

Water Features

Goleta Water District News – Winter 2018



Entering a 7th year of drought we remain in a

Stage III Water Shortage Emergency

Thank you for being a water saver!

If it Rains More... and if it Doesn't

Watching Winter Weather

After six years of prolonged drought, this winter the community will be taking a wait and see approach. Will it be an average year? What will it take to end the drought? Even with rain, the true impact of winter storms may not be fully evident until early next summer.

Plus: An Update on Water Quality After Recent Fires



[Cover Photo: Dry conditions, low humidity and vegetation growth from winter rains fueled the Whittier and Thomas Fires which will affect Lake Cachuma]



Watching Winter Weather

Winter typically brings the rainy season, but will it bring significant drought relief? Only time will tell.

Rain in early January, and the resulting mud and debris flows, caused the tragic loss of life and the loss of homes in the Thomas Fire burn areas of Montecito and Carpinteria, and water supply concerns for those communities. So our hope for continuing rains is tempered with caution.

Typically, the South Coast receives the majority of its average 18 inches of rain between December and April. The impact of seasonal storms can be dramatic, as witnessed last year when over 10 inches fell in February and the lake rose from 7% to 50% of capacity. Of course, even El Niño can fail to deliver as it did locally in 2015, when rainfall totals were below average.

The true impacts of these storms on available water supply often aren't fully understood until late spring when lake levels and water supply can be assessed by the Federal and State government to determine how much deliveries to local water purveyors will be adjusted as a result. The Federal government typically makes its announcement as early as April when the Bureau of Reclamation determines whether there are sufficient supplies to make additional water available to agencies for use through a mid-year allocation. Depending on rainfall in Northern California, the State Water Project allocation typically gets adjusted in March and April.

This means the District will likely not know the full impact of winter rains on the community's water supply outlook until early next summer. As detailed in the *If it Rains More, and if it Doesn't* article featured in this newsletter, drought conditions are greatly affected by how much rain we receive, as well as the frequency and duration of storms. Rain patterns also correlate with runoff in the Cachuma watershed which, when combined with the recent fires, will ultimately dictate the quality of water available.

While we certainly hope for a gentle but wet winter, the District is preparing for a number of weather scenarios so that it can continue to deliver safe, reliable water to the community. Thank you for your continued conservation.

John McInnes

General Manager

Stage III Water Shortage Emergency Restrictions Reminder

- ◆ No irrigation is allowed for 48 hours after it rains.
- ◆ Outdoor landscape irrigation remains limited to no more than two times per week during early morning or late evening hours:
 - 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: Are we still in drought?

A: Yes, while the rest of the state has recovered from the drought, and January has brought rains, Southern Santa Barbara County remains in drought. The County has continued to reissue the emergency drought declaration on a monthly basis, and the District remains in a Stage III Water Shortage Emergency due to the water supply outlook for the next 12-24 months. Last winter's storms, while helpful, were not enough to end the drought. Depending on rainfall this winter, come spring the District will reevaluate to determine the impact of this year's rainfall.



Q: Why is all this building still happening in a drought?

A: Much of the current construction is for developments that secured water rights years ago, before the current drought. By law, the District cannot take these rights away, nor can it prevent property owners from exercising water entitlements that were approved and paid for prior to the drought. The District does not approve projects, it simply serves water to homes, businesses, and agricultural operations in its service territory. The District has no land use authority, meaning the District does not approve or deny development projects or determine whether or not the project will have adverse impacts on the community. That is the responsibility of the City of Goleta or the County of Santa Barbara. Water supply and impacts are only one of eighteen resources categories project applicants must address during the environmental review process. While many are frustrated to see development during the drought, under state law the District is obligated to provide water service to projects that have valid pre-existing water entitlements.

Q: How can I save water this winter and protect my landscaping?

A: With cooler temperatures and rainfall, you can save money and water by turning your irrigation off when it rains, and waiting for the ground to dry out completely. Many landscapes can go a month or longer without irrigation during the winter. Consider mulching plants to help protect plants against temperature changes, reduce evaporation, and control weed growth.

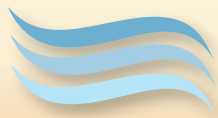
Q: How should I clean ash following the Thomas Fire?

A: Ash and air quality issues are likely to be a persistent problem even with rains. Wind can still kick up ash from burn areas. Do not use a leaf blower under any circumstances. Use a wet cloth or mop to clean items and surfaces. Outdoors, the use of a hose nozzle with a light spray may help keep ash from blowing, but keep in mind that wet ash can cause skin irritation and even chemical burns. If you do need to remove ash, more information can be found on the District website at www.GoletaWater.com/ash-clean-up-best-practices.

Saving Water With Recycled Water Partnerships



The Goleta West Sanitary District is currently in the process of securing a recycled water permit that would allow it to use recycled water provided by the District for street sweeping operations throughout its service area. Once approved, this project will conserve 1 to 1.5 million gallons of drinking water or more. When it comes to promoting alternative water supplies, the District works with a variety of commercial, private and government partners to conserve water for drinking and promote water reuse. For more information on recycled water visit www.GoletaWater.com/rwp.



If it Rains More...

This winter, the future of the continued drought on the South Coast remains unknown. Will rains continue, bringing drought relief, but the possibility of more mud and debris flow danger, or will another dry year push us back toward a more severe drought?

What Will the Impacts of Winter Storms be?

The answer is that the impact of winter storms will depend on both the amount of rain received and the pattern of storms. A sustained series of moderate storms in quick succession would leave the watershed saturated, facilitating runoff into the lake from late season storms. By contrast, a few large storms could cause flooding and significant erosion that could degrade water quality and bring sedimentation into the lake. Keeping in mind that a minimum of 15 inches

is typically needed before inflow to the lake occurs, anything less than that is likely to be absorbed into the ground. That's why large late season storms can produce significant changes in Cachuma Lake levels, but smaller storms at the end of the rainy season may never generate enough runoff to have any impact. In order to see significant inflow to the lake, an average to above average rainfall year will be needed.



	Above Average Year	Average Year	Below Average Year
Drought Stage	Likely move to a Stage I or Stage II Water Shortage Emergency.	Likely remain in a Stage III, possible Stage II Water Shortage Emergency.	Likely remain in a Stage III, possible Stage IV Water Shortage Emergency.
Water Quality	Significant inflow will dilute but not negate the impact of organic loading associated with fire debris.	Inflow to the lake may provide some benefit to water quality, but if debris loads are high, water quality could worsen.	Likely no significant inflow to lake except for fire debris, degrading further water quality conditions as lake levels drop.
Lake Levels	Expect improved lake levels, and an increased Cachuma allocation.	Lake levels may rise.	Lake levels will likely stay the same, then drop further over the summer.

...And if it Doesn't

Another Dry Year?

Another dry year would deliver a significant setback for the water supply outlook. Last winter's rains improved lake levels, but were not enough to offset half a decade of drought, and another year of below average rainfall would effectively erase any gains made. Lake Cachuma would decline significantly, and the District would likely continue to receive a substantially reduced allocation from the lake.

A below average year would also exacerbate water quality issues, since the only runoff likely to occur would be in steep areas of the watershed that saw extensive burns during the Whittier Fire in July 2017 and the Thomas Fire in December 2017. Given the proximity of the Whittier Fire burn area to the water intake tower, and the lack of vegetation to hold back erosion, even a small amount of rain is likely to cause significant debris flow into the lake, significantly degrading water quality.

Impact on Drought Stages

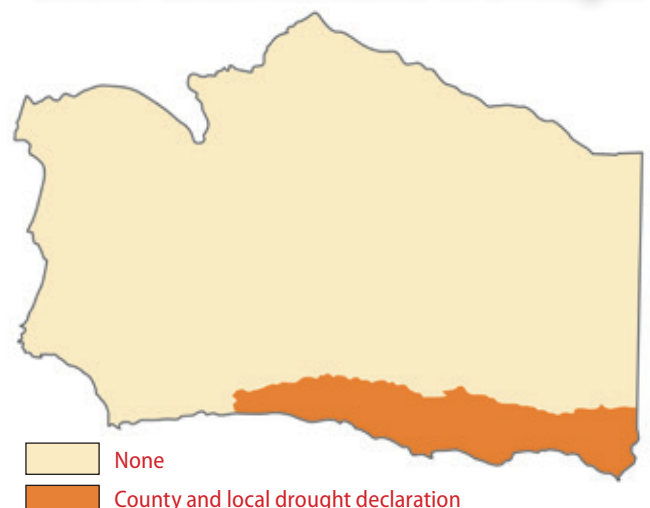
From a water supply standpoint, as long as the District receives a State Water allocation of 60% or higher, the District would likely remain in a Stage III Water Shortage Emergency in a below average year. In the event a State Water allocation is below average and Cachuma remains below 40%, there is a possibility that another dry year could force the District to consider a Stage IV Water Shortage Emergency.

Slow and Steady or a Few Large Storms?

The pattern of rainfall significantly influences lake levels and the overall drought outlook. A series of early winter storms primes the watershed for maximum inflow to the lake. By contrast, many small, light rain events result in little to no runoff. As recent events have demonstrated, high intensity rainfall following massive wildfires creates extremely challenging conditions for water purveyors and everyone in affected communities.

For up to date rainfall levels visit www.countyofsb.org/pwd/hydrology.sbc

South Coast Remains in Drought



Water Quality Update

As the water level at Lake Cachuma has risen and receded over the years, vegetation has grown in the dry lake bed. Last year's winter storms submerged this growth, which is now experiencing natural decay and increasing the concentration of organic material in the lake. Compounding these conditions are the effects of the 2017 Whittier and Thomas Fires and the 2016 Rey Fire, all of which burned a large portion of the Lake Cachuma watershed. Airborne ash and sediment from the Thomas Fire is expected to adversely affect the Jameson and Gibraltar Reservoirs, further harming Lake Cachuma, as winter rains threaten to carry charred debris into the lake. Of particular concern is the Whittier Fire burn area near the water intake tower that conveys water to the South Coast. Burned vegetation, ash, and eroded sediment are expected to substantially degrade the quality of the raw water that flows into the Corona Del Mar Water Treatment Plant.

As the concentration of materials that have to be removed from the water during the treatment process increases, these changing water quality conditions present new treatment challenges. For example, chlorine, which is widely used across the State and the Country for disinfection, reacts with organic material in the water to produce disinfection by-products, which also need to be removed.

As the water quality of Lake Cachuma evolves, the District is doing everything it can to address this emerging issue to remain in compliance with State and Federal Primary Drinking Water Standards. The District continues to actively monitor water quality through the thousands of tests it conducts each year, and employs automated test equipment that continually analyzes water at different stages of the treatment process around the clock. The results are mailed to District customers every year in the form of a Consumer Confidence Report and are published on the District's website at www.GoletaWater.com/water-quality.

Even if winter rains were to end the drought, the water quality challenges associated with the prolonged drought and recent fires will likely persist for many years.

The 2017 Whittier Fire and the 2016 Rey Fire burned a large portion of the Lake Cachuma watershed. Dry conditions, record temperatures, and low humidity fueled the destructive Thomas Fire.



The Whittier fire burned to the edge of Lake Cachuma.

State of the Art Water Testing and Treatment

Strict Federal and State Quality Regulations

In order to ensure that tap water is safe to drink, the United States Environmental Protection Agency (USEPA) and the State Water Resources Control Board (SWRCB) regulate certain contaminants in water provided by public water systems. The District is pleased to report that it is in compliance with all State and Federal Primary Drinking Water Standards. All of the District's regulatory tests are conducted by state-certified water quality experts in state-certified labs.

For more information visit
www.GoletaWater.com/water-quality.



At a Glance

What the District is Doing Now to Maintain Water Quality

- Shifted the primary source of water from Lake Cachuma to groundwater, which contains little to no organic material. Because the water in the region is very hard, and people have varying preferences for water, customers may wish to consider additional filters or water softeners to offset the naturally occurring minerals in the water that are not completely removed by the treatment process.
- Reduced storage in distribution reservoirs to 50% during normal operations to decrease the time water spends in the system to improve water quality conditions.
- Flushed the entire distribution system of sediment and mineral deposits for the first time since the drought started in 2011. More frequent flushing of fire hydrants is planned in the future to decrease how long water stays in areas of the system with low demand.
- Reduced pre-chlorination levels to the minimum possible while still preventing algae growth in the basins at the Corona Del Mar Water Treatment Plant.

What the District Plans to Do to Maintain Water Quality in the Future

- Add aeration and other equipment designed to increase water circulation at various points in the distribution system.
- Investigate installing covers on the sedimentation, flocculation, and filter basins to reduce chemical loss, lower temperatures, and reduce algae growth.
- Pilot test several potential supplementary treatment approaches.

Short-term costs related to water quality are funded in the FY 2017-18 budget, as well as the Board adopted 2015-2020 Infrastructure Improvement Plan. The long-term costs for treating and maintaining water quality into the future are not yet known, but they are likely to be substantial.



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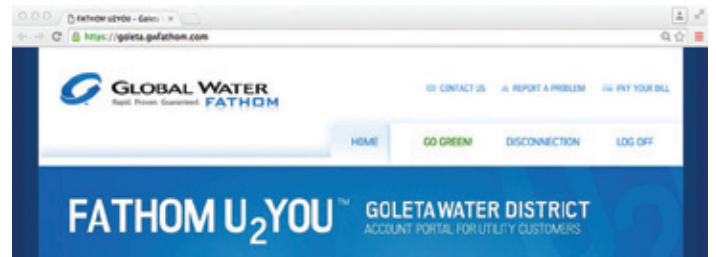


Save Water with the Push of a Button

Adjusting your irrigation timer is easy and can save significant amounts of water and money, all without sacrificing your landscape. Don't forget to reduce your irrigation as plants need less watering in the cooler winter months. Watering is prohibited for 48 hours after it rains. Many landscapes only need deep watering once a month, and some can go even longer. Mulching now reduces spring weeds. Check the seasonal water adjust calculator at www.WaterWiseSB.org for more details.

For more information on conservation visit www.GoletaWater.com/conservation.

Online Customer Access



24/7 Online Access – View your usage, billing, and payment history, as well as your current balance.

Paperless Statements – Get your monthly bill delivered electronically to your email, and access your monthly bill anytime, and from anywhere.

Automatic Payment – Use your bank account (no charge) or credit/debit card (2.8% fee) to ensure your payment is timely and avoid late fees, penalties, finance charges and even service shut-off. *Thank you for helping us save paper.*

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.