

ANNUAL WATER QUALITY REPORT

Reporting Year 2023



Presented By



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

PWS ID#: 1510020



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, 2023. 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.

Where Does My Water Come From?

The City of Tehachapi uses only groundwater pumped from the Tehachapi Basin aquifer; no surface or imported water is used for direct consumption. Six active deep wells within the city continually refill five million gallons of storage facilities and the 40 miles of transmission lines that bring water to homes, schools, and businesses served by our system.

The city operates five pressure zones, four of which are used and tested. Weekly bacteriological testing is done in all four zones as well. A free chlorine residual of 0.15 to 2.20 ppm is maintained throughout the distribution system.



**When the well is dry, we
know the worth of water."**

—Benjamin Franklin

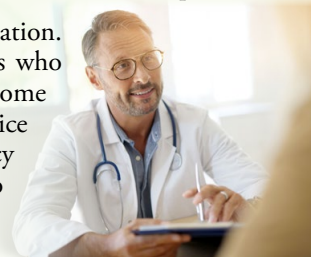
Lead in Home Plumbing

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.

Important Health Information

Nitrate in drinking water at levels above 10 parts per million (ppm) is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 10 ppm may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant or you are pregnant, you should ask advice from your health care provider.

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. Environmental Protection Agency (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 at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.



Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. To access the details of the monthly city council meetings, please visit www.liveuptehachapi.com.

QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call Tyler Napier, Deputy Public Works Director, at (661) 822-2200, ext. 507, or email tnapier@tehachapiw.com.

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.

Water Quality Testing

The City of Tehachapi performs water quality testing in accordance with all federal and state criteria. Comprehensive testing is required every three years and the City of Tehachapi will be conducting all required sampling to ensure full compliance in 2024. The city's water sampling (both chemical and bacteriological) is done by a state-certified water treatment plant operator and analyzed by a state-certified laboratory to ensure accuracy in testing.

Source Water Assessment

The City of Tehachapi conducted a water source assessment and protection program. The assessment for Mojave Well identified vulnerabilities from activities located near the drinking water source. The source is considered most vulnerable to sewer collection systems and a historic gas station within the 5- and 10-year times of travel. The source has a 100-foot sanitary seal and a depth of 182 feet to the uppermost perforation. Any microbiological activity would have to travel this vertical distance to the aquifer before it could begin horizontal travel to the well. The gas station has not had any problems associated with it, and no gas products have ever been detected in Mojave Well.

No contaminants above the maximum contaminant level (MCL) have been detected in Dennison Well; however, the assessment identified vulnerabilities from activities located nearby. These vulnerabilities include high-density housing and close proximity to other supply wells, which violates specifications requiring distances far enough so that contaminants would take a minimum of two years to reach the water supply. Both of these vulnerabilities pose a relatively low-ranking risk, as does potential leaching from gas stations - both active and historic - and confirmed leaking from a tank within the 10-year time of travel.

No contaminants above the MCL have been detected in the water supplied from Curry Well. The assessment noted that the water supply is still considered vulnerable to activities located near the drinking water source.

Minton Well's supply was assessed, and no contaminants above the MCL were found, though it is still considered vulnerable to activities located near the drinking water source.

No contaminants above the MCL have been detected in the water supplied from Wahlstrom Well. The assessment considers the source to be vulnerable to activities located near the drinking water supply.

Piñon Well is considered most vulnerable to septic systems - both low-density and sewer collection systems. No contaminants above the MCL have been detected in the water supply; however, the source is considered vulnerable to activities located near the drinking water source. This source has a 300-foot sanitary seal. In addition, the depth to the uppermost perforation is 400 feet. Any microbiological activity would have to travel this vertical distance to the aquifer before it could begin horizontal travel to the well.

A copy of the complete assessment may be viewed at City Hall, 115 South Robinson Street.

Standby Power

Of the six active wells operated by the city, one is equipped with standby power for use in case of an emergency; however, two other wells can run on portable generators if needed. These wells are designed so that water can be diverted in different directions in the event of a catastrophic line rupture. The city also has a portable generator for use at a second well or at the booster station located at the Curry Street tank site.

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.

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)	2018	5 ¹	0.7	ND	0–0	No	Discharge from industrial and agricultural chemical factories; leaching from hazardous waste sites; cleaning and maintenance solvents, paint and varnish removers, and degreasing agents; by-products of other compounds and pesticides
Barium (ppm)	2021	1	2	0.0761	0.043–0.1	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Chlorine (ppm)	2023	[4.0 (as Cl ₂)]	[4 (as Cl ₂)]	1.59	0.43–2.70	No	Drinking water disinfectant added for treatment
Fluoride (ppm)	2021	2.0	1	0.22	0.06–0.54	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2021	15	(0)	0.78	0.25–1.48	No	Erosion of natural deposits
Nitrate [as nitrogen] (ppm)	2023	10	10	5.9	2.30–8.70	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium (ppb)	2021	50	30	2.45	2.0–2.9	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 1 (ppb)	2023	80	NA	1.95	0.6–3.3	No	By-product of drinking water disinfection
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)	2023	1.3	0.3	0.072	0/20	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2023	15	0.2	<1.0	0/20	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; 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	24.92	9.5–50	No	Runoff/leaching from natural deposits; seawater influence
Iron (ppb)	2021	300	NS	ND	0–0	No	Leaching from natural deposits; industrial wastes
Manganese (ppb)	2021	50	NS	<10	NA	No	Leaching from natural deposits
Specific Conductance (µS/cm)	2021	1,600	NS	515	423–610	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2021	500	NS	39.17	31–53	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2021	1,000	NS	336.67	280–390	No	Runoff/leaching from natural deposits

UNREGULATED SUBSTANCES²

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Bicarbonate (ppm)	2021	173.33	130–220	NA
Calcium (ppm)	2021	58.17	36–80	NA
Manganese (ppm)	2021	ND	NA	NA
pH (units)	2021	8.20	7.99–8.84	NA
Potassium (ppm)	2021	1.24	1.10–1.50	NA
Sodium (ppm)	2021	34.83	25–49	NA
Total Hardness (ppm)	2021	176.67	110–240	NA

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

²Unregulated contaminant monitoring helps U.S. EPA and the State 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.

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.

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).

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

