

Water Features

Goleta Water District News – Summer 2018



As the drought continues, we remain in a

Stage III Water Shortage Emergency

Thank you for being a water saver!

Emergency Preparedness – Conserving Water for Public Health and Safety

Uncharted Waters – Unprecedented Challenges

The ongoing drought and multiple fires in the Cachuma watershed have left the region grappling with questions of water quality, in addition to the ongoing water quantity challenges. Learn how recent burns are likely to affect the region and the impacts to water supply as water purveyors address the changing water quality conditions brought on by multiple successive disasters that will likely persist into the foreseeable future.

Plus: Sustainability – Proactive Investment in a Difficult Environment



[Photo: Burn areas from the Rey Fire and Whittier Fire, as well as airborne ash from the Thomas fire present water quality challenges at Lake Cachuma]

Resiliency and Sustainability



Resiliency and sustainability have been some of the key themes of the past year. Resiliency of the community to weather not just one but multiple disasters, and sustainability when it comes to preparing for the future.

This year's below average rainfall means the current drought now matches the seven year drought that stretched from 1985-1992 in length, and has surpassed it in severity. The community will need to wait another winter for any meaningful relief. Further exacerbating these conditions are the recent Rey, Whittier, and Thomas fires, all of which have had profound effects on the Cachuma Watershed and have led to deteriorating water quality conditions at the lake. The region is quickly entering uncharted waters from both a water supply and water quality standpoint, which this Newsletter discusses in more detail. Even with available surface water supplies, changing water quality at the lake is likely to make that water more difficult to treat and process as time goes on. As a result, the District's groundwater will remain as a key component to meeting community drinking water needs.

It helps that Goleta Water District customers are among the most conservation minded in California. Our residential per capita use over the last year averaged 51 gallons per person per day for combined indoor and outdoor use, which is among the lowest state-wide and half the State's goal of 110 gallons per capita. Goleta customers can be proud of their efforts, and I want to thank you for your conservation, which is even more important going into summer.

Together, working collaboratively, I am confident that we can solve the many issues we face, and keep Lake Cachuma a viable source of supply for the entire community.

John McInnes



General Manager

Stage III Water Shortage Emergency Restrictions Reminder

- ◆ Outdoor landscape irrigation *remains* limited to no more than two times per week during early morning or late evening hours, and no irrigation is allowed for 48 hours after it rains:
 - Manual watering (including with a sprinkler attached to a hose) is only allowed before 8 a.m. or after 8 p.m., any two days per week.
 - Use of fixed (i.e. installed) sprinkler systems must comply with the following updated schedule:
 - Residential properties may water Wednesdays and Saturdays, before 6 a.m. or after 8 p.m.
 - Commercial and institutional properties may water Tuesdays and Fridays, before 6 a.m. or after 8 p.m.
 - Public parks, athletic fields, and golf courses may water no more than two days per week, before 6 a.m. or after 8 p.m.
- ◆ Hotels, motels, and other lodging are required to post water shortage notices, and refrain from daily linen washing unless specifically requested by the patron.
- ◆ Agricultural customers using overhead spray irrigation outdoors are restricted to before 10 a.m. or after 4 p.m.

For a complete list of restrictions, information on conservation, tips, and rebates visit www.GoletaWater.com.

Q: How does the District test my water quality?

A: The United States Environmental Protection Agency (USEPA) and the State Water Resources Control Board (SWRCB) strictly regulate water provided by public water systems in order to ensure that tap water is safe to drink. Water served by the District meets State and Federal Primary Drinking Water Standards. All regulatory testing is conducted using state-certified laboratories, under strict protocols for water quality sampling. A summary of the results of tests conducted by the District is mailed to customers every year in the form of our Consumer Confidence Report. These results are published on our website at www.GoletaWater.com/water-quality.



Q: What could be causing my high water use?

A: Outdoor irrigation is typically the largest source of residential water use, so checking that sprinklers and irrigation systems are set correctly and aren't overwatering is the best place to start. Periodically check for leaks and overspray. Find more information on the most common water wasters in the home, and how to fix them at www.GoletaWater.com/easy-water-fix.

Emergency Preparedness

Between the recent fires and devastating mudslides, Santa Barbara County residents are becoming all too familiar with natural disasters. While the District has been able to maintain water treatment and distribution and operate normally during recent events, it's prudent to be prepared for emergency power outages, service interruptions, and road closures. With the continued drought and dry summer conditions ahead, now is a good time to make sure you are prepared.



The District provides water through its hydrants to support firefighting efforts, and locates high velocity filling stations for fire service personnel when necessary.



The District can operate its Corona Del Mar Water Treatment Plant and storage reservoirs on emergency generators, and works with regional partners in order to respond to changes in the weather or fire activity.

What Can You Do?

- Monitor and comply with emergency alerts.
- Be ready to go if an evacuation order is issued, and don't wait if you feel unsafe or need additional time or assistance.
- Keep roads clear for first responders.
- Turn off irrigation and minimize water use to preserve water for emergency responders.
- Sign up for and monitor emergency alerts: <http://awareandprepare.org>
- Take the time now to make sure your family (including pets) is prepared for a potential disaster by making a plan and building a Basic Disaster Supplies Kit: www.ready.gov/build-a-kit

Sign up for Aware and Prepare Alerts:

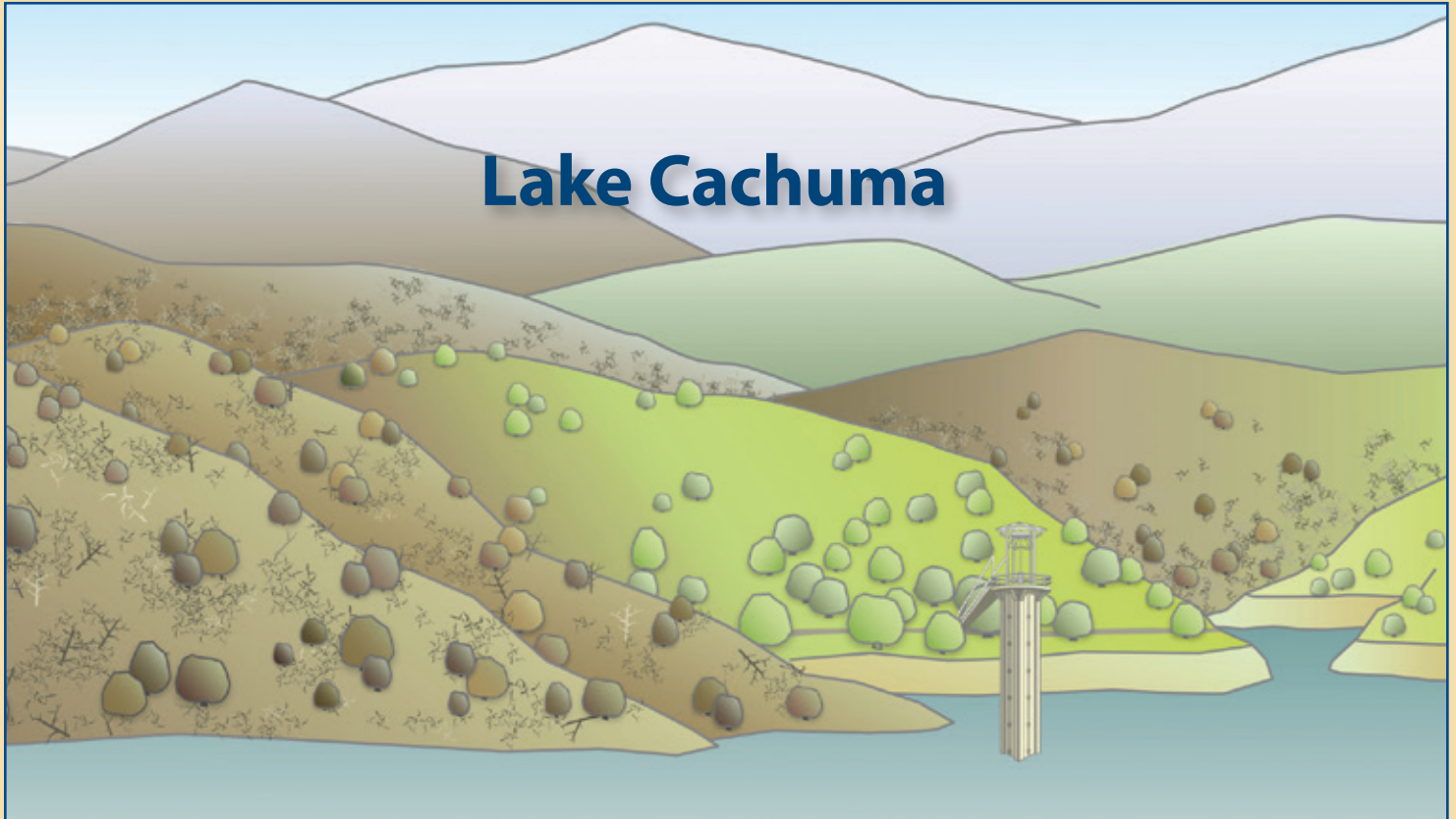
<http://awareandprepare.org>

For more info visit <https://readysbc.org>

The District's Board of Directors and Staff thank first responders for their outstanding efforts to keep the community safe.

Save Water for Public Health and Safety!

Uncharted Waters



The Whittier Fire in 2017 burned in the watershed adjacent to the intake tower that feeds water to the South Coast through the Tecolote Tunnel. Ash and charred vegetation have led to higher sediment levels in the water making treatment more difficult and costly.

Water Quantity Versus Water Quality

As if the severe drought wasn't enough, thanks to the Rey Fire in 2016, and the Whittier and Thomas Fires in 2017, the region is now grappling with not just a water shortage, but challenging water quality conditions at the lake. The Rey and Whittier fires burned directly in the Cachuma watershed, scorching trees and brush that had grown in the dry lake bed and leaving the soil vulnerable to erosion. Airborne ash from the Thomas fire deposited additional layers of fine silt onto the soil and into Lake Cachuma and Gibraltar Reservoir, which feeds the lake. Even with below average rainfall this winter, run off from the steep slopes has carried debris into the lake, and as this organic material

is submerged it breaks down, increasing particulate matter and presenting water treatment challenges. The effects of these fires on water quality are likely to persist for years as evidence of the previous Zaca Fire is still detectable at the lake ten years later. As the drought stretches into its seventh year, the South Coast finds itself hoping for rain, but also worrying about what those storms will do to water quality.

Complicating matters is the fact that Cachuma acts not only as a reservoir for surface water, but also serves as the conveyance facility to deliver State Water and any supplemental purchased water to the region. That means that water quality impacts will extend to alternative water supply sources as well, limiting the ability of water providers to switch supply sources.

Unprecedented Challenges



A view over the dry lake bed scorched first by drought, then by fire.

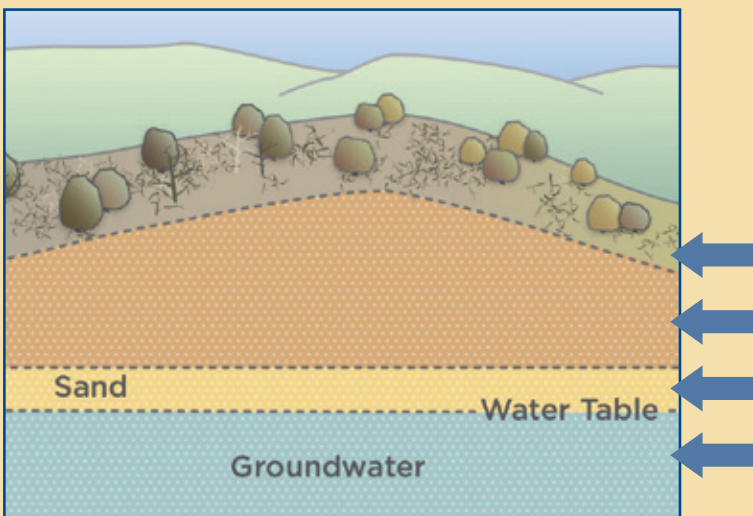


Even mild rains threaten to wash bare soil and burned trees down the steep slopes into the lake.

Prolonged Drought and Recent Fires Present Significant Water Quality Challenges

The changing water quality conditions we now face present a threat to the region's water providers. Modifications to routine operations and treatment processes are necessary and being made. The District is currently investigating additional treatment technologies that can be employed at the lake, at the Corona Del Mar Water Treatment Plant, or in the distribution system, but these solutions will take time to research, design and build. It is unlikely that any single one will provide a comprehensive solution, but rather that a variety of approaches will be necessary.

Relying on the Groundwater Basin



The District plans to alternate water supply sources throughout the year in response to changing water quality conditions at the lake. Especially during winter months when storm activity is generally greatest, and concerns over sediment in the lake are high, District wells pumping water from the Goleta Groundwater Basin are able to meet the public health and safety needs of the community. Given the ongoing drought, and the fact that the basin takes many years to recharge, this is not a long-term solution. As the drought stretches on, even maintaining the supply sources we currently have is not going to be easy or cheap—and adapting to worsening drought and fire conditions is not just an issue of emerging concern but one that is already here.

Groundwater refers to water stored underground in the spaces between sand, gravel, and rock. These sediments filter rain and runoff percolating into the soil and form a barrier that protects the groundwater basin from burn debris. The District's wells are also located many miles from the burn areas.

Lake Cachuma Drought Impacts

2011

The last year the dam spilled. Within 5 years Lake Cachuma had already reached historic lows, a testament to the severity of the current drought.



5

Number of gates on the intake tower that feeds water to the South Coast. Currently, only 3 gates are below the water level. If the lake drops significantly the Emergency Pumping Barge will need to be placed back into service.

40%

The lake is only 40% full.* While the lake level has rebounded from the record low of 7% reached in 2016, it's projected to fall to 30% by August of 2018. Without significant winter rains next year, it could be heading back to the single digits.

*As of 5/31/18



Sustainability: Proactive Investment in a Difficult Environment

Sustainable service delivery that balances economic, environmental and social principles is a central component of upholding the District's mission. Over the last five years these principles have taken on new meaning as severe drought, regulatory changes that threaten to alter long-term water supply reliability, and an aging distribution system have tested what it means to be a "sustainable" water provider. Even with these challenges, the District has generated a number of projects to conserve energy and save money.

Sustainability at a Glance



Supporting Customers in Saving Water

Since 2012, District residential customers reduced their already-low per capita water use during the drought, from 66 (2012) to 51 gallons per person per day over the last year. System-wide, demand decreased by 25% across all customer classes. This amounts to approximately 3,270 acre feet, or 1 billion gallons of water saved since 2012.

Increasing Energy Efficiency Through Optimization

Installation of high-efficiency motors, pumps, and variable frequency drives has allowed the District to streamline the sequencing of key distribution facilities to save energy, emissions, and reduce costs.



Expanded Online Offerings

Significant environmental and economic savings are the result of electronic billing ("e-Billing"), currently used by 38% of District customers. This has resulted in a 25% reduction in monthly customer walk-ins, saving customers time, miles driven, and related fuel use and greenhouse gas emissions. Over the five-year period, the e-Billing program has also saved over 25,000 pounds of paper that would otherwise have been used for bills, envelopes, and check payments, saving 250,000 gallons of water and 10,000 pounds of greenhouse gases.

Reducing Emissions

Despite driving approximately 5% more miles in 2016-17 compared to 2011 due to drought-related activities, fuel usage has dropped 26% thanks to the addition of vehicles with improved fuel efficiency, eliminating 118 metric tons of carbon dioxide.



Learn more about the many ways the District is pursuing sustainability at www.GoletaWater.com/sustainability



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REMEMBER, YOU CAN PAY YOUR BILL ONLINE

Visit our website for more information

www.GoletaWater.com is a great resource
Water-Wise Landscaping Tips and Planting
Resources | Board Meeting Agendas and
Minutes | Information About Rates | Water Quality
and more...

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Make a Change to Waterwise Landscaping



Waterwise landscaping is the key to a beautiful lush landscape that uses less water! Summer is a great time to plan irrigation and landscaping upgrades for your garden so you will be ready to plant in the fall.

- ✿ Explore the virtual gardens on www.WaterWiseSB.org.
- ✿ Get pre-qualified for a District rebate program.
- ✿ Schedule a conservation check up for your irrigation system and landscaping.
- ✿ Research plant needs, soil type, and drainage to determine whether graywater systems will work for your landscaping.
- ✿ Delay planting until fall to give plants the best start.

Summer Conservation Tips

- ◆ Decide which trees and plants are the most important and dedicate limited water to them first.
- ◆ Check for and fix leaks in your irrigation system.
Visit www.WaterWiseSB.org for video tutorials.
- ◆ Consider replacing older, less water efficient equipment. District rebate programs are available to help fund these replacements.
- ◆ Install a Laundry to Landscape or Showers to Flowers graywater system to reuse water for sustainable landscape irrigation.
- ◆ Use a bucket to catch water in your shower for use on your plants.
- ◆ Direct your gardener to implement waterwise landscaping practices.
- ◆ Mulch plants to reduce evaporation.

For more water saving tips and information visit www.WaterWiseSB.org! Follow the District on Twitter and Facebook!



Contact

Call us: (805) 964-6761
Press 1 for drought information

Visit our office: 4699 Hollister Ave.
8 a.m. to 5 p.m., Mon. – Fri.

Send us an email:
info@GoletaWater.com

Visit our website:
www.GoletaWater.com

The District Board of Directors meets on the second Tuesday of every month at 5:30 p.m. at the District office. The public is always welcome.