California Drought (and Flood) Update



For October 12, 2017 by Patrick Ruckert

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http://www.californiadroughtupdate.org

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As an Italian citizen and chairwoman of <u>Movisol</u>, Lyndon LaRouche's movement in Italy, I call on you to intervene in defense of Christopher Columbus and Columbus Day. The same people who are out to destroy the U.S. Presidency, led by Wall Street speculator George Soros (who destroyed the Italian lira in 1992), are also trying to eradicate history and culture not only in the United States, but internationally. Cardinal Nicholas of Cusa, his Italian collaborator Paolo del Pozzo Toscanelli, Columbus, Amerigo Vespucci, and others were part of a revolution in culture, art, geography, and science, which made the discovery of America possible. The deliberate explosion in human creativity that was the Italian Renaissance is a truly proud moment in all humanity's history, and not merely for Italians. The people who want to abolish Columbus Day, whether they are maliciously witting, or merely deluded, are out to also dismantle this Western cultural and scientific heritage.

> Open Letter To President Donald Trump In Defense of Columbus by Liliana Gorini, Chairwoman, Movisol

September 29, 2017

https://larouchepac.com/20170929/open-letter-president-donald-trump-defense-columbus

A Note To Readers

Today, October 12, is Columbus Day, regarded as the date of his landing in the Americas in 1492. In an open letter to President Trump from Liliana Gorini, quoted from above, presents a very different picture of the project that Columbus was but an instrument. Her letter is well worth reading, for it presents what were the foundations upon which the U.S. was created, and how every great project since, and those to come-- like great water projects-- have their roots in the Renaissance.



Statue of Italian explorer Christopher Columbus at Columbus Circle, New York. Photo: faungg's photos

Pres. Franklin Roosevelt, in the midst of wartime, issued a statement of commemoration in 1941, with this ending:

"This year when we contemplate the estate to which the world has been brought by destructive forces, with lawlessness and wanton power ravaging an older civilization, and with our own republic girding itself for the defense of its institutions, we can revitalize our faith and renew our courage by a recollection of the triumph of Columbus after a period of grievous trial.

"The promise which Columbus's discovery gave to the world, of a new beginning in the march of human progress, has been in process of fulfillment for four centuries. Our task is now to make strong our conviction, that in spite of setbacks, that process will go on toward fulfillment."

A reminder, in three weeks President Trump will be heading to Asia for a nearly two week round of meetings and conferences. And since he has both stated that the \$72 billion of Puerto Rico's debt should be canceled, and that the so-called Public Private Partnerships for building infrastructure can never build and rebuild what our nation requires, then we can hope he will take up China's offer for the U.S. to join the New Silk Road and bring the hundreds of billions of Treasury bills that China holds to the U.S. to help fund the required \$2-3 trillion per year we must invest.

And boy do we need it. Houston, Florida, Puerto Rico, Oroville Dam, the New York City transportation system, and now probably a few billions in destruction by wild fires in California, should tell us that only with a determined spirit to revive that mission sense we used to have can we prevent and repair such destruction. The first step to do so is found in this report each week in its final section on restoring the American System of economics. While President Trump has called for restoring the Glass-Steagall banking law; has declared he is committed to rebuilding the nation's infrastructure; announced that the Private Public Partnerships for building that infrastructure will not work; and has stated that the \$72 billion of Puerto Rico's debt will never be paid, there is a battle royal in the administration that continues to delay the President's intent from moving forward. The President must be freed from the attempt to remove him. This item tells it all:

https://larouchepac.com/20170927/robert-mueller-amoral-legal-assassin-he-will-do-his-job-if-you-lethim

After decades of austerity targeting the nation's and the state's maintenance of infrastructure and not building in-depth capability to deal with emergencies, whether those created by nature or by man, we now have an out-of-control catastrophic inferno sweeping away lives and thousands of homes in northern California. Beginning especially under the administrations of President George Bush and California Governor Arnold Schwarzenegger, budget cuts to fire suppression capability included not adding to the air tanker fleet, and not putting into play well-known forest practices that make such fires less intense. The same austerity policies continued under President Obama and Governor Brown.

Let us no longer hear that such disasters given to us by the hurricanes, droughts, wind-driven wildfires and deluges are acts of nature before which we are helpless. Mankind must never be subject to the whims of nature for we are not animals, which are helpless before such forces. We humans, when we decide to do so, use our creative minds to tame nature and can see and prepare for future "natural disasters."

In This Week's Report

The fires in northern California, as this is written, are still out of control. This is the worst wildfire catastrophe in California's history. Much of this week's report pulls together what I think are the most important reports, both of the damage itself and at least some of the background on why these fires are so extreme. Also included here are reports on the record costs of this fire season even before this latest outbreak. Finally, a couple of reports on forest practices that can make such fires less destructive.

What should have been the "big news" of the week, the vote by the Metropolitan Water District of Southern California to put up its share of the money for the Delta tunnels was proceeded by the state Auditor's devastating critique of the state's management of the project. Both developments are included in the second section of this report.

The Oroville Dam Update this week, with less than three weeks until the contracted deadline to finish construction on the main spillway, includes a progress report from the Department of Water Resources. Video clips showing the construction progress are also included.

The final section this week includes more articles illustrating the principles of the American System.

Fires!

Voyeurism is a terrible disease of the mind, and disasters sometimes evoke outbreaks of it. I hope my coverage of the fires avoids bringing that to the fore.

That said, the coverage below has lots of links and the excerpts from the articles which are chosen to present what has happened, provide some background on why these fires are so extreme, and discuss related questions. Driving the fires are the winds, up to 70 miles per hour. The first item below provides an excellent explanation of from where these winds originate. The link to the article is provided, and I highly recommend reading it in its entirety.

One piece of, I guess we can call it, good news is that the U.S. Forest Service and the state of California finally approved the use of the 747 air tanker, which is at work today on the fires. The story is below.

By this morning the death toll is now 24, with higher numbers expected.

All of the following articles are excerpted from the originals.



Smoke from a wildfire burning east of Napa, Calif. Michael Short/San Francisco Chronicle, via Associated Press

The Science Of 'Diablo Winds' Fanning California Wine Country Fires

<u>Marshall Shepherd</u>, Contributor October 11, 2017

Forbes

https://www.forbes.com/sites/marshallshepherd/2017/10/11/the-science-of-diablo-winds-fanningcalifornia-wine-country-fires/#3a40481f2751

Meteorology and physics are helping to fan possibly some of the worse fires in California history. What are Diablo Winds?

The answer lies within a complex mix of meteorology, physics, geography, and topography. Dry, nearly hurricane-force winds are fanning the flames associated with the California fires in this region. <u>Early</u> <u>Wednesday morning, the National Weather Service issued the following</u>,

236 am PDT Wednesday October 11, 2017...RED FLAG WARNING for Wednesday afternoon through Thursday...Increasing northerly winds and drying conditions are forecast to return to the region later today and persist through Thursday.



Bay Area with Mt. Diablo and other mountains in the background. (Jitze Couperus/State of California Coastal Conservancy)

This is related to the passage of a dry front and is likely to amplify fire conditions. However, the Diablo Winds have been a driving force with these fires. While not the "cause" of the fires, these winds situated in the peak of California fire season do not help. In the map below, you can see the region of the western United States called the Great Basin (the brownish-yellowish region). If an area of high pressure is situated over that region, winds blow from the central Great Basin toward the Pacific coast. In the northern hemisphere, winds flow clockwise around high pressure and that creates the aforementioned flow.



The Great Basin region of the United States.

With such a flow regime, the winds are forced over and descend down the elevated terrain and mountains on the western edge of the basin and in California. Since Mt. Diablo is in the region east of the Bay Area, these particular winds get the name Diablo Winds. Here is where the physics comes in. As these winds descend, they are compressed and warmed. These winds can reach tropical storm (39 mph) to hurricane force (74 mph). The warming is caused by something called adiabatic compression.

Strong winds, low humidity drive another round of deadly California wildfires

<u>Doug Stanglin</u>, USA TODAY Updated 12:11 p.m. ET Oct. 12, 2017 <u>https://www.usatoday.com/story/news/2017/10/12/strong-winds-low-humidity-drive-anotherdeadly-california-wildfires-fed-more-strong-winds-low-humidit/756944001/</u>

Some 8,000 firefighters battling two-dozen deadly, destructive fires in Northern California faced another round of rapidly deteriorating conditions Thursday with a forecast of low humidity, dry fuel and winds gusts of up to 45 mph — with no hint of rain.

At least 23 people have died and some 3,500 homes and businesses have been destroyed in sweeping wildfires that broke out mainly north of San Francisco on Sunday.

Red Flag Warnings, forecasting dangerous fire conditions, were already in effect for much of Northern California, enveloping the Bay Area, and have been extended from Big Sur to the Santa Cruz mountains.

State fire Chief Ken Pimlott was equally blunt: "It's going to continue to get worse before it gets better."

Forecasts warn that the winds, including a new round expected from late Friday into Sunday, may not only hamper the efforts of firefighters, but also increase the risk of new wildfires.

"We are at very low containment on most of these," said Mark Ghilarducci, director of the state Office of Emergency Services. "These fires are literally burning faster than firefighters can run."

Deadly and vast Northern California wildfires could gain momentum

Ellen Knickmeyer and Jocelyn Gecker | AP

October 12, 2017

Wildfires already well on their way to becoming the deadliest and most destructive in California history could gain momentum Thursday and erase even the modest gains firefighters have made.

Steady winds with gusts up to 45 mph with nearly non-existent humidity are expected to descend on the areas north of San Francisco where at least 23 people have died and at least 3,500 homes and businesses have been destroyed.

"It's going to continue to get worse before it gets better," state fire Chief Ken Pimlott said Wednesday.

Entire cities had evacuated in anticipation of the next wave, their streets empty, the only motion coming from ashes falling like snowflakes.

State fire spokesman Daniel Berlant said 22 wildfires were burning Wednesday, up from 17 the day before. As the fires grow, officials voiced concern that separate blazes would merge into even larger infernos. The sheriff also expects the death toll to climb. "The devastation is enormous," he said. "We can't even get into most areas."

Northern California wildfires rage through Wednesday, killing at least 21 people

By <u>Michael Barba</u> on October 11, 2017 1:50 pm <u>http://www.sfexaminer.com/least-21-dead-170k-acres-burned-22-major-california-fires/</u>

More than 100 aircraft and 500 engines as well as nearly 8,000 firefighters worked the blazes Wednesday in California. Crews working the 8,000-acre Canyon Two Fire in Orange County were also being redeployed to Northern California since the incident is being contained.

California has also requested resources from Washington, Oregon, Arizona and Nevada. There are roughly 60 additional hand crews and 155 engines coming to California's aid.

"We have access to every available asset in the country," Pimlott said.

The California National Guard has already deployed 700 soldiers and airmen, as well as firefighting aircraft and two unmanned drones, which are monitoring the fires from the air.

The California National Guard is also planning to deploy an additional 1,800 personnel, including the 49th Military Police Brigade.



California Wildfires Have Now Killed At Least 21 People; More High Winds Forecast

October 11, 20178:03 AM ET

http://www.npr.org/sections/thetwo-way/2017/10/11/557070097/california-wildfires-blamed-for-17deaths-high-winds-forecast-tonight

In the outbreak of powerful and destructive fires that have struck California since Sunday, there are now 22 large wildfires burning in the state. They've caused at least 21 deaths and scorched nearly 170,000 acres, officials said Wednesday.

Still largely uncontained, the blazes have destroyed at least 3,500 homes and other buildings, many of them in the wine country region of Napa, Sonoma and Mendocino counties.

"Make no mistake," Cal Fire Director Ken Pimlott said in an update at midday Wednesday. "This is a serious, critical, catastrophic event."

Pimlott said there are close to 8,000 firefighters working to combat the fires, along with numerous helicopters and other aircraft. He added that the National Guard and other assets are also being called on to help, as first responders have been battling flames for more than 36 hours.

The Tubbs Fire is one of at least two of the fires have each burned more than 25,000 acres, propelled to explosive growth by strong winds Sunday night. Conditions eased somewhat Tuesday — but the National Weather Service says high winds could return to the area beginning late Wednesday night, with gusts over 50 mph. The North Bay is under a critical fire alert, <u>the agency says</u>.

The intense fires are being described as unlike anything fire officials recall seeing in the area.

"One of the fires moved more than 16 miles in less than than six hours," says Jonathan Cox, a battalion chief with Cal Fire, "all the way from the Napa Valley over to Santa Rosa. Jumped a six-lane highway and was indiscriminate in its destruction of residential and commercial structures."

Speaking to NPR's David Greene, Cox said, "Late season fires are always difficult, because you're contending with very dry fuel moistures. And along with that, you have the wind event that came through on Sunday through Northern California. For some perspective, it was 50- to 70-mile an hour winds that were in the fire area."

Southern California also has a very destructive fire now burning:

Canyon Fire 2 threatens 3,500 homes in Orange County

https://www.scpr.org/news/2017/10/10/76499/canyon-fire-2-threatens-3-500-homes-in-orange-coun/

Thousands of homes remained under threat early Tuesday as firefighters aided by more than a dozen helicopters and six air tankers sought to contain a wildfire that quickly spread into an Anaheim Hills neighborhood the day before, burning homes and injuring at least one person.

More than 1,000 firefighters from across the state were battling the Canyon Fire 2 in Orange County, which has now scorched 7,500 acres and remains only 5 percent contained.

The fire threatens 3,500 homes and has already destroyed 24 buildings, though it is unclear how many of those were residences, according to Sgt. Daron Wyatt, public information officer for Anaheim Fire and Rescue. The damage assessment is ongoing.

What started California's most destructive wildfire ever?

<u>Oliver McAteer for Metro.co.uk</u> Wednesday 11 Oct 2017 12:46 pm <u>http://metro.co.uk/2017/10/11/what-started-californias-most-destructive-wildfire-ever-6992458/</u>

There's no official word yet as to what caused it, but evidence points to fallen power lines in Sonoma County.

Firefighters were called to at least ten different locations over a 90-minute period on Sunday night to respond to numerous emergency calls including reports of power lines which had crashed to the ground in high winds and were sparking.

But a spokesperson told <u>Mercury News</u>: 'The historic wind event that swept across PG&E service area late Sunday and early Monday packed hurricane-strength winds in excess of 75 mph in some cases.

'These destructive winds, along with millions of trees weakened by years of drought and recent

renewed vegetation growth from winter storms, all contributed to some trees, branches and debris impacting our electric lines across the North Bay.

What fueled Wine Country's infernos?

By <u>Lisa M. Krieger</u> Bay Area News Group October 9, 2017 <u>http://www.mercurynews.com/2017/10/09/what-fueled-wine-countrys-infernos/</u>

October is a month that's primed to ignite, with high temperatures, shifting seasonal winds and tinder dry conditions — the ingredients that set off a series of firestorms in the Wine Country.

In Santa Rosa on Sunday, temperatures reached 86 degrees, seven degrees above average. Then came hurricane-force winds, gusting to 68 mph in Santa Rosa and 79 mph on a peak southeast of Cloverdale.

There's plenty of fuel, with brush baked dry all summer long.

"It's the 'perfect storm' conditions," said meteorologist Jan Null of Golden Gate Weather Services. "It is a classic recipe for fire, all over California."

But the radio traffic of Sonoma County firefighters suggests that downed, perhaps windblown, electrical wires could be to blame for some of the blazes. In the first half hour of the inferno, starting at 9:22 p.m., emergency dispatch recordings reveal that teams were sent to at least three downed wires and three fallen trees, as well as a transformer explosion. Those fires quickly spread to adjacent vegetation, then homes and other structures.

US wildfire costs exceed \$2 billion, a record amid a year of extremes

By Kurtis Alexander

September 15, 2017

http://www.sfgate.com/news/article/U-S-fire-costs-push-past-2-billion-a-record-12199292.php

A menacing one-two punch of record rain last winter and record heat this summer, following a historic drought in several Western states, gave birth to a bumper crop of grass and brush that has since dried out and burned up.

Big fires that have hit Montana, Oregon and California especially hard have thrust as many as 27,000 people to the fire lines, pushing the cost of fire suppression for the U.S. Forest Service to a milestone \$2 billion this year, the agency reported.

More than 8 million acres have been blackened nationwide this year, an area larger than the state of Maryland. That's nearly 50 percent more than what's usually charred at this point in the year.

Wildfires Burning Through Cash, Not Just Landscape

By <u>Ryan Levi</u> October 4, 2017 <u>https://ww2.kqed.org/news/2017/10/04/wildfires-burning-through-cash-not-just-landscape/</u>

Will wine country disaster push Congress to fix fire budget?

By Emily Cadei

October 12, 2017 3:01 AM

http://www.mcclatchydc.com/news/nation-world/national/article178381396.html

It's a rare point of bipartisan agreement in divided Washington: The federal system for funding firefighting is broken, and that's hurting our ability to prevent fires from breaking out in the first place.

But lawmakers are at a loggerheads over how to fix the problem, a split that breaks down on largely regional, rather than partisan, grounds. Some in the House and Senate, however, now hope that national coverage of Northern California's devastating fires could finally spur a congressional compromise, a bit of a silver lining emerging out of all the destruction.

At the root of the problem is the fact that forest fires are not treated like other natural disasters. While the Federal Emergency Management Agency (FEMA) can tap emergency funds for hurricane or tornado response, the U.S. Forest Service has to raid its other program budgets – including fire prevention – if it runs out of firefighting funds. That's become increasingly common in recent years, as fires have grown more intense and destructive.

The fires are being discussed in the same breath as the hurricanes that belted Texas, Florida and Puerto Rico, and advocates hope that could help shift perceptions about wildfires.

SuperTanker finally helping fight California fires

By <u>The Editorial Board</u> Orange Country Register October 12, 2017

http://www.ocregister.com/2017/10/12/supertanker-finally-helping-fight-california-fires/



Courtesy of Global SuperTanker

Firefighters battling the deadly wildfires in northern California's wine country haven't had much good news, but the arrival this week of the only 747 supertanker in the world falls into that category.

The modified Boeing 747 owned by Colorado-based Global SuperTanker Services, LLC, flew six flights over fires in Napa and Sonoma counties on Monday. The aircraft can fly 600 miles per hour and drop 19,200 gallons of fire retardant over an area more than a mile long and 200 feet wide. It refills in 30 minutes.

As recently as June, it appeared that the plane would not be allowed to fly firefighting missions in the

United States. The U.S. Forest Service offered a contract for tanker aircraft that could drop water or fire suppressant over wide areas, but the contract barred planes that could hold more than 5,000 gallons.

That left out the supertanker, despite its recent record of success fighting fires in Chile, Spain and Israel. Without a contract from the U.S. Forest Service, states would not be reimbursed for the cost of using the 747. It costs \$50,000 a day to have the plane on stand-by, and \$15,000 per flight-hour.

The supertanker isn't new. The fire retardant system on the 747 was first used in 2009 to fight fires in Alaska, and it was fully certified by the Interagency Airtanker Board for a Call When Needed contract from the U.S. Forest Service in 2013.

Cal Fire has signed a contract with Global SuperTanker for use of a 747 in firefighting efforts throughout the state. The 747, based near Sacramento, is even bigger than the DC-10 and will cost \$165,000 plus \$16,500 per flight hour any time itscalled into service.

Global SuperTanker CEO Jim Wheeler calls the plane "a force multiplier for the fire departments." That's certainly what's needed in northern California right now.



Santa Rosa

Before

After



Fires destroyed an area of the Coffey Park neighborhood in Santa Rosa, Calif. *Before: Google Earth; After: California Highway Patrol, via Reuters*

The Tunnels: One Step Back and One Step Forward

While the Governor and the state Water Resources agency have been silent, mostly, about the state auditors devastating critique of their management of the tunnel project, they are celebrating the decision by the Metropolitan Water District of Southern California to put up about one-quarter of the estimated \$17 billion required for the project. Other districts are yet to vote on whether they will put their money into the project. But, last week's decision by the largest water district in the country, the Westlands Water District's decision to not put its billions in still puts the project in danger of being canceled, or alternatively going with a scaled back version.

California State Auditor releases report on California Water Fix

October 5, 2017

The California State Auditor has released the following report: <u>Department of Water Resources: The</u> <u>Unexpected Complexity of California WaterFix Has Resulted in Significant Cost Increases and Delays</u>

From the California State Auditor: Key findings (from fact sheet):

The costs and timeline of the planning phase increased significantly due to the scale and unexpected complexity of the project—as of June 2017, the planning phase cost had reached approximately \$280 million.

• Although DWR used a robust selection process to select its first program manager, it later used other methods to select a replacement program manager.

» DWR directed its contractor to replace their program manager with a specific vendor without demonstrating that this new program manager was qualified to provide such services or had the required professional license.
 » DWR later awarded this new program manager its own contract without a competitive process, and the program manager has had to subcontract many of the program management functions for which DWR is generally paying a markup of 5 percent.

• *DWR* has not ensured that it is prepared for the transition of WaterFix to the design and construction phase.

» It has not completed either an economic or a financial analysis to demonstrate the financial viability of WaterFix.
» It has not fully implemented a governance structure for the design and construction phase of the project.
» It has not updated required program management documents for the

planning phase yet WaterFix has evolved since it began.

Delta tunnels consultant was paid millions, but auditor says the firm wasn't qualified

By Ryan Sabalow and Dale Kasler October 05, 2017 http://www.sacbee.com/news/state/california/water-and-drought/delta/article177208321.html The Delta tunnels project was just gaining steam, and a San Francisco engineering firm had outbid its competitors to win a \$60 million, seven-year state contract to help plan the project.

But officials at the California Department of Water Resources weren't happy with a manager that the company, URS Corp., had assigned to help oversee the planning process.

What the state did next was the focus of a highly critical state audit released Thursday. State Auditor Elaine Howle charged that DWR directed URS in 2009 to replace its employee with the president of a Sacramento consulting firm that lacked the qualifications to do the job, in what amounted to a no-bid multimillion-dollar contract that ran afoul of state contracting laws intended to ensure public dollars aren't being wasted on unqualified firms.

A whistleblower cited in the audit raised questions about whether DWR – an agency in charge of overseeing billions of dollars of state water infrastructure as well as Gov. Jerry Brown's \$17.1 billion tunnels project – is routinely giving sweetheart no-bid deals to contractors without vetting them.

Despite some opposition from Los Angeles, giant Southern California water agency approves Delta tunnels project

Ryan Sabalow and Dale Kasler

October 10, 2017

http://www.sacbee.com/news/local/article178153581.html

Southern California's powerful water agency committed more than \$4 billion to the Delta tunnels Tuesday, giving the troubled plan a desperately needed vote of confidence.

The Metropolitan Water District of Southern California's board voted to pay for about a quarter of the tunnels project, Gov. Jerry Brown's \$17.1 billion effort to re-engineer the Sacramento-San Joaquin Delta and improve water deliveries to south state cities and farms. The vote was 69 percent to 22 percent under Metropolitan's voting system, which gives more weight to the largest cities, with the rest abstaining.

For all its importance, though, Metropolitan's support by itself won't get the tunnels built, as Westlands' rejection has left a multibillion-dollar hole in the financing plan. However, a "no" vote from Metropolitan would have probably killed the project for good. Metropolitan's commitment gives the Brown administration time and some momentum to develop a <u>scaled-down version</u> of the tunnels if Westlands doesn't change its mind.

Statement of the Metropolitan Board

Oct. 10, 2017 https://outlook.live.com/owa/?path=/attachmentlightbox

METROPOLITAN BOARD OFFICIALLY ENDORSES CALIFORNIA WATERFIX, APPROVES SOUTHERN CALIFORNIA'S \$4.3 BILLION SHARE OF THE PROJECT California WaterFix's new water intakes, twin tunnels in Delta would help secure future water reliability for Southland, address climate change

Metropolitan's board approved the district's 26 percent share of financing the California WaterFix project as well as moving forward on a governance structure to build and finance the \$17 billion project. Metropolitan's share is about \$4.3 billion.

About 30 percent of the water that flows out of taps in Southern California comes from Northern

California via the Sacramento-San Joaquin Delta. The Delta's delivery system, however, is badly outdated, a problem compounded both by a declining ecosystem that is harmful to fish and a 1,100-mile levee system that is increasingly vulnerable to earthquakes, flooding, saltwater intrusion, climate change and environmental degradation.

Oroville Dam Update

From the Department of Water Resources:

October 5, 2017

Wednesday, the Department of Water Resources (DWR) provided an update on construction work on the Lake Oroville Spillways Emergency Recovery Project.

Construction on the Main Spillway

- DWR remains focused on meeting the primary objective of the Lake Oroville Spillways Emergency Recovery Project to repair and reconstruct the 3,000-foot gated flood control spillway, also known as the main spillway, to handle flows of 100,000 cubic feet per second by November 1.
- There are 28 days left on the construction timeline to reconstruct 2,270 feet of main spillway this year:
 - Placement of reinforced, structural concrete in the upper and lower chutes is 60 percent complete. By November 1 structural concrete will be placed on 870 feet of the upper chute of the spillway and 350 feet on the lower chute of the spillway.
 - Crews have installed more than 2,500 slab anchors to date in the upper and lower chutes 80 percent of what is required for 2017.
 - The 1,050-foot middle section of the spillway chute, including filling in the two scour holes, is now 70 percent complete, with approximately 230,000 cubic yards of roller compacted concrete placed. This middle section will be completed to final design with a top layer of structural concrete in 2018.
- The 730 feet of main spillway leading to the radial gates will be patched, reinforced and left in place this year. It will be removed and reconstructed with structural concrete in 2018.

* A conceptual graphic of main spillway construction is available <u>here</u>.

Construction at the Emergency Spillway

- Work at the emergency spillway is also on schedule to complete construction of the secant pile wall, or cut-off wall, in late December 2017 or early January 2018.
- Crews have completed 30 percent of the secant pile wall.

Other Updates

- Work to re-route transmission lines around the main and emergency spillways is complete. The new permanent transmission lines are now in place and do not cross any part of the main or emergency spillways. The temporary lines that crossed over construction of the secant pile cut-off wall were removed on September 24.
- The independent Board of Consultants met for the 12th time with DWR on September 21 and 22. DWR will post the BOC's memo recapping this meeting to its website when it is received.



A panoramic aerial view looks east toward the recovery efforts for the Lake Oroville flood control spillway and emergency spillway

Videos

Oroville Spillway Flyover October 4, 2017

https://www.youtube.com/watch?v=cammb5z81M8 California DWR Published on Oct 5, 2017

Oroville Spillway Update October 5, 2017

https://www.youtube.com/watch? v=WDR_Rvu3Dnw&list=PLeod6x87Tu6eVFnSyEtQeOVbxvSWywPlx&index=2

California DWR

Published on Oct 10, 2017

Crews continue to work day and night placing roller-compacted concrete (RCC) and erecting more side walls on the Lake Oroville main spillway. The trench that will connect the RCC to structural concrete is being prepped and the diversion pool continues to be dredged.

Oroville Dam UPDATE 10/6/2017 | New Spillway Lake Frequency Ring - LHC? Solar ? ?electrical power

https://www.youtube.com/watch?v=2I84OMIyA4k

Oroville Spillway Update October 10, 2017

https://www.youtube.com/watch? v=5xB2F1i3nCY&list=PLeod6x87Tu6eVFnSyEtQeOVbxvSWywPlx&index=1

California DWR

Published on Oct 11, 2017

Concrete forms for sidewalls are erected and roller-compacted concrete (RCC) continues to fill the erosion area. A concrete curing compound is rolled onto the newly formed structural walls, and more rebar walls are swung into place on the upper chute.

Feature: The American Credit System

Class 2 — LaRouche's Physical Economic Metrics, Part I: Productive Powers of Labor vs Jobs

October 11, 2017 — How do you measure the growth and progress in an economy? Textbook economics notions of GDP, market analysis, and monetary theory fail to provide a measure of true progress or decline. Economics is fundamentally a physical process, and we start by understanding the role of technologies and machinery in improving the productive powers of labor.

https://action.larouchepac.com/2017-econ-class-series-second? utm_campaign=2017_econ_3&utm_medium=email&utm_source=larouchepac

Here is a link to Class No. 1: Class No. 1: LaRouche's Science of Economics is the Basis for US Joining the New Paradigm <u>https://larouchepac.com/20171004/class-no1-larouches-science-economics-basis-us-joining-new-paradigm</u>

Rebuild Puerto Rico and All North America with 'New Silk Road' Paradigm

by Marcia Merry Baker and Paul Gallagher Executive Intelligence Review October 6, 2017 (excerpts)

The obvious challenge in building up Puerto Rico, in restoring Texas and Florida to a higher level, and dealing with the other disasters, is to scale up the entire U.S. economy. Moreover, it is urgent to thoroughly modernize New York City's aged infrastructure, especially transportation, which was made even worse by Hurricane Sandy in 2012, and has not been upgraded. For such epic rebuilding, the volume of steel, heavy machinery, transportation infrastructure, and other essential inputs needed, requires rebuilding the entire non-disaster zone of the rest of the U.S. economy, which is a wreck from neglect.

How to do this, is the role of a LaRouche Plan of Action response to the disasters; the plan was issued Aug. 31, after the first landfall by Hurricane Harvey in Texas. In brief, it calls for putting into place the Four Laws, first issued by LaRouche in June 2014, to restore the U.S. economy: (1) reinstate Glass-Steagall to restore sound banking; (2) set up a national bank for large-scale credit; (3) issue credit and launch priority projects; and (4) back science driver programs, especially in space and fusion energy.

Most important is to link up with the "New Silk Road" of infrastructure building initiated in Eurasia, as of Fall, 2013, when China's President Xi Jinping called for a New Silk Road "Belt" of overland development

The reason three major American metropolitan areas were devastated in little over a decade—New Orleans (2005), New York City (2012), and Houston (2017), and now the entire island of Puerto Rico—is the lack of protective infrastructure engineered decades earlier, but never built, due to Wall Street's increasing control over U.S. economic policy for the past half century. Finally, the first beginnings of a paradigm shift have been provoked.

In the White House, sources say that an intense discussion is taking place of the "trillion-dollar infrastructure-building program" now stalled for nine long months on the Trump agenda. President

Trump himself wrote Sept. 29 on Twitter, "The fact is that Puerto Rico has been destroyed by two hurricanes. Big decisions will have to be made as to the cost of its rebuilding."

The President "swung strongly away last week from the model of public-private partnerships to build projects," one source said, speaking of a Sept. 26 bi-partisan White House meeting. A Democratic Congressman reported that President Trump committed in that meeting to public funding of the entire infrastructure-building program, although he was undecided on how this would be funded. The same week, Rep. Peter DeFazio, Ranking Member on the House Transportation and Infrastructure Committee, told reporters Sept. 28, that he spoke to President Trump's infrastructure adviser, D.J. Gribbin, stressing that House Democrats are willing to work with the White House, and even the Freedom Caucus, on infrastructure. He said, if they want infrastructure investment, "We have bills that they would support, that we would support."

The LaRouche Plan of Action proposes specifically a Hamiltonian national bank for infrastructure and manufacturing, by which \$1-2 trillion in outstanding Treasury debt would be exchanged for longerterm equity in the Bank, and similarly large volumes of credit issued as currency by the Bank, for the productive, and pressing, high-technology new infrastructure. Such Treasury debt for national bank equity could immediately involve large foreign Treasury bondholders as well—China and Japan—as can easily be confirmed. This helps open the American door to the New Silk Road, and to great projects both here, and bridging to Mexico/South America and to Canada/Alaska/Eurasia, and finally, to joint reconstruction of Mideast and North African nations destroyed by Bush's and Obama's wars.

Trump Ad-Man: We, Not `Russians,' Won Social Media, with Infrastructure

Oct. 10 (EIRNS) -- CBS News' "60 Minutes" Oct. 8 interviewed Brad Parscale, who rose in the Trump campaign to become "digital director" and its chief advertising buyer. The laconic Parscale, a Texan who was a political novice before designing an early website for the Trump campaign, made two things very clear.

First of all, his Facebook advertising buys mounted up to \$69 million, in many cases micromanaging 1,000 different versions of the same ad, each targeted to very small groups of individual voters. While he poured \$69 million into Facebook ads, "Russians" are claimed to have bought about \$100,000 worth and "rigged the election." Google has claimed in the past 24 hours that it has found that "Russians" bought "tens of thousands of dollars" worth of ads on YouTube, DoubleClick and gmail. Not in the ballpark, and Parscale responded to repeated questions about whether he, or the campaign were "colluding" with Russians, with "ludicrous," "absurd," etc.

In addition, Parscale emphasized that he took most of the positive content for those millions of individual ads from Trump's rally speeches, concentrating on Trump's infrastructure promises to "make America great again" by building its infrastructure anew. CNBC's coverage of the interview noted, "Parscale also says the Trump campaign's focus on infrastructure policy gave it an advantage. As a candidate, Trump repeatedly pledged to pass a spending package to rebuild American roads, bridges and airports. `It was voters in the Rust Belt that cared about their roads being rebuilt, their highways, their rails, their bridges. They felt like the world was crumbling. So I would use an ad of the bridge crumbling."

Parscale said this is what won Michigan and Wisconsin and the Rust Belt states overall.