



California Water and Infrastructure Report

For February 13, 2020

by Patrick Ruckert

Published weekly since July, 2014

An archive of all these weekly reports can be found at both links below:

<http://www.californiadroughtupdate.org>

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

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“The actual, strategic purpose and function of competent economic forecasting, is not to attempt to predict what will happen, but to cause it to happen.”

Lyndon H. LaRouche, Jr.

“When Fate Hangs on a Forecast,” Sept. 7, 2007

A Note To Readers

LaRouche's words, above, reflect the intent of our first Treasury Secretary Alexander Hamilton in his establishing of the *First National Bank of the United States* to facilitate industrial and infrastructure development for the young nation. Lyndon LaRouche's *Four Laws for Economic Recovery*, our ongoing series under our title **Feature**, this week focuses on the Second Law: A National Credit institution, either a National Bank, like established by Hamilton, or, perhaps, one called a National Infrastructure Bank.

It is fitting and proper to lead this week's report with the quotation from LaRouche, as yesterday was the one year anniversary of his death-- February 12, 2019. February 12 is also the birthday of another American System hero, Abraham Lincoln, who, like Hamilton, created a national credit system during the U.S. Civil War, called the “Greenbacks.” For more, see below: “When Fate Hangs on a Forecast.”

In This Week's Report

“The last time the San Francisco Bay Area suffered through a bone-dry February, Abraham Lincoln was in the White House and the nation was in the grips of the Civil War.” That summarizes our weather report this week. More generally, the drought word is more frequently mentioned.

Under the title, “Old and New Discussions on Managing the Water,” we cover the governor being a “peace maker,” water storage projects going nowhere, and the forecast that 500,000 acres of the best farm land in the world shall be fallowed.

President Trump's budget plan announced \$188 million for Sacramento District projects.

Then a very short item: “Most Americans' View of the “Climate Change” Issue: Ho-Hum.”

Demonstrating that “Without Industrialization and a Full-set Infrastructure, Nations Can Die,” is the report on the massive Locust breakout in East Africa.

Under the title, “The Apollo Project, and Now the Artemis Project Will Drive Forward Science, Technology and Infrastructure,” you will find several items on the NASA budget proposed by the Trump administration and a very excellent editorial by my friend Kesha Rogers of Larouche PAC.

Then commemorating the one year anniversary of the passing of Lyndon LaRouche is an article with quotes from himself and his wife Helga.

Finally, the **Feature** is Part III of the series on LaRouche's Four Laws.

It Was Dry Last Week, and Even Drier This Week

That is clearly seen in the U.S. Drought Monitor this week, which follows the first article. Also included in this section are some short excerpts to a few more articles.

Winter dry spell forecasted to continue well into Feb.

By [Adrian Fernandez Baumann](#), Managing Editor | February 10, 2020

<https://mendovoice.com/2020/02/winter-dry-spell-forecasted-to-continue-well-into-feb/>

WILLITS, 2/10/20 — It's been a dry winter in Northern California, and meteorologists are forecasting a continuation of this trend for at least the next couple weeks. In parts of the Sonoma County and the northern Sierras are as much as five inches behind.

As explained by Daniel Swain, a climate scientist and meteorologist who runs the excellent [Weather West Blog](#), the culprit is a “ridge” of high pressure off the coast of California that is pushing the jet stream north, and keeping moist air from reaching the state. That's an extremely simplified explanation — for anyone who wants to understand these phenomenon in greater detail this entry in the Weather West Blog “[Warm and dry, then cool \(and still dry\), heading into February](#)” has a very detailed account.

And while the state is not yet in a drought, and reservoir levels remain high across most of the state due to capture from the last few years, this winter dryness does not bode well for the prospects of wildfire this coming summer. Still, as of early Feb. the rainfall totals in parts of NorCal were half of average. From Weather West:

Seasonal precipitation accumulation to date has now fallen well behind average (in some places, <50% of average) in northern portions of the state...As a result of low precipitation and relatively warm temperatures, snowpack is now falling behind typical values rather quickly (currently around ~70% of average statewide). That said, state reservoir levels remain in good shape for the moment due to carryover from recent years...[but] it is worth noting that drought impacts upon California's ecosystems, and subsequently statewide

wildfire risk, are not mitigated by water stored in the state's reservoirs. Daniel Swain at Weather West

And here's a comment on what this means for fuel moisture levels and wildfire risk, from another notable and excellent California meteorologist, Rob Mayeda. Swain also notes that a very dry Feb. followed by a burst of wet spring weather is actually a very bad case scenario from a wildfire perspective because, "Late rains allow seasonal grasses/brush to grow rapidly, but accumulated precip deficit would prime older vegetation to burn."

[Daniel Swain](#)

✓ [@Weather_West](#)

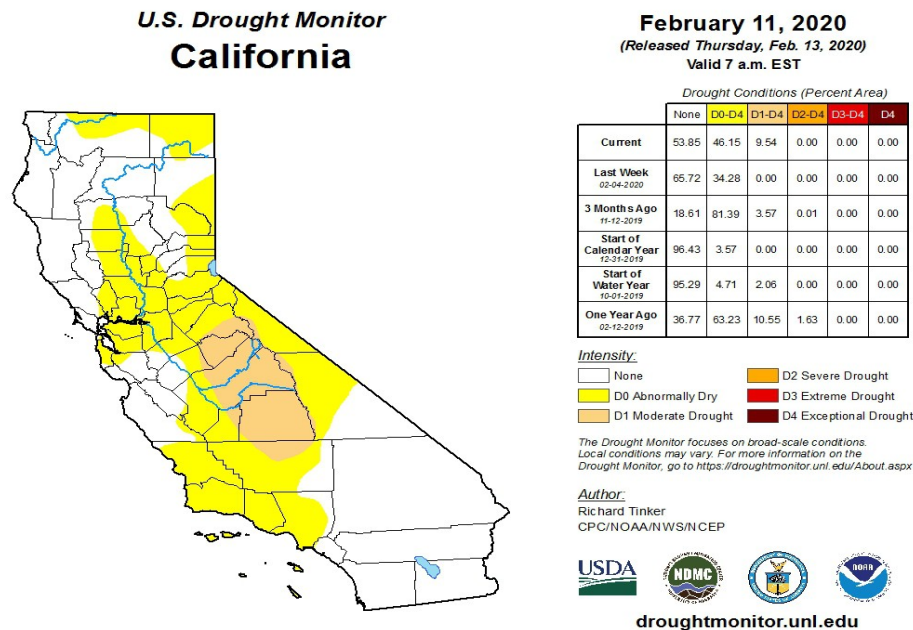
[Feb 10, 2020](#)

As [@RobMayeda](#) pointed out, this already prolonged dry spell is already leading to low soil moisture and dry vegetation at what is typically wettest time of year in California. #CAwx #CAfire

<https://twitter.com/RobMayeda/status/1226911448653168641?s=20> ...

U.S. Drought Monitor

The U.S. Drought Monitor shows a sharp increase of dryness in the state from last week. Nearly ten percent of the state is now in the "Moderate Drought" category, whereas none was last week.



Stalled High Pressure System Could Lead To Historic Bone Dry February

February 12, 2020 at 11:47 am

<https://sanfrancisco.cbslocal.com/2020/02/12/san-francisco-weather-drought-stalled-high-pressure-system-historic-february-abraham-lincoln/>

SAN FRANCISCO (CBS SF) — The last time the San Francisco Bay Area suffered through a bone-dry February, Abraham Lincoln was in the White House and the nation was in the grips of the Civil War.

That's right. According to meteorologists the last February without a drop of rain the region was in 1864. With a high pressure ridge perched off the coast it appears Northern California may just match that honor this year.

The ridge has pushed the storms, which generally make February one of the wettest months of the year, into the Northwest where both Portland and Seattle have been deluged by rain and snow.

The National Weather Service warned Seattle-area residents to brace for more stormy weather this weekend.

A series of fronts will move through the area starting on Thursday,” weather service forecasters warned. “Each system will bring lowland rain, breezy conditions and mountain snow. The weather system over the weekend will bring heavy snow to the mountains.”

The unusually dry conditions led to several new record highs in the Bay Area on Tuesday.

Santa Rosa set a new mark of 80 degrees, topping a 74-degree reading in 1996. Richmond reached a record high of 74, Napa 79 and San Francisco’s 74 and Livermore’s 72 tied previous high temperature marks.

A February without rain could boost wildfire danger in Northern California

Michael Cabanatuan Feb. 11, 2020 Updated: Feb. 11, 2020 9:03 a.m.

<https://www.sfchronicle.com/bayarea/article/A-February-without-rain-could-boost-wildfire-15045728.php>

- *Meteorologists say much of Northern California likely will not see a drop of rain in February, heightening concerns that summer will arrive with below-average rainfall and tinder-dry hillsides susceptible to wildfire.*

It’s too early to declare the rainy season a bust, as there could be huge storms in March and April. But a bone-dry February would make it nearly impossible to catch up to seasonal expectations, meteorologists warn.

“It’s really dry right now, and that’s making it more likely we’ll have a dry fire season and worse conditions this year,” said LeRoy Westerling, a climate and fire scientist at UC Merced. “But the caveat is, we still have a few months left of the rainy season, and it could change.”

Are You Starting to Wonder When It Will Rain Again? We Are, Too (Excerpts only)

Dan Brekke

Feb 11, 2020

<https://www.kqed.org/news/11800881/are-you-starting-to-wonder-when-it-will-rain-again-we-are-too>

So, we're almost at the point at which our current "wet" season — marked as it has been by prolonged periods of rainless, snowless weather punctuated by cold but rather feeble storms — is starting to look like a bust. By "bust" we mean: Precipitation just about anywhere you go in the northern two-thirds of California is well below normal, with little sign that storms are going to find their way to our coast, valleys and mountains any time soon.

Here's a recap of the season so far and a look at what lies ahead.

Rain

Snow

Reservoirs

The Outlook

Right now, they're pretty much in agreement that nowhere in California except the far northwest corner of the state will see anything more than a couple of episodes of light rain through the end of the month. It's really too soon to tell about March, but so far, longer-term forecasts aren't showing much evidence things will change.

Old and New Discussions on Managing the Water

While the governor attempts to be a “peace maker” between agricultural interests and the rest of the world of California water, the reality is, as seen in two articles below, no new water storage projects will not only not begin construction, but the 2014 water bond that allocated billions for such projects, is still sitting there unspent. And a forecast now posits that as much as 500,000 acres of prime farm land will be fallowed as the Sustainable Groundwater Management Act begins its implementation.

Newsom Proposes A New Approach To Reach Agreements With Water Agencies

- [Rich Ibarra](#)

Monday, February 10, 2020 | Sacramento, CA

<http://www.cpradio.org/articles/2020/02/10/newsom-proposes-a-new-approach-to-reach-agreements-with-water-agencies/>



Department of Water Resources

Imagine more water flowing through the Delta during dry years, and a habitat restoration for endangered species. That's what Governor Gavin Newsom is proposing in a new approach to reach agreements with water agencies—rather than issuing rules that are often challenged in court.

Part of Newsom's plan would increase the water flow through the Delta during dry years and restore 60-thousand acres of habitat for endangered species and other environmental improvements.

Newsom wants to double the salmon population by 2050.

Will Extra Water Storage Ever Become Reality?

February 11, 2020

Storage Reality!

[Commentary from Families Protecting the Valley](#)

Remember "The Water Quality, Supply, and Infrastructure Improvement Act of 2014", otherwise known

as Prop 1? At last month's meeting of the California Water Commission, staff updated the commissioners on the status of the projects in the Water Storage Investment Program (WSIP). Those <https://californiaagtoday.com/will-extra-water-storage-ever-become-reality/> are the storage projects in Prop 1. So, that was 2014, and it's now 2020, and we're still just talking, not building.

This process has gone on and on and on and on...So, here's what's happening. According to the California Water Commission in "2018, the Commission completed the application review process and made Maximum Conditional Eligibility Determinations or MCEDs for the eight projects under the Water Storage Investment Program." Don't know about you, but we love the bureaucratic lingo.

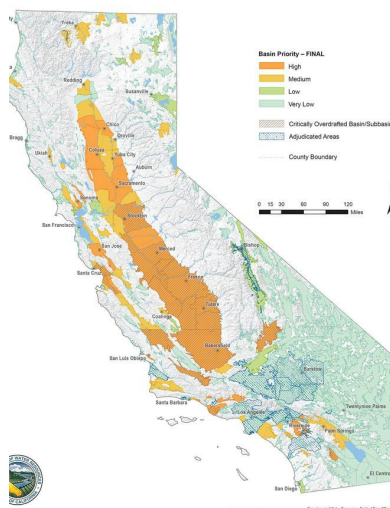
Since then the applicants have been moving forward with their projects to meet the statutory and regulatory requirements of the WSIP. So the applicants "submit quarterly reports to "summarize their activities as they move towards the final award hearing.

Click [here](#) for an article from the Commission the staff sho has put together an estimated timeline for the final award hearings and construction and operation of the projects. If you click on the link you will see projected construction will start on one project this year, one next year, and 3 in 2022. BUT the Program Manager noted that in 2018 when the conditional funding awards initially were made, the Commission made 9 determinations for each project and one of those determinations was that the projects appeared feasible. Appeared feasible? That doesn't sound too good.

Here's another thing. By January, 2022 the projects must have have a 75% commitment of non-public benefit cost share. So, they're still trying to get funding. That's a big maybe. If they get the funding and complete all the other requirements, the applicant will come before the Commission for the final feasibility finding. That'll be December 2021. Here is something they ask you to keep in mind: "there is no deadline in statute for the final award hearing, and some projects could take years to complete these items. This is a long-term program."

Used to be we'd pass a bond and build a dam. But now, this is how bureaucracy works. Good luck with whatever storage project you're rooting for.

500,000 acres of San Joaquin cropland to go fallow as groundwater management goes into effect over 20 years



A map shows groundwater basins and subbasins in California. Under the Sustainable Groundwater Management Act, areas in orange and yellow have to be managed, so more water doesn't get pulled out than can be put back. (California Department of Water Resources)

By [Emily Hamann](#) – Staff Writer, Sacramento Business Journal
Feb 11, 2020, 6:06pm EST

The Sustainable Groundwater Management Act has the potential to transform California's cropland over the next 20 years. It's time to get ready.

<https://www.bizjournals.com/sacramento/news/2020/02/11/500-000-acres-of-san-joaquin-cropland-to-go-fallow.html>

Who Says the President Doesn't Do Anything For California?

President's Budget and Work Plan announcements tab \$188 million for Sacramento District projects

Published Feb. 12, 2020

<https://www.spk.usace.army.mil/Media/News-Releases/Article/2082962/presidents-budget-and-work-plan-announcements-tab-188-million-for-sacramento-di/>

SACRAMENTO, California --

More than \$188 million in flood risk management work for Northern California were outlined in two separate budget releases on February 10, adding to an already robust Sacramento District workload.

President Donald Trump's fiscal year 2021 budget proposal would fund two Sacramento District projects in his plan for the U.S. Army Corps of Engineers civil works program.

Continued upgrades to Natomas Basin levees leads the way with \$131.5 million. Construction to improve 42 miles of levee surrounding the Sacramento area suburb has ramped up in recent years with construction work underway in four different sections of the project. The other project in the budget sits across the Sacramento River from Natomas in West Sacramento, which is targeted for \$2.028 million to continue ongoing design efforts for authorized levee improvements around the city.

Three Sacramento District projects are expected to achieve significant milestones thanks to additional Corps of Engineers work plan funding allocations for fiscal year 2020, it was also announced on Monday.

One of six new construction start projects funded across the Corps, the Lower San Joaquin River flood risk management project will receive \$23.1 million to close out design and start construction on flood risk reduction efforts in north and central Stockton.

Design work for improved fish passage at Englebright and Daguerre Point Dams will get underway after the Yuba River Ecosystem Restoration project received \$4.478 million, and the Sacramento District will be able to complete its Lower Cache Creek feasibility study, which aims to explore flood risk management options in the City of Woodland and adjacent communities, as a result of the extra \$635,000 it'll receive this year.

Overall, nine Sacramento District projects received more than \$54.5 million in this year's work plan. Other projects include Natomas Basin levee improvement work along the Natomas East Main Drain Canal (\$15.7335 million), Rural Nevada and Utah water supply improvements (\$5 million), design of temperature control shutters as part of the Folsom Dam Raise project (\$3.514 million), West Sacramento design work (\$1.072 million), and Tahoe Basin restoration efforts (\$1.025 million).

The projects announced February 10 will add to the district's portfolio, which also includes a handful of fully-funded projects.

Supplemental appropriations in 2018 provided more than \$2.1 billion to construct five Sacramento District projects over the next several years. The projects include making dam safety improvements to Isabella Dam, enlarging Success Lake, raising dikes and dams around Folsom Lake, and strengthening the Marysville Ring Levee and Sacramento area levees.

More information on the President's Budget and USACE Work Plan, including specific amounts provided to various programs, projects and activities across the Corps of Engineers can be found at: <http://www.usace.army.mil/Missions/CivilWorks/Budget.aspx>.

Most Americans' View of the “Climate Change” Issue: Ho-Hum

Feb. 12, 2020 (EIRNS)—A Pew Research 2019 survey reported that “Climate Change” ranked in 17th place out of 18 “important issues” in a recent poll of Americans. The issue ranked second-to-last going back to 2014. A disgruntled article in ClimateDepot.com had to admit: “Moral of the story: There has never been any evidence that climate change is a top concern for most Americans. This is not a crowd-pleaser or a vote-getter.” And what was the issue of greatest concern to Americans, according to the Pew poll? It's the economy, stupid.

Without Industrialization and a Full-set Infrastructure, Nations Can Die

Massive Locust Breakout in East Africa Poses Threat of Plague

Feb. 11 (EIRNS)—The massive locust outbreak in East Africa could turn into a locust plague, UN officials warned in a Feb. 10 press conference in New York. The locusts have struck Uganda, Kenya, Somalia and Ethiopia. “There is the risk of a catastrophe,” UN Undersecretary-General for Humanitarian Affairs Mark Lowcock told the New York press conference, pointing out that 13 million people already face severe food insecurity, 10 million of them in places affected by locusts, the Guardian reported.

Dominique Burgeon, the Food and Agriculture Organization's (FAO) emergency and resilience director, warned that another 20 million people in the region are in danger of becoming food insecure. Without enough aerial spraying to stop the swarms, the locust outbreak could turn into a plague, “and when you have a plague, it takes years to control,” he said. Burgeon explained that current locust invasion is an “upsurge”—when an entire region is affected; however, if it gets worse and cannot be contained, over a year or more, it would become a “plague” of locusts. There were six major desert locust plagues in the 20th century, the last of which was in 1987-89. The last major upsurge was in 2003-05.

According to Associated Press, Uganda is struggling to respond to the arrival of the biggest locust outbreak seen in decades in that part of East Africa. In Kenya, swarms of billions of locusts are destroying crops, as well as in Somalia and Ethiopia. Wet conditions, resulting from months of rain, allow locusts to proliferate. Kenya's Ambassador to the UN Lazarus Ombai Amayo, also warned that the locusts are eating vegetation that supports vibrant herder communities in the region, raising the “inherent risk of communal conflict over pastures.” The outbreak is so severe it could even disrupt crop planting in coming weeks, he said.

FAO's senior locust forecasting officer Keith Cressman, explained in New York that Kenya has received "waves and waves of swarms" since the beginning of 2020, from the Horn of Africa, and "over the weekend they moved on the side of Mount Kilimanjaro across the border into Tanzania." Immediate action is required, UN officials say, before more rainfall in weeks ahead will provide new vegetation to attract "new generations" of locusts. If left unchecked, their numbers could grow up to 500 times before drier weather arrives.

The UN has asked for \$76 million in immediate aid. So far just under \$20 million is in hand, including \$10 million released by Lowcock from the UN emergency relief fund and \$3.8 million from FAO, officials said. The United States said Feb. 10 it has released \$800,000 and the European Union has released \$1 million.

The Apollo Project, and Now the Artemis Project Will Drive Forward Science, Technology and Infrastructure

Implement Artemis Moon Mission Now: It Will Heal the Nation's Wounds

*This editorial appears in the [February 14, 2020 issue](#) of *Executive Intelligence Review*.*

(This is an excerpt of the editorial. The full piece can be accessed at the link below)

by Kesha Rogers

https://larouche.pub.com/eiw/public/unlisted/2020/eirv47n07-20200214/HoL8Bv5K-EWvA_dLSd_98k7/4707-implement_artemis_moon_mission.html?utm_source=sendinblue&utm_campaign=EIR_February_14&utm_medium=email

Feb. 8—Tuesday night, during his State of the Union address, President Donald Trump called for full funding of the Artemis program, his bold space vision to return to the Moon. This is the critical first step to the next level of economic development for the human species, including an interplanetary fusion economy and mankind's colonization of Mars and the rest of the Solar System.

As was demonstrated by the Apollo Moon missions, the exploration of space is the most important and effective driver of science, technology, economic growth, and cultural optimism. The Apollo Program produced profound breakthroughs in medicine, engineering, manufacturing, and other fields too numerous to list, and expanded our understanding of the fundamental laws of the universe. For every \$1 spent on the manned space mission, our economy gained \$10 right here on Earth, because of the technological improvements that mission demanded.

Trump sees America's return to space as critical to our future:

"In reaffirming our heritage as a free nation, we must remember that America has always been a frontier nation. Now we must embrace the next frontier, America's manifest destiny in the stars. I am asking Congress to fully fund the Artemis program to ensure that the next man and the first woman on the Moon will be American astronauts—using this as a launching pad to ensure that America is the first nation to plant its flag on Mars."

In an exchange with LaRouche PAC leader Kesha Rogers, NASA Administrator Jim Bridenstine emphasized the significance of the 2024 date for landing on the Moon:

"You [Kesha Rogers] mentioned 2024, and some people have said maybe that's a partisan date. Remember what Kennedy said: 'By the end of the decade.' He gave it a date. Why? Because that's how

you get results. Here's the important thing: NASA doesn't have a science problem or a technical problem. We can retire all the technical risk you can imagine: We're an amazing agency with amazing engineers. We have a political problem! That's why we are not at the Moon right now, that's why we are not on Mars right now."



From NASA's webpage on Artemis: "Humanity's return to the Moon, with a sustainable architecture, the likes of which has never been built before."

The "political problem" referred to by Bridenstine has been the result of a sustained attack on our nation's manned space program, an attack that started long before Trump took office. The neo-Malthusian, zero-growth attitude, coupled with deadly pragmatism, has crippled our space program, robbing Americans of the optimism, scientific progress, and creative discovery uniquely associated with the exploration of space. This insanity is coupled with rabid and irrational hatred of President Trump generated by constant 24-hours-a-day propaganda portraying him as a monster. As a result, Congress is chipping away at Artemis, saying that if this President proposes producing a bountiful and optimistic future for you and your children, it must not happen because this President proposed it.

The great visionaries of our space program did not merely see the program as meeting short-term goals or deadlines, but as setting a standard for true economic and scientific progress for all of humankind. The achievement of a permanent lunar presence is the gateway to the development of a human economy in space.

Will you join us now, in the fight to implement this great adventure? Lifting our eyes to the stars will heal this nation's present, destructive partisan wounds. Like President Kennedy's challenge to the nation to go to the Moon, today's Moon-Mars mission is a necessary challenge for achieving a future worthy of all human beings on planet Earth, and, soon, beyond.

As Democratic Party Disintegrates, Trump Aims for the Stars (Excerpts)

<https://larouhepac.com/20200212/democratic-party-disintegrates-trump-aims-stars>

February 12, 2020

The Trump Administration has challenged the Congress to live up to the tremendous optimism of the Artemis program—to place "the first woman and the next man" on the Moon by 2024, and to establish a functioning base on the Moon as the launch site for a manned visit to Mars. The budget presented to the Congress this week has called for the full funding of the project. The Artemis program is already functioning, as intended, to inspire the citizens of the United States and throughout the world in the same manner that John F. Kennedy did in 1962 by declaring that mankind would land on the Moon and return safely "within the decade." Reaching for the stars, breaking mankind of its Earth-bound restraints, trusting and believing in the creative powers of the human mind to make the required

scientific discoveries to make that happen—this is the true nature of the human race.

But will the Congress comply? Will the champions of a return to the dark ages, the Green fascists who wish to cut off all credit to industrial progress under the false god of “climate change?” This will be a crucial test, especially for the Democrat Party, which is no longer the party of John F. Kennedy.

The Democratic Party has transformed itself into a virulently anti-science and anti-development cult, demanding that all policies be subservient to the fake science of man-made, carbon-induced climate change. It is now in a state of disintegration—the party faithful long ago lost interest in the baseless Russiagate and impeachment campaigns, and are now being presented with a group of pathetic Presidential candidates who inspire no one and have virtually zero chance of beating President Donald Trump in November.

Trump and NASA Now Have a Different Space Policy Than Congress

Feb. 11 (EIRNS)—A closer look at the budget plans released Feb. 10 by NASA Administrator Jim Bridenstine for Fiscal Years 2021-24 indicates that under President Donald Trump’s Moon-Mars mission, NASA has charted a quite different space policy for the United States in that period and beyond, than the Congress had been authorizing under President Barack Obama and continues to authorize now.

NASA’s budget summary requests, for “Deep Space Exploration Systems” and “Exploration Technology” combined, an immediate 45% year-to-year increase of \$3.25 billion over FY2020—from \$7.11 billion to \$11.34 billion; and then up to \$12.84 billion by FY2024. This means investing about \$43 billion during those four years into this field of NASA’s missions, within which the Artemis mission is now central, compared to a pace of about \$6 billion/year up until FY2019 and \$7 billion in FY2020. President Trump announced the new Moon-Mars mission early in FY2020. NASA’s plans do not yet mean a real crash program—most critically they lack the vital connection to fusion power development—but they would mean a rapid acceleration of the pace of the lunar return and settlement mission, Artemis, and the new technology for it, compared to all other activity. Funding of about \$700 million is requested for lunar surface activities including mining—a first; the House FY2020 authorization bill prohibits it.

In the first year (FY2021) \$3.7 billion funds the SLS and Orion crew capsule; \$3.34 billion the lunar lander system, for the first time—if Congress continues virtually to ignore lander development as in FY2020 so far. There is only one significant cut within this mission: roughly \$300 million for the SLS upper stage of Boeing, which was not planned to integrate with any lunar orbiter system (“Gateway”), and which Bridenstine has made clear is not wanted for this first four-year phase of Artemis. Congress appears to be fully funding despite him, however, in FY2020.

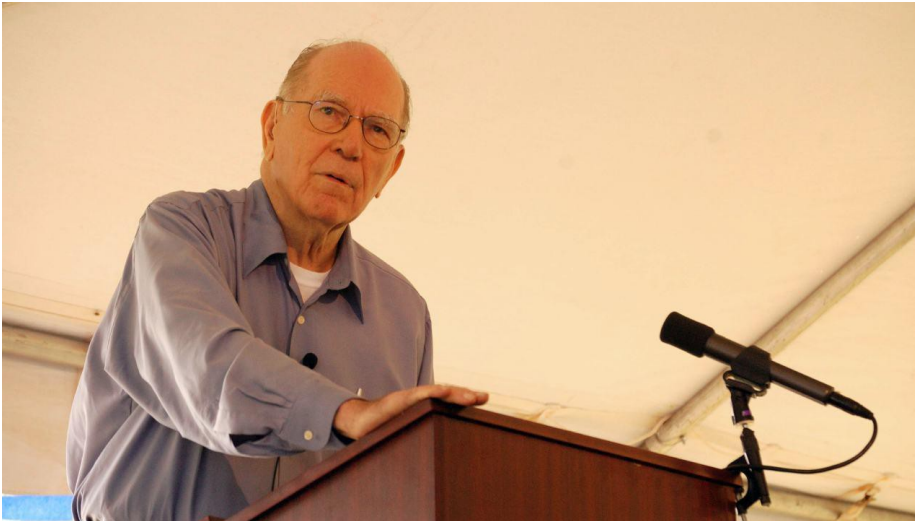
By comparison, the funding of “Low-Earth Orbit and Spaceflight Operations” is kept flat through 2024 in NASA’s request, at about \$4.15 billion/year. Commercial space companies’ LEO efforts are still a quite small part of this, but are increased in NASA’s plan to \$175-200 million/year; Congress appears to be virtually zeroing this out in FY2020.

“Space Science” is kept essentially flat at the \$6.5-6.7 billion level of the pre-Artemis period, allowing Bridenstine to say on Feb. 10 that space science remains integral to space exploration. But from the FY2020 level of \$7.14 billion voted by Congress this does make a cut of hundreds of millions, at the expense of “Earth Science,” “Heliophysics” and “Astrophysics” (the Wide Field Infrared Survey Telescope).

Even with the rapid acceleration of the Artemis mission, commercial space companies are kept outside “Deep Space Exploration” so far, except for technology development contracts. In this plan NASA

opens one door: It proposes to consider their rockets for the 2024 mission to explore Jupiter's moon Europa, and looks for a lower cost than the SLS would be for this mission. One of those companies, SpaceX, announced today it had hired NASA's former long-time director of human space flight, William Gerstensmaier.

When Fate Hangs on a Forecast (Excerpt)



Lyndon LaRouche at his 90th birthday party. September 9, 2012. (EIRNS)

<https://larouchepac.com/20200213/when-fate-hangs-forecast>

February 13, 2020

It is proper that, as we commemorate the first anniversary of the Feb. 12, 2019 passing of Lyndon LaRouche, we turn to his concepts and method to evaluate the current strategic situation, and chart our course into the future. In the Sept. 7, 2007 issue of *Executive Intelligence Review* magazine, LaRouche published an article headlined “When Fate Hangs on a Forecast,” which began as follows:

“The actual, strategic purpose and function of competent economic forecasting, is not to attempt to predict what will happen, but to cause it to happen.

“Today’s subject is a field of combat in which I have developed certain unique skills, skills in that branch of strategic intelligence called long-range forecasting. This is not merely foreseeing, passively, what might be likely to happen; it is about crafting policies of the type which I am presenting, with the intention to bring about an urgently needed action which might rescue us from a currently onrushing, global financial disaster, an oncoming disaster which has now entered its terminal phase....

Today, more than 13 years later, the dominant reality shaping the planet is much as LaRouche forecast: the bankruptcy blowout of the trans-Atlantic financial system, and the 50-year descent into hell of the physical economies of its host nations and victims. The locust plagues devastating much of Africa and Southwest and South Asia; the hunger threatening large parts of Africa in particular; the emergence of novel coronavirus (2019-nCoV) which, had it not been for the heroic measures adopted by the Chinese government, might well have already swept every continent and most nations with uncounted casualties—these are all deadly problems that can be contained and defeated with the measures proposed decades ago by LaRouche. Crash scientific programs to develop fusion power, space colonization, and optical biophysics remain the urgent need of the day, in order to raise the overall technological platform of the noosphere, man’s physical economy, to cope with such crises.

Helga Zepp-LaRouche took up the issue of the various indications of the collapsing physical economy, in remarks on Feb. 11, where she urged “international cooperation with China to defeat the virus. The idea that this is a ‘Chinese virus’ is most despicable racism. I’m amazed that anybody could not see that, because there is no nationality to diseases. The West should rather help, and send medical teams, offer cooperation, and otherwise get together to defeat such new problems as the locust danger in Africa. Right now it would be possible to stop it, but if you don’t catch it early now, it will develop into a huge problem that will be much more difficult to get rid of after one year. Many people will die as a result of food shortages, because these locusts tend to just eat up every crop and leave devastation.”

Zepp-LaRouche continued: “There *is* a collapse of the West.... What we need is a new model of cooperation, a new paradigm where you stop this kind of geopolitical confrontation which can only lead to a disaster. And for that we need the Four Laws of Lyndon LaRouche. We absolutely need to think of the human species from the standpoint of the future.”

Feature: Rebuilding the U.S. Economy-- Part III

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

This week we focus on the Second Law.

For Part I, here is the link: http://www.californiadroughtupdate.org/20200130-California-Water-and-Infrastructure-Report.pdf?_t=1580495639

For Part II, here is the link: http://www.californiadroughtupdate.org/20200206-California-Water-and-Infrastructure-Report.pdf?_t=1581134641

Law Number 2 of LaRouche's Four Laws: Return to a system of top-down, and thoroughly defined, National Banking.

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 China Investment Corporation (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.

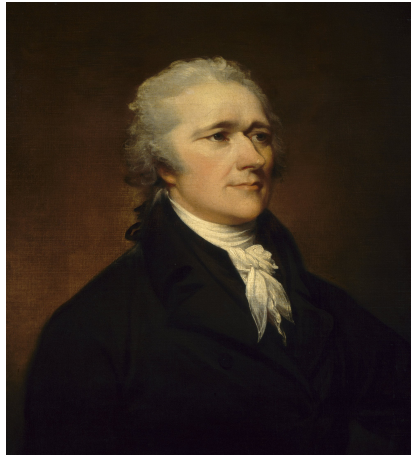
For 150 years, when such mobilization of national credit was done successfully—from the time of Washington to that of FDR—the method of doing it was Treasury Secretary Alexander Hamilton’s.

Hamilton’s Method

Alexander Hamilton, U.S. Treasury Secretary during George Washington’s Presidency, created a

system that closely coordinated the relationship of public credit with the intention of national government to follow through on the actions for which the credit is emitted. The more the nation's government is committed to see through the creation of credit, and has the necessary powers of finance, trade regulation, and taxation, the better certainty there is on that credit, and the more is credit between parties able to serve as a currency and means of payment.

The task is to create and circulate new currency which is sound in the immediate term, and to invest it in the broad national purposes of developing the productivity of the American economy and labor force, so that it will be much more than repaid in the medium and long term. Any and all national currency, is national debt.



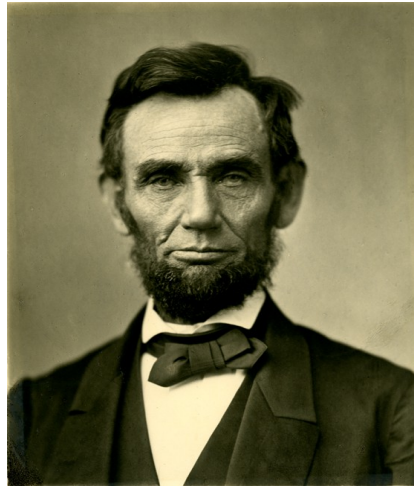
Alexander Hamilton

During the period of rapid U.S. economic and population growth stimulated by Hamilton's First Bank of the United States and the Monroe-Quincy Adams Second Bank of the United States, the Hamiltonian representatives of the "American System" held that the Treasury should create, issue and regulate circulation of new currency exclusively through a National Bank. The National Bank, as a commercial bank and issuer of the currency, would make sure the new currency issued was immediately sound and based on funded debt of the Federal government. And if the Bank were led on Hamiltonian principles, it would also make sure that the use of that new currency fostered the future greatness of the United States, and multiplied itself in value in the process.

The First and Second Banks of the United States were extraordinarily successful in directing new credit to waves of new infrastructure—roads and ports, then long-range canals, then railroads, iron and coal works and steam projects, etc.—and also to the rapid growth of innovative manufacturing in America.

Lincoln's Method

When, under Abraham Lincoln, the U.S. Treasury for the first time, itself created a new paper currency—the Greenbacks—its issuance was still based, not this time on a Third Bank of the United States, but on a new national banking system, of newly Federally chartered commercial banks. These Treasury-chartered banks bought new Treasury bonds being issued by the government, and received Greenbacks in equivalent amounts to circulate. The new Treasury debt was of 20 years maturity; the interest had to be made sound by new taxes, and was. The nationally chartered commercial banks, holding Federal debt as their reserves at the Treasury, were the points from which the new Greenback currency was issued, was circulated, and to which it came back to pay taxes. Considered collectively in cooperation with the Treasury, those newly chartered commercial banks functioned, effectively, as a Third Bank of the United States.

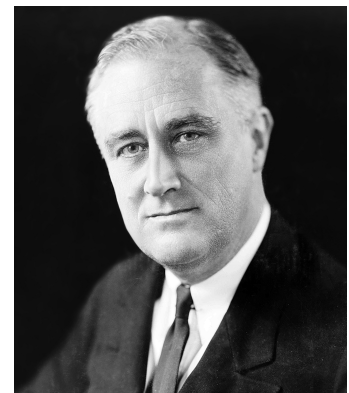


Abraham Lincoln

This Greenback credit issuance funded not only the huge military and industrial effort of the Union in the Civil War, but the development of trans-Continental railroads, steel and iron industries, state colleges and agricultural extension services, and propelled the United States to the world's leading industrial power by the early 20th Century. And the Greenbacks remained throughout a sound currency, fully backed by interest-bearing Federal debt backed in turn by taxes. So sound—made so by growing productivity and real wealth—that when the 20-year Greenback bonds became mature for redemption, in gold and silver no less, nearly all holders of Greenbacks elected to keep the paper currency and pass up the precious metal specie.

Roosevelt's Approach

Franklin D. Roosevelt, basing himself on certain actions of Congress in 1933, attempted in 1934 to create a “national industrial bank” with 12 branches, within the Federal Reserve System. In FDR's March 1934 proposed legislation, this national industrial bank within the Fed would absorb a total of \$6 billion in Treasury securities, and then be able to issue an equivalent amount in Treasury Notes (Greenbacks) directly as loans to industrial companies struggling to revive production. Franklin Roosevelt's ancestor Isaac Roosevelt, still famous in the family in FDR's time, had been Alexander Hamilton's partner in the Bank of New York; and FDR himself had written a thesis on Hamilton's economics while at Harvard.



Franklin D. Roosevelt

Congress did not adopt this “national industrial bank” legislation of FDR's, leaving him to rely on Hamiltonian approximations in the

Reconstruction Finance Corporation (RFC), Tennessee Valley Authority (TVA), and Works Progress Administration (WPA). This was, again, successful in reviving economic growth, productive employment and productivity, and defeating fascism.

What Is Needed Today

Today and over the past two decades, advocates of major national investments of credit into our economic infrastructure and manufacturing often propose printing “Greenbacks” for that purpose. But this requires that the Treasury issue new, interest-bearing debt to back up the new currency issuance. If

we are talking, realistically, about trillions of dollars in such new Treasury borrowing, interest rates will rise very rapidly. And the new interest costs of Treasury debt as a whole will not be supported—really advanced investments like a national grid of high-speed rail, or a new Apollo Project, do not pay short-term direct returns to the Treasury, no immediate “user fees.”

Ideally much of this large volume of new Treasury debt would be absorbed by commercial banks, which would also be circulating the new “Greenbacks” to contractors, universities and engineering companies and many others. But the commercial banks already have very substantial Treasury holdings. Large foreign government holdings of U.S. Treasuries have been being reduced in recent years. Minimally, interest rates on Treasury debt would rise very fast indeed.

A Third National Bank of the United States

Congress can instead take the action a Treasury Secretary Hamilton would have proposed to them now. It can create a Bank of the United States for Infrastructure and Manufacturing, structured so that holders of existing, longer-term Treasury debt will transfer their holdings into this Bank in exchange for its preferred stock for 20-25 years, to earn a dividend significantly higher than Treasury long-term rates and guaranteed by the Treasury. A tax such as, for example, an adjusted Federal gasoline tax (Trust Fund) can be assigned to the payment of the Bank’s dividend; the Bank’s purposes would then include those transportation requirements to which the Federal gasoline tax is now dedicated. There are several other user taxes legislated for infrastructure (i.e., ports), proceeds of which are instead used as general revenue by Congress. They can also be dedicated to the Bank.

The Bank’s initial aim should be to achieve a capitalization in the range of \$1 trillion.

The largest holders of long-term U.S. Treasury debt, such as the government institutions of China and Japan, have every interest in investing some of that debt into a Bank of the United States for Infrastructure and Manufacturing, as well as American commercial banks, funds, and citizens.

By the Bank thus absorbing, as its capital, even a minor but significant portion of outstanding U.S. Treasury debt, it will then be in a position to be the point of issuance for new currency, an equivalent amount of Treasury Notes—“Greenbacks.” These Greenbacks can be issued by the Treasury to the Bank for circulation, up to the amount of the Bank’s capital.

More important than this structure are the national purposes of economic, technological and scientific progress to which this national credit institution is put. This will also determine the long-term “payback” of such a Bank’s investments by the accelerating growth of productivity of the economy and the American labor force.

These purposes bring us to the standards of productivity by which the physical returns on investments can be assessed.