California Drought (and Flood) Update



For July 6, 2017 by Patrick Ruckert

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http://www.californiadroughtupdate.org

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IN CONGRESS, JULY 4, 1776

The unanimous Declaration of the thirteen United States of America

When in the Course of human events it becomes necessary for one people to dissolve the political bands which have connected them with another and to assume among the powers of the earth, the separate and equal station to which the Laws of Nature and of Nature's God entitle them, a decent respect to the opinions of mankind requires that they should declare the causes which impel them to the separation.

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness. — That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed, — That whenever any Form of Government becomes destructive of these ends, it is the Right of the People to alter or to abolish it, and to institute new Government, laying its foundation on such principles and organizing its powers in such form, as to them shall seem most likely to effect their Safety and Happiness. Prudence, indeed, will dictate that Governments long established should not be changed for light and transient causes; and accordingly all experience hath shewn that mankind are more disposed to suffer, while evils are sufferable than to right themselves by abolishing the forms to which they are accustomed. But when a long train of abuses and usurpations, pursuing invariably the same Object evinces a design to reduce them under absolute Despotism, it is their right, it is their duty, to throw off such Government, and to provide new Guards for their future security. — Such has been the patient sufferance of these Colonies; and such is now the necessity which constrains them to alter their former Systems of Government. The history of

the present King of Great Britain is a history of repeated injuries and usurpations, all having in direct object the establishment of an absolute Tyranny over these States. To prove this, let Facts be submitted to a candid world.

A Note To Readers

Two days after the fourth of July, Independence Day, I do not think it is too late to at least allow you to read the first two paragraphs of the Declaration of Independence.

I especially wish to call your attention to this sentence of the Declaration:

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness.

Note the phrase "Life, Liberty and the pursuit of Happiness." Happiness, and not property, is put forth by the founders of our nation as a purpose of the new nation. So, what did they mean by that?

The Founding Fathers did not confuse "happiness" with pleasant entertainment, a "good time," or material possessions. Happiness, or felicity, was and is the composition of the universe by the Creator, such that the physical, objective conditions of existence—life1—are uniquely addressed and solved by the free exercise of man's subjective, playful, agapic capacities—i.e., liberty.

That was the idea originating with Wilhelm Gottfried Liebniz, whose writings were consulted by Benjamin Franklin a decade before 1776.

For a full discussion of these important ideas I recommend the article by David Shavin, "From Leibniz to Franklin on 'Happiness." https://www.schillerinstitute.org/fid.../031_happinessA.html

This Week's Report

Temperatures remain hot in much of the West, and we have an article from Accuweather that explains it, along with what more to expect.

That leads to items on the snowpack melt, some flooding and the lingering affects of the drought on groundwater problems for especially people in parts of the Central Valley.

The Oroville Dam Update this week reports on the progress of the construction of the new lower half of the spillway and the overall plan for the two-year project. So far, the work is ahead of schedule. There are links to several videos of the site and the ongoing work.

Under the title, "Are We Burning Up Yet?," are several items on the very real potential of a very dangerous and destructive fire season. Even Senator Feinstein jumps into this one. The article, "Climate change expected to fuel larger forest fires — if it hasn't already," is included not because it just repeats the narrative expected of the media and researchers, but because it does provide insights into the dynamic of what creates dangerous fire conditions.

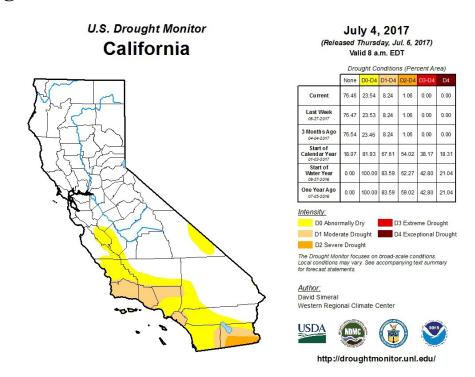
The Governor's tunnels under the Delta, and the ruling that takes it forward a tiny step, has elicited the expected response from opponents, including at least one law suit to stop it. Several items report on the on-going battle.

The "we need more water storage and all our problems will be solved" fantasy continues to chug along like an old steam engine on its last legs. Not to say that more dams and reservoirs are not necessary, but it just won't happen the way it is being tackled now. So Temperance Flat reservoir and dam is our old locomotive this week. But, this section of the report does include a nice map. The section is concluded with a report on a Congressional bill passed last week to speed up the permitting process for

water projects.

The last section of this week's report includes an article on Republicans who are calling for new infrastructure to be publicly funded, and concludes with the LaRouche PAC call for a National Bank to do so.

U.S. Drought Monitor



It Has Been Hot. But What Does That Mean?

Is western US heat so far this season a sign of what's to come for the rest of summer?

By Alex Sosnowski

AccuWeather senior meteorologist

July 06, 2017

https://www.accuweather.com/en/weather-news/is-the-june-western-us-heat-wave-a-sign-of-things-to-come-for-the-balance-of-the-summer/70002096

Brutal heat waves during June and July have led to record temperatures and raging wildfires across the western United States.

Temperatures climb to near-record highs June 20, 2017, in Phoenix. (AP Photo/Ross D. Franklin)

Does the searing heat signal what's in store for the region for the balance of the summer of 2017, or is relief on the way?

"The short answer is yes and no, and it depends on location," according to AccuWeather Lead Long-Range Meteorologist Paul Pastelok.

There is usually a surge of heat ahead of the North American monsoon.



The monsoon begins as a southerly flow of air develops over Mexico and expands over the western U.S. as the summer progresses.

The southerly flow pumps tropical moisture northward. The tropical moisture, in turn, pushes humidity levels higher. The higher humidity levels then lead to afternoon clouds and thunderstorms.



This moisture helps to regulate the heat. While brief spikes in heat can still occur, excessive heat generally does not last very long once the monsoon has begun.

Every year there is some variance to the monsoon in the start time, coverage and persistence.

The first weekend in July brought the first storms associated with the monsoon over parts of the Southwest. Early July is about the average time for the beginning of the monsoon.

Excess snowfall from this past winter should ensure an ample water supply for much of the West into autumn. However, it is possible the setup could trigger a new drought for California as the year progresses.

The lack of rain, heat and dry air will result in an elevated risk of wildfires into the autumn.

How often does June weather help to predict the pattern for the rest of the summer?

The extent and degree of hot weather during July and August, following a hot June in the West, depends on a number of factors.

Probably the two biggest factors for the western U.S. are the monsoon and persistence. In absence of the monsoon coming to the rescue, as it will in some areas this summer, the cycle of drought and heat often takes center stage.

Heat and drought go hand-in-hand. The two often help each other to gradually build and expand into new areas.

As the soil dries out, more of the sun's energy is available to heat the ground. As the ground temperature increases, more moisture evaporates from the soil and so on.

The Snowmelt, Floods, and the Drought Remains for Some

'Worst is over' for snowmelt, officials say

By Christine Souza

July 5, 2017

http://agalert.com/story/?id=11023

Even though there's still plenty of snow in the Sierra and plenty of warm weather ahead, the California Department of Water Resources says it believes the annual snowmelt has peaked and should now decline. The observation came after a week in which landowners in some low-lying areas coped with flooding that resulted from a record-setting mid-June heat wave.

The eight-day heat wave rapidly melted the snowpack and filled Pine Flat Lake on the Kings River, which prompted the U.S. Army Corps of Engineers to send a surge of water into the river to make room for more runoff behind the dam. The surge tested levees along the Kings River, which runs through Fresno County and ends in the Tulare Lake Basin in southern Kings County.

Turlock Facing Water Woes With Wells, Groundwater Levels

By Angela Greenwood June 30, 2017

http://sacramento.cbslocal.com/2017/06/30/turlock-drought-groundwater/

TURLOCK (CBS13) — The drought may be over, but the water woes continue in the city of Turlock. As we head into the hot summer months, city officials say they're having a hard time keeping up with water demand, and therefore, are still enforcing strict watering rules.

The city says groundwater levels still haven't recovered from the drought. On top of that, some wells are now offline after high levels of arsenic and nitrates were found

The California Drought Isn't Over, It Just Went Underground

By Mark Grossi

July 5, 2017

https://www.newsdeeply.com/water/articles/2017/07/05/the-california-drought-isnt-over-it-just-went-underground

Drought conditions continue for thousands of rural residents in the San Joaquin valley who rely on groundwater. And the race to dig deeper wells is a losing game for small communities and those on private wells.

Full reservoirs and swollen rivers don't mean that much to people living in rural San Joaquin Valley, where about 1,000 people still have dry wells. Their water sits underground in the nation's second-largest groundwater aquifer, which was mined and dramatically drawn down by farmers protecting the valley's \$40 billion-a-year agriculture industry.

Oroville Dam Update

The rebuilding of the Oroville Dam spillway is ahead of schedule. When an emergency means something must be done, and done quickly, even the state of California will do it. The first article excerpted has links to a couple of short videos on the construction work. They do provide the necessary visual to demonstrate just how big the job is. The second item is also a video of the spillway and the construction underway.

They've demolished most of Oroville Dam's troubled spillway. What's next?

By Dale Kasler

July 5, 2017

http://www.sacbee.com/news/state/california/water-and-drought/article159789184.html

The preliminaries are just about over. Permanent structural repairs are about to begin at Oroville Dam.

Five months after an unprecedented emergency forced a mass evacuation, state officials said Wednesday they're ready to start replacing the now-demolished lower portions of Oroville's main flood-control spillway.

Construction contractor Kiewit Corp. plans to install the first slabs of concrete Thursday in the lower 350 feet of the spillway chute. The so-called "leveling concrete" will create a smooth foundation for structural concrete that will be poured on top, said Jeff Petersen, Kiewit's Oroville project director.

DWR officials have sketched out a two-year timeline for repairs.

Kiewit, which was awarded the <u>\$275 million contract</u>, will completely replace the lower portion of the spillway this year. It will also make improvements to the adjacent emergency spillway, including fortifications in the hillside below the structure to limit erosion. DWR officials said they believe those repairs will be enough to get through the upcoming rainy season, which begins in November.

Next year Kiewit will complete the project by replacing the 1,000-foot upper portion of the main spillway. The upper portion escaped damage in the February incident, but DWR officials said they want an entirely new spillway anyway. An outside <u>team of forensic investigators</u> has said longstanding flaws might have caused the February failure of the main spillway, including crucial inconsistencies in the thickness of the concrete slabs and an inadequate drainage system beneath the structure.

State officials have said they expect the Federal Emergency Management Agency to reimburse the state for the bulk of the repairs, and state water contractors to pick up the rest. The contractors are the urban and agricultural agencies, such as the Metropolitan Water District of Southern California, that store water at Lake Oroville.

Oroville Spillway June 27, 2017

https://www.youtube.com/watch?v=3EOL8hUSTiY Published on Jun 28, 2017

Friday flight over Oroville ...

From the Department of Water Resources: "Excavators continue to bring down the remaining walls on the lower portion of the spillway's upper chute. Demolition of the 1,400-foot lower chute is nearly complete and stay-in-place concrete forms are being constructed as part of the new concrete

foundation and drainage system for the spillway. Work on the cutoff wall below the emergency spillway continues."



Removing the remains of the damaged spillway

Construction on Oroville Dam spillway ahead of schedule

http://www.kcra.com/article/construction-on-oroville-dam-spillway-ahead-of-schedule/10020116 Updated: 6:06 PM PDT Jun 13, 201

CONSTRUCTION CREWS SCALING WHAT REMAINS OF OROVILLE DAMS PRIMARY SPILLWAY. CONTROLLED EXPLOSIONS, UPROOTING DECADES-OLD CONCRETE MAKING WAY FOR A STURDIER SHOOT TO PROTECT RESIDENTS DOWNSTREAM.

WE ARE ABLE TO START CONSTRUCTION EARLIER, WE ARE AWEEK AHEAD OF SCHEDULE.

Are We Burning Up Yet?

Not yet, though already more acres have burned so far this year than last year on this date. Even Senator Feinstein has issued an alert. Of course, some reporters and researchers must blame it all on climate change. The third item in this section does that, but does have some value in the discussion of the interrelations of the elements of climate, temperature, soil moisture, etc.

West On Fire: Dozens of Large Fires Torching Thousands of Acres

By Pam Wright Jun 29 2017 weather.com

https://weather.com/news/news/wildfires-arizona-utah-california

The western wildfire season is in full swing with dozens of fires blazing in Utah, Arizona and California.

According to the National Interagency Coordination Fire Agency, <u>2017 is turning out to be more active than last year</u> at this point in the season.



More than 4,200 square miles have burned so far this year, which is 30 percent more than 2016's year-to-date total.

California seen as facing potentially severe fire season

John Antczak, Associated Press

June 29, 2017

http://www.sfgate.com/news/article/Damp-weather-aids-fight-against-Southern-11255922.php

LOS ANGELES (AP) — With nearly 30,000 acres charred already, California could be in for a severe wildfire season, U.S. Sen. <u>Dianne Feinstein</u> said Thursday as firefighters worked to contain blazes around the state.

Feinstein cited the increase in brush spawned by the winter's heavy rains and the recent severe heat wave that dried out vegetation.

"Making matters worse, six years of drought has left us with more than 100 million dead trees," she said in a statement. "This overabundance of fuel, combined with fires that are burning hotter and faster, has created a potentially catastrophic scenario in California that poses an increased risk not only to property but also the brave men and women fighting these fires."

Climate change expected to fuel larger forest fires — if it hasn't already

By Joshua Emerson Associated Press July 4, 2017

http://www.sandiegouniontribune.com/news/environment/sd-wildfire-climate-change-20170704-story.html

Global warming will likely heighten the risk of large, more difficult to control wildfires scorching the western United States.

It's the main conclusion of a body of science that, over the years, has increasingly drawn connections in the West between the prevalence of major blazes and the rising frequency of earlier springtime conditions followed by hotter and drier summers

"Climate absolutely affects fire because it affects how flammable the fuels are," said LeRoy Westerling, a professor at UC Merced who has been studying climate and wildfires for the past 15 years.

"Your drought years are going to be more extreme because it's warmer during the drought years, so you have more evaporation, and those preceding years that were wetter are retaining less water," added Westerling, who has worked on these issues with colleagues at places like UC San Diego's Scripps Institution of Oceanography in <u>La Jolla</u>.

The research on climate change and wildfires in the western U.S. has largely escaped this escalating controversy, perhaps because the body of evidence collected has consistently pointed to the same trend of mega wildfires happening more frequently.

Westerling systematically cataloged wildfires in the western U.S. over several years and found that in the mid-1980s, fires in U.S. forests steadily started getting larger and burning longer.

The number of fires that burned more than 1,000 acres on federally managed lands from the Pacific Northwest to the Sierra Nevada and through to the Southern Rockies increased fivefold in the last three decades, according to his research.

From 1973 to 1982, the average wildfire burned for six days. Between 2003 and 2012, that figure shot up to 52 days.

While the number of reported ignitions remained steady, the acreage burned by large fires between those time frames increased by up to 1,200 percent.

At the same time, the so-called fire season expanded. That's the number of days between the first and last large blazes of any given year. Since the 1970s, the 10-year average increased 84 days from 138 to 222.

And Now The Tunnels

Following last week's announcement by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service that the Delta tunnels proposed by Jerry Brown would not cause the extinction of several imperiled fish species, the expected reaction of opponents has now been registered.

Is Brown's Massive Water Project the Right Idea Right Now?

By Glen Martin

California Magazine

June 29, 2017

http://alumni.berkeley.edu/california-magazine/just-in/2017-06-29/browns-massive-water-project-right-idea-right-now

This week's declaration by the US Fish and Wildlife Service and the National Marine Fisheries Service that the massive Delta tunnels proposed by the Jerry Brown administration would not cause the extinction of several imperiled fish species gave a significant boost to the behemoth project. Still, other impediments must be overcome before the digging starts and the concrete flows.

Editorial: Stop the \$17 billion Delta twin-tunnel water grab

San Jose Mercury News

http://www.mercurynews.com/2017/06/29/editorial-stop-the-17-billion-delta-twin-tunnel-water-grab/

Two federal agencies' decision Monday to green-light construction of Gov. Jerry Brown's Delta twintunnels plan is an unwelcome setback for opponents of the project. But it's not the huge milestone that proponents are claiming.

The National Marine Fisheries Service and U.S. Fish and Wildlife Service opinion merely said that building the tunnels "doesn't deepen any harm" to several endangered species. "Deepen" is the key here. In effect, they're saying that the impact of taking too much water out of the Delta in recent years has been so detrimental that building the tunnels won't make much difference.

Pardon us for not celebrating the news.

The so-called California WaterFix is a \$17 billion plan to build two four-story-high tunnels under the Delta capable of moving enough water south to fill 8,000 Olympic-size swimming pools every day. It's a water grab, pure and simple, by the Central Valley and Los Angeles areas.

The tunnels must not be built at the expense of the health of the Delta.

Fishing and Conservation Groups Sue to Block Delta Tunnels Project

June 29, 2017

Federal Agencies Approve 'WaterFix' Acknowledging It Will Harm Fish and Wildlife

From the Natural Resources Defense Council:

Conservation and fishing groups filed litigation <u>today</u> challenging the biological opinions issued Monday by the U.S. Fish and Wildlife Service and National Marine Fisheries Service that pave the way for construction and operation of California WaterFix, the massive tunnels project that experts say will further devastate fisheries and water quality of the San Francisco Bay-Delta.

According to the lawsuits — which were brought by Golden Gate Salmon Association, the Natural Resources Defense Council (NRDC), Defenders of Wildlife and The Bay Institute — the biological opinions violate the Endangered Species Act. While the biological opinions identify significant harm to winter-run Chinook salmon and other threatened and endangered species from the construction and operation of the proposed project, they do not identify how the massive new diversion tunnels can and should be operated to prevent that harm. Decades of increasingly unsustainable water diversions have brought several of the Central Valley's migratory and resident fish to the brink of extinction; the proposed project is expected to increase these diversions.

"This version of the tunnels will wipe out California's salmon fishery and the families and communities that rely on salmon," said John McManus, executive director of the Golden Gate Salmon Association. "The problem is the state basically allowed the water users to design the tunnels and they're so huge that the federal fish and wildlife agencies are basically throwing up their hands. It's like they let the fox design the hen house so of course he made it easy to rob."

More Water Storage: The Saga Continues

Almost three years ago California voters passed the \$7.5 billion water bond, with \$2.7 billion of that to be allocated for building storage projects. Finally, just in a few weeks, believe it or not, the proposed storage projects will be submitted to a commission, which will take weeks, or months, or years to decide which projects that \$2.7 billion will be spent on. Don't hold your breath.

The first article below describes the process.

That is followed by a nice map provided to me by Rock Steinbach of the proposed Temperance Flat dam and reservoir. Roch loves to promote the comprehensive water management system for California first proposed by Robert B. Marshall (1867-1949), whose career at the U.S. Geological Survey culminated in 1908 when he became chief geographer for the entire USGS. He first proposed the concept of a statewide water plan for a series of dams, canals and aqueducts to bring water to California's Central Valley.

As a result of his 1919 Marshall Plan, he earned the nickname of "Father of the <u>Central Valley Project</u>." According to the California Department of Water Resources, the Marshall Plan became the precursor of the first State Water Plan in 1930.

Then we report on a bill that just passed the House that is to speed up decision making on water projects.

Commentary: Water bond funds must focus on surface storage

By Danny Merkley

June 28, 2017

http://agalert.com/story/?id=11000

Passage of the water bond, Proposition 1, marked an important step in upgrading California's outdated water infrastructure—and we're about to reach a milestone in the process of investing the money voters approved in 2014.

In about six weeks, proponents of water storage projects face the application deadline for the portion of the bond devoted to new storage. The Ag Alert[®] Storing for the Future series has profiled several of those projects.

Of the \$7.545 billion contained in the water bond, \$2.7 billion will be invested for public benefits associated with new water storage projects that improve the operation of our state's water system and improve ecosystems and water quality. Though the bond represents merely a down payment, it marks the first significant investment in California's aging water infrastructure in nearly a half century.

The water bond required the California Water Commission to develop regulations and methods for quantifying and managing public benefits associated with water storage projects. It feels like it is taking forever, but the commission has been moving forward to fulfill a complex Water Storage Investment Program Implementation Plan.

Under the plan, projects will be reviewed for their contribution to improving the operation of the statewide water system, how cost-effective they are and the net benefit they provide to the ecosystem and water quality.

The eligible projects include larger storage facilities preferred by agricultural representatives, who stress that chances to fund these sorts of projects are rare, and now is the time to take advantage of the opportunity. Larger surface storage projects can also capture flashier storm systems and benefit

groundwater recharge.

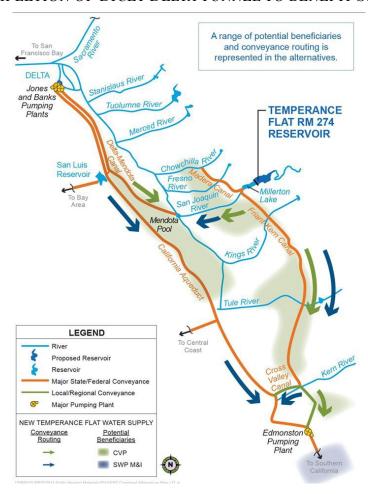
As the Sustainable Groundwater Management Act becomes more fully implemented in coming years, new, large surface storage projects are key to capturing excess surface water runoff during the rainy season and releasing that water later for groundwater recharge. Surface storage also relieves pressure on groundwater pumping by providing additional water supplies for environmental and human uses.

(Danny Merkley is director of water resources for the California Farm Bureau Federation. He may be contacted at dmerkley@cfbf.com.)

FINISH THE MARSHALL PLAN FIRST

CALIFORNIA'S NEXT MAJOR UPGRADE SHOULD BE AT MARSHALL'S ORIGINAL SITE SELECTION OF TEMPERANCE FLATS: LINK BELOW!!

HUGE RETURN ON LIMITED INVESTMENT IN HARD INFRASTRUCTURE; N. OF DELTA "SITES" SITE CREATES UNNEEDED NORCAL SURPLUS; REQUIRES COMPLETION OF DICEY DELTA TUNNEL TO BENEFIT SOCAL



Bill aims to help California save water for a not-so-rainy day

By Anshu Siripurapu June 20, 2017

http://www.sacbee.com/news/state/california/water-and-drought/article157202514.html#storylink=cpy

Thursday, the House plans a vote on legislation sponsored by Rep. Tom McClintock, R-Calif., that aims to help the state capture more of that water to save for a future dry season. The bill is expected to pass the House. Sen. John Barrasso, R-Wyo., is pushing a similar bill in the Senate.

"Five years of drought in California concluded with the wettest year on record, nature's way of reminding us that if we don't store water in wet years, we won't have it during dry ones — and the economic and social devastation this causes can be immense," McClintock said in a statement to the House Natural Resources Committee in April.

McClintock's bill would streamline the process for building dams and reservoirs by having the federal Bureau of Reclamation serve as a "one stop shop," coordinating between federal agencies that oversee water storage projects to speed up the process.

According to a House committee memo, many federal agencies are not currently required to coordinate their permits and approvals with each other, which McClintock said has led to a "Byzantine maze of regulations."

"After years spent trying to satisfy one agency, another suddenly pops up to claim jurisdiction with an entirely new set of demands in an often endless permitting process despite the fact they are studying the same project, in the same location with the same data," McClintock said.

The bill would also allow local water agencies to put up the money for the federal review process if the federal agencies themselves don't have the funds.

Water Supply Permitting Coordination Act Passes House

June 22, 2017

<u>https://mcclintock.house.gov/newsroom/speeches/water-supply-permitting-coordination-act-passes-house</u>

Legislation authored by Congressman McClintock, H.R. 1654, passed the House on June 22, 2017. The legislation next goes to the Senate.

The Battle for Infrastructure

The President tomorrow will be meeting with President Putin of Russia. He will meet once again with President Xi of China. Should President Trump accomplish what he has repeatedly said he wants to do-- establish better relations with both nations and end geopolitical regime change wars-- then he can get onto rebuilding our nation. But, he must break with the Wall Street insanity that he still appears to buy into as he praises new highs on the speculative bubble of the stock market.

As our first item below demonstrates, at least some Republicans understand that it is only the government that can build great infrastructure projects. Yet, even they do not understand how the government is to do that.

So, my last item will be, "Why the United States Needs a 'Hamiltonian' National Bank."

Some Republicans Want New Infrastructure Publicly Funded

June 29 (EIRNS)—A Capitol Hill briefing sponsored by the American Opportunity Foundation and American Public Transit Association (APTA) on June 28 drew together outlier Republicans who strongly support major public funding of transportation infrastructure, as a Constitutional obligation. Two of the speakers at the event, former Virginia Gov. Jim Gilmore and former Connecticut Department of Transportation Commissioner Emil Frankel, referenced the "American System of Henry Clay."

The lead speaker, Sen. James Inhofe of Oklahoma said that he had been in meetings with President Donald Trump where the question of infrastructure funding plans had come up, and responded to a question from EIR regarding a national infrastructure bank, "If anyone tells you he knows what the White House will propose, don't believe anything else that fellow might say; he doesn't know, and they [the White House] don't know." Inhofe's view was that there would be more flailing on healthcare, and then tax reform, before infrastructure funding plans emerged "in the fall," as he said, primarily because there are, as of now, no infrastructure funding plans.

Inhofe stressed that defense and public infrastructure were the two most strictly-defined government imperatives in the Constitution ("Post Offices and Post Roads," Commerce Clause, 1789 Lighthouse Act), and that he supports more public funds and an increase in the Federal gas tax to supply them. Gilmore, Richard White of the APTA, and Frankel all echoed those points, and opposed passing responsibility for new infrastructure on to the states. White said, "There is an incredible pipeline of public transportation projects fully ready for Federal funding," with \$54 billion of such projects currently "at risk" and many others very near the "end of the pipeline." Frankel identified the Gateway Project tunnels under the Hudson River as the "most important project in the country," as has the National Governors' Association.



Grand Coulee Dam in Washington State: A U. S. government project that cost \$163 million to build. As of several years ago, the sale of electricity from the dam, completed in 1942, totaled over \$4 billion.

This article includes useful details on the state of our infrastructure and some of the problems already created by the so-far scatter-shot approach to economic issues by Trump and the Congress. The Congress, or more precisely, the idiot Republicans and the clueless Democrats, we hope, at some point will learn something and do what the nation requires.

Where is Trump the builder?

Editorial Opinion

Newsday

July 2, 2017 By The Editorial Board

http://www.newsday.com/opinion/editorial/where-is-trump-the-builder-1.13775692

For Congress and President Donald Trump, the path to health care reform has proven impassable. If they want a win, they'd be wise to shift their energy to what is perhaps the most unifying topic in American politics, the need for the United States to properly fund and execute the rebuilding of the nation's infrastructure. Republican and Democratic politicians say they support it. Conservative and liberal voters know we need it.

One lesson the Congress could learn is presented in this excerpt from the June 23, 2017 article in *Executive Intelligence Review* by Bill Roberts. That lesson is that great infrastructure projects are not built to pay for themselves, but to transform the entire economic geometry of a region or the nation, creating the foundation for wide-spread economic activity and development.

Critical Infrastructure Funding: 'Washington Must Take Over This Crisis'

by Bill Roberts Executive Intelligence Review June 23, 2017

David Lilienthal of the Tennessee Valley Authority (TVA; co-director, 1933-1941; chairman, 1941-1946) addressed the absurdity of such monetarist thinking. On the question of whether the expense to the American taxpayer for building the TVA was justified in terms of the benefits and values produced by the project, he concluded that much of the benefit of the project could not be measured by direct profit. The only such monetary return to the federal coffers was through the sale of electricity to consumers. The TVA did not account for, or record any statistics related to benefits that accrued from the improvement of navigation along waterways where the TVA had done its work, benefits expressed in increased shipping and increased consumption of commodities made more readily available, such as grain, oil, and gasoline.

In fact, many aspects of the benefits that came from building the TVA dams could not be measured in terms of direct payment to the TVA, including flood control benefits to down-river areas, but also the application, in regions not within the TVA region, of breakthroughs made by the project in plant food production and soil erosion mitigation.

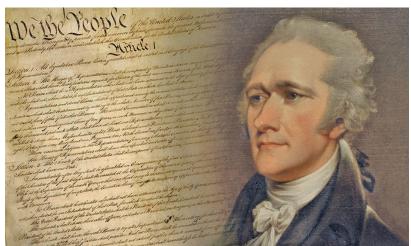
Here is an excerpt from the LaRouche PAC report on the foundation for a sane economic and financial policy. The full report is available on the link provided.

Why the United States Needs a 'Hamiltonian' National Bank (excerpt)

<u>https://larouchepac.com/20170225/why-united-states-needs-hamiltonian-national-bank-americas-future-new-silk-road</u>

[&]quot;A return to a system of top-down, and thoroughly defined, National Banking. The actually tested,

successful model to be authorized is that which had been instituted, under the direction of the policies of national banking which had been actually, successfully installed under President Abraham Lincoln's superseding authority of a currency created by the Presidency of the United States (e.g. "Greenbacks"), as conducted as a national banking-and-credit-system placed under the supervision of the Office of the Treasury Secretary of the United States."—Lyndon LaRouche, **Four Laws**



Alexander Hamilton, Treasury Secretary 1789-1796

Restoring and enforcing Glass-Steagall banking system regulation empties the Wall Street casino; the President and Congress must then create a large-scale national credit institution to replace speculation with productive employment and productivity.

To not merely "rebuild" America's obsolete economic infrastructure but to create a new, more productive infrastructure at the frontiers of technology, will require \$5 trillion or more in national investments; Ding Xuedong, the head of China's sovereign wealth fund CIC recently estimated \$8 trillion was required, and offered to invest CIC's U.S. Treasury holdings in it.

The need for the U.S. to be able to create a large amount of national economic credit, rapidly, to mobilize the American economy and raise its productivity, is not simply a matter of "renewing the nation's infrastructure," but also one of maintaining credit for innovative manufacturing—including by small and medium-sized companies—through a large national system of commercial banks.

For 150 years, when such mobilization of national credit was done successfully—from the time of Washington to that of FDR—the method of doing it was Treasury Secretary Alexander Hamilton's.