

California Water and Infrastructure Report

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



For April 26, 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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“We say we are for the Union. The world will not forget that we say this. We know how to save the Union. The world knows we do know how to save it. We – even we here – hold the power, and bear the responsibility... We shall nobly save, or meanly lose, the last best hope of earth. Other means may succeed; this could not fail. The way is plain, peaceful, generous, just – a way which, if followed, the world will forever applaud, and God must forever bless.”

President Abraham Lincoln, Annual Address to Congress, December 1, 1862

A Note To Readers

Abraham Lincoln got it right, the unity of the country can only be achieved when we adopt a mission for the nation, and it is clearly presented to the American people. Lincoln's speech, quoted above, was focused on the U.S. Civil War, which had erupted just 18 months earlier. Our task today is no less urgent than that of our greatest President. A nation can fall apart for just so long before it utterly collapses. We are near that point now as we sit on the verge of a new, even more destructive financial blow-out than that of 2008.

In This Week's Report

The Feature this week begins with that quote from Lincoln and proceeds to introduce the American System of economics to a generation (or actually several generations) of Americans who have been denied the privilege of not just knowing that history, but living it.

Drought is the order of the day for California, and actually, much of the southwest and spreading to Texas and the mid-west. The U.S. Drought Monitor for California, though, does not show any change

from the previous week, but that will not be the case going forward. Our first section below also includes a report on a study forecasting, really, what only silly environmentalists do not understand-- that the climate changes, and it always has and always will.

That first section includes reports on the water and electrical supply and the announced allocations of water from both the Central Valley Project and the State Water Project.

The Oroville Dam update this week includes a construction update and reports on the legislation to remove the management of the California State Water Project from the authority of the Department of Water Resources.

Finally, the State Water Commission charged with allocating the \$2.7 billion from the 2014 water bond says it has decided where the money will go. While some seemed satisfied, most of those impacted are still pissed off that the big water storage projects like Sites Reservoir and Temperance Flat project are not getting what they need in order to build.

That leads to an article reporting the unleashed anger response condemning the entire state water management bureaucracy.

Also reported on this week is a study that concludes that, "Forest Thinning Can Prevent Fires, Save Water."

Under the title, "The Fight for a National Drive to Build Infrastructure," the next section begins with: "Can states afford Trump's infrastructure plan?" This section also includes items on why as the cost of solar panels and wind mills goes down, electricity prices go up, authored by Democratic Party candidate for California Governor Michael Shellenberger. It should be mentioned that no other candidate for governor, Democrat or Republican, is campaigning to build more nuclear power plants in the state.

And then this report concludes our reporting for the week: "California's Infrastructure Deficit," which is a succinct report on the topic.

Drought, climate, water supply and more

There is no change in the intensity and extent of drought in California this past week. But, please note, we are in a drought, and as the item below reports, it is not just in California.

Otherwise, while as usual repeating the mantra of "man-caused climate change" there is no question that, as the second article below reports, the climate does change. Usefully reminding readers that in 1862 a mega-flood put Sacramento under ten feet of water for months, the article should make clear that real and serious infrastructure projects like the North American Water and Power Alliance and the building of dozens of very large desalination plants must be quickly put on the agenda.

After brief relief, forecasts indicate drought will continue

The dry spell that began in October is considered "extreme" from southern California to central Kansas.

By KELLY P. KISSEL

Associated Press

April 23, 2018

<http://www.capitalpress.com/California/20180423/after-brief-relief-forecasts-indicate-drought-will->

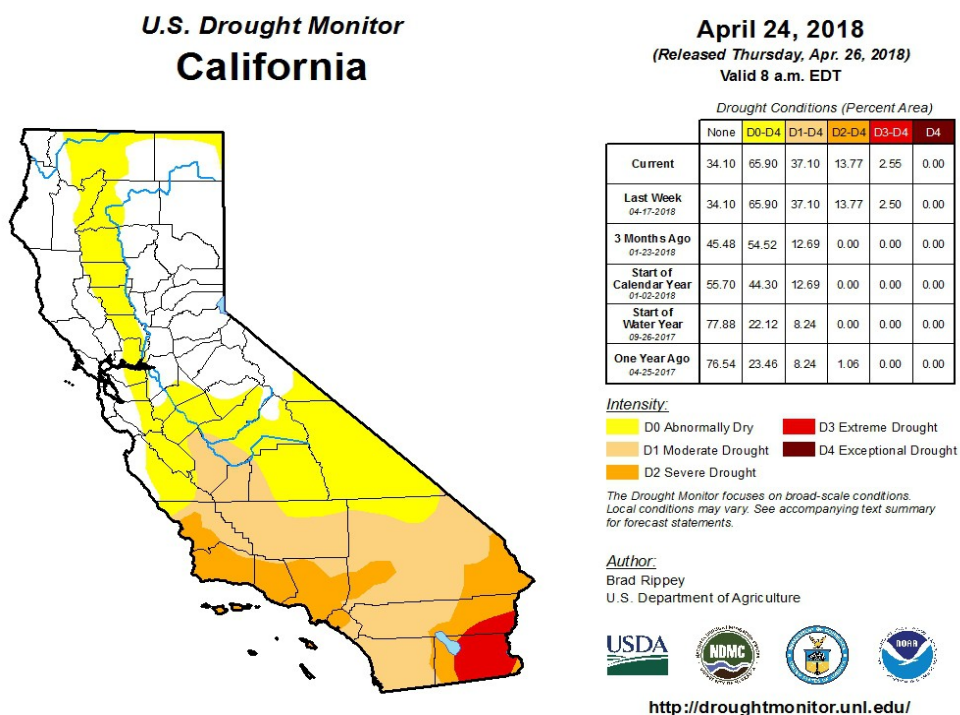
[continue](#)

Dry weather will prolong the wildfire threat through summer in the southwestern United States, even though weekend showers temporarily relieved drought conditions in parts of the area, forecasters said Monday.

The drought is rooted in a dry spell that began in October and is considered “extreme” from southern California to central Kansas. Conditions are even worse in the Four Corners region and the Oklahoma and Texas panhandles, warranting their description as “exceptional.”

“The proverbial spigot shut off,” said Brian Fuchs, a climatologist at the National Drought Mitigation Center at the University of Nebraska in Lincoln. “Drought isn’t necessarily a signal for wildfires, but it can exacerbate the conditions that do take place.”

U.S. Drought Monitor



Climate change will make California's drought-flood cycle more volatile, study finds

By [Bettina Boxall](#)

Apr 23, 2018

<http://www.latimes.com/local/lanow/la-me-drought-flood-20180423-story.html>

Californians should expect more dramatic swings between dry and wet years as the climate warms, according to a new study that found it likely that the state will be hit by devastating, widespread flooding in coming decades.

UC researchers in essence found that California's highly volatile climate will become even more volatile as human-caused climate change tinkers with atmospheric patterns over the eastern Pacific Ocean.

The long-term average of annual precipitation in California won't change much, they predicted. "Yet despite that, we see a big increase in extremes," said UCLA climate scientist Daniel Swain, lead author of a paper published Monday in the journal *Nature Climate Change*. "We expect to see more really wet

years and also more really dry years."

The recent past offers a glimpse of California's future. The state veered from years of record-breaking drought that emptied reservoirs and prompted unprecedented urban conservation to a parade of atmospheric rivers that dumped record precipitation on Northern California during the 2016-2017 rainy season.

Such sudden swings between severe drought and intense storms will increase the threat to aging dams and flood-control networks, accentuate the wildfire threat and make management of the state's complex waterworks even more daunting.

"We really need to be thinking seriously about what we're going to do about these risks," Swain said.

"It's a little bit hard to exaggerate how disastrous a repeat of the 1862 flood would be in California," he added, referring to statewide flooding that followed weeks of storms.

That is "something that will very plausibly happen in the next 40 years," sending floodwater rushing across the Los Angeles basin and other major urban areas, he said.

By the end of the century, California will experience a 100%-200% increase in very wet years similar to the 2016-2017 rainy season that broke the state's five year drought, the scientists found.

The frequency of serial storms on the scale of 1862 will increase 300%-400%.

At the same time, the rainy season will shorten as less precipitation falls in the autumn and spring.

That will make it harder for dam managers, who on the one hand will have a shorter season to capture water for storage, and on the other will need to maintain reservoir space for greater storm runoff.

"Increasingly wide swings between dry and wet conditions will threaten to upset the already precarious balance between competing flood-control and water-storage imperatives in California," the researchers wrote.

California hydro generation, water levels jump; outlook still shows drought: state

Houston (Platts)--19 Apr 2018

<https://www.platts.com/latest-news/electric-power/houston/california-hydro-generation-water-levels-jump-10372746>

Water supply levels in California were bolstered in March but still sit below normal, after several late winter storms increased snowpack and reservoir levels, according to the California Department of Water Resources.

The most recent three-month outlook from the US National Weather Service, released Thursday, shows a low probability of below average precipitation through parts of Northern and Central California.

However, the US Seasonal Drought Outlook from the NWS also released Thursday forecast that drought will persist across most of Southern California through the end of July.

In early March, the CDWR forecast median runoff from April through July to be around 45% of average, however after several late winter storms, the forecast at the beginning of April now expects runoff to be about 70% of normal.

These storms also increased precipitation totals to about 70% of normal as of April 1. Precipitation across the state averaged about 20% of normal as of March 1 and about 50% of normal by the end of the month.

For river basins across the state, the CDWR forecast total inflows at Shasta Lake to be around 79% of average for April-July, compared with 126% of average last year. Reservoir storage across the state is around 105% of average, down from the 115% of average recorded at this time last year.

Similarly, inflows at the American River below Folsom Lake continue to be around 75% of normal for April-July.

Reservoir levels in the Sacramento River Basin are around 103% of average, sitting at 77% of total capacity for the 43 reservoirs in the basin as of March 31. Around the same time last year, reservoir levels were around 111% of normal and sitting at 84% of capacity, CDWR data showed.

Snowpack in the Sierras climbed to about 60% of average compared with the prior month, but remains well below where snowpack sat at this time last year, at 160% of normal.

Hydro generation in the Cal-ISO territory averaged 56,939 MWh/d in March, up from the 54,051 MWh/d in February but down significantly from the 107,170 MWh/d averaged last March.

The share of hydro generation in Cal-ISO's fuel mix was around 10.3% in March, compared with 19.3% last March.

Reclamation updates 2018 Central Valley Project water allocations

<https://www.usbr.gov/newsroom/newsrelease/detail.cfm?RecordID=62110>

From the Bureau of Reclamation:

For Release: April 20, 2018

SACRAMENTO, Calif. – Following late season storms, the Bureau of Reclamation today issued updated allocations for Central Valley Project contractors for the 2018 contract year.

“Thanks to late March and April precipitation and the positive results of the California Department of Water Resources April snow survey, Reclamation is pleased to announce this increased allocation for CVP water contractors,” said Mid-Pacific Regional Director David Murillo. “Even with the recent gains in water supply, the year as a whole has still been relatively dry....”

For agricultural water service contractors and municipal and industrial service contractors north of the Delta, in-Delta and on the American River, Reclamation has increased the allocation to 100 percent. This includes contractors throughout the Trinity, Shasta, Sacramento River, American River and Delta divisions of the CVP.

The allocation for south of Delta agricultural water service contractors has been increased to 40 percent of their contract total. Municipal and industrial contractors south of Delta are allocated the greater of 75 percent of their historic use or public health and safety needs.

DWR Increases Water Supply Allocation to State Water Contractors to 30%

April 24, 2018

From the Department of Water Resources:

The Department of Water Resources (DWR) today announced a statewide increase in State

Water Project (SWP) allocations for 2018. SWP contractors can now expect to receive 30 percent of their requests, up from the initial 15 percent allocation in December and the 20 percent announced in January.

Oroville Dam Update

First we have a construction update and then the reports on the legislation to take the entire management of the California State Water Project away from the Department of Water Resources.

DWR prepares for rebuild phase two

By Jake Abbot

April 21, 2018

http://www.appeal-democrat.com/news/dwr-prepares-for-rebuild-phase-two/article_8573be80-45f2-11e8-8d78-f378d2210c09.html

Oroville Dam spillway reconstruction

Reconstruction efforts to the main spillway at Lake Oroville could start to ramp up as early as this week if federal officials sign off on the Department of Water Resources' operational plans for 2018.

Kiewit Infrastructure West Co. has a contract to finish the repairs by January 2019. Erin Mellon, a DWR spokeswoman, said it's a tight window, but achievable.

"This year we actually have more concrete to place than we did last year so there's a lot of work to do," Mellon said. "We're obviously very confident in Kiewit's ability to do the job and they've met all expectations so far. Of course, there may be some unknowns (weather, etc.) that could impact our timelines but if that happens we'll be sure to communicate it to the media and the surrounding community."

Plans moving forward

DWR is targeting April 25 to start on prep work for the resurfacing of the middle part of the main chute that only received roller-compacted concrete last year. The work will consist of resurfacing the top layer to create a flush surface to prepare for the placement of steel-reinforced structural concrete slabs.

Once given the go ahead to start the final phase of reconstruction, crews will demolish the upper chute of the main spillway and replace it with steel-reinforced structural concrete slabs and walls.

They will also remove the RCC walls in the middle portion and replace them with structural concrete walls with a permanent drainage system.

The bottom of the chute – namely the energy dissipaters at the base – will be hydro-blasted and resurfaced.

As for the emergency spillway, the secant pile cutoff wall has been completed. Crews are currently placing a concrete cap on top of the cutoff wall to further reinforce the wall.

Crews are also currently constructing an RCC splashpad that will cover the area between the emergency spillway and the cutoff wall to further armor the hillside. There are plans for later this year to construct an RCC buttress at the base of the emergency spillway structure to further reinforce the area.

Oroville Dam without DWR? It's a possibility

By Risa Johnson

04/24/18

<http://www.oroillemr.com/article/NB/20180424/NEWS/180429869>

Sacramento >> A bill proposed by Assemblyman James Gallagher which would take the State Water Project out of the hands of the state Department of Water Resources passed unanimously on Tuesday through a legislative committee.

Assembly Bill 3045 passed 15-0 through the Assembly Water, Parks, and Wildlife Committee and is now headed to the Assembly Appropriations Committee. This comes just over one year after the failure of the Oroville Dam spillway, a component of the State Water Project which is operated and managed by DWR.

Gallagher, R-Yuba City, represents residents downstream who evacuated on Feb. 12, 2017 during the Oroville Dam crisis. A total of about 188,000 people were ordered to evacuate that day.

The State Water Project supplies water to about 26 million people from Northern to Southern California. The bill, as amended by the committee, would shift the responsibilities of operations and maintenance of the facilities that move that water from DWR to an independent agency under the California Natural Resources Agency or a division under the California Water Commission.

“The Department of Water Resources is both the owner/operator and state regulator of Oroville Dam,” Gallagher said. “This is a clear conflict of interest. We don’t allow any other industry to regulate itself, and state government shouldn’t be exempt.”

The proposed legislation calls for establishing a State Water Project Commission to oversee the facilities in a more independent and transparent manner, according to Gallagher.



The Oroville Dam spillway earlier this month. A bill proposes removing DWR management of the State Water Project, which includes the dam. Bill Husa — Enterprise-Record file

Assembly bill may take dam operation/maintenance from DWR

April 24, 2018

By Jake Abbott

http://www.appeal-democrat.com/news/assembly-bill-may-take-inspection-authority-away-from-dwr/article_baa2dec0-4853-11e8-a45f-1bc8557e2882.html

There are 34 storage facilities, 30 dams, 23 pumping plants and nine hydroelectric power generation plants that are part of the California State Water Project, and the Department of Water Resources is in charge of not only operating but also of inspecting all of them.

Will That \$2.7 Billion for Water-storage Ever Be Spent to Build Something?

As you can see from the articles below, a slight shift in the “ratings” for the projects from completely negative three months ago to a little better than that is interpreted differently by those affected.

Talks continue on bond funding for water storage

April 25, 2018

By Christine Souza

<http://agalert.com/story/?id=11813>

Allocation of storage funding from the Proposition 1 water bond moves another step closer next week, when the California Water Commission meets to discuss revised staff recommendations for investing in the public benefits of storage projects.

Following a second round of scoring, Water Commission staff determined last week that eight of 11 projects would be eligible for \$2.6 billion in bond funds, a significant increase from the \$942 million eligibility amount issued by staff in February.

California voters approved the \$7.5 billion Proposition 1 water bond at the height of the most recent drought in 2014, including \$2.7 billion to fund the public benefits of new water storage projects.

Under the bond's Water Storage Investment Program, administered by the Water Commission, projects receive scores according to the public benefits they would bring, including ecosystem improvements, water quality improvements, flood control, emergency response and recreation associated with the proposed projects. Review teams included subject matter experts from the California Department of Fish and Wildlife, Department of Water Resources and State Water Resources Control Board.

The Sites Project Authority, applying for \$1.39 billion in funding for the construction of Sites Reservoir—a large, off-stream storage project in Glenn and Colusa counties—noted that the project's public benefit score increased following the review. The eligibility amount for the project increased from \$662 million to \$933.3 million, after proponents provided additional information about the project's environmental benefits for salmon and delta smelt.

The San Joaquin Valley Water Infrastructure Authority is seeking \$1.06 billion for the proposed Temperance Flat Dam and Reservoir, on the San Joaquin River upstream from Friant Dam in Fresno and Madera counties. Proponents appealed an earlier low public-benefit ratio score and the score improved slightly, which means the project would be eligible for \$171 million.

CA Water Commission Looks to Funding of Dam Projects

April 20, 2018 MATTHEW RENDA

<https://www.courthousenews.com/ca-water-commission-looks-to-funding-of-dam-projects/>

SACRAMENTO (CN) – More than three years after voters dedicated \$2.7 billion toward bolstering California's water supply, state regulators appear ready to crack open the coffers and jump-start proposed new dam projects.

The state agency tasked with vetting the competing water projects announced Friday that many proposals, including two new massive dam projects, should be eligible for the earmarked funds.

After months of discussion with the disappointed project managers, water commission staff is recommending that commissioners approve allocating \$2.6 billion to eight projects during a vote scheduled the first week of May.

A commission yes vote could breathe life into Sites, a \$5 billion project that would add 1.8 million acre-feet of storage in Northern California, and Temperance Flat Dam which would be the second-tallest dam in California at 665 feet high with an estimated \$2.6 billion price tag.

The staff is recommending over \$900 million be divvied to Sites and \$171 million to Temperance Flat, which would be located in the Central Valley. Local water agencies, cities and other project backers would have to come up with the remaining funds.

Republican Assemblyman Frank Bigelow, whose district encompasses the proposed site of Temperance Flat, scoffed at the staff recommendation.

“Here we go again! The California Water Commission is ignoring the needs of Californians,” Bigelow said in a written statement. “The project deserves to receive full funding. Instead, we are jeopardizing the fate of the project while seeing 53 billion gallons of water wasted as it is flushed out to the ocean, leaving Valley residents in the dust.”

A Second Major Blow for Temperance Flat Dam

April 20, 2018

<https://californiaagtoday.com/second-major-blow-temperance-flat-dam/>

Water Commission Staff Again Slaps Down Temperance Flat Project

*Editor’s note: In a stunning decision, California Water Commission **staff**, once again, rejected the Temperance Flat Dam Proposal. The San Joaquin Valley Water Infrastructure Authority, which is managing the planning and building of Temperance Flat Dam, issued the following statement:*

Water users, counties, and cities across much of the San Joaquin Valley have again found the California Water Commission staff to be unbending over efforts led by the San Joaquin Valley Water Infrastructure Authority (SJWIA) to both develop Temperance Flat Dam and create badly-needed additional San Joaquin River water storage in a major new Central California reservoir.

The Water Commission staff today reacted to the SJWIA appeal in February of an earlier very low public benefit ratio score by assigning only a token improvement in point totals. Temperance Flat’s public benefit ratio was increased from 0.10 to 0.38. A score of 1.0 has been generally considered a minimum for an application to advance, reflecting the bond measure’s emphasis on benefits stressing the environment and flood protection.

Temperance Flat, which would be a reservoir containing 1.3 million acre-feet of new storage space above Millerton Lake northeast of Fresno, is one of the state’s two largest proposals seeking to be awarded some of the \$2.7 billion in Proposition 1 funding for new storage projects.

A Justified Unleashing of Anger at the Water Management Bureaucracy

The entire article, of which I have just included short excerpts from, is well worth reading.

Mountain county water agencies ask: Has the state gone too far?

By [Dawn Hodson](#)

<https://www.mtdemocrat.com/news/mountain-county-water-agencies-ask-has-the-state-gone-too-far/>

The question of whether the state has gone too far in its efforts to regulate water in California was the topic of a special workshop on Friday 13 hosted by the Mountain Counties Water Resources Association at the El Dorado Irrigation District.

John Kingsbury, the executive director of Mountain Counties, discussed the challenges facing its members including Delta outflow, attempts to dismantle the water rights system, a possible tax on water, potential regulation of individual wells, water restrictions on indoor and outdoor use, declining species, lack of effective management of the Sierra Nevada foothills, loss of local control, increased water rates, environmental and regulatory overreach and how all these things may affect agriculture, tourism and recreation.

Mills began by recalling the many executive order that have been issued by Governor Brown in response to several years of drought. One of the most important was B-40-17, making conservation a way of life. Two of its provisions include prohibiting people from hosing off their sidewalks and making hotels tell their guests that they have the option of not having their towels laundered. If the hotel does not do that, the water used is considered wasteful and unreasonable.

Mills noted that all the water saving measures listed in the executive order are only estimated to save 12,000 acre-feet per year statewide or .0467 percent of the average unimpaired runoff of the upper San Joaquin River.

We used to be able to transfer water that was conserved, he said, but the state has since defined that as wasteful and so the water is lost.

“Bureaucrats keep coming up with white papers that prevent water agencies from flexibly using water resources in the state,” he said, adding that his first request to whoever becomes the new Governor of the state to, “Please stop, we can’t take any more help.”

Criticizing the State Water Board (SWB) and its staff, he said curtailment orders on how water is used have become progressively worse affecting both water rights and local decision-making. There’s a belief in Sacramento that they know what’s best, he noted, saying it all adds up to a regulatory burden for local water agencies.

The Forests, Water and Fire

Forest Thinning Can Prevent Fires, Save Water, Study Finds

[April 24, 2018 MATTHEW RENDA](#)

<https://www.courthousenews.com/forest-thinning-can-prevent-fires-save-water-study-finds/>

(CN) – Better forest management would not only prevent wildfires but could serve as a valuable water-conservation tool, according to a study published Tuesday.

California could save billions of gallons annually by undertaking significant forest thinning operations, according to scientists affiliated with the National Science Foundation and the Sierra Critical Zone Observatory.

“We’ve known for some time that managed forest fires are the only way to restore the majority of

overstocked western forests and reduce the risk of catastrophic fires,” James Roche, a National Park Service hydrologist and lead author of the new study, said in a statement. “We can now add the potential benefit of increased water yield from these watersheds.”

Indeed, a variety of scientific studies published in the last decade argue fire-suppression efforts in California have had a detrimental impact. The typical argument says that fire occurred naturally for centuries, allowing the forest to thin itself out and provide periods of regeneration. With fewer fires, tree density has grown. Now, when fires do occur, they burn with an unnatural intensity that creates ecological and economic disasters.

Tuesday’s study says thinning projects could also help conserve water, as trees require an enormous amount of water to carry out basic biological functions.

“By reducing the water used by plants, more rainfall flows into rivers and accumulates in groundwater,” said Richard Yuretich of the National Science Foundation.

Along with sucking up water the ecosystem could otherwise allocate to groundwater, river and reservoir replenishment, trees also undergo a process scientists call evapotranspiration.

Evapotranspiration is basically how trees “sweat,” as they emit water through tiny pores in their leaves.

The Fight for a National Drive to Build Infrastructure

Can states afford Trump’s infrastructure plan?

by consultant Dennis M. Powell, president of Massey Powell in Plymouth Meeting, PA.

April 7, 2018

The Hill

<http://thehill.com/opinion/finance/381960-can-states-afford-trumps-infrastructure-plan>

President Trump’s \$1.5 trillion infrastructure proposal has three base assumptions — that Congress will raise an additional \$200 billion in revenues; that state governments have the available resources to fund 80 percent of federal projects; and that private enterprise will be attracted to invest in public infrastructure.

There are two reasons states likely will not be able to expand funding for federal projects. Unfunded liabilities are creating structural deficits in budgets that need to be balanced, and 31 states have used up political capital since 2012 to address transportation infrastructure.

The trend over the past decade has seen more responsibility shifted to the states. Inaction at the federal level for the past 25 years to craft a long-term solution has resulted in funding from the Federal Highway Trust Fund to states dropping 10.9 percent from 2007 to 2013. Pennsylvania’s funding decreased by 13 percent during this period.

This drop in federal support has forced states to act. According to Transportation for America, 31 states have addressed the transportation funding issue in some way since 2012, using combinations of gas tax, bonding, tolling, leasing, transfers from General Funds and fees. In Kentucky, where gas taxes were tied to the wholesale price, the legislature had to create a floor when prices fell dramatically to avoid losing \$292 million in revenue.

States have been so cash-starved that constitutional provisions to protect highway funds have not been

followed to the letter. They have crafted deals for specific transportation modes and agencies that have grown out of control over time.

Unfunded liabilities in states are growing in large part because of public pension obligations. [Pennsylvania's unfunded liabilities](#) were reported at \$223 billion in 2017.

The near-term fallout is yearly structural deficits in budgets that need to be balanced. In Pennsylvania, to balance the budget last year, the Republican legislature told Democratic Gov. Tom Wolf to find new revenue or cut \$300 million. There are not many sources of cash available, but one prime source is the \$184 million multimodal fund created by Act 89.

Pennsylvania, with the highest gas tax in the nation, would not likely be able to assume 80 percent funding for federal projects. It is one of the 31 states that have expended political capital to find money for transportation infrastructure. The issues will not likely be addressed again in the foreseeable future.

The Trump initiative probably will create a new set of issues for states that are increasingly hard-pressed to fund transportation. In the end, safety, modernization and expansion projects will be put on hold for our interstate system. It is time to rethink how we fund transportation.

Wants Help for Farmers; FDR-Era CCC Is Under Discussion, Also More Greenie Biofuels

April 20, 2018 (EIRNS)--Over the past five years, net farm income in the U.S. has dropped by 50 percent, with many farmers continuing in operation thanks only to off-farm income, more debt, and support from insurance, available from Federally-subsidized private financing. Since even before the current China-trade disputes, and before Trump's election, farmers have experienced losses for wheat, corn, rice, and many commodities, except for soybeans, a major export crop, now under threat of a 25-percent tariff levied on China. For example, in 2017, a farmer lost \$94 an acre growing wheat; in 2016, he lost \$104.

Today, a bill to provide mental health assistance through the U.S. Department of Agriculture, was introduced by Jodi Ernst (R-Iowa) and Tammy Baldwin (D-Illinois).

On the trade front, this week China imposed a 178-percent duty on imports from the U.S. of sorghum, a relatively small-volume export crop used in China for livestock feed and spirits. In the range of 5 million tons of U.S. sorghum has been sold annually to China. Now the sorghum shipments at sea are being turned back, or diverted by Cargill, the major dealer. Kansas is the top sorghum state, along with Colorado and Oklahoma, and other dryland areas on the western edge of the Farmbelt.

President Trump, on April 9, said of farmers, in terms of the impact of China-U.S. tariffs, "we'll make it up to them." Under discussion is the FDR-era program, run through the Commodity Credit Corporation (CCC), which can directly intervene to support farm income, inclusively by government-purchases of commodities, as well as loans and payments. Use of the CCC was authorized in the government spending bill approved in March. The CCC can borrow up to \$30 billion from the Treasury Department to finance farm income stabilization.

In reality, farmers were already hurting before the current tariff disputes even started. It is clearly in the public interest for the Federal government to use its powers to stabilize the farm sector and the food supply. There is an urgent need for floor prices based on a percent-of-parity, especially for milk. The CCC was devised for this purpose, not even to buffer against adverse trade impact. But the principle of a secure farm and food system goes against the cult belief that "the markets" and speculation must rule, not the government. The "Wall Street Journal" editorial board railed against any use of the CCC on April 13 ("Tariffs First, Farm Subsidies Later?")

Meantime, farm groups--likewise brainwashed that "the markets" must rule--have sought income support by the idea of expanding their "markets" for corn and soybeans -- by Federal mandate of more biofuels. On April 12 Pres. Trump said he will consider upping the ethanol component in gasoline from 10 percent to 15 percent, and allowing it year-round (from its current Summer-month restriction, to reduce smog.)

The principle remains--domestic and foreign trade relations for farm, food, and all commodities, can be put on a win-win basis through negotiations based on mutual economic development, not Wall Street/City of London manipulation and myths about using food capacity for fuel. Today's new Senate bill, known as "Farmers First Act," is titled in full, "Facilitating Accessible Resources for Mental Health and Encouraging Rural Solutions For Immediate Response to Stressful Times."

Nuclear Power Is Not Only Absolutely Necessary, But Also the Cheapest

From the Democratic Party candidate for the Governor of California, Michael Shellenberger. Here are some excerpts from his column published by Forbes. Not even one of the Republican candidates for the June 5 California primary election will say they are for nuclear power.

If Solar And Wind Are So Cheap, Why Are They Making Electricity So Expensive?

[Michael Shellenberger](#)

Opinions expressed by Forbes Contributors are their own.
Apr 23, 2018

<https://www.forbes.com/sites/michaelshellenberger/2018/04/23/if-solar-and-wind-are-so-cheap-why-are-they-making-electricity-more-expensive/#569fd9081dc6>

Over the last year, the media have published story after story after story about the declining price of solar panels and wind turbines.

People who read these stories are understandably left with the impression that the more solar and wind energy we produce, the lower electricity prices will become.

And yet that's not what's happening. In fact, it's the opposite.

Between 2009 and 2017, the price of solar panels per watt declined by 75 percent while the price of wind turbines per watt declined by 50 percent.

And yet — during the same period — the price of electricity in places that deployed significant quantities of renewables increased dramatically.

Electricity prices increased by:

- [51 percent in Germany during its expansion of solar and wind energy from 2006 to 2016;](#)
- [24 percent in California during its solar energy build-out from 2011 to 2017;](#)
- [over 100 percent in Denmark since 1995 when it began deploying renewables \(mostly wind\) in earnest.](#)

What gives? If solar panels and wind turbines became so much cheaper, why did the price of electricity rise instead of decline?

That leaves us with solar and wind as the key suspects behind higher electricity prices. But why would cheaper solar panels and wind turbines make electricity more expensive?

The main reason appears to have been predicted by a young German economist in 2013.

In a paper for [Energy Policy](#), Leon Hirth estimated that the economic value of wind and solar would decline significantly as they become a larger part of electricity supply.

The reason? Their fundamentally unreliable nature. Both solar and wind produce too much energy when societies don't need it, and not enough when they do.

Solar and wind thus require that natural gas plants, hydro-electric dams, batteries or some other form of reliable power be ready at a moment's notice to start churning out electricity when the wind stops blowing and the sun stops shining.

And unreliability requires solar- and/or wind-heavy places like Germany, California and Denmark to pay neighboring nations or states to take their solar and wind energy when they are producing too much of it.

California's Infrastructure Deficit

I have excerpted one section of the following article which does give a decent summary of the California infrastructure deficit. The remainder of the author's article is the usual ideological small government bullshit from the deaf and blind.

The Top Four Reasons California Is Unsustainable

[Thomas Del Beccaro](#), Contributor Opinions expressed by Forbes Contributors are their own.

April 19, 2018

<https://www.forbes.com/sites/thomasdelbeccaro/2018/04/19/the-top-four-reasons-california-is-unsustainable/#43f282e43a23>

4. California's Infrastructure Deficit.

That vast State Water Project was designed for a population not much greater than 25 million. Today, on any one day, California verges on nearly 40 million people within its borders and is projected to reach 50 million if not higher.

In the last 50 years, however, California's infrastructure needs have been ignored.

The state's water system remains essentially is as it was in the 1960s. As for its roads, a recent headline declared that "[California's roads are some of the poorest in the nation and rapidly getting worse.](#)"

According to a [2017 infrastructure report card](#):

"Driving on roads in need of repair in California costs each driver \$844 per year, and 5.5% of bridges are rated structurally deficient. Drinking water needs in California are an estimated \$44.5 billion, and wastewater needs total \$26.2 billion. 678 dams are considered to be high-hazard potential. The state's schools have an estimated capital expenditure gap of \$3.2 billion."

In 2017, California's Governor Jerry Brown estimated California was "[facing \\$187 billion in unmet infrastructure needs.](#)" However, the Bay Area Council Economic Institute "[pegs the cost of California's unfunded infrastructure needs at up to \\$737 billion and possibly as much as \\$765 billion.](#)" Who is right? It's hard to know but all of those figures are more than daunting.

Feature

The following are just the opening paragraphs of a study by Robert Ingraham on the foundations of the American System of economics. Should Americans really wish to restore our nation to the path of progress and development driven by scientific and technological development, then knowing the principles put forth in this study are indispensable. I urge the reading of the entire article provide by the link below.

States' Rights, the British Empire, & The 'Greenback' Credit Policy

By Robert Ingraham

<https://larouchepac.com/052314/empire-states-rights-credit-policy>

“I propose... to show that the Government of the United States is in every deed a real, substantial power, ordained by the people, not dependent upon States; sovereign in its sphere; a union, and not a compact between sovereign States; that, according to its true theory, it has the inherent capacity of self protection; that its Constitution is a perpetuity, beneficent, unfailing, grand; and that its powers are equally capable of exercise against domestic treason and against foreign foes.”

Senator Edward D. Baker, January 2, 1861

“We say we are for the Union. The world will not forget that we say this. We know how to save the Union. The world knows we do know how to save it. We – even we here – hold the power, and bear the responsibility... We shall nobly save, or meanly lose, the last best hope of earth. Other means may succeed; this could not fail. The way is plain, peaceful, generous, just – a way which, if followed, the world will forever applaud, and God must forever bless.”

President Abraham Lincoln, Annual Address to Congress, December 1, 1862

I. The American Constitutional Republic

The United States of America was created with a purpose, with an intent. Our national culture was not fashioned to be a valueless consumer delicatessen, peopled by humans who exist merely day to day, motivated by how much pleasure or entertainment they might derive from a chosen set of activities.

In the 15th century Cardinal Nicholas of Cusa and his allies had crafted the idea of a Commonwealth, a new type of society, intended to foster a new idea of human culture, to supersede and eliminate the oligarchical culture of Europe. In the early 17th century that intention of Cusa's was brought to the shores of Massachusetts. The descendants of those colonists, with the issuance of the Declaration of Independence in 1776, brought into existence not merely a “new nation,” but a new species of nation-state, one never before seen in recorded human history.

Later, it was the genius of Alexander Hamilton who recognized that it was the system of monetarism which was the mechanism by which empire ruled, and it was Hamilton who devised a national constitutional credit system, a credit system grounded in the concept of increased human productivity, engendered through nationally directed advances in science and industry. Thus, it was Hamilton who completed the work of the Constitutional Convention and made possible the emergence of “a more perfect Union,” of a true sovereign republic.

The subject of this paper is the historic victory of Abraham Lincoln in rescuing, not only the national Hamiltonian credit system, but, by so doing, saving for future generations the actual Constitutional Republic.

The Hamilton Principle

“The original system of the United States Constitution, had actually relied on the principle of physical, rather than monetarist standards of valuation, as Treasury Secretary Alexander Hamilton had specified in his four-point standard for the United States: that respecting his January 9, 1790 Report on Public Credit; his December 13, 1790 Report on A National Bank; his February 23, 1791, Opinion on the Constitutionality of a National Bank; and, his, relevantly concluding, December 5, 1791 Report on The Subject of Manufactures...

“All four of those prescriptions by him, as combined to a singleness of effect, have been, both explicitly and implicitly violated, repeatedly, with some relatively rare exceptions, as violated, repeatedly, by most among the elected National Presidencies of the United States—this far. In virtually all cases, the violations of those principles which had been set forth by Alexander Hamilton, have been, in effect, as, both, combined, must be considered as having been violations of the U.S. Federal Constitution, and, also, as a practice of incompetence which has been, in each instance, a de facto practice of treason against the sovereign intention of the United States Constitution’s principle of a perfect union...

“There was never a common practice of Wall Street banking and related practices, which was not, by design, a treasonous violation of our Constitutional System of Government. All four principles of law established by Hamilton's office, hang, still, commonly and interdependently, on the detailed elaboration of the argument at law presented in the Opinion on the Constitutionality of a National Bank. Every violation of that body of law presented by Hamilton's notion of a National Bank, has been the leading cause of those greatest follies of national economic and related social practice which have been self-inflicted upon or by the incumbent government of our United States...

“The assassination of U.S. Secretary of the Treasury, Alexander Hamilton, was, in fact, not only an expression of efforts to destroy the sovereignty of the United States, that for the alleged benefit of “States Rights,” or the like. It was, actually, more to the point, in defense of the alleged rights of foreign powers, chiefly those of the British Empire, to corrupt the United States. The assassination of the former Treasury Secretary of the United States, Alexander Hamilton, had been such a specific and direct attack against any threat to British interests, upon the United States; it was, therefore, no coincidence, that the British professional assassin and spy who had assassinated Hamilton, Aaron Burr, was acting on behalf of the “States Rights” hoax, a hoax by means of which the economy and citizens of our United States have been implicitly robbed, as they are being robbed by Wall Street, still today...

“So, productivity is a result of human increase in the leveling of the human mind to higher and higher degrees of power in society, the increase of the productive powers of labor. The principle used to ring through the struggle of the United States. The increase of the productive powers of labor, that is the Hamiltonian principle...

“Hamilton's Principle is, therefore, to be recognized as at the kernel of our Federal Constitution: the perfectly unifying principle of eternal human progress.”