

California Drought Update

For January 7, 2016

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A Note To Readers

The New Year has begun and it is wet in California, but the precipitation so far has hardly made a dent in this stubborn drought. So, ironically, as flood waters wrack their damage, the Governor, who blamed the wildfires, fallowed land and dry wells on man-caused climate change, is now assigning blame for the floods on the same man-caused climate change. Next he will blame the cat's peeing on the rug on man-caused climate change.

“No man must,” wrote Friedrich Schiller in his essay “On the Sublime.” Schiller was explicit in his understanding that the nature of mankind, unlike that of the animals, must not be subject to the whims of nature, but that mankind must create his own future. Schiller elaborated: “The will is the species character of man, and reason itself is only the eternal rule of the same. All nature acts according to reason; his prerogative is merely, that he act according to reason with consciousness and will. All other things must; man is the being, who wills.”

Here is the link to Schiller's essay: http://www.schillerinstitute.org/transl/trans_on_sublime.html

That is the idea that separates us from Governor Brown. He would have us submit to the whims of nature. That we refuse to do. Nor will we submit to Zeus and the chaos and destruction now being unleashed on the world by his minions like the British monarchy and Obama.

It is addressing that fundamental reality which begins our report this week.

A Method to the Madness

Here is just a short excerpt from the LaRouche PAC statement, “Zeus Is Alive and Haunting the Earth.” larouchepac.com/20160106/zeus-alive-and-haunting-earth

The descent into barbarism today is not confined to the Middle East nations where ISIS is killing people, often by beheading, for their religious beliefs or for opposing the terrorist overthrow of governments. This satanic, murderous hatred of mankind is increasingly dominating the daily practice of Europe, South America, and the United States as well.

The Fun Has Begun, But Will It Last?

This week has seen a parade of storms hitting California, or as the *Los Angeles Times* put in on January 5, "A steady conveyor belt of El Niño storms is what has officials concerned." Officially declared to be the first storms of El Niño, already the snowpack is above average for this time of year and the reservoirs are beginning to fill up. But, will this welcome relief from the drought last, and will March, when the dry season starts, be the beginning of a new La Niña and more drought? No one knows the answer to those questions now, but the farmers are expressing the most cautious assessment.

The following excerpts from the *Los Angeles Times* article of January 6, "California enters new year with a larger snowpack," by Kate Campbell summarizes a lot of the elements we need to pay attention to. <http://agalert.com/story/?id=9133>

When the state Department of Water Resources took the season's first manual survey of the snowpack last week, it found water content of the snow at the survey site had reached 136 percent of the long-term average. Snow sensors placed throughout the Sierra put the statewide water content at 105 percent.

Forecasts of additional storms in the first week of January brought further cause for optimism—especially in the wake of the bone-dry January of a year ago—but DWR Director Mark Cowin cautioned that another three or four months of surveys will be needed to indicate "whether the snowpack's runoff will be sufficient to replenish California's reservoirs by this summer."

For example, Lake Oroville in Butte County, the principal State Water Project reservoir, now holds about 47 percent of its historical average for the date. Lake Shasta north of Redding, the largest reservoir in the federal Central Valley Project, stands at about 50 percent of average storage, while San Luis Reservoir, a critical south-of-delta holding facility for both the SWP and CVP, remains at 30 percent of average. (Emphasis added)

State water officials said it will be difficult to rebuild those storage levels quickly.

With the El Niño weather pattern offering the prospect of additional storms reaching California beginning this month, California Farm Bureau Federation Director of Water Resources Danny Merkley urged operators of state and federal water projects to take full advantage of storm flows.

"Any rainstorms that create flows in excess of what is necessary for the ecosystem, fish, delta water quality and vested water users must be diverted to surface storage and good groundwater recharge areas, rather than being allowed to flow into the Pacific Ocean," Merkley said.

The prospect of a rebuilding Sierra snowpack also underlines the need for California to update its "aging water infrastructure," he said, to capture flows in future wet years that can provide water to farms, cities and the environment during prolonged dry periods.

"Upper watershed management, new water storage facilities, groundwater recharge and being sure to operate facilities for today's weather conditions and environmental policies are all necessary tools in the 21st century," Merkley said.

Our favorite climatologist was quoted in the *Los Angeles Times* article of January 5 cited above, which presents the potential negative side of the falling rain:

"El Niño storms: it's steady, not spectacular. But it's relentless," said Bill Patzert, climatologist at NASA's Jet Propulsion Laboratory in La Cañada Flintridge. "It's not 10 inches in 24 hours and nothing afterward. It's a 1-inch storm, a 2-inch storm, followed by a 1-inch storm, followed by a 2-inch

storm.

"As this goes on for many weeks, then you start to soak the hillsides — then you get more instability. And then, instead of having 6 inches of mud running down your street or off the hillside behind your house, then you can get serious mudflows — 2 to 3 feet in height."

As for the potential La Nina to follow El Nino, here are some background ideas from *sfgate.com* on January 1, "Dry La Niña might follow soggy El Niño," by Kurtis Alexander.
<http://www.sfgate.com/bayarea/article/Dry-La-Ni-a-might-follow-soggy-El-Ni-o-6732274.php>

Beyond all the hype over a possible drought-busting El Niño this winter is a much grimmer prospect for California: a dry La Niña come fall.

The [National Oceanic and Atmospheric Administration](#) joined international forecasters recently in predicting the potential rise of El Niño's sister phenomenon, La Niña — a similar shift in Pacific Ocean temperatures, but in the opposite direction with far different repercussions for global weather.

While no one can be certain what a La Niña might mean for California, especially this early, the pattern has generally correlated with drier conditions, particularly in the southern part of the state. How much this will even matter is also unknown as El Niño is expected to soon ease the state's water crisis with a blast of wet weather.

The El Niño being pegged as a game-changer is marked by some of the highest sea surface temperatures ever observed in the equatorial Pacific — as much as 7 degrees above average. It's this heat that influences worldwide weather, fueling recent floods and hurricanes in Central and South America and expected to energize California's storm track over the next few months.

But the Pacific's unusually warm water is likely to rapidly disperse, forecasters say.

NOAA's climate models in December suggest that easterly trade winds will cool ocean temperatures, bringing them back to normal in late spring or early summer, and that temperatures by the end of the year could dip into the chilly range that marks La Niña.

The big El Niños of 1982-83 and 1997-98, which the current event has been compared to, were followed by La Niñas.

Southern California is among the regions that have received below-average rain during a La Niña. Farther north, the correlation is fuzzier.

Furthermore, La Niñas, unlike El Niños, tend to stick around, with their persistence sometimes amplifying their drying effects even after they're gone.

And from the *California WaterBlog* by Jay Lund, a University of California at Davis professor in civil and environmental engineering, a few sentences from his January 3 post, fill in more of the factors being monitored. Lund titles it, "ENSO it Begins? The 2016 Drought-- so far-- January 3," ENSO stands for the El Niño Southern Oscillation, the formal name for El Nino. Lund provides lots of links to primary material and logs.

<http://californiawaterblog.com/2016/01/03/enso-it-begins-the-2016-drought-so-far-january-3/>

Overall, California has about 2 maf less water in surface storage than last year's generally low levels at this time, and, reflecting four years of drought, we are now about 8 maf less than average for this time of year.*

Groundwater statewide is down about 6.5 maf from last year's levels at this time, and about 14 maf or

more from pre-drought conditions.

The drought so far has depleted total storage in California by about 22 maf cumulatively, or nearly a year's worth of water use in agriculture. Soil moisture conditions were also unusually dry from 2015.

The difference between a drought and a wet year is just a few storms, the size of a few storms, and where those storms drop moisture.

*maf= million acre feet.

Folsom Lake

As we have cited Folsom Lake as the poster boy for the drought over recent weeks, lets look at where the lake now stands after all the rain we have had.



From *sfgate.com* on January 6, Amy Graff's article, "Drought-ravaged Folsom Lake rises 28.5 feet in just one month," is excerpted below.

<http://www.sfgate.com/news/article/Water-starved-Folsom-Lake-is-finally-starting-to-6738359.php#item-44548>

Water-starved Folsom Lake is beginning to slowly fill up and recover from its lowest water levels ever.

The state's ninth-largest reservoir, the main water source for the sprawling Sacramento suburbs, shrank to a mere 135,561 acre feet on Dec. 4, 2015. The previous lowest level at Folsom was 140,600 acre feet, recorded during the 1976–77 drought. An acre foot is enough water to flood an acre of land under a foot of water, and roughly the amount required by a family of four over a year.

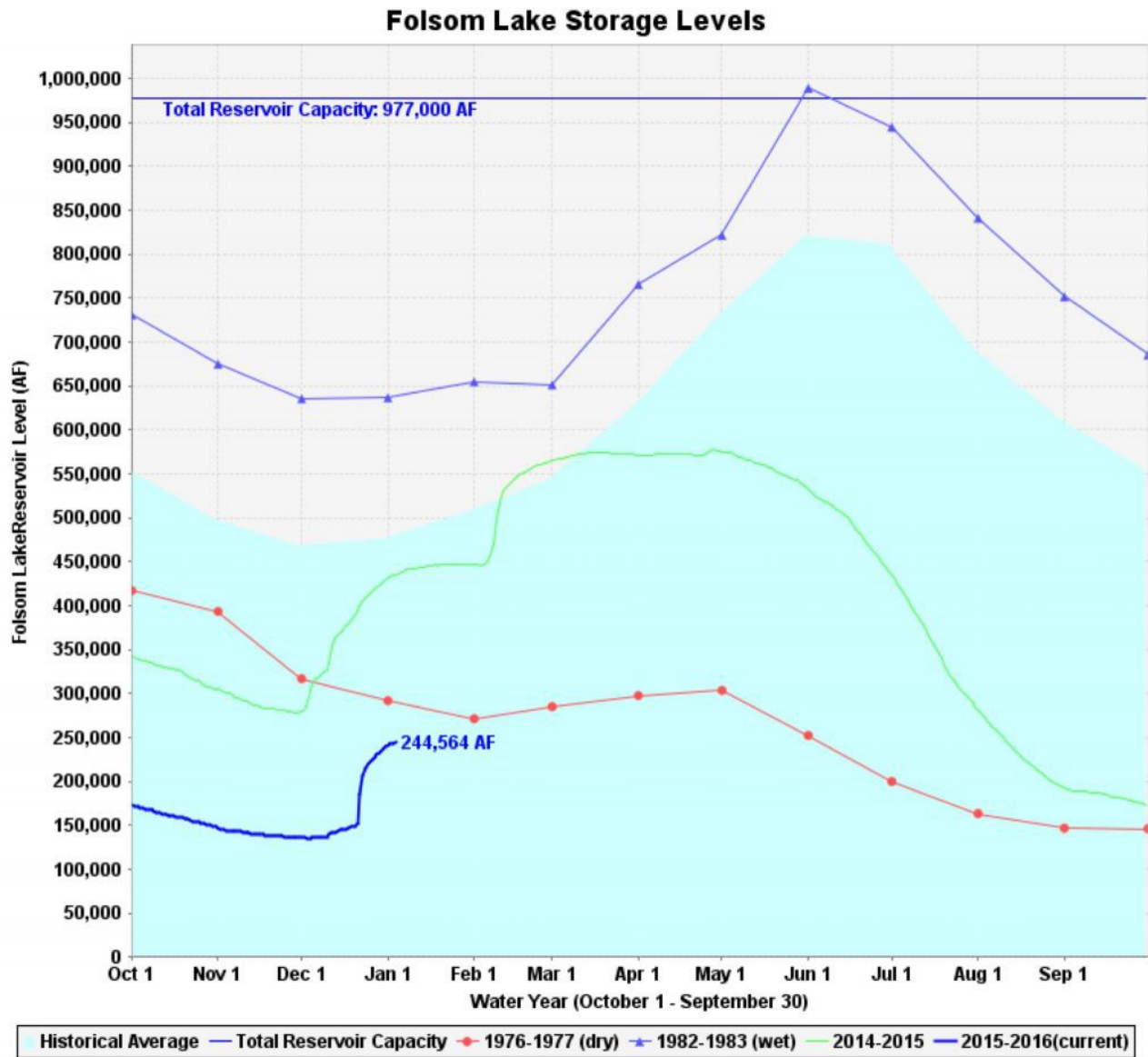
With the recent rains, Folsom's water level has risen 28.5 feet and the reservoir is now holding 246,497 acre feet of water.

That said, Swanberg adds the lake is still only at 25 percent capacity. "It's kind of a good news, bad news situation," he said. "The lake has risen 28.5 feet in the past month. However it's still at 51 percent of average for this time of year."

Over the summer, photographs showing large swaths of exposed lakebed with parched, cracked earth circulated online, becoming a symbol of the California drought. Images taken late last month, before our wet start to 2016, show a slightly more promising outlook for the lake (see before and after photos above).

Folsom fell to historic lows this year mainly due to the California drought and record-low rainfall over

the past four years. But also the state relied more heavily on the reservoir and released additional water; Jay Lund, a University of California at Davis professor in civil and environmental engineering, said, "to help make up for reductions in releases of warm water from Shasta needed to keep winter run salmon safe on the upper Sacramento River."



Graph from sfgate.com

Measuring the Drought, Once Again

This story may be getting old, especially as rain and snow seem to be plentiful, but once again this week, like the past few weeks, there is no change in the percentage of the state in the various categories of drought as measured by the [U.S. Drought Monitor](#). The Monitor reports that "the deficits over the last three years are significant enough that potential improvements are going to be slow to develop."

Moderate drought covers 97 percent of the state, with 87 percent in severe, 69 percent in extreme and about 45 percent in exceptional drought.

Governor Brown Just Can't Stop Talking Climate Change

On January 7, Governor Brown released his proposed state budget for the year. In the section on “Environmental Protection,” all the monies proposed to be spent on drought abatement and emergency drought relief, the theme is man-caused climate change.

Under the title, “What’s in the Governor’s proposed budget for emergency drought response and implementation of the California Water Action Plan,” Maven quotes from the proposed budget. An excerpt follows:

<http://mavensnotebook.com/2016/01/07/whats-in-the-governors-proposed-budget-for-emergency-drought-response-and-implementation-of-the-california-water-action-plan/>

From the Environmental Protection Chapter, pages 104-105

While California continues to reduce GHG emissions, the state is already confronting the impacts of climate change. Many impacts, such as increased fires, floods, severe storms and heat waves, will only become more frequent and more dramatic. California has experienced four consecutive years of below-average rain and snow, and is currently facing severe drought conditions statewide. Water levels in the state’s reservoirs are depleted, the state’s snowpack has been at historically low levels, and the state’s rivers have been experiencing reduced flows.

Follow-up: Sites Reservoir

Last week's issue discussed the proposed Shasta, Sites and Temperance Flat water storage projects, and excerpted the endorsement of the Sites project from the *Sacramento Bee*. The *Bee* this week gave equal time to the opponents of the Sites project in the form of an opinion column by Stephen Green, president of Save the American River Association. The column, published on January 2, “Building Sites reservoir will never pencil out or produce much water, not unexpectedly, uses financial arguments to cover the real intent of these environmentalists-- shut down California agriculture. Here is the opinion columns explicit statement on that:

There are better alternatives for increasing California’s water supply. [An economic analysis by EcoNorthwest](#) concluded that retiring and curbing water rights for 300,000 acres of contaminated land farmed in the San Joaquin Valley would cost approximately \$1 billion.

If you wish to read the piece, it is here: <http://www.sacbee.com/opinion/california-forum/article52319970.html#storylink=cpy>

On the other hand is this letter to the *Sacramento Bee* from one State Assemblyman, stating that Sites has bi-partisan support in the Legislature.

Sites project has bipartisan support

In endorsing Sites reservoir, The Sacramento Bee joins bipartisan lawmakers from throughout California, business and agricultural associations, local governments and environmental groups in supporting the most beneficial and cost-effective proposal in the state.

The Department of Water Resources found the flexibility Sites adds would have increased water supplies by 1.1 million acre-feet during the drought, enough to supply nearly 9 million people for a

year. Even California's House Republicans and Senate Democrats agree on Sites' benefits, and the recently passed appropriations measure included provisions accelerating planning for the project.

As the California Water Commission begins distributing Proposition 1 funding, it should recognize that Sites is the one project in California that meets the bond's requirements and has virtually universal support.

Rep. Doug LaMalfa,

Richvale

How to Lie Without Telling a Lie

Some people cannot even say the word "desalination." In this case it is Assemblyman Marc Levine (D-San Rafael), the Chairman Of The Assembly Committee On Water, Parks And Wildlife. In a column in the *Press Democrat* on December 27, "Close to Home: El Nino will not save us," Levine promotes a policy of conservation and recycling as the pathway California must follow. Discussing the \$7.5 billion water bond passed in 2014 by California voters, he completely ignores a serious discussion of both storage projects and desalination as specified in the water bond language. On storage, not a word on any of the proposed above-ground sites, and only vague generalities on below ground storage.

But, it is desalination, a word he cannot even mention, that caught my attention. He cites Israel as a nation that has solved its water supply problem, which includes about 30 percent of its water supply now being provided by desalination. Here is how Levine gets around mentioning the word:

*In Israel, the reality is that there is never enough water. To provide a sustainable water supply, Israel relies on recycling, conservation and **innovative technologies**.* (Emphasis added)

<http://www.pressdemocrat.com/opinion/4972067-181/close-to-home-el-ni%C3%B1o?artslide=0>

Water for the Future and a Lesson From the Past

<https://www.youtube.com/watch?v=xpv6v7o8aFo&feature=youtu.be>

Published on Apr 18, 2015

This eight minute video, presented by LaRouche PAC, demonstrates that the water to solve California's drought crisis IS there, it just needs to be developed. The "solutions" which Governor Jerry Brown and President Obama are imposing on the the state of California, being done in the name of "conservation" and "environmental sustainability" are a lying fraud. They don't want a solution to this crisis; if they did we would have a crash program for desalination and atmospheric ionization and wouldn't have crushed earlier proposals for continental water management and a nuclear powered California economy.

President John Kennedy and California Water-- San Luis Reservoir

<https://www.youtube.com/watch?v=xpv6v7o8aFo&feature=youtu.be>

Here is President John Kennedy in 1962, presiding over the groundbreaking ceremony for San Luis Reservoir, a joint state/federal reservoir near Los Banos, California. President Kennedy highlights the importance of water conservation and development and the spirit of cooperation that made California water development possible. He makes clear that such progress is the mission of the nation.