

California Weather-Hydro Conditions during March 2008

As of April 1, Water Year 2008 statewide hydrologic conditions were as follows: precipitation, 90% of average to date; runoff, 55% of average to date; and reservoir storage, 85% of average for the date. Snowpack water content was about 100% of average to date (and about 100% of the April 1 average—the normal date of maximum accumulation). This compares to only about a 40% of average snowpack last year. The March unimpaired runoff rates in all major Sierra basins were well below their monthly averages; however, flows did pick up for some basins due to snowmelt. The snow water content sensors are indicating the pack is consolidating and melting. Sacramento River unimpaired runoff observed through March 31, 2008 was about 5.9 million acre-feet (MAF), which is about 52% of average. (On March 31, 2007, the observed Sacramento River unimpaired runoff through that date was about 6.6 MAF or about 58% of average.) The statewide Water Year runoff forecast is about 65%. The statewide April through July snowmelt runoff forecast is about 80% of average, with no large differences between regions.

On April 1, 2008, the Northern Sierra 8-Station Precipitation Index had a seasonal total of 33.0", which is about 79% of the seasonal average to date and about 66% of average for an entire Water Year (50.0"). The Water Year 2008 October through March seasonal total of 33.0" is the 32nd driest year out of 89 years of record. March 2008, with a precipitation total of 1.6" (23% of average) was the sixth driest March of 89 years of record. Statewide, March precipitation was about 20% of average.

January and early February brought significant amounts of precipitation to California, including heavy snowfall in the mountains. California's large water supply reservoirs received some inflow from these storms; however, the amounts were muted because much of the precipitation fell as snow. Because precipitation was significantly below average last year, dry hydrologic conditions still prevail. Storage in most of the major water supply reservoirs is still well below average. The Sacramento and San Joaquin Valley Water Year Type indexes are both forecasted to be "Dry."

Selected Cities Precipitation Accumulation as of 04/01/2008 (National Weather Service Water Year: July through June)					
	Jul 1 to Date 2007 - 2008 (in inches)	% Avg	Jul 1 to Date 2006 - 2007 (in inches)	% Avg	% Avg Jul 1 to Jun 30 2007 - 2008
Eureka	31.79	97	31.44	96	83
Redding	23.21	81	19.01	66	69
Sacramento	13.67	84	9.13	56	76
San Francisco	15.52	84	10.40	56	77
Fresno	8.10	82	5.49	56	72
Bakersfield	2.31	41	2.55	45	35
Los Angeles	13.38	96	2.47	18	88
San Diego	7.00	72	3.39	35	64

Key Reservoir Storage (1,000 AF) as of 04/01/2008								
Reservoir	River	Storage	Avg Storage	% Average	Capacity	% Capacity	Flood Control Encroachment	Total Space Available
Trinity Lake	Trinity	1,593	1,960	81	2,448	65	---	855
Shasta Lake	Sacramento	2,991	3,736	80	4,552	66	-1,519	1,561
Lake Oroville	Feather	1,677	2,754	61	3,538	47	-1,486	1,861
New Bullards Bar Res	Yuba	646	695	93	966	67	-150	320
Folsom Lake	American	451	626	72	977	46	-251	526
New Melones Res	Stanislaus	1,488	1,486	100	2,420	62	-550	932
Don Pedro Res	Tuolumne	1,364	1,474	93	2,030	67	-326	666
Lake McClure	Merced	338	565	60	1,025	33	-398	687
Millerton Lake	San Joaquin	285	360	79	520	55	-180	235
Pine Flat Res	Kings	356	560	63	1,000	36	-509	644
Isabella	Kern	152	195	78	568	27	-257	416
San Luis Res	(Offstream)	1,691	1,874	90	2,039	83	---	348

The latest National Weather Service Climate Prediction Center (CPC) long-range weather outlook for April 2008, issued March 31, 2008, is forecasting average precipitation for Northern and Central California. Below average precipitation is forecasted for Southeastern California.

The pattern of this year's long-range forecast is influenced by the continuing development of moderate La Niña conditions (cooler than average sea-surface temperatures) across the tropical Pacific. Current conditions suggest that La Niña conditions have peaked, but may continue into spring, possibly longer. This La Niña is the strongest in 8 years, and is in the top third of such events. Forecasts are for it to continue at least at moderate strength through April, May, and June.

La Niña events influence the position and strength of the jet stream over the Pacific Ocean, which in turn affects the winter precipitation and temperature patterns across the United States and other locations in the world. La Niña conditions, in general, favor a wetter than average Pacific Northwest and a drier than average American Southwest. California sits in the transition zone with the northern mountains of the State potentially wetter than average, and the Central Valley and Southern California potentially drier than average. In addition, during La Niña years, weather in Northern California can be highly variable, with both wet and dry scenarios possible. Southern California has a more consistent tendency toward dryness, suggesting that drought conditions are likely to persist in that region and the American Southwest.