





ANNUAL WATER QUALITY REPORT

Reporting Year 2023







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

PWS ID#: 1510019

Our Commitment

Ve are pleased to present this year's annual water quality report. This report is a snapshot of last year's water quality covering the most recent testing performed through 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.

-Benjamin Franklin

When the well is dry, we

know the worth of water."

Community Participation

The city council meets on the first and third Tuesday of each month at 6:00 p.m. in Council Chambers, 336 Pacific Avenue, to discuss and take action on various matters that affect the community. Water quality, conservation, and system

improvements are often on a meeting agenda. Public input is appreciated and considered before any formal actions are taken.

Where Does My Water **Come From?**

Chafter's drinking water is pumped from an aquifer by a system Oof 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 system, which include six active groundwater wells, five aboveground water storage tanks with booster pumps, and approximately 125 miles of water distribution pipelines. The distribution system is a combination of tanks, water mains, and booster pumps that deliver water with adequate flows and pressures for domestic use and fire suppression.

Important Health Information

Some people may be more vulnerable to contaminants Sin 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.



Water Treatment Process

reatment 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. There are occasional bacteria detected; these are usually cleared after retesting or adjusting chlorine dosage.

Another treatment process removes 1,2,3-trichloropropane (1,2,3-TCP), a contaminant left behind from past use of an

agriculture pesticide. Although this pesticide has been banned,

1,2,3-TCP detections remain throughout the Central Valley. As a result, domestic water suppliers must now install treatment systems that remove it to below detectable levels. The city has installed 1,2,3-TCP treatment systems at all active wells and developed a funding



plan to include treatment systems at new wells.

Source Water Assessment

n assessment of the drinking water source for the City of A 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, 336 Pacific Avenue. You may request a summary of the assessment by contacting the department at (661) 746-5004.

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.

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 (SWRCB) 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.

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

ppm (parts per million): One part substance per million parts <u>water (or milligrams per liter).</u>

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.

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

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

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.

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.

We participated in the fifth stage of the U.S. 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 are available to the public, so please feel free to contact us 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	
1,2,3-Trichloropropane [1,2,3-TCP] (ppt)	2023	5	0.7	84 ¹	ND-224 ¹	No	Discharge from industrial and agricultural chemical factories; leaching from hazardous waste sites; cleaning and maintenance solvent, paint and varnish remover, and degreasing agents; by-product from production of other compounds and pesticides	
Arsenic (ppb)	2023	10	0.004	4.42	1–6	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes	
Barium (ppm)	2023	1	2	0.082	ND-0.492	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits	
Chlorine (ppm)	2023	[4.0 (as Cl2)]	[4 (as Cl2)]	1.5	ND–2	No	Drinking water disinfectant added for treatment	
Chromium, Total (ppb)	2023	50	(100)	0.33	ND-2	No	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits	
Dibromochloropropane [DBCP] (ppt)	2023	200	3	9.25	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)	2023	2.0	1	0.12	ND-0.20	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	
Hexavalent Chromium (ppb)	2021	NS ²	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)	2023	10	10	4.68	1.7–9.6	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits	
Selenium (ppb)	2023	50	30	2.67	ND-10.0	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)	2023	80	NA	4.31	ND-13.0	No	By-product of drinking water disinfection	
Turbidity ³ (NTU)	2023	TT	NA	0.2	NA	No	Soil runoff	
Uranium (pCi/L)	2020	20	0.43	0.9	ND-1.8	No	Erosion of natural deposits	
Tan water samples were collected for lead and conner 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)	2023	NA	NA	41.67	20–60	No	Leaching from natural deposits
Calcium (ppm)	2023	NA	NA	50.83	13–85	No	Leaching from natural deposits
pH (units)	2023	NA	NA	8.22	7.70–9.30	No	Naturally occurring
Potassium (ppm)	2023	NA	NA	1.33	ND-3.0	No	Leaching from natural deposits
Sodium (ppm)	2023	NA	NA	94.83	47–197	No	Leaching from natural deposits
Total Alkalinity [as CaCO3] (ppm)	2023	NA	NA	35	20–50	No	Runoff/leaching from natural deposits
Total Hardness [as CaCO3] (ppm)	2023	NA	NA	126.85	32.4–212	No	Erosion of natural deposits
SECONDARY SUBSTANCES							
SUBSTANCE (UNIT OF MEASURE) SA	YEAR AMPLED SI	PH ACL (MC	IG AMO		NGE -HIGH VIOLAT		LSOURCE

(UNIT OF MEASURE)	SAMPLED	SMCL	(MCLG)	DETECTED	LOW-HIGH	VIOLATION	TYPICAL SOURCE	
Chloride (ppm)	2023	500	NS	82.50	37–177	No	Runoff/leaching from natural deposits; seawater influence	
Specific Conductance (µmho/cm)	2023	1,600	NS	791	339–1,580	No	Substances that form ions when in water; seawater influence	
Sulfate (ppm)	2023	500	NS	181.87	36.80–415	No	Runoff/leaching from natural deposits; industrial wastes	
Total Dissolved Solids (ppm)	2023	1,000	NS	495	210-990	No	Runoff/leaching from natural deposits	
UNREGULATED SUBSTANCES ⁴								
SUBSTANCE (UNIT OF MEASURE)		YEAR S	SAMPLED	AMOUNT DE	FECTED RAN	GE LOW-HIGH	TYPICAL SOURCE	

Bromodichloromethane (ppb)	2023	0.75	ND-2.0	By-product of drinking water disinfection
Bromoform (ppb)	2023	2.19	ND-8.0	By-product of drinking water disinfection
Chromium VI [hexavalent chromium] (ppb)	2021	0.323	ND-0.97	Naturally occurring
Dibromochloromethane (ppb)	2023	1.688	ND-4.00	By-product of drinking water disinfection

¹Detected in raw water. Water delivered to consumers has been treated so 1,2,3-TCP is below laboratory detection limits.

²There is currently no MCL for hexavalent chromium. The previous MCL of 10 ppb was withdrawn on September 11, 2017.

³Turbidity 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. ⁴Unregulated contaminant monitoring helps U.S. EPA and the SWRCB determine where certain contaminants occur and whether they need to be regulated.

Count on Us

Delivering high-quality drinking water to our customers involves far more than just pushing water through pipes. Water treatment is a complex, time-consuming process. Because tap water is highly regulated by state and federal laws, water treatment plant and system operators must be licensed and are required to commit to long-term, on-the-job training before becoming fully qualified. Our licensed water professionals have a basic understanding of a wide range of subjects, including mathematics, biology, chemistry, and physics. Some of the tasks they complete on a regular basis include:

- Operating and maintaining equipment to purify and clarify water.
- Monitoring and inspecting machinery, meters, gauges, and operating conditions.
- Conducting tests and inspections on water and evaluating the results.
- Maintaining optimal water chemistry.
- Applying data to formulas that determine treatment requirements, flow levels, and concentration levels.
- Documenting and reporting test results and system operations to regulatory agencies.
- Serving our community through customer support, education, and outreach.

So the next time you turn on your faucet, think of the skilled professionals who stand behind each drop.

