

California Drought (and Flood) Update



For June 15, 2017

by Patrick Ruckert

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<http://www.californiadroughtupdate.org>

<https://www.facebook.com/CaliforniaDroughtUpdate>

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It was exactly 86 years ago last month, in the midst of the Great Depression, that American workers broke ground on a project unlike anything our nation had ever built. America had a vision to bring irrigation and electricity to vast swaths of the American Southwest, to make the desert bloom with crops and hum with industry. This required something not just new, but, frankly, revolutionary. No structure of its kind had ever built—in size had ever been built. And the feats of engineering necessary to complete it had only been written down on paper and theorized; it had never been tested.

Many said it was impossible.... Our people rose to the challenge and completed their work in just five years, ahead of schedule and under budget. And when the waters of the Colorado River poured forth from the Hoover Dam, the world looked on with wonder at what America had done.

Vice President Michael Pence, June 8, speaking to governors, mayors, and public servants at a working luncheon.

A Note To Readers

The Trump Administration has circulated and adopted a list of 50 priority infrastructure projects developed by the National Governors' Association. But it has not adopted a "transformational" new infrastructure platform as immediately required-- a new platform that uplifts the entire economy to a 21st Century standard, featuring space exploration, fusion power and a nation-wide network of high-speed rail. Nor has the White House proposed to Congress the creation of any form of national credit, without which, as Lyndon LaRouche put it, "all dreams are dead."

The diversion from the task of rebuilding the nation that now consumes the media and much of

Congress with their attempted coup against President Trump, will end. But, the question remains, will the American people ensure that the Trump administration will realize and act on the only policy package that can actually succeed. This article from LaRouche PAC discusses that question more fully: **“Coup Attempt against Trump Faltering, As Americans Begin To See a Future Once Again.”** <https://larouhepac.com/20170612/coup-attempt-against-trump-faltering-americans-begin-see-future-once-again>

President Trump likes to think big, and dealing with the water problems of the West requires big thinking. As Vice-President Pence in the quote above, and in his subsequent remarks, made clear, we as a people used to think big, and we had better do so once again.

So, to illustrate a moment when we did think big about water, the feature this week highlights two projects of the President John Kennedy era that were moving forward, but died in the years following the assassination of that President.

President Trump should love these projects and they should be revived now. Between them they solve all the water problems of the West for the next century and more.

As for the nominal topic of these reports-- drought, floods, water-- there is not much new to report this week. The weatherman tells us it will be hot the next few days, and there is an update from the Oroville Dam repair project. But, otherwise not too much else of interest.

Leaving those topics for later in this reports we shall begin with more discussion of the only topic that will make a difference for the nation, the state and future generations: Infrastructure and the U.S. joining with China's One Belt One Road development policy.

Now It Is a Matter of Life or Death

With the threats of political violence having become an actual attempt of the murder of Republican members of Congress yesterday in Alexandria, Virginia, this statement from LaRouche PAC gets at what the President must do now (excerpts):

The Guns Are Out For Trump — He Must Move Fast To Join the Silk Road, Restore Glass-Steagall
<https://larouhepac.com/20170615/guns-are-out-trump-he-must-move-fast-join-silk-road-restore-glass-steagall>

Thus far, Trump has promised to do many of the things long proposed by Lyndon H. LaRouche, as presented in [LaRouche's Four Laws](#), but he has not taken the fundamental steps necessary to carry them through. He has pledged to rebuild the crumbling American infrastructure, but has not acted on his pledge to restore Glass- Steagall — the necessary first step to generate the credit needed to achieve his infrastructure and re-industrialization pledge. He has established cooperative relations with China, but has not fully joined the Belt and Road Initiative, to put U.S. industry back to work around the world building nations, including our own. He has called for restoring American leadership in space, and in scientific discovery, but, again, the funding for these projects demands that he immediately shut down the speculative bubble and restore Hamiltonian credit.

It is because President Trump is publicly committed to these things, and to ending the British imperial division of the world into "East vs. West," that the guns are out to remove him from office — or, as implied by the shooting yesterday, to remove him from this Earth. He must move rapidly to get the recovery moving with public credit; to join the New Silk Road, and to fully cooperate with Russia and

Putin in crushing the terrorist scourge. The more Americans who watch the series of four one-hour interviews with President Vladimir Putin by Oliver Stone, broadcast on Showtime every night at 9:00 EDT from Monday to Thursday this week, the faster the demonization of Putin will be laughed into the history books, joining the black history of J. Edgar Hoover's "red scare" dirty tricks and assassinations.

Without beginning with restoring the Glass-Steagall banking law, there is no way that any of the oft-heard talking points—public-private partnerships (PPPs), local or state government funding, nor 'free market' wing-dings, will finance the restoration of the economy. The Wall Street demand for 10+% returns from fees, tolls, levies, tickets, etc. is completely impossible. "Get the facts in order" on this, as Lyndon LaRouche again stressed yesterday.

We have to lift people up to the right approach. This begins with restoring Glass-Steagall to protect useful commercial banking, and ice out speculative finance; then establish a national credit institution, and extend Federal and private credit for large-scale priority projects and activities, and launch a science-driver for space and fusion power advancement.

Here is an item that discusses more fully Vice-President Pence's remarks quoted above:

Pence Speaks on Infrastructure, But Not on Action Needed Now

June 12 (EIRNS)—Vice-President Michael Pence spoke to a White House luncheon during "Infrastructure Week," pledging that "America will once again turn our attention to truly transformational projects—the ones that enrich the American spirit and ensure a brighter American future." The vice-president did not cite or discuss the design of any transformational projects today, however.

Pence chose the extraordinary Hoover Dam project, one of the "Four Corners" infrastructure works brought to fruition by President Franklin Roosevelt, as his subject. "It was exactly 86 years ago last month, in the midst of the Great Depression, that American workers broke ground on a project unlike anything our nation had ever built. America had a vision to bring irrigation and electricity to vast swaths of the American Southwest, to make the desert bloom with crops and hum with industry. This required something not just new, but, frankly, revolutionary. No structure of its kind had ever built—in size had ever been built. And the feats of engineering necessary to complete it had only been written down on paper and theorized; it had never been tested.

"Many said it was impossible.... Our people rose to the challenge and completed their work in just five years, ahead of schedule and under budget. And when the waters of the Colorado River poured forth from the Hoover Dam, the world looked on with wonder at what America had done."

Pence called today's infrastructure challenges "larger than any we've ever faced in the modern era.... We have an opportunity and an obligation to accomplish great things in our time—to rebuild our streets, to renew our cities, to usher in a new era of opportunity for the American people and our posterity."

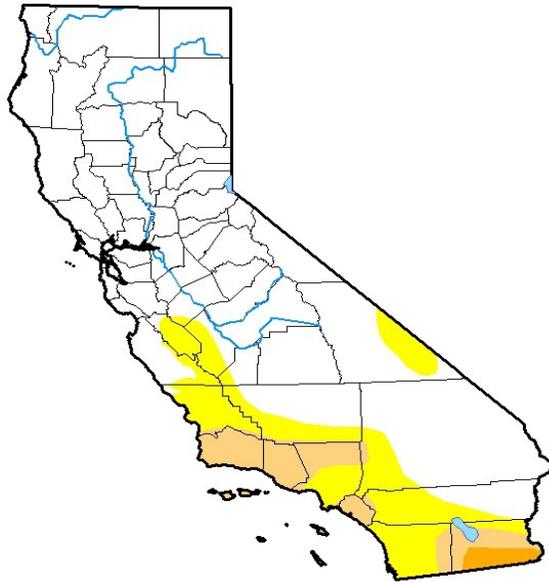
The Trump Administration has circulated and adopted a list of 50 priority infrastructure projects developed by the National Governors' Association, which focuses on waterways projects as President Trump did June 7 at the Ohio River. But it has not adopted a "transformational" new infrastructure platform as immediately crucial; this would have to be a new transportation infrastructure to prevent complete breakdown in the nation's economically most important city, New York.

Nor has the White House proposed to Congress the creation of any form of national credit, without which, as EIR Founding Editor Lyndon LaRouche put it today, "all dreams are dead."

U.S. Drought Monitor

U.S. Drought Monitor California

June 13, 2017
(Released Thursday, Jun. 15, 2017)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	76.47	23.53	8.24	1.06	0.00	0.00
Last Week 06-06-2017	76.47	23.53	8.24	1.06	0.00	0.00
3 Months Ago 03-14-2017	76.54	23.46	8.24	1.06	0.00	0.00
Start of Calendar Year 01-03-2017	18.07	81.93	67.61	54.02	38.17	18.31
Start of Water Year 09-27-2016	0.00	100.00	83.59	62.27	42.80	21.04
One Year Ago 06-14-2016	0.00	100.00	83.59	59.02	42.80	21.04

Intensity:

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

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

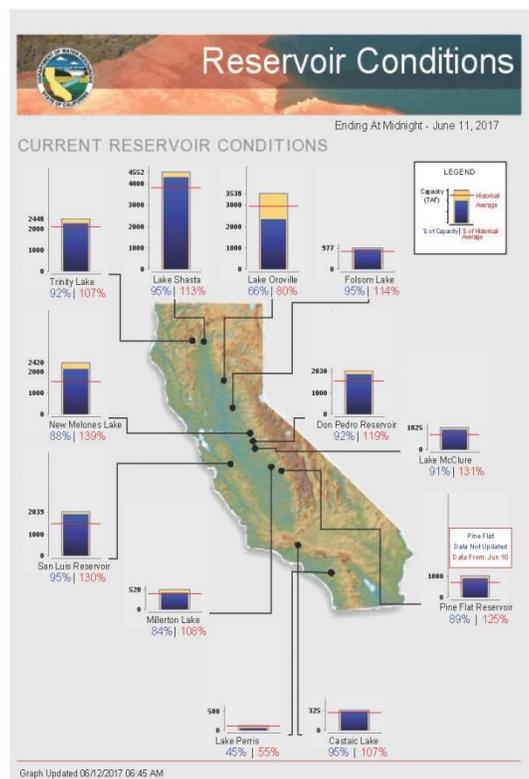
Author:

David Miskus
NOAA/NWS/NCEP/CPC



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

The Reservoirs



And the Weather

Extreme Heat To Sear the Southwest This Weekend Into Next Week; Phoenix May Threaten All-Time Record High

By Chris Dolce

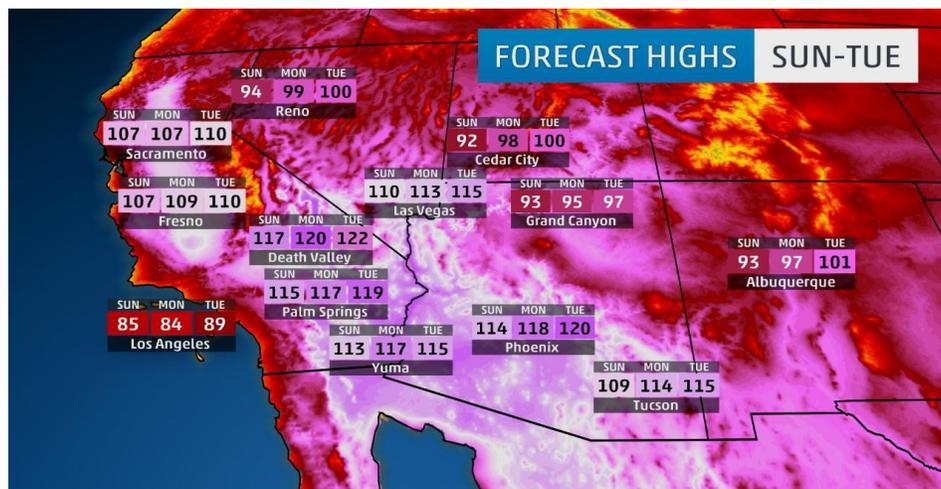
Jun 15 2017 06:30 AM EDT

weather.com

<https://weather.com/forecast/regional/news/excessive-heat-southwest-united-states-june-2017>

Dangerously hot temperatures will grip the Southwest this weekend into next week, potentially threatening the all-time record high temperature in Phoenix.

A large dome of high pressure in the upper atmosphere will be in place over the Southwest by this weekend. Beneath the dome, sinking air will cause temperatures to soar well over 110 degrees in many areas.



California

- **Central Valley:** Triple-digit heat will engulf Bakersfield, Fresno and Sacramento starting this weekend and continuing into next week. Some daily record highs will be within striking distance.
- **Southern California:** As is typical, the hottest temperatures will be in the deserts with highs over 110 degrees. Death Valley will see its first 120s of the year by early next week.

Oroville Dam Update

While work repairing the spillways is proceeding on schedule, there continues to be areas in and around the disaster some articles of interest. Here they are:

Former Kiewit civil engineer suggests second gated Oroville Dam spillway

By Risa Johnson

06/12/17

<http://www.oroillemr.com/general-news/20170612/former-kiewit-civil-engineer-suggests-second-gated-oroville-dam-spillway>

Omaha, Nebraska >> A civil engineer who formerly worked for the contractor doing the Oroville Dam spillway reconstruction has proposed a dual design spillway so the emergency spillway never has to be used again.

Henry Burke's argument for a different design than what the state Department of Water Resources proposed, centers around the need for high-flow back ups.

Burke used to work for the contractor, the Kiewit Corporation, which is based in Omaha.

Erin Mellon, communications manager with the Natural Resources Agency, said his concept is being considered in the long term, though not by Nov. 1 this year.

"Absolutely the design of a second spillway is on the table," Mellon said.

Something Burke emphasizes several times in his report is that the emergency spillway should never be used again. The existing redundancies are not close to sufficient, in his opinion.

That being said, there are two other water outlets at Oroville Dam other than the spillways, including the Hyatt Powerplant and the river outlet valves. Combined, their total capacity is less than 20,000 cubic-feet per second, or cfs.

He suggests building the second gated spillway to the right of the existing main spillway as a contingency for relieving high flows.

"The added redundancy and safety would be invaluable," Burke said.

He said a second gated structure with anti-cavitation features is essential because things like malfunctioning radial gates, hoist motors or failing backup generators could render the existing spillway not usable, backing up water in the reservoir.



Oroville Dam on February 27, 2017, two weeks after almost 200,000 people were evacuated from their homes. The main spillway, seen here, has split in two, and the earthen emergency spillway stands to the left of it. (KCRA via AP)

New spillway design said to pass muster

By Risa Johnson

06/11/17

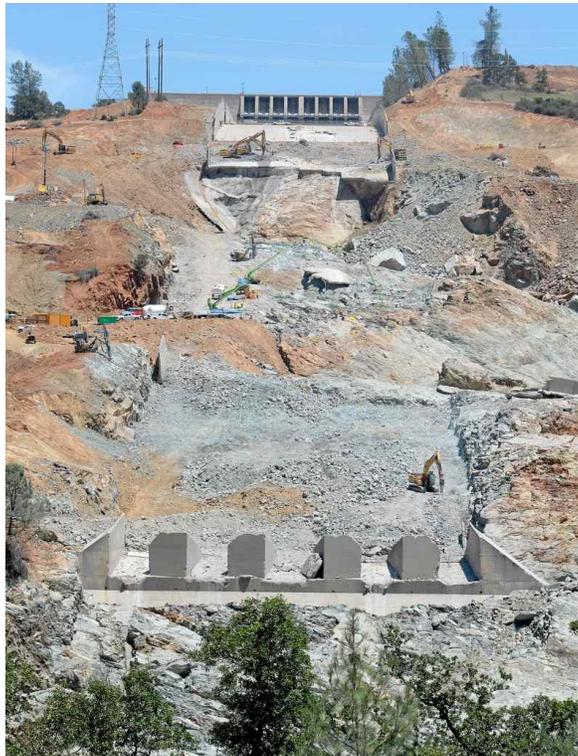
[http://www. OrovilleMr.com/general-news/20170611/new-spillway-design-said-to-pass-muster](http://www OrovilleMr.com/general-news/20170611/new-spillway-design-said-to-pass-muster)

Sacramento >> The Board of Consultants determined the forensic teams' list of potential Oroville Dam spillway failures are being addressed in the new design, according to a [new memorandum](#) published Last week.

The board's report said the spillway design is ready for final review, with major redesigns including heightening walls beside of the main spillway.

Also, a wall dug into the ground that would block erosion up the emergency spillway weir has been moved 350 feet downhill, and is now 600 feet below the spillway weir. That is because there is better quality rock closer to the surface in the new location, according to the report.

"The root cause of the initiation of the destructive damage has not been specifically identified at this time, but most certainly lies with one or more of these factors in combination," the memo reads. "(The redesign meets) current standards of practice and provides a conservative solution to address all original design deficiencies."



View June 5 of the whole main Oroville Dam spillway shows the bottom of the chute almost completely removed, and demolition progressing on the bottom of the upper chute.

Brown, California Democrats are approaching flood control all wrong

By James Gallagher

Special to The Bee

June 12, 2017

<http://www.sacbee.com/opinion/op-ed/article155766714.html#storylink=cpy>

Monitor, patch, watch and then monitor. This is the fundamental problem with California's failing water infrastructure.

Nearly 200,000 evacuees downstream of Oroville Dam witnessed how this failed [government approach can impact their lives](#).

My review of inspection reports shows a pattern of monitoring, delayed action and patchwork maintenance at Oroville Dam, including painting cracks to track their growth.

This is not the first time the "monitor" strategy has endangered north state communities. In 1986, a levee failure in Yuba County destroyed nearly 3,000 buildings and killed two people. After years of litigation, the state was found liable and paid \$464 million in damages to Linda and Olivehurst residents.

The Paterno v. California case held the state responsible for the integrity of the Central Valley flood control system, which includes 1,600 miles of levees that protect 500,000 people and 200,000 structures.

Feature: Big Projects Used to be the Way We Thought

I have featured this topic and these projects in earlier reports, but now that we have a President that does like to think big, it is time to feature them once again.

During the Presidency of John F. Kennedy two water projects were on the table, and had they been carried forward, not only would California be able to shrug off any drought, but like the impact of the Apollo Project, would have taken the nation and the world to a completely new advanced platform of productivity. Science, engineering, nuclear energy and more would have been pushed beyond the boundaries that existed in the early 1960s and largely are the same boundaries we remain at today.

The history of water management has always been one of creating an "artificial" environment, one that is created by mankind to produce the conditions required for his existence, both for now and for decades into the future.

The management of water for both daily use by humans and industry and for agriculture has historically been through building the infrastructure necessary to control flowing water-- rivers and streams. In recent decades the desalination of sea water has added an important, though thus far, a limited, resource to providing water for human use.

The control of flowing water is accomplished by building dams, reservoirs and aqueducts to move large amounts of water from where it is plentiful to areas it is needed. At first this was limited to the management of a single river, for example. As engineering capabilities improved and the requirement for moving larger and larger amounts of water grew, we then began managing entire watersheds, like the Tennessee Valley Project and the Columbia River Project demonstrate. In California, we have taken that one step further by creating a single system of water management that encompasses multiple watersheds-- those of the Sacramento River, the San Joaquin River and the Colorado River.

One other technology of producing water that has shown experimental promise is the ionization of the atmosphere which induces rainfall from cloud formations that may or may not do so if left to mother

nature.

The Kennedy Era Big Projects

The two projects of the early 1960s are the North American Water and Power Alliance (NAWAPA), and nuclear-powered desalination for California, Texas and other areas of the country.

NAWAPA

The North American Water and Power Alliance, in summary, would go beyond even the management of multiple river systems. This was, and hopefully will be, a continental water management system, for Canada, the U.S. and Mexico. Proposed by the Parsons Engineering Company of Pasadena, California in the late 1950s, the proposal gained the support of the Kennedy administration, members of Congress, the Prime Minister of Canada, and many many organizations throughout the United States.

Below you will find links that provide both the details of the project and some of the political developments surrounding it. While Senator Frank Moss of Utah continued to lead the promotion of it in the years after the assassination of President Kennedy, the radical shift in thinking that began then toward environmentalism and the disaster of the Vietnam War, buried it with that great President.

You can see the scope of the project in the videos and written material below, and I'll just summarize it here. Beginning in Alaska less than 10 percent of the flow of the Yukon River and other rivers are channeled down the Rocky Mountain Trench toward the lower 48 states, with a stream flow also going east through Canada toward the Great Lakes. Entering the U.S. at Montana then two channels take water to the far West and the Mid-West. A system of reservoirs, canals, aqueducts, dams and pipelines take the western stream to all the Southwest states and to Mexico. The mid-West stream will provide for not only agricultural use directly, but also can help refill the Ogallala Aquifer.

This is from **NAWAPA XXI: LaRouchePAC Special Report**, which is one of the links below.

In the Spring of 1964, a United States Senate Special Subcommittee on Western Water Development was formed to evaluate a plan that newspapers in the U.S. and Canada were soon heralding as the most ambitious public works project in history: the North American Water and Power Alliance (NAWAPA), the brainchild of Donald McCord Baker and Hillman Hansen, two engineers working out of Ralph M. Parsons' engineering firm in California. Headed by Utah Senator Frank "Ted" Moss, the committee published a comprehensive report by October of that year, titled "A Summary of Water Resources Projects, Plans, and Studies Relating to The Western and Midwestern United States." The report found that if all the projects studied or authorized by Federal and non-Federal agencies were to be implemented, they would have amounted to 3,151 projects, storing 2.7 billion acre-feet; in comparison, the NAWAPA project would entail 369 separate projects, storing a total of 4.3 billion acre-feet, and, therefore, warranted a full engineering feasibility study. On September 1965, Moss introduced Senate Concurrent Resolution 55, calling for NAWAPA to be referred to the International Joint Commission, a U.S.-Canadian organization with a mandate to resolve boundary water issues. A similar resolution was introduced six days later in the House by Rep. David King as House Con. Res. 488.

Here are some links:

The Nuclear NAWAPA XXI & The New Economy

September 1, 2013

<http://archive.larouchepac.com/node/27962>

Interactive NAWAPA Map

<http://archive.larouhepac.com/nawapa>

A Tour of NAWAPA

<http://archive.larouhepac.com/node/15628>

NAWAPA XXI: LaRouchePAC Special Report

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

Nuclear NAWAPA XXI: Gateway to a Fusion Economy

[http://archive.larouhepac.com/files/NuclearNAWAPA-shrunk%20\(1\)_0.pdf](http://archive.larouhepac.com/files/NuclearNAWAPA-shrunk%20(1)_0.pdf)

NAWAPA 1964

<https://larouhepac.com/20111122/nawapa-1964>

NAWAPA XXI – Feature <https://larouhepac.com/20140727/nawapa-xxi-feature>

Oregon-California Extension of NAWAPA

<http://archive.larouhepac.com/node/22581>

Nuclear Desalination

In 1962 President John Kennedy established a commission to investigate and propose a program for investigating and building a series of nuclear-powered desalination plants in California, Texas and other states. That commission continued its work after the assassination of that President, and recommended legislation to build the first of such facilities. In 1964 the Atomic Energy Commission and the Metropolitan Water District of Southern California signed a contract to build the first such plant offshore at Huntington Beach, California.

Like NAWAPA, this project limped along for a few years, with actual legislation passed by the U.S. Congress and authorization made by the legislature of California, until it too died.

The full story of this project can be found in this link:

Nuclear-Powered Desalination in California

By Patrick Ruckert

May 29, 2015

<http://www.californiadroughtupdate.org/2015/05/29/nuclear-powered-desalination-in-california-parts-i-iv/>

Map of NAWAPA-- next page

