Veles Water Weekly Report

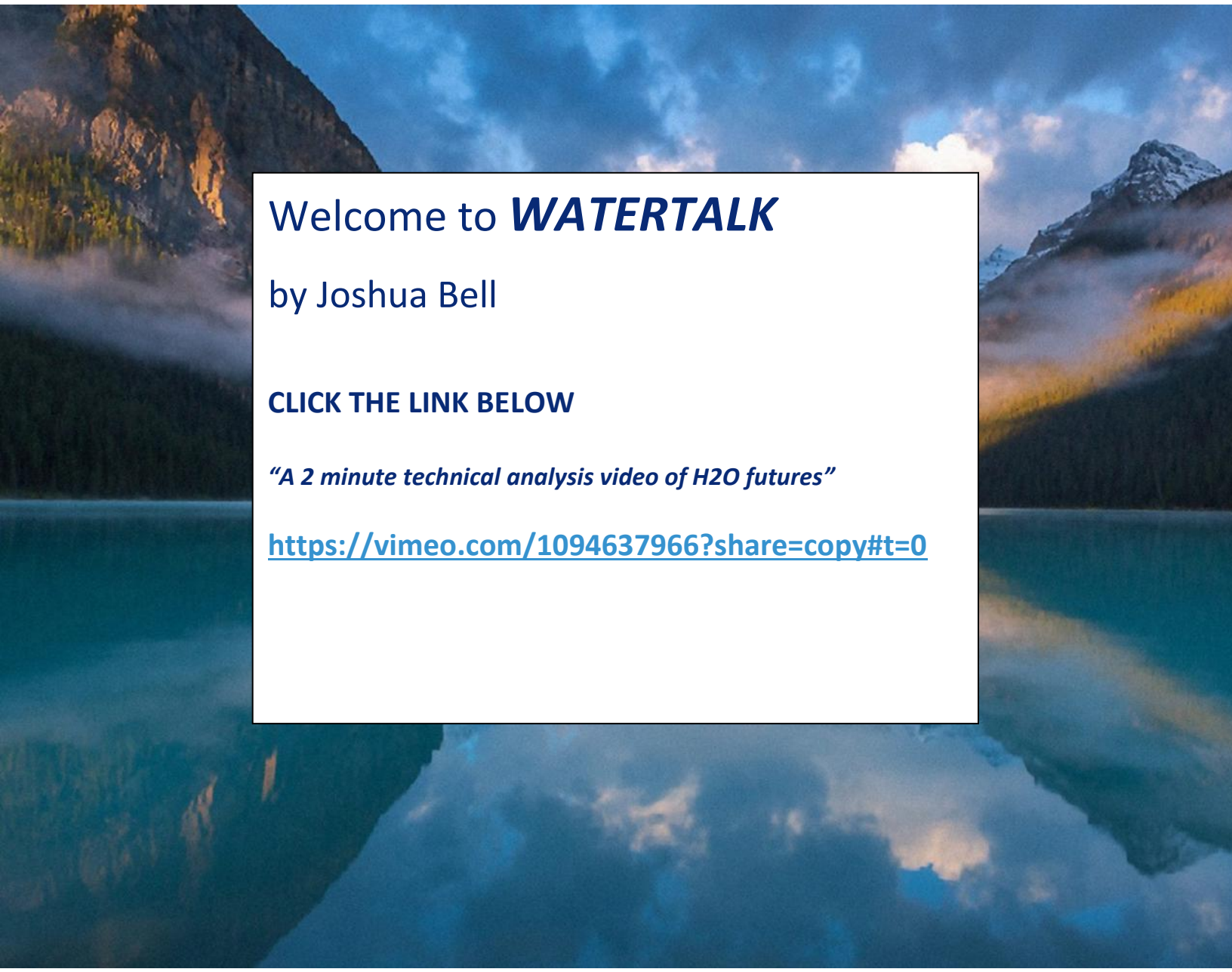
June 19th 2025

Authors:
Lance Coogan - *CEO*
Joshua Bell - *Research Analyst*

research@veleswater.com
+44 20 7754 0342

Veles Water

WATER FUTURES MARKET ANALYSIS



Welcome to ***WATERTALK***

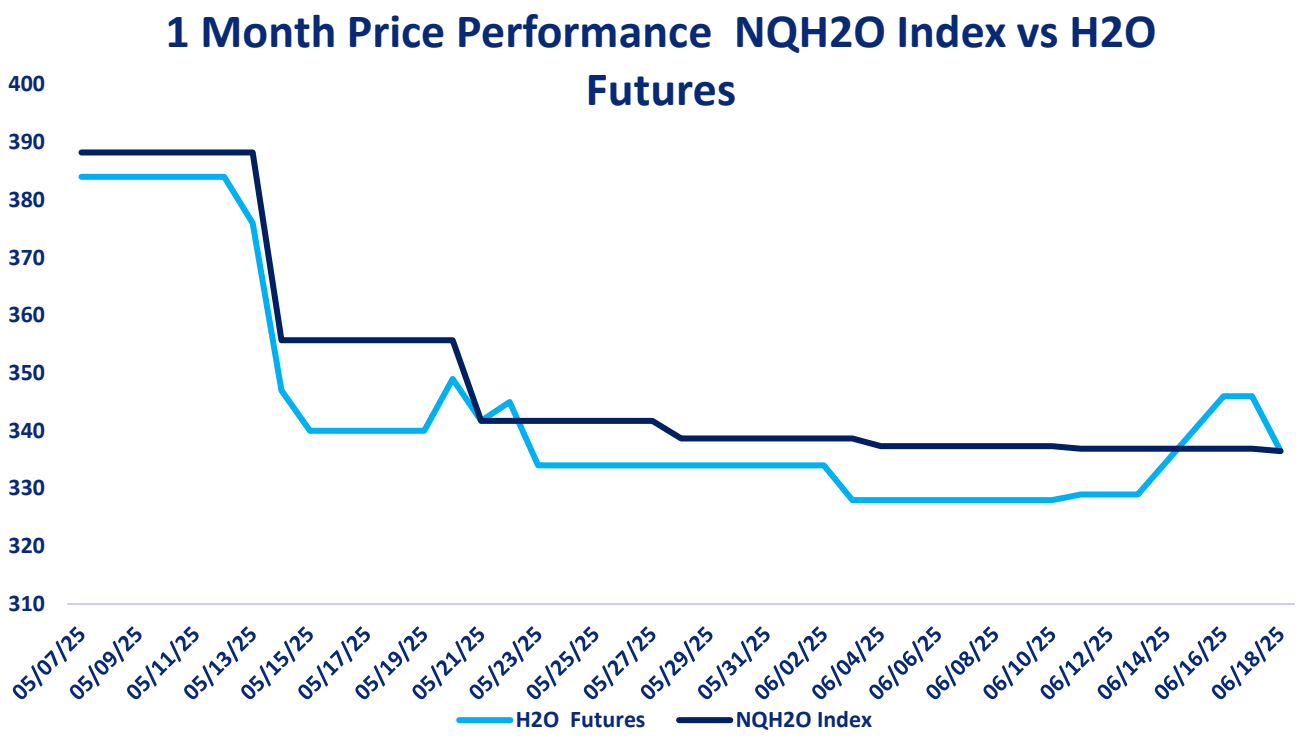
by Joshua Bell

CLICK THE LINK BELOW

"A 2 minute technical analysis video of H2O futures"

https://vimeo.com/1094637966?share=copy#t=0

NQH2O INDEX PRICE vs H2O FUTURES PRICE



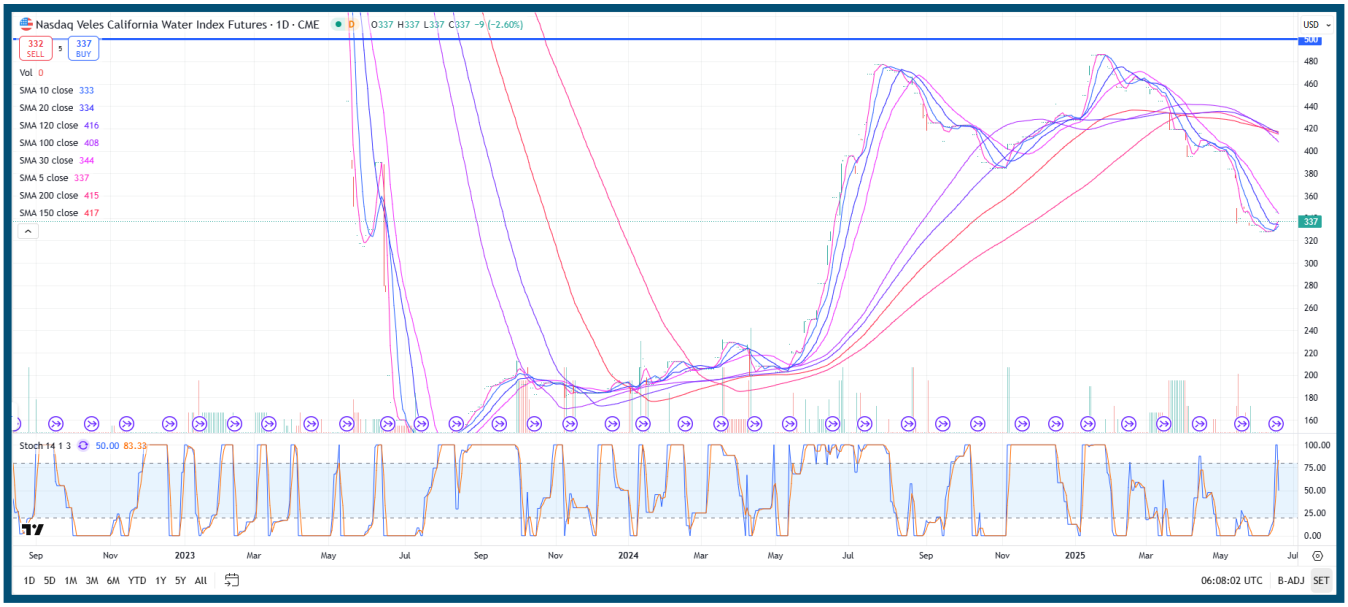
Price Chart Based upon Daily Close

The new NQH2O index level of $336.49 was published on June 18th, down $0.44 or 0.13% from the previous week. The June contract settled at the new index level and the July contract is considered the front month. The futures prices closed at a discount of $7.93 to a premium of $9.07 versus the index over the past week.

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

July 25	332@337
Sept 25	310@370
Dec 25	320@380
June 26	400@429

H2O FUTURES TECHNICAL REPORT



Price Action

- **Current Price:** $337
- The index has declined by **2.60%** on the day, suggesting continued selling pressure after a recent bounce attempt.
- The daily candle closed at the **low of the day**, reinforcing bearish momentum.

Moving Averages Analysis

Short-Term Averages

- **5-day SMA:** 337
- **10-day SMA:** 333
- **20-day SMA:** 334

Price is currently testing short-term resistance from the **5-day and 10-day SMAs**. If the price fails to hold above these levels, further downside could be expected.

Medium-Term Averages

- **30-day SMA:** 344
  Still declining, and remains well above the current price, reinforcing short-term bearish structure.

Long-Term Averages

- **100-day SMA:** 408
- **120-day SMA:** 416
- **150-day SMA:** 417

- **200-day SMA:** 415

All long-term SMAs are **above the current price and turning lower**, which confirms a **firm bearish trend** on a broader timeframe. The significant gap between the price and these long-term MAs suggests that the index is in an extended correction phase.

Stochastic Oscillator (14, 1, 3)

- **K%:** 50.00
- **D%:** 83.33

The stochastic is emerging from oversold territory and shows a potential **bullish crossover**, but momentum remains uncertain. We'll need confirmation with price action closing above resistance levels to validate the signal.

Support & Resistance Levels

Key Resistance:

- **344** - 30-day SMA
- **350–354 zone** - previous consolidation and psychological barrier
- **367–380 zone** – confluence of broken support and declining MAs

Key Support:

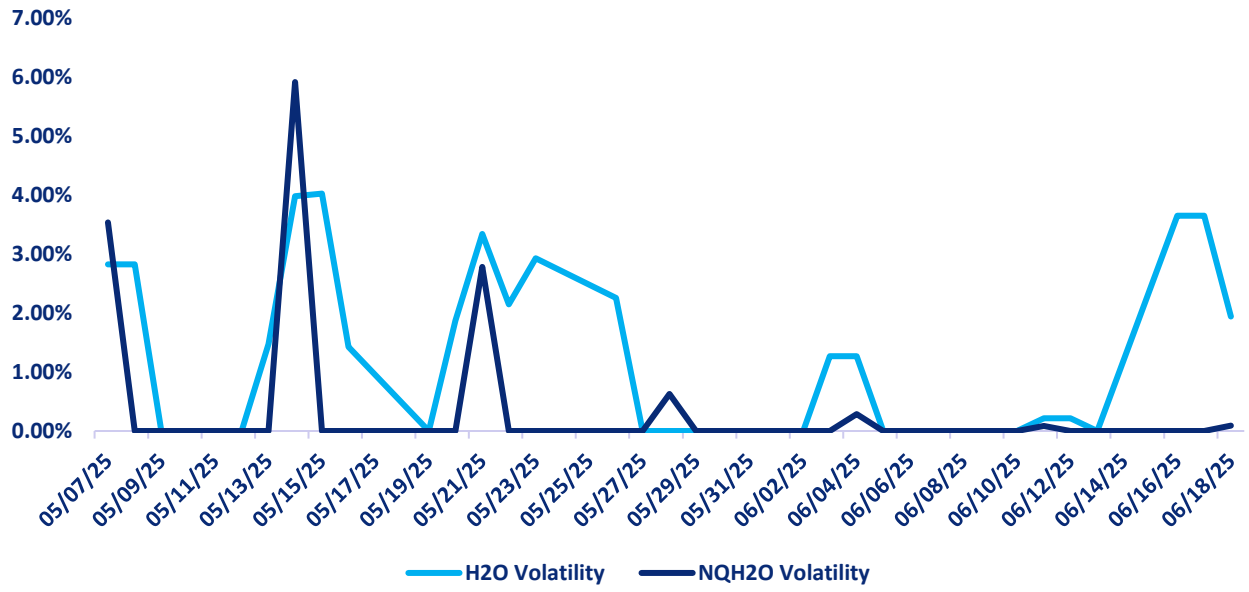
- **325–328 zone** - recent swing lows
- Below that, a breakdown could test the **$300 psychological level**

Summary & Key Takeaways

- **Short-Term Outlook:** Weak but potentially stabilizing if the stochastic crossover confirms.
- **Medium-Term Outlook:** Bearish below 344. Price needs to reclaim 354+ to neutralize momentum.
- **Long-Term Outlook:** Firmly bearish. All major long-term MAs are well above the current price and sloping downward.
- **Action Watch:** Bulls need a confirmed breakout above the 30-day SMA (344) for any recovery attempt to be credible. Bears are in control until that level is cleared.

H2O FUTURES AND NQH2O INDEX VOLATILITY ANALYSIS

Daily H2O Futures Volatility vs Daily NQH2O Index Volatility



DAILY VOLATILITY

Over the last week the June contract daily future volatility high has been 3.65%.

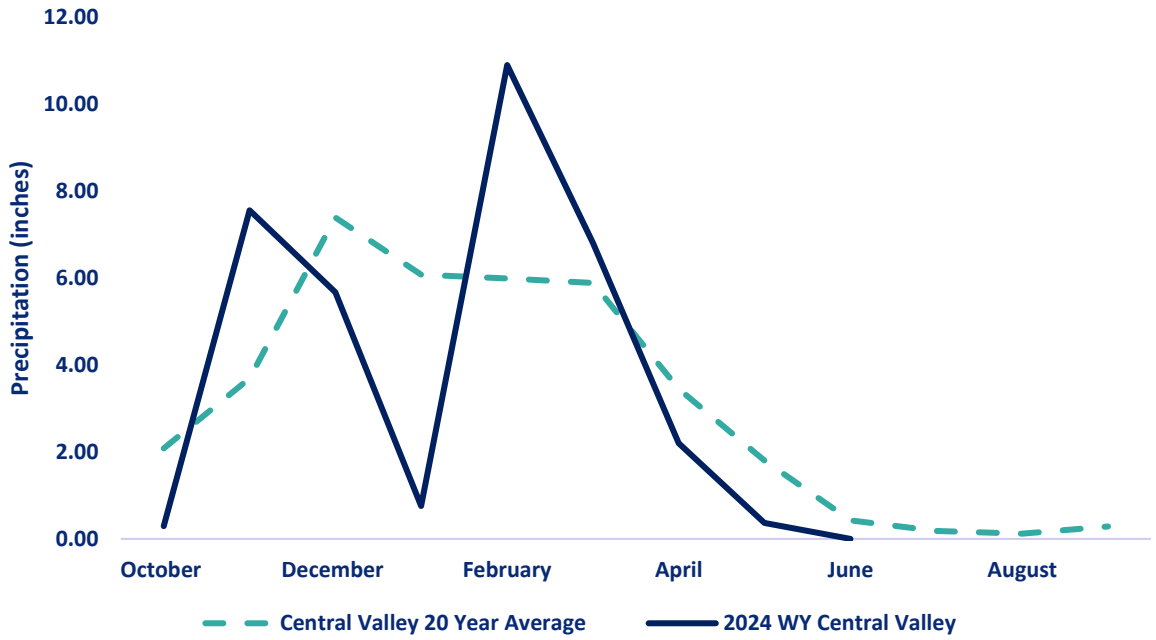
ASSET	1 YEAR (%)	2 MONTH (%)	1 MONTH (%)	1 WEEK (%)
NQH2O INDEX	**22.34%**	**8.12%**	**0.32%**	**0.01%**
H2O FUTURES	N/A	**14.07%**	**7.15%**	**6.43%**

For the week ending on June 18th, the two-month futures volatility is at a premium of 5.95% to the index, down 0.15% from the previous week. The one-month futures volatility is at a premium of 6.83% to the index, up 2.10%. The one-week futures volatility is at a premium of 6.42% 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 18/06/2025

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%	84	68
TULARE 6 STATION (6SI)	0.06	0	34.33%	82	83
NORTHERN SIERRA 8 STATION (8SI)	0.01	0	1.29%	91	106
CENTRAL VALLEY AVERAGE	0.02	0.00	5.52%	86	86

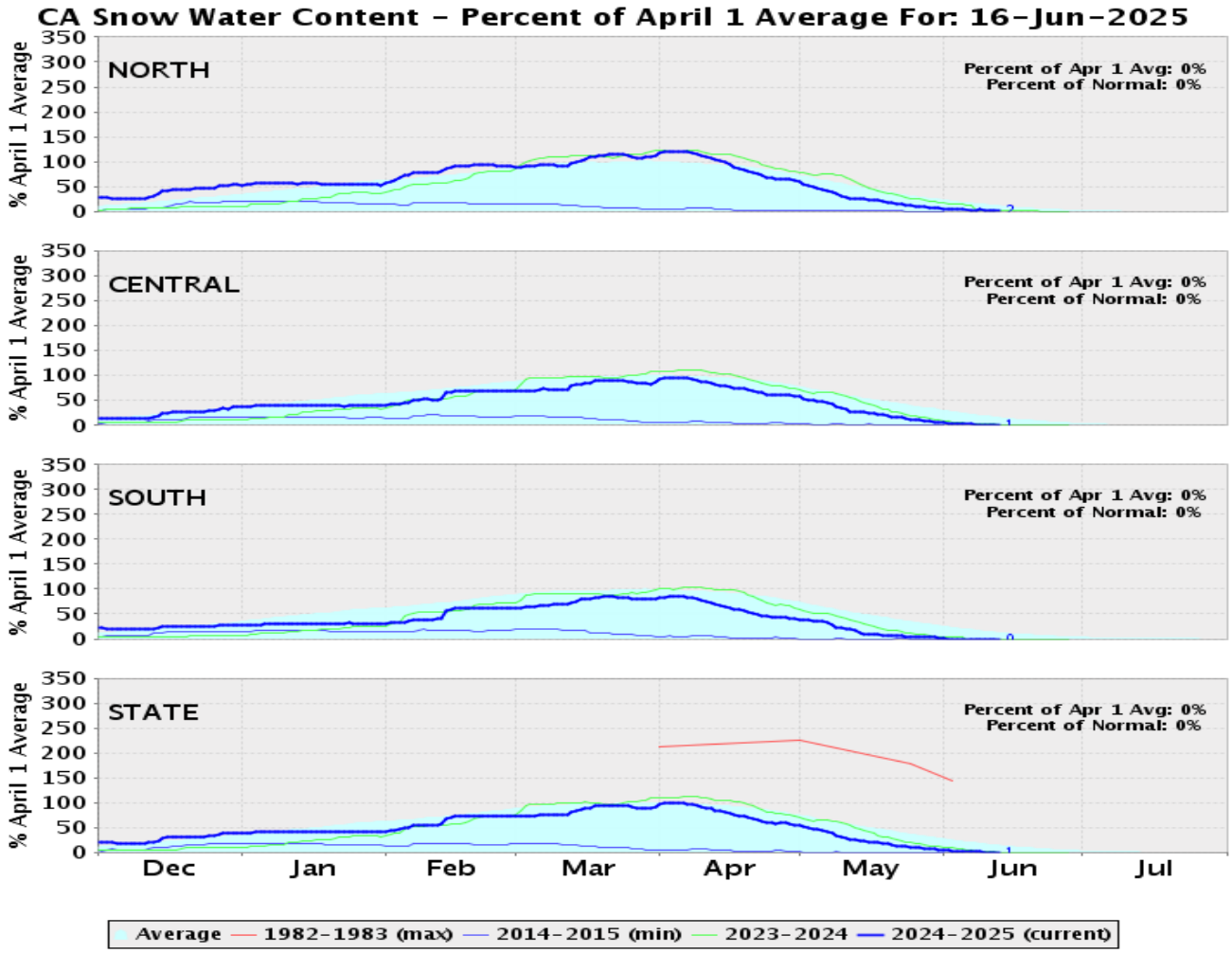
RESERVOIR STORAGE

RESERVOIR	STORAGE (AF)	% CAPACITY	LAST YEAR % CAPACITY	*% HISTORICAL AVERAGE
TRINITY LAKE	2,251,832	92	86	118
SHASTA LAKE	4,017,870	88	92	110
LAKE OROVILLE	3,365,070	98	102	122
SAN LUIS RES	1,138,668	56	54	91

*% 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	-0.3	18	18	2
CENTRAL SIERRA	0.2	-0.1	6	6	1
SOUTHERN SIERRA	0	0	0	0	0
STATEWIDE	0.2	-0.2	7	7	1

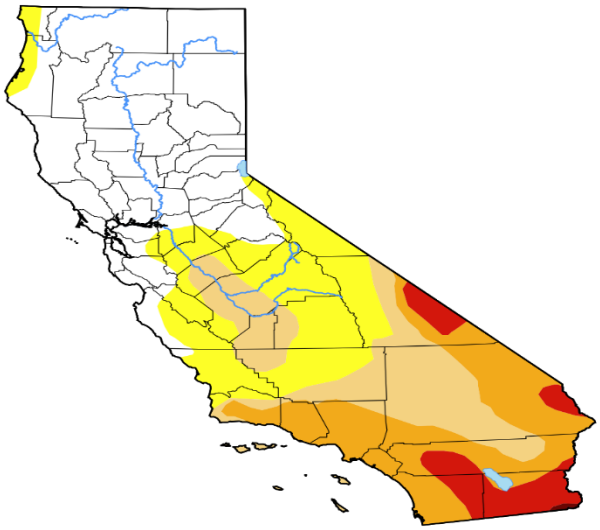
Snow Water Equivalent*, **or SWE**, is a commonly used measurement used by hydrologists and water managers to gauge the amount of liquid water contained within the snowpack. In other words, it is the amount of water that will be released from the snowpack when it melts. SWE has regional variance.**

**** 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. June 12, 2025
Data valid: June 10, 2025 at 8 a.m. EDT

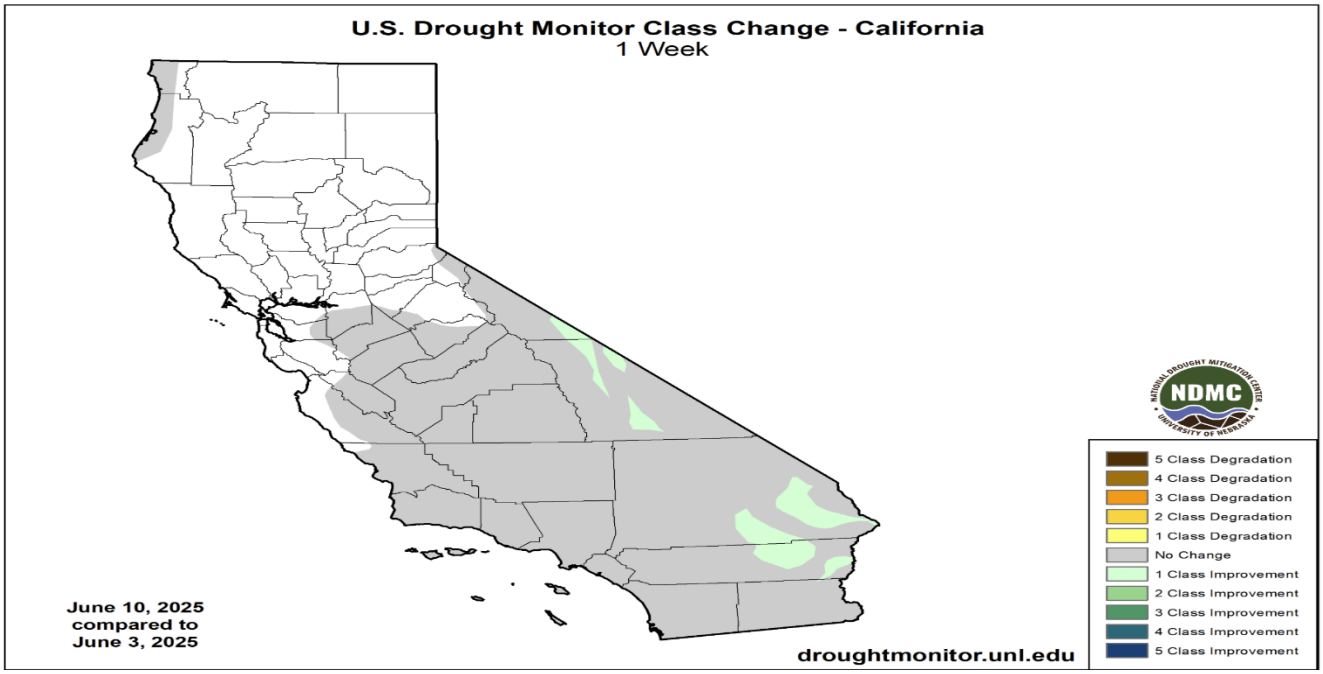
Intensity

- 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):
Lindsay Johnson, National Drought Mitigation Center

Pacific Islands and Virgin Islands Author(s):
Curtis Riganti, National Drought Mitigation Center



Week	Date	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
Current	2025-06-10	39.01	60.99	39.29	22.98	5.91	0.10	129
Last Week to Current	2025-06-03	39.01	60.99	39.81	24.73	7.11	0.10	133
3 Months Ago to Current	2025-03-11	41.78	58.22	41.58	24.83	14.75	0.73	140
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	2024-06-11	98.79	1.21	0.00	0.00	0.00	0.00	1

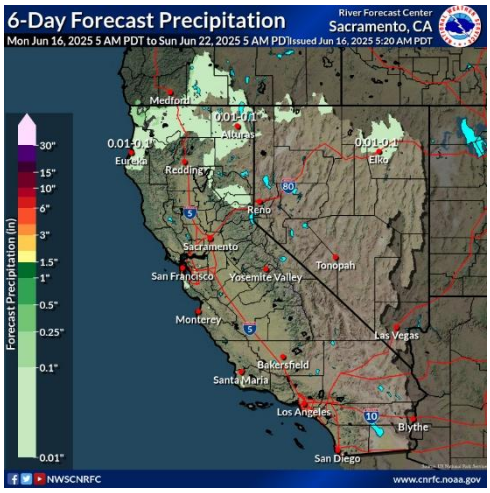
The U.S Drought Monitor is jointly produced by the National Drought Mitigation Center at the University of Nebraska-Lincoln, the United States Department of Agriculture, and the National Oceanic and Atmospheric Administration. Map courtesy of NDMC.

CURRENT SATELLITE IMAGERY

The satellite picture shows an unusually clear western and Midwest US. A large swirling storm system dominates the eastern US stretching from the east of Atlanta to Ottawa in Canada moving eastwards.

Map Ref: Zoom Earth

10 Day Outlook



In between these lows offshore, high pressure will build and shift towards the coast the rest of the work week as the southwest low hovers near Baja. By Friday afternoon, the ridge will be firmly overhead with 500 mb heights exceeding 590 dm. This will keep dry conditions over the region and bring well above normal (+10 to +20 deg F) afternoon temperatures. Overnight lows will also be well above normal by similar amounts through Saturday. Many locations across CA are already under heat related products (please see local WFO pages for heat risk/alert information). Into Sunday, a trough will move through the PacNW as the ridge shifts further inland. Troughing will dig into nrn CA/NV as well while the low offshore of Baja finally begins to move inland. This will provide some relief across the region with coastal areas back to near/below normal and afternoon temperature anomalies inland down to about +5 to +15 deg F.

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

WESTERN WEATHER DISCUSSION

The West saw a mix of drought relief and worsening conditions this past week, with the most notable improvements concentrated in the Southwest due to rare early June rainfall. Parts of western and central Arizona, southern Nevada, and southwestern California received between 1–2 inches of rain. Even light to moderate amounts made a big impact, leading to broad one-category improvements in drought severity. New Mexico's southeastern areas saw some improvement from the same rainfall that led to improvements in Texas. Elsewhere in the West, conditions were less favorable. The Intermountain West, including northern Utah, largely missed recent storms and saw continued drought deterioration. Montana faced some of the worst conditions in the region. Dry weather and below-normal snowpack led to expanding drought across the northwest and central parts of the state, raising concerns as the region enters the warmest part of the year with limited water reserves. The Pacific Northwest—covering Washington, Oregon, and Idaho—remained relatively stable this week, with no major shifts. However, dryness is quickly appearing across the region, where conditions will need continued monitoring.

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

WATER NEWS

CALIFORNIA WATER NEWS

How California's farmers can recharge the aquifers they've drained

In parts of California's Central Valley, so much groundwater has been pumped out of the ground to deal with the region's persistent drought that the land is starting to sink in. Underground aquifers — layers of sand, gravel, clay, and water — are vital resources that communities can turn to when surface water is scarce. But when more water is pumped out of aquifers than is put back in — as is happening in the southern part of the valley — it can cause the ground to slowly contract, like a drying sponge.

After studying this phenomenon, Rosemary Knight, a professor of geophysics at the Stanford Doerr School of Sustainability, became interested in identifying the fastest ways to replenish California's groundwater using managed aquifer recharge. This technique involves flooding a piece of land with excess surface water and allowing that water to seep through the ground and into aquifers, where it can be stored for later use. Armed with a massive electromagnetic dataset, Knight and a team of researchers set out to analyze sediment types below the surface in the California Central Valley and map out the quickest routes to refilling aquifers.

Their research, published last month in the journal Earth and Space Science, found that between 2 million and 7 million acres of land in the Central Valley are suitable for recharge — or between 19 and 56 percent of the valley's total area. Most of the rechargeable land is currently used to grow crops. Many farmers are enthused about the data, according to Knight — and keen to implement it. As climate change continues to exacerbate water challenges in California, her team's research points to how agricultural producers can help to ensure sustainable water access for all. "They want to be part of the solution," said Knight.

Since 2000, the U.S. Southwest has been in the driest 25-year period the region has seen in over a millennium, according to researchers at the University of California, Los Angeles, who found that climate change has supercharged these dry conditions. Part of the way rising global temperatures exacerbate water challenges is by increasing the evaporation of surface water, or water in rivers, lakes, and reservoirs. Scientists are also eyeing how climate change could impact snowpack in the Sierra Nevada mountain range, which forms a critical part of California's annual water supply every spring as it melts and moves into rivers and streams. In 2015, a multiyear drought in California led to an unprecedented decline in snowpack in the Sierra Nevada; researchers have also predicted that global warming could cause snowlines on the Sierra Nevada to rise towards the end of the century, meaning snow would only form at higher elevations, reducing the overall amount of snow on the mountain range.

Water is critical for the region because the Central Valley is an agricultural powerhouse, producing one-fourth of the nation's food, according to the U.S. Geological Survey. It's home to more than 250 different crops — from hay and cotton to rice and corn to tomatoes and olives. But the state's agricultural industry has also been blamed for depleting groundwater while wells run dry in nearby rural communities. Over the past two decades, groundwater levels in California have been steadily falling, despite aquifers being periodically recharged naturally by snowmelt and rainfall, according to a 2022 study in Nature Communications.

"Natural recharge was not keeping pace with the rate of extraction," said Knight.

In order to determine how water would flow through sediments below the ground, Knight and her colleagues used a large set of electromagnetic data acquired by the California Department of Water Resources. The data was collected by helicopters flying over the Central Valley in a grid formation, with flightlines spaced a few miles apart. Using special equipment that sends an electromagnetic signal into the ground, the choppers were able to determine how the current is conducted through layers of soil at a depth of up to 300 meters. Areas full of coarse materials like sand and gravel — where water flows seamlessly — can't conduct electricity easily.

By interpreting these results, the researchers were able to construct a 3D model of the subsurface and pinpoint "fastpaths" for water to travel down into aquifers.

This kind of information could be vital for regional California agencies, which have been instructed to develop plans for using groundwater more efficiently under the state's Sustainable Groundwater Management Act. The data that Knight and her colleagues produced — which they've made available online — can also help agricultural producers decide whether or not to implement groundwater recharge on their lands. Their analysis reveals which specific croplands are best suited for recharging aquifers (like the ones used to grow fruits, nuts, and field crops, as well as vineyards) and which aren't (those used for rice and citrus).

This level of soil data can help farmers make decisions about whether managed recharge is right for their land. "Growers really want to have confidence that if their land is being flooded for recharge, that water is going to very rapidly move below the ground surface," said Knight. Better guidance for agricultural producers has already been circulating; the Almond Board of California has been recommending groundwater recharge for a few years now and published an introductory guide for growers.

Christine Gemperle, a longtime almond grower who sits on the Almond Board of California, has flooded one of her orchards twice for groundwater recharge — and said she has seen numerous benefits beyond raising groundwater levels in her area. They include flushing gophers out of her fields (they love her cover crops, Gemperle said) and pushing salts that accumulate from irrigation further down into the soil. Although she wasn't able to do it this winter, due to dry conditions lowering the amount of surface

water available, she feels optimistic that this kind of data can empower other farmers to explore recharge. “There’s so much opportunity,” she said.

Like many farmers in the state, Gemperle already had access to canals that transport water from a reservoir to her fields for irrigation. This made recharge fairly straightforward: When she saw the canals were full of water during a particularly wet year, she got permission from her local irrigation district to open the canal gates and flood her land. The prevalence of this kind of infrastructure is an advantage for California farmers interested in recharge, according to Shimon Anisfeld, a professor at the Yale School of the Environment focused on water management who was not involved in Knight’s study.

Managed recharge can provide some “environmental win-wins,” said Anisfeld. When farmers face wet winters and dry summers, recharge can help store excess surface water, making it accessible during the growing season. In certain instances, like when farmlands are restored into floodplains, aquifer recharge can also double as habitat restoration for wildlife.

Farmers are likely to be motivated to dedicate some of their land to aquifer recharge, said Anisfeld, especially if they can reap the benefits later.

Original Article: Resilience by Frida Garza/ Grist

Proposed new groundwater fee structure has Tulare County farmers crying foul

Tulare County farmers are incensed by a proposed new fee structure that they say will put the entire burden of state groundwater oversight across the San Joaquin Valley solely on their shoulders.

It costs the state Water Resources Control Board about $5.5 million a year to oversee six basins in the San Joaquin Valley that have been found to have inadequate groundwater plans as part of the Sustainable Groundwater Management Act (SGMA).

Two of those subbasins have been placed on probation, under which farmers are required to pay fees to reimburse the state for those oversight costs.

“We’ve got to push back somehow. This is getting ridiculous.”

Bill DeGroot, a Pixley GSA board member.

One of those subbasins has, so far, escaped the fees pending the outcome of a legal action.

Farmers fear that could leave the Tule subbasin, in the southern portion of Tulare County’s flatlands, as the sole subbasin paying into the probationary fee kitty.

Right now, those fees include a $300-per-well annual registration fee plus $20 per acre foot pumped.

It’s the structure of the extraction fee that state staff are proposing to change.

At a June 11 online Water Board workshop, staff unveiled a new fee structure they say will repay state costs and protect small farmers.

Tule subbasin farmers say the proposed fee structure, expected to raise $6.6 million, is unfair.

“If they approve this fee structure, one subbasin will pay for the whole SGMA program, which is inequitable,” said Eric Limas, general manager of Pixley and Lower Tule River groundwater sustainability agencies.

Water Board staff said the board has been working with San Joaquin Valley subbasins for the past two years without any reimbursement from farmers, relying instead on the state’s general fund.

With California facing a $12 billion budget shortfall, that can’t continue.

Farmers will have to reimburse the state somehow and the new proposed fee structure is intended to protect small farmers, according to Natalie Stork, director of the Office of Sustainable Groundwater Management.

The proposal is to create a graduated fee structure corresponding with the amount of groundwater pumped.

It would start at $5 per acre foot for between two and 305 acre feet pumped in a year. There would be four more levels, each with a higher fee, to a maximum of $40-per-acre-foot pumped for those who extract more than 2,311 acre feet per year.

Stork said during the workshop the vast majority of pumpers in the Tule subbasin, 3,500 of 4,000 total, would fall into the $5 category, while only 34 pumpers would pay the $40 fee.

It’s anticipated the proposed pumping fee structure would bring in $6.66 million annually, which Stork said is the same amount as under the old fee structure.

Potential Revised SGMA Fees

Extraction bracket (ac-ft)	Proposed Volumetric Fee ($)	Extractors	Projected Revenue ($M)
2 - 305	$5	3,556	$0.07
306 - 667	$9	297	$0.42
668 - 1,175	$14	152	$1.11
1,176 - 2,311	$24	85	$1.9
Greater than 2,311	$40	34	$3.18
Total		4,124	$6.66

State Water Resources Control Board staff slide from June 11 workshop showing proposed pumping fee changes.

That seemed fair to one workshop attendee.

"(The fee proposal) reflects an equitable approach to fees based on water usage, since the flat fee has a disproportionate impact on small scale growers with incredibly thin profit margins," said Catherine Van Dyke of the Community Alliance for Family Farms.

The Water Board will be taking comments on the new fee proposal through June 25 with a vote scheduled Sept. 16. If approved, the new fees would apply going forward as well as to water pumped from Jan. 1 to Sept. 30, 2025.

Comments may be sent to: WaterRightsFees@waterboards.ca.gov.

The proposed fee changes went over like a lead balloon with farmers at the June 12 meeting of the Pixley GSA.

"It seems patently unfair to stick the entire cost of SGMA probationary program on one subbasin," Geoff Vandenheuvel of Milk Producers Council said of the fees, calling the plan "egregious."

"We've got to push back somehow," said Bill DeGroot, a Pixley GSA board member. "This is getting ridiculous."

The Tule subbasin was placed on probation in September 2024. Extraction reports for Tule pumpers are due Feb. 1, 2026 and fees will be due April 1, 2026.

Though the entire Tule subbasin was put on probation, two GSAs were immediately exempted from having to pay fees and report extractions. Those include the Delano-Earlimart and Kern-Tulare GSAs. The Lower Tule and Pixley GSAs have applied for exemptions as well.

Aside from the Tule subbasin, the Tulare Lake subbasin, which covers most of Kings County, was also placed on probation in 2024. Though an injunction that grew out of a lawsuit filed against the Water Board by the Kings County Farm Bureau put the fees on hold.

The state appealed that injunction, which may be decided by the 5th District Court of Appeal any time.

Other subbasins in the Water Board's probationary crosshairs include the Kern, which will go before the board Sept. 17, and the Delta-Mendota, which hasn't received a hearing date yet.

The Water Board canceled the Kaweah subbasin's probationary hearing at the beginning of this year in order to more fully study its latest groundwater plan. And the board recently found the Chowchilla subbasin had made such progress, it was taken off the enforcement track and sent back to the Department of Water Resources.

The goal of SGMA is to halt severe, chronic groundwater depletion and bring aquifers into balance by 2040.

Original Article: SJV Water by Lisa McEwen

Trump's quiet truce on California water

President Donald Trump promised to break California's water rules wide open. So far, he's mostly working within them.

Five months after Trump issued a pair of directives for federal agencies to overturn state and Biden-era rules limiting water deliveries, the federal government has done no such thing. Instead, it's quietly increasing water flows following the very rules Trump once railed against — at least for now.

It's a sharp contrast to Trump's otherwise confrontational posture toward California and climate policy. In just the last week, he rescinded the state's authority to phase out gas-powered vehicles and sent the National Guard into Los Angeles over Gov. Gavin Newsom's objections.

It's also a sharp contrast to Trump's campaign rhetoric, when he vowed to force Newsom to reverse a lawsuit blocking his first-term effort to loosen environmental protections in the state's main water hub, the Sacramento-San Joaquin Delta.

But Trump seems mollified now, declaring victory over the state at a White House event last week. The president brought up the familiar theme of water flowing out to the Pacific Ocean instead of being used in farms and cities, called it "ridiculous" and declared of the water: "We got them to take it now."

What's changed? For one, California had a wet winter, which tends to smooth over political differences. And the Trump administration suffered an early headline-grabbing debacle in February when it dumped summer irrigation water from Central Valley dams in a misguided effort to send it to fires in Los Angeles.

Newsom has also aligned himself more with Trump on water, as when he jilted Delta-area Democrats last month in pushing to expedite a tunnel to move more supplies from Northern to Southern California. More substantively, some of the water districts that might be expected to agitate for Trump to overturn Biden-era water rules concede that they actually allow more deliveries than Trump's version.

"Our goal really is to try and implement some of the adaptive management and other actions that are in the [Biden-era rules] that provide some flexibility to benefit water supply and the fishery as well," said Thaddeus Bettner, the executive director of the Sacramento River Settlement Contractors, a group of municipal and agricultural water districts in the northern Central Valley.

So even though Trump's January directives gave federal officials the option to redo the Biden-era rules, they haven't done that so far — avoiding both lawsuits and negative headlines. The January orders also directed federal water agencies to write a report within 90 days on how to deliver on Trump's promises, but the White House is keeping that quiet, as well, declining to release it publicly.

"Less than a month into his second term, President Trump turned on the water to prevent another tragedy like the recent California wildfires, and he has urged Democrats like Gavin Newsom to adopt policies that better maintain our nation's forests," White House spokesperson Anna Kelly said in an email. "He will continue to protect America's abundant natural resources, and updates to our water policy will come from him."

Environmental groups in the sensitive Sacramento-San Joaquin River Delta, however, aren't buying the quiet approach. They say the Trump administration is still violating endangered species rules, pointing to examples when federal officials pumped more water out of the Delta than state officials, killing or injuring protected species of salmon and trout in the process.

"Reclamation's behavior is cause for extreme concern for the health of the Bay-Delta and for the communities and people who care about and depend on this ecosystem," the groups wrote in a letter last month to state water officials.

There are a couple of opportunities coming up for Trump to make more of a splash. He has yet to nominate a Bureau of Reclamation commissioner, who could sway the agency one way or the other.

And on Tuesday, state and federal lawyers are due to update a judge on whether they want to continue the lawsuit Newsom lodged against Trump in 2020.

Water agencies that have been mostly laudatory of Trump are still restive. Westlands Water District's general manager, Allison Febbo, called the Trump administration's latest projected increase in summer water allocations, from 50 to 55 percent, "disappointing" given that reservoirs are filled to the brim.

"The operations quagmire that has contributed to the self-inflicted water crisis we have in this state, and reconfirmed by the Biden administration before leaving office, are still

wreaking havoc on the water projects," Johnny Amaral, chief of external affairs at the Friant Water Authority, said in a text message. "Every minute that goes by is a lost opportunity to end the crisis, and the clock is ticking."
Original Article: Politico by Camille Von Kaenel

Lake Oroville begins process of slowly draining

After sitting near capacity for almost a month, Lake Oroville is beginning to slowly creep back down in water elevation as the California Department of Water Resources steadily increases outflows.
Lake Oroville was reported at 896.35 feet in elevation Monday and will likely lower more in the weeks to come. DWR spokesperson Raquel Borrayo said the lake was once again bolstered by a wet and snowy winter.
"Thanks to above-average precipitation and average snowpack levels in the northern Sierra for the last three years, water levels at Lake Oroville have been peaking in May and June and then slowly declining to their low point around November," Borrayo said.
Borrayo said the higher releases are sent into the Feather River, though some of the water remains local.
"Some water released from Lake Oroville is distributed locally for agriculture benefits, while the remaining Feather River releases flow south through the State Water Project system to reduce salinity effects in the Delta, provide irrigation for crops in the Central Valley, and eventually make their way to Southern California," Borrayo said.
On Monday, inflows into Lake Oroville were estimated at 3,000 cubic feet per second.
At the Lime Saddle Recreation Area, Jack Wrobel and Matt Gerspacher were prepping their boat to head out onto the lake. Both men said they were glad the lake had remained near capacity as long as it did this year.
"It's been a pretty year," Gersbacher said. "A pretty good couple of years actually."
"The bass fishing is unbelievable around here," Wrobel added. "It's just getting better and better. Everything is working out just fine down here. We love it."
Borrayo said releases will continue in compliance with the State Water Project.
"Water released from Lake Oroville supports local agriculture, business and communities throughout the state and helps meet regulatory requirements and repel salinity intrusion in the Delta," Borrayo said.
Original Article: Enterprise Record by Jake Hutchison

California lawmakers defer governor's Delta tunnel proposal

State lawmakers have declined, for now, to go along with Gov. Gavin Newsom's proposal to fast-track a controversial tunnel to reroute water through the Sacramento-San Joaquin River Delta.

What happened: The Senate and the Assembly passed a budget proposal Friday that did not include a trailer bill proposed by Newsom that would shorten judicial review of lawsuits challenging the tunnel, streamline its pending water rights permit and give the state financing authority for the project. The Legislature, however, hasn't ruled out passing the fast-tracking proposal later in the session.

More context: A version of the proposed project has been floating around — first as a canal, then a pair of tunnels — for more than a half-century, during which it has reliably brought out opposition from environmental groups and Delta elected officials concerned about habitat loss and construction impacts.

Newsom has called the $20 billion, 45-mile-long tunnel through the Delta — now known as the Delta Conveyance Project — a centerpiece to the state's climate adaptation efforts as it stares down an expected 10 percent reduction in water supplies by 2040. He has said he wants to finish the project's permitting by the end of his term in early 2027.

Original Article: E&E News by Camille Von Kaenel

US WATER NEWS

A Lake Mead's worth of groundwater has vanished from Colorado River Basin

The water beneath our feet that we use to bathe, drink and water crops is vanishing faster than ever in the Colorado River Basin, according to a new study.

From Arizona State University researchers, the study of satellite images has found that an amount of water comparable to Lake Mead has been lost from the ground in the period studied from April 2002 to October 2024. That's roughly twice as fast as water on the surface.

Original Article: Havasu News by Alan Halay

A $20 billion effort: Here's what Texas lawmakers did to save the state's water supply

"A $20 billion effort to avoid calamity: Here's what Texas lawmakers did to save the state's water supply" was first published by The Texas Tribune, a nonprofit, nonpartisan media organization that informs Texans — and engages with them — about public policy, politics, government and statewide issues.

Subscribe to The Y'all — a weekly dispatch about the people, places and policies defining Texas, produced by Texas Tribune journalists living in communities across the state.

Texas lawmakers took steps big and small to help save the state's water supply.

A big one: investing $20 billion in water projects over the next two decades. A small one: banning homeowners' associations from punishing residents who don't have bright green lawns.

The state's water supply is in peril. Legislators saw this year as their last chance to invest before the state faces calamity. Rapid population growth, aging infrastructure and extreme climate events like drought and flood have put pressure on the state's lakes and rivers. A Texas Tribune analysis found that cities and towns could be on a path toward a severe water shortage by 2030 if there is recurring, record-breaking drought conditions across the state, and if water entities and state leaders fail to put in place key strategies to secure water supplies.

"One of the great things about the legislative session around water is it is more of a bipartisan issue," said Jennifer Walker, director for the Texas Coast and Water program with the National Wildlife Federation. "And there's a great community of folks working together to find solutions."

Texas lawmakers have pledged $20 billion over the next two decades to help the state manage its water supply. Voters will be asked to approve that commitment in November.

Here's a look at some of the actions lawmakers took on water.

Wins for local water supply

A significant victory was House Bill 29 by Rep. Stan Gerdes, R-Smithville, which targets water loss in large utilities with over 150,000 service connections. The bill requires regular water loss audits, external validation of the data, and the development of mitigation plans. Utilities that fail to comply face administrative fees.

"We need to make sure that we are using the water supplies that we already have as efficiently as possible," Walker said.

A recent report by the National Wildlife Federation found that 516 water utilities plan to save over 270,000 acre-feet of water per year by 2034 — enough water to meet the annual water needs of 1.7 million Texans — through conservation strategies like leak detection and minimizing water loss.

Another bill, House Bill 517 by Rep. Caroline Harris Davila, R-Round Rock, prohibits homeowners' associations from penalizing residents for having brown or dormant lawns when water use is restricted. This bill would ensure that homeowner associations participate in water conservation measures. It was signed by the governor and goes into effect Sept. 1.

One bill by Sen. Juan "Chuy" Hinojosa seeks to address flood mitigation and drought concerns. Senate Bill 1967 expands what kinds of projects that can be awarded money from the flood infrastructure fund. Starting Sept. 1, money will be eligible for projects that construct multi-purpose flood mitigation systems and drainage infrastructure

systems to use flood, storm and agricultural runoff water as an additional source of water supply once it's treated.

This bill will be especially helpful in South Texas, where there is ongoing drought and a rapidly growing population. The Delta Region Water Management Project, which Chuy discussed during legislative hearings, aims to address its water problems by capturing and treating water.

Senate Bill 1253 by Sen. Charles Perry, R-Lubbock, requires local subdivisions to provide credits for water and wastewater impact fees, which are one-time charges to a company developing in an area. The fees will be waived for new developments that incorporate conservation and reuse strategies. The goal, Walker said, is to encourage smarter growth that puts less of a strain on existing water infrastructure. This bill is awaiting the governor's signature.

Protection for groundwater

Lawmakers approved $7.5 million to support groundwater conservation districts in collecting better data and conducting scientific research. Groundwater — water that is trapped between rock formations under ground — makes up more than half of Texas' overall water supply. The state water plan projects a decline by 32% by 2070, which will make water even more scarce for communities that depend on groundwater.

The Texas Water Development Board, the state agency that oversees Texas' water supply and funding, will administer grants to local groundwater districts — particularly those with limited budgets — to carry out projects focused on groundwater modeling, data collection, and science-based planning. Vanessa Puig-Williams, senior director of climate resilient water systems at Environmental Defense Fund, said Texas lacks localized data that helps groundwater districts understand how to manage and plan.

Original Article: Yahoo News/ Corpus Christi Caller Times by Jayme Lozano Carver and Alejandra Martinez

NADBank approves $400 million for water conservation and diversification projects

The North American Development Bank has agreed to allocate US $400 million to finance water conservation and diversification projects in the U.S.-Mexico border region. The decision was agreed by the bank's board of directors at their recent semiannual meeting in Ciudad Juárez, Chihuahua, and was taken in response to prolonged drought conditions throughout the U.S.-Mexico border region.

"The Rio Grande River is facing severe water shortages from prolonged drought and outdated infrastructure. The two southernmost counties in Texas have declared emergencies due to dwindling supplies," John Beckham, NADBank's managing director, told the *Rio Grande Guardian International News Service*. "With the new Water

Resiliency Fund, NADBank will invest in conservation and diversification projects for local, regional, and binational stakeholders, offering critical relief."

Beckham said NADBank will welcome input from the public on the Water Resilience Fund (WRF) during a 30-day public comment period, after which the Board will consider its final approval.

Through the WRF, Beckham said, NADBank will allocate up to US$100 million in retained earnings over the next five years for concessional financing, as well as make up to US$300 million available for low-interest loans from its established lending resources. He said NADBank may also supplement these instruments with market-rate financing to further expand the reach and impact of available resources.

The creation of WRF is the latest action taken by the NADBank Board of Directors to enable the Bank to invest in infrastructure that addresses critical water shortages across the region, Beckham explained. He said that through innovative financial tools such as this fund, NADBank seeks to boost efforts that promote water conservation and diversification, as well as close infrastructure gaps in access to basic water and wastewater services.
"This approach is designed to strengthen the overall investment ecosystem and accelerate the implementation of high-priority water infrastructure projects," Beckham said. "Available resources will be allocated equally between the U.S. and Mexico to ensure equitable distribution of support across the border region."

Beckham also noted that "the initial phase of WRF financing is expected to prioritize projects that address urgent drought-related needs in the agriculture sector."
The Board also held a hybrid public meeting with approximately 100 people attending in person or via videoconference. Representatives of border communities, public and private stakeholders, project developers and non-governmental organizations shared their comments on environmental issues and proposed projects for their communities.
Original Article: Rio Grande Guardian by Luis Montoya

The truth about how groundwater regulations affect land values

Water. Water. Water.
It's the key to everything in agriculture and, ultimately, to international food security. That's why, in the face of long-standing drought in regions across the country, groundwater depletion is such an unparalleled concern.
Nebraska is among the most irrigated states in the country, with the ability to irrigate crops and pastures on nearly 9 million acres. Although the state is blessed with abundant

groundwater, the intense management of groundwater resources through Nebraska's unique system of 23 Natural Resources Districts is credited with preserving that resource for generations to come.

Irrigators may not always like restrictions, but they understand the need to preserve groundwater resources. Staying within these limits requires precision monitoring and management — and sometimes a change in the way farmers plan their crop rotations.

As an example

That's why the way Nebraska regulates and manages groundwater resources serves as a model for many other states struggling with irrigation, managing drastic groundwater decline and the economic impacts these conditions have on agriculture.

A recent yet-to-be published study, "Economic Impact of Groundwater Regulation in Nebraska: A Hedonic Price Analysis," was supported by USDA. The Daugherty Water for Food Global Institute shared a blog in March highlighting preliminary study findings.

This study looked at two common water regulations enforced by NRDs and their impacts on farmland values.

The study collected data on the evolution of groundwater regulations through NRD policy and interviews with NRD staff. Researchers matched data between 2005 and 2021 on farmland sales with groundwater rights to indicate irrigated or dryland status of the land, along with weather and soil.

The idea was to see how farmland values changed over time, and how groundwater regulations —specifically, new well moratoriums and groundwater irrigation allocations — affected those changes.

Crystal Powers, Nebraska's water and cropping systems Extension educator, defines the well moratorium as "a limit on adding new groundwater wells." Powers says that allocations are "a limit on the total amount of water than can be pumped for irrigation," generally over a specific time period.

"Not all NRDs in Nebraska currently impose allocations, as this is dependent on local hydrology needs," says Renata Rimsaite, one of the study's authors. "The study findings may inform decision-makers in those NRDs that are considering implementing allocations due to reduced groundwater levels.

"Having more information about the potential impact of regulatory tools," she adds, "is helpful for water users, water managers and those tasked with ensuring groundwater sustainability from the regulatory side."

Southwest was first

The Upper Republican Natural Resources District is based in Imperial, Neb., covering Chase, Dundy and Perkins counties. This massive region consisting of 1.1 million irrigated acres in Nebraska's portion of the Republican River Basin in the arid southwest represents the largest area of regulated groundwater use in the eight states that lie over the Ogallala Aquifer.

The district has maintained a groundwater level measurement database for more than 400 irrigation wells, measured twice annually, going back 53 years.

This is ground zero for regulations such as allocations and moratoriums on drilling. Today, irrigators within the district operate with a five-year groundwater allocation of 62.5 inches, or roughly 12.5 inches each year — 43% less than the first allocation was when it was implemented in 1979.

"Some farmers introduce lower-water-use, small-grain crops into the more traditional corn-on-corn or corn-soybean rotation," says Jasper Fanning, URNRD general manager. "Use of drought-tolerant corn varieties is common, as are variable seeding rates that incorporate differing moisture-holding capacities of soils across a field to increase water use efficiency."

Fanning says strip tillage is most prominent, but no-till is gaining.

"The areas that experience the sharpest [groundwater level] decline rates have a high density of irrigated land that was mostly developed before the district had the ability to control development," he says. "Our focus is to slow the rate of decline, which we have been able to do through programs and incentives we have in place for our water users."

Here's what the study found:

Moratorium on new wells. The economic impact study found a 9% drop in dryland farmland values, an average loss of $200 per acre at inflation-adjusted prices, on parcels after a new well moratorium was implemented. "This is likely because dryland parcels facing well moratoria lose the potential for developing the land for more productive irrigated agriculture in the future," study authors wrote.

Groundwater allocations. Water allocations seemed to have no impact on farmland values. "It could be that the inherent flexibility of this regulation allows farmers to continue irrigating their crops," the study said, "without facing significant losses in crop productivity while also meeting regulatory norms."

The study concluded that neither regulation had significant impact on farmland values on land where irrigation already exists, so it is noted that regulations are already part of the equation on these parcels, so that is most likely why the effect is insignificant.

Original Article: Farm Progress by Curt Arens

Lawmakers tamp down proposed Oregon water fee increases

Lawmakers have scaled back the fee increases proposed for many Oregon water rights transactions, though they're still likely to get considerably more expensive. As originally proposed, House Bill 2803 would have hiked fees by 135% for water rights transactions overseen by the Oregon Water Resources Department, which agriculture organizations strongly opposed as "exorbitant" and "astronomical." By dedicating $1.3 million in general funds to help cover an OWRD budget shortfall, lawmakers have tamped down the proposed fee hikes to about 50% without forcing the agency to lay off any water

rights administrators. The agency was facing a budget deficit primarily due to its costs per employee rising substantially in recent years, but hopefully fee increases of a similar magnitude won't be necessary again anytime soon, said Rep. Mark Owens, R-Crane. "The cost to provide services for the government has gone up a lot faster than the revenue stream," Owens said during a recent legislative hearing on HB 2803. As many common water rights transactions already involve $6,000-$7,000 in fees, the planned increase of 50% is "still really big," he said. The amended version of HB 2803 is being reviewed by the full budget-setting Joint Committee on Ways and Means after recently winning the approval of a key natural resources subcommittee. Rep. Vikki Breese-Iverson, R-Prinveville, was the sole lawmaker to vote against the bill and other water-related proposals before the committee, saying she's troubled by the trajectory of rising fees for agricultural water users. "The fee increases that were proposed, that puts my farmers and ranchers out of business," she said. "I'm questioning why my industry is getting hit so hard." Apart from the water rights transaction fees, the subcommittee approved raising certain fees associated with well drilling by 10% to 40% and passed a $245 million budget for OWRD's upcoming 2025-27 biennium. Though the $245 million budget represents a 13.7% decrease from the agency's previous biennial budget, much of that reduction is due to the expiration of one-time funding aimed at water supply projects. Aside from that reduction, the approved budget represents a 6% increase over what's necessary to maintain OWRD's current service level. Along with proposed policy bills intended to streamline agency procedures, the budget will help OWRD make progress in reducing backlogs of water rights transactions, said Ivan Gall, the agency's director. "The long-term return on this investment is going to be noticeable," he said. The subcommittee's co-chair, Rep. Emerson Levy, D-Bend, said she'd prefer if the agency had a stronger level of confidence about improving its efficiencies. "I would like a different word than 'noticeable' — 'significant' would be better," she said. Gall responded that he'd love to vow that progress will be significant but that certain factors are outside of the OWRD's control. "The number of applications coming in the door is one thing we can't anticipate," he said.
Original Article: Capital Press by Mateusz Perkowski

GLOBAL WATER NEWS

India Faces Groundwater Crisis Amid Rapid Urban Growth

India is confronting a deepening water crisis as rapid urbanisation and erratic climate patterns push groundwater reserves to dangerous lows. While cities like Bengaluru reel under water shortages despite heavy monsoon rains, experts warn that these urban struggles reflect a nationwide emergency—one that demands urgent structural reforms in how groundwater is governed and protected.

Bengaluru, one of India's fastest-growing urban centres, witnessed its wettest May on record this year. Yet, water scarcity remains a daily reality for millions, particularly those living on the city's peripheries who rely on borewells and private tankers. The irony of floods and dry taps has become a hallmark of India's fractured approach to water management.

Groundwater currently sustains over 60% of India's agricultural irrigation and more than 80% of its rural drinking needs. However, a 2024 report by the Central Groundwater Board revealed that India is extracting water at rates that far exceed natural recharge. Out of approximately 7,000 groundwater blocks studied, 11% are categorised as "over-exploited", while another 3% are "critical". This mounting stress is driven by a combination of growing population pressures, urban sprawl, intensified farming, and industrial expansion.

Historically, India's approach to groundwater has been shaped by colonial-era legal frameworks that now prove woefully inadequate. The Indian Easements Act of 1882 treats groundwater as a private property right linked to land ownership. This outdated model reinforces socio-economic inequities, favouring landowners—mostly upper-caste men—while marginalising women, landless labourers, and lower-caste communities who form the backbone of India's agrarian economy and domestic water work.

Attempts to reform this system have yielded limited success. Model Groundwater Bills introduced in 1992, 2005, and 2016 aimed to offer regulatory frameworks but failed to shift the paradigm from land-linked entitlements to public stewardship. These laws largely adopt a reactive stance, addressing crises only after aquifers have been depleted, instead of ensuring long-term sustainability. Furthermore, they fail to consider critical regional variations in hydrology, rainfall, and socio-economic context—particularly in under-tapped states in the east and south.

Another major shortcoming is the near-absence of ecological considerations. Aquifers are not infinite reservoirs but dynamic ecosystems. Their over-extraction disrupts biodiversity, threatens rivers, and undermines long-term water security. As India grapples with the accelerating impacts of climate change, the need to prioritise source sustainability over short-term water supply has never been more urgent.

Environmental and water governance experts are calling for a fundamental reorientation of policy. Groundwater must be treated as a shared public trust, with the state bearing the responsibility of equitable allocation and conservation. Decentralisation, along with enhanced roles for local governments and water-user associations, could enable more context-sensitive and participatory management. A rights-based, inclusive approach that gives voice to women and marginalised groups is essential for equitable distribution.

Urbanisation adds a critical layer to the crisis. Cities continue to expand without integrated planning for water infrastructure. As surface water sources dry up or get

polluted, urban areas increasingly depend on overburdened aquifers. Without reforms, this urban-rural competition for water could intensify social tensions and threaten economic stability.

India stands at a crossroads. Without bold, inclusive, and environmentally grounded reforms, the country's aquifers may continue to dwindle—fuelled by the very growth they once supported. Shifting focus from extraction to regeneration, and from ownership to stewardship, may be the only way to secure India's water future in an era of climate uncertainty.

Original Article: Urban Acres by Urban News

Officials celebrate dramatic rise in critical water source after prolonged drought: 'We expect the inflow to increase further'

Officials in India are celebrating a big win after a major reservoir in Tamil Nadu has undergone a massive rise in water level, thanks to significant rains in the region.

According to Hans India, Water Resources Department officials in the Erode district of Tamil Nadu said the Lower Bhavani Project Reservoir has risen sharply in recent weeks, thanks to intense rainfall in catchment areas.

According to WRD officials, the water level had risen to 70.38 feet as of May 25, after receiving 4,792 cubic feet of water per second that weekend.

All told, the reservoir held 11.11 billion cubic feet of water as of May 25. And officials don't see an end to the rise coming quite yet.

"We expect the inflow to increase further on Sunday and Monday, considering the heavy to very heavy rainfall forecast by the India Meteorological Department (IMD) for Nilgiris and Coimbatore districts," said a senior WRD official, per Hans India.

While the reservoir isn't close to full yet — its full level is 105 feet — its sudden rise has to come as a relief to farmers who rely on it to help grow their crops. The region has been mired in a prolonged drought, severe enough that the WRD restricted water use from the reservoir to just what was needed to meet drinking requirements in the area.

However, the reservoir's meteoric rise after its dip is concerning, as well. As our planet's climate changes due to pollution from oil, natural gas, and other sources of dirty energy, our weather patterns become less and less predictable and more severe. That means periods of prolonged drought followed by severe storms, which can lead to flooding, landslides, and other issues.

The Lower Bhavani Project Reservoir isn't the only one to see its levels make a significant surge in recent months. California's reservoirs are hitting historic highs, thanks to high levels of rain and snowmelt, while Catalonia, Spain, has also seen similar rises after prolonged drought. Istanbul has seen a surge in its reservoirs' water levels as well, after a two-year decline.

Ultimately, the increase in usable, drinkable water is a win for Tamil Nadu and its people, who are hoping to use it to irrigate crops again soon.
Original Article: The Cool Down by Sam Westmoreland

UK enters summer with low river flows, reservoirs and groundwater despite recent rain, says UK Hydrological Summary

Despite recent wet weather, the UK is entering the summer with depleted river flows, reservoir and groundwater levels, as well as dry soils, according to the latest UK Hydrological Summary, published Friday 13 June, 2025.

Following the driest spring in England for 132 years, some reservoirs in Yorkshire and the north west of England (which are officially in drought) and parts of Wales were 20-30% below their average capacity at the end of May. Over 20 rivers across Britain had record low average flows for the spring.

River flows in eastern Britain, and southern and central England are now mostly notably or exceptionally low, as shown on the UK Water Resources Portal.

With the Met Office forecasting that the UK is likely to experience a hotter-than-normal summer, there is unlikely to be significant change in the water situation over the next three months unless there is exceptionally high rainfall, according to **Jamie Hannaford**, hydrologist at the UK Centre for Ecology & Hydrology (UKCEH), who commented:

"We have seen a remarkably dry spring, following on from a dry winter in parts of northern Britain. Spring river flows were lower than in the equivalent time in notable drought years such as 1976 and 1984 and current reservoir levels for England and Wales are the lowest in early summer for at least 30 years.

"With the summer weather forecast uncertain and higher evaporation in warmer temperatures, there is unlikely to be a significant change in the water situation over the next three months unless we see exceptional rainfall."

In addition to the Summary, the UK Hydrological Outlook, providing a forecast for June-August, was also published this week. Highlights from both monthly reports produced by UKCEH with partner organisations, are below with a quote.

Current situation:

- Spring as a whole was exceptionally dry across the UK. May rainfall was above average in parts of north-west England and western Scotland, but it was a very dry month elsewhere, particularly across southern England.
- Average flows for May were generally below normal to exceptionally low across Britain. There were record low flows for May in many rivers including the Aire, Waveney and Yscir (in records dating back at least 50 years).
- Groundwater levels for May were below normal across many aquifers, with record low levels in some boreholes.

- The volume of water in England and Wales' reservoirs was the lowest for the start of the summer (in a record from 1990). Levels in some reservoirs in Yorkshire – where drought was declared this week – were 20-30% lower than usual at the end of May, with similar deficits in the north west of England and parts of Wales (see table on page 10 in the Hydrological Summary).
- Environmental impacts of the dry weather included: wildfires, localised fish rescues and algal blooms.

Summer forecast (June-August) from the Hydrological Outlook:

- The latest Met Office forecast (27.05.2025) indicates the chance of a wet or dry summer are 'evenly balanced'
- There are likely to be normal river flows in northern Britain over June-August, but below normal in eastern, central and southern areas of the country, with flows in some catchments likely to be notably or exceptionally low.
- For groundwater, the outlook for June-August is for normal to below normal levels across the country.

Original Article: Water Magazine

Cambodia moves to groundwater regulation amid rising water security concerns

Cambodia is heavily dependent on its groundwater resources, which serve as a vital source for rural and urban water supply, irrigation and industrial use, with over 50 percent used for drinking in the dry season. Excessive extraction of groundwater with a lack of strong regulatory frameworks pose serious challenges to the country's future water security.

A national dialogue took place in Siem Reap on June 11, 2025, co-organized by Department of Water Supply and Sanitation (DWSS) under Ministry of Water Resources and Meteorology (MOWRAM), Stockholm Environment Institute (SEI) and Asian Institute of Technology (AIT). The platform brought together government officials, researchers, civil society representatives and development partners to discuss solutions and promote sustainable groundwater management.

Dr. Chayanis Krittasudthacheewa, SUMERNET & MTT Programme Director and Deputy Director of SEI Asia, highlighted the urgency of developing a national groundwater management framework to guide Cambodia through the increasing challenges of climate change and limited water resources due to excessive extraction.

Groundwater governance in Cambodia remains challenged, fragmented and with limited regulatory framework and institutional capacities. Recognising this gap, the MoRAM has taken very important steps in initiating the development of a national groundwater management framework for the first time in the country.

Dr. Chayanis Krittasudthacheewa, SUMERNET & MTT Programme Director and Deputy Director of SEI Asia

So far, three rounds of consultations have been held to gather input for the framework, which is still in draft form. Dr. Chayanis stressed that the initiative aims to strengthen the science-policy interface, encourage inclusive governance, and enhance resilience through regional cooperation and policy-relevant research.

Original Article: SEI by Chayanis Krittasudthacheewa

Solving the water sector's toughest challenges with spatial intelligence

Australia's water utilities are facing more pressure than ever. With climate extremes intensifying and infrastructure ageing, the systems that deliver our most vital resource are being pushed to their limits. Meanwhile, expectations around sustainability, compliance, and service reliability continue to rise.

These challenges aren't new, but they've now put the water sector at a crossroads. The question is no longer *if* the sector needs to adapt, but *how*. The answer lies in how well water utilities can connect people, systems, and data and understand how location ties it all together.

But understand how utilities can adapt, we first need to unpack the pressures they're facing.

What's putting pressure on water utilities?

Regulatory pressure

Compliance has always been a necessity, but tighter environmental standards, evolving safety regulations, and increasing scrutiny are making it harder to achieve. Utilities must now show that they're thinking ahead by managing risk, protecting catchments, and being transparent about how they operate.

Operational risks and business complexity

Managing water, wastewater, and stormwater networks across vast and often remote service areas has always been difficult. Our current water systems weren't built to meet the current demand so issues like unplanned outages and service disruptions can escalate quickly.

Disjointed systems

Most water utilities data is siloed across different platforms, teams, and formats. Asset registers, customer databases, and maintenance logs exist but they are rarely connected, making it hard to understand what's happening in the field and make confident decisions.

Resource constraints

There's a growing gap between what needs to be done and the resources available to do it. Supply chain delays and a shortage of skilled workers are making it harder to repair, maintain, and upgrade infrastructure on time.

Cost pressures

Utilities are expected to deliver more value while keeping costs in check. Rising energy prices, inflation, and the need to modernise ageing infrastructure are putting budgets under strain. Every investment now needs to be efficient, resilient, and deliver long-term benefits for communities.

Customers, stakeholders, and the environment

People want to know how their water is managed, how decisions are made, and how environmental impacts are being addressed. From regulators to local councils, stakeholders expect evidence of sustainable practices and forward planning. Customers want real-time updates when there's a disruption.

While these challenges are complex, they share a common thread: location. That's where spatial intelligence comes in.

How location intelligence is transforming water utilities

Whether it's knowing where an outage is happening, how assets are performing, or which communities are affected, location and spatial data plays a role in every decision a water utility makes.

That's why many utilities are turning to location-based platforms like ArcGIS across their operations. By putting location at the centre of their approach, they can connect the systems, data, and people they already rely on. It gives teams real-time visibility of what's happening, helps them respond with confidence, and supports better planning across the organisation.

Here's how a spatial approach is helping utilities solve problems and deliver better outcomes:

Network event and outage reporting

When a burst, leak, or blockage happens, the first step is to contain the issue. Location intelligence helps teams trace the impact of the events on the system, understand customers who are impacted, and coordinate a response. Field crews, dispatch, and customer service can all work from the same information, making it easier to spot recurring issues and improve future preparedness.

Asset lifecycle management

By linking asset condition and performance data with location, utilities can move from reactive maintenance to risk-based planning. It becomes easier to identify which assets are most critical, which are most vulnerable, and where to focus resources. Location data supports long-term planning as well by helping teams model the impact of deferring, replacing, or upgrading assets.

Moreover, if cluster of assets needs maintenance or replacement, location data also helps minimise impact to the community. For example, when a section of road needs to be closed to perform repairs, it can impact traffic flow or travel to critical infrastructure like hospitals. But if providers understand there are multiple assets in one location,

repairs can be performed all at once, rather than needing to restrict access twice in a short time span.

Works management

Coordinating field work across large networks is always a challenge. With a locational approach, utilities can prioritise tasks based on urgency, risk, and proximity. This reduces travel time, improves safety, and ensures crews are in the right place with the right information. Real-time updates from the field feed back into central systems, giving managers visibility and flexibility when plans need to change.

Asset optimisation and design

Designing new infrastructure means understanding how assets interact with their environment, existing systems, and future demand. Location intelligence supports scenario modelling, so planners can test different options and weigh the trade-offs before making decisions. It also helps bring stakeholders on board by making complex plans easier to understand.

Water pollution and environmental impact

Environmental compliance is about more than reporting. It's also about early detection and proactive management. By combining catchment data, land use, and operational activity, water utilities can identify pollution risks before they become incidents. This supports more targeted interventions, better collaboration with landholders and regulators, and stronger evidence of sustainable practices.

Customer outage maps

Real-time outage maps give customers visibility into what's happening, where it's happening, and when it's likely to be resolved. Internally, they give teams a shared view of the situation, which helps coordinate responses and reduce duplication.

What's next for the water sector?

Water utilities operate across complex, interdependent systems. Infrastructure, regulation, climate, and community expectations all intersect, and decisions in one area have an effect across the rest.

Location helps make those relationships visible. It connects operational data to geography, giving teams a clearer view of how their networks function in real world conditions. With a location-based approach, water utilities are doing more than just adopting a new platform, they're changing their perspective to see and solve challenges differently.

Original Article: Council Magazine by Kody Cook

Desalination to support Melbourne's water supply

Following prolonged dry conditions, 50GL of desalinated water is set to flow into Melbourne Water's system to safeguard the city's supply.

A warmer-than-average autumn has led to an eight per cent drop in Greater Melbourne's water storages since the end of summer, with current levels sitting at 73 per cent – down 14 per cent from the end of autumn 2024.

Melbourne Water said that this marks the most significant decline for the start of the year in nearly three decades, with storage levels recording their sharpest fall since 1998 during the Millenium Drought.

New analysis from the Bureau of Meteorology confirms that Victoria has experienced prolonged dry conditions, with the warmest autumn on record to be followed by rainfall expected to be within the typical winter range for much of the state. Across the autumn months, an average of 143.3mm of rain fell over Melbourne Water's four major harvesting catchments – Maroondah, O'Shannassy, Thomson and Upper Yarra – a figure 34.8 per cent below the 30-year average. In comparison, 181.7mm fell across these catchments during the autumn 2024.

This reduced rainfall saw autumn stream flow into the harvesting catchments at 50 per cent of the 30-year average.

Despite falling storage levels, Melbourne Water said 50GL of desalinated water will soon begin to be transferred to Cardinia Reservoir, helping to stabilise the supply and prevent severe water restrictions.

Melbourne Water Executive General Manager, Service Futures, Chris Brace, said that the desalinated water is expected to begin flowing into the system in the coming weeks, and will support Melbourne's water security.

"However, it's vital that all Victorians continue to use water wisely," he said.

Victoria's permanent water saving rules remain in place year-round to encourage conservation efforts. Simple actions including shortening showers, turning off taps while brushing teeth, and using a broom instead of a hose for outdoor cleaning, can significantly reduce unnecessary water consumption.

Water use in Melbourne continues to rise, with 1403ML consumed per day during the autumn months, a 5.7 per cent increase compared to the same period last year, equating to 77ML more per day than in 2024.

To encourage efficient water use, the Target 150 initiative encourages individuals to limit their daily water consumption to 150L per person. More information on managing household water use can be found in quarterly bills and online via Melbourne Water's water conservation resources.

"Melbournians have a strong track record of saving water, but we can't afford to become complacent," Mr Brace said.

"As our city grows, sustainable water use will help protect Melbourne's liveability, ensuring it remains an exceptional place to live, now and for generations to come."

Original Article: Utility Magazine by Katie Livingston

AI boom means regulator cannot predict future water shortages in England

The artificial intelligence boom means the Environment Agency has no idea how much water England will be short of in future decades, as datacentres do not have to report how much they are using to cool their servers.

England's public water supply could be short by 5bn litres a day by 2055 without urgent action to future-proof resources, the government environment regulator has warned, with a shortfall of a further 1bn litres a day for farming, energy generation and powering emerging technologies.

However, EA sources told the Guardian that this figure of 1bn for industry did not include the amounts of water to be used by datacentres, because that figure was unknown. This means the shortage could be much higher, as datacentres often use vast amounts of water.

Every five years, the EA puts out its water deficit projections, but it was difficult to do this year, the sources said, because of the growth in AI, which is one of the most significant changes to projected usage in recent years. The regulator added that the majority of datacentres were using the public water supply rather than alternative sources and that they did not want this to stop or transparency over their figures.

At the moment, the EA does not have sufficient data to be able to understand both these centres current use and their needs.

Datacentres for AI are a pivotal part of the government's growth strategy, and Keir Starmer announced this year that he would hugely increase AI capacity and reduce planning restrictions on companies that wanted to build datacentres by setting up "growth zones" with fewer constraints.

AI datacentres use a large amount of water to prevent their servers overheating and shutting down. The centres have cooling towers and outside air systems, both of which need clean, fresh water. AI consumes between 1.8 and 12 litres of water for each kilowatt hour of energy usage across Microsoft's global datacentres. One study estimates that global AI could account for up to 6.6bn cubic metres of water use by 2027 – the equivalent of nearly two-thirds of England's annual consumption.

The EA chair, Alan Lovell, said: "The nation's water resources are under huge and steadily increasing pressure. This deficit threatens not only the water from your tap but also economic growth and food production.

"Taking water unsustainably from the environment will have a disastrous impact on our rivers and wildlife. We need to tackle these challenges head-on and strengthen work on coordinated action to preserve this precious resource and our current way of life."

Plans to increase supply, submitted by water companies, include nine desalination schemes, 10 reservoirs and seven water recycling schemes by 2050. Water bills for customers have risen, and will continue to rise, to pay for this infrastructure.

The government also plans to monitor individual household water use by rolling out smart meters, which charge based on the amount used and allow water companies and other agencies to track usage.

Climate breakdown will further squeeze water supplies, the EA said, as hotter drier summers become more probable. Areas that rely mostly on surface water will therefore be more susceptible to drought, and it may not rain consistently enough for groundwater to recharge.

Original Article: The Guardian by Helena Horton

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