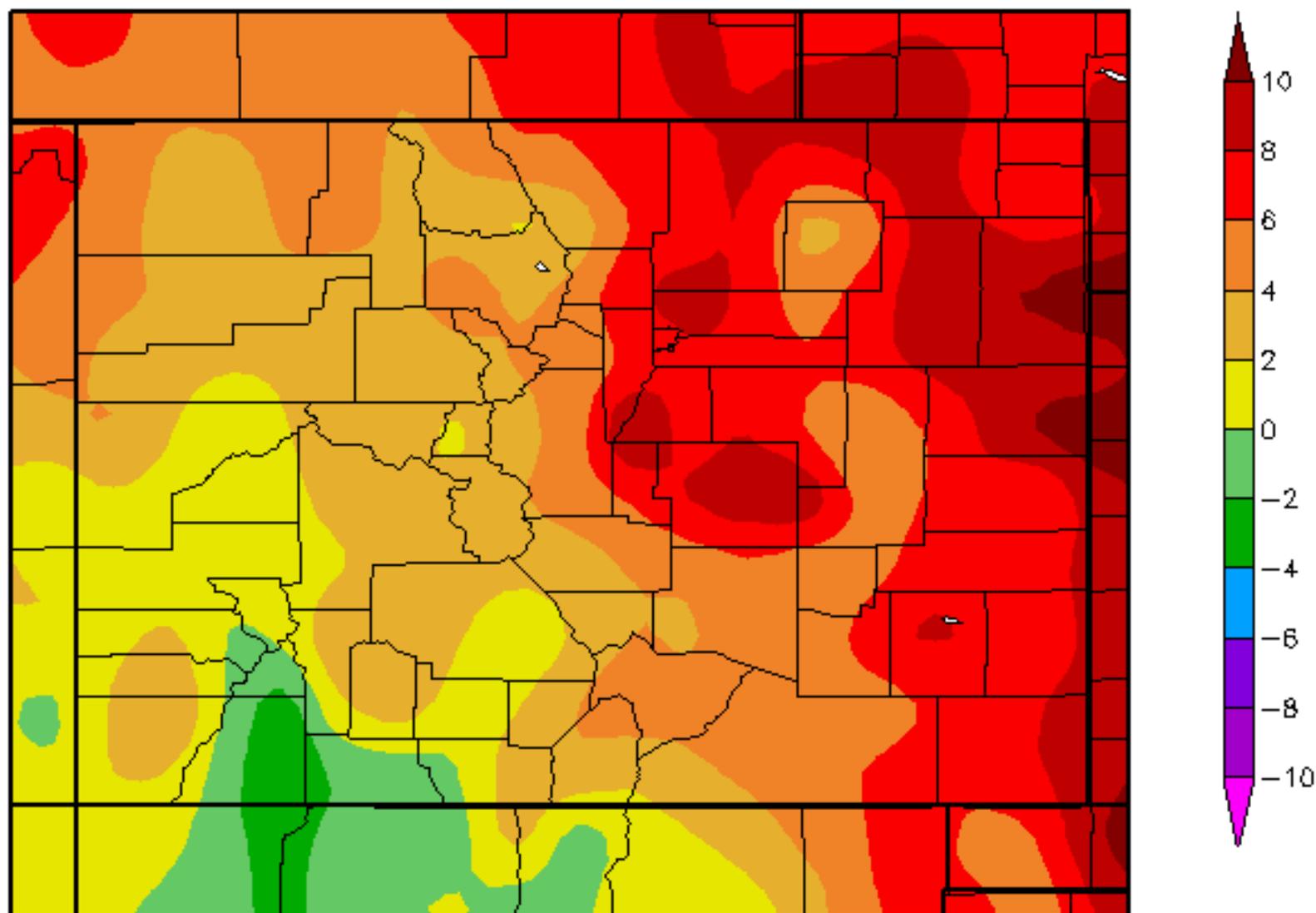
# Departure from Normal Temperature (F)

2/1/2012 - 2/29/2012

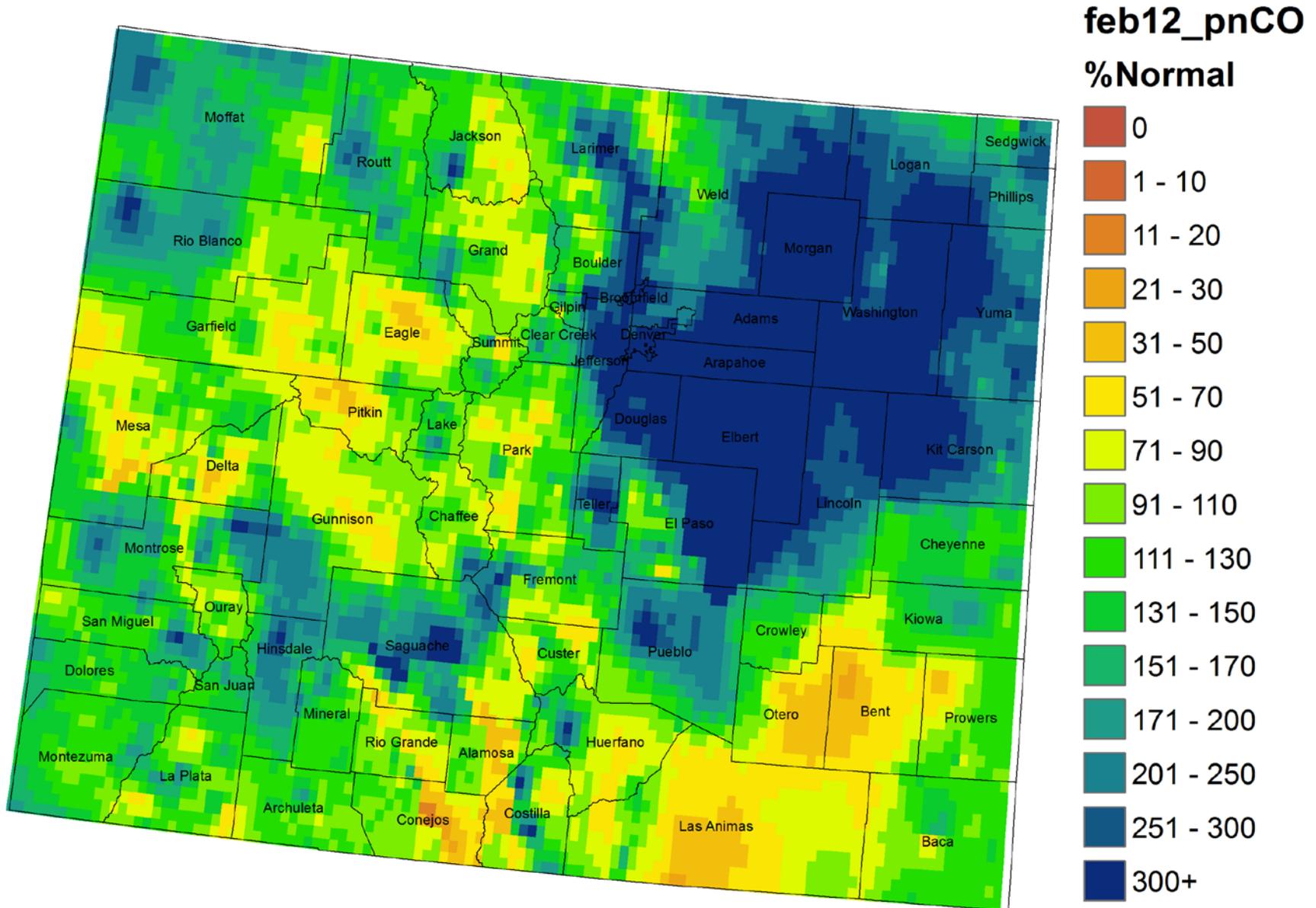


# Departure from Normal Temperature (F)

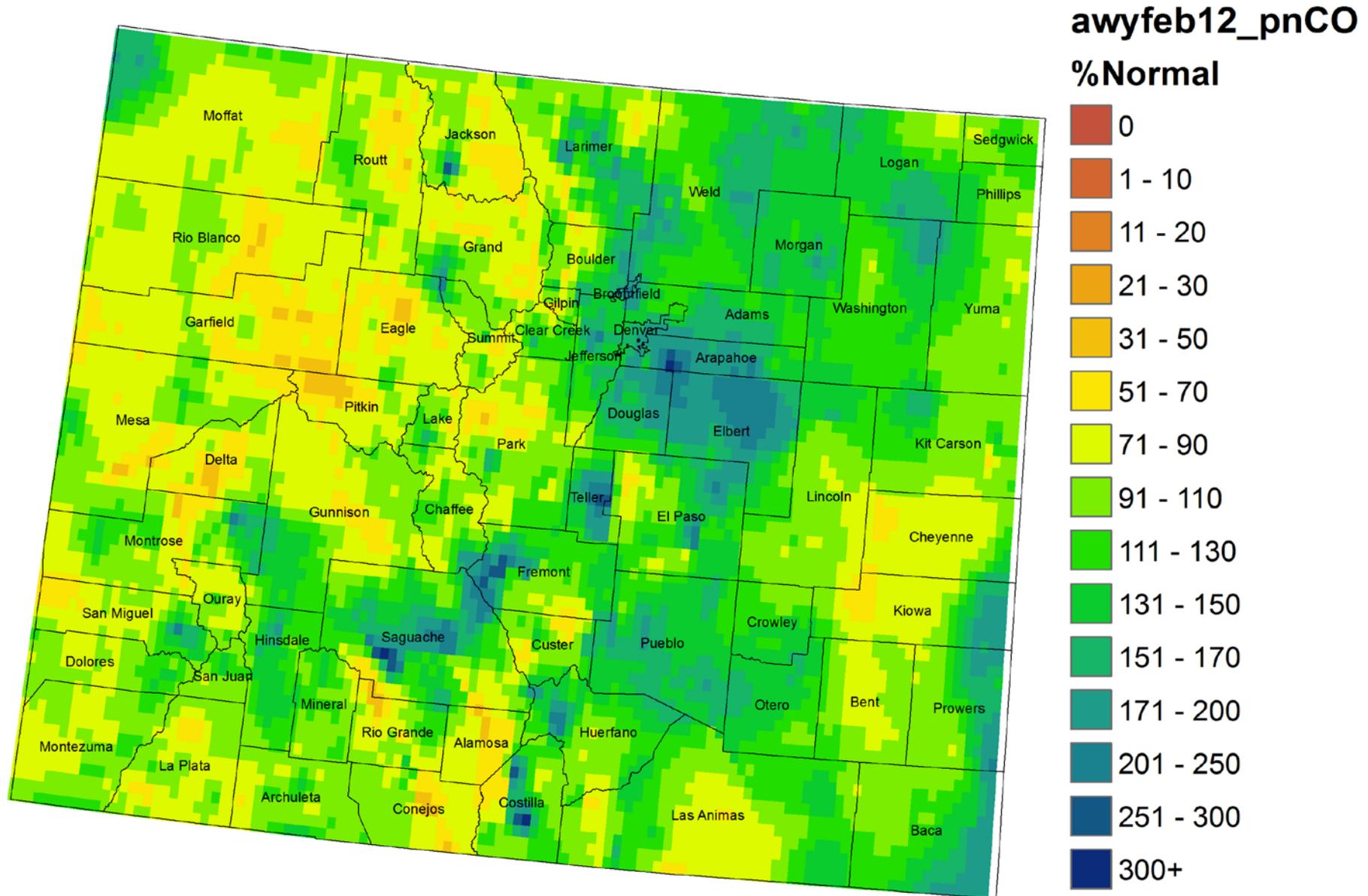
## 3/1/2012 - 3/19/2012



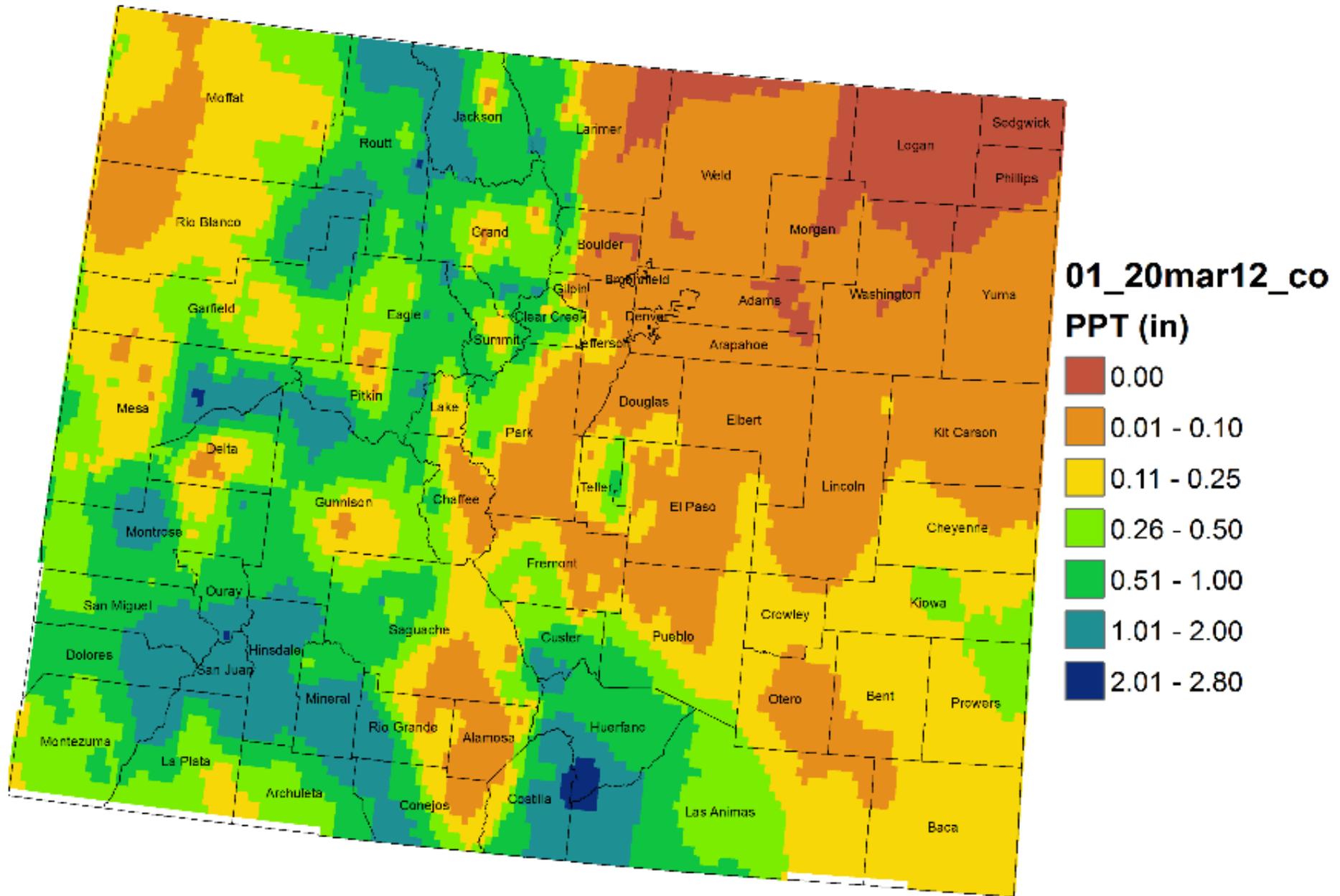
# Colorado February 2012 Precipitation as Percentage of Normal



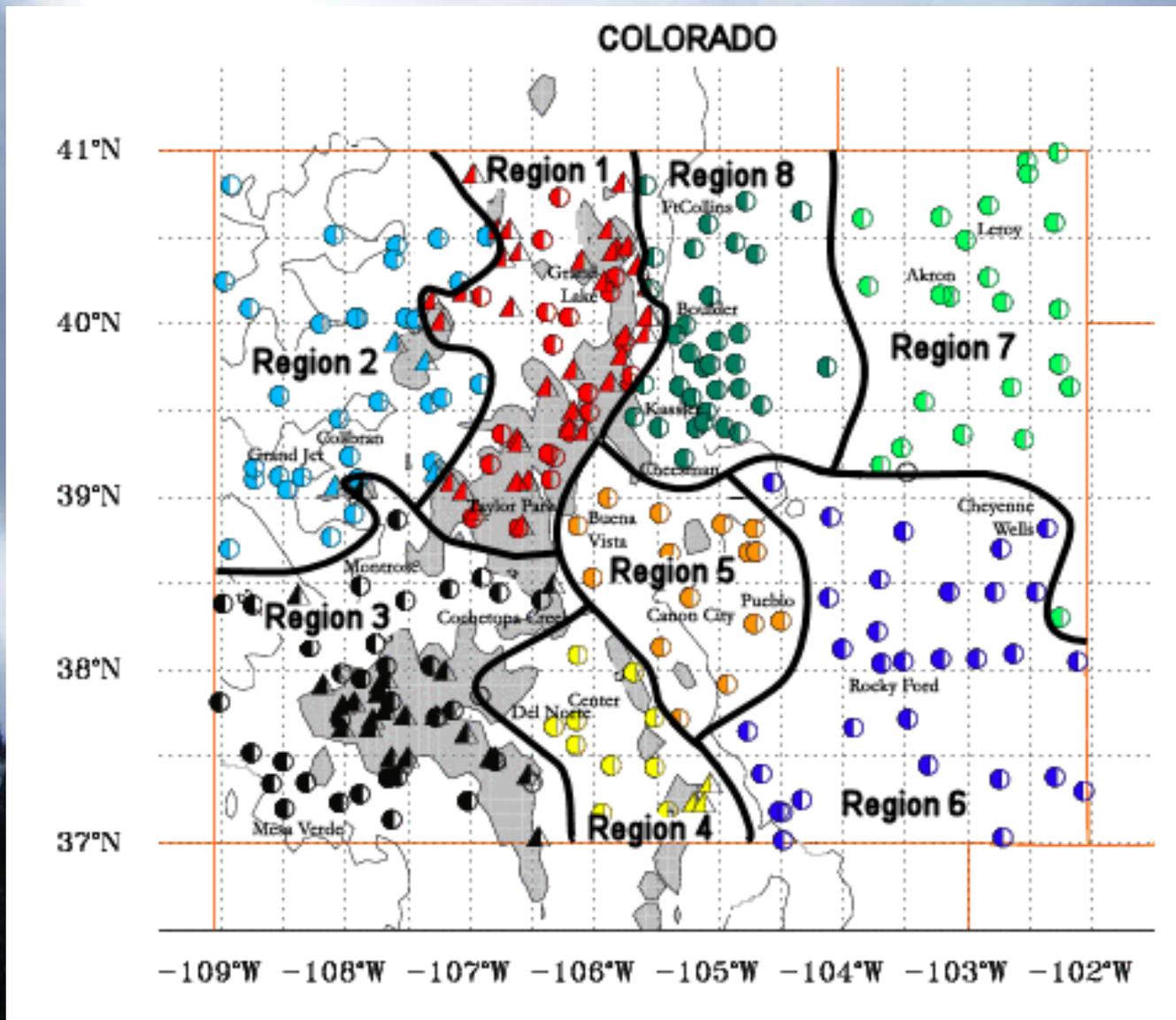
# Colorado Water Year 2012 Precipitation as Percentage of Normal (October 2011 - February 2012)



# Colorado Precipitation 1 - 20 March 2012

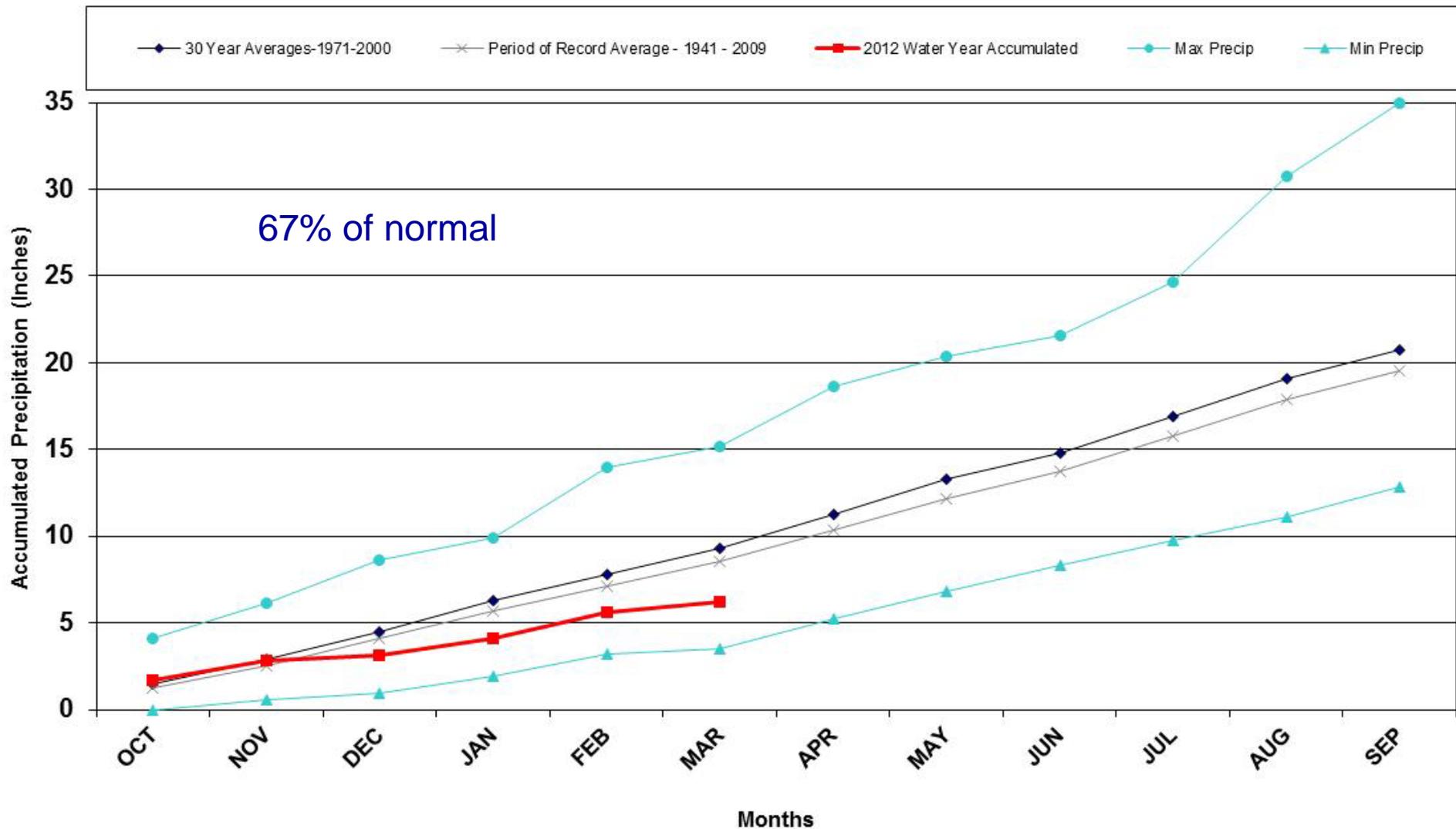


# Climate divisions defined by Dr. Klaus Wolter of NOAA's Climate Diagnostic Center in Boulder, CO



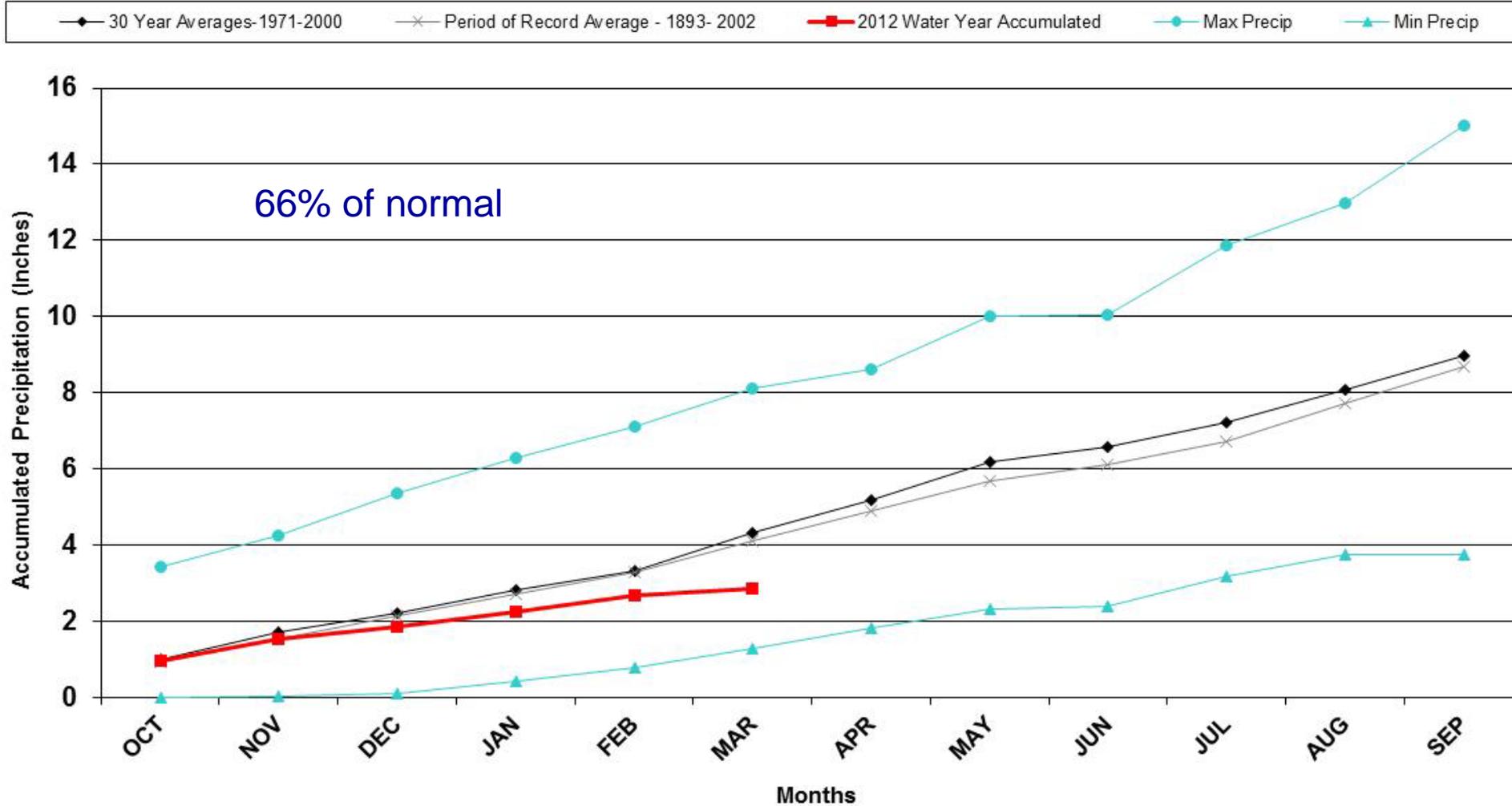
# Division 1 – Grand Lake 1NW

## Grand Lake 1 NW 2012 Water Year



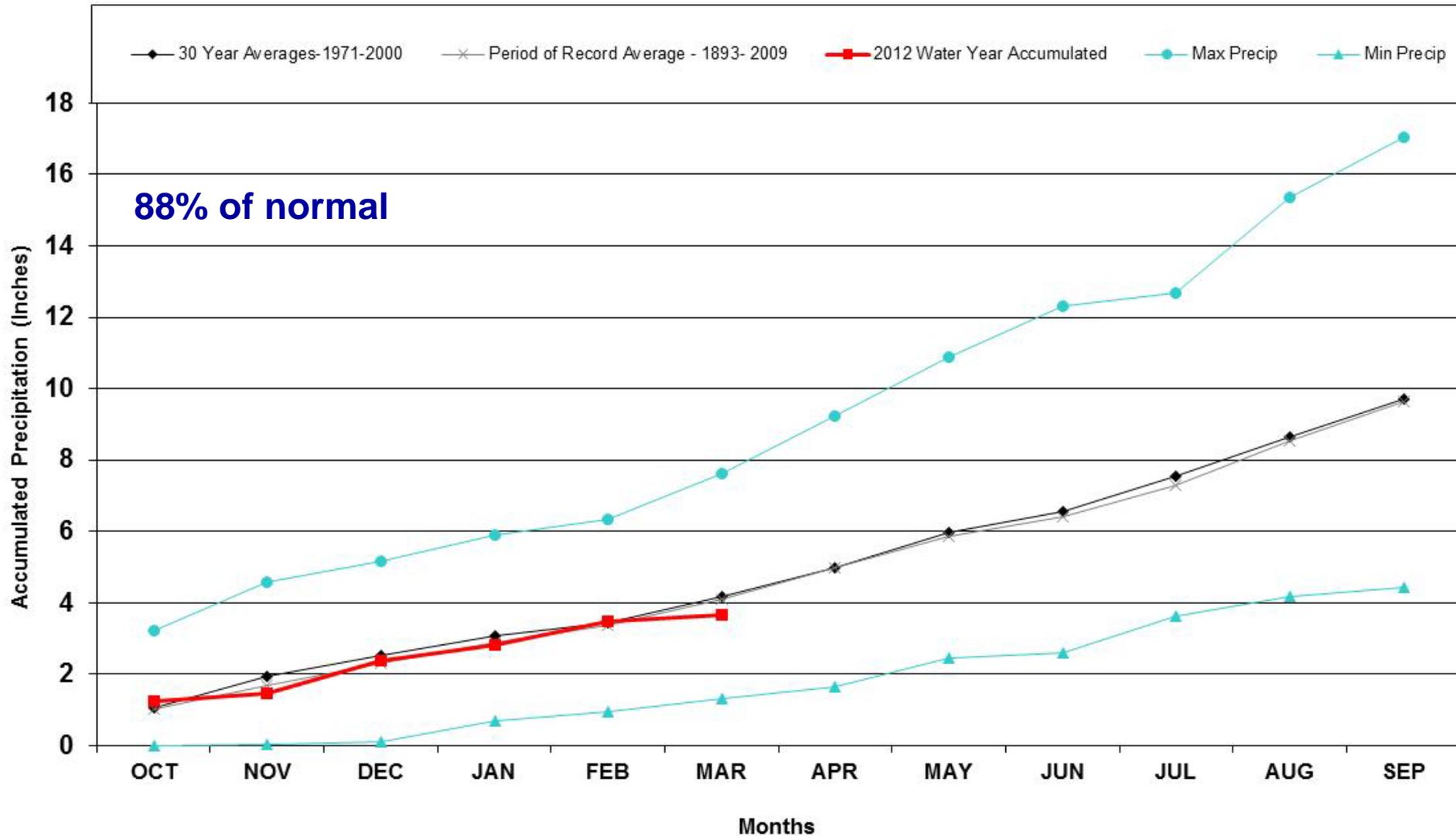
# Division 2 – Grand Junction

## Grand Junction WSFO 2012 Water Year



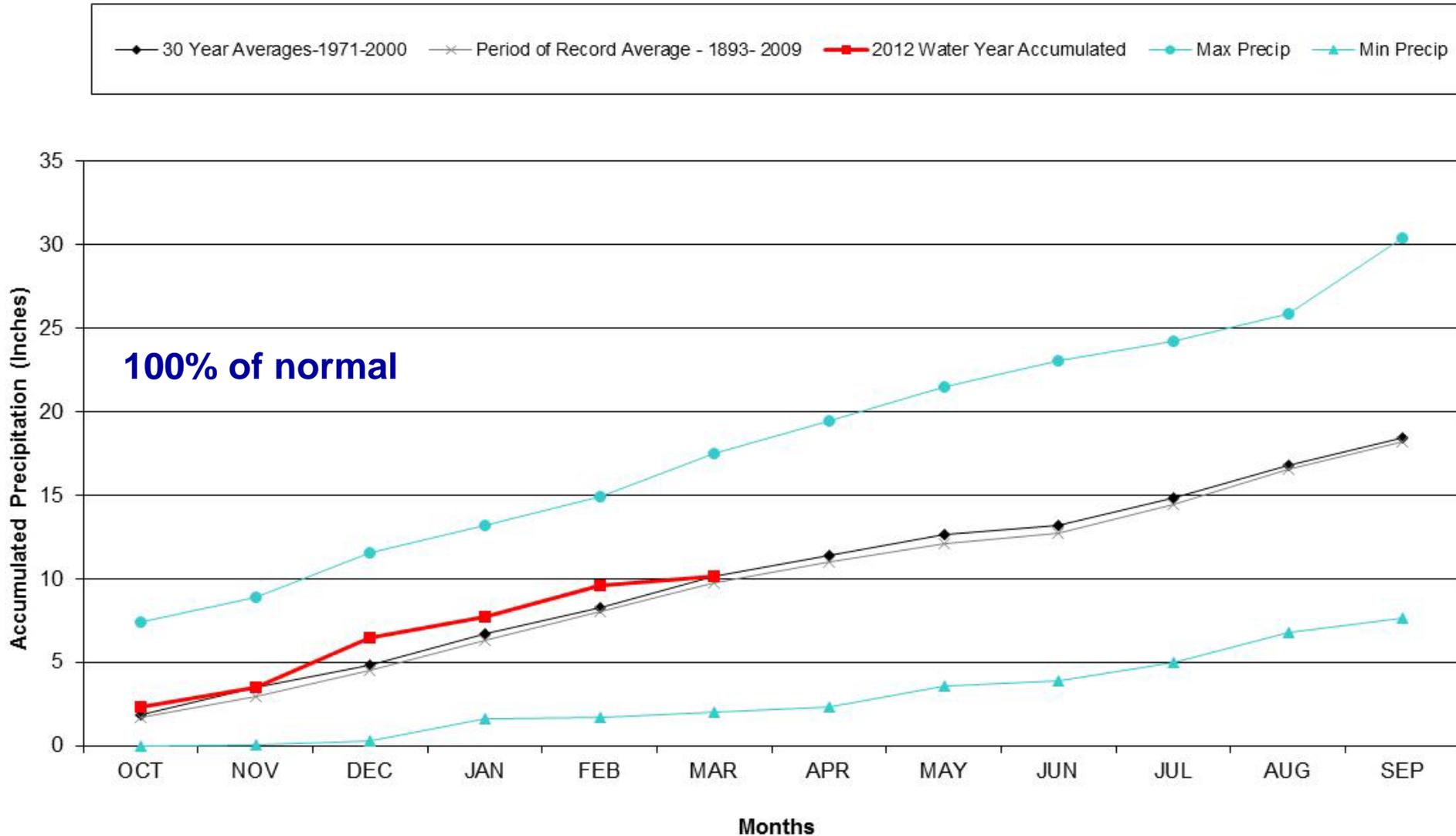
# Division 3 – Montrose

## Montrose #2 2012 Water Year



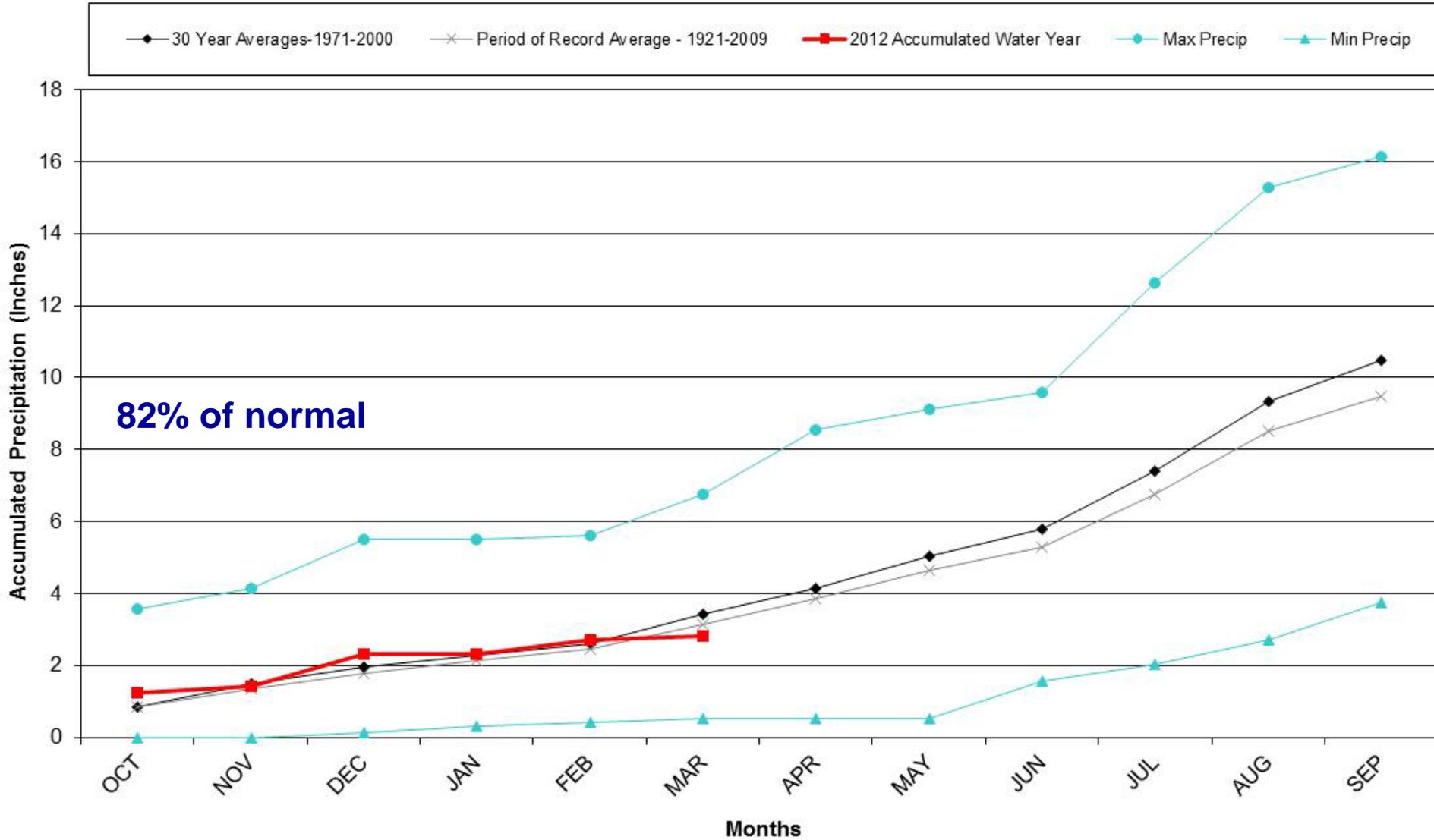
# Division 3 – Mesa Verde NP

## Mesa Verde NP 2012 Water Year



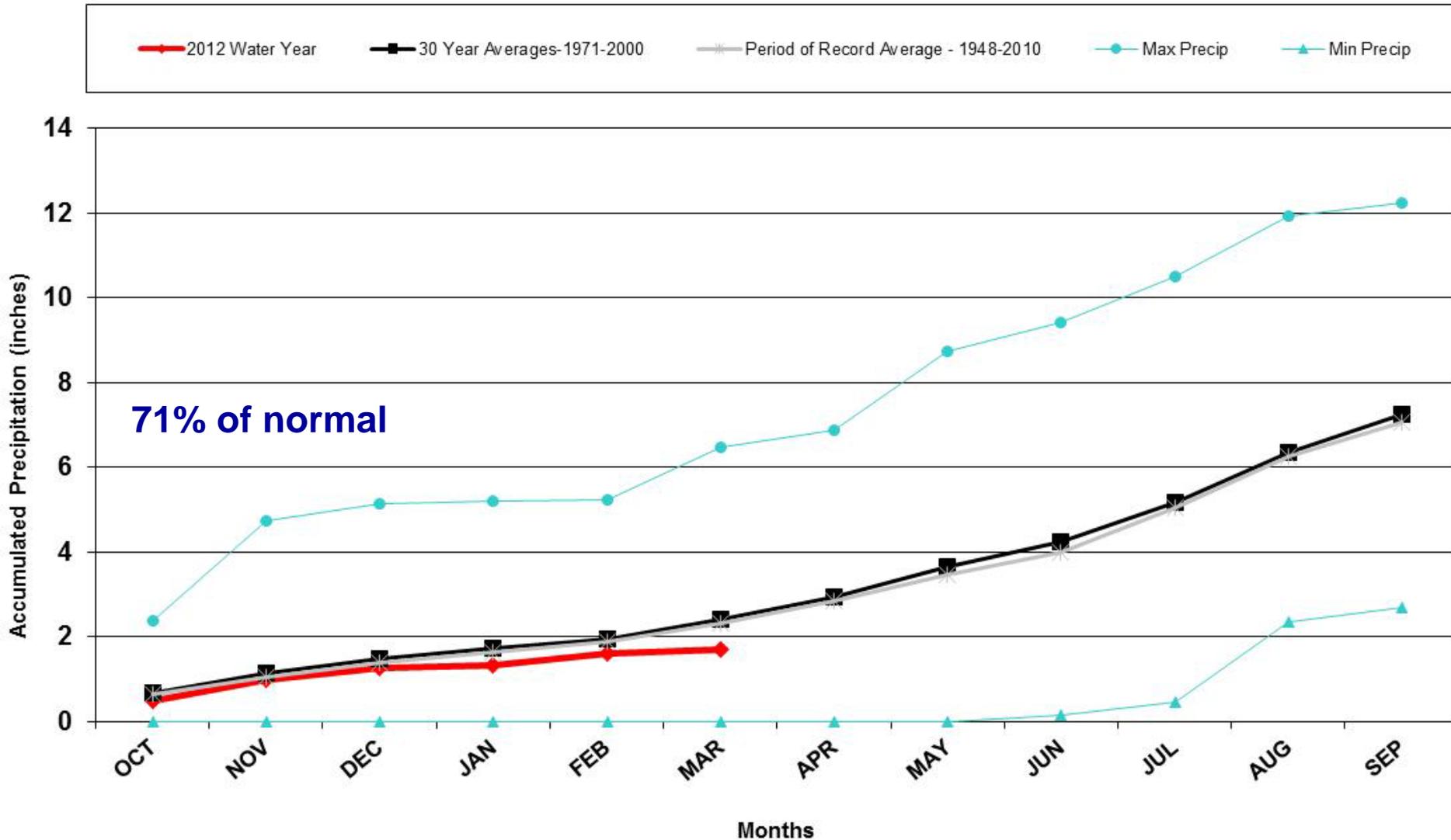
# Division 4 – Del Norte

## Del Norte 2012 Water Year



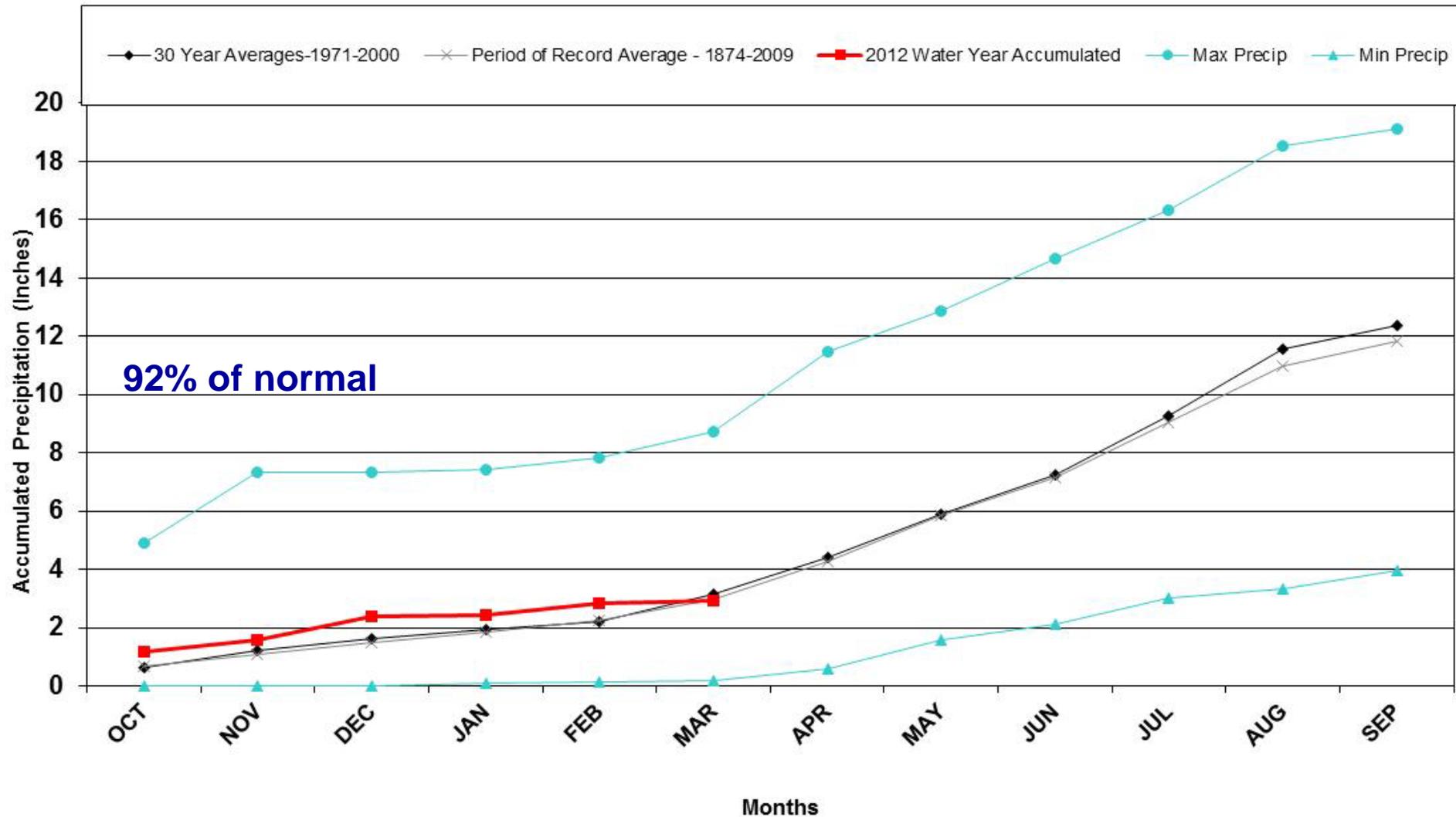
# Division 4 – Alamosa

## Alamosa WSO 2012 Water Year



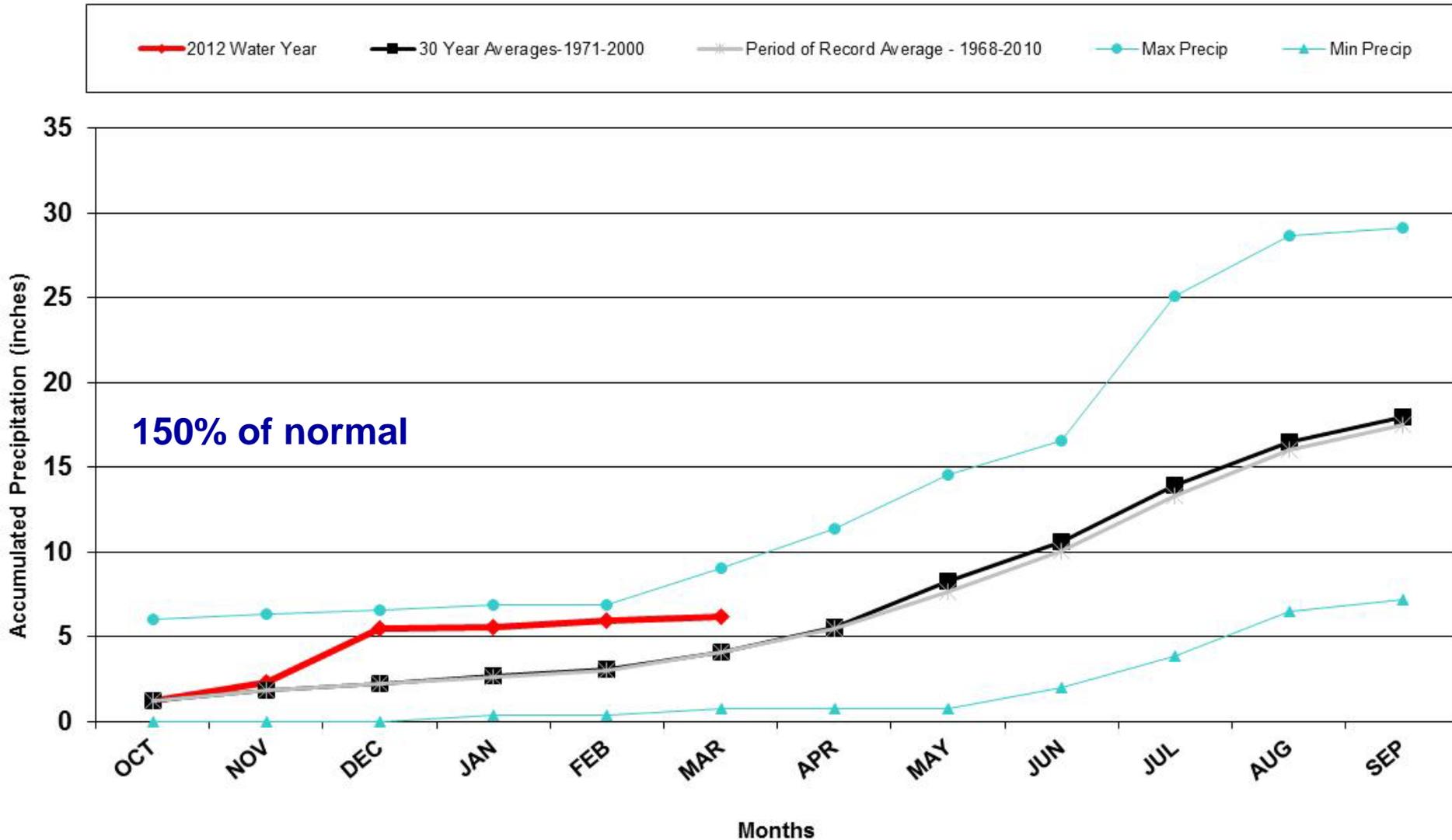
# Division 5 – Pueblo

## Pueblo WSO 2012 Water Year



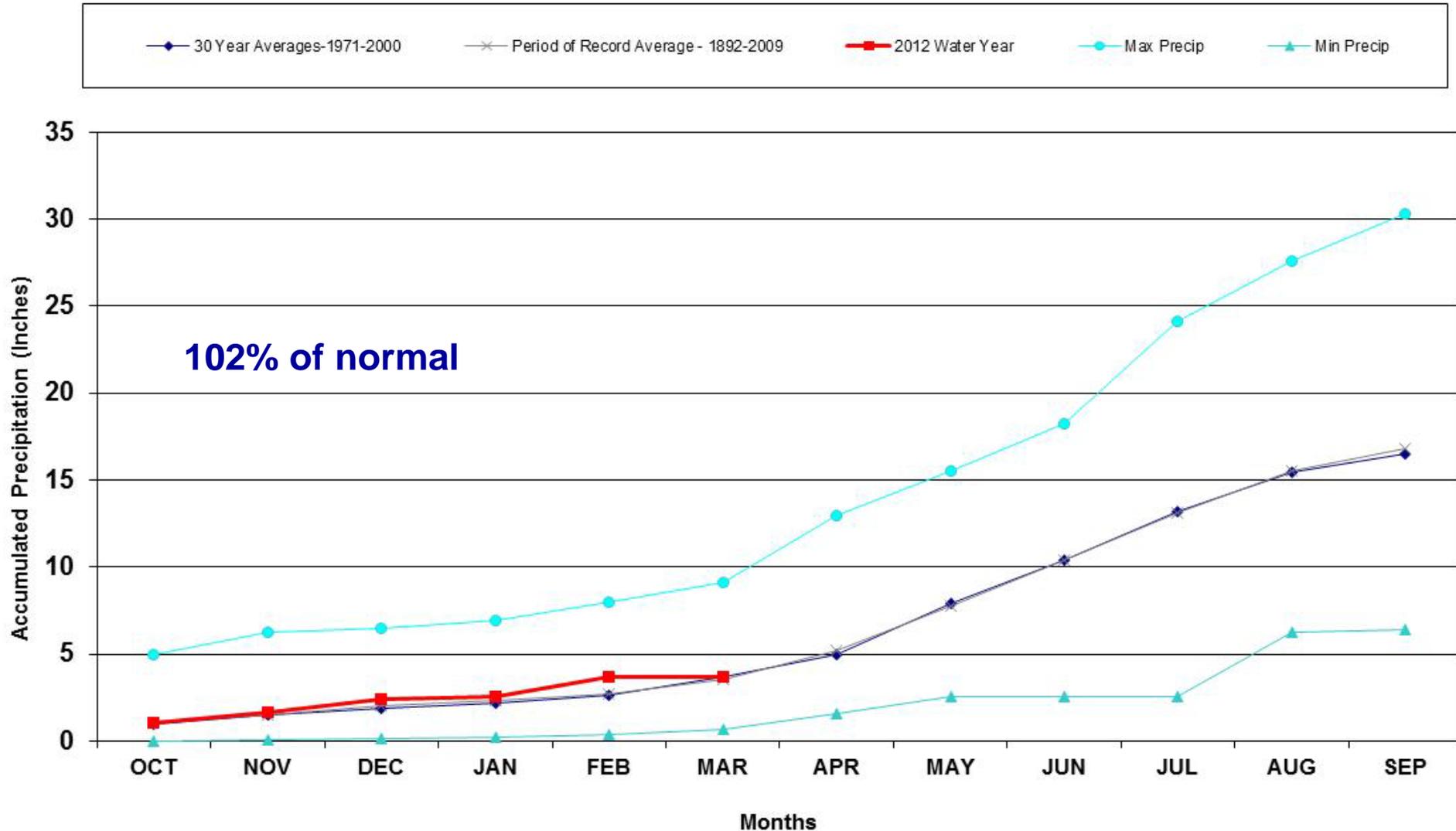
# Division 6 - Walsh

## Walsh 2012 Water Year



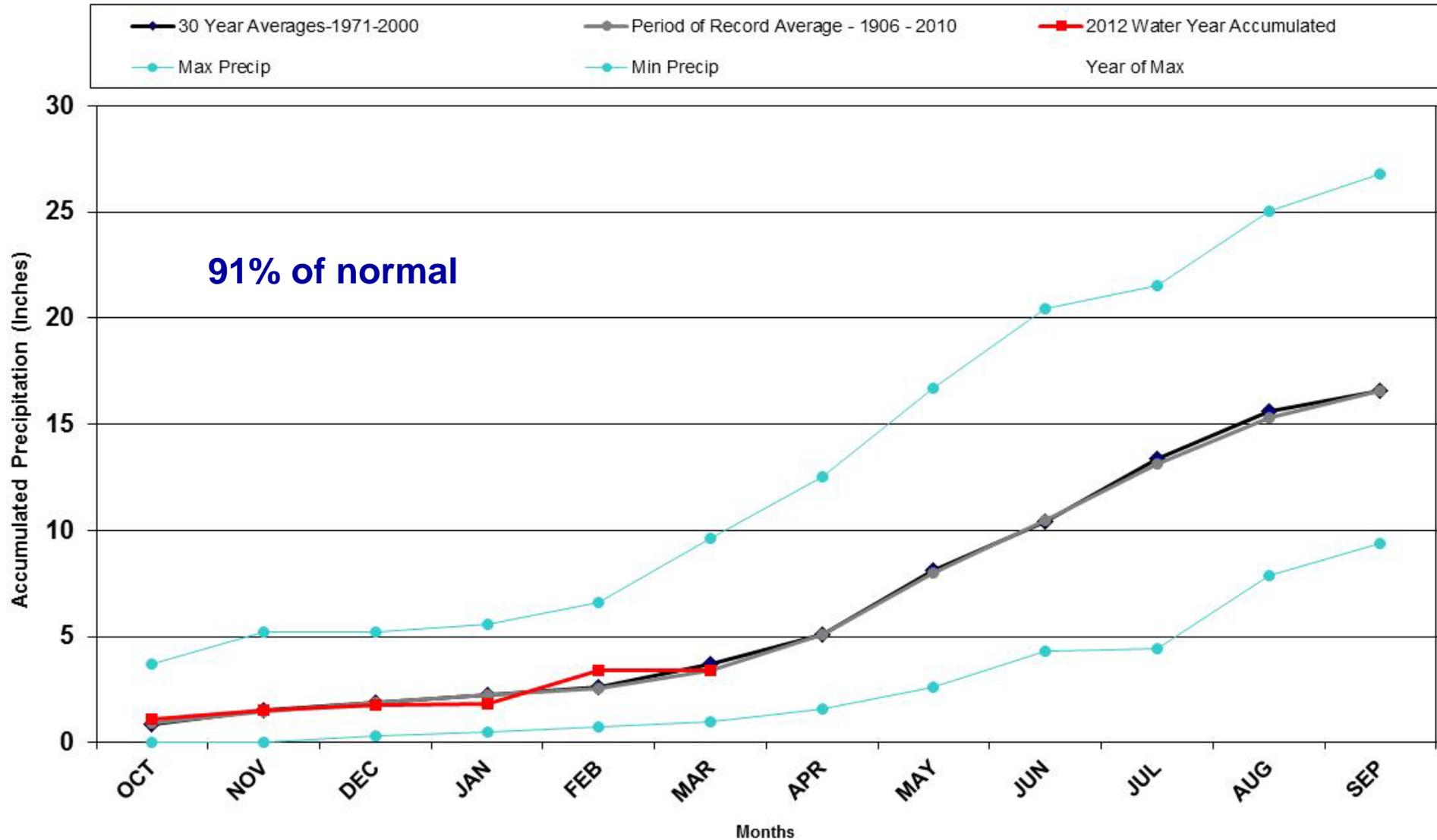
# Division 6 - Burlington

## Burlington 2012 Water Year



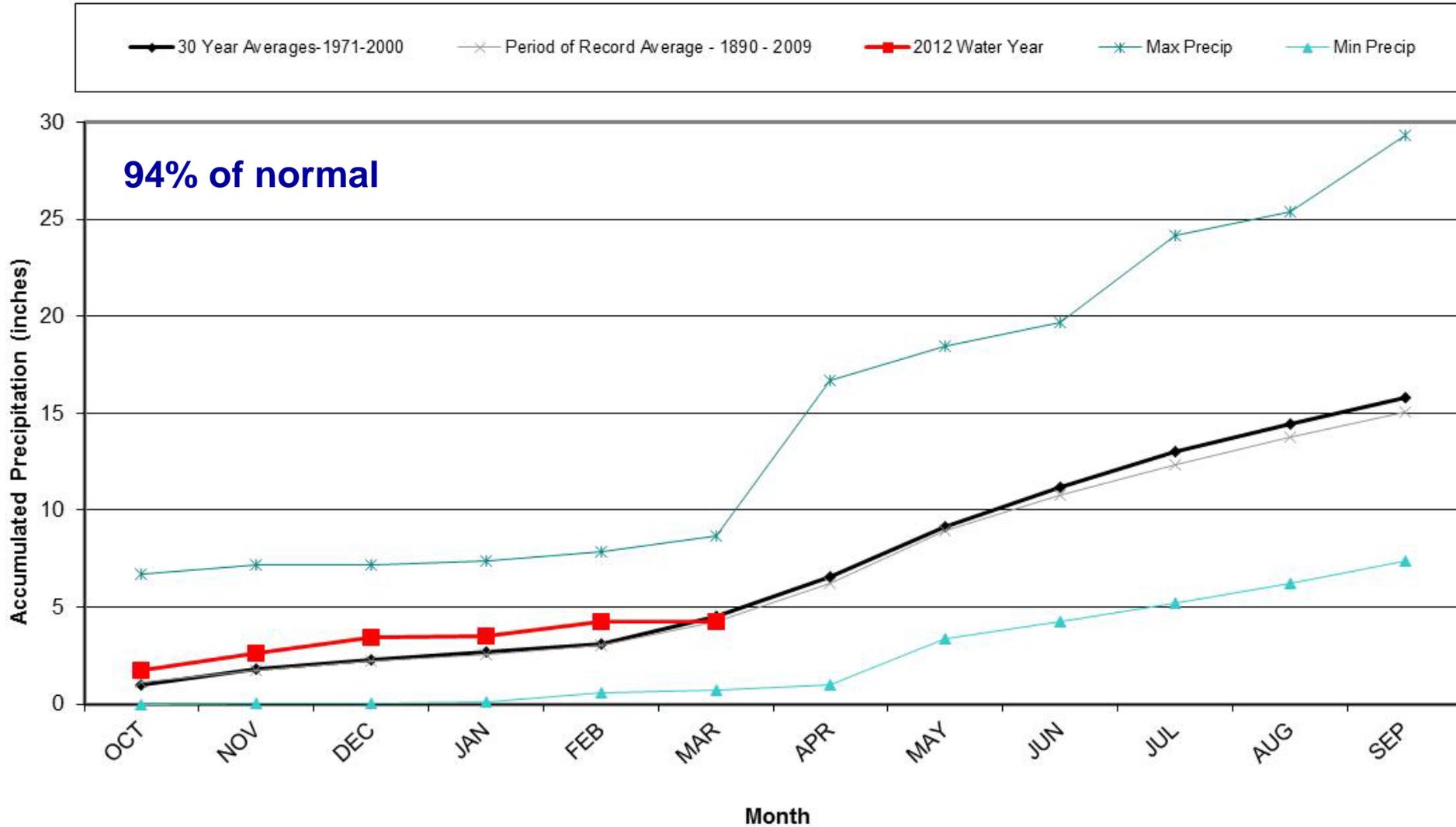
# Division 7 – Akron

## Akron 4E 2012 Water Year



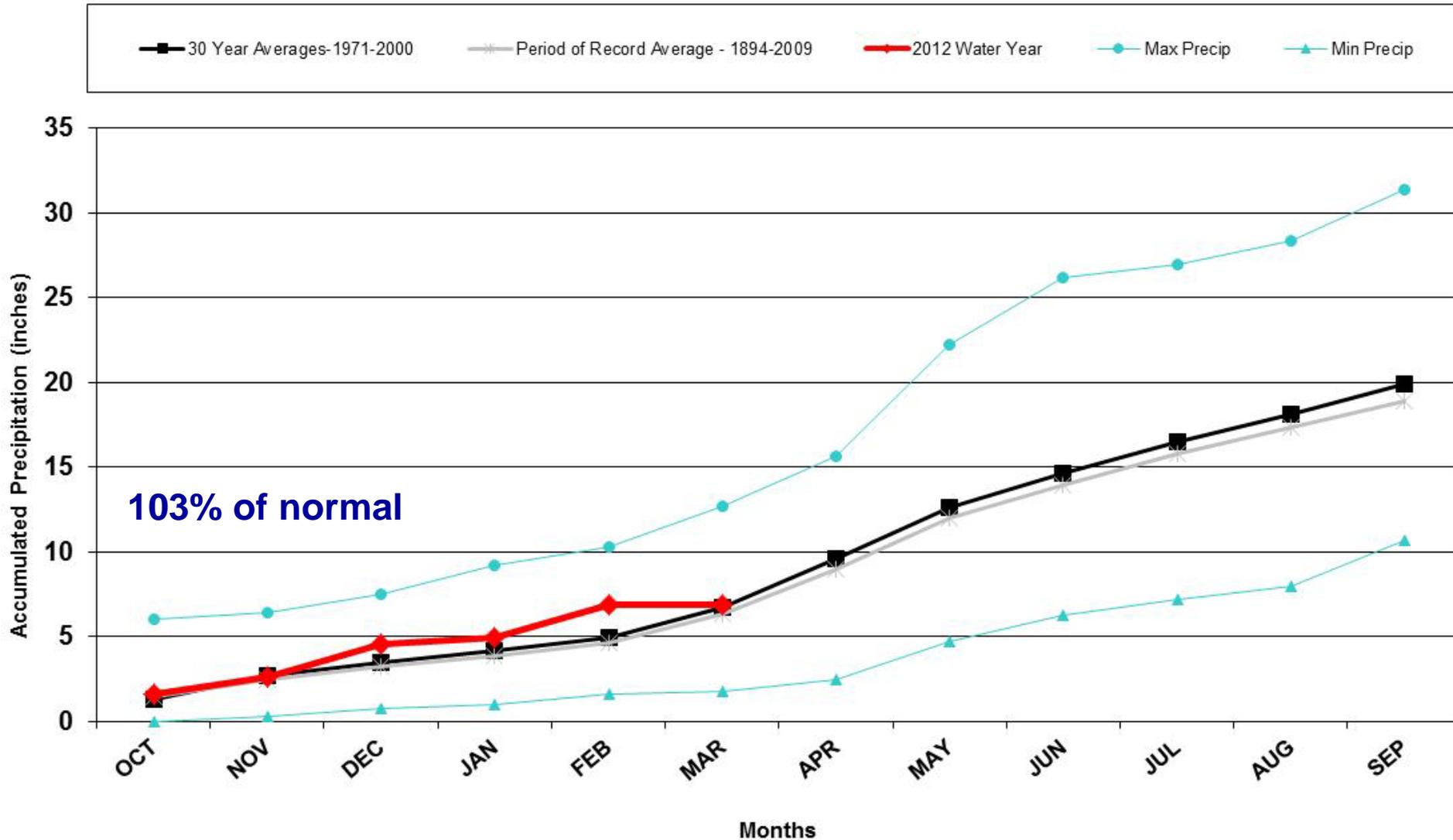
# Division 8 – Fort Collins

## Fort Collins 2012 Water Year



# Division 8 - Boulder

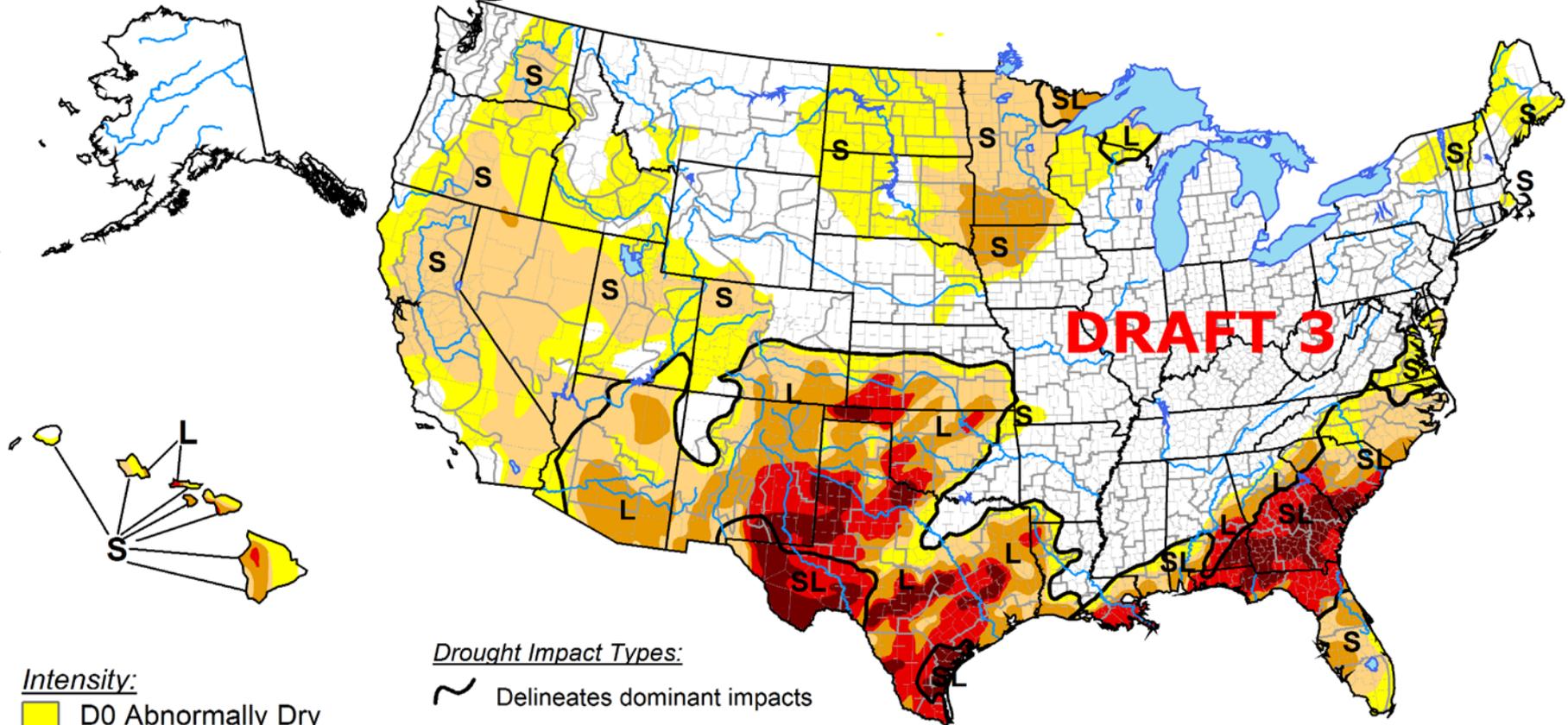
## Boulder 2012 Water Year



# U.S. Drought Monitor

February 14, 2012

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
- S = Short-Term, typically <6 months (e.g. agriculture, grasslands)
- L = Long-Term, typically >6 months (e.g. hydrology, ecology)

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

<http://droughtmonitor.unl.edu/>



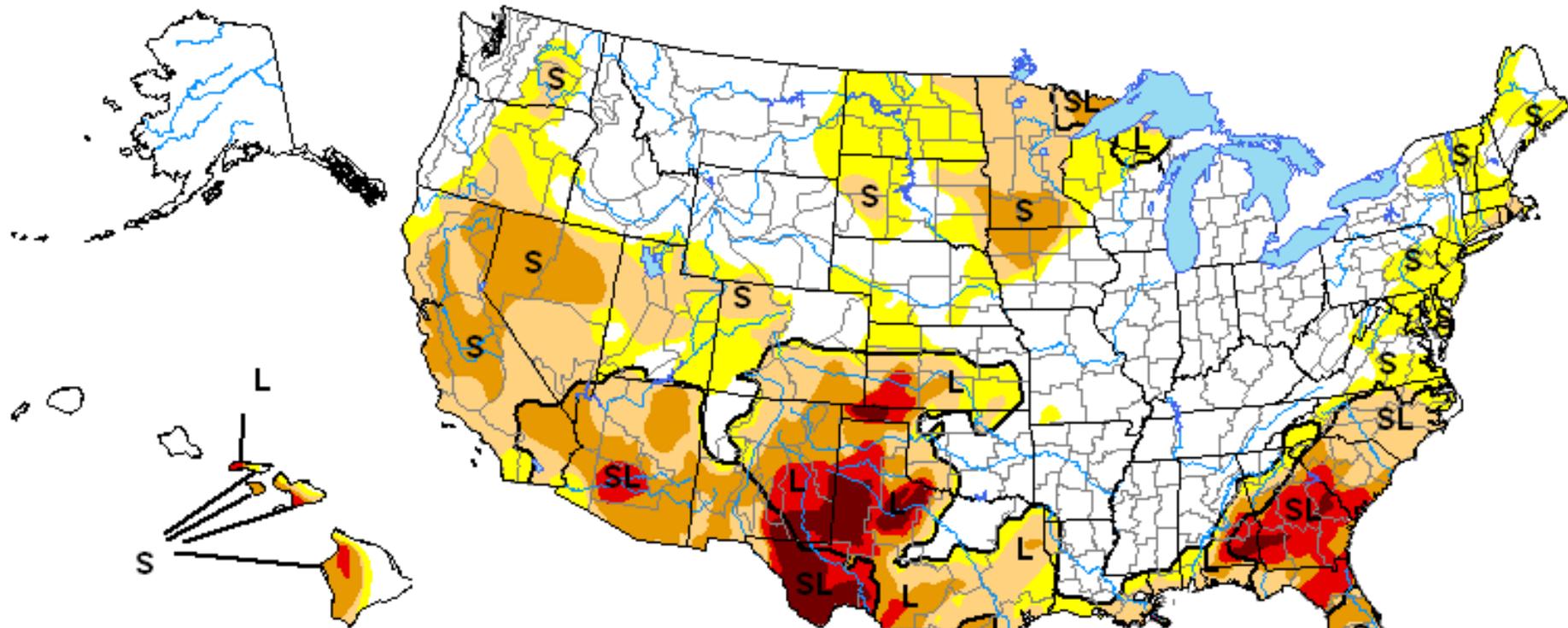
Released Thursday, February 16, 2012

Author: Rich Tinker, NOAA/NWS/NCEP/CPC

# U.S. Drought Monitor

March 20, 2012

Valid 7 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
- S = Short-Term, typically <6 months  
(e.g. agriculture, grasslands)
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*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.*

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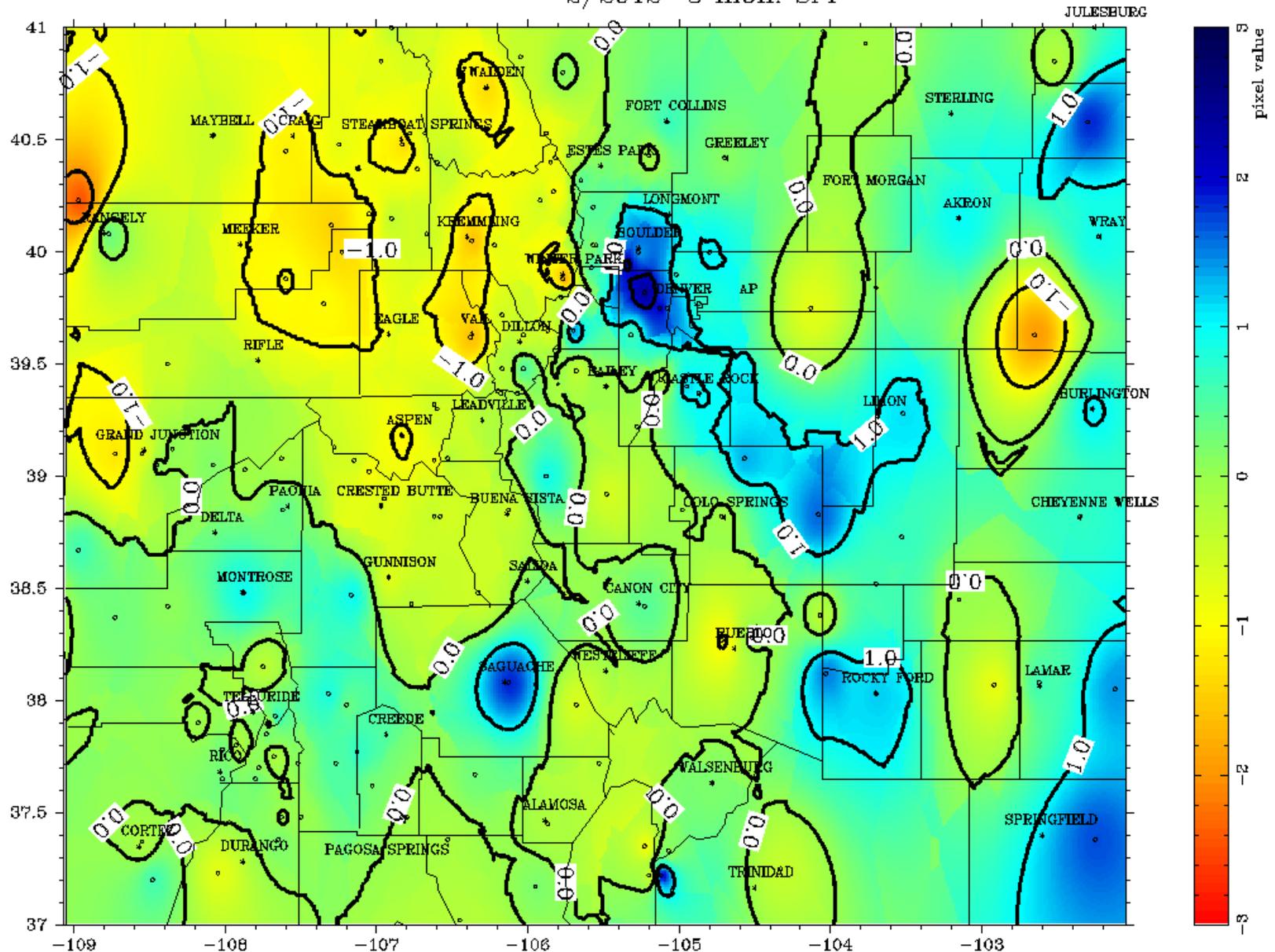


Released Thursday, March 22, 2012

Author: Eric Luebehusen, U.S. Department of Agriculture

# Colorado

2/2012 3 mon. SPI



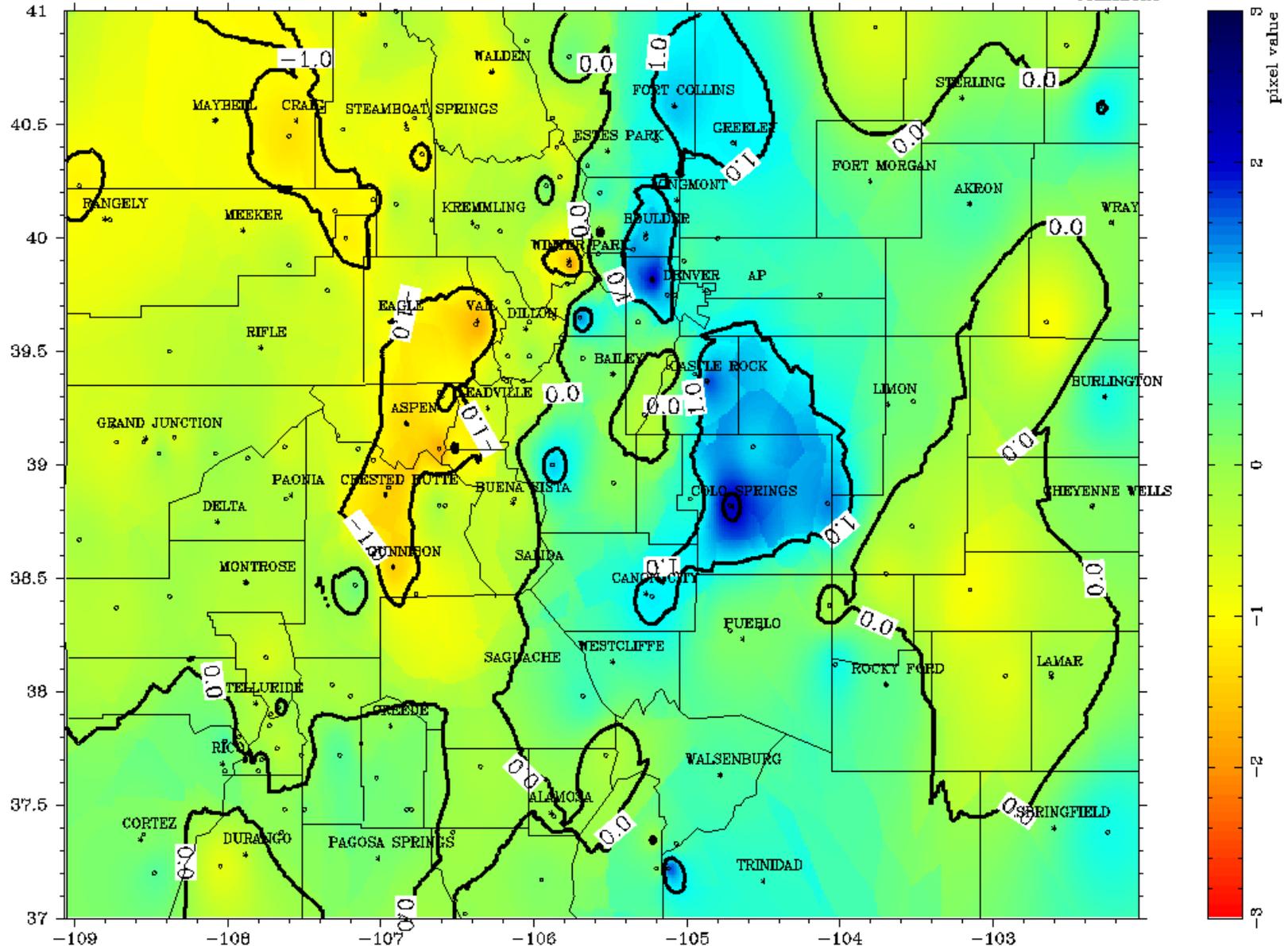
100 % < 2.0    6 % < -1.0  
92 % < 1.0    0 % < -2.0  
45 % < 0.0    0 % < -3.0

Produced by:  
Colorado Climate Center  
Fort Collins, CO

# Colorado

2/2012 6 mon. SPI

JULESBURG



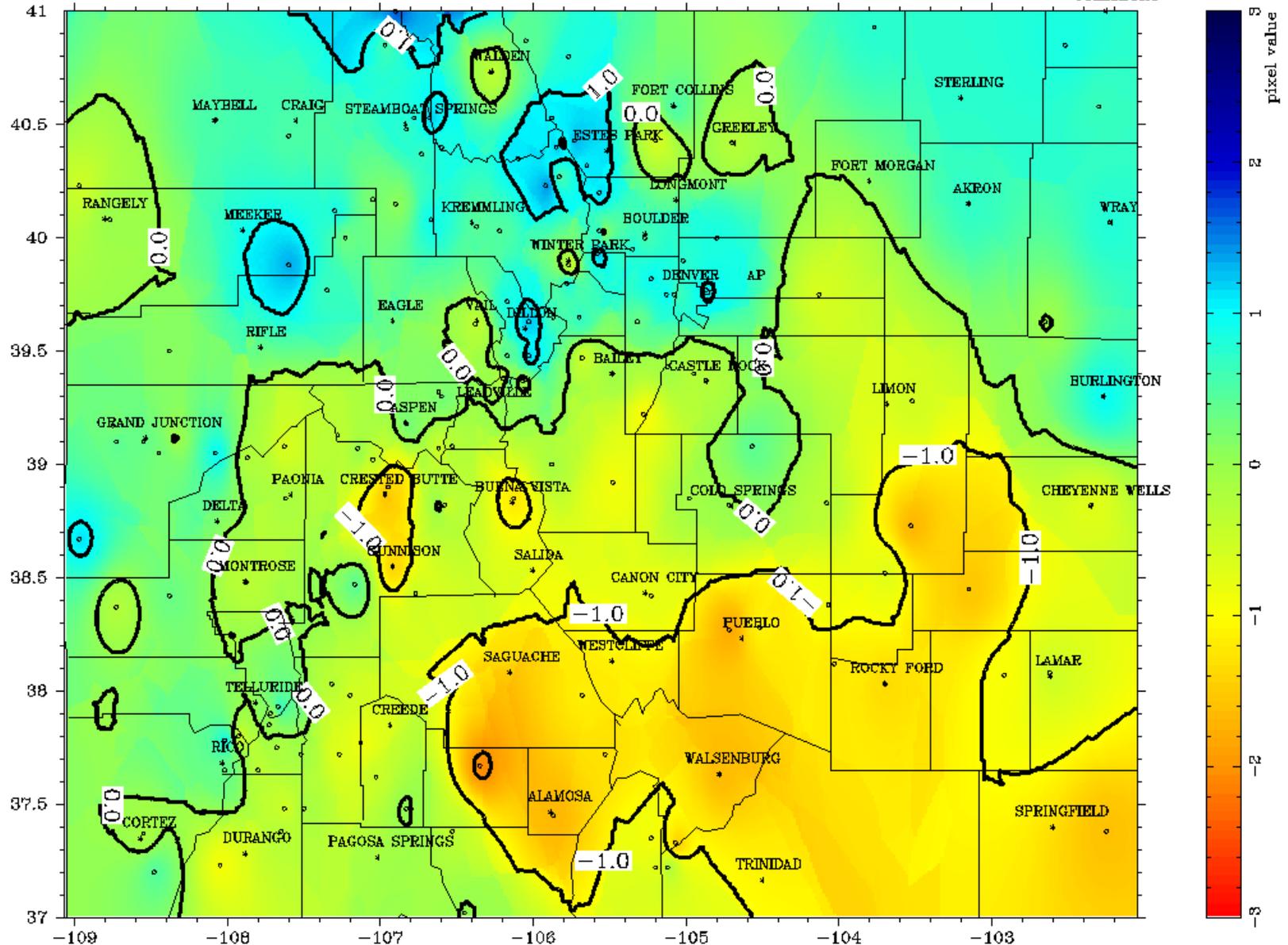
100 % < 2.0	4 % < -1.0
95 % < 1.0	0 % < -2.0
50 % < 0.0	0 % < -3.0

Produced by:  
Colorado Climate Center  
Fort Collins, CO

# Colorado

2/2012 12 mon. SPI

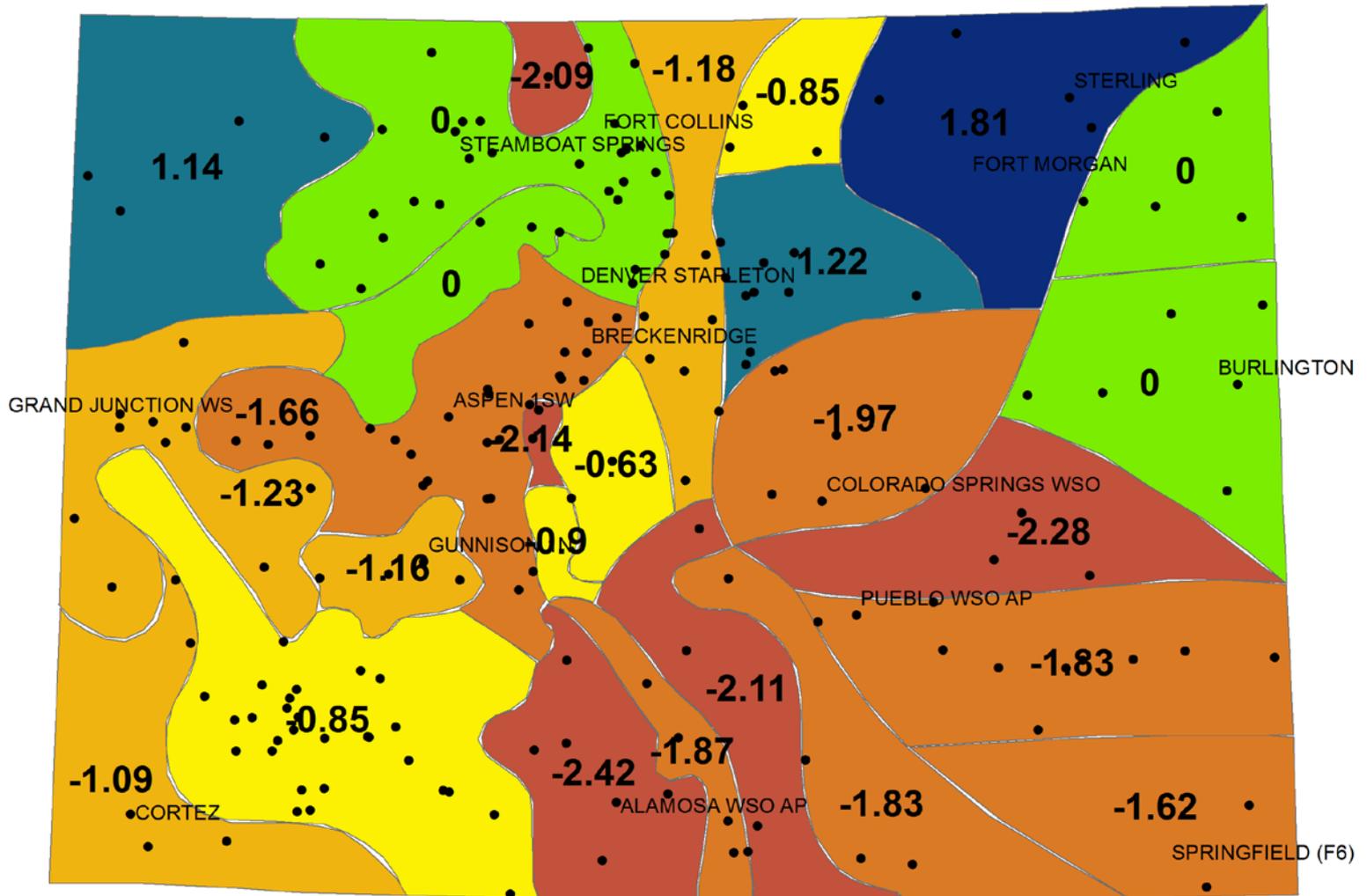
JULESBURG



100 % < 2.0	20 % < -1.0
98 % < 1.0	0 % < -2.0
55 % < 0.0	0 % < -3.0

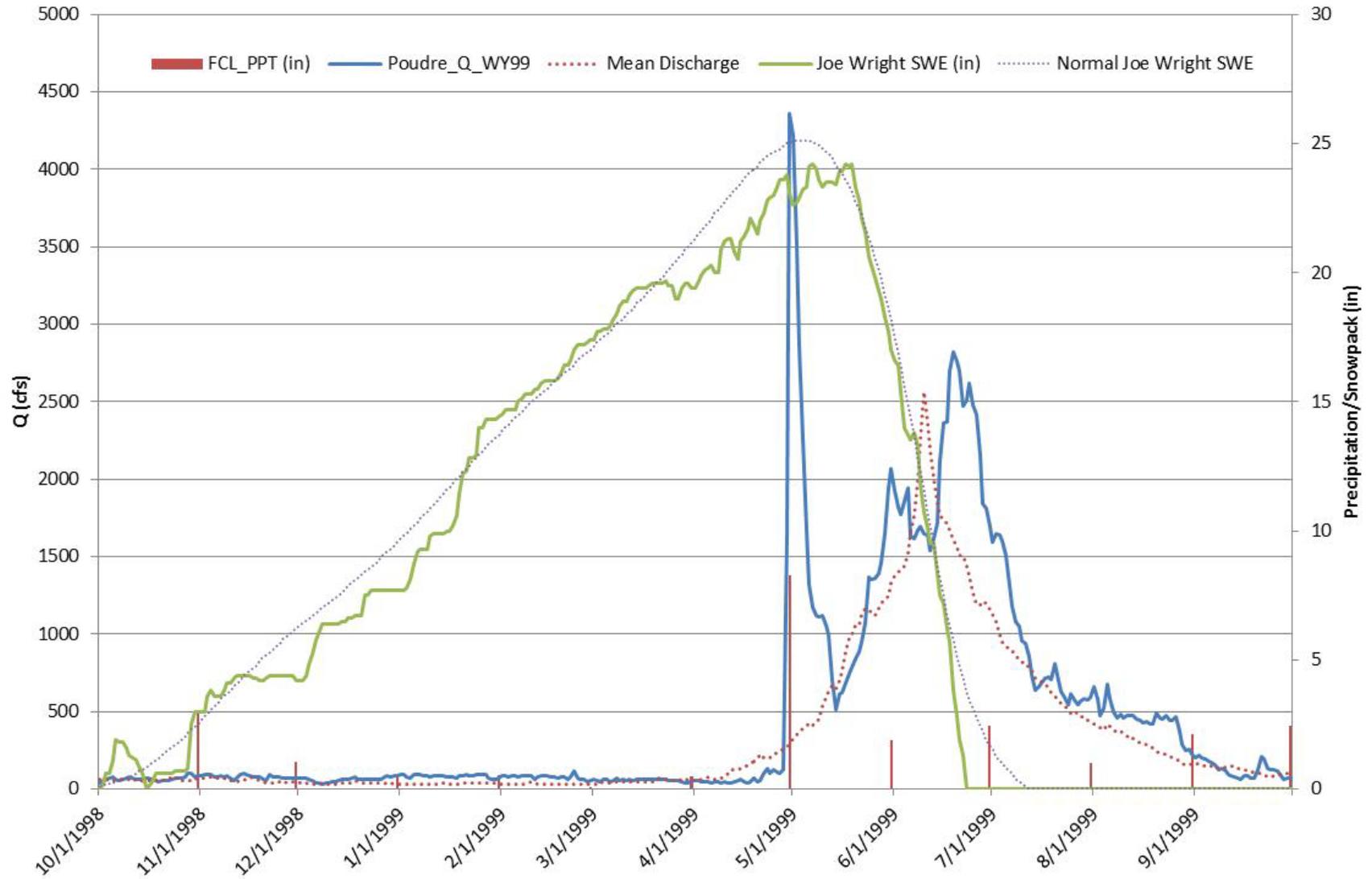
Produced by:  
Colorado Climate Center  
Fort Collins, CO

# Preliminary Modified Palmer Drought Severity Index for Colorado February 2012



# Flooding? Maybe?

Water Year 1999 Joe Wright Snotel, Poudre River Streamflow and Fort Collins Precipitation



# Colorado Climate Center

Data and Power Point Presentations available for downloading

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



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*Knowledge to Go Places*