

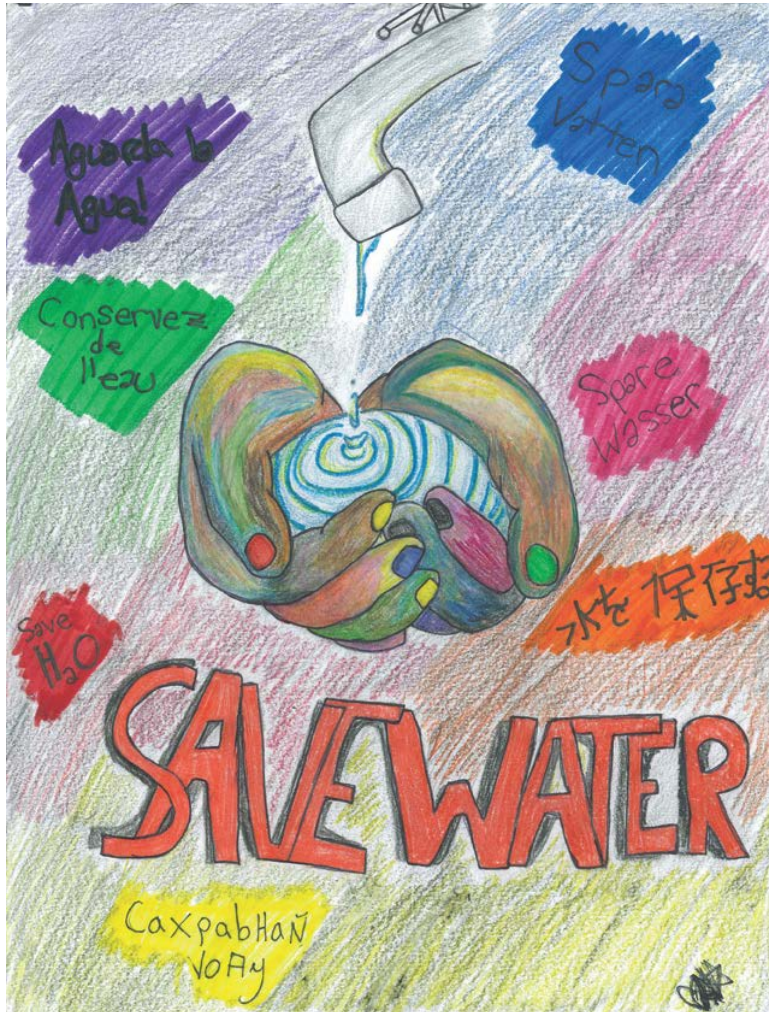


## TMWA Board Meeting

Thursday, May 21, 2015

### Press Clippings

April 6, 2015 – May 13, 2015



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

## Fitch Rates Truckee Meadows Water Auth NV's Sr Revs 'AA-'; Outlook Stable

April 06, 2015 06:42 PM Eastern Daylight Time

SAN FRANCISCO--([BUSINESS WIRE](#))--Fitch Ratings assigns the following ratings to the Truckee Meadows Water Authority, Nevada's (TMWA, or the authority) debt:

--Approximately \$30 million water revenue refunding bonds series 2015A.

The bonds are scheduled to sell via negotiation on or about April 29, 2015. The proceeds will be used to refund the authority's series 2005A bonds and to pay cost of issuance.

In addition, Fitch affirms the following ratings:

--\$406.6 million senior lien water revenue bonds at 'AA-';

--\$160 million of bank notes corresponding to water revenue commercial paper (CP) notes, series 2006A and 2006B, at 'A+'.

The Rating Outlook is Stable.

### SECURITY

The bonds are secured by a first lien on net system revenues. The bank notes are secured by a third lien on net revenues.

### KEY RATING DRIVERS

**SOLID FINANCIAL PERFORMANCE:** Debt service coverage (DSC) has stabilized at an adequate level following a period of weakness during the recent economic downturn, and unrestricted reserves remain very strong, providing significant operating flexibility.

**MERGER YIELDS SOME GAINS:** The utility completed a merger with two smaller Washoe County water enterprises at the end of 2014. The merger improved credit quality marginally, but not sufficiently to raise the rating. The combination broadened TMWA's service area, while improving its supply portfolio, liquidity and debt ratios. However,

financial performance is likely to remain in line with past performance and to drive the rating, along with still-high debt ratios.

HIGH LEVERAGE: The authority's debt ratios improved with the merger, but debt remains significantly above average. Debt should moderate somewhat over the next five years, as amortization outpaces very slim issuance plans.

GOOD RATE FLEXIBILITY: Rates are low relative to median household income, suggesting the authority has adequate rate flexibility to implement planned inflation-like rate increases over the next five years.

SUFFICIENT WATER SUPPLIES: The water supply portfolio appears healthy and improves with the addition of groundwater rights from the merged utilities. The Lake Tahoe-Truckee region is currently suffering a severe drought, but the utility has only requested moderate conservation from customers due to its comprehensive long-term drought planning, significant water storage and supply redundancy.

LARGE, DIVERSE SERVICE AREA: The authority is the monopoly provider of essential water services to a large service area with a diverse payer mix. The economy is somewhat weak and concentrated in gaming and tourism industries but has improved significantly in recent years.

#### RATING SENSITIVITIES

DECLINE IN COVERAGE: The rating is sensitive to changes in financial and debt ratios, particularly DSC levels. Upside potential exists over time if financial results remain solid and debt begins to moderate.

#### CREDIT PROFILE

The authority is a joint powers authority formed in 2000 between the cities of Reno and Sparks as well as Washoe County (the county). The authority purchased the water assets of Sierra Pacific Power Company and undertook water utility operations beginning June 2001, primarily in the Reno and Sparks areas. The South Truckee Meadows General Improvement District and the Washoe County water utility merged into TMWA on Dec. 31, 2014, consolidating water agencies that serve about 95% of Washoe County's 433,700 residents. The merged entity has about 120,600 customer accounts.

#### ADEQUATE COVERAGE, STRONG LIQUIDITY

Financial performance has been healthy. TMWA's senior and all-in DSC were healthy at 1.8x in fiscal 2014. Consolidated financials for the three merged entities show senior DSC of 2x, benefiting from very low debt and debt service at the agencies folded into TMWA. Pre-merger free cash-to-depreciation was strong at 101% and has improved sharply from recessionary lows. Connection fee revenues are improving but remain well below prior peak levels. With rates set to provide sound senior coverage of at least 1.5x without connection fees, the authority is well positioned to outperform if development resumes at a more robust pace. The 1.5x coverage target continues to drive the authority's finances and the rating.

The authority maintains significant financial flexibility with a robust reserve position, which improved further with the merger. TMWA had \$63 million dollars of unrestricted cash and investments and \$12.3 million of available restricted reserves at the end of fiscal 2014. The combined balance equaled a very high 636 days cash, well above the median for any rating category. TMWA projects that it will have about \$97.2 million of available reserves at the end of the current fiscal year, which would equal about 782 days cash. Management plans to spend reserves down somewhat over the next five years as it largely cash funds capital spending. However, management plans to keep cash in excess of a year's operating expense, maintaining its strong liquidity position.

Rate discipline and rate flexibility both appear solid. The utility's board improved financial performance by increasing rates significantly in the aftermath of a connection fee collapse during the recession. Recent rate increases have been much smaller, but adequate to meet financial targets. The utility's rates remain quite affordable with 7,500 gallons of water costing just 0.7% of median household income. The utility expects very low, inflation-like rate increases over the next five years, suggesting continued rate flexibility.

#### HIGH DEBT DECLINING SLOWLY

Debt ratios improve noticeably with the merger, but remain high and a drag on the rating. Debt is elevated due to the authority's initial acquisition of the water utility from the Sierra Pacific Power Company. The utility assumed just \$36.2 million of debt in the merger, while expanding its customer counts by a quarter. TMWA took over payments on a \$9.1 million subordinate state loan and refunded \$26.1 million of bonds with subordinate CP.

The authority's \$519.6 million of outstanding debt equals \$4,307 per customer, more than double the \$1,934 'AA' category median for water and sewer agencies. The utility plans to primarily cash fund its five-year \$163.9 million 2016-2020, taking just \$15 million of additional debt. Debt per customer would decline to less than \$4,000 per customer in five years - roughly twice the 'AA' category per customer median for water and sewer agencies.

Amortization is somewhat slow in the early years of repayment with 32% of debt repaid in 10 years, but accelerates thereafter with a very typical 81% repaid in 20 years.

#### SOLID SUPPLY POSITION, DROUGHT ONGOING

The utility benefits from significant surface water rights fed by runoff from the nearby Sierra Nevada Mountains and very robust drought planning. The merger somewhat improves the utility's supply position by bringing ground water rights of 25,000 acre feet (af) per year and 1,500 af of surface water rights (well in excess of usage by acquired customers). The additional rights bring the utility's water rights to 176,050 af of surface and groundwater rights, roughly double total system demand. Management believes it will be able to improve system-wide supply resilience by using more surface water in wet years and saving greater amounts of groundwater for dry years.

The Truckee Meadows region and nearby Lake Tahoe are currently experiencing an extreme drought. The utility's stored supplies and groundwater rights have allowed it to limit rationing to more manageable levels than many nearby water agencies. It has asked users to voluntarily conserve 10% in the current year. The authority's storage and water rights are built to assure adequate supplies in a nine-year drought, a year longer than the worst drought the utility has experienced. A longer than expected or more severe drought than envisioned by water supply planners could cause significant financial deterioration and reductions in credit quality if TMWA failed to appropriately adjust rates to offset sales declines, although such deterioration does not appear imminent.

#### SIGNIFICANT SERVICE AREA WITH CONCENTRATED ECONOMY

The authority's service area is weaker than the average rated system with a concentrated economy and high joblessness. The county's economy, which historically was fueled by legalized casino gambling and construction activity, was hard hit by the housing bust and is recovering only very gradually. The Washoe County unemployment rate has been falling for five years, but remained significantly above the national average 7.4% in January 2015. The gaming industry continues to dominate the economy, but the utility's direct exposure is limited with the top 10 customers - mostly casinos and hotels - providing a moderate 9.8% of pre-consolidation revenues. Concentration is likely to fall with the merger.

Additional information is available at [www.fitchratings.com](http://www.fitchratings.com)

## State Board Warns of Imminent Water Right Curtailments Across the State

Submitted by Pamela Martineau on Fri, 04/03/2015 - 3:21pm

in

- [Water Supply Challenges](#)
- [Water News](#)



The State Water Resources Control Board today warned the holders of more than 36,000 water rights across the state, including some senior right holders, that their rights are likely to be curtailed soon due to California's ongoing drought and record-low snowpack.

The warning is designed to give water right holders advance notice to help them make difficult spring planting decisions. The availability of water is a key factor in those planting decisions. The warning is the second one this year; the first was issued in [January](#).

"These are very difficult times, and everyone, urban and rural, will have to make sacrifices as we go through them," said State Board Chair Felicia Marcus. "As we deal with an unprecedented drought, both urban and rural water users should anticipate we will continue to take unprecedented actions."

If dry conditions continue through the spring, curtailments are expected in certain watersheds on all post-1914 water rights, and many holders of pre-1914 water rights may get curtailment notices as well, according to a State Board release. Riparian water right holders in some watersheds also are likely to be required to reduce their diversions and share what supplies of natural flow remains.

According to a press release from the State Board, curtailment is a tool that the State Board uses to administer the state's water rights system. When there is insufficient water available to meet all the demand in a watershed, water

right holders, starting with the most junior, are told to stop diverting surface water to protect the rights of more senior right holders. Last summer, water rights dating back to 1914 were curtailed on most of the state's major river systems.

The curtailment warning comes on the heels of stricter urban water conservation requirements and an Executive Order [announced](#) by Gov. Jerry Brown on April 1. The Governor's Executive Order further restricts outdoor irrigation and other water uses by city dwellers. The actions are a response to another extremely dry winter and a snowpack measured this week at 6% of normal.

Last year curtailments affected more than 5,000 water rights, contributing to conditions that led to the fallowing of more than 400,000 acres of farmland and the loss of thousands of agricultural jobs - a situation that's likely to be repeated this year. While the water right curtailments predominantly affect agriculture, they also apply to water rights held by municipalities and other water users.

The timing of curtailment notices will be based on forecasts of water availability and demand. Forecasting information and estimated timing of curtailments for various classes of water right holders will be available at [http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/drought/analysis](http://www.waterboards.ca.gov/waterrights/water_issues/programs/drought/analysis)

# TMWA offers tips on starting up irrigation, sprinkler systems

- [Video](#)

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[TMWA offers tips on starting up irrigation, sprinkler system](#)



[Print Story](#)

Published: 4/08 11:09 pm

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Updated: 12:04 am

RENO, Nev. (MyNews4.com & KRNV) -- Northern Nevada residents have heard some of the top water saving tips --- things like, take shorter showers, do only full loads of dishes or laundry and checking to see if your toilet is leaking.

But the part of a home where residents can either waste or save a lot water is outdoors.

That's why the Truckee Meadows Water Authority will be hosting several workshops on outdoor water management this year. This month, the focus is on spring start up for irrigation and sprinkler systems.

Experts will walk homeowners through exactly what tools they need, which valves need to be turned, and how to check for leaks.

Another big tip: wait for spring to really warm up the ground before turning on sprinkler systems.

Once people start watering their gardens and lawns, water use will spike.

## **Sandoval creates drought panel, says Nevada much better off than California**

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[Buy Photo](#)

Gov. Brian Sandoval holds a news conference in Washoe Lake State Park on Wednesday, April 8, 2015, to sign an executive order establishing the Nevada Drought Forum. (Sandra Chereb/Las Vegas Review-Journal)

## **Sandoval creates drought panel, says Nevada much better off than California**

## **Sandoval creates drought panel, says Nevada much better off than California**

Washoe Lake north of Carson City is shown Wednesday, April 8, 2015, shriveling after four years of drought. The shallow lake, that is 2 miles wide and 4 miles long in normal years, has shrunk to a quarter-mile square and only a few inches deep. Gov. Brian Sandoval held a news conference on the dry lake bed Wednesday to sign an executive order creating the Nevada Drought Forum, a panel of experts to study and recommend the state's strategy to deal with prolonged drought. (Sandra Chereb/Las Vegas Review-Journal)

image

By SANDRA CHEREB  
REVIEW-JOURNAL CAPITAL BUREAU

WASHOE LAKE STATE PARK — Gov. Brian Sandoval stood on the dusty shore of a shrinking lake bed Wednesday to sign an executive order creating a forum to study Nevada's lingering drought and recommend state policies.

Sandoval, joined by state and local government water officials, said the Nevada Drought Forum, comprising water managers and climate experts from around the state, will craft a blueprint on best practices for water use and conservation.

The Republican governor stressed Nevada [is not in the dire straits as its neighbor to the west](#), where California Gov. Jerry Brown last week ordered a mandatory 25 percent reduction in water use.

"This is not California," Sandoval said, adding that as the driest state in the nation, Nevada is familiar with drought and has taken steps to curb water use and encourage conservation.

He said he feels "really good about what we're doing" but added the state needs to plan for the future because no one can predict how long the drought will continue.

Sandoval spoke at Washoe Lake State Park north of Carson City. The lake in scenic Washoe Valley on the east side of the Carson Range has withered in size in the past four years.

Once about 2 miles wide and 4 miles long, it now measures about one-quarter-mile square and is only a few inches deep. Sandoval stood at a podium that in normal years would be covered in 3 feet of water.

Northern Nevada is in its fourth year of drought, with last winter being the driest on record. Snowpack in the Sierra Nevada that feeds rivers, lakes and streams was a miniscule 3 percent of normal.

John Entsminger, general manager of the Southern Nevada Water Authority, said Nevada is very familiar with drought, noting that Clark County, which receives most of its water from the Colorado River feeding into Lake Mead, has been under drought conditions for 15 years.

Still, he said, the region, home to about 2 million residents and 40 million visitors annually, has managed to cut water usage through efficient landscaping, low-flow appliances and recycling gray water.

Entsminger said Southern Nevada uses 40 percent less water than it did 15 years ago despite a growing population.

"Nevada is a poster child for the rest of the nation," he said.

But the region continues to plan, and Entsminger touted the water authority's \$1.5 billion third intake draw to be able to continue to pump water from Lake Mead should the lake's level continue to recede.

“Nevada’s been doing things,” he said. “We’re not at the point of an emergency.”

He said the goal of the forum is to “bring real-world, pragmatic solutions to the governor by the end of this year.”

In Northern Nevada, Truckee Meadows Water Authority General Manager Mark Foree said the Reno-Sparks area has enough upstream reservoir storage to meet water demands.

Still, the water authority has asked residents to cut back water usage by 10 percent.

Foree said that would save the region 5,000 acre-feet of water this summer.

Lake Tahoe, a majestic alpine lake that feeds the Truckee River, dropped below its natural rim in the fall and is not expected to rise above the rim this summer.

Despite signs of relief that Nevada is not on the brink of a water disaster, Sandoval said coming up with a long-range plan will not be easy and will require input from residents, farmers, ranchers, utility managers, wildlife officials, climate experts and water managers.

Add a comment...



[Progressive Leadership Alliance of Nevada](#)

Below is our statement urging Governor Sandoval to take BOLD ACTION to save our water. You can call his office today and share your concerns: 775-684-5670 or 702-486-2500

PLAN statement:

We applaud Governor Sandoval for stepping up to propose ways to mitigate Nevada’s historic drought, urge him to take bold action to lead our state out of this crisis.

It is critical that Governor Sandoval acknowledge three hard truths about water and drought in Nevada: 1) Climate change has made the current drought worse. 2) Our state faces permanent, long-term water shortage. 3) The forecast calls for pain.

Governor Sandoval must not placate developers and new companies who are relocating here into thinking we can build and grow without concern for water supply. When more water is demanded and used than nature provides, Nevada will face further unsustainable groundwater overdraft. Ill-advised schemes to build pipelines from rural regions of the state to urban areas are stopgap measures at best that will lead to rate shock for consumers, inevitable ecological destruction of our streams and wetlands, and convert farms and ranches into dust bowls.

Governor Sandoval should urge that water guzzling lawns go the way of smoking on airplanes, and develop a plan to convert them to low-water use landscaping. Other ideas we should implement now include efforts to replace inefficient indoor fixtures, identifying and fixing leaks and modifying water-using behaviors. Reno and Las Vegas should enact stronger water pricing measures to encourage efficiency and conservation. We can create a structure that protects affordability, cuts overall water bills and protects the financial health of water supply agencies..

Finally, Governor Sandoval must address the extreme water wasting of the sacred cows of mining and Fracking in Nevada. A mine can pump up to 70,000 gallons of groundwater per minute, using in five minutes what the average family of five uses in one year. They pump water at volumes to rival the Southern Nevada Water Authority’s water grab from rural Nevada, and are creating a deficit that will require centuries to replenish – centuries during which springs will be dried and the Humboldt River will lose flow.

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# What is being done to water wasters in Reno?

[Mark Robison, RGJ](#) 3:47 p.m. PDT April 8, 2015



Fines start at \$25 and go up to \$75 for wasting water in the Reno-Sparks area.(Photo: Getty Images/iStockphoto)

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A reader asks what is being done about businesses wasting water and letting it run into the streets.

The short answer is that businesses can be reported by calling the Truckee Meadows Water Authority's conservation department at 775-834-8005 or filling out an online form at [tmwa.com/conservation/assigned\\_day\\_watering/report\\_waste](http://tmwa.com/conservation/assigned_day_watering/report_waste).

They face a \$25 fine for a first offense and \$75 for subsequent offenses if they waste water; no one received such a fine in 2014.

Send your drought questions to [mrobison@rgj.com](mailto:mrobison@rgj.com).

**Full question**

A reader wrote: “With the drought very much a fact, could you find out why not only are businesses watering all hours, but why they feel to water so much that water is running down into the roads? It is happening all over Reno and seems to be a really bad waste of water.”

**Full answer**

Here are TMWA’s responses to my emailed questions:

**RGJ:** Are there restrictions on when businesses can water?

**TMWA:** Yes, Assigned Day Watering is in effect for all customers — whether business, residential or multi-family. A home or business has three days to water each week. If the last number of the home or business address is even (0, 2, 4, 6, 8), please water on Tuesdays, Thursdays and Saturdays. If the last number of the home or business address is odd (1, 3, 5, 7, 9), water only on Wednesdays, Fridays and Sundays. There is no watering on Mondays, as it is a day of rest for the water system, giving it a chance to recharge. In addition, watering is not allowed from 11 a.m. - 7 p.m. starting on Memorial Day, May 25, through Labor Day, Sept. 7. In the Truckee Meadows, afternoon is typically the hottest and windiest time of the day when more water is lost to evaporation than benefits landscaping.

**RGJ:** If a business is watering outside the stipulated times, or is overwatering (water running into street), how can concerned residents report this?

**TMWA:** Truckee Meadows Water Authority is serious about encouraging responsible water use and preventing waste for all customers. If you see water being wasted, please let TMWA know by calling the conservation department at 834-8005, or using this form. Many customers, whether business or residential, simply do not realize they have a leak or broken sprinkler head. Those customers who waste water will be contacted, and, if the waste continues, they can be penalized on their water bill. TMWA also has staff patrolling seven days a week during the watering season, as they have for many years, looking for water waste.

**RGJ:** What is the range of penalties for watering violations for businesses?

**TMWA:** A \$25 fee for the first offense and a \$75 fee for all subsequent offenses. The fee is posted on water bills.

**RGJ:** Have these penalties ever been levied? If so, how much was levied overall last year and for how many businesses?

**TMWA:** While TMWA has levied water waste penalties in the past, the goal is to educate rather than penalize. TMWA placed thousands of calls last year to customers about water waste and visited thousands more customers to let them know that they had an issue. Customers responded well and corrected water waste issues, so no penalties were levied last year

## Sandoval is among the top water users in Reno. He now vows to cut back



[Jeff DeLong](#), RGJ 5:46 p.m. PDT April 8, 2015



Buy Photo

Governor Brian Sandoval speaks before signing an Executive Order to create a Nevada drought forum during a press conference at Washoe State Park on Wednesday April 8, 2015.(Photo: Andy Barron/RGJ)Buy Photo

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One of the top water users in the Reno area, Gov. Brian Sandoval said Wednesday he is taking steps to cut back on outdoor irrigation and plans to remove turf in his yard to set an example during this time of drought.

A landscape contractor who is taking care of Sandoval's Latigo Drive home while he and his family reside in the governor's Carson City mansion accepted blame for overwatering that at one point consumed more than 1 million gallons over the course of a year, according to records obtained by the Reno Gazette-Journal.

Both statements came the same day Sandoval signed an executive order establishing a panel of drought experts to come up with recommendations how to respond to a drought in Nevada that has now lasted four years.

On Wednesday, the Reno-Gazette Journal obtained a list of the top 1,000 water users served by the Truckee Meadows Water Authority from 2011 to 2014 through a public records request to the utility.

The list showed that in the category of flat-rate residential customers, Sandoval's Reno home regularly ranked among the top 150 in the most water consumed. The highest water use for the governor's nearly 1-acre, grassy lot that includes a swimming pool was in 2012 at 1,041,000 gallons and the least was last year at 876,000 gallons, according to the water authority's records.

The typical home in Reno uses about 124,000 gallons of water a year.

Sandoval said he became aware of excessive water use last winter, contacted his contractor and "immediately told them to reduce water consumption."

The governor said he is now soliciting bids for a major landscape renovation at his Reno home, including the removal of several thousand square feet of turf and the installation of desert landscaping. The governor has also requested a water audit from the water authority to determine other potential ways to reduce water use, according to an aide.

"Once it came to my attention I'm taking action to move forward," Sandoval said. "I think it's the right thing to do. I want to try to set an example."

Jody Mason, owner of Artistic Gardens Landscaping, said he was hired to maintain landscaping at Sandoval's Reno home after he moved into the governor's mansion. After being contacted by Sandoval regarding high water use, Mason said he discovered an irrigation clock at the residence had been improperly timed.

"It was watering way more than it should have," Mason said. "I take full responsibility for what happened. It was a total mistake on our firm's part."

Mason said changes have been made which should significantly reduce water consumption at the property.

Sandoval's planned move toward turf removal is an increasingly common trend Mason said many of his customers are following or at least thinking about.

"I think everybody is these days," he said

## OK We're Asked To Cut Water Use By 10%. What Now?

By: [Ed Pearce](#) - [Email](#)

Posted: Thu 5:34 PM, Apr 09, 2015

By: [Ed Pearce](#) - [Email](#)



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The Truckee Meadows Water Authority is asking local water users to cut down by 10 percent. What changes should we be making to meet that goal and how can we tell if we're meeting it?

Let's face it. Ten percent is a good round number, but it's hard to track our daily usage and most of us don't know how many gallons we're using around the [house](#).

One way TMWA says, is to reduce it to simple arithmetic.

"If you do something 10 times, do it nine," says Andy Gebhardt, TMWA's Customer Services [Manager](#). "So, if in a span of two weeks you took 10 showers, take nine. If in a span of two weeks you washed 10 loads of dishes, do nine."

There's logic there, I suppose but it's likely most of us will just fall back on the usual advice. which Gebhardt is happy to list.

"Full loads of dishes in the dishwasher, full loads in the washing machines, short showers. Showers are better than baths unless you take 30 minute showers."

Those things will all [help](#), but the biggest share of our water usage in the months ahead are out in the yard.

Gebhardt says a good first step is to avoid deep watering. Three shorter [applications](#) is better than one longer one.

"I could say drink a hundred gallons of water and you can drink about one or two and you'd say 'I can't take anymore. It's not doing me any good. Your grass is the same way,' he says. "After a certain amount of water it's going to say my roots are full. I'm full. It's not doing anything. Now you're just running off or going into the soil."

And you and your lawn will be better off if that watering takes place early in the morning when things are cool and the air is still.

After doing all these things though how can you tell if you're hitting that 10 percent target?

Well, if you go to the TMWA website, log on to your account. You'll be able to track your usage and compare it to the past.

Today if you look, you'll find last year's numbers, but by next week you'll also see the figures for 2013 and those are the ones they'd like you to use.

"If you did a great job last fall and cut back 10 percent, I'm not asking you to do 10 percent on that. So use 2013 that was good [data](#)."

For a few of us it won't be quite that easy,

Some in the valley are new to TMWA.

Former customers of Washoe County Water Resources or South Truckee Meadows General [Improvement](#) District will not find their 2013 records on the TMWA website.

But we're told they can call the TMWA offices here and get that information, so they'll be able to track their conservation efforts.

You'll find that phone number and a lot of ideas on [saving](#) water on their website.

You'll find a link here on our website.

Just click on Hot Topics.

# Heavy user: Nev. gov. to cut own water use in drought

Jeff DeLong, Reno (Nev.) Gazette-Journal 11:34 p.m. EDT April 8, 2015

Governor Brian Sandoval talks with media after he signed an Executive Order to create a Nevada drought forum during a press conference at Washoe State Park on Wednesday April 8, 2015. (Photo: Andy Barron/RGJ)

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[USA TODAY](#)

[Drought could push California to rethink water strategy](#)

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# Q&A: A look at Nevada's 4-year-drought



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## Sandoval drought

Nevada Dept. Transportation

Gov. Brian Sandoval hosted a press conference Wednesday at Washoe Lake State Park to address the water challenges and drought conditions across Nevada. John Entsminger of the Southern Nevada Water Authority, John Foree of the Truckee Meadows Water Authority, Leo Drozdoff of Nevada Department of Conservation and Natural Resources, and other state officials joined the Governor.

April 12, 2015 7:44 am • By RILEY SNYDER Associated Press

[\(1\) Comments](#)

CARSON CITY (AP) — Nevada Gov. Brian Sandoval stood in a dry, dusty lakebed and made a startling point — the place where he stood was covered by 3 feet of water only a few years ago.

Nevada is reeling after four years of drought, and the Republican governor of the nation's driest state made the case for a statewide review of water use by announcing the creation of the Nevada Drought Forum.

Here's a look at Nevada's drought and what state officials are doing:

### **WHAT IS THE GOVERNOR DOING?**

Sandoval's executive order creates a seven-member panel of administrators, scientists and water officials to study the state's long-term water plan.

The panel will collect information from water providers and state agencies. Work will include organizing a "Drought Summit" in September.

The forum is required to submit bi-weekly summaries and to prepare a report for the governor on possible state actions by November.

The forum will rely on a soon-to-be-released report on states' drought policies commissioned by the Western Governors Association, which Sandoval chairs.

State water engineer Jason King said Sandoval's decision to focus on drought is telling.

"There's a myriad of things that he could have taken up as a signature issue, and he took on drought," he said.

### **HOW DOES NEVADA USE WATER?**

Like California, most of Nevada's water goes to agriculture. The Division of Water Resources estimates 60 percent of the state's water goes to irrigating crops, with 22 percent going to municipal water districts.

The mining industry uses about 13 percent of the state's water, but King said the majority of that is pumped back into groundwater basins.

Republican Assemblywoman Robin Titus, who represents most of Lyon and Churchill counties, said farmers are accustomed to dealing with limited water and the agriculture industry will need to adapt. She said her family farm is considering a move from water-intensive alfalfa to less thirsty crops such as grapes or hops.

"In Nevada, agriculture has faced water restrictions since the inception of the state," Titus said.

### **WHAT ARE LAWMAKERS DOING?**

Water-related bills rarely garner headlines, but Nevada lawmakers are proposing a number of them.

Lawmakers are considering a bill that would apply \$500,000 in state funds to cloud-seeding — dropping chemicals on clouds to induce rain and snow.

King, who has served as the state water engineer since 2010, is backing two measures to update language on water rights and give his office more power to regulate groundwater during droughts.

Titus is sponsoring a measure that would fund river sediment cleanups to deter water-wasting floods, and another to modify water usage on farms.

Part of the reason the Legislature isn't taking sweeping action to address the drought is because most local water districts already encourage some conservation.

Titus singled out the Southern Nevada Water Authority, saying other agencies could learn from its conservation efforts.

"They reuse just about every drop of water that comes out of Las Vegas," she said.

The authority for years has had strict regulations on water use, including limits on watering lawns and washing cars. Violators receive a \$100 fine on the second offense. The authority pays residents \$1.50 per square foot to replace grass with desert landscaping.

#### **WHAT ARE OTHER STATES DOING?**

California Gov. Jerry Brown issued an order last week requiring cities and towns to reduce water consumption by 25 percent.

Brown's order, which coincided with news of record low snowpack in the Sierra Nevada, also requires businesses to cut back water usage and offers rebates for consumers to replace wasteful appliances with energy-efficient models.

Not all Western states have taken such dramatic steps to reduce water use, but the most drought-stricken have made efforts to study water use.

Utah Gov. Gary Herbert formed a broad-based commission of elected officials and water stakeholders to study the state's long-term water supply and issue a 50-year water plan by the end of 2015.

Herbert issued a statement Thursday urging Utahns to conserve water due to low snowpack.

Nearly a quarter of Arizona is facing severe drought conditions, but state officials say water restrictions aren't expected anytime soon. Arizona law requires the state's water program to publish weekly updates on drought conditions and study the long-term effects.

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## Tags

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# Xeriscape doesn't help utility bills: Letter

9:05 p.m. PDT April 9, 2015



Letter to the Editor(Photo: RGJ)

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I have been watching the news regarding the drought and I can't believe what all the "experts" are saying should be done.

I moved to Reno in January 2014 after living in Arizona for 12 years. One of the things that thing the "experts" say is that homeowners should take out their lawns and replace them with xeriscape landscaping Xeriscape is rocks and drought-resistant plants and trees.

Now for the truth.

I had a beautiful home surrounded by grass in Arizona. I took out the grass to do my part for conserving water and replaced it with xeriscape. My home immediately became so much hotter inside, my electric bill for air conditioning almost doubled.

My water usage was reduced by about 25 percent. That sounds good, but my utility bills (water and electricity) went up by 50 percent.

Also the "experts" are saying that artificial turf will be a good replacement. I had a neighbor who did that. It was so much hotter than my xeriscape that his utility bills went up by 75 percent.

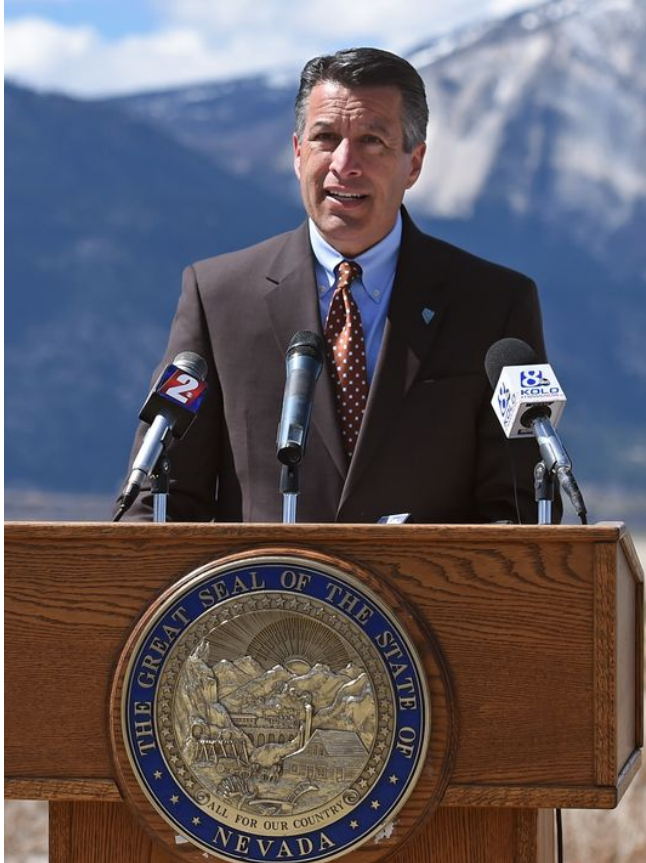
Rocks and artificial turf reflect so much heat it's almost unbearable on a hot day to be around it.

I'm tired of "experts" telling me what to do.

Ken Griffin, Reno

# Our view: Ways not to botch Nevada drought plan

The Opinion of the RGJ Editorial Board 9:05 p.m. PDT April 11, 2015



Gov. Brian Sandoval signs an executive order to create the Nevada Drought Forum during a press conference at Washoe State Park on Wednesday.(Photo: Andy Barron/RGJ)

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Drought threatens Nevada.

We are entering our fourth dry year, and 2015 will be determine how seriously the state needs to change behavior and policies.

That is why it was good to see Gov. Brian Sandoval convene a months-long Nevada Drought Forum this week to stay ahead of the issue.

Specific recommendations will come from meetings with water experts, farmers, industry representatives, government officials, the public and others. These will be compiled into a report delivered to the governor Nov. 1.

This drought report has the potential to touch the lives of all Nevadans. It needs to be a success.

If not, Nevadans may face a situation like in California where new laws have been imposed. Watering 48 hours after a rain storm is now outlawed, restaurants are forbidden from serving unrequested water, and cities and towns must cut water use by 25 percent.

With this in mind, we offer general suggestions that should be kept in mind at the meetings.

•**Fill information gaps:** Good information is essential for sound decision-making.

State websites are filled with drought data and maps, but more is needed. Specifically, updated and more detailed information is needed on how much water Nevada has, where the water is and where it is going. Meetings will not be as productive until this is known.

•**Break down technical data:** Discussions will not bear as much fruit if all participants do not have a full understanding of Nevada's water situation.

Unfortunately, many online reports are too technical. These are fine for experts, but there need to be more reports that include rankings, comparisons and non-technical language that allow anyone who wants to attend the meetings to comprehend what is being discussed.

Oklahoma got around this knowledge gap among meeting participants when it developed its 2012 comprehensive water plan by including experts whose sole reason for attending was to help answer factual questions from the public.

•**Keep the public in mind:** History indicates this drought forum could easily be dominated by special interests that push aside those with less power. In Nevada, those special interests often mean mining, gaming and ranching or farming. Those industries are important and deserve a place at the table but not at the expense of the general public.

The public needs to know how their daily lives and time spent in the great outdoors will be affected by continuing drought, not just what it means to casinos with elaborate fountains and alfalfa growers.

Prioritizing the public's role also means talks must be transparent. No backroom deals.

•**Create trigger points:** It is easy down the road to say things are not bad enough to act yet. If trigger points are established — “if this happens, then this action will be taken” — it will be harder to kick difficult decisions down the road.

Decision points are also helpful because they limit surprise. Businesses especially do not like surprises.

•**Set concrete goals:** Even if wet storms descend upon Nevada in 2015 and recharge aquifers and reservoirs, droughts are not going away.

Returning to Oklahoma’s water plan, it set a goal that in the year 2060, the state would not require any more water than it is right now, regardless of population increases.

This may not be the right goal for Nevada, but it gives an example of a specific goal that is easily monitored and that everyone can understand.

•**Encourage innovation:** Solutions can come out of competition — perhaps contests between towns or counties — and through entrepreneurs and higher-education research. The state should find ways to encourage these. The recession inspired many creative efforts that increased economic development in Nevada; there is no reason the drought could not do something similar.

•**Figure out financing:** Monitoring water supplies, making infrastructure improvements, conducting research — all of this takes money.

The funding of essentials in Nevada is too often done on a wing and a prayer. Education is one example.

Coordinating a team of infrastructure financing professionals to lay out options now for attacking drought if it worsens will increase the likelihood that Nevada can implement the report’s recommendations when needed.

•**Avoid “climate change”:** For better or worse, climate change has become so politically charged that its mere mention short-circuits dialogue. Keep the forum’s stated purpose on making sure there is enough water for our descendants, not on addressing the impacts of global warming.

A shared goal, rather than political rivalry, will make the drought forum’s report more likely to succeed.

By succeeding, we mean this report must be useful. It must be something that can be activated if events require it, not just a pat on the head to Nevadans that everything will be all right while maintaining business as usual.

In short, the Nevada Drought Forum report must be based on solid data, include the public as a major player in its recommendations and provide a clear, understandable path forward in the event of worsening drought.

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# What happens to the wasteful?

05-21-15 BOARD Agenda Item 11.E

## Water agency's goal is to educate

By Mark Robison  
mrobison@rgj.com



Businesses that waste water and let it run into the streets face a \$25 fine for a first offense and \$75 for subsequent offenses. No one received such a fine in 2014. AP FILE

A reader asks what is being done about businesses wasting water and letting it run into the streets.

The short answer is that businesses can be reported by calling the Truckee Meadows Water Authority's conservation department at 775-834-8005 or filling out an online form at [tmwa.com/conservation/assigned\\_day\\_watering/](http://tmwa.com/conservation/assigned_day_watering/) report\_waste.

They face a \$25 fine for a first offense and \$75 for subsequent offenses if they waste water; no one received such a fine in 2014.

Send your drought questions to [mrobison@rgj.com](mailto:mrobison@rgj.com).

### Full question

A reader wrote: "With the drought very much a fact, could you find out why not only are businesses watering all hours, but why they feel to water so much that water is running down into the roads? It is happening all over Reno and seems to be a really bad waste of water."

### Full answer

Here are TMWA's responses to my emailed questions:

**RGJ:** Are there restrictions on when businesses can water?

**TMWA:** Yes, Assigned Day Watering is in effect for all customers — whether business, residential or multi-family. A home or business has three days to water each week. If the last number of the home or business address is even (0, 2, 4, 6, 8), please water on Tuesdays, Thursdays and Saturdays. If the last number of the home or business address is odd (1, 3, 5, 7, 9), water only on Wednesdays, Fri-

days and Sundays. There is no watering on Mondays, as it is a day of rest for the water system, giving it a chance to recharge. In addition, watering is not allowed from 11 a.m. - 7 p.m. starting on Memorial Day, May 25, through Labor Day, Sept. 7. In the Truckee Meadows, afternoon is typically the hottest and windiest time of the day when more water is lost to evaporation than benefits landscaping.

**RGJ:** If a business is watering outside the stipulated times, or is overwatering (water running into street), how can concerned residents report this?

**TMWA:** Truckee Meadows Water Au-

thority is serious about encouraging responsible water use and preventing waste for all customers. If you see water being wasted, please let TMWA know by calling the conservation department at 834-8005, or using this form. Many customers, whether business or residential, simply do not realize they have a leak or broken sprinkler head. Those customers who waste water will be contacted, and, if the waste continues, they can be penalized on their water bill. TMWA also has staff patrolling seven days a week during the watering season, as they have for many years, looking for water waste.

**RGJ:** What is the range of penalties for watering violations for businesses?

**TMWA:** A \$25 fee for the first offense and a \$75 fee for all subsequent offenses. The fee is posted on water bills.

**RGJ:** Have these penalties ever been levied? If so, how much was levied over-all last year and for how many businesses?

**TMWA:** While TMWA has levied water waste penalties in the past, the goal is to educate rather than penalize. TMWA placed thousands of calls last year to customers about water waste and visited thousands more customers to let them know that they had an issue. Customers responded well and corrected water waste issues, so no penalties were levied last year.

Answers  
Case

# Water use: 10 ways to cut 10 percent

By Jeff DeLong | [jdelong@rgj.com](mailto:jdelong@rgj.com)

During this fourth year of drought, the primary water provider for Reno-Sparks has asked residents and businesses to reduce water consumption by at least 10 percent. Here are 10 ways to do so.

### 1. Pay attention

Check for water waste. Pay attention to your bill. If this month's bill is higher than previous ones, you may have a leak that should be fixed.

### 2. Get an audit

Get a water audit. This free service offered by the Truckee Meadows Water Authority will give your water system a thorough lookover, uncovering irrigation leaks or other potentially costly problems. To order an audit, call the conservation hotline at 834-8005.

### 3. Reduce watering

Cut outdoor water use. Watering a lawn can use 180 gallons. With landscaping accounting for 4 times more water use during summer months than other times of the year, this can make more difference than anything. To cut 10 percent with an automatic sprinkler system, set your timer's seasonal water budget to 90 percent. If you have 10-minute watering cycles, reduce to 9 minutes.

### 4. Follow the rules

Water only when you should on assigned watering days. Even addresses on Tuesdays, Thursdays and Saturdays. Odd addresses on Wednesdays, Fridays and Sundays. No watering between 11 a.m. and 7 p.m. between Memorial Day and Labor Day. Don't water if it's raining.

### 5. Report water waste

Report water wastes. TMWA has people on this seven days per week. Report online at [www.tmwa.com/waste](http://www.tmwa.com/waste) or call the conservation hotline at 834-8005.

### 6. Be toilet conscious

Don't flush your toilet unless necessary. Each flush uses from 4 to 7 gal-

lons. And make sure that toilet isn't leaking. Leaking toilets can waste 60 gallons of water a day without showing a sign. Check pipes and faucets for leaks as well.

### 7. Shorten showers

Take shorter showers. A shower can use from 9 to 12 gallons per person. Install water-saving showerheads or flow restrictors. Turn water off after wetting your toothbrush. Brushing your teeth can use 2 to 5 gallons of water. Rinse razors in a partially filled sink.

### 8. Fill your washers

Run dishwashers and clothes washers only when they are full. Washing dishes by machine can use 13

to 19 gallons of water. Washing clothes can use 35 to 50 gallons.

### 9. Skip the car wash?

Maybe skip that car wash. Washing a car can use 50 gallons of water. Don't let water run down the driveway. Use a broom or blower to clean your driveway.

### 10. Be water wise

While it may not directly impact our local water supply, think about what uses water. To make a 4-ounce hamburger, it takes 616 gallons of water. An 8-ounce steak takes 1,232 gallons. A pair of blue jeans takes 900 gallons. A cup of coffee takes 37 gallons. To manufacture a pair of jeans, more than 39,000 gallons is used.

## Experts Come to Tackle the Drought at DRI

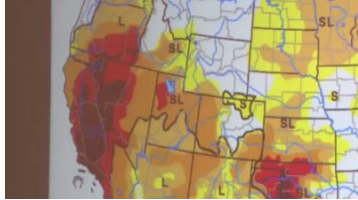
Posted: Apr 14, 2015 2:20 PM PDT <em class="wnDate">Tuesday, April 14, 2015 5:20 PM EDT</em> Updated: Apr 15, 2015 7:04 AM PDT  
<em class="wnDate">Wednesday, April 15, 2015 10:04 AM EDT</em>

By John Potter

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[producers@ktvn.com](mailto:producers@ktvn.com)



As the Desert Research Institute's regional climatologist Kelly Redmond told us, "Our droughts here are winter droughts. If we don't get winter precipitation, we have to wait a whole year." And we are still playing the waiting game in the Sierra Nevada.

There was hope that an El Nino in winter would bring much needed rain and snow here and beat the drought that's been going for 4 years. But El Nino weakened last fall...and that brought problems. As NOAA meteorologist Richard Heim told us, "It's, it's really a difficult situation."

Once every 2 years, climatology experts from across the country come here to Reno to meet over the ever-changing, lately-worsening drought monitor map. First devised in 1999, it paints a stark and dramatic picture of just how bad off we are. At today's forum, climate data was studied and theories examined. And now that the wet season's in the rear view mirror, the writing is on the wall. But...it's been there before. Climatologist Kelly Redmond told us, "It's just a natural thing. It happens in the West. Our biggest question, probably to ourselves right now is...how long is this going to last?"

Redmond says droughts usually last a year or 2 here. This one is different, and not just in how long it is. He told us, "The major factor about this drought, compared with the previous droughts...it's been far warmer than the ones we've seen in the past."

We had storms in December, but January was the driest on record. And because it was so dry, people turned their sprinklers back on early. Making it worse, people living in the West and the amount of water they need increased rapidly over recent decades, and should continue for years to come. But our state climatologist cautions against reading too much into that. Douglas Boyle told us, "The good news is, we are a dry state, and we are prepared to deal with long periods of drought in this state."

And this is a long drought...longer than many realize. Some here see a climate trend that has passed 100 years already. Meteorologist Richard Heim says we're already in the worst drought in over 100 years. As he told us, "The drought in the West has been going on since about 1999. This is the longest, worst drought for the western U.S. in 122 years in records of climate data."

And just last month, NASA scientists said the Southwest is likely to be scorched by a decades-long "megadrought". By megadrought, they mean the driest since medieval times...an extended drought which reaches all the way from 2050 to 2099. State Climatologist Boyle told us, "We do know that there have been at least 2 megadroughts in the last 800 to 1200 years."

But Kelly Redmond isn't ready to throw in...what is now a very dry towel. He says the best thing about our drought...is making Nevadans take notice. As he put it, "It's forcing us to take close looks at how we use water in the West."

And you can check out the drought monitor map yourself, which is updated every week. Just click the link below:

<http://droughtmonitor.unl.edu/>

**Letter: Don't Ask Me to Conserve Water**

9:00 a.m. PDT April 14, 2015

To the board of the Truckee Meadows Water Authority:

I am more than furious, I am outraged! It is ludicrous to ask your customers to conserve water when YOU FAILED to proceed NOW with plans to switch the LAST REMAINING flat rate customers to meters.

You state yourself that flat rate customers use TWICE the amount of metered users. As to the concern of affect in elderly people on fixed incomes, they are not BIG uncontrolled users. Their usage on meters could easily result in LOWER BBILLS. For their budgeting ease, they could have an equal payment plan. The largest users deserve to pay their fair share NOW.

Your decision to again) postpone this issue until October makes no sense whatsoever. We should be able to rely on you, as elected officials, for sound judgement.

How much worse must the drought be before you act responsibly?

You cannot expect the metered users to make up your inaction. The voters will remember this lack of leadership

*Peg Murphy, Reno*

posted: Tuesday, April 14, 2015 4:18 pm

## Governor creates panel to address drought



- Posted on Apr 14, 2015

by [Nathan Orne](#)

Gov. Brian Sandoval has signed an executive order forming a panel of experts to examine ways to reduce water use and study how Nevada can be more efficient and technologically savvy with water conservation during this season of record drought.

Speaking on April 8 from the dry bottom of Washoe Lake, Sandoval announced the panel, called the Nevada Drought Forum, but did not impose restrictions on water use as has been done in neighboring California.

In addition, the governor has ordered an audit of water use by state agencies and is calling upon the state engineer's office, the Department of Natural Resources, Department of Agriculture, Southern Nevada Water Authority, Desert Research Institute and others to contribute their expertise in finding solutions to the water crisis.

"Drought affects all Nevadans and we must work together to ensure a path to sustainability for future generations," Sandoval said in a prepared statement. "The Nevada Drought Forum will bring together some of the best minds in the water science, conservation, government and industry sectors to ensure that Nevada's path forward is clear. The forum will provide an opportunity for all Nevadans – urban and rural, north and south – to come together to help address this most critical challenge."

Whereas the governor of California has mandated a 25 percent reduction in water use there, the Truckee Meadows Water Authority has asked its residential and commercial customers for a 10 percent reduction in both inside and outside water use. TMWA has said this will save 1.6 billion gallons of water stored in upstream and underground reserves.

Water authority spokeswoman Marlene Olsen said that in fiscal year 2014, the average residential single-family customer used 136,000 gallons of water.

According to the Alliance for Water Efficiency, the average American shower uses 17.2 gallons of water and lasts 8.2 minutes. Older shower heads use more water, with modern shower heads using about 2.5 gallons per minute. The largest water users in American homes are toilets and washing machines.

With that average, a 10 percent reduction would cut Northern Nevada shower times to 7.4 minutes, using 15.5 gallons of water.

TMWA also recommends running sprinklers between four and six minutes with no more than three run times per day. More conservation recommendations are online at [www.tmwa.com](http://www.tmwa.com).

Olsen also said TMWA customers are currently using 15 percent less water than they were 10 years ago, through a combination of a “culture of conservation” and “planning for the future” by the water agency. She said TMWA plans for a nine-year drought cycle, which is one year longer than the worst drought on record, which occurred from 1987 to 1994.

“We are fortunate to have a robust supply system of upstream reservoirs and underground reserves available for use during dry years,” Olsen said. “During the winter months, groundwater supplies are also enhanced and protected when TMWA recharges approximately eight million gallons of treated water per day through its wells into the aquifer for future drought-year use.”

# Ask Joe: Are cities conserving water?

- [Video](#)



- 

[Ask Joe: 3/14](#)



Reported by: Joe Hart  
Email: [jhart@mynews4.com](mailto:jhart@mynews4.com)



[Print Story](#)

Published: 4/14 7:15 pm

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Updated: 12:02 am

RENO, Nev. (MyNews4.com & KRNV) -- From the Ask Joe file, a question from a viewer about conserving water.

Candice W. Wrote in saying her household is following TMWA's 10 percent reduction in water use. She wants to know if the city of Reno plans on following the ten percent reduction as well...

### ***Here's what Joe found out:***

I checked with both Reno and Sparks and here's what I found out:

According to Matt Brown with the city of Reno, the city does have a water management and drought response plan but they have not been formally asked by TMWA, the Truckee Meadows Water Authority to use it. The city does actively manage its water use and will make changes as possible to be environmentally conscious.

The city used 264 million gallons of treated water last year and 90 million gallons of effluent. But again, Reno has not implemented its drought response plan yet.

As for Sparks, it has about 150 acres of turf that needs watering in the city. Spokesman Adam Mayberry told me they use a computerized system to monitor factors like evaporation, water budget and watering schedules.

Mayberry says the city is currently reprogramming its system to reduce water usage by 10 percent on turf watering areas.

And one final note, there is an item on the April 15th Reno City Council agenda to discuss possible direction to the city manager to use staff time to work on a proactive drought plan.

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## Is Rancho San Rafael wasting water by flood irrigating?



[Mark Robison](#), RGJ 6:35 a.m. PDT April 15, 2015



The off-leash dog area at Rancho San Rafael Park does double duty as a pasture for cattle grass.(Photo: Provided by Washoe County)

### Story Highlights

- Park water being wasted? Report itIf any leaks or problems with water systems are seen at Washoe County parks, including overwatering, call 775-328-2311 to report it.

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This week's reader drought question asks why excess water is used at Rancho San Rafael Park at this time of year. It seems wasteful. (Send your question to [mrobison@rgj.com](mailto:mrobison@rgj.com).)

### Short answer

Washoe County leases out the off-leash dog area of Rancho San Rafael Park to a local rancher who grows pasture grass to feed cattle. It is watered using "flood irrigation." There is no other way to water the grass, which grows best with this method of watering. What appears to be excess water is not wasted. A high volume of water is needed to push the flow to other properties and any excess makes its way back into the Truckee River where it started.

### Original question

A reader asked: "What is the deal with Rancho San Rafael Park? It seems that they flood irrigate the dog park area. There is a huge area at the bottom of the hill — the northeast corner of the

park — where there is a ton of standing water and mud. It is ridiculous! It is very hard to run or ride a bike on the path going to the tunnel under McCarran because of all the mud. It is like this every year, and every year it seems ridiculous, but this year it really needs to stop. This is not about having a historic 'right' to flood irrigate. There needs to be a 'reasonable use' discussion this year. What is going on at Rancho is not reasonable. It is a waste. Please let me know what can be done about this?"

### **Long answer**

The water used for the big pasture at Rancho San Rafael only runs part of the year. It comes out of the Truckee River, into Highland Ditch and is used by whoever owns water rights for it.

When water fills the ditch and when it's shut off is handled by the federal water master.

Pete Lazetich, who leases the pasture from Washoe County to grow grass for his cattle, said that traditionally, the water rights for the park allow for water to flow from around May 1 to the end of September.

"Last year, they cut off water about the first of August," he said. "This year, I suspect they will cut it off about the first of June."

Because water will be cut off so soon due to the drought, the water master opened the gates for Highland Ditch around April 1. This means, Lazetich will get about two months of ditch water to last the pasture until it's turned on again a year from now.

"If we overwater with flood irrigation, the pasture will recover better," said Jennifer Budge, Washoe County park operations superintendent. "Those types of grasses respond to that type of watering better."

Watering in this way is actually a cost savings to the county, Budge said.

"We haven't had money for capital projects for drainage improvements and sprinklers," she said.

If the pasture were converted to the lawn of a traditional park, this would also require staff and equipment to regularly mow it — which the county also does not have money for, Budge said.

There is not much choice, Lazetich said. The county can't afford new water infrastructure, staff or equipment for the pasture and if the pasture isn't watered, there will be only rocks and sagebrush, he added.

People often ask Lazetich why the water isn't saved and used a little at a time to maintain the pasture.

"That's not the way the river works," he said. "There's a certain pressure required to push it all throughout the land. You can't get a trickle here and there."

The water is not wasted, he said: "Whatever's flooding now goes to the next neighbor or back down to the Truckee."

The flood irrigation also helps feed Rancho San Rafael's pond, wetland areas and the grass picnic areas.

Mud is indeed sometimes a problem as trails are washed out.

Lazetich said this is to be expected: "The important part of the name is 'Rancho.' It's a ranch, not a manicured golf course. There's gonna be mud on the trails, there's gonna be leaks.

"If you see mud, rejoice — you won't have it long because it's about to get real dry."

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# IVGID GM's corner: Tough times for Lake Tahoe

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INCLINE VILLAGE, Nev. — We've all been reading a lot lately about the challenges this four-year drought is creating for our region. For our area boaters, the drought may significantly reduce the number of boat ramps available this summer in the Lake Tahoe Basin.

The lake elevation dropped below its natural rim for the first time since 2009 this past fall, and it is still about a quarter foot below the rim level of 6,223 feet of elevation with very little snow melt anticipated this spring.

Since 1900, the record for lowest lake level is in 1992, when the level dropped to 6220.26 feet. If you take a look at this chart prepared by the Truckee Meadows Water Authority, via the U.S. Geological Survey — [tmwa.com/lake\\_level](http://tmwa.com/lake_level) — you can see that a lake level below 6,223 feet has been a fairly rare occurrence over the past 115 years.

Not surprisingly, since the current lake level is such a rarity, many of the boat ramps in our region were not designed to deal with water depths below the natural rim. It is anticipated that a number of boat launches, including Sand Harbor, may not be able to open this summer.

IVGID's boat ramp, originally built over 40 years ago, has been modified a number of times over the years to better deal with drought conditions. A series of extensions were added to the boat ramp to lower its elevation to the maximum allowable depth of 6,219 feet. Originally, our ramp elevation was only 3 inches below 6,223 feet.

“What I can assure you is that we will continue to work with our boating partners and do everything we can to see if there is a way to defy Mother Nature and keep our boat ramp open for the entire season.”

While we are currently able to service most boats at the current water level, we are very concerned about what the water level will be by the middle of the summer.

IVGID staff has been working closely with our local boating community to look at alternative ways to launch boats if the lake level continues its drop.

The most obvious solution would be extending the ramp, as was done several years ago. Unfortunately, the lake bed elevation remains flat for approximately 150 feet at the end of the current ramp — making any additional extensions logistically, legally and financially infeasible.

Another alternative that has been suggested is to dredge the area surrounding the boat ramp in order to gain more water depth. TRPA has informed us that dredging is not an option. Their code does not allow for any “new” dredging to occur; it only allows for “maintenance” dredging of existing channels, which is what is occurring elsewhere in the Basin.

Even if we were able to get TRPA to authorize dredging, it would not succeed for long, given the amount of sediment loading that occurs from the two adjacent streams and the littoral movement of sands from wave action. With the southern exposure of our ramp, a dredged channel would fill back in almost immediately.

The TRPA code does allow for a temporary extension to enhance access during extreme low water. This is how Sand Harbor was able to accomplish what they did in the early 1990s low water years in which they set landing mats in the lake and then tractor trailered the boats into the lake.

The difference between our circumstance and Sand Harbor’s is the extreme length at the end of our ramp to deeper water and the ramp’s southern exposure.

With 150 feet of flat lake bottom from the end of our ramp to deeper water, it would be a very long run for a tractor and trailer to drive out in the lake.

There are also many issues associated with wave action and a temporary extension. The landing mats will want to move and shift during large summer wave events. Additionally, the wave action will cause sand fouling of the landing mats which will make launching challenging.

These are all issues TRPA would want us to have resolved in order for them to approve an application, along with whether or not we could temporarily extend our ramp beyond the current maximum allowable length of 75 feet.

What I can assure you is that we will continue to work with our boating partners and do everything we can to see if there is a way to defy Mother Nature and keep our boat ramp open for the entire season.

We’ve also been working closely with our Board Chair and Trustees to examine the possibility of providing additional services at the ramp including expanded hours of operation, boat valet services, kayak and paddleboard storage improvements.

In addition, a new restroom facility will be opening shortly at Ski Beach (will include a foot washer and a dog water fountain), and we will be enhancing the safety of our boat ramp putting new taller curbs in place this spring.

“GM’s Corner” is a twice-monthly column from Incline Village General Improvement District General Manager Steve Pinkerton, who will discuss issues and offer updates regarding various district matters.

# Drought cuts flow from Boca, river to drop



[Jeff DeLong](#), RGJ 3:30 p.m. PDT April 16, 2015



A drought-lowered Truckee River flows at a trickle in late September 2014. After flows from Boca Reservoir were halted Thursday, water levels in the river should again drop quickly. (Photo: Marilyn Newton/RGJ file)

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In a further sign of a drought of historic intensity, flow from a diminished Boca Reservoir into the Truckee River halted Thursday.

By Friday, with summer's official start still more than two months away, river levels should begin to drop noticeably across the Reno area.

"We're out of water and we're ramping it down," Federal Water Master Chad Blanchard said of the need to begin closing Boca's floodgates Thursday morning.

"We are out of useable ... storage, which is by far the earliest ever," Blanchard said. "It's something we've never seen before. We've never run out this early before."

Last year, during the drought's third year, flow from Boca was cut off July 31. The previous earliest date this situation was reached was June 5, 1992, during the height of a lengthy drought. Records date back more than a century.

Everyone expected the river's flow to cut off early this year, Blanchard said. Just not this early.

"It's way beyond what we imagined we would see," Blanchard said. "We're in uncharted waters, or uncharted lack of waters."

Snowfall in the Sierra has been far below normal for the past four winters, with the most recent one the worst yet. The Truckee River Basin's snowpack Thursday was measured at 15 percent of normal for this time of year. The Carson River Basin's was at 1 percent.

At Lake Tahoe, the snowpack was at zero.

Tahoe, the Truckee River's largest reservoir, dropped below its natural rim in October, cutting off flow into the river. Tahoe is not expected to rise above its natural rim this year.

With the flow out of Boca halted, river levels will lower quickly, with the river nourished mostly by limited natural snowmelt flowing from its creeks.

Summer flows will now come only from reservoir storage dedicated to the Pyramid Lake Paiute Tribe to maintain fisheries and to the Truckee Meadows Water Authority, which will soon begin tapping drought reserves in Stampede Reservoir and Donner and Independence lakes.

The authority, the primary water provider for Reno-Sparks, has asked its customers to cut water use by at least 10 percent

# Truckee Meadows Water Authority receives national award

05-21-15 BOARD Agenda Item 11.E

Source: American Water Works Association (AWWA)

PUBLISHED: Apr. 17, 2015

☆☆☆☆☆ (0 votes)

0 Reviews



## Only 18 utilities in the U.S. have received this award

RENO, NV -- Truckee Meadows Water Authority (TMWA) has just received the "Presidents Award" from the Partnership for Safe Water (PSW). With this award, TMWA's Chalk Bluff Water Treatment Plant ranks among the highest performing water treatment plants in the country for individual filter performance. Only 18 utilities across the country have achieved this award.

"Reaching Presidents Award status is a very significant achievement in our ongoing work to meet water quality performance goals," said Mark Foree, TMWA General Manager. TMWA produces high-quality water for more than 380,000 residents in the Reno-Sparks area. "By joining the ranks as one of only 18 treatment plants in the country, we have taken a large step toward achieving this goal. Special recognition must go to Paul Miller, our Manager of Water Quality and Operations, as well as the entire water quality and operations team, for their hard work and commitment to delivering high-quality water," Foree added.

According to the Partnership, the Chalk Bluff Water Treatment Facility is among an elite group of water treatment plants to achieve this award. The award signifies the highest possible level of performance that can be achieved in the four-phased program. The Presidents Award recognizes achieving Phase IV's very stringent individual filter performance goals for turbidity. TMWA received the treatment program's Directors Award in 2013. The Partnership for Safe Water is a voluntary self-assessment and optimization program for water treatment plant and distribution system operation. Each assessment step has taken approximately 18 months to complete.

The Partnership's national volunteer initiative was developed by the United States Environmental Protection Agency (EPA) and other national water organizations representing water utilities that strive to provide their communities with drinking water quality that surpasses the required federal standards.

The Partnership for Safe Water is sponsored by the American Water Works Association, Association of Metropolitan Water Agencies, Association of State Drinking Water Administrators, United States Environmental Protection Agency, National Association of Water Companies, and the Water Research Foundation.

Truckee Meadows Water Authority (TMWA) is a not-for-profit water utility, overseen by elected officials from Reno, Sparks and Washoe County. TMWA employs a highly skilled team that ensures the treatment, delivery and availability of high-quality drinking water around the clock for more than 380,000 residents of the Truckee Meadows.

## Low Water Won't Stop The River Festival

By: [Ed Pearce](#) - [Email](#)

Posted: Fri 6:50 PM, Apr 17, 2015

By: [Ed Pearce](#) - [Email](#)



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The Truckee dropped even further last night as the flow from Boca Reservoir ran out.

With the river already very low, it created an immediate problem for organizers of an upcoming event built around the Truckee and Reno's [White Water Park](#)..

The river has become a focal point for warm weather special events in [the town](#), a welcoming backdrop for a variety of gatherings, but some have depended on it more than others.

As the first event on the calendar, the River Festival has drawn big crowds with entertainment, [food](#), drink and well, the river.

A major part of [the event](#) has been the kayak races, a major stop on that circuit, drawing some of the best in the world.

Recent dry years have been challenging, but organizers have been able to cope. They hoped to do so again this year.

"I had my kayak in my car for a [lunch](#) break to come down here and paddle during my lunch break," says Noah Fraser, an avid kayaker and organizer of the festival's races. "When I drove over the river, there's nothing here."

This is all coming as a big surprise to Fraser who was kayaking here just yesterday, but as he and [Festival](#) organizer Jess Horning surveyed what was left of the Truckee they had to make a decision.

"We talked about it and we felt we still had enough for some racing, but now we don't even have that."

That leaves Horning with a River Festival without enough river to hold one of its big events.

"It's disappointing. The kayak races have always been fun for people to watch.

Fortunately there's more to the Festival than watching kayaks.

"We have a great selection of food," Horning says. "We've got the craft beer village this year. We've got an amazing line up of [bands](#). We have zip lining. We have rock wall climbing. We have the largest child adventure. We're calling it the Adventure Park."

And Horning points out there's even a positive side to the shrinking river.

"The water, the way it is creates great swimming holes. So it's a great [family](#) environment to come down grab a beer, grab some food, sit back and enjoy the river, enjoy the summer."

In fact, most events held down here will be largely unaffected.

A river safety event scheduled for July, maybe cancelled. All the Artown events only use the river as a setting, not an essential element.

A river safety event scheduled for July may be cancelled. In fact, the river may never have been this safe before.

The Humane Society says their rubber duck race scheduled for late August will be held. They'll just adapt to whatever the conditions are at the time.

It doesn't take much water to float a rubber duck.

You'll find more information on the River Festival elsewhere on this website. Just click on Hot Topics.

# Small changes to your home can save big money and water

- **Video**
  - [Water Conservation tips from The Home Depot](#)
  - [TMWA Water Conservation Info](#)

Reported by: Ashley Cullins

Email: [acullins@mynews4.com](mailto:acullins@mynews4.com)



[Print Story](#)

Published: 4/18/2014 5:06 pm

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Updated: 4/18/2014 5:49 pm

RENO, Nev. (KRNV & MyNews4.com) -- Despite the continued drought, so far there are no water restrictions in the Truckee Meadows, but many people are worried about how much water we'll have this summer and the summers to come.

The good news is there are several things you can do both inside and outside your home to conserve water, and most of them are easy enough for you to do yourself.

"Water is money," said Greg Del Piero. "Water is gold in the desert. So it's essential to save water because our water bills are high."

Del Piero works for The Home Depot. He said spending a little money now on water-efficient appliances will save you in the long run.

"The showerheads are a great way we can save water," he said.

They can save you up to \$60 a year too.

Sinks can be another drain on your budget.

"Your sinks, you should only run the water when you need it," Del Piero said.

He said a high-efficiency washing machine will reduce your water load too.

"They use considerably less water and do a more effective job," Del Piero said.

He said low-use toilets will also help you avoid flushing money down the drain.

Once you have indoors taken care of, don't forget your outdoor water use. How you water your lawn and plants has a big impact.

"You're going to save about 2,700 gallons a year by switching to drip irrigation," Del Piero said.

When you water them matters too.

"[People] water at the wrong time of the day," he said. "They water at the heat of the day, and all you do is get evaporation when that happens."

So Del Piero recommends you water when it's cooler and get a few other supplies for your yard.

"[Put] in mulch around the plants to keep the moisture in the ground," he said. "We don't rain often, but when it does it rains hard. Consider putting in a rain barrel that will save up to 100 gallons of water at a time."

Del Piero said it's important to make these changes while they're optional because we don't know when the drought will end.

"Our reservoirs only last so long," he said.

Del Piero said if you're a homeowner making these changes is a no-brainer, but if you're a renter, he suggests talking to your landlord about how you can make your home more energy efficient

## Ruling forces California water districts to review rates

- [More>>](#)

By BRIAN MELLEY and FENIT NIRAPPIL  
Associated Press

LOS ANGELES (AP) - An appeals court decision striking down punitive water pricing that was intended to encourage conservation had water agencies reviewing rates Tuesday and some residents exploring whether to bring similar challenges.

The ruling Monday that found San Juan Capistrano's water rates unconstitutional came amid a severe drought as agencies try to meet the governor's mandate to cut water use statewide by 25 percent.

The 4th District Court of Appeal said charging heavy users incrementally more per gallon without showing it cost more violated a 1996 voter-approved law that prohibits government agencies from overcharging for services.

The decision that Gov. Jerry Brown said puts a "straitjacket" on local government makes it harder for cities to adopt similar billings and may bring down some of the higher rates, said Ken Baerenklau, an associate professor at the University of California, Riverside who has studied tiered water rates.

Water departments are being pulled in different directions by Brown's administration that demanded hitting residents in the pocketbook to save water and the legal uncertainty of charging guzzlers higher rates.

"If you have courts telling you one thing and the governor telling you something else, maybe that's a reason to sit tight," he said.

Tim Quinn, executive director of the Association of California Water Agencies, said the ruling would be a significant concern to water managers across the state if it hampers agencies from using rates to promote conservation.

State regulators are still trying to figure how to direct local water departments to charge customers in a way that encourages saving water and is legal.

Max Gomberg, a State Water Resources Control Board scientist, said the agency will address water rates after it finishes setting mandatory water reduction targets for communities in early May.

Meanwhile, water districts were carefully going over the ruling to figure out if their rates were in jeopardy or how they could develop a pricing scheme that would encourage conservation but not violate the ruling.

Huntington Beach, for example, had been considering adding tiered water rates for years, but didn't know what would be legal until the ruling came out, said Public Works Director Travis Hopkins.

The Crescenta Valley Water District was meeting Tuesday night and was expected to discuss the ruling's impact on its four-tier pricing and future rate hikes, said attorney Thomas Bunn.

"This is going to force a number of districts to re-examine their tiered rates and make sure they're justified," Bunn said.

Two-thirds of water districts use some form of tiered water pricing. The ruling which is only binding in Orange County but could be cited in legal filings throughout the state, does not make tiered pricing illegal, but agencies or cities have to show price hikes are directly tied to the cost of the water, the court said.

Noting that Santa Barbara is reviving a desalination plant, Justice William Bedsworth wrote that providing water during a drought is pricey and nothing in the voter-approved ballot measure prevents water agencies from passing those costs on to users.

"That would seem like a good idea," he wrote.

San Juan Capistrano charged nearly four times as much per unit of water for users in the highest tier to provide an incentive to conserve, but failed to show that the water was that expensive to deliver. Residents complained the higher rates were arbitrary and unfair.

Nearby Santa Margarita Water District watched the case closely and increased its tiered rates in March with a 120-page analysis carefully documenting the link between costs and rates, spokesman Jonathan Volzke said.

Attorney Benjamin Benumof, who brought the lawsuit against San Juan Capistrano and has suits pending against Sweetwater Authority in San Diego County and Glendale Water and Power, said he thinks there are a lot places where rates are out of line with the court order.

He had already heard from people in his hometown of San Clemente interested in challenging a tiered rate structure there and had received several emails by midday Tuesday from residents in Santa Barbara, Riverside and Sacramento counties who were interested in challenging their water bills.

"I don't know where this is going to go in the future," he said, adding that he hoped other districts would comply with the ruling rather than litigate. "Everybody is looking for a more equitable split in terms of water rates."

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Nirappil contributed from Sacramento

# Ask the RGJ: How much water does TMWA lose?



[Mark Robison](#), RGJ 7:02 a.m. PDT April 22, 2015



Workers remove an old pipe and replace it on Lakeside Drive between Country Club and Mountain View drives in 2013.(Photo: RGJ file)

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Through September, the Reno Gazette-Journal will answer reader questions about the four-year drought. (Send questions to Mark Robison at [mrobison@rgj.com](mailto:mrobison@rgj.com).)

This week, a reader asks how much of the region's water agency is lost to leaks or is stolen.

The short answer is about 2.61 percent.

## Original question

A reader writes: "I'd like to know how much of the treated water TMWA produces is lost to leakage and theft. It should be easy to compute, just subtract total metered use from total production over the same time period. The difference is the loss from leaking distribution pipes

and/or theft. If that's within a percent or two of what's produced then they're doing a great job and deserve some recognition. However, I suspect it's a lot worse and if so they should be held accountable. It's bad enough that paying customers bear the economic cost but any significant loss of treated water would be inexcusable when they've asked customers to conserve."

**Long answer**

The number given out by the Truckee Meadows Water Authority when asked the question about "non-revenue water" — including initially for this Ask the RGJ drought question — is 6 percent. That's the amount of water due to "system loss."

It comes from a footnote on page 94 of a TMWA report in 2009 that predicts water usage through the year 2030.

The numbers behind the percentage would give a more accurate reading so these were requested.

[RENO GAZETTE JOURNAL](#)

[Is Rancho San Rafael wasting water by flood irrigating?](#)

Figures for 2014 still have an asterisk because final figures for November and December usage are still estimates. So 2013 figures were given.

TMWA itself had not yet done this calculation using its latest data.

In 2013, the total amount of water production was 24.4 billion gallons. Of that, 1.36 billion gallons was pumped into the ground to recharge area wells and aquifers.

This leaves 23 billion gallons available for sale, and 22.4 billion was actually sold.

The remainder is the amount that is unaccounted for: 600 million gallons.

That works out to a 2.61 percent loss.

The Environmental Protection Agency estimates the average water loss in systems around the nation is 16 percent, according to its "Water Audits and Water Loss Control for Public Water Systems" document.

What makes up the loss is impossible to measure because, by its nature, it is unaccounted for, TMWA says.

The types of things included would be:

- water used by firefighters** to fight structure fires and for flushing out hydrants to make sure they work to capacity. Hydrants are not metered.

- theft.** Some people tap into pipes to steal water. TMWA describes this as a "very small" amount.

- meter fluctuations.** The meters that tell how much water is used by a specific customer are rated between 99 and 101 percent accuracy, but some are old or broken and not reading amounts correctly.

- leaks.** Anywhere there are pipes, there is the possibility of leakage.

[RENO GAZETTE JOURNAL](#)

[What is being done to water wasters in Reno?](#)

TMWA director of natural resources John Erwin said it is cost prohibitive to tear up streets to look for leaks. Because of this, he said, TMWA works with the cities of Reno and Sparks to piggyback when they replace roads or sewer lines to check if water pipes need replacing.

Erwin said that in 2014, TMWA spent \$5.4 million for replacement of water mains, \$500,000 for "lateral" lines that go from mains to customer meters, and \$1 million for replacement of meters.

TMWA has an incentive to find leaks, Erwin said, because lost water is lost revenue. "It's one of our top priorities," he said.

Toward that end, TMWA has a mapping system that shows where leaks have been repaired around the Truckee Meadows since the 1980s. The map can display a fever chart with the areas where the most water main breaks occur — about 4 to 5 such repairs are done each month. These are areas prioritized for replacing pipes.

Currently, the main problem areas are Washington Street (south of Interstate 80), Stewart Street (south of Renown) and Plumas Street (on the east side of the Washoe County Golf Course).

### **Water by the numbers**

Here's a look at Truckee Meadows Water Authority's infrastructure:

- 13,209:** hydrants

- 1,907:** miles of water mains

- 642:** miles of lateral lines connecting mains to customer meters

•**154:** square miles of TMWA's retail coverage area

•**94:** tanks

•**91:** wells

•**2:** treatment plants

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## Watering Trees During a Drought

Posted: Apr 22, 2015 6:59 PM PDT <em class="wnDate">Wednesday, April 22, 2015 9:59 PM EDT</em> Updated: Apr 22, 2015 6:59 PM PDT <em class="wnDate">Wednesday, April 22, 2015 9:59 PM EDT</em>

By Arianna Bennett

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As we head into summer chances are our dry weather will put a strain on our plants, especially trees.

Tree experts say a big mistake that a lot of homeowners make in the hot months is watering trees the same way they water their grass. And in this drought, that could actually kill your tree. "People are watering their lawns three days a week, when trees really only need to be watered once or twice a week, and they need to be deep-watered," says Heidi Kratsch, UNR Cooperative Extension Horticulturist.



Kratsch says if you rely on your lawn sprinklers to water your trees you may need to do some extra watering. Just run a hose on a slow trickle for an hour or two, near the trunk if it's a young tree - and further out under the canopy for a mature tree.

You can also add mulch or compost near the base of the tree to help the soil retain moisture.

Trees need a lot of water, upwards of 100 gallons a week, but Kratsch says it's worth the investment since trees enhance the value of your property and the shade can cut your cooling costs. "Trees are the most valuable plant in your landscape. It's estimated that trees over their lifespan of about 50 years are worth about \$50,000 to a typical homeowner."

The Cooperative Extension is offering free classes on keeping trees alive during a drought. They're happening on May first from 8:30 am to 4:30 pm at their headquarters on Energy Way in Reno.

For more information, go to <http://www.unce.unr.edu/news/article.asp?ID=2073>

**WATER AUDITS ORDERED BY NEVADA GOVERNOR** 27 2015-04-22  [Print](#)

**Nevada Governor Brian Sandoval signed an executive order requiring water audits of all state-owned facilities.**

FOR IMMEDIATE RELEASE

RENO, NV – April 22, 2015 – On April 8, 2015 Nevada Governor Brian Sandoval signed an executive order requiring water audits of all state-owned facilities. The move is part of a strategy to combat severe drought conditions in the state. The order also creates a so-called Nevada Drought Forum to study other areas of water conservation opportunities. What wasn't mentioned in the governor's statement is what such measures could mean to the state's budget.

“A comprehensive water audit can result in saving a facility millions of gallons of water. An important by-product of that is lower utility and sewer expenses,” said Lauren Sellyei, President of ConservCo, a Reno, Nevada based water conservation consultant that has been providing comprehensive water audits services to clients throughout the United States and abroad since 2008. “When you reduce the amount of water coming into a building, you reduce the amount that needs to be heated, and that lowers your energy bill. And, since less water is leaving the building and going into the sewer, that expense gets reduced as well,” added Sellyei. ConservCo should know. Its client list includes hotels and resorts such as the St. Francis Hotel in San Francisco, the Four Seasons Resort in Nevis and General Electric's Corporate Leadership Center in Crotonville, Connecticut.

Sellyei also suggests that the State will find greater water savings if it adds landscape irrigation audits to its inspection regime as it is likely that more water is used keeping the state's lawns green than is consumed by the buildings they surround. Improving a facility's irrigation system can go a very long way to saving enormous amounts of water. ConservCo has published a list of easy water saving ideas on its website at [www.conservco.us/tips.html](http://www.conservco.us/tips.html).

###

About ConservCo

# Homeless people should not be along river: Letter

8:52 a.m. PDT April 22, 2015



Letter to the Editor(Photo: RGJ)

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In regard to the homeless man who has filed suit to reclaim personal items lost during a recent cleanup, this man and others like him have no right to take up residence along the Truckee River ["Washoe County accused of homeless property seizures," News, April 17].

Those familiar with this issue know that the homeless defecate and urinate in the river and along its banks on a daily basis, thereby polluting river water that is used for drinking water and recreational purposes. This practice is a direct violation of the Clean Water Act, which the State of Nevada, the district health department and local political entities have an obligation to enforce.

The solution to this issue is the removal of the homeless population along the river. It is amazing that the homeless shelter was allowed to be built so close to the Truckee River. It must be moved away from the urban center with requirement that those using the shelter participate in mandatory work programs in order to receive shelter and meals. Implementation of this solution will require leadership and political will of local officials.

Ron Penrose, Reno

# Partnership for Safe Water recognizes Truckee Meadows Water Authority with Presidents Award

April 22, 2015

RENO, Nev. — [The Partnership for Safe Water](#) honored [Truckee Meadows Water Authority \(TMWA\)](#) with the “Presidents Award,” according to a press release.

With this award, TMWA’s Chalk Bluff Water Treatment Plant ranks among the highest performing water [treatment](#) plants in the U.S. for individual filter performance, stated the release.

Only 18 utilities across the nation have achieved this award, continued the release.

The award signifies the highest possible level of performance that can be achieved in the four-phased program, reported the release, and the Presidents Award recognizes the achievement of Phase IV’s “very stringent individual filter performance goals for turbidity.”

“Reaching Presidents Award status is a very significant achievement in our ongoing work to meet [water](#) quality performance goals,” said TMWA General Manager Mark Foree. “By joining the ranks as one of only 18 treatment plants in the country, we have taken a large step toward achieving this goal. Special recognition must go to Paul Miller, our manager of water quality and operations, as well as the entire water quality and operations team for their hard work and commitment to delivering high-quality water.”

TMWA also received the Directors Award from the Partnership for Safe Water in 2013, noted

# Atlantis details water conservation efforts in Reno

- [Video](#)
- [Images](#)

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[Print Story](#)

Published: 4/23 8:53 pm

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Updated: 4/23 8:57 pm

RENO, Nev. (MyNews4.com & KRNV) — Many people and businesses are working hard to conserve water during the drought.

The Atlantis Casino Resort is one of them.

Spokeswoman Tracie Barnthouse says it is recirculating water in the fountains.

The Atlantis has automatic wind sensors on the outdoor fountains.

If the wind speeds pick up, the fountains' pressure will lower, so water isn't wasted.

And if they get too fast, the fountains will automatically shut off altogether.

Barnthouse says visitors will also notice some changes inside the resort.

“We changed out all of our shower heads in all of our guest rooms, which saves about 1.7 million gallons of water a year,” she said. “We changed out all of our faucets to be slower-flowing water.”

“We don't serve water in any of our restaurants unless people directly ask for it,” Barnthouse said. “Those are just some small things we're doing. We're doing a lot of bigger things back behind the scenes that our guests might not see.”

# Seeding snow from the sky



[Jeff DeLong](#), RGJ 4:44 p.m. PDT April 24, 2015



A technician works at a cloud-seeding generator high atop the Sierra. Five cloud-seeding generators seed storms with silver iodide particles, enhancing ice particle formation in storm clouds and boosting the snowpack for the Tahoe-Truckee area.(Photo: RGJ file)

13 CONNECT [1 TWEETLINKEDIN](#)COMMENTEMAILMORE

As a late-season snowstorm swept toward the Sierra Friday, scientists prepared to do their thing.

In this case, that meant activating mountaintop generators that spray chemicals into storm clouds, encouraging formation of ice crystals that fall as precious snow.

"It looks pretty good. We are pretty confident we will get the opportunity," Frank McDonough, an atmospheric scientist with Reno's Desert Research Institute, said of the approaching storm's potential.

Whether or not conditions shaped up properly for the weekend spring storm, McDonough and others remain confident so-called "cloud seeding" will continue to play an important role in coaxing additional snow and water out of storms, and insist every extra drop counts.

And for the first time in six years, Nevada's cloud-seeding program could get a little help from the Legislature, which is considering a bill to help fund a financially struggling effort. Local leaders, meanwhile, want to explore the potential of seeding Sierra storms in different ways, including through the use of manned aircraft and drones.

Discussions come as Nevada struggles through a fourth straight year of drought, impacting water supplies, agriculture, recreation and the economy.

Even last winter, by the far the driest in a string of four dry ones, cloud-seeding paid off, DRI scientists recently reported to the Western Regional Water Commission. The commission is again being asked to contribute \$100,000 toward cloud-seeding operations next winter.

During the winter just past, conditions for cloud seeding weren't particularly favorable. As during the previous three winters, storms were often shunted to the north by strong zones of high pressure parked over the West. And when powerful storms did punch their way to the Sierra and Reno-Tahoe area, they were simply too warm for cloud seeding to function properly.

"It was frustrating. Those storms were not seedable," McDonough said.

Still, conditions were favorable enough times to allow DRI to flip on its five mountaintop generators in the Tahoe-Truckee area and run them for nearly 500 hours. The machines laced storm clouds with particles of silver iodide and produced an extra 8,000 acre-feet of water contained in added snowfall. That's 2.6 billion gallons.

It was the least amount of water produced through cloud seeding at least since 1998, McDonough said. Other years were far more productive. Even during the winter of 2012-2013, another drought year, a stormy December helped allow DRI to seed enough to produce an estimated 20,500 acre-feet, or 6.6 billion gallons, of water. On average, seeding produces roughly 15,000 acre-feet.

"It can be quite significant," McDonough said. "It can make a storm a little more efficient. It can put a little more snow on the ground. It can put a little more water in the river."

### **Seeding funds remain an issue**

If many agree cloud seeding continues to offer potential for Nevada, the program continues to struggle financially. In 2009 and during a statehouse budget crisis, the Legislature stripped all funding going to DRI for its cloud-seeding efforts. That prompted the institute to pull the plug on its program.

Dismantling of the five Tahoe-Truckee generators was beginning when a last-minute request to the Western Regional Water Commission and the Truckee Meadows Water Authority produced enough funding for the program to continue. The two entities have financed the program ever since, mostly recent last winter through a \$300,000 contribution.

To the south in the Walker River Basin, another \$1.3 million cloud-seeding program — using both ground generators and at times manned aircraft spraying seeding chemicals — has proceeded since 2010, funded by the U.S. Bureau of Reclamation and Walker River Irrigation District.

In eastern Nevada, the Southern Nevada Water Authority funded a ground-based cloud-seeding program for four years at \$300,000 per year. But funds were cut off and seven generators installed along the Ruby Mountains have sat idle the last two years.

To some, that's an unacceptable situation. Among them is Sen. Pete Goicoechea, R-Eureka, who is a strong supporter of a bill pending before the current Legislature. If approved, Senate Bill 423 would provide \$500,000 every two years to go to Nevada's cloud-seeding operations. The money could get the seven Ruby Mountain generators running again and likely be used elsewhere in the state as well, Goicoechea said.

Even if drought conditions might not always offer the perfect opportunities to seed storms, Nevada's current and dire climatic situation makes clear the need to do anything possible to boost water supplies, Goicoechea said.

"Anything you get is important," Goicoechea said. "This drought is just getting so serious. We're going to need everything we can can to fill this deficit."

Will the cloud-seeding bill survive the coming budget battle? Goicoechea has no way of knowing, of course, but he's hopeful the Legislature will approve at least some level of funding.

When DRI appeared before the Western Regional Water Commission April 15 with its \$100,000 request, no action was taken. Commissioners had a brief but wide-ranging discussion on the issue and asked staff to return with a report on all possibilities, including possible employment of manned aircraft and drones for operations. Aircraft have more flexibility in targeting specific areas of storms for seeding and drones can be flown much lower and at less expense than manned airplanes.

"Delivery is a huge part of the effectiveness of cloud seeding," said Bob Lucey, a Washoe County commissioner appointed to the water panel. "I think it's something we should evaluate and see if it's a viable application for drones."

Current Federal Aviation Administration regulations make the use of drones for cloud seeding problematic but that could change in the future, experts said. Nevada's leadership position in drone technology could put it in the forefront of the use of drones for seeding storms.

"It is an idea we are interested in," said DRI's McDonough.

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National

## Western drought steals clean energy along with fresh water at power plants



The white band of calcium along the canyon walls of the Hoover Dam shows how far the water level has fallen. (Bonnie Jo Mount/Washington Post)

By [Todd C. Frankel](#) April 26

**INSIDE HOOVER DAM —** The floor rumbled under Mark Cook. His legs vibrated as he stood in a tunnel tucked into the thick base of Hoover Dam, 430 feet below the tourists looking out over Lake Mead. Beneath him, water roared through steel pipes 13 feet tall. Nearby, heavy turbines hummed with mechanical intensity.

“We’re moving some good water today,” Cook, the dam manager, said proudly.

Moving water means making electricity. But the drought is making that harder to do. The lack of water has put a serious crimp in the hydroelectric line at Hoover Dam and other power plants across the West, limiting an inexpensive and pollution-free energy source that once was considered endless.

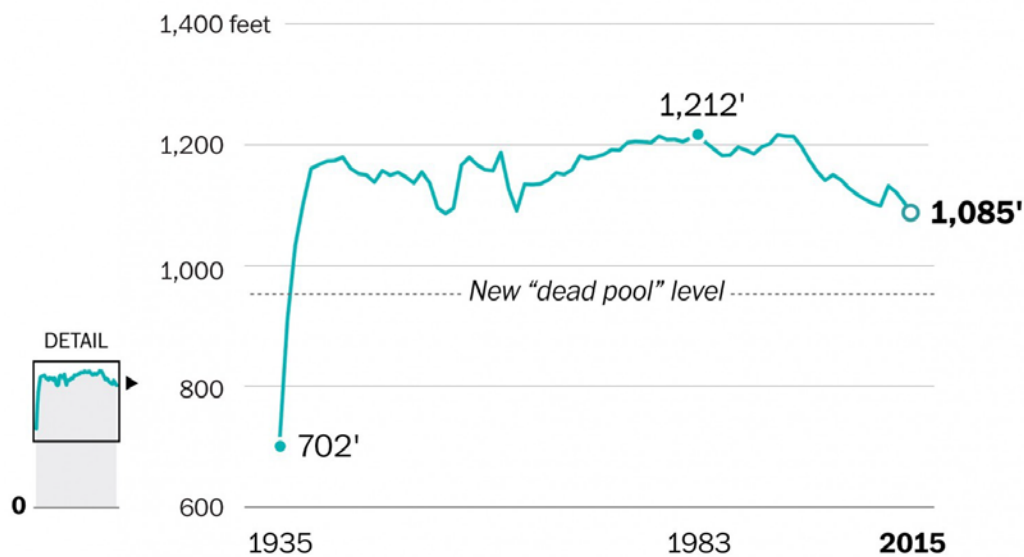
Power capacity at Hoover Dam, on the Arizona-Nevada border, has dropped nearly 25 percent since 2000. In California, home to 287 hydroelectric plants and where almost half the state today is classified as being in “exceptional drought,” hydropower has fallen 60 percent in the past four years.

“The drought is taking a toll on power generation,” said Mike Connor, deputy secretary of the Interior Department.

**Short on water and power**

Engineers worried the lake would hit a 1,050-foot “dead pool” level, where the water is too low to efficiently turn the dam’s turbines, but new turbines will allow the dam to operate with 100 fewer feet of water.

Lake elevation in March since 1935, the year the dam opened



The lake’s highest elevation is just more than 1,225 feet in July 1983.

Source: U.S. Bureau of Reclamation

THE WASHINGTON POST

Some power companies in California have raised rates as they turn to pricier, often dirtier energy sources. That makes it harder to reduce the greenhouse gases some blame for worsening the drought in the first place.

Meanwhile, the risk of brief summertime blackouts could rise: Hydroelectric plants often are called upon to help urban power grids deal with sudden spikes in demand.

The problem can be traced to shortages of rain and snowpack, which lead to shallower rivers and reservoirs, which result in less pressure to speed the water along. Slower water simply packs less punch. So turbines spin more slowly, generating less electricity.

Some small facilities, such as those along the Truckee River in northern Nevada, have shut down. Other plants are open but struggling. The 53 hydropower facilities run by the U.S. Bureau of Reclamation across the West are producing 10 percent less power than a few years ago, despite rising demand.

Oregon and Washington are dealing with droughts, too, but so far hydropower in the Pacific Northwest has held steady, power managers say. Water levels in that region's vast Columbia River basin remain close to normal thanks to heavier precipitation along its headwaters in British Columbia, according to the Bonneville Power Administration, which delivers power to Oregon, Washington, Idaho and Montana.

Lake Mead lies in the Colorado River basin, which has been mired in drought for more than a decade. Tree-ring studies suggest this is the region's fourth-worst drought in 1,000 years.

Once the largest U.S. water reservoir, Lake Mead has faded to fourth place as it has lost water. In 2008, a Scripps Institution of Oceanography research paper asked the provocative question, "When Will Lake Mead Go Dry?" The

study predicted the lake had a 50-50 shot at achieving that fate by 2021, given current trends.

“The system is in deep trouble,” said Tim Barnett, one of the study’s lead authors.

California’s drought is just four years old. But the drop in the state’s hydroelectric production has been precipitous. Hydroelectric sources are projected to contribute just 7 percent of the state’s power this year, down from 23 percent in 2011.

While natural gas use has gone up during that period, renewable energy sources such as solar and wind have mostly filled the hydropower gap. California officials think the state can avoid power interruptions during peak hours and even meet long-term environmental goals despite hydropower’s decline.

But the hydroelectricity will be missed, said Robert B. Weisenmiller, chairman of the California Energy Commission. “It’s a great resource when we have it,” he said.

At Hoover Dam, the biggest worry is hitting “dead pool” status: The point at which the water level sinks too low to efficiently turn the dam’s massive turbines.

For years, engineers thought that Lake Mead would be “dead” when the waterline slumped to 1,050 feet above sea level. The turbines would spin roughly, rattling the dam’s base. Power generation would need to stop. And a structure hailed as an engineering marvel — called the greatest dam in the world when it was finished in 1935 — would cease to perform one of its primary functions.

Those worries have grown as the lake has shriveled. At its peak during a rain-soaked 1983, Lake Mead sloshed above 1,225 feet. Today, the receding water has left telltale white rings more than 100 feet up on the rock canyon walls.

Inside Hoover Dam, manager Cook walked past a reminder of the trouble he faces: A sign posted on a bulletin board listing decades of Lake Mead elevations.

The trend was distinctly downward. In June 2014, the lake hit 1,081 feet, a record low. This summer the lake is **projected** to set another record, at 1,073 feet.

But dam workers no longer worry about hitting the 1,050-foot dead pool. In the mid-2000s, as the drought settled in, they began planning to install new turbines that could deal with slower-moving water. Fearing lower lake levels were part of a long-term trend, they wanted to engineer a way around the drought's effects.

Cook recalled that when the drought eased off briefly in 2012, dam workers wondered whether they needed to install the new equipment. But thankfully, Cook said, the first of the five new wide-head turbines was installed later that year.

Hoover Dam has 17 turbines split between powerhouses on the Arizona and Nevada sides of the canyon. Inside the Nevada powerhouse, the latest \$3.5 million wide-head turbine is being installed. It's the fourth of five and should be generating power later this year.

"It doesn't look that different," Cook said, standing near two men working on the turbine, "but it behaves different."

The new turbines should allow the dam to continue generating power even if Lake Mead drops to 950 feet, Cook said. But a water level that low, he said,

would be a sign of almost unimaginable environmental catastrophe, so the loss of hydroelectric power would be the least of anyone's worries.

On that score, Cook is an optimist, however. He said he can imagine Lake Mead filling back up, if only briefly.

"It'll just take a few years of really good rain," he said

# Pipeline would provide new water for North Valleys



[Jeff DeLong](#), RGJ 8:21 a.m. PDT April 29, 2015



A worker uses a lift to work among the roof support beams inside of a large water tank being built in Lemmon Valley for Vidler Water Co.'s Fish Springs water importation project in 2008. A \$17.8 million project now being pursued by the Truckee Meadows Water Authority would allow use of the Fish Springs water for the first time.(Photo: RGJ file)

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Reno's primary water provider is poised to tap a new source of water that has sat unused but largely ready to go for nearly a decade.

The \$17.8 million project planned by the Truckee Meadows Water Authority would allow the utility to draw groundwater from far north of Reno and serve homes throughout the North Valleys area.

Doing so, utility officials said, would free up water now being pumped to the North Valleys from the Truckee Meadows. It could then be stored in upstream reservoirs as drought reserves instead.

"That resource has never been used," Mark Foree, general manager of the water authority, said of the new water supplies he hopes to have flowing to North Valleys homes and businesses by June 2016.

The targeted water supply would come from Fish Springs, located in the Honey Lake Basin along the Nevada-California line. Water rights from the area were acquired by the Vidler Water Co. in 2000, which spent millions building a 28-mile-long pipeline to Lemmon Valley. The pipeline was completed in 2007, just in time for the recession to hit, Nevada's housing market to collapse and the new water system to be idled.

The water was dedicated to Washoe County but never tapped. Now the Truckee Meadows Water Authority, which acquired the county's water system this year, is preparing to do so.

Available is 8,000 acre-feet of water per year, or roughly 2.6 billion gallons, pumped at 6,500 gallons per minute. An acre-foot of water can supply about two single-family homes for a year.

The water authority has applied with the Nevada Division of Environmental Protection for a \$15 million loan to cover the bulk of the \$17.8 million project. The job would entail extending the 29-mile pipeline built by Vidler by 5.5 miles, with the 24-inch pipeline reaching south from the north end of Lemmon Valley south to the north Virginia Street corridor.

The extra water is valuable in any case, but that prove particularly true if the current drought — now in its fourth year — continues longer. It would provide an extra 8,000 acre-feet of drought backup.

"It's basically equal to the amount of water we now pump out to the North Valleys from the Truckee Meadows," said Scott Estes, the utility's director of engineering.

"It's going to basically offset that water," Estes said. "If the drought continues, it could be very important to us."

# Dead in the water

State lost years while drought worsened

By [Dennis Myers](#)  
[dennism@newsreview.com](mailto:dennism@newsreview.com)

This article was published on [04.30.15](#).

**Cloud seeding in a desert state may seem like** a no-brainer. But six years ago, the Nevada Legislature effectively shut down the state's program.

Even at the time, it seemed shortsighted. When local officials learned of the decision, the Desert Research Institute—a scientific arm of the state—was already dismantling Sierra monitoring stations.

Washoe County Commissioner John Breternitz asked businesses and other officials to help keep the program going. DRI stopped taking the stations apart and sent out packets on the program. It had always raised money through grants and contributions to pay for some of the program. Now it had to find contributions to pay for all cloud seeding, the state having opted out.

The Truckee River Fund ponied up \$150,000 and the Western Regional Water Commission gave \$100,000 to seed the Truckee River Basin for three years (“No silver lining,” RN&R, Jan. 12, 2012). Similar arrangements in Southern Nevada were put together. The program has limped along since, as the 2009, 2011 and 2013 legislatures stiffed it. But the groups who have supported it financially are showing signs of pulling back from a program the state's own legislature won't support.

On March 31, the U.S. Drought Monitor found that 99 percent of Nevada was affected by drought of some level. We were unable to find out what the location of that 1 percent was, but an April 21 report by the Monitor said it had disappeared. The figure is now 100 percent (see box).

Now the lawmakers are considering buying back in. Senate Bill 423 would provide \$500,000 for the Nevada Department of Conservation and Natural Resources to parcel out to “an agency of this state or any business entity or other group of persons with the necessary equipment, experience and ability to conduct successful cloud seeding operations.” Even if that measure passes, it would pay only part of the bill for the state's cloud seeding program.

The state's statutes contain a Weather Modification Research Law that requires Conservation and Natural Resources to “utilize to the fullest possible extent the facilities and technical resources of the Desert Research Institute of the Nevada System of Higher Education.” DRI has handled the state's cloud seeding strategy for decades. DRI researchers Peter Wagner, William Gaskell, and John Latham and co-pilot Gordon Wicks were killed on a cloud seeding research flight on March 2, 1980.

Cloud seeding is strictly supplemental. The state always depended on its cloud seeding program to bump up the amount of snow from 2 to 10 percent in normal years. In drier years, the supplementary water it could produce was even more important but also more difficult to generate. There has to be something to seed. DRI stays prepared for breaks in winter weather patterns that provide storms that can be seeded. (There has been talk of using drones for cloud seeding, but the practice is plagued by timing and other problems.)

“Cloud seeding for snowfall is not something you do to get yourself out of a drought,” said DRI scientist Arlen Huggins in 2010 (“Let it snow,” RN&R, Nov. 18, 2010). “It's something better done during a normal year when you have a normal frequency of storms and can add to the water level of storms throughout the season—helping water storage in years when you're getting some precipitation rather than react to it when your reservoirs are dry.”

Thus, each of those three legislatures when the lawmakers left the problem to others was a missed opportunity. Cloud seeding is not a practice that should be done in spotty fashion. “If we had years of really high precipitation, we would divert the water and bank it, and during years of low flow, we would pull it back out and put it back in the river,” Humboldt River Basin Water Authority exec Michael Baughman told state legislators earlier this month. “It'd sure be nice to have the state involved in things like that.”



When boats are tied up at the Lake Tahoe water line in autumn and by spring are several yards *above* the water line, it's one sign of the poor snow pack on which western Nevada relies for a water supply. And it's happened for several years.

PHOTO/DENNIS MYERS

Advertisement

The state's lack of involvement goes beyond cloud seeding. "We are very concerned that we do not have a comprehensive State of Nevada drought response management plan being developed," Baughman said. The HRBWA raised \$70,000 for cloud seeding in 2014.

In a later interview on the lag in state funding, Baughman said, "State-funded cloud seeding was kind of an institutionalized activity in our state, as it was in many states in our region, and when we got into the recession it went away. If you're not having frequency of storms, there's not as many opportunities to seed. It's going to take years to make up what we've lost. I would just suggest that whenever we can start, [state funded seeding] is a tool we need to have back in our toolbox. We just have to reinstitutionalize it."

The Southern Nevada Water Authority helps pay for cloud seeding in Colorado, as do agencies in Arizona and California, because most Colorado River water originates there. The Nevada Legislature does not contribute, though most of the state's population benefits from Colorado River water.

The New York Times reported in December, "Much of the seven-state Colorado River basin is gripped by a hydrological drought, a long-term precipitation deficit that has slashed stream flows, soil moisture and groundwater levels. Experts say the drought is the worst in centuries. ... A further 25-foot drop [in Lake Mead] would dry up one of two water intakes that supply 70 percent of Nevada's population with water."

When the Times published that report, Lake Mead was at about 1085.5 feet above sea level. At this writing, it is at 1080. When the Times reported, water in the lake was rising. But since the start of March, it has been on a sharp and steady decline and is now well below its December level. At this writing, Lake Mead is 38.73 percent full.

Drought conditions in Nevada (in percents of the state)

Abnormally dry 0.07

Moderate drought 13.26

Severe drought 37.55

Extreme drought 30.74

Exceptional drought 18.38

Source: U.S. Drought Monitor

## Water Waste Whistleblowers' Reports Unveil Problems in Some Neighborhoods

By: [Ed Pearce](#) - [Email](#)

Updated: Fri 8:27 AM, May 01, 2015

By: [Ed Pearce](#) - [Email](#)



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RENO, NV - The Truckee Meadows Water Authority patrols the valley looking for water wasting, but its [employees](#) can't be everywhere, so they've asked for the public's help and they're getting it.

"Every single call we respond to, whether it's a personal visit or a phone call and we let them (the [property](#) owner) know something's going on," says TMWA's Customer Service Manager Andy Gebhardt.

And he says in the vast majority of cases, the accused water waster is unaware, but once notified, responsive.

"What happens with the waste," he says, "usually happens when you're at work and you don't know that your sprinkler has the second head from the right is broken and water is just pouring over the gutter. You don't know that and the vast majority of people respond quickly."

Some neighborhoods generate more [reports](#) than others and here it gets more complicated.

In the Double Diamond area, for instance, the landscaping you see isn't irrigated by the same TMWA water that comes to our faucets or sprinkler [systems](#). It's treated effluent.

"People don't understand," says Gebhardt. "We don't have any control over it and it's under different rules, but they don't want to waste that either, so we'll contact the county and let them know something's going on."

Another area [generating](#) reports is Somerset. It's a problem that's being worked on.

"There's over 50,000 sprinkler heads up there. So even if they're 99 percent [efficient](#), that's still 500 heads that are broken and spraying somewhere. They're always chasing their tail up there."

But the problem there and in a lot of developments dates back to their beginnings and a different era.

"it's kind of by design and Mother Nature at the same time," says Gebhardt. "When that community was first built, they were required to put lawn in. It's on slopes. You can't keep it that way."

"The Sparks Industrial Area, Caughlin Ranch, Somerset, all these big areas, they were built at a different time, different concerns. I think we need to rethink where we put some of this grass. Does it make sense to put it on a 5 to 8 foot island? Probably not."

In the meantime, Gebhardt says, keep the calls coming.

The number is 834-8005. Again, all calls, we're told, get

## 600 Turn Out Saturday to Clean-Up Washoe County

By: Staff Email

Updated: Sun 10:53 AM, May 03, 2015

By: Staff Email

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[Army](#) Guard Helicopter - Chris Buckley, KOLO 8 News Now

RENO, NV – More than 600 Washoe County residents volunteered to clean up illegal dumpsites and invasive weeds at 18 sites during Keep Truckee Meadow's Beautiful Great Community Cleanup on Saturday, May 2, 2015.

According to KTMB, volunteers removed 74 tons of trash, 33 tons of invasive weeds and almost 600 tires for a cleanup total of 123 tons. Volunteers also removed [graffiti](#), painted, and wrapped trees.

"We had perfect weather this year," said Jaime Souza, KTMB program [manager](#). "Our volunteers pulled and dug a record number of invasive weeds – great news in this dry year."

Those weeds will be composted for the first time this year, and next week, during International Compost Awareness Week, KTMB staff will be collecting compost and delivering it to [schools](#) and other area garden projects. This addition to KTMB's Great Community Cleanup is made possible by a Think Green grant through Waste Management and a partnership with RT Donovan.

The Nevada [National Guard](#) also removed 18 abandoned cars from the Hunter and Alum creek areas.

KTMB volunteers are individuals, families and groups from all over the community, including the event sponsor, Intuit, and all the event partners: Truckee River [Fund](#), Barrick Gold Corporation, NV

Energy, Orange Tree Productions, REI, Truckee Meadows Water Authority, Waste Management, cities of Reno and Sparks, Sun Valley General Improvement District, Washoe County, Washoe County Health District and the Washoe County Sheriff's Office.

To find out how you can help call 851-5185 or visit [ktmb.org](http://ktmb.org).



May 1 at 9:38 p.m.

**WATER SUPPLY:** News 4's Joe Hart interviewed Bill Hauck, a senior hydrologist with the Truckee Meadows Water Authority. SEE what Hauck has to say about the drought and the water supply.



[Video interview: Expert details drought's affect on Reno-area water supply](#)

News 4's Joe Hart interviewed Bill Hauck, a senior hydrologist with the Truckee Meadows Water Authority. Hear what Hauck has to say about the drought and the water supply. He also offer insights on what to expect as summer approaches.  
[www.mynews4.com](http://www.mynews4.com)

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# The ABC's of the Open Meeting Law

## Our view: School board needs tutoring on meeting law

The Opinion of the RGJ Editorial Board 9:08 p.m. PDT May 2, 2015



The Board of Trustees gathers for a Washoe County School District meeting on April 28 in Reno.(Photo: Jason Bean/RGJ)

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The Washoe County school board seeks training on Nevada Open Meeting Law.

This sounds like a heartening development.

It could show that board members understand their shortcomings with this law. After all, the board has run afoul of it in two instances since last summer involving seven violations and it is under investigation for a third incident in March.

Or it could be unnecessary because the law is not that hard to follow.

The Open Meeting Law is one of the most important on Nevada's books.

As the state Attorney General's website says, "The Nevada Open Meeting Law (OML) was enacted in 1960 to ensure that the actions and deliberations of public bodies be conducted openly."

In other words, the law is aimed at making sure Nevadans know what government bodies are doing in our name and making sure we have the opportunity to give our input.

The law contains three main points:

**1. Give the public notice if you might make a big decision.**

The Washoe County School District's Board of Trustees [likely violated this rule in March](#) when it voted to hire Traci Davis as superintendent without saying this might happen on the meeting's agenda.

It is telling that the only board member to vote against this decision was the one with no previous school board or professional education experience: Nick Smith.

Relevant law from Nevada Revised Statute 241.020: "Written notice of all meetings must be given at least 3 working days before the meeting. The notice must include ... an agenda consisting of ... a list describing the items on which action may be taken."

**2. Don't make big decisions in secret.**

The school board [broke this rule multiple times in July](#) when it went behind closed doors and decided to try to buy off then-superintendent Pedro Martinez for \$100,000 and then \$200,000 before just firing him. This led to the board having to pay Martinez more than \$700,000 and caused the six members voting for his ouster to pay \$1,500 each in fines.

The section of the law mentioned above applies here, too. Three days' notice is required for all meetings where action is taken, regardless of whether they are open or closed.

**3. Don't silence the public.**

The school board broke this rule in October when then-School Board Vice President Barbara McLaury and the district's head attorney Randy Drake [suppressed comments by Karen Dunaway](#).

Dunaway had tried to comment on Martinez's termination of Washoe School Police Chief Mike Mieras. She was told her words were inappropriate and she was not allowed to finish.

Relevant law from NRS 241.020 (2): "The public body must allow the general public to comment on any matter."

Board members did ask legal counsel if their actions were OK. They were told yes. This may say more about the quality of counsel than about the clarity of the law.

The Nevada attorney general's website has [a simple yet comprehensive six-page checklist](#) that anyone can download to make sure the law is being followed. Just search online for "Nevada Open Meeting Law checklist."

It includes such items as:

- "Have actual discussions and actions at the meeting been limited to only those items on the agenda?"
- "Have members of the public been given an opportunity to speak during the public comment period?"

The checklist items refer to the exact section of law they are based on in case anyone needs more details.

The person who put together the checklist, as well as the state's Open Meeting Law manual, is Senior Deputy Attorney General George Taylor. Taylor is also the one who investigates Open Meeting Law violations in Nevada. The school board wants him to lead its training.

He would seem the obvious choice, but he should not accept.

Taylor is currently investigating the Washoe County school board's sudden hiring of Traci Davis. (The hiring was quickly rescinded after RGJ education reporter Trevon Milliard began asking questions about Open Meeting Law violations. Also, in the interest of full disclosure, the RGJ filed a complaint with Taylor to investigate the board's action to hire Davis without providing notice.)

Even if training does not begin until after Taylor releases his findings, the appearance of a conflict of interest could be raised if the board gets in trouble again. Regardless of the outcome of future investigations, some could claim he was either too easy on the board because of their training relationship or too hard.

In the meantime, the school board has started paying more than \$1,200 every two weeks to have an outside attorney sit beside them through meetings to make sure they don't violate the law again.

Maybe this is the price the community has to pay to make sure it can fully participate in issues affecting the education of our children. It is not a ringing endorsement for re-electing most school board members.

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# Reno To Improve Water Delivery And Storage

- **Ky Plaskon**

Monday, May 4, 2015 | Sacramento, CA | [Permalink](#)



[play](#)

**Update Required** On the south side of Reno, Paul Miller, Manager of the Water Authority’s Operations and Water Quality checks pressure on a well that is forcing water into the ground. It is using an underground formation known as an aquifer to serve as a reservoir. Because of the drought, Miller has accelerated an existing plan to expand the capacity of the aquifer by increasing the number of injection wells by 30 percent.

“The technology is available, the facilities are available, lets prepare our groundwater resources to be in the best shape they can during these drought periods and that is what we are trying to do.”

The authority will also build pipelines this year in north and south Reno to improve water supply and storage. According to the Authority’s General Manager the agency has enough cash reserves to make the improvements without charging customers more.

## Delay Likely for TMWA Mandatory Metered Billing

*Posted: May 06, 2015 6:41 AM PDT <em class="wnDate">Wednesday, May 6, 2015 9:41 AM EDT</em> Updated: May 06, 2015 6:41 AM PDT <em class="wnDate">Wednesday, May 6, 2015 9:41 AM EDT</em>*

By Landon Miller

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There were two options: pay with a flat rate, or pay what you use.

But Truckee Meadows Water Authority customers who pay with the flat rate might be able to pay via that option for a little while longer.

As of June 1, all TMWA customers were supposed to make the change to the metered system, however, in April, TMWA's board voted to delay that change to October 1. Nothing is final until a final vote is cast in late May.

So why the delay? We asked TMWA.

"It gives some folks a chance to do some things to their yard, this summer and this fall, and next spring to get ready," said Kim Mazeres, Director of Customer Relations.

There are 6,000 residents who still use the flat rate form of paying for water. That's roughly 5% of their total customer base.

"We found that 75% of our customers that are paying a flat rate would either pay the same amount or less on the meter rate," said Mazeres. "Some are just scared to make that change."

She says putting people on meters can also help with the drought. The average metered residential customer uses half of the amount compared to a flat rate customer.

"Metered customers are paying every month for what they're using," said Mazeres. "They see that amount on their bill, and they react to it. They fix their leaks. They fix those problems. If you're not seeing that amount on your bill every month, you don't know what's happening."

Mazeres says it appears the board will vote in favor of the delay, but nothing is official until May 21.

## Local Restaurants Join Together to Help Conserve Water

Posted: May 06, 2015 3:17 PM PDT <em class="wnDate">Wednesday, May 6, 2015 6:17 PM EDT</em> Updated: May 06, 2015 5:25 PM PDT <em class="wnDate">Wednesday, May 6, 2015 8:25 PM EDT</em>

By Erin Breen

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If you want water with your meal in a lot of local restaurants these days, you'll need to ask for it. Because more and more restaurants are taking part in a new campaign from the Truckee Meadows Water Authority where water is by request only.

"We used to just bring bottles of water to the tables as a courtesy whether customers asked for it or not," said Christopher Robles, Manager of the Macaroni Grill in Reno. "In fact, we used to have two 5-gallon towers of water in the center of the restaurant and we'd fill those up 10-15 times a day depending on how busy we were."

Now the focus is on saving water. And that goes for residents and for businesses.

"This year we are not just asking residents to cut back by 10% we are asking businesses to cut back by 10% as well and this is a great way for them to start their savings," said Robert Carpentier with TMWA,

The program is in about 10 restaurants so far and they say more and more are joining every day.

[by Taboola](#)

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## Water Cutbacks Help Drought

Posted: May 04, 2015 11:20 PM PDT <em class="wnDate">Tuesday, May 5, 2015 2:20 AM EDT</em>Updated: May 04, 2015 11:20 PM PDT <em class="wnDate">Tuesday, May 5, 2015 2:20 AM EDT</em>

By Amanda Ketchledge

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The Truckee Meadows Water Authority is asking for help conserving water by having all customers cut back 10%.

"This was in fact, the worst snowpack year in history of 110 years of record keeping," said Bill Hauck, a senior hydrologist with TMWA.

With last year being the worst year of drought so far, TMWA expects this year to be even worse.

But the water authority says it is prepared for the years ahead.

TMWA is confident it can meet customers' demands this year and the next But help is needed as conditions worsen.

"We're asking our customers to conserve at least 10 percent this year," said Hauck.

So, how much is ten percent? TMWA says it is equal to 1.6 billion gallons of water or 5,000 acre feet. One acre foot of water is equal to the amount used by two households in a year. Making the overall goal to save the equivalent of 10,000 households worth of water this year. That's enough water to fill-up half of Donner Lake.

"We're just asking our customers to do their part. it's not a lot to ask. It's as simple as dialing back your irrigation timer by 10 percent. If you're watering for 10 minutes, you can dial it back to 9 minutes a cycle. small thing like that saves a lot of water," said Hauck.

TMWA says the water saved can be used for next year if needed and it will go into the reservoirs at Donner and Independence Lakes.

"When river flows begin to drop off later this summer, and there's not enough water in the river to take into our treatment plants, we'll begin releasing water from our upstream reserves and pumping our ground water wells a little bit harder," said Hauck.

So far Donner Lake, Stampede, Independence, and Boca reservoirs are in good condition, but they do plan on drawing from these reservoirs this year. And TMWA tells us that they could be releasing water from the reservoirs as early as the end of the month.

## Drinking Water from the River to the Tap

Posted: May 06, 2015 11:20 PM PDT <em class="wnDate">Thursday, May 7, 2015 2:20 AM EDT</em>Updated: May 06, 2015 11:20 PM PDT <em class="wnDate">Thursday, May 7, 2015 2:20 AM EDT</em>

By Amanda Ketchledge

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As we move into summer and our fourth year of drought, we are taking a look at our drinking water supplies and whether the quality is going to take a hit.

Most people who turn on the faucet don't often think about where the water is coming from.

Wednesday night, some TMWA customers got a closer look at how our water makes it from the river to our tap.

And it all starts on the Truckee River, or as TMWA calls it, their "lifeline".

Will Raymond, Water Operations Supervisor for TMWA says, "The Truckee River is such a fantastic water source, we're really blessed to have such a clean source with so few impacts to our water supply."

From the Truckee River through the Highland Canal to the water facility, TMWA processes the water that you drink. And it is one of only 18 treatment plants in the country to win the President's Award for safe drinking water.

The Chalk Bluff Treatment Facility in Northwest Reno can process 90 million gallons of water a day. And the Truckee Meadows uses an average of 30 to 33 million gallons in one day. But one main impact that does affect our water supply is the drought.

"Even though we might be in drought conditions, you have those reservoirs and tanks that we can draw from if we need to, but they need to be replenished," said Jan Ziomek, a TMWA customer.

TMWA is asking their customers to cut back by 10 percent on their water usage so that the water saved can be replenished into the drought reserves we have.

"We've been here before. We know how to treat the water. We know how to manage the water system and things like that," said Raymond.

TMWA anticipates the Truckee River will dwindle by June 1st, but they have a back-up plan. They will draw from the four drought reserves we have: Donner, Independence, Boca and Stampede. Plus they will begin drawing from groundwater reserves. And TMWA says they are confident they can meet customer's demands this summer and the next.

[by Taboola](#)

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# Water conservation becoming big business

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Technology by Hydropoint Data Systems helps Casa Grande High School save water on their landscaping, as well as monitor and control irrigation through a smartphone.  
(Christopher Chung/ The Press Democrat)

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BY ROBERT DIGITALE

THE PRESS DEMOCRAT

May 10, 2015, 12:15AM

When groundskeepers for the Petaluma City Schools District suspect they have a water line break, they no longer need to keep the sprinklers running while they walk between the control box and the play field in order to test the irrigation system.

With a tap on a smartphone, the sprinklers will remotely switch on and can be similarly shut off once the break is pinpointed. The smartphone app is part of the technology provided by a Petaluma company, HydroPoint Data Systems, that has helped the school district save an estimated \$250,000 a year, said Jamie King, the district's operations and energy manager.

"I'm telling you, it's been a blessing having these guys in our backyards," King said of HydroPoint. The technology helps the district staff "work smarter and not so much harder."

Water consumption in California has often been a low-tech operation, with an estimated 200,000 homes and businesses in the state still lacking water meters. But years of drought have sent companies and municipalities scrambling for ways to conserve water, and HydroPoint says its technology is saving billions of gallons a year by reducing the amount used for irrigating lawns and other plants.

"At the end of the day, we're keeping landscaping alive," said Chris Spain, CEO of the 13-year-old company.

HydroPoint uses wireless technology to automate the operation of sprinkler and dripper systems. The company has developed a weather data system that can automatically customize a watering schedule based upon temperature, wind, humidity and solar radiation for a given location. The system takes into account the type of plants and soil, as well as whether the land has a slope or is mostly sunny or shady.

With 53 employees, HydroPoint's technology operates in nearly every state. Its clients include Wal-Mart, Oracle, Caltrans, Target, Lowe's Home Improvement, Hilton and the Los Angeles school district.

In a single year, its customers cut water use by 15 billion gallons and saved \$137 million, the company touts.

Last fall HydroPoint won the U.S. Environmental Protection Agency's WaterSense Manufacturer Partner of the Year award. The company said it was the first winner among smart irrigation businesses.

The recognition comes as California struggles through its fourth year of drought. State water officials last week approved sweeping rules meant to back up Gov. Jerry Brown's call for a 25 percent cut in urban water use statewide.

# Water conservation becoming big business

- [Green startups get \\$48.7 million](#)
- [Growing startup helped businesses, municipalities save 6.7 billion gallons of water in '07](#)
- [Petaluma irrigation-system company poised to cash in if 'smart' watering bill wins governor's approval](#)
- [HydroPoint uses satellite weather data in 'smart' irrigation systems](#)

Water tech companies haven't drawn the kind of investment that has gone to startups bringing energy-related innovations to market. Global venture funding for companies with water solutions amounted to \$1.5 billion over the last five years, compared to \$1.6 billion in 2014 alone for energy-saving startups, according to the Cleantech Group's i3 information service.

But the water sector is gaining more attention, and the state drought seems to be a good reason. In a time of need, startups are showing their innovations can help both homeowners and businesses use water more efficiently.

The technology won't be the total solution to the drought, but in many cases "it's a cheaper alternative than installing new toilets or building a new reservoir," said Scott Bryan, chief operating officer for Imagine H2O, a San Francisco nonprofit that encourages entrepreneurs to bring water-saving innovations to market. Wells Fargo has pledged \$1 million to the organization, which Bryan called a sign of the widespread interest in finding solutions.

Spain and co-founders Chris Manchuck and Peter Carlson began HydroPoint in 2002. A former software company owner, Spain said the three sensed an opportunity to boost efficiency in landscape irrigation, a major area of water consumption.

"We were right about the market and the opportunity," said Spain. "We were just about eight years early."

At the start, he recalled, the work "was all evangelism," trying to explain both the problem and the solution. But those early years did prepare the company to capitalize on both developing technology and a growing awareness of the need to better steward the world's water supplies.

The company first concerned itself with getting the right amount of water to the right place at the right time, said Spain. But today "it's about getting the right piece of data to the right person at the right time."

A key development was the company's WeatherTRAK system, which collects weather measurements from around the nation, "8 million data points a day," said Spain. With all that information, the system uses computer modeling to calculate "evapotranspiration" values for neighborhoods down to the square kilometer. The company maintains the modeling has been independently proven to be within 2 percent of accuracy, compared to having an actual weather station at the irrigation site.

Using the weather data, the system automatically controls the watering in an effort to avoid excess irrigation. The aim is to water infrequently but deeply, said co-founder Carlson, who also is vice president of product management and technology.

HydroPoint offers its clients a computerized dashboard to monitor and manually control water use. The technology can show the latest compliance rules of the local water agency and even program a system-wide reduction in water use, say 10 percent. Thus, a user can change the operation of thousands of valves "with a single click," said Carlson.

The system also works with special flow sensors that are being installed in the vast majority of new landscaping projects, Carlson said. The technology allows an operator to get a mobile alert if a valve malfunctions or a sensor detects a leak.

"If there's a break," said Carlson, "we can catch it quickly."

To connect all the components of this wireless system, HydroPoint partnered with AT&T. "The coverage is essential," Spain said of the communication company's network. Since HydroPoint works with large clients that have sites spread around the nation, "either you've got a solution or you don't" for every state.

Such wireless machine-to-machine communication continues to afford new areas of exploration, AT&T officials said.

"As we become more connected as a society, it creates great opportunities for us," said Ken McNeely, president of AT&T California. The aim, he said, is "making people's lives better."

Such efforts include the company's participation in "smart cities" initiatives in such locales as Los Angeles, Las Vegas and Atlanta. Along with efforts to more efficiently use gas and electricity, AT&T is involved in water management programs with special acoustic detectors that can send out an alert if a water line develops a leak.

Without such detection, "it could be days and weeks before you figure out that there's a loss," said Mobeen Khan, an executive with AT&T Advanced Mobility Solutions.

Since its beginnings, HydroPoint has raised more than \$40 million in venture capital.

In the next three or four years, the company might go public or be acquired, Spain said. The privately-held company does not disclose revenues, which Spain said are growing 20 percent a year. Growth could accelerate even more, he said, under its current owners and investors through mergers or partnerships.

"We see the opportunity to build this to a \$100 million business," he said.

Given the severity of the state's drought, Californians need to look at every available tool for conservation, said Peter Gleick, president of the Pacific Institute, an Oakland nonprofit research group that has added up the number of state households without water meters.

Gleick specifically noted HydroPoint's focus on excess watering of turf and plants, calling it "a big part of the problem" that needs to be addressed.

Efficiency matters, he said, because "we no longer have enough water to do everything we want to do."

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## Ask the RGJ: Do tankless water heaters use more water?

[Mark Robison, RGJ](#) 9:02 p.m. PDT May 5, 2015



This is what a trutankless brand tankless water heater line looks like.(Photo: PRNewsfoto)

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Do tankless water heaters use more water than traditional tank water heaters?

Short answer: Not really, unless the traditional system also includes a hot water recirculation line.

### Original question

Mike Norman wrote a letter to the editor in March that said, in part: “The latest enemy of water conservation are tankless water heaters. They are promoted ‘as you will never again run out of hot water.’ The reality is you don’t have any hot water! Each time a faucet is turned on, the heating process begins, a huge waste of water and natural gas.”

### Full answer

I personally was curious whether this was true. My water heater needs replacing. I'm on a well out in the county and the hard water wreaks havoc on tank heaters so I've been looking at tankless ones. If they use more water, I'll avoid them. If less, I may get one even though they generally cost a bit more.

My first stop was Anthony Clark, advanced building trades instructor at Academy for Career Education High School.

I asked if tankless water heaters use less water than traditional water heaters.

"Generally no," Clark said via email. "Whole-house tankless water heaters take the place of a tank-type (usually 40 gallons) water heater and they usually get placed in the same location tied into the same natural gas source for heat. The hot water has the same distribution distance to travel. The difference is that tankless water heaters are an endless source of hot water. No more knocking on the door to get your teenager to take shorter showers. The result, in my opinion, would more water use."

He said tankless units tend to save energy.

"They are also called 'on-demand' water heaters, meaning the burner doesn't heat the water until a pressure drop is detected in the hot water piping," he wrote.

"A water heater with a holding tank maintains the preset temperature of the hot water in the tank 24-7 and, in most cases, the pilot remains on 24-7. The tankless water heater only uses natural gas and fires the burner when there is a demand — turning on the hot water in the house. Most tankless water heaters fire the burner using electricity so there is no pilot wasting natural gas. The savings in therms of natural gas would offset some of the metered water usage but we are in a drought crisis so ..."

If someone really wants to make a drought-conscious decision, he said that if someone needs to purchase a new water heater, "my best advice would be to (buy) a whole-house tankless water heater and maintain good water conservation practices. Taking an on-off-on shower is a good way to save energy and conserve water: Turn the shower on to get wet then turn off, soap/shampoo yourself, turn the shower on to rinse and voila."

For a second opinion, I contacted Randy Canale, training coordinator for the United Association Local 350 Pipetrades Apprenticeship in Reno.

He said that it depends how a tank or tankless water heater is installed for which might use less water.

Tankless water heaters must push through any no-longer-heated water still sitting in the pipes before getting to the hot water.

"This is how most tank water heater systems used to be run," he responded via email. "But with the new emphasis on water and energy conservation, a properly installed hot water recirculation

line will result in almost immediate hot water at any point in a system eliminating most of that water waste.”

So if someone really wants to save water and is in the market for a new water heater, which system would he recommend?

“The answer to your question as stated would be to either install multiple tankless water heaters at the various usage points — neither economical nor practical — or install a traditional system with a properly installed recirculation line. But this answer only deals with the water conservation issue and water savings can only be judged on each individual situation,” he wrote.

“The entire installation must be considered when deciding which system to use. Tankless systems usually cost more but are considered to be more energy efficient than standard systems, sometimes by as much as 24% to 34% or as low as 8% to 14%, depending on required usage, based on the U.S. Department of Energy’s [Energy Efficiency and Renewable Energy website](#).

“Traditional systems may cost less up front, but they are also limited in how much hot water they can supply at design temperature based on the size of their holding tank and recovery rate. ...

“A decision like this should be based on what the end user desires on the outcome of their system after all factors are considered. It would be best to consult with a neutral design professional to determine what would be most suited for your situation.”

Through September, the RGJ’s Mark Robison investigates reader questions about any aspect of the four-year drought and how it affects life in Northern Nevada. Send yours to [mrobison@rgj.com](mailto:mrobison@rgj.com).

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# Ask Joe: Will we know how much water is being saved this summer?

- [Video](#)

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[Ask Joe 5/11](#)



Reported by: Joe Hart  
Email: [jhart@mynews4.com](mailto:jhart@mynews4.com)



[Print Story](#)

Published: 5/11 7:21 pm

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Updated: 12:16 am

RENO, Nev. (www.MyNews4.com & KRNV)

From the Ask Joe file, a question tonight about watering and our local water supply.

Steve wrote in asking if the Truckee Meadows Water Authority will be able to tell how much water is being saved by the 10% voluntary cutbacks?

***Here's what I found out:***

*TMWA's board of directors voted earlier this spring to ask customers to cut back on their water consumption by 10 percent. Of course California opted for mandatory cutbacks.*

*I checked with Marlene Olsen, she represents the Truckee Meadows Water Authority. She says the answer is yes. TMWA will be monitoring the water consumption levels and they will be reporting those results monthly. She says they don't have those results yet, but they plan to begin reporting sometime in June.*

*Olsen says the planning projections show the water agency can save 1.6 billion gallons of water through these voluntary cutbacks.*

*So keep doing your part to cut back and save water. It's not too hard to do. And we should hear more next month about just how much water is being saved by all of our efforts.*

## Reno Parks Weather the Ongoing Drought

Posted: May 11, 2015 12:36 PM PDT <em class="wnDate">Monday, May 11, 2015 3:36 PM EDT</em> Updated: May 11, 2015 1:49 PM PDT  
<em class="wnDate">Monday, May 11, 2015 4:49 PM EDT</em>

By Erin Breen

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It was a busy day for Pam Bedard. She's the Horticulturist for the City of Reno. And getting ready for summer is a huge job for her. This year she's working on less water and fewer people than ever before.

"We've lost the ponds in Idlewild Park because the level of the Truckee River is so low already!" she says. "Last year the ponds were nearly dry by August. But they are so low already this year that two weeks ago we took out an aeration fountain we had there so it wouldn't get ruined."

She says they are making due with 10% less water just like everyone else and that really isn't impacting the Municipal Rose Garden as much as you'd think. The roses are thriving. In fact the biggest need there is people.

"This is just a lot of work. We have a few great volunteers and we have a few groups who adopt areas to keep up. I am happy to meet with people and make sure they are pruning the right way and then they can come up and work when they have the time," she says.

Today they had a crew pulling trees along the Truckee through the Crooked Mile path and chipping them up. And this morning they began the task of putting out the baskets of petunias through Wingfield Park.

"We have 72 baskets to put out. We've been growing them in the greenhouse and they are ready for the season," she says with a smile as she and a helper hang the colorful flowers on the bridges in the park.

"We could use volunteers for everything from trimming bushes to pruning roses to picking up litter. We lost like 3-quarters of our park staff a few years back and I am doing everything I can to fill those positions with volunteers. The drought is something we can't do much about except work with what we do get. But staff we can add on. And every hour people put in helps."

If you are interested in helping in anyway you can contact Pam Bedard at (775) 657-4616

## Ways Washoe County is Conserving Water Ahead of Dry Summer

Posted: May 12, 2015 3:43 PM PDT <em class="wnDate">Tuesday, May 12, 2015 6:43 PM EDT</em> Updated: May 12, 2015 3:49 PM PDT <em class="wnDate">Tuesday, May 12, 2015 6:49 PM EDT</em>



*From Washoe County:*

John Erwin, the Truckee Meadows Water Authority's (TMWA) Director of Natural Resources Planning and Management gave the Board of County Commissioners a presentation about the drought and low water supply. He said since Lake Tahoe is below the rim, there is nearly no water coming out of Lake Tahoe which is resulting in very low river flows. He said within the next six weeks all of the ditches will be shut off, starting with the Steamboat Ditch. Erwin said TMWA will be relying more on pump wells this summer.

"We haven't seen four consecutive dry years like this," said Erwin. "2015 is the lowest precipitation and lowest runoff we have seen. The good news is the probability of a wet year is increasing because of all the dry years we have had in a row. We plan for the worst but hope for the best."

Dave Solaro, Director of Washoe County Community Services, updated the Board about the County's plans to conserve water during the drought. Solaro said Washoe County is conserving water in several ways as we enter what is expected to be an extremely dry summer:

Washoe County has reduced water use by at least ten percent at County buildings and parks.

Several parks and golf courses are irrigated with treated water or ditch water.

County Park irrigation has been reduced by at least 10 percent.

Washoe County has implemented the Truckee Meadows Water Authority's suggestions in their Weather Wise Watering program.

The County is watering in the early morning or evening, not watering on windy days or after rain and is watering on assigned watering days.

Parks instituted a turf reduction program that eliminated nearly 119,000 square feet of turf at Lemmon Valley and Cold Springs Parks.

The County implemented a phone number to call if you see broken irrigation lines in our parks: (775) 328-2311.

"Washoe County is doing its part in conserving water," said Solaro. "We are working hard to be responsible and reduce the impact during this drought season."

The availability of ditch water from the Truckee River is anticipated to be very minimal this year. With the 10 percent reduction and the lack of available ditch water, the public will likely see brown areas throughout Washoe County parks and golf courses. With the short ditch water season this summer, several of our park ponds may be lower than usual.

In addition, the off-leash and multi-use pasture at Rancho San Rafael Regional Park will be closing due to a lack of irrigation water. The irrigation for the multi-use pasture comes from the Highland Ditch, which is fed from the Truckee River. However, the Federal Water Master has informed Washoe County the Highland Ditch will be shut off in the next couple of weeks because of low water flows in the Truckee River.

Washoe County water play parks like those at Lazy 5 Regional Park and the North Valleys Regional Park plan to

open and operate as normal. These parks recycle and recirculate water. The water is captured through a drain system and then filtered and treated much like a pool system. There is minimal water loss through evaporation.

These water parks are great locations for families to use during the hot days of the summer, as a water-saving alternative to filling small pools or turning on sprinklers to run through.

[View a list of frequently asked questions about how Washoe County is conserving water.](#)

*From Washoe County*

# Why are Reno golf course sprinklers on when windy?



[Mark Robison](#), RGJ 8:45 p.m. PDT May 12, 2015



Patty Sheehan drives a ball at the Hidden Valley Country Club in 2011.(Photo: RGJ file)

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A reader wrote in concerned about sprinklers being on at a Reno golf course when it's windy.

Short answer: Irrigation weather sensors generally restrict watering when it is windy at Reno-Sparks golf courses, but wind can dry out grass and sometimes soil moisture sensors say water is required to keep the grass alive despite the wind.

## Original question

Reader Mark Ernst writes, "When will golf courses be designed and required to reduce water consumption? They do not need long fairways of dense grass, etc. Only a fraction of 1 percent of the population plays golf, but how much water is wasted for their aesthetic desires? I drive by Hidden Valley golf course every day, and their sprinklers are running even during heavy winds!"

**Full answer**

According to a report last year by golf consulting company Pellucid, [about 23 million Americans played golf in 2013](#).

The U.S. population in 2013 was [316.5 million](#). That works out to about 7.3 percent.

There do not appear to be any laws or regulations regarding water usage by golf courses in Northern Nevada. (Golf courses in California are required to cut their usage by 25 percent under rules imposed this year by Gov. Jerry Brown.)

That does not mean courses in Reno-Sparks have not made changes to cut water use.

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[Is Rancho San Rafael wasting water by flood irrigating?](#)

Ernst specifically mentioned Hidden Valley so I reached out to Ward Sutton, PGA director of club operations at Hidden Valley Country Club.

Sutton said the course got a new irrigation system in 2001.

"That's when we added a weather station and got sensors," he said. "We don't have to turn the whole (sprinkler system) on. We can turn on one (sprinkler) head based on what the soil is saying it needs."

The sensors measure soil moisture, wind, humidity and temperature.

When someone sees a sprinkler or set of sprinklers on when it is windy, Sutton said, "the computer is saying water is needed for the grass to survive."

Andy Bass — director of parks, recreation and community services for the city of Reno — said people may see sprinklers on occasionally when it's windy at the city-owned Rosewood Lakes course.

"Wind dries out grass so if it's windy, sometimes you have to wet that sucker," he said. "It's not like your backyard, it's a highly specialized kind of turf maintenance."

[RENO GAZETTE JOURNAL](#)

[Ask the RGJ: How much water does TMWA lose?](#)

Like Hidden Valley, the Rosewood Lakes course has sophisticated sensors that adjust watering — or shut it down completely — based on what the soil needs and what the weather conditions are.

The same is true of other area golf courses, including Sierra Sage golf course in Stead, Washoe Golf Course in Reno and Red Hawk Golf and Resort in Spanish Springs.

Jenni Dawson of Red Hawk said via email, "Because our system is integrated with Smart Phone Technology, we have the ability to remotely shut down our system on a moment's notice at the onset of rain events, and 95% of our irrigating occurs between 8 p.m. and 4 a.m. to cut down on wind effect. In addition to utilizing best practices with regards to our irrigation monitoring and scheduling, we use eco-friendly wetting agents to promote better absorption that in turn allows us to use our water more efficiently and effectively."

In other words, area golf courses already have in place the latest technology to minimize water use.

As far as their design, Sierra Sage, Rosewood Lakes and Wildcreek use reclaimed water for their landscaping.

Washoe County park operations superintendent Jennifer Budge said that at Washoe Golf Course, less water is used on perimeter areas and the "rough" outside fairways.

Sutton said that at Hidden Valley, they expect to make changes before the 2016 season to eliminate or scale back some peripheral areas that don't come into play but get irrigated now. These would be turned into native areas — think sagebrush — or become sculpted bunkers that don't have grass.

"Brown is the new green and all courses within the Truckee Meadows are doing things differently due to our ongoing drought," he said.

**Through September, the RGJ's Mark Robison investigates reader questions about any aspect of the four-year drought and how it affects life in Northern Nevada. Send yours to [mrobison@rgj.com](mailto:mrobison@rgj.com).**

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