



**The Oroville Dam's main spillway releasing water from Lake Oroville. The spillway was rebuilt after the devastating collapse in 2017. (Photo credit: California Department of Water Resources)**

## **California Water and Infrastructure Report**

### **For February 8, 2024**

**(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>**

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### **A Note to Readers**

The **Feature** this week presents an organization name change. I have been, as some of my readers have noted, an active associate of the late Lyndon LaRouche. Often I have included articles from my organization, *LaRouche PAC*. The Feature this week announces that *LaRouche PAC* is in the process of changing its name to *Promethean Action*. An article and a link to the *Mission Statement of Promethean*

*Action* can be read beginning on page 10 of this report.

After two weeks of high impact atmospheric rivers soaking California, especially the southern part of the state, flooding and mud slides have caused significant damage. The opening sections of this week's report cover that.

But, while some snow fell in the Sierras and the Rockies, the snow level is still below the average for this date of the year. So, the “snow drought” is still with us.

An article from *Ag Alert* provides the reader with an excellent overview of where California's water comes from and where it goes. And urges the state and federal government to once again, as they did before the 1970s, to build the water infrastructure that will ensure that California can remain the greatest food producing region in the world.

Edward Ring has another contribution to a sane and workable water policy for the state in his article, “*California is Hardly Harvesting the Deluge.*” He writes:

*“California’s water agencies are letting millions of acre feet of fresh water pour into the San Francisco Bay every year*

*“A historic barrage of atmospheric rivers hit California. Across the Sierra Nevada and down through the foothills into the valley, rivers turned into raging torrents, overflowing their banks and flooding entire communities. California’s Central Valley turned into an inland sea, as low lying farms and grasslands were incapable of draining the deluge.*

*“That was 1861, when one storm after another pounded the state for 43 days without respite. Despite impressive new terminology our experts have come up with to describe big storms in this century – “bomb cyclone,” “arkstorm,” and “atmospheric river” – we haven’t yet seen anything close to what nature brought our predecessors back in those pre-industrial times over 150 years ago. But we are getting rain this year. Lots of rain.”*

Two articles on the impact of the storms on the Colorado River are summarized thus, “*If you’re watching the weather, it’s still a little early to tell whether these storms will go where they can help Las Vegas the most. That’s anywhere in the Upper Colorado River Basin, where there’s a chance they could produce snow to help the river that supplies 90% of the water used in Southern Nevada.*”

Meanwhile, across the West, drought has a Hold on some states, and the Texas reservoirs reach dangerous lows.

The report concludes with the **Feature**, discussed above.

## **The Storms, the Reservoirs and the Flooding**

### ***The Recent Storms Necessitate the Release of Water from California's Reservoirs***

#### ***California Department of Water Resources***

***February 7, 2024***

*Water releases from Oroville Dam’s main spillway will stop around 10 a.m. with releases continuing through the Hyatt Powerplant. DWR is reducing Feather River releases due to low runoff inflow rates into Lake Oroville. However, total Feather River releases may increase again in the future to account*

*for additional incoming storms and high inflows. Water released into the Feather River supports the environment with some eventually making its way through the State Water Project to the San Luis Reservoir where it will be captured to maintain overall water supply. Lake Oroville is currently at 77 percent of its storage capacity.*



The Oroville Dam's main spillway releasing water from Lake Oroville. The spillway was rebuilt after the devastating collapse in 2017. (Photo credit: California Department of Water Resources)

## **Bomb Cyclone To Dump More Water Than in Lake Mead on California**

**Published** Feb 07, 2024 at 6:50 AM EST

### **'Largest Storm Of The Season' Floods Southern California**

By [Aleks Phillips](#)

U.S. News Reporter

<https://www.newsweek.com/bomb-cyclone-more-water-lake-mead-california-1867607>

California is expected to receive more rainfall by Friday from an atmospheric river storm than what Lake Mead in Nevada—the largest reservoir in the U.S.—can hold, meteorologists have said, as the state continues to face the threat of flooding.

On Tuesday, Ryan Maue, former chief scientist at the National Oceanic and Atmospheric Administration (NOAA), calculated that as of that morning, 7.7 trillion gallons of precipitation had fallen, with a further 3 trillion gallons expected in the following few days—bringing the 10-day total to around 11 trillion gallons.

At its full capacity, Lake Mead can hold just over 8.5 trillion gallons of water, though its water level has been receding in the past two decades and its actual volume as of January stood at almost 3.1 trillion gallons.

California has been battered by two atmospheric river storms, the first [making landfall last week](#) and the second, more powerful, beginning on Sunday.

The latter storm was turbocharged by what is known as a bomb cyclone—when a cold mass of air collides with a warm mass, intensifying a cyclone, bringing more violent winds and a greater likelihood

of coastal flooding.

## ***California Bracing for New Storm on Heels of Atmospheric River***

***Published Feb 07, 2024 at 9:06 AM EST Updated Feb 08, 2024 at 7:54 AM EST***

*'Largest Storm Of The Season' Floods Southern California*

By [Anna Skinner](#) Senior Writer, General Assignment

*A new storm is expected to [bring more rain to California](#), sparking concerns of more floods on the heels of an extreme atmospheric river that devastated the state earlier this week.*

*The atmospheric river arrived on Sunday and wreaked havoc with severe rain, snow and high winds. The storm followed a similar system that brought a deluge of rain to the state last week, leading to saturated ground prone to flooding with the second system. Catastrophic flooding did occur, particularly in Los Angeles, where more than 7 inches of rain fell. Now, meteorologists are forecasting that another storm will arrive from the north by Wednesday afternoon.*

*Atmospheric rivers are defined as a "long, narrow region in the atmosphere—like rivers in the sky—that transport most of the water vapor outside of the tropics," according to the National Oceanic and Atmospheric Administration.*

## **Two Weeks of Rain and Snow Still Does Not End the Snow Drought. And Definitely Only Ends Drought For Now**

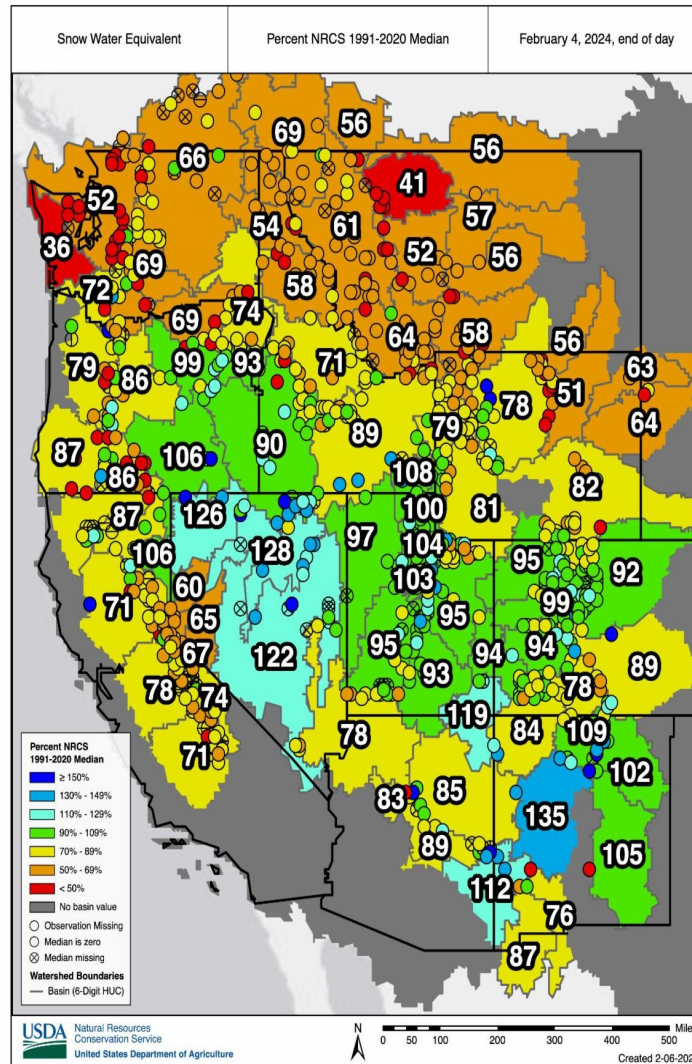
### **Snow Drought Still Covers Much of the Western U.S., with the Worst Conditions in the Northern Rocky Mountains**

#### **Key Points**

- While the spatial extent of snow drought in the western U.S. decreased since early January, snow water equivalent (SWE) remains below normal at 78% of stations in the West as of February 4, 2024.
- The worst conditions are in the northern Rocky Mountains, including the Missouri River Headwaters.
- A recent rain-on-snow event and a winter heat wave in the Cascade Range intensified warm snow drought conditions.
- Storms are likely to continue to improve conditions over the next couple weeks in the Southwest while the Northwest leans dry during this time period, consistent with a typical El Niño winter pattern.

This update is based on data available up to Sunday, February 4, 2024 at 12:00 a.m. We acknowledge that conditions are evolving.

**The rest of this snow drought is available online.**



## ***Huge Rainfall In California Will Only Stave Off Droughts For So Long***

By: [Tristan Justice](#)

February 07, 2024

<https://thefederalist.com/2024/02/07/huge-rainfall-in-california-will-only-stave-off-droughts-for-so-long/>

*California is getting hammered with rainwater again this winter after a historic rainfall in 2023 pulled the state out of a years-long drought.*

*The atmospheric flooding might have brought some temporary relief to the drought-stricken state, with local water managers projecting confidence about water supplies throughout the year.*

*“I’m very confident that we will not need drought restrictions in 2024,” the head of the Orange County Municipal Water District told The Orange County Register. But drought restrictions will almost certainly be back in a state where decades-long dry periods are the norm.*

*It was just less than two years ago that more than 97 percent of California was suffering drought conditions considered “severe.” L.A. residents were limited to watering just two days a week, eight*

minutes a day (15 for sprinklers with water-conserving technology), outside the hours of 9 a.m., and 4 p.m.

California hasn't built a new large dam in more than [40 years](#). While Gov. Gavin Newsom [outlined](#) half a dozen ways last year the state is attempting to capitalize on the rainfall, pre-existing infrastructure can only store so much. California needs a new major reservoir, but anti-development environmentalists have blocked new projects at every turn. In December, far-left groups [filed](#) another suit to block the Sites Reservoir, a Sacramento-area project that's been stuck in the planning process for more than [60 years](#).

[According](#) to the U.S. Bureau of Reclamation, nearly 95 percent of rainwater into the massive Sacramento-San Joaquin River Delta flows back to the Pacific. The backflow might not be a problem if state officials ramp up desalination efforts, which extracts seawater to form freshwater and salt.

## Where Does California's Water Come From and Where Does It Go?

### COMMENTARY: Where does water wind up? You might be surprised

[Ag Alert](#)

[Commentary](#)

February 7, 2024 [1](#) 129

<https://mavensnotebook.com/2024/02/07/commentary-where-does-water-wind-up-you-might-be-surprised/>

*Commentary by Mike Wade, Executive Director of the California Farm Water Coalition*

Water, the essence of life, is an indispensable resource intricately woven into the fabric of our daily existence. From the food on our plates to the gadgets in our hands, water silently plays a pivotal role in the creation of almost everything we encounter.

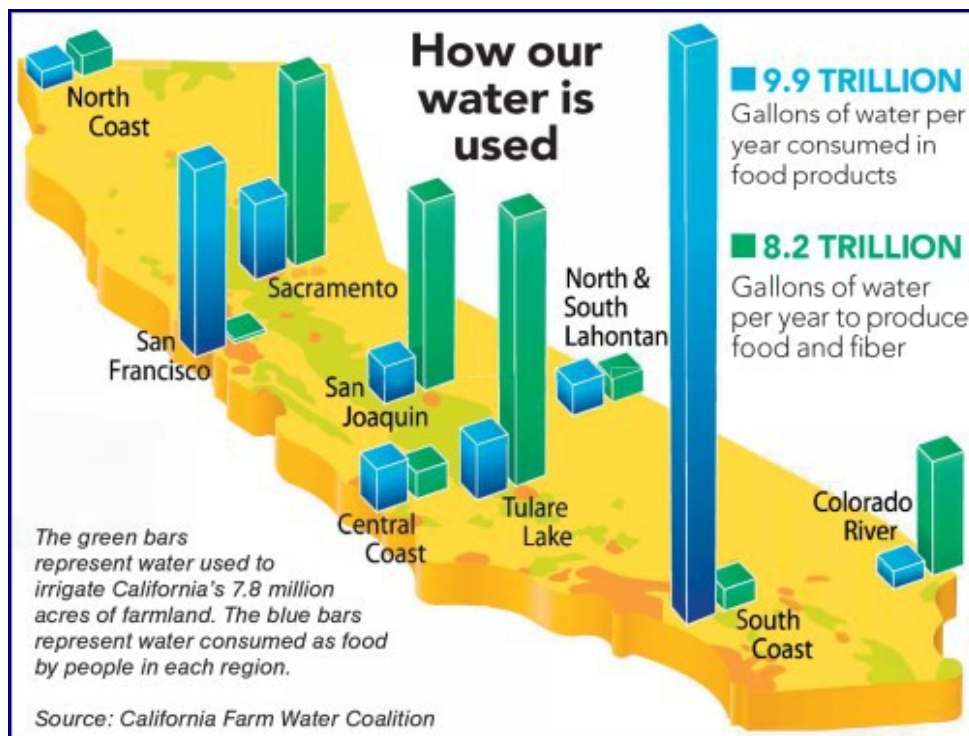
In a world where water scarcity is a looming concern, it is essential to explore the profound impact of water in the production of goods and services that shape our lives as well as the food we feed our families.

Criticism often falls on agriculture for its water use. Consumers in California face limits of 55 gallons per person, per day in allowable indoor water use. It isn't surprising that they might react negatively when confronted with the fact that more than 800 gallons of water is needed to grow the food one person consumes in one day.

However, food is something we literally cannot live without. In addition, it's crucial to recognize that the end user of farm water is not farmers but consumers. Whether you're shopping for the items in a chicken fajita recipe, a bunch of broccoli or a carton of ice cream, you're carrying water home from the farm.

Take a moment to consider a cup of coffee, a staple in many people's mornings.

The water footprint of a single cup of coffee is estimated to be around 37 gallons. Spaghetti sauce with ground beef, garlic, oregano, onion and basil adds up to about 365 gallons, according to the U.S. Department of Agriculture Food and Nutrition Service. A serving of rice and beans requires around 65 gallons of water to produce, and the fruit in a fruit medley needs 71 gallons of water.



From a statewide perspective, the total amount of water in the food consumed by California's roughly 40 million people exceeds the entire amount of water devoted to the state's irrigated agriculture industry.

A little over 25 million acre-feet of water is consumptively used to grow food on the state's 7.8 million irrigated acres. The water required to feed the state's population adds up to more than 30 million acre-feet. This means if there were no imports or exports, the amount of food grown in the state would be insufficient to meet the needs of all the people who live here.

If state and federal regulations continue on their current path, even less water will be available for farmers to use to grow food, increasing our reliance on imported products. That's why efforts to capture more water during wet years and banking it for the dry years is so important.

### ***Ringside: California is Hardly Harvesting the Deluge***

*California's water agencies are letting millions of acre feet of fresh water pour into the San Francisco Bay every year*

By [Edward Ring](#), February 8, 2024 2:55 am

<https://californiaglobe.com/fl/ringside-california-is-hardly-harvesting-the-deluge/>

*According to the [National Weather Service](#), by the time 2024's first [two atmospheric rivers](#) are done with California, the state will have been inundated with an estimated 11 trillion gallons of water. That's 33 million acre feet, in just 10 days. Are we harvesting this deluge? In this new age of climate change, which purportedly portends years of drought whipsawing occasionally into a year or two of torrential rain, do we have the means to take those so-called [big gulps](#) into storage?*

*Rather than speculate over California's glacial (poor choice of words) progress towards ways to harvest more water from storms in a state too warmed up to ever have a big snowpack again (except*

for last year, and maybe this year), how are we using the assets we've already got?

To answer that question, one must navigate the arcane recesses of the California Dept. of Water Resources website, and reference their "[historical data selector](#)." Using this interface it is possible to determine for any day or range of days, how much water flowed through the Sacramento San-Joaquin Delta into the San Francisco Bay, and how much water was diverted into southbound aqueducts by the pump stations located near the City of Tracy on the southern edge of the Delta.

Turning down the pumps for these past two weeks, therefore, deprived Californians of a quantity of water that is arguably worth billions. Let's not forget that our state legislature intends to spend [\\$7 billion \(before overruns\)](#) to restrict urban water use to 42 gallons per day per person and kill all "nonfunctional" lawns, in order to save around [400,000 acre feet per year](#).

## The Colorado River

### Atmospheric rivers bring rain and snow, but will they feed the Colorado River?

By Greg Hass

February 5, 2024

<https://www.8newsnow.com/news/local-news/atmospheric-rivers-bring-rain-and-snow-but-will-they-feed-the-colorado-river/>

LAS VEGAS (KLAS) — The attention is on Southern California right now, but an atmospheric river's path will extend inland with potential flooding — and possible drought relief.

If you're watching the weather, it's still a little early to tell whether these storms will go where they can hope Las Vegas the most. That's anywhere in the Upper Colorado River Basin, where there's a chance they could produce snow to help the river that supplies 90% of the water used in Southern Nevada.

When it rains in Las Vegas, officials remind residents to turn off their outdoor sprinklers and rely on nature instead. Those water savings make significant contributions to conservation efforts.

The paths of this year's atmospheric rivers are unlike [the ones that slammed the Sierras](#) last year. Those storms carried snow straight east through Northern Nevada and Utah, feeding the Rocky Mountains with snowpack levels that reached 160% of normal by the end of winter. That snow provided relief from drought years that had everyone watching nervously as Lake Mead dropped in 2022.

This time, the moisture is following a path that is causing concern in Death Valley, where [roads were destroyed less than six months ago](#) by the remnants of Hurricane Hilary. Death Valley National Park is under a flood watch through Tuesday, and officials caution travelers not to drive through active flooding.

Las Vegas is on the path's southern edge, and moderate rain brought almost a half-inch to some parts of the valley:

### ***How California's Atmospheric Rivers Will Change the Colorado River***

***Published Feb 07, 2024 at 10:00 AM EST Updated Feb 07, 2024 at 11:43 AM EST***

*Why Is The Colorado River Drying Up?*

By [Robyn White](#)



Nature Reporter

[https://d.newsweek.com/en/full/2345803/colorado-river.jpg?utm\\_source=STMailing&utm\\_medium=email&utm\\_campaign=GistofIt&user\\_email\\_address=e0e41d185e8131faaa79fe41bcc74661&emh=6db2331126616219987ac0f7ab0fc72e0d3e868746581fd84c4475ea3bf2772f&lctg=62d773713dd0961e8200ddec&utm\\_term=%5BAudience%5D%20-%20The%20Gist%20of%20It](https://d.newsweek.com/en/full/2345803/colorado-river.jpg?utm_source=STMailing&utm_medium=email&utm_campaign=GistofIt&user_email_address=e0e41d185e8131faaa79fe41bcc74661&emh=6db2331126616219987ac0f7ab0fc72e0d3e868746581fd84c4475ea3bf2772f&lctg=62d773713dd0961e8200ddec&utm_term=%5BAudience%5D%20-%20The%20Gist%20of%20It)

*An atmospheric river has caused an onslaught of rain in California, drenching the south of the state and causing severe flooding.*

*An atmospheric river has caused an onslaught of rain in California, drenching the south of the state and causing severe flooding.*

*The rain and subsequent flooding could mean good things for the water crisis gripping the southwestern U.S., though—especially the Colorado River and its basin if the precipitation reaches the upper basin.*

*The Upper Colorado River basin covers Colorado, New Mexico, Utah, and Wyoming, while the lower basin covers Arizona, California, and Nevada.*



Stock photo of the Colorado River. Its flow all depend on how much snowpack accumulates in the surrounding mountains. (Photo credit: kojihirano/Getty)

*If the moisture unleashed from the atmospheric river reaches the Upper Colorado River Basin, it could improve its flows which have been incredibly low in recent years.*

## **Across the West, Drought Has a Hold on Some States**

### **Texas Reservoirs Reach Dangerous Lows**

In some parts of the state, water officials have cut off releases that maintain estuaries and other key coastal habitats.

February 5, 2024, 6:00 AM PST

By **Diana Ionescu** @aworkoffiction

<https://www.planetizen.com/news/2024/02/127323-texas-reservoirs-reach-dangerous-lows>

Texas reservoirs are at critically low levels, according to an article by Dylan Baddour in Wired, and conditions are projected to worsen with another hot, dry summer likely coming up.

Regions around the state are declaring states of drought. “ In Corpus Christi, on the south Texas coast, authorities last month stopped releasing water aimed at maintaining minimum viable ecology in the coastal wetlands, even as oil refineries and chemical plants remain exempt from water use restrictions during drought.” Corpus Christi’s reservoirs plunged from 53.7 percent full in 2022 to 30.5 percent full this month.

On the lower Texas coast, the Rio Grande has not been flowing consistently, and Colorado River water releases have been minimal as that river faces shortages farther upstream. Yet industrial water consumers like oil refineries often get a pass, authorized to use millions of gallons of water per day.

The crisis reaches across international borders. “Northern Mexico has experienced its own water crises lately, including a deadly riot at a reservoir dam in 2020 and months of water rationing in 2022 in one of the country’s largest cities. So, it’s been reluctant to release water for Texas farmers, contributing to low levels in the downstream reservoirs.”

"Precipitation, especially in the form of snowfall, over the Rocky Mountains is going to be helpful," Becky Bolinger, an assistant state climatologist at Colorado Climate Center at Colorado State University, told *Newsweek*. "Water supply forecasts have been a bit lower this winter so far, as snowpack started late and has lagged behind a bit. But storms like this will boost the supply forecast—maybe not to 100 percent of average, but better at least."

## Feature: A Name Change



I have been an associate of the late Lyndon LaRouche for more than 50 years, as I am sure at least some of my regular readers of this report have noted, I frequently include articles from the *LaRouche Political Committee*. Mr. LaRouche was always the genius who guided myself and other associates in exploring the ideas that made the United States the economic and industrial powerhouse of the world, at least until recent decades. The articles I have included in these reports from *LaRouchePAC* have always sought to remind us of how the United States used to be that nation, and present the analyst and policies required for the country to once again be the greatest industrial nation of the world. That has

always been the underlying reason I have written these reports for nearly ten years.

Now, *LaRouchePAC* is changing its name. That is a process now underway and will be completed over the next three months.

Below is the statement that announces that change. **Welcome to the continuation of our mission, under our new name: Promethean Action.** A link to *Promethean Action's Mission Statement* can be found near the end of the following announcement:

## LaRouchePAC's New Name

<https://www.prometheanaction.com/larouchepacs-new-name/>



### Our new logo

Over the course of the next three months, starting on January 26, 2024 and ending April 25, 2024, LaRouchePAC and LaRouchePAC Action will be changing our names and some of the ways we operate. A new membership-based website, Promethean Action is being launched by the former LaRouchePAC Action which has already changed its name. LaRouchePAC itself will continue to carry posts and videos for most of the next three month period as we change our vendors and social media accounts. Then, LaRouchePAC itself will change its name to Promethean PAC, and be fully integrated into the Promethean Action website.

As longtime collaborators and supporters of Lyndon LaRouche and his ideas, Promethean Action and Promethean PAC will continue to advocate for LaRouche's ideas and their application to solving today's crises. We will also continue our passionate efforts to promote and further develop LaRouche's discoveries in economics, science, art, and philosophy and foster widespread public discussion of them.

Here's how we're seeing the immediate future. Promethean PAC will feature posts, activities, and candidacies relevant to winning the 2024 election on behalf of making America great again and the survival of the United States itself. To us, that means ensuring Donald Trump gets elected, by a broad popular vote victory crossing extant party lines and that a Congress dedicated to his policies is also elected. That means disabling the British operations aimed at Trump and his supporters and sharpening his economic policies to fully reflect the American System of political economy.

Promethean Action will be devoted to ensuring that policies creating a U.S. manufacturing renaissance, a modern national infrastructure platform, beautiful new and rebuilt cities, and the twin economic drivers of space colonization and fusion and advanced fission energy production are in place and proceeding come January 2025. Our nation needs to now make, publish, and celebrate new discoveries and inventions on the frontiers of science, not as a luxury or good thing to do but as a necessity. We need to leap over our current collapsed economic and cultural condition into a new renaissance for ourselves and our posterity if we are going to survive. That is, after all, what America and human beings have been about. It is our Promethean heritage.

No more policies from would be gods who hate human beings: no more wars, no more open borders,

no more mind destroying and deadly drugs A national mission, instead, where schools nurture each and every child's God given creativity and we celebrate great achievements rather than sexual identity or historical grievances. A national bank, dedicated to providing credit for this mission, replaces the globalist central banking empire represented by the Federal Reserve. That also means that a new monetary system negotiated between sovereign nation states and providing fixed term long term credit for economic development is brought into being as the foreign policy priority.

You can read [,Promethean Action's mission statement here](#) and consider supporting us by becoming a "Promethean."

As we build out the platform Promethean members will receive special perks for supporting our activity.

1. Prometheans will have access to a feature called Ground Game, providing our insights into the 2024 political war and the types of on the ground interventions we are making.
2. Prometheans will get regular intelligence overviews, featuring curated news items, analysis, and videos that influence our strategic analysis.

Please Note: Promethean Action and Promethean PAC are not affiliated or associated with Helga Zepp-LaRouche or any of the entities associated with her including The LaRouche Organization, EIR Magazine, the Schiller Institute, or the LaRouche Legacy Foundation.