# California Drought Update

# For May 12, 2016 by Patrick Ruckert

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### A Note To Readers

Last week I began this note with the quote from Heraclitus, "There is nothing permanent except change." This week, that which had not appeared to change over the past few months did change, but then, when examined a little more closely, did not change. There are consequences when one attempts to prove Heraclitus wrong. That is just a warning, one that I am afraid few will heed. More on this below.

So, what did appear to change? It appears from developments this past week that Governor Brown and his Water Board, on one hand, are putting out the word that the state has to get more serious about the drought that just won't go away. On the other hand, they announce that they are merely going to double-down on the failed policy they have been following: More conservation, more fire-brigade action to hot spots, more rationing-- though, at least for now, not as severe as last year--, and, definitely, there will be no mobilization of the political force that this state does wield to completely change the policy of the nation.

This week's report has some somewhat tedious coverage of this shift by the state. This is followed by the nightmare vision of the future presented by Jay Lund at the UC Davis Center for Watershed Sciences, who tells us all to get used to even more draconian stupidity.

A serious discussion of groundwater is featured in an interview with Jay Famiglietti, senior water scientist at the NASA Jet Propulsion Laboratory. Finally I include in this report an update from East Porterville and coverage of Lake Mead, which is nearing its lowest level since it began to be filled in the 1930s.

A couple of excerpts from a new statement from *LaRouche PAC* highlight the real challenge the American people face today-- a challenge to overthrow the axioms of policy that has not only made a natural event (the drought) a disaster, but is leading the nation to an even bigger disaster. Here are the excerpts from the item titled: "LaRouche: Grand Strategy Occurs Exclusively in the Domain of Man's Creativity."

larouchepac.com/20160511/larouche-grand-strategy-occurs-exclusively-domain-mans-creativity

"The issue is, can the human species produce from within its own ranks, a body of people who will meet the challenge of defeating the kind of evil we have to face now?" That was the challenge that Lyndon LaRouche threw down at a gathering of associates on May 10, in reviewing the deadly crises of

war, financial disintegration and cultural decadence that the planet now faces, with the destructive demise of the British Empire and its trans-Atlantic financial system. LaRouche again pointed to the strategic interventions of Russian President Vladimir Putin, as an example of the kind of thinking required.

LaRouche continued: "The point is that mankind is not a bunch of objects that you can manipulate and make the toys dance for you. That does not work. You have to actually create a power in mankind which is improved over previously existing expressions of mankind. That's the whole game. And you have to spread this kind of development, such that it sustains itself. Most people just don't have any idea what truth is. Because they think, `Let's be practical.' The typical stupid person in the United States, says, `let's be practical.' And they're stupid. Whenever they take that attitude they are being stupid, ridiculous, disgusting...

"That view of practice will never achieve a new improvement in the condition of mankind. That's what's wrong with this whole area. They don't have a commitment to create something new, because they're too stupid to know what something new would be. And it comes on the ability of mankind, to develop within the human individual who developed the characteristics for the ability to give a higher degree of power to mankind as a whole, through self-development of the human species. That's the only thing that's important...

"If you understand that the importance of creativity is located in the development of the power of the human mind, and without that development of the human mind as such, there is no secret, there is nothing.

It is not what you think that is that important. It is how you think. I would like to thank *Families Protecting the Valley*, who, on May 10, posted the following remarks by President John F. Kennedy at the dedication of the San Luis Reservoir. President Kennedy did think differently than most do today:

The other point that I think has been most useful about this trip is to see how Americans can work together. We are a very independent people, 180 million, and it is hard for us to agree on any course of action. We always have some different ideas of how that course of action can be made more perfect, and yet in this case, one part of your State has been willing to help another part....

Nothing could be more disastrous for this country than for the citizens of one part of the State to feel that everything that they have is theirs and it should not be shared with other citizens of this State...

What this project also symbolizes is the State working with the federal Government, the local communities working with the State. This program is unique in this area. There is no other project in the history of the United States where a State has put in such a large contribution to the development of its own resources, and where the National Government has joined with the State...

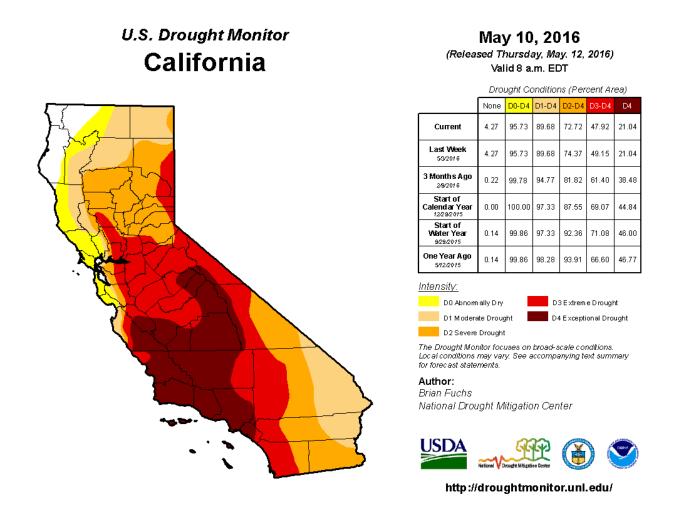
And I think that those who took part in this and made it possible should feel the strongest sense of pride, because all those years when people in this State said it was impossible--and those who had water wanted to hug it and not make it available to all those who lived in dry areas--many State administrations in California, including some of the most distinguished, wrestled with this problem. But I believe that all Californians will remember the leadership which your distinguished Governor has given to this great cause of making water available to the people of this State.

### I Like This Headline

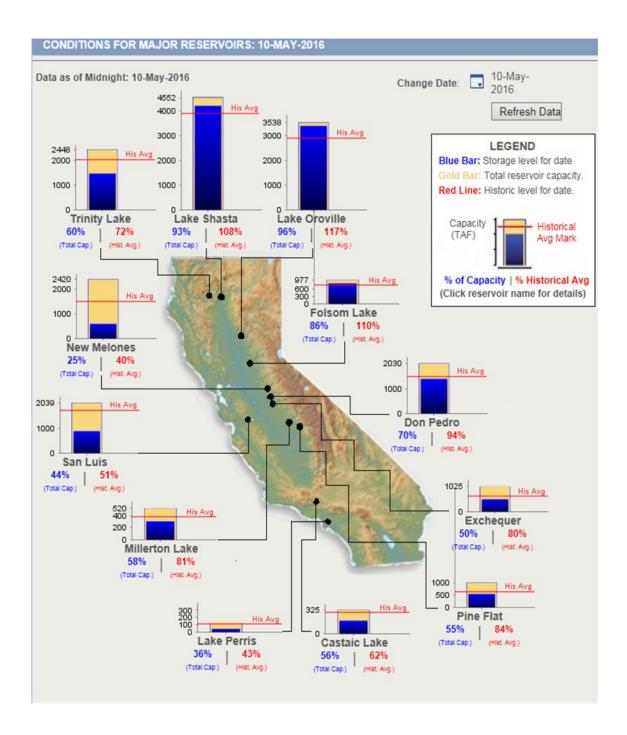
### "Less than 90% of California in drought for 1st time in 3 years"

This is from *USA Today* on May 6. The celebratory tone of the headline is tempered by its actual content. Wow! Great news, only 90 percent of the state remains in drought! Ninety percent seems to me to mean that we are still pretty deep into the problem. But, if some wish to see the 90 percent empty glass as one that is 10 percent full, well, I guess I will not begrudge them that pleasure. *USA Today* was reporting on last week's U.S. Drought Monitor.

Here is this week's:



I know I keep repeating this, but with the seemingly never ending reportage that claims the drought is over, I'll just have to do it again. 89 percent of the state remains in "Severe Drought" or worse. Nearly half of the state is in "Extreme Drought" or worse. And 21 percent of the state remains in "Exceptional Drought," the worst category. Yes, as I wrote last week, the severity of the drought is less this year for this date than last. Some of the reservoirs, in fact the largest, are full. But, as you can see below from the "Reservoir Conditions" chart, most are not even half full. Worse, the key reservoir for both the Central Valley Project and the State Water Project, the San Luis Reservoir, is now at only 44 percent of capacity. Just one month ago San Luis was at 51 percent of capacity.



## The Governor and the Water Board Shift Gears

From the newspaper that brags that it presents "All the news that fits,"-- whoops, I mean, "All the news that's fit to print," the *New York Times* tells us that, "California Braces for Unending Drought," in an article by Ian Lovett on May 9.

 $\underline{http://www.nytimes.com/2016/05/10/us/california-drought-water-restrictions-permanent.html?\_r{=}1}$ 

The article does provide a good summary of the thinking of Brown, the California Department of Water Resources, and the state's Water Resources Control Board, so here are some excerpts:

LOS ANGELES — With California entering its fifth year of a statewide drought, Gov. <u>Jerry Brown</u> moved on Monday to impose permanent water conservation measures and called on water suppliers to prepare for a future made drier by climate change.

Under the governor's executive order, emergency drought regulations, like bans on hosing down driveways or watering lawns within 48 hours of a rainstorm, will remain indefinitely. Urban water suppliers will be required to report their water use to the state each month and develop plans to get through long-term periods of drought.

Despite winter rains that replenished reservoirs and eased dry conditions in parts of Northern California, Mr. Brown suggested that the drought may never entirely end, and that the state needed to adapt to life with less water.

Ninety percent of the state remains in drought, down from 97 percent two months ago, according to the *United States Drought Monitor*.

"Conditions have changed this year. While we're certainly in a statewide drought, drought conditions have eased," said Mark Cowin, director of the California Department of Water Resources. "Some local communities have seen a great easing of their drought effects this year, and will see life return more to normal."

But, he added, "we're just one dry winter away from returning to where we were."

Felicia Marcus, chairwoman of the state's Water Resources Control Board, said the proposed regulations were part of a shift toward focusing on long-term water conservation, even during wet years, with the assumption that the state would continue to grow drier over the next century. A state law, enacted in 2009, already requires a 20 percent reduction in per capita water use, but officials are now pushing for even further conservation.

The full text of the Governor's emergency order referred to in the first paragraph of the *New York Times* article above can be found here:

https://www.gov.ca.gov/docs/5.9.16 Executive Order.pdf

And the proposed details of that order were issued by the state Water Board, under the title: "State Water Board Releases Revised Water Conservation Regulation," which will be reviewed by the board on May 18, and if passed will go into effect on June 1.

 $\underline{https://mavens notebook.com/2016/05/09/this-just-in-state-water-board-releases-revised-water-conservation-regulation/}$ 

*Water Deeply* has a little different take on this new order: "California Changes Course in Fighting Drought." Published on May 10, the article asserts that this new Executive Order is a major shift in policy.

https://www.newsdeeply.com/water/articles/2016/05/10/california-changes-course-in-fighting-drought

### The relevant excerpts:

Those at the helm of California's drought response and water policy have decided to make a tactical shift. "What we are doing today is making a pivot to a long-term strategy," said Max Gomberg, the climate and conservation manager at the State Water Resources Control Board.

Yesterday Gov. Jerry Brown issued an <u>Executive Order</u> "making water conservation a California way of life." The order is a transition from the state's emergency conservation mandates for urban areas

enacted last spring, to more permanent and longer-term changes to address water consumption.

Certain conservation measures in the emergency order will become permanent, such as outlawing washing hardscapes like driveways and sidewalks, washing vehicles without shutoff nozzles, and inefficient watering of landscapes that result in runoff.

It also tasked the Water Board with putting together a proposal for long-term water conservation goals for the state by January 2017. Agencies will work together to "craft an implementable, enduring plan that will ensure that we use water efficiently whether wet or dry and are prepared for the longer, more severe drought cycles that we know are in California's future," said Mark Cowin, director of California's Department of Water Resources.

Here are links to a statement and an article by the *California Farm Bureau* in response to the new order: "Governor's order expands water efficiency rules" <a href="http://www.agalert.com/story/?id=9638">http://www.agalert.com/story/?id=9638</a>

"Farm groups seek flexibility in water quality program"

http://www.agalert.com/story/?id=9631

Finally, for this section, Jay Famiglietti, Senior Water Scientist at the NASA Jet Propulsion Lab, weighs in, responding to how some water districts are declaring the drought over. From Capital Public Radio on May 11, Famiglietti is quoted disagreeing with any relaxation of conservation rules. Ed Joyce wrote the article, "California Drought: Too Soon To End Mandatory Conservation?", excerpted below. <a href="http://www.capradio.org/72747?utm\_source=feedburner&utm\_medium=feed&utm\_campaign=Feed%3A+CapitalPublicRadioLatestNewsRSS+%28Capital+Public+Radio%3A+Latest+News+RSS%29">http://www.capradio.org/72747?utm\_source=feedburner&utm\_medium=feed&utm\_campaign=Feed%3A+CapitalPublicRadioLatestNewsRSS+%28Capital+Public+Radio%3A+Latest+News+RSS%29</a>

A water scientist says California could be managing its water resources - above and below ground - together.

<u>Jay Famiglietti</u> is a Senior Water Scientist at the NASA Jet Propulsion Lab in Pasadena and a Professor of Earth System Science at <u>UC Irvine</u>.

Famiglietti says California manages surface and groundwater separately, but that's not the best way to do it.

"Another aspect that we have to think very carefully about is managing our surface water and our groundwater jointly rather than as independent entities," says Famiglietti.

The <u>California State Water Resources Control Board</u> proposes reducing mandatory water conservation requirements. But Famiglietti says it's too soon.

"I think we need to keep those conservation measures in force. We have had really only average amounts of rain and snowfall and most of that has been in the northern part of California," he says.

# Of Course We Can't Do Something New; We Can't Even Do What We Used To Do

The *California Water Blog* at the UC Davis Center for Watershed Sciences, in an article by Jay Lund presents the no vision version of California's water future. "Inevitable Changes to Water in California," was posted on May 8.

https://californiawaterblog.com/2016/05/08/inevitable-changes-to-water-in-california/

A version of this article was also published in the *Sacramento Bee* on April 30. <a href="http://www.sacbee.com/opinion/op-ed/soapbox/article74729642.html">http://www.sacbee.com/opinion/op-ed/soapbox/article74729642.html</a>

This paragraph defines the axioms of limitations Lund writes from:

"California water faces major inevitable changes. These changes are driven by efforts to end groundwater depletion, by sea level rise, global warming and the loss of snowpack, accumulating salts and nitrate in groundwater, new invasive species, and continuing population growth and evolution of California's globalized economy and agriculture."

The following headlines from his article include no ideas of mobilizing the Federal and State governments to do what they did between 1935 and 1972-- build the water infrastructure required by not only today's 39 million people in the state, but for the millions more to come over the next few decades. In fact, in his point 6, Lund virtually writes off the possibility of any significant government investment in water infrastructure far into the future, if ever. Finally, Lund does not even mention desalination.

Here are the headlines of his seven points:

The Sacramento-San Joaquin Delta will export less water and have more open water.

The San Joaquin Valley will have less irrigated agricultural land.

*Urban areas will use less water, reuse more wastewater, and capture more stormwater.* 

Some native species will become unsustainable in the wild despite protective efforts.

Groundwater in many agricultural areas will become more contaminated.

Water solutions and funding will become even more local and regional.

Water will be managed more tightly and formally due to economic and environmental pressures.

Another no future presentation was given by the chair of the State Water Resources Control Board Felicia Marcus at the California Water Policy Conference, as reported by *Maven* on May 10. I shall not even excerpt any of Marcus' feel good presentation, but just note that she said the phrase "climate change" about a dozen times. If you would like to read her speech it is here:

May 10, 2016 Maven Conferences and Seminars, Speeches and profiles

### A Serious Discussion of Groundwater

Water Deeply interviews Jay Famiglietti, senior water scientist at the NASA Jet Propulsion Laboratory, on May 11. "Jay Famiglietti: California's Groundwater Crisis," does provide very useful background on both the science of groundwater and the new groundwater regulation regime for the state. One very interesting point Famiglietti makes is one that farmers have been making for years: You cannot separate groundwater from surface water, which, of course, is what the Water Board does and produces both shortages for farmers and accelerates the depletion of the groundwater. Here is the link: <a href="https://www.newsdeeply.com/water/articles/2016/05/11/jay-famiglietti-californias-groundwater-crisis">https://www.newsdeeply.com/water/articles/2016/05/11/jay-famiglietti-californias-groundwater-crisis</a>

### **Remember East Porterville?**

For more than two years now, 500 homes in East Porterville have been without running water as their wells went dry. The Los Angeles Times printed an update on the situation there on May 6, written by Matt Steven, with the title, "The wells have run dry in this California town, so why is a \$1.2-million water system untapped?" Excerpts follow:

http://www.latimes.com/local/drought/la-me-east-porterville-drought-20160506-story.html

Two long summers ago, after Adela Ramos Arellano's pump first began to sputter and wheeze, the 37-year-old field worker would return from a day spent laboring beneath the blazing sun to a home with no water.

Since then, "the cavalry," as one onlooker called it, has descended on East Porterville, an unincorporated area in Tulare County that claims about 12% of the state's failed wells. No fewer than nine government agencies and nonprofit organizations have had a hand in helping the community, which drew international media attention for its exceptional suffering in the fourth year of California's drought.

But residents and even some government officials say progress has been painstakingly slow, if not altogether ineffectual. Last year, for example, state officials sank \$1.2 million into a new well that remains untapped because of quarreling among government agencies.

As a result, the drought continues to punish the people of East Porterville. Even now, some residents have to use portable showers in a church parking lot and dump a bucket of water into their toilets to flush.

There are about 500 homes in the East Porterville area with reported dry wells. The state wants to connect those homes to the city's water system by the end of the year.

As a result of the multi-agency tangle over the well, the Department of Water Resources sought a more aggressive and permanent solution. Frustrated officials decided they would build a municipal water system for the people of East Porterville themselves.

The State Water Resources Control Board, meanwhile, is in charge of a longer-term plan to install fire hydrants, create water storage facilities and hook up the remaining 1,250 homes in East Porterville as early as the end of 2017.

# **Hoover Dam and Lake Mead: Water and Electricity for the Southwest Threatened**

The *Las Vegas Sun* on May 11 reminds us that a critical component of the integrated water and electricity supply for the entire Southwest is Hoover Dam and Lake Mead. An article by Daniel Rothberg, "Nevada prepared for more Lake Mead cuts without 'drastic steps," is excerpted below. <a href="https://lasvegassun.com/news/2016/may/11/nevada-prepared-more-lake-mead-cuts-drastic-steps/">https://lasvegassun.com/news/2016/may/11/nevada-prepared-more-lake-mead-cuts-drastic-steps/</a>



How low Lake Mead is can be seen by the "bathtub ring" that marks what used to be the normal lake level. (Photo: John Locher / AP)

Lake Mead is expected to surpass its historic low after next Wednesday. By the end of June, it is expected to have dropped to its lowest level since the man-made reservoir was created by the completion of the Hoover Dam in 1935. And as the elevation drops, Nevada, Arizona and California are working out a new framework for acceptable reductions in water they receive.

While the federal agency charged with overseeing Western water management says it is unlikely that states will need to reduce water in 2017, the next year could present a bleaker picture.

Although estimates change with resource planning, the U.S. Bureau of Reclamation says there is a 56 percent chance states will be asked to voluntarily reduce their lake allocations in 2018.

Such a scenario provides the backdrop as the three states at the Colorado River's lower basin renegotiate what voluntary reductions in water supply they would accept to stave off declining Lake Mead elevations. Late last month, details of a tentative agreement emerged, with a significant development.

California, which has not taken cuts in the past, could potentially accept reductions in its allotment. Under the agreement, which expands on a 2007 deal between the states, Arizona would continue to share the largest burden of cuts.

The tentative deal, which must receive approval from California water districts, SNWA's board and several Arizona entities, is unlikely to be implemented for at least another year.

In the current draft form, Nevada would reduce its allocation by 21,000 acre-feet of water if the lake dipped below 1,075 feet and take a maximum reduction of 30,000 acre-feet if Lake Mead fell below 1,025 feet. For reference, one acre-foot of water can meet the needs of two Las Vegas homes for more than a year.

The maximum reductions for Arizona would be 720,000 acre-feet and for California, the cuts amount to 350,000 acre-feet.

In addition to water security, Lake Mead is vital for sending electricity to municipalities across the West. With the water already low, the Hoover Dam is at half its capacity, according to Rose Davis, a

spokesperson at the Bureau of Reclamation.

More details are provided in this article from the *Arizona Daily Star* reporter Tony Davis on April 24, "Big CAP cuts coming as 3-state water agreement nears."

http://tucson.com/news/local/article\_876e3aa6-6cf0-53ec-bd0c-95be8c6468ae.html? utm\_source=twitter&utm\_medium=social&utm\_campaign=share&id=201408



The creative power of the human mind at work

# Hen the rains come at the wrong the

When the rains come at the wrong time

"The worst part of my job is having to tell a grower that he has a crop that we can't harvest.

Cherry growers are the biggest gamblers in the country."