

July 14, 2003

MONTHLY REPORT

DROUGHT MONITORING COMMITTEE

BY

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## Drought Status for July 2003

*National Weather Service, Albuquerque, NM*

**Discussion:** June precipitation was generally above normal over much of the East-central Plains, but normal to below normal in most other areas. Some areas that received rainfall in excess of 200 percent of normal for June included Clovis, Conchas Dam, Fort Sumner, Maxwell, Mountainair, and Tucumcari. A few spots in the southwest received some rainfall, but much of the remainder of the state received less than 50 percent of the normal June precipitation.

Precipitation for the year now averages 78 percent of normal for the state, up from 67 percent last month, but down from 94 percent several months ago. Percent of normal calendar-year precipitation is 70 percent or less through the Central Valley (division 5), the Central Highlands (division 6), and division 7 (southeast plains). The Northeast Plains (division 3) is the only division near normal (104 percent).

The Palmer Drought Severity Index (PDSI) has responded to the rainfall in the northeast (division 3) by going from -0.5 to +0.8 between May and June. Division 7 in the southeast also showed some improvement (-1.6 to -1.1), but was still negative. This improvement was mainly due to precipitation in the and northeastern portions of division 7 while the southern portion did not fare as well. Meanwhile, the PDSI is negative in all divisions except for division 3, and is as low as -4.2 in the Central Highlands (division 6), indicative of extreme drought conditions.

The table below shows the PDSI monthly averages (computed from weekly averages) for the past 12 months:

### Palmer Index (monthly average) for 2002/2003

<u>Div.</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>
1	-5.0	-4.7	-1.6	+0.3	+2.3	+3.0	+2.7	+1.8	+3.3	+2.4	+0.7	-0.7
2	-6.3	-6.7	-5.0	-3.0	-0.6	+0.2	+0.3	-0.4	+2.5	+2.0	+0.2	-0.3
3	-2.8	-3.1	-0.7	+1.1	+2.2	+2.4	+2.0	+1.5	+1.7	+1.4	-0.5	+0.8
4	-4.0	-3.2	-0.7	+0.4	+1.3	+2.3	+2.0	+1.5	+2.7	+1.4	-0.6	-1.1
5	-2.3	-0.3	+1.7	+2.6	+2.7	+2.6	+1.7	+0.9	+1.9	+0.6	-1.4	-1.8
6	-4.0	-3.9	-3.0	-2.4	-1.2	-0.2	-0.4	-1.7	-1.4	-2.7	-3.8	-4.2
7	-1.7	-2.2	-0.6	+0.6	+1.6	+2.0	+1.7	+1.0	+1.0	-0.6	-1.6	-1.1
8	-2.3	-0.8	-0.4	-0.2	-0.2	+0.4	+0.1	-0.1	+0.7	+0.2	-1.3	-1.5

The longer-term SPI exhibited only small changes from a month ago in most areas, but did show some substantial improvements in the Northeast Plains (division 3) because of the recent rains. Because of the large climate divisions, a more detailed analysis of individual stations shows that most of the improvements have actually been in the southern portion of division 3 and the northeast portion of division 7. This is reflected in the meteorological drought graphic. The table below shows the lowest long-term SPI (12 through 72 months ending June 30, 2003) for each climate division, compared to values last month.

<u>Division</u>	<u>Lowest Value (month)</u>	<u>Previous Month</u>
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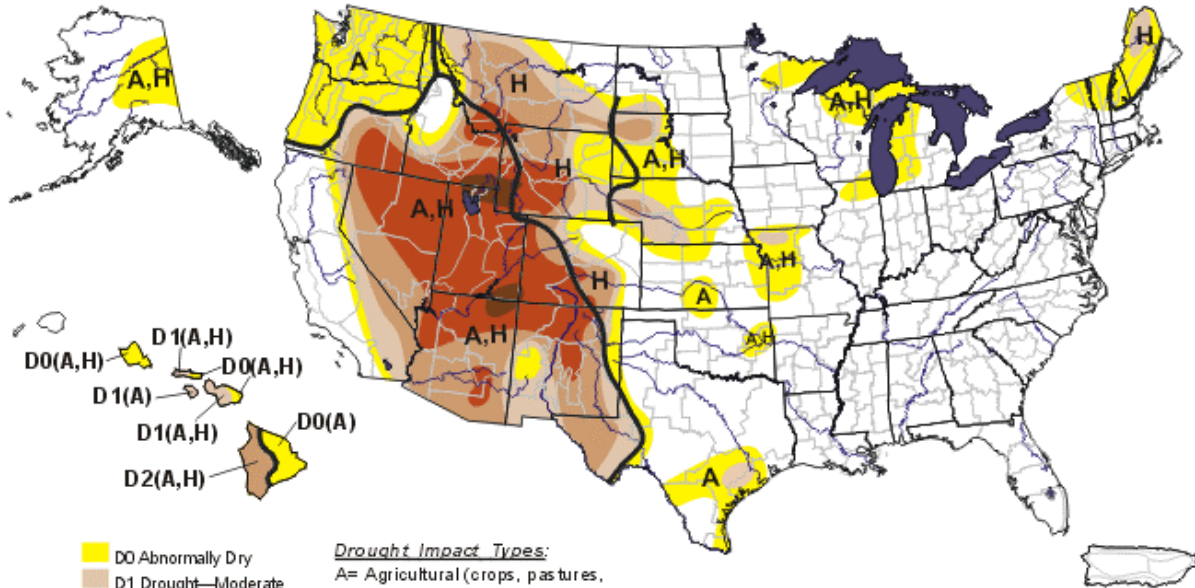
1	-0.56 (36 month)	-0.48 (36 month)
2	-1.75 (24 month)	-1.78 (24 month)
3	-0.57 (24 month)	-1.07 (24 month)
4	-0.13 (24 month)	-0.01 (24 month)
5	-0.58 (24 month)	-0.67 (24 month)
6	-1.13 (24 month)	-1.22 (24 month)
7	-0.78 (48 month)	-0.86 (24 month)
8	-0.93 (24 month)	-0.94 (30 month)

<b>Calendar Year 2003 and Water Year 2003 (thru Jun) Precipitation for New Mexico</b>						
National Weather Service Albuquerque, NM						
	<b>2003 (Jan - Jun)</b>			<b>Water Year 2003 (Oct - Jun 03)</b>		
<b>Location</b>	<b>Obs</b>	<b>Normal</b>	<b>%Normal</b>	<b>Obs</b>	<b>Normal</b>	<b>% Normal</b>
<b>Northwest Plateau</b>						
AZTEC RUINS N/M	3.36	4.05	83%	6.74	6.66	101%
FENCE LAKE	3.78	4.75	80%	7.92	8.00	99%
FRUITLAND 2E	2.69	2.80	96%	5.16	4.76	108%
GALLUP FAA APRT	1.57	4.21	37%	3.66	6.99	52%
LINDRITH 2SE	5.18	5.78	90%	8.65	8.99	96%
NAVAJO DAM	3.21	5.66	57%	6.87	9.26	74%
<b>Northern Mountains</b>						
ALCALDE	2.86	3.40	84%	5.80	5.50	105%
CANJILON R/S	4.38	6.14	71%	8.33	9.31	89%
CERRO	4.10	4.87	84%	6.55	7.35	89%
CHAMA	7.79	9.19	85%	14.14	14.03	101%
CIMARRON 4SW	5.93	6.84	87%	7.69	9.00	85%
GHOST RANCH	2.02	4.36	46%	5.02	6.53	77%
JEMEZ SPRINGS	4.34	6.33	69%	7.79	9.79	80%
JOHNSON RANCH	3.53	3.90	91%	6.44	6.30	102%
LAS VEGAS FAA APRT	3.07	5.80	53%	4.96	8.12	61%
LOS ALAMOS	4.06	6.38	64%	7.89	9.62	82%
RATON KRTN	5.70	7.20	79%	8.39	9.12	92%
RED RIVER	8.51	8.90	96%	11.96	12.73	94%
SANTA FE 2	2.48	5.39	46%	5.30	8.33	64%
WOLF CANYON	7.31	9.07	81%	14.04	14.04	100%
<b>Northeastern Plains</b>						
CLAYTON APRT	7.67	6.90	111%	9.94	8.86	112%
CLOVIS	7.93	7.24	110%	12.44	10.14	123%
CONCHAS DAM	5.04	5.38	94%	8.34	7.42	112%
MOSQUERO 1NE	6.23	6.54	95%	8.94	8.69	103%
PORTALES	5.59	6.62	84%	9.95	9.16	109%
TUCUMCARI 4NE	8.46	6.58	129%	11.88	9.06	131%
<b>Southwestern Mountains</b>						
FORT BAYARD	2.51	4.05	62%	6.17	7.14	86%
GILA HOT SPRINGS	4.77	4.37	109%	6.85	8.34	82%
GRANTS APRT	2.03	3.09	66%	5.00	5.45	92%
QUEMADO ESTATES	3.22	4.19	77%	6.98	6.84	102%
RESERVE R/S	3.14	4.62	68%	6.73	8.74	77%
<b>Central Valley</b>						
ABQ WSFO APRT	2.76	3.01	92%	4.15	4.76	87%



**Southwestern Region, R3**  
**Drought Update**  
 July 14, 2003

**U.S. Drought Monitor**     **July 8, 2003**  
 Valid 8 a.m. EDT



- D0 Abnormally Dry
- D1 Drought—Moderate
- D2 Drought—Severe
- D3 Drought—Extreme
- D4 Drought—Exceptional

*Drought Impact Types:*

- A= Agricultural (crops, pastures, grasslands)
- H= Hydrological (water)
- No type = both impacts
- Delineates dominant impacts

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

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

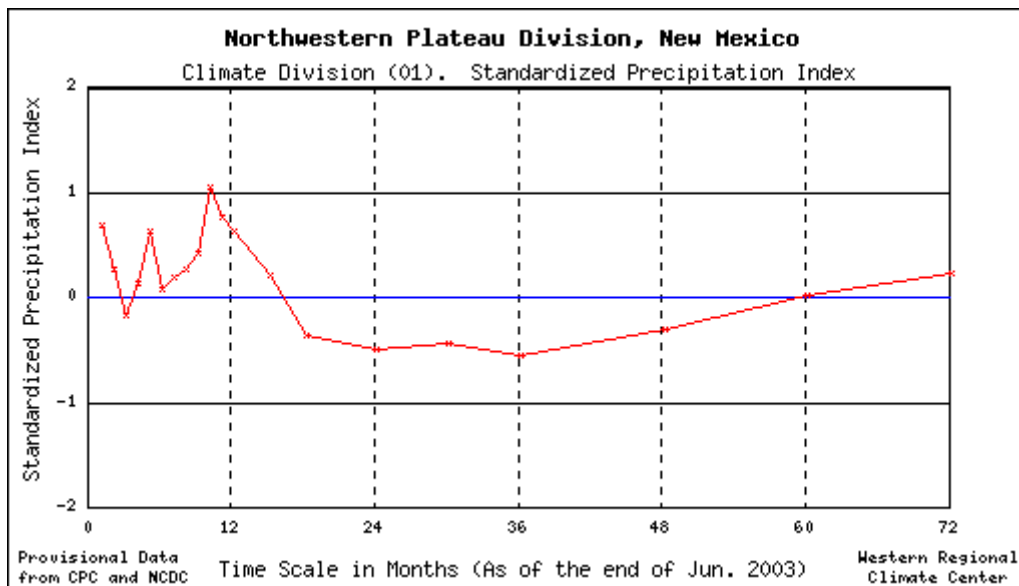
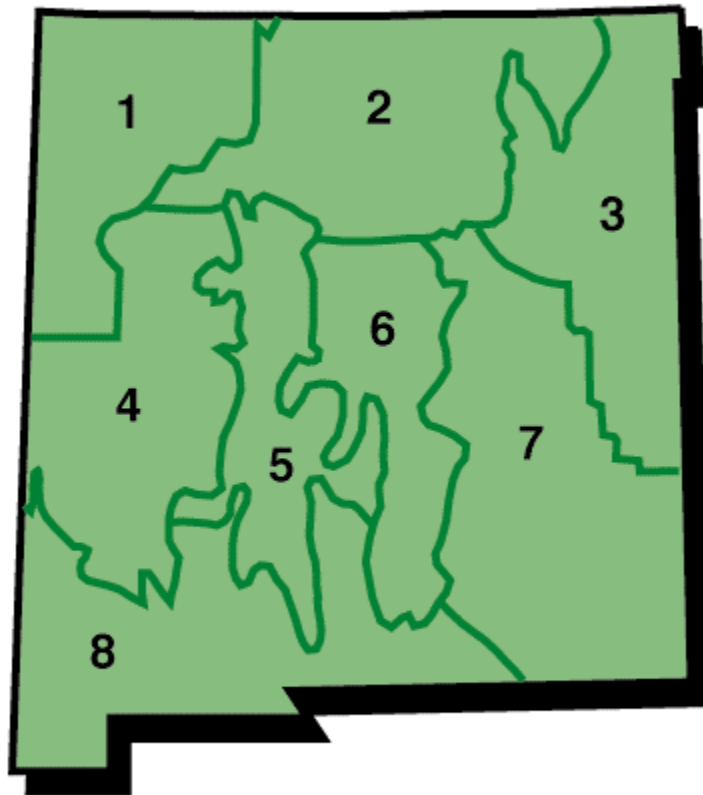


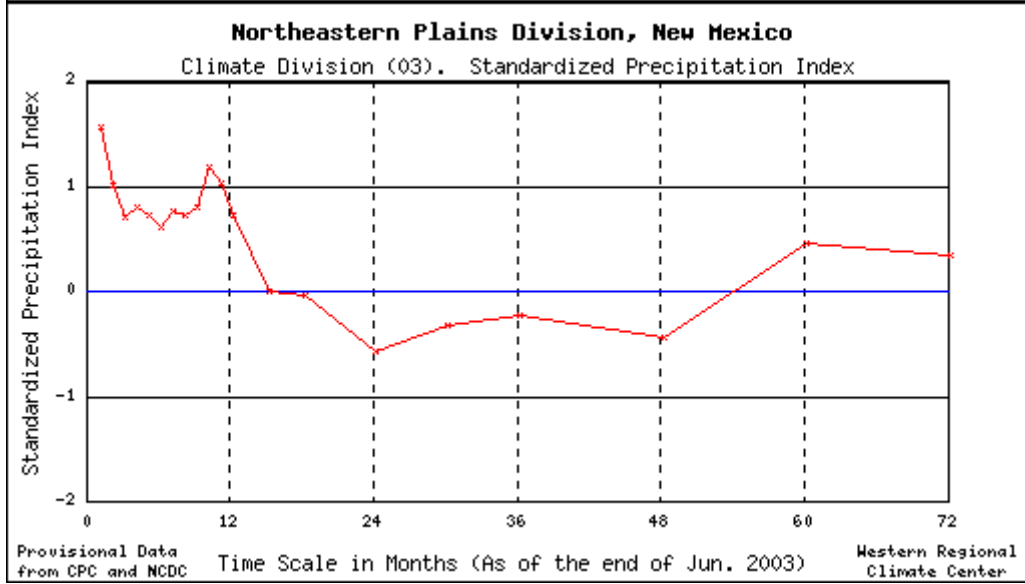
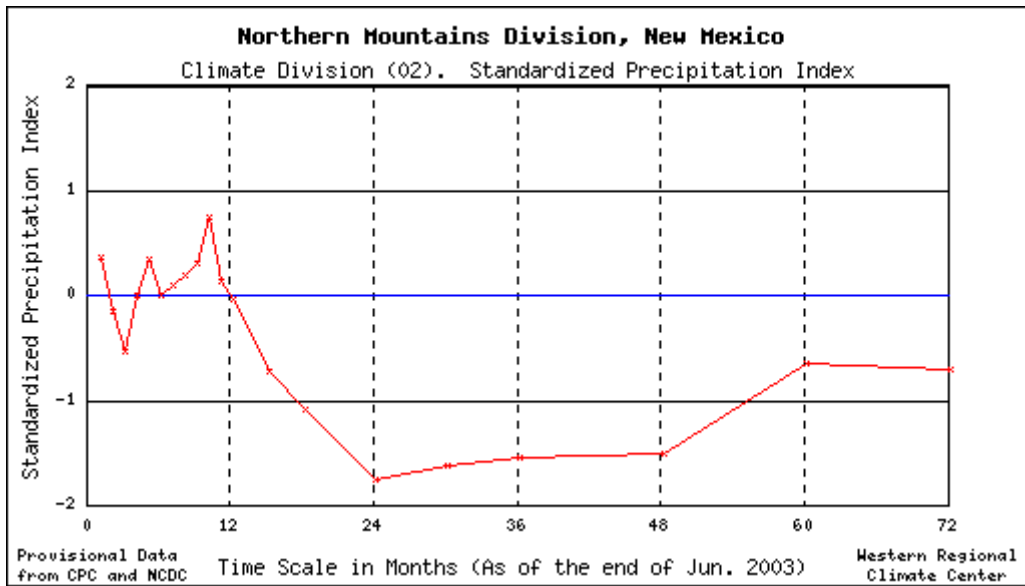
**Released Thursday, July 10, 2003**

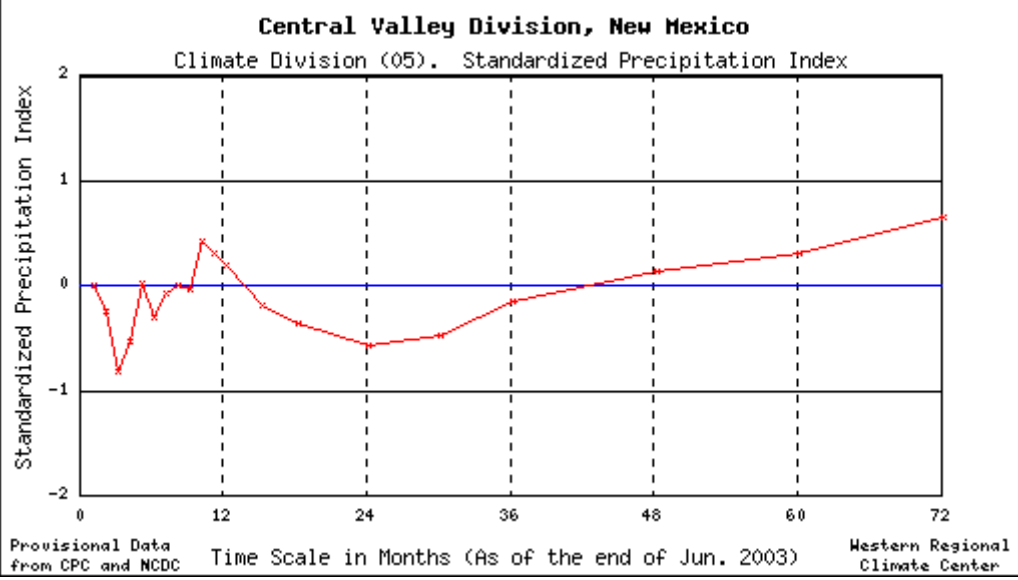
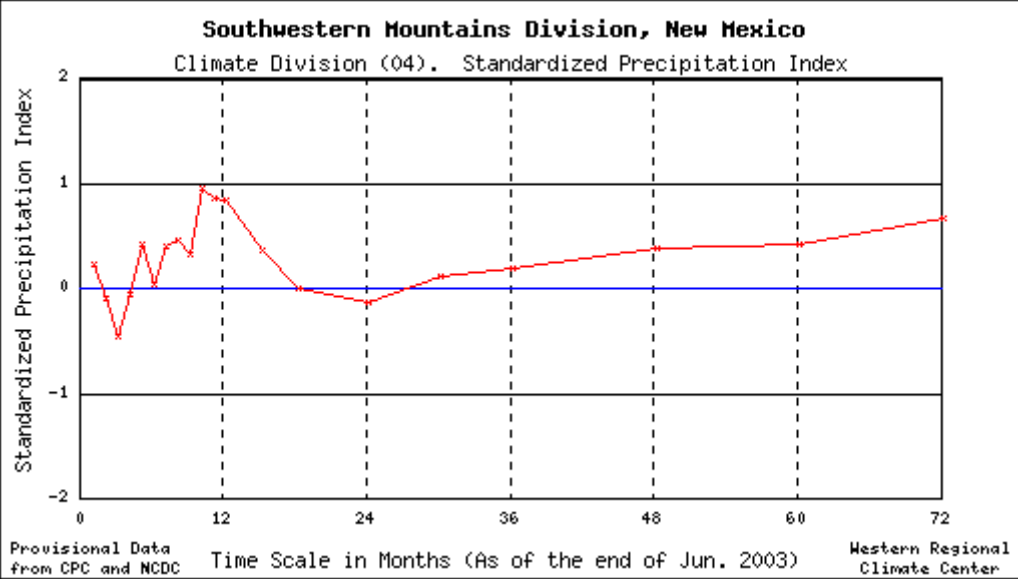
**Authors:** David Miskus, JAWF/CPC/NOAA, and Brad Rippey, JAWF/WAOB/USDA

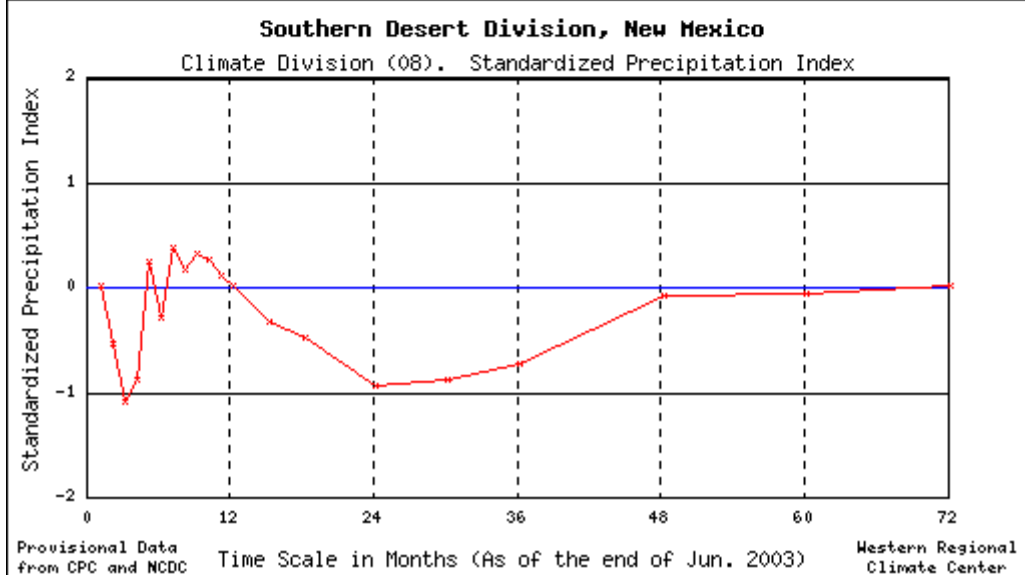
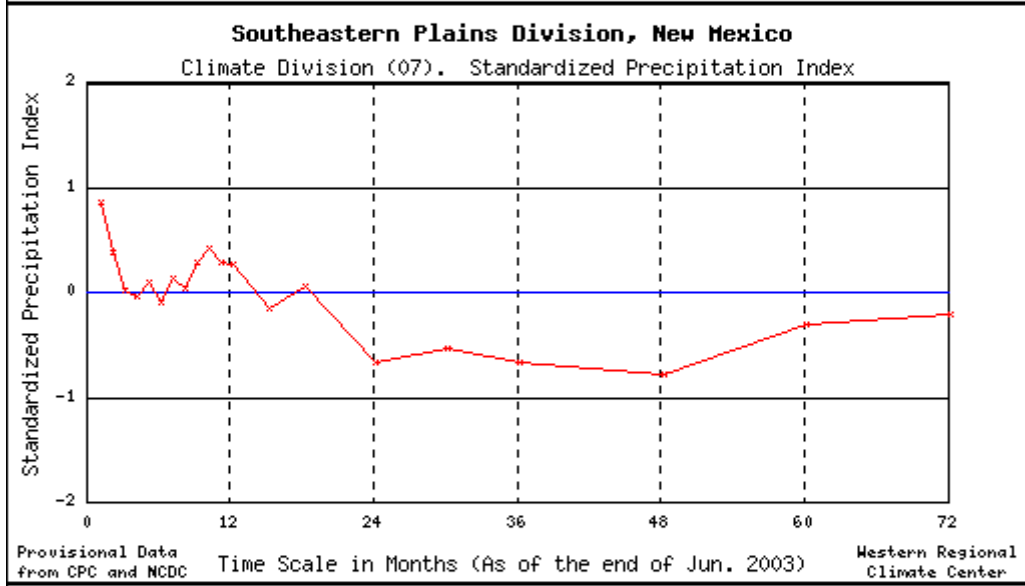
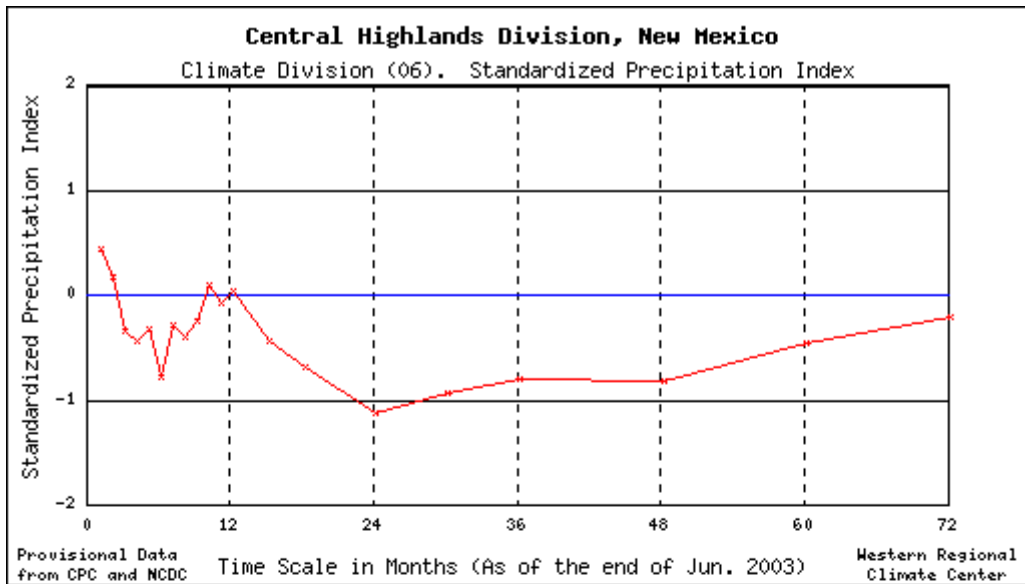
**West:** According to NASS/USDA, pasture and rangeland conditions declined, with NM (69%), AZ (50%), CA (30%), CO (25%), UT (24%), MT (22%), and OR (21%) rated poor to very poor. Very high to extreme fire indices were reported in all Western States except Washington, and numerous large fires were reported on July 8, including 82,000 acres (Aspen) near Tucson, AZ, and 62,000 acres (Dry Lake Complex) near Silver City, NM.

Author: [David Miskus, Joint Agricultural Weather Facility, CPC/NCEP/NWS/NOAA](#), and [Brad Rippey, Joint Agricultural Weather Facility, WAOB/OCE/USDA](#)









**STREAMFLOW CONDITIONS FOR SELECTED LOCATIONS IN NEW  
MEXICO\_\_DROUGHT MONITORING TASK FORCE  
BY THE U.S. GEOLOGICAL SURVEY, ALBUQUERQUE, NM**

Streamflow conditions for June 2003 remained below average to significantly below average State wide. The 2003 water year to date (YTD) percent of average streamflow volumes remained the same in some cases, and in most cases decreased since May. The YTD streamflow is significantly below average Statewide, except for the Rio Chama which is below average; of course other streamflows were augmented from releases from upstream reservoirs.

Streamflow for June 2003 improved or remained the same over June 2002, except for the upper Arkansas and Mimbres River Basin's.

<u>Streamflow-gaging station</u>	<u>Streamflow in percent of average-----</u>			
	<u>June-2003</u>	<u>YTD</u>	<u>June-2002</u>	<u>YTD</u>
<b>Arkansas River Basin</b>				
07203000 Vermijo River near Dawson	33	30	3	17
07216500 Mora River near Golondrinas	2	7	2	14
07221500 Canadian River near Sanchez	3	3	20	10
<b>Rio Grande Basin</b>				
08263500 Rio Grande near Cerro	18	30	6	36
08269000 Rio Pueblo de Taos near Taos	43	58	4	19
08279000 Embudo Creek at Dixon	37	65	1	19
08284100 Rio Chama near La Puente	38	71	1	13
08313000 Rio Grande at Otowi Bridge	33	39	39	47
08324000 Jemez River near Jemez	33	53	33	26
08477110 Mimbres River at Mimbres	11	15	4	22
<b>Pecos River Basin</b>				
08378500 Pecos River near Pecos	53	71	7	23
08387000 Rio Ruidoso at Hollywood	34 e	44 e	17	23
08396500 Pecos River near Artesia	66	43	27	50
<b>San Juan River Basin</b>				
09364500 Animas River at Farmington	56	37	6	22
<b>Gila River Basin</b>				
09386950 Zuni River above Black Rock Reservoir	0	5	0	1
09430500 Gila River near Gila	58	48	33	32
09444000 San Francisco River near Glenwood	121	43	35	23

e- estimated

a- backwater from ice

All data provisional

The Corp of Engineers reported lake levels continue to decline due to crop irrigation. Current water inventories were reported for the following lakes:

Santa Rosa Lake	3,000 acre feet
Brantley Lake	13,000 acre feet
Conchas Lake	78,500 acre feet
Sumner Lake	3,200 acre feet
Abiquiu Lake	45,000 acre feet
El Vado Lake	86,950 acre feet

The Office of Emergency Management reported the community of Alamo Navajo in Socorro County experienced well failure in the community water system. The national guard is currently hauling water to the community.