Veles Water Weekly Report:

Water Security Becomes a Balance-Sheet Issue Worldwide

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December 18th 2025

Authors:

Lance Coogan - CEO

Joshua Bell - Research Analyst

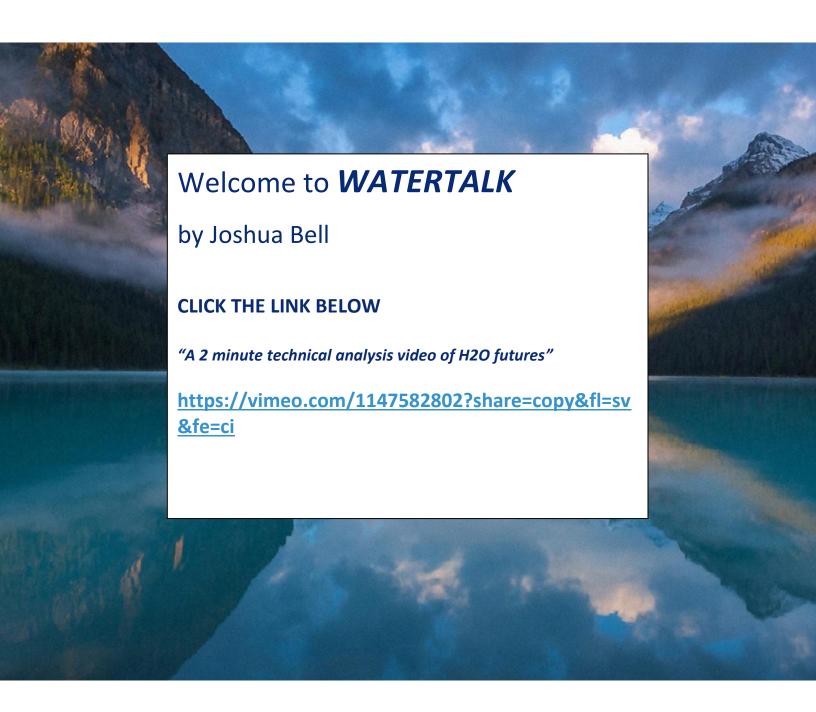
research@veleswater.com

+44 20 7754 0342





WATER FUTURES MARKET ANALYSIS





NQH2O™ INDEX PRICE vs H2O FUTURES PRICE





Price Chart Based upon Daily Close

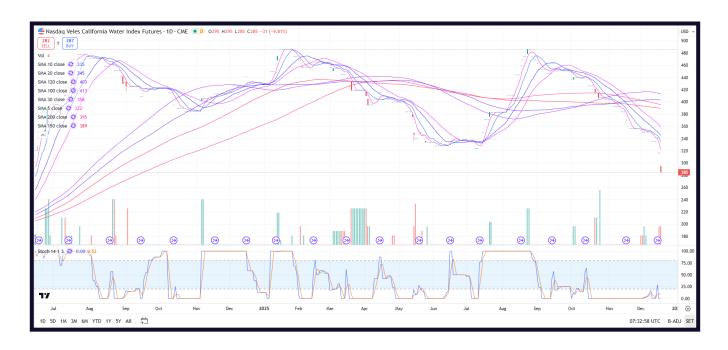
The new NQH2O index level of \$325.23 was published on December 17th, down \$19.94 or 5.78% from the previous week. The December contract settled at the new index level and the January contract is considered the front month. The futures prices closed at a discount of \$4.17 to \$29.17 versus the index over the past week.

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

Jan 26 282@3286 Jun 26 335@355



H2O FUTURES TECHNICAL REPORT



Trend Overview

Current Price: 285 (-9.81% on the day)

The futures continue to experience severe downside momentum with no evidence of a base forming. The price has now broken below the 300 psychological level and is approaching the next key horizontal support.

Momentum

The price action remains decisively bearish.

- Both the %K and %D lines of the Stochastic Oscillator are pinned at 0.00 and 9.52, respectively.
- This reflects extreme oversold conditions.
- However, as with previous sessions, there is no confirmation of reversal—only a technically exhausted trend structure.

Moving Averages

Short-Term (SMA 5-30)

SMA 5: 322SMA 10: 335SMA 20: 345

• **SMA 30:** 358



Analysis:

- The price at 285 is now far below all short-term SMAs.
- The 5–30 SMAs are all sloping downward and remain bearishly aligned.
- This confirms that short-term trend pressure remains strongly negative.
- The 322–358 zone represents stacked resistance and would require a reclaim for any near-term bullish thesis.

Long-Term (SMA 100–200)

• SMA 100: 413

• **SMA 120:** 403

• **SMA 150**: 389

• SMA 200: 396

Analysis:

- Price is deeply below all long-term SMAs, which are now starting to roll over.
- The 389-413 range now forms a broad and formidable resistance band.
- A recovery toward this band appears unlikely without multiple stages of consolidation and rally.
- The long-term trend is structurally broken.

Stochastic Oscillator

• %K: 0.00

• %D: 9.52

Analysis:

- The oscillator is once again pinned near zero, which highlights continued selling pressure.
- Oversold conditions persist, but no bullish divergence or signal cross has occurred.
- The market remains in capitulation mode, technically.

Resistance & Support Levels

Resistance Zones:

• **322–335:** Cluster of short-term SMAs (5–10)

• **345–358:** SMA 20 and 30

• **389–413:** Long-term resistance zone (SMA 150 to 100)

Support:

• **285**: Current price; no strong support here.

• 275-280: Minor historical interest

• 250: The next clear horizontal support on the longer-term chart



Summary

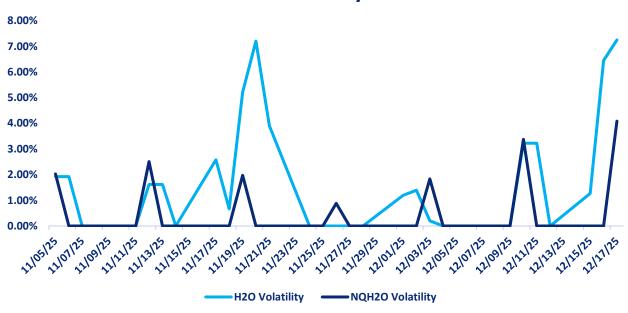
The Nasdaq Veles California Water Index Futures has accelerated its downside trend, closing at 285 with a nearly 10% loss on the session. The technical structure shows no evidence of reversal, only growing dislocation and exhaustion. All short- and long-term moving averages are sloping downward with wide separation from price, reflecting entrenched bearish momentum.

Until price reclaims 322, there's no short-term relief in sight. A move above 345 would begin to relieve some pressure, but full trend recovery would need a close above 389+. For now, the path of least resistance remains lower, with 275 and 250 as the next key support levels.



H2O FUTURES AND NQH2O INDEX VOLATILITY ANALYSIS

Daily H2O Futures Volatility vs Daily NQH2O Index Volatility



DAILY VOLATILITY

Over the last week the December contract daily future volatility high has been 7.25%.

ASSET	1 YEAR (%)	2 MONTH (%)	1 MONTH (%)	1 WEEK (%)
NQH2O INDEX	20.73%	4.44%	3.25%	1.01%
H2O FUTURES	N/A	14.07%	10.75%	8.95%

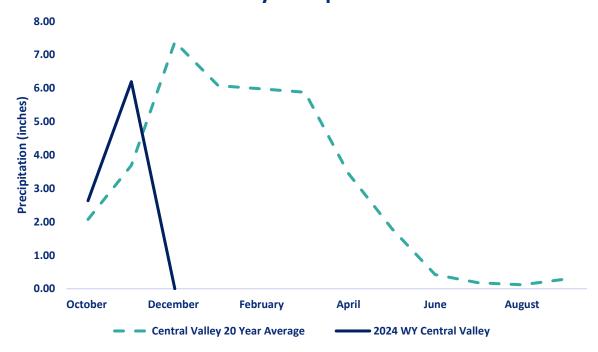
For the week ending on December 17^{th} , the two-month futures volatility is at a premium of 9.63% to the index, down 0.60% from the previous week. The one-month futures volatility is at a premium of 6.06% to the index, up 1.44%. The one-week futures volatility is at a premium of 7.95% to the index 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 17/12/2025

STATION	MTD (INCHES)	WEEK ON WEEK CHANGE (INCHES)	% OF 20 YEAR AVERAGE MTD	2026 WYTD VS 2025 WYTD %	2026 WY VS 20 YEAR AVERAGE TO DATE %
SAN JOAQUIN 5 STATION (5SI)	0	0	0.00%	58	126
TULARE 6 STATION (6SI)	0	0	0.00%	99	131
NORTHERN SIERRA 8 STATION (8SI)	0.1	0.1	0.97%	132	100
CENTRAL VALLEY AVERAGE	0.03	0.03	0.45%	96	119

RESERVOIR STORAGE

RESERVOIR	STORAGE (AF)	% CAPACITY	LAST YEAR % CAPACITY	*% HISTORICAL AVERAGE
TRINITY LAKE	1,796,721	73	69	125
SHASTA LAKE	2,678,200	59	63	105
LAKE OROVILLE	1,741,445	51	58	97
SAN LUIS RES	1,280,647	63	68	110

^{*%} 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

CURRENT REGIONAL SNOWPACK FROM AUTOMATED SNOW SENSORS

% of April 1 Average / % of Normal for This Date



NORTH			
Data as of December 16, 2025			
Number of Stations Reporting	33		
Average snow water equivalent (Inches)	0.3		
Percent of April 1 Average (%)	1		
Percent of normal for this date (%)	5		

CENTRAL	
Data as of December 16, 2025	
Number of Stations Reporting	54
Average snow water equivalent (Inches)	1.0
Percent of April 1 Average (%)	3
Percent of normal for this date (%)	13

SOUTH			
Data as of December 16, 2025			
Number of Stations Reporting	24		
Average snow water equivalent (Inches)	2.2		
Percent of April 1 Average (%)	9		
Percent of normal for this date (%)	42		

STATE			
Data as of December 16, 2025			
Number of Stations Reporting	111		
Average snow water equivalent (Inches)	1.0		
Percent of April 1 Average (%)	4		
Percent of normal for this date (%)	18		

Statewide Average: 4% / 18%

^{*}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

U.S. Drought Monitor California



December 9, 2025

(Released Thursday, Dec. 11, 2025) Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	91.10	8.90	0.00	0.00	0.00	0.00
Last Week 12-02-2025	83.36	16.64	0.15	0.00	0.00	0.00
3 Month s Ago 09-09-2025	23.99	76.01	39.56	23.00	3.88	0.00
Start of Calendar Year 01-07-2025	39.11	60.89	35.93	10.43	1.06	0.00
Start of Water Year 09-30-2025	26.78	73.22	38.52	18.61	1.25	0.00
One Year Ago 12-10-2024	43.46	56.54	16.72	5.70	1.03	0.00

Intensity: None D2 Severe Drought D0 Abnormally Dry D3 Extreme Drought D1 Moderate Drought D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx

<u>Author:</u> Lindsay Johnson

National Drought Mitigation Center

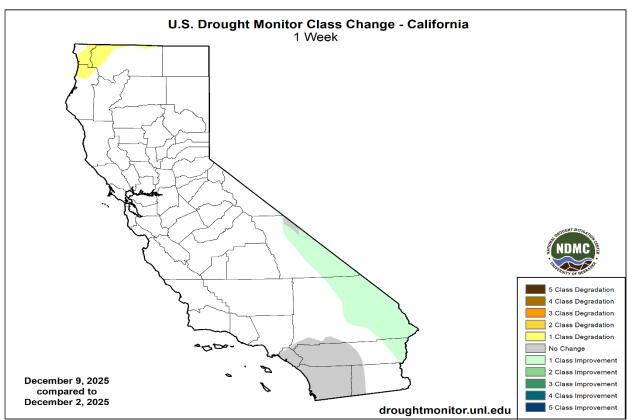








droughtmonitor.unl.edu



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.



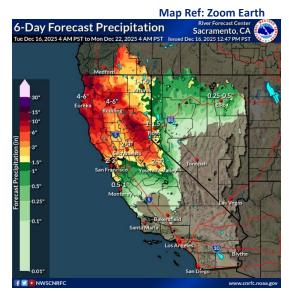
CURRENT SATELLITE IMAGERY

Weather across North America remains highly amplified, with a deep Pacific trough driving a moisture-rich storm system toward the U.S. West Coast. A well-defined atmospheric river is impacting the Pacific Northwest and Northern California, increasing the risk of heavy rainfall, Sierra and Cascade snowfall, and localized flooding. Cold air remains entrenched across Canada, supporting snow in the Upper Midwest along a sharp frontal boundary extending into the central U.S., while much of the eastern United States remains relatively quiet under post-frontal conditions.



10 Day Outlook

While guidance continues to show disagreement in the overall specifics associated with the active pattern throughout the 6-day forecast window, slight convergence, especially in the latter portions of the window (Saturday into Monday morning) warranted a relative increase in accumulations throughout the window. Largest increases were made over the North bay of up to 1.4 inches while increases of up to 2 inches were made in the Sierra over the Feather, Yuba, and American River Basins. While these increases were made, model differences in exactly what locations along the



coast and the Sierra Nevada could receive the heaviest accumulations. GFS generally favours a more southern trajectory whereas the EC favours more Northern. Afternoon forecasts generally followed the NBM which smoothed out these differences while producing magnitudes that illustrated the uncertainty across all guidance.

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



WESTERN WEATHER DISCUSSION

Out West, there was a mixture of improvements and degradations. Improvements were seen in the Southwest despite no precipitation this week. Prior weeks' moisture has made its way into the hydrologic cycle, as seen in improving streamflows and soil moisture. Despite snow falling across the Rocky Mountains, many stations continue to report that the snow water equivalent (SWE) is below the 30th percentile. Snowpack levels in the northern Rockies are doing better, with many stations showing snowpack at 100 percent for this time of year, which was further improved with 1 to 2 feet of snow falling across western Montana and eastern Idaho. This moisture led to areas of improvement in northwest Montana. Improvements were also seen along the Idaho-Wyoming border where up to 2.5 feet of snow fell. Southwestern Montana and central Idaho, which are experiencing below-normal snowpack, missed out on the snow and saw the expansion of moderate drought (D1) across the border. Over the Pacific Northwest, storms brought upwards of 6 to 8 inches of precipitation, where many stations in the Cascades are reporting below snowpack below 50 percent of normal. Areas in central Washington into northwest Oregon saw improvements as some short-term metrics were more aligned with moderate drought (D1) conditions rather than severe drought (D2). Central and southern Oregon, which missed out on the heaviest precipitation, saw the expansion of abnormal dryness (D0) and moderate drought (D1).

Reference:

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



WATER NEWS

CALIFORNIA WATER NEWS

Trump administration directs more water to California farms

Associated Press (Dec 5, 2025)

https://apnews.com/article/839bad92dcd4b14f0e9188519789b054?

The Trump administration is making good on a promise to send more water to California farmers in the state's crop-rich Central Valley.

The U.S. Bureau of Reclamation on Thursday announced a new plan for operating the Central Valley Project, a vast system of pumps, dams and canals that direct water southward from the state's wetter north. It follows an executive order President Donald Trump signed in January calling for more water to flow to farmers, arguing the state was wasting the precious resource in the name of protecting endangered fish species.

U.S. Secretary of the Interior Doug Burgum said the plan will help the federal government "strengthen California's water resilience." It takes effect Friday. But California officials and environmental groups blasted the move, saying sending significantly more water to farmlands could threaten water delivery to the rest of the state and would harm salmon and other fish.

Democratic Gov. Gavin Newsom's office said the plan was an example of the Trump administration "putting politics over people."

"As per usual, the emperor is left with no clothes, pushing for an outcome that disregards science and undermines our ability to protect the water supply for people, farms, and the environment," spokesperson Tara Gallegos said in a statement. Most of the state's <u>water is in the north</u>, but most of its people are in the south. The federally managed Central Valley Project works in tandem with the state-managed State Water Project, which sends water to cities that supply 27 million Californians. The systems transport water through the Sacramento-San Joaquin River Delta, an estuary that provides critical habitat to fish and wildlife including salmon and the delta smelt.

It is important for the two systems to work together, Karla Nemeth, director of the California Department of Water Resources, said in a statement. She warned the Trump administration's plan could limit the state's ability to send water to cities and farmers. That is because the state could be required to devote more water to species protection if the federal project sends more to farms.

Barbara Barrigan-Parrilla, executive director at Restore the Delta, said pumping more water out would result in more Delta smelt and juvenile salmon dying from getting stuck in the pumping system, and once the temperature warms, harmful algae blooms



will develop that are dangerous to fish, wildlife, pets and people. That could have economic impacts, she said.

"When you destroy water quality and divorce it from land, you are also destroying property values," she said. "Nobody wants to live near a fetid, polluted backwater swamp."

The Bureau of Reclamation denied the changes would harm the environment or endangered species.

The plan is "a forward-looking approach to water management t that balances the needs of California's communities, agriculture, and ecosystems," said Assistant Secretary for Water and Science Andrea Travnicek.

The Central Valley Project primarily sends water to farms, with a much smaller amount going to cities and industrial use. Water from the Central Valley Project irrigates roughly one-third of California agriculture, according to the Bureau of Reclamation.

Reclamation signs Record of Decision for "Action 5" CVP/SWP operations Westlands Water District (Dec 4, 2025)

https://wwd.ca.gov/wwd-media/press-release-12-4-2025/

Today, the Bureau of Reclamation signed the Record of Decision for Action 5, which updates the long-term operations of the Central Valley Project (CVP) and State Water Project (SWP). These operational refinements reflect a thoughtful, data-informed approach that strengthens water supply availability for growers while maintaining California's commitment to environmental stewardship. In less than a year's time, Reclamation developed and adopted Action 5 for a water management operation that benefits communities, agriculture, and the environment alike.

Westlands has long advocated for the need to modernize regulations through a common-sense approach that strikes a balance between supporting a resilient and strong agricultural economy, quality drinking water, and a healthy environment. By operating within the existing environmental review, Reclamation was able to move quickly and responsibly to deliver on President Trump's Executive Order
14181, directing federal agencies to maximize water deliveries, and adhering to Executive Order 14303, implementing the Gold Standard of Science. Action 5 is also consistent with the direction in Executive Order N-16-25, issued by Governor Newsom to state agencies to maximize water supplies.

Westlands is grateful for the Trump Administration's rapid development and adoption of Action 5, resulting in focused changes to the CVP operations plan that was adopted last December, while providing the same or better environmental and ecosystem protections as last year's plan.

"These changes will help ensure that our growers have the water they need to support local communities and the nation's food supply, while also protecting California's



wildlife," said Allison Febbo, General Manager, Westlands Water District. "Action 5 is a testament to what can be accomplished with a data-driven, results-focused adaptation to water supply operations."

For Central Valley Project South-of-Delta agricultural contractors like Westlands, Action 5 is expected to deliver an average of 85,000 acre-feet per year of additional water. This increased supply will help keep more land in production, reduce reliance on groundwater, support the implementation of the Sustainable Groundwater Management Act, and strengthen the economic vitality of the region.

Costa, Gray introduce new water infrastructure package

Office of Rep. Jim Costa / Rep. Adam Gray (Dec 2025)

https://costa.house.gov/media/press-releases/costa-gray-push-new-water-infrastructure-package-expand-storage-and-address?

Representatives Jim Costa (CA-21) and Adam Gray (CA-13) introduced their End California Water Crisis Package today, a suite of bills that would authorize additional California water storage projects, ease permitting restrictions, and create enforceable timelines for environmental review processes. The bills aim to expand California's water storage capacity by providing funding and technical support to both develop and maintain water infrastructure projects.

"California needs a modern water system that can meet today's challenges. These bills take meaningful steps to strengthen California's water future. By improving coordination, cutting through red tape, and investing in real projects on the ground, we can use all of our water tools in our toolbox to deliver more reliable water for families, farms, and communities across our state. This is about practical solutions that will make a difference for the Valley and all of California," said Congressman Costa.

"A reliable water supply is essential for Valley families and our economy," said Rep. Gray. "My End California Water Crisis Package aims to strengthen and grow California's water infrastructure so we can maintain dependable water supplies, reduce flood risks, and responsibly manage water flow to preserve our environment while unleashing agricultural production. The Valley is the nation's leading agricultural region, and these projects will help ensure we remain competitive and resilient as we face historic drought levels."

"Westlands Water District supports Congressman Gray's End the California Water Crisis legislative package because it moves us toward real solutions at a pivotal time for California water," said Allison Febbo, General Manager, Westlands Water District. "This pragmatic approach will cut through years of red tape and accelerate projects that will

make a difference now. By moving urgently needed conveyance, groundwater recharge, and surface water storage projects from concept to construction, this package will help create a more reliable, modern water supply for the communities, farms, and under resourced communities across the San Joaquin Valley. Solving California's water crisis takes all of us working together to reform a system that hasn't worked for people, food production, or the environment for far too long."

"This legislative package is exactly the type of pragmatic, solutions-oriented approach California needs," said Chris White, Executive Director of the San Joaquin River Exchange Contractors Water Authority. "Streamlining federal permitting and advancing long-overdue water infrastructure projects will help us capture, store, and move water when it's available—and improve reliability for agriculture, our local communities, and the environment. The Exchange Contractors appreciate Congressman Gray's leadership and his commitment to cutting red tape, modernizing federal coordination, and delivering the infrastructure investments our region needs to prepare for the future."

"The farms, communities, and ecosystems south of California's Bay-Delta have been ground zero for the impacts of unreliable water supplies for decades," said Federico Barajas, Executive Director of the San Luis & Delta-Mendota Water Authority. "There is a clear solution – we must develop and deliver water supply projects faster and more affordably. This package of bills does just that – allocating federal funds and improving project delivery for a list of projects that will improve water supply reliability for one of the most important food producing regions in the world. We urge Congress to take swift action on these bills and applaud Congressman Gray for his leadership in tackling this issue head on."

"As we face ongoing water challenges in California's Central Valley, Congressman Gray's water legislative package represents a significant opportunity to enhance interagency coordination and cut through the permitting obstacles that hinder vital water projects," said Jason Phillips, CEO, Friant Water Authority. "By codifying the provisions of Executive Order 14181, our communities and farms can improve their access to the water resources they desperately need and along with the authorization of critical projects for improved water storage and management, the Central Valley would be poised to make meaningful progress in addressing our water needs and securing a sustainable future for our families and farms."

If enacted, the End California Water Crisis Package would significantly improve water storage, clear the way for additional projects, and consequently encourage further economic and agricultural development across the region.



California cities pay more for water than some agricultural districts KPBS (Dec 11, 2025)

https://www.kpbs.org/news/environment/2025/12/11/california-cities-pay-a-lot-forwater-some-agricultural-districts-get-it-for-free

California cities pay far more for water on average than districts that supply farms — with some urban water agencies shelling out more than \$2,500 per acre-foot of surface water, and some irrigation districts paying nothing, according to new research. A report published today by researchers with the UCLA Institute of the Environment and Sustainability and advocates with the Natural Resources Defense Council shines a light on vast disparities in the price of water across California, Arizona and Nevada. The true price of water is often hidden from consumers. A household bill may reflect suppliers' costs to build conduits and pump water from reservoirs and rivers to farms and cities. A local district may obtain water from multiple sources at different costs. Even experts have trouble deciphering how much water suppliers pay for the water itself.

The research team spent a year scouring state and federal contracts, financial reports and agency records to assemble a dataset of water purchases, transfers and contracts to acquire water from rivers and reservoirs. They compared vastly different water suppliers with different needs and geographies, purchasing water from delivery systems built at different times and paid for under different contracts.

Their overarching conclusion: One of the West's most valuable resources has no consistent valuation – and sometimes costs nothing at all.

"It costs money to move water around," the report says, "but there is no cost, and no price signal, for the actual water."

That's a problem, the authors argue, as California and six other states in the Colorado River basin hash out how to distribute the river's dwindling flows — pressed by <u>federal ultimatums</u>, and <u>dire conditions</u> in the river's two major reservoirs. The study sounds the alarm that the price of water doesn't reflect its growing scarcity and disincentivizes conservation.

"We're dealing with a river system and water supply source that is in absolute crisis and is facing massive shortfalls ... and yet we're still treating this as if it's an abundant, limitless resource that should be free," said Noah Garrison, environmental science practicum director at UCLA and lead author on the study.

Jeffrey Mount, senior fellow at the Public Policy Institute of California, applauded the research effort. Though he had not yet reviewed the report, he said complications abound, built into California's water infrastructure itself and amplified by climate change. Moving, storing and treating water can drive up costs, and are only sometimes captured in the price.

"We've got to be careful about pointing our fingers and saying farmers are getting a free ride," Mount said. Still, he agreed that water is undervalued: "We do not pay the full costs of water — the full social, full economic and the full environmental costs of water."

Coastal cities pay the most

The research team investigated how much suppliers above a certain purchase threshold spend on water from rivers and reservoirs in California, Arizona and Nevada. They found that California water suppliers pay more than double on average than what Nevada districts pay for water, and seven times more than suppliers in Arizona. The highest costs span the coast between San Francisco and San Diego, which the researchers attributed to the cost of delivery to these regions and water transfers that drive up the price every time water changes hands.

"In some of those cases it's almost a geographic penalty for California, that there are larger conveyance or transport and infrastructure needs, depending on where the districts are located," Garrison said.

Agricultural water districts pay the least

In California, according to the authors, cities pay on average 20 times more than water suppliers for farms — about \$722 per acre foot, compared to \$36.

One acre foot can supply roughly 11 Californians for a year, according to the state's Department of Water Resources.

Five major agricultural suppliers paid nothing to the federal government for nearly 4 million acre-feet of water, including three in California that receive Colorado
River water: the Imperial Irrigation District, the Coachella Valley Water District and the Palo Verde Irrigation District.

Tina Anderholt Shields, water manager for the Imperial Irrigation District, which receives the single <u>largest share of Colorado River water</u>, said the district's contract with the U.S. government does not require any payment for the water.

Cities, by contrast, received less than 40,000 acre-feet of water for \$0. The report notes, however, that the Metropolitan Water District of Southern California, a major urban water importer, spends only 25 cents an acre-foot for around 850,000 acre-feet of water from the Colorado River.

Bill Hasencamp, manager of Colorado River resources at Metropolitan, said that the true cost of this water isn't reflected in the 25-cent fee, because the expense comes from moving it. By the time the Colorado River water gets to the district, he said it costs several hundred dollars.

Plus, he added, the district pays for hydropower, which helps cover the costs of the dams storing the water supply. "That enables us to only pay 25 cents an acre foot to the feds on the water side, because we're paying Hoover Dam costs on the power side."



Federal supplies are the cheapest; transfers drive up costs

Much of the difference among water prices across three states comes down to source: those whose supplies come from federally managed rivers, reservoirs, aqueducts and pumps pay far less on average than those receiving water from state managed distribution systems or via water transfers.

Garrison and his team proposed adding a \$50 surcharge per acre-foot of cheap federal supplies to help shore up the infrastructure against leaks and losses or pay for large-scale conservation efforts without tapping into taxpayer dollars.

But growers say that would devastate farming in California.

"It's important to note that the 'value' of water is priceless," said Allison Febbo, General Manager of Westlands Water District, which supplies San Joaquin Valley farms. The report calculates that the district pays less than \$40 per acre foot for water from the federal Central Valley Project, though the Westlands rate structure notes another \$14 fee to a restoration fund. "The consequences of unaffordable water can be seen throughout our District: fallowed fields, unemployment, decline in food production..."

The Imperial Irrigation District's Shields said that a surcharge would be inconsistent with their contract, difficult to implement, and unworkable for growers.

"It's not like farmers can just pass it on to their buyers and then have that roll down to the consumer level where it might be 'manageable,'" Shields said.

The most expensive water in California is more than \$2,800 an acre-foot

The most expensive water in California, Arizona or Nevada flows from the rivers of Northern California, down California's state-managed system of aqueducts and pumps, to the <u>San Gorgonio Pass Water Agency</u> in Riverside County. Total cost, according to the report: \$2,870.21 per acre foot.

Lance Eckhart, the agency's general manager, said he hadn't spoken to the study's authors but that the number sounded plausible. The price tag would make sense, he said, if it included contributing to the costs for building and maintaining the <u>705-mile</u> <u>long</u> water delivery system, as well as for the electricity needed to pump water over mountains.

Eckhart compared the water conveyance to a railroad, and his water agency to a distant, distant stop. "We're at the end, so we have the most railroad track to pay for, and also the most energy costs to get it down here," he said.

Because it took decades for construction of the water delivery system to reach San Gorgonio Pass, the water agency built some of those costs into local property taxes before the water even arrived, rather than into the water bills for the cities and towns they supply. As a result, its mostly municipal customers pay only \$399 per acre foot, Eckhart said.



"You can't build it into rates if you're not going to see your first gallon for 40 years," Eckhart said.

The study didn't interrogate how the wholesale price of imported water translates to residential bills. Water managers point out that cheap supplies like groundwater can help dilute the costs of pricey imported water.

The Los Angeles Department of Water and Power, for instance, purchases water imported from the Colorado River and Northern California to fill gaps left by local groundwater stores, supplies from the Owens Valley, and other locally managed sources, said Marty Adams, the utility's former general manager. (The Los Angeles Department of Water and Power was unable to provide an interview.)

Because the amount of water needed can vary from year to year, it's added as an additional charge on top of the base rate, Adams said. "If you have to pay for purchased water somewhere, when you add all the numbers up, it comes out in that total," he said.

"The purchased water becomes the wildcard all the time."

California challenges federal plan to boost Delta pumping

FishBio (Dec 8, 2025)

https://fishbio.com/news/new-federal-plan-for-delta-water-pumping-conflicts-with-california-requirements/

The Bureau of Reclamation on Thursday updated the long-term operations plan for the Central Valley Project to allow increased exports from the Sacramento-San Joaquin Delta, a move that conflicts with California's own requirements, potentially shifts more of the water burden onto the state and threatens the Delta's ecosystem and water quality. The decision follows a January executive order from President Donald Trump directing agencies to boost water deliveries and echoes earlier efforts during his first term to loosen pumping restrictions in the Delta. TOP VIDEOS "The Trump administration is putting politics over people — catering to big donors instead of doing what's right for Californians," Tara Gallegos, a spokesperson for Gov. Gavin Newsom's office told The Sacramento Bee. "As per usual, the emperor is left with no clothes, pushing for an outcome that disregards science and undermines our ability to protect the water supply for people, farms and the environment." The Reclamation Bureau stated that under the updated plan, the federal-managed CVP could gain an additional 130,000 to 180,000 acre-feet of water a year — roughly 40 billion to 60 billion gallons — while the State Water Project could see an increase of 120,000 to 220,000 acre-feet, or about 39 billion to 70 billion gallons. Jeff Mount, a senior fellow at the Public Policy Institute of California Water Policy Center, questioned whether the state would see any real benefit, noting that the State Water Project is still bound by California's flow and water quality requirements and therefore cannot operate in the way the federal

plan assumes. "This is one of the bigger fears about having the federal government go their own way and without doing it in cooperation with the state," Mount said. A long-running conflict The Trump administration has shown interest in expanding Delta exports since his first term, with federal agencies repeatedly pushing for greater "operational flexibility" and weakened pumping restrictions under updated biological opinions. In 2020, in response to the Trump administration's attempt to loosen pumping restrictions in the Delta, then California Attorney General Xavier Becerra, along with the California Natural Resources Agency and the California Environmental Protection Agency, filed a lawsuit against it and argued the move would illegally increase exports and cause "imminent and irreparable harm" to endangered species. The state won a partial early victory when a federal judge temporarily blocked parts of Trump's pumping rules, and the federal government later revised its Delta operations under new biological opinions issued during the Biden administration. In an email to The Bee, California Department of Fish and Wildlife Director Charlton H. Bonham said measures outlined in the federal plan, known as "Action 5," are "vague, unclear, impossible to implement, or not based in best-available science." "The measures in Action 5 run counter to the state's efforts to bolster commercial and recreational fishing by supporting healthy populations of Chinook salmon — harming the California communities that rely on salmon for their livelihood," Bonham added. Department of Water Resources Director Karla Nemeth, meanwhile, emphasized the importance of "close coordination" between the State Water Project and the Central Valley Project, in "protecting water supply, fish and wildlife, and water quality."

California Water Service receives CPUC approval to acquire Palm Mutual Water Company

California Water Service Group / GlobeNewswire (Dec 11, 2025) https://markets.businessinsider.com/news/stocks/california-water-service-receives-cpuc-approval-to-acquire-palm-mutual-water-company-1035638914

In another step toward providing safe, reliable water to Palm Mutual Water company (Palm Mutual) customers long-term, California Water Service (Cal Water) has received California Public Utilities Commission (CPUC) approval of its pending acquisition of Palm Mutual. Cal Water is the largest subsidiary of California Water Service Group (NYSE: CWT).

Palm Mutual, located two miles from Cal Water's Northeast Bakersfield Treatment Plant, currently serves 63 residential customers. Cal Water already serves Palm Mutual through a master meter interconnection, since the latter does not own or operate its own sources of supply. Cal Water intends to upgrade the system's infrastructure over time to help provide consistent and high-quality operations to Palm Mutual customers.

"We appreciate the CPUC, along with the State Water Resources Control Board's Division of Drinking Water, for their diligence and efforts to help provide safe, reliable water to Palm Mutual's customers long-term," said Martin A. Kropelnicki, Cal Water Chairman and Chief Executive Officer. "We look forward to working through the final steps, completing the acquisition, and officially welcoming Palm Mutual's customers to the Cal Water family."

When the acquisition is finalized, Palm Mutual customers will be served by Cal Water's Bakersfield District. The Bakersfield District provides safe, clean, reliable water to about 445,600 people currently through approximately 120,000 service connections in its system along with the City of Bakersfield water system, which it operates. The purchase remains subject to customary closing conditions and is expected to close in the first quarter of 2026.

California American Water completes acquisition of Yerba Buena Water customers California American Water / PR Newswire (Dec 9, 2025)

https://www.stocktitan.net/news/AWK/california-american-water-completes-acquisition-of-yerba-buena-water-wvfff80o9mdp.html

California American Water (subsidiary of American Water, NYSE: AWK) announced completion of its acquisition of the Yerba Buena Water Company system, serving ~250 customers. The deal, approved by the CPUC, adds customers and infrastructure to AWK's California operations, expanding its regulated asset base. Management noted the acquisition will support infrastructure upkeep and service continuity, strengthening the utility's investment profile in the state.

California Water Service Group reports increased infrastructure investment in Q3 2025

California Water Service Group / GlobeNewswire (Oct 30, 2025) https://www.calwatergroup.com/news/press-releases/detail/719/leading-water-utility-california-water-service-group-reports-strong-third-quarter-2025-results
Cal Water Group reported Q3 2025 financial results showing \$135.2 million in water system infrastructure investments, a 14.8% increase over Q3 2024. The company also noted revenue growth and interim rate increase mechanisms approved by the CPUC, reflecting regulatory support for financing capital programs.

US WATER NEWS

Mexico will send more water to U.S. but not immediately, Mexican president says Associated Press (Dec 10, 2025)



https://apnews.com/article/986fee61f17d5c975a5927f651b808fa

Mexican President Claudia Sheinbaum announced that Mexico plans to increase water deliveries to the United States under the 1944 water-sharing treaty but clarified that additional deliveries will not happen immediately. The announcement comes amid pressures from the U.S., including tariff threats tied to treaty compliance. The 1944 agreement requires Mexico to provide 1.7 million acre-feet of water every five years, and Mexico is currently behind on its delivery obligations due to drought and infrastructure constraints. Sheinbaum said Mexico intends to deliver a partial shipment this month and continue discussions with U.S. officials in the coming weeks to finalize water delivery timelines and logistics.

Snow drought conditions in the U.S. West

Drought.gov/NIDIS (Dec 11, 2025)

Snow Drought Current Conditions and Impacts in the West | December 11, 2025 | Drought.gov

Early water-year observations show significantly reduced snowpack relative to precipitation totals, characterizing "snow drought" conditions across parts of the Western U.S. The report notes implications for runoff timing and reservoir storage, with potential impacts on water allocations and reservoir operations later in the year.

USGS PFAS national sampling expanded

U.S. Geological Survey (2025 release)

PFAS sampling activities in the U.S. Geological Survey national networks

Per- and polyfluoroalkyl substances (PFAS), frequently called "forever chemicals," are used for a wide variety of industrial purposes and are often found in common household and industrial items such as firefighting foams, non-stick cookware, and water-resistant materials. The contamination of water, air, and soil by PFAS is a national and global issue due to their widespread occurrence in multiple applications and resistance to biodegradation and other traditional treatment processes. Research indicates that many PFAS can be emitted to the atmosphere and transported and deposited long distances from the source.

The U.S. Geological Survey (USGS) Water Resources Mission Area received funding to implement a national-scale sampling effort to assess PFAS occurrence. To follow agency directives, the National Water Quality Network (NWQN) added PFAS sample monitoring for both surface water and groundwater, and also added PFAS monitoring to selected sites in the National Atmospheric Deposition Program (NADP).

EPA funding for lead reduction programs

National Ground Water Association (Dec 2, 2025)



States get funding from EPA to reduce lead in drinking water

The U.S. Environmental Protection Agency announced on November 25 a total of \$3 billion in new funding for states through the State Revolving Fund (SRF) programs to reduce exposure to lead in drinking water.

The EPA conducted a thorough review of previously awarded funding and assessed updated lead service line data to increase accountability and ensure funds are properly distributed to achieve maximum impact in removing lead pipes and reducing lead contamination in drinking water systems.

The funding will accelerate progress in finding and removing lead pipes (also known as lead service lines that deliver water to homes, schools, and businesses) as the agency also announces a new lead service line inventories dashboard with the latest information provided by states.

Lead pipes are the key source of lead — a potent neurotoxin particularly harmful to children — in drinking water.

More than 80 percent of violations of the Safe Drinking Water Act Lead and Copper Rule standards and requirements occur at small groundwater systems serving 10,000 or fewer people.

Additionally, the EPA announced the redistribution of an additional \$1.1 billion in previously announced DWSRF funding to address lead. These funds were made available to states but have not been used. Consistent with the Safe Drinking Water Act's directive to reallocate unused funds, these investments are now available to different eligible states with lead service line replacement needs.

FFIS: funding shifts for lead service line grants

Federal Funds Information for States (Dec 5, 2025)

<u>States See Sweeping Funding Shifts in Grants for Replacing Lead Drinking Water</u> <u>Service Lines – FFIS</u>

The Infrastructure Investment and Jobs Act (IIJA) appropriated \$3 billion annually over fiscal years (FYs) 2022-2026 for lead service line replacement (LSLR) grants under the Drinking Water State Revolving Fund (DWSRF) program. The Environmental Protection Agency (EPA) recently <u>announced</u> FY 2025 allotments to states, which are based on different data than those used for FYs 2022-2024. This data change led to significant funding shifts across states compared to original FY 2024 allotments, ranging from a -85% change in Florida to a +172% change in Texas.

In addition to announcing the FY 2025 allotments, EPA issued a <u>memo</u> expanding eligible uses of LSLR funds to include the replacement of certain galvanized pipes, water mains, water meters, and similar integrated components of water systems.

This brief discusses the change to FY 2025 allotments and the expansion of eligible uses. It also highlights adjustments made to prior allotments that were based on flawed data. Applications for FY 2025 funds are due September 30, 2026.

NOAA seasonal drought outlook

NOAA Climate Prediction Center (current summary)

Climate Prediction Center: Seasonal Drought Outlook

Since the last Seasonal Drought Outlook (SDO) release, dryness and drought have intensified across parts of the central and northern Plains, portions of the Middle Mississippi Valley, much of the western Great Lakes region, most of the South Atlantic region from central Georgia and Alabama through Florida, and parts of the Middle Atlantic region. There has also been significant deterioration across Texas and the Red River (south) and northern Lower Mississippi Valleys, with localized heavy precipitation leading to a few patches of relief in these areas. Significant intensification (2 to 3 Drought Monitor (DM) classification levels) has been noted in much of Texas and adjacent Oklahoma, north-central Montana, and portions of the South Atlantic Region. The Northeast has seen a patchwork pattern with areas of relief and deterioration, although improvement has been more common recently. Drought has continued across much of Hawaii effectively unchanged since last month, with limited areas of deterioration in central Maui and part of the eastern Big Island. Both Alaska and the American Caribbean Islands are free of drought, although abnormal dryness has been noted across central Puerto Rico and St. Croix.

In contrast, conditions have improved in large portions of the drought entrenched across large sections of the Rockies and Far West, with no areas of notable deterioration. Unusually heavy early-season precipitation has engendered improvements of 2 or 3 DM classifications over portions of California, the central and northern Front Range of the Rockies (especially the southern tier of Colorado), and parts of the central West Coast and northern Cascades. The water year is off to a good start in most of the West, although snowpack is lower than normal due to abovenormal temperatures. Improvements of 2 to 3 DM classifications were also noted over much of the Ohio Valley, areas near the Ohio and Mississippi Rivers' confluence, east of Lake Erie, and parts of the central and northern Appalachians, with adjacent areas of 1-classification improvements. Other areas of improvement include a swath from the south-central Great Plains through the northern Lower Mississippi Valley, the Upper South, and the Carolinas.

The SDO through the end of meteorological winter calls for more improvement for the Pacific Northwest and the northern half of the Intermountain West while persistence and some areas of deterioration are expected farther east in northern Montana and farther south across the Southwest and the southern and central Rockies. Expected

dryness during the winter months means deterioration is expected from much of the southern Plains eastward across the southern tier of states and northward across the Southern and Middle Atlantic regions, with adjacent areas of development expected to create a solid swath of drought across these areas by the end of February. Dry winter climatology led to a forecast for persistence or deterioration across the northern half of the Plains and the Upper Midwest. Meanwhile, improvement is expected in a swath from central Texas northeastward into the eastern Great Lakes region, with several inches of rain possible in the next week across central and southern sections of this region. Improvement is also anticipated for most of the Northeast, except the northern half of Maine. Improvement also seems likely across all areas of drought in Hawaii while Alaska and the American Caribbean islands should remain drought-free.

U.S. water utilities warn of rising capital costs as borrowing rates stay elevated Reuters (Dec 9, 2025)

https://www.reuters.com/world/us/us-water-utilities-borrowing-costs-infrastructure-2025-12-09/

U.S. water utilities are facing mounting pressure as elevated interest rates push up the cost of financing long-planned infrastructure upgrades. Industry executives said higher borrowing costs are complicating capital programs needed to replace aging pipes, expand treatment capacity and comply with stricter drinking-water standards. Utilities traditionally rely on long-dated municipal bonds, but rising yields have increased debt-service burdens, prompting some utilities to delay or re-phase projects. Analysts note that sustained high rates could translate into higher customer bills or renewed calls for federal support through grants and low-interest loan programs.

Moody's: Climate risk and water scarcity weigh on U.S. municipal credit outlook Moody's Investors Service (Dec 6, 2025)

https://www.moodys.com/research/Moodys-Climate-risk-water-scarcity-municipal-credit-2025--PBC 1456789

Moody's says increasing exposure to drought, water scarcity and extreme weather is becoming a more material factor in U.S. municipal credit assessments. Utilities with limited supply diversification or heavy reliance on stressed basins face higher long-term capital requirements, potentially weakening debt metrics. The report highlights growing divergence between well-capitalised systems and smaller agencies with constrained rate-setting flexibility.

U.S. Army Corps seeks private capital for large-scale water storage projects Bloomberg (Dec 8, 2025)



https://www.bloomberg.com/news/articles/2025-12-08/us-army-corps-private-capital-water-storage

The U.S. Army Corps of Engineers is exploring public-private partnerships to accelerate construction of major water storage and flood-control projects. Officials said budget constraints and rising construction costs are driving interest in private capital participation. The move reflects a broader shift toward blended finance structures in U.S. water infrastructure, particularly where climate volatility increases the value of storage assets.

San Antonio Water System projects 42% rate revenue growth due to rising capital costs

Express News (Dec 9, 2025)

https://www.expressnews.com/news/article/saws-water-rates-bills-costs-21233076.php

The San Antonio Water System (SAWS) projects a 42% increase in rate revenue over the next five years to fund aging infrastructure, rising operational costs, and a \$300 million generator installation. SAWS's capital improvement plan exceeds \$3 billion, prompting proposed 2026 rate adjustments. Capital costs for water supply, delivery, and wastewater systems are driving the utility's financial planning, illustrating financing pressures at major U.S. water systems.

Illinois American Water completes \$157 million treatment plant upgrade The Telegraph (Dec 11, 2025)

https://www.thetelegraph.com/news/article/east-st-louis-water-upgrades-21234962.php

The upgrades at the more than a century-old Metro East Illinois American Water treatment plant are complete.

American Water <u>made the announcement Tuesday</u>, saying the plant in East St. Louis, Illinois (just across the Mississippi River between the Gateway Arch and the Stan Musial Veterans Memorial Bridge) began undergoing upgrades and enhancements in 2019 with a \$157 million budget. The company says the facility and site began as a water treatment facility in the 1800s.

"The major investments to our East St. Louis plant over the past six years are strategic, significant and sustainable," Rebecca Losli, president of Illinois American Water, said in a statement. "The projects position us to continue providing quality water service in the Metro East that meets or surpasses regulatory quality standards."



GLOBAL WATER NEWS

ACWA Power completes strategic acquisition of water desalination and power assets SmartWaterMagazine (Dec 15, 2025)

https://smartwatermagazine.com/news/acwa-power/acwa-power-completes-strategic-acquisition-engies-power-and-water-assets-bahrain

ACWA Power, the world's largest private water desalination company, a leader in energy transition, and first mover into green hydrogen, today announced the successful completion of its strategic acquisition of ENGIE's stakes in gas-fired power generation and water desalination assets in Bahrain, along with the related Operations & Maintenance (O&M) companies.

The acquired Bahrain portfolio consists of a 45% equity stake in Al Ezzel IPP (940MW CCGT), 45% in Al Dur IWPP (1,220MW CCGT and 218,000 m3/day SWRO), a 30% stake in Al Hidd IWPP (930MW CCGT and 409,000 m3/day MSF), as well as 100% ownership of Al Ezzel O&M Co, which will contribute to providing in-house O&M services across these assets.

This transaction, preceded by the signing of a Sale and Purchase Agreement (SPA) in February 2025, represents a wider acquisition. It covers ENGIE's interests in gas-fired power generation and water desalination assets in Bahrain, while the Kuwait assets form part of the broader transaction perimeter and will be transferred following the completion of customary technical conditions. The Kuwait portfolio includes 17.5% equity stake in Az Zour North IWPP (1,520MW CCGT, 486 thousand m3/day MED) as well as 50% ownership in Az Zour North Operations & Maintenance Co.

Renewable water availability per person plunges 7% in a decade, FAO FAO News (Dec 12, 2025)

https://www.fao.org/newsroom/detail/renewable-water-availability-per-person-plunges-7-percent-in-a-decade-as-global-scarcity-deepens--fao-data-shows/en2

According to the 2025 AQUASTAT report, renewable freshwater availability per person has declined by 7 percent over the past decade, with significant pressure on supplies in regions such as Northern Africa and Western Asia. Agriculture continues to account for the majority of withdrawals globally, while rising withdrawals and limited replenishment intensify stress on river basins and aquifers.

Oman flood threats in a traditionally arid environment

Washington Post (Dec 15, 2025)

https://www.washingtonpost.com/weather/interactive/2025/oman-dubai-flooding/Summary:

Extreme rainfall events are increasingly threatening historically dry regions such as

Oman. Shifting climate patterns are funneling more moisture into the Arabian Peninsula, leading to intense storms that challenge infrastructure and planning for both flood mitigation and water resources in arid basins.

Maharashtra aims for drought- and flood-free future

Times of India (Dec 15, 2025)

Maha aims to be drought and flood-free with irrigation projects & floodwater diversion plans | Nagpur News - The Times of India

Maharashtra is on course to become both drought-free and flood-free in the next few years, with the state govt accelerating irrigation works and planning large-scale floodwater diversion projects across regions. To this end, the govt has stepped up funding for pending irrigation projects in Vidarbha and Marathwada and is planning to divert 30 to 35 TMC of floodwater from Kolhapur and Sangli to drought-prone areas. Replying in the House on last week's resolution on Sunday, chief minister Devendra Fadnavis said most parts of the state are now well irrigated, with only three districts — Akola, Buldhana, and Hingoli — having pending projects that will be completed soon. The chief minister said World Bank has already approved a floodwater diversion project aimed at conserving excess water and utilising it in drought-hit areas of Marathwada. "Over 100 TMC water is wasted every year due to floods in Kolhapur and Sangli. Through this project, at least 30 to 35 TMC can be diverted," he said. Speaking on the irrigation backlog, Fadnavis said more than 13.34 lakh hectares are currently irrigated in Vidarbha, with only about 49,000 hectares remaining. As per estimates of the last three years, around 14,530 hectares of project work is pending in Akola, while over 19,335 hectares land has already been brought under irrigation. In Buldhana district, more than 1.68 lakh hectares are already irrigated, with Jigaon project being the largest, estimated at Rs2,399 crore. The project has an irrigation capacity of 8.52 lakh hectares. The CM said Vidarbha has total 485 irrigation projects, covering 22.31 lakh hectares. Over 771 projects have been completed under Baliraja Jal Sanjivani Yojana in the state and other schemes, while 74 are still pending. In East Vidarbha, additional works will be undertaken to augment Gosikhurd irrigation project. Fadnavis said Rs1,555 crore has been allocated for Gosikhurd, and the works will be completed by 2027. "Over Rs7,900 crore has been allocated for irrigation projects in Vidarbha," he said, adding Gosikhurd will now be treated as a new project. The chief minister also noted that Maharashtra has received the highest irrigation allocation in the country. He said Wainganga-Nalganga river-linking project, described as a game-changer for Vidarbha, will bring 4.04 lakh hectares — around 10.26 lakh acres — under irrigation. All approvals for the project have been finalised. and its design, drawings, and DPR will be submitted to the state-level technical steering committee (SLTSC) by the end of this month. The entire approval process is expected

to be completed by February 2026, after which tendering and actual work will begin. Valued at nearly Rs1 lakh crore, the river-linking project is expected to transform drought-prone areas of Vidarbha into green belts. Along with this, the govt is planning to divert 55 TMC water to Konkan and Godavari basin. The detailed project report for increasing water supply to Marathwada is in its final stages and is expected to be completed by March 2026, following which Maharashtra Water Resources Regulatory Authority (MWRRA) approval will be obtained. The action planOriginal backlog was 13.83 lakh hectares; 13.34 lakh hectares now under irrigation- Only 49,000 hectares of backlog remains, primarily in Akola, Buldhana, and Hingoli districts- In Akola, 19,335 hectares of irrigation capacity will be created by 2026-27, surpassing the remaining backlog of 14,530 hectares- In Buldhana, 1.68 lakh hectares will be irrigated against a backlog of 29,000 hectares- A provision of Rs2,399 crore has been allocated for Jigaon project, which will transform Buldhana from deficit to surplus- Gosikhurd project, crucial for Eastern Vidarbha, is nearing completion, with 2.54 lakh hectares of irrigation capacity to be created- Rs1,555 crore has been approved for Gosikhurd project, expected to be completed by June 2027- Most of the 485 irrigation projects in Vidarbha are completed, with 7.66 lakh hectares of additional capacity from the remaining 74 projects- Wainganga-Nalganga mega project will bring 4.04 lakh hectares under irrigation, with approval processes targeted for completion by February 2026-Chief minister is confident that Damanganga-Narpar-Girna water diversion and flood diversion projects will permanently end drought in Marathwada

Nile town turns flooding into water service gains

The Guardian (Dec 11, 2025)

The town on the banks of the Nile that turned floods into fortune | Global development | The Guardian

The three friends fill yellow jerrycans and help each other lift them on to their heads for the short walk home. Nyandong Chang lives five minutes from the water kiosk and is here up to six times a day. "It's still hard work," she says, "but at least nowadays water is available and clean."

Until last year, women and children in Bor, the capital of South Sudan's Jonglei state, faced a much tougher chore – going all the way to the filthy stretch of the White Nile that runs near the town to draw the family's drinking, washing and cooking water and carry it back.

"It was dirty and could make people sick at home, but we had no other option," says Chang.

But that was before Bor's new water treatment plant transformed the town in what is being seen as a beacon of climate crisis adaptation.



Parts of Jonglei have remained under water, and extreme flooding, which experts say is down to climate breakdown, has this year displaced close to 380,000 South Sudanese people, according to the UN's office for humanitarian affairs.

Students of St Andrew high school, which was connected to the pipe network this year, dance at the inaguration of the water treatment plant in Bor.

But Bor has recovered, and last month a completed \$5.4m (£4m) project, funded by the Netherlands and South Korea, was formally handed over to the management of the state-owned corporation (SSUWC).

It used to take us more than one hour to fill just one jerrycan before. At the borehole, the queue was long

Achol Teresa

"In 2020, the major flood emergency really eroded the infrastructure, including the water-supply system, and that left the community hugely vulnerable to waterborne diseases," says Thewodros Mulugeta, Unicef's chief of water, sanitation and hygiene (Wash) in South Sudan.

"So the initial phase of the project started as a humanitarian, critical emergency response. Then there was a strategic shift to finding long-term, durable solutions to the water supply."

Dykes were built along the river and drainage systems established for rainwater.

MENA UNESCO regional meeting on scientific cooperation and water security UNESCO News (Nov 2025)

https://www.unesco.org/en/articles/viet-nam-hosts-unesco-regional-meeting-scientific-cooperation-and-water-security

As the Asia-Pacific region faces intensifying challenges from climate change, water scarcity and disasters, the 32nd Session of the Regional Steering Committee for Asia and the Pacific (RSC-AP) under UNESCO's Intergovernmental Hydrological Programme officially opened today in Hanoi, gathering 17 National IHP Committees from the Asia-Pacific region and nearly 100 international experts from over 30 countries.

The three-day meeting celebrates 50 years of the IHP and six decades of UNESCO working in the water sciences. It is organized by the Institute of Meteorology, Hydrology and Climate Change (IMHEN) under the Ministry of Natural Resources and Environment of Viet Nam, in cooperation with UNESCO and supported by the Japanese Funds-in-Trust (JFIT).

The meeting brought together H.E. Mr. Le Cong Thanh, Vice Minister of Natural Resources and Environment of Viet Nam; H.E. Mr. Ito Naoki, Ambassador of Japan to



Viet Nam; Ms. Le Thi Hong Van, Secretary-General of the Viet Nam National Commission for UNESCO; as well as representatives of UNESCO, IHP National Committees, and UNESCO Water Centres in the region.

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

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