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May 29th 2025

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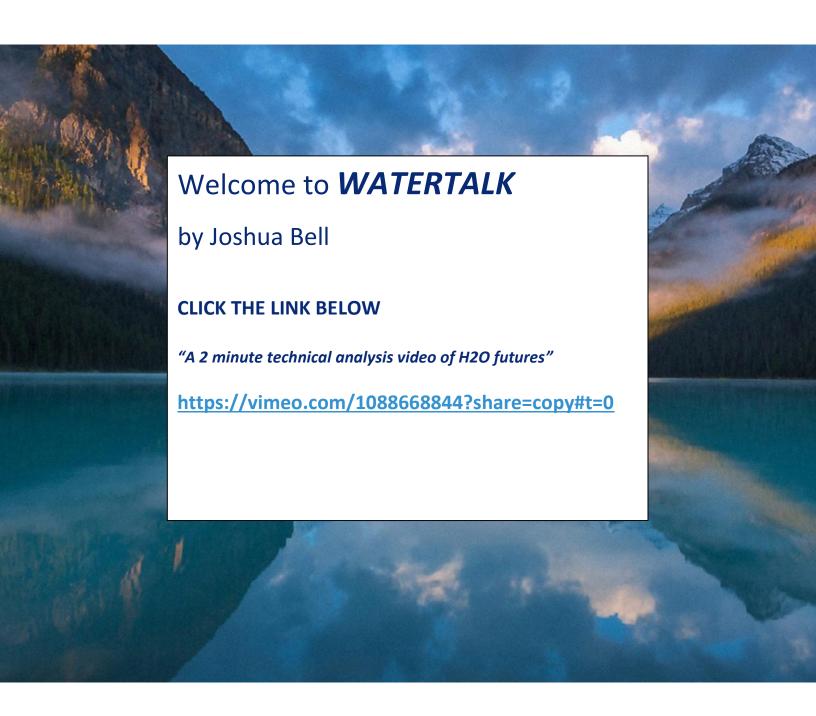
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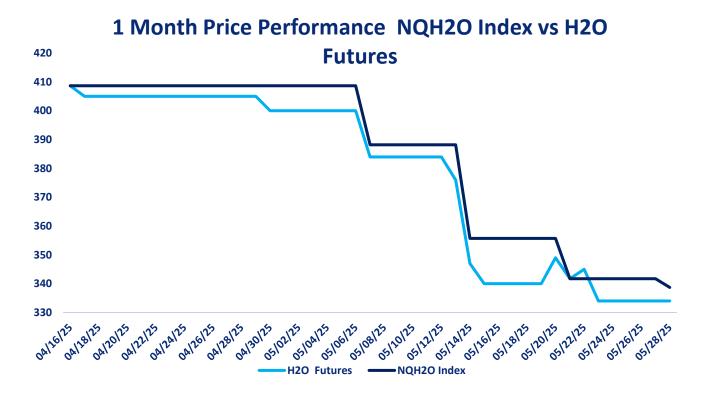


WATER FUTURES MARKET ANALYSIS





NQH2O INDEX PRICE vs H2O FUTURES PRICE



Price Chart Based upon Daily Close

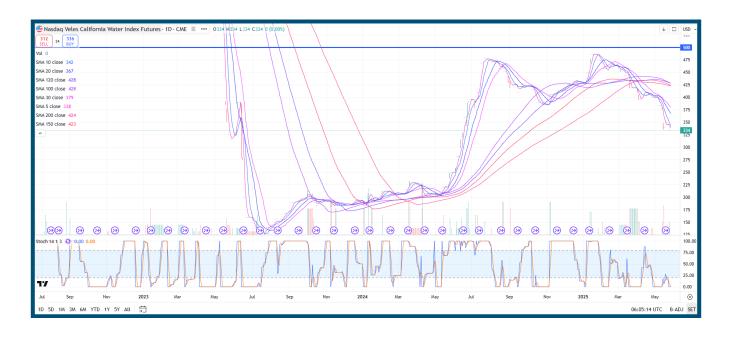
The new NQH2O index level of \$338.69 was published on May 28th, down \$3.04 or 0.89% from the previous week. The June contract is considered the front month. The futures prices closed at a discount of \$4.69 to a premium of \$3.27 versus the index over the past week.

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

June 25 312@336 June 26 382@436



H2O FUTURES TECHNICAL REPORT



Price Action

Current Price: 334

Change: 0% on the session

The price remains pinned at 334, showing no movement in today's session. However, this stability comes after a sharp downward trend from the March highs above 480. The price is now trading well below all major moving averages.

Moving Averages Analysis

Short-Term Averages:

- **5-day SMA: 338** Price is below this level, indicating bearish short-term momentum.
- 10-day SMA: 342 Continues to decline, reinforcing short-term weakness.
- **20-day SMA: 367** Price remains significantly below, confirming downtrend acceleration.

Medium-Term Averages:

- **30-day SMA: 379** The slope has turned down, acting as dynamic resistance.
- 100-day SMA: 428 Price is far below, confirming a major breakdown.
- **120-day SMA: 428** Matches the 100-day level, indicating long-term support was decisively broken.



Long-Term Averages:

• 150-day SMA: 423

200-day SMA: 424

Both are now rolling over, a significant technical warning that the long-term trend has reversed to bearish.

Support and Resistance Levels

- **Immediate Support:** There's minor psychological support at **330**, but it is untested.
- Major Support Zone: If 330 breaks, the next support could lie near **300–310**, levels from earlier consolidation phases.
- Resistance Levels:
 - o **338-342**: Confluence of the 5- and 10-day moving averages.
 - 367-380: Zone of the falling 20- and 30-day SMAs and prior breakdown level.

Momentum Indicator (Stochastic 14,1,3)

• K%: 0.00, D%: 0.00

The stochastic is flatlined at zero, indicating extremely **oversold conditions**. However, there's **no bullish crossover**, suggesting any reversal has yet to materialize.

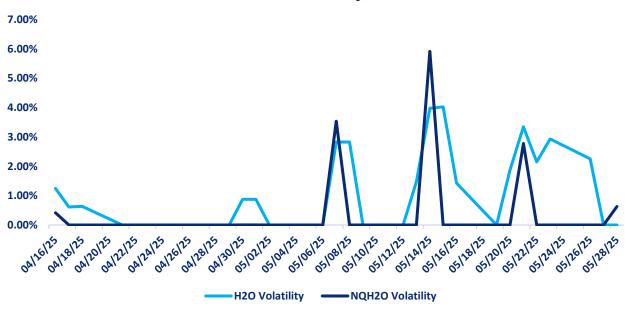
Summary & Key Takeaways

- The price is stuck at 334, consolidating just above minor support.
- All key moving averages are declining, showing a strong bearish trend across all timeframes.
- Oversold stochastic conditions raise the **potential for a bounce**, but no reversal signals are confirmed yet.
- A decisive break below 330 would signal a move toward deeper support near the 300–310 zone.
- Bulls need a close above **342**, and eventually **367**, to break the short-term downtrend.



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 2.25%.

ASSET	1 YEAR (%)	2 MONTH (%)	1 MONTH (%)	1 WEEK (%)
NQH2O INDEX	26.32%	7.55%	7.53%	3.04%
H2O FUTURES	N/A	14.07%	9.79%	3.55%

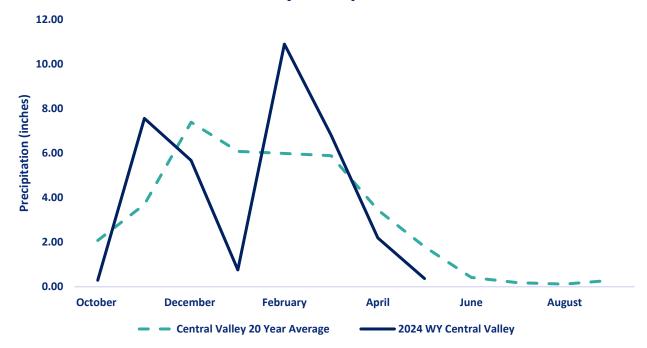
For the week ending on May 28th, the two-month futures volatility is at a premium of 6.51% to the index, down 0.09% from the previous week. The one-month futures volatility is at a premium of 4.73% to the index, down 2.47%. The one-week futures volatility is at a discount of 0.15% to the index volatility.

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 28/05/2025

STATION	MTD (INCHES)	WEEK ON WEEK CHANGE (INCHES)	% OF 20 YEAR AVERAGE MTD	2025 WY TD VS 2024 WYTD %	2025 WY VS 20 YEAR AVERAGE TO DATE %
SAN JOAQUIN 5 STATION (5SI)	0.18	0	9.79%	86	69
TULARE 6 STATION (6SI)	0.13	0	11.37%	84	85
NORTHERN SIERRA 8 STATION (8SI)	0.8	0	33.06%	94	109
CENTRAL VALLEY AVERAGE	0.37	0.00	20.54%	88	88

RESERVOIR STORAGE

RESERVOIR	STORAGE (AF)	% CAPACITY	LAST YEAR % CAPACITY	*% HISTORICAL AVERAGE
TRINITY LAKE	2,255,849	92	87	117
SHASTA LAKE	4,195,049	92	95	110
LAKE OROVILLE	3,405,095	99	103	121
SAN LUIS RES	1,359,847	67	61	94

^{*%} 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.

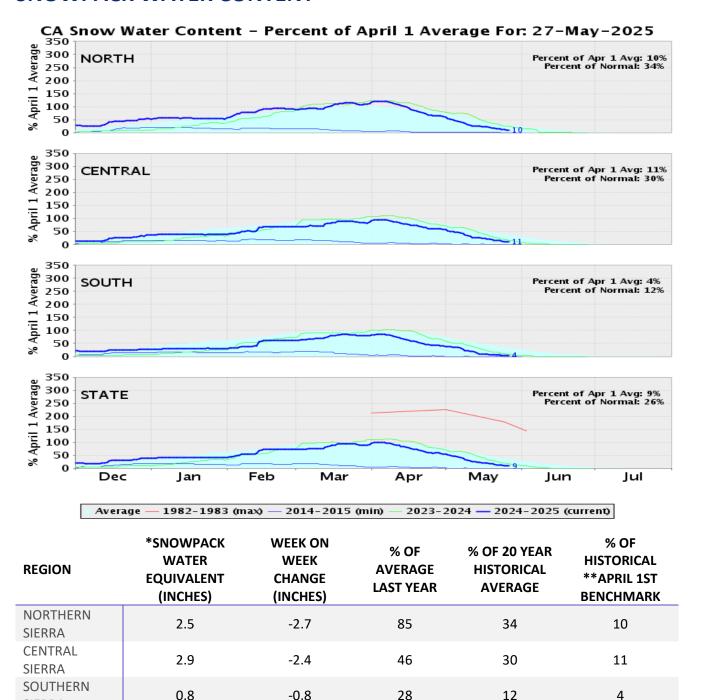
Reference: California Water Data Exchange



SNOWPACK WATER CONTENT

SIERRA STATEWIDE

2.4



49

26

-2.1

9

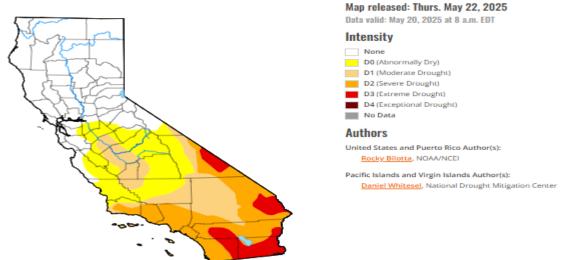
^{*}Snow Water Equivalent, or SWE, is a commonly used measurement used by hydrologists and water managers to gauge the amount of liquid water contained within the snowpack. In other words, it is the amount of water that will be released from the snowpack when it melts. SWE has regional variance.

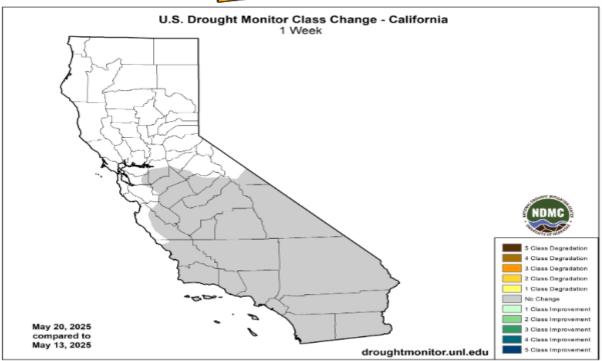
^{**} April 1st is used as the benchmark as it when the snowpack in California is generally deepest. It has been used the benchmark date since 1941 by DWR and can be used to predict spring river flow.

W

DROUGHT MONITOR

California Home / California





Week	Date	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	<u>DSCI</u>
Current	2025-05-20	41.86	58.14	39.81	24.73	7.11	0.10	130
Last Week to Current	2025-05-13	41.86	58.14	39.81	24.73	7.11	0.10	130
3 Months Ago to Current	2025-02-18	41.82	58.18	41.58	24.83	14.75	0.00	139
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	2024-05-21	98.77	1.23	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

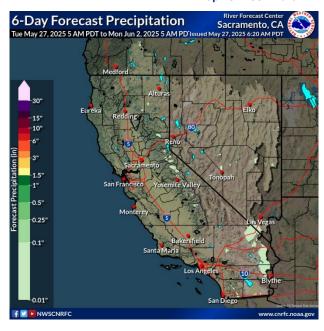
The satellite picture shows a Pacific storm hitting the northwestern coastline and some effects of this may go as far south as San Francisco. The western half of the US is relatively clear with some scattered clouds in the LA area and to the east of LA. There is a storm north of Dallas moving eastwards. The eastern US has cloud cover with some embedded storm activity with most of the intensity moving out over the Atlantic.



10 Day Outlook

Lingering showers for Wednesday, mainly over the Sierra and NV, as the back edge of the low keeps troughing over much of the region with drying along the coast as high pressure attempts to rebuild offshore. Both the GFS and ECMWF keep some troughing over the area through the rest of the period. The change in pattern will also cool things down pretty abruptly starting Sunday and lasting through the rest of the period. Afternoon temperature anomalies will go from +10 to +20 deg F Saturday to -5 to -15 deg F Monday (locally to -20 deg F). There is still disagreement with the ensembles on the

Map Ref: Zoom Earth



timing and positioning of the low with 24 hr QPF spread now on the order of about an inch. Though, the range has narrowed since yesterday from 0-2" to about 0.50-2" for Monday at Arcata.

QPF for the period is expected Sunday to Wednesday with lighter lingering showers on Wednesday generally on the order of less than a tenth of an inch. Highest amounts along

the north coast, Shasta, and the northern Sierra. Amounts have gone up over nrn CA since yesterday by about 0.10-0.50" while lowering over the central Sierra by 0.10-0.25". QPF was a blend of WPC guidance and the 13z NBM. Forecast 12z Sun-12z Weds: 0.50-1.50" north coast, 0.50-1" nrn Sierra/Shasta, 0.10-0.75" central Sierra/rest of nrn CA, a few hundredths to 0.25" southern Sierra/Bay Area, and less than a tenth for coastal srn CA.

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

WESTERN WEATHER DISCUSSION

Cooler temperatures dominated the West this week, with departures ranging between 1 to 10 degrees F below normal. Much of the interior West experienced temperatures between 4 to 10 degrees below normal. In contrast, above-normal temperatures were observed across the eastern portions of the Southwest and in parts of Montana, eastern Utah, southern Nevada, and northern California. Precipitation varied across the region this week, with beneficial amounts falling in parts of the Southwest and northeastern Oregon. Moderate to extreme drought (D1-D3) were improved in eastern New Mexico, while moderate to severe drought (D1-D2) were trimmed back in western Utah and abnormal dryness (D0) was improved in Oregon. Conversely, below-normal precipitation resulted in the expansion of exceptional drought (D4) in southwestern New Mexico and moderate drought (D1) in northern Montana this week.

Reference:

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



WATER NEWS

CALIFORNIA WATER NEWS

Home water-use app improves water conservation

AUC Riverside-led study has found that a smartphone app that tracks household water use and alerts users to leaks or excessive consumption offers a promising tool for helping California water agencies meet <u>state-mandated conservation goals</u>.

Led by <u>Mehdi Nemati</u>, an assistant professor of public policy at UCR, <u>the study</u> found that use of the app—called Dropcountr—reduced average household water use by 6%, with even greater savings among the highest water users.

<u>Dropcountr</u> works by interpreting water-use data from smart water meters, which many utilities originally installed for remote reading to streamline billing. The app turns data from these meters into real-time feedback for consumers, showing how much water they use, how their usage compares to similar households, and how it has changed over time.

This type of digital feedback gives users what behavioral economists call a "nudge"—a timely prompt to take water-saving actions, such as taking shorter showers, fixing leaks, or delaying using appliances like dishwashers and washing machines until they are full. The app also alerts users when their consumption nears costly higher-rate tiers and notifies them of possible leaks. Utilities also can use the app to send customers tips for cutting use and notify them of rebate programs, such as those for replacing lawns with drought-tolerant landscaping.

"California water agencies are under pressure to hit individualized water-use targets and conservation goals under the 'Making Conservation a California Way of Life' regulation," Nemati said. "Our study shows that this digital feedback tool can be a powerful, low-cost way to help households manage their use and reduce consumption."

The research focused on the City of Folsom in Northern California, where Dropcountr was offered to residential customers beginning in late 2014. About 3,600 households volunteered for the program, which collected smart meter data from 2013 to 2019. This allowed researchers to analyze more than 32 million records of daily water use.

The findings, published in the journal Resource and Energy Economics, showed that participating households reduced their daily consumption by an average of 6.2% compared to a control group. The reduction was greater among high-volume users. The top 20% of users cut their water use by up to 12%.

"This is a crucial outcome when every drop counts," Nemati said. "We found strong, statistically significant reductions, especially for high-use customers."

Dropcountr also uses behavioral science concepts, especially the power of social norms. Users receive personalized water-use summaries that show how their consumption



stacks up against more efficient nearby households, helping them set reasonable and achievable conservation goals.

The app also flags possible leaks by detecting continuous usage patterns—such as when water use remains steady for 72 hours. These alerts were found to be especially effective: Water use dropped roughly 50% on the day after a leak alert was sent, followed by a 30% drop the next day, and a sustained 9% reduction even six days later. "The sharp drop suggests customers are paying attention and acting quickly," Nemati said. "One major advantage is that they can detect leaks right away—sometimes before they cause damage or result in costly bills. That's difficult with traditional billing systems, where usage is only seen after 30 or 60 days."

Importantly, the study also found that these behavioral changes lasted. "We looked at water use 50 months out and still found sustained reductions," Nemati said. "People weren't just reacting once and forgetting. They stayed engaged."

The app works best with homes equipped with smart meters, while many homes in California still rely on older, manually read meters. Fortunately, adoption of advanced metering infrastructure continues to expand.

Still, Nemati noted, many agencies that do have smart meters continue to rely on outdated methods—like mailed letters—to notify customers of high usage or leaks.

"People get water bills, but the information may not be salient. Most bills report usage in cubic feet or units, which aren't easy to interpret," Nemati said. "What platforms like Dropcountr do well is make the data meaningful. People want to use water wisely. They just need timely, clear, and actionable feedback. These platforms give them that—and they work."

Original Article: <u>UC Riverside News by David Danelski</u>

The rate at which California trees are dying hits 10-year low

The rate at which trees are dying in California has hit a 10-year low, according to a survey from the U.S. Forest Service.

Trees were dying at an alarming rate from 2015 to 2018, but after significant snow and rainfall in recent years, trees are getting their necessary nutrients.

Advertisement

"We've had a couple good years of precipitation," said Jeffrey Moore, aerial survey manager with the Forest Service. "We expected the amount of mortality to start tapering off, and indeed that was the case."

Severe droughts, he says, are the main culprits for the amount of trees that die. Less water means fewer nutrients, which then allows for a greater chance of trees to get disease or infected with bugs that feed on dry bark.

"The drought itself was what we call the proximal factor," Moore said. "It weakened the trees to the point where other things could come in and actually kill them outright."

California experienced extreme drought from 2012 to 2014, which led to the following years of intense tree die-off. There was another drought from 2020 to 2021, but the recent rain has helped the forests.

"The number of trees that were continuing to die was decreased dramatically from recent year," Moore said.

Officials and scientists who study forests say the landscapes are vital to California's ecosystem. Forests make up about one-third of the land in the entire state.

"Our water quality, a lot of our air quality conditions are really impacted by how we steward up into the mountains, and that affects all of us in California," said Yara Alachovic, a University of California forest adviser.

While this survey is a welcome sight for California, officials are staying vigilant. California had one of its hottest summers in 2024, and they understand more hot weather could be coming.

"We don't know if that's going to continue or not," Moore said when asked about more hot summers. "If it does, indeed, what kind of effect is that going to have on our forested areas? To what extent would that effect be? Those are the million-dollar questions."

Original Article: KCRA by Ryan Curry

Wildlife Conservation Board Awards \$59.5 Million in Grants to 25 Habitat Conservation and Restoration Projects

The Wildlife Conservation Board (WCB) has approved \$59.5 million in grants to support 25 habitat protection and restoration projects in 21 counties across California. Awarded at WCB's May 22 meeting, the projects will safeguard nearly 23,000 acres of the state's most ecologically important landscapes.

Among the awards is a \$14.75 million grant to the <u>Trust for Public Land(opens in new tab)</u> (TPL) to acquire approximately 6,475 acres near the city of Ventura. Known as Rancho Cañada Larga, the land features coastal sage scrub, native grasslands, oak woodlands, chaparral and riparian habitats that support at least 20 special-status wildlife species and eight rare plant species. The site provides critical habitat for the California red-legged frog and Southern California steelhead, and lies within the year-round range of the California condor.

The acquisition includes 4.25 miles of Cañada Larga Creek — one of five major tributaries to the Ventura River — and protects a vital section of the Sierra Madre—Castaic Linkage, a wildlife corridor that connects two major watersheds and national forests.

The property also holds cultural significance, and active consultation is underway with the Barbareño-Ventureño Band of Mission Indians to ensure access rights for ceremonial gatherings, native plant collection and other cultural uses.

"This support is a critical milestone in our effort to conserve one of Ventura County's most iconic open spaces," said Guillermo Rodriguez, TPL Pacific Region vice president and California state director. "Rancho Cañada Larga is a landscape of extraordinary ecological and cultural value, and this funding will help to ensure it will be protected for generations to come."

The WCB's grants advance Gov. Gavin Newsom's goal of conserving 30 percent of California's lands and coastal waters by 2030, an initiative known as 30x30(opens in new tab). The initiative seeks to protect biodiversity, expand access to nature for all Californians and adapt to climate change.

Original Article: CA Dept of Fish and Wildlife

California's second-largest reservoir fills for third straight year

California's second-largest <u>reservoir</u>, Lake Oroville, reached capacity Friday, hitting the high water mark for the third straight year — a first for the 57-year-old reservoir.

The milestone comes after a moderately wet winter in California, with enough snow in the mountains, particularly in the north, to melt and flush substantial water into state reservoirs. This week, water storage in California's major reservoirs stood at a comfortable 116% of average for the time of year, ensuring decent supplies for the rest of 2025.

At Lake Oroville, about 70 miles north of Sacramento in Butte County, water levels rose Friday morning to within inches of the 900-foot elevation mark that state water managers deem full pool, prompting notice that the reservoir had hit capacity. At capacity, the lake holds 3.4 million acre-feet of water, enough to supply more than 7 million households for a year.

The lake's supplies are at the heart of the State Water Project, a network of nearly two dozen dams and reservoirs run by the California Department of Water Resources. The state facilities provide drinking water for 27 million people, mostly in the Bay Area and Southern California.

"Full reservoirs allow DWR to help meet the needs of the State Water Project contractors and their customers this year as well as provide some water supply next year in the event that dry conditions return," Raquel Borrayo, a spokesperson for the Department of Water Resources, said in an email.

This past winter was the third straight with near- or above-average rain and snow in California. Accordingly, reservoirs have fared well, and statewide water supplies have remained robust.

Still, water managers encourage people to conserve, pointing out the fickle nature of California weather and water. Just four years ago, severe drought pushed Lake Oroville to its lowest point since the reservoir began operating in 1968. Managers of the State Water Project have said they plan to deliver 50% of the water that contractors have requested this year, choosing to remain relatively cautious. California's largest reservoir, the federally run Shasta Lake, also hit capacity this spring. The Bureau of Reclamation-managed Central Valley Project, which supplies water to mostly agricultural users, is similarly planning to provide 50% of the water requested to the bulk of its contractors.

Original Article: San Francisco Chronicle by Kurtis Alexander

Audubon California Project Receives \$5.2 Million for Salton Sea Restoration - Wildlife Conservation Board Grant Will Help Fund Work at Bombay Beach Wetlands

The California Wildlife Conservation Board (WCB) has approved a grant of \$5,231,066 towards Audubon California's Bombay Beach Wetland Enhancement projects, a critical step in restoring and expanding 564 acres of wetland habitat at the Salton Sea. This project, located near the lakeside community of Bombay Beach, is a cooperative effort with the California Department of Water Resources, Imperial Irrigation District and the Bureau of Reclamation, and will help restore a vital stopover for millions of migratory birds traveling along the Pacific Flyway, including habitat for the endangered Yuma Ridgway's Rail and desert pupfish.

The Bombay Beach Wetland Enhancement project addresses an urgent need to stabilize and restore wetland habitats at the Salton Sea. The project will enhance existing "emergent" wetlands, where desert spring outflows spill onto exposed lakebed; expand habitat in those areas; help control windblown dust; and create public access opportunities in the future.

"This grant is a monumental investment in the future of the Salton Sea, both for the wildlife that depend on it and the communities that surround it," said Andrea Jones, director of bird conservation and interim executive director of Audubon California. "The Salton Sea is a critical stopover for migratory waterbirds, and this project will ensure that these wetlands continue to provide refuge for species facing habitat loss and climate change challenges."

"As the Salton Sea continues to face challenges, timely, well-designed projects like this are essential—not only for restoring ecological function, but also for building long-term resilience in frontline communities," said Camila Bautista, Salton Sea and desert program manager for Audubon California. "Residents of the Imperial and Coachella Valleys already have high rates of dust-caused respiratory ailments and yet have little

access to outdoor activities. This project will directly benefit local communities and turn the Sea into an asset for them."

The project will include the stabilization of beach berms, construction of flow structures to manage water distribution, and creation of micro-catchments to support runoff. Long-term management will be overseen by the Salton Sea Conservancy under the California Natural Resources Agency's Salton Sea Management Program, with monitoring by the California Department of Fish and Wildlife.

Source: Audubon

Original Article: Sierra Sun Times

\$46.5 million investment transforms New River in Calexico, boosting water quality

In a significant step forward for public health and environmental restoration, **California state and local agencies** <u>have completed the New River Improvement Project in Calexico</u>—transforming one of the state's most polluted waterways into a cleaner, safer channel.

The project, part of the broader Salton Sea Management Program —an initiative focused on restoring California's largest inland lake—aims to stop untreated wastewater and solid pollutants from flowing through a 1.5-mile section of the New River in Calexico before entering the Salton Sea.

With \$46.5 million in state funding from the California Department of Water Resources (DWR), the State Water Resources Control Board, and California State Parks, this initiative marks a turning point for the region's water quality, ecosystem health, and public safety.

"The New River Improvement Project helps further State efforts to ensure that every Californian has access to clean, safe, and affordable water," said Karla Nemeth, Director of DWR. "The completion of this project is a major milestone for DWR, its partners, and the City of Calexico."

The New River, long burdened by cross-border pollution from Mexico, is now equipped with essential infrastructure to divert, treat, and improve water flow. Key components include a trash screen to capture solid waste, a diversion structure to reroute polluted flows into a bypass pipeline, and a pump-back system to reintroduce treated water into the riverbed.

"We are here today because it is time to renew the New River and make it a symbol of the environmental restoration possible when we come together to make it happen," stated E. Joaquin Esquivel, Chair of the State Water Board.

This project exemplifies the power of multi-agency collaboration. Managed by the City of Calexico, it reflects years of joint effort aimed at safeguarding vulnerable communities, restoring natural habitats, and improving local quality of life.

"If it weren't for the great teams created many years ago... the City of Calexico and the Salton Sea wouldn't have a cleaner river, vibrant wetlands, a healthier fauna, and an overall healthier population," said Calexico Mayor Diana Nuricumbo.

Aligned with Governor Gavin Newsom's vision, the project also supports broader goals under the 10-year Salton Sea Management Plan, which includes 30,000 acres of habitat and dust suppression projects to address declining water levels and increasing salinity. The New River is flowing toward a cleaner, healthier future—for people, wildlife, and California's fragile ecosystems.

Original Article: Smart Water Magazine

US WATER NEWS

Front Range cities step up opposition to \$99 million Colorado River water rights purchase

Denver, Aurora, Colorado Springs and Northern Water voiced opposition Wednesday to the Western Slope's proposal to spend \$99 million to buy historic water rights on the Colorado River from Xcel Energy.

The Colorado River Water Conservation District has been working for years to buy the water rights tied to Shoshone Power Plant, a small, easy-to-miss hydropower plant off Interstate 70 east of Glenwood Springs. The highly coveted water rights are some of the largest and oldest on the Colorado River in Colorado.

The Front Range providers are concerned that any change to the water rights could impact water supplies for millions of city residents, farmers, industrial users and more. The Front Range providers publicly explained their concerns, some for the first time, at a meeting of the Colorado Water Conservation Board, a state water policy agency.

The proposed purchase taps into a decades-old water conflict in Colorado: Most of the state's water flows west of the Continental Divide; most of the population lives to the east; and water users are left to battle over how to share it.

"If this proposal were to go forward as presented in the application, it could harm our ability to provide water for essential use during severe or prolonged drought. I think it's important for the board to understand that," Jessica Brody, general counsel for Denver Water, told the 15-member board Wednesday.

Denver Water, the oldest and largest water utility in Colorado, delivers water to 1.5 million people in the Denver area.

The Colorado River District, which represents 15 Colorado counties west of the Continental Divide, wants to keep the status quo permanently to support river-

dependent Western Slope economies without harming other water users, district officials said.

The overstressed and drought-plagued river is a vital water source for about 40 million people across the West and northern Mexico.

"That right is so important to keeping the Colorado River alive," Andy Mueller, Colorado River District general manager, said during the meeting's public comment period. "This is a right that will save this river from now into eternity ... and that's why this is so important."

The Western Slope aims to make history

Over 70 people, nearly twice the usual audience, attended the four-hour Shoshone discussion Wednesday, which involved <u>about 560 pages of documents</u>, over 20 speakers and a public comment period.

The water rights in question, owned by Public Service Company of Colorado, a subsidiary of Xcel, are some of the most powerful on the Colorado River in Colorado.

Using the rights, the utility can take water out of the river, send it through hydropower turbines, and spit it back into the river about 2.4 miles downstream.

One right is old, dating back to 1905, which means it can cut off water to younger — or junior — upstream water users to ensure it gets its share of the river in times of shortage. Some of those junior water rights are owned by Denver Water, Aurora Water, Colorado Springs Utilities and Northern Water.

The rights are also tied to numerous, carefully negotiated agreements that dictate how water flows across both western and eastern Colorado.

Over time, Western Slope communities have come to rely on Shoshone's rights to pull water to their area to benefit farmers, ranchers, river companies, communities and more.

The Colorado River District wants to buy the rights to ensure that westward flow of water will continue even if Xcel shuts down Shoshone (which the utility has said, repeatedly, it has no plans to do).

They've gathered millions of dollars from a broad coalition of communities, irrigators and other water users. The state of Colorado plans to give \$20 million to help fund the effort.

The federal government <u>might give \$40 million</u>, but that funding <u>was tied up in President</u> <u>Donald Trump's policy</u> to cut spending from big Biden-era spending packages. It was unclear Thursday if the awarded funds will come through, the district said.

Supporters sent over 50 letters to the Colorado Water Conservation Board before Wednesday's meeting.

Original Article: <u>The Colorado Sun by Shannon Mullane</u>



NASA satellite records unprecedented river waves in the United States

NASA's U.S.-French Surface Water and Ocean Topography (SWOT) satellite, which was launched in 2022 from Vandenberg Space Force Base, has spotted large-scale river waves for the first time, the NASA Jet Propulsion Laboratory (JPL) in Southern California has announced.

The river waves, which, unlike ocean waves, are temporary surges of water, stretched from 47 to 166 miles long as they traveled down rivers in Montana, Texas, and Georgia, the SWOT satellite recorded.

The three large waves measured by the SWOT satellite from 2023 to 2024 were believed to be caused by extreme rainfall and a loosened ice jam, NASA reports, with the largest measuring over 30-feet-tall, creating potentially hazardous flood waves traveling down U.S. rivers.

Ocean waves are primarily driven by wind and the gravitational pull of the moon and sun — tides — and move across the ocean until they crash to shore. According to NASA, river waves are temporary surges that can stretch tens to hundreds of miles, and are typically caused by rainfall or seasonal snowmelt. The waves can be beneficial, by shuttling nutrients and organisms down a river. But extreme river waves are usually triggered by a prolonged downpour or dam break and can cause floods.

"Ocean waves are well known from surfing and sailing, but rivers are the arteries of the planet. We want to understand their dynamics," said Cedric David, a hydrologist at NASA's Jet Propulsion Laboratory in Southern California and a coauthor of a new study published May 14 in Geophysical Research Letters.

Since 2022, the SWOT satellite has surveyed the height of nearly all of Earth's surface waters, both fresh and salty, using its sensitive Ka-band Radar Interferometer (KaRIn), which maps the elevation and width of water bodies by bouncing microwaves off the surface and timing how long the signal takes to return.

Lead author Hana Thurman of Virginia Tech and team used SWOT data to search for river waves for her doctoral research.

Thurman and team measured SWOT data that recorded the first wave on the Yellowstone River in Montana in April 2023. The satellite recorded the wave rise abruptly to 9.1 feet, and flow toward the Missouri River in North Dakota. It then divided into a 6.8-mile-long peak followed by a more drawn-out tail.

Through optical Sentinel-2 imagery of the area, Thurman was able to determine that the wave likely resulted from an ice jam breaking apart upstream and releasing pent-up water.

Original Article: Fox 5 San Diego by Anna Ashcraft



Texas House passes \$1 billion-per-year water project bill

In a vote of 143 to 3, the Texas House approved Senate Bill 7, the partner bill to a constitutional amendment planned to pump in a billion dollars a year for the next decade into water projects.

Lawmakers are racing against the clock for the final details, with only a week left in the regular legislative session. Key deadlines kick in throughout this next week, killing most ideas in the legislative process.

Most lawmakers agree that SB 7 is needed to pay for a new water supply, either building new reservoirs or buying water from other states and piping it throughout Texas.

"This truly is a historic piece of legislation," said the House author, Rep. Cody Harris, on the floor Monday.

Lawmakers aim to turn down the temperature of regional water fights like the one between Northeast Texas and the DFW metro over the possible Marvin Nichols Reservoir. The planned reservoir would flood 66,000 acres in East Texas to create a manmade lake and pipe water into the growing Dallas-Fort Worth Metroplex.

That fight highlights the stakes of doing nothing in the Legislature.

"Population and economic growth is accelerating the thirst for water," said Rep. Harris. The final rules are not yet approved. The House approved dedicating half the money supply taken in by sales taxes to go to new supply projects and those that are part of the State Water Implementation Fund for Texas (SWIFT). The other half is set to be decided by the Texas Water Development Board.

The Texas Senate had a different proposal, with 80 percent of the money dedicated to finding new water supplies. The final details will have to be worked out with the Senate later this week.

Gov. Greg Abbott declared water supply an emergency item this legislative session and is expected to sign the bills into law. Since it changes the state constitution, voters will have to sign off in an election this November.

On the House floor Monday, other lawmakers questioned the details. There was a failed effort to upgrade water systems around San Antonio. Harris, the point person for the water bill, promised to work on that issue next session with San Antonio lawmakers.

Rep. Vikki Goodwin, D-Austin, wanted to make sure the bill had money to restore leaky pipes and to build new fire hydrants in certain areas. Harris told her it "absolutely" did. Original Article: NBC DFW by Phil Prazan

Cutting-edge AI system predicts changes in water quality before they happen

The future of <u>clean drinking water</u> may depend on how well science can forecast not just how water moves—but also what's in it. A powerful combination of artificial intelligence,

high-frequency sensor data, and advanced streamflow models now allows researchers to predict changes in water quality before they happen.

This advance could help water systems nationwide stay ahead of threats like sediment spikes after storms, harmful algal blooms, or fertilizer runoff. A group of researchers from the <u>University of Vermont</u> has taken the first steps to prove that predicting water quality, not just water quantity, is now possible.

Turning Flow Models into Water Quality Tools

Across the country, scientists and water managers already rely on the <u>National Water Model</u> (NWM), a large-scale computer system built to predict how streams and rivers will flow. It uses weather forecasts, rainfall data, and stream observations to estimate how water will move across the landscape. These predictions help people prepare for flooding, droughts, and other extreme events.

Now, researchers are transforming the model's abilities. By adding machine learning and sensor data, they've created a system that can also forecast turbidity, which measures how cloudy or clear water is due to sediment and particles.

Scientist Andrew Schroth led the study. "This new tool can be implemented across the country and broadly utilized by folks that could use water quality forecasts in any number of applications," he said. In a first-of-its-kind move, his team showed that by combining AI with the NWM, they could predict when water becomes murky—days in advance.

The Test Site: Esopus Creek

To prove their idea worked, the team chose a water system with real-world challenges: New York State's Esopus Creek, part of the Catskill Mountains. This creek flows into the <u>Ashokan Reservoir</u>, which supplies nearly 40% of New York City's drinking water. The city relies on this reservoir as part of the country's largest unfiltered water system.

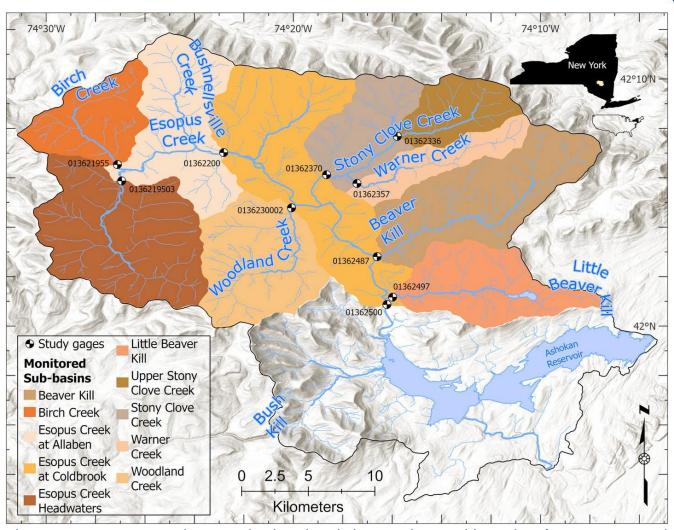
Turbidity is one of the biggest concerns for this water source. When it rises too high—usually during or after storms—the city must reduce the reservoir's use. That shift affects water delivery, planning, and costs.

The problem starts in the land itself. The Esopus Creek valley holds a lot of loose <u>glacial</u> <u>sediment</u>, including fine clay, silt, and gravel. When storms hit, the streambanks erode, washing these particles into the creek. The water becomes cloudy. This turbidity can linger for weeks or even months.

"When too much sediment comes into the reservoir during or after big storms, New York City has to limit supply and modify their operations," Schroth said. That's why his team focused on predicting turbidity, not just flow.

How Machine Learning Improves Forecasts

The researchers built their forecast tool by training a machine learning model called <u>LightGBM</u>. This AI system uses data from over five years of sensor readings that monitor turbidity and streamflow every few minutes.



The Upper Esopus Creek watershed with sub-basins denoted by color. (CREDIT: Journal of the American Water Resources Association)

They fed the model forecasts from the NWM and trained it to learn how future streamflow patterns lead to changes in turbidity. The model then predicted turbidity levels up to three days in advance with high accuracy.

Compared to simpler models, the machine learning version performed better. It handled complex <u>landscapes</u> more easily and produced reliable results, especially for short-term forecasts. It even showed which conditions—like high water flow—most affected turbidity.

This finding is important. It shows that clear and efficient AI tools, when combined with sensor data and streamflow forecasts, can help predict water quality. The study marks the first time that the NWM has been used in this way.

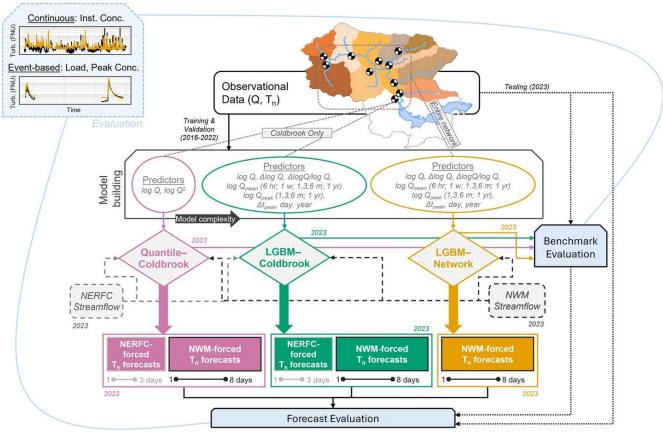
John Kemper, a scientist who worked on the study, highlighted the value of the project. "Turning a streamflow forecasting tool into a water quality forecasting tool paves the way for increasingly available forecasts to serve community needs," he said.

A Model for the Whole Country

The success in the Catskills shows how the model could be useful far beyond New York. Supported by the Cooperative Institute for Research to Operations in Hydrology (CIROH), a national partnership funded by NOAA and the <u>U.S. Geological Survey</u>, the researchers are now working to expand the tool's reach.

Across the United States, hundreds of communities face water quality challenges. Many use sensors to monitor turbidity, nutrients, and pollutants. Now, with a forecasting tool like this, they could get early warnings about incoming problems.

For example, a water treatment plant could use turbidity forecasts to prepare for incoming sediment, possibly avoiding a shutdown. A local health department could respond faster to potential algal blooms, closing beaches before swimmers get sick. Farmers could adjust fertilizer use based on expected water levels, avoiding runoff that harms rivers and lakes.



Model building, forecasting, and evaluation workflow for leveraging streamflow forecasts to predict water quality. (CREDIT: Journal of the American Water Resources Association)

The model works by identifying links between water flow and specific <u>pollutants</u> or conditions. In New York, it focused on turbidity. But in other places, it could target nutrients like nitrogen or phosphorus, or other substances like chloride. The structure of the model allows it to be adapted to different needs.

"This opens a new window that can really benefit the country as a whole moving forward," Schroth said.



Ready for Real-World Impact

The system doesn't just work in theory. The National Water Model already provides hourly streamflow forecasts across the U.S. These are public and easy to access. The sensors many water systems use also deliver frequent updates. By combining the two and training local AI models, communities can start building their own water quality forecasts.

Original Article: The Brighterside by Mac Oliveau

State water projects granted over \$13M

The Arkansas Natural Resources Commission has approved \$13.6 million in financial assistance for water and wastewater projects across the state, a news release from Gov. Sarah Huckabee Sanders' office said. The money will go to projects for 12 entities that serve 42,288 Arkansans.

Sherwood received the largest share of the funding, a \$7.059 million loan, which is set to be used for an interceptor rehabilitation for the Five Mile Creek water reclamation facility basin. An interceptor is a system designed to capture and isolate contaminants. The Arkansas Department of Energy & Environment's Division of Environmental Quality received a \$1.8 million grant for a PFAS detection bank program. PFAS, short for perand polyfluoroalkyl substances, are a group of non-degradable chemicals that have been linked to a number of health concerns.

According to the American Society of Civil Engineer's 2025 Infrastructure Report Card, the Natural State's drinking water system needs \$7.7 billion in investment to reach a level of "good repair." Since the start of her term in 2023, Sanders has disbursed over \$2.5 billion in water development project funding using both federal and state funds.

Original Article: Northwest Arkansas Democrat Gazette by Lucas Dufalla

GLOBAL WATER NEWS

Cyprus receives mobile desalination units from UAE to tackle water crisis

Cyprus has received 13 mobile desalination units from the United Arab Emirates, delivered free of charge to help the island deal with a severe water shortage just ahead of the water-intensive tourism season.

Cyprus has four large desalination plants with a combined daily water production capacity of about 220,000 cubic metres.

Make sense of the latest ESG trends affecting companies and governments with the Reuters Sustainable Switch newsletter. Sign up here.

The UAE will supply it with 14 mobile desalination units under a bilateral deal, boosting its daily production capacity by about 15,000 cubic metres.

While the mobile units are a valuable addition in tackling the water crisis, the situation remains challenging, Agriculture Minister Maria Panayiotou said.

"This shouldn't make us complacent. People must still use water sparingly," she said as she thanked the UAE for dispatching the units within a matter of weeks.

Although Cyprus has a widespread reservoir network, it has increasingly relied on desalination in recent decades to offset declining rainfall.

As of Monday, the country's 18 largest reservoirs were only 21.7% full, according to official data.

Original Article: Reuters by Michele Kambas

The European economy is not drought-proof

The euro area economy depends heavily on natural ecosystems and the services they provide. These include clean water, flood protection, carbon sequestration and healthy soils. However, nature is increasingly under threat.

The consequences of human activities, such as land take, pollution, climate change, invasive species introduction and overfishing, undermine ecosystems. That happens through chronic, long-term degradation and acute shocks amplified by climate extremes.

ECB research shows that 72% of euro area firms are critically dependent on ecosystem services. The same firms account for three-quarters of all corporate bank lending in the region, which makes it an issue for financial stability.

So far, this reliance on ecosystem services is based on individual dependencies. The ECB is working with the University of Oxford's Resilient Planet Finance Lab to extend our understanding beyond dependency analyses; we aim to more accurately map the economic and financial risks that the degradation of ecosystems poses across regions and industries. Together, we developed the Nature Value at Risk (NVaR) framework. This allows us to shed more light on the complex interdependencies of the loss of natural ecosystem services and the impact they have on the European economy.

The value of nature at risk

The NVaR framework captures the financial risk associated with the loss of ecosystem services at a sectoral level. At its core, NVaR combines the following three elements. A systemic risk score, captured via location-specific information on sectoral activities and the status of ecosystem services. It takes into account hazards, exposures and vulnerabilities, calculated using Earth observation data, model data and survey data.

- Sector dependency, reflecting how heavily each sector relies on ecosystem services.
- Financial supply-chain linkages that trace the flow of services and commodities across borders.

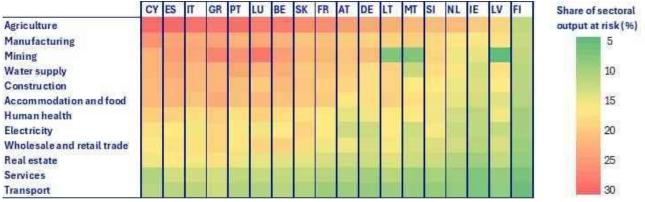


• The results highlight the portion of a sector's economic output that is lost when the ecosystem service declines.

Surface water scarcity is the most significant risk to the euro area's economy, our findings show. Under an extreme but plausible drought with a 25-year return period, nearly 15% of economic output would be at risk. This is caused by a shortfall in water supplies coming from rivers, lakes, reservoirs and upper soil layers, and amplified by persisting drought conditions, excessive withdrawals and unsustainable consumption. Any stress on water resources can have cascading impacts across multiple economic activities. For example, dry soils reduce agricultural yields; water scarcity affects manufacturing by disrupting operations and increasing costs; and low rivers diminish hydropower inflows, constrain electricity generation and impede inland shipping. Chart 1 presents the share of sectoral economic output at risk from surface water scarcity for each euro area country across 12 sectors.

Although southern Europe experiences the heaviest water scarcity pressures, our analysis shows that central and northern European countries are increasingly at risk as well. Of all sectors, agriculture is the most exposed, suffering the largest proportional output losses. Up to 30% of agricultural sectoral output is at risk in southern European countries, with the risk declining further to the north - falling to around 12% in Finland. Manufacturing, mining, water-supply utilities, construction, and accommodation and food services also face substantial impacts; over 20% of their output is at risk in southern Europe and more than 10% elsewhere.

Over the longer term, the effects of persistent water shortages can spread through commodity markets, driving up water and food prices and contributing to broader inflationary pressures.



Notes: This graphic shows the percentage of gross economic output at risk across 12 sectors for each euro area country. It reflects the impact of water scarcity in Europe and the global spread of its impact through supply chains. Sectoral output at risk represents the decline in a sector's gross output resulting from disruptions to the surface-water provisioning ecosystem service. 2020 is used to estimate the sectoral output at risk. Source: Oxford Systemic Risk Score, EXIOBASE, ENCORE.

Beyond its direct economic impact, water scarcity can also undermine financial stability: it can increase the probability of firms not being able to pay for their loans. That in turn amplifies banks' loan exposures.

For this reason, we also analysed the loans of 2,500 euro area banks that were granted to non-financial corporations at a sectoral level. We found that more than 34% of their total outstanding nominal amount - that is over €1.3 trillion - is currently extended to sectors exposed to high water scarcity risk.

Within the non-financial corporate portfolio, manufacturing represents the largest share of at-risk exposures, followed by wholesale and retail trade, real estate, construction and electricity production. Surface water scarcity is not the only water-related risk critical to the euro area economy. Groundwater supply is also under widespread pressure from <u>abstraction and pollution</u>. Natural, undisturbed floodplains are shrinking, so less area is available to absorb water and offer <u>protection from floods</u>. Low quality of water could muddy the economic outlook, as Europe's waters and aquatic ecosystems are still severely <u>affected by chemicals</u>. Declines in measured or perceived water quality have already led to a sharp reduction in recreational visits in affected areas. This results in economic losses exceeding €100 billion per year. Beyond these, the degradation of other ecosystem services, such as climate regulation, further compounds these risks.

Research is key to managing climate and nature risks

The detailed results of our analysis will be published later this year.

Preliminary findings presented in this post already highlight the importance of integrating nature-related risks into financial risk assessment frameworks, particularly for water-related risks.

Eventually, as the results above show, it is not only firms that suffer from degradation of nature. The high concentration of loans in sectors heavily vulnerable to surface water scarcity also exposes banks to significant potential financial losses. And that could potentially trigger financial instability.

Fully understanding these complex risks and related uncertainties requires more research and further development of risk analysis tools.

It is vitally important that central banks work closely with the scientific community because this can improve our data, modelling and risk assessments. After all, nature-related risks are not just environmental concerns; they are systemic economic risks that demand an integrated and informed response.

Original Article: <u>Prevention Web by Andrej CeglarFrancesca Danielilrene</u> HeemskerkMark Jwaideh Nicola Ranger

Preserving ambition and policy coherence in EU agri-environmental frameworks

come at the cost of environmental safeguards.

W

In response to the <u>latest simplification package of the Common Agricultural Policy (CAP)</u> and the <u>provisional agreement on the Soil Monitoring and Resilience Directive (SMRD)</u>, IUCN welcomes the continuous commitment of the European Commission in ensuring the implementation of its legislation, while strengthening dialogue at all levels. As the EU continues to shape its environmental and agricultural agenda, **IUCN underscores the importance of coherence, ambition, and non-regression in delivering a just and necessary transition for people and nature.**Recent updates to the CAP framework introduce several flexibilities in environmental conditionality, including the removal of references to key environmental legislation and a more flexible application of Good Agricultural and Environmental Conditions (GAECs). In parallel, negotiations on the SMRD have produced a simplified framework for soil monitoring, maintaining core descriptors but limiting enforceable action. These changes reflect a broader shift in policy debate. While simplification and administrative relief are legitimate objectives, IUCN stresses that these should not

Any simplification and alignment of certification, standards, and reporting should maintain or enhance the highest environmental standards. As acknowledged in IUCN resolutions, non-regression is a fundamental principle for sustainable development and must guide any future adjustments to EU policy frameworks.

As already reflected in its statement to the <u>released Vision for Agriculture and Food</u> by Commissioner Christophe Hansen, IUCN recognises the complex realities that farmers face and reaffirms the need for tailored, practical support to increase resilience of their activities. Over the decades, IUCN has developed a wide range of science-based tools and publications to support farmers in transitioning to more sustainable practices, including the more recent reports <u>Approaches to Sustainable Agriculture</u> (2020), <u>Sustainable Agriculture and Nature-Based Solutions (2024)</u> and <u>Assessing the Biodiversity-Agriculture Nexus: An overview of International and EU Methods (2024)</u>. Today, the urgency of soil degradation, biodiversity loss, and climate change calls for reinforcing —not weakening— agri-environmental ambitions.

"The IUCN Flagship report on Agriculture and Conservation showed that more than 45% of the global need and opportunity to reduce species extinction risk rests with how agriculture is implemented. We must urgently shift towards food systems that value and conserve nature, for the wellbeing of people and the competitiveness of our economy." Alberto Arroyo Schnell, Head of Programme & Policy, IUCN European Regional Office.

Soils in particular are a cornerstone of ecosystem health and food production. They filter water, store carbon, and support biodiversity, yet over 60% of European soils are degraded, costing billions annually. Soil degradation threatens food security, ecosystems, and climate stability. The SMRD introduces a first common baseline across

the EU for monitoring soil health, and IUCN supports the inclusion of key descriptors and the establishment of a watch list for emerging pollutants. Still, the path ahead must include a stronger commitment to soil restoration and sustainable management practices. Monitoring alone cannot reverse degradation.

The CAP, the SMRD and the Nature Restoration Regulation (NRR) are central to achieving EU's environmental targets and ensuring resilient food systems. Policy coherence is key to enabling positive lasting outcomes, by aligning goals and ensuring implementation compliance. Furthermore, efforts to streamline policy implementation must retain alignment with broader environmental objectives, including those of the European Green Deal, the EU Biodiversity Strategy, and the Kunming-Montreal Global Biodiversity Framework.

Besides policy coherence, long-term planning and inclusive governance remain critical. In this context, IUCN encourages continued investment in knowledge systems, indicators, and collaborative pathways that empower farmers and land managers to lead the transition. IUCN supports tools that value the environmental services provided by farmers and welcomes proposals to increase funding access for those committed to sustainable practices. Rewarding biodiversity-friendly agriculture should not be seen as a burden, but as a strategic investment in Europe's ecological and economic future. As Member States implement the NRR and the SMRD, IUCN calls for ambitious, science-driven approaches that keep sustainability at the heart of decision-making. IUCN will keep supporting EU institutions, stakeholders, and practitioners in crafting a more just and sustainable agricultural model—one that truly works hand in hand with nature.

Original Article: <u>IUCN</u>

Space-based natural and human-induced water storage change quantification

Understanding water availability and its response to climate change and water extraction is crucial for sustainable water management in Australia's Murray–Darling Basin. This study introduces a space-based method that quantifies the natural and human-induced impact on changes in terrestrial water storage. It reveals an impact of 17% due to water extraction for irrigation over the past two decades, with 84% of this extraction coming from surface water and 16% from groundwater. The human-induced impact varies spatially with higher values in the southern Murray (up to 5.6%) and smaller values in the northern Darling (down to 0.2%). Data-model fusion of the satellite-based water storage changes into a hydrological model, which does not simulate water extraction, man-made reservoirs and wetlands, improved the representation of water storage variability and intensified trends in drying and wetting periods. This study adds valuable findings to better understand natural and human-induced impacts on the

regional water resources under changing climate and to better represent these impacts (80% and 20% respectively) within hydrological models after data-model fusion. Original Article: Nature.com by Schumacher, M., van Dijk, A.I.J.M., Retegui-Schiettekatte, L. et al. Space-based natural and human-induced water storage change quantification. Sci Rep 15, 18484 (2025). https://doi.org/10.1038/s41598-025-01938-8

India and Pakistan's Water Wars Are Just Beginning

The ceasefire between India and Pakistan appears to be holding after <u>their latest</u> <u>clash</u> over the disputed Kashmir region. But access to a basic requirement of life highlights just how far apart they remain.

One of the more significant if lesser-noticed consequences of the flare-up in fighting between the neighbors was India's decision to suspend a 65-year-old agreement that governs how each country is allowed to <u>use the shared rivers</u> that run between them. The Indus Waters Treaty governs each nation's use of the vast network of tributaries and waterways of the Indus river system that both draw on for everything from electricity to agriculture.

India and Pakistan are water-scarce countries — and becoming more so <u>as climate</u> <u>change takes hold</u> — with huge populations of subsistence farmers dependent on the Indus.

That the treaty has held since it was signed in 1960, even during times of full-blown war, shows that these longtime rivals observed some guardrails.

No more.

Renegotiating the accord has been a longstanding goal of India's right wing, which say it's outdated and unfairly favors Pakistan. Prime Minister Narendra Modi sees an opportunity to settle those grievances.

It's not yet clear what New Delhi will demand in any future water talks. Despite threats, experts say that India doesn't have the capability to take extreme measures like cutting off Pakistan's supply. Islamabad says any attempt to choke off its water would constitute an act of war.

What's certain is that Pakistan's dependence on the river is greater than India's. That likely gives New Delhi the upper hand, and <u>could provide leverage</u> in negotiations over other matters of dispute.

"Water and blood can't flow together," Modi said after the treaty's suspension. Whether the two sides can keep the water flowing — without spilling more blood — will be the next big test in relations.

Original Article: Bloomberg UK by Dan Strumpf



EIB Injects €70 Million to Boost Morocco's Drinking Water Infrastructure

The funds will strengthen drinking water infrastructure across the country, particularly in small and medium-sized cities and rural areas facing increasing pressure on water resources.

The financing, <u>supported</u> by the European Union through its guarantee mechanism, will help implement ONEE's 2025-2030 Equipment Plan. It focuses on high-impact local investments to modernize, secure, and optimize drinking water production and transportation systems in multiple regions.

"Ensuring sustainable access to drinking water is a vital priority, especially for territories most exposed to climate change effects," said EIB Vice President Ioannis Tsakiris. "This new financing demonstrates the EIB's commitment to supporting Morocco in implementing sustainable, local, and resilient solutions."

The project addresses Morocco's growing water stress, exacerbated by rising temperatures, increased drought frequency, and higher consumption. It aims to

temperatures, increased <u>drought</u> frequency, and higher consumption. It aims to modernize equipment, reduce network losses, improve energy efficiency, and secure drinking water supply to vulnerable territories.

The funding will also support reconstruction of hydraulic infrastructure damaged by the September 2023 <u>earthquake</u>, strengthening water supply system resilience in affected areas.

EU Ambassador Patricia Llombart Cussac stated that "the signing of this new financing contract responds to one of modern Morocco's priorities and demonstrates a strong, structured partnership between the European Union and Morocco. For over 20 years, we have worked together to address this common challenge."

For his part, ONEE Director General Tarik Hamane stressed Morocco's efforts under royal guidance to secure the country's drinking water supply.

"Through this financing, ONEE, as the state's armed wing in the drinking water sector, will continue its deployment to guarantee secure and reliable access to drinking water for populations," he articulated.

Moroccan history tours

On May 12, King Mohammed VI <u>reviewed</u> Morocco's water management recovery plan during a ministerial council in Rabat. Agriculture Minister Ahmed Bouari reported that recent rainfall, particularly in March, had a "very positive impact" on cereal production, autumn and spring crops, fruit trees, and vegetation cover.

Water Minister Nizar Baraka reported that Morocco's average dam filling rate currently stands at 40.3%, allowing the mobilization of 6.7 billion cubic meters of water.

This amount equals one and a half years of potable water consumption nationwide, significantly improving the country's water security outlook.

Original Article: Morocco World News by Adil Faouzi



China launches landmark plan to restore and protect rivers and lakes by 2027

China has unveiled a comprehensive action plan to protect and restore rivers and lakes from 2025 to 2027, aiming to improve the quality of aquatic ecosystems and set the foundation for achieving "beautiful rivers and lakes" nationwide by 2035. The plan was jointly released by the Ministry of Ecology and Environment and other key government departments.

The initiative establishes phased goals: notable progress by 2030, with full implementation targeted by 2035. According to Liu Jing, deputy director of the ministry's Department of Water Ecology and Environment, "beautiful rivers and lakes" must meet criteria across water resources, water ecology, and water environment. "Rivers with flowing water," he explained, should have stable sources of replenishment, consistent flow, and guaranteed ecological water use.

Liu emphasized that for water ecology, it is essential to restore buffer zones, preserve biodiversity, and support the return of native species, thereby achieving "rivers with fish and aquatic plants." On water environment standards, pollutant discharge must be tightly controlled, water quality significantly improved, and public concerns about waterfront spaces and ecological impact addressed, enabling "harmonious coexistence between people and water."

The plan includes 19 targeted measures focusing on pollution control, ecological water use, and integrated governance across entire river basins. It promotes science-based management and mandates better coordination between water resources, ecology, and environment.

A total of 2,573 water bodies have been listed for protection and restoration, including over 6,300 kilometres of the Yangtze River and 5,400 kilometres of the Yellow River. These include major rivers, key tributaries, lakes, and reservoirs with ecological significance or high public interest.

Pilot programs in the Yangtze River Basin have tested aquatic ecology assessments for three years, with similar efforts expanding to the Yellow River Basin. By 2027, the plan expects to improve the aquatic biological integrity index in the Yangtze and curb biodiversity loss in the Yellow River, while launching ecological compensation mechanisms in key basins.

To support implementation, the plan calls for enhanced scientific research, innovation, and technology transfer. Central government funding will be backed by local budgets and private investment, with mechanisms like third-party pollution treatment and service-based procurement to encourage social capital participation.

Officials said the initiative marks a **new phase in China's water governance**, shifting from pollution control toward a <u>more integrated approach</u>. "It is a milestone, following

the 2015 Action Plan for Prevention and Control of Water Pollution," said Liu Jing. "This plan integrates the management of water resources, water environment and water ecology." Gao Hongjie, director of the Institute of Water Ecology and Environment, added that the plan signals a phase focused on **quality and efficiency**. Original Article: Smart Water Magazine

Thames Water rescue package could see US private equity giant inject £4bn and take over for a decade

Private equity behemoth KKR is prepared to control ailing utility Thames Water for a decade to repair the disgraced firm's fortunes and reputation.

It is also understood that, as part of a rescue package being put together by Thames Water chairman Adrian Montague, New York-based KKR is preparing to pump £4 billion in equity and loans into the business.

KKR has not been directly involved in the bonus row. But it is thought to believe that if executives are in charge of £20 billion of capital expenditure – and they make it 5 per cent more efficient – that's £1 billion, of which a bonus of £500,000 is a tiny proportion.

Thames Water is also competing with other utilities such as National Grid and Centrica, owner of British Gas, to attract the best managers and thus needs to provide pay awards of a similar level.

The private equity group hopes that by working around the clock with Thames Water, its debt holders and industry regulator Ofwat, it can put together a credible rescue package by the end of July.

Most of the negotiations with the authorities have been conducted with Ofwat, which has agreed to a huge 30 per cent price increase in household bills, seen as necessary to meet investment targets.

But stewardship of Thames Water is thought to be a bid by KKR to repair its own reputation too.

The private equity group recognises it has an image problem dating back to its role in the infamous 1988 takeover of US food and tobacco group RJR Nabisco.

Its goal at Thames Water is to improve service levels, its environmental impact and create sustainable cashflows.

It also intends to eventually return the firm to the UK stock market.

The private equity group is aiming to reduce borrowing at Thames and is pledging not to pay any dividends until the finances are repaired.

Thames Water's borrowings stand at 88 per cent of its assets, which Ofwat considers unsustainably high.

Original Article: MSN Alex Brummer City Editor



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