

Veles Water Weekly Report

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June 17th 2021

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WATER FUTURES MARKET ANALYSIS

Welcome to ***WATERTALK***

by Robin Bieber

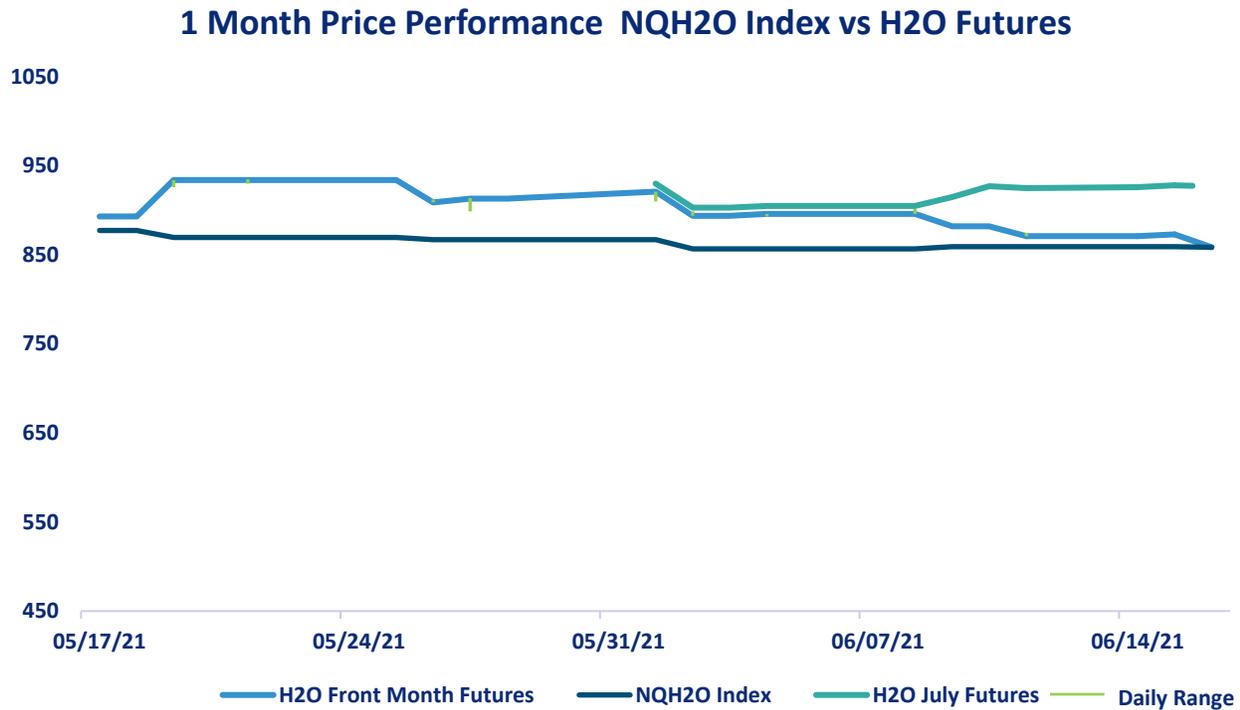
CLICK THE LINK BELOW

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

<https://vimeo.com/564037023/ef7a4690e9>



NQH2O INDEX PRICE vs H2O FUTURES PRICE



Price Chart Based upon Daily Close

On the June 16th the June Future expired at \$859 and had been trading at an average \$11.69 premium to the index. The July Future is now the front month contract, last nights closing price was \$925 which is a premium of \$66 indicating market sentiment of a significant move higher through the summer months.

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

July is 918@925

August is 825@990

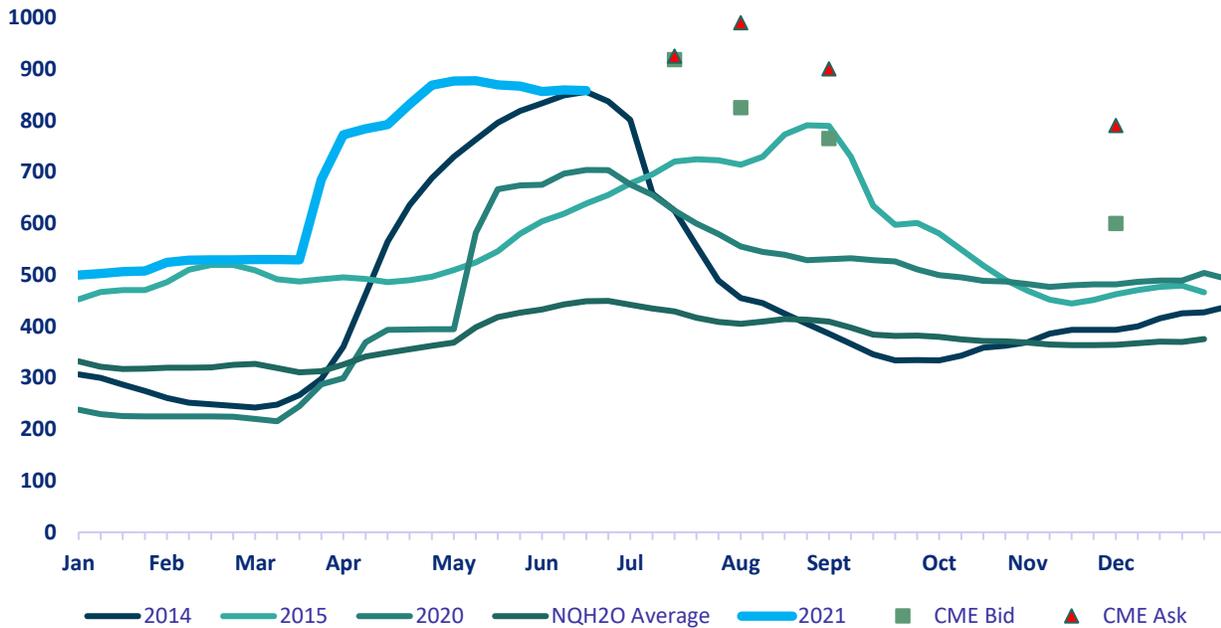
September 765@900

December 600@790

With the September offer being cheaper than the July bid by \$18, interestingly the December offer price is \$128 lower than the July bid price. This is indicating a significant implied seasonality in the trading of water, with prices peaking in summer and tapering off in winter.



NQH2O Seasonal Pricing/ CME H2O Futures Quotes



The graph above lays out the NASDAQ/Veles water index by year, showing 2014, 2015, 2020, 2021 plus an average price of the last eight years. In very dry years, prices clearly rise through the spring, peaking in May to July (with the exception of 2015) as demand for water from farmers peaks. Prices then taper off heading into the winter on reduced demand, and the possibility of rain/snow.

The restricted ability to “carry” water, much like one can do with financial contracts, gives this index the same type of seasonal pattern that one sees on many other commodities.

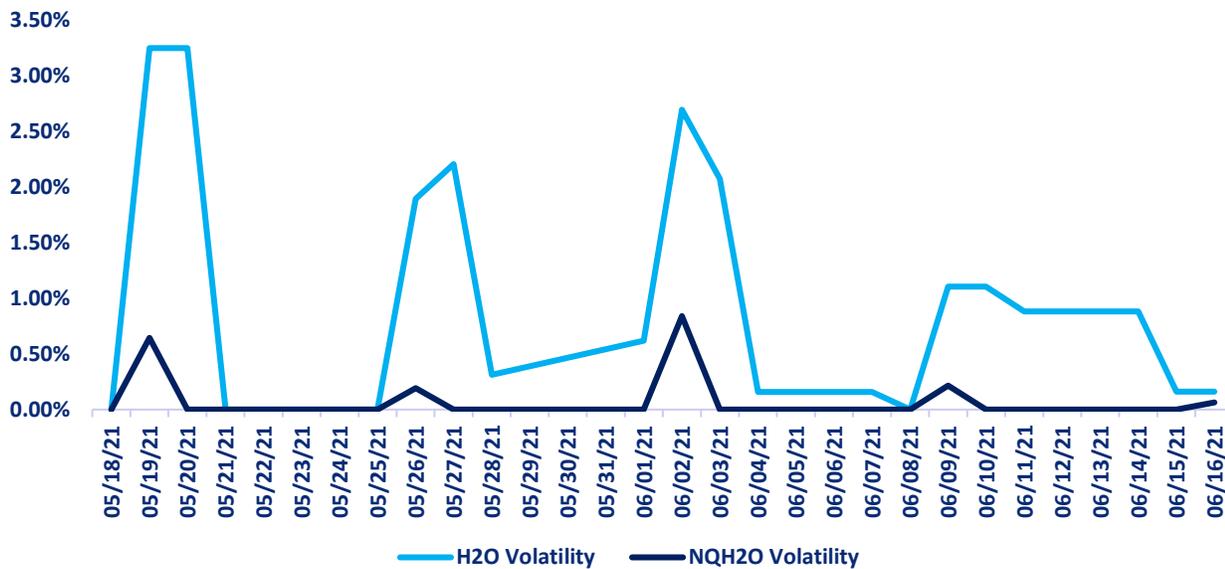
The graph for 2021 is highlighted in light blue. It shows the same seasonal climb, but at record-high values above each of the last eight years since February.

The bid and offer prices for July and August are expecting further upside while Septembers offer price is still showing the seasonal weakness expectations plus further weakness shown in the December prices.

(Ref: **John H Dolan, Market Maker CME**)



Daily H2O Futures Volatility vs Daily NQH2O Index Volatility



ASSET	1 YEAR (%)	2 MONTH (%)	1 MONTH (%)	1 WEEK (%)
NQH2O INDEX	34.92%	5.94%	1.34%	1.49%
H2O FUTURES	N/A	13.3%	7.17%	2.84%

For the week ending on the 16th June the two-month futures volatility is at a premium of 7.43% to the index up 0.01% from the previous week. The one-month futures volatility is at a premium of 5.91% to the index, up 0.07% for the week. The one-week futures volatility is at a premium of 2.44% to the index up 0.20% on the week.

With all the futures volatility outstripping index volatilities, the market is anticipating some significant moves to come into the underlying market prices.

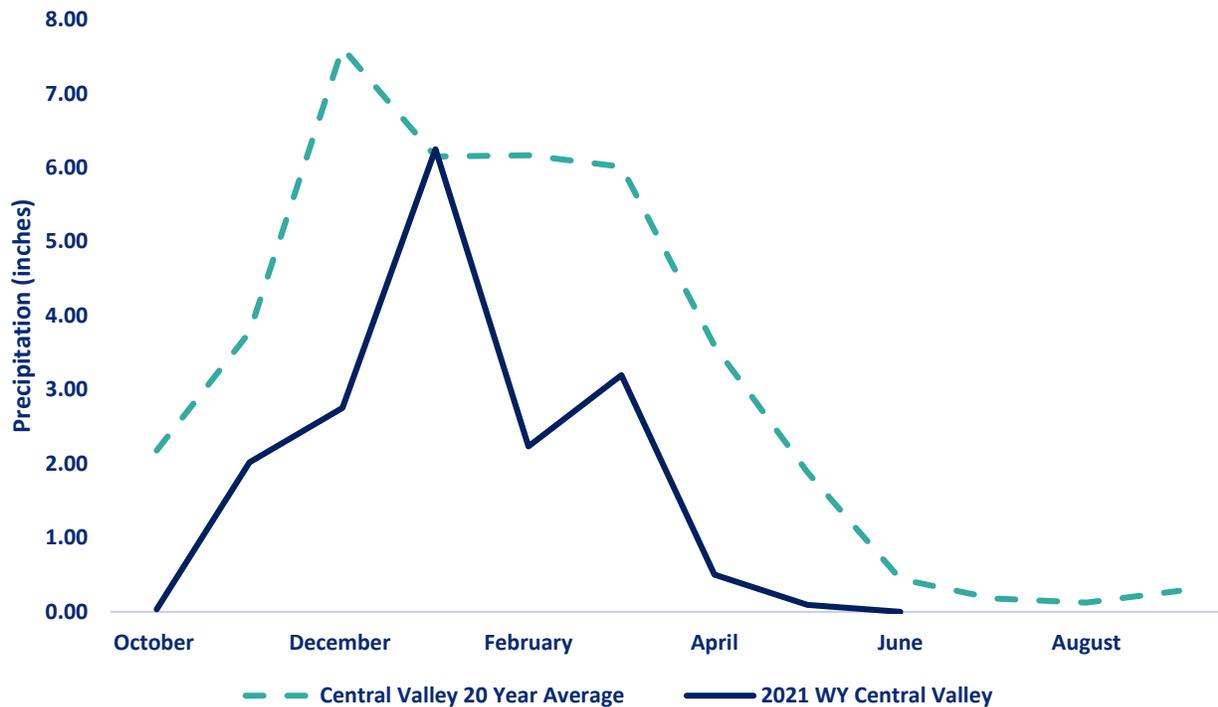
DAILY VOLATILITY

Over the last week the June future volatility high has been 1.10% on June 3rd and the low has been 0.60% on June 8th.

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



Central Valley Precipitation Index



Central Valley average is calculated using data from 19 weather stations in the Central Valley, California.
Data as of 06/16/2021

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	0.00	0.00%	64	48
TULARE 6 STATION (6SI)	0	0.00	0.00%	67	35
NORTHERN SIERRA 8 STATION (8SI)	0.05	0.05	6.19%	63	47
CENTRAL VALLEY TOTAL	0.05	0.05	2.06%	65	43.33

RESERVOIR STORAGE

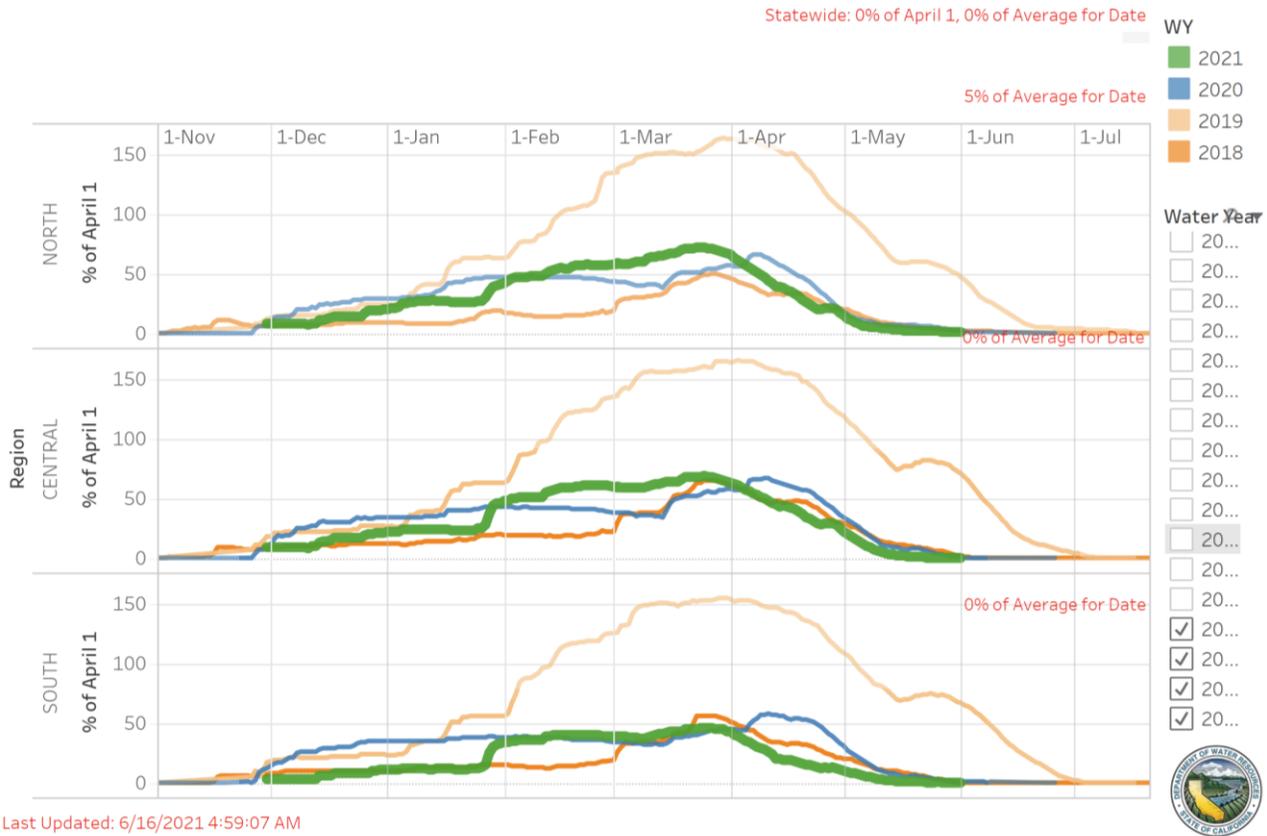
RESERVOIR	STORAGE (AF)	% CAPACITY	LAST YEAR % CAPACITY	HISTORIC ANNUAL AVERAGE CAPACITY %
TRINITY LAKE	1,215,802	50	74	58
SHASTA LAKE	1,876,175	41	74	50
LAKE OROVILLE	1,255,012	35	66	43
SAN LUIS RES	794,508	39	58	54

VELES WATER WEEKLY REPORT

SNOWPACK WATER CONTENT



Snow Water Equivalent Dashboard



Last Updated: 6/16/2021 4:59:07 AM

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	0.2	0.00%	9	5	1
CENTRAL SIERRA	0	0.00%	3	0	0
SOUTHERN SIERRA	0	0.00%	3	0	0
STATEWIDE	0.1	0.00%	3	0	0

*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.

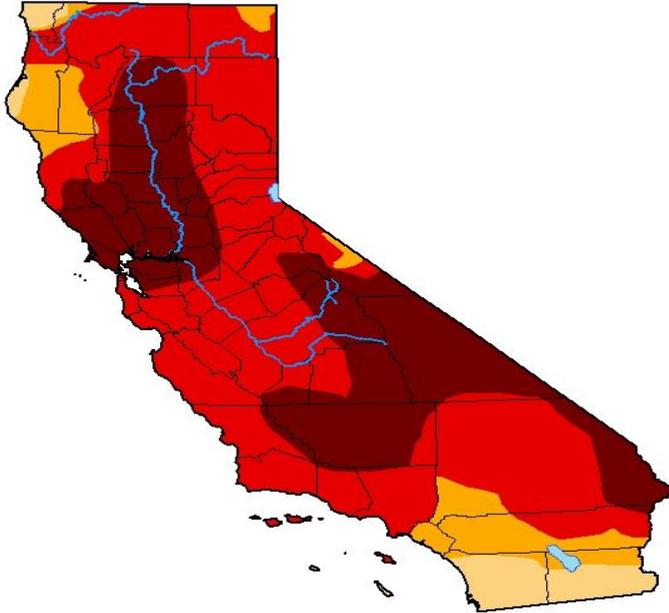
** April 1st is used as the benchmark as it when the snow pack in California is generally deepest. It has been used the benchmark date since 1941 by DWR and can be used to predict spring river flow.



DROUGHT MONITOR

U.S. Drought Monitor California

June 8, 2021
(Released Thursday, Jun. 10, 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	94.75	85.20	33.32
Last Week 06-01-2021	0.00	100.00	100.00	94.61	74.46	26.04
3 Months Ago 03-09-2021	0.75	99.25	90.89	58.59	29.54	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 06-09-2020	41.79	58.21	46.74	20.84	2.45	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>

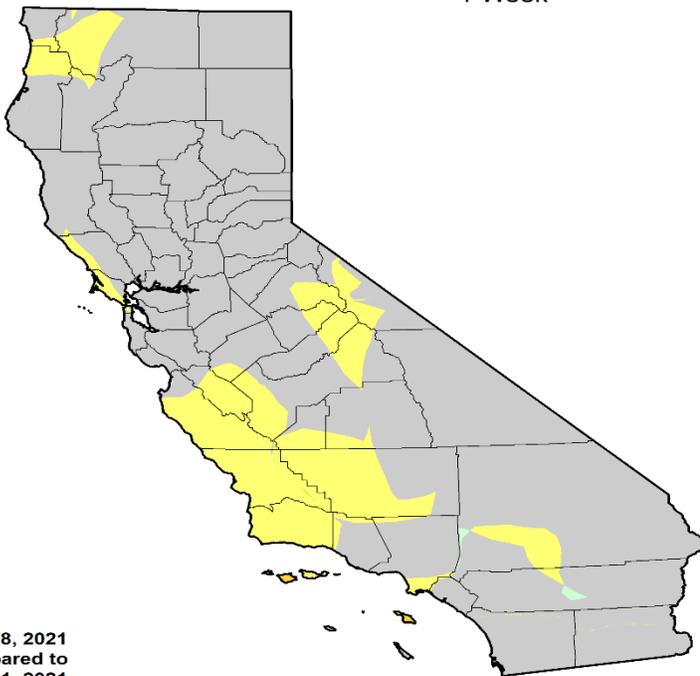
Author:

Brian Fuchs
National Drought Mitigation Center



droughtmonitor.unl.edu

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



June 8, 2021
compared to
June 1, 2021

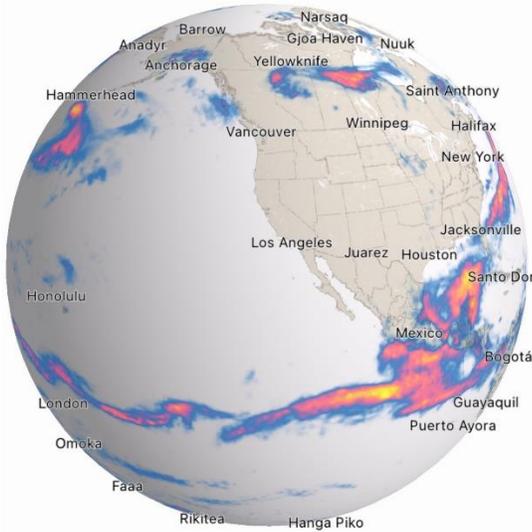
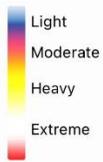


- 5 Class Degradation
- 4 Class Degradation
- 3 Class Degradation
- 2 Class Degradation
- 1 Class Degradation
- No Change
- 1 Class Improvement
- 2 Class Improvement
- 3 Class Improvement
- 4 Class Improvement
- 5 Class Improvement

droughtmonitor.unl.edu



CURRENT SATELLITE IMAGERY



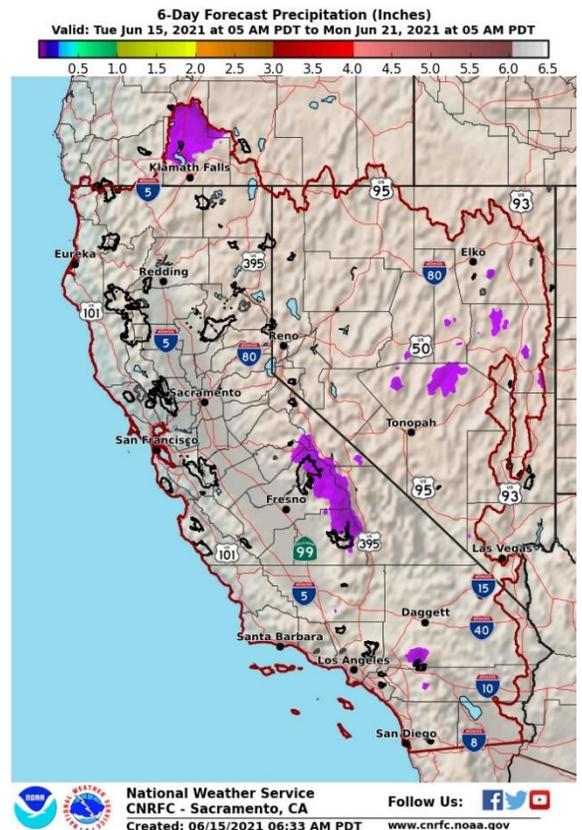
California has seen small pockets of precipitation effect the Northern Sierra ranging from 0.05-0.2 inches, the rest of the state has stayed dry. There has been a cooling off in temperature over the past week. The satellite outlook appears very dry with little or no precipitation coming from the Northwest. The only real hope of precipitation over the next few months is from Monsoon activity from the south which does not appear to have strengthened enough to reach the SW of the US. The US Drought Monitor release their statistics with a 1-week lag to this report. As can be seen from the “Drought Change Map” on the previous page there has been a significant increase in

drought conditions. 6% increase in “Exceptional D-4” conditions and an 11% increase in “Extreme D-3” conditions. 85% of CA in classed as in Extreme Drought.

Ref. Dark Sky

10 Day Outlook

A weak short-wave trough may move inland across the Pacific Northwest will clip the upper Klamath River basin this morning with very light scattered showers possible and totals of a few hundredths of an inch. Then the big story for the rest of the week is going to be the strengthening high pressure cell over the 4-Corners region...expanding westward and bringing warm to hot temperatures across much of the area. The heat peaks either Thursday or Friday about 10- to 20-degF above normal for this time of year. For Thursday and Friday there is a small possibility of scattered showers/thunderstorms over the southern Sierra and southern NV as moisture may move toward the region from the south.





CALIFORNIA WEATHER DISCUSSION

A heat wave that has already been working its way through the South West due to a high ridge of pressure that has built up over the desert is to descend upon California this week and excessive heat warnings have been issued. After California's dry winter the ground has been left dry and with increased temperatures it has led to early wildfire warnings being issued.

At Lake Mead, the largest reservoir in the United States, the water levels have dropped to historic lows causing major concern for all those whom rely on the Colorado Rivers supply. Poor reservoir storage is a story that is being mirrored in California with the states largest reservoirs capacity sitting well below average. Lake Trinity, Shasta and Oroville all sit below 50% capacity.

There has been very little recorded precipitation in California in June. The Northern Sierra has seen small pockets of rainfall but nothing close to what is needed to alleviate drought conditions. Long term forecasts indicate that when we move into the "monsoon season" it will not bring the relief that everyone is hoping for and potentially setting the scene for another dry winter.

California continued to see the impacts of drought increase, and there was expansion of extreme and exceptional drought in the northern and central areas as well as along the coast of central California.

According to the June 10th report from the US drought monitor, 85% of California is under extreme drought conditions. Similar figures can be analyzed all over the west with nearly 58 million people living in these arid conditions.

"Drought conditions in the West are likely to get worse in 2021. The most recent NOAA Climate Prediction Center forecast noted: "Short-term and long-term drought remains entrenched throughout a majority of the West...The Southwest is typically dry during June until monsoon rainfall begins later in July. Based on below-normal precipitation during the past 30 to 60 days, low soil moisture conditions, and elevated monthly and seasonal probabilities of near to below normal precipitation and above normal



VELES WATER WEEKLY REPORT

temperatures for June-July-August, drought is expected to persist over the south-central West and to expand northward across parts of the Pacific Northwest and northern Rockies.”

Original Article: [Nasa Earth Observatory by Michael Carlowicz](#)

REGULATORY NEWS

Healdsburg adopts mandatory 40% water conservation level

Residents of Healdsburg are under new orders to reduce their water use by 40% compared to a year ago — a challenging new threshold that doubles a mandatory 20% conservation level established in May that the city so far has been unable to meet.

In fact, May 2021 water consumption was 3% higher than in May 2020, though more recent usage figures demonstrate a rolling seven-day average reduction of 15%, according to a city staff report.

Still, a deeper cut was necessary because of recent restrictions placed by state water regulators on diversions from the Russian River, reducing the availability of supplies the city depends on to provide water for its consumers.

While it does have access to wells near Dry Creek, through agreement with the Sonoma County water agency, it will only be enough if residents and others carefully limit how much water they consume, officials said.

With water storage in Lake Mendocino shrinking by the day, Healdsburg and the city of Cloverdale, which has 25% conservation requirements in place, are so far the only Sonoma County municipalities under mandatory rationing. They are also the only ones located above the confluence of Dry Creek, where releases from Lake Sonoma supplement flows in the Russian River.

Original Article: [Press Democrat by Mary Callahan](#)

State agencies encourage water managers to promote conservation

With California experiencing its second consecutive dry year, the California Public Utilities Commission, the State Water Resources Control Board, and the California Department of Water Resources is calling on local and regional water suppliers to increase conservation efforts, develop a contingency plan in the event water supply issues worsen, and urge Californians to save water amid ongoing dry conditions.



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With widespread drought or near-drought throughout many portions of the state, Gov. Gavin Newsom has declared a state of emergency for 41 counties — representing 30 percent of the state's population — and the state is working to address acute water supply shortfalls while building water resilience.

In response to Newsom's emergency proclamations, the State Water Board sent notices to public water utility managers this week encouraging contingency and conservation planning heading into the summer months.

To encourage Californians to reduce water use and conserve supplies, the CPUC is encouraging water utilities under its jurisdiction to remind customers of water conservation best practices learned from the 2012-2016 drought and is calling for water utilities to promote water conservation programs.

Original Article: [Yahoo News by Appeal Democrat](#)

Biden regulators to revise Trump rollback of water protection

President Joe Biden's administration on Wednesday announced its intent to protect more U.S. waterways through environmental regulations, reversing a Trump-era rollback that had been urged by farmers, ranchers and manufacturers.

The U.S. Environmental Protection Agency and the Department of the Army reviewed ex-President Donald Trump's Navigable Waters Protection Rule and determined that it "significantly" reduced clean water protections - a major concern as arid states in the west face droughts.

“After reviewing the Navigable Waters Protection Rule as directed by President Biden, the EPA and Department of the Army have determined that this rule is leading to significant environmental degradation,” EPA Administrator Michael Regansaid in a press release.

He said EPA and the Army will work on a broader, "durable definition" of which waters of the United States can be protected based on Supreme Court precedent and other cases so that it can withstand future legal challenges.

The agencies will also start a new rulemaking process that restores protections put in place before 2015.

In their review of the Trump rule, the agencies found that in New Mexico and Arizona, nearly all of the more than 1,500 streams assessed were unprotected, and 333 projects that would have otherwise required federal permitting no longer did.

Original Article: [Reuters by Valerie Volcovici](#)



WATER NEWS

AVEK plans to tap underground water

Water suppliers will rely on water stored underground during wet years to ensure adequate supplies for the Valley during dry years, according to a plan presented Tuesday.

The Antelope Valley-East Kern Water Agency, a water wholesaler which supplies State Water Project water to providers across the Valley, detailed its projected demand and supplies for the next 25 years in the Urban Water Management Plan.

Original Article: [The AV Press by Allison Gatlin](#)

Drought taking a toll on West Side agriculture

West Side agriculture is facing a drought crisis, with surface water allocations reduced to the Central California Irrigation District and eliminated altogether in small federal districts such as the Del Puerto Water District.

Some growers are leaving open ground fallow and abandoning older orchards, particularly in districts such as Del Puerto, to concentrate what little water they have on fewer acres of permanent plantings or higher-value crops.

Comparisons are being drawn to the four-year drought which started in 2012. Newman almond grower Jim Jasper, who sits on the Del Puerto board of directors, noted that 2021 represents a second consecutive drought year.

Del Puerto received 20 percent its full contractual water allocation last year, Jasper said. This year, the Bureau of Reclamation initially projected a 5 percent allocation; that was put on hold and recently the allocation was officially reduced to zero.

The latest development was not unexpected, Jasper said.

“We knew it was going to stay at zero,” he commented.

“It’s really tough,” Jasper added. “This (drought) is in a second year. The second year feels like the fourth year of the (2012-16) drought. It is that serious. It is dire, but not so dire that we won’t be able to get through it.”

The Del Puerto district runs along the I-5 corridor from Vernalis to Santa Nella.

Original Article: [WestSide Connect](#)



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Dangerous heat wave underway in West, will shatter records

A punishing mid-June heat wave is set to scorch much of the Southwest and West this week, with Las Vegas potentially eclipsing its highest temperature on record, which stands at 117°F.

Why it matters: The heat will build in a region that is experiencing a record drought, leading to dangerous fire weather conditions, high power demands, and causing water supplies to dwindle further. The heat itself could prove deadly.

Details: Heat warnings and advisories are in effect from the California coast to Utah, northward to the border with Canada and south to the U.S.-Mexico border as monthly as well as all-time high temperature records could be tied or broken through Saturday.

- Death Valley, Calif., which holds the U.S. record for hottest temperature ever recorded, could eclipse 120°F for several days, and reach 127°F, close to the June temperature record for that location.
- In addition to the Las Vegas record, statewide high-temperature records for Arizona (128°F), set in Lake Havasu City, and Nevada (125°F), set in Laughlin, could be in jeopardy.
- In Las Vegas, overnight low temperatures are not expected to drop below 85 to 90°F, posing a health threat to anyone without working air conditioning.

Threat level: The National Weather Service forecast office in Las Vegas is warning of significant threats to life and infrastructure from Monday through Saturday as the heat builds and refuses to relent.

- NWS forecasters note the last time heat of similar magnitude and duration occurred there was late June to early July 2013. "During that event, Southern Nevada saw nearly 30 fatalities and over 350 heat-related injuries as well as temporary power outages." Heat is America's biggest weather killer each year.
- In Sacramento, Calif., high temperatures could reach 110°F by Thursday as heat builds across the heart of the Golden States' agricultural belt.
- Even downtown Los Angeles could see highs eclipse 100°F on Wednesday, as areas that are just a few miles inland from the cooling influence of the Pacific Ocean roast under the influence of a sprawling heat dome.
- With the drought and scorching heat, wildfire danger is elevated in many southwestern states, with large fires already burning in Arizona and California, for example

Original Article: [Axios by Andrew Freedman](#)



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Two Billion People to Face Water Shortages as Ice on the World's Highest Mountains Melts, Warns UNDP

Asia's Hindu Kush-Himalayan mountain ranges could lose up to two thirds of its ice by 2100, causing water and food shortages for over two billion people in the downstream river basins of South and East Asia, according to a new UNDP policy paper.

First reported by the International Centre for Integrated Mountain Development (ICIMOD), UNDP gives this finding renewed policy urgency and impetus in the lead up to the UN Climate Change Conference (COP 26) in the UK in November 2021.

The Confronting Climate Change to Save the Third Pole report warns that the alarming melting of glaciers will continue to change weather patterns and profoundly affect agriculture, access to drinking water, infrastructure, hydroelectricity production, tourism and other sectors over an area populated by two billion people.

"We urge the countries in the region to step up their efforts to adapt to the changing calendar of droughts, floods and unpredictable monsoon seasons, and we call for increased regional cooperation to address fast-disappearing glaciers, with the well-being of two billion people at stake," said Kanni Wignaraja, UN Assistant Secretary-General and UNDP's Regional Director for Asia and the Pacific.

Temperatures in the high Himalayas are rising faster than almost anywhere else on the globe except in the Arctic and Antarctic. The paper builds its case on scientific findings that if current emission trends were to continue, the Hindu Kush-Himalayan mountain ranges – often considered the earth's Third Pole – would lose two thirds of its ice by 2100.

Original Article: [UNDP](#)

Monsoon season is not expected to bring much relief to the drought-stricken Southwest this year

Amid a worsening drought across the southwestern United States, residents are hoping for rain from the upcoming monsoon season. But there may not be much luck this year. "A drier than normal Southwest monsoon season is slightly favored for 2021," Scott Handel, lead meteorologist at the National Oceanic and Atmospheric Administration's (NOAA) Climate Prediction Center (CPC), told CNN.

"Confidence in below-normal precipitation is generally higher for eastern areas of the monsoon region," Handel said, which includes New Mexico.



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The forecast is less uncertain further west into Arizona and the desert Southwest. But for meteorologists, it's still not clear if the monsoon season will feature below average, above average or normal rainfall.

There is a "large divergence in solutions within the seasonal forecast models CPC uses to make their forecast. Typically, the CPC has more confidence toward a wet or dry monsoon forecast if the majority of the seasonal forecast models are in agreement," said Christopher Castro, professor of Hydrology and Atmospheric Sciences at the University of Arizona.

Since the weather forecast models disagree on the rainfall outcome, the CPC is unsure how this season will play out for some locations in the Southwest.

Original Article: [CNN by Jackson Dill](#)

The world is 'way behind' on investments into water and sanitation systems, CEO says

The world is a long way from finding solutions to water shortages, according to an investment management company that focuses on sustainability.

"We're way behind in terms of the amount of investment we need to bring our industrial water systems, our (agricultural) systems and our residential systems up to where they need to be," said John Streur, chief executive officer of Calvert Research and Management.

Most CEOs of water-reliant companies will admit that the resource is "very underpriced," he said.

"As a result of that, the amount of effort that we've put into creating a safe and secure source of water is behind where we are in terms of our industrial development," he told CNBC's "Street Signs Asia" on Tuesday.

Streur also pointed to a "significant health challenge" for people who don't have a steady supply of safe water.

According to a 2021 report by Unicef, 1.42 billion people live in areas of high or extremely high water vulnerability.

"In many cases, we haven't even built the necessary water infrastructure to provide access to clean drinking water and sanitation systems for population centers," Streur said.

Original Article: [CNBC by Abigail Ng](#)



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Final plan for water releases into Sacramento River could kill up to 88% of endangered salmon run

The California water board has approved a plan for water releases into the Sacramento River that could kill off an entire run of endangered chinook salmon and put at risk another population that is part of the commercial salmon fishery. ... Because the [Bureau of Reclamation's] plan involves releasing water to irrigation districts earlier in the season, the river will be lower and warmer during salmon spawning season and could result in killing as many as 88% of endangered winter-run chinook eggs and young fish.

Original Article: [San Francisco Chronicle by Tara Duggan](#)

California Walking a 'Tight Rope' as Hydropower Supply Fades

The catastrophic drought that's gripping the U.S. West is claiming a new victim: the hydropower dams that much of the region depends on for electricity supplies.

Low water levels in key reservoirs mean that hydropower supplies are declining. One of the hardest hit areas is California, where output has tumbled to the lowest in more than five years. Nationally, the U.S. Energy Information Administration predicts electricity generation from conventional hydro sources will drop about 11% this year from 2020.

That's at a time when electric grids across the West are already forecast to be stretched this summer as heat waves send power demand surging. With less hydropower, the challenge of meeting peak demand may get even tougher, especially in California. Over the past three years, the state has depended on hydro for almost 13% of its electric power, according to Brianna Lazerwitz, an analyst at BloombergNEF.

Original Article: [Bloomberg Green by Brian Eckhouse](#)

California Fresh Fruit Association's Ian LeMay Discusses California Drought; Water Infrastructure and Investments

Statistically, right now, we find ourselves in a one in 100-year drought. Ian LeMay, President of the California Fresh Fruit Association (CFFA) shared this notion with me as we discussed the state of California's water today and what we can do to advocate movement and action across this issue. The crux of this: We need to make meaningful water investments like generations before us have. And it needs to be done now.

"If you consider that California's water infrastructure was primarily built in the 1940s, 1950s, and 1960s and was meant to provide water to 17 to 18 million people, you can see where our concern comes from," Ian shares. "Today, our state is home to approximately 40 million people, and the infrastructure is no longer equipped to store



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the water needed to grow food and meet the daily needs for such a population. Our water system in this state is over-prescribed. We need to act today.”

As we previously reported, under last month’s drought proclamation expansion, 41 California counties are now under a state of emergency, which represents 30 percent of the state’s population. California will invest \$5.1 billion in water resiliency and infrastructure efforts in response. The nuts and bolts of California’s water strategy are to address conveyance flexibility for state water officials to expedite the review and processing of voluntary transfers of water rights holders.

“Additionally, we need to expedite the building of the Sites Reservoir in Northern California, prioritize the retrofitting that is currently planned at the San Luis Reservoir, which not only would fortify the dam, but give us an opportunity to raise the capacity,” Ian explains. “We need to prioritize and speed up the permitting process for water banks throughout the state in areas that are able to sink and store water underground.”

Across US West, drought arriving dangerously early

Lakes at historically low levels, unusually early forest fires, restrictions on water use and now a potentially record heatwave: even before summer’s start the United States’ West is suffering the effects of chronic drought made worse by climate change.

Eighty-eight per cent of the West was in a state of drought this week, including the entire states of California, Oregon, Utah and Nevada, according to official data.

In a particularly stark symptom of this trend, which is affecting more than 143 million Americans, Lake Mead – the country’s largest reservoir, lying at the border of Nevada and Arizona – now stands at its lowest level since its creation in the 1930s.

The lake, formed when the huge Hoover Dam was built across the Colorado River not far from Las Vegas, stands at just 36 per cent of capacity, below even a record set in 2016. Authorities expected something like this – but not until August.

The situation in northern California, which normally receives ample precipitation in the winter and spring, is no better. Lake Oroville, the state’s second-largest reservoir and a key part of a network providing potable water to 27 million Californians, is 50 metres (165 feet) lower than in 2019.

Widespread water-use restrictions appear inevitable over the coming months, with potentially serious ramifications for Western states, in particular for irrigation-dependent farmers – who provide much of the country’s fruits and vegetables.

In California, whose vast almond groves supply 80 per cent of world production, some farmers have already begun uprooting trees to save water.



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As of April 1, the date traditionally marking the area's last snowfall, the snowpack on the upper slopes of the Sierra Nevada – source of roughly a third of all water used in California – was at only 60 percent of average.

Original Article: [Aljazeera by Patrick T. Fallon](#)

CA drought conditions go from bad to worse with early heat wave

Last year was a record-setting year for fires in California – 4.4 million acres burned. This year, with our drought conditions and the weather already heating up, firefighters fear 2021 could be even worse. But even if we get lucky when it comes to fires, our lack of water is still a serious concern.

Lake Mead is a perfect example of the problem. The nation's largest reservoir is about to hit its lowest water level ever recorded. That's a big deal for us because that part of the Colorado River system is a crucial water supply for several areas including San Diego. "This landscape screams problems to me," says Pat Mulroy, former General Manager of the Southern Nevada Water Authority. "I mean, just look at the bathtub rings. To me, that is an enormous wake-up call."

To show you how quickly our situation is deteriorating, we compared drought maps from June of last year and June of this year. In 2020, the only real area of concern was around Colorado and New Mexico. This year, it's a much different picture. Utah, Arizona, Nevada and Southern California are all dramatically worse, with extreme drought conditions throughout much of the area.

Original Article: [CBS 8 by Steve Price](#)

Lake Mead, key Colorado River reservoir, hits record low amid drought

A key reservoir on the Colorado River has dipped to its record low in the latest showing of the drought's grip on the region.

The surface elevation of Lake Mead along the Nevada-Arizona border dipped to 1,071.56 feet at 11 p.m. on Wednesday evening. The level was last hit in July 2016 and is 18.5 feet lower than one year ago, according to the U.S. Bureau of Reclamation. It's the lowest level since Lake Mead was filled in the 1930s.

"We're expecting the reservoir to keep declining until November, then it should start to rebound," said U.S. Bureau of Reclamation spokeswoman Patti Aaron.

The water level affects the recreation industry at what is one of the largest man-made reservoirs in the country and the efficiency of hydropower generation at Hoover Dam.



VELES WATER WEEKLY REPORT

It won't be used to determine next year's water deliveries to Arizona, California and Nevada until August when the Bureau of Reclamation issues an official projection. Already, the agency has said it's expected to declare the first-ever shortage declaration that prompts cuts in Arizona and Nevada.

Original Article: [Associated Press by Felicia Fonseca](#)

Lake Powell pipeline plans to tap water promised to the Utes.

Utah politicians and water officials have for years insisted that there is ample water in the Colorado River to fill its planned 140-mile Lake Powell pipeline to St. George in the southwestern corner of the state.

Despite impacts from climate change that have resulted in an 18% decline in river flows during the past two decades and a drop in Lake Powell's level to just 35% of capacity, they might just be right.

Utah's consistent argument that it has nearly 400,000 acre-feet (roughly 130 billion gallons) of undeveloped water in the river is disputed by hydrologists who say it's using all its allotted share under the 1922 Colorado River Compact. Even so, legal experts and engineers point out that there could be room for additional development — if the state is willing to buy or take the water from someone else.

"If there is going to be a new pipeline," Eric Kuhn, former general manager of the Colorado River District, said in an interview, "let's not pretend that it's going to be using new water. If they build a new pipeline, they're going to get that from irrigation water."

Original Article: [The Salt Lake Tribune by Emma Penrod](#)

Drought so severe, even water 'royalty' could run dry within a month.

Holders of the most senior water rights in the upper Russian River drainage, typically spared during shortages, could soon face a new reality.

State water officials meeting Tuesday will get knee deep in a process that could force even those with the most senior rights---mostly farmers and municipalities with claims more than a century old---to stop pulling water from the river, or risk significant fines.

Without drastic action, Lake Mendocino could run dry before the end of the year.

Sam Boland-Brien, a program manager at the State Water Board, SAYS that would be devastating.

"The main stem of the Russian River could become no longer a river, just a series of disconnected pools"



VELES WATER WEEKLY REPORT

What's being considered Tuesday would apply to areas upstream of Dry Creek. That's where releases from Lake Sonoma partly replenish the river. Downstream, conditions are less dire. At least for now.

An approval sends the issue to the state Office of Administrative Law, which could codify the decision early next month.

Boland-Brien SAYS plans under consideration would also grant temporary authority for enacting more restrictions, including to junior, senior and riparian water rights holders downstream of Dry Creek. It is unclear if that will happen. Reservoir levels would need to plunge further and other criteria met, before curtailment orders are extended further. It is however possible.

"Lake Mendocino and Lake Sonoma are at the lowest levels ever recorded at this time of the year since they were constructed."

A heat wave expected next week is likely to increase demand for water, while hastening evaporation rates from the reservoirs.

Original Article: [KRCB by Marc Albert](#)

The West is the driest it's been in 1,200 years

Trees are dying. Riverbeds are empty. Lake Mead's water level dropped to its lowest point in history, and Utah's governor asked residents to pray for rain. Water is increasingly scarce in the Western U.S. — where 72 percent of the region is in "severe" drought, 26 percent is in exceptional drought, and populations are booming. Insufficient monsoon rains last summer and low snowpacks over the winter left states like Arizona, Utah and Nevada without the typical amount of water they need, and forecasts for the rainy summer season don't show promise. This year's aridity is happening against the backdrop of a 20-year-long drought. The past two decades have been the driest or the second driest in the last 1,200 years in the West, posing existential questions about how to secure a livable future in the region. It's time to ask, "Is this a drought, or is it just the way the hydrology of the Colorado River is going to be?" said John Entsminger, the general manager of the Southern Nevada Water Authority. A parched Sin City Greater Las Vegas is one of the fastest-growing metropolitan areas in the country, home to more than 2.2 million people, and it gets just over 4 inches of rain in a good year. Around 90 percent of the water comes from Lake Mead, the reservoir on the Colorado River formed by the Hoover Dam, which is currently 36 percent full.

Original Article: [California News Times](#)



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