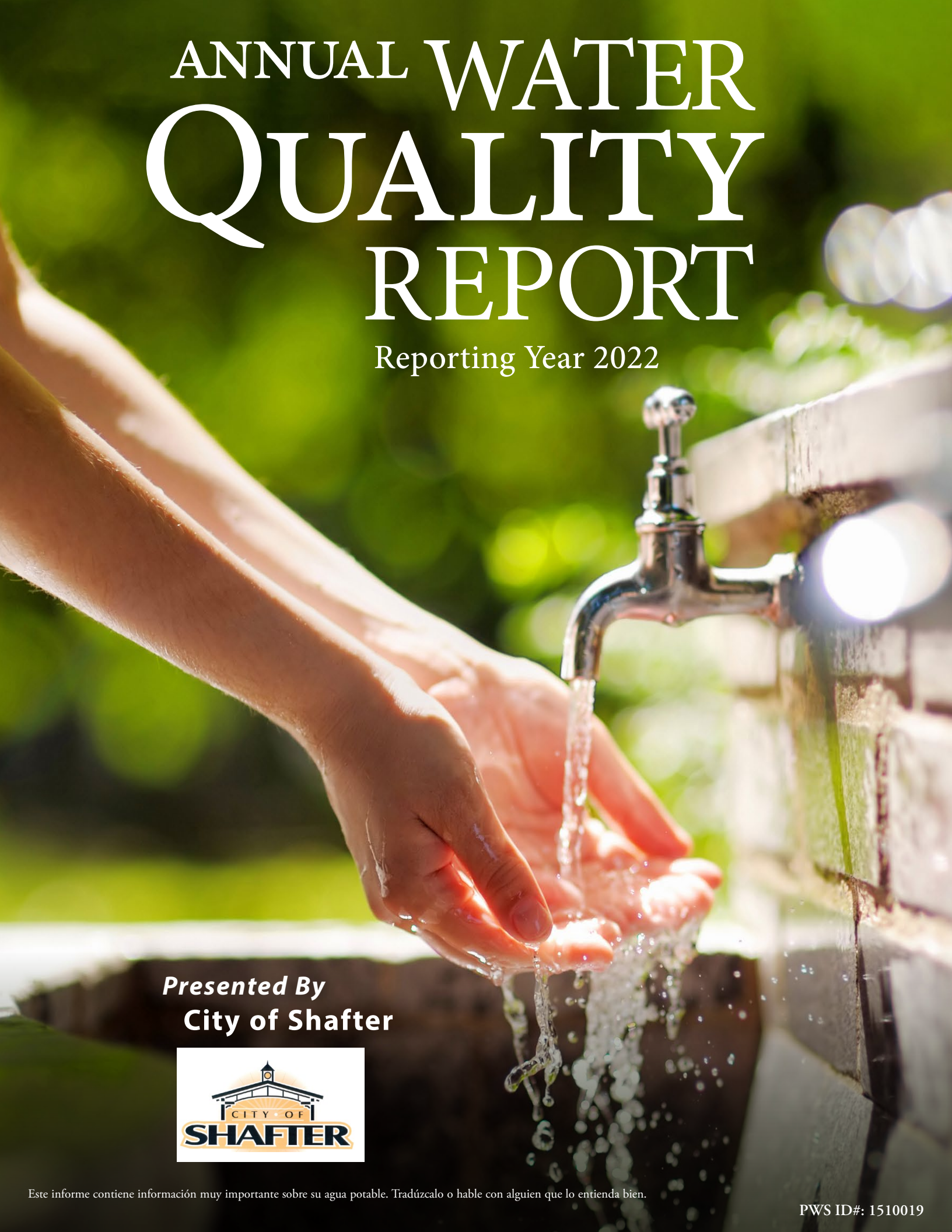
ANNUAL WATER QUALITY REPORT

Reporting Year 2022



Presented By

City of Shafter

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

PWS ID#: 1510019

Our Mission Continues

We are once again pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2022. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users. Please remember that we are always available should you ever have any questions or concerns about your water.

Where Does My Water Come From?

The source of Shafter's drinking water is an aquifer. Water is pumped to the surface by a system of groundwater wells. The aquifer is replenished through natural runoff from the Sierra Nevada Mountains and seepage from the many irrigation canals that import water into the area from other regions of the state.

The City of Shafter owns and operates your domestic water supply and distribution systems. These systems operate as one of the enterprises under the city's umbrella. The water system within the core city has six active groundwater wells, five aboveground water storage tanks with booster pumps, and approximately 125 miles of water distribution lines. The distribution system is a combination of tanks, water mains, and booster pumps necessary to deliver water to our customers.

Water Treatment Process

Water treatment at the city's wells is required to meet current health standards set by state and federal health officials. One treatment process is disinfection by chlorination to remove microbiological contaminants. City crews routinely test treated water to ensure it is free of bacteria that may contain these contaminants. Occasionally, bacteria are detected; they are usually cleared after retesting or adjusting chlorine dosage.

Another treatment process removes 1,2,3-trichloropropane (TCP), a contaminant left behind from past use of an agricultural pesticide. This pesticide is no longer in use, but TCP can still be detected throughout the Central Valley. As a result, domestic water suppliers must now install treatment systems that remove detectable levels of TCP. The city has installed TCP treatment systems at all active wells and developed a funding plan to include treatment systems at new wells.

Source Water Assessment

An assessment of the drinking water sources for the City of Shafter was initially completed by the state in 1999 and updated by the city in 2009. A copy of the complete assessment is available at City Hall, located at 336 Pacific Avenue. You may request a summary of the assessment by contacting the department at (661) 746-5004.

Water Conservation Tips

You can play a role in conserving water and save yourself money in the process by becoming conscious of the amount of water your household is using and looking for ways to use less whenever you can. It is not hard to conserve water. Here are a few tips:

- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water-using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.

Community Participation

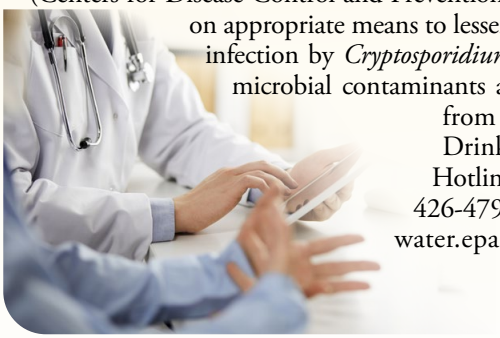
The City Council of the City of Shafter meets on the first and third Tuesday of each month at 6:00 p.m. in Council Chambers, located at 336 Pacific Avenue, to discuss and take action on various matters that affect the community. Water quality, conservation, and system improvements are often on the meeting agenda. Public input is appreciated and considered before any formal actions are taken.

QUESTIONS? Please call Public Works Director Michael James at (661) 746-5004 for more information about this report or if there are any questions relating to your drinking water.

Important Health Information

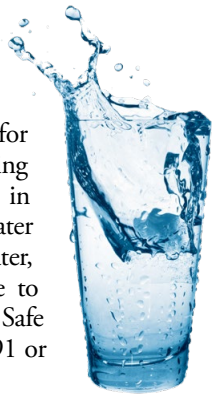
While your drinking water meets the federal and state standard for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The U.S. Environmental Protection Agency (U.S. EPA) continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and linked to other health effects such as skin damage and circulatory problems.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or http://water.epa.gov/drink/hotline.



Lead in Home Plumbing

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. We are responsible for providing high-quality drinking water, but we 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 two minutes before using water for drinking or cooking. (If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.) 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 at (800) 426-4791 or www.epa.gov/safewater/lead.



Substances That Could Be in Water

The sources of drinking water (both tap water 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 can pick up substances resulting from the presence of animals or from human activity.

In order to ensure that tap water is safe to drink, the U.S. EPA and the State Water Resources Control Board (State 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. 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.

Contaminants that may be present in source water include: Microbial Contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; Inorganic Contaminants, such as salts and metals, that can be naturally occurring or can result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming; Pesticides and Herbicides that 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 by-products of industrial processes and petroleum production and which can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems; Radioactive Contaminants that can be naturally occurring or can be the result of oil and gas production and mining activities.

More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Level 1 Assessment Update

Coliforms are bacteria that are naturally present in the environment and used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms, indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessments to identify and correct any problems.

During the past year, we were required to conduct one Level 1 assessment. The Level 1 assessment was completed during the month of April. During this time, repeat samples were taken, concluding there was no immediate threat to water quality.

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling to ensure we meet specific health standards. These results only list substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
1,2,3-Trichloropropane [1,2,3-TCP] (ppt)	2022	5[1]	0.7	100	17–260[2]	No	Discharge from industrial and agricultural chemical factories; leaching from hazardous waste sites; cleaning and maintenance solvent, paint and varnish remover, and degreasing agent; by-product from production of other compounds and pesticides
Arsenic (ppb)	2022	10	0.004	5.47	01–11[3]	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	2022	1	2	0.082	ND–0.492	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Chlorine (ppm)	2022	[4.0 (as Cl2)]	[4 (as Cl2)]	1.5	ND–2	No	Drinking water disinfectant added for treatment
Chromium, Total (ppb)	2022	50	(100)	0.33	ND–2	No	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Dibromochloropropane [DBCP] (ppt)	2022	200	3	12.07	ND–40	No	Banned nematocide that may still be present in soils due to runoff/leaching from former use on soybeans, cotton, vineyards, tomatoes, and tree fruit
Fluoride (ppm)	2021	2.0	1	0.13	ND–0.30	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2022	15	(0)	1.58	ND–3.9	No	Erosion of natural deposits
HAA5 [sum of 5 haloacetic acids]–Stage 2 (ppb)	2022	60	NA	0.38	ND–6.0	No	By-product of drinking water disinfection
Hexavalent Chromium (ppb)	2021	NS[4]	0.02	0.323	ND–0.97	No	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits
Nitrate [as nitrogen] (ppm)	2022	10	10	4.99	1.8–9.5	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium (ppb)	2021	50	30	2.67	ND–7.0	No	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)
TTHMs [total trihalomethanes]–Stage 2 (ppb)	2022	80	NA	3.88	ND–18	No	By-product of drinking water disinfection
Turbidity[5] (NTU)	2021	TT	NA	0.36	ND–0.36	No	Soil runoff
Uranium (pCi/L)	2020	20	0.43	0.9	ND–1.8	No	Erosion of natural deposits

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2021	1.3	0.3	0.0076	0/43	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2021	15	0.2	ND	0/43	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

OTHER REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Bicarbonate [HCO3] (ppm)	2021	NA	NA	40	20–60	No	Leaching from natural deposits
Calcium (ppm)	2021	NA	NA	48	3–85	No	Leaching from natural deposits
Magnesium (ppm)	2021	NA	NA	ND	NA	No	Leaching from natural deposits
pH (units)	2022	NA	NA	8.22	7.69–9.30	No	Inherent characteristic of water
Potassium (ppm)	2021	NA	NA	1.17	ND–2.0	No	Leaching from natural deposits
Sodium (ppm)	2021	NA	NA	99	47–226	No	Leaching from natural deposits
Total Alkalinity [as CaCO3] (ppm)	2021	NA	NA	35	20–50	No	Runoff/leaching from natural deposits
Total Hardness [as CaCO3] (ppm)	2021	NA	NA	120.78	8.00–212	No	Erosion of natural deposits

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2021	500	NS	81.50	37–160	No	Runoff/leaching from natural deposits; seawater influence
Sulfate (ppm)	2021	500	NS	157.60	4.80–348	No	Runoff/leaching from natural deposits; industrial wastes

UNREGULATED SUBSTANCES [6]

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Bromodichloromethane (ppb)	2021	0.313	ND–2.0	By-product of drinking water disinfection
Bromoform (ppb)	2021	2.38	ND–14.0	By-product of drinking water disinfection
Chromium VI [Hexavalent Chromium] (ppb)	2021	0.323	ND–0.97	Naturally occurring
Dibromochloromethane (ppb)	2021	1.375	ND–6.00	By-product of drinking water disinfection
Dibromoacetic Acid (ppb)	2021	0.688	ND–7.0	NA

[1] This substance had a notification level of 5 ppt until December 14, 2017, when the MCL of 5 ppt became effective.

[2] Result detected is for raw water. Water delivered has been treated to no detectable limits.

[3] The high value was sampled during post-rehabilitation well flushing.

[4] There is currently no MCL for hexavalent chromium. The previous MCL of 10 ppb was withdrawn on September 11, 2017.

[5] Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

[6] Unregulated contaminant monitoring helps U.S. EPA and the State Water Resources Control Board determine where certain contaminants occur and whether the contaminants need to be regulated.

Definitions

90th %ile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

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

Level 1 Assessment: A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

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

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

MRDL (Maximum Residual Disinfectant Level): 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.

MRDLG (Maximum Residual Disinfectant Level Goal): 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.

NA: Not applicable.

NS: No standard.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/L (picocuries per liter): A measure of radioactivity.

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

PHG (Public Health Goal): 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 EPA.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

ppt (parts per trillion): One part substance per trillion parts water (or nanograms per liter).

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