

# California Water and Infrastructure Report

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

For November 1, 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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*“The issues are still there. If you turn on the TV and watch any campaign ads, with few exceptions, it’s mostly the attack politics, the laundry list of issues. But if this midterm is fought over issues like immigration or health care, I’m not so certain of the outcome. Instead, it has to be transformed, as I think we’re seeing it being transformed. Here especially in the Midwest, this is what we set out to do on Aug. 16, when we issued our national campaign statement on the countdown to the consequential midterm elections. We wanted to make clear to people that the midterm elections were a fight between two paradigms, whether we can go forward, with Trump into a new paradigm of peace and economic cooperation, or whether we’re going to be dragged back into the war and economic disintegration policies.”*

## A Note To Readers

On November 6, whatever the outcome of the election we do have a future to create. The quotation above, especially the last sentence defines the choices to be made. The quotation is from this article by my associate Susan Kokinda in Detroit, Michigan. The full article, “America’s Soul As of October 18, 2018,” can be found here: [https://larouchepub.com/eiw/public/2018/2018\\_40-49/2018-43/pdf/02-05\\_4543.pdf](https://larouchepub.com/eiw/public/2018/2018_40-49/2018-43/pdf/02-05_4543.pdf)

## In This Week's Report

We begin with the drought and related topics. Surprising to most, I am sure, is the report that the drought in Oregon is much worse than that of California. Though that may change this winter, at least as a potential by some forecasters that the very dry October in California could mean little precipitation this winter.

This week's Oroville Dam Update begins with a number of videos, followed by the report of the Department of Water Resources announcement that certain milestones in construction have been achieved this past week and the main spillway is ready for a deluge if one comes.

On the suicide front, the City Commissioners of San Francisco appear willing to sacrifice the city's water supply in backing the state policy of letting the rivers of the Central Valley flow to the ocean in an attempt to save some fish. They are attempting to overrule their own *Public Utilities Commission* which opposes the policy.

The Colorado River, which provides water for 40 million people in the Southwest, including California, is in crisis. There are proposed plans for the river which are analyzed in an article, *“Three Things To Know About Colorado River Plans In The Works.”*

The massive fires from last Fall continue to make the news as Southern California Edison is publicly acknowledging that its equipment was responsible for contributing to the start of the massive Thomas Fire.

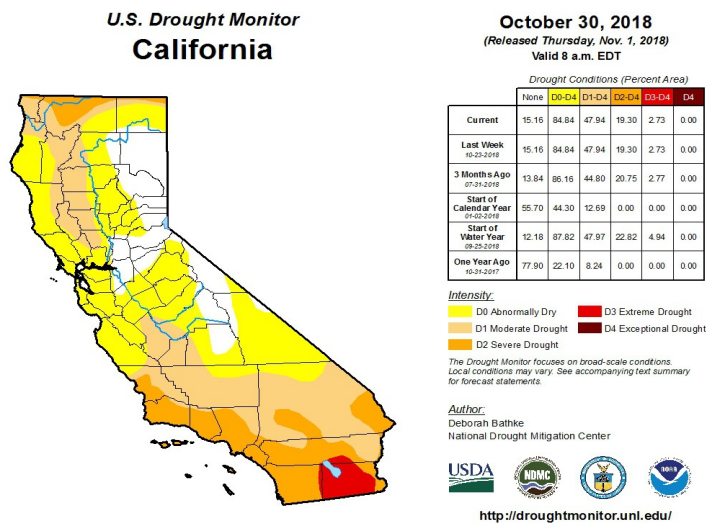
Under the section title, *“The Economy and Infrastructure,”* are two article: *“Key U.S. Demographic Markers Plunged after 2007 Breakdown of the Wall Street System,”* and *“Big Texas Coastal Storm Protection Project Has Gotten a Boost.”*

Finally, our Feature this week concludes the three-part series of excerpts from the presentation by Will Wertz, *“Cutting the Gordian Knot with the Sword of Damocles.”* A rigorous presentation of the necessity of Hamiltonian national banking if a serious infrastructure building program is going to succeed as President Trump has proposed. This week's installment focuses on how Abraham Lincoln used the Hamiltonian principles in his creation of the *“Greenbacks,”* which allowed the Union to not only win the Civil War, but also begin to build the Transcontinental Railroad.

## Drought and Related Topics

### U.S. Drought Monitor

48% of California remains in *“Moderate,” “Severe”* or *“Extreme”* drought. But that is not as bad as Oregon, in which about 86 percent of that state is considered to be in severe drought.



### *Water year starts dry; peak months ahead*

*October 31, 2018*

*By Christine Souza*

<http://agalert.com/story/?id=12276>

*A multi-year drought, then the second-wettest year on record, then another dry year: That's the recent history of precipitation in California. One month into the new water year, which began Oct. 1, conditions remain dry, with few raindrops in sight.*

*National Weather Service meteorologist Craig Shoemaker said he expects below-normal precipitation for California through early November—but warns that residents need to be prepared for big storms and huge amounts of variability.*

*"Everybody just needs to be prepared, because it might be a wet year," Shoemaker said. "Every year, even in a lot of our driest years, we get these huge atmospheric-river storms that can cause flooding; that is the nature of the weather here. Californians need to be prepared for either extreme, and this year there's no clear indicator on whether it is going to be a wet or a dry year for the state."*

*Though it's early in the season and most reservoirs are storing near- or above-average amounts of water, farmers would prefer some added certainty as they develop planting schedules and order supplies.*



New Melones Reservoir on the Stanislaus River stands at 130 percent of average water storage for this time of year, and most other reservoirs in the state hold near- or above-average supplies. The first month of the new water year has brought little precipitation to California. State water managers say November, December and January typically produce the most snowpack and water supply. Photo/Dave Kranz

*Fresno County-based Woolf Farming buys water from the Westlands Water District, which is supplied through the federal Central Valley Project. Daniel Hartwig, the farm's resource manager, said the farm is "bedding everything up as though we're going to be able to plant as much as possible."*

*Last year, CVP contractors such as Westlands received a water allocation of 20 percent in late February. That figure increased to 40 percent in late April, to 45 percent in late May and to 50 percent in mid-June—a time Hartwig said is too late to adjust planting plans.*

*"What we've run into is we don't get the water allocation number until it is too late to plant anything extra," he said. "This year, we're doing all our land prep to be ahead of the game and if we get an allocation number earlier, maybe we can plant more acreage. I think it has to be this way, just given the way the water world is in the last five or 10 years."*

*Even though October has produced little, if anything, in the way of precipitation, California Department of Water Resources spokesman Chris Orrock said December, January and February represent the big producing months for snowpack and water supply.*

*"We never know what is going to happen long-term in California weather," Orrock said. "We went from historic precipitation in 2016-17 to below- average precipitation the following year. In our snow surveys, we went from a field that had a 9-foot depth (in water year 2017), to only two patches of snow. Everything is constantly changing, and we need to adapt to that and make conservation a way of life."*

## ***Dry and increasingly warm start to autumn in California***

*Filed in [Weather/Climate Discussion](#) by [Daniel Swain](#) on October 28, 2018*

***A dry October (with a few exceptions)—but how unusual is that, really?***

***<http://weatherwest.com/archives/6502>***

*Very dry conditions have occurred across most of California so far this autumn (WRCC).*

*The first half of autumn has certainly gotten off to a dry start across most of California this year. There have been a couple of local exceptions—patchy regions along the immediate coast of NorCal, where shore-hugging rainbands just made it onshore a few weeks ago, and a broader swath of coastal SoCal, where a widespread and rather spectacular thunderstorm outbreak brought widespread wetting rains earlier this month. But elsewhere, things have been more or less bone dry—and even in places that saw recent precipitation, the dry and relatively warm autumn air has already dried things out considerably. Thus, most of California is running well below average to date in the precipitation department—with no significant rain on the horizon.*

## ***California's Dry October Could Be A Sign Of More Concentrated Rainy Seasons*** [Ezra David Romero](#)

*October 29, 2018 | Sacramento, CA*

[http://www.capradio.org/125214?utm\\_source=feedburner&utm\\_medium=feed&utm\\_campaign=Feed%3A+CapitalPublicRadioLatestNewsRSS+%28Capital+Public+Radio%3A+Latest+News+RSS%29](http://www.capradio.org/125214?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+CapitalPublicRadioLatestNewsRSS+%28Capital+Public+Radio%3A+Latest+News+RSS%29)

*The first part of fall has been dry so far in California, and that trend might continue.*

*UCLA climate scientist Daniel Swain said it's not unusual for rain to be scarce in October, but that dry conditions – like the ones forecast over the next few weeks – are increasingly being pushed deeper into autumn.*

*"We expect there to be a further concentration of California's already narrow rainy season into even fewer months during just the middle of winter," Swain said, as laid out in his recent [blog post](#).*

*Swain's research suggests this trend is already evident, especially in Southern California. This could make fire season worse and make 2018 another piece of evidence regarding dry autumns in the state.*

*"We may end up seeing more precipitation concentrated in these core winter months as the climate in California continues to warm," Swain said. "It's a general observation of where we think things are headed."*

*He also said the developing El Niño in the Pacific is suspected to be modest this winter. That means winter here may be warmer than average no matter how much rain falls.*

## ***Oregon, Already Struggling With Drought, May Have Still More to Come***

*By Matt Weiser*

*October 24, 2018*

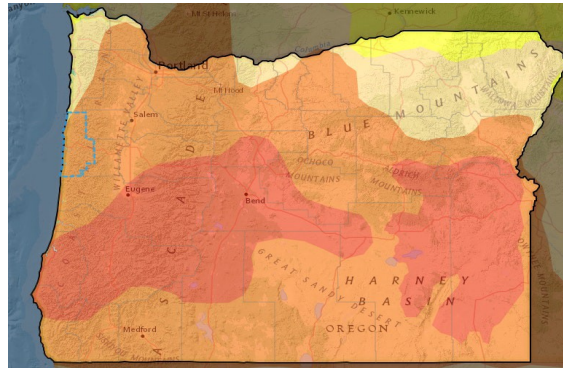
*Record heat and low rainfall have prompted drought emergency declarations in nearly a third of Oregon's counties. Predicted El Niño conditions may mean there's no relief in store this winter.*

[https://www.newsdeeply.com/water/articles/2018/10/24/oregon-already-struggling-with-drought-may-have-still-more-to-come?utm\\_source=Water+Deeply&utm\\_campaign=bbf593a65e-EMAIL\\_CAMPAIGN\\_2018\\_10\\_25\\_09\\_46&utm\\_medium=email&utm\\_term=0\\_2947becb78-bbf593a65e-117422765](https://www.newsdeeply.com/water/articles/2018/10/24/oregon-already-struggling-with-drought-may-have-still-more-to-come?utm_source=Water+Deeply&utm_campaign=bbf593a65e-EMAIL_CAMPAIGN_2018_10_25_09_46&utm_medium=email&utm_term=0_2947becb78-bbf593a65e-117422765)

*Oregon is known by many as a wet place, with persistent rain and forests enveloped in fog. This year is different. In a matter of just six weeks over the summer, one-third of Oregon was instead enveloped by extreme drought.*

*That [figure](#) comes from the National Integrated Drought Information System (NIDIS), a branch of*

NOAA. The results also rank 86 percent of Oregon in severe drought territory, a slightly less severe category.



About 86 percent of Oregon is considered to be in severe drought as of Oct. 22, as indicated by the orange color. About 33 percent is experiencing severe drought, shown in red. Drought in some form affects 99 percent of the state's population. (Image courtesy National Integrated Drought Information System)

*The Oregon drought this year is most striking because it covers many coastal areas known historically as some of the wettest in the country.*

## Oroville Dam Update

This week's Oroville Dam Update is loaded. The report from the Department of Water Resources is summarized by its title: *"OROVILLE SPILLWAYS CONSTRUCTION: DWR Meets November 1 Public Safety Milestone."* I include several articles that discuss that report. But, the cat in the bag is still who is, in the end, going to cover the more than \$1 billion cost of the repairs? That question is summarized in the article, *"Officials: Oroville project meets construction deadline."* We begin this section with several new videos:

### *Videos:*

#### **1) Oroville Spillway Time Lapse October 30, 2018**

[https://www.youtube.com/watch?time\\_continue=1&v=xQcp7NL7IIw](https://www.youtube.com/watch?time_continue=1&v=xQcp7NL7IIw)

[California DWR](#)

Published on Oct 31, 2018

This time lapse video shows daily construction progress from April 20, 2018 through October 30, 2018. The camera angle looks up the lower chute of the spillway from the diversion pool until early August, then shifts to the middle chute from August 10 to September 4. The time lapse video then resumes footage from the lower chute vantage point from September 4 through October 30.

#### **2) Oroville Spillway Time Lapse October 31, 2017**

<https://www.youtube.com/watch?v=xhKiq4DSLfy> [California DWR](#)

Published on Nov 1, 2017

This timelapse video shows daily construction progress from June 26 through October 31. The camera angle looks up the lower chute of the spillway from the diversion pool until mid-August, then shifts to the middle chute from August 15 to September 11 where roller-compacted concrete was placed. The

timelapse video then resumes footage from the lower chute vantage point from mid-August through October 31.

### 3) Oroville Spillway Before and After Flyover

Published on Oct 31, 2018

<https://www.youtube.com/watch?v=3PARtTMKKzI>  
[California DWR](#)

And, from one year ago:

### 4) Oroville Spillway Flyover November 1, 2017

November 1, 2017

<https://www.youtube.com/watch?v=dqR31VDNaU0>  
[California DWR](#)

## Articles and the DWR Report:

The full article below provides some background and current construction report. Here is an excerpt:

### ***Is Oroville Dam ready for the rainy season? Main spillway fixed, but work remains***

*By Ryan Sabalow and Dale Kasler*

*October 31, 2018 01:11 PM*

<https://www.sacbee.com/news/state/california/water-and-drought/article220898645.html>

*State officials said Wednesday the damaged Oroville Dam flood-control spillway is ready for the rainy season, and will be able to fully blast water down its half-mile long concrete chute for the first time in nearly two years if lake levels rise.*

*Work on the adjacent emergency spillway is ongoing.*

*Both the main and emergency spillways that allow the dam to release water to prevent overflowing were severely damaged by heavy rains in February 2017. A massive crater erupted in the main flood-control spillway, and the never-before-used emergency spillway failed. The crisis at America's tallest dam triggered the frantic evacuation of 188,000 Sacramento Valley residents as fear mounted that the structure could burst.*

*The Department of Water Resources said it has largely completed the \$1.1 billion reconstruction and recovery project prompted by that near-disaster.*

*"If we needed to use it now, we could," she said in a conference call with reporters.*

*Work will continue through early 2019 on the dam's emergency spillway, which is being reinforced with additional concrete.*

## **OROVILLE SPILLWAYS CONSTRUCTION: DWR Meets November 1 Public Safety Milestone**

*October 31, 2018*

## ***Oroville Dam's Main Spillway Fully Reconstructed***

*From the Department of Water Resources:*

*The Department of Water Resources (DWR) today announced it has met its goal of completely reconstructing the main spillway at Oroville Dam by Nov. 1 to be prepared for the upcoming winter. The newly constructed spillway is now built to its original design capacity of 270,000 cubic feet per second.*

*“DWR has again met the Nov. 1 public safety milestone with help from our state, federal and local agency partners, and our construction contractors,” said DWR Director Karla Nemeth. “We thank the surrounding communities for their patience and DWR staff who have worked tirelessly on the Oroville spillways over the past two construction seasons. Today’s milestone is significant, but there is still more work to do before we call this project complete.”*

*Concrete on the main spillway will have cured by December 1, in time for the rainy season and use of the main spillway if necessary. Dry finishing, joint sealing, completing sidewall backfill and site clean-up on the main spillway will also continue after November 1.*

*“More than 700 construction workers, many of them from Butte County and other parts of Northern California, literally worked day and night to make incredible progress during the 2018 construction season,” said Tony Meyers, DWR Project Manager for the Oroville Spillways Emergency Recovery Project. “Staff from nearly every corner of DWR worked on the project in some capacity over the past year and a half and their planning, execution and hard work contributed to meeting this November 1 milestone.”*



Workers from Kiewit Infrastructure clean concrete joints and remove small debris from the upper chute of the Lake Oroville main spillway during Phase 2 of the recovery effort at the Butte County, California site. Photo taken October 25, 2018. Kelly M. Grow / DWR

### ***Main Spillway***

- The final erosion-resistant concrete (ERC) slab was placed on Thursday, Oct. 11. Crews placed a total of 378 ERC structural slabs in 2018. Combined with last year’s work, 612 new concrete slabs have been installed.*
- Crews placed the final ERC wall on Thursday, Oct. 18. Crews placed a total of 126 ERC walls in 2018. Together with last year’s work, 204 new concrete walls have been installed.*
- Final concrete placements on the energy dissipaters, or dentates, at the base of the main spillway were completed on Saturday, Oct. 20.*

- ***The main spillway has now been reconstructed to its original design capacity of 270,000 cubic feet of water per second.***

### ***Emergency Spillway***

- *The roller-compacted concrete (RCC) splashpad was completed on Friday, Oct. 26. Crews placed approximately 700,000 cubic yards of roller-compacted concrete on the splashpad.*
- *Crews also completed construction of the RCC buttress at the base of the emergency spillway earlier this month.*
- *Placement of a structural concrete cap connecting the RCC buttress to the emergency spillway structure will be complete in early 2019.*

### ***Other Updates***

*DWR has completed an operations plan for the 2018-19 flood season that will guide reservoir operations from November 2018 through April 2019. The plan calls for DWR to maintain lower-than-average lake levels during the winter months to provide operational flexibility to ensure flood protection, meet water deliveries, meet environmental requirements, and prevent use of the emergency spillway this winter, as construction will continue on the emergency spillway into early 2019. DWR updated the plan with recommendations from the U.S. Army Corps of Engineers, the Federal Energy Regulatory Commission and the Division of Safety of Dams.*

Note in the following article the section on the funding of the repairs. Will the federal government cover 75% of the cost of over \$1 billion? That answer is still undecided.

### ***Officials: Oroville project meets construction deadline***

*Newly constructed spillway built to original capacity of 270,000 cubic feet per second.*

*[Tim Hearden](#) | Oct 31, 2018*

*<https://www.westernfarmpress.com/water/officials-oroville-project-meets-construction-deadline>*

*California officials say they've met their goal of rebuilding the Oroville Dam's main spillway by Nov. 1 to be prepared for the upcoming winter. After an 18-month, \$1.1 billion restoration project following the dam's near failure in February, 2017, the structure can again handle its original design capacity of 270,000 cubic feet per second.*

*More than 700 construction workers toiled day and night during the 2018 construction season, laying the final erosion-resistant concrete slab Oct. 1, 1 and placing the final concrete wall Oct. 18, state Department of Water Resources officials told reporters during an Oct. 31 conference call. Final concrete placements on the energy dissipaters, or dentates, at the base of the main spillway were finished Oct. 20.*

*A forensic team commissioned in the wake of the crisis issued a 584-page report in January that largely blames a culture of complacency within the DWR that insulated the agency from access to industry knowledge and technical expertise to safeguard the dam and its mile-long spillway.*

*"Obviously, we took that very seriously," DWR's Mellon told Western Farm Press in April, adding that*



*reconstruction designs reflected an effort to prevent potential physical causes of last year's emergency from happening again.*

### **FEMA FUNDING**

*The Federal Emergency Management Agency is reported to have told two California congressmen — U.S. Reps. Doug LaMalfa, a Republican, and John Garamendi, a Democrat — that the unfavorable review could jeopardize federal reimbursement for the dam's reconstruction.*

*FEMA has noted that in past disasters where there was a "lack of maintenance," they only had the legal authority to provide reimbursements for work to bring facilities back to their "pre-disaster design," the two lawmakers explained. In Oroville's case, that would merely "return the spillways to the same condition that played a role in causing the disaster in the first place," says LaMalfa, whose district includes the Oroville area.*

*However, FEMA Regional Administrator Robert J. Fenton told the congressman that hazard mitigation grant funds — another pot of money — could be used to upgrade facilities. The state has asked for 75 percent of the two-year project's cost, with the SWP contractors paying the rest. Mellon has said the process for obtaining federal funds could be lengthy.*

### **Oroville Dam fixed and ready to go, officials say — but at a big price**

[Kurtis Alexander](#)

Oct. 31, 2018

<https://www.sfchronicle.com/science/article/Oroville-Dam-fixed-and-ready-to-go-officials-say-13352138.php>

*State water officials who manage the 770-foot-high Oroville Dam said Wednesday they've met their Nov. 1 deadline for rebuilding most of the complex's two faulty spillways. Final touches are still being made, but the dam is ready to discharge water should an early winter storm fill up the reservoir and require releases.*

Thousands of gallons of water pour out of the fractured main spillway of Oroville Dam on Feb. 12, 2017. The problem at the dam prompted a nearly two-year rehab of the giant facility. Photo: Carlos Avila Gonzalez / The Chronicle



*The cost of the work, on top of the initial emergency response, soared to \$1.1 billion, according to the state, far exceeding the initial estimates of a few hundred million dollars. State officials, though, said the higher price tag was necessary to quickly secure a reservoir that provides vital flood protection for the Oroville area and holds water for millions of people in the Central Valley, Bay Area and Southern California.*

## In the California Water Wars, Some Prefer Suicide

### *SF supes urge backing off alliance with farmers, Trump on reviving rivers*

[Kurtis Alexander](#)

Oct. 30, 2018

<https://www.sfchronicle.com/science/article/State-water-wars-SF-backs-off-alliance-with-13350101.php>

- *The San Francisco Board of Supervisors issued a rare rebuke of the city water department Tuesday, claiming the agency is on the wrong side of a state water debate that pits California against President Trump.*

*The San Francisco Public Utilities Commission, which provides water to the city and more than two dozen suburbs, has fiercely opposed a far-reaching state plan to revive California's river system, including the languishing Sacramento-San Joaquin River Delta, because it means giving up precious water supplies.*

*The agency's bid to protect its stake on the Tuolumne River, high in the mountains of Yosemite, and prevent potential water shortages has aligned it with similarly concerned Central Valley agricultural suppliers and their allies in the Trump administration. The unlikely alliance has created a powerful bloc that has so far succeeded in sidelining the state's restoration effort.*

*San Francisco Supervisor Aaron Peskin put forward a resolution Tuesday, insisting that [a city known for its environmental bona fides should stand up for the rivers](#) and not partner with Washington to let them run dry. The board unanimously approved his measure, which pledges full city support for the state plan. The plan is scheduled to be taken up by state officials next week.*

## And Never Forget the Colorado River Provides Water for 40 Million People

### *Three Things To Know About Colorado River Plans In The Works*

By [Luke Runyon](#) & Bret Jaspers

Oct 30, 2018

<http://www.kunc.org/post/three-things-know-about-colorado-river-plans-works#stream/0>



*The Central Arizona Project pulls water from the Colorado River to provide for the cities of Phoenix and Tucson. Luke Runyon / KUNC/LightHawk*

*Water managers along the Colorado River are trying to figure out how to live with less.*

*Climate change is growing the gap between the river's supply, and the demands in the communities that rely on it, including seven western U.S. states and Mexico. The federal government [recently released proposals](#) called Drought Contingency Plans designed to keep the Colorado River's biggest reservoirs from falling to levels where water is unable to be sent through the dams that hold up Lakes Powell and Mead.*

*KUNC's Luke Runyon and KJZZ's Bret Jaspers break down proposed plans for the Colorado River. The river's two basins are working on separate plans to manage the risks posed by dwindling water supplies. The Upper Basin -- comprised of Colorado, Wyoming, Utah and New Mexico -- is focused on protecting water levels within Lake Powell. The reservoir is 45 feet lower now than it was in October 2010. It's projected to fall another 15 feet in the next year.*

*Powell acts as the Upper Basin's savings account, and water managers in those states say the water it holds keeps them compliant with a 1922 agreement that divvied up the river's water and promised a certain amount to downstream users. Violating that agreement could spark [a decades-long legal battle](#) among government agencies throughout the basin.*

*In the Lower Basin states of Arizona, California and Nevada, the problem is overuse. Essentially, more water exists on paper than in the river itself. That supply-demand gap is causing the country's biggest reservoir, Lake Mead near Las Vegas, to drop too, [increasing the likelihood](#) of a federal water shortage declaration at the start of 2020.*



Lake Powell is impounded by Glen Canyon Dam in northern Arizona. Flows into the reservoir in 2018 were among the lowest on record. *Credit Luke Runyon / KUNC*

*Because they make fundamental changes to how the river is managed, the plans will require congressional approval before they go into effect. The plans are an attempt to patch problems that arose from a set of river management guidelines agreed to in 2007.*

*Here are the top three things to keep an eye on as water managers attempt to get the plans finished:*

- 1. Will the Upper Basin create a protected pool in Lake Powell?***
- 2. Will Arizona capitalize on California's offer to cut back?***
- 3. What effect will Mother Nature, federal officials have?***

# **The Wildfires: Further Developments from the Thomas Fire**

## ***SoCal Edison admits its equipment helped start Thomas Fire***

*By ABC7.com staff*

*October 30, 2018*

<https://abc7.com/socal-edison-admits-its-equipment-helped-start-thomas-fire/4584795/>

*Southern California Edison is publicly acknowledging that its equipment was responsible for contributing to the start of the massive Thomas Fire, which burned more than 280,000 acres in Ventura and Santa Barbara counties.*



The Thomas Fire

*The company acknowledged in a financial filing Tuesday that its equipment was responsible for one of at least two origin points of the fire.*

*The fire started on Dec. 4, 2017 and raged for more than a month, leading to the evacuation of more than 100,000 people before it was contained around Jan. 12, 2018. It is considered one of the largest wildfires in modern California history. It destroyed more than 1,000 homes and other buildings.*

## **The Economy and Infrastructure**

### ***Key U.S. Demographic Markers Plunged after 2007 Breakdown of the Wall Street System***

*Oct. 30 (EIRNS)—Fertility rates in the United States dropped precipitously from 2007-2017, a new Centers for Disease Control and Prevention Data Brief released this month reports. Such demographic declines are another marker of the Dark Age caused by the dying monetarist system, accompanying the rising death rates and soaring suicide and drug addiction. Among the brief's key findings were that:*

*“During 2007-2017, total fertility rates in the United States fell for rural and metropolitan counties: 12% in rural, 16% in small or medium metro, and 18% in large metro counties.” (Total fertility rate is the estimated number of lifetime births expected for 1,000 women.)*

*Similarly, during 2007-2017, the mean age of at which women had their first birth “rose by 1.3 (rural), 1.5 (small or medium metro), and 1.8 years (large metro).”*

*The downward trends in total fertility and the increase in mean maternal age over time occurred for each selected race and Hispanic-origin group, in both rural and metro counties, the CDC found from*

*its review of National Vital Statistics System data.*

## ***Big Texas Coastal Storm Protection Project Has Gotten a Boost***

*Oct. 29 (EIRNS)—President Donald Trump signed his first infrastructure bill last week, the “America’s Water Infrastructure Act of 2018” which directed the Army Corps of Engineers (USACE) to accelerate its approvals of water infrastructure, and to provide them in five-year plans to Congress every year.*

*Given that this act’s language was in negotiation for more than a year, it may have influenced the fact that on Oct. 26, the Army Corps completed its three-year-long study of the “Ike Dike” and designated it as the preferred method of protecting the Texas Gulf Coast from hurricanes and storm surge. Talked about since Hurricane Ike a decade ago, the Ike Dike is a \$30 billion project. It will be 70 miles of levees and seagates. According to Houston Chronicle: “At the entrance of Galveston Bay, a system of storm surge gates would be constructed to accommodate navigation to the ports of Galveston, Texas City and Houston. A large navigation gate would also be placed along the Houston Ship Channel. These gates would only close during storm events, and are modeled after similar gates in London on the River Thames and on the coast of the Netherlands. A ‘ring levee’ would also be placed around Galveston to protect the backside of the island, a densely populated area, from surge and flood waters.”*

*This doesn’t start the project. They now must hold public hearings over extended period—then seek funds from Congress.*

*Bloomberg Oct. 29 ran an article, “Democrats Eye Push for Infrastructure Plan If They Retake the House,” whose substance was that “Rep. Peter DeFazio, who’s in line to become chairman of the House Transportation and Infrastructure Committee, has said Democrats would seek a spending measure for roads, bridges and other public works if they take power.” DeFazio has been meeting with White House aides. He is quoted as saying, “It’s well past time for Congress and the Trump Administration to get serious about our infrastructure needs.” Trump told Fox Business News in an interview Oct. 17, “Infrastructure is going to be starting after the midterms and we think that is going to be an easy one.”*

*Neither side has a funding concept. In fact—for large and important projects—that will only come from cooperating with major Eurasian economic powers now building such projects.*

## **Feature**

### **LaRouche PAC Manhattan Project Dialogue with Will Wertz: Part III**

November 1, 2018

There will be no infrastructure policy for the nation unless the fundamental question of how it is to be funded is clearly answered. That answer requires that we clearly understand how the nation has funded great infrastructure and industrial development in its past history. How did Abraham Lincoln fund the Transcontinental Railroad? How was California's Central Valley project funded during the administration of Franklin Roosevelt? Those are just two projects that required what some of the nation's leaders during the 19<sup>th</sup> Century called the “American System.”

President Trump has spoken of the “American System” as his model of how to rebuild the nation. The presentation by William Wertz, excerpted below, begins with Trump's speeches on that topic. But then, points out what is missing in the President's understanding of the “American System.” And that is how

only national banking and a national credit system can provide the financial means to accomplish what the President clearly wishes to achieve.

Part III, below, from this presentation continues the discussion of Abraham Lincoln's adoption of the principles of Alexander Hamilton through his "Greenback" policy of national banking.

Here are the links to the entire presentation:

### **Cutting the Gordian Knot with the Sword of Damocles**

<https://larouhepac.com/20181014/cutting-gordian-knot-sword-damocles> (video)

Here is the transcript:

[https://larouhepub.com/eiw/public/2018/2018\\_40-49/2018-42/pdf/05-14\\_4542.pdf](https://larouhepub.com/eiw/public/2018/2018_40-49/2018-42/pdf/05-14_4542.pdf)

### **Part III**

My associate at *Executive Intelligence Review*, Paul Gallagher, steered me to a book which is very instructive. It's called *The History of the Legal Tender Paper Money Issued During the Great Rebellion; Being a Loan Without Interest and National Currency*. This book was prepared by the Hon. Elbridge Gerry Spaulding, who was chairman of the Subcommittee of Ways and Means at the time the greenback policy was passed in 1862. The book was published in 1869. I think we have a graphic of the cover of the book, and then also a picture of Mr. Spaulding. What the book contains is the actual history of the debates around the greenback policy, and also around the National Currency and Banking Act of 1863-64.

Spaulding very explicitly in his remarks, this is particularly in the case of the National Currency and Banking Act; he says, "I have no doubt that the general principle of the National Banking bill proposed by the Secretary of the Treasury is Constitutional." He says explicitly, "See Hamilton's celebrated argument presented to President Washington in favor of the constitutionality of the United States Bank in 1791."

I will also say that in this book and in this discussion, it's a very rich discussion. It was well understood by the Congressmen and particularly by Spaulding what the position was of Jefferson and Andrew Jackson. What Spaulding says in one of his speeches is as follows: "It is now most apparent that the policy advocated by Alexander Hamilton of a strong central government was the true policy." Jefferson opposed the creation of all banks, both state and national. Alexander Hamilton proposed a National Bank during the struggle for American independence in 1780, but his suggestions were not then adopted.

During Washington's administration in 1791, the First Bank of the United States was incorporated, mainly under the influence of Mr. Hamilton, which continued in operation until 1811 when its charter expired. No national bank was in existence during the second war with Great Britain [that is, the War of 1812—wfw]. In 1816, the Second Bank of the United States was chartered and continued its existence until 1836, when its charter again expired. All will remember the decided opposition of General Jackson to its recharter, and the fierce struggle that ensued between the friends and opponents of the United States Bank. Friends of the Bank were finally beaten when Jackson was reelected President in the Fall of 1832. The friends of the United States Bank again rallied in 1840-41, but were again defeated by the veto of John Tyler."

So you see, this was an ongoing struggle, and Jefferson and Andrew Jackson were on the wrong side. I think we need to bring this to the attention of President Trump; he may not be aware of that. But the issue is very important because the policies of Hamilton and Lincoln are the policies which are called for today, as expressed in Lyndon LaRouche's second law.