

# California Water and Infrastructure Report

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



**For July 19, 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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*Today the warning is even more urgent. Trump has shown the courage to stand up to the traitors in the intelligence community, in the Congress, in the press, who, Trump noted in a tweet this morning, "HATE the fact that I got along well with President Putin of Russia. They would rather GO TO WAR than see this." He gave it a name: "Trump Derangement Syndrome."*

<https://larouhepac.com/20180719/lyndon-larouche-once-said-get-tractors-rolling>

## **A Note To Readers**

Nothing is worth talking about-- neither the water supply, the drought, the tunnels, nor building great infrastructure projects-- unless the actual and real danger of a nuclear war is ended. So, that is what is most important for our nation, and the world, in the President's meeting with Russian President Vladimir Putin on Monday this week.

Trump, in his statement at their joint press conference, said he had determined to "continue the proud tradition of bold American diplomacy. From the earliest days of our republic, American leaders have understood that diplomacy and engagement is preferable to conflict and hostility." He said that the relationship between the two nations "has never been worse than it is now. However, that changed, as of about four hours ago." He said that **"I would rather take a political risk in pursuit of peace than to risk peace in pursuit of politics."**

Now that that is clear, we can look at those other things.

## In This Week's Report

Immediately following the opening section of this week's report on the drought and the weather forecast, you will find the commemoration of 100 years ago yesterday, the first public proposal for building one of the world's greatest dams-- the *Grand Coulee Dam* in Washington State. It was my first project, writing about the battle to build that dam, that led me to study and write on the California water management system and writing these reports, beginning four years ago.

The Oroville Dam Update this week includes two new videos and a construction progress report.

Last week we noted that in California the acreage burned by wildfires so far this year is double the acreage burned at this time last year. That all the authorities are warning that this year may see an extreme number, intensity and destruction from wildfires has been a narrative for the past several weeks. And it is not just California. The entire west, while not literally on fire, is experiencing already a very terrible fire season, including Washington State and Oregon.

Subsidence of the land in the Central Valley is not only doing millions of dollars in damage, but is also wrecking a key canal supplying Fresno, farmers with water. Two articles covering this are included.

There is not much new this week on the Delta Tunnels, just a request for the Trump administration to throw in a loan of \$1.6 billion. Proponents claim that if this goes through then the money to begin construction will be in hand.

Under “Infrastructure” this week is the threatened collapse of the entire nuclear energy industry.

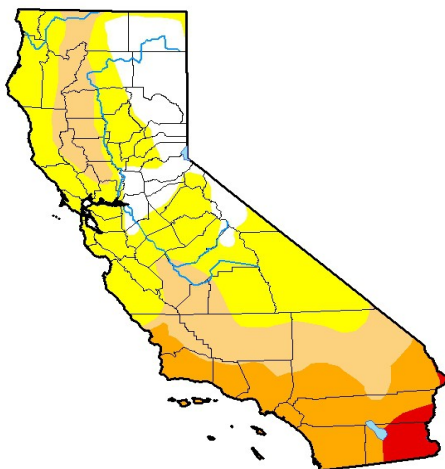
The “Feature” this week continues with class #4 of the LaRouche economics series.

The final item is the release this week of the more than 400 page report: “The New Silk Road Becomes the World Land-Bridge, Vol. II.”

# Drought

## U.S. Drought Monitor

### U.S. Drought Monitor California



**July 17, 2018**  
(Released Thursday, Jul. 19, 2018)  
Valid 8 a.m. EDT

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	14.85	85.15	44.14	20.75	2.77	0.00
Last Week 07-10-2018	14.85	85.15	44.12	20.75	2.77	0.00
3 Months Ago 04-17-2018	34.10	65.90	37.10	13.77	2.50	0.00
Start of Calendar Year 01-01-2018	55.70	44.30	12.69	0.00	0.00	0.00
Start of Water Year 09-26-2017	77.88	22.12	8.24	0.00	0.00	0.00
One Year Ago 07-18-2017	75.69	24.31	8.24	1.06	0.00	0.00

**Intensity:**

■ D0 Abnormally Dry     ■ D3 Extreme Drought  
■ D1 Moderate Drought     ■ D4 Exceptional Drought  
■ D2 Severe Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

**Author:**  
Curtis Riganti  
National Drought Mitigation Center



<http://droughtmonitor.unl.edu/>

*Very warm and generally dry weather occurred over the last week in California, Oregon, and Washington. Meanwhile, in southern Nevada, southeastern California, and parts of Utah and Arizona and New Mexico, scattered monsoonal rains continued, leading to localized heavy rains. Because of the short- and long-term precipitation deficits present in much of the region coming into this past week, large amounts of rainfall were needed for drought conditions to improve. Improvements in extreme and exceptional drought conditions occurred over parts of Arizona where enough rain fell to substantially reduce the ongoing deficits. Conditions in Washington continued to dry out in the short term. Combined with warm temperatures, this led to the development of moderate drought in the Olympic Peninsula and the expansion of abnormal dryness in parts of eastern Washington. Abnormally dry conditions also developed in parts of the Idaho Panhandle because of precipitation deficits and low streamflow.*

## ***Weather Wednesday: Understanding how drought conditions are measured***

***By [Steve Monday](#)***

*July 18, 2018*

<https://www.salisburypost.com/2018/07/18/weather-wednesday-understanding-how-drought-conditions-are-measured/>

*This week, I was able to discuss the drought conditions with Jarred Rennie, a research meteorologist with the [North Carolina Institute for Climate Studies](#). We spoke about how drought conditions are measured and the amount of time it can take to bounce back from drought conditions.*

### ***Q: How are drought conditions measured and issued to a specific area?***

*A: Well, it depends on what drought product we are looking at. Most of them take into account temperature and precipitation. However, there are others out there that look at different variables, including wetness of the soil (known as soil moisture), the type of soil (such as sand, silt or clay), and local vegetation characteristics and practices.*

*One of the more popular products is the [United States Drought Monitor](#), which is run by the University of Nebraska at Lincoln, along with the National Integrated Drought Information System. Each week, scientists derive a categorical assessment of drought conditions. For the Drought Monitor, they are noted as follows:*



*These are color-coded by intensity and used by many organizations to observe drought conditions. The report is released every Thursday morning and reflects conditions up to the Tuesday before. Data is also archived back to the year 2000.*

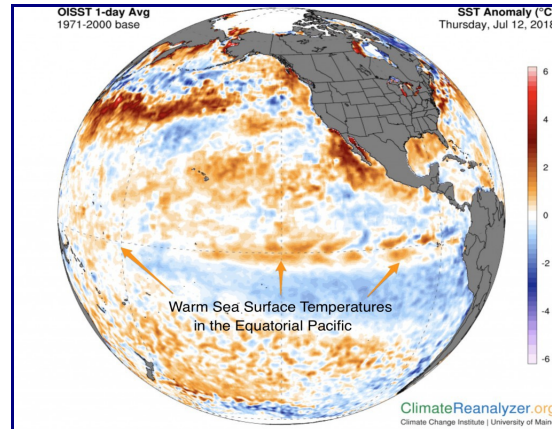
**Latest forecast: El Niño likely will develop later this year, promising significant impacts around the world**

By Tom Yulsman | July 13, 2018

<http://blogs.discovermagazine.com/imageo/2018/07/13/el-nino-likely-will-develop-this-year/>

*El Niño's coming.*

*That's the increasingly confident forecast from the U.S. Climate Prediction Center. In its [latest monthly report](#), the CPC continued an El Niño watch and boosted the odds of it developing during the Northern Hemisphere winter of 2018-2019 to 70 percent. Last month, the center pegged El Niño's chances at 65 percent.*

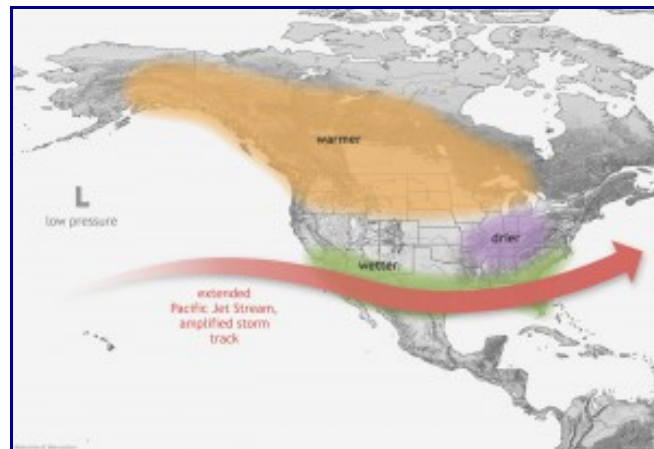


Sea surface temperatures in large parts of the tropical Pacific Ocean are edging above normal. (Image source: Climate Reanalyzer)

*This is important because El Niño has profound impacts on weather around the world.*

*Here in the United States, El Niño tends to result in an amplified winter storm track across the southern tier of the country. This usually brings wetter conditions — including to southern California and portions of Nevada and Arizona, areas [now afflicted by severe drought](#). Click on this map to see typical winter weather impacts during El Niño episodes.*

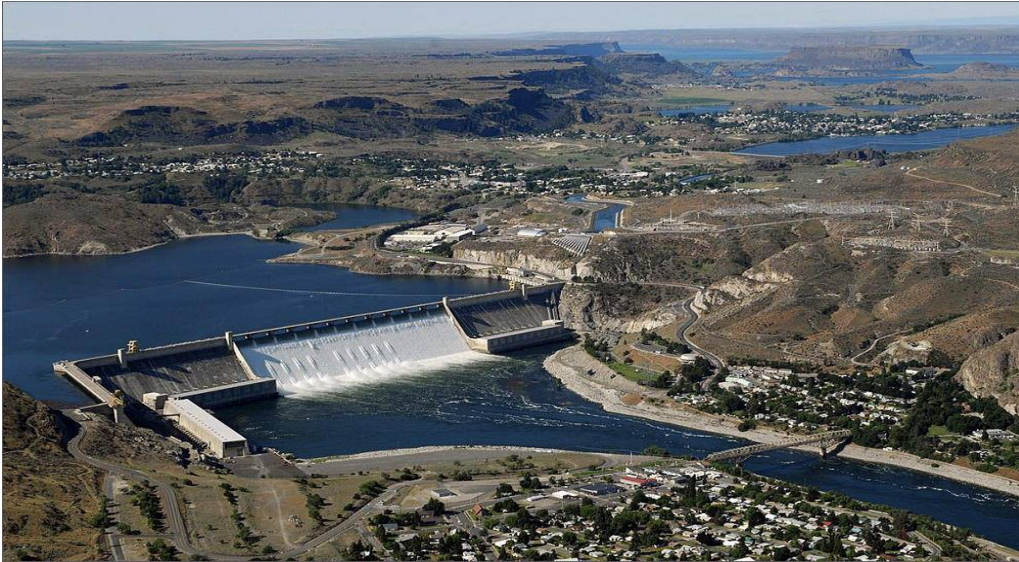
*The atmosphere is an incredibly complex and chaotic system. So we shouldn't expect to see all of the impacts shown in the map — which is about probabilities, not certainties. But more than half of all El Niño events since 1950 have brought wetter than average conditions to California.*



El Niño weather impacts. (Source: NOAA)



## **July 18, 1918 marked the first story proposing what would become the Grand Coulee Dam**



**The Grand Coulee Dam**

100 years ago on July 18, 1918, the first story promoting the building of the Grand Coulee Dam in Washington State was the front page story in the Wenatchee Daily World.

It was 15 years later that President Franklin D. Roosevelt began the project in 1933 as one of the first great infrastructure projects of his administration.

When completed in January, 1942, standing 500 feet high and one mile across, it was then, and for decades to come, the largest man-made structure in human history.

Completed just one month after the Japanese attack on Pearl Harbor and the entry of the U.S. into World War II, the massive output of electricity from the dam fueled the aluminum plants of the Northwest, the airplane manufacturing industry of Seattle and the ship building yards up and down the West Coast.

The irrigation provided by the dam created one of the nation's great agricultural regions of eastern Washington State.

## **July 18, 1918 marked the first story proposing what would become Grand Coulee Dam**

*By Rufus Woods Publisher*

July 18, 2018

<https://www.wenatcheeworld.com/news/2018/jul/17/art-of-community-july-18-1918-marked-the-first-story-proposing-grand-coulee/>

Here is my report on the Battle to Build Grand Coulee Dam:

## **The Fight to Build the Grand Coulee Dam and the Economic Revolution that Transformed the Nation**

<http://amatterofmind.org/ca-drought-pdf/Grand%20Coulee%20Dam%20Report.pdf>

# Oroville Dam Update

## Videos:

### Oroville Spillways Phase 2 Update July 12, 2018

<https://www.youtube.com/watch?v=l8ZRPkLWlQg>

[California DWR](#)

Published on Jul 17, 2018

Crews continue to place leveling concrete on the upper chute of the Lake Oroville main spillway, while other workers install forms over a structural rebar panel to prepare for the placement of more structural concrete. Meanwhile, mechanical demolition continues on the dentates at the bottom of the main spillway.

### Oroville Dam Rebuild UPDATE July 13, 2008 NEW!!!

<https://www.youtube.com/watch?v=Qequ-ZEjKTo>

Susan Wolding

Published on July 13, 2018

The ongoing rebuild of the Oroville Dam Spillways. End of June to July 13th. Showing the smoke from the fires, all the work they are doing and even July 4th Flag flying. Update for those interested.

## Construction Update:

### *Oroville Dam: A tour of two spillways, phase two*



*The upper spillway leading up to the radial gates is seen during a tour of ongoing construction at the Oroville Dam spillway area Wednesday, July 11, 2018. (Bill Husa — Mercury-Register)*

By [Risa Johnson](#)

*Chico Enterprise-Record*

*July 14, 2018*

<https://www.chicoer.com/2018/07/14/oroville-dam-a-tour-of-two-spillways-phase-two/>

*OROVILLE— Phase two of construction on the Oroville Dam's main and emergency spillways is speeding along, as the Oroville Mercury-Register got to see up close in a tour on Wednesday guided by state Department of Water Resources officials.*

*With half of the main spillway currently a work in progress, the department's goal is to have the structure ready to use, if needed, by Nov. 1— just under four months away.*

*“We're probably approaching 50 percent complete on the job now,” Petersen said. “The focus for construction right now is to get the foundation covered with concrete in the upper chute. The foundation cleaning is near 100 percent complete. Once that concrete is complete, we'll be switching over to drain line installation, anchor installation and then finally all of the erosion-resistant concrete slabs, and then the walls.”*

*One of the first concrete slabs installed last year had to be replaced this year because the finish wasn't up to construction standards.*

*“It was hot and windy and the concrete set up on us before we could get the smooth finish, so we, with great effort, removed the top nine inches below the rebar and now it's under cure,” Petersen said.*

*Erin Mellon, DWR's assistant director of public affairs, added that the Board of Consultants, an independent group appointed by the department, commented on the great strength of the concrete. The board was able to observe crews remove the top of the slab with difficulty.*

*Now, most of the cement is being poured at night, as heat speeds up the curing process, said Tony Meyers, DWR's Oroville spillways project manager. The slower concrete cures, the stronger it will be. The cement mix is checked almost daily, to ensure proper ratios. Adding liquid nitrogen helps cool the mixture down.*

*DWR is making several improvements to the emergency spillway, to prevent the kind of dangerous erosion like there was in February of 2017, in case water ever goes down the hillside again. Work at the emergency spillway will continue past Nov. 1. Kiewit's contract runs through January 2019.*

## **Wildfires**

Last week we noted that in California the acreage burned by wildfires so far this year is double the acreage burned at this time last year. That all the authorities are warning that this year may see an extreme number, intensity and destruction from wildfires has been a narrative for the past several weeks. And it is not just California. The entire west, while not literally on fire, is experiencing already a very terrible fire season, including Washington State and Oregon.

### ***Drought and extreme heat fuel wildfires in U.S. West***

*Dr. Mario Picazo  
Meteorologist, PhD*

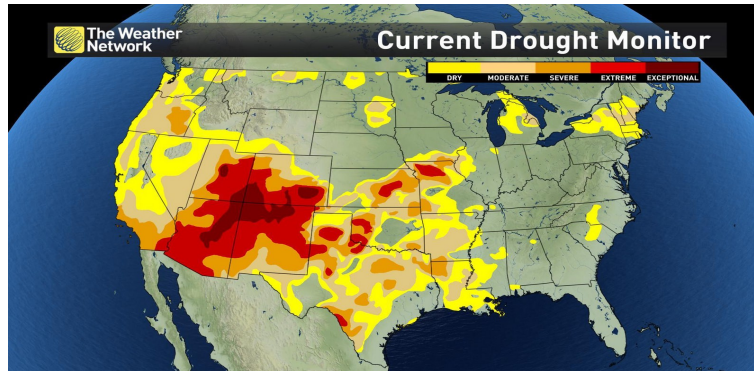
<https://www.theweathernetwork.com/us/news/articles/wildfires-western-united-states-drought-extreme-heat-2018-colorado-utah-new-mexico-california-arizona-weather-lightning-winds-precipitation-forecast-noaa/106549>

*Friday, July 13, 2018, 16:00 - Severe to exceptional drought conditions in combination with above normal heat across the U.S. West are helping wildfires burn out of control across a dozen states.*

*2018 has already seen over 3.3 million acres of forested areas burn in the U.S., a value slightly lower than the one registered this time last year. Last year saw 10 million acres burn away, making it the*



second worst year on record.

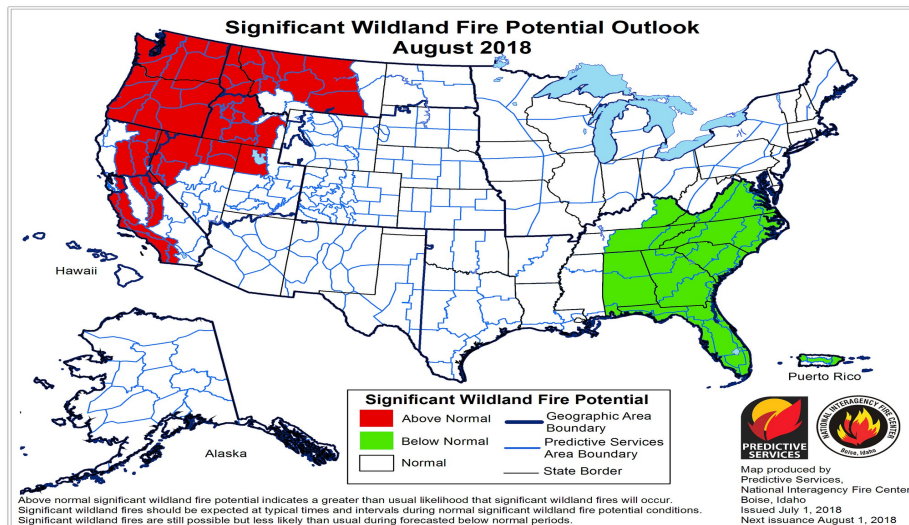


Fires have been devastating over the past few weeks, burning large sections of Colorado, Utah, New Mexico and California. Two key factors are fueling the blazes: a persistent drought that is affecting most of the southwest since last year, and the heat dome that has been impacting much of the western U.S. since late last week. It does not take much for fires to ignite and rapidly spread as the vegetation in these areas is so dry.

Between this Friday and Saturday, critical fire weather is expected mainly across central Oregon and Washington. Overall, the July wildfire outlook calls for above normal wildland fire potential (see below) across much of the Western U.S. States such as Utah, Idaho, California, Nevada, Oregon and Washington could see the worst fire conditions.

August looks very similar, with less potential across Utah, but an increase across many areas of Montana. The good news is that the summer monsoon rains should help erase potential fire conditions over much of the southwest.

What is really driving the wildfires this year is the exceptional drought that extends across large areas of Utah, Colorado, New Mexico and Arizona. Conditions like the ones we are seeing this year in the past used to occur every four to five decades. However, today, they are becoming more frequent and extend over larger areas.



Rising average temperatures and extreme heat episodes are also contributing to the new fire scenario, and on top of the natural elements, forests are becoming less healthy compared to the past. Fire needs fuel to burn, and there is a lot of that in the west. Since the 1950s the U.S. government pursued a fire suppression policy that sharply reduced the acreage burned, but caused forests to become choked with



*underbrush and trees, allowing invasive species to enter. Such is the case in the southwest, where bark beetles have overtaken conifers, allowing wildfires to burn non-stop.*

## ***Wildfire could become "major threat" to Yosemite, scientist says***

*July 16, 2018*

<https://www.cbsnews.com/news/wildfire-could-become-major-threat-to-yosemite-national-park-climate-scientist-daniel-swain-says/>

*REDDING, California -- A university climate scientist has a dire prediction for the seven square-mile wildfire burning just west of California's Yosemite National Park, reports CBS Spokane, Washington affiliate KREM-TV. Daniel Swain believes the Ferguson Fire, which has claimed the life of one firefighter, "is likely to burn for many days and may eventually become a major threat" to the national park, he said via Twitter.*

*Swain, of the University of California at Los Angeles, bases his prediction based on two factors.*

*One is that the fire is burning in a tinderbox - an area that's filled with dry, dead trees that became infested with beetles during previous years of drought. The other is that he believes that area of Mariposa County faces "a long period of hot weather to come."*

*The wildfire is one of several burning across the state and among 56 large blazes that are active in the U.S., most in the American West, a region that is struggling with drought and heat.*

## ***1 dead as latest fire portends explosive Northwest season***

*July 18, 2018*

<https://www.wral.com/growing-fire-shows-potential-for-explosive-northwest-season/17706838/>

*By GILLIAN FLACCUS, Associated Press*

*PORTLAND, Ore. — A fast-moving fire fueled by gusting winds in the Pacific Northwest killed one person, forced dozens of households to evacuate and prompted Oregon Gov. Kate Brown to declare a state of emergency Wednesday.*

*The flames near the city of The Dalles started Tuesday and expanded Wednesday to more than 56 square miles (145 kilometers) as the fire spread into vast fields of wheat while desperate farmers tried to salvage their crops in the midst of the harvest season.*

*The conflagration about 80 miles (130 kilometers) east of Portland doesn't bode well for a Pacific Northwest fire season that's expected to be worse than normal, with drought conditions in many areas and above-average temperatures forecast through September, the center said.*

*It comes as other states across the American West, including California and Colorado, have struggled with massive blazes that have torn through land gripped by drought.*

## ***1 dead, more evacuations ordered as Substation Fire grows to 45,000 acres***

*by KATU Staff*

*Wednesday, July 18th 2018*

<https://katu.com/news/local/substation-fire-deemed-conflagration-grows-to-33800-acres>

*THE DALLES, Ore. – A fast-moving wildfire has grown to nearly 45,000 acres in Wasco and Sherman counties, burning through structures and forcing people to evacuate their homes.*

## **70 wildfires ignited by lightning in Southern Oregon, evacuations ordered**

*Zach Urness, Salem Statesman Journal*

*July 15, 2018*

<https://www.statesmanjournal.com/story/news/2018/07/15/oregon-wildfires-jacksonville-eagle-point-sterling-creek-fire-green-mountain-fire/787199002/>

*There are now around 130 wildfires burning in Southern Oregon, officials said.*

### **Original story**

*A lightning storm ignited between 50 and 70 wildfires in southwest Oregon on Sunday.*

*The storm began in the morning and lasted throughout the day, bringing hundreds of strikes across the region.*

*Isolated showers helped somewhat, but fire managers expect heavy fire activity all week.*

*"With triple digit temperatures in the forecast, we're expecting new fires all week," said Melissa Cano, public information officer for the Oregon Department of Forestry. "We're also going to stay busy on the large fires that are already going."*

*The two biggest fires, as of Sunday night, were the Sterling Creek Fire and Green Top Mountain Fire, Cano said.*

## **Terrifying video shows a swirling column of fire in SoCal**

*By Graph Massara, SFGATE*

*July 16, 2018*

<https://www.sfgate.com/california-wildfires/article/Terrifying-video-shows-a-swirling-column-of-fire-13079705.php#photo-15876462>



*A California wildfire formed a swirling column in this clip. Photo: Screenshot/Chris Mackie*

*A Southern California man was in the right place at the right time Saturday to capture some of this fire season's most striking imagery: a swirling vortex of water and flame.*

*The clip was filmed in the town of Blythe, a few miles from the Arizona border. Cameraman Chris Mackie and his wife Anne, of Fullerton, watch as a large column of smoke and ash descends onto a nearby stretch of the Colorado River.*

*Chris Mackie said the couple had been watching the fire spread for more than an hour. It first made an initial rush into the river, a sight that "amazed" him. When the blaze approached the water again, he decided to start filming.*

## **Subsidence in the Central Valley**

***Sinking Central Valley floor is wrecking a key canal supplying Fresno, farmers with water***

By [Mike Moffitt](#), SFGATE

July 16, 2018

<https://www.sfgate.com/bayarea/article/Sinking-Central-Valley-floor-is-wrecking-a-key-13080026.php>

*Central California is slowly collapsing under its own weight as farmers suck out groundwater, emptying vast subterranean aquifers and disrupting one of the state's key water-delivery networks.*



*The subsidence of the San Joaquin Valley is nothing new; it's been happening since at least the 1920s. But during the recent five-year statewide drought, it accelerated at a record pace, taking infrastructure like bridges and roads down with it.*

*One of the casualties is the Friant-Kern Canal, a gravity-operated concrete waterway that stretches 152 miles down the valley's eastern side, supplying Fresno and smaller cities as well as thousands of farmers.*

*Along 25 miles in Tulare County, the canal has sunk so far that its carrying capacity has been cut in half, according to the [Sacramento Bee](#).*

*The subsidence has buckled the canal in places, restricting water flow.*

*"It ponds up; you lose capacity and that ability to move water through the system," Douglas DeFlicht, chief operating officer at the Friant Water Authority, told the Bee.*

*The choke point created at the town of Terra Bella, where the canal slipped two feet between 2015 and 2017, prevented 60 percent of the canal's water to reach farms and cities 50 miles downstream.*

*Without the canal working effectively, farmers would likely pump out more groundwater, further draining aquifers and feeding the subsidence in a vicious cycle.*

The sinking of the San Joaquin Valley is not new, as this 1977 USGS photo shows. But NASA data show it accelerated in 2015-2016 during the drought, with some areas seeing subsidences of nearly two feet.

*Repairing Friant-Kern, which was built during the Truman administration, would cost an estimated \$350 million, paid for by state taxpayers, if a [proposition on the November ballot](#) passes.*

There is more background and reporting in this article:

### ***The Valley floor is sinking, and it's crippling California's ability to deliver water***

*By Dale Kasler And Phillip Reese*

*July 13, 2018 03:55 AM*

<https://www.sacbee.com/news/state/california/water-and-drought/article214631455.html>

## **Delta Tunnels**

### ***Delta tunnels get 'real' as backers seek \$1.6B loan from Trump administration***

*By Ryan Sabalow And Dale Kasler*

*July 17, 2018 04:17 PM*

<https://www.sacbee.com/news/state/california/water-and-drought/delta/article215046475.html>

*Critical permits and legal challenges are still pending, and some farming groups still haven't committed to paying for part of Gov. Jerry Brown's controversial \$17 billion Delta tunnels project.*

*But even with the uncertainty, backers of the project are poised to ask the Trump administration for a \$1.6 billion federal loan that millions of Californians ultimately would have to repay through increases in their water bills.*

*On Thursday, the just-formed Delta Conveyance Finance Authority, led by the regional water agencies backing the tunnels project, is expected to start the application process for a \$1.6 billion federal water infrastructure loan administered by the U.S. Environmental Protection Agency.*

*Congress set up the loan program in 2014 to spur upgrades to the nation's aging system of irrigation*



*projects and dams.*

*The loan would represent a significant milestone for the project, which has been in the planning phase for nearly a decade, said Jeff Kightlinger, general manager of the Metropolitan Water District of Southern California, which delivers Delta water to 19 million people in the south state.*

*“We’re going to be issuing contracts in the next few months, and we’re going to be spending some real money,” Kightlinger said. “If we get this loan now, we’re moving from millions into billions (of dollars). That’s real.” Metropolitan and other agencies have spent a combined \$200 million planning the tunnels.*

*Earlier this year, Metropolitan’s board breathed life into the struggling project by approving a [\\$10.8 billion investment in California WaterFix](#), the name Brown’s administration gave the tunnels.*

*Other hurdles remain before machines can start boring the 30-mile path under the Sacramento-San Joaquin Delta.*

## **Infrastructure**

### ***U.S. Nuclear Industry Could Collapse***

*July 14 (EIRNS)--The U.S. nuclear industry is on the verge of collapse, is the conclusion of a report published in the **Proceedings of the National Academy of Sciences** on July 10. Although couched in terms of how bad the collapse would be for dealing with climate change, "U.S. Nuclear Power: The Vanishing Low-Carbon Wedge," says unless policies change, the country faces the possibility of abandoning nuclear power completely. "We're asleep at the wheel on a dangerous highway," was the way it was put by report co-author Ahmed Abdulla, from the School of Global Policy and Strategy at the University of California San Diego.*

*The authors see policy changes or the development of "cheaper" small nuclear reactors as the only way to save the industry. They are not optimistic about either, stating that developing the SNRs would require a sizable infusion of public money, which they don't see happening.*

*General Atomics Vice President Christina Back in ZeroHedge and subsequent media reports—said "The reality is you cannot actually replace 20% of the need with wind and solar, unless you want to wallpaper every square inch of many states." She further made the comparison: "This is a situation like NASA when you're putting someone on the Moon, when the government needs to recognize the long-term benefit and investment that's required, and help that support."*

## **Feature: LaRouche's Economics in an 8-Week Course**

<https://discover.larouhepac.com/>

### **Class #4: The Definition of Economic Value (July 13/14)**

<https://larouhepac.com/20180715/definition-economic-value>

*While the vast majority of so-called economists focus on monetary value, Lyndon LaRouche defines economic value as a measurement of the anti-entropic free energy of the economic process. To achieve*

*this one must focus on scientific research and on technologies with increasingly higher energy flux densities. This is what LaRouche refers to as a science driver. Examples in recent U.S. history include the Manhattan Project and the Apollo Project. To expand the human economy, we must focus on such areas of fundamental research as fusion power, interplanetary flight and colonies on the Moon and Mars. In this class we will focus on what is required to achieve a tendency to increase the free energy of the system as reflected in LaRouche's treatment of the ratio  $S'/C+V$ . This class will be given by Dennis Speed.*

Here are links to the first three classes:

### **Class #1: On LaRouche's Discovery (June 22/23)**

[https://discover.larouchepac.com/1\\_on\\_larouche\\_s\\_discovery\\_june\\_22\\_23](https://discover.larouchepac.com/1_on_larouche_s_discovery_june_22_23)

### **Class #2: Potential Relative Population Density and Energy Flux Density (June 29/30)**

[https://discover.larouchepac.com/2\\_potential\\_relative\\_population\\_density\\_and\\_energy\\_flux\\_density\\_june\\_29\\_30](https://discover.larouchepac.com/2_potential_relative_population_density_and_energy_flux_density_june_29_30)

### **Class #3: Thermodynamics of Political Economy (July 6/7)**

[https://discover.larouchepac.com/3\\_thermodynamics\\_of\\_political\\_economy\\_july\\_6\\_7?utm\\_campaign=2018\\_econ\\_3\\_a&utm\\_medium=email&utm\\_source=larouchepac](https://discover.larouchepac.com/3_thermodynamics_of_political_economy_july_6_7?utm_campaign=2018_econ_3_a&utm_medium=email&utm_source=larouchepac)

## **The New Silk Road Becomes the World Land-Bridge, Vol. II**

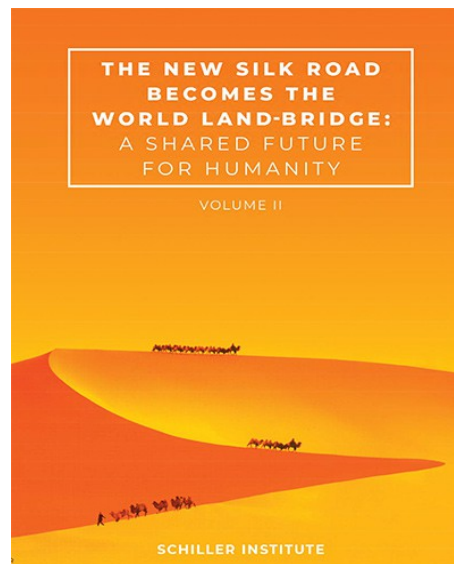
[https://schillerinstitute.nationbuilder.com/wlb\\_ii](https://schillerinstitute.nationbuilder.com/wlb_ii)

### **A Shared Future for Humanity**

The LaRouche movement has played a unique role in developing proposals for international economic development and in setting into motion trends of policy making that are now increasingly prevalent in the world. In 1997, with the end of the Cold War and the potential for international cooperation around the common aims of mankind, Lyndon and Helga LaRouche proposed the "Eurasian Land-Bridge" as a "New Silk Road ... for Worldwide Economic Development." After the 2013 announcement by Chinese President Xi Jinping of the Belt and Road Initiative (a proposal in resonance with the LaRouche proposal), the LaRouche movement published the first volume of "The New Silk Road Becomes the World Land-Bridge," a 374-page report that integrates major development projects from around the world, under the framework of the economic approach founded by Lyndon LaRouche.

We are happy to announce the publication of this second volume, "The New Silk Road Becomes the World Land-Bridge: A Shared Future for Humanity," in which we bring you an updated picture of the progress of China's Belt and Road Initiative, including detailed region-by-region analysis and newly updated maps. We also highlight the principles of physical economy and economic metrics discovered by Lyndon LaRouche, upon which the possibility of uplifting the standard of living of humanity

depends. We examine the strategic relation of the Western nations to the emerging new paradigm, and what challenges must be overcome in order to overcome the old-paradigm approach of British geopolitics and replace it with LaRouche's top-down program for overcoming economic collapse in the West.



As Schiller Institute founder and chairwoman Helga Zepp-LaRouche has said, “I think that the New Silk Road is a typical example of an idea whose time had come; and once an idea is in that way becoming a material reality, it becomes a physical force in the universe.”

Take advantage of this powerful tool for policy-making and political organizing!

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