



Zone 7 Water Agency 2014 Annual Report



**MANAGING RELIABLY
THROUGH HISTORIC DROUGHT**

LAKE OROVILLE

2011

2014

Our Values

1. Open and Transparent

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

2. 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.

3. Integrity

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

4. Fiscally Responsible

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

5. Environmentally Sensitive

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

6. Innovative/Proactive

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

7. Safety

We are committed to public and employee safety to maintain a healthy work environment. We work safely and provide safe products and services.

8. Employee Development

We foster a respect for diversity, 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.

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.



Front cover: Lake Oroville is part of the State Water Project. Photos courtesy of the California Department of Water Resources.

BOARD OF DIRECTORS

A Message from the President

Managing reliably through historic drought



John Greci
President, FY 2014-15

Zone 7's storage of excess water in various groundwater banking programs and wise fiscal management to build financial reserves over many years, along with the Tri-Valley's strong response to the call for water conservation, were critical in 2014 in helping to get the community through what's been the worst drought in the region's recorded history.

The challenges were great but Zone 7 met them head-on through a series of drought-emergency projects, careful management of available resources, extensive community outreach on the critical need to achieve a 25 percent reduction in Valley-wide water use, and close coordination with its water retailers and other agencies on drought response. We thank the community for pulling us all through! Valley-wide demand for potable water met and even exceeded the 25 percent conservation target. Despite getting only 5 percent of its allocation from the State Water Project, Zone 7 was able to provide for the health and safety needs of the community, keep businesses running and minimize 2014 local groundwater pumping to reserve local groundwater supplies for 2015 in case of continued drought. The high levels of conservation even allowed us to save enough imported surface water to carry over 9,000 acre-feet of surface water supplies into 2015. This amount is in addition to approximately 92,400 AF of remaining drought supplies stored in Zone 7's out-of-Valley groundwater banking programs.

That does not mean we are out of the woods. Historic drought conditions persisting throughout the State continue to create significant challenges for Zone 7. It took the Agency many years to build up its groundwater and financial reserves. The latter has taken significant hits as a result of the continuing drought. Both will need to be replenished moving forward so the Agency can continue fulfilling its mission of providing a reliable supply of high-quality water and an effective flood protection system for the people who live and work in its service area.

The drought has underscored the continued threats of climate change on the reliability of the state's water supply and, even as Zone 7 works on multiple fronts to improve its short- and long-term water supply reliability, including the need to address the Delta's aging infrastructure.

Also in 2014, the Agency completed a short- and long-term planning document for future water supply, flood protection and other beneficial water management uses of the Chain of Lakes. And it made significant strides in protecting local groundwater resources by working on a plan to manage nutrient loading in the groundwater basin.

In the area of flood protection, Zone 7 continued stream sediment studies and other critical work to assist in its Stream Management Master Plan update, and continued a public-private partnership that included substantial community involvement for the "Living Arroyos Program."

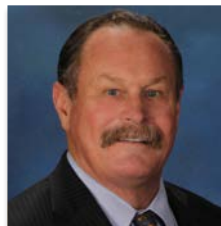
During 2014, we also welcomed newly-elected Board member Jim McGrail, a local vineyard owner, and bid a warm farewell to former board member A.J. Machaevich, whose service provided invaluable contributions to the Agency.



Sarah Palmer
Vice President, FY 2014-15



Sandy Figuers



Jim McGrail



Bill Stevens



Dick Quigley



Angela Ramirez Holmes

KEY ACCOMPLISHMENTS

With the drought emergency, 2014 presented significant challenges for Zone 7 in terms of both water supply and finances, but there were some bright spots as well. Among other things, it showed that years of proactive building of groundwater and financial reserves, though they will need to be replenished, can help get us through. A dry year also meant there were fewer issues that arose relative to flood protection.

WATER SUPPLY, RELIABILITY & QUALITY

▶ **Wise management of limited drought supplies:** Zone 7's Out-of-Valley storage and groundwater banking programs and its local groundwater basin management operations successfully operated as a drought bank so that, despite a 5 percent allocation from the State Water Project, Zone 7 was able to provide 75 percent of requested deliveries.

▶ **Drought emergency projects with lasting benefits:** The Agency accelerated major projects, expending approximately \$6.1 million from reserves, to construct a new well, refurbish some existing wells for improved reliability, and build a pipeline to move water captured in local mining operations to a lake that has groundwater basin recharge capability.

▶ **Water conservation coordination with retailers:** Zone 7 and the Valley's water retailers did extensive joint outreach on drought-related conservation, including radio advertising and development of a regional website, resulting in word spreading throughout the community. Three cheers to residents and businesses in achieving and even surpassing the needed 25 percent conservation for 2014!



▶ **Agreements to bolster future reliability:**

- Zone 7 and an expanding number of other Bay Area water agencies created a partnership to broaden efforts to develop solutions aimed at improving regional water supply reliability.

- Zone 7's Board approved an agreement involving dry-year water purchases from the Yuba County Water Agency and from a multi-year statewide pool linking voluntary sellers to interested buyers.

▶ **Preserving reliable infrastructure:** Phase 1 of the Del Valle Water Treatment Plant's Superpulsator Rehabilitation Project was completed and Phase 2 began with expected completion by March 2015. The superpulsators are an integral component of the water-treatment process.

▶ **Upgrading infrastructure:** Looking to the future, Zone 7's Board adopted a FY 2015/16 Capital Improvement Program, laying out plans for key investments in water quality and reliability projects as well as regional flood protection.

▶ **Delta sustainability:** Zone 7 continued to actively support improving State Water Project conveyance infrastructure through the Delta while improving the Delta ecosystem. Such improvements would upgrade aging infrastructure and restore system reliability.

▶ **Partnership for Safe Water recognition:** Zone 7's Del Valle Water Treatment Plant was honored for receiving a "Directors Award of Recognition" from the Partnership for Safe Water for 15 consecutive years – a milestone achieved by only 30 water utilities across the country since the program's inception.



FLOOD PROTECTION/STREAM MANAGEMENT MASTER PLAN

- ▶ **Sediment study:** In addition to completing regular maintenance activities of its flood control facilities to ensure they remain in good working order, Zone 7 continued work on sediment studies that will help the Agency develop a more cost-effective maintenance plan to reduce flooding risks from sediment buildup in some streams and preserve habitat.
- ▶ **SMMP Update:** In support of the Stream Management Master Plan (SMMP), Zone 7 worked to finalize systemwide hydrology and hydraulic models that represent existing conditions of the upper Alameda Creek Watershed to help clarify program needs and priorities
- ▶ **Repair and maintenance projects:** Zone 7 completed seven bank repairs, 15 soil bioengineering brush walls, 4,889 linear feet of access roadway, six outfall structure rehabilitations and other projects totaling \$850,000.

MULTI-BENEFIT PROJECTS/ENVIRONMENTAL/COMMUNITY PARTNERSHIPS

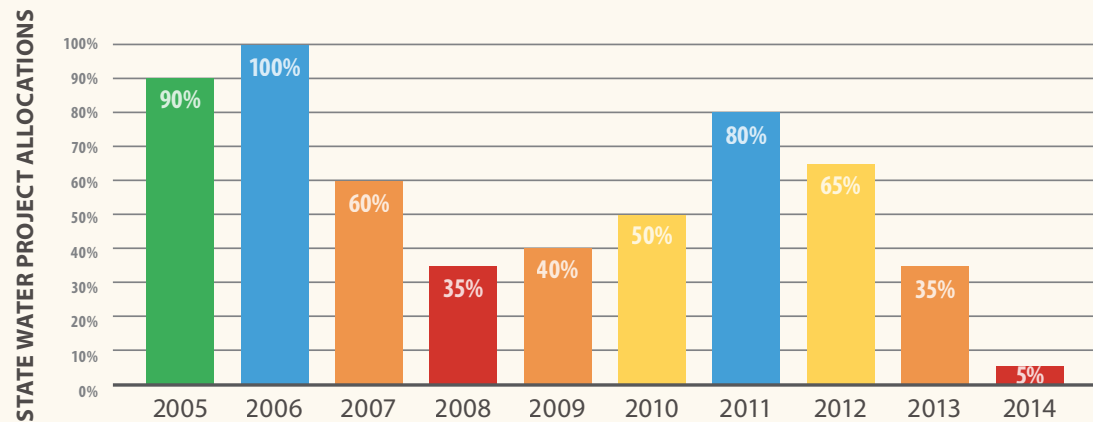
- ▶ **Chain of Lakes:** Zone 7 completed the Preliminary Lake Use Evaluation for the Chain of Lakes, outlining integrated plans to maximize water resource uses of existing and former gravel quarry pits while identifying compatible secondary uses to achieve multiple public benefits. The plan also finalized near-term lake use planning for Lakes H, I and Cope.
- ▶ **Living Arroyos Program:** The collaborative public-private partnership with the City of Livermore and Urban Creeks Council achieved several accomplishments in 2014, including - with help from community volunteers - planting nearly 3,000 riparian plants at Zone 7's Arroyo Mocho Stanley Reach stream enhancement project.
- ▶ **Upper Altamont Creek Demonstration Project:** Zone 7 and its partners worked under a U.S. Environmental Protection Agency (USEPA) Healthy Watersheds Grant to launch two demonstration bank stabilization projects on the upper Altamont Creek in Livermore's Springtown area to improve creek water quality and the environment.
- ▶ **"Climate Registered" status:** Zone 7 achieved this status with The Climate Registry for its proactive steps in helping to address global climate change.

FINANCIAL ACCOUNTABILITY & COST EFFICIENCY

- ▶ **Reserves Soften Financial Impacts of Drought:** Over the last several years, Zone 7 has been building reserves. Under the Agency's 2010 Urban Water Management Plan, the drought reserve concept was developed to offset drought-related financial losses and then funded over a period of years. In 2014, the Agency used all of this drought reserve and tapped into other savings to cover drought-related budget shortfalls. This enabled Zone 7 to hold down increases in wholesale treated water rates to 3 percent.
- ▶ **Tri-Valley Intergovernmental Reciprocal Services Master Agreement:** The Board adopted a resolution to enter into an agreement with other Tri-Valley governmental agencies that provides a framework for member agencies to obtain services/supplies from each other, to reduce costs to the public.
- ▶ **Budget book presentation awards:** For the second consecutive year, the Agency received the Government Finance Officers Association (GFOA) Distinguished Budget Presentation Award for the 2014/15 Fiscal Year budget. Additionally, Zone 7 received the "Excellence Award in Operating Budget" for the first time from the California Society of Municipal Finance Officers (CSMFO) for its FY 14/15 Budget Book.
- ▶ **Energy efficiency:** In continued moves to save money and simultaneously be environmental stewards, the Agency increased its alternative power and renewable energy use portfolio by completing a Power and Water Resources Pooling Authority (PWRPA) project at the Patterson Pass Water Treatment Plant. A second PWRPA installation project began at Zone 7's Mocho Groundwater Demineralization Plant.
- ▶ **Mechanical Dewatering System:** As a significant cost-efficiency measure (and for improved reliability), Zone 7 purchased a centrifuge and related equipment for handling of chemical residuals from the water treatment process at the Del Valle Water Treatment Plant. Equipment had previously been rented and operated by others at a higher cost.
- ▶ **Grant funding:** Zone 7 continued to be a leader in the Bay Area effort to secure Integrated Regional Water Management Planning grant funds, and worked to secure grant funding for drought relief on behalf of its ratepayers. In November 2014, the Department of Water Resources announced that Zone 7 would receive \$3 million in grants to partially offset costs of two drought-relief projects and another \$282,000 to augment Agency water conservation programs.



MANAGING THROUGH HISTORIC DROUGHT BACKGROUND – THIRD STRAIGHT DRY YEAR

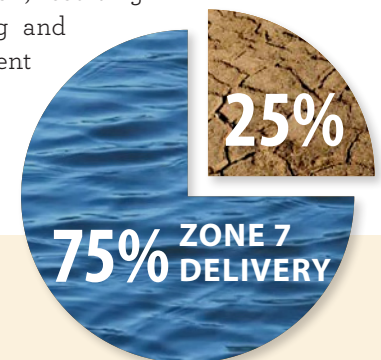


Seven of the last 10 years have been below normal, dry, or critically dry, and Zone 7 and other State Water Project contractors have received annual allocations averaging only 56 percent of their contract amounts. Locally, the long-term impacts have been cumulative, even though 2011 was relatively wet.

Signs in early 2014 that California was in its third straight dry winter led to declarations of both state and local drought emergencies, pointing to the need to conserve water. Since 80 percent of Zone 7's water supply begins as Sierra snowmelt and is conveyed to the Valley through the Delta as part of the State Water Project, it is critical to local water supply reliability to continue on the path toward improving conveyance of water through the Delta and improving the Delta ecosystem. Indeed, 2013 was the driest in 150 years and Alameda County was among 27 counties in the state to be listed by the U.S. Department of Agriculture as "natural disaster areas" due to drought, making farmers eligible for low-interest federal loans. Allocations for 2014 from the State Water Project to Zone 7 and other water contractors stood at 5 percent – the lowest in SWP history. The low allocation had a huge impact on water availability in 2014.

Zone 7's Annual Review of Sustainable Water supply in April 2014 clarified the need for water retailers serving Pleasanton, Livermore, Dublin and Dougherty Valley to achieve conservation consistent with "Stage 2 Actions" under Zone 7's Urban Water Management Plan. Because most water used for non-public health and safety is used outdoors, attaining a 25 percent reduction over the course of the entire year required a much larger cutback

in outdoor water use – especially in hot summer months. Zone 7 took the lead in developing some simple guidelines to achieve the necessary conservation, with a focus on significantly reducing outdoor water use, and retailers adopted implementing ordinances. Governor Brown's call in April 2014 for all Californians to redouble their efforts to conserve, and to limit outdoor irrigation, was consistent with measures already outlined by Zone 7. Zone 7 and the Valley's water retailers did extensive joint public outreach on drought-related conservation, resulting in residents and businesses achieving and even surpassing the needed 25 percent conservation for 2014.



In 2014, the community heeded Zone 7's call for a 25% reduction from 2013 water use to conserve supplies for potential drought conditions in 2015.

EMERGENCY DROUGHT PROJECTS

In early 2014, Zone 7's Board approved a drought emergency response plan that, in addition to asking everyone in the Valley to reduce water use by 25 percent, included agency actions and emergency projects aimed at minimizing water supply shortages. Emergency projects called for expedited construction of a new well to increase groundwater pumping capability, and of a pipeline to move water captured in local mining operations to a lake

within the Chain of Lakes that has groundwater basin recharge capability. Construction was expedited through use of Design-Build contracts. The Agency also initiated emergency maintenance projects to improve well reliability. The pipeline and the well were completed in 2014 (a portion of the cost qualifying for a \$3 million drought-relief grant through Proposition 84). Planning for a second well got underway, in case it was needed.



In 2014, Zone 7 installed a new well in the Chain of Lakes area that can produce up to 2 million gallons per day of potable (drinking) water for businesses and residents.



A new pipeline installed in 2014 moves water captured from local mining operations to a lake within the Chain of Lakes that has groundwater basin recharge capability. To access gravel deposits, quarry owners pump groundwater from the mining pits. This water was previously discharged into local arroyos flowing out of the Valley, resulting in permanent loss of the water for Zone 7's service area. The project results in up to 15 million gallons a day of groundwater recharge during times when the recharge lake's water elevations are at their highest level.



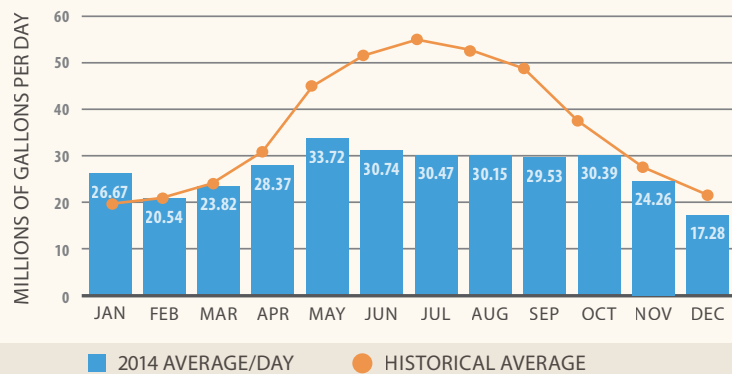
Three well repair projects in 2014 restored production reliability and the well production rates. This photo is of a new pump installation at Mocho Well No. 4.

MANAGING OUR WATER RESOURCES

Despite receiving only 5 percent of its State Water Project contract amounts in 2014, Zone 7 was able to secure all of its “carryover” State Water Project supplies from 2013, retrieve some of Zone 7’s Out-of-Valley banked supply from Kern County, and minimize local groundwater basin pumping to reserve groundwater supplies for 2015 in case of continued drought.

The Agency saved enough imported surface water to carry over approximately 9,000 acre-feet (AF) of surface water supplies into 2015. This was in addition to approximately 92,400 AF of remaining drought supplies stored in Zone 7’s Out-of-Valley groundwater banking programs, and approximately 70,000 AF of groundwater stored locally and above historic lows.

Zone 7’s Out-of-Valley banking programs (in Kern County), and its local groundwater basin management operations, successfully operated as a drought bank for the region’s benefit. Zone 7 continues to work with partners to ensure that operation of these programs is optimized.



Demand for Zone 7 water supplies was sharply reduced from historical averages due to drought-related conservation in 2014, especially during summer months when use for outdoor irrigation is the highest.

The Tri-Valley’s strong response to the call for water conservation, along with Zone 7’s groundwater banking programs and its wise management of other available supplies, were critical in 2014 in helping to get the community through what’s been the worst drought in the region’s recorded history.

2014 Supply & Demand for Zone 7 Water Supplies (in acre-feet, where one acre-foot equals 326,000 gallons)

Supply	2013	2014
State Water Project deliveries (into Valley)		
From Table A (contract) deliveries	12,300	600
From carryover (stored) reserves	22,700	17,500
Pumping from local groundwater storage	9,800	7,600
Local surface water (Del Valle Reservoir)	3,500	600
Supplemental water purchases BBID/Yuba	5,800	400
Surface water from offsite banking	4,000	10,000
Total Supply	58,100	36,700
Demand		
Municipal (drinking) water	41,500	28,800
Untreated irrigation water	6,200	5,000
Released for local groundwater recharge	9,000	1,400
Total Demand*	58,100	36,700

Available Year-End Storage

State Water Project water sent to offsite banking	0	0
Local groundwater basin (above historic lows)**	82,000	70,000
Offsite banking programs	107,100	92,400
Del Valle Reservoir storage	200	2,300
State Water Project carryover	18,300	9,000
Total Year-End Storage	207,600	173,700

*Demand totals include a small amount of unaccounted-for water typical for water systems of this size.

** An additional 128,000 acre-feet (AF) of water was in storage at the end of 2014, for a total of 198,000 AF.

2014: MANDATORY WATER CONSERVATION

Zone 7 took a leadership role in 2014 in establishing, for the first time in its history, mandatory minimum guidelines for its service area to achieve a needed 25 percent reduction in water use over the course of the year by cutting back on outdoor watering by 50 to 60 percent. Working closely with its water retailers, extensive joint outreach on drought-related conservation was conducted. Numerous drought presentations were given to community groups, Boards and City Councils, and other organizations to educate the public on water supply conditions and to present Zone 7's Drought Emergency Action Plan. Mailers were sent to everyone in the service area. Frequent radio ads were run on local stations. Newspaper ads were placed in the two local weekly papers, the local daily paper, and the on-line "Patch" news services. The community heard the message and conserved even more than requested.

In 2014, Zone 7 sponsored two lawn-to-garden parties in its service area organized by StopWaste, in which participants got hands-on education about how to sheet mulch. In addition, it sponsored two lawn-conversion talks with Bringing Back the Natives.



Residents and businesses in Zone 7's service area reduced water use by nearly 30 percent in 2014, primarily by limiting outdoor water use. This saved over 13,000 acre-feet (4.2 billion gallons) of water during 2014.

REBATE INCENTIVES FOR 2014

In addition to the extraordinary drought conservation efforts, routine programs continued. Rebates were popular and provided for 1,938 high-efficiency clothes washers, 972 high-efficiency toilets and 65 lawn conversions (although these were split in 2014, with no planting allowed until after the winter rains began). Rebates were also provided for weather-based irrigation controllers at 764 stations (primarily commercial properties). These conservation measures are saving an estimated 28.1 million gallons of water annually in Zone 7's service area. In addition, Zone 7 provided four "large landscape" surveys of high-water use properties, expected to result in further savings.

Also in 2014, Zone 7's routine conservation efforts included:

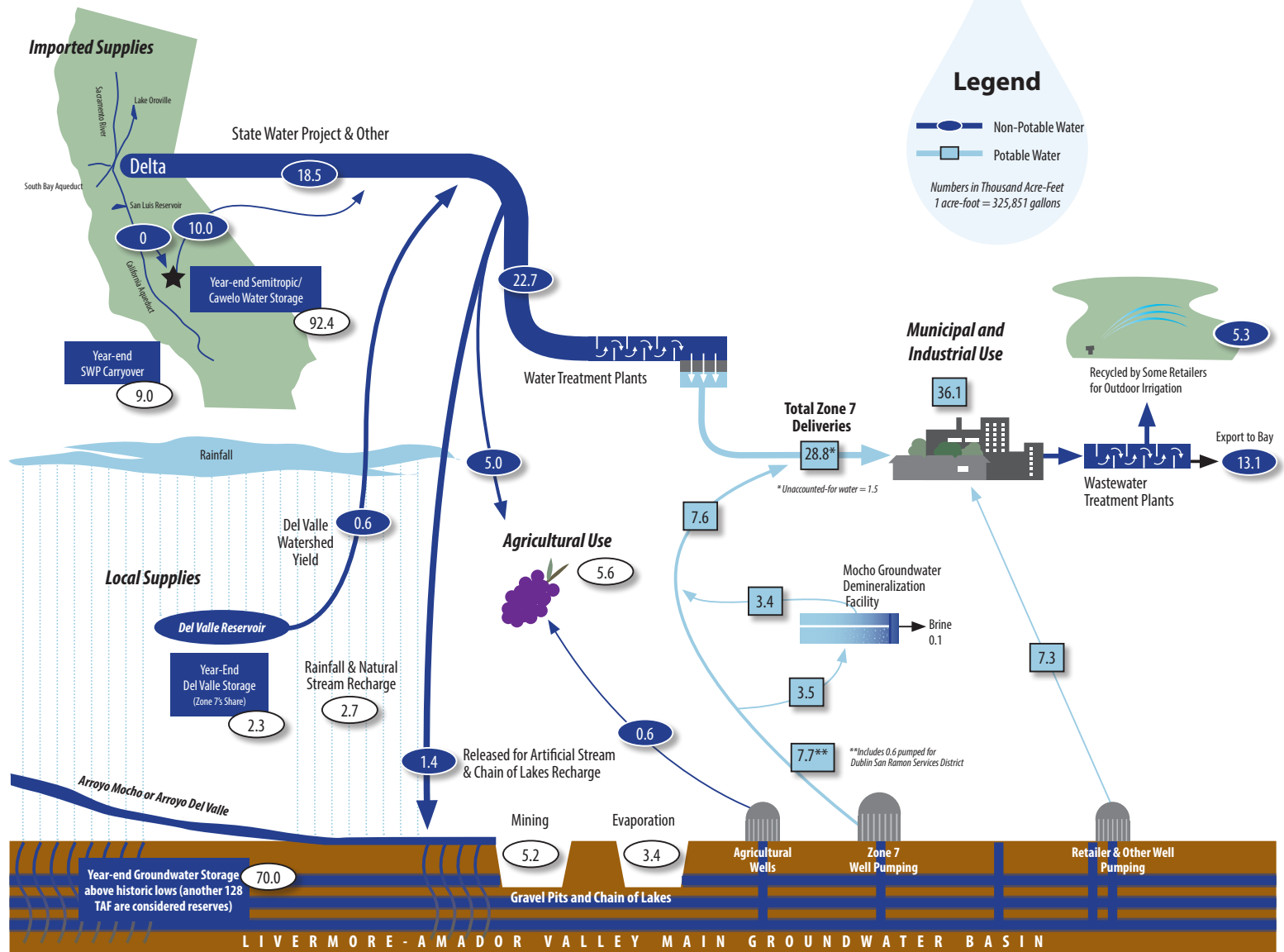
- ▶ Hosting a Qualified Water-Efficient Landscape (QWEL) training for 25 participating landscape professionals.
- ▶ Co-sponsoring and helping to promote the Bringing Back the Natives Garden Tour featuring water-wise gardens throughout the East Bay, including in Zone 7's service area.
- ▶ Co-sponsoring the PG&E water and energy showcase held in San Francisco; Zone 7 staff participated in the panel discussion on the drought.
- ▶ Hosting, in April 2014, a consultant's presentation to local winegrowers at Zone 7 offices, providing tools and techniques on water-use efficiency to produce quality grapes.

LIVERMORE-AMADOR VALLEY WATER SUPPLY & USE

Supplying Water Reliably – 2014 Operations

How Our Water System Works

The vast majority of Zone 7's water supply is imported to the Valley. It starts as Sierra snowmelt. The water is collected behind Oroville Dam, and then is conveyed to the Valley from the State Water Project via the Delta and South Bay Aqueduct. Most is treated locally for delivery to water retailers as potable water, while some is delivered untreated to agricultural water users. Some is also recharged via local arroyos into the local groundwater basin for storage and use when needed, and some is sent to out-of-area groundwater storage banks. Zone 7 also relies on local rainfall for a small fraction of its supply. In addition, some retailers do their own groundwater pumping and some use recycled water to satisfy a share of outdoor irrigation demands.





California Natural Resources Secretary John Laird discusses the California Water Action Plan with the Tri-Valley community.

PROMOTING STATEWIDE RELIABILITY SOLUTIONS

In 2014, Zone 7 coordinated with cities and water retailers in its service area in planning and co-sponsoring a well-attended community forum – attended by local civic, business and community leaders, along with interested residents – at which California Natural Resources Secretary John Laird outlined the California Water Action Plan. The plan addresses the state’s most pressing water issues over the next few years and lays a foundation for sustainable management of our limited water resources.

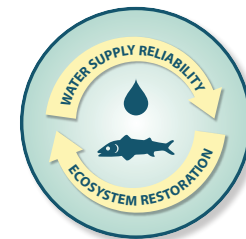
DELTA CONVEYANCE IMPROVEMENTS MORE CRITICAL THAN EVER

More than 80 percent of the water Zone 7 provides to Livermore, Pleasanton, Dublin and Dougherty Valley starts as Sierra snowmelt and is delivered to Zone 7 from the State Water Project by way of the Delta.

Even in normal rainfall years, regulatory Delta pumping restrictions to protect threatened and endangered fish species have sharply reduced the Project’s reliability and projected long-term deliveries to Zone 7 and other state and federal water contractors. In 2014, these pumping restrictions worsened the impact of the drought on Zone 7’s banked water supplies. In 2013 alone, Zone 7’s share of lost water supply due to pumping restrictions was 12,000 acre-feet (more than 3.9 billion gallons) – enough water to serve more than 24,000 single-family homes for an entire year.

The Delta ecosystem is in serious decline and the State Water Project’s aging infrastructure requires upgrading. Its old and fragile levee system makes the water supply system vulnerable to saltwater intrusion from flooding, earthquakes and rising sea levels due to climate change. Delta ecosystem stressors include agricultural drainages, wastewater treatment plant discharges, invasive species, recreational activities and urban runoff.

The California Water Action Plan includes components to achieve the co-equal goals of restoring both the Delta ecosystem and, through conveyance improvements, water supply reliability for 25 million Californians – including those living in Zone 7’s service area.



IMPROVING REGIONAL/LOCAL SELF-SUFFICIENCY

In 2014, the Zone 7 Board of Directors approved participation in the Bay Area Regional Water Supply Reliability Partnership under a common set of Guiding Principles. This allowed Zone 7 and an expanding number of Bay Area partners to broaden efforts to develop solutions aimed at improving regional water supply reliability. Desalination will continue to be considered as a potential component, but other options – such as interties and water transfers – could also be part of the regional portfolio. Other partners include East Bay Municipal Utilities District, San Francisco Public Utilities Commission, Santa Clara Valley Water District, Contra Costa Water District, Alameda County Water District and Marin Municipal Water District.

In November 2014, the Board also approved an agreement aimed at further improving water supply reliability: amending an existing agreement for dry-year water purchases from the Yuba County Water Agency that, while increasing the per-unit cost of such water due to market pressures, does so at a fixed rate that can't go up for five years. Furthermore, the amount that Zone 7 buys under the agreement could increase from the former 550 acre-feet a year to 850 acre-feet annually.

Also in 2014, Zone 7 participated for the second time in the Multi-Year Water Pool Demonstration Program, which began in 2013 for State Water Project contractors and links voluntary sellers of SWP water to interested buyers. The program has been offered in an effort to make more water available to contractors who need it while giving a fair market price to contractors wishing to sell their SWP water. Zone 7 was thus poised to continue participation in 2015.

CAPITAL IMPROVEMENT PLAN

Zone 7's board adopted a FY 2015/16 Capital Improvement Program, laying out plans for key investments in water quality and reliability projects over the next decade. Also in 2014, the Agency acquired properties for some specific CIP Projects, including 10 acres of DWR land next to the Patterson Pass Water Treatment Plant for plant improvements and future expansion, as well as other land for the Busch-Valley Well Site.



CHAIN OF LAKES

In 2014, Zone 7 completed the Preliminary Lake Use Evaluation for the Chain of Lakes, outlining integrated plans to maximize water resources uses of the lakes while identifying compatible secondary uses to achieve multiple public benefits. The Chain of Lakes is a series of sand and gravel quarry sites being turned over to the Agency as mining operations cease over time. Primary uses include those supporting the Agency's mission, such as surface water storage and conveyance, stormwater detention and groundwater recharge. Secondary uses include those that could benefit the broader community, such as recycled water storage, active recreation, passive recreation/education, and habitat/conservation.

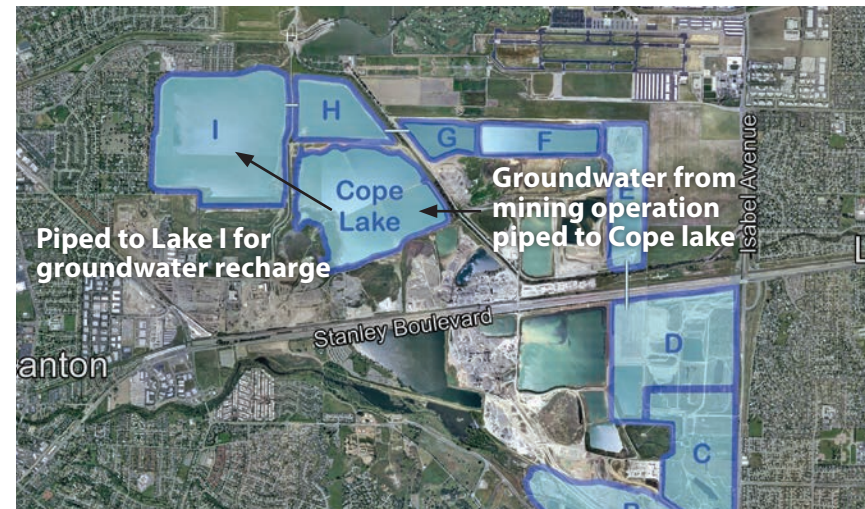
GROUNDWATER RESOURCES MANAGEMENT

GROUNDWATER SUSTAINABILITY AGENCY: Landmark state legislation passed in August 2014 and signed by the governor into law established the state's Sustainable Groundwater Management Act, empowering local agencies to better manage the state's groundwater basins. In recognition of Zone 7's active and longstanding groundwater management program, the Agency was specifically named in the bill as an exclusive groundwater sustainability agency (SB 1168, Chapter 4; Water Code Section 10723(c)(1) (A)). Zone 7 staff had actively participated in several stakeholder groups on the draft legislation (including the Association of California Water Agencies special task force that developed recommendations later approved by ACWA's Board of Directors – which informed the legislative process).

PROTECTING GROUNDWATER DURING DROUGHT: In 2014, Zone 7 monitored groundwater levels in the local groundwater basin relative to pre-established operating levels, adjusting Zone 7's pumping to stay well within established ranges.

SALT MANAGEMENT: Analysis in 2014 confirmed that Zone 7 is on track with mitigating the potential salt impacts of recycled water use through the operation of its groundwater demineralization facility. It marked the sixth consecutive year that more salt was removed from the groundwater basin than added. The Annual Report for the Groundwater Management Program, published in August 2014 for the October 1, 2012 through September 30, 2013 water year, found that total salts in the groundwater basin were reduced by 13,378 tons between 2008 and late 2013, partly due to groundwater demineralization resulting in more pumping that removed more salt. The study results also indicate that with some additional extraction of salts from pumped groundwater, and with increased groundwater recharge with low-salt State Water Project water imported through the Delta, Zone 7 will be able to continue to manage groundwater quality into the future.

GROUNDWATER RECHARGE ENHANCED: The official start of the Chain of Lakes artificial groundwater recharge program occurred in 2014 when two new pipelines carrying groundwater recaptured from a local mining operation went into full swing. As also discussed on page 5, this is water that would otherwise have been discharged into local arroyos to flow out of the Valley and be permanently lost to the community as a water supply.



One of the pipelines, constructed in December 2013, carries water pumped from the ground during Vulcan Materials Co. mining operations to Cope Lake. The second pipeline, completed in June 2014, carries that water from Cope Lake to Lake I, which has groundwater basin recharge capability.

- ▶ Between December 2013 and the end of 2014, 6,274 acre-feet of groundwater captured during mining operations were transferred into Cope Lake.
- ▶ Between June and December 2014, 1,323 acre-feet were transferred from Cope Lake to Lake I to begin groundwater recharge.

SAFEGUARDING WATER QUALITY

PARTNERSHIP FOR SAFE WATER RECOGNITION

Zone 7's Del Valle Water Treatment Plant was honored in 2014 for receiving a "Directors Award of Recognition" from the *Partnership for Safe Water* for 15 consecutive years – a milestone achieved by only 30 water utilities across the country since the program's inception. The *Partnership* is a program developed by the American Water Works Association (AWWA), the U.S. Environmental Protection Agency, and associated *Partner* organizations, to guide water suppliers toward improving water quality by optimizing system operations.

Zone 7 was presented this award for successfully maintaining Phase III of the *Partnership* program, a phase that includes comprehensive evaluation of treatment plant operations and performance, identification of performance-limiting factors, and the development of action plans to achieve optimization.

Zone 7's Brian Keil (center) accepts award from John Donahue, AWWA president; and Peter Grevatt, director of USEPA's Office of Groundwater and Drinking Water.



Even though severe drought conditions in 2014 increased Zone 7's water treatment costs due to challenges with Delta water quality, all of the water that Zone 7 delivered to its customers met the drinking water standards set by the state and federal governments and, in almost all cases, the quality was significantly better than required.

GROUNDWATER DEMINERALIZATION

The Mocho Groundwater Demineralization Plant uses reverse osmosis technology to remove salts from the groundwater basin, thereby reducing or halting the buildup of salts in the basin while improving delivered water quality. In 2014, Zone 7 minimized operation of the facility due to drought, since some water is lost during the demineralization process. For the year, the plant demineralized approximately 434 acre-feet (more than 141.4 million gallons) of groundwater, and approximately 490 tons of salt was exported out of the Valley as brine. This was less than in previous years because the plant did not operate as much due to drought.

In 2014, Zone 7 purchased a centrifuge and related equipment for handling of chemical residuals from the water treatment process at the Del Valle Water Treatment Plant.



PROTECTING AGAINST FLOODS/MANAGING STREAMS

Of the 620 square miles of the Alameda Creek watershed, Zone 7 provides regional flood protection management services to approximately 425 square miles located in the upper watershed areas. Management activities include maintenance, improvements and land rights administration of approximately 37 miles of flood control channels and access roads owned by Zone 7.

Zone 7 in 2014:

- ▶ Collaborated with local municipalities and park districts in their planning and construction of trail projects utilizing flood control channel maintenance access roads.
 - ▶ In collaboration with the U.S. Department of Agriculture's Natural Resources Conservation Service, continued work on two bank stabilization projects at Line G-1-1 and the Pleasanton Canal (Line B-5), respectively
- ▶ Completed seven bank repairs totaling 853 linear feet, 15 soil bioengineering brush walls, 4,889 linear feet of access roadway, six outfall structure rehabilitations, 372 linear feet of concrete lining repairs, and two trash collector installations. Total construction cost was \$850,000.
 - ▶ Oversaw various maintenance activities such as vegetation management, downed-tree removal, hydroseeding, fence and gate repairs, and debris and trash removal, totaling an additional \$500,000.
 - ▶ Completed installation and addition of two stream gauges to Zone 7's stream gauging network. The new gauges are located on Alamo Canal and Chabot Canal in Pleasanton. These gauges will provide real-time flow-related information during storm events and both daily base flows and temperature readings for environmental studies. In 2014, the addition of new stream gauges also facilitated real-time flow reporting for the public via the Storm Central website (<https://stormcentral.waterlog.com/public/Zone7>).
 - ▶ In support of the Stream Management Master Plan (SMMP), worked to finalize systemwide hydrology and hydraulic models that represent the existing conditions of the upper Alameda Creek Watershed to help clarify program needs and priorities.
 - ▶ Continued work on sediment studies that will help Zone 7 develop a more cost-effective maintenance plan to reduce flooding risks from sediment buildup in some streams, and assist in the SMMP updating process.



In 2014, Zone 7 participated in a video on flood awareness and preparedness, produced by the U.S. Army Corps of Engineers and California Department of Water Resources. The video was released to help promote California Flood Preparedness Week, October 20-25, 2014. (Zone 7's board had adopted a proclamation citing the "significant public safety threat flooding poses to the population, assets and economy for our community ...") To view the video and the state's flood preparedness website, go to: www.water.ca.gov/ca-flood-preparedness.

WATERSHED/ENVIRONMENTAL STEWARDSHIP



LIVING ARROYOS PROGRAM

In summer 2014, the Living Arroyos Program entered its second year and was well on its way to meeting its goals. The collaborative partnership between Zone 7, the City of Livermore and the non-profit Urban Creeks Council enjoyed several accomplishments in 2014, including planting nearly 3,000 riparian plants at Zone 7's Arroyo Mocho Stanley Reach stream enhancement project.

The Program hosted six volunteer workdays and four corporate workdays (Chevron, Workday, Inc., EllieMae, Inc., Kaiser Permanente), as well as one Business Leaders' Field Day. Volunteer days continue to be well-attended with 20-30 volunteers showing up for each event. Volunteers return multiple times, often bringing friends and family members. Many Living Arroyos volunteers come from Tri-Valley high schools to fulfill their volunteer hour requirements. Although the majority of volunteers were from the Tri-Valley area, the Program attracted volunteers from Milpitas, Fremont, Berkeley, and San Francisco.

In 2014, Zone 7's Board members and General Manager toured a portion of the Agency's new 5,000-acre Patterson Ranch property adjacent to Lake Del Valle southeast of Livermore, led by the tenant and including representatives of the Patterson family. In 2014, Zone 7 developed a Grazing Management and Watershed Protection Plan as the first step in assuring the property would be managed with floodplain preservation and management criteria, protecting both the reliability and quality of local water supplies, and providing an opportunity for mitigation of other watershed-wide flood protection and water supply projects. Through grazing, Zone 7 is able to achieve multiple watershed protection goals including vegetation management to reduce wildfire fuel loads, control of invasive weeds and maintaining grassland habitat for sensitive species.



COMMUNITY PARTNERSHIPS/ENVIRONMENT

UPPER ALTAMONT CREEK DEMONSTRATION PROJECT

Zone 7 worked with the U.S. Natural Resources Conservation Service (NRCS) and the Alameda County Resource Conservation District (RCD) under a U.S. Environmental Protection Agency (USEPA) Healthy Watersheds Grant to launch two demonstration bank stabilization projects on the upper Altamont Creek in Livermore's Springtown area that used bioengineering to improve creek water quality, stabilize banks, and as an environmental enhancement.

- ▶ The Altamont Creek Confluence Planting Project is a revegetation project along approximately 570 linear feet of stream bank.
- ▶ The Upper Altamont Creek Willow Demonstration Project is designed to achieve bank stabilization upstream of Vasco Road.

WATERSHED STAKEHOLDER COLLABORATION PROGRAM

In 2014, Zone 7 staff chaired three multi-agency working groups that support environmental studies and collaboration in the watershed: the Alameda Creek Fisheries Restoration Workgroup, the Alameda Creek Watershed Forum, and the Arroyo de la Laguna Agency Collaborative.

CREEK CLEANUPS

Zone 7 collaborated extensively with other agencies to keep local creeks clean both by teaming up on debris removal and by promoting community creek cleanups. For example, the Agency worked with the City of Pleasanton on an arroyo cleanup effort to remove tires, shopping carts and other materials along a two-mile stretch of Arroyo de la Laguna between Interstate 580 and Arroyo del Valle.

TRAIL EXTENSION AND OTHER REGIONAL PROJECTS

The Agency initiated collaboration with the City of Dublin on the Chabot Canal Regional Stormwater Detention Project and with the East Bay Regional Park District in the completion of the Iron Horse Trail Extension Project through the City of Pleasanton.

ENERGY EFFICIENCY

In continued moves to save money and simultaneously be environmental stewards, the Agency increased its alternative power and renewable energy use portfolio by taking advantage of its Power and Water Resources Pooling Authority (PWRPA) membership and constructing a PWRPA project at the Patterson Pass Water Treatment Plant (PPWTP). PWRPA power is both less expensive and more environmentally-friendly as much of it comes from hydro-generation.

Based on projected estimated savings due to anticipated PWRPA power rates, Zone 7 expects to recover installation costs for PWRPA distribution facilities at PPWTP in approximately six to seven years. This is on top of savings for using solar power at the Del Valle Water Treatment Plant.

"CLIMATE REGISTERED"

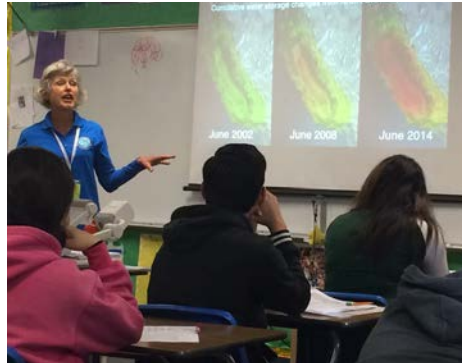
Zone 7 achieved "Climate Registered" status with The Climate Registry for its proactive steps in helping to address global climate change. The Agency's greenhouse emissions inventory for 2010-13 was certified by the Climate Registry, a nonprofit public-private partnership that serves as a registry throughout North America to protect, encourage and promote early actions to reduce greenhouse emissions.



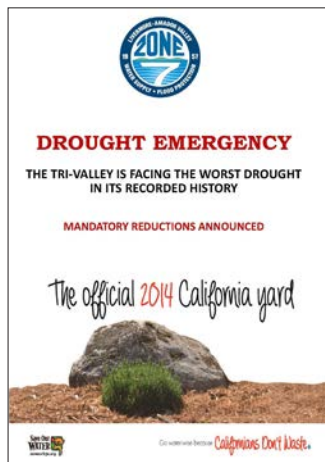
Zone 7 continuously seeks cleaner and cheaper sources of energy at its water treatment plants and in groundwater pumping, such as the Del Valle Solar Power Array and participation in the Power and Water Resources Pooling Authority (PWRPA).

COMMUNITY OUTREACH & EDUCATION

Zone 7's Popular Valleywide Schools Program: The Zone 7 Schools Program had a tremendous year in 2014, reaching approximately 10,000 students with classroom presentations on everything from water conservation and water quality to stormwater pollution prevention. It also participated in several separate school science fairs and school special events. The program has been extended into the high schools by offering a "Water: Choice and Changes" presentation to ninth-grade health classes that continued to grow in 2014. Classes taught at the high school level also incorporated BAYWORK information about careers in the water industry.



Drought Communications: As part of its drought response, Zone 7 provided focused messaging about the need for water conservation on its website, in e-newsletters and at community events – including home and garden shows, farmers markets and school events, even as it continued providing important messaging about stormwater pollution prevention and the need to be prepared for flooding, even in drought years. It prepared a drought flier mailed to homes and businesses throughout Zone 7's service area, did drought outreach to the business community via local Chambers of Commerce, and worked with retailers to coordinate other drought outreach, including a jointly-developed regional drought website and coordinated radio and newspaper advertising.



Alameda County Science & Engineering Fair: Zone 7 again joined with other water and wastewater agencies on a regional award, in addition to continuing with localized special awards judging. As part of Water Awareness Month in May, four students who attend schools within Zone 7's service area received special recognition during a Zone 7 board meeting for water-related projects displayed during the fair.

BAYWORK: Zone 7 remains active in both BAYWORK, a collaborative of water and wastewater agencies working on industry needs in workforce reliability, candidate development and staff preparedness (see www.baywork.org), and BACWWE (Bay Area Consortium of Water and Wastewater Education - www.bacwwe.org). Expanded efforts with BAYWORK included



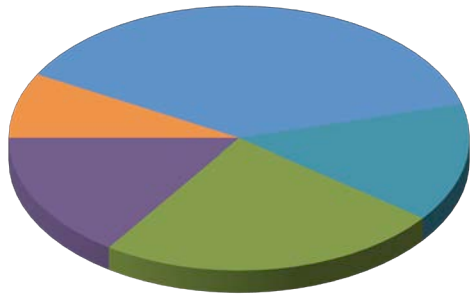
coordination and presentation at the East Bay Workshop on Wheels, which targeted professional development for Water/Wastewater Plant operators, updating of salary survey data for mission-critical positions for outreach efforts to students and adults, and incorporation of BAYWORK informational brochures on mission-critical job categories into our high school program curriculum and at local community events.

FINANCIAL INFORMATION

Budget FY 2014-15

Water Supply, Reliability & Quality Revenue

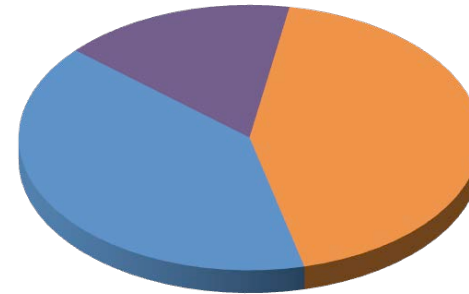
Total: \$90,971,889



- **\$34,461,062 (38%)**
Water Enterprise (Water Rates)
- **\$22,042,020 (24%)**
System Expansion (New Development Connection Fees)
- **\$14,060,937 (16%)**
State Water Facilities (Property Taxes)
- **\$13,129,324 (14%)**
Renewal/ Replacement, Systemwide Improvements (Water Rates)
- **\$7,278,546 (8%)**
Use of Reserves

Flood Protection Revenue

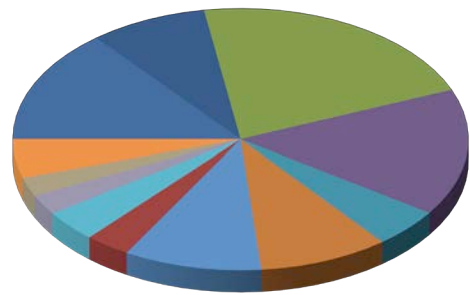
Total: \$16,171,367



- **\$7,018,931 (44%)**
Use of Reserves
- **\$6,505,936 (40%)**
Operations & Maintenance (Property Taxes)
- **\$2,646,500 (16%)**
Capital Projects (Development Fees)

Water Supply, Reliability, Quality Operating & Capital Expenses

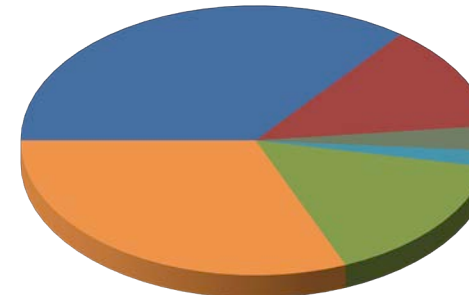
Total: \$90,971,889



- **\$19,485,138 (21%)**
Capital Expansion (New Development Connection Fees)
- **\$14,227,251 (16%)**
State Water Facilities (Property Taxes)
- **\$12,823,924 (14%)**
Transfer to Capital
- **\$8,883,578 (10%)**
Water
- **\$8,382,164 (9%)**
Operations/Engineering Personnel
- **\$7,578,891 (8%)**
Capital Renewal/Replacement, Systemwide Improvements (Water Rates)
- **\$4,410,638 (5%)**
Administrative Personnel
- **\$4,356,103 (5%)**
Professional/Specialized Services
- **\$3,549,830 (4%)**
Facilities Maintenance
- **\$2,926,686 (3%)**
Other Services/Supplies
- **\$2,250,973 (3%)**
Chemicals
- **\$2,096,713 (2%)**
Utilities

Flood Protection Operating & Capital Expenses

Total: \$16,171,367



- **\$5,755,275 (35%)**
Flood Protection and Stormwater Drainage Capital Projects (Development Fees)
- **\$5,054,000 (31%)**
Professional/Specialized Services
- **\$2,524,813 (16%)**
Maint-Structures/Equip
- **\$2,051,046 (13%)**
Engineering Personnel
- **\$477,950 (3%)**
Administrative Personnel
- **\$308,283 (2%)**
Other Services/Supplies



DROUGHT-TOLERANT GARDEN



Zone 7 Water Agency

100 North Canyons Parkway
Livermore, CA 94551
(925) 454-5000
www.zone7water.com

Zone 7 Water Agency supplies treated drinking water to retailers serving more than 200,000 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

Jill Duerig
General Manager

Kurt Arends
Assistant General Manager, Engineering

Tom Hughes
Assistant General Manager, Administrative Services