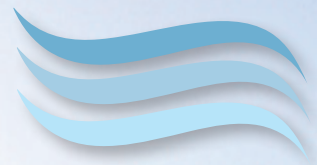


Water Features

Goleta Water District News – Winter 2017



Even with winter rains, we are still in a

Stage III Water Shortage Emergency

Thank you for being a water saver!

Lake Cachuma - Before and During the Drought

A Changing Lake Cachuma

With a severe drought, a pending State Water Order and new Biological Opinion, Lake Cachuma faces an uncertain future. Even with recent storms, at the end of January lake levels are projected to be just under 15%. The historic drought has reduced Lake Cachuma to essentially a conveyance facility used to move water from the State Water Project to the South Coast.

Plus: District Encourages Customers to Reduce Outdoor Watering



[Cover Photo: Late afternoon view of a depleted Lake Cachuma toward Bradbury Dam]

Managing Through the Drought



The Goleta Valley has a long history of cyclic drought, and the droughts of the 1970s and 1990s left a lasting legacy of conservation in the community. But the current drought is the most severe in our recorded history, and it's challenging both traditional water supply planning as well as conventional wisdom. For example, Lake Cachuma was previously assumed to hold a seven-year supply of water. Yet only five years after the lake last spilled in 2011, Cachuma is at all-time lows not seen since the lake's construction in the 1950s.

Why has this drought been so severe? First, the years have been drier, and the weather hotter. Average annual rainfall is typically 18 inches, yet recently we've seen successive years of below average rainfall ranging from 8 to 13 inches per year. Increased temperatures have also contributed to greater evaporation and increased demand. There is no certainty that future droughts won't be similarly severe.

Given the ongoing drought conditions, and the fact that at the end of January Lake Cachuma is projected to be just under 15% capacity, even a wet year isn't going to be enough to return us to normal conditions. A major storm event like the "March Miracle" in 1991 if it occurred today would likely only raise lake levels by a third. It is important to note that while winter rain is needed, this does not mean the drought is over.

The hot, dry weather isn't the only challenge facing Lake Cachuma. Additional State and Federal changes detailed in this newsletter will also reshape the role of the lake in the community. The lake was built to supply water to the Goleta Valley and surrounding communities, and has been a critical, reliable and low cost supply source for over fifty years. Accordingly, any reductions in the amount of water available that are caused by actions of State and Federal governmental agencies will undoubtedly have significant long-term potential impacts on water supply planning, with the potential to significantly increase costs in the future.

The District is actively managing through the current drought, even as it navigates these new State and Federal requirements that will shape the future role of Lake Cachuma.

In the meantime, thank you for your continued conservation.

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.

Urban Development During Drought

Q&A

Q: Who approves development?

A: Development is approved by agencies given land use authority under the State Constitution, such as the City of Goleta and the County of Santa Barbara. The District does not approve or deny projects or determine whether a project will have adverse impacts on the community. The District's role is limited to issuing can and will serve letters through the process illustrated below.

Q: How much water is all of this new development using?

A: All of the water being used by new development over the last five years is less than 200 acre feet. For comparison, the overall average annual demand in a normal year is approximately 14,000 acre feet.

Q: How does water use now compare to use during the previous droughts in the 1970s and the 1990s?

A: Even with population growth, overall water use has remained relatively flat. This is due to the increased water efficiency of plumbing fixture updates, more water efficient irrigation systems and washing machines, and to the continuing remarkable conservation efforts of our Goleta Valley community.

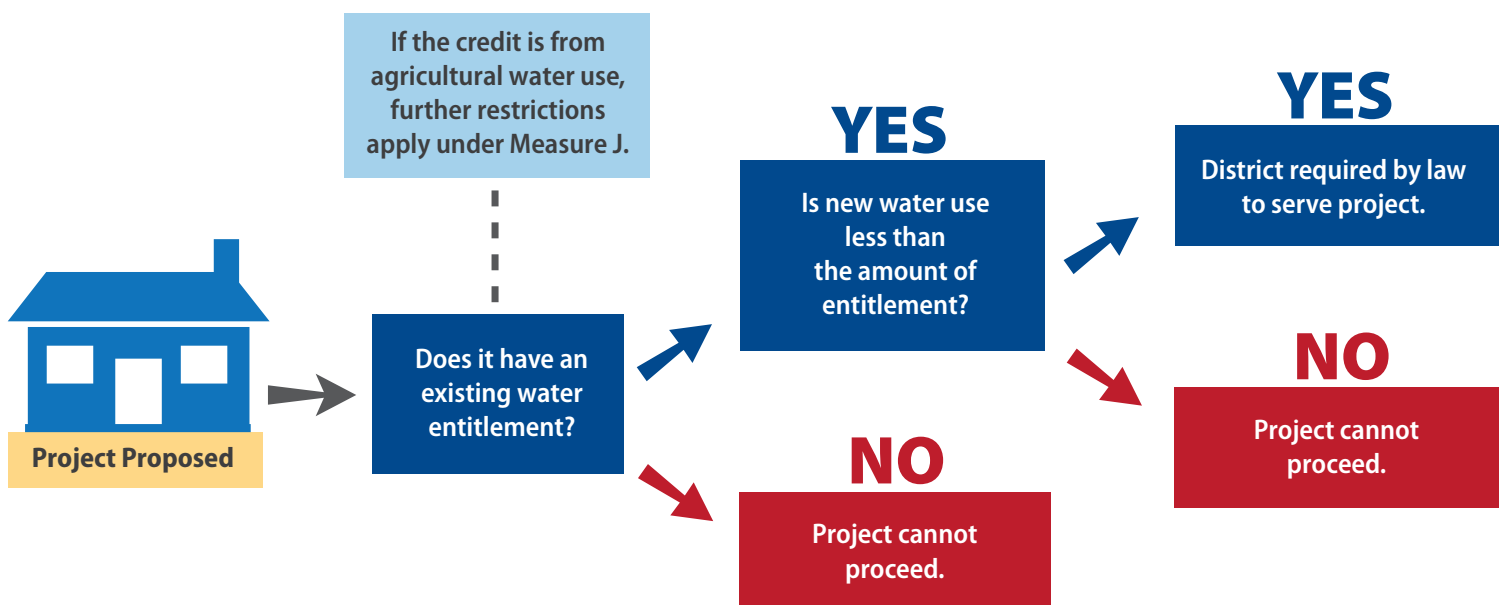
Q: Can you explain the moratorium on new meters?

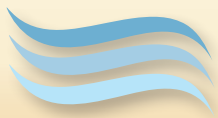
A: Under the SAFE Water Supplies Ordinance, the District has not issued any new water allocations since October 2014. The District has only issued meters to projects that secured water allocations prior to October 1, 2014.

Q: What about the impact of development using historical water entitlements?

A: Some projects have historical water entitlements and already have meters. By law, the District must honor historical entitlements and serve these customers.

Process for Issuing Can and Will Serve Letters for New Connections





A Changing Lake Cachuma

Even with winter rains, the Goleta Valley still faces the worst drought in its recorded history.

A Changing Lake Cachuma

Lake Cachuma continues to face significant challenges. The lake capacity hovers at 15%. The boat launch leads to a dry lake bed full of weeds, and the intake tower sits in a dry field. The images are a stark reminder of the severity of the current drought. Last year's El Niño brought winter rains to Northern California, but little rain fell locally and the ground was so dry that no water flowed into Lake Cachuma. With the recent storms in January we are just beginning to see inflow into the lake. The "March Miracle" that occurred in 1991 during the last significant drought delivered 11 inches that month. Given the current level of the lake, even a deluge of that magnitude is estimated to fill Cachuma by only a third.

While a year of above average rainfall would certainly help, a single winter storm cannot deliver enough rain to end the drought. Several years of above average rainfall would likely be needed, and each of the last five years has been below average. Average annual rainfall is 18 inches, and in the last four years the range has been 8 to 13 inches.

In fall of 2016, the State released a draft Water Rights Order that would, if adopted, further reduce water availability for the District and other South Coast agencies in certain conditions due to concerns over the steelhead trout. The Federal Government is anticipated to release a new draft Biological Opinion in early 2017. Since 1993 the five Cachuma Member Agencies, including the Goleta Water District, have worked with the Federal Government and other Santa Ynez River stakeholders to develop fish management programs that protect both the endangered Southern California Steelhead as well as the region's water supplies. One particularly troubling new mandate is that releases during wet years will be significantly increased. That's water the South Coast has traditionally stored in the lake for use in dry years. With our arid climate and cycles of drought local communities have always depended on the wet years to get through the all too frequent dry ones.

With potential reductions in the District's Cachuma allocation due to the draft State Water Order and the Biological Opinion, the role of Lake Cachuma as a primary water supply for the community may be altered forever.

Drought Continues in Our Region



Maximum pipeline delivery capacity is 48 Acre Feet (AF) per day, of which the District's share is 40%, or 19 AF per day.



Not Just Supply Problems, But Delivery Challenges

In addition to storing water, the lake serves as a conveyance facility by providing the infrastructure through which water can be brought down from the northern parts of the state and delivered to the South Coast via the Tecolote Tunnel. However, the size of the pipelines in and out of the lake means there are delivery constraints. The current delivery infrastructure into the lake allows 48 AF to be delivered per day. Local water agencies are allocated a percentage of the pipeline capacity, and must schedule water deliveries a month in advance. Due to the drought and declining lake levels, a pumping barge is now needed to move water into the Tecolote Tunnel. While many agencies have sufficient supplies, without careful planning delivery challenges could become an issue in the spring. That is why the District models supply and demand on a 12 and 24 month cycle, in order to meet both water supply needs and schedule adequate pipeline capacity for delivery.

While the District is well positioned to meet these water supply and delivery challenges, their impact will be felt by the community. That is why the District is actively working with customers to support continued conservation, and developing new sources of water supply, including exploring options for expanding the use of recycled water, and opportunities for stormwater capture. With the future of Lake Cachuma uncertain, enhancing the available water supply portfolio will be crucial, and conservation remains critical now and into the future.

This winter, please help conserve water by reducing outdoor irrigation, checking timer settings, and prioritizing water for trees and drought tolerant landscaping.

Lake Cachuma - Before and During the Drought

Lake Cachuma has reached new volumetric lows. As the following photos exhibit, Lake Cachuma and Bradbury Dam show dramatic differences between the most recent abundance of water in 2011 – when the dam last spilled – and the current state of the lake as we deal with the challenging drought conditions.



Winter 2011

View of Lake Cachuma at 100% capacity vs. 7% in Fall 2016



Fall 2016



Winter 2011

View of Bradbury Dam from the lookout point



Fall 2016



Winter 2014

View of the Intake Tower which feeds the South Coast Conduit



Fall 2016

The Winter 2014 view shows the lake water still reaching the Intake Tower that feeds the Tecolote Tunnel and the South Coast Conduit. The comparison photo from October 2016 reveals the pipeline along the lake bed that now provides water to the South Coast.

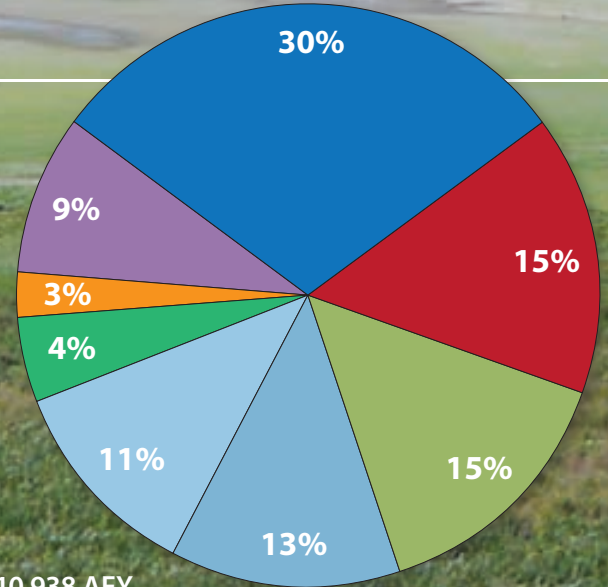
[Photo: View of the pipeline running along the dry lake bed from the pumping barge to the Intake Tower which feeds the South Coast Conduit]

Even With Winter Rains Conservation Remains Critical

2016-17 Projected Water Use by Customer Category

The District provides water to a variety of customers with different water needs. This chart shows the breakdown of water use among the various types of customers served:

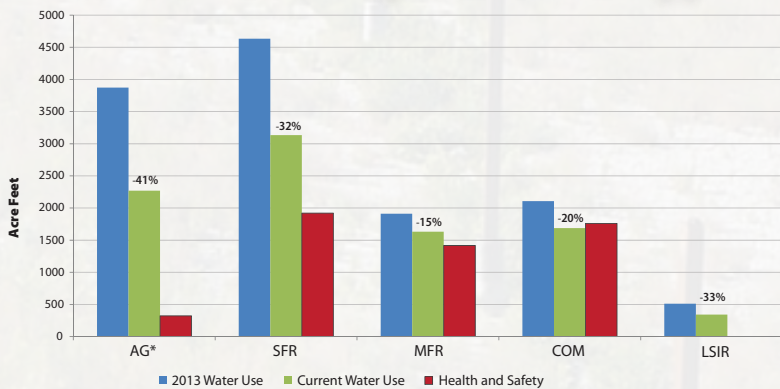
Acre Feet	Supply Category
3,264	Single Family Residential (SFR)
1,697	Multi-family Residential (MFR)
1,594	Commercial (COM)
1,399	Urban Agriculture (AG)*
1,248	Goleta West Conduit (GWC-AG)*
491	Institutional
299	Landscape Irrigation (LSIR)
946	Recycled



Total Projected Water Use for FY 2016-17 = 10,938 AFY

*Both Urban Agriculture and GWC reflect agricultural use

Conservation by Customer Type



*Combined Urban Agriculture and GWC agricultural use

How Much Have Customers Conserved?

Drought portals featuring conservation data, and information on restrictions and rebates for each customer category are available by visiting www.GoletaWater.com/drought-portals

How Can We Conserve More Water?

The District is strongly encouraging customers to continue to reduce water use during this unprecedented drought. On average as much as half of residential water use is for outdoor watering. One of the easiest ways to save water is by removing or reducing your lawn. While the District does not currently prohibit lawn irrigation, more severe restrictions banning the use of outdoor sprinklers and the watering of lawns may become necessary later this year.



Removing or reducing lawns will save the most water



GOLETA WATER DISTRICT
 4699 Hollister Avenue
 Goleta, California 93110
 805/964-6761
info@goletawater.com

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...

PRSRT STD
 U.S. POSTAGE
 PAID
 SANTA BARBARA, CA
 PERMIT NO. 1215

Board of Directors

Richard Merrifield, *President*
 Meg West, *Vice-President*
 Jack Cunningham
 Lauren Hanson
 Bill Rosen

John McInnes, *General Manager*



Printed on FSC®certified 30% post-consumer waste (PCW) recycled paper from well managed forests, that is elemental chlorine free, from a clean mill with a sustainability charter. Each ton of recycled paper saves 7,000 gallons of water.

Follow us on social media:



Deep Watering Plants

While current watering restrictions allow for outdoor irrigation up to two days per week, many landscapes only need deep watering once a month, and some can go even longer during the cooler winter months. Watering deeply less frequently encourages deeper root growth, and saves water and money. Water late at night or early in the morning to reduce evaporation, and mulch plants to retain moisture. The Santa Barbara County Landscape Watering Calculator is an easy-to-use tool that helps you estimate the right amount of water to give your landscape or garden. Visit www.WaterWiseSB.org/calculator.

NEW Rebates Available

Save water indoors and outdoors! The District is now offering rebates of up to \$150 to residential customers toward the purchase of water efficient washing machines. The District is also offering \$80 mulch delivery rebates to customers for free mulch from the County of Santa Barbara. Up to two deliveries per year. For more information visit www.GoletaWater.com/rebates.



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.