

California Water and Infrastructure Report

Formerly, the “California Drought (and Flood) Update”



For December 28, 2017

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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In 35 days, Trump is to deliver his State of the Union address to Congress and the nation. There is no more lag time nor public forbearance left for simply hearing yet again about the virtues of rebuilding America and creating jobs. The action must begin. That is what is expected of Trump, who has pledged his conviction. On Jan. 6-7, Trump is set to meet at Camp David with Congressional leaders, including minimally Senate Majority Leader Mitch McConnell and House Speaker Paul Ryan, on an infrastructure program, according to a Christmas Eve report from the White House legislative liaison Marc Short. The LaRouche "Laws" and "New Silk Road" are the only way to go.

[20171227-new-year-infrastructure.pdf](#)

A Note To Readers

And in the spirit of the above quote, this week an updated LaRouche PAC pamphlet, *LaRouche's Four Laws & America's Future on the New Silk Road*, has been released in both printed and electronic formats. The final section of this week's report is dedicated to excerpts from that report.

But, here is a short excerpt from the report to whet your appetite.

This program will ensure a great and prosperous future for America: productive and meaningful employment for everyone who wants a job, cheap and abundant electricity for all residential and industrial needs with fission and fusion power, the elimination of all droughts and water crises, high speed rail and magnetic levitation transportation between every major city, new world-class cities, a

robust interplanetary manned space program, and a new classical cultural renaissance. This isn't asking too much to ask for, this isn't "pie-in-the-sky." This is what is possible, now, if you following the guidelines of this report, and make it happen.

In This Week's Report

We begin with “The Question Remains: Is This a New Drought?” Articles clearly imply that the answer is heading toward, “yes.” And the U.S. Drought Monitor shows for the first time in a year that the “moderate drought” category has increased.

Just one article is linked this week on the fires, but we note here that the Thomas Fire in Ventura and Santa Barbara counties is now the largest fire in California history.

The Oroville Dam update presents the Department of Water Resources plans for the next year or so on repairs, and an item on the relicensing of the dam for the next 50 years. Yes there is controversy about that.

In 2014 voters approved an Proposition 1 of over \$7 billion. Of that \$2.7 billion was earmarked for storage projects. So, what was built? Nothing yet, after all it is only going on four years, and we cannot expect the environmentalist dominated government of the state to move on a dime, much less \$2.7 billion. So under the title, “Remember Proposition 1?” you will find the answer why nothing has yet been built.

A new section this week, “News Items,” contrasts the U.S. and China in building anything.

The Feature concludes this week's report with excerpts from the LaRouche PAC report, *LaRouche's Four Laws & America's Future on the New Silk Road.*

The Question Remains: Is This a New Drought?

Where's the rain? California could suffer an unusually dry winter from San Francisco to Los Angeles

By [Rong-Gong Lin II](#)

Dec 25, 2017

<http://beta.latimes.com/local/lanow/la-me-ln-california-rainy-season-20171225-story.html>

California's dimly dry autumn paints a bleak outlook for the state's rainy season, unless the weather this winter makes a big about-face.

If the trend continues, forecasters say California could see, come spring, a light Sierra Nevada snowpack, a key source of water for the state during the dry summer.

So far this December, San Francisco has received only 0.15 inches of rain.

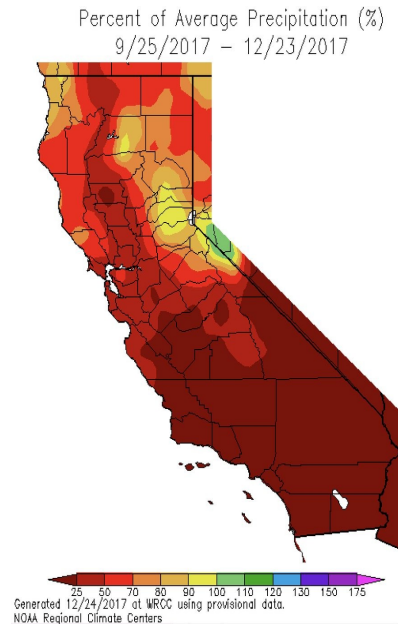
San Francisco is already close to the halfway point in its rainy season: Jan. 19. In an average year, the city would have received 11.83 inches by then, halfway to the annual average of 23.65 inches, Null said.

As in Southern California, San Francisco has also been struggling with a giant mass of high pressure that is deflecting storms away from California — a pattern that has remained consistent throughout December.

The situation is even more grim in Southern California.

On average, downtown L.A. gets more than an inch of rain in November and more than 2 in December. But this year, only one-hundredths of an inch of rain fell in November, and the same amount fell in December. In fact, there has been no substantial rainfall in downtown Los Angeles since February.

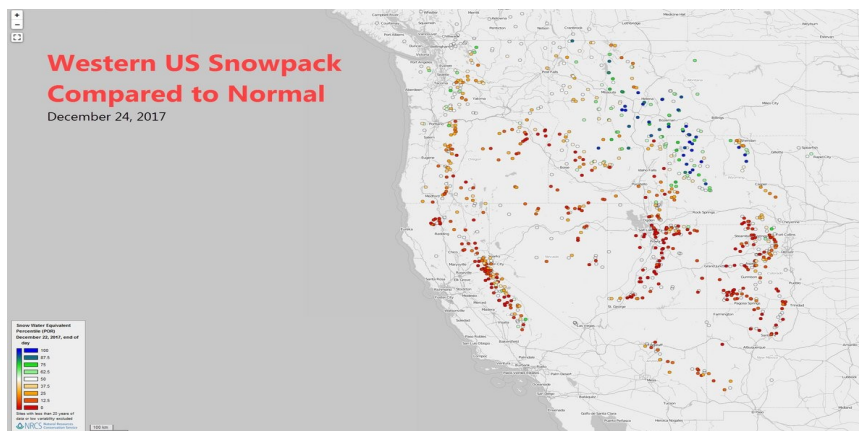
Since Oct. 1, downtown L.A. has seen only a measly 0.12 inches of rain.



For downtown Los Angeles, this is shaping up to be the driest March-through-December period on record, with a paltry 0.69 inches beating out the 1.24 inches that fell during the same 10-month period in 1962.

"We'd have to have a dramatic turnaround to have a wet winter," said climatologist Bill Patzert of NASA's Jet Propulsion Laboratory in La Cañada Flintridge.

In contrast to Los Angeles, Northern California did have somewhat of a decent November, depending on your perspective. San Francisco received 2.83 inches of rain, close to the average November amount



It's not just the [#SierraNevada](#); the snowpack across much of the Western US is currently well below normal. Still plenty of time to catch up in 2018! [#cawx](#)

of 3.16 inches.

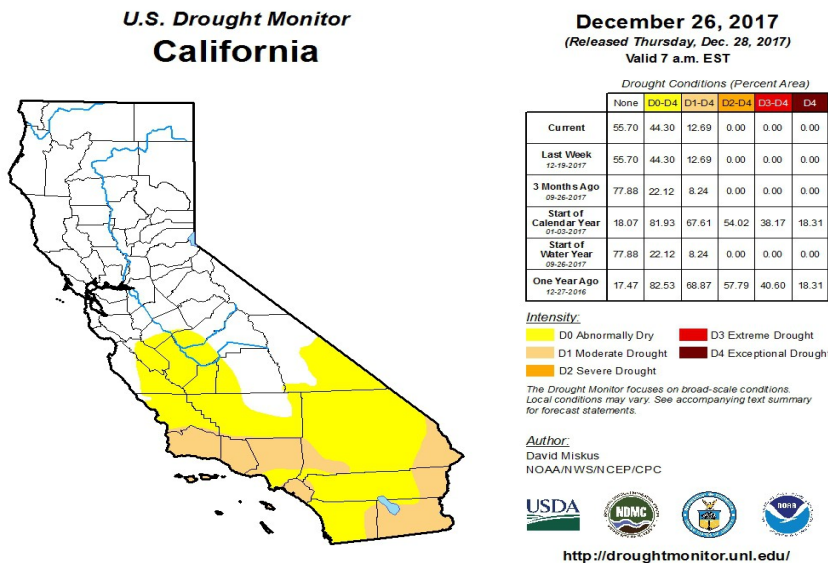
That resulted in snow in the Sierra Nevada, home to the state's greatest mountain range that not only

provides powder for ski resorts but stores California's water supply as ice to be used during the dry season.

But unfortunately, the one major storm that did get through was relatively warm. So although precipitation in the Sierra is close to average, much of it is falling as rain in the lower elevations where snow would normally accumulate, said meteorologist Scott McGuire of the National Weather Service's Reno office.

That means that the snowpack is pretty small; the amount of water contained in the snowpack is only about 34% of average for this time of year because snow is accumulating only at the highest elevations.

U.S. Drought Monitor



Strikingly dry conditions persist; Thomas Fire now largest California wildfire

By [Daniel Swain](#)

December 24, 2017

<http://weatherwest.com/archives/6030>

It has been an extraordinarily dry autumn and early winter across Southern California. Northern California had been faring better in the precipitation department so far this season, with near-average autumn rains in most areas. But in recent weeks, Southern California's dryness has begun to expand northward along the Pacific Coast—now encompassing all of California, and even beginning to creep north of the state line into parts of the Pacific Northwest.

Why has California been so dry? (Regular blog visitors [already know where I'm going with this.](#)) Well, a remarkably persistent zone of atmospheric pressure has been present more often than not across the region for the past few months. Early in the season, this ridge was centered across Southern California and the interior Southwest—but recently, a broader “full-latitude” ridge feature has expanded to encompass much of the West Coast. This temporal evolution is the reason for the SoCal/NorCal precip

split early in the season. A couple of months ago, Pacific storms had been redirected only slightly to the north of the SoCal metro areas due to subtropical ridging (into the Bay Area and points northward). More recently, the bigger & stronger West Coast ridge has pushed the Pacific storm track even further north. Remarkably, this powerful ridge has forced several very moist atmospheric river storms over the mid-Pacific to make a hard “left turn” over the open ocean—veering directly northward and bringing almost inconceivably heavy snowfall to the coastal mountains of southern Alaska.

One conspicuous and locally devastating consequence of the delayed rainy 2017 rainy season in Southern California is the extension of wildfire season well into winter. While December wildfires are not unheard of in this part of the world, the extent and severity of the December 2017 fires in SoCal really is unprecedented in California history. The Thomas Fire—which has now burned nearly 275,000 acres and over a thousand structures in Ventura and Santa Barbara counties—yesterday became the single largest wildfire in modern California history. That this dubious milestone was reached in December, which is typically the midst of the California rainy season, is truly extraordinary. Indeed, recent months have brought not only near-record low precipitation, but also record-high temperatures across a wide swath of SoCal.

The good news: wet conditions last winter did help to top up reservoirs in the northern part of the state—meaning that the state’s overall water supply situation looks okay even if very dry conditions persist for the rest of winter. Last winter’s lowland flooding did help to modestly recharge shallow groundwater aquifers in the north, which has (temporarily) stemmed the long-term loss of capacity in these regions.

The not-so-good news: parts of Southern California that depend exclusively on local water supplies (such as much of Santa Barbara and Ventura counties) never really recovered from the last drought, and these regions remain quite susceptible to the impacts of drought re-intensification. And even further north, forested regions remain quite stressed as a result from the previous multi-year drought, and tree mortality in the Sierra Nevada remains far above historically observed levels.

All of this is to say: it’s still too early to say whether we’re headed into a new drought, though there are some compelling signs that we may be (especially in Southern California). And even in a dry year, California can still experience big storms and very wet months. But at this point, it probably makes sense to start thinking about the possibility of yet another big swing in California—from drought, to flood, and then (perhaps) back again.

Fires, Fires and More Fires

I include the following article (excerpted) because it provides a fairly comprehensive discussion of managing wildfires in California.

Struggle to Manage Future Wildfires as Climate Grows More Unpredictable

As California’s most destructive wildfire season rages on, wildlife experts and forest managers are talking about the struggles to manage heavily populated coastal ecosystems.

By Alastair Bland

December 21, 2017

<https://www.newsdeeply.com/water/articles/2017/12/21/struggle-to-manage-future-wildfires-as-climate-grows-more-unpredictable>

California's recent wildfires have been nearly unprecedented in terms of their destructiveness and size and the season in which they burned. The [Thomas Fire](#), for example, has grown into one of the largest wildfires in the state's history, devouring thousands of acres daily as it moves from Ventura to Santa Barbara at a time of year more prone to gray skies and cold rain than burning forests.

"The fact that one of California's biggest wildfires is burning in December is mind-blowing," said Jens Stevens, a postdoctoral researcher of forest ecology at the University of California, Berkeley.

Oroville Dam Update

Videos:

Oroville Spillways Phase 2 Update December 7, 2017

Crews install forms and rebar for the extension of the emergency spillway weir. The roller-compacted concrete (RCC) plant for the emergency spillway is being relocated nearer to construction.

California DWR

December 13, 2017

[https://www.youtube.com/watch?](https://www.youtube.com/watch?v=NEvftL1ESbw&index=1&list=PLeod6x87Tu6eVFnSyEtQeOVbxvSWywPlx)

[v=NEvftL1ESbw&index=1&list=PLeod6x87Tu6eVFnSyEtQeOVbxvSWywPlx](https://www.youtube.com/watch?v=NEvftL1ESbw&index=1&list=PLeod6x87Tu6eVFnSyEtQeOVbxvSWywPlx)

News Release: Lake Oroville spillways construction updates

From the California Department of Water Resources

December 22, 2017

Construction activities continue on the Lake Oroville Spillways Emergency Recovery Project. The following is a construction update from the Department of Water Resources (DWR):

Construction on the Main Spillway

Kiewit has completed concrete dry-finishing work for the season on the main spillway. The majority of drainage system work will be completed by the end of 2017. Some temporary drain configurations in the middle chute will be kept in place until the roller compacted concrete (RCC) walls are replaced with structural concrete walls and a permanent drain system next year. Finishing work on the final shotcrete layer of the temporary RCC walls and the enriched overlay on the temporary RCC chute continues over the next few weeks to ensure a smooth surface. Construction will resume on the main spillway in spring 2018. The exact date will be based on weather.

Construction at the Emergency Spillway

Work continues at the emergency spillway. Crews have completed approximately 70 percent of the secant pile wall, and full completion is now expected by mid-March 2018. The expected completion date has been adjusted to account for additional drilling and structural concrete placement.

Forensic Team Report Update

Earlier this month, the Independent Forensic Team released a statement to the media saying the final report would not be completed for several weeks. The IFT recently notified DWR that it is now targeted

for completion in January 2018. The final report will include the IFT's previous findings regarding the physical factors as well as new findings on the human factors that contributed to the February incident. The report will be made public.

Oversight Update

DWR posted memo #14 from the independent Board of Consultants recapping the 14th meeting on Nov. 30 and Dec. 1. DWR is scheduled to meet with the BOC for the 15th time in late February 2018.

Oroville Dam: DWR asks for license before report is released

By [Risa Johnson](#)

Chico Enterprise-Record

12/27/17

<http://www.chicoer.com/general-news/20171227/oroville-dam-dwr-asks-for-license-before-report-is-released>

Oroville >> Just before Christmas, the state Department of Water Resources asked federal regulators for a new license to operate the Oroville Dam complex.

Some hope the department does not get what it wished for.

A big reason for that is the independent forensic team's report, which will identify what caused the main and emergency spillways to fail, has not been released yet. Several entities and individuals, ranging from environmental groups to politicians, have requested the Federal Energy Regulatory Commission, or FERC, hold off on handing out a new license until that report is released and the public has time to process the information.

Despite that, DWR Director Grant Davis has requested FERC approve a new license, via a letter dated Dec. 20.

Remember Proposition 1?

In 2014 voters approved an Proposition 1 of over \$7 billion. Of that \$2.7 billion was earmarked for storage projects. The description below of the conditions imposed for the approval of projects eligible for some of that \$2.7 billion at least partially demonstrates why the state has built no significant water project in more than 40 years. To see the projects that are vying for funding go to the link.

WATER STORAGE INVESTMENT PGM: New water storage projects showcased at the California Water Commission

[December 19, 2017 Maven Meetings](#)

<https://mavensnotebook.com/2017/12/19/new-water-storage-projects-showcased-california-water-commission/>

Proponents of water storage projects competing for Prop 1 funds present their projects to the California Water Commission

The nine members of the [California Water Commission](#) have been tasked with deciding how to award the \$2.7 billion in Prop 1 funds slated to pay for the public benefits of water storage projects, and

competition is pretty fierce. Eleven storage projects have filed applications for the Water Storage Investment Program, requesting roughly \$5.7 billion in funding, or more than twice what is available. However, it is likely that as Commission staff review the applications, they will be adjusting the public benefit calculations, thereby reducing the amount of funding the projects would be eligible to receive.

The method by which eligible projects will be awarded funding is a bit complex as a result of specific language legislators wrote into the proposition that set certain conditions for the funding of eligible projects. Funding can only be granted for water storage projects that improve the operation of the state water system, are cost effective, and provide a net improvement in ecosystem and water quality conditions. The statute further stipulates that the Commission can only provide funding for the public benefits provided by the projects; those benefits are specifically defined as ecosystem benefits, water quality, flood control, emergency response, and recreation. It is important to note that increasing water supply is not considered a public benefit that is eligible for funding under Prop 1.

The statute sets a limit on the state's cost share to a maximum of half of the total project costs, and of the amount funded, half of the amount must be for ecosystem improvements. The statute requires that the project must also provide measurable ecosystem improvements to the Delta or tributary and be consistent with the Wild and Scenic Rivers Act.

At the [December meeting of the California Water Commission](#), proponents of the eleven projects presented their projects to the commissioners, and the public had a chance to weigh in.

News Items: If China Can Do It, So Can We. If We Decide to do so.

Trump Could Enlarge Much-Too-Small Infrastructure Proposal

Dec. 27 (EIRNS)—In a long report Dec. 27 on the infrastructure legislation debates expected to start in early January, CNN reported that President Trump is ready to push his infrastructure Federal spending proposal higher than \$200 billion over 10 years. “A White House official said on Tuesday the current proposal ... would propose spending at least \$200 billion on infrastructure projects over the next decade, with the hopes of spurring an additional \$800 billion in state and local funding. The White House official characterized the figure as a floor, not a ceiling.”

According to CNN, Trump will “finalize” his own initial proposal before meeting with House Speaker Paul Ryan and Senate Majority Leader Mitch McConnell Jan. 6-7.

From other sources, the proposal will basically be a discretionary grant program similar to, but larger than those that currently exist for transportation building projects, “New Starts” and Transportation Investment Generating Economic Recovery (TIGER). These grants help city and state transportation projects. This is supposed to be accompanied by “a few,” perhaps very few, “transformative national projects” to get overwhelmingly Federal funding.

But when one considers that an actually transformational national network of 25,000 miles of high-speed rail would require an investment of at least \$300 billion, it is clear how small the President is still thinking; the Congressional leaders, smaller still.

Moderate Democrats like Rep. Debbie Dingell (MI) and Problem Solvers Caucus co-chair Josh Gottheimer (NJ) have been announcing they are ready to work with the President. But a more important question than whether some House Democrats will work with him, is whether any House

Republicans will support him against Speaker Ryan's "entitlement cuts in 2018" agenda, and Ryan and the conservative think-tanks' opposition to any such legislation.

If there is no bipartisan idea, but rather a Trump/GOP proposal and bigger Democratic proposals with no idea of funding, an "infrastructure debate" can drag on and become a 2018 election debater's point. Such an idea can only work along the lines of Lyndon LaRouche's national "Hamiltonian" bank or credit institution, which also brings in joint-credit collaboration with other nations on great infrastructure projects. Such a credit institution to fund even triple Trump's 10-year investment can win bipartisan support.

China's Investment in New Transport Networks Can Set a Mark

Dec. 27 (EIRNS)—China's Ministry of Transport held a conference, reported in the government newspaper *People's Daily*, on the Ministry's planned 2018 investment in transportation infrastructure. The scale of new infrastructure in 2017 gives an idea of what it takes to build out new national transportation networks rapidly, at a time when the United States, for one, is about to hold a debate on this subject.

People's Daily reported China's transportation infrastructure investments were \$323 billion equivalent in 2017 through November, or would roughly total \$350 billion for 2017 as a whole. This equals about seven years' of surface transportation bills in the United States.

The plans for 2018 are for 5,000 km of new roads, renovation of 216,000 km of roads, 4,000 km of rail, and increasing container port freight-handling volumes by more than 15%.

Reuters reported that at this conference, the Ministry said it intended to speed up the construction of logistics hubs and inland waterways, build more roads to reach rural areas, and concentrate on accelerating the Beijing-Hebei-Tianjin urban triangle plan, mainly by improving roads and rail lines. It writes: "Infrastructure investment is expected to be among the biggest drivers of China's economic growth in coming years."

You Can't Make High-Speed Rail Lines with 30-mph Killer Curves

Dec. 23 (EIRNS)—Attempts across the United States to upgrade 80- to 140-year-old freight rail lines into short-distance "high-speed" passenger lines flowed from bits of the \$8.8 billion in high-speed rail funding in the 2009 ARRA or "Stimulus Act" of Barack Obama, who claimed to be a high-speed rail enthusiast.

As the *Wall Street Journal* reported today, the Amtrak Cascades between Portland and Seattle was one of those lines, in this case a freight line dating originally from 1891 which was upgraded to allow passenger travel at 80-100 mph.

But the *Journal* describes how higher speed rail on the cheap has a glaring problem—low-speed curves—and they are seen all over the country on such old freight lines. In the Washington State crash, with three fatalities, the original plan to get rid of the curve where the crash occurred, including a new rail trestle at a different location, was abandoned due to its cost. The State Transportation Authority decided it "wasn't necessary to support the number of planned round trips." The mistake was the more egregious because the 30-mph maximum speed curve into the trestle over the highway, was also on a significant downhill grade. But this is what has tended to happen in case after case of these upgrades to what should really be called moderate-speed passenger rail.

The widespread occurrence of these low-speed curves on old freight lines creates the rail equivalent of

“dangerous intersections” where local agencies try to make them moderate speed. Positive train control systems would handle the problem by automatically braking the train well in advance; but they, too, nearly always get postponed due to cost, as was the case with the deadly Amtrak Cascades crash.

This is not the way to build a national network of high-speed rail corridors—for passengers, freight, or both—but only illustrates how badly one is needed.

China Promotes Nine Pioneer Manufacturing Technology Areas

Dec. 27 (EIRNS)—China will enhance key manufacturing technologies in nine areas as the government aims to drive the country to be a top manufacturer by accelerating technology upgrading, reports Xinhua.

The National Development and Reform Commission (NDRC), the country’s top economic planner, has made three-year (2018-20) targets for railway transport, advanced shipping and maritime engineering, intelligent robots, smart cars, modern agricultural machines, advanced medical devices and medicines, new materials, smart manufacturing and key equipment. The targets are aimed at catapulting China into the top league of manufacturing nations.

China expects to succeed in producing maglev trains that can run at 600 kmh and in automating the operations of railways in the next three years. It also expects to “realize significant achievements in producing large cruise ships” and building a vessel capable of carrying 22,000 TEUs (twenty-foot equivalent units), which will be the world’s largest container ship. China is also expected to expand its global market share in advanced agricultural machines.

The NDRC aims to cut domestic medical expenses by introducing at least 10 new medicines to the domestic market and has plans to sell them abroad. The targets furthermore include intensifying the development of key components for smart manufacturing, such as programmable logic controllers and robots. Development of artificial intelligence and augmented reality will also be vital under the plan.

New materials such as graphene, specialty steel, advanced organic and composite materials are identified to help the development of advanced machines, save energy and cut carbon emissions.

American Transportation Journal: West Waking Up to Opportunities of the Belt and Road

Dec. 27, 2017 (EIRNS)--A blog posted today to the website of the *American Journal of Transportation* (AJOT), titled "2017: the year the West woke up to the opportunities of the Belt and Road," describes the vast scope of China's Belt and Road Initiative (BRI), noting that Western companies and experts are now "scrambling to catch up, in part due to the realization that the initiative looks set to transform East-West trade flows and terminal operations."

It's clear, the author says, that there is a reorientation of global trade taking place toward the East, which, aided by the BRI, has "reshaped the port infrastructure landscape." Opportunities "are ripe for companies who can position themselves to take advantage of the challenges." Noting tremendous Chinese investments in nations such as Malaysia and Pakistan, and recent acquisitions of terminal interests in Sri Lanka, Spain, Belgium, and Brazil, the author reports that among them, COSCO Shipping Ports, Shanghai International Port Group, and China Merchants Port Holdings have now invested in nearly 40 overseas port locations.

Thus, he concludes, the BRI "promises to be a game-changer" for the port infrastructure and seaborne trade industries that are leading to "shifts in the flow of global trade." Look at the fact that, following the 2015 merger of COSCO and China Shipping, the new combined entity is now on track to become the biggest global container terminal operator, by capacity, by 2020.

"The gauntlet has been thrown down to other port operators to respond to Chinese investment that is dominating the headlines."

As for the future, there is every indication that the market will continue to grow in absolute terms, "displaying that the Belt and Road is triggering a range of opportunities that transcend the fate of individual ports."

Failure To Pass Disaster Aid Package Intensifies Devastation

Dec. 24 (EIRNS)--The failure of the U.S. Congress to pass a Disaster Aid Package, will have serious consequences, some of which will literally mean life or death, for millions of citizens in Texas, Florida, and especially Puerto Rico.

On Thursday Dec. 22, the House of Representatives passed a \$81 billion Disaster Relief Package, on a bipartisan basis by a vote of 251 to 169. But the Senate has taken no action. The House bill included \$27.6 billion for FEMA, \$26.1 billion for Community Development Block Grants, and \$12.11 billion for the Army Corps of Engineers. An important portion of the proposed allocations for Community Development Block Grants, and the Army Corps, were for public works-infrastructure.

The bill may not be taken up again until mid-January.

On Sept. 20, Hurricane Maria's 155 mph winds buzz-sawed through Puerto Rico. On Dec. 11, Puerto Rican Gov. Ricardo Rosselló and New York Gov. Andrew Cuomo advanced a sound long-term \$17.8 billion power plan, entitled "Build Back Better" that would not merely replace, but build a vastly superior electricity grid/power system.

Without such fundamental change, Puerto Rico has experienced the loss of 1.248 billion customer hours of electricity, according to research published by the Rhodium Group. This constitutes the largest blackout in United States history, whether from hurricane, other natural disaster, or human error.

This is producing emigration under duress. More than 10,000 Puerto Rican children have enrolled in the Florida school system during the past three months, which would suggest their parents went with them, reports the Dec. 23 Vox. The Center for Puerto Rican Studies at the City University of New York estimates that Puerto Rico will lose up to 470,355 residents by the end of 2019, approximately 14% of the population.

The need for LaRouche's Four Laws, providing the Hamiltoniandirected credit system to finance the Build Back Better plan, is intensely urgent.

Feature: The American Credit System

What follows are excerpts from the introduction and chapter 3 of the new LaRouche PAC pamphlet:

LaRouche's Four Laws & America's Future on the New Silk Road

<https://larouhepac.com/20170225/four-laws-pamphlet>

But now we are in a new era. This pamphlet is more than an updating of that earlier version, both because the demands of the moment are so vast, but also because the potential for an historic victory is so much greater. The precise steps that must be taken for the United States to return to future-oriented growth and join with China and other nations in win-win global development are presented in Lyndon LaRouche's policy document "The Four New Laws to Save The United States Now." In this report, each of these four principles is elaborated to provide an in-depth basis according which these actions must be taken.

This program will ensure a great and prosperous future for America: productive and meaningful employment for everyone who wants a job, cheap and abundant electricity for all residential and industrial needs with fission and fusion power, the elimination of all droughts and water crises, high speed rail and magnetic levitation transportation between every major city, new world-class cities, a robust interplanetary manned space program, and a new classical cultural renaissance. This isn't asking too much to ask for, this isn't "pie-in-the-sky." This is what is possible, now, if you following the guidelines of this report, and make it happen.

Introduction: A New Paradigm for Humanity

In 2014, China's President Xi Jinping invited the United States to join the largest infrastructure project ever undertaken by mankind, China's great Belt and Road Initiative, also known as the New Silk Road. President Obama refused, opting instead for military encirclement of China, and economic warfare through the exclusion of China from the Trans-Pacific Partnership trade deal, just as he had launched similar geopolitical attacks against Russia.¹ Obama's policy, produced by the British and supported by the Western elites, was born from the fear that China's Belt and Road Initiative—aimed at securing prosperity for the developing world, and providing modern infrastructure for all—threatened Anglo-American dominance of the world. This is a false and possibly fatal delusion, as presented by Helga Zepp LaRouche below.

Following the defeat of Obama's political heir, Hillary Clinton, President Donald Trump has sought to overthrow this geopolitical onslaught against Russia and China. He has pursued a better relationship with Vladimir Putin based on the common interest of fighting terrorism and developing the world, and he has developed a friendship with China's President Xi Jinping. Domestically, President Trump has repeatedly referenced the critical economic framework needed to rebuild the United States: the American System of political economy, founded by Alexander Hamilton and carried forward in the physical economic development of our own country by Hamilton, Abraham Lincoln, and Franklin Roosevelt. If you are searching for the reason behind the crazed and insane attacks on the President, look no further than to these three things. Every resource known to Wall Street, our Hollywood culture, our Washington D.C. intelligence community mandarins, and our contrived news media has been leveled at attempting to drive President Trump away from mutually beneficial relations with Russia and China, and a revival of the American System of economy.

In this pamphlet, we introduce you to China's great Belt and Road Initiative and lay out, in that context, Lyndon LaRouche's Four Laws for Economic Recovery of the United States. What might seem like two distinct ideas are, in fact, one. Lyndon LaRouche and his wife Helga Zepp-LaRouche have campaigned for more than 40 years to develop the world, promoting scientific breakthroughs, grand designs for economic development, and a renaissance of classical culture. LaRouche has used his groundbreaking discoveries in economics to fundamentally advance the American System of political

economy, as proposed and practiced by Hamilton, Lincoln, and Roosevelt. *This is the program encompassed in [LaRouche's Four Laws for Economic Recovery of the United States](#)*. Helga Zepp-LaRouche's decades-long campaign in China and other nations for a New Silk Road of modern infrastructure development and a revival of classical cultures, both East and West, has earned her the name "the New Silk Road Lady" in China. The Belt and Road initiative reflects the vision of both Lyndon and Helga LaRouche and encompasses the fundamental economic ideas animating the American System, ideas which have been largely abandoned in the United States.

There is no better guide to China's grand project, and the historical significance of the United States itself adopting a new paradigm of economics and international relations, than Helga Zepp-LaRouche herself. And, so, we will introduce this pamphlet through a speech she recently gave at a Schiller Institute Conference "Fulfilling the Dream of Mankind" held in Bad Soden, Germany on November 25, 2017. We have edited her remarks for purposes of space in this pamphlet, but encourage you to view the video in full.

Read this speech with the sense of adventure, optimism, and big thinking which accompanies acts of discovery, rather than the small-minded pessimism which we are fed daily in our country.

Go to the link for the transcript of the speech: <https://larouchepac.com/20170225/four-laws-pamphlet>

Here is the video of the speech: <https://www.youtube.com/watch?v=m5sSXaFcLA4>

From Chapter 3 of the pamphlet: Credit and a New Concept of Infrastructure:

3. Credit for Increasing Productivity

"The purpose of the use of a Federal Credit-system, is to generate high-productivity trends in improvements of employment, with the accompanying intention, to increase the physical-economic productivity, and the standard of living of the persons and households of the United States."

—Lyndon LaRouche, **Four Laws**

How are productivity and value defined in a science of physical economy, and what role does basic economic infrastructure play?

Only the human species can act on its own to expand its "carrying capacity," the maximum number of individuals that can live in a given area, by overcoming momentary ecological boundaries and limitations through scientific discoveries and their applications in the form of technologies. Lyndon LaRouche's early-1950s fundamental discoveries in economics led him to use the concept of "potential relative population density" as a metric for this uniquely human form of progress. Scientifically accurate notions of economic value and productivity can only be defined with respect to increasing the potential relative population density of a society.

A New Concept of Infrastructure

The standard conception of "infrastructure" among economists and policy makers is severely limited. In 2010, Lyndon LaRouche redefined the true meaning of economic infrastructure from the standpoint of his science of physical economy—upgrading the standard outlook which pervades the "roads and bridges" conception of infrastructure, to that of a notion of the economic *platform*, of the creation of an *environment* in which a society's economic activity occurs. He wrote:

We should then recognize that the development of basic economic infrastructure had always been a needed creation of what is required as a "habitable" development of a "synthetic," rather than a

presumably “natural” environment for the enhancement, or even the possibility of human life and practice at some time in the existence of our human species.... Man as a creator in the likeness of the great Creator, is expressed by humanity's creation of the “artificial environments” we sometimes call “infrastructure,” on which both the progress, and even the merely continued existence of civilized society depends.¹

Several months later, he added:

Ordinarily, the idea of "productive" is associated with the output of labor by production. That is an honest mistake in judgment. The fact of the matter is, that the precondition for the rise of cultures to revolutionary changes to higher qualities of regions of sustainable, potential relative population-density, depends on virtual leaps in potential relative, human population-density which, in turn, require a higher quality of physical-cultural "platform" within which to operate... In other words, the level of achievable productivity depends upon raising the "platform," through revolutions in infrastructure, on which successful general advances in potential relative population-densities depend. Without those advances in basic economic infrastructure, merely particular technological progress locally applied will fail in attempted performance of the truly vital mission of physical-economic program, failing for lack of the progress in advancement of the quality of the infrastructural platform on which the success of the society as a whole depends.²

Infrastructure is not simply a faster or cheaper way of getting from here to there, or of providing electricity at a lower cost. When considered as a totality, as a platform for development, as an environment in which economic activity occurs, its true meaning can be understood. Rebuilding crumbling infrastructure, while needed in many cases, is not the basis of a recovery, or of a new platform of productivity.

Rather, the launching of a more advanced infrastructure *system*, intended as a basis for a higher level of overall functioning, would focus on the highest technologies: high-speed and magnetic levitation rail systems, nuclear power and the development of commercial nuclear fusion, and the top-down management of the continental water cycle as a whole. New technologies, mediated via a national system of public works, allow a new level of economy overall, which in turn provides the platform for further technological development. Thus, the continuous upgrading of the technologies available to the nation generally, allows for the progressively higher qualitative platforms of economic activity of society as a whole.

Around the world, a new paradigm of great projects and economic development is now emerging. The New Silk Road being built by China and other nations across the globe, is rapidly pulling nations previously plagued by extreme poverty up to modern levels of technology and standards of living. Were the United States to join this new paradigm of development by joining hands with these nations in great project development, the New Silk Road would truly become the World Land-Bridge—a globally integrated economic platform. Given the collapse of skilled labor and manufacturing capacity in the United States, partnering with key nations will be critical to a rapid and successful recovery program.