

California Water and Infrastructure Report

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

For March 28, 2019 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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Nuclear turns out to be the <u>safest form of energy</u> there is. Period. By any measure - rate of human error, worker injury or death, equipment failure, effects on surrounding populations and the environment, number of unplanned shutdowns and level of occupational exposure.

The 40th Anniversary of Three Mile Island-- Did Anything Bad Ever Happen?

A Note To Readers

Infrastructure, contrary to conventional thinking on the topic, has never been merely about repairing bridges and roads, or even building a dam or a railroad. As President Franklin D. Roosevelt understood and accomplished, a comprehensive up-shift in the productive power of the economy and the increased skill level of the population, must be the intent of an infrastructure building policy. FDR's "Four Corners" project, his Rural Electrification Administration, and more, transformed the entire U.S. economy during the 1930s and made the mobilization for World War II possible. In that era, electrification of the economy was a "frontier" technology.

Nuclear power was the frontier technology in the post WWII era, and both President Eisenhower, with his Atoms for Peace policy, and President John Kennedy envisioned thousands of nuclear plants providing the bulk of electricity for the nation by the year 2000.

That did not occur, and today is the 40th anniversary of a decisive event that virtually stopped the

construction of nuclear power plants in the U.S.-- The "Three Mile Island nuclear accident." Below are excerpts from the article, "The 40th Anniversary of Three Mile Island-- Did Anything Bad Ever Happen?," in which the first sentence states, "No, nothing did." The author is correct, as far as he goes. But, what "bad" did happen was the boost given to the hysteria of that era's environmentalists.

So, now is the time to bury the hysteria and build a few thousand nuclear plants to provide the energy for a \$2-3 trillion per year serious infrastructure building program. But that is only possible as an element of Lyndon LaRouche's Four Laws of Economic Recovery.

Note the Fourth Law focuses on fusion and the space program, for yesterday President Trump launched an initiative to "restore American excellence in space exploration," stating that "the Unites States will seek to land on the Moon's South Pole by 2024, establish a sustainable human presence on the Moon by 2028, and chart a future path for Mars exploration." A link to that statement by the Whitehouse can be found later in this report.

Here are *LaRouche's Four Laws* summarized with a link: The Four Laws define a coherent economic recovery program, rooted in the American System of economics:

- 1. Reinstate Franklin Roosevelt's original Glass-Steagall law, separating commercial lending activities from Wall Street speculation
- 2. Return to a Hamiltonian system of national banking
- 3. Direct federal credit to projects and initiatives which create rising levels of productivity and incomes
- 4. Launch a crash program for the development of fusion power and the rapid expansion of our space program.

https://larouchepac.com/20141228? fbclid=IwAR10Ic1EkPUpIquqjwuS6gdbBFGD9EN5kR0xvu8TtnqVnyFOTkGpAhgoAUY

Again it was Presidents Eisenhower and Kennedy who also gave America and humanity that great "leap for mankind" with the Apollo Project to put a man on the Moon, the which, 50th anniversary we will celebrate on July 20 this year.

So, let us conclude this introduction with the words of President Kennedy to the Congress on May 25, 1961:

"Now it is time to take longer strides—time for a great new American enterprise—time for this nation to take a clearly leading role in space achievement, which in many ways may hold the key to our future on Earth. I believe we possess all the resources and talents necessary. But the facts of the matter are that we have never made the national decisions or marshaled the national resources required for such leadership. We have never specified long-range goals on an urgent time schedule, or managed our resources and our time so as to insure their fulfillment.... We go into space because whatever mankind must undertake, free men must fully share.... I believe that this nation should commit itself to achieving the goal, before this decade is out, of landing a man on the moon and returning him safely to the Earth."

Later, Kennedy said: "We choose to go to the Moon in this decade and do the other things, not because they are easy, but because they are hard; because that goal will serve to organize and measure the best of our energies and skills, because that challenge is one that we are willing to accept, one we are unwilling to postpone, and one we intend to win, and the others, too."

The Rest of This Week's Report

We begin with "What Drought?," noting that the state of California for the first time in seven years is

completely free of drought.

But, the affects of the drought and beetle infestation has killed 147 million trees, including 18 million last year. In addition, the groundwater aquifers of the state has seen a major draw-down as farmers and others increased their pumping of groundwater during the five year drought.

The Oroville Dam update reports that the newly rebuilt spillway may be used for the first time this week or next.

On the Colorado River, having approved the Drought Contingency Plan last week, the seven Colorado River basin states – Arizona, California, Colorado, Nevada, New Mexico, Utah and Wyoming – have sent a letter to Congress calling for federal legislation to authorize the plan.

The next section of this report is an excerpt from the President's "Accelerating America's Space Exploration" plan, announced on March 27.

We mark this 40th anniversary of the Three Mile Island nuclear power plant accident with an excellent article, making the point that no was hurt by the small release of radiation. And that nuclear power production of electricity is the safest means of its generation.

Finally we have excerpted an article that tears to pieces all the "world is ending" scenarios spun-out by the hysterics: "The Problem With Climate Catastophizing--The Case for Calm."

The *Feature* this week is the article by my colleague Marcia Merry Baker, on the mid-west disaster that finds major parts of the huge Mississippi-Missouri River Basins system now under water from the combined effects of lack of infrastructure, and the confluence of heavy rains, snowmelt and this month's multi-state "bomb cyclone" storm. Had the planned projects on the Mississippi and Missouri River systems from the 1940s been built, then the extent of the damage, now in the billions of dollars, would have been significantly much less. For the farmers affected, this can be the death-blow for them as a severe farm-debt crisis has put many on the edge.

What Drought?

The U.S. Drought Monitor last week declared California free of drought for the first time in seven years. Even Oregon and Washington register more drought than California. And more rain and snow this week will add to the huge snowpack already blanketing the Sierras.

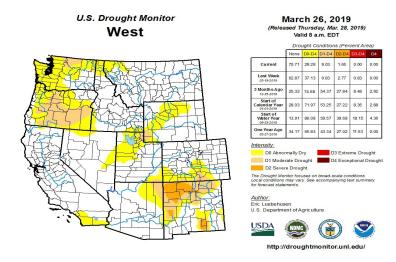
Large Storms Expected To Add Up To Four Feet In California's Sierra Nevada This Week

• Ezra David Romero

Monday, March 25, 2019 | Sacramento, CA http://www.capradio.org/articles/2019/03/25/large-storms-expected-to-add-up-to-four-feet-in-californias-sierra-nevada-this-week/

Two wet and cold storms will visit a large portion of California this week. They are expected to add quite a bit of snow to the already well-above-average snowpack.

U.S. Drought Monitor for March 26, 2019



The Drought May Be Gone, But the Affects Will Be Felt for Years

Last year was the worst wildfire year in California history. And while the ending of the drought, at least for now, after all this is California, the millions of dead trees pose a hazard for more and bigger fires to come. Governor Newsom declared a state of emergency last week in order to take measures to minimize the fire risk. An excerpted article follows, along with another on the addition of 18 more million trees added to the dead list last year.

In addition, the drought caused permanent loss to major California groundwater aquifers.

California Gov. Gavin Newsom declares state of emergency due to increased wildfire risk

- California Gov. Gavin Newsom declared a statewide emergency Friday as result of "a vast tree die-off throughout the state" and deteriorating forest conditions that have increased the risk of wildfires.
- The action by the Democratic governor follows President Donald Trump's repeated criticism of California's wildfire prevention efforts.
- The executive order will allow the state to suspend environmental review on some fuel-reduction projects, including tree thinning in forests and other high-risk fire areas.

Jeff Daniels

March 22, 2019

CNBC.com

https://www.cnbc.com/2019/03/22/california-governor-to-declare-state-of-emergency-due-to-wildfire-risk.html

"The increasing wildfire risks we face as a state mean we simply can't wait until a fire starts in order to start deploying emergency resources," Newsom said in a statement. "California needs sustained focus and immediate action in order to better protect our communities."

According to governor's emergency declaration, there are an estimated 2.2 million homes located in so-called wildland urban interface areas that are at "high or very high fire hazard" risk.

Last year, California experienced more than 7,600 wildfires that charred more than 1.8 million acres, up from 1.3 million acres in 2017. Six of the 10 most destructive fires in the state have occurred in the past two years.

The state's most devastating blaze was the Camp Fire last November that ravaged the Northern California town of Paradise, killing 86 people and destroying more than 10,000 homes.

The governor announced earlier this year that the state will spend \$1 billion on forestland management over the next five years, with funding coming from proceeds from California's cap-and-trade auctions. Also, Newsom has proposed the state spend more than \$300 million to upgrade its planning and response to wildfires and other disasters.

Report: California's tree die-off reaches 147 million, boosting fire threat

<u>Kurtis Alexander</u> Feb. 11, 2019 Updated: Feb. 11, 2019 9:02 p.m. <u>https://www.sfchronicle.com/california-wildfires/article/Report-Drought-s-end-slowed-California-s-13607328.php</u>



Dead trees dot the landscape of the Sierras just south of Yosemite, July 27, 2016. Photo: Max Whittaker/Prime / Special to The Chronicle

• Two years after California's historic drought came to an end, the sweeping die-off of the state's forests has slowed, yet vast tracts of dry, browning trees continue to amplify the threat of wildfire, federal officials reported Monday.

About 18.6 million trees died in 2018, mainly the result of dehydration and beetle infestation, according to new estimates from the U.S. Forest Service. That pushes the total number of dead since 2010, shortly before the five-year drought began, to 147 million. It's a toll not seen in modern times.

With once-green mountainsides still basking in startling hues of rust and apricot, particularly in the Southern and Central Sierra, federal officials warned that weakened trees are apt to fall atop roads, power lines and homes while woodlands remain in such poor shape that they're ripe for burning.

"If this continues, we're going to have massive problems, particularly related to wildfire," said Randy Moore, regional forester for the Pacific Southwest Region of the Forest Service. "It makes it complicated to do all the suppression we need to do to protect communities."

Western droughts caused permanent loss to major California groundwater source

March 19, 2019

https://phys.org/news/2019-03-western-droughts-permanent-loss-major.html



Measures of land Subsidence in San Joaquin Valley. Credit: USGS

California's Central Valley aquifer, the major source of groundwater in the region, suffered permanent loss of capacity during the drought experienced in the area from 2012 to 2015.

California has been afflicted by a number of droughts in recent decades, including one between 2007 and 2009, and the millennium drought that plagued the state from 2012 to 2015. Due to lack of water resources, the state drew heavily on its underground <u>aquifer</u> reserves during these periods.

According to new research, the San Joaquin Valley aquifer in the Central Valley shrank permanently by up to 3 percent due to excess pumping during the sustained dry spell. Combined with the loss from the 2007 to 2009 drought, the aquifer may have lost up to 5 percent of its storage capacity during the first two decades of the 21st Century, according to Manoochehr Shirzaei, an assistant professor of earth sciences at Arizona State University in Tempe and one of the co-authors of a new study published in AGU's Journal of Geophysical Research: Solid Earth.

Groundwater exists in the pore spaces between grains of soil and rocks. When fluids are extracted from aquifers, the pore spaces close. There is a range for which these spaces can shrink and expand elastically. But if the pore spaces close too much, they start to collapse, causing the land to shrink irreversibly.

Figuring out how much the aquifer shrank permanently could help water managers prepare for future droughts, according to the study's authors. The San Joaquin Valley aquifer supplies freshwater to the Central Valley – a major hub that produces more than 250 different crops valued at \$17 billion per year, according to the U.S. Geological Survey.

Oroville Dam Update

Rebuilt Oroville Dam spillway could be used next week after storm hits. Is it ready?

By Ryan Sabalow and Dale Kasler

March 26, 2019 01:40 PM,

https://www.sacbee.com/news/local/article228443994.html? fbclid=IwAR0ECixdbDoAVrOOBxVJuh3IJzwx5lZ61JTGJTJUN4tcYKYsO7spCf_EA4g Water may cascade down Oroville Dam's rebuilt spillway next week for the first time since a massive crater formed in its nearly half-mile long surface two years ago — a major milestone in the saga that triggered the evacuation of 188,000 people and <u>a \$1.1 billion repair job</u> to the country's tallest dam.

A storm forecast to hit this week is expected to fill Lake Oroville to the point that state dam operators might need to open the spillway gates to manage lake levels, state officials said Tuesday.



State officials said they're expecting no problems following the massive spillway reconstruction effort, which required pouring more than 1.2 million cubic yards of concrete — enough to fill 372 Olympic-sized swimming pools. The main spillway alone has enough concrete to build a sidewalk from Oroville to Amarillo, Texas, state officials said.

"I think the residents do not have any trust in the DWR people," said James Stone, a Sutter County fishing guide who's been critical of the state's handling of the near disaster, including the amount of debris left in the Feather River during the crisis.

The main spillway was releasing water at more than 50,000 cubic feet per second in February 2017 when an enormous crater erupted in the middle of the concrete chute. Dam operators throttled back water releases to try to limit the damage, which raised lake levels to the point that water started pouring over the adjacent emergency spillway — a concrete lip resting on a natural hillside — for the first time since the dam was completed in 1968.

A day later, engineers noticed the hillside was eroding badly, prompting fears that the emergency spillway could crumble and unleash a "wall of water" on communities below. The Butte Sheriff's Department ordered the immediate evacuation of 188,000 downstream residents.

Dam operators ramped up the water releases on the main spillway, which drew down the water levels and essentially ended the immediate crisis.

Last year, an independent forensic team the state hired to come up with causes of the spillway failures heavily criticized California officials, saying DWR did a poor job of designing, building and maintaining the structure and neglected safety while focusing on the "water delivery needs" of the districts that store water in Oroville.

The forensic team described the festering problems at Oroville as a "long-term systemic failure."

In response, DWR revamped its dam safety programs and ordered 93 dams it oversees to conduct thorough inspections and other ongoing safety upgrades.

Earlier this month, the Federal Emergency Management Agency refused the state's request for \$306 million in repairs, saying federal taxpayers shouldn't have to pay for problems in the spillway that

existed prior to the crisis. The state plans to appeal FEMA's decision. FEMA has approved \$333 million in funding for the state.

The Colorado River

Colorado River Drought Contingency Plan Is Necessary Now

Tom Buschatzke Special to The Desert Sun March 26, 2019

https://www.desertsun.com/story/opinion/contributors/valley-voice/2019/03/26/colorado-river-drought-contingency-plan-necessary-dcp/3272667002/

Last week, the seven Colorado River basin states -- Arizona, California, Colorado, Nevada, New Mexico, Utah and Wyoming -- sent a letter to Congress calling for federal legislation to authorize the Drought Contingency Plan (DCP). Congressional House and Senate committees are holding hearings on the plan. It's a historic moment for a river that supports two countries, seven states, 40 million people, 5.5 million acres of agricultural land, 22 federally recognized tribes, 11 national parks, seven wildlife refuges, four national recreation areas, and seven endangered species.

The Colorado River provides water for seven western states and Mexico. Heavily overallocated and ravaged by years of drought, the river is also under growing strains due to climate change. Wochit

Preserving the health and the long-term sustainability of the Colorado River is one of the most important issues we face in the United States. The DCP is a mitigation plan to avoid catastrophic water supply shortages in the western United States, and is the result of a years-long, state-driven process conducted during the previous and current federal administrations. The DCP is designed so that users agree to leave more water in the Colorado River system by reducing the use of this imperiled resource. The DCP has received broad support from the seven Colorado River basin states, many Native American tribes that depend on the river, and a wide array of environmental groups and agencies.

In recent years, the Colorado River has become imperiled by a historic, unprecedented drought that has caused Lake Powell and Lake Mead to plummet from nearly full to just 40 percent of their full capacity. If no action is taken to preserve the river system, these reservoirs will continue to decline, threatening the ability to deliver water to tens of millions of people in the United States and Mexico. If that happens, the current issues will become dwarfed by many unimaginable and unsolvable crisis points. It is this eventuality the DCP is specifically designed to prevent.

Back to the Moon by 2024

Less some still think that "we should spend the money here on Earth instead of in space," well, it should be obvious that the astronauts not only do not take money on their missions, but even if they did they would be hard pressed to find a place to spend it. More importantly, of course, is that the space program is the driver for introducing new technologies into the entire economy, and that for every dollar spent on the manned-space program, ten dollars or more of economic activity is generated.

Below is an excerpt from the President's March 27 announcement, followed by an item on a related topic-- the necessary focus we must have, not on climate change, but on "asteroid defense."

President Donald J. Trump Is Boldly Putting Americans Back on the Moon (an excerpt)

Issued on: March 26, 2019

https://www.whitehouse.gov/briefings-statements/president-donald-j-trump-boldly-putting-americans-back-moon/

"This time, we will not only plant our flag and leave our footprint, we will establish a foundation for an eventual mission to Mars and perhaps, someday, to many worlds beyond."

President Donald J. Trump

ACCELERATING AMERICA'S SPACE EXPLORATION: President Donald J. Trump is setting a bold goal to put Americans back on the Moon by 2024.

- President Trump has received five recommendations, unanimously approved by his National Space Council, to accelerate America's space exploration program.
 - President Trump also received four recommendations on streamlining export control regulations that followed a year-long review.
 - The NASA Administrator will provide an update on the implementation of Space Policy Directive-1 (SPD-1) and the recommendations at the next Space Council meeting.
- The United States will seek to land on the Moon's South Pole by 2024, establish a sustainable human presence on the Moon by 2028, and chart a future path for Mars exploration.
 - NASA's lunar presence will focus on science, resource management, and risk reduction for future missions to Mars.
- NASA will create a Moon-to-Mars Mission Directorate and make all necessary efforts to achieve Exploration Mission-1, a foundational uncrewed mission around the Moon.
 - Exploration Mission-1 will take place no later than 2020 and a crewed mission around the Moon, Exploration Mission-2, will take place no later than 2022.
- NASA will unleash American industry, including through public-private partnerships, to enhance innovation and the sustainability of its space activities.
- To implement SPD-1, NASA will continue to improve its structure and management, and improve cost and schedule performance, seeking legislative authorization as necessary.
- The United States will engage with international partners to enable a sustainable lunar exploration and development program.

Baltimore Sun Op-Ed Warns Asteroid Collision Far Outstrips Climate Change as Threat to Humanity

March 27 (EIRNS)—In the March 22 Baltimore Sun, the most unlikely of locations, former White House and Pentagon space consultant Douglas MacKinnon makes clear that, despite the mass, manufactured hype around climate change, the reality is that the threat of an asteroid collision with Earth represents a far larger and more immediate threat to human existence. And he wonders aloud why the response to the greater danger has been so disproportionately small.

Last December, he relates, an asteroid too small to have been detected with existing sensory technology, exploded a mere 15 miles above the Earth with 10 times the force of the bomb detonated over Hiroshima. Correctly characterizing that proximity as "an astronomical hair," he asserts: "In today's increasingly toxic political climate, you either buy into the narrative that 'humans are

destroying the planet, 'or you very quickly end up on some group's enemy list. No other world-killing disasters need apply."

After duly noting the deafening silence on the asteroid threat coming from the climate scare-mongers in academia, the press, Hollywood, etc., MacKinnon concludes by demanding a mobilization to meet that challenge, lest "Tragically, ... the global warming-climate change threat will continue to exhaust all available funding and attention, leaving the Earth and humanity doomed to its inevitable, but preventable, fate."

Nuclear Power

The conclusion of the following excerpted article reads: "Nuclear turns out to be the <u>safest form of energy</u> there is. Period. By any measure - rate of human error, worker injury or death, equipment failure, effects on surrounding populations and the environment, number of unplanned shutdowns and level of occupational exposure."

The 40th Anniversary of Three Mile Island-- Did Anything Bad Ever Happen? James Conca

March 28, 2019

https://www.forbes.com/sites/jamesconca/2019/03/28/the-40th-anniversary-of-three-mile-island-did-anything-bad-ever-happen/#29aa390f907d



Three Mile Island (2). ON March 28, 1979, a minor valve malfunction at the Three Mile Island power station's #2 reactor led to a partial melt-down of the core. No one was hurt, and the small amount of radiation released had no effects on human health or the environment. #2's cooling towers are seen in the background behind #1's which have operated brilliantly since that time. Exelon

No, nothing did. There were no effects on human health or the environment. It was an industrial accident. The core should have been replaced and the plant restarted. Instead, the accident <u>achieved mythological status</u> as a dreadful event, even though no one was hurt and deaths occur every year at <u>all other types of power plants</u> - except nuclear.

Four o'clock this morning, March 28th marked the 40th Anniversary of the <u>partial meltdown</u> of Reactor #2 at the Three Mile Island Nuclear Generating Station in Dauphin County near Harrisburg, Pennsylvania.

The accident involved <u>a relatively minor malfunction</u> in the secondary cooling circuit which caused the temperature in the primary coolant to rise. This in turn caused the reactor to shut down automatically. Shut down took about one second. At this point a relief valve failed to close, but 1970's instrumentation did not reveal that fact, and so much of the primary coolant drained away that the residual decay heat in the reactor core was not removed.

The core suffered a partial meltdown as a result.

The operators were unable to diagnose or respond properly to the unplanned automatic shutdown of the reactor. Deficient control room instrumentation and inadequate emergency response training in the nascent industry proved to be root causes of the accident. This was quickly rectified at all reactors throughout the United States.

The Energy Deathprint, normalizing deaths in the energy industry to the amount of power produced for each of the major sources. Note the difference between American deaths and the rest of the world for coal, hydro and nuclear, for which data exists, the result of strong U.S. regulations. Note also that the U.S. government values a human life at \$7 million when taken as a result of an environmental disaster.

No health or environmental effects have ever been found to have occurred as a result of the TMI accident. More than a dozen major, independent studies have assessed the radiation releases and possible effects on the people and the environment around TMI since the 1979 accident.

The most exhaustive study was conducted in 2002 by the University of Pittsburgh's <u>School of Public Health</u>. Their research tracked 32,135 people who lived within five miles of the plant when the accident occurred.

The researchers concluded, "This survey of data, which covers the normal latency period for most cancers, confirms our earlier analysis that radioactivity released during the nuclear accident at TMI does not appear to have caused an overall increase in cancer deaths among residents of that area over the follow-up period, 1979 to 1998."

The <u>Nuclear Regulatory Commission</u> conducted detailed studies of the accident's radiological consequences, as did the Environmental Protection Agency, the Department of Health, Education and Welfare (now Health and Human Services), the Department of Energy, and the Commonwealth of Pennsylvania.

Several independent groups also conducted studies. The approximately 2 million people around TMI-2 during the accident are estimated to have received an average radiation dose of less than 1 mrem above the annual background dose of about 250 mrem, less than eating a bag of potato chips a day.

| Energy Source | Mortality | Rate (deaths per trillion kWh) |
|--|------------|--|
| Coal – global average | 100,000 | (41% of global electricity) |
| Coal - China | 170,000 | (75% of China's electricity) |
| Coal – u.s. | 10,000 | (32% of U.S. electricity) |
| Oil – global average | 36,000 | (33% of global energy, 4% of global electricity) |
| Natural Gas – g.aver. | 4,000 | (22% of global electricity) |
| Biofuel/Biomass – g.av | er. 24,000 | (21% of global energy) |
| Solar – global average | 440 | (<1% of global electricity) |
| Wind – global average | 150 | (2% of global electricity) |
| Hydro – global average | 1,400 | (16% of global electricity) |
| Hydro – u.s. | 5 | (6% of U.S. electricity) |
| Nuclear – global averag | ge 90 | (11% of global electricity w/Chernobyl&Fukushima) |
| Nuclear – u.s. | 0.1 | (19% of U.S. electricity) |
| Sources –World Health Organization; CDC; 1970 – 2011 | | U.S. Government assigns a value of \$7 million to a life |

This is important. Nuclear turns out to be the <u>safest form of energy</u> there is. Period. By any measure - rate of human error, worker injury or death, equipment failure, effects on surrounding populations and

the environment, number of unplanned shutdowns and level of occupational exposure.

Including all nuclear accidents in history, even wind and solar still <u>kill more people per MWh</u> of electricity produced than nuclear, although all non-fossil deaths involve accidents like falling off a ladder, roof or turbine. Hydro kills more than all other non-fossil systems. And fossil fuel kills way, way more than all the others combined.

The table above lists estimates of the mortality rate for each energy source as deaths per trillion kWhs generated over the last 40 years, plus an estimate of that source's contribution to global and national energy use from the IEA. The numbers are a combination of direct deaths and epidemiological estimates and are an amalgam of many sources (1, 2, 3, 4, 5, 6, 7).

Is Climate Change Really a Catastrophe?

The writer of the following excerpted article tears to pieces all the "world is ending" scenarios spun-out by the hysterics. For serious people, the entire article is worth a read.

The Problem With Climate Catastophizing

The Case for Calm

By Oren Cass

March 21, 2019

https://www.foreignaffairs.com/articles/2017-03-21/problem-climate-catastrophizing? fbclid=IwAR106SQ50YXpQwgDGw8KfB76QP_Sf-GwztDFRAXTDCWBfBJHQuLII9FZrBw

Climate change may or may not bear responsibility for the flood on last night's news, but without question it has created a flood of despair. Climate researchers and activists, according to a 2015 Esquire feature, "When the End of Human Civilization is Your Day Job," suffer from depression and PTSD-like symptoms. In a poll on his Twitter feed, meteorologist and writer Eric Holthaus found that nearly half of 416 respondents felt "emotionally overwhelmed, at least occasionally, because of news about climate change."

For just such feelings, a Salt Lake City support group provides "a safe space for confronting" what it calls "climate grief."

Panicked thoughts often turn to the next generation. "Does Climate Change Make It Immoral to Have Kids?" pondered columnist Dave Bry in The Guardian in 2016. "[I] think about my son," he wrote, "growing up in a gray, dying world—walking towards Kansas on potholed highways." Over the summer, National Public Radio tackled the same topic in "Should We Be Having Kids In The Age Of Climate Change?" an interview with Travis Rieder, a philosopher at Johns Hopkins University, who offers "a provocative thought: Maybe we should protect our kids by not having them." And Holthaus himself once responded to a worrying scientific report by announcing that he would never fly again and might also get a vasectomy.

Such attitudes have not evolved in isolation. They are the most intense manifestations of the same mindset that produces regular headlines about "saving the planet" and a level of obsession with reducing carbon footprints that is otherwise reserved for reducing waistlines. Former U.S. President Barack Obama finds climate change "terrifying" and considers it "a potential existential threat." He declared in his 2015 State of the Union address that "no challenge—no challenge—poses a greater threat to future generations." In another speech offering "a glimpse of our children's fate," he

described "Submerged countries. Abandoned cities. Fields that no longer grow. <u>Political disruptions</u> that trigger new conflict, and even more floods of desperate peoples." Meanwhile, during a presidential debate among the Democratic candidates, Vermont Senator Bernie Sanders warned that "the planet that we're going to be leaving our kids and our grandchildren <u>may well not be habitable</u>." At the Vatican in 2015, New York Mayor Bill de Blasio shared his belief that current policy will "hasten the destruction of the earth."

And yet, such catastrophizing is not justified by the science or economics of climate change. The well-established scientific consensus that human activity is causing the climate to change does not extend to judgments about severity. The most comprehensive and often-cited efforts to synthesize the disparate range of projections—for instance, the United Nations' Intergovernmental Panel on Climate Change (IPCC) and the Obama administration's estimate of the "Social Cost of Carbon"—consistently project real but manageable costs over the century to come. To be sure, more speculative worst-case scenarios abound. But humanity has no shortage of worst cases about which people succeed in remaining far calmer: from a global pandemic to financial collapse to any number of military crises.

Feature

Severe Flooding Hits U.S. Farm Belt, Atop Economic Crisis

by Marcia Merry Baker

This article appears in the <u>March 29, 2019 issue</u> of Executive Intelligence Review.

https://larouchepub.com/eiw/public/unlisted/2019/eirv46n12-20190329/Bll12cv34xp8/4612-severe_flooding_hits_u_s_farm.html? utm_source=sendinblue&utm_campaign=EIR_March_29b&utm_medium=email

Preventable flooding has again brought vast destruction to the physical economy in the Missouri-Mississippi River Basins.

March 25—Major parts of the huge Mississippi-Missouri River Basins system are now under water from the combined effects of lack of infrastructure, and the confluence of heavy rains, snowmelt and this month's multi-state "bomb cyclone" storm. The severe damage affects a large area in the heart of the farm belt—from South Dakota, Nebraska, Iowa, and Missouri, south to Louisiana. Wisconsin and other states are also hit. Overall, the flooding and debris impact will continue into May.

The disaster is all the worse in this region, as it comes on top of an ongoing crisis in agriculture, a result of the combined effect of several years that farmers' prices have been below their costs of production, and the increasing consolidation of food control (processing, concentration of production, etc.). The lack of infrastructure shows up in all respects—transportation, water management, medical services, as well as disaster defenses. This reflects the impact of decades of government policy run to serve Wall Street/City of London financial gains, not the national interest.

The significant question posed to the nation by the epic farm belt floods, is: Will the principle of the American System be restored, to see that the government once again intervenes to enable infrastructure and a sound food and farming sector, and deals with all other aspects of sustaining a productive nation, in the context of productive international relations?

One prominent farm leader puts this in terms of getting the United States into the worldwide development drive—the Belt and Road Initiative (BRI)—which will have its second international forum next month in China. South Dakota farm leader Ron Wieczorek, who ran for his state's

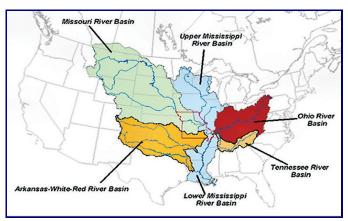
Congressional seat in 2018, sent a special message out to his networks this weekend, about the flooding and farm crisis. The LaRouche PAC-endorsed candidate said:

The only engine powerful enough to stop the farm crisis is for President Trump to bring the USA into the "One Belt One Road"—100 nations are already on board, and we have a standing invitation to join.



Catastrophic flooding in Nebraska has wiped out roads, overtopped dams, and left at least a third of the Offutt Air Force Base, near Omaha, submerged as of March 17, 2019. Photo: USAF/Rachelle Blake

Wieczorek's mid-term election campaign made a big point of exposing how Russiagate all along was a British-instigated geopolitical scheme, to hem in Trump and the United States from developing new diplomatic and economic relations for the common good among the U.S., Russia, China and other nations. Building infrastructure-corridors of development in the Americas—disaster protection, modern rail, nuclear power—is the context in which all the apparently insoluble conflicts we face today can be resolved, from the question of migrants, to the matter of a productive future for Venezuela without British regime-change.



U.S. map showing the major Midwest river basins. www.mo.gov

Flooding Dimensions

Floodwaters are still cresting at points down the lower Missouri, and the Mississippi River has yet to see its peak flows. This region is huge in size, and accounts for a large part of the nation's crops, especially soy and corn, and livestock—cattle and hogs. The damage is vast to every kind of essential infrastructure in the multi-state region: railroads, highways, and bridges, as well as schools, commercial buildings and homes.

So far 42 wastewater treatment plants in Nebraska are flooded. On March 14, the Spencer Dam gave way on the Niobrara River. Nine major levee breaches have occurred along the Missouri River itself. Transportation in the flooded areas is entirely disrupted. In Nebraska, 200 miles of roadway are completely gone, and hundreds more miles are still under water or badly damaged. Eleven main

bridges are destroyed, and even where flood waters have receded, long detours are in effect. Hundreds of miles of gravel roads, the standard in rural areas, are washed out completely, taking out the culverts and underground cables as well.

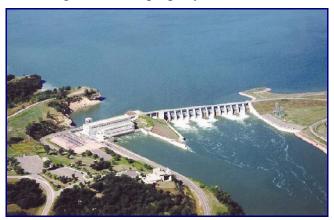
In Iowa as of March 22, a long stretch of the north-south Interstate 29 highway along the Missouri River remained impassable and closed, requiring a 100-mile detour via Des Moines to go from Sioux City, Iowa, south to Kansas City. Amtrak has suspended all service across southern Iowa, which uses the Burlington Northern Santa Fe (BNSF) tracks, now unsafe. BNSF spokesmen say they are redirecting all their regional freight movement, and can't say when they can restore service until the floodwater recedes. The flooding of prime farm land brings problems of scouring, and deposition of sand, chemicals and debris. Emergency high-ground locations were set up for livestock that could be moved in time, but thousands of head of cattle and hogs have perished. Carcasses are visible floating or jammed up into huge piles by the force of the water.

A full damage assessment is still not possible. The U.S. Army Corps of Engineers (USACE) Contingency Director toured much of the Nebraska-Iowa-South Dakota Missouri River region by helicopter beginning March 20, and emergency work is now proceeding in key places. In Nebraska alone, for example, major breeches have occurred in the 350 miles of levees along the Missouri River, the Platte and Elkhorn Rivers, and their tributaries. The USACE has rushed to shore up the Union Dike Levee near Valley, Nebraska.

On March 21, President Trump approved Nebraska Governor Pete Ricketts' request to declare the state a Federal disaster area. The White House statement declared that since March 9, the state has suffered an emergency from the "severe winter storm, straight-line winds and flooding." On March 23, President Trump affirmed a Federal disaster declaration for 56 of 99 counties in Iowa. More declarations are expected.

Big Infrastructure Works!

During the course of this disaster, one positive feature stands out: Big infrastructure works. Nebraska's Cooper Nuclear Station is operating safely at full power at its site in Brownville, along the Missouri River, after preparations for flooding functioned properly.



The Gavins Point Dam and hydroelectric power plant on the Missouri River, near Yankton, South Dakota. USACE

In South Dakota, the Gavins Point Dam and power generation plant are operating fully on the Missouri River. The 1957 structure (a rolled earthen and chalkstone embankment) is also providing a critical river crossing, via the Crest Road over the dam, while the nearby Highway 121 bridge is undergoing flood repair. This connectivity is critical for the greater Yankton, S.D. region.

These examples are part of what was to be an integrated system of water, power and development projects for the entire Missouri River Basin, but it was never fully built out. Instead, this productive basin has been subject to repeated flood devastation. In 1944 the Pick-Sloan Missouri Basin Project—named after its two design engineers, Gen. Lewis A. Pick and William Glenn Sloan—was put forward.

When completed, it was to have 147 multi-purpose dams and reservoirs (for flood control, power, irrigation, recreation); 38 hydro-power plants; a navigation channel nine feet deep and 300 feet wide, all the way from St. Louis on the Mississippi, up to Sioux City, Iowa; and continuous levees for 1,500 miles, and more. (See EIR, June 10, 2011, "No More Floods! Build the Missouri River Development Project," by Anthony DeFranco, pp. 13-27.)

Only a portion of the Pick-Sloan Plan was ever built. After certain key, up-river dams were constructed, e.g., Gavins Point and others, the full plan languished. Moreover, the design had envisioned many related projects to upgrade land resources, which were also never done. The Missouri is nicknamed the Big Muddy because of its turbidity—the sediment load in its flow. To counter this, Pick-Sloan called for planting five-million acres of trees (equivalent to the area of Massachusetts), building 2.5 million acres of shelterbelt tree rows to counter wind erosion; and constructing two-million acres of terraces to deter top-soil loss from farm fields. William Sloan foresaw thousands of new farms, new cities and industrial centers.

But, like the continental-scale North American Water and Power Alliance (NAWAPA) project to upgrade the resource base all across western North America, all of these projects were blocked. It is time to resume the construction of these big projects.

Instead of pursuing the Big Projects approach—as the Franklin Roosevelt Administration had done—U.S. policy after World War II came under control of the City of London/Wall Street policy of casino economics—financial speculation, deregulation, and outsourcing. Moreover, the green-movement wing of Wall Street argued that the American West must renounce dams, let the bison return, and drive out people.

Farm Crisis

Even before the latest, preventable flooding disaster, an extreme economic crisis had already been gripping this region. One marker of that is debt. Independent farm household debt levels and bankruptcies are surging in the Midwest states, and worry and suicide rates are high. This was described Feb. 27 by the usually sunny Sonny Perdue, Agriculture Secretary, in his testimony to the House Agriculture Committee. He said,

Farm debt has been rising more rapidly over the last five years, increasing by 30% since 2013—up from \$315 billion to \$409 billion, according to U.S. Department of Agriculture data, and up from \$385 billion in just the last year—to levels seen in the 1980s.

There has been a surge in farm household bankruptcies under Chapter 12 of the Federal Code, which was first devised expressly for agriculture operations during the 1980s, when farm foreclosures were soaring. At that time, Wall Street interests muscled Washington to disallow any debt moratoria, or resumption of parity pricing, which would have stopped the crisis. So instead, Chapter 12 was created. But many farmers are walking away altogether, or worse.

The Centers for Disease Control and Prevention (CDC) report that the rate of suicide among farmers is the highest in the nation. The new five-year farm law, in effect since January, calls for setting up suicide-prevention helplines and other measures for rural residents. The National Farmers Union (NFU) wants to go even further. In a March 25 statement, the NFU calls for funding of \$10 million in FY 2020 for the Farm and Ranch Stress Assistance Network. The NFU reports, "Net farm income in 2018 was nearly 50 percent less than it was in 2013."