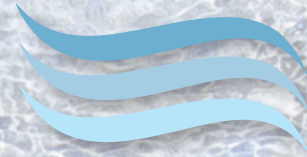


Water Features

Goleta Water District News – Summer 2019



Thanks to Winter Rains...

Watering Restrictions and the Drought Surcharge Have Been Lifted

On April 9, 2019 in response to an increased allocation of surface water supplies from Lake Cachuma the Water Shortage was lowered from a Stage III to a Stage I.

Plus: The Future of Water – What is the New Normal?



Check your account online at www.GoletaWater.com/onlineaccess



Water, A Critical Resource

Thankfully, this year brought an end to several years of abnormally low rainfall and the severity of our community's water shortage has been greatly diminished. After receiving 23 inches of rain over the winter, Lake Cachuma water storage rose from 32% to 80% and the United States Bureau of Reclamation issued a full allocation of annual water entitlement to the region's water purveyors. Consequently, the District was able to reduce its declared water shortage stage from a III to a I, thereby lifting all watering restrictions and the corresponding drought surcharge.

The recent drought is the longest and deepest in the area's history and will undoubtedly have a long-lasting effect on the community. Here at the District, there are several notable examples of how the drought has impacted future capital requirements and operations.

First, it only takes a few dry years to enter a drought and potentially several more for the resulting water shortage to dissipate. Keep in mind that the lake last spilled in 2011 and by 2014 the area was in drought. By 2016, Lake Cachuma levels were at 7%, which was the lowest since the Bradbury Dam's construction in 1953. While we've seen surface water supplies rebound quickly with a series of wet winter storms, it will likely take several years for the groundwater basin to fully replenish. As such, the District is now examining various capital improvements to its well field that are necessary to expedite the timeframe for basin recharge via the injection of available surface water.

Second, while the District's diverse water supply provides a critical tool for navigating through droughts, the investment to protect this resource and the infrastructure required to access it come at considerable expense. This is especially true of the District's drought buffer, the Goleta Water Basin, where the ongoing maintenance and operating expenses associated with maintaining wells and related production and distribution infrastructure can be significant. Thus, long-term water is likely to be more expensive than was historically the case when the District could rely on Lake Cachuma to serve as its primary source of supply.

Third, and certainly no less significant than supply, water quality has become one of the most pressing challenges. As lake levels drop, water quality conditions degrade, thereby requiring additional treatment. Specifically, the vegetation that grows during dry periods decays when flooded, increasing organic matter in the water and deteriorating water quality. Wildfires in the watershed further compound the problem, resulting in debris being washed into the lake and increasing the nutrients available to algae. To maintain the high level of water quality ultimately delivered to customers, significant investment in enhanced treatment and various system upgrades necessary to blend surface water with groundwater will likely be required. Similar to adjustments in water supply, these new treatment and distribution improvements will only add to the overall cost of maintaining the water system.

Clearly, much has been learned from the recent and historic drought and the District is well-positioned to endure any future water shortages while continuing to provide a reliable supply of quality water at the most reasonable cost to all current and future customers. It is also clear that water remains a critical resource and the District recognizes and greatly appreciates its customers for being among the most responsible and frugal in the entire state of California.

John McInnes

A handwritten signature in blue ink, appearing to read 'J. McInnes', written over a white background.

General Manager

State of California Water Waste Prohibitions

While conservation is now voluntary, water waste prohibitions remain in effect: water runoff is prohibited, and leaks must be fixed within 24 hours. Permanent water waste restrictions adopted by the State of California include:

- ◆ Potable water may not be used to wash down sidewalks and driveways.
- ◆ Runoff caused by irrigation is prohibited.
- ◆ Vehicles must be washed using a hose with a shutoff nozzle.
- ◆ Decorative water features must use recirculated water.
- ◆ Outdoor irrigation is prohibited during and within 48 hours following measurable rainfall.

For Information on conservation, visit www.GoletaWater.com.



Q&A

Q: *Why is the District still in a Stage I Water Shortage?*

A: A water shortage occurs when the water supply is insufficient to meet projected demand in the near-term or the future. The District is currently in a Stage I Water Shortage, because the water supply is less than 80% of normal demand for the next 24 months.

Q: *Has the SAFE moratorium on new meters and new water entitlements been lifted?*

A: No. The moratorium remains in effect. Under the SAFE Water Supplies (SAFE) Ordinance, four conditions must be satisfied for the District to resume issuing new meters and water entitlements. Currently, the District is unable to make its annual storage commitment of at least 2,477 acre-feet (AF) to the stored Drought Buffer in the Goleta Groundwater Basin because groundwater must be produced to serve existing customers. Accordingly, the District remains prohibited from providing new or additional potable service connections.

The Drought in Pictures



Lake Cachuma October 2018 vs. March 2019



Winter rains made a significant impact on lake levels as evident from these striking photos taken just 6 months apart.

The Future of Water

What is the new normal? To address challenging water quality issues at Lake Cachuma, the District plans to rely on surface water and groundwater. The costs, infrastructure, and treatment protocols involved in this operating scenario look similar to operations at the height of the drought.

Addressing Water Quality Challenges

Several consecutive years of below-average rainfall, in combination with the impacts from the Rey, Whittier, and Thomas fires on the Cachuma watershed, have resulted in changing water quality conditions at the lake. The District continues to face higher treatment and operational costs that look very similar to those experienced during the drought. However, unlike drought operations, which were funded in large part with the drought surcharge, these expenses come at a time of reduced revenue. Costs related to increased chemical treatment and testing, as well as the expense of the seasonal blending of groundwater and surface water, and the pumping and distribution infrastructure needed to deliver that water to customers, will result in higher costs both in the projected FY 2019-20 budget and beyond.

To make up for the shortfall, this year's budget forgoes certain operations and maintenance activities and defers a number of previously planned capital projects. These cuts provide a one-time solution but they are not sustainable in the long term. Making use of a mixed water supply will be more costly in the future.



Winter rains brought visible relief to the lake, but also washed significant sediment and ash into the Santa Ynez River that feeds the lake, worsening water quality.

Normal Operations

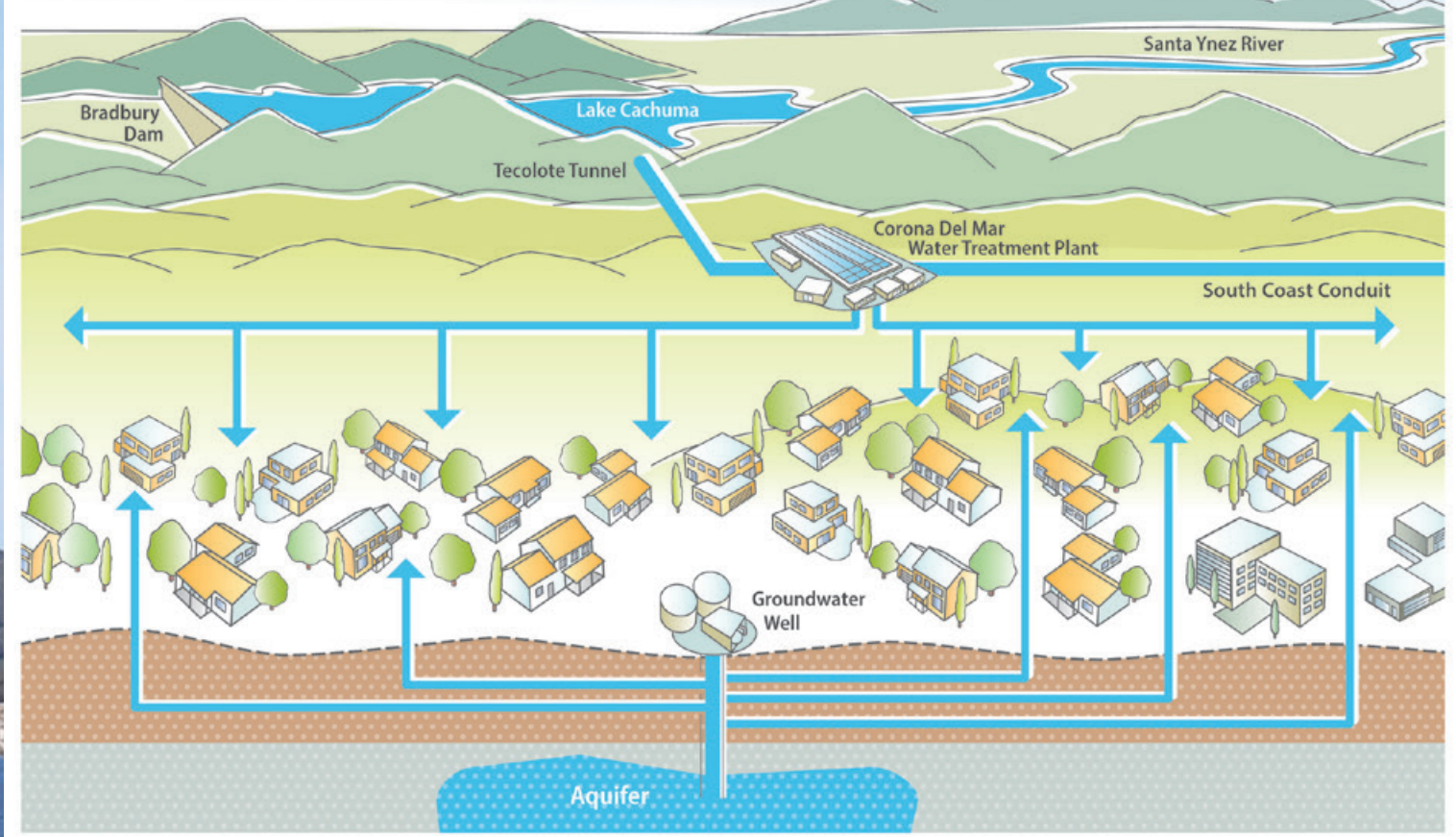
Under normal operations, Lake Cachuma typically serves as the primary source of water and has the lowest cost.

Water is gravity-fed from the lake through the Tecolote Tunnel to the Corona Del Mar Water Treatment Plant (CDMWTP). Treated water flows downhill through the District's distribution system, and is delivered to customers. This system is incredibly energy efficient and cost effective.

Did You Know?

Submerged trees and vegetation degrade water quality as they decompose.

How Your Water is Delivered



Drought Operations

Under drought conditions as surface water supplies at Lake Cachuma are diminished, groundwater and State Water become a larger share of the District's supply portfolio.

Accessing groundwater requires significant investment in the District's wells, all of which are now approaching fifty years old, with significant operations and maintenance expenses. Groundwater needs to be pumped from the aquifer below ground, as well as throughout the system for delivery to customers (see illustration above). Many customers live in the foothills, requiring groundwater to be pumped across pressure zones to higher elevations. This increases energy costs and requires the installation of additional pumping equipment in the distribution system.

State Water deliveries also incur significant charges based on the volume of water delivered, in addition to increasing fixed yearly costs.

Water Quality Operations

Changing water quality conditions at Lake Cachuma still require the District to seasonally blend groundwater and surface water. Operations and maintenance costs associated with pumping and delivering groundwater remain, but treatment costs are also higher, as additional chemicals and treatment technologies are needed.

The District has spent considerable time and money researching and pilot testing additional water quality treatment protocols. These include aeration, which has been installed at the Ellwood and Fairview Reservoirs, and a Granular Activated Carbon (GAC) contactor planned for the CDMWTP. Permanent upgrades to the District's treatment systems will require significant capital investment.

How Various Operations Compare in Terms of Cost and Infrastructure

75th Anniversary Photos

Established on November 17, 1944 by a vote of the people, the Goleta Water District celebrates its 75th Anniversary this fall. To commemorate this milestone, a collection of the District's photos and exhibits were recently digitized and are shared here as well as on the District's website. Many of these images have not been seen in decades, and the collection spans the District's history, including the construction of the facilities at Lake Cachuma, the installation of many of the pipes and transmission mains we still rely on today, and the building of the water treatment plant.



Crews building the Tecolote Tunnel take a lunch break inside the tunnel in the early 1950s.



The Intake Tower at Lake Cachuma under construction in the early 1950s.

The Tecolote Tunnel delivers water from Lake Cachuma to the South Coast through a seven-foot diameter, six-mile-long gravity-fed water conveyance pipeline. The tunnel was bored straight through the Santa Ynez Mountains. Crews worked under extreme conditions, with temperatures of 112, and humidity levels of 100%. Work was repeatedly stopped by massive flooding in the tunnel, extreme temperatures, dangerous levels of toxic gas, explosions and hard rock that crushed support beams. Life magazine described workers as "soaked with water and sweat...squatting in dump carts immersed to their chins in tepid water to keep their bodies from overheating."



Goleta Water District infrastructure being installed in the early 1950s.



Crew members at work installing the Goleta Water District transmission main the early 1950s.

While the Cachuma Project delivered water to the South Coast, most of the infrastructure necessary to deliver that water to customers in the Goleta Valley was built out in the 1950s and '60s. A 42 inch transmission main delivers water to a distribution system that includes much of the over 270 miles of water pipelines that the District maintains today.



Crew members working on the Goleta Water District system in the early 1960s.



Goleta Water District employees stand at attention at the District's Headquarters and Operations Yard in the late 1960s.

By the 1960s and '70s, the Goleta Valley was growing rapidly, and many of the neighborhoods, shopping centers and landmarks you recognize today were built. While plenty has changed in the intervening years, much of the original infrastructure remains in place. Continued investment to maintain and slowly replace this aging system will ensure ongoing service reliability for customers.



Groundbreaking ceremony for the Corona Del Mar Water Treatment Plant in the early 1970s.



District laboratory technician testing water quality at the Corona Del Mar Water Treatment Plant in the early 1980s.

Originally constructed in the 1970s, the Corona Del Mar Water Treatment Plant treats water from Lake Cachuma. While the plant was a state of the art treatment facility at the time it was built, after 40 years of service, it required significant updates. After extensive renovations in the early 2000s, the plant received LEED® Gold Certification for its 9,100-square-foot, energy-efficient laboratory, administration, and control building. As water quality conditions at the lake change, and as Federal and State Regulations are updated, the District will continue to invest in the latest treatment technology to provide a reliable supply of quality water at the most reasonable cost to present and future customers.

More images are available on our website at www.GoletaWater.com/Seventy-Fifth. An exhibit will also be on display at the Goleta Library in November of 2019.



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REMEMBER, YOU CAN PAY YOUR BILL ONLINE

Visit our website for more information

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Thank You for Being a Water Saver!



During the height of the drought, water thrifty District customers were consistently among the most efficient water users in California. Residential per capita use got as low as 35 gallons per person per day, well below half of the State's per capita target of 110 gallons for indoor and outdoor water use. Thank you and congratulations to our customers!

For more information visit
www.GoletaWater.com/conservation

Jack Cunningham Administration Building Dedication



On November 13, 2018 the Board of Directors adopted a Resolution recognizing departing member John F. "Jack" Cunningham for his service, and naming the District Administration Building in his honor. Director Cunningham was appointed to the District Board of Directors in 1995, and then elected to the position in 1997. He was reelected 4 times (2002, 2006, 2010 and 2014), and completed his service in 2018. Jack passed away in March of this year. His service to the District and his dedication to our community will long be remembered.

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.

Follow us on social media:

