

California Drought Update

by Patrick Ruckert

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<http://www.californiadroughtupdate.org>

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How to Screw Up the State and Prevent Real Solutions

Again and again I have written that the California water crisis cannot, and will not, be solved within the state of California. Just to jog people's memory, in 1933, the state wanted to build the Central Valley Project, but had no funds to even begin it. It stepped the Federal government under President Franklin D. Roosevelt, and got it done. Today things are more complex, but any serious policy requires the Federal government to direct it. The elements are simple, and begin with essentially a political revolution, starting with bankrupting the Wall Street system by restoring the Glass-Steagall banking law. Then a national credit system must be established to fund massive infrastructure projects, like two or three dozen nuclear-powered desalination plants in California. Obviously, there is much more, but, otherwise what mostly dominates proposed action is Jerry Brown type depopulation schemes or, from the other side, what amounts to mere grandstanding.

A more detailed report is here:

The Four New Laws to Save The U.S.A. Now! <https://larouchepac.com/four-laws>

For more background:

The History & Future of the U.S. Credit System <https://larouchepac.com/credit-system>

Demonstrating the problem, what not to do to deal about the California water crisis flashed the crowd. The November 12 report by Ben Adler, from *Capital Public Radio*, "Initiative Shifts High-Speed Rail Bonds To Water Projects," summarizes it:

Two Republican elected officials have submitted a 2016 ballot measure that would shift \$8 billion in unspent high-speed rail bond funds to water storage projects.

The initiative by Sen. Bob Huff (R-San Dimas) and Board of Equalization member George Runner is a direct challenge to the high-speed rail project championed by Governor Jerry Brown.

A separate initiative has already qualified for the ballot that challenges the governor's other big infrastructure project – two water delivery tunnels under the Sacramento-San Joaquin Delta. Brown's office has said he "strongly opposes" that initiative.

<http://www.capradio.org/articles/2015/11/12/new-ballot-measure-moves-high-speed-rail-bonds-to-water-projects/>

Earlier this month the *Sacramento Bee* reported on Congressman Kevin McCarthy's similar proposal to use the high-speed rail funds for drought projects. *Bee* reporter Curtis Tate, under the headline,

“McCarthy: Use high-speed rail funds to quench California’s drought,” dated November 4, reported:

House Majority Leader Kevin McCarthy of California..., proposed diverting California high-speed rail funds to relieve the state’s severe drought.

Unlocking the high-speed rail funds would be difficult, if not impossible to achieve. The Obama administration pledged more than \$3 billion from the president’s 2009 economic stimulus, and that money must be spent on the project.

“You can figure out what somebody would have to do to change all that,” said Dan Richard, the authority’s chairman. “By the way, we would end up owing the federal government what they gave us.”

Now, a lot of people in agriculture in the state have endorsed these initiatives. For example, this statement was released on November 12, “California Water Alliance Voices Support for 2016 Water Project Ballot Initiative.” http://media.wix.com/ugd/252de5_9520c1395cef4ba3bf9e727bacfec363.pdf

The Alliance's statement provides more details:

Today, Vice Chair, Board of Equalization, George Runner and California State Senator Bob Huff (R-San Dimas) submitted for title and summary a 2016 ballot initiative that establishes priorities for the state's use of water as a constitutional amendment. It also would redirect unspent High Speed Rail Proposition 1A (2008) and Proposition 1 (2014) water bond designated water storage money to build new surface water and groundwater storage projects without adding more debt or levying new taxes. The measure adds a new section to Article X of the California Constitution making drinking water and irrigation the primary beneficial water use priorities of the state ahead of all other needs.

Commentary from the *San Jose Mercury News* on November 11 raised more questions, under the headline, “Mercury News editorial: Cortopassi measure to scuttle Delta tunnels is a disaster.” The link is here: http://www.mercurynews.com/news/ci_29081480/mercury-news-editorial:-cortopassi-measure-to-scuttle-delta-tunnels-is-a-disaster

Here are just a few excerpts:

But instead of a straightforward ballot measure, he has concocted a nightmare of a law that appears to require statewide voter approval of all state revenue bond projects costing more than \$2 billion. It's a classic badly drafted proposition with the potential for massive unintended consequences, none of them good.

The nonpartisan Legislative Analyst's Office's review of Cortopassi's measure concludes:

"The fiscal effects of this measure on state and local governments are subject to substantial uncertainty. In particular, it is unclear how certain provisions of the measure would be interpreted by government agencies and the courts, which could affect the number of projects subject to the measure's voter requirements."

In the *San Gabriel Valley Tribune* on November 17, the High-Speed Rail Authority responded to the initiatives:

“Similar political stunts have been put forward in the past and failed; we expect this to be no different,” said Lisa Marie Alley, High-Speed Rail Authority spokeswoman.

Making the point about the necessity of Federal government direction, is the letter to the editor in the *Modesto Bee* on November 12 by Mario Santoyo on behalf of the *The California Latino Water Coalition*, part of a coalition of organizations and individuals seeking federal support for construction of the Temperance Flat Dam above Millerton Lake. <http://www.modbee.com/opinion/letters-to-the-editor/article44460066.html>

An excerpt:

The California Latino Water Coalition, Nisei Farmers League, valley mayors, water leaders, business leaders and ag leaders will be seeking federal support for construction of the Temperance Flat Dam above Millerton Lake.

Some of our legislators say the right words but fail miserably in their actions; others just don't care about our valley and its people. We have an opportunity to secure funds from Proposition 1 to get the job started, but without federal funds we will not be able to get the job done.

The time is now to make our case to as many federal legislators as possible.

And underlining the real problem, former Governor Arnold Schwarzenegger reappeared this week. Californian's elected this fool in 2003 for the same reason they fall for gimmicks like these initiatives. Schwarzenegger was a speaker at the annual CME Group conference on November 17, held in Naples, CA. Here is a quote from the article in the *Naple News*:

Schwarzenegger spoke for about 20 minutes about water's importance to the Golden State, telling the story of a farmer who was mad at him for not solving water and other problems he was facing.

The actor known for his roles in the "Terminator" and other films served as governor from 2003 to 2011.

"We've voted for you because you always solved the problems in the movie," Schwarzenegger said the man told him.

Having Fun With El Nino

Our favorite climatologist, Bill Patzert, had some interesting things to say this week, as quoted in the *Los Angeles Times* on November 13: "El Niño is here, and it'll be 'one storm after another like a conveyor belt." <http://www.latimes.com/local/weather/la-me-ln-el-nino-coming-20151113-story.html>

"It's official. El Niño's here. It's a done deal," said Bill Patzert, climatologist for NASA's Jet Propulsion Laboratory in La Cañada Flintridge. "So at this point, we're just waiting for the impacts in California."

Generally, El Niño doesn't peak in California until January, February and March, Patzert said. That's when Californians should expect "mudslides, heavy rainfall, one storm after another like a conveyor belt."

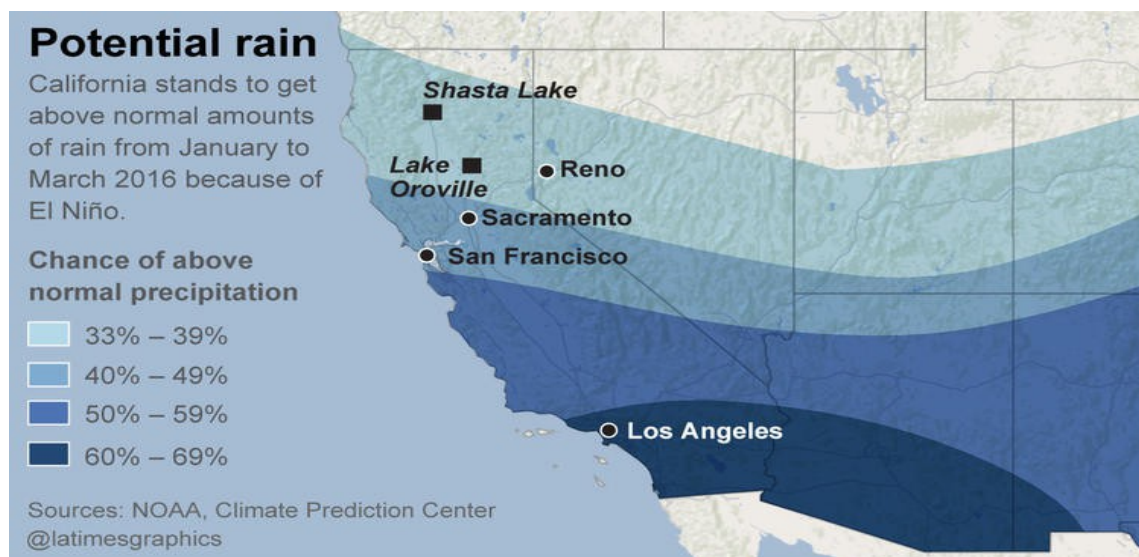
"January and February are just around the corner. If you think you should make preparations, get off the couch and do it now. These storms are imminent," he said. "El Niño is here. And it is huge."

On Nov. 4, sea surface temperatures in a benchmark area of the Pacific Ocean west of Peru hit 5 degrees above average, outpacing the abnormally warm temperatures seen at this time of year in 1997,

which developed into the strongest El Niño on record.

El Niño has already caused major effects across the world, fueling an active and unusually powerful hurricane season in the eastern Pacific Ocean, including Hurricane Patricia, which [hit](#) Mexico last month.

Chile, home to one of the world's driest deserts, is now blooming with flowers from unusually high rainfall. But in other regions, El Niño means drought, which is already being reported in Indonesia and the Philippines.



Potential rain from El Niño (from the *Los Angeles Times*)

The October 15, *Sacramento Bee* has some more on what to expect this winter, and on the water deficit: “Warm weather complicates El Niño, drought outlook: <http://www.sacbee.com/news/weather/article39285252.html>”

Overall, “the winter outlook is good news for California,” said Mike Halpert, deputy director at the federal agency’s Climate Prediction Center in College Park, Md. But he said El Niño likely will translate into “drought improvement,” not “drought removal.” The heaviest precipitation should begin in January.

Speaking on a conference call with reporters, Halpert said California’s accumulated water “deficit” is almost certainly too steep to remedy in one winter. California needs about three times the normal precipitation to bring the state back into balance; the wettest winter in modern history, in 1983, brought twice as much precipitation as normal.

“One season of above-average rain and snow is unlikely to erase four years of drought,” Halpert said.

Finally, This report from Tim Heardon of the *Capital Press* on November 16, presents, once again, a more cautious note:

“Historically strong El Niño may only last a season, forecasters say”

SACRAMENTO — Forecasters still expect historically strong El Niño conditions to usher in a parade of storm clouds this winter, but the phenomenon may fizzle by springtime.

But after peaking this winter, the El Nino pattern may recede quickly, returning to the neutral sea-surface and atmospheric conditions that have prevailed through much of California's four-year drought.

The last El Nino in California in the winter of 2009-2010 interrupted a three-year drought. But before this year's recurrence, sea surface temperatures across the equatorial Pacific have mostly been near average since spring of 2012, meaning neither El Nino or La Nina influenced weather patterns. During much of that time, a strong ridge of high pressure off California's coast blocked storms from entering, causing the current drought.

The latest outlook comes as rain- and snow-producing systems have been passing through California every few days, and that pattern is expected to continue through November. However, the storms have so far been brought by a polar jet stream pushing cold systems down from the north, said Michelle Mead, a National Weather Service warning coordinator in Sacramento.

"Therefore, the recent storms are not associated with El Nino," Mead said in an email. "Rather, this is a more 'typical' Northern California weather pattern for this time of year. It's just that we haven't seen a typical fall/winter season over the past four years, so these systems seem more unusual to folks."

El Nino storms tend to be warmer with higher snow levels, so when the sub-tropical jet stream storm track kicks in, the potential for warmer storms will increase, she said.

Meanwhile, Reservoir Levels Continue to Decline

From the Appeal Democrat of November 13, by Andrew Creasey: "Reservoir levels continue to drop."
http://www.appeal-democrat.com/news/reservoir-levels-continue-to-drop/article_793b1a9a-8a66-11e5-9f3a-eff71b87e2c6.html

Despite a series of storms to kick off the wet season, reservoir levels in Northern California continue to drop; inflows are not keeping pace with required releases.

For the most part, the culprit in this case is the ground, parched and dry from four years of drought, soaking up the water before it has a chance to flow into a reservoir.

"The rain has seeped into the ground and not run off," said Curt Aikens, general manager of the Yuba County Water Agency. "The ground is so dry it is acting like a big sponge since the last two years have been in severe drought conditions."

On Oct. 31, Lake Oroville held just more than 1 million acre-feet. By Friday, that dropped to 967,000 acre-feet.

"The inflow is not enough to overtake the required releases," Lida said. "Steady precipitation is needed to significantly recharge California's aquifers and begin filling reservoirs."

Lake Shasta ended October holding 1.4 million acre-feet. By Friday, storage had dropped to 1.3 million acre-feet. Outflows from the reservoir were 4,200 cfs on Friday.

And we cannot forget Folsom Lake. Folsom, just northeast of Sacramento, supplies water to about 200,000 Californians. On November 15, Folsom reached a new record low at 15 percent of capacity. The lake level is now at 140,410 acre-feet, a couple hundred acre-feet below the previous record low set in November, 1977.

“Many California lakes are shockingly low”

That is the title of an article in SFGate by Tom Stienstra on November 12. These are generally recreational and other lakes, but include a few of the California water management system reservoirs. A few excerpts follow.

<http://www.sfgate.com/outdoors/article/Many-California-lakes-are-shockingly-low-6625792.php>

In 35 years, nobody's seen numbers like these.

In a personal survey this week of 125 recreation lakes, 33 are under 25 percent full, and that includes 19 that are less than 10 percent full and four that are empty.

Sights that shock

Beyond the numbers, the sight of so many lakes so low would shock anybody who has not seen them. It seems no region of California is untouched.

In northeastern California, Eagle Lake, long the site of one of the best trout fisheries in the Western U.S., is the lowest in 80 years. In the Sierra foothills, giant New Melones, a prize lake for all recreation, is at 11 percent.

In Yosemite National Park, at wilderness boundary near Hetch Hetchy, huge Eleanor Lake is 4 percent full. High in the west Sierra, Edison Lake, long one of the best lakes for camping, a trailhead to reach the John Muir Trail and fishing for brown trout, is 4 percent full.

Drought and Health

Healthline.com on November 12 began a series called, “California Climate and Health, Part I: Drought Stirs Up Trouble for State’s Air Quality.”

<http://www.healthline.com/health-news/california-climate-and-health-part-1-drought-stirs-up-trouble-for-states-air-quality-111215>

Here are just a few excerpts from the report:

In a state known for tough clean-air regulations, the drought has unleashed unprecedented levels of dust and smoke in the air.

The policies that made California a model of how big, developed economies can thrive while safeguarding the environment did not originate in some statewide sense of kumbaya.

They were a desperate response to serious air quality problems in Los Angeles, Bakersfield, and Fresno.

Bad air is a serious drag on public health, driving up rates of cardiovascular disease, cancer, asthma, and death.

California’s efforts to rein in pollution — by requiring smog tests for all cars and trucks and mandating that utilities generate a significant fraction of the power they sell from renewable sources — have delivered decades of improvements in ozone and particulate matter pollution.

But the severe drought the state has weathered the past three years threatens to roll back those gains.

“Air quality was improving and [the San Joaquin air districts] were making good progress toward

attaining the federal standard,” said Sylvia Vanderspek, chief of the air quality planning branch of the California Air Resources Board (CARB). “And then the drought happened.”

The San Joaquin Valley, a poor agricultural region that has long been a trouble spot for pollution, has experienced air quality so bad this year that public health officials warned residents to stay inside unless they had no other choice.

The same stagnant air that has, with ruthless efficiency, kept the rain out of California has kept the pollution in.

In the winter, with no rain to speak of, residents of the San Joaquin Valley faced “abnormally high” levels of fine particle pollution. Levels even dwarfed past years when the area didn’t meet federal air quality standards.

Then there’s larger particulate matter, made up almost entirely of dust. Farmers have been forced to stop watering more than [500,000](#) acres of farmland statewide, the vast majority of it in the Central Valley. Those empty fields are turning to dust, which residents breathe in.

Large particulate pollution in the San Joaquin Valley [hit](#) a low point in 2010 and has been rising since then.

Desalination

An interesting article, “Industry Looks to Desalination, Emerging Water Treatment Technologies,” on November 16 at <https://www.environmentalleader.com/2015/11/16/industry-looks-to-desalination-emerging-water-treatment-technologies/>, presents both some of the political developments around desalination, and new developments in the technology. Here are some excerpts:

Poseidon’s Carlsbad project is also a major test for the desalination industry in California and the US, which faces steep hurdles to overcome such as the high price of electricity and opposition from environmentalists over concerns that desalination seawater intake pipes and brine discharge harm marine life.

“In California, the Pacific Ocean provides a limitless resource of water that can be desalinated to help alleviate that state’s water crisis,” says Patricia A. Burke, secretary general of the International Desalination Association (IDA). “We are looking forward to the commissioning of the Carlsbad desalination plant to prove this potential.”

“Recent regulations in California will add significant costs to the construction of new seawater desalination plants — regulations that are, in our opinion, overly stringent given the rigorous environmental assessments that go into in plant siting and design and the advancements in desalination technology aimed specifically at safeguarding marine life and addressing environmental concerns,” Burke says. “As we’ve seen in many parts of the world, desalination has become mainstreamed, and it has proven to be vital to providing a reliable source of water to people and economies.”

Lowering the Cost of Desalination

Last week [General Electric said](#) researchers at GE’s Global Research Center in Upstate New York are working with the Department of Energy to test a [desalination](#) system that produces fresh water at low cost by essentially freezing seawater.

If successful, the [water treatment technology](#) could reduce the cost of desalination by 20 percent compared to more conventional thermal evaporation approaches, the researchers say.

“Freeze crystallization isn’t a new concept, but improving the system around the process would likely increase energy efficiency,” Basu says. “By designing a small turbine for the cooling process, it appears that GE is doing what it does best, that is, leverage its synergies and experience in the power space to its water business.”

Basu says startups in the space are also innovating in freeze desalination. While GE’s technology would need to reduce the seawater temperature to 0 degrees C, a BGH’s freeze crystallization system does not require lowering the temperature of water to 0 degrees C. “Rather than freezing salty water into ice, BGH adds an inducing agent, that induces the formation of a clathrate at temperatures of 5 degrees C to 10 degrees C and ambient pressure to separate out the salts.”

Pilot-scale testing shows energy consumption as low as 10 kWh/m³ — 50 percent to 70 percent lower than evaporative distillation.

Gathering of Climate Change Fanatics Next Week in Paris

On November 30 begins the week long conference led by the fanatics and promoters of the fraudulent “climate change is caused by mankind” begins in Paris, called COP21--(COP refers to “Conference of Parties; and the 21 refers to 2021 plan). Now, leaders from most of the nations of the world will attend, but, already, warnings have been issued that no agreement will be reached because some nations just will not submit to the depopulation scheme planned by the likes of Prince Charles, who will be a main speaker.

Here are several items relating to this gathering of ghouls:

“LaRouche South Africa Leader: Join Me in Saying No to COP21 and Carbon Dioxide Reduction!”
(Introduction)

Nov. 14 (EIRNS)--Ramasimong Phillip Tsokolibane, leader of LaRouche South Africa, has issued the following statement on the upcoming genocidal COP21 conference on "global warming" in Paris:

I, Ramasimong Tsokolibane, hereby fully endorse the Resolution being circulated internationally by the Schiller Institute, entitled 'We Say No to the Paris COP21 CO2 Reduction Scheme', and regard it as a matter of utmost urgency that leading figures in South Africa sign and endorse it as well.

Tsokolibane's full statement can be viewed here:

<http://www.californiadroughtupdate.org/2015/11/20/join-me-in-saying-no-to-cop21-and-carbon-dioxide-reduction/>

And the petition can be found here: http://schillerinstitute.org/green_fascism/2015/stop_cop21.html

Worried are the organizers of the conference, like Sir John Schellnhuber, that no legally binding agreement will be reached, because major nations like India and China will just not submit to stopping their economic development. Here are excerpt from a *Financial Times* article on November 15:

“G20: India Blocks Western Tactics On UN Climate Deal,” By Alex Barker and Pilita Clark

India has blocked G20 efforts to pave the way for an ambitious climate change accord in a sign of deep divisions just two weeks before delegates from almost 200 nations meet in Paris.

Through almost 20 hours of talks at the G20 gathering in Turkey officials struggled to bridge a political chasm even over language suggesting a common problem required a collective solution.

A senior EU official at the meeting of world leaders in Antalya said: “At certain times I was feeling that we’re not living on the same planet.”

India said it did not want the G20 to interfere in the Paris talks and blocked even a general reference to discussions on “periodic monitoring”.

If other big economies follow suit, the weakening of the final accord would raise doubts about the UN’s ability to do anything to combat climate change.

And here are excerpts from a report on the announcement that Prince Charles will be a featured speaker:

Nov. 15 (EIRNS)--Prince Charles, the spawn of the Satanic couple, Prince Philip and Queen Elizabeth II, will be a coordinator and featured speaker on the very first day at which principal speakers speak at the UN's COP21 conference in Paris. Thus, the British Monarchy will be on hand to supervise and push its Nazi agenda of reducing the world's population.

As the recent Executive Intelligence Review report, "Global Warming Scare is Population Reduction, Not Science," stated, "In 2009, Schellnhuber, in close collaboration with Prince Charles, coordinated the preparations for the UN Copenhagen Climate Conference (COP15)," which also heavily pushed decarbonization. That conference's objectives were then blocked.

<https://www.youtube.com/watch?v=CYM54feI4bo>

Finally, China has recently announced that it will be building 150 new coal-fired electrical generating plants over the next few years, and India announced that it will be building 140.