Climate Update

Wendy Ryan
Research Associate
For Nolan Doesken, State Climatologist

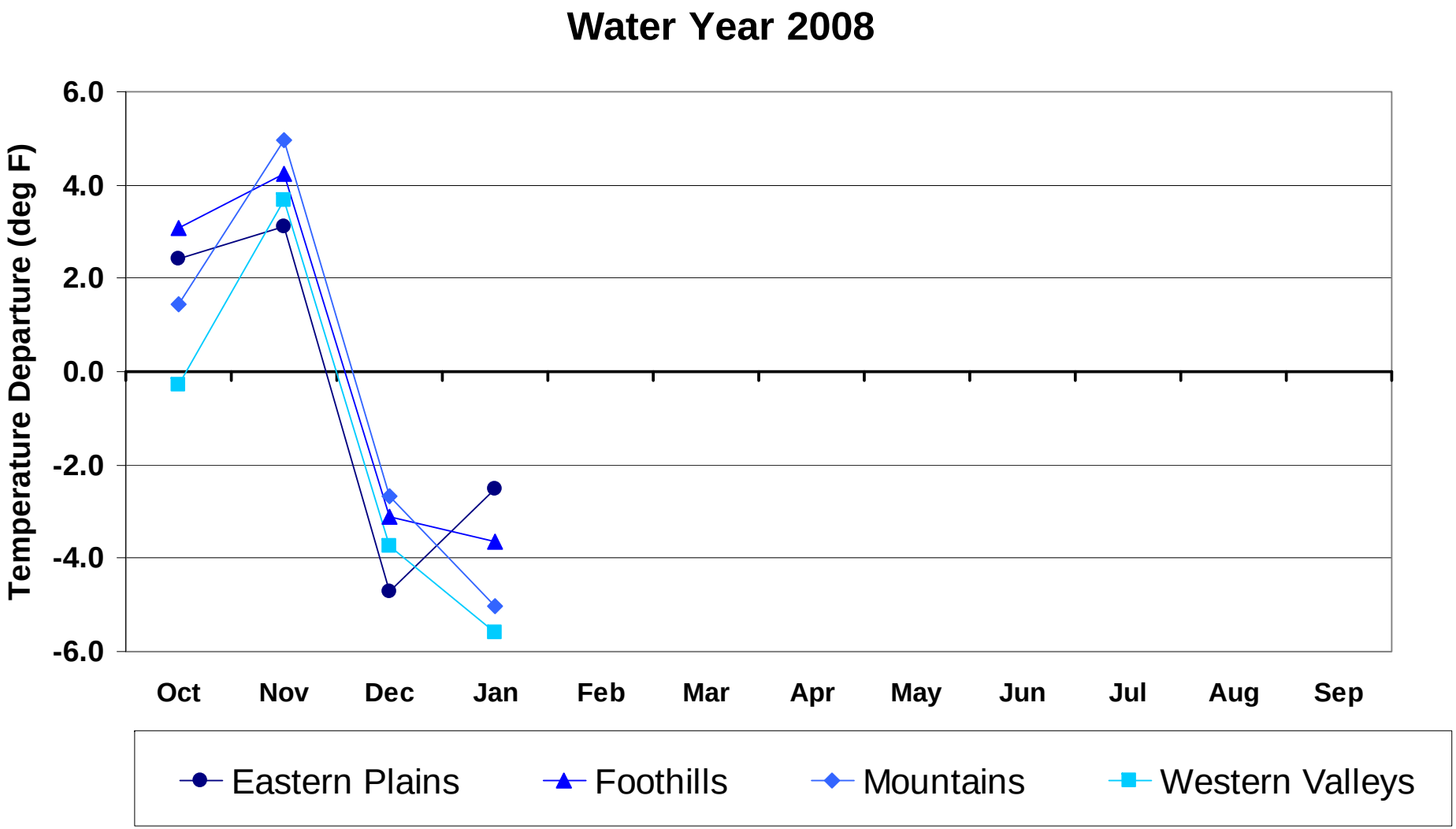
Atmospheric Science Department
Colorado State University

http://ccc.atmos.colostate.edu

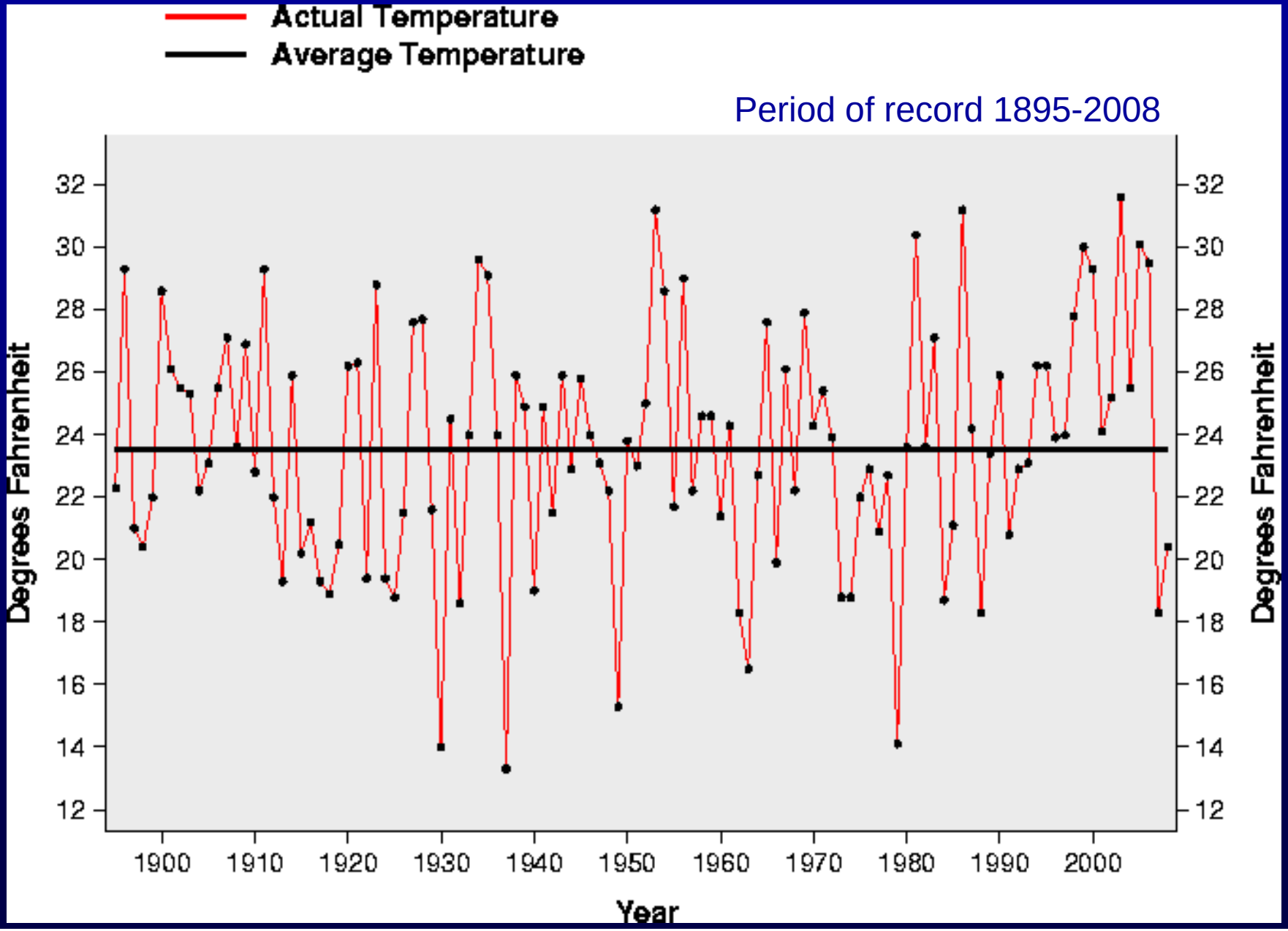
Presented to Water Availability
Task Force, Denver, CO, February 20, 2008

Prepared by Odie Bliss
Photo by Colorado Avalanche Information Center

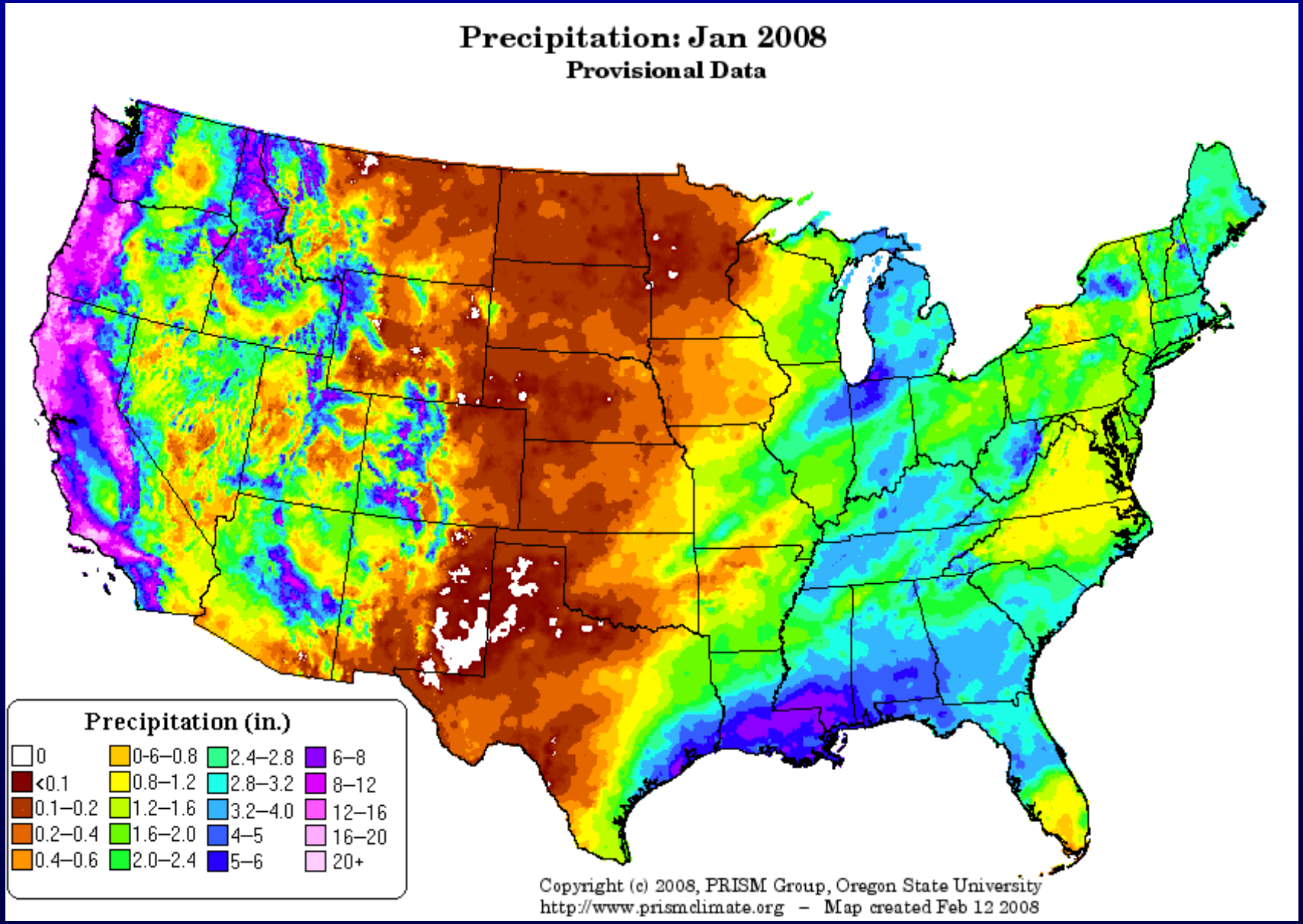
Water Year 2008 Temperature Departures



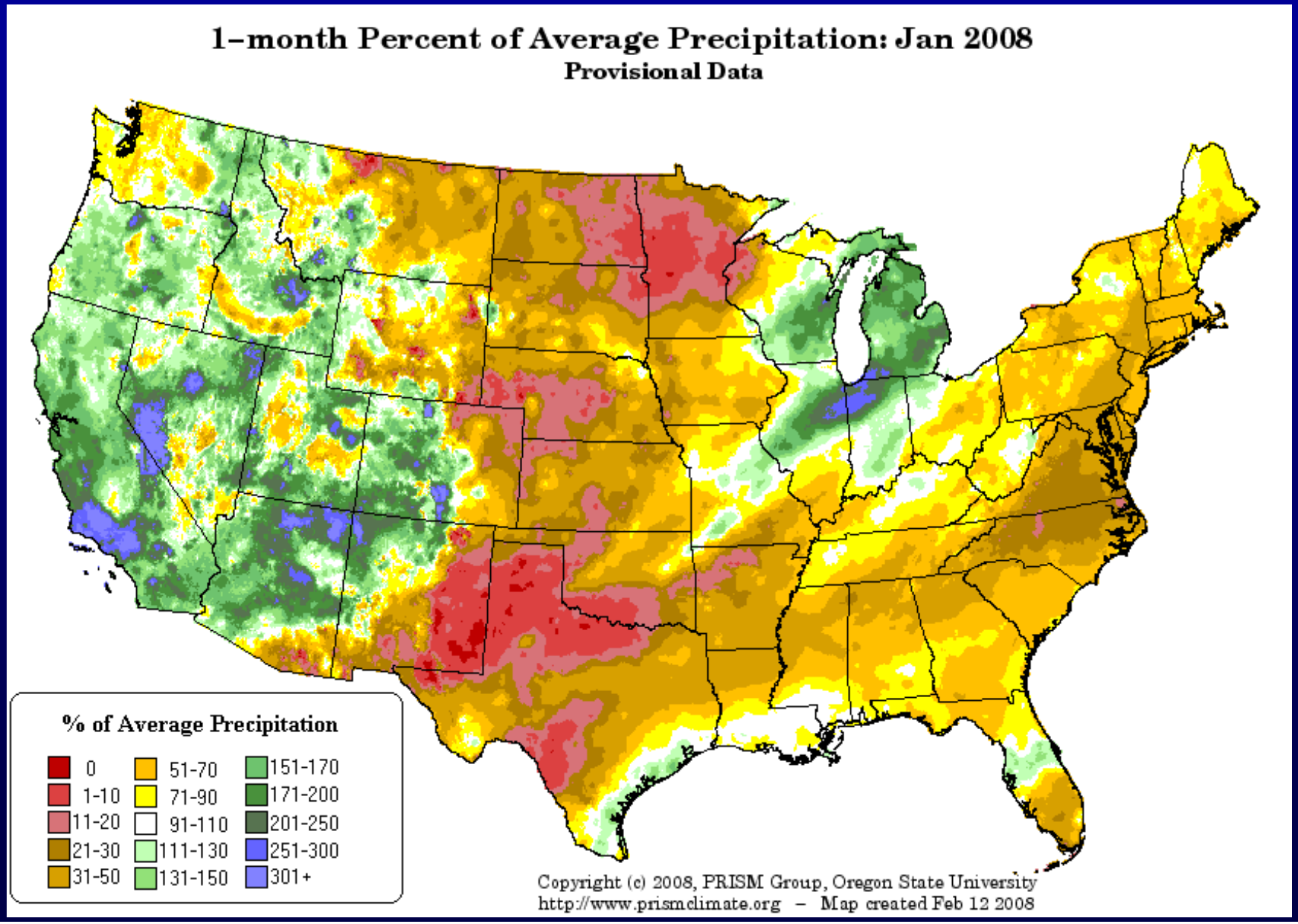
January Average Temperature History for Colorado (NCDC)



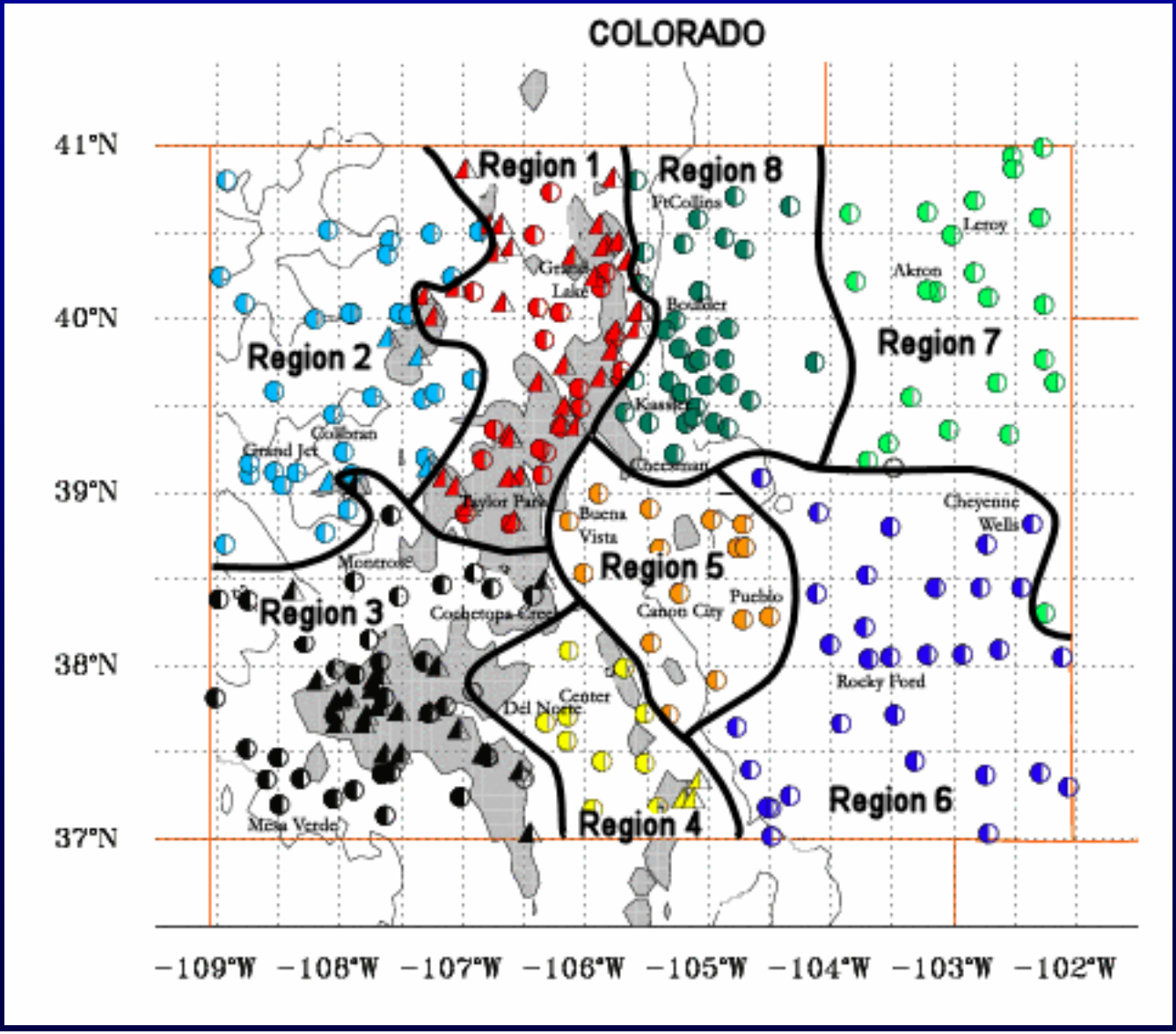
January 2008 Precipitation (inches)



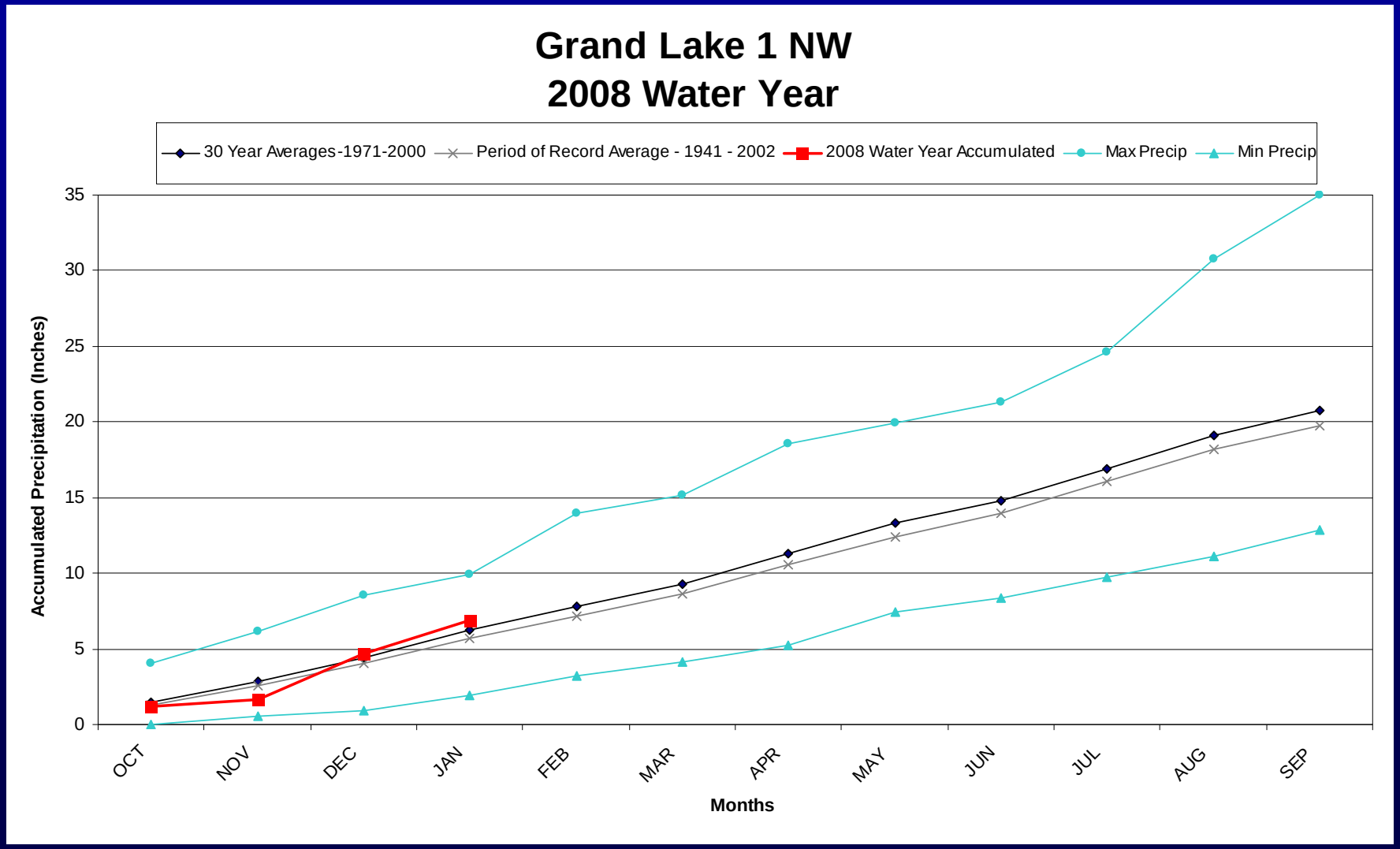
January 2008 Percent of Average (Prism)



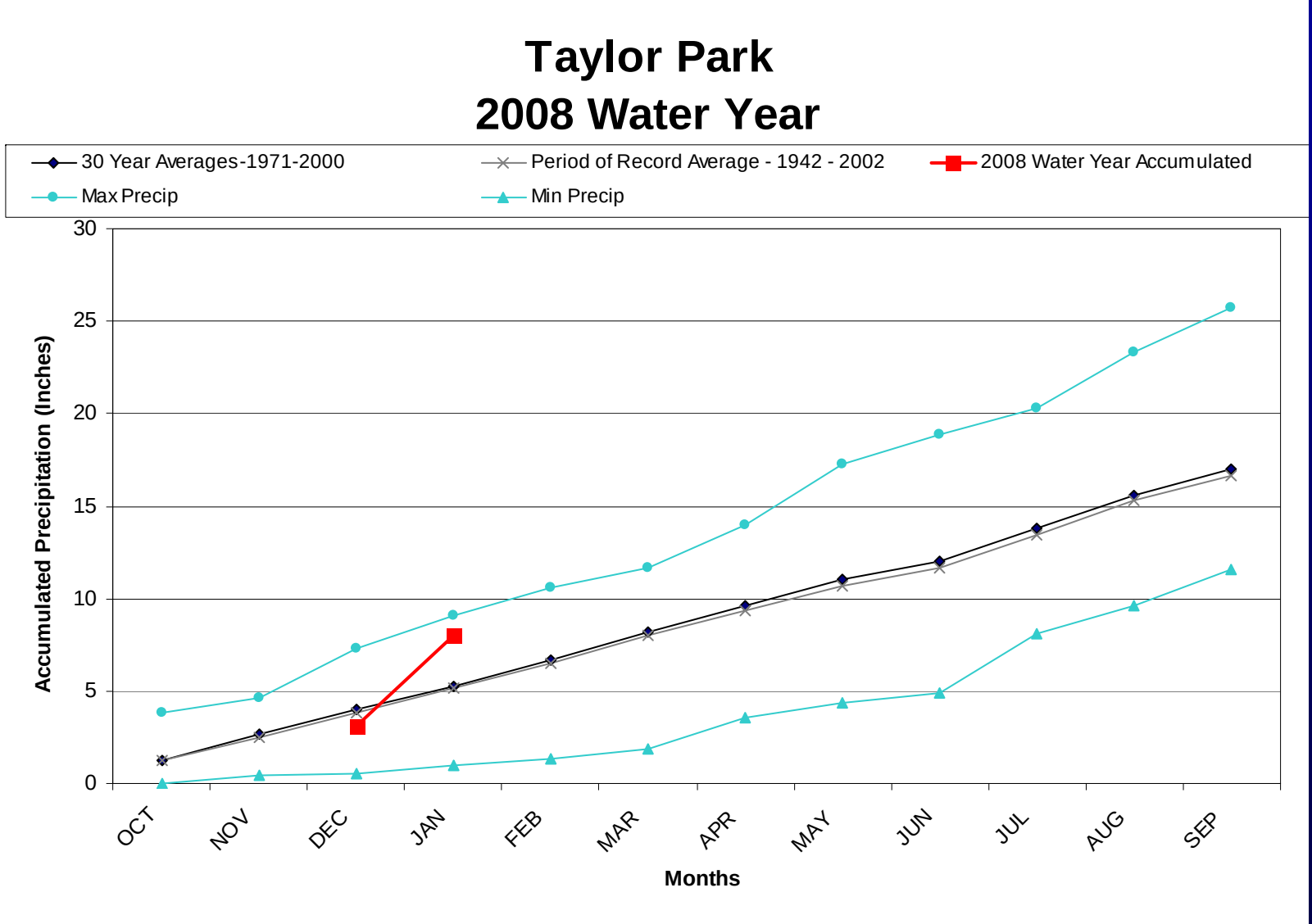
Climate divisions defined by Dr. Klaus Wolter of NOAA's Climate Diagnostic Center in Boulder, CO



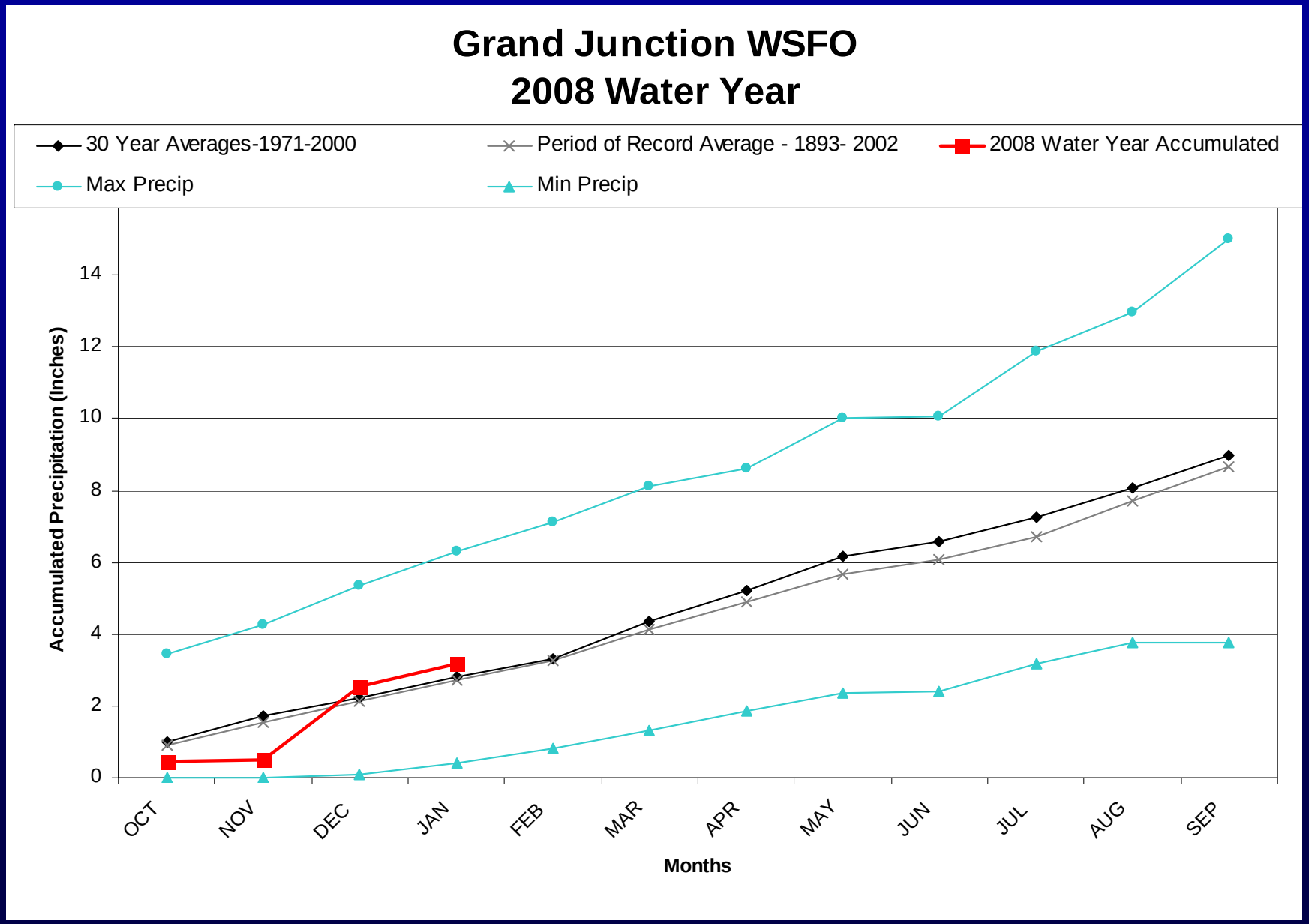
Division 1– Grand Lake 1NW



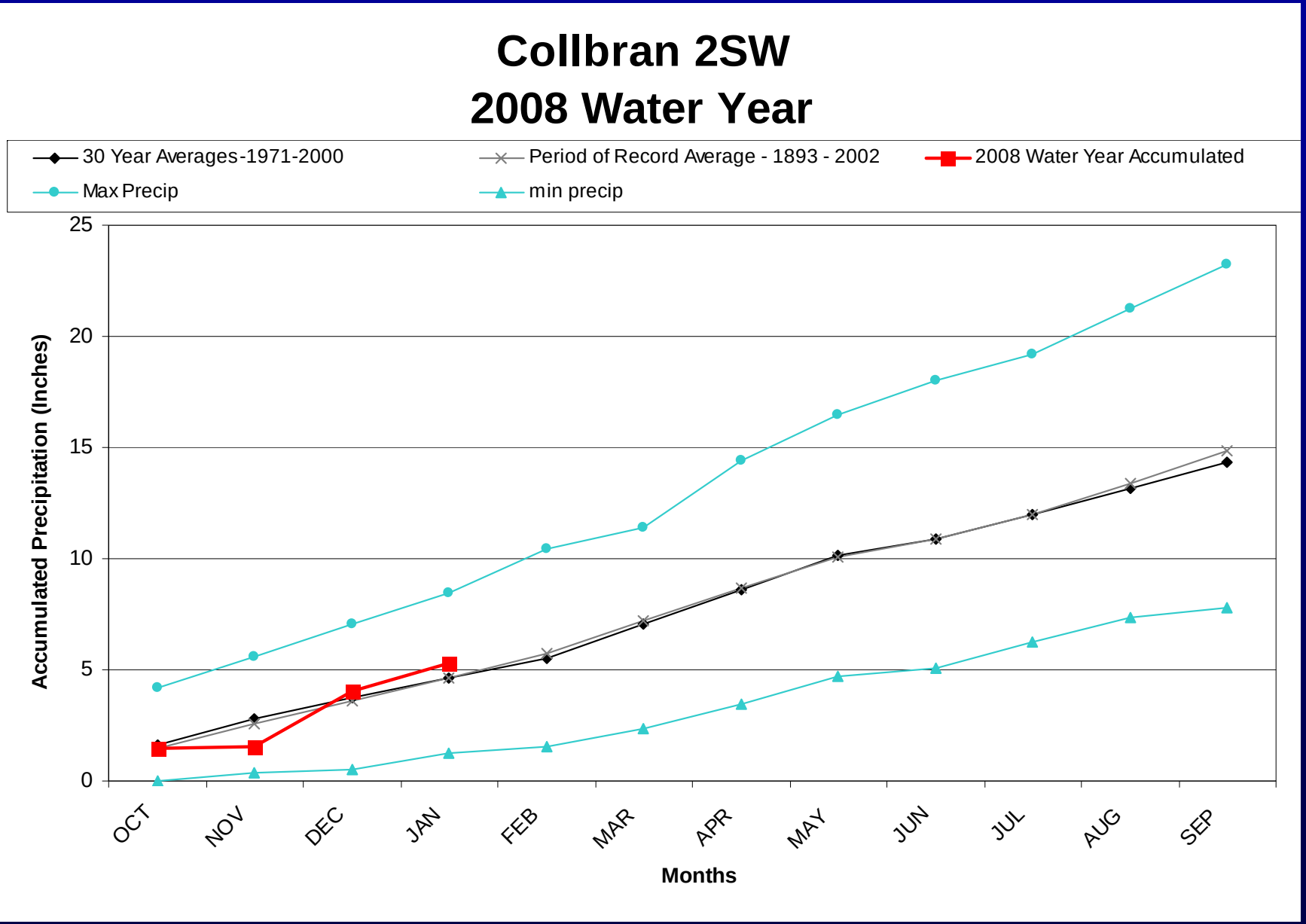
Division 1 – Taylor Park



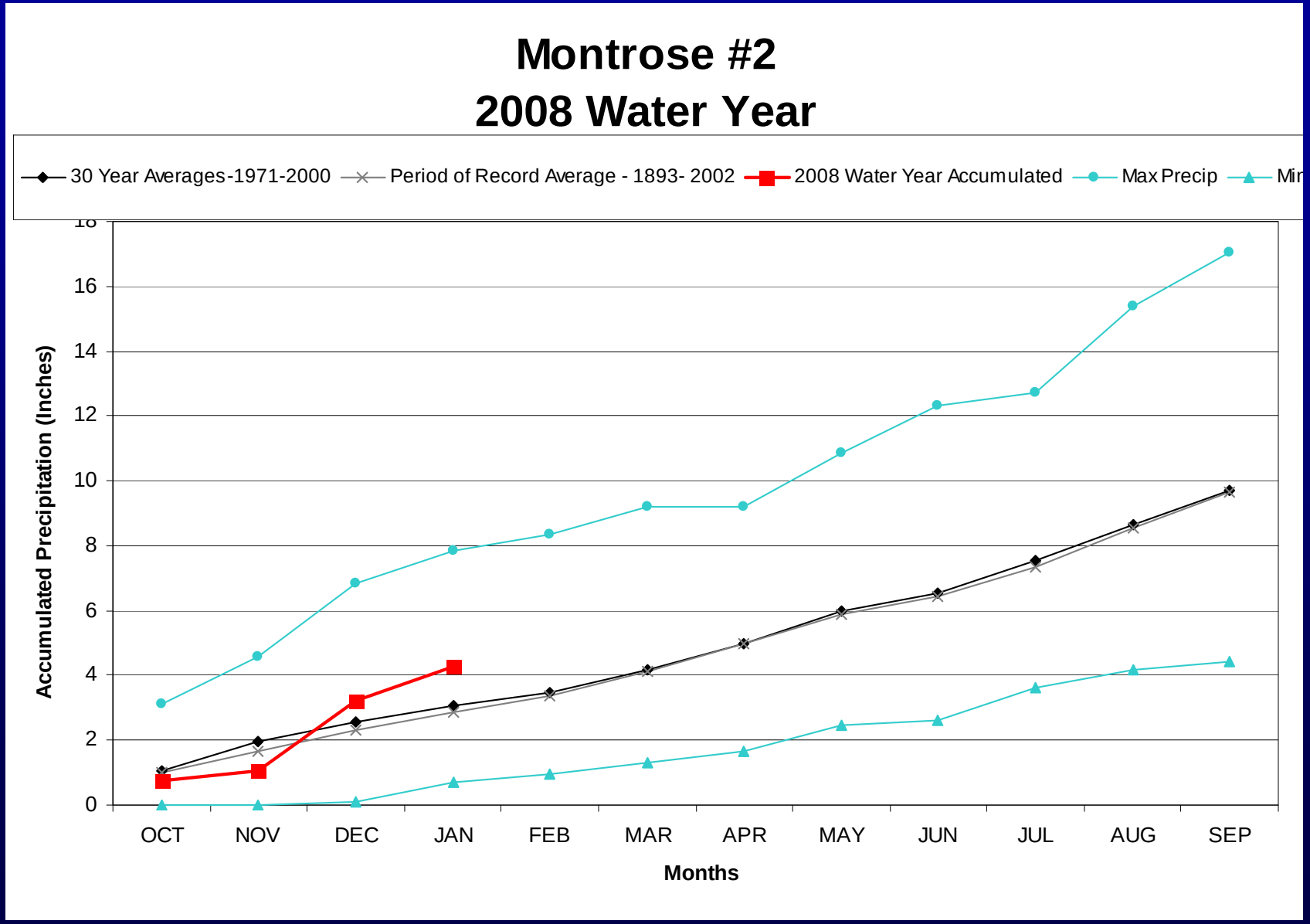
Division 2 – Grand Junction



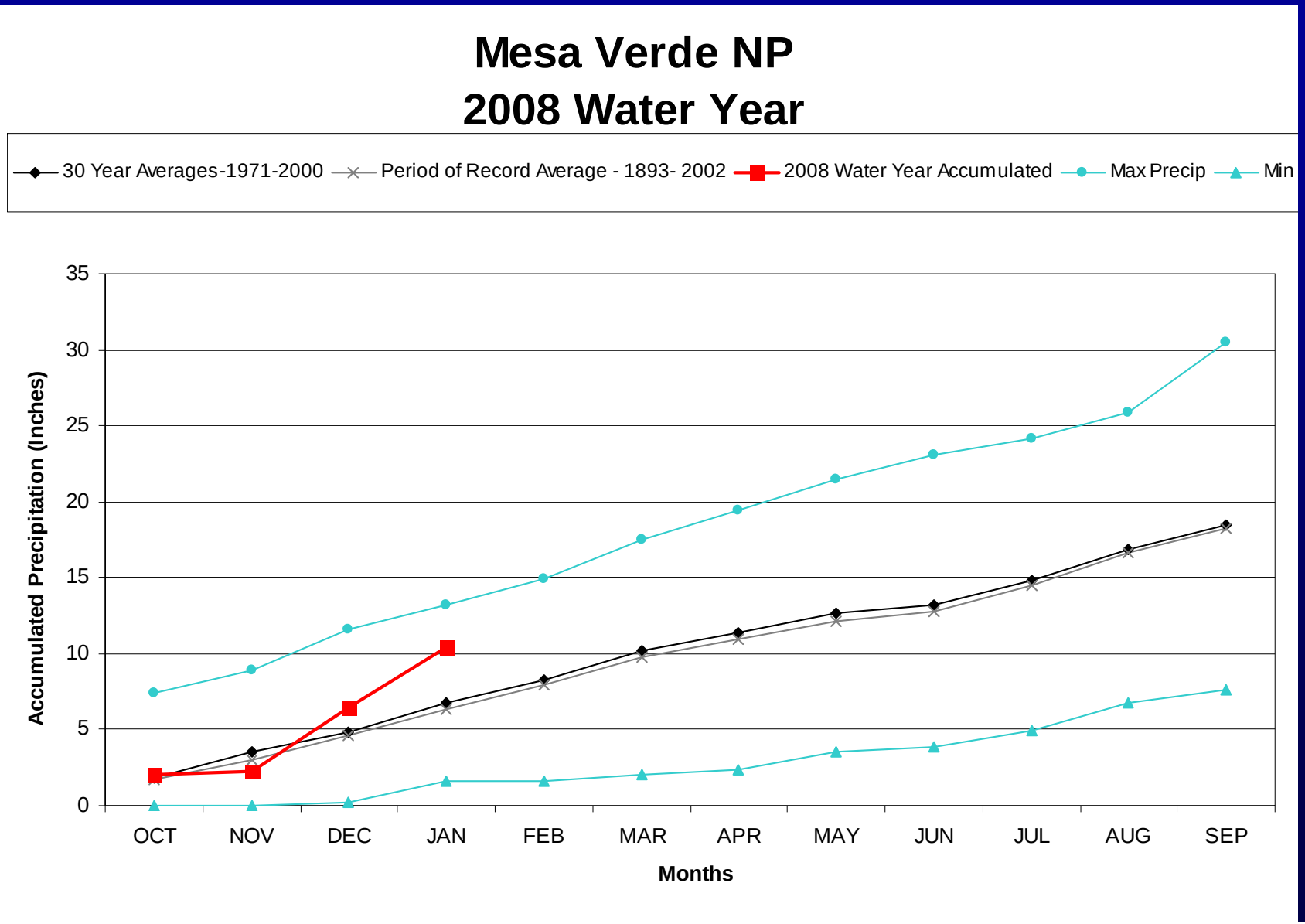
Division 2 – Collbran



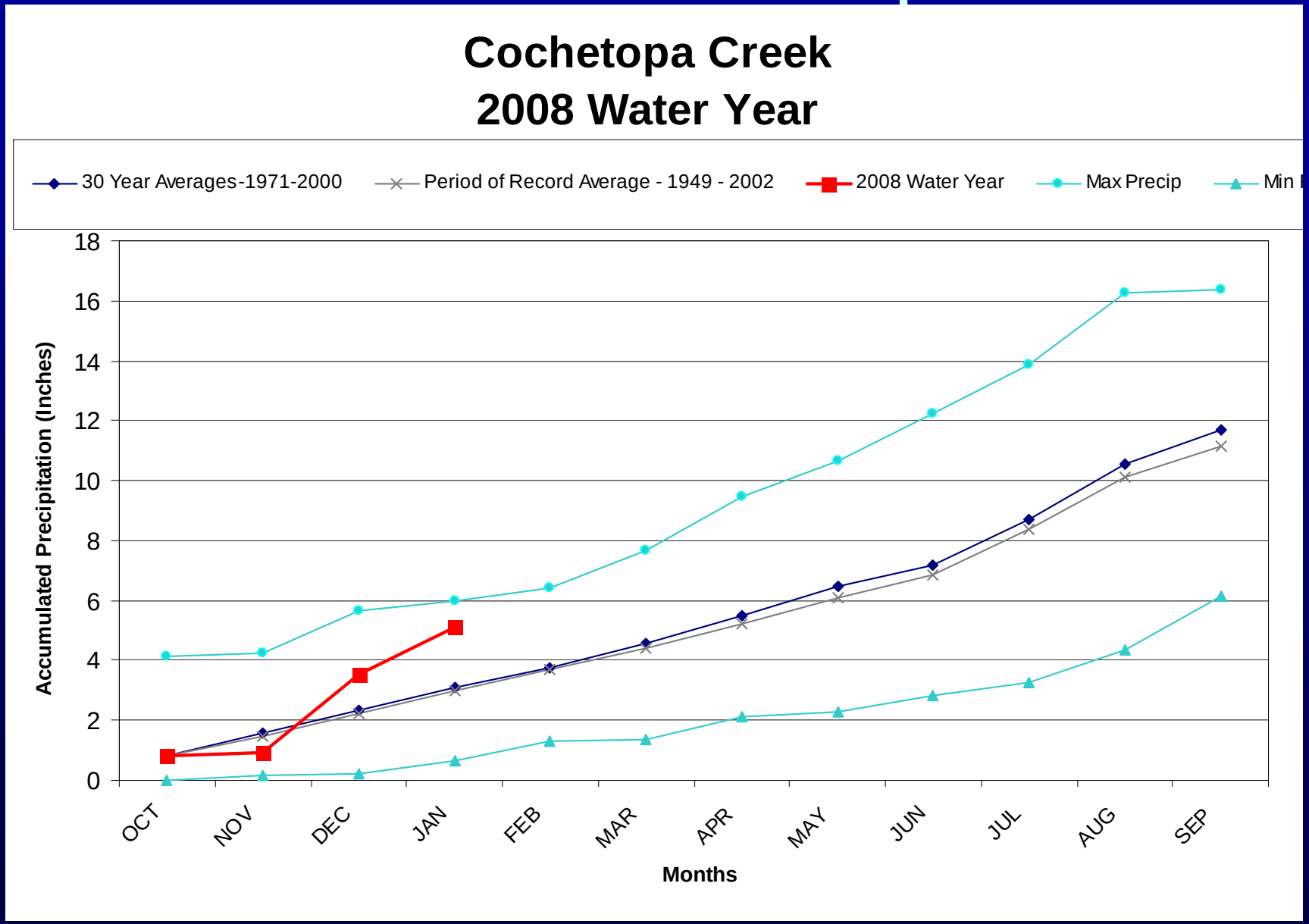
Division 3 – Montrose



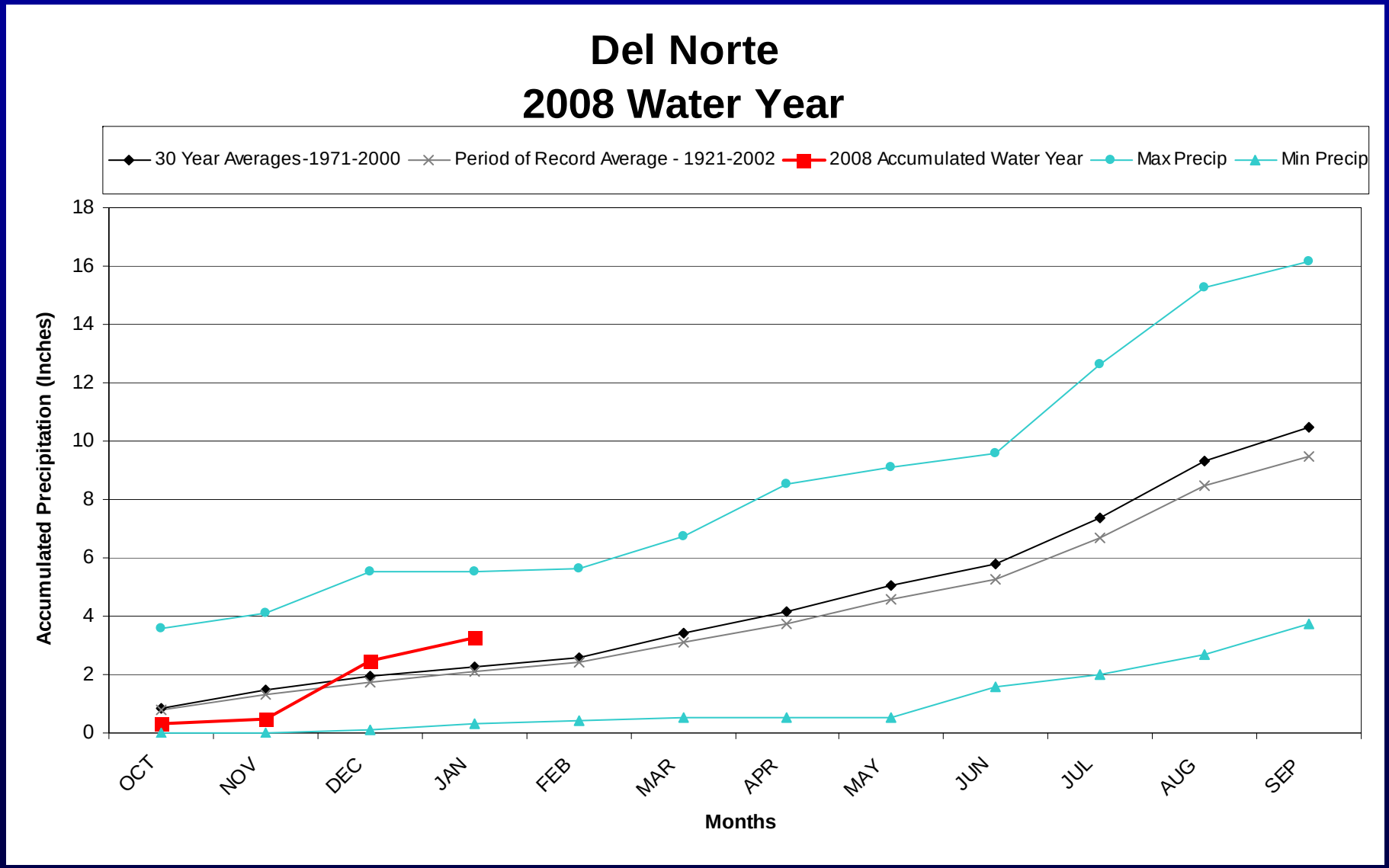
Division 3 – Mesa Verde



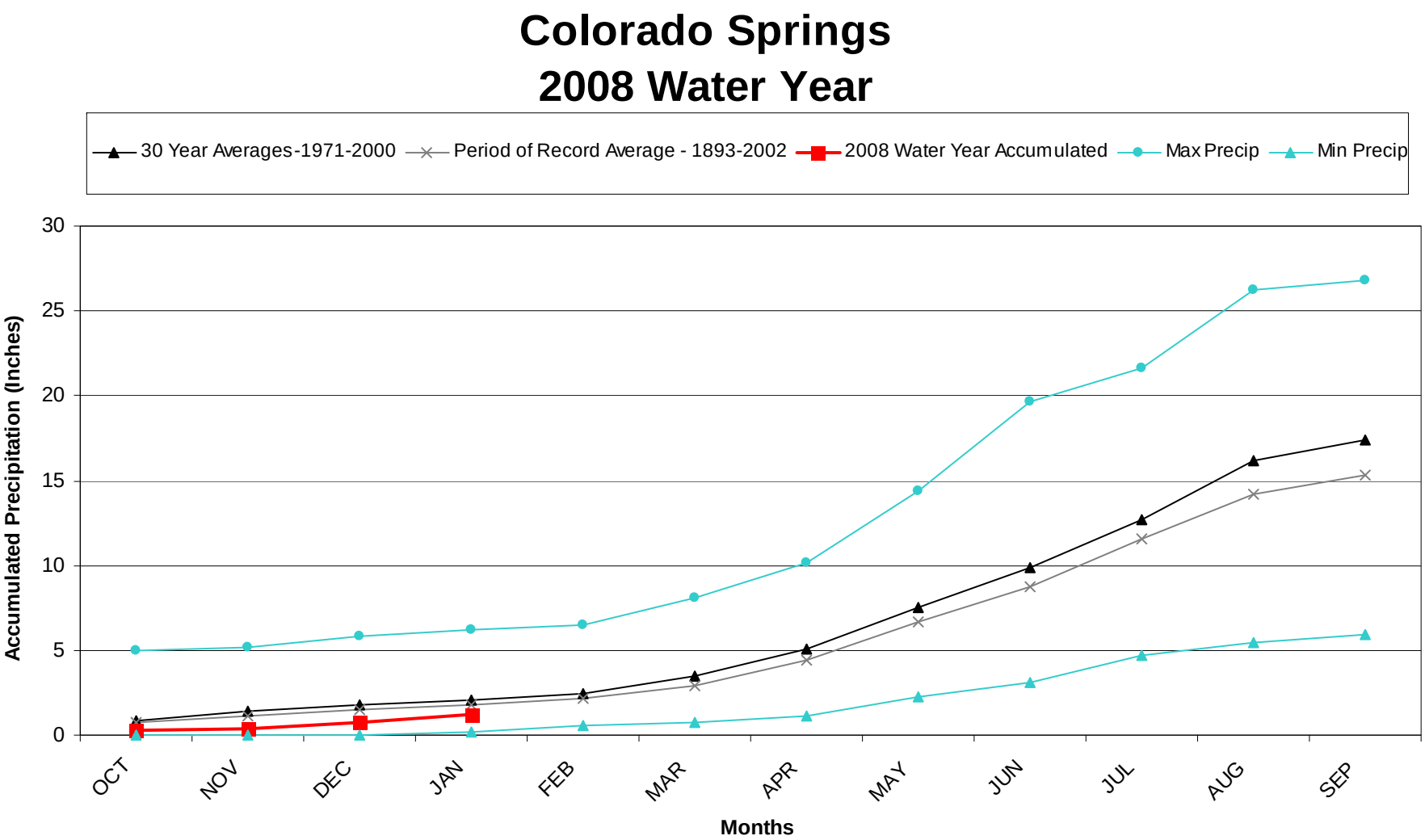
Division 3 – Cochetopa Creek



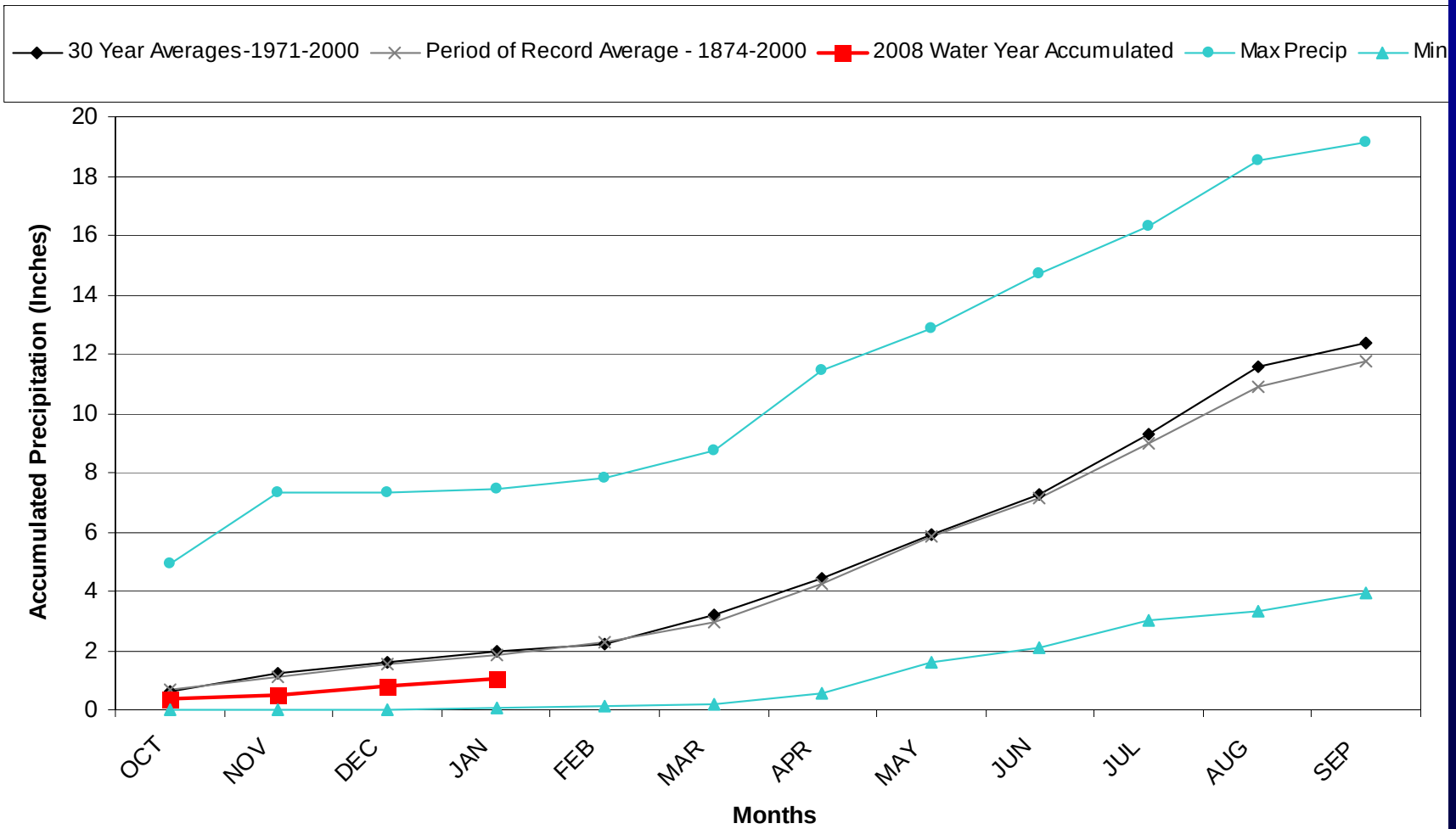
Division 4 – Del Norte



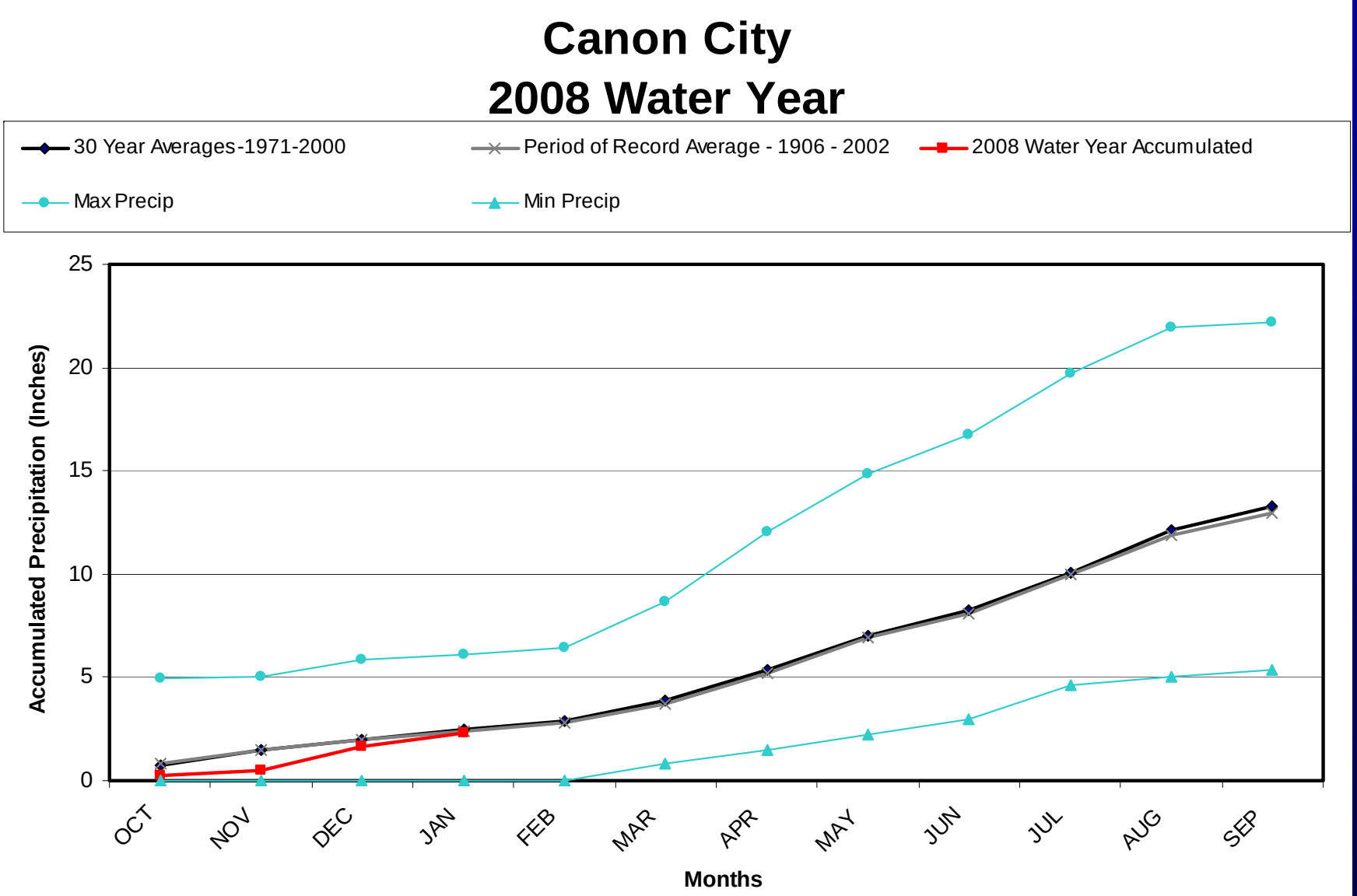
Division 5 – Colorado Springs



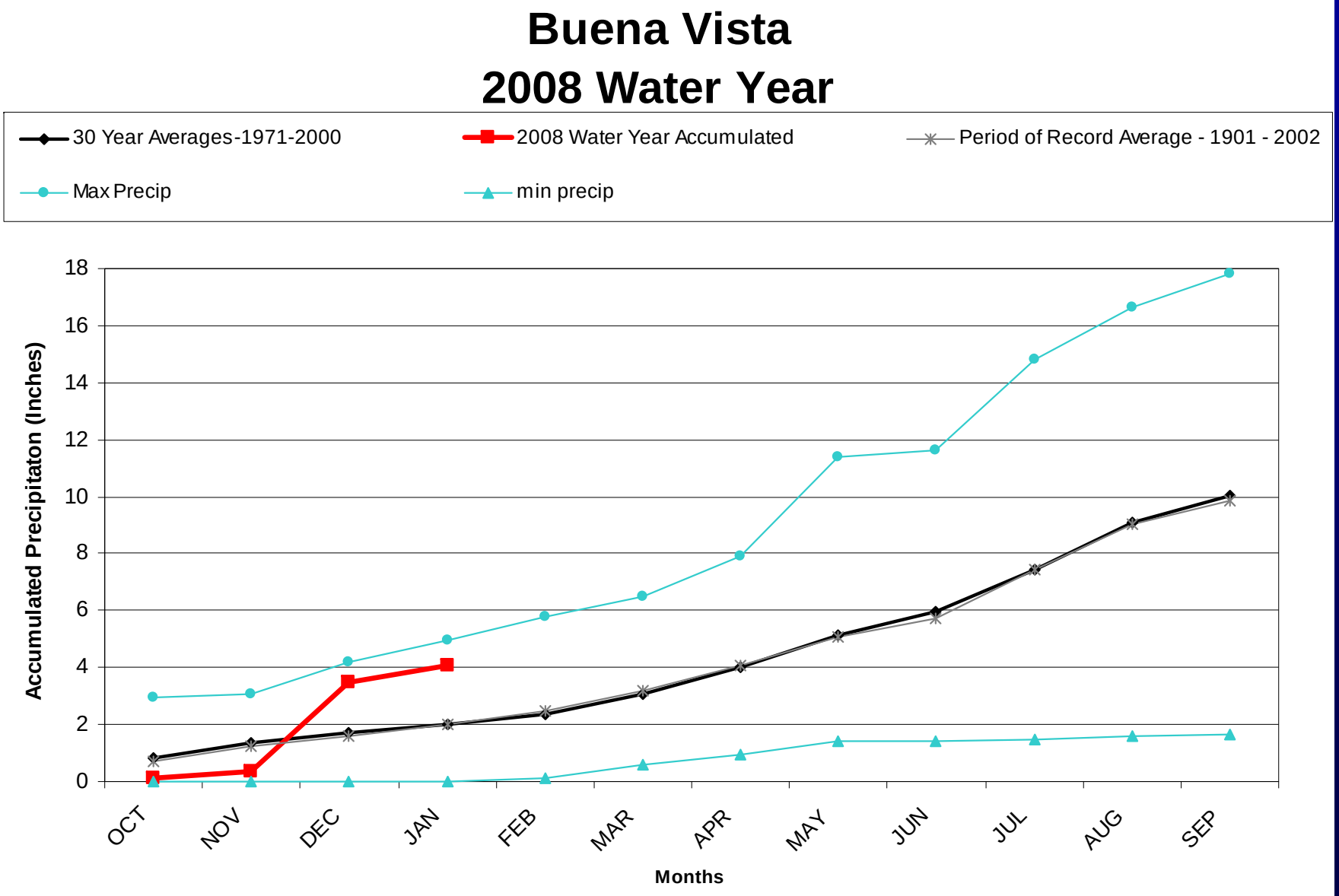
Division 5 – Pueblo



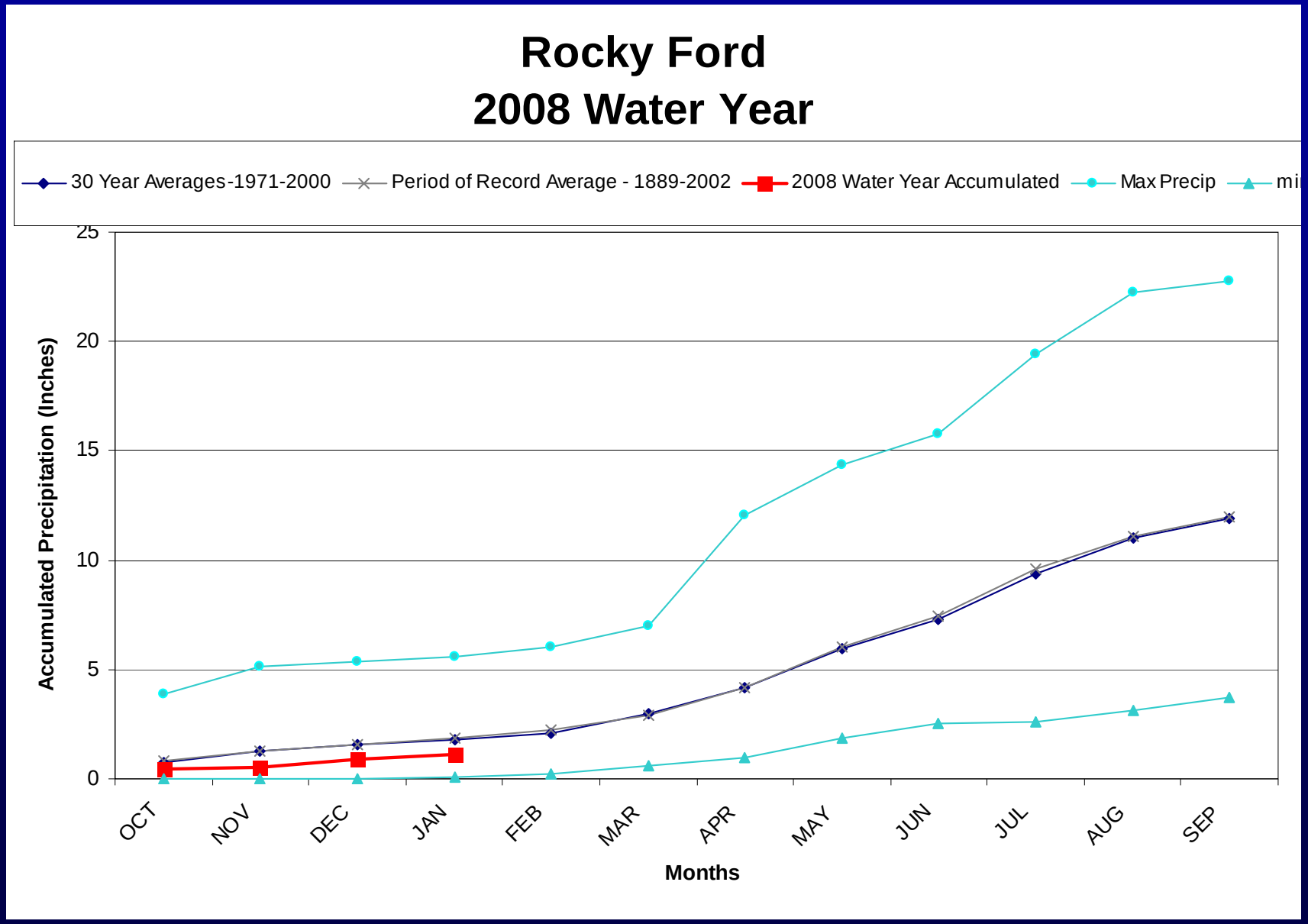
Division 5 – Canon City



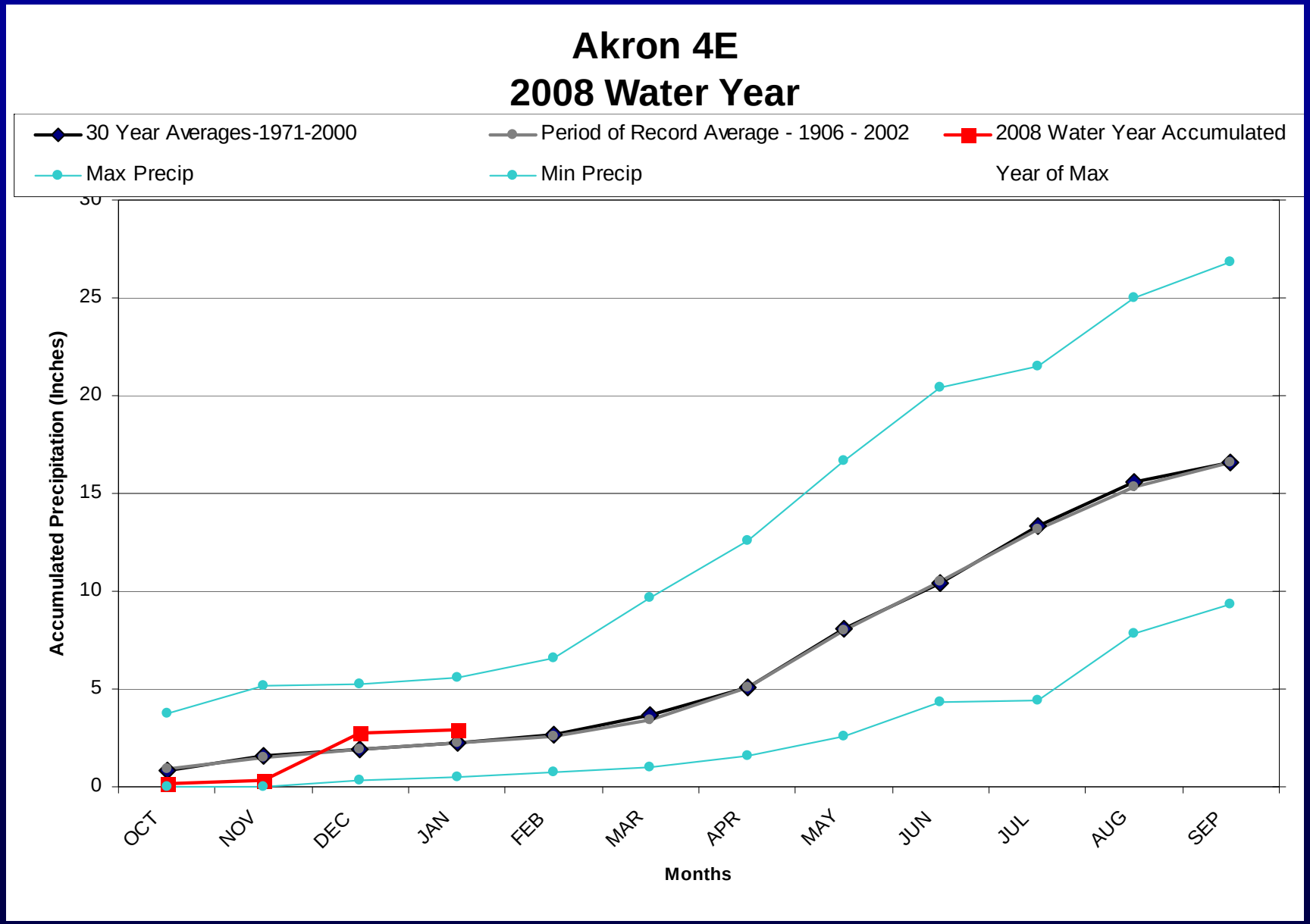
Division 5 – Buena Vista



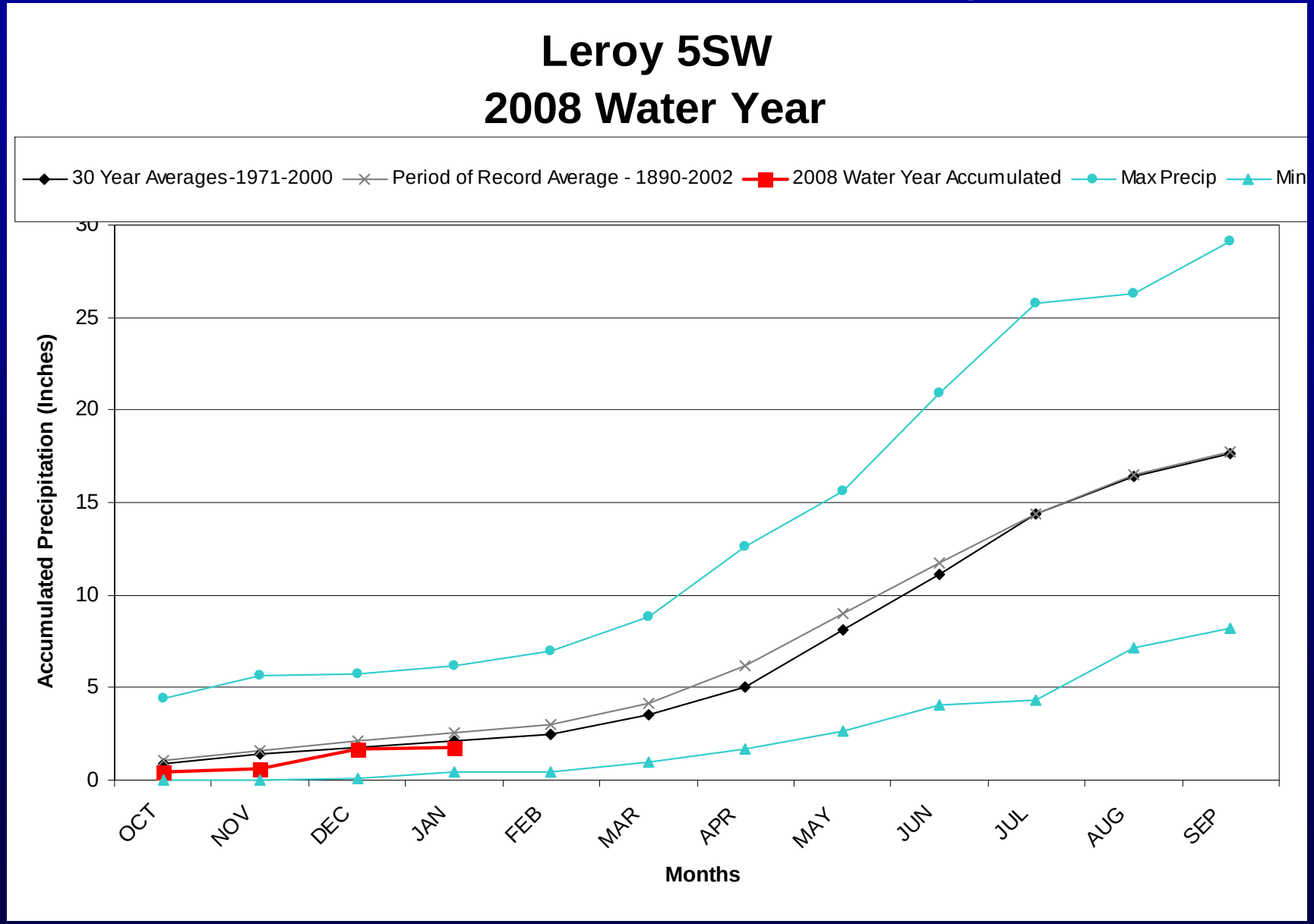
Division 6 – Rocky Ford



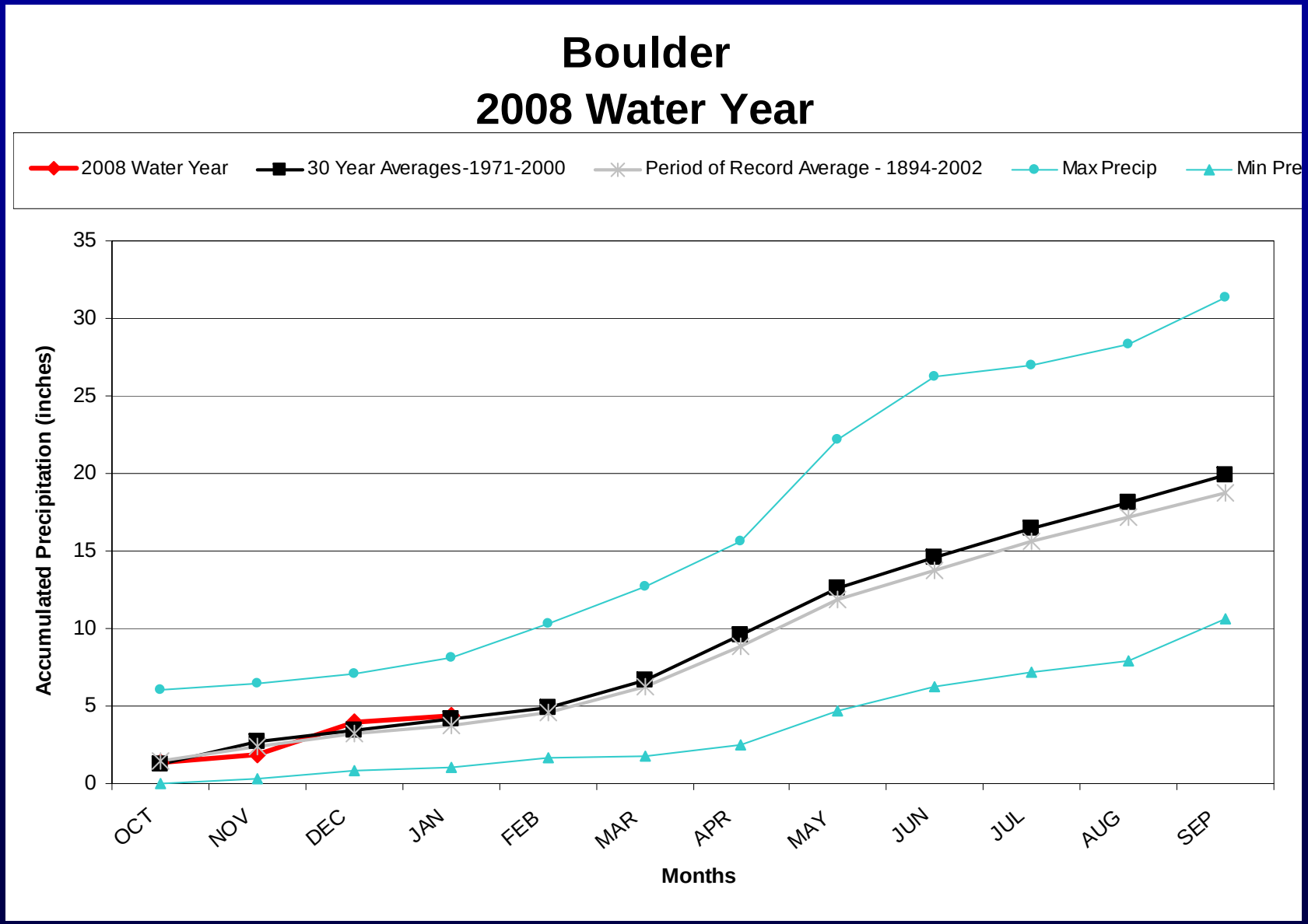
Division 7 – Akron



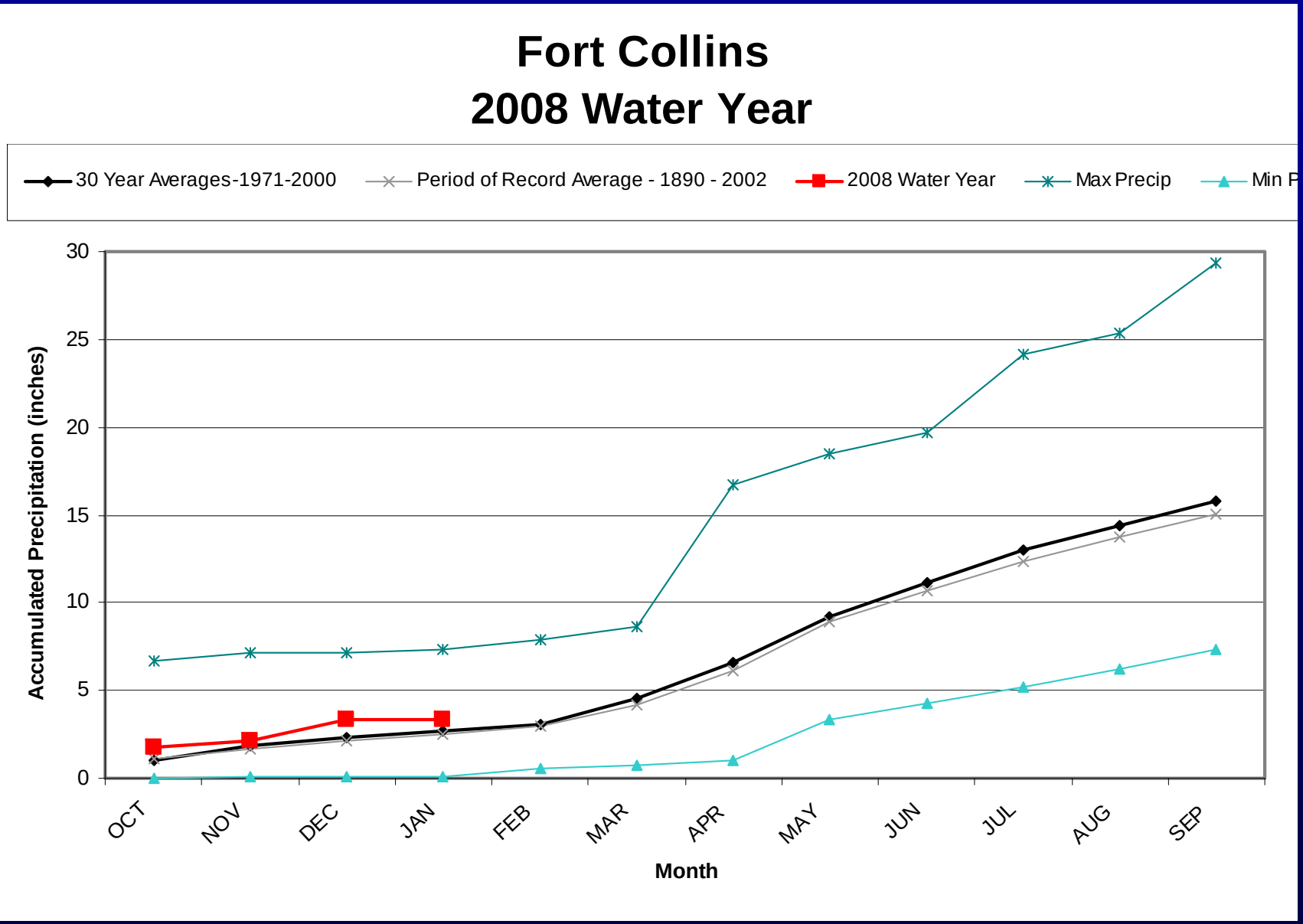
Division 7 – Leroy



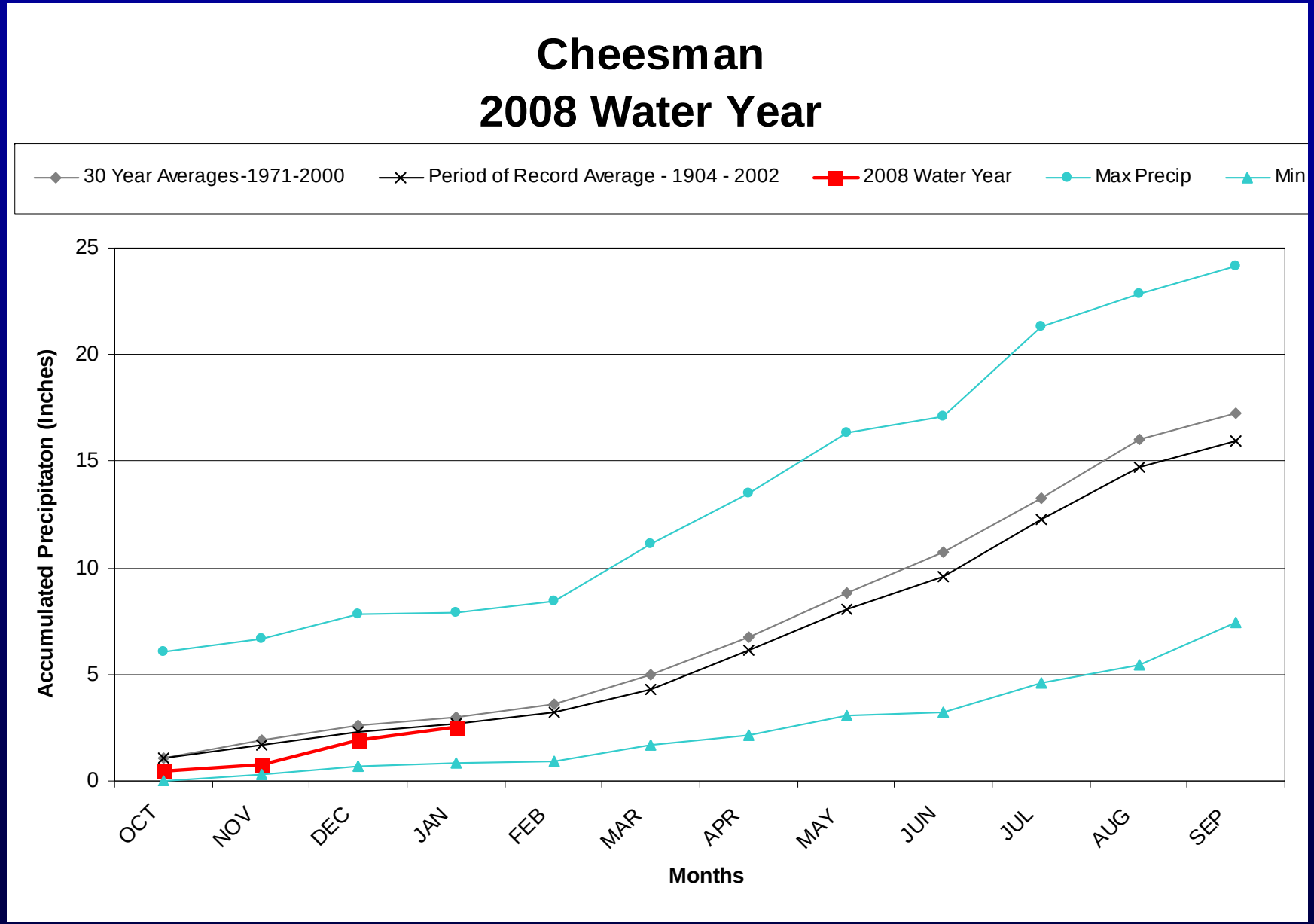
Division 8 – Boulder



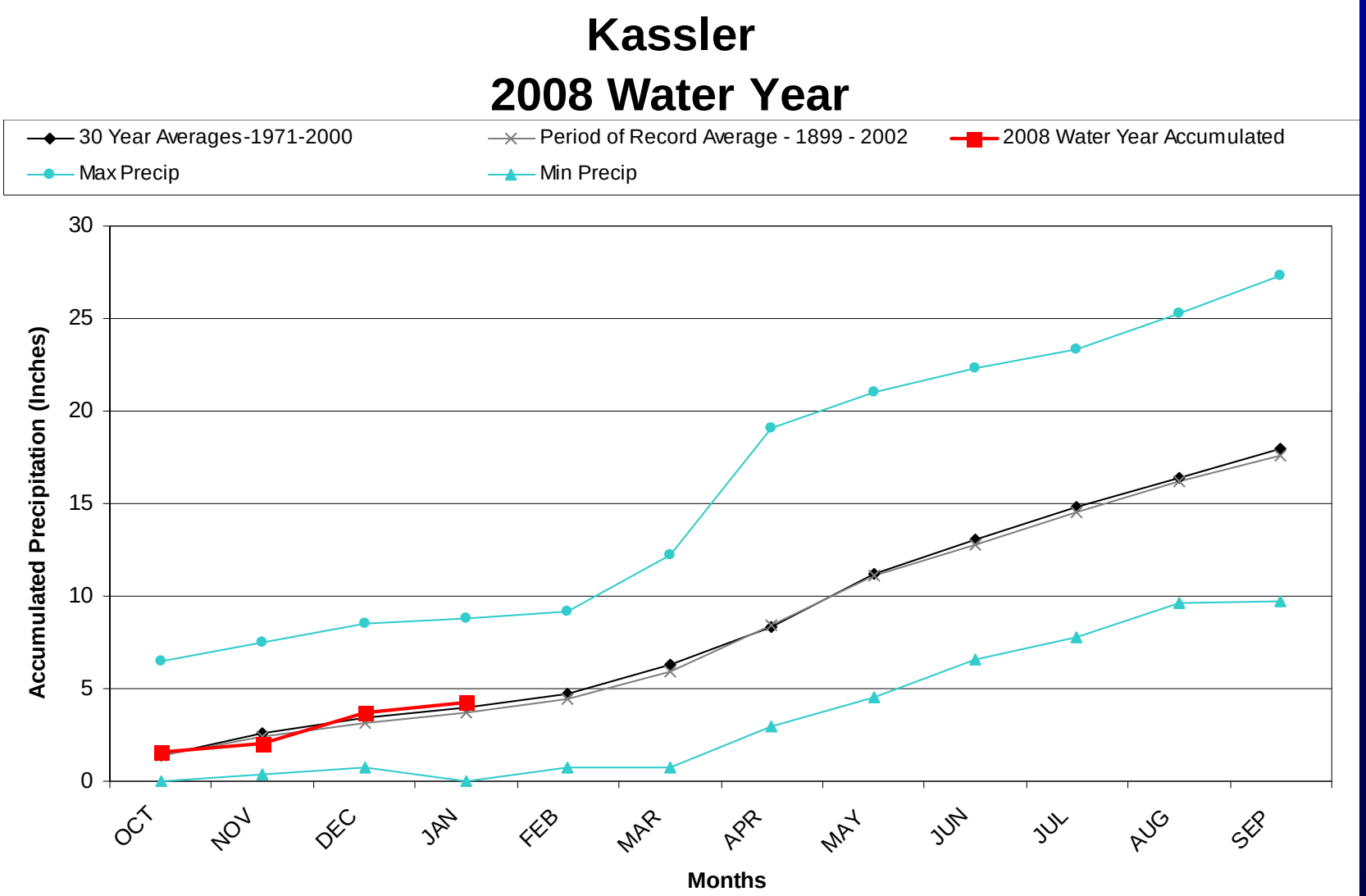
Division 8 – Fort Collins



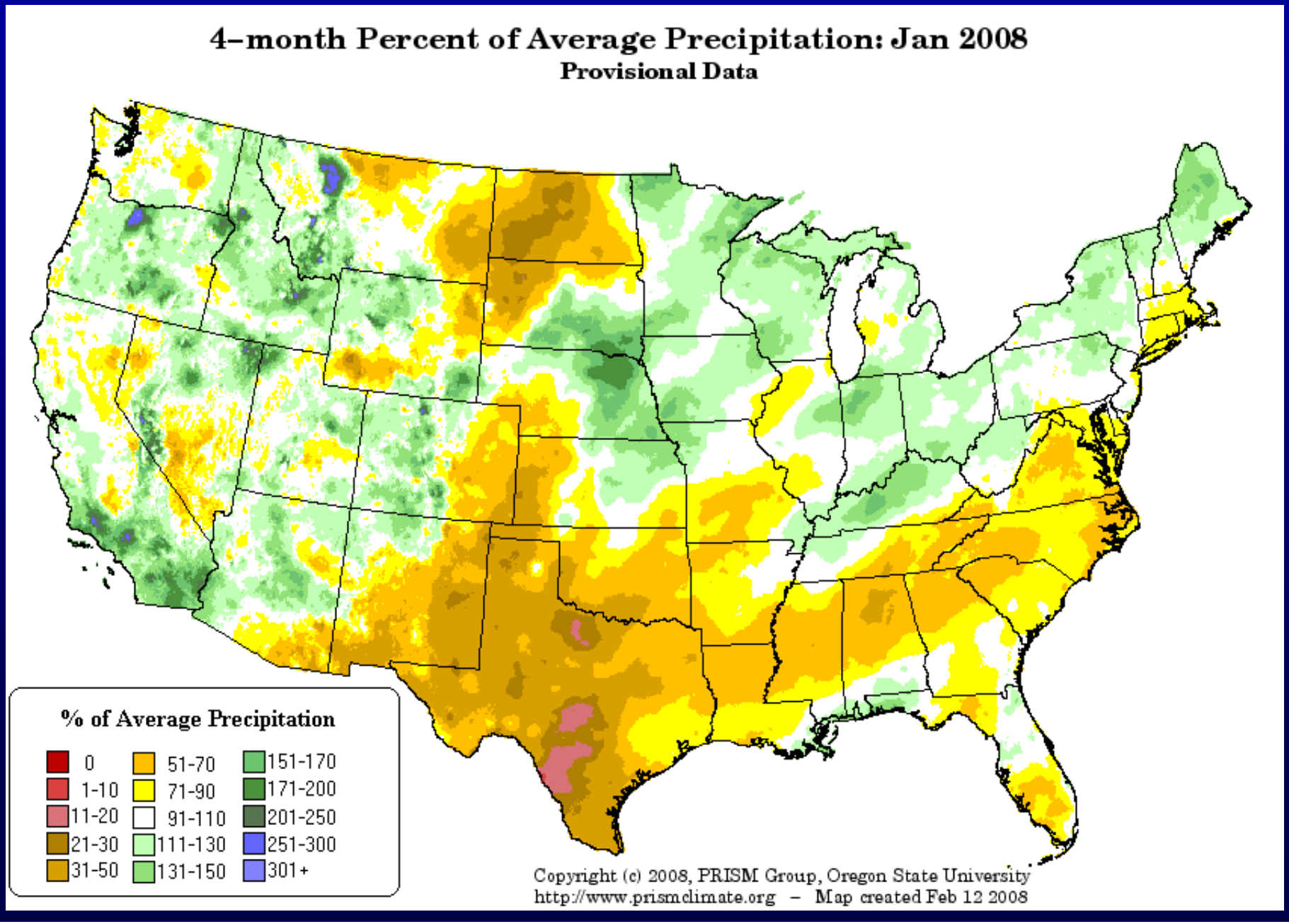
Division 8 – Cheesman



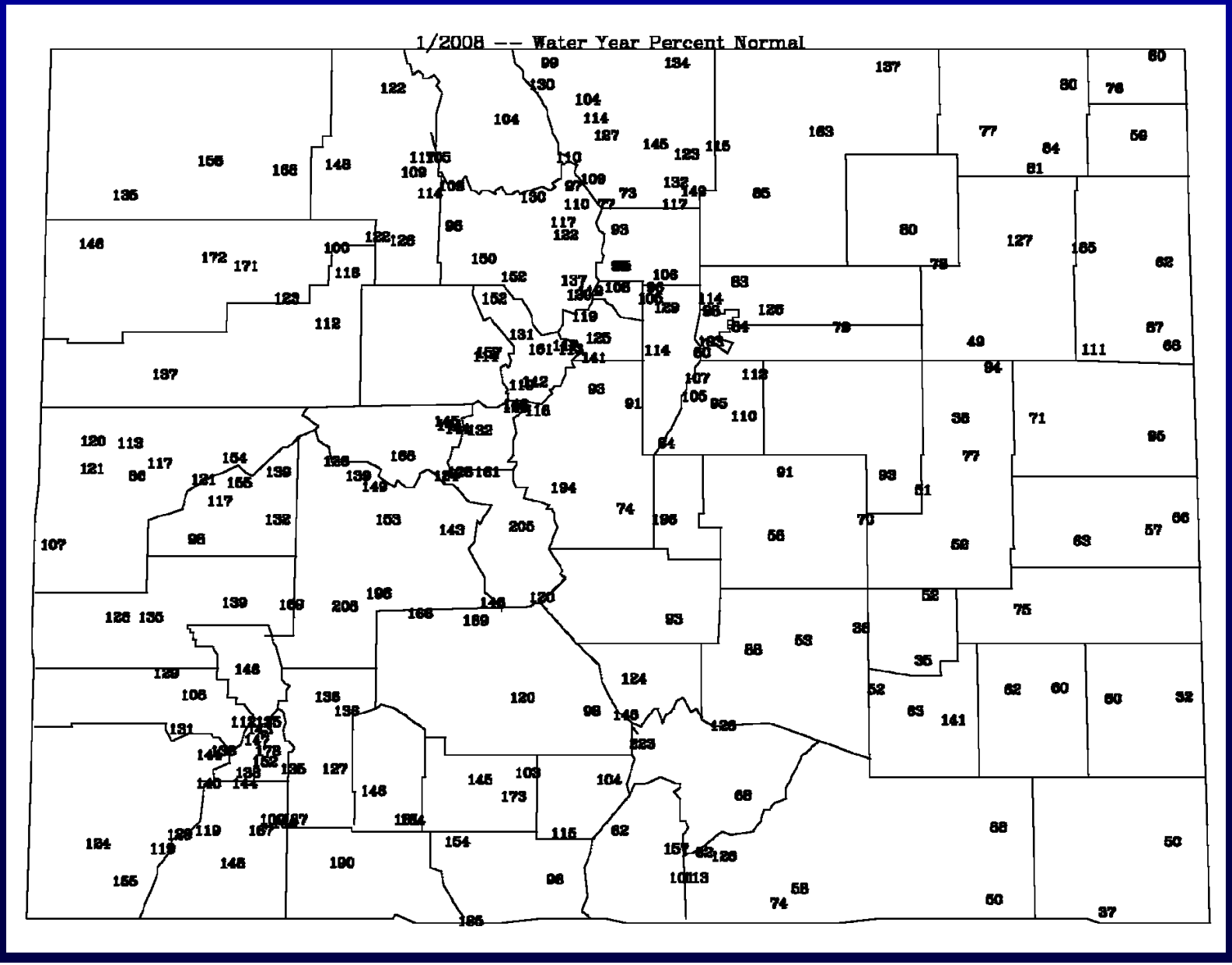
Division 8 – Kassler



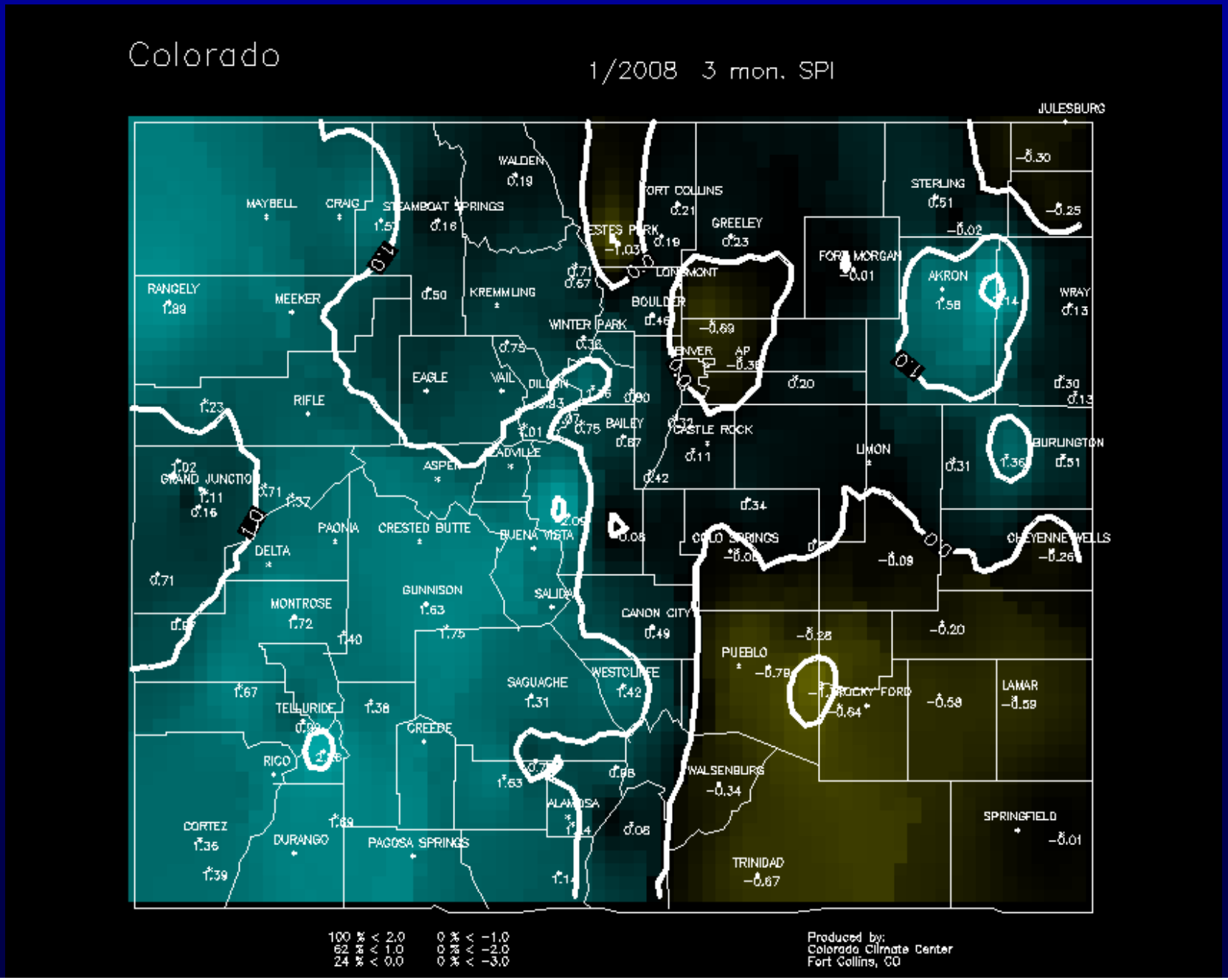
Water Year 2008 (Oct 07-Jan 08) Prism



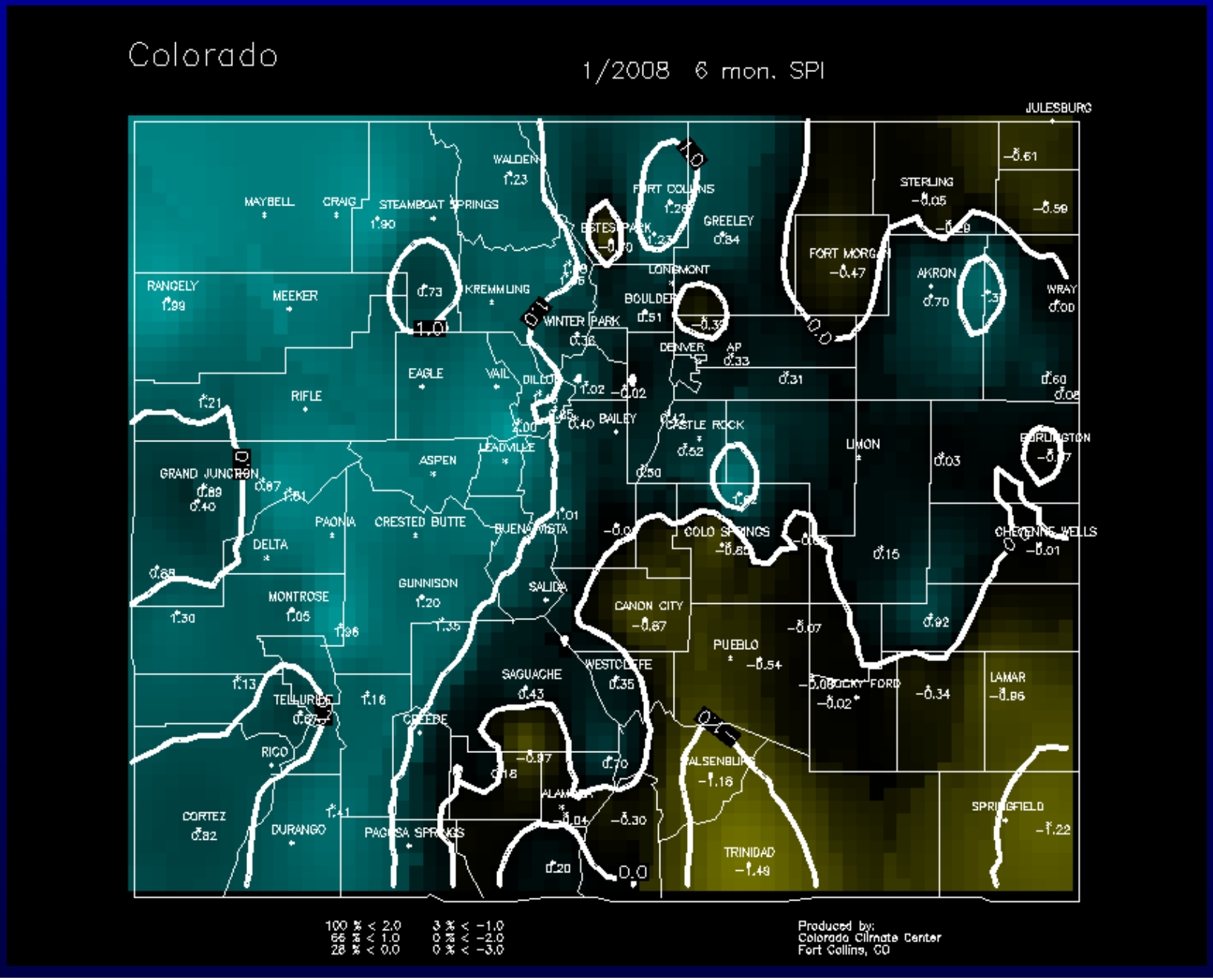
Water Year 2008 (Oct 07-Jan 08) Prism



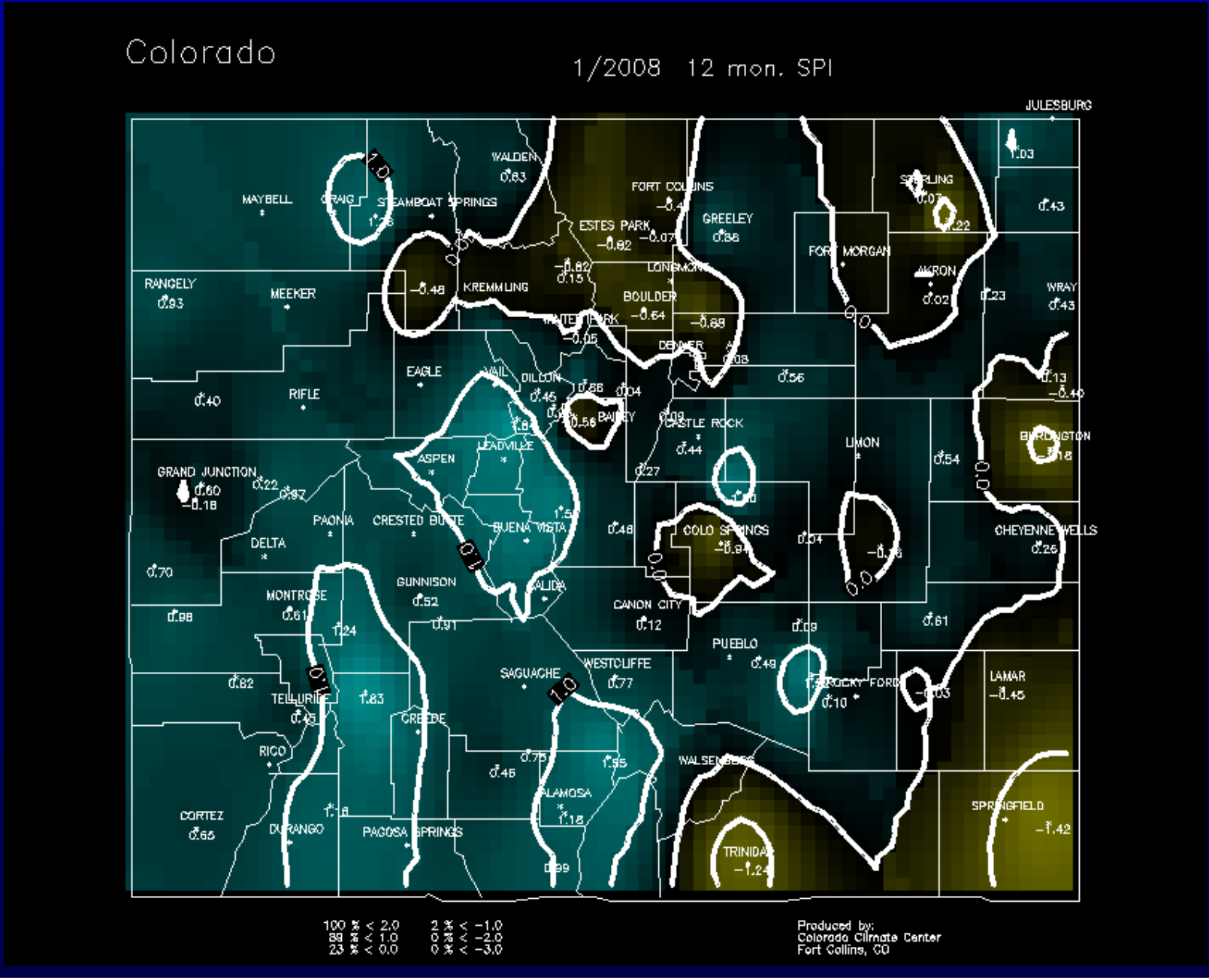
3 Month SPI


Colorado
1/2008 3 mon. SPI
JULESBURG
STERLING
WALDEN
MAYBELL
CRAIG
STEAMBOAT SPRINGS
FORT COLLINS
GREELEY
ESTES PARK
LONGMONT
FORT MORGAN
AKRON
WRAY
RANGELY
MEEKER
KREMMLING
BOULDER
WINTER PARK
DENVER AP
EAGLE
VAIL
DILLON
RIFLE
BAILEY
CASTLE ROCK
LIMON
BURLINGTON
GRAND JUNCTION
ASPEN
LEADVILLE
PAONIA
CRESTED BUTTE
BUENA VISTA
COLO SPRINGS
CHEYENNE WELLS
DELTA
GUNNISON
SALIDA
MONTROSE
CANON CITY
PUEBLO
WESTCLIFFE
SAGUACHE
ROCKY FORD
LAMAR
TELLURIDE
CREEDE
RICO
WALSENBURG
ALAMOSA
SPRINGFIELD
CORTEZ
DURANGO
PAGOSA SPRINGS
TRINIDAD
100 % < 2.0
62 % < 1.0
24 % < 0.0
0 % < -1.0
0 % < -2.0
0 % < -3.0
Produced by:
Colorado Climate Center
Fort Collins, CO

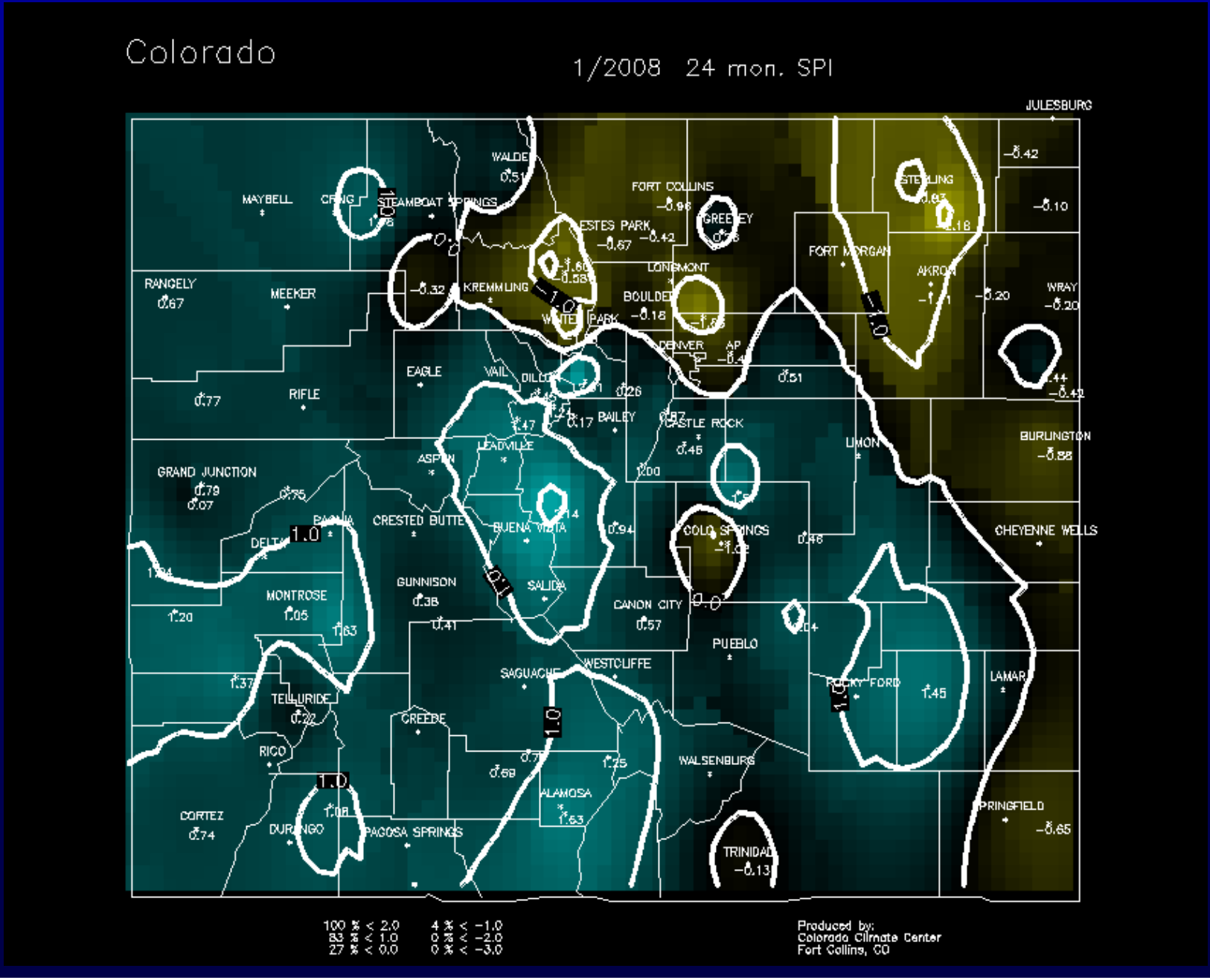
6 Month SPI


Colorado
1/2008 6 mon. SPI
JULESBURG
WALDEN
MAYBELL
CRAIG
STEAMBOAT SPRINGS
FORT COLLINS
GREELEY
STERLING
ESTES PARK
LONGMONT
FORT MORGAN
AKRON
WRAY
RANGELY
MEEKER
KREMMLING
BOULDER
WINTER PARK
DENVER
EAGLE
VAIL
DILLON
RIFLE
BAILEY
CASTLE ROCK
LEADVILLE
ASPEN
LIMON
BURLINGTON
GRAND JUNCTION
PAONIA
CRESTED BUTTE
BUENA VISTA
COLO SPRINGS
CHEYENNE WELLS
DELTA
GUNNISON
SALIDA
MONTROSE
CANON CITY
PUEBLO
WESTCLIFFE
SAGUACHE
ROCKY FORD
LAMAR
TELLURIDE
CREEDE
RICO
ALAMOSA
VALSENBURG
CORTEZ
DURANGO
PAGOSA SPRINGS
SPRINGFIELD
TRINIDAD
100 % < 2.0
66 % < 1.0
28 % < 0.0
3 % < -1.0
0 % < -2.0
0 % < -3.0
Produced by:
Colorado Climate Center
Fort Collins, CO

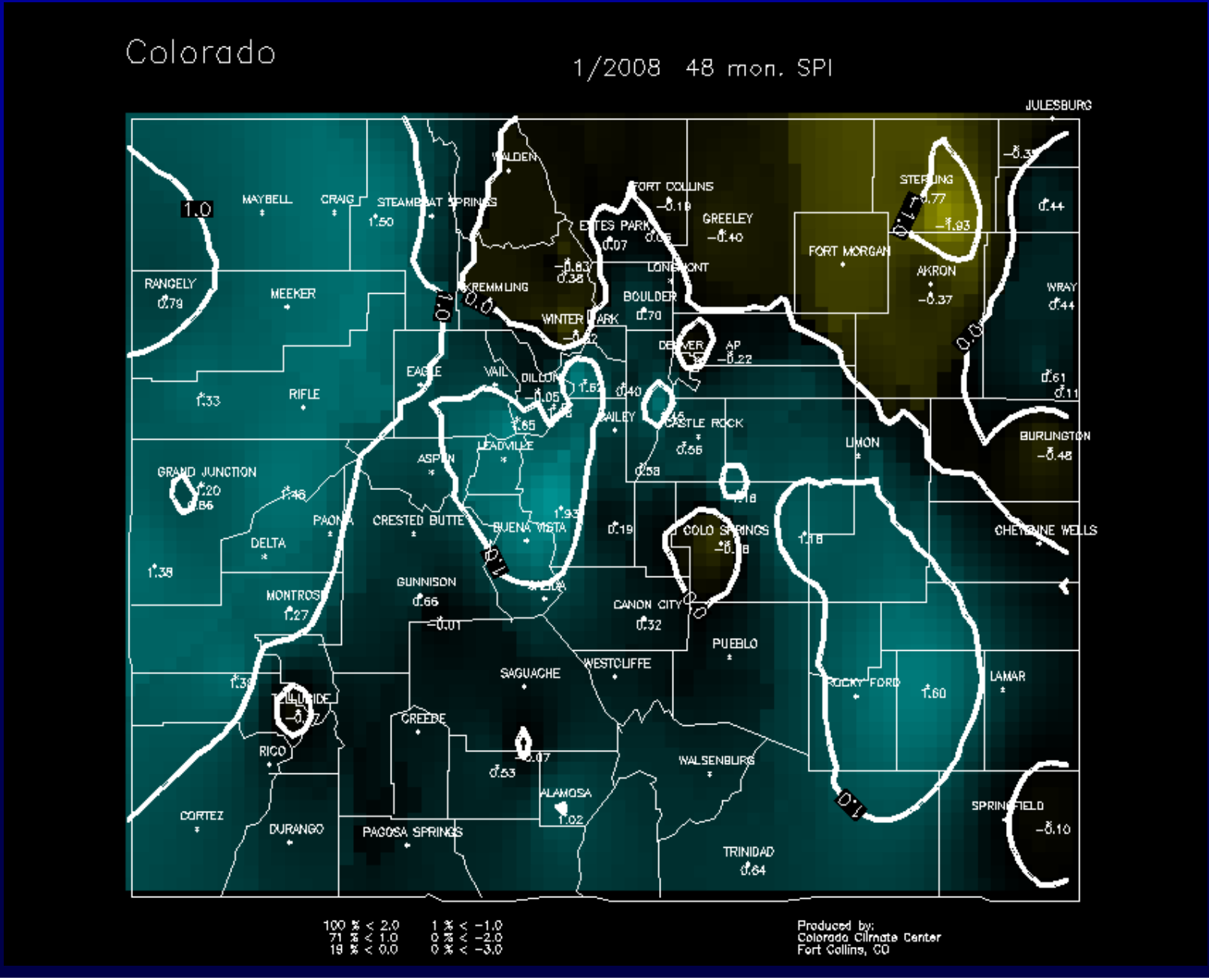
12 Month SPI


Colorado
1/2008 12 mon. SPI
JULESBURG
WALDEN
MAYBELL
CRAIG
STEAMBOAT SPRINGS
FORT COLLINS
GREELEY
ESTES PARK
STERLING
FORT MORGAN
AKRON
WRAY
RANGELY
MEEKER
KREMMLING
LONGMONT
BOULDER
WINTER PARK
DENVER
EAGLE
VAIL
DILLON
RIFLE
BAILEY
CASTLE ROCK
LEADVILLE
ASPEN
LIMON
BURLINGTON
GRAND JUNCTION
PAONIA
CRESTED BUTTE
BUENA VISTA
COLO SPRINGS
CHEYENNE WELLS
DELTA
GUNNISON
MONTROSE
SALIDA
CANON CITY
PUEBLO
WESTCLIFFE
SAGUACHE
ROCKY FORD
LAMAR
TELLURIDE
CREEDE
RICO
WALSENBURG
ALAMOSA
CORTEZ
DURANGO
PAGOSA SPRINGS
TRINIDAD
SPRINGFIELD
100 % < 2.0
89 % < 1.0
23 % < 0.0
2 % < -1.0
0 % < -2.0
0 % < -3.0
Produced by:
Colorado Climate Center
Fort Collins, CO

24 Month SPI

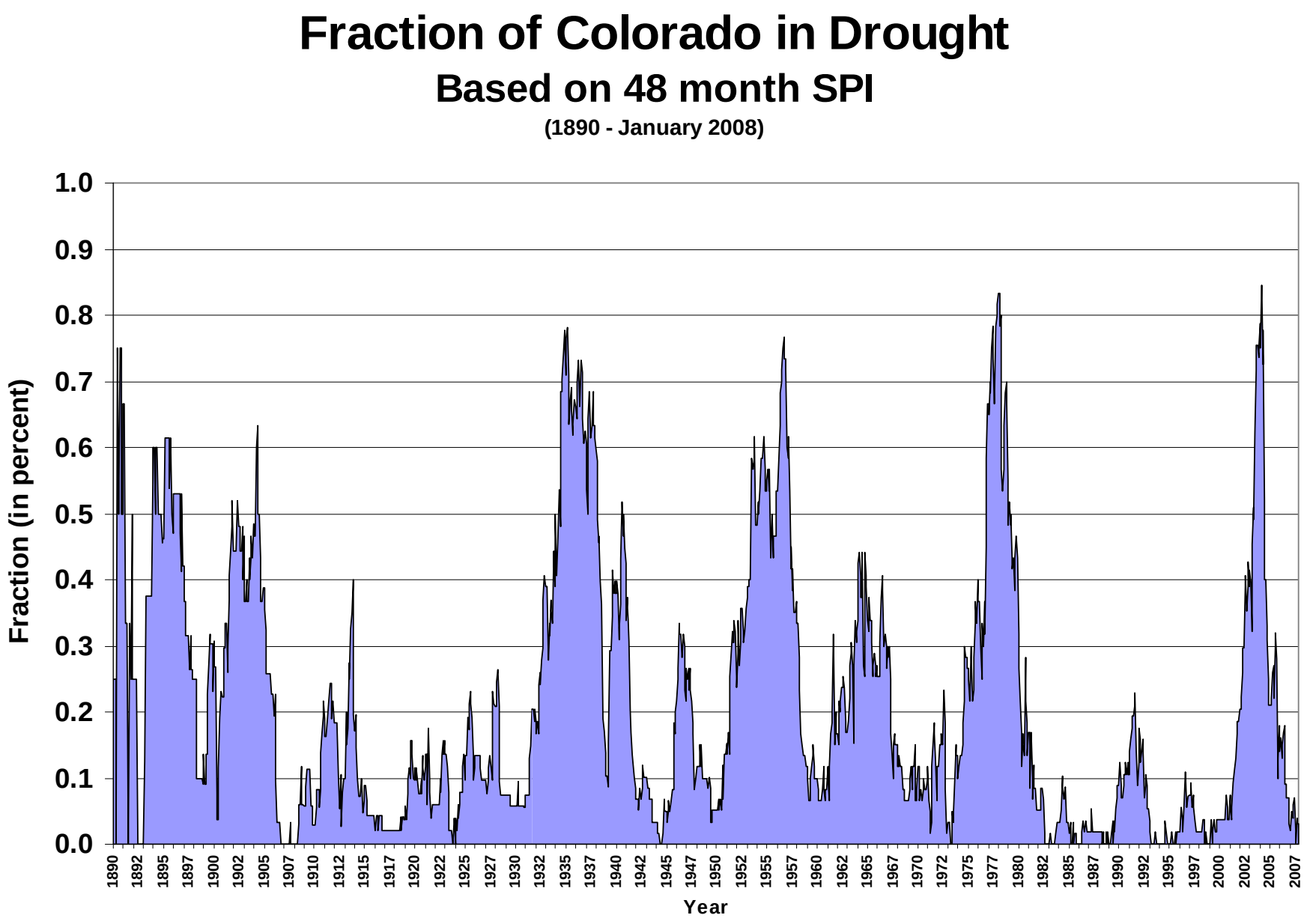

Colorado
1/2008 24 mon. SPI
JULESBURG
WALDEN
MAYBELL
CRAIG
STEAMBOAT SPRINGS
FORT COLLINS
ESTES PARK
GREELEY
STERLING
FORT MORGAN
AKRON
WRAY
RANGELY
MEEKER
KREMMLING
LONGMONT
BOULDER
WINTER PARK
DENVER
EAGLE
VAIL
DILLON
RIFLE
BAILEY
CASTLE ROCK
LIMON
BURLINGTON
GRAND JUNCTION
ASPEN
LEADVILLE
CRESTED BUTTE
BUENA VISTA
COLO SPRINGS
CHEYENNE WELLS
DELTA
MONTROSE
GUNNISON
SALIDA
CANON CITY
PUEBLO
SAGUACHE
WESTCLIFFE
ROCKY FORD
LAMAR
TELLURIDE
CREEDE
RICO
WALSENBURG
ALAMOSA
CORTEZ
DURANGO
PAGOSA SPRINGS
TRINIDAD
SPRINGFIELD
100 % < 2.0
83 % < 1.0
27 % < 0.0
4 % < -1.0
0 % < -2.0
0 % < -3.0
Produced by:
Colorado Climate Center
Fort Collins, CO

48 Month SPI



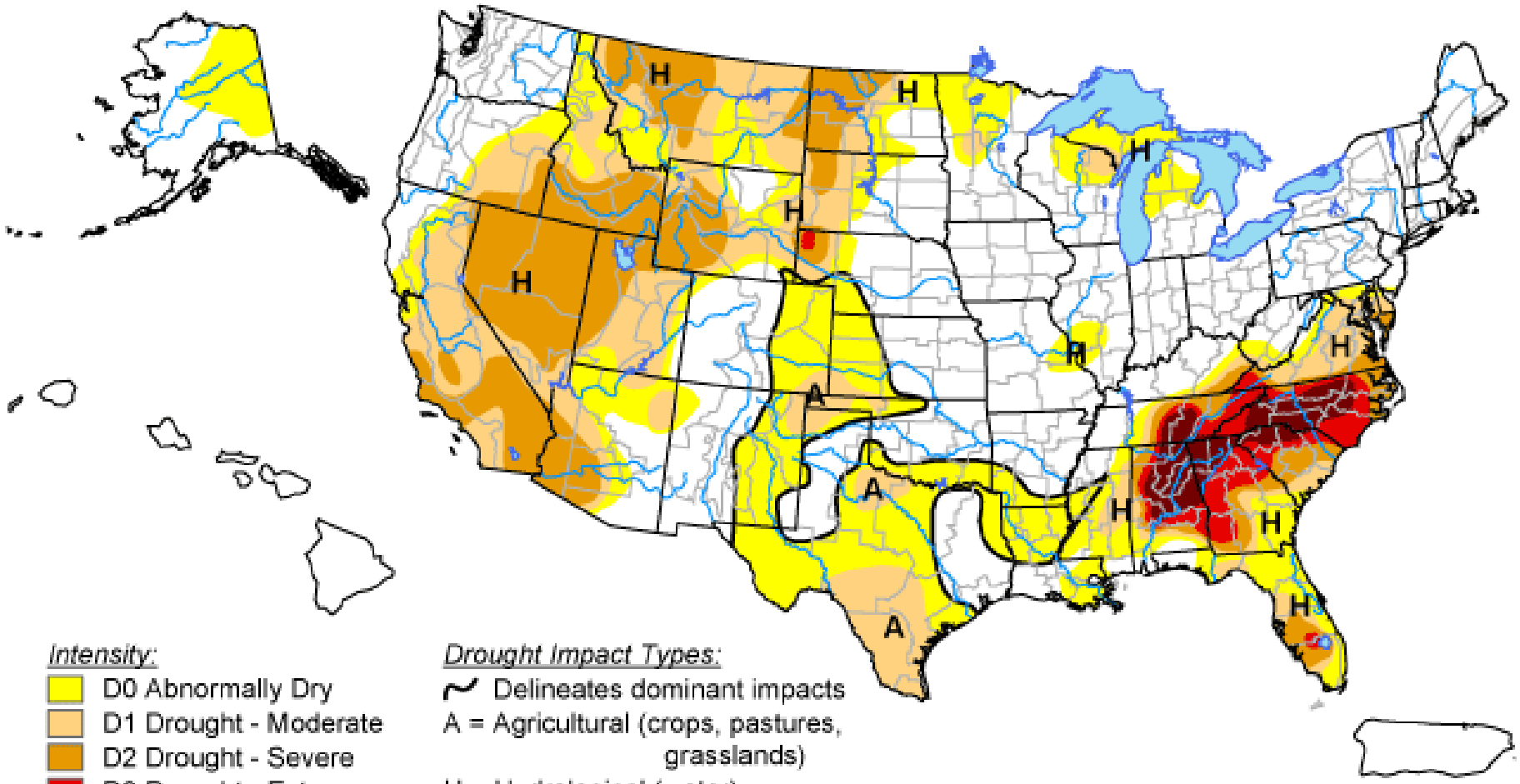
Colorado
1/2008 48 mon. SPI
JULESBURG
MAYBELL
CRAIG
STEAMBOAT SPRINGS
WALDEN
FORT COLLINS
GREELEY
STERLING
FORT MORGAN
AKRON
WRAY
RANGELY
MEEKER
KREMMLING
ESTES PARK
LONGMONT
BOULDER
WINTER PARK
DENVER
AP
EAGLE
VAIL
DILLON
RIFLE
BAILEY
CASTLE ROCK
LIMON
BURLINGTON
GRAND JUNCTION
ASPEN
LEADVILLE
PAONIA
CRESTED BUTTE
BUENA VISTA
COLO SPRINGS
CHEYENNE WELLS
DELTA
MONTROSE
GUNNISON
CANON CITY
PUEBLO
SAGUACHE
WESTCLIFFE
ROCKY FORD
LAMAR
TELLURIDE
CREEDE
RICO
WALSENBURG
ALAMOSA
CORTEZ
DURANGO
PAGOSA SPRINGS
SPRINGFIELD
TRINIDAD
100 % < 2.0
71 % < 1.0
19 % < 0.0
1 % < -1.0
0 % < -2.0
0 % < -3.0
Produced by:
Colorado Climate Center
Fort Collins, CO

Standardized Precipitation Index



U.S. Drought Monitor

January 15, 2008
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.

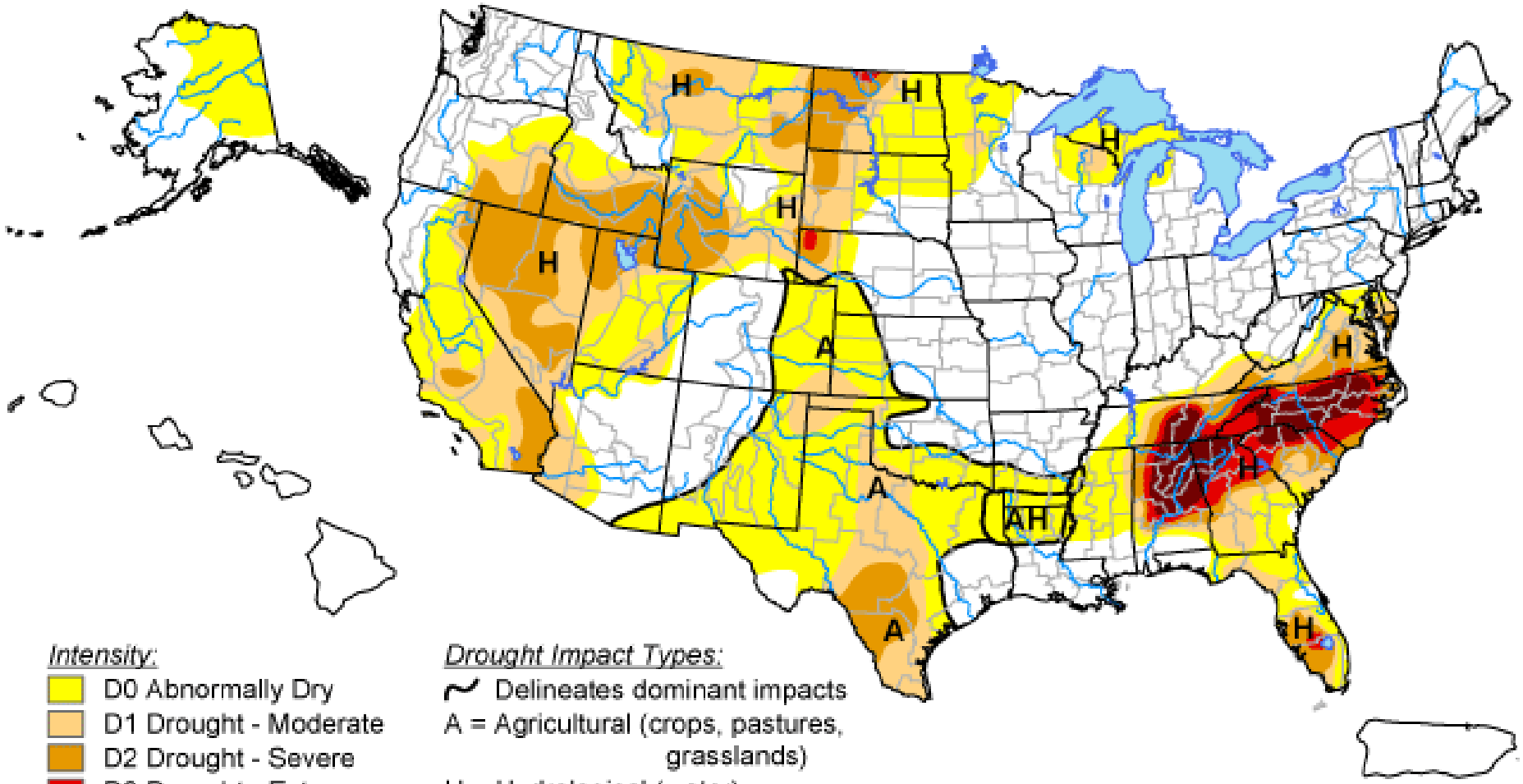
http://drought.unl.edu/dm

Released Thursday, January 17, 2008

Author: Rich Tinker, Climate Prediction Center, NOAA

U.S. Drought Monitor

February 12, 2008
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 14, 2008

Authors: Jay Lawrimore/Liz Love-Brotak, NOAA/NESDIS/NCDC

Colorado Climate Center

Data and Power Point Presentations available for downloading

http://ccc.atmos.colostate.edu

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