



Climate Update

September 24, 2003 WATF meeting

Nolan Doesken

Colorado Climate Center

Prepared by Odie Bliss

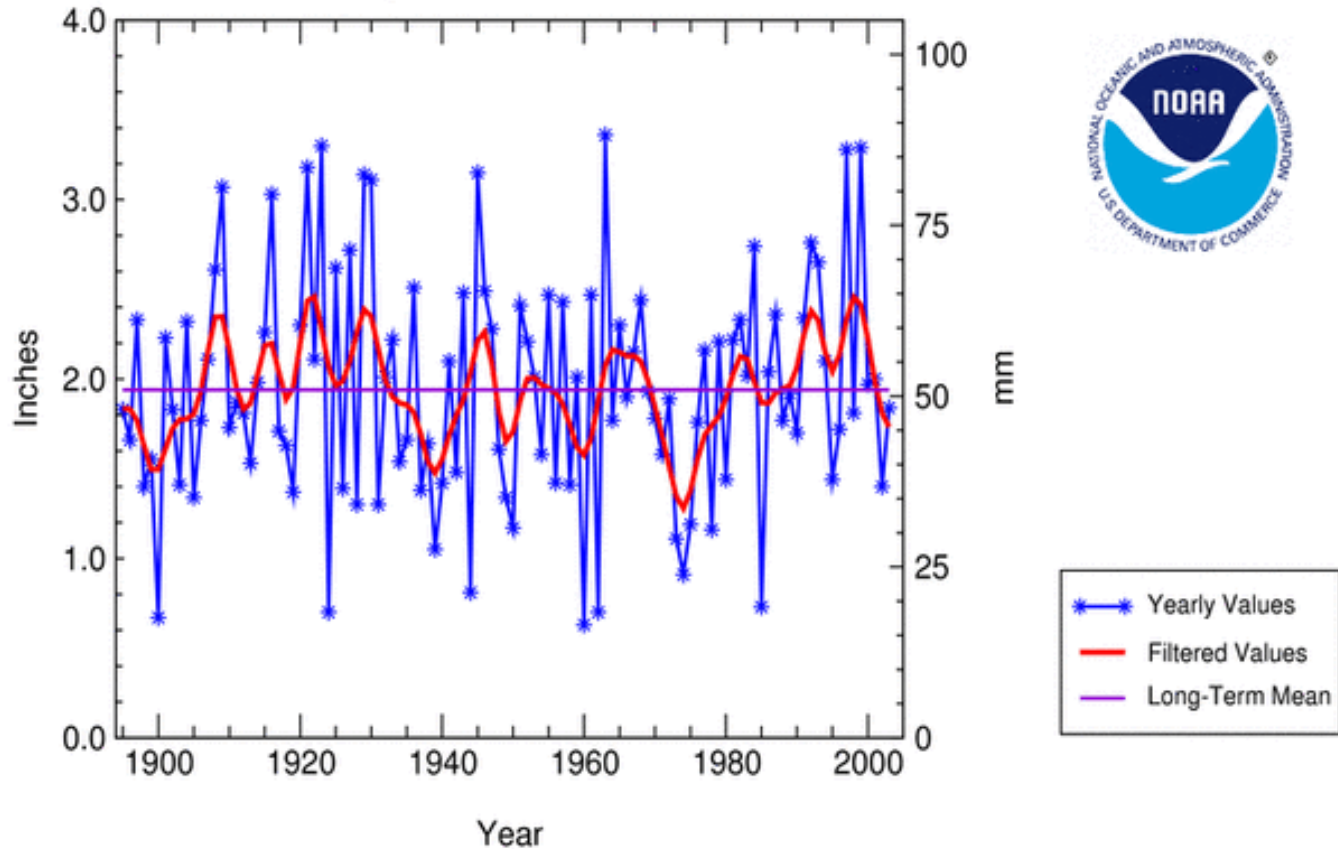
<http://ccc.atmos.colostate.edu>



Est. 1870

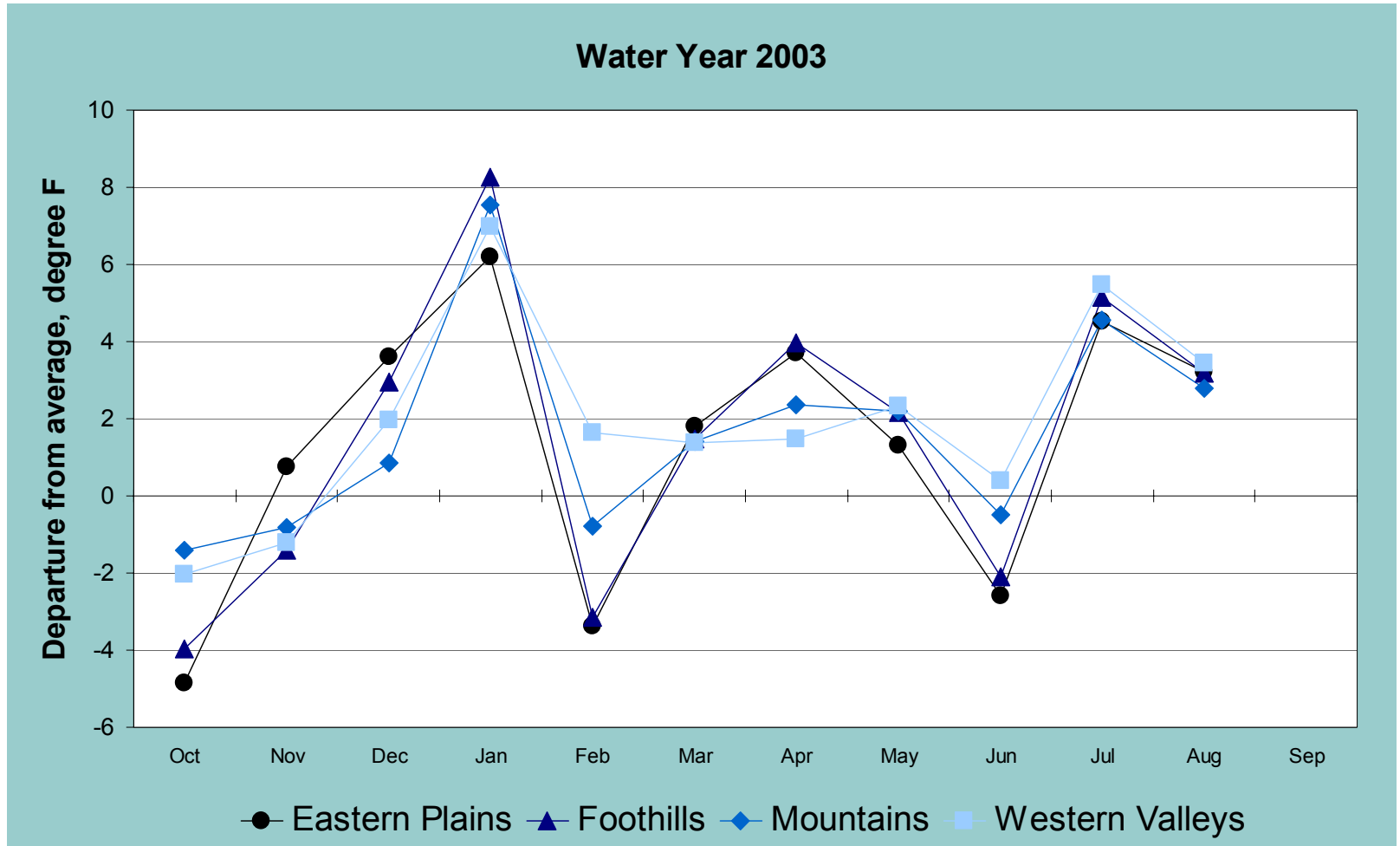


Colorado Statewide Precipitation August, 1895 - 2003



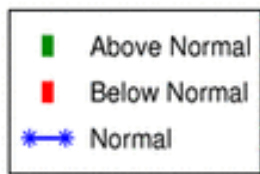
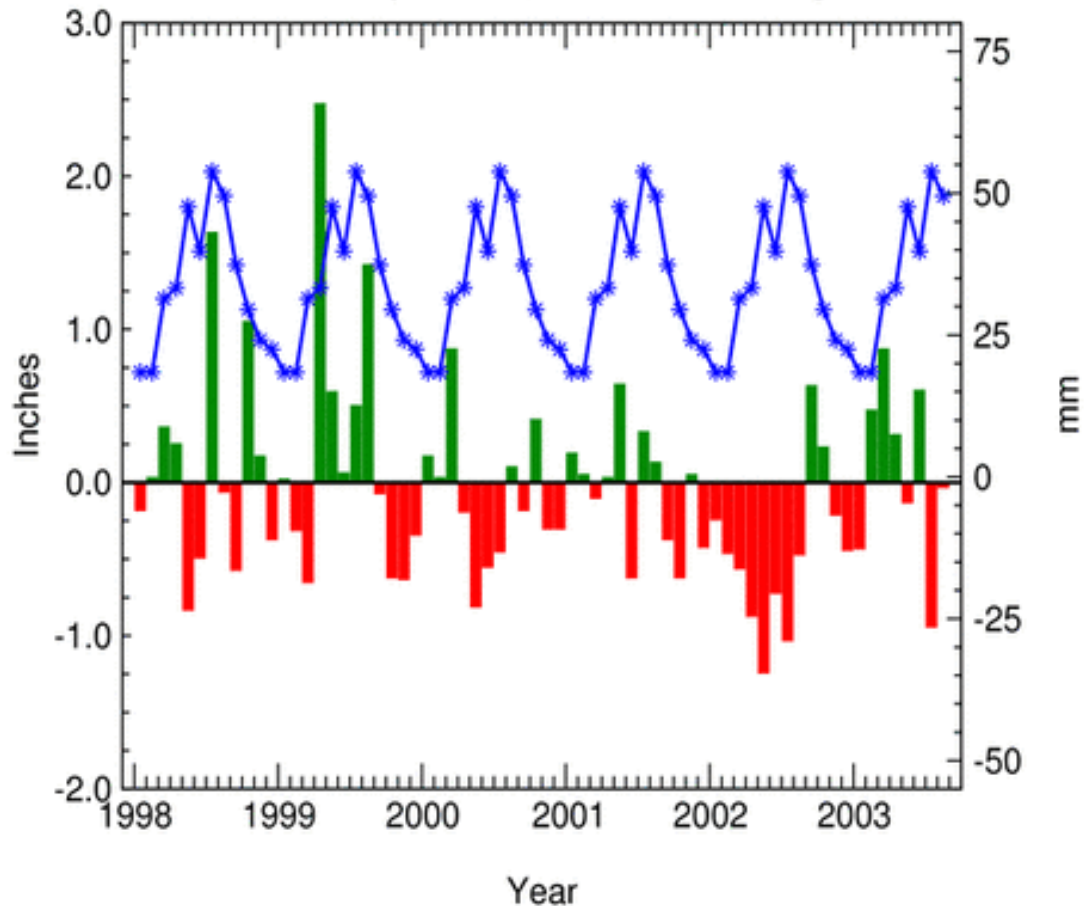
National Climatic Data Center / NESDIS / NOAA

WY 2003 Temperature Departures



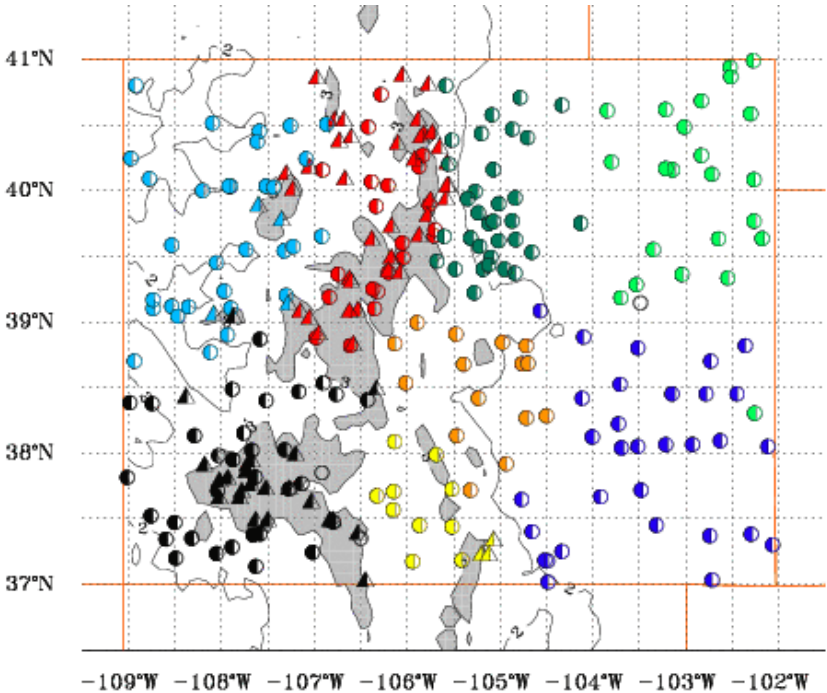


Colorado Statewide Precipitation Normal & Departure, Jan 1998 - Aug 2003



National Climatic Data Center / NESDIS / NOAA

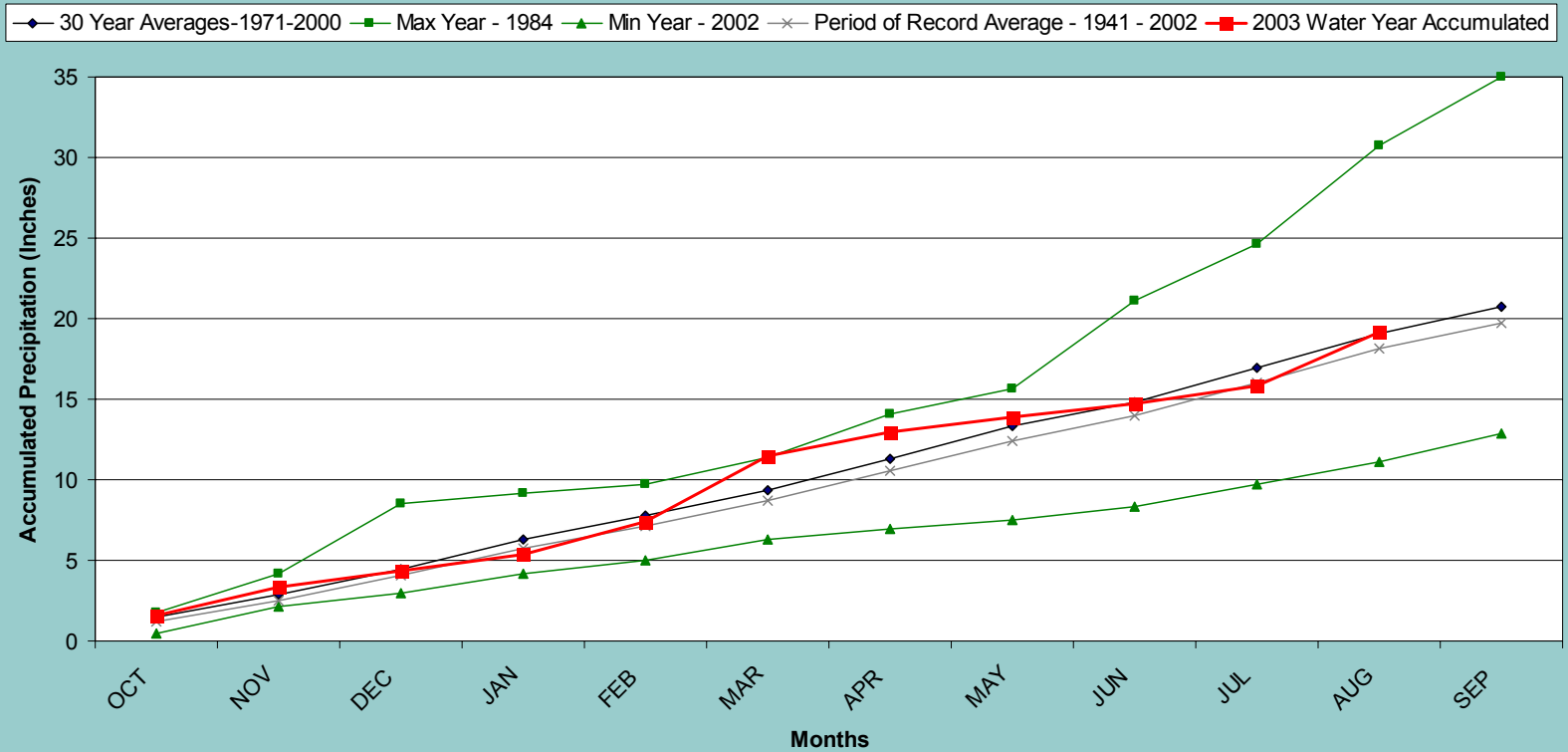
Climate divisions defined by Dr. Klaus Wolter of NOAA's Climate Diagnostic Center in Boulder, CO



| COOP | SNOTEL | IND | | COOP | SNOTEL | IND | |
|------|--------|-----------------------------------|--|------|--------|-------|--|
| ● | ▲ | IND 1 | | ● | ▲ | IND 6 | |
| ● | ▲ | IND 2 | | ● | ▲ | IND 7 | |
| ● | ▲ | IND 3 | | ● | ▲ | IND 8 | |
| ● | ▲ | IND 4 | | | | | |
| ● | ▲ | IND 5 | | | | | |
| ○ | △ | Stations not assigned to an index | | | | | |

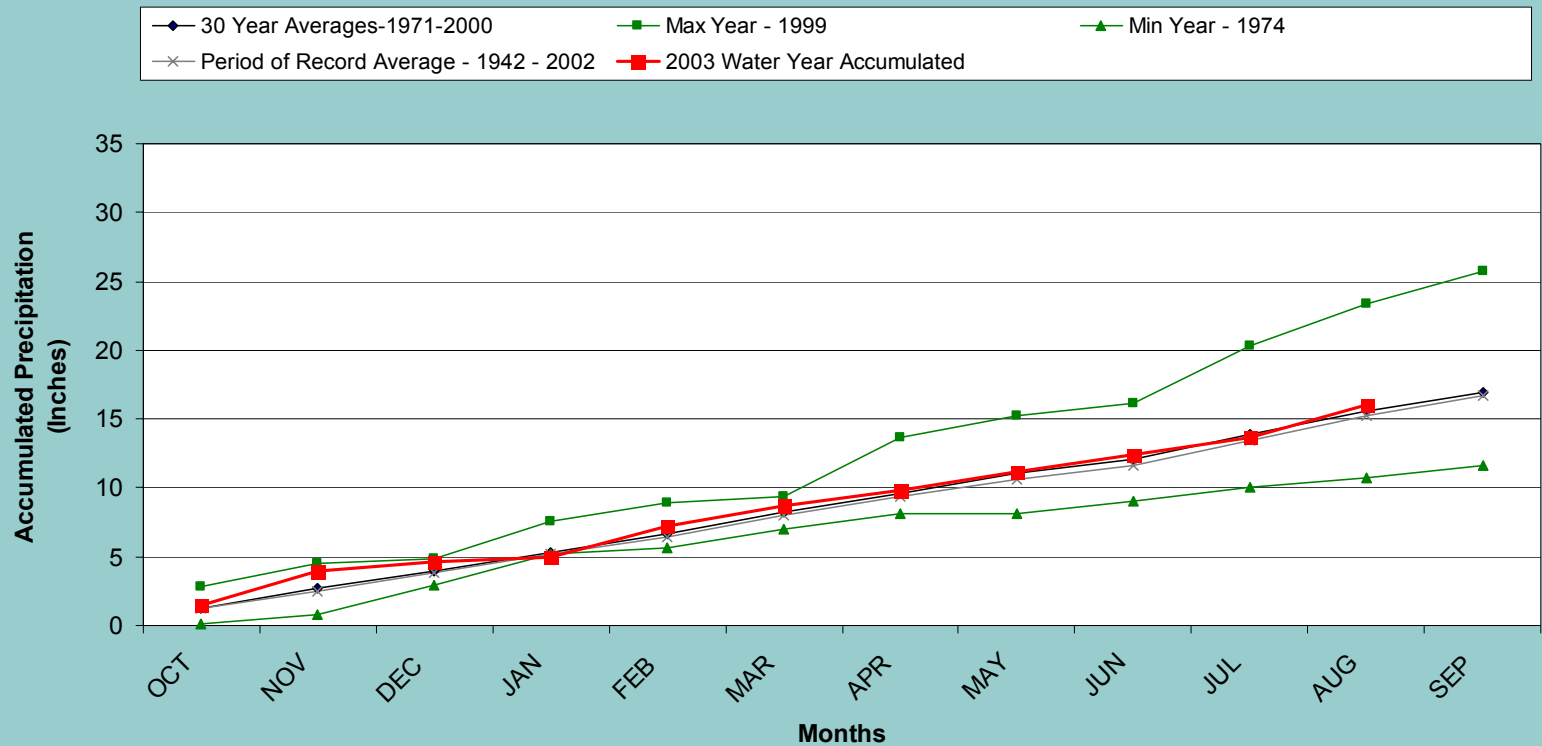
Division 1

Grandlake 1 NW 2003 Water Year (through October '02 - August '03)



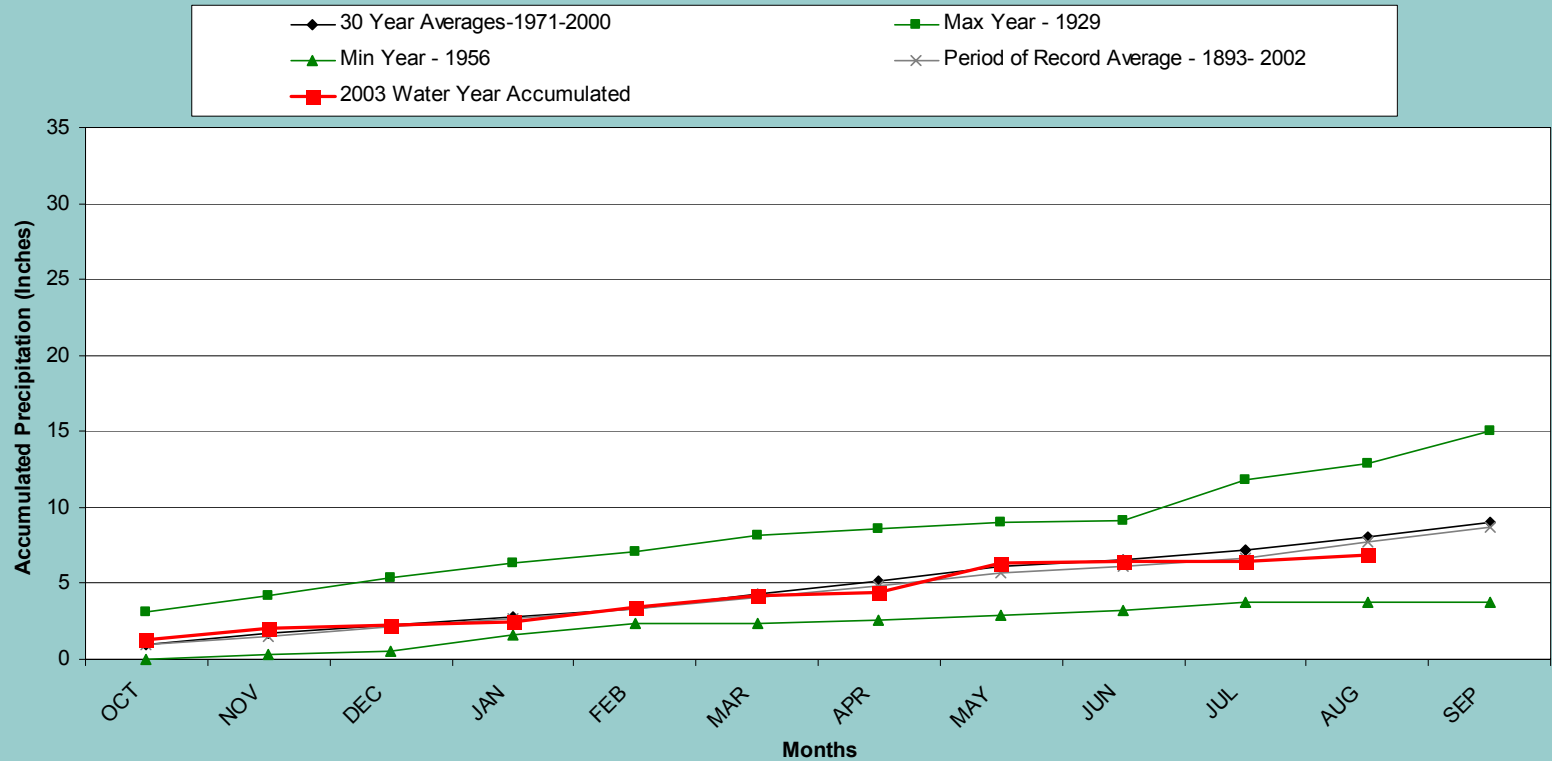
Division 1

Taylor Park 2003 Water Year (through October '02 - August '03)



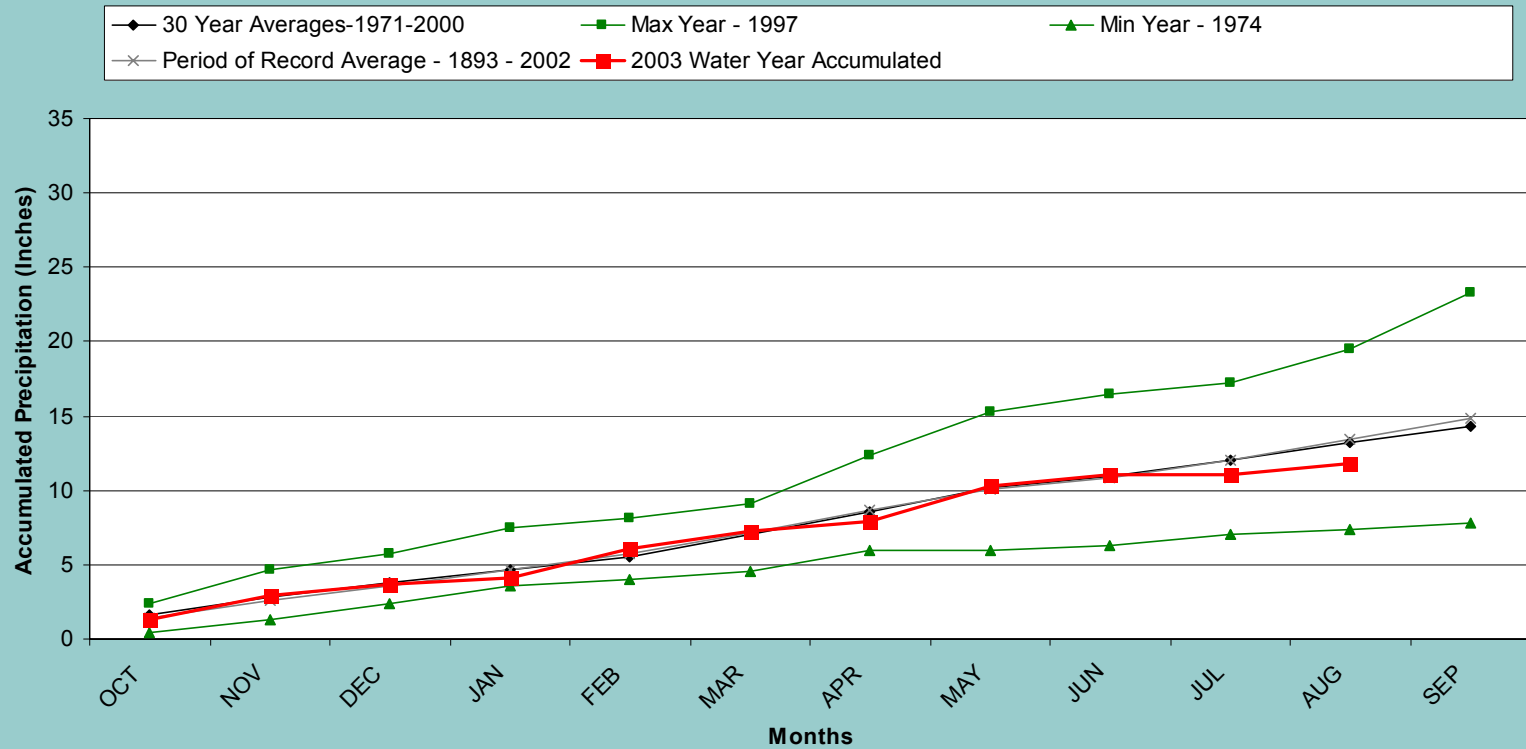
Division 2

Grand Junction WSFO 2003 Water Year (through October '02 - August '03)



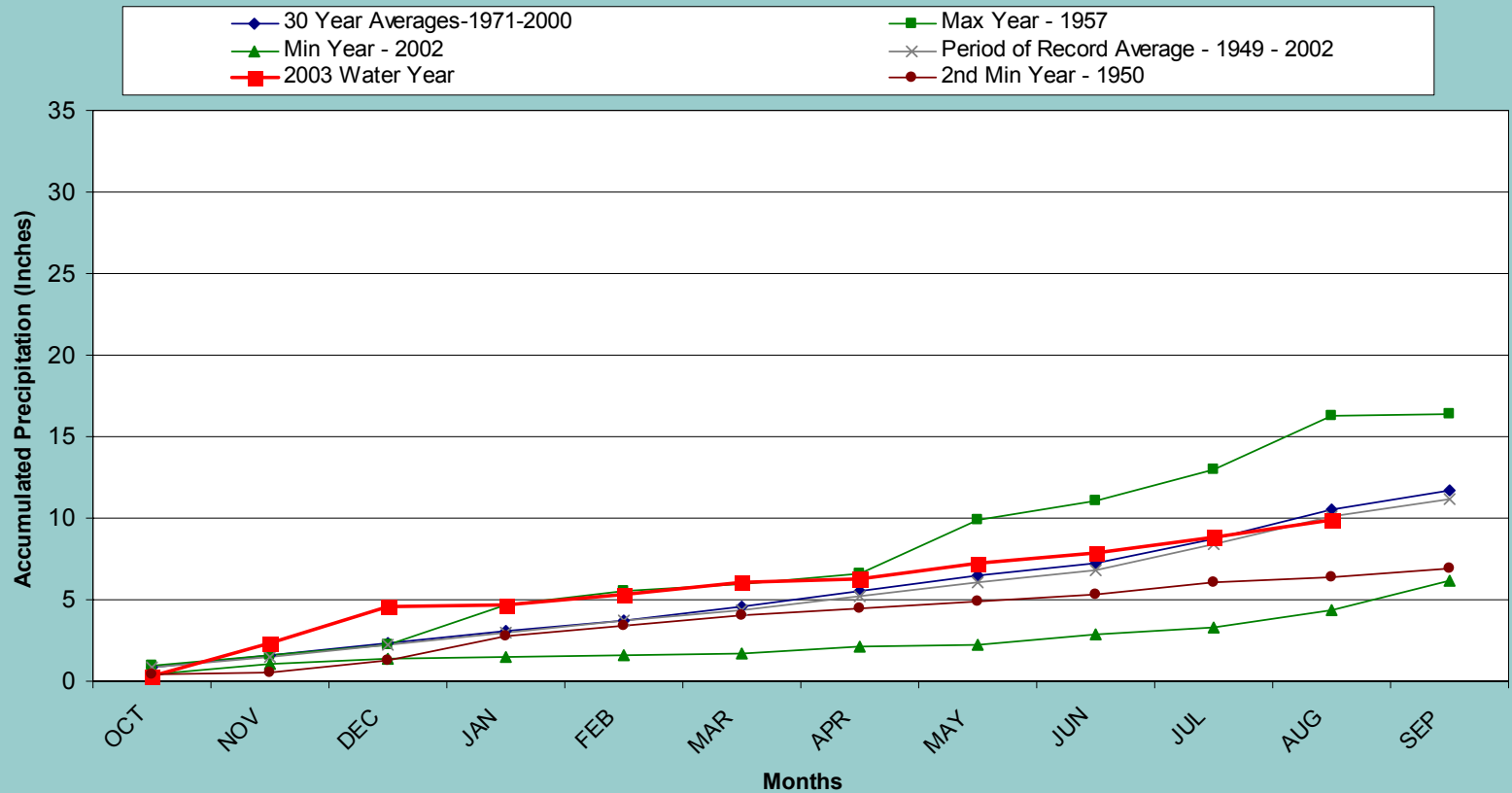
Division 2

Collbran 2SW 2003 Water Year (through October '02 - August '03)



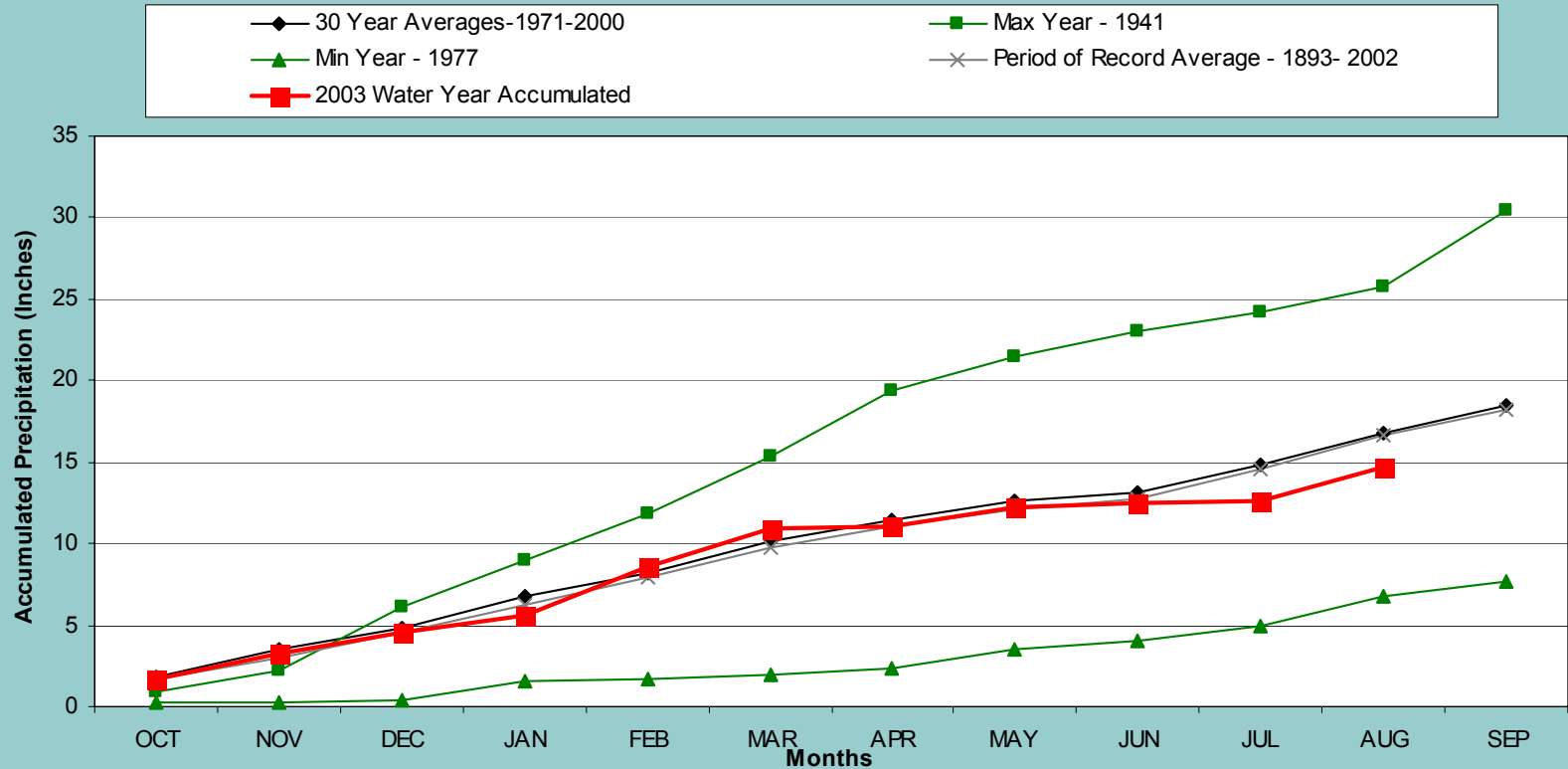
Division 3

Cochetopa Creek 2003 Water Year (through October '02 - August '03)



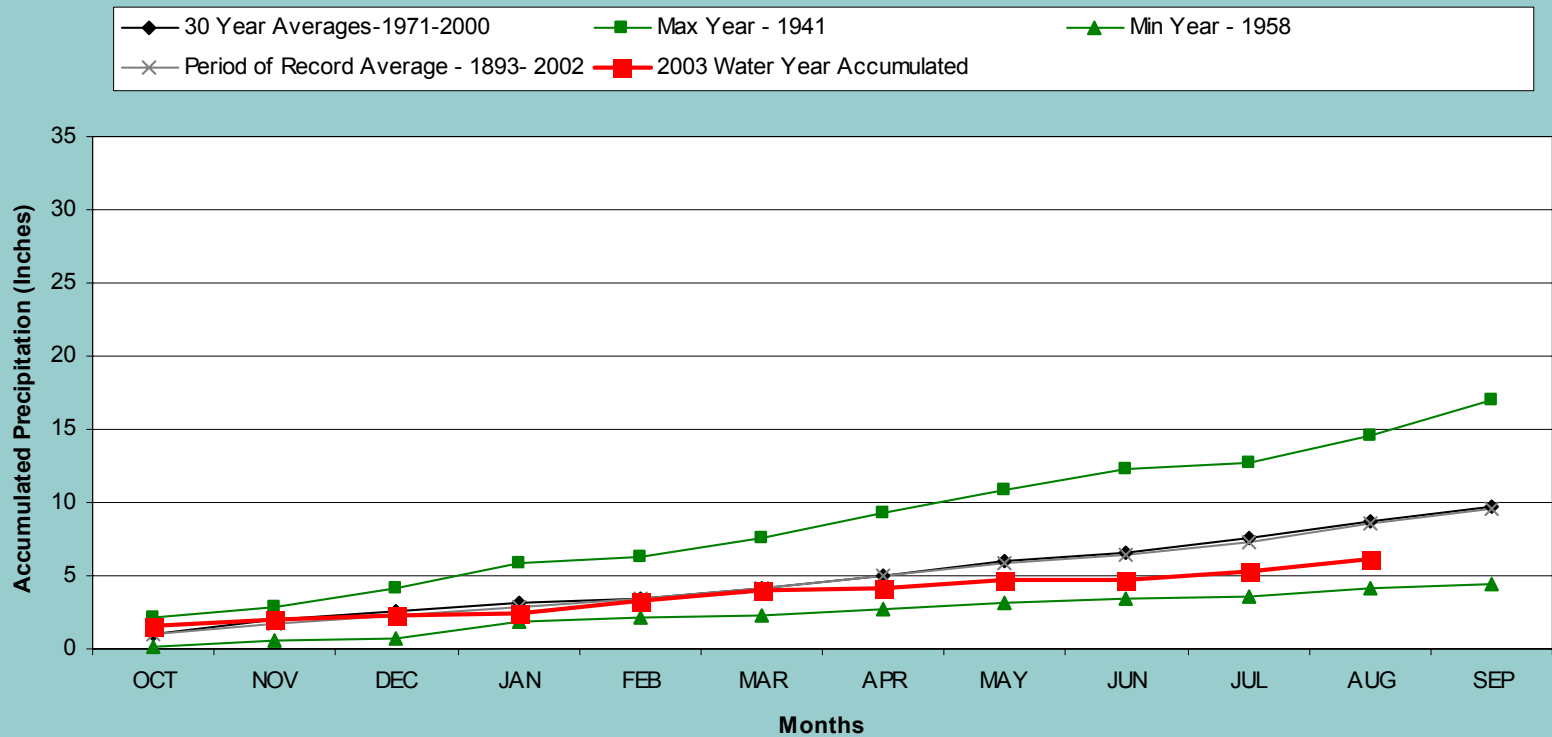
Division 3

Mesa Verde NP 2003 Water Year (through October '02 - August '03)



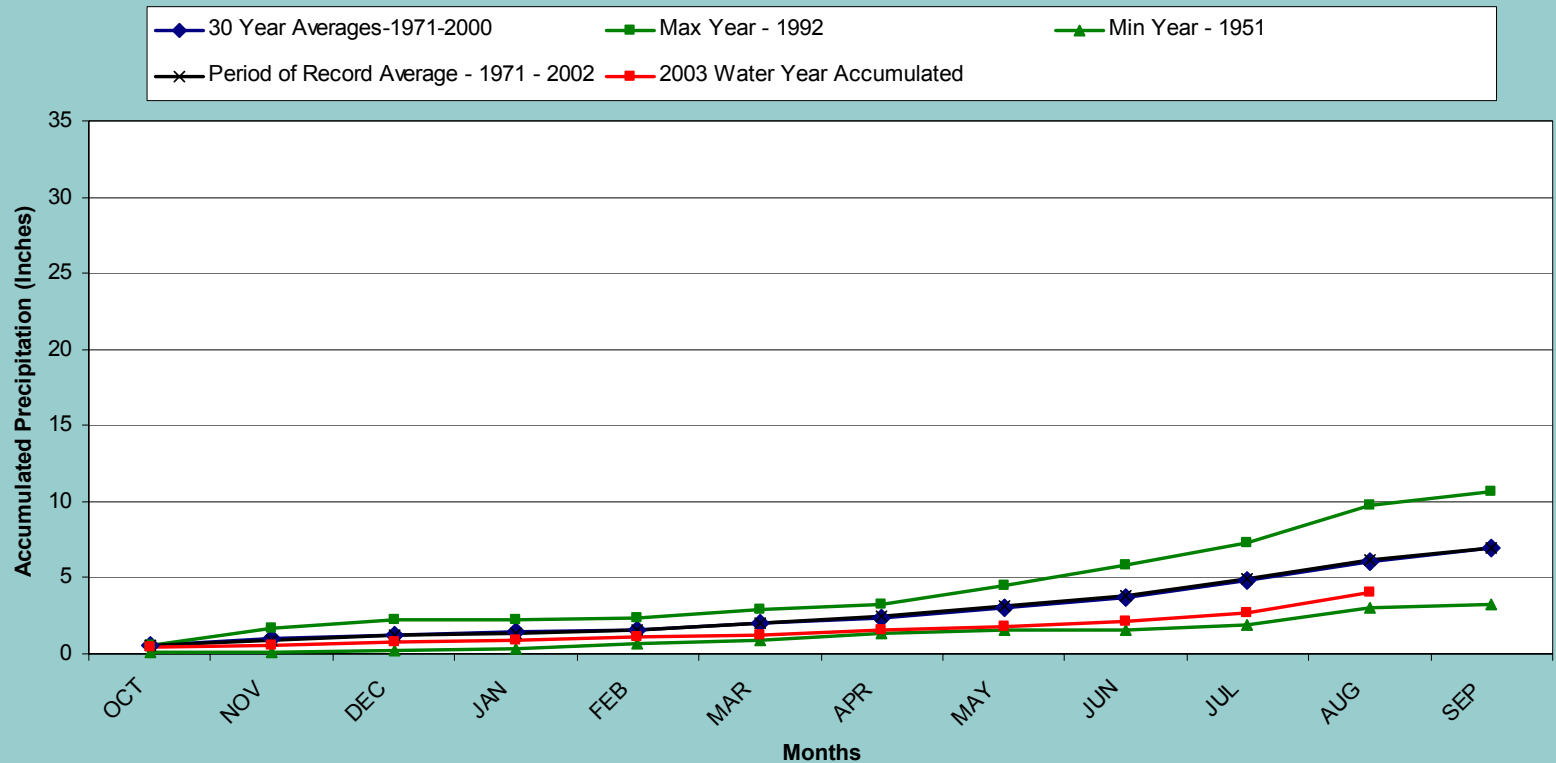
Division 3

Montrose #2 2003 Water Year (through October '02 - August '03)



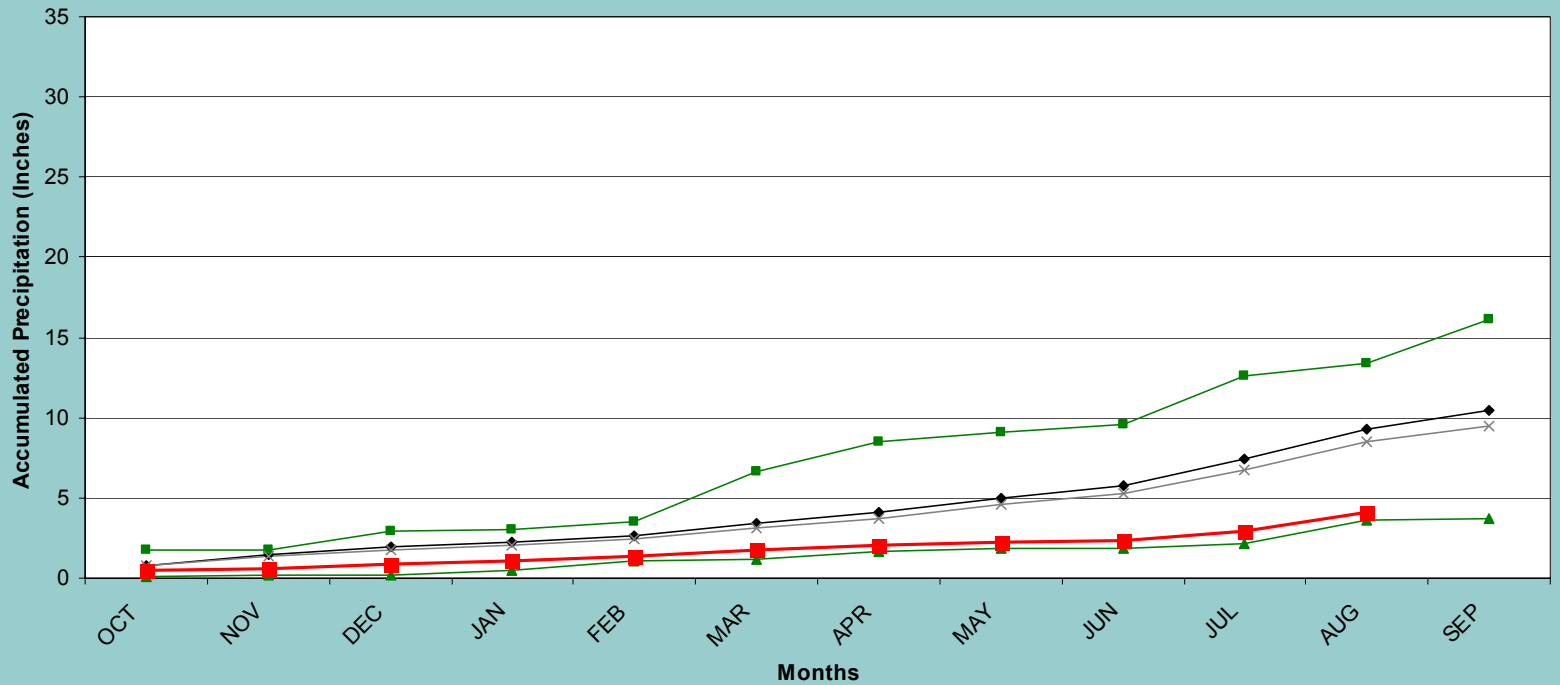
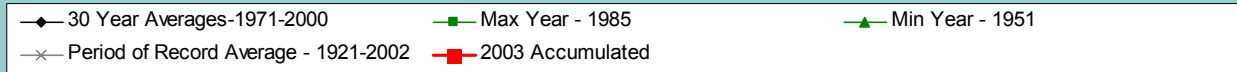
Division 4

Center 4SSW 2003 Water Year (through October '02 - August '03)



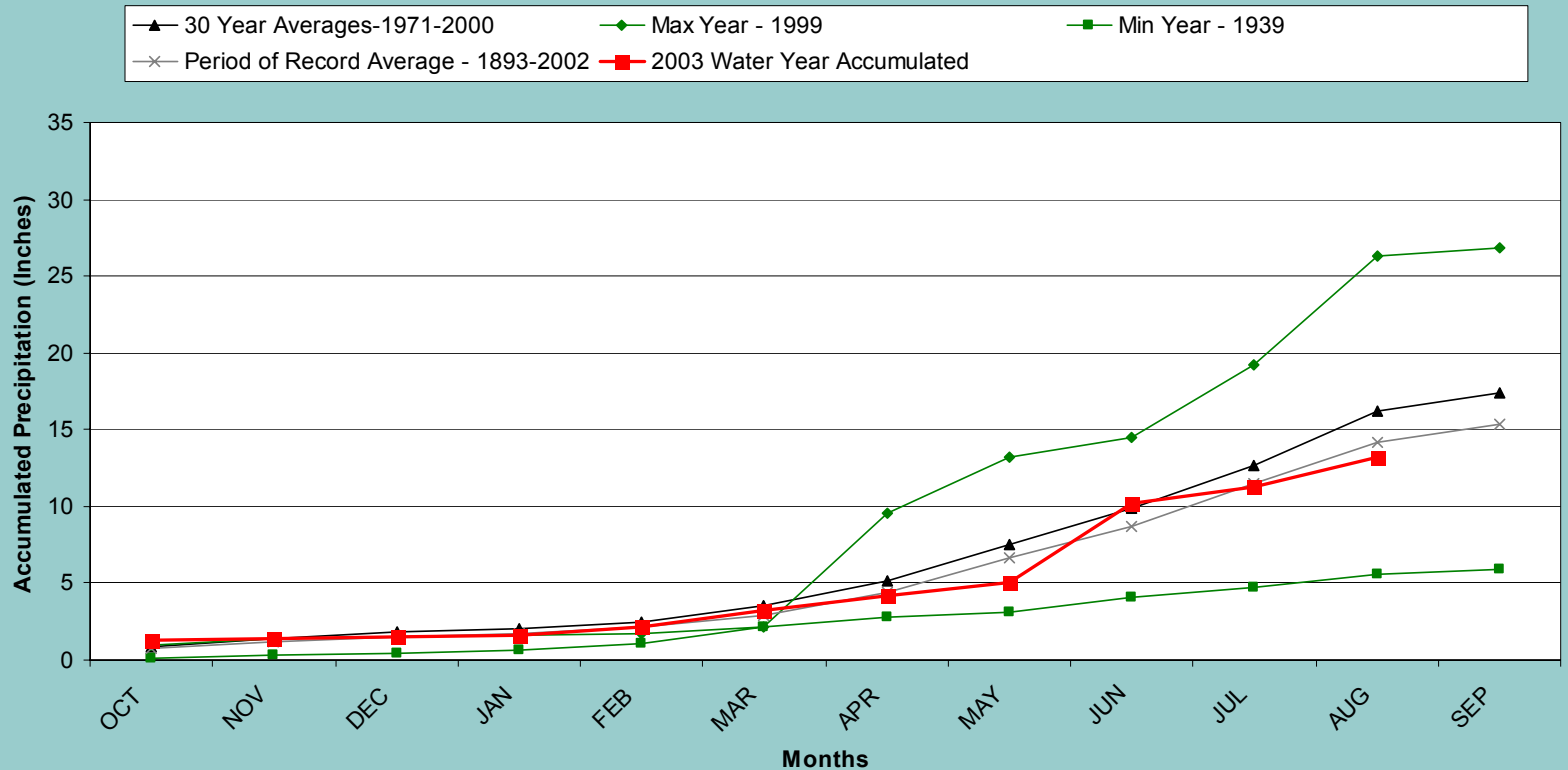
Division 4

Delnorte 2E 2003 Water Year (through October '02 - August '03)



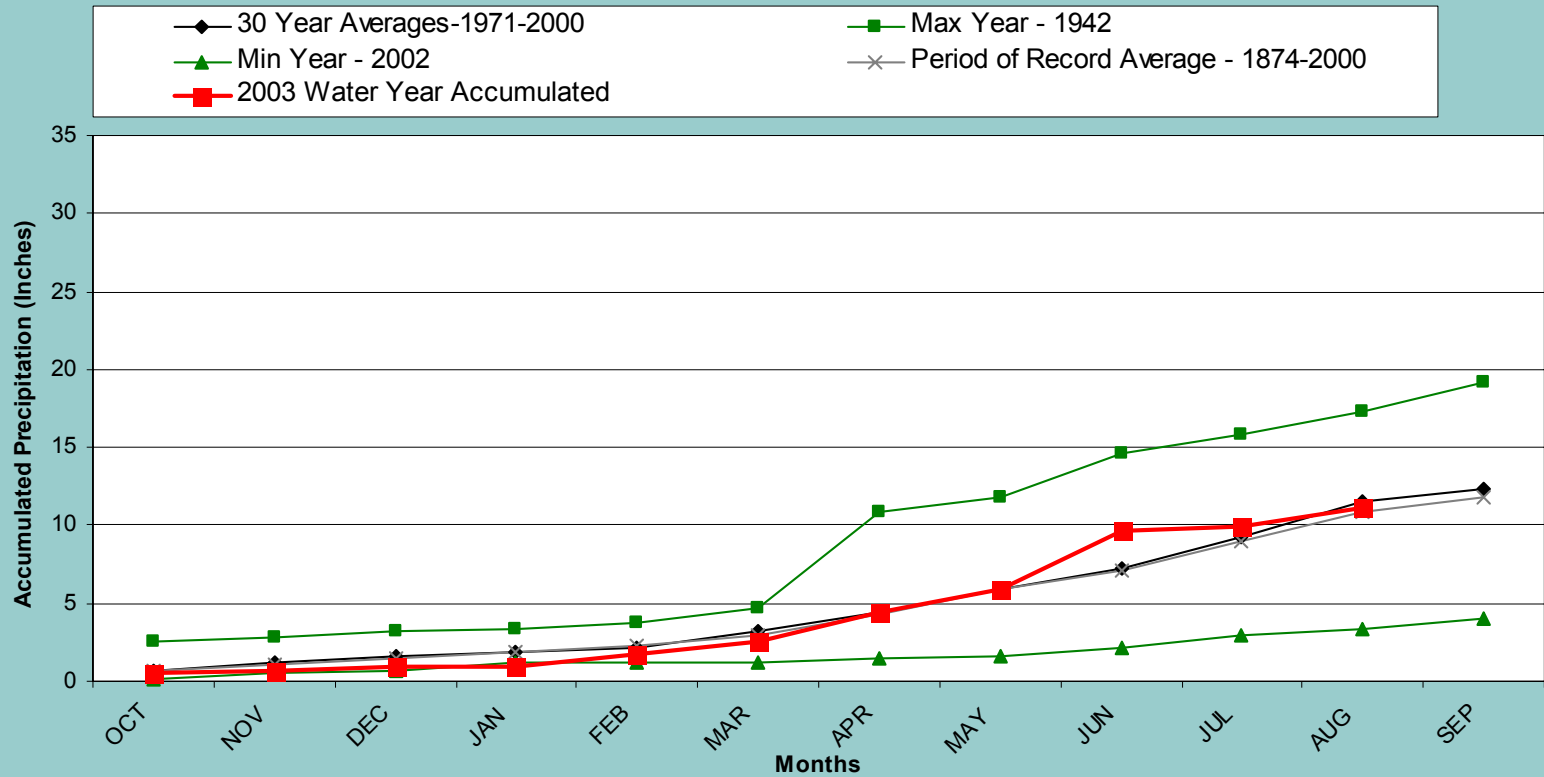
Division 5

Colorado Springs 2003 Water Year (through October '02 - August '03)



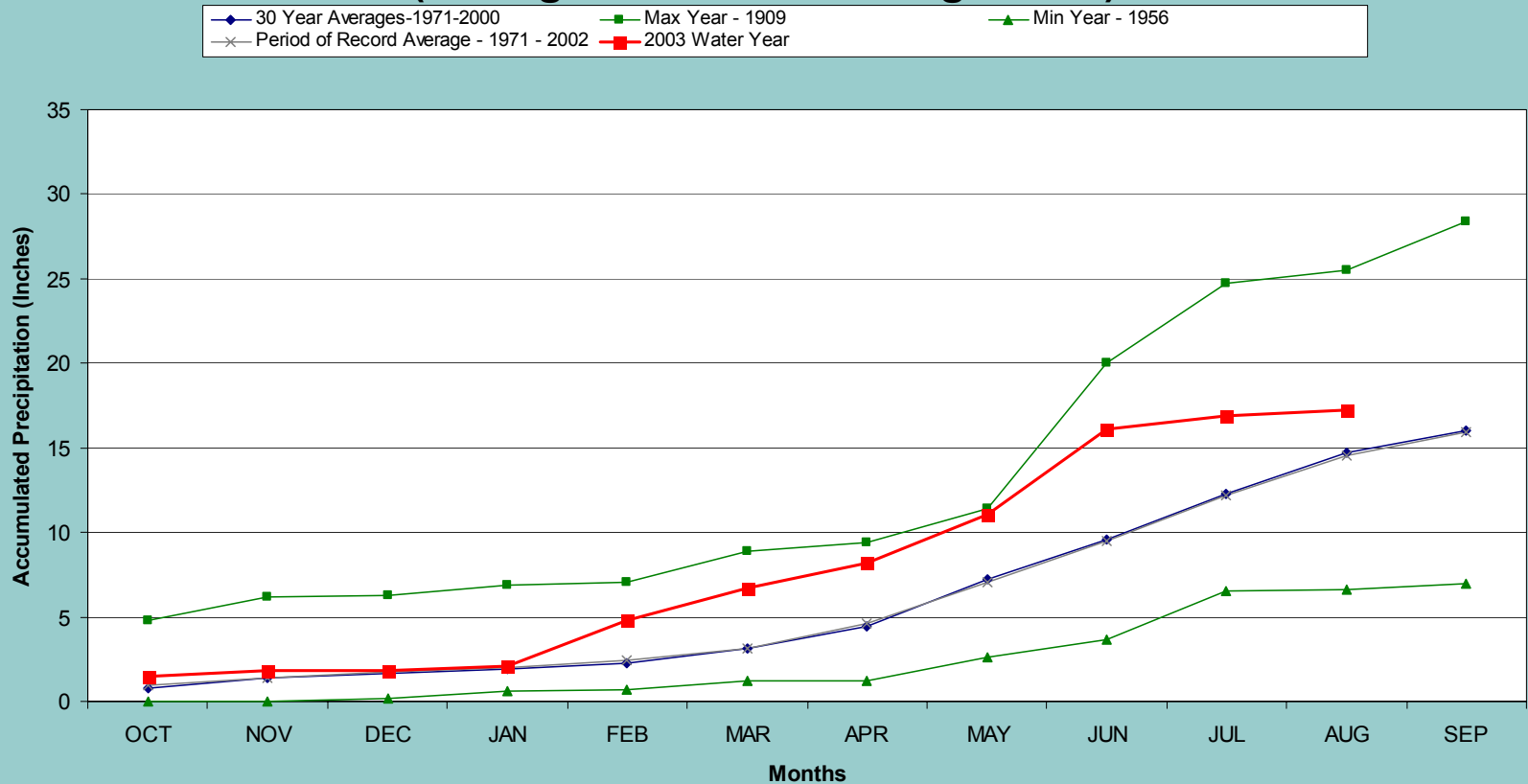
Division 5

Pueblo WSO 2003 Water Year (through October '02 - August '03)



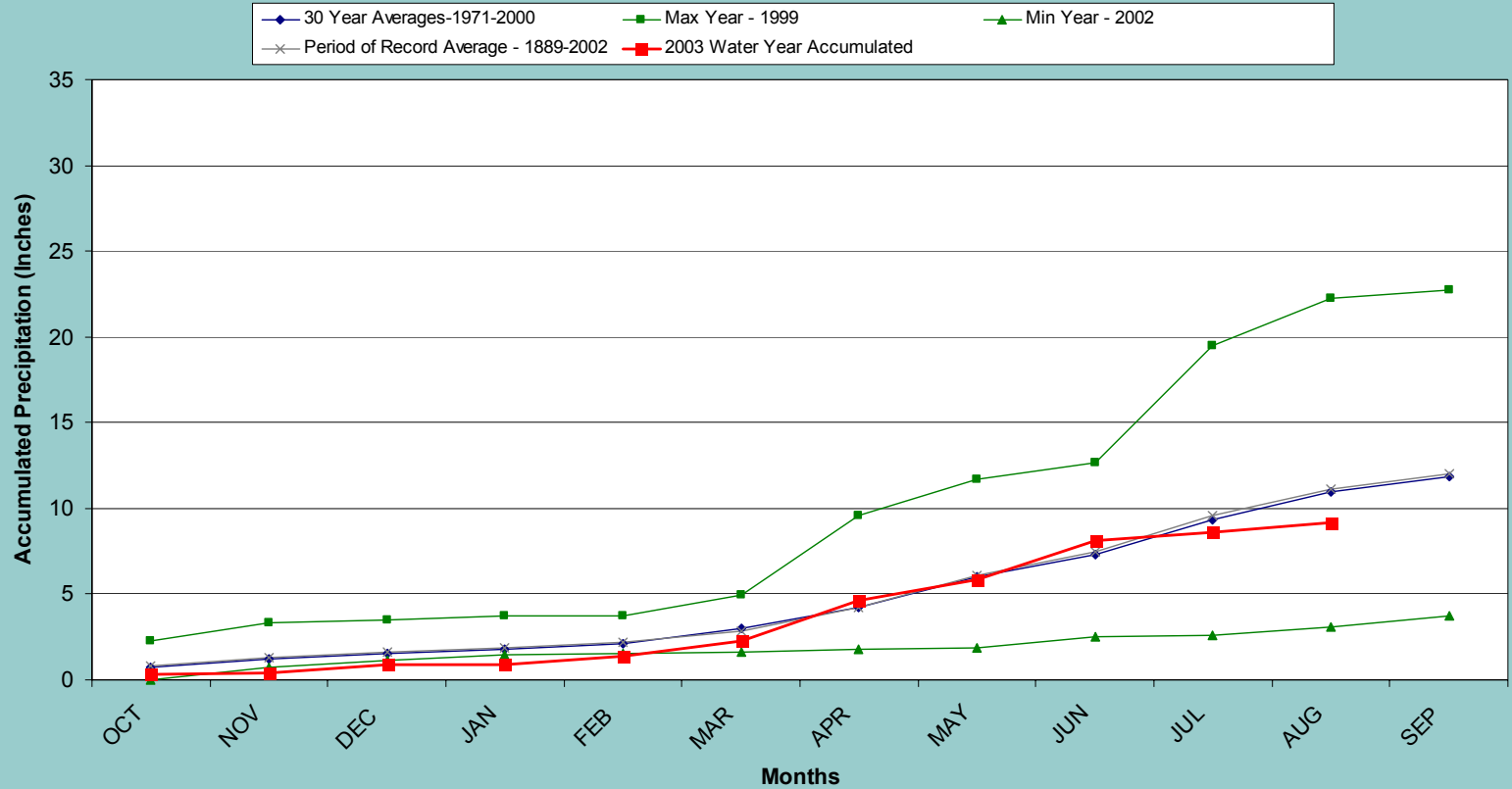
Division 6

Cheyenne Wells 2003 Water Year (through October '02 - August '03)



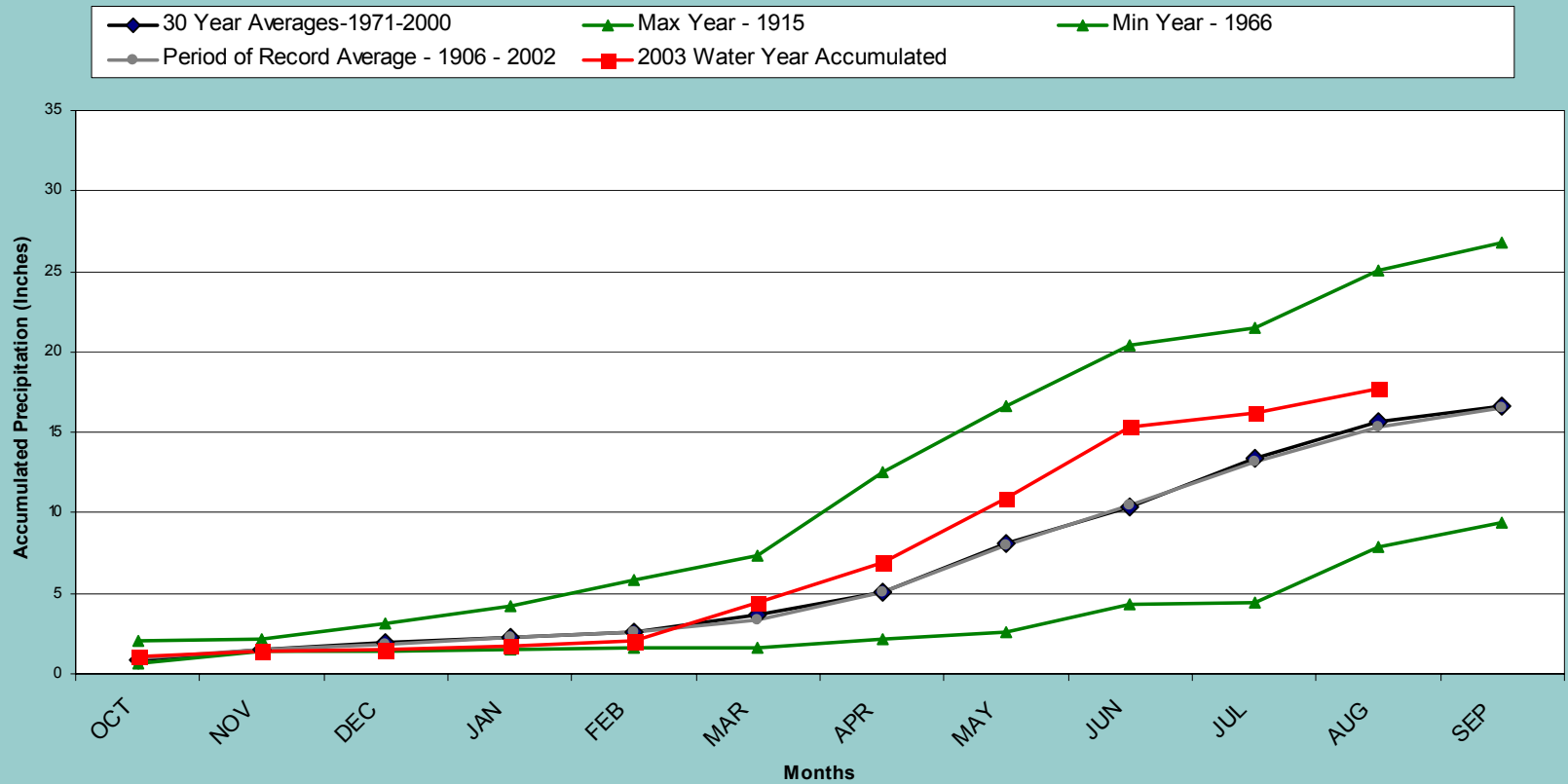
Division 6

Rocky Ford 2003 Water Year (through October '02 - August '03)



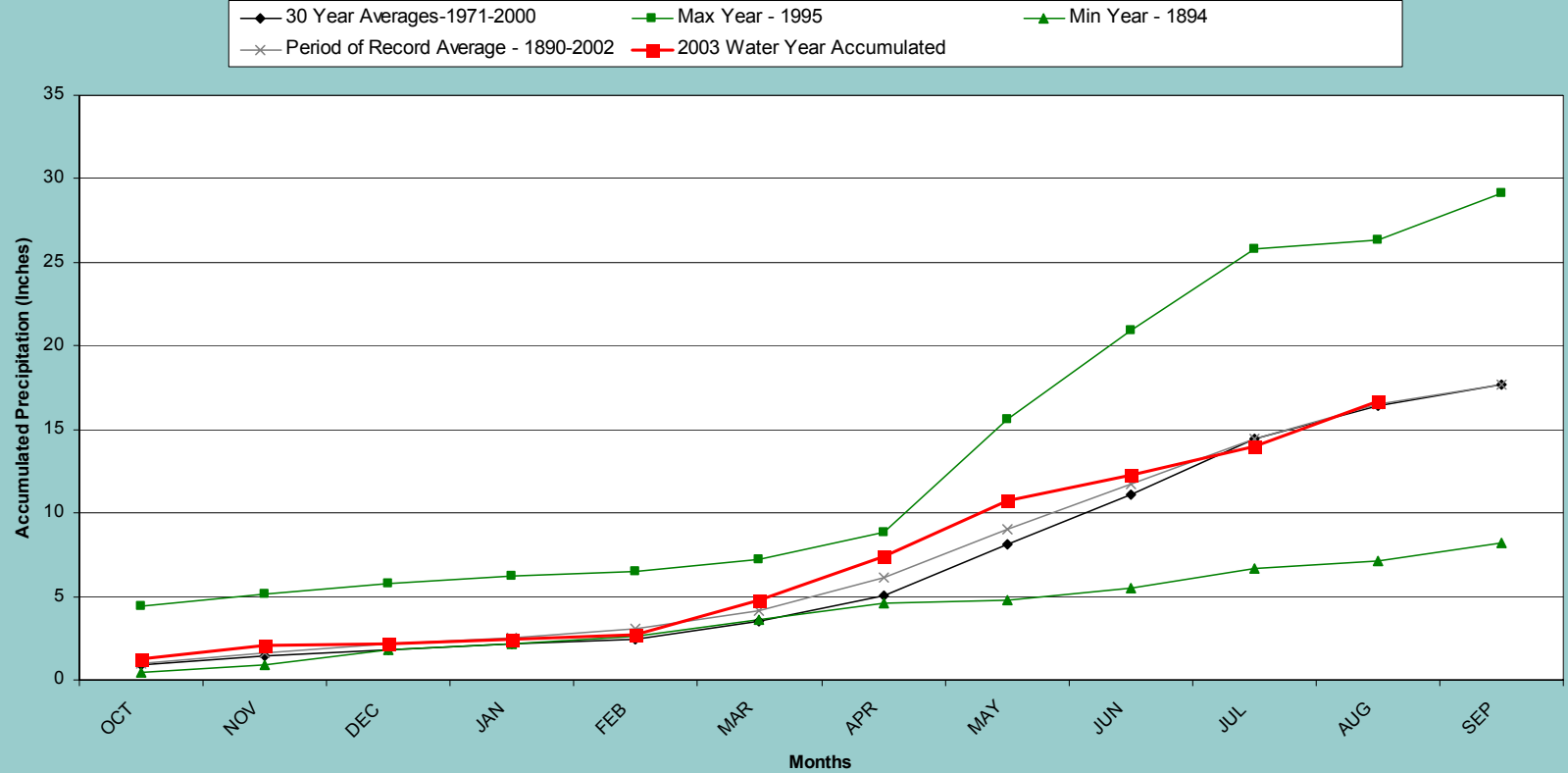
Division 7

Akron 4E 2003 Water Year (through October '02 - August '03)



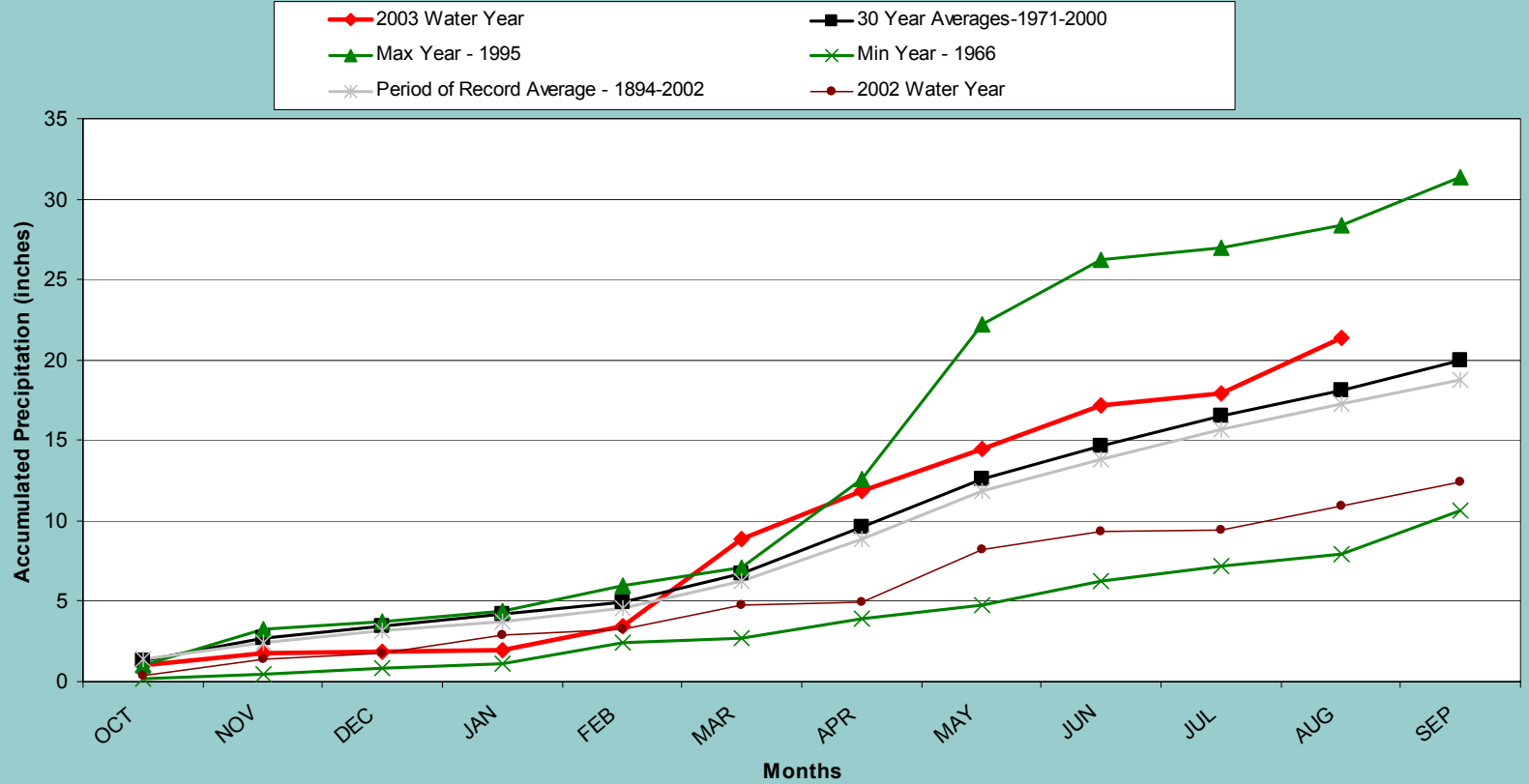
Division 7

Leroy 5WS 2003 Water Year (through October '02 - August '03)



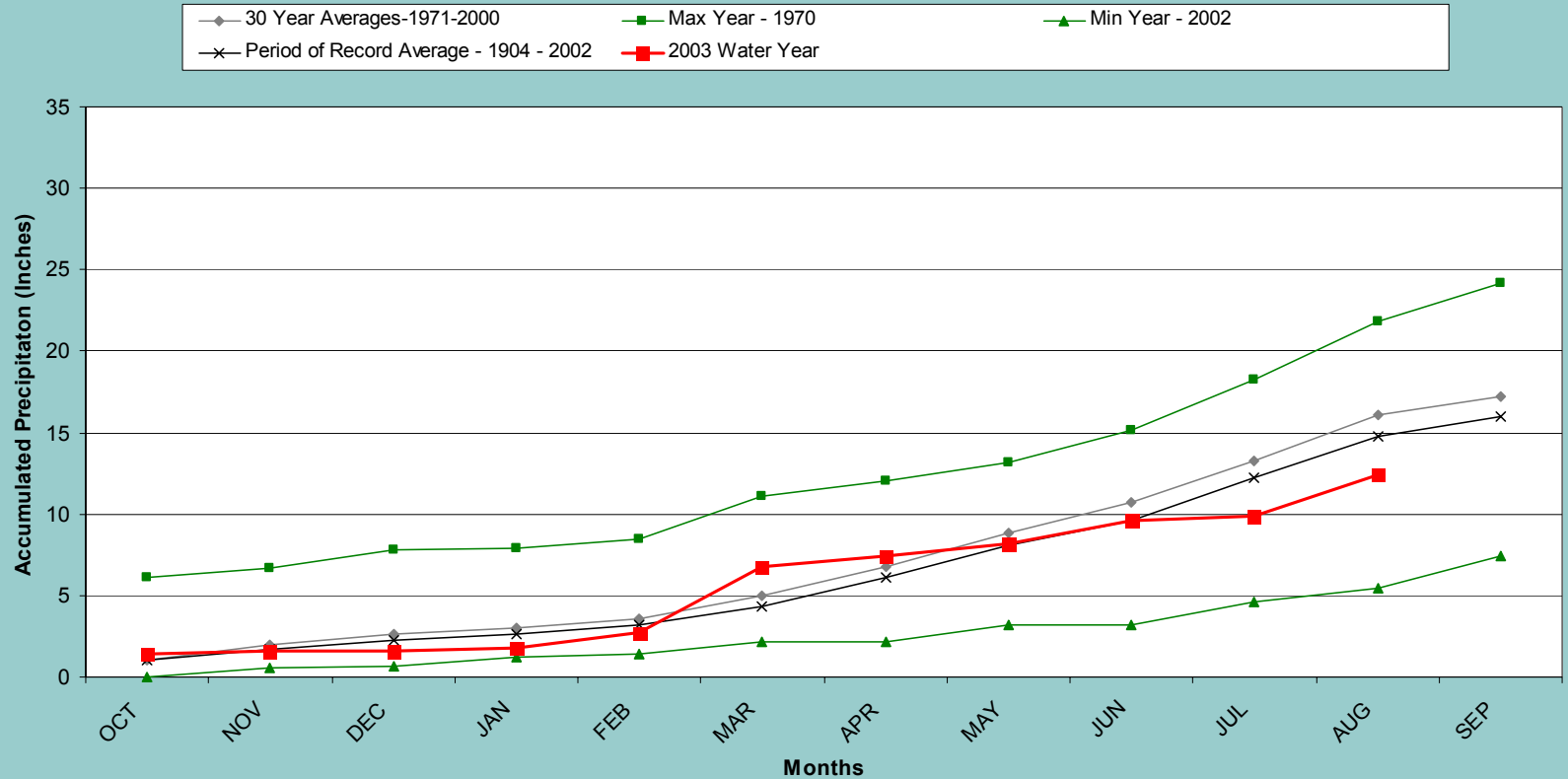
Division 8

Boulder 2003 Water Year (October '02 - August '03)



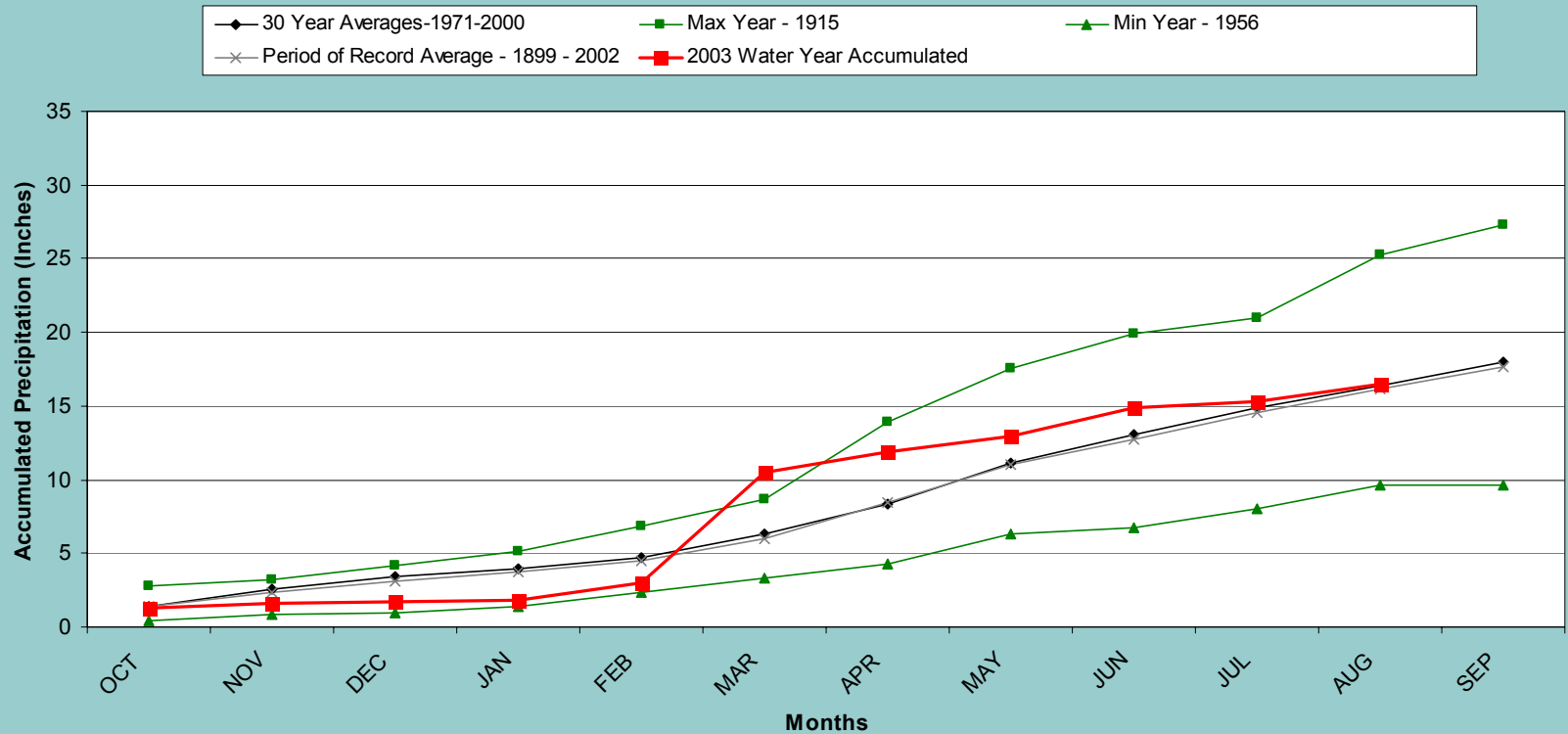
Division 8

Cheesman 2003 Water Year (October '02 - August '03)



Division 8

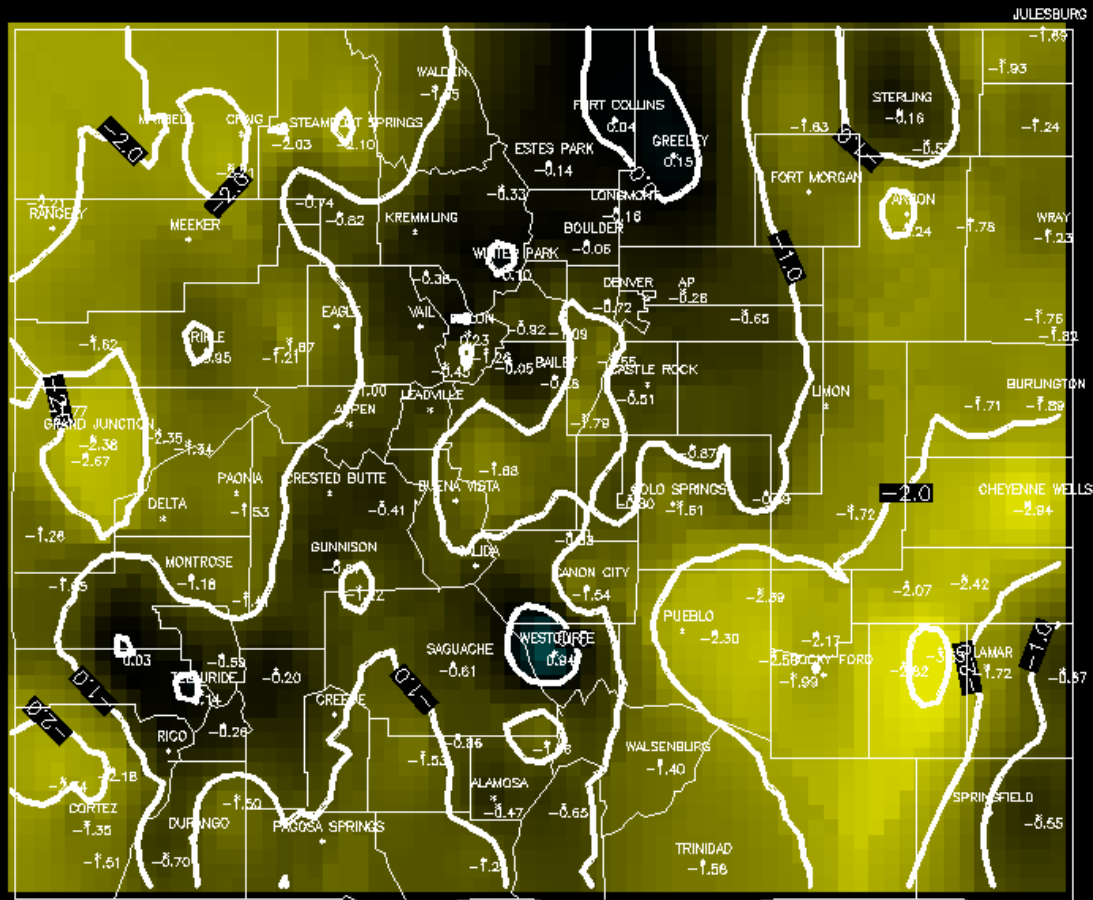
Kassler 2003 Water Year (through October '02 - August '03)



Projected Conditions at 0.2 Probability Level 3 Month SPI at 1 month

Colorado

8/2003 3 mon. SPI – Projected 1 mon. at P=0.20



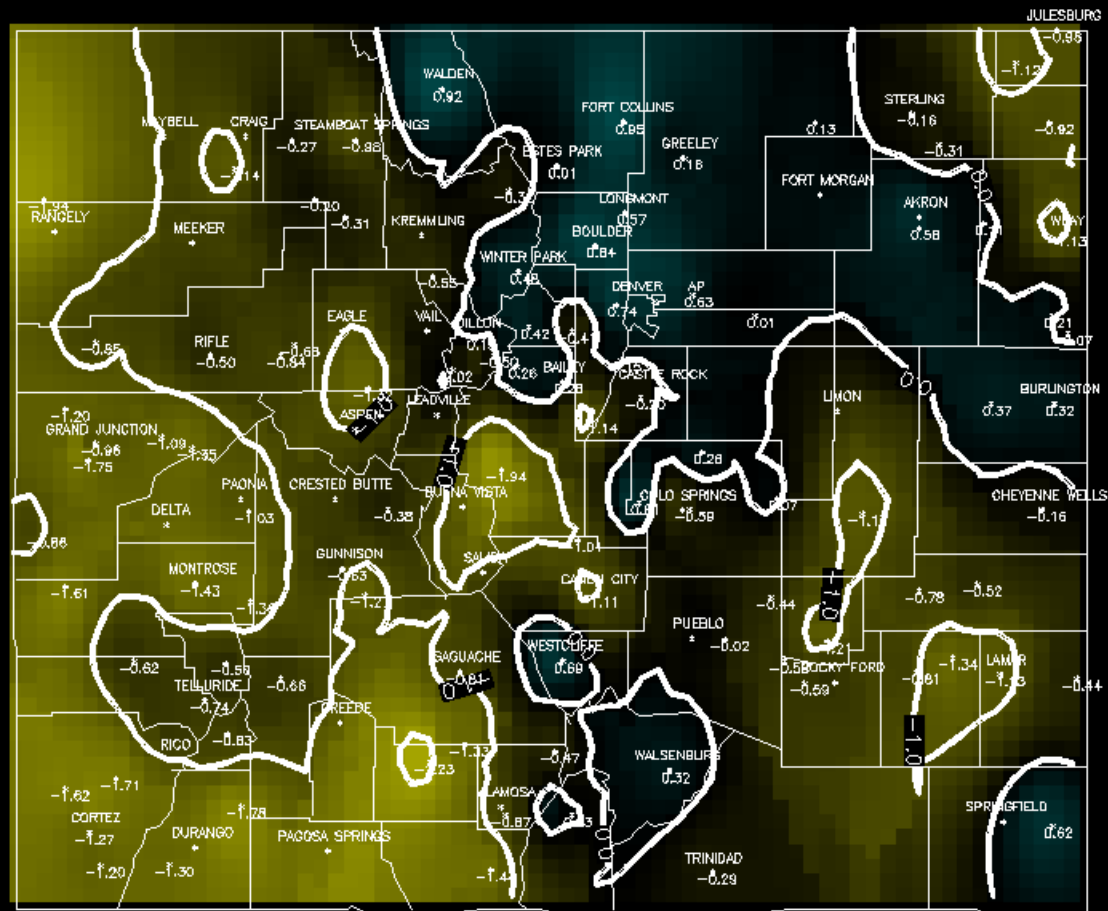
| | |
|--------------|--------------|
| 100 % << 2.0 | 64 % << -1.0 |
| 100 % << 1.0 | 17 % << -2.0 |
| 98 % << 0.0 | 0 % << -3.0 |

Produced by:
Colorado Climate Center
Fort Collins, CO

Projected Conditions at 0.2 Probability Level 12 Month SPI at 6 months

Colorado

8/2003 12 mon. SPI – Projected 6 mon. at P=0.20



100% < 2.0
100% > 1.0
75% < 0.0

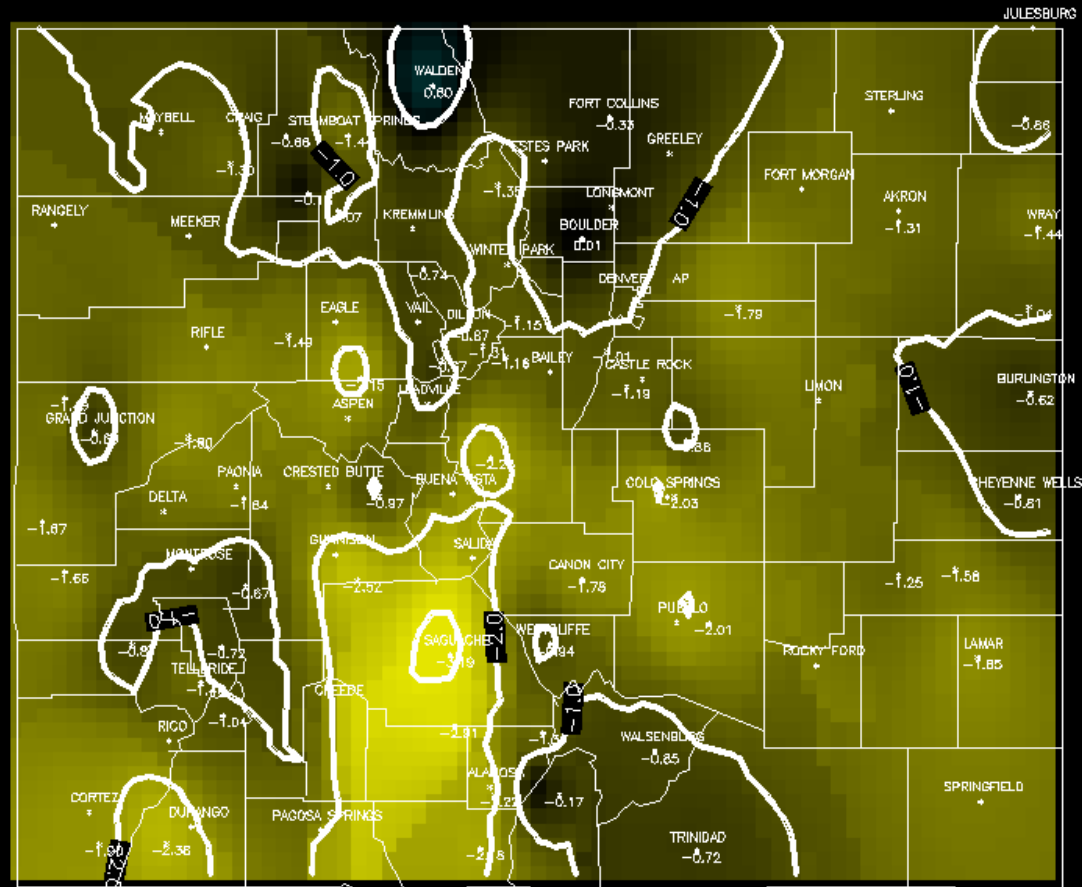
28% < -1.0
0% < -2.0
0% < -3.0

Produced by:
Colorado Climate Center
Fort Collins, CO

24 Month SPI

Colorado

8/2003 24 mon. SPI



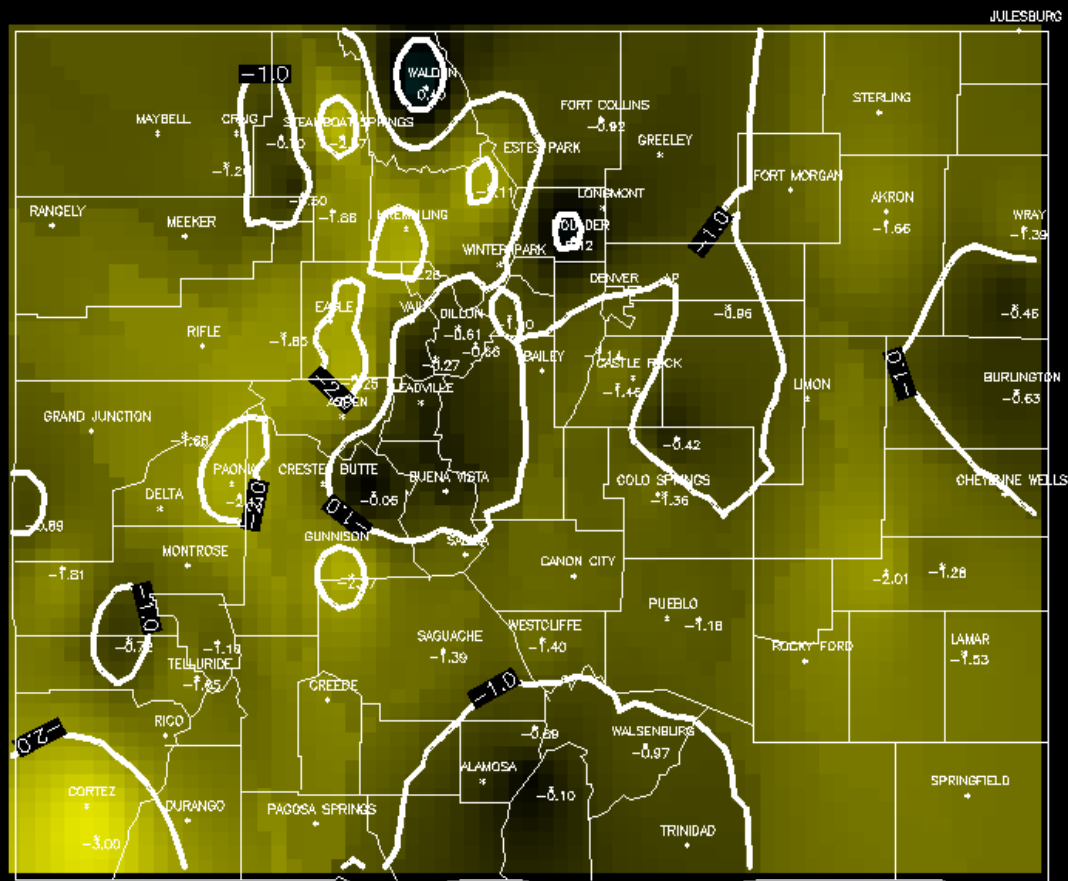
| | | | |
|-----|-----|----|------|
| 100 | 2.0 | 74 | -1.0 |
| 100 | 1.0 | 83 | -2.0 |
| 98 | 0.0 | 93 | -3.0 |

Produced by:
Colorado Climate Center
Fort Collins, CO

48 Month SPI

Colorado

8/2003 48 mon. SPI



| | |
|-------------|-------------|
| 100 % < 2.0 | 73 % < -1.0 |
| 100 % < 1.0 | 4 % < -2.0 |
| 100 % < 0.0 | 0 % < -3.0 |

Produced by:
Colorado Climate Center
Fort Collins, CO

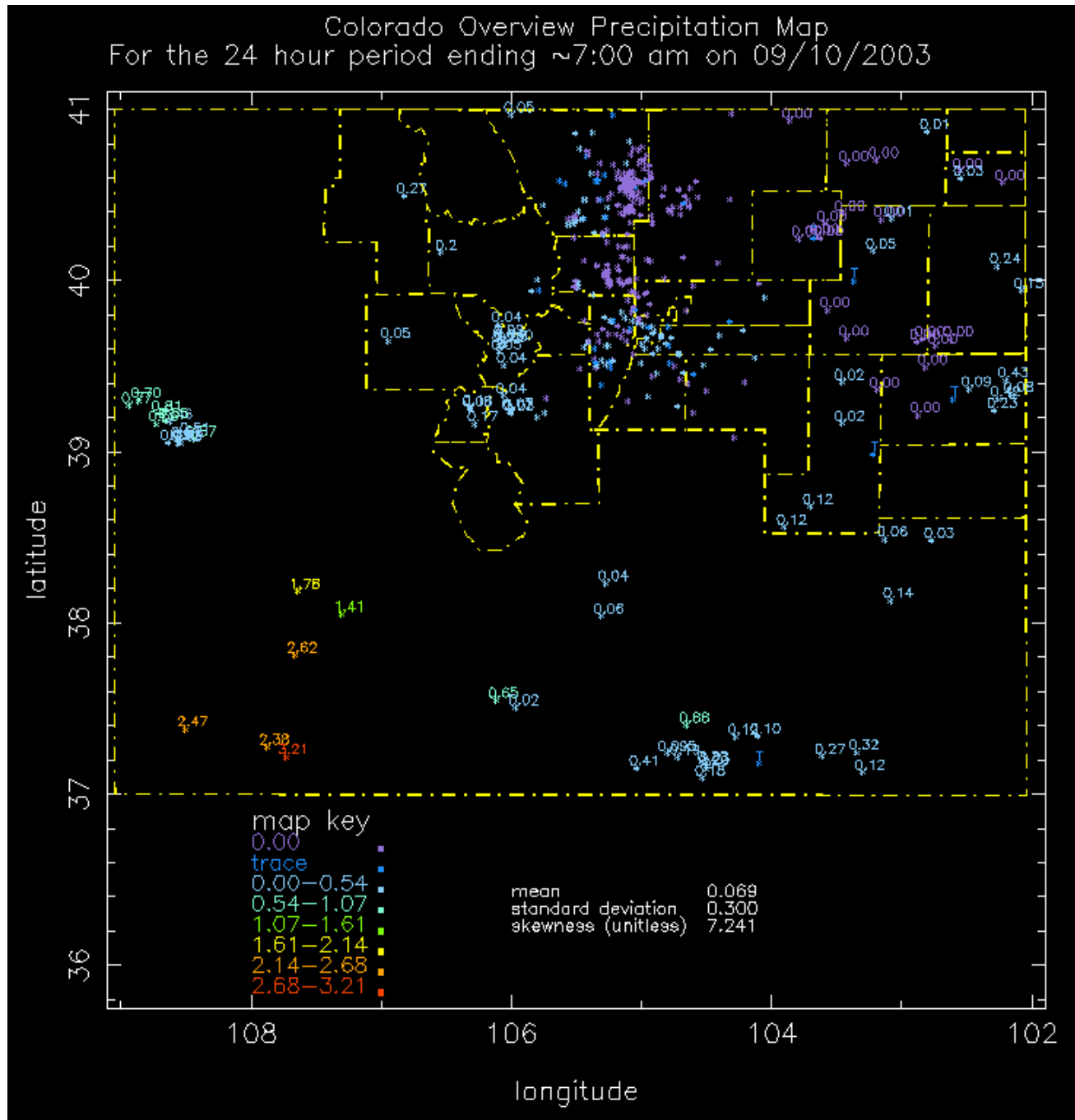
Colorado Palmer Drought Index through August 2003

| | 2003 | | | | | | | | | | | |
|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-----|-----|-----|
| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| ARKANSAS DRAINAGE: | | | | | | | | | | | | |
| 1 Plateau South of Valley | 2.17 | 1.90 | 2.24 | 2.33 | 1.79 | 3.12 | 2.07 | 2.93 | | | | |
| 2 Valley Bottom | -2.94 | -2.30 | -1.76 | -1.39 | -1.76 | -0.63 | -2.02 | -2.78 | | | | |
| 3 North of Valley | -2.70 | -2.20 | -1.62 | -1.63 | -2.04 | -0.75 | -2.20 | -2.98 | | | | |
| 4 Mesas | -3.36 | -2.08 | -0.92 | -1.10 | -1.40 | 1.99 | 1.17 | -1.29 | | | | |
| 5 Foothills | -5.17 | -4.54 | -3.63 | -4.05 | -4.08 | -3.60 | -2.44 | -2.40 | | | | |
| 6 Collegiate Valley | -4.72 | -4.23 | -3.49 | -3.62 | -4.06 | -4.34 | -4.93 | -5.09 | | | | |
| 7 Upper Valley | -4.38 | -4.69 | -4.62 | -4.07 | -3.98 | -2.72 | -2.49 | -2.21 | | | | |
| KANSAS DRAINAGE: | | | | | | | | | | | | |
| 8 South Plains | -2.17 | -1.97 | -1.13 | 1.12 | 1.22 | 3.00 | 2.11 | 1.29 | | | | |
| 9 North Plains | -2.09 | -1.78 | -0.96 | 1.51 | 1.61 | 1.73 | 0.79 | -1.18 | | | | |
| PLATTE DRAINAGE: | | | | | | | | | | | | |
| 10 Lower Plains | -2.43 | -2.02 | -1.06 | 1.28 | 1.11 | 1.40 | 99.00 | -1.45 | | | | |
| 11 North Front Range | -3.32 | -2.68 | -1.09 | -0.89 | -1.03 | -0.79 | -1.36 | 1.15 | | | | |
| 12 South Front Range | -3.31 | -2.77 | -2.23 | 2.30 | 1.85 | 2.04 | 1.49 | 1.76 | | | | |
| 13 Pikes Peak | -3.72 | -3.15 | -1.67 | -1.85 | -2.21 | -1.02 | -1.85 | -1.86 | | | | |
| 14 Front Range Foothills | -3.57 | -3.12 | 2.45 | 1.65 | 0.92 | 1.17 | -1.55 | -1.20 | | | | |
| 15 South Park | -4.99 | -4.34 | -2.75 | -3.27 | -3.56 | -2.60 | -3.32 | -3.53 | | | | |
| 16 North Park | -5.76 | -5.18 | -4.18 | -3.48 | -2.83 | -1.08 | -1.23 | -1.83 | | | | |
| RIO GRANDE DRAINAGE: | | | | | | | | | | | | |
| 17 San Luis Valley | -3.45 | -2.82 | -2.09 | -2.09 | -2.69 | -2.79 | -2.90 | -3.01 | | | | |
| COLORADO DRAINAGE: | | | | | | | | | | | | |
| 18 Lower Valleys | -2.73 | -2.04 | -2.15 | -2.59 | -2.23 | -2.63 | -3.37 | -3.70 | | | | |
| 19 San Juan, Dolores, Animas | -5.86 | -4.84 | -4.37 | -4.65 | -4.53 | -4.70 | -5.45 | -5.19 | | | | |
| 20 Yampa-White | -3.75 | -3.19 | -3.38 | -3.56 | -3.32 | -3.31 | -4.10 | -4.80 | | | | |
| 21 Upper Gunnison | -4.70 | -4.29 | -4.51 | -4.90 | -4.81 | -4.87 | -5.56 | -5.22 | | | | |
| 22 Upper Valley | -5.84 | -5.04 | -4.41 | -3.64 | -3.10 | -2.64 | -2.83 | -2.20 | | | | |
| 23 San Juans | -2.83 | -1.96 | -1.95 | -2.24 | -2.22 | -2.30 | -2.86 | -2.01 | | | | |
| 24 Central Mountains | -2.50 | -1.68 | -0.86 | -0.81 | -0.86 | 1.06 | 99.00 | 99.00 | | | | |
| 25 Northern Mountains | -4.45 | -3.37 | -1.74 | -1.17 | -1.29 | -1.39 | -2.02 | -2.02 | | | | |

99.00 = cannot determine to use the wet or dry index, near average.



CoCoRaHS map for all Colorado stations for 9/10/03





Rainy Days Report for September 2003 for all CoCoRaHS stations

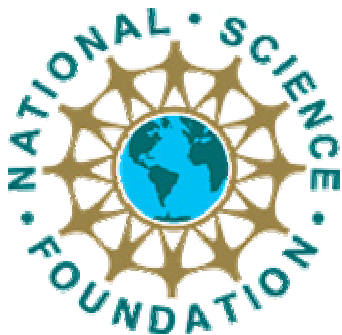
CoCo RaHS Summary of Precipitation Reports for September 2003

| DATE | AVERAGE PRECIP | MAXIMUM PRECIP | # of REPORTS | # of TRACE REPORTS | # of REPORTS > 0.0 or T | # of SNOW REPORTS > 0 |
|-----------|----------------|----------------|--------------|--------------------|-------------------------|-----------------------|
| 9/ 1/2003 | 0.04 | 1.40 | 388 | 40 | 185 | 0 |
| 9/ 2/2003 | 0.01 | 0.93 | 414 | 8 | 12 | 0 |
| 9/ 3/2003 | 0.07 | 0.56 | 437 | 43 | 288 | 1 |
| 9/ 4/2003 | 0.06 | 3.25 | 382 | 34 | 128 | 0 |
| 9/ 5/2003 | 0.00 | 0.84 | 393 | 5 | 16 | 0 |
| 9/ 6/2003 | 0.01 | 0.65 | 367 | 29 | 61 | 0 |
| 9/ 7/2003 | 0.07 | 1.79 | 354 | 63 | 166 | 1 |
| 9/ 8/2003 | 0.14 | 1.54 | 426 | 47 | 335 | 0 |
| 9/ 9/2003 | 0.08 | 2.27 | 396 | 79 | 266 | 0 |
| 9/10/2003 | 0.08 | 3.21 | 398 | 40 | 148 | 3 |
| 9/11/2003 | 0.04 | 1.72 | 372 | 45 | 89 | 2 |
| 9/12/2003 | 0.00 | 0.25 | 358 | 34 | 33 | 0 |
| 9/13/2003 | 0.03 | 2.00 | 375 | 46 | 176 | 1 |
| 9/14/2003 | 0.02 | 0.31 | 354 | 47 | 119 | 12 |
| 9/15/2003 | 0.00 | 0.03 | 388 | 1 | 2 | 0 |
| 9/16/2003 | 0.00 | 0.25 | 400 | 1 | 3 | 0 |
| 9/17/2003 | 0.00 | 0.16 | 388 | 6 | 5 | 0 |
| 9/18/2003 | 0.12 | 0.70 | 443 | 8 | 384 | 23 |
| 9/19/2003 | 0.00 | 0.12 | 356 | 2 | 17 | 0 |
| 9/20/2003 | 0.00 | 0.00 | 311 | 1 | 0 | 0 |
| 9/21/2003 | 0.00 | 0.07 | 240 | 4 | 1 | 0 |
| 9/22/2003 | 0.00 | 0.01 | 311 | 3 | 1 | 0 |



For more information visit the
CoCo RaHS Web site

<http://www.cocorahs.org>



Support for this project provided by
Informal Science Education Program,
National Science Foundation
and
many local charter sponsors.



Colorado Climate Center

Colorado State University

Data and Power Point Presentations available
for downloading

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

click on “Drought”

then click on “Presentations”

CoCo RaHS

YOU CAN HELP!

<http://www.cocorahs.org>

