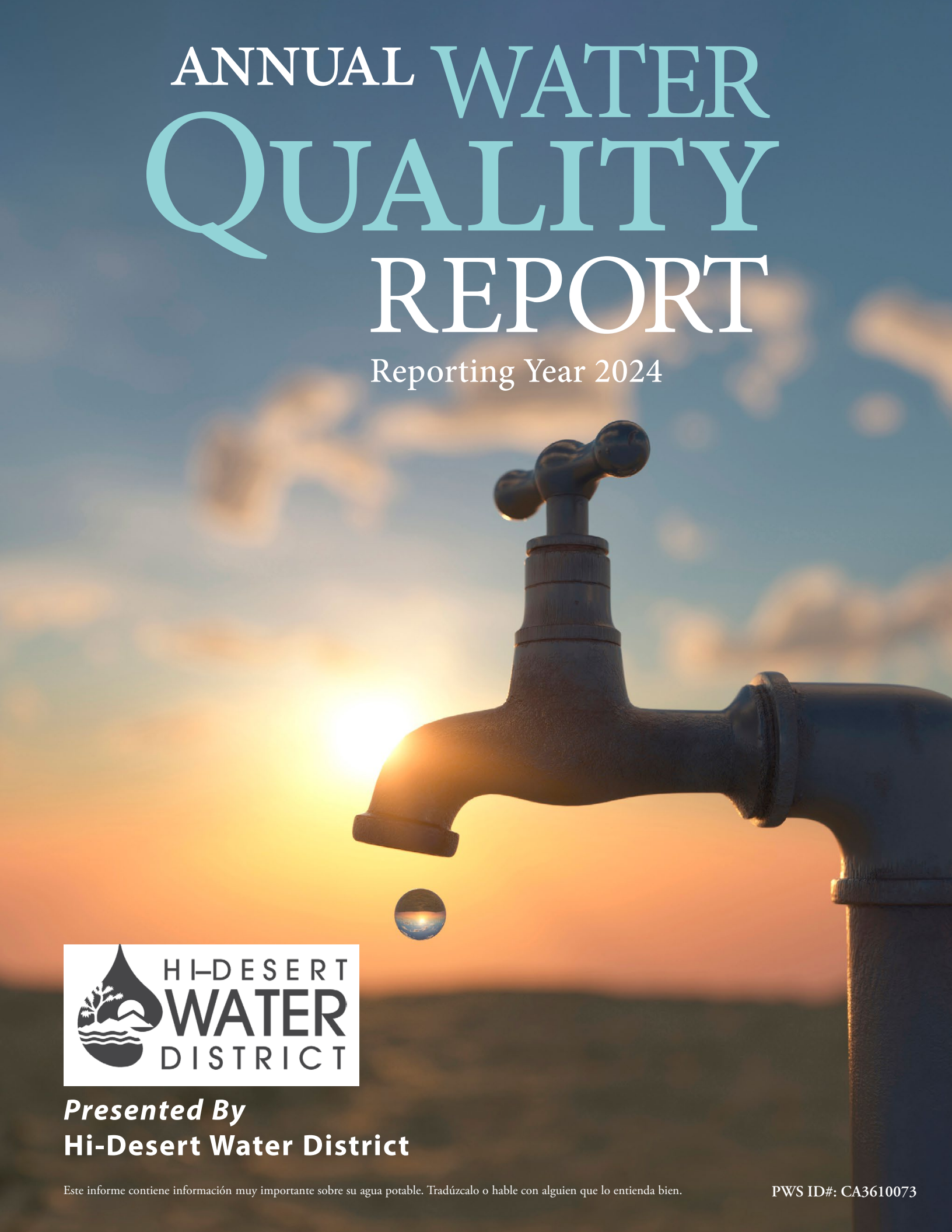
ANNUAL WATER QUALITY REPORT

Reporting Year 2024



HI-DESERT WATER DISTRICT

Presented By

Hi-Desert Water District

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

PWS ID#: CA3610073

Our Commitment

We are pleased to present to you this year's annual water quality report. This report is a snapshot of last year's water quality covering all testing performed between January 1 and December 31, 2024. Included are details about your source of water, what it contains, and how it compares to standards set by regulatory agencies. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water and providing you with this information because informed customers are our best allies. Please remember that we are always available should you ever have any questions or concerns about your water.

Where Does My Water Come From?

Most of HDWD's water is drawn from the Warren Basin; located in the heart of Yucca Valley, it runs west to east. One well draws water from the Ames Basin, located in the northern part of the district. To maintain a healthy groundwater basin and water levels, HDWD has been importing water through the State Water Project via the Mojave Water Agency into three recharge locations: Sites 3, 6, and 7. In 2024 the district extracted approximately 2,843 acre-feet (1 acre-foot = 325,851 gallons), with a daily average demand of 7.79 acre-feet, from the two aquifers and was also able to recharge approximately 2,601 acre-feet into the Warren Basin from the State Water Project.

The district's distribution system serves approximately 26,411 residents with 11,123 service connections. The distribution system covers over 300 miles of piping and is served by 11 active groundwater wells that supply a total of 6,600 gallons per minute. There are 16 water storage reservoirs that feed 18 pressure zones with a total storage capacity of 13.34 million gallons to the active service connections serving the Town of Yucca Valley and the unincorporated areas of San Bernardino County known as the Mesa.

Treatment Train Description

The district continuously chlorinates the water supply year-round. The chlorine is made on-site into a sodium hypochlorite solution below 1 percent and injected into the distribution system at 1 part per million (ppm) with a goal of at least 0.2 ppm at the end of the distribution system. HDWD has a few wells that extract water from the deeper portions of our aquifer. Water from these wells has exceeded the state's MCL for arsenic and nitrate and therefore may require treatment before entering the distribution system for consumption. The district currently treats one active well, Well 16 E, for arsenic by using an approved treatment technique known as blending. In this process, the well water with high concentrations of arsenic is blended with two other wells with lower concentrations. The district monitors the delivered water weekly and reports the results on a monthly basis to the SWRCB.

Community Participation

You are invited to attend Hi-Desert Water District (HDWD) Board of Directors meetings in person or via Zoom, regularly scheduled on the first and third Wednesday of the month at 4:00 p.m. Board meetings are held at the district administration office, 55439 29 Palms Highway, Yucca Valley. Information on regularly scheduled meetings is available at hdwd.com or by calling the district secretary at (760) 228-6285. You can also email the information desk at info@hdwd.com. Informative tours of the district's operations, including our new wastewater plant, are also available to our customers.

Your Board of Directors:

Scot McKone, President

Sue Tsuda, Vice President

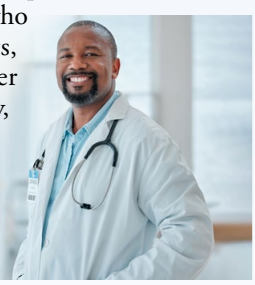
Bob Stadum, Director

Roger Mayes, Director

Sheldon Hough, Director

Important Health Information

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, can be particularly at risk from infections. These people should seek advice about drinking water from their health-care providers. U.S. Environmental Protection Agency (U.S. EPA)/Centers for Disease Control and Prevention (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 (800) 426-4791 or epa.gov/safewater.



Questions?

For more information about this report, or for any questions relating to your drinking water, please contact Marty Stockstell, Water Quality Technician, at (760) 365-8333, ext. 6276.

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.

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 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, that are by-products of industrial processes and petroleum production and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.

Radioactive Contaminants that can be naturally occurring or the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, the U.S. EPA and the State Water Resources Control Board (SWRCB) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. 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. More information about contaminants and potential health effects can be obtained by calling the US EPA's Safe Drinking Water Hotline at (800) 426-4791.

What Are PFAS?

Per- and polyfluoroalkyl substances (PFAS) are a group of manufactured chemicals used worldwide since the 1950s to make fluoropolymer coatings and products that resist heat, oil, stains, grease, and water. During production and use, PFAS can migrate into the soil, water, and air. Most PFAS do not break down; they remain in the environment, ultimately finding their way into drinking water. Because of their widespread use and their persistence in the environment, PFAS are found all over the world at low levels. Some PFAS can build up in people and animals with repeated exposure over time.

The most commonly studied PFAS are perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS). PFOA and PFOS have been phased out of production and use in the United States, but other countries may still manufacture and use them.

Some products that may contain PFAS include:

- Some grease-resistant paper, fast food containers/wrappers, microwave popcorn bags, pizza boxes
- Nonstick cookware
- Stain-resistant coatings used on carpets, upholstery, and other fabrics
- Water-resistant clothing
- Personal care products (shampoo, dental floss) and cosmetics (nail polish, eye makeup)
- Cleaning products
- Paints, varnishes, and sealants

Even though recent efforts to remove PFAS have reduced the likelihood of exposure, some products may still contain them. If you have questions or concerns about products you use in your home, contact the Consumer Product Safety Commission at (800) 638-2772. For a more detailed discussion on PFAS, please visit bit.ly/3Z5AMm8.

Lead in Home Plumbing

Lead can cause serious health effects in people of all ages, especially pregnant people, infants (both formula-fed and breastfed), and young children. Lead in drinking water is primarily from materials and parts used in service lines and in home plumbing. Hi-Desert Water District is responsible for providing high-quality drinking water and removing lead pipes but cannot control the variety of materials used in the plumbing in your home. Because lead levels may vary over time, lead exposure is possible even when your tap sampling results do not detect lead at one point in time. You can help protect yourself and your family by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Using a filter certified by an American National Standards Institute-accredited certifier to reduce lead is effective in reducing lead exposures. Follow the instructions provided with the filter to ensure it is used properly. Use only cold water for drinking, cooking, and making baby formula. Boiling does not remove lead from water.

Before using tap water for drinking, cooking, or making baby formula, flush your pipes for several minutes. You can do this by running your tap, taking a shower, or doing laundry or a load of dishes. If you have a lead or galvanized service line requiring replacement, you may need to flush your pipes for a longer period. If you are concerned about lead and wish to have your water tested, contact Hi-Desert Water District at (760) 365-8333. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at epa.gov/safewater/lead.

To address lead in drinking water, public water systems were required to develop and maintain an inventory of service line materials by October 16, 2024. Developing an inventory and identifying the location of lead service lines (LSL) is the first step for beginning LSL replacement and protecting public health. The lead service inventory can be found at hdwd.com/380/Water-Quality near the bottom of the page. Please contact us at (760) 365-8333 if you would like more information about the inventory or any lead sampling that has been done.

Source Water Assessment

The Source Water Assessment Plan (SWAP) is an assessment of the delineated area around our listed sources through which contaminants, if present, could migrate and reach our water source. The plan also includes an inventory of potential sources of contamination within the delineated area and a determination of the basin's susceptibility to contamination by the identified potential sources. HDWD's SWAP was completed in December 2002, with newer wells added later. The SWAP is available for review at HDWD.

Septic systems within the Warren Basin have the highest potential of contaminants that can affect the groundwater. Septage can infiltrate the groundwater supply, causing nitrate contamination in excess of maximum contaminant levels (MCLs). Nitrates in excess of the MCL can cause a condition known as methemoglobinemia, also referred to as blue baby syndrome. The new sewer collection system will help reduce nitrate levels.

HDWD began the installation of its sewer collection system in January 2017, reaching substantial completion in March 2020. During this period of approximately three years, over 76 miles of 6- to 21-foot sewer pipelines were installed, along with related appurtenances (manholes, laterals, etc.). HDWD also completed over 76 miles of roadway repair and restoration throughout the Town of Yucca Valley. HDWD's wastewater reclamation facility was constructed over an 18-month period. Substantial completion was reached in fall 2019. The facility began receiving local effluent in November 2019 and began discharging clean water into its percolation ponds in February 2020. This updated sewer collection system will reduce the number of septic systems required and help remove the threat of nitrate infiltration to the aquifer.

Benefits of Chlorination

Disinfection, a chemical process used to control disease-causing microorganisms by killing or inactivating them, is unquestionably the most important step in drinking water treatment. By far, the most common method of disinfection in North America is chlorination.

Before communities began routinely treating drinking water with chlorine (starting with Chicago and Jersey City in 1908), cholera, typhoid fever, dysentery, and hepatitis A killed thousands of US residents annually. Drinking water chlorination and filtration have helped to virtually eliminate these diseases in the U.S. Significant strides in public health are directly linked to the adoption of drinking water chlorination. In fact, the filtration of drinking water and the use of chlorine are probably the most significant public health advancements in human history.

How chlorination works:

Potent germicide: reduction of many disease-causing microorganisms in drinking water to almost immeasurable levels.

Taste and odor: reduction of many disagreeable tastes and odors from foul-smelling algae secretions, sulfides, and decaying vegetation.

Biological growth: elimination of slime bacteria, molds, and algae that commonly grow in water supply reservoirs, on the walls of water mains, and in storage tanks.

Chemical: removal of hydrogen sulfide (which has a rotten egg odor), ammonia, and other nitrogenous compounds that have unpleasant tastes and hinder disinfection. It also helps to remove iron and manganese from raw water.

Infrastructure Repair and Improvements:

HDWD's continued commitment to supplying safe drinking water to our customers requires ongoing improvements within the distribution system. Water mains, tanks, wells, pressure regulating stations, booster stations, and equipment are all part of the system that we upgrade and maintain throughout the district.

In 2024 HDWD upgraded its field Supervisory Control and Data Acquisition (SCADA), which will help improve the remote monitoring and control of wells, booster stations, and reservoirs. We also updated one of our chlorine generator sites. This will improve the quality and quantity of chlorine made at this site. HDWD's Capital Replacement Program crew installed over 11,297 feet of new water mains and 43 new fire hydrants.

Water Main Flushing

Distribution mains (pipes) convey water to homes, businesses, and hydrants in your neighborhood. The water entering distribution mains is of very high quality; however, water quality can deteriorate in areas of the distribution mains over time. Water main flushing is the process of cleaning the interior of water distribution mains by sending a rapid flow of water through them.

Flushing maintains water quality in several ways. For example, flushing removes sediments like iron and manganese. Although iron and manganese do not pose health concerns, they can affect the taste, clarity, and color of the water. Additionally, sediments can shield microorganisms from the disinfecting power of chlorine, contributing to the growth of microorganisms within distribution mains. Flushing helps remove stale water and ensures the presence of fresh water with sufficient dissolved oxygen and disinfectant levels and an acceptable taste and smell.

During flushing operations in your neighborhood, some short-term deterioration of water quality, though uncommon, is possible. You should avoid tap water for household uses at that time. If you do use the tap, allow your cold water to run for a few minutes at full velocity before use, and avoid using hot water to prevent sediment accumulation in your hot water tank. Please contact us if you have any questions or if you would like more information on our water main flushing schedule.

Milky Water

It's not uncommon to see a glass of water looking cloudy and then clear up after a few seconds. The cloudiness is caused by tiny air bubbles in the water; like any air, it will work its way to the surface of the water and return to the atmosphere. Cloudy or milky water is completely harmless. Just let it sit for a minute or two, and it will clear up.

BY THE NUMBERS

3.4 BILLION
The daily volume gallons of water recycled and reused in the U.S., reducing waste and conserving resources.

28%
The percent reduction in per capita water use in the U.S. since 1980, thanks to efficiency improvements.

99.9%
The percent effectiveness of modern water treatment plants in removing harmful bacteria and viruses from drinking water.

1.2 MILLION
The length in miles of drinking water pipes in the U.S., delivering clean water to millions of homes and businesses daily.

1.7 MILLION
The number of jobs supported by the U.S. water sector.

2
How often in minutes a water main breaks.

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show those 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. We are pleased to report that you drinking water meets or exceeds all federal and state requirements.

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 is included, along with the year in which the sample was taken.

We participated in the fifth stage of the US EPA's Unregulated Contaminant Monitoring Rule (UCMR5) program by performing additional tests on our drinking water. UCMR5 sampling benefits the environment and public health by providing the U.S. EPA with data on the occurrence of contaminants suspected to be in drinking water to determine if it needs to introduce new regulatory standards to improve drinking water quality. Unregulated contaminant monitoring data is available to the public, so please feel free to contact us at (760) 365-8333 if you are interested in obtaining that information. If you would like more information on the U.S. EPA's Unregulated Contaminant Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Arsenic (ppb)	2024	10	0.004	2.7	ND–4.1	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Chlorine (ppm)	2024	[4.0 (as Cl2)]	[4 (as Cl2)]	0.79	0.03–1.21	No	Drinking water disinfectant added for treatment
Chromium, Total (ppb)	2024	50	(100)	ND	NA	No	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Fluoride (ppm)	2024	2.0	1	0.27	0.21–0.53	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2024	15	(0)	7.18	3.12–12.8	No	Erosion of natural deposits
Hexavalent Chromium (ppb)	2024	10	20	1.8	0.4–6.1	No	Erosion of natural deposits; transformation of naturally occurring trivalent chromium to hexavalent chromium by natural processes and human activities such as discharges from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities
Nitrate [as nitrogen] (ppm)	2024	10	10	2.5	0.99–4.1	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Uranium (pCi/L)	2024	20	0.43	8.2	4.26–10.5	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)	RANGE LOW-HIGH	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2023	1.3	0.3	0.15	0.015-0.210	0/34	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2023	15	0.2	1.7	ND-5.7	0/34	No	Corrosion of household plumbing systems; 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)	2024	500	NS	45	15–68	No	Runoff/leaching from natural deposits; seawater influence
Color (units)	2024	15	NS	0.03	ND–3	No	Naturally occurring organic materials
Iron (ppb)	2024	300	NS	ND	NA	No	Leaching from natural deposits; industrial wastes
Specific Conductance (µmho/cm)	2024	1,600	NS	431.25	320–510	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2024	500	NS	33	19–41	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2024	1,000	NS	262.4	200–330	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2024	5	NS	0.08	ND–0.73	No	Soil runoff

UNREGULATED SUBSTANCES [1]

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Bicarbonate (ppm)	01/09/2024	108	86–180	Naturally occurring
Calcium (ppm)	01/09/2024	40	25–54	Naturally occurring
Lithium (ppb)	2024	14.9	ND–22	NA
Magnesium (ppm)	01/09/2024	6.4	1.5–9.2	Naturally occurring
Perfluorodecanoic Acid [PFDA] (ppb)	2020	0.45	ND–1.4	NA
pH (units)	2024	7.9	7.5–8.2	Naturally occurring
Potassium (ppm)	01/09/2024	1.5	ND–2.1	Naturally occurring
Sodium (ppm)	01/11/2024	41	33–55	Naturally occurring salt content in water
Total Alkalinity (ppm)	01/09/2024	108	86–182	Naturally occurring
Total Hardness (ppm)	01/09/2024	127	68–170	Naturally occurring

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.

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.

ND (Not Detected): Indicates that the substance was not found by laboratory analysis.

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 (µg/L) (parts per billion): One part substance per billion parts water (or micrograms per liter).

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

µmho/cm (micromhos per centimeter): A unit expressing the amount of electrical conductivity of a solution.