April 2009 New Mexico Drought Status Report

Severe Drought Develops from near Las Cruces into Otero County… Moderate Drought Persists across the Southern Third of NM through Roosevelt and Curry Counties while Abnormally Dry Conditions Linger in the Northeast

By Ed Polasko, National Weather Service, Albuquerque

Synopsis:

Precipitation across New Mexico during March 2009 was well below normal across much of the central and west, while several eastern border counties received near normal rainfall. The first measurable precipitation of 2009 fell during March in parts of the mid Rio Grande Valley and in the far southeast plains. For the southern third of New Mexico, March was the third consecutive month of well below normal precipitation.

Snowpack water content in the northern New Mexico Mountains as of early April ranged from slightly above normal in the Rio Chama Basin to less than 20 percent of normal in the Jemez River Basin.

The lack of moisture associated with storm systems passing through New Mexico through the first quarter of 2009 resulted in generally dry, warm, and breezy to windy conditions that have parched much of the east and south while gradually diminishing the extent and depth of the snowpack in the northern mountains.

As of early to mid April, drought concerns continue to focus on southern and eastern New Mexico.

The current U.S. Drought Monitor map depiction of drought can be found at…

http://drought.unl.edu/dm/DM_state.htm?NM,W

Produced by the New Mexico Drought Monitoring Work Group

Chair:
John Longworth, NM Office of the State Engineer

Members:
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Roy Jemison, USDA Forest Service

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John Longworth, NM Office of the State Engineer

Climate Summary:

March 2009 was the third consecutive drier-than-normal month for much of the southern two thirds of New Mexico. Some sites with significant three month precipitation deficits to start 2009 (January through March) included:

	3 Month Total	Deficit
Las Vegas Airport	0.42 inches	0.94 inches
Santa Rosa	0.45	0.95
Roswell	0.26	1.08
Carlsbad	0.29	0.92
Las Cruces	0.03	1.06
Ruidoso	0.93	2.61
Albuquerque	0.31	0.99

Water year 2009 precipitation (October 2008 – March 2009) is below normal for a state-wide average (76 percent). The Northern Mountains climate division averaged 101 percent of normal precipitation while the Southern Desert climate division precipitation averaged only 36 percent of normal, and the Southeastern Plains reported 61 percent of normal.

Precipitation/Temperature Outlooks...

The precipitation outlook from mid April through May is for near normal conditions to drier than normal conditions for New Mexico.

La Niña conditions are expected to weaken through this spring. La Niña usually leads to drier than normal conditions during the spring for New Mexico, especially across the south and east.

For the latest weather forecast for the northern two thirds of New Mexico, please see the NWS WFO Albuquerque web site at...
http://www.srh.noaa.gov/abq

From: Natural Resources Conservation Service
P.O. Box 2890 Washington, D.C. 20013

Date: April 9, 2009

Subject: April 1, 2009 Western Snowpack Conditions and Water Supply Forecasts

The following information is provided for your use in describing western climate and water supply conditions as of April 1, 2009.

OVERVIEW: The first of April is near the time of peak snowpack in the northern half of the West. Much of the Pacific Northwest is at normal or above normal (typical of a La Niña pattern) (Fig.1). Elsewhere, the Northern and Central Rockies are near normal. Below normal values exist over the Steward Peninsula in Alaska, the Upper Columbia River, the Southern Rockies, California, and in Arizona which usually has its peak snowpack in February. The Pacific Northwest, California, and much of Alaska experienced an increase in snow pack in March as shown in Fig. 2.

Since October, precipitation has been exceptionally higher than expected over the Lower Colorado Basin, Upper Snake River, and across the Northern and Central Rockies. Relative dryness has occurred over much of California, the Pacific Northwest, southeast Arizona, southern New Mexico, and the southeastern half of Alaska (Fig. 3).

As of April 1, 2009, the spring and summer streamflow forecasts are calling for well below normal values (<70%) scattered from southwest Utah to central Wyoming, selected basins in Nevada, northeastern New Mexico, much of Arizona, and the Upper Columbia River (Canada- Northern Washington). Above normal values (>110%) is noted over the Little Snake River (CO-WY) and over the Black Hills (SD) (Fig. 4). During the past month, the spring and summer streamflow forecasts have increased significantly across much of the Northern Tier States (Fig. 5). Significant decrease forecast flows are noted near the 4-Corners area of the West.

The Western States show the following average statewide reservoir levels: above normal (AZ and WA) and well below normal (CA, NV, NM, OR, and UT) (Fig. 6). California data are not available at this time but is expect to show below normal capacity.

SNOWPACK: On April 1, 2009, western snowpack is above the long-term average over much of the Rockies and below normal over much of the West Coast States (excluding parts of the Oregon and southern Washington Cascades), and much of Alaska as shown in Fig. 1. A map containing a daily update of the west wide snowpack may be obtained

from the following URL - http://www.wcc.nrcs.usda.gov/gis/snow.html. During March, snowpack increased in the much of California, The Pacific Northwest, the Northern Rockies, and Alaska but decreased over much of the Great Basin, Southern Rockies, and Arizona Mountains. The Wyoming Rockies caught up significantly and is near average conditions as a result of several winter-type snow storms that transited the state (Fig. 2).

SEASONAL PRECIPITATION: Preliminary seasonal precipitation (Water Year 2009) is above normal as would be expected for a La Niña pattern over the Northern Tier States (excluding western Oregon and Washington) as shown in Fig. 3. Amounts exceeded >130% dominated the region. An unexpected surplus of moisture is also noted over much of southern Nevada and southern California including the Colorado Rockies. Much drier conditions have occurred elsewhere across the West, especially over southern Arizona and New Mexico. Monthly and seasonal precipitation maps are available from the following location -http://www.wcc.nrcs.usda.gov/gis/precip.html and http://www.cbrfc.noaa.gov/wsup/westwide/westwide.cgi http://www.hprcc.unl.edu/maps/current/index.php?action=update_product&product=PNorm

SPRING AND SUMMER STREAMFLOW FORECASTS: Streamflow forecasts are projected to be near normal or slightly above normal over parts of the Pacific Northwest, Northern and Central Rockies, and scattered in the vicinity of the 4-Corners as shown in Fig 4. Forecast increase since March is noted over the Northern Tier States with Idaho and Montana the big winners (Fig. 5).

Specific state streamflow summaries can be obtained from the Internet location - http://www.wcc.nrcs.usda.gov/cgibin/bor.pl

RESERVOIR STORAGE: As of April 1, 2009, reservoir storage by state is shown in Fig. 5. Nevada is reflecting the worst storage and Arizona has the best storage. California and Wyoming data are not available as of April 10. Reservoir storage graph can be viewed at: http://www.wcc.nrcs.usda.gov/cgibin/resvgrph2.pl?area=west&year=2009&month=03.

FOR MORE INFORMATION:

The National Water and Climate Center Homepage provides the latest available snowpack and water supply information. Please visit us at http://www.wcc.nrcs.usda.gov

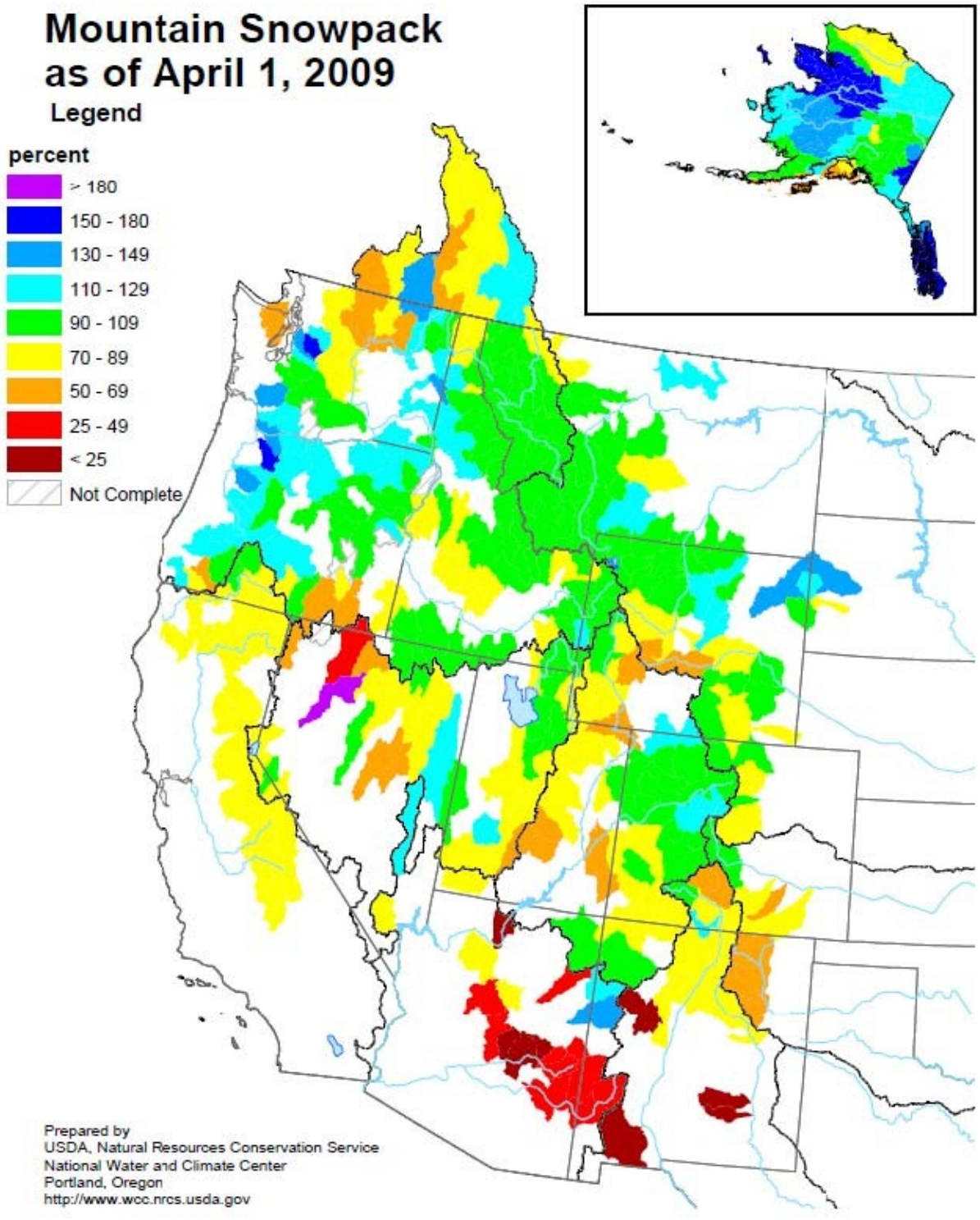
The April 1, 2009 NRCS New Mexico Basin Outlook Report is now available online in both text and HTML formats.
http://www.wcc.nrcs.usda.gov/cgibin/bor.pl

This link is to drought reports and website for those interested in how drought conditions and potential fire conditions are related.

Forest Service Fire Outlook website: http://gacc.nifc.gov/swcc/predictive/outlooks/monthly/swa_monthly.htm

/s/ NOLLER HERBERT Director, Conservation Engineering Division

Fig. 1. Mountain Snowpack, April 1, 2009



ftp://ftp.wcc.nrcs.usda.gov/support/water/westwide/snowpack/wy2009/snow0904.gif

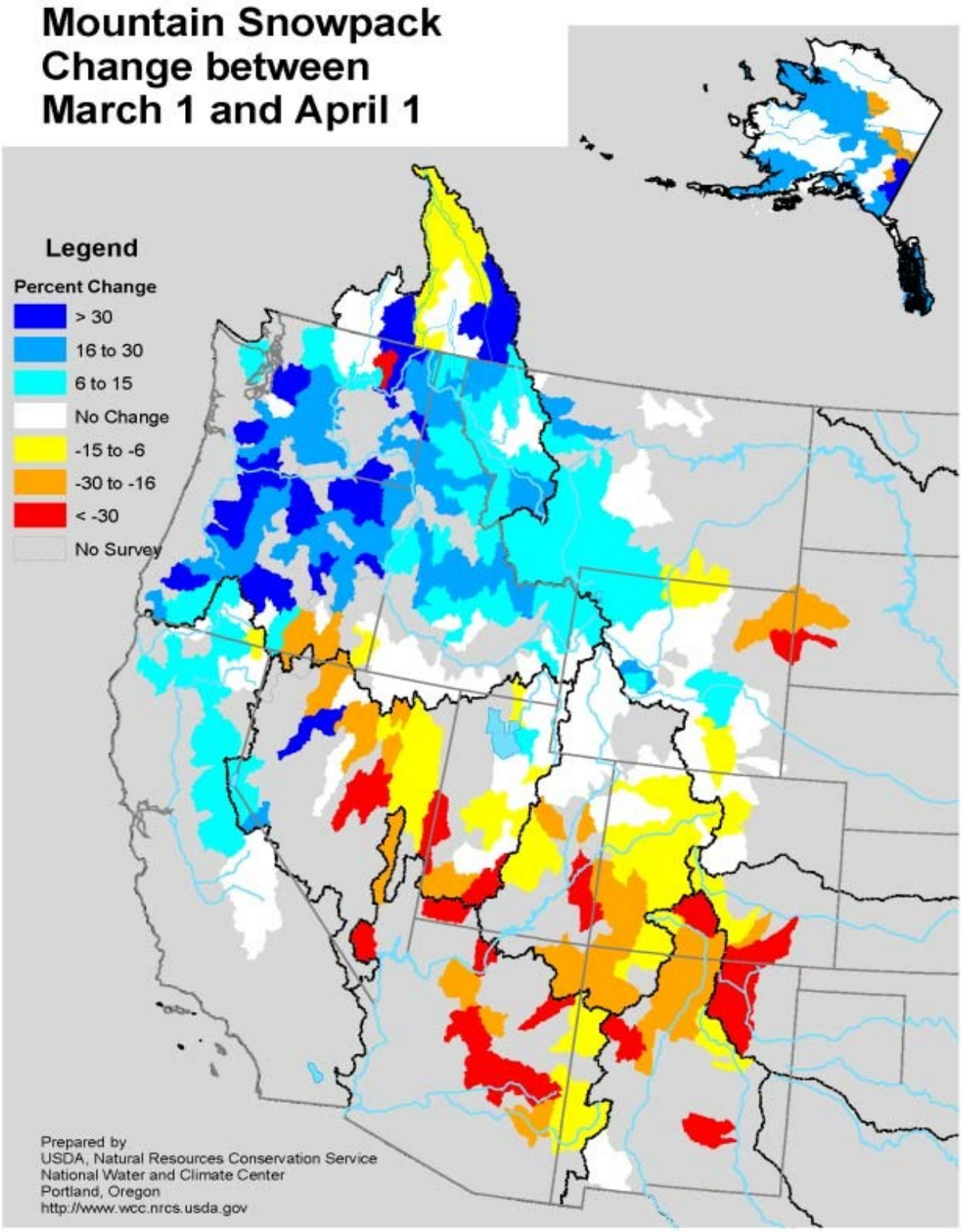


Fig. 2. Mountain Snowpack Difference from March 1 to April 1, 2009.

Fig. 3. Seasonal Precipitation, October 2008 to March 2009
Ref: http://www.cbrfc.noaa.gov/precip/qpe/mapsum/map/westS200903.png

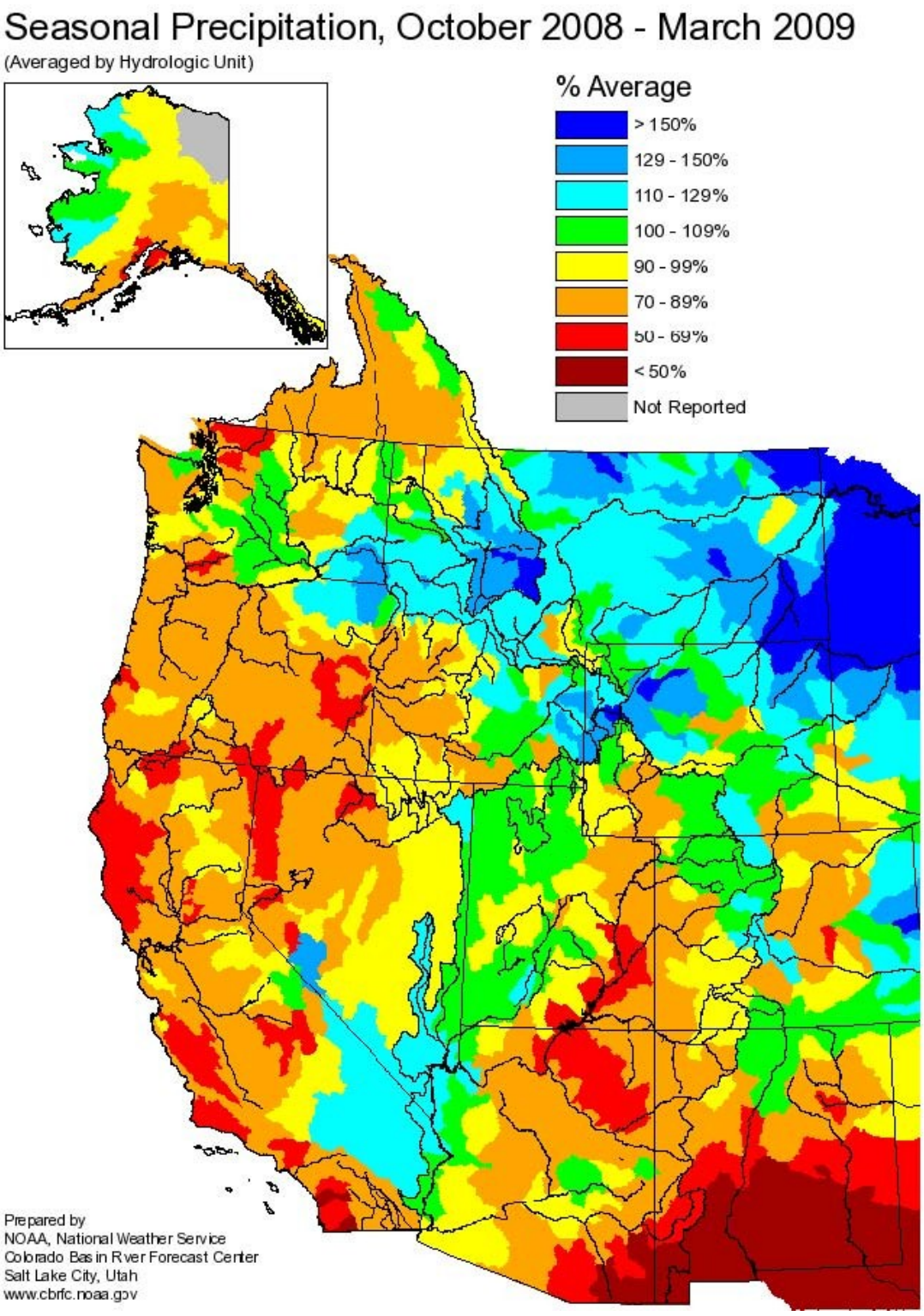
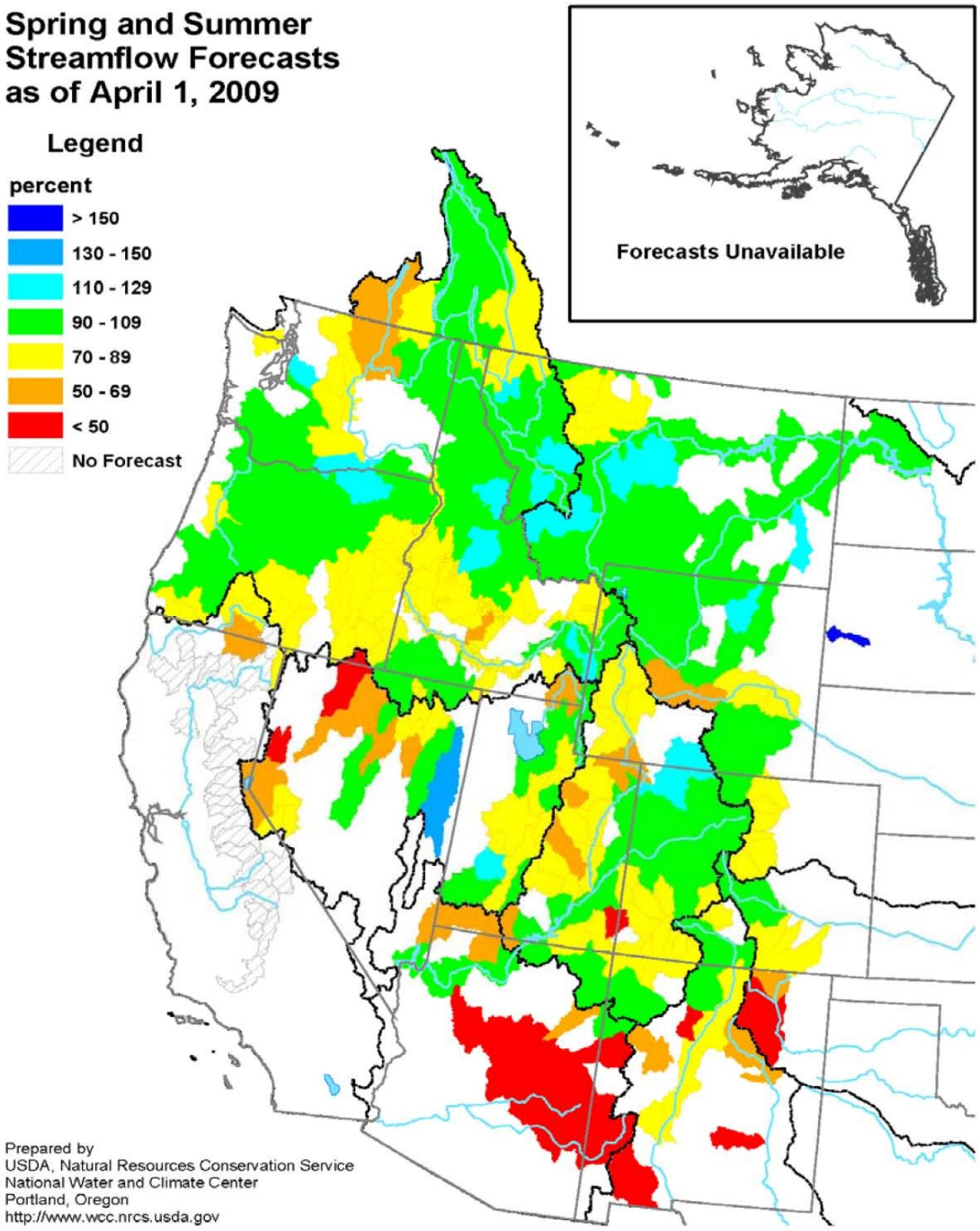


Fig. 4. Seasonal Water Supply Forecasts - April 1, 2009. California
ftp://ftp.wcc.nrcs.usda.gov/support/water/westwide/streamflow/wy2009/strm0904.gif



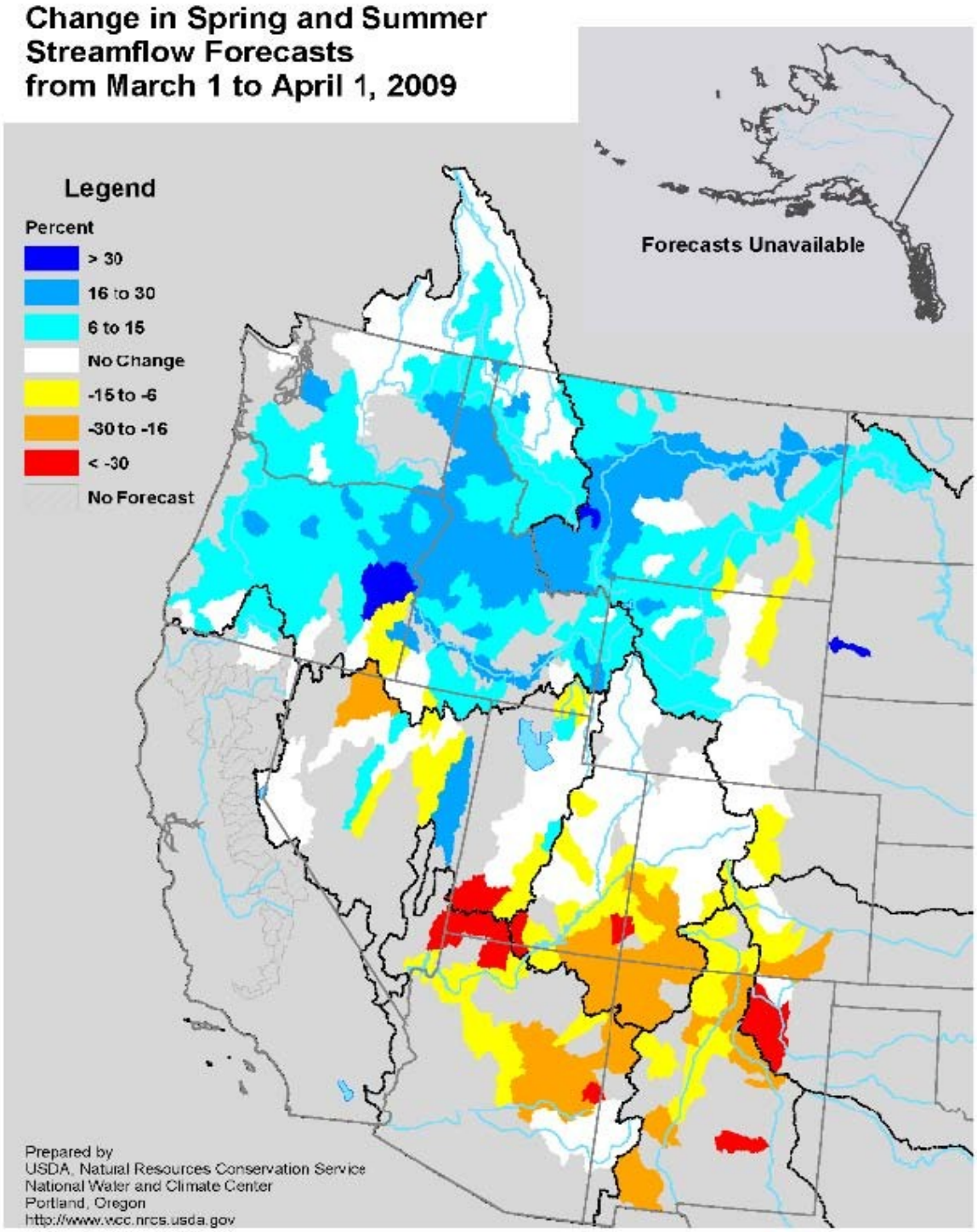
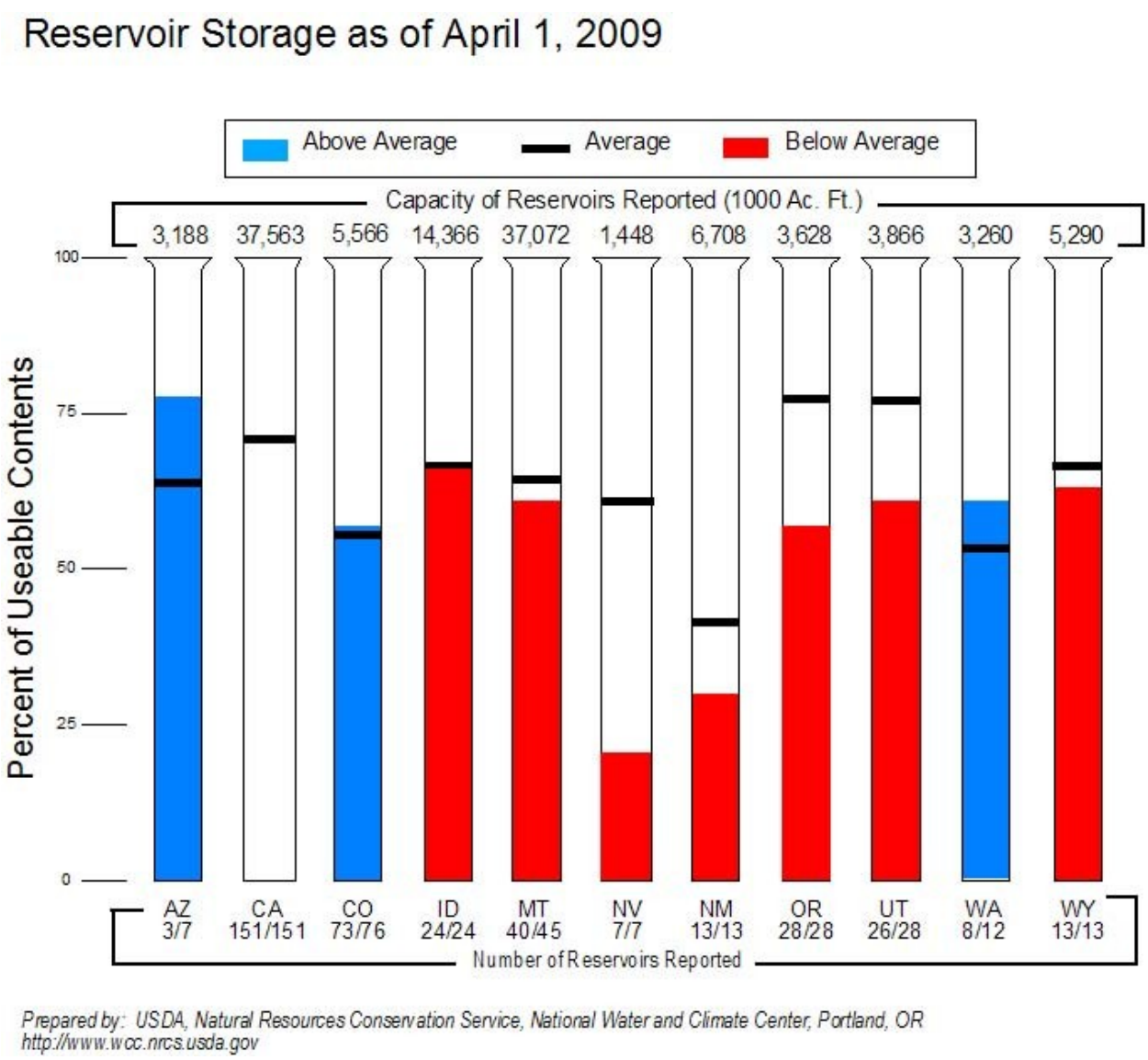


Fig. 5. Change in streamflow forecast between March 1 and April 1, 2009. California and Alaska are not available.

Ref: ftp://ftp.wcc.nrcs.usda.gov/support/water/westwide/streamflow/wy2009/difstrm0904.gif

Fig. 6. Reservoir Storage - April 1, 2009. California graphic summary is not available as of 9 April but can be used in table format at: http://cdec.water.ca.gov/reservoir.html.
Ref: http://www.wcc.nrcs.usda.gov/cgibin/resvgrph2.pl?area=west&year=2009&month=04



United States Department of Agriculture
National Agricultural Statistics Service

WEEKLY CROP & WEATHER

nass-nm@nass.usda.gov USDA/NASS NEW MEXICO FIELD OFFICE **Issue 2009 04 06 CW**

INCLUDED IN THIS ISSUE – APRIL 6, 2009, 2009
Crop Weather

Available on the Internet: www.nass.usda.gov/nm , or by email (1-800-530-8810 for information)

CROP SUMMARY FOR THE WEEK ENDING APRIL 5, 2009

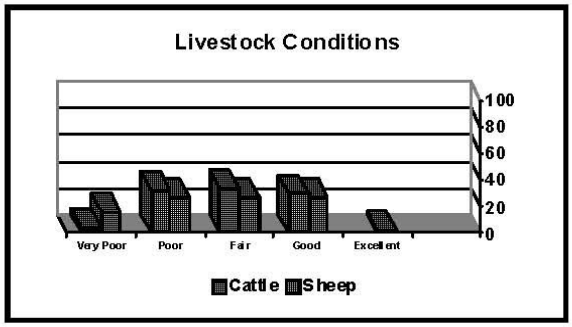
NEW MEXICO: Alfalfa condition was mostly good. Cotton was 5% planted. Sorghum was 2% planted. Winter wheat ranged from very poor to good; with 69% of the total wheat grazed. Lettuce condition was mostly good to excellent. Chile was 48% planted. Onion condition was mostly good to excellent. Cattle conditions ranged from poor to good. Sheep conditions ranged from poor to good. Range and pasture conditions were mostly poor to fair. Days suitable for fieldwork were 5.6. Topsoil moisture was 38% very short, 52% short, 7% adequate and 3% surplus. Wind damage was 34% light and 26% moderate and 3% severe. Freeze damage was15% light, 26% moderate and 4% severe.

CROP PROGRESS PERCENTAGES WITH COMPARISONS

CROP PROGRESS		This Week	Last Week	Last Year	5-Year Average
COTTON	Planted	5	N/A	N/A	4
ONIONS	Planted	100	100	100	100
SORGHUM	Planted	2	N/A	N/A	N/A
WHEAT	Grazed	69	66	53	38

CROP AND LIVESTOCK CONDITION PERCENTAGES

	Very Poor	Poor	Fair	Good	Excellent
Alfalfa	---	4	39	51	6
Chile	---	---	---	100	---
Lettuce	---	---	5	50	45
Onions	---	---	12	40	48
Wheat (All)	36	26	4	30	4
Cattle	4	32	34	30	---
Sheep	16	27	27	27	3
Range/Pasture	9	41	38	12	---

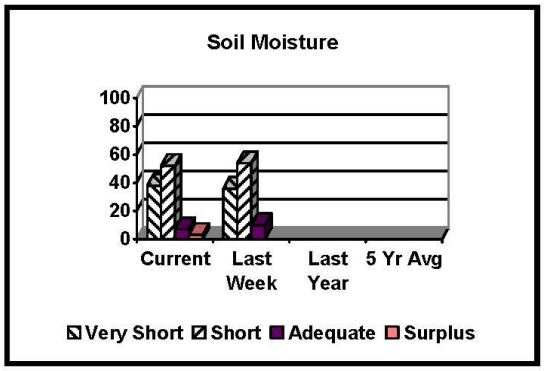


Additional Comments:

Santa Fe had extremely heavy winds Friday and Saturday (gusting 60+mph). Winds continue to contribute to current drought, high fire danger. Freezing temperatures at night through the weekend has probably destroyed much of the fruit orchards, particularly peaches and apricots. **De Baca** has been extremely windy with volatile weather conditions. Freezes overnight damaged fruit blossoms. **Guadalupe** reports that their livestock conditions are fair due to the large quantity of supplemental feeding. Stock pond water is dropping quickly. **Union** lost some 500 head of new arrived 300 stocker cattle and some 100 head of new born calves along with about 100 head of older cows during a blizzard week before last. This also hurt feedlots with weight gains and some death losses. This week, high winds caused some crop damage and hindered field work. **Catron/Socorro** had very dry conditions. High winds and low night time temps were experienced this week. **Sierra** was sucking up any moisture from plant by the windy weather. Range grasses are starting to show signs of green up. **Chaves** has been cold and windy all the week. **Eddy** has been affected by high winds. **Lea** has been very dry with high winds. Ranchers were branding livestock and farmers were planting chile.

SOIL MOISTURE PERCENTAGES

	Very Short	Short	Adequate	Surplus
Northwest	35	40	15	10
Northeast	43	56	1	---
Southwest	20	80	---	---
Southeast	55	36	9	---
State Current	38	52	7	3
State-Last Week	36	54	10	---
State-Last Year	---	---	---	---
State-5-Yr Avg.	---	---	---	---



WEATHER SUMMARY

A series of upper level storm systems impacted New Mexico last week bringing very windy conditions to the state. Precipitation amounts of less than 0.15 were reported across northern, eastern, and western New Mexico with the exception of Chama which reported 0.48 in.

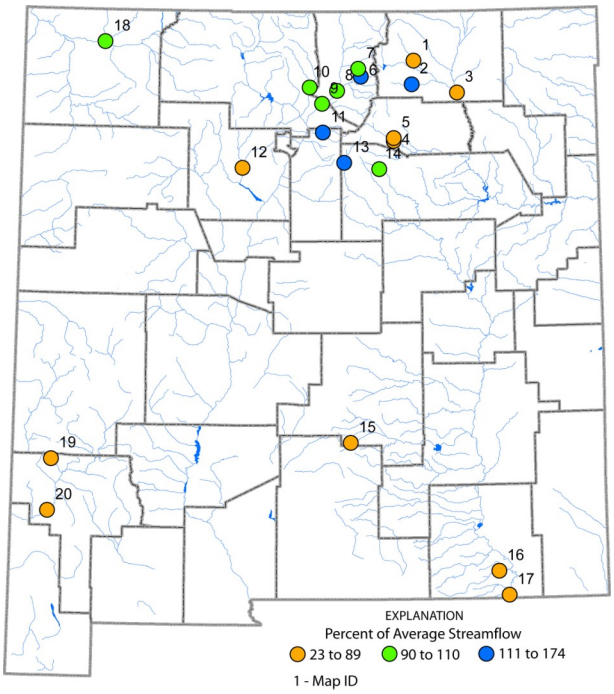
NEW MEXICO WEATHER CONDITIONS – MARCH 30 – APRIL 5, 2009

Station	Temperature			Precipitation				
	Mean	Maximum	Minimum	Week 30-Mar-05 Apr	Month 01-Apr-05 Apr	Accum. 01-Jan-05 Apr	Normal Apr	Normal Jan-Apr
Northwest								
Albuquerque	47.2	74	28	0.00	0.00	0.31	0.52	1.96
Chama	30.9	55	7	0.48	0.45	2.70	1.27	6.61
Farmington	38.8	67	20	0.09	0.06	1.51	0.51	2.48
Gallup	34.9	61	10	0.08	0.04	1.76	0.64	3.23
Grants	38.0	66	13	0.13	0.11	1.25	0.45	1.95
Johnson Ranch	34.6	65	13	0.00	0.00	0.21	0.49	2.47
Los Alamos	37.6	60	19	0.00	0.00	0.58	1.00	3.88
Red River	0.0	0	0	0.00	0.00	0.00	1.68	5.75
Santa Fe	38.9	66	17	0.00	0.00	0.66	0.81	2.87
Northeast								
Capulin	35.9	68	10	0.16	0.16	2.26	1.01	2.86
Clayton	43.0	77	18	0.00	0.00	1.18	0.94	2.04
Clovis	48.0	78	16	0.06	0.06	0.40	0.81	2.30
Las Vegas	37.7	66	14	0.00	0.00	0.24	0.83	2.54
Moriarty	41.1	69	23	0.01	0.01	0.27	0.66	2.10
Raton	39.5	71	12	0.03	0.02	0.77	1.06	2.90
Roy	42.9	71	19	0.01	0.01	0.34	0.82	2.14
Tucumcari	47.9	80	24	0.12	0.12	1.34	0.87	2.00
Southwest								
Animas	57.0	75	37	0.00	0.00	0.91	0.20	1.86
Deming	54.0	78	30	0.00	0.00	0.58	0.18	1.54
Gran Quivira	43.9	67	21	0.00	0.00	0.55	0.64	2.88
Quemado	39.6	64	20	0.08	0.00	1.18	0.60	2.95
Socorro	50.1	77	30	0.00	0.00	0.14	0.36	1.41
T or C	53.4	76	35	0.00	0.00	0.20	0.22	1.40
Southeast								
Alamogordo	54.5	78	33	0.04	0.00	2.31	0.26	1.93
Carlsbad	60.0	85	34	0.00	0.00	0.21	0.49	1.49
Carrizozo	46.8	67	27	0.00	0.00	0.80	0.36	2.10
Las Cruces	55.4	80	35	0.00	0.00	0.03	0.21	1.26
Roswell	53.0	83	30	0.00	0.00	0.19	0.65	1.99
Ruidoso	47.2	63	24	0.00	0.00	0.84	0.63	4.24
Tatum	52.4	80	26	0.00	0.00	0.71	0.64	2.05

(T) Trace (-) No Report (*) Correction - All reports based on preliminary data. Precipitation data corrected monthly from official observation forms.

Daily streamflow conditions, represented as the percent of the historical average for October through March, were at or above average for the majority of the river basins in northwest and north central New Mexico. Conversely, river basins in northeast and southern New Mexico have streamflow conditions that were below the historical average. Streamflow conditions in the Gila and lower Pecos River basins were all below average with percent of average streamflow values ranging from 23 to 41 percent and 25 to 60 percent, respectively. The Canadian River in Colfax County had streamflow conditions that were 51 percent of the historical average. Conversely, streamflow conditions in the headwater tributaries (in San Miguel County) in the Pecos River basin ranged from 103 to 154 percent of average. Streamflow conditions in the upper Rio Grande basin ranged from 74 to 145 percent of average. Streamflow conditions for the Rio Grande below Taos Junction Bridge were 94 percent of historical average. Streamflow conditions in the San Juan River basin were 93 percent of the historical average.

Water Year 2009
Percent of Average Streamflow
(October 2008 – March 2009)



New Mexico Streamflow Conditions - Percent of Average (October – March)

Current streamflow data are provisional and subject to change.

Map ID	USGS Station	USGS Station Name	Historical (Period of Record)	Current (WY2009)	Percent of Average
			Avg	Avg	Percent
1	7207500	Ponil Creek near Cimarron	3.3	2.9	89.7
2	7208500	Rayado Creek near Cimarron	5.1	8.8	173.6
3	7211500	Canadian River near Taylor Springs	24.4	12.6	51.4
4	7216500	Mora River near Golondrinas	13.5	7.4	54.9
5	7218000	Coyote Creek near Golondrinas	8.3	4.8	58.0
6	8269000	Rio Pueblo De Taos near Taos	9.0	13.0	144.5
7	8271000	Rio Lucero near Arroyo Seco	8.1	8.6	106.7
8	8276500	Rio Grande blw Taos Junction Bridge nr Taos	522.8	493.0	94.3
9	8279000	Embudo Creek at Dixon	35.3	37.0	104.9
10	8289000	Rio Ojo Caliente at La Madera	25.3	26.0	102.8
11	8291000	Santa Cruz River near Cundiyo	13.1	15.0	114.6
12	8324000	Jemez River near Jemez	42.5	31.3	73.6
13	8378500	Pecos River near Pecos	35.8	54.9	153.5
14	8380500	Gallinas Creek near Montezuma	9.1	9.4	103.0
15	8387000	Rio Ruidoso at Hollywood	15.0	7.6	50.7
16	8405500	Black River above Malaga	10.0	6.0	59.6
17	8408500	Delaware River nr Red Bluff	6.8	1.7	24.9
18	9364500	Animas River at Farmington	357.5	334.0	93.4
19	9430600	Mogollon Creek near Cliff	41.4	9.4	22.7
20	9431500	Gila River near Redrock	307.0	125.1	40.8

Note: Current streamflow information and forecasts can be found at the websites of the United States Geological Survey (http://nm.water.usgs.gov) and (http://water.usgs.gov/waterwatch/).