

# California Water and Infrastructure Report

Formerly, the "California Drought (and Flood) Update"



**For December 14, 2017**

**by Patrick Ruckert**

**Published weekly since July, 2014**

**An archive of all these weekly reports can be found at both links below:**

<http://www.californiadroughtupdate.org>

<https://www.facebook.com/CaliforniaDroughtUpdate>

[patruckert@hotmail.com](mailto:patruckert@hotmail.com)

*While the President has to be freed of this coup attempt, LaRouchePAC's second publication, "America's Future on the New Silk Road," will revive the potential of a "new economic paradigm" which engaged him in his 14-day trip to China and other Asian nations. It resulted, among other things, in nearly \$300 billion in investments in the United States and a Chinese commitment to build industry in America's third-poorest state.*

*More than that, the President and Congress need to understand Lyndon LaRouche's "four laws to save the nation." They start with re-imposition of the Glass-Steagall Act before the hyper-leveraged U.S. and European banks crash again. This was a Trump campaign promise! Then, join China's Belt and Road initiative ("New Silk Road") and match China credit-for-credit for great infrastructure projects, with a Reconstruction Finance Corporation or Hamiltonian Bank of the United States. Infrastructure building was Trump's main campaign promise, but the scrooges of the Republican leadership have so far defeated his intention.*

*Build high-speed rail corridors; build sea gates and reservoirs; build nuclear power plants and don't rely on gas power like the now-sorry British. Go again to the Moon and thence into the Solar System with a mobilization like Apollo. Trump has again stated the United States will do this. But without the credit and science policies LaRouche spelled out in his "Four Laws," and without cooperation with China, Russia, and other space faring nations, it won't succeed.*

*A Plan To Defeat A Coup, And Join A New Paradigm Of Economic Progress*

<https://larouchepac.com/20171214/plan-defeat-coup-and-join-new-paradigm-economic-progress>

## **A Note To Readers**

As the quotation above makes the point, if the coup attempt against the President fails, then the determination is to wreck his economic policy must be then our next target. The President has no choice but to declare war on the Wall Street system that will not allow him to fulfill the promises he has made. With that in mind it is useful to recall the President's policy as he stated it on February in his address to the joint session of Congress. That is not the President we see daily portrayed in the U.S. media. Excerpts from that address is the last item in the last section of this report.

### **In this week's report:**

California has always had unpredictable weather, and boy are we experiencing it now. Here it is half-way through the month of December and there is no rain or snow. Recall last December when the state was being drenched.

The Department of Water Resources has announced its initial allocation for state water contractors, and water users in the Valley are not pleased. The announcement and the response is in the section titled, "How Is the Water Supply for the Coming Year?"

The fires in southern California have now burned more than a quarter million acres in just over one week, and full containment of the Thomas fire in Ventura and Santa Barbara counties is not expected until, at the earliest, January 7 of next year. This section has some updates and concludes with the Governor's usual rant about global warming. But, the irony, as the article following the ones on the Governor make clear, all of his policies to lower CO2 are worthless.

The Oroville Dam Update includes a more general report on California dams and the billions required now to make them all safe. In addition, hair-line cracks in the new spillway continue to garner attention and about \$1 billion in damage claims have been filed against the state.

The proposed Huntington Beach desalination plant continues to move forward on regulatory approval and an article on the debate about it provides the unusual appearance of an article that appears to be honest coverage.

The final section this week is my regular coverage of the economic policy required if we are to actually rebuild the nation's infrastructure, and to go beyond that to a new platform of physical economic productivity.

## **Has Another Drought Begun?**

One thing is certain, the affects of the record five-year drought are still with us. The report on trees still dying is the third item in this section.

### ***Dry weather continues in California. Time to start worrying about another drought?***

*By Dale Kasler And Ryan Sabalow*

*December 12, 2017*

<http://www.sacbee.com/news/state/california/water-and-drought/article189397799.html>

*December has been bone dry in California, and it doesn't look like it's going to get much wetter by the time the 2018 rolls around.*

*Precipitation levels in Sacramento and most major California cities are below average for this time of year. The Sierra Nevada snowpack is just 37 percent of normal. The U.S. Drought Monitor says about one-third of California is either facing moderate drought conditions or is abnormally dry, with all of the dry areas lying south of the Sacramento-San Joaquin Delta. Extraordinarily arid conditions have helped fuel the wildfires in Southern California, where rainfall has been almost nonexistent. Arizona, Utah and parts of Nevada are also drier than usual.*

*With no rain or snow in the immediate National Weather Service forecast, it looks like December will be “kind of a bust, for the first of our three big months of precipitation,” said State Climatologist Michael Anderson. “That’s enough to get us paying closer attention.”*

*The big X factor this winter has been the presence of a La Niña weather pattern, in which cooler ocean temperatures can produce relatively dry winters, particularly in the southern half of the state. The National Oceanic Atmospheric Administration said last month that long-term forecasts are pointing to a La Niña pattern this season that’s likely to bring “below-median precipitation across the southern tier of the United States.”*

## **Second La Niña Winter Could Extend Drought Across the West**

*By Matt Weiser*

*December 11, 2017*

<https://www.newsdeeply.com/water/articles/2017/12/11/second-la-nina-winter-could-extend-drought-across-the-west>

*Winter is off to a dry start across the West, raising the specter of ongoing drought in many locations. The culprit could be La Niña – a periodic cooling of Pacific Ocean waters near the equator that often brings drought. And not just any La Niña, but a “double whammy” effect, which latest research concludes may cause even worse water shortages.*

*La Niña is popularly known as the opposite of El Niño, a warming of equatorial Pacific waters that can result in wet winters. But that is a misconception, according to Yuko Okumura, a research associate at the University of Texas Institute for Geophysics.*

*In reality, La Niña is unpredictable. As we found out last winter in California, for example, it can also produce wetter than average conditions.*

## **Drought kills 27 million more trees in California**

*Emily Guerin | December 12, 2017*

<https://www.scpr.org/news/2017/12/12/78804/drought-kills-another-27-million-trees-in-californ/>

*Another 27 million trees died in California last year due to the lingering effects of drought, according to new aerial survey data from the U.S. Forest Service. That brings the total number of trees killed statewide to a staggering 129 million since 2010.*

*In a typical year, about one million trees die across California. But beginning in 2014, [that number began ticking up](#) as aerial surveyors with the U.S. Forest Service started to notice entire hillsides turning yellow, brown and orange. At the height of the drought, in 2016, [they counted 62 million dead trees](#) in a single year (here is a [map](#) of the mortality progression).*

*Adrian Das, a forest ecologist with the U.S. Geological Survey, [previously told KPCC](#) that he wasn't surprised that after a single wet winter, trees were still dying.*

*“The trees have been weakened and under a lot of stress and we have these beetle populations that are*

*doing well,” he said.*



*Dead trees in Sequoia National Park in May 2016. The Southern Sierra Nevada was one of the hardest-hit areas by drought and high temperatures, resulting in millions of dead trees.  
USFS Region 5*

## **How Is the Water Supply for the Coming Year?**

The Department of Water Resources (DWR) on November 30 released its and excerpt from first statement of water allocations to contractors of the State Water Project. That statement is below, and then below that is a response from The California Water Alliance, taking the DWR to task.

### ***Initial State Water Project Allocation Set at 15 Percent***

<http://www.water.ca.gov/news/newsreleases/2017/113017allocation.pdf>

### ***Conservative Allocation Typical of Early Season Forecast***

*From the Department of Water Resources:*

*The Department of Water Resources (DWR) today announced an initial water allocation of 15 percent for most State Water Project (SWP) contractors for the 2018 calendar year. That allocation will likely change depending on rain and snowfall received this winter.*

*Last year, the Department’s initial allocation was 20 percent. By the end of Water Year 2017, allocations reached 85 percent due to the abundant rainfall during the year. During the recent drought, the initial allocation was as low as 5 percent in 2014.*

### ***Showing California’s Water Managers’ Incompetence***

Dec 8, 2017 | [CalWA News](#), [DWR](#)

<https://californiawateralliance.org/showing-californias-water-managers-incompetence/>

*This week, the California Department of Water Resources (DWR) set an initial water allocation for our State Water Project at 15 percent for cities and farms. During the 2016-2017 water year the state allowed nearly 50 million acre-feet (16 trillion gallons) of water to run unimpeded into the Pacific*

Ocean.

*The inability of California's water managers to capture abundant water in very wet years like 2016-17 rests entirely in the state's water managers' hands and their past decisions. No water storage infrastructure has been built by the state in California since 1978, and it shows a lack of focus intertwined with a mule-like unwillingness to address and solve California's long-standing water problems.*

*"It is pathetic and inexcusable that we recently celebrated the third anniversary of the Proposition 1 Water Bond's passage without a single water storage projects being approved, yet watched helplessly as 16 trillion gallons of water washed away into the Pacific Ocean between October 2016 and today," said Raul Riesgo, interim executive director, California Water Alliance (CalWA). "In a matter of five to six months California regulators were able to put together complete regulations for legalizing marijuana yet, over a period six times as long, they couldn't approve a single water storage project as our state suffered through drought and began to recover."*

*"After one of the wettest years in California's history, DWR announced a water allocation for the 2018 calendar year of just 15 percent to most State Water Project contractors in cities and farm areas," Riesgo said. "Those contractors serve over 26 million of the state's 39 million residents in California."*

## **The Fires**

Last week's report covered the southern California fires pretty thoroughly, so I just include in this section some updates and conclude it with the Governor's declaration, followed by a report that makes his declaration sound like the bullshit it is.

### ***AccuWeather predicts 2017 California wildfire season cost to rise to \$180 billion***

*December 07, 2017*

<https://www.accuweather.com/en/weather-news/accuweather-predicts-2017-california-wildfire-season-cost-to-rise-to-180-billion/70003495>

*Amid the costliest and most destructive wildfire year in California history, several [wind-driven wildfires](#) are raging in populated areas of Southern California.*

*AccuWeather predicts that the economic toll of the 2017 wildfire season in California will rise to \$180 billion.*

*"Even before this spate of December fires, 2017 has already been recorded as the costliest and most destructive wildfire year in California history," said Dr. Joel N. Myers, founder, president and chairman of AccuWeather.*

### ***Thomas Fire Grows to 4th Largest Wildfire in State's History, 8th Most Destructive: Cal Fire***

*December 14, 2017*

[Erika Martin](#) and [Simone Boyce](#)

<http://ktla.com/2017/12/14/thomas-fire-grows-to-4th-largest-wildfire-in-states-history-8th-most-destructive-cal-fire/>

*The Thomas Fire is now the fourth largest wildfire in California history as it continues singeing hillsides and homes across Ventura and Santa Barbara counties for an 11th day on Thursday.*

*The fire has burned 242,500 acres — or about 379 square miles — and demolished around 972 buildings, making it also the eighth most destructive wildfire in the state's history, according to Cal Fire. It has been 30 percent contained since Wednesday night.*

*Around 18,000 structures were still under threat Thursday, forcing 41,200 to evacuate in Santa Barbara County, where the fire has been more active over the past few days after spreading north from Ventura County. Some evacuation orders remain active in Ventura County, as well.*

*The fight against the fire has cost more than \$74.7 million so far, according to Cal Fire. More than 8,000 crew members were on the fire lines Thursday.*

## ***11 straight red-flag days, and Southern California fire weather isn't over yet***

By [City News Service](#) |  
December 14, 2017

<http://www.ocregister.com/2017/12/14/11-straight-red-flag-days-and-southern-california-fire-weather-isnt-over-yet/>

**Red Flag Warnings Through Friday Morning for much of Los Angeles and Ventura Counties**  
**Extreme Fire Danger with Rapid Rate of Spread**

**Red Flag Warnings Through Fri Morning:**

- Los Angeles/Ventura County Mountains
- Santa Monica Mountains
- Santa Clarita Valley
- Ventura County Valleys

**Red Flag Warnings Thu Thru Fri Morning:**

- San Fernando Valley
- Los Angeles/Ventura County Coasts

**Potential Impacts**

- Extreme Fire Danger
- Rapid Fire Spread
- Parking restrictions in some localities
- Possible road closures

**Weather Conditions Expected**

- Strongest Gusts L.A./VTU Counties Thu:
  - Coast/Valleys 40-50 mph
  - Mountains 45-55 mph
- Single Digit Humidities

Photo: Stephen Coleman

Weather Forecast Office  
Los Angeles/Oxnard, CA

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[weather.gov/LosAngeles](http://weather.gov/LosAngeles)

*LOS ANGELES — What forecasters say is the longest run of red flag warnings they can recall in the Southland went into its 11th day today, with at least one more day of strong gusty winds and low humidity expected.*

*Red flag warnings signifying a high risk of wildfires are in effect and scheduled to expire at 10 a.m. Friday in Los Angeles County in the San Gabriel Mountains, the Angeles National Forest, the Santa Monica Mountains, the Santa Clarita and San Fernando valleys, beach cities, metropolitan Los Angeles, Downtown L.A., and the Hollywood Hills.*

*Winds of between 15 and 35 miles per hour are forecast in the areas under warning, along with gusts of up to 50 mph amid humidity levels as low as between 3 and 10 percent, according to a National Weather Service statement.*

*Fire warnings are also in effect in numerous areas of Ventura and Santa Barbara counties, and “the Santa Barbara mountains could experience near-critical conditions” this afternoon and tonight, the statement said.*

## ***UCLA experts explain why California is burning in December***

***Record-breaking weather consistent with climate change is fanning the flames***

*Alison Hewitt | December 12, 2017*

<http://newsroom.ucla.edu/stories/ucla-experts-explain-why-california-is-burning-in-december-2646565>



Ryan Cullom/Ventura County Fire Department via AP

*Fires like this one in the city of Ventura, California, are likely to be more common, say UCLA climate scientists.*

*The Thomas Fire. The Creek Fire. The Rye Fire, Skirball Fire, Lilac Fire and Liberty Fire. Even in Southern California, six wildfires in four days is a lot to see tear through housing developments and close one of the nation’s busiest freeways.*

*“Southern California does see December wildfires, but not nearly a quarter million acres like we’re seeing in Ventura and Santa Barbara, and not half a dozen very destructive fires in early December,” said Daniel Swain, a climate scientist with the UCLA Institute of the Environment and Sustainability.*

*The difference this year is a number of record-breaking weather events consistent with climate change, said Swain and other UCLA climate experts from IoES.*

*“What was so unusual is the combination of unusually wet conditions last winter, a record warm autumn and near record-low autumn precipitation, all of which mean more and drier vegetation, which is fuel for these fires,” said Swain, who gained a following for his [clear and timely scientific explanations online](#). “These strong Santa Ana winds in December by themselves aren’t unusual, but what is really unusual is to have no rain and these high autumn temperatures. The combined effect is what makes it so problematic.”*

*Santa Ana winds are hot, dry winds from the high desert that get drier as they blow, sometimes making it even drier within 10 miles of the beach than in the desert.*

*“The humidity levels that we’ve seen this week are just about as dry as they can physically get, and we’ve set some daily records,” Swain said. “The temperature extremes — a record-warm summer and autumn — are exactly what we expect to occur given climate change, and there’s evidence that autumn and spring are likely to become even drier, even if our annual precipitation doesn’t change much.”*

## ***How to Fight the California Wildfires With a Boeing 747 Jumbo Jet***

*Jack Stewart*

*12.11.17*

<https://www.wired.com/story/southern-california-thomas-wildfire-boeing-747-global-supertanker/>

*The largest and most destructive fire burning in California continues to grow, consuming dry brush as it races not just through but across the canyons north of Los Angeles.*

*So firefighters are using the largest tools they have to tackle it, including one that's more than 200 feet long, and does its work from just 200 feet above the ground.*

*“We avoid flying through smoke at all costs, but you can smell the fire 200 miles out, even at 20,000 feet,” says Marcos Valdez, one of the pilots of the Global Supertanker, a Boeing 747 modified to fight the fiercest of fires. The jumbo jet can drop 19,200 gallons of fire retardant liquid per trip, nearly double the capacity of the next largest air tanker, a McDonnell Douglas DC-10. Fully stocked, the plane weighs in at 660,000 pounds, comfortably under its 870,000-pound max takeoff weight.*

## ***Russian Scientists Develop Effective Method to Extinguish Forest Fires***

*© Sputnik/ Alina Polyamina*

*14:46 11.12.2017*

<https://sputniknews.com/science/201712111059894460-forest-fire-russia/>

*Russian researchers have developed a technique to cover larger areas in a forest fire by almost completely evaporating water in a flame, promoting a dramatic drop in temperature.*

*MOSCOW (Sputnik) — Researchers from the Tomsk Polytechnic University have developed a method for extinguishing forest fires through the explosive breakup of drops in a flame with subsequent enhancement of water evaporation in the fire zone and to purify water, the International Journal of Thermal Sciences [reported](#).*

*This technique will help break up water droplets to release a fine aerosol, thus covering larger areas in a forest fire. This method can also be put to good use in heat energy applications and for thermic and fire water cleaning.*

*The method adds various properties to water, such as hard carbonaceous or metallic particles, particles of limestone, salt, sand and other things. The suspension is sprayed to make the bulk of the water break up into drops. Hard particles heat up faster than water and a droplet measuring several millimeters then explodes before it has time to evaporate, dissolving into numerous micron-size droplets.*

And now, here's Jerry with his apocalyptic warnings about man-caused global warming, and following two items on that is one on the evidence that all of his, and his allies, policies on CO2 are not only absurd, but useless.



## **California Governor calls wildfires 'new normal', tells US state to prepare for threat**

Dec 10, 2017

<http://zeenews.india.com/world/california-governor-calls-wildfires-new-normal-tells-us-state-to-prepare-for-threat-2064869.html>

LOS ANGELES: California Governor Jerry Brown said on Saturday that climate change has pushed weather to the most extreme, and the western US state must better prepare for a constant threat of wildfire which is the "new normal".

## **Gov. Jerry Brown warns climate change has us 'on the road to hell.' California's wildfires show he's on to something**

By [George Skelton](#)

Capitol Journal

December 14, 2017

<http://www.latimes.com/politics/la-pol-ca-skelton-jerry-brown-wildfires-20171214-story.html>

Ominously, of the 20 largest California wildfires since 1932, most — 14 — have occurred since 2000. The five largest all have.

Brown warned about this in July, long before the October wine country wildfires, the most destructive in state history, and the current Southern California blazes.

"Climate change is real," he warned a state Senate committee. "It is a threat to organized human existence. Maybe not in my life. I'll be dead. What am I, 79?"

"A lot of you people are going to be alive. And you're going to be alive in a horrible situation. You're going to see mass migration, vector diseases, forest fires, Southern California burning up. That's real, guys."

Last Saturday, surveying the fire devastation in Ventura, Brown called it "the new normal," declaring: "This could be something that happens every year or every few years."

"I don't think President Trump has a fear of the Lord, the fear of the wrath of God," Brown said.

And in Paris this week, at yet another international climate conference attended by the governor, he pointed to California's wildfires as a warning.

"This is an example of what we can expect," he said. "The fires are burning in California. They'll be burning in France, burning all around the world" without a significant reduction in carbon emissions.

"The world is not on the road to heaven. It's on the road to hell."

## **The ironic cause of our greenhouse gas decline**

By Dan Walters

December 10, 2017 12:01 AM

UPDATED December 08, 2017 10:09 AM

<http://www.fresnobee.com/news/politics-government/politics-columns-blogs/political-notebook/article188780254.html>

Gov. Jerry Brown hopped around Europe for two weeks last month, telling the world that to avoid a climate change Armageddon, it should emulate what California is doing to reduce greenhouse gas

*emissions.*

*As Brown was crusading in Europe, his Air Resources Board issued [a report](#) hailing California's nearly 5 percent reduction in emissions of carbon dioxide and other gases in 2016 by companies governed by the state's "cap-and-trade" system.*

*It appeared to underscore the efficacy of the system, whose extension was one of Brown's proudest achievements this year and one he forcefully touted in Europe.*

*Appearances, however, can be deceiving.*

*Julie Cart, the environmental writer for CALmatters who covered Brown's European sojourn, delved into the report's data [and discovered](#) that the major reason for last year's drop in emissions wasn't cap-and-trade, or any other state action.*

*Rather, it occurred because unusually heavy winter rain and snow storms allowed utilities to depend less on generating electricity by burning fossil fuels and more on hydroelectric power from dams in California and other states.*

*"Emissions from in-state electricity generation decreased more than 19 percent last year, and emissions from imported electricity dropped nearly 23 percent," Cart wrote.*

*That nugget of data is steeped in political irony.*

*California utilities are under a legal mandate to shift their power supplies from coal, natural gas and other carbon-emitting sources to carbon-free "renewable portfolios" – 33 percent by 2020 and 50 percent by 2030.*

*The latter requirement is imposed by 2015 legislation carried by Senate President Pro Tem Kevin de León, who was part of Brown's climatic posse in Europe.*

*However, the state's definition of renewable sources specifically excludes the hydroelectric power from major dams such as Shasta, Oroville and Folsom that was the major reason greenhouse gas emissions dropped so dramatically in 2016.*

*Why the official shunning of non-polluting hydroelectric generation?*

*Simply put, environmental activists just don't like big dams for reasons that have nothing to do with climate change – even though we will need more water storage to capture winter rains if, as they contend, climate change reduces winter snowfall.*

*And then there's nuclear power. It's noteworthy that France has achieved the globe's most dramatic reduction in greenhouse gases by shifting 80 percent of its power supply to nuclear, and that China is building more nuclear facilities as it tries to wean itself from coal.*

*However, one big atomic plant in Southern California, San Onofre, has been closed and the remaining one near San Luis Obispo, Diablo Canyon, is also ticketed for closure.*

## **Oroville Dam Update and More**

***California dam repairs will cost billions. Can we afford not to spend it?***

*By the Editorial Board*

*Sacramento Bee*

December 11, 2017

<http://www.sacbee.com/opinion/editorials/article189163099.html>

California's dam inspectors appear to be doing their jobs well. Unfortunately, too many dam operators are falling down on the job, and could be placing the public at risk.

That's the message of a [report by The Sacramento Bee's Ryan Sabalow and Dale Kasler](#). It's also a part of life in California. As vast swaths of Southern California smolder from the unusual late-season fires this dry December, people naturally are focusing less on rain, potential flooding or dam safety.

Kasler and Sabalow reviewed reports by dam safety inspectors who identified problems at 93 dams, 91 of which are "high hazard," meaning people live and work downstream. They're owned by a mish-mash of operators that include local water districts, utilities and the mighty Metropolitan Water District, which provides water to 19 million Southern Californians.

The Department of Water Resources estimates the cost of repairing dams statewide could be \$5 billion.

Uncle Sam evidently will be little help, despite President Donald Trump's promise that he would invest heavily in infrastructure. Congress seems incapable of funding public works. Congress last year approved legislation supposedly to help reinforce dams, but authorized a mere \$10 million nationwide for the current year, and \$445 million over 10 years. None of the money has been appropriated.

In 2011, the U.S. Geological Survey estimated that a mega-storm of the sort that has struck California before could cause \$725 billion in damage. The Central Valley Flood Protection Board estimates that we must spend as much as \$21 billion during the next three decades to prepare for Central Valley floods. Statewide, the number exceeds \$50 billion.

Here is the report referenced in the editorial above:

## ***Cracks, clogged drains, broken valves among litany of problems at California's dams***

By Dale Kasler and Ryan Sabalow

December 8, 2017

<http://www.sacbee.com/news/state/california/water-and-drought/article188710419.html>

*Cracked concrete. Plugged drains. Unchecked tree and brush growth. Broken outlet valves.*

*These are some of the problems that have gone uncorrected for years at California dams in spite of being flagged repeatedly by inspectors from the state Department of Water Resources. The sample below is based on a Sacramento Bee analysis of five years of inspection reports at the 93 dams singled out for further review by state officials following the February crisis at Oroville Dam. All of the dams mentioned below are classified as "high hazard" by the state because of their proximity to people living downstream.*

## ***Oroville Dam: Formerly classified memo describing spillway cracks now public***

By [Risa Johnson, Chico Enterprise Record](#)

December 12, 2017

<http://www.mercurynews.com/2017/12/12/oroville-dam-formerly-classified-memo-describing-spillway-cracks-now-public/>

Oroville – The previously secret state [Department of Water Resources memorandum](#) explaining the

hairline cracks in the Oroville Dam spillway is now public.

The document provides more details on how Kiewit Infrastructure West Co., the contractor for spillway reconstruction, tried to reduce shrinkage, which leads to cracking in concrete. It also contains photos documenting the cracks. After initially being classified as Critical Energy Infrastructure Information, only one attachment in the 15-page report was redacted.

Officials with the department maintain cracks were anticipated because the spillway is highly restrained and do not pose a threat to its structural integrity or require a fix at this time. DWR plans to continue monitoring the small gaps throughout the reconstruction process.

Professor Robert Bea with U.C. Berkeley's Center for Catastrophic Risk management said on Monday he found two of the pictures, figures one and three in the report which show thin and long breaks in the concrete, significant and "very scary."

"I hope no one will believe that this type of cracking — not the crazing at the surface of the concrete — is 'to be expected,'" Bea wrote in an email. "I have helped design, construct, operate, and maintain some very large reinforced concrete structures. These structures had many more 'restraints' than the re-constructed spillway. Significant cracking was not tolerated. If found, it was immediately 'fixed' and then monitored to be sure that the 'fix' had been effective."

## ***Spillway Q&A: Addressing vegetation, design and cracks***

*Editor's Note*

### ***Lake Oroville spillway series: Part 2***

***Editor's Note:*** Aided by respondents to an informal survey we conducted earlier this year, we have compiled a long list of concerns and questions about the Oroville Dam, the emergency there in February, the evacuations, etc. This is the second of several parts in which officials are asked those questions.

*December 12, 2017 10:16 pm*

*By Patrick Groves*

[http://www.appeal-democrat.com/news/spillway-q-a-addressing-vegetation-design-and-cracks/article\\_1f6c7130-dfcd-11e7-8b47-cbc44abab14f.html](http://www.appeal-democrat.com/news/spillway-q-a-addressing-vegetation-design-and-cracks/article_1f6c7130-dfcd-11e7-8b47-cbc44abab14f.html)

*Question:* One of the most common comments by respondents to an informal poll, had to do with the presence of vegetation on the spillway well below the floodgates. Fear stems from the worry that there is water seeping out through the earthen dam, encouraging growth of plants.

*Q:* Some commenters noted that studies and reports since last spring call into question some design elements of the dam. Some assert that the spillway and under slab drains were not built to specifications. And there was some commenting about insufficient inspections and reporting.

*Q:* At the time of the emergency last February, there had been no indication that there was a possibility of a problem, such as the collapse or breaching of the dam itself. Only the main spillways and the area below them. Is this still true?

*Q:* What about the latest revelation that there is cracking in the surface of the concrete work just completed; while the department says that was expected, at least one critic said that it shouldn't be expected and could lead to problems.

## ***Oroville Dam crisis sparked \$1.2 billion in claims. State hasn't paid a dime***

*By Dale Kasler*

*December 13, 2017*

<http://www.sacbee.com/news/local/article189603719.html>

*The near-disaster at Oroville Dam last February brought damage [claims flooding into the state](#) by the hundreds – shops and restaurants that lost business, farms that got overwhelmed by surges in water, cities and counties buried in evacuation expenses.*

*Most claims argue that the state is responsible for the emergency because it ignored warning signs about the condition of the dam's spillway.*

*So far the state hasn't paid a single claim.*

*The damage claims are separate from the money the state is spending to handle the emergency and rebuild the two spillways – a tab that is expected to exceed \$600 million by the time [the reconstruction work](#) is completed in 2018. State officials say they believe the Federal Emergency Management Agency will reimburse California for up to 75 percent of those costs. The rest would be covered by the regional water districts up and down California that store water behind the dam.*

## **Desalination**

Look at this article. Honest reporting. I have included here just a few excerpts.

### ***To Desalinate or Not to Desalinate: UCI Debate Over Controversial Proposed Huntington Beach Plant***

***The proposed Huntington Beach desalination plant led by Poseidon Water.***

*By Amy DePaul*

*December 11, 2017*

<https://voiceofoc.org/2017/12/to-desalinate-or-not-to-desalinate-uci-debate-over-controversial-proposed-huntington-beach-plant/>

*Academics, advocates and activists met for a panel discussion at UC Irvine to hash out the pros and cons of a proposal to build a desalination plant in Huntington Beach, with environmentalists once again warning it would damage marine environments and raise water bills.*

*Representing the builder of the Huntington Beach plant, vice president Scott Maloni of Poseidon Water said water bills have only gone up by \$4.50 a month in Carlsbad, where a Poseidon desalination plant has been operating for two years.*

*Ajami posed the question: Why pay higher prices for desalinated water on a permanent basis if it's only needed during the occasional drought?*

*Maloni countered that, "A drought is not a reason to build a desalination plant."*

*Instead, he said, the plant's chief benefits are providing a reliable source of local water to reduce dependence on imported water. Also, the plant enables water managers to diversify water sources beyond groundwater, storm water and recycling.*

### ***One Source Among Many***

*The \$1 billion Huntington Beach site could be expected to provide about 10 percent of the county's water supply, Maloni said.*

*But in general, Hiemstra said, desalination should be a "last resort" when other methods are not available or have been exhausted.*

*"We want conservation, recycling, storm water capture – all these are easier, cheaper things to get done first," he said.*

*Conservation, in particular, remains a viable tool in Orange County, where he said 60 percent of Orange County water still goes to landscaping.*

*In San Diego, "Conservation has been very effective," said Jeremy Crutchfield, senior engineer for the San Diego County Water Authority. But he added that conservation eventually reaches a limit. The region is now embracing potable reuse, also known as toilet-to-tap, and is pondering a future second desalination plant in Camp Pendleton, he said.*

*In Huntington Beach, Poseidon's plant would sit at the intersection of Pacific Coast Highway and Newland Street. According to environmentalists, it would be destructive to fish and their eggs that get sucked into the plant's intake pipes.*

## **Feature: The American Credit System**

### **The LaRouche PAC economic class series:**

#### ***Class 10 -Inside the Creative Mind: Metaphor***

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

How does a new idea arise in the mind? Is this something Artificial Intelligence can achieve? Can a complex logical system recreate the human act of creativity? What approach to knowledge ushered in the Renaissance and modern science? We will use the concept of metaphor to better understand just what it is to make a discovery. LIVE PARTICIPATION is encouraged.

#### ***And here are the links to the first nine classes:***

*Class No. 1: LaRouche's Science of Economics is the Basis for US Joining the New Paradigm*

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

*Class No. 2: LaRouche's Physical Economic Metrics: Productive Powers of Labor*

<https://www.youtube.com/watch?v=sWcFDt3yfiA>

*Class No. 3: Physical Chemistry: Stages of Development*

[https://www.youtube.com/watch?time\\_continue=4&v=A\\_XCGAfNa2U](https://www.youtube.com/watch?time_continue=4&v=A_XCGAfNa2U)

*Class No.4: Qualitative Change: What Number Cannot Measure [https://www.youtube.com/watch?time\\_continue=1&v=MHh8Ht5qShU](https://www.youtube.com/watch?time_continue=1&v=MHh8Ht5qShU)*

*Class No. 5 Bernhard Riemann and the Shape of Economic Space*

<https://www.youtube.com/watch?v=r2mQuAze838>

*Class No. 6: LaRouche's Physical Economic Metrics, Part II: How to Define Value*  
<https://action.larouchepac.com/2017-econ-class-series-sixth>

*Class No. 7: The True Meaning of Infrastructure: Physical Economic Platforms*  
<https://www.youtube.com/watch?v=cWjGr62d9HQ>

*Class No. 8: Making it Happen: Money vs. Credit* <https://larouchepac.com/20171129/class-no-8-making-it-happen-money-vs-credit>

*Class No. 9: Science Driver Principle* <https://larouchepac.com/20171206/class-no-9-science-driver-principle>

## **‘America Will Lead in Space Again,’ Pledges President Trump**

Dec. 11 (EIRNS)—President Trump signed Space Policy Directive 1 at a White House ceremony today, committing the U.S. to return to the Moon. The President was flanked by two current astronauts, and three former astronauts, including Harrison (Jack) Schmitt. Schmitt was on the Apollo 17 mission 45 years ago, which was the last to land astronauts on the Moon. President Trump, recognizing the occasion of the anniversary, turned to Schmitt.

“Exactly 45 years ago, almost to the minute, Jack became one of the last Americans to land on the Moon,” said Trump. “Today we pledge that he will not be the last, and I suspect that we will be finding other places to land in addition to the Moon.”

Space Policy Directive 1 is based on recommendations of the National Space Council, chaired by Vice President Mike Pence. When the Council met on Oct. 5, Pence directed that a Decision Memorandum be prepared to say: “We shall lead an innovative and sustained program of exploration with commercial and international partners to enable human expansion across the solar system to bring new knowledge and opportunities. Beginning with missions beyond low Earth orbit, the United States will lead to return humans to the Moon for long-term exploration followed by human missions to Mars and other destinations.”

President Trump today outlined that perspective: “The directive I am signing today will refocus America’s space program on human exploration and discovery. It marks an important step in returning American astronauts to the Moon for the first time since 1972, for long-term exploration and use. This time we will not only plant our flag and leave our footprint, we will establish a foundation for an eventual mission to Mars and perhaps, some day, to many worlds beyond.”

NASA’s leadership made its preference clear, by bringing a piece of Moon rock to the White House, which had been collected by Harrison Schmitt on Apollo 17, “as a reminder of exploration history.”

“This directive will ensure America’s space program once again leads and inspires all of humanity,” the President said. We will “lift our eyes all the way up to the heavens.”

“Imagine the possibility waiting in those big beautiful stars if we dare to dream big. That’s what our country is doing again, we’re dreaming big,” the President said.

## **President Trump's address to a joint session of Congress on February 28, 2017**

It is good to recall President Trump's address to a joint session of Congress on February 28, 2017. Of note, in his speech in Florida a few days ago, he mentioned, as he did on Feb. 28, that the nation has wasted \$6 trillion in regime change wars by the Bush and Obama administrations. These are his

words on Feb. 28: "The time has come for a new program of national rebuilding. America has spent approximately \$6 trillion in the Middle East. All the while, our infrastructure at home is crumbling. With this \$6 trillion, we could have rebuilt our country twice, and maybe even three times."

The spirit and content of the President's remarks are in sharp contrast to the stupid, partisan and non-productive activity of that same Congress throughout this year.

*From the LaRouche PAC International Webcast, Friday, December 8, 2017*  
<https://larouchepac.com/20171208/friday-webcast>

*Now, I think it's worthwhile to go back and recall a few aspects of that speech that President Trump made. Both in terms of demonstrating what his commitment was when he first came into office, which he in large measure has retained this commitment, despite the kind of ongoing, 24-hour around-the-clock attacks on his Presidency. But also as sort of a measuring rod against which we should hold up this next 50 days, as we now initiate this countdown to the first State of the Union address on January 30th, and recommit ourselves to the implementation of this Four Laws, Hamiltonian economic program that the LaRouche Political Action Committee has been leading the fight on over the last year.*

*So, let's recall a few aspects of President Trump's speech in February of this year to the Joint Session of Congress. In that speech, he said the following -- and I'll put the quotes up on the screen here: "In nine years, the United States will celebrate the 250th anniversary of our founding. 250 years since the day we declared our independence. It will be one of the great milestones in the history of the world. But what will America look like as we reach our 250th year? What kind of country will we leave for our children? I will not allow the mistakes of recent decades past to define the course of our future." Then he listed a series of promises. He said, "Dying industries will come roaring back to life. Crumbling infrastructure will be replaced with new roads, bridges, tunnels, airports, and railways gleaming across our very, very beautiful land. Our terrible drug epidemic will slow down and ultimately stop. And our neglected inner cities will see a rebirth of hope, safety, and opportunity."*

*Now, to accomplish these goals, President Trump referenced a few key aspects of what he would later identify, correctly, as the American System of economics. He quoted Abraham Lincoln, stating the following. President Trump said "I believe strongly in free trade. But it also has to be fair trade., It's been a long time since we had fair trade. The first Republican President, Abraham Lincoln, warned that 'The abandonment of the protective policy by the American government will produce want and ruin among our people.' Lincoln was right, and it's time we heeded his advice and his words." Then later in the speech, President Trump cited Dwight D Eisenhower. He said, "Another Republican President, Dwight D Eisenhower, initiated the last truly great national infrastructure program -- the building the interstate highway system. The time has come for a new program of national rebuilding. America has spent approximately \$6 trillion in the Middle East. All the while, our infrastructure at home is crumbling. With this \$6 trillion, we could have rebuilt our country twice, and maybe even three times. To launch our national rebuilding, I will be asking Congress to approve legislation that produces a \$1 trillion investment in infrastructure of the United States, creating millions of new jobs."*

*Imagine the wonders our country could know in America's 250th year. Think of the marvels we can achieve if we simply set free the dreams of our people. Cures to the illnesses that have always plagued us are not too much to hope. American footprints on distant worlds are not too big a dream. This is our vision. This is our mission.*