

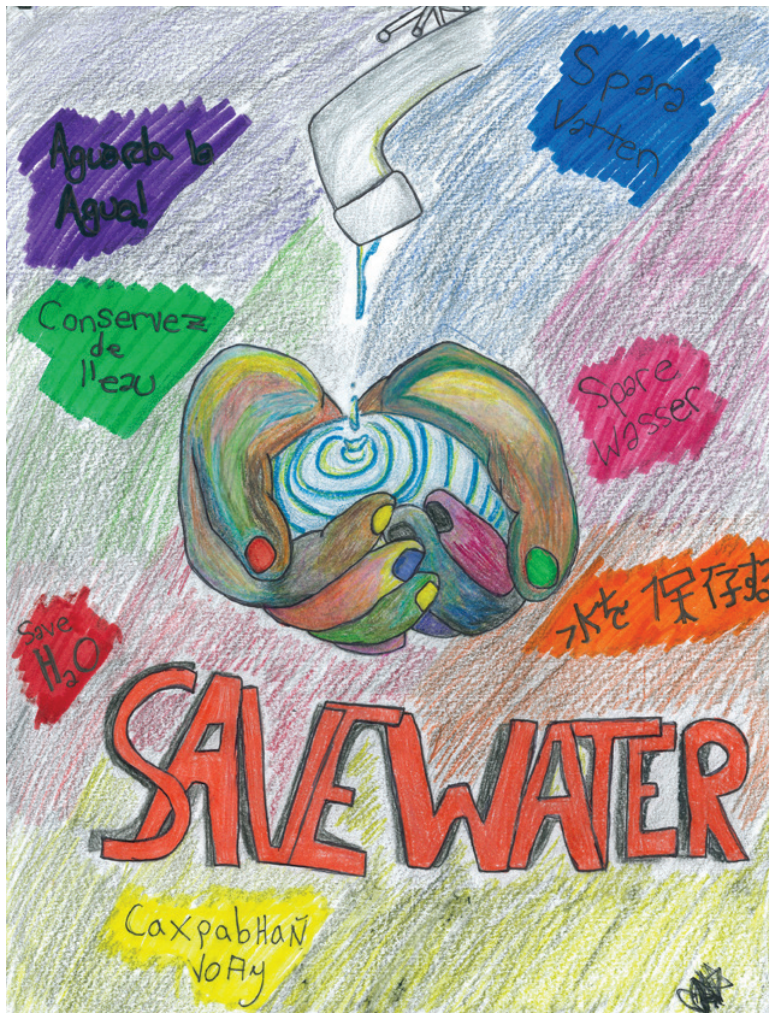


## TMWA Board Meeting

Wednesday, October 21, 2015

### Press Clippings

September 8, 2015 – October 14, 2015



Katherine Horton (Archie Clayton Middle School)  
2010 Poster Art Contest – Honorable Mention, Grades 7-8

# TMWA reports 9% drop in water use in August; 13 percent overall reduction in summer months

- [Images](#)



[Print Story](#)

Published: 10:50 am

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Updated: 2:51 pm

RENO, Nev. (MyNews4.com & KRNV) -- Water conservation numbers for the month of August were released by the Truckee Meadows Water Authority on Tuesday; and while August's reduction in use slipped slightly, overall conservation efforts exceeded desired targets.

In an official statement, TMWA officials said customers reduced their water usage by nine percent system-wide for the month of August, compared to August 2013. Officials went on and said customer demand has fallen an average of 13 percent since May 2015 when TMWA began asking its customers for a voluntary 10 percent reduction in water use.

“We set a savings goal of 5,000 acre feet of water for this season, which we are storing in upstream reservoirs for later use, if needed” said Mark Foree, TMWA’s general manager, in a statement. “With our customers’ continued focus on water conservation, I’m confident we will exceed that goal in September. Please keep up the good work and finish strong through this irrigation season. Remember, every gallon you save now can be held in upstream reservoirs, and will put us in good shape for next year,” he added.

Factoring in the nine percent savings in August, approximately 4,800 acre-feet or 1.5 billion gallons of water has been saved by customers through the first four months of TMWA’s conservation campaign, official said.

## Water Conservation Efforts Continue in Truckee Meadows

Posted: Sep 08, 2015 2:36 PM PDT <em class="wnDate">Tuesday, September 8, 2015 5:36 PM EDT</em> Updated: Sep 08, 2015 3:07 PM PDT <em class="wnDate">Tuesday, September 8, 2015 6:07 PM EDT</em>

By Paul Nelson

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Throughout the summer months, the Truckee Meadows Water Authority has asked its customers to voluntarily save cut back on water usage by 10%, compared to what was used in 2013 - the baseline year. Four months in, it has been a successful campaign.

"Customers are responding," Bill Hauck, TMWA Senior Hydrologist said. "They're doing their part. They've met or exceeded our expectations."

August was a hot and dry month. Still, customers saved 9% on water usage. Overall, they have saved 13% since outdoor watering began in the late spring.

"We want to continue to encourage our customers to water, responsibly, and keep doing what they're doing," Hauck said. "They've done a great job, so far, and we're on the home stretch, so to speak."

September is still a high-demand month for water, considered to be part of the summer months when water usage is highest. While demand is not expected to drop yet, the cooler nights and shorter days could play a role in how much people water.

"As it does get cooler, you want to take a look at your times," Andy Gebhardt, TMWA Manager of Customer Services said. "Just as in the spring, you didn't water as much as you do in the heat of the summer. Well, the fall is the same thing."

Despite four years of drought, Hauck says drought reserves are in pretty good shape, but it has taken its toll on area reservoirs.

"Stampede is lower than it's ever been since it was originally built and constructed," Hauck said. "Stampede's never been lower."

A wet and heavy winter could help recharge those reservoirs, but water savings now could go along way if that does not happen.

"Every drop of water we save right now, every gallon that's saved is being held upstream and being reserved for next year," Hauck said.

Outdoor water usage normally begins to taper off during the second and third weeks of October. By November, most people have turned off their irrigation systems. Until then, Hauck says he hopes conservation efforts continue.

"We're well on our way to achieving our goal of saving 5,000 acre feet, upstream," Hauck said. "We're about 95% of the way there."

## Learn About Your Water: Tour TMWA's Water Treatment And Hydroelectric Plants

SEPTEMBER 6, 2015 BY [THISISRENO](#) [LEAVE A COMMENT](#)



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**Truckee Meadows Water Authority** (TMWA) invites customers and the public to learn about water by touring two of its facilities. Residents can learn what it takes to get water from the Truckee River to your tap, and all the tests that are conducted to ensure high-quality water, by touring TMWA's **Chalk Bluff Water Treatment Plant**.

TMWA's water operations staff will explain the water treatment and distribution processes, as well as answer your questions. Chalk Bluff has been recognized with a Presidents Award by the *Partnership for Safe Water*. Only 18 utilities across the country have achieved this distinction.

Sign up for any of the following tours: Tuesday, Sept. 8 at 1 p.m.; Tuesday, Sept 15 at 3 p.m., Tuesday, Sept. 22 at 1 p.m., Saturday, Sept. 26 at 10 a.m.; or Tuesday, Sept. 29 at 1 p.m.

## Well Owners Look Forward To Winter Season

*Posted: Sep 18, 2015 5:45 PM PDT <em class="wnDate">Friday, September 18, 2015 8:45 PM EDT</em>Updated: Sep 18, 2015 5:45 PM PDT <em class="wnDate">Friday, September 18, 2015 8:45 PM EDT</em>*

By Angela Schilling

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When it comes to running water, one thing well owners want is a solution to the drought. Frank Kurnik is the manager of Bruce MacKay's Pump and Well Service in Reno. They've been rather busy the past six months.

"Has the drought effected their well and what can they see in the future," are a few questions people are asking said Kurnik.

They get about five to ten phone calls a day asking about the upcoming winter season. Wondering how much rain is needed before they start seeing any changes. I did some digging and the answer is not an exact one.

"Unfortunately, with out getting proper measurements on their well it's hard to get an exact answer until you have something current," said Kurnik.

Each well is different, from the location to the type of soil. Does your aquifer rely on the mountains or is it in the valley? How deep is it? Some are worse off than others and require more or less water. Well owner, Gary DuVal has a different perspective.

"My well is fairly deep but it all depends on where you are," said DuVal. The static pressure at the bottom of the valley floor pushes the water into the hillsides," said Kurnik.

For those affected, an average snow season would be more than last year. Which means you would see at least some improvement by spring. Keep in mind your static pressure fluctuates throughout the year

# DROUGHT: Agreement Expected to Double Region's Drought Reserves

SEPTEMBER 16, 2015 BY [BOB CONRAD](#) [LEAVE A COMMENT](#)

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The Truckee River Operating Agreement (TROA), expected to be in place by year's end, will more than double the Truckee Meadows' drought storage. Over time, potential drought storage will be more than doubled, from 27,000 acre-feet to 75,000 acre-feet.

“With TROA implemented, which is imminent, the community's drought storage will more than double,” said Mark Foree, TMWA general manager. “Even if we have five more poor-water years just like we had last winter, TMWA will have more than enough drought reserves to meet of the community's water needs. TROA is truly a game changer in terms of water supply.”

Nevertheless, the Truckee Meadows Water Authority has been asking customers to cut back on water use by 10 percent each month. To date, despite last month's **savings of 9 percent**, water customers have averaged a 13-percent savings in regional water use.

These savings will help maintain ground water storage, reducing the need to tap into upstream reserves next year should the drought persist.

“Please keep up the good work and finish strong through this irrigation season. Remember, every gallon you save now can be held in upstream reservoirs, and will put us in good shape for next year,” Foree added.

The area's last major drought ended in 1994 after eight years.

# Our view: Making most of drought through innovation

The Opinion of the RGJ Editorial Board 7:48 a.m. PDT September 16, 2015



Tracy and Dan Knisley kneel in a dry field that once held alfalfa south of Lovelock in 2014.(Photo: Marilyn Newton/RGJ file)

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In Reno-Sparks, the effects of the four-year drought can be hard to comprehend fully because when we turn on our faucets, water comes out.

Northern Nevada ranchers and farmers are under no illusions about the drought's seriousness. Many have dead crops, dry fields and no crop insurance as a backstop while the region copes with its fourth dry year in a row — the worst streak on record.

There is a silver lining, though. The drought is forcing more attention and more innovation on Nevada's \$5 billion agricultural industry.

For an example of how the drought could turn into a positive, consider the economic collapse that devastated Reno in 2008. It inspired many changes that we are reaping the benefits of now.

The region got more aggressive about pursuing different industries and caused local governments to try new ideas, such as grants to cultivate startup companies and zoning changes to encourage purchases of vacant properties.

If a similar priority is put on reinvention, Nevada's agriculture industry may come out of this drought better for it.

One project underway involves [the Desert Research Institute working with Google](#) to create web-based drought monitoring and mapping tools to assist farmers and ranchers with calculating water usage.

Other new inspirations were chronicled recently by RGJ environmental reporter Jeff DeLong's story on alternative crops being studied by the University of Nevada, Reno's College of Agriculture. Among them:

- **Teff:** This highly nutritional, low-water-use grain that is native to Ethiopia and Eritrea can grow in Fallon. It's being looked at as a rotational crop for alfalfa there.
- **Spineless prickly pear:** The sweet-tasting fruit is already popular in the Hispanic market but might be able to be used in ethanol production or simply marketed more widely in jams, jellies and drinks.
- **Agave:** It's too cold right now to grow this in Nevada, but with the planet warming, researchers expect the cactus used in tequila could be successful in the state in 10 or so years.

Another product that could become more important is effluent.

DeLong also looked at Bently Ranch, which gets treated wastewater from sewer districts serving Minden-Gardnerville and Lake Tahoe's Zephyr Cove area. This is pumped all winter long to a reservoir on the ranch property in Douglas County. It then uses the water to irrigate alfalfa hay during the summer.

Effluent from Reno-Sparks is underutilized. It is currently used for watering parks and medians but much of it is pumped back into the Truckee River for lack of infrastructure to better distribute it.

Bently Ranch also receives "biosolids" from the wastewater plants — a combination of fecal matter and household garbage put down sink disposals. This is mixed with wood chips and green yard waste in a composting process to produce fertilizer. Biosolids have the potential to be much more widely used in Northern Nevada, decreasing what would otherwise be tossed in landfills and making the region more self-sustaining.

Drip irrigation, while not new, could prove to be another game-changer if more widely adopted in Nevada.

In the last drought in 1992, Lattin Farms near Fallon added drip irrigation. [Rick Lattin told DeLong](#), “That conversion to drip irrigation has saved our rear ends during this drought.”

A [recent New York Times article](#) on the drought’s effect in California quoted a farmer who said his switch to drip irrigation cut his water use by 35 percent while boosting tomato production by 70 percent.

Such changes inspired by the drought do not necessarily get support, though, from water-rights laws in Nevada.

In [another recent RGJ article](#), University of Nevada Cooperative Extension crop specialist Jay Davison said, “If I found a miracle alfalfa that uses half the water of the 4 acre-feet I’m allotted, then the state has the right to take those unused 2 acre-feet of water. That’s a problem — we have no incentive to save water.”

Now, while the drought is top of mind, is the perfect time to address laws and policies that stifle water innovation.

One tactic Nevadans should not take regarding the drought is simply returning to old habits when the rains and snowpack return.

Certainly this drought has been harmful, but if it better prepares us for future dry spells, it won’t have been for naught.

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TOP VIDEOS

# Nevada ranch is using waste water to survive the drought

Posted 5:05 a.m. today

314

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- [Reno Gazette-Journal](#)

**By JEFF DeLONG, Reno Gazette-Journal**

**RENO, NEV.** — At Douglas County's Bently Ranch, these days the backup is squarely up front.

Reclaimed wastewater is used to water crops late every irrigation season, but this year, during a protracted drought, it's largely what's keeping the place in the business of agriculture.

"If we were just on surface water, we would have stopped irrigating a month ago. We'd be dry," said Matt McKinney, ranch manager. "Now we can go all summer long. It's a lifesaver."

It was a decade ago that the ranch's founder, inventor and philanthropist Donald Bently, first signed a contract with the sewer districts serving Minden-Gardnerville and Lake Tahoe's Zephyr Cove area to receive effluent water for irrigation use.

All winter long, treated wastewater is pumped from the two sewer districts to a reservoir built on ranch property. Come summer, the water is used to irrigate Bently Ranch's primary crop, high-quality alfalfa hay, which is in turn sold as cattle feed to dairy farms in California.

Bently Ranch also receives "biosolids" from the wastewater plants — a combination of fecal matter and household garbage put down sink disposals — which is combined with wood chips and green yard waste to ultimately produce fertilizer in the only such major composting operation now existing in Northern Nevada.

It's agriculture with a full-circle, sustainable philosophy that is now paying off big-time.

## ADVERTISING

At Bently, the drought has posed the same challenges as it has to farms and ranches across Nevada. Back-to-back dry winters produced a dismal Sierra snowpack that drains into the lush agricultural fields of the Carson Valley, with the past winter the worst one yet. On April 1, the Carson River Basin's snowpack was officially measured at 4 percent of normal for the date, according to the U.S. Natural Resources Conservation Service.

"It was the lowest in history," McKinney said. "Every year we have a certain amount of water, but this year that pie was pretty small."

As he had the previous two drought years, McKinney sold off some of Bently Ranch's beef cattle, with about 600 sold in all thus far due to worsening drought conditions. McKinney fallowed some 500 acres that otherwise would have supported alfalfa or other crops grown at Bently Ranch such as wheat, rye, barley and oats.

The situation looked dire, with McKinney predicting the ranch would be cut off from all Carson River irrigation water by June 1. Then came that unusually wet May — a blessing to agriculture across the state — that dropped rain particularly beneficial to pastures used for grazing the ranch's cattle.

Once the benefits of those spring rains faded away, Bently's unique irrigation source of reclaimed water came fully into play. In a drought year where many Nevada growers have had to substantially cut back on their alfalfa crops, McKinney expects to get three full cuttings and a portion of a fourth.

"That's where that effluent water is saving my butt," McKinney said. "Mr. Bently was always forward thinking. When that water became available, he jumped at it."

The contract making that water available remains in place another 65 years, guaranteeing continued long-term access to what has proven to be a crucial backup supply of water.

Benefits are also enjoyed by the sewer districts and their customers, with Bently providing a ready location to dispose of both effluent water and the solids used for composting that otherwise would have to be taken to a landfill at significant expense, said Frank Johnson, manager of the Minden-Gardnerville Sanitation District.

"It works out for us because we have a place to dispose of it, which is beneficial for us and them," Johnson said. "It works out for everybody."

"The effluent is waste that we in agriculture can make use of," McKinney agreed. "We're making it into a product. Before it was just waste. We have an insurance policy, or money in the bank, whatever you want to call it."

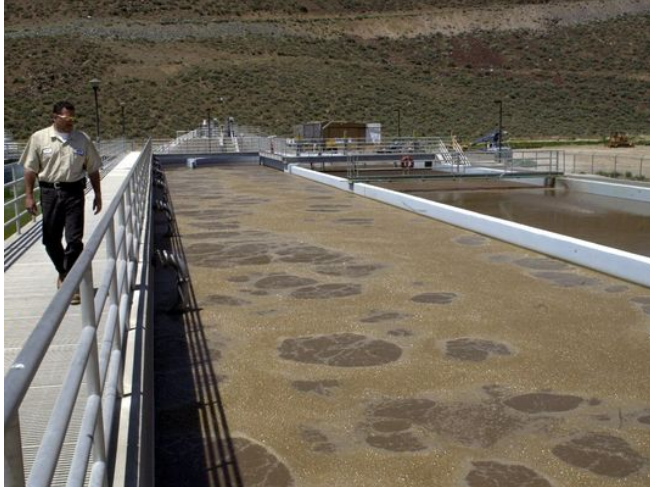
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Read more at <http://www.wral.com/nevada-ranch-is-using-waste-water-to-survive-the-drought/14908053/#ZtcQJfGLJis3eIku.99>

# Tesla, Switch and TRIC want Reno's gray water



[Anjeanette Damon](#), [adamon@rgj.com](mailto:adamon@rgj.com) 11:16 a.m. PDT September 17, 2015



An oxidation ditch at the South Truckee Meadows Water Reclamation Facility. Taken May 23, 2003. (Photo: Tim Dunn/RGJ File )

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Efforts by Storey County's giant industrial park to get its hands on the effluent water coming out of the sewer plant owned by Reno and Sparks are intensifying as the park—already home to Tesla, Petco and Zulily—continues to build out.

Reno City Manager Andrew Clinger said he recently met with representatives from the Tahoe Reno Industrial Center, Tesla and Switch to begin discussing specific deal points for sending the sewer plant's treated water down the canyon to the industrial park.

Under the contours of the nascent deal, the industrial park's General Improvement District is offering to build a \$30 million pipeline to the sewer plant in exchange for receiving the treated water for free, said park spokesman and Storey County Commissioner Lance Gilman.

"We can take all the water, store it in a lake we've already built, recirculate it through a purple pipe system for all industrial uses that don't require potable water," Gilman said. "We can put it to use in job creation and the creation of local wealth."

But Reno and Sparks officials aren't quite ready to hand the effluent water over for free, if at all.

[RENO GAZETTE JOURNAL](#)

Anjeanette Damon: Ship our gray water to Storey?

Reno Councilwoman Jenny Brekhus said the effluent is an asset that should benefit Reno and Sparks sewer customers, who have been shouldering rate increases over the past decade.

“There’s an obligation to understand that it is an asset and that they benefit from that,” Brekhus said.

Councilman David Bobzien also expressed concerns, saying that as Reno and Sparks continue to grow, the need for the effluent could also grow. He would like to see a detailed analysis on the effluent’s market value both now and in another decade.

“Some people would have us believe the effluent has no other value than going to TRIC,” Bobzien said. “That’s not necessarily true.”

Bobzien said it may be appropriate to earmark a certain percentage of the effluent for economic development purposes, but a long-term plan is needed.



Buy Photo

The Tesla Gigafactory is seen east of Reno on July 28. (Photo: Jason Bean/RGJ)

Part of Gilman’s sales pitch is the assumption that the sewer plant needs to get rid of the effluent because it can’t meet environmental standards for sending the treated water into the Truckee River.

That was a significant problem for the plant a year ago, when it was fined \$16,500 for dumping too much nitrogen into the river. Since then, however, the two cities have implemented several fixes to better clean the water before it goes into the Truckee River.

“We solved our nitrate problem very quickly and the solution is long term,” Sparks City Manager Steve Driscoll said. “The need to pump a bunch of water out at any cost went away months and months and months ago.”

Driscoll said Sparks officials are uninterested in giving the effluent away for free.

“Water is a commodity for the city of Sparks and the city of Reno,” Driscoll said. “A fee will be negotiated and it will be somewhere between zero dollars and something else.”

Part of the negotiations also may include allowing TRIC to recover its cost for building the pipe through a cheaper rate.

“In my opinion, there probably should be a cost recovery measure for them to recoup the cost of that infrastructure,” Clinger said. “But these are all questions being asked. We’re not at the point where we’re even close to a deal.”

The sewer plant already sells some effluent to industrial users. They are charged 96 cents per 1,000 gallons consumed, plus a monthly base rate that depends on the size of the pipe they use.

Driscoll said the price structure reflects the cost for treating the water and isn’t designed for the cities to make a profit off the water.

The industrial park is talking about using up to 4,000 acre feet, or 1.3 billion gallons, of effluent a year if the pipe is built.

“Today, we most likely would be able to meet the 4,000 acre feet,” Driscoll said. “That’s the target.”

Gilman said the industrial park has plenty of water rights to keep businesses running. But the park also has built out its purple pipe infrastructure, adding that there are environmental and efficiency benefits of using reclaimed water instead of fresh water for manufacturing.

“It can be reused five to eight times,” Gilman said. “You can take one gallon of reclaimed water and you can run it through the same process many times. So all of the sudden you could be taking a very valuable commodity, which hasn’t been used effectively, and convert it to economic development.”

Building similar purple pipe infrastructure in the Truckee Meadows would be hugely expensive, Clinger said.

Still, the Truckee Meadows could need the water in the future, particularly as it builds the housing and ancillary businesses being spurred by the economic engine in Storey County, Bobzien said.

“I have had a lot of conversations with economic development officials and I share some of the excitement of finding unique ways (to use the effluent),” Bobzien said. “But I’ve also talked with people in the housing development community and understand we may need that effluent in the way we don’t need it now in the very near future.”

The effluent could be treated and re-injected into the underground aquifer to relieve pressure on the ground water supply, for example, Bobzien said.

# Verdi neighborhood still on temporary water source

- [Video](#)

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[Verdi neighborhood still on temporary water source](#)

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- [Manager: Solutions in works for Verdi water contamination](#)
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[Print Story](#)

Published: 9/18 5:23 pm

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Updated: 9/18 6:21 pm

VERDI, Nev. (KRNV & MyNews4.com) - Although safe, clean water is back on at the River Belle RV Park, Market, and the Verdi Post Office, it's only a temporary solution.

Earlier this month, more than a hundred people went without clean water when E.coli contaminated the spring that sources its water system.

After about eight days, the Washoe County Health District lifted the boil order and no contact orders were lifted. The Verdi Meadows Utility Company provided an emergency water connection to its neighbors. It has a bit more chlorine than usual as a precaution.

River Belle RV Park Property Manager, Ray Labouyer, says everyone in the park is conserving the limited water as they find a permanent solution.

"We're a lot better off right now. It's been pretty trying. It's been a little stressful," Labouyer says. "But it's been all right. You just got to get in the middle of it, and you just get it done. "

On Friday, workers are laying out pipes to the property's pasture. It'll connect to an existing well on the property which has not been used in at least 16 years.

“We’re going to test it. We’ve got to do a lot of flushing, testing, and seeing if it’s going to put the volume of water out that we need,” Labouyer explains. “And if that all works out, it’s an easy solution for us.”

It could take about a week. If the well isn’t a viable permanent solution, Labouyer says they’ll have to drill a new well. That could take another six weeks at least.

Neighbors News 4 spoke to didn’t want to be on camera. Some wish the process was faster. Others say, at least it’s progress.

The Washoe County Health District representatives says testing the water has become less of a priority. Local labs do not have the capabilities to test for E.coli sub-types. That kind of testing would have to be done by the Centers for Disease Control, and its labs are backlogged by 6-9 months.

# Master Gardener: Field Day a Northern Nevada tradition

Ashley Andrews 10:51 a.m. PDT September 18, 2015



Experts from the Cooperative Extension, including bioplastic compostable plant container researchers and Master Gardener Volunteers, will be on-hand to answer your research, gardening and landscaping questions.(Photo: Bill Kositzky)

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My world revolves around northern Nevada gardening traditions. I plant peas (and other cool-season crops) on Saint Patrick's Day, and you won't catch me putting tomatoes into the ground before the snow melts off of Peavine Mountain. Another tradition I enjoy as a battle-born gardener is attending Field Day.

Field Day is a University of Nevada, Reno event held yearly in fall to highlight the latest scientific breakthroughs in agriculture, horticulture, nutrition, natural resources and the environment. The event is an offering of the College of Agriculture, Biotechnology and Natural Resources; the Nevada Agricultural Experiment Station; and University of Nevada Cooperative Extension, with support from the Nevada Agricultural Foundation and **Truckee Meadows Water Authority.**

This year, the Field Day partners have joined together to provide a variety of all-ages activities, organized around the theme “Innovation for a Sustainable Future,” to showcase the University’s statewide impact. The event will be held on Sept. 26 from 9 a.m. to 2 p.m. at the Nevada Agricultural Experiment Station’s Valley Road Greenhouse Complex located at 910 Valley Road in Reno.



Experts from the Cooperative Extension, including bioplastic compostable plant container researchers and Master Gardener Volunteers, will be on-hand to answer your research, gardening and landscaping questions. (Photo: Bill Kositzky)

Activities of particular interest to Nevada gardeners include beekeeping demonstrations, hoop-house building demonstrations, greenhouse tours, an “Ask a Cooperative Extension Master Gardener” booth and a display about bioplastic compostable plant containers staffed by the project’s researchers.

Those of us with a passion for supporting local food will also enjoy the Reno Local Food Group’s cooking demonstration and samples event. Featuring local chef Mark Estee and ingredients from the University’s Wolf Pack Meats and Desert Farming Initiative, this demonstration is sure to be delicious. Other foodie Field Day offerings include a farmer’s market with Desert Farming Initiative produce, growing and brewing tips from the Urban Roots’ Desert Hops Project, information on low-water-use alternative crops and more.

Not a gardener or locavore? UNR has you covered; there are Field Day activities for people of all interests and ages. Learn about radon — a cancer-causing, colorless and odorless gas — and receive a free radon test kit from Cooperative Extension’s Nevada Radon Education Program. Or, check out sheep and wool-spinning demonstrations as well as equestrian demonstrations. Plus, Battle Born and All Wrapped Up food trucks will be selling their wonderful wares on site.

If you will have kids in tow, be sure to stop by Cooperative Extension’s Living With Fire program’s Ember House for an interactive educational activity that shows how wildfire embers can ignite homes. Cooperative Extension’s 4-H Youth Programs area is also a must-stop for children and young adults. See dairy goats and small animals, and pick up a take-home science

experiment for kids. Nutrition information, including samples of vegetables and healthy beverage alternatives for kids, is another youth-friendly offering of Field Day.

Field Day admission and parking are free, and the event is open to the public. Please RSVP online at <http://www.cabnr.unr.edu/fieldday/registration.aspx> or 775-784-1660. Persons in need of special accommodations or assistance are asked to call at least three days prior to the event.

*Ashley Andrews is the horticulture assistant with University of Nevada Cooperative Extension. Have plant questions? Email [mastergardeners@unce.unr.edu](mailto:mastergardeners@unce.unr.edu), or visit [www.growyourownnevada.com](http://www.growyourownnevada.com). For information on drought, visit [www.livingwithdrought.com](http://www.livingwithdrought.com).*

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# Sandoval kicks off state drought summit



[Jeff DeLong](mailto:jdelong@rgj.com), jdelong@rgj.com 4:40 p.m. PDT September 21, 2015



A file photo of Washoe Lake as it looked in July 1991 during the drought, which lasted almost nine years. Slide mountain can be seen in the background.(Photo: RGJ file)

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Forward thinking and bold actions are needed for Nevada to thrive in the face of droughts like the one now gripping the Silver State, Nevada Gov. Brian Sandoval said Monday as he commenced a three-day conference on an issue of mounting concern.

While hopes are high a strengthening El Nino might bring a big winter after four dry ones in a row, Sandoval said drought will continue to pose big challenges in the future and now is the time to prepare.

“This is not a problem that can be put off for future generations. It will come back,” Sandoval said. “It is our moment and it is our time to lead.”

No specific proposals have yet been made, but possibilities include construction of new reservoirs, changes in water law and expanded use of reused water, among others.

Sandoval created the Nevada Drought Forum in April as it became evident Nevada was entering its fourth straight year of drought. Recommendations made during this week’s summit could be incorporated in a drought plan Sandoval said he will probably reveal during January’s State of the State address.

Water conservation efforts have already widely succeeded in this arid state but more can be done, Sandoval said.

“I just want to make sure we are doing all the things we can do,” Sandoval said. “We need concrete proposals for future action.”

The summit, Sandoval said, brings together the “best minds” to come up with needed solutions, including state, federal and tribal officials, business leaders, farmers and ranchers, scientists and conservationists.

Several speakers on Monday stressed the need for additional water storage, with new facilities able to capture more water during big winters for later use during times of drought.

“When we have a wet year, we need to capture as much of that excess flow as possible, said Nevada State Engineer Jason King. “We need additional storage.”

Leo Drozdoff, director of the Nevada Department of Conservation and Natural Resources, spoke of a need to change sometimes highly constraining state water law.

“We have to find a way to stay true to our Nevada water law but do so in a way that provides more certainty for Nevada,” Drozdoff said.

Drought’s impacts have been widespread across Nevada, with water supplies diminished, agricultural fields withering and small businesses folding, summit speakers said. Largely due to “good fortune and good luck,” Nevada has thus far escaped disastrously damaging wildfires that have hit California and other neighboring states, Drozdoff said.

On Tuesday, representatives of public water providers, agriculture, ski resorts and industrial developers are scheduled to discuss the drought’s impacts.

Significant attention is being directed at El Nino, which is shaping up to be the strongest since one in 1997-98 brought a blockbuster winter to the Sierra. It is hoped El Nino might break down the “ridiculously resilient ridge” of high pressure that parked off the West Coast the last four winters and shunted winter storms away, said Roger Pulwarty, director of NOAA’s National Integrated Drought Information System.

But there’s no guarantee, said Nevada State Climatologist Doug Boyle. For the Reno-Tahoe area, El Ninos have no consistent pattern, producing wet, dry and normal winters in years past.

“This is our best guess. Wet in the south, dry in the north, and we don’t know in the middle,” Boyle said. “The take-home message is we don’t really know what will happen.”

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*Posted: Sep 19, 2015 1:35 AM PDT <em class="wnDate">Saturday, September 19, 2015 4:35 AM EDT</em>Updated: Sep 19, 2015 1:35 AM PDT <em class="wnDate">Saturday, September 19, 2015 4:35 AM EDT</em>*

**WATER DEAL-VEGAS-LOS ANGELES**

Vegas water managers OK water deal with Los Angeles agency

LAS VEGAS (AP) - Las Vegas water officials have approved a \$45 million "water banking" deal to send enough water for about 300,000 homes annually from Lake Mead to drought-parched Southern California.

Southern Nevada Water Authority board members on Thursday approved selling 150,000 acre-feet of water to the Metropolitan Water District of Southern California.

The Metropolitan district board votes on the deal Monday and Tuesday.

An acre-foot serves about two homes for a year.

Metropolitan chief Jeffrey Kightlinger says the agreement lets his 19 million Southern California customers buy the water during drought and return it, bucket for bucket, when Las Vegas needs it back.

His counterpart in Las Vegas, John Entsminger, says Las Vegas can spare the water because use has been cut by almost one-third since 2002

# Ask the RGJ: Does wildfire smoke decrease rain in Reno?

Mark Robison mrobison@rgj.com 10:08 a.m. PDT September 16, 2015



Smoke rises from a fire Sept. 10 near Butte Mountain Road near Jackson, Calif.(Photo: Andrew Seng/The Sacramento Bee via AP)

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This week's drought question was inspired by the devastating fires in Northern California and asks if the heavy smoke from them can change Reno's weather.

•**Short answer:** Yes, smoke from wildfires can alter temperatures, which then affects wind speeds and thunderstorm development. The effects are not huge but they are felt.

## Full question

This week's question was inspired by the heavy smoke that settled last weekend in the canyon north of Reno where I live.

It felt cooler than it should have been so I wanted to know if smoke this thick could alter the weather here.

**Full response**

"Most definitely," said [Nick Nauslar](#), a graduate research assistant at the [Desert Research Institute](#) who studies the effects of fire on weather.

"It can impact temperature. The smoke acts as a cloud so it may not get as hot because not as much radiation from the sun reaches the surface and that has cascading effects, such as on wind speeds and thunderstorm development."

Depending on how heavy the smoke is, it could alter temperatures from a couple of degrees to maybe 10 degrees lower. "I'm ballparking it," he said. "It just depends on how thick it is."

At night, the smoke has the opposite effect. The temperature doesn't fall as low as it would have otherwise because the heat can't escape back out.

"Also, humidity stays low so fire can be more active during the night," Nauslar said.

Smoke can inhibit thunderstorms from forming by keeping temperatures cooler.

"You need rising heat during the day to help trigger the thunderstorms," he said. "It's rising air temperatures with enough moisture in the air to create a cloud and that can develop into a thunderstorm."

In a drought, every bit of rain helps so heavy smoke would seem to be a bad thing if it decreases the number of thunderstorms.

"Yes but I wouldn't play that up too much," Nauslar said. "The potential thunderstorms that the smoke inhibits from developing wouldn't contribute much to the total annual precipitation. We're talking maybe a 1 percent change in annual precip."

That's because the type of thunderstorms that might be affected by heavy smoke are generally the localized "popcorn" storms that pop up over the summer like we saw earlier this year.

Nauslar said the smoke would not derail rain storms Reno-Sparks would get that are part of a larger weather system. A big weather system or trough would overwhelm the effects of smoke.

"Its main effect in terms of weather is temperatures," he said of smoke. "Wind and storm effects are fairly marginal for the most part" but they can be felt over a wide area.

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# Las Vegas reserves could support 1M more residents

Las Vegas could grow by 1 million people and still have adequate water supplies, according to a revised report by the Southern Nevada Water Authority.

The city should be able to go for two more decades before needing to find new permanent supplies, said the report, and that could be extended even further with increased conservation.

The 58-page document will serve as a blueprint for how the authority plans to secure Las Vegas' water supply for the next five decades, General Manager John Entsminger said.

"We don't dictate growth. We give the community the tools it needs to be what it wants to be," he said.

The update was the first major revision to the authority's water report since 2009.

Realistically, Entsminger said, the Las Vegas area should not have to develop new water supplies until around 2060, while reasonable water conservation measures could add 10 years to that.

The authority said it currently has "very healthy reserves" of about 1.5 million acre-feet of water due to conservation measures (Henry Bean, [\*Las Vegas Review-Journal\*](#), Sept. 19). -- **BTP**

# EDAWN to host annual industry awards in October

[Bill O'Driscoll, bohdriscoll@rgj.com](mailto:bohdriscoll@rgj.com) 9:08 p.m. PDT September 21, 2015



Logo.(Photo: Economic Development Authority of Western Nevada)

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The Economic Development Authority of Western Nevada will hold its fourth annual Existing Industry Awards on Oct. 22, honoring companies large and small that have brought jobs to the region.

The awards will be held from 5 to 7 p.m. in the Peppermill Resort Spa Casino, 2707 S. Virginia St., Reno. Registration is \$30 including the program and reception.

Registration opens online on Sept. 25 at <http://conta.cc/1QUF46T>.

The nominees by category are:

Biggest Little Wow: Broomstick, Filament, Havelock Wool, Hectatone Inc., Island Planet Sails, Kimmie Candy Co., Shortstack.

Founders: Bender Group, Dermody Properties, Damon Industries, Sierra Nevada Corp.

Leaders in Sustainability: Agru America Inc., Envirohaven, Fortifiber, Havelock Wool, Itronics, ITS Logistics.

Manufacturing Excellence (small): Ayurvedic Herbal Systems, Fruitful Juice, Diggin' your Dog, Grab n Pour, Itronics Inc., LeFiell Co., Mt. Rose Drink.

Company of the Year (small): Bristlecone Holdings, Drone America, Filament, Nutrient Foods, Trainer Road, White Rabbit.

We Think Local: Cvirtual, Jensen Precast, Mr. G's Teriyaki, Pacific Cheese, Sports Attack.

Employees First: Advanced Precision Manufacturing Inc.; Shortstack, Burkhart Dental, ITS Logistics, Leviton Manufacturing Co. Inc., Smith Power Products, XPO Logistics.

Corporate Citizen: Burkhart Dental, Custom Ink, Noble Studios, PetSmart.

Community Partner: Employer Support of Guard and Reserve, Regional Transportation Commission of Washoe County, Reno-Sparks Convention & Visitors Authority, **Truckee Meadows Water Authority.**

Manufacturing Excellence (large): Ardagh, Server Technology, James Hardie Building Products, Lincoln Electric Cutting Systems, Trex Company Inc.

Company of the Year (large): Burkhart Dental, EP Minerals, MSC Industrial Supply Co. Inc., Nature's Bakery, Server Technology, zulily.

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## **SoCal water district considers building huge recycling plant**

*Posted: Sep 22, 2015 1:04 PM PDT <em class="wnDate">Tuesday, September 22, 2015 4:04 PM EDT</em>Updated: Sep 22, 2015 1:06 PM PDT <em class="wnDate">Tuesday, September 22, 2015 4:06 PM EDT</em>*

LOS ANGELES (AP) - Southern California's largest water provider is looking into partnering with two dozen Los Angeles County sanitation districts to create what officials say could be one of the world's largest systems for recycling sewage water.

Tentative plans for creating a system to purify and reuse as much as 168,000 acre-feet of water a year were presented Monday at a committee meeting of the Metropolitan Water District of Southern California.

On average, an acre-foot of water, or 326,000 gallons, is enough to serve two households for a year.

The Los Angeles Times (<http://lat.ms/1V7L6qB>) reports that building such a recycling system could cost about \$1 billion.

MWD currently provides water from a variety of sources to 26 public agencies in six Southern California counties.

Its water reaches more than 19 million people.

Information from: Los Angeles Times, <http://www.latimes.com/>

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# Reno, Washoe County reach agreement on automatic fire aid



[Anjeanette Damon](#), adamon@rgj.com 2:24 p.m. PDT September 21, 2015



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Two Reno firefighters respond to a possible hazardous material at a joint public meeting on Monday. (Photo: Anjeanette Damon/RGJ) Buy Photo

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Just in time to meet the requirements of a new state law, the Reno City Council and Washoe County Commission reached an automatic fire aid agreement, meaning the closest fire engine will begin responding to a blaze regardless of whose jurisdiction it's in on Oct 1.

The aid agreement is the first time the two sides have been able to agree since the contentious division of their joint fire department in 2012. A lawsuit over costs involved in that "fire divorce" is still pending.

But on Monday some common ground was found.

"We are rising above a lot of the invective and a lot of the rhetoric" over who had the better fire department that marred past discussions, Reno Councilman David Bobzien said. "Our

community is tired of this. They don't want to see entities fighting, they want to see entities serve our region."

Under the agreement, Reno will provide automatic response in about 12 different areas outside of the city's jurisdiction, while Truckee Meadows will provide automatic aid in about five areas.

The commission agreed to use Reno's fire response map, which included a smaller automatic aid area than originally proposed in the southern reaches of the city. In practice, the automatic aid zones will likely be refined over time.

"If they feel they don't need our help in certain areas, I won't force it on them," Washoe County Commissioner Vaughn Hartung said of the smaller response area.

In all of the automatic aid areas, both the Reno Fire Department and the Truckee Meadows Fire Protection District will be dispatched at the same time. The agency who has jurisdiction will take control of the fire once they arrive.

No money will change hands between jurisdictions unless a fire takes longer than 12 hours to put out.

The automatic aid agreement doesn't end the discussion, however.

Councilwoman Jenny Brekhus said she's concerned about sending city firefighters to unincorporated areas at a time when the city has two browned out fire stations.

The two agencies also must work on joint operating policies and training to ensure the public's and firefighter safety, said Reno fire union representative Tom Dunn.

And Reno Mayor Hillary Schieve said she will continue to pursue re-consolidating the two departments.

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## Pumpkin Patches Hit Hard by Drought

By: [Matt Vaughan - Email](#)

Updated: Wed 9:21 AM, Sep 23, 2015

By: [Matt Vaughan - Email](#)



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RENO, NV - The ongoing drought has made life difficult for many farmers in northern Nevada. The lack of rain and snow pack has forced several pumpkin patches in Washoe County to get a lot of their water from outside sources. Frank Ferrari usually gets his water from the Truckee River, but this year he had to [purchase](#) it [from the Truckee Meadows Water Authority](#).

"What we ended up having to do is we had a whole drip system put in for all of our corn and the pumpkins. We had to have water hauled in and trucked in, definitely a challenge. It was a huge difference in our cost, obviously having to [buy](#) the water then having to have it trucked in. There's quite a few crops, so there's a lot of water that's being used here. Definitely eats into the profits for sure," he says.

The Andelin [Family](#) Farm in Spanish Springs is in a similar situation. They lost access to their water source a month earlier than last year and also had to buy a lot of their water.

"We [rely on](#) our well for a couple of our fields, but instead of getting our ditch, like we usually do the whole season, we had to tap into the city water," says Natalie Andelin.

That's forced the Andelins to up their costs to help keep the farm going.

"Because we have to pay for that water we are upping our admission [price](#) by a dollar per person this year," says Andelin.

Andelin says the drought is causing more problems for their pumpkin patch than just a lack of water.

"Since we had such a mild winter we had a lot more bugs to [deal](#) with, like aphids. There was a lot more bunnies also (since) they all survived the winter. So, a lot of pests this year," says Andelin.

Despite the issues, farmers are making due with what they have and say they will be ready for opening day. The Andelin Family Farm will open September 26th and is doing a food drive for the Food Bank of Northern Nevada. If you bring out a canned good you'll get a dollar off [admission](#) to the corn maze. Ferrari Farms opens October 1st and will feature an all-new zombie hunt this year.

## TMWA to Complete Metered Conversion October 1

Posted: Sep 23, 2015 1:15 PM PDT <em class="wnDate">Wednesday, September 23, 2015 4:15 PM EDT</em>Updated: Sep 23, 2015 2:05 PM PDT <em class="wnDate">Wednesday, September 23, 2015 5:05 PM EDT</em>

By Andi Guevara

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On October 1st, the final group of Truckee Meadows Water Authority customers will be converted from flat rate pay schedules to metered rates.

Most homeowners were converted to metered rates over the past 15 years - paying for exactly the amount of water used.

"People pay more attention to leaks, they pay more attention to how much water they're using if they're having to pay for the amount they're actually using rather than a flat rate," says Kim Mazeres the Director of Customer Relations at TMWA.

Resident Nellie Butler likes the metered rate plan. She converted many years ago and says it helps her save a lot of money in the winter "...and in the summer I manage to keep my grass green and water on a schedule."

About 5,000 households, mainly in old Southwest Reno, are the ones who will be affected by this final conversion to metered rates. Some customers, especially those on fixed incomes, are worried they'll pay more.

Mazeres says it's the opposite. "A lot of them are paying a lot now, because they are paying \$100 or more a month on flat rate. We have put a comparison on their bill every month, so they can see how much they're going to pay - so many of them will pay less."

TMWA says that 80% of their customers will actually save money this way and that the real savings will be in water use. "Over the last ten years, we have seen a 15% reduction in water use even though this community has grown," says Mazeres.

Truckee Meadows Water Authority says they have no plans to increase any rates and they offer monthly billing plans to help customers schedule affordable payments.

For more information go to <http://tmwa.com/>

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**Anne Knowles**  
**For the Nevada Appeal**

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## Officials: Revise water rules

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State and local water rules need revising in order to deal with Nevada's water scarcity.

That was the consensus of water authorities and providers who spoke on a panel Tuesday during the second day of the Governor's Drought Summit. The three-day summit was convened by Gov. Brian Sandoval to examine and find ways to cope with the state's ongoing drought.

Speaking only of the Colorado River, which supplies 90 percent of Las Vegas' water, John Entsminger, general manager, Southern Nevada Water Authority, said the framework of prior appropriation needs to be reconsidered.

"Water rights management has to evolve from strict priority of winners and losers to more of a shared risk," he said.

Bruce Scott, chairman of the state Board for Financing Water Projects, agreed, saying the governor should make a push to change water law in the next legislative session in the same way his administration championed education in the last session.

"Water needs to be considered as a resource not as a political pawn," said Scott.

Mark Foree, general manager, Truckee Meadows Water won water reuse is a barrier to conservation.

"We do need state regulations on more use of treated wastewater," he said.

Foree also said TMWA was working with local agencies in the Truckee Meadows to change city landscape ordinances that prevent more water-efficient landscaping.

Wendy Barnett, president, Utilities Inc., which operates private utilities in Elko, Nye and Washoe counties, said the state engineer's office needs more tools to manage water.

Utilities Inc. operations rely solely on groundwater, including in Pahrump, one of the most severely stressed basins in the state.

"We don't want to make it so people can speculate," she said.

"We need to think it through very carefully how to change the tools, but the tools do need to be changed."

Barnett said a useful, existing mechanism for purveyors is tiered or block rates in which the per-unit rate for water goes up as the amount consumed increases, discouraging overconsumption.

"Tiered rates are probably the most effective conservation tool," Barnett said. "In Elko, they used 12 times more water in the summer. With tiered rates that dropped to five times more."

SNWA has long had conservation programs, including a successful turf buyback program and rebates for low-flow toilets and shower heads, resulting in the last 12 years of a 43 percent drop in gallons per capita daily while Las Vegas' population grew 25 percent, said Entsminger.

TMWA, too, has managed to cut production — by 12.5 percent in the last decade or so — while the population grew.

But Foree attributed much of that drop to the installation of water meters. He said TMWA's last flat rate customers are being converted to meters next week.

TMWA earlier this year asked customers to cut back 10 percent, resulting in an overall 12 percent drop in water consumption throughout the summer, said Foree.

That saved about 5,000 acre feet, allowing the water authority to leave all water in Independence Lake, one of several reservoirs.

The Truckee River Operating Agreement, between TMWA, Nevada, California and the Pyramid Lake Paiute Tribe, will double TMWA's upstream storage.

TROA is expected to go into effect this month or next, said Foree.

Both TMWA and SNWA plan for extended droughts and only under the worst case scenarios would need to find alternative water supplies two or three decades out.

That includes water importation projects such as the Fish Springs project TMWA is already undertaking to serve the North Valleys as well as SNWA's plan to build a pipeline to take water from valleys in Lincoln and White Pine counties, a project which is now being litigated in the courts.

"There are 117 interbasin transfers right now, it's nothing new," Entsminger said.

"When you live in the driest state in the union you don't want to take any options off the table,"

# Ask the RGJ: Water violations at parks, golf courses?



[Mark Robison](#), mrobison@rgj.com 6:46 a.m. PDT September 24, 2015



Purple signs on Double Diamond Parkway indicate reclaimed water is being used for landscaping. (Photo: Mark Robison/RGJ)

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Median landscaping on Double Diamond Pkwy. in south Reno is watered using reclaimed water, which is not restricted in the same ways potable water is. (Photo: Mark Robison/RGJ)

Readers have asked why many parks and street medians are watered outside the hours and days allowed by the Truckee Meadows Water Authority and what can be done about water waste at these locations.

**Short answer:** Those locations generally are using recycled water, which doesn't face the same restrictions. Ways to report water waste are listed below.

**Full question**

This week's Ask the RGJ questions started with an email from Carol Jaquish, who was worried about the watering — or lack of it — for landscaping in the center divider on South Meadows Parkway between Double R Boulevard and Double Diamond Parkway.

Later came a letter to the editor from Howard Espin of Reno: "The public golf course between Mira Loma and Pembroke is closed. The golf course is still being watered right where the Southeast Connector will be. I called TMWA and reported this waste of water to a conservationist. I was told, and I quote, 'we have no authority over the golf course,' and I would have to call the golf course."

**Full response**

TMWA spokeswoman Marlene Olsen said Espin's letter is not unusual. "There are quite a few people who notice and complain about parks, golf courses and medians watering at different hours than residents do."

TMWA, indeed, is not in charge of much watering at those locations because they tend to use effluent, also called recycled or reclaimed water. Washoe County and the cities of Reno and Sparks control effluent.

In regard to Jaquish's concern, Olsen said, "All medians in south Reno — South Meadows, Double Diamond, etc. are watered by reclaimed water. We do not have records on medians, as reclaimed water is managed by Washoe County."

[RENO GAZETTE JOURNAL](#)

[Ask the RGJ: How much water do Nevada dairy cows use?](#)

[RENO GAZETTE JOURNAL](#)

[Ask the RGJ: Does removing lawn raise electric bill?](#)

Dwayne Smith is engineering and capital projects director for Washoe County's community services department.

He said the county produces reclaimed water that is used by commercial customers, home owners associations, schools, parks and golf courses.

These customers do not have to follow the same watering schedules as TMWA customers. This is one of the perks of using reclaimed water, Smith said in a phone interview.

However, they must conform to a discharge permit that the county has with the state of Nevada.

"This includes the manner and time of use for both drip and spray irrigation," he wrote in a follow-up email. "For instance, while drip irrigation has no limitations on time of use, spray irrigation is limited to night-time use when not supervised. If 'supervised,' then spray irrigation can occur at any time. The general purpose for 'supervised' irrigation is to allow for the establishment of seed or sod, check repairs to the irrigation system or troubleshoot, and also to allow for additional irrigation dependent on specific site conditions. Washoe County and the reclaimed water customers work together to make sure that irrigation requirements are met and this is a continual process and does require Washoe County to send notifications, make phone calls and also to visit sites with the landscapers to make appropriate changes from time to time."

Smith said irrigation customers are not allowed to have puddling of reclaimed water or to allow it to flow directly into creeks, streams or ponds.

“Washoe County conducts outreach and works with our customers to minimize these occurrences,” he wrote. “When Washoe County is made aware of these occurrences, we work proactively with the customers to provide education and alternatives to prevent them from occurring in the future.”

Smith said the county’s reclaimed water customers were asked to cut usage by 10 percent and they actually decreased usage by 3 percentage points higher than that.

Little purple signs are often an indicator that reclaimed water is being used.

•**Washoe County water complaints:** To report problems with reclaimed water in south Reno, Smith suggests calling 775-328-2041.

Similar policies exist in Reno and Sparks that allow watering outside TMWA watering schedules.

Sparks spokesman Adam Mayberry said that for its customers who water with effluent — golf course examples include Kiley Links and Wildcreek — Sparks does not restrict the day of the week.

“We do request that they water during periods of non-use to limit public contact, unless they are doing maintenance,” he wrote in an email.

He added, “It’s important to note that the use of treated effluent for irrigation helps provide a nutrient load reduction to the Truckee River, hence it’s to the (community’s) benefit that we do not put all the treated water back into the river.”

•**Sparks water complaints:** Anyone who observes what may be water being wasted should contact the Sparks Maintenance Hotline at 353-2271 or TMWA through their website or by calling 834-8080. “We respond quickly to broken pipes, sprinklers, etc.,” Mayberry said.

Reno spokesman Matthew Brown said city parks are exempt from day-of-week restrictions because of the sheer number of parks combined with their size.

“They must be watered around league/recreation schedules and mow days,” he wrote in an email.

“The city of Reno also abides by total water quantity restrictions, but because of park size it takes more days to water them than the typical residential property. The city does abide by time-of-day restrictions, so if there’s water running during the day it’s likely because Parks and Recreation staff is testing systems or conducting repairs.”

Brown added, “It is important to note that a recent analysis of the city’s top seven parks in regard to water usage showed a water usage decrease of 20% compared to last year.”

•**Reno water complaints:** To report water waste involving city of Reno properties, call 334-4636 or visit [reno.gov/residents/reno-direct](http://reno.gov/residents/reno-direct).

Note: Not all golf courses use reclaimed water. Some use wells and creek water. For more, see [a previous Ask the RGJ on why golf courses sometimes have sprinklers on when it's winter](#). Page 39 of 93

# Measuring Our Water A Top Concern At Drought Summit

By MICHELLE BLISS · 2 HOURS AGO

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The state's drought summit wrapped up Wednesday after three days of in-depth presentations from every type of water stakeholder in Nevada. Reno Public Radio's Michelle Bliss has the details.

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Listening...

1:29

*Listen to the story.*

There was a lot of talk in Carson City this week about how to better manage, save, share, and measure our water.

"Measurement was a big topic," said Lewis Michaelson, the summit's facilitator, while offering his closing remarks on the event, "both in terms of the meteorological data, but there are all these questions about: How much water is there? Are we measuring it right? Of the water that's used, how much of it is consumptive and how much of it is recycled back? How efficiently is water used? Can we measure that? Or how much value does that water use produce?" The event

featured panel discussions on everything from water law in Nevada to the drought's effects on agriculture, tourism, and the environment. All of that information is being handed off to Governor Brian Sandoval's drought forum, which will use it to make recommendations by the end of this year. One big announcement at this week's event came from Mark Foree, the general manager of the Truckee Meadows Water Authority who confirmed that the region will not need to tap into its drought reserve at Independence Lake: "It's our largest and our best drought reserve. It holds over 17,000 acre-feet, and if we can save our largest reserve for next year, that's a big deal." The water authority hasn't tapped Independence Lake in more than 20 years. Foree says voluntary conservation staved off its use this year; although, they did start using other upstream reserves back in June.

## Fall Means Scaling Back Water Use

Posted: Sep 25, 2015 4:48 PM PDT <em class="wnDate">Friday, September 25, 2015 7:48 PM EDT</em> Updated: Sep 25, 2015 5:27 PM PDT <em class="wnDate">Friday, September 25, 2015 8:27 PM EDT</em>

By Paul Nelson

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Summer is officially over and October is less than one week away. As the nights get longer and cooler, less water is needed for our lawns. The Truckee Meadows Water Authority is asking customers to scale back water use as we get deeper into fall and as the drought continues.

"Ninety degrees at the end of September is different than 90 degrees in the middle of July," Andy Gebhardt, TMWA Manager of Customer Services said. "The days are much shorter."

Gebhardt says keeping your water use at summertime levels is just a waste of our limited resource. He says customers can easily cut time from their normal watering cycles and their lawns will be just fine.

"It's still getting warm in the day," Gebhardt said. "So, you want to give it a little splash but if you were in the summer time and having four cycles, you could probably get away with two cycles, now, and it's going to be just fine."

The water in Reno and Sparks is still being supplied by drought reserves. This summer's water use is 13% less than in 2013 and officials say it's important to keep up conservation efforts.

"I'm ecstatic," Gebhardt said. "The community has done a great job. We appreciate all their help and I hope they keep it up."

Landscape experts say many types of grass, in our area, thrive in cooler temperatures. Along with cutting back water, there are other things you can do to maintain your lawn.

"You're going to start seeing a lot of growth in your lawn, now," CJ Sanders, Owner of Creative Gardens said. "So, just be sure you're only cutting a third off."

Sanders says it is important for your equipment to be in good condition, too.

"Make sure your lawnmower blades are nice and sharp because that way it gives it a nice, clean cut," Sanders said. "It doesn't fray the top and that's going to help the root's establishment instead of trying to replace the blades."

Sanders also recommends using an organic fertilizer on your lawn before winter comes. He says that will give the grass a head start, come springtime.

"That's going to help put nutrients back into that soil that we've diluted from watering all summer long, to give it a nice sustained fertilization throughout the winter months," Sanders said.

Fall also means leaves will begin to fall from the trees. Sanders says it is important to keep your lawn clear of any of those leaves and debris. Those types of things tend to trap moisture, which can eventually kill the grass. He says it is also a good idea to aerate your lawn before winter but says that can wait until spring

# Reno-Sparks won't have to tap largest drought reserve reservoir



Jeff DeLong, [jdelong@rgj.com](mailto:jdelong@rgj.com) 3:44 p.m. PDT September 22, 2015



(Photo: Jason Bean/RGJ file)

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Truckee Meadows residents have saved enough water over this summer of drought that the area's primary water provider will not be forced to tap its most important reservoir for drought reserves as originally expected.

Water stored at the Sierra's Independence Lake will not be needed to meet water demand as the summer winds to a close, said Mark Foree, general manager of the Truckee Meadows Water Authority. Foree, joined by other municipal and public water providers, appeared during the second day of Gov. Brian Sandoval's drought summit in Carson City.

"We do not expect to use Independence Lake this year, which is really good news," Foree said. "It looks like we will be able to avoid using our biggest drought reserve."

This is the second summer in a row that drought conditions – which have lowered Lake Tahoe to below its natural rim and cut off flows of water into the Truckee River – forced the water authority to tap upstream drought reserves to provide water needed across the Reno-Sparks area.

Drought reserves stored at Boca and Stampede reservoirs and Donner Lake has been used to meet summer water demand, with some 10,000 acre-feet of drought supplies expected to be used by fall, Foree said. That’s about twice the amount of reserves used during the summer of 2014.

But a voluntary request by the utility for its customers to cut water consumption by at least 10 percent has been achieved throughout the summer, meaning it will not have to use any of the 17,000 acre-feet stored at Independence Lake. That water will be available for use next summer should the drought continue.

The authority has almost reached its goal of saving 5,000 acre-feet through voluntary reductions by customers, Foree said.

“We’re virtually there right now,” Foree said. “This shows the importance of our customers pitching in.”

Foree and others are reporting to the drought summit, which Sandoval hopes will lead to concrete recommendations for dealing with droughts of the future. On Tuesday, public water supplies, resorts, industrial developers and farmers and ranchers discussed impacts of a drought now in its fourth year.

Among those speaking was Andrew Strain, vice president of planning and government affairs for Heavenly Mountain and Northstar California ski resorts. Both properties are owned by Vail Resorts.

Poor snowfall over the last four winters have produced a challenge the ski resorts have largely met with snow-making, Strain said. But that important backup was impacted last winter by warmer-than-normal temperatures that limited snow-making at times, Strain said.

“The temperature data is going the wrong way,” Strain said. “If we can’t get the snow on the hill, the market starts to wander off. They find other things to do.”

# Summit brings call for Nevada water law changes



[Jeff DeLong](mailto:jdelong@rgj.com), jdelong@rgj.com 1:13 p.m. PDT September 25, 2015



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The Truckee River barely covers the rocks in its bed as it flows toward downtown Reno on June 17. (Photo: Jason Bean/RGJ) Buy Photo

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Changes to century-old law guiding water use across Nevada will likely be considered in the wake of the drought summit convened by Gov. Brian Sandoval.

The three-day conference, which wrapped up Wednesday in Carson City, was called in response to a crippling drought that has gripped Nevada for four straight years, diminishing water supplies, withering fields and producing widespread economic impacts.

Participants, including government and tribal officials, business leaders, farmers, ranchers, scientists and conservationists, agreed changes are needed to cope with droughts that are bound to reoccur in coming years.

“This is a problem that likely isn’t going away,” Kyle Davis, representing the Nevada Conservation League, said in summing up the thoughts of many.

“We are going to have more droughts that are longer in duration,” Davis said. “We need to know how we are going to deal with less water.”

The Drought Forum, established by Sandoval last April, will begin to sort through ideas raised during the summit when it next meets Monday. The plan is to provide the governor with a set of concrete proposals for a drought plan he said he will likely unveil during his 2016 State of the State address.

Across the spectrum, many summit participants pressed for changes in Nevada water law described as inflexible and poorly set up to deal with serious drought conditions.

Often cited during the summit was a “use it or lose it” provision of law which requires holders of Nevada water rights to demonstrate they have put their water to beneficial use or take the chance that water could go to someone else. Critics say that discourages water conservation by agricultural producers and others at times it is most needed.

Another potential change in water law cited during the summit could allow for capture and use of rainwater – currently an illegal practice.

Bruce Scott, chairman of Nevada’s Board for Financing Water Projects, suggested Sandoval should put statutory changes in water law at the same level of priority as he did the state’s education system in 2015.

“I think water is that important,” Scott said. “Water has been ignored for far too long.”

Lewis Michaelson, president of Katz and Associates and formal facilitator of the summit, noted that some participants voiced concern over going too far in changing law that has successfully guided Nevada water use for decades.

“A lot of people used the word ‘tweak.’ We’ve got to tweak water law,” Michaelson said. “I think that represents a desire for incrementalism. Let’s not go too far too fast.”

Many stressed a need to increase water storage in Nevada. But Howard Watts of the Great Basin Water Network said that effort should involve such things as increased recharge of groundwater aquifers, not construction of new dams and reservoirs.

“We’re not against (increased storage) but we believe it has to be the proper kind of storage,” Watts said.

“There is no new water in Nevada,” Watts said. “The water resources we have are finite. Conservation is the key. It’s the No. 1 thing we should do.”

Watts said it is difficult to overestimate the importance of properly managing limited water resources in face of future droughts.

“We do need to move forward looking at what the worst-case scenario is,” Watts said.

# TMWA: Fall is Time To Cut Back on Lawn Watering

SEPTEMBER 26, 2015 BY [THISISRENO LEAVE A COMMENT](#)

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Fall in the Truckee Meadows is the time to cut back on watering your lawn, according to landscape experts. As the temperatures drop, especially at night, outdoor plants require approximately half the amount of water used in July and August.

“As we start moving into September and the temperatures begin to cool, your landscape will require less water,” said Heidi Kratsch, northern area horticulture specialist for the University of Nevada Cooperative Extension. “The start of fall is a great time to decrease your lawn irrigation frequency,” she added.

In October, Kratsch suggests setting your irrigation clock to water two days per week instead of three days per week making sure the water penetrates six inches into the soil, which will encourage deeper rooting. By November, sprinkler systems should be turned off completely, letting turf go dormant for the winter. Homeowners should track evergreen shrubs and trees throughout the dormant season, as they may need to be deep-watered by hand at least once a month, if the fall and winter months are dry.

“All residents play an important role in maintaining a healthy water supply in the Truckee Meadows,” said Andy Gebhardt, customer services manager for Truckee Meadows Water Authority. “So please remember that we are using our drought reserves. Any water you save now can be held in upstream reservoirs for next year.”

Reducing outdoor watering in the fall can also mean a lower water bill. “The average customer uses four times more water in summer months than in the winter, so reducing your water use now can also save money,” Gebhardt said.

Visit the Water Works! blog at <https://tmwawaterworks.wordpress.com/> for more of Kratsch’s fall lawn care tips including how to fertilize at this time of the year. TMWA offers “Winterize Your Irrigation System” workshops on Oct. 21, Oct. 28, Nov. 10 and Nov. 17. All workshops are free and start at 5:30. For more information, including how to sign up, visit [tmwa.com/news/events-calendar](http://tmwa.com/news/events-calendar).

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## Big Needs for Drinking Water Projects in Nevada

*Posted: Sep 27, 2015 10:20 AM PDT <em class="wnDate">Sunday, September 27, 2015 1:20 PM EDT</em>Updated: Sep 27, 2015 10:20 AM PDT <em class="wnDate">Sunday, September 27, 2015 1:20 PM EDT</em>*



Courtesy: Frank Kovalchek

By KEN RITTER  
Associated Press

LAS VEGAS (AP) - A milestone pipeline project to keep drawing water from a shrinking Lake Mead is just one of many efforts on a long list of projects aimed at keeping plentiful and cheap tap water flowing in the nation's most arid state.

Officials call the \$817 million "Third Straw" to Las Vegas the most expensive single water works project ever in Nevada.

An Associated Press examination of federal Environmental Protection Agency data found Nevada listing some \$5.6 billion in water projects that need funding over the next 20 years - about in the middle of the pack nationally and locally.

"It's markedly different than the East and Midwest," said Mark Foree, general manager of the Truckee Meadows Water Authority in Reno. "We're not like Philadelphia, with a 200-year-old system. The vast majority of our pipelines are probably only 40 or 50 years old."

The federal agency projects it will cost \$384 billion over 20 years just to maintain the nation's existing drinking water infrastructure. Replacing pipes, treatment plants and other water works as well as expanding systems to handle population growth could cost \$1 trillion.

Neighboring Utah needs to fund \$3.7 billion in drinking water projects by the mid-2030s, according to the EPA data. Arizona needs \$7.4 billion. California needs \$44.5 billion.

Needs in Nevada include:

\$2.8 billion for pipeline and water distribution projects.

\$1.3 billion for water treatment projects.

\$1 billion for water intake structures, drilled wells and spring collectors.

\$331 million for water storage projects.

State Department of Environmental Protection chief Dave Emme said Nevada helps water agencies chip away at their 20-year needs list with low-interest loans for water infrastructure improvements.

The revolving fund takes in \$12 million to \$13 million a year in EPA grants, Emme said, and is augmented with interest revenues. It has about \$43 million today.

Atop the 2016 funding list is a \$12 million loan to the Kingsbury General Improvement District to relocate an obsolete water treatment plant in the Stateline community along Lake Tahoe's south shore.

Also listed: Arsenic mitigation and groundwater treatment projects in Carson City, the Douglas County fairgrounds, and towns and homeowner associations; a storage tank replacement in Elko; a metering system in Tonopah; distribution lines in Ely; \$8,000 to repair a water tank in Baker.

"We still struggle with some of the small towns and communities or privately owned mobile home parks with their own systems and limited ways to maintain and upgrade them," Emme said.

The bottom line in 2016 totals more than \$279 million. Not all will be funded, Emme said.

Statewide, Nevada gets a little less than 8 inches of rainfall per year, according to the National Weather Service. Las Vegas gets half that amount.

In the north, and away from cities, drinking water comes from streams and wells tapping underground aquifers.

But the Truckee River is Reno's lifeline. Foree said the Truckee Meadows authority has 120,000 customers in Washoe County, and spends about \$20 million a year maintaining and upgrading 1,300 miles of pipeline, pumping stations, regulators, tanks and the 90 wells that augment the river water supply.

In the south, Las Vegas gets 90 percent of its drinking water from Colorado River snowmelt runoff at Lake Mead, the huge reservoir behind Hoover Dam.

Water hadn't even flooded the third intake before the Las Vegas-based Southern Nevada Water Authority began construction on another big project - a \$650 million third pumping station to keep water flowing to the casino Strip and sprawling suburbs. Customers served by the authority and its seven member agencies are footing most of that bill.

But Emme said about 80 percent of the money flowing through the Drinking Water State Revolving Fund goes to the Las Vegas area, home to about 2 million of the state's 2.5 million residents and destination for some 40 million tourists a year.

The umbrella Southern Nevada Water Authority, listed in its 2011 EPA needs assessment about \$340 million over 20 years for projects such as improvements to water treatment facilities, quagga mussel controls at Lake Mead and water quality monitoring throughout the Las Vegas valley, authority spokesman Bronson Mack said.

Another \$2.7 billion was included for groundwater development - including the biggest proposal yet: Wells to tap underground aquifers beneath rural valleys straddling the Nevada-Utah state line and pipe the water 250 miles south to Sin City.

The project is opposed by environmentalists and ranchers fearful wells and springs will dry up. Court challenges are pending.

But Mack said the project would help diversify southern Nevada's water portfolio and provide a water source "independent of the drought-plagued Colorado River."

Associated Press writer Brady McCombs in Salt Lake City contributed to this report.

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September 28, 2015

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The following media outlets ran this story: AP, Washington Times (D.C.), San Francisco Chronicle, Las Vegas Sun, SF Gate, Merced Sun-Star, Woodland Daily Democrat, Klamath Fall Harold and News, Idaho Press Tribune, San Francisco Gate, San Anntonio Express-News, Franklin (IN) Daily Journal, Washington (D.C.) Metro Bugle, San Jose Mercury News, KTVN, Portrerville (CA) Recorder, Nevada City Newslne, Contra Costa (CA) Times, World News Network, KENTV (Elko), Lodi News, Nevada Appeal, KRNV, KOLO< KFMB (San Diego), HomeGate (local real estate news, and several others), KMPH (Central San Joquin Valley) and Oakland Tribune, KSL (Salt Lake). (This might be the biggest story TMWA has ever had.

SAN FRANCISCO CHRONICLE

SCIENCE

# Reno-Sparks water conservation averts tapping big reservoir

September 26, 2015 Updated: September 26, 2015 8:18am



Photo: Scott Sonner), AP

People walk along the nearly dry bed of the Truckee River where it normally flows out of Lake Tahoe underneath Fanny Bridge in Tahoe City, California in this photo taken June 18, 2015. The Truckee Meadows Water Authority had to tap some reservoirs for emergency drought relief but won't have to borrow from the biggest one this year, thanks to water conservation downstream in Reno and Sparks, Nevada. .

RENO, Nev. (AP) — Conservation-minded residents in the Reno-Sparks area have saved enough water this summer that the region's most important storage reservoir won't have to be tapped for emergency drought relief as originally expected.

Lake Tahoe dropped below its natural rim in June, cutting off flows into the Truckee River, the metro area's major source of water.

For the second year in a row, the **Truckee Meadows Water Authority** had to borrow from drought reserves upstream at Donner Lake, and Boca and Stampede reservoirs.

But thanks to local customers who voluntarily cut water usage by 10 percent, TMWA general manager Mark Foree says they won't have to use any of the water stored at Independence Lake.

Foree told the Reno Gazette-Journal (<http://tinyurl.com/pjzpb34>) that's "really good news" because it will be available next summer if needed.

Independence Lake is the largest of the reservoirs, with 17,000-acre feet of storage. The authority expects to have drawn about 10,000-acre feet of water from the three other sources by fall - about twice as much as had to be taken in summer 2014.

TWMA customers were asked to save a total of 5,000 acre feet through voluntary reductions.

“We’re virtually there right now,” Foree said. “This shows the importance of our customers pitching in.”

Foree was among those who appeared at Gov. Brian Sandoval’s drought summit last week.

Others included Andrew Strain, vice president of planning and government affairs for Heavenly Mountain and Northstar California ski resorts. Both properties are owned by Vail Resorts.

Poor snowfall over the last four winters has produced a challenge the ski resorts have largely met with snow-making, Strain said. But that important backup was impacted last winter by warmer-than-normal temperatures that limited snow-making at times, Strain said.

“The temperature data is going the wrong way,” Strain said. “If we can’t get the snow on the hill, the market starts to wander off. They find other things to do.”

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Information from: Reno Gazette-Journal, <http://www.rgj.com>

# Can we finally stop saving water for fall? No



[Mark Robison](mailto:mrobison@rgj.com), mrobison@rgj.com 10:15 a.m. PDT September 30, 2015



Boulders protrude from a drought-ravaged Truckee River, as seen from under the Sutro Street overpass facing east, on Sept. 29, 2015.(Photo: Mark Robison/RGJ)

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Fall is here so does that mean Reno-Sparks residents can stop conserving water like we were doing during the summer?

•**Short answer:** No, keep saving water because it helps maintain drought reserves.

## **Full question**

As trees start changing color in the Truckee Meadows, it might be understandable to think all the drought efforts to save water could be put on hold for a while.

## **Full response**

But, no, that time has not come yet. TMWA still recommends saving water.

“We are still releasing drought reserves in order to meet customer demands, which have been very high due to a record warm September, possibly the third warmest on record according to the National Weather Service,” said Bill Hauck, senior hydrologist at TMWA, in an email. “And as long as TMWA is making releases of drought reserves, conservation is extremely important. Every gallon that we don’t have to release is a gallon that we can hold in reserve for next year in case we need it.”

Continuing conservation efforts at this point in the year doesn’t feel necessary because winter water is generally expected to recharge drought reserves fully whether or not Northern Nevadans save now. Right?

[RENO GAZETTE JOURNAL](#)

[Ask the RGJ: Bath vs. shower? Car wash vs. hose?](#)

“A *portion* of TMWA’s reserves are refilled even in the driest winters,” he responded. “I am sorry but I don’t like to predict the weather — especially six months out — so I cannot tell you how much will actually end up being refilled in our upstream reservoirs next spring.

“I can tell you that we will have adequate drought reserves going into the summer of 2016 regardless of what this next winter brings. We are using more than we have been able to refill during each of the last two years, and that is exactly the reason why it was so important that TMWA customers did their part this year. Every gallon not released right now is water we’ll have in reserve for next year if we have another dry winter.”

# Switching to meter? Look at water bill, not landscaping



[Mark Robison](#), mrobison@rgj.com 9:32 a.m. PDT September 30, 2015



Trees show fall colors in this 2012 photo from Washoe Valley.(Photo: Marilyn Newton/RGJ)

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If you are one of the flat-rate users who switched to metered rates for your water usage starting Oct. 1, should you start making landscaping changes to prepare for possibly higher bills?

•**Short answer:** At this point, there is not much you should do to make significant changes regarding your landscape's water use, but it is a perfect time to analyze whether you can afford to maintain your yard in the way to which it has become accustomed.

## Full question

After many delays, Truckee Meadows Water Authority customers who have been paying a flat rate for water will be charged based on how much they use starting Oct. 1.

Changing to metered rates is expected to lead to big water savings throughout Reno-Sparks.

RGJ environmental reporter Jeff DeLong wrote earlier this summer, “Flat-rate customers typically use twice as much water as those on meters — 281,000 gallons on average compared to 121,000 gallons in 2014.”

Some flat-rate users might not change their habits until fiscal constraints force them to.

[RENO GAZETTE JOURNAL](#)

[Ask the RGJ: Reno growing season 2 months longer? Yes\\*](#)

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[Ask the RGJ: Why no ‘cash for grass’ in Reno?](#)

This is not meant as a slight. Many have lived here for decades on a flat rate and old habits die hard. Plus conversion to xeriscaping can be cost prohibitive. They are caught between competing forces, and at this point in life, some are on fixed incomes, further complicating the picture.

So I wanted to find out what they could do now with their landscaping — the No. 1 water use — to prepare for potentially rising water bills. (Some customers are expected to pay less with metered rates.)

**Full response**

Wendy Mazet, a horticulturalist with the [University of Nevada Cooperative Extension](#), said she would not recommend former flat-rate customers do anything with their landscaping now. Instead, she suggested they use this time to go back over how much they used during the past year.

Many of “these people on a flat rate going to a meter have no idea what their usage was to begin with, so to make changes now is not going to make sense,” she said by phone. “They have no idea if they’re going to be able to afford their landscape until they get their first bill.”

Upcoming water bills offer an opportunity to aid this assessment.

“Winter is a great time for reflection — ‘This is how much water we’re using just for the household items, so that gives a good idea how much we’re using without outside, so how are we going to maintain this beautiful landscape if our water bill is going to double?’ ” Mazet said.

Kim Mazeres, TMWA’s director of customer relations, said that each water bill for flat-rate users shows how much they would have paid if they’d been on a metered rate. If past bills have been

tossed in the garbage, they can be viewed by [logging onto your TMWA account online](#) or by calling customer service at 775-834-8080 to learn what you would have paid.

[RENO GAZETTE JOURNAL](#)

Ask the RGJ: How much water do Nevada dairy cows use?

For those who started reducing water this summer in preparation for the switch, Mazet said, it also might be useful to think about which parts of the yard were difficult to maintain with less water.

“Would that area be better off with perennials or shrubs because they take less water and don’t need mowing each week?” she said.

The biggest problem people are likely to have is that they are overwatering and don’t know it, she said.

The cooperative extension has no more classes for the year but its horticulturalists and master gardeners are available to answer questions and vet landscaping ideas.

“They can call, email pictures, bring in pictures — now is a good time to bounce around ideas,” Mazet said.

You can reach the cooperative extension by calling 775-784-4848, emailing [mastergardeners@unce.unr.edu](mailto:mastergardeners@unce.unr.edu), or visiting 4955 Energy Way in Reno between 9 a.m. and 4 p.m. Mondays, Tuesdays and Thursdays

## As climate warms, UNR experiments with drought-tolerant crops



UNR researches drought resistant crops Jason Bean & Jeff DeLong



[Jeff DeLong](mailto:jdelong@rgj.com), jdelong@rgj.com 7:10 a.m. PDT September 4, 2015



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Biochemistry Professor John Cushman poses for a portrait surrounded by Camelina plants at University of Nevada's College of Agriculture greenhouse complex in Reno on Aug. 5, 2015. Camelina plants can be used for biodiesel fuel and are drought resistant.(Photo: Jason Bean/RGJ)Buy Photo

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In the protected environment of a Reno greenhouse, some potential players in the future of Nevada agriculture flourish.

There's camelina, a tall but narrow member of the mustard family with oil-rich seeds that could produce a biodiesel fuel to power trucks and planes. In another room sit rows of spineless prickly pears, which produce a popular fruit that tastes like a combination of mango and watermelon but could also be used in the textile industry, to produce ethanol and as forage for cattle.

And there are a couple of types of agave, a spiny, succulent plant found across Mexico and the Southwest. Agave also offers potential for biofuel production but is best known for making tequila.

All have this in common: They need much less water than many conventional crops, are tolerant to droughts like the one now firmly gripping Nevada and offer the potential to play a significant role in the future of agriculture in this arid state — particularly as conditions warm due to climate change.

“If we go to more drought-tolerant crops, we would have the ability to maintain an agricultural industry, but it’s going to require a major retrofit in how agriculture is done,” said John Cushman, a biochemistry professor at the University of Nevada, Reno’s College of Agriculture.

### **Alternative crops explored**

In Nevada, water-hungry alfalfa is king. It’s the state’s dominant crop, partly due to its close connection to Nevada’s other primary agricultural operation, cattle ranching. That’s not likely to change any time soon.

Still, changes are occurring and new opportunities are being explored. One such opportunity is offered by teff, a fine grain roughly the size of a poppy seed that not only offers a nutty flavor but is highly nutritional.

Teff is native to and grows in the desert climate of Ethiopia and Eritrea.

It also grows in Fallon, one of several spots in Nevada where teff is being studied as a rotational crop for alfalfa, with up to 1,200 acres of the summer annual crop grown here. After growing and being harvested for five or six years, an alfalfa stand is typically replaced by another crop for a time, typically winter wheat or corn. Teff looks to become a promising option and uses far less water, said Jay Davison, a crops specialist with the University of Nevada Cooperative Extension.

“It’s become really a good crop for us here. A farmer can make a very good return with this, and it only uses a portion of the water,” Davison said, adding that Nevada has the potential to provide half of the demand for teff in the United States.



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Agave plants are seen at University of Nevada's College of Agriculture greenhouse complex in Reno on Aug. 5, 2015. Agave are drought resistant plants and can be used for biofuel. (Photo: Jason Bean/RGJ)

If teff already has a foothold in Nevada, Cushman and colleagues are studying other crops that might someday in the future.

On a half-acre plot at the agricultural experimentation station at Logandale about an hour's drive east of Las Vegas, researchers are growing three varieties of spineless prickly pear, testing how well they do with varying amounts of watering.

“They are doing excellent. Some of them are just monster big,” said Carol Bishop, educator with the University of Nevada’s Northeast Clark County Cooperative Extension.

While Cushman is exploring the plant’s potential use in ethanol production, Bishop is most interested in the market for human consumption. The plant’s sweet-tasting fruit is already popular in the Hispanic market but could be marketed to many others as jams, jellies and drinks, Bishop said. She plans to soon start a statewide competition for prickly pear recipes.

“There’s an incredible lot of potential to expand beyond the traditional Hispanic use into the mainstream market,” Bishop said.

One type, *agave Americana*, also known as the century plant, can already grow well in Nevada. *Agave tequilana*, the type used to make, you guessed it, tequila, does not because even Southern Nevada is too cold.

Climate change, Cushman said, could change that before long. And droughts expected to accompany a changing climate may make necessary a new way of looking at things, he said.



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Biochemistry Professor John Cushman talks about the benefits of Agave plants at University of Nevada's College of Agriculture greenhouse complex in Reno on Aug. 5, 2015. (Photo: Jason Bean/RGJ)

“With global warming, it will be warm enough soon, in the next decade or so,” Cushman said. “Right now, the climate is too cold, but in the future, as the climate warms slowly, we expect to see the places agave can grow to migrate north.”

Regardless of what the climate does, the idea of making major changes in Nevada agriculture is sure to meet some resistance, Cushman said. It will require a cultural shift.

“Agriculture is very conservative. You have fourth and fifth generations growing alfalfa in Fallon and they want to keep doing the same thing, but they won’t be able to,” Cushman said.

“Change is always difficult. I think change might be precipitated by these catastrophic drought events.”

## Changes Coming to Some TMWA Bills

By: [Colin Lygren - Email](#)

Updated: Fri 9:10 AM, Oct 02, 2015

By: [Colin Lygren - Email](#)



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RENO, NV - [Water](#) wasters beware! Some TMWA customers are about to see their bills increase dramatically.

A small group of Truckee Meadows Water Authority [customers](#) will be billed differently starting in October 2015. Not everyone needs to be worried, just those who are paying a flat rate for their water, instead of paying by the gallon.

The reason for the [change](#) is simple. For decades, certain homes in our area have been using more water than they are paying for. TMWA hopes that by placing the homes on water meters, the residents will start to conserve.

"What we have seen is that when customers pay for the water they are using rather than just the flat rate, they conserve," said Kim Mazeres, Director of [Customer Relations](#) at TMWA.

Of 123,000 TMWA customers, only 5,000 are not on water meters.

"We have been talking about having everybody on water meters and there were some people that were not on water meters and they were using a lot of water," said Sparks Mayor Geno Martini, who also serves as Chairman on the TMWA Board. "(This) is a good thing; we need those people to pay for the water they use."

Prior to the switch-over, the only customers still on flat rate water were in homes 27 years or [older](#), and the customers had been there since February of 2002.

Newer neighborhoods like Spanish Springs and Somerset were built after 1988, so they have been charged a metered rate the entire time. The story is a little different in the older parts of town. In old southwest Reno, most the houses were built before 1988 and many of the residents have lived there

for more than a couple decades, which means a few of the houses in the neighborhood could still be on flat-rate water.

"Over the course of a year, 70-80 percent of those people will either pay less or the same on the metered rate," said Mazerres.

Water abusers, however, will feel the pinch. TMWA showed us a billing statement for a customer who paid \$100 for water last month, but the customer actually used \$1,000 worth of water.

TMWA expects to save 46 million gallons a year through this program.

# 1M gallons saved by RGJ Water Savers Club



[Mark Robison](mailto:mrobison@rgj.com), mrobison@rgj.com 6:51 a.m. PDT October 5, 2015



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TMWA water operations supervisor Will Raymond, center, talks about an evaporation pond at the Reno water treatment plant as part of a July 25 bus tour of Reno's water system. Jason Bean, Jason Bean/RGJ

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TMWA water operations supervisor Will Raymond, center, talks about an evaporation pond at the Reno water treatment plant as part of a July 25 bus tour of Reno's water system.(Photo: Jason Bean/RGJ)Buy Photo

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RGJ Water Savers Club members saved just over 1 million gallons of water this summer compared with last year.

The club was started in June to help the community save water by providing conservation tips, educational public events and an online method to calculate personal savings.

Three club members who input their summer water usage for this year and last were chosen at random — using the random number generator at [random.org](http://random.org) — to receive gift cards from Moana Nursery. Eleanor Davis will get one for \$300, Patricia Fries will get one for \$100 and Thom Riddle will also get one for \$100.

Events started in July with Moana Nursery workshops on water-wise landscaping and a walking tour for Girl Scouts to learn about drought-resistant plants. Sessions were led by Scott Gescheider, general manager of landscape services, and horticulturists Jon Bruyn, Lisa Braginton and Steve Packer.

A sold-out bus tour with expert narration from Truckee Meadows Water Authority’s Bill Hauck and Kim Mazeres gave an in-depth look at Reno’s water system, following the Truckee River from Fanny Bridge in Tahoe City to Boca Reservoir, the Verdi Hydroelectric Plant and the Chalk Bluff Water Treatment Plant in Reno.

At Heritage Restaurant & Bar inside Whitney Peak Hotel, a Battle Born drought discussion was held Aug. 12 with RGJ environmental reporter Jeff DeLong, TMWA director of natural resources management John Erwin and a DRI climatologist David Simeral taking questions from attendees.

A sold-out behind-the-scenes walking tour Aug. 20 looked at the Peppermill’s high-tech water saving upgrades.

And on Sept. 15, kids learned about the Truckee River ecosystem and water conservation at McKinley Arts & Culture Center with a book reading of “The Secret Life of Streams” by city of Reno hydrologist Lynell Garfield-Qualls and hands-on activities guided by Girl Scouts of the Sierra Nevada program manager Jessica Mahon.

The club partnered with the Girls Scouts to create a [Water Savers Patch program](#) that may continue into the future.

We will keep the [RGJ Water Savers Club’s Facebook page](#) active for anyone who wants to share conservation tips or ask questions about saving water. We will also continue to share RGJ drought and water-saving stories there as we wait to see what this winter holds in store for the region’s record-setting drought.

Thank you for participating, and thank you for saving water.

## Beyond Tahoe: Exploring Our Waterways

We often hear news stories about Lake Tahoe covering all of the latest research findings and environmental initiatives impacting our Jewel of the Sierra. While certainly important, Tahoe isn't our only waterway.

That's why Reno Public Radio is visiting, researching, and producing in-depth profiles on several other bodies of water to highlight the unique assets they offer our region, along with the complex challenges they face.

We'll delve below the surface to take a look at Pyramid, Donner, and Independence Lakes, along with the Truckee River and Sparks Marina.

Our series *Beyond Tahoe: Exploring Our Waterways* is airing on *Morning Edition* and *All Things Considered* from October 5-9. You'll find all of our local stories, plus web extras like photos and videos, on this page.

### And did you know...

...Donner Lake contains high levels of chemicals used in flame retardants, fertilizers, and pesticides?

... Pyramid Lake and Walker Lake are sister systems and remnants of the Pleistocene Lake Lahontan that used to cover most of northwestern Nevada?

...the **Truckee Meadows Water Authority** almost tapped its last resort reservoir—Independence Lake—this summer, which hasn't been done in decades? Ultimately, voluntary conservation and the lucky timing of just a few rainstorms prevented that from happening.

...at just over 120 feet deep, Sparks Marina holds about a billion gallons of water? Initially, it was supposed to take up to 5 years to fill this hole, but the New Year's Day Flood of 1997 filled the marina in just a couple of days.

...the organization Keep Truckee Meadows Beautiful regularly finds all sorts of stuff in the Truckee River—everything from grocery carts and shoes to used diapers?

### [Truckee River is Local Jewel, But It Wasn't Always That Way](#)

By ANH GRAY · 3 HOURS AGO



The scenic Truckee River, which winds through [downtown Reno](#), is now considered a valuable asset, but it wasn't always that way. Reno Public Radio's Anh Gray takes a look back at how the river was once overlooked.

## [Protecting the Truckee River: The Lifblood of Downtown Reno](#)

By ANH GRAY • 3 HOURS AGO



The Truckee River winds through the [Riverwalk District](#), but a number of issues like urban blight prevents the area from reaching its fullest potential. That’s why public and private stakeholders are collaborating on a master plan to protect this waterway and the community around it. To learn more, Reno Public Radio’s Anh Gray spent time along the Truckee. Even though the Truckee River has dwindled from a roar to a trickle, the sound of flowing water—or what’s left of it— still beckons people to relax, play, or just be in the moment.

## [Is Something Fishy At Donner Lake?](#)

By AMY WESTERVELT • OCT 5, 2015



AMY WESTERVELT

Donner Lake in Truckee holds some of the largest lake trout in California, but Reno Public Radio's Amy Westervelt reports that Donner fish might not make for the healthiest meal.

Truckee residents take pride in having their own lake. At only 1.3 square miles compared to Tahoe's nearly 200, Donner may be small, but the clear, cold lake, ringed by mountains is no less popular for swimming, paddleboarding, and fishing. It also boasts one of just a few sandy stretches in the area.

## As Pyramid Lake Popularity Grows, So Does Trash

By JULIA RITCHEY · OCT 5, 2015



JULIA RITCHEY

Although it receives far less attention than Lake Tahoe, Pyramid Lake is one of Nevada's most picturesque desert oasis. But Pyramid faces a number of challenges as a recreational destination, including illegal dumping and increasing salinity levels. Today, as we begin our series called Beyond Tahoe: Exploring Our Waterways, reporter Julia Ritchey travels to Pyramid Lake to tell us its story.

It's a busy weekend at the Pelican boat launch at Pyramid Lake. A line of eager boaters wait to unload pontoons, jet skis and other watercraft at the bottom of the ramp.

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# Protecting the Truckee River: The Lifeblood of Downtown Reno

By ANH GRAY · 2 HOURS AGO

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alt="The Truckee River. Photo by Alexa Ard.">

The Truckee River. Photo by Alexa Ard.

The Truckee River winds through the [Riverwalk District](#), but a number of issues like urban blight prevents the area from reaching its fullest potential. That's why public and private stakeholders are collaborating on a master plan to protect this waterway and the community around it. To learn more, Reno Public Radio's Anh Gray spent time along the Truckee. Even though the Truckee River has dwindled from a roar to a trickle, the sound of flowing water—or what's left of it— still beckons people to relax, play, or just be in the moment.

Listen  
Listening...

4:45

“It really adds to the downtown,” Morales says. “It probably attracts people here because they want to enjoy the serenity of the area.”

That’s Mil Morales a visitor from California who’s been enjoying restaurants and shops dotted along the river. And with construction taking place around the area, like at the old post office on North Sierra, more businesses are settling in.

“I think it’s probably about time that downtown gets a little more revamping,” Elena Conway says. “There’s a lot of empty buildings, a lot of empty spaces that aren’t being used.”

Elena Conway is a long-time resident who now lives downtown and frequently takes breaks by the river with her dog Pearl. Conway says she often finds the area empty.

Getting more people to visit, shop and eat around the Truckee River is a priority for the Riverwalk Merchants Association—a group of business owners who banded together about twenty years ago. The group has recently grown to more than 60 members under Scott Dunseath’s leadership. To learn more about their work, I meet up with Dunseath at his shop, the city-pride apparel store Reno eNVy.

Anh Gray: “So tell me more about the Riverwalk.”

Scott Dunseath: “Sure let’s take a walk. The Riverwalk is the space between Keystone Avenue to the Ballpark...”

On our walk, we notice a mix of urban blight and new development all in one microcosm. On some blocks, issues of homelessness, loitering and litter persist. Yet, there are also people bicycling, walking their dogs, and strolling by. Dunseath says he often hears people saying, “Oh, I didn't know this was here; oh this is really cool; oh, man downtown has really turned a corner so it's a long road but we're getting there.”

Drawing people to the river has been an ongoing effort. Dunseath says the turning point came about a decade ago when the Whitewater Park opened at Wingfield.

“You started with the kayakers, then you'd see tubers, then you'd see rafters, and it really was the start of getting people back into the Riverwalk,” Duseath says.

Not far from the Riverwalk, over in Midtown, that community has undergone a transformation and has been successful with re-branding its image. Dunseath hopes to emulate that and get more locals and tourists to view the Riverwalk District as a distinctive part of town.

“We’re not a strip mall. You go to any city on any corner, you see the same 12 sandwich shops. We’re gritty and we’re pioneers,” Dunseath says. “That's what's cool about Reno. It builds character and it produces characters.”

For Dunseath preserving the health and beauty of the Truckee River is a must to attract people to the Riverwalk. That's why his group is collaborating with the nonprofit [Keeping Truckee Meadows Beautiful](#)—or [KTMB](#).

“When you think about where it comes from—Lake Tahoe—there's no more beautiful, purer water that I can think of and once it hits our community we find that it tends to get pretty dirty,” Christi Cakiroglu says. “When you think about that being our water supply, it's kind of a concern.”

Cakiroglu heads the annual [KTMB](#) river clean-up project. Hundreds of volunteers turn-up each year to clear tons of invasive weeds and collect garbage from the banks of the river.

“We find all sorts of things, everything from grocery carts and shoes to used diapers,” Cakiroglu says.

But, sustaining the river takes much more than just picking up trash. Cakiroglu says it's a big job that requires participation from many groups in the community. Last year [KTMB](#) partnered with [Nevada Land Trust](#) starting an initiative to develop the [One Truckee River Management Plan](#).

“There's not one overall plan for the river is what we have found,” Cakiroglu says. “What we have are a lot of groups and organizations that do various projects along different sections of the river.”

Reno councilwoman Naomi Duerr was the former director of the [Truckee River Flood project](#). From her experience, she says stewardship of the waterway is a complex undertaking with many ecological, safety, business, neighborhood, and aesthetic issues colliding.

“It's inevitable that you'll get involved in all of these issues,” Duerr says. “And I think by understanding how all these things interconnect, they're going to be more successful.”

Because of that complexity the [One Truckee River Management Plan](#) remains a work in progress. Stakeholders met last month to hash out long-term strategies, with the goal of presenting policies for adoption by government agencies next year. Regardless of what they decide, everyone working together shares a similar vision for the Riverwalk to become a bustling city hub home to a pristine waterway.

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# City of Reno considers jumping to Renown Health plans



[Anjeanette Damon](#), [adamon@rgj.com](mailto:adamon@rgj.com) 6:33 p.m. PDT October 5, 2015



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Renown Regional Medical Center in Reno(Photo: Andy Barron/RGJ)Buy Photo

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The Reno City Council will decide this week whether to follow suit with Sparks and the Washoe County School District and switch all of their employees to Renown Health plans, discontinuing its contract with Saint Mary's.

The switch would mean all city employees would have to use Renown Medical Center, Northern Nevada Medical Center or Carson-Tahoe Medical Center, as well as Renown-affiliated Hometown Health's network of doctors.

While the decision to hand the lucrative hospital services contract to Renown is up for a vote on Wednesday, the city hasn't actually read the contract.

In fact, the document isn't even in the city's possession and can't be vetted by the public.

Instead, the city, as well as Sparks and the school district, have handed negotiating power for the contract over to a non-profit organization that acts as a pooling agency for Northern Nevada's largest employers to act as a single, powerful buying unit.

The non-profit, Nevada Business Group on Health, is made up of 13 businesses and government agencies and includes seven of the county's 10 largest employers. Membership in the coalition costs the city of Reno \$3,429 a year. The city has been a member since 1995.

In exchange for the membership, Reno can combine its health insurance buying power with that of the area's other large self-funded plans.

The tradeoff, however, is transparency.

Unlike other city contracts, which by law must be made available to the public, the hospital services contract is between the Nevada Business Group on Health and Renown, not the city and Renown.

"We don't have a (copy of the) contract at this point," Reno City Clerk Ashley Turney said.

[RENO GAZETTE JOURNAL](#)

[School board revotes on contentious Renown health plan](#)

While the council's agenda says the council will be deciding a contract with Renown, it actually will be deciding on a de facto acceptance of the new contract by choosing whether to remain a part of the coalition that negotiated it.

"The question is whether we go with the coalition after their vetting, or do we not go with the coalition and negotiate on our own," Human Resources Director Kelly Leerman said.

With a smaller employee pool than the coalition's, Leerman said it is unlikely either hospital plan would be able to offer the same low rates to the city by itself.

The decision will affect nearly 1,800 employees and their dependents who now use Saint Mary's Regional Medical Center as their primary hospital, as well as Saint Mary's network of physicians. The city of Reno's self-funded plan also includes Truckee Meadows Water Authority and Reno Housing Authority employees.



Saint Mary's hospital (Photo: Ross Brinkerhoff)

Not all of those employees will lose their doctors because many area physicians are part of both Hometown Health's and Saint Mary's physician networks. Hometown Health is Renown's insurance division.

About 6 percent of Reno's employees will be forced to find a new doctor because of the plan switch, Leerman said. Most of the disruption will occur with chiropractors and pediatricians, according to the city's analysis.

Few specifics are available on how much the new contract will cost the city, largely because the cost each year is determined by how many claims are actually submitted.

Last year, the city spent \$25 million on its self-funded medical plan. The hospital services contract has an estimated value of \$1.6 million.

While the hospital services contract is through the coalition, Renown went after an opportunity to increase its business with coalition members by offering lower hospital rates for members who also use its Hometown Health physician network exclusively and its third party administrator.

Saint Mary's lawyer Bill Peterson said that's a fundamentally unfair offer because Saint Mary's doesn't do third-party administration—the work of reviewing and approving health claims.

“We believe in free choice, we don’t think the savings are there and we don’t think you ought to tie these products together,” Peterson said.

[RENO GAZETTE JOURNAL](#)

[Sparks approves Renown as new city health care provider](#)

Saint Mary’s will make a final play for Reno’s business at the council meeting on Wednesday, but Peterson isn’t optimistic the hospital will be able to peel Reno away from the coalition.

Renown officials said they are happy to be considered.

“We appreciate being considered as the healthcare provider for City of Reno employees," said Ty Windfeldt, Renown Health Vice President and CEO of Hometown Health. "We look forward to Wednesday’s discussion and potential approval of the contract by the City Council.”

As for what rates Renown actually charges under the hospital services contract, the city says it cannot release those numbers because of a confidentiality agreement it signed with the coalition.

But Leerman and finance director Robert Chisel said the hospital rates offered by Renown are lower than the rates offered by Saint Mary’s.

In an attempt to save the business, Saint Mary’s CEO offered at a public school district meeting to match Renown’s rates. The school district, however, opted to stick with the contract negotiated by the coalition. Sparks did the same.

City of Reno staff is recommending the city council follow suit, and choose the entire package of hospital services, network physicians, pharmacy and claims administration.

Even with the offer by Saint Mary’s to match the rates, Chisel said part of the recommendation is based on the fact staff believes Renown offers better customer service.

Not all coalition members are sold on the decision to exclusively contract with Renown.

Washoe County, which is also a coalition member, hasn’t yet made a decision to end its hospital services contract with Saint Mary’s. The county contracts with both and has found a benefit in allowing employees to choose which plan best suits their needs.

“We are concerned about going with one carrier in town,” said John Listinsky, Washoe County’s human resources director. “Throwing our dice with Renown may be a good deal for a few years, but you can’t predict what it might be five to seven years from now.

“The good thing about keeping both players involved is there’s a semblance of some kind of competition.”

The move by Renown to consolidate the coalition’s business comes at a time when local government resources are being increasingly taxed by rising health care costs.

Over the past decade, health insurance costs for the county have increased to \$97 million from \$56 million.

The school district’s health fund balance has dropped \$10 million in the past year. And Reno’s health fund net assets have dropped to \$9 million from \$15.5 million.

All of the members in the coalition operate self-funded plans, meaning they pay all claims directly out of a health fund. That means the city bears the risk of increased costs

# Independence Lake: Protecting Our Last Resort Water Reserve

By MICHELLE BLISS · OCT 9, 2015

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Independence Lake, CA

*The Nature Conservancy*

Independence Lake is just north of Truckee but is perhaps one of the last hidden gems of the Sierra. It's pristine, quiet, and it serves as Reno's last resort water supply—all reasons why more than twenty agencies are partnering to preserve it. For our series *Beyond Tahoe: Exploring Our Waterways*, KUNR News Director Michelle Bliss heads to this small, relatively unknown, lake to learn more.

Listen

Listening...

4:06

*Listen to the story.*

In order to set foot on the rocky, seemingly untouched shore of Independence Lake, it's recommended that you have 4-wheel drive.

Chris Fichtel makes this trek every week, which includes five solid miles of bumpy dirt road. He's a local project director for The Nature Conservancy, which owns more than 2,000 acres of forest land around the lake. Instead of phoning it in from Reno, Fichtel likes to check in firsthand.

"A couple weeks ago when we were driving up the road to the preserve," he says, "we saw smoke off to the side of the road and obviously somebody had not put their campfire out."

Fichtel arrived just in time, but it was a close call.

"It's a reminder that people have to be really careful, especially in these dry conditions," Fichtel explains. "It was one of those days when the wind was starting to come up, too, and very well could have turned into a major forest fire."

Wildfire is already a big threat because of the drought, but there's even more concern around Independence Lake since it's a reservoir for the Truckee Meadows Water Authority. In fact, it's the only upstream reserve [not tapped this year](#) because of voluntary conservation and the lucky timing of just a few rainstorms.

Up here at 7,000 feet, not much water evaporates from the lake, making it ideal for storage.

"That is the Sierra Crest right there," Fichtel points out, "so you can see how far up in the water shed we are. There aren't really any sources of pollution here. You can see the bottom of the lake; you can see clean rocks, and you just don't see turbid, brown water from silt and sediment."

Along with being a reliable water source for humans, the lake's purity is important for wildlife, like the ospreys, and even a pair of bald eagles, who reside here. And let's not forget about seven original fish species that are still thriving.

"It has a lot of characteristics that it's had for hundreds of years, thousands of years," explains Preserve Manager Dave Mandrella. "It's, I believe, the only lake in California that has the native fish species, you know, including the Lahontan cutthroat trout."

Mandrella works against this gorgeous backdrop each day. It's usually pretty peaceful, even on weekends when the boaters and hikers trickle in, but occasionally he'll hear logging crews hard at work.

For the past five years, the Nature Conservancy has been thinning 600 acres of nearby forest to prevent wildfires from spreading around the lake. Just one big blaze could cause serious erosion, ultimately impacting water quality and fish spawning.

Roger Bales, who directs the Sierra Nevada Research Institute in Merced, has been studying the benefits of tree thinning for almost a decade:

"Some of our forests, I really believe, are at a tipping point because the densities have grown to be very high during the past century or so of fire suppression."

Some fire is natural and necessary to thin forests, but by fighting every fire, Bales says we've left way too many trees competing for water or becoming dried-up fuel. He's also found that by restoring a forest to its sparse historic state [could increase our water yield by as much as 16 percent](#).

"Think of the soil," Bales says, "most all the water goes into the soil, be it snowmelt or rain. And then you have these trees pulling it upward and you have gravity pulling it downward to the stream."

Those trees are sucking on snowmelt and their thick canopy can keep precipitation from ever hitting the ground. Cutting some of them down is the immediate Band Aid, but it's not cheap at up to \$1,700 an acre. It's also not a long-term solution.

"What we're actually hoping to do to follow up all this thinning we've done is over time, start to re-introduce fire" Chris Fichtel explains. "While we can't just light a match and hope lightning strikes, we are going to start a controlled burn program out here."

Fichtel's crew is drafting that plan now and the first controlled burn at Independence Lake could be set as early as next spring.

Related Program:

[Beyond Tahoe: Exploring Our Waterways](#)

# Voices carry

By [Sheila Leslie](#)

This article was published on [10.08.15](#).

**Reno's new City Council, run by a non-partisan** mayor and a Democratic majority of council members, is a welcome change from the overwhelmingly white, male, and developer-focused council of the past. Although the council remains mostly white, with Oscar Delgado providing the only hint of the growing influence of Reno's largest minority population, the majority female and noticeably younger group seems much more willing to listen to the average citizen instead of the good old boys at the Prospector's Club.

The council seems to be hitting its stride in the last month after being a bit slow off the mark in reacting to the severe drought and then needlessly diverting their attention to endorsing a nonsensical new "R" logo that says nothing about Reno's unique qualities.

But now they're getting things done. They've reestablished the neighborhood advisory boards (NABs) and banned pesticides from 12 city parks. Councilwoman Jenny Brekhus is working with citizens to change the way we invest in transportation infrastructure through the Great Streets effort to adopt a better, safer, multi-modal design in the Midtown-South Virginia Street corridor. The council is also taking a firmer stance in favor of the people when developers come begging for new tax breaks, a radical change from the wide-open doors and coffers of the past.

The council is asking citizens to actively engage in the process of creating a new master plan, a set of policy guidelines that will serve as Reno's framework for the next 20 years. We should take them up on their request for input to assure that the Chamber of Commerce is not the only voice they hear. We've seen where that leads us—to a city that thinks so little of itself, it gives its resources and its soul away.

Take a minute and exercise your influence as a citizen by looking up [reimaginereno.us](#) and taking the survey about a future Reno. You'll be asked questions about your ideal housing situation, the neighborhood you'd like to live in, and the amenities you desire, such as dog parks, good schools, shopping and restaurants, trails, and high-speed wifi. There's space at the end of the survey to add your own comments about the direction the city should take and what would make Reno a more vibrant, livable community for you and your family.

The council is also sponsoring a number of community gatherings to collect more citizen views about key topics. Over the last two months, these meetings have featured issues affecting Latinos, the LGBTQ community, arts and culture, housing, historic preservation, planning and architecture. The NABs are also devoting a portion of their meeting time to gather neighborhood opinions.

A climate change and resiliency gathering last week was especially well attended, with over 60 people full of articulate opinions about what's right and what's wrong in Reno in reference to climate change. There were no deniers in this mixed-age crowd, with plenty of young people more than holding their own with their elders.

The recommendations that emerged from six small group discussions were nearly identical. These residents want the council to stop valuing corporate interests over the people who live here. They want a sustainable community with better public transportation, improved bike lanes, and a no-lawn policy for new development. Several groups called for the city to divest itself of fossil fuels and consider municipal control over our energy supply. And they want Artown year-round.

By the end of the meeting, the vocal crowd was cheering for a more robust democracy along with municipal composting, neighborhood-centered parks, and championing a new city slogan: "The Greenest Little City in the World."

It's a new era of civic conversation in Reno. Add your voice to the mix.

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## Appeals court puts hold on regulation protecting waterways

By JOHN FLESHER  
AP Environmental Writer

TRAVERSE CITY, Mich. (AP) - A federal appeals court on Friday blocked an Obama administration rule that attempts to clarify which small streams, wetlands and other waterways the government can shield from pollution and development.

In a 2-1 ruling, a panel of the Sixth U.S. Circuit Court of Appeals in Cincinnati put the regulations on hold nationwide until the court decides whether it has jurisdiction to consider lawsuits against them. More than half the states have filed legal challenges, continuing a debate over federal water protection authority that two Supreme Court cases and extensive rulemaking efforts over the past 14 years have failed to resolve.

The Environmental Protection Agency and the U.S. Army Corps of Engineers issued their latest regulations in May, drawing fierce criticism from landowner groups and conservative lawmakers who described them as costly, confusing and a government power grab. Supporters said they would safeguard drinking water for 117 million Americans while preserving wetlands that filter out pollutants, control floods and provide crucial wildlife habitat.

The EPA and the Corps said in a joint statement that they respected the court's decision and looked forward to defending the rule, which they said "represents the agencies' continuing commitment to protecting and restoring the nation's water resources that are vital for our health, environment, and economy."

Republican Sen. James Inhofe of Oklahoma, chairman of the Environment and Public Works Committee, said the court ruling was "a victory for all states, local governments, farmers, ranchers and landowners" and urged Congress to approve legislation that would require the agencies to rewrite the rule.

A federal judge in Fargo, N.D., blocked its implementation in 13 central and Western states shortly before it took effect in August. Eighteen states have filed challenges with the Sixth Circuit.

In their ruling Friday, Judges David W. McKeague and Richard Allen Griffin - both appointed by Republican President George W. Bush - acknowledged uncertainty over which court was the proper venue for the legal battle. But they said the delayed implementation "temporarily silences the whirlwind of confusion that springs from uncertainty about the requirements of the new rule and whether they will survive legal testing."

Judge Damon Keith, appointed by Democratic President Jimmy Carter, dissented, saying the court should not interfere with the rule before the jurisdiction question was answered.

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## California craft beer brewers balance drafts and drought

By JULIE WATSON  
Associated Press

FALLBROOK, Calif. (AP) - Amid severe drought, the water board in this Southern California town imposed restrictions on Fallbrook Brewing Co., just as the tiny brewer doubled capacity to meet demand for its craft beers.

To cut monthly water use by about 10 percent, owner Chuck McLaughlin bought an extra 310-gallon tank to catch water used in the brewing process to reuse it for cleaning equipment. His new brewhouse includes a chiller that uses two-thirds less water than his old one.

As a small business, there's no extra money to pay potentially thousands in fines if he exceeds the limit.

So far, "it's been very close," said McLaughlin, whose brewery is run out of a former consignment shop in Fallbrook, a town of 30,000 people about 60 miles north of San Diego.

California has more craft breweries - small, independent beer makers that use traditional ingredients - than any other state. More than 570 are in operation and another 240 are slated to open, according to the California Craft Brewers Association. Craft breweries contributed \$6.5 billion to the state economy last year alone, producing 3.5 million barrels.

A typical craft brewery uses up to 7 gallons of water to make 1 gallon of beer. Some in California have decreased that ratio to less than 5-to-1, but they are still being asked to cut back to meet the state mandate, which aims for California's overall urban water use to go down by 25 percent when compared with 2013.

No other state in the drought-plagued West has taken such action.

Breweries are digging wells, installing wastewater treatment plants and seeking exemptions from local water boards that control water use and can impose fines. Some are shelving planned expansions.

If Mother Nature doesn't bring significant showers and snowstorms this fall and winter, some breweries may be forced to leave the state.

Sierra Nevada Brewing Co. and other established California breweries, such as Stone Brewing Co., recently opened plants on the East Coast. But they say the motive was not the drought but to cut transportation costs to those markets.

Still, "a lot of brewers are looking to open up new breweries and a lot of them have concerns over water availability in the state of California," said Cheri Chastain, Sierra Nevada's sustainability manager. "Drought has the potential to move a lot in the industry outside the state or prevent it from growing."

Officials in the city of Chico told Sierra Nevada this spring to drop its water use by 32 percent. The nation's largest private craft brewery already had cut its usage by 25 percent and said further cuts would hurt production. The local water board agreed to exempt the water it uses to produce beer and asked Sierra Nevada to work toward reducing water used for its restaurant and landscaping by 42 percent.

Bear Republic Brewing Co. has taken some of the most drastic measures. The company last year pulled out of 15 U.S. markets and four countries after the Northern California town of Cloverdale informed the brewery it did not have enough water to sustain it.

But instead of moving, Bear Republic spent \$466,000 to dig two wells for the town of 9,000 residents. It spent an additional \$4 million on its own water treatment system, which uses electrically active microbes to purify wastewater, allowing the brewery to recycle up to 25 percent of the water it uses for equipment cleaning.

"We have to make sure to protect our future, not only for the community but for our 157 employees who have a home here - just packing up and leaving would be devastating to them," owner Richard R. Norgrove Sr. said.

But he adds: "We also have to look to the outside world to see where we're going to build our long-term growth if we can't do it here."

That could mean building a second plant where there is ample water.

Stone Brewing Co. in Escondido is spending \$1 million on expanding its \$8 million wastewater treatment system installed in 2008 and aims to use only 3 gallons of water for every gallon of beer it produces.

"We don't have any prediction on what's coming down, and we don't want to get penalized," said Pat Tiernan, chief operating officer.

Tiny breweries like Fallbrook Brewing Co. can't afford those options.

McLaughlin could find relief by moving his brewery to the neighboring city of Oceanside, whose water reduction target is 20 percent - compared with 36 percent for the town of Fallbrook. Each district's reduction target is based on how much water that district used per person in 2013.

But like many craft brewers, McLaughlin believes the local community is what makes his beers stand out.

No stranger to water woes, the town was depicted in Frank Capra's 1952 film, "The Fallbrook Story," about ranchers fighting the federal government over water rights to a nearby river.

Today it is best known for its annual avocado festival, where children outfit avocados with tiny wheels to race them in the "Avo 500." One of his brewery's most popular ales is a saison infused with local avocado-blossom honey.

"Be social. Drink local.' That's our motto," he said. "We wouldn't consider moving outside of Fallbrook. We'll just pray for rain - maybe hire a rain dancer."

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# OPINION: A river with no water: Denial

By [Sheila Leslie](#)

This article was published on [10.01.15](#).

**The headline should have been enough to** convince any climate denier: The Sierra snowpack in 2015 was the lowest in 500 years. According to the scientific paper published in the journal Nature Climate Change, our snowpack on April 1 was just 5 percent of the 50-year average. One of the paper's authors, Valerie Trouet from the University of Arizona, said even the researchers were surprised: "We expected it to be bad but we certainly didn't expect it to be the worst in the past 500 years."

Since the Sierra snowpack provides about a third of California's water needs, Gov. Jerry Brown naturally took umbrage at the remarks of Republican presidential candidate Ben Carson who continues to insist there "is no overwhelming science that the things that are going on are man-caused and not naturally caused." Brown sent him the 2014 United Nations report on the subject and rebuked him by noting that "climate change is much bigger than partisan politics."

Despite his scientific orientation as a brain surgeon, Carson has long prioritized his religious views over science, preferring to see climate change as normal variations in the weather. And none of his Republican competitors for president had anything better to say when asked about climate change in the second debate.

Sen. Marco Rubio articulated the latest trend in Republican thinking about climate change, namely that anything America does won't solve the problem, so we shouldn't do anything. He told the nation: "Every proposal they put forward will make it harder to do business in America. ... We are not going to destroy our economy, make America a harder place to create jobs, in order to pursue a policy that will do nothing, nothing to change our climate, to change our weather."

But intelligent people ignore the obvious at their peril. If Earth becomes inhabitable, there will be no America for anyone to live in, rich or poor, jobless or employed.

A recent poll by the New York Times indicated that two-thirds of Americans will vote for candidates who promise to take action to combat climate change. Republicans don't seem to believe that clear message.

As everyone in the Truckee Meadows hopes the upcoming El Niño winter cures our severe drought, the struggle over water brings the climate change debate into sharp local focus. Back in 2014, Lance Gilman from the industrial park that landed the Tesla giga-factory said water was not an issue. "We're really not impacted by the drought situation," he told the Reno Gazette-Journal. "Our water source appears to be incredibly stable and we haven't seen a change in it at all."

Fast forward to September 2015, and you'll hear intensifying whining about water from the industrial park as Gilman make plans to build a pipeline to the sewer plant to suction 1.3 billion gallons a year of effluent at no charge. Several members of the Reno City Council, Democrats Jenny Brekhus and David Bobzien, rightly objected to his plan, citing higher priority needs for the effluent in a thirsty community.

The two views on climate change and the need to change our water-wasting, uber-business attitude distinguish the two parties as perhaps no other issue does. Witness the remarks of Republican Representative Paul Gozar from Arizona who decided to boycott the Pope's address to Congress because his "climate change talk has adopted all of the socialist talking points, wrapped false science and ideology into 'climate justice' and is being presented to guilt people into leftist policies."

By the time the Republicans wake up to the "leftist" view of climate change they may find that younger voters, who have the most to lose if climate change deniers have their way, have abandoned their party for good.



You don't have to read the whole United Nations report, just read the summary:

[www.un.org/climatechange/summit/2014/09/2014-climate-change-summary-chairs-summary/](http://www.un.org/climatechange/summit/2014/09/2014-climate-change-summary-chairs-summary/)

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## Reno water worker hurt when line fails at treatment plant

[Marcella Corona](#), mcorona@rgj.com 12:46 p.m. PDT October 12, 2015



A file photo of a REMSA ambulance. A Truckee Meadows Water Authority employee was hospitalized following a pressurized line failure at a water treatment plant on Monday morning in Reno. (Photo: RGJ file)

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A Truckee Meadows Water Authority employee was hurt after a pressurized line failed Monday morning at a water treatment plant in south Reno.

The incident occurred at about 7 a.m. at the Longley Water Treatment Plant, Pat Nielson, TMWA manager of distribution maintenance and generation, said in an emailed statement on Monday.

One employee was hurt and taken to Renown Regional Medical Center, Nielson said in the statement. He was recently released from the hospital the same day and had suffered minor injuries.

It was not immediately clear how he was hurt or what kind of injuries he sustained.

A HAZMAT team responded as a precaution after authorities learned that water filter materials were discharged through the airline when it failed.

“There is no impact to the water supply,” Nielson said in the statement Monday.

TMWA is working with the Occupational Safety and Health Administration (OSHA) on investigating the cause for the failure – something officials said doesn’t happen often at the water plant.

*Check with RGJ for more updates as they become available.*

*Marcella Corona covers breaking news for the Reno Gazette-Journal. Contact her at 775-788-6340, online at [mcorona@rgj.com](mailto:mcorona@rgj.com) or follow her on Twitter at [@Marcella\\_Anahi](https://twitter.com/Marcella_Anahi) or on Facebook at [Facebook.com/Marcella.Anahi](https://www.facebook.com/Marcella.Anahi)*

# Sierra Nevada snowpack lowest in 500 years, report finds

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**Expand Photo**Courtesy NOAA |  
An image of the snow cover from 2015.

**Expand Photo**Courtesy NOAA |  
A satellite image of the snow coverage in the Sierra Nevada in California and Nevada from 2010.

«  
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TRUCKEE, Calif. — Snowpack in California’s Sierra Nevada in 2015 is at its lowest level in the past 500 years, according to a new report led by University of Arizona researchers.

The team’s research is the first to show how the 2015 snowpack compares with levels for the previous five centuries.

“Our study really points to the extreme character of the 2014-15 winter. This is not just unprecedented over 80 years — it’s unprecedented over 500 years,” said Valerie Trouet, an associate professor of dendrochronology at the UA Laboratory of Tree-Ring Research.

“We should be prepared for this type of snow drought to occur much more frequently because of rising temperatures,” Trouet added. “Anthropogenic warming is making the drought more severe.”

California’s current record-setting drought began in 2012, the researchers note in their report.

On April 1, 2015, California Gov. Jerry Brown declared the first-ever mandatory water restrictions throughout the state, while standing on dry ground at 6,800-foot elevation in the Sierra Nevada near Lake Tahoe.

The historical average snowpack on that site is more than five feet for April 1, according to the California Department of Water Resources.

### **IMPORTANCE OF STORING WATER**

The lack of snow in 2015 stems from extremely low winter precipitation, combined with record high temperatures in California in January, February and March, Trouet said.

About 80 percent of California's precipitation occurs in the winter months, she said. Snowpack level is generally measured on April 1 each year, a time when the snowpack is at its peak.

"Snow is a natural storage system," Trouet said. "In a summer-dry climate such as California, it's important that you can store water and access it in the summer when there's no precipitation."

In past years, the snows of the Sierra Nevada slowly melted during the warmer months of the year, and the meltwater replenished streams, lakes, groundwater and reservoirs.

In a winter with less snow or with winter precipitation coming as rain rather than snow, there is less water to use during California's dry summers.

Soumaya Belmecheri, the report's first author, said of the extremely low snowpack in 2015: "This has implications not only for urban water use, but also for wildfires."

Belmecheri is a postdoctoral research associate at the Laboratory of Tree-Ring Research.

### **GOING BACK 500 YEARS**

To determine snowpack levels for the past 500 years, Trouet and her colleagues used previously published tree-ring data that reflects annual winter precipitation in central California from 1405 to 2005 and annual snowpack measurements since the 1930s.

The team also used a previously published reconstruction of winter temperatures in southern and central California that spanned the years 1500 to 1980.

Trouet, Belmecheri and their colleagues' report, "Multi-century evaluation of Sierra Nevada snowpack," is scheduled for online publication in the "Nature Climate Change" journal on Monday.

Co-authors are Flurin Babst of the Laboratory of Tree-Ring Research, Eugene R. Wahl of the NOAA/National Centers for Environmental Information in Boulder, Colorado, and David W. Stahle of the University of Arkansas in Fayetteville.

The National Science Foundation, the U.S. Geological Survey and the Swiss National Science Foundation funded research.

“There have been reconstructions of the drought conditions in California, but no one’s looked at the snowpack in particular,” Trouet said.

### **IT ALL ADDS UP**

After the extremely low snowpack levels in the Sierra Nevada were revealed in April, co-author Wahl wondered if it was possible to reconstruct the paleohistory of snowpack for those mountains.

Trouet thought the necessary data were available — so the team set to work.

Other researchers already had measured the width of tree rings for 1,505 blue oaks in California’s Central Valley from 33 different sites.

Belmecheri and her colleagues put those measurements together as one long chronology, meaning the scientists had a blue oak tree-ring record that reached back reliably to the year 1405.

Snowpack in the Sierra has been measured approximately since the 1930s, so the researchers checked their snowpack estimates from tree rings and the temperature reconstruction against actual snowpack measurements for 1930 to 1980.

The different measurements all lined up. When winter precipitation was lower and temperature was higher, snowpack was lower.

The team’s next step, she said, is investigating and reconstructing the atmospheric circulation patterns that contribute to the California drought and the Sierra Nevada snowpack

## TMWA Says Employee Hurt After Pressurized Air Line Failed at Longley Water Treatment Plant

*Posted: Oct 12, 2015 10:04 AM PDT* <em class="wnDate">Monday, October 12, 2015 1:04 PM EDT</em> *Updated: Oct 12, 2015 10:53 AM PDT* <em class="wnDate">Monday, October 12, 2015 1:53 PM EDT</em>

By Kellene Stockwell

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Truckee Meadows Water Authority says one employee was injured early Monday morning when a pressurized air line on the backwash system at the Longley Water Treatment Plant failed.

As a precaution, it says the Hazardous Materials Team was notified, as water filter material was discharged through the air line when it failed.

It says there is no impact to the water supply and that the employee was taken to Renown Regional Medical Center for treatment, and later released