

Drought Status for December 2006
National Weather Service, Albuquerque, NM

Discussion: After four consecutive wet months, November was dry across New Mexico. None of approximately 160 reporting stations reported above-normal precipitation. Much of the southwest quarter of the state reported less than one tenth of an inch of moisture, and the state-wide average was just 21 percent of normal.

In spite of the dry November, precipitation for the first 11 months of the calendar year averages 115 percent of normal for the state (table 3), thanks to the exceptionally wet summer. Precipitation variability has been particularly extreme in New Mexico this year. The statewide average precipitation was 2nd driest of the past 112 years for the January through June period, while the July through September period was 2nd wettest of the past 112 years. Table 1 shows the percentage of normal precipitation for each of the 11 months.

Month	Percent of Normal	Comment
January	28	10 th driest of 112 years
February	15	3 rd driest of 112 years
March	71	49 th driest of 112 years
April	47	25 th driest of 112 years
May	36	22 nd driest of 112 years, driest Jan-May of 112 years
June	96	2 nd driest Jan-June of 112 years
July	139	27 th wettest of 112 years
August	184	Wettest of 112 years, wettest Jul-Aug of 112 years
September	131	25 th wettest of 112 years, 2 nd wettest Jul-Sep of 112 years
October	168	21 st wettest of 112 years, 3 rd wettest Jul-Oct of 112 years
November	21	26 th driest of 112 years

Table 1

After the exceptionally wet summer and early autumn, precipitation diminished rapidly around mid-October. By mid-December, conditions were dry statewide, with some short-term dryness apparent. The October 15 through December 14 precipitation total for Albuquerque was 0.02 inches, making it the 2nd driest such period of the past 75 years. Santa Fe measured just 0.33 inches of moisture for the same period, which was the 2nd driest such period of the past 132 years. The 0.28 inches of moisture measured at Tucumcari was the 10th lowest October 15 through December 14 value of the past 102 years.

Meanwhile, some moderate long-term drought lingers over northern New Mexico from accumulated precipitation deficits of the past seven years. Summer rainfall eased conditions in those areas, but substantial snow melt runoff will be required to completely ameliorate the drought.

One way to assess short and long-term drought is to look at the precipitation percentiles. In general, percentiles provide a good measure of how rare conditions are. Percentiles greater than 50 indicate the area has been wetter than average. Drought is associated with the lower percentiles. Percentiles less than the 11th are usually associated with “Emergency” designations in New Mexico. Percentiles from 11th to 20th are consistent with drought “warning” designations. The 21st to 30th percentiles are associated with drought “alerts,” and the 31st to 40th percentiles are consistent with “heads up” advisories. However, since a large amount of precipitation variability is the norm in New Mexico, the New Mexico drought monitor committee does not necessarily consider one-month percentile values significant. Depending on the time of year, the committee generally considers these values for periods greater than 2 months to assess drought status.

Table 2 shows the Western Region Climate Center precipitation percentiles for each of the eight climate divisions in New Mexico (fig 1) for the month of November, and the lowest long-term (12-72 months) precipitation percentiles.

Climate Division	November Precipitation Percentile and Average Precipitation Departure from Normal	Lowest Long-term Precipitation Percentile and Departure from Normal
1	14 th (-0.6 inches)	36 th (-1.4 inches) 18 months
2	24 th (-0.5 inches)	15 th (-8.9 inches) 72 months
3	32 nd (-0.4 inches)	39 th (-1.7 inches) 18 months
4	16 th (-0.5 inches)	55 th (+0.3 inches) 18 months
5	27 th (-0.4 inches)	77 th (+5.7 inches) 72 months
6	27 th (-0.5 inches)	36 th (-4.0 inches) 72 months
7	50 th (-0.2 inches)	40 th (-1.7 inches) 18 months
8	18 th (-0.5 inches)	63 rd (+1.0 inches) 18 months

Table 2

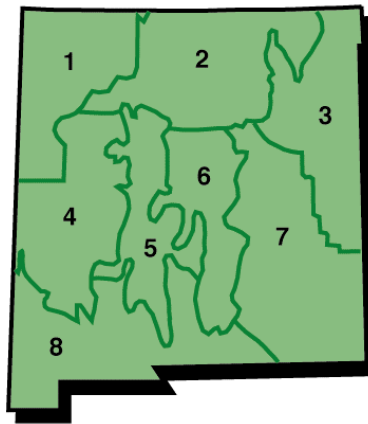


Figure 1

From table 2, it is apparent climate division 2 has the most significant long-term drought, with an average precipitation percentile of 15 over the past 72 months. Some caution is advised when looking at climate division averages, since they won't represent any one particular location. For example, across division 2, the 72 month precipitation percentiles range from 5 or less at Los Alamos, Jemez Springs and Santa Fe, to near 50 at Red River.

Rangeland/Pasture conditions, Fire Conditions, and Hydrologic Conditions – will be assessed after the beginning of 2007.

Long-Range Outlooks - A moderate El Niño is in progress. However, a pocket of warmer than normal sea surface temperatures is also lingering over the northwest Pacific Ocean. With this particular scenario, New Mexico tends to receive above-normal precipitation during the latter half of winter and through the spring. An increase in storm activity is expected over the late December through April period. Temperatures for the winter and spring are expected to average near normal. Overall, the winter and spring of 2006-2007 is expected to be significantly wetter and cooler than last winter and spring.

Table 3 (below) shows the 2006 calendar year and 2007 water year (began October 1, 2006) precipitation for a number of weather stations in New Mexico.

Calendar Year 2006 and Water Year 2007 (Oct thru Nov) Precipitation for New Mexico

National Weather Service Albuquerque, NM

<u>Location</u>	<u>2006 (Jan - Nov)</u>			<u>Water Year 2007 (Oct 06 through Nov 06)</u>			<u>SID</u>
	<u>Obs</u>	<u>Normal</u>	<u>%Normal</u>	<u>Obs</u>	<u>Normal</u>	<u>% Normal</u>	
<i>Northwest Plateau</i>							
AZTEC RUINS N/M	7.64	9.09	84%	1.88	1.80	104%	AZT
FENCE LAKE	15.70	13.28	118%	1.88	2.28	82%	FCK
FARMINGTON AG CTR	8.09	8.21	99%	1.96	1.76	111%	FAR
GALLUP FAA APRT	10.74	10.85	99%	2.61	2.04	128%	GUP
LINDRITH 2SE	14.23	13.49	105%	1.86	2.34	79%	LDR
NAVAJO DAM	13.78	12.24	113%	2.90	2.43	119%	BLN
<i>Northern Mountains</i>							
ALCALDE	10.88	9.64	113%	1.17	1.71	68%	ALC
CANJILON R/S	16.01	14.53	110%	1.61	2.27	71%	CJL
CERRO	15.60	12.22	128%	2.79	1.83	152%	CRR
CHAMA	22.94	19.20	119%	5.13	3.04	169%	CHM
CIMARRON 4SW	13.27	15.76	84%	2.26	1.75	129%	CPS
GHOST RANCH	12.15	11.02	110%	1.10	1.63	67%	AIQ
JEMEZ SPRINGS	17.03	16.36	104%	1.85	2.53	73%	JEM
JOHNSON RANCH	12.12	10.70	113%	1.11	1.77	63%	CUB
LAS VEGAS FAA APRT	13.80	16.15	85%	1.70	1.79	95%	LVS
LOS ALAMOS	14.98	17.46	86%	2.20	2.37	93%	LOA
RATON FILTER PLT	19.53	17.11	114%	2.59	1.84	141%	RRT
RED RIVER	22.08	19.39	114%	3.09	2.69	115%	RED
SANTA FE 2	13.13	13.05	101%	1.80	2.09	86%	STF
WOLF CANYON	21.47	21.39	100%	3.00	3.43	87%	CUA
<i>Northeastern Plains</i>							
CLAYTON APRT	12.49	15.13	83%	0.73	1.59	46%	CAO
CLOVIS	13.86	17.28	80%	1.62	2.29	71%	CLV
CONCHAS DAM	15.29	13.62	112%	1.36	1.56	87%	CNC
MOSQUERO 1NE	16.46	16.08	102%	1.53	1.70	90%	MSQ
PORTALES	16.41	16.13	102%	1.42	1.93	74%	POR
TUCUMCARI 4NE	14.81	15.39	96%	1.22	1.92	64%	TUC
<i>Southwestern Mountains</i>							
FORT BAYARD	21.98	14.65	150%	2.97	2.01	148%	FTB
GILA HOT SPRINGS	15.67	14.90	105%	2.17	2.53	86%	GHS
GRANTS APRT	10.62	9.95	107%	2.68	1.71	157%	GNT
QUEMADO ESTATES	13.33	13.04	102%	2.62	1.63	161%	QME
RESERVE R/S	18.07	14.44	125%	2.39	2.79	86%	RES
<i>Central Valley</i>							
ABQ WSFO APRT	11.56	8.22	141%	1.72	1.36	126%	ABQ
BOSQUE DEL APACHE	13.05	8.14	160%	2.82	1.36	207%	SAA
LOS LUNAS 3SSW	8.79	8.50	103%	1.69	1.55	109%	LLU
SOCORRO	13.97	9.01	155%	3.07	1.42	216%	SCR
<i>Central Highlands</i>							
CAPITAN	22.21	15.42	144%	3.37	1.51	223%	CAP

CLOUDCROFT	40.10	23.40	171%	5.14	2.69	191%	CLD
ESTANCIA 4N	12.60	11.87	106%	2.46	1.68	146%	EST
MOUNTAINAIR R/S	13.87	13.33	104%	2.42	1.81	134%	MTN
RUIDOSO 2NNE	31.39	20.22	155%	4.41	2.39	185%	RUP
<i>Southeastern Plains</i>							
ARTESIA 6S	10.51	11.29	93%	1.14	1.61	71%	ART
CARLSBAD	11.80	11.94	99%	0.90	1.83	49%	CWP
FORT SUMNER	12.51	13.87	90%	1.19	1.96	61%	FSM
ROSWELL CLIMAT	15.97	12.38	129%	2.30	1.74	132%	ROW
SANTA ROSA	11.71	13.59	86%	1.85	1.70	109%	SNR
TATUM	18.43	15.44	119%	2.00	2.04	98%	TAT
<i>Southern Desert</i>							
ANIMAS	12.59	10.01	126%	2.22	1.55	143%	ANM
DEMING	11.73	8.51	138%	1.84	1.23	150%	DEM
FAYWOOD	19.35	10.95	177%	2.61	1.81	144%	FAY
STATE U LAS CRUCES	14.06	8.59	164%	2.57	1.34	192%	STC
TRUTH OR CONSEQ	12.17	10.83	112%	2.18	2.07	105%	TRC
TULAROSA	17.10	9.13	187%	3.76	1.39	271%	TLR

<u>Climate Division</u>	2006 (Jan - Nov)	Water Year 2007 (Oct 06 through Nov 06)
	<u>% Nrml</u>	<u>% Nrml</u>
Northwest Plateau	104%	103%
Northern Mountains	105%	102%
Northeastern Plains	95%	72%
Southwestern Mountains	119%	120%
Central Valley	140%	163%
Central Highlands	143%	177%
Southeastern Plains	103%	86%
Southern Desert	150%	162%
All Divisions	115%	116%

Table 3