Veles Water Weekly Report

July 24th 2025

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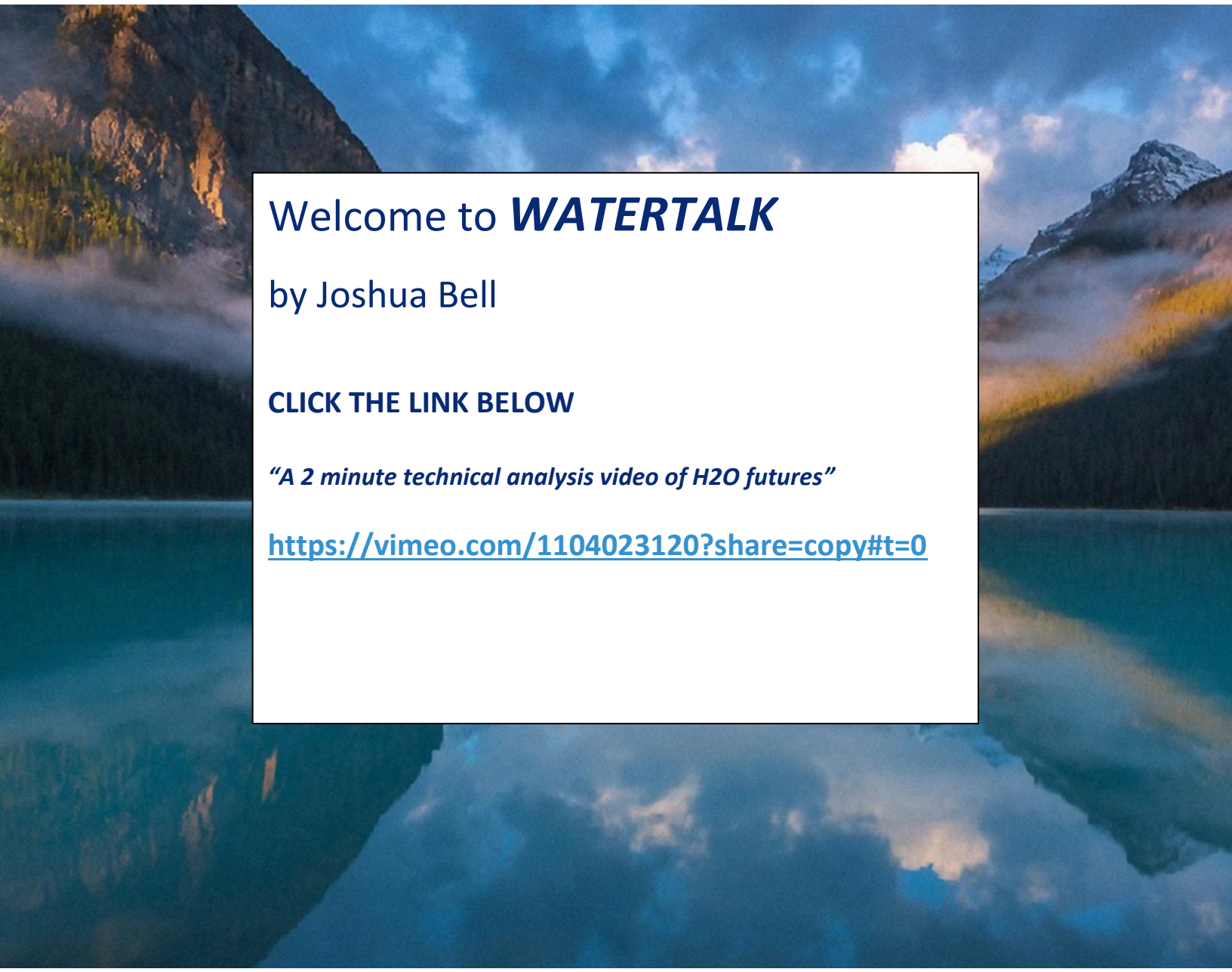
Veles Water

WATER FUTURES MARKET ANALYSIS



Welcome to ***WATERTALK***

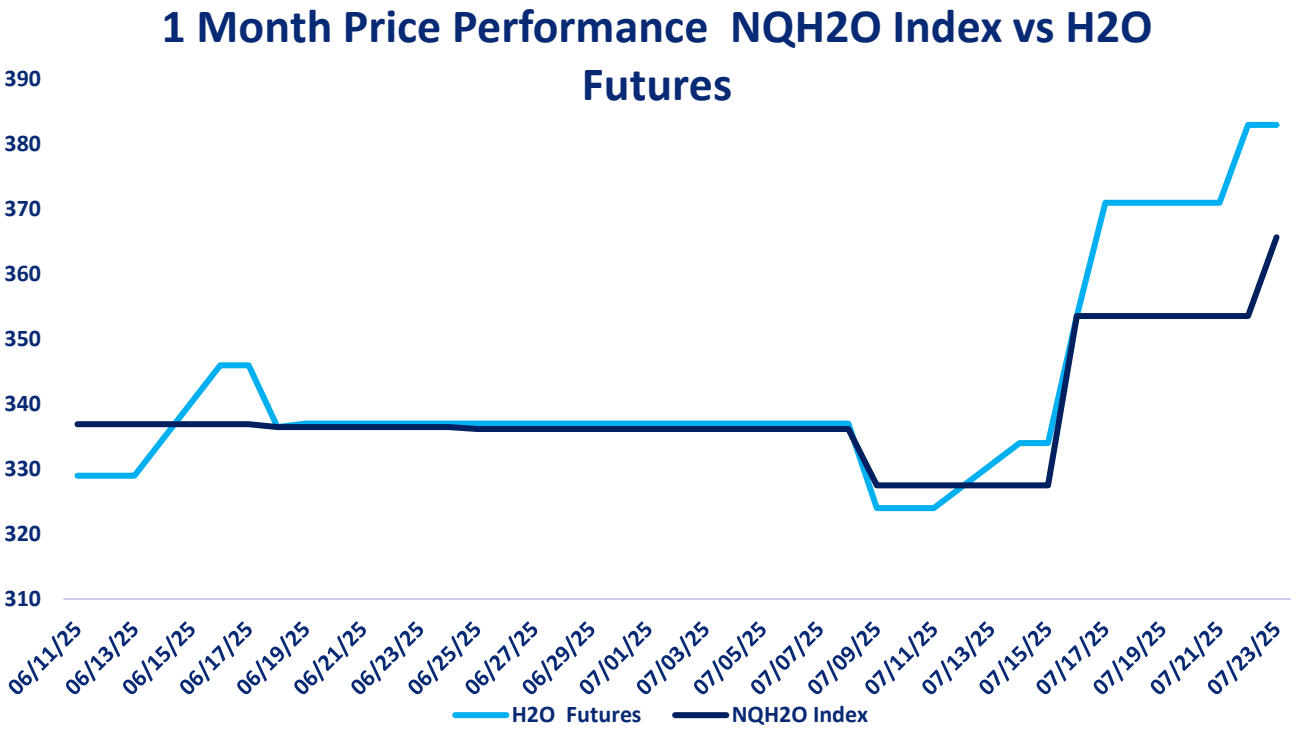
by Joshua Bell

CLICK THE LINK BELOW

"A 2 minute technical analysis video of H2O futures"

https://vimeo.com/1104023120?share=copy#t=0

NQH2O INDEX PRICE vs H2O FUTURES PRICE



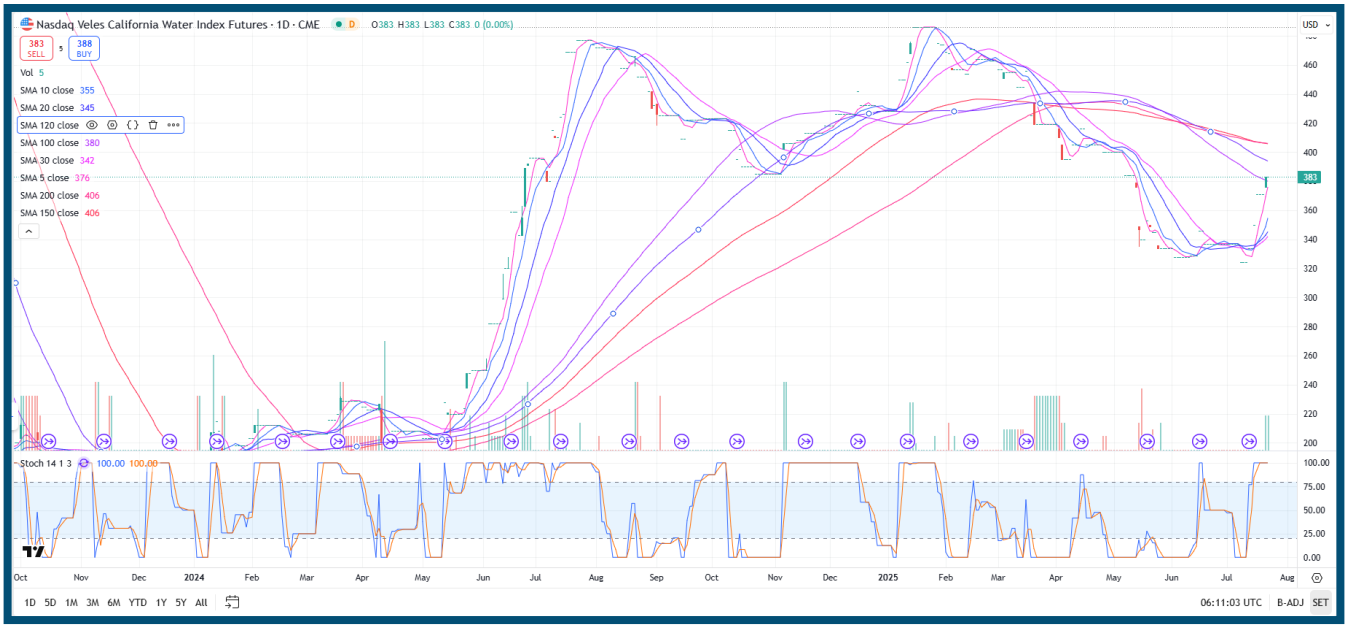
Price Chart Based upon Daily Close

The new NQH2O index level of $365.70 was published on July 23rd, up $12.14 or 3.43% from the previous week. The August contract is considered the front month. The futures prices closed at a premium of $17.30 to $29.44 versus the index over the past week.

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

Aug 25	383@387
Sept 25	393@427
Dec 25	395@450
June 26	435@485

H2O FUTURES TECHNICAL REPORT



Price Action

- **Current Price**: $383
- The index has surged from the recent bottom near $320 to $383 - a rapid move of over 20%, suggesting strong short-term momentum.
- Today's candle closed flat (no gain/loss) after testing the high of $383, potentially hinting at a pause or hesitation after the rally.

Moving Averages Analysis

Short-Term Averages

- **5-day SMA**: 376
- **10-day SMA**: 355
- **20-day SMA**: 345
- **30-day SMA**: 342

  Analysis: Price has clearly broken above all short-term SMAs, which is a bullish signal. Momentum traders may see this as a confirmation of a short-term trend reversal.

Medium-Term Averages

- **100-day SMA**: 380

  Analysis: Price has now crossed **above the 100-day SMA** - a major milestone in shifting medium-term sentiment to neutral/bullish.

Long-Term Averages

- **120-day SMA**: 398
- **150-day SMA**: 406
- **200-day SMA**: 406
  Analysis: Price remains below all long-term SMAs. These averages are still sloping downward, indicating that the broader trend remains bearish despite the recent rally.

Stochastic Oscillator (14, 1, 3)

- **K%**: 100
- **D%**: 100
  The oscillator is maxed out in overbought territory. This signals strong short-term momentum but also warns of potential exhaustion. A pullback or consolidation is likely in the near term.

Support & Resistance Levels

Resistance

- **398–406**: Long-term SMA cluster - a major ceiling.
- **450+**: Former breakdown area, now distant.

Support

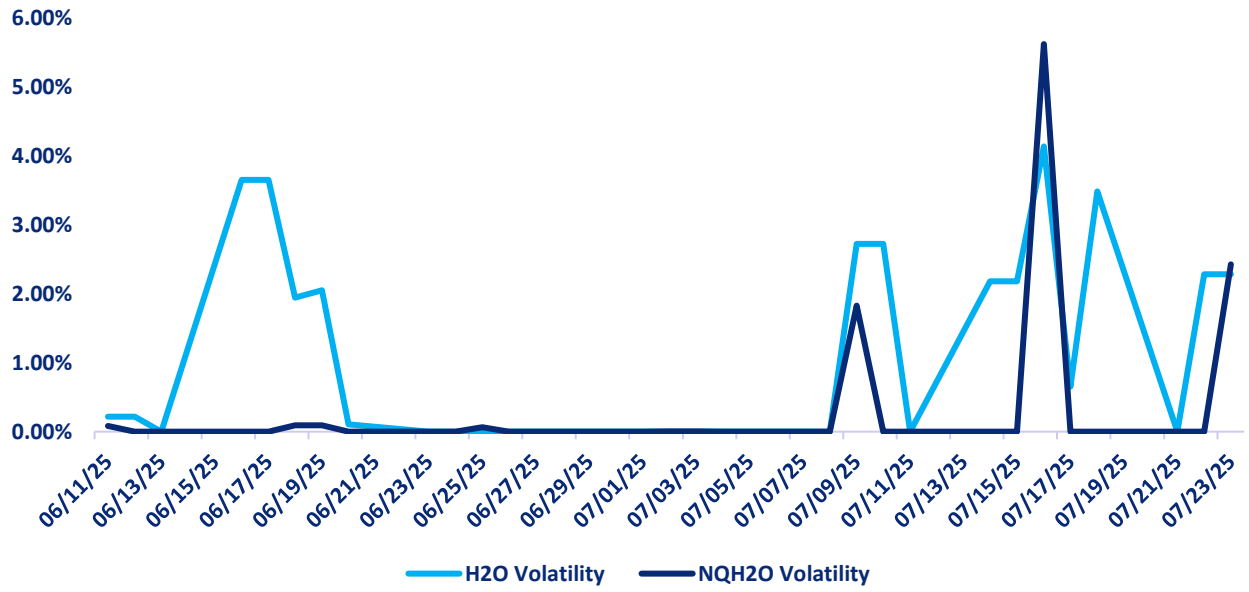
- **376**: 5-day SMA
- **355–345**: Short-term SMA cluster - could act as a new floor.

Summary & Key Takeaways

- **Short-Term**: Strong breakout rally above all key short-term levels. Momentum is high, but extended.
- **Medium-Term**: Crossing the 100-day SMA is a constructive shift.
- **Long-Term**: Still bearish overall. Bulls need a decisive break above $400–406 to reverse the broader downtrend.
- **Watch for**: Stochastic rollover or rejection from long-term SMAs as signals of either continued rally or return to bearish control.

H2O FUTURES AND NQH2O INDEX VOLATILITY ANALYSIS

Daily H2O Futures Volatility vs Daily NQH2O Index Volatility



DAILY VOLATILITY

Over the last week the August contract daily future volatility high has been 2.29%.

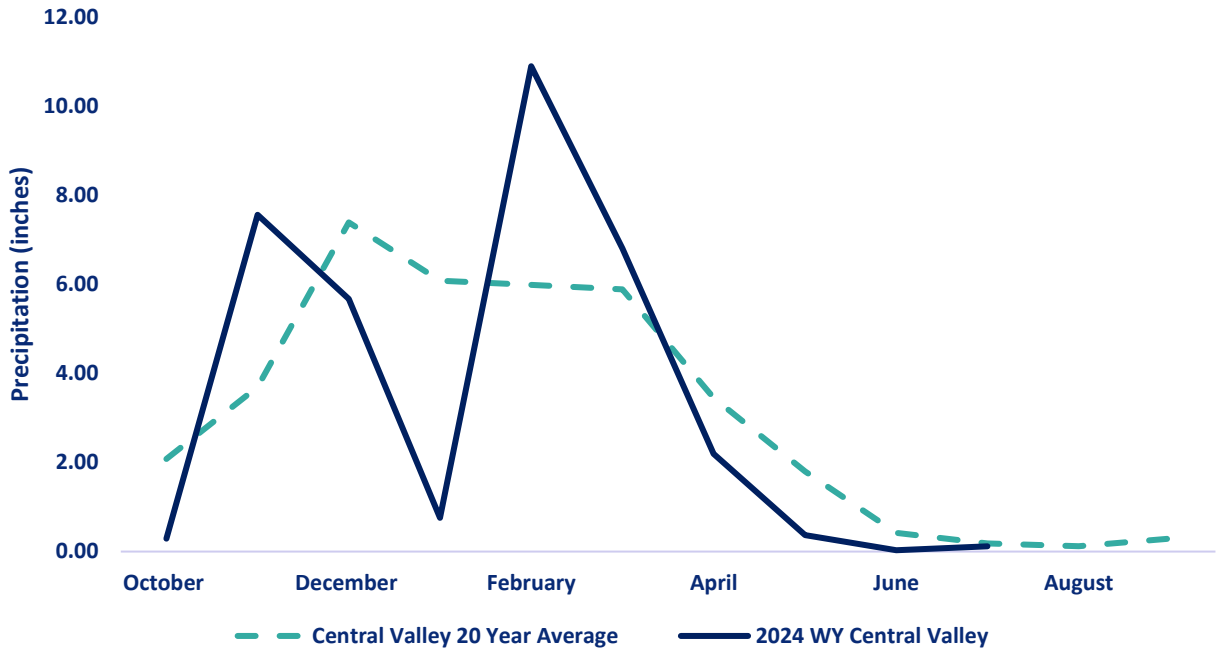
ASSET	1 YEAR (%)	2 MONTH (%)	1 MONTH (%)	1 WEEK (%)
NQH2O INDEX	16.98%	9.30%	10.58%	4.52%
H2O FUTURES	N/A	14.07%	9.44%	5.18%

For the week ending on July 23rd, the two-month futures volatility is at a premium of 4.77% to the index, up 2.22 from the previous week. The one-month futures volatility is at a discount of 3.22% to the index, down 2.08%. The one-week futures volatility is at a premium of 0.65% to the index volatility.

*The 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 Central Valley, California.
Data as of 23/07/2025

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	0.00%	83	67
TULARE 6 STATION (6SI)	0.1	0	43.66%	81	82
NORTHERN SIERRA 8 STATION (8SI)	0.25	0	215.16%	90	105
CENTRAL VALLEY AVERAGE	0.12	0	64.64%	85	85

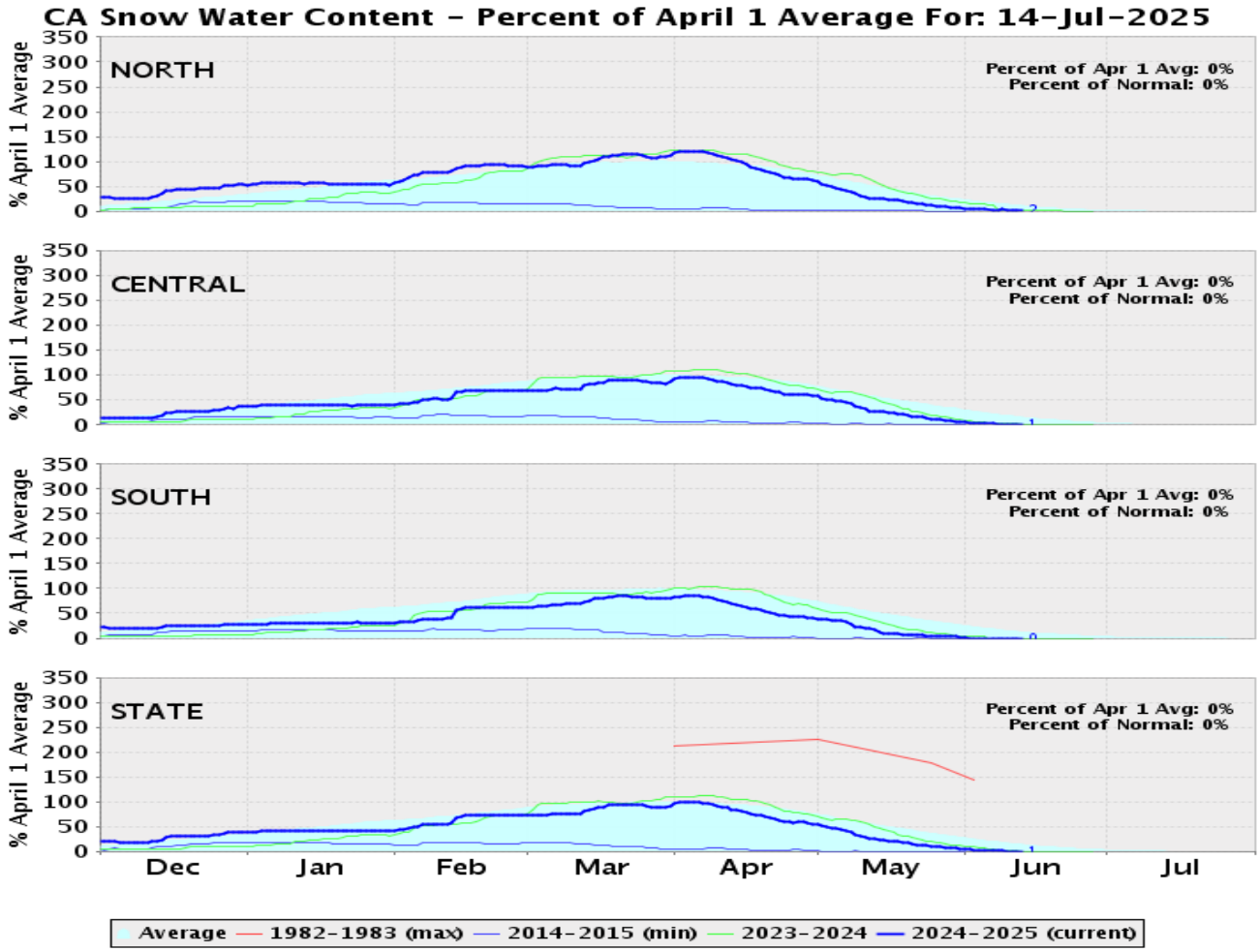
RESERVOIR STORAGE

RESERVOIR	STORAGE (AF)	% CAPACITY	LAST YEAR % CAPACITY	*% HISTORICAL AVERAGE
TRINITY LAKE	2,124,737	87	81	118
SHASTA LAKE	3,422,743	75	80	106
LAKE OROVILLE	2,867,908	84	85	117
SAN LUIS RES	796,268	39	44	84

*% 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 2024. 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	0.5	0	18	18	2
CENTRAL SIERRA	0.2	0	6	6	1
SOUTHERN SIERRA	0	0	0	0	0
STATEWIDE	0.2	0	7	7	1

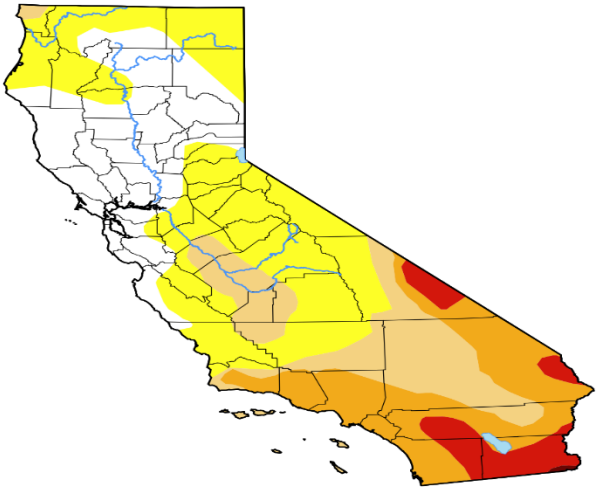
Snow Water Equivalent*, **or SWE**, is a commonly used measurement used by hydrologists and water managers to gauge the amount of liquid water contained within the snowpack. In other words, it is the amount of water that will be released from the snowpack when it melts. SWE has regional variance.**

**** 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: Thurs. July 17, 2025
Data valid: July 15, 2025 at 8 a.m. EDT

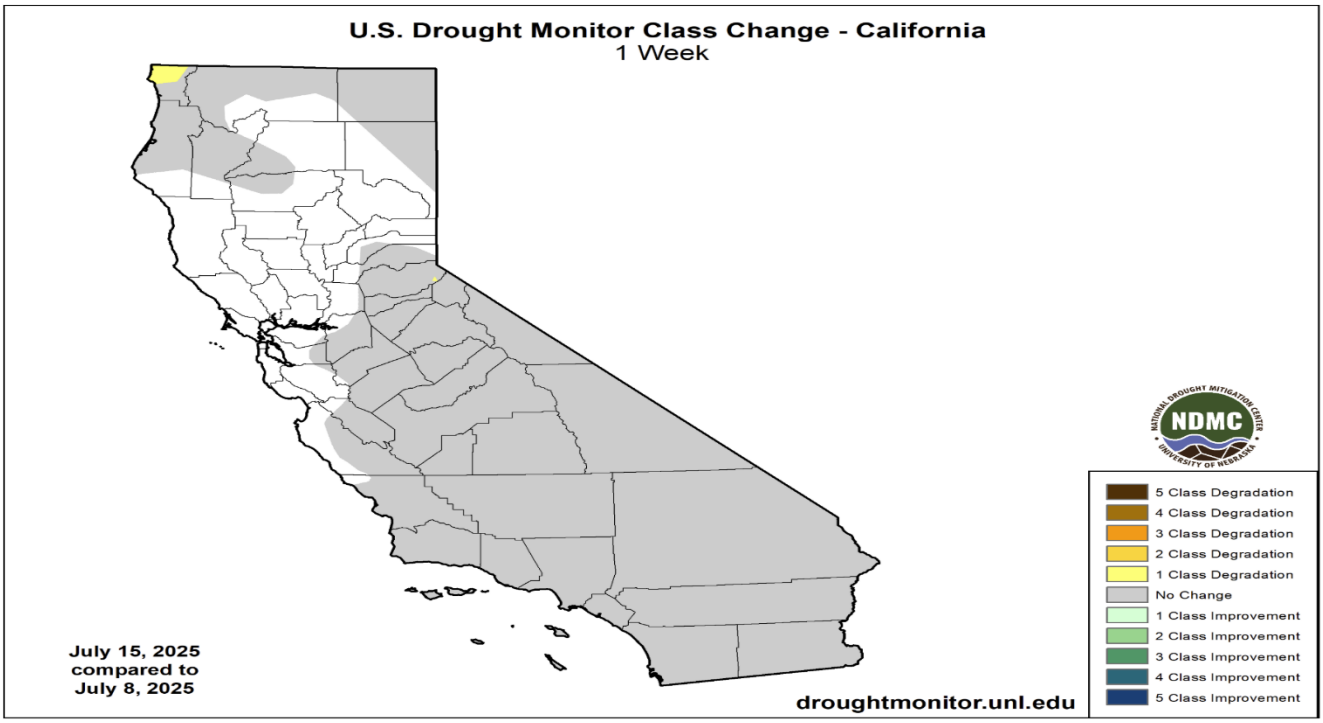
Intensity

- 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):
Brian Fuchs, National Drought Mitigation Center

Pacific Islands and Virgin Islands Author(s):
Daniel Whitesel, National Drought Mitigation Center

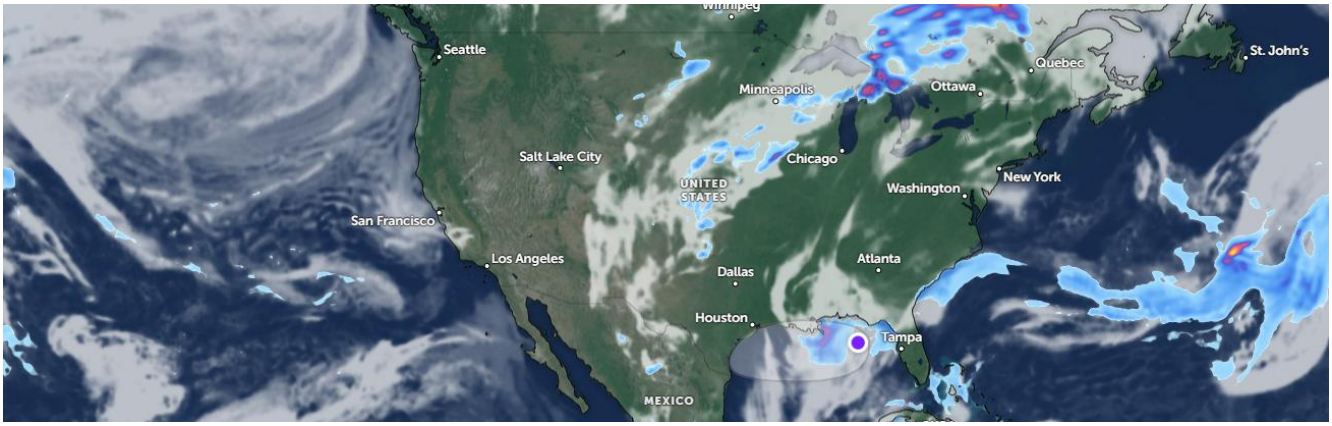


Week	Date	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
Current	2025-07-15	23.98	76.02	39.56	23.01	5.90	0.10	145
Last Week to Current	2025-07-08	23.99	76.01	39.27	23.01	5.90	0.10	144
3 Months Ago to Current	2025-04-15	43.71	56.29	39.81	24.73	8.30	0.73	130
Start of Calendar Year to Current	2024-12-31	40.90	59.10	31.52	5.70	1.06	0.00	97
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	2024-07-16	78.80	21.20	1.62	0.00	0.00	0.00	23

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

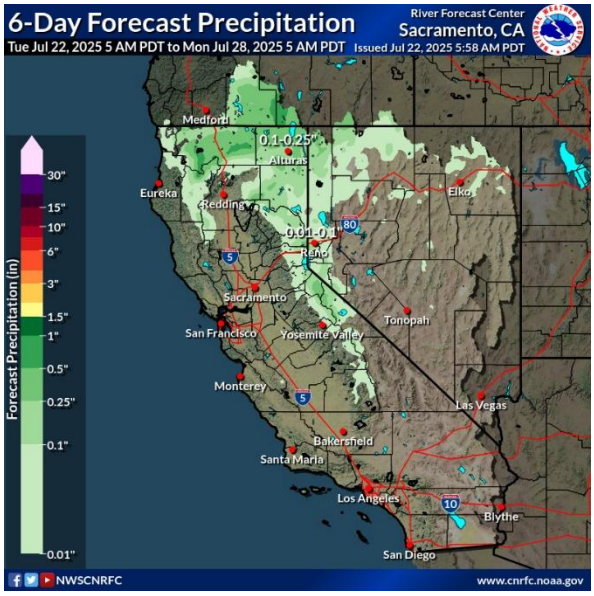
The satellite picture shows a band of cloud cover stretching between Salt Lake City and Dallas in a northeasterly direction towards Ottawa.
There is a storm system to the west of Tampa plus some further wet weather on the Atlantic side of Florida.



Map Ref: Zoom Earth

10 Day Outlook

CA sits between two upper lows this morning, one over the Pacific southwest of soCal and a larger low traversing the Gulf of Alaska.
The gulf low also drags a large frontal system with 1" PW of moisture across the eastern Pacific. This system will lift northward as it approaches the west coast likely entirely missing CA in favor of the PacNW and BC later today into tomorrow. The smaller low to the southwest will head towards Baja arriving some time Thursday.
The combination of these systems will keep some troughing overhead for today along with instability. This means the slight chance of thunderstorms over parts of the Sierra and the Shasta Drainage.



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

WESTERN WEATHER DISCUSSION

Temperatures for the week were warmer than normal over the region with departures of 4-6 degrees above normal. The only areas that were at or below normal were coastal areas of California and eastern New Mexico. Much of the area remained dry and there was only some spotty monsoonal moisture over the Southwest. Some areas of Montana did receive some needed rain, but conditions have been dry overall in that region. Degradation dominated the region for changes this week with no areas seeing improvements on the map. Severe and extreme drought were expanded over western Colorado while moderate drought and abnormally dry conditions were expanded over much of central Wyoming. In northern Utah, severe drought expanded while a new area of extreme drought was introduced. Much of the panhandle of Idaho and into central portions of the state had a full category degradation while severe and extreme drought expanded over western portions of Montana. Moderate and severe drought expanded over much of Washington and Oregon and severe drought expanded over northeast Nevada.

Reference:
Lindsay Johnson, National Drought Mitigation Center
Richard Tinker, NOAA/NWS/NCEP/CPC

WATER NEWS

CALIFORNIA WATER NEWS

California's Quest to Turn a Winter Menace Into a Water Supply Bonus is Gaining Favor Across the West

In December 2012, dam operators at Northern California's Lake Mendocino watched as a series of intense winter storms bore down on them. The dam there is run by the U.S. Army Corps of Engineers' San Francisco District, whose primary responsibility in the Russian River watershed is flood control. To make room in the reservoir for the expected deluge, the Army Corps released some 25,000 acre-feet of water downstream — enough to supply nearly 90,000 families for a year.

In doing so, the Army Corps averted the possibility of a catastrophic flood. But almost as soon as the water headed downstream, the pendulum swung in the other direction. The weather turned dry, and the months that followed proved to be the driest on record in California up to that point. A year later, the reservoir became a drought-cracked mudflat. The local water supplier, Sonoma County Water Agency, was forced to reduce releases by 60 percent during the dry summer, impacting urban and agricultural water users downstream.

State officials were frustrated. Members of a drought task force created by then-Gov. Jerry Brown traveled to Lake Mendocino, tucked into the coastal wine country near Ukiah, to hold a press conference. An exasperated John Laird, the state resources secretary at the time, asked some of the Army Corps' top brass what they'd been thinking when they sent so much water downstream.

"I just blurted it out," says Laird, now a state senator. "It was one of those emperor-has-no-clothes moments, because somehow nobody was speaking up about this."

"I just blurted it out. It was one of those emperor-has-no-clothes moments, because somehow nobody was speaking up about this." – California state Sen. John Laird, the former state resources secretary.

It made for an uncomfortable moment. But the incident catalyzed a wide-reaching effort to manage dams more nimbly in the face of wildly variable weather, and particularly to meet the challenge of **atmospheric rivers** — intense winter storms that pummel California and other parts of the West with huge amounts of rain.

In the wake of the controversy at Lake Mendocino, the quest to harness the power of atmospheric rivers birthed a new water-management approach: Forecast-Informed Reservoir Operations, or FIRO. The concept has been tested on three dams in California since 2019, with programs in development for several other dams across the West.

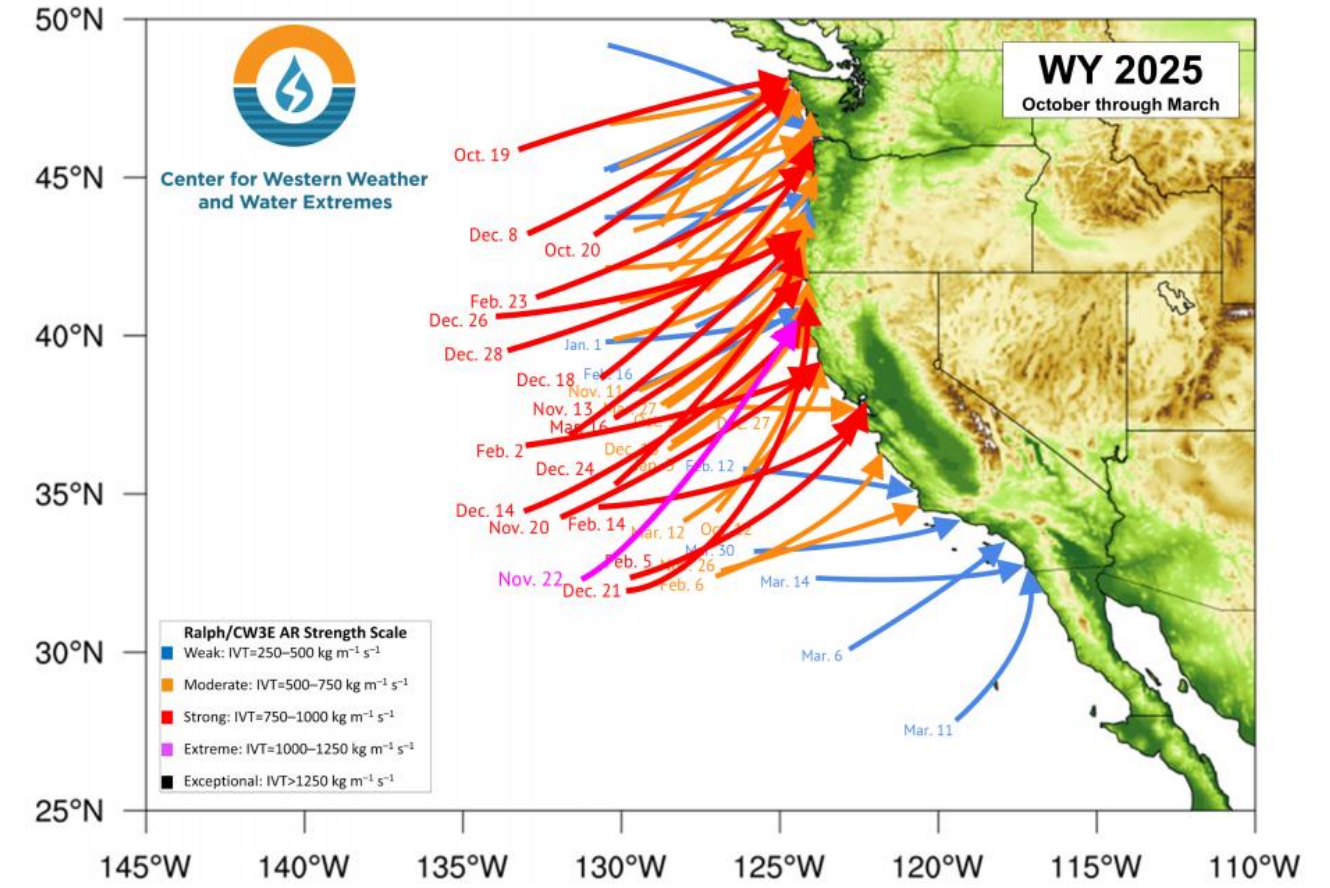
By pairing FIRO with accurate forecasts of where those storms will hit and how much rain they'll bring, dam operators can work in real time to not only reduce the risk of

dangerous floods, but also capitalize on atmospheric rivers' potential as a source of additional water for protection from drought.

Now, the concept is poised to improve operations at 39 more dams across the arid Southwest and another 71 throughout the rest of the country. That will vastly increase FIRO's potential and help dam operators stand ready for the wilder weather that the future will likely bring: storms intensified — and made more erratic — by climate change.

Atmospheric Rivers Enter the Lexicon

For decades, the "Pineapple Express," a type of storm that feeds off warm tropical moisture, figured prominently in local weather lore. By the early 1990s, researchers realized that it was just one kind of a broader category of unique storms that take shape far out in the Pacific. In a 1994 research paper, Yong Zhu, now at North Carolina State University, and MIT's late Reginald Newell, christened them atmospheric rivers.



Some 50 atmospheric rivers hit the West Coast of the U.S. during the 2024-25 season. (Source: Center for Western Weather and Water Extremes)According to **a 2019 study**, atmospheric rivers caused $5.2 billion in damage in Sonoma County over the preceding two decades and were responsible for 99.8 percent of all insured flood losses there. A single 1995 storm — the most damaging event in 40 years of record keeping in the West — inundated the town of Guerneville on the Russian River and caused $50 million in insured losses countywide. The study determined that atmospheric rivers are the primary driver of flood damage in the West.

These powerful plumes of water vapor — which, on average, carry 25 times the flow of the Mississippi River — deliver 30 to 50 percent of total annual precipitation in California.

“Atmospheric rivers are the hurricanes for the West Coast,” says Cary Talbot, the FIRO National Lead with the Army Corps’ Engineer Research and Development Center.

But when they fail to arrive, that can also have a big impact, leaving the state parched and reeling. Their influence isn’t limited to just California, either: In 2021, researchers Mu Xiao, now at the Scripps Institution of Oceanography at UC San Diego, and Dennis Lettenmaier, now at University of California, Los Angeles found that almost one third of snowpack in the Upper Colorado River Basin comes from **snowfall brought by atmospheric rivers**.

These rivers in the sky present a particular challenge for water-management agencies, including the Army Corps, which owns 515 flood-control dams and has operational oversight over another 78 nationwide.

“Atmospheric rivers are the hurricanes for the West Coast.” – Cary Talbot, U.S. Army Corps of Engineers.

The Army Corps’ primary responsibility is the high-stakes task of **controlling floods**, or as the agency puts it, “flood risk management.” As a result, the Army Corps tends to be extremely risk averse, and it literally runs its dams by the book: Each of its dams has an individually formulated water control manual with flood control curves, more commonly known as “rule curves,” that are practically chiseled in stone.

“When those things are written, they go through a really rigorous (vetting) process because it’s what we are going to be graded on in the courts,” says Talbot. “When somebody sues us for how we operated, they’re going to look at the water control manual and say: ‘Did the operators follow the rules?’ So, water managers don’t really want to stray too far from what it says.”

Rule curves typically force operators to keep reservoir levels low during wet seasons so they can catch and hold back the rainfall from anticipated storms and reduce the impacts of flooding downstream. But if those storms veer off their predicted course, or dissipate before they arrive, operators can’t get back the water they’ve already released — exactly what happened at Lake Mendocino in 2012.

The public outcry over that incident, which would be followed by the driest three-year period on record until then, helped nudge the Army Corps toward a more flexible approach.

)“The disaster of a really bad drought in California focused congressional attention,” says Talbot. In 2015, Congress added a line in the Army Corps’ budget for a research-led Water Operations Technical Support program. “It wasn’t much money — it was really just $2 million to get it started — but the direction from Congress was to see if we can’t

find a better balance between flood risk management and water supply, especially with respect to atmospheric rivers."

The following year, the Army Corps modified its regulations to allow for the use of forecasts in operations planning. Actually incorporating that change into each dam's water control manual, many of which are decades old, still required an administrative process that typically takes several years. But the announcement was a significant first step in the shift away from the hidebound rule curves that governed dam operations.

To make it all work, though, dam operators had to have weather forecasts that they could trust.

Original Article: Water Education Foundation by Matt Jenkins

Massive California reservoir to cost billions more than expected

The plan to build one of California's largest reservoirs in decades may now cost billions more dollars than expected, planners say.

Sites Reservoir, set to be located near Maxwell in the Sacramento Valley, is now expected to cost at least $6.2 billion to build, the project planners confirmed to Bay Area News Group on Wednesday.

Jerry Brown, the executive director of the Sites Project Authority, told the news outlet that planners upped the cost from the originally projected $4.5 billion because of inflation. The biggest drivers of the increase included factory shutdowns during the COVID-19 pandemic and recent tariffs from U.S. President Donald Trump, the outlet reported.

The 1.5 million-acre-foot capacity reservoir is expected to capture water from the Sacramento River for distribution, specifically during drier years, to the Sacramento and San Joaquin valleys and some parts of Southern California and the Bay Area, according to the project website. Sites Reservoir will be the first major reservoir project since New Melones Lake was completed in 1979.

The massive reservoir would span 4 miles across and 13 miles north to south, providing water to about 24 million people. Brown told Bay Area News Group that the project timeline, which calls for construction to begin in 2026 and the reservoir to be completed by 2033, is still on track.

Sites Reservoir has also received funding grants in recent years, with $129 million from the Department of the Interior in 2025, $205.6 million in federal funding in 2024 and $30 million from the Bureau of Reclamation in 2023.

The project, though, has faced some legal hurdles. Several environmental groups opposed its construction with a lawsuit that was eventually dismissed in Yolo County Superior Court last year.

A series of wet winters has led to exceptional comebacks from some of California's largest reservoirs in recent years. After being depleted by extreme drought, Shasta

Lake overflowed for the third year in a row this year, and Lake Oroville reached capacity for the third year.
Original Article: SF Gate by Madilynne Medina

Congressman Adam Gray Announces $93 Million Investment for Dos Palos Water Storage and Wildlife Protection Project

Bureau of Reclamation awards $93 million for sustainable water access and fish passage project in Dos Palos, CA.
The Bureau of Reclamation announced a $93 million award for the Arroyo Canal Fish Screen and Sack Dam Fish Bypass Project near Dos Palos, aimed at enhancing water access and fish passage in California's Central Valley. The project is part of broader efforts to support both wildlife protection and irrigation needs.
Congressman Gray hailed the funding as a "huge win for the Valley," emphasizing the importance of maintaining reliable water for local communities. Construction is set to begin in Fall 2025 and will take approximately three years.
Improvements align with previous federal initiatives, including a $255 million contract for dam safety modifications. The project strives to fulfill commitments made under the San Joaquin River Restoration program.
Original Article: Nasdaq

US WATER NEWS

Phoenix receives $179 million in federal funds for water purification facility

Nearly $180 million in federal funding will be spent on a new advanced water purification facility in Phoenix, officials announced Wednesday.
The funding will help cover the design and construction costs of Phoenix's new North Gateway Advanced Water Purification Facility that will treat 8 million gallons of recycled water each day.
When combined with in-progress upgrades to the Cave Creek Water Reclamation Plant, the city's water treatment sites will produce about 12.5 million gallons of water per day.
Advanced Water Purification (AWP), which both sites will use, is the process by which wastewater is recycled into drinking water "so clean it meets or exceeds federal and local drinking water requirements," according to the city's website.

The Arizona Department of Environmental Quality permitted the technology to be used at the local level in March.
The facilities will reduce the city's reliance on the Colorado River and reduce the costs for residents of obtaining clean water.
The $179 million the city received fell short of the $292 million it received preliminary approval for in the fall, and the federal funding will supplement the $321 million put forth by the city. It comes via the Biden administration's Inflation Reduction Act.

What do local lawmakers say about water purification facility funding?

"This ongoing drought is a major issue in our state and one of the limiting factors for economic growth," U.S. Rep. Greg Stanton said in an announcement. "The more we can do on conservation, including and especially advanced water purification, [it] is going to go a long way toward moving our economy forward."
When road rage turns deadly
Watch More
Stanton was one of the biggest advocates for the project, and he toured the Cave Creek facility in October.
He wrote a letter to federal officials in September calling AWP the "single most important technology for reducing the reliance of municipal populations on the Colorado River."
Phoenix Mayor Kate Gallego said the projects will also impact the local housing economy.
Original Article: KTAR News by Damon Allred

Lake Powell forecasts show hydropower generation is at risk next year as water levels drop

ederal officials reported Tuesday that the water level in Lake Powell, one of the main water storage reservoirs for the Colorado River Basin, could fall low enough to stop hydropower generation at the reservoir by December 2026.
The reservoir's water levels have fallen as the Colorado River Basin, the water supply for 40 million people, has been overstressed by rising temperatures, prolonged drought and relentless demand. Upper Basin officials sounded the alarm in June, saying this year's conditions echo the extreme conditions of 2021 and 2022, when Lake Powell and its sister reservoir, Lake Mead, dropped to historic lows.
The basin needs a different management approach, specifically one that is more closely tied to the actual water supply each year, the Upper Colorado River Commission's statement said.
The seven basin states, including Colorado, are in high-stakes negotiations over how to manage the basin's water after 2026. One of the biggest impasses has been how to cut water use in the basin's driest years.

"You can't reduce what doesn't come down the stream. And that's the reality we're faced with," Commissioner Gene Shawcroft of Utah said in the statement. "The only way we're going to achieve a successful outcome is if we're willing to work together — and not just protect our own interests."

Lake Powell, located on the Utah-Arizona border, collects water from Colorado, New Mexico, Utah, Wyoming, part of Arizona and tribal reservations in the Colorado River's Upper Basin. Glen Canyon Dam releases the reservoir's water downstream to Lake Mead, Native American tribes, Mexico, and Lower Basin states, including Arizona, California and Nevada.

Lake Powell and Lake Mead make up about 92% of the reservoir storage capacity in the entire Colorado River Basin.

The Bureau of Reclamation's July report, called a 24-month study, shows the potential for Lake Powell to decline below two critical elevations: 3,525 feet and 3,490 feet.

It could drop below 3,525 feet in April 2026, which would prompt emergency drought response actions. That's in the most probable scenario, but the federal agency also considers drier and wetter forecast scenarios. The dry forecast shows that the reservoir's water levels would fall below this elevation as soon as January.

Lake Powell would have to fall below 3,490 feet in order to halt power generation.

Planning for emergency water releases

In 2021 and 2022, officials leapt into crisis management mode and released water from upstream reservoirs — including Blue Mesa, Colorado's largest reservoir — to stabilize Lake Powell's water levels.

The emergency releases prompted some concerns about recreation at Blue Mesa.

The July 24-month study triggered planning for potential emergency releases, called drought response operations, at Lake Powell, and Flaming Gorge, Blue Mesa and Navajo reservoirs, said Chuck Cullom, executive director of the Upper Colorado River Commission.

"The Upper Division States and Reclamation have been monitoring the risks to Lake Powell since January 2025 due to the declining snowpack and runoff, and are prepared to take appropriate actions as conditions evolve through 2025 and spring of 2026," he said in an email to The Colorado Sun.

At-risk hydropower

Hydroelectric power generation takes a hit with lower water levels at Lake Powell and Lake Mead.

Reclamation's dry conditions forecast says Lake Powell could fall below 3,490 feet by December 2026, and Lake Mead's water level could fall below a key elevation, 1,035 feet, by May 2027. At that point, Hoover Dam would have to turn off several turbines and its power production would be significantly reduced, said Eric Kuhn, a Colorado water expert.

In more typical or unusually wet forecasts, neither reservoir would fall below these critical elevations in the next two years, according to the report.

Lake Powell and other federal reservoirs provide a cheap and consistent source of renewable energy. Without that, electricity providers would have to look to other, more expensive sources of energy or nonrenewable supplies. Some of those costs can get handed down to customers in their monthly utility bills.

Glen Canyon's hydropower is normally pooled with other power sources to serve customers in Wyoming, Colorado, Arizona, New Mexico, Nevada, Texas and Utah. Its power generation has already been impacted: Fourteen of the lowest generation years at the dam have occurred since 2000.

A strong monsoon season this summer could help elevate the water levels in the major reservoirs, as could a heavy winter snowpack in the mountains this coming winter.

Original Article: The Colorado Sun by Shannon Mullane

Colorado senators reintroduce bill to improve water access in tribal communities

Colorado Sens. Michael Bennet and John Hickenlooper have reintroduced a bill to expand access to clean water in tribal communities.

The Tribal Access to Clean Water Act aims to increase funding that would critically expand water infrastructure projects through the Indian Health Service, the U.S. Department of Agriculture and the Bureau of Reclamation.

Only about 48% of households in Native American communities have adequate access to clean water sources, according to a 2023 report by the Senate Committee on Indian Affairs.

"Clean drinking water is a basic necessity," said Hickenlooper in a written statement. "Let's cut red tape and invest in modern resources to finally deliver safe, accessible water to every Tribe."

The legislation was originally introduced to the Senate in 2021 and had bipartisan support. However, the bill and its subsequent versions never progressed beyond the committee stage.

That year, Congress approved funding for tribal clean water infrastructure as part of the Bipartisan Infrastructure Law, including $3.5 billion for the Indian Health Service to improve tribal sanitation facilities and $1 billion for the Bureau of Reclamation to support rural water supply projects. However, many tribes are unequipped with resources to access those construction and repair funding programs.

When the Tribal Access to Clean Water Act was reintroduced in 2023, it had been revised to reflect funding from the Bipartisan Infrastructure Law and the need to provide tribes technical assistance to implement that funding. Still, no further action was taken.

The 2025 version would authorize the USDA to provide grants and loans for water infrastructure in tribal communities, increasing funding for its Rural Development programs by $100 million annually for five years, with $30 million specifically dedicated to technical assistance. It would also boost funding to the Indian Health Service for facility construction, technical assistance and operations, as well as authorize $90 million annually for five years to the Bureau of Reclamation's existing technical assistance program.

In addition to Colorado's two senators, Sen. Martin Heinrich, D-N.M., and Reps. Joe Neguse, D-Colo., and Gwen Moore, D-Wis., have reintroduced the bill.

Manuel Heart, chairman of the Ute Mountain Ute Tribe, testified in support of the bill at a 2024 Indian Affairs Committee hearing.

"It is far past time to ensure that Native people have the same level of basic water service most Americans take for granted," he said in a written statement. "This bill's recognition of the need for technical support and operation and maintenance assistance for Tribal water supply facilities is not only essential to realizing the benefit of investment in water infrastructure, but also a critical step toward increasing Tribal independence and governance capabilities."

Original Article: The Durango Herald by Richa Sharma

Southern Nevada data centers used a ton of water in 2024. Here's how

The centerpiece of Flexential's North Las Vegas data center is a massive room holding server boxes with blue and yellow wires twisting above.

Walking between servers sectioned off behind cages and ceiling-high panels, the facility feels oddly chilly. Servers typically generate large amounts of heat, but through different technologies, data centers quickly route it outside. Some of these methods involve evaporating a lot of water.

Flexential's North Las Vegas facility is one of more than 30 data centers spread across the Las Vegas Valley. Other facilities belong to companies such as Switch and Google, which has a site in Henderson. Data centers provide infrastructure necessary to support websites, data storage and even online gaming.

In Nevada, the country's driest state, the recent growth of generative artificial intelligence has put increased attention on data centers' power demands and the water needed to cool servers. This comes as Lake Mead risks hitting crisis levels, and more groundwater has been signed away in parts of Northern Nevada than is actually available.

Water usage is a key concern among environmental activists when it comes to AI and data centers, said Kyle Roerink, executive director of the Great Basin Water Network. The nonprofit protects "the water resources of the Great Basin for residents, animals and plants," according to its website.

"I can sit here and complain to you about AI all day and how much water it's going to consume and how much power it's going to consume, but investors know that these tech companies are preying on our very human instincts," Roerink said.

Particularly during its training phase, AI can require vast amounts of water, said Renkun Chen, professor at the University of California San Diego.

"AI, at least today's AI, for data centers, is very energy intensive," Chen explained. "That's why, today's data centers, when they are built, they need to one: consume a lot of power, and second: They need to oftentimes consume a lot of water."

Out of a list of 23 data centers provided by the Las Vegas Valley Water District, the city of North Las Vegas and the city of Henderson, Google's site had the highest estimated water use in 2024 at roughly 352 million gallons. The Flexential facility used around 20 million gallons.

Original Article: Las Vegas Review Journal by Finnegan Belleau

Lawmakers tackle FEMA's future, weather prediction

Three House panels will meet this week to discuss strategies for natural disaster recovery and weather prediction.

The House Science, Space and Technology Committee will mark up the "Weather Act Reauthorization" bill, H.R. 3816, by ranking member Zoe Lofgren (D-Calif.) and the Rep. Frank Lucas (R-Okla.), the committee's former chair.

The legislation seeks to fund and improve NOAA forecasting capabilities and its work to inform the public, along with promoting collaboration with the private sector.

The bill comes as lawmakers worry about staffing woes at the National Weather Service — particularly after this month's deadly flooding in Texas — and lawmakers debate whether to cut NOAA spending.

Original Article: E&E News by Amelia Davidson

First-ever legal transfer of water from rural Arizona to cities approved for Buckeye, Queen Creek

Buckeye and Queen Creek can now access groundwater from a farming area in western Phoenix.

The move comes after officials from the Department of Water Resources approved the first-ever legal transfer of water from rural Arizona to cities.

The agreement will allow the communities of Buckeye and Queen Creek to withdraw up to 5,926 acre-feet per year and 5,000 acre-feet per year, respectively from the Harquahala basin.

Still, the question remains as to whether this is a permanent solution.

Sarah Porter is the director of the Kyl Center for Water Policy at Arizona State University. She says this inter-basin transfer isn't a total answer to ensuring that Arizona has enough water to continue to grow.

"Increasingly, I think there's a recognition that we need to find some other water supplies."

The agreement is authorized for up to 110 years, enough to serve more than 30,000 homes.

Original Article: KJZZ Phoenix by Kathy Ritchie

Infrastructure Resilience and Water Utility Stocks: Navigating the $625 Billion Water Infrastructure Crisis

As the United States grapples with a $625 billion shortfall in water infrastructure investment over the next two decades, the water utility sector is emerging as a critical focal point for investors seeking resilience in a climate-driven economy. Aging pipes, extreme weather events, and regulatory mandates are converging to create both urgency and opportunity. For investors, the question is no longer *if* to act but *how* to position portfolios to capitalize on this structural shift.

Ask Aime: How can I invest in the booming water utility sector amid climate concerns?

The Perfect Storm: Aging Systems, Climate Shocks, and Rising Demand

The U.S. water infrastructure crisis is no longer hypothetical. Over 2 million miles of aging pipes—some over 100 years old—leak 126 billion cubic meters of water annually, costing $187 billion in lost revenue. Climate change is accelerating this decay: hurricanes, droughts, and floods are causing $35–$55 billion in insured losses alone from recent events like Helene and Milton. The American Society of Civil Engineers (ASCE) warns that between current funding and infrastructure needs will balloon to $620 billion by 2043.

Yet this crisis is also a catalyst. The 2021 Infrastructure Investment and Jobs Act (IIJA) has injected $30 billion into water infrastructure, while the Inflation Reduction Act (IRA) offers additional tax incentives for green upgrades. Utilities that proactively address these challenges through innovation and digital transformation are not only securing their relevance but also outperforming peers.

American Water Works: A Case Study in Strategic Resilience

American Water Works (NYSE: AWK), the largest publicly traded water utility in the U.S., exemplifies how to navigate this transition. Its first-quarter 2025 earnings of $1.05 per share (a 10.5% year-over-year increase) reflect disciplined capital deployment and regulatory alignment. The company's $40–$42 billion capital plan over the next decade—focused on pipe replacements, PFAS treatment, and AI-powered metering—is backed by IIJA funding and rate-case approvals.

AWK's recent $800 million debt offering at 5.25% interest underscores its ability to fund growth at attractive rates. With a 7–9% long-term EPS and dividend growth target, the stock trades at a 25x P/E ratio, reflecting its premium positioning in a sector where demand is outpacing supply. Notably, AWK's digital metering projects have reduced water loss by 40% in pilot cities, a metric that could translate to $1.5 billion in annual savings by 2030.

The Broader Sector: Innovation and Diversification

While AWK is a standout, the water utility sector as a whole is evolving. The iShares Water Infrastructure ETF (AWU) has outperformed the S&P 500 by 3% year-to-date, driven by its exposure to companies leveraging AI/ML for predictive maintenance and smart leak detection. Smaller utilities like

Resources (NASDAQ: GWRS) are also gaining traction, with GWRS reporting a 7.3% revenue increase in Q1 2025 despite a 14.5% drop in net income—highlighting the sector's mixed but improving dynamics.

Investors should also consider thematic exposure through ETFs and direct holdings in companies addressing niche challenges. For example, Soluwater's recent $250 million Series B funding round signals growing interest in decentralized water systems, while Italy's Publiacqua is leveraging AI to cut energy use by 50% at treatment plants.

Original Article: AInvest

The Colorado River used to be predictable as a water supply. What happens when it's not?

Grand Mesa’s hulking south flank appeared green and brown through the windshield as a crew of state water regulators rode up its dirt roads to christen a fraught 2025 irrigation season on what promised to be one of many parched Colorado River tributaries this spring.

At the juncture of a flowing creek and a dry ditch, one hopped out to crank a headgate shut, forcing the water into the ditch and toward a string of valley farms for however long it might last.

The mountain would have gleamed more brightly during most 20th century springs, a mound of white propping up the evergreens. In this, the latest year of a decades-long megadrought, the water commissioner needed no snow boots.

It was April Fools’ Day, and Mother Nature had crafted a cruel punchline for the fruit orchardists below – a groaner that this crew would have to deliver to those farmers one by one later in the spring and summer by cutting off those who don’t enjoy the oldest water rights. Peach, plum and apple trees had budded out after a 79-degree warmup the previous week, demanding water that wouldn’t last the growing season.

The state allows diversions starting April 1, but in a better year with ample snowpack the added moisture wouldn't be needed until May. It shouldn't have been green yet where they were, motoring upward past 6,200 feet above sea level.

In a normal year — the kind before this megadrought of 25 years plunged the river's big reservoirs and the states that rely on them into crisis and conflict — they wouldn't need to act so soon. There still might have been 4 feet of snow on and below the giant forested mesa looming over western Colorado's arid lands, so much that no one along the North Fork of the Gunnison River would need to push water onto their fruit orchards yet.

"In a normal year, we wouldn't even be able to drive up here" yet, Gunnison Basin District Engineer Bob Hurford said from the back seat.

But "normal" years aren't the norm anymore — here or anywhere in the 250,000-square-mile drainage that supplies the 1,450-mile Colorado River. A river that has long been overallocated and draining its massive reservoirs is now nearly tapped out, soon potentially unable to keep flowing past the giant American dams that water and power much of the Southwest. Already, its last drops sink into Mexican sand before reaching the sea.

"Today we stand on the brink of system failure," the state of Colorado's river commissioner, Becky Mitchell, said during a late-June meeting with colleagues from the Rocky Mountain states that make up the Upper Colorado River Commission. Such a collapse has grown larger on the horizon for most of this decade as reservoir replenishment has failed to keep up with downstream demands.

'A world unlike anything we know'

A new reckoning is at hand. The Trump administration has put the states on the clock to reach a consensus deal by the end of this year to share the shrinking river equitably — the only way they can control their own fates.

"If you can't get there," Assistant Interior Secretary Scott Cameron warned in one of several recent appearances before state negotiators, "(Interior) Secretary Burgum is prepared to exercise his authority as water master and make decisions himself."

Cameron also urged the states to work with the 30 Native American tribes living across the watershed, both to ensure that they have adequate water and to partner with the tribes who have secured substantial water settlements to store more water in the reservoirs. Arizona, for example, has leaned heavily on deals with the Gila River Indian Community to save water.

Loralei Cloud, a Southern Ute tribal member and Colorado Water Conservation Board member, said it's time for every tribe to have both a direct say in how the river is managed and to secure its fair share. If the states can't reach a deal, she told a crowd at the University of Colorado Law School in June, they should get out of the way.

"If our state representatives are going to sit silent," she said at the annual Getches-Wilkinson Center's Conference on the Colorado River, "then we have 30 tribal nations

that are ready to take over and make a decision and save our river. We've been doing it from time immemorial."

Federal officials have a trust responsibility to secure water for tribes, which the Bureau of Reclamation will need to account for in any interstate deal. The tribes with secure rights will likely also commit more water to the system in exchange for money or infrastructure help.

For instance, an attorney for the Navajo Nation told conference attendees that the tribe is considering conserving water that previously flowed to a now-decommissioned coal-fired power plant. In future years, the tribe wants to use its rights to fill a planned pipeline to reservation communities, but the water saved until then could stay in the river to boost reservoir storage.

The river's two largest dammed reservoirs — also the two largest in the nation — are each around one-third of capacity, a quarter-century after being essentially full. The mostly dry winters since 2000 have plunged storage pools behind Hoover and Glen Canyon dams to the point where the U.S. government is temporarily paying millions of dollars to Arizona and California irrigators who agree to grow less to keep from draining them.

This year's liquid reinforcements, mostly from melting snow that reaches Lake Powell between April and July, were on track to provide less than half of the average over the last 30 years, according to the National Weather Service's Colorado Basin River Forecast Center June estimate.

A river that the interstate negotiators of a century ago thought would routinely provide more than 15 million acre-feet a year has already declined to less than 13 million on average since 2000, in a fast-growing region. An acre-foot equals roughly 326,000 gallons and is enough to support several households for a year, though farms use the bulk of the Colorado's water.

Colorado State University climate researcher Brad Udall warned that the river may provide only 10 million acre-feet if current global warming trends continue through the century — a sharp new reduction in an already diminished and overused source on which 40 million people rely.

"That's a world unlike anything we currently know," Udall said.

Total failure would mean Lakes Powell and Mead decline below where intakes for hydroelectric turbines or bypass tubes can pass water through the dams — a condition known as dead pool. It would restrict Grand Canyon to the relative trickle out of small tributaries below Glen Canyon Dam, and would desiccate the sprawling and lucrative vegetable and forage crop empires of Arizona, California and northwestern Mexico. It would also interrupt a major part of the domestic water supply to millions of people in Arizona and Southern California.

Original Article: AZ Central by Brandon Loomis

GLOBAL WATER NEWS

No industry will be allowed to extract groundwater for free: Rizwana

The government has almost finalised the Industrial Water Use Act, and in future, no industry will be able to extract groundwater for free, said Syeda Rizwana Hasan, adviser to the Ministry of Water Resources.

Speaking as guest of honour at a dialogue hosted by the American Chamber of Commerce in Bangladesh (AmCham) in Dhaka today (20 July), Rizwana stressed the need to regulate industrial water usage and promote sustainable investment.

"Once industries start paying for water, they will use it more responsibly," she said, adding that the upcoming Industrial Water Use Guidelines will establish pricing mechanisms and monitoring for groundwater extraction.

The AmCham dialogue, held at the Sheraton Dhaka and supported by Recover™, Philip Morris Bangladesh Ltd and Chevron Bangladesh, centred on the theme of "Fostering Sustainable Investment".

At the programme, Rizwana, also the adviser to the Ministry of Environment, Forest and Climate Change, said, "We must pursue both sustainable transactions and sustainable investments. Sustainable investment is not just a national ambition – it must be a global commitment."

"Sustainability must go hand in hand with equity. If resource-intensive economies continue to consume disproportionately, no global framework will hold," she warned.

She also praised innovations such as waterless dyeing technologies in the textile industry and called for stricter chemical safety regulations, especially for the domestic market.

"We are waiting for a binding chemical management rule for the textile sector. It's a public health imperative," she said.

AmCham President Syed Ershad Ahmed said Bangladesh faces a pivotal moment, balancing LDC graduation and climate commitments with the urgency of sustainable development. "Despite strong economic growth, environmental degradation poses serious risks to health, business, and investor confidence.," he said.

"While private sector efforts toward green initiatives are commendable, policy gaps and enforcement challenges persist," he added.

Reza Mahmud, country manager of Philip Morris Bangladesh Ltd, highlighted that while smoking harms health and the environment, offering less harmful alternatives like e-cigarettes and heated tobacco products can support public health.

Citing the US FDA's science-based approval of such products, he stressed that bans are not the solution. "Instead, Bangladesh should adopt a science-driven regulatory approach, as seen in countries like the USA, New Zealand, and Saudi Arabia, to promote public health, generate tax revenue, curb illicit trade, and prevent youth access," he added.

Chevron Bangladesh's Corporate Affairs Director Muhammad Imrul Kabir highlighted the company's 30-year partnership with Bangladesh, with investments totalling $4.2 billion and 97% local workforce participation.

He further noted that Chevron supports over 120,000 people through healthcare, entrepreneurship, tree planting and training, aligning with nine of 17 UN Sustainable Development Goals.

At the event, Economist Forrest E Cookson warned of the long-term consequences of global inaction on emissions.

He said, "Bangladesh must prepare for rising heatwaves and sea levels by relocating its population northward and establishing 15 new cities."

He urged a national focus on cooling tech, skilled engineers, and a global cooling industry–stressing the need for nuclear energy, electric transport, and AI-driven infrastructure, requiring a strategic shift by the planning ministry.

Original Article: The Business Standard

Ofwat to be abolished in biggest overhaul of water since privatisation

Ofwat to be abolished and a new, single, powerful regulator to be established to cut water pollution in England’s rivers, lakes and seas, and protect families from massive bill hikes

Ofwat to be abolished and a new, single, powerful regulator to be established to cut water pollution in England’s rivers, lakes and seas, and protect families from massive bill hikes

New regulator will take responsibility of water functions across Ofwat, Environment Agency, Natural England and Drinking Water Inspectorate, ending complexity that gets in the way of delivering for customers

Government to fast track five recommendations from the Independent Water Commission in the Commons later today

Ofwat is to be replaced by one single water regulator responsible for the entire water system, the Government has announced today (Monday 21 July).

In the biggest overhaul of the water sector since privatisation, Ofwat will be abolished and its functions will be merged with water functions across the Environment Agency, Natural England and the Drinking Water Inspectorate to form a new single, powerful regulator.

In a speech at Kingfisher Wharf, the Secretary of State for the Environment, Steve Reed pledged to strengthen regulation, clean up the country's s rivers and protect the public from soaring water bills.

There are currently four separate regulators responsible for the water industry, a complex, tangled system of confusion. It is a merry-go-round of regulators blaming each other for breaking this country's water system.

Ofwat has failed customers, allowing water companies to mismanage billions of pounds of customer money while water companies paid out huge dividends and bonuses.

The Environment Secretary, Steve Reed said:

- Our water industry is broken. That is why this Government will fix our broken regulatory system so the failures of the past never happen again.
- The Government will abolish Ofwat. In the biggest overhaul of water regulation in a generation, we will bring water functions from four different regulators into one.
- A single, powerful regulator responsible for the entire water sector will stand firmly on the side of customers, investors and the environment and prevent the abuses of the past.
- >It will provide the clarity and direction required for a strong partnership between Government, the sector and investors to attract billions of pounds of new investment.
- The creation of one powerful regulator will be responsible for the entire water sector restoring public faith and investor confidence in our water industry.

The current fragmented approach of four separate regulators splits up economic, environmental and drinking water regulation. This complex web of regulators has led to contradictory and competing priorities.

The reforms will ensure all regulation is in lock step to deliver for customers and the environment, bringing all water regulation under one roof.

The proposals will be consulted on this autumn and form the basis of a new Water Reform Bill.

This comes on the back of a bold, personal commitment from Environment Secretary, Steve Reed, to cut sewage pollution from water companies in half by 2030. Working to make our rivers the cleanest since records began, It is the most ambitious sewage target Government has ever set.

The Government has begun rebuilding the entire water network through one of the largest infrastructure projects in the country's history. £104 billion is being invested to upgrade crumbling pipes and build sewage treatment works across the country, ensuring communities can once again take pride in their beaches, rivers and lakes.

These reforms build on decisive action taken by the Government over the past year to clean up England's rivers, lakes and seas:

- Record investment: with £104 billion to upgrade crumbling pipes and build sewage treatment works across the country.
- Ringfence customers' bills for upgrades: customer bills earmarked for investment must now be spent one new sewage pipes and treatment works – not spent on shareholder payments or bonuses.
- Reinvesting company fines into local projects: with over £100million being invested into local clean-up projects in communities.
- Largest budget for water regulation: the Environment Agency received a record £189 million to fund hundreds of enforcement officers to inspect and prosecute pollution water companies.
- Polluter Pays: we've changed the law so that regulators can recover the cost of enforcement activity, ensuring that the polluter pays. This builds on the increase in water company inspections, holding them to account.
- Banning wet wipes containing plastic: in England reducing microplastics in our waters.
- The Water (Special Measures) Act: banned unfair bonuses for ten polluting water bosses this year and threatened prison sentences for law-breaking executives.

The Secretary of State for the Environment will outline five recommendations that the Government will fast track in Parliament later today.

Alongside our creation of a new single regulator in England, we will work closely with Welsh government to devolve economic regulation of water to Wales.

Original Article: Gov.uk

China starts building $167 billion mega-dam on Brahmaputra amid India's 'water bomb' concern

China has begun construction of a massive hydropower project on the Yarlung Tsangpo river in southeastern Tibet, which flows into India as the Brahmaputra. Chinese Premier Li Qiang attended the groundbreaking ceremony on Saturday, according to state-run media.

The multi-billion-dollar dam, approved by Beijing in December 2023, is being built in the Nyingchi region, not far from the Indian border in Arunachal Pradesh.

Due to the geographical positioning, New Delhi has in the past raised concerns over potential environmental and strategic threats because of its downstream impact on millions of people in India and Bangladesh. However, Beijing denies its 'negative impacts.'

China's state news agency Xinhua reported that the electricity generated through the dam "will primarily be transmitted to other regions for consumption, while also meeting local power needs in Tibet."

With an estimated investment of 1.2 trillion yuan (approximately $167.1 billion), the project will comprise five hydropower stations. Once completed, it can surpass the scale of China's existing Three Gorges Dam on the Yangtze River.
Original Article: Hindustan Times by Priyanshu Priya

The impact of drought on farm economic performance: evidence from Sweden

We estimate the effect of drought on farm economic performance, examine the sensitivity of farms' historical performance to drought conditions, and determine the effect of a future increase in drought conditions on farm economic performance. Since the effects of drought are both spatially and temporally heterogeneous, we adopt a panel regression method that accounts for multidimensional fixed effects in all regression parameters. We apply this method to a dataset from south-central Sweden spanning the period from 2001 to 2018. The results indicate that an increase in consecutive dry days or drought leads to a decrease in farm income by about 5%, on average, with systematic variation in the effects across municipalities. The findings further suggest significant sensitivity of farm income to drought from 2003 to 2004 and from 2014 to 2018. The results also indicate that drought negatively affects other farm outcome variable such as farm resource use efficiency and farm net value added.
Original Article: Shaibu Mellon Bedi, Pia Nilsson, Helena Hansson

Mexico's Water Crisis Could Undermine Its Clean Energy Plans

Mexico's new president is making a major play to reform the country's energy industry for greater energy independence and sovereignty, as well as a cleaner energy future. While this bodes well for the Mexican economy and for global climate goals, there is a critical tradeoff for this new plan: a major shortage of freshwater in the regions where the energy industry plans to expand.

A former climate scientist, President Claudia Sheinbaum is picking up the energy sovereignty torch where former president and fellow Morena party candidate Andrés Manuel López Obrador left off. But unlike AMLO, she seems to be serious about cleaning up the country's carbon footprint. In February, Mexico's state-owned electric utility, Federal Electricity Commission (CFE), announced plans to build nine solar power plants with a combined capacity of 4.7 GW by 2030, increasing its solar portfolio by more than tenfold, up from its current 433 MW.

The first phase of this CFE expansion plan includes six solar plants with built-in battery storage capacity, the first of which will start to come online in 2027. All six of them are going to be in Northern Mexico, a pivotal region for Mexico's energy and economic ambitions.

Northern Mexico is poised for a major economic expansion. It already hosts a large part of the country's energy sector, and could be fertile ground for expanded manufacturing capacities. "Proximity to the US border, a business-friendly environment and an entrepreneurial culture make the region prime for foreign direct investment, particularly amid the current wave of nearshoring," said the World Economic Forum in a recent report.

Indeed, at a time when Mexico is trying to shore up its energy independence, transition toward clean energy, and develop its economy, the border states hold a lot of promise. There's just one serious hurdle – it will come at the expense of the region's water supply. This is a big deal in Northern Mexico, where more than 45% of aquifers are overexploited and rainfall averages are extremely low. What's more, according to the World Economic Forum, "water governance is fragmented, infrastructure is ageing and climate change is intensifying drought frequency and severity."

Plus, water policy between the United States and Mexico is fraught. Under an 80-year-old water treaty, Mexico and the United States are legally bound to provide certain amounts of water to each other across the border. But as the climate changes, populations grow, and industry becomes thirstier, and these obligations are becoming harder and harder to meet, ramping up tensions at the border. And believe it or not, this all has major implications for the energy sector.

Energy and water needs are deeply interrelated. Their relationship is known in academic and policy circles as the "water-energy nexus" – and while it's a bigger deal in water-stressed areas like the Sonoran Desert region, it matters everywhere energy is created and consumed. "Water is used in all phases of energy production and electricity generation," explains the United States Department of Energy in a 2014 info brief. And, on the other side of the nexus, "energy is required to extract, convey, and deliver water of appropriate quality for diverse human uses, and then again to treat wastewaters prior to their return to the environment."

Water stress could therefore throw a major wrench into Mexico's energy ambitions, not to mention other growing industries in the region, including data centers, semiconductors, shale drilling, and brewing beer. "Northern Mexico is a microcosm of the broader resource competition that will define the global energy transition," says the World Economic Forum. "This case shows that a just energy transition requires not only decarbonization, but smart governance of water, land and social equity. Without that, economic development will be constrained, investments will be at risk and public trust will erode."

Original Article: Haley Zaremba for Oilprice.com

Toward more accurate quantification: A review of global large river basin management policies

As primary carriers of water resources, large river basins are crucial in water resources management, and their effective management requires appropriate policy measures. Given the complexity and variety of these policies, it is essential to quantitatively assess their completeness and effectiveness, to aid managers in selecting suitable policies and promptly adjusting management practices. However, there remains room for improvement in global research on river basin management policies. This review synthesizes current quantitative analysis methods of large-scale river basin management policies. We examine methods and case studies related to policy formulation, implementation, and prospect stages, focusing on policy completeness analyses, effectiveness evaluations, and future impact predictions. Some existing, mature quantitative methods for river basin management policy assessment have inherent limitations and room for improvement. As for policy completeness analysis, current methods need to be optimized to reduce subjectivity and enhance quantitative accuracy, particularly in regions with numerous policy documents. In terms of policy effectiveness evaluation, comprehensive quantitative assessments of large-scale river basin policies are still lacking, which represents a gap that warrants future investigation in future research. Moreover, it is important to employ rigorous scientific methods when evaluating individual policies, to reduce external interferences. As for future policy impact predictions, it is crucial to set accurate baselines and scenarios, to ensure precise quantitative simulation results. In conclusion, to address global water resources management challenges and provide insights for policymakers for the formulation or optimization of future policies, it is essential to develop more precise quantitative methods for the analysis of river basin management policies.

Original Article: Yi-Lin Zhao, Han-Jun Sun, Jie Ding, Zhen Hong, Ji-Wei Pang, Guene L. Razack, Nan-Qi Ren, Shan-Shan Yang,
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Water company to invest £83m to tackle pollution

A water company has unveiled an £83m plan to combat a coastal area's long-running problems with water pollution.

Anglian Water said it would invest the money in north Norfolk over the next five years and plans include connecting a series of properties to the sewerage system for the first time to prevent storm overflow.
Last year there was an increase in the amount of sewage pumped into rivers and the sea in north Norfolk.
Over 2024 untreated waste water was released in the East of England for almost 500,000 hours, including flowing into the River Stiffkey, near Blakeney, for more than 1,500 hours.
More than 500 hours worth of spills came from Cromer's main sewage works in the North Sea, off the coast of West Runton, and a pipe at West Runton beach had 116 hours of spills during 32 incidents, the Local Democracy Reporting Service reported.
Original Article: MSN by Neve Gordon-Farleigh - BBC News, Norfolk

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