California Water and Infrastructure Report

Formerly, the "California Drought (and Flood) Update"

For May 10, 2018

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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Since the election of Donald Trump in November, 2016, there has been a great deal of discussion concerning rebuilding American infrastructure. Much of it is incompetent. All of it is inadequate. What are being put forward are limited, small approaches, very few of which will have a dramatic effect on increasing national productivity, and the sum total of what is being proposed utterly fails to address the urgent national requirements 50 to 100 years into the future. Everyone is thinking too small. Additionally, the projects and proposals being bandied about—were they all built—will have a negligible impact on reducing the poverty which is destroying the lives of tens of millions.

American Poverty and Its Solution (See "Feature" for Part II)

A Note To Readers

The "Feature" this week is Part II of the extended excerpts from the *EIR* article, "American Poverty and Its Solution." Part II focuses on solutions. And as Part I stated, just the fact that virtually no one thinks poverty in the nation can be eliminated, despite the demonstration by China on how to do that, is worse than a tragedy, it is a crime.

Part II provides the pathway for not only a real economic development policy, but the only one on the table that can eliminate poverty. It focuses on the comprehensive policy that is presented in the newly issued *LaRouche PAC* pamphlet, "**CAMPAIGN TO WIN THE FUTURE-- A NEW PARADIGM FOR MANKIND; LAROUCHE'S FOUR LAWS FOR ECONOMIC RECOVERY."**
http://media.larouchepac.com/larouche/documents/20180503-LPAC-2018-Campaign-web.pdf

Here in California, the state with not only the highest poverty rate in the nation, but a state in which we

cannot avoid seeing that poverty every day as we step over the homeless sleeping on the sidewalk.

Now, almost four years after Proposition 1 was passed by voters to "build more water storage," the commission established to pick the projects to fund is finally doing so. And the projects on the short list to be funded, while each one is necessary, demonstrate just how small the thinking of both the political class and the water management teams have become.

That shall be illustrated in the appropriate sections of the following report.

But first, a few more words on my theme. It is not only that we no longer think big, as did Abraham Lincoln in initiating the Transcontinental Railroad in the midst of the Civil War, or Franklin Roosevelt's Tennessee Valley Project, the Central Valley Project, the Grand Coulee Dam and much more, or President John Kennedy's Apollo Project. But, we have come to accept, not only that more than 60 percent of our fellow citizens are so poor that they do not have even $500 in the bank for an emergency, like a simple car repair. That is what must change, and change now. Perhaps President Trump's example of saying the truth, when that truth has been denied for so long will help others to step up and do the same. Show me one other politician who has said, as Trump has said repeatedly: "We wasted $7 trillion on useless wars in the Middle-east." But, make sure that what is said is the truth! And the first criteria is to put forth the policy required by the nation, no matter how much Wall Street objects! No matter how much idiot ideologues of the Republican Party object! No matter how much irrational environmentalists of the Democratic Party object!

Maybe to make this more sensuous these figures should be studied and thought about:
According to the U.S. Census Bureau, 12.7 percent of the American people—or 43.1 million people—live below the official poverty line. Forty-three million-- more than the entire population of this state!

The U.S. government defines poverty as a yearly income of less than $12,060 for an individual, $16,240 for a couple, and $24,600 for a family of four. With rent in Oakland at $3,000 for two bedrooms!

The Census Bureau has a sub-category called "deep poverty," which means a household income below 50 percent of the poverty threshold, i.e., less than $12,300 for a family of four. According to the Census Bureau, in 2017 18.5 million people reported deep poverty.

During the last five years, more than half of all the new jobs created in America were low-wage jobs, either at the minimum wage or slightly higher. According to the National Employment Law Project, 42.4 percent of American workers currently make less than $15 an hour. And those 42.4 percent also support millions of children and other non-working household members. The vast majority of the jobs held by these individuals are in the realm of unskilled and semi-skilled labor. The American workforce and American culture has been decimated.

In this week's report:

The drought news this week focuses on the Colorado River, which supplies water to 40 million people in multiple states.

Our Oroville Dam Update includes a construction report from the Department of Water Resources and an alarming, for the state, report that FEMA may not cover 75% of the near $1 billion repair costs that everyone assumed they would.

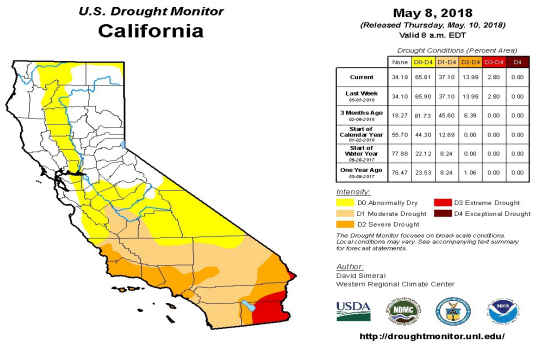
The Delta Tunnels project secured another water district's funding this week. But the major item I include is an extensive background report.

And Proposition 1 funding for water storage projects actually chose winners and losers this past week. Many people are very unhappy.

U.S. Drought Monitor

No change in California this week from last week. But don't worry it will intensify, and most likely very suddenly.

What is making headlines is the 18 year-long drought in the Colorado River Basin and the snowpack disaster from the past winter. The water supply of 40 million people in a multi-state region, including California, is threatened. Maybe not this year, but almost certainly by next year. I have excerpted a couple of articles on this topic below. Of course, the usual "climate change" hysterics usually are included in the articles, and nothing is said about actually solving the problem with great projects like the North American Water and Power Alliance.



The water war that will decide the fate of 1 in 8 Americans

By Eric Holthaus on May 2, 2018
https://grist.org/article/the-water-war-that-will-decide-the-fate-of-1-in-8-americans/

Lake Mead is the country's biggest reservoir of water. Think of it as the savings account for the entire Southwest. Right now, that savings account is nearly overdrawn.

For generations, we've been using too much of the Colorado River, the 300-foot-wide ribbon of water that carved the Grand Canyon, supplies Lake Mead, and serves as the main water source for much of the American West.

The river sustains one in eight Americans — about 40 million people — and millions of acres of farmland. In the next 40 years, the region is expected to add at least 10 million more people, as the region's rainfall becomes more erratic.

An especially dismal snowpack this past winter has forced a long-simmering dispute over water rights to the fore, one that splits people living above and below Lake Mead.

It's a messy, confusing situation, so here's an overview of who's involved and what's at stake:

For many reasons, Arizona is last in line for the Colorado River's water, and the state is already preparing for the mandatory restrictions that could be less than two years away. The latest official projections from the U.S. Bureau of Reclamation, the federal agency that manages the Colorado River system, shows that Lake Mead is likely to dip below the critical threshold of 1,075 feet above sea level late next year. That could trigger the first official "call on the river" — a legally-mandated cutback for certain users aimed at avoiding an all-out free-for-all.

In Phoenix, a worst-case scenario is now looking more and more likely. In just a few years from now, if (or, when) Lake Mead dips below 1,075 feet, the city may find itself in a position where it stops

building new subdivisions, the state's agricultural economy comes crashing to a permanent halt, and a fit of well-drilling begins to deplete the local groundwater.

And then there's always climate change. On the world's current emissions trajectory, sharply warming temperatures boost the odds of a megadrought in the Southwest sometime later this century to more than 99 percent. Such a drought would last a generation. Nearly all trees in the Southwest could die. The scale of the disaster would have the power to reshape the course of U.S. history.

For now, the spat over the Colorado River offers a glimpse into water politics in an era of permanent scarcity. The low snowpack in the upper basin states means that inflows into Lake Mead will be just 43 percent of normal this year, raising the stakes for conservation programs throughout the West. In the midst of long-running drought, 2017 was the most successful year for water conservation in decades — which is evidence that when there's less water around, people can make things work.

Outlook for vital Colorado River remains grim after April storms fail to produce much snow

Joe Cavaretta, Associated Press file. In this May 1, 2005, photo file, Lake Mead, which separates Arizona, bottom, and Nevada, top, is seen from the air, east of Las Vegas. Forecasters say this year's outlook for the most important river in the Southwestern U.S. remains grim. The National Oceanic and Atmospheric Administration said Monday, May 7, 2018, that April storms failed to produce much snow in the mountains that feed the Colorado River, and Lake Powell is expected to get only 43 percent of the average inflow from the river.

By Dan Elliott | The Associated Press
May 7, 2018
https://www.denverpost.com/2018/05/07/colorado-river-drought/

DENVER — The outlook for the most important river in the Southwestern U.S. remains grim this summer after April storms failed to produce much snow in the mountains that feed the waterway, forecasters said Monday.

The National Oceanic and Atmospheric Administration said the Colorado River is expected to carry only 43 percent of the average amount of water into Lake Powell, one of two huge reservoirs that store and distribute the river.

It's the fifth-lowest forecast in 54 years.

The Colorado River serves about 40 million people and 6,300 square miles (16,300 square kilometers) of farmland in United States and Mexico.

Arizona, California, Colorado, Nevada, New Mexico, Wyoming and Utah all use the river or its tributaries, along with 20 native American reservations.

The river is under increasing stress because of rising demand and declining flows. The region has been in a drought for 18 years — long enough that some researchers say it may represent a permanent shift.

As Rocky Mountain Snow Starts To Melt, Colorado River Forecast Worsens

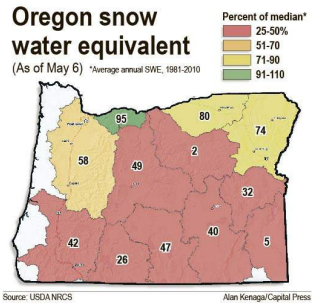
By Luke Runyon
May 8, 2018
http://www.kunc.org/post/rocky-mountain-snow-starts-melt-colorado-river-forecast-worsens

And Oregon, too:

Farmers in many parts of Oregon brace for low water year

A wetter-than-usual April was not enough to improve the water supply outlook for Oregon heading into summer.
George Plaven
Capital Press
Published on May 8, 2018 10:53AM

http://www.capitalpress.com/Oregon/20180508/farmers-in-many-parts-of-oregon-brace-for-low-water-year



Despite a mercifully wet April, water shortages remain likely for farmers and ranchers across much of Oregon, especially in southern and eastern portions of the state that are dealing with the onset of drought.

Gov. Kate Brown has already declared a drought emergency for Klamath and Grant counties, while a request from Harney County is pending, according to a spokeswoman for the Oregon Water Resources Department.

Oroville Dam Update

Two foci this week: First the update from the Department of Water Resources on the construction schedule for the rest of the year. For details go to the link provided. Second, the nearly $1 billion price tag for repair, of which FEMA has been expected to pay 75% of, just may go the other way, and the state will be stuck with the entire bill.

ORVILLE SPILLWAYS CONSTRUCTION UPDATE: May 9: Main spillway work begins

From the Department of Water Resources:

https://www.water.ca.gov/News/News-Releases/All-News-Articles/Oroville-Spillways-Construction-Update-5-9-18

An aerial view of the Lake Oroville spillways construction site that shows progress of the roller-compacted concrete (RCC) splashpad that will armor the hillside between the emergency spillway and the secant pile wall in Butte County, California. Photo taken May 7, 2018.
Ken James / California Department of Water Resources

Today the Department of Water Resources (DWR) provided an update on construction-related activities for the Lake Oroville Spillways Emergency Recovery Project.

Construction Resumes on the Main Spillway

DWR received approval from the Federal Energy Regulatory Commission (FERC) and the California Division of Safety of Dams (DSOD) to resume work on Lake Oroville's main spillway on May 8. Crews started work promptly at 12:01 a.m. on Tuesday, May 8.

Overview of 2018 Construction on the Main Spillway

DWR is again using November 1 as a milestone to complete major construction work and placement of all concrete on the main spillway. Additional work, including dry finishing and curing of concrete, sealing joints, connecting drainage systems, backfilling side walls, and site clean-up, will continue after November 1.

Excavators from Ferma Corporation begin removing the temporary roller-compacted concrete (RCC) sidewalls of the Lake Oroville main spillway in Butte County, California. These temporary walls will be replaced with structural concrete walls later this year. Photo taken May 8, 2018. Kelly M. Grow/ California Department of Water Resources, FOR EDITORIAL USE ONLY

Unfavorable review may jeopardize Oroville funding

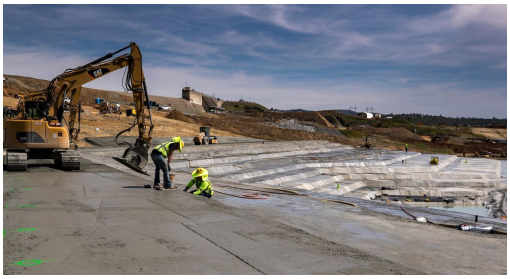
The Federal Emergency Management Agency will consider the results of a review of the Oroville Dam's management in determining funding.

Tim Hearden | May 05, 2018

http://www.westernfarmpress.com/regulatory/unfavorable-review-may-jeopardize-oroville-funding

The Federal Emergency Management Agency reportedly told two California congressman that an unfavorable independent review of the state Department of Water Resources' management of the Oroville Dam may jeopardize federal reimbursement for the dam's reconstruction.

U.S. Reps. Doug LaMalfa, a Republican, and John Garamendi, a Democrat, say FEMA officials responded to a letter they sent in February seeking clarification on whether the state's perceived mismanagement of the dam could affect funding. The state has asked for 75 percent of the two-year project's estimated $870 million price tag, with the State Water Project contractors paying the rest.



FEMA has noted that in past disasters where there was a "lack of maintenance," they only had the legal authority to provide reimbursements for work to bring facilities back to their "pre-disaster design," LaMalfa and Garamendi explain. In Oroville's case, that would merely "return the spillways to the same condition that played a role in causing the disaster in the first place," LaMalfa contends.

The two issued a joint news release on May 4 stating that FEMA "will evaluate the Independent Forensic Team report as part of their determination for federal reimbursement for Oroville Dam spillway repairs."

"FEMA also clarified that DWR's prior mishandling of Oroville Dam could jeopardize federal reimbursement," LaMalfa added in a statement. "Congressman Garamendi and I will be seeking further information from FEMA regarding their timeline for making such a decision."

DWR spokeswoman Erin Mellon told Western Farm Press late May 4 that "DWR will continue to submit reimbursement claims to FEMA until they provide direction otherwise."

A poor review

The legislators' inquiries came after a forensic team commissioned to study the dam's near-failure issued a 584-page report in January that largely blames a culture of complacency within the DWR that insulated the agency from access to industry knowledge and technical expertise to safeguard the dam and its mile-long spillway.

California WaterFix-- The Delta Tunnels: Some Background

The Santa Clara Valley Water District this week decided to rejoin funding the tunnel project, and accusations have been made that it was a backroom deal in exchange for the commission deciding on which projects to fund from the Proposition 1 money will go to a reservoir in the district.

Otherwise, the following article provides some interesting background arguing for and against the project. The article highlights the catastrophic consequences for the state if there is a levee failure in the Delta. Opponents argue that the project does not add one drop of new water the overall state water management system. It concludes with the promotion of desalination. There is a lot in it and I can only give few excerpts here.

Is WaterFix Another Megaproject Gone Awry?

By Glen Martin

https://alumni.berkeley.edu/california-magazine/just-in/2018-05-07/waterfix-another-megaproject-gone-awry

But the real poster child for evergreen megaproject-ism is the so-called California WaterFix, also known as the Delta Tunnels. The WaterFix essentially is a reprise of the failed Peripheral Canal, which Brown unsuccessfully pushed during his first tenure as governor in the 1980s. It would consist of two 30-mile-long subterranean tunnels that would shunt water around the Sacramento-San Joaquin Delta for delivery to large farms in the western San Joaquin Valley and the cities of Southern California.

Brown and his allies insist the project is necessary because the State Water Project currently siphons Sacramento River water from the Delta via gigantic pumps that are vulnerable to disruption from earthquakes, floods, and rising sea levels. If levees in the Delta collapse in a wholesale fashion due to any of these scenarios, saltwater from the bay would intrude to the pumps, disabling them, perhaps permanently.

But opponents maintain the WaterFix is a scam that will further degrade the already ecologically beleaguered Delta, benefit corporate farms that pollute San Joaquin Valley waterways with selenium-contaminated run-off, and do nothing to solve California's basic water problem: there's not enough of the wet stuff. ***The WaterFix expedites the delivery of water, but does nothing to expand the supply.*** *(emphasis added)*

The fact is that California is already thoroughly plumbed and piped, and that's probably a necessity in a semi-arid state that supports almost 40 million people and a robust agricultural sector. Water conservation, recycling, and other alternative schemes are necessary, says Roger Bales—a hydrologist, the founding professor of engineering at UC Merced, and a Cal alum—but probably insufficient on their own to meet future needs. Generally speaking, says Bales, there are three essential elements to water security.

The first is infrastructure, both natural and constructed. The Delta can be considered a natural component of such infrastructure, Bales says, while dams, reservoirs, canals and pipelines are the engineered portion.

"Next is information," Bales says. "There has to be good, transparent, and reliably transferrable information on policies and options." In this area, Bales says, "we've been lacking somewhat, but things are improving."

Finally, Bales says, there are institutions. The efficient and equitable distribution of water demands that institutions at various levels—local, regional, state, and federal—all coordinate their efforts.

"Scientists at Cal and UC Davis have studied these issues more than anyone, and [they conclude] that some sort of north/south cross-Delta conveyance [e.g., the Delta tunnels] that provides for freshwater releases at points along its length is the best chance to meet all three goals," says Bales.

Indeed, a new cross-delta conveyance is necessary if the state is to avoid a catastrophe that's all but inevitable, says Bales: the aforementioned levee failures. The Delta is comprised of "islands" that are basically holes in the ground well below sea level, the result of soil compaction and oxidation from more than a century of intensive farming. If the levees fail en masse, the Delta will be transformed from a network of farmland, canals, sloughs, and marshes to a vast, salty lake. A certain ecological stability would ultimately be reached, but one that's far different from ecosystem that exists today. Further, cropland, homes, and commercial developments worth billions of dollars would be lost, along with the

great pumps that keep the water flowing to the sprawling farms of the western San Joaquin Valley and the cities of the Southland.

"The Delta is the hub of California's water conveyance system," says Bales, [and] any loss of the levees that currently channel the north-south flow [of fresh water from the Sacramento River] between the Delta islands could disrupt the three goals of the state's water plan."

"People are acutely aware that the state could suffer from extended droughts, and that you can only get so far with conservation and reuse, particularly if farmers are going to continue growing food and cities are allowed to expand. And we'll probably need more than we can get by even with [enhanced] imports through the Delta. Until relatively recently, there was a lot of political headwind against desalinization. But then Carlsbad built a plant that is successfully desalinating 50 million gallons of water a day. That's made officials more confident about building big desalinization plants, and hopeful about bringing the price of desalinated water down in the future."

Cheaper water, maybe—but not cheap. Both desalinated water and recycled water cost upward of $2,500 an acre foot. Depending on whom you talk to, water from the Delta tunnels could run from $1,000 to $2,500 an acre foot—assuming there's any water to deliver, which is by no means assured during drought years. Further, the costs of WaterFix water probably will run to the higher end because environmental protections for the Delta will be demanded by conservationists and likely enforced in the courts, further boosting costs. In short, if you're a Californian, expect to pay—and pay and pay—for your water, whether you get it from a megaproject, a feel-good green alternative source, or both.

"We've exhausted the cheap options," says Stokes-Draut. "Any water that's delivered in volume will probably cost between $2,000 to $2,500 an acre foot. Conservation is cheaper, but it can't deliver quantity. People will simply have to get used to paying more for water."

Silicon Valley water agency votes to give $650 mil to Brown's tunnel project

By Kurtis Alexander

May 8, 2018

https://www.sfgate.com/science/article/Silicon-Valley-water-agency-votes-to-give-650-12898784.php

The South Bay's largest water agency gave a big lift to Gov. Jerry Brown's plan for a pair of water conveyance tunnels through the Sacramento-San Joaquin River Delta on Tuesday, committing $650 million to the effort.

The Santa Clara Valley Water District came out against the proposal in October, reiterating a common concern that the cost of the tunnels might not justify the unknown boost in water supplies, but reversed itself with this week's 4-3 vote by the agency's board. The majority agreed the project will ensure steadier water deliveries, even if they can't quantify the benefit.

And Now the Winners, and Losers, of Proposition 1 Funding

This report has followed the convoluted and downright disgusting process, now almost four years old, of picking and choosing what water storage projects shall be funded with the allocated $2.7 billion of Proposition 1 money. Well the winners and losers have now been chosen. A lot of people are not happy. Most of the articles below are short excerpts for space reasons. Of the two big projects, the Sites Reservoir will get $1 billion, but Temperance Flat dam and reservoir will only get $171 million.

The last item in this section if from Families Protecting the Valley, “Temp Flat Reality: If you want to fight for Temperance Flat you better make a career out of it.” I include the entire statement because it says what most others are too cowardly to say.

California Water Projects Move Forward in Funding Process

May 4, 2018 NICK CAHILL

https://www.courthousenews.com/california-water-projects-move-forward-in-funding-process/

SACRAMENTO (CN) – Just two months after lawmakers accused it of sitting on voter-approved funds, California regulators have switched their tune and are ready to spend billions on water infrastructure projects.

After three days of public comment, the state agency tasked with vetting and doling out Proposition 1 funding said Friday that eight applicants, including two new dam projects, meet cost-benefit muster and tentatively qualify for state funding.

The big winner was Sites Project, an off-stream reservoir that would add 1.8 million acre-feet of water storage in Northern California. The California Water Commission said the new dam project that will siphon water from the Sacramento River will be eligible for $1 billion in funding, up from $933 million recommended by commission staff in April.

The commission deemed eight of the 11 proposals eligible for the next phase of review, although many of the requests won’t be fully funded.

From the California Water Commission:

> *The California Water Commission on Thursday determined the public benefits and eligible funding amounts for 11 proposed water storage projects, taking another step toward awarding close to $2.7 billion in funding to help expand the state’s water storage capacity*
>
> *The decisions capped a three-day meeting in Sacramento in which the Commission heard staff recommendations as well as comments from funding applicants and the public. Eight of the 11 projects will move forward to the next phase of project scoring, while three were deemed ineligible.*
>
> *Proposition 1, approved by voters in 2014, funds the public benefit aspects of water storage projects: specifically, ecosystem improvement, water quality improvement, flood control, recreation and emergency response. Applications for Proposition 1 funding must detail these public benefits, along with a measurable benefit for the Delta, to receive funding.*
>
> *The Commission made decisions on each project’s public benefit value to calculate that project’s public benefit ratio, which is one of four component scores that will be used to determine eligibility for Proposition 1 funding. The ratio is the value of the public benefits divided by the applicant’s funding request.*

Water Commission OKs $1 billion for Sites Reservoir

By Steve Schoonover, Chico Enterprise-Record

Posted: 05/04/18, 3:27 PM PDT | Updated: 1 day ago

http://www.chicoer.com/general-news/20180504/water-commission-oks-1-billion-for-sites-reservoir

The State Water Commission, meeting this week in Sacramento to decide the public benefits of projects seeking the water storage bond money included in Proposition 1, declared the off-stream reservoir west of Maxwell to be eligible for $1.008 billion dollars of the roughly $2.6 billion that is available.

Sites would be a 1.8 million acre-foot lake, and would cost $5.2 billion to build in total. Proponents say they have secured enough financial backing to complete the project with or without the state funds.

Temperance Flat Reservoir project far from key state funding despite Valley backing

By Robert Rodriguez

rrodriguez@fresnobee.com

May 03, 2018

The California Water Commission on Thursday put in serious doubt the future of building a reservoir at Temperance Flat in east Fresno County.

Supporters of Temperance Flat were asking for $1 billion from the $2.7 billion in state Proposition 1 funds.

But the commission's staff had only recommended $171.3 million, citing a low public benefit ratio score of 0.38. A score of 1.0 is considered the minimum for an application to advance.

The entire reservoir project is estimated to cost $2.7 billion.

Valley leaders won't give up fight for Temperance Flat, despite water commission vote

By Brianna Calix

May 04, 2018 04:31 PM

http://www.fresnobee.com/news/local/article210497209.html

Leaders from across the central San Joaquin Valley gathered Friday to promise people here they won't give up the fight for Temperance Flat reservoir, one day after the California Water Commission decided to allocate minimal money to the project.

This is a view to the north over the edge of Big Table Mountain into the gorge containing the upper reaches of Millerton Lake near Temperance Flat. The proposed Temperance Flat dam would be constructed roughly where the lake is obscured by the ridge coming in from the right. MARK CROSSE Fresno Bee file

Temp Flat Reality: If you want to fight for Temperance Flat you better make a career out of it.

May 05, 2018

http://familiesprotectingthevalley.com/news.php?ax=v&n=5&id=10&nid=722

Temp Flat was never going to happen. The fix was in before these California Water Commission hearings ever started, even before the election that passed Prop 1 in 2014. The first clue was the endorsement of Prop 1 by the NRDC(Natural Resources Defense Council) in October before the election where they told anyone who cared to listen that "Prop 1 is not earmarked for new dams. Critics cite concerns about funding for surface and groundwater storage, but this simply isn't the case. Even the Los Angeles Times, San Jose Mercury News, and other newspapers have noted as much in their editorials endorsing Prop 1." Some of the people fighting for Temperance Flat knew this but decided to fight for it anyway hoping they could convince the Water Commission to do otherwise in their appeals. We now know how that worked.

The environmental community isn't stupid as many people in the Central Valley would like to believe. They are many steps ahead in this chess game for building dams and reservoirs. They are unequivocally opposed to all these big projects and spend much of their time making sure they don't happen. They're not like farmers who farm all day and try to fight these political battles in their spare time, or by donating to politicians who they hope will be able to prevail.

How are environmentalists ahead in this chess game? They had a plan to keep this dam from ever being built, but just in case they lost the dam battle they had a plan to get most of the water behind to benefit the environment just in case it was built. The fight for the water was fought long ago and that's why the proponents of the dam had to show all the 'public benefits' it would bring to qualify for public money. None of those 'public benefits' had anything to do with farming. To get the Prop 1 money you had to prove the water wouldn't be used for farming.

Another backup plan is still being pursued. That's to name the section of the San Joaquin River where the dam would be built Wild and Scenic. This isn't just to let tourists know how beautiful it is, but rather is a designation that prohibits any and all development on that section of the river, meaning there would never be a dam. This is the same strategy they are using to halt the raising ot Shasta Dam and the Exchequer Dam on the Merced River. Raising these dams would inundate a small section of the rivers feeding into them which violates the terms of Wild and Scenic rivers.

Another backup plan is endless lawsuits. If somehow you managed to overcome all these hurdles, they would lawsuit you to death, literally. If you want to fight for Temperance Flat you better make a career out of it. That's what the environmentalists do. They are full time paid attorneys funded by people who donate to environmental groups.

There you have it. We still applaud anyone who wants to get into the arena to fight this battle, but realize what the fight is and what it will take to win. As they say, politics isn't bean bag.

Infrastructure, Science, and the Economy

The U.S. Drops Out of the Top 10 in Innovation Ranking

By Michelle Jamrisko and Wei Lu
January 22, 2018

https://www.bloomberg.com/news/articles/2018-01-22/south-korea-tops-global-innovation-ranking-again-as-u-s-falls

- *U.S. out of top 10 for first time in the gauge's six years*
- *South Korea, Sweden repeat as 2018 leaders, Singapore is 3rd*

Score another one for Seoul while Silicon Valley slides.

The U.S. dropped out of the top 10 in the 2018 Bloomberg Innovation Index for the first time in the six years the gauge has been compiled. South Korea and Sweden retained their No. 1 and No. 2 rankings.

The index scores countries using seven criteria, including research and development spending and concentration of high-tech public companies.

The U.S. fell to 11th place from ninth mainly because of an eight-spot slump in the post-secondary, or tertiary, education-efficiency category, which includes the share of new science and engineering graduates in the labor force. Value-added manufacturing also declined. Improvement in the productivity score couldn't make up for the lost ground.

"I see no evidence to suggest that this trend will not continue," said Robert D. Atkinson, president of the Information Technology & Innovation Foundation in Washington, D.C. "Other nations have responded with smart, well-funded innovation policies like better R&D tax incentives, more government funding for research, more funding for technology commercialization initiatives."

"One common trait of the U.S., Korea and China is that people accept failure as part of the process," said Prinn Panitchpakdi, country head of CLSA Thailand, an Asian brokerage and investment group. "Innovation lags in countries where the culture emphasizes risk avoidance and where R&D is seen purely an expense, not an investment. That's the mindset in Thailand." It dropped one spot from a year earlier, to 45th.

U.S. Farm Sector Reeling Long before Trade Uncertainty; Milk Producers in Crisis

May 4 (EIRNS)—At present U.S. soybeans are in the headlines, because buyers in China, the biggest destination for U.S. soybeans, are holding off from placing any orders, given the uncertainty about whether a 25% import duty might be imposed on incoming soy. Furthermore, mega-soy trader Bunge reports that Chinese customers have cancelled orders for over 60,000 metric tons of U.S. beans, as of April 19. However, long before U.S. President Donald Trump called the question on trade, the question of the rotten state of the U.S. economy was called for farmers of all commodities, and for all other aspects of U.S. real production activity.

Producers of standard crops, such as wheat and corn, are farming at a loss, and their farms are surviving by off-farm income, insurance and debt. Net farm income is down by 50% in the last five years.

Milk producers are especially hard hit by prices too low to maintain dairy farmers' operations, because they cannot "fallow," or let-up, in maintaining their milking herds, and they have a perishable product. Facing ruin, many are selling out. Federal emergency action is required, but Washington policy continues to conform to the Wall Street principle of non-intervention. In reality, this is intervention for financial rake-off, and modern-day British East India Company, plantation-style production.

This is an example of the clash between the current destructive system in the U.S., and that of China, where the practice of supporting farmers is actively practiced, which once characterized the U.S. build-up and food security system.

Look at the former top dairy state of Wisconsin. The Milwaukee Journal Sentinel on April 18, ran the story, "Family Farms Decimated by Wisconsin's Dairy Crisis." In short, "Wisconsin lost 500 dairy farms in 2017, and about 150 have quit milking cows so far this year, putting the total number of milk-cow herds at around 7,600—down 20% from five years ago." The rate of Chapter 12 (Federal) bankruptcies in the western part of the state was the highest in the nation in 2017. Empty barns are a common sight. Farm suicide rates are rising.

NASA Successfully Tests its Nuclear Fission Power System

Thu, 05/03/2018
by ***Kenny Walter*** ***- Digital Reporter -***
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https://www.rdmag.com/article/2018/05/nasa-successfully-tests-its-nuclear-fission-power-system#.WuuOwvwh0_p.facebook

A new nuclear reactor power system developed by NASA and the U.S. Department of Energy's National Nuclear Security Administration (NINSA) could enable long-duration missions to the Moon, Mars and other far-reaching destinations in space.

On May 2, NASA officials announced the results of the Kilopower Reactor Using Stirling Technology (KRUSTY) experiment, which demonstrated that the system can create electricity with fission power and is stable and safe regardless of the environment. The demonstration took place after extensive experiments conducted at the NNSA's Nevada National Security Site from November 2017 to March 2018.

The new system uses a solid, cast uranium-235 reactor core that is about the size of a paper towel roll, where passive sodium heat pipes transfer reactor heat to high-efficiency Stirling engines, converting the heat to electricity.

Officials believe this type of system could be used for traveling to the Moon, where power generation from sunlight is difficult due to lunar nights, a period where it stays dark for the equivalent of two weeks on Earth.

CAMPAIGN TO WIN THE FUTURE-- A NEW PARADIGM FOR MANKIND: LAROUCHE'S FOUR LAWS FOR ECONOMIC RECOVERY

http://media.larouchepac.com/larouche/documents/20180503-LPAC-2018-Campaign-web.pdf

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Feature: American Poverty and Its Solution, Part II

The following is ***Part II*** of an extended excerpt from the article in the April 27, 2018 issue of *Executive Intelligence Review.* ***Part I, The Poverty*** ran in last week's report. ***Part II, The Solution***, below, will focus on a competent and necessary infrastructure policy. And Part III, next week, will conclude ***The***

***Solution*.**

Part I presented the actual state of the U.S. economy and the conditions of life for almost half of the nation's people. It is a picture seldom presented in the media, nor is it addressed effectively by any member of Congress. http://www.californiadroughtupdate.org/pdf/20180503-California-Water-and-Infrastructure-Report.pdf

American Poverty and Its Solution

by Robert Ingraham

http://www.larouchepub.com/other/2018/4517_ingraham-american_poverty.html

Part II: The Solution

Since the election of Donald Trump in November, 2016, there has been a great deal of discussion concerning rebuilding American infrastructure. Much of it is incompetent. All of it is inadequate. What are being put forward are limited, small approaches, very few of which will have a dramatic effect on increasing national productivity, and the sum total of what is being proposed utterly fails to address the urgent national requirements 50 to 100 years into the future. Everyone is thinking too small. Additionally, the projects and proposals being bandied about—were they all built—will have a negligible impact on reducing the poverty which is destroying the lives of tens of millions.

Infrastructure

Take the case of the American Society of Civil Engineers (ASCE), an organization which, to its credit, has kept alive a serious discussion about the infrastructure investment required for the nation. In its 2017 report, the ASCE estimates that the United States needs $2.2 trillion dollars of infrastructure spending during the next five years and $4.6 trillion by 2025 to bring U.S. infrastructure to an "acceptable standard." They point to the horrendous conditions of American bridges, dams, roads and water systems. On a scale of A to F, the ASCE rates U.S. infrastructure as D+.

Here is where the problem in thinking arises. Almost all of the $2.2 trillion which the ASCE proposes to spend in the next five years—with no serious proposal as to where that money will come from outside of new taxes and fees—is intended to merely avert catastrophe, i.e., to repair and replace already existing—but obsolete—infrastructure. While necessary, this does not even come close to providing for future productive growth, nor will it have any significant effect on reducing the poverty and suffering of the American people. It is merely a start, and a very inadequate one at that.

Our orientation—the only sane orientation—is not to adopt an "acceptable standard." Our goal must be — not to "manage" poverty, not simply to replace old infrastructure with new, not to create marginal physical economic growth. Our unshakable goal must be to eradicate poverty and build for the future.

Hamilton's Solution

The escape route out of our current national nightmare is to be found in the mind of Alexander Hamilton. America was founded on the economic approach invented by Hamilton, and its happiest and most prosperous times were when the nation adhered to his precepts. In this section we shall examine the two post-Washington Presidencies—those of Abraham Lincoln and Franklin Roosevelt—when such a Hamiltonian approach was most successful. (Although it was abbreviated, a legitimate case could be made to include John Fitzgerald Kennedy's creation of the manned moon mission as a third successful case.)

In 1933 Franklin Roosevelt launched the unprecedented Tennessee Valley Authority (TVA) project. At the same time he also created both the Civilian Conservation Corps (CCC) and the Federal Emergency Relief Administration (FERA), which together rescued seven million unemployed Americans—mostly

young—and gave them jobs. Later, he would also create both the Civil Works Administration (CWA) and the Works Progress Administration (WPA), the latter of which employed an additional eight million, three million of whom were hired in its first year of operation.

Between 1933 and 1935, through both direct and indirect employment, FERA created more than twenty million jobs, the equivalent today of forty-five million jobs. Initially, some of these were "make work" jobs, simply designed to stave off starvation and get people back into the labor force. But if one looks at the CWA, for example, CWA workers laid twelve million feet of sewer pipe, and built or made substantial improvements to 255,000 miles of roads, 40,000 schools, and nearly 1,000 airports. The CWA also paid to put 50,000 teachers back to work. Under FERA, the CWA, the CCC, and the WPA, more than 14,000 new schools were built, as were 1,000 new public libraries; 12,000 road projects were carried out, and more than 120,000 new buildings, including post offices, courthouses, firehouses and armories, were constructed.

The great Four Corners projects transformed the energy, fresh water and transportation infrastructure of the nation, profoundly advancing the productive potential of the Republic. Additionally, the Public Works Administration (PWA) constructed the Grand Coulee Dam, the Bonneville Dam, the Triborough Bridge, the Lincoln Tunnel, LaGuardia Airport, Los Angeles Airport, and the Upper Mississippi River locks and dams. There were hundreds of such projects. Rural electrification was carried out, leading to the general electrification of the entire nation.

Financing the Miracle

Between 1933 and 1935 the Federal Emergency Relief Administration and the Public Works Administration together spent $9.1 billion on infrastructure construction. That represented 15.9 percent of the nation's Gross Domestic Product (GDP). An equivalent expenditure for today's GDP would be $3.0 trillion. And that $9.1 billion figure was only what was spent by FERA and the PWA; it does not include any of the additional spending by the WPA, the CCC, the NYA, or several other agencies active in the first years of the New Deal. It also does not include the vast sums spent on the TVA, nor the massive credit made available through the Reconstruction Finance Corporation (RFC) or the reorganized commercial banking system.

The RFC was a quasi-public corporation. Its initial capital came from $500 million in stock sold to the U.S. Treasury. The RFC raised an additional $1.5 billion by selling bonds to the Treasury, which the Treasury in turn sold to the public. In the years that followed, the RFC borrowed an additional $51.3 billion from the Treasury and $3.1 billion directly from the public. All of these obligations were guaranteed by the federal government.

This combined borrowing by the RFC of $55.9 billion is a dollar amount almost equivalent to the nation's 1933 Gross Domestic Product of $57 billion.

Although it was originally intended as a vehicle to provide financial relief for banks, a July, 1932 amendment to the RFC charter authorized the RFC to loan funds to state and municipal governments. Once Franklin Roosevelt was in office, the RFC was directed to use this enhanced power to provide loans for infrastructure projects, such as the construction of dams and bridges. The loans could also fund relief for the unemployed, as long as repayment was guaranteed by tax receipts. The RFC became the largest generator of credit in the nation.

At the same time, the Roosevelt Presidency enacted Glass-Steagall and also implemented several other laws to eliminate various forms of financial speculation. The financial resources of the nation were harnessed, using the Hamiltonian power of the U.S. Treasury, to finance a great economic recovery.

Part II will conclude in next week's report.