



# Climate Update

September 24, 2003 WATF meeting

Nolan Doesken

Colorado Climate Center

Prepared by Odie Bliss

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



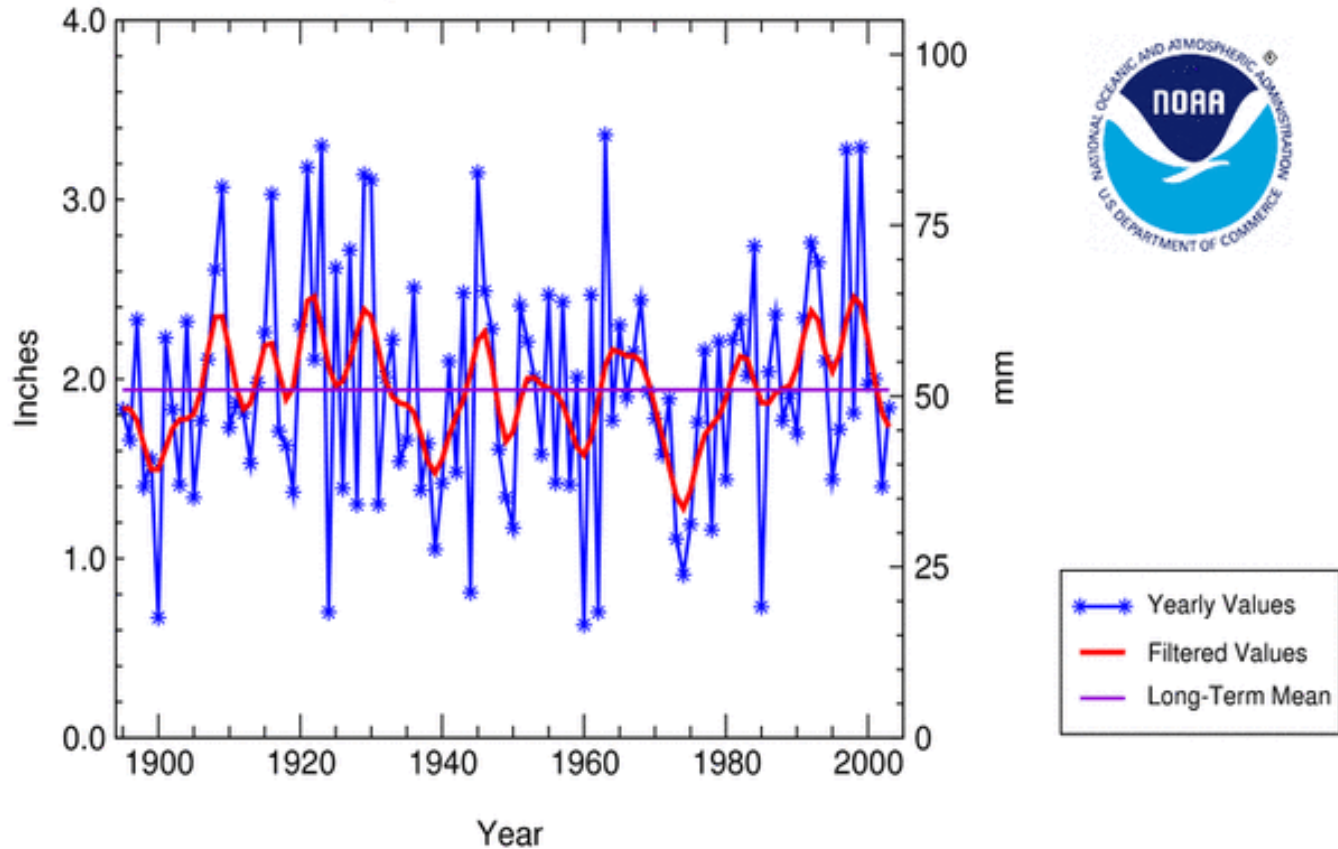
Est. 1870







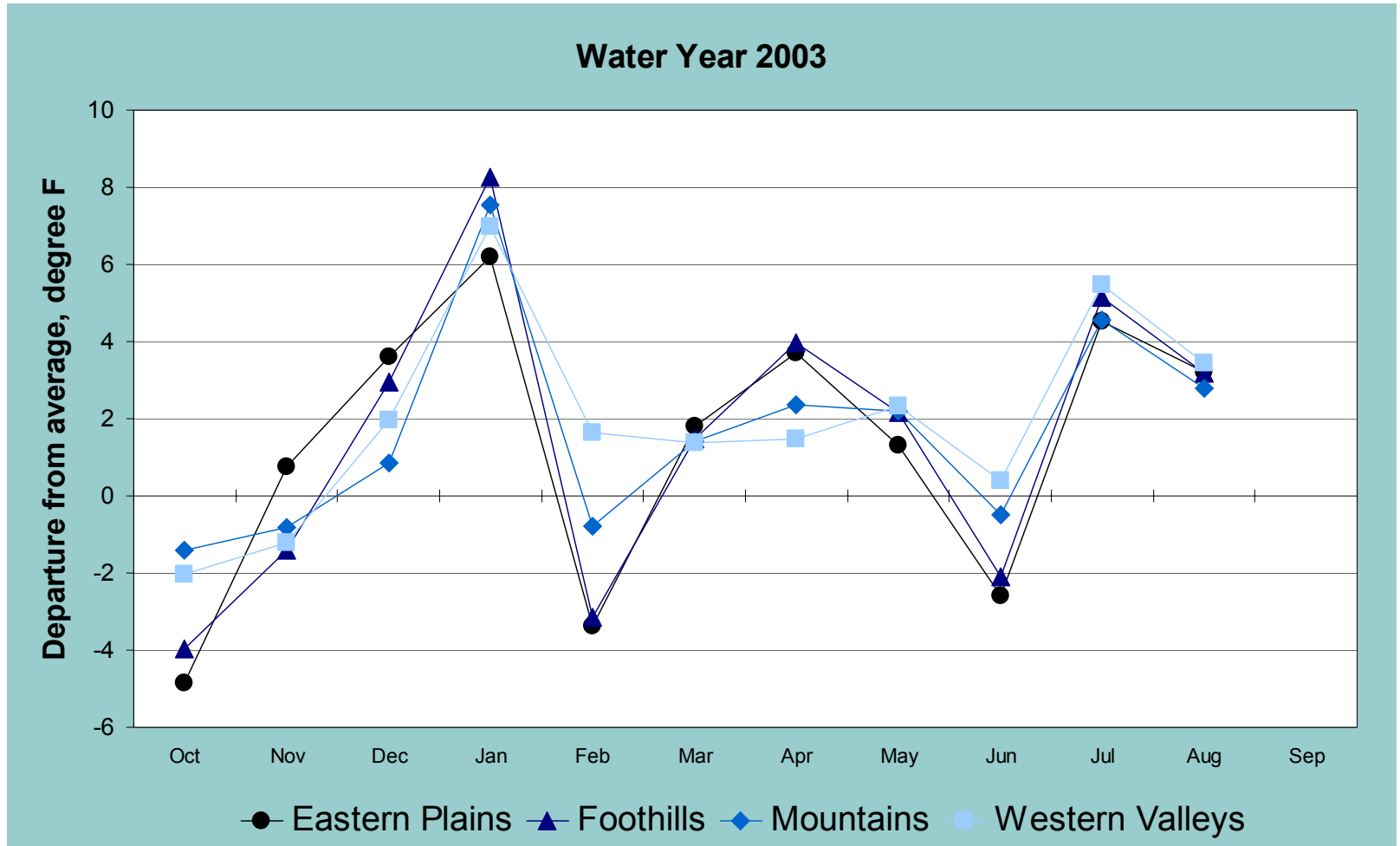
## Colorado Statewide Precipitation August, 1895 - 2003



National Climatic Data Center / NESDIS / NOAA

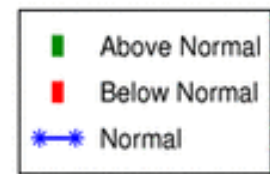
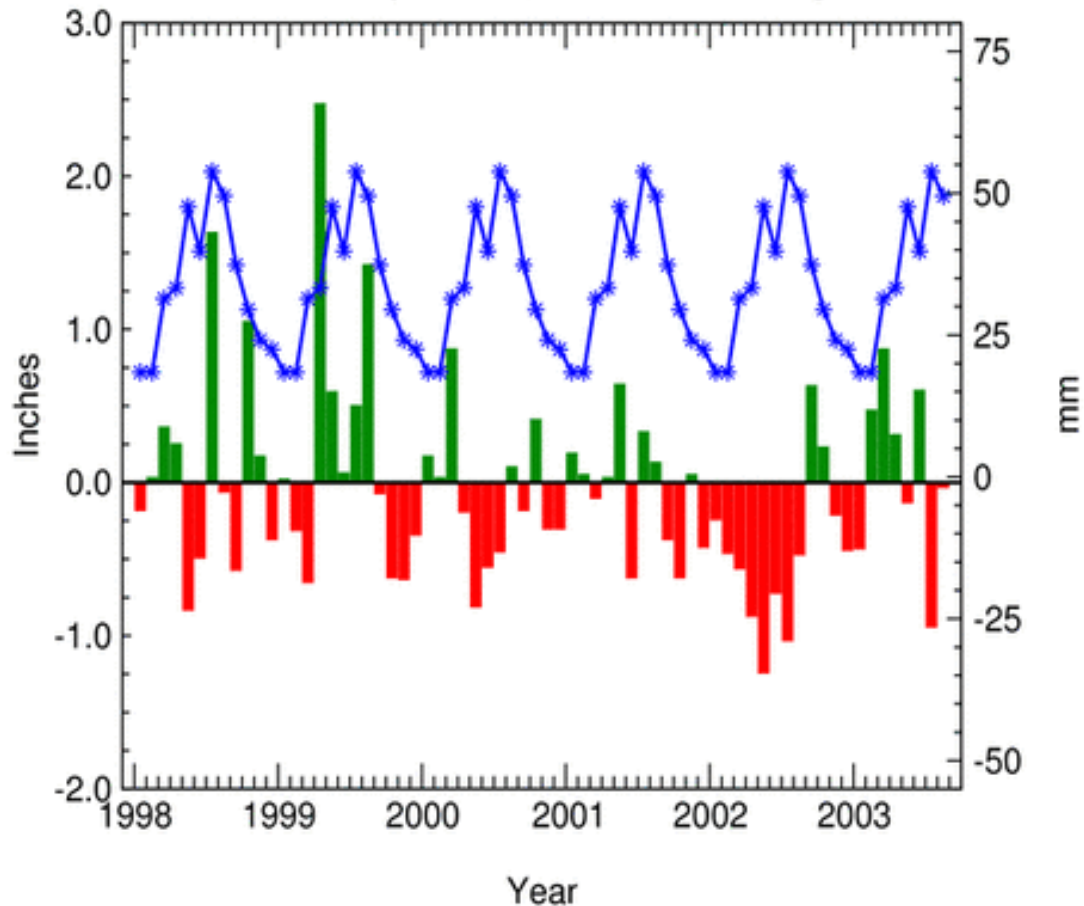


# WY 2003 Temperature Departures





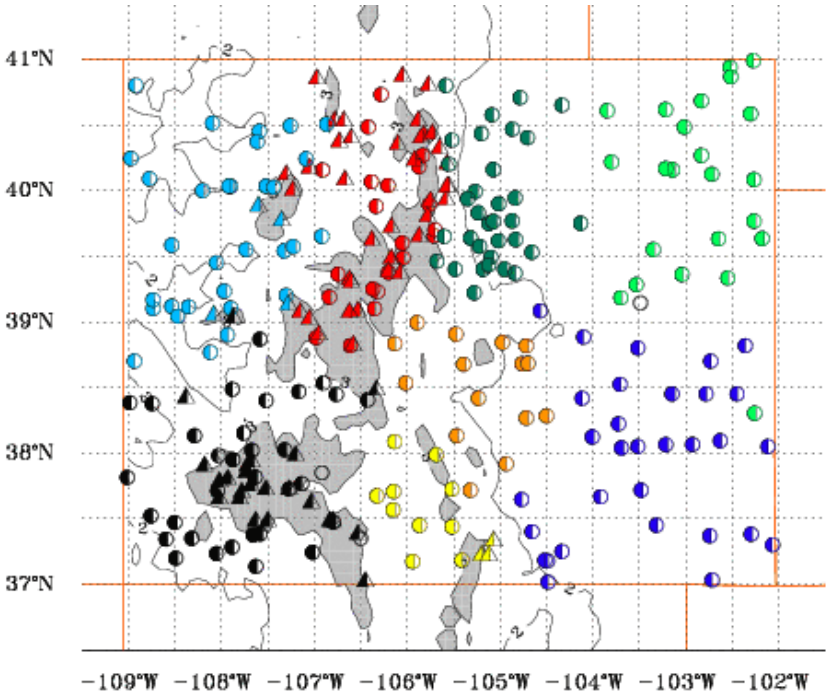
# Colorado Statewide Precipitation Normal & Departure, Jan 1998 - Aug 2003



National Climatic Data Center / NESDIS / NOAA



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

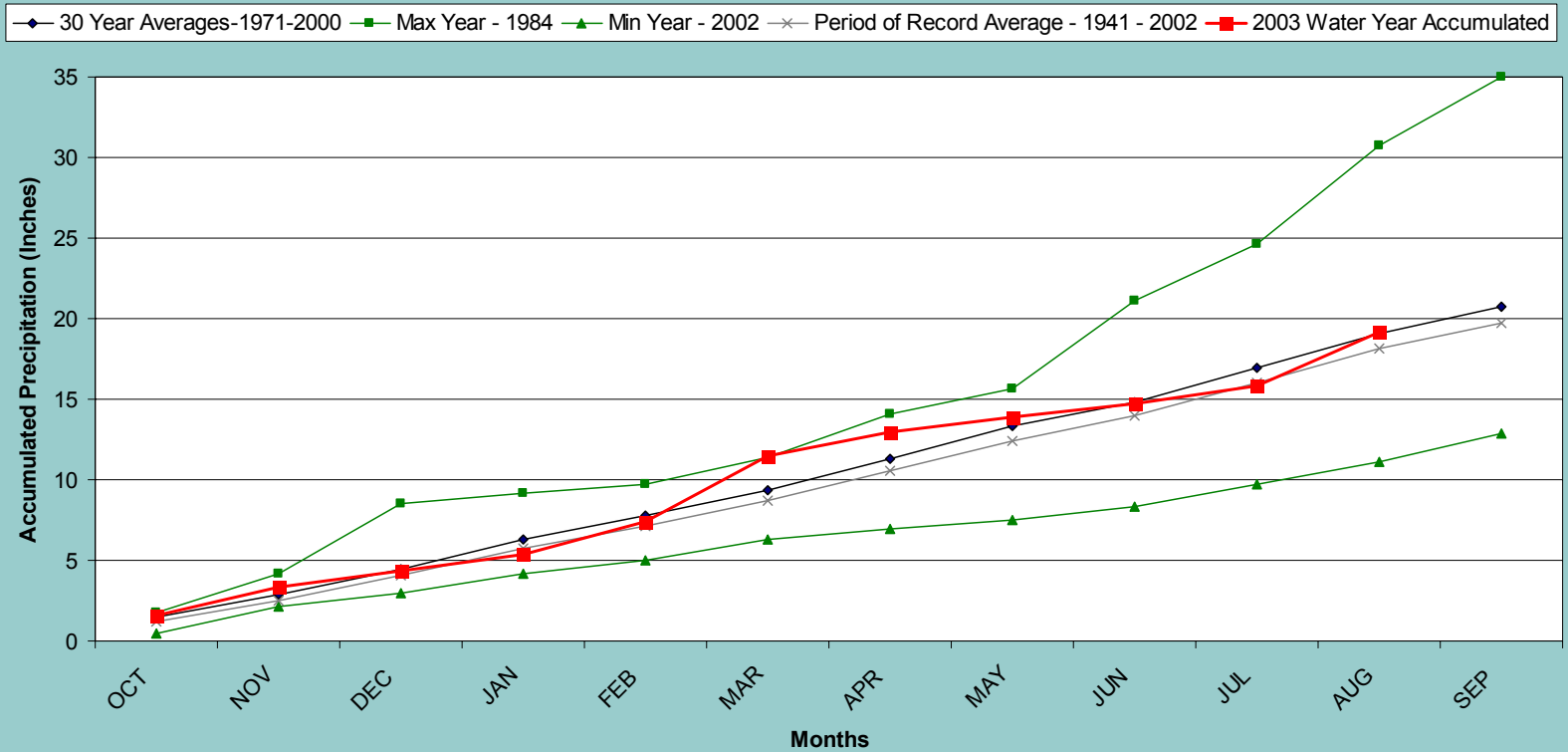


COOP	SNOTEL	IND		COOP	SNOTEL	IND	
●	▲	IND 1		●	▲	IND 6	
●	▲	IND 2		●	▲	IND 7	
●	▲	IND 3		●	▲	IND 8	
●	▲	IND 4					
●	▲	IND 5					
○	△	Stations not assigned to an index					



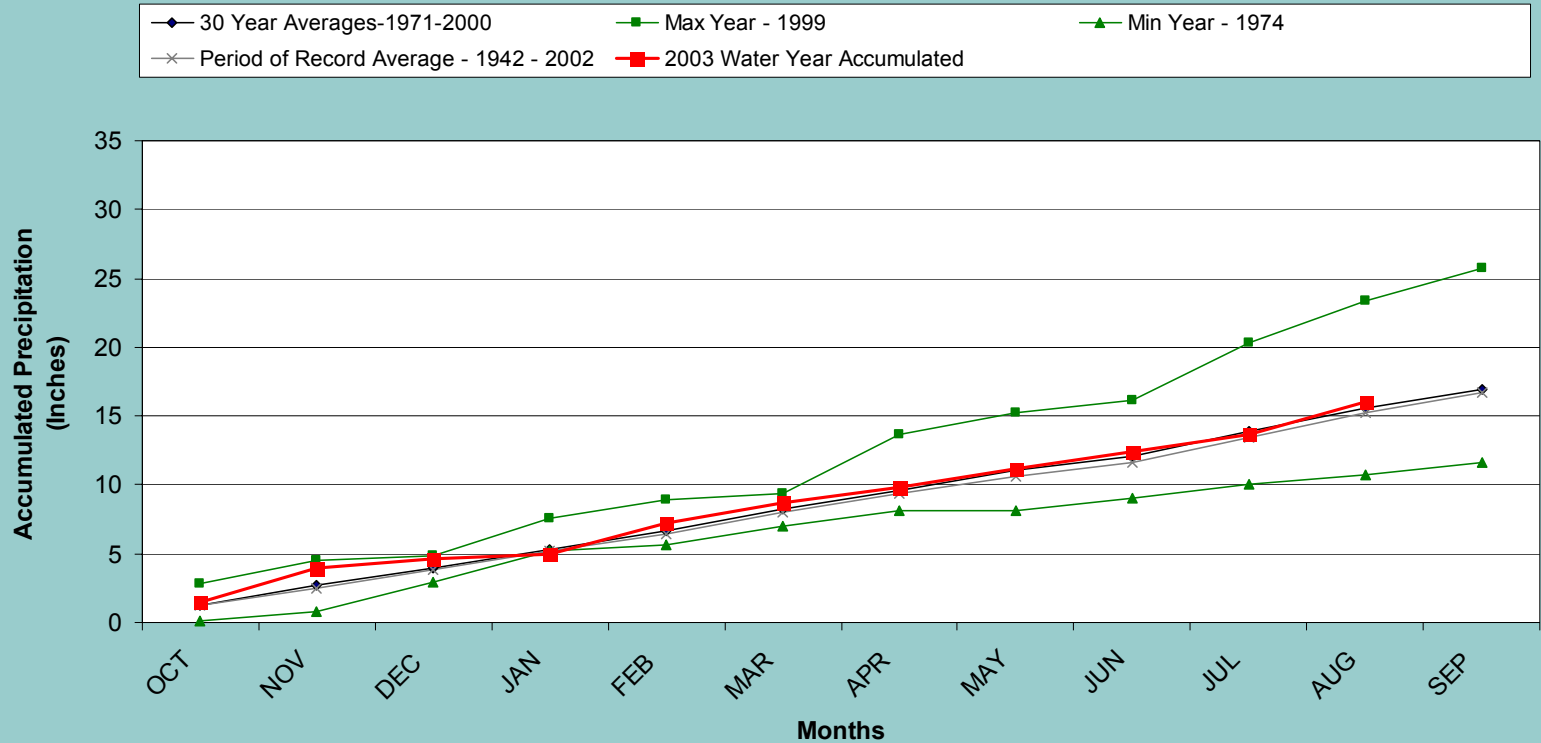
# Division 1

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



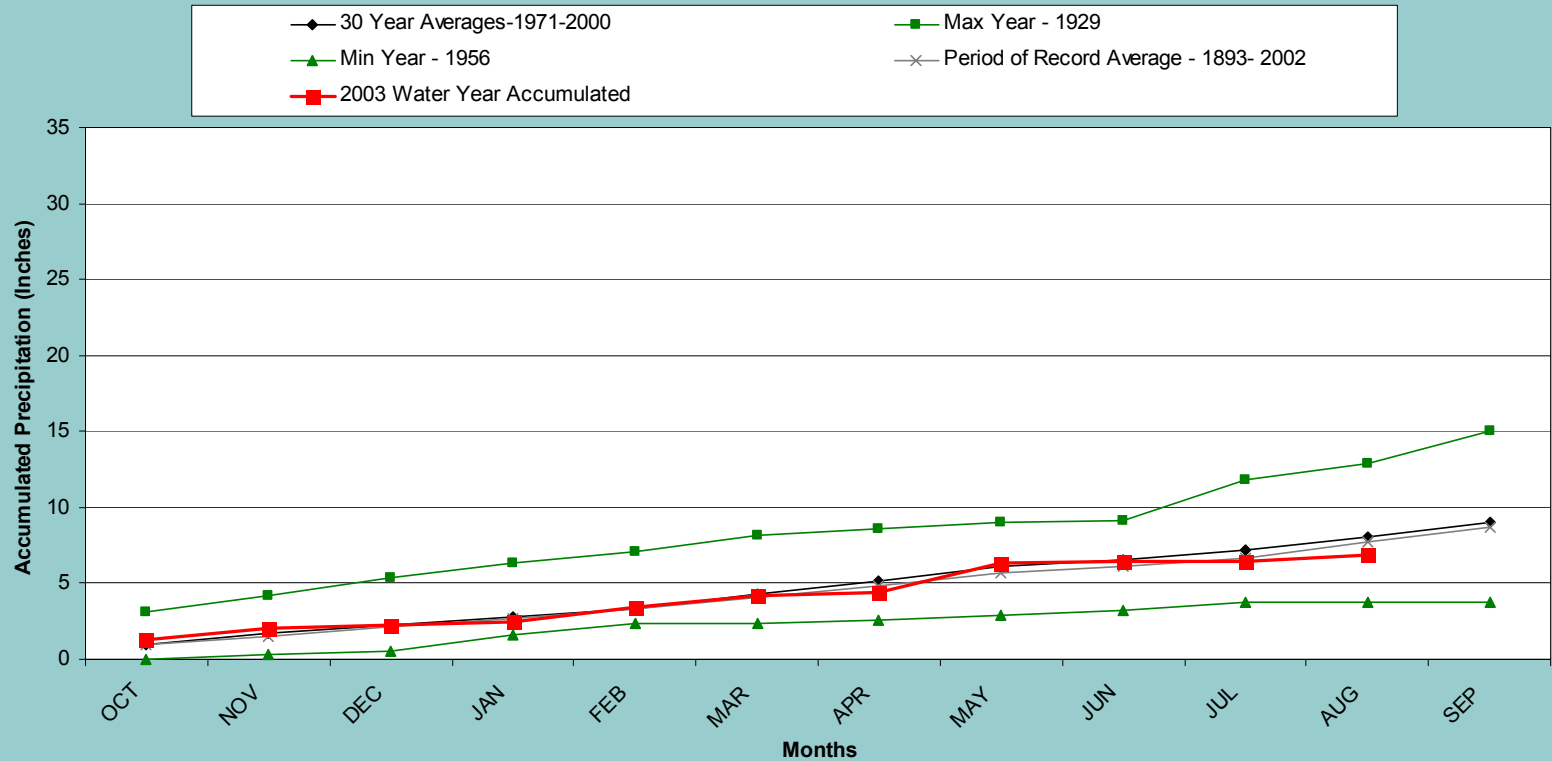
# Division 1

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



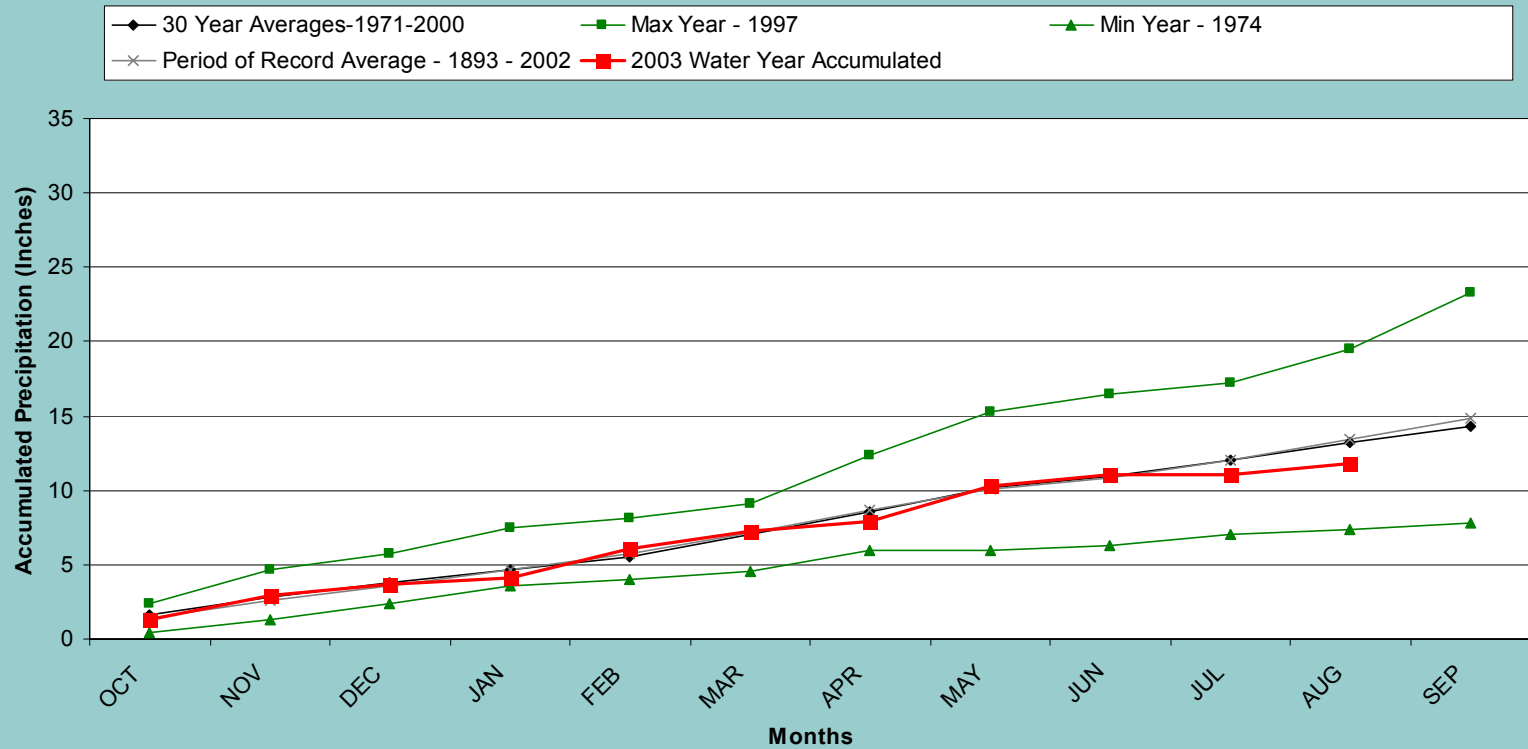
# Division 2

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



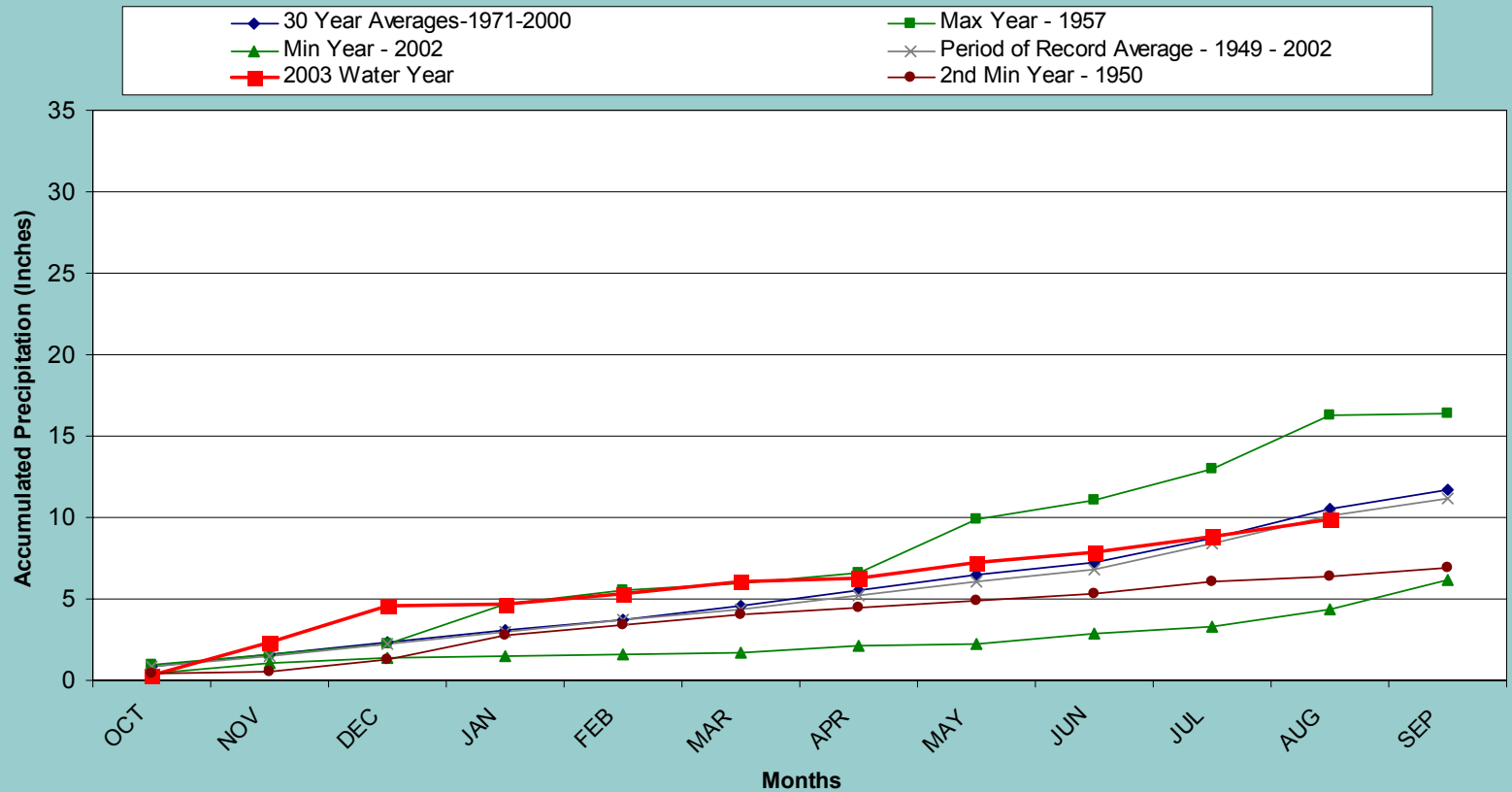
# Division 2

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



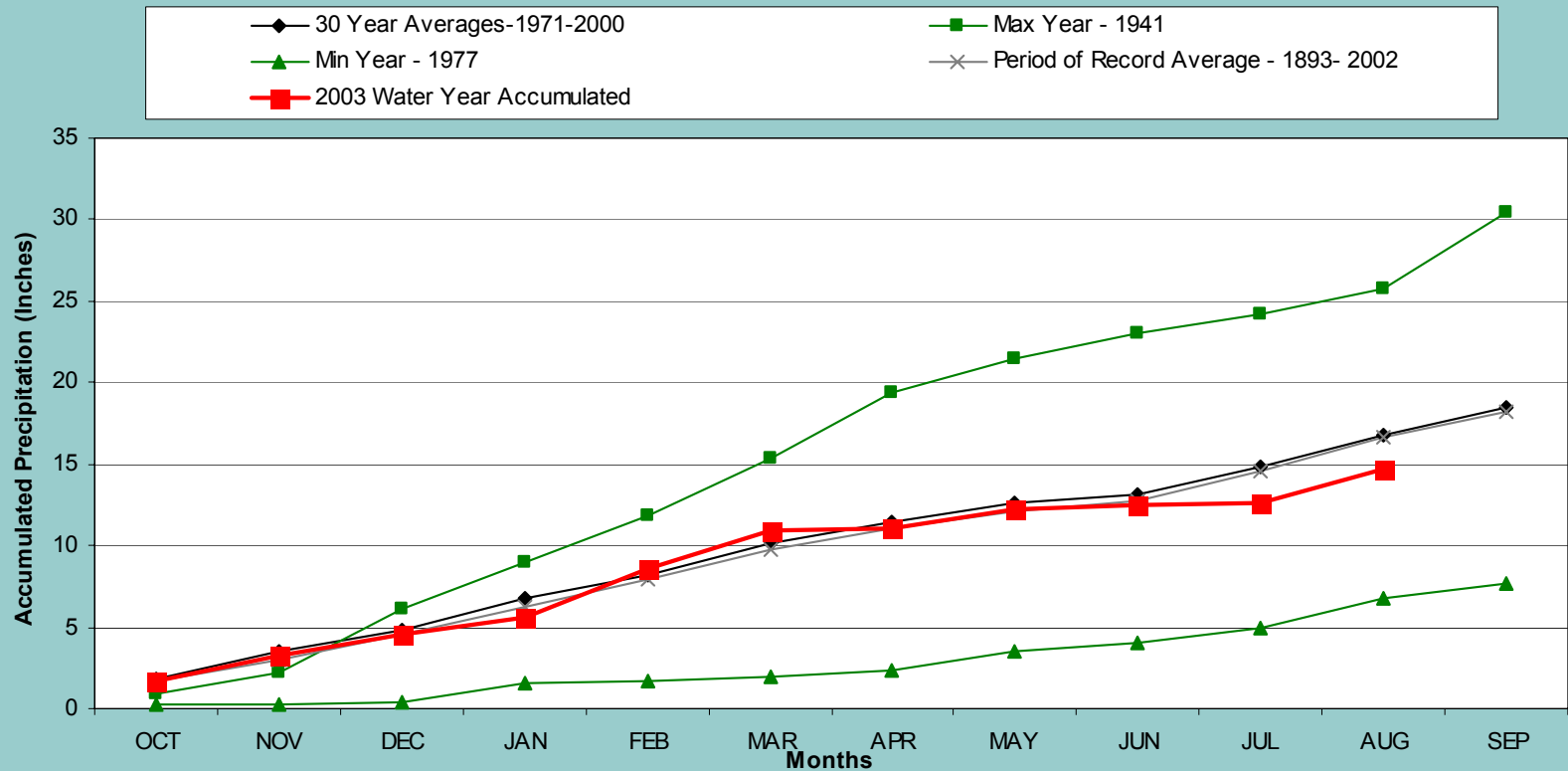
# Division 3

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



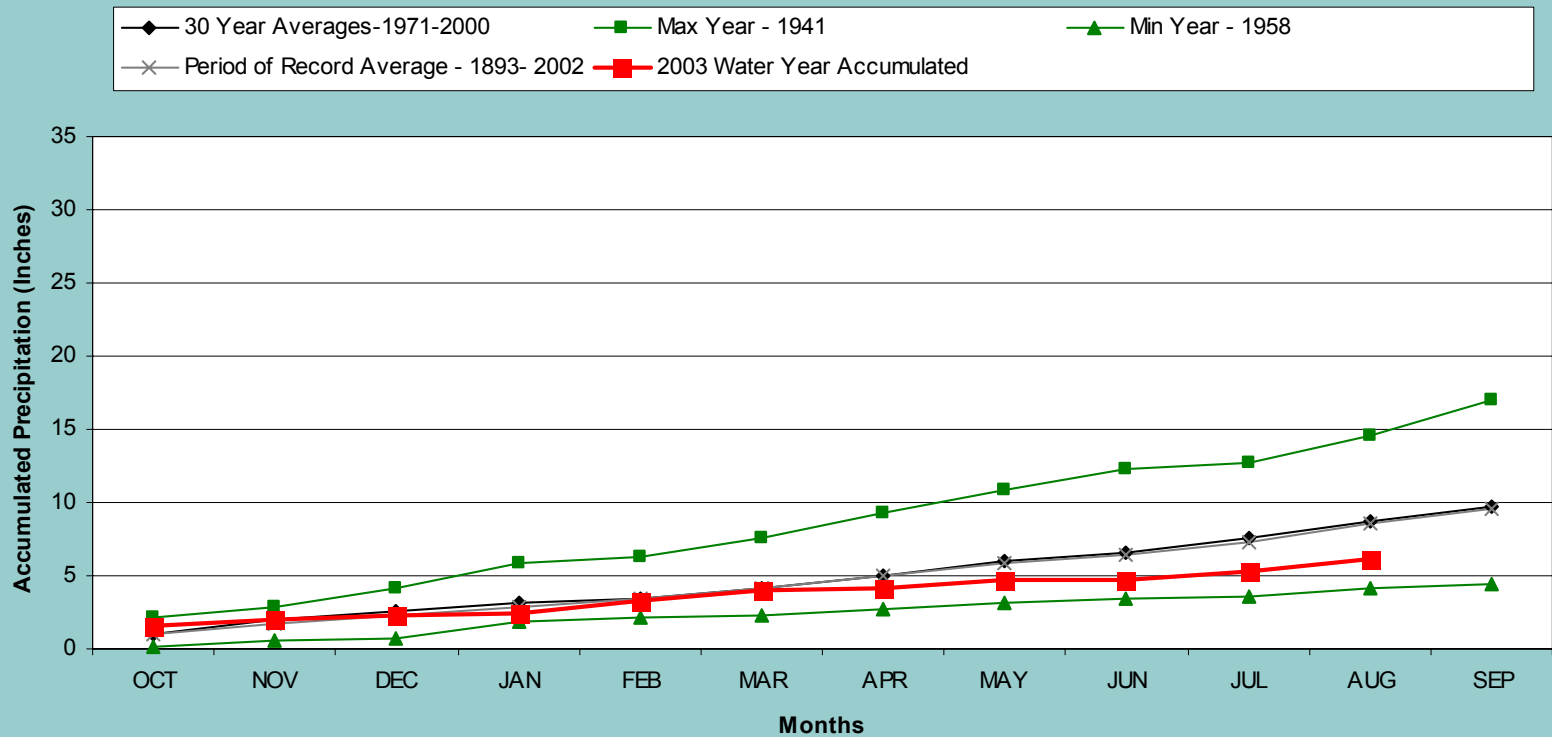
# Division 3

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



# Division 3

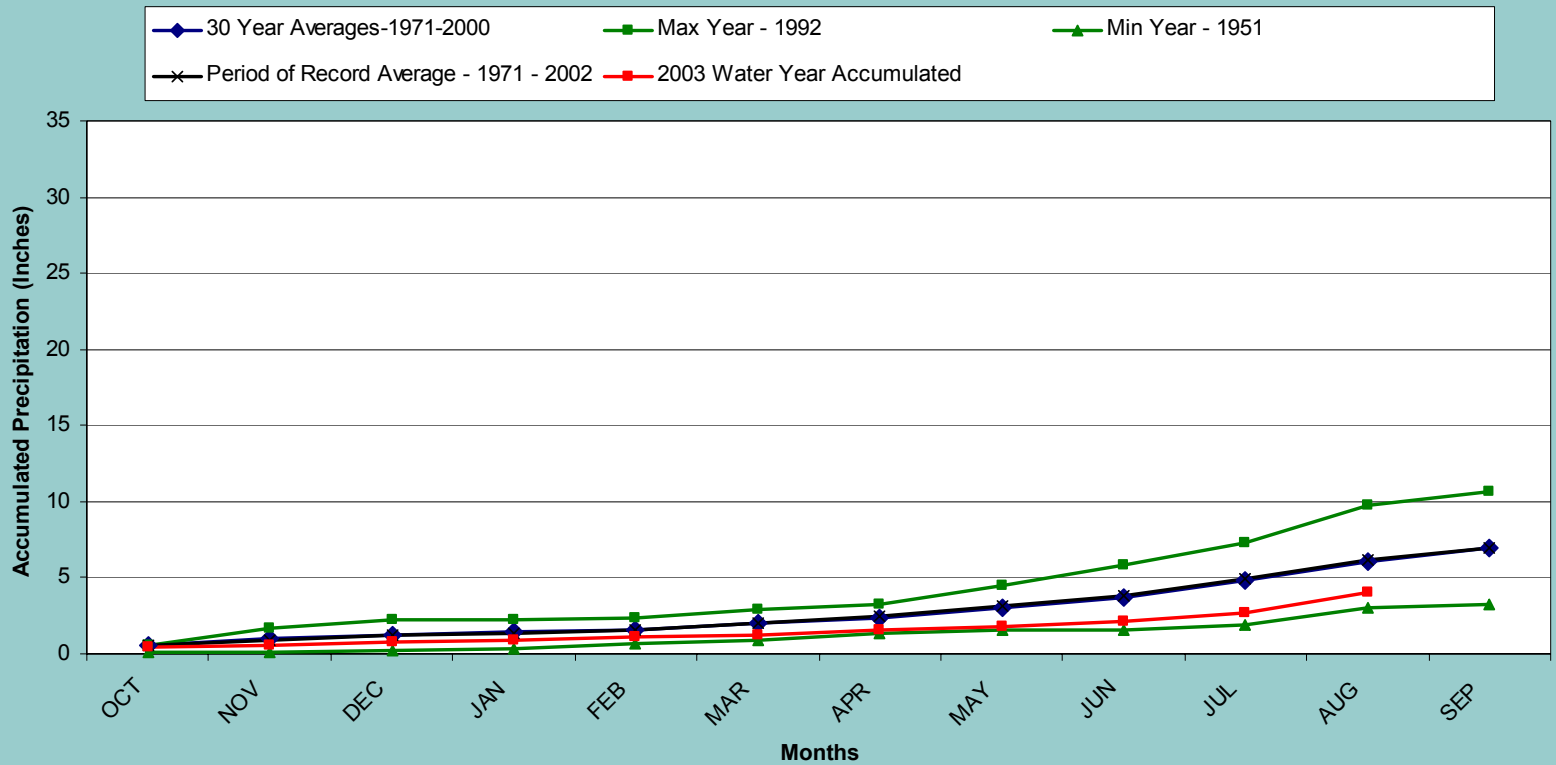
## Montrose #2 2003 Water Year (through October '02 - August '03)





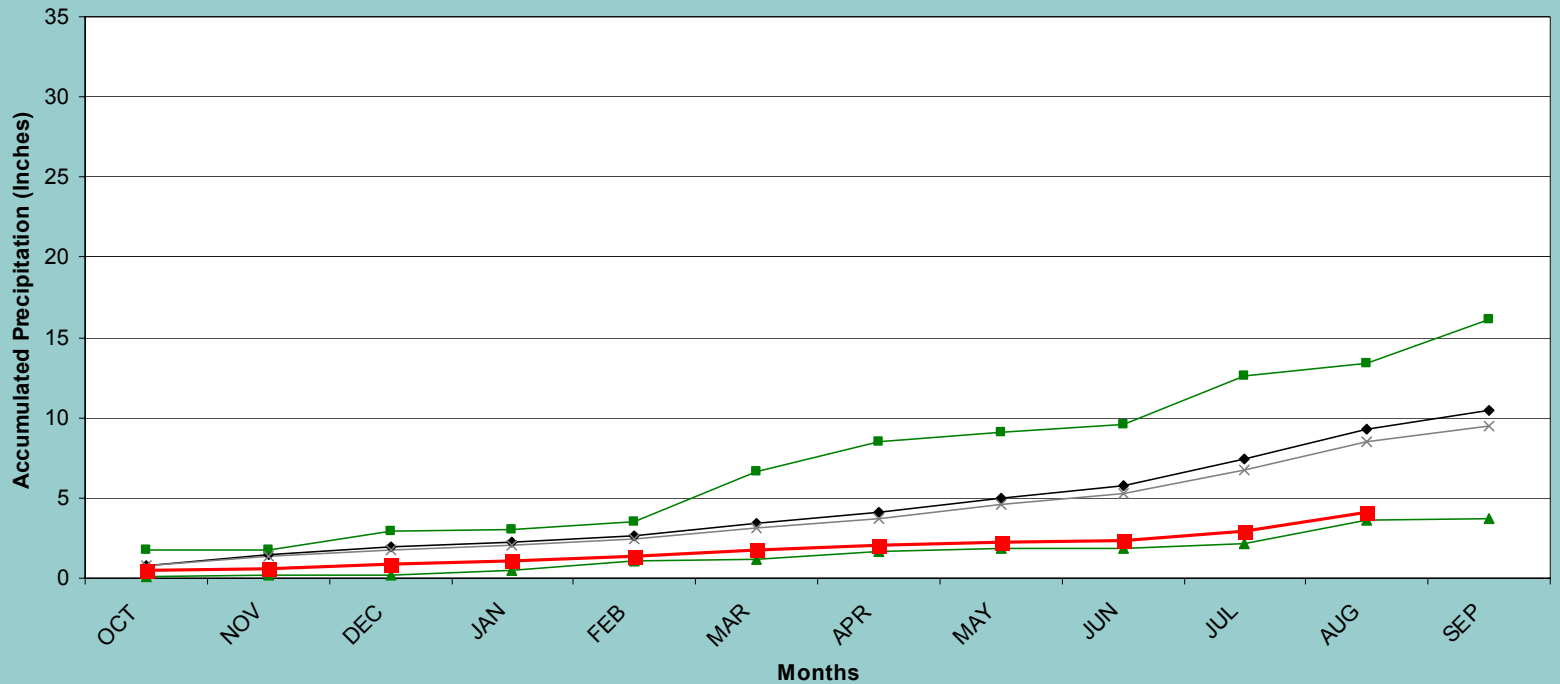
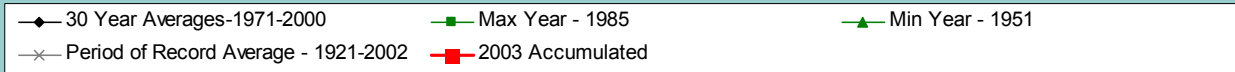
# Division 4

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



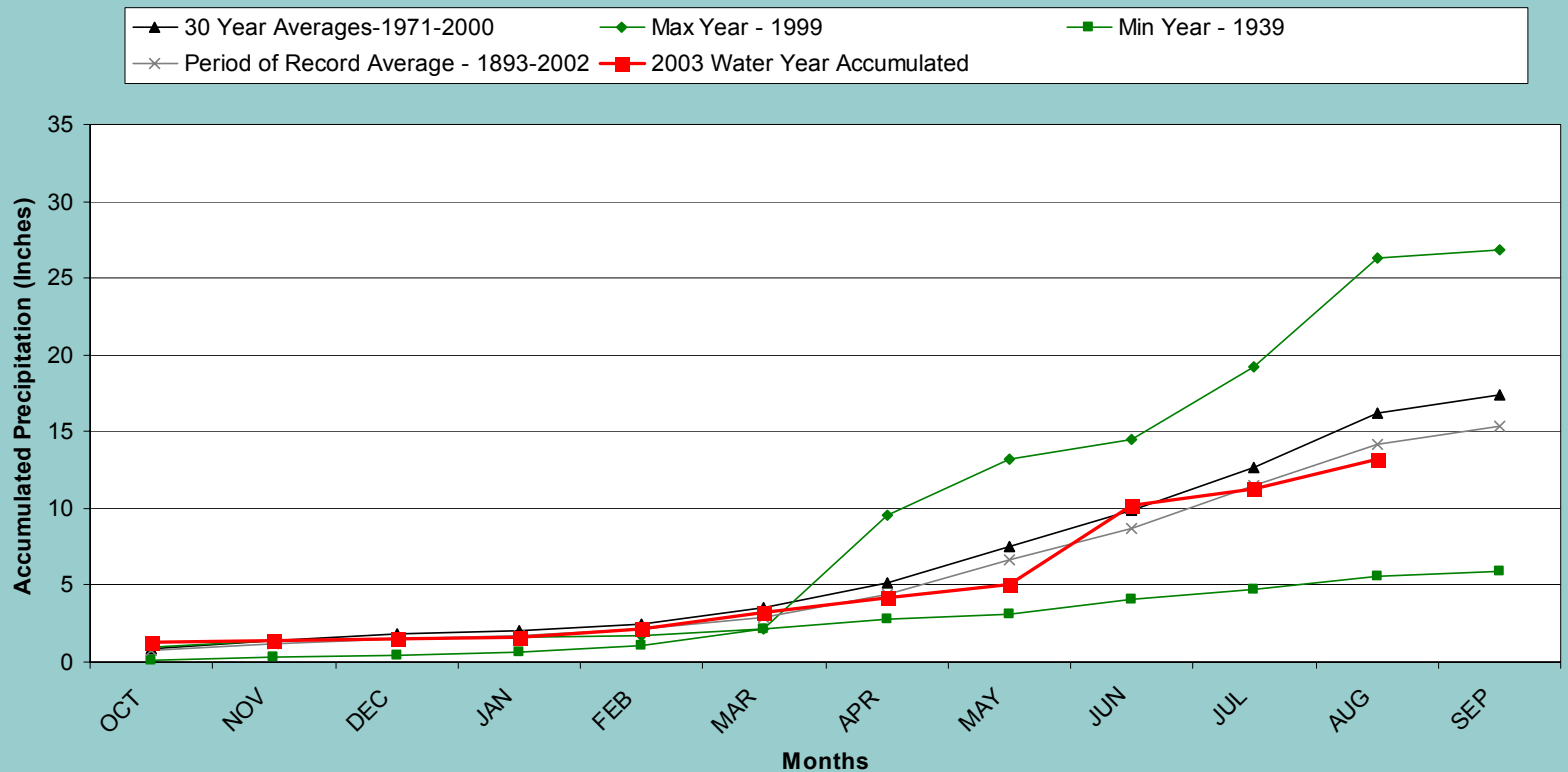
# Division 4

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



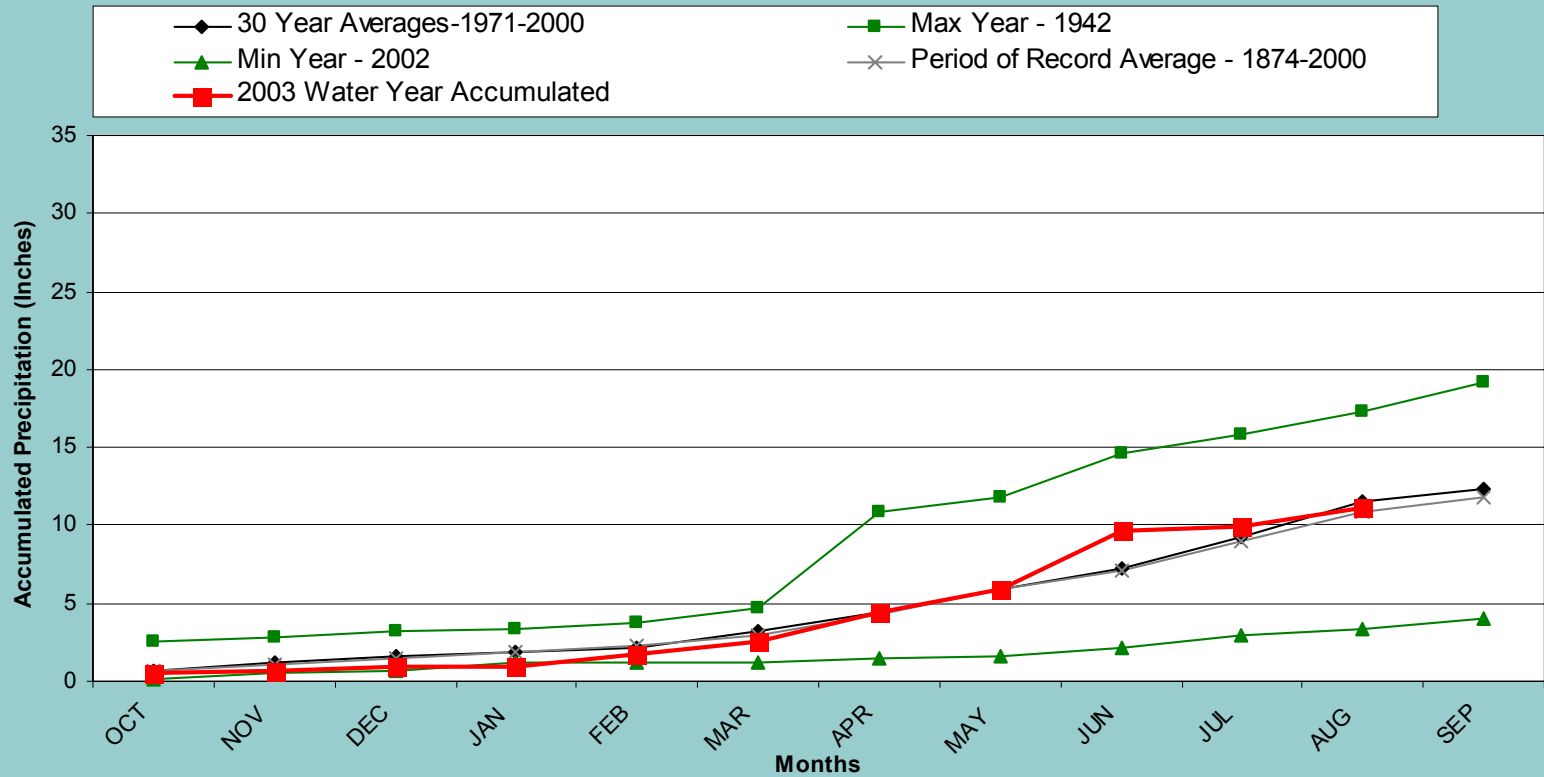
# Division 5

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



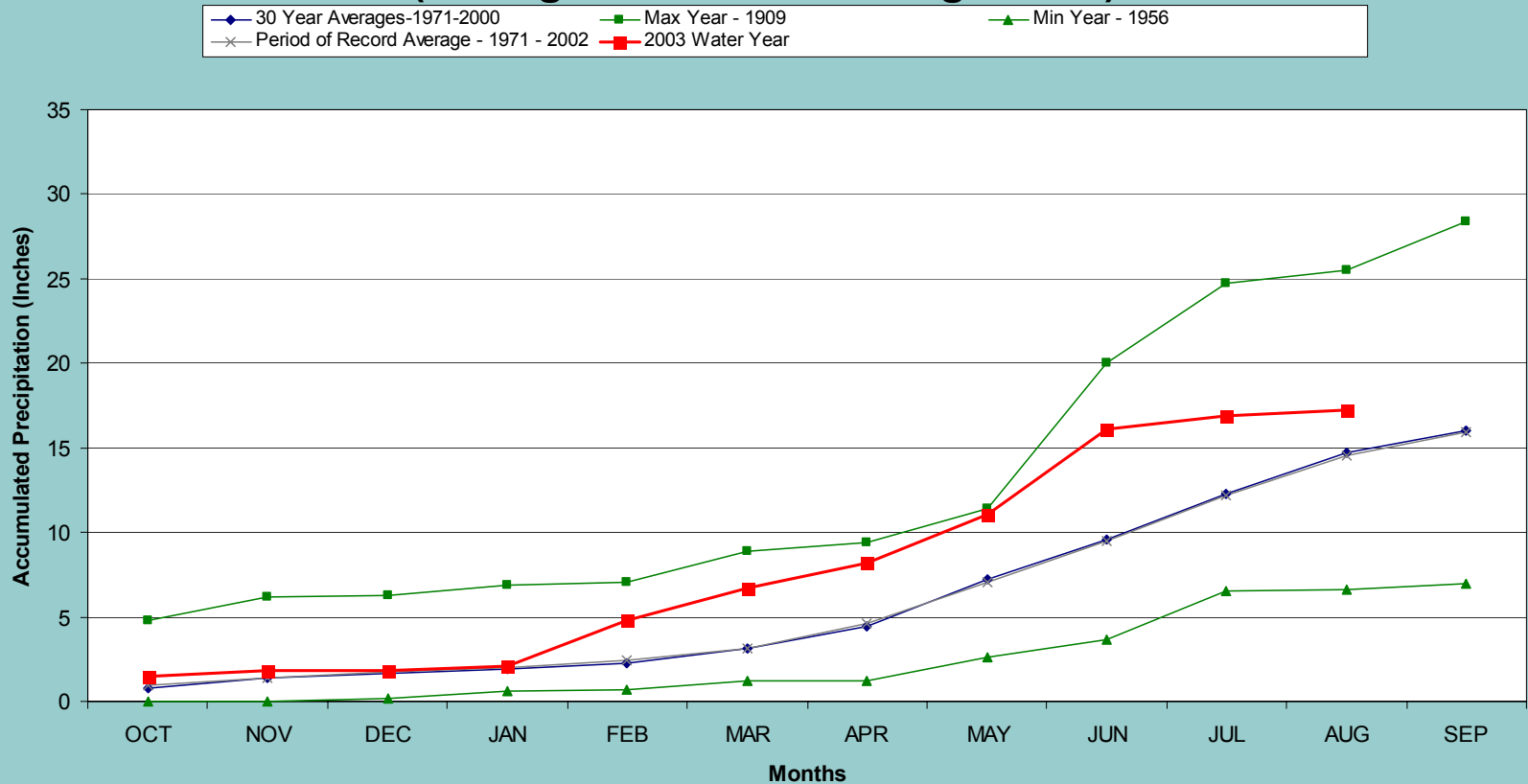
# Division 5

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



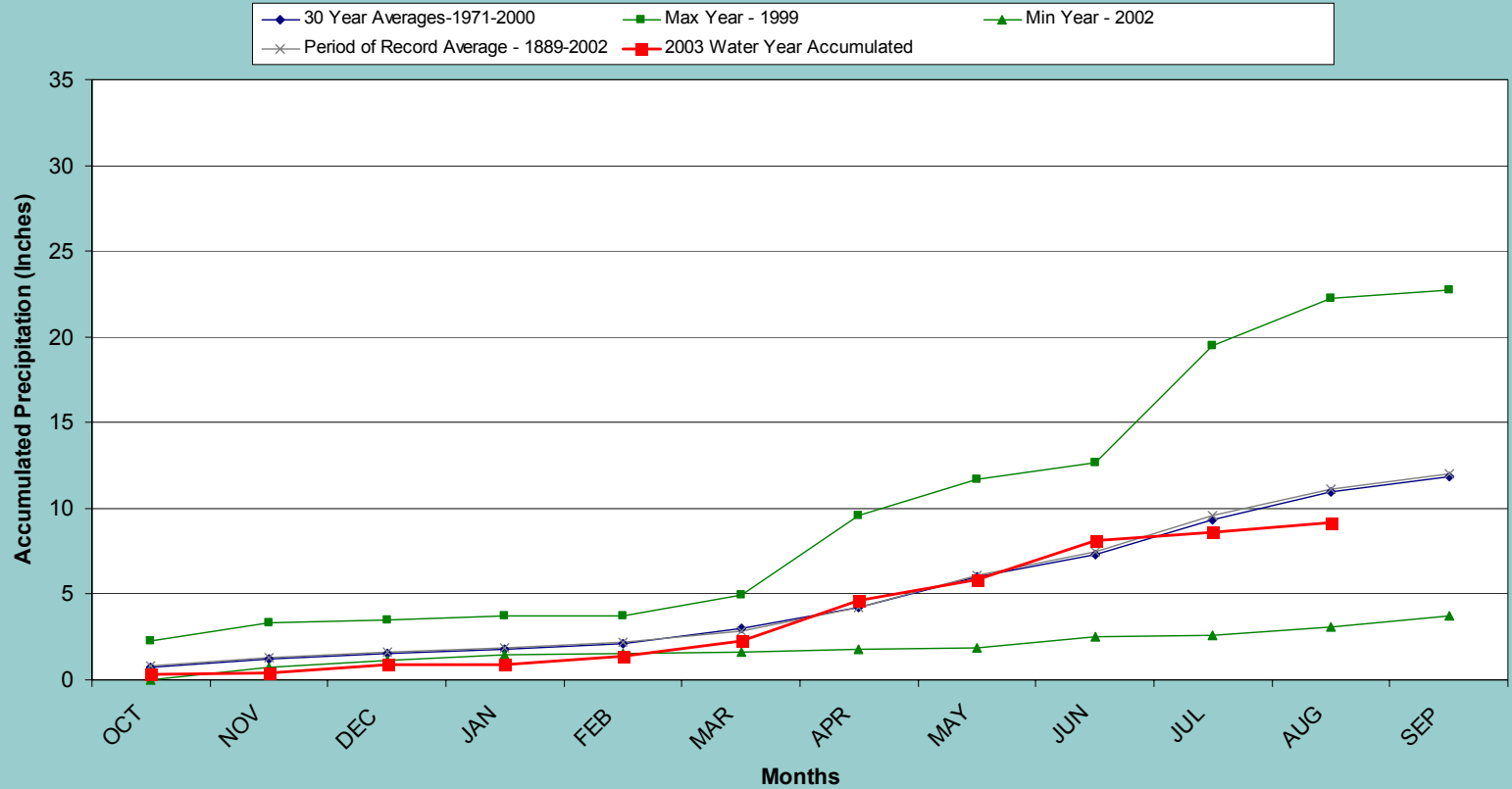
# Division 6

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



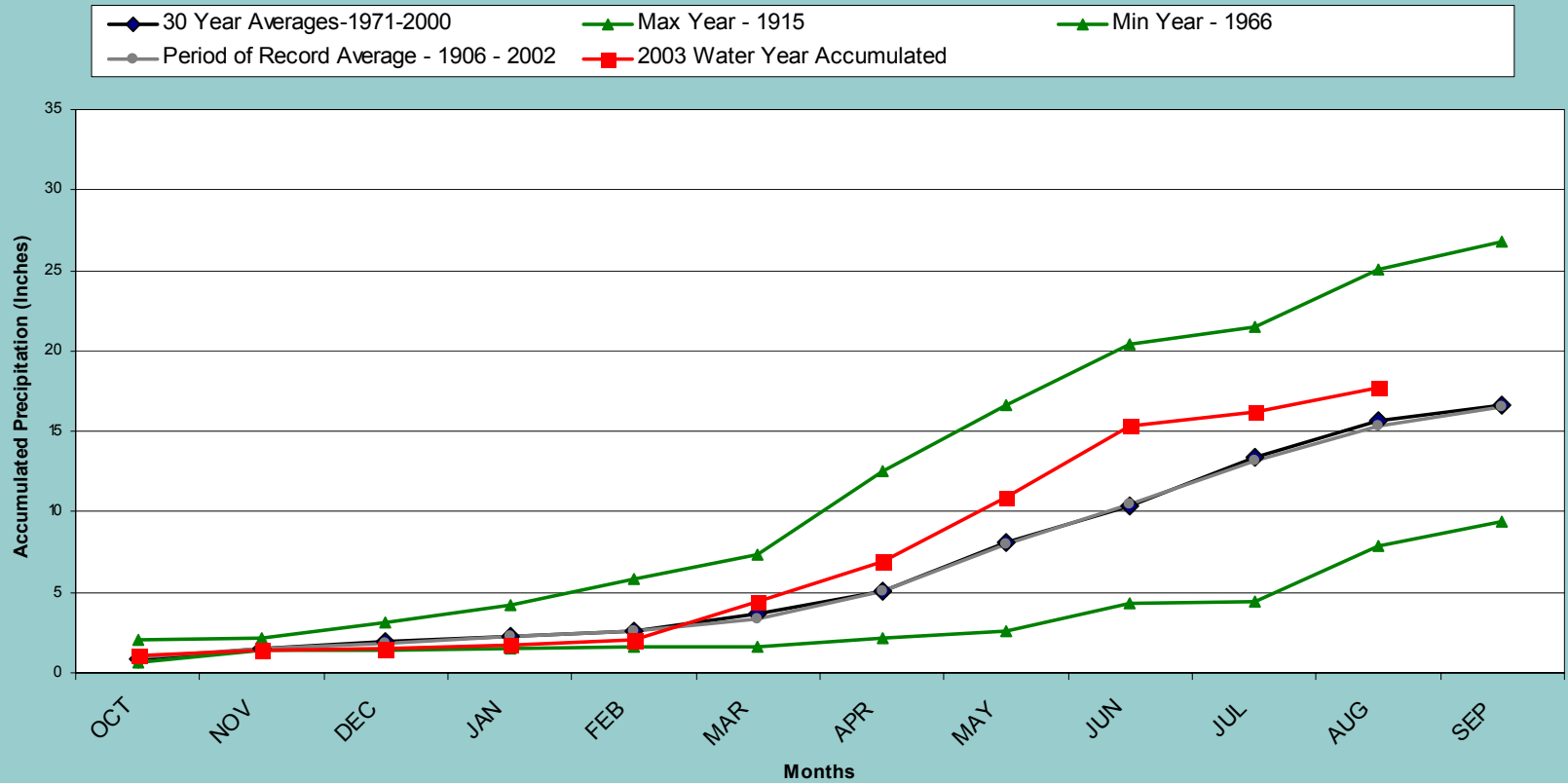
# Division 6

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



# Division 7

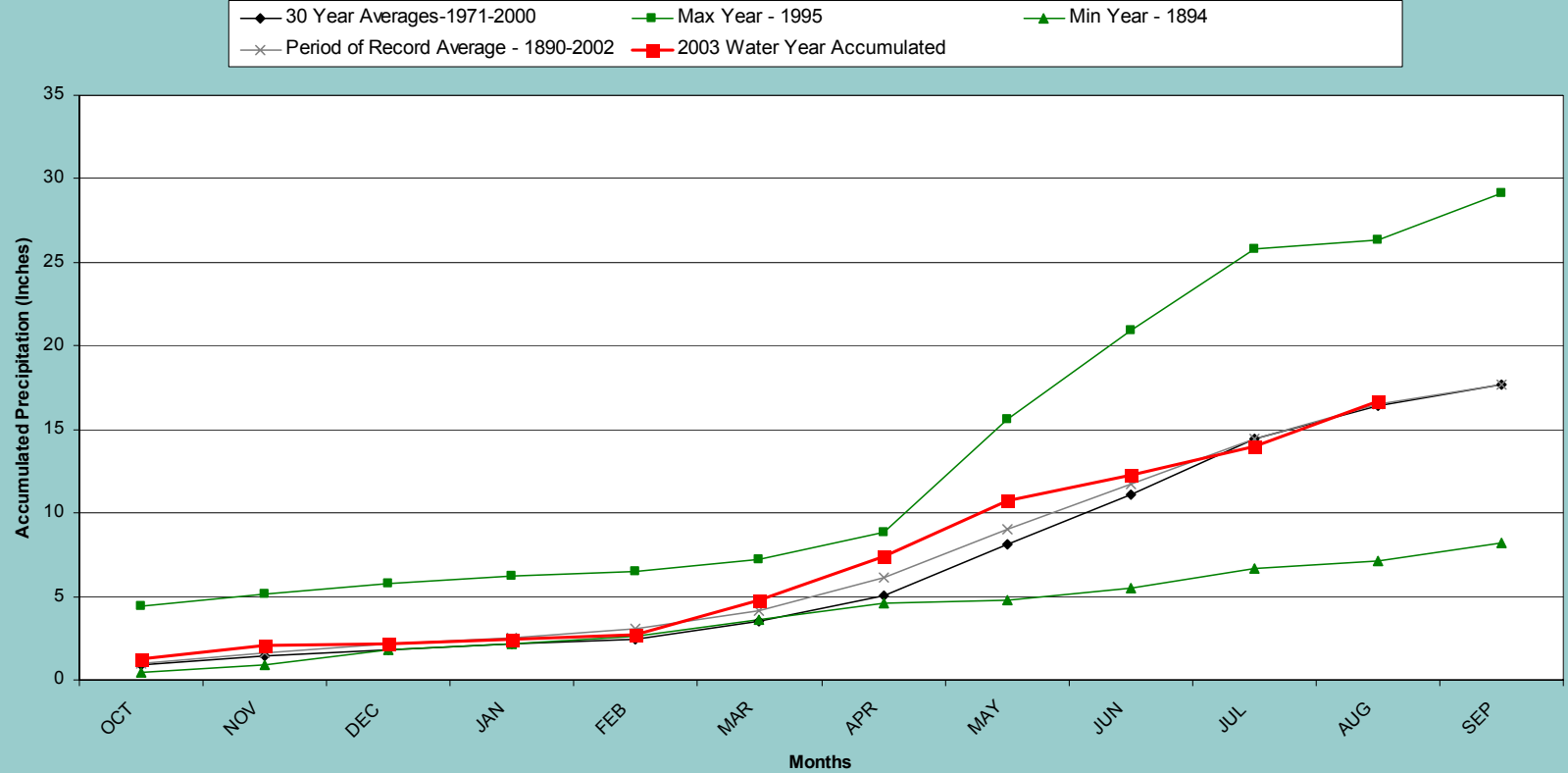
## Akron 4E 2003 Water Year (through October '02 - August '03)





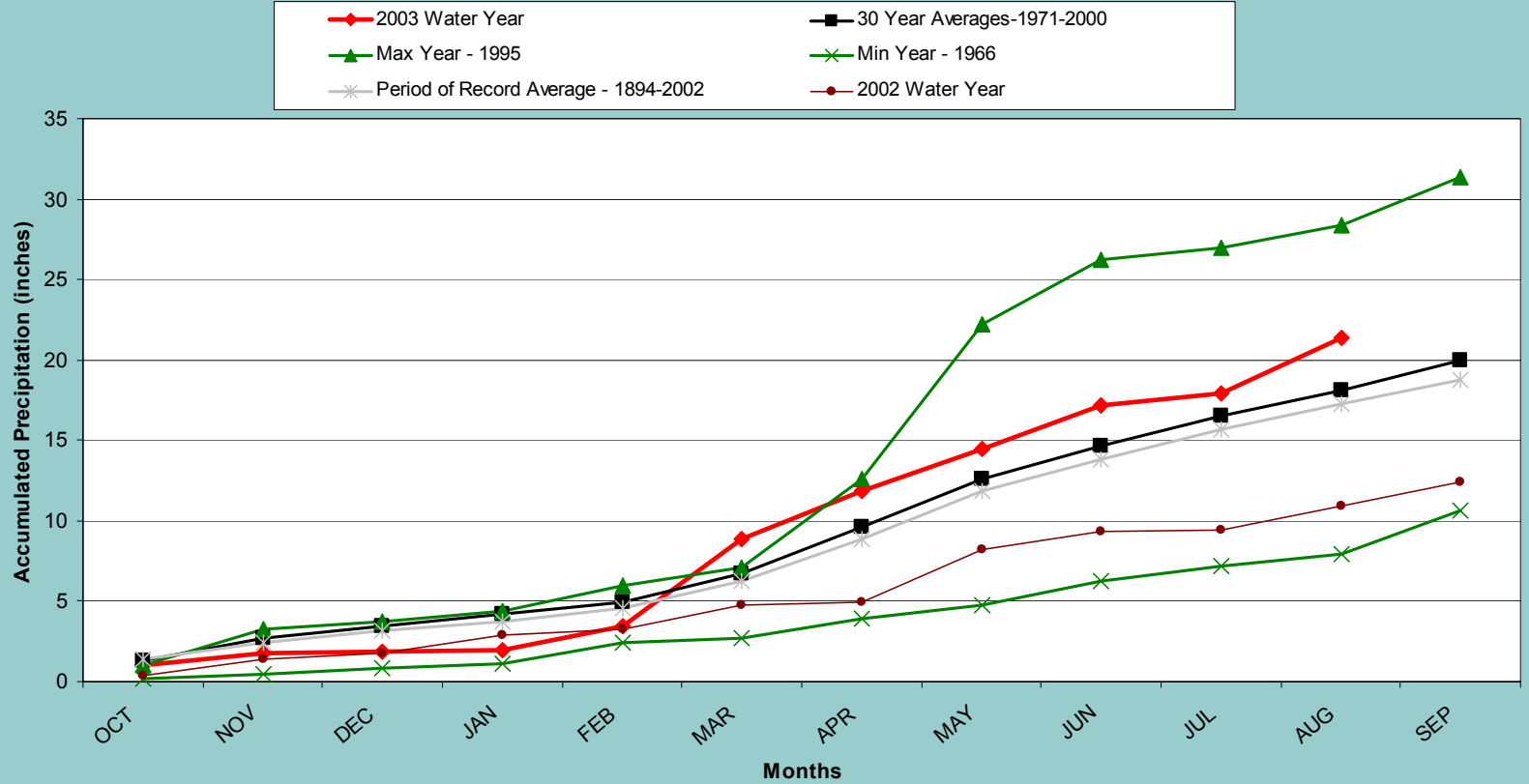
# Division 7

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



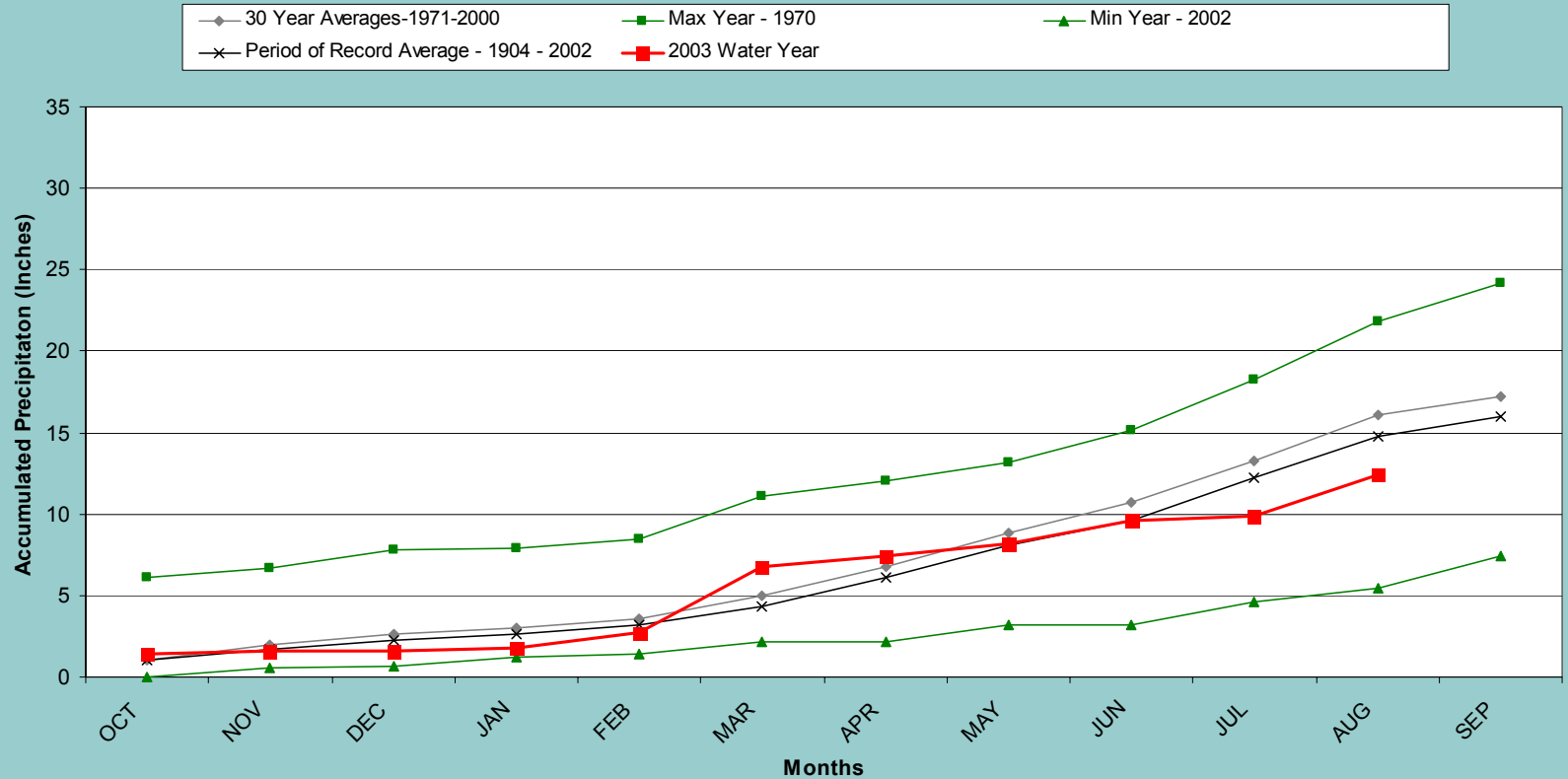
# Division 8

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



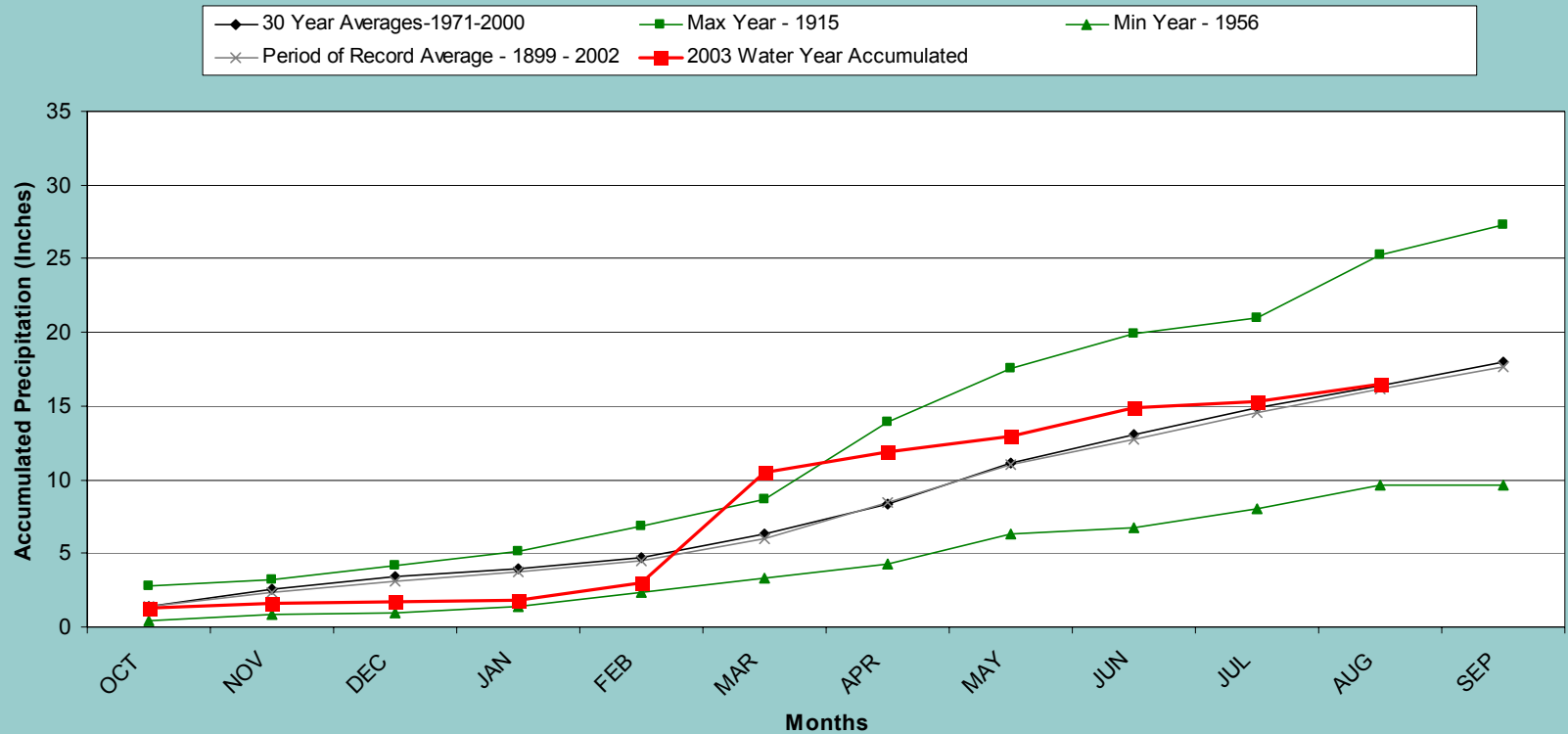
# Division 8

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



# Division 8

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

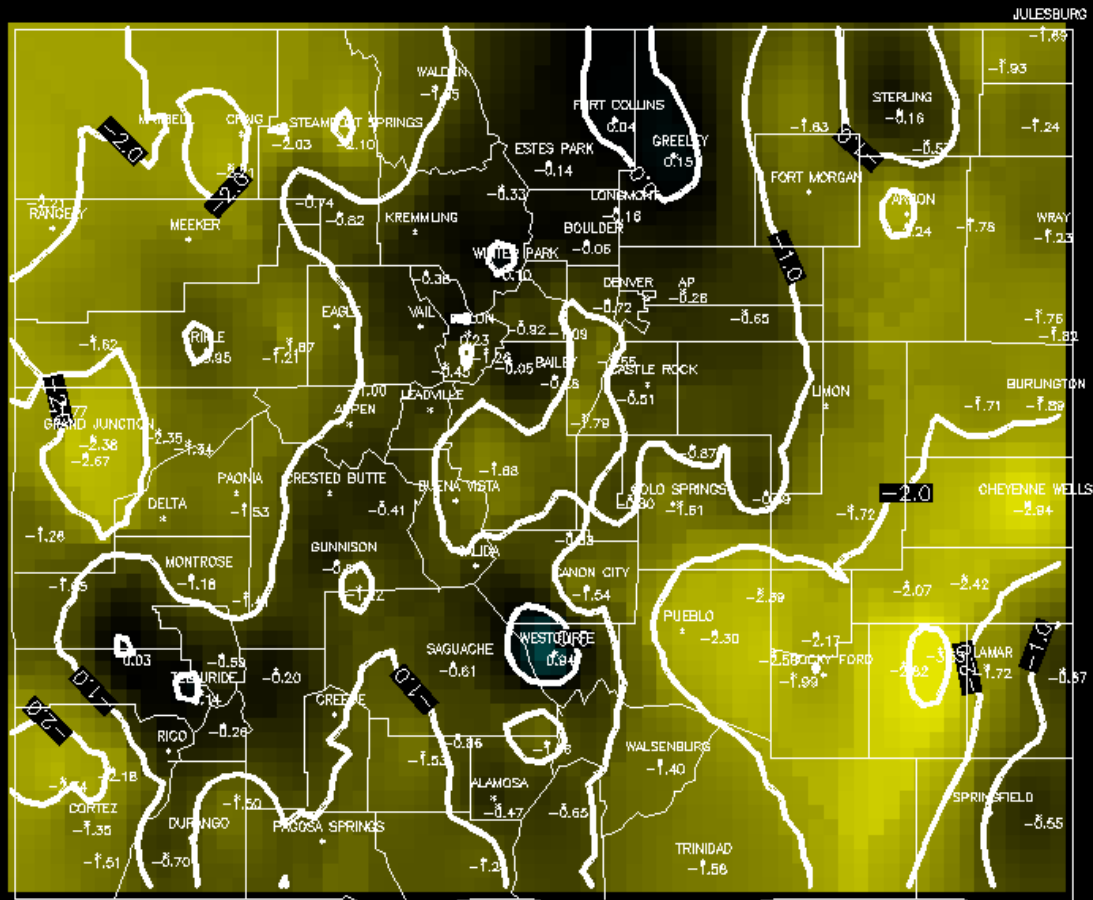




# Projected Conditions at 0.2 Probability Level 3 Month SPI at 1 month

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

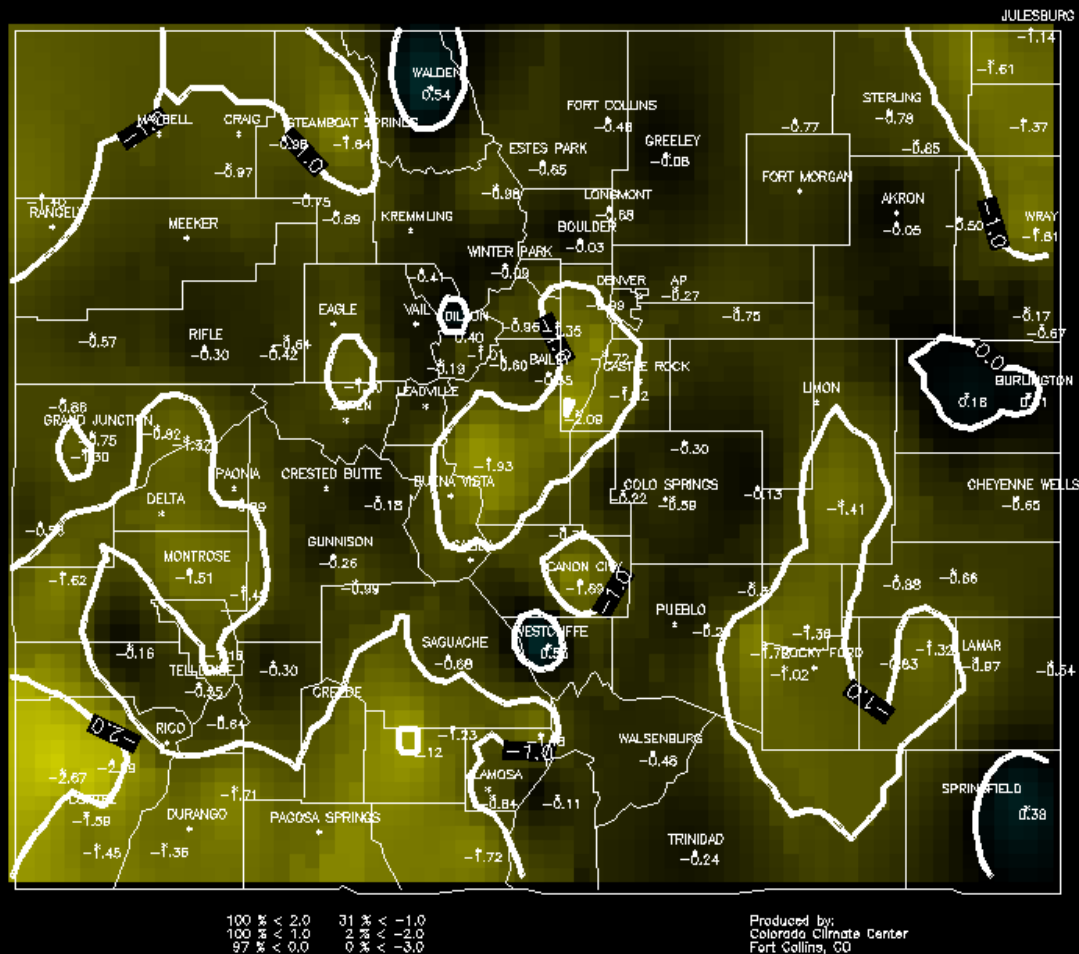




# Projected Conditions at 0.2 Probability Level 6 Month SPI at 2 months

Colorado

8/2003 6 mon. SPI - Projected 2 mon. at P=0.20

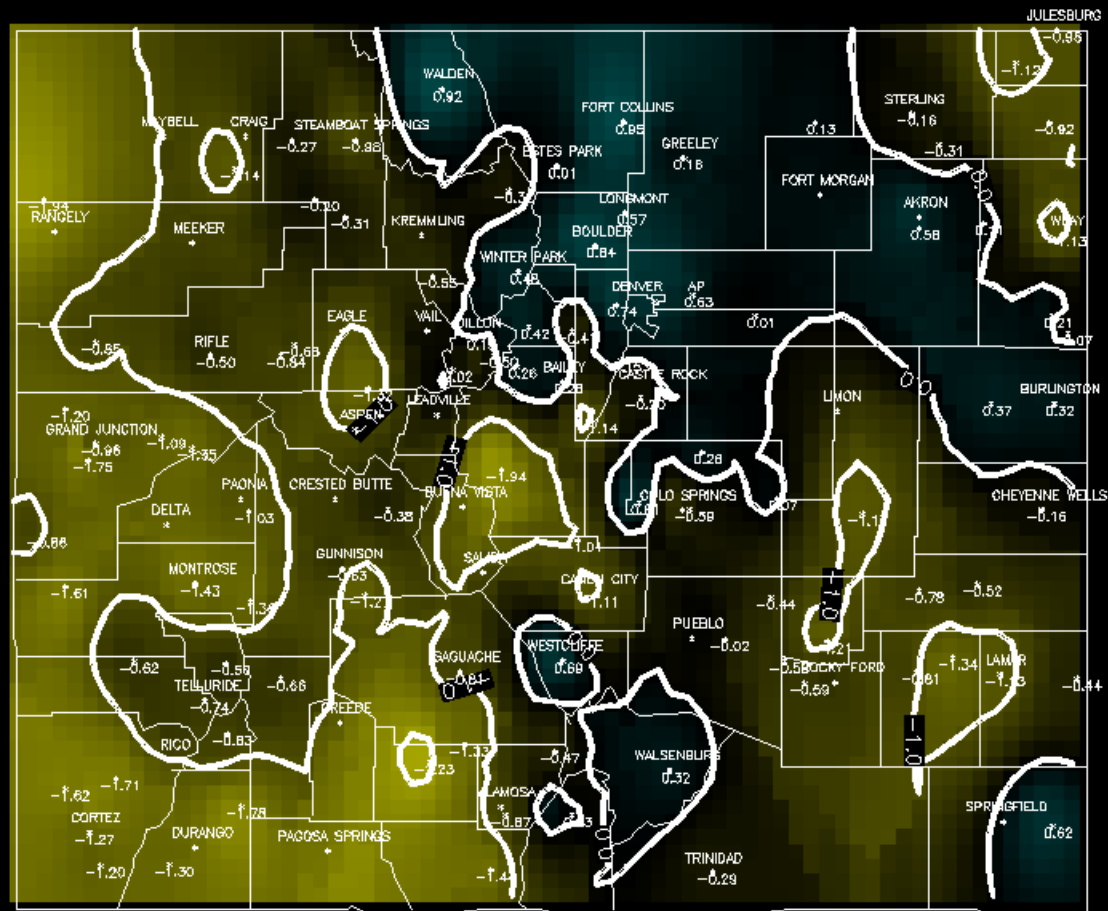




# Projected Conditions at 0.2 Probability Level 12 Month SPI at 6 months

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

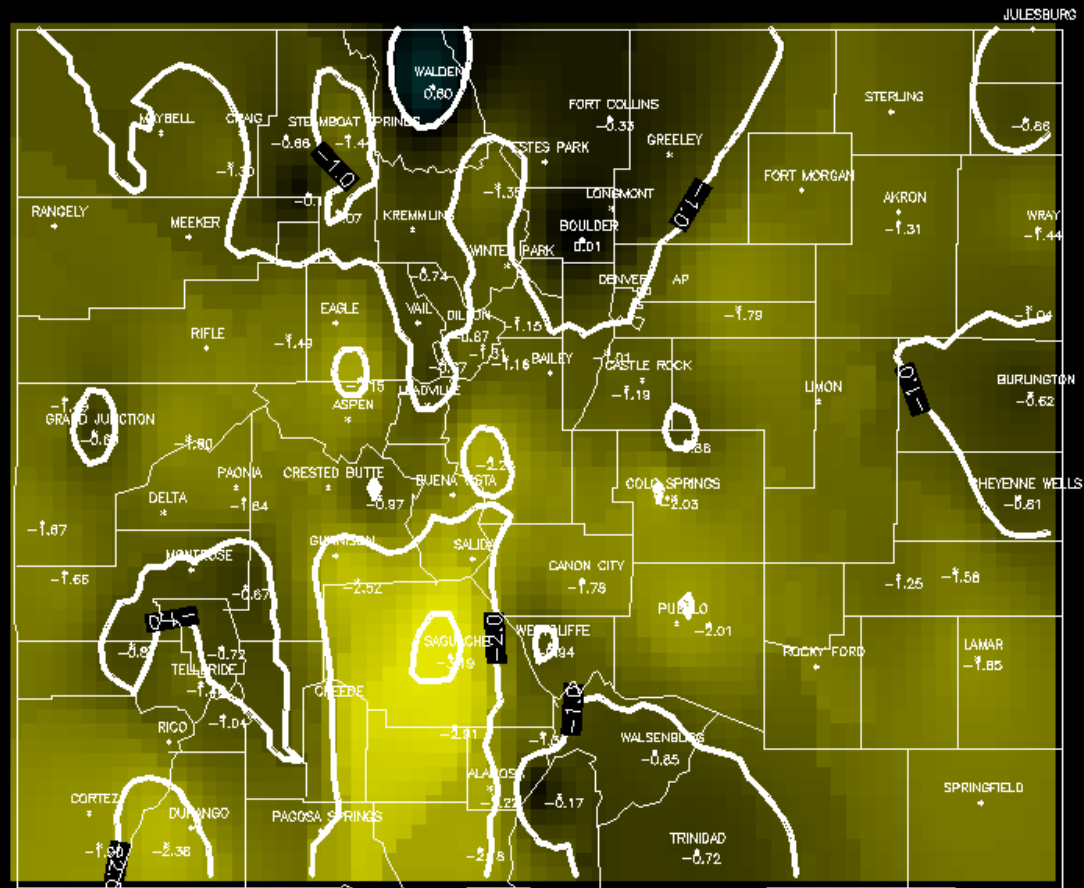
Produced by:  
Colorado Climate Center  
Fort Collins, CO



# 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



# Colorado Palmer Drought Index through August 2003

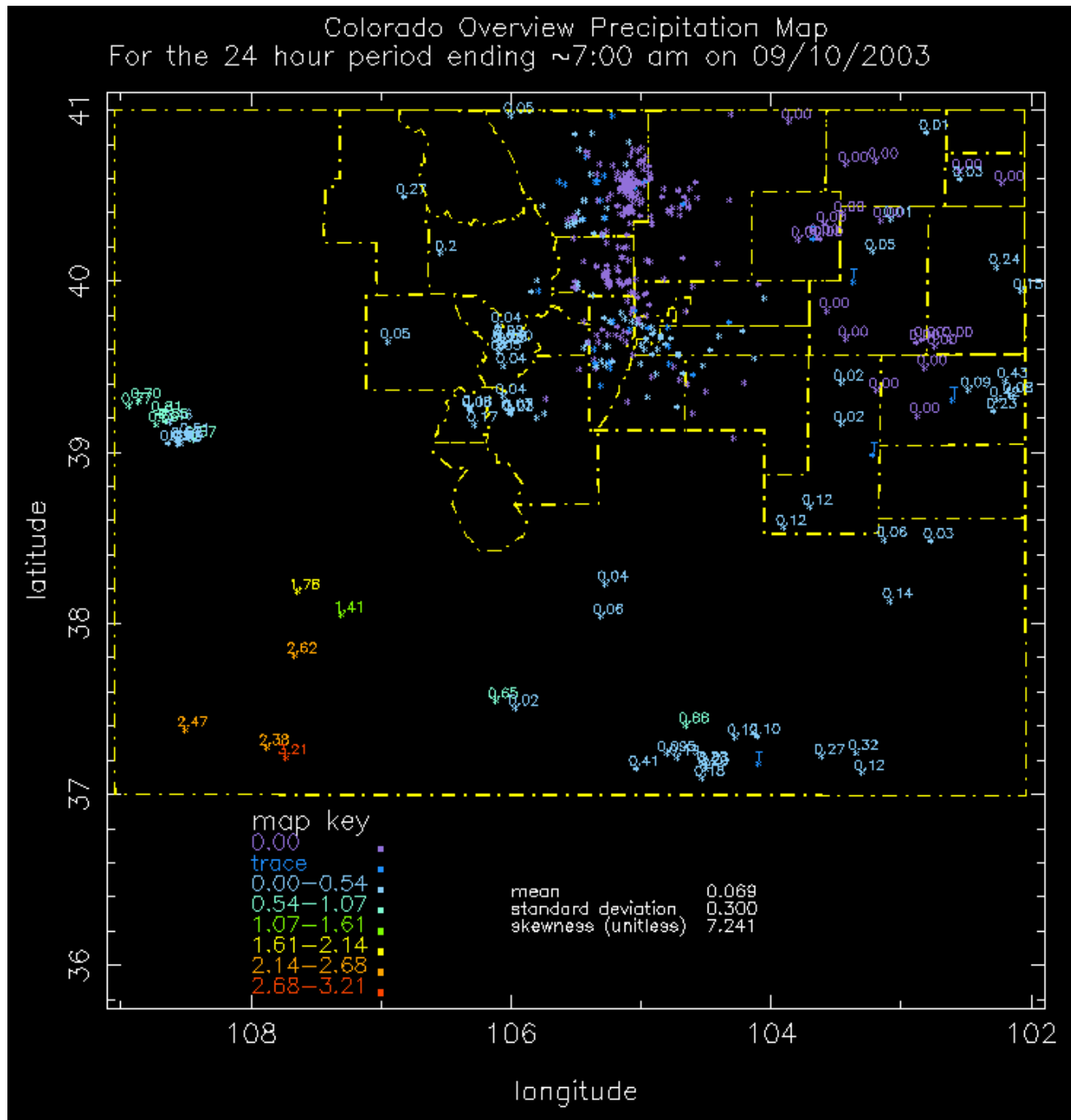
	2003											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>ARKANSAS DRAINAGE:</b>												
1 Plateau South of Valley	2.17	1.90	2.24	2.33	1.79	3.12	2.07	2.93				
2 Valley Bottom	-2.94	-2.30	-1.76	-1.39	-1.76	-0.63	-2.02	-2.78				
3 North of Valley	-2.70	-2.20	-1.62	-1.63	-2.04	-0.75	-2.20	-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				
<b>KANSAS DRAINAGE:</b>												
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				
<b>PLATTE DRAINAGE:</b>												
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				
<b>RIO GRANDE DRAINAGE:</b>												
17 San Luis Valley	-3.45	-2.82	-2.09	-2.09	-2.69	-2.79	-2.90	-3.01				
<b>COLORADO DRAINAGE:</b>												
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

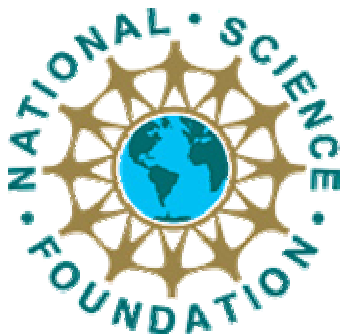
## CoCo RaHS Summary of Precipitation Reports for September 2003

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>



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National Science Foundation  
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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>

