

ANNUAL WATER QUALITY REPORT

Reporting Year 2021



Presented By
City of Tulare

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

PWS ID#: 5410015

We've Come a Long Way

Once again, we are proud to present our annual water quality report covering the period between January 1, 2019 and December 31, 2021. In a matter of only a few decades, providing safe drinking water has become exponentially more important and source water less reliable than at any other point in human history. Our exceptional staff continues to work hard every day—at all hours—to deliver the highest-quality drinking water without interruption. Although the challenges ahead are many, including the persistent drought conditions, water conservation, and new regulations, we feel that by relentlessly investing in system upgrades, new treatment technologies, customer outreach, education, and training, the payoff will be reliable, high-quality tap water that meets all state and federal standards delivered to you and your family.

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 online at: www.epa.gov/safewater/lead.

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 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 online at: <http://water.epa.gov/drink/hotline>.



About Our Violation

On May 8, 2018, the State Water Resources Control Board, Division of Drinking Water (DDW), issued the City of Tulare a compliance order for violating the maximum contaminant level (MCL) for 1,2,3-trichloropropane (1,2,3-TCP). Although this was not an emergency, as our customers, you have a right to know what you should do, what happened, and what we are doing to correct this situation.



What should I do?

You do not need to use an alternative (e.g., bottled) water supply. This is not an immediate risk. If it had been, you would have been notified immediately. However, some people who drink water containing 1,2,3-TCP in excess of the MCL over many years may have an increased risk of getting cancer. If you have other health issues concerning the consumption of this water, you may wish to consult your doctor.

What happened?

1,2,3-TCP was an unregulated contaminant prior to December 14, 2017. The substance had a notification level (NL) of 5 parts per trillion (ppt) until December 14, 2017, when the MCL of 5 ppt became effective.

What is being done?

The city installed GAC filter systems at seven well sites to remove the contaminant. Construction of the filter systems began in the summer of 2019 and ended in May 2021. With all seven GAC filter systems operational, the 1,2,3-TCP violation has been completely resolved, and the City of Tulare is now in compliance with state standards for 1,2,3-TCP.

Some people who drink water containing 1,2,3-trichloropropane in excess of the MCL over many years may have an increased risk of getting cancer.

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.

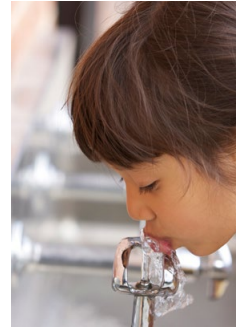
More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Community Participation

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

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.



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.

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>.

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 number: 1, 11, 12, 13, 14, 15, 17, 22, 26, 27, 31, 33, 34, 35, 36, 37, 38, 39, 40, 42, 44, 45, 46, and 47. Water is pumped by these wells from an area deep beneath the city called a confined groundwater system, which consists of alluvial sediments below the Corcoran clay layer of the Tulare Lake Basin. To learn more about our watershed on the Internet, go to the U.S. EPA Surf Your Watershed website at: www.epa.gov/surf/.

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] ¹ (ppt)	2021	5	0.7	0.7	ND–14	Yes	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 ² (ppm)	2021	1	0.6	0.315	ND–1.6	No	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic ³ (ppb)	2021	10	0.004	6.7	ND–11	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Chlorine (ppm)	2021	[4.0 (as Cl ₂)]	[4 (as Cl ₂)]	0.80	0.05–1.89	No	Drinking water disinfectant added for treatment
Dibromochloropropane [DBCP] (ppt)	2021	200	1.7	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)	2021	2.0	1	0.3	ND–1.6	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)	2.2	ND–5.58	No	Erosion of natural deposits
HAA5 [sum of 5 haloacetic acids]–Stage 1 (ppb)	2021	60	NA	2.5	ND–2.8	No	By-product of drinking water disinfection
Nitrate [as nitrogen] (ppm)	2021	10	10	3.5	ND–9.3	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Radium 228 (pCi/L)	2021	5	0.019	0.42	ND–1.9	No	Erosion of natural deposits
TTHMs [total trihalomethanes]–Stage 1 (ppb)	2021	80	NA	8.5	ND–16	No	By-product of drinking water disinfection
SECONDARY SUBSTANCES							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2021	500	NS	11.7	2.8–56	No	Runoff/leaching from natural deposits; seawater influence
Color (units)	2021	15	NS	11.7	ND–20	No	Naturally occurring organic materials
Iron ⁴ (ppb)	2021	300	NS	234.3	ND–910	No	Leaching from natural deposits; industrial wastes
Odor, Threshold (units)	2021	3	NS	1	ND–1	No	Naturally occurring organic materials
Specific Conductance (µS/cm)	2021	1,600	NS	212.7	140–490	No	Substances that form ions when in water; seawater influence
Total Dissolved Solids (ppm)	2021	1,000	NS	134.4	96–260	No	Runoff/leaching from natural deposits
Turbidity ⁵ (NTU)	2021	5	NS	1.1	0.14–4.4	No	Soil runoff

UNREGULATED SUBSTANCES ⁶

SUBSTANCE (UNIT OF MEASURE)	YEARS SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH
Agressiveness Index (units)	2019–2021	12	12–12
Alkalinity (ppm)	2019–2021	77	51–150
Bicarbonate (ppm)	2019–2021	71.9	43–130
Calcium (ppm)	2019–2021	9.8	1.4–34
Carbonate (ppm)	2019–2021	9.9	ND–24
Hardness (ppm)	2019–2021	25.5	3.6–87
Langelier Index (units)	2019–2021	-0.11	-0.38–+0.26
Magnesium (ppm)	2019–2021	0.7	ND–1.8
pH (units)	2019–2021	8.7	7.9–9.5
Potassium (ppm)	2019–2021	2.1	ND–2.1
Sodium (ppm)	2019–2021	39	16–110
Sulfate (ppm)	2019–2021	7.7	3–22

¹ In December 2017, 1,2,3-TCP became a regulated substance with an MCL of 5 ppt. 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 objectional 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 Water Resources Control 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.

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).

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