

California Drought Update

by Patrick Ruckert

December 10, 2015

<http://www.californiadroughtupdate.org>

<https://www.facebook.com/CaliforniaDroughtUpdate>
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End Obama's Threat of Nuclear War - Establish the New Paradigm The Potential for Peace and Economic Development and How California Agriculture Feeds the World

**With Former U.S. Senator Mike Gravel, and
Erik Wilson, Co-founder of "My Job Depends on Ag"**

Senator Mike Gravel will speak on, "The Potential for Peace and Economic Development in Southeast Asia." Senator Gravel, in 1971, read the "Pentagon Papers" into the Congressional Record, thus beginning the process of the removal of Richard Nixon from the Presidency.

Erik Wilson, the co-founder of "My Job Depends On Ag" facebook group, now with almost 50,000 members will address the California drought, the water crisis, and how, by farming a desert, California agriculture feeds the nation and much of the world.

Saturday, December 12, 2015

2:00- 6:00 PM

**2417 Mariner Square Loop, suite 145
Alameda CA 94501**

**The meeting will be broadcast live on You Tube:
<https://www.youtube.com/watch?v=FXSF4Ij-2Qw>**

Snacks to be provided by California farmers

For Information: 323 210 9483

*How do you stop the current course of history? Because everything, every problem of mankind is the failure to stop the bad history which is in the making. And that's where most of our own people are screwed up. They say, what's a practical solution to this problem? And if you're not influencing the **future** thinking of the population, you ain't doing nothing. You're not doing anything important. The idea that, you know, history will tell you what the future is,-- history does **not** tell you what the future is! Mankind's development determines what the future is.*

Lyndon LaRouche

Sponsored by LaRouche PAC

December 14 Is Opening Day

On December 14 dedication ceremonies will be held in Carlsbad inaugurating the new desalination plant, the largest in the Western Hemisphere. Producing 50 million gallons per day, or 50,000 acre-feet, of fresh water, the plant will provide about 7 percent of the San Diego areas water needs.

Huntington Beach Desal Project Moves A Step Closer

Waterworld reports that Legislative leaders have got behind the drive for final approval for building the Huntington Beach Desalination plant that will be a match for the Carlsbad plant. The full article is here: <http://www.waterworld.com/articles/2015/12/legislative-leaders-support-huntington-beach-desal-project-and-call-on-coastal-commission-staff-to-schedule-hearing.html>

Here are some excerpts:

Huntington Beach, CA –Senate President pro Tempore Kevin de León (D-Los Angeles) and Assembly Speaker Toni Atkins (D-San Diego) expressed their strong support for the pending Huntington Beach desalination project and called for the Coastal Commission staff to move forward with a public hearing on the project's permit application.

“The Huntington Beach Desalination Project will produce 50 million gallons of water per day – enough drinking water for 300,000 Orange County residents – and has been under consideration by the Commission since 2006, when the coastal development permit application was first submitted,” said Speaker Atkins. “It is imperative that the state’s increased water conservation efforts are matched by the development of new local drinking water supplies, and that state agencies address permit applications for new water supply projects with a sense of urgency.”

The Coastal Development Permit is the last discretionary permit necessary to authorize the construction of the Huntington Beach Desalination Project, which could begin construction in 2016 and be completed in 2019. When complete, the Huntington Beach Desalination Project will provide Orange County with 50 million gallons of fresh drinking water per day from the Pacific Ocean, matching the company’s Carlsbad plant, opening in December 2016, as the largest seawater desalination plant in the Western Hemisphere.

And the Weather

A big storm is supposedly on its way, due to arrive in Northern California as I write. But, where are we in this supposedly big Nino year? A couple articles this week, like this one, “El Niño Rainfall Totals So Far Disappointing, Way Lower Than '97,” by Jay Barmann in *News*, indicate that this El Nino may be playing Scrooge.

Barmann reports:

Another storm is headed for the Bay Area this week, but according to rainfall totals for the second half of the year so far, this El Nino will not be the drought-buster many had hoped for Northern California, especially as compared to the last big one in 1997.

As [CBS 5 reports](#) via a new report from the National Weather Service, looking at rainfall totals for the same period in 1997, July 1 to December 5, things were a whole lot wetter in the fall of '97 than the fall of '15.

You can go to the link for all the details.

http://sfist.com/2015/12/07/el_nino_rainfall_totals_so_far_disa.php

For some nice graphics, including some discussion of atmospheric rivers, focused on this week's storms see, "NOAA: Atmospheric River Could Bring 'Multiple Feet of Snow' to California Next Week," by *WeatherBrains* on December 6. <http://snowbrains.com/noaa-atmospheric-river-to-bring-multiple-feet-of-snow-in-california-next-week/>

Though I have covered some of the following in previous issues, this article from the *Fresno Bee* on December 3, "Don't expect a brawny El Niño to bust San Joaquin Valley's historic drought Special Report: Potential, but no guarantee, for above-average rain and snow," does provide useful background material, especially relevant for the Central Valley. Excerpts follow:

<http://www.fresnobee.com/news/state/california/water-and-drought/article47836825.html>

"There have been prior strong El Niño events that did not bring the Valley above-average precipitation," said Brian Ochs, a meteorologist at the [National Weather Service office in Hanford](#). "Back in around 1965-66 (considered a strong El Niño), Fresno got below-average rainfall and there was snowpack in the Sierra that was average to below average."

Since 1950, El Niño patterns have occurred 24 times. In 12 of those years, annual rainfall in Fresno has been below the 30-year norm of 11.5 inches. In the other 12, Fresno saw more rainfall than the long-term average. And in the Sierra, at Kaiser Pass in eastern Fresno County, the precious water content of the benchmark April 1 snowpack was actually below normal in 13 of the 24 El Niño years, and above normal 11 times.

What the future holds

Kevin Werner, the Seattle-based Western region climate services director for the [National Centers for Environmental Information](#), said history can be instructive for people's expectations for winter weather, with or without an El Niño.

"Historically, we characterize the climate in the Southwest and California as long periods of dry punctuated by much shorter periods of wet, and sometimes extreme wet," Werner said. "Regardless of El Niño or climate change or anything else, that climate tends to be one that's highly variable and tends to see a lot of dry days, dry months or even dry years. That's the normal."

"There are many other four- or five-year droughts in the paleo-climate data that go back to 1000 AD," he added.

In the San Joaquin River watershed, an analysis of tree rings indicates that over the past 1,100 years, the region has endured 35 sustained droughts of at least four years in length before the current drought began. Five of those periods have occurred since 1900. The average length of those extended droughts was more than six years, and the two longest drought periods reflected in tree rings were 12 years, from 1450 through 1461, and 13 years, from 1471 through 1483.

For more on the historic climate of California, here is the link to my review of the book, "*The West Without Water:*" "*Are We Controlled by the Whims of Nature, or Will We Create Our Future?*"

http://larouchepub.com/eiw/public/2014/eirv41n19-20140509/48-52_4119.pdf

Finally, we have this article, which says it all in the headline, from the *Fresno Bee* on December 4: “Even if El Niño delivers rain and snow, drought may never release its grip.”

<http://www.fresnobee.com/news/state/california/water-and-drought/article48003320.html>

Drought Monitor and Reservoir Conditions

The rainy season began more than one month ago, so let's look at the drought monitor and the reservoir levels.

The U.S. Drought Monitor, as of December 8, for the state of California, reads as follows:

92.26 of the state is in Severe Drought.

69.09 of the state is in Extreme Drought.

44.84 of the state is in Exceptional Drought, the highest drought category.

<http://droughtmonitor.unl.edu/Home/StateDroughtMonitor.aspx?CA>

Those numbers are virtually the same as they read three months ago.

The current reservoir conditions are the same, or the water level is a little lower, than the readings from the first of November. As has been reported earlier, of the largest reservoirs in the state, they are generally at record lows, with the exception of Lake Shasta. You can look at the graph here:

<http://cdec.water.ca.gov/cgi-progs/products/rescond.pdf>

Here We Go Again

Last summer as state officials juggled water from one reservoir to another to protect salmon, I forecast that they would drop something somewhere, causing a bigger problem than what they were trying to solve. The holding back of water behind Shasta Dam not only failed in saving salmon, but deprived farmers of needed water. Well, they are going to do it again. The excerpts below from the *Fresno Bee* article of December 4, “California mulls new plan to save imperiled salmon.”

<http://www.sacbee.com/news/state/california/water-and-drought/article48615435.html> tells the story.

Preparing for another season of drought, California officials plan to hold back more water at Shasta Lake next year in an effort to save an increasingly endangered fish: the winter-run Chinook salmon.

Their proposal, unveiled Tuesday by the State Water Resources Control Board, stirred anger among downstream farmers, who could face another year of diminished water supplies. Meanwhile, independent fish biologists were skeptical the plan would work any better than previous efforts.

Getting it right in 2016 will be crucial. Chinook salmon have a three-year spawning cycle and “may face extinction” if they suffer a third year of high mortality rates, according to a water board staff

report. The winter-run Chinook are listed as endangered under the federal Endangered Species Act.

The plan calls for holding back more water next year than this year. An additional 200,000 acre-feet would be kept at Shasta through spring to keep the water cold when it's released. Officials said 1.6 million acre-feet would remain in storage through the end of October, compared with 1.4 million acre-feet this year.

Holding extra water at Shasta this year had consequences throughout California's stressed water network. Farmers made do with smaller allocations during crucial summer months, contributing to the fallowing of more than 500,000 acres of land.

In addition, the Bureau of Reclamation drained Folsom Lake more quickly than usual to keep enough river water flowing to tamp down the volume of seawater rushing into the Sacramento-San Joaquin Delta. Folsom fell to its [lowest level ever](#) this fall, creating anxiety among area water agencies. The lake is the primary water source for 500,000 residents in Folsom, Granite Bay, Roseville, Fair Oaks, Orangevale and Citrus Heights.

Farm groups, meanwhile, are bracing for another tough season in 2016.

"There's this regulatory side that continues to chip away at water supplies that are used to grow food," said Mike Wade of the California Farm Water Coalition.

Paris Climate Conference: The Jerry and Arnie Show

The Paris convergence has been covered here for the past couple of weeks, so this week we will feature the California angle, which reflect the fact that the "enforceable laws" all nations must submit to will not be adopted. Reflecting that outcome are some remarks by Gov. Jerry Brown and former Gov. Arnold Schwarzenegger.

Jerry expressed his soft fascist side by talking about the "coercive power" of government to force submission to environmentalist frauds like global warming caused by CO2. The article in the Sacramento Bee on December 7, "Jerry Brown: 'Never underestimate the coercive power of the central state,'" is excerpted here.

<http://www.sacbee.com/news/politics-government/capitol-alert/article48466200.html#storylink=cpy>

One of the goals of Californians who traveled to Paris for climate talks this week was to showcase green-energy businesses that are succeeding in the state.

But on Monday it was the "coercive power" of government for which Gov. Jerry Brown was seeking credit.

Regulations, he said at an event with billionaire environmentalist Tom Steyer at an art museum in the city, "work hand in glove" with innovation, forcing companies to adapt to cleaner technologies. Brown held out the introduction of the catalytic converter and the proliferation of renewable energy as examples of industry responding to regulation.

"You do have to have, at the end of the day, a regulation, a law," he said. "Progress comes from well-designed regulatory objectives that business then follows."

Later, at the site where world leaders are meeting to negotiate a climate pact outside of Paris, Brown urged a small crowd to "never underestimate the coercive power of the central state in the service of

good.”

“You can be sure California is going to keep innovating, keep regulating,” the Democratic governor said. “And, shall I say, keep taxing.”

Arnold, on the other hand, threatened “climate change deniers” with the gas chamber. If you wish, you can read the article here: “UGLY: Arnold Schwarzenegger’s Gas Chamber Fantasy for Climate Skeptics.” <http://wattsupwiththat.com/2015/12/08/ugly-arnold-schwarzeneggers-gas-chamber-fantasy-for-skeptics/>

And then Jerry, after his speech on December 8, found that the representatives of indigenous people do not really appreciate his policies that will leave them even worse off than they are now. As the headline in the *Sacramento Bee* put it, “Jerry Brown heckled in France--Protesters yell at California governor about carbon programs after speech.” The article is here:

<http://www.sacbee.com/news/politics-government/capitol-alert/article48638750.html>

While on the topic of the governors, a speech Jerry Brown gave in November to the conference of the “Bulletin of Atomic Scientists,” on “Climate change, nuclear weapons, and the Doomsday Clock,” includes a couple of interesting points. <http://thebulletin.org/jerry-brown-climate-change-nuclear-weapons-and-doomsday-clock>

While taking credit for much of the environmentalist policy that now is in affect in California, he does point out that it was Republican governors and Republican Presidents that got the environmentalist movement its first successes both in California and the nation. Here are the relevant excerpts:

In fact, the central power that California exercises was brought into being in an agreement between Gov. Ronald Reagan and President Richard Nixon in 1969, when the Clean Air Act was amended to recognize California’s right to promulgate stricter tailpipe emission standards.

Around the same time, a lawsuit was filed against the EPA—Massachusetts and California v. EPA—and the question was: Is carbon dioxide a pollutant? Do you have to find it endangers human health? The Supreme Court ruled 5-4, yes, (in 2007) it is a pollutant under the Clean Air Act, and therefore it can be regulated. And therefore the California Clean Air Act or the California Air Resources Board can regulate it.

So, we’ve got building standards, we’ve got appliance standards, we have a very strong tailpipe emission bill, and then Arnold Schwarzenegger, who followed Gray Davis, he signed the Global Warming Solutions Act—that was AB 32. And that measure, well—I don’t know that there is any other state that has quite adopted something like this. This bill sets forth a goal for the percentage of electricity to be generated from non-fossil fuel sources.

Now, some may argue that Arnold is not a “real” Republican, which is no different than my argument that Brown and Obama are not real Democrats like Franklin D. Roosevelt and John Kennedy. So, the partisan bullshit should stop, and, instead, let’s solve the problems with real American System methods, which, unfortunately, were last in full bloom with Roosevelt and Kennedy. What does than mean? Watch Kennedy’s speeches from 1962-3 inaugurating water projects for an example:

<https://www.youtube.com/watch?v=TP8xpevILNE>

Australia and California

Between 1995 and 2008, Australia went through what is called a “Millennium Drought.” Over the past year or so, some media and academics in the U.S. have pointed to the lessons Australia learned and the actions the country took as being relevant to California's current drought. The best report I have found on this topic is the one by Paul Wenger, the president of the California Farm Bureau Federation. His report was published in *Agalert.com* of the *California Farm Bureau Federation* on December 9: <http://agalert.com/story/?id=9075>.

Here are some excerpts:

Commentary: California is no Australia, but lessons can be learned

By Paul Wenger

As California endures its fourth year of drought, significant attention has been given to comparisons with Australia, which was forced to extreme measures in dealing with its "Millennium Drought" between 1995 and 2008. A recent study group of legislators and representatives of labor, environmental and business organizations participated in a tour of Australia coordinated by the California Foundation on the Environment and the Economy. I was asked to join the group in order to provide an agricultural perspective about the drastic measures Australia undertook to respond to its 13-year drought, and potential implications for California.

When faced with the realities of a sustained drought and a water infrastructure insufficient to adequately meet its needs, Australia undertook significant actions to align its water supply with core demand. To do this, the nation invested in infrastructure. It spent \$6 billion on increased water storage, desalination and water recycling, and in conveyance systems to move water efficiently.

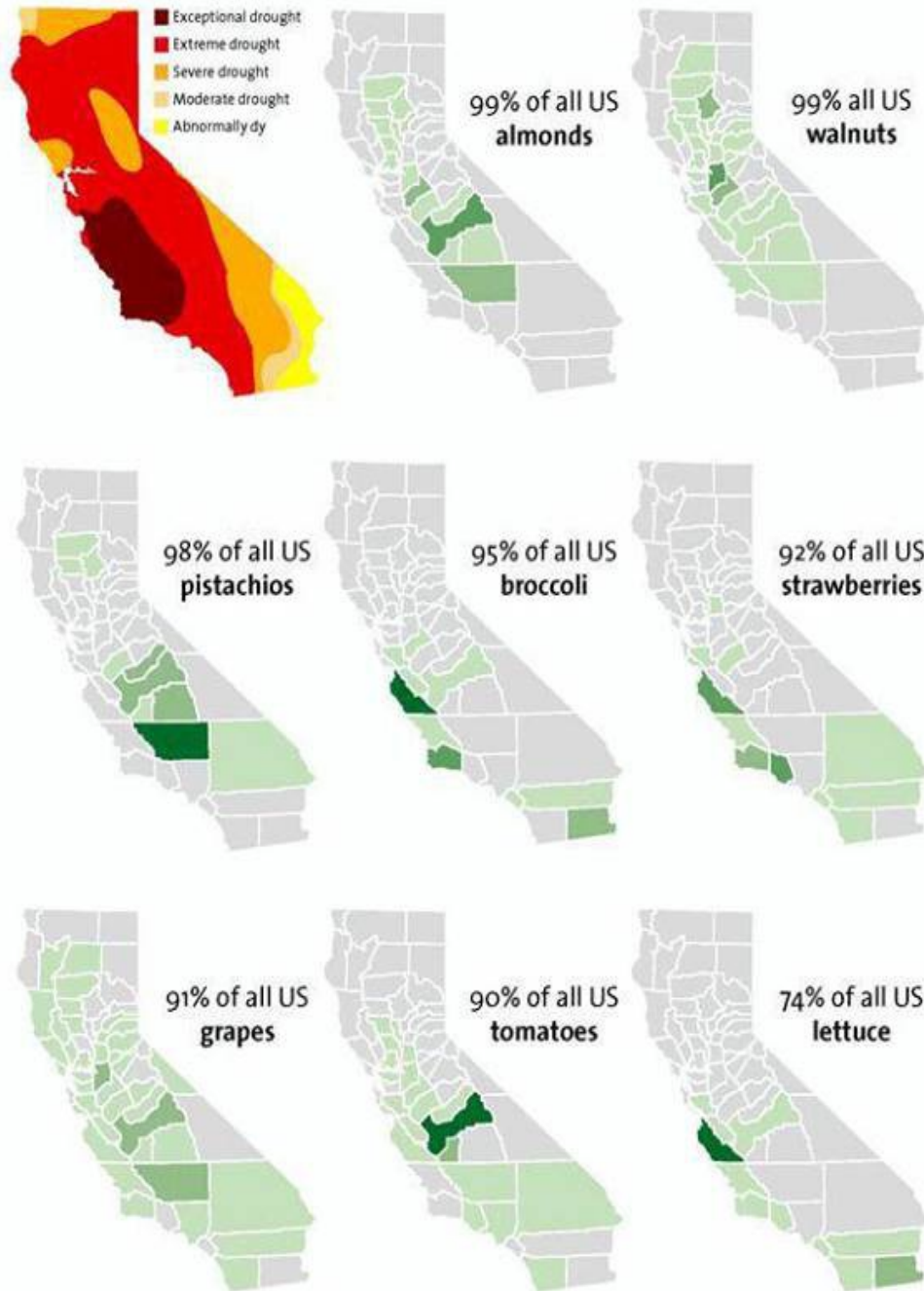
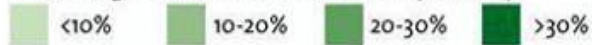
While I was in Australia, I met with agricultural leaders to get their perspective on the causes and effects of the Murray-Darling Basin Plan, which governs two large rivers feeding a key agricultural region. Many parallels became evident to me as a potential harbinger for California agriculture, should we fail to heed the experiences of Australia's farmers.

As Australian government officials and academicians developed the MDBP, they focused solely on the daily water use of their citizens—but not the water demand to produce the food they would need each day. A person can get by with 50 gallons of water a day for drinking, showering and the like, but to produce a 1,200-calorie daily diet requires 850 to 1,200 gallons of water. When questioned about that, the answer was, "We can always import our food."

Where Does Your Food Come From?

California's drought affects the whole country's fruits, veggies, and nuts.

Percentage of Total US Production by County



Crop maps based on 2012 figures. Data: US Drought Monitor, California Department of Food and Agriculture, US Department of Agriculture. Art: US Drought Monitor, Wikimedia Commons.

Mother Jones