

Veles Water Weekly Report

1. **WATERTALK**
TECHNICAL ANALYSIS BY ROBIN BIEBER
2. **NQH2O INDEX VS H2O FUTURES PRICE PERFORMANCE**
3. **NQH2O INDEX AND H2O FUTURES VOLATILITY ANALYSIS**
4. **CENTRAL VALLEY PRECIPITATION REPORT**
5. **RESERVOIR STORAGE**
6. **SNOWPACK WATER CONTENT**
7. **CALIFORNIA DROUGHT MONITOR**
8. **CLIMATE FORECAST**
9. **CALIFORNIA WEATHER DISCUSSION**
10. **REGULATORY NEWS**
11. **WATER NEWS**

May 20th 2021

Authors:

Lance Coogan - *CEO*

Joshua Bell - *Research Analyst*

research@veleswater.com

+44 20 7754 0342



VelesWater



WATER FUTURES MARKET ANALYSIS

Welcome to ***WATERTALK***

by Robin Bieber

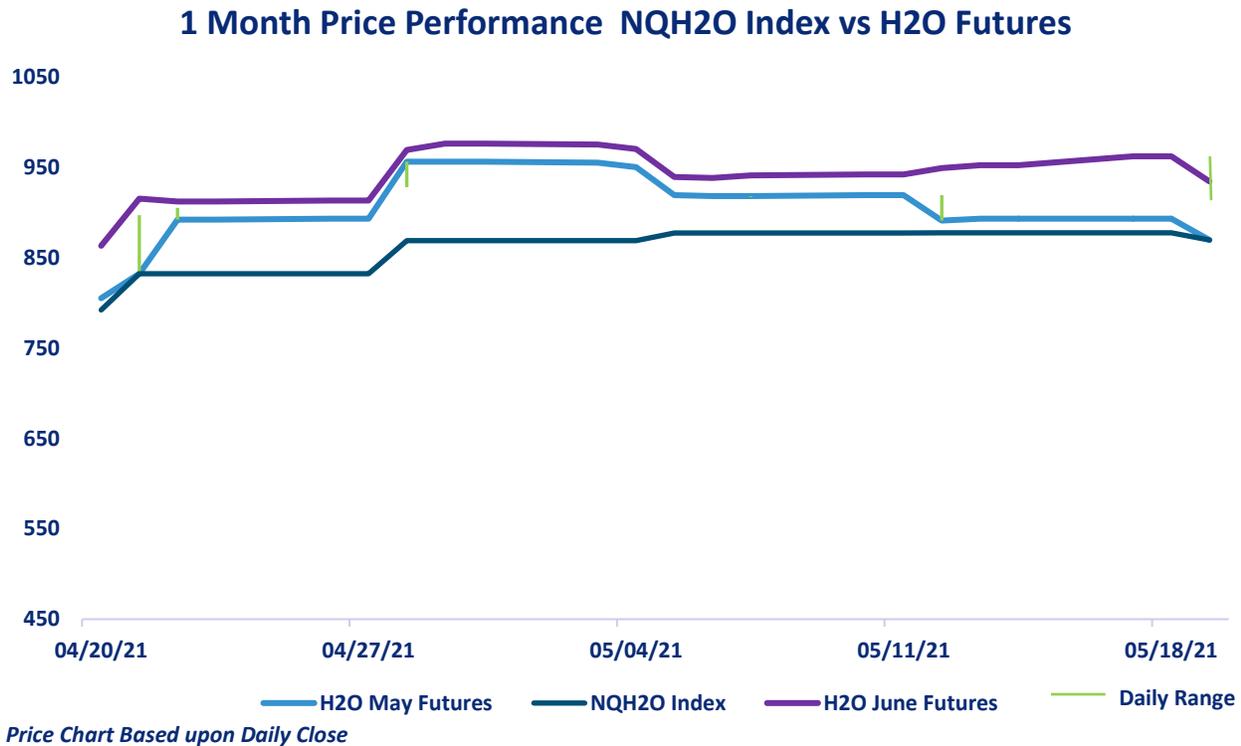
CLICK THE LINK BELOW

"A 2 minute technical analysis video of H2O futures by Robin Bieber."

<https://vimeo.com/552759035/475b0d4822>



NQH2O INDEX PRICE vs H2O FUTURES PRICE



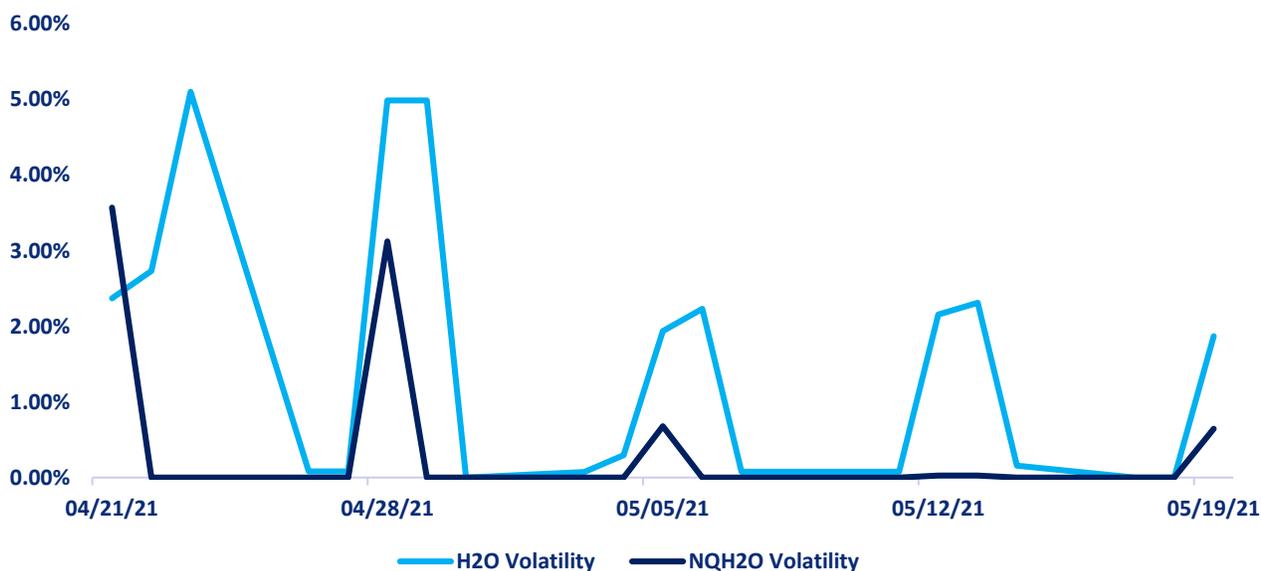
This week the graph above shows both the May and June contract prices. This is the infancy of the formation of a ‘forward curve’ in the water market. On May 19th the new NQH2O index level was \$869.36 down \$8.00 or 0.91% from the previous week. Yesterday marked the expiry of the May futures contract (H2OK21) which settled to the index. Over the last week in the May contract price remained constant at \$893 with the futures trading at a \$15.64 premium to the index expiry price.

The June contract (H2OM21) is now the front month contract and opened trading March 24th at a low of \$650 and a high of \$976 on April 30th. The June contract is now trading at a premium of \$64.64 to the index, indicating the market believes the small price pull back in the index is a healthy correction.



H2O FUTURES AND NQH2O INDEX VOLATILITY ANALYSIS

Daily H2O Futures Volatility vs Daily NQH2O Index Volatility



ASSET	1 YEAR (%)	2 MONTH (%)	1 MONTH (%)	1 WEEK (%)
NQH2O INDEX	37.58%	26.25%	4.97%	0.93%
H2O FUTURES	N/A	32.1%	11.57%	3.65%

For the week beginning the 12th May the two month futures volatility is at a premium of 5.63% to the index down 0.22% from the previous week. The one-month futures volatility is at a premium of 6.74% to the index, up 0.18% for the week. The one-week futures volatility is at a premium of 2.70% to the index down 0.02% on the week.

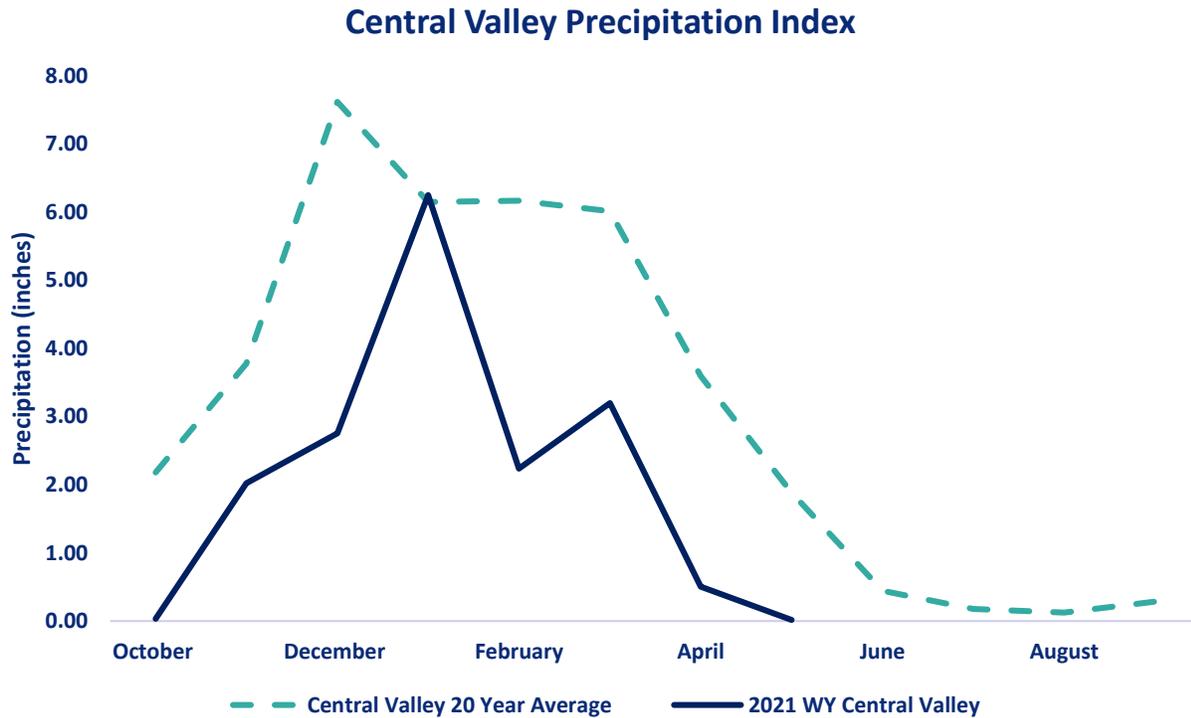
DAILY VOLATILITY

Over the last week the May Futures contract traded flat with little volatility. The June contract over the past week had an intraday high of 2.10% on the 12th May.

*Above prices are all **HISTORIC VOLATILITIES** and **IMPLIED VOLATILITIES** will be introduced once an options market has been established.*



CENTRAL VALLEY PRECIPITATION REPORT



Central Valley average is calculated using data from 19 weather stations in the Central Valley, California.
Data as of 05/20/2021

STATION	MTD (INCHES)	WEEK ON WEEK CHANGE (INCHES)	% OF 20 YEAR AVERAGE MTD	2021 WYTD VS 2020 WYTD %	2021 WY VS 20 YEAR AVERAGE TO DATE %
SAN JOAQUIN 5 STATION (5SI)	0.03	0.03	1.56%	60	48
TULARE 6 STATION (6SI)	0.01	0.01	0.83%	65	36
NORTHERN SIERRA 8 STATION (8SI)	0.01	0.01	0.40%	59	47
CENTRAL VALLEY TOTAL	0.05	0.05	0.93%	61	43.66

RESERVOIR STORAGE

RESERVOIR	STORAGE (AF)	% CAPACITY	LAST YEAR % CAPACITY	HISTORIC ANNUAL AVERAGE CAPACITY %
TRINITY LAKE	1,294,576	53	77	62
SHASTA LAKE	2,119,780	47	78	54
LAKE OROVILLE	1,416,003	40	69	48
SAN LUIS RES	959,112	47	69	56

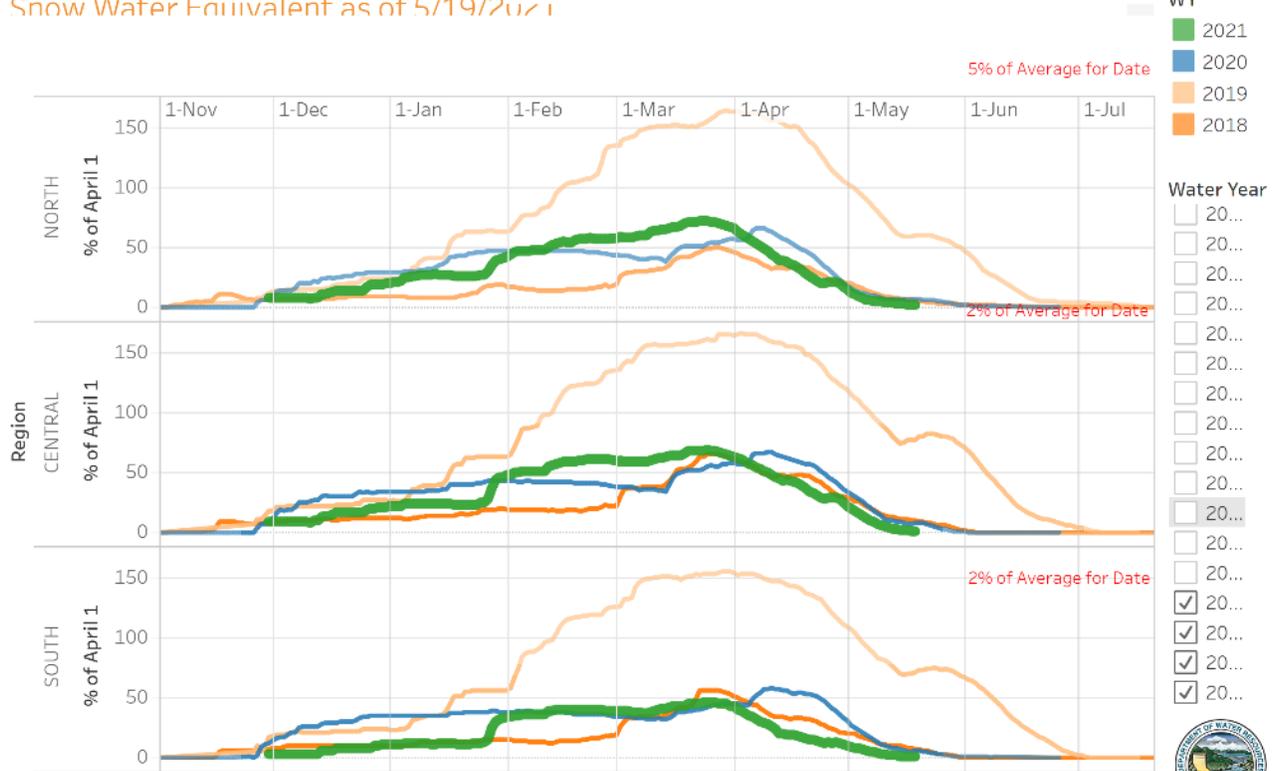


SNOWPACK WATER CONTENT

Snow Water Equivalent Dashboard

Snow Water Equivalent as of 5/19/2021

Statewide: 1% of April 1, 2% of Average for Date



Last Updated: 5/19/2021 11:43:53 PM



REGION	*SNOWPACK WATER EQUIVALENT (INCHES)	WEEK ON WEEK CHANGE %	% OF AVERAGE LAST YEAR	% OF 20 YEAR HISTORICAL AVERAGE	% OF HISTORICAL **APRIL 1ST BENCHMARK
NORTHERN SIERRA	0.6	-53.85%	16	5	2
CENTRAL SIERRA	0.4	-71.43%	13	2	1
SOUTHERN SIERRA	0.7	-57.14%	9	2	1
STATEWIDE	1.1	-63.64%	12	4	2

*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.

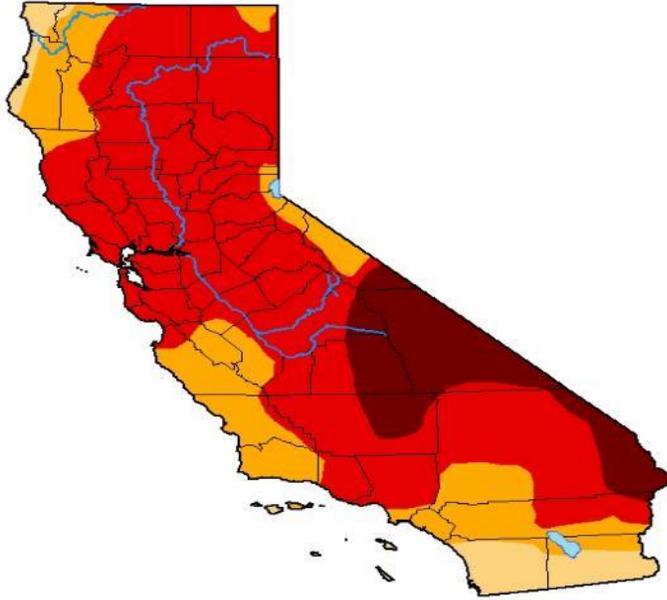
** April 1st is used as the benchmark as it when the snow pack in California is generally deepest. It has been used the benchmark date since 1941 by DWR and can be used to predict spring river flow.



DROUGHT MONITOR

U.S. Drought Monitor California

May 11, 2021
(Released Thursday, May 13, 2021)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	100.00	94.31	73.33	13.53
Last Week 05-04-2021	0.00	100.00	97.52	92.88	73.31	5.36
3 Months Ago 02-09-2021	0.64	99.36	85.10	57.87	31.41	3.75
Start of Calendar Year 12-29-2020	0.00	100.00	95.17	74.34	33.75	1.19
Start of Water Year 09-29-2020	15.35	84.65	67.65	35.62	12.74	0.00
One Year Ago 05-12-2020	41.80	58.20	46.67	20.84	2.99	0.00

Intensity:

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

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

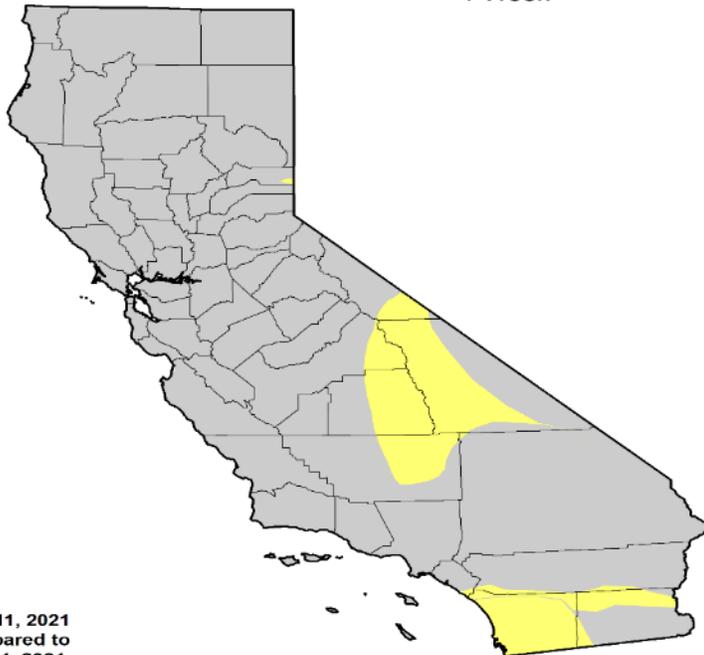
Author:

David Simeral
Western Regional Climate Center



droughtmonitor.unl.edu

U.S. Drought Monitor Class Change - California 1 Week



May 11, 2021
compared to
May 4, 2021



- 5 Class Degradation
- 4 Class Degradation
- 3 Class Degradation
- 2 Class Degradation
- 1 Class Degradation
- No Change
- 1 Class Improvement
- 2 Class Improvement
- 3 Class Improvement
- 4 Class Improvement
- 5 Class Improvement

droughtmonitor.unl.edu

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

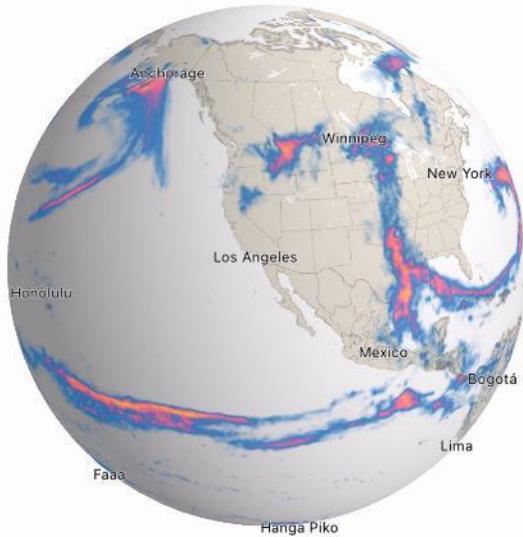


VELES WATER WEEKLY REPORT

CURRENT SATELLITE IMAGERY



The Central Valley and the Sierra has seen some light precipitation over the last week. Temperatures are current below average for this time of year. Thunderstorms have been forecast which has led to fire warnings being issues in some regions of CA.



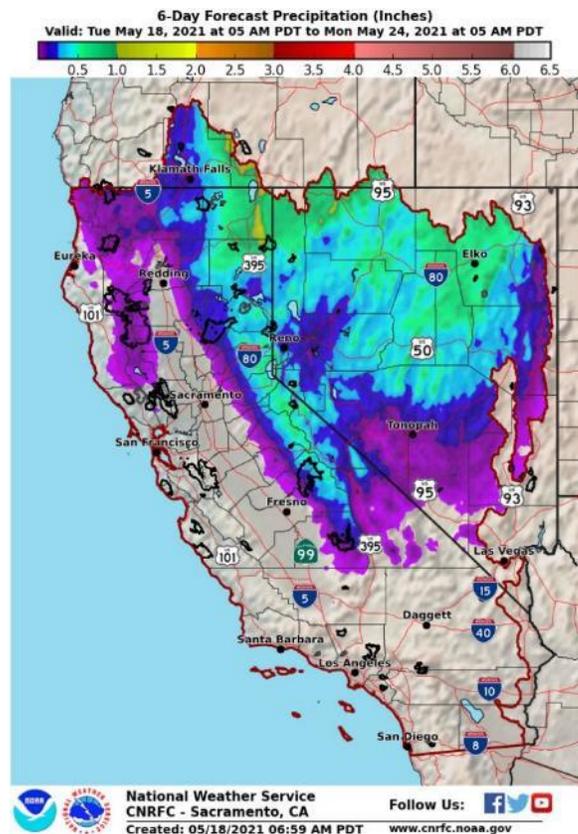
The US Drought Monitor release their statistics with a 1-week lag to this report. Last week we reported an almost 20% increase in D3 drought conditions. This week over an 8% increase in D4 drought conditions which are categorized as "Exceptional Drought" conditions.

Ref. Dark Sky

1-10 Day Outlook

Expect temperatures to remain below normal through the week as heights remain low through the next week.

Starting tomorrow, expect the upper trough to deepen and an upper low to track southward into Oregon. Precipitation associated with this system should begin overnight into Thursday near the OR/CA border, then spread into the Northern Sierra Friday. The upper low is expected to slowly meander southward into western NV through the end of the week, and precipitation should continue over far Northern CA and the Sierra through at least Friday. For Friday and Saturday, afternoon showers are possible over the Sierra Crest. The upper low finally begins to push east of the region by Sunday, allowing precipitation to wrap up. Overall, 1-1.3" precipitation is expected over favored areas of NE CA and the Sierra, with less than 0.5" accumulations in other nearby regions.





CALIFORNIA WEATHER DISCUSSION

With California now moving into the summer months, drought conditions are expected to intensify as the Sierra snowpack has provided less than average run off into the surrounding rivers and reservoirs. This is evident when analyzing storage levels in California's two largest reservoirs, Lake Shasta and Lake Oroville, which sit at 47% and 40% of capacity respectively at the time of writing this report. Lake Shasta is possibly facing its lowest levels since 1977 which is worrying news for those who rely on the storage facility.

Last week we reported that in response to the conditions deteriorating on the ground, Gov. Newsom had expanded drought coverage in the state which now encompasses 41 out of 58 counties in the state. Elsewhere in the South West conditions are not looking promising, Lake Powell is currently 35% full and Lake Mead is currently at 38% capacity. According to the U.S Bureau of Reclamation the entire Lower Colorado System is only 43% full, which is 10% lower than 2020. Last Friday Gov. Newsom proposed recorded spending of nearly \$10 billion on issues relating to climate and the environment.

In California, areas of Exceptional Drought (D4) expanded on the map in the southern and eastern Sierra in response to very poor snowpack conditions during the 2020–2021 Water Year. In the southern Sierra, the Tulare Basin 6-Station Precipitation Index for the Water Year to Date (WYTD) is currently showing its 2nd driest Water Year on record—only slightly ahead of the driest year on record back in the 1976–1977 season. In the central Sierra, the San Joaquin 5-Station Index is currently observing its 3rd driest WYTD on record and in the northern Sierra, the Northern Sierra 8-station Index its 2nd driest WYTD on record.

The month of April was the 6th hottest in California's history, luckily May has seen average temperatures drop slightly bringing some small amount of precipitation. However current weather systems have also created some thunderstorms which in combination with drought conditions, has ignited an early started to California's fire season.



REGULATORY NEWS

Newsom proposes record climate spending, casts doubt on 2022 bonds

Gov. Gavin Newsom on Friday proposed record state spending on environmental programs and suggested that California might not need to use voter-approved bonds next year because of its massive budget surplus.

Newsom proposed nearly \$10 billion in spending on climate adaptation, water infrastructure and clean transportation — the state's largest budget ever devoted to environmental programs, state officials said.

When asked whether the proposals replace the need for bonds, Newsom said he thought "they substantially do across the spectrum." Lawmakers have been working on a roughly \$7 billion bond for water, wildfire and extreme heat-related projects and a \$10 billion bond to fund broadband high-speed internet upgrades.

Original Article: [Politico by Debra Kahn](#)

State budget provides money to keep water rights local

Methow Valley and countywide groups will meet soon to coordinate a strategy for spending \$2 million set aside by the state Legislature for acquiring and banking Methow Basin water rights.

"We were all just flabbergasted, we got more than we asked for," said Lorah Super, program director for the Methow Valley Citizens Council. "It's a fabulous opportunity." The state capital budget, approved by the Legislature but not yet signed into law by Gov. Jay Inslee, appropriates \$14 million total — \$2 million of which is dedicated to the Methow Basin — to the Department of Ecology for a pilot program to create region-specific water banks. The banks, administered by Ecology, would keep water rights within their basin of origin, and keep them from expiring for lack of use.

Applicants must be a public entity or an organization such as a nonprofit in partnership with a public entity. Any county or watershed that has a headwater of a major river can apply, but \$2 million is dedicated to the Methow.

Original Article: [Methow Valley News by Natalie Johnson](#)



VELES WATER WEEKLY REPORT

California Expands Drought Emergency Declaration, Research Finds Declining Groundwater Levels

The drought emergency declaration includes 41 of 58 counties and covers 30% of California's nearly 40 million population, as research finds groundwater levels are declining and wells are drying up. California Gov. Gavin Newsom expanded a drought emergency to the state. The declaration also seeks more than \$6 billion in multiyear water spending, reported Associated Press.

The emergency declaration includes 41 of 58 counties and covers 30% of California's nearly 40 million population. According to Newsom, a further expansion of the declaration is probable, as California is experiencing one of the warmest, driest springs on record. According to the U.S. Drought Monitor, most of the state and the American West is in extensive drought, reported Associated Press. The expanded drought emergency declaration includes the counties in the Klamath River, Sacramento-San Joaquin Delta and Tulare Lake watersheds.

"The hots are getting a lot hotter in this state, the dries are getting a lot drier," stated Gov. Newsom, reported Associated Press. "We have a conveyance system, a water system, that was designed for a world that no longer exists."

As a result, the governor is asking state lawmakers to approve what he said is a record \$5.1 billion over four years for water projects and another \$1 billion to assist Californians who are behind on their water bills, reported Associated Press.

Original Article: [Water and Wastes Digest by Cristina Tuser](#)

Governor Cuomo Announces \$94 Million for Clean Water Systems and Local Drinking Water Infrastructure Projects Statewide

Governor Andrew M. Cuomo today announced that the New York State Environmental Facilities Corporation Board of Directors has approved \$94 million in grants, interest-free loans, and low-cost loans to support vital drinking water and wastewater infrastructure projects across New York State. The FY 2022 Enacted Budget adds a \$500 million appropriation to support clean water, raising the State's total investment to \$4 billion and continuing to fulfill the State's \$5 billion clean water commitment.

"Clean water is essential to not only the public health but also present and future prosperity," Governor Cuomo said. "The State of New York will continue to commit our efforts and resources to these water treatment projects for the long-term benefits of our families, communities and future generations."

Original Article: [New York State Gov Press Office](#)

**Severe drought crisis deepens along Oregon-California border**

The water crisis along the California-Oregon border went from dire to catastrophic this week as federal regulators shut off irrigation water to farmers from a critical reservoir and said they would not send extra water to dying salmon downstream or to the half-dozen wildlife refuges relied upon each year by millions of migrating birds in the U.S. West.

In what is shaping up to be the worst water crisis in generations, the U.S. Bureau of Reclamation said it will not release water this season into the main canal that feeds the bulk of the massive Klamath Reclamation Project, marking a first for the 114-year-old irrigation system. The agency announced last month that irrigators would get dramatically less water than usual, but a worsening drought picture means water will be completely shut off instead, the agency said.

The entire region is in extreme or exceptional drought, according to federal monitoring reports, and Oregon's Klamath County is experiencing its driest year in 127 years.

“This year’s drought conditions are bringing unprecedented hardship to the communities of the Klamath Basin,” said Reclamation Deputy Commissioner Camille Calimlim Touton, calling the decision one of “historic consequence.” “Reclamation is dedicated to working with our water users, tribes and partners to get through this difficult year and developing long-term solutions for the basin.”

Original Article: [Mail Tribune by Gillian Flaccus](#)

Iowa's Cities Win Key Court Battle With Rural Districts Over Water Rights

Iowa’s cities have scored a pivotal victory in a long-running legal battle between urban and rural interests over the delivery of water to undeveloped areas of the state.

The matter is still the subject of federal litigation, but last summer a federal judge asked the Iowa Supreme Court to address specific questions of state law that were a central part of the federal case.

The court was asked to rule whether Iowa rural water districts have a legal right to provide water service to areas that are within two miles of the city limits of an Iowa municipality, and whether a rural water district has the legal right to provide water service anywhere within the state of Iowa.

The questions are a key part of the federal litigation between the city of Johnston and the Xenia Rural Water District, which have been fighting for more than two years over the right to provide water service to areas just outside the Johnston city limits.



VELES WATER WEEKLY REPORT

The city has argued that Iowa's so-called "two-mile rule" gives it the exclusive right to serve areas just outside the city limits. The water district has argued that federal protections for rural water service allow the district to define its own service territory.

Original Article: [Iowa Public Radio by Clark Kauffman](#)

Hurtado Warns That The May Revise Does Not Adequately Address Looming Water And Food Shortages

Senator Melissa Hurtado (D-Sanger) released the following statement today, after Governor Newsom released the details of the 2021 May Budget Revise:

"There is a lot of good in this revision proposal from the Governor—investments to house the homeless, small business grants and rebates to taxpayers to name a few. However, the immediate concern in California is the drought and its impact on our food supply chain. Governor Newsom cannot make it rain, but made a bold \$5.1 billion proposal to help California prepare and cope with this and future droughts. In the Valley, we like to give credit where credit is due—the Governor in his May revision, proposed \$200 million towards repairing the state's water conveyance systems, but in order to build back water we need to fully fund Senate Bill 559. It is a one-time investment that will benefit 30 million people--as we all know, if the plumbing of your home is leaking, you don't fix it halfway—you fix it until it no longer leaks, especially when the money is there to do it. To his credit, the Governor has made great strides in the budget, but the drought will have ripple effects and additional investment will help avoid a global food crisis like that in 1974. Governor Newsom, 'it's time to meet the moment.'"

During this legislative session, Senator Hurtado introduced Senate Bill 559, which allocates \$785 million to repairing vital water delivery systems that provide drinking water to communities throughout California and water to sustain the state's leading agricultural economy. The funds would go to fixing the Friant-Kern Canal, the Delta-Mendota Canal and major portions of the California Aqueduct, all of which have degraded and are losing water as a result of subsidence – the actual shrinking of land.

Original Article: [Senate District 14 Press Release](#)



Irrigation districts look to transfers as water dwindles

With very little water to spare this drought year, water districts struggling with limited or no supplies look to their counterparts in other districts to negotiate water transfers to add whatever flexibility they can.

Districts on the west side of the Central Valley, both north and south of the Sacramento-San Joaquin Delta, face the prospect of receiving no water from the Central Valley Project.

"Water transfers are absolutely critical to preventing a disaster on the west side of the Sacramento Valley this year. Other than groundwater, it's the only water many of our folks have," said Jeffrey Sutton, general manager of the Tehama-Colusa Canal Authority; the TCCA, a joint powers authority, serves 17 water districts in Tehama, Glenn, Colusa and Yolo counties.

"We're probably purchasing somewhere in the neighborhood of 60,000 acre-feet of water collectively, just to prevent a disaster," Sutton said.

The TCCA has water service contracts with the CVP and the U.S. Bureau of Reclamation, which operates the project. It started the irrigation season with an allocation of 5% of its contract quantity—later suspended due to ongoing dry conditions. That means the authority effectively has no CVP water allocation for the 150,000 acres it serves, Sutton said.

Farmers who have the ability to do so will rely on groundwater, he said.

"The other lifeline we have here is water transfers from senior water right holders on the Sacramento River," Sutton said. "We are participating in a significant amount of transfers, some crop idling and pumping groundwater in lieu of surface water."

An expanded drought declaration for 41 counties, announced this month by Gov. Gavin Newsom, intends to streamline and expedite the timeline for transfer approvals.

Original Article: [*Aq Alert by Christine Souza*](#)

Arizona's continuing population growth puts pressure on water supply

Millions of people are betting on Arizona. They're buying homes, starting businesses, and families. The future of how we use our water resources may dictate the future of their success.



VELES WATER WEEKLY REPORT

“We don’t want to put consumers and businesses at risk when they built and there was a hundred years of water but what happens 80 years from now, is there still 100 years of water left,” said Haley Paul, a regional director for the Audubon Society. That question was addressed four decades earlier with the Groundwater Management act of 1980. The idea was the law would ensure when water was taken out, just as much was put back in, creating what they called a safe yield goal by 2025.

“40% of our water supply comes from groundwater so that just shows you it’s a major resource we need to protect,” said Paul.

Unfortunately, a new study released by ASU researchers with the Kyle Center shows the law is not living up to its promise as deep, thousands of years old aquifers continue to be over-pumped.

Original Article: [ACB 15 by Cameron Polom](#)

California Farmers Grapple with Implications of Water Cuts, California Farm Bureau Reports

In water-stressed farming areas of California, farmers removed productive trees and idled other land to divert what little water they have to other crops, as the reality of the 2021 drought became ever more apparent.

"We're removing 15-year-old, prime-production almond trees," said Daniel Hartwig of Woolf Farming in Fresno County. "We're pulling out almost 400 acres, simply because there's not enough water in the system to irrigate them, and long term, we have no confidence that there would be water in the future."

Woolf Farming buys water from the Westlands Water District, a contractor of the federal Central Valley Project. Two consecutive dry winters, combined with environmental requirements on the CVP, led the U.S. Bureau of Reclamation to allocate only 5% water supplies to Westlands and other contractors in February—and then to suspend even that amount a few weeks later.

The bureau said last week it was also suspending the 5% allocation it had made for its other agricultural contractors, those north of the Sacramento-San Joaquin Delta.

The State Water Project also reduced its water allocation in March, from 10% to 5%.

Gov. Gavin Newsom expanded an earlier drought emergency proclamation, adding 39 counties Monday to an earlier declaration for Mendocino and Sonoma counties

Original Article: [Sierra Sun Times by Christine Souza](#)



VELES WATER WEEKLY REPORT

Running out of water and time: How unprepared is California for 2021's drought?

So is California in a better position to weather this drought? Some things are worse, some better: Groundwater is still being pumped with no statewide limits, siphoning up drinking water that rural communities rely on. In northern counties, residents are reliving the last disaster as water restrictions kick in again, but in the south, enough water is stored to avoid them for now.

The good news is that in urban areas, most Californians haven't lapsed back into their old water-wasting patterns. But, while some farmers have adopted water-saving technology, others are drilling deeper wells to suck out more water to plant new orchards.

The upshot is California isn't ready — again.

"We are in worse shape than we were before the last drought, and we are going to be in even worse shape after this one," said Jay Lund, co-director of the Center for Watershed Sciences at University of California at Davis.

he most acute problem, experts say, is the lack of controls on groundwater pumping.

"Despite increasingly occurring droughts, we could be doing much better than we are doing," added Peter Gleick, co-founder of the Pacific Institute, a global water think tank.

"We manage finally to get some statewide rules about groundwater, but they are not going to be implemented for years." As a result, he said, aquifers are still being over-pumped and land is sinking.

And an overarching question lingers: How will Californians cope as the world continues to warm and the dry spells become ever more common and more severe?

Original Article: [Cal Matters by Julie Cart and Rachel Becker](#)

In the wake of Oroville Dam debacle, new drought hits the Sacramento Valley particularly hard

After experiencing a prolonged drought between 2012 and 2016, California enjoyed less than two years of plentiful rains before descending right back into the same arid conditions plaguing it before. Experts held a virtual meeting on May 6 to discuss what the initial data suggests about this re-emerging drought – and their message was especially bleak for the Sacramento Valley.

The now-infamous failure of the Oroville Dam spillway in 2017 is also making the region's challenges worse than they would have been.



VELES WATER WEEKLY REPORT

The impromptu water summit was organized by the Public Policy Institute of California. One of PPIC's water policy experts, research fellow Alvar Escriva-Bou, stressed that the state's current drought is already off to a fierce start. That doesn't mean it will be identical to what happened earlier in the decade, when the brunt of the driest and most severe conditions were borne by parts of Southern California. In a near reversal, all indicators point to the worst of the new drought happening in the Sacramento Valley and corners of the North Bay. That's a particularly jarring revelation in the wake of the state Department of Water Resources' alleged mismanagement of the Oroville Dam, which resulted in a crater erupting in its main spillway as 180,000 people were evacuated from the surrounding communities.

"Lake Oroville is one of the main reservoirs in the Sacramento Valley and also the main reservoir that feeds the State Water Project," Escriva-Bou pointed out. "The conditions now are especially bad because of the lack of precipitation, but also because of the incident in 2017. It [the Oroville Dam] was not able to fill up during the 2017 and 2019 wet years."

Original Article: [*Sacramento News and Review by Scott Thomas Anderson*](#)

Water Study Explores New Drought Solutions

When water is scarce, most producers just try to make the best use of what they've got, typically by making structural improvements like installing tanks or drilling wells. At the University of Wyoming, Ellen Yeatman wondered if there was another way – a way to prevent water scarcity from becoming a dire issue in the first place – and she won the Western Agricultural Economics Association Outstanding Master's Thesis Award for her work.

"Over the past century and a half, water infrastructure projects, such as dams, trans-basin pipelines and canal systems, have been built to capture and distribute limited water supplies. Now, infrastructure-based solutions have been exhausted," says Yeatman. "Water managers of the 21st century are turning to more creative water management solutions to deal with the growing water demand and supply imbalance." Taking inspiration from an earlier Colorado River Basin conservation pilot program, Yeatman explored how a water demand management program might impact dry areas.

Original Article: [*Tri-State Livestock News by Molly Jacobson*](#)

Amid 'extreme' drought, Watermaster oversees summer distribution



VELES WATER WEEKLY REPORT

It's a busy time of year for Watermaster Kevin Lakey and his staff at the No. 37 Water District.

They oversee and administer the allotment of water each spring to about 1,170 "customers" who own well-water rights or the rights to surface water from irrigation canals that cover a wide swath of Blaine County and beyond.

Lakey, his deputies and administrative staff aren't selling anything, per se. They gauge water flows from mid-April to mid-October to make sure that those who own the rights to water get delivered the portion they deserve from rivers and aquifers filled each year by snow, rain or ice melt.

The No. 37 Water District reaches from the North Fork of the Big Wood River north of Ketchum to near Hagerman, more than 100 miles to the south. Some water rights were claimed much earlier than others and such senior priority dates carry authority.

There is an old saying in the West that "whiskey is for drinking and water is for fighting over." The legal framework for settling any lingering disputes over water rights stems from the state's appropriation doctrine, which favors senior water rights-holders based on the rule of "first in time is first in right."

Original Article: [Idaho Mountain Express by Tony Evans](#)

Lessons for California: Australian Reservoirs Took a Long Time to Recover From Megadrought

Rain has long signaled the end of a drought, but a new analysis of Australia's worst dry spell in a century reveals many water reservoirs remained low nearly a decade after the rain returned. Research published in the journal [Science](#) on Thursday studies 15 years of data collected before, during and after the Millennium Drought dried out Victoria, Australia, from 2001 to 2009 and reveals flaws in the long-held belief that reservoirs naturally replenish after drought ends.

"Whether or not watersheds always recover from prolonged droughts has major implications for global long-term water resource planning and aquatic environments, especially under climate change," study authors wrote.

Around the eighth year of the Millennium Drought, half of the 161 watersheds studied were operating in a low runoff state. Streamflow then remained low several years after the drought had ended — when recovery is generally expected to occur.

In 2011, the year following the drought, only 15% of watersheds studied recovered their pre-drought streamflow levels. Seven years after the drought ended, runoff in 37% of



VELES WATER WEEKLY REPORT

watersheds studied remaining in a low state. And only 20% of those showed signs of improving.

Researchers generated 64 annual and 32 seasonal models for each watershed in efforts to understand post-drought watershed recovery — a topic of vital importance as droughts becomes more common under climate change.

Original Article: [*Court House News by Amanda Pampuro*](#)

Sonoma Water to reduce flow in Russian River

The Sonoma County Water Agency (Sonoma Water) today filed a Temporary Urgency Change Petition (TUCP) with the State Water Resources Control Board to reduce minimum instream flow requirements in the lower Russian River by requesting that the water year classification be temporarily changed from Dry to Critical, reducing the minimum instream flow requirement from 85 cubic feet per second (cfs) to 35 cfs. This action will preserve storage in Lake Sonoma and avoid violating the Russian River Biological Opinion Incidental Take Statement for Dry Creek. The Russian River watershed is facing severe drought conditions. Both the Governor and County of Sonoma have declared a drought emergency for the Russian River watershed. Recognizing that the request is partially being driven by low storage levels at Lake Sonoma due to the drought, Sonoma Water is committing to reduce its diversions from the Russian River between July 1 and October 31 by 20 percent compared to last year, along with several other actions. In addition, the current order approving temporary changes to the upper Russian River expires July 26, which would result in the water year classification for the upper Russian River changing from Critical to Dry. Meeting a minimum instream flow on the upper Russian River of 75 cfs would drain Lake Mendocino by the middle of September.

Original Article: [*Sonoma County Gazette by Brad Sherwood*](#)

Water authority to get \$7.7 million

The Eastern New Mexico Water Utility Authority is in line for a \$7.7 million allocation from the New Mexico Water Trust Board.

According to an allocation sheet provide to The News by Rep. Randal Crowder, R-Clovis, the award will help the authority continue construction of its interim groundwater pipeline.

The authority is tasked to build and operate the Eastern New Mexico Rural Water System, which would deliver reserved water from the Ute Reservoir in Quay County to



VELES WATER WEEKLY REPORT

member communities in Curry and Roosevelt counties. The authority is currently building the local pipeline system, so that it may be used for distraction of locally-acquired water while the final connection to the reservoir is pending.

Original Article: [The Eastern New Mexico News](#)

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