



Monthly Drought Update
March 24, 2015
San Luis Obispo County

Note: Information provided in this update varies by date.

CURRENT CONDITIONS

U.S. Drought Monitor Status:

The latest U.S. Drought Monitor report released March 12, 2015, indicates San Luis Obispo County remains at the **D4 – Exceptional Drought intensity rating**. Approximately 93% of the state remains at a level D2 – Severe Drought or worse with 40% of the state in a D4 – Exceptional Drought intensity rating.

San Luis Obispo County Precipitation Totals (in inches):

Sub-Region	Area / Rain Station	Average Annual Rainfall	2014-15 Water Year (July 2014-June 2015)	
			Cumulative Total	% of Total Average
North Coast	Cambria (ALERT #717)	22.0	11.42 *	52% *
	Whale Rock Reservoir (County Site #166.1)	16.0	6.76	42%
Inland	Paso Robles (County Site #10.0)	14.1	9.09	64%
	NE Atascadero (ALERT #711)	17.0	6.46 *	38% *
	Atascadero MWC (County Site #34.0)	17.5	9.89	57%
	Santa Margarita (ALERT #723)	24.0	9.57	40%
	Salinas Dam (County Site #94)	20.9	9.74	47%
South Coast	SLO Reservoir (ALERT #749)	24.0	9.33	39%
	Lopez Recreation Area (ALERT #707)	23.0	6.00 *	26% *
	West of Nipomo (CIMIS #202)	14.8	5.19 *	35% *
	Nipomo East (ALERT #728)	18.0	8.03	45%

Notes: This table contains provisional data from automated gauges and has not been verified. All units reported in inches. Report generated at 11:00am on 3/6/2015.

* Due to an equipment malfunction, not all rain was recorded at this site.

Near-term Outlook for Precipitation:

The National Weather Service's Climate Prediction Center has increased their El Niño Watch to an advisory for a 50-60% chance of a weak strength event through summer. Due to the expected weak strength, widespread or significant impacts are not anticipated. The U.S. Seasonal Drought Outlook is calling for the drought to persist or intensify throughout California.

Reservoir Levels (% of capacity):

Note: Historical averages calculated using data from the following time frame:

Nacimiento: 1959 – 2013; Lopez: 1994-2013; Salinas: 1987-2013; and Whale Rock: 1985-2013.

Reservoir	% of Capacity	Current Acre Feet Storage
Nacimiento	29%	109,238
Whale Rock	44%	17,184
Lopez	40%	19,645
Salinas	18%	4,272

Source: www.slocountywater.org County of San Luis Obispo

STATE WATER

Status: The Department of Water Resources (DWR) increased expected water deliveries in 2015 to most customers of the State Water Project (SWP) from 15% of their requested amounts to 20%. San Luis Reservoir is currently at 64% capacity, which is a substantial improvement from previous reports.

Actions: The Public Works Department has released a 2015 projected delivery schedule and met with sub-contractors to discuss 2015 projected deliveries. Staff has distributed information to subcontractors showing the 20% delivery scenario and will continue to coordinate with sub-contractors as more information arises.

VULNERABLE WATER SYSTEMS

County Service Areas (CSA's):**Santa Margarita (CSA 23)**

- Drought response level remains at ALERT status.
- Primary pumping is from shallow well No. 4; water is also being pumped from deep well No. 3 to reduce needs from well No. 4. State officials have also authorized the use of shallow wells 1 & 2 should the need arise.
- An emergency ordinance was adopted limiting outdoor watering. An informational mailer was sent to customers and signs in the community have been installed.
- Staff is monitoring conditions for a potential status change to CRITICAL.

Shandon (CSA 16)

- Two wells currently provide all water to the Shandon community and continued to be monitored. Work to make the connection to State Water is progressing through the required reviews by the State and the Central Coast Water Authority.
- An emergency ordinance was adopted limiting outdoor watering. An informational mailer was sent to customers and signs in the community have been installed.

Cayucos (CSA 10A)

- Supply is available from Whale Rock and one on-site well. Staff has given a presentation to the Advisory Committee and business groups regarding conserving this supply.
- An emergency ordinance was adopted limiting outdoor watering. An informational mailer was sent to customers and signs in the community have been installed.

Avila Valley (CSA 12)

- Adequate supply is available from Lopez and State water "carryover" water sources for this year and next.

Chorro Valley Institutions (CMC, Animal Services, Sheriff, County Operations, Camp San Luis, Cuesta College, County Office of Education):

- 2015 State water carryover water is available and being provided.
- The existing distribution system is being evaluated to assure water losses are minimized.
- CMC is at 100% design of their water treatment plant upgrade project and will soon go out to bid.
- Discussions with City of SLO to exchange Nacimiento for Whale Rock are being initiated if State Water is insufficient in 2016.

Non-County Operated:

- **Cambria Community Services District**

Status: Emergency San Simeon Creek Brackish Water Supply Project went online on January 20, 2015. The district is now seeking a permit to operate it permanently.

Figure 3: Avocado/Citrus Producers



Most commonly used words by San Luis Obispo County avocado and citrus producers in response to the question on the Agricultural Commissioner's 2014 crop report survey "Please comment on how drought conditions affected your agricultural operation during 2014. If you grow avocados, please include an estimate of stumped acreage". The words shown represent the 25 most commonly used words provided by 43 respondents. "Water" appeared 24 times, "drought" appeared 15 times, "stumped" appeared 13 times, "didn't-stump" appeared 8 times. Words with the smallest font appeared the least number of times, for each word a total of three times. Transition words (the, as, for, to, etc.) have been removed.

Figure 4: Walnuts



Most commonly used words by San Luis Obispo County walnut producers in response to the question on the Agricultural Commissioner's 2014 crop report survey "Please comment on how drought conditions affected your agricultural operation during 2014". These words represent the 25 most commonly used words provided by 14 respondents. "Trees" appeared 8 times, "drought" appeared 8 times, "dry-farmed" appeared 3 times. Words with the smallest font appeared the least number of times, in this word cloud a total of one time. Transition words (the, as, for, to, etc.) have been removed.

As of March 9, many producers are continuing to wait to see if additional rainfall warrants planting. Increasing issues with soil salinity are affecting all of our irrigated agricultural commodities according to their sensitivity and location, particularly the perennial plantings. Many decisions depend on the extent of additional rainfall.

Agricultural Assistance

According to staff at the USDA Farm Service Agency, the following programs are active in providing assistance. The programs are briefly summarized as follows:

LFP – Livestock Forage Disaster Program: provides payments for grazing losses.

ELAP – Emergency Assistance for Livestock, Honeybees and Farm-Raised Fish Program: provides relief for losses due to adverse weather conditions.

EQIP – Environmental Quality Incentives Program (NRCS): provides funds for land conservation planning and implementation of conservation practices.

NAP – Non-insured Crop Disaster Assistance Program: provides cash payments to producers of noninsurable crops when low yields, loss of inventory, or planting did not occur due to natural disasters.

For information about the assistance programs, contact the USDA Farm Service Agency at 805- 434-0398.

Fire Danger:

Fire Danger

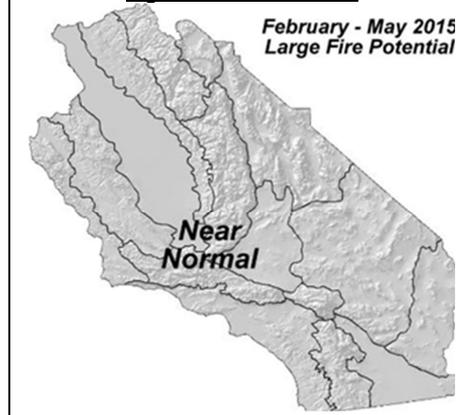
In 2014, CAL FIRE responded to 1,000 more fires compared to the 5-year average across the State. In 2015, CAL FIRE has responded to more than 70 wildfires including the massive 7,000 acre Round Fire that destroyed 40 residences last month. These statistics do not include fires on Federal jurisdiction.

In San Luis Obispo County in 2014, CAL FIRE responded to 130 wildfires, which burned 124 acres. In February, there were 2 wildfires that burned 0 acres. Since 2007, the average for February is 9 wildfires burning 2 acres.

Equipment/Staffing:

Locally, CAL FIRE remains at winter preparedness staffing levels with two additional wildland engines remained staffed and available for State mission activities including vegetation

Figure 5: Fire Potential



management and other fire prevention work. The open burn season continues which means no CAL FIRE burn permit is required and agricultural and backyard burning can be conducted with only an APCD burn permit. On permissive burn days, CAL FIRE continues to conduct pile burning operations throughout the County in an aggressive effort to reduce the backlog that accumulated over the past 2 years due to limited burning opportunities resulting from the drought.

Live Fuel Moisture (LFM)

(LFM is the moisture content of live vegetation expressed as a percentage of the oven-dry weight.)

LFM values continue to rise and are above historical averages. Overall, frequent dry weather patterns and the presence of low live and dead fuel moistures has produced fuel conditions that are considered available for burning. However, the presence of widespread green grass should continue to mitigate the possibility of fires spreading, at least for a few more weeks. This benefit could be short-lived if there is little or no rainfall in coming weeks, as green grass in some areas is already showing symptoms of dessication by turning lighter shades of green. The hot weather in the forecast will speed up the drying process quickly for the grass fuels.

Dead Fuel Moisture

(The moisture content of dead organic fuels is another important component of the relative fire danger. As with LFM above, dead fuel moisture levels are a good indicator of how likely fuels are to ignite and how intensely they will burn. 100-hr fuel refers to vegetation between 1 and 3 inches in diameter and 1000-hr fuel is 3-6 inches. When the fuel moisture content is low, fires start easily and will spread rapidly.)

Due to recent dry weather, dead fuels are below average and decreasing, although still well above historic lows. Many fuel beds in the County, particularly coastal sage scrub, have seen a dramatic increase in the percentage of dead fuel. In many areas, the volume of dead vegetation exceeds the volume of live vegetation. This factor reduces the benefit of seasonal increases in LFM and will increase the fire hazard significantly through the early periods of the upcoming fire season.

Temperatures/Relative Humidity (RH)

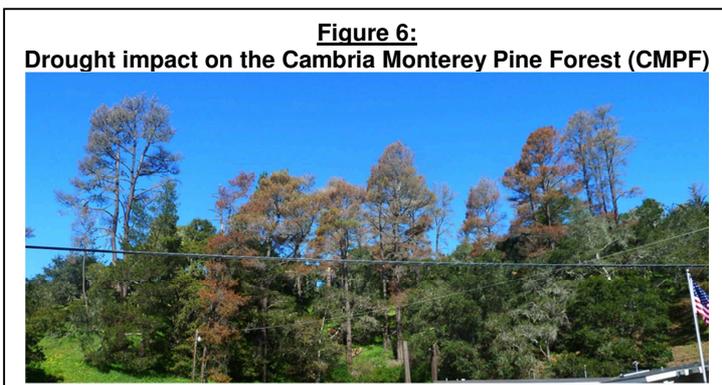
(When combined with other factors influencing the fire environment such as wind, steep topography, and low fuel moisture levels, hot temperatures and low RH can significantly increase the fire danger by increasing fire initiation, spread rates, burning intensity, and difficulty of control.)

Longer days and forecasted warm and dry weather will increase the fire danger move up the start of the 2015 fire season, unless more significant rain falls.

Energy Release Component (ERC)

(ERC is an index related to how hot a fire could burn. It is directly related to the 24-hour, potential worst case, total available energy (BTUs) at the head of a fire. The ERC can serve as a good characterization of fire season as it tracks seasonal fire danger trends well. ERC has low variability, and is the best fire danger component for indicating the effects of intermediate to long-term drying on fire behavior.)

The recent dry weather has decreased the dead fuel moistures and increased ERC values to above average levels, which has increasing relative fire danger. Hot weather in the forecast will cause ERC's to continue to rise quickly to near record levels.



Forest and Range Impacts:

Widespread tree mortality is plainly evident throughout the County (see Figure 6). Thousands of coast live oaks of all sizes in all areas and at all elevations have died.

The area most severely impacted is the Cambria Monterey Pine Forest (CMPF). Already one of the most endangered native forests in the world, the CMPF has been further devastated by the drought. The poor condition of the CMPF resulting

Attachment 1

from the decades-long problems including senescence, over-crowding, fire exclusion, pitch canker, bark beetles, and many other fungal and parasitic pathogens has been severely amplified by the drought. These cumulative impacts have created the current situation where approximately 40-50% of the overstory trees are dead or dying. In certain areas, mortality exceeds 90%. In addition to the major impacts to forest health, the resulting fire hazard has increased to the point where catastrophic stand-replacing fire is very likely.

Solutions are available including dead tree removal, biomass removal, cogeneration, thinning, prescribed burning, tree planting, and invasive weed control. Implementing worthwhile solutions is extraordinarily challenging and will require a community based effort involving multi-agency cooperation. Efforts are currently underway to secure grant funding to begin this process.

Economic:

In an effort to coordinate local and state response to drought impacts the following surveys are being utilized by the County:

Drought Business Impact Survey

The San Luis Obispo County Workforce Investment Board (WIB) is gathering information on local drought-related job impacts. This is part of a statewide survey by the California Labor and Workforce Development Agency (LWDA) as part of an ongoing online survey to inform the Governor's Drought Relief Task Force of the drought's ripple effects. The WIB's Drought Business Impact survey is available at <http://sloworkforce.com/drought-survey/>. Local Workforce Investment Boards, workforce partners, and other local workforce entities are encouraged to complete the survey regularly to keep the Governor's Drought Relief Task Force up to date on the local area. The WIB is conducting outreach to chambers of commerce and other business services agencies for assistance in outreach to businesses and employers regarding the drought survey. Though the WIB is hearing that there are impacts, the county does not have any "reportable" impacts due to the State's requirements for reporting (i.e. specific business name, address, etc.).

Domestic Water Issues-Intake Form

The Governor's Drought Task Force created an online intake form for local, state, or tribal and federal agencies to document domestic water issues. The information is intended to inform and coordinate state response and mitigate drought impacts. Data collected is considered confidential and access is restricted. Individuals with domestic water issues are encouraged to contact County Environmental Health at (805) 781-5544.

Anonymous Supplemental Domestic Water Issues Online Survey

The County Drought Task Force created a supplemental anonymous survey. The survey does not ask for any identifying information and is intended to support our request for federal disaster assistance for individuals. Individuals who wish to remain anonymous are encouraged to complete the supplemental survey online www.slocounty.ca.gov/admin/Drought_Update or by phone by calling (805) 781-5011.

To date, the County has received 87 responses to the supplemental survey. Of the 87 respondents, 28 (34%) report that one or more wells have gone dry, (11) 13% are trucking in water, and 64 (78%) have heard of other wells running dry in their area. It is important to note that the survey is voluntary and as a result, responses are not representative of the county population.

STATE & FEDERAL KEY ACTION ITEMS FROM LAST MONTH

Californians' Water Savings Dips in January, an Exceptionally Dry Month

On Tuesday, March 3, the State Water Board released water conservation rates for the month of January as reported by large urban retail water agencies under the Emergency Conservation Regulation adopted in July 2014. Californians' water savings declined significantly from 22% in December to 8.8% in January. January followed a very wet December 2014, which reduced the need for outdoor water use and likely contributed to the high conservation rate in December. On Tuesday, March 17, the State Water Board will consider a proposed emergency regulation to both extend the current set of individual prohibitions and supplier requirements, and make additional changes to improve their effectiveness.

Rains of December and Early February Allow Slight Increase in SWP Deliveries

On Tuesday, March 3, the Department of Water Resources (DWR) announced that the storms of mid-December and early February have allowed water officials to make a small increase in water deliveries to most customers of the State Water Project (SWP), increasing the allocations from 15% to 20%. DWR officials cautioned, however, that despite the storms of December and early February 2015 is shaping up to be a critically dry fourth consecutive year of drought.

COUNTY DROUGHT TASK FORCE KEY ACTION ITEMS FROM LAST MONTH

County Office of Emergency Services:

San Luis Obispo County OES continues to coordinate with Cal OES to provide updates on the drought situation, respond to specific information requests to Cal OES, and coordinate local emergency needs. In addition, County OES continues to gather local situation status information and drought costs throughout the county in order to send the information to Cal OES.

Emergency Actions:

No new emergency actions have been taken specific to the drought in this reporting period.

County Facilities Usage & Conservation Actions:

The county has taken the following actions:

- Fixture Replacement: To date, staff has retrofitted 44 buildings with low-flow fixtures, saving an estimated 4,500 gallons per week.
- Water Conservation/Leak Repair: A 3/4" water line leak was repaired on February 23, 2015 at the El Chorro Park located off Highway 1 near Dairy Creek Road in San Luis Obispo. The roughly estimated water loss from the leak was approximately 100 gallons per day for 5 days for a total of 500 gallons.
- Energy and Water Manager Professional Services Contract: The Energy & Water Manager Services consultant contractor met with Public Works to collect water usage data at the County Operations Center and identified facilities that are not metered or have anomalies in meter data. Researching causes of data irregularities.
- County Parks: Staff has continued to minimize watering on landscape and sports fields. Irrigation controllers are off this time of year.

Drought Contingency Planning:

The Public Health Department, the Public Works Department, and CAL FIRE/County Fire continue to develop plans to ensure there is adequate supply of water for firefighting and domestic water use in the event that a community does not have enough water. Water availability information from small and large public water systems has been categorized into three categories; Watch, Vulnerable, and Critical. The information has been placed into a GIS mapping layer for contingency planning.

County Public Outreach Actions:

Information regarding current and upcoming drought relief programs for rural homeowners has been placed on the County Drought Conditions and Water Conservation webpage. Rural Development, an agency of the United States Department of Agriculture (USDA), delivers a number of programs to help improve the quality of life in rural communities throughout the nation. These programs may also help rural communities, businesses and individuals impacted by California's ongoing drought conditions. For additional resources and information on applying for any of these programs, please visit <http://www.rurdev.usda.gov/ca> or the County Drought Conditions and Water Conservation webpage at http://www.slocounty.ca.gov/admin/Drought_Update.htm.

In an effort to raise awareness about water supply issues and communicate the call for a 20% voluntary reduction in water usage, the County continues to examine multiple channels of communication for water conservation outreach efforts.

DROUGHT RELATED WEBSITES FOR MORE INFORMATION

County of San Luis Obispo Drought Conditions and Water Conservation
(http://www.slocounty.ca.gov/admin/Drought_Update.htm)

State's Water Conservation Campaign; Save our Water
(www.saveourh2o.org)

California's Drought Information Clearinghouse; Dought.CA.Gov
(<http://ca.gov/drought/>)

California Department of Food and Agriculture; Drought information
(www.cdfa.ca.gov/drought/)

California Department of Water Resources; Current Water Conditions
(www.water.ca.gov/waterconditions/drought/)

California State Water Resources Control Board; Water Rights, Drought Info and Actions
(www.swrcb.ca.gov/waterrights/water_issues/programs/drought/index.shtml)

California Department of Public Health; Drinking Water CDPH Drinking Water Program
(www.cdph.ca.gov/programs/pages/dwp.aspx)

USDA Disaster and Drought Assistance Information; USDA Programs
(http://www.usda.gov/wps/portal/usda/usdahome?navid=DISASTER_ASSISTANCE)

UC Cooperative Extension Drought Information Resources; Drought Information Resources
(http://cesanluisobispo.ucanr.edu/Drought_Information/)

