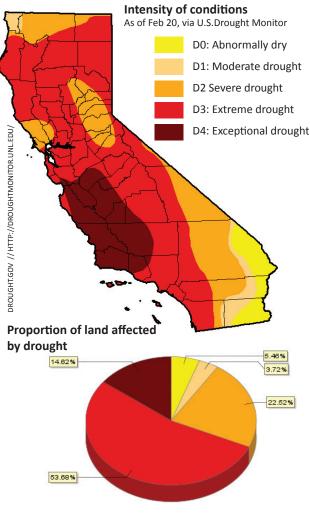
California Drought Outlook

February 20, 2014

OVERVIEW



How intensity levels have shifted since last year Chart shows percentage area of drought conditions

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	94.54	90.82	68.30	14.62
Last Week 2/11/2014	1.43	98.57	94.54	<mark>91.</mark> 59	60.94	9.81
3 Month s Ago 11/19/2013	2.61	97.39	96.00	84.12	27.59	0.00
Start of Calend ar Year 12/31/2013	2.61	97.39	94.25	87.53	27.59	0.00
Start of Water Year 10/1/2013	2.63	97.37	95.95	84.12	11.36	0.00
One Year Ago 2/19/2013	15.45	84.55	47.18	23.72	0.00	0.00

■ Government action: On Jan. 17, 2014, Gov. Jerry Brown declared a drought State of Emergency for California, as the state was experiencing its driest year in recorded history.

■ Current conditions: Almost 85% of the state is undergoing drought conditions to some degree. The rest of the state is "abnormally dry," according to the U.S. Drought Monitor (see map at left.)

■ Affected areas: More than 94% of California is experiencing some level of drought conditions, about the same level as the start of the year. This compares to 47% a year ago.

■ Intensification of drought: More than 65% of the state is in extreme (D3) or exceptional (D4) drought. None of California was at either level a year ago. At the beginning of 2014, none of the state qualified for the most severe level of drought (D4). Currently more than 14% of the state is at D4 level.

■ Snowpack: In much of California, snow pack is less than 50% of normal to date. The snowwater equivalent as of Feb. 1 is the lowest measurement in 32 years of data. Snowwater content is 20% of normal statewide for this time of year.

■ Recent weather: Six to twelve inches of precipitation fell on parts of central California and the northern Sierra Nevada between Feb. 6-13, the first significant storm since October 1. An average year sees five such events. Subnormal precipitation since 2011 has left large liquid deficits in rivers, lakes, reservoirs, and snow packs as well.

■ Little change expected: NOAA's Climate Prediction Center indicates drought conditions, already severe, will persist or intensify at least through the end of April.

NOAA's U.S. Hazards Outlook >>

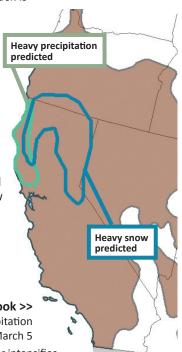
The 8-14 day outlook indicates heavy precipitation and snow in Northern California Feb. 27-March 5

Drought persists or intensifies



Darker colors indicate more extreme changes in conditions. Classes are none, D0, D1, D2, D3 D4 as shown on map at far left.

5-class degradation
4-class degradation
3-class degradation
2-class degradation
1-class degradation
No change
1-class improvement



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Precipitation and water resources

Percent of average precipitation Jan 20 - Feb 18, 2014

WESTERN REGIONAL CLIMATE CENTER // NOAA

■ Recent rains: Between Oct. 1 and Feb. 7, there had been a bit more than 4 inches of precipitation in the northern Sierras. The annual average to date in that region is about 26 inches. More rain and snow are in the forecast, but it is unlikely that they will alleviate drought conditions significantly this year.

■ Reservoir levels: Storage for all major reservoirs north of Los Angeles is below average. Large storms over the weekend of Feb. 8 and 9 had limited effect on reservoir levels. During that event, Folsom Lake doubled its storage, but it would need to double again to return to average levels. Oroville Reservoir levels increased to 1.33 MAF (million acrefeet) from 1.26 MAF, but average for

2 5 25 50 75 100 125 150 **200** 300

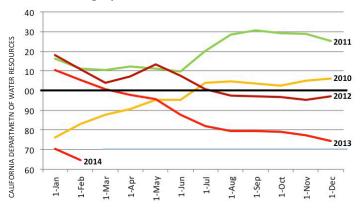
this time of year is 2.37 MAF. It would take another 1 million acrefeet to reach average. Shasta Reservoir's storage increased 15,000 acre-feet with this latest event. To get back to average, Shasta needs to gain 1.5 MAF or 100 times the recent storage gain.

■ Groundwater: Levels are falling, creating associated impacts of land subsidence, which in turn is impacting the capacity of channels in the San Joaquin Basin to withstand flood.

Fisheries

NOAA Fisheries is working with California and local partners to safeguard federally protected salmon and green sturgeon. NOAA Fisheries provides scientific support in managing risks to fisheries resources, seeking maximum flexibility in carrying out water supply operations, and real-time monitoring to improve drought responsiveness. When necessary, NOAA Fisheries will assist agency partners in pursuing emergency rescue and relocation measures for protected salmon and steelhead this spring and summer if appropriate. Learn more at: http://www.westcoast.fisheries.noaa.gov/

Reservoir storage, percent of normal 2010-14



Fire danger



■ Risky spring: Dry fuels combined with gusty Foehn winds produced unprecedented large fire activity for January, including the Campbell Fire (865 acres) and Red Fire (333 acres). Precipitation in February has improved conditions, diminishing (temporarily) any significant large fire potential for at least the remainder of the month.

Agriculture

■ Impact on crops: The dry conditions have necessitated outof-season irrigation or abandonment of orchards or permanent crops. Hundreds of thousands of acres will likely be fallowed this growing season.

■ Impact on livestock: As of October 27, 2013, 100 percent of rangelands throughout the state are were poor or very poor condition. Supplemental feeding has been neccessary and the increased costs for feeding and watering herds has led to herd thinning or movement out of state.

Outlook Partners

California Department of Water Resources www.water.ca.gov National Interagency Fire Center www.nifc.gov National Drought Mitigation Center drought.unl.edu

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NOAA/Fisheries www.westcoast.fisheries.noaa.gov NOAA/NWS Climate Prediction Center www.cpc.ncep.noaa.gov



NOAA/National Integrated Drought Information System www.drought.gov USDA/NRCS National Water and Climate Center www.wcc.nrcs.usda.gov

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