



The Grand Coulee Dam in Washington State-- See this week's Feature

California Water and Infrastructure Report For April 27, 2023 (With expanded coverage of all the Western States) 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>

For a free subscription to the weekly report: Send me an email-- patruckert@gmail.com

A Note to Readers

I call the readers attention to the **Feature** this week. It is a report I wrote in and presented to several audiences in 2013: “*The Fight to Build the Grand Coulee Dam and the Economic Revolution that Transformed the Nation.*”

The links to the full report and the video are included, and what is presented below are a few pages of excerpts from it.

Here is the introduction I wrote for those excerpts:

“First, great projects like building the Grand Coulee Dam and the California Central Valley Project, completely transformed entire regions of the country. For the Northwest, at the time, the Grand Coulee Dam was the largest man-made structure in the world. It provided electricity to the entire Northwest, and created an entirely new economy, uplifting millions of people and was a crucial element of the ability of the U.S. to fight World War II.

“Secondly, it is through such great projects of water infrastructure, and others like the Apollo Project

that put the first man on the Moon, that the population generally, and the younger generation, especially, can see a future that is an alternative to the “no future” that youth are faced with today.

“And, of course, the Western states need for such great projects has always been what should have been continued over the last 50 years. For, in the 1960s, those who built such projects as the magnificent California Water Management System, Grand Coulee Dam, the Tennessee Valley Project, and more, did plan the next set of such projects, but the leadership and the nation changed, and such visionaries faded away as we have been subjected to those who favor depopulation and the pagan worship of ‘mother earth.’”

The rest of this week's report

The drought in California continues to fade away, as can be seen in this week's ***U.S. Drought Monitor*** map, below.

With warmer weather the massive snowpack in the Sierras is beginning to melt, threatening more flooding in especially the Central Valley.

The damage already from the flooding is extensive and estimates put the monetary damage at billions of dollars. A couple of examples are in this report.

On the Colorado River there is some relief from the declining Lake Mead and Lake Powell, with both expected to rise as much as 100 feet from the ample snowpack in the Rockies. This provides some breathing room for the urgency of the still necessary reduction of withdraws from the river and reservoirs. May 20 is still the date that the Department of the Interior will release its policy on how the cutbacks in withdraws will be apportioned between the seven states of the Colorado River Basin.

Before the Feature I include this article from ***LaRouchePAC: The Real Censorship: Why Don't You Know About Trump's “Agenda 47”?*** by my colleague Susan Kokinda. In summary, she contrasts Donald Trump's multiple releases under the title of “*Agenda47*” on what his presidency will be beginning in 2025, in contrast to that of Biden's attempt to induce a fear-ridden population to continue the destructive policies we have already experienced for two years.

An excerpt from her article is here:

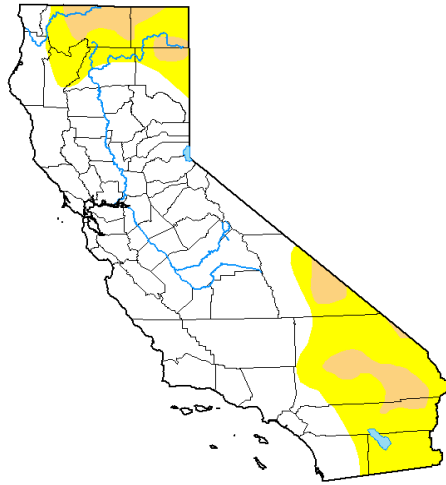
“Donald Trump, instead, addresses the American people as builders and as citizens of a great Republic, with all the responsibilities that that demands. He is challenging the People to reach higher than they might even believe possible. When he says that he wants to “take a sledgehammer to globalism,” he is promising something that goes beyond mere opposition to the imperial system. He is ready to replace it—and the citizenry's acceptance of that challenge will determine whether we have the moral fitness to survive.

“That challenge is most evident in his [March 3 proposal](#) to “create a quantum leap that revolutionizes the American standard of living,” by building ten new “Freedom Cities,” offering baby bonuses, reviving our manufacturing, and unleashing new technologies. It appears that LaRouchePAC is largely alone in understanding Trump's intention, and in recruiting Americans to that Promethean identity.”

U.S. Drought Monitor

As can be seen from the map and the chart below, the drought in the states continues to gradually fade away.

**U.S. Drought Monitor
California**



April 25, 2023
(Released Thursday, Apr. 27, 2023)
Valid 8 a.m. EDT

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	68.04	31.96	7.98	0.00	0.00	0.00
Last Week 04-18-2023	65.67	34.33	8.79	0.00	0.00	0.00
3 Months Ago 01-24-2023	0.64	99.36	89.56	32.57	0.00	0.00
Start of Calendar Year 01-01-2023	0.00	100.00	97.93	71.14	27.10	0.00
Start of Water Year 09-27-2022	0.00	100.00	99.76	94.01	40.91	16.57
One Year Ago 04-26-2022	0.00	100.00	100.00	95.18	40.56	0.00

Intensity
 None
 D0 Abnormally Dry
 D1 Moderate Drought
 D2 Severe Drought
 D3 Extreme Drought
 D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

Author:
Richard Tinker
CPC/NOAA/NWS/NCEP



droughtmonitor.unl.edu

Week	Date	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	2023-04-25	68.04	31.96	7.98	0.00	0.00	0.00
Last Week	2023-04-18	65.67	34.33	8.79	0.00	0.00	0.00
3 Months Ago	2023-01-24	0.64	99.36	89.56	32.57	0.00	0.00
Start of Calendar Year	2022-12-27	0.00	100.00	97.94	80.56	35.50	7.16
Start of Water Year	2022-09-27	0.00	100.00	99.76	94.01	40.91	16.57
One Year Ago	2022-04-26	0.00	100.00	100.00	95.18	40.56	0.00

California Flooding; Yet the Water Emergency is Not Over

While the first article below drones on and on about climate change, the excerpts below do paint the real picture that droughts are a way of life in California.

This year's 100% water allocation in California does not mean the water crisis is over, experts say

By [Julia Jacobo](#)

April 27, 2023, 3:07 AM

<https://abcnews.go.com/US/years-100-water-allocation-california-water-crisis-experts/story?id=98801081>

ABC News Chief Meteorologist Ginger Zee discusses the global impact of climate change.

The West may be out of the woods in ensuring its water supply this year, but the water crisis is still very much alive, experts caution.

Last week, the [California Department of Natural Resources](#) announced that the state would receive 100% water allocation for the first time since 2006, meaning that communities and farmers under the

State Water Project would receive all of its water requests for the year.

In February, the U.S. Bureau of Reclamation announced that the Central Valley Project, which obtains its water from the Colorado River, would also receive 100% water allocation -- the first time since 2017. Further south, the Imperial Valley could also receive higher-than-usual water allocation, due to California's senior water rights in the Colorado River Compact, experts told ABC News.

The heavy influx of water comes after several rounds of atmospheric rivers pummeled the West Coast during the wet season. So much precipitation fell that more than 65% of California is no longer experiencing drought conditions, a map from the [U.S. Drought Monitor](#) shows.

While California is swimming in water resources this year, experts warn that water supplies could easily return to precarious levels by next year.

Summerlike weather has California bracing for snowmelt flooding

"We've been fairly lucky with the pace of the water — we hope to keep it that way," the deputy director of the California Office of Emergency Services said.

[Natalie Hanson](#) / April 24, 2023

<https://www.courthousenews.com/summerlike-weather-has-california-bracing-for-snowmelt-flooding/>

SACRAMENTO, Calif. (CN) — Parts of California once mired in [historic drought](#) are now on alert for flooding as unusually high temperatures have officials predicting a [massive snowpack melt](#) into May.

State officials said in a briefing Monday that the Tulare Lake Basin and San Joaquin Valley are key concerns for officials watching for major flooding, as those areas are located downstream from the [record-breaking](#) snowpack in the southern Sierra Nevada mountains.

California's reappearing phantom lake could remain for two years in the Central Valley

April 26 2023

[Emma Newburger@emma_newburger](mailto:emma_newburger)

<https://www.cnbc.com/2023/04/26/californias-reappearing-tulare-lake-could-remain-for-two-years.html>

Key Points

- *Satellite images taken over the past several weeks show a staggering resurrection of Tulare Lake in California's Central Valley after a year of near-record rainfall.*
- *The lake, which was drained decades ago for cropland, runs about ten miles from bank to bank on land used to grow almonds, tomatoes, cotton and other crops.*
- *Tulare Lake could remain for as long as two years and trigger billions of dollars in economic losses and displace thousands of farmers.*

The water in the lake bed could trigger billions of dollars in economic losses and displace thousands of farmers and residents in agricultural communities. Continued flooding also threatens levees, dams and other ailing flood infrastructure in the area.

Tulare Lake was the largest body of freshwater west of the Mississippi River up until the late 1800s, when its tributary rivers were diverted for agricultural irrigation and municipal water uses. As the

reformed lake continues to grow larger, farmers worry they will lose entire harvests and their homes will be inundated.



An aerial view of a home (C) surrounded by floodwaters in the reemerging Tulare Lake, in California's Central Valley, on April 14, 2023 in Corcoran, California. Mario Tama | Getty Images News | Getty Images

The Mad Dash to Save Dairy Cattle as Tulare Basin Flooded



[Caitlin Peterson](#)
[Sarah Bardeen](#)

<https://www.ppic.org/blog/the-mad-dash-to-save-dairy-cattle-as-tulare-basin-flooded/>

Anja Raudabaugh is the CEO of [Western United Dairies](#), a trade organization that represents over 75% of the milk produced in California. In mid-March, a sudden snowmelt flooded the Tulare Lake basin—putting 100,000 cattle and over a dozen dairy farms at risk. During the crisis, Raudabaugh shared eye-popping images of flooding and cattle evacuations on her [Twitter feed](#), and she recently gave us a gripping account of what happened as the lake began to refill.

On Thursday, March 16, I started getting text messages saying, “We need real help.” On Friday morning, I got a frantic call from Eric Borba, a dairy farmer and chair of the Eastern Tule Irrigation District, saying that Highway 99 was about to get blown out where it hits Deer Creek.

We had to move 100,000 cows. We had planned for flood events—but not for moving 6,000 cows in five minutes. In some cases, these cows were going to die. We asked the California Department of Water Resources (DWR) for help, but they said, “It’s not a state flood control facility, so we can’t

help.” The US Army Corps of Engineers said they couldn’t help because their jurisdiction stops at Lake Kaweah and Lake Success.

Farmers are very resourceful: they picked up the phone and said, “I need anyone with a trailer to come.” The community effort was gallant. Hundreds of livestock haulers showed up and moved cattle for three nights. You can only move 10 cows at a time, so that’s a lot of trips. In the end, 75,000 cows were relocated.

What might these floods mean for California’s dairy industry in the next few years—and longer-term?

In the near term, I’m really worried. Tulare County is the largest milk-producing region in the world. A lot of dairies that were milking three times a day had to drop to two because they were moving the cows around. Yet we haven’t seen a precipitous decline in production yet; this month’s USDA reports will tell me how much of a problem we have.

Some dairies are not going to come back to life. We went from the whiplash of no feed last year because of drought to no feed this year because of floods. And if you can’t feed your animals, you send them to beef or out of state. These problems could force consolidation to move even faster than it currently is.

The Colorado River

Colorado River crisis continues to loom even in wake of record winter

The lack of agreement on updated water management policies between the seven states relying on water from the river has prompted the federal government to step in

Author: Brody Adams, Brenden Mincheff

Published: 2:40 PM PDT April 23, 2023

<https://www.abc10.com/article/news/local/colorado-river-crisis-continues-loom-record-winter/103-db1c7079-b2b8-4f95-9e74-6dc613a5c70b>

SACRAMENTO, Calif. — Even with the exceptionally wet winter, the crisis of the Colorado River continues to loom. The Colorado River basin has been stressed to the max since the turn of the century due to exceptional drought and explosive population growth in the region. Forty million people in seven states rely on water from the river.

In order to manage the water and divide it between the states, the states came together to create a compact known as the Colorado River Compact, more commonly known as the law of the river.

The so-called "law of the river" came to be over 100 years ago during an exceptionally wet period for the American southwest. Cutbacks are needed to prevent potentially catastrophic scenarios along the Colorado River.

"The natural runoff of the Colorado River system is 32% less than the runoff in the system in the 1910s and 20s when the compact was negotiated," said Dr. Jack Schmidt, a professor and director of Colorado River studies at Utah State University.

Here in California there's been a tremendous boost in reservoir storage just this winter. In the Colorado River basin, a single wet winter won't be enough to solve the crisis for the shrinking river.

[Above-Average Snowpack Will Raise Lake Mead, Buy Time for Collaboration](#)

April 21, 2023

<https://www.waternewsnetwork.com/above-average-snowpack-will-raise-lake-mead-buy-time-for-collaboration-2/>



“It’s critical that everyone with a stake in the river – including the Bureau of Reclamation, basin states, tribes and Mexico – continue to develop real and lasting solutions for the river’s long-term operation.” Photo: San Diego County Water Authority

A federal report released April 20 says near-record snowpack in the Colorado River Basin could raise the elevation of Lake Mead by more than 20 feet by the end of the year, providing a critical opportunity for water agencies to improve long-term management of the river.

The U.S. Bureau of Reclamation’s report shows vastly improved hydrological conditions are also expected to raise the water level in Lake Powell by more than 50 feet. California relies heavily on lakes Powell and Mead for water, as do Arizona and Nevada.

Despite the good news this year, the ongoing trend toward a hotter and drier climate means long-term solutions remain critical. About two-thirds of San Diego County’s supplies are conserved Colorado River water.

Lake Mead water level

In its annual “24-Month Study,” [Reclamation](#) addresses changing conditions on the Colorado River and forecasts operations for the river system’s reservoirs for the following two years. Today’s report projects the above-average snowpack will help recharge the Colorado River. Up to 9.5 million acre-feet of water is expected to be released this year from Glen Canyon Dam into Lake Mead, an increase of 2.5 million acre-feet. That water could increase Lake Mead’s water level by more than 20 feet and break years of declines in the reservoir’s levels. Actual water releases into Lake Mead will be adjusted based on the observed inflow in Lake Powell.

Lake Powell could rise 50 to 90 feet over the next few months

U.S. Bureau of Reclamation officials say that the water levels could rise to anywhere between 3,575 feet and 3,615 feet by the end of June

By [Carter Williams, KSL.com](#)

Apr 26, 2023, 11:28am PDT

<https://www.deseret.com/utah/2023/4/26/23699453/lake-powell-could-rise-50-to-90-feet>



The Glen Canyon Dam holds back the Lake Powell waters in Page, Arizona, on July 18, 2022. Federal officials believe Lake Powell will rise another 50 to 90 feet by the end of June. Spenser Heaps, Deseret News

Federal water managers say they believe Lake Powell will rise anywhere between 50 and 90 feet this spring and summer after the nation's second-largest reservoir [dropped to its all-time low again earlier this year](#).

The reservoir's water level rose to 3,524.2 feet elevation by Tuesday, representing about 22.7% capacity. U.S. Bureau of Reclamation officials say that the water levels could rise to anywhere between 3,575 feet and 3,615 feet by the end of June, [according to an outlook published last week](#). The most probable scenario is that the reservoir jumps to 3,590 feet elevation, or about 65 feet, by June, before dropping to 3,573.47 feet elevation by the end of the year.

The lake would remain about 110 to 126.5 feet below full-pool status in the probable scenario but it would also place the reservoir between 80 and 100 feet above the minimum pool level needed to generate power.

Colorado River's fate relies on water cuts that probably will never happen

Opinion: It's important to spell out the consequences of two extreme ways to cut Colorado River water use, because it shows how desperately we need a solution in the middle.

[Joanna Allhands](#)

Arizona Republic

April 22, 2023

<https://www.azcentral.com/story/opinion/op-ed/joannaallhands/2023/04/22/colorado-river-seis-alternative-water-cuts-may-never-happen/70134777007/>

The feds came up with two ideas for how to save the Colorado River.

Neither is likely to happen.

Federal and state water officials have been beating that drum since the [Supplemental Environmental Impact Statement was released](#) on April 11.

Both alternatives – relying simply on the preexisting priority system or on an across-the-board cut that would be doled out according to use – are extremes on the spectrum meant to spur debate.

They are not a realistic view of how deep, painful cuts might play out through 2026, presuming this [wet winter and other voluntary actions](#) to save water will not be enough to stabilize Lake Powell and Lake Mead for that long.

CAP would be reduced to a trickle

But that doesn't mean we should completely ignore the projected impacts of either alternative.

Because, if anything, it makes the case for why we so desperately need to find something in the middle.

The Real Censorship: Why Don't You Know About Trump's "Agenda 47"?

By [Susan Kokinda](#)

April 27, 2023

https://www.larouchepac.com/the_real_censorship_why_don_t_you_know_about_trump_s_agenda_47?utm_campaign=20230427_realcensorship&utm_medium=email&utm_source=larouchepac

From California to Texas to Michigan, LaRouchePAC organizers are deepening the discussion of Donald Trump's new "Agenda 47" strategy among grassroots activists and MAGA leaders, and filling a dangerous vacuum that otherwise exists in the American political dialogue.

All one has to do is look at Avatar Biden's 2024 election announcement or the RNC response to it, to appreciate the importance of the LaRouchePAC campaign. Biden's video begins with yet another rerun of the January 6 "insurrection," while the RNC counters with an AI-generated response, portraying a dystopian view of America under Biden's second term. Both address the American people as victims of whichever enemy image one chooses. Once, in New Hampshire back in 1988, Joe Biden confessed his entire world view to an associate of Lyndon LaRouche. The problem with LaRouche, he said, "is that he believes the American people are more intelligent than they really are." In other words, he banks on inducing stupidity as his central campaign strategy, and his senile performance as President normalizes and celebrates that decrepit state of mind.

Donald Trump, instead, addresses the American people as builders and as citizens of a great Republic, with all the responsibilities that that demands. He is challenging the People to reach higher than they might even believe possible. When he says that he wants to "take a sledgehammer to globalism," he is promising something that goes beyond mere opposition to the imperial system. He is ready to *replace* it—and the citizenry's acceptance of that challenge will determine whether we have the moral fitness to survive.

That challenge is most evident in his [March 3 proposal](#) to "create a quantum leap that revolutionizes the American standard of living," by building ten new "Freedom Cities," offering baby bonuses, reviving our manufacturing, and unleashing new technologies. It appears that LaRouchePAC is largely alone in understanding Trump's intention, and in recruiting Americans to that Promethean identity.

Organizers at state-wide meetings in California and Michigan, both of which were dominated by Trump supporters, found little recognition of the broad scope of Trump's Agenda 47 proposals or their revolutionary nature.

On the weekend of April 21, a team led by Mindy Pechenuk, 2024 candidate for California State Assembly District 12, attended the annual meeting of the California Republican Assembly, the long-

established conservative counter to the California GOP, and found overwhelming support for Trump's campaign—and underwhelming recognition of Agenda 47. One exception was a long-time Trump campaign activist who had not only studied Agenda 47, but grasped the visionary nature of building Freedom Cities, and President Trump's unique recognition of the enormity of the war danger and how to stop it. The LaRouchePAC team found people ready to be challenged to take up the mission of Agenda 47 and activate layers beyond traditional Republican or conservative constituencies.

The previous weekend, LaRouchePAC organizers, attending the Michigan GOP state committee meeting, similarly found few who know about Trump's Agenda 47. This, despite the fact that these policies provide the pathway by which the Michigan party, under its new leadership, can achieve its stated goal of becoming the party of the working class.

Why is it that outside of President Trump himself, LaRouchePAC is the primary proselytizer for Agenda 47?

Plato's Metaphor of the Cave

In his great (and generally misunderstood) dialogue, *The Republic*, Plato develops the metaphor of the cave, describing how slaves are chained to benches in a cave, such that they can only see the shadows projected on its back wall. Thus, they never see the sun or the actual objects which generate the shadows.

So much of today's political debate is about the shadows—the political, social, and cultural consequences of the fact that our physical economy has been systemically looted and destroyed over the recent decades, by the monetarist policies of the central banking system and the green lunacy of the environmentalists. The RNC huddles on the right-hand side fighting over the shadows with the Democrats, who huddle on the left-hand side.

Donald Trump has his face turned away from the shadows, toward the sun. His Agenda 47 embodies the elements of a policy which will generate an entirely new economy. This aspect of his campaign, dedicated to a truly human future for ourselves and our posterity, echoes central pillars of Lyndon LaRouche's economic and scientific genius. LaRouche's forty-year campaign to build a new economic renaissance from the ruins of the globalist Dark Age, provides the underlying principles which will allow us to not only live in the world of the sun, but to know the sun's principles.

So in addition to spreading the word about the mere existence of Trump's Agenda 47, LaRouchePAC is conducting intensive discussions and classes around those principles, both in person and via video-conference. Last week in Houston, Marsha Bowen and Brian Lantz (who is doing a series of [podcasts](#) about Agenda 47), took a local LaRouchePAC audience through an intensive discussion, in which the question of increasing the actual standard of living was taken out of the "shadows" of money, and into the domain of physical production and human creativity. It was clear that people are hungry for these ideas.

A midweek Zoom call with activists in the Midwest, and a Saturday in-person meeting in Michigan with leaders and members of the local Republican Party, continued to deepen the discussion. The "MAGA Project" discussions being led by LaRouchePAC organizers in California are engaging leaders and activists throughout the state around Agenda 47. Next week, Michigan organizers will travel to Pittsburgh to present LaRouchePAC's unique understanding of Trump's Agenda 47 to a leading MAGA group in the critical swing state of Pennsylvania.

With your help, we can do more! Let us know if you want to pull together an "Agenda 47" project in your state or area.

Feature: My report from 2013

The link to the full report and a video link can be found below.

I have taken a few excerpts from this lengthy report to demonstrate two points:

First, great projects like building the Grand Coulee Dam and the California Central Valley Project, completely transformed entire regions of the country. For the Northwest, at the time, the Grand Coulee Dam was the largest man-made structure in the world. It provided electricity to the entire Northwest, and created an entirely new economy, uplifting millions of people and was a crucial element of the ability of the U.S. to fight World War II.

Secondly, it is through such great projects of water infrastructure, and others like the Apollo Project that put the first man on the Moon, that the population generally, and the younger generation, especially, can see a future that is an alternative to the “no future” that youth are faced with today.

And, of course, the Western states need for such great projects has always been what should have been continued over the last 50 years. For, in the 1960s, those who built such projects as the magnificent California Water Management System, Grand Coulee Dam, the Tennessee Valley Project, and more, did plan the next set of such projects, but the leadership and the nation changed, and such visionaries faded away as we have been subjected to those who favor depopulation and the pagan worship of “mother earth.”

The Fight to Build the Grand Coulee Dam and the Economic Revolution that Transformed the Nation A Presentation by Patrick Ruckert



Transcript Edited February 23, 2013

<https://amatterofmind.org/ca-drought-pdf/Grand%20Coulee%20Dam%20Report.pdf>

On YouTube: [Grand Coulee Dam - History of the Battle to build it - By Patrick Ruckert](#)

The increased demand for electricity through the early decades of the last century necessitated an explosion of dam building to generate it. Hydroelectric power is produced by the building of a dam in which the force of cascading water turns a turbine producing the power. The great cost and time required to build a dam and lay the power lines, in most cases, was far greater than any private company could handle. Thus, the Army Corps of Engineers and the Bureau of Reclamation became the backbone of dam building in the country.

The same dam that produces power can also provide irrigation, thus many projects were of dual use, or more.

By the mid-1920s the big projects began. For example Hoover Dam was begun in 1929 and completed in 1934. At that time it was the biggest dam in the world, and as described, a miracle of engineering, built by the Army Corps of Engineers.

The New Deal: A New Platform of Development

FDR changed everything. His New Deal not merely saved the country from a catastrophe, like that which Germany slid into, also in 1933, with the establishment of the Hitler dictatorship, but moved the nation to a new platform of development. His entire policy must be seen as a conscious determination to transform the relationship of man and nature, where man is less and less a subject of nature's violence.

FDR would unleash-- using a Hamiltonian-type credit mechanism with agencies such as The Reconstruction Finance Corporation (RFC), The Works Progress Administration(WPA), and The Industrial Recovery Act(IRA)-- a massive infrastructure building program. The leading element of that policy would be power and irrigation.

Seven Key Elements of FDR Policy

But first he had to get control over the banksters of Wall Street and bust the power trusts. In a series of acts and laws from 1933-1937 he did just that. These included the following:

Seven Key Elements of FDR Policy

1933 Emergency Banking Act and Glass-Steagall

1933 The Tennessee Valley Authority Act

1934 The Securities and Exchange Act

1935 The Public Utility Holding Act

1935 The Federal Power Act

1936 The Rural Electrification Administration

1937 The Bonneville Project Act

In these acts, FDR and Congress declared the furnishing of electric service to be a public utility; to be controlled and regulated for the general welfare of the nation. In addition FDR and Congress saw this responsibility to include the furnishing of electricity to every home, business and farm of the nation. This was the policy until the 1990s deregulation binge, which gave us Enron and other crimes.

Rural Electrification

Let's look at the Rural Electrification Administration (REA) to see how this policy actually transformed the nation, rapidly increased its productivity and brought millions of farm families out of an essentially peasant existence. In 1936, outside of tractors and combines, life on the farm was no different than it had been 100 years before. In that year 90% of the farms in the US had no electricity. Compared to other nations that was a shocking statistic. France, then, had electrified 95% of its farms; it was 90% in Japan; 85 % in Denmark; etc. Those nations had governments that had programs to make it happen.

Why so low in the US? Because the private power companies would not run the lines to rural areas unless the farmer paid the entire cost (at \$1,500 per mile) and paid a rate based on distance from the power source. That would be \$1000s per farm-- in 1936, when most farm families had an annual income of a few hundred dollars. The municipal systems could not do it by law.

In truth, the private power companies didn't give a damn, and they would not build the lines. In July, 1935 a group of utility company executives wrote a report in which they claimed, *“that there were very few farms requiring electricity for major farm operations that are not now served.”*

I want you to think about life on the farm in 1936, without electricity. Life and work for most rural Americans in the 1930s was fixed in a cycle of hardship and drudgery. They lived and worked in a dark and powerless land.

No running water in the house or barn. No flush toilet. Water was pumped by hand and hauled to where it was needed. The average farm family spent 240 hours per year pumping and hauling water.

No electrical machinery: saws, grinding wheels, pumps, milking machines, and dozens of other tools.

No refrigeration for food and milk production. The typical dairy farmer would lose a portion of his milk to spoilage.

No washing machines. The farm wife would wash clothes with a scrub board.

No electrical appliances, like stoves, irons and hot water heaters. Wood stoves for cooking and heat were the norm, which meant many hours chopping wood. No lighting in the house or barn.

Beginning in 1935, FDR created the Rural Electrification Administration(REA), which became law in 1936. Immediately the country side began to light up. Farmers would get together and form a COOP.

The COOP would apply to the REA for a loan to pay for not only running the lines to the farms and hooking them up to a power source, but also to buy appliances and machinery to use the electricity. The REA charged the COOPs 2% interest. More than \$410 million was lent in the first ten years, with the funds coming from the RFC. Within five years, 30% of the farms had electricity. By 1952 it was 90%, and by 1960 it was 99%. This was the most successful and massive electrification project anywhere in the world. The REA got every penny it loaned to the COOPs back, plus some. Over 98% of the loans were repaid.

What the REA Accomplished

What did the REA accomplish for the economy, in addition to bringing millions of farm families into the 20th Century?

Farm productivity leaped. Hundreds of hours spent hauling water, chopping wood, milking by hand, etc. now were used to plant and harvest crops. Tens of thousands of appliances were purchased by farmers produced by private industries, thus aiding the economic recovery. The REA used fairs, extension agents and other means to teach the farmers the more than 200 uses of electricity on the farm.

Just to name a few: motors for multiple tasks, refrigeration for milk, poultry lighting, electric fencing, feed grinders, water pumps for the buildings and irrigation, grain elevators, grain grinders, milking machines, wood saws; tool grinders, and the list goes on.

Imagine a rural school house with no electricity; or small towns with no lights; or gas stations with hand pumps. All these now were electrified.

The REA engineers lowered the cost of stringing lines to below \$1,000 per mile, and developed entire new technologies to increase the efficiency of entire systems.

It freed up manpower from farm work that was especially critical as the United States went into World War II. These farm boys entered the military and the industries producing the war materials. The increased farm productivity provided the food not only for the US military, but for half of Europe.

In Tennessee, a farmer who got his lights in the early 1940s, rose the next Sunday at church to bear witness: ***“Brothers and sisters, I want to tell you this. The greatest thing on earth is to have the love of God in your heart, and the next greatest thing is to have electricity in your house.”***

James O'Sullivan

The story of the more than twenty-five year fight to build Grand Coulee Dam and irrigate the Columbia Basin is one that began with the idea to do just that of a few people.

O'Sullivan lived in the future. No opposition would stop him from his mission to build that dam. In an August 7, 1920 article he wrote for the Wenatchee World he makes the future visible for others:

“Handicapped in many ways by a vast desert in the heart of the state, by costly freight rates from and to the East, it would appear that nature has provided this state in compensation unlimited power possibilities that will provide water for every acre of arid land and more than overcome every other possible handicap, providing we have the courage, vision, and genius to utilize this gift. It requires no prophecy to say that the day will come when water power will inevitably make Washington one of the leading agricultural, industrial, and manufacturing states in the Union.”

Keep that quote in your mind, for 25 years later every word of it will be a reality.

By March, 1933 the bill to build the dam was in the Congress. By-passing the Congress, FDR authorized the dam to be funded by the Reconstruction Finance Corporation and run through the Public Works Administration under the National Industrial Recovery Act-- all elements of FDR's 100 days program. FDR had restored the credit system. The completed dam would be managed by the Bureau of Reclamation.

In May, 1940, a year and one-half before Pearl Harbor, O'Sullivan wrote to FDR: ***“It is unnecessary to urge you to take steps to prepare for the day when this country will inevitably be involved. You can proceed no faster than public opinion will permit. But I believe that the vast majority of our citizens would support you and Congress in greatly extending the extent of our preparedness. And it seems that this should be done with all possible speed in view of the lightning speed shown by those who would not only conquer Europe but the whole world.”***

FDR was already moving. In May, 1940, as part of the defense mobilization, aluminum companies began moving into the Northwest for the cheap power. Other industries did the same. Soon steel plants and other metals processing industries were building along the Columbia River and on Puget Sound.

By 1943, 96% of the Columbia River power production was going directly to war production. This included a secret, large transmission to the newly constructed plants at Hanford to produce plutonium for the atom bombs.

By 1947, 42% of all aluminum production in the U.S. was produced in the Northwest. That same year 42% of all hydroelectric production of the entire country was in the Northwest.

The people of the Northwest now began to grasp what O'Sullivan and his allies had been telling them for more than 20 years-- that what they were doing was making history and was indispensable for the nation's future.

To the first graduating class at Grand Coulee High School in 1942, Rufus Woods said, ***“So here it stands, a monument to the idea and the power of an idea;... and you, class of 1942, could you come back here a thousand years hence, or could your spirit hover around the place ten thousand years hence, you would hear the sojourners talking as they beheld this slab of concrete, and you would hear them say 'Here, in 1942, indeed there once lived a great people.'”***

he story of Jim O'Sullivan is really not about him. It is about you, and what you are going to do as humanity is faced with a crisis that threatens our very existence as a species. Neither history, nor economics, is a spectator sport.

So why did Jim O'Sullivan do what he did? Because he lived in the future, not the present. He knew that the purpose of his life was not to die, but to live; to live forever by doing something that does not die, but lives on after he was gone. Or, to put it another way, he lived in his dreams, because, like for us today, those dreams are more real than the world around us today will ever be.

You have to be very impressed with O'Sullivan's almost instinctive insight into the minds of his enemies, and the minds of the population he educated and recruited. He knew that they did not live in the future, and he had to somehow bring that future to them.

That he did-- and he made it very concrete. In fact, he gave them the biggest slab of concrete ever constructed-- The Grand Coulee Dam.