



2018 Annual Report



Our Mission

Zone 7 Water Agency is committed to providing a reliable supply of high-quality water and an effective flood-control system to the Livermore-Amador Valley. In fulfilling our present and future commitments to the community, we will develop and manage our water resources in a fiscally responsible, innovative, proactive and environmentally sensitive way.

Vision Statement

To be recognized as the platinum standard water and flood control district in which to live, work and do business by enhancing the quality of life, economic vitality and environmental health of the communities we serve.

Our Values

Open and Transparent

The Board's meetings and communications shall be open and public, except when the Brown Act authorizes otherwise.

Customer Service

Our commitment to the community requires prompt, respectful, and courteous relations with our customers, both internal and external, as well as pursuing community partnerships and collaboration with other area public agencies when beneficial to the public.

Integrity

We practice the highest ethical standards and maintain open, honest communications at all levels of the organization at all times.

Fiscally Responsible

We will operate in a productive, cost effective, transparent, and efficient manner to ensure sound financial stability.

Environmentally Sensitive

In carrying out our mission, we are dedicated to preserving and enhancing the environment while complying with regulations.

Innovative/Proactive

We encourage innovation, creativity and ingenuity, seeking constant improvement and keeping up with the latest economical technologies and management practices.

Safety

We are committed to public safety and maintaining a healthy work environment for employees. We work safely and provide safe products and services.

Employee Development

We foster a respect for diversity and equality, a spirit of performance-based accountability, and productivity along with personal and professional growth for all team members so as to achieve excellence through the collective energy that comes from a work environment where each employee can flourish and succeed to their highest potential.



Board of Directors

A Message from the President



Angela Ramirez Holmes
President, FY 2018-19

It's no secret that Zone 7, like other water providers across the state, is facing challenges that include boom and bust water years, aging infrastructure, emerging water quality challenges, the effects of climate change, and reduced supplies. With a practical and forward-thinking approach, Zone 7 continued to make strides towards meeting these challenges in 2018.

Perhaps most exciting was the groundbreaking for the Del Valle Water Treatment Plant (DVWTP) Ozonation project. This project will include the addition of ozonation to the water treatment process, which will improve finished water quality by minimizing chlorinated disinfection by-products, mitigating taste and odor compounds associated with algal blooms, and improving Zone 7's ability to destroy contaminants of emerging concern, providing our customers with safe and excellent tasting water.

In addition to the DVWTP groundbreaking, we also moved forward with the Patterson Pass Water Treatment Plant (PPWTP) Ozonation and Upgrades Project. The PPWTP was built in 1962 and while it has been maintained through the years, no major upgrades have been made in over 15 years. This project will improve treated water quality, replace and upgrade aging treatment facilities, increase treated water storage capacity, and double the plant's production capacity from 12 million gallons of water a day (mgd) to 24 mgd. Upon completion, the plant will be fully updated and will provide much-needed operational flexibility in case of potential outages and emergencies at the Del Valle plant, which is a critical component of strategic planning for emergency preparedness.

Big improvements do require significant capital investment and with that in mind Zone 7 staff worked closely with the Board of Directors to determine the best way to fund the upgrades. After weighing the options, the Board determined that issuing Joint Powers Authority (JPA) Revenue Bonds was the best method to

provide the debt financing needed to move the projects forward without risking costly delays. Prior to bond issuance, Zone 7 received an AA+ rating from Standard & Poor's Global Rating, which is the second highest credit rating possible, and an AA rating from Fitch Ratings. These exemplary ratings were a direct result of Zone 7's prudent and conservative financial policies, its diversified water sources, and its strong management team.

Concurrently, the Board issued bonds to pay off and refinance existing investments in groundwater banking programs, resulting in savings of over \$2 million over the remaining life of these projects.

2018 also ushered in leadership changes for Zone 7. In April of 2018, Zone 7 welcomed new General Manager Valerie Pryor, who was selected to replace former General Manager Jill Duerig, who retired in March of 2018 after 10 years at the post. Pryor came to Zone 7 with 15 years' experience at the Santa Clarita Valley Water District where she served as the Assistant General Manager. Before that, she was with the City of Los Angeles for 15 years. In July of 2018, Zone 7 also welcomed two new incoming Board of Directors—Dennis Gambs and Olivia Sanwong.

Looking ahead to 2019, the Board expects to complete the repairs to the storm damaged areas ravaged by the harsh 2017 winter storms. Together with Zone 7 staff, the Board is looking forward to continuing to examine how Zone 7 can meet future water supply needs through a variety of options that include Delta conveyance, desalination, the Los Vaqueros Reservoir Expansion project, potable reuse, and the Sites Reservoir Project. These studies, combined with the state-wide mandate to make conservation a way of life, will be key drivers to making future water supply decisions in 2019 and beyond, and in developing the 2020 Urban Water Management Plan.

In 2019, Zone 7 will also continue to build on its commitment to transparency in decision making and community engagement. Zone 7 plans to launch a Facebook page and begin sending out information to its customers via NextDoor, and plans to host a number of public meetings, workshops and open houses to provide information and to gather feedback from the community.



Sandy Figuers



Dennis Gambs



Sarah Palmer



Dick Quigley



Olivia Sanwong



Michelle Smith McDonald



Key Accomplishments

Water Supply and Reliability

2018 Supply and Demand

- Met 2018 demand while also sustainably managing pumping from the local groundwater aquifer.
- Reserve water supply levels are healthy and it is expected that Zone 7 will be able to meet demands through 2021 assuming average conditions.
- Met statewide goal for 20 percent conservation and continued to support conservation efforts through outreach and education and rebate programs.

Thinking Ahead and Conservation

- Continued to pursue additional long-term water supplies through participation in the Sites Project at a participation level of 20,000 acre feet.
- Continued to support Delta Conveyance through 2018 as a critical component to ensuring reliable deliveries from the Delta.
- Continued to support the Los Vaqueros Reservoir expansion effort to increase local storage.
- Continued to support conservation efforts including offering rebate programs for lawn conversion, weather-based irrigation controllers, and clothes washers and hosting three garden workshops to promote low-water gardening.

Water Quality and Treatment

Water Quality

- Delivered water that met or exceeded the regulatory standards set by the state and federal governments.
- Began construction of the ozonation project at the Del Valle Water Treatment Plant and took significant steps towards starting construction on a second ozonation facility at the Patterson Pass Water Treatment Plant.

Capital Projects Completed in 2018

- Stoneridge Well Sodium Hypochlorite System Replacement Project
- Del Valle Water Treatment Plant 4.5 million gallon Clearwell Interior Re-Coating and Rehabilitation Project
- Mocho Well 2 Repair Project
- Hopyard Pipeline Repair at Arroyo Mocho Project
- Design of the Chain of Lakes Well #1 Facility Stabilization Project

Flood Protection, Multi-Benefit Projects, Environmental, and Community Partnerships

Flood Protection Program

- Continued to recover from the 2017 rainy season by completing 39 bank repairs and 2,521 linear feet of typical repairs; 11,657 feet of access road repair; repair of one drainage inlet; seven concrete outfall repairs; 5,000 feet of CCTV inspection; and 3,900 feet of detailed concrete channel inspection and patching as needed.

Stream Management Master Plan Update (SMMP)

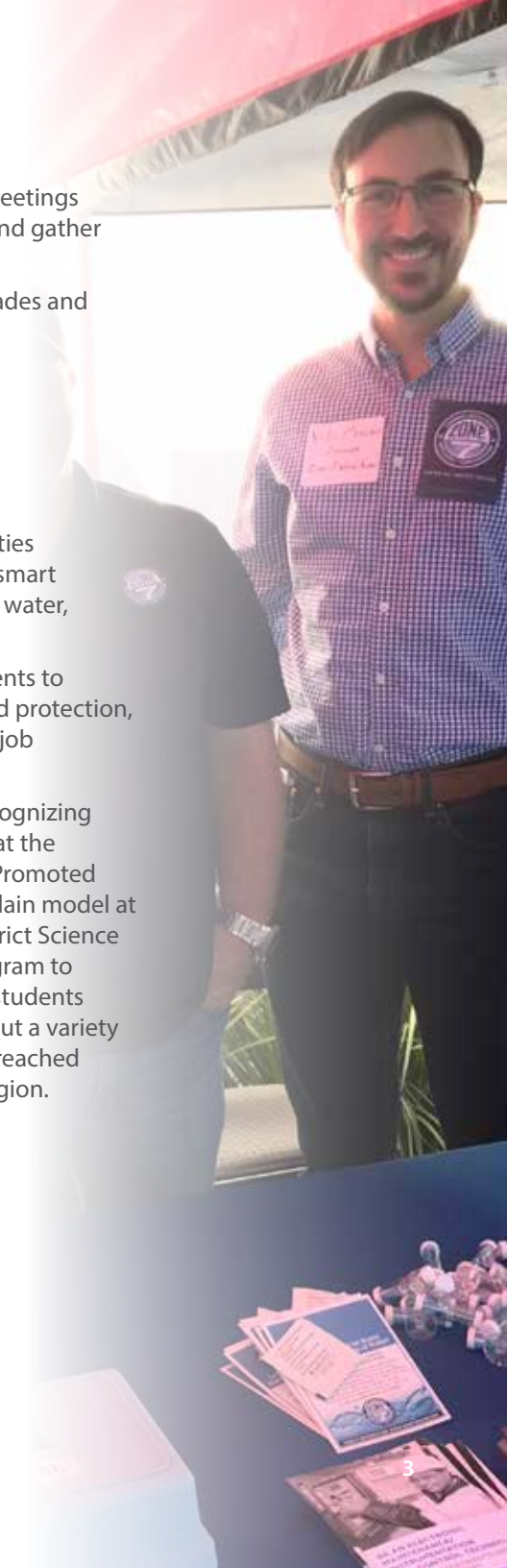
- Continued efforts to update the SMMP to incorporate the latest flood modeling and update or propose projects. After discussions with staff, the Board of Directors decided to delay the SMMP update so as to include that update as part of a revision to the Agency's flood protection strategy.

Living Arroyos Program

- Continued to partner with the City of Livermore, the City of Pleasanton and the Livermore Area Recreation and Park District to engage the community in participating in watershed stewardship activities. In 2018, over 500 volunteers spent more than 1,500 hours on activities such as planting, weeding, watering, and debris removal as part of the program.

Outreach and Education

- Held multiple public workshops and public meetings throughout the year to provide information and gather community feedback on:
 - Patterson Pass Water Treatment Plant Upgrades and Ozonation Project
 - Water Rates
 - Flood Preparedness
 - Medeiros Parkway Project
 - Stream Management Master Plan
- Participated in outreach and awareness activities throughout the year related to conservation, smart water-use, and fixing leaks to reduce waste of water, groundwater and flood preparedness.
- Participated in multiple local and regional events to provide information about conservation, flood protection, water treatment, watershed stewardship and job opportunities in the water service industry.
- Continued to support future engineers by recognizing four students for their water-related projects at the Alameda County Science & Engineering Fair. Promoted watershed education through use of a floodplain model at the Livermore Valley Joint Unified School District Science Odyssey. Continued the Zone 7's schools program to provide free classroom programs to educate students from kindergarten through twelfth grade about a variety of water-related issues. In 2018, the program reached more than 14,000 students in the Tri-Valley region.



Financial Accountability & Cost Efficiency

- Early payoff of loans for stored water recovery project for groundwater banking program with Semitropic Water District resulted in a net savings of \$.12 million.
- Board of Directors approved a two-year budget of \$342.6 million, with \$199.8 million in the first year and \$142.8 million in the second year to continue providing high-quality reliable water and an effective flood control system for the Livermore-Amador Valley as well as other priorities and policies approved by the Board.
- Board of Directors approved water rate increases over the next four years as well as an increase in connection fees, treated water rates, untreated water rates and municipal and industrial water connection fees in order to maintain and upgrade the agency's aging water system.
- Livermore Valley Water Financing Authority sold all of its \$64 million water revenue bonds which will generate \$71.4 million , proceeds which will be used to fund ozonation and upgrade projects for the Del Valle Water Treatment Plant and Patterson Pass Water Treatment Plant.
- Awarded the Certificate of Achievement for Excellence in Financial Reporting for its 2016-2017 Comprehensive Annual Financial Report (CAFR) by the Government Finance Officers Association of the U.S. and Canada (GFOA).
- Awarded the California Society of Municipal Finance Officers (CSMFO) Operating Budget Excellence Award for its Fiscal Year 2018-2019 Operating Budget.

2018 Supply & Demand

Following the wettest year on record in California, 2018 would have been a dry year if it hadn't been for late season rain and snow events. Unfortunately, much of the precipitation fell as rain which couldn't be captured by storage facilities and the water content of the snowfall was much lower than usual. Due to the relatively low levels of precipitation, the Department of Water Resources was only able to deliver 35 percent of Zone 7's contracted surface water supplies. Zone 7 was able to make up for the shortfall by pumping local groundwater, using local water from Lake Del Valle, supplemental water purchases under the Yuba Accord, and a one-time transfer from River Garden Farms.

Actual 2018 water demand on Zone 7 was about 45,000 acre-feet, including water used to replenish the local groundwater basin. Valley-wide conservation—including Zone 7 supplies and retailers' groundwater pumping—has kept demand down about 20 percent compared to 2013 demand. Unlike 2017, Zone 7 did not have surplus water supplies to store at the offsite water bank located in Kern County. However, Zone 7 was able to keep local groundwater pumping within sustainable levels and had enough surplus water to replenish much of what was pumped from the local aquifer, keeping it relatively full.

When surplus water is available, Zone 7 seeks to maximize the amount of water placed into storage both locally and outside its service area.

2018 Supply & Demand for Zone 7 Water Supplies

(in acre-feet, where one acre-foot equals 325,851 gallons, or roughly 1/3 of a million gallons per day)

Supply	2017*	2018
State Water Project deliveries (into valley)		
From Table A (contract) deliveries	52,680	21,170
From carryover (stored) reserves	2,940	15,700
Pumping from local groundwater storage	4,610	5,270
Local surface water (Del Valle Reservoir)	15,300	0
Supplemental water purchases BBID/Yuba	710	2,650
Kern Groundwater Basin (offsite banking)	0	0
Total Supply	76,240	44,790

Demand	2017	2018
Municipal water	32,630	35,040
Untreated irrigation water	4,560	5,400
Released for local groundwater recharge	9,050	4,350
Released for Kern groundwater banks	30,000	0
Total Demand*	76,240	44,790

Available Year-End Storage	2017	2018
Local groundwater basin (above historic lows)**	121,000	120,000
Offsite banking programs	104,100	104,100
Del Valle Reservoir storage ¹	0	1,200
State Water Project carryover ¹	15,700	7,000
Total Year-End Storage	240,800	232,300

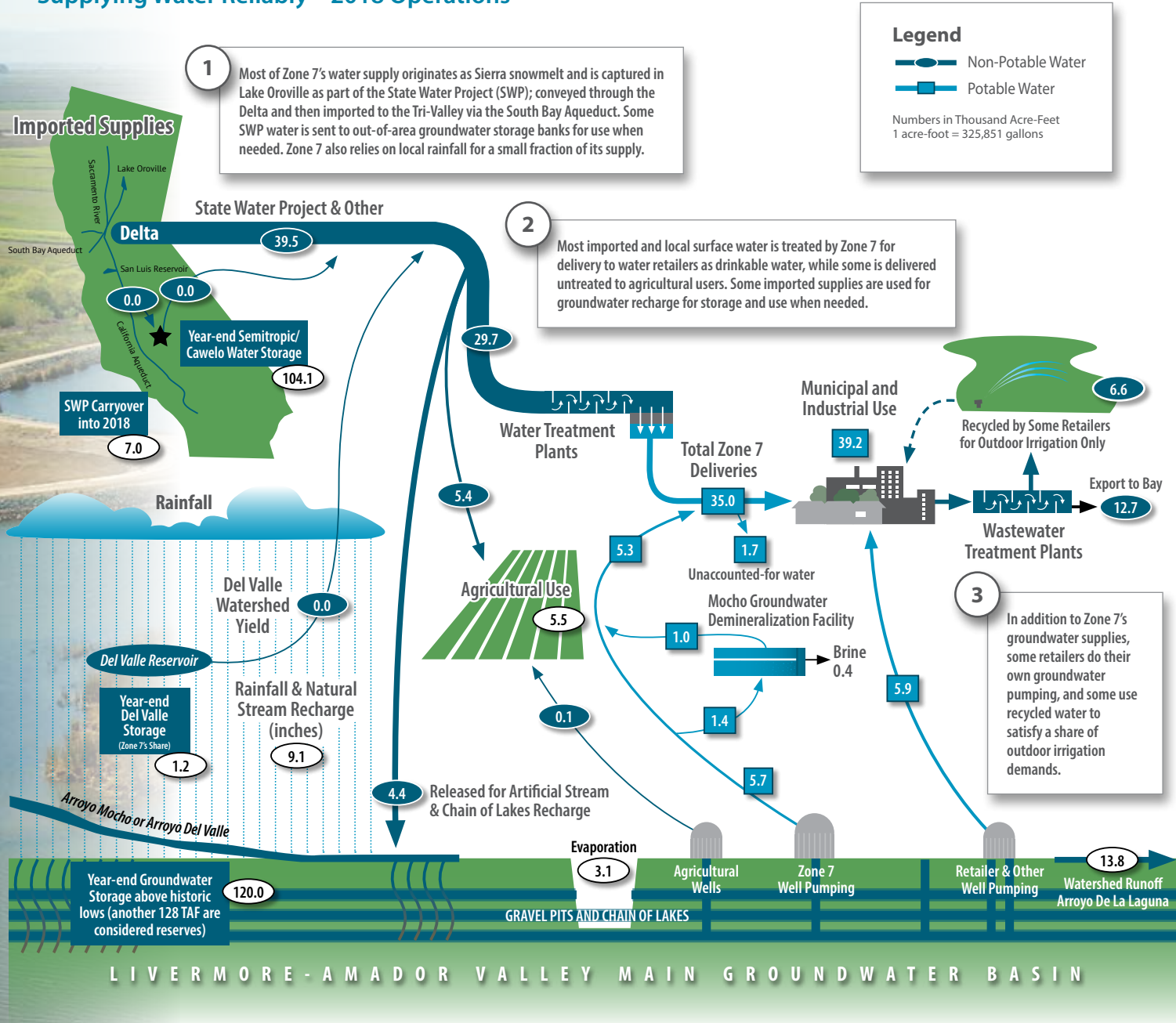
* 2017 Data revised after publication of the 2017 Annual Report due to changes in the end of year accounting of water use and storage

** An additional 128,000 acre-feet (AF) of water was in storage at the end of 2018, for a total of 248,000 AF.

¹ Del Valle Reservoir and SWP carryover are for usage in the following year.

Livermore-Amador Valley Water Supply & Use

Supplying Water Reliably – 2018 Operations



An aerial photograph of a large reservoir with a winding road that curves around the water's edge. The surrounding landscape is a mix of green fields and brown, tilled earth. The sky is clear and blue.

Thinking Ahead

Long-Term Supply Reliability

During 2018, Zone 7 continued work on the 2019 Water Supply Evaluation Update. This update takes a fresh look at the 2016 Water Supply Evaluation Update, which evaluated a number of water supply options including Delta conveyance, potable reuse, and desalination. Zone 7 relies on its Water Supply Evaluation Report to inform its water management decisions, enhance its water storage flexibility, and improve the long-term water supply reliability for the Livermore-Amador Valley. The 2019 Update includes new information on demands and potential supplies. New potential supply and storage options under review include the Sites Reservoir project and the Los Vaqueros Reservoir Expansion project. A key driver under review is the State of California Long-Term Conservation Framework. This new State-mandated, long-term water conservation framework aims to “Make Conservation a California Way of Life” in order to help the state manage and prepare for dry periods. Implementation of these measures is expected to have a major impact on water demands throughout the state. Based on Board input, the 2019 Water Supply Evaluation will be refined and further discussed by the Water Resources Committee and Board of Directors in early 2019.

Protecting Delta Supplies

Zone 7 continues to support an alternative conveyance project in the Delta in order to provide clean, reliable water at a reasonable cost to our service area while protecting the Delta ecosystem. Zone 7 imports approximately 80 percent of the Valley’s water supplies from the Delta via the 50 year old State Water Project (SWP). A new Delta conveyance project would link new water diversion facilities upstream of the Delta on the Sacramento River to pumping facilities in the south Delta. This new approach would modernize aging infrastructure, provide water supply reliability, improve water quality, and help protect the Tri-Valley’s largest source of supply from disruptions due to climate change impacts, Delta levee failures, and other emergency conditions.

Expanding Local Storage Options

Los Vaqueros Reservoir holds great promise for a more local water storage option for Zone 7. The reservoir is operated by Contra Costa Water District (CCWD) and can currently store 160,000 acre-feet of water. Zone 7, along with twelve other potential partners,




is supporting planning efforts for CCWD's Los Vaqueros Reservoir Expansion Project to further evaluate its potential benefits and costs. This project would increase the reservoir's capacity to 275,000 acre-feet and provide increased municipal, agricultural, and industrial water supply; improve drinking water quality; and provide operational flexibility. The expansion would also include the construction of the new Transfer-Bethany Pipeline which would allow Zone 7 to access the stored water in the reservoir—crucial when there are pumping restrictions in the Delta that prevent Zone 7 from accessing SWP water.

Sites Reservoir

Sites Reservoir is a proposed off-stream reservoir located 75 miles northwest of Sacramento. As an off-stream reservoir, Sites would not dam or impede any river. Instead, water would be diverted into Sites when Sacramento River flows are high to store for later use. The project would add 500,000 acre-feet of water to California's water system (enough to serve 3.7 million people), and would dedicate up to half of the reservoir's annual supplies to environmental flows for native fish. Zone 7 identified Sites as a possible new water source and is participating in the project along with other water entities across the state.

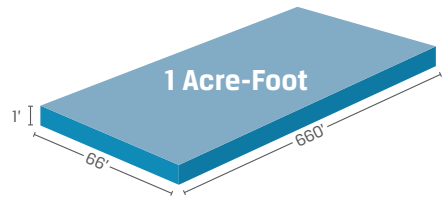
Bay Area Regional Reliability Partnership

As part of the Bay Area Regional Reliability Partnership, Zone 7 continues to work with other Bay Area water agencies to bolster regional water supply reliability. In 2018, the Partnership began working towards the development of a Regional Water Market with funding from the US Bureau of Reclamation. The project will help identify and resolve barriers to exchanging water supplies between agencies in the Bay Area, allowing water to be moved more efficiently during droughts or other emergencies to where it is needed most. Work on this project will continue in 2019.

Sites Project Overview

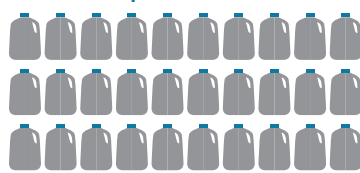
Sites Reservoir would add 500,000 AF to California's water system



1 Acre-Foot

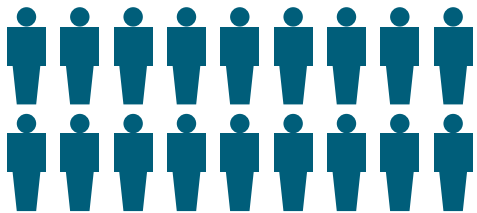
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325,900 Gallons



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Enough Water for 18 people for 1 Year



Constant Planning Keeps Water Flowing

Del Valle Water Treatment Plant Ozonation Project

Zone 7 began construction of the new ozonation facilities at the Del Valle Water Treatment Plant (D VWTP) in April, 2018. The D VWTP was constructed in 1975 and is one of two surface water treatment plants in the Valley, providing 60 to 70% of the Valley's surface water treatment capacity.

The ozonation facilities are a major upgrade to Zone 7's water treatment facilities. Once complete, the new ozonation system will improve water quality and improve production reliability at the plant. More specifically, the project will improve finished water quality by minimizing chlorinated disinfection by-products, mitigating taste and odor compounds associated with algal blooms in source water supplies, and improving Zone 7's ability to destroy contaminants of emerging concern such as cyanotoxins (also associated with blue-green algae in source water supplies), endocrine disruptors and pharmaceuticals.

Ozone is significantly more effective than other treatment technologies such as powdered activated carbon, chlorine, and chloramines at treating algal byproducts. The construction of ozonation facilities is anticipated to be completed in early 2020.

Patterson Pass Water Treatment Plant Upgrades and Ozonation Project

Zone 7 is also undertaking the Patterson Pass Water Treatment Plant (PPWTP) Upgrades and Ozonation Project. The PPWTP project is similar to the current project at the D VWTP in that it includes the addition of ozone treatment facilities to reduce taste and odors associated with algal blooms, reduce disinfection by-products, and provide an effective process to treat cyanotoxins caused by some blue-green algae. The project will also improve treated water quality, replace aging equipment, increase treated water storage capacity, and increase plant production capacity.

The Zone 7 Board of Directors adopted the environmental review documents for the PPWTP project at its September 19, 2018 board meeting—clearing the way for construction to begin. Construction began in March 2019 and is anticipated to be completed by early 2022.

Routine Capital Improvement Projects

Each year, Zone 7 undertakes many routine capital improvement projects to keep its water treatment and delivery systems running optimally. In 2018, Zone 7 completed projects including the Stoneridge Well Sodium Hypochlorite System Replacement Project, the D VWTP 4.5 MG Clearwell Interior Re-Coating and Rehabilitation Project, the Mocho Well 2 Repair Project, and the Hopyard Pipeline Repair at Arroyo Mocho Project. Zone 7 also completed the design of the Chain of Lakes 1 (COL 1) Facility Stabilization Project to improve the building foundation and floor slab.



Conservation

Conservation—Not Just for Dry Years Anymore Water Use Efficiency for Life

Zone 7 offers several rebate programs aimed to keep water conservation levels consistently high—even in wet years. In 2018, Zone 7 received 15 applications for lawn conversion rebates. The program resulted in 26,735 square feet of turf being removed, of which 25,252 square feet received rebates. Outreach, customer engagement, and increased public awareness stand to reduce outdoor water use by more than 623,175 gallons (1.9 acre-feet) annually. Participation in the lawn conversion rebate program decreased approximately 70 percent, possibly due to easing drought conditions. The Weather-Based Irrigation Controller rebates program resulted in 208 new controllers installed, which reduced outdoor water use by more than 4.2 million gallons (7.1 acre-feet) annually. Participation in the controller program has increased significantly due to availability, increased public awareness, and improved technology. The Regional Energy Star Most Efficient Clothes Washer Program began in January 2017 and ended in December 2018. This program saved 2.1 million gallons of water (6.3 acre-feet) annually. In addition, Zone 7 hosted three DIY Garden workshops providing information on the benefits of low water use gardens, sheet mulching and irrigation efficiency.

Water Quality

Zone 7 is dedicated to delivering high-quality water to its customers. The water that Zone 7 delivered to its customers again met the drinking water standards set by state and federal governments. In almost all cases, the water quality was significantly better than regulatory requirements. Both the Del Valle and Patterson Pass water treatment plants maintained their Partnership for Safe Water status for the 2018 reporting period. The Partnership is a program developed by the American Water Works Association, the U.S. Environmental Protection Agency, and associated partner organizations.

Ozone Treatment Upgrades Progress

In 2018, Zone 7 continued its progress toward modernizing its two water treatment plants with ozone treatment. Construction began on the Del Valle Water Treatment Plant Ozonation Project in April of this year, and is expected to be completed in 2020. In September, the Zone 7 Board of Directors adopted the environmental review documents and approved the construction of the Patterson Pass Water Treatment Plant Upgrades and Ozonation Project which is expected to be completed by early 2022.

Once online, ozonation will significantly improve the quality of local drinking water. Ozone is much more effective than other treatment technologies at treating algal byproducts and other constituents of emerging concern, including endocrine disruptors, pharmaceuticals, and personal care products.



Flood Control & Stream Management

Recovering from 2017 Storm Season

In 2018, Zone 7 made significant progress toward repairing the flood protection sites damaged in the record-breaking 2017 storm season. Those storms brought significant rainfall. Localized flooding occurred throughout the Tri-Valley, resulting in local, state, and federal emergency declarations. Zone 7's flood protection system experienced damage to channel banks, concrete structures, and maintenance roads. Some of this damage threatened utility lines and infrastructure.

During the summer of 2018, Zone 7 was busier than usual and made significant progress toward designing repairs and permitting in-channel work for repairing over 200 damaged sites. In addition to Zone 7's annual routine maintenance work, repairs were performed by the U.S. Army Corps of Engineers (USACE) under the Public Law 84-99 Rehabilitation Assistance program and by a Zone 7-hired contractor. In all, 39 of the sites damaged in 2017 were repaired this year at sites on Arroyo Mocho, Chabot Canal, Alamo Canal, South San Ramon Creek, Pleasanton Canal, Arroyo las Positas, and Line G-1-1.

Staff prioritized repairs according to level of risk presented by each site and continues to plan for an additional 47 repairs in 2019. Flood protection staff regularly monitors the sites pending repair for any changes in condition.

Flood Protection Program

Specific efforts completed under the Flood Protection Program in 2018 include:

- Completed 39 bank repairs including four biotechnical repairs and 2,521 linear feet of typical repairs; 11,657 feet of access road repair; repair of one drainage inlet; seven concrete outfall repairs; 5,000 feet of CCTV inspection; and 3,900 feet of detailed concrete channel inspection and patching as needed.

- As a part of the Stream Maintenance Program, staff continued pursuing programmatic permits from California Department of Fish and Wildlife, Regional Water Quality Control Board, and the United States Army Corps of Engineers.

- Continued collection of data for the sediment study that was begun in 2010 to support improved modeling of the flood control system.

- Purchased ESRI Enterprise Solution to facilitate developing several projects to improve workflow, data management, and public communications.

Stream Management Master Plan Update

The Stream Management Master Plan (SMMP) was first developed in 2006 and is a multi-benefit planning document that emphasizes the interrelationships between flood protection, adequate water supply, healthy habitats for plants and animals, and recreation. Goals and objectives of the SMMP include: 1.) Reduce flood risk; 2.) Be ecologically-conscious; 3.) Meet broad watershed objectives to provide multiple benefits, such as groundwater recharge, erosion and sedimentation management, and water quality; and 4.) Be fiscally responsible and implementable.

Zone 7 is updating the original SMMP to incorporate the latest flood modeling and to update or propose projects. In an effort to familiarize new Directors with the SMMP, Staff spent time discussing the floodplain impacts, talking about completed SMMP projects, and initiating policy discussions. The discussions led to the Board deciding to delay the SMMP update so as to include that update as part of a revision to the Agency's flood protection strategy.

Sustainable Groundwater Management

Zone 7 continued its tradition of sustainably managing local groundwater resources and serving as the exclusive Groundwater Sustainability Agency under the Sustainable Groundwater Management Act (SGMA). As required by SGMA, Zone 7 produced a comprehensive annual report of the groundwater conditions for the 2018 water year (October 2017-September 2018), and submitted it to the Department of Water Resources (DWR). The report is posted for public viewing on the Zone 7 and DWR websites.

As reported in the Annual Report for the Sustainable Groundwater Management Program, 2018 Water Year for the Livermore Valley Groundwater Basin, the basin was nearly full at the start of the season. Zone 7 relied mostly on imported water to meet demands, which allowed for lower than average groundwater pumping. With groundwater recharge outpacing groundwater extraction in 2018, The Livermore Valley Groundwater Basin ended the water year with 249,000 acre feet of groundwater in storage; one thousand acre feet more than at the start and just 5 thousand acre feet short of the 45-year high.

Zone 7 will continue to work with the various public agencies that overlay the Livermore Valley Groundwater Basin to continue facilitating an effective and sustainable groundwater basin management under SGMA. Annual groundwater management reports will continue to be prepared and posted on the Zone 7 website, and copies will be submitted to the Department of Water Resources and the Regional Water Quality Control Board.

Other groundwater management activities included:

- Slight improvement in average total dissolved solids concentration for the GW Basin; it declined 6 mg/L (1%)
- No ground subsidence or adverse impacts to the Alkali Sink(s) in the eastern part of the basin due to the Valley's groundwater pumping in 2018.

Watershed Stewardship

Living Arroyos

Initiated in 2013, Living Arroyos is a multi-agency partnership between Zone 7, the City of Livermore, the City of Pleasanton, and the Livermore Area Recreation and Park District. Living Arroyos strives to be a means to increase opportunities for local residents to engage in hands-on watershed stewardship and to establish relationships with streams near their homes. The Program includes activities such as planting, weeding, watering, monitoring, debris removal, pruning, invasive plant management, intern training, and volunteer participation. This year, Living Arroyos celebrated its 100th Volunteer Day which coincided with the 2018-19 Volunteer Appreciation Event. Nearly 100 volunteers participated in a morning of planting followed by a light lunch, refreshments, and volunteer recognition. Over 500 volunteers participated at one of 16 volunteer days (averaging 40 volunteers per event), contributing over 1,500 hours to the program.

Highlights in 2018 include installing over 300 willow stakes and 1,400 riparian plants, and removing over 1,400 gallons of trash.

EPA Grant "Preparing for the Storm"

Zone 7 has an interest in pursuing grant opportunities to be a fiscally-responsible agency, and to participate in projects and partnerships that the agency might not otherwise undertake in the regular course of work, but that are beneficial to Zone 7. The grant proposal "Preparing for the Storm: Riparian Restoration, Sediment Reuse, and Urban Greening to Enhance Stream and Watershed Resilience" was selected for funding in the amount of \$1.131 million. Zone 7 is the main awardee and administers the overall grant. Sub-awardees include San Francisco Estuary Institute, H.T. Harvey, the San Francisco Bay Joint Venture, local cities, Castlewood Country Club, Concannon Vineyard, and Livermore Area Recreation and Park District. Sub-awardees are partners on specific grant items and receive grant funds indirectly or contribute part of their time as matching funds to the grant. The grant is funding a range of planning, implementation and outreach projects around the Tri-Valley related to floodplain management, green infrastructure, water quality improvements, and habitat restoration. Several of the planning studies are well underway and additional field studies and construction planning will begin this summer.



Outreach & Education

In keeping with its commitment to transparency, Zone 7 continued to distribute information via the eNewsletter, by posting information to the website, and hosting public workshops. Zone 7 also participated in numerous local and regional events as well as statewide events to bring greater awareness to various water management issues. Zone 7 is also proud to be continuing its schools program and participation in other educational programs.

eNewsletter and Website

The Agency continued to increase its e-Newsletter subscriptions and published an average of nearly two eNewsletters per month on topics including water conservation, flood preparedness, water rates, updates on construction projects and job openings. To subscribe, see the home page of Zone 7's website at www.zone7water.com. Zone 7 continued to add information and resources to the website throughout 2018. One notable addition is the Storm Damage Repairs and Trail Closures Map, which is an interactive map to inform the public about current and ongoing work to flood control facilities. The map provides the location and description of work being done as well as any related roadway or trail closures. Updates are made as often as is necessary, up to twice weekly, during the construction season (summer) and include before and after photos of the work. This "pilot" map is being used to help Zone 7 understand how best to update and refine the map in the future.

Zone 7 also increased efforts to recruit potential employees by adding information about job openings in the eNewsletters and on the website.





Public Workshops and Open Houses

To increase transparency and encourage public participation, Zone 7 held several public meetings and workshops throughout 2018.

Patterson Pass Water Treatment Plant Upgrades and Ozonation Project Public Workshop

In June of 2018 Zone 7 held a public workshop for the Patterson Pass Water Treatment Plant Upgrades and Ozonation Project. This workshop was an opportunity for the public to learn more about the project and to ask Zone 7 staff questions about the proposed design and construction, including construction-related traffic impacts. Following the public workshop, the environmental review document for the project, known as the Mitigated Negative Declaration, was released for 30-day public review and comment.

Water Rates Workshop

In the fall of 2018, Zone 7 and its retailers (the City of Livermore, the City of Pleasanton, California Services Water and the Dublin San Ramon Services District) held a series of four public workshops focused on wholesale water rates and on educating the community about how water is provided to the Tri-Valley region. The workshops included discussions on the value of water, where our water comes from, water rate-setting process, and water supply challenges facing the Tri-Valley community.

Medeiros Parkway Public Meeting

Zone 7 released a draft Initial Study/Mitigated Negative Declaration for the Arroyo Mocho Medeiros Reach Floodplain and Riparian Restoration Project under the California Environmental Quality Act (CEQA) in April 2018. Based on community feedback, Zone 7 extended the comment period to June 2018 to receive additional community feedback, met with the City of Livermore about the project twice, and also attended a site visit with approximately 20 community members.

As a result of the comments received, Zone 7 revised the project to be split into two distinct projects in order to

reduce or avoid community impacts. A public meeting was held in December of 2018 to provide information on the first of the two new projects and to hear comments from the public. The smaller project now proposed seeks to reduce flood risk by restoring flow to the natural floodplain in the Oak Grove Nature Reserve, without any significant excavation.

Stream Management Master Plan Board Workshop

Zone 7 held a Board workshop for its draft Stream Management Master Plan (SMMP) Amendment at the August 28th Board of Directors meeting. The workshop was open to the public and was an opportunity for the public and the Board of Directors to learn about the Amendment and provide comments. The original 2006 Stream Management Master Plan is being updated to incorporate the latest flood modeling and update or propose new projects. Additional information is being prepared to further inform the Board and the public regarding the need and cost of flood protection in the Valley.

Raising Awareness

Throughout the year, Zone 7 joined with state and local partners to promote public awareness and educate the public on key water resources management topics. In 2018, Zone 7 participated in Fix a Leak Week, Water Awareness Month, Groundwater Awareness Week and Flood Preparedness Week.

Fix a Leak Week

In recognition of the importance of water conservation and water use efficiency, Zone 7 participated in the U.S. Environmental Protection Agency (EPA) WaterSense program's Fix a Leak Week for the third year in a row. The program aims to use water resources more efficiently, to preserve water for future generations, and to reduce water and wastewater infrastructure costs by reducing unnecessary water consumption. Zone 7 promoted Fix a Leak week via the eNewsletter by providing the public with resources for how to check and repair leaks inside and outside of their home.

Water Awareness Month

Once again, Zone 7 joined with other State and local agencies in declaring May as Water Awareness Month. As part of Water Awareness month, Zone 7 co-sponsored the 2018 Bringing Back the Natives. This event was a free, self-guided tour of 40 private gardens in Alameda and Contra Costa counties giving residents ideas on how to use California native plants to make their gardens water efficient, drought tolerant, and more beautiful.

National Groundwater Awareness Week

In recognition of the importance of groundwater as a natural resource, and in support of the responsible and sustainable use of groundwater, Zone 7 joined the National Groundwater Association (NGWA) in declaring the week of March 11-17, 2018, as National Groundwater Awareness Week. Zone 7 encouraged everyone to be a "groundwater advocate" both during National Groundwater Awareness Week and beyond by protecting and conserving groundwater. Zone 7 distributed information about National Groundwater Awareness Week—and its own sustainable groundwater management practices—via the eNewsletter.

Flood Awareness Week

Zone 7 participated in the seventh annual California Flood Preparedness Week, October 20-26, 2018. During California Flood Preparedness Week, local, state, and federal agencies across California worked together to inform the public about flood threats, how to prepare for floods, and what to do in times of flooding. Zone 7 distributed information via the eNewsletter and on the website about how to prepare for the rainy season and where to obtain sandbags. Zone 7 also hosted a Flood Preparedness Open House which included various displays about how to be flood-prepared, along with what Zone 7 has done to prepare its regional flood-protection system.

Community Events and Activities

Every year, Zone 7 looks forward to participating in a variety of local and regional community events and activities. These events are fun ways for the public to learn more about the work Zone 7 does in the community.

Spring and Fall Home and Garden Shows

Once again, Zone 7 occupied a booth at the Home and Garden Shows at the Alameda Fairgrounds to provide informative handouts and engage visitors in discussions on various water-related topics such as conservation, flood preparedness, and drought-tolerant gardening. This year a display was added which encouraged attendees to enter into discussions about how employees at Zone 7 Water Agency clean the drinking water and provide flood protection.

Livermore Innovation Fair

Zone 7 participated in the new annual gathering that brings awareness and excitement of science and engineering to students and families throughout the Tri-Valley area. At the Zone 7 booth, participants could learn about some of the tools used by Zone 7 employees to clean water for drinking and monitor the arroyos.

Sunol Wildflower Festival

The best way to celebrate spring is to be surrounded by wildflowers and what better place to do it than the Sunol Regional Wilderness? Attendees of the annual Wildflower Festival visited the Zone 7 booth to “play” with the floodplain model, allowing them to learn about our watershed, how water runs through it, and the effects of people on it.

Livermore Children’s Fair

Every September the Livermore Arts and Recreation Parks Department puts together a well-attended community celebration of all the opportunities available to families with young children. Little ones were invited to answer questions about water and color bookmarks while their parents received information about conservation and our local water supply.



Baywork Water Industry Fair for Veterans

In November 2018, Zone 7 participated in the Baywork Water Industry Career Fair for Veterans at Los Positas College. The event was held to honor our veterans and to help them explore water industry careers. Las Positas College was an ideal venue for this event because of the school's high veteran student ratio and its robust Veterans First Program, which administers veterans' educational benefits and provides a variety of support services to veterans and those in active service. There was great interest in entry-level positions for those trying to make the transition into the water industry.

The event was co-sponsored by JVS, the California Water Environment Association, the California Economic Development Department, and Swords to Plowshares, and featured a Huey Helicopter landing, an Honor Guard, a veterans' career panel, a keynote address by Purple Heart Ranger Michael Young, and lunch for veterans.

Promoting Water Literacy

Zone 7 takes a great deal of pride in supporting efforts to educate future water leaders in the community. In 2018, Zone 7 continued its highly-successful schools program, celebrated student water projects and exhibited a floodplain model for local students.

Schools Program

Zone 7's popular Valley-wide water education program continued in 2018, reaching nearly 14,000 students from kindergarten to twelfth grade. Zone 7's Schools Program is a unique and highly effective outreach and education program that has been offered for the past 18 years. The Schools Program provides Tri-Valley teachers a wide variety of free classroom programs to make learning about water fun while meeting curriculum standards.

Zone 7 also participated in the Alameda County Science & Engineering Fair, several individual school science fairs, STEM events, career fairs, and other relevant high school and elementary school events.

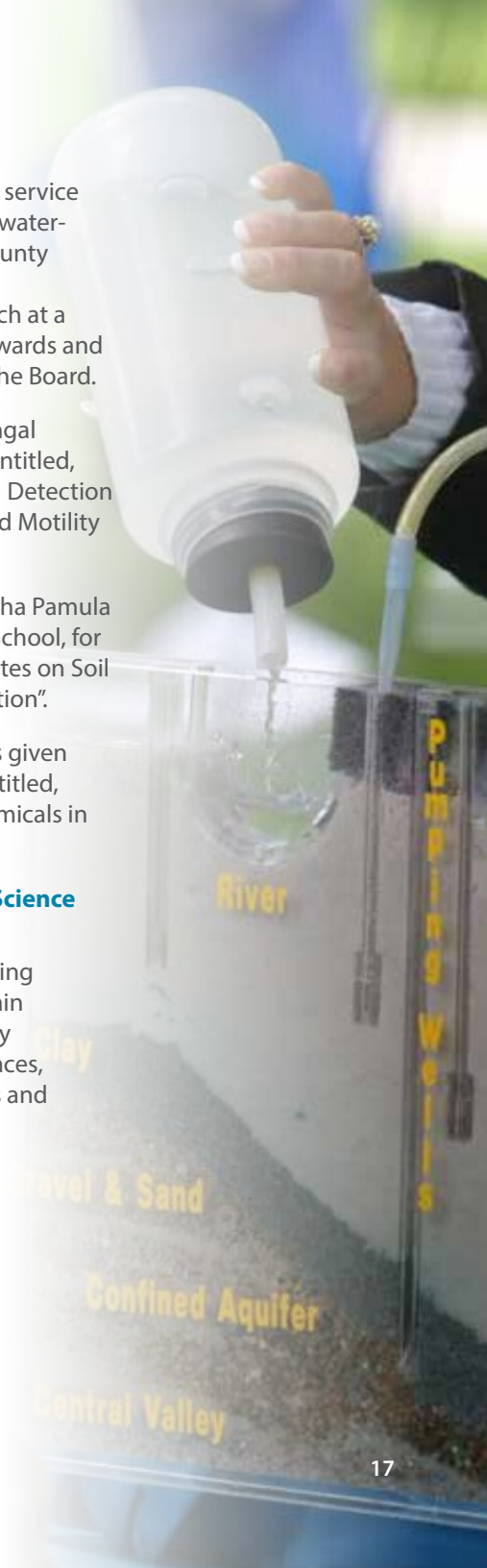
Student Water Projects

Four students who attend schools within Zone 7's service area received special recognition from Zone 7 for water-related projects displayed during the Alameda County Science & Engineering Fair. The Board of Directors recognized the great work they did in their research at a Board Meeting by presenting the students with awards and inviting the students to present their projects to the Board.

- A high school award was given to Shreyas Kallingal from Amador Valley High School for the study entitled, "ParaTool: A System for Capture and Automated Detection of Waterborne Parasites via Biomimicry Taxis and Motility Tracking".
- A second high school award was granted to Eesha Pamula and Ritika Peddamallu from Quarry Lane High School, for their study entitled, "Effect of Various Polyacrylates on Soil Water Retention and Plant Nutritional Composition".
- Lakshmi Sajith, Harvest Park Middle School, was given the middle school water award for the study entitled, "Save Aquatic Life – An Alternative to Toxic Chemicals in Sunscreen".

Livermore Valley Joint Unified School District Science Odyssey

Over 700 students displayed research or engineering projects for the event. Zone 7 exhibited a floodplain model that simulates the effects of light and heavy rainfall on permeable versus non-permeable surfaces, and relationships with downstream channel flows and floodplains.



Financial Accountability & Cost Efficiency

Saving Money with Early Payoff of Loans for Stored Water Recovery Project

In February of 2004, Zone 7 authorized participation in a capital improvement program for the construction of a pipeline from the Semitropic Water District to the California Aqueduct (part of the State Water Project), new groundwater wells and other conveyance enhancements. These improvements allow Zone 7 to participate in a groundwater banking program with Semitropic Water District. These capital improvement projects have directly supported Zone 7's ability to store surplus water in wet years and then call on its stored water from the district in dry years. The facilities were critical to the community in surviving the extreme drought conditions in 2014.

Zone 7's share of Semitropic's capital costs were roughly \$1.58 million (including interest) of the \$16 million total. At the February 21, 2018 Board of Directors meeting, Zone 7 authorized early pay off of Zone 7's remaining balance of the capital payment of \$68 million. The early payoff will result in a net savings of \$12 million for Zone 7.

The board also adopted another cost-saving measure, to refinance the debt that funded Zone 7's share of capital improvements to the Cawelo Banking Program. Like the Semitropic program, this program was critical in providing water to the community during the drought. Refinancing allowed Zone 7 to lower the interest rate from 4.5% to 2.9%. With an outstanding debt of \$16 million, this resulted in a total saving of approximately \$1.9 million (net present value), dropping annual payments from \$1.3 million to \$1.1 million.

These projects show Zone 7's continuing commitment to prudent use of its funds. Other such cost-cutting by the board include:

- Early purchase of the North Canyons Office Building in 2017, resulting in total costs savings of \$7.1 million for the Agency. Lease payments for the office building ended as of April 2017, for a total, three-year costs savings of \$3.8 million on lease payments. The purchase also avoided costs of \$0.5 million for moving expenses and another \$2.8 million in avoided contributions to the sinking funds for the building.
- Adoption of a budget that included a \$1.1 million reduction in the labor budget for fiscal year 2018-2019.

Two Year Budget Approved

The two-year budget contains a total appropriation of \$342.6 million, with \$199.8 million in the first year and \$142.8 million in the second year. The budget reflects the Agency's commitment to providing a reliable supply of high-quality water and an effective flood-control system to the Livermore-Amador Valley, as well as supporting priorities and policies approved by the Board. The primary drivers of the two-year budget are the Capital Improvements Plan (CIP), the Flood Protection CIP, and the Asset Management Plan (AMP). Together, these three planning documents outline the plans for capital projects, flood protection maintenance projects, and renewal and replacement projects necessary over a long-term planning horizon. The annual budgets associated with these are folded into the fiscal year budget. The budget also reflects the various financial issues and economic strains facing the Agency related to drought, mandated water conservation requirements, flood damage from the 2017 winter storms, increases in the California Department of Water Resources fixed cost charges, and debt financing for the ozonation projects at the Del Valle Water Treatment Plant and the Patterson Pass Water Treatment Plant. Positive trends for the Agency include a broad, diverse and growing service area with strong income levels and steadily expanding commercial and residential development which has contributed greatly to increased connection fee revenues, rising population expectations, and moderate increases in property values. These positive trends all contribute to the Agency's revenue projections.

Despite some positive economic trends, Zone 7 expects that expenses will somewhat exceed revenues and reserves will be needed to make up the balance. However, the reserve budget remains healthy and consistent with the Reserve Policy adopted by the Board in 2016 for most funds. The exceptions are the water enterprise funds, which primarily receive revenues from water rates and whose reserve levels are currently below the board approved minimum. Details regarding the approved budgets for FY 2018-19 and FY 2019-20 are provided online.

New Water Rates and Fees

The Board of Directors approved a water rate increase for the next four years, subject to the Board revisiting the rates after 2 years. The overall annual increase is 6.7% per year. The Board of Directors also voted to raise key rates and connection fees, including treated water rates for Calendar Year (CY) 2019 – 2022, untreated water rates for CY 2019, and municipal and industrial water connection fees for CY 2019.

The Board of Directors approved new water rates and fees:

- An annual increase of 6.7% per year on treated water rates for the next four Fiscal Years, subject to the Board revisiting the rates after 2 years.
- A 6.7% increase in untreated water rates for Calendar Year (CY)2019.
- Municipal and industrial water connection fees for CY 2019 were adjusted for inflation.

The rate increases are necessary to maintain and upgrade an aging water system (most of it was built in the 60's and 70's), keep up with changing regulatory requirements, and recruit & retain a highly skilled workforce.

Livermore Valley Water Financing Authority Water Revenue Bonds, 2018 Series A

The Livermore Valley Water Financing Authority (LVWFA) was formed to allow the sale of bonds. With its AA+ from Standard & Poor's and AA from Fitch credit ratings, the Agency sold all of its \$64 million LVWFA water revenue bonds in March 2018. These bonds were 2018 Series A and will generate \$71.4 million of proceeds with a true interest rate of 3.54%. The \$71.4 million bond proceeds will be used for ozone projects at both water treatment plants, \$57 million (See Investing Infrastructure Section), refunding of the Cawelo Water District capital payment for \$14.1 million for a net present value savings of approximately \$1.88 million and \$0.3 million for costs of issuance on the bonds. The Agency was paying an average interest rate of 4.5% on the Cawelo capital payment and the rate on the refunding portion is now 2.9%, saving the Agency over \$0.2 million per year.



Comprehensive Annual Financial Report

In 2018, Zone 7 was awarded the Certificate of Achievement for Excellence in Financial Reporting for its 2016-2017 Comprehensive Annual Financial Report by the Government Finance Officers Association of the U.S. and Canada (GFOA). The independent audit of Zone 7's accounting practices found that the agency has once again received an unmodified "clean" opinion. This is the highest level of assurance an audit can provide and demonstrates that Zone 7's practices continued to accurately and fairly represent the financial health of the agency, align with nationally accepted accounting principles, and comply with applicable laws and government regulations.

Excellence in Budgeting Award

Zone 7 was awarded the California Society of Municipal Finance Officers (CSMFO) Operating Budget Excellence Award for its Fiscal Year 2018-19 Operating Budget. The CSMFO Budget Awards Program is designed to recognize those agencies that have prepared a budget document that meets the highest criteria and standards applied to municipal budgeting. This is the fourth consecutive CSMFO operating budget award presented to Zone 7.

In order to receive this award, a governmental body must publish a budget document that meets programmatic criteria as a policy document, an operations guide, a financial plan, and a communication device. CSMFO has two different budget awards that are presented to public agencies. The initial level is a "Meritorious Budget Award" and the advanced level is an "Excellence in Budgeting Award". Zone 7 received the highest level rating.

The Government Finance Officers Association of the United States and Canada (GFOA) presented the Distinguished Budget Presentation Award to Zone 7 Water Agency for its Operating Budget for the Two-Year Budget for Fiscal Year 2019-20. The Distinguished Budget Presentation Awards encourages and assists state and local governments to prepare budget documents of the very highest quality that reflect both the guidelines established by the National Advisory Council on State and Local Budgeting and the GFOA's best practices on budgeting, and then to recognize individual governments that succeed in achieving that goal. This is the fifth consecutive GFOA budget award presented to Zone 7.

Further References

- Flood Protection Program Annual Report (2018)
- Alternative Groundwater Sustainability Plan and Annual Report
- Annual Report for the Sustainable Groundwater Management Program 2018 Water Year (October 2017 – September 2018) Livermore Valley Groundwater Basin
- Wholesale Water Rate Study (October 2018)

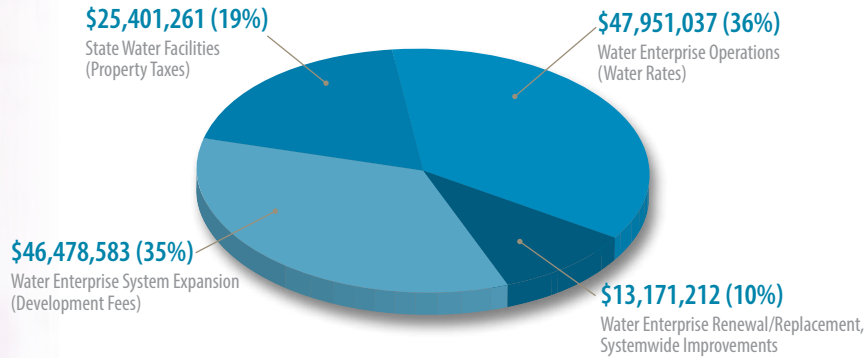


Financial Information

Fiscal Year 2018-2019 Revenue & Expenses

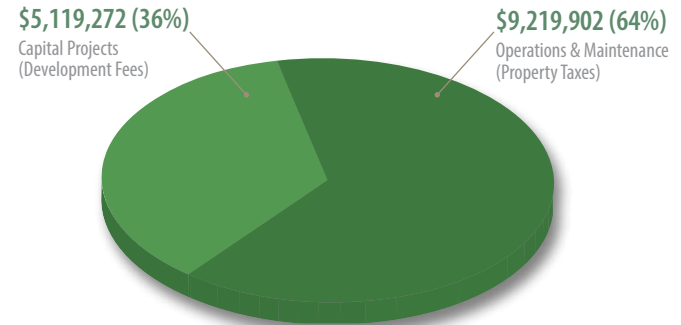
Water Supply, Reliability, and Quality

Revenue: \$133,002,093



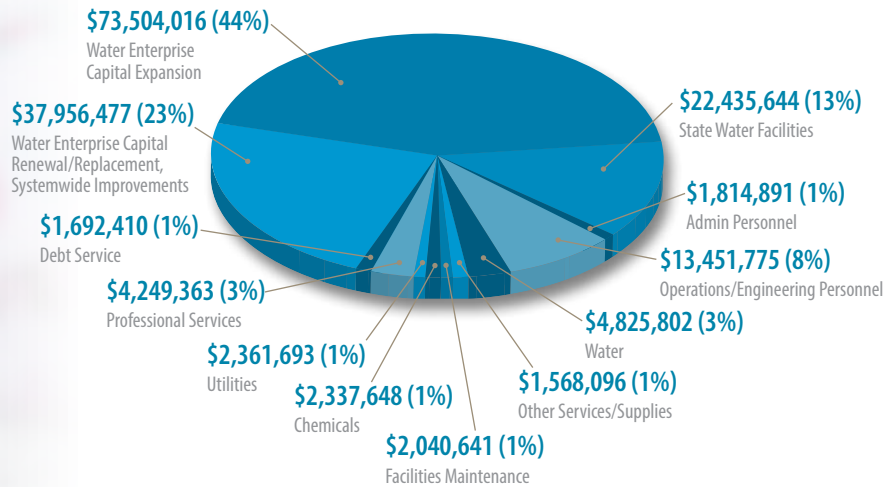
Flood Protection

Revenue: \$14,339,174



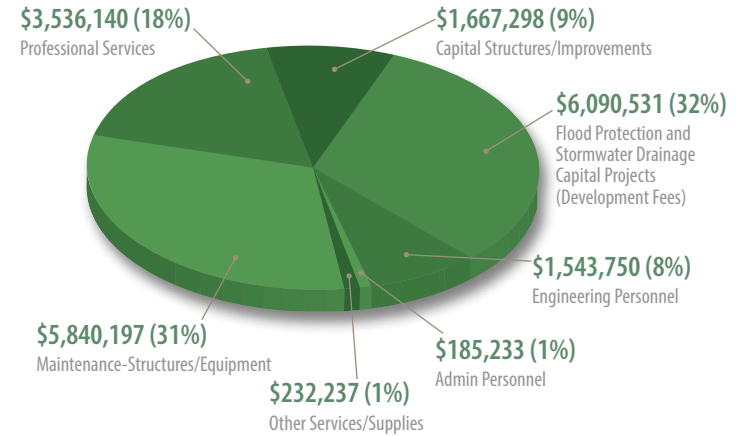
Water Supply, Reliability, and Quality

Operating and Capital Expenses: \$168,238,456



Flood Protection

Operating and Capital Expenses: \$19,095,386





Zone 7 Water Agency supplies treated drinking water to retailers serving approximately 240,000 people and businesses in Pleasanton, Livermore, Dublin and, through special agreement with the Dublin San Ramon Services District, the Dougherty Valley area of San Ramon. Zone 7 also supplies untreated irrigation water (mostly to vineyards) and provides flood-protection services to eastern Alameda County.

Executive Staff

Valerie Pryor General Manger

Osborn Solitei Treasurer/Assistant General Manager, Finance

Jarnail Chahal Manager, Engineering

Carol Mahoney Manager, Integrated Water Resources

Colter Andersen Manager, Production