

California Drought (and Flood) Update



For September 21, 2017

by Patrick Ruckert

Published weekly since July, 2014

<http://www.californiadroughtupdate.org>

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

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We're just wasting our time, here, fighting over crumbs, over nothing. We have a dying system and we have an insane faction trying to defend a dying system and trying to maintain control over a sinking Titanic; it's completely insane. And we have to get across to people that mankind has a much better, much higher, and much more profound future available to it, if we actually collaborate in that uniquely human mission, that transcends and goes beyond cultural boundaries, national boundaries, historical boundaries and unique characteristics; and really unifies us as different people with different cultures, different backgrounds, but we find ourselves engaged in one mission, to the continual advancement of humanity in this Solar System, in this Galaxy. And there's tremendous work to be done, and we should put all this historical geopolitics behind us and get to some serious work. And now's the time to do it.

Ben Deniston

To the New York City LaRouche PAC meeting of September 16, 2017

A Note To Readers

What really pisses me off about most discussions of what to do about ensuring the California's ability to provide water for all its people and to maintain it as an agricultural powerhouse, is that people think too small. "How can we save a few acre feet?" being the focus may exaggerate a little, but not much. It is such small-mindedness that Ben Deniston was addressing in the quote above. While China has built the "Move South Water North" project, moving water for more than a million people almost 1,000 miles, it takes decades to build even a reservoir here.

But, that is not all. Even focusing on 50 years into the future and what mankind requires of us today for that future, does not even register.

That was not what the founders of this nation would have expected from their descendants. And it is a good moment to remember those founders this week. It was 230 years ago on September 17, 1787 that

Alexander Hamilton and his associates gave the world a new platform, with the signing of the Constitution of the United States: A new conceptual platform in every sense. And most human development since has been in relationship to that development at that time. They were giants and they were scientists. The names of Nicholas of Cusa and Wilhelm Gotfried Leibniz may be unfamiliar to most Americans, but, Benjamin Franklin, and Alexander Hamilton borrowed their ideas to create our Constitution.

Next week this report will feature some thinking big ideas.

This Week's Report

Well, it is back to the drawing board. As this report has pointed out for months now, the CalFix tunnels under the Delta project of the Governor was likely to find that one of the most significant water districts expected to fund about one-third of the \$17 billion required, was unlikely to sign on. And that is what the Westlands Water District announced two days ago. Reports on that decision and everyone's reaction and what it means lead our report this week.

That is, after a few words on the weather.

Next on the agenda will be the Oroville Dam update. And I must highlight here the answer of the DWR official when asked what went wrong with the emergency spillway back in February when 180,000 people had to evacuate: *"I would say that it didn't preform as we expected it to."*

Desalination has been neglected here for awhile, so the next section covers some background and recent developments of the topic.

The feature this week is titled: "Let Us Learn What We Used To Be, So We Can Build A Future."

Just to remind people here, all of the articles below are excerpts. For the entire articles, go to the links.

Will It Rain or Will It Shine This Winter?

Experts (And The Farmer's Almanac) Already Predicting Another Wet Winter For California

by [Jay Barmann](#) in [News](#) on Sep 13, 2017 2:00 pm

http://sfist.com/2017/09/13/experts_already_predicting_another.php

Will California be slipping back into a drought come January 2018, or will we see deluge after deluge again, causing [dams to burst at the seams](#), sending trees, roads, and bridges into ravines — or [into the Pacific](#) — and dumping another hundred feet of snow in the Sierra? That is the question facing climatologists right now as we stare down what's jokingly called a "La Nada" winter — i.e. neither an El Niño or a La Niña, but what should be just a "normal" one.

The Southern California News Group [called up several experts](#), including NASA's Jet Propulsion Laboratory climatologist Bill Patzert, who says there is "no strong signal" this year as to whether California will see a wetter or drier than usual winter. "We either slip back into drought or we have a repeat of last year," says Patzert.

Patzert also points to climate change overall, saying, "We know that California winters are [getting] warmer and the snowpack comes later and leaves earlier. That is a trend, not a forecast." He calls climate change an "additional variable" that is affecting long-range forecasts, and impacting natural

cycles like El Niño or a La Niña, causing them to be less predictable. (Patzert notably predicted that ["Godzilla El Nino" for 2015-16](#) that never really came to be.)

AccuWeather.com meteorologist Ken Clark is a bit more bullish on the rain, saying Northern California in particular is likely to have "a moderate winter with a decent amount of storms," and likely a repeat appearance of the atmospheric rivers that caused major downpours and floods all over the state last winter.

[The Old Farmer's Almanac](#), if it's to be trusted, has California on course for a cold and wet winter, while the Pacific Northwest will see a more cold and dry one.

Now What? The Delta Tunnels Are Dead, Maybe

With many forces now declaring that the Delta Tunnel project is dead, following the decision of the Westlands Water District to not participate, the question being raised is will Governor Brown somehow resuscitate it with public funds?

The articles below tell the story so there is no need for me to summarize it here. Have fun.

\$17 billion Delta tunnels plan in trouble after key water agency backs out

By [Paul Rogers](#) | progers@bayareanewsgroup.com | Bay Area News Group

September 19, 2017

<http://www.mercurynews.com/2017/09/19/california-farming-district-considers-giant-water-tunnels/>

In a major and potentially fatal setback to Gov. Jerry Brown's \$17 billion plan to build two huge tunnels under the Sacramento-San Joaquin River Delta, America's largest irrigation district voted Tuesday to pull out of the project.

The board of Westlands Water District, based in Fresno, voted 7-1 following an hour of debate and discussion over the costs of the project, which is intended to make it easier to move water from north to south.

Westlands was going to pay roughly \$3 billion of the total bill. Now, those costs will have to be shouldered by other water agencies that decide to participate, which means higher-than-expected water bills in those areas.

Among the large water agencies considering participating in the project is the Santa Clara Valley Water District, based in San Jose. The district, which provides drinking water and flood protection to 2 million people from Palo Alto to Gilroy, is scheduled to vote Oct. 17.

Its costs were expected to be about \$1 billion for 5 percent of the project's water. Now that a key partner has pulled out, the likelihood of the district endorsing and funding the project has decreased, said John Varela, chairman of the Santa Clara Valley Water District, late Tuesday.

"My magic eight-ball is just not coming up with an answer that is positive now that Westlands is pulling out," said Varela. "I can't imagine how we can go forward when one of the most significant water users in the state is sending a message that this project doesn't pencil out for them. If it doesn't pencil out for them, how does it pencil out for us?"

Complicating Brown's plans, his administration has not been able to guarantee that the tunnels will

allow any more water to be pumped out of the Delta than is being pumped out now — roughly 50 percent of all its fresh water in most years.

Farm districts and city water agencies have looked at the costs, calculated how much debt they would incur, and wondered if they can spend the money more efficiently. For Westlands, district officials told farmers the tunnels would increase water reliability, but could increase their costs from \$160 an acre foot to \$600 an acre foot.

Westlands general manager Thomas Birmingham said after Tuesday's dramatic vote, which sent shock waves across California's close-knit water community, that he believes it could kill the tunnels project.

"This thing dies, the project will be over," he said.

Jeff Kightlinger, general manager of the massive Metropolitan Water District of Southern California, which provides drinking water to 19 million people, told the Sacramento Bee after the vote that it is a game-changer.

"Absent Westlands, you don't have a (tunnels) project," said Kightlinger, who has been one of the project's biggest supporters.

From the Westlands Water District:



After a thorough analysis by independent consultants and District staff, multiple special board meetings, and grower workshops, the Westlands Water District Board of Directors voted by a margin of 7 to 1 to not participate in the California WaterFix (CWF). The District appreciates the efforts of Governor Jerry Brown and his administration to balance the interests of many. Indeed, over the last twelve months the State administration worked diligently to define a viable project, but from Westlands' perspective, the project is not financially viable.

Westlands' principal source of water is the Central Valley Project, a project operated by the United States Bureau of Reclamation. The CVP is integrated both operationally and financially. However, under the "participation approach" announced by Reclamation for CWF, only CVP contractors that chose to participate in CWF would pay the costs of constructing and operating new facilities, with no assurance that those contractors would receive the water supply benefits resulting from CWF.

Westlands supported the development of CWF and has invested considerable financial resources, time, and expertise into its planning, but consistently stated that it would not obligate the farmers it serves to billions of dollars in debt without reasonable assurances that the project would produce reliable, affordable water supplies. The District recognizes that solving Delta conveyance issues is critical to ensuring reliable water supplies to support the economy of the State, but it cannot support a project that would make water supplies for its farmers unaffordable.

Westlands Water District is the largest agricultural water district in the United States, made up of more than 1,000 square miles of prime farmland in western Fresno and Kings Counties. Under federal contracts, Westlands provides water to 700 family-owned farms that average 875 acres in size.

METROPOLITAN GENERAL MANAGER ISSUES STATEMENT FOLLOWING WESTLANDS WATER DISTRICT VOTE ON CA WATERFIX PARTICIPATION

<https://outlook.live.com/owa/?path=/attachmentlightbox>

Sept.19, 2017

Jeffrey Kightlinger, general manager of the Metropolitan Water District of Southern California, issues the following statement following the Westlands Water District Board of Directors vote on California WaterFix:

"California WaterFix has long been envisioned as a partnership between urban water agencies and agriculture. It was clear that this would be a difficult vote for Westlands, as it is for us all. It's equally clear that actions must be taken to secure a reliable water supply for the state and to safeguard our economy. California must find a path forward from here that works for all of the partners."

Farming district says it won't pay for Delta tunnels in a vote that could kill the project

By Dale Kasler and Ryan Sabalow

September 19, 2017 3:17 PM

Fresno

<http://www.sacbee.com/news/state/california/water-and-drought/delta/article174229771.html>

A large agricultural district Tuesday dealt a potentially fatal blow to Gov. Jerry Brown's Delta tunnels project, voting overwhelmingly not to help pay for the \$17 billion plan to remake the fragile estuary that serves as the hub of California's water delivery network.

Big setback for Gov. Brown's twin-tunnels project in the delta

By [Kurtis Alexander](#)

Updated 5:48 pm, Tuesday, September 19, 2017

<http://www.sfgate.com/bayarea/article/Big-setback-for-Gov-Brown-s-twin-tunnels-12210949.php>

California's biggest agricultural water supplier said Tuesday that it's not ready to spend money on Gov. Jerry Brown's proposed delta tunnels plan, a decision that could threaten the future of the \$17 billion project.

The Westlands Water District, the powerful San Joaquin Valley supplier that irrigates some of the state's biggest farms, was widely expected to pay as much as a fifth of the bill for two 35-mile-long tunnels that would help move water from Northern California to fields and cities to the south, including in the Bay Area.

But Westlands board members said at their Fresno meeting that the district is being counted on to carry too much of the load. The state is expecting the dozens of water agencies that benefit from the State Water Project to help finance the tunnels, but several of them had already begun to rethink their support even before Westlands' vote.

Without Westlands' contribution, the remaining agencies, which include the Santa Clara Valley Water District, Alameda County Water District and the Tri-Valley area's Zone 7 Water Agency, each would have to pay more.

Westlands' refusal to pay, however, raises the specter of a bolt for the exits by local water agencies that would make it impossible for the state to move forward with construction.

Westlands "stated from the beginning that the district would not obligate its farmers to billions of dollars of new debt without a reasonable assurance that the project would result in a reliable, adequate and affordable supply of water," said district General Manager Tom Birmingham. "The uncertainty of the project as currently envisioned was reflected in the vote of today's decision not to participate."

REACTIONS to Westlands vote against the Delta tunnels

[September 20, 2017 Maven Other News Item](#)

<https://mavensnotebook.com/2017/09/20/reactions-to-westlands-vote-against-the-delta-tunnels/>

Yesterday, the Board of Directors of the Westlands Water District voted not to participate in the California Water Fix project, dealing what some say may be a final blow to the project. Here's what organizations and officials had to say:

APNewsBreak: Water project's cost falls to more Californians

By ELLEN KNICKMEYER and SCOTT SMITH Associated Press

September 18, 2017 1:37 PM

<http://www.sunherald.com/news/business/article173905176.html>

Water districts and households across California could be compelled to help pay for Gov. Jerry Brown's plans to build two giant tunnels to ferry water to cities and farms mainly in central and Southern California, under newly revealed plans to shore up funding for the struggling \$16 billion project.

The tougher state funding demands pivot from longstanding state and federal assurances that only local water districts that seek to take part in the mega-project would have to pay for the twin tunnels, the most ambitious re-engineering of California's complex north-to-south water system in more than a half-century.

The Associated Press obtained new documents from the state's largest agricultural water agency and confirmed the expanded funding demands in phone and email interviews with state and local water officials.

The state's newly revealed funding plan hinges on its contention that the tunnels would be an update, not a new project. As such, the 29 water districts that get water from the existing state system of aqueducts, reservoirs and pumps would be obligated to help bear the costs of the new tunnels, state and local water officials said Friday.

Rather than deciding whether to opt in to the project, any state water clients that "make an affirmative decision not to participate, it would be up to them to reach an agreement" with some other water contractor to take on their share of the project's cost, Lien-Mager said.

Asked if California intended to cut off state water deliveries to districts that refuse to help pay for the tunnels, Lien-Mager said only that "opting out would not affect their existing contracts, but their actual water supplies from the SWP could become less reliable in the future," referring to the current State Water Project.

Editorial: Now Gov. Brown threatens to force us to pay for Delta Tunnels?

By [Mercury News Editorial Board](#) | Mercury News

PUBLISHED: September 20, 2017 at 2:56 pm | UPDATED: September 21, 2017 at 4:28 am

<http://www.mercurynews.com/2017/09/20/editorial-westlands-vote-should-kill-terrible-delta-tunnel-plan/>

It's over, governor.

The Westlands Water District's 7-1 vote against helping to pay for Gov. Jerry Brown's \$17 billion Delta tunnels project Tuesday should be the death knell for an awful idea that will squander billions without accomplishing the "WaterFix" its name implies.

Westlands' board concluded the obvious: The deal doesn't pencil out and doesn't guarantee the Central Valley district's farmers a drop of additional water.

Incredibly, one of Brown's top water lieutenants, John Laird, pooh-poohed the decision. "This vote, while disappointing, in no way signals the end of the WaterFix," he said Tuesday.

This reinforces reports that Brown's administration is considering forcing water districts to help pay for the two 35-mile tunnels. The strategy would be to just build them and withhold water from districts that don't pay up.

It's outrageous. The blackmail strategy would be tied up in the courts for years. None of Brown's likely successors have gone on record in support of the tunnels.

What's next for Brown's Delta tunnels now that a big chunk of funding has disappeared?

By Dale Kasler and Ryan Sabalow

<http://www.sacbee.com/news/state/california/water-and-drought/delta/article174490691.html>

Shellshocked by an influential farm irrigation district's refusal to help pay for the Delta tunnels, advocates of the \$17.1 billion project were scrambling Wednesday to salvage it or conjure up a Plan B. Three possible options were floated by California water policymakers for reviving the proposal. All of them face substantial hurdles of their own.

Can the tunnels go forward? Here's a look at the current state – and the immediate future – of the project dubbed California WaterFix by Gov. Jerry Brown's administration.

President Donald Trump may be a wild card, though. He has pledged to help San Joaquin Valley farmers with their water shortages. A former Westlands lobbyist named David Bernhardt is the new deputy secretary at the Department of the Interior, which oversees the Bureau of Reclamation, although Interior officials say Bernhardt has recused himself from issues involving Westlands..

The Trump administration had indicated "there was going to be some federal help coming," said Los Banos farmer Cannon Michael, who receives water from the Central Valley Project and leads the San Luis & Delta-Mendota Water Authority. "That could be an avenue."

Is there a third option for saving the project?

Possibly. Kightlinger, the manager at Metropolitan, suggested that "we develop a scaled-back project." With little or no funding from the federal contractors, the State Water Project districts – led by Metropolitan and the farmers at the Kern County Water Agency – could build a smaller version of

the tunnels. Both Metropolitan and Kern County have indicated they support WaterFix, although they haven't formally committed yet.

What are tunnels advocates doing right now?

They're trying to stay the course. Metropolitan's board of directors still plans to vote Oct. 10 on whether to participate in the current tunnels plan, said spokesman Armando Acuña. The Santa Clara Valley Water District is voting Oct. 17, "as far as I know," said spokesman Marty Grimes. "I haven't heard of any change yet." The Kern County Water Agency is polling its 13 member agencies and plans to report the results to Brown's administration by Oct. 12, according to Creel.

State officials, meanwhile, said the fight for WaterFix isn't over. "The state is not going to walk away from its obligation to advance this critical upgrade" to water infrastructure, Natural Resources Secretary John Laird said Wednesday.

Farmers rejected the Delta tunnels, but the battle ain't over. Here's what Brown should do next.

By the Editorial Board

Sacramento Bee

September 20, 2017 3:52 PM

<http://www.sacbee.com/opinion/editorials/article174482936.html>

Westlands Water District underscored a basic truth in rejecting a decade-long effort to construct a \$17.1 billion twin tunnel project to transfer water from the Delta to farms and cities to the south and west: Without clear financing, the project will collapse.

But without some version of the [California WaterFix](#), the Sacramento-San Joaquin River Delta, a rich and vastly re-engineered resource, will continue to decline and diminishing [fisheries will dwindle further](#).

The Metropolitan Water District of Southern California and some farming interests remain supportive of a project in some form. Like other Californians with a stake in the outcome – including those of us in the Sacramento Valley – the governor must look for alternatives.

Oroville Dam Update

Some videos and a construction report opens this section this week. Then the demand that the emergency spillway not just be fixed at the dam, but that the entire spillway be paved, is being raised. And what went wrong back in February when 180,000 people had to be evacuated? The answer from a DWR official will kill you: ***"I would say that it didn't perform as we expected it to."***

Spillway Flyover September 13, 2017

<https://www.youtube.com/watch?v=UuuHjinMilU&index=4&list=PLeod6x87Tu6eVFnsyEtQeOVbxvSWywPlx>

Oroville Spillway Flyover September 18, 2017

<https://www.youtube.com/watch?v=dVe304ciVuA>

OROVILLE DAM- UPDATE- 9/18/17

<https://www.youtube.com/watch?v=l9UOBI3eUfU>

Oroville Dam: What exactly will be done by Nov. 1?

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

PUBLISHED: September 18, 2017 at 6:55 am | UPDATED: September 18, 2017 at 8:52 am

<http://www.eastbaytimes.com/2017/09/18/oroville-dam-what-exactly-will-be-done-by-nov-1/>

Oroville – Repairs to the Oroville Dam spillway are on track for the Nov. 1 deadline, state Department of Water Resources representatives say, but work will be far from over then.

The November deadline was set in the hopes of beating the start of the area's typical rainy season. The spillway will be functional by then, able to pass flows of 100,000 cubic-feet per second, or cfs, according to DWR's plans, but the structure will have a higher capacity when the redesign is complete.

Erin Mellon, DWR's assistant director of public affairs, said in an email Friday there are two critical components that need to be finished in order to allow for 100,000 cfs flows, including the upper and middle portions of the chute. Specifically, 750 feet in the upper region, beginning 730 feet down from the very top of the structure, needs to be lined with structural concrete. Another 1050 feet in the middle, where there was vast erosion, needs to be filled with roller-compacted concrete, or RCC.

Group that issued 2005 warning still wants full emergency spillway at Oroville Dam

By [Steve Schoonover, Chico Enterprise-Record](#)

Posted: 09/19/17, 6:36 PM PDT | Updated: 7 hrs ago

<http://www.chicoer.com/general-news/20170919/group-that-issued-2005-warning-still-wants-full-emergency-spillway-at-oroville-dam>



Five drill rigs work Sept. 6 to construct the cutoff wall downslope of Lake Oroville's emergency spillway weir. The wall is designed prevent head-cutting erosion at the base of the concrete weir. The group that warned the emergency spillway could fail thinks the plan isn't sufficient and a full concrete emergency spillway should be built. Ken James — Department of Water Resources

Oroville >> The group that 12 years ago warned the Oroville Dam emergency spillway could fail, Tuesday released a new set of recommendations for operation of the dam and the Feather River flood control system.

“It’s not enough to be right in the rearview mirror,” said Eric Wesselman, executive director of Friends of the River in a media call Tuesday morning. “Existing infrastructure needs to be fixed now.”

In 2005, Friends of the River, along with the Sierra Club and the South Yuba Citizens League, asked the Federal Emergency Regulatory Commission to require the Department of Water Resources to build a full concrete emergency spillway to replace the existing concrete weir with a bare hillside below it.

Now the Friends of the River have produced “The Oroville Dam 2017 Spillway Incident and Lessons from the Feather River Basin,” in concert with the California Sportfishing Protection Alliance, the South Yuba River Citizens League, and American Whitewater.

The [report](http://www.friendsoftheriver.org) is available at the Friends of the River website, www.friendsoftheriver.org. It includes a full history of the dam, this year’s spillway emergency and actions taken since then.

The group still calls for a “real” full concrete emergency spillway, instead of the cutoff wall and concrete splash pad DWR has planned.



Picture taken Aug. 9 from the emergency spillway weir at Oroville Dam shows the cutoff wall being constructed in the distance. The Department of Water Resources plans to sill the area between the wall and weir with concrete, but the group that warned in 2015 that the spillway could fail thinks a full concrete emergency spillway is necessary. Florence Low — Department of Water Resources

Emergency spillway sees necessary repairs, on a smaller scale

By Taylor Torregano

September 14, 2017

<http://www.krcrtv.com/news/local/butte/emergency-spillway-sees-necessary-repairs-on-a-smaller-scale/620932182>

OROVILLE, Calif. - As another rainy season approaches, the Department of Water Resources said it is also making necessary repairs to the emergency spillway, at the same time it works to restore the primary one.

It was the threat of a failure to the emergency spillway that caused the evacuations. Officials feared the erosion on the hillside would cause a 30-foot wall of water to come crashing over Oroville in February.

Now, officials said they hope they won't ever have to use the emergency spillway again, but in case they do, they want to be prepared. "It was the perfect storm of events that led us to having to use the emergency spillway," said Erin Mellon, Assistant Director of the Department of Water Resources' Public Affairs. "Now that we know how it performs, we're going to make it better."

*When asked what the biggest take away from the emergency spillway failure was, Mellon answered, **"I would say that it didn't preform as we expected it to. I think that's exactly why we are going to make improvements to it, we're going to construct this cut off wall to ensure that it doesn't ever happen again."***

Despite DWR praise, Oroville Dam critics want answers

By Vicki Gonzalez

September 14, 2017

<http://www.kcra.com/article/despite-dwr-praise-oroville-dam-critics-want-answers/12245921>

State lawmakers applaud reconstruction, but want accountability

State lawmakers responsible for the safety of residents downstream from Lake Oroville applaud the Department of Water Resources reconstruction to the dam's damaged primary and emergency spillways, but the lawmakers still want answers and accountability for the cause of February's near-catastrophe.

"They are doing a superb job," said Sen. Jim Nielsen, R- Tehama. "Things are not only being done apparently well, but they are being done expeditiously."

"I was really impressed by the work that's being done," said Assembly Member James Gallagher, R-Yuba City. "I mean, it seems like things are moving very well in sync."

Investigations from Oroville Dam's Independent Forensic Team (IFT) are raising questions about the state's handling of the tallest dam in the country.

"That's an area where there's a little bit of deficiency in DWR," Nielsen said. "They are 'Oh well, we're studying that, we're waiting for the report.' Well, they've got a report now."

Forum addresses future economic impacts of dam spillway crisis

By Bianca Quilantan

Posted: 09/16/17

<http://www.chicoer.com/general-news/20170916/forum-addresses-future-economic-impacts-of-dam-spillway-crisis>

Oroville >> Oroville's economic future could be stunted if the Department of Water Resources does not keep up its end of the bargain with dam spillway reparations, some residents and business owners said Saturday.

Desalination

It has been awhile since this report has covered the topic, so just to remind everyone that man-created fresh water is not just a big part of the future of water, but that it is already a significant element of it now, here are a few developments. The first article, on Israel, is from one year ago. The final article in this section on the Carlsbad desalination plant demonstrates what every new technology or its scale-up faces-- problems. So what?

Israel Proves the Desalination Era Is Here

By Rowan Jacobsen

July 29, 2016

https://www.scientificamerican.com/article/israel-proves-the-desalination-era-is-here/?wt.mc=SA_Facebook-Share



Sorek Desalination Plant. *Credit: Photo courtesy of IDE Technologies.*

We are standing above the new Sorek desalination plant, the largest reverse-osmosis desal facility in the world, and we are staring at Israel's salvation. Just a few years ago, in the depths of its worst drought in at least 900 years, Israel was running out of water. Now it has a surplus. That remarkable turnaround was accomplished through [national campaigns to conserve and reuse Israel's meager water resources](#), but the biggest impact came from a new wave of desalination plants.

Driven by necessity, Israel is learning to squeeze more out of a drop of water than any country on Earth, and much of that learning is happening at the Zuckerberg Institute, where researchers have pioneered new techniques in drip irrigation, water treatment and desalination. They have developed resilient well systems for African villages and biological digesters that can halve the water usage of most homes.

Enter desalination. The Ashkelon plant, in 2005, provided 127 million cubic meters (166 million cubic yards) of water. Hadera, in 2009, put out another 140 million cubic meters (183 million cubic yards).

And now Sorek, 150 million cubic meters (196 million cubic yards). All told, desal plants can provide some 600 million cubic meters (785 million cubic yards) of water a year, and more are on the way.

LULAC National Assembly calls for approval of Huntington Beach Desalination project

July 25th, 2017

http://www.oc-breeze.com/2017/07/25/105849_lulac-national-assembly-calls-approval-huntington-beach-desalination-project/

The League of United Latin American Citizens (LULAC) National Assembly has announced their strong support for the development of the proposed Huntington Beach Desalination Facility.

The project proposed by Poseidon Water, is poised to create significant local economic benefits. In addition to bringing the single largest source of new, local drinking water to Orange County – 56,000 acre-feet of water annually – over 3,000 jobs will be generated adding over \$500 million dollars to the regional economy during construction.

The LULAC national assembly of 800 delegates nationwide passed a resolution in support of the proposed project which will provide access to clean and affordable water to an estimated one million Latino residents living in Orange County.

Orange County Latinos want desal water now

*By [Cathy Green](#) and [Antonio Gonzalez](#) | Orange County Register
September 15, 2017 at 8:23 am*

<http://www.ocregister.com/2017/09/15/orange-county-latinos-want-desal-water-now/>

The Orange County Water District's mission is to provide the 2.4 million people it serves with a reliable, adequate, high-quality water supply at the lowest reasonable cost in an environmentally responsible manner. Because of its dependence on climate-challenged, heavily regulated imported water, OCWD's policy is to develop new local and drought-proof sources of water. In the process of doing this, OCWD has identified the proposed Huntington Beach Desalination Project as the single largest source of new local drinking water supply available to the region. Thus, in May of 2015, OCWD entered into a Term Sheet with Poseidon Water for the purchase of the entire 50 million gallons a day the plant will produce.

Huntington Beach desalination plant one step closer to becoming a reality

By Lauren Williams

Orange County Register

August 31, 2017

<http://www.ocregister.com/2017/08/31/huntington-beach-desalination-plant-one-step-closer-to-becoming-a-reality/>

A desalination plant planned for Huntington Beach and more than a decade in the making got a small step closer toward opening, this week, after its application with the regional water district was

determined to be ready for consideration.

The agency also has enough information to make a decision about whether the project complies with the state's ocean plan.

The Santa Ana Regional Water Quality Control Board now must review Poseidon's plans for a desalination plant by April at the latest, giving the company — and its numerous opponents — a firm timeline, according to the project's Vice President of Project Management Scott Maloni.

Desal Plant Is Producing Less Water Than Promised

By Ry Rivard

August 19, 2017

<http://www.voiceofsandiego.org/topics/science-environment/desal-plant-producing-less-water-promised/>

When the Carlsbad desalination plant opened in December 2015, regional water officials gushed about how reliable it would be. San Diego could now drink from the endless Pacific Ocean rather than be stuck depending on rain and snowmelt to come from hundreds of miles away.

So far, though, the plant has not been as reliable as promised.

Over the last year, the privately owned plant failed to deliver nearly a fifth of the water the San Diego County Water Authority ordered from it.

During the same period, there were 46 days when it delivered no water at all, according to business and regulatory filings by the plant's owner, Poseidon Water.

Some of the shortfalls can be blamed on hiccups at a plant that is still getting its sea legs. The plant is the country's largest ocean water desalination plant.

But, if anything, the plant's reliability has gotten worse since it first opened. In 2016, Poseidon filled 95 percent of the Water Authority's orders for water. So far in 2017, the company has only filled 70 percent of the Water Authority's orders.

Water Authority officials also continue to speak highly of the 30-year deal they signed with Poseidon and of the company itself. They say ratepayers are insulated from financial risks — when the plant isn't working, we don't pay for it. There's also so much water available after a wet winter that the plant's water isn't needed right now anyway. The issues at the plant have not affected the safety of people's drinking water.

The New Gold Rush: Part I

As Colorado River water supplies dwindle, plans for desalination litter the West

By [Matt Cortina](#)

September 14, 2017

<http://www.boulderweekly.com/news/new-gold-rush-part/>

There is less than 60 miles of coastline between Huntington Beach and Carlsbad, California. In that space, there exists one desalination plant, and plans for two more, which have been in the works for years.

Up the coast, a desalination plant in Santa Barbara was recently reactivated. Down the coast, in Rosarito, Mexico, plans are in place to construct the Western Hemisphere's largest desalination plant. Treated seawater from that plant will likely be pumped back across the border to thirsty communities in California, Nevada and Arizona. And in Yuma, Arizona, a desalting plant capable of producing potable water from a brackish underground reservoir is going back online.

There are currently 16 proposals for desalination plants in California alone, with more planned in Mexico and the inland U.S. Southwest.

Feature: Let Us Learn What We Used To Be, So We Can Build A Future

President Trump was elected because he was committed to ending the economic decay, and the permanent "regime change" war policies. His effort to build a working relationship with Russia, and to join with China in the New Silk Road, provides the promise of the US becoming part of that new paradigm.

This week LaRouche PAC Policy Committee member Michael Steger was a participant and represented the LaRouches' international Schiller Institute at the 2017 Media Cooperation Forum on Belt and Road in Dunhuang, northwest China's Gansu province.



Here is Michael (on the far left) at the 2017 Media Cooperation Forum on Belt and Road in Dunhuang, northwest China's Gansu province. Michael is one of 14 of those attending who has been chosen to be leaders of the establishment of an international studies center for a Belt and Road Studies Center.

Michael will give a report on his trip Saturday, September 30 at 5:30pm at the offices of LaRouche PAC-- 2417 Mariner Square Loop # 145; Alameda, CA 94501. You are all invited.

The meeting on Sept 30 will feature an extensive report-back by Mike on his trip, and a strategic briefing which locates his trip in the context of the worldwide battle to bring the USA to:

- Join the New Silk Road with China, Russia, and 100 other nations;
- Rebuild the US economy and financial system with "LaRouche's Four Laws";
- and stop the ongoing "Russia-Gate" coup d'etat against our elected Pres Trump.

So, while yet, most of the world is just now beginning to learn how China lifted 700 million people out of poverty in thirty short years, as the New Silk Road is bringing infrastructure, industry, health facilities, and hope, to the nations and populations, on September 30 you will get a first-hand report from Michael.

Now, with Hurricane Maria wrecking Puerto Rico, the cumulative damage, so far, in just the past few weeks, in monetary terms is over half-a-trillion dollars.

This forces the question of LaRouche's Four Laws. A necessary and complete reorganization of the financial and economic system of the nation is in our faces.

A New Era for the United States: LaRouche's Four Laws

<https://www.youtube.com/watch?v=vKD20EjUYi4>

Published on Dec 9, 2016

Lyndon LaRouche's concise 2014 policy document entitled, "Four New Laws for the USA Now: Not an Option, an Immediate Necessity!" outlines the basis for mankind to progress forever. No more economic recessions! This video covers LaRouche's 'Four Laws' rooted in Alexander Hamilton's original guiding economic principles for the USA: Glass-Steagall, National Banking, Federal Credit for improving productivity and a crash program for fusion power. The major political shifts occurring around the world, including the election of Donald Trump in the United States, reflect an international shift away from the broken and rotten system of the trans-Atlantic, towards the exciting new paradigm of economic and scientific progress coming from China and Russia. Lyndon LaRouche's "Four Laws" policy is the means to reverse the economic decline of the Bush and Obama presidencies and join Russia and China to develop an entirely new paradigm of cooperation between nations. Jason Ross of the LaRouchePAC Science Research Team discusses how we can implement LaRouche's concepts in the United States today.

Houston was presented this week with an example of how FDR used the Reconstruction Finance Corporation in the 1930s to build infrastructure and more; and what was built is the foundation of what functions in the nation today:

What Would Jesse Jones Do?

By Steven Fenberg

Shared from the 2017-09-17 Houston Chronicle eEdition

<http://digital.olivesoftware.com/Olive/ODN/HoustonChronicle/shared/ShowArticle.aspx?doc=HHC%2F2017%2F09%2F17&entity=Ar03101&sk=D063ACDB&mode=text>

JESSE H. Jones was the original Mr. Houston. Born in Tennessee in 1874, Jones moved to Houston when he was 24 to manage his uncle's lumber empire. He started his own lumber company, then diversified into real estate, banking and construction, becoming the most important developer in early 20th century Houston. He even bought the Houston Chronicle.

Although he was a capitalist through and through, Jones didn't see government as the enemy.

He raised Houston's half of the money to build the Houston Ship Channel after a local delegation persuaded the U.S. Congress to provide matching funds. Jones then chaired the board that oversaw the development of the Houston Ship Channel — an early example of the kind of public-private partnerships he pursued throughout his career.

That's the kind of big thinking we need today as we rebuild after Hurricane Harvey. Our government can help people and even make money if we change our attitude toward it.

During the Great Depression, President Franklin D. Roosevelt tapped Jones to lead the Reconstruction

Finance Corporation (RFC), which saved banks, homes, farms and businesses from bankruptcy. The RFC built major bridges, dams and aqueducts across the country, and developed high-speed trains. Most amazing of all, the RFC paid for itself, even returning a profit to the government in the middle of the country's worst economic disaster.

And here is some discussion of real economy:

What Makes Productivity Grow?

July 17 (EIRNS)—The period from the mid-1920s to 1970 is called by many economic historians the “golden age of American productivity.”

*A 2016 book, *The Rise and Fall of American Growth: The U.S. Standard of Living since the Civil War*, by the very well-known Northwestern University economist Robert J. Gordon, documents very ably the special nature of this period in the transformation of American economic activity by the spread of industrial electricity, the internal combustion engine, and telecommunications. On the basis of these and other inventions, Gordon traces the growth of what is called total factor, or multi-factor, productivity. This is economic growth not accounted for by applying more capital, more labor, or more educated labor, but by the greater efficiency with which industry uses all three of the above—caused by technological advance, including the use of technologies not previously present in the industrial sector at all.*

While showing that productivity growth has progressively abandoned the Western industrialized economies since 1970, and accurately downplaying the effects of “Internet age” inventions, Professor Gordon unaccountably does not focus on the role of new infrastructure based on new technological advances. Thus, he does not credit NASA or the Manhattan Project with contributing to U.S. overall productivity.

But a thorough report on total factor productivity (TFP), by the National Bureau of Economic Research (NBER), found the following. The decade of most rapid total factor productivity growth in U.S. history, by a significant margin, was the 1930s—not the war-mobilization 1940s, though that was second best. What caused the extraordinary 3.3% average annual TFP growth in the 1930s? “This was due to the very strong growth in electric power generation and distribution, transportation, communications, civil and structural engineering for bridges, tunnels, dams, highways, railroads and transmission systems; and private research and development.” This was the 2005 NBER Report, “Sources of TFP Growth in the Golden Age.”

Such great infrastructure projects as FDR’s “Four Corners” challenge industry to spread technological progress in order to build them; a phenomenon being seen in China’s building of extraordinary bridges, fully automated ports, high-speed rail lines through deserts and over the world’s highest mountain ranges, etc. A later 2014 NBER report estimated that TFP in China’s economy grew at 3.1% annually from 1998-2011.

On the other hand, look at what the bank bailouts has given us: nothing but more debts:

Fed Economist Asserts that QE Produced No Economic Results Anywhere

Sept. 19, 2017 (EIRNS)—St. Louis Federal Reserve Bank Vice President for Research Stephen Williamson produced a report, “Quantitative Easing: How Well Does This Tool Work?” covered by financial media today, which shows the Federal Reserve, European Central Bank, Bank of Japan, and

Bank of England "quantitative easing" (QE) programs—the real bailouts of the big banks—have had no positive results for the economies of the "Trilateral" countries.

Both by observing economic growth (or the lack of it), and by comparing the "QE" countries to industrial economies such as Canada and non-Eurozone countries in Europe which did without it, Williamson's report shows no "benefit" whatsoever from QE. Overall economic growth remained extremely low; bank lending to businesses remained below pre-crash levels; productivity did not grow; employment grew at lower real wage levels; and inequality of wealth and income grew dramatically since the crash. The elusive "inflation" so prized by the central banks since the crash, has not reappeared. Only stock and bond markets have gone up.

The Federal Reserve's Federal Open Market Committee (FOMC) is expected to announce tomorrow that it will start allowing its \$4.5 trillion in QE assets to "run off"—i.e., redeem them at maturity—very slowly, at the rate of just \$10 billion/month. It may plan to hold the level of QE at about \$3 trillion indefinitely, according to reports—it can get down to that level without triggering a financial blowout.

Since what Williamson examined was the non-result of the issuance of credit on the order of \$14 trillion by these central banks, the lavishing of cheap credit exclusively on the bank sector did not work, and—a conclusion not drawn by Williamson—should not have been done.

The difference between QE and the large-scale issuance of credit for construction, industry and infrastructure by China's public banks, is dramatic, despite the constant attempts to confuse them in the financial media.