



To the Tri-Valley  
Fiscal Year 2021-2022

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# Zone 7 At a Glance

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We deliver safe, reliable, efficient and sustainable water and flood protection services.

**24,120 acre-feet** of water imported through the Delta

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**15,685 acre-feet** of groundwater pumped from the local basin storage

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**2,730 acre-feet** used locally from Lake Del Valle Reservoir

## Our Mission



We provide excellent water and flood protection services to enhance the quality of life, economic vitality and environmental health of the communities we serve.

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## Our Values

**Transparency** • We operate in an open and transparent fashion.

**Customer Service** • We are prompt, respectful and courteous in all of our interactions.

**Collaboration** • We embrace collaboration to enhance our services.

**Environmental Sustainability** • We deliver our services in an environmentally-sensitive manner.

**Fiscal Responsibility** • We operate in a productive, cost effective, and efficient manner.

**Innovation** • We encourage innovation, creativity, and ingenuity.

**Integrity** • We maintain the highest ethical standards and open, honest communications.

**Leadership** • We maintain a diverse team of highly skilled professionals devoted to honest and accountable stewardship of our resources.

**Proactivity** • We proactively address issues and embrace continuous improvement.

**Safety** • We are committed to public and employee safety.

# Our Goals

**GOAL A • Reliable Water and Supply Infrastructure** • Provide customers with reliable water supply and infrastructure.

**GOAL B • Safe Water** • Provide customers with safe water.

**GOAL C • Groundwater Management** • Manage and protect the groundwater basin as the State designated Groundwater Sustainability Agency.

**GOAL D • Effective Flood Protection** • Provide an effective system of flood protection.

**GOAL E • Effective Operations** • Provide the Agency with effective leadership, administration, and governance.

**GOAL F • Stakeholder Engagement** • Engage our stakeholders to foster understanding of their needs, the Agency, and its functions.

**GOAL G • Fiscal Responsibility** • Operate the Agency in a fiscally-responsible manner.



# President's Message

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**Welcome to our  
Fiscal Year 2021-2022  
Annual Report**

Dear Tri-Valley community,

We are pleased to present our 2022 annual report to the residents and businesses of the Tri-Valley. We are continuing with an online format in alignment with our commitment to transparency, accessibility, and sustainability. This report shares key accomplishments and the highlights of our progress during the fiscal year between July 1, 2021, and June 30, 2022, in an interactive format for our community to learn about impactful water and flood management operations.

The 2021-2022 year marked the third year of extreme drought conditions with record-breaking low precipitation negatively affecting system-wide reservoir levels and groundwater basins. In response, and in alignment with statewide efforts, we declared a local drought emergency allowing us the flexibility to take immediate actions including:

- Expediting critical water reliability infrastructure projects including the completion of the Valley Booster Pump Station to relieve pressure on our groundwater production wells and increase water reliability during surface water emergencies.

- Increasing rebate amounts for Water Efficient Lawn Conversions, an important community-based water conservation effort that produces long-term water savings.
- Collaborating more closely with retail partner agencies on drought and conservation messaging to engage the community in saving water.

We offer our sincere appreciation to the entire Tri-Valley community for answering our conservation call and reducing water consumption by a total of 10% throughout the year.

Water conservation is an integral part of our long-term water reliability efforts along with many reliability projects we are making progress on to ensure our future water supply. Highlights of progress made on key water supply projects during the year include:

- Working collaboratively with eight regional water agencies to form a Joint Powers Authority (JPA) for the Los Vaqueros Reservoir Expansion Project, an effort to increase the reservoir's capacity and build a pipeline to connect it to the South Bay Aqueduct. I was honored to be selected as chair of this JPA to help guide our regional partnership forward.
- Continuing participation in the Sites Reservoir Project, an effort to construct a new 1.5 million acre-foot off-stream reservoir to capture and store stormwater flows from the Sacramento River increasing Northern California's surface storage capacity by 15%.
- Approving funding for continued participation in the four-year planning phase of the Delta Conveyance Project, a project to add new conveyance facilities in the Delta. The project includes two new intakes and a new tunnel to move water through a network of waterways in the Sacramento-San Joaquin Delta, the hub of the State Water Project, California's most critical water delivery infrastructure.

Another important accomplishment this year was the completion of the upgrades to the Patterson Pass Water Treatment Plant. Zone 7 invested in major upgrades of both our surface water treatment plants to switch to ozone as the primary disinfectant, making the treatment process more efficient and improving water quality to better serve the community. The ribbon-cutting ceremony in June of 2022 celebrated the successful completion of this three-year upgrade.

Finally, as we make headway on long-term water reliability in preparation for water scarcity in California's unpredictable climate, we simultaneously prepare for rainy years with comprehensive flood management. In June 2022, the board adopted Phase 1 of a new Flood Management Plan, Phase 2 is now underway including implementation, capital improvement, funding, and public engagement.

All of these efforts take place while Zone 7 staff maintained daily operations, delivered high-quality, safe water, and effectively managed 37 miles of flood control channels. On behalf of the Board of Directors, we say thank you to our staff and retail partners for their unwavering commitment to public service and exceptional performance in caring for the Tri-Valley.

Sincerely,

Angela Ramirez Holmes  
President (2021-2022 Fiscal Year)  
Zone 7 Water Agency Board of Directors





# Strategic Goals Update

## Making Progress on The Strategic Plan

In June of 2020, the Zone 7 Board of Directors adopted the 2020-2024 Five-Year Strategic Plan. The plan establishes a framework for addressing the challenges of maintaining reliable and high-quality water and flood protection service for the Tri-Valley area. The plan outlines 24 major strategic plan initiatives to support the agency's vision, mission, goals and values. These strategic plan initiatives are the key actions planned over a five-year period to achieve the outcomes identified in the strategic plan goals. Staff have provided an update on the first year of progress on the activities within each of these initiatives.

## Zone 7's 24 Initiatives

### KEY

COMPLETED  
INITIATIVES



ONGOING  
INITIATIVES



SCHEDULED  
INITIATIVES



## Goal A · Reliable Water Supply and Infrastructure

1. Establish a diversified water supply plan



2. Evaluate and develop appropriate new water supply and reliability opportunities



3. Continue to effectively implement infrastructure projects in the Water System Capital Improvement Program (CIP)



## Goal B · Safe Water

4. Implement Ozone



5. Meet or surpass all drinking water health and safety requirements



6. Assess treatment requirements and strategy for PFAS and CR6



## Goal C · Groundwater Management

7. Manage the GSA and implement the groundwater management plan



8. Study and refine knowledge of the groundwater basins

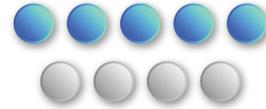


## Goal D · Effective Flood Protection

9. Continue to maintain the flood protection system



10. Update the flood protection strategy



## Goal E · Effective Operations

11. Review professional development approach to maintain workforce capability for now and into the future



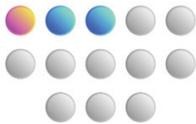
12. Review and develop strategies for water treatment operator recruitment and retention



13. Review and update Board policies



14. Evaluate current program to increase ratio of preventative to reactive maintenance



15. Optimize the procurement process



16. Develop and implement an energy strategy



17. Refresh emergency preparedness program



18. Develop and implement a climate change strategy



## Goal F · Stakeholder Engagement

**19.** Optimize Agency communications program



**20.** Redesign Agency website



**21.** Conduct water supply reliability outreach program



## Goal G · Fiscal Responsibility

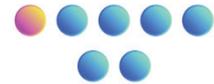
**22.** Develop a long-range finance strategy



**23.** Track state and federal funding opportunities



**24.** Continue to effectively manage financial resources





# Water Quality

## The Zone 7 Standard

Zone 7 continued to provide high quality treated drinking water to 266,000 and businesses, in partnership with our retailers. Our water not only met, but often performed better than state and federal health standards to meet our own more stringent internal water quality targets.

**30,042** Water Tests in 2021-2022 fiscal year

**5** Lab Staff

**172** Different contaminants tested

**31** Different analytical methods

# PFAS: Proactive monitoring and regulatory compliance

Per and Polyfluoroalkyl substances (PFAS) are chemicals that are prevalent in the environment, that were once commonly used in many consumer products. These chemicals are considered “contaminants of emerging concern” as they are being detected in ground and surface water throughout the environment. However, because their use is so common, there are multiple paths to human exposure in our everyday lives, not just water. PFAS may be found in food wrappers, carpet, rain jackets, or building materials used in the construction of your home. In short, PFAS are everywhere.

Over the past several years, the science on PFAS and its impacts on the environment and public health have prompted regulatory actions. The USEPA is planning to regulate two of the PFAS in drinking water, Perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS), by the end of 2023.



The California State Water Resources Control Board is also in the process of developing Public Health Goals (PHGs) for PFOA and PFOS, which is the first step in establishing Maximum Contaminant Levels (MCLs) for these PFAS. Final PHGs are expected in 2023 and once finalized, it will be approximately 2 to 3 years to set Maximum Contaminant Levels (MCLs). Meanwhile, the State has issued drinking water advisory levels for four PFAS (including PFOS and PFOA) and is evaluating five additional PFAS found throughout the state.

## State PFAS Advisory Levels:

PFAS	Notification Level	Response Level
Perfluorooctanesulfonic acid (PFOS)	6.5	40
Perfluorooctanoic acid (PFOA)	5.1	10
Perfluorobutanesulfonic acid (PFBS)	500	5,000
Perfluorohexane sulfonic acid (PFHxS)	3	20

Zone 7 has been proactive in monitoring for PFAS in water supplies well before any requirements took effect because we know PFAS tend to accumulate in groundwater and are commonly found in groundwater sources throughout the developed world. Fortunately, there have been no detections of PFAS in our imported surface water supplies, which make up the majority of the Tri-Valley region's water. In addition, two of our ten groundwater wells have not had any detections of PFAS either. However, eight groundwater wells have had some detection levels. Affected operating wells that do not have any current treatment options are taken out of service. Water from affected wells that do have treatment options is blended and/or treated at existing facilities so they fall below the applicable Response Levels before distribution, ensuring that water delivered to our customers meets our high standards.

In order to proactively manage and treat PFAS in affected wells, Zone 7 is in the process of design and construction of two new PFAS treatment facilities at the Stoneridge Well and the Chain-of-Lakes (COL) wellfield to ensure compliance with applicable PFAS Response Levels and the anticipated MCLs.

Zone 7 continues to investigate sources of PFAS contamination and how the PFAS plume could be moving in the groundwater basin under various operating scenarios and PFAS management tools.

The safety of our community's water supply is our number one priority. Our community can be assured that all water delivered to our customers meets regulatory standards and recommended guidance levels.

# Zone In On What You Can Do

Source water protection for surface water is everyone's responsibility! You can help protect our surface water by disposing of trash properly and reporting spills, ensuring our waterways stay clean and free of pollutants. To get helpful tips and tricks for using less toxic options in your home and garden, visit the [Clean Water Program](#) website.



## REPORTING A CREEK SPILL OR DUMPING?

Call (925) 454-5000 during regular business hours, or (925) 447-6704 ext. 1 after regular business hours



# Water Reliability

Focusing on the long-term needs for the Tri-Valley

## ZONE 7 WATER SUPPLY

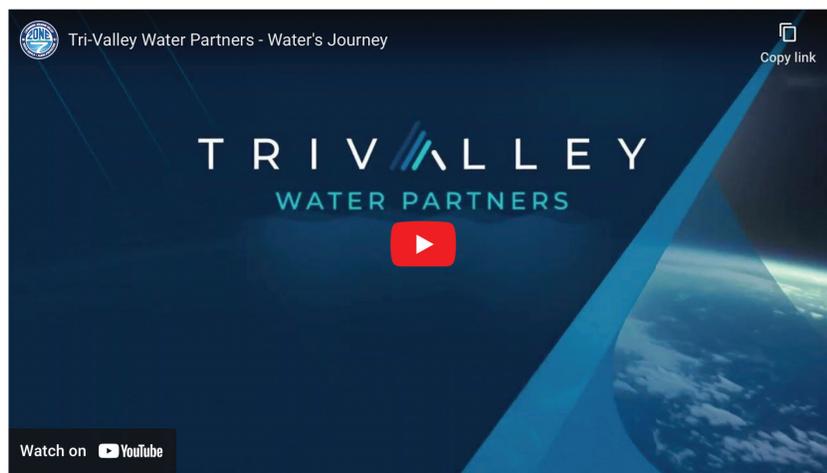


# How does water get to Zone 7?

Zone 7 provides wholesale treated water supply to four retailers, who then provide water directly to homes and businesses. Zone 7 also provides untreated water to agricultural users, golf courses, and other users. In an average year, Zone 7's sources of water supplies are as follows:

## Imported surface water:

Approximately 90% of Zone 7's water supply is imported through the State Water Project. Our water begins its journey in the Sierra Nevada where rainfall and melted snow make their way into Lake Oroville, one of the largest reservoirs in the state, where it is stored until needed. After being released from Lake Oroville, water flows along Feather River, into the Sacramento River and to the California Delta. From there, water is pumped into the California Aqueduct and then pumped into the South Bay Aqueduct, where it travels another 10 miles to the Tri-Valley.



## Local water:

Our local water supply consists of rainfall captured in a local reservoir, Lake Del Valle, which is also part of the State Water Project system. This makes up approximately 10% of Zone 7's water supply in a typical year. The Livermore

Valley Groundwater Basin, our local groundwater basin, acts as our water “savings account” because we store excess surface water supplies in the groundwater basin during wet years for later use.

## What happens during dry years?

California rainfall and snow can vary tremendously from one year to the next. To deal with this variability in water supplies, Zone 7 stores extra water during wetter years for use during dry years such as 2020-2021. Zone 7 uses both aboveground or surface water reservoirs and underground reservoirs called aquifers or groundwater basins to store water. Currently, Zone 7 is able to store water in the local groundwater basin, in Lake Del Valle, in San Luis Reservoir through the State Water Project, and the Kern Storage and Recovery Programs. Water from the local groundwater basin is pumped directly by Zone 7. Water stored in Lake Del Valle is delivered via the South Bay Aqueduct. The rest of Zone 7’s stored water is delivered as surface water through the Delta and South Bay Aqueduct through a system of ‘water exchanges’. In a dry year, stored water can make up the majority of the water delivered by Zone 7 to its customers!

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# Planning for Water Supply Reliability

## 2022 Water Supply Evaluation Update

Every few years, Zone 7 performs an update to the Water Supply Evaluation, a document that presents analysis of Zone 7’s future water supply and storage alternatives needed to maintain the reliability of the Tri-Valley’s water supply system. The 2022 Water Supply Evaluation Update began this year with the development of a new water supply risk model. The new risk model is catered to water supply planning and utilizes refined data. The risk model will be used to evaluate potential water supply reliability projects for Zone 7 and findings will be captured in the 2022 Water Supply Evaluation Update, which will help inform the Zone 7 Board’s future investment decisions.

# Water Reliability Project Updates

To maintain the reliability of Zone 7's water supply system into the future, Zone 7 is pursuing sources of new water supplies and additional storage, as well as improvements to water delivery facilities.

## Los Vaqueros Reservoir Expansion

up to **10,000**  
**acre-feet** of  
water storage



Zone 7 continued to invest in the Los Vaqueros Reservoir Expansion Project. The project seeks to expand the existing reservoir to a capacity of 275,000 acre-feet. This project is located in Contra Costa County and will serve as an upstream storage facility that will increase water supply reliability in the Bay Area. This project will also build a new pipeline, the Transfer-Bethany Pipeline, which would provide a new way for Zone 7 to access water supplies. This year, the Los Vaqueros Reservoir JPA was formed by project participants to advance the project. The project also made progress in environmental planning, design and engineering, and securing funding. If this project were online during a critically dry year like 2022, Zone 7 would have more operational flexibility and more water available from storage to supplement low supplies.

## Sites Reservoir



Average reservoir yield of  
**10,000 acre-feet per year**

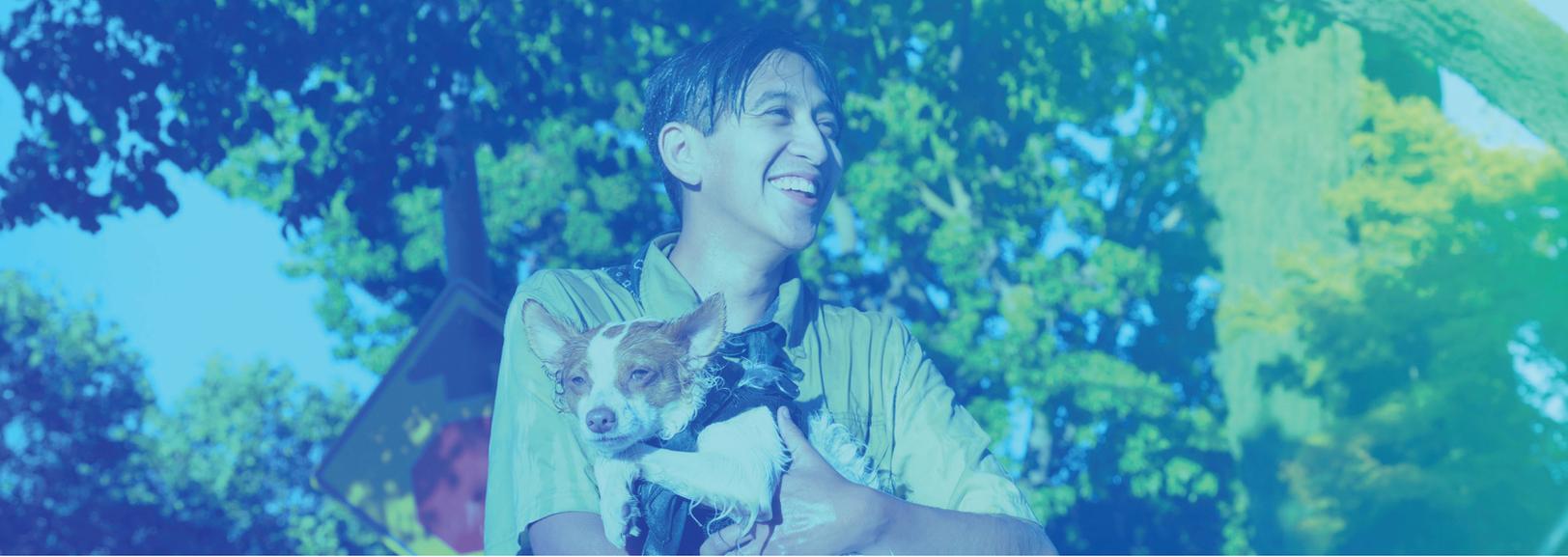
Zone 7 continued to invest in the Sites Reservoir Project. The project seeks to construct an off-stream reservoir in Glenn and Colusa Counties, providing up to 1.5 million acre-feet of storage. The Sites Reservoir will capture excess flows from the Sacramento River without damming a river or stream. The project would provide new water supply, new upstream storage capacity, and ecosystem benefits - all of which are important factors for responding to climate change. This year, the project made progress in environmental planning, engineering and design, and refining cost estimates. If this project were online during a critically dry year like this year, nearly one million acre-feet of additional water would be available to project participants.

## Water Transfers



**10,000 acre-feet** purchased this fiscal year.

To bolster water supplies during this dry year, Zone 7 purchased about 10,000 acre-feet of water. This water was purchased from another State Water Project contractor, Mojave Water Agency, and from long-standing programs such as the Dry Year Transfer Program and the Yuba Accord.



# Flood Protection

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At Work Maintaining Your Flood Protection System

**17,220 feet** of access road and drainage inspected and repaired

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**5,700 feet** of concrete-lined channel cleared of vegetation and debris

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**210,720 feet** of open channel mowed to reduce fire and public safety hazards

# 2017 Flood Recovery Continues

Zone 7 continues to repair flood protection sites damaged during the record-breaking 2017 storm season which brought significant rainfall and localized flooding throughout the Tri-Valley. Our flood protection system saw damage to channel banks, concrete structures, and maintenance roads, threatening utility lines and infrastructure. Our team made significant progress in the Fall of 2021 repairing six bank slide sites. Since February 2017, 104 of the 208 originally identified bank slide sites have been successfully repaired in Zone 7's Rehabilitation of Flood Control Channels, Phases 1, 2 and 3 and by the U.S. Army Corps of Engineers. With the three (3) left to-be-repaired sites in Phase 3, this will bring the total repaired sites to 107. There are 101 sites that were removed from the field-documented 208 potential issues, as these were incorporated into Zone 7's routine maintenance program. The remaining three sites were scheduled for completion in October 2022.

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## Goat in the Zone



After a successful pilot program, Zone 7 began conducting goat grazing activities at a limited number of sites to supplement our flood and fire preparedness efforts. The goats eat overgrown vegetation that gets dry in summer months and is at risk for fire and blocks the flow of water in flood

channels during the rainy season. These helpful goats are a great addition to our preparedness efforts and a helpful addition to our Maintenance Program. The goats “work” along select access roads and channels to control the growth of herbaceous vegetation and invasive weeds, reduce fire fuel loads, and maintain grassland habitat for special-status species. In total, seven different sites were grazed this year, totaling approximately 117 acres.

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## Significant Achievements In Flood Protection Program

### **Continued Routine Maintenance Program**

As a part of the Routine Maintenance Program (RMP) for flood protection facilities, 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.

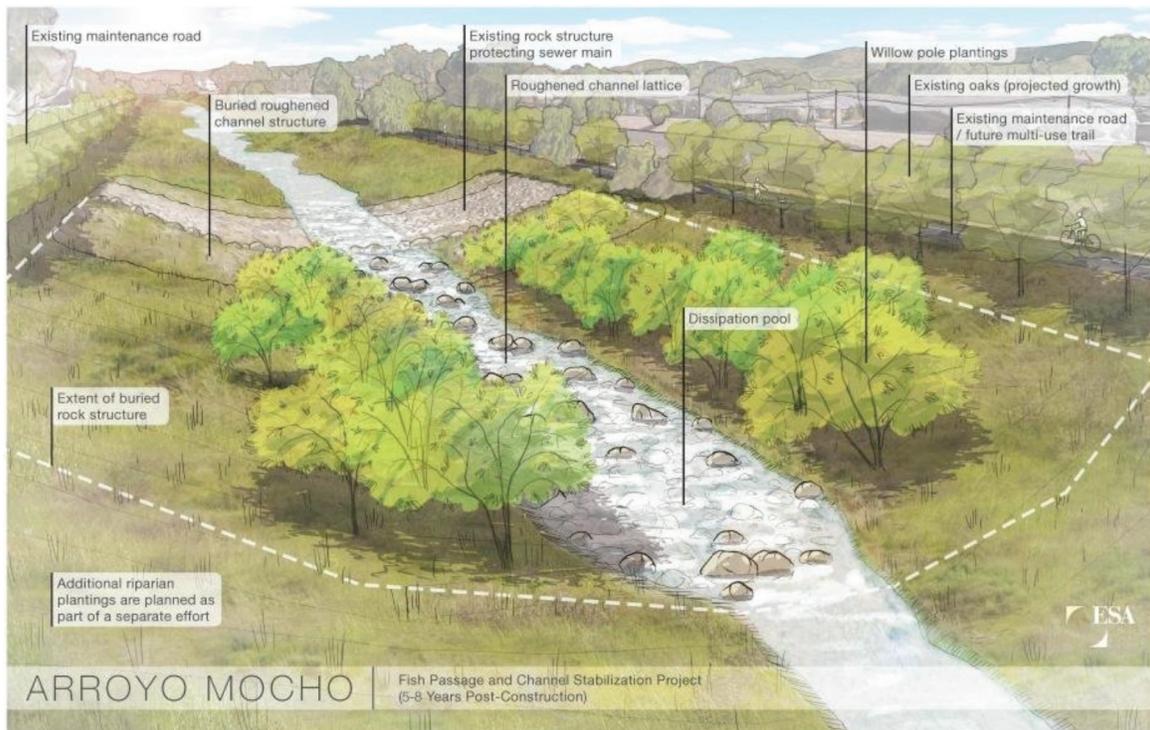
### **Bank repair planning**

Staff prioritized district wide bank repairs according to level of risk presented by each site and continued to plan for an additional 4 repairs in 2022. Flood protection staff regularly monitor the sites pending repair for any changes in condition. Permits are already secured.

### **Arroyo Mocho Stanley Reach Bank Stabilization Project progress**

The Arroyo Mocho Stanley Reach Bank Stabilization Project was authorized for construction in April 2021 and began in May 2021. At the end of June, approximately 50% of the channel restoration had been completed.

Channel improvements were 100% completed by October 2021, with all road improvements addressed by May 2022. Work was completed ahead of the original December 2022 schedule.



## US Geological Survey 3D Elevation Program Grant for LiDar Acquisition

In the Fall of 2020, Zone 7 applied to the US Geological Survey (USGS) 3D Elevation Program for a grant to acquire high-definition elevation data and gather important topography information of our flood channels. Zone 7 was awarded the grant in early 2021 and worked in collaboration with the USGS to share data, LiDAR acquisition and processing costs. During the summer of 2021, LiDAR data was acquired over the region by the USGS's vendor. Data was reviewed by the USGS and finalized in June 2022. The data covers all of eastern Alameda County with the highest quality (QL0) covering the urban areas of Dublin, Livermore, and Pleasanton.

## The Bank Stabilization, Arroyo Del Valle Project

The team continued work on the bank stabilization of Arroyo Del Valle and restored 220 linear feet of levee and added 150 ft of geogrid support.

6 horizontal drains installed

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1 headwall repaired

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5 biotechnical repairs

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## Maintenance Updates

### Debris clean-up

Our maintenance staff coordinated with the City of Livermore and Caltrans for several creek cleanups along the Arroyo Las Positas in Livermore within portions of the channel that have become homeless encampments. We collaborated with local service providers including Block by Block, CityServe, Monthly Miracles, and Open Heart Kitchen to provide services to the unsheltered individuals living within the Creek. Approximately 46 tons of waste and debris was removed from the creek and disposed of in a safe and respectful manner.

### Outfall and drain pipe assessment

Staff began an asset inventory and condition assessment of all outfall structures and drainpipes within Zone 7 owned channels using ESRI Survey123 application. The location and condition of each outfall pipe and structure was documented and given an overall condition assessment. To date, 582 outfall structures have been documented within Livermore, Pleasanton, and Dublin. Staff are now collaborating with the cities to coordinate maintenance activities.

## In-channel structure maintenance

The team performed routine maintenance including minor concrete repair, crack sealing, and outfall repair on in-channel structures along Pleasanton Canal, Old South San Ramon Creek, Tassajara Creek, and Alamo Canal.

## Vegetation management

Routine vegetation management work included trimming, pruning, and removal of vegetation and woody debris along access roads, fence lines and in-channel throughout the service area.

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# Zone In On What You Can Do

The erratic weather caused by climate change makes planning ahead even more important. California is experiencing its third year of an unprecedented drought. The drought conditions make the atmospheric rivers that are now more commonplace even more dangerous. Because the drought has left the soil parched, when big storms arrive, it is often too much for the soil to absorb and the water has nowhere to go.

Make sure you and your loved ones are prepared. Our flood-preparedness expert Flood Ready Freddy has all the tips you'll need at [zone7water.com/floodready](https://zone7water.com/floodready) to ensure that you don't get caught off guard by a flood emergency.





# Drought and Conservation

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## Saving water in a historic drought

Northern California is experiencing an unprecedented drought. While Zone 7 strategically plans for dry years, storing excess reserves in wet years in the local groundwater basin, Kern County storage and recovery programs, and surface water reservoirs, we cannot make it through drought periods without the help of our community. Conservation is an important component to weathering droughts for Californians. Through water conservation and rebate campaigns, we're working to ensure our community has the resources and information it needs to stretch our limited water supplies.

In March of 2021, Zone 7 requested 10% voluntary water conservation relative to 2020. In July of 2021, Zone 7 increased the voluntary request to 15%, in line with the Governor's statewide request. In September of 2021, the Zone 7 Board declared a Drought Emergency and called for 15% mandatory conservation relative to 2020. During FY 2021-2022, demand for treated water decreased by as much as 30% on a monthly basis, averaging 10% in water savings compared to the same time in 2020.

36,854 website visitors to conservation and rebate pages

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24,139 Water Wise Wendy video views

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1 Qualified Water Efficient Landscaper Training offered

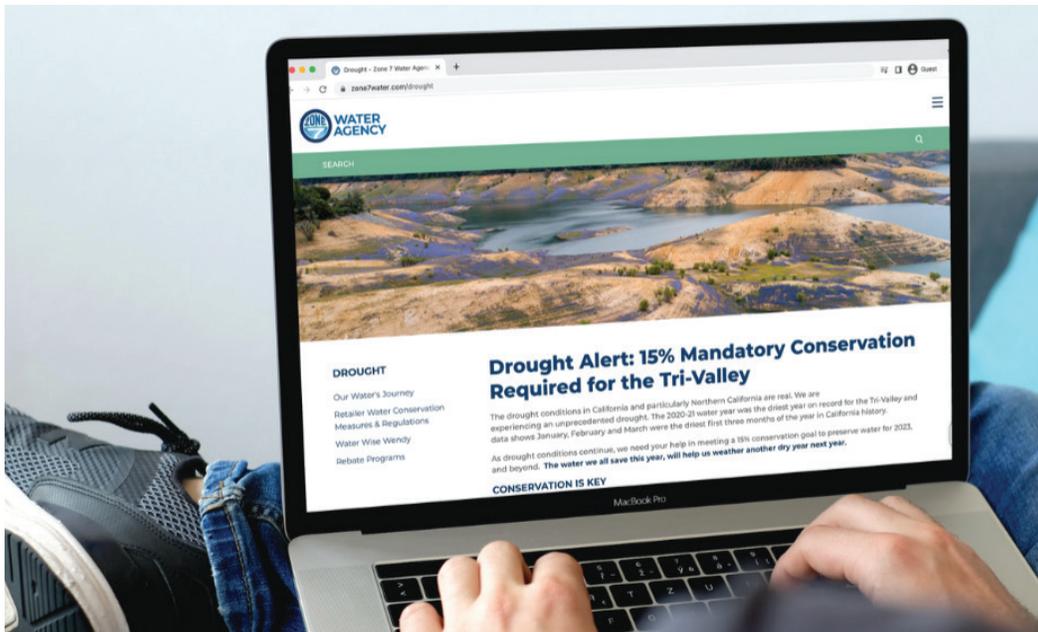
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1 Lawn Conversion Webinar

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## Zone 7 Drought Webpage

To help the public easily get updates on drought conditions and find information on rebates, water-saving resources and outdoor water use restrictions in their area, we created a drought landing page to host all of these resources at [www.zone7water.com/drought](http://www.zone7water.com/drought).



# Rebates



Zone 7 continued to offer three separate rebates to incentivize water-wise lifestyles. To encourage greater conservation during the drought, Zone 7 increased its rebate amounts for a couple of the rebate programs starting in July 2022. During the 2021-2022 fiscal year, we were able to provide the following water-saving rebates to the Tri-Valley community, a significant increase from the previous year:

**222** High-efficiency Clothes Washer rebates

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**50** Water-Efficient Lawn Conversion rebates

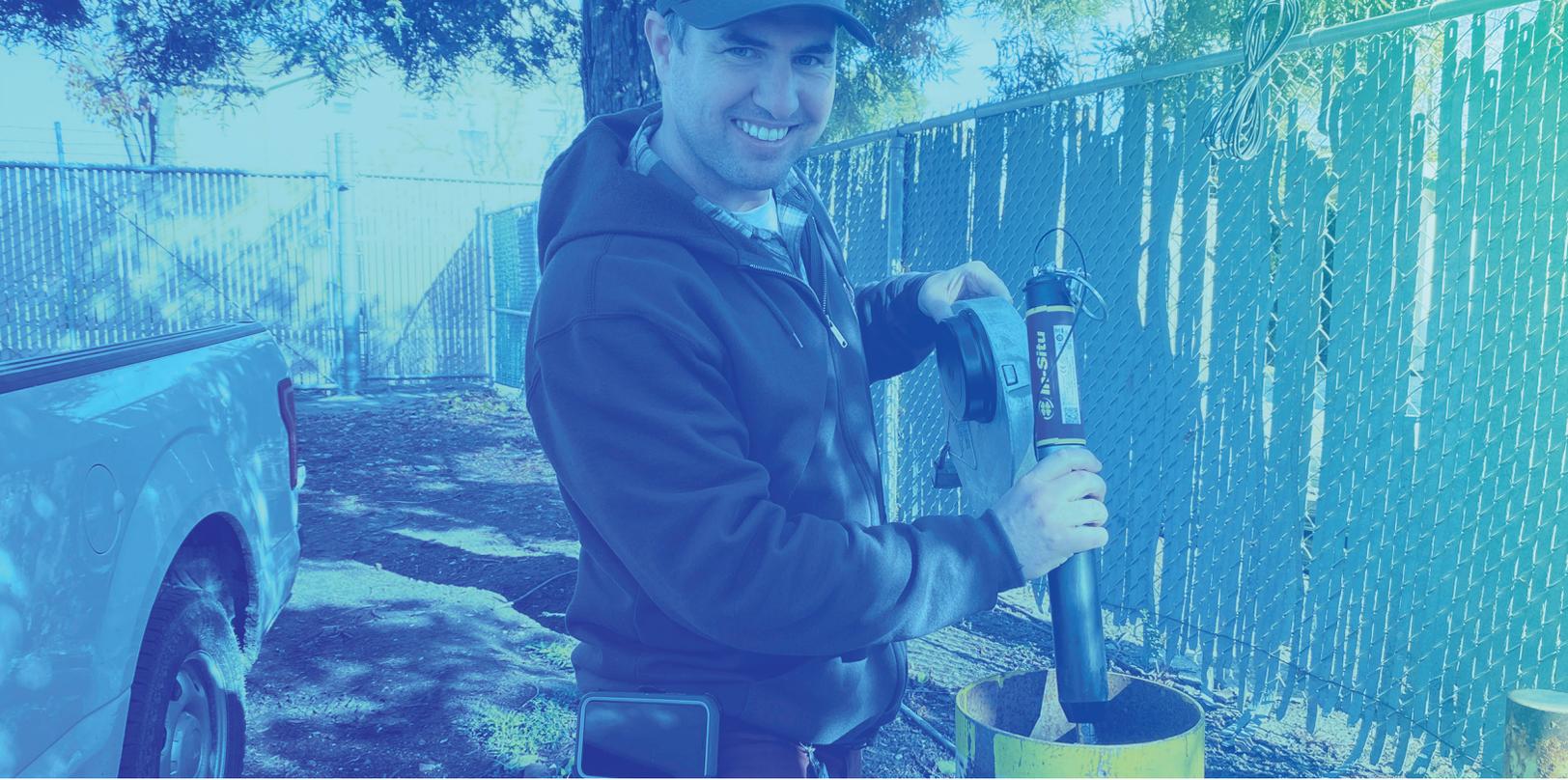
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**157** Weather-Based Irrigation Controller rebates

# Tri-Valley Water-Wise Gardening



Did you know the biggest water-waster in most homes is a thirsty grass lawn? That greedy grass can use up to 60% of a household's water! By replacing grass with native, drought resistant landscaping, you can cut your water-use in half and enjoy a beautiful, colorful water-wise yard. Our custom website has plenty of ideas for you to get started! Visit [www.trivalleywaterwise.com](http://www.trivalleywaterwise.com). You can also take advantage of our Garden by Number Landscape Designs provided free, with options for different palettes. Check them out [here](#).



# Groundwater

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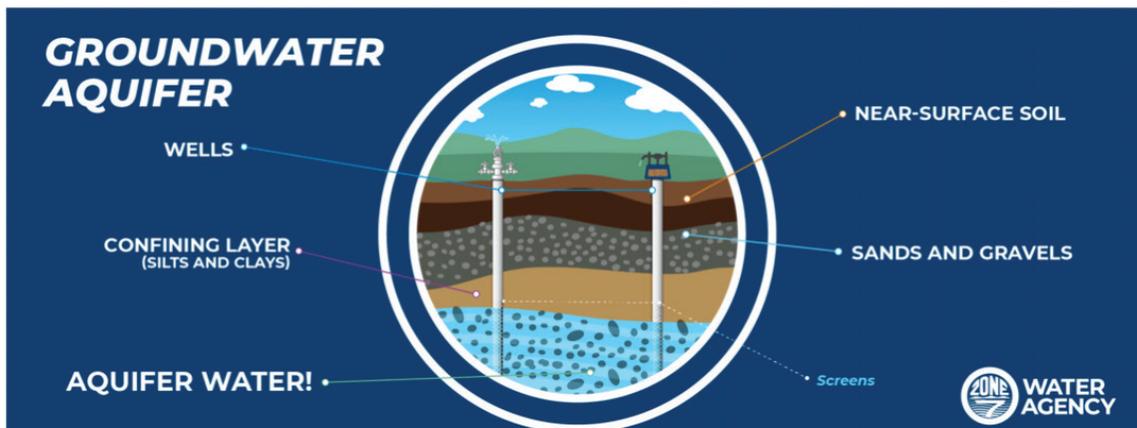
## Sustainably managing our basin

Our groundwater basin is a valuable resource for the Tri-Valley. As the Groundwater Sustainability Agency (GSA), designated by the the Sustainable Groundwater Management Act (SGMA), Zone 7 actively manages the Livermore Valley groundwater basin to ensure it remains a sustainable source of water for the present and future generations. It is a requirement of the state that we prepare and implement an Alternative Groundwater Sustainability Plan (Alternative GSP). As Zone 7 has monitored the groundwater basin since the early 1960s and sustainably managed for over 45 years - since 1974, the Department of Water Resources (DWR) approved Zone 7 to submit an Alternative GSP in 2016. We were one of only nine Alternative GSPs that were accepted by DWR across the state, and it was a big win for the Tri-Valley and a testament to proactive and successful sustainable groundwater management that is central to the Zone 7's mission and history.

Zone 7 actively monitors basin-groundwater levels and storage



Our main focus in 2021-2022 fiscal year has been meeting the statutory requirements to submit the updated Alternative GSP and the Sustainable Groundwater Management Annual Report for the Water Year 2021. The half million-dollar grant received in March 2020 funded the Alternative GSP update and associated studies. We completed the Alternative GSP update on time and submitted to DWR by the January 1, 2022 deadline. Following the submittal of the Alternate GSP update, on March 31, we met the regulatory requirement by submitting the Sustainable Groundwater Management Annual Report, which contains essential components that satisfy the GSP regulations. As discussed in the Annual report, we continue to manage the groundwater basin sustainably while extracting 14,000 acre-feet of groundwater for much needed water supply during the current drought.



## Salt and Nutrient Management Plan

Our groundwater resources team continues to manage basin water quality, including salts and nutrients, to protect the long-term water quality of the Main Basin. With the enactment of Sustainable Groundwater Management Act in 2014, we continue managing groundwater quality as one of the six sustainable management criteria by implementing the Alternative GSP.

## Proactive PFAS management

In our ongoing effort to keep our water safe, Zone 7 completed a PFAS Potential Source Investigation (Jacobs Engineering, Inc. 2020) and a PFAS and Hexavalent Chromium Treatment Feasibility Study (Carollo, 2020). Continuing with PFAS management activities, during last year, the PFAS mobilization modeling study was conducted to analyze movement of known PFAS plumes under various pumping scenarios. We also started developing potential PFAS management strategies to manage the existing PFAS plumes in upper and lower aquifers.

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# Groundwater Protection Highlights

Zone 7 regularly samples and analyzes groundwater quality



## **Staying abreast of contaminants of emerging concern**

PFAS (Per- and Polyfluoroalkyl Substances) are an emerging group of contaminants of concern and known as forever chemicals. USEPA as well as the State of California are developing maximum contaminant levels (MCLs) for PFAS compounds and are expected to set these MCLs in coming years. A few PFAS compounds have been detected in several of the municipal supply wells in the Livermore Valley Groundwater Basin. In addition to quarterly sampling of supply wells, Zone 7 has been analyzing monitoring well and surface water samples for PFAS compounds. Staff is working closely with the Regional Water Quality Control Board to help investigate potential sources to better understand the source(s) of PFAS contamination and manage these contaminants.

## **Issuing and inspecting well permits**

Zone 7 issues permits for any drilling or excavation deeper than 10 feet below ground surface and destruction of existing wells in our service area. Inspections of the drilling sites are also performed after issuing permits. This permitting and inspection allow staff to ensure that wells and boreholes are properly constructed, and abandoned boreholes are properly backfilled. The objective is to protect the basin water quality by preventing migration of contaminants through improperly constructed or abandoned wells acting as conduits for groundwater contamination.

## **Vigilant monitoring through toxic site surveillance**

This program coordinates with other County and State agencies to monitor information on ongoing and historic contamination sites within the groundwater basin such as manufacturing sites, petroleum storage, and solvents to keep track of groundwater contamination cleaned up by the responsible parties and prevent degradation of basin water quality. We tracked more than 62 contamination cases in our service area during 2021-2022 including case closures that have been cleaned up to state standards.

## **Supporting the community through well owner voluntary monitoring program**

Zone 7 continues supporting our network of well owners across the basin by providing staff assistance to sample their wells and analyze for general minerals and metals content of their well water. The lab results and interpretations are shared with well owners.



# The Tri-Valley Watershed

## Regional collaboration for a joint ecosystem

Zone 7 serves as a steward of our watershed with the help of many partners throughout the Tri-Valley, protecting this regional resource. The agency is active in many groups that collaborate on watershed enhancement, share information, and coordinate actions for a healthier watershed.

## Living Arroyos

aligning the **community vision** of the watershed in an award-winning volunteer program



Living Arroyos is a unique volunteer opportunity that gives participants hands-on experience restoring creek banks with native vegetation while learning about local ecology. The program employs college students and young professionals as well, providing field learning for stream management techniques.



In 2022, a new multi-year agreement was signed among partners Zone 7, City of Livermore, City of Pleasanton, and City of Dublin.

This strategic partnership provides many community benefits including cost sharing, leveraging unique resources, aligning the community vision of the watershed, and achieving long-term management goals.

As of 2022, Living Arroyos has a new implementing partner, the Alameda County Resources Conservation District (ACRCD), which has taken over management of the program and was able to onboard the existing program facilitator and interns who bring with them a wealth of program knowledge and experience in working with our watershed. The ACRCD is a great addition to the Program, as they have much experience in providing leadership in the County and region in natural resources conservation, wildlife and habitat preservation, and agricultural enhancement through partnerships, education, outreach, resource services and technical expertise.

After an extended pause due to the pandemic, volunteer events returned in 2022.

# Alameda Creek Fisheries Restoration Workgroup



**habitat restoration,  
population recovery,  
and monitoring for the  
steelhead trout**

Zone 7 is one of the core funding partners of the Alameda Creek Fisheries Restoration Workgroup, a collaborative effort among many parties focused on water flows and habitat restoration to help steelhead trout thrive in the Alameda Creek. The group's "Alameda Creek Population Recovery Strategies and In-Stream Flow Assessment for Steelhead Trout" work included an assessment of hydrologic and habitat conditions, identification of strategies for population recovery, and monitoring. Zone 7 staff currently chairs this workgroup, which has shifted recently to establishing monitoring goals as well as considering jump-starting a steelhead population in the watershed in light of a major fish passage project by Alameda County Water District at their facilities on Alameda Creek which will facilitate movement of anadromous species like steelhead as soon as 2022.

# Alameda Creek Watershed Forum

supports a **healthy  
and sustainable**  
Alameda Creek  
watershed



Zone 7 serves on the planning committee of the Alameda Creek Watershed Forum, a voluntary, non-regulatory stakeholder group that supports the community's interest in protecting and achieving a healthy and sustainable Alameda Creek watershed. Stakeholders include watershed organization members, watershed landowners and land managers, residents, and others. The Forum typically hosts an annual "State of the Watershed" conference and a technical symposium. The group also puts out the "Watershed Lookout" up to four times per year which features 2-3 articles about the latest restoration, research, or stewardship activities in the watershed, and a spotlight on a watershed stakeholder who has a recent accomplishment that demonstrates inspired efforts towards improving watershed health. Our water treatment plants continue to run efficiently and important maintenance is completed as scheduled. We carefully manage finances for our engineering and construction projects which continue. We continually refine our water supply planning model, which is critical during this historic drought.

# Arroyo de la Laguna Agency Collaborative



seeks to understand  
**scientific data and goals**  
that benefit residents &  
stakeholders

The Arroyo de la Laguna Agency Collaborative includes agencies and municipalities with facilities that drain into the arroyo and the greater Alameda Creek Watershed including the Alameda County Flood Control and Water Conservation District, Alameda County Water District, Contra Costa County Flood Control and Water Conservation District, San Francisco Public Utilities Commission, Zone 7, the Cities of Dublin, Livermore, Pleasanton, and San Ramon, and the Alameda County Resource Conservation District (RCD) and Natural Resources Conservation Service (NRCS), as much of their work is in or around our waterways. The Collaborative seeks to better understand the scientific and engineering data that is available along with what goals for the arroyo will benefit the stakeholders and local residents. Zone 7 helps to facilitate the Collaborative, and hosts quarterly meetings.



# Financial Update

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## Fiscal Year 2022 wrap-up

Zone 7's overall financial outlook remains positive with net increases in assets due to major investments in infrastructure. Additionally, our financial team continues to win awards for outstanding work in transparency and reporting, maintaining the highest commitment to responsible fiscal management

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## Significant Achievements in Responsible Fiscal Management

### **Excellence in Financial Reporting**

Zone 7 earned a Government Finance Officers Association Certificate of Achievement for Excellence in Financial Reporting for its FY 2020-21 Annual Comprehensive Financial Report.



Zone 7's reporting is evidence of the award's spirit of **transparency and full disclosure.**

## Continued AA+ Bond Rating

In June 2022, Fitch conducted a surveillance review and as a result Fitch Ratings affirmed Zone 7's bond rating of AA+ with a stable outlook. In affirming the rating, Fitch Rating states, "the 'AA+' bond rating and Issuer Default Rating reflect the agency's very low leverage, measured as net adjusted debt to adjusted funds available for debt service, within the framework of very strong revenue defensibility and low operating risk profile".

## Two-Year Budget

On June 15, 2022, the Board adopted the Two-Year Budget for Fiscal Years 2022-23 and 2023-24, reflecting the Board's commitment to provide flood protection and high-quality, life sustaining water for those who live and work in the Livermore-Amador Valley. The budget includes the projects, services and activities to be carried out during the two fiscal years and the estimated revenue available to fund these operating and capital costs.

## Planning for future pension needs

The Board authorized the establishment of an IRS Section 115 Trust to help prefund future pension liabilities. The IRS Section 115 Trust will address long-term pension liabilities by prefunding future pension payments. The Board is committed to funding the trust on an annually basis.

## Effectively Manage Financial Resources

Through prudent financial management, all Agency reserves were funded at or above target levels during FY 2021-22.

## Clean external audit

For FY 2021-22, the Agency's external auditors expressed an unmodified "clean" opinion that the Agency's financial statements are fairly stated in conformity with accounting principles generally accepted in the United States.

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# FY 2022 Financial Highlights

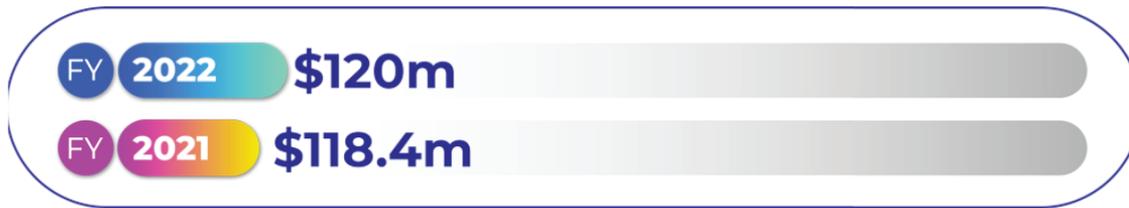
**Net Position \$567m**  
+\$12.5 million (+2.3%) ↑



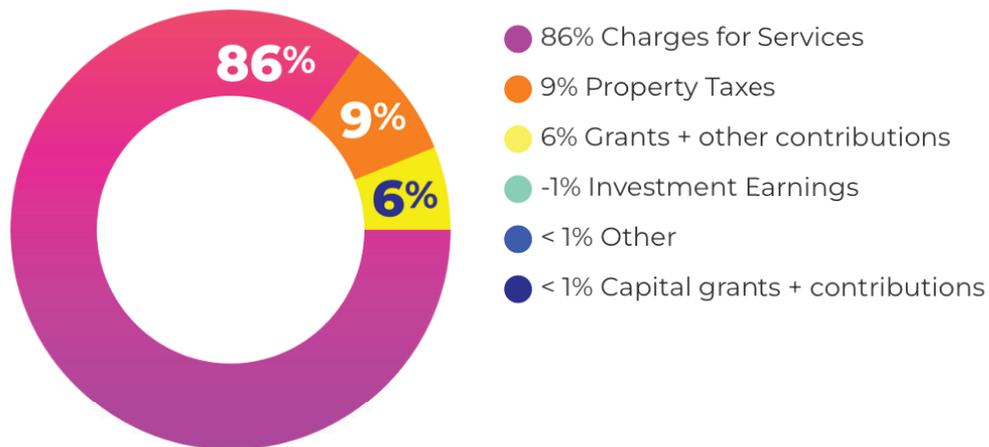
Net position increased by \$12.5 million or 2.3% from \$554.5 million to \$567 million.

# Total Revenue \$120.1m

+\$1.7 million (+1.4%) ↑



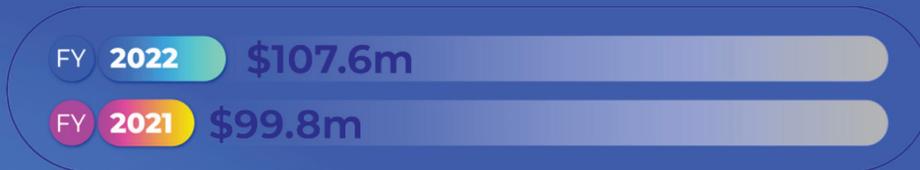
## \$120.1M Agency-wide Audited Actual Revenue FY 2022



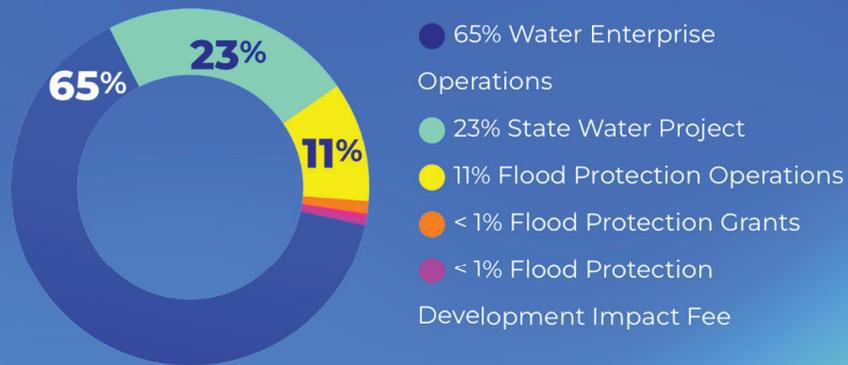
Total revenues increased by \$1.7 million, or 1.4 percent, from \$118.4 million to \$120.1 million mainly due to increase in charges for services of \$5.4 million from the previous year as a result of improved construction and development activities in the service area and an increase in property tax during the fiscal year due to increased property assessed valuations. The increase in development activities is offset by a decrease in water sales due to a decrease in residential water demand mainly due to a 15 percent mandatory state of drought emergency declared by the Board on September 1, 2021.

## Total Expenses \$107.6m

+\$7.8 million (+7.8%) ↑



### \$107.6M Agency-wide Audited Actual Expenses FY 2022



Total expenses increased by \$7.8 million, or 7.8 percent, from \$99.8 to \$107.6 million mainly due to increases of \$7.7 million for the Water Enterprise water purchases due to the state of drought emergency declared by the Board, Flood Protection Operations projects, and the State Water Project pass-through payments to California State Department of Water Resources during the fiscal year.

## Capital Assets \$356.1m

+\$25.6 million (+7.7%) ↑



Capital assets increased by \$25.6 million, or 7.7 percent, from \$330.5 million to \$356.1 million mainly due to the construction of the Patterson Pass Water Treatment Plant ozone and upgrade projects.

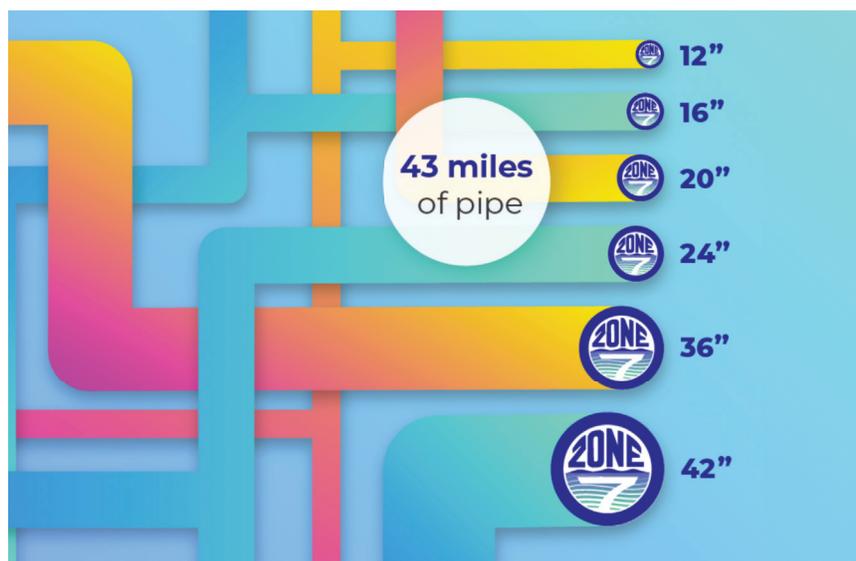


# Infrastructure

## Investing in a strong and sustainable system

Zone 7 keeps water flowing to the Tri-Valley through an extensive distribution network that relies on both long-term capital investment projects and routine maintenance, upkeep, and prevention to keep it running smoothly. To deliver high-quality water, we have made investments in ozone treatment at both of our surface water treatment plants a priority for the Zone 7 Capital Improvement Program because ozone is the best alternative to chlorine.

We completed the Del Valle Water Treatment Plant (DVWTP) Ozonation Project in the fall of 2020, and the ozone system has been operational since that time.



Zone 7 continued construction of ozonation treatment facilities to improve quality, taste and odor at the aging Patterson Pass Water Treatment Plant (PPWTP) this year. The project also increases the treatment plant's production capacity from 12 to 24 million gallons per day, as well as adds clearwell storage and new filters. The project also provides for the renewal, replacement and rehabilitation of aging components of the plant. Decades in the planning, this project highlights the agency's efforts in long-term planning, fiscal responsibility, and commitment to water quality and public health. The new facilities are largely complete and operational, with testing and remaining minor work finishing in the fall of 2022.



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## Significant Capital Improvement Projects

Each year, Zone 7 invests in a variety of capital improvement projects to keep our water treatment and delivery systems running optimally. Here are some of the key projects completed this year, or that are in progress, that will keep our infrastructure operating smoothly for years to come.

## DVWTP Roadway/Parking Lot and Post-Ozonation Project



**improving** operational flexibility and plant reliability

Currently in construction, this project will replace the main parking lot and repair the access road for more efficient chemical deliveries. This project is needed to improve operational flexibility and reliability of the treatment plant and also includes modifications needed for filter backwash pumps, improvements to protect against system overflows, chemical tank repair, and a new polymer mixing system.

## Mocho Groundwater Demineralization Plant Concentrate Conditioning System

**reduce the frequency** of costly upkeep procedures



This project provides a sulfuric acid storage and feed system to help condition the demineralized concentrate removed from the groundwater. This helps to minimize scaling inside the discharge pipeline and reduce the frequency of costly scale removal and cleaning activities. The project is currently in construction and is expected to be complete and operational in 2023.

## North Canyons HVAC System Replacement Project



**sustaining** Zone 7's communications network, business operations, and public meetings

This project replaced the outdated, inefficient, and high maintenance HVAC system at Zone 7's North Canyons office and was completed in the fall of 2022. This office is integral to Zone 7 business operations and public meetings. The office is also one of the facilities that serves as part of Zone 7's communications network.

## Chain of Lakes PFAS Treatment Project

preparing to **keep  
your water safe** for  
generations to come



With planning and design of the facility complete, this project is to construct a PFAS treatment facility at Zone 7's Chain of Lakes Well No. 1 site so that all of the Chain of Lakes wells can meet regulatory requirements for operation. The treatment removes PFAS primarily through media adsorption so that groundwater from the Chain of Lakes wells is safely below current PFAS response levels and future maximum contaminant levels.

## Valley Pump Station Project

**increasing water  
system reliability  
during times of  
drought**



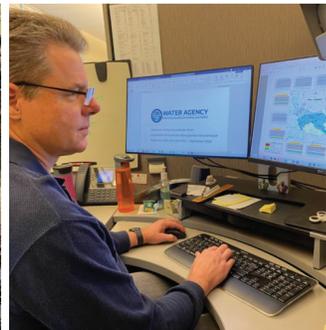
This project was accelerated as a drought emergency project and was completed on time over the course of a year and under budget. The pump station increases Zone 7 water system reliability during times of drought and emergencies. The project increases the capacity of wells and reduces strain on pipelines by lowering operating pressure.



# Essential Workers

Delivering quality, reliability and safety

The dedication and commitment of our public servants at Zone 7 has never been clearer. Despite navigating uncharted territory during the global pandemic for the past two years, their steadfastness in delivering on our commitment to provide clean, safe, and reliable drinking water has not wavered. Our water treatment plants continue to run efficiently and important maintenance is completed as scheduled. We carefully manage finances for our engineering and construction projects which continue. We continually refine our water supply planning model, which is critical during this historic drought.



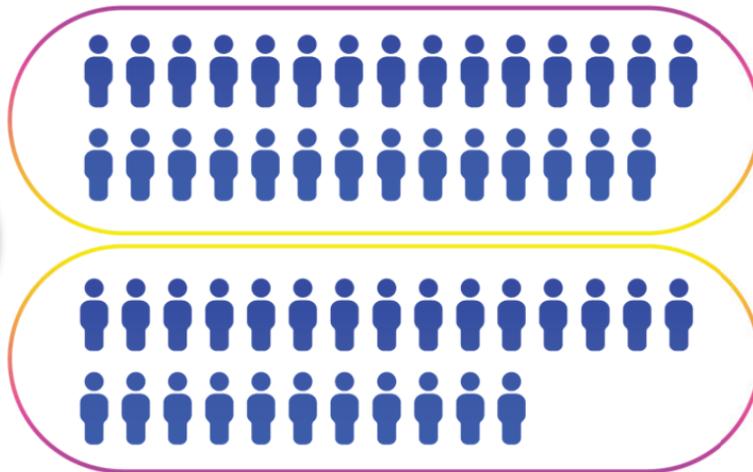
## Board of Directors & Office of the General Manager · 15



Zone 7 administration guides our long-term strategy and helps lead our organization with the help of legal counsel, public outreach and administrative support.

## Water Production · 58

Operators · 29 | Maintenance · 29



Water operators work in shifts to ensure 24 hour coverage at our two water treatment plants. Maintenance workers range from mechanics to electricians to safety techs who keep all equipment running smoothly and the flood protection system safely maintained.

## Engineering · 25



A team of flood control, water supply and water quality engineers ensure our infrastructure now and in the future is top-notch.

## Integrated Water Resources · 17



A team of engineers, geologists and planners strategically and sustainably manage our water supply system.

## Finance · 16



This department responsibly manages our financial and human resources to ensure a strong future for Zone 7.



# Connecting with the Tri-Valley Community

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## Proactive Communications and Outreach

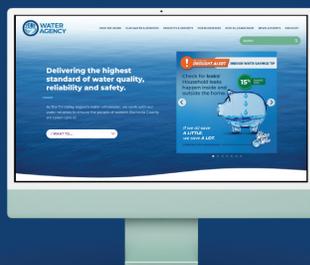
Zone 7 continues to make significant improvements in community engagement and outreach efforts as outlined in the agency's 2020 Strategic Plan and the 2020 Strategic Communications Plan. We have made information easier to understand, more readily accessible, and available in multiple formats to suit the needs of our changing digital landscape.

The Agency proudly earned four new awards recognizing achievements in these efforts. With our proactive approach to communicating, we are reaching more people in more places than ever before. Visitors to our newly redesigned website jumped by over 20,000 users in just one year. This year our website reached nearly 50,000 people and we are continuously improving the site to make it as user-friendly as possible.

We were also able to get back in full swing attending in-person events in our service area. We were able to educate residents on our rebate programs and provide them with our new Drought Kits, thus inspiring kids to care about where their water comes from. In the midst of a severe drought, we worked collaboratively with our water retailers to help get conservation messaging out to the community in the short term. For long-term water supply planning, we jointly launched the new Tri-Valley Water Partners website to show how we're working to ensure a reliable water supply for future generations.

# Significant Achievements in Community Engagement

## AWARDS



**GOLD AWARD  
DOTCOMM AWARD  
WEBSITE REDESIGN**



**FIRST PLACE  
SAVVY AWARD  
VIDEO - EDUCATION  
AND TRAINING**



**AWARD OF DISTINCTION  
COMMUNICATOR AWARDS  
PUBLIC SERVICE  
ONLINE VIDEO**



**GOLD AWARD  
DOTCOMM AWARDS  
SAFETY VIDEO**

**105** new Facebook Page followers

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**48,240** Total website visitors

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**32** Newsletters sent

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**22** In-person public events

## Digital Annual Report

Last year, Zone 7 debuted a fully online Annual Report that meets and exceeds the Americans with Disability Act (ADA) compliance and regulation standards. Residents of the Tri-Valley who use assistive technology will be able to browse and interact with the Annual Report with the new accessible website design.



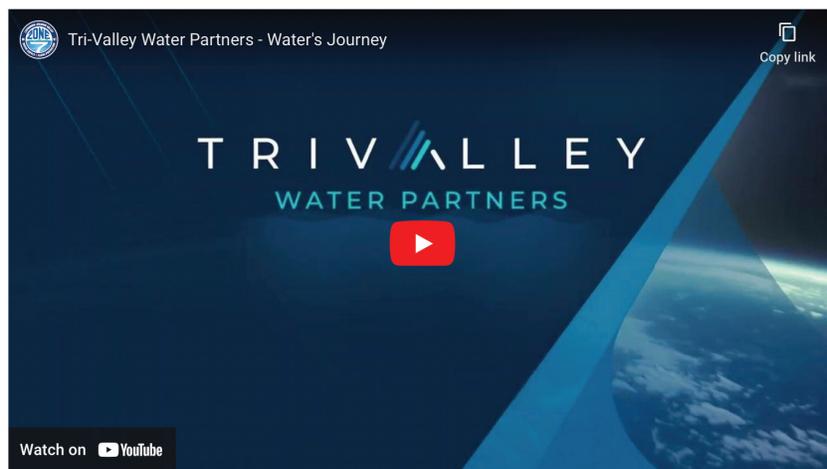
## Patterson Pass Water Treatment Plant Upgrades and Ozonation Project Ribbon Cutting

Zone 7 held a ribbon cutting ceremony at the Patterson Pass Water Treatment Plant to celebrate the latest investment to make the treatment process more efficient and improve water quality to better serve the community. The upgrades now provide improved treated water quality with the added ozonation project, and an increase of the treated water storage capacity.



## Tri-Valley Water Partners Website Launch

Zone 7 launched [www.trivalleywater.org](http://www.trivalleywater.org), a new website focused on educating the public on the region’s water supply reliability. The website is part of the Agency’s Strategic Plan and features a vibrant design with a full suite of photography highlighting water infrastructure and a new “Water’s Journey” video that educates users about the journey water takes through the State Water Project system to homes and businesses in the Tri-Valley. The site also covers water supply challenges, and potential solutions including Sites Reservoir and Delta Conveyance, as well as more local solutions like Los Vaqueros Reservoir Expansion, potable reuse, and regional desalination.



## Drought Outreach Efforts

In the third year of drought, Zone 7 lead communications efforts via a special Drought Committee comprised of Zone 7 and its retailer water providers. In partnership with our retailers, we pooled resources in order to convey a unified and consistent message to the public about the need for conservation. A special webpage found at [www.zone7water.com/drought](http://www.zone7water.com/drought) was created to serve as a single resource for all Tri-Valley residents to access drought info, keep informed on outdoor water restrictions and learn about water conservation rebate programs offered.



**! TRI-VALLEY DROUGHT ALERT** INDOOR WATER SAVINGS TIP

Scrape plates clean, instead of running them under water.

**15%** SAVINGS GOAL

If we all save **A LITTLE,** we save **A LOT.**

[ZONE7WATER.COM/DROUGHT](http://ZONE7WATER.COM/DROUGHT)

**BE Water Wise**

**ZONE 7**

The graphic features a blue background with a white banner at the top containing an exclamation mark icon and the text 'TRI-VALLEY DROUGHT ALERT'. To the right of the banner is the text 'INDOOR WATER SAVINGS TIP'. Below the banner, the text 'Scrape plates clean, instead of running them under water.' is displayed. To the right of this text is a green circle containing '15%' and a dark green box containing 'SAVINGS GOAL'. In the center is a glass piggy bank with three water droplets falling into it. Below the piggy bank is the text 'If we all save A LITTLE, we save A LOT.' and the URL 'ZONE7WATER.COM/DROUGHT'. In the bottom right corner is the 'BE Water Wise' logo and the 'ZONE 7' logo.



# Kid Zone

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## Teaching the next generation about our most precious resource

Our Kid Zone Schools Program is designed around the idea that teaching kids to be water-savvy today translates to water-wise adults for generations to come. Lifelong educated consumers are particularly important due to the common occurrence of drought. As conditions in classrooms continue to change due to the pandemic, we offered teachers our lessons in three formats; a personal visit to the classroom, a streaming virtual visit, or a teacher-led virtual visit.

**6** virtual presentations with support

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**31** live-stream lessons

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**149** in-person lessons

4,588 estimated student participants

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8 standards-based lessons offered

Lessons in the program are aligned with the Next Generation Science Standards for K-12 content, created, and taught by certified educators. Funded by Zone 7 Water Agency and supported by its Board of Directors, the program invests in youth water system education and appreciation.

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## Significant Achievements in Educational Efforts



## Encouraged water-wise education

The Kid Zone team encouraged water-wise education outside of the classroom as well.

- Sponsored the City of Livermore Water Conservation Art Contest
- Honored the One Water Award Winners at the May Zone 7 Board Meeting
- Worked with Girl Scouts in completing their “Wonders of Water Journey”
- Led a hands-on activity for 250 third graders and their chaperones attending Livermore’s Ag Day
- Led a water-careers game for 950 students at Foothill High Schools’ Career Day
- Led a water-careers game for 825 students at Amador High Schools’ Career Pathway Fair

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## 2022 Poster Art Contest Winner



# Zone In On What You Can Do

Interested in educational resources and fun activities that help build a new generation of water champions? Visit [www.zone7water.com/kid-zone](http://www.zone7water.com/kid-zone) for plenty of options categorized by grade level.



Zone 7 Water Agency delivers water quality, reliability and flood protection to our own, higher standards of excellence because we believe the Tri-Valley community deserves nothing less. We deliver high-quality drinking water that not only meets, but often performs better than, regulatory standards and invest in diversifying our water supply so our community can rely on us to provide the water they need.

As the Tri Valley region's water wholesaler, we work collaboratively with our water retailers in the City of Livermore, City of Pleasanton, the Dublin-San Ramon Services District, and California Water Supply to ensure the people of Eastern Alameda County have exceptional water and flood protection services.

**Zone 7 Water Agency**  
100 North Canyons Parkway  
Livermore, CA 94551

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