

ANNUAL WATER QUALITY REPORT

REPORTING YEAR 2020

Presented By





Quality First

Once again, we are pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2020. As in years past, we are committed to delivering the best-quality drinking water possible. To that end, we remain vigilant in meeting the challenges of new regulations, source water protection, water conservation, and community outreach and education, while continuing to serve the needs of all our water users. Thank you for allowing us the opportunity to serve you and your family.

We encourage you to share your thoughts with us on the information contained in this report. After all, well-informed customers are our best allies.

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 2 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 at www.epa.gov/safewater/lead.



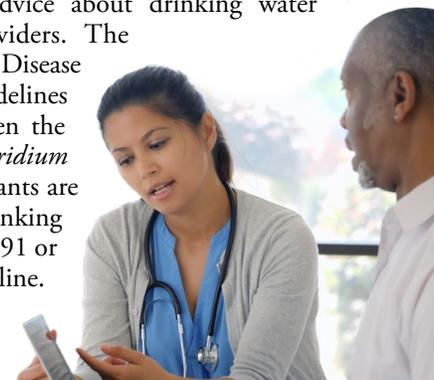
Community Participation

The City Council of the City of Shafter meets the first and third Tuesday of each month at 6:00 p.m. to discuss and take action on various matters that affect the community. Water quality, conservation, and system improvements are usually on meeting agendas, plus public input is always considered and appreciated. For meeting location, please contact the City Clerk at 661-746-5000.

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. 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 is 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>.



Where Does My Water Come From?

The source of Shafter's drinking water is an underground aquifer that is pumped to the surface by a system of groundwater wells. The aquifer is replenished through the natural runoff from the Sierra Nevada Mountains, as well as through 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 above-ground water storage tanks with booster pumps, and approximately 125 miles of water distribution lines. Distribution is a combination of tanks, water mains, and booster pumps necessary to deliver water to our customers.



QUESTIONS? For more information about this report, or for any questions related to your drinking water, please call Public Works Director Michael James at (661) 746-5002.

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. Environmental Protection Agency (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 storm-water 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 storm-water 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 storm-water 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 Conservation Tips

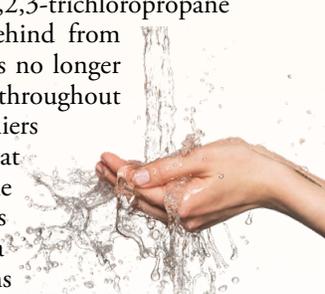
You can play a role in conserving water and saving yourself money in the process by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water. Here are a few tips:

- 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 can 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.

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. These are occasional bacteria detection, which are usually cleared after retesting or adjusting the chlorine dosage.

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



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 4th stage of the U.S. EPA's Unregulated Contaminant Monitoring Rule (UCMR4) program by performing additional tests on our drinking water. UCMR4 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, in order to determine if U.S. EPA 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 Contaminants 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]¹ (ppt)	2020	5	0.7	91	0–243	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)	2020	10	0.004	5.53	0–9.0	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	2020	1	2	0.023	0–0.09	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Chlorine (ppm)	2020	[4.0 (as Cl ₂)]	[4 (as Cl ₂)]	1.6	0.5–2	No	Drinking water disinfectant added for treatment
Chromium [Total] (ppb)	2020	50	(100)	0	0–0	No	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Dibromochloropropane [DBCP] (ppt)	2020	200	1.7	19.29	0–80	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)	2020	2.0	1	0.14	0–0.30	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2020	15	(0)	1.89	0–3.9	No	Erosion of natural deposits
Haloacetic Acids (ppb)	2020	60	NA	0.5	0–2.0	No	By-product of drinking water disinfection
Nitrate [as Nitrogen] (ppm)	2020	10	10	4.70	0–9.2	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium (ppb)	2020	50	30	0.557	0–3.9	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] (ppb)	2020	80	NA	5.75	0–19	No	By-product of drinking water disinfection
Total Coliform Bacteria [federal Revised Total Coliform Rule] (positive samples)	2020	TT	NA	1	NA	No	Naturally present in the environment
Turbidity² (NTU)	2020	TT	NA	1.10	0.16–1.10	No	Soil runoff
Uranium (pCi/L)	2020	20	0.43	0.9	0–1.8	No	Erosion of natural deposits

Tap Water Samples Collected for Copper and Lead 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)	2018	1.3	0.3	0.011	0/40	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2018	15	0.2	0	0/40	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

SECONDARY SUBSTANCES ³

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2020	500	NS	85.71	36–200	No	Runoff/leaching from natural deposits; seawater influence
Specific Conductance (µS/cm)	2020	1,600	NS	733.29	258–1520	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2020	500	NS	167.54	4.80–380	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids [TDS] (mg/L)	2020	1,000	NS	482.86	120–1100	No	Runoff/leaching from natural deposits

UNREGULATED AND OTHER SUBSTANCES ⁴

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Bicarbonate (HCO ₃) (ppm)	2020	40	27–52	Leaching from natural deposits
Bromodichloromethane (ppb)	2020	0.333	0–2.0	By-product of drinking water disinfection
Bromoform (ppb)	2020	3.67	0–11.0	By-product of drinking water disinfection
Calcium (ppm)	2020	48	3–104	Leaching from natural deposits
Chromium VI [Hexavalent Chromium] (ppb)	2020	0.485	0–0.97	Naturally occurring
Dibromoacetic Acid (ppb)	2020	0.6	0–2.0	By-product of drinking water disinfection
Dibromochloromethane (ppb)	2020	1.75	0–6.00	By-product of drinking water disinfection
Magnesium (ppm)	2020	0.04	0–0.30	Leaching from natural deposits
pH (Units)	2020	8.20	7.00–9.30	Inherent characteristic of water
Potassium (ppm)	2020	1.46	0–3.0	Leaching from natural deposits
Sodium (ppm)	2020	97	44–250	Leaching from natural deposits
Total Alkalinity (as CaCO ₃) (ppm)	2020	33.29	23–50	Runoff/leaching from natural deposits
Total Hardness (as CaCO ₃) (ppm)	2020	120.13	8.00–259	Erosion of natural deposits

¹ Result detected is for raw water. Water delivered has been treated to non-detectable limits.

² 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.

³ There are no PHGs, MCLGs, or mandatory standard health effect language for these constituents because secondary MCLs are set on the basis of aesthetic concerns.

⁴ Unregulated contaminant monitoring helps U.S. EPA and the State Water Resources Control Board to determine where certain contaminants occur and whether the contaminants need to be regulated.

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 the City Hall, located at 336 Pacific Avenue. You may request a summary of the assessment by contacting the department at (661) 746-5002.

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 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.