

ANNUAL WATER QUALITY REPORT

Reporting Year 2022



Presented By
City of Tulare



Our Mission Continues

We are once again pleased to present our annual water quality report covering all testing performed between January 1, 2020, and December 31, 2022. The challenges have been many with persistent drought conditions and new regulations, but as these 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. We have committed ourselves to producing drinking water that meets all state and federal standards. Our dedicated and hardworking staff, who work all hours of every day to deliver the highest-quality drinking water without interruption, will continually strive to adopt new means and methods for delivering the best-quality drinking water to you and your family. 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 City of Tulare water customers enjoy a groundwater supply from 24 wells owned and operated by the city. The source water wells are identified by numbers: 1, 11, 12, 14, 15, 17, 22, 26, 27, 31, 33, 34, 35, 36, 37, 38, 39, 40, 42, 44, 45, 46, 47, and 48. Water is pumped by these wells from an area deep beneath the city called a confined groundwater system, which consists of alluvial sediments below a Corcoran clay layer of the Tulare Lake Basin. To learn more about our watershed online, visit U.S. EPA's How's My Waterway at <https://www.epa.gov/waterdata/how-s-my-waterway>.

“Thousands have lived without love, not one without water.”
—W.H. Auden

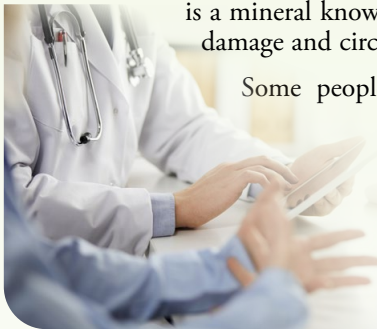
Source Water Assessment

Source water assessments were conducted for the City of Tulare in November 2002. At that time no contaminants were detected in the water supply. However, the water source is considered most vulnerable to the following activities: chemical and petroleum processing, storage, and use; historic gas stations; and high-density septic systems. A copy of the assessment may be viewed at the Water Utility Division Office, 3981 South K Street, Tulare.



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>.

Community Participation

You are invited to participate in our Board of Public Utilities meetings and voice your concerns about your drinking water. We meet the first and third Thursday of each month at 4:00 p.m. at the Tulare Library Building, in City Council Chambers, 475 North M Street, Tulare.



QUESTIONS? For more information about this report, or for any questions relating to your drinking water, please call Mr. Tim Doyle, Assistant Public Works Director, at (559) 684-4286, or Mr. Eric Furtado, Water Utility Manager, at (559) 684-4318.

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.

Think Before You Flush!

Flushing unused or expired medicines can be harmful to your drinking water. Properly disposing of unused or expired medication helps protect you and the environment. Keep medications out of our waterways by disposing responsibly. To find a convenient drop-off location near you, please visit <https://bit.ly/3IeRyXy>.

Table Talk

Get the most out of the Testing Results data table with this simple suggestion. In less than a minute, you will know all there is to know about your water:

For each substance listed, compare the value in the Amount Detected column against the value in the MCL (or AL, SMCL) column. If the Amount Detected value is smaller, your water meets the health and safety standards set for the substance.

Other Table Information Worth Noting

Verify that there were no violations of the state and/or federal standards in the Violation column. If there was a violation, you will see a detailed description of the event in this report.

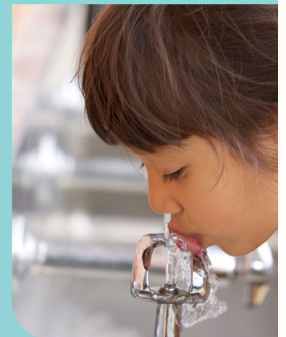
If there is an ND or a less-than symbol (<), that means that the substance was not detected (i.e., below the detectable limits of the testing equipment).

The Range column displays the lowest and highest sample readings. If there is an NA showing, that means only a single sample was taken to test for the substance (assuming there is a reported value in the Amount Detected column).

If there is sufficient evidence to indicate from where the substance originates, it will be listed under Typical Source.

Water Treatment Process

Chlorine is added as a precaution against any bacteria that may be present. (We carefully monitor the amount of chlorine, adding the lowest quantity necessary to protect the safety of your water without compromising taste.) A granular activated carbon (GAC) filtration system uses the physical properties of natural carbon to remove a wide range of contaminants from drinking water, including 1,2,3-trichloropropane (1,2,3-TCP), by passing water through vessels containing GAC, which traps or absorbs the chemicals.



How Long Can I Store Drinking Water?

The disinfectant in drinking water will eventually dissipate even in a closed container. If that container housed bacteria prior to filling up with the tap water the bacteria may continue to grow once the disinfectant has dissipated. Some experts believe that water could be stored up to six months before needing to be replaced. Refrigeration will help slow the bacterial growth.

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)	2022	5 ¹	0.7	1	ND-14	No	Discharge from industrial and agricultural chemical factories; leaching from hazardous waste sites; used as cleaning and maintenance solvent, paint and varnish remover, and cleaning and degreasing agent
Aluminum (ppm)	2022	1 ²	0.6	0.263	ND-1.6	No	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (ppb)	2022	10 ³	0.004	5.1	ND-11	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Chlorine (ppm)	2022	[4.0 (as Cl ₂)]	[4 (as Cl ₂)]	0.85	0.12-1.54	No	Drinking water disinfectant added for treatment
Dibromochloropropane [DBCP] (ppt)	2022	200	3	19	ND-52	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)	2022	2.0	1	0.2	ND-1.2	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)	2	ND-5.2	No	Erosion of natural deposits
HAA5 [sum of 5 haloacetic acids]- Stage 1 (ppb)	2022	60	NA	0.2	ND-2.7	No	By-product of drinking water disinfection
Nitrate [as nitrogen] (ppm)	2022	10	10	3.7	ND-9.4	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Radium 228 (pCi/L)	2022	5	0.019	0.25	ND-1.19	No	Erosion of natural deposits
TTHMs [total trihalomethanes]- Stage 1 (ppb)	2022	80	NA	2.1	ND-16	No	By-product of drinking water disinfection

¹ In December 2017, 1,2,3-TCP was moved to the primary standard (MCL 5 ppt) of regulated substances. Some people who drink water containing 1,2,3-TCP in excess of the MCL and PHG over many years may have an increased risk of cancer based on studies in laboratory animals.

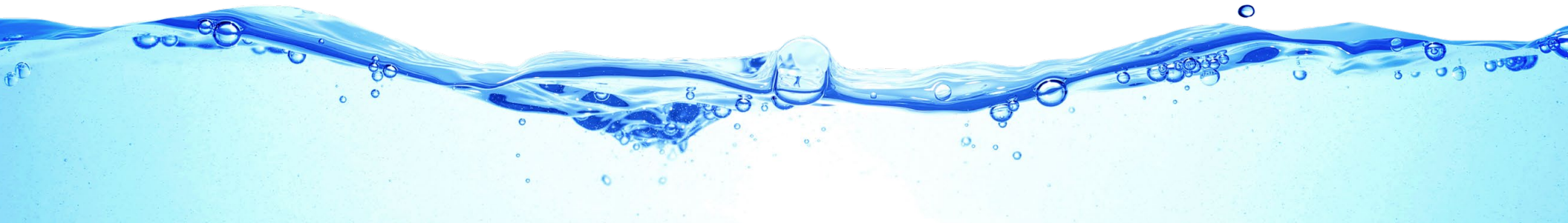
² Some people who drink water containing aluminum in excess of the MCL over many years may experience short-term gastrointestinal tract effects.

³ Some people who drink water containing arsenic in excess of the MCL over many years may experience skin damage or circulatory system problems and may have an increased risk of getting cancer.

⁴ High amounts of iron in drinking water cause turbidity, stain plumbing fixtures and laundry, and impart objectionable tastes and colors to food and drinks.

⁵ Turbidity is caused by particles suspended or dissolved in water, making the water appear cloudy or murky.

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



SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2022	500	NS	11.7	3.1–56	No	Runoff/leaching from natural deposits; seawater influence
Color (units)	2022	15	NS	0.6	ND–9.4	No	Naturally occurring organic materials
Iron (ppb)	2022	300	NS	114	ND–910 ⁴	No	Leaching from natural deposits; industrial wastes
Odor, Threshold (TON)	2022	3	NS	0.1	ND–1	No	Naturally occurring organic materials
Specific Conductance (µS/cm)	2022	1,600	NS	212.7	140–490	No	Substances that form ions when in water; seawater influence
Total Dissolved Solids (ppm)	2022	1,000	NS	128	55–260	No	Runoff/leaching from natural deposits
Turbidity ⁵ (NTU)	2022	5	NS	1.1	0.14–4.4	No	Soil runoff

UNREGULATED SUBSTANCES⁶

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH
Agressiveness Index (units)	2020 -2022	12	11–12
Alkalinity (ppm)	2020 -2022	71	51–130
Bicarbonate (ppm)	2020 -2022	67	42–120
Calcium (ppm)	2020 -2022	8.6	1.4–24
Carbonate (ppm)	2020 -2022	9.4	ND–33
Hardness (ppm)	2020 -2022	22.8	3.6–68
Langelier Index (units)	2020 -2022	-0.16	-0.38–0.26
Magnesium (ppm)	2020 -2022	0.3	ND–1.8
pH (units)	2020 -2022	8.7	7.7–9.5
Sodium (ppm)	2020 -2022	39	19–110
Sulfate (ppm)	2020 -2022	7.2	3–16

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 at www.epa.gov/safewater/lead.

