2023 WATER QUALITY REPORT

Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse con la ciudad de Turlock a 209-668-5590 para asistirle en español.

This report provides important information about Turlock's water supply, water quality and water conservation. Test results from Turlock's 2023 Water Quality Monitoring Program are summarized on pages 4 - 6. It is important you read the messages regarding various water quality issues from the U.S. Environmental Protection Agency (USEPA) and from the City of Turlock's Municipal Services Department.

This report is prepared in accordance with USEPA and State of California regulations under the Safe Drinking Water Act (SDWA) which require water utilities to provide detailed water quality information to their customers annually.

Connect With Us:

Office:
156 S. Broadway, Ste. 270
Turlock, CA 95380

Phone:
(209) 668-5590

Email:
municipalservices@turlock.ca.us

Website:
www.cityofturlock.org

City Council Meetings:
156 S. Broadway
Council Chambers
2nd & 4th Tuesday at 6:00 pm

Follow us on Social Media

CityofTurlockMunicipalServicesDepartment

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Watering Schedules

March 1 - October 31

Odd Addresses:
WEDNESDAYS & SUNDAYS

Even Addresses:
TUESDAYS & SATURDAYS

November 1 - February 28

Even Addresses:
SATURDAYS

Odd Addresses:
SUNDAYS

No watering between 9:00 AM and 9:00 PM

HEALTH RELATED INFORMATION:

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.

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 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, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- Radioactive contaminants, that can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) 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. State Board regulations 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. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

NITRATES IN DRINKING WATER

Nitrate in drinking water at levels above 10 mg/L 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 mg/L 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.

ARSENIC IN DRINKING WATER

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 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. Immuno-compromised 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 can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (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 (1-800-426-4791).

An assessment of the City of Turlock's 18 active groundwater wells was completed in March 2023. The source is considered most vulnerable to the following activities: gas stations, dry cleaners, leaking underground storage tanks, sewer collection systems, fertilizer, pesticides/herbicide application, agriculture drainage, farm chemical distributor/application service, low density septic system, agricultural wells and irrigation wells. You may request a summary of the assessment be sent to you by contacting the Municipal Services Department at 209-668-5590.

DEFINITIONS

These terms are used throughout this report and in the following tables.

Maximum Contaminant Level (MCL): 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 are set to protect the odor, taste, and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG): 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. Environmental Protection Agency.

Maximum Residual Disinfectant Level (MRDL): 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.

Maximum Residual Disinfectant Level Goal (MRDLG): 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.

Public Health Goal (PHG): 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 Environmental Protection Agency.

Primary Drinking Water Standard (PDWS): MCLs, MRDLs and treatment techniques (TTs)for contaminants that affect health along with their monitoring and reporting requirements.

Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Variances and Exemptions: State Board permission to exceed an MCL or not comply with a treatment technique under certain conditions.

90th Percentile: The results of all samples taken during a monitoring period which are placed in ascending order from the sample with the lowest concentration to the sample with the highest concentration. Each sample result is assigned a number starting with the number 1 for the lowest value. The number of samples taken during the monitoring period is then multiplied by 0.9. The contaminant concentration in the numbered sample yielded by this calculation is the 90th percentile.

Total Hardness Conversion: ppm ÷ 17.1 = grains per gallon. 60 to 180 ppm = soft to very hard water.

ND: Non-Detected

MFL: million fibers per liter

mrem/year: millirems per year (a measure of radiation absorbed by the body)

N/A: not applicable

NTU: Nephelometric Turbidity Units

pCi/L: picocuries per liter (a measure of radioactivity)

ppb: parts per billion, or micrograms per liter (µg/L)

ppm: parts per million, or milligrams per liter (mg/L)

ppq: parts per quadrillion, or pictograms per liter (pg/L)

ppt: parts per trillion, or nanograms per liter (ng/L)

µs/cm: micro siemens per cm (measure electrical conductivity of water)

Comparative Figures for Interpreting Measurements

mg/L - milligrams per liter	ppm - parts per million	1 second in 11.5 days
µg/L - micrograms per liter	ppb - parts per billion	1 second in nearly 32 years
ng/L - nanograms per liter	ppt - parts per trillion	1 second in nearly 32,000 years

DETECTED CHEMICALS OR CONSTITUENTS IN 2023

The following tables list all the drinking water contaminants the City detected during the 2023 calendar year. The presence of these contaminants in the water does not indicate the water poses a health risk. Unless otherwise noted, the data presented in these tables are from testing done between January 1 and December 31, 2023. The USEPA and State of California requires the City to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, may be more than one year old.

How to Read Tables in This Report:

- **SUBSTANCE** — Sampled contaminate
- **PHG (MCLG)** — Below this level, a constituent has no known or expected health risk.
- **MCL** — Highest amount of a contaminate the USEPA allows in drinking water. If exceeded, treatment or other requirements must take place.
- **AVERAGE LEVEL DETECTED** — The average amount of a constituent detected in the drinking water
- **RANGE DETECTED** — The amount from the lowest to highest of a detected constituent in the drinking water.
- **TYPICAL SOURCE(S) IN DRINKING WATER** — Turlock's drinking water comes entirely from groundwater. This describes the most likely way a constituent enters the drinking water

INORGANIC CONTAMINANTS

Regulated contaminants with primary MCLs or MCLG

					Groundwater		SRWA[1]			
Constituents	Year Tested	Unit	PHG (MCLG)	MCL	Average	Range	Average	Range	Typical Source(s) in Drinking Water	Violation
Arsenic[2]	2021-2023	ppb	0.004	10	6.6	3.3 - 11.5	N/A	N/A	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes	No
Nitrate[3]	2023	ppm	10	10	5.5	1.1 - 8.8	N/A	N/A	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits	No
Fluoride	2021-2023	ppm	1	2	0.09	ND - 0.2	N/A	N/A	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories	No

1 A part of Turlock's water supply was purchased from Stanislaus Regional Water Authority (SRWA) from 12/22/23 - 12/31/23 during commissioning.

2 The average arsenic level in our groundwater was 6.6 ppb, with a maximum level of 11.5 ppb. We are closely monitoring the levels of arsenic. The arsenic standards balance the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The 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.

3 The average nitrate level in our groundwater was 5.5 ppm, with a maximum level of 8.8 ppm. We are closely monitoring the nitrate levels. Nitrate in drinking water at levels above 10 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 seek advice from your health care provider.

VOLATILE ORGANIC CONTAMINANTS

					Groundwater		SRWA			
Constituent	Year Tested	Unit	PHG (MCLG)	MCL	Average	Range	Average	Range	Typical Source(s) in Drinking Water	Violation
Tetrachloroethylene[4]	2023	ppb	0.06	5	1.04	ND - 3.4	N/A	N/A	Discharge from factories, dry cleaners, and auto shops (metal degreaser)	No

4 Some people who use water containing tetrachloroethylene in excess of the MCL over many years may experience liver problems, and may have an increased risk of getting cancer.

MICROBIOLOGICAL CONTAMINANTS

					Groundwater		SRWA			
Constituent	Year Tested	Unit	PHG (MCLG)	MCL	Average	Range	Average	Range	Typical Source(s) in Drinking Water	Violation
Total Coliform Bacteria	2023	Positive	0	5% of monthly samples[5]	0%	0%	N/A	N/A	Naturally present in the environment	No

5 Exceeds if routine and repeat samples are total coliform-positive and either is E. coli-positive, system fails to take repeat samples following E. coli-positive routine sample, or system fails to analyze total coliform-positive repeat sample for E. coli.

SECONDARY DRINKING WATER CONTAMINANTS

Aesthetic standards established by the State Water Resources Control Board's Division of Drinking Water

					Groundwater		SRWA			
Constituents	Year Tested	Unit	PHG (MCLG)	MCL	Average	Range	Average	Range	Typical Source(s) in Drinking Water	Violation
Chloride	2023	mg/L	N/A	500	22.8	3.7 - 59.7	N/A	N/A	Runoff/leaching from natural deposits; seawater influence	No
Specific Conductance	2023	µS/cm	N/A	1,600	382	274 - 570	N/A	N/A	Substances that form ions when in water; seawater influence	No
Total Dissolved Solids	2023	mg/L	N/A	1,000	244	192 - 334	N/A	N/A	Runoff/leaching from natural deposits	No
Turbidity	2021-2023	NTU	N/A	5	0.7	0.1 - 4.3	N/A	N/A	Soil runoff	No

RADIOACTIVE CONTAMINANTS

					Groundwater		SRWA			
Constituents	Year Tested	Unit	PHG (MCLG)	MCL	Average	Range	Average	Range	Typical Source(s) in Drinking Water	Violation
Gross alpha particle activity[6]	2018-2023	pCi/L	0	15	1.97	ND - 8.96	N/A	N/A	Erosion of natural deposits	No
Uranium[7]	2018-2023	pCi/L	0.43	20	3.6	ND - 8.1	N/A	N/A	Erosion of natural deposits	No

6 Compliance is based on a running annual average (RAA), which was 1.97 pCi/L and below the MCL. Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing α-emitters in excess of the MCL over many years may have an increased risk of getting cancer.

7 Compliance is based on a running annual average (RAA), which was 3.6 pCi/L and below the MCL. Some people who drink water containing uranium in excess of the MCL over many years may have kidney problems or an increased risk of getting cancer.

Water Main Flushing

Over time, natural sediments, such as rust and sand particles can accumulate in the water pipes located under the streets of Turlock. While these sediments are safe to drink, they may affect water taste, color and smell.

Water main flushing is the process of cleaning the interior of the water pipes and removing any accumulated sediments by sending a rapid flow of water through the pipes.

No impacts on water services are expected during this process and water will remain safe to drink. If you notice any water quality issues at your home or business, run your outside hose for a few minutes to clear the water line from your meter.

SYNTHETIC ORGANIC CONTAMINANTS

Constituent	Year Tested	Unit	PHG (MCLG)	MCL	Groundwater Average	Groundwater Range	SRWA Average	SRWA Range	Typical Source(s) in Drinking Water	Violation
1, 2, 3 Trichloropropane[8]	2023	µg/L	0.0007	0.005	0.003	ND - 0.025	N/A	N/A	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; byproduct during the production of other compounds and pesticides.	Yes

8 The City of Turlock routinely monitors for the presence of drinking water contaminants. Testing results we received in November 2023 show our system exceeds the standard in only five drinking wells during the reporting period, or maximum contaminant level (MCL), for 1,2,3-trichloropropane (1,2,3-TCP). The standard for 1,2,3-TCP is 0.005 ug/L (micrograms per liter) equivalent to 0.000005 mg/L (milligrams per liter). The average level of 1,2,3-TCP for the reporting period of January 2023 – December 2023 for five out of the eighteen drinking water wells was 0.017 ug/L, ranging from 0.005 ug/L to 0.048 ug/L. 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.

UNREGULATED CONTAMINANTS

No proposed health standards for these contaminants.

Constituents	Year Tested	Unit	PHG (MCLG)	MCL	Groundwater Average	Groundwater Range	SRWA Average	SRWA Range	Violation
Alkalinity (total)	2023	ppm	N/A	N/A	104.9	92.7 - 116	52.9	50-58	N/A
Calcium	2023	ppm	N/A	N/A	27.8	18 - 44	N/A	N/A	N/A
Hardness (total)	2023	ppm	N/A	N/A	94.6	45 - 150	53.5	50-56	N/A
Magnesium	2023	ppm	N/A	N/A	6.1	ND - 10.1	N/A	N/A	N/A
pH	2023	STD U	N/A	N/A	7.7	7.1 - 8.2	8.7	8.5-8.99	N/A
Sodium	2023	ppm	N/A	N/A	29.1	19.4 - 41	N/A	N/A	N/A

Water Conservation Tips

- Check toilets for leaks: Place a few drops of food coloring in your toilet tank.
- Stop using toilets as an ashtray or wastebasket: Every flush uses 5-7 gallons of water.
- Take shorter showers: Typical showers use 5-10 gallons of water per minute.
- Turn off the water while brushing teeth and/or shaving
- Use dishwasher for full loads only
- Check pipes and faucets for leaks.
- Put a layer of mulch around trees and plants.

Turlock Municipal Code Violations

- Watering on wrong day and/or hours.
- Watering landscaped areas such that excess water leaves the property/area being watered.
- Watering landscaped areas while raining and/or within 48 hours following measurable rainfall.
- Washing vehicles, boats, or equipment during restricted days/hours and/or using a hose without a positive shut-off valve.
- Hosing down driveways, sidewalks, building exteriors, streets, and/or parking lots.
- Broken sprinklers, plumbing fixtures or leaky faucets

DID YOU KNOW?

- As much as 50% of water used outdoors is lost due to wind, evaporation, an runoff caused by inefficient irrigation systems.
- Turning off the tap while brushing your teeth can save 8 gallons of water per day
- Household leaks can waste about 900 billion gallons of water annually nationwide

LEAD AND COPPER SAMPLING

In 2023, the drinking water in 127 homes within Turlock was tested for lead and copper concentrations. Two of the homes showed a detectable concentration of lead in the tap water. Fourteen of the homes had detectable amounts of copper present, all at levels well below the Regulatory Action Level (AL). The results were as follows:

Compound Limit (90th percentile)

Lead	MCL	Copper	MCL
ND	15 ppb	0.05	1.3 ppm

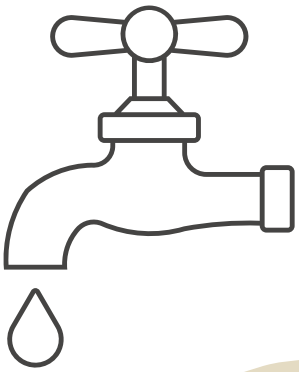
The City of Turlock tested for lead and copper during February and July in 2023. Results were reported to the State Water Resources Control Board by August 31, 2023. The 90th percentile for lead and copper were in compliance with the regulatory standards.

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. City of Turlock is responsible for providing high quality drinking water, but 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.

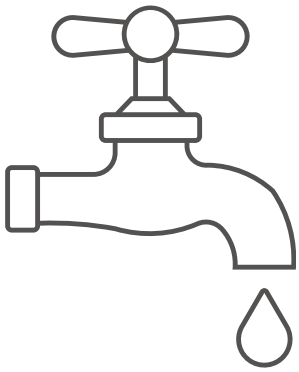
If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at http://www.epa.gov/lead

2023 Results:

Substance	Unit	PHG (MCLG)	AL	Level Detected 90th Percentile	Sites Above AL/ Total Sites	Typical Source(s) in Drinking Water	Violation
Lead	ppb	0.2	15	ND	0/127	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits	No
Copper	ppm	0.3	1.3	0.05	0/127	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	No



Cross-Connection Control



Backflow can occur when certain pressure conditions exist either in our distribution system or within the customer's plumbing, so customers are the first line of defense. A minor home improvement project-without the proper protections-can create a potentially hazardous situation, so careful adherence to plumbing codes and standards will ensure the community's water supply remains safe. Please be sure to utilize the advice or services of a qualified plumbing professional.

Many water-use activities involve substances that, if allowed to enter the distribution system, would be aesthetically displeasing or could even present health concerns. Some common cross-connections are:

- Garden hoses connected to a hose bib without a simple hose-type vacuum breaker
- improperly installed toilet tank fill valves that do not have the required air gap between the valve or refill tube
- Landscape irrigation systems that do not have the proper backflow prevention assembly installed on the supply line

Customers must ensure that al plumbing is in conformance with local plumbing codes. Additionally, state law requires certain types of facilities to install and maintain backflow prevention assemblies at the water meter. The backflow coordinator will determine whether you need to install a backflow prevention assembly based on water uses at your location.

Farsi, Persian
این گزارش حاوی اطلاعات مهمی در مورد آب آشامیدنی شماست. برای دریافت اطلاعات بیشتر با ما تماس بگیرید
209-668-5590

Portuguese
Este relatório contém informação importante sobre sua água potável. Por favor entre em contato com City of Turlock a 209-668-5590 para auxílio em portugués.

Punjabi
ਐੱਸ ਰਿਪੋਟ ਵਿਚ ਤੁਵਾੜੇ ਪੀਣੇ ਦੇ ਵਾਰੇ ਮਹੱਤਵਪੂਰਨ ਸੂਚਨਾ ਹੈ I ਪੰਜਾਬੀ ਵਿਚ ਮਦਦ ਲਈ, **City of Turlock** ਨੂੰ **156 S Broadway Turlock CA 95380** ਜਾਂ **209-668-5590** ਤੇ ਸੰਪਰਕ ਕਰੋ |

Spanish
Este informe contiene información muy importante sobre su agua potable. Favor de comunicarse con la ciudad de Turlock al 209-668-5590 para asistirle en español.