

California Drought (and Flood) Update



For July 13, 2017

by Patrick Ruckert

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

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Looking back to those martyrs who gave us institutions in which truth was given social standing. And that is freedom. There is no freedom without truth, and there is no truth without freedom. The right of an individual informed by right principles to come to an opinion based on reason, not arbitrary opinion, but on based on careful employment of reason. And the right of that individual to stand up and say, this is what I believe, unless I am persuaded to the contrary by reason. That is freedom. If the entire society disagrees with you. So what? You have the right, as long as you are guided by reason, and as long as you will submit yourself to correction of your opinion by reason, that is freedom.

Lyndon LaRouche's keynote address to a 1988 "Food For Peace" conference

A Note To Readers

The quote above serves two purposes this week. First, it introduces the topic of Food for Peace, which again, as in 1999, is the title of a conference held in New York City on July 8, featuring both U.S. farmers and Chinese agricultural specialists. Links to that conference can be found immediately following this introduction.

Secondly, it introduces the idea that political principles must be based on reason; that opinion not based on reason cannot be truth. Nowhere is that more clear than the question of how is the nation going to move forward with the building and rebuilding of our infrastructure. Over the past weeks I have repeatedly stated that that cannot be done without restoring a Hamiltonian credit system. I shall not repeat my arguments here, now. An eight minute video from which the LaRouche quote above comes is here: <https://larouchepac.com/20170705/true-patriotism-defend-natural-law-and-powers-reason>

But, I will introduce another principle: Since there are no limits to growth for mankind, it is only when

we mistakenly, or stupidly, think that there are that we say things like “it can't be done.”

In this week's report:

The Food for Peace conference in New York City on July 8 included a presentation by Robert Baker titled The Farmer Astronaut, which demonstrated in a beautiful way how the space program has transformed agriculture. Links to that presentation and the entire conference are provided.

Our U.S. Drought Monitor and Reservoir graphs follow.

The heat wave has killed between 4,000 and 6,000 cattle in California in the last few weeks. That story is part of the coverage of the weather this week.

Our Oroville Dam update includes a video of the ongoing work and articles spelling out how the work is progressing.

That is followed by the news of the House passing a California Water Bill. One that will may not pass the Senate and thus gives us another act of the Congress appearing to do something.

The summer has exploded early with wildfires, so several articles provide some thoughtful background.

Food for Peace Conference

Food For Peace & Thought: China-US Agricultural Cooperation - Complete Conference

<https://larouchepac.com/20170710/food-peace-thought-china-us-agricultural-cooperation-complete-conference>

The Schiller Institute, in collaboration with the China Energy Fund Committee and the Foundation for the Revival of Classical Culture, held an all-day conference in New York City on July 7, 2017, bringing together farm leaders, agricultural scientists, engineers, and political and diplomatic officials from throughout the United States, China, and other nations. The first of the panels centered on a food production and trade policy that could feed the world.

Farming From Space — Energy Flux Density and Agriculture

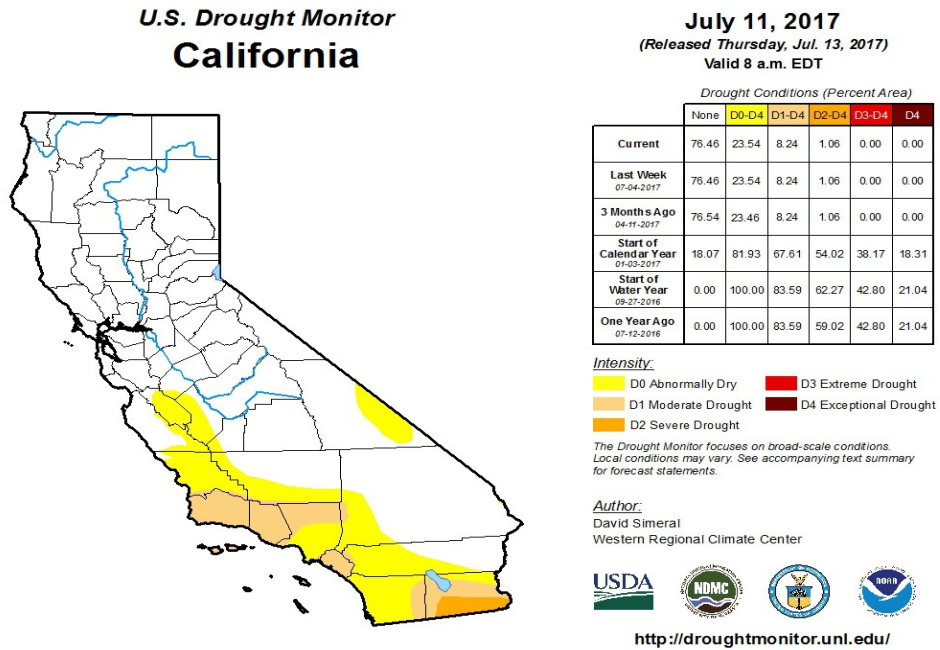
<https://larouchepac.com/20170711/farming-space-energy-flux-density-and-agriculture>

Robert Baker presents a terrific pedagogy on Lyndon LaRouche's economic principle of Energy-Flux-Density as it relates to agriculture. The future of farming and the pursuit to eliminate hunger from the planet depends on mankind's continued development of its uniquely creative mind. The spin off technologies of the space program are revolutionizing farming around the world, from GPS technology and automation, to soil analysis, planting and harvesting. With growing cooperation between the United States and China centered on China's Belt and Road initiative and their ambitious space program, it is easy to imagine an unprecedented revolution in mankind's powers over the universe resulting in the elimination of hunger and poverty.

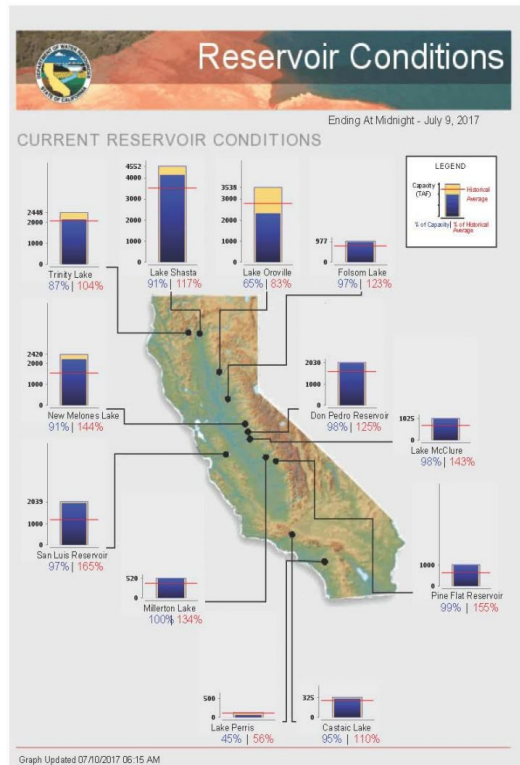
This presentation was originally made at a conference of the Schiller Institute, the China Energy Fund, and the Foundation for the Revival of Classical Culture held in New York City on July 7, 2017. It is

presented here because it relays adaptations of some of Lyndon LaRouche's key ideas to high productivity in food production.

U.S. Drought Monitor



Reservoir Graph



Yes, It Is Hot-- Its Summer

One of the more interesting statements in one article this week is this: “A temperature curve created for the 11,000 years of data shows that temperatures peaked about 8,000 years ago and dropped thereafter, but recently the temperature is beginning to rise again...” The article follows immediately below. While the article makes the usual genuflect to “man-caused climate change,” the quote immediately above does give a hint to the truth that, surprise, the Earth's climate is always changing, will always change, and that there are factors and forces that are galactic in nature which far outweigh mankind's impact.

While we may be experiencing a heat-wave that is breaking some records, it is important to recall another truth: Nature will throw conditions at us humans, but it is we who determine how we respond. For, unlike all other species, mankind need not be subject to the whims of nature, but we create our future by continuously managing nature.

The high temperatures are exacerbating the fire danger, and that is covered in a separate section below.

Water experts: Climate change intensifying effects of persistent drought

By Mick Akers

July 5, 2017

<https://lasvegassun.com/news/2017/jul/05/water-expert-nevadans-can-expect-hotter-and-drier/>

Wildfires have increased over the last several years, something one of Colby Pelligrino's mentors told her years ago would show that climate change is legitimate.

“We'll know if it's real, because the West will be on fire long before it hits the watershed,” said Pelligrino, director of water resources at Southern Nevada Water Authority.

Pelligrino said the average temperature was up 8 degrees during March in Colorado, home of the snowcap that feeds the Colorado River and, in turn, Lake Mead. “It clocked in as the warmest temperature for the month in the state of Colorado ever.”

This year's unseasonably warm temperatures in the West have had sizable impacts on the snowpack in the Rockies this year, Pelligrino said.

Data recently published on the issue said the drought was caused by temperature changes. In contrast, there was a similar shortage of water in the 1950s, which was caused by the lack of precipitation.

Dr. Matthew Lachniet, a UNLV geoscience expert, said Pelligrino was alluding to what is known as a hot drought. Studying cave deposits from various areas in Nevada, Lachniet and his associates have been able to create a climate history showing how temperature and precipitation have changed over a span of 11,000 years.

“Pretty simple, hot and dry, that's the pattern for Nevada,” Lachniet said.

A temperature curve created for the 11,000 years of data shows that temperatures peaked about 8,000 years ago and dropped thereafter, but recently the temperature is beginning to rise again, which Lachniet said is the effect of global warming.

“The answer is, yes, it's really unquestionable that climate is changing and humans are driving it,” he said. “We know that since the 1980s that temperatures have exceeded the long-term means.”

When it gets hot, it gets drier, and the data show that Nevadans can expect to see hotter and drier

conditions to persist heading into the future, Lachniet said.

Those higher temperatures will play a big role in the flow of the Colorado River going forward.

“As the temperature increases, we have a greater evaporate and demand and lots of reasons that water gets used up faster,” Lachniet said. “That leads to less water staying in the river system.”

Palm Springs hits new record high temperature as Southern California broils

By Joseph Serna

July 7, 2017

<http://www.latimes.com/local/lanow/la-me-ln-heat-wave-southern-california-records-20170707-story.html>

The records are set up, ready to fall like dominoes if forecasters' predictions prove accurate for Southern California's heat wave this weekend.

On Friday, the [National Weather Service](#) expects heat records for July 7 in at least six parts of Los Angeles and Ventura counties to fall.

New records were set for the day in Palm Springs (122 degrees), Indio (119) and Thermal (121).

Of course, this being summer in L.A., the extra heat isn't shocking. But Bill Patzert, a climatologist for the Jet Propulsion Laboratory, said the heat waves are “definitely coming earlier this year.”

Southern California typically sees its warmest weather in August or September, he said.

The sizzling temperatures are the result of a jet stream that brings cooler weather to the California coast, moving north due to the position of the sun relative to the Earth in summer, Patzert said.

That shift produces the American Southwest monsoon, in which high pressure settles over the Four Corners region of the U.S. — where Arizona, Utah, New Mexico and Colorado meet — and pulls in tropical moisture from the Gulf of California and warm air from the Mexican desert.

The system is currently settled over the desert in the Southwest and spreading sweltering temperatures from California to Oregon and as far east as central Texas.

California Heat Wave Kills Thousands of Cattle and Overwhelms Dairy Industry

By Ada Carr

Jul 9 2017 12:00 AM EDT

weather.com

<https://weather.com/news/news/california-heatwave-mass-livestock-cattle-deaths>

The heat wave caused an estimated 4,000 to 6,000 livestock deaths in June.

The staggering number of carcasses have overwhelmed facilities that properly dispose of them.

A local state of emergency allowing dairy farmers to bury or compost the carcasses has been extended.

Thousands of cattle have died in California as a heat wave continues to bake the state.

California's Central Valley has dealt with two bouts of prolonged triple-digit heat since mid-June, according to weather.com meteorologist Chris Dolce. Fresno observed nine consecutive days with afternoon readings in the 100s during the second half of June. Saturday marked the sixth day in a row with highs above the century mark in this latest heat wave to begin July, and it's expected to continue through much of the week ahead.

Oroville Dam Update

We begin this Oroville Dam update this week with a video from the Department of Water Resources showing the ongoing construction activity at the spillway on July 7. That is followed by a couple of reports on some of the details of that work. The articles are excerpted, so read the entire articles should you wish to know more.

Here's where construction efforts on Oroville Dam spillway lie in early July

By David Caraccio

July 8, 2017

<http://www.sacbee.com/news/state/california/water-and-drought/article160320084.html>

Drone video footage released Friday shows how construction progressed on the Lake Oroville main spillway from July 1 through July 6, 2017.

The Department of Water Resources, which released the video, said reconstruction efforts continued to focus on excavation of debris on the lower chute, rock crushing, rock cleaning to prepare the foundation for concrete pouring. A concrete batch plant is producing materials for concrete that will be used for reconstruction.

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.

Oroville Dam: DWR wants to reconstruct more of damaged spillway this season

By Risa Johnson

Chico Enterprise Record

July 13, 2017

<http://www.mercurynews.com/2017/07/13/oroville-dam-dwr-wants-to-reconstruct-more-of-damaged-spillway-this-season/>

Oroville – The state Department of Water Resources has filed a request with the Federal Energy Commission to demolish and reconstruct an additional 240 feet of the main Oroville Dam spillway upper chute this season.

The purpose of the change is to ensure the reconstruction can be complete in two seasons, per a recent FERC filing. Kiewit, the contractor, said demolition “must commence as soon as possible” to stay on schedule, according to the letter.

Erin Mellon with the California Natural Resources Agency said DWR expects to be granted permission in the next several days. Kiewit signed on to the project when design plans were incomplete and the department continues to make changes because of new information from the Board of Consultants, Kiewit and other entities, she said.

“We want to get as much work as possible done when we have the time, weather and resources,” Mellon said. “The goal is to complete as much as we possibly can this year.”

Kiewit is blasting and rebuilding most of the main spillway with a deadline of Nov. 1 set by DWR. The design plans changed substantially in May, as the department learned the rock foundation beneath the upper spillway was stronger than other regions of the structure. Initially, the plan was to focus on the upper chute this season.

Simultaneously, crews are building a cutoff wall at the bottom of the emergency spillway, which consists of an unlined hillside below the concrete weir.

The following article is quite extensive and thorough. I have just selected a few excerpts from it:

Milestones and miscues at Oroville Dam

By Jake Abbott/jabbott@appealdemocrat.com

July 8, 2017

http://www.appeal-democrat.com/news/milestones-and-miscues-at-oroville-dam/article_f1a71042-6435-11e7-a26e-1f3dddf24ea.html

Milestones have been reached and mistakes have been made over the past few months of repairs to the damaged spillway at Oroville Dam, but officials with the agencies responsible for the work maintain that critical infrastructure will be in place by the start of the next rainy season.

By Nov. 1, the goal is to have a functioning spillway capable of conveying 100,000 cubic feet per second. Jeanne Kuttel, chief of engineering for the Department of Water Resources, said construction is on target to meet that deadline.

"We will have systems in place by Nov. 1 so we can pass through the winter storms," Kuttel said.

Work completed

In the last few months, crews have cleared debris from below and around the damaged spillway and blasted cement and earth with explosives to prepare for new construction.

"Most of the main spillway that will be reconstructed this year has been demolished," said Erin Mellon, communications manager for the spillway recovery project. "Now, crews are washing the rock to prep the area, placing dental concrete to fill gaps, creating forms for underdrains and placing rebar mats. Roller compacted concrete will soon be placed to prepare for the structural forms."

The lower chute of the spillway — approximately 1,400 feet — has been completely demolished and cleared.

Jeff Petersen, project director for Kiewit, the construction company contracted for the work, said the company reached a major goal last week on the spillway, with crews beginning to place a leveling slab on the lower chute. The slab will provide a level foundation for crews to pour the lower chute at a later date.

House Passes California Water Bill: More Nibbling At the Problem

Until the nation decides it will go whole hog in building a new infrastructure platform, including a continental water management project like the North American Water and Power Alliance (NAWAPA) https://www.youtube.com/watch?v=KbSZ_uSTcEY piece-meal legislation like that passed by the House this week will neither build anything of any significance in California or anywhere else. And as the largely partisan vote demonstrates, as does the real possibility that it will not pass the Senate, we witness once again that the U.S. Congress is virtually worthless. Perhaps a simple message to them will be more effective: "It is the system, stupid."

The bill, HR 23, the Gaining Responsibility on Water Act, was approved by a vote of 230 to 190, largely along party lines. The bill now moves to the Senate, [where Senators Feinstein and Harris have already stated their opposition](#).

From Democratic Congressman Jim Costa:

Today the U.S. House of Representatives passed H. R. 23 the Gaining Responsibility on Water Act of 2017, by a vote of 230 to 190. The legislation, sponsored by Rep. David Valadao (CA-21), aims at increasing the amount, quality, and reliability of water available to communities in the Central Valley of California. A large portion of the bill focuses on modifying policies regarding the operations of the Central Valley Project and State Water Project and the implementation of the San Joaquin River Settlement.

Congressman Jim Costa (CA-16) was the only Democrat to cosponsor the Gaining Responsibility on Water Act of 2017, although he raised concerns regarding specific provisions contained within the legislation.

House passes California drought bill

By Timothy Cama and Devin Henry

07/12/17

<http://thehill.com/policy/energy-environment/341774-house-passes-california-drought-bill>

The legislation, from Rep. David Valadao (R) and 14 other California Republicans, looks to expand water storage and improve water delivery as a way to get more water to the state's Central Valley during times of drought.

The bill overhauls federal regulations and permitting procedures that supporters say have hamstrung California and other states in the West that have faced persistent drought concerns.

Rep. Tom McClintock (R-Calif.) said the bill "addresses the policy, regulatory and administrative failures that have mismanaged our water supplies across the West."

The House passed the bill on a 230-190 vote.

Democrats accused the GOP of overriding California law and its power over water supplies, while significantly harming commercial fishing in the state by reapportioning water.

Valadao's bill is the second drought-related measure passed by the House this session. Last month, lawmakers [approved a measure](#) to speed up permitting decisions for water storage projects such as dams and reservoirs in the state.

GROW Act passes U.S. House, intends to restore water reliability

Allows more efficient use of Shasta Lake water

By Brent Weber

KRCR

Posted: Jul 12, 2017 04:59 PM PDT

Updated: Jul 12, 2017 04:59 PM PDT

<http://www.krcrtv.com/news/local/shasta/grow-act-passes-us-house-intends-to-restore-water-reliability/586232610>

WASHINGTON, D.C. - The U.S. House of Representatives passed H.R. 23, known as the Gaining Responsibility on Water Act (GROW), legislation intended to restore water reliability for Californian and other western states.

The bill includes an amendment offered by California Congressman Doug LaMalfa (R-1st Dist) that allows for more efficient use of Shasta Lake by allowing water contractors to more readily access water when they need it. Current policy requires any water allocated to be used in the year it is allocated, or lost. This amendment simply ensures that water rights holders may also use the rescheduling ability provided under the bill.

"This bill would require the federal government to expedite the process of approving and completing water projects," LaMalfa said in a press release. "Importantly, this legislation will also include protections for NorCal water rights and restore availability of water supply for California agriculture."

The GROW Act intends to expand water storage through expedited feasibility studies, streamline permitting infrastructure, prohibit federal agencies from requiring private entities to relinquish some water rights and provide for restoration of wildfire habitat

It Could Well Be A Serious Fire Season

California fires spread quickly, evacuation orders lifted in other parts of West

July 9, 2017

<http://www.cbsnews.com/news/california-wildfires-spread-quickly-evacuation-orders-lifted-colorado-montana/>

ANTA MARIA, Calif. -- A pair of [California wildfires have quickly spread](#), threatening hundreds of homes and forcing evacuations at a popular lakeside campground and a summer camp where flames temporarily trapped children and counselors, a fire official said.

In other parts of the West, evacuation orders were lifted in Colorado and Montana towns threatened by wildfires, while air and ground crews battled a growing grass fire in northwestern Colorado.

The fire that started early Saturday afternoon in California's Santa Barbara County had spread to both sides of Highway 154 and was "completely out of control," county fire Capt. Dave Zaniboni said.

About 90 children and 50 counselors were struck at the Circle V Ranch and had to take shelter there until they could be safely evacuated.

The Santa Barbara County fire was one of three in California that grew quickly as much of the state baked in heat that broke records. A record that stood 131 years in Los Angeles was snapped when the temperature spiked at 98 degrees downtown. The previous record of 95 degrees was set in 1886, the National Weather Service said.

Longer, Fiercer Fire Seasons the New Normal with Climate Change

Dry spells are getting drier in the West as temperatures rise, creating a greater risk of wildfires.

By Georgina Gustin

July 11, 2017

<https://insideclimatenews.org/news/11072017/wildfire-forest-fire-climate-change-california>

Firefighters in the West are starting to see it every year: an earlier start to the fire season and millions of acres of forest and range burned or ablaze as the summer just begins to heat up.

At least [60 large blazes](#) are currently devouring parts of the West, threatening to make 2017 a record-breaking wildfire year and adding to the [3.4 million acres](#) already burned this year. As early as April, wildfires had scorched more than 2 million acres in the United States—nearly the average consumed in [entire fire seasons](#) during the 1980s. At least 20 new, large fires have ignited in the West in the last few days, forcing thousands of people from their homes.

"All the wildfires out West at the moment—it's exploding," said Kevin Trenberth, a climate scientist in the climate analysis section of the National Center for Atmospheric Research. "It was the same last July, with fires all the way up to Alaska."

Dry conditions and drought have contributed to huge wildfire seasons over the past decade, including a record-breaking season in 2015 when over [10 million acres burned](#).

This year, relief appeared to come with heavy snows over the winter, which built up snowpack in the

Rocky Mountains and Sierra Nevada, followed by rains this spring. But as temperatures heated up again this spring and summer, that relief may have actually made things worse.

"There are wet times and dry times, but here's the thing: the wet times promote fuel growth, and the dry times increase your vulnerability to fire," said Tim Brown, director of the Western Regional Climate Center in Reno, Nevada. "This year is a great example of that. In the Great Basin [which covers much of the West], that very wet winter caused a tremendous amount of cheatgrass, sagebrush and rabbitbrush. That's all available to burn now."

The expanded fire season stretches from early spring to late fall, and in some areas, even longer. The length of the season, along with bigger, more intense fires, is taxing budgets.

The U.S. Forest Service, which is under the U.S. Department of Agriculture, dedicated half of its budget to fighting fires in 2015, exceeding 50 percent for the first time in its 112-year history. Former Agriculture Secretary Tom Vilsack joked that it should be called the "Fire Service."

In the West, they used to talk about a fire season," Trenberth said. "The fire season used to be 60 days, then 90 days, and now they think it's year-round. There's no pause."

The warming atmosphere is only partly to blame. Decades of battling fires has meant that fires have been unable to burn naturally, a process that clears out undergrowth. Left to grow, that undergrowth has become fuel.

"There's an expectation that a fire department is going to come to your home and put out the fire. So why shouldn't that be the same in the forest? That mentality was made more prominent by the Smokey the Bear campaign," Brown said. "The campaign was incredibly effective, but I don't think people have gotten over that yet. There's still very much the sense that we should go out there and fight fires."

At the same time, populations in the "wildland-urban interface" have grown as development has mushroomed across the country. With millions of dollars of construction and human lives at risk, fire departments are increasingly called on to protect investments in naturally fire-prone areas.

Feature

Again, the Fundamental Question: The U.S. Must Return to a Hamiltonian Credit System. While the President is fulfilling his pledge of creating better relations with Russia and China, thus far nothing of substance is moving on infrastructure. The following excerpts from the linked article makes both points.

Trump's Policy of Peace with Putin and Xi Is Courageous; His Policy of Peace with Wall Street Is Not (excerpt)

<https://larouhepac.com/20170713/trumps-policy-peace-putin-and-xi-courageous-his-policy-peace-wall-street-not>

President Trump's policy of cooperating with Putin and with Xi of China is courageous. He is facing down what is essentially a British imperial policy establishment who insist the "sole superpower" can order around nuclear superpowers Russia and China, and all other nations, and "regime-change" whoever won't obey. Trump's having the nerve to fire a power-hungry FBI Director is also important.

What is not courageous, is the President's inability to take any steps against Wall Street, toward

carrying out the economic recovery policies on which he ran. Rather, Wall Street, led by the likes of Treasury Secretary Steven Mnuchin, is running all over him.

The American people demand a Glass-Steagall breakup of Wall Street's megabanks, before the next financial blowout, now likely this Fall. A Hamiltonian national credit institution for new economic infrastructure can't be postponed any more; critical but decrepit infrastructure systems are breaking down even without hurricanes or floods. Repair will not suffice: Technologically and scientifically new infrastructure platforms are needed, such as high-speed and maglev rail systems, research into fusion power technologies — such as China is building across the expanding New Silk Road! And the "driver" of such progress must again be NASA, the expanding exploration of space.

The President can't organize this alone. The American people have to organize for the "four laws" formulated by Lyndon LaRouche, and for the United States to join that New Silk Road.

President Trump is fighting the British imperial policy, and it is British intelligence which launched "Russiagate" against him a year ago and has driven the Congressional leadership into McCarthyite madness.

But neither he, nor either party in Congress, is fighting Wall Street. That is up to the rest of us, and it can't be delayed, or the next looming crash will wipe us out entirely.

A California Democrat Making Some Sense

It is impossible to ignore the insanity that has gripped the U.S. press, most Democrats, some of the Republicans, and the intelligence community. So, when one of them says something rational it should be noted.

Newsom: Russia Story Is 'A Loser,' 'Doesn't Do Anything for the Democratic Party'

<http://www.breitbart.com/video/2017/07/12/newsom-russia-story-is-a-loser-doesnt-do-anything-for-the-democratic-party/>

by [Ian Hanchett](#)

12 Jul 2017

On Wednesday's broadcast of MSNBC's "Morning Joe," California Lieutenant Governor and 2018 gubernatorial candidate Gavin Newsom (D) stated that the Russia story isn't going to do anything for Democrats and is a loser.

Newsom said, "It doesn't do anything for Democrats. At all. It's not going to get one of our statehouses back."

He added, "It's a loser, and I don't know what more evidence you need. I mean, at the end of the day, even if you game this thing out, you get rid of Trump, you're left with a guy who's out there talking about conversion therapy. It doesn't do anything for the Democratic Party and our agenda. So, unless we deal with the issues of economic anxiety, cultural issues, in a substantive way and we get in the how business and we actually demonstrate with some acuity and strength a clear conviction in terms of the fate and future of this country, then we're never going to take back these statehouses."