

California Water and Infrastructure Report

Formerly, the “California Drought (and Flood) Update”



For March 15, 2018

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>

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First it was Tony Blair's "dodgy dossier" on Saddam Hussein's WMD which unleashed the pathetic George W. Bush to turn the entire Mideast (with help from Obama) into a terrorist hell hole. Then came claims of Bashir Assad's use of chemical weapons, tricking Trump into a missile attack on a Syrian airbase. Then came British Intelligence operative Christopher Steele's own "dodgy dossier," launching a regime- change effort against the government of the United States based on fairy tales about Trump and Russia. Now, Prime Minister Theresa May, typically without evidence, declares there is "no alternative conclusion" but that the "Russian state" is responsible for the nerve agent attack in the London district of Salisbury, "an unlawful use of force against the United Kingdom." We must all unite against the evil Russians, May and her controllers are screaming.

It is all self-evidently nonsense, but there is desperation in the British Empire. For fifty years Lyndon LaRouche has documented the British Empire's historic hatred of the United States, and the systematic takeover of U.S. government policy through Wall Street and other assets following the death of FDR and the assassination of JFK. Few listened. "The British Empire is dead," we'd often hear, followed by the insistence that the only empire today is the Russian Empire, or the American Empire, depending on which of the British Empire's controlled environments one chose to inhabit.

<https://larouchepac.com/20180315/role-british-has-never-been-clearer>

A Note To Readers

Distraction, distraction, distraction. When you are losing the game, or the war, distract everyone; lie your head off; blame the other guy. Anything but to admit you are finished. I'll say no more on the

quote above now.

We need a team in the White House that is determined to move the country forward, and the way that must be done is building infrastructure. Not filling a few pot holes or patching a dam or two, but the federal government must create a national credit institution (an Infrastructure Bank, or whatever name you want) and unleash \$2-3 trillion per year into space, fusion power, high-speed rail, nuclear power and great projects like the North American Water and Power Alliance.

That will unify the nation and then all the distractions can be shoved back into the Hell they came from.

In This Week's Report

Water, water, water-- that is the general focus of these reports. So, the first section below is about the developing California drought, some precipitation in March, the snowpack and the broader drought in the greater Southwest part of the nation. The first section concludes with some California climatic history.

As I mentioned the *North American Water and Power Alliance (NAWAPA)* above, this week begins a section on Great Projects. And NAWAPA is the focus this time.

The Oroville Dam Update includes a couple of videos and some reports on the Department of Water Resources response to the independent commission's report which found one hell of a lot of problems both in the original work on the dam and the practices of the DWR. This section also has an item on the comparison of the collapse of Saint Francis Dam on March 12, 1928 and the disintegration of the Oroville Dam spillways.

Under the title, "More Contributions to the Debate on Water Storage" we continue the coverage of the obnoxious commission's work that is suppose to use the 2014 referendum money to build water storage, but can't seem to get it through their heads what the term "build water storage" means.

This week, like last week, we have an example of water officials actually looking 50 years ahead. Arizona water officials announced that 40 years from now they will be pumping water from a very deep and very big aquifer and desalinating it.

Guess what? We are beginning to see the emergence of "Trump Democrats." Sounds good. They are pro-nuclear, anti-Pelosi, are sane on environmental questions, and like real infrastructure. See the report below.

This week's report concludes with some "odds and ends." One of them is the report that for the second year in a row U.S. life expectancy has fallen. Those 20-40 are dying young; many are opioid overdoses. That is one thing you are to be distracted from. Another report today is that a pedestrian bridge under construction collapsed just days after crews had dropped an elevated 950-ton span in place in a project that was intended to give Florida International University students a safe route across the busy roadway. The bridge gave way suddenly while the traffic light for motorists on Tamiami Trail was red, so the concrete span fell on top of a row of stopped vehicles. At least six people are dead. I don't think President Putin or the Russians had anything to do with either.

Drought, Climate, Weather and Other Such Matters

"March Mitigation" commences as unusually cold late-season storm sequence arrives

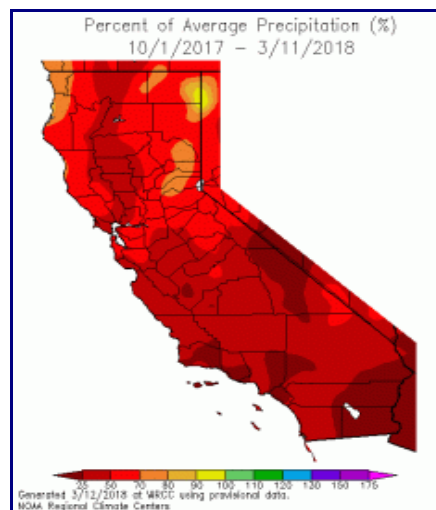
by [Daniel Swain](#)

March 12, 2018

<http://weatherwest.com/archives/6147>

Recent precipitation has begun to reduce enormous seasonal deficit, but still long way to go

In my last post, I mentioned that upcoming storms would (finally!) start to chip away at the huge seasonal precipitation deficit that has accumulated this year throughout California—but that this storm series would be far from a “Miracle March.” So far, that expectation has largely been borne out: fairly prodigious multi-foot snow accumulations did occur throughout the Sierra Nevada, and the overall amount of water stored in the statewide snowpack doubled nearly overnight. But it’s important to consider the absolute numbers here: snowpack was so low going into the most recent storm sequence that snow water equivalent doubled from 18% to around 37% of average—meaning that there’s still more than 60% less snow in the mountains than has historically been the case this time of year. More broadly, precipitation to date is still well below average everywhere in California, and is still less than 25% of average across large portions of SoCal. In other words: recent rain and snow have been highly beneficial, but we still have a long way to go.



California precipitation remains generally 25-60% of average to date. (WRCC)

“March Miracle” still a high bar, but maybe “March Mitigation” is good enough?

Well, I do have some good news to report: there’s quite a bit more rain and snow on the way! A renewed series of storm activity is expected to bring widespread precipitation over (at least) the next 7-10 days, and the potential is there for a rather strong storm or two in the mix. Ensemble forecasts are suggesting that precipitation over the next two weeks could be quite substantial, with several inches possible in some coastal spots and 6 inches of liquid equivalent in the favored Sierra Nevada watersheds. These are not exceptional totals, but they are definitely above average for a two week period this late in the season.

Scarce Rocky Mountain Snowpack Deepens Southwest Water Supply Concerns

By [Luke Runyon](#)

March 13, 2018

<http://www.kunc.org/post/scarce-rocky-mountain-snowpack-deepens-southwest-water-supply-concerns>

How bad is 2018 snowpack in the southern Rocky Mountains, you ask?

Let me count the ways.

Currently, snowpack in the Upper Colorado River Basin, which supplies the vast majority of water for

what is arguably the southwest's most important river system, sits at [69 percent of median](#). In 2002, the watershed's driest year on record, there was more [snow on the ground](#) at this point in March than there is now.

Parts of California, Arizona, Colorado, Utah and New Mexico reported record dry conditions and high temperatures during the important snow accumulation period from November through January.

The measly snowfall translates to worsening drought conditions. The U.S. Drought Monitor shows more than 60 percent of the Colorado River Basin classified [as being in "severe" drought](#) or worse, felt acutely in the Four Corners region, southern Utah and northern New Mexico.

Projections for the amount of water the Colorado River and its tributaries will dump into Lake Powell, the Upper Basin states' main water bank account, [continue to drop](#). Without heavy spring snow in April and May, runoff to Powell will rival 2002's trickle.

Rivers and small creeks in southwestern Colorado and eastern Utah are projected to flow [at 28 to 65 percent](#) of their average spring flow.

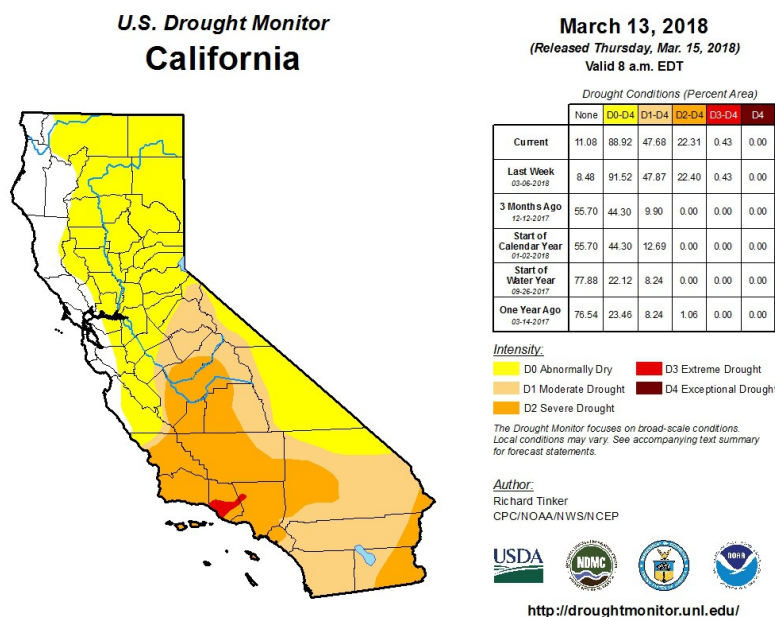
In Colorado's mountains, it would take [327 percent of normal snowfall](#) to pull the state's measly supplies up to reasonable levels.

Facing an almost certain shortage on the Colorado River, water officials in landlocked Arizona are beginning to entertain [investments in desalination](#), a technology once thought too expensive to make feasible on the coast let alone to pipe treated water inland.

And across the Colorado River Basin, conservation groups will continue the drum beat for the Drought Contingency Plan, or something similar. The multi-state agreement is an update to a set of 2007 guidelines already deemed obsolete in responding to the 18-year drought that's upended conventional wisdom about what's possible in southwestern weather.

U.S. Drought Monitor

This week's Drought Monitor essentially shows no change from last week. That is not unexpected, since we have had some snow and rain. And as the report below states, more is expected for the next week or two.



Mega-droughts and Mega-floods: The past is the future

Nothing new in the article below, but it makes the point that too many forget: California for the past 2,000 years has had a climate that alternates between mega-droughts and mega-floods. Here is my review of a 2013 book on the topic:

“Are We Controlled by the Whims of Nature, or Will We Create Our Future?”

The West Without Water: What Past Floods, Droughts, and Other Climatic Clues Tell Us About Tomorrow by B. Lynn Ingram and Frances Malamud-Roam

<file:///C:/Users/patru/Desktop/website/Book%20review%20EIR.pdf>

Last California drought one of the worst since Columbus landed in the New World

By Dale Kasler

March 12, 2018 04:12 PM

<http://www.sacbee.com/news/state/california/water-and-drought/article204769379.html>

Just how bad was California's last drought?

For most of Southern California, it was either the worst or second worst since the century Columbus landed in the New World, the Ottoman empire was started and Joan of Arc was burned at the stake.

In other words, it was one of the worst since the 1400s, according to a study released Monday by the California Department of Water Resources.

Compiled by examining trees in the southern half of the state, the study put the just-ended drought in some historical perspective. It was conducted in cooperation with the University of Arizona's Laboratory of Tree-Ring Research, which looked at trees in 46 different sites from the southern Sierra Nevada to just north of the Mexico border.

The research revealed two nine-year droughts in California history: one starting in 1452 and another beginning in 1775. The most recent drought was relatively compact, lasting just five years, but appears to have set records for dryness, said Dave Meko, an Arizona professor who led the tree-ring analysis.

"If you look at five-year droughts ... that stands out as the most severe on record," Meko said in an interview Tuesday.

The study largely dovetails with previous estimates that the latest drought, which was [declared over last spring](#) by Gov. Jerry Brown, was among the worst ever. At one point in 2015, the Sierra Nevada snowpack was the thinnest it has been in 500 years.

Think Big; Think Great Projects

Thus far virtually all proposals from either the Trump administration or from those in Congress, when it comes to infrastructure, really do not put much on the table beyond fixing pot holes, repairing a few bridges and patching up a few dams.

That is not the way we shall rebuild the nation. I have said it before and I say it again, here is the comprehensive program that will do what is required. The link immediately below provides that program. It is the way we shall bring the U.S. into the 21st century, riding the frontiers of science and technology that uplifts our entire economy to a new platform of productivity.

LaRouche's Four Laws The Physical Economic Principles for The Recovery of the United

States-- AMERICA'S FUTURE ON THE NEW SILK ROAD

<https://larouhepac.com/sites/default/files/four-laws-pamphlet-high.pdf>

Last week I reported on the conference that occurred in Nigeria that gave the go ahead to begin building the world's biggest infrastructure project-- The Transaqua Project to bring water from the Congo River to Lake Chad-- more than 2,500 km.

The United States used to think this way, and we must do so again. What great projects are on the boards here? Well, more than 50 years we had the North American Water and Power Alliance (NAWAPA) actually in the Congress and pushed by the John Kennedy administration. It is time to restart that project, for it is a continental water management system and that is what the nation requires now.

So here is a link to a video on the Transaqua project, followed by a discussion and some video links on NAWAPA.

Transaqua: The Project that Can Transform Africa

https://www.youtube.com/watch?time_continue=4&v=GFpWi-HH9Nk

[LaRouchePAC Videos](#)

Published on Sep 5, 2017

Meet the Transaqua Project, a plan to replenish Africa's dwindling Lake Chad, and bring the 30 million people who live in the Lake Chad basin, into the 21st century. The project, many decades in the making, is now moving forward, thanks in large part to a commitment from China.

NAWAPA

Had the *North American Water and Power Alliance* (NAWAPA) been built, beginning in the 1960s, when it was proposed, it would have been completed more than a decade ago, the droughts in the West and Mid-West today would have only a minor, if any, impact on food production and water supply.

So, the real solution-- that durable long-term solution-- is NAWAPA-- the policy of the John Kennedy administration. NAWAPA was designed in the early 1960s in California by the Parsons Company in Pasadena. Those then building the State Water Project at the time knew that once that project was completed, work must begin immediately on the next one required to bring the water that will be needed by the coming generations of the nation.

Just a few words about NAWAPA, here. For an in-depth report, I recommend the LaRouche PAC Special Report on NAWAPA and the LaRouche PAC overview video.

These two items can be found here:

"NAWAPA XXI-- LaRouche PAC Special Report"

http://archive.larouhepac.com/files/20120403-nawapaxxi-forweb_0.pdf

NAWAPA Overview video:

<http://larouhepac.com/nawapaxxi/overview>

NAWAPA is a continental water management system that extends from Alaska into Mexico, and from the Pacific to the Hudson's Bay. It is a system of dams, reservoirs, canals, tunnels, and power plants that will make available abundant water for agriculture and people, control floods and provide new waterways for shipping. It will re-industrialize the nation, putting, immediately, seven million people to work at productive occupations at high wages. It will restore the nation to being once again the

leading production center for humanity. As a side benefit it will, once and for all, mean the disease of environmentalism has been eradicated.

Here is a map of the greatest single water project ever conceived by man.

The North American Water and Power Alliance



Ben Deniston, on the LaRouche PAC Weekly Report of July 10, 2013 emphasized that NAWAPA is a project that gives man greater control of the water cycle; of mankind acting to control the weather cycle and the climate systems. He said, "...water's everywhere. You have huge amounts of water over your heads at all times! The amount of water that's evaporated into the atmosphere..., as vapor, is on the order of about 3,000 cubic miles." Deniston compared this to all the runoff water for the entire North American continent, which is about 5 cubic miles.

So, the California water crisis is not due to there not being enough water; it's just not in the right place. This is due to not building NAWAPA ,on one hand, and not having the technological capability to access that which is floating in the air around us. How do we access that atmospheric water, which we cannot see, except when it forms clouds?

The question we really want to pose is, how productive is the water? The productivity of water is when water participates in the process of the biosphere.

Since 77% of the planet's precipitation falls over the oceans, and the fish do not need it-- they have plenty of water-- how do we make the water more productive by shifting the weather patterns to make more of the rain fall over the land? This is a question beyond the transferring of water from the far northwest to the lower 48 states by the infrastructure of NAWAPA.

By making the water more productive, we mean we want the water to participate in life, in

photosynthesis. That is how it is productive. Freshwater that's brought into biological rich areas, participates in a cycle of life, evaporation, and rainfall multiple times. If you take an average, it's about 2.7 times that water will cycle through life, participate in photosynthesis, become water vapor again, become clouds and fall again as rain.

A dramatic demonstration of this is seen in the *National Geographic's "Water Currents,"* of February 10, 2013, Jay Famiglietti of the University of California, Irvine, reports on his study that demonstrates that because of the irrigation of the Central Valley, "...evaporation in the Valley doubled, leading to a major export of water vapor downwind to the arid American Southwest. This increased summer rain in Colorado, Utah, Arizona and New Mexico by 15%, and by triggering further upward motion in the monsoon circulation, thereby drawing in even more water vapor from the Gulfs of California and Mexico.... All that extra rainfall resulted in a 28% increase in runoff to the Colorado River..." (10)

I shall return to the productivity of water below.

Water-flux Density

Man is the only creature that uses fire to constantly increase the productivity of his economic activity, increasing the production of all that man needs to survive and progress. He does this through the continuous invention of more powerful forms of fire, starting with wood, moving to coal, then to oil and nuclear. It is through scientific discovery and the application of new physical principles that man has progressed, as measured by the increase of the energy-flux density of his work.

Man is also the only creature who increases the water-flux density of his use of water. He does this by moving water to where it is needed and by altering or creating a qualitative change in its flow. Man alters the flow of rivers, puts water on land that has none, and uses water to produce electricity. Man increases the productivity of water, just as he increases the productivity of fire.

Oroville Dam Update

Videos

1) Oroville Spillways Phase 2 Update Early March, 2018

Published on Mar 12, 2018

[California DWR](#)

Crews work around the clock to lay roller-compacted concrete (RCC) for the splashpad between the emergency spillway concrete weir and cut-off wall.

2) [Lake Oroville Winter Operations Update March 13](#)

[California DWR](#)

Published on Mar 14, 2018

<https://www.youtube.com/watch?v=xyyfpFc6keM>

DWR submits plans to address Oroville Dam forensic report

By Risa Johnson

03/13/18

<http://www.oroillemr.com/general-news/20180313/dwr-submits-plans-to-address-oroville-dam->

[forensic-report](#)

Sacramento >> The state Department of Water Resources submitted its plan to the Federal Energy Regulatory Commission on Tuesday to address findings in the independent forensic report.

The extensive forensic report, released on Jan. 5, [blamed “long-term systematic failure,”](#) including faulty design and insufficient maintenance, for the Oroville Dam crisis in February 2017. It also had criticisms of DWR’s response to the spillways’ failure.

To address flaws pointed out by the independent forensic team, one thing the department has done is hire two executive-level engineers — one to report to the directorate and one to report to the chief dam safety engineer, Joel Ledesma, deputy director for the State Water Project, told FERC in a letter.



The Oroville Dam and spillway is seen during a look at the ongoing construction around the area on Jan. 26. Bill Husa — Enterprise-Record

The department has also stepped up its inspections of other State Water Project spillways “including new testing, historical document reviews and engineering verification,” Ledesma wrote, adding that State Water Project dams would now be managed to International Standards Organization standards, exceeding what DWR is required by law to do. The State Water Project provides water to 26 million people from Northern to Southern California.

“Together we are confident these efforts are further improving dam safety across the SWP (State Water Project) in California,” he said.

Oroville Dam and Saint Francis Dam

While the article linked and excerpted below purports to draw a close parallel between the collapse of the Saint Francis Dam in 1928 and the Oroville Dam spillway disintegration last year, at least some of the author's conclusions about the collapse of Saint Francis Dam are contested. Here is the section on the subject from my 2013 report: **“A Prometheus Among Us: William Mulholland Brings the Water to Los Angeles.”**

By Patrick Ruckert
October 19, 2013

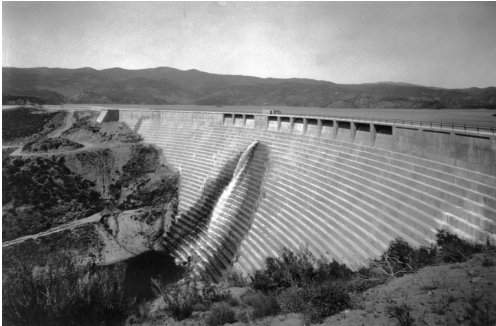
<http://www.californiadroughtupdate.org/william-mulholland-and-the-building-of-the-los-angeles-aqueduct/>

The official investigation, completed within weeks of the disaster, found Mulholland was responsible, though why the dam collapsed was still unknown. The City of Los Angeles took full responsibility and paid for the clean-up and the compensation to the victims.

In the days immediately after the disaster, “Mulholland had already asserted that if there were human error, it was his and his alone, which earned him praise and respect in many quarters as he went on to

say, 'We must have overlooked something.'

Why the dam collapsed has been studied for decades. One of the more recent studies is reported on the website of Water and Power Associates: "J. David Rogers, a professor of geological engineering at Missouri University of Science and Technology, published a comprehensive account of the dam's failure. (in 1992) The dam's failure can be attributed to three major factors, he concluded: The instability of the ancient landslide material on which the dam was built; the failure to compensate for the additional height added to the dam's design; and the design and construction being overseen by only one person." Other studies point out that the ancient landslide could not have been detected by 1920s technology.



Close-up view of the St. Francis Dam shortly before being filled to capacity.



View of the St. Francis Dam just hours after its catastrophic failure (11:57 p.m., March 12, 1928).

90 years later, St. Francis Dam failure parallels Oroville Dam crisis

By Risa Johnson

March 11, 2018

<http://www.oroillemr.com/general-news/20180311/90-years-later-st-francis-dam-failure-parallels-oroville-dam-crisis>

Oroville >> On the 90th anniversary of the catastrophic failure of the St. Francis Dam, dam safety experts worry that the Oroville Dam crisis showed that some of those crucial lessons have been forgotten — or were never retained in the first place.

The St. Francis Dam, which was owned by the city of Los Angeles, collapsed without warning to residents around midnight on March 12, 1928, resulting in the death of 400 to 600 people. The range is wide because a number of [undocumented people who worked in the area were not accounted for](#). It is considered the worst civil engineering disaster of the 20th century by many.

After the release of the forensic report in January, several of the contributing human factors sound eerily similar when comparing causes of failure of the 770-foot tall earthen Oroville Dam and the 205-foot tall concrete arched gravity dam that once stood in the San Francisquito Canyon, 47 miles from Los Angeles.

A series of forensic investigations were conducted when the St. Francis Dam failed, concluding that human factors leading to the break included: warning signs of distress within the structure dismissed by inspectors, an overconfidence in William Mulholland, the self-taught engineer who designed the structure and oversaw construction, and also a lack of external oversight of the design and construction.

More Contributions to the Debate on Water Storage

For weeks now the debate has raged-- at least in the small minds in Sacramento-- Shall we use the \$2.7 billion from the 2014 referendum to build water storage infrastructure as the referendum stated? Or shall we continue to throw around the bullshit about the “public benefits” criteria that says, unbelievably, that water storage is not a public benefit?

Shrinking snowpack calls for new water infrastructure

- [*By DAN KEPPEN Guest Commentary*](#)
- *March 12, 2018*

https://www.heraldandnews.com/members/forum/guest_commentary/shrinking-snowpack-calls-for-new-water-infrastructure/article_5d9b20f6-d06d-5984-a53a-074a4fb05c7c.html

Philip Mote, the director of the Oregon Climate Change Research Institute, was the lead author of a recent and important study that shows Western snowpack has dropped by 30 percent since 1915.

I was surprised to see Dr. Mote state in national newspapers that “the solution isn’t in infrastructure.” Dr. Mote’s otherwise thorough study devotes just one scant paragraph to his assertion that “new reservoirs could not be built fast enough” to offset the loss of snow storage. Instead, report concludes that solutions “will have to lie primarily in the linked arenas of water policy (including reservoir operating policies) and demand management.”

In fact, demand management (water conservation), water recycling, watershed management, conveyance, desalination, water transfers, groundwater storage, regulatory reform and surface storage are all needed in a diversified management portfolio.

Of course, water conservation needs to continue to be aggressively pursued in conjunction with surface storage and other actions. Importantly, surface storage provides a degree of operational flexibility and significant water supply volumes that cannot be provided by other management actions.

Regardless of cause, climate variability is one critical factor that perhaps makes the best argument of the need to develop new water storage projects in the western U.S.

Fortunately (outside of certain academic circles), momentum is growing towards developing new water storage projects in the West. There is growing recognition among policy makers that water supply enhancement projects must be included in the tool box used to tackle Western water challenges.

Dan Keppen of Klamath Falls is the executive director of the Family Farm Alliance, which advocates for reliable water on behalf of irrigators in 17 Western states. In his tenure at the Alliance, representatives of the organization have testified over 65 times before Congress on water and environmental issues, including the importance of modern water infrastructure.

Here is a report on the study that the above article references:

Scientists Say New Reservoirs Will Not Offset Dramatically Declining Snowpack

<https://www.kqed.org/science/1920658/study-new-reservoirs-will-not-offset-dramatically-declining-snowpack>

Scientists have found dramatically declining snowpack across the American West over the past six decades that will likely cause water shortages in the region that cannot be managed by building new reservoirs, according to a study published Friday.

The study led by scientists from Oregon State University and the University of California, Los Angeles found drops in snow measurements at more than 90 percent of regional snow monitoring sites that have consistently tracked snow levels since 1955, said Philip Mote, director of the Oregon Climate Change Research Institute at Oregon State University.

Study authors also used modeling to show the average snowpack in the region dropped between 15 and 30 percent in a little more than a century, he said, and that modeling paralleled the actual findings based on existing measurements.

That means the region's average snowpack has lost the equivalent volume of water that it would take to fill Lake Mead, the West's largest man-made reservoir, Mote said.

"The solution isn't in infrastructure. New reservoirs could not be built fast enough to offset the loss of snow storage," Mote said.

Sacramento: Additional water storage has little public benefit

Dennis Wyatt

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March 12, 2018

<http://www.mantecabulletin.com/section/38/article/150352/>

Ground zero for the war against man — and now fish — in California can be found east of Colusa in narrow Antelope Valley in the foothills of the Coastal Range where Stone Corral Creek and Funks Creek flow.

It is reminiscent to a degree of the valley where San Luis Creek once flowed through to the northeast of Los Banos.

Antelope Valley is where the 1.8 million acre-foot Sites Reservoir is proposed. That's enough water to meet the needs of the equivalent of 13.3 million Californians a year. It would be slightly smaller than San Luis Reservoir's 2 million acre feet. Both are deemed off-river reservoirs designed to capture excess winter water production from rain and melting snowpack.

Sites Reservoir would provide some water relief for urban and agricultural users with additional storage. But the beauty of Sites is that it gives an operational pool of some 700,000 acre feet to provide water at critical junctures to aid the endangered Chinook salmon and Delta Smelt. In doing so it takes pressure off already overtaxed reservoirs built primarily to provide water for cities and farm uses.

California voters in 2014 approved a \$7.5 billion bond to create more water storage and enhance flood control. Sites Reservoir as well as Temperance Flat near Fresno deemed the leading candidates to provide the most effective bang for the buck in terms of securing useable water with minimal environmental impacts.

California Water Commission staff last month essentially gave Sites Reservoir a thumbs down by

decreeing it was only eligible for \$660 million of the \$5 billion needed to build it as it scored too low on the criteria they deemed most important in deciding whether it provided sufficient public benefit which excluded providing water in drought years for state residents and farms so people can eat.

It's funny how folks up in Sacramento twist environmental laws to meet their personal political agenda whether they are bureaucrats or elected officials.

Feeding people, storing water to keep the restored San Joaquin River flowing in late summer and fall, and stopping a large segment of the San Joaquin Valley from sinking further has no public benefit in the eyes of Sacramento bureaucrats.

Temperance Flat Dam Too Expensive

By Gail Marshall

gmarshall@fresnobee.com

March 02, 2018

<http://www.fresnobee.com/latest-news/article202823509.html>

Why would taxpayers invest \$2.6 billion to increase our water supply .1 percent when there are significantly cheaper methods to increase it by 10 percent?

That's what the Bureau of Reclamation (BR) recommends by proposing to build the Temperance Flat Dam (TFD), costing \$2.6 billion (\$121 million annually for operation).

The dam's long-term average annual yield would be 61,000-87,000 acre feet; only .01 percent additional supply, compared with the yield of the entire Central Valley Project. Reclamation claims the dam would improve water supply reliability, while providing public benefits – increased salmon in the San Joaquin River. However, Reclamation's operation scenarios could reduce salmon downstream.

The State evaluated Temperance Flat for Proposition 1 water storage bond money, calculating the public benefit at 10 cents per dollar invested. San Joaquin Valley Infrastructure Authority claimed public benefits at \$2.86 per dollar.

Temperance Flat proponents appeal water commission decision

[Todd Fitchette](#)

March 02, 2018

<http://www.westernfarmpress.com/water/temperance-flat-proponents-appeal-water-commission-decision>

Temperance Flat proponents have not given up on their \$2.8 billion project that would dam the upper San Joaquin River above Millerton Lake near Fresno, creating an additional 1.26 million acre feet of water storage.

Though the California Water Commission recently denied their request for a little over \$1 billion in water bond money for the project, saying it provides no public benefit, proponents recently submitted a 19-page appeal letter and about 1,500 pages of explanations to the original proposal in hopes of winning a positive decision from the commission.

Last Week It Was Las Vegas; This Week It Is Arizona

In last week's report we saw an article on how Las Vegas was looking at desalinating water from the Pacific Ocean and moving it inland 400 miles. As the water official said, that is a serious idea for about 40 years into the future.

This week, Arizona weighs in with its 40 year look into the future:

Arizona Considers Desalination Options for Future Water Supply

By Jerry Redfern

March 12, 2018

<https://www.newsdeeply.com/water/articles/2018/03/12/arizona-considers-desalination-options-for-future-water-supply>

Not if, but when.

That's the future of water desalination plants in Arizona, according to the head of the state's water department. They are controversial and expensive, but Arizona's current leadership views desalinated water – or “desal” – as key to the state's long-term water plans. Arizona sits atop an estimated 600 million acre-feet of brackish water.

“Desalination is in our future,” said Thomas Buschatzke, director of the Arizona Department of Water Resources. In late 2016, the state formed a committee to study the feasibility of desalination for a region with rising population and droughts exacerbated by climate change. More recently, an international water treaty update with Mexico is another factor in the movement toward desalinated water in Arizona. “We are doing our due diligence to make that happen,” Buschatzke says.

Pro-nuclear, anti-Pelosi Democrats May be Trump's New Allies-- The Emergence of the Trump Democrats

The only candidate for California's governor in the June 6 primary who campaigns for nuclear power is Michael Shellenbeger, a Democrat. Obviously, not a Pelosi or Obama Democrat, but almost an old fashioned Roosevelt or John Kennedy Democrat.

From the article below: *“If we are going to solve climate change and have sufficient energy to power electric cars and desalinate water, then we will need a lot of nuclear power,” Shellenberger told this writer. “I think that people who are opposed to nuclear energy are ‘chicken hawks,’ not ‘climate hawks.’*

Yeah! Nuclear power for desalination.

This is significant because as we saw in the Pennsylvania special Congressional election two days ago, a Democrat won in a district that Donald Trump won by more than 20 percent over Clinton. The Democrat, Conor Lamb, who refuses to attack the President, is a Marine Veteran, against blind gun control, anti-environmentalist and anti-Pelosi. The Republican in the race was the usual idiot the Republicans run for Congress-- anti-union, for free trade and full of other stupidities. Lamb campaigned for a real U.S. government driver for building infrastructure and a break with the Clinton-Pelosi nonsense that most of the population now rejects. And as the president of the United Mine Workers, Cecil Roberts, so eloquently put it, Lamb is, "a God-fearing, union-supporting, gun-owning,

job-protecting, pension-defending, Social Security-believing, sending-drug-dealers-to-jail Democrat."

President Trump was elected to wreck the institutions and policies that have wrecked and divided the nation. Destroying the two parties dominance by Wall Street, free trade and identity politics is what he is doing. As he said about Conor Lamb, I think I would like him, but since he won't be able to do anything as a Democrat in Congress, I am campaigning for the Republican. A pretty weak endorsement of the Republican. Lamb is one of those Democrats that will line up with the President once he gets rid of the Republican scum like Congressman Paul Ryan.

California Governor's Race Is Heating Up And Spotlighting Nuclear Energy

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[Ken Silverstein](#), Contributor

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<https://www.forbes.com/sites/kensilverstein/2018/03/07/california-governors-race-is-heating-up-and-spotlighting-nuclear-energy/#7df7399b609a>

Odds and Ends

New Report: U.S. Life Expectancy Drops for the Second Year

March 13 (EIRNS)—Life expectancy in the United States dropped for the second year in a row, David Bishai reports in a Jan. 16 article in *The Conversation*, reprinted in the *Philadelphia Inquirer*. While gross domestic product in the U.S. is at an all-time high, U.S. life expectancy is not, Bishai, a Johns Hopkins Professor of Health Economics, reports. Life expectancy in the United States has fallen for the second time in two years—from a high of 78.9 years in 2014 to 78.6 years in 2016. It fell across the board—for men and women, whites, blacks, and Hispanics. The statistics show that thousands were preventable, premature deaths.

Life expectancy is not supposed to fall in “countries that are this rich, spend this much on health, and pride themselves in taking care of each other. As a demographer working in a school of public health, I am astounded by the complacency at the loss of so many Americans in the prime of life,” he writes.

The latest data from Centers for Disease Control and Prevention (CDC) show that deaths for Americans under 65 rose by 20,566 between 2015 and 2016. Based on population growth alone, only 6,131 additional deaths would have been expected; therefore, the other 14,435 Americans died prematurely of causes that could have been prevented. These younger people died in their 20s, 30s, 40s and 50s, and their death certificates list mostly opioid overdose, cirrhosis, suicide and homicide. Bishai reports, “Diseases of despair, like suicide and addiction, come from the failure of social solidarity and inclusion.”

Some European Union Tariffs Are Higher Than Those in the U.S.

March 10 (EIRNS)—The media are filled with endless stories on President Donald Trump signing off on the plan for a 25% tariff on imports of steel and a 10% tariff on aluminum, as if this were unprecedented. However, the European Union routinely increases tariffs on various imports as it sees fit, not to mention imposing sanctions. Last year the EU slapped a 73% tariff on Chinese steel imports. Except for China, there was not much protest. Furthermore, the U.S. has a 2% tariff on car imports, while the EU has a 10% tariff.

While details still have to be worked out on what countries are exempt, Canada and Mexico are already

exempted.

“Steel is steel,” said Trump at the signing ceremony. “Without steel you don’t have a country.”

On the resignation of National Economic Council director Gary Cohn over the issue, Trump remarked on March 8, “This is Gary Cohn’s last cabinet meeting. He’s been terrific. He may be a globalist, but I still like him. I have a feeling you’ll be back.”

More than 100 Republican House members signed a letter on March 7 expressing “deep concern” about the plan. They pressed Trump to change course and “avoid unintended negative consequences to the U.S. economy and its workers.”

At his European Central Bank press conference in Frankfurt, ECB President Mario Draghi, called unilateral tariff decisions “dangerous.”

Nuclear Science Is Helping Map Water Resources in Argentina

March 10 (EIRNS)--The International Atomic Energy Agency (IAEA) is leading a project to study the quality and quantity, and history of water resources in Argentina, with the assistance of nuclear science. The project is described in detail in a March 6 article by the nuclear agency.

The process determines the isotopic composition of underground water resources, which indicates if aquifers are recharging, or if the water is being depleted, and if there is contamination. Knowing the answer to these questions, "can make the difference between poverty and prosperity," says Daniel Cicerone, environmental manager at Argentina's National Atomic Energy Commission.

"We look to find exactly how water moves inside aquifers, how it interacts with rivers, and how much of it is left," explains Sandra Ibanez, isotope hydrologist at the University of Cuyo, Mendoza. Although every water molecule is made up of hydrogen and oxygen, all natural waters have different isotopic compositions, which are "fingerprints" as to their origin, the scientists explain.

Hydrologists have been collecting water samples from two different regions of Argentina over the past year. As hydrologist Lucia Ortega explains, "By measuring the difference in the proportions between the light and heavy isotopes, we can estimate the origin of different waters." The scientists also determine the presence of naturally occurring radioactive isotopes in the water, such as tritium and carbon 14, to estimate the age of groundwater, and how it should be used. If the water is tens of thousands of years old, it can take tens of thousands of years to replenish.

Super-Maglev Option Near Testing in China

March 7 (EIRNS)—Chinese researchers are not only working on the development of low- and medium-speed maglev systems for use in urban regions; researchers recently confirmed to the *Global Times* that a super-maglev train that could travel at speeds up to 1,000 kph is being worked on. According to Professor Deng Zigang and his team from the Southwest Jiaotong University, a proof-of-principle prototype is ready for testing with a track. Deng told China Central Television and other media outlets that the train leverages two unique technologies—maglev and tube transport.

Deng published early work on “a super chute” back in July 2014 via the Institute of Electrical and Electronic Engineers (IEEE). Using the information and ideas published by Deng in 2014, the team has since slashed air pressure down to 2.9 kilopascals of pressure. This is significantly lower than the standard atmospheric pressure of 101 kilopascals, *Global Times* observed. And unlike Elon Musk’s hyperloop, for which top speeds of 1,000 kph are only predicted so far, the Chinese one will soon undergo real testing.