



# **California Water and Infrastructure Report**

## **For January 30, 2020**

### **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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## **A Note To Readers**

The novel coronavirus now has been declared a world health emergency by the World Health Organization. As of this writing there have been about 7,000 confirmed cases with about 200 deaths. While most may not regard the health of the population and the public health care system as infrastructure, it is. It is called “soft infrastructure” and is, of course, a vital element of a nation's economy.

The unprecedented response of the Chinese government in putting about 50 million people in effective quarantine and the building of two hospitals from scratch in less than 10 days, is highly praised by the Director-General of the World Health Organization (WHO), Tedros Adhanom Ghebreyesus, who was visiting China yesterday.

Xinhua reported that “Tedros said it is admirable that the Chinese government has shown its solid political resolve and taken timely and effective measures in dealing with the epidemic. President Xi’s personal guidance and deployment show his great leadership capability, Tedros said. He said that China has released information in an open and transparent manner, identified the pathogen in a record-short time and shared the genetic sequence of the novel coronavirus in a timely manner with the WHO and other countries.”

Tedros went further, noting that “China’s measures are not only protecting its people, but also protecting the people in the whole world,” according to Xinhua. “The high speed and massive scale of China’s moves are rarely seen in the world, Tedros said, which showed China’s efficiency and the

advantages of China's system. The experience of China is worth learning for other countries." Tedros concluded, "The WHO firmly supports China's measures against the epidemic and stands ready to enhance cooperation with China and provide all necessary assistance."

The next days will be critical for containing this epidemic and if every nation responds as China has, then we hope the spread of the coronavirus will be slowed and stopped.

## **In This Week's Report**

We begin with reports on the very dry conditions in California being experienced in January. And the Department of Water Resources, as a response is being very stingy with its announced allocations of water this year to water contractors.

Next is an article on the Delta Tunnels, which was covered here more extensively last week. But this article is a good overview.

While environmentalists are in an uproar about the announcement last week by U.S. Environmental Protection Agency (EPA) that the Obama administration's 2015 rules and regulations are being amended, others, especially farmers are very happy. We have extensive coverage of this below.

Is it possible that nuclear power will return to California? A proposed bill in the state Assembly would include large hydro, nuclear in California's renewable portfolio standard.

The final section before the Feature is entitled, "Wildfires, PG&E, Fires in 2020, and Forest Thinning," which covers a lot of territory.

The **Feature** this week is, "Rebuilding the U.S. Economy." I have often presented the policy formulated by Lyndon LaRouche of the "Four Laws to Rebuild the U.S. Economy." The report today will introduce a more in-depth discussion of those four laws. This will be the **Feature** for the next few weeks. This week is a short introduction. Then, in following weeks, each law will be discussed in more detail.

## **It Is January and It Is Suppose to Be Raining, Even Snowing**

***Statewide snowpack's water equivalent is 12 inches, or 72 percent of the January 30 average***

*January 30, 2020*

*From the Department of Water Resources:*

*The Department of Water Resources (DWR) today conducted the second manual snow survey of 2020 at Phillips Station. The manual survey recorded 40.5 inches of snow depth and a snow water equivalent (SWE) of 14.5 inches, which is 79 percent of average for this location. The SWE measures the amount of water contained in the snowpack, which provides a more accurate forecast of spring runoff.*

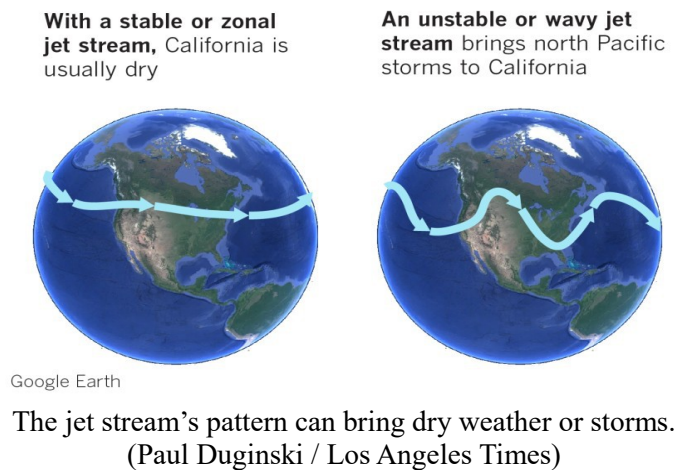
*"After a good start in December, January saw dry conditions that added little to the Sierra snowpack," said DWR Director Karla Nemeth. "As climate change continues to impact California's snowpack, we look to actions described in the recently released [California Water Resilience Portfolio](#) to meet the challenges brought by weather variability to California's water supply."*

*In addition to the manual surveys, DWR collects readings from 130 electronic snow sensors*

scattered throughout the state. Measurements indicate that statewide, the snowpack's water equivalent is 12 inches, or 72 percent of the January 30 average.

*"The foundation of California's water supply forecasting system remains the manual snow surveys," said Sean de Guzman, chief of DWR's Snow Surveys and Water Supply Forecasting Section. "The data gathered from these surveys are used to create seasonal runoff forecasts and define how wet or dry a year is based on the total precipitation, including both rain and snow, and runoff."*

## ***January will end on a dry note in Southern California as the jet stream locks into a zonal pattern***



By [Paul Duginski](#)-- Graphics and Data Journalist

Jan. 25, 2020

<https://www.latimes.com/california/story/2020-01-25/january-will-end-on-a-dry-in-california-as-the-jet-stream-locks-into-a-zonal-pattern>

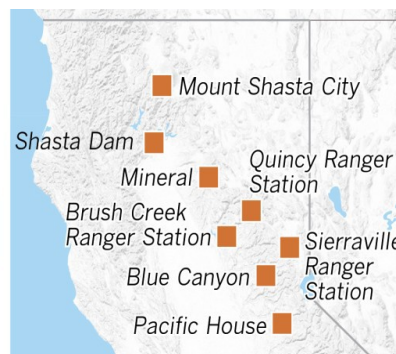
January will continue to be dry in Southern California as the jet stream settles into a stable or zonal pattern, which means it flows more directly from west to east with little fluctuation. A wavy or undulating jet stream is the pattern that brings storms from the north Pacific into California.

### **Northern Sierra 8-Station Index**

Percentage of normal  
as of Jan. 23



ggweather.com



Watersheds monitored by these stations are the source of a major portion of the water supply for the state. (Paul Duginski / Los Angeles Times)

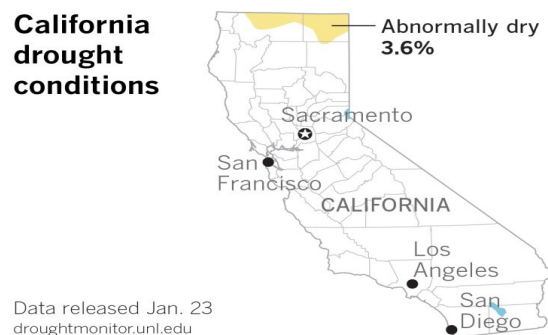
*"When the winter jet stream calms down, Southern California stays dry," says Bill Patzert, former climatologist at NASA's Jet Propulsion Laboratory.*

*When the jet stream is unstable, it meanders from north to south and back again. Cold air sinks farther south and warm air is carried into higher latitudes. A wavy jet stream can snag wet storms from the Gulf of Alaska and send them on a collision course with the California coast.*

January's [rainfall has been unimpressive to date](#), and Jan Null, veteran meteorologist with Golden Gate Weather Services, agrees that the last week of the month looks relatively dry. Seasonal precipitation totals for Northern and Central California continue to fall behind normal.

Of particular concern is the Northern Sierra 8-Station Index, which is at 67% of seasonal normal, as of Thursday. The index is the average of eight precipitation measuring sites that provide a representative sample of the Northern Sierra's major watersheds. These watersheds include the Sacramento, Feather, Yuba and American rivers. These rivers flow into some of California's biggest reservoirs, providing a large portion of the state's water supply.

Going farther south, as of Thursday the 5-station index for the Central Sierra is at 54% of normal, and the 6-station index for the Tulare Basin and the Southern Sierra is at 58% of normal, according to Golden Gate Weather Services.



The Drought Monitor has remained unchanged for weeks.  
(Paul Duginski / Los Angeles Times)

*The most recent Drought Monitor, released Thursday, continues to show just 3.6% of the state as abnormally dry. This has [remained unchanged for weeks](#). But does that mean the state is really out from under drought conditions?*

*“Drought is more than recent snowpack and rainfall,” Patzert warns. “Groundwater levels are dangerously low in many areas. Without more winter rain and snow, we could easily slip back into drought.”*

*Patzert says January has been a flop as far as rain is concerned. “Hopefully, we’ll have some excitement in February and March.”*

## ***Dry January raises concerns about a more intense wildfire season***

By [Nikie Johnson](#) | [nijohnson@scng.com](mailto:nijohnson@scng.com) |  
January 23, 2020

<https://www.ocregister.com/2020/01/23/dry-january-raises-concerns-about-a-more-intense-wildfire-season/>

*It should be raining.*

*Maybe not at this exact moment, but January and February are when Southern California usually gets almost half of its annual precipitation.*

*Instead, 2020 is off to a dry start, and meteorologists aren't seeing any indications that will change in the next month. While a couple of dry winter months don't make a drought, they could turn spring and summer into particularly bad fire seasons.*

*"It means we'll probably get more intense fires in the summer, and more grass fires in the spring," U.S. Forest Service meteorologist Matt Shameson said.*

*The water year begins Oct. 1 and it started well, thanks to a few big storms in late November and December, most notably [a deluge](#) the day after Christmas. At that point, much of Southern California had received twice as much precipitation as the average for three months into a water year, according to [data](#) from the National Weather Service.*

*Since then, however, the skies have dried up.*

## **And the DWP is Being Stingy With the Water**

### ***From the Department of Water Resources***

*January 24, 2020*

**SACRAMENTO, Calif.** – Today, the California Department of Water Resources (DWR) announced an increase in 2020 State Water Project (SWP) allocations to 15 percent of requested supplies, up from the year's initial 10 percent allocation announced on December 2.

*Allocations are reviewed monthly based on snowpack and runoff information and are typically finalized by May.*

*"California gets most of its annual precipitation from a handful of major and infrequent winter storms," said DWR Director Karla Nemeth. "After some significant storms in December, January has been relatively quiet and is currently below average. We continue to hope for wetter conditions and must always work to eliminate waste and use water more wisely."*

*Precipitation in the Northern Sierra is at 63 percent of average to date. Statewide snowpack is 76 percent of normal for this date. The state gets about 30 percent of its annual water supply from snowpack. Snow water content is one factor in determining allocation amounts along with reservoir storage and releases necessary to meet water supply and environmental demands.*

*Lake Oroville, the SWP's largest reservoir, is currently at 61 percent of capacity and 94 percent of average for this time of year. Shasta Lake, the Central Valley Project's (CVP) largest reservoir, is at 74 percent of capacity and 112 percent of average. San Luis Reservoir, the largest off-stream reservoir in the United States where water is stored for the SWP and CVP, is at 72 percent of capacity and 95 percent of average. In Southern California, SWP's Castaic Lake is at 72 percent of capacity and 87 percent of average.*

*Today's 15 percent allocation amounts to 635,434 acre-feet of water. The SWP provides water to 29 SWP contractors who supply water to more than 27 million Californians and 750,000 acres of farmland.*

## **The Delta Tunnels**

This report covered the policy announced last week by the governor to proceed with the building of the Delta Tunnel (just one tunnel now, not two). <http://www.californiadroughtupdate.org/20200123-California-Water-and-Infrastructure-Report.pdf?t=1579825650>

Here is a link to a new commentary on it, which includes the most salient arguments for and against it, which also includes links to background studies and documents

## ***New Delta tunnel project is deja vu all over again***

*By Tony Kukulich*

*January 23, 2020*

[https://www.thepress.net/news/new-delta-tunnel-project-is-d-j-vu-all-over/article\\_623c31d8-3e14-11ea-9095-c3b39fd95ff9.html](https://www.thepress.net/news/new-delta-tunnel-project-is-d-j-vu-all-over/article_623c31d8-3e14-11ea-9095-c3b39fd95ff9.html)

*Citing a need to protect the state's water supply from climate change and seismic threats, the California Department of Water Resources' (DWR) plan to construct a single tunnel through the heart of the Sacramento-San Joaquin Delta took a major step forward with the Jan. 15 publication of the project's notice of preparation (NOP), and its release drew swift reactions from both sides of the metaphorical aisle.*



The Delta

## **The New Rules by the Trump Administration on Clean Water**

While environmentalists are in an uproar about the announcement last week by U.S. Environmental Protection Agency (EPA) and the Department of the Army (Army) had finalized the Navigable Waters Protection Rule to define “Waters of the United States” and thereby establish federal regulatory authority under the Clean Water Act, others, especially farmers are cheering the rewritten regulations.

What follows are a selection of articles, excerpted for brevity. The first is a relatively straight forward description of the measure. Then what follows are the commentaries by various interests.

### ***New Clean Water Act Rule to Provide Clarity and Redefine WOTUS***

*By [California Water News Daily](http://californiawaternewsdaily.com) on January 26, 2020*

<http://californiawaternewsdaily.com/drought/new-clean-water-act-rule-to-provide-clarity-and-redefine-wotus/>

*Earlier this week, the U.S. Environmental Protection Agency (EPA) and the Department of the Army (Army) finalized the Navigable Waters Protection Rule to define “Waters of the United States” and thereby establish federal regulatory authority under the Clean Water Act.*

*The revised definition identifies four categories of waters that are federally regulated under the Clean Water Act: the territorial seas and traditional navigable waters; perennial and intermittent tributaries; certain lakes, ponds, and impoundments; and wetlands that are adjacent to jurisdictional waters.*

*The rule also details 12 categories of exclusions, features that are not “waters of the United States,” such as features that only contain water in direct response to rainfall (e.g., ephemeral features); groundwater; many ditches; prior converted cropland; and waste treatment systems.*

*For the first time, EPA and the Army are recognizing the difference between federally protected wetlands and state protected wetlands. It adheres to the statutory limits of the agencies’ authority. It also ensures that America’s water protections remain strong, while giving the states and tribes the certainty to manage their waters in ways that best protect their natural resources and local economies.*

*“EPA and the Army are providing much needed regulatory certainty and predictability for American farmers, landowners and businesses to support the economy and accelerate critical infrastructure projects,” said EPA Administrator Andrew Wheeler. “After decades of landowners relying on expensive attorneys to determine what water on their land may or may not fall under federal regulations, our new Navigable Waters Protection Rule strikes the proper balance between Washington and the states in managing land and water resources while protecting our nation’s navigable waters, and it does so within the authority Congress provided.”*

*The final rule and supporting documents can be found at <https://www.epa.gov/nwpr/navigable-waters-protection-rule-step-two-revise>.*

## ***Trump administration’s WOTUS definition ends decades of confusion, federal overreach***

*By Andrew Wheeler Special to McClatchy*

*January 27, 2020 03:00 AM*

*<https://www.fresnobee.com/opinion/article239612438.html>*

*The U.S. Environmental Protection Agency and the Department of the Army fulfilled yet another one of President Donald Trump’s promises by issuing the Navigable Waters Protection Rule on Thursday. The rule establishes a new definition for Waters of the United States, or WOTUS, and clarifies the limits of federal control under the Clean Water Act. After 45 years of constant litigation and uncertainty, the Trump administration’s new rule brings regulatory certainty to American farmers, landowners and businesses, and should significantly curtail the need to hire teams of attorneys to tell them how to use their own land.*

*In 2015, the EPA under President Barack Obama put forward a rule with a WOTUS definition that expanded Washington’s reach into privately owned lands — a move that left Americans, including our nation’s farmers, confused and uncertain about where federal jurisdiction ended and where the states’ authority began.*

*The new rule protects the environment and our waterways while respecting the states and private property owners. States have their own protections for waters within their borders, and many already regulate more broadly than the federal government. The Navigable Waters Protection Rule recognizes this relationship and strikes the proper balance between Washington, D.C., and the states. It clearly details which waters are subject to federal control under the Clean Water Act and — importantly — which waters fall solely under the states’ jurisdiction.*

## ***Trump the Polluter!***

*The rollback of the “Waters of the United States” allows disreputable landowners to “dump pollutants” “directly into hundreds of thousands of waterways.”*

Jan 28, 2020

<http://familiesprotectingthevalley.com/news.php?ax=v&n=5&id=10&nid=806>

*President Trump and his administration are regularly portrayed as proponents of environmental destruction. People should remember there are usually two sides to an argument and when you see the mainstream media making one side out to be angels and the other side devils, there's probably more to the story. The case of Waters of the United States (WATUS) is one such case.*

*The [New York Times explains](#) the change made by the Trump Administration "has implications far beyond the pollution that will now be allowed to flow freely into waterways...The rollback of the "Waters of the United States" allows disreputable landowners to "dump pollutants" "directly into hundreds of thousands of waterways." Sounds pretty bad. But, is it true?*

*According to an article in Commentary Magazine, "In May 2015, the Environmental Protection Agency unilaterally announced its intention to expand its capacity to regulate navigable waterways and their tributaries. This new rule allowed the agency to block the development of privately owned lands with a "significant nexus" to a waterway, a definition so expansive it included streams that ran only seasonally or underground, bone-dry 100-year floodplains, any parcel within 1,500 feet of a highwater mark, or even topographical features that could "in combination" impact a water source."*

*They went on to explain, "In practice, a rancher and farmers seeking the permission of the federal government to level a road through private property or even plow and plant crops would have to spend tens of thousands of dollars on [compliance costs](#) alone." Arizona rancher Jim Chilton "noted efforts to seek a permit to grade a "small ranch road" through his land took three years and cost him \$40,000 dollars, even though the nearest body of water on which anything substantial could float was over 250 miles from his property."*

*There's quite a legal history to what brought us to this point and it's captured in the attached article, but the Sixth Circuit Court of Appeals ruled there was no "specific scientific support substantiating" this regulation's rationality. The article concludes "Opponents of the Trump administration should take stock in how soundly their overreach was rebuffed. To judge from the Times coverage of the administration's actions, though, that kind of self-reflection is not in the cards."*

Here is the article the above commentary cites:

## ***Cry Me a River***

by Noah Rothman

January 24, 2020

<https://www.commentarymagazine.com/american-society/law/fbi-abuse-carter-page/>

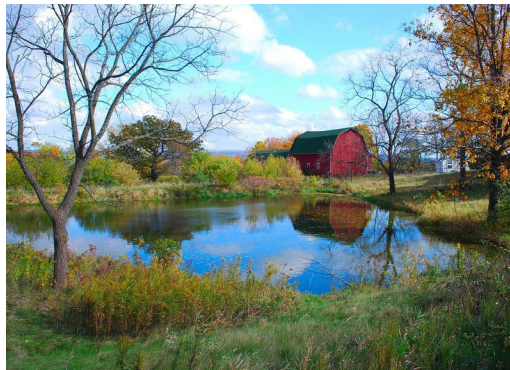
*The Trump administration is at it again. To hear [New York Times](#) reporter Coral Davenport tell it, this White House is engaged in yet another nihilistic assault on the environment.*

*This week, the administration "finalized a rule to strip away environmental protections for streams, wetlands, and groundwater," the Times notes. The rollback of the "Waters of the United States" allows disreputable landowners to "dump pollutants" "directly into hundreds of thousands of waterways." The move will prove a boon to farmers, land developers, fossil-fuel producers, and, conspicuously, golf course owners. Moreover, these weakened environmental protections provide the president with "a major policy achievement to bring to his political base while his impeachment trial continues."*

*Without being stated plainly, a clearer portrait of nefarious self-dealing could not be more clearly implied. There's a reason the author limits herself to implication, though, and it isn't reportorial standards of impartiality. The truth of the matter isn't nearly as lopsided as the Times suggests.*

*In May 2015, the Environmental Protection Agency unilaterally announced its intention to expand its capacity to regulate navigable waterways and their tributaries. This new rule allowed the agency to block the development of privately owned lands with a "significant nexus" to a waterway, a definition so expansive it included streams that ran only seasonally or underground, bone-dry 100-year floodplains, any parcel within 1,500 feet of a highwater mark, or even topographical features that could "in combination" impact a water source.*

*This wasn't the first time the EPA had overstepped its remit when it comes to the nation's waterways. The 2006 Supreme Court plurality opinion in *Rapanos v. United States* struck down the regulatory agency's expansion of the definition of what constitutes a waterway. That definition went beyond what Justice Antonin Scalia said were only those "relatively permanent, standing or continuously flowing bodies of water 'forming geographic features'" like streams, lakes, rivers, and oceans. But the EPA was undeterred and, in 2015, the [agency tried again](#).*



This is not a navigable waterway

## ***Farmers welcome new federal rule on water quality***

*January 29, 2020*

*By Christine Souza*

<http://www.agalert.com/story/?id=13632>

*Farmers and ranchers expressed support for a new federal rule to protect navigable waters under the Clean Water Act, saying the rule should offer certainty, transparency and a common-sense approach about how the rule would apply on the farm.*

*California Farm Bureau Federation President Jamie Johansson said last week's release of the Navigable Waters Protection Rule by the U.S. Environmental Protection Agency and Army Corps of Engineers "promises clear guidelines to help farmers maintain and improve water quality while retaining the flexibility they need to manage their land."*

## ***California Unlikely to Benefit from New Navigable Waters Protection Rule***

*January 29, 2020*

<http://agnetwest.com/california-unlikely-benefit-navigable-waters-protection-rule/>

*It is doubtful that the new Navigable Waters Protection Rule will provide any benefits to California's*

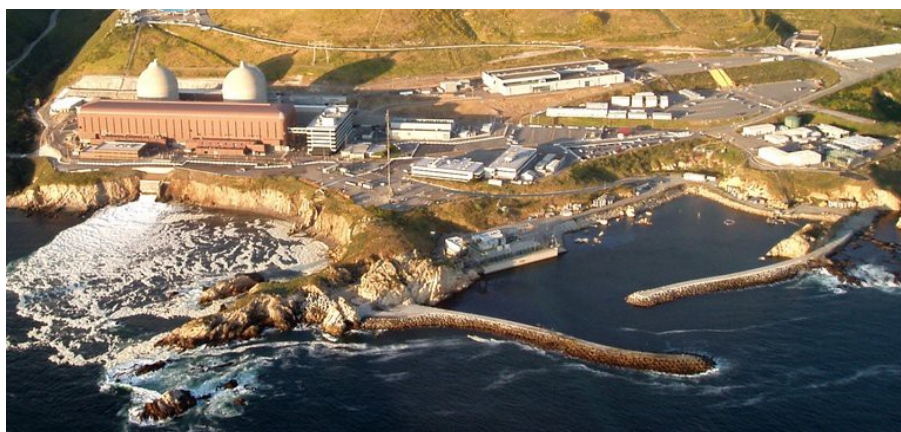
*farmers and ranchers. Because of the rules that the State Water Board established last year, California is unlikely to be affected by the recent federal regulation that replaces the Waters of the U.S. rule.*

*“The rules that are in place for California are certainly far and away beyond the rule that was adopted at the federal level,” said Mike Wade, Executive Director of the California Farm Water Coalition.*

*“We’re not going to – I don’t believe – see much if any relief in California from the revisions at the federal level because we’re already living under a more strict definition of Waters of the State, as it’s known.”*

## **A Piece of Legislation in California to Bring Back Nuclear Power?**

***Proposed bill would include large hydro, nuclear in California's renewable portfolio standard***



Diablo Canyon Nuclear Plant (Credit: [Wikimedia](#))

by [Kavya Balaraman @kavya\\_balaraman](#)

Jan. 23, 2020

<https://www.utilitydive.com/news/proposed-bill-include-large-hydro-nuclear-power-californias-rps/570919/>

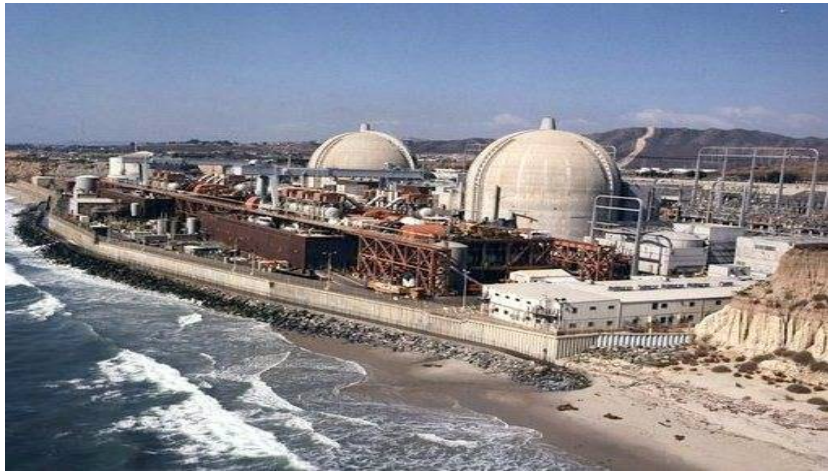
### **Dive Brief:**

- California Republicans on Tuesday [introduced legislation](#) to temporarily halt the requirements of the state's Renewables Portfolio Standard (RPS) program and redirect funds to ensure utilities improve their infrastructure and vegetation management programs.
- The proposed bill would also, if and when the program is reinstated, include nuclear generation and all hydroelectric facilities operating as of January 1, 2021 in the program's definition of an "eligible renewable energy resource."
- The bill, along with a second piece of legislation introduced by state Assemblyman James Gallagher, R, and Sen. Jim Nielsen, R, "will help prevent future wildfires and utility power shutoff events," according to a press release. But environmental advocates say that the move to

*extend RPS eligibility to hydro and nuclear facilities might not go far in California's current political landscape.*

### ***Dive Insight:***

*California established its RPS program in 2002, requiring at the time that renewable resources make up 20% of electricity retail sales by 2017. However, the program's targets have changed over the years; the state passed Senate Bill 100 in 2018, accelerating RPS requirements to 60% by 2030, as well as requiring that carbon-free resources supply all of the state's electricity by 2045.*



The San Onofre Nuclear Plant now being dismantled

*Large hydropower and nuclear generation don't currently count toward the RPS standard requirements, but the state is still defining the zero-carbon requirement passed in SB 100, Alex Jackson, senior attorney at the Natural Resources Defense Council, told Utility Dive.*

*In the last three years, California utilities have also been wrestling with the increased threat of wildfires posed by their infrastructure. Devastating fires in 2017, 2018 and 2019 have caused billions of dollars in damage across the state, pushing Pacific Gas & Electric to declare bankruptcy in early 2019.*

*To reduce this risk, the utility adopted a public safety power shut-off (PSPS) program, proactively de-energizing areas that are particularly prone to fires during windy or dry weather conditions. The shut-offs have drawn widespread criticism from regulators, lawmakers and customers in Northern California.*

*Assembly Bill 1941 would tackle the issue by suspending the state's RPS requirements, and tasking the California Public Utilities Commission with estimating how much utilities would save in costs associated with the program, redirecting those funds toward upgrading infrastructure to reduce fire risks.*

## **Wildfires, PG&E, Fires in 2020, and Forest Thinning**

***PG&E CEO: System hardening will be completed 'long after I retire'***

[Kavya Balaraman @kavya\\_balaraman](#)

Jan. 29, 2020

<https://www.utilitydive.com/news/pge-ceo-system-hardening/571283/>

### **Dive Brief:**

- Pacific Gas & Electric's (PG&E) effort to harden its electric system — a combination of installing stronger poles, covering power lines and undergrounding portions of its infrastructure to reduce the risk of wildfires — is likely to continue for another five to seven years, "long after I retire," PG&E Corp. President and CEO Bill Johnson told lawmakers on Tuesday.
- The utility is working on upgrading its infrastructure and has so far completed work on 188 miles of power lines, according to Johnson's testimony to two subcommittees of the House Committee on Energy and Commerce — slightly less than 3% of the 7,100 miles that have been identified for system hardening.
- PG&E's infrastructure has caused multiple catastrophic wildfires in the last three years, bringing the utility to the forefront of regulatory and political attention in California. "There's a great deal of trust that has been lost between the utility and people," said Rep. Anna Eshoo, D-Calif., who represents many cities in Silicon Valley in the utility's service.

### **Dive Insight:**

Lawmakers on the House Subcommittee on Energy and the Subcommittee on Environment and Climate Change heard multiple experts testify on Tuesday about the impact that wildfires can have on the power sector. PG&E's wildfire-related liabilities over the last three years drove the utility to file for bankruptcy last January.

The utility's service area is particularly prone to wildfires, [according to Johnson's testimony](#). Prolonged drought in California killed 147 million trees between 2010 and 2018, adding fuel to the state's forests. High fire-risk areas have grown from 15% of PG&E's territory to more than half in seven years, exposing more than 30,000 miles of infrastructure to wildfire risk. Moreover, the utility estimates that approximately 100 million trees around its power lines have the potential to affect its infrastructure.

To counter this risk, PG&E has implemented a wildfire safety plan, which includes a mix of system inspection, beefing up efforts to trim vegetation near power lines, and hardening its infrastructure.

In its [2019 wildfire mitigation plan](#) filed with the California Public Utilities Commission, PG&E described its system hardening program as an "ongoing, long-term (more than five years) capital investment program to rebuild portions of PG&E's overhead electric distribution system."

PG&E plans to replace overhead conductors with insulated conductors, install low-fire risk fuses and switches, and put up stronger poles. At the time, PG&E estimated that the 7,100 circuit miles of system hardening would take around 10 years to complete.

In his testimony, Johnson said PG&E intends to complete the hardening in the next 12 to 14 years.

## **California Wildfire Reality: New Alert Systems and Forest Management Key as Climate Change Continues**

By Rob Mayeda • Published January 27, 2020

<https://www.nbcbayarea.com/news/california/californias-new-wildfire-reality-fire-weather-is-severe-weather-and-how-pge-is-trying-to-manage-it/2221569/>



Fire and embers blow around a burnt utility truck during the Kincadee fire in Healdsburg, California on October 27, 2019. (Photo by Josh Edelson / AFP) (Photo by JOSH EDELSON/AFP via Getty Images)

*We're living in the new California reality of catastrophic wildfires and weeks of forced power outages. So, how did we get here?*

*A panel hosted by Operation Sierra Storm at South Lake Tahoe brought together leaders of Cal Fire's new Wildfire Resilience Program, PG&E and the National Weather Service to discuss just that and what to expect in 2020.*

*According to Cal Fire Assistant Chief Chris Anthony, the state's major wildfires have burned aggressively due in part to drier weather patterns, including drought over time. Anthony says across the western U.S., fire seasons have been extended on average by 78 days.*

*Another critical aspect are the state's larger wildfires burning into regions where large areas of forest are overstocked and unmanaged and are not resilient to insects and disease.*

*This includes some 150 million dead trees, highest in the central and southern Sierra.*

*The recently formed Wildfire Resilience Program is looking into better forest management, including the removal of mass timber, and beyond controlled burns that are consistent with climate change-friendly policies, including milling, Anthony said.*

### ***California completes 34 land projects to slow wildfires***



FILE – In this Nov. 5, 2019, file photo, vehicles pass a sign welcoming people to Paradise, Calif. The sign also displays the slogan, “Rebuilding The Ridge,” that has become the community’s rallying cry since a wildfire devastated the area a year earlier. (AP Photo/Rich Pedroncelli, File)

*Critics say the projects won't slow wind-driven infernos like ones that devastated communities in recent years. They also caution that to remain effective, even against slow-moving blazes, the fire breaks must be maintained indefinitely by weeding out more flammable brush and grass that would naturally grow where trees are removed.*

*Newsom sped the projects covering 90,000 acres by suspending some requirements and regulations....*

### ***Trump Administration Thins Forests In the West***

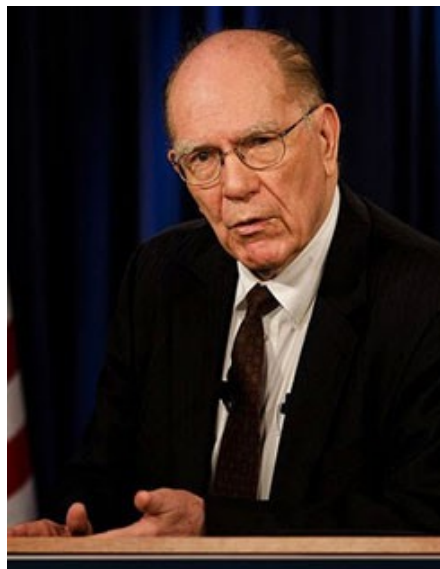
**Jan. 24 (EIRNS) --** *The Interior Department during 2019 forcefully began President Trump's policy of the reducing fire hazard on Western public lands, set out in his Executive Order 13855 of December 2018, his "Christmas order" as one rancher called it.*

*That order called for the Department to reduce fuel loads (biomass) on 750,000 acres of public lands; as 1.4 million acres were treated, using controlled burns. It demanded reducing excess vegetation by offering 600 million board feet of lumber for sale; the Interior Department offered 750 million. And it ordered Interior to "Treat 500,000 acres of public lands to protect water quality and mitigate severe flooding and erosion risks arising from forest fires"; Interior treated 1.4 million acres in this manner. The website "Wildfire Today" in Jan. 12 called this "the largest fuel load reduction in a decade."*

*The Department of the Interior, the Bureau of Indian Affairs, Bureau of Land Management, National Park Service, and the U.S. Fish and Wildlife Service cooperated. As part of his push to reduce the fuel for devastating wildfires in the West, the President had offices of these sub-departments moved out of Washington, to Western states. This caused expressions of outrage in national media and some protests by Federal employee unions; but evidently it contributed to progress on this critical front of protection of the American people and infrastructure.*

## **Feature: Rebuilding the U.S. Economy**

I have presented in these reports the policy to rebuild the U.S. economy requires the "Four Laws of Economic Recovery" as put forward by Lyndon LaRouche.



Lyndon H. LaRouche, Jr.

This week we will present an overview of those four laws in more depth. And over the next few weeks the four laws will be presented one by one.

So we begin:

First, the Four Laws in summary form:

- 1. Re-enactment of the Glass Steagall Act, separating commercial from speculative banking and ending public bailouts of Wall Street gambling debts;**
- 2. A new national bank or other credit-issuing mechanism, such as Lincoln's Greenbacks, capable of producing massive amounts of credit for long-term economic projects;**
- 3. Use of this national banking mechanism to selectively fund projects that will raise national *physical productivity* and create high-paying jobs in *productive* sectors of the economy; and**
- 4. A crash program to develop fusion power—not only providing power for the entire planet, but to end raw materials shortages and to support mankind's exploration and development of the Solar System.**

When most people think about economic policy, they think of money and markets. When Lyndon LaRouche developed his economic discovery, he studied the relation between human creative discovery and increasing productivity.

Based on this superior approach, in 2014 Mr. LaRouche outlined a policy memorandum for the United States, his "[Four Laws to Save the U.S.A.](#)" Although this was drafted a number of years ago, the financial elite of the City of London and Wall Street have maintained their insane policies, and Mr. LaRouche's program is even more urgent today.

Once again, we are about to experience the failure of a system which uses the accumulation of money as the measure for economic activity, and LaRouche's Four Laws remain "an immediate necessity." Watch our 20 minute summary of LaRouche's program.

While the current meltdown of the world monetary system makes the adoption of Glass-Steagall and a credit system an urgent priority, such changes will fall short unless they are guided by an image of man which is radically different from the image of man which underlies monetarism.

In his Fourth Law, LaRouche states,

*"The knowable measure, in principle, of the difference between man and all among the lower forms of life, is found in what has been usefully regarded as the naturally upward evolution of the human species, in contrast to all other known categories of living species. The standard of measurement of these compared relationships, is that mankind is enabled to evolve upward, and that categorically, by those voluntarily noëtic powers of the human individual will."*

In the following video, LaRouche puts that concept into action in his discussion of the impact that a Moon-Mars mission will have on our economy, and on our very identities:

**LaRouche: Let's Industrialize the Moon Now as a Base for Future Space Exploration**

[https://www.youtube.com/watch?v=YIW9KyyQrwg&feature=emb\\_logo](https://www.youtube.com/watch?v=YIW9KyyQrwg&feature=emb_logo)

Think about the image of man presented in that short segment. Now, contrast that to the image of man put forward by Adam Smith, the father of free trade and monetarism. In his 1790 "Theory of Moral Sentiments," Smith asserts that man is only a creature of his physical senses and his passions, and *cannot know the consequences of his actions, and therefore cannot act for the future*. All that man can do is "avoid pain and pursue pleasure." That is the basis of a "monetary" system.

LaRouche discusses the contrasting image of man that shapes a credit system:

**LaRouche: A Deeper Conception of Credit**

[https://www.youtube.com/watch?time\\_continue=1&v=baBmjLMn5JA&feature=emb\\_logo](https://www.youtube.com/watch?time_continue=1&v=baBmjLMn5JA&feature=emb_logo)

Next week: The first of the four laws:

**1. Re-enactment of the Glass Steagall Act, separating commercial from speculative banking and ending public bailouts of Wall Street gambling debts**