

2021 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 2021 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:

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municipalservices@turlock.ca.us

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www.cityofturlock.org

City Council Meetings:

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

Follow us on Social Media



CityofTurlockMunicipalServicesDepartment



@TurlockMuni

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 2022. 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.

Variations 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)

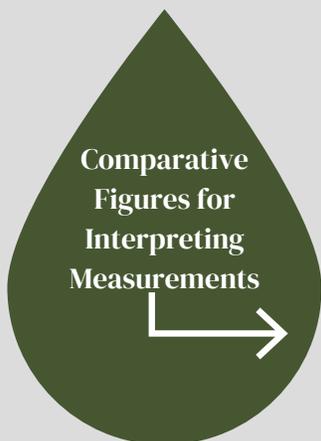
ppb: parts per billion, or micrograms per liter (µg/L)

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)



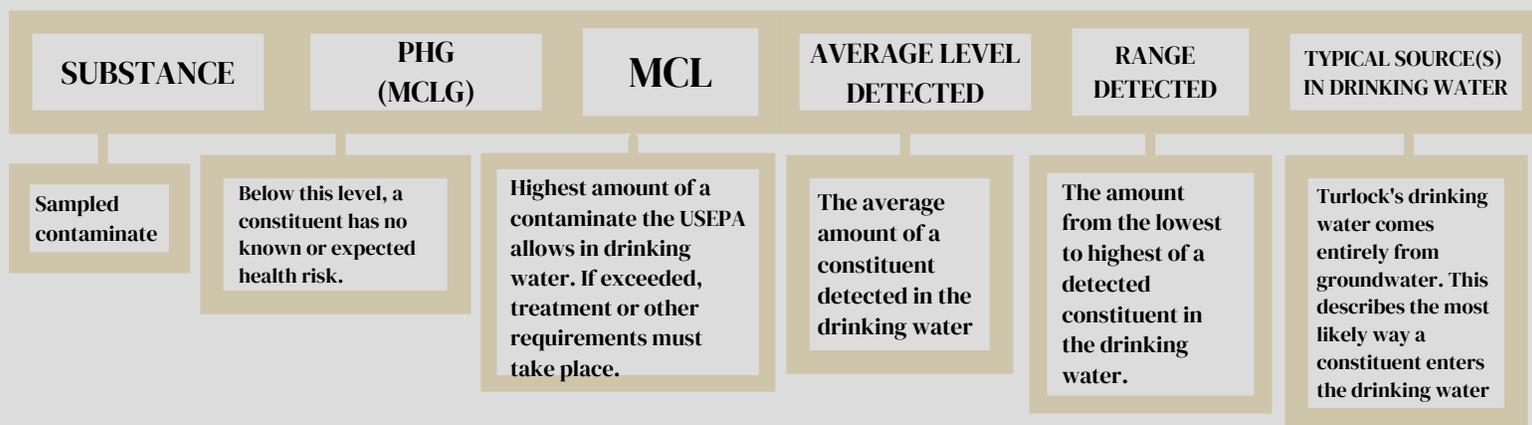
mg/L - milligrams per liter	ppm - parts per million	1 second in 11.5 days
µg/L - micrograms per liter	ppb - parts per billion	1 second in nearly 32 years
ng/L - nanograms per liter	ppt - parts per trillion	1 second in nearly 32,000 years



DETECTED CHEMICALS OR CONSTITUENTS IN 2021

The following tables list all the drinking water contaminants the City detected during the 2021 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, 2021. 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:



INORGANIC CONTAMINANTS

Regulated contaminants with primary MCLs or MCLG

SUBSTANCE	PHG (MCLG)	MCL	AVERAGE LEVEL DETECTED	RANGE DETECTED	TYPICAL SOURCE(S) IN DRINKING WATER	VIOLATION
Arsenic (ppb)	0.004	10	7.46	4.4 - 10.6*	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes	No
Barium (ppm)	2	1	0.05	ND - 0.148	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits	No
Chromium (ppb)	(100)	50	ND	ND	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits	No
Fluoride (ppm)	1	2	0.04	ND - 0.11	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories	No
Nitrate (as N) (ppm)	10	10	5.79	1.31 - 8.39	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits	No

*These results were from a well that was not in service.

VOLATILE ORGANIC CONTAMINANTS

SUBSTANCE	PHG (MCLG)	MCL	AVERAGE LEVEL DETECTED	RANGE DETECTED	TYPICAL SOURCE(S) IN DRINKING WATER	VIOLATION
Tetrachloroethylene (PCE) (ppb)	0.06	5	1.13	ND - 3.57	Discharge from factories, dry cleaners, and auto shops (metal degreaser)	No

SECONDARY DRINKING WATER CONTAMINANTS

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

SUBSTANCE	PHG (MCLG)	MCL	AVERAGE LEVEL DETECTED	RANGE DETECTED	TYPICAL SOURCE(S) IN DRINKING WATER	VIOLATION
Aluminum (µg/L)	N/A	200	ND	ND	Erosion of natural deposits; residual from some surface water treatment processes	No
Chloride (mg/L)	N/A	500	27.5	8.9 - 59.7	Runoff/leaching from natural deposits; seawater influence	No
Color (units)	N/A	15	ND	ND	Naturally-occurring organic materials	No
Odor (units)	N/A	3	ND	ND	Naturally-occurring organic materials	No
pH	N/A	6.5 - 8.5	7.86	7.2 - 8.1	Physical measure of water acidity	No
Specific Conductance (µS/cm)	N/A	1,600	389	310 - 505	Substances that form ions when in water; seawater influence	No
Sulfate (mg/L)	N/A	500	12.84	3.6 - 18	Runoff/leaching from natural deposits; industrial wastes	No
Total Dissolved Solids (mg/L)	N/A	1,000	240.8	192 - 299	Runoff/leaching from natural deposits	No

RADIOACTIVE CONTAMINANTS

SUBSTANCE	PHG (MCLG)	MCL	AVERAGE LEVEL DETECTED	RANGE DETECTED	TYPICAL SOURCE(S) IN DRINKING WATER	VIOLATION
Gross Alpha	(0)	15	3.68	ND - 7.35	Erosion of natural deposits	No
Uranium (pCi/L)	0.43	20	3.66	0.83 - 6.49	Erosion of natural deposits	No

SYNTHETIC ORGANIC CONTAMINANTS

SUBSTANCE	PHG (MCLG)	MCL	AVERAGE LEVEL DETECTED	RANGE DETECTED	TYPICAL SOURCE(S) IN DRINKING WATER	VIOLATION
Dibromochloropropane (DBCP) (ppt)	1.7	200	3	ND - 20	Banned nematocide that may still be present in soils due to runoff/leaching from former use on soybeans, cotton, vineyards, tomatoes, and tree fruit	No
1,2,3-Trichloropropane (TCP) (µg/L)	0.0007	0.005*	0.013	ND - 0.024	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

*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.

MICROBIOLOGICAL CONTAMINANTS

SUBSTANCE	PHG (MCLG)	MCL	AVERAGE LEVEL DETECTED	RANGE DETECTED	TYPICAL SOURCE(S) IN DRINKING WATER	VIOLATION
Total Coliform Bacteria (state Total Coliform Rule)	N/A	5	ND	ND	Naturally present in the environment	No

* >5% of monthly samples positive is a violation of the MCL.

SUBSTANCE	PHG (MCLG)	MCL	Average Level Detected	Range Detected	TYPICAL SOURCES IN DRINKING WATER	VIOLATION
Heterotrophic Plate Count (HPC) (CFU/ml)	N/A	TT	28	ND - 114	Naturally present in the environment	No
Turbidity	N/A	TT	0.4	0.1 - 1.1	Soil runoff	No

UNREGULATED CONTAMINANTS

No proposed health standards for these contaminants.

SUBSTANCE	AVERAGE LEVEL DETECTED	RANGE DETECTED
Bicarbonate Alkalinity as CaCO ₃ (ppm)	126.04	95.3 - 164
Calcium as Ca (ppm)	31.38	24 - 44
Magnesium (ppm)	7.27	6.2 - 10
Potassium as K (ppm) (2018)	3.7	1.7 - 4.8
Sodium as Na (ppm)	29.43	21.3 - 41
Total Alkalinity as CaCO ₃ (ppm)	105.35	85.7 - 134
Total Hardness as CaCO ₃ (ppm)	109.13	86 - 150

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

Typical Source of Contaminant:

Sodium (ppm): Salt present in the water and is generally naturally occurring

Hardness (ppm): Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

High-Efficiency Toilet and Clothes Washer Rebates

The City of Turlock Municipal Services Department offers a rebate for the purchase of a new, approved High-Efficiency Toilet and/or Clothes Washer. Rebates for the purchase of approved high-efficiency toilets and/or clothes washer will be available for up to \$75 per toilet and \$100 per clothes washer. See our website for more information:

<https://cityofturlock.org/watersewergarbage/waterconservation/rebates.asp>

LEAD AND COPPER SAMPLING

In 2021, the drinking water in 57 homes within Turlock was tested for lead and copper concentrations. Two of the homes showed a detectable concentration of lead in the tap water. 15 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	0.0823 ppm	1.3 ppm

The City of Turlock tested for lead and copper during the summer months of 2021. Results were reported to the State Water Resources Control Board on August 11, 2021. The 90th percentile for lead and copper were in compliance with the regulatory standards.

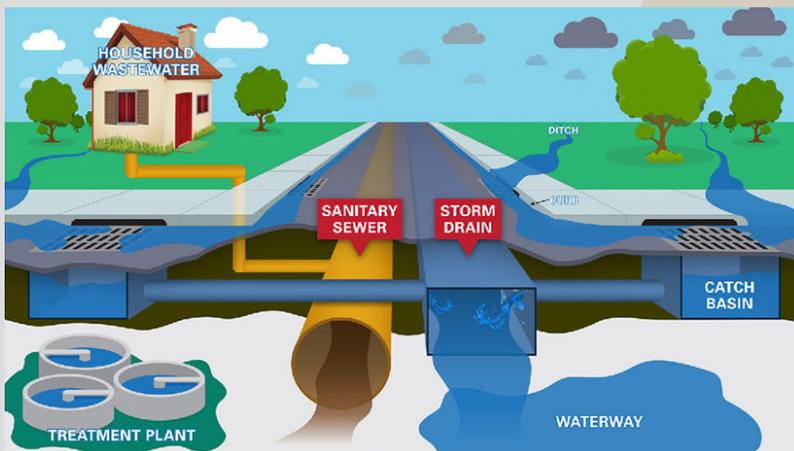
2021 Results:

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>

Substance	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	2/57	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits	No
Copper (ppm)	0.3	1.3	0.0823	0/57	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	No

Stormwater Awareness



Not all water is treated equally. The majority of Turlock's collection systems are separated into two different collection systems. The sanitary sewer system collects wastewater from sinks, toilets, showers and washing machines that is transported through pipes and flows to the treatment plant. Whereas storm drains carry water that remains untreated, directly into bodies of water like lakes and rivers. While both systems have extensive infrastructure, the stormwater system that includes everything from ditches, curbs and gutters are not part of a treatment process at any point. This is why it is vital that we all do our part to protect our water and our environment by remembering

“only rain down the storm drain.”

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 português.

Punjabi

ਐਂਸ ਰਿਪੋਟ ਵਿਚ ਤੁਵਾੜੇ ਪੀਣੇ ਦੇ ਵਾਰੇ ਮਹੱਤਵਪੂਰਨ ਸੂਚਨਾ ਹੈ | 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.