

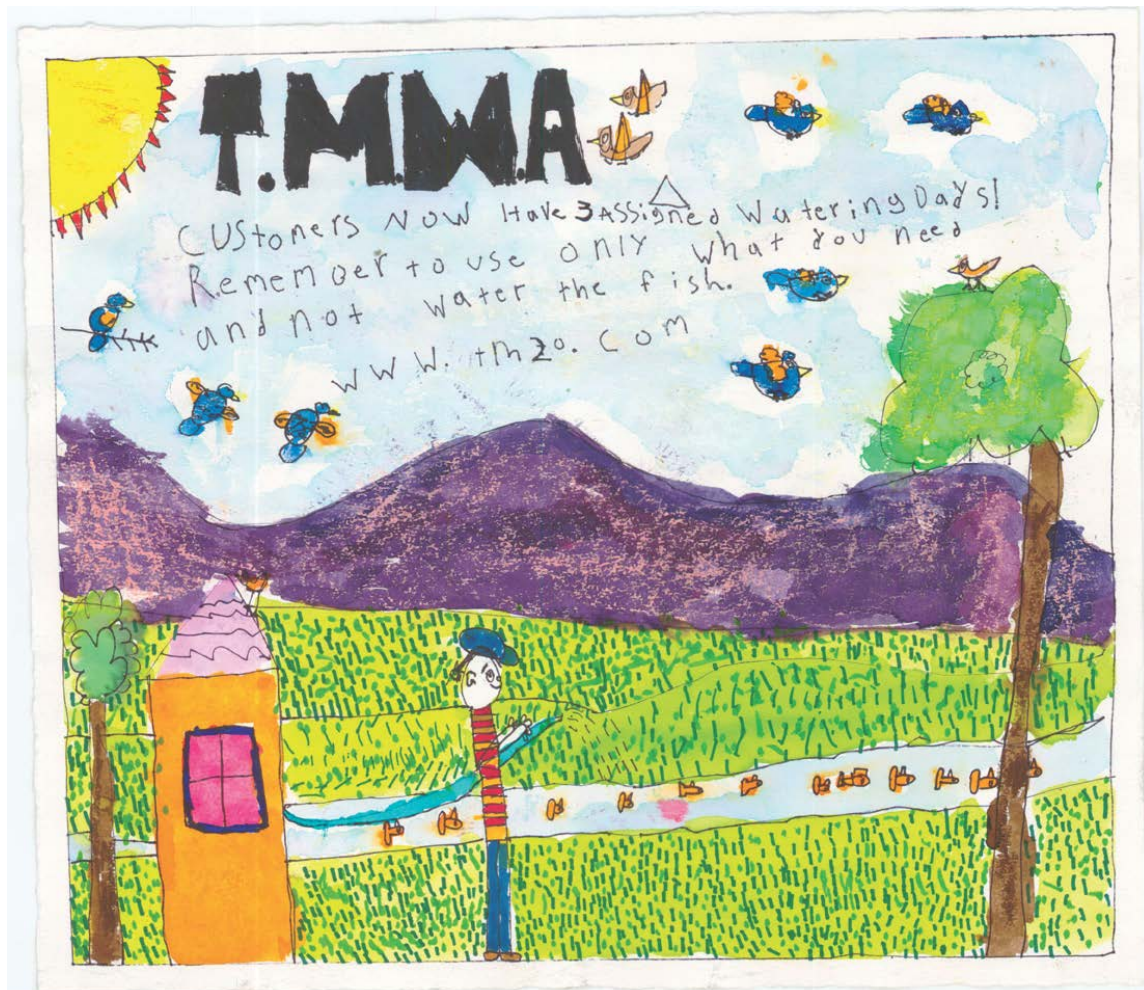


TMWA Board Meeting

Wednesday, June 17, 2015

Press Clippings

May 14, 2015 – June 11, 2015



*Joshua & Sarah Burrows (Jessie Beck Elementary School)
2010 Poster Art Contest - Second Place, Grades K-3*

TELL THE BOARD SUBMISSION – Steve

On Jun 7, 2015, at 11:45 AM, Schlesener, Neece <nschlesener@tmwa.com> wrote:

Hi Marlene and Andy,

After the first email Steve [REDACTED] sent to the Board last week, I spoke on June 2 with the local manager, Joey, at the 695 Keystone Jiffy Lube who danced around providing me the telephone number for the district manager, Mark Monroe. I wanted Mark to know it's time to consider making irrigation system or landscape changes to the existing heavily sloped site because the waste is not going to go away any time soon. (I saw in the video the rotor heads that were supplying a pretty good flow of water to that small patch of lawn.)

Joey told me the best direction would be to call Reno Green who has been the landscape contractor for years. I spoke to Reno Green who told me the waste from the weekend of May 29th was from a stuck valve, which I already knew from talking to the water watcher, Paul. Also, their records indicated a work order was submitted for getting three quotes on a battery-operated timer. That request was made after the Monday, June 1, onsite meeting with TMWA water watcher, Paul, and the Reno Green tech. Paul told me, per the tech, the timer at Jiffy Lube was no longer functional and a new timer needed to be installed.) I told Reno Green last week that the TMWA Board of Directors received an email from the person seeing this ongoing waste for years and that some changes are needed right away. I left a message last week for Dominoe, the account manager for Jiffy Lube, to call me because she was working in the field.

Allissa called me yesterday, Saturday, June 6, about another Jiffy Lube waste report from Friday evening. I advised Allissa to call Reno Green who usually has an after-hours tech on duty that we really don't want the repeat of water waste on Sunday, their next watering day. The tech who answered happened to be the person I spoke with last week. She was very familiar with what my request was for Jiffy Lube and was going to dispatch a tech to turn the irrigation system OFF so no watering will take place over the weekend.

Also, Dominoe will be contacting me on Monday about what needs to take place at Jiffy Lube, and I will send an email off to Steve.

Neece Schlesener
Senior Water Conservation Coordinator
Truckee Meadows Water Authority
1355 Capital Blvd. | Reno, NV 89502
O: (775) 834-8008, M: (775) 230-4860

On Jun 7, 2015, at 5:40 PM, Schlesener, Neece <nschlesener@tmwa.com> wrote:

Here's what I received after I emailed Mr. [REDACTED] this morning following his email to the Board last week. On Saturday, June 6, in the later part of the morning, Reno Green was contacted by water watcher, Allissa, and were going to arrange for the irrigation system to be turned off to eliminate anymore weekend watering. (On Saturday Allissa responded to an email received on Friday, June 5 at 5:39 p.m. I'm researching why Roger, who worked until 8:30 p.m. Friday, did not respond to the Friday night email report from Mr. [REDACTED] (I believe Karen Lemos is working on why the WWs are not always being able to see the C&Is in Outlook from the field. Everything is working from the office, just not from the field.)

Who knows why Mr. [REDACTED] **did not** report the water waste when he observed it at 7:30 a.m. on Saturday morning (see below.). We had four water watchers on duty that could have responded.

As I mentioned, I will be talking to Reno Green on Monday.

Necie Schlesener
Senior Water Conservation Coordinator
Truckee Meadows Water Authority

From: Steve [REDACTED] [[mailto:\[REDACTED\]](mailto:[REDACTED])]
Sent: Sunday, June 07, 2015 4:02 PM
To: Schlesener, Necie
Subject: RE: 695 Keystone Avenue - Jiffy Lube

Yesterday 730 am 6/6,
I drove by (Sat. commute) and the sidewalk was dark stained (in a sprinkler, not rain pattern) and there was *visible water in the gutter all the way to the drain on Keystone by the traffic island*.
So, they water under cover of darkness?
I have been reporting this location for years, yes years -and many others.
TMWA, it's Time to get REAL!!

I do not appreciate retaliation nor snooping...

From: nschlesener@tmwa.com
To: [REDACTED]
CC: agebhardt@tmwa.com; marlene@goodstandingoutreach.com
Subject: 695 Keystone Avenue - Jiffy Lube
Date: Sun, 7 Jun 2015 19:42:17 +0000

Dear Mr. [REDACTED]

We appreciate your concern about the water waste at the above-referenced address. On June 2, I spoke with the local manager at the **695 Keystone** Jiffy Lube, and he directed me to their landscape contractor. I have addressed the heavily-sloped lawn situation with the contractor and will be discussing ideas on how to better manage the watering schedule. In the meantime, a new battery-operated timer has been ordered for that site.

In case you are not aware, the water conservation consultants are not on duty 24 hours a day. However, we do have coverage 7 days a week. The Conservation Hotline will prompt you to call Emergency Repair at 834-8090 should the Conservation staff not be available.

Thank you.

Necie Schlesener

> -----Original Message-----

> From: Tell the Board [mailto: [REDACTED]]

> Sent: Friday, June 05, 2015 5:47 PM

> To: Olsen, Marlene; Charpentier, Robert; Mazerés, Kim

> Subject: Tell the Board Submission

>

> Name: Steve [REDACTED]

> Email [REDACTED]

>

> Comments: My concern is about the Jiffy Lube at "695 Keystone", (though it fronts W. 7th.) which had a water overload last may 31/June 1.

> At that time the sprinklers were on for at least 20 hours (!!).

> Today June 5th they were already watering (& it appeared to me that there was a spray pattern already on the sidewalk, from a previous, possibly overnight, sprinklering).

> It RAINED two days ago, or less.

> This location has long overwatered a steep sloping, small grass area. I have reported this Over the Years, yes years.

> Yet blatant disregard for rules, rates, and reasonable wetness goes on, and on.

> TMWA is remiss and irresponsible by using the ruse of 'report water waste' without Reform/Assessment of Commercial landscape watering operations and contractors. Period.

> -----Original Message-----

> From: Tell the Board [mailto: [REDACTED]]

> Sent: Tuesday, June 02, 2015 11:24 AM

> To: Olsen, Marlene; Charpentier, Robert; Mazerés, Kim

> Subject: Tell the Board Submission

>

> Name: Steve [REDACTED]

> Email [REDACTED]

>

> Comments: Request Confidentiality.

> I reported by phone re sprinklers (7th/Keystone) were on and in total were on at least 20 hours.

> Had I called at 3 pm Sun. 5/31 instead of 7:30 pm maybe someone would have responded. They were still on at 4 am 6/1.

> I accessed the wrong control box; saw next day there was one in the lawn- Drat! Why was no one monitoring messages on a Sunday evening?

> I have reported this location numerous times over the years. It is a typical local commercial water waster with a cozy relationship with an indifferent "landscaper". I have experience in landscape AND hydrology.

> Not merely another clueless ratepayer.

> Wake Up!! America

The Tricky Business of On-Site Water Treatment and Reuse

It's time to rethink old assumptions about what can and can't be done.

By Vicki Elmer and Paula Kehoe

The 3Rs for solid waste—reduce, reuse, recycle—have been around since the 1970s, but the next big R is for water. Reuse of the wet stuff is on the rise.

On-site water treatment and reuse is turning up in commercial and residential buildings from Seattle to San Francisco, New York, Atlanta, and Portland.

Large water and wastewater utilities pioneered wastewater recycling—using it for irrigation in dry states. Today, local developers in both wet and dry states are getting in on the game with the goal of “net zero” or “net positive” water for individual building projects. Some of these projects also recover energy from wastewater and solid waste with integrated water-energy-waste systems.

The Living Building Challenge, LEED, and other rating systems are driving the current round of efforts toward water self-sufficiency. They take advantage of rainwater falling on the building and site, and reuse blackwater as well as graywater indoors and out. Even stormwater has the potential for reuse inside a building.

“Almost 50 percent of all the potable water used in a typical residential building is for nonpotable uses, like clothes washing or flushing the toilet. In commercial buildings, that percentage increases to around 95 percent,” says Bill Worthen, an architect and sustainability consultant based in San Francisco. Treatment and reuse on-site is a valuable resource in water-stressed cities, and a way to address stormwater mitigation requirements.

Move forward

As a planner, you want your city to have a more sustainable and integrated approach to water. You've heard your mayor and your local water utility head talk about this issue a lot.

But local architects have told you hundreds of times that local plumbing and health codes prevent recycling water that has already been used within a building; that water, they say, cannot be used to flush toilets, do laundry, or irrigate the site. They've also said that local planning and health departments lack the performance standards or plan review guidelines needed to make a change. On top of that, your developers say that the cost of on-site water treatment and reuse doesn't pencil out no matter how wonderful the outcome.

So what is a planner to do? Fortunately, early adopters have pioneered a set of best practices to help you establish sustainable water policies to encourage water recycling, develop a local on-site reuse program, and promote integrated water-energy-waste systems at the district level.

Sustainable water practices

Your city may already have general sustainability policies in place for water. See what you have or could build

DEFINITIONS

RAINWATER:

Precipitation collected from roofs or other man-made, above-grade surfaces

STORMWATER:

Precipitation collected from at- or below-grade surfaces

GRAYWATER:

Wastewater from bathroom sinks, bathtubs, showers, and washing machines

BLACKWATER:

Wastewater from toilets, dishwashers, kitchen sinks, and utility sinks

SOURCE: THE INNOVATIONS IN URBAN WATER SYSTEMS WORKING GROUP

on. Cities that are the furthest along with integrated water management have favorable general plan policies or sustainability plan objectives that were established as far back as the 1990s, such as San Francisco, Santa Monica, and New York City.

If you are updating a general plan, you're in luck. Otherwise good places to include these kinds of policies are sustainability plans, strategic plans, stormwater runoff plans, and climate change plans. You can also insert policies and performance standards into master plans, specific plans, and zoning ordinances. If you are in the midst of preparing a redevelopment plan or update, this is also an appropriate place for such a policy.

The following are some best practices for using water on-site as part of your policy. They mix and match the different kinds of “used” water. Some use conventional engineered systems for water treatment, while others rely on ecological engineering processes. Ecological processes take up more room and require vegetation maintenance but have a smaller carbon footprint. On the other hand, treatment equipment for conventional engineering systems also must be maintained.

BLACKWATER AND RAINWATER—ENGINEERED SYSTEMS IN BIG MULTIFAMILY PROJECTS. Planners were

on-site treatment and reuse, these projects capture critical resources and encourage community resilience in the face of a changing climate.”

All water used on-site in these two buildings is required to stay on-site. Wastewater treatment consists of composting units that convert human waste into a beneficial byproduct. Graywater is treated by a recirculating vegetative system before it is used for irrigation on-site. While the owners have not yet obtained a permit, they have a clearly identified pathway for using rainwater for drinking. Once the building manager—and engineer—passes the required tests, they will be certified as an independent water district.

GRAYWATER NONPOTABLE REUSE FOR A COMMUNITY CENTER. Graywater reuse for irrigation at the site level occurs frequently in the U.S., but recycling graywater from the building to use it again inside is still tricky. The Bud Clark Commons Transition Center in Portland, Oregon, opened in June 2014 with a hygiene center for the homeless, who can shower and do laundry there. The wastewater from these activities is treated to meet State Department of Environmental Quality standards for nonpotable reuse and used again on-site for toilet flushing. This was the first reuse of graywater inside a building in Portland, and is being followed by a mixed use residential and commercial project.

RAINWATER AND STORMWATER REUSE FOR SINGLE-FAMILY HOUSING. Reusing stormwater indoors is a good way to mitigate urban runoff impacts. The Los Angeles County Department of Health recently established guidelines for harvesting rainwater, stormwater, and urban runoff for indoor and outdoor nonpotable uses; the county is working with the city of Santa Monica and two local nonprofits.

The next challenge is reusing rainwater as potable water. Santa Monica has included goals for locally obtained potable water into its sustainability plan, pending further code changes for implementation.

Georgia passed one of the most comprehensive on-site water ordinances in the country for single-family homes during a serious drought in 2011. In addition to the use of graywater on-site for nonpotable uses, the home owner may install a treatment mechanism and use rainwater as drinking water.

Oregon, Washington, Hawaii, and Ohio, among other states, also allow home owners to install treatment facilities so that rainwater can be used as a source of residential drinking water in single-family homes. Texas does not preclude potable rainwater use in single-family homes but defers to county health and building departments for regulation.

Develop a local on-site program

Some suggestions about how to proceed:

FIND A FRIEND IN THE WATER BUSINESS! The first step is to reach out to staff in your local water agencies: water supply, wastewater treatment, and stormwater. Identify and involve those who have jurisdiction over the

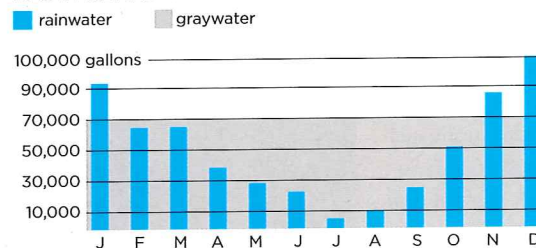


THE BUD CLARK COMMONS TRANSITION CENTER, PORTLAND, OREGON

BENEFITS OF USING GRAYWATER TANK AT BUD CLARK COMMONS

With a more abundant and consistent supply available, designers opted to reuse graywater rather than rainwater for toilet flushing. It required a much smaller tank, too.

RAINFALL AND GRAYWATER AMOUNTS



TANK SIZE COMPARISON



GRAPHIC COURTESY PAE CONSULTING ENGINEERS

Eco-roofs, a stormwater treatment system, and a graywater recycling system have reduced regulated potable water usage at Bud Clark Commons by 53 percent.

permits. Possibly involve interested nonprofits as well.

DECIDE ON THE ALTERNATIVE WATER SOURCES AND END USES. You, the water utility, and the health department need to determine this depending on different development patterns. You may also want to address the carbon footprint for different treatment systems.

PHOTO BY: HOLST ARCHITECTURE

key players in making the on-site wastewater recycling process in Battery Park City work. The 92-acre site (similar to a redevelopment area) is on the southern tip of Manhattan in New York City. Agency planners included requirements for recycled water for all new development when the project's development guidelines were updated in 1999.

The result was the Solaire, a 293-unit residential building, the earliest and best known of the blackwater recycling efforts to use a mini treatment plant in the basement. Ten years later, the Solaire is one of six buildings in Battery Park City that use treated rainwater and recycled blackwater for toilet flushing, air conditioning, laundry, and park irrigation. Potable water demand has been reduced by 50 percent there.

Ed Clerico, who was the project engineer for Solaire, says, "Planners need to play an active role in setting the requirements for water infrastructure performance. Water is a key part of green building."

BLACKWATER, GRAYWATER, AND RAINWATER—NATURAL SYSTEMS IN COMMERCIAL AND EDUCATIONAL BUILDINGS. Seattle's push toward sustainable water was sparked by problems with thermal pollution and contaminants from untreated wastewater discharges that hurt local salmon, fisheries, communities, wildlife, and recreational industries. Planners and nonprofit groups such as Sustainable Seattle and the International Living Future Institute have been working on these issues for two decades.

One result of a broad-based effort (including the city's innovative land-use code through the Living Building Pilot Program) is that Seattle is now home to two of the most ambitious on-site water reuse buildings in the country: the Bullitt Center and the Bertschi Science Wing. The first is a commercial office building; the second is part of a private school.

"These buildings are beautiful examples of integrated water management," notes Stacia Miller, policy manager for the International Living Future Institute. "In addressing

BULLITT CENTER, SEATTLE



Rainwater from the Bullitt Center's roof is captured, filtered, and carried to a 56,000 gallon cistern in the basement to supply all non-potable fixtures in the building. Composting units (left) and a storage tank for rainwater that has been purified for potable use (below) are key elements in the building's treatment of wastewater.



PHOTOS BY SIAN KENNEDY/THE NEW YORK TIMES

ADDRESS COST FACTORS. Urban water reuse systems are more competitive in places where water and sewer rates are high and the project is large enough to have economies of scale. On-site recycled water may also be less expensive than central utility provision due to the smaller size of pipes and connection fees.

To incentivize on-site water reuse, municipalities could waive or lower permit fees or reduce property taxes, stormwater fees, water fees, and other sewer charges. A city or the utility could also offer loans or on-bill financing, grants, and rebates.

Several locales have embraced on-site water systems.

NEW YORK CITY provides wastewater allowances to qualified properties with on-site water systems.

SAN FRANCISCO Public Utilities Commission's grant program provides up to \$250,000 for an individual building and up to \$500,000 for multiple buildings using on-site water systems.

SANTA MONICA, CALIFORNIA, waives building permit fees for on-site water systems.

MINNESOTA recently made decentralized and on-site systems eligible for low-interest loans from federally provided revolving loan funds.

SAN MARCOS, TEXAS, offers rebates of up to \$5,000 for rainwater harvesting systems in single-family homes and up to \$20,000 for commercial systems.

MAKE CHANGES TO REGULATIONS AND PLANNING DOCUMENTS. Currently, most health codes do not permit on-site or district level reuse of wastewater. Other local building codes and permit processes likewise hold back these innovations. But help is on the way!

In 2011, the San Francisco Public Utilities Commission initiated a revolutionary effort to facilitate on-site integrated water management that includes on-site treatment and reuse. Events were triggered by the rebuild of the commission's headquarters and the agency's desire to reclaim and treat the building's wastewater to provide all the daily water needed for toilet and urinal flushing.

In addition to a 25,000-gallon rainwater harvesting cistern, SFPUC management wanted to treat the building's blackwater by filtering it through a constructed wetland as part of a green strip outside the building and in the building lobby. Regulations stood in the way.

Undaunted, the SFPUC reached out to the city's building department and the local health department to develop an integrated ordinance that sets standards for water quality for different uses inside and outside of buildings. The ordinance, signed into law in 2012, was enthusiastically received by local officials and has since been expanded to permit district and neighborhood reuse projects. It also contains provisions for plan review procedures and postconstruction monitoring and operations.

181 FREMONT, SAN FRANCISCO



The 55-story, mixed use tower at 181 Fremont is the first building to receive an on-site water system grant from the San Francisco Public Utilities Commission. In addition to other design features that are expected to earn the building a LEED Platinum rating, the building is proposing to install a graywater system for toilet flushing.

SFPUC also developed a manual and technical assistance program for developers that included financial incentives to promote on-site reuse. In the past two years, 20 projects have participated in the program. The agency estimates that together these projects will offset eight million gallons of potable water demand a year.

San Francisco realized that other cities would have a harder go if they wanted to encourage on-site water recycling, since most health departments operate at the county or state level. National interest resulted in a meeting last spring, hosted by SFPUC, that brought together water and health departments from around the country; they formed the Innovations in Urban Water Systems group with funding from the Water Environment Research Foundation.

The urban water systems group has produced a guide, *The Blueprint for Onsite Water Systems*, to assist communities in developing programs to manage and oversee on-site water systems that protect public health. In addition, it convened a multistate working group, consisting of public health officials and city agencies, to develop guidelines for water quality standards for alternate water sources.

Integrated systems

Just as the solid waste recycling movement added resource recovery centers to the three Rs, the fourth R in the water field also emphasizes recovery. Well-known in Europe, many sustainable district plans (eco-districts) include designs for waste (both solid and liquid) systems in concert with water and energy programs to recapture water, energy, and nutrients while minimizing carbon emissions, energy use, and discharges to local water bodies.

Eco-districts also include walkable communities, mass transit, and local food production, and they emphasize equity and local job generation. The recent Living Communities initiative of the International Living Future Institute encourages U.S. planners to think holistically about communities, including the role of “blue-green streets” in achieving integrated water management as a public benefit.

In North America, we are just starting to think about “water-waste-energy” as an integrated infrastructure system that is possible at the site or district level. Several individual projects have pioneered aspects of these systems, the best known being the False Creek system in Vancouver, Canada. This district-level system recovers warmth from the wastewater system through the use of a heat pump for heating residential units.

Others around the country note that water reuse is only one aspect of a wider spectrum of water-waste-energy projects possible at the site and district level. A retrofit is on the drawing board in New York City, while a project that integrates district energy and direct potable reuse is under way in Fort Murray, Canada.

“Capturing latent energy from warm wastewater can provide economic and environmental benefits and increase the cost-benefit of water reuse,” says Ed Clerico. “At the district level, biodegradable wastes from the solid waste stream can be used in anaerobic digesters to produce biogas as a renewable source of energy.”

The San Francisco Eco-District Plan, approved by the city’s board of supervisors in 2013, also calls for integrated infrastructure planning at the site and district level (along with the traditional elements of an eco-district noted above). One of the project consultants, Bry Sarte, says that “SFPUC’s district water program is one of the best innovations in the country in terms of laying the

critical groundwork to support district infrastructure as a backbone for an eco-district.”

The Central Corridor Eco-District around the new central subway line that will serve Moscone Center, San Francisco’s downtown conference and event space, is currently under design. Along with green and walkable streets, and watershed and flood management elements, the plan envisions district-scale nonpotable reuse; on-site water recycling, water capture, and reuse; and two thermal energy plants where energy and wastewater systems are integrated.

Stepping up

Planners have to be silo busters—to help the larger community understand the benefits (including economic) to overcoming barriers that keep water, energy, and waste infrastructure bound to traditional centralized utilities. The experts interviewed for this article offer the following recommendations for planners:

- Integrate on-site requirements for water into planning documents at all levels.
- Implement requirements for integrated resource recovery systems at the building, district, and city scale.
- Support nonprofit efforts to build community capacity in support of integrated water reuse projects.
- Reach out to the local water, wastewater, and stormwater agencies as well as health departments to build coalitions for innovation. ■

Vicki Elmer is a former planning director who teaches in the Planning, Public Policy and Management department at the University of Oregon. Her book, *Infrastructure Planning and Finance: A Smart and Sustainable Guide for Local Practitioners*, was published by Routledge in 2013. Paula Kehoe is the director of water resources for the San Francisco Public Utilities Commission.

RESOURCES

ONLINE *Blueprint for Onsite Water Systems*: <http://sfwater.org/modules/showdocument.aspx?documentid=6057>.
 Innovation in Urban Water Systems: <http://sfwater.org/hp/iuws>.
 International Living Future Institute—Living Building Challenge, Living Community Challenge: www.living-future.org.
 “Distributed Water Infrastructure for Sustainable Communities,” Water Environment Research Foundation: www.decentralizedwater.org/research_project_DEC3R06.asp.
 The International Future Living Institute’s Living Building Challenge (includes requirements for net-positive water): <http://living-future.org/lbc>.

CONTACTS Experts who contributed to this article include John Scarpulla, urban watershed planner at the San Francisco Public Utilities Commission; Ed Clerico, a water-waste-energy consultant with Natural Systems Utilities LLC, EClerico@clerico.biz; S. Bry Sarte, the author of *Sustainable Infrastructure: A Guide to Green Engineering and Design*, bsarte@sherwoodengineers.com; Bill Worthen, principal at the sustainability consulting and communications firm Urban Fabrick, Inc., www.urbanfabrick.com.

Avoid Being a Dead Tree Water Waster

By: [Terri Russell - Email](#)

Updated: Tue 5:17 PM, May 12, 2015

By: [Terri Russell - Email](#)



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RENO, NV - The past couple years of drought may have taken a toll on your landscaping. You may be debating whether to pull the trees and bushes or continue to water hoping for the best. You could be wasting at least 24 gallons of water a week on plants that just won't recover. One local arborist gives advice on what you should consider, and what are your [options](#).

"If we have sap running down in between the branches in between these whirls, that's more likely a borer. If on the other hand you come down here for example, this branch junction, you see these globs of material that will be a pine pitch moth," says local arborist Dale Carlon as he shows us the trunk of an Austrian Pine Tree.

Carlon says you'd be hard pressed not to find Austrian Pines in the area without a pine pitch moth or pine bore beetle problem. He says most pines in the area have them. The key, he says, is to make your pine as [healthy](#) as possible so the bugs go to a more susceptible tree.

What does that mean?

“That's a matter of water and fertilizer. The tips of the tree are a barometer of the [health](#),” says Carlon.

To illustrate his point, Carlon shows us a tree that looks good even though there are moth and beetle problems. But as we get farther down the row, the trees begin to look dried out, until we get to a pine with green patches, but much of the tree is yellow, and the needles are dried out.

“Yes, you could conceivably sit here for a few more years and pour a whole bunch of water on it. And pray that there's something we looked at in arborist school. Its called the 50-percent rule. When 50% of the tree is lost, it will likely not come back. And maybe it will in one weird way. But it will never be right,”says Carlon.

Carlon says you should take a look at your drip systems and make sure they are adequate for the trees and bushes now. You may have to replace it for more water flow.

If you've lived in your house for quite some time, there may be trees that before the drought and warm winters, shut down and went into dormancy, only to come back in the spring.

But if they still look dormant, are dried out and have no buds or leaves and haven't for several years, they need to be removed.

Carlon says we haven't seen the full impact of the drought on our trees just yet. That may be a couple of years.

But he says those trees that are care taken care of and watered will weather the drought and be the best candidates to survive another series of drought years in [the future](#).

Switch flat rate water users to meters now: Letter

5:15 p.m. PDT May 12, 2015

So after xeriscaping my front lawn to save water for our community and money for myself as a metered customer, I hear TMWA will likely give flat rate customers even more time to use as much water as they want without penalty. They won't pay metered rates until Oct. 1, rather than June 1 as scheduled, so they can have more time to plan for the change. That's unacceptable. They've known this change would eventually happen for more than 20 years. They've know this change would happen for more than 20 years. Metered customers help pay for flat rate customers' water waste.

One flat rate customer in Reno, Gov. Brian Sandoval, is reported to have used 876,000 gallons in 2014, more than seven times the average metered customer. Is the delay because, any flat rate customers who gorge on water live in of Reno and are well connected? Sounds like trickle up. And many of the 6,000 unmetered customers will do nothing to conserve until it hits their pocketbook.

Do the fair thing TMWA and change metered rates for ALL customers on June 1.

C.E. Flectcher, reno

Bone dry

The drought forces a park closure

By [Georgia Fisher](#)

This article was published on [05.14.15](#).

Good news—well, maybe lukewarm news—is in store for local dog owners and park lovers. Though the ongoing drought just brought the closure of a popular off-leash park, city and county officials figure the fenced pasture at Rancho San Rafael is probably the only such space to close soon for lack of water.

“Anything beyond that is going to require direction from City Council,” said Reno Parks Manager Jeff Mann. We’ll otherwise see drier ponds and perhaps browning turf, he said, especially if the city continues to reduce irrigation. (Truckee Meadows Water Authority has requested a 10 percent drop in all customers’ water use, government departments included.) Less-than-verdant turf is natural for our climate come summertime, Mann added, “and that doesn’t mean it’s dying. It’s just going dormant.”

The dog park—which is managed by Washoe County, and is actually a multi-use public area that goes well beyond dogs—has long endured the pitter-patter of urinating canines and their (presumably non-urinating) owners.

Last winter, for instance, “we would have hundreds of people and their dogs in there on any given day, especially any weekend day, when it’s dry,” said district park manager Andy Mink, “so if we did that in the summer with the heat, the grass can go dormant ... and we would damage it to a point where it would be very difficult or impossible to get it back. Dormant grass is not very tough. You walk around on it much, and it turns to dust.”

Said dust isn’t much of a natural filter, so when we do get rain or snow, resulting water on the ground won’t run clean the way it should, which in turn harms wetlands.

Speaking of wetlands, the three-acre area in question is rather marshy at the moment. Neither canines nor people were around on an especially blustery afternoon last week, but geese and other birds looked right at home near the water, which trickles in from the Highland Ditch and provides irrigation via a dwindling Truckee River. Once the federal water master shuts off the ditch, which we can expect any day now, stagnant water could pose its own risk.

“As the ponds get lower, they get more algae growth, and they get the potential for botulism in water fowl,” Mink said, referencing Virginia Lake, where a number of ducks died last year. “I’m sure it will impact the pond here at Rancho San Rafael, because all the water you see running across the pasture and off the edge goes down into the wetlands and feeds Herman’s Pond ... and once the water gets cut off, there’s not going to be any water flowing through that pond to keep it from getting stagnant.”

The pasture will open for the Great Reno Balloon Race and for Cyclocross, but nothing else in the foreseeable future, County Commissioner Kitty Jung explained. “Washoe County understands this will be an inconvenience for the many people who use the pasture, but for the long-term viability of the resource, this is the best option,” she said in a prepared statement last week.

Recent rain and snowfall actually prolonged the shutoff, if only for a little while.

“We were expecting it to go off at the very end of April or the very beginning of May,” Mink said last week. “We’re keeping our fingers crossed that this wet stuff continues.”

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The federal water master has planned to cut off flow to an irrigation ditch at Rancho San Rafael.

PHOTO/GEORGIA FISHER
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Cutting Back on Watering During Rain Storms

Posted: May 15, 2015 4:32 PM PDT <em class="wnDate">Friday, May 15, 2015 7:32 PM EDT Updated: May 15, 2015 5:46 PM PDT
<em class="wnDate">Friday, May 15, 2015 8:46 PM EDT

By Michael Wolfe

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Even though we're getting moisture this week, we're still in a drought, so Truckee Meadows Water Authority is reminding customers to conserve water when we do get help from Mother Nature.

"If you've got your sprinklers set and all of a sudden there's a little cloud burst overcast, if it's just overcast cut it back a little bit and if it's actually raining you're getting some moisture, go ahead and cut it back and save some money and save us some water," says Andy Gebhardt, TMWA Customer Services Manager.

TMWA says since it's still May, plants don't need as much water as during the summer time - and with more clouds now watering just once a day should be sufficient.

Due to the drought, TMWA is recommending customers to cut back water use by 10% and not watering when it rains is a way to do that.

To learn more about our drought, click here: <http://tinyurl.com/lfrwhuw>

Flat-rate customers not all water wasters: Letter

10:19 p.m. PDT May 14, 2015

RGJ.com
**LETTER
TO THE
EDITOR**

I take umbrage with C.E.Fletcher's letter May 13.

How dare he/she label all flat-rate water customers as water-wasting people.

I am an 80-year-old widow living on Social Security and I have both my front and back yard xeriscaped. I live in a mostly retired neighborhood and many of my neighbors have converted to xeriscaping also. So get off your high horse C.E. Fletcher and realize that we all are concerned about the drought conditions in Reno and do not sit around letting our water run amuck. Get your facts straight.

Joan Weisbrot, Reno

Read or Share this story: <http://on.rgj.com/1bTAvdq>

(Photo: RGJ)

Recent Rains Bring Some Benefit

By: [Paul Harris - Email](#)

Updated: Wed 7:51 AM, May 20, 2015

By: [Paul Harris - Email](#)



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RENO, NV - With recent [rainfall](#), organizations such as the Truckee Meadows Water Authority have been pleased with the benefits.

"Well, it certainly is not hurting us, and it's keeping our customer demands down," said Bill Hauck, Senior Hydrologist at TMWA. "Right now about 50% of our customer demand is from outdoor watering, so with these [rains](#) people are dialing back and turning off their irrigation systems."

That means better conditions for [fish](#) and wildlife.

"So if we are taking less from the river, [it](#) leaves more downstream for fish and wildlife," Hauck said.

While our May [rain](#) has helped by adding water to ponds and rivers, it is still not an answer to our drought and the reservoirs are not being filled.

"It is good for soil moisture, it is good to delay the fire season, it is certainly good for plants and gardens but it is not great for drought, " said Jeff Thompson, KOLO Chief Meteorologist.

TMWA said because the rain has helped with the water flow, that doesn't mean homeowners and **businesses** can ignore water regulations.

"Once Memorial Day hits we are going to be asking our **customers** to do their part, cut back 10% and not water outside between 11AM and 7PM," Hauck said.

North Valleys Integration Project Designed to Utilize Untapped Groundwater Resources

May 20, 2015 By [Austin Wright](#) [Leave a Comment](#)

Truckee Meadows Water Authority's \$17.8 million project dubbed, "The North Valleys Integration Project" will begin this summer and involves construction of 29,000 feet of water main to tap into the previously unused Fish Springs groundwater supply.

Tapping into this new source means that the North Valleys area will have an independent source for water, which will allow more water to stay in the Truckee Meadows area and help stretch out drought reserves; the goal is to supply the equal amount of water currently pumped from the Truckee Meadows area, and currently the project is expected to deliver 8,000 acre-feet of water per year.

Since there hasn't been a way to use this supply in the past, the new project will have to be integrated into the North Valley Water System, but people living in the North Valleys area aren't expected to notice any changes in service.

This project is one of two purposed to better use Truckee Meadow's surface water during the winter so that ground water wells and aquifers will be able to recharge for use in the summer when it is needed most; the idea of dynamically managing water in this way is referred to as conjunctive use, and it is one of TMWA's main focuses. TMWA is already recharging 7.5 million gallons of water a day into local aquifers. These projects have been in the waiting stage while Truckee Meadows Water Authority became consolidated with the Washoe County's Department of Water Resources, but now that this process is over these projects can begin.

"Our integration with former WCDWR infrastructure is just beginning," said Project Manager Scott Estes.

"And we expect it will take a number of years, along with a lot of work and planning, to get conjunctive use firing on all cylinders. Still, we are off to a great start and happy that we are now past consolidation and able to really dig into the important improvements needed in managing our local water supply."

The North Valley's integration project is estimated to be completed by June 1, 2016.

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A Healthy Lawn Isn't Just About Water

Posted: May 18, 2015 1:15 PM PDT <em class="wnDate">Monday, May 18, 2015 4:15 PM EDT Updated: May 18, 2015 2:04 PM PDT <em class="wnDate">Monday, May 18, 2015 5:04 PM EDT

By Erin Breen

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We got a good shot of rain over the weekend. And while it certainly was good for lawns in Northern Nevada, experts say it won't add up to a drought buster. And a lot of homeowners didn't bother to turn off their sprinklers during the rain.

"Every drop counts!" is the phrase that Truckee Meadows Water Authority is pushing. "And we had that out over social media over the weekend to remind people to take advantage of Mother Nature's watering and save what we can for later in the summer," said Marlene Olson. "But we won't have any actual numbers to see if people cut back 'til we do billing in another week are so."

According to Tim Carter with Ace Hardware it's just that people forget.

"When it rains and people have already set their timers for their sprinklers, it's just easy to forget to go and hit the 'it rained' button on the timers. The system doesn't know if it rained. We have to remember to tell it and a lot of people just forget."

And he says that he's cut back on everything with his lawn in light of the drought.

"TMWA wants people to cut back by 10%...but I cut mine back by about 30%. And I cut back on the fertilizer too. I don't want it to just grow so fast and have to cut it over and over. I want to slow it down. And people seem to come in looking for anyway to outdo their neighbor with long lush grass when the logical answer is to slow things instead of speeding up the growing process."

And one other tip is to raise your lawn mower setting. With longer grass, it doesn't dry out or need as much water

Drought soon will force use of backup water



[Jeff DeLong](#), RGJ 4:47 p.m. PDT May 21, 2015



A view from the eastern shore of Independence Lake in 2010. The lake stores the largest amount of backup water for the Reno area during times of drought. The Truckee Meadows Water Authority is expected to begin tapping drought reserves by mid-June.(Photo: David B. Parker/RGJ file)

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It should only be a matter of weeks before the Reno area's primary water provider will need to tap backup supplies to supply homes and businesses with the water they need on a daily basis.

By the middle of June, if not earlier, there will no longer be sufficient water flowing in the Truckee River to meet water demand across the Reno-Sparks area, forcing the Truckee Meadows Water Authority to use drought reserves for the second summer in a row.

"We're close. It looks like it's going to be around mid-June," said Mark Foree, general manager for the water authority.

Recent rains have helped keep the Truckee River flowing, Foree said, adding that without a showery May, it's likely the utility would need its backup supplies by about June 1.

[RENO GAZETTE JOURNAL](#)

[Sierra drought: 10 ways to cut 10 percent](#)

"If we hadn't had this precipitation, we probably would be dipping into reserves a little more than a week from now," Foree said. "With the rains, it will be pushed out a little."

A drought of remarkable intensity is now in its fourth year, hitting Nevada and California particularly hard. If the water authority is forced to tap reserves in mid-June, it would be roughly six weeks earlier than that step was necessary last summer and during the drought's third consecutive year. Last summer was the first time in 20 years Reno-Sparks had to use drought reserves since the end of a lengthy drought in 1994.

Runoff from a paltry winter that provided only a fraction of a normal snowpack recharged the majority of drought reserves used last summer. About 26,000 acre-feet of reserves are now available in the Truckee River's upstream reservoirs, just shy of the amount available when those supplies were first needed last summer, utility officials said.

The first backup water used will be that stored in Stampede and Boca reservoirs, with roughly 9,000 acre-feet available. Also tapped this summer, like last year, will be water stored in Donner Lake, with about 700 acre-feet still available for use.

The utility's largest drought storage reservoir, Independence Lake, was left alone last year but will be substantially drawn down during the summer of 2015. Some 16,500 acre-feet of drought reserves is now available there.

The water authority has asked its customers to cut water use this summer by at least 10 percent – a reduction that would save some 5,000 acre-feet of water, or more than 1.6 billion gallons.

Increased conservation coupled with use of drought reserves should ensure the Truckee Meadows gets through the summer with adequate water supplies, Foree said.

"We've got reserves that are nearly full," Foree said. "We plan for these events. We will certainly get through the summer with our customers helping us out."

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Where We Stand Now in Our Drought after Recent Rains

Posted: May 22, 2015 2:44 PM PDT <em class="wnDate">Friday, May 22, 2015 5:44 PM EDT Updated: May 22, 2015 3:03 PM PDT
<em class="wnDate">Friday, May 22, 2015 6:03 PM EDT

By Chloe Beardsley

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Even with the off and on rain showers over the past two weeks, we're still significantly behind when it comes to making up our drought deficit. We took a look at the precipitation rate since the four-year drought spell started in October 2011. The recent light to moderate rains helps the drought slightly, but we still have about a foot of rainfall to catch up on.

In the Sierra, the snowpack is low and Tahoe City alone needs to make up more than four feet of precipitation just to reach normal levels.

Channel 2 News spoke with Mark Deutschendorf with the National Weather Service. He says the recent rains are just a short term fix. "In the last two weeks we've had anywhere from about a half inch to an inch and a half in some places," said Deutschendorf. "It would delay the onset of the high risk for fire spread."

The amount of water we need to completely get out of a drought will require more than just a few storms. "More like a year and a half of rainfall on top of what we normally would get in order to remove the entire effects of the drought," Deutschendorf. "It's a long term issue that cannot be resolved even with one or two weeks of light to moderate rain."

Forecasters say the best time to get relief from the drought is during the winter months. "Drought relief is very difficult to do in the summertime because it is snow dependent on snowpack and snowpack doesn't last in the summer," said Deutschendorf. "Very snowy winters in the Sierra are what are really needed to relieve the drought situation."

In the meantime - residents should try to save water where they can. "Any kind of conservation of water is always good to think about -- If you are able to, shut off your sprinkler systems," said Deutschendorf.

The Truckee Meadows Water Authority is also encouraging Northern Nevadans to cut back water use by 10% through this summer.

For a precipitation accumulation graph, [CLICK HERE](#).

Reno firefighters saving nearly 1M gallons of water during training

- [Video](#)

•

[Fire fighters and drought](#)

Reported by: Van Tieu
Email: vtieu@mynews4.com



[Print Story](#)

Published: 5/22 6:03 pm

Share

Updated: 5/22 6:31 pm

RENO, Nev. (KRNV & MyNews4.com) - This week, the Reno Fire Department is doing a promotion test for 24 firefighters. Due to budget cuts, it hasn't done so in seven years. It's a competitive and demanding test, both physically and mentally. It calls for math skills.

It's a hands-on test that calls for a lot of water, which is a big concern in the region's 4th year of drought.

"It could take up about a million gallons to put everyone through the paces and the testing process," says Division Chief, Tim Spencer.

The regional public safety training complex, where the testing takes place, doesn't have a water reclamation system. Normally, during promotion tests and training, the water is sprayed into the hills.

An operator told Spencer last week he was concerned about what a waste it would be.

"I told him, 'You're absolutely right. We should try to figure out a way to not just dump water down in the storm drain system and into the Truckee River,'" Spencer says.

So the solution came by means of interagency collaboration.

"Our good friends at the Air National Guard Fire Department provided us with water tender so we could recirculate the water," Spencer says.

The water in the hoses are connected to the tender, also known as a tanker, while simulating fire exercises.

With the borrowed water tender, the fire department will be using only thousands of gallons of water for the entire week, instead of a million gallons, while allowing the firefighters the opportunity to become a fire operator.

"The water is still moving," Spencer says. "They still have to do their mathematical calculations, but instead of looking down the drain, it's just being recycled." Page 22 of 86

Vandals break open 8 hydrants in drought

Posted: May 24, 2015 9:40 AM PDT <em class="wnDate">Sunday, May 24, 2015 12:40 PM EDTUpdated: May 24, 2015 9:40 AM PDT <em class="wnDate">Sunday, May 24, 2015 12:40 PM EDT

PHELAN, Calif. (AP) - Some residents in the Southern California desert community of Phelan lost water pressure after vandals broke open eight fire hydrants, spilling 6 million gallons of water.

The Victorville Daily Press (<http://bit.ly/1KsSZk3>) reported that the vandalism late last week was a blow to the community's water resources as drought grips California.

Phelan is about 90 miles northeast of Los Angeles.

The Phelan Pinon Hills Community Services District is offering a \$500 reward for information leading to an arrest.

The agency plans to press charges and pursue restitution.

The vandalism meant the community had to purchase 100,000 gallons of water from another water district.

A road in the area was also washed out by flooding and must be repaired.

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ASK THE RGJ: DROUGHT EDITION

What indoor fix can save the most water?

This week's question: What is the best indoor fix you can make to save water?

Short answer

Stop leaky or running toilets first, then upgrade to low-flow faucets, shower heads and toilets.

Full answer

When talking about ways to save water, the discussion often turns to decreasing water used for landscaping and restaurant table service.

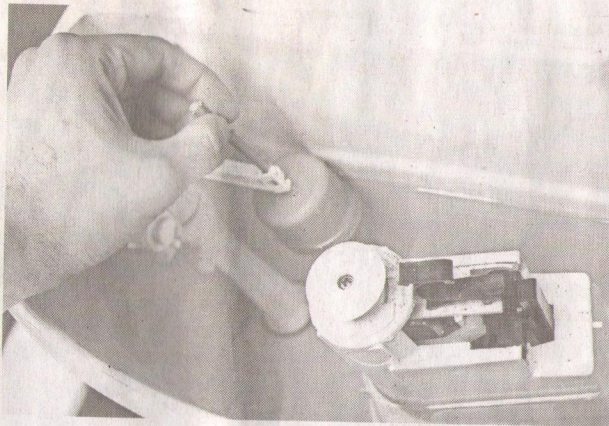
I wanted to know what I could do inside my own home.

To start, I asked Andy Gebhardt what is the No. 1 most cost-effective change the average Reno-Sparks family can make inside their home to save the most water.

Gebhardt is the manager of customer services at Truckee Meadows Water Authority. He's also in charge of conservation and water audits. He responded via email:

"The absolute No. 1 cause of high water usage, outside of irrigation, is toilet leaks. Hands down, nothing else comes close.

"All homes built after the mid-90s are already outfitted with low-flow fixtures. While technology advancements have enabled newer fixtures to be even more efficient and use less water, the incremental



Leaky toilets are the No. 1 cause of wasted water inside the home, says Andy Gebhardt of TMWA.

GETTY IMAGES/ISTOCKPHOTO

change is not all that significant. Toilet leaks, however, are timeless!

"Whether it's simply having to jiggle the handle every now and then, hearing the tell-tale sound of the tank filling occasionally all on its own, or having the water run constantly so that it is steady background noise, these leaks can easily waste tens of thousands of gallons of water every month.

"The good news is the problem is more than likely a



SEND US YOUR QUESTIONS

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

faulty toilet tank flap, and the fix usually costs only a few dollars and takes only a few minutes of your time!"

For a second opinion, I contacted Anthony Clark, advanced building trades instructor at Academy for Career Education High School.

"In my opinion, changing to low-flow plumbing fixtures would be the most cost-effective way to save water inside of the home," he wrote via email.

"Low-flow plumbing fixtures include faucets, shower heads and toilets. Manufacturers are pushing technology to squeeze water use efficiency and maximize convenience in their products."

I asked Clark two additional questions: what the fixes would cost generally and what the skill level would be to do them.

He said shower heads are a beginner-level fix and cost \$15 to \$50; faucets are intermediate and cost \$50 to \$250; while installing a low-flow toilet requires intermediate to advanced skills (not "expert") and cost \$100 to \$300.

California looks to Australia for tips on surviving drought

- [More>>](#)

By KRISTEN GELINEAU and ELLEN KNICKMEYER
Associated Press

SYDNEY (AP) - California has turned to the world's driest inhabited continent for solutions to its longest and sharpest drought on record.

Australia, the land poet Dorothea Mackellar dubbed "a sunburnt country," suffered a torturous drought from the late 1990s through 2012. Now Californians are facing their own "Big Dry," and looking Down Under to see how they coped.

Australia also faced tough water restrictions - along with dying cattle, barren fields and monstrous wildfires that killed 173 people. But when the rains finally returned, Australians had fundamentally changed how they handle this precious resource. They treat water as a commodity to be conserved and traded, and carefully measure what's available and how it's being used. Efficiency programs cut their average daily use to 55 gallons, compared with 105 gallons per day for each Californian.

The lesson: long droughts are here to stay, so societies had better plan ahead, says drought-policy expert Linda Botterill of the University of Canberra.

"We can expect longer, deeper and more severe droughts in Australia, and I believe the same applies in the U.S.," Botterill says. "As a result, we need to develop strategies that are not knee-jerk responses, but that are planned risk-management strategies."

California water officials now routinely cite Australia's experience. Felicia Marcus, who runs California's Water Resources Control Board, can describe the stormwater-capture system watering soccer fields in Perth in minute detail.

But Californians may find Australia's medicine tough to swallow.

Australians are accustomed to living in a dry land, expect government intervention in a crisis and largely support making sacrifices for the common good. For much of their history, many Californians have enjoyed abundant water, or were able to divert enough of it to turn deserts green, and lawyers make sure property rights remain paramount.

From an Australian perspective, California's drought response has been "absolutely pathetic," says Daniel Connell, an environmental policy expert at The Australian National University.

Australia's drought response was hardly perfect, and some of its gains might be slipping away, but Americans suffering their own "Big Dry" may benefit from some comparisons:

—

WHOSE WATER IS IT?

AUSTRALIA: Overuse and drought had depleted Australia's main river system, which winds across four states that produce a third of the nation's food, and ran so low by 2002 that the Murray River had to be dredged to reach the sea. The government capped entitlements, canceled inactive licenses, bought back hundreds of billions of gallons from irrigators and strictly metered usage to make sure license holders use only their allocation. Availability now affects price as shares are traded on an open market worth \$1.2 billion a year in U.S. dollars.

The water that farms, industries and towns get depends on what's in the river; in drought, it can dwindle to virtually nothing. But entitlements can be bought and sold, keeping agriculture afloat. A farmer of a thirsty crop like cotton might not profit when both the share of water and the price of cotton are low. But if an orchard grower in desperate need buys that water, the cotton farmer can live off the sale while the orchard owner reaps a profitable harvest.

CALIFORNIA: Nearly 4,000 so-called senior water rights holders who staked claims before 1914 or own acreage abutting a river or stream get priority. In drought, authorities must completely deny water to most other claimants before they touch the water of these senior water-rights holders. San Francisco has stronger water rights than many other cities because in 1902, Mayor James Phelan hiked up the Sierra Nevada and tacked a water claim to an oak tree along the bank of the Tuolumne River. Gov. Jerry Brown calls the system "somewhat archaic."

"Revising the water-rights system is a thermo-nuclear issue in California," said John Laird, California's secretary for natural resources, but if water shortages go on, "almost everything has to be on the table."

WATCHING THE FLOW

AUSTRALIA: Thousands of gauges across Australia measure rainfall, authorities in each state and territory measure surface water at stream gauging stations, and underground water is monitored through a complex process involving the drilling of bores and controlled pumping tests. Water data collection agencies report to the federal Bureau of Meteorology, which publishes the data online.

CALIFORNIA: The legislature last year required monitoring to be phased in gradually, eventually showing for the first time how much groundwater is being pumped. But roughly a quarter-million California households and businesses still lack water meters, and aren't required to until 2025. The state relies on an honor system: Rights holders self-report their use of river and stream water every three years. Gov. Brown's budget proposed last week would require monitors and annual usage reports.

TIGHTENING THE TAP

AUSTRALIA: All major cities imposed limits or bans on watering lawns and washing cars, and inspectors fined rule-breakers. Public-service campaigns and water-saving appliances also reduced household water use from 85 gallons per person per day in 2000 to 55 gallons per person today.

CALIFORNIA: After voluntary cutbacks fell short, Brown's administration mandated a statewide 25 percent cut in water use by cities and towns, and ordered more farmers to stop pumping from rivers and streams. Marcus said the one piece of advice that seemed universal in both Australia and California "was conserve, conserve, conserve, as early as you can, because it's the cheapest, most economical way to buy time" while tougher water-saving measures are phased in.

DO MORE WITH LESS

AUSTRALIA: Australians began conserving long before their drought. In 1995, Sydney's water authority was ordered to slash per-capita demand by 35 percent by 2011, and it met that target by reducing pressure and leaks in pipes, boosting businesses' water efficiency, and offering low-cost, water-saving technologies in homes, such as dual-flush toilets, low-flow showerheads and rainwater tanks for gardens, toilets and laundry. With government rebates, these devices became common across Australia.

Such efficiency measures can be implemented quickly, economically and easily, says Stuart White, an Australian sustainability expert who has advised Californians on drought response. "In some cities, it's quite possible we would have reached death's door if it hadn't been in place."

CALIFORNIA: Communities across California offer rebates on drought-friendly plumbing and appliances, and a growing number of local ordinances are being rewritten to allow families to recycle water from rains and from showers. But the rooftop-rain collectors, stormwater cisterns and bathwater-recycling for gardens common in Australia remain rarities.

MIRACLES OF TECHNOLOGY

AUSTRALIA: Billions were spent on desalination plants in major cities, and many are not operating because cheaper water is now available in Australia, prompting critics to dismiss them as expensive and power-hungry flops that will create greenhouse gases and worsen the continent's climate-change woes. Supporters say the plants will protect the country from the next inevitable drought.

CALIFORNIA: Brown has called for conservation while focusing on an ambitious, \$17 billion plan, opposed by environmental groups, to build 39 miles of tunnel to take Northern California water to Southern California's bigger farmers. Desalination plants also are envisioned: San Diego's would be the biggest in the Western Hemisphere.

Knickmeyer reported from San Francisco.

Save Our Water--Facebook

In California, Technology Makes Droughtshaming Easier Than Ever

MAY 25, 2015 4:30 PM ET

SAM SANDERS

Twitter

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All Things Considered

3:31

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A sign encouraging people to save water is displayed at a news conference in Los Angeles. Water use restrictions in California amidst the state's ongoing drought have led to the phenomenon of "droughtshaming," or publicly calling out water wasters.

Nick Ut/AP

California's drought is turning neighbor against neighbor, as everyone seems to be on the lookout for water wasters.

Take Los Angeles resident Jane Demian, for example. She recently got a letter from the Los Angeles Department of Water and Power's Water Conservation Response Unit, about an unverified report of prohibited water use activity at her home in the Eagle Rock neighborhood of L.A. Demian says she was called out for water runoff onto the sidewalk, driveway and gutter, and the unauthorized "washdown of hardscapes" like the walkway to her house.

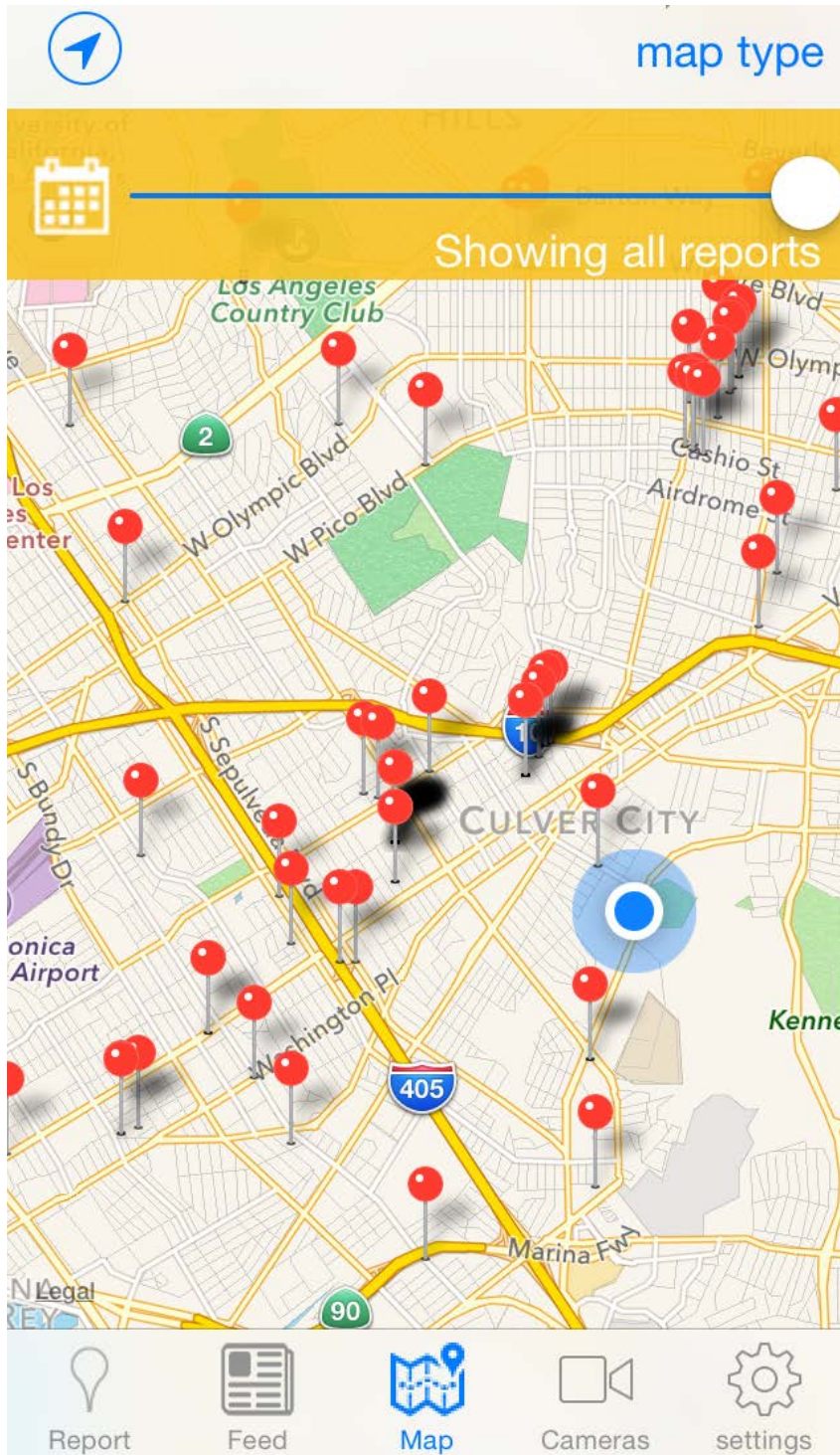
But Demian isn't even sure that water waste was hers. "My neighbor next door runs his sprinkler," Demian told NPR. "And then the sprinkler water cascades down the street, ends up on my sidewalk, and waters my sidewalk actually!"

Besides not knowing whose water she's getting in trouble for, Demian also doesn't know who called her out. She thinks it may be another neighbor down the street, getting revenge after she previously complained about a noise violation from his house. But she's reluctant to confirm. "I'm certainly not going to go over and ask him."

The ordeal has left Demian emotional. "I'm just shocked actually, paranoid, and a little squeamish now about even watering at all," she said. "I can't really trust people anymore. So I wonder now, who was it, who turned me in?!"

This is the current state of affairs in the Golden State. Mandatory water restrictions there, as California endures its fourth year of drought, have turned entire neighborhoods into water-waster whodunit mysteries.

But, as bad as Demian's story may sound, it could have been worse. She was called out privately. In this new age of social media and apps for everything, so called "droughtshaming," can be much more public, and nastier than what Demian got a taste of.



A screen grab from the app VizSafe, where users can report things like fallen branches, potholes, and even water wasters to a geotagged map.

NPR

Just look at Twitter. If you search the social media site for the hashtags #DroughtShame or #DroughtShaming," you'll find hundreds, if not thousands of very public reprimands of water wasters, often with pictures, video, and a lot of addresses. Some tweets are directed right towards Los Angeles Mayor Eric Garcetti. Others have photos that show the water wasters themselves.

Even celebrities like Kim Kardashian and Barbara Streisand have been droughtshamed on Twitter, with aerial shots of their large estates with plush green lawns. A private phone call this is not.

And there's more — droughtshaming apps. [VizSafe](#) might be the most popular, even though it wasn't created specifically for that purpose.

"We launched the app last year," says VizSafe founder and CEO Peter Mottur. "It's really a broad community safety and wellbeing platform for sharing photos and videos that are all geolocated and mapped." Mottur says people can report anything from a fallen tree to a pothole, but increasingly he says, "users are posting information about their neighbors who are wasting water." And that data ends up on a map that is visible to the public.

There's another, newer app devoted only to droughtshaming, and it's called, obviously, [DroughtShameApp](#). Creator Dan Estes, a Santa Monica real estate agent, says he made the app just a few weeks ago out of a feeling of responsibility.

"I think like a lot of Angelenos, I'm a little freaked out by the drought," he told NPR. "It just seems like something has to be done to avoid a long-term catastrophe." Estes' app lets users upload geo-located photos, with captions and addresses to report water wasters.

But, all this new app data from VizSafe and DroughtShameApp, is it useful?

Dean Kubani, sustainability manager for the City of Santa Monica, says no, at least not right now. "What he's [Estes] doing sounds kind of redundant to what we already have in place."

When he spoke with NPR, Kubani said he's never heard of the apps, and that in fact, Santa Monica already has its own droughtshaming app.

"Well we call it the [GO system](#), and it basically allows residents and visitors to communicate with the appropriate people in the city," says Kubani. You can use it to upload reports on all kinds of things: fallen branches, potholes, and even water wasters. Los Angeles has a similar app, too, called [MyLA311](#).

And that means data from these independent apps might not be seen by the right eyes. "It's not getting through to us," says Kubani, "and we're the folks doing enforcement and education about this."

Even if data from those apps got to Kubani's office, he's not sure he'd use it. "It might be very outdated," he said. "I don't know where it came from, or how it was obtained. I wouldn't be able to verify it."

So, If you use an unofficial app to droughtshame, it might not get to the right person. And if you call someone out on Twitter, but don't direct message or tag the LA Department of Water and Power, they might not see that either [Santa Monica says it doesn't monitor Twitter for water wasters at all], proving once again that not all data is good data.

But local government representatives from Los Angeles and Santa Monica said they're open to talking with Dan Estes about his Drought Shame App, so one day, all of that data might be synced up, and more droughtshaming could be used for actual punishment and not just shaming.

Whatever happens with all that data, Demian, the Eagle Rock resident who got the warning letter a few weeks ago, has changed her behavior. "I've been taking my watering can, believe it or not, and watering with my watering can," she says. "See everybody! I don't have my hose."

At least one California resident has changed her behavior. Sometimes, just the shame can be enough.

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Ask the RGJ: Can Nevadans collect rain in barrels? No



[Mark Robison](#), RGJ 9:16 a.m. PDT May 27, 2015



This is what collecting water in a rain barrel looks like, but you're not supposed to do it in Nevada.(Photo: Getty Images/iStockphoto)

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Can you use a rain barrel to collect water in Reno-Sparks?

Short answer

No.

Full answer

During spates of rain as we've had recently, the topic of rain barrels comes up.

These are what they sound like: a barrel that you collect rain or other precipitation so that you can use or redirect the water later.

How they work generally is that the downspout coming from the roof gutter is cut or has a diversion spout so rain empties into a barrel. Barrels then have a faucet inserted into the base. A hose can be attached to redirect the water when and where needed.

This is not legal in Nevada.

JoAnn Kittrell, public information manager for the Nevada Department of Conservation & Natural Resources, responded to my question about the legality of rain barrels by email:

"This is a question that comes up periodically. NRS 533.030 provides that 'subject to existing rights, and except as otherwise provided in this section, all water may be appropriated for beneficial use as provided in this chapter and not otherwise.' It is interpreted to mean that you can't collect and use water, even if it is just a rain barrel, without the benefit of a water right."

This is a misdemeanor.

Following up, I asked if this applied to just people who are customers of a utility such as Truckee Meadows Water Authority or if someone in an unincorporated area of the county on their own individual well could use a rain barrel legally.

"Any collection/containment of rainwater by anyone, anywhere in the state is a violation of Nevada water law," Kittrell said.

As to examples where someone in Nevada has been fined for an illegal rain barrel, she said, "The Division of Water Resources has not (policed), and does not plan to police, rain barrels."

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.

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Golden showers

By [Bruce Van Dyke](#)
brucev@newsreview.com

This article was published on [05.28.15](#).

Well, that last week of thunderstorms/rain was quite the timely little weather event. It rained on me out here in Spanish Springs for *nine freakin' days* in a row. I think the last time that happened, Nevada was still a territory.

But drippy rain event notwithstanding, we'll be back to high, dry and baked again in no time, and that means the talk of water conservation will rev up to fifth gear in a hurry. And there's one area of potential savings that I'm pretty sure is going to get completely overlooked, due to an unwillingness to tackle a slightly delicate issue. I don't think the City Council is going to address it, nor the County Commission, nor the Truckee Meadows Water Authority. OK, fine. Leave it to the zany columnist in the back of the paper. But doggone it, it's time for a whole bunch of folks around these parts to *stop peeing in the toilet*.



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Hell, yes, I'm serious. Doesn't it seem absolutely cuckoo for people to waste precious water at this crucial time flushing urine into the river when you could just as easily be outside peeing on the petunias? And puh-leez, don't even mention that “if it's yellow, let it mellow” approach. Letting three or four pisses “mellow” in the toilet? Gettin' all filmy and rank and icky? Ugh.

I'd much rather just take it outside. Wouldn't you? Obviously, this strategy is inappropriate for many. Apartment and condo dwellers, for example. You get a pass on this, and if you want to do your part, you're stuck with the mellow yellow scene. Knock yourself out. But there are a lot of homes in the Truckee Meadows that have nice fences providing plenty of privacy. So why not?

Once again, it's time for cocktail napkin math. We've got approximately 400,000 humans living in the Meadows these days. If a measly 1 in 8 citizens, or 12.5 percent, would commit to a Yard Urinal Program (YUP), we could save some serious water this summer. Here's how.

There are all kinds of toilets currently in use. Some use 5 gallons a flush, some use 1. For ease of math, let's use a conservative average of 2 gallons a flush. If 1 in 8 citizens was leaking on the lawn instead of in the bathroom, that would be 50,000 folks. It's estimated an average adult pees 5 times a day. So 5 daily lawn leaks would save 10 gallons a day. 50,000 times 10 equals 500,000 gallons a day, 3.5 million gallons a week, and 14 million gallons a month. In the prime outdoor pissing season of June through September, that's about 56 million gallons of water. Or 172 acre feet! Man, that ain't chump change, Johnson. That's some serious water.

Girls, you don't have to miss out on this piss party. Not at all. Two words—pee funnel. Available in abundance. So OK, let us Tinkle for Tahoe, and Pee for Pyramid! May your stream always be strong and true.

Rebates drive grass removal frenzy during California drought

- [More>>](#)

By AMY TAXIN
Associated Press

LOS ANGELES (AP) - There's a torrent of Californians taking advantage of rebates for ripping out water-guzzling lawns during the drought, and that's providing a big boost to landscapers.

In Southern California in particular, things are poised to get even better for an industry that was battered by the recession and slow to recover. This week, the board of the Metropolitan Water District of Southern California voted to replenish its turf removal and other water conservation programs with \$350 million to meet booming demand.

In communities across the state, homeowners are swapping out traditional lawns for drought-tolerant plants and shrubs, changing the look of many yards and the business outlook for landscaping and nurseries.

"Where rebates exist, interest is high," said Sandra Giarde, executive director of the 2,000-member California Landscape Contractors Association.

The Metropolitan Water District says it has seen monthly rebate applications increase 20-fold since April, when Gov. Jerry Brown imposed mandatory water cuts. The agency currently has requests involving the conversion of about 60,000 front yards.

In Northern California, the Santa Clara County Water District issued rebates for the conversion of 1.2 million square feet of lawn in the first four months of the year, more than all of 2014.

"It's just gangbusters," said Marty Grimes, a district spokesman. "We have people waiting in line."

The rebates have helped long-time landscapers and also drawn newcomers to the industry. Last summer, a group of friends started Turf Terminators to process rebate paperwork and convert lawns for Southern California homeowners who sign over the cash, said Julian Fox, chief operating officer of the company.

"The rebate is what gets us in the door and gets us on a lot of people's radar," Fox said, adding the company has converted 4,000 lawns.

Under rebate programs, homeowners get money after they replace their lawns with drought-tolerant landscaping, or in some cases, artificial turf. Some go way over budget, adding odds and ends. Still, others make more thrifty use of the cash.

Raymond Aleman, a 71-year-old retiree from Los Angeles, tore out his thirsty lawn and planted a garden of pampas-style grasses, lavender and sage. He received nearly \$5,000 in rebate cash and used half for his project and the rest to take a weeklong cruise to Mexico.

"I said, this is ridiculous not to do it, because it is not going to be any money out of my pocket," said Aleman, who designed the new yard himself to cut down on costs and now only needs to water once a week. "When I look out, I marvel at the idea I did it and it looks so nice."

But turf removal hasn't been a boon to everyone. Some small-time gardeners, who rely largely on mowing, have seen business dip as residents water less or convert landscapes, said Alvaro Huerta, a professor at California State Polytechnic University, Pomona who conducts research on Latino gardeners.

Some nurseries saw sales drop 15 percent or more in April, usually the peak month of the year. While sales of succulents, mulch and pottery are up, roses, bedding and tropical plants took a hit, industry leaders said.

"We were rocking and rolling like we normally do in spring, and business kind of significantly slowed down," said Ashley Rossi, owner of Folsom-based Green Acres Nursery and Supply and vice chair of the California Association of Nurseries and Garden Centers.

Homeowners seem to be evaluating what to do with their yards since the water restrictions, she said.

Not every place in the state offers rebates - nor does the cash always seem to matter. In the northern city of Redding, where officials are trying to get state funding to offer rebates, some homeowners have already ripped out lawns, said John Wendele, the city's water utility manager.

In the East Bay Municipal Utility District, interest in turf removal has surged even though a 50 cent-per-square-foot rebate has been available for years, said Nelsy Rodriguez, an agency spokeswoman.

"It is mostly the water conservation that is the motivation - but the money certainly helps," she said.

Rick Jenkins, a 57-year-old retired firefighter, said he had already started digging up his yard in Gilroy when he learned about the rebate. He said he would have done the job anyway, but the cash helped him make it look much nicer.

But in some places, rebates matter. Applications to the Municipal Water District of Orange County increased after the rebate rate jumped last year, and tend to spike when Brown makes an announcement about the drought, said Joe Berg, the district's water use efficiency program manager.

Now, with the rebate reaching at least \$2 per square foot, Berg said, "it's getting people off the couch and getting them to go out there and do their project."

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Local

Wet May Pushes Lake Tahoe Water Level Back To Natural Rim But Drop Expected Soon

May 31, 2015 8:55 PM

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Lake Tahoe (credit, Randy Yagi)

LAKE TAHOE (CBS/AP) — A wet May has pushed Lake Tahoe **back up** to its natural rim, but the lake will soon start dropping again because of the four-year drought.

It's the first time the lake straddling the Nevada-California border has been so high since dropping below the **rim** last October, said Federal Water Master Chad Blanchard.

The lake could hover near its rim for a week or two, he said, but it will likely be a couple of feet below by early fall.

The natural rim is at 6,223 feet elevation, and only a small flow of water currently is **running** from the lake into the Truckee River at Tahoe City, California.

The flow is so slight that “it does nothing for the river,” Blanchard said.

The Truckee flows over 100 miles from Tahoe to Pyramid Lake, about 30 miles north of Reno. It’s the major water source for the Reno area.

The drought sent the lake below the rim and cut off flow into the Truckee last October. At the lowest point in February, Tahoe was nearly 8 inches below its rim.

In May, rainstorms and runoff from a skimpy Sierra Nevada snowpack pushed the lake up to the rim. The bulk of precipitation fell from May 14-25, dropping 1.08 inches of rain in Tahoe City and 1.42 inches in South Lake Tahoe, California. In Reno, just over an inch of rain fell in May, twice the normal amount.

“As far as the amount of rain we got, it definitely helps,” said Jessica Kielhorn of the National Weather [Service](#) in Reno

Are Pools the Answer to Our Drought?

Posted: Jun 02, 2015 1:41 PM PDT <em class="wnDate">Tuesday, June 2, 2015 4:41 PM EDT Updated: Jun 02, 2015 3:43 PM PDT <em class="wnDate">Tuesday, June 2, 2015 6:43 PM EDT

By Erin Breen

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The bobcat is moving dirt, load after load. Just yesterday the cranes dropped in the preformed fiberglass pool and Lexi Cerretti is convinced that not only will it be a crowd pleaser for her nine-year-old daughter and her friends, it will add to the value of their home and save water. That's right the 40-foot-long pool will take 18,000 gallons of water but over time...they will save on watering that much grass.

"We took out grass and landscaping and all the irrigation lines," she says. "I've done a lot of research and once we fill it up, that's it. We have a pool cover for it and that will cut down the evaporation. We will only have a little water as drip to the trees. We're sure we'll save on what we would have used to keep grass green."

Cerretti is also a real estate agent.

"There are a lot of Californians moving here and they expect to have pools. So it will add to the value of our house in the long run. We're putting pavers around it so there won't be any grass there either. So it really means a lot less yard work and a lot more fun."

And Randy Reid with Certified Pool and Spa in Reno says there's no doubt over time pools with covers save on water.

"We are booked out into August putting in pools," he says. "And while everyone is concerned about using water right now, I think it's also the economy. As people have more money to spend they are investing in pools. And a lot of them are doing it to take out grass which takes a lot more water over time."

There seems to be debate over pools. In California, San Francisco is cutting back while in Sacramento homeowners are adding them and losing grass. It's an expensive changeover but in the long run if they are covered, pools have become so efficient that that 17,000 or 18,000 gallons of water it takes to fill them are can be a deal over time.

Washoe Golf Course Reducing Irrigation Water by 42%

Posted: Jun 02, 2015 11:09 AM PDT <em class="wnDate">Tuesday, June 2, 2015 2:09 PM EDT Updated: Jun 02, 2015 2:10 PM PDT <em class="wnDate">Tuesday, June 2, 2015 5:10 PM EDT



From Washoe County:

Washoe County will be reducing irrigation water at the Washoe Golf Course by 42% when the Steamboat Ditch is shut off. It is anticipated that the Federal Water Master will shut off the ditch, which is the Washoe Golf Course's primary source of water soon, due to low water flow in the Truckee River.

Irrigating the course without the ditch water is challenging due to many factors, including the limited water from the off-site well and the cost of purchasing additional water. Due to the drought, County staff believes reducing irrigation water to the course is not only financially prudent but the best way to conserve much needed water in our area.

"The Washoe Golf Course is an important part of our local history and the County has an obligation to preserve this resource into the future for the benefit of the community," said Marsha Berkbigler, Chair, Washoe County Commission. "Certain areas will not receive water, but County staff will maintain them to ensure that weeds and dust are at a manageable level."

County staff will target certain areas to ensure the course is still playable for the public to use and enjoy. Putting greens, tee boxes, and fairways will be irrigated.

Washoe County is asking how do you and your family plan to conserve water this summer? The public can head to [Open Washoe, an online community forum](#), created for public input and leave a comment.

For more information about how Washoe County is conserving water, [see the attached list of frequently asked questions](#).

Washoe Golf Course is owned and maintained by Washoe County, through its Community Services Department. The Department strives to provide exceptional parks and open space, and recreational opportunities while preserving our natural, historical and cultural resources. For more information, visit www.washoecountyparks.com or www.washoegolf.org.

From Washoe County

TMWA's credit rating review brings savings

[Jessica Garcia, RGJ](#) 9:13 p.m. PDT June 3, 2015



TMWA and Moana Nursery are holding upcoming classes on irrigation. RGJ FILE(Photo: Handout/Press Release)

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Truckee Meadows Water Authority's financial management has allowed the water utility to refinance \$33 million in debt, saving its customers more than \$300,000 a year for the next 21 years. Total savings to TMWA over the life of the bonds, 21 years, will be \$6.5 million.

In advance of the bond sale, all three credit-rating agencies — Fitch Ratings, Standard & Poors and Moody's — rated TMWA with a stable or positive financial outlook. Fitch provided a credit rating of AA- with a stable outlook for the TMWA bond issue, which was completed on May 9, and said "TMWA's financial performance has been healthy," in a review of TMWA's operation. Moody's rating for TMWA was Aa2 with a stable outlook. S&P rated TMWA at AA- with a positive outlook, which was raised from stable in the 2014 review.

TMWA's \$28.75 million in newly issued bonds carry interest rates of 2 to 5 percent. The refinanced bonds were issued in 2005 and carried interest rates of 4.25 to 5 percent.

Jeff Tissier, CFO of TMWA, said the total savings to customers related to the refinancing will total \$6.5 million over the life of the outstanding bonds which means a reduction in principal of \$4.3 million and \$2.2 million less in interest expense.

All three agencies noted that the strong financial performance is noteworthy because of the severe drought conditions in the region

Washoe County wants to know: How do you and your family plan to conserve water this summer?

- Introduction
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- Introduction
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Introduction

Some Washoe County parks are irrigated by ditches, which are diversions of the Truckee River. The Federal Water Master determines when the ditch system will be turned off based on flows in the Truckee.

The Highland Ditch was turned off Tuesday, June 2. It was the only source of irrigation for the off-leash and multi-use pasture at Rancho San Rafael Regional Park. As a result, the pasture area will be closed to the public beginning Monday, June 8. In addition, Washoe County will be reducing irrigation water at the Washoe Golf Course by 42 percent once the Steamboat Ditch, its primary source of water, is shut off.

As we enter what is expected to be an extremely dry summer, Washoe County is conserving water the following ways:

- Reducing irrigation use by ten percent on landscaping around County buildings.
- Parks not irrigated by treated or ditch water have reduced irrigation use by 10 percent.
- Washoe County reduced approximately 119,000 square foot of turf at Cold Springs and Lemmon Valley Parks.

Judge Bows Out of Western Water Fight

By MIKE HEUER

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RENO, Nev. (CN) - Federal courts do not have the power to change water allocations in the Walker River Basin, a 4,000-square mile-area shared by Nevada and California, a federal judge ruled.

U.S. District Judge Robert Jones on May 28 denied two requests to change water allocations in the Walker River Basin's tributaries and groundwater system.

The 62-mile-long Walker River drains more than 4,000 square miles of the Great Basin, from southeast of Reno into California's Sierra Nevadas. Only 25 percent of the Walker basin is in California, but that part of it receives most of the rain and snow that feed the watershed.

The Walker River Paiute Reservation wants more water to irrigate more land, and the federal government wants to reserve more water for other tribes in the area. Uncle Sam also wants more water for two military bases, the Toiyabe National Forest and the Bureau of Land Management.

Legal fights over the water have been going on for more than a century.

A 1936 judicial decree, amended in 1940, established water rights for the Walker River Paiute Reservation and formalized surface water rights elsewhere but did not address groundwater rights, [Jones wrote](#).

The decree also created the Walker River Commission and the U.S. Board of Water Commissioners to administer the decree.

The Walker River Irrigation District challenged the allocation requests in 1997, saying the court has jurisdiction only over "correcting or modifying" the decree and does not have the power to grant additional water rights.

Jones sifted issues of state and federal jurisdiction, and differences between rights to surface water and groundwater.

He ruled that the decree "prevents the United States ... from claiming any additional rights," and that new claims for additional water first must be made

to state authorities, Jones wrote.

He also ruled that the decree "does not extend to declaring rights to groundwater, but only to surface water." The court can rule only on whether groundwater pumping "adversely affects decreed rights."

"That is the only context under which this court has jurisdiction under the decree to say anything about groundwater pumping: it may enjoin groundwater pumping (or any activity) by anyone anywhere that interferes with rights adjudicated under the decree," Jones wrote.

Because there is no current controversy on groundwater pumping, Jones said the court has no jurisdiction to rule on any current or potential groundwater use.

In a [second case](#), Nevada's Mineral County asked the court to "adjust the priority of appropriation in the Walker River Basin to Walker Lake."

The 50-square-mile Walker Lake is wholly in Nevada. No streams flow out of the natural lake.

Mineral County, calling it a matter of public trust, asked the court to establish the county's right to have "minimal levels in Walker Lake," to recognize that "minimum flows are necessary to maintain Walker Lake" and to order the state to grant a certificate to the county to benefit the lake.

Jones denied the requests, saying that only the state and members of the public can sue to "vindicate the public trust in the water rights context."

Since initial measurements taken in 1882, Walker Lake has lost about half of its surface area and 28 percent of its volume. Those measurements were taken in March 1996 and the West's long drought has continued to shrink the lake.

Officials for Mineral County and the Walker Lake Paiute Tribe could not be reached for comment.

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Water Served Upon Request

By: [Colin Lygren - Email](#)

Updated: Wed 10:54 PM, Jun 03, 2015

By: [Colin Lygren - Email](#)



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RENO, NV - If you're heading out to dinner, don't be surprised when a glass of water doesn't appear on your table. When it comes to water, many [restaurants](#) around town are choosing not to serve, and instead conserve.

Just like the the residents of Nevada, restaurants are trying to reduce their water usage by TMWA's requested 10%. Whereas most residents are reducing their water usage outdoors, restaurants typically don't have a lawn or many outdoor plants, so they have to get creative with their [water savings](#).

Diners at Peg's Glorified Ham 'N' Eggs are now asked if they would like water when they place their order.

"We just take a second out of our day and ask them if they want it, and most of them don't want it," said Sydney Foster, a hostess at Peg's.

Up until a week ago, water was placed on every table, whether the [customer](#) ordered it. Much of it ended up being wasted.

"Most people order something else to drink and so that is 8 ounces a person right there that we are [saving](#)," said Foster.

Every tabletop in the restaurant has a card reminding people 'saving a glass at a time is the least we can do.' The cards are a part of a program designed and sponsored by the Truckee Meadows Water Authority.

"It gives the restaurants an opportunity to work on saving at least 10 percent," said Robert Charpentier, communications specialist with TMWA.

It may not seem like it, but this policy actually has the potential to save a significant amount of water. One glass per customer can add up.

"It's not just a matter of the water that you pour into the glasses, but it is also the water that they use to wash the glasses," said Charpentier.

The program has only been active a few weeks. It started when TMWA sent 25 of the tabletop cards to 300 restaurants throughout the region. Since then, it has caught on.

"The Atlantis Casino has a number of restaurants of course, and they gave us a call because they wanted to put these cards in all of their restaurants," said Charpentier.

"It's been very successful; we have gotten a lot of great feedback from guests about it," said Tracie Barnthouse, publicist with the Atlantis.

Water upon request is something the Atlantis has been doing for a few years. The TMWA program is just making it easier.

"I hope other restaurants do, they follow suit and any way that we can reduce our water usage and look at ways that we can, is going to be beneficial for the community," said Barnthouse.

Right now, at least 30 restaurants have adopted the policy, but TMWA expects that number to grow as the program gains notoriety

Lake Tahoe expert talks drought

- [Video](#)

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[Research Stories At Lake Tahoe](#)

Reported by: Madison Corney
Email: mcorney@mynews4.com



[Print Story](#)

Published: 6/04 11:31 pm

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Updated: 6/04 11:56 pm

INCLINE VILLAGE, Nev. (KRNV & MyNews4.com) – In the late 1950’s Dr. Charles Goldman launched the research that helped save Lake Tahoe.

Recent rainfall has pushed Lake Tahoe back up to its natural rim, but after years of drought, water levels are expected to drop about a couple of feet below the lake’s natural rim by late summer.

Dr. Charles Goldman says the drought could play a role in the lake’s clarity, “Any pollution is going to have a much greater affect, now that we have drought conditions,” explains Goldman.

Dr. Goldman, a renowned limnologist began recording the progressive decline of the clearest lake in the world and eventually got the attention of Presidents, Senators and community leaders, “Tahoe has been a textbook example of how getting started early enough can save a lake from destruction. We lost so many mid-western lakes, because people didn’t care,” explains Goldman.

His research has played a major role in nearly all policy decisions about water quality in the Tahoe Basin and as the drought worsens, Dr. Goldman’s findings are as vital as ever, “It’s going to be more important that people don’t waste water and fertilizer, particularly and don’t wash their cars in their driveways and let the high phosphorous detergents run into the lake.”

More than 40 years of extensive research by Dr. Goldman proves that the dense growth of algae in Lake Tahoe is caused by pollution from fertilizers and sediment, which is why to this day, sewage and solid waste are exported out of the Tahoe Basin.

Dr. Goldman began his research in 1958 and decades later his passion for Lake Tahoe is found not only in his research, but his poetry too, "If we keep its blueness, this lake will never die and the children of our children will never need to cry," says Goldman.

Dr. Goldman also stresses the importance of early education about Lake Tahoe. To learn more about Children's Environment Science Day visit: <http://terc.ucdavis.edu/ed-outreach/tahoe-science-center/>

Truckee Meadows Water Watchers Help Educate Residents

Posted: Jun 04, 2015 6:33 PM PDT <em class="wnDate">Thursday, June 4, 2015 9:33 PM EDTUpdated: Jun 04, 2015 6:40 PM PDT
<em class="wnDate">Thursday, June 4, 2015 9:40 PM EDT

By Chloe Beardsley

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Even though we had some rain Thursday afternoon, "Water Watchers" with the Truckee Meadows Water Authority were still out in full force.

It's part of a program where TMWA drivers commute through different neighborhoods to educate residents on how to save water on their property. More water watchers have been hired this year, double than normal because it's another abnormally dry year. Right now there are 12 water consultants working in the Truckee Meadows.

Channel 2 News went along for one of the patrols and discovered the common mistakes people made with misusing water and how to fix it.

TMWA's vehicles have also recently gotten a makeover with new wrapping along the sides of the cars. They have been driving through neighborhoods and checking out hundreds of homes a day to make sure water is being used properly and not wasted.

Driver Drew Merrigan has been doing this job since April. "Today we are driving around in the Damonte area, looking for people watering on the wrong day or water waste that's coming from their property," said Merrigan.

We drove by several homes until we saw a home overspraying water that was leading into the gutter. Drew explained the problem to the resident. "You guys do have some water waste coming from your property and leading into the gutter and sidewalk," said Merrigan. He also offered a solution to the problem. "If you can, adjust your sprinkler heads that way you're not getting any over-spray onto the sidewalk and the street," said Merrigan. "You do have a little slope so maybe turn down the run times for your sprinklers as well just a little bit and that should get rid of it."

If neighbors weren't home during our stops, water consultants would leave a "water-saving package" with information at the door. Feedback on the water watchers from most customers has been very good.

"Once we inform them that we're just here to basically educate them to help prevent water waste, they definitely come around and are very receptive," said Merrigan.

Customer service manager Andy Gebhardt says TMWA is also requesting customers to cut back on 10% of their water use, inside and outside which he says saves a lot. "Think of anything you do 10 times and do it 9 times instead. You know, if you had 10 loads of dishes, do 9 loads of dishes," said Gebhardt. "It's 5,000 acre feet or 1.6 billion gallons of water. If you think about it, that's a lot of water in anybody's book."

The most common water wasting mistakes are wrong day watering and watering at the wrong time.

The water watchers program has been going on since TMWA began operating.

For more information on TMWA water conservation efforts, you can go here: <https://tmwa.com/conservation>

[by Taboola](#)

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Rain gain

Recent showers are a mixed bag

By [Georgia Fisher](#)

This article was published on [06.04.15](#).

A spate of recent rains made Reno feel like Little Seattle, with a bolstered Truckee River and glossy green lawns. During the last days of May, a data gathering station at Mount Rose showed almost double the area's average precipitation for the month.

Could the drought be over, or at least on the mend?

Well, let's start with the good news. May precipitation "was very helpful to irrigators," wrote Jeff Anderson, a hydrologist with the Natural Resources Conservation Service snow survey program, "because it supplemented a very meager runoff and reservoir water supplies. This will hopefully help farmers get at least one cutting of alfalfa before surface water supplies run out."

Bill Hauck, senior hydrologist for the Truckee Meadows Water Authority, said that although gains are "not significant," reservoirs feeding the Truckee River are higher. Lake Tahoe and Donner Lake each rose by about an inch, and Independence Lake by several.

TMWA customers' water demands are down, he added, "which has a benefit [of] resting our aquifer and leaving more water in the river for downstream fish and wildlife."

On the other hand, we've still got a wicked water deficit. And while showers have probably delayed the start of fire season, they could indirectly make it riskier.

"It's a double-edged sword," said Chris Smallcomb with the National Weather Service. The moisture "will green things up, and that will delay the onset of our wildfire season maybe by a few weeks or a couple of weeks. But on the flip side, when all the grasses that have grown because of the rain finally dry out in a few weeks, that could perhaps make the fire season more severe if we have fires, because there's more vegetation to burn."

Because we can't win for losing, consider cheat grass, a well-known invasive species that's prolific at the moment.

"Cheat grass is always a threat every year when it comes to wildland fire," said Lisa Ross, spokeswoman for the Bureau of Land Management. "The grass is longer now than it was at the same time the last couple of years, but the last couple of years have been extremely dry, so it was probably more normal growth this year ... especially at the higher elevations, where it's still growing, and it hasn't cured."

One way the NWS measures our area's water (or lack hereof) is in years. Consider the last four years, for example, and we're still lacking more than a healthy year's worth of precipitation.

"What we need to alleviate the long-term drought are a couple of average to above-average winters, in terms of snowfall and rainfall," Smallcomb explained.



National Weather Service meteorologist Chris Smallcomb points toward a structure that launches weather balloons.

PHOTO/GEORGIA FISHER

Advertisement

More Casualties to the Drought

Posted: Jun 05, 2015 4:30 PM PDT <em class="wnDate">Friday, June 5, 2015 7:30 PM EDT Updated: Jun 05, 2015 5:39 PM PDT
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The on-going drought is causing ongoing problems in Northern Nevada. As of Wednesday the ditch system around the Truckee meadows was ordered closed by the Federal Water Master. There just isn't any water to flow through it.

The Mountainview Cemetery in Reno is the first outlet in the system after the Chalk Bluff Treatment Plant.

"This means we'll be watering everything once a month and trying to get to the new turf and keep it alive," said Mountainview Groundskeeper John Polon today.

He says some people understand and others can't get their heads around the fact that there is just no water to be had.

"Ninety percent of the water we need to maintain the cemetery is gone. We'll just be cutting back on the amounts everything gets and hope to keep everything alive. Most of this will turn green by the end of the summer if we don't get any rain. But what else can we do?"

And Rancho San Rafael Park is the other end of the Highland Ditch. The dog park there will be closing on Monday.

"We usually flood irrigate here but there is no water," says Jennifer Budge, Parks Operations Superintendent. "Look at our water source, there's none there. But this is a temporary closure. We'll be seeding it in the spring and hoping to bring it back and open it again next year."

Written by Erin Breen

Vandalized Dam Loses 50 Million Gallons of Water

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FREMONT, Calif. (AP) -- Officials say an inflatable dam in Alameda County has been vandalized and nearly 50 million gallons of water have been lost.

Alameda County Water District general manager Robert Shaver said Friday the water lost was enough to serve 500 families for an entire year.

Shaver tells the Contra Costa Times it will cost \$3 million to replace the dam in Alameda Creek.

Fremont police says vandals accessed a restricted area early Thursday and intentionally damaged the barrier holding back the water, which was supposed to go into the Niles Cone Groundwater Basin.

That water supply serves residents and businesses in Newark, Union City and Fremont. Instead, the water flowed into the San Francisco Bay.

While the water loss was substantial, district officials say it will not have a long-term impact on its water supply operations

Information from AP & The Contra Costa Times

Pat Mulroy Preached Conservation While Backing Growth in Las Vegas

For nearly three decades, Mulroy's agencies never rejected a development proposal based on its use of water. (Christaan Felber, special to ProPublica)

One afternoon last summer, Pat Mulroy stood in 106-degree heat at the broad concrete banister atop the Hoover Dam, the wall that holds back the mighty Colorado River, and with it the nation's largest reserve of water.

The reservoir is the brain stem of the system that helps sustain just about every person from here to San Diego. But as Mulroy looked out over the drought-beleaguered pool, then at 39 percent capacity, it appeared almost empty.

"Scary," Mulroy said.

Few people have played a greater role in determining how the reservoir's coveted and contested water supply has been used than Mulroy. Much of it has gone to nourish the Southwest's booming cities, and for 26 years, Mulroy was the chief arbiter of water for the fastest-growing city of them all, Las Vegas. As the head of the Las Vegas Valley Water District, she handled the day-to-day approval of water for new housing developments, emerald golf courses and towering casinos. As the general manager of the Southern Nevada Water Authority — a second job she held starting in 1993 — she also budgeted water for Las Vegas' future, helping to decide its limits. As the Water Authority's general director, Mulroy stretched her enormous influence over state bounds, shaping how Nevada negotiated with the six other states sharing Colorado River water.

Deploying a prickly wit and a rare willingness to speak truth about the water challenges hammering the Western states, Mulroy met head-on a reality few other leaders wished to face: that the Colorado River's ability to support the West's thirst to grow its economy and embrace the large population that came with it was not unbounded. She has been lionized for espousing conservation and pioneering a list of progressive urban water programs in Las Vegas while fiercely negotiating tough agreements between the states to use their water more efficiently and come to terms with having less.

But an examination of Mulroy's reign shows that, despite her conservation bona fides, she always had one paramount mission: to find more water for Las Vegas and use it to help the city keep expanding.

Mulroy wheeled and dealed, filing for rights to aquifers in northern Nevada for Las Vegas, and getting California to use less water while her city took more. She helped shape legislation that, over her time at the Water Authority, allowed Las Vegas' metropolitan footprint to more than double. She supported building expensive mechanisms with which to extract more water for the city's exploding needs – two tunnels out of Lake Mead and a proposed pipeline carrying groundwater from farms in the east of the state. Not once in her tenure did the Authority or the Las Vegas Valley Water District she ran beneath it reject a development proposal based on its use of water. The valley's total withdrawals from the Colorado River jumped by more than 60 percent on her watch.

Yet even last summer — staring at the effects of growth and drought on the reservoir, where once-drowned islands were visible for the first time in as much as 75 years — Mulroy apologized for none of it. She bridled at the idea that Las Vegas or other desert cities had reached the outer edge of what their environments could support.

“That's the silliest thing I have ever heard,” she said, her voice rising in anger. “I've had it right up to here with all this ‘Stop your growth.’”

ProPublica is exploring how the West's water crisis reflects man-made policies and management strategies as much, or possibly more, than it does drought and climate change.

Whether and how cities grow is one of the most decisive factors in determining the future of Western water supplies, and, to some extent, the nation's economy. For much of the last century the West has been guided by a sort of “bring 'em on” philosophy of the more people the better. Teddy Roosevelt first envisioned using the Colorado River's resources to move west a population the size of that day's Eastern Seaboard. They came in droves, supported by infrastructure the federal government built — including the Hoover Dam — and the water those facilities helped supply.

To an arid region blessed with little rain, the newcomers brought their Eastern tastes: Kentucky bluegrass planted across sprawling yards; fountains flowing with abundance; fruits and vegetables growing in an Eden-like oasis. Hundreds of thousands of settlers

turned into tens of millions of people still dividing the same finite supply of water, one that was stretched thin from the very start. By the time it became apparent that growth might need to be controlled to be both productive and efficient, Western sprawl, like a sort of Frankenstein monster, had taken on a momentum of its own.

Los Angeles went through this spurt first, roaring through the 1920s with Hollywood's ascendance and having its own legendary water wars. Then came Phoenix and Denver. Las Vegas, in many ways, was last. But in its story the tensions are the strongest, the lessons the loudest and the crisis the most imminent.

It is all the more powerful because the person charged with managing Las Vegas' water strategy was Mulroy, whose knowledge and moxie suggested she better than almost anyone could tackle the quandary Western cities had gotten themselves into.

Mulroy, of course, was not the emperor of Las Vegas. She did not have autonomy over every decision the city made about growth. But she did have enormous say.

Dina Titus, the U.S. congresswoman who represents Las Vegas, thinks Mulroy squandered her chance to get ahead of the water problem by managing growth, instead of supporting it unconditionally.

"The Water Authority had the attitude that if people come, they'll get the water, beg, borrow or steal," Titus said. "And that's what they set out to do with very little long-term concern for what the impact was going to be."

Today Las Vegas is on the brink of a new building binge, and Mulroy, 62, remains uncompromisingly bullish. Standing 5-foot-5, her gray-blond hair wilting in the sweltering sunshine, her upper lip curled as she contemplated the idea that the city should rein itself in. Water can be found, she said emphatically, standing over the near-empty reservoir. Without growth, cities have no jobs and no future to offer coming generations.

"You have Detroit," she warned. "There isn't a city in the country or the world that wants to be Detroit."

In Las Vegas, a decades-long building boom is regaining momentum after the economic crash. The city has always built first, found water later. (Christaan Felber, special to ProPublica)

Pat Mulroy first landed in Las Vegas in 1974, getting a \$50 room at the Desert Rose Motel and sleeping on a round bed with a red velvet comforter beneath a mirror mounted on the ceiling.

She had flown in from Frankfurt, Germany, where she was born and raised, to accept a scholarship to study German literature at the University of Nevada, Las Vegas. A narrow slit of windows was cut into the hotel's cinderblock wall and it looked away from Las Vegas Boulevard, into the desert. The morning after her arrival, Mulroy, 21 years old, spread the curtains, gazed outside and saw what looked like a lava pit. "Oh my god I'm on Mars," she recalled thinking.

Mulroy went on to earn first a bachelor's and then a master's degree at U.N.L.V. Initially, she said she intended to chase a career with the State Department, an interest she picked up from her father, who worked as a civilian in the Air Force. He was an Irish Catholic Kennedy Democrat. Her mother was German but had grown up in India, spoke five languages and worked as a housekeeper and sometimes-translator for Gen. Dwight D. Eisenhower. Together they had instilled a no-limits mentality in their daughter.

"The notion that because you were born a certain way mattered didn't exist in my house," she said.

But then a friend of her father's at the U.S. Embassy in Bonn told her that a woman would never rise in the diplomatic corps. She was momentarily disillusioned, and turned her focus to studying in the United States.

Pat Mulroy, the water czar of Vegas, is seen by some as a visionary and by others as a misguided "prophet of growth." (Christaan Felber, special to ProPublica)

After later dropping out of her doctorate program at Stanford to help raise money to send her sister to college, she returned to Las Vegas and took a \$13,000-a-year job as a junior

management analyst with Clark County. She became part of the county's legislative team, lobbying for tax and governance bills up in Carson City.

It was impossible to work for Las Vegas-area government and not find yourself staring at the underbelly of Nevada's culture. Gangsters walked the halls of the county seat, crowding hearings or petitioning the commissioners for their building projects. "Where do you find people to build a gaming industry those days?" she asked. "It was with the mob."

"I knew Moe Dalitz, I knew Morris Shenker. I had to deal with Tony Spilotro," Mulroy went on, ticking off some of the most notorious criminals and mob associates in Nevada history. "Moe Dalitz was the greatest gentleman you ever wanted to meet. Tony Spilotro was a scumbag — a dirty, filthy scumbag."

Cash flowed like water in those days, she said, and early one morning before a county commission vote, her boss, in the hopes of keeping the process clean, dispatched her to retrieve envelopes off the desks of commissioners before they arrived to discover what was in them. The envelopes were each stuffed with 50 \$100 bills.

In 1985, Mulroy was promoted out of a county administrative post to help run the Las Vegas Valley Water District, one of seven feuding water utilities that served Las Vegas and the rest of Clark County. When her boss lost the confidence of his board in 1989, she inherited the whole department. "I didn't want the job. I didn't have the self-confidence. I didn't think I could do it," she said recently. "It seemed daunting."

Indeed, Mulroy, though ambitious, had no engineering or environmental experience, and had thought little about water as a resource. She was 36 then, with two children younger than 3 years old at home. Her attention, as she put it, was "kind of split," and she was weighted by guilt for the hours she poured into work and just as torn about the hours she spent away from the office.

But the job was politics, not science, and that came to her naturally. She had learned that politics works through relationships, not rules, and she applied the lesson to her new position. The valley, back then, still had a quaintness to it, with a population of just 741,000 and a Las Vegas strip that looked little like it does today. There was no ersatz Eiffel Tower or Empire State Building and no Bellagio hotel, with its musically synchronized water cannons.

As Las Vegas grew up and corporate bigwigs displaced mobsters as the city's ruling class, Mulroy prided herself on being a student of character.

"You develop an instinct and a political sixth sense. I can smell a phony a mile off," she says now. "The minute someone flatters you, back up, take a hard look. The more sweetness and niceties that come out of someone's mouth, especially if they don't know you, beware, don't get caught."

Shortly after Mulroy took charge of the Water District she learned that the people who ran her utility, as well as the valley's other water agencies, didn't know how much water the area had — let alone how much water they were committing to give out. The valley gets just four inches of rainfall a year. Moreover, the groundwater springs that once supplied Las Vegas had been drawn down so far the land was collapsing above them. Las Vegas depended on Lake Mead for almost all of its water, and Mulroy feared that with surging growth the city would soon need more than it was allowed to take.

They want to be a major global city ... They want to be Los Angeles. Had we not done it, they would have found someone who would.

Pat Mulroy on negotiating with Vegas business leaders

Her fears were confirmed when consultants she hired as one of her first acts developed a set of models that produced a damning assessment of the area's water resources. Tapping all the water it had at the time, their models warned, Las Vegas would run out of water completely in five years. The Water District wasn't even sure it had enough water to deliver what it had promised to development projects already underway.

On Valentine's Day 1991, Mulroy took what seemed like a logical step: She placed a moratorium on new water commitments in Las Vegas, stomping on the brakes of the city's booming growth. For the first time, there would be no new construction permits issued for buildings, subdivisions or the city's signature open spaces: golf courses. Even the permitting for new casinos, the engine of the state's economy, would have to pause. Only projects that had already been approved would be allowed to proceed.

Within a day or two, she received an urgent phone call from casino magnate Steve Wynn beckoning her to his office in a suite at the Mirage hotel. Wynn, one of Nevada's most influential businessmen, told her Las Vegas couldn't attract investors to pay for new development if it couldn't assure them they'd be able to get the most basic of permits for their projects.

"He wanted to know what the hell was going on," Mulroy said.

To give Wynn the answer he wanted – that the moratorium was temporary – Mulroy needed to get more water. The federal Bureau of Reclamation, which controlled the water coming out of Lake Mead, might let the Las Vegas Valley take more, but not while the valley's utilities remained as disorganized as they were.

In a feat of diplomacy, Mulroy convinced the other six utilities that she could get each of them more water if they formed a single agency and let her negotiate for the group. The Southern Nevada Water Authority was born; Mulroy got more water, and a year after it began, she lifted the permitting freeze. She would never try to enact a moratorium on growth again.

Years later, she acknowledged that Wynn's challenge amounted to a charge to never slow down growth. And she is blunt about how she chose to respond to it.

"I would rather be strategic and not be Don Quixote swinging at windmills," Mulroy said of her dealings with the city's business leaders. "They want to be an economic engine. They want to be a major global city. That's their strategic plan. That's their vision of themselves. They want to be Los Angeles."

"Had we not done it, they would have found someone who would."

Once Mulroy realized there would be no stopping Las Vegas' growth, even temporarily, she attacked the challenge of meeting the city's growing need for water with equal measures of pragmatism and creativity.

Starting in 1989, she made a series of moves to increase the metro area's water supplies, immediately and into the future.

She quietly filed for virtually all of the unclaimed rural water rights across Nevada, water Las Vegas could eventually import. She swooped in a few years before an enormous Fort Mohave coal power plant closed and struck a deal to transfer the facility's long-term water rights to Las Vegas. And through the original deal brokered to get more water from the Bureau of Reclamation, she increased her agency's water budget by almost 70 percent by persuading the federal government to give Las Vegas credits for the waste water it poured back into Lake Mead.

The golf courses of Las Vegas are only the most vivid symbols of possibly reckless growth. (Christaan Felber, special to ProPublica)

When Nevada's governor appointed Mulroy to the state's negotiating team for the Colorado River, expanding her authority by giving her a role in discussions between the seven state governments sharing the Colorado, she directed her search for more water across state lines.

She negotiated innovative swaps in which water savings in one place could be conveyed to another. She used the Water Authority's resources to help pay to build a reservoir capturing excess river flow before it ran into Mexico from California, saving hundreds of millions of gallons of water, of which the Southern Nevada Water Authority got a significant share. She pushed Los Angeles and San Diego's utilities to learn to get by with less, which they did in part by paying California farmers to fallow some of their fields.

Over time, Mulroy became known for pressing her view that, when it came to the Colorado River, the interests and fates of all the basin states were inextricably intertwined, giving all a stake in conserving it.

"She became synonymous with water conservation and Nevada's quest to define itself with respect to water management," said John Wodraska, who headed Southern California's Metropolitan Water District during Mulroy's ascent.

Others, though, saw her deal-making largely as enabling Las Vegas to use an ever-expanding amount of water with little of the discipline and restraint she urged on others. Mulroy

instituted what she calls “soft conservation” measures to save water in Las Vegas — advertising water savings on billboards, running community education programs and banning artificial lakes in new developments. But across the 1990s, the overall water consumed by the Las Vegas metro area grew by 61 percent.

“Everybody has a water supply, and we were living within ours,” said Tina Shields, interim water department manager for the Imperial Irrigation District in California, one of the largest rights holders to Colorado River water and a frequent target of Mulroy’s criticism. “Others needed to live within theirs.”

Building in Las Vegas is heating up again, but the plan for how to supply adequate water for this latest expected boom depends on a controversial \$3.2 billion pipeline that has not been built. (Christaan Felber, special to ProPublica)

Some of the resentment Mulroy engendered surely reflected her manner as much as her message. She could be bombastic and provocative. Her adversaries called her the Iron Maiden or the Water Witch. (Her staff gave her a broom and she mounted it on the wall in her office.) She wasn’t afraid to antagonize those she saw as standing between Las Vegas and water she thought it was entitled to.

She angered Colorado officials by advertising in local newspapers to try to buy water from farmers there. She threatened to take California all the way to the U.S. Supreme Court if it kept diverting more water from the Colorado than it was supposed to. She blasted farmers in neighboring states for wasting water by flood-irrigating their hayfields.

“Pat Mulroy had what we called a command presence,” said Richard Bryan, the former U.S. senator and former governor from Nevada. “She was knowledgeable, self-assured without being arrogant, and when she spoke, she spoke with authority.”

By the end of the ’90s, the Las Vegas that Mulroy helped enable was considerably bigger and more bustling than the one she first knew.

The Las Vegas Valley’s population had nearly doubled during the decade, coming to exceed 1.3 million people. An average of 48,000 new homes were added each year to accommodate the influx, as were a dozen new casinos. Eight miles from downtown, the Howard Hughes

Corporation began construction of Summerlin, a 22,500-acre suburban micro-community complete with schools, parks, shopping centers and nine golf courses.

Mulroy capped off the '90s by helping to shape the Southern Nevada Public Land Management Act, which cleared the way for still more growth.

Historically, Nevada's settlers claimed only two million acres of land within the state's borders, leaving the rest to federal control because it wasn't viable without water.

Legislation in 1998, advanced by Bryan and Nevada's other senator, Harry Reid, and then-congressman John Ensign, allowed the U.S. Department of the Interior to sell tens of thousands of acres of federal land to private developers, enabling Las Vegas Valley authorities to steer federal land sales they otherwise would not have the right to control. It thus also formally freed Las Vegas from old urban boundaries.

Throughout the 1990s, Las Vegas built 48,000 new homes a year. The population doubled. And a second tunnel piping water from Lake Mead helped spawn what one former county manager called a "Western development-industrial complex."

Mulroy was part of the brain trust that refined the bill, hosting several early meetings at the Water Authority to discuss it. She insisted that if Las Vegas' footprint was going to be larger, the Water Authority would need to add staff and infrastructure to supply water to the new areas. Her price: A 10 percent slice of the revenue from each lot sold. The Water Authority's haul from the sale of federal lands eventually came to almost \$300 million and helped bolster financing for the pipelines, tunnels, pumps and more that Las Vegas eventually built to double its capacity to move water out of the Colorado River.

More controversially, it also allowed Mulroy to start buying up northern Nevada farmland, paying as much as \$32 million for properties that previously sold for no more than a few hundred thousand dollars. With the land came the right to tap vast aquifers underneath it. The Southern Nevada Water Authority would eventually become one of the largest owners of ranch land in the state.

Mulroy says the 1998 federal legislation merely allowed Nevada a say in sales the government was pursuing anyway, but she does not deny that enormous growth followed. To enable it — or respond to it, as she says — Mulroy pushed big infrastructure investments

that she describes as a turning point. “The second treatment plant, the second tunnel,” she said, referring to the \$2.1 billion project to expand the water intakes from Lake Mead, “that was the big growth spurt.”

Las Vegas spilled into the space opened up by the 1998 land measure at an astonishing pace.

More than 34,000 acres were sold in the first decade after the act was passed, more than twice the size of Manhattan, and master-planned mini-cities appeared on the edges of the Las Vegas metro area. Neighborhoods teemed with bulldozers and paving machines and rang with a cacophony of nail guns and air compressors. Business leaders joked that the beeping backhoe had become Nevada’s state bird.

To Rob Mrowka, who once worked as the Clark County Environmental Planning manager, it was all part of the “Western development-industrial complex.”

“That whole vicious cycle just kept pushing the boundary out and out and then you need greater and greater services,” said Mrowka, who is now a senior scientist with the Center for Biological Diversity, an environmental advocacy group that has sued to stop Mulroy’s effort to import more water from upstate. “Elected officials didn’t pay any attention to the long-term issues. It was always balls to the wall. The specter of rapid growth was like a mermaid sitting on a rock, calling.”

In May 2002, Mulroy was in her large, corner office with views of the strip in the distance when her deputy, Kay Brothers, brought unexpected news.

“We are walking right into a wrecking ball,” Mulroy recalls Brothers saying. Abysmal snowpack in the Rockies would put about one-quarter the normal amount of water into the Colorado River that season.

The Water Authority relied on a 50-year water plan it updated every couple of years that was supposed to project the area’s need for water against population growth and infrastructure demands. The plan was dependent on a stopgap measure Mulroy had negotiated: Nevada’s ability to take a share of excess river water left unclaimed by the other states.

The Water Authority had allowed a tsunami of growth on the belief that their figures were unassailable. But the Authority's forecasts — which Mulroy says were based on data given to them by the Bureau of Reclamation — had failed to anticipate the risk that a severe drought could affect the Colorado basin. The surplus water they had anticipated had suddenly evaporated. The development plan Mulroy had placed confidence in for the next half-century was suddenly worthless.

"The drought changed everything," Mulroy said.

Mulroy moved beyond public awareness campaigns and began to crack down on profligate residential and recreational water use in Las Vegas more aggressively. She banned the lush green lawns that had typically lined the city's newly developed suburban streets and offered cash incentives for homeowners to rip out their existing lawns. She also barred fountains and ornamental waterfalls, the kind that decorated just about every hotel and a good number of upscale communities. She installed watering restrictions for golf courses and demanded that new housing developments meet water efficiency guidelines.

The haunting "bathtub rings" at Lake Mead capture the severity of the giant reservoir's depletion. (Christaan Felber, special to ProPublica)

"Conservation had to stop being a luxury and something we journeyed into slowly, but something that had to be kick-started in a very different way," Mulroy said.

She became almost evangelical about climate change — something she had previously described as "not an exact science"— and implored her counterparts in the other river states to plan for the threat it posed to Southwestern cities. "We have no rearview mirrors anymore," she told ProPublica in a 2008 interview. "All the old probabilities, throw them away. We are walking into a dramatically shifting climate and that is fundamentally going to change everything."

Mulroy even rallied the gaming and development companies to conserve water. Wynn, forever an ally, made phone calls on her behalf, helping to raise funds to further her public relations campaign and fill billboards across Las Vegas with appeals to save water and heed the drought.

By some measures, Mulroy's conservation push was successful. Las Vegas residents served by the water district reduced their water use from 314 gallons per person per day in 2003 to around 205 gallons (a figure still 30 percent more than in Los Angeles, and more than three times what San Francisco metropolitan area residents use each day.) Mulroy argues that the water Las Vegas recycles should be factored in, a calculation that lowers use in the valley to merely twice that of San Francisco residents. Las Vegas' net water consumption, as long as you subtract that water recycled back into Lake Mead, began to decline.

But the drought didn't go away. Lake Mead's levels steadily dropped by nearly one foot every month. The seven river states began to talk about an emergency shortage declaration, in which water deliveries throughout the Southwest would be cut back.

Through it all, Las Vegas' building boom continued, fueled by increasing casino revenue, a spike in tourist visits and a seemingly irrational mortgage and real estate market.

The casinos employed huge numbers of service industry workers. The workers needed housing. By 2008 there were about 200,000 more homes in the valley than there were in 2000, and every new development served by the Las Vegas Valley Water District received a water commitment letter agreeing to hook up water. Other utilities serving parts of the valley under the Water Authority acted similarly.

Mulroy maintains that she had no real opportunity to thwart building, even if she had wanted to.

New major infrastructure projects, like the legendary Hoover Dam, are among Pat Mulroy's best ideas for conquering the water crisis in the West. (Christaan Felber, special to ProPublica)

"We can't pick and choose who gets water and who doesn't," she said. "Whoever gets zoned, whoever gets the business licensing, whoever gets approval, we have to service. They come to us courtesy of county and city zoning."

She referred ProPublica to the Water District's service rules which lay out her legal authority, but those rules state that the "District may deny any request for a water

commitment or request for a water connection if the District has an inadequate supply of water.”

It was certainly true that the local officials in charge of planning and zoning had little or no interest in taking on the casino and building industries that benefited most from growth.

In 2003, one former Clark County commissioner, Erin Kenny, got caught accepting more than \$25,000 from a strip club developer with business before the commission, then implicated her colleagues, testifying that such bribes were common. Kenny and two other commissioners went to prison.

“Growth was abundant, it was rabid, it was almost unstoppable,” Kenny said in a recent interview.

To this day, candidates for Clark County and other area commission seats get a substantial amount of their political contributions from the building and development industry. The commissioners not only make the most important decisions about growth, they also sit on the boards of the water utilities, including the Water Authority, controlling decisions on water use in the Las Vegas Valley. Furthermore, some of the most significant new housing developments built in Las Vegas — accounting for thousands of new homes — were built in places where planning officials approved zoning changes to allow higher-density building.

“The money from the gaming industry and the money from developers, they controlled the politics,” said Don Williams, a one-time campaign manager for Harry Reid and a veteran Las Vegas area political analyst. “The casinos wanted to control planning. They didn’t elect people who were interested in slowing things down for the good of the area.”

The industry’s response to any measure seen as anti-growth could be virulent. Titus, the local congresswoman, says she was once pictured on the cover of a construction trade magazine with a noose around her neck after she pushed for growth restrictions and then passed a bill as a state senator that restricted re-zoning rural land for high-density construction.

Still, Titus was disappointed by the Water Authority’s complicity in the headlong rush to build. “It was one and the same with the local government,” Titus said. “They encouraged

the growth and accommodated the growth and found ways to foster the growth. They thought of that as the goal.”

Many were surprised and disillusioned by Mulroy’s acquiescence, especially after her persistent efforts to advance conservation, both in Las Vegas and among the seven states that shared the Colorado River. Her department signed off on an endless procession of development proposals, based on the notion that as long as they met the standard water efficiency criteria she had helped the county set up, all projects were equal.

It was one and the same with the local government. They encouraged the growth and accommodated the growth and found ways to foster the growth.

Rep. Dina Titus, D-Nev., on the Southern Nevada Water Authority

Neither the Water Authority nor the Clark County zoning department factors the total amount of water a new project will require into its permitting decision. They do not prioritize water-efficient developments over others, instead approving proposals on a first-come-first-served basis as long as they comply with zoning categories and more generic efficiency guidelines.

Chris Giunchigliani, a current Clark County commissioner who once served on the Water Authority board, sees the agency — which she called “the final arbiter” of what can and should be built — as centrally responsible for why Las Vegas’ building boom continued through the drought years.

Still, she empathizes with Mulroy’s predicament.

“When a city thinks the only way they can generate a tax base is by generating growth, the word is, ‘Don’t tell us we can’t do this,’” she said. It’s “Find a way to make it possible.”

Growth stalled briefly in the Las Vegas Valley during the 2008–2009 financial crisis, but is heating up again.

Though the Water Authority has managed to reduce its overall water consumption since the drought began in 2002, the Las Vegas Valley used 1.2 billion gallons more water in 2014

than in 2011. According to a recent report from the U.S. Conference of Mayors, the valley is expected to add another 1.3 million people by 2042. By the Water Authority's own demand projections, that growth will translate into taking at least 240 billion gallons of water each year, 74 percent more than Las Vegas demands today.

Federal legislation enacted in 1998 allowed Las Vegas to wildly expand its boundaries. (Christaan Felber, special to ProPublica)

As a consequence, the ranch land bought up by the Water Authority in northern Nevada could be seen as Mulroy's parting gift to her parched city. But getting the water underneath that land to Las Vegas will require building a \$3.2 billion pipeline across half the state, an idea that has generated immense controversy.

Some experts fear that if the city taps this water supply, it will suck dry wetlands that support valuable species, cripple farm communities and possibly cause ground across the Great Basin valley to subside. But the pipeline's supporters herald it as a visionary step towards reducing Las Vegas' near-universal dependence on the Colorado River. "We really need to diversify our resources," said Bronson Mack, the Water Authority's spokesman.

The debate provides a frame for assessing Mulroy's legacy.

Before she ran the Las Vegas Valley's water supply, the city's environmental constraints seemed insurmountable. But Mulroy demonstrated that with enough money, savvy and will, almost any limit could be overcome. In 1991, warned she had five years of water, she deployed creative accounting to maximize every possible gallon of water credit the city could muster. In the mid-2000's — faced with a renewed crisis — she again found water by taking it out of residents' lawns and fountains. In a sense, she pulled off a miracle. Las Vegas absorbed nearly three decades of astronomical growth with the water it had, and it did it in the midst of the worst drought in a generation.

"She is the prophet of growth," said Bruce Babbitt, the former governor of Arizona and former U.S. Secretary of the Interior, who has worked both with and against Mulroy on various projects. "No question."

But what will happen next? Lake Mead reached its lowest level since 1937 last month. Today the lake is just 20 inches above the level that can trigger a formal emergency declaration. If levels drop past that point on Jan. 1, 2016, something the government forecasts as a one-in-three chance, the federal government will declare a shortage and every state in the Colorado River basin — including Nevada — will face dramatic cuts in supply.

When Mulroy stood above the Hoover Dam last summer, looking down at the shocking white 148-foot-tall bathtub rings lining the orange sandstone walls of the dwindling reservoir, it hardly looked as though the strategy that had worked for the past two decades would work in the future.

“Las Vegas and Southern Nevada have been a harbinger,” said Wodraska, the former L.A. water chief, reflecting on the push to turn so much of the arid West into cities. “You’re in a desert. I think we’re going to look back and shake our heads and say, ‘What were we thinking when we tried to create this artificial environment that just is not sustainable?’”

The Southern Nevada Water Authority’s most recent 50-year water plan once again aims to outline how the area’s water resources can meet the needs of its population and economy. In six charts presented in the document, there is no scenario the Water Authority could conceive in which demand for water does not significantly outstrip the current supply, unless it completes the pipeline and begins to harvest water from other parts of the state.

“I think we’re going to look back and shake our heads and say, ‘What were we thinking when we tried to create this artificial environment that just is not sustainable?’” John Wodraska, former Los Angeles water chief. (Christaan Felber, special to ProPublica)

That reality seems to have provoked desperate measures. The Water Authority is finishing a \$1.4 billion tunnel and pumping station that amounts to a drain hole in the bottom of Lake Mead, a project Mulroy describes as “a survival policy,” that would allow the city to continue taking water even after the generators and pumps in the Hoover Dam stop operating and California, Arizona and Mexico, which is also entitled to the tail end of the Colorado’s water, are completely cut off. “We’ll still be pumping,” Mulroy said. “You better be able to take the last drop.”

In February 2014, Mulroy retired, saying she was tired of fighting Las Vegas' water battle, which she described as constantly in crisis. She nominated as her successor her senior deputy general manager, John Entsminger, a lawyer experienced with interstate Colorado River negotiations and known to be a supporter of Mulroy's water management strategy.

In her last days at the Water Authority, Mulroy began to talk about the drought as a natural disaster — like a flood, which often garners federal aid money and a swift emergency response — just slower moving. If the federal government made disaster money available for droughts, she thought, it could help in water conservation and water purchases. “This is as much an extreme weather event as Sandy was on the East Coast,” she told *The Las Vegas Review Journal* in 2013.

These days, Mulroy is a senior fellow with the Brookings Institution, where she focuses on climate adaptation and global water policy. She is particularly interested in scaling up her experience in the Colorado basin, examining what a projected nine billion people inhabiting the planet will mean for its water supplies. But she is still involved in Colorado River issues daily.

The most recent 50-year water plan for Las Vegas contains no scenario in which demand for water does not significantly outstrip the current supply.

In a sort of stump speech she has delivered to audiences around the world, she advocates what she calls a “mosaic” approach to the West's water problems. It involves a little bit of everything: a slice of conservation, some compromise by farmers, some new groundwater wells and so on.

Some of the mosaic tiles — like projects to desalinate ocean water, pipelines to move water west from the Mississippi River or seeding rain clouds with silver iodide — stretch technological limits and call for innovation. In some cases they demand positive, even wishful, thinking.

“Right now, we don't have the luxury to take any options off the table,” she said.

The one concept she holds as an exception, however, is limiting growth. It won't be limited for Las Vegas. Or for the rest of the Colorado River basin. Not ever. To Mulroy, suggesting

such a notion would be tantamount to accepting that human progress can be limited or dictated by nature.

Even with the evidence of the water crisis right in front of her, she's just not there yet.

"We live in a free country where people can move wherever they want," she said. "I can build a de-salter. I can cause more conservation. I can't slow growth and manage growth. I'm not going to waste a lot of time trying to create something that stands in exact contradiction to an ever-exploding human population."

This story was co-published with [Matter](#), a new digital magazine on Medium. [Follow ProPublica on Medium](#) for more conversation on the West's water crisis.

Nation

Nevada ads use humor and a kick in the crotch to sway water-wasting guys



Ads targeting men, found to be southern Nevada's biggest water wasters, were plastered on billboards, posted at urinals and played on TV during sporting events.

(R&R Partners)

By **JOHN M. GLIONNA** *contact the reporter*

- Nation

How do you get a guy to stop over-watering his Nevada desert lawn? Humor, shame and an angry bichon frise. Hey, Las Vegas guy, stop drowning your lawn, or they'll sic a bichon frise on you

Not long after the onset of the West's deadening drought, officials here saw the enemy, and he was Joe Six-Pack.

The Southern Nevada Water Authority determined nearly a decade ago that 70% its water went right into the ground, with no chance for recycling, thanks to an army of indulgent blue-collar homeowners, mostly married guys, who over-watered their lawns.

The conservationists fought back. They directed a powerful advertising firm — call them the Mad Men of the Mojave — to target lower- and middle-income suburban dads with beer-commercial-type dark humor spiced with a schoolmarm's brand of discipline.

R&R Partners, the brains behind this city's "What Happens Here, Stays Here" campaign that had already reinforced Sin City's reputation as a often-naughty adult playground, devised a campaign on a decidedly less-sexy topic that was no less critical to the region's future.



An advertisement for the Southern Nevada Water Authority targets men who were found to use more water than women.

[See more videos](#)

Their print and TV ads went for the jugular — and other body parts — with an inconvenient truth: Residents live in a desert.

In one spot, a homeowner answers the door while his front lawn sprinklers hit more sidewalk than grass. He encounters a tiny white bichon frise that suddenly lunges for his throat, knocking him to the doorstep. The fluffy dog then hurries off as a title appears:

"Don't make us ask you again. It's a desert out there."

Another, even testier, ad shows a suburban water scofflaw answering the front door to find a frowning elderly woman with a cane. After his flippant "Can I help you?" she kicks him in the groin, as the same "Don't make us" message flashes onto the screen.

The ads worked.

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Amid heated criticism, California water board to release draft cuts

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Between 2008 and 2012, the region saved 3.5 billion gallons of water, or 42.5 million gallons every day. Officials don't credit ads for all the savings, but over 15 years, southern Nevada has reduced water use by 30%, while its population has grown by almost 20%, to 2 million residents.

In 2001, R&R Partners had devised a series of ads that emphasized saving the environment, including one that depicted a future where water was so precious it was delivered in bottles under armed guard.

Five years later, research revealed that the Las Vegas Strip — despite such features as the Bellagio fountains — accounted for just 4% of the area's water use, thanks to casino recycling programs. The main culprit? Those guys with lawns.

A poll revealed that 87% of male homeowners said they were responsible for outdoor lawn care and that 60% did the work themselves, rather than a gardener or homeowners association. Women, on the other hand, were prodding their husbands to conserve, a plea officials found was mostly ignored.

The guy who waters his lawn in the middle of the day is probably the same guy who thinks the Earth is flat, that Elvis is still alive and that ketchup is a vegetable.- Randy Snow, a partner at R&R Partners ad agency

"Our target was men," said Scott Huntley, the water agency's senior manager for public services. "We went after the low-hanging fruit, whom we called Joe Six-Pack."

Which explains the groin kick.

"Men are simple creatures — so we could afford to be funny," said Randy Snow, a partner at R&R. "Saving water isn't rocket science. The guy who waters his lawn in the middle of the day is probably the same guy who thinks the Earth is flat, that Elvis is still alive and that ketchup is a vegetable."

Another key strategy: placing the ads where guys couldn't miss them.

Bars and casinos frequented by locals featured drink coasters with a water-saving message. Over urinals hung signs showing a photo of a lawn that said: "Get rid of your old drinking buddy." One lawn removal rebate come-on encouraged: "Get off your grass; we'll pay the cash."

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At "Monday Night Football" events, officials hosted contests where men threw bichon frise plush toys at targets to win a T-shirt with the agency's Dirty Harry-style "Don't make us" logo. The water ads also popped up at gas stations where guys filled their tanks.

With plain-speaking spots like the one that began "Just another day in the desert? Think again, pal," officials targeted late-night TV and big games — times their research told them men were watching.

"You couldn't drive down the street without seeing our billboards or watch TV without seeing our ads," said former water authority boss Pat Mulroy. "They were in your face."

The "water smart" message: Don't be that guy who wastes a precious resource. Cover your pool to stop evaporation. Don't water your lawn at noon, and reset meters so that you water less during the winter. But officials knew men wouldn't tolerate sermons.

"We borrowed a lot of from Monty Python," Huntley said. "We wanted to reach the same audience as those Miller High Life beer ads. We tried to tickle the male funny bone, which sometimes is a little masochistic."

When critics called the campaign over the top, officials stood their ground.

"I would just laugh," said Mulroy. "I'll be honest, I couldn't walk into a room without men wincing," thanks to the swift-kick-to-the-groin ad. "One day while buying plants in a nursery, a woman yelled at me that her children were now afraid of bichon frises, and it was all my fault. What it told me was that the campaign was having results."

Even the local park service griped about ads that showed Lake Mead, where southern Nevada and other Western states draw their water, so low that boats sat marooned on dry land. "They said the ads were bad for tourism," Mulroy recalled. "Really, like I care."

Polls showed that the ads had reached 90% of their target audience. Mulroy says there's a lesson here for California, which has just announced new water-saving programs.

"You can change public habits," she said. "It's not just ads, but also a gentle raise in rates, just enough to get people's attention, as well as rebates to help residents achieve their goals of using less water."

Meanwhile, Las Vegas is changing, and officials plan ads for Spanish-speaking residents. For now, the old ideas still work. A recent spot shows a disapproving nun using a ruler to rap the knuckles of a water waster — in this case a brawny, tattooed motorcycle guy.

Newer conservation ads target various demographics groups, such as one showing a businessman mowing his lawn. The caption: "Grass: Not a good investment in the desert." A poster features a Rosie the Riveter character flexing her muscle over the words: "Sod-Free and Proud!"

Officials say the most ominous water-saving message doesn't come in any ad, and is something that millions see, not just Joe Six-Pack: It's the image of Lake Mead — seen by those flying in and out of Las Vegas — with its parched white bathtub ring and plummeting water level.

Said Snow: "It's as powerful a visual as there is."

Warm Springs developers sue county to get fees back



[Anjeanette Damon](#), RGJ 9:18 a.m. PDT June 10, 2015



Larry Robbins stands at his property in Warm Springs Valley on March 27. Robbins and other landowners are fighting Washoe County to get their money back for infrastructure never built.(Photo: Andy Barron/RGJ File)

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A group of small developers have sued Washoe County, seeking a refund of \$750,000 in fees they paid for infrastructure that was never built after they parceled their property in the remote Warm Springs Valley north of Reno.

The lawsuit contends the county has violated a state law that requires the government to return the money if infrastructure isn't built in five years.

A county spokeswoman said the county hasn't seen the lawsuit and can't comment on it.

[RENO GAZETTE JOURNAL](#)

[Landowners fight county over hostage infrastructure fees](#)

The 10 developers deposited the infrastructure fees with the county, which had expected a larger developer to build a 750-house development with a golf course and an equestrian center a decade ago. That development never materialized because of the recession, nor did the expected infrastructure projects.

The developers also say their contract with the county contemplated a refund if such things as a sewer plant, water treatment facility and other large scale projects were never constructed. But some of the agreements are decades old and the paper trail has been difficult to follow.

The developers, lead by George Newell, have been doing battle with the county for nearly a year to get their money back.



Warm Springs landowner Larry Robbins is one of 12 landowners who want their money back for infrastructure that was never built. Andy Barron

Most recently, the County Commission voted to start a lengthy process of amending the special area plan that governs how Warm Springs can be developed. But that change must be approved by both the county commission and a regional board because it requires a master plan amendment.

That means the developers have no chance of seeing their money back for months.

Commissioner Jeanne Herman, who represents Warm Springs, said she wants to see an immediate refund of the fees.

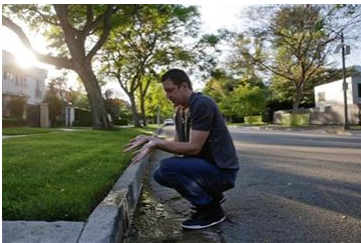
"I don't think we should spend taxpayers money to try to prove that this money doesn't belong to these developers," she said. "It belongs to them. I don't understand why we would hold their money hostage."

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California water wasters beware: #DroughtShaming on the rise



(AP Photo/Jae C. Hong). In this Friday, June 5, 2015, photo, Tony Corcoran records sprinklers watering the lawn at a house in Beverly Hills, Calif. Corcoran is one of several people who spend their spare time these days canvassing the tony communities ...



(AP Photo/Jae C. Hong). In this Friday, June 5, 2015, photo, Tony Corcoran surveys water coming out of a drain in Beverly Hills, Calif. Corcoran is one of several people who spend their spare time these days canvassing the tony communities of Beverly H...

- **Nati**

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By GILLIAN FLACCUS and JOHN ROGERS
Associated Press

LOS ANGELES (AP) - Pssst. Ready to water that beautiful lush lawn of yours? The one that's the envy of the entire neighborhood.

If you live in Southern California, you'd better wait until after midnight. Preferably on a cloudy, new-moon night during a power outage when it's so dark even night-vision goggles won't give away your position. Otherwise, you could wind up the star of the latest drought-shaming video posted on YouTube or Twitter.

"Yeah, I put your address out there. The world is watching a lot more," says Tony Corcoran, one of several people who spend their spare time these days canvassing the tony communities of Beverly Hills, West Hollywood and elsewhere, looking for people wasting water during the worst California drought in recent memory.

Corcoran alone estimates he's put up on YouTube more than 100 videos of water-wasters, complete with their addresses.

Others tweet out addresses and photos of water scofflaws, using hashtags such as #DroughtShaming. Still others are snapping smartphone photos of them and sending them directly to authorities.

Not everyone is happy about it.

One woman, quickly tiring of Corcoran's lecture on conservation while she watered her plants, turned her hose on him.

In Beverly Hills, where he was showing a reporter and photographer water running down the street in front of a mansion, the angry resident called police. Two patrol cars quickly responded, but the officers took no action.

In Hollywood, Sam Bakman, who manages a condominium complex, said his building was recently shamed wrongly by somebody on Twitter over a broken sprinkler head that was quickly repaired. He showed a reporter the city-issued restrictions on watering and pointed out his sprinkler timers fall well within the guidelines.

"If they thought we were doing something wrong, why not come knock on my door?" he asked.

Corcoran, a restaurant group administrator who kept his New York attitude when he came to laid-back Los Angeles awhile ago, is unrepentant.

"The whole point is to get people to change, not to shame," he said.

With California in the fourth year of a drought with no end in sight, the governor has ordered everyone to use 25 percent less water, and drought shamers say the easiest way to accomplish that is to quit watering your yard. Or at least be careful about it and not let water spill into the street.

"I was a passenger in a car driving by, and first I noticed water down the street. And when we drove up, I saw the broken sprinkler head," said Patricia Perez of Eagle Rock who quickly tweeted out a picture of the mess. She also emailed it to the local water agency.

"When you're trying to do your best personally, and you're trying to conserve water, it's very irritating," she said of one of the reasons behind drought shaming.

Dan Estes, a Los Angeles real estate broker, has gone so far as to build his own free app, DroughtShame, that records the time and place where people see waste.

Unlike some other drought shamers, he doesn't believe in getting in people's faces or outing them to the world. Instead, people who use his app send the information and a photograph to him, and he forwards it to the appropriate water agency.

"I drought shamed the preschool next to my apartment," Estes said. "Timer was off on their sprinklers. Those things were on for five hours, and the sidewalk was a river. I was non-confrontational, but at the same time, public."

Twenty minutes after he reported it, Estes said, the sprinklers were shut off.

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Water Supply Report: Customers Reduce Use by 19% in May

Posted: Jun 10, 2015 9:38 AM PDT <em class="wnDate">Wednesday, June 10, 2015 12:38 PM EDT Updated: Jun 10, 2015 2:11 PM PDT <em class="wnDate">Wednesday, June 10, 2015 5:11 PM EDT

By Kellene Stockwell

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producers@ktvn.com



From GoodStanding Outreach:

Recent rains and customer response to a request for a ten-percent reduction in water use resulted in good news for the local water supply. Truckee Meadows Water Authority's (TMWA) water production for this May was 19% lower compared to May 2013*, which is the baseline-use year. That's over 1,500 acre-feet, or approximately half a billion gallons in water savings.

May rainstorms increased Truckee River flows enough that it, coupled with decreased customer demand, allowed TMWA to delay the need to bring production wells on-line and to hold off the release of any upstream drought reserves. "This is great news, because every day we can delay the release of upstream reservoir storage, is water in the bank that we can keep upstream for later use, should we need it," explained Bill Hauck, senior hydrologist. "

The reduction in water use shows that TMWA customers are mindful of the drought and are doing their part to minimize water use. They responded to the rain showers in May—meaning they turned off their sprinklers. "This is a good way to start off the irrigation season. So, keep up the good work and keep saving at least 10%," Hauck added.

*Note: TMWA's current request, that all customers reduce their water use by at least 10%, is based on 2013 use. This compares current water savings to 2013 because that was the last year that TMWA operated normally and did not ask customers to conserve water. Those customers who reduced their use by 10% in 2014 have asked if they need to save an additional 10%. The answer is no. They should just keep doing what they are doing.

From GoodStanding Outreach

Warming warnings

Sierra as local water source is threatened

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

This article was published on [06.11.15](#).

“This relates to Tahoe,” said a small, professorial man at the front of a hall at the Tahoe Environmental Research Center in Incline Village. “This climate change effect is progressing rapidly.”

So rapidly, in fact, that he said it was a threat to those who are “so dependent on Tahoe for a water supply.”

That would include Reno, Sparks, Pyramid Lake, and farmers in Lyon and Churchill County.

The speaker was Charles Goldman, the scientist who has studied Lake Tahoe longer than any other, recipient of the Albert Einstein World Prize in Science, and co-author of *Limnology*, a volume on the study of inland waters.

Goldman is the kind of expert people who don't get their science from Ted Nugent or the local weathercaster listen to about climate change. And he is alarmed. It's not just downstream water impact he worries about. It's the impact of climate change on the entire Sierra.

It's not that Westerners weren't warned. Eleven years ago, five scientists wrote a paper that included language like this:

“The projected changes include much-discussed warming trends as well as important changes in precipitation, extreme weather, and other climatic conditions, all of which may be expected to affect Sierra Nevada rivers, watersheds, landscapes, and ecosystems. ... it appears likely that climate change would affect hazards and ecosystems significantly and throughout the range. The riverine, ecological, fire, and geomorphic consequences are far from understood but are likely to be of considerable management concern.”

In 2011, the Endangered Species coalition called the Sierra one of the top 10 ecosystems needing protection.

There have been innumerable cautions about the vulnerability of birds in the Sierra Nevada.

A group of oceanographers wrote, “Floods from winter storms on the western slopes of the Sierra Nevada have been projected to increase in intensity in winter by all climate models that have been analyzed thus far, including models that otherwise project drier conditions.”

California's Central Valley—the breadbasket of the West, supplier of 30 percent of the nation's food, and one of the world's most important farm regions—is now producing 20 percent of its normal harvests.

The Union of Concerned Scientists tried appeals to self interest: “That decline [in snowpack] is likely to affect both the timing and availability of water for drinking, agriculture, and recreation. ... warmer temperatures typically increase evaporation rates and demand for water for crops. ... In this scenario, ski resorts might never have enough snow to operate without snowmaking machines, and could be forced to relocate. If we make significant efforts to reduce our emissions, the ski season at lower and middle elevations could shorten by a month.”

But such warnings are no match for denial activities massively funded by right-wing or corporate organizations like Donors Trust, the Howard Charitable Foundation, the Searle Freedom Trust, the John Williams Pope Foundation, and the Sarah Scaife Foundation. In 2013, a Drexel University study found that funding to denialists from Exxon Mobil and the Kochs had mostly ended while money coming from the foundations grew.

Complicating all of this is the current drought, and enduring misconceptions in the public mind.



The slopes of mountains around Lake Tahoe show the minor snowpack and water supply with which western Nevada begins a drought summer.

PHOTO/DENNIS MYERS

Advertisement

Sierra: high and dry

Many people believe that even if corporate and government policies can be changed, Earth will begin healing itself. But nature doesn't necessarily work that way.

"This is why Lake Erie didn't improve at all for years after they stopped putting fertilizer in the lake," Goldman said.

Scientists have warned repeatedly that some climate change effects are not reversible. "Have We Passed the Point of No Return on Climate Change?" is a headline that appeared last month in Scientific American.

In terms of the Sierra, Chelsea Arnold of the School of Natural Sciences at the University of California Merced said in 2014, "What we're seeing is that all kinds of extreme weather, including one dry winter like the one we just had, can totally change the structure of the soil. Part of that is an irreversible change. ... It's like with a raisin. You can add water, but all you're going to get is a soggy raisin."

The drought afflicts the area just as Nevada's terrific population growth has gotten back to normal—above 30 percent, highest in the region—while the snowpack is at 3 percent. And there is no way to tell when the drought will end. One Western drought ran from 1928 to 1939. One particularly bad drought was only a year long—1976-1977—but it did enormous damage. Tree ring studies have similar or longer droughts before the arrival of whites. During the 1930s, drought-marked tree stumps emerged from Lake Tahoe, sparking research by Samuel Harding and later scientists suggesting that a prolonged drought allowed the forest to grow lower in the basin for decades or more.

A late-1980s, early-1990s drought was six years long. Hydroelectric power generation was compromised, trees died, farmland fell fallow, the Truckee became a trickle (one rain in the very dry Sierra washed dirt downstream, turning the Truckee to a coffee-with-cream color for days, clogging the water treatment plant), and in some cases groundwater was used beyond its recharge rate. It was also a time of widespread wildfires.

The current drought is generally dated to 2010, with an acceleration of its impacts in 2012. Even if it were to end soon, the West needs to prepare for the next ones quickly. The National Aeronautics and Space Administration has projected "droughts in the U.S. Southwest and Central Plains during the last half of this century could be drier and longer than drought conditions seen in those regions in the last 1,000 years."

To Goldman, one of the first necessities is for trust in science to be restored. That may not be easy, given the kind of money that is being spent to make science the enemy. It would also require greater sophistication on the part of the public, to stop listening to figures who cherry-pick the science, cite only evidence that supports a pre-selected conclusion, and project short-term information into long-term conclusions.

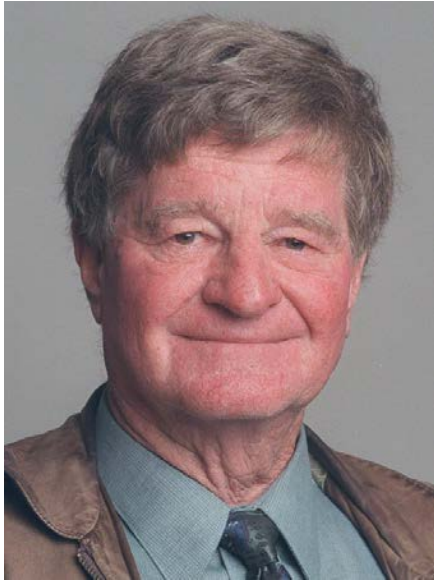
"Short term data is very, very poor to use in ecological predictions," Goldman said.

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Purdy: Governor must implement water rationing now

Jerry Purdy 11:12 a.m. PDT June 11, 2015

A mandatory reduction in water use will prevent the region from becoming a dust bowl.



Buy Photo

Jerry Purdy(Photo: Tim Dunn/RGJ)Buy Photo

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Our governor is to be commended for taking prompt action to appoint a committee of well-known respected members of our community to develop a plan to deal with our drought. I fully agree in normal times that developing a plan is the proper first step.

However, our extreme drought has existed for several years, is getting worse by the day and may be related to climate change, which is a scary thought. Data shows current water storage in our seven reservoirs is decreasing rapidly. Outflow from Boca Reservoir has stopped, causing a noticeable drop in Truckee River flow. This is the earliest date on record dating back 100 years.

the earliest date on record dating back 100 years.



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)

[RENO GAZETTE JOURNAL](#)

[Governor's panel to study drought's 'great uncertainty'](#)

Snowfall in the Sierra has been far below normal for the past four winters, with 2015-16 being the worst. The Truckee River Basin's snowpack measured 15 percent of normal and the Carson River Basin was at 1 percent.

Given all the irrefutable data, I think our governor should immediately issue an executive order imposing a 25 percent mandatory reduction in water use, similar to what California Governor Jerry Brown did earlier this month. It's wrong to continually deplete our reservoirs, so we can continue watering our lawns, and ignore how were affecting downstream water users.

[USA TODAY](#)

[California orders first-ever mandatory water reductions](#)

I'm a retired civil engineer from Wyoming, a state where water has always been in short supply. I remember cities and towns all across the state routinely making every effort to conserve water and use it wisely. We were all well aware surface and ground water must be used wisely or these resources could be depleted in a decade or less. Restoring the resource to its original state could take centuries, and only if all pumping and water diversions were completely stopped.

In the arid West, people know the size of a town is limited by the quantity of its drinking water supply, including Reno.

Our water supply problems include climate change and years of out-of-control growth and land development in Washoe County. I know these comments will inflame developers, real estate agents, and others, but please keep in mind the old saying, "Whiskey is for drinking, water is for fighting." The saying refers to how much of a limited water supply can be used, and who gets to use it. This always causes many heated arguments among local citizens, government officials, and others.