

# California Drought Update



**For July 28, 2016**

**by Patrick Ruckert**

<http://www.californiadroughtupdate.org>

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## A Note To Readers

This week's report kicks off with the title, "Let the Show Begin," reporting on the this summer's first emergency redirecting of water as a shutdown of the O'Neill Pumping Plant at the San Luis Reservoir was averted, at least for now. The reservoir is at a record low level and falling, hitting just 10 percent of capacity yesterday.

In the reservoir graph this week San Luis stands out for how low it is. But New Melones is heading in the same direction.

As for the U.S. Drought Monitor, I must admit that I do not really understand how the intensity of the drought over the past two months or so has not increased, given both the lack of precipitation and the very high temperatures. Is somebody hiding something? That remains to be seen.

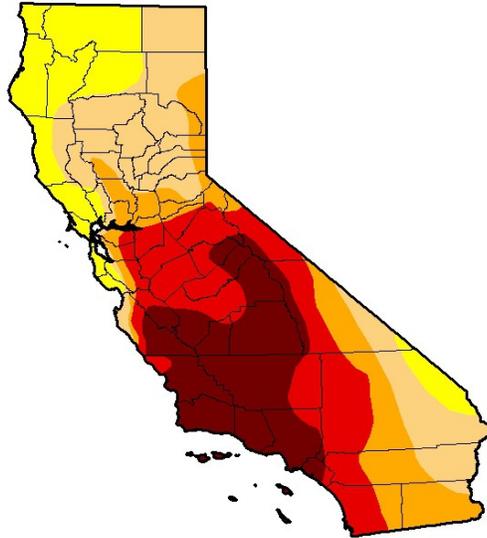
Besides the hearings on the Delta tunnels, a process that seems to have no end, the headlines this week are concentrated on the wildfires. This one sums it up: "California wildfire season at 'extreme point' with months to go," from the *Desert Sun*. More below.

Rounding out the report this week is a desalination article that provides some useful background.

This week's feature may appear a little deceptive at first. While the seeming topic is the price collapse for agricultural products and the protests farmers are raising, the real topic is the national policy required to guarantee the nation's food security.

# The U.S. Drought Monitor

## U.S. Drought Monitor California



**July 26, 2016**  
(Released Thursday, Jul. 28, 2016)  
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	0.00	100.00	83.59	59.02	42.80	21.04
<b>Last Week</b> 7/19/2016	0.00	100.00	83.59	59.02	42.80	21.04
<b>3 Months Ago</b> 4/26/2016	4.24	95.76	90.09	74.37	49.15	21.04
<b>Start of Calendar Year</b> 1/2/2015	0.00	100.00	97.33	87.55	60.07	44.84
<b>Start of Water Year</b> 9/29/2015	0.14	99.86	97.33	92.36	71.08	46.00
<b>One Year Ago</b> 7/26/2015	0.14	99.86	97.35	94.59	71.08	46.00

**Intensity:**  
■ D0 Abnormally Dry     ■ D3 Extreme Drought  
■ D1 Moderate Drought     ■ D4 Exceptional Drought  
■ D2 Severe Drought

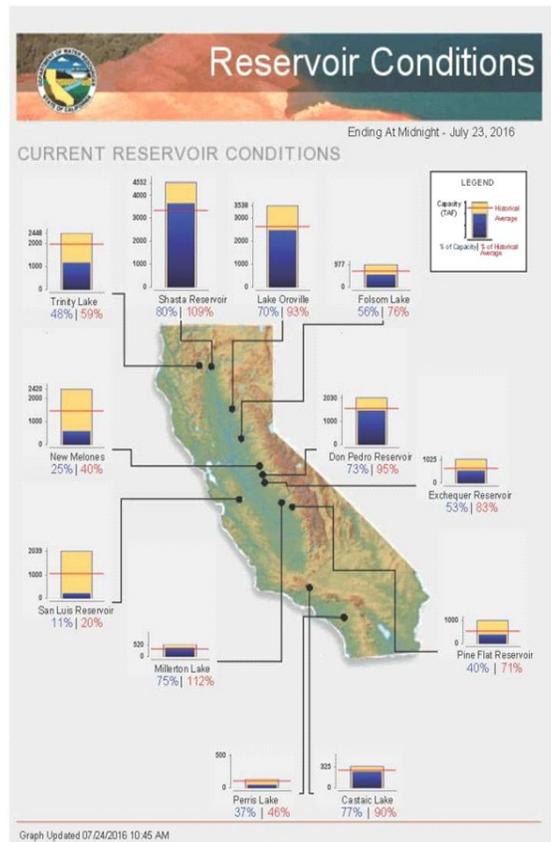
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

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<http://droughtmonitor.unl.edu/>

## Reservoir Conditions



## “Let the Show Begin”

So said the circus master as the jugglers entered the arena. Late last week the first water supply juggling act of the season garnered the following headline from *mavensnotebook.com*, on July 22, “Afternoon news flash: South of Delta water contractors avoid a shutdown at O’Neill Pumping Plant – for now ...”

Since the Spring we have reported often on how as the northern reservoirs have filled, those south of the Delta have remained low due to the diversion of water from the Delta pumps to be instead sent out to sea to protect fish. The key reservoir for both the Central Valley Project and the State Water Project is the San Luis Reservoir, a storage facility built off-stream and designed to supply both Central Valley farmers and the contracted water to the southern part of the state.

This Spring San Luis never reached even 50 percent of its capacity of two million acre-feet. Declining week by week, the reservoir is now, today, at 10 percent of capacity. That is, there remains only about 200,000 acre-feet in the reservoir.

The O’Neill Pumping Plant is the facility that pumps San Luis water into the Delta-Mendota Canal. And one week ago it became impossible to continue the pumping-- the reservoir level was too low. Thus the emergency as reported in the cited article from Maven. Included in the article is a link to the state Water Resources Control Board’s statement of action to prevent a disaster. But, as the Maven article points out, the disaster only avoids a shutdown “for now.”



San Luis Reservoir near record lows at 11% capacity

Here are some excerpts:

<https://mavensnotebook.com/2016/07/22/south-of-delta-water-contractors-avoid-a-shutdown-at-oneill-pumping-plant-for-now/>

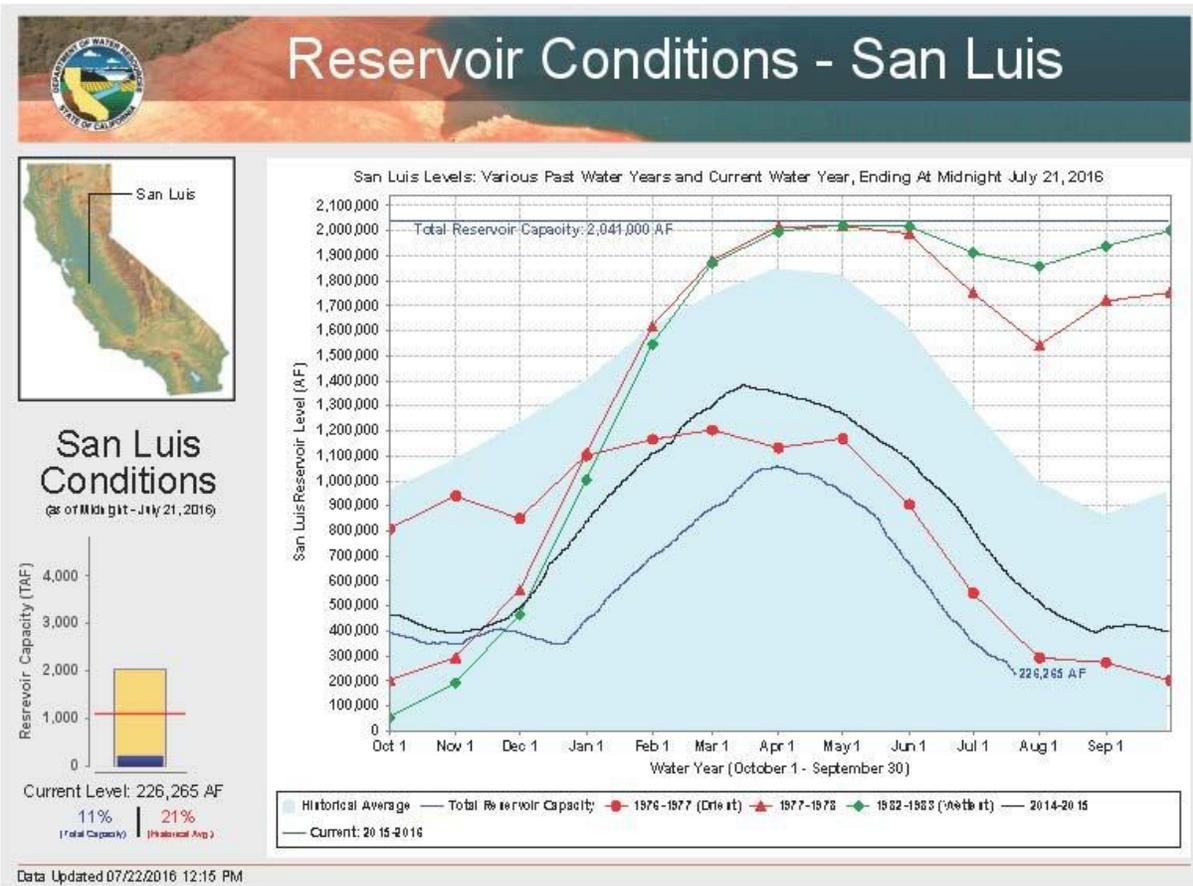
**Afternoon news flash: South of Delta water contractors avoid a shutdown at O’Neill Pumping Plant – for now ...**

With San Luis Reservoir reaching near record lows, south of Delta water contractors were warned yesterday that the federal share of water in San Luis Reservoir was nearly exhausted, and operations would be shut down at O’Neill Pumping Plant as soon as Saturday evening.

San Luis Reservoir is a joint federal and state reservoir that serves the State Water Project contractors and the federal contractors on the west side of the San Joaquin Valley, as well as providing a portion of water supplies for the Santa Clara Valley and San Benito County. While El Nino rains filled Northern California reservoirs, restrictions on the export pumps in the Delta prevented much of the water from flowing south and as a result, San Luis Reservoir was only half-full at its highest point this spring. Now, the 2 million acre-feet reservoir is sitting at just 11% of capacity – with a mere 226,265 acre-feet.

The shutdown would have ceased all deliveries to federal contractors that draw from the Delta Mendota Canal and the San Luis Canal, except for a minimal amount that would be available for M&I health and safety purposes and to the Exchange/Settlement Contractors.

However, the shutdown was averted by a complicated transfer involving a consolidated place of use petition, and a transfer of banked water from the state share of water to the federal share. ([Read the letter here.](#)) The transferred water – about 60,000 acre-feet – won’t last very long.



## A Question

*Planetexperts.com* had an item on July 24 which raised a question in my mind, once again, how some of the academics actually come to their conclusions. Because in this case a statement is made, seemingly out of the blue, that relief from this drought will not go away at least until 2019. I admit that I have not read the study as of yet, but I find it difficult to believe that the researchers are able to forecast whether or not there will be precipitation over each of the next three winters.

The article, "California's Drought Will Get Worse Before It Gets Better," by Nick Marinoff is excerpted below. For those curious enough to pursue it, go ahead. Let me know if you find a clue that led the researchers to their conclusion.

<http://www.planetexperts.com/californias-drought-will-get-worse-gets-better/>

*For the past few years, residents have held onto the belief that El Niño weather patterns encircling the U.S. would give rise to "wetter weather" and refuel the state's shrinking water supplies, forcing California into recovery. These weather patterns ceased in April of 2015, and a recent study published in Geophysical Research Letters is telling Californians what they probably already knew deep inside: that it will take several years to recover from the present water shortage.*

*Steve Margulis of UCLA's Henry Samueli School of Engineering and Applied Science is the study's primary researcher. Through his observations of the Sierra Nevada mountain range, Margulis explains that the snow usually found in the mountains was at a 500-year low in spring of last year, and residents aren't likely to see any major changes until 2019.*

## Wildfires

Summing up this past week's explosion of wildfires, is the *Desert Sun* headline on July 25, "California wildfire season at 'extreme point' with months to go,"

<http://www.desertsun.com/story/news/environment/2016/07/25/wildfire-hazards-worsen-amid-californias-ongoing-drought/87321826/>

Just an excerpt, and then another headline to follow.

*Wildfires are nothing new in Southern California, but as the record-breaking drought stretches into its fifth year, conditions in the southern part of the state are ripe for severe wildfires.*

*"In the normal season, it's (wildfires) still threatening. Put in five years of drought and it's exponentially threatening," said Cal Fire Capt. Lucas Spelman. Though Southern California saw some rain this year, it wasn't enough for fuels such as dry brush and already beetle-stricken trees to recover.*

*"We just haven't stopped," Spelman said. "Starting in the beginning of the year, we're already at the extreme point and we just can't imagine what the end of the season's going to look like."*

*Additionally, Southern California has seen a series of heat waves, further exacerbating conditions.*

*"The short heat waves we experienced were intense enough to dry out the fuels and when you get high temperatures, low humidity and winds, that's the recipe for a wildland fire," said John Miller, a U.S.*

*Forest Service spokesman in the San Bernardino National Forest. While fire season begins June 1, Miller added that it peaks in October, when the warm Santa Ana winds start blowing.*

*"Technically, in the state of California, there is no wildland fire season anymore," said Battalion Chief Mark Lamont of the Idyllwild Fire Protection District. "We are in a perpetual state of fire season 365 days a year. Now, the heightened portion of that season begins June 1, can start as early as mid-May, and runs into October."*

*Spelman said Cal Fire firefighters are busier now than they were at the same time last year.*

*In 2015, from Jan. 1 until July 9, there were 2,711 fires that burned 18,555 acres, Spelman said. This year, in the same time span, there were 2,627 fires that burned 30,368 acres — nearly the same amount of fires as last year, but double the scorched land.*

That last paragraph was published on July 25. Since that day another 60,000 acres have gone up in flames from just two fires, the Sand fire in the Santa Clarita Valley and the Soberanes fire in Monterey County.

How serious are these fires? The *Los Angeles Times* headline on July 25 is blunt: "There was nothing stopping it': 10,000 homes evacuated as Sand fire rages in Santa Clarita Valley."

<http://www.latimes.com/local/lanow/la-me-ln-sand-fire-santa-clarita-20160725-snap-story.html>

Echoing the article's theme above is this excerpt:

*Earlier this season, Tripp said, blazes in Calabasas, Duarte and Stevenson Ranch, which would have likely claimed 20 to 50 acres in a normal year, have spread exponentially, burning thousands of acres. Tripp said he can't help but worry about what the remainder of the season will bring.*

*"We are in July," he said. "We've never had four major fires within six weeks in June and July."*

## **Desalination**

A nice article from *environmentalleader.com* on July 26 features the Carlsbad desalination facility, and points to nuclear power as the best energy source. The author is Ken Silverstein. An excerpt follows.

<https://www.environmentalleader.com/2016/07/26/desalination-is-helping-san-diego-avert-drought-is-the-technology-useful-elsewhere/>

### ***Desalination is Helping San Diego Avert Drought. Is the Technology Useful Elsewhere?***

*Regarding San Diego, "The water from the Carlsbad plant is truly the only drought-proof supply available to San Diego, it is not dependent on local rainfall or snowpack in the Sierras," said Graham Beatty, [Poseidon Water Director](#), project management and finance. "Poseidon is committed to providing sustainable, fresh and clean drinking water to San Diego in an environmentally responsible manner."*

*But the Carlsbad Desalination Plant is necessary to guard against droughts and the influx of new citizens who will increase the demand for fresh water. That's why the [Sandia National Laboratory](#) has written a roadmap that would use desalination to increase the nation's drinking water supply.*

*"By 2020, desalination and water purification technologies will contribute significantly to ensuring a*

*safe, sustainable, affordable, and adequate water supply for the United States,” the federal lab says. Applicable elsewhere in the world? The [International Desalination Association](#) says that [300 million people](#) around the globe get their water using such technology. But if concerns exist over using fossil fuels to purify the seawater, what about using nuclear energy?*

*The [Atomic Energy Agency](#) says that nuclear energy is the most feasible method. It points out that the technology of coupling nuclear energy and desalination plants already has taken hold in Japan and Kazakhstan, where commercial facilities have been operating since the 1970s.*

*India is among countries seeking to expand the base of national and international experience through a demonstration plant it is building. Altogether, the agency is working with 20 nations to advance nuclear science and desalination.*

*It is estimated that a 300-megawatt nuclear plant would be required to drive a desalination facility with a capacity of 1 million cubic meters of potable water a day. That’s enough water to support a population of between 3 or 4 million people. That same population would require between 4,000 and 6,000 megawatts of installed capacity to meet its electricity needs.*

## Feature

This week's feature may appear a little deceptive at first. While the seeming topic is the price collapse for agricultural products and the protests farmers are raising, the real topic is the national policy required to guarantee the nation's food security. The article is from the LaRouche organizations news service.

### **U.S. Farm Prices for Beef and Milk at Crisis Lows; Farmers Seek Emergency Measures, But Within a Defunct System**

July 22, 2016 (EIRNS)--Last week, the U.S. National Farmers Union (NFU) established an emergency committee for a policy response to the low prices received by farmers for their milk, which is the latest in a number of such initiatives. The National Farm Organization (National Farmers, nfo.org) has a three-page emergency statement out, " Dairy Policy That Protects Family Farmers." This Spring, the Senate Judiciary Committee called for a Federal investigation of why beef prices have plunged to the cattlemen.

Farm milk prices are now about 40 percent lower than two years ago, and below the dairymen's cost of production. Beef cattle prices are down about 50 percent from 2014.

Beef and milk are among the most demanding links in the chain of food production, since herds of large animals require high capitalization, a long lead time to develop, and high husbandry skills. Animals can't just "go fallow" for a season or two. Plus, the commodities involved are perishable.

While the prices farmers receive for their output have sunk, their input costs have remained the same or risen—electricity, water, veterinary, housing, feed, transportation, and so on. And though feed corn prices fell (and some other rations), this has not off-set the rest of herd expenses. Under the pretense of addressing this, a Federal "Dairy Margin Protection Program" (MPP) was enacted in recent times,

which, when there is an imbalance between revenue vs. expenses for milk farmers, they are supposed to get compensation. However, the Obama Administration has cooked the calculations to prevent this. Congress has dropped and frozen what is to have been a support price. "Does Anyone Care What Is Happening to the Dairy Farmer," was issued last month by Arden Tewksbury, a dairy leader in Pennsylvania. NFU President Roger Johnson said July 14, "If adequate support for dairy farmers is not provided, it will force thousands of family farms out of business." Large operations can reduce their costs by some 25 percent compared to smaller farms (under 1000 cows), but even so, they are threatened with shutdown eventually.

The same situation exists in Europe, with differing particulars. Last year protesting farmers took to the streets in big European cities, letting loose cows, dumping milk, and driving farm machinery through town. In Britain, for example, the number of dairy farms has dropped by 10 percent in one year, down to barely 9,000. The U.S. has lost 18,000 dairy farms in the last 10 years.

The 'human' response is to intervene, to protect the food supply. This can involve setting floor prices for what the farmer gets, allowing for fair pricing along the line for processing and distribution, and making sure costs are not dumped on the consumer. The precedent in milk, is the mid-20th century system of Federal "Milk Marketing Orders," worked out for differing regions in the country, before they were abandoned.

The principle involved is parity pricing--assuring that costs of production are covered, to protect the public interest in a secure food supply for now and the future. For example, parity prices as such were set for beef under the FDR Administration, and continued through the 1960s, until the "free market" era of deregulation eliminated the principle of public interest.

Taking the necessary measures for food presumes a complete shift in the financial-economic system itself, with Glass-Steagall emergency action, and credits for production, as is shown by the need to restore Deutsche Bank, and productive banking, through the 'Alfred Herrhausen' precedent for worthy investments.