

Learn more about

THE WONDROUS WORLD OF WATER



2023 ANNUAL CONSUMER CONFIDENCE REPORT

Zone 7 provides high-quality water to four major water retailers, along with a small number of direct customers, serving over a quarter-million people in the Tri-Valley including Pleasanton, Livermore, Dublin and the Dougherty Valley area of San Ramon.

Working collaboratively with our retail partners, we are able to make a world of difference by ensuring our water supply is safe, clean and sustainable.



All Zone 7 water supplied in 2023 met the regulatory standards set by the state and federal governments and, in almost all cases, the quality was significantly better than required.

SOURCE WATER ASSESSMENT

Zone 7 Water Agency draws from a diverse portfolio of drinking water sources, including local and imported surface water as well as groundwater from wells. We carefully monitor all these sources to ensure their continued quality and to protect the safety of our water supply.

A source water assessment is conducted on each groundwater well as required by the California State Water Resources Control Board (State Water Board). Sanitary surveys for surface water supplies are conducted every five years. The latest sanitary survey for the California Delta and the State Water Project was completed in June 2022.

SOURCE WATER PROTECTION

Protecting our source water is an important part of providing safe drinking water to the public that meets the stringent Zone 7 water quality goals. By monitoring for potential contaminants and implementing best management practices, we can proactively address threats to water quality. For example, groundwater sources can be vulnerable to releases from chemical/petroleum pipelines, leaking tanks, groundwater contamination plumes, septic tanks, landfills, and wastewater-collection systems. Surface water can become contaminated as it travels through the Sacramento and San Joaquin watersheds and the Delta. After leaving the Delta, water is transported to Zone 7 via the South Bay Aqueduct (SBA). The SBA water quality can become polluted from local cattle grazing, wildfires, wildlife activities, and recreational activities in the watersheds of the Bethany Reservoir and Lake Del Valle.

WHERE DOES THE TRI-VALLEY'S WATER COME FROM?

The water that flows from your tap originated from a number of sources – including snowpack, rainfall and underground aquifers.



IMPORTED SURFACE WATER

The majority of our water supply originates as Sierra Nevada snowmelt and is conveyed by the State Water Project through the Delta and then via the South Bay Aqueduct.*



LOCAL SURFACE WATER

This is comprised of local rain runoff stored in Lake Del Valle.



GROUNDWATER

This supply, carefully managed by Zone 7, is pumped from the aquifer that underlies the Livermore-Amador Valley; water in the aquifer comes from local rainfall and from strategic recharges made with imported water to ensure access during dry years.

* In wet years, we store surplus State Water Project supplies in local and offsite groundwater basins for use when needed, and for reliability during droughts.

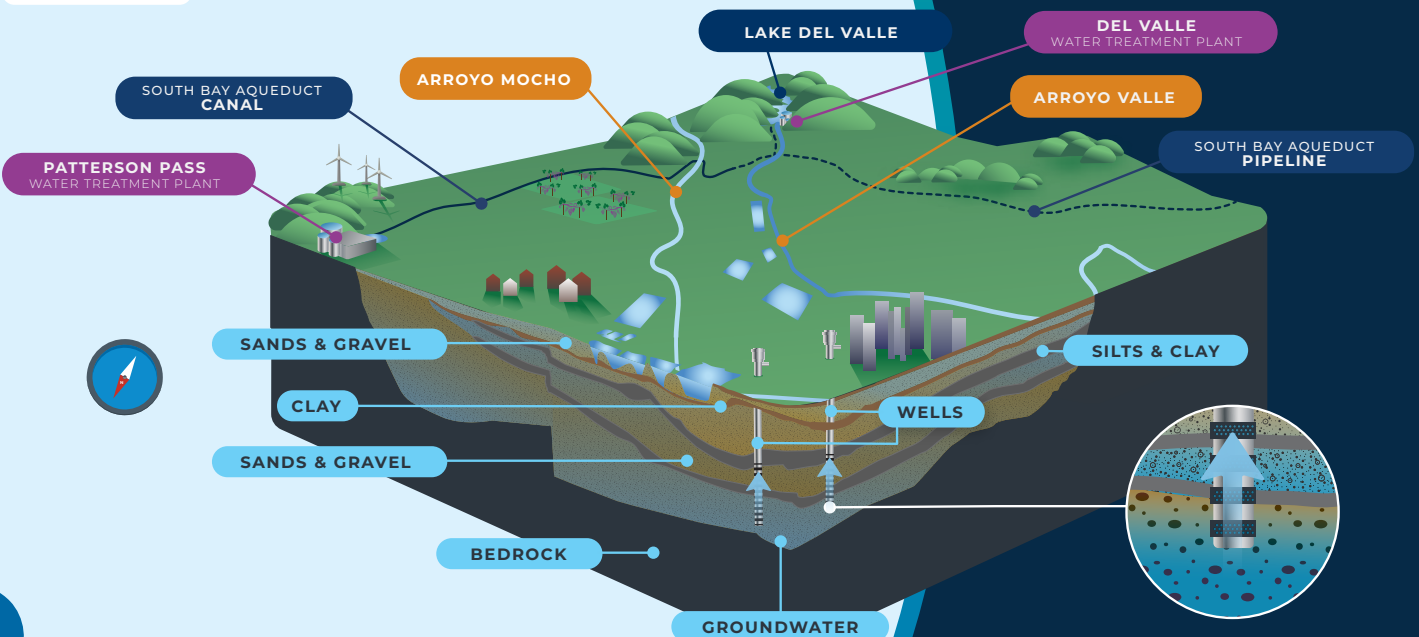
Copies of any public outreach materials, source water assessment reports or watershed sanitary surveys are available at zone7water.com/water-quality.

If you need any more information or have any questions about this report, contact **Angela O'Brien** at 925-454-5748 or email waterquality@zone7water.com.



GROUNDWATER RECHARGE

Learn how we use imported surface water to recharge our local groundwater basin.



ZONE 7 WATER SUPPLY



HOW CAN YOU HELP PROTECT SOURCE WATER?

Communities, citizen groups, and individuals can take an active role in protecting their drinking water sources from contamination.

Some Ways to Protect Source Water

- Limit the use of pesticides and fertilizers
- Reduce excess watering and runoff that washes chemicals into bodies of water
- Don't pour household hazardous waste into storm drains, down the drain or on the ground
- Dispose of medications properly
- Properly maintain your septic system
- Participate in local creek clean-ups and restoration projects with Living Arroyos

Zone 7's water supply typically includes approximately 60-80% treated surface water and 20-40% groundwater each year.

The amount of each type of source water varies depending on the season's precipitation, location and other conditions.

In 2023, Zone 7 delivered approximately 95% treated surface water and 5% groundwater, allowing the groundwater basin to recharge after years of drought.

WHAT'S IN YOUR WATER?



Water Quality Testing

As part of rigorous quality control, Zone 7 Water Agency regularly checks for a range of substances in our water supplies to ensure we can deliver safe and clean water to customers. The results table shows the average level and range of each detected regulated contaminant in our water supplies. Detected secondary standards and additional parameters are also listed.

Where Do Contaminants Come From?

The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and it can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

MICROBIAL CONTAMINANTS, such as viruses and bacteria that may come from wastewater-treatment plants, septic systems, agricultural-livestock operations, landscaping, agriculture and wildlife.

INORGANIC CONTAMINANTS, such as salts and metals, that can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

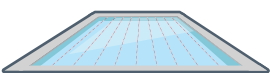
PESTICIDES AND HERBICIDES, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

ORGANIC CHEMICAL CONTAMINANTS, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production. They can also come from gas stations, urban stormwater runoff, and septic systems.

RADIOACTIVE CONTAMINANTS which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the USEPA and the State Water Board prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health.

So, how much is that? Let's compare:



There are 2.5 million liters of water in an Olympic-size swimming pool



mg/L = Milligrams/Liter or parts per million (ppm)
About 1/2 cup of salt in the pool



µg/L = Micrograms/Liter or parts per billion (ppb)
About 1 pinch of salt in the pool



ng/L = Nanograms/Liter or parts per trillion (ppt)
About 1 grain of salt in the pool

TERMS TO KNOW

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the Public Health Goals or Maximum Contaminant Level Goals as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the USEPA.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Primary Drinking Water Standard (PDWS): MCLs and MRDLs for contaminants that affect health, along with their monitoring and reporting requirements, and water-treatment requirements.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Running Annual Average (RAA): Test results based on an average of the previous four quarters.

Range: Range of detected results from Not Detected (ND) to the highest test result based on all samples collected.

HOW TO READ THE TABLE

CONTAMINANT	STATE STANDARDS			ZONE 7 RESULTS	
	MCL	DLR (MRL)	PHG (MCLG) [MRDLG]	SURFACE WATER	
				AVERAGE	RANGE
1 SELENIUM µg/L	2 50	3 5	4 30	5 ND	6 NA

- 1 The contaminant being tested for in our laboratories
- 2 The highest level of a contaminant allowed for drinking water. Our results must be lower than this amount
- 3 The level at which we must report our results, even though they are lower than the standard
- 4 Goal levels at which the state would like to keep our results below
- 5 Average of test results
- 6 Range of test results

2023 WATER QUALITY TESTING RESULTS

JANUARY-DECEMBER 2023 WATER QUALITY DATA - CONTAMINANTS DETECTED IN TREATED WATER SUPPLY

PRIMARY DRINKING WATER STANDARDS, established by the State Water Board								
CONTAMINANT	Maximum Contaminant Level (MCL)	DLR (MRL)	PHG (MCLG) [MRDLG]	DISTRIBUTION SYSTEM				Major Sources in Drinking Water
Total coliform bacteria	5.0 % of monthly samples are positive		(0)	Highest percentage of monthly positive samples: 1.4				Naturally present in the environment
Total trihalomethanes (TTHMs), µg/L	Running Annual Average (RAA): 80	1*	NA	Highest Locational RAA: 50	Range of All Samples: 14 - 49			Byproduct of drinking water disinfection
Haloacetic acids (five) (HAAS), µg/L	RAA: 60	1*	NA	38	9 - 42			
Bromate, µg/L	RAA: 10	5	0.1	ND	ND - 7			
Chloramines as Chlorine, mg/L	Maximum Residual Disinfectant Level (MRDL) = 4.0		[4]	Systemwide RAA: 2.8	Range of Monthly Average Samples: 2.4 - 3.2			Drinking water disinfectant added for treatment
TREATED WATER SUPPLY								
SURFACE WATER								
Turbidity	TT = 1 NTU Maximum		NA	Highest Level Found: 0.1 NTU				Soil runoff
	TT = 95% of samples ≤ 0.3 NTU		NA	% of samples ≤ 0.3 NTU: 100%				
Total Organic Carbon	TT = Quarterly RAA Removal Ratio ≥ 1.0		NA	Lowest Quarterly RAA Ratio: 1.2				Various natural and man-made sources
Inorganic Chemicals								
Barium, µg/L	1000	100	2000	Average ND	Range NA	Average ND	Range ND - 261	Erosion of natural deposits; discharge of drilling wastes; and discharge from metal refineries
Selenium, µg/L	50	5	30	ND	NA	ND	ND - 7	Erosion of natural deposits; discharge from mines and industrial wastes.
Fluoride, mg/L	2	0.1	1	ND	NA	ND	ND - 0.1	Erosion of natural deposits and discharge from fertilizer and aluminum factories
Nitrate as Nitrogen, mg/L	10	0.4	10	ND	ND - 1.5	3	0.8 - 3.9	Erosion of natural deposits; runoff from fertilizer use; and leaching from septic tanks and sewage
Radionuclides								
Gross Alpha particle activity, pCi/L**	15	3	(0)	3	3	ND	ND - 5	Erosion of natural deposits
Uranium, pCi/L	20	1	0.43	ND	ND	ND	ND - 4	Erosion of natural deposits
SECONDARY DRINKING WATER STANDARDS, established by State Water Board								
Conductivity, µS/cm	1600		--	333	137 - 645	792	270 - 1054	Substances that form ions when in water; seawater influence
Chloride, mg/L	500		--	35	8 - 115	85	30 - 126	Runoff/leaching from natural deposits; seawater influence
Sulfate, mg/L	500	0.5	--	38	16 - 75	54	15 - 97	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids, mg/L	1000		--	195	75 - 368	485	157 - 718	Runoff/leaching from natural deposits
Turbidity, NTU	5	(0.05)	--	ND	ND - 0.11	ND	ND - 0.16	Soil runoff
Color, Unit	15	0	--	ND	ND - 2.5	ND	NA	Runoff/leaching from natural deposits; industrial wastes
Manganese, µg/L	50	10	--	ND	ND - 22	ND	NA	Runoff/leaching from natural deposits; industrial wastes
Foaming Agents (MBAS), mg/L	0.5	0.1	--	ND	NA	ND	ND - 0.1	Soil runoff
ADDITIONAL PARAMETERS - Included to assist consumers in making health or economic decisions, i.e. low sodium diet, water softening, etc.								
Alkalinity as calcium carbonate, mg/L	--		--	76	37 - 114	253	82 - 368	Naturally-occurring minerals
Boron, µg/L	--	100	--	82	ND - 200	625	500 - 850	Naturally-occurring mineral
Total Hardness as calcium carbonate, mg/L	--		--	73	29 - 120	301	81 - 473	Naturally-occurring minerals
Potassium, mg/L	--		--	2.0	1.0 - 4.4	1.9	0.7 - 2.5	Naturally-occurring mineral
Sodium, mg/L	--		--	46	18 - 102	68	30 - 84	Naturally-occurring mineral
pH	--		--	8.8	8.2 - 9.4	7.8	7.5 - 8.9	Naturally-occurring minerals
Silica, mg/L	--		--	11	6.6 - 13	22	7.7 - 28	Naturally-occurring mineral

* TTHMs each component DLR is 1 µg/L. HAAs each component DLR is 1 µg/L except Monochloroacetic acid that has DLR of 2 µg/L. ** Gross alpha data is from 2017 except Hopyard well 9 that was sampled in 2022.
 Abbreviations/Units: MCL = Maximum Contaminant Level, DLR = Detection Limit for Purposes of Reporting (State Water Board established), MRL = Method Reporting Level
 NA = Not Applicable, PHG = Public Health Goal, MCLG = Maximum Contaminant Level Goal, MRDLG = Maximum Residual Disinfectant Level Goal,
 RAA = Running Annual Average, TT = Treatment Technique, NTU = Nephelometric Turbidity Unit, µg/L = Micrograms per liter, mg/L = Milligrams per liter,
 µS/cm = Microsiemens per centimeter, pCi/L = Picocuries per liter, ND = Non-Detected.

WHAT ARE PFAS?

What are PFAS (Per- and Polyfluoroalkyl Substances)?

PFAS are a group of synthetic chemicals widely used in manufacturing multiple products present in our daily lives. People can be exposed to them through food, packaging, air pollution, dust and drinking water. Scientific studies have shown that exposure to some PFAS in the environment may be linked to harmful health effects in humans and animals. Although certain PFAS are no longer manufactured in the U.S., these chemicals are still produced internationally and imported into the U.S. in consumer goods.

How do PFAS get into the drinking water?

Since PFAS are used in an array of industrial and consumer products, there could be many sources of contamination in our water supplies. Common sources of PFAS include PFAS manufacturing and processing facilities, areas where fire-fighting foams were used (e.g., airports, military installations), wastewater treatment plants, and landfills.



PFAS Regulatory Update

In April 2024, the U.S. Environmental Protection Agency (EPA) established national standards for six PFAS, including maximum contaminant levels (MCLs) for the two most common PFAS (PFOA and PFOS) at 4 nanograms per liter (ng/L) each. Water systems will have five years to comply with the new MCLs. For more information, visit epa.gov/pfas.

The State of California is also in the process of developing its own PFAS standards. The State has up to two years to develop PFAS regulations that are no less stringent than the federal regulations. California currently has drinking water notification and response levels for four PFAS and is evaluating other PFAS found throughout the state. Notification and response levels are non-regulatory-health based advisory levels established by the State for contaminants in drinking water for which MCLs have not been established. When a contaminant is found at concentrations greater than its advisory level, certain notification requirements and recommendations apply. For more information, visit waterboards.ca.gov/pfas.

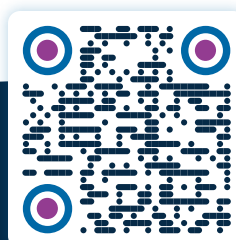
TERMS TO KNOW

Notification Level

Represents the concentration level of a contaminant in drinking water that does not pose a significant health risk but warrants notification.

Response Level

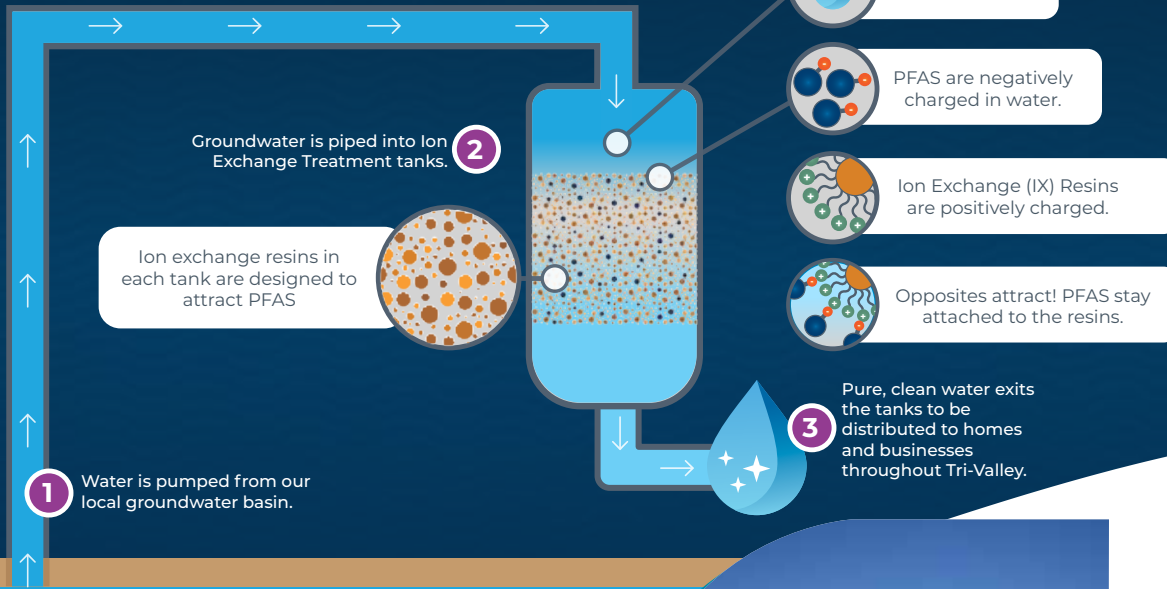
Represents the concentration level of a contaminant in drinking water at which water systems should take additional actions such as taking a water source out of service or providing treatment.



For the most up-to-date information on Zone 7's proactive response to PFAS visit zone7water.com/pfas

ION EXCHANGE TREATMENT

PFAS Removal Process



PROACTIVELY ADDRESSING PFAS

At Zone 7, protecting public health and safety is our highest priority.

Zone 7 has been actively monitoring for PFAS since late 2018. No PFAS have been detected in its treated surface water which makes up the majority of the water delivered to customers. Although PFAS have been detected in some Zone 7 groundwater wells, these wells were treated to levels below the State's recommended response levels before entering the distribution system. Groundwater is typically used for meeting peak day demand or when surface water supply is limited. Immediately after the EPA announced the final PFAS regulations in April 2024, Zone 7 adjusted operations to ensure all delivered water would meet the new federal PFAS standards prior to the required compliance deadline in 2029.

Zone 7 has also taken proactive steps to plan, design, and construct new PFAS treatment facilities in preparation for compliance with the new federal standards.

We are utilizing specialized Ion Exchange (IX) resins to remove PFAS from two of our groundwater facilities. The Stoneridge Well treatment facility was commissioned in September 2023 and the Chain-of-Lakes Wellfield treatment facility is expected to be online by late 2024.

In addition, Zone 7 is currently preparing a conceptual design to determine the most effective treatment option for our Mocho Wells. The existing reverse osmosis (RO) membrane treatment facility already removes PFAS at these wells, but additional treatment capacity is required to meet the new PFAS standards. The conceptual design is expected to be finished by the end of 2024, followed by detailed design and construction phases.



JANUARY-DECEMBER 2023 WATER QUALITY DATA - CONTAMINANTS DETECTED IN TREATED WATER SUPPLY							
PER- and POLYFLUOROALKYL SUBSTANCES (PFAS) GUIDANCE LEVELS, established by the State Water Board							
Per- and Polyfluoroalkyl Substances (PFAS)	Response Level	Notification Level	CCRD L	SURFACE WATER		GROUNDWATER	
				Average	Range	Average	Range
PERFLUOROBUTANESULFONIC ACID (PFBS), ng/L	5000*	500	3	ND	NA	ND	ND - 5
PERFLUOROCTANE SULFONIC ACID (PFOS), ng/L	40**	6.5	4	ND	NA	6	ND - 27
PERFLUOROCTANOIC ACID (PFOA), ng/L	10**	5.1	4	ND	NA	ND	NA
PERFLUOROHXANE SULFONIC ACID (PFHxS), ng/L	20*	3	3	ND	NA	5	ND - 21***
PERFLUOROHEXANOIC ACID (PFHxA), ng/L	NA	NA	3	ND	NA	ND	ND - 4

Abbreviations/Units: CCRDL = Consumer Confidence Report Detection Level (State Water Board established)
 ng/L = Nanograms per liter, NA = Not Applicable, ND = Monitored for but not detected at or above CCRDL.
 *Response level for PFBS and PFHxS are based on a single sample result. **Response level for PFOA and PFOS are based on running annual average values.
 ***A sample at the Mocho Groundwater Demineralization Plant (MGDP) exceeded the PFHxS response level due to a brief flow surge during well startup on Feb 2, 2023. Operational procedures were modified to prevent future incidents. Subsequent samples were all below the response level.

LEAD AND COPPER RULE AND CORROSION CONTROL

The U.S. Environmental Protection Agency (EPA) has recently made changes to the Lead and Copper Rule, with additional improvements being proposed to better safeguard children and communities from lead exposure. For more information on these changes, you can visit [epa.gov/ground-water-and-drinking-water/proposed-lead-and-copper-rule-improvements](https://www.epa.gov/ground-water-and-drinking-water/proposed-lead-and-copper-rule-improvements)

Zone 7, along with its retailers, has been in compliance with the Lead and Copper Rule requirements for many years and will continue to maintain compliance with the revised regulatory requirements.

The following monitoring data is for Zone 7's direct customers only. Compliance monitoring is conducted once every three years. Data from June 17, 2021 monitoring is summarized below:

Contaminant	No of Collected	90th level	Number of exceeding AL	Action Level (AL)	PHG
Lead (µg/L)	11	7	None	15	0.2
Copper (µg/L)	11	63	None	1300	300

EDUCATIONAL INFORMATION

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the U.S. Environmental Protection Agency's (USEPA's) Safe Drinking Water Hotline 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline 1-800-426-4791.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Zone 7 Water Agency is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at [epa.gov/safewater/lead](https://www.epa.gov/safewater/lead)

WE WELCOME YOUR PARTICIPATION

Zone 7 Water Agency is committed to transparency and invites public participation. You are invited to engage in our public forum and voice questions or concerns about your drinking water. Regular meetings of the Board of Directors are open to the public and held the third Wednesday of each month at 7 p.m. Special meetings are scheduled as needed. Meeting agendas are posted online at [zone7water.com](https://www.zone7water.com).

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

(This report contains important information about your drinking water. Translate it, or speak with someone who understands it.)



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