

Veles Water Weekly Report

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VelesWater



WATER FUTURES MARKET ANALYSIS

Welcome to ***WATERTALK***

by Joshua Bell

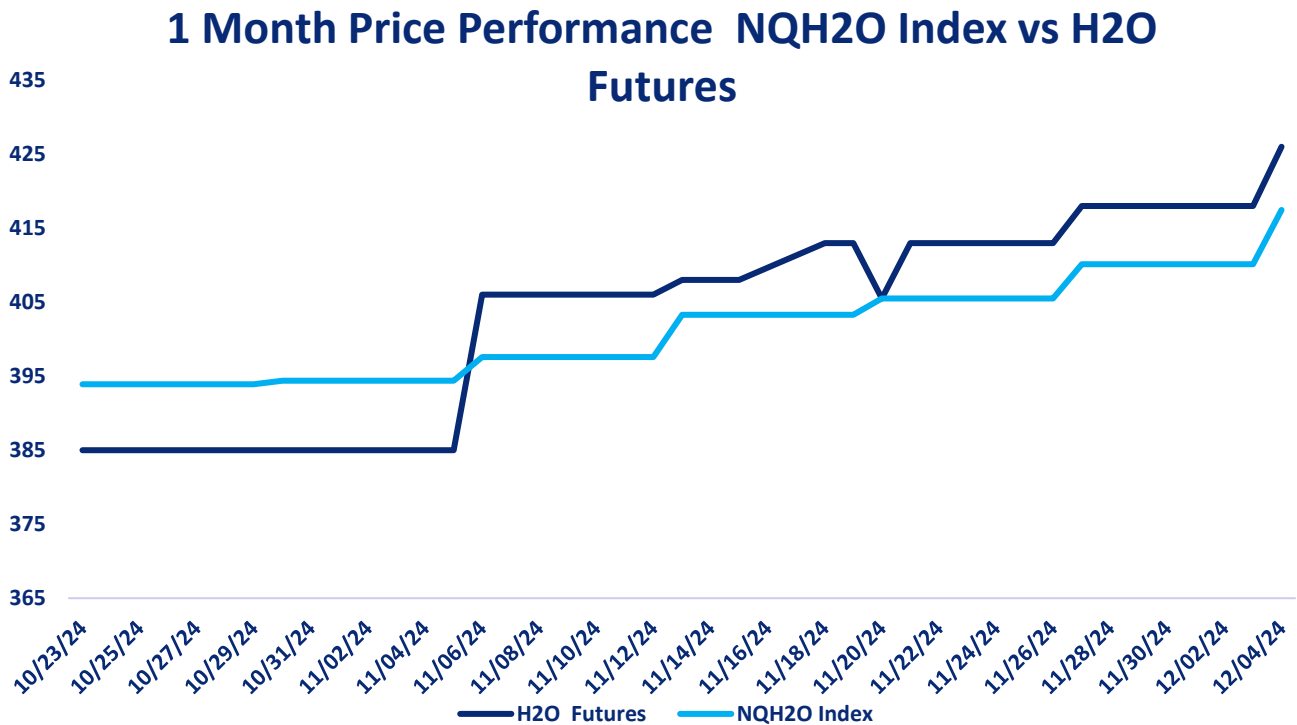
CLICK THE LINK BELOW

“A 2 minute technical analysis video of H2O futures”

<https://vimeo.com/1036285343?share=copy#t=0>



NQH2O INDEX PRICE vs H2O FUTURES PRICE



Price Chart Based upon Daily Close

The new NQH2O index level of \$417.46 was published on December 4th up \$7.29 or 1.78% from the previous week. The November settled at the new index level and the December contract is considered the front month. The futures prices have closed at a premium of \$7.87 to \$8.54 versus the index over the past week.

Below are the bid offer prices on different expiries being quoted in the market.

Dec 24	426@434
Jan 25	420@450
Feb 25	427@469
Mar 25	446@474
June 25	481@510
June 26	545@610



H2O FUTURES TECHNICAL REPORT



Price Action

- **Current Price:** 426
- The price has increased by 1.91% in this trading session, indicating bullish momentum.

Moving Averages (MA) Analysis

- **MA 5 (5-day Moving Average):** 420
The current price is above the MA 5, suggesting strong short-term bullish momentum.
- **MA 10 (10-day Moving Average):** 416
The price is also above the MA 10, reinforcing continued short-term bullish momentum.
- **MA 20 (20-day Moving Average):** 412
The price is above the MA 20, signalling strength in the short-term trend.
- **MA 30 (30-day Moving Average):** 403
The price is above the MA 30, indicating medium-term bullish momentum.
- **MA 100 (100-day Moving Average):** 428
The price is slightly below the MA 100, suggesting a cautious outlook in the long-term trend.
- **MA 120 (120-day Moving Average):** 421
The price is above the MA 120, showing improvement in the long-term outlook and a potential recovery trend.



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Support and Resistance

- **Immediate Resistance: 500**
This level has been tested multiple times and remains a key resistance point for a breakout.
- **Immediate Support: 426 (current price level)**
The current price may act as support. If it drops below this level, the next significant support would be around the MA 100 at 428.

Stochastic Oscillator

- **Stochastic (K%: 100, D%: 100):**
The stochastic indicator shows that the market is in overbought territory, suggesting that while bullish momentum is strong, there could be short-term downward pressure or consolidation ahead.

Summary

- The price is currently experiencing short-term and medium-term bullish momentum, sitting above the MA 5, MA 10, MA 20, and MA 30.
- However, the long-term trend remains cautious, as the price is slightly below the MA 100, though it has moved above the MA 120, indicating some improvement.
- The stochastic indicator signals that the market is heavily overbought, suggesting the potential for a pullback or consolidation in the short term.

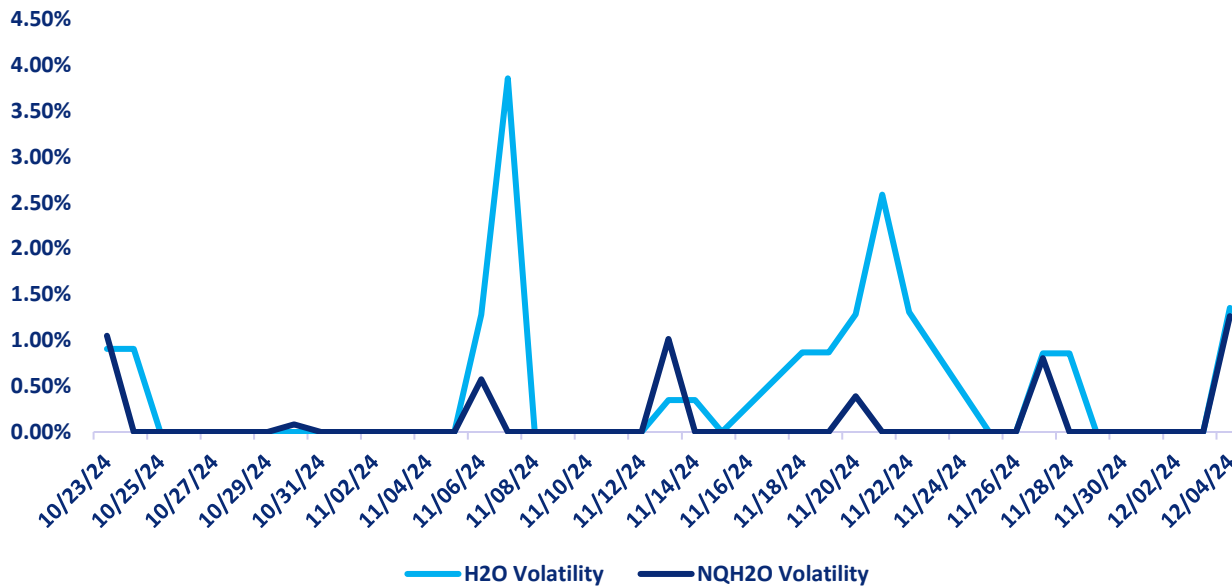
Key Levels to Watch:

- Immediate support at 426 and resistance at 500.
- If the price continues to rise, breaking above the MA 100 at 428 would signal a stronger long-term trend. Conversely, if the price declines, support around the MA 120 at 421 should be monitored closely.



H2O FUTURES AND NQH2O INDEX VOLATILITY ANALYSIS

Daily H2O Futures Volatility vs Daily NQH2O Index Volatility



DAILY VOLATILITY

Over the last week the December contract daily future volatility has been 1.35%.

ASSET	1 YEAR (%)	2 MONTH (%)	1 MONTH (%)	1 WEEK (%)
NQH2O INDEX	29.07%	5.92%	1.22%	0.63%
H2O FUTURES	N/A	9.52%	3.61%	1.91%

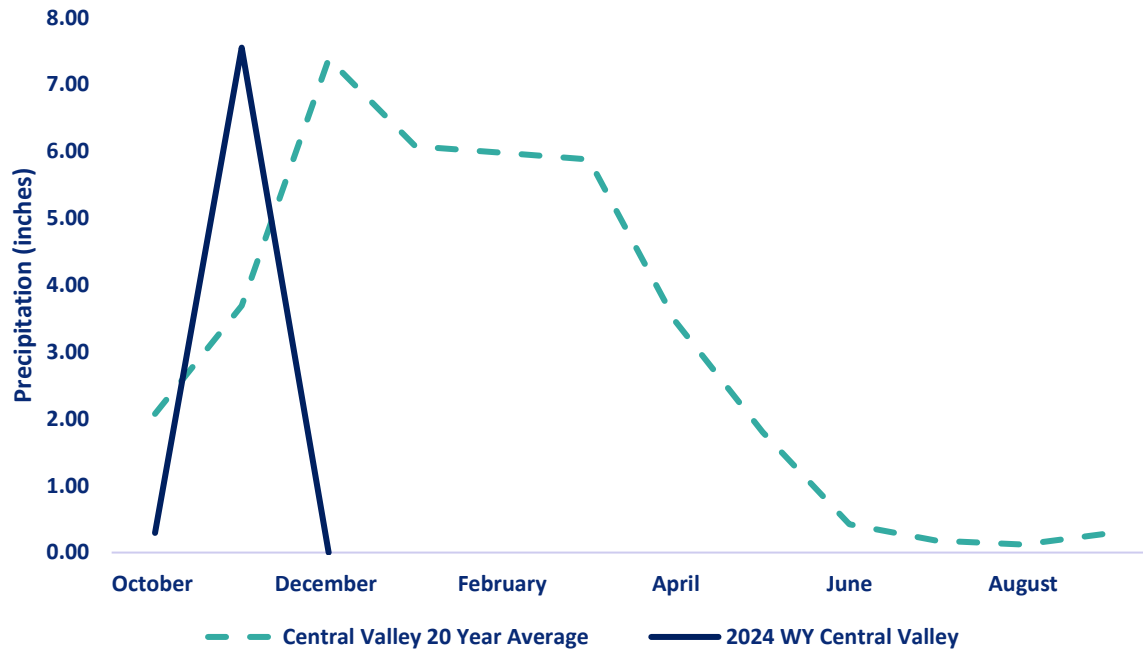
For the week ending on December 4th, the two-month futures volatility is at a premium of 3.60% to the index, down 0.33% from the previous week. The one-month futures volatility is at a premium of 2.39% to the index, down 2.88% The one-week futures volatility is at a premium of 1.29% to the index, volatility.

*Above prices are all **HISTORIC VOLATILITIES**. All readings refer to closing prices as quoted by CME.*



CENTRAL VALLEY PRECIPITATION REPORT

Central Valley Precipitation Index



Central Valley

average is calculated using data from 19 weather stations in the Central Valley, California.
Data as of 04/12/2024

STATION	MTD (INCHES)	WEEK ON WEEK CHANGE (INCHES)	% OF 20 YEAR AVERAGE MTD	2025 WYTD VS 2024 WYTD %	2025 WY VS 20 YEAR AVERAGE TO DATE %
SAN JOAQUIN 5 STATION (5SI)	0	0.61	0.00	34	73
TULARE 6 STATION (6SI)	0	1.30	0.00	29	121
NORTHERN SIERRA 8 STATION (8SI)	0	0.08	0.00	46	162
CENTRAL VALLEY AVERAGE	0.00	0.66	0.00	36	119

RESERVOIR STORAGE

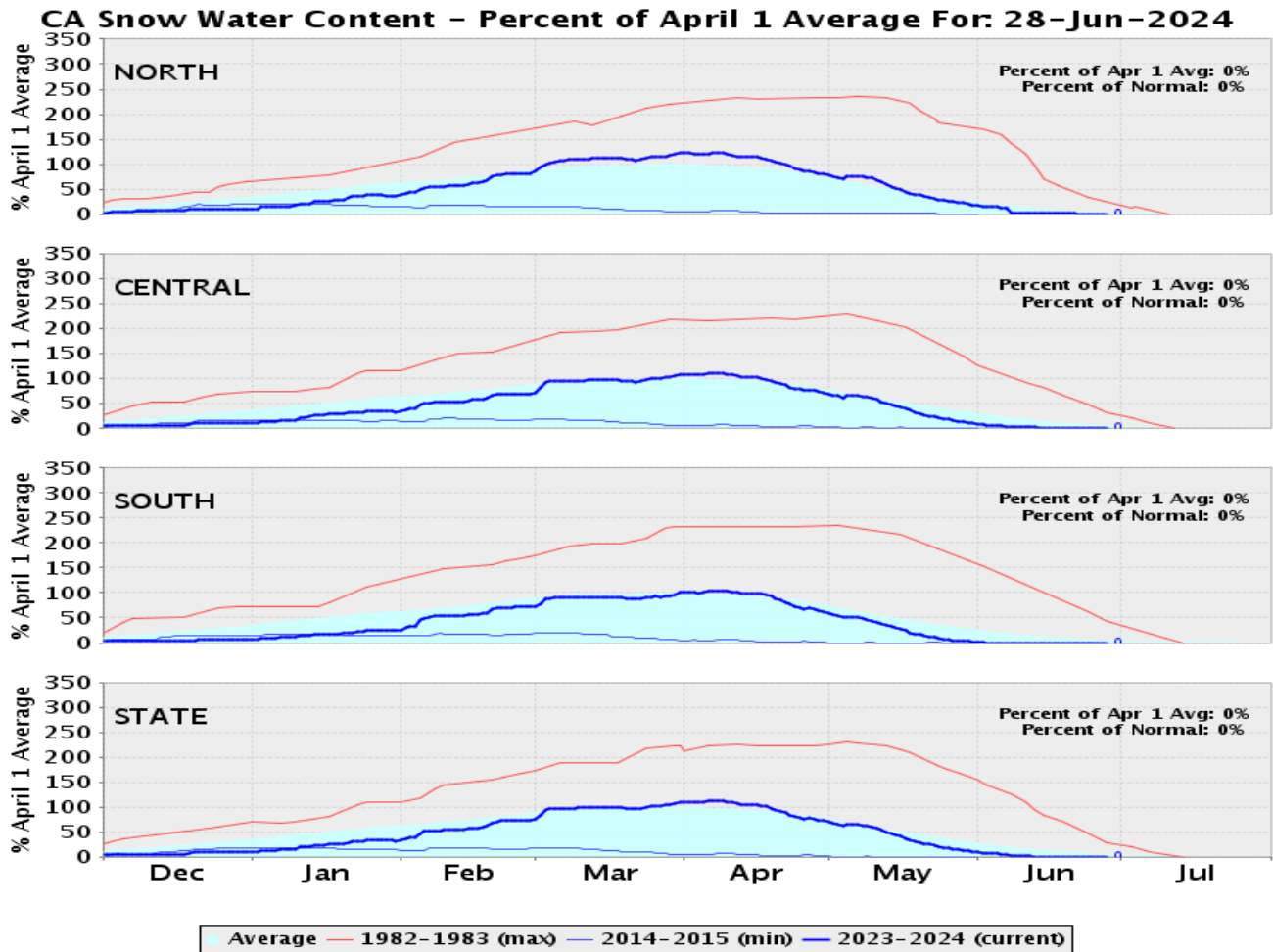
RESERVOIR	STORAGE (AF)	% CAPACITY	LAST YEAR % CAPACITY	*% HISTORICAL AVERAGE
TRINITY LAKE	1,662,322	68	49	118
SHASTA LAKE	2,774,583	61	67	113
LAKE OROVILLE	1,916,731	54	66	109
SAN LUIS RES	1,198,485	59	56	112

*% Historical Average is based on a daily average that is interpolated from historical monthly averages. The monthly averages are computed using monthly data from water year 1991 to 2020. The monthly averages are updated every 5 years using a sliding 30 year period.

[Reference: California Water Data Exchange](#)



SNOWPACK WATER CONTENT



REGION	*SNOWPACK WATER EQUIVALENT (INCHES)	WEEK ON WEEK CHANGE (INCHES)	% OF AVERAGE LAST YEAR	% OF 20 YEAR HISTORICAL AVERAGE	% OF HISTORICAL **APRIL 1ST BENCHMARK
NORTHERN SIERRA	0	0	0	0	0
CENTRAL SIERRA	0	0	0	0	0
SOUTHERN SIERRA	0	0	0	0	0
STATEWIDE	0	0	0	0	0

*Snow Water Equivalent, or SWE, is a commonly used measurement used by hydrologists and water managers to gauge the amount of liquid water contained within the snowpack. In other words, it is the amount of water that will be released from the snowpack when it melts. SWE has regional variance.

** April 1st is used as the benchmark as it when the snowpack in California is generally deepest. It has been used the benchmark date since 1941 by DWR and can be used to predict spring river flow.



DROUGHT MONITOR

California

[Home](#) / California

Map released: **Weds. November 27, 2024**

Data valid: November 26, 2024 at 7 a.m. EST

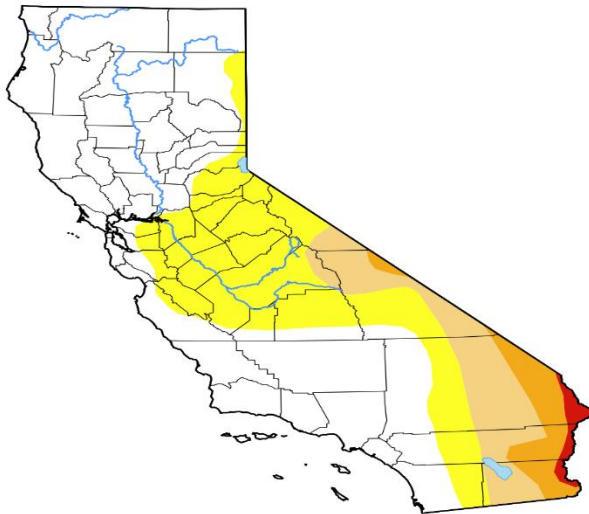
Intensity

- None
- D0 (Abnormally Dry)
- D1 (Moderate Drought)
- D2 (Severe Drought)
- D3 (Extreme Drought)
- D4 (Exceptional Drought)
- No Data

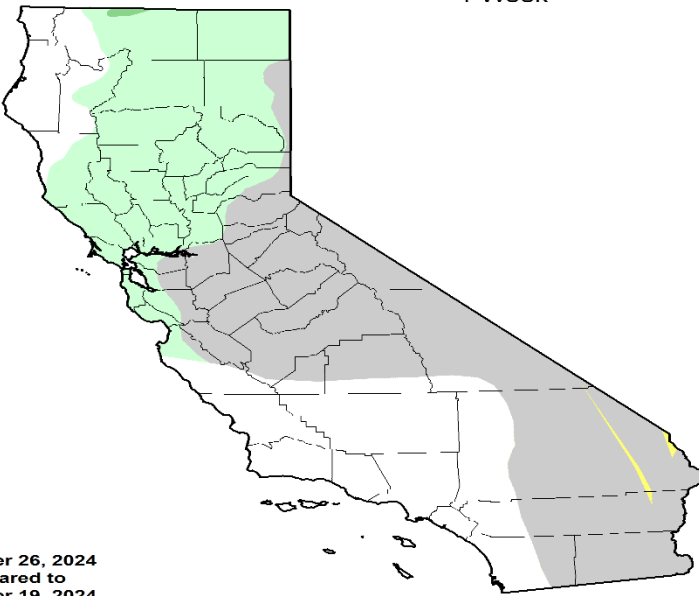
Authors

United States and Puerto Rico Author(s):
[David Simeral](#), Western Regional Climate Center

Pacific Islands and Virgin Islands Author(s):
[Richard Heim](#), NOAA/NCEI



U.S. Drought Monitor Class Change - California 1 Week



November 26, 2024
 compared to
 November 19, 2024



- 5 Class Degradation
- 4 Class Degradation
- 3 Class Degradation
- 2 Class Degradation
- 1 Class Degradation
- No Change
- 1 Class Improvement
- 2 Class Improvement
- 3 Class Improvement
- 4 Class Improvement
- 5 Class Improvement

droughtmonitor.unl.edu

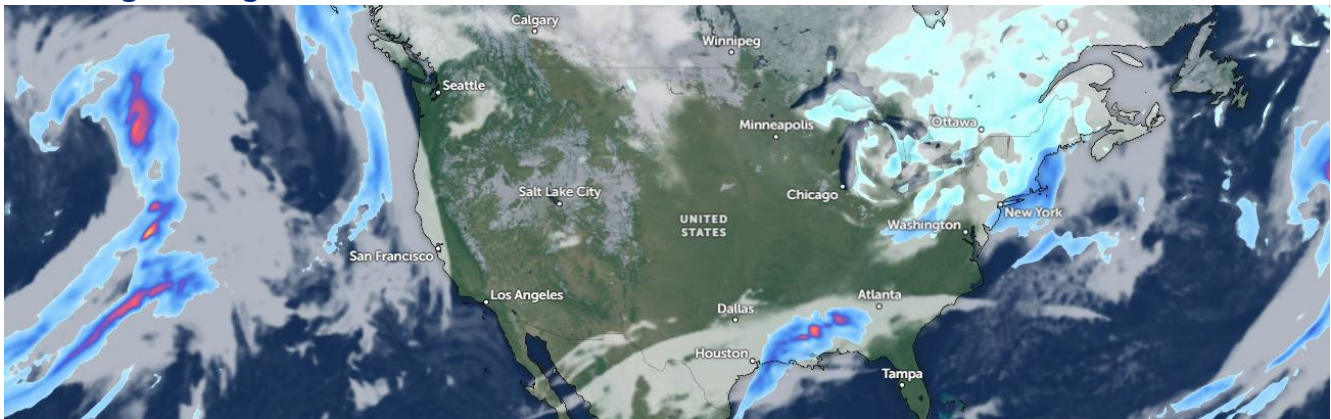
Week	Date	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
Current	2024-11-26	56.09	43.91	16.72	5.70	1.03	0.00	67
Last Week to Current	2024-11-19	28.61	71.39	16.88	5.50	0.95	0.00	95
3 Months Ago to Current	2024-08-27	58.11	41.89	6.91	0.10	0.00	0.00	49
Start of Calendar Year to Current	2023-12-26	96.65	3.35	0.00	0.00	0.00	0.00	3
Start of Water Year to Current	2024-10-01	28.40	71.60	10.67	0.08	0.00	0.00	82
One Year Ago to Current	2023-11-28	95.32	4.68	0.00	0.00	0.00	0.00	5

The U.S Drought Monitor is jointly produced by the National Drought Mitigation Center at the University of Nebraska-Lincoln, the United States Department of Agriculture, and the National Oceanic and Atmospheric Administration. Map courtesy of NDMC.



CURRENT SATELLITE IMAGERY

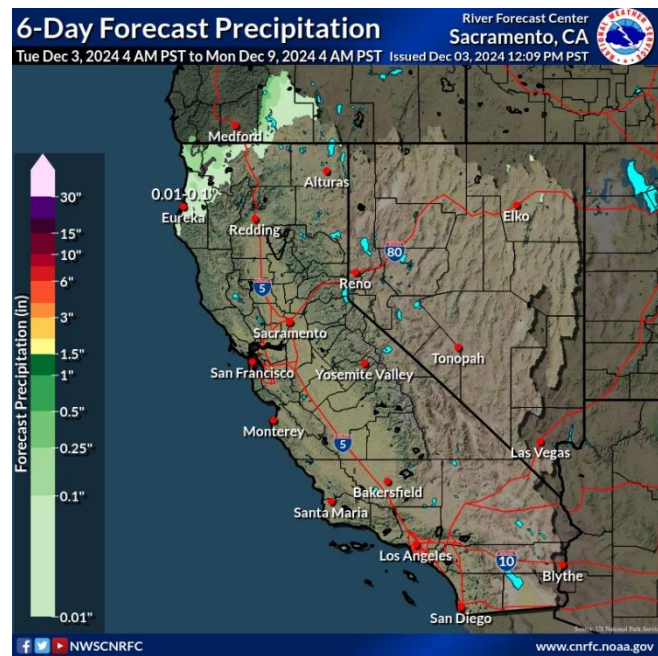
The Northwest region of the U.S. is experiencing mostly clear skies today but 2 Pacific storms are moving onshore. Moving southward, there is a steady flow of moisture from the Pacific affecting parts of Mexico, creating scattered clouds and precipitation in a band stretching eastwards which is joined by moisture moving northwards from the Gulf of Mexico. These 2 combined are bringing some stormy weather to the east of Dallas moving towards Atlanta. The eastern U.S. is dominated by a large storm system, bringing widespread cold and wintry weather, particularly in the Northeast, with snow and rain affecting this region.



10 Day Outlook

Little to no change in the afternoon forecast for the long term. Still expecting mainly dry conditions as high pressure sits offshore of CA. Showers along the north coast and northern regional border Saturday as the southern end of a front brushes the area. Additional showers possible Sunday into Monday as a trough moves through the PacNW and digs into nrn CA/NV. GFS/ECMWF have come closer together in terms of timing/positioning of the trough with still some slight differences. Not expecting this system to produce much precip with no more than a few hundredths likely. Overall QPF has not changed more than a few hundredths to a tenth here and there from this morning. Predicting 0.10-0.25" along the north coast, 0.25-0.50" over the srn OR Cascades, and only a few hundredths or so elsewhere

Map Ref: Zoom Earth



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along the northern regional border. Possibility of light showers over nrn/eastern NV as the trough moves through Sunday into Monday, but so far not showing up in the NBM/WPC guidance.

Reference: National Weather Service / California Nevada RFC / Sacramento CA



WESTERN WEATHER DISCUSSION

Out West, a series of powerful Pacific storms delivered heavy rain and mountain snow accumulations to the Pacific Northwest and Northern California. Impacts from the series of storms included damaging winds, major power outages, flash flooding, road closures, landslides, and debris flows. In the Coastal Range, an NWS observing station northwest of Santa Rosa, California reported a 7-day total of 24 inches of rain. Overall, the series of storms led to widespread removal of areas of drought on the map across the Pacific Northwest as well as areas experiencing short-term dryness across Northern California. Looking at the regional snowpack situation, the NRCS SNOTEL network is reporting (November 25) the following region-level (2-digit HUC) SWE levels: Pacific Northwest 179%, Missouri 78%, Upper Colorado 96%, Great Basin 125%, Lower Colorado 127%, Rio Grande 145%, Missouri 78%, Souris-Red-Rainy 128%, and Arkansas-White-Red 157%. In the Desert Southwest, areas of Extreme Drought (D3) expanded on the map this week in northwestern Arizona, extending northward into southern Nevada, in response to a combination of short and long-term precipitation deficits and record heat observed during the past 6-month period. Elsewhere in the region, the atmospheric river last week boosted snowpack conditions in Montana, helping to improve drought-affected areas in the northwestern part of the state.

Reference:

Lindsay Johnson, National Drought Mitigation Center

Richard Tinker, NOAA/NWS/NCEP/CPC



WATER NEWS

CALIFORNIA WATER NEWS

California water officials warn of scant deliveries from reservoirs next year

California officials announced Monday that state reservoirs are on track to provide just 5% of the water requested by cities and farms next year, a [remarkably small amount of water](#) that could necessitate big water cuts — should the projection hold.

The grim estimate comes after what officials described as a slow start to the wet season; however, the allocation was calculated before storms over the past two weeks gave a significant boost to reservoir levels. The state is also trying to recover from a record hot summer that dried up rivers and creeks and faces long-term forecasts suggesting less-than-average precipitation for winter.

The new projection, most fundamentally, reflects the state's cautiousness in promising water to urban and agricultural suppliers. Several years of drought over the past decade and an increasingly fickle climate have not only constrained supplies but complicated efforts to predict them. In many years, state officials have initially projected scant deliveries only to later ship significantly more water.

“We need to prepare for any scenario, and this early in the season we need to take a conservative approach to managing our water supply,” said Karla Nemeth, director of the California Department of Water Resources, in a statement. “Our wettest months of the season are still to come.”

Through the State Water Project and its dozens of reservoirs and storage facilities, with giant Lake Oroville as the centerpiece, the Department of Water Resources sends supplies hundreds of miles across California, including to the Bay Area. More than 27 million people statewide get at least some of their water from the project.

If the 5% allocation sticks, water suppliers that receive state water would have to turn to other sources, such as local reservoirs or groundwater, or go without.

In 2021 and 2022 during the thick of a three-year drought, as well as in 2014 amid last decade's five-year drought, the state proceeded with just 5% of requested deliveries, resulting in some urban and agricultural suppliers asking — and even demanding — that their customers cut back.

This year, the state shipped 40% of the requested water, after an initial 10% projected allocation. Last year, the state provided 100% of the requested water. Final allocation decisions are usually made in April, as the wet season wraps up.

The Alameda County Water District, Santa Clara Valley Water District and the Tri-Valley's Zone 7 Water Agency are among the Bay Area suppliers that rely on state supplies.

The State Water Contractors, an association representing agencies that receive state water, issued a statement after Monday's announcement calling for greater



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infrastructure investment, to enable more water to be stored and shipped amid the state's changing hydrological conditions.

"This initial allocation from the Department of Water Resources reflects California's new climate reality," wrote Jennifer Pierre, general manager of the State Water Contractors. The State Water Project works in coordination with the federally operated Central Valley Project in moving water from wet northern and inland areas to the coast and Southern California. The federal project has not yet estimated future deliveries.

Original Article: [The SF Chronicle by Kurtis Alexander](#)

Reclamation and DWR Celebrate Delta Restoration Project Launch

In November, the California Department of Water Resources (DWR) and Bureau of Reclamation broke ground on a habitat restoration project in the Delta that, when completed, will help endangered species such as Delta smelt and Chinook salmon while supporting the long-term operation of the Central Valley Project and State Water Project. Led by the Department of Water Resources, the \$69.4-million Prospect Island Tidal Habitat Restoration Project is located on 1,600 acres in Solano County. Reclamation is contributing \$46 million of the project's total cost.

The work happening at the site will enhance aquatic food web productivity, create and enhance habitats for many Delta-dependent fish and wildlife species, provide long-term resiliency with climate change, and provide other ecosystem benefits such as water quality and carbon sequestration. A portion of the project acreage closes out the requirement for constructing 8,000 acres of new tidal habitat, with the additional acres supporting the Healthy Rivers and Landscape program.

"This project is an important steppingstone in the overall process of Delta ecosystem improvement and Reclamation is gratified to see it move to the groundbreaking stage," said California Great-Basin regional director Karl Stock. "It is emblematic of our strong working relationship with DWR and represents the type of habitat work we continue to work on with the state and our local partners."

Said California Department of Water Resources Director Karla Nemeth, "Prospect Island is a great project for the people and the environment of California. The newly restored tidal marsh will clean the water we drink and will help native fish, like salmon and Delta smelt, grow strong. The Department of Water Resources is grateful to the Bureau of Reclamation for its partnership on Prospect Island and we look forward to future opportunities to work together for the benefit of all Californians."

Prospect Island will breach levees at two locations to return tidal-influenced flows to the project site. This project supplements the recent completion of the largest tidal wetland restoration project to date in the Delta. The Prospect Island Tidal Habitat Restoration Project is expected to be complete in 2026.

Original Article: [West Sacramento News](#)



Environmental Groups and Winnemem Wintu Tribe File Lawsuit Against CA State Water Project EIR

A coalition of environmental and fishing groups and one California Indian Tribe on November 27 filed a [lawsuit](#) against the California Department of Water Resources (DWR) alleging that the agency's approvals and Environmental Impact Report (EIR) for the long term operation of the State Water Project will harm the San Francisco Bay-Delta estuary and imperiled fish species.

The parties say the project will cause significant harm to seven endangered or threatened fish species, including Delta Smelt, Longfin Smelt, spring-run Chinook Salmon, winter-run Chinook Salmon, Central Valley Steelhead, White Sturgeon and Green Sturgeon.

Delta Smelt have become functionally extinct in the wild, with no Delta Smelt found in the California Department of Fish and Wildlife's Fall Midwater Trawl Survey for the past six years.

The Petitioners and Plaintiffs include the San Francisco Baykeeper, Sierra Club California, Center for Biological Diversity, California Water Impact Network, Restore the Delta, Friends of the River, Golden State Salmon Association, Winnemem Wintu Tribe, AquAlliance and Planning and Conservation League. The lawsuit was filed in the Sacramento County Superior Court.

In case you're not familiar with it, the State Water Project (SWP) is the massive system operated by DWR for diverting, storing, exporting, and delivering California water. The SWP diverts enormous volumes of fresh water from the Sacramento River and San Joaquin River watersheds and the San Francisco Bay-Delta estuary for export to San Joaquin Valley agribusiness and Southern California water agencies.

The SWP includes water, power, and conveyance systems, delivering an annual average of 2.9 million acre-feet of water. (EIR, Ch. 2, Project Description, p. 2-1.) That amount of water roughly translates into three times the 1 million acre feet stored in Folsom Lake on the American River when it is full.

"The operation of the Project significantly degrades environmental conditions in the Sacramento River and San Joaquin River watersheds and San Francisco Bay-Delta estuary, including reduced flows, harm to endangered and threatened fish species and adverse modification of their critical habitat, worsened water quality, increased salinity levels, reduced food supply, and increased harmful algal blooms," the lawsuit states.

"Despite these extensive, negative, and well-documented impacts, DWR implausibly concluded operations of the SWP will have either no impact or less than significant adverse environmental impacts on anything," the plaintiffs wrote.

The groups also said the EIR fails to "provide the full environmental disclosure and analysis" required by the California Environmental Quality Act (CEQA), a landmark California environmental law.



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The lawsuit noted that “among the most egregious of the EIR’s inadequacies” as an informational document was its failure to analyze for the benefit of the public information from the State Water Resources Control Board prior to the circulation of the Draft EIR.

The document cites the Water Board’s September 28, 2023 Draft Staff Report/Substitute Environmental Document that “contained extensive information about the crisis, facing native fish species and concluded that it was necessary to increase river flows into and through the Delta—meaning far more water would need to bypass DWR’s diversions and less water would be exported by the SWP.”

“With one hand, DWR commented on the Water Board’s Staff Report/SED by a letter on January 22, 2024, expressing concerns that the proposed requirements to protect endangered and threatened fish species could lead to reductions in freshwater diversions for SWP exports. Yet, DWR failed to analyze for the public any alternative that would have reduced water exports as DWR explained would be necessary under the conditions described in the Staff Report,” the document revealed.

Accordingly, the petitioners seek a writ of mandate and declaratory and injunctive relief directing DWR to vacate its approval of the project, the findings for the project, and the certification of the Project EIR, and to revise its findings to conform with the law.

Robert Wright, counsel for Sierra Club California, explained the reasoning behind the lawsuit.

“The whole purpose of the California Environmental Quality Act (CEQA) is to require public agencies, when they’re considering approval of a project, to provide full environmental disclosure to the public and the readers of the EIR of the environmental impacts of the project,” said Wright. “DWR in the draft EIR, which is issued for the purpose of public review and comment, claimed long term operations will have no adverse environmental impact on anything.”

“Meanwhile, the Draft EIR was issued in May of 2024, but months earlier in January DWR commented on the State Water Board’s September 2023 proposed Bay-Delta Plan Update,” Wright stated. “DWR indicated that the plan update would have adverse consequences for water exports and that the Water Board’s proposed Bay Delta plan update included extensive information about how the endangered and threatened fish species needed increased flows to avoid extinction.”

Original Article: [Daily Kos by Dan Bacher](#)



US WATER NEWS

Colorado River states hold an uncomfortable reunion in Las Vegas

It's the holiday season, and for some of us, that can mean uncomfortable reunions and disagreements with family members. This week, there's a family reunion of sorts in Las Vegas as the states that use the Colorado River get together in the middle of [tense talks](#) about how to share the shrinking water supply.

Instead of Christmas dinner, this reunion is the annual meeting of the Colorado River Water Users Association. Farmers, tribal leaders, city [utility managers](#), environmentalists, scientists, journalists, and a host of other people will pack into a hotel ballroom at the Paris Hotel.

Amid the roughly 1,500 people in attendance, the spotlight will be on seven. They're the top water negotiators from the states that share the Colorado River.

At this Las Vegas family reunion, those states are the kids coming home for the holidays. They used to get along a little better in the good times when the river and its reservoirs were full of water. But now, times are tight. Climate change is [sapping the river](#) of its water, and there's less to go around.

"The kids are fighting and it's really sad to watch," said John Fleck, a professor who teaches water policy and governance at the University of New Mexico.

Those kids are split [into two groups](#). Colorado, Utah, Wyoming and New Mexico make up the Upper Basin. California, Arizona and Nevada represent the Lower Basin. The current rules for sharing water expire in 2026, and each group has submitted a [separate proposal](#) for new guidelines after that point.

Since the day those proposals were released, they've occasionally needled each other with criticism.

"We must plan for the river we have, not the river we dream for," said Becky Mitchell, Colorado's top negotiator.

"Arguing legal interpretations until we're all blue in the face doesn't do anything to proactively respond to climate change," said JB Hamby, California's top water official.

In November, Tom Buschatzke, Arizona's delegate, described it plainly.

"This is a visceral issue between the states," he said. "It is a giant chasm."

If the states are the kids at this reunion, then the federal government is the parental authority. They've [asked the kids](#) to make nice and agree on new guidelines for sharing the river. With that 2026 deadline getting closer and the water supply getting smaller, things are getting snappy.

Attendees mingle in the hallway at the Colorado River Water Users Association conference on Dec. 15, 2021. The 2024 conference promises to be tense, as states are separated by a 'giant chasm' in talks about sharing water.



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“These kids used to get along so well and have fun together,” Fleck said. “And now they just can't seem to agree on how to share the family's bounty.”

Fleck explains it like this: When the nation's largest reservoirs – Lake Powell and Lake Mead – were full in the early 2000s, that was like a big inheritance from the grandparents. But that money stopped coming in, the inheritance is drying up, and when the kids get together this year, they'll be pointing fingers about each others' spending habits.

In [recent iterations](#) of this conference, put on by the Colorado River Water Users Association, state leaders have appeared on one panel together. This year, they'll be separated into their respective basins.

“The organizers of CRWUA clearly know that the kids are not getting along, and it's best not to put them all at the same table for the meal,” Fleck said. “That's not a good sign.” Throughout the year, those kids meet behind closed doors, but the annual event in Las Vegas offers the public a [rare glimpse](#) into those discussions. Joanna Allhands, an opinion writer at the Arizona Republic, said she expects the tone to be “cordial, but icy.” Allhands suggested a way to help break through that iciness – an adult in the room. Historically, the federal government leaves the particulars of water-sharing deals up to the states. Now, she said, they need to be more direct.

“If you're a parent,” she said, “You know sometimes you've got to go in there and tell your kid in no uncertain terms, ‘I expect this from you at this time, please make sure you do it.’ That's what they need to do.”

While policy experts and activists close to river negotiations have strong feelings about how those talks should go, they rarely express those opinions publicly or with a great deal of frankness. That means there probably won't be much sharp criticism of ongoing negotiations in Las Vegas.

At the family dinner, everyone has a stake and doesn't want to stir the pot in this family fight.

“A lot of people don't really understand the wonkiness of water,” said Andrew Curley, a professor at the University of Arizona, “And those who understand it seem to be the most self-interested in keeping it the way it is.”

Original Article: [KUNC by Alex Hager](#)

\$50M from Inflation Reduction Act will be spent to deliver more water to the Great Salt Lake

Utah will receive \$50 million from the Inflation Reduction Act to enhance ongoing conservation efforts and shepherd more water to the Great Salt Lake, state and federal officials announced Monday.

The federal funds are an “incredible” investment, said [Joel Ferry](#), who heads Utah's Department of Natural Resources.



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Check out Utah Jazz clothing at The Shop Salt Lake City pop-up store

The state will also leverage an additional \$50 million, [officials said Monday](#), making for \$100 million in total investment aimed at ensuring the Great Salt Lake Basin has an ongoing, resilient water supply.

Some of the money will help acquire more water through mechanisms like leases and purchases, Ferry said, but much of it will go toward restoring critical ecosystems like wetlands, removing invasive species like phragmites from tributaries and improving dams.

The landmark environment and health care bill, passed in 2022, is the country's largest climate investment to date, and includes \$550 million for the Bureau of Reclamation to implement domestic water supply projects and \$4 billion for water conservation and ecosystem projects in the Colorado River Basin and other basins, like Great Salt Lake, experiencing similar levels of long-term drought.

The goal of the \$50 million funneled through the Bureau of Reclamation to Utah, as announced Monday, is to "slow the decline of a very valuable resource that is the Great Salt Lake," said Camille Calimlim Touton, who serves as commissioner of the federal agency.

[No members of Utah's congressional delegation](#) voted for the Inflation Reduction Act. Great Salt Lake remains a "pressing policy issue," said Great Salt Lake Commissioner Brian Steed.

The salty water of the Great Salt Lake has been up compared to the past few water years, but it's [still a puddle of its former self](#), rimmed by vast reaches of exposed lake bed.

But two good water years have given the state "a chance to catch our breath," Gov. Spencer Cox said, and the state has laws and a plan in place to help preserve the lake. "While we are no longer in crisis," Steed said, "we are a long way from where we want to be."

The investment announced Monday is "the type of contribution that will help us get where we need to be," he added.

Original Article: [The Salt Lake Tribune by Megan Banta](#)

Trump allies begin attack on EPA and rules protecting US drinking water

[Donald Trump's](#) allies have fired the opening salvos of his coming administration's attack on the Environmental Protection Agency ([EPA](#)), the federal agency that enforces and regulates laws on air, soil, and water quality among other crucial environmental and health issues.

In a [letter](#) from Republican House leadership to the EPA administrator Michael Regan, [Republicans](#) trained their sights on the agency's scientific integrity policies that are designed to insulate scientists and research from political interference.



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Meanwhile, the incoming chair of the Senate environmental committee in a [hearing](#) last week promised to target portions of new [PFAS](#) regulations put in place over the last year, a [top priority](#) for Trump's chemical and [water utility industry allies](#).

The Republican House committee on oversight and accountability chair, James Comer, charged in his letter that scientific integrity policies would be used by EPA scientists to "hamstring the incoming Trump administration's ability to implement their own executive agendas".

The [Republicans](#) promptly moving to shred the integrity policies – which critics say were weak to begin with – demonstrates how party officials are "bending over backwards" to assist Trump in attacking career servants, said Jeff Ruch, a former EPA official now with the Public Employees Environmental Responsibility non-profit.

"They want to clear out all potential obstacles," Ruch said.

The integrity policies were put in place during Barack Obama's administration in response to George W Bush political appointees [requiring EPA researchers to scrub terms](#) like "climate change" from agency science and reports, and making other politically directed alterations.

The policies include the EPA's and other administration agencies' standards for objectivity and accuracy in scientific information, but Ruch said they were too vague under Obama. Among other problems, they didn't stipulate how investigations would be carried out, or punishments for managers and political appointees who violated the rules.

The policies essentially tasked federal agencies like the EPA "with policing themselves", Ruch said.

Trump did not attack the policies during his first administration, and his former EPA administrator Scott Pruitt, an industry ally, even used them as cover at times because they were so vague that he could claim to be following the rules, Ruch said.

The Biden administration pledged to strengthen the policies, but failed to produce many substantive changes, Ruch said. Still, Comer stated that the policies exist to stop Trump by "enabling career bureaucrats who favor one set of scientific viewpoints to undermine politically accountable agency leaders who seek to base agency actions on differing science".

Comer ordered the EPA's Regan to turn over reams of documents detailing the policies and their application.

Ruch said the attack points to two certainties: a stepped-up attack on agency scientists who contradict Trump in the second administration, and a crackdown on research produced by federal scientists.

"There will be blood," Ruch added.

Meanwhile, Senator Shelley Moore Capito, the incoming chair of the Senate committee on environment and public works, took aim at strong PFAS limits during a recent hearing.



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Her comments show how [years of industry efforts](#) to cast doubt on science used to establish PFAS regulations are being weaponized with the GOP fully in control. Original Article: [The Guardian by Tom Perkins](#)

US researchers design water filtration system based on manta rays

RESEARCHERS in the US have developed a new water filtration design based on the feeding system in types of stingray.

The new design, published in the [Proceedings of the National Academy of Sciences](#), uses a 3D-printed model of the plates that mobula rays use to feed on plankton. Mobula rays – the family of stingrays which includes manta rays and devil rays – inhale water as they swim, filtering out plankton to feed on. The excess water is then ejected out through its gills. Engineers at Massachusetts Institute of Technology were able to translate this system to filtering pollutants out of water.

In industrial water filtration systems, the critical trade-off is between the amount of water that can filter through versus how well it blocks specific pollutants. The MIT team found that manta rays strike a highly effective balance which allows enough water through to absorb oxygen while blocking sufficient plankton to feed on.

How do manta ray-based water filters work?

The MIT engineers built a pipe from two flat panels glued together at the edges. At one end of the pipe, they inserted a 3D-printed structure of grooved plates resembling those found in the mouth of a manta ray.

When they pumped water through the plates, they found that vortices formed between the plates as the water speed increased. While water still flowed through the plate filter into the pipe, any particles trapped in the vortices were blocked, similar to a knot of hair between the teeth of a comb. These particles travelled across the face of the filter, effectively forming a crossflow filtration system, a popular mechanism for industrial water filtration.

The team wants to see the design used for industrial water decontamination, including at sewage treatment plants. Anette Hosoi, one of the study's authors, said: "We have provided practical guidance on how to actually filter as the mobula ray does...the mobula ray is giving us a really nice rule of thumb for rational design."

Original Article: [The Chemical Engineer by Sam Baker](#)

Outgoing Biden administration looks at options to address Colorado River water crisis

Water coming from the Colorado River serves many people. However, negotiations on which states will use the resources has been a major point of discussion.

The Colorado River water crisis calls for many people to find solutions to tackle water shortage. With several states and tribes using water resources, the need for a solution



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becomes urgent. Recently, the Bureau of Reclamation released recommendations showing how to manage the water.

On PBS' "Arizona Horizon," Sarah Porter of the Kyl Center for Water Policy says the agreement hinges on [who should take the shortage of water](#).

"Basically, the disagreement is the upper basin — which is Wyoming, Colorado, New Mexico and Utah. They believe that the lower basin should take all of the shortage," she said.

She also says people will be affected by the solutions brought forth.

"So if we were sticking with priority, all of the shortage would go to CAP users and then eventually, if shortages got bigger and bigger, they could eventually reach users of higher priority in Yuma or the Colorado River Indian Tribes," she said.

The Biden administration leaving means the next administration to take over will finish water proposals.

Original Article: [KJZZ Phoenix by Ignacio Ventura](#)

ADWR helps finalize two historic Tribal Water Rights Settlement Agreements

[Governor Katie Hobbs](#) on Nov. 19 officially concluded decades of negotiations and court battles over tribal water rights when she signed two settlements involving four Arizona Native American tribes.

The Arizona Governor signed the [Northeastern Arizona Indian Water Rights Settlement Agreement](#), which settled long-standing claims with the [Navajo Nation](#), [Hopi Tribe](#), and the [San Juan Southern Paiute Tribe](#). In addition, she signed the [Yavapai-Apache Nation Water Rights Settlement Agreement](#) with the Yavapai Apache Nation of north-central Arizona.

Both agreements with the federally recognized tribes are [now before Congress](#).

"I want to thank Governor Hobbs for her leadership in helping us reach this historic agreement," said President Buu Nygren of the Navajo Nation.

"I also want to thank the team at the Arizona Department of Water Resources for all of their work," President Nygren added. "With their help, I'm confident we can build a consensus with the seven Basin States to get this through Congress."

Timothy L. Nuvangyaoma, Chairman of the Hopi Tribe, also acknowledged the governor's achievement as well as the work of ADWR toward making it happen.

"We are closer than ever to making this historic water settlement a reality, due in no small part to Governor Hobbs' steadfast commitment to water certainty in Arizona and the dedicated efforts of Director (Tom) Buschatzke and the Arizona Department of Water Resources," said Chairman Nuvangyaoma.

"I am optimistic that this coalition of Tribal and State leadership can gain the support of the other six Basin States and get this bill passed in this Congress."



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The tribal leaders made their observations at a critical juncture in negotiations involving the seven Basin States, the federal government and key water users, including tribes, over the new Colorado River operating guidelines that are scheduled to go into effect post-2026.

The signing of the Northeastern Arizona and Yavapai-Apache tribal settlements marks a critical milestone along the path to ensure reliable and sustainable water supplies to the Navajo Nation, Hopi Tribe, the San Juan Southern Paiute Tribe, and Yavapai Apache Nation.

In a [press statement](#), the Arizona Governor's Office observed that "(f)or decades, generations of tribal members have fought to secure water supplies for their homelands and put an end to years of litigation. Through the extraordinary efforts of the tribes, northern Arizona communities, and the State, a resolution has been reached and an agreement brokered, providing water reliability for tribal and non-tribal parties alike." The Northeastern Arizona agreement settles outstanding tribal water rights claims to the Colorado River, the Little Colorado River, and groundwater sources in Northeastern Arizona. Water infrastructure funded through this settlement will help alleviate the lack of safe, reliable water supplies for members of all three Tribes, and help ensure the access to clean running water that all Arizonans deserve.

Additionally, the Northeastern Arizona agreement ratifies a treaty that provides the San Juan Southern Paiute Tribe with 5,400 acres after sharing territory with the Navajo Nation for the last 160 years.

Governor Hobbs also signed the agreement with the Yavapai Apache Nation, which secures safe and sustainable water supplies for the Nation, while also preserving and protecting the Verde River. It includes building a 60-mile water pipeline from C.C. Cragin Reservoir on the Mogollon Rim to deliver water to the Yavapai-Apache Nation, providing water certainty to the Nation and neighboring non-tribal communities.

Original Article: [AZ Water](#)

Colorado's process of creating PFAS bans could offer insights for New Mexico

The New Mexico Environment Department wants to pursue a ban on nonessential "forever chemicals" in the upcoming legislative session.

Meanwhile, the Oil Conservation Commission is considering restrictions on these per- and polyfluoroalkyl substances — known as PFAS — in the oil and gas industry following a four-day hearing in November.

A neighbor to the north might be able to provide some insights into what those changes would entail.



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In Colorado, PFAS are already prohibited in some consumer products, including rugs and food packaging, as well as oil and gas products. That dates back to legislation in 2022, which took effect at the beginning of this year.

That list will grow in the coming years, after the Colorado Legislature passed a second bill banning PFAS earlier this year. By Jan. 1, waterproof clothes made with PFAS can't be sold without a warning. By that date in 2026, pots and pans, menstrual products and dental floss made with PFAS can't be sold in the state. In 2028, PFAS will be phased out in additional products.

Colorado state Sen. Lisa Cutter, a Jefferson County Democrat, was a sponsor of both bills. The 2022 bill passed but was "watered down," she said.

"We didn't get to do all that we wanted to do," she said. "I always knew I wanted to do more, and so that's why I introduced the bill last year."

By 2024, Cutter said, she felt there was more awareness about PFAS, widely used chemicals that can lead to a range of health concerns.

Still, a proposed blanket PFAS ban by 2032 was ultimately abandoned, she added, and some deadlines were moved out to accommodate for manufacturing concerns.

One major proponent of the bill were water treatment plants, she said.

"They were concerned because ... we were mandated to clean up our water. We were well above EPA standards, and water treatment districts are on the hook for that — which means, of course, that ratepayers are on hook for that," Cutter said. "So they really, really had a vested interest in trying to eliminate sources of PFAS."

Most of the arguments against the Colorado bill centered on implementations dates, Cutter said, adding she feels industry members get "that this is coming and that they should probably get on board to the degree that they can."

The Colorado Oil and Gas Association did not respond to requests for comment about any industry impacts from PFAS restrictions.

Based on her experience, Cutter thinks a New Mexico ban is doable.

"I'm sure they'll hear the same kind of arguments we heard, but they were not insurmountable," she said. "If they're willing to make a few compromises that seem to make sense for business ... I would imagine they'd be able to pass something."

'PFAS in the entire biome'

PFAS are used in everything from ski wax to cosmetics to car seats. Their ubiquity means cutting back will make life initially "less comfortable," said Shubham Vyas, a professor of chemistry at the Colorado School of the Mines.

There are a few qualities that make PFAS attractive for industrial uses. They're "everything-phobic," Vyas said, and difficult to break down. They can withstand heat.

"If you stop using PFAS altogether, it is going to impact nearly every aspect of our life," he said.



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Problems arise when they're dispersed into the environment. Vyas compares PFAS to oil in a diffuser. Add a few drops of essential oil into a diffuser, and the next day the scent will be distributed throughout the room it's in.

Recovering that oil and putting it back into drop form is more challenging, he said.

"Right now, we are talking about PFAS in the entire biome, which involves everything in the world. I mean, there are reports which say every American has PFAS in their blood," he noted.

The properties can vary based on the structure. Short-chain PFAS are more mobile. In contrast, long-chain PFAS stick to things, making them more likely to accumulate in their environment — including the human body.

Original Article: [Yahoo News by Alaina Mencinger, The Santa Fe New Mexican](#)

Jacobs tapped to develop \$267M San Juan Lateral Water Treatment Plant

Prior to the start of this project, over 40 percent of the Navajo Nation households relied on hauling water to meet their daily needs. Still, its estimated over a third of Navajo Nation households still do. The San Juan Lateral Water Treatment Plant project will supply water to about 250,000 people in 43 Navajo chapters.

Original Article: [Biz Journals by Molly Callaghan](#)

GLOBAL WATER NEWS

FSSAI reclassifies packaged drinking water, mineral water as high-risk food

The FSSAI has reclassified packaged drinking water and mineral water as a high-risk food category, mandating stricter regulatory controls and annual facility inspections.

The move, effective immediately following an order dated November 29, requires manufacturers to undergo mandatory third-party food safety audits and comply with enhanced quality standards.

Central licence holders in this category must now submit to annual inspections aimed at mitigating potential health risks associated with packaged water production.

The reclassification by the Food Safety and Standards Authority of India (FSSAI) follows recent amendments to the Food Safety and Standards (Prohibition and Restrictions on



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Sales) Regulations, 2011, which previously removed mandatory BIS certification requirements for certain food products.

The reclassification is designed to strengthen consumer protection and maintain rigorous quality control in the packaged water industry.

Original Article: [Business Standard by Press Trust of India](#)

Landmark study reveals stark failure to halt Murray-Darling River decline

Some A\$13 billion in taxpayer dollars and 30 years of policy reform have failed to arrest the devastating decline in the health of Australia's most important river system, the Murray-Darling Basin, new research shows.

The [four-year study](#) involved 12 scientists from Australia's leading universities, and draws on data from 1980 to 2023. It is the most comprehensive report card to date on [government policies](#) to protect the Murray-Darling. The paper is published in the journal *Marine and Freshwater Research*.

We found expensive and contentious reforms, including the once-vaunted Murray-Darling Basin Plan, have mostly failed to improve outcomes for people and nature along the [river system](#).

The result is deeply alarming for a natural asset so fundamental to Australia's environmental, cultural and economic well-being. Here, we outline our findings, and present a plan to turn this situation around.

A river system in peril

The [Murray-Darling river system](#) starts in southern Queensland, winds through New South Wales and Victoria and reaches the sea near Adelaide in South Australia.

Historically, state governments have allowed too much [water](#) to be taken from the system, primarily to irrigate crops. This has caused [extensive environmental damage](#) such as toxic blue-green algae blooms, dramatic falls in bird and [fish populations](#) and [undrinkable town water supplies](#), to name just a few.

The damage has been exacerbated by [invasive species](#), climate change, dams that block water flows, and bush clearing which makes water running into rivers more salty.

What's more, colonization dispossessed the nearly 50 Indigenous nations in the [basin](#). They now collectively have rights over less than [0.2% of surface water](#) in the river system.

Government reform to improve the health of the basin dates back more than three decades. In 1994, Australian governments [agreed to](#) cap further licenses to extract water from the Murray-Darling. In 2008, Prime Minister John Howard's "[once and for all](#)" reform, known as the Water Act, became law. It aimed to reallocate water from irrigation to the environment.

The reform is largely being implemented through the \$13 billion Murray Darling Basin Plan enacted in 2012. The historic deal between state and federal governments was



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supposed to rein in the water extracted by farmers and make sure the environment got the water it needed.

Almost [\\$8 billion](#) was spent implementing the plan to June 2023. But has this massive taxpayer investment delivered the promised benefits for people and nature? Our new findings suggest the answer is largely no.

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Applying expert eyes

When the basin plan was adopted, governments [cut funding](#) to the independent audit which monitored the river system's environmental health. It was replaced with far less effective [monitoring systems](#).

The new systems did not set clear targets to be achieved, or assess real-world outcomes for people and the environment. For example, a government might measure the timing and frequency of water flowing at specific river locations, rather than the numbers of threatened fish species across the basin.

The indicators are also [complex](#) and monitored by [government agencies](#) and their consultants, so the results are not independent.

A video outlining the importance of the Barka, or Darling River, to Indigenous people.

For this study, we developed our own monitoring system. It involved 27 indicators of success across the themes of Indigenous, environmental and social well-being, economic performance and compliance with water laws. We used publicly available data spanning more than 40 years.

The study released today reports our essential findings.

Original Article: [Phys.org by Jamie Pittock](#)

Castle Water to Offer £4 Billion Equity to Save Thames Water

Castle Water Ltd. will offer to inject £4 billion (\$5.1 billion) into Thames Water this week to help save the beleaguered utility from administration, according to a person familiar with the matter.

Thames, the UK's biggest water and sewage company, asked potential investors to submit indicative, non-binding bids by Dec. 5.

The utility is desperately seeking a multi-billion pound investment to avoid potential temporary nationalization. An equity stake of the size Castle plans to offer would go a long way toward that effort, though the company alone doesn't have the money for the investment.

Thames Water's bonds were unchanged on news of the equity offering.



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Castle — a relatively small firm that bought Thames' non-household water and sewerage retail business in 2016 — is looking to own a majority stake in the utility, Bloomberg previously reported. It is seeking to ultimately list Thames on the stock exchange.

The company is backed by The William Pears Group, a financing and real estate firm that would provide funding, the person said. Castle's leadership sees the investment in Thames as a challenge to turn around the indebted utility, they added.

Castle Water declined to comment.

Thames only has enough money to last until early next year, and it needs at least £3.3 billion in equity over the next five years. But the company's troubles run deep and efforts to curb chronic leaks and sewage spills, while tackling climate change and a growing population, may cost far more than that amount.

The equity process is unlikely to be concluded this year, as final bids can't be submitted until after Dec. 19, when regulator Ofwat issues its final determinations on Thames' next five-year business plan. That will set out the allowed return on equity and debt as well as how much Thames can invest and the amount by which it can raise customer bills.

Cash Runway

While trying to raise equity, Thames has also been in discussions with creditors over a restructuring plan. They reached a deal last month to release reserves that would give it a cash runway until February. But the company also needs courts to approve as much as £3 billion in emergency debt funding. A hearing is scheduled for Dec. 17.

On Monday, Thames appointed Julian Gething from AlixPartners to oversee its debt restructuring program. Even if the emergency loan is approved, Thames still needs to undergo a more holistic restructuring next year, which may require some creditors to take haircuts.

The company, which serves the London area, extended the deadline for equity bids last month, after asking potential investors to provide further details on how they would support its turnaround plan.

Other potential bidders that have been widely reported include CK Infrastructure Holdings Ltd. and KKR & Co., who together own stakes in Northumbrian Water. Thames and its adviser, Rothschild & Co., have also approached Brookfield Asset Management and Carlyle Group Inc., according to other people familiar with the process.

Original Article: [BNN Bloomberg by Jessica Shankleman](#)

La Niña looms over Kashmir : Receding water level in rivers adds to challenges

The looming threat of La Niña over Kashmir has raised concerns among environmentalists, hydrologists and local communities as [water](#) levels in the Valley's rivers, lakes and streams continue to recede.



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This climatic phenomenon, known by cooler-than-average sea surface temperatures in the Pacific Ocean, often disrupts weather patterns globally, intensifying both droughts and floods depending on the region.

In Kashmir, the immediate impact of La Niña could manifest as altered precipitation patterns, further aggravating the already precarious water situation. The declining water levels in Kashmir's rivers, including the Jhelum and its tributaries, are already alarming. Experts attribute this to a combination of reduced precipitation, retreating glaciers due to climate change.

Dr. Farooq Ahmad, a hydrologist at the University of Kashmir, said that "La Niña can lead to below-average rainfall in some regions, including parts of the Himalayas. This could exacerbate the water scarcity in Kashmir, especially during critical periods like the summer irrigation season."

An environmental activist based in Srinagar, said: "The reduction in river flows impacts agriculture, hydropower generation, and even drinking water availability. Communities relying on river-fed irrigation systems are already feeling the strain."

Kashmir's economy is heavily reliant on agriculture and horticulture sectors that are highly sensitive to water availability. A significant drop in river levels could jeopardize the cultivation of rice, apples and other key crops.

Dr. Zubair Rashid, an agriculturalist, said: "Farmers are facing a double blow. On one hand, the water scarcity that limits irrigation; on the other, unseasonal rains or dry spells caused by La Niña can damage crops. This could lead to reduced yields, affecting both livelihoods and the regional economy."

The Valley's glaciers, which serve as critical water reservoirs, are shrinking rapidly. Scientists fear that La Niña's influence, combined with ongoing climate change, could disrupt the balance of seasonal water availability.

Dr. Tasneem Bhat, a glaciologist, states, "Glaciers in the Himalayas are already under stress. If La Niña results in altered snowfall patterns, it could reduce glacier recharge during winters. This would mean even less water flowing into rivers during the summer months when demand peaks."

Irfan Shah, a senior official at the Jammu and Kashmir [Water](#) Resources Department said, said: "We need to strengthen early warning systems and ensure that farmers and other stakeholders are prepared for potential disruptions. Adaptation is key to minimizing La Niña's impacts." (News Vibes of India)

Original Article: [News Vibes of India by NVI Correspondent](#)

The affordable tools providing clean water to Mexican homes

There are many things that we take for granted in the modern world. These include simple things, like accessibility to drinking water or taking a warm shower at home.



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Believe it or not, these are privileges, especially considering that at least one-third of the world's population lacks clean water and sanitation.

Such is the case of the municipalities of Dolores Hidalgo and San Diego de la Unión, located in northwestern Guanajuato state. Both cities are tourism powerhouses: one of Mexico's 132 Magical Towns, Dolores Hidalgo is known [as the cradle of Mexican Independence](#). San Diego de la Unión, on the other hand, is part of Guanajuato's Wine Route and [is famous for its escamoles](#), Mexico's answer to caviar. Despite their storied histories, however, both cities are today known for their issues with arsenic pollution.

The communities fighting for clean water

"We started to face this problem in [Dolores Hidalgo and San Diego] back in 2010," Carmen Castro, a coordinator for the civil association Pozo Ademado Community Service (Secopa), told Mexico News Daily. "So far, we have provided potable water to 20 communities that includes 300 beneficiaries, and we give priority to those families with children."

The Mexican water nonprofit assists homeowners from vulnerable communities in Guanajuato by providing them access to rainwater harvesting systems and water filters in partnership with international organizations like Caminos de Agua. Castro emphasized there are still communities where residents do not have access to these systems and residents have no option but to collect water in jugs, from central cisterns that supply the whole town.

"We started this project five years after we noticed this issue and still, less than 5 per cent of our population get water from other families," Castro explained. "All of them get training from us about water usage in general," she added.

The challenges of providing water to a megacity

Water scarcity and pollution are not problems exclusive to rural communities. Urban sectors are not far behind and face more difficulties when it comes to water, including overexploitation and flooding.

Sebastián Serrano, Director of Communications and Sustainability at Hidropluviales, a company that makes water treatment systems for rainwater harvesting, spoke to Mexico News Daily about the challenges involved in implementing water purification systems in populated areas. He explained that the challenges are especially significant in Mexico City.

"The atmosphere [in Mexico City] is more polluted than the areas where vulnerable communities are located. Its infrastructure is overloaded and there is not enough drainage capacity," he said.

Serrano emphasized that as a result of the litany of problems surrounding water treatment, the Federal District's 2003 Water Law made it mandatory to install alternate systems for collecting and reusing water in housing units larger than 500 square meters and neighborhoods of Mexico City without a continuous water supply or drinking water



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network. Noncompliance, however, was widespread. “People used to capture water, put it in a tank and save it for years,” Serrano said.

Sacmex oversees Mexico’s national water infrastructure, including the provision of clean water to homes. (Gob. de CDMX/Cuartoscuro)

After years of the Water Law’s ineffectiveness, the Mexico City water authority (Sacmex) invited businesses in the field, including Hidropluviales, to examine the city’s water regulations, provide feedback and implement updates based on international agreements.

“Sacmex became more efficient after the feedback... since then, we’ve offered filters to commercial and residential buildings to clean rainwater and store it clean to later use it in toilets or make it drinkable,” Serrano said.

The lack of access to drinking water in Mexico

The UN’s 2023 World Water Development Report found that globally, two billion people lack access to safe drinking water. A further 3.6 billion people have no access to safely managed sanitation.

In Mexico, according to nonprofit Water.org, almost 60% of the population lacks access to clean water, and more than 35% lack access to a safe toilet.

Original Article: [Mexico News Daily by Nancy Moya](#)

Note the attachment is not an inducement to trade and Veles Water does not give advice on investments.