



**Monthly Drought Update**  
**Tuesday June 3, 2014**  
**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 May 22, 2014 indicates San Luis Obispo County remains at the **D4 – Exceptional Drought intensity rating**.

**Recent Precipitation:**

As of May 20, 2014, total rainfall amounts to date are approximately 34% of average annual rainfall totals.

**San Luis Obispo County Precipitation Totals (in inches):**

Community	Rainfall Total Received From Last 30-Day Update (4/21/2014 to 5/20/14)	Rainfall To Date (7/1/13 to 5/20/14)	Avg. Rainfall
Nipomo South (730)	0.20	4.65	16.0
Lopez Dam (737)	0.23	8.62	21.0
SLO Reservoir (749)	0.31	8.50	25.0
Los Osos Landfill (727)	0.20	6.81	20.0
Cambria (717)	0.32	7.01	22.0
Rocky Butte (703)	0.31	11.85	39.0
Santa Margarita (723)	0.27	8.62	26.0
Salinas Dam (719)	0.16	7.44	23.0
Atascadero (711)	0.04	5.67	18.0
Templeton (762)	0.04	6.22	14.7
Paso Robles (city)	0.02	6.13	14.3
Hog Canyon (709)	0.04	3.98	16.0

Source: [www.slocountywater.org](http://www.slocountywater.org) County of San Luis Obispo-City of Paso Robles Website

**Near-term Outlook for Precipitation:**

It remains highly unlikely that precipitation totals will increase significantly over the coming months.

**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	Avg. % Capacity for Date	Updated
Nacimiento	21%	63%	5/19/2014
Lopez	54%	78%	5/19/2014
Salinas	35%	77%	5/19/2014
Whale Rock	53%	80%	5/14/2014

Source: [www.slocountywater.org](http://www.slocountywater.org) County of San Luis Obispo

## **STATE WATER**

**Status:** The Department of Water Resources (DWR) has made no new announcements regarding State Water. State Water "Carryover" water is available to agencies this year to provide for 2014 requested agency deliveries and allocation for South of Delta Service Contractors from remains at 5%. The District has maximized State Water deliveries to Zone 3 agencies.

**Actions:** The Public Works Department continues to coordinate with DWR regarding State Water Deliveries including correspondence with Mark Cowin, DWR Director.

## **VULNERABLE WATER SYSTEMS**

There have been no new updates regarding vulnerable water systems throughout the county since the May 6, 2014 report.

### **County Service Areas (CSA's):**

#### **Santa Margarita (CSA 23)**

- Drought response level remains at ALERT status.
- Primary pumping is from shallow well No. 4. Deep well No. 3 is available for use if needed to supplement well No. 4.
- An emergency water supply project connecting Santa Margarita to Atascadero Mutual Water Company is being pursued through the Integrated Regional Water Management (IRWM) drought expedited implementation grant process.

#### **Shandon (CSA 16)**

- Two wells currently provide all water to the Shandon community.
- A State water turnout design is nearly completed. Subsequent approval of final construction documents and agreements is anticipated to be completed this summer, with construction to follow.

#### **Cayucos (CSA 10A) and Avila Valley (CSA 12)**

- Adequate supply is available.

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

- 2014 State water carryover water is available and being provided.
- An interconnection between the existing Nacimiento Water Project pipeline and the existing Salinas pipeline is being pursued through the State's drought emergency funds.
- The existing distribution system is being evaluated to assure water losses are minimized.

### **Non-County Operated:**

- **City of Morro Bay**  
Status: Emergency inter-tie with Chorro Valley and desal permit.
- **Cambria Community Services District**  
Status: Emergency San Simeon Creek Brackish Water Supply Project
- **San Simeon Community Services District**  
Status: Proposed brackish desal & inter-tie with Cambria CSD & recycled water project
- **Heritage Ranch Community Services District**  
Status: The Nacimiento River is the only available water source for the community of Heritage Ranch. Emergency inter-tie agreement between Flood Control District and CSD near complete and will be submitted to governing boards for approval soon.
- **Rural Paso Robles residents**  
Status: Continue to identify water trucking options and outreach efforts.

## **IMPACTS**

### **Agricultural Impacts:**

#### University of California Cooperative Extension (UCCE) Agricultural Producer Survey

The UCCE agricultural producer survey continues to seek input about the effects of the drought on the local agricultural industry. The monthly survey is sent to producers, local agricultural organizations and

## Attachment 1

UCCE Farm Advisors representing a wide variety of crops and livestock. Participation from producers remained strong, providing a good picture of on-the-ground conditions and impacts from the drought.

The latest survey results indicate agricultural conditions continue to deteriorate due to lack of moisture. Livestock producers continue to sell animals, haul in water, and buy feed to maintain reduced herds. It is estimated that 75% of livestock have been sold or moved out of the county. The yearly UCCE forage production studies indicate available forage is at 5% of the 13-year average. Producers are buying feed and hauling in water.

Avocado growers continue to “stump” or cut trees back and implement deficit irrigation techniques to manage available water supplies. Some operations are using additional irrigation to leach damaging salts from the rootzone. Strawberry and Nursery producers indicate no changes from the April report. Vegetable representatives indicate ground is being idled, and some growers are limiting planted acreage due to lack of water. Grape growers are also evaluating irrigation systems for efficiency.

### Small Mammal Surveys

Dr. Bill Tietje, UCCE, recently completed small mammal surveys on study plots in San Luis Obispo County oak woodland. These are “keystone” animals on which many plants and other animals in the woodland ecosystem largely depend for dispersal of their seeds and for food (prey). During the past years of drought, the small mammals have not reproduced. However, during these harsh times, survival increases apparently due to calorie restriction imposed by the drought – theoretically a strategy that allows the animals to survive harsh environmental conditions and then reproduce when conditions improve. The February and March rains triggered reproduction.

### Tree Conditions

UCCE Advisors and Master Gardeners continue to field calls and examine samples of stressed, dying, or dead oak trees, particularly from the eastern areas of the county. Trees on south exposures with shallow, poor soil are most vulnerable. For a particularly valued tree, and where feasible, deep watering is recommended. To reduce the risk of fungal root diseases (e.g., Armillaria root rot) the soil should dry for 6 weeks before repeating the deep watering.

### **Fire Danger:**

#### Fire Danger

To date, 1,501 fires have been reported across the State since January 1, more than double the year-to-date average of 805. This past week, wildfire activity spiked in Southern California amidst drought conditions, dry vegetation and unseasonably early Santa Ana winds. Nine major fires consumed more than 18,000 acres, destroyed dozens of homes and caused thousands of evacuations. On May 14, Governor Brown declared a State of Emergency in San Diego County due to fire danger and the damage caused by these fires. The 600-acre fire in Lompoc demonstrated the volatility of the brush on the Central Coast particularly when dry winds are occurring. Over 150 firefighters from the County were deployed during this series of fires.

### Staffing

CAL FIRE has staffed up much earlier in the season than normal. Southern California fire stations are already at peak staffing and the rest of the State should reach peak staffing by mid-June. The Governor has funded surge firefighters so that CAL FIRE has 300 additional seasonal firefighters including 12 in San Luis Obispo County.

### Live Fuel Moisture (LFM)

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

Due to spring rains, vegetation is currently near or slightly above historical averages. The downward summer trend is underway and this is expected to occur more rapidly over the next 2 to 3 months than normal. Although new growth vegetation is still above 100, which is generally considered the level



Source: [http://www.wfas.net/nfmd/public/states\\_map.php?state=CA](http://www.wfas.net/nfmd/public/states_map.php?state=CA)

## Attachment 1

when shrub fuels become “available” for burning, recent fires in the County show that shrubs will burn actively when in alignment with wind and/or topography. Spring rains were also adequate to produce a crop of grass fuels, which may increase fire activity through the year due to an increase in fuel continuity compared to last year. This does not take into account the ratio of live fuel to dead fuel. There appears to be considerably more dead fuels than normal in our fuel beds.

### 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.)*

Currently, both 100-hr and 1000-hr fuel moisture content levels remain well below average. There appears to be more dead fuel than usual, which is not measurable. This will result in potentially more volatile fires.

### Temperatures/Relative Humidity (RH)

Above average temperatures coupled with correspondingly low RH levels has elevated fire danger. Warmer conditions cause continuous drying of both live and dead fuels and will likely lead to unprecedented dry fuel conditions for the remainder of the year or until there is significant rainfall. April/May high temperatures have been above normal in most areas of the County.

### 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.)*

Currently, ERC values are above historical maximum values.

### Other Fire Danger Indicators

*(Another important factor increasing the fire danger (due to increased dead fuels) as well as an indicator of drought severity and the resulting effects on forest/range health is the widespread increase in the occurrence of tree mortality throughout the County.)*

In many inland areas, trees already under severe drought stress experienced significant frost/freeze damage. Due to their diminished natural defense mechanisms, stressed trees are particularly vulnerable to secondary pests such as bark beetles and defoliating insects such as oak moths.

### **Economic:**

Negative economic impacts continue to mount across California. According to preliminary results of a study released on May 19 by the University of California Davis Center for Watershed Sciences, the Central Valley could lose \$1.7 billion and 14,500 jobs because of the severe drought. No information is available yet regarding impact on labor due to drought in San Luis Obispo County.

Cal OES continues to gather drought-related costs from state agencies and local governments, which is reported weekly to the Governor’s Drought Taskforce. As of May 12, Cal OES is reporting that that key state agencies have spent \$21 million on drought related costs.

## **STATE & FEDERAL KEY ACTION ITEMS FROM LAST MONTH**

### **Federal:**

There have been no new federal actions related to the drought that affect San Luis Obispo County. Staff continues to monitor federal drought mitigation and relief efforts.

### **State:**

#### State Water conservation Campaign

The state’s water conversation campaign, Save Our Water, has billboards and radio ads in place throughout the state to publicize the importance of reducing water use. This Californian’s Don’t Waste

campaign has picked up considerable media and social media interest.

#### Governor's Drought Task Force

The Taskforce continues to meet daily to take actions that conserve water and coordinate state response to the drought.

#### Local Coordination

The Governor's Office of Emergency Services (Cal OES) continues to coordinate with state agencies and local governments to take actions that conserve water and coordinate state responses to the drought. San Luis Obispo County OES continues to provide weekly reports to the State's online reporting system and through ongoing weekly conference calls. As of May 16, Cal OES is reporting that 18 counties have proclaimed a local emergency due to the drought, including San Luis Obispo County. A total of 43 local emergency proclamations have been received to date from city, county, and tribal governments, as well as special districts.

As part of the continuing coordination, per an inquiry by Cambria Community Services District, County OES has discussed requests to Cal OES and California Department of Public Health related to potential grant availability and permitting inquiries for their emergency water project.

An item of note is that the California Department of General Services signed multiple contracts for large quantities of water needed in an emergency. A guide for local agencies to obtain this resource is currently being developed. The bulk water contracts would include water delivery, as well as a storage component as part of the service. These would be resources available, at a cost, in case of immediate need.

### **COUNTY DROUGHT TASK FORCE KEY ACTION ITEMS FROM LAST MONTH**

#### **County Water Resources:**

##### Flood Control and Water Conservation District Zone 3

The following Zone 3 issues are currently under consideration:

- Surplus water determination pursuant to water delivery contracts
- Low Reservoir Release Plan – Addressing downstream agricultural and environmental interests
- Status of groundwater basin
- Use of State Water "carry-over" water in storage
- Financial considerations

##### Integrated Regional Water Management (IRWM) Grant Update

Senate Bill 104 appropriated \$200M of existing Proposition 84 IRWM grants to be awarded by the Department of Water Resources (DWR) in an expedited drought relief funding round. Of the total \$1 billion authorized under Proposition 84, Legislature appropriated \$52 million to the "Central Coast Funding Area" (CCFA1) IRWM efforts. San Luis Obispo County IRWM (SLOCo) Region will compete against five IRWM regions for the remaining \$19.7 million CCFA1 allocation, to be awarded via this drought funding round and a final funding round in 2015. There is currently no indication of how much of the \$19.7 million could be awarded in this round.

The District hired Carollo Engineers to conduct a local drought project solicitation and review, and to develop necessary grant application documents for selected projects. A total of 18 projects and programs were submitted, which are posted on the IRWM website (<http://www.slocountywater.org/>).

The following five projects were recommended by the Regional Water Management Group for inclusion in the IRWM grant application, which was subsequently endorsed by the Water Resources Advisory Committee (WRAC):

- CSA 23/Atascadero/Garden Farms Emergency Intertie
- Heritage Ranch CSD Emergency Turnout
- San Simeon CSD Small Scale Recycled Water
- Cambria CSD Emergency Water Supply
- Salinas/Nacimiento Emergency Intertie & Pipeline Extension for Chorro Valley

The application will be before the Board of Supervisors as a future agenda item for formal recommendation and a discussion on the next steps for the County sponsored projects.

**County Facilities Usage & Conservation Actions:**

General Services Agency has taken the following actions since the last update:

- A Water audit site visit is in progress for County Airport, Government Center Building, County Jail, Honor Farm, Juvenile Services Center, San Luis Obispo County Library, Health Campus, Public Health Laboratory, Department of Social Services building in San Luis Obispo, County Golf Courses, and County Parks. The water audit will identify areas for potential water conservation and efficiency opportunities.
- The request for proposal (RFP) for Energy and Water Manager professional services contract was advertised on County e-procurement website. Proposals are due from bidders on June 20, 2014.

**Drought Contingency Planning:**

County Health, the Public Works Department, and CAL FIRE/County Fire are in the process of developing contingency 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. The objectives to be completed within the next 30 days include:

- Create an inventory of all water purveyors, identify locations of water sources, identify which water sources are at risk, and what alternative sources are available.
- Identify helicopter dip sights that will be viable during the summer months.
- Provide conservation methods to CAL FIRE/County Fire facilities and contingencies if domestic supplies at those facilities are threatened or interrupted.

**County Public Outreach Actions:**

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. As previously reported, the task force is currently utilizing the following tools to communicate the importance of water conservation.

- Tool #1: Local Collaboration
- Tool #2: Website Marketing & Social Media
- Tool #3: Water Purveyor Outreach (use water bill as the first-line educational tool)
- Tool #4: Public Service Announcements (PSAs)
- Tool #5: News Media
- Tool #6: Advertising

**DROUGHT RELATED WEBSITES FOR MORE INFORMATION**

State's Water Conservation Campaign; Save our Water ([www.saveourh2o.org](http://www.saveourh2o.org))

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

California Department of Food and Agriculture; Drought information ([www.cdffa.ca.gov/drought/](http://www.cdffa.ca.gov/drought/))

California Department of Water Resources; Current Water Conditions ([www.water.ca.gov/waterconditions/drought/](http://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](http://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](http://www.cdph.ca.gov/programs/pages/dwp.aspx))

USDA Disaster and Drought Assistance Information; USDA Programs ([usda.gov/wps/portal/usda/usdahome?navid=DISASTER\\_ASSISTANCE](http://usda.gov/wps/portal/usda/usdahome?navid=DISASTER_ASSISTANCE))

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