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March 11, 2022 – April 13, 2022

TMWA's Old Suspension Bridge – Truckee River

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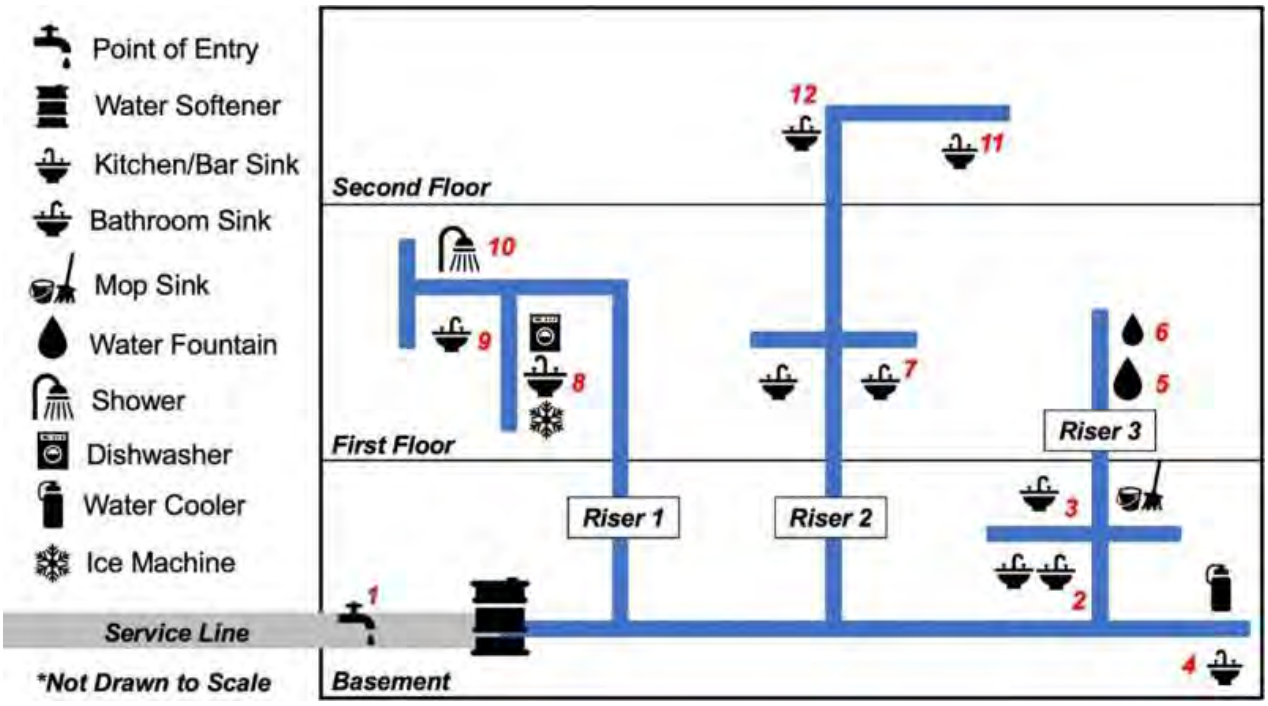
MARCH 9, 2022

Office buildings with infrequent water use may have poor water quality

by Public Library of Science



Fire systems, irrigation systems (rainwater), and toilets (rainwater/separate piping system) are not included. Pipes should only be considered vertical when they cross a floor line (i.e., horizontal physical space is necessarily using a vertical schematic representation here). On-demand water heaters are used, so cold water lines provide water almost all the way to sinks. Credit: Montagnino et al., 2022, *PLOS Water*, CC-BY 4.0 (creativecommons.org/licenses/by/4.0/)

Low-consumption office buildings with infrequent water use could have chemical and microbiological safety issues, according to a study published in *PLOS Water* by Andrew Whelton at Purdue University, Indiana, United States, and colleagues. The research could have implications for office buildings used less frequently during pandemic lockdowns, and suggests that regular water testing in commercial buildings may be needed.

Many office buildings have decreased occupancy during weekends and holidays—and recently, during pandemic lockdowns—increasing water stagnation in plumbing. Green buildings are designed to reduce water consumption using efficient fixtures and alternative water supplies.

However, due to the combination of lower building water use and low occupancy periods, the safety of water from green buildings is unknown. To better understand chemical and microbiological quality in a green commercial office building plumbing after weekend stagnation, researchers sampled water from a ten-year-old, three story, LEED-certified office building in Indiana between January and February 2020. Samples from all water sources in the building were tested for pH, metals, ions, as well as bacterial strains of Legionella.

Researchers found that copper and lead levels increased over the weekend, and that Legionella counts were highest at a fixture which had no use recorded during sampling. Additionally, the concentration of the disinfectant chlorine decreased over the weekend. The study had several limitations as it relied on self-reported data for measurements of fixture use and may have misreported usage frequency at some locations. Future studies are needed to further analyze how water-saving appliances may impact water quality.

Copper contamination in drinking water is often overlooked. Credit: Andrew Whelton, Purdue University, CC-BY 4.0 (creativecommons.org/licenses/by/4.0/)

According to the authors, "To prepare plumbing to code, water chemical and microbiological testing is not required or recommended. The green office building studied had many features that are increasingly common in new buildings, including low-flow faucets, automatic faucets, and alternative piping systems for major water uses like toilet flushing and irrigation. These design elements can change water temperature profiles and significantly reduce the amount of water used compared to traditional office buildings, raising concerns for water quality degradation".

The authors add: "The first people in the office on a Monday morning may, in fact, be using contaminated drinking water. To better understand if the water we are using is safe, much more water testing at the faucet must be conducted. Plumbing design standards and codes must also be revised."

More information: Montagnino E, Proctor CR, Ra K, Ley C, Noh Y, Vigil K, et al. (2022) Over the weekend: Water stagnation and contaminant exceedances in a green office building. *PLOS Water* 1(3): e0000006. doi.org/10.1371/journal.pwat.0000006

Provided by Public Library of Science

Citation: Office buildings with infrequent water use may have poor water quality (2022, March 9) retrieved 12 April 2022 from https://phys.org/news/2022-03-office-infrequent-poor-quality.html

The NEVADA INDEPENDENT
YOUR STATE. YOUR NEWS. YOUR VOICE.

Lake Powell near Glen Canyon Dam. At the time of this photo, in May 2021, it was 34% full. (Ted Wood/The Water Desk)

Indy Environment: Lake Powell to drop below target level, a troubling sign for Colorado River

Good morning, and welcome to the Indy Environment newsletter.

As always, we want to hear from readers. Let us know what you're seeing on the ground and how policies are affecting you. Email me with any tips at daniel@thenvindy.com

If you received this from a friend, sign-up here to receive it in your inbox.

In the coming days, Lake Powell, a major reservoir on the Colorado River, is expected to drop below a critical threshold, a sign of the water stress facing the region amid a prolonged drought, warming temperatures and changes in how water cycles through the environment.

Forecasters with the U.S. Bureau of Reclamation, the federal agency charged with managing much of the West's water infrastructure, expect Lake Powell to fall below a key low-level water mark within a matter of days. Below the threshold, a "target elevation" to keep operations at the reservoir stable, Lake Powell is at greater risk when it comes to producing hydropower. It also means the reservoir only contains a fraction — about 25 percent — of the water it was created to store.

Officials note that the low reservoir level will be temporary. The reservoir is expected to operate above the target elevation come spring, when mountain snow melts and runs off into tributaries that make their way to Lake Powell, flowing through Wyoming, Colorado, Utah and New Mexico.

But the very fact that the reservoir has reached this critical level so rapidly is a sign of increased stress on a river system that serves an estimated 40 million people and dozens of communities in the Southwest, including seven U.S. states, tribal nations and Mexico. Southern Nevada residents receive about 90 percent of their drinking water from the Colorado River.

Chuck Cullom, executive director of the Upper Colorado River Commission, said the low water level signifies how Lake Powell and the watershed are experiencing the impacts of drought and climate change. Both are affecting the system at its source, leading to less runoff from snow and decreasing how much water flows into the reservoir, described by water managers as “inflows.”

At the same time, Lake Powell, located around the Arizona-Utah border and held back by the Glen Canyon Dam, continues to release water to Lake Mead downstream. That water serves states in the Lower Colorado River Basin: Arizona, California and Nevada. The states that are upstream of Lake Powell, in the Upper Colorado River Basin, are required to deliver specific amounts of water to the Lower Basin states in accordance with the laws governing the river.

"The decline in Lake Powell reflects the mass balance problem for the reservoir, which means that inflows into Lake Powell are less than releases downstream of Lake Powell, which cause the storage in the lake to decline,” Cullom explained in an interview this week.

Put simply, Cullom said, “we’re overdrawing the bank account” at Lake Powell.

When full, the water in Lake Powell sits at 3,700 feet above sea level. As of March 8, the water held back in the reservoir sat at 3,525.73 feet, inches away from the target elevation of 3,525 feet. At the current rate, the reservoir is likely to dip below that key marker in the next few days.

As part of a multi-state Drought Contingency Plan, signed in 2019, water managers identified the need to keep Lake Powell above 3,525 feet. Doing so, they said, would provide a buffer before the reservoir hit 3,490 feet, the point at which hydropower could no longer be generated by the dam (Glen Canyon Dam sends electricity to more than 3 million customers in the West).

But back-to-back years of low inflows into Lake Powell have depleted the reservoir faster than many expected when the drought plan was signed. The low inflows have been driven by less-than-average snowpack and dry conditions, which have made runoff less efficient.

John Berggren, a water policy analyst with Western Resource Advocates, said even though it’s temporary, hitting the 3,525 foot mark is a sign that water users need to plan for the worst.

“It's a big deal in the broader picture because I really think this demonstrates how quickly the bottom can fall out in this system and how quickly things can go from not the best situation to a really bad situation,” said Berggren, noting the lack of drought-busting precipitation this winter.

Water officials are expecting another year of below-average inflows. According to the Colorado Basin River Forecast Center, Lake Powell inflows are estimated at 69 percent of average. That would make the situation of balancing Lake Powell and other reservoirs even more challenging.

“Three years of bad hydrology can spell real trouble” for the river, Berggren said.

Last year, the U.S. Bureau of Reclamation took emergency actions, as part of the 2019 drought plan, to release water from reservoirs upstream of Lake Powell. The goal was to bring more water to Lake Powell, one of the primary reservoirs in the basin. To boost Lake Powell, the federal government has also adjusted when water is released from the reservoir.

Without taking those actions, Becki Bryant, a Reclamation spokesperson, estimated that the elevation of Lake Powell would be about 8 to 9 feet lower than it already is.

Now, Reclamation is working with the states in the Upper Basin — Wyoming, Colorado, Utah and New Mexico — to develop a framework and a specific 2022 plan to keep Lake Powell above 3,525 feet. Those plans would set the guidelines for how water is moved to Lake Powell from a series of upstream reservoirs, taking into consideration a number of factors involving water supply, recreation, hydropower generation and habitat for endangered species. The agency, Bryant said, is “optimistic that the framework and [specific 2022 plan] will be completed by early April.”

Still, those plans, part of what Colorado River officials describe as the Drought Response Operations Agreement (DROA), are a short-term approach to balancing inflows to Lake Powell. In the past, water managers have discussed other measures to keep Lake Powell at its target elevation.

As part of the 2019 drought plan, the Upper Basin states committed to exploring more conservation. The idea behind the program, known as demand management, would be to compensate water users to temporarily and voluntarily conserve water. The water would remain in the river, where it would be shepherded to Lake Powell, helping to boost the reservoir's elevation. But creating such a program is still in the very early stages, with numerous, challenging legal details to sort out.

And tension remains in the Upper Basin, where some water users have sought to build new infrastructure to use more water, including a pipeline that would tap into Lake Powell.

In the long term, Cullom stressed the need to "consider new tools" across the entire basin to manage a river that has less water.

Water managers across the basin have already started to discuss what those tools might look like as they prepare for negotiations to rewrite the operating guidelines used to manage the river's complicated and interconnected infrastructure. The current set of management rules expire in 2026.

The federal government has said it plans to lay out a formal process for re-negotiating the guidelines this year. Even though the deadline for finishing the negotiations is several years out, complex water agreements can take multiple years to complete. At the same time, key state and federal officials have committed to a more inclusive process. In years past, negotiations have excluded Indigenous communities, who have rights to Colorado River water, and environmental groups.

Berggren, with Western Resource Advocates, said it is important that the current crisis on the river not eclipse the need to start discussing the new guidelines in an inclusive and formal way.

"We can't afford to lose any more time in this basin," he said.

Here's what else I'm watching this week:

Hoover Dam on Thursday, July 15, 2021. The dam holds back Lake Mead. (Jeff Scheid/The Nevada Independent)

Tribes within the Colorado River Basin hold water rights to about one-fifth of the river's flow. Yet the United States government, states and other institutions have historically ignored Indigenous communities in decision-making on the Colorado River and created obstacles to accessing their rights. In two excellent pieces for *High Country News*, Pauly Denetclaw **examines this history and how tribes are fighting for their water rights as new negotiations unfold.** The stories also look at the legal hurdles that tribes face and the challenges in settling water right claims.

- As part of the reporting, *High Country News*' Christine Trudeau interviewed Daryl Vigil, water administrator for the Jicarilla Apache Nation and a co-facilitator of the Water and Tribes Initiative, which focuses on the Colorado River. "There's an assumption that the seven (Colorado River) Basin states and the federal government are going to speak and protect and advance tribal water rights," Vigil said in the interview. "That's just fantasy. And so, where we're at right now is incredibly critical— talking about creating a new framework of operational management for the Colorado River Basin as a whole."

Just how much have we warmed? This, from *Yale Environment 360*, caught my attention:

"Spring is beginning sooner in the United States, with 97 percent of 242 locations across the country experiencing temperature increases since 1970, according to a new analysis from Climate Central.

The analysis showed that close to half of the 242 locations have warmed by at least 2 degrees F. ***Reno, Nevada saw the greatest increase of any city, warming by 6.8 degrees F, followed by Las Vegas, Nevada and El Paso, Texas, which warmed by 6.2 degrees and 5.9 degrees, respectively.***

"You can have all the water rights in the world, but if the resource isn't there, it isn't there." That quote is from an article in the *Deseret News* looking at the proposed Pine Valley Water Project, a plan to pipe groundwater in Utah that could affect Nevada. The Great Basin Water Network, based in Nevada, is actively pushing back on the project.

Incredible visuals in the *Review-Journal* on how Las Vegas has grown and what kind of buildings developers have constructed. A good example of the power of data journalism.

The Guardian's Gabrielle Canon **looked at Las Vegas, climate change and the lands bill.**

Amid market instability, **gold prices are increasing,** the *Elko Daily Free Press* reports.

"Nevada's **largest utility plans to inspect power lines near a Reno neighborhood** where a 2020 wildfire destroyed five homes and damaged two dozen others, a blaze that investigators blamed on arching power lines in gale force winds along the Sierra's eastern front," *The Associated Press*' Scott Sonner reports. Several insurance companies sued the utility.

News Release

USDA Report Shows a Decade of Conservation Trends

WASHINGTON, March 10, 2022 — A new U.S. Department of Agriculture (USDA) report shows use of no-till, crop rotations, more efficient irrigation methods and advanced technologies have climbed in recent years.

The report from USDA's Natural Resources Conservation Service (NRCS) demonstrates progress made through voluntary conservation over a 10-year period. Findings from the report will inform future conservation strategies, including USDA's efforts to tackle the climate crisis.

The "Conservation Practices on Cultivated Cropland: A Comparison of CEAP I and CEAP II Survey Data and Modeling" was developed by USDA's Conservation Effects Assessment Project (CEAP). It found significant gains for soil health and soil carbon storage, while also identifying areas where additional and targeted nutrient management strategies are needed.

"This latest CEAP report shows that farmers have done an outstanding job over the years in using innovative conservation strategies that help mitigate climate change," said NRCS Chief Terry Cosby, "But we have more work to do. Reports like this one help us better understand conservation approaches and make improvements to increase positive impacts. This report will help steer our conservation efforts well into the future to help us adapt to changing trends in production, climate and technology."

Key findings include:

- Farmers increasingly adopted advanced technology, including enhanced-efficiency fertilizers and variable rate fertilization to improve efficiency, assist agricultural economies and benefit the environment.
- More efficient conservation tillage systems, particularly no-till, became the dominant form of tillage, improving soil health and reducing fuel use.
- Use of structural practices increased, largely in combination with conservation tillage as farmers increasingly integrated conservation treatments to gain efficiencies. Structural practices include terraces, filter and buffer strips, grassed waterways and field borders.
- Irrigation expanded in more humid areas, and as irrigators shifted to more efficient systems and improved water management strategies, per-acre water application rates decreased by 19% and withdrawals by 7 million-acre-feet.
- Nearly 70% of cultivated cropland had conservation crop rotations, and 28% had high-biomass conservation crop rotations.

Because of this increased conservation, the report estimates:

- Average annual water (sheet and rill) and wind erosion dropped by 70 million and 94 million tons, respectively, and edge-of-field sediment loss declined by 74 million tons.
- Nearly 26 million additional acres of cultivated cropland were gaining soil carbon, and carbon gains on all cultivated cropland increased by over 8.8 million tons per year.
- Nitrogen and phosphorus losses through surface runoff declined by 3% and 6%, respectively.
- Average annual fuel use dropped by 110 million gallons of diesel fuel equivalents, avoiding associated greenhouse gas emissions of nearly 1.2 million tons of carbon dioxide equivalents.

About the Report

For this report, farmer survey data was collected from 2003-2006 and again from 2013-2016. NRCS evaluates conservation practice adoption through the CEAP Cropland Assessment, using a combination of farmer surveys, land use and soils information, along with resource models. CEAP project findings are used to guide USDA conservation policy and program development, along with assisting conservationists, farmers and ranchers and other land stewards with making sound and science-based conservation decisions.

Download the full report or a four-page summary of findings.

Next Steps

The report also revealed that cropping patterns have changed over the years in response to climate, policy, trade, renewable energy and prices, presenting a nutrient management challenge. Improving the timing and application method of nutrients can allow production demands to be met while reducing the impacts of crop production on the environment. NRCS plans to continue its focus on nutrient management conservation practices and strategies with vigorous outreach efforts to farmers and further engagement with partner groups to adjust to these changing trends.

More Information

For more information on CEAP, visit the CEAP webpage or view this multimedia story .

Under the Biden-Harris Administration, USDA is engaged in a whole-of-government effort to combat the climate crisis and conserve and protect our nation's lands, biodiversity and natural resources including our soil, air and water. Through conservation practices and partnerships, USDA aims to enhance economic growth and create new streams of income for farmers, ranchers, producers and private foresters. Successfully meeting these challenges will require USDA and our agencies to pursue a coordinated approach alongside USDA stakeholders, including State, local and Tribal governments.

Service Center staff continue to work with agricultural producers via phone, email, and other digital tools. Because of the pandemic, some USDA Service Centers are open to limited visitors. Contact your Service Center to set up an in-person or phone appointment. On farmers.gov, you can create a secure account , apply for NRCS programs, electronically sign documents and manage your conservation contracts.

USDA touches the lives of all Americans each day in so many positive ways. Under the Biden-Harris Administration, USDA is transforming America's food system with a greater focus on more resilient local and regional food production, fairer markets for all producers, ensuring access to safe, healthy and nutritious food in all communities, building new markets and streams of income for farmers and producers using climate smart food and forestry practices, making historic investments in infrastructure and clean energy capabilities in rural America, and committing to equity across the Department by removing systemic barriers and building a workforce more representative of America. To learn more, visit usda.gov.

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reno gazette journal

NEWS

As coronavirus cases tumble in Nevada, Washoe County shifts data reporting to weekly

Kevin MacMillan
Reno Gazette Journal

Published 9:35 a.m. PT March 11, 2022

As coronavirus cases continue to drop across the Silver State, the Washoe County Regional Information Center announced Thursday its COVID-19 Dashboard will switch from daily to weekly reporting.

The last daily update was scheduled for Friday.

"The weekly updates will begin Wednesday, March 16," according to a Thursday news release from the Washoe County Health District. "The data updates on Wednesday will include the cases reported from Tuesday the previous week, through Monday of the current week to mirror the Nevada Department of Health and Human Services' dashboard."

The move comes as several states and counties across the U.S. are making similar shifts to weekly reporting as the pandemic transitions to endemic phase.

Optimism among local health officials as cases continue to drop was evident earlier this month, when Washoe County Health District Officer Kevin Dick said that, amid declining hospitalizations in the Silver State, he was able to block time out in his schedule for a vacation for the first time in over two years.

Related: COVID-19 cases continue to decline in Washoe County

As of Friday morning, a total of 102,749 COVID-19 cases and 1,167 COVID-19 related deaths have been reported in Washoe County since pandemic statistics were kept in March 2020, according to the dashboard.

The seven-day moving average is 29.4 as of Wednesday, continuing a steep decline from the all-time-high crest of 1,165 cases reported by the county on Jan. 21, 2022. Previous spikes included a seven-day average of nearly 300 last September; before that, numbers reached nearly 500 in November 2020.

The 14-day test positivity rate as of Wednesday was down to 7.3%, according to Friday's dashboard, also a drastic drop from the high of roughly 32% reported Feb. 2.

More COVID updates: Hawaii will become last state in nation to drop its mask mandate on March 26

Data from Nevada Health Response shows roughly 75% of Nevadans received at least one dose of the COVID-19 vaccine and approximately 65% are fully vaccinated.

"The Washoe County Health District will continue to collect COVID-19 case data," the county said Thursday. "The dashboard will still feature datasets like the 7-day moving average and daily case counts for previous days. Other tabs on the dashboard will still include cases per 100,000 and data on COVID-19-related deaths."

'Very sobering': Global deaths from COVID may be more than 3 times higher than official toll, study says

Residents may find more community vaccine events at vax4nv.nv.gov/patient/s/. Go to www.covid19washoe.com to access the dashboard.

OPINION

Dozens of government agencies in Nevada are violating (opinion)

By ThisIsReno | March 14, 2022

The Reno Police Department redacts officer faces from body cam videos -- and the backs of officer heads. Reno city attorneys said the Nevada law prohibiting the release of an officer's photograph gives them the right make those redactions. District Court Judge Kathleen Drakulich agreed. Image: RPD body camera screen grab.

By Richard Karpel

It's Sunshine Week, the annual celebration of open government.

This year, the Nevada Open Government Coalition studied a crucial issue impinging on our law that guarantee access to government records — the fees the government can charge citizens for thos records.

In 2019, the Nevada Legislature unanimously approved a new law reforming the rules regulating th fees under the Nevada Public Records Act (NRS 239). The combined vote in the Senate and Assemb was 61-0 in favor of the changes, so they were bipartisan and uncontroversial.

In our review of fees charged for public records, NOGC was especially interested to learn how state local government agencies have responded to the new rules. We checked their websites and when fe schedules and policies weren't posted there we contacted them to seek the information. Ultimately, secured fee schedules for almost 200 government entities subject to the requirements of NRS 239 o other state laws regulating public records fees.

We found that the fee schedules or policies of dozens of agencies clearly and overtly violate the law. aside from one egregious example I won't assign motives or cast blame here.

First, most public officials are well-meaning and deserve the benefit of the doubt. It's clear that man the violations result from a lack of human resources, not malfeasance.

for public records and a few immediately revised their policies to comply with the law following our queries.

Finally, how agencies respond to public records requests often varies based on the volume and frequency of the requests they receive.

So painting with a broad brush would distort the truth.

Having said that, we also know that some agencies that flagrantly violate NRS 239 have no innocen excuses. Take the Las Vegas Metro Police Department, which probably gets more public records requests than any other agency in Nevada, and has resources to manage those requests that are the of many other agencies across the state. We know they know what the new public records law says because they had a team of lobbyists fighting it right up to the last minute before it was approved by every single sitting legislator in the state.

So when they charge $288 for every hour of bodycam video footage — more than six times as much the police department that charges the second-highest rate — we know they understand that NRS 2 makes it difficult and expensive for anyone to challenge that fee. Or when they set a confiscatory rat a CD or DVD containing video that is 26 times more expensive than their neighbors in the City of Henderson, we know their lawyers are prepared to argue that it doesn't violate the section of the law limiting fees to the "actual cost" to provide that record.

Unfortunately, dozens of agencies are disregarding the "actual cost" section of NRS 239 even thoug easy to understand by anyone with a modicum of financial literacy. "'Actual cost' means the direct c incurred by a governmental entity in the provision of a public record, including, without limitation, cost of ink, toner, paper, media and postage," says Section 1 of NRS 239.005. "The term does not include a cost that a governmental entity incurs regardless of whether or not a person requests a co a particular public record."

That last sentence means government agencies can't charge for overhead, yet many frequently cite ' time" expenses in their fee schedules. Note to government agencies: Staff time is overhea can

Then there's the "extraordinary use" issue. NRS 239 formerly had a clause allowing the government charge for "extraordinary use" of personnel or resources required to fulfill specific requests. That section of the law was repealed in 2019. Yet more than two years after the repeal took effect, Las Ve Metro continues to charge requestors a "research fee" for "extraordinary use of personnel or technology."

Once again, Metro isn't the only offender. Dozens of other agencies' policies include charges for "extraordinary" or "voluminous requests." Unlike Metro, however, most of those fee schedules are web pages that appear not to have been updated since the new law passed. Still, you would expect agencies like the Attorney General's Office or the Governor's Finance Office to know better.

At the very least, we hope our study prompts every agency in Nevada to better understand the state public records law and to interpret it "liberally," as NRS 239 requires.

But to be honest, we hope for more. We hope our findings convince government agencies to plan ar budget for public records requests without burdening requestors with illegal fees. And we hope age will view such requests not as a pesky hindrance and financial encumbrance, but as an opportunity provide an essential service that helps to build trust between the government and the people it serv

Richard Karpel is the executive director of the Nevada Press Association and a board member of t Nevada Open Government Coalition.

Submitted opinions do not necessarily reflect the views of This Is Reno. Have something to say? Submit an opinion article here.

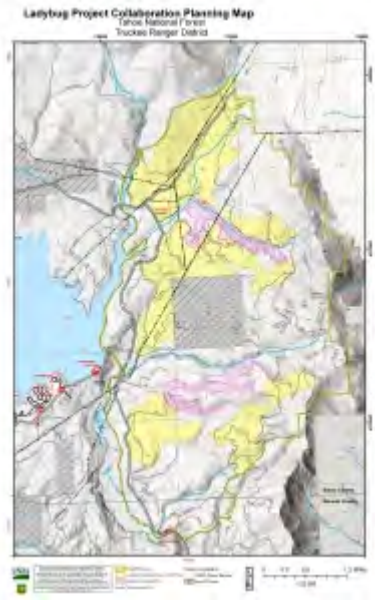
TMWA Joins Forces with US Forest Service and the National Forest Foundation to Protect Truckee River Watershed

by **Tahoe National Forest**
March 18, 2022

In collaboration with the US Forest Service and other funding partners, Truckee Meadows Water Authority (TMWA) has entered into a two-year, $500,000 commitment with the Tahoe National Forest and National Forest Foundation to help fund the "Ladybug Forest Health and Fuels Reduction Project," an initiative that is expected to be completed in 2025. TMWA's support is part of a broader network of contributions from the US Forest Service (USFS), California Wildlife Conservation Board, The Nature Conservancy, and others. The overall project cost is estimated to be $3,800,000 and will be implemented by the National Forest Foundation through an existing partnership with the USFS.

"TMWA's investment in the Ladybug project will improve 2,400 acres of National Forest System lands. This is a historic investment and indicative of the need for new partnerships to counter the threat of catastrophic fires," said Jonathan Cook-Fisher, Truckee District Ranger.

Wildfires can introduce contaminants into the ecosystem and ultimately the water supply when associated ash and eroded soil enters rivers, lakes and reservoirs. This can cause acute water quality challenges and interrupt water treatment processing downstream. “Improving forest health across the middle Truckee River watershed is an essential part of providing clean, safe drinking water to the citizens of California and Nevada,” says Rachel Hutchinson, Acting Sierraville District Ranger.



Ladybug Forest Health and Fuels Reduction Project area map

“This project offers TMWA a tangible way to help protect water quality and storage reliability on the Truckee River system,” said John Enloe, TMWA Director of National Resources. “Wildfire poses a real threat to our drought reserves, and we are continuing to explore more collaborations like this to help us be proactive in addressing the risk for our community.”

Approved in 2020, the Ladybug Forest Health and Fuels Reduction Project includes mechanical thinning of commercial and non-commercial timber, mastication and prescribed fire. The project area consists of an overcrowded forest, impacted by historic Comstock era logging and fire suppression. In addition, recent drought conditions have contributed to increased tree mortality, particularly from insects and disease. Work commenced in 2021 and is expected to continue through 2025.

More about the Ladybug Forest Health and Fuels Reduction Project can be found online by visiting **https://www.fs.usda.gov/project/?project=55750**.

ENVIRONMENT

Forest thinning project near Stampede Reservoir aims t quality

By ThisIsReno | **Published:** March 19, 2022 | **Last Updated on** M

Comstock-era logging and fire suppression have created an overcrowded forest near Stampede Reservoir. On top of that, drought conditions, insects and disease have killed trees officials say are n in need of thinning.

The U.S. Forest Service and Truckee Meadows Water Authority are partnering on a multi-year effor thin the overgrown and diseased trees in order to reduce runoff into the Truckee River, reduce soil erosion and increase the resilience of the forest.

“This project offers TMWA a tangible way to help protect water quality and storage reliability on the Truckee River system,” said John Enloe, TMWA’s director of natural resources. “Wildfire poses a re threat to our drought reserves, and we are continuing to explore more collaborations like this to hel be proactive in addressing the risk for our community.”

The forest project is estimated to cost $3.8 million and work is expected to continue through 2025.

Officials said wildfires can introduce contaminants into the ecosystem, and ultimately the water sup when associated ash and eroded soil enters rivers, lakes and reservoirs.

“Improving forest health across the middle Truckee River watershed is an essential part of providin clean, safe drinking water to the citizens of California and Nevada,” said Rachel Hutchinson, acting Sierraville district ranger with the Forest Service.

Source: TMWA

'A national treasure': This law saved Tahoe 22 years ago. It's still delivering.

Julie Brown - Mar 20

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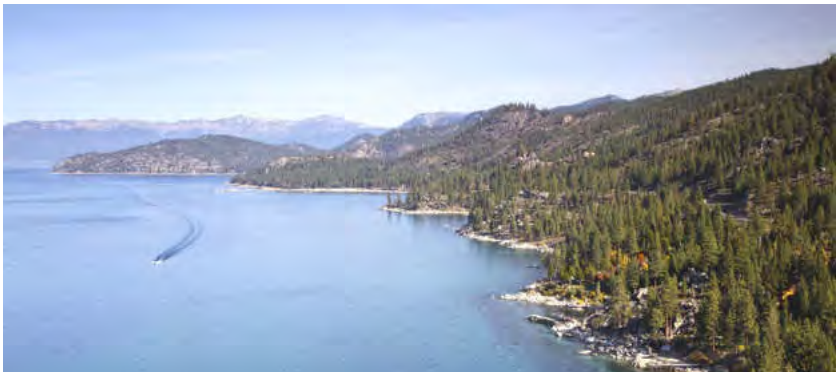
At the height of the summer of 1997, President Bill Clinton and Vice President Al Gore motored out to the middle of Lake Tahoe in a research vessel for a science lesson.



© PictureLake/Getty Images

1 of 4 Photos in Gallery

'A national treasure': This law saved Tahoe 22 years ago. It's still delivering.

Clinton and Gore came to Lake Tahoe after receiving an invitation from Nevada Sen. Harry Reid, who was alarmed by Tahoe's deteriorating environment and was pushing for urgent federal action. On the boat, the leaders of the free world, both wearing khaki pants and blue collared shirts, watched as scientists from the UC Davis Tahoe Environmental Research Center measured lake clarity and drew a water sample from the lake, one of the many experiments the scientists conducted regularly to monitor the lake's environment. In one historic photo, Clinton and Gore gaze into an Erlenmeyer flask, looking for plankton in a water sample from the lake.

"They really look like shrimp," Clinton said, in a classic '90s moment recorded by the Washington Post.

Many in Lake Tahoe still look back at that 1997 presidential visit as a major turning point for the basin.

Court Decision in Martis Valley West Case

Establishes a New Legal Precedent, Say Conservation Groups

By **Claire Carlson** - March 22, 2022

View of Brockway Summit, site of the proposed Martis Valley West development, on March 18, 2022. Conservation groups claimed Placer County and the developer did not disclose the full impact of the development on Lake Tahoe. California's 3rd District Court of Appeals agreed that environmental impacts were overlooked. (Photo by Zac Visco/Deep Indigo Collective for The Sierra Nevada Ally)

A long-awaited victory for conservation groups came in mid-February when California's 3rd District Court of Appeals found that the 2016 approval of development in Martis Valley overlooked the project's impact on Lake Tahoe. Conservationists are hopeful that this decision sets a new precedent for development projects in the Tahoe region.

"We want to create legal precedent that you can't have these outside basin projects create all of their impacts on the Lake Tahoe Basin and do nothing to mitigate it," said Alexis Ollar, executive director of Mountain Area Preservation, one of three groups involved in the litigation process.

Alexis Ollar, executive director of Mountain Area Preservation, in an area overlooking Martis Valley on March 17, 2022. Mountain Area Preservation would like to purchase the land in question for conservation. (Photo by Zac Visco/Deep Indigo Collective for The Sierra Nevada Ally)

The development proposal included construction of a gated community with 760 luxury homes near a ridgeline in the Martis Valley between Highway 267 and Northstar, just outside the Tahoe Basin. Because the project is not within the Tahoe Regional Planning Agency (TRPA) boundary, the developer and landowner, Sierra Pacific Industries, did not include the environmental mitigation measures that would otherwise be required to protect the lake, according to conservationists.

A view from Brockway Summit. (Photo courtesy of Sierra Watch)

The California Environmental Quality Act (CEQA) required Placer County to create an environmental impact report to disclose the full effect on the Tahoe region, including the clarity and quality of the lake. However, conservation groups claim the county and the developer did not disclose the full impact of the development.

“[The developer] said there would be no impact to Lake Tahoe while discounting the fact that everything would be going to Tahoe,” Ollar said. “Water drains from ridgelines, so the pollutants from the development would go to both the Lake Tahoe Watershed and the Martis Valley Watershed.”

Mountain Area Preservation, Sierra Watch, and League to Save Lake Tahoe were co-petitioners in the legal challenge against the 2016 approvals of the project, doled out by the Placer County Board of Supervisors. Some of their major concerns included the development’s high fire risk and the increase in car traffic 760 new homes would bring.

By the estimates of the environmental impact report, the project would have added 1,400 peak day vehicle trips into the Tahoe Basin. Tailpipe emissions and road sediment were cited by League to Save Lake Tahoe as pollutant factors that posed the biggest risks to the lake.

In a hearing in December, Sierra Watch cited a precedent established in a different court decision in August of 2021 against the proposed Alterra development in Olympic Valley. This project would have included the construction of a water park at the outer edge of the Tahoe Basin. According to Sierra Watch, this would have contributed to Tahoe’s car traffic and made evacuation in the event of a wildfire more challenging.

“The decision in August was so important because it applied this new precedent that decision makers have to consider impacts on Lake Tahoe for projects, even if they’re proposed for outside of the basin,” said Tom Mooers, executive director of Sierra Watch.

At the hearing in December, Sierra Watch argued that this same precedent should be applied to the Martis Valley West decision. The court agreed.

“I am hopeful that this new precedent serves as a deterrent to speculative developers that they can’t just get away with whatever they want to propose as long as it’s outside the basin,” Mooers said. “I also hope it serves as a reminder to decision-makers that they can’t just ignore impacts on Lake Tahoe.”

The Placer County environmental impact report estimated an added 1,400 peak day vehicle trips into the Tahoe Basin if the development were built. Conservation groups cited tailpipe emissions, road sediment and wildlife evacuations as significant concerns. View of Highway 267 in Martis Valley on March 17, 2022. (Photo by Zac Visco/Deep Indigo Collective for The Sierra Nevada Ally)

The decision made in February doesn't necessarily mark the end of the project, according to Darcie Goodman Collins, CEO of League to Save Lake Tahoe.

"The project proponents could come back with another project that addresses [impacts to the lake]," Collins said.

Conservation groups are still looking forward to what could be next for the Martis Valley area. The groups' ultimate goal is to purchase the land for conservation.

"We're not against development," said Ollar. "We just don't think it makes sense in this area high up on a hill with no infrastructure and high fire danger."

The developer has until the end of March to appeal the February decision.

Claire Carlson writes about conservation and the environment for Sierra Nevada Ally and for various other publications. She has a bachelor's degree from the University of Nevada, Reno in International Affairs and a master's from the University of Montana in Environmental Studies, where she focused on environmental writing. Support her work for the Sierra Nevada Ally.

Deep Indigo Collective is a visual storytelling resource supporting news outlets reporting on the local impacts of environmental threats and the climate crisis. As a 501(c)(3) organization,

Deep Indigo is proud to produce original visual journalism on behalf of our editorial partners across the United States.

Founded in 2020, the Sierra Nevada Ally is a self-reliant 501c3 nonprofit publication with no paywall, a member of the Institute for Nonprofit News, offering unique, differentiated reporting, factual news, and explanatory journalism on the environment, conservation, and public policy, while giving voice to writers, filmmakers, visual artists, and performers. We rely on the generosity of our readers and aligned partners.

Pure Water Oceanside, the first advanced water purification facility in San Diego opens

By Tania Thorne / North County Reporter

Published March 22, 2022 at 6:09 PM PDT

The city of Oceanside celebrated World Water Day on Tuesday with a ribbon cutting ceremony for the first advanced water purification facility in San Diego County.

Pure Water Oceanside will locally supply water that was once imported from hundreds of miles away.

It is the first facility of its kind to go online in San Diego County. It uses advanced technology to turn recycled water into locally sourced clean and safe drinking water.

Cari Dale, the water utilities director for the City of Oceanside said, “Today we made history by moving one step closer to achieving the goal of greater water independence for not only our city, residents and businesses, but also the region as a whole.”

RELATED: California reduces supplies to water agencies amid drought

The $70 million project uses advanced technology, including ultrafiltration, reverse osmosis and advanced oxidation to provide 3 million gallons per day or more than 20%of the City of Oceanside’s drinking water supply — and 600 new jobs.

The source of the recycled water to create the purified water is the city’s own San Luis Rey Water Reclamation Facility.

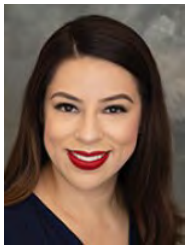
The launching of Pure Water Oceanside coincides with a larger movement for the region as a whole to create sustainable water supplies in San Diego County.

In addition to Pure Water Oceanside, two other water reuse projects are planned for the region: the East County Advanced Water Purification Program and Pure Water San Diego.

“These projects, along with Pure Water Oceanside, supplement our local water supply, increase the reliability and improve sustainability in our region,” said Sanchez.

Congressman Mike Levin, a supporter of the project, said the facility is an investment for future generations and industries.

"We simply lack the natural rainfall to support the population that we have, not to mention future generations, like industries like biotech, manufacturing, craft brewing, because we know that our water demands will only continue in the years ahead," he



Tania Thorne

I love hearing from the community and listening to what's important to you. No story is too small. If it matters to you, more than likely it matters to somebody else too.

See stories by Tania Thorne

Agencies collaborate to launch wastewater surveillance dashboard

New dashboard will include COVID-19 concentration data, information about variant testing and more.

FOR IMMEDIATE RELEASE:

March 23, 2022

LAS VEGAS — The University of Nevada, Las Vegas (UNLV), Southern Nevada Health District, Southern Nevada Water Authority (SNWA) and Desert Research Institute (DRI) are partnering to detect early increases of SARS-CoV-2 (the virus that causes COVID) and emerging variants in Southern Nevada through wastewater surveillance. The data will be available on a new dashboard that will be updated weekly at **http://empower.unlv.edu** .

The wastewater surveillance program monitors SARS-CoV-2 concentrations from people who contract COVID-19 (with or without symptoms) and shed genetic material in their stools. During the COVID-19 pandemic, wastewater surveillance has tracked, monitored and provided early awareness of increases in volume of the virus as well as changes to the types of variants of COVID-19. Because people who are infected with the virus that causes COVID-19 can take several days before showing symptoms, the information provided through this surveillance program can assist with informing public health strategy and ongoing planning efforts.

In addition to being an early indicator that cases of COVID-19 may be increasing in a community, wastewater surveillance can also indicate when cases are decreasing, and the surveillance program is not dependent on people seeking testing or health care when they are sick.

“As we move into the next stage of our response to COVID-19, wastewater surveillance is going to be a powerful tool for detecting potential surges in new cases or the presence of new variants in our community. We will be able to alert the public in a timelier manner and support public health mitigation measures that can help slow the spread of the virus,” said Cassius Lockett, Director of Disease Surveillance and Control for the Health District.

Currently, the SARS-CoV-2 concentration in the wastewater of participating community water systems across Southern Nevada is tested as part of this program. Nevada was one of the first states to initiate testing, and this surveillance project represents one of the largest projects of its kind in the U.S.

“The collaboration between our community partners has enabled the collection of one of the largest and most diverse wastewater datasets in the country,” said **Edwin Oh** , professor and director of the Neurogenetics and Precision Medicine Lab at UNLV. **“**The daily and weekly analyses of these samples will help keep us one step ahead of emerging pathogens and variants.”

“DRI is contributing to this collaborative effort by organizing sampling from ten wastewater systems across rural Clark and Nye Counties, substantially expanding the geographic reach of the project and providing time-sensitive epidemiological data that would otherwise be lost,” said DRI Associate Research Professor of Microbiology Duane Moser. The addition of these outlying sites has a great deal to teach us about how quickly and effectively viruses spread from population centers to outlying areas with lower population densities.”

While wastewater surveillance can provide early awareness of increases in cases and potential outbreaks, the data provided cannot directly indicate the number of people who are currently infected with COVID-19. The data collected are not intended to be used as the sole method of measuring the prevalence of COVID-19 in the community. The information will be used along with other data by partner and responding agencies for planning purposes.

More information about wastewater surveillance, and national wastewater surveillance data, is available on the Centers for Disease Control and Prevention website at **www.cdc.gov/healthywater/surveillance/wastewater-surveillance/wastewater-surveillance.html** .

###

The Southern Nevada Health District serves as the local public health authority for Clark County, Boulder City, Henderson, Las Vegas, Mesquite and North Las Vegas. The agency safeguards the public health of the community’s residents and visitors through innovative programs, regulations, and initiatives focused on protecting and promoting their health and well-being. More information about the Health District, its programs, services, and the regulatory oversight it provides is available at **www.SNHD.info** .

DRINKING WATER > INFRASTRUCTURE FUNDING

EPA announces $1.6M for Tribes' water, air quality

With applications due May 19, EPA plans to award 16 to 20 grants — of up to $100,000 per award — to support Tribal government programs on water and air quality.

March 23, 2022

The U.S. Environmental Protection Agency (EPA) has announced the availability of up to $1.6 million in American Rescue Plan (ARP) funding to support Tribal government efforts to establish or modify programs on environmental justice water and air quality issues.

Earlier this year, EPA announced spending plans for the $100 million in ARP funding, with $50 million designated to address disproportionate environmental or public health harms and risks in underserved communities. Congress made up to $1.6 million in ARP funding available to Tribes, recognizing the importance of supporting Tribal public engagement programs and related priorities that have been impacted by the COVID-19 pandemic.

EPA anticipates awarding 16 to 20 grants nationwide in amounts of up to $100,000 per award.

"This funding opportunity will help ensure that our Tribal Nation partners and their communities are prioritized within EPA's whole-of-government approach to address environmental challenges," said JoAnn Chase, Director of the American Indian Environment Office. "This funding also serves as reaffirmation of EPA's policy, and the Biden Administration's priority, to advance and integrate environmental justice into all of our work, including our work with federally recognized Tribal governments and indigenous peoples."

“Our partners in Tribal governments recognize that they, just like us, advance justice by starting with meaningful engagement,” said Matthew

Tejada, Director of the Office of Environmental Justice. “We are excited to support their efforts to lift up the voices of the people most impacted by and vulnerable to pollution.”

EPA stated that it is committed to assisting federally recognized Tribes in building capacity to establish public participation, community involvement, education, and communication systems to engage with tribal members and others living on tribal lands. Applicants interested in this funding opportunity must submit grant proposal packages by May 19, 2022. Applicants should plan for projects to begin on October 1, 2022. To learn more about the pre-application assistance calls and how to apply for funding, visit: Environmental Justice Small Grants Program.

TAHOE CHAMBER (https://tahoechamber.org)

Blog

News, notes and features from the Tahoe Chamber

Tahoe Chamber helps secure $29.2 million in federal funding

Tahoe Chamber | March 23, 2022 | **Chamber News (https://tahoechamber.org/category/chamber-news/) • Community News (https://tahoechamber.org/category/community-news/) • Government Affairs (https://tahoechamber.org/category/government-affairs/)**

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Lake Tahoe is set to receive funding from the recently approved federal fiscal year 2022 budget for a variety of environmental, wildfire preparedness, and infrastructure investments totaling just over $29 million.

Credit: Omar Gomez

As one of three leading members of the Lake Tahoe Partnership advocacy network, Tahoe Chamber worked closely with the League to Save Lake Tahoe, Tahoe Regional Planning Agency, and members of Tahoe's Congressional Delegation to secure the following investments:

- $7 million for water infrastructure that supports fire suppression
- $6 million for projects to improve forest health and resiliency
- $6.5 million for watershed management
- $7.7 million for aquatic invasive species control and prevention
- $2 million for improvements through the "central corridor" of popular recreation destinations along Nevada State Route 28.

"As the Tahoe Basin's largest landowner, these federal investments are an appropriate and much-appreciated contribution along with state, local, and private sector investments in the Lake Tahoe Environmental Improvement Program," said Steve Teshara, Tahoe Chamber director of government relations. "The multi-sector funding for EIP projects creates jobs and stimulates entrepreneurial innovations in forest and land management, water quality protection, and community infrastructure to help defend us from the ravages of wildfire."

“Tahoe doesn’t belong to just Nevada and California; it’s a national treasure,” said League CEO Darcie Goodman Collins. We’re encouraged that decision-makers in Washington D.C. have again taken this bipartisan action to help protect and preserve Lake Tahoe.”

“The Tahoe region and our lake are under serious threat from the compounding impacts of climate change and increasing recreational pressures,” said TRPA Executive Director Joanne Marchetta. “We are grateful to Tahoe’s congressional leaders and our partners in advocacy for continuing the shared investment in Tahoe’s future.”

This latest round of funding provided through the

(LTRA) represents a 148% increase compared to the previous fiscal year, underscoring Tahoe’s importance on the national stage amidst the challenges we face and the model of multi-sector collaboration we have established.

Public News Service

Far-Reaching Conservation Program Receives Full Funding from Congress

The Willapa National Wildlife Refuge is on a supplemental priority list for the Land and Water Conservation Fund this year. (Sam Beebe/Flickr)

Eric Tegethoff, Producer

Contact

Why you can trust Public News Service

Thursday, March 24, 2022

An important conservation program has received its full funding in Congress' latest budget.

The Land and Water Conservation Fund will be able to allocate $900 million to projects across the country to ensure access to public lands as well as for local projects. It's the first time the program has received its full dedicated funding since the Great American Outdoors Act in 2020 saved it and ensured permanent funding.

Amy Lindholm, manager of the Land and Water Conservation Fund Coalition for the Appalachian Mountain Club, explained the reach and scope of the financial backing of Congress.

"Every part of the country, every state, every congressional district, nearly every county in America has been touched by investment from the Land and Water Conservation Fund," Lindholm pointed out. "It protects everything from your local parks and playgrounds to working forests to habitat projects."

The program has been around for more than 50 years, allocating more than $700 million to Washington state over

that time. It has helped protect places such as Mount Rainier and Olympic national parks, the Pacific Crest Trail and Skagit Wild and Scenic River.

Lindholm noted the $900 million is a great accomplishment and start to more conservation.

"We also see on the ground in Washington that there are projects that are still not able to be funded, and they are urgently needed for a variety of reasons," Lindholm emphasized. "Given the climate crisis that we're experiencing, they are more important than ever."

Some projects on the program's supplemental list in Washington include the Kittitas Working Forest, San Juan Island National Historical Park and work in the Okanogan-Wenatchee National Forest.

References: House Resolution 2471 03/15/2022

Land and Water Conservation Fund 2022

House Resolution 1957 08/04/2020

Some 67% of New Mexicans think oil and gas development on national public lands should be stopped or strictly limited rather than expanded, according to the 2022 Conservation in the West poll. (BLM/Flickr)

Water authority looks to curb another group of water wasters — septic systems

Water Authorities push to get off Septic System

By Colton Lochhead Las Vegas Review-Journal

March 24, 2022 - 11:50 am

Updated March 25, 2022 - 8:42 am

As outlooks for water supplies on the Colorado River continue to worsen, water regulators in Southern Nevada are turning their sights to another set of water wasters.

The Southern Nevada Water Authority is looking to entice as many of the estimated 15,000 septic system users in the Las Vegas Valley to abandon their water-seeping septic tanks and hook into the municipal sewer system that recycles water back into Lake Mead that can then be reused again and again.

The initiative would aid the authority in water conservation efforts it says are needed to meet the water demands associated with the valley's continued population growth over the next several decades, according to John Entsminger, general manager of the Southern Nevada Water Authority.

"It's absolutely critical for our community to continue to drive down our demands in the face of climate change and diminishing flows in the Colorado River," Entsminger told the Review-Journal on Wednesday. "If we want to make sure we have a safe and reliable water supply, we need to make sure we continue on our water conservation journey."

Decades of drought in the Southwest and overuse of water from the river have diminished the water level of Lake Mead, which supplies roughly 90 percent of Southern Nevada's water. That prompted the federal government to declare the first water shortage for the reservoir last year.

Fighting water waste

During a legislative Interim Committee on Natural Resources meeting Monday, Entsminger told lawmakers that septic systems are one of three main consumptive water users in Southern Nevada. Outdoor use, like turf irrigation and pools, and evaporative cooling are the other two, and the authority has undertaken recent efforts to address those two factors.

According to the authority, water meter data shows that a median-sized home on a septic system consumes about 315,000 gallons of water per year that does not go back into the reclamation system. That's about 6½ times higher than a typically sized home built today that has no turf and is connected to the sewer system.

“Everything that hits the drain in Las Vegas makes it to the sanitary sewer system, gets treated and gets put back into Lake Mead, and we can serve other customers with it,” Entsminger said.

But when people on septic systems run their shower, wash a load of dishes or laundry or flush a toilet, “that water is gone to the rest of Southern Nevada forever,” he said.

The authority estimates that all homes and businesses on septic systems consume 15,000 to 16,000 acre-feet — or about 5 million gallons annually. Converting those properties to the sewer system would allow a little less than half of that water to be returned to Lake Mead.

For context, the water authority’s board has approved adding $750 million to invest into a water recycling project in Southern California that would allow it to receive another 25,000 to 30,000 acre-feet of Colorado River water per year.

Nevada normally receives 300,000 acre-feet of water annually from the Colorado River, although the first federal water shortage declaration made last fall cut the state’s allocation for 2022 by 21,000 acre-feet, or nearly 7 billion gallons.

The authority last year launched a septic conversion pilot program with limited funding but has not yet converted any septic systems to the municipal sewer systems. The authority is looking for a group of homes willing to convert together in order to maximize the impact with that limited funding.

Switching makes sense Dale Devitt, a soil and water professor at UNLV and director of the Center for Urban Water Conservation, said it makes sense to convert those systems.

“All the homes on septic, that wastewater is not being captured. That’s very valuable. It’s a one-to-one exchange,” Devitt said.

But doing so needs to be economically viable, he added. Areas where you have a high density of homes on septic would be easier and more economically efficient to connect to the sewer system, Devitt said.

At Monday’s meeting, Entsminger also told lawmakers that the authority is considering size restrictions on new pools as a way of reducing the amount of water that evaporates, limiting new pool construction to no larger than 600 square feet.

Devitt said evaporation on an open body of water, such as a pool, typically is slightly higher than the water lost by watering a lawn.

“There’s a significant amount of water being lost by swimming pools, so it makes sense to address that issue as well,” he said.

Because of the average size of most backyards for most newly built homes, the water authority believes the size restriction would mostly apply to the luxury home market.

“We have seen some pretty, in my frank opinion, offensive construction in some of the luxury home markets where we’ve seen the installation of four-and five-thousand-square-foot water features in private homes,” Entsminger told the committee.

Population up; water down

Septic systems and pools are the latest targets of the water authority as it looks to boost conservation amid dwindling Colorado River flows and as Southern Nevada’s population continues to grow. A recent forecast from UNLV’s Center for Business and Economic Research showed that Clark

County's population will swell by 1 million people by 2060 to nearly 3.4 million residents.

Since 1999, the agency has offered money to homeowners who convert their lawns to desert landscaping. The program has saved billions of gallons of water by converting more than 200 million square feet of grass.

The authority successfully pushed for a new law last year that requires the removal of nearly one-third of all grass in Southern Nevada by making it illegal to use Colorado River water to irrigate "nonfunctional turf" starting in 2027.

In December, the authority also approved two resolutions that banned the installation of grass in new developments and put a moratorium on thirsty evaporative cooling systems for new buildings.

All of this is part of the authority's plan to reduce the region's per-capita water consumption number from 110 gallons per person per day in 2021 to 86 gallons per person per day by 2035. Achieving that would allow the authority to continue to meet the region's projected population growth, even in scenarios in which the Colorado River's water supplies were to drop to just 11 million acre-feet.

Growth stressing system

But growth remains a sticking point for some.

Assemblywoman Maggie Carlton, D-Las Vegas, said during the Monday meeting that "you can only conserve to a certain level. And then it would be irresponsible to build something and not be able to hook it up."

Devitt, the UNLV professor, echoed those concerns.

"Is growth sustainable in a desert environment here in Southern Nevada?The answer is no. At some point we have to recognize that only so many

people can live here. We aren't going to be able to conserve our way out of this," he said. "We're asking people to conserve water, and that's great. But if we're not going to protect those savings, and instead allow for them to support more growth, we're only putting ourselves in more trouble."

Entsminger pointed to the authority's 50-year-plan that showed multiple supply scenarios and road maps for how the region could grow while still meeting water supply demands.

That 50-year-plan will be revised and published each year going forward. So if officials start to see evidence that the river's supplies could be even lower than the water authority's low-end projection of 11 million acre-feet due to increasing temperatures, as some studies have suggested, Entsminger said the authority would be able to give people multiple decades of warning and time to adapt accordingly.

Contact Colton Lochhead at clochhead@reviewjournal.com. Follow @ColtonLochhead on Twitter.

A reflection of the bathtub ring at Hoover Dam on Friday, June 25, 2021. (Jeff Scheid/The Nevada Independent)

Indy Environment: What kind of Colorado River should we plan for?

Good morning, and welcome to the Indy Environment newsletter.

A quick planning note: For the next few weeks, I'm focusing on reporting for a few in-depth pieces. I'll still be publishing a newsletter, but it will be a much abbreviated version.

As always, we want to hear from readers. Let us know what you're seeing on the ground and how policies are affecting you. Email me with any tips at daniel@thenvindy.com

If you received this from a friend or colleague, sign-up here to receive it in your inbox.

The West needs to plan for less water in the Colorado River: The climate science is clear on that, and so is the reality on the ground. It is evident for anyone to see, with the

what to do all revolve around a big unanswered question: Exactly how much water can the region count on moving forward? This question — of what the starting baseline should be — is important as negotiators on the Colorado River update the rules for the watershed.

At the end of last year, I wrote about the marker that the Southern Nevada Water Authority put down. At a conference in Las Vegas, the agency said it was already planning for years when only 11 million acre-feet flowed through the Colorado River, a far smaller river than the water managers had planned for over the past century. At a conference in Utah last week, this issue came up again. *The Arizona Republic*'s Brandon Loomis wrote an excellent piece about the challenging math that is facing Colorado River negotiators:

"Planning for a regular supply of just 11 million acre-feet would obliterate long-held assumptions about how much water some or all of the users thought they were entitled for future growth. Contingencies for that level could severely limit growth potential in the Upper Basin, where Wyoming, Colorado, New Mexico and Utah are far from fully developing their collective 7.5 million acre-foot share outlined by the compact."

"Those states are required to send on average another 7.5 million acre-feet downstream to the Lower Basin states of Arizona, Nevada and California, with another 1.5 million acre-feet promised to Mexico. If the states and water users agree, the Lower Basin could cut deeply into its already developed share, which many observers believe would spread the suffering more fairly. Failure to agree would leave the decision solely to the U.S. Interior secretary, or to the courts if states sue each other."

There is a lot to write about when it comes to where the watershed is heading, and I'm planning to report more on this in the coming weeks.

John Fleck, an expert on the Colorado River and a researcher at the University of New Mexico has an interesting blog post looking at some of the issues — and the three-dimensional chess of Colorado River policy — in more depth. That includes, as he writes, the deep moral and legal questions about equity, the collision course that the entire system seems to be on "as non-Indian users risk crashing the system while Native Communities have not yet had the chance to use water to which they have long been entitled."

Fleck's blog post is also worth reading from a Las Vegas perspective: He writes about how the water authority's $1 billion-plus investment in infrastructure at Lake Mead, to hedge against the low probability of the lake dropping to record lows, is paying off and means that Las Vegas is not losing access to water, even as Lake Mead drops to record lows.

"Turning on those pumps, designed to keep the water flowing to Las Vegas at the sort of elevations we're now seeing, is a huge milestone, reflecting a community that took low probability/high consequence risk seriously and invested heavily in mitigation," he writes

Sisolak convenes environmental justice team: Last week, Gov. Steve Sisolak announced a state environmental justice team to "engage in all next steps on climate change taken by the state, including the extreme heat plan. This plan will identify threats and potential solutions that will inform policymakers grappling with this hazard." Sisolak's office also announced a leadership team to help create a strategy to address extreme heat.

Bureau of Land Management staff want their federal agency to do more about climate change. *E&E News*' Scott Streater reports on a survey of federal land managers.

Nevada Gold Mines is considering a sale of the Long Canyon Mine between Wells and West Wendover. In 2020, the gold miner halted a federal permitting process to expand its operations at Long Canyon amid concerns about the effects of groundwater pumping. The Confederated Tribes of the Goshute Reservation and a coalition of conservation groups

A gold company is suspending drilling at Conglomerate Mesa: The Conglomerate Mesa Coalition reported in a press release that K2 Gold is halting drilling in an area near Death Valley National Park. *The Los Angeles Times* wrote more about the project last year.

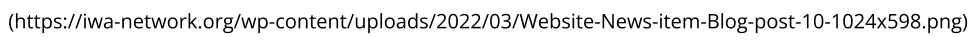
"Billionaire investor **Carl Icahn is stepping up the pressure on Southwest Gas** Holdings Inc., increasing his bid for the utility by 10%," *Bloomberg*'s Will Wade reported.

A cool finding (literally) **from UNLV researchers.**

RALPH FRANCO (HTTPS://IWA-NETWORK.ORG/AUTHOR/RALPH/) MARCH 25, 2022

Energy **(Https://Iwa-Network.Org/Thematicarea/Energy)** Technology **(Https://Iwa-Network.Org/Thematicarea/Technology)**
Urbanisation **(Https://Iwa-Network.Org/Thematicarea/Urbanisation)**

Bringing reuse water to the mainstream



Search

Population growth, urbanization and persistent drought are straining water resources in various regions around the world, while pollution and contamination compound these challenges. As this situation intensifies, water technology companies like Xylem are working to advance the conversation on sustainable water supply strategies, including the use of recycled water – or reuse water – to tackle water shortages.

The reality is that water scarcity is an issue facing communities in every corner of the world, but solutions exist to address this challenge. Advanced treatment technologies have demonstrated that wastewater can be purified well beyond drinking water standards and reused safely for both potable and non-potable purposes.

Reusing water can also have numerous economic benefits, reused water is less expensive than generating water through other technologies such as desalination, which means savings for both public utilities and citizens.

Advanced treatment technologies play key role

Advanced technologies are a key part of the foundation to support the development of potable reuse projects. New developments in oxidation-enhanced, biologically active filtration and UV disinfection are helping utilities around the world achieve reuse water quality standards, while delivering optimal performance, reliable operations and substantial energy savings.

Xylem is engaged in initiatives to build support for water reuse throughout the world:

- In **California**, advanced treatment technologies are helping to combat water shortages due to drought. For example, the Santa Clara Valley Water District is using ultraviolet (UV) light to produce recycled water for use by commercial and industrial customers, and the city of Los Angeles is incorporating UV light and chlorine in a cutting-edge advanced oxidation process to augment dwindling groundwater supplies. Xylem's ozone and biologically active filtration processes are also being provided to produce high-quality water to supplement surface water supplies in San Diego.
- Using a multi-step disinfection process, Hampton Roads Sanitation District (HRSD) in Virginia Beach, **Virginia**, implemented an innovative water treatment program called SWIFT (Sustainable Water Initiative for Tomorrow). The program puts highly treated water through additional rounds of advanced water treatment to meet strict drinking water

quality standards. SWIFT water is then added to the Potomac Aquifer to help slow and potentially reverse the shrinking of land due to withdrawal, help restore the health of the Chesapeake Bay and give the region a sustainable source of groundwater.

- In **Saudi Arabia,** a sewage treatment plant was expanded to help meet the country's ambitious target for water reuse (http://makingwaves.xylem.com/saudi-arabia-water-reuse/). An integrated wastewater treatment system from Xylem helps generate over 52 million gallons per day of treated water per day.

Expanding water reuse practices and customizing water treatment options such as Ozone Oxidation, Biologically Active Filtration, UV Disinfection and Advanced Oxidation Processes are increasingly necessary for water utilities to develop resiliency against local water challenges that range from protecting the environment to securing long-term water supply independence.

Wide-scale adoption

As climate change and continued population growth put even more pressure on already overstretched water resources around the world, water reuse applications are becoming increasingly important.

Accelerating the adoption of reuse technologies requires a combination of smart water policies and public education. As support for public policies to promote the use of recycled water and advancing technologies become more affordable, the treatment and recycling of wastewater for potable and non-potable use will continue to grow. We must spread the word that water reuse is a viable, safe and sustainable solution that will be essential to help solving the world's future water needs. Ultimately it is the water's quality that counts, and not the water's history.

Find out more about the IWA LET conference: iwa-let.org (https://iwa-let.org/)

CALIFORNIA

Newsom calls for more aggressive water conservation amid third year of drought

The lakebed is exposed at drought-depleted Folsom Lake last summer. (Brian van der Brug / Los Angeles Times)

BY HAYLEY SMITH, JONAH VALDEZ

MARCH 28, 2022 8:02 PM PT

On the heels of the driest ever start to the year in California, Gov. Gavin Newsom on Monday issued a sweeping executive order calling on local water suppliers to implement

more aggressive conservation measures as reservoirs dwindle and residents backslide in their efforts to cut back.

Specifically, the order requires that urban water suppliers activate “Level 2" of their locally customized contingency plans, meaning they must prepare for a shortage of up to 20%. The order also introduces steps to address a frenzy of well drilling in California’s Central Valley and directs state regulators to consider a ban on watering decorative grasses at businesses and public properties, among other measures.

“Everything that we can do to save water now will help us later in the year,” said Jared Blumenfeld, California’s secretary for environmental protection. “Within the context of climate change, water scarcity has become the new normal. Water scarcity — and how we treat this precious resource — has to be baked into everything that we do.”

The announcement came even as a much-needed rainstorm made its landing in Southern California, providing some relief but falling far short of a drought-busting March miracle. The latest U.S. Drought Monitor update, issued Thursday, showed nearly all of California under severe or extreme drought conditions.

CALIFORNIA

California slashes State Water Project allocation as year begins with record dryness

March 18, 2022

Local water shortage contingency plans are designed to account for up to six levels of action, depending on the severity of water shortage suppliers are experiencing, officials said. At Level 2, local suppliers can reduce the number of days that residents can water outdoors, among other things. Level 3 would be triggered by a 20% to 30% shortage and require stronger actions.

“While we have made historic investments to protect our communities, economy and ecosystems from the worsening drought across the West, it is clear we need to do more,”

Newsom said in a statement.

The announcement arrived amid mounting calls for mandatory statewide cuts — something Newsom's predecessor, Jerry Brown, did in the last drought. Water experts in recent weeks have said mandatory cuts were overdue, and The Times' editorial board last week opined that the governor's pleas for voluntary reductions were not working.

Blumenfeld said the contingency plan was an improvement on the previous blanket approach because it accounts for local needs and capabilities. Of nearly 380 urban retail water suppliers in the state, 55 are at level zero, meaning they haven't taken any action at all, and 171 are at Level 1, he said.

"What we learned from the last drought is that it's really important to listen to locals — that we live in a state that has many different hydrological zones, many different water usage scenarios, and that the 'one size fits all' doesn't really work in California," he said.

Should conditions continue to worsen, "there could be an action to move to Level 3, rather than moving wholesale to a completely across-the-board number," Blumenfeld said.

OPINION

Editorial: California's drought response isn't working. It's time to order cuts in water use.

March 21, 2022

Yet the path to Monday's announcement has already been marked by several grim milestones — including regulators' decision this month to slash State Water Project allocations from 15% to 5% because of dwindling supplies. As of Monday, statewide snowpack was 39% of average for the date. The water level in Lake Shasta — California's largest reservoir — was 49% of average.

Some experts however, say Newsom's order doesn't go far enough.

"Is Tier 2 enough for the significant, historic drought we're facing now?" asked Tracy Quinn, an engineer with the Natural Resources Defense Council. "Will that receive the amount of conservation that we need to get us through this year and what could be another dry year, or several dry years, to come?"

Some agencies, including the Los Angeles Department of Water and Power, have kept conservation plans in place since at least the previous drought, Quinn said, so she worried that Newsom's plan could allow for more business as usual.

And though the agricultural sector continues to use the vast majority of California's water, officials said the executive order does not include that sector in its scope — although they noted the number of acres fallowed is expected increase this year due to reduced agricultural water allocations.

Meanwhile, urban residents are still struggling in their efforts to save, and in fact have reached less than half of Newsom's voluntary 15% target, according to recent data.

Rebecca Kimitch, a spokeswoman for the Metropolitan Water District of Southern California, said that if certain Southern California communities don't reduce water use soon, there is "a real possibility then that the only water available would be health and human safety water, which means no water use outside at all." Kimitch said this concern applies only to communities that are dependent on the State Water Project for their water, or communities that have limited or no local supplies and that cannot receive Colorado River water. This includes parts of Los Angeles, Ventura and San Bernardino counties.

But the executive order isn't only about conservation: It also includes several key provisions to respond to and plan for worsening dryness. Among them are critical safeguards for groundwater supplies, such as prohibiting the drilling of new wells if they

interfere with existing wells nearby, or are likely to cause land subsidence that would damage nearby infrastructure.

The order also prohibits local governments from granting well-drilling permits if the proposed well is "inconsistent" with any groundwater management program established under the Sustainable Groundwater Management Act, or SGMA.

Groundwater from aquifers accounts for about one-third of the state's water supply during non-drought years, but makes up more than two-thirds of the state's supply during drought years, Natural Resources Secretary Wade Crowfoot said, so "it's really important as this drought persists that we're protecting this important source of water."

CLIMATE & ENVIRONMENT

Despite California groundwater law, aquifers keep dropping in a 'race to the bottom'

Dec. 16, 2021

Also included in the order was a call for the State Water Resources Control Board to ban the irrigation of "non-functional" or decorative turf and grass adjacent to large industrial and commercial buildings. The ban would not include residential lawns or grass used for recreation, such as school fields and parks.

According to the governor's office, that ban alone could result in potential water savings of several hundred thousand acre-feet. (An acre-foot of water serves the needs of approximately three households for a year.) But Amir Haghverdi, a professor of water management and environmental sciences at UC Riverside, said such reductions could come with significant trade-offs, such as sacrificing the cooling effect that such grass and plants may offer to communities.

Rather than a total shutoff, Haghverdi said he hoped the state could turn to more long-term solutions such as better auditing of irrigation systems to identify where water is

being wasted.

“I am pro-water conservation, but we need to understand what’s going to happen if we’re promoting water conservation,” he said.

Others applauded the move.

“It is time for us all to recognize that, with our water supplies so stressed by drought and climate change, we should no longer be using precious water to nourish grass that no one plays on, no one walks on and only serves ornamental purposes,” Adel Hagekhalil, general manager of the Metropolitan Water District of Southern California, said in a statement.

Among other actions, Newsom’s order also streamlines permitting for groundwater recharge projects, “cuts red tape” for communities that need access to emergency hauled or bottled water, and helps expedite approvals for actions to protect fish and wildlife, including threatened salmon.

Officials said the myriad measures were necessary to prepare for what the rest of the year is likely to have in store. Though January, February and March are typically the heart of the state’s wet season, the months have been historically dry in 2022.

And despite Monday’s rain, climate outlooks point toward below-average precipitation across much of the state in the days and weeks to come.

CALIFORNIA | CLIMATE & ENVIRONMENT

Hayley Smith

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Hayley Smith covers trending and breaking news for the Los Angeles Times. She previously contributed to The Times' COVID-19 project, "The Pandemic's Toll: Lives Lost in California," in partnership with the Pulitzer Center and USC. She holds a master's degree in journalism from USC.

Jonah Valdez

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Jonah Valdez is a reporter at the Los Angeles Times. Before joining The Times, he worked for the Southern California News Group, where he covered breaking news and wrote award-winning feature stories on topics such as mass shootings, labor and human trafficking, and movements for racial justice. Valdez was raised in San Diego and attended La Sierra University in Riverside, where he edited the campus newspaper. Before graduating, Valdez interned at his hometown paper, the San Diego Union-Tribune, with its Watchdog investigations team. His previous work can be found in Voice of San Diego and the San Diego Reader. When not working, Valdez finds joy in writing and reading poetry, running, thrifting and experiencing food and music with friends and family. He is a member of the 2021-22 Los Angeles Times Fellowship class.

GREENSBORO NEWS

Smart meters saving you money on your water bill

by: Tess Bargebuhr
Posted: Mar 29, 2022 / 07:36 PM EDT
Updated: Mar 29, 2022 / 07:36 PM EDT

GREENSBORO, N.C. (WGHP) — City of Greensboro Water Resource crews are working to install 108,000 water meters that will provide more immediate feedback about a customer's usage.

The new program, called GSO Waterwise, intends to reduce the amount of water customers use and save money.

“The idea behind that is that we will more wisely manage our water resources along with improving the efficiencies of our billing and field operations,” Project Lead Jeff Kimel said.

Digital readings do not require field crews to drive city streets before customers are billed for usage.

The $30 million project employs new technology to identify aging infrastructure where there might be any leaks and potential for main breaks.

Kimel said Water Resources hopes to become more proactive, letting customers know when their water is continuously running.

“Customers can get alerts and be able to see consumption data on a daily basis, and it can impact their behavior which is really what we’re looking for,” he said.

So far more than 13,000 meters have been replaced or retrofitted since a pilot program launched last spring.

“Because of COVID and some supply issues…the production has been inconsistent,” Kimel said Tuesday. “We have not been able to roll out until we can get more product that is more consistently coming into us.”

The goal is to fully launch the program before the end of 2024.

You can find more information on the program here.

Suggest a Correction

NEVADA PUBLIC RADIO®

knpr

UNR gets national grant to help solve Nevada's water needs

Associated Press

Mar 29, 2022 by Kristen DeSilva

The University of Nevada, Reno was awarded nearly $150,000 to help develop solutions to water needs in the state.

The grant of $149,923 comes from the National Science Foundation, Sen. Catherine Cortez Masto's office announced on Tuesday. It will be used to partner public, private and tribal groups for "Nevada Water," who will work on sustainable water projects.

"Nevada has endured two decades of drought, and we must prepare for continued challenges caused by climate change and a drier West," Cortez Masto said.

Her office said this new program "could help fund a regional water recycling project that will produce enough water to serve more than 500,000 households in Southern Nevada and California."

The Bureau of Reclamation in 2021 declared the first-ever shortage on the Colorado River, which means Arizona, Nevada and Mexico are getting less water than normal this year, the Associated Press reported.

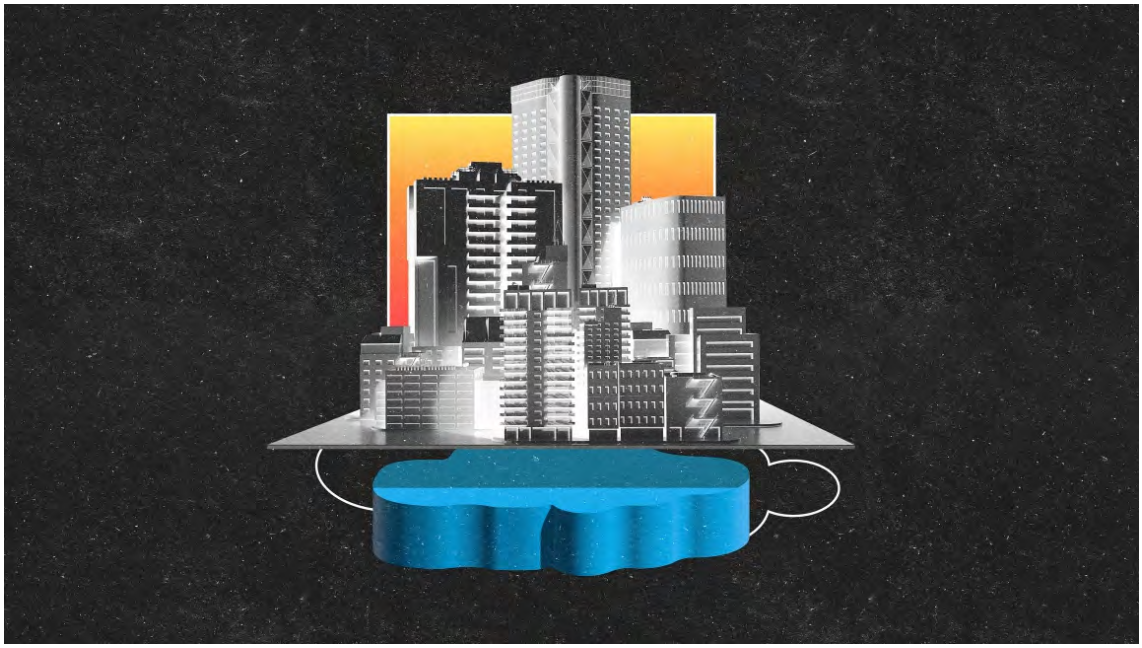
By 2025, there's a 66% chance Lake Mead, a barometer for how much river water some states get, will reach a level where California would be in its second phase of cuts.

More from: Nevada & the Southwest, Southern Nevada, drought, climate, nevada, colorado river

03-30-22

How ancient waterways could be tapped to cool scorching cities

Digitally scanning old waterways reveals new ways to cool cities impacted by climate change.



[Source Image: Huber & Starke/Getty Images]

BY NATE BERG

4 MINUTE READ

Flowing beneath the surface of cities around the world is an overlooked and sometimes forgotten resource. From Naples, Italy, to Seoul, South Korea, ancient aqueducts and buried streams make up a vascular system under the concrete, asphalt, and steel. As climate change turns up the heat, researchers argue that tapping this vascular system could be a way to cool cities from below.

But before we can tap these sources of water, we have to find them. Cool City is a multi-university effort with teams of researchers performing digital scans of urban space to unveil the often complex ways that water moves through cities. It's an effort to show how underground water can be redirected to combat

"There really are very few maps that are trying to organize all these systems together in the layered deep condition that it exists in," says Nick De Pace, a professor of architecture and landscape architecture at the Rhode Island School of Design, and one of Cool City's collaborators.

Buried streams and old waterways are not totally lost to time. Many cities have maps showing where a former creek has been shunted into an underground tunnel to make way for aboveground urban development, for example. But De Pace says many of these maps are imprecise, and the new digital scanning and mapping of the Cool City project can bring much more actionable detail to buried streams, aqueducts, and springs. By using this water to irrigate green roofs, parks, and other urban vegetation, cities can counterbalance their heat-trapping hardscapes.

[Photo: Nick De Pace/Department of Landscape Architecture, RISD]

The project was part of the Korean pavilion at last year's Venice Architecture Biennale, and its partner continue to research waterways in both Naples and Seoul. Along with a team of students and the

Naples-based Laboratorio Architettura Nomade, De Pace spent part of this past summer performing laser scans of springs and ancient aqueducts in Naples.

Using BLK2GO, a handheld imaging laser scanner from Leica Geosystems that creates a point cloud of millions of 3D data points, De Pace's team has created detailed digital models that show the city's interconnected water infrastructures both above and below ground in a way he likens to an ant farm. This 3D map makes it easier to see how buried water can be brought up to the surface or moved to different, drier parts of the city. "You have to understand it in a more complex spatial way, not just in two-dimensional flat maps," he says.

[Photo: Nick De Pace/Department of Landscape Architecture, RISD]

Revealing these water sources and infrastructures, he says, shows how water can be reused to combat the urban heat island effect, a phenomenon in heavily paved and built up cities where heat that's absorbed by structures then drives up the ambient temperature in ways that accelerate climate change.

The scans De Pace and his team made of Naples reveal natural springs, aqueducts dating to Roman times, and modern stormwater and wastewater infrastructures that braid through the city. Ancient sources high up in the mountains feed some of these systems as well.

But many historic springs and aqueducts were public-health hazards. So springs that had been used for centuries for drinking water were cut off from public use over very real fears that pandemics (like cholera) could break out. The last cholera pandemic happened less than 50 years ago, in 1973. "In some ways 1973 sealed the coffin on some of these local water sources," De Pace says.

[Photo: Nick De Pace/Department of Landscape Architecture, RISD]

But while they may not be the safest sources of drinking water, they may offer other services to a city like Naples, which has more than 40 days a year with temperatures above 86 degrees, on top of volcanic geothermal activity below its surface. The maps De Pace's team have begun creating—which are being echoed by other Cool City collaborators in Seoul—offer pathways for redirecting these unused water sources to combat the heat.

"Instead of tapping into conventional infrastructure that should be used for drinking water, you might be able to take some of those old water streams and bring them into green spaces that desperately need irrigation in the summer months," he says. "The mapping will help us understand the most efficient way of doing that."

Putting these ideas into action may take time, and likely wouldn't be cheap. Rerouting underground water is not an insignificant task, and even the straightforward daylighting of a buried stream could be a major construction project.

De Pace says making the maps and getting local officials to better understand their water resources is a good start. And the potential for this type of work goes beyond Naples and Seoul, as cities around the world struggle with rising temperatures. "The idea of developing green or blue infrastructures," De Pace says, "is clearly a best practice for how you can cool down a city."

NevadaToday

Truckee River upstream from Pyramid Lake

Gloomy water supply outlook in Nevada prompts new collaborative e ort

College of Science researcher leading one-year project to address urban and rural water issues

April 01, 2022

Mike Wolterbeek (https://www.unr.edu/nevada-today/about/authors/mike-wolterbeek)

As the drought in Nevada continues, and with a gloomy outlook for water supplies in the future, a newly funded National Science Foundation project based at the University of Nevada, Reno will bring together key players from around the state to address water issues.

"The project, Nevada Water, will develop a collaborative and inclusive partnership of water suppliers, users, policy-makers, and academics whose primary goal is to create a dynamic research, societal and education network focusing on critical urban-rural water issues across Nevada," Anne Nolin, geography professor at the University of Nevada, Reno, said. Nolin, also director of the Graduate Program of Hydrological Sciences at the University, is leading the project, which has received a $149,923 NSF grant.

Across Nevada, water users, suppliers, and policymakers are facing growing stressors including declining snowpacks, extreme weather, rapid population growth and increasing urban-rural tensions around water sustainability. The network she and her team are building will include key public, private, tribal, research, nonprofit and educational water resource partners.

"Our guiding principle is Science *With* Society, which emphasizes inclusion, communication, connections, and collaboration," she said. "The project stems from our response to an NSF call for network development around Sustainable Regional Systems, specifically focusing on urban-rural challenges.

"Nevada's water issues are unusual in that our water supplies come from groundwater and mountains, both of which are being impacted by climate change and urban growth. We saw the need to develop a robust and inclusive water-focused network of key stakeholders across Nevada and our university and non-academic partners are well-positioned to co-lead this effort."

This is a one-year planning grant during which the structure and goals for the Nevada Water network will be created. The next step is to apply for a five-year, $15 million Track 1 grant through the NSF Sustainable Regional Systems Research Network program.

"Importantly, our network will not develop policy," she said. "Rather, it is intended as a learning network where we co-identify diverse challenges, fill knowledge gaps, understand the social and hydrologic dimensions of water issues, and co-develop strategies for addressing seemingly intractable water issues."

The Nevada Water team includes Stephanie McAfee, associate professor in the University's Department of Geography and the Nevada State Climatologist; Eric Marchand, associate professor in the University's Department of Civil and Environmental Engineering and co-director of the Nevada Water Innovation Institute; Sean McKenna, executive director of the Division of Hydrologic Sciences at the Desert Research Institute; and Jennifer Edmonds, associate professor and director of the Environmental and Resource Science Program at Nevada State College.

In this one-year project, the Nevada Water partners will work together to

- identify crucial urban-rural water sustainability issues;
- discuss and frame different ways of thinking about water sustainability solutions;
- identify information, knowledge, and resource gaps need to be filled;
- develop shared visions for desirable, equitable, and sustainable water futures and
- determine would be the best network structure to address Nevada's urban-rural water sustainability challenges.

"To achieve these goals, we will form regional and thematically-based groups of partners who will prepare the nascent network for a two-day conference focused on characterizing information gaps, co-identifying water priorities, and network development," Nolin said. "Together, Nevada Water will foster new knowledge and collaboration strategies to significantly advance integration, coordination, innovation and sustainable regional systems science."

April 01, 2022

Mike Wolterbeek (https://www.unr.edu/nevada-today/about/authors/mike-wolterbeek)

CNN - National

By CNN

April 3, 2022 10:48 AM Published April 3, 2022 4:59 AM

California snowpack is critically low, signaling another year of devastating drought

CNN, KTVN, KGO, KFSN, KOVR, KRCR

By Stephanie Elam, CNN

Snowpack in the California Sierra this winter is just 38% of normal, California water officials said Friday, in the latest sign the state's drought is growing more devastating by the month.

South of Lake Tahoe at Phillips Station, where officials set out Friday to conduct the annual end-of-winter snowpack measurement, the snow depth was just 2.5 inches. The average April 1 snow depth is 66.5 inches at this location, officials said.

More importantly, that 2.5 inches of snow only contained the equivalent of 1 inch of water — a scant 4% of average for April 1, according to Sean de Guzman, an engineer with the California Department of Water Resources.

Snow typically builds up in the Sierra Nevada throughout the winter, storing precious water that later melts and drains into reservoirs in the spring. California snowpack provides 30% of the state's water, according to the Department of Water Resources.

Earlier on Friday, the National Weather Service reported an alarming statistic: the January-March period this year was the driest such period "by a huge margin" in 101 years of record-keeping at three key observing stations in California.

It’s a huge nosedive from how this winter started on the West Coast.

Climatologists were elated in December as they watched the snow pile up that month. More than 17 feet of snow fell near Donner Pass in the Sierra Nevada, breaking decades-old records.

Then, starting in January, precipitation “flatlined.” Statewide snowpack, which — at 6.5 feet — was above average in December, sank to 90% of normal. Just 9 inches of snow fell at Donner Pass in January.

State officials are preparing for water shortages this summer. California Gov. Gavin Newsom issued an executive order Monday calling on local water agencies to implement their conservation plans and urging residents to self-monitor water use. He directed the State Water Resources Board to consider a ban on watering decorative grass at businesses and institutions, according to a release from his office, but would not include residential lawns or green areas in schools and parks.

“While we have made historic investments to protect our communities, economy and ecosystems from the worsening drought across the West, it is clear we need to do more,” Newsom said.

And on March 18, the Department of Water Resources announced it was reducing the amount of water shared with municipalities by 10% as the state goes into its third year of drought.

The state had originally intended to give the different regions 15% of the water requested through the State Water Project, but will now lower that to 5%. The State Water Project is a state-owned “multi-purpose water storage and delivery system” that shares water supplies to different cities and counties, according to its website.

“We are experiencing climate change whiplash in real time with extreme swings between wet and dry conditions,” department director Karla Nemeth said in a statement at the time. “We are continuing with a series of actions to balance the needs of endangered species, water supply conservation, and water deliveries for millions of Californians.”

The-CNN-Wire

CNN’s Stella Chan and Rachel Ramirez contributed to this report.

No. We don't have enough for the last 5 years of growth.

Log in to Reply

DB says:
April 4, 2022 at 5:46 PM

As long as families insist on having more than two children, the population will increase and with it the demand for water.

Log in to Reply

Vunderfuwl says:
April 3, 2022 at 11:18 AM

2 of the 3 top stories are about California for a Central Oregon local news site. Welcome to Bendiego California!

Log in to Reply

Barney Lerten says:
April 3, 2022 at 11:37 AM

The severe drought numbers and a mass shooting are, of course, newsworthy.

Log in to Reply

Dennydizzle says:
April 4, 2022 at 7:01 AM

Define Mass Shooting Barney? How many people to classify as a "mass shooting"?

Log in to Reply

Barney Lerten says:
April 4, 2022 at 8:47 AM

what-can-be-done

Log in to Reply

eric in redmond says:

April 4, 2022 at 3:27 PM

A drought in California doesn't stay in California. Have you not read of the dire drought conditions right here in Central Oregon, the empty reservoirs we will experience this year? It's sad they graduate "F" average students these days, who go on to become ignoramus adults.

Log in to Reply

DB says:

April 4, 2022 at 5:44 PM

A number of years ago in a peer reviewed journal that if (generally) you want to know what the surrounding area will look like with global warming, just look 400 miles south. Lo and behold, it's California that's 400 miles south.

Log in to Reply

Blue Danube says:

April 3, 2022 at 2:16 PM

Why dont they just build more golf courses? It has solved our drought problem!

Log in to Reply

DB says:

April 4, 2022 at 5:48 PM

All the more reason that the state needs to revisit water rights law.

Log in to Reply

April 3, 2022 at 2:37 PM

I wonder how much the constant reporting has numbed the population into just accepting the current situation as inevitable and out of our control. We saw it with the gun issue after the murder of so many children and we saw it most recently with Covid. Now I hear people saying the "I am done with this virus thing". It doesn't matter whether the virus is done with us or not. I guess they now call it "climate fatigue". People are tired of hearing about it. So the big question is how to get people to start caring on a much larger scale? Do you report on it more often and use more dire language? Do people have to lose their homes,families and communities on a massive scale to get them to wake up? I don't know the answer but I really hope that it is not the latter. Humans have never been good at preparing for a slow moving disaster but it is time that we evolved a bit more.

Log in to Reply

Barney Lerten says:

April 3, 2022 at 2:48 PM

Interesting perspective, thanks.

Log in to Reply

LostinBend says:

April 4, 2022 at 6:32 AM

Growing up we would gather together as families each night to watch the news. We would talk about our days, discuss what's going on, and how things affected us. Ours days were productive, no news, no info, no tv throughout the rest of the day. Along came cable TV and CNN, news 24/7, then the internet, then smart phones. Now we are stimulated 24/7. Can't sleep, grab your phone. Nervous, grab your phone. Bored, grab your phone. We all crave new info, so your observation is spot on.

Throw in the fact that news has morphed. It's designed to shock, agitated, irritate, scare us. Opinions, op-Eds, half-truths, omissions, spins, and out right lies from all news networks have us turned off to "real crisis"

Welcome to cry wolf, we've been conditioned to have skepticism to news, or we are overloaded and can skip whatever we don't feel like reading.

We can never come together when we driven apart from the things we read.

Problem is each of us is convinced, we are right. There is no, you are right about

Log in to Reply

Barney Lerten says:
April 4, 2022 at 8:51 AM

Which is why we need to find ways to keep communicating across these divisive lines, and I support such efforts by groups like Braver Angels and the Bridge Alliance.
We can't rewind time or eliminate 24/7 media/social media. But we have to try to find news ways to communicate, cooperate and get tough things done through civil dialogue and compromise.
And if that's a "bias," I stand by it proudly. That and the facts. The rest I try very hard to leave to others.

Log in to Reply

LostinBend says:
April 4, 2022 at 9:44 AM

If you honestly believe what is published here is unbiased, then I don't know what else to say.

Log in to Reply

Dennydizzle says:
April 4, 2022 at 7:09 AM

Just because activist "journalists" repeat climate change over and over and over doesn't make it fact. Taxing everyone into oblivion wi not change climate change. Liberal activists have been spewing one crisis after another and they've ALL been fake. Temperatures fell between the 40's and 70's making the activist scientists for profit to claim of a looming ice age that never came, then in 77 temps rose ending those unfounded fears. Point is they've been using fear to tax everyone for years that's why no one trusts them. Climate fears over only 100 years of records when there's millions of yeats behind us. Just like they controlled you all during Y2K and every other plandemic from then on out. But hey, they're just conspiracy theories right?

Log in to Reply

April 4, 2022 at 8:12 AM

Lewlew and the likes are all complaining without offering any real solution other than of course raising taxes. What will raising taxes do, the entire European Union is already doing it for years and what have we/they achieved? All we/they did was exported all manufacturing jobs to China making it the biggest CO2 emitter and polluter in the world by FAR. They keep pushing the bogus zero emission EVs around conveniently dismissing the fact that the manufacturing process of those vehicles causes a magnitude higher damage to the environment and on top of it makes us vulnerable to the biggest battery manufacturer, China. Why don't we see hydrogen powered concept vehicles and see which one is more viable? Why the government only subsidizing EVs? Or should all of us go back and live like cavemen? Why aren't the climate change advocates lead with example and cut back on their on footprint.
Until these so called leaders dare to fly to these "climate change" conferences with private jets they should just shut their mouth.
https://www.forbes.com/sites/oliverwilliams1/2021/11/05/118-private-jets-take-leaders-to-cop26-climate-summit-burning-over-1000-tons-of-co2/?sh=52d1555a53d9

Log in to Reply

shastabo says:

April 4, 2022 at 9:47 AM

When you have a large group of people who believe Trump's "Chinese Hoax" theory then we will not move forward in stopping the climate change problem. Each and every person needs to change their way of thinking. We no longer need to buy combustion engines in our next car, lawn mower, chain saw etc. Recycle everything that you can. Reduce the amount of plastic you use and buy. Grow a vegetable garden. Eat less meat or none at all. Plan your trip to town so that you get 3 or 4 projects done so you save time and gas money. Be conservative in how you use water. Water your plants with excess tap water. Stop new housing developments and golf courses. More people means more water usage. We have less water every year and the planet is heating up at an ever increasing pace.

Log in to Reply

citizen sane says:

April 4, 2022 at 11:07 AM

👍

Dennydizzle says:

April 4, 2022 at 12:40 PM

Trumps Chinese hoax says it all. We can all do better agreed. Mass taxation is not the way. Mass taxation is why we have a huge transient problem. They have given up on life. Tired of working just to have everything they work for taken from a greedy population and government. Quit voting for your feel good programs and we're tired of paying for them.

Log in to Reply

highspeed lowdrag says:

April 4, 2022 at 1:35 PM

The vast majority of our taxes over the last 50 years have gone to the defense budget. What we have been taxed to address "climate change" is spit in a bucket.

Log in to Reply

Leave a Reply

You must be logged in to post a comment.

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National Oceanic and
Atmospheric Administration
U.S. Department of Commerce

A warm, dry March worsened record drought conditions in the West

Severe weather battered parts of the U.S.

Focus areas: Climate, Satellites
Topics: monthly climate report , climate data , climate change , drought , severe weather

April 8, 2022

Tumbleweeds collect on the banks of Lake Powell on March 28, 2022 in Page, Arizona. As severe drought grips parts of the Western United States, water levels at Lake Powell have dropped to their lowest levels since the lake was created by damming the Colorado River in 1963. Lake Powell is currently at 25% of capacity, a historic low, and has also lost at least 7% of its total capacity. The Colorado River Basin connects Lake Powell and Lake Mead and supplies water to 40 million people in seven western states. (Justin Sullivan/Getty Images)

March 2022 marked the third month in a row where precipitation was below average across the contiguous U.S., which led to an expanding drought and areas of record dryness throughout the West.

March also brought several rounds of severe weather that pounded parts of the nation.

Below are more takeaways from NOAA's latest monthly U.S. climate report:

Climate by the numbers

Year to date (January through March 2022)

The average contiguous U.S. temperature for the year to date was 36.3 degrees F (1.2 degrees above average), which ranks in the middle third of the record.

The year-to-date average rainfall was 5.66 inches — 1.30 inches below average— ranking as the seventh-driest January-March period for the U.S. on record.

The current multi-year drought across the western U.S. is the most extensive and intense drought in the 22-year history of the U.S. Drought Monitor. Across some parts of the West, precipitation for the first three months of 2022 was at or near record-low levels.

During March, drought coverage across the contiguous U.S. reached 61% — the largest observed extent of drought since fall of 2012. With below-average snow cover and critically low reservoirs in some places, concerns are mounting that the western drought will continue to intensify and strain water supplies.

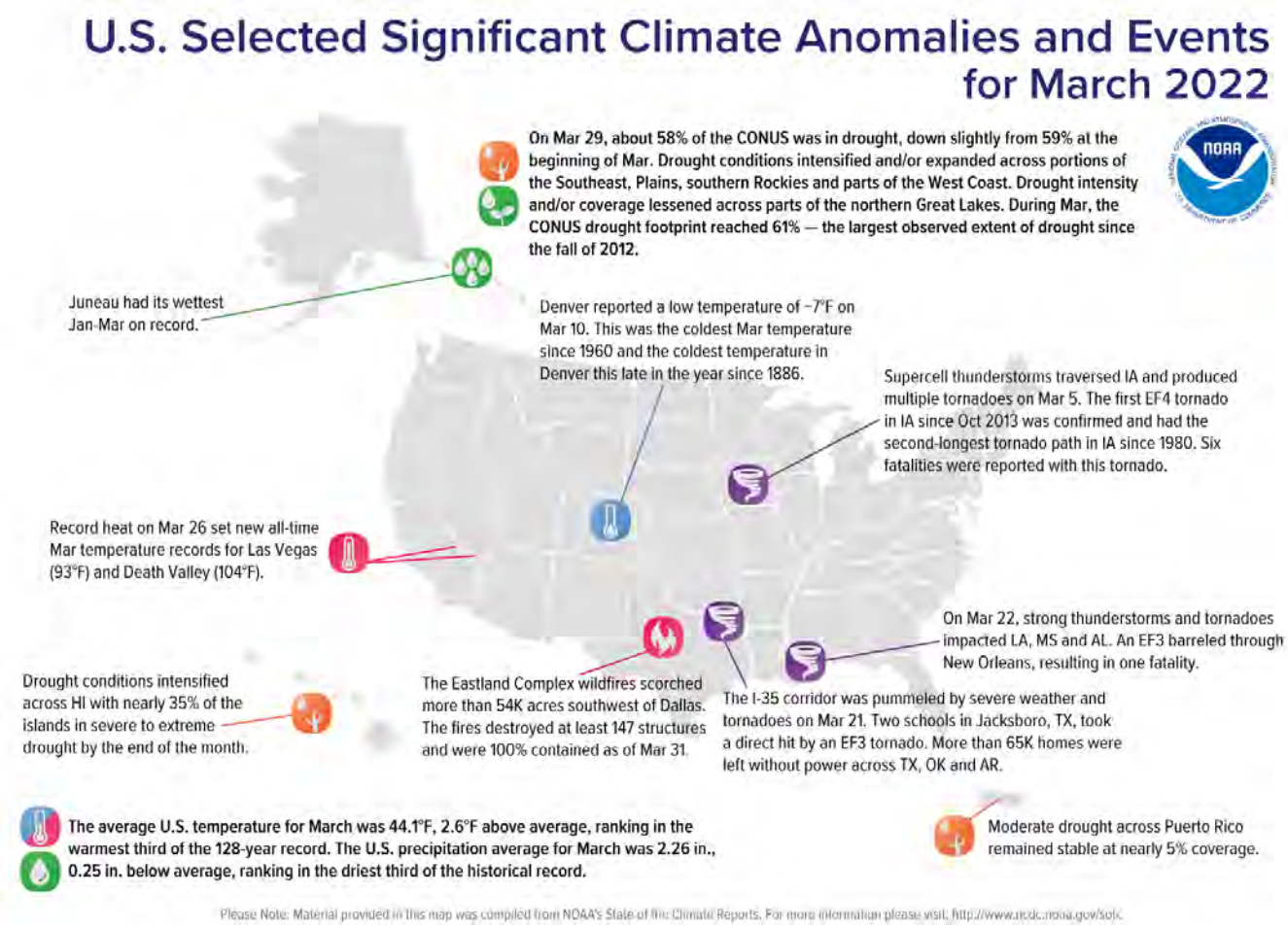
March 2022

The average monthly temperature across the contiguous U.S. was 44.1 degrees F (2.6 degrees above the 20th-century average) and ranked in the warmest third of the 128-year climate record.

Temperatures for the month were warmer than average across much of the West, and from the Midwest to the East Coast. Alaska also saw above-average temperatures across much of the state, with Anchorage and Talkeetna both reporting a top-10 warm March.

The average precipitation in the contiguous U.S. last month was 2.26 inches (0.25 of an inch below average), ranking in the driest third of the climate record.

Precipitation was below average across much of the West, northern and southern Plains, and from the Tennessee Valley to the Mid-Atlantic and parts of the Northeast. Above-average precipitation fell from the central Plains to the Great Lakes, as well as across parts of the Deep South and Southeast. North Dakota saw its seventh-driest March on record, while Michigan had its eighth wettest.



A map of the United States plotted with significant climate events that occurred during March 2022. Please see the story below as well as the full climate report highlights at http://bit.ly/USClimate202203. (NOAA NCEI)
Download Image

Other notable climate events in March

- **Tornadoes took a toll:** Several severe weather outbreaks produced strong and damaging tornadoes last month. On March 5, supercell thunderstorms produced at least 13 confirmed tornadoes across Iowa, including a confirmed EF4 tornado in Winterset. From March 21-22, severe weather and tornadoes were reported from Texas to Alabama, including an EF3 tornado that substantially damaged two schools in Jacksboro, Texas; an EF3 tornado that ripped through the New Orleans metro area; and a severe weather outbreak impacted the Gulf Coast states from March 30-31, with at least 14 tornadoes and two fatalities.

- **Billion-dollar disasters update:** So far in 2022, no billion-dollar weather and climate disasters have been confirmed, although several events are currently being evaluated. An updated analysis based on a 2022 Consumer Price Index adjustment calculates that the U.S. has sustained 323 separate weather and climate disasters since 1980, where overall damages and costs reached or exceeded $1 billion. The total cost of these 323 events exceeds $2.195 trillion.

More > Access NOAA's latest climate report and download the images.

Media contact

John Bateman, john.jones-bateman@noaa.gov, (202) 424-0929

Last updated April 8, 2022

45° 58° 57°

City of Redding preparing to move into stage 2 of water conservation

by Ashley Gardner
Thursday, April 7th 2022

A sprinkler is seen watering a lawn (FILE - KRCR)

REDDING, Calif. — The City of Redding Water Utility is preparing to ask the city council to move into stage two of water conservation in response to drought conditions.

According to Water Utility Manager Josh Watkins, the city is working to add the topic to the April 19 city council agenda.

ıge Contingency Plar 45° 58° 57° Stage to comply with the r certain non-essential water uses provided in Section 14.09.050(B) in response to the imposition of mandatory water use restrictions between ten percent and twenty percent imposed by the State of California, or where a water supply emergency is declared and the city manager determines that this stage is appropriate to address the emergency."

If the city moves into stage two residents will be asked to take the following conservation steps:

- Landscape watering by any means including automatic irrigation systems, hose-end sprinklers, drip irrigation, hand-held hose, or bucket is prohibited except on the following days between the hours of midnight and 7:00 a.m. and again on the same day between the hours of 9:00 p.m. until midnight.
- Customers whose street addresses end with an odd number may water only on Wednesday, Friday, and Sunday and only within the permitted time period.
- Customers whose street addresses end with an even number may water only on Tuesday, Thursday, and Saturday and only within the permitted time period.
- Public Facilities: Water service to landscape maintenance districts, parks, cemeteries, and other public facilities shall comply with the restrictions set forth in Section 14.09.050(A)(1).
- Construction Projects: Water service for construction projects shall be addressed on a case-by-case basis.
- Penalty: Any customer in violation of Stage 2 requirements shall be first notified of the regulations and warned of the penalty associated with continued violation. If the violation is not timely corrected, any continued violation of mandatory Stage 2 requirements after notice and warning is provided shall be punishable by an administrative fine of fifty dollars per day or per occurrence.

According to updated information released by the U.S. Drought Monitor Thursday, most of Shasta County is experiencing Extreme Drought.

Late 2021 storms account for nearly all of 2022 snowpack

October and December storms to thank for nearly all our area's snow

The fence around the snow pillow at the Mt. Rose SNOTEL site was visible on April 4th, following 3 very dry months. (staff)

By Ben Deach

Published: Apr. 4, 2022 at 3:02 PM PDT

INCLINE VILLAGE, Nev. (KOLO) - The fence around the snow pillow at the SNOTEL site near Mt. Rose summit that is usually buried in the snow was visible on Monday, showcasing just how dry this year has been.

"We've already lost about a third of the snow this year at our SNOTEL sites," explained hydrologist Jeff Anderson of NRCS.

At the Mt. Rose site the snow was 55 inches deep, with 24 inches of water content – about 70% of normal for this time of year.

"Our water year precipitation percentages were close to a normal amount, but it all came in October and December," said Anderson.

Despite the lack of precipitation in 2022, water usage can go on as normal.

"It's not in great shape but there is still enough water in there to provide normal river flows throughout the summer months," said Bill Hauck of TMWA.

Hauck provided the best news of the day, saying that through efforts made in recent years, our ability to store water in the Truckee Meadows has never been better.

"In fact by the summer will have more water in storage than we've ever had," Hauck mentioned.

And as for Lake Tahoe, Hauck says it sits about a foot above the rim and it isn't expected to get much higher.

Most Read

PPIC | PUBLIC POLICY INSTITUTE OF CALIFORNIA

BLOG POST · APRIL 4, 2022

Water Trading Can Help California's Struggling Freshwater Ecosystems

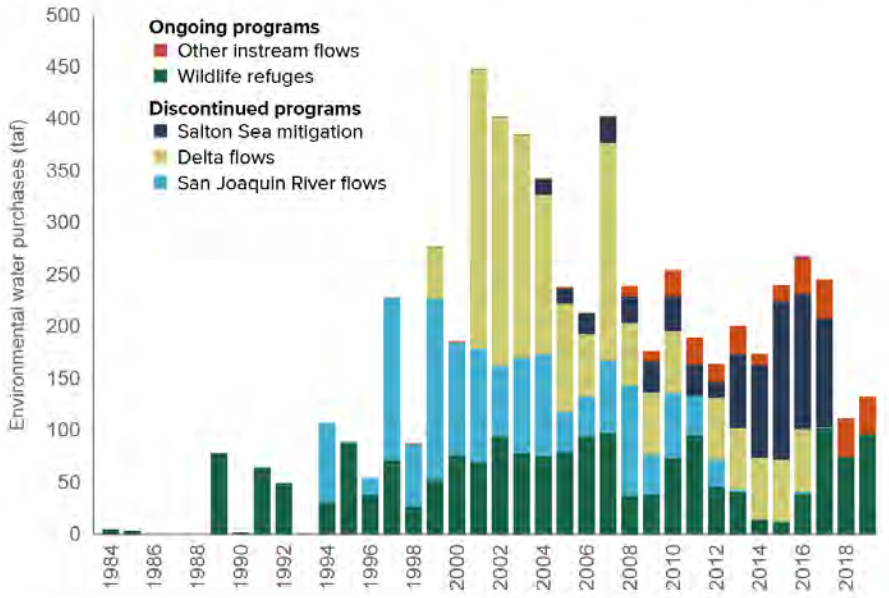
Ellen Hanak and Gokce Sencan

Adding more water to rivers, wetlands, and streams at key times can support California's struggling native fishes and birds. Regulation is one way to do this, by requiring water users to leave a certain amount of water instream. A complementary approach is water trading. Paying water users to make water available can enhance the environment while reducing conflict over the allocation of scarce supplies. Despite trading's promise, however, there are questions about the path forward.

What Do Environmental Water Purchases Buy—and Who Pays?

Purchasing water to improve ecosystems (e-water) started in the 1980s, and gained significant momentum in the 1990s (Figure 1). From 1984–2019, some 6 million acre-feet (maf) of e-water were acquired, about a quarter of all purchases on California's water market. In today's dollars, almost $775 million went to this effort, with nearly half from state and federal taxes, and the remainder from surcharges on water use. But e-water purchases peaked in the 2000s, and by 2019 they were lower than any time since the late 1990s.

Figure 1: Annually traded environmental water volume over the years



SOURCE: Sencan and Hanak, *California's Water Market, By the Numbers: Update 2021* (PPIC: 2021)
NOTES: Taf is thousand acre-feet. See text for a description of the different programs.
FROM: PPIC Blog, April 2022.

The decline reflects the expiration of several large programs (and the associated funding):

- **San Joaquin River ows** (23% of all e-water purchases) ended in the early 2010s and was funded by water users, through the Central Valley Project Improvement Act (CVPIA) restoration fund.
- **Delta ows** (29% of purchases), known as the Environmental Water Account, acquired water for endangered salmon and smelt in the Delta watershed and expired in 2016. State and federal taxpayers provided funding.
- **Salton Sea mitigation** (13% of purchases) offset salinity increases in the Salton Sea caused by Imperial County farmers' water transfers to coastal urban cities. Funded by the trading parties, it expired in 2017 when the state took over responsibility for mitigation.

Relaunching these e-water purchases could support important goals. A newly-announced cooperative agreement for the Delta watershed proposes transfers to improve conditions for fishes. And though not currently on the table, transfers could help protect habitat and public health in the Imperial Valley.

The two ongoing e-water purchase programs are quite distinct in size and scope:

- **Wildlife refuges** (30% of purchases) boosts supplies to Central Valley wildlife refuges—a key resource on the Pacific Flyway. After some initial state support, the CVPIA restoration fund has been the main funder.
- **Other instream ows** (5% of purchases) permanently dedicates water rights to the environment with permits from the State Water Board under Section 1707 of the Water Code. Projects are small and local; philanthropic organizations and NGOs typically raise the funds.

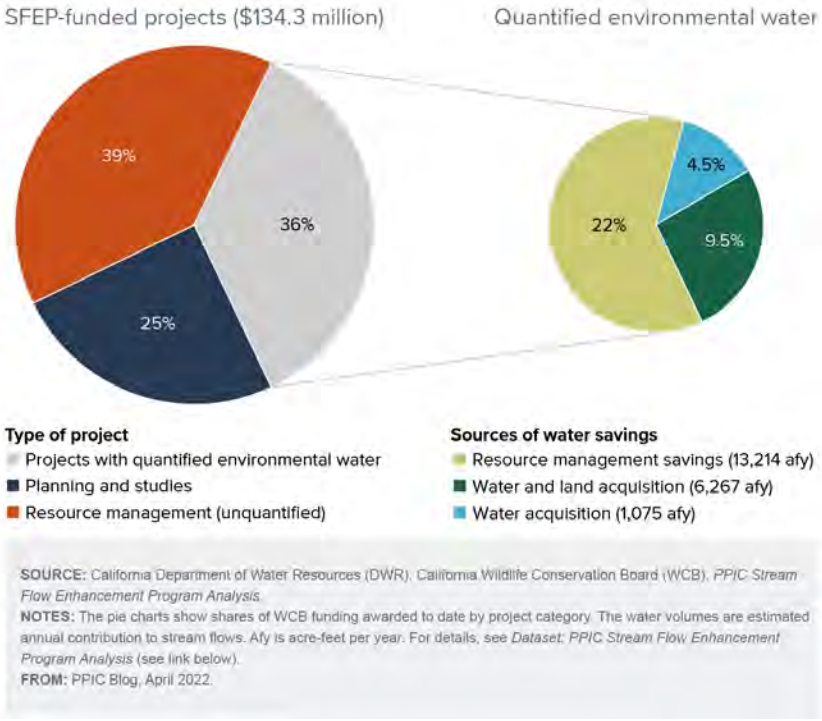
A New Model for Enhancing E-Water?

Most past state funding for e-water came from water bonds, and it mainly went toward short-term (single-year) purchases. Designers of Proposition 1, a bond approved in 2014, tried something new by earmarking $200 million for a Stream Flow Enhancement Program (SFEP) at the Wildlife Conservation Board (WCB).

In spirit, the SFEP is in line with the broad-based instream flow approach (the orange bars in Figure 1); applicants seek grants to directly enhance flows, or to plan and study opportunities. The program focuses on long-term (20 years minimum) or permanent improvements.

With 128 projects and nearly $135 million awarded to date, the data reveal some surprises (Figure 2). First, acquisition of e-water—either on its own, or in conjunction with land—makes up a relatively small share of awards (14% of funds). Instead, the lion's share (61%) supports resource management projects that enhance flows in other ways—such as storage that shifts flow timing, and urban conservation and restoration efforts that will save water (e.g., clearing arundo—a thirsty, invasive riparian plant). The remainder (25%) goes to planning and studies.

Figure 2: Projects funded under the Stream Flow Enhancement Program (SFEP)



SOURCE: California Department of Water Resources (DWR), California Wildlife Conservation Board (WCB), *PPIC Stream Flow Enhancement Program Analysis*.
NOTES: The pie charts show shares of WCB funding awarded to date by project category. The water volumes are estimated annual contribution to stream flows. Afy is acre-feet per year. For details, see *Dataset: PPIC Stream Flow Enhancement Program Analysis* (see link below).
FROM: PPIC Blog, April 2022.

Stakeholders told us that the pivot towards more flexible resource management solutions reflects challenges with outright e-water acquisitions under the SFEP. First, the Section 1707 permitting process to acquire an instream water right can be both costly and cumbersome—especially for small transfers. Second, many potential water sellers are just beginning to explore e-water transfers and aren't ready for permanent sales. Permanent transfers are generally rare in California's water market, so e-water marketing is no different.

Water savings from some efforts (e.g., arundo clearing) are hard to quantify. Where it could quantify savings, the WCB estimates that e-water enhancements, once completed, will total roughly 21,000 af per year (Figure 2). Since these projects last for at least 20 years, they come at a similar unit cost to the e-water purchases described above (Figure 1)—averaging $115–$130 per acre-foot per year.

Looking Ahead

Water acquisitions can help struggling ecosystems, and sustained funding from both water users and the state is key. Compared to past state funding for e-water, the SFEP represents a significant—and growing—opportunity: it received $100 million from the General Fund last September, and another $150 million is proposed this year. But the program should facilitate more acquisitions, because options for growing the water pie through resource management actions are often limited. Several changes could help, including flexibility to allow shorter-term purchases and a streamlined 1707 permitting process. Finally, to scale up impact, it will be important to encourage larger projects—and coordinated projects within watersheds. The legislature and the two key state agencies—the Wildlife Conservation Board and State Water Board—should lead this work.

To see the full dataset on SFEP Proposition 1 funding, PPIC Stream Flow Enhancement Program Analysis, please click here.

TOPICS

Drought | Floods | Freshwater Ecosystems | groundwater sustainability | Paying for Water | Safe Drinking Water | San Joaquin Valley | SGMA | Water Supply | Water, Land & Air

reno gazette journal

VOICES | Opinion *This piece expresses the views of its author(s), separate from those of this publication.*

Promises, promises, promises | Kristopher Dahir

Kristopher Dahir

Published 7:00 a.m. PT March 30, 2022 | **Updated 12:21 p.m. PT April 5, 2022**

This opinion column was submitted by Kristopher Dahir, Republican candidate for Nevada secretary of state. His campaign website is kdahir.com.

There are few things that frustrate me more than people claiming to be able to do something they have neither the authority nor ability to do. This race for secretary of state has been filled with many conversations, quite a few poisonous spears, and a great many promises made that simply cannot be accomplished by those making them.

Does the secretary of state or its office make law? No. Therefore, it is at best misleading for one to say, “On Day One of taking the office of Secretary of State we will remove voting machines.” I completely understand the frustration that my fellow Republican candidates and many other voters have about the sweeping voting laws that were passed by overpowering Democrat legislation. However, finding the answers to some of these questions and providing a balance to many of these practices will require a secretary of state who is able and willing to work with the legislators and the county clerks that are elected and assigned. In short, it will require a skilled leader with proven results to step in and bring resolve.

My name is Kristopher Dahir and I have served our Washoe County region, the Clark County region and this great state in many different capacities over the last 30 years. Between pastoring churches of all sizes, leading private education from elementary through higher education for 20 years, serving as an elected official as a city councilman for the City of Sparks for six years and working very closely with our veteran community as a chaplain and advocate, I have learned that leadership principles and integrity are the foundational base to accomplish anything that is lasting. I am a lifelong conservative and have stood for valuing the life of the unborn, strongly believe in responsible parent-involved education and a have an ongoing commitment to honor our veterans and first responders. I share these examples with you in hopes that you see that my life experience and focus has prepared me for the season we are in right now. There are so many questions being asked about voting, business and leadership

roles in general. The answers to these questions begin with having an honest dialogue with a skilled and trained elected official who is ready to represent you — a state leader who has lived and served in both southern and northern Nevada.

My commitment to you:

To be honest and forthright in each conversation
To stand for truth, even if others do not
To work diligently to assure that all divisions of the SOS office run well and are focused on customer service
To assure that every election in the state has the oversigh that is expected by the citizens of this great state
To work with all elected officials and staff regarding voter ID and remove ballot harvesting
To be an advocate for all businesses on a state level as we recover from the pandemic
To protect our seniors and others from being targeted for securities fraud

Leadership, integrity, trust

Leadership is not a word that should be thrown around or given to anyone just because they have a title or desire a title. The type of leadership needed for this position is one that has been tested with practical experience, anchored by strong principles, and possess proven effectiveness. This goal can only be achieved when personal integrity is lived out in a practical daily discipline. The combination of this type of integrity infused with this kind of leadership will result in the trust needed to answer the questions and meet the concerns currently facing us.

Below is a list of areas where I personally serve and have served our community:

Elected as a City of Sparks city councilman and serving in my second term. As a city councilman we serve our city and our region, assuring safety and helping to create a community to be proud of.
Serve as vice chair of Truckee Meadows Water Authority and Western Regional Water Commission for five years.
Helped create and serve on our Community Homelessness Advisory board
Currently serve as president of the Nevada Veterans Memorial Plaza being built at the Sparks Marina. This is a statewide memorial honoring all military whose lives were taken while in battle since we became a state. We have 896 names to honor and thank for the freedom we enjoy every day

President of Nevada League of Cities for 2020-2021. In this capacity, I work across the state with all mayors and city council helping to represent what is best for all cities, towns, and villages in the state of Nevada. We bring our message to both Carson City and Washington, D.C.

Vice chair for 2 years of the Community and Economic Development across the country with the National League of Cities

Led and managed private education for over 20 years. Cornerstone Christian Academy in Las Vegas, and Excel Christian School in Sparks.

Led and managed businesses from restaurants to churches; pastoring churches of all sizes for over 30 years.

I am Kristopher Dahir and I ask for your support and for your vote. I have served our region in many capacities, and I hope to be a voice for you at the state level. I have been married to my lovely bride Melissa for 29 years and we have two grown children that have been raised right here in the state of Nevada. We are truly excited to accept the title of grandparents as our granddaughter will join the world in September.

Please reach out at kristopher@dahir.net or visit my website at kdahir.com.

Have your say: How to submit an opinion column or letter to the editor

KUNR Today: New network aims to connect water stakeholders, Nevada gets $89 million for transit

KUNR Public Radio | By Mountain West News Bureau, Bert Johnson, The Associated Press, Michelle Billman

Published April 7, 2022 at 12:17 PM PDT

The Truckee River upstream from Pyramid Lake

Read or listen to the news headlines for Thursday, April 7, 2022.

New network aims to connect a variety of stakeholders on water issues
By Bert Johnson, Mountain West News Bureau

As our region grapples with ongoing drought, a new network of water users and land managers could be a model for other states in our region.

The latest research indicates drought conditions could be the new normal in the Mountain West, which means historical trends won't be very helpful in planning water use for the future, but a new program at the University of Nevada, Reno could be a model for how to frame those conversations and make sure no one goes unheard.

Anne Nolin teaches at the university. She said Nevada Water will bring together all of the groups that use water, provide it to cities and towns, or have water rights in the state.

"It includes them in a way that is about learning from them, rather than explaining from a science perspective to them," she said.

Nolin said they plan to give tribal communities a seat at the table, too. By combining Indigenous knowledge with modern science, the network could address problems that already exist in the driest state in the country. Nolin said for the plan to work, they'll need to create mutual trust among all of the group's members. If they can manage that, she said the network can help mitigate problems around water use.

Nevada getting $89 million from federal Bipartisan Infrastructure Law
By Michelle Billman

Nevada is receiving more than $89 million for public transportation projects as part of the Bipartisan Infrastructure Law. Overall, the law is investing more than $20 billion in modernizing and expanding transit systems nationwide.

Reno will be getting $11.6 million and the Las Vegas area is getting $59 million. Just over $4 million will go to the Lake Tahoe region. According to a statement from Senator Jacky Rosen's office, these funds will help transportation agencies modernize their fleets, including transitioning to technologies that use clean energy.

Exhibit in Reno depicts Holocaust survivor stories
By Michelle Billman

An exhibit sharing accounts of survival during the Holocaust is now open at the Northwest Reno Library. The "How Did You Survive?" exhibit displays the stories of 50 people who lived through the Holocaust. Many of them are residents of Nevada.

This programming is sponsored by the Nevada Governor's Advisory Council on Education Relating to the Holocaust and also includes movie screenings, story times, and virtual reality tours of the Anne Frank house. The exhibit will be open until the end of May. Learn more here.

New Mexico approves inflation relief funds for residents
By Emma Gibson, Mountain West News Bureau

New Mexican lawmakers approved sending economic relief to about 1.4 million residents to counter rising costs in the state. That mirrors other efforts across the Mountain West.

The high cost of fuel drove New Mexican lawmakers to approve payments to its residents. The bill includes two tax rebates totaling $500 to $1,000 for income tax filers. It also provides relief for non-tax filers. State Representative Christine Chandler is a sponsor of the bill.

"We should not be viewing this economic household relief as simply focused on vehicles but it is the wide array of economic challenges that our citizens are facing right now," said Chandler.

In February, U.S. senators from Nevada and Arizona introduced a bill to suspend the federal gas tax. The governors of New Mexico and Colorado have voiced their support of the bill.

Nevada official: Missing Indiana couple found after man dies
By The Associated Press

A sheriff's official says an Indiana couple missing for about a week has been found in a remote mountain area of southern Nevada, but the husband was dead and the wife was taken to a hospital. Mineral County Undersheriff Bill Ferguson said 72-year-old Ronnie Barker and 69-year-old Beverly Barker were found with their car late Tuesday afternoon after being stuck for about a week in the Silver Peak area of Esmeralda County.

Ferguson said search and rescue personnel from Mineral County, one of several counties involved in the search, located the couple, and a military helicopter airlifted the woman to a Reno hospital. The couple had been traveling from Oregon to Arizona.

Hearing Friday for Nevada man jailed in kidnapping, killing
By The Associated Press

A rural Nevada man accused of kidnapping and killing an 18-year-old Fernley woman last month is scheduled to go before a judge Friday to be arraigned on the murder charge and determine whether he should be held in jail without bail until trial.

Lyon County prosecutors filed an amended complaint Tuesday charging Troy Driver of Fallon with first-degree murder, kidnapping, destroying evidence and other charges in the death of Naomi Irion of Fernley. He's been jailed on $750,000 bail in Fernley since he was arrested March 25 for kidnapping. Irion's body was found four days later in a remote, high-desert grave just across the Churchill County line.

No return to normal: Low mountain snowpack reflects the West's grim climate outlook

KUNR Public Radio | By Bert Johnson

Published April 8, 2022 at 2:17 PM PDT

Bert Johnson / Mountain West News Bureau

Jeff Anderson, a hydrologist with the Natural Resources Conservation Service, says the rst three months of 2022 were the driest on record.

As historic levels of drought persist across the Mountain West, water officials in Northern Nevada are warning that peak fire conditions might appear sooner this year than in the past – and at least one rural reservoir is so dry it can't provide water for irrigation.

As the wet season comes to an end, scientists with the U.S. Department of Agriculture are warning that the dry winter across the Mountain West broke records for its meager mountain snowfall.

"January, February, and March this year added up to the lowest precipitation for those three months that we've ever seen at SNOTEL sites, going back to the early '80s," said Jeff Anderson.

SNOTEL – short for snow telemetry – is the automated system that tracks how much water is stored in hard-to-reach areas like the eastern Sierra Nevada mountains. That's where Anderson, a hydrologist with USDA's Natural Resources Conservation Service, measures seasonal snowpack.

Anderson's final report for the season shows snow levels between 46-66% of the median for this time of year across Nevada – and melting faster than in recent years, thanks to unusually warm weather. According to national data, parts of Idaho, Montana, Wyoming, Utah and Arizona had less than three-quarters of their historical median snow levels.

"The conditions that we have here are not unlike other parts of the West," Anderson said. "It was a below normal year."

He says that's partially because La Niña conditions over the Pacific Ocean created a stubborn ridge of high pressure that pushed winter storms away from much of the Mountain West

"The storms go somewhere, they don't just dry up completely," Anderson said. "And so I think the storm track was just a lot further north this year than what would have benefited us."

According to a recent study, much of the world will enter a permanent state of drought in the 21st century – including the Mountain West. Since baseline climate models are changing, the report's authors say the definitions of extreme weather need to be updated.

“Essentially, we need to stop thinking about returning to normal as a thing that is possible,” said Samantha Stevenson in a written statement. Stevenson studies climate modeling at the University of California, Santa Barbara and led the study.

But around Reno, at least, Bill Hauck with the Truckee Meadows Water Authority says residents will still have plenty of water in the next year.

“We’re going to have basically normal Truckee River ows through the summer months and past our peak demand season,” he said. “We’ll actually be able to continue providing our customers with the same reliable supply of high-quality drinking water we always

Not every Nevada community is quite so lucky. The Rye Patch Reservoir, which supplies irrigation for farmers in rural Lovelock, Nevada, is too low to provide any water at all. And those in Nevada and surrounding states who rely on water from the Colorado River are also feeling the pinch. One of the system’s major reservoirs, Lake Powell, dropped to critically low levels in March.

Meanwhile, researchers at the University of Nevada, Reno were recently awarded a grant to help establish a statewide network that will bring together groups that use water, utilities that provide it to cities and towns, and owners of water rights in the state.

Anne Nolin teaches at UNR and says Nevada Water will seek input from tribal communities, too.

“It includes them in a way that is about learning from them, rather than explaining from a science perspective to them,” she said.

Nolin hopes that by combining Indigenous knowledge with modern science, the network could address the problems that already exist in Nevada, which is the driest state in the country.

In the near term, Jeff Anderson with the USDA expects the poor snowpack to allow forests to dry out more quickly, raising the risk of large wildfires. Over the last several years, megafires have torn through parched California woodlands and choked the air with hazardous smoke. For example, the Caldor Fire last year burned more than 22,000 acres near Lake Tahoe, about an hour’s drive from downtown Reno.

“The forest is going to have for a longer period of time to dry out this summer,” Anderson said. “I think that should be, you know, a concern for us.”

This story was produced by the Mountain West News Bureau, a collaboration between Wyoming Public Media, Nevada Public Radio, Boise State Public Radio in Idaho, KUNR in Nevada, the O'Connor Center for the Rocky Mountain West in Montana, KUNC in Colorado, KUNM in New Mexico, with support from affiliate stations across the region. Funding for the Mountain West News Bureau is provided in part by the Corporation for Public Broadcasting.

Bert Johnson

Bert is KUNR’s Mountain West News Bureau reporter. He covers stories that resonate across Nevada and the region, with a focus on environment, political extremism and Indigenous communities.

See stories by Bert Johnson

37° 50° 55°

Clean Up the Lake expects to remove all Tahoe nearshore trash by end of April

by Jenee' Ryan
Monday, April 11th 2022

Search Site

Clean Up the Lake workers expect to be done removing all underwater litter and debris from Lake Tahoe's entire 72-mile nearshore by the end of April, with only 6.9 miles of California shoreline left to tackle. (Clean Up the Lake)

Clean Up the La
; from Lake Tah 37° 50° 55° the end of April, with only 6.9 miles of California shoreline left to tackle.

"All we need is a break in this storm system and really, we'll be finished in no time," said Colin West, founder and executive director of Clean Up the Lake.

All 28 miles of Nevada's side of the lake was cleared with divers removing 16,000 pieces of trash weighing 12,756 pounds.

Ahead of Earth Day, Governor Sisolak sorted through some of that trash collected off of Nevada's shoreline.

"It's just really disappointing," he said. "Some of it is accidental; an anchor comes off a boat, that you can understand, but pulling out 20 tires in one day is not an accident. Somebody dumped the tires there."

In total, divers have collected 21,000 pounds of trash out of Lake Tahoe as of April 11, 2022.

The nonprofit group is also working with to figure out the most common types and sources of trash found in the lake to come up with prevention strategies and management solutions.

> ***"This lake is one of the most pristine places in the world and we need to do everything we can to protect that for the future generations," said Nevada Governor Steve Sisolak.***

The Tahoe Fund, Tahoe Blue Vodka and Nevada Division of State Lands (from Lake Tahoe License Plate proceeds) have helped fund the clean-up project.

The partnership between the state of Nevada and Clean Up the Lake will continue with more projects to protect the lake past the big clean-up.

Loading ...

No return to normal: Low mountain snowpack reflects the West's grim climate outlook

KUNR Public Radio | By Bert Johnson

Published April 11, 2022 at 7:59 AM MDT

LISTEN • 1:01

Bert Johnson / Mountain West News Bureau

Jeff Anderson, a hydrologist with the Natural Resources Conservation Service, says the first three months of 2022 were the

As the wet season comes to an end, scientists with the U.S. Department of Agriculture are warning that the dry winter across the Mountain West broke records for its meager mountain snowfall.

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“Essentially, we need to stop thinking about returning to normal as a thing that is possible,” said Samantha Stevenson in a written statement. Stevenson studies climate

But around Reno, at least, Bill Hauck with the Truckee Meadows Water Authority says residents will still have plenty of water in the next year.

“We’re going to have basically normal Truckee River flows through the summer months and past our peak demand season,” he said. “We’ll actually be able to continue providing our customers with the same reliable supply of high-quality drinking water we always do.”

Not every Nevada community is quite so lucky. The Rye Patch Reservoir, which supplies irrigation for farmers in rural Lovelock, Nevada, is too low to provide any water at all. And those in Nevada and surrounding states who rely on water from the Colorado River are also feeling the pinch. One of the system’s major reservoirs, Lake Powell, dropped to critically low levels in March.

Meanwhile, researchers at the University of Nevada, Reno were recently awarded a grant to help establish a statewide network that will bring together groups that use water, utilities that provide it to cities and towns, and owners of water rights in the state.

Anne Nolin teaches at UNR and says Nevada Water will seek input from tribal communities, too.

“It includes them in a way that is about learning from them, rather than explaining from a science perspective to them,” she said.

Nolin hopes that by combining Indigenous knowledge with modern science, the network could address the problems that already exist in Nevada, which is the driest state in the country.

In the near term, Jeff Anderson with the USDA expects the poor snowpack to allow forests to dry out more quickly, raising the risk of large wildfires. Over the last several years, megafires have torn through parched California woodlands and choked the air with hazardous smoke. For example, the Caldor Fire last year burned more than 22,000 acres near Lake Tahoe, about an hour’s drive from downtown Reno.

“The forest is going to have for a longer period of time to dry out this summer,” Anderson said. “I think that should be, you know, a concern for us.”

This story was produced by the Mountain West News Bureau, a collaboration between Wyoming Public Media, Nevada Public Radio, Boise State Public Radio in Idaho, KUNR in Nevada, the O'Connor Center for the Rocky Mountain West in Montana, KUNC in Colorado, KUNM in New Mexico, with support from affiliate stations across the region. Funding for the Mountain West News Bureau is provided in part by the Corporation for Public Broadcasting.

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Salt Lake City to begin peak demand season at Stage 2 of water conservation plan

By: Spencer Burt

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Plan and will start the "peak demand season" under Stage 2.

Part of Stage 2 includes asking Salt Lake City residents to voluntarily reduce water use by 5 percent. It also will require city-owned properties, including public golf courses and parks, to make adjustments to lawn watering times and frequency.

Mendenhall's announcement said the city ended the summer of 2021 at Stage 2, and it will stay there due to "Less than average winter snowpack and persistent drought conditions."

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“Last year our customers really took the water shortage situation to heart. They conserved enough water equivalent to filling Mountain Dell Reservoir more than twice – more than 2 billion gallons. We hope to have similar support this year. Everyone can have an impact on water savings,” said Laura Briefer, the director of the Department of Salt Lake City Public Utilities.

The city's "Water Shortage Contingency Plan" includes these five stages, defined by the Department of Public Utilities:

- *STAGE 1—ADVISORY Stage: the public is informed as early as meaningful data are available that a possible shortage may occur.*
- *STAGE 2—MILD Stage: this stage is initiated if supply conditions worsen and relies on voluntary cooperation and support of water customers to meet target consumption goals. During this stage, specific voluntary actions are suggested for all customers, and specific mandatory actions are identified for municipal customers, including parks, golf courses, schools, and other government facilities.*

its initiation as specified in Section V: Initiation. This stage increases the prohibition or limitation of certain actions and relies on both voluntary and mandatory actions.

- *STAGE 4—SEVERE Stage: this stage is to be initiated if the Moderate Stage does not result in the reduction needed, or circumstances warrant its initiation as specified in Section V: Initiation. The Severe Stage has increasingly stringent prohibitions and limits on certain actions, including certain mandatory actions for residential and commercial customers.*
- *STAGE 5—CRITICAL Stage: this stage addresses the most critical need for demand reduction and increases the number of restricted water uses and mandatory actions. This could be used as a stage of a progressive situation, such as a drought of increasing severity, or to address an immediate crisis, such as a facility failure.*

The full contingency plan can be viewed **here**.

Public gets involved in Upper Truckee Restoration Project

News FOLLOW NEWS | 9h ago

Submitted to the Tribune

SOUTH LAKE TAHOE, Calif. – California State Parks is thanking the public after several well-attended scoping meetings for the proposed Upper Truckee River Restoration and Golf Course Reconfiguration project.

In January, February and March, the public was invited to attend multiple scoping meetings that were hosted by both parks and the Tahoe Regional Planning Agency. The purpose of these meetings was to gather information about the extent and depth of the analysis to be conducted for the California Environmental Quality Act environmental impact review/TRPA environmental impact study for the project.

“We had a great turnout from the community and the input received is important to informing the environmental impact analysis,” said Matt Trask, of ECORP Consulting, in a news release.

Parks anticipates being able to share the scoping meeting outcomes early this fall in conjunction with the release of the draft EIR/EIS.

The project will improve habitat along the Upper Truckee River and reduce erosion and thus sediment from dumping into Lake Tahoe. It is a high-priority TRPA environmental improvement project. It is also part of a multi-agency coordinated effort to restore adjoining stretches of the Upper Truckee River to improve the overall clarity of Lake Tahoe.

The golf course will be reconfigured entirely within Lake Valley State Recreation Area to allow more room for the restoration of the river and floodplain. For sustainability and to reduce water usage, the dilapidated golf course infrastructure will be improved along with recreational access and connectivity in Washoe Meadows State Park.

“Restoration of this reach of the Upper Truckee River is critical for improving the riparian habitat and water quality,” said Cyndie Walck, parks engineering geomorphologist.

For more information about the project, visit https://restoreuppertruckee.net/.

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