

California Drought Update



For July 21, 2016
by Patrick Ruckert

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A Note To Readers

It was two years ago this week that the “California Drought Update,” under that title, first saw the light of day. Here are the first three paragraphs of that report dated July 23, 2014:

As we reported three weeks ago, the steady, but now accelerating impact of the Western States drought has reached a breaking point, where dramatic effects are beginning to become clear, both in the immediate period and for the future.

The drought officially began in 2011, and last month, since precipitation years begin and end in June, we entered the fourth year. Each year the drought is prolonged, according to climatologist Brian Fuchs of the National Drought Mitigation Center at the University of Nebraska, means it will be “harder to break the cycle.” Even if the forecasted El Nino event for this coming winter drops even an average amount of rain, the damage done so far will not be alleviated very much, if at all.

It is important to recall that the past 2,000 years of climate for the West has been characterized by repeated mega-droughts, some lasting as long as a century. Only the last 100 to 150 years has the climate been relatively wet. Whether or not the West is entering, or has already entered, a period of mega-droughts is, of course, not yet determined. Regardless, unless the political leadership of the nation and its people begin to act now to bankrupt and end the empire of financial looting, and reinstate the American System approach to increased energy-flux density technologies to enable us to tap into what are now considered impossible sources of new water, then the consequences will be catastrophic.

Not much has changed, has it? At least not much has changed as far as the drought is concerned, but we really are in a different world. In fact, a more dangerous world, but one that also has within it the

potential for real change. I refer you to the LaRouche PAC website for updates:

<https://larouchepac.com/>

This week's report will be brief, mostly because there is not much new to report. I include the U.S. Drought Monitor and the reservoir graph, even though they show little or no change since last week.

I am sure everyone remembers the hype that began about this time last year about the on-coming El Nino. A month or two ago, its evil twin, La Nina, it was announced, was coming our way and would potentially exacerbate the drought. Now, it seems, it may or may not come. You can read more on this below.

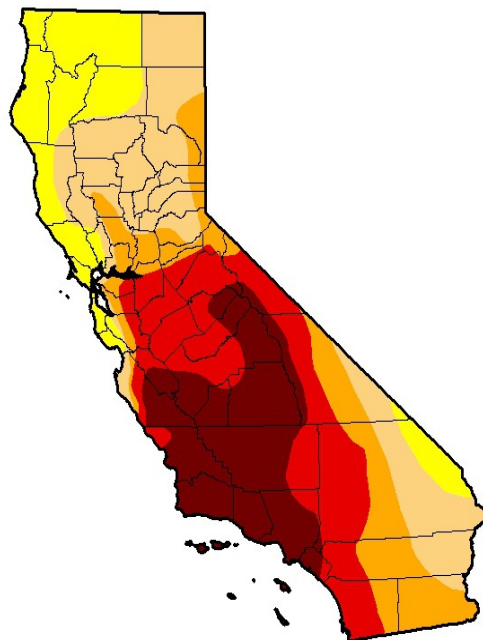
Other topics covered below include: Folsom Lake will soon be, once again, the empty poster child for the drought; Sites reservoir is at least ten years down the road, if ever; and the to be built Huntington Beach desalination plant has another voice in its favor.

Real economics is physical not monetary, and our feature this week is a 15 minute video title, "Introduction to LaRouche's Economics," by Jason Ross. The description reads:

"Would raising the minimum wage to \$15/hr fix the economy? How about making it \$100/hr? Don't start with money — the economy starts from the human ability to make and implement discoveries, as measured through energy flux density and potential population density. Jason Ross gives a short introduction to these two concepts of physical economic value, as seen in the works of Lyndon LaRouche."

The U.S. Drought Monitor

U.S. Drought Monitor California



July 19, 2016

(Released Thursday, Jul. 21, 2016)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	83.59	59.02	42.80	21.04
Last Week 7/12/2016	0.00	100.00	83.59	59.02	42.80	21.04
3 Months Ago 4/19/2016	4.24	95.76	90.09	74.37	49.15	21.04
Start of Calendar Year 12/29/2015	0.00	100.00	97.33	87.55	69.07	44.84
Start of Water Year 8/29/2015	0.14	99.86	97.33	92.36	71.08	46.00
One Year Ago 7/21/2015	0.14	99.86	97.35	94.59	71.08	46.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

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

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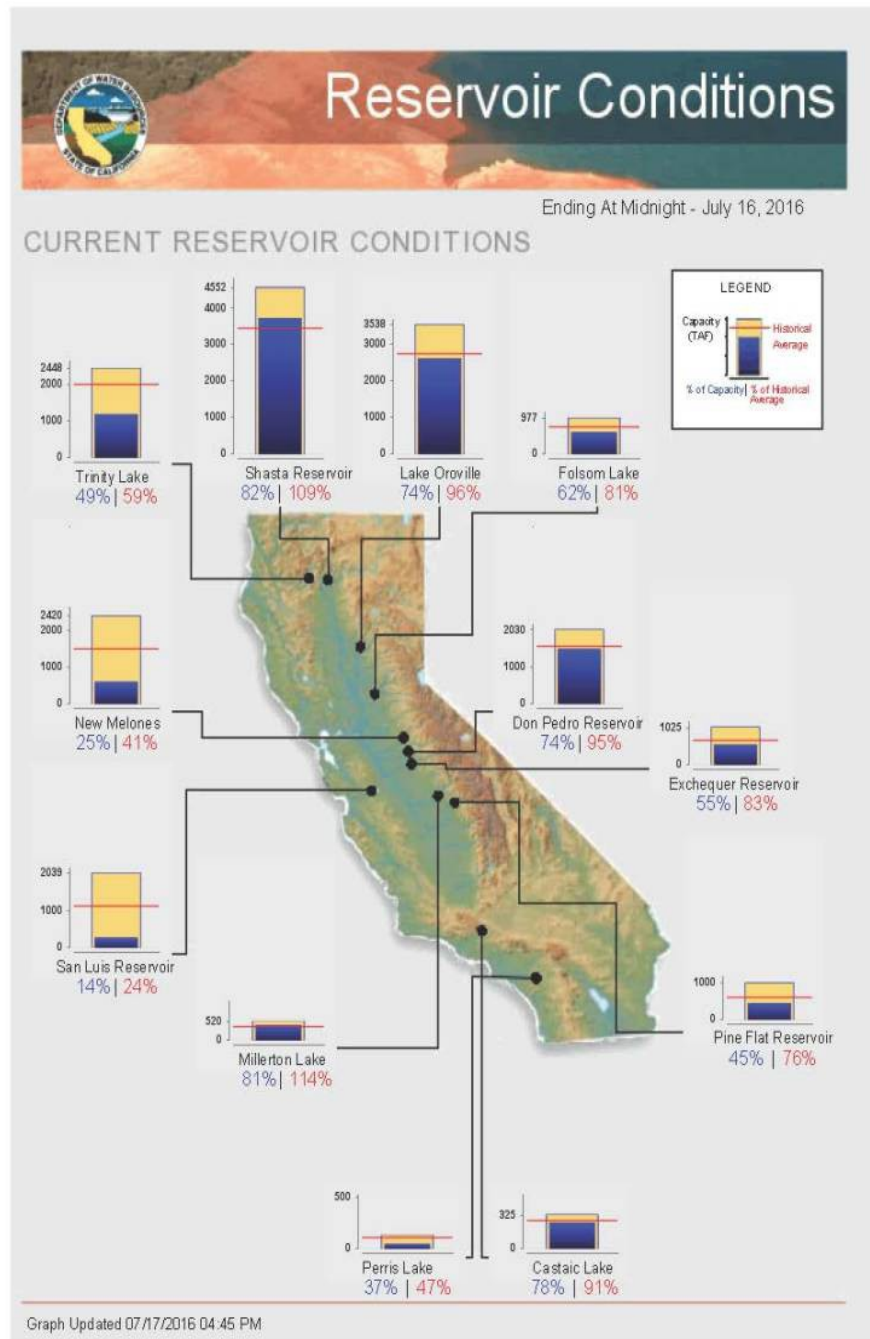


<http://droughtmonitor.unl.edu/>

And the Reservoirs

With the snowpack having melted away weeks ago, and thus a much smaller stream-flow entering the reservoirs, their levels are falling fast. In addition, releases from the reservoirs for “environmental” and saving the fish reasons are now taking place with even larger releases to come.

For example, Folsom Reservoir was at 71 percent of capacity two weeks ago, and is now at 62 percent. The San Luis Reservoir is now down to 14 percent of capacity. For comparison, one year ago, San Luis on July 22, 2015 was at 29 percent of capacity.



La Nina

A couple of months ago, as our limping El Nino faded away, forecasters began warning that beginning in September we were likely to see the arrival of a La Nina. La Ninas often bring with them drier weather to especially southern California. It was forecast that it was a 70 percent likelihood that the said La Nina would arrive.

That forecasted likelihood has now been reduced to a 55-60 percent chance. Here are some excerpts from the article, "Weakening La Niña forecast may mean closer to normal SoCal rain this winter," by Sanden Totten on July 14.

<http://www.scpr.org/news/2016/07/14/62596/weakening-la-nina-forecast-may-mean-more-typical-s/>

Federal climate scientists on Thursday downgraded their predictions of a La Niña climate pattern forming this fall, potentially boosting chances for more typical rainfall in Southern California this winter.

That's because in the past, strong La Niña events typically bring warm, dry winters in Southern California. However, when there is a weak La Niña or none at all, odds are better we might see a regular winter with average rainfall.

"I'd say that's a reasonable bet," said Michael Jacox, an ocean scientist with the Southwest Fisheries Science Center, a division of the National Oceanic and Atmospheric Administration.

Fellow NOAA researchers said Thursday that chances a La Niña will form this fall are about 55 to 60%. Last month, they had reported the odds were 75%. La Niñas occur when ocean temperatures in the equatorial Pacific are cooler than average -- the exact opposite of the better known El Niño phenomenon.

Here We Go Again

As reported in the *Folsom Telegraph* on July 13, Folsom lake is soon to be once again the poster photo of the California drought. As water is released to ensure salt water does not intrude into the Delta, and our favorite fish, the Delta Smelt gets what it deserves, the Folsom reservoir water level is rapidly falling. "Folsom Lake dropping, marina boats must go," by Penne Usher is excerpted here:

<http://www.folsomtelegraph.com/article/7/13/16/folsom-lake-dropping-marina-boats-must-go>

Folsom Lake levels are dropping rapidly and within a month boats at Brown's Ravine Marina must be pulled.

Shane Hunt, spokesperson for the Bureau of Reclamation, said based on current estimates and operations, July releases will remain around 5,000 cubic feet per second.

"July is the highest demand for the Central Valley Project," he said. "The reservoir releases from Folsom and Shasta are expected to be their highest this month."

Here we illustrate the ups and downs of the reservoir:



Folsom Lake 2011



Folsom Lake 2014-2015



Folsom Lake June, 2016



Folsom Lake tomorrow

California's Own “Waiting for Godot”-- The Sites Reservoir

Samuel Becket's play “Waiting for Godet,” has two tramps waiting for someone who never comes, but they are repeatedly told he will come.

An article in the *Redding Record Searchlight*, “Sites Reservoir likely years down the road,” on July 19, reporter Damon Arthur interviews the key people involved in the Sites Reservoir project.

This quote from Nadine Bailey in the article stands out, echoing President John Kennedy in 1962 when he inaugurated the San Luis Reservoir in 1962: "Sites is not for us. Sites is for our grandchildren."

The article reports that it will take at least a dozen year to complete the project. Excerpts follow.

<http://www.redding.com/news/local/sites-reservoir-likely-years-down-the-road-37f2e956-c65d-2013-e053-0100007ff493-387541081.html>

Don't expect to see a reservoir built in the hills west of Maxwell anytime soon.

Plans to build the Sites Reservoir have been in the works since 1957, and if it is eventually approved, work on the project probably would not be complete for another 10 to 12 years, according to Jim Watson, the Sites Reservoir Project general manager.

"Sites is not for us. Sites is for our grandchildren," said Nadine Bailey, chief operating officer for the Family Water Alliance in Maxwell.

The dam, pumping facilities and the canals and pipes leading to and from the Sacramento River will take about eight years to build, at a cost of about \$4.4 billion, Watson said during a visit to the Record Searchlight with Bailey to discuss the project.

The Desalination Plant at Huntington Beach

Last December the 50 million gallons per day desalination plant at Carlsbad began operations. For years its twin has been under review for construction at Huntington Beach. Joining others to push it forward is the League of United Latin American Citizens with an Opinion column in the *Orange County Register* on July 15. Titled, “Huntington Beach desalination plant a matter of environmental justice,” and authored by the California state director and president of the league, Dave Rodriguez, a few excerpts follow.

<http://www.ocregister.com/articles/water-722529-drought-desalination.html>

LULAC, the oldest Hispanic civil rights organization in the U.S., supports the proposed Huntington Beach desalination facility. For the nearly 1 million Latinos living in O.C., increasing the water supply is not only a matter of environmental justice, but of civil rights as well. We are mindful that Latino voices, and other voices of color, have been conspicuously absent from the dialog over the need to build this plant and similar plants elsewhere on the California coast. Nothing is more important to our community than water – whether for agriculture, business or clean safe urban drinking water. Without it we cannot work or provide for our families. In the midst of this punishing drought the need to develop any and all forms of new local water supplies has become critical.

The Latino community knows that water is life; there is no life without it. Beyond the current drought,

Southern California faces new state rules limiting the use of groundwater, critical shortfalls in imported water supplies and projections of more climate change to come. The time for debate and delay is over. For the good of our entire region, LULAC believes that we must move to develop this new, dependable and local source of “wet” water now. Standing in the way is the California Coastal Commission. The issue of whether to permit this project has been studied extensively. Simply put, it’s time for a vote – and, LULAC believes, a vote to allow this important project to move forward.

Feature

Introduction to LaRouche’s Economics

<https://larouhepac.com/20160717/introduction-larouche-s-economics>

July 16, 2016

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A 15 minute video.