



## Drought Update Thursday, March 30, 2017

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### KEY ACTION ITEMS FROM THIS MONTH

- **Statewide Water Savings Surpass 20 Percent in January - Weather Extremes Are California's Reality Under Climate Change:** On March 7, the State Water Resources Control Board (SWRCB) [announced](#) that urban Californians' monthly water conservation was 20.5 percent in [January](#), an increase from the 17.2 percent savings in January 2016, when state-mandated conservation targets were in place. The cumulative statewide savings from June 2015 through January 2017 remains at 22.5 percent, compared with the same months in 2013. Since June 2015, 2.51 million acre-feet of water has been saved - enough water to supply more than 12.5 million people - approaching a third of the state's population - for a year.

After five years of extreme drought, this winter has generated record precipitation and caused flooding in multiple locations. This swing from extreme dry to extreme wet conditions is becoming increasingly frequent due to climate change. The State Water Board has [adopted](#) a resolution to address climate change impacts, including enhanced protection of vulnerable communities and infrastructure from droughts, floods, and sea level rise.

- **State Water Board Adopts Climate Change Response:** On March 7, the State Water Resources Control Board (SWRCB) [adopted](#) a [resolution](#) that requires a proactive approach to climate change in all Board actions, including drinking water regulation, water quality protection, and financial assistance. This action builds on a resolution adopted by the Board in 2007, which set forth initial actions it should take to respond to climate change and support the implementation of Assembly Bill 32, the landmark climate change law that was adopted in 2006. For additional information, visit the SWRCB [Climate Change and Water Resources](#) website, and the [California Climate Change](#) portal.
- **State Water Board Continues Water Conservation Regulations, Prohibitions Against Wasting Water:** On February 8, the State Water Resources Control Board (SWRCB) [extended](#) its existing water conservation regulations, which prohibit wasteful practices such as watering lawns right after rain and set a conservation mandate only for water suppliers that do not have enough water reserves to withstand three more dry years. This decision maintains existing conservation rules, which transitioned away from specific state-mandated conservation standards last May for urban water suppliers that could demonstrate they have enough water reserves to withstand an additional three dry years.
- **CDFA 2017 State Water Efficiency and Enhancement Program Updates:** On February 1, the California Department of Food and Agriculture (CDFA) [announced](#) that \$3.75 million will be available for the State Water Efficiency and Enhancement Program (SWEEP) in 2017. This competitive grant funding provides financial assistance to implement irrigation systems that reduce greenhouse gases and save water at California agricultural operations. Agricultural operations can apply for funding of up to \$100,000 per project for irrigation projects that provide quantifiable water savings and greenhouse gas reductions.

This program receives funding from California Climate Investments, the proceeds from the state's cap-and-trade auctions, to reduce greenhouse gas emissions while providing a variety of additional benefits to California communities. Please note that the application period ended March 20, 2017, and applications are currently under review at this time. Please revisit the CDFW [SWEEP](#) portal for updates and announcements.

- **Nimbus Hatchery Releases 420,000 American River Steelhead:** On March 8, the California Department of Fish and Wildlife (CDFW) [announced](#) that nearly a half million young steelhead were released and started their journey to the ocean. CDFW staff at Nimbus Fish Hatchery nursed the young steelhead through several potentially devastating conditions, including drought-induced high water temperatures in the hatchery last summer and winter flood conditions that nearly cut off usable water supplies and carried dangerous levels of silt into the hatchery's normally clean water distribution system.

All 420,000 young steelhead were released into the American River just upstream of the I Street Bridge in Sacramento. Due to the high water conditions, the juvenile fish are expected to make excellent time traveling down the Sacramento River to the Bay and eventually on to the Pacific Ocean.

- **More Spending on Water Infrastructure Important to Most Californians, PPIC Survey Says:** On March 23, the Public Policy Institute of California (PPIC) [released](#) a new statewide survey that shows 88% of Californians think it is important for the state to spend more money on water and flood management infrastructure. The survey, titled "[Californians & Their Government](#)," also revealed that although there are wide regional and political differences, overall, 77% of respondents think it is "very important" (51%) or "somewhat important" (26%) to build tunnels in the Sacramento-San Joaquin Delta to improve the reliability of water supply. For additional details, view the entire [survey results](#) on the PPIC's website.
- **Bureau Announces Remaining 2017 CVP Allocations:** On March 22, the U.S. Bureau of Reclamation (Bureau) [announced](#) the remaining 2017 water supply allocations for Central Valley Project (CVP) customers, with 100% of contracted supplies expected for north-of-delta contractors and 65% to 90% for those south of the Delta. In February, the Bureau announced the water supply allocations for CVP contractors in the Friant Division (Millerton Reservoir), Eastside Division (New Melones Reservoir), and the American River Division (Folsom Reservoir). For additional water supply updates, visit the Bureau [CVP Water Supply](#) website.
- **California's Water Conservation Education Program Campaign:** In March, the Save Our Water website has been updated to include the new Evergreen messaging, which focuses on encouraging wise water use everyday, and recently partnered with award-winning educational program Curiosity Quest to create two great [vidoes](#) found in the Save Our Water [Kids Corner](#). Save our Water also continues to work with media partners on the initial spring media plan to run from late April through June.

In addition, Save Our Water continues to promote the [#reimagineyourlandscape](#) statewide marketing efforts, as well as the "[Real People, Real Savings](#)" campaign, which showcases California homeowners and their water-wise gardens and yards, as well as easy outdoor tips to reduce water use. To share your reimagined landscape story, visit the Save Our Water [Around the Neighborhood](#) website. In addition, Save Our Water shared several articles from its' partner, [Plant California](#), including [Waterwise Grasses and Ground Cover](#) and [Convert Your Patio to Drip Irrigation](#) on social media.

Save Our Water is the state's official water conservation program managed in partnership between the Association of California Water Agencies and the Department of Water Resources. For more [tips](#) and [tools](#) to help conserve water, learn about [rebates](#) on turf and toilet replacement, relevant water and [drought news](#), and keep [trees](#) healthy during the drought, please visit the new [SaveOurWater.com](#), available in both English and [Spanish](#), or connect with the program on [Facebook](#), [Twitter](#), or [Instagram](#).

- **Governor's Drought Task Force:** The Drought Task Force continues to take actions that conserve water and coordinate state response to the drought. During the February 9 meeting, the Task Force provided updates on water operations and environmental habitat, water conservation, and drought impacts and response efforts.

## **CURRENT DROUGHT CONDITIONS**

**Weather Outlook:** A low pressure moving out of the region brought light showers to inland portions of southern California amounting mainly 0.1" or less. A frontal system moved into northern California and southern Oregon during the period as well bringing widespread precipitation from near the I-80 corridor northward. The northern half of the Sacramento Valley received 0.25" or less, while up around the Shasta drainage, totals were 0.3-1.1". The upper Klamath basin and far northern Sierra received up to 0.2".

Satellite imagery shows the next cold front moving toward the north coast this morning with the upper low pressure near longitude of 130W. The precipitable water from this moisture source is expected to bring precipitation spreading across California down to about the I-80 corridor with the best amounts along coastal sections between the California/Oregon border and the Golden Gate. Totals in this area are expected to amount generally from 0.25- to 0.50-inch with exception for the Smith River basin where totals are approaching 1.00-inch.

In the Friday afternoon as the cold front begins to move inland and southward, precipitation will be heaviest over the northern/central Sierra through the Sacramento area and San Francisco Bay Area. The moisture plume will begin to narrow and continue to track south along the coast to reach the central coast during the late afternoon hours. With the cold front clearing the north coast during the period, precipitation will begin to taper off but remain with scattered showers until the upper low pressure moves through the area.

During the Friday evening, the cold front is expected to move through central California and precipitation will be centered on the west slopes of the southern Sierra through the Big Sur coast. Scattered showers will continue across northern California with the upper low pressure poised to move onshore overnight. Then, precipitation is expected to be on the decrease for most areas except the far southern Sierra. Freezing levels generally between 7,000- and 9,000-feet for the Sierra ahead of the cold front will drop to 5,500- to 7,500-feet behind the boundary.

Saturday will be a generally dry across the region in between systems. The next round of precipitation will move in on Sunday. An upper low pressure over the region is expected to move east Monday morning through the day. Widespread light showers are expected for the Sierra, far northern California, southern Oregon, and much of Nevada Monday morning into the afternoon and quickly diminish by the evening. Additional precipitation in the north by the middle of next week is also expected. Sierra freezing levels are expected to be around 5,000-7,000 feet Monday and 9,000-11,000 feet Wednesday, falling to 6,500-9,000 feet into Wednesday night.

**Recent Precipitation:** In the past week precipitation occurred almost statewide except inland desert areas in southern California. North coast received the most, even exceeding 10 inches for some coastal mountain areas. Shasta area also experienced heavy storms ranging from 3 to 8 inches and the Russian and Napa river basins received 1 to 4 inches of rain. The Sierra area received 2 to 5 inches of precipitation and San Joaquin Valley up to few tenth inches. The coastal area in Southern California and the desert area near the border with Arizona also received light precipitation, with accumulated amounts up to few tenth inches.

Below are precipitations totals (in inches) from March 17 through March 24, and year-to-date rainfall based on the water year cycle (October 1, 2016 to September 30, 2017).

- **Bakersfield:** 0.07" (7.34")
- **Paso Robles:** 0.21" (12.93")
- **Fresno:** 0.09" (12.96")
- **Yosemite:** 1.74" (65.75")
- **Los Angeles:** 0.09" (17.46")
- **Stockton:** 1.67" (19.40")
- **San Francisco:** 1.57" (29.05")
- **Redding:** 1.44" (38.94")
- **Riverside:** 0.16" (11.77")
- **Sacramento:** 1.92" (29.63")
- **San Diego:** 0.07" (11.66")
- **Mount Shasta:** 3.73" (47.84")
- **South Lake Tahoe:** 1.04" (41.14")
- **Monterey:** 1.23" (22.14")

- **Snow Survey:** On March 1, the Department of Water Resources (DWR) conducted the third [manual snowpack survey](#) at Phillips Station in Sierra Nevada, which indicates a snow water equivalence of 43.4 inches, a significant increase since the February survey when 28 inches was recorded there.

Snowpack as measured on March 22, using [automated sensors](#) shows statewide snowpack at 159 percent of average to date, and 158 percent of the April 1 average. Regionally, the Northern Sierra Nevada is at 140 percent of average to date, the Central Sierra is at 170 percent of average to date, and the Southern Sierra Nevada is at 164 percent of average to date. For more information, visit DWR's [California Cooperative Snow Surveys](#) website.

- **Reservoir Management:**  
Since the last report date on March 17, Central Valley reservoirs from Shasta and Trinity in the North to Isabella in the South had a net gain in storage of 131,599 acre-feet, with total gains being 572,047 acre-feet and total losses being 440,448 acre-feet. Shasta Reservoir increased by 242,475 acre-feet, while San Luis Reservoir, an off-stream reservoir for the Central Valley Project and State Water Project, decreased its storage by 10,535 acre-feet.

As of midnight on March 23<sup>rd</sup>, Shasta, Oroville, and Folsom Reservoirs recorded 3,738,695 AF, 2,743,560 AF, and 558,654 AF, storage respectively. The 10-day average changes were 29,862 AF, -22,553 AF, and 14,356 AF per day, respectively.

Reservoir [Levels](#) as of March 24 have remained steady, including: Castaic Lake 92% of capacity (104% of year to date average); Don Pedro 89% of capacity (122% of average); Folsom Lake 57% of capacity (92% of average); Lake McClure 73% of capacity (134% of average); Lake Oroville 78% of capacity (104% of average); Lake Perris 44% (53% of average); Millerton Lake 43% of capacity (62% of average); New Melones 73% of capacity (117% of average); Pine Flat 65% of capacity (117% of average); San Luis 99% of capacity (111% of average); Shasta 82% of capacity (104% of average); and Trinity Lake 86% of capacity (111% of average). An update of water levels at other [smaller reservoirs](#) is available.

- **Dry Well Reports:** As the state enters a new water year, the Governor’s Drought Task Force continues to monitor and identify communities and local water systems in danger of running out of water. The cross-agency team, led by the Department of Water Resources (DWR), continues to improve and streamline data collection and reporting for household water shortages for California water systems with fewer than 15 household connections.

As of March 29, approximately 2,173 wells statewide have been identified as critical or dry, affecting over 10,865 residents. Cal OES reported that 2,082 of the 2,173 dry wells are concentrated in the inland regions within the Central Valley. For Californians experiencing a water supply shortage, residents can [submit a report](#) on DWR’s Household Water Supply Shortage Reporting System website.

- **Vulnerable Water Systems** The State Water Board continues to provide technical and funding assistance to several communities facing drinking water shortages, and is monitoring water systems across the state. The Budget Act of 2016, SB 826, appropriated \$15 million from the Cleanup and Abatement Account Interim Emergency Drinking Water Program (CAA) for addressing drought-related drinking water emergencies or threatened emergencies. Since July 2016, 10 projects have been approved to receive CAA SB 826: 1 of 7 approved funding agreements have been executed, and 2 oral agreements have been issued. To date, the State Water Board has received requests for \$2.7 million of those funds.

On July 19, 2016, the State Water Board approved the allocation of up to \$4 million from the CAA SB 826 funding program to provide interim emergency drinking water to disadvantaged communities with a contaminated water supply. Since July 2016, 19 projects have been approved to receiving emergency funding for interim drinking water, 2 of 10 funding agreements have been executed, and 9 oral agreements have been issued. To date, the State Water Board has received requests for \$1.3 million of those funds.

- **Fire Activity:** Since the beginning of the year, firefighters from CAL FIRE, U.S. Forest Service and other federal fire agencies have responded to over 141 wildfires across the state, burning 43 acres. Fire activity across California is high resulting in 37 new wildfires over the past week.

**CAL FIRE Burn Suspension Status:** The recent rains and lowered fire threat has allowed CAL FIRE to lift the outdoor open residential burn restriction across much of the State. Currently, the following counties are required to obtain burn permits including: Alpine, Amador, Eastern Trinity, El Dorado, Fresno, Inyo, Imperial, Kings, Mono, Monterey, Nevada, Placer, Riverside, San Benito, Sacramento, San Bernardino, San Diego, San Luis Obispo, Sierra, Tulare, and Yuba counties.

Homeowners should always check with their local CAL FIRE station and local air quality management agency before burning. CAL FIRE Burn Permits are required in most Counties until further notice. Agriculture burns must be inspected by CAL FIRE prior to burning. For additional information on preparing for and preventing wildfires visit [www.ReadyforWildfire.org](http://www.ReadyforWildfire.org).

## **ONGOING DROUGHT SUPPORT**

- **Emergency Food Aid, Utility and Employment Assistance:** The Department of Social Services (CDSS) Drought Food Assistance Program (DFAP) provides food assistance to affected communities that suffer high levels of unemployment from the drought. As of March 17, over 2.02 million boxes have been provided to community food banks in drought-impacted counties. Approximately 1.8 million boxes of food have been picked up by 960,948 households.

Food boxes distributions vary by county and occur 1-4 times per month. Nearly 62% of the food distributions have occurred in the Tulare Basin (Fresno, Kern, Kings and Tulare). An estimated 15,180 boxes are scheduled for delivery to Fresno, Imperial, Kern, Merced, Riverside, Santa Barbara, Santa Cruz, and Tulare county for the week ending March 10. The Governor's budget proposes no funding for DFAP in 2017-18. The program has sufficient resources already appropriated to continue operations till about December 2017. CDSS will be working with food banks and stakeholders on an orderly phase down process for DFAP.

The Labor Workforce Development Agency reported that the federally funded Drought Temporary Jobs program has enrolled 1,310 participants at 217 worksite projects in 25 counties. The program is funded through the U.S. Department of Labor's National Dislocated Worker Grant program, which offers 2,080 hours of employment on drought-related public works projects to workers affected by the drought.

The Department of Community Services and Development (CSD), in partnership with the Department of Water Resources, continues to implement the Toilet Retrofit Program, which administers Proposition 1 funds to install high-efficiency toilets (HETs) in disadvantaged communities throughout the state. The program has administered \$5.5 million to over 30 energy service providers and entities. To date, approximately 9,522 HETs have been installed, which have saved over 37 million gallons of water. It is expected that approximately 12,000 HETs will be installed during this program.

In response to California's historic drought, CSD has received an additional \$7.5 million in 2016-17 General Funds to implement the Drought Emergency Assistance Program. This program provides emergency relief and support services to drought-impacted individuals including low-income migrant and seasonal farmworkers and their families and households. As of March 3, \$4.7 million has been issued to 3,239 households.

- **Drought Response Funding:** The \$3.7 billion in state drought funding appropriated in the 2014 and 2015 Budget Acts, as well as in March 2015 through emergency legislation, continues to advance toward meeting critical near-term needs and long-term drought resiliency and water supply needs.

In June 2016, Governor Brown [approved](#) an additional \$254.7 million for the 2016-17 budget to continue the state's response to the drought. These additional funds will be available to aid in emergency drinking water for communities, emergency food assistance, enhanced fire protection, environmental and wildlife assistance, assistance to communities to help dispose of the dead and dying trees in high hazard zones for public safety issues, and the continued statewide awareness campaign.

## **LOCAL GOVERNMENT**

- **Local Emergency Proclamations:** A total of 55 local Emergency Proclamations have been received to date from city, county, and tribal governments, as well as special districts:
  - **22 Counties:** Calaveras, El Dorado, Fresno, Glenn, Inyo, Kern, Kings, Madera, Mariposa, Merced, Modoc, San Bernardino, San Joaquin, San Luis Obispo, Santa Barbara, Shasta, Siskiyou, Stanislaus, Sutter, Trinity, Tulare, and Tuolumne.

- **10 Cities:** City of Live Oak (Sutter County), City of Lodi (San Joaquin County), City of Manteca (San Joaquin County), City of Montague (Siskiyou County), City of Porterville (Tulare County), City of Portola (Plumas County), City of Ripon (San Joaquin County), City of Rancho Cucamonga (San Bernardino County) City of West Sacramento (Yolo County), and City of Fort Bragg (Mendocino County).
- **11 Tribes:** Cortina Indian Rancheria (Colusa County), Hoopa Valley Tribe (Humboldt County), Karuk Tribe (Siskiyou/Humboldt Counties), Kashia Band of Pomo Indians of the Stewarts Point Rancheria (Sonoma County), Picayune Rancheria of Chukchansi Indians (Madera County) Sherwood Valley Pomo Indian Tribe (Mendocino County), Tolowa Dee-ni' Nation (Del Norte), Tule River Indian Tribe (Tulare County), Tuolumne Band of Me-Wuk Indians (Tuolumne County), Yocha Dehe Wintun Nation (Yolo County), and Yurok Tribe (Humboldt County).
- **12 Special Districts:** Carpinteria Valley Water District (Santa Barbara County), Goleta Water District (Santa Barbara County), Groveland Community Services District (Tuolumne County), Lake Don Pedro Community Services District (Mariposa Stanislaus County), Mariposa Public Utility District (Mariposa County), Meiners Oaks Water District (Ventura County), Montecito Water District (Santa Barbara County), Mountain House Community Service District (San Joaquin County), Nevada Irrigation District (Nevada County), Placer County Water Agency (Placer County), Tuolumne Utilities District (Tuolumne County), and Twain Harte Community Services District (Tuolumne County).
- **Water Agency Conservation Efforts:** Last year, the Association of California Water Agencies ([AWCA](#)) launched an interactive gallery to showcase the local drought response activities by ACWA members statewide. As the drought stretches into its fifth year in 2016, the [Drought Response Gallery](#) continues to highlight conservation and efficiency projects and program actions in five categories.

In June 2016, ACWA [released](#) a Water Conservation Communications Toolkit to assist water agencies in messaging to customers the transition to a new emergency conservation regulation and the importance of ongoing water conservation.

- **County and Tribal Drought Task Forces:** A total of 19 county and tribal drought task forces continue to coordinate local drought response in 2016. Inland regions counties include: Butte, Colusa, Madera, Merced, Modoc, San Joaquin, Siskiyou, Tehama, Tulare, and Tuolumne. Coastal regions counties include: Hoopa Valley Tribe (Humboldt County), Humboldt, Karuk Tribe (Siskiyou County), San Mateo, Trinidad Tribe (Humboldt County), and Yurok Tribe (Humboldt and Del Norte County). Southern regions counties include: Orange, San Luis Obispo, and Santa Barbara.

## DROUGHT RELATED WEBSITES FOR MORE INFORMATION

### [Drought.CA.Gov](#): California's Drought Information Clearinghouse

State's Water Conservation Campaign, [Save Our Water](#)  
California Natural Resources Agency, [California WaterFix](#)  
Local Government, [Drought Clearinghouse and Toolkit](#)  
California Department of Food and Agriculture, [Drought Information](#)  
California Department of Water Resources, [Current Water Conditions](#)  
Department of Fish and Wildlife, [Drought Web Portal](#)  
California Data Exchange Center, [Snow Pack/Water Levels](#)  
State Water Resources Control Board, Water Rights, [Drought Info and Actions](#)  
State Water Resources Control Board, [SWRCB Drinking Water Program](#)  
California State Water Project, [Information](#)  
Department of General Services, [Water Conservation Efforts](#)  
State of California Sustainable Buildings, [Water Usage from 2010 to 2015](#)

[U.S. Drought Monitor](#) for Current Conditions throughout the Region  
[U.S. Drought Portal](#), National Integrated Drought Information System (NIDIS)  
National Weather Service, [Climate Predictor Center](#)  
USDA Drought Designations by County, [CA County Designations](#)  
USDA Disaster and Drought Assistance Information, [USDA Programs](#)  
U.S. Small Business Administration Disaster Assistance, [Disaster Loans](#)