

Agricultural technology is truly a game changer (See page 7)

California Water and Infrastructure Report For October 4, 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>

<https://www.facebook.com/CaliforniaDroughtUpdate>

A Note to Readers

News is a little scarce this week, so the report will be brief.

Some have labelled the past week in the state as a Second Summer. Temperatures have been in the 90s through much of the state, even the Bay Area.

As mentioned last week, high temperatures, no precipitation, and with the potential of the Santa Anna and Diablo winds, the fire danger remains very high, and will remain so until the first rains. Unless the new La Nina kicks off another winter of drought.

Look at the U.S. Drought Monitor map with that thought in mind.

Edward Ring, always one with both knowledge and insight has a column this week in which he explains how incompetent the bureaucrats who run the state water agencies are, why and what is required to fix the problem.

He does name the *California Department of Fish & Wildlife* to be the “worst of the worse,” and does tell us his reasons.

Perhaps some have learned or reformed, though: “State and federal officials have decided to curtail additional water flows intended to support endangered fish in the Sacramento-San Joaquin River Delta this fall.”

Periodically, I run as the week's **Feature** one of the columns written by of my colleague, Michael Carr. This week his column is titled, “***Our Future: We'll Crank Out Nuclear Reactors Like Automobiles, Made in USA.***”

He summarizes the piece this way, “*Today's report features the first assembly line now being built for small modular reactors in Texas, some interesting video clips of agricultural automation, and several items that make clear the necessity of implementing President Trump's further plans for tariffs.*”

More from his report:

“Why we need to go nuclear: at the grand opening of the world's first nuclear power plant assembly line, Aalo CEO Matt Loszak points out that nuclear fission is 2,000,000 times more energy dense, and supply will last 10,000,000 times longer than oil and gas.”

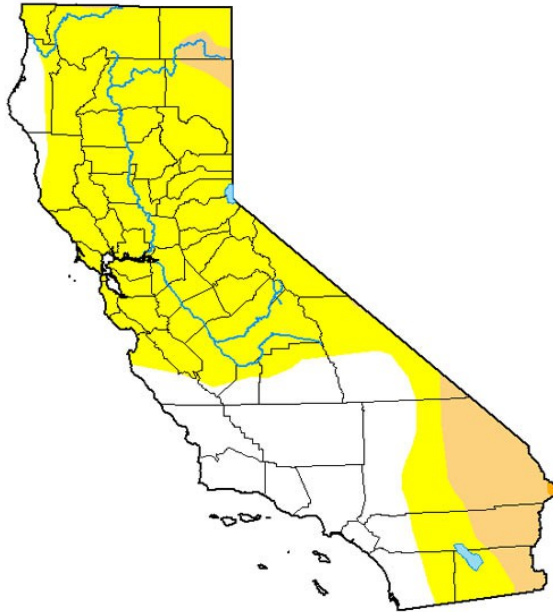
U.S. Drought Monitor

The West

Some of the higher elevations in Washington recorded 1.0 to locally 2.5 inches of rain while a few tenths of an inch were measured in other parts of the Northwest from the Cascades to the Pacific Coast, and in portions of northern Idaho and northwestern Montana. However, most of the West was very warm and free from any measurable precipitation. A few areas in Utah saw conditions noticeably deteriorate this past week, but no other degradations took place. Some D0 and D1 areas were actually scaled back in central and northwestern Montana despite the warm and dry week due to a few rounds of heavy precipitation in late August and September, which has continued to have a positive impact on soil moisture, vegetative health, and 1- to 4-month precipitation anomalies. Elsewhere, conditions are unchanged from last week. Low relative humidity, high temperatures, and gusty winds continue to produce periods of extreme fire danger, and supplemental feeding and watering of livestock has been common in eastern Montana. With the Southwest monsoon season ending and the wet season in the West not yet underway, drought tends to progress slowly in the region this time of year.

**U.S. Drought Monitor
California**

October 1, 2024
(Released Thursday, Oct. 3, 2024)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	28.40	71.60	10.67	0.08	0.00	0.00
Last Week 09-24-2024	28.59	71.41	10.67	0.08	0.00	0.00
3 Months Ago 07-02-2024	94.25	5.75	0.00	0.00	0.00	0.00
Start of Calendar Year 01-02-2024	96.65	3.35	0.00	0.00	0.00	0.00
Start of Water Year 09-26-2023	94.01	5.99	0.07	0.00	0.00	0.00
One Year Ago 10-03-2023	94.01	5.99	0.07	0.00	0.00	0.00

Intensity:
 None (White) D2 Severe Drought (Orange)
 D0 Abnormally Dry (Yellow) D3 Extreme Drought (Red)
 D1 Moderate Drought (Light Orange) D4 Exceptional Drought (Dark Red)

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>

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droughtmonitor.unl.edu

Competence and Doing the Job Is Not a Requirement Needed to Work for California's Water Agencies

Time to Gut and Amend California's Rogue Water Agencies California's Water & Energy Future with Edward Ring

By Edward Ring
October 2, 2024

<https://mail.google.com/mail/u/0/#inbox/FMfcgzQXJQVmwswztHdrZQRHCJxHPHxG>

In California today, we have given unelected state bureaucrats the power to make decisions that affect millions of people and cost billions of dollars, and there is almost no recourse.

There is also very little public criticism of the decisions these agencies make. That's because the people who are most familiar with the extraordinary power of these agencies are also the people who must go to them for permits and, often, critical funding. Despite the absence of meaningful public criticism, the primary narratives that state agencies use to decide water policy in California are highly debatable.

Let's begin with the great climate boogeyman used to bludgeon us into accepting literally anything. The counter-argument is simple and compelling. Even if climate change has arrived – bringing more volatile weather patterns and hotter, longer summers – this only increases the urgency for regulatory flexibility, new approaches to protecting threatened species, and new water supply infrastructure.

The narrative that demands more flow in rivers to save endangered species is overused and increasingly divorced from observational data that points to a host of other critical variables, including habitat, food sources, fishery rules affecting the rivers and the ocean, predators, and hatchery management.

The narrative that claims too much energy is used to lift water into aqueducts, pump groundwater, purify wastewater, or desalinate seawater is unfounded for two reasons. First, because the energy required is a tiny fraction of California's total energy consumption. Second, as is incessantly proclaimed by the renewables lobby, once solar power and battery storage is fully realized in California (assuming conventional sources of power aren't all precipitously shut down), electricity will be abundant and cheap. Our energy shortage, like our water shortage, is not destiny. It is a political choice.

Finally, it is a ridiculous yet broadly accepted narrative that disadvantaged communities and members of California's indigenous tribes are somehow better off under a system that dismantles practical infrastructure while making it nearly impossible to get permits and funding to construct desperately needed new infrastructure.



The California State Water Project

Though, Perhaps Some Have Learned

Decision to reduce water flows in California's delta sparks debate over imperiled fish

By [Ian James](#) Staff Writer

October 2, 2024

<https://www.latimes.com/environment/story/2024-10-02/california-water-flow-requirement-debate>

State and federal officials have decided to curtail additional water flows intended to support endangered fish in the Sacramento-San Joaquin River Delta this fall — a controversial step that is being praised by major California water districts but condemned by environmental groups as a significant weakening of protections for imperiled fish.

The debate centers on a measure that calls for prioritizing additional flows for endangered delta smelt, a species that has suffered major declines and is thought to be [nearing extinction](#) in the wild. The step of releasing a pulse of water through the delta in September and October is typically triggered when the state experiences relatively wet conditions, as it has during the last two years.

A coalition of environmental and fishing groups said that these flows — called “Fall X2” water releases — are vital for delta smelt, and that the decision by state and federal officials to suspend the measure this year poses an added threat to the fish.

“At this time next year, we may be looking at the extinction of a fish species that was once incredibly abundant,” said Gary Bobker, senior policy director for the group Friends of the River. “And it will have been completely preventable.”

Managers of large water agencies disagreed, calling the requirement outdated and saying it wouldn’t help the delta smelt population recover. The State Water Contractors, an association of 27 public agencies, said the change this year will preserve needed supplies in reservoirs.

The organization praised what it described as California’s “adaptive management,” saying in a [news release](#) that recent research has indicated these water releases “are not providing the benefits to Delta smelt that were originally hypothesized in 2008.”

“We are extremely pleased with the decision to rely on the full body of scientific evidence to assess the value of Fall X2 releases,” said Jennifer Pierre, general manager of the State Water Contractors.

She said the decision ensures the same protections for fish and water quality as the existing 2019 biological opinion issued by the U.S. Fish and Wildlife Service and the existing permit for the state’s pumping facilities in the delta.

“We applaud state leaders for their continued commitment to science-based decision-making,” Pierre said.

Feature-- Our Future: We'll Crank Out Nuclear Reactors Like Automobiles, Made in USA

Today's report features the first assembly line now being built for small modular reactors in Texas, some interesting video clips of agricultural automation, and several items that make clear the necessity of implementing President Trump's further plans for tariffs.



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[Michael James Carr](#)

I apply LaRouche's American System Economics to identify and promote the technologies and industries which will allow us to leapfrog out of our current sorry state into a prosperous, peaceful future.

October 03 2024

<https://www.prometheanaction.com/physical-economy-and-technology-report-for-october-1-2024-nuclear-power-meets-the-assembly-line/>

Why we need to go nuclear: at the grand opening of the world's first nuclear power plant assembly line, Aalo CEO Matt Loszak points out that nuclear fission is 2,000,000 times more energy dense, and supply will last 10,000,000 times longer than oil and gas.

Posts in today's report:

- World's First Small Modular Reactor Factory Opens in Austin
- Cool Agricultural Automation in Action
- How to Handle Chinese Competition, China Moves Auto Production to Mexico
- Growing Recognition of the Effectiveness of Trump's Tariff Policies from Unexpected Quarters
- How Wall Street Looted Healthcare
- California Water and Infrastructure Report for September 26

World's First Small Modular Reactor Factory Opens in Austin

Aalo Atomics is building the world's first Small Modular Reactor (SMR) assembly line in Austin, TX. Their first reactor is scaled up from a microreactor now being installed at the Idaho National Laboratory. The first Aalo reactor type will be rated at 10 MWe and will be transportable on a semi truck. The second reactor type will be slightly larger in size, but deliver 100 MWe. Both designs will use uranium zirconium hydride fuel, the reactivity of which goes down as temperature goes up, so that the chain reaction can never get out of control, no matter the temperature. The SMRs will be cooled by liquid metal sodium, thereby, eliminating any need for scarce water in the plants and enabling a 10x improvement in energy transfer over water-cooled systems (smaller footprint). These plants will operate singly or in fleets to meet many types of electrical demand situations. Watch the Part 2 video first (Part 1 has imperfect audio). The new Trump administration will be pushing this forward.



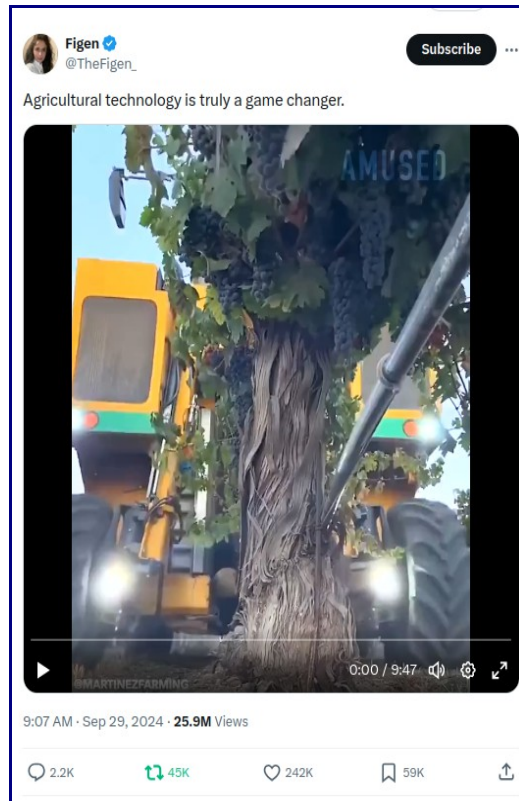
The Aalo Atomics factory in Austin, Texas.

[Aalo prepares for US licensing of microreactor](#)

[Aalo Atomics has submitted a pre-application regulatory engagement plan with the US Nuclear Regulatory Commission for its Aalo-1 microreactor, detailing the planned pre-licensing application interactions with the regulator.;](#)

[World Nuclear News](#)

This allows you to do whatever you're doing now, instead of tending a field or flock



Watch on X.com

Agricultural technology is truly a game changer

https://x.com/TheFigen_/status/1840393044887023667

Automation and tools power our modern life! This video is a compilation of some very interesting farm/agricultural machinery in action, and it will give you a good idea about how **we went from more than 90% of us being required to plant and harvest the food to feed ourselves, to less than 2% required today.** Everything we accomplish in space, in robotics, in mass production, in AI, is the result of better and better tools. We are now accelerating the pace at which we improve our tools, and life will become better and better because of those tools.

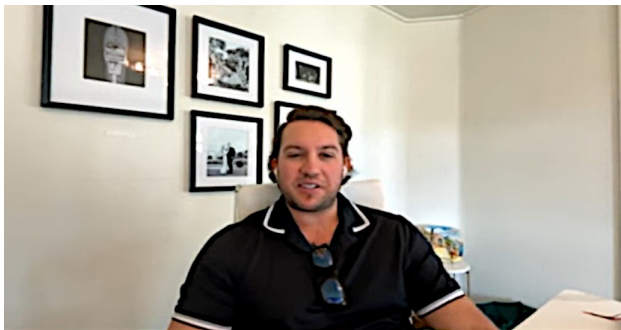
Growing Recognition of the Effectiveness of Trump's Tariff Policies From Unexpected Quarters

Although some of the worst articles ever written have appeared in *The Atlantic*, a very interesting

article on the importance of Trump's tariff policies appeared there recently. In particular, it is very important that it recognizes the effects that physical production has upon technological progress, and the destructive effects of British Free Trade: "When manufacturing heads offshore, entire supply chains and engineering know-how follow. The tight feedback loop between design and production, necessary to improvements in both, favors firms and workers positioned near the factory floor and near competitors, suppliers, and customers."

[Trump's Most Misunderstood Policy Proposal](#)
[Economists aren't telling the whole truth about tariffs.](#)
[The Atlantic](#)
[Oren Cass](#)

How to Handle Chinese Competition - China Moves Auto Production to Mexico



Nick Iacovella of the Coalition for a Prosperous

America spoke with *Autoline*.

In this interview, the VP of Public Affairs and Communications of the Coalition for a Prosperous America discusses the Chinese auto industry's moves into Mexico. The Coalition was formed by companies which broke away from the National Association of Manufacturers because of NAM's support for globalization. He made several important points:

1. Tariffs do not raise prices to consumers.
2. Chinese auto/supplier companies have invested \$8 billion in Mexico so far.
3. The entire industry (and workforce) is being planted in Mexico, not just assembly plants.
4. Chinese companies do not care about profit, but market share.
5. If you enter a partnership with a Chinese company, that company will eventually aim to displace you.
6. The USMCA is coming up for review next year.
7. Not only tariffs and industrial policy are necessary, but an entire array of measures to ensure that investments made in new American plant and equipment will have a long enough future to be able to pay off the investments.

How Wall Street Looted Healthcare

In his latest Substack post, Brian Lantz reviews the targeting and looting of American healthcare. As President Trump and Robert F. Kennedy, Jr. have pledged, all of this will be cleaned up as we Make America Healthy Again.

[Healthcare: For Patients or Profit?](#)
[Part One of a developing series.](#)



PHYSICAL ECONOMICS * Brian LantzBrian Lantz

Pat Ruckert's California Water and Infrastructure Report for September 26th

Ruckert reports on a couple of legal victories for sanity in California.

<http://www.californiadroughtupdate.org/California-Water-and-Infrastructure-Report-September-26%2C-2024.pdf>