Veles Water Weekly Report

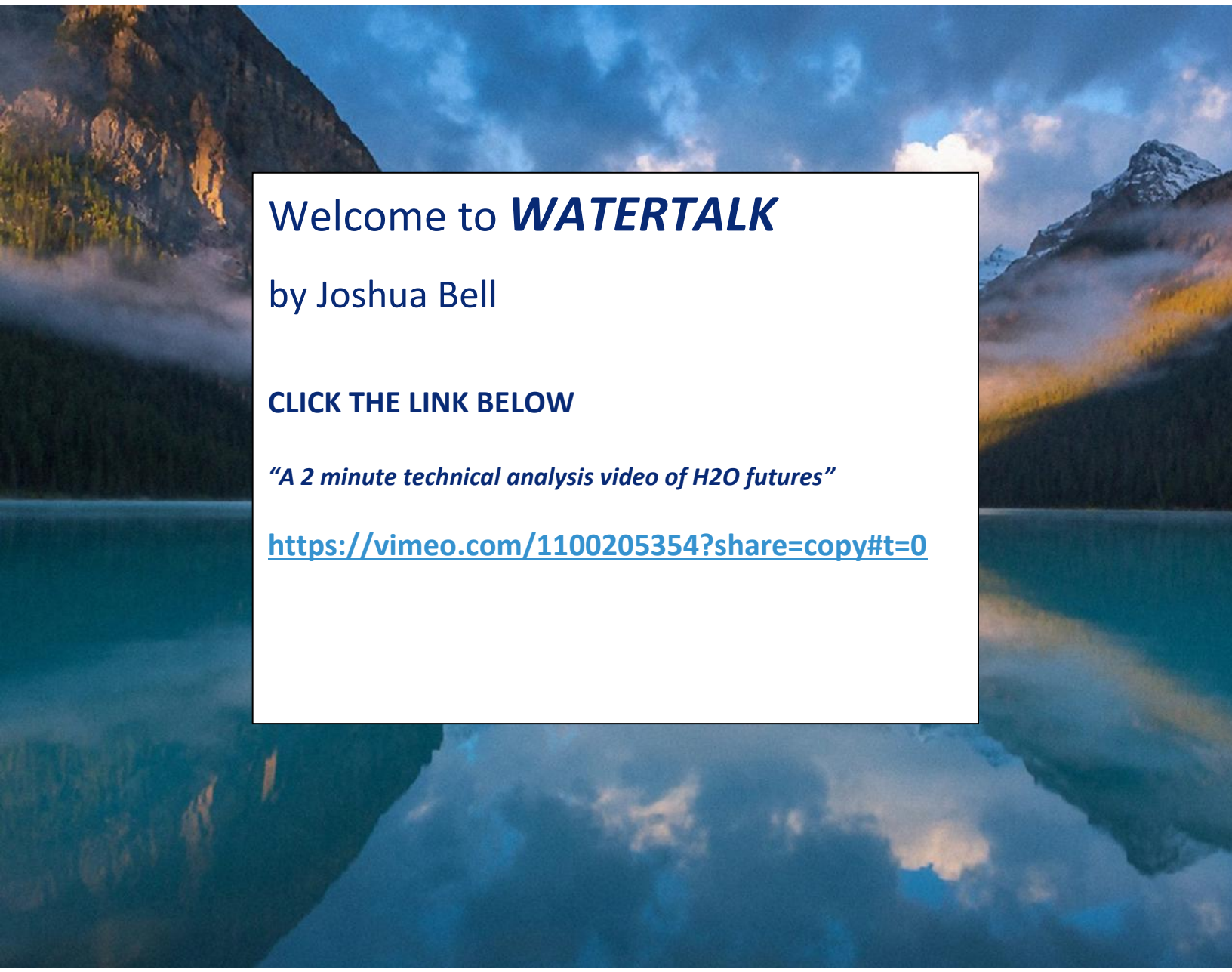
July 10th 2025

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

research@veleswater.com
+44 20 7754 0342

Veles Water

WATER FUTURES MARKET ANALYSIS



Welcome to ***WATERTALK***

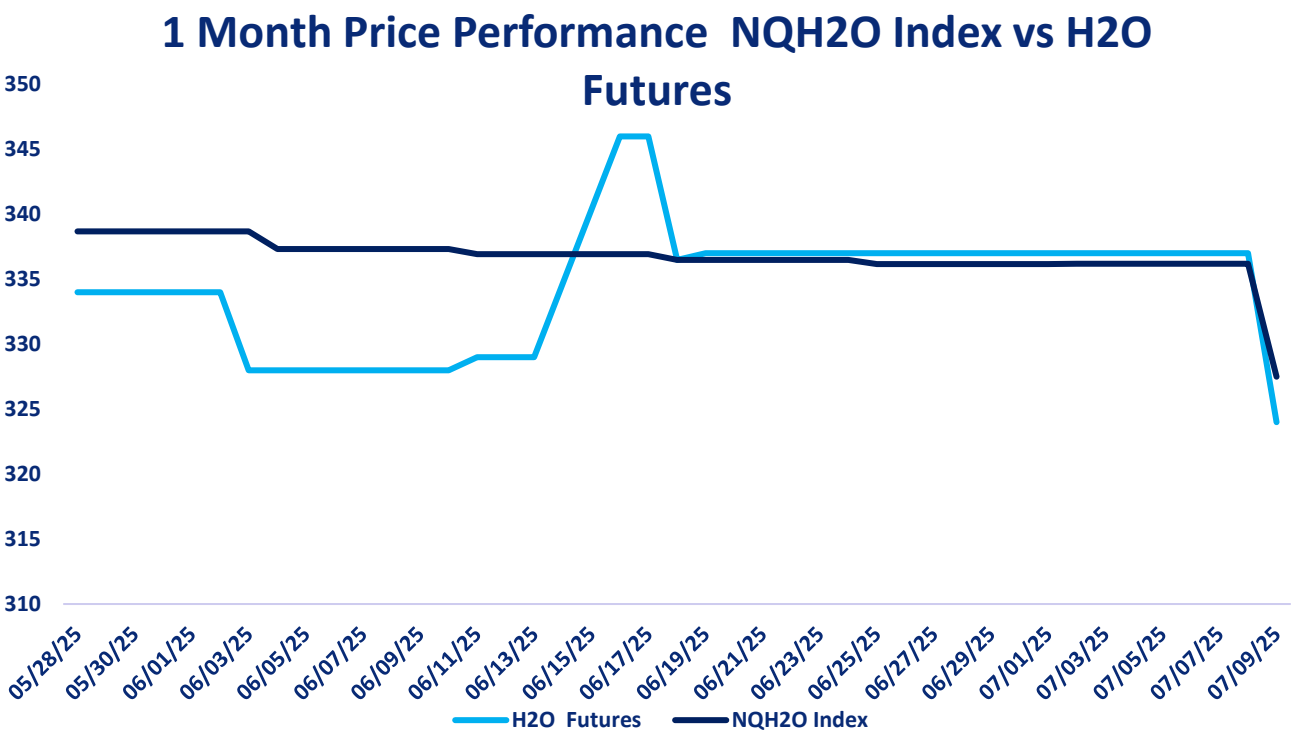
by Joshua Bell

CLICK THE LINK BELOW

"A 2 minute technical analysis video of H2O futures"

https://vimeo.com/1100205354?share=copy#t=0

NQH2O INDEX PRICE vs H2O FUTURES PRICE



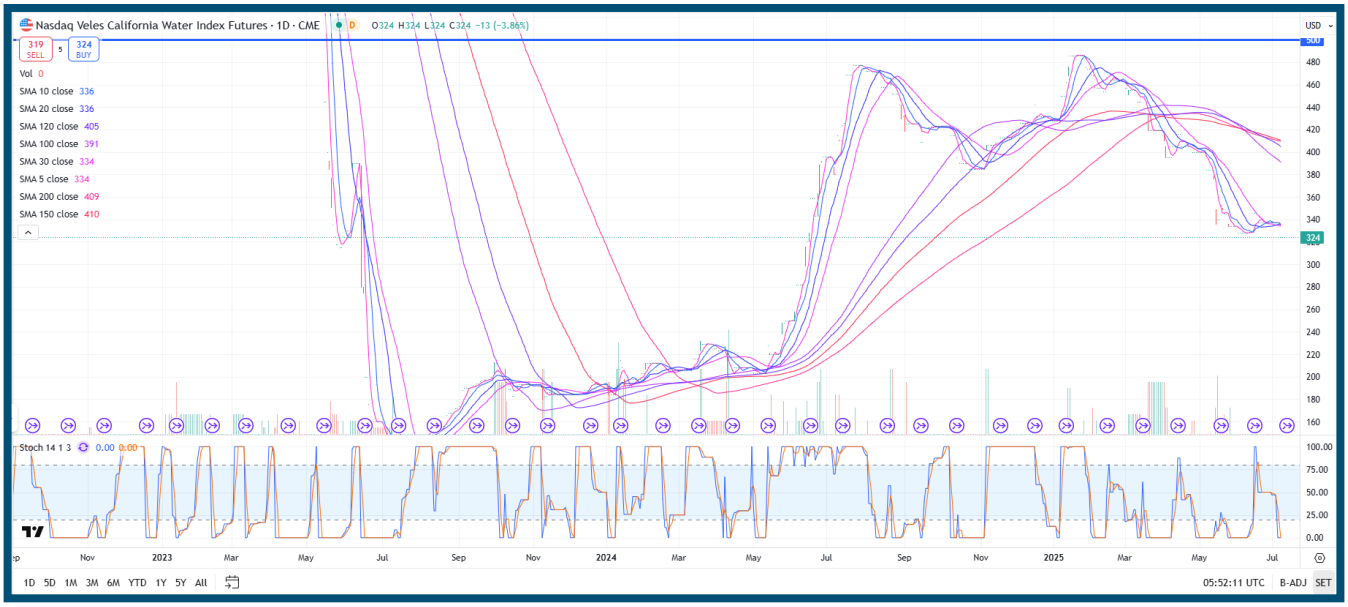
Price Chart Based upon Daily Close

The new NQH2O index level of $327.50 was published on July 9th, down $8.70 or 2.59% from the previous week. The July contract is considered the front month. The futures prices closed at a discount of $3.50 to a premium of $0.80 versus the index over the past week.

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

July 25	319@324
Aug 25	305@336
Sept 25	300@350
Dec 25	300@400
June 26	375@450

H2O FUTURES TECHNICAL REPORT



Price Action

- **Current Price**: $324
- **Daily Change**: Down **$13 (-3.86%)**
- The price closed at the **low of the day**, suggesting strong selling pressure and continuation of the downtrend.

Moving Averages

Short-Term Averages:

- **5-day SMA**: 334
- **10-day SMA**: 336
- **20-day SMA**: 336
- Price is currently **below all short-term averages**, confirming immediate bearish momentum.

Medium-Term:

- **30-day SMA**: 334
- Still trending down, acting as dynamic resistance.

Long-Term:

- **100-day SMA**: 391
- **120-day SMA**: 405
- **150-day SMA**: 410

- **200-day SMA**: 409
- All long-term SMAs are **well above current price and sloping downward**, confirming a **firm long-term bearish trend**.

Stochastic Oscillator (14,1,3)

- **K%**: 0.00
- **D%**: 0.00
- Deeply **oversold**, but no bullish crossover or signal yet. Market may stay oversold during strong trends.

Key Levels

Resistance:

- **334–336**: Cluster of short-term SMAs
- **350–354**: Former support turned resistance
- **370–390**: Confluence zone with declining long-term MAs

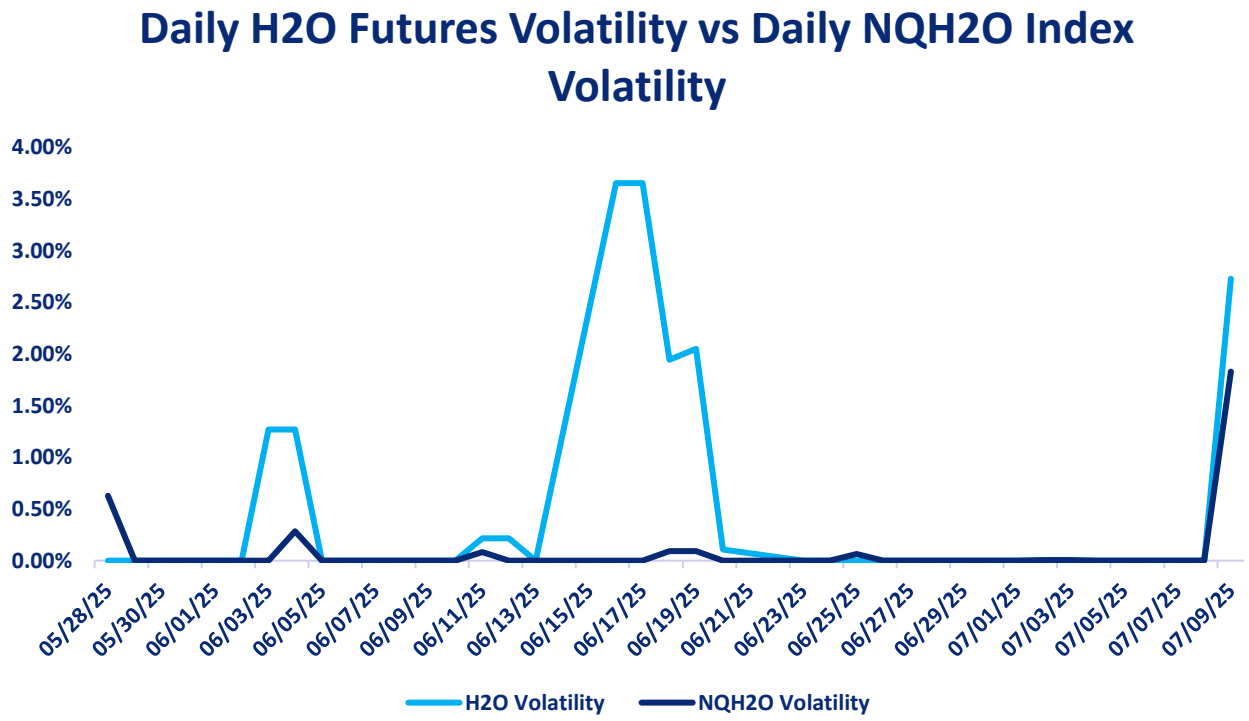
Support:

- **324**: Current level
- **300**: Next psychological support
- Below $300, no strong historical structure visible on this timeframe

Summary

- **Short-Term Outlook**: Bearish, with sharp downside momentum and price failing to reclaim short-term averages.
- **Medium-Term**: Still declining; recovery unlikely without a strong catalyst.
- **Long-Term**: Confirmed downtrend. Price needs to reclaim 370+ to neutralize bearish structure.
- **Action Watch**: Oversold Stochastics may invite short-term bounces, but **confirmation above 336** is needed to consider any bullish setup.

H2O FUTURES AND NQH2O INDEX VOLATILITY ANALYSIS



DAILY VOLATILITY

Over the last week the July contract daily future volatility high has been 2.73%.

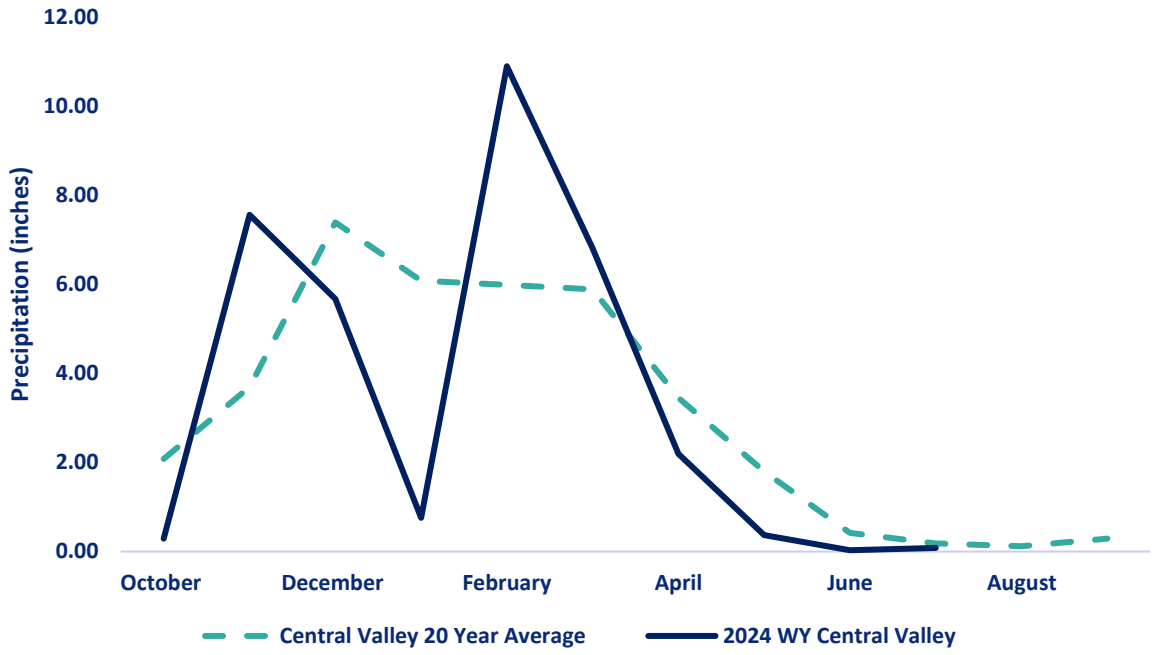
ASSET	1 YEAR (%)	2 MONTH (%)	1 MONTH (%)	1 WEEK (%)
NQH2O INDEX	**19.16%**	**8.00%**	**2.94%**	**2.59%**
H2O FUTURES	N/A	**14.07%**	**7.19%**	**3.86%**

For the week ending on July 9th, the two-month futures volatility is at a premium of 5.86% to the index, up 0.21 from the previous week. The one-month futures volatility is at a premium of 5.84% to the index, down 1.59%. The one-week futures volatility is at a premium of 1.26% 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 09/07/2025

STATION	MTD (INCHES)	WEEK ON WEEK CHANGE (INCHES)	% OF 20 YEAR AVERAGE MTD	2025 WYTD VS 2024 WYTD %	2025 WY VS 20 YEAR AVERAGE TO DATE %
SAN JOAQUIN 5 STATION (5SI)	0	0	0.00	83	67
TULARE 6 STATION (6SI)	0	0	0.00	81	82
NORTHERN SIERRA 8 STATION (8SI)	0.25	0.25	215.16	90	105
CENTRAL VALLEY AVERAGE	0.08	0.08	46.17	85	85

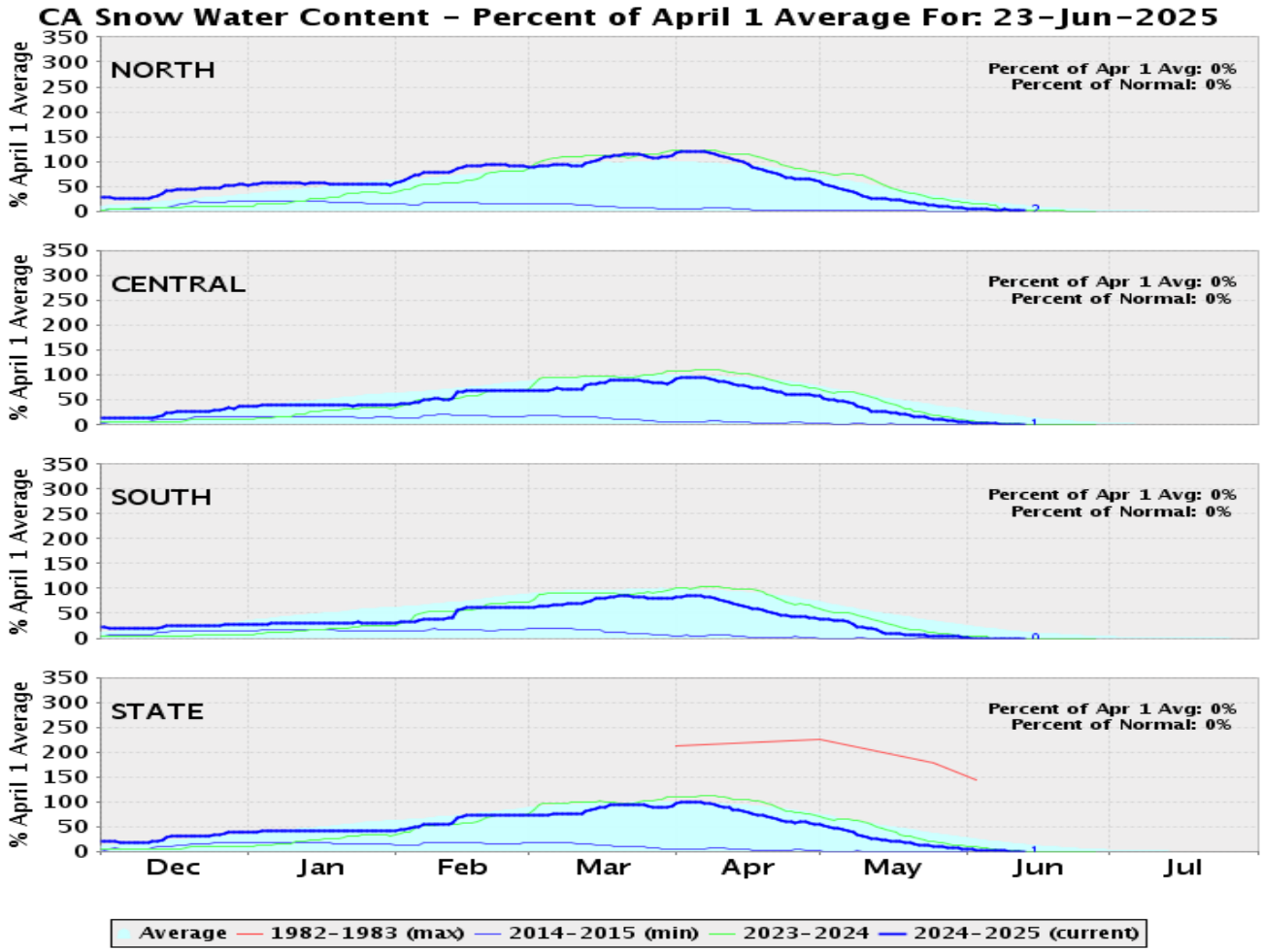
RESERVOIR STORAGE

RESERVOIR	STORAGE (AF)	% CAPACITY	LAST YEAR % CAPACITY	*% HISTORICAL AVERAGE
TRINITY LAKE	2,184,921	89	83	118
SHASTA LAKE	3,667,935	81	85	107
LAKE OROVILLE	3,113,097	91	92	119
SAN LUIS RES	906,118	44	48	86

*% Historical Average is based on a daily average that is interpolated from historical monthly averages. The monthly averages are computed using monthly data from water year 1991 to 2024. The monthly averages are updated every 5 years using a sliding 30 year period.

Reference: California Water Data Exchange

SNOWPACK WATER CONTENT



REGION	*SNOWPACK WATER EQUIVALENT (INCHES)	WEEK ON WEEK CHANGE (INCHES)	% OF AVERAGE LAST YEAR	% OF 20 YEAR HISTORICAL AVERAGE	% OF HISTORICAL **APRIL 1ST BENCHMARK
NORTHERN SIERRA	0.5	0	18	18	2
CENTRAL SIERRA	0.2	0	6	6	1
SOUTHERN SIERRA	0	0	0	0	0
STATEWIDE	0.2	0	7	7	1

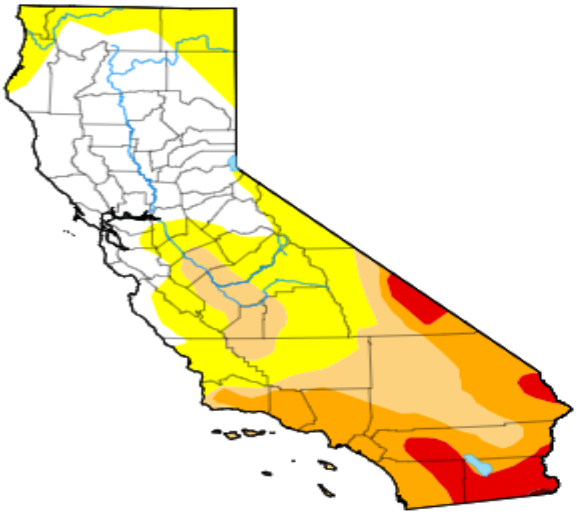
Snow Water Equivalent*, **or SWE**, is a commonly used measurement used by hydrologists and water managers to gauge the amount of liquid water contained within the snowpack. In other words, it is the amount of water that will be released from the snowpack when it melts. SWE has regional variance.**

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

DROUGHT MONITOR

California

Home / California



Map released: Thurs. July 3, 2025

Data valid: July 1, 2025 at 8 a.m. EDT

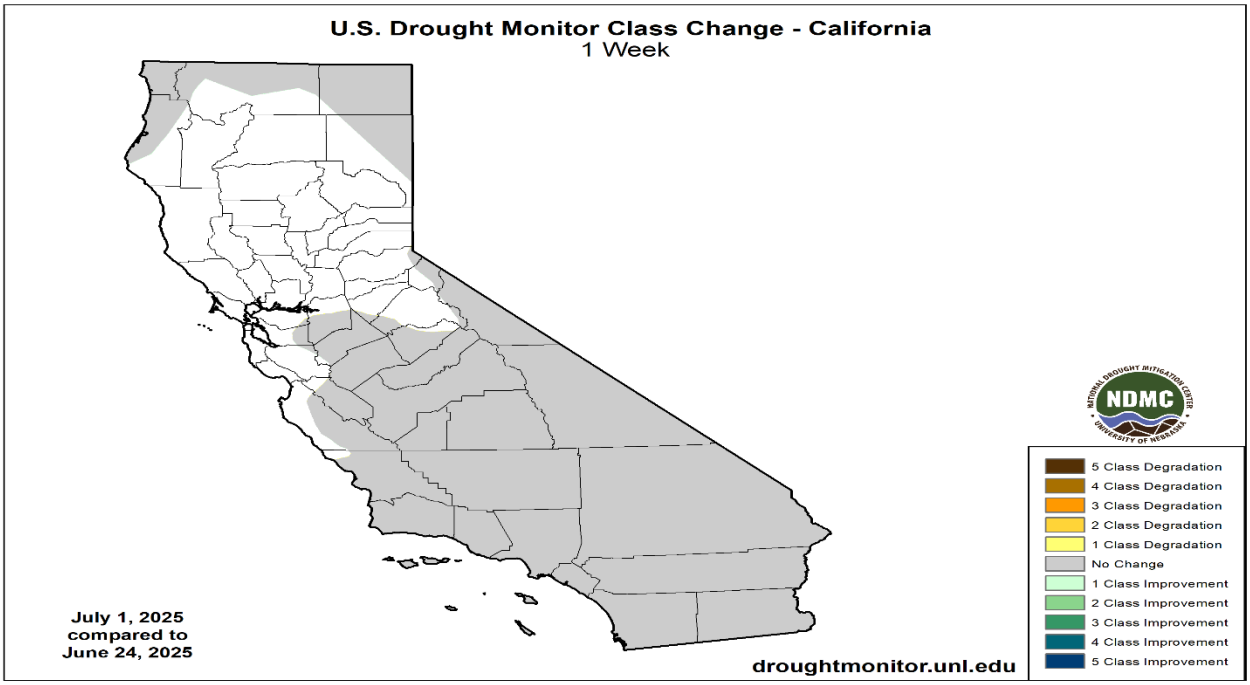
Intensity

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

Authors

United States and Puerto Rico Author(s):
Curtis Riganti, National Drought Mitigation Center

Pacific Islands and Virgin Islands Author(s):
Tsegaye Tadesse, National Drought Mitigation Center

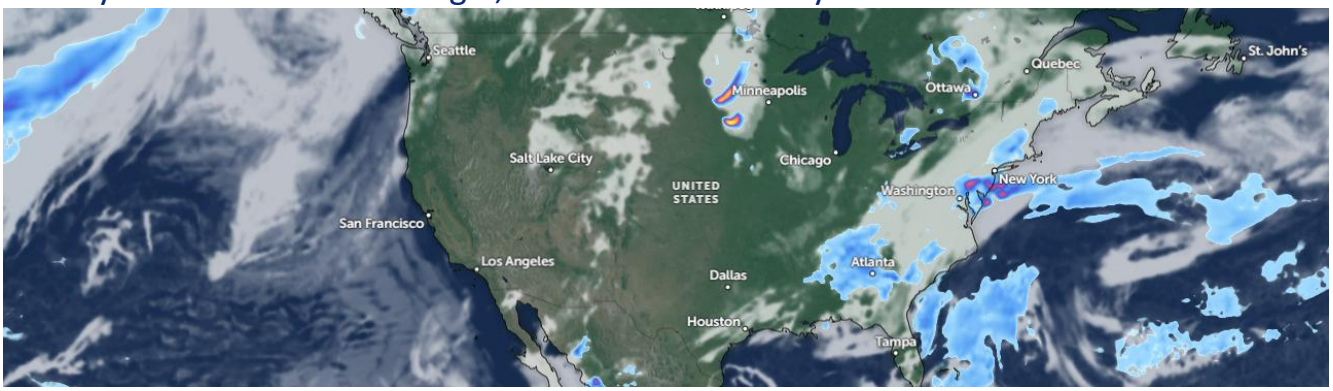


Week	Date	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
Current	2025-07-01	32.19	67.81	39.29	22.98	5.91	0.10	136
Last Week to Current	2025-06-24	32.17	67.83	39.29	22.98	5.91	0.10	136
3 Months Ago to Current	2025-04-01	43.71	56.29	39.81	24.73	11.77	0.73	133
Start of Calendar Year to Current	2024-12-31	40.90	59.10	31.52	5.70	1.06	0.00	97
Start of Water Year to Current	2024-10-01	28.40	71.60	10.67	0.08	0.00	0.00	82
One Year Ago to Current	2024-07-02	94.25	5.75	0.00	0.00	0.00	0.00	6

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.

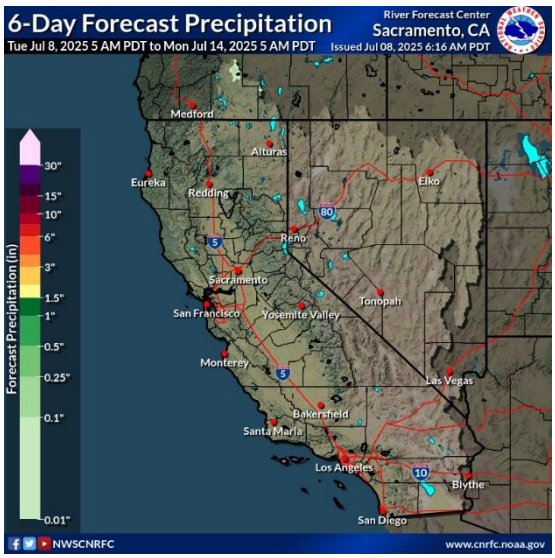
CURRENT SATELLITE IMAGERY

The satellite picture shows a relatively clear US with some patchy clouds over the Rockies but generally a clear western US and a clear Midwest, the good weather stretching over the Great Lakes and Chicago region. The eastern US has cloud cover with some storm activity around the Atlanta regio, with some instability over Florida.



Map Ref: Zoom Earth

10 Day Outlook



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

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

WESTERN WEATHER DISCUSSION

Heavy monsoonal rains fell this week in parts of New Mexico, excluding the far northwest. Elsewhere, this week's weather was almost entirely dry. Combined with warmer-than-normal temperatures (mostly by 2-6 degrees) in the Northwest states, this led to widespread degradation in drought and abnormal dryness for central and northern Utah, Idaho, parts of northern and much of western Montana, and Washington. Very low streamflows and large short-term precipitation deficits contributed to widespread expansion of severe and extreme drought in western Montana and adjacent Idaho. Short-term severe drought also occurred in parts of central and north-central Washington, where deficits in precipitation and streamflow continued to grow. In much of New Mexico, excluding the far west and northwest portions, near- or below-normal temperatures were common this week along with some heavier rainfall amounts exceeding 2 inches (locally exceeding 5 inches). The improved soil moisture and lessened precipitation deficits led to widespread improvements to ongoing drought and abnormal dryness in southeast, southwest and north-central New Mexico. Exceptional drought expanded slightly along part of the Arizona-New Mexico state line where deficits in groundwater and precipitation continued to mount.

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

WATER NEWS

CALIFORNIA WATER NEWS

Cadiz Inks New Energy Contract

Downtown-based water infrastructure company **Cadiz Inc.** has a new grand plan to monetize its Mojave Desert holdings, after nearly three decades of trying to obtain permission to transport water from beneath those land holdings to consumers throughout Southern California.

On June 20, Cadiz signed a memorandum of understanding with London-based renewable energy project developer **Hoku Energy Ltd.** to develop a clean energy campus on the Cadiz Ranch. The main focus would be on solar generation and hydrogen production using renewable energy sources, but the campus could also include low-carbon power generation and large-scale battery storage facilities. The agreement also makes allowances for the development of a data center.

The memorandum provides Hoku Energy with a three-year exclusive option to develop the project on more than 10,000 acres at Cadiz Ranch, which sits atop the aquifer that is east of Twentynine Palms.

This is the second agreement for the development of renewable energy on Cadiz property. Last October, Cadiz signed an agreement with Madrid-based **RIC Energy Group** for the development of a major "green hydrogen" facility. Green hydrogen is the production of hydrogen fuel using renewable power sources – in this case, solar power.

'Capstone of long-term land use'

The question going forward is whether these agreements will translate into actual completed projects. This is not the first time Cadiz has tried to get third parties to build renewable energy projects on its land. Back in 2010, Cadiz announced in a filing with the Securities and Exchange Commission that it was in discussions with solar power developers. But none of those discussions ever bore fruit. For one thing, since the Cadiz property is far from any major transmission lines, new lines would have to be built, and that can be a drawn-out process.

Nonetheless, Cadiz Chief Executive **Susan Kennedy** was bullish on the current plan, which could bring the company as much as $7 million a year in lease and water sale revenue. "This agreement with Hoku Energy is the capstone of our long-term land use strategy," she said. "Hoku Energy's vision aligns with our mission to support sustainable, scaled development of critical energy and water infrastructure in California and the Southwest."

Original Article: LA Business Journal by Howard Fine

Homeowners approve 200% water rate increase in hopes of keeping Kern County water flowing – at least for now

Residents of a development hundreds of miles north of Kern County on Saturday approved a massive water rate hike in hopes of appeasing a local agency that has provided them water for the past 24 years under a convoluted exchange deal.

They will go from paying about $200 a month for the base connection fee to $568 a month. The money will go to the Western Hills Water District so it can repay the Kern County Water Agency a debt of $13 million that KCWA says it owes in unpaid water charges.

KCWA had said it would cut off supplies to Western Hills, which serves the Diablo Grande development in the foothills west of Patterson, by June 30 if residents didn't agree to the rate hike.

But on June 26, KCWA board members, apparently in closed session, extended that deadline to Sept. 30 to allow Western Hills to "develop an alternate supply," according to a letter KCWA sent Western Hills on June 27.

Fast, prepare for the agency's June 26 meeting. Lois Henry / SJV Water

The 600-home development has no other source of water. It has been in discussions with the Patterson Irrigation District, but a Western Hills spokesman said that supply is a "long shot" and years away, at best. He declined to comment further on the situation with KCWA.

Meanwhile, KCWA is sticking with plans to terminate its contract with Western Hills and stop water deliveries by Dec. 31 – regardless of whether Western Hills pays off the $13 million.

KCWA says the debt accumulated because of unpaid reimbursements to KCWA for state transportation/operations and maintenance costs associated with the water sent to Western Hills.

Western Hills stopped reimbursing KCWA for the charges in 2019, racking up about $10 million, to which KCWA added $3 million in interest for a total past due balance of $13 million, according to information provided by KCWA.

Now, KCWA wants out.

"To protect the economic interests of its constituents, the Agency will not renegotiate the contract," the letter states.

Original Article: SJV Water by Lois Henry

California asks judge to reject push to halt climate disclosure laws

California Justice Department attorneys pushed a federal judge Tuesday to reject an industry motion that would immediately halt the state's nation-leading climate disclosure laws, arguing that the rules have not been implemented and are not placing a burden on businesses.

Why it matters: The hearing comes on the same day that the California Air Resources Board was supposed to finalize rules implementing SB 253 and SB 261. CARB Chair Liane Randolph said last week that the agency aims to finish the rules by the end of this year and did not plan to release any updates Tuesday.

The rules would create the first emissions disclosure standards in the United States and potentially offer a model for other states, after the Securities and Exchange Commission announced in March that it would stop defending a Biden-era federal disclosure law in court.

What happened: U.S. District Judge Otis D. Wright II of the Central District of California heard arguments from Deputy Attorney General Caitlan McLoon and lawyers representing business groups around whether SB 253 and SB 261, laws which will compel large companies operating in California to disclose their carbon footprint and climate-related financial risks, violate First Amendment rights and should be paused through a preliminary injunction while the case plays out.

Original Article: Climate Wire by Alex Nieves

Like Texas, California faces major dangers when extreme floods come

The deadly flash flood along Texas' Guadalupe River showed the devastating toll such a disaster can take, and California could face similar dangers when extreme weather strikes.

Low-lying areas along rivers and creeks can be hazardous when downpours and torrents come, as shown by past floods in parts of the state including the Los Angeles area, the Central Valley and the Central Coast.

When a series of extreme winter storms hit California in 2023, about two dozen people died statewide, including some who were swept away by floodwaters and others who were killed by a rock slide, falling trees or car crashes.

"Those risks exist here," said Brett Sanders, a UC Irvine professor whose research focuses on flooding. "We have a lot of the same possibility of flash flooding. We have hilly topography. We have streams that can spread out and catch you by surprise with water."

California's history is dotted with examples of storms triggering dangerous inundations, such as 1861-62 floods that left Sacramento underwater, the deadly Los Angeles flood of 1934, and devastating debris flows following intense rains that struck the Santa Barbara County town of Montecito in 2018.

The flash floods in Texas left more than 100 people dead and others missing, among them children and counselors who were at a summer camp when floodwaters swept through the area. Officials described it as a "100-year-flood."

Sanders said as he has looked at factors that contributed to the high death toll, he examined maps of federal hazard zones produced by the Federal Emergency

Management Agency. He said, judging from the maps, it appears that a number of cabins at the summer camp were within a federally designated "floodway" and were at high risk.

"Floodways are areas where you know the water will be moving really fast, and so you know that's going to be a really dangerous place to be," Sanders said.

"There were people in harm's way that didn't know they were in harm's way," he said. "There was a breakdown somewhere along the way, in the understanding of risks and the ability to take action in a timely way."

There are many buildings in flood-hazard zones in California, he said, but it's rare to have buildings permitted in floodways here.

"It seems like much more could have been done to increase awareness about the risks of sleeping overnight next to a stream that's prone to flooding, and especially at a time when rainfall was forecast," Sanders said of the Texas flood.

Daniel Swain, a climate scientist with UC Agriculture and Natural Resources, said the types of storms that tend to unleash floods in California are typically different from the intense thunderstorms that triggered the flooding in Texas.

"But the level of flooding and the suddenness and catastrophic impacts of it could very well be replicated in California," Swain said during a media briefing. "It would be more likely to occur with a sequence of winter storms, a particularly intense atmospheric river."

He said such storms, which roll in from the Pacific Ocean carrying massive amounts of water vapor, would typically be on a larger scale.

"So it wouldn't just be affecting one section of one particularly vulnerable watershed, but would probably affect many watersheds simultaneously, which is part of why it's so concerning," Swain said. "But it would also probably be a little more predictable."

Original Article: The LA Times by Ian James

US WATER NEWS

Devastating Texas Floods Shattered 93-Year Record

The catastrophic floods that hit central Texas over the weekend caused the Guadalupe River to flood so high it broke a 93-year-old record by nearly a foot.

Why It Matters

On Friday, the NWS issued urgent warnings to people across central Texas amid heavy downpours that resulted in months' worth of rain at once, prompting the Guadalupe River to surge around 25 feet in only 45 minutes.

More than a foot of rain lashed the region before the river flooding on Friday afternoon, NWS meteorologist James Wingenroth told *Newsweek*. The downpours caused rivers to surge with little advance notice. Floodwaters inundated central Texas, sweeping away an RV park with families still inside their vehicles.

More than 80 people have died, and search-and-rescue missions continue on Monday as the region is anticipating more rain.

What to Know

Early data evaluation by the U.S. Geological Survey (USGS) along the Guadalupe River in Texas show that record river height was reached in at least one location.

In Hunt, Texas, preliminary data suggests the Guadalupe River peaked at 37.52 feet on July 4, according to a Facebook post from Harris County meteorologist Jeff Lindner.

This breaks the prior record of 36.60 feet by nearly a foot. That record was set on July 2, 1932.

The next highest level occurred on July 17, 1987, when the river reached 28.40 feet. During that flood event, 10 campers died when a bus evacuating them from a summer camp near Comfort, Texas, was overtaken by floodwaters.

In the post, Lindner pointed out that the top three flood events for this location occurred during July.

In Kerrville, Texas, the river peaked at 34.29 feet, which is the third highest on record. The record was set on July 2, 1932, when the river peaked at 39 feet, followed by a flood event on July 17, 1987, where it peaked at 37.72 feet.

"The Kerrville gage rose from 1.82 ft at 5:15 am to a peak of 34.29 ft at 6:45 am or 32.47 ft in 1.5 hrs," Lindner said. "With the number of fatalities surpassing 80 on Sunday, this TX flood event appears to be the deadliest non-tropical flood event in American history since the 1979 Big Thompson Canyon Flood in Colorado which claimed 144 lives."

Flooding in central Texas remains a possibility on Monday as heavy rain continues to fall.

What People Are Saying

NWS Corpus Christi in a flood warning about the Guadalupe River: "Motorists should not attempt to drive around barricades or drive cars through flooded areas. Even 6 inches of fast-moving flood water can knock you off your feet and a depth of 2 feet will float your car. Never try to walk, swim, or drive through such swift water. If you come upon flood waters, stop, turn around and go another way."

NWS Fort Worth in a flood warning: "Numerous roads remain closed due to flooding. Low-water crossings are inundated with water and may be impassable. It will take several hours for all the water from these storms to recede."

Original Article: Newsweek by Anna Skinner

Groundwater replenishment left hanging by Arizona's new 'ag to urban' law

A newly signed bill giving developers the ability to buy and retire farmland in favor of subdivisions has been hailed by supporters as the single biggest improvement in state water law since the landmark Arizona Groundwater Management Act passed 45 years ago.

It's been promoted as a ticket to water savings, since homes typically use significantly less water than cotton fields.

It's also seen as a path to more affordable housing in the Phoenix area and Pinal County, where the law would have an impact. There, homebuilders say existing state restrictions on building new homes using groundwater have reduced housing supplies and triggered a spike in home prices. What's more, the new law went through the Legislature with overwhelming bipartisan support.

But what's called the Ag to Urban law comes with a big question mark that centers on the often downplayed concept of groundwater replenishment. The law will significantly increase the amount of water that must be recharged into the aquifer to compensate for groundwater pumped by new homes that are built on retired farmland.

As of now, it's not clear where that extra water will come from. Several possibilities exist, but many are expensive, controversial or both. The question looms particularly large now because of the strong possibility if not certainty that Arizona will have less Colorado River water after 2026, when the seven Colorado River Basin states hope to approve a new plan to manage the river and reduce its chronic supply-demand deficit.

The Ag to Urban law will allow up to hundreds of thousands of new homes to be built over the coming decades — homes that will use farms' former groundwater. The water could be used on the former farmland or on other lands within a mile of that land.

But under the existing state groundwater law, every drop that is pumped to serve those homes must be replenished by putting into the aquifer renewable water supplies such as Central Arizona Project water from the Colorado River.

The agency that must do the recharge is the Central Arizona Groundwater Replenishment District, a three-county water agency that buys and recharges CAP and other renewable supplies in the Tucson, Phoenix and Pinal County areas. The district is part of the Central Arizona Water Conservation District, which operates the CAP's canal system that pumps water uphill from the Colorado River 336 miles to Tucson.

The district's estimate is that the new law gives it a legal obligation to find and replenish another 15,000 to 20,000 acre-feet of renewable water supplies by 2044, to replace the groundwater that will be pumped for the new subdivisions allowed.

That's 22% to 29% of the amount the agency already has said it will need to replenish by 2044 to serve development already planned across all three counties.

The district supported the Ag to Urban bill in the Legislature, with its officials saying they successfully requested language in the bill to help mitigate, and help them deal with, the impacts of the projected increased replenishment obligation.

One change inserted in the bill, for instance, puts the state on record as supporting the district's goals to get renewable water from other sources. Those include buying Colorado River supplies owned by farmers operating along the river; and persuading Congress to spend up to $1 billion to elevate Bartlett Dam along the Verde River so it can store more water for delivery into Phoenix.

"We believe the bill helps set the stage for continued bipartisan work on water issues," the replenishment district said in a statement to the Star.

Critics worry obligations can't be met

But none of the changes in the bill achieved by the district actually guarantee provision of new water supplies in the near future.

Critics of the bill say it could eventually saddle the district with obligations to recharge water that it can't meet. If that were to happen, the district could no longer get its 20-year operating plans approved by the state, and housing development in those areas that rely on groundwater would have to stop.

Worse, from the critics' standpoint, the district's new obligation comes as its long-term plans have been challenged by the state because some of the supplies it has previously counted on evaporated.

The district was told earlier this year by the Arizona Department of Water Resources that it could no longer count on receiving a certain class of CAP water for recharge known as "NIA" water. That's short for non-Indian agricultural water, which used to go to farmers but was long ago transferred to urban areas and tribes.

The district had proposed in its draft plan of operations to get more than half of the 68,000 acre-feet of replenishment supplies it needs by 2044 from the NIA water.

But last February, the district was ordered by ADWR Director Tom Buschatzke to remove NIA water from that draft plan, which will cover the period from 2025 to 2044. ADWR has already said for some time that with Colorado River supplies dwindling, it doesn't expect to get much if any NIA water in the near to foreseeable future.

The district revised its plan of operations in the spring to remove the NIA water from its supplies. But in his letter, Buschatzke cautioned that if an ag-to-urban bill passed while this plan is under review by ADWR, the plan "may require additional revisions" to deal with the bill's new replenishment obligations.

Given the uncertainties about the district's supplies even now, state Rep. Chris Mathis, a Tucson Democrat, said in opposing the bill that it "relies heavily on a groundwater accounting system that I believe is already fully subscribed, if not oversubscribed, and, thus, easily structurally compromised."

He cast one of 20 “no” House votes on the bill, compared to 35 “yes” votes. The Senate voted 26-4 in favor.

‘Everybody is competing’ for groundwater

“The idea we can keep adding to replenishment obligations in a world where the Colorado is drying up and everybody is competing for existing groundwater supplies is nuts,” said Kathleen Ferris, a former ADWR director and an Arizona State University water researcher who has co-authored two highly critical reports on the replenishment district.

Both of those reports, the latest of which came out in May, questioned the replenishment district’s ability to support future growth with replenishment supplies for the long term, in part because of the likelihood of continued diminishing Colorado River supplies. The reports came from ASU’s Kyl Center for Water Policy.

“We are past the point where we can keep growing on groundwater with the assumption that we will replenish that groundwater through CAGRD,” said Ferris, using an acronym for the district. “There aren’t going to be the water supplies. Our report demonstrates this. Their plan of operations demonstrates this.”

In its statement to the Star, however, the district noted that for two decades, it “has successfully met its mission to replenish groundwater for its Maricopa, Pima and Pinal County members, and the legislation passed last week will allow that to continue.

“CAGRD is continually looking for new supplies for its portfolio. This includes a potential water acquisition partnership with the Gila River Indian Community (GRIC) to assist with the increased replenishment obligation,” the district said.

In a recent joint news release, the district and Gila tribal leaders said they’re negotiating towards an agreement in which the Gilas would provide the district with additional water to meet its replenishment obligation. The news release didn’t say whether the district would buy or lease water rights from the Gilas or how much water would be made available.

Other sources, however, said the district may get 7,500 acre-feet from the Gilas, or about one-third to one-half its replenishment need. The Gilas cut a water-leasing deal with the district in 2019 to help with the efforts to draw up a drought management plan for the Lower Colorado River Basin, which includes Arizona.

“This time we are working to help address replenishment concerns related to Ag to Urban by negotiating to deploy our water resources in a manner that helps all of Arizona,” said the Gila Community’s governor, Stephen Roe Lewis, in the news release. He said he’s been authorized to negotiate an agreement with the district “that will provide a significant supply of new water to help offset the replenishment needs of this Ag to Urban program.”

During the legislative debates on the bill, even some Democrats who voted for it acknowledged the replenishment issue remained unresolved.

Tucson Democratic Rep. Stephanie Stahl-Hamilton, in voting for the bill, said "it is amazing what we are going to get in groundwater savings. But I have a little bit of heartburn dealing with replenishment. We need to pay attention to water going back into the aquifer.

"How grateful I am that the Gila River Indian Community is stepping up to help us with the replenishment issue but we are not there yet," she said.

New water supplies difficult to get

The district's proposed plan of operations lays out a number of new supplies that it says are "potentially available" for it to acquire for replenishment over the next 20 to 100 years. The district is required to guarantee replenishment supplies only for the next 20 years, but must provide information in its plan showing potential supplies for 100 years.

Besides raising the Bartlett Dam and acquiring on-river supplies, other supplies the replenishment district plans to pursue are acquiring treated sewage effluent that's now being discharged into rivers and streams, desalinated water and long-term storage credits.

The credits represent water supplies that the district and other parties have already artificially recharged into the aquifer for storage. When the district draws upon those credits, its replenishment obligation is reduced by the amount of credits it uses up. That recharged water thereby never leaves the aquifer where it was placed.

Unused Central Arizona Project supplies and groundwater imported to Phoenix and Tucson from several rural basins west of Phoenix represent other potential supplies, the district's proposed operating plan says.

In its request to the Legislature to express support for its efforts to buy or lease these supplies, the district said, "Placing additional obligation on CAGRD will increase competition on the acquisition of renewable water supplies, which are already becoming increasingly scarce. This will ultimately place additional pressure on acquiring new supplies."

Since the district will have to take on the additional replenishment obligations under the ag to urban program, it will need state support "to acquire supplies that may be increasingly expensive and/or controversial," the district said.

Ferris, a former ADWR director during the 1980s, is openly skeptical, if not disdainful, of the notion that these supplies can help the district at least in the short term.

Acquiring any of these new supplies faces substantial obstacles, she and other Kyl Center researchers wrote in their May paper on the replenishment district.

Raising Bartlett Dam will take congressional approval and probably a decade or more for planning and construction, the report said. Any transfers of water from the river to urban areas will require the Interior secretary's approval, Ferris said. So far, most efforts to transfer on-river supplies to Central Arizona have been stymied by opposition from riverfront residents who say such action will drain life from their local economies.

The report also noted that while three Phoenix suburbs have already purchased groundwater supplies from rural basins, the ADWR hasn't yet approved transferring any of that water, and the costs of treating and transporting it to urban areas will be high.
In 2022, the Kyl Center report noted a governor's advisory committee acknowledged the "quantity and accessibility" of renewable supplies in the future are as uncertain for the replenishment district as for other users.
Fewer available water supplies will likely lead to increased competition involving the district, industrial users and private and municipal water utilities, the 2022 governor's committee report said.
As for buying water from farmers along the Colorado, the governor's committee said opposition from water users along the river and increasing costs could prove problematic for the district.
"That warning is even more relevant today," the Kyl Center report said.
Original Article: Tucson.com by Tony Davis

A conceptual breakthrough has emerged for the Colorado River's future

After months of stalemate, glimmers of hope have emerged for consensus on a new plan to manage the shrinking Colorado River.
Negotiators from the seven river basin states said in a series of meetings in recent weeks that they were discussing a plan rooted in a concept that breaks from decades of management practice. Rather than basing water releases on reservoir levels, it would base the amount released from the system's two major reservoirs on the amount of water flowing in the river. The new concept would be more responsive as river flows become more variable.
The comments signal a break in months of stalemate between the Upper Basin states—Colorado, Utah, New Mexico and Wyoming—and the three Lower Basin states: California, Nevada and Arizona. The states' representatives are wrestling with a seemingly simple question: How should the river's water be allocated as long-term drought and higher temperatures fueled by climate change decimate the amount of water available?
The Upper Basin states have argued that they have already borne the brunt of lower river flows. That's because they rely on snowmelt and precipitation, since they are upstream of the system's two major reservoirs, Lakes Powell and Mead.
The Lower Basin states—which sit below the reservoirs and rely on releases from them for their water supplies—have said they have already made major reductions in water use and that the Upper Basin states must also agree to cuts.
The new concept for managing the river reflects an attempt to account for the reality of the shrinking river and will, if adopted, adjust releases from the reservoirs based on the amount of water in the river.

"This is a very new thing," Arizona's negotiator, Tom Buschatzke, said of the idea at a June 17 meeting of the Arizona Reconsultation Committee. "It is focused on what the river provides and looking at ways to share that volume."

The Colorado River system—relied upon by 40 million people—stands on the brink of system failure, Colorado's negotiator, Becky Mitchell, said at a June 26 meeting of the Upper Colorado River Commission.

"We also stand on the precipice of a major decision point—an opportunity point," she said. "We have the responsibility and opportunity to do better if we collectively choose to do so."

After years of talks, the states face a federal deadline to submit a plan early next year, with other decisions due sooner. Current rules dictating how the river is managed expire at the end of 2026.

What does the new concept look like?

The conceptual framework dictates that releases from Lakes Powell and Mead would be a percentage of a rolling three-year average of the river's natural flow.

That's a huge shift from previous management plans that called for releasing set quantities of water based on reservoir levels.

Using a percentage instead of a fixed volume would acknowledge that the amount of water in the river has shrunk significantly since 1922, when the states struck the original agreement over how to share the flows.

"The quantification of hydrologic shortage is incredibly important," Mitchell said. "No amount of lawyering is going to fix the math problem … we must live with the river we have, not the river we want."

What do people think of it?

"I think it has a lot of promise," Anne Castle, a former assistant secretary for water and science at the U.S. Interior Department and a former chair of the Upper Colorado River Commission, said of the emerging concept.

"I think it responds directly to the hydrological situation that we're in, where supply is shrinking and it's also very volatile," she said in an interview.

"If you base allocations on a percentage of recent hydrology, I think that gets you closer to actually solving the problem of having a big gap in supply and demand in the Colorado River system."

But the devil's in the details, she warned.

The states, if they adopt the plan, will have to decide how to calculate the river's natural flow—which is the amount of water that would be in the river without any human intervention. That number will serve as the base from which the percentage is derived.

Then they'll have to decide exactly what that percentage should be.

Negotiators will also have to determine how to enforce the agreement if the Upper Basin is obligated to ensure a percentage of the river reaches the reservoirs but fails to do so, Castle said.

How long do states have to hammer out details?

Federal officials, for the first time last week, publicly announced a hard deadline for the negotiations.

The states need to tell the federal government by Nov. 11 if there will be a deal, said Scott Cameron, the acting assistant secretary for water and science at the Department of the Interior. Then the states would have until Feb. 14 to submit a detailed plan.

In the meantime, the U.S. Bureau of Reclamation will continue the monthslong process of analyzing other potential management plans, as required by the National Environmental Policy Act. Federal officials plan to analyze such a wide range of options that any plan submitted by the states would fit in that range, Cameron said last month at a conference in Boulder.

The bureau is on track to release a draft of that analysis by the end of the year—and a final plan by summer 2026, he said.

Even as negotiations have faltered at times, and tensions between the states have flared into the public eye, negotiators from the states have repeatedly pledged their commitment to finding a deal.

"We are dedicated to a consensus agreement," Commissioner Estevan Lopez of New Mexico said. "Anything else is likely to lead to litigation … and that leads to years and years of uncertainty, and none of us will win in that context."

How's the river looking this year, anyway?

Not good.

The amount of water expected to flow into Lake Powell this year is 54% of the average from 1991 to 2020, according to the National Weather Service's Colorado Basin River Forecast Center.

"This is one of the five driest years over the past 50 or 60 years," Daniel Bunk, the office chief for the Bureau of Reclamation's Boulder Canyon Operations Office, said at last month's Arizona Reconsultation Committee meeting.

The most recent modeling by the Bureau of Reclamation shows that, in the worst-case scenario, Lake Powell's water level could drop below the minimum power pool level by December 2026.

If that were to happen, water would no longer be able to flow through Glen Canyon Dam's hydroelectric infrastructure, which delivers power to seven states—including Colorado.

The most likely scenario isn't good, either. If conditions continue as expected, the reservoir will not add any water to its supplies in the next year, and water levels are expected to decline over the next two years.

That's especially troubling, since both Lake Mead and Lake Powell are only a third full now.

"Overall, we know we have a very significant gap between supply and demand, and we've been getting away with using more than nature's supplies," Castle said.

"But the reservoirs are going down very quickly—especially this year. You can't overspend your income on a permanent basis."

Original Article: Phys.org by Elise Schmelzer

Monsoon season brings the promise of rain for the arid southwestern US

Clouds build up in the early afternoon and gusty winds push in every direction. The skies darken and then comes the rain — often a downpour that is gone as quickly as it came. This seasonal dance choreographed by Mother Nature marks a special time for the U.S. Southwest and Mexico. It is when residents clasp their hands, hoping for much-needed moisture to dampen the threat of wildfires and keep rivers flowing.

Forecasters say it has been a wet start to this year's monsoon season, which officially began June 15 and runs through the end of September. Parts of New Mexico and West Texas have been doused with rain, while Arizona and Nevada have been hit with dust storms, which are a common hazard of the season.

Want Arizona news in your inbox each morning? Sign up for our free newsletter.

In Las Vegas, monsoon season muscled its way in on the first day of July with bursts of powerful thunderstorms and dust storms that toppled power lines, uprooted trees and snapped utility poles throughout the city, shocking the power grid. Tens of thousands of people were without power for some time.

And in other parts of the world, monsoons often mean months of never-ending rain.

In North America, the season can have considerable variability. The bursts and breaks depend on how much moisture is circulating and which way the wind blows.

Easing drought

The monsoon relies on the buildup of summer heat and shifting wind direction, which helps funnel moisture from distant bodies of water to areas where rain is sparse.

Just ahead of the monsoon, officials with the Navajo Nation declared an emergency because of worsening drought conditions across the reservation, which spans parts of New Mexico, Arizona and Utah.

Below-average precipitation month after month has left little forage for livestock, and fire danger has ramped up as pockets of moderate and severe drought expand. Ranchers and farmers are being urged to reduce their herds, shift to drought-tolerant crops and limit irrigation.

New Mexico's governor also declared an emergency in May because of severe drought and escalating fire risk.

Forecasters with the National Oceanic and Atmospheric Administration and the National Integrated Drought Information System say monsoonal rainfall only provides a fraction of the West's water supplies, with the majority coming from snowpack. Still, summer rains can reduce drought impacts by lessening the demand for water stored in reservoirs, recharging soil moisture and groundwater, and reducing the risk of wildfires. New Mexico and Arizona typically stand to benefit the most from the North American monsoon, getting anywhere between 10% to 60% of their annual precipitation during the season. It has a lesser influence in Nevada and California, though southern Nevada on average gets 20% to 25% of its precipitation during the summer.

Along the Rio Grande at the base of the Jemez Mountains, Santa Ana Pueblo farmers are eagerly watching the afternoon skies. Pueblo Gov. Myron Armijo said they have already had several good downpours, and he wouldn't mind more.

But that will be for the spirits to decide, Armijo said. "You know, it's not up to us," he said.

Flooding fears

With summer rains come increased river flows and in some cases flooding in normally dry washes and across the scars left by wildfires.

Sandbag stations have been set up in communities across the region — from Tucson, Arizona, to Albuquerque and San Antonio, Texas. In Española, state transportation workers have closed a historic bridge that funnels traffic across the Rio Grande, citing concerns about higher flows further eroding a concrete pier.

On the edge of the Gila National Forest, New Mexico National Guard troops have delivered dozens of pallets of filled sandbags for residents who are preparing for flooding following a blaze that has charred about 74 square miles.

Meanwhile, hundreds of firefighters are hoping for higher humidity and rain to tamp down a wildfire that is racing through a mountainous area of the Navajo Nation. Fire officials reported that the flames made a 6-mile run in a matter of hours.

Once the fire is out, land managers acknowledge that the monsoon will be a mixed blessing, as rainfall on the charred hillsides will surely result in surges of runoff filled with ash and debris.

Original Article: Copper Courier by Associated Press

Nearly $5M earmarked for water projects across two states

Projects ranging from floodplain restoration to improving water quality and fish passage will benefit from nearly $5 million in funding being provided by Oregon and Washington state lawmakers.

The Oregon Legislature recently allocated $2.5 million for water-related projects that are part of the Walla Walla Water 2050 strategic plan, an initiative aimed at better managing the water resources of the Walla Walla Basin.

The funding will be provided through Oregon's Water Resources Department, according to a release, with another $2.4 million coming from the state of Washington state.

"While the specific project outcomes vary, the projects types were prioritized on the basis of the multiple benefits that each would provide for fish, farms and people," said Anton Chiono, habitat conservation project leader for the Confederated Tribes of the Umatilla Indian Reservation (CTUIR), in a statement.

The basin covers 1,785 square miles, with the headwaters of the Walla Walla River starting in the Blue Mountains of Oregon before flowing into Washington state.

The funding will go toward six projects:

- Floodplain restoration to reduce flood risk and restore habitat.
- Streamflow restoration through water rights transactions.
- Fish passage improvement and habitat restoration in Mill Creek.
- Increased infiltration of stormwater to improve surface water quality.
- Modernizing irrigation infrastructure to benefit streamflows.
- Improving water quality in the south fork of the Walla Walla River.

All the projects were identified as priorities in the Walla Walla Water Plan 2050, which began being developed in 2019 via Oregon's Water Resources, Washington Department of Ecology, the CTUIR and local stakeholders in the basin, including the Walla Walla River Irrigation District.

"The initiative answers the decades-long challenge of meeting the basin's growing water needs for today, tomorrow, and beyond," according to Ecology's website on the water plan. "This project is especially critical as water supplies throughout the state are under pressure from declining aquifers and warming snowpack."

Original Article: Tri Cities Area Journal of Business

H2O America to acquire Quadvest in $540 million Texas water utility deal

H2O America (NASDAQ:HTO), a water utility with a market capitalization of $1.79 billion and a strong dividend track record spanning 54 years, announced Tuesday that its Texas Water Company subsidiary will acquire Quadvest, a regulated water and wastewater utility operating in the Houston metro area, for $540 million. InvestingPro data shows the company has maintained impressive revenue growth of 12.3% over the last twelve months.

The transaction will more than double H2O America's connections in Texas, with the state projected to become the company's second-largest utility operation by 2028 based on net income. Quadvest currently operates 50 water treatment plants and 27 wastewater treatment plants serving approximately 69 developments with over 47,000 active connections. With an EBITDA of $302 million and a gross profit margin of 56.8%, H2O America demonstrates strong operational efficiency in its existing operations.

According to the agreement, Texas Water Company will acquire Quadvest's regulated systems for $483.6 million, while Texas Water Operation Services will purchase systems owned by Quadvest Wholesale LLC for $56.4 million.

"The addition of Quadvest to TWC is a unique opportunity to strategically diversify, enhance, and expand H2O America's operations in one of the nation's fastest-growing regions," said Andrew F. Walters, CEO of H2O America, in the press release announcing the deal.

The acquisition will increase H2O America's Texas customer base from approximately 7% to 17% of its total service connections, with projections to reach 26% by 2029. The combined entity will become the second-largest investor-owned water and wastewater utility in Texas based on connections.

H2O America plans to finance the transaction through a combination of privately placed debt and equity infusions, maintaining its current credit ratings. The company expects to increase its five-year capital spending plan to approximately $2.1 billion, a 6% increase. InvestingPro analysis indicates the company operates with a significant debt burden, with a debt-to-equity ratio of 1.33 and current ratio of 0.66. Subscribers to InvestingPro can access 6 additional key insights about H2O America's financial health and growth prospects.

The transaction, unanimously approved by H2O America's board of directors, is expected to close by mid-2026, pending regulatory approvals from the Public Utility Commission of Texas and antitrust clearance. Analysts maintain a positive outlook on the stock, with price targets ranging from $57 to $66, suggesting potential upside from current levels despite trading above InvestingPro's Fair Value estimate.

In other recent news, H2O America has made significant leadership changes. Megan Mattern has been appointed as the new chief accounting officer, effective July 28, replacing Ann P. Kelly, who will transition to the roles of chief financial officer and treasurer on July 1. Mattern's compensation package includes a base salary of $425,000, with additional incentives and stock unit awards under the company's Long-Term Incentive Plan. Meanwhile, Andrew F. Walters, the current chief financial officer, will join the Board of Directors and is set to become the company's CEO following the retirement of Eric W. Thornburg on June 30, 2025. Walters has been with H2O America for over 11 years and has played a key role in the company's financial growth and strategic acquisitions. His future plans include focusing on stakeholder relationships and capital expenditure strategies. These developments were announced in recent press releases and filings with the Securities and Exchange Commission.

Original Article: Investing.com

GLOBAL WATER NEWS

Low water levels push up shipping costs on Europe's rivers amid heatwave

Low water levels after heatwaves and drought are limiting shipping on some of Europe's biggest rivers including the Rhine and the Danube and pushing up transport costs.

As much of Europe swelters in hot temperatures, water levels in its main rivers have fallen. This is affecting shipping along the Rhine – one of Europe's key waterways – south of Duisburg and Cologne in Germany, including the choke point of Kaub, forcing vessels to sail about half full.

Rainfall over the weekend caused only a moderate rise in water levels, according to commodity traders.

Shallow water has prompted ship operators to impose surcharges on freight rates to compensate for vessels not sailing fully loaded, increasing costs for cargo owners. Traders told Reuters that loads that are normally transported on one vessel were being carried on several barges.

Most of the nearly 200m tonnes of cargo shipped on German rivers each year – from coal to car parts, grains and food to chemicals – is transported on the Rhine, the second longest river in central and western Europe after the Danube.

Unusually low water levels on the Danube in Hungary are affecting shipping and agriculture, as temperatures peaked at 35C in Budapest last week. This means cargo ships must leave behind more than half of their loads and can only operate at 30-40% capacity, Attila Bencsik, the deputy president of the Hungarian Shipping Association, said.

In Poland, the water level in the Vistula, the country's longest river, has fallen to its lowest ever recorded level in Warsaw as temperatures stayed above 30C for a prolonged spell and there has been little rainfall.

Three years ago, German companies faced supply bottlenecks and production problems after a drought and heatwave led to unusually low water levels on the Rhine.

That summer, the French energy supplier EDF had to temporarily reduce output at its nuclear power stations on the Rhône and Garonne rivers as heatwaves pushed up their temperatures, restricting its ability to use their water to cool the plants.

More rain is forecast in Germany in the coming days, which could raise water levels.

Get set for the working day – we'll point you to all the business news and analysis you need every morning

The lack of rainfall is causing problems elsewhere. In Yorkshire in the UK, water reservoirs have plunged. Data released by Yorkshire Water, which has more than 5 million customers, showed levels had dropped further from 63% recorded in May to 55.8% in June – significantly below the average (81.9%) for this time of year.

Reservoirs are close to half full, with most of the summer still ahead. Yorkshire's reservoirs have been declining since late January amid the driest spring for 132 years in the county and England's warmest June on record. During warm weather, water usage usually increases, which further affects reservoir levels. Customers used almost 1.5bn litres on 30 June – 200m litres above Yorkshire Water's typical daily output.
Another UK water company, Severn Trent, has urged its 8 million customers to be "mindful of their water use". It said there was less water in reservoirs and rivers and while there was no plan for a hosepipe ban, it remained an option.
Original Article: The Guardian by Julia Kollewe

Global drought crisis deepens: Record heat and El Niño drive humanitarian disaster

Some of the most widespread and damaging drought events in recorded history have unfolded since 2023, a new UN-backed report has found.
The analysis on worldwide drought hotspots, prepared by the US National Drought Mitigation Centre and the UN Convention to Combat Desertification, found that global climate patterns in 2023 and 2024 set the stage for severe drought impacts worldwide that are continuing into 2025.
According to the National Oceanic and Atmospheric Administration, 2023 and 2024 were the two warmest years on record globally .On 22 July 2024, Earth experienced its hottest day ever recorded.
High temperatures and a lack of precipitation had widespread ramifications in 2023 and 2024, such as water supply shortages, low food supplies and power rationing, the report said.
"In parts of Africa, tens of millions of people faced food insecurity, malnutrition and displacement as thousands of human lives were lost due to drought-induced food shortages."
Since 2023, global droughts have had widespread effects that exposed and worsened existing social, economic and environmental vulnerabilities.
"Understanding which areas and populations were most affected, and why, is essential for informing future mitigation strategies, improving resilience planning and supporting equitable policy responses," the report said.
The analysis synthesised information from hundreds of government, scientific and media sources to highlight effects within the most acute drought hotspots in Africa (Somalia, Ethiopia, Zimbabwe, Zambia, Malawi, Botswana, Namibia), the Mediterranean (Spain, Morocco, Türkiye), Latin America (Panama, Amazon Basin), South-East Asia and beyond.
The 2023–2024 El Niño event amplified already harsh climate change impacts, triggering dry conditions across major agricultural and ecological zones. The consequences of

drought hit hardest in climate hotspots, which are “regions already suffering from warming trends, population pressures and fragile infrastructure”.
Women, children, the elderly, pastoralists, subsistence farmers and people with chronic illness are most vulnerable to the effects of drought. They face health risks including cholera outbreaks, acute malnutrition, dehydration and exposure to polluted water.
Original Article: Mail Guardian by Sheree Bega

Nigeria blue economy policy: the 1.5 trillion plus GDP opportunity

Advocacy for the green economy was seen as discriminatory and condescending – the rich countries telling the poor South how to manage their affairs for the benefit of humankind. It was considered a call for sacrifice by the poor countries to mitigate projected risk to the global climate, while the present state of the Earth’s climate was to a considerable extent the consequence of uninhibited industrialisation by the wealthy countries. It was thought unfair. This is why the controversy over who pays for the stringent enforcement mechanisms remains unresolved.
On the other hand, the Blue Economy is a universal realisation of the boundless resources of the ocean and how we can all use this to improve the livelihoods of all people in a sustainable way. In this case, the application of the principle is case-specific as the developmental requirements of each country are unique to each one, as we might as well be on different planets in terms of economic conditions. What Norway needs, for instance, is not what Nigeria need.
Nigeria’s Blue Economy holds untapped potential to become the primary driver of economic diversification, job creation, and sustainable development. For the purpose of Nigeria’s unique economic goals, it is important to de-emphasise Marine and underline BLUE because it’s already in it, it is a component. Blue is inclusive, symbolic and serves the maximalist interpretation of Nigeria’s own Sustainable Blue Economy objectives. Let’s look at the outlines of a strategy to develop ten new ports as dynamic economic growth centres, integrated with transport corridors and industrial zones, targeting a national GDP expansion to $1.5 trillion plus in the short to medium term:
1. Rationale for a Blue Economy Maximalist Agenda with the Nigerian GDP hovering around $350 and $450 in the last few years for a population of over two hundred and twenty million:
Even a 20–25% increase in current port throughput, combined with sectoral diversification, could ripple across GDP metrics. The multiplier effect in jobs, income, and investment could be huge if governance and policy coherence align.
– Nigeria has an 853 km coastline, underutilised for national productivity.
– Existing ports are overburdened; regional competitors have outpaced Nigeria in maritime logistics.

– Ten new ports would dramatically increase Nigeria's cargo handling capacity.
This could:
– Attract regional transhipment business currently going to hubs like Lomé and Tema.
– Enable exports of value-added goods (not just raw commodities) via efficient logistics.
Original Article: QED NG

Decoupling of industrial water consumption and economic expansion in the Yangtze River Economic Belt: a comparative analysis across three Five-Year plans

As the Yangtze River Economic Belt (YREB) continues its rapid economic expansion, the mismatch between the supply and demand of industrial water resources has become increasingly pronounced. While existing research has largely overlooked the decoupling dynamics between industrial water consumption and economic expansion in this region, this study provides a comprehensive analysis of its decoupling relationship, the stability, and the underlying driving forces. Drawing on data from 11 provinces and municipalities in the YREB spanning the 11th to 13th Five-Year Plan (FYP) periods, this study employs the Tapio decoupling model and the logarithmic mean divisia index (LMDI) model as its primary analytical tools. Through comparative analysis, the results reveal that the YREB's overall decoupling status evolved from weak decoupling in the 11th FYP period to strong decoupling in the 12th and 13th periods, though marked regional disparities persist. Notably, all provinces exhibited some degree of decoupling reversal, primarily during plan transitions, the mid-term of the 12th FYP, or around 2019. This underscores the non-linear and dynamic nature of the decoupling process. In terms of driving factors, during the 11th and 12th FYP periods, the technological effect was the dominant force curbing industrial water consumption, while the output effect was the main contributor to its increase. The interplay between these opposing forces led to fluctuations in the total water consumption effect. However, by the 13th FYP period, structural effect emerged as a significant new restraining force. This study contributes empirical evidence and policy-oriented insights to improve sustainable industrial water management in major river basin economies.
Original Article: Gong, Xiujuan & Liu, Shu & Ye, Wei & Liu, Liang. (2025). Decoupling of industrial water consumption and economic expansion in the Yangtze River Economic Belt: a comparative analysis across three Five-Year plans. Scientific Reports. 15. 10.1038/s41598-025-06042-5.

Local farmer engagement key to water management, says Nagaland University study

A new study by Nagaland University has revealed that the long-term success of Aquifer Recharge and Recovery (ASR) projects depends significantly on the involvement of local

farming communities. The research has stressed that groundwater management cannot be a purely technical solution but must also be driven by social and institutional engagement.

The study, recently published in the journal Societal Impacts, examined the socio-environmental effects of ASR through a pilot project in South Bihar.

It found that when local farmers were actively engaged and maintained shared ownership of recharge pits, water availability improved, crop diversity increased, and communities gained socio-economic benefits.

Led by Prof Prabhakar Sharma of Nagaland University, the study found that success was not uniform. In Meyar, farmers took active responsibility for maintaining recharge pits and saw clear benefits. In contrast, in Nekpur, where farmers lacked trust in the technology and did not maintain the pits, ASR structures fell into disuse.

Prof Sharma stated, “Unlike many prior studies that mainly focus on the technical feasibility and hydrogeological aspects of ASR, this research distinctly foregrounds the social, institutional and policy dimensions critical for sustainable implementation.”

SOUTH BIHAR PILOT DEMONSTRATED SOCIO-ECONOMIC GAINS

The pilot study, supported by a grant from the Australian Centre for International Agricultural Research, found that ASR significantly improved groundwater recharge, made irrigation more reliable, and enabled additional cropping cycles, thereby improving farmer incomes.

The average cost of setting up an ASR pit was approximately USD 400, making it a relatively affordable solution. However, due to financial constraints, most farmers preferred external support or public funding to initiate the process.

EXPERTS CALL FOR ADAPTIVE POLICY AND INCLUSIVE PLANNING

Co-author Dr Aviram Sharma of the University of Vigo, Spain, emphasised the need for tailor-made strategies: “Future interventions must incorporate localised adaptation strategies, financial mechanisms for farmer participation, and long-term monitoring of groundwater trends for measuring the impacts of the ASR pits on groundwater aquifers.”

The study recommends beginning with medium and large farmers who are more invested in agriculture and could serve as early adopters, encouraging others to follow. Sustained results will also depend on peer-led governance, policy incentives, and support from government and NGOs.

SCALING ASR FOR RURAL WATER SECURITY

ASR holds immense potential for Nagaland and other water-scarce North-Eastern states, where erratic rainfall and groundwater shortages are a growing concern.

The study underlines that ASR must be embedded within broader, inclusive water policies that address socio-economic disparities and promote community-driven models.

This collaborative research included experts from India, Japan, and Spain, including researchers from the Energy and Resources Institute (TERI) and Kyoto University. It brings a multidisciplinary lens to sustainable water solutions in rural, climate-impacted regions of India.
With climate variability rising, the study reinforces that community-led water conservation may be one of the most viable paths forward for building resilience in Indian agriculture.
Original Article: India Today

South Africa advances plans for National Water Resources Infrastructure Agency

South Africa's Department of Water and Sanitation (DWS) is progressing with plans to establish the **National Water Resources Infrastructure Agency (NWRIA)**, targeting completion by April 2026. The department provided an update on the agency's development to Parliament's Portfolio Committee on Water and Sanitation.
"While we acknowledge the value proposition offered by rationalisation of various entities within the DWS to a single entity to ensure effective development and maintenance of the country's water infrastructure, it is important that risk mitigation procedures are built into the system to ensure efficiency and success. Effective operation of assets and ensuring revenue collection through water sales is critical to ensure the sustainability of the entity," said Mr Leon Basson, Chairperson of the committee.
The NWRIA is being established through legislation passed during the sixth Parliament.
The agency is intended to support the reliable provision of water from infrastructure with acceptable levels of risk, and to contribute to sustainable national, regional, social, economic, and environmental objectives. It will also be responsible for securing funding and managing the implementation, operation, and maintenance of water resources infrastructure.
There is an ongoing concern regarding the state's capacity to deliver water infrastructure projects at the scale required to meet national needs. In response, the NWRIA is expected to increase investment in the sector, potentially growing annual investment from **approximately R10 billion to R30 billion.** The agency will also seek to consolidate responsibilities currently distributed among the DWS, the Trans-Caledon Tunnel Authority (TCTA), and the Water Trading Entity. By doing so, it aims to create a structure capable of raising funds on its own balance sheet.
The agency is intended to support the reliable provision of water from infrastructure with acceptable levels of risk, and to contribute to sustainable national, regional, social, economic, and environmental objectives

The committee welcomed the department's briefing and noted the existence of a technical coordination mechanism between the DWS and TCTA. This mechanism includes workstreams covering technical, financial, legal, human resources, governance, IT, and communications areas.

Regarding governance, the department indicated that the term of the current TCTA board concludes in December 2025. The DWS intends to recommend that the Minister extend the board's term until the NWRIA is operational. Once the agency is established, **the TCTA will be disestablished.**

While acknowledging progress, the committee emphasized the importance of risk mitigation to prevent the agency from facing governance and administrative issues similar to those experienced by other state-owned entities. The committee also pointed to concerns around debt in the water sector and stressed the need for safeguards to protect the NWRIA's financial sustainability, particularly in relation to service payment defaults.

Some committee members raised questions about the risks of leveraging assets to fund development, noting that failure to repay loans could affect the country's water sovereignty. However, the TCTA's record of successfully repaying loans over a 40-year period was cited as reassurance that the NWRIA could maintain similar financial discipline.

The committee requested regular updates on the agency's development and expressed its intention to expedite the finalisation of the NWRIA Amendment Bill. The bill aims to clarify the agency's public entity status and ensure alignment with the Public Finance Management Act.

Original Article: Smart Water Magazine

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