CITY OF MANTECA – 2025 PUBLIC HEALTH GOALS REPORT

BACKGROUND

The California Health and Safety Code, section 116470(b) requires public water systems serving more than 10,000 service connections to prepare a report if water quality monitoring results over the past three years exceed any California Public Health Goals (PHGs) and/or federal Maximum Contaminant Level Goals (MCLGs). PHGs are non-enforceable goals established by the California Environmental Protection Agency's Office of Environmental Health Hazard Assessment (OEHHA). MCLGs are goals adopted by U.S. Environmental Protection Agency (USEPA) and only apply if no California PHG exists. PHGs may not be more lenient than MCLGs.

Only constituents that have a California primary drinking water standard and for which either a PHG or MCLG has been set are to be addressed in the Report. **Attachment 1** contains a list of the regulated constituents and their respective PHGs or MCLGs.

If a constituent was detected by a water supplier between January 1, 2022 and December 31, 2024 at a level exceeding an applicable PHG or MCLG, the Report shall contain the following information as required by the law:

- Numerical public health risk associated with the enforced Maximum Contaminant Level (MCL) and the PHG or MCLG;
- Category or type of risk to health that could be associated with each constituent;
- Best treatment technology available, if any, that could be used to remove or reduce the constituent to a level at or below the PHG or MCLG;
- Estimate of the cost to install that treatment and if it is appropriate and feasible; and
- Description of the actions, if any, the City intends to take to reduce the level of the constituent.

The City of Manteca (City) owns, operates, and maintains 15 active groundwater wells and also purchases treated surface water from South San Joaquin Irrigation District (SSJID). The City conducts routine water quality monitoring on a weekly, quarterly, annual, triennial, and nine-year basis. Between 2022 and 2024, only one contaminant, 1,2,3 trichloropropane (TCP), was detected above the California State Water Resources Control Board's (SWRCB) allowable level. The detection occurred at a single groundwater well, and following the detection, the City promptly reduced water production from the affected well and initiated installing a treatment system to the well to bring the contaminant level into compliance with regulatory standards. Water quality meets all state and federal standards for all other contaminants. For the purposes of this Report, seven contaminants were detected above the PHG or MCLG in the City's groundwater wells and are discussed in further detail.

PHG/MCLG vs. MCL

PHGs are set by OEHHA (and MCLGs by USEPA) based solely on public health risk considerations. MCLs are set by USEPA or the SWRCB Division of Drinking Water (DDW) as the contaminants maximum level which public water systems must not exceed. Violations of MCLs can result in fines, abatement orders, or closure of facilities. When the USEPA, or the DDW, adopts an MCL, they take into account such factors as (1) availability and accuracy of analytical methodologies, (2) effectiveness of available treatment technologies, and (3) health

benefits versus costs. PHGs (and MCLGs) are not enforceable and are not required to be met by any public water system.

Detection Limit for Purposes of Reporting (DLR)

In addition to establishing PHGs and MCLs, DDW also sets a Detection Limit for Purposes of Reporting (DLR) for each constituent. The DLR is determined based on available analytical methods and represents the lowest concentration of the constituent that can be reliably measured by laboratory instruments for compliance reporting. A constituent is considered "detected" by DDW when its measured concentration exceeds the DLR. If a constituent's DLR is higher than its PHG, it indicates that current laboratory methods are not capable of reliably detecting the constituent at concentrations as low as the PHG.

Water Quality Data Review for this Report

Water quality data collected by the City for all City-owned groundwater wells and water purchased from SSJID during the calendar years of 2022, 2023 and 2024 for purposes of determining compliance with drinking water standards were reviewed in order to prepare this Report. This data was summarized in the 2022, 2023 and 2024 annual Water Quality Reports, also known as Consumer Confidence Reports, which were distributed to all customers by July of each of the following year and are also available online (see **Attachment 2** for copies of the 2022, 2023, and 2024 City of Manteca Water Quality Reports).

Guidelines Followed for Preparation of this Report

The Association of California Water Agencies (ACWA) formed a workgroup that prepared guidelines for water utilities to use in preparing required PHG Reports. These guidelines, titled "Public Health Goals Report Guidelines: Ensuring Compliance with California Health and Safety Code Section 116470(b)," dated April 2025, were used in the preparation of this Report.

DETECTED CONSTITUENTS THAT EXCEED A PHG OR MCLG

In reviewing water quality monitoring data collected during 2022, 2023 and 2024, it is concluded that a PHG Report is required that addresses seven contaminants that were detected in the City's groundwater wells at levels above each contaminant's PHG/MCLG. Each contaminant is identified in **Table 1** along with a summary of the applicable PHG/MCLG, MCL, and DLR, as well as the numerical health risk associated with each contaminant. All contaminants are associated with the health risk category of carcinogenicity (meaning could cause cancer).

Recent changes to regulatory standards for certain constituents have impacted the City's monitoring methods and schedules. The following sections provide additional background on these updates, including changes to PHG/MCLGs and MCLs.

Table 1: Constituents Detected Above PHG or MCLG, 2022 – 2024

Constituent	Unit	PHG (MCLG)	MCL	DLR	Cancer Risk at the PHG (MCLG)[1]	Cancer Risk at the MCL[1]
Inorganic Chemicals						
Arsenic	µg/L	0.004	10	2	1×10^{-6}	2.5×10^{-3}
Chromium VI (hexavalent chromium)	µg/L	0.02	10	0.1	1×10^{-6}	5×10^{-4}
Organic Chemicals						
1,2,3 Trichloropropane (TCP)	ng/L	0.7	5	5	1×10^{-6}	7×10^{-6}
1,2-Dibromo-3-chloropropane (DBCP)	ng/L	3	200	10	1×10^{-6}	7×10^{-5}
Tetrachloroethylene (PCE)	µg/L	0.06	5	0.5	1×10^{-6}	8×10^{-5}
Radionuclides						
Gross Alpha[2]	pCi/L	(0)	15	3	(0)	up to $1x10^{-3}$
Uranium	pCi/L	0.43	20	1	1×10^{-6}	5×10^{-5}

Notes:
1. Data provided from OEHHA, Water Toxicology Section, Health Risk Information for PHG Exceedance Reports, February 2025. Cancer risk is the upper bound estimate of excess cancer risk from lifetime exposure. Actual cancer risk may be lower or zero. Cancer risk is stated in terms of excess cancer cases per total population, e.g., $1x10^{-6}$ means one additional cancer case per million population exposed.
2. In 2003, OEHHA concluded that a PHG for gross alpha was not practical since the results are used primarily as a screening tool for naturally occurring radionuclides rather than indicating a specific contaminant. The cancer risk at the MCLG of zero is zero. Gross alpha measurements can indicate the presence of several alpha emitting radionuclides, including radium. OEHHA indicates that depending upon which isotopes are present, the numerical cancer health risk at the MCL could be up to 1×10^{-3}, or one per thousand.
3. µg/L = micrograms per liter (equivalent to parts per billion, ppb).
4. ng/L = nanograms per liter (equivalent to parts per trillion, ppt).
5. pCi/L = picoCuries per liter.

Total Coliform Treatment Technique (TT)

In July 2021, the California Revised Total Coliform Rule (RTCR) became effective. Revisions to the previous Total Coliform Rule (TCR) include a new Coliform Treatment Technique (TT) requirement replacing the Total Coliform MCL and MCLG, and a new E. coli MCL regulatory limit. The TT for total coliforms is triggered if five percent (5%) positive samples of all samples collected in each month. There is no longer an MCL or MCLG for coliform bacteria.

The reason for the coliform standard is to minimize the possibility for drinking water to contain pathogens. The monitoring of a non-harmful constituent (coliform bacteria) to indicate the possible presence of harmful pathogens makes for an inexact, but generally conservative process. Pathogens are microorganisms that can cause disease if ingested. Coliform bacteria is an indicator organism that is not generally considered harmful but is used to identify the potential presence of pathogens in water. It is not unusual for a system to have an occasional positive sample. A positive sample serves as a trigger to prompt further investigation into the presence of E. coli, requiring additional sampling and corrective actions, if warranted. The presence of E. coli bacteria indicates that the water may be contaminated with human or animal wastes. These bacteria can make people sick and are a particular concern for those with weakened immune systems.

It is noted that although there was a detection of total coliform in 2022, this sample is considered a false positive, as a follow up sample collected withing 48 hours of the initial detection was negative for coliform as well as E. coli.

Chromium VI MCL

On October 1, 2024, the new MCL of 10 ppb became effective for chromium VI. Previously, chromium VI was regulated under the 50 ppb primary drinking water standard for total chromium established in California in 1977. The California PHG for chromium VI has been set at 0.02 ppb. The established DLR is 0.1 ppb, meaning that lab results returned under 0.1 ppb can be unreliable due to the fact that equipment is not sensitive enough to detect levels under the 0.1 ppb level.

BEST AVAILABLE TREATMENT TECHNOLOGIES FOR DETECTED CONSTITUENTS

Both USEPA and DDW adopt Best Available Technologies (BATs), which are the best known methods of reducing contaminant levels below the MCL. This Report also considers, where appropriate, other commercially available BATs that may have the ability to further reduce constituent levels beyond the MCL to the PHG/MCLG level or below. While a BAT may identify a process that can reduce the presence of a constituent, the cost of implementation can be a major factor in deciding whether or not to adopt the process.

The City has already installed treatment systems to ensure compliance with all MCLs. However, striving to keep constituents at or below PHG/MCLG levels must be evaluated with costs in mind. Thus, the purpose of reviewing BATs and their associated costs is to re-evaluate the value of a technology to remove or reduce a constituent to the level at which the USEPA or OEHHA has determined that there is no associated health risk (i.e. at or below the PHG/MCLG), if possible, and whether the cost to the ratepayers to provide advanced treatment could be justified.

The PHGs/MCLGs are set much lower than the MCL, and it is not always possible or feasible to determine what treatment technology is able to further reduce a constituent to a level at or below the PHG/MCLG. In some cases, such as when the MCLG is set at zero, there may not be commercially available technology to reach that level. The issue is further complicated because it is often not possible to verify by analytical means that the constituent has been totally eliminated, as some laboratory analyses can detect constituents down to a DDW approved level with certainty (DLR) and are unable to definitively identify the constituent at lower levels. In some cases, installing treatment to try and further reduce very low levels of one constituent may have adverse effects on other aspects of water quality.

The approved BATs for the seven detected constituents are presented in **Table 2**.

Table 2: Best Available Technologies for Constituents Detected Above PHG or MCLG

Constituent	Activated Alumina	Coagulation/ Filtration	Electrodialysis	Granular Activated Carbon	Ion Exchange	Lime Softening	Oxidation/ Filtration	Packed Tower Aeration	Reverse Osmosis
Arsenic	X	X	X		X	X	X		X
Chromium VI (hexavalent chromium)		X			X				X
1,2,3 Trichloropropane (TCP)				X					
1,2-Dibromo-3-chloropropane (DBCP)				X				X	
Tetrachloroethylene (PCE)				X				X	
Gross Alpha									X
Uranium		X			X	X			X

Source: Title 22 of the California Code of Regulations Section 64447.

CITY OF MANTECA RESULTS, ACTIONS, AND COST ESTIMATES

This section outlines the City's findings and the actions taken to reduce the presence of each constituent. It also provides estimated costs, if applicable, associated with implementing the BATs referenced in the previous sections to meet each constituent's PHG/MCLG. It is important to note that some data, though representative, were collected prior to 2024, as the SWRCB requires monitoring for some constituents less than once per year since the concentrations do not vary frequently or significantly.

Inorganic Chemicals

The City detected two inorganic chemicals, arsenic and chromium VI, at levels exceeding their respective PHG. From 2022 and 2024, the maximum arsenic concentration measured was 8.7 µg/L, below the MCL of 10 µg/L. In 2024, wells were monitored for chromium VI to comply with the updated regulations that took effect on October 1, 2024. The highest chromium VI level detected was 4.3 µg/L, also below the MCL of 10 µg/L.

The cost evaluation for treatment of inorganic chemicals was conducted based on the implementation of ion exchange technology, as it is an approved method for treating arsenic and chromium VI.

The estimated cost to install and operate ion exchange technology systems that treat inorganic chemicals can range from $2.23 to $9.32 per 1,000 gallons treated, depending on the capacity of the well being treated and the target constituent. Based on historical billing data, the City supplies approximately 2 billion gallons per year from its groundwater wells. The cost to treat the volume of water produced at all 15 wells could potentially be up to $18.3M. In addition, the treatment

systems would have associated operations and maintenance costs that are unknown at this time. Treatment alone would translate to a one-time cost for each customer of up to $660, not including the continuous cost of O&M[1].

There is no available evidence indicating that ion exchange treatment can reliably reduce arsenic and chromium VI concentrations below the PHG levels of 0.004 µg/L and 0.02 µg/L, respectively. Furthermore, the DLR established by DDW is 2 µg/L and 1 µg/L, respectively, and as previously noted, no analytical method currently exists that has been approved to accurately measure arsenic and chromium VI in drinking water at a level below the DLR.

To maintain groundwater quality standards, the City employs approved treatment methods including wellhead treatment, centralized treatment facilities such as the Central Arsenic Treatment Facility (CATF), and blending with SSJID surface water. These methods are very effective at reducing arsenic concentrations to below the MCLs and comply with state and federal regulations.

As such, the City will continue to monitor groundwater well results and has no plans currently to install further treatment systems at the groundwater wells due to the significant cost and marginal/unknown benefit.

Organic Chemicals

Three organic chemicals were detected above their respective PHGs: 1,2,3-Trichloropropane (TCP), 1,2-Dibromo-3-chloropropane (DBCP), and tetrachloroethylene (PCE).

TCP had a notification level of 5 ppt until December 14, 2017, when the MCL of 5 ppt became effective. Since then, the City has been installing treatment systems on groundwater wells to reduce TCP levels and comply with the updated regulation. These treatment efforts have been successful, with previously impacted wells now showing TCP levels below the MCL. However, in 2024, sample results from one groundwater well without treatment exceeded the MCL for TCP. Water sample results collected throughout all four quarters of 2024 showed that this well had an average TCP concentration of 25 ng/L, which exceeds the MCL of 5 ng/L. Following this detection, the City immediately reduced water production from the affected well. Customers would have received a blend of water from all active wells and surface water from SSJID, resulting in significantly lower concentrations in the distribution system. As of March 6, 2025, the City has completed the installation of water treatment on this well to remove TCP.

In 2023, DBCP was detected at one groundwater well, with an average concentration of 37.5 ng/L, well below the MCL of 200 ng/L. PCE was also detected at a different groundwater well in 2024 at a concentration of 0.71 µg/L, significantly lower than its MCL of 5 µg/L.

Granular activated carbon (GAC) is identified as the BAT for treating all three organic chemicals to achieve compliance with their respective MCLs. A GAC treatment system has already been installed on the well with TCP levels exceeding the MCL, as well as five other wells with prior TCP detections. Since the previously installed GAC treatment systems have proven successful in

[1] Costs for BATs come from the 2025 PHG Report Guidance to Water Systems, ACWA, April 2025, indexed to 2025 using Environmental News Record (ENR) 20-City average Construction Cost Index.

reducing concentrations of TCP, no additional treatment is currently proposed for further TCP reduction.

The well with DBCP levels exceeding the PHG in 2023 has a GAC treatment system designed to remove TCP before distribution to customers. DBCP sampling in 2023 was conducted on untreated (raw) well water, prior to treatment. Effluent from the GAC treatment facility has consistently shown DBCP concentrations below the PHG in the past, so DBCP concentrations in water delivered to customers is likely lower than what is measured in the raw samples. Since this well is already treated using a GAC system, no additional costs for treatment are currently considered for further DBCP reduction.

The well with PCE detections above the PHG is blended with other sources before it is distributed to customers. However, PCE sampling occurs prior to blending, so reported concentrations may appear higher than what is actually delivered. The City is planning to implement treatment for this well for compliance with future regulations, so no additional treatment costs are considered at this time for further PCE reduction.

Radionuclides

During 2022 – 2024, two naturally occurring radionuclides were detected in City groundwater wells: gross alpha and uranium. As previously mentioned, OEHHA determined that it would not be practical to develop a PHG for the category of alpha emitters. However, the MCLG set by the USEPA is 0 pCi/L. Gross alpha was found at all groundwater wells, with a maximum value of 13.9 pCi/L. Uranium was found at 14 groundwater wells, with a maximum value of 10.4 pCi/L.

DDW identified reverse osmosis (RO) as the sole BAT for removal of gross alpha in drinking water, which is also included as a BAT for removing uranium from drinking water. The estimated cost for RO treatment ranges from $5.47 to $9.15 per 1,000 gallons of water treated. The cost to implement treatment on all 15 wells would then range from $10.7 to $17.9M. In addition, the treatment systems would have associated operations and maintenance costs that are unknown at this time. The result would be an assumed one-time cost for each customer of up to $650, not including the continuous cost of O&M[2].

Since the PHG/MCLGs for both radionuclides are lower than the DLRs, there are currently no available laboratory technologies that have been approved to reliably detect concentrations of these constituents at the PHG level. Additionally, there is no available evidence indicating that RO treatment can reliably reduce gross alpha to the MCLG level of 0 pCi/L and uranium to the PHG level of 0.43 pCi/L. The City will continue to monitor radionuclide concentrations in groundwater wells, but currently has no plans to install further treatment systems at these wells, given the high cost and limited/uncertain benefit.

SUMMARY AND CONCLUSION

No additional treatment is recommended to decrease the incidence of the seven contaminants described in the sections above in the City's groundwater wells. The well affected by high TCP levels has already had treatment installed, and the level of the remaining contaminants are well below their MCLs and meet all standards established by DDW and USEPA. Additionally, based

[2] Costs for BATs come from the 2025 PHG Report Guidance to Water Systems, ACWA, April 2025, indexed to 2025 using Environmental News Record (ENR) 20-City average Construction Cost Index.

on existing studies and current treatment technologies, elimination of these constituents may be impossible. Therefore, no additional actions are proposed at this time. All constituents will continue to be monitored as required by DDW.

Attachments:

1. Table of Regulated Constituents with MCLs, PHGs or MCLGs
2. Consumer Confidence Reports for 2022, 2023 and 2024

ATTACHMENT NO. 1

MCLs, DLRs and PHGs for Regulated Drinking Water Contaminants

Last Update: November, 2024

Prepared and provided by the Association of California Water Agencies (ACWA).

MCLs, DLRs, and PHGs for Regulated Drinking Water Contaminants

Updated November 2024

The following tables include California's maximum contaminant levels (MCLs), detection limits for purposes of reporting (DLRs), public health goals (PHGs) from the Office of Environmental Health Hazard Assessment (OEHHA). For comparison, Federal MCLs and Maximum Contaminant Level Goals (MCLGs) from the U.S. EPA are also displayed. Previous MCLs that are no longer effective are shown in *italics*. Regulatory citations refer to Title 22 of the California Code of Regulations (22 CCR) and Title 40 of the Code of Federal Regulations (40 CFR).

This document refers to several units of measurement commonly used in assessing water quality. Concentrations of substances in drinking water are typically expressed in milligrams per liter (mg/L), micrograms per liter (µg/L), nanograms per liter (ng/L), and picocuries per liter (pCi/L). These units help quantify the presence of various chemicals, metals, or radioactive materials. For reference, 1 mg/L equals 1,000 µg/L, and 1 µg/L equals 1,000 ng/L, providing a clear scale for understanding the quantities discussed. Picocuries per liter (pCi/L) measure radioactive material, where 1 pCi/L represents a trillionth of a curie, a standard unit for radioactivity.

Inorganic Chemicals

The information in the following table can be found in 22 CCR §64431 (California MCLs), 22 CCR §64432 (California DLRs), OEHHA's website (California PHGs), 40 CFR §141.23 (U.S. EPA MCLs), and 40 CFR §141.51 (U.S. EPA MCLGs). The values in this table are in **units of micrograms per liter (µg/L)** unless otherwise stated.

Inorganic Chemicals	California					U.S. EPA		
	MCL	MCL Effective Date	DLR	PHG	PHG Date	MCL	MCL Effective Date	MCLG
Aluminum	1,000	1989-02-25	50	600	2001	--	--	--
Antimony	6	1994-09-08	6	1	2016	6	1994-01-17	6
Arsenic	10 *50*	2008-11-28 *1977*	2	0.004	2004	10 *50*	2006-01-23 *1977-06-24*	zero
Asbestos[1]	7	1994-09-08	0.2	7	2003	7	1992-07-30	7

[1] Asbestos units are in million fibers per liter (MFL); for fibers >10 microns long.

Inorganic Chemicals	California					U.S. EPA		
	MCL	MCL Effective Date	DLR	PHG	PHG Date	MCL	MCL Effective Date	MCLG
Barium	1,000	1977	100	2,000	2003	2,000 *1,000*	1992-07-30 *1977-06-24*	2000
Beryllium	4	1994-09-08	1	1	2003	4	1994-01-17	4
Cadmium	5 *10*	1994-09-08 *1977*	1	0.04	2006	5 *10*	1992-07-30 *1977-06-24*	5
Chromium, Hexavalent	10	2024-10-01	0.1	0.02	2011	--	--	--
Chromium, Total	50	1977	10	none[2]	--	100 *50*	1992-07-30 *1997-06-24*	100
Cyanide	150 *200*	2003-06-12 *1994-09-08*	100	150	1997	200	1994-01-17	200
Fluoride	2,000	1998-04	100	1,000	1997	4,000	1987-10-02	4000
Mercury (inorganic)	2	1977	1	1.2	1999	2	1977-06-24	2
Nickel	100	1994-09-08	10	12	2001	--	Remanded	--
Nitrate (as nitrogen, N)	10,000 as N	1977	400	10,000 as N[3]	2018	10,000	1977-06-24	10 mg/L
Nitrite (as N)	1,000 as N	1994-09-08	400	1,000 as N	2018	1,000	1992-07-30	1 mg/L
Nitrate + Nitrite (as N)	10,000 as N	1994-09-08	--	10,000 as N	2018	10,000	1992-07-30	10,000
Perchlorate	6	2007-10-18	1	1	2015	--	--	--
Selenium	50 *10*	1994-09-08 *1977*	5	30	2010	50 *10*	1992-07-30 *1977-06-24*	50
Thallium	2	1994-09-08	1	0.1	1999	2	1994-01-17	0.5

[2] In November 2001, OEHHA withdrew the 0.0025 mg/L PHG adopted in 1999.

[3] The PHG for nitrate can also be expressed as 45 mg/L as NO_3.

Volatile Organic Chemicals (VOCs)

The information in the following table can be found in 22 CCR §64444 (California MCLs), 22 CCR §64445.1 (California DLRs), OEHHA's website (California PHGs), 40 CFR §141.61 (U.S. EPA MCLs), and 40 CFR §141.50 (U.S. EPA MCLGs). The values in this table are in **units of micrograms per liter (µg/L)**.

Volatile Organic Chemicals (VOCs)	California					U.S. EPA		
	MCL	MCL Effective Date	DLR	PHG	PHG Date	MCL	MCL Effective Date	MCLG
Benzene	1	1989-02-25	0.5	0.15	2001	5	1989-01-09	zero
Carbon tetrachloride	0.5	1989-04-05	0.5	0.1	2000	5	1989-01-09	zero
1,2-Dichlorobenzene	600	1994-09-08	0.5	600	1997	600	1992-07-30	600
1,4-Dichlorobenzene (p-DCB)	5	1989-04-05	0.5	6	1997	75	1989-01-09	75
1,1-Dichloroethane (1,1-DCA)	5	1990-06-24	0.5	3	2003	--	--	--
1,2-Dichloroethane (1,2-DCA)	0.5	1989-04-05	0.5	0.4	1999	5	1989-01-09	zero
1,1-Dichloroethylene (1,1-DCE)	6	1989-02-25	0.5	10	1999	7	1989-01-09	7
cis-1,2-Dichloroethylene	6	1994-09-08	0.5	13	2018	70	1992-07-30	70
trans-1,2-Dichloroethylene	10	1994-09-08	0.5	50	2018	100	1992-07-30	100
Dichloromethane (Methylene chloride)	5	1994-09-08	0.5	4	2000	5	1994-01-17	zero
1,2-Dichloropropane	5	1990-06-24	0.5	0.5	1999	5	1992-07-30	zero
1,3-Dichloropropene	0.5	1989-02-25	0.5	0.2	1999	--	--	--
Ethylbenzene	300 *700* *680*	2003-06-12 *1994-09-08* *1989-02-25*	0.5	300	1997	700	1992-07-30	700
Methyl tertiary butyl ether (MTBE)	13	2000-05-17	3	13	1999	--	--	--
Monochlorobenzene	70 *30*	1994-09-08 *1989-02-25*	0.5	70	2014	100	1992-07-30	100
Styrene	100	1994-09-08	0.5	0.5	2010	100	1992-07-30	100
1,1,2,2-Tetrachloroethane	1	1989-02-25	0.5	0.1	2003	--	--	--
Tetrachloroethylene (PCE)	5	1989-05	0.5	0.06	2001	5	1992-07-30	zero
Toluene	150	1994-09-08	0.5	150	1999	1,000	1992-07-30	1,000

Volatile Organic Chemicals (VOCs)	California					U.S. EPA		
	MCL	MCL Effective Date	DLR	PHG	PHG Date	MCL	MCL Effective Date	MCLG
1,2,4-Trichlorobenzene	5 *70*	2003-06-12 *1994-09-08*	0.5	5	1999	70	1994-01-17	70
1,1,1-Trichloroethane (1,1,1-TCA)	200	1989-02-25	0.5	1000	2006	200	1989-01-09	200
1,1,2-Trichloroethane (1,1,2-TCA)	5 *32*	1994-09-08 *1989-04-05*	0.5	0.3	2006	5	1994-01-17	3
Trichloroethylene (TCE)	5	1989-02-25	0.5	1.7	2009	5	1989-01-09	zero
Trichlorofluoromethane (Freon 11)	150	1990-06-24	5	1,300	2014	--	--	--
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	1,200	1990-06-24	10	4,000	1997	--	--	--
Vinyl chloride	0.5	1989-04-05	0.5	0.05	2000	2	1989-01-09	zero
Xylenes	1,750	1989-02-25	0.5	1,800	1997	10,000	1992-07-30	10,000

Synthetic Organic Chemicals (SOCs)

The information in the following table can be found in 22 CCR §64444 (California MCLs), 22 CCR §64445.1 (California DLRs), OEHHA's website (California PHGs), 40 CFR §141.61 (U.S. EPA MCLs), and 40 CFR §141.50 (U.S. EPA MCLGs). The values in this table are in **units of micrograms per liter (µg/L)**.

Synthetic Organic Chemicals (SOCs)	California					U.S. EPA		
	MCL	MCL Effective Date	DLR	PHG	PHG Date	MCL	MCL Effective Date	MCLG
Alachlor	2	1994-09-08	1	4	1997	2	1992-07-30	zero
Atrazine	1 *3*	2003-06-12 *1989-04-05*	0.5	0.15	1999	3	1992-07-30	3
Bentazon	18	1989-04-05	2	200	1999	--	--	--
Benzo(a)pyrene	0.2	1994-09-08	0.1	0.007	2010	0.2	1994-01-17	zero
Carbofuran	18	1990-06-24	5	0.7	2016	40	1992-07-30	40
Chlordane	0.1	1990-06-24	0.1	0.03	1997	2	1992-07-30	zero

Synthetic Organic Chemicals (SOCs)	California					U.S. EPA		
	MCL	MCL Effective Date	DLR	PHG	PHG Date	MCL	MCL Effective Date	MCLG
Dalapon	200	1994-09-08	10	790	1997	200	1994-01-17	200
1,2-Dibromo-3-chloropropane (DBCP)	0.2 *0.1*	1991-05-03 *1989-07-26*	0.01	0.003	2020	0.2	1992-07-30	zero
2,4-Dichlorophenoxyacetic acid (2,4-D)	70 *100*	1994-09-08 *1977*	10	20	2009	70 *100*	1992-07-30 *1977-06-24*	70
Di(2-ethylhexyl)adipate	400	1994-09-08	5	200	2003	400	1994-01-17	400
Di(2-ethylhexyl)phthalate (DEHP)	4	1990-06-24	3	12	1997	6	1994-01-17	zero
Dinoseb	7	1994-09-08	2	14	1997	7	1994-01-17	7
Diquat	20	1994-09-08	4	6	2016	20	1994-01-17	20
Endothal	100	1994-09-08	45	94	2014	100	1994-01-17	100
Endrin	2 *0.2*	1994-09-08 *1977*	0.1	0.3	2016	2 *0.2*	1994-01-17 *1977-06-24*	2
Ethylene dibromide (EDB)	0.05 *0.02*	1994-09-08 *1989-02-25*	0.02	0.01	2003	0.05	1992-07-30	zero
Glyphosate	700	1990-06-24	25	900	2007	700	1994-01-17	700
Heptachlor	0.01	1990-06-24	0.01	0.008	1999	0.4	1992-07-30	zero
Heptachlor epoxide	0.01	1990-06-24	0.01	0.006	1999	0.2	1992-07-30	zero
Hexachlorobenzene	1	1994-09-08	0.5	0.03	2003	1	1994-01-17	zero
Hexachlorocyclopentadiene	50	1994-09-08	1	2	2014	50	1994-01-17	50
Lindane	0.2 *4*	1994-09-08 *1977*	0.2	0.032	1999	0.2 4	1992-07-30 1977	0.2
Methoxychlor	30 *40* *100*	2003-06-12 *1994-09-08* *1977*	10	0.09	2010	40 *100*	1992-07-30 *1977-06-24*	40
Molinate	20	1989-04-05	2	1	2008	--	--	--
Oxamyl	50 *200*	2003-06-12 *1994-09-08*	20	26	2009	200	1994-01-17	200

Synthetic Organic Chemicals (SOCs)	California					U.S. EPA		
	MCL	MCL Effective Date	DLR	PHG	PHG Date	MCL	MCL Effective Date	MCLG
Pentachlorophenol	1	1994-09-08	0.2	0.3	2009	1	1992-07-30	zero
Picloram	500	1994-09-08	1	166	2016	500	1994-01-17	500
Polychlorinated biphenyls (PCBs)	0.5	1994-09-08	0.5	0.09	2007	0.5	1992-07-30	zero
Simazine	4 *10*	1994-09-08 *1989-04-05*	1	4	2001	4	1994-01-17	4
Thiobencarb	70	1989-04-05	1	42	2016	--	--	--
Toxaphene	3 *5*	1994-09-08 *1977*	1	0.03	2003	3 *5*	1992-07-30 *1977-06-24*	zero
1,2,3-Trichloropropane	0.005	2017-12-14	0.005	0.0007	2009	--	--	--
2,3,7,8-TCDD (dioxin)	0.00003	1994-09-08	5×10^{-6}	5×10^{-8}	2010	0.00003	1994-01-17	zero
2,4,5-TP (Silvex)	50 *10*	1994-09-08 *1977*	1	3	2014	50 *10*	1992-07-30 *1977-06-24*	50

Disinfectant Residuals

Standards for disinfectant residuals are called “Maximum Residual Disinfectant Levels” (MRDLs) instead of MCLs. Similarly, goals are called “Maximum Residual Disinfectant Level Goals” (MRDLGs). The information in the following table can be found in 22 CCR §64533.5 (California MRDLs), 40 CFR §141.65 (U.S. EPA MRDLs), and 40 CFR §141.54 (U.S. EPA MRDLGs). The values in this table are in **units of milligrams per liter (mg/L)**.

Disinfectant Residuals	California					U.S. EPA		
	MRDL	MRDL Effective Date	DLR	PHG	PHG Date	MRDL	MRDL Effective Date	MRDLG
Chlorine	4.0 (as Cl_2)	2006-06-17	--	--	--	4.0	1999-02-16	4
Chloramines	4.0 (as Cl_2)	2006-06-17	--	--	--	4.0	1999-02-16	4
Chlorine dioxide	0.8 (as ClO_2)	2006-06-17	--	--	--	0.8	1999-02-16	0.8

Disinfection Byproducts

The information in the following table can be found in 22 CCR §64533 (California MCLs and DLRs), OEHHA's website (California PHGs), 40 CFR §141.64 (U.S. EPA MCLs), and 40 CFR §141.53 (U.S. EPA MCLGs). The values in this table are in **units of micrograms per liter (µg/L)**.

Disinfection Byproducts	California					U.S. EPA		
	MCL	MCL Effective Date	DLR	PHG	PHG Date	MCL	MCL Effective Date	MCLG
Total Trihalomethanes	80 *100*	2006-06-17 *1983-03-14*	--	--	--	80 *100*	2002-01-01 *1983-11-29*	--
Bromodichloromethane	--	--	1	0.06	2020	--	--	zero
Bromoform	--	--	1	0.5	2020	--	--	zero
Chloroform	--	--	1	0.4	2020	--	--	70
Dibromochloromethane	--	--	1	0.1	2020	--	--	60
Haloacetic Acids (five) (HAA5)	60	2006-06-17	--	--	--	60	2002-01-01	--
Monochloroacetic Acid	--	--	2	53	2022	--	--	70
Dichloroacetic Acid	--	--	1	0.2	2022	--	--	zero
Trichloroacetic Acid	--	--	1	0.1	2022	--	--	20
Monobromoacetic Acid	--	--	1	25	2022	--	--	--
Dibromoacetic Acid	--	--	1	0.03	2022	--	--	--
Bromate	10	2006-06-17	5[4]	0.1	2009	10	2002-01-01	zero
Chlorite	1000	2006-06-17	20	50	2009	1000	2002-01-01	800

Radionuclides

The information in the following table can be found in 22 CCR §64442 (California MCLs and DLRs), 22 CCR §64443 (California MCLs and DLRs), OEHHA's website (California PHGs), 40 CFR §141.66 (U.S. EPA MCLs), and 40 CFR §141.55 (U.S. EPA MCLGs). The values in this table are in **units of picocuries per liter (pCi/L)** unless otherwise stated.

[4] The DLR for bromate is 0.0010 mg/L for analysis performed using EPA Methods 317.0 Revision 2.0, 321.8, or 326.0.

Radionuclides	California					U.S. EPA		
	MCL	MCL Effective Date	DLR	PHG	PHG Date	MCL	MCL Effective Date	MCLG
Gross alpha particle activity[5]	15[6] *15*	2006-06-11 *1977*	3	none[7]	--	15	1977-06-24	zero
Beta/photon emitters[8]	4 mrem/yr *50*	2006-06-11 *1977*	4	none[7]	--	4 mrem/yr	1977-06-24	zero
Radium-226	--	--	1	0.05	2006	--	--	--
Radium-228	--	--	1	0.019	2006	--	--	--
Radium-226 + Radium-228	5[6] *5*	2006-06-11 *1977*	--	--	--	5	1977-06-24	zero
Strontium-90	8[9] *8*	2006-06-11 *1977*	2	0.35	2006	4 mrem/yr[10] *8*	2003-12-08 *1977-06-24*	--
Tritium	20,000[9] *20,000*	2006-06-11 *1977*	1,000	400	2006	4 mrem/yr[10] *20,000*	2003-12-08 *1977-06-24*	--
Uranium	20[6] *20*	2006-06-11 *1989-01-01*	1	0.43	2001	30 µg/L[11]	2003-12-08	zero

[5] Excludes alpha particle activity from radon and uranium.
[6] Revised MCL applies to both community (CWS) and nontransient noncommunity water systems (NTNCWS); previous MCL applied only to CWS.
[7] OEHHA concluded in 2003 that it would not be practical to develop a PHG (for gross alpha particle activity, for gross beta particle/photon emitters).
[8] Beta/photon emitters MCLs are in units of millirems per year (mrem/yr) annual dose equivalent to the total body or any internal organ. The DLR is in units of pCi/L of gross beta particle activity.
[9] Revised MCL applies to all CWS and NTNCWS; previous MCL applied only to water systems with at least 30,000 service connections that used surface water.
[10] U.S. EPA does not have specific MCLs for strontium-90 or tritium; both are regulated under the beta/photon emitters MCL.
[11] U.S. EPA MCL of 30 µg/L is equivalent to 20.1 pCi/L (unit conversion using natural uranium specific activity of 0.67 pCi/µg).

Copper and Lead

Standards for lead and copper are called “Action Levels” instead of MCLs. If a system exceeds an Action Level, it must take certain actions such as additional monitoring, corrosion control studies and treatment, and for lead, a public education program. The information in the following table can be found in 22 CCR §64678 (California Action Levels and DLRs), OEHHA’s website (California PHGs), 40 CFR §141.80 (U.S. EPA Action Levels), and 40 CFR §141.51 (U.S. EPA MCLGs). The values in this table are in **units of micrograms per liter (µg/L)**.

Contaminants	California					U.S. EPA		
	Action Level	Action Level Effective Date	DLR	PHG	PHG Date	Action Level	Action Level Effective Date	MCLG
Copper	1,300	1995-12-11	50	300	2008	1,300	1991-11-06	1,300
Lead	15 *50*	1995-12-11 *1977*	5	0.2	2009	15 *50*	1991-11-06 *1977-06-24*	zero

Treatment Techniques

A treatment technique is a required process intended to reduce contaminant levels in drinking water, safeguarding public health. Rather than setting specific limits on contaminant concentrations, the treatment techniques below focus on the processes used to ensure protection from contaminants:

- **Coliform**: If a water system finds coliform bacteria (which indicate the presence of harmful microorganisms), they must assess and fix any issues in actions called Level 1 and Level 2 assessments.
- **Viruses**: Systems must treat groundwater to remove or inactivate at least 99.99% of viruses using methods like disinfection. They must monitor and correct any issues within hours if they fail to meet these standards.
- **Cryptosporidium**: For surface water or groundwater influenced by surface water, system must treat to remove or inactivate a parasite called Cryptosporidium, which involves special filtration and disinfection processes.
- **Disinfection Byproducts**: Systems have several options for treatment techniques to reduce the levels of disinfection byproducts (total trihalomethanes (TTHMs), haloacetic acids (HAA5), bromate, and chlorite).
- **Acrylamide and Epichlorohydrin**: Water systems that use certain chemicals in the treatment process must certify that the chemical levels are kept below safe limits.

Secondary Standards

Secondary Maximum Contaminant Levels (SMCLs) provide water quality standards related to aesthetic aspects of drinking water, such as taste, odor, and appearance. Though not directly linked to health risks, SMCLs play a crucial role in maintaining

consumer confidence and satisfaction. The information in the following two tables can be found in 22 CCR §64449 (California SMCLs) and 40 CFR §143.3 (U.S. EPA SMCLs). The values in this table are in **units of micrograms per liter (µg/L)** unless otherwise stated.

Chemical	California				U.S. EPA	
	SMCL			SMCL Effective Date	SMCL	SMCL Effective Date
Aluminum	200			1994-09-08	50 to 200	1992-07-30
Color	15 Units			1977	15 Units	1981-01-19
Copper	1,000			1977	1,000[12] 1,000	1992-07-30 1981-01-19
Corrosivity	--			Removed	Non-corrosive	1981-01-19
Fluoride	See 22 CCR §64433.2			1998-04-22	2,000	1986-05-02
Foaming Agents (MBAS)	500			1977	500	1981-01-19
Iron	300			1977	300	1981-01-19
Manganese	50			1977	50	1981-01-19
Methyl-*tert*-butyl ether (MTBE)	5			1999-01-07	--	--
Odor -Threshold	3 Units			1977	3 Units	1981-01-19
pH	--			--	6.5 to 8.5	1981-01-19
Silver	100			--	100	1992-07-30
Thiobencarb	1			1989-04-05	--	--
Turbidity	5 Units			1977	--	--
Zinc	5,000			1977	5,000	1981-01-19
	Recommended	**Upper**	**Short Term**			
Total Dissolved Solids (mg/L) *or* Specific Conductance (µS/cm[9])	500	1,000	1,500	--	500	1981-01-19
	900	1,600	2,200	--	--	--
Chloride (mg/L)	250	500	600	--	250	1981-01-19
Sulfate (mg/L)	250	500	600	--	250	1981-01-19

[12] The updated SMCL for copper increased the number of significant figures from 1 to 2.

Chemicals soon to be regulated in drinking water in California

The information in the following table can be found in OEHHA's website (California PHGs), 40 CFR §141.61 (U.S. EPA MCLs), and 40 CFR §141.50 (U.S. EPA MCLGs). The values in this table are in **units of nanograms per liter (ng/L)** unless otherwise stated.

Chemicals	California				U.S. EPA		
	MCL	DLR	PHG	PHG Date	MCL	MCL Effective Date	MCLG
N-Nitrosodimethylamine (NDMA)	--	--	3	2006	--	--	--
Perfluorooctanoic acid (PFOA)	--	--	0.007	2024	4.0	2029-04-26	zero
Perfluorooctane sulfonic acid (PFOS)	--	--	1	2024	4.0	2029-04-26	zero
Perfluorohexane sulfonic acid (PFHxS)	--	--	--	--	10.0	2029-04-26	10
Perfluorononanoate (PFNA)	--	--	--	--	10.0	2029-04-26	10
2,3,3,3-Tetrafluoro-2-(heptafluoropropoxy)propanoate (HFPO-DA or GenX Chemicals)	--	--	--	--	10.0	2029-04-26	10
PFAS Hazard Index[13] (includes HFPO-DA, PFBS[14], PFHxS, and PFNA)	--	--	--	--	1 (unitless)	2029-04-26	1 (unitless)

[13] PFAS Hazard Index = ([HFPO-DA$_{water}$ ng/L]/[10 ng/L]) + ([PFBS$_{water}$ ng/L]/[2000 ng/L]) + ([PFNA$_{water}$ ng/L]/[10 ng/L]) + ([PFHxS$_{water}$ ng/L]/[10 ng/L])

[14] Perfluorobutane sulfonate (PFBS)

ATTACHMENT NO. 2

City of Manteca Consumer Confidence Reports:

- 2022 Water Quality Report
- 2023 Water Quality Report
- 2024 Water Quality Report

City of Manteca

2022 Water Quality Report to Consumers

(El informe contiene información importante sobre su agua potable. Tradúzalo o hable con alguien que lo entienda bien.)

The Safe Drinking Water Act requires that utilities issue a water quality report to consumers in addition to other notices that may be required by law. This report details where our water comes from, what it contains, and the risks our water testing and treatment are designed to prevent. The City of Manteca is committed to providing you with a safe and reliable water supply. Informed consumers are our best allies.

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 must 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) or on the Internet at www.epa.gov/safewater.

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 natural deposits of minerals and 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, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants such as salts and metals, which can be naturally occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, storm water runoff and residential uses.
- Organic chemical contaminants including synthetic and volatile organic chemicals that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, agricultural application and septic systems.
- Radioactive contaminants, which can be naturally occurring or resulting from oil and gas production and mining activities.

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 are available from the Safe Drinking Water Hotline (1-800-426-4791).

NATIONAL PRIMARY DRINKING WATER REGULATION COMPLIANCE

This report was prepared by City of Manteca Public Works Department staff following prescribed reporting guidelines. For more information, call George Montross at 209-456-8400. En Español, 209-456-8400.

Date of Report: May 2023

CURRENT WATER SOURCE

The City of Manteca's water is supplied from two sources. The first is groundwater, pumped from 15 wells located throughout the City, and the second is treated surface water, from Woodward Reservoir, which is purchased from South San Joaquin Irrigation District (SSJID). During the summer of 2005, the City began receiving up to 11,500 acre feet/year of treated surface water from (SSJID). The majority of the City's customers receive a mixture of groundwater and surface water, this mixture changes throughout the year. For more specific water source data, contact the Public Works Department at 209-456-8400.

FUTURE WATER SOURCE

The City of Manteca will continue to supply both groundwater and surface water. In the future, the amount of surface water the City receives may increase by 7,000 acre feet/year and the City will continue to install new groundwater wells.

SOURCE WATER ASSESSMENT

- Groundwater:
  Source water assessments (SWA) were completed in December, 2001 for all existing City wells. New wells have SWA completed prior to the well producing any water for consumption by customers. The wells are considered most vulnerable to confirmed leaking underground storage tanks, gas stations, chemical/petroleum processing/storage facilities, metal plating/finishing/fabricating facilities, automobile body/repair shops and sewer collection systems.
  For inquiries about the source water assessment call the City of Manteca, Public Works Department at (209) 456-8400 located at 1001 West Center Street, Manteca, CA or the State Board at (209) 948-7696.

- Surface Water:
  Source water assessments were completed in September 2001. The Woodward Reservoir/Stanislaus River source is considered most vulnerable to recreational activities at Woodward Reservoir, confined animal facilities (dairy), cattle grazing, and wastewater disposal. For inquiries about the source water assessment, call the State Board at (209) 948-7696.

PUBLIC PARTICIPATION

The public can participate in decisions that affect their water by attending City Council meetings when water related topics are scheduled for action. Council meetings are held in the Council Chambers, 1001 West Center Street, on the first and third Tuesday of every month at 6:00 p.m.

CONCERNING NITRATE IN OUR WATER

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 ask for advice from your health care provider.

CONCERNING ARSENIC IN OUR 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.

LEAD IN WATER

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. The City of Manteca 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 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 or at http://www.epa.gov/lead.

CONTAMINANTS MONITORED

The tables list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. We routinely perform additional monitoring for contaminants that could pose health concerns. The State Board allows us to monitor some contaminants less than once per year because the concentrations do not change frequently. Some of our data, though representative, are more than a year old.

HOW TO READ THE FOLLOWING TABLES

The column marked “Range of Detected Levels” shows the lowest, average and highest test results in our wells during the most recent monitoring. The “Average Detected Level” is determined from all test results from the most recent monitoring. “Typical Source of Contaminant” indicates where a substance usually originates. Other columns refer to:

- 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.
- 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.
- 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.
- Primary Drinking Water Standards: MCLs for contaminants that affect health along with their monitoring and reporting requirements and water treatment requirements.
- Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, order or appearance of the drinking water. Contaminants with SDWS do not affect the health at their MCL levels.
- Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
- Regulatory Notification Level (NL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

For more information or to report unlawful water waste,
please call 209-456-8410 or scan the QR code for the GoGov App.

Table 1 - Source Water Quality Monitoring

Detection of Contaminants with a Primary Drinking Water Standard

Contaminant	Sample Date	Units	MCL	PHG or (MCLG)	Range of Detected Levels				Typical Source of Contaminant
					Groundwater		Surface Water		
					Average	Range	Average	Range	
Arsenic **(1)**	2022	ppb	10	0.004	4.7	0 – 8.8	ND	NA	Erosion of natural deposits; runoff from orchards
Barium	2022	ppm	1	2	0.176	0.11– 0.28	ND	NA	Erosion of natural deposits.
Dibromo-chloropropane (DBCP)	2022	ppt	200	1.7	37.5	0 - 71	NS	NA	Banned nematocide that may still be present in soils due to runoff/leaching from former use on vineyard and fruit trees.
Ethylene Dibromide (EDB)	2022	ppt	50	10	14.4	0 - 29	NS	NA	Banned nematocide that may still be present in soils due to runoff and leaching from grain and fruit crops.
Fluoride	2022	ppm	2	1	0.096	0 – 0.19	ND	NA	Erosion of natural deposits.
Gross Alpha Activity	2022	pCi/L	15	(0)	7.49	2.4 - 14	NS	NA	Erosion of natural deposits.
Nitrate **(2)**	2022	ppm	10	10	3.6	0 – 8.6	ND	NA	Runoff and leaching from fertilizer use; erosion of natural deposits.
Copper	2022	ppb	NL= 1300	300	ND	ND	ND	NA	Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time may experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years may suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.
Uranium	2022	pCi/L	20	0.43	12.4	4.8 - 16	NS	NA	Erosion of natural deposits.
1,2,3 Trichloro-propane (3)	2022	ppt	5	0.7	1.6	0 - 25	NS	NA	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..
Chloride	2022	ppm	500	None	31	10 - 79	3.2	NA	Runoff/leaching from natural deposits..
Iron	2022	ppb	300	None	3.3	0 - 86	ND	NA	Leaching from natural deposits
Manganese	2022	ppb	50	None	0.1	0 – 0.8	ND	NA	Leaching from natural deposits
Sulfate	2022	ppm	500	None	26	12 - 46	1.9	NA	Runoff/leaching from natural deposits.
Turbidity	2022	NTU	5	None	0.12	0 – 0.26	0.69	NA	Soil runoff
TDS	2022	ppm	1,000	None	455	200 - 570	56	NA	Runoff/leaching from natural deposits.

Sampling Results for Sodium and Hardness

Sodium	2022	ppm	None	None	41	34 - 49	4.1	NA	Naturally occurring in ground and surface waters.
Hardness	2022	ppm	None	None	240	150 - 330	32	NA	Naturally occurring in ground and surface waters.

State Contaminants with Notification Levels

Perfluorohexane Sulfonic Acid (PFHxS)	2022	ppt	NL=3	None	7.3	2.6 - 12	NS	NA	Perfluorohexane sulfonic acid exposures resulted in decreased total thyroid hormone in male rats.
Perfluorooctanoic Acid (PFOA)	2022	ppt	NL=5.1	None	1	0 - 2	NS	NA	Perfluorooctanoic acid exposures resulted in increased liver weight and cancer in laboratory animals.
Perfluorooctane-sulfonic Acid (PFOS)	2022	ppt	NL=6.5	None	4.2	0 – 8.4	NS	NA	Perfluorooctanesulfonic acid exposures resulted in immune suppression and cancer in laboratory animals.

UNITS USED IN REPORTING

- ppm = parts per million • ppt = parts per trillion • ND = None Detected • NS = Not Sampled • NA = Not Applicable
- ppb = parts per billion • pCi/L stands for picocuries per liter and is a radioactivity measurement

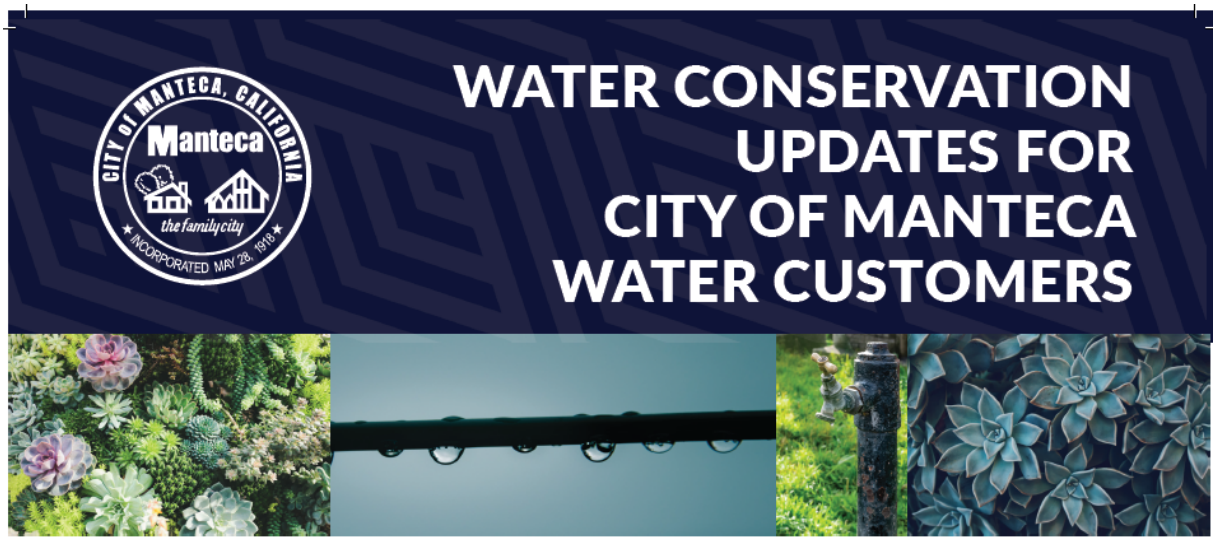
Units	Units	Equivalence
mg/L = milligrams per liter	ppm = parts per million	1 second in 11.5 days
µg/L = micrograms per liter	ppb = parts per billion	1 second in nearly 32 years
ng/L = nanograms per liter	ppt = parts per trillion	1 second in nearly 32,000 years
pg/L = picograms per liter	ppq = parts per quadrillion	1 second in nearly 32,000,000 years

Notes from Table 1:

(1) Systems with Arsenic levels above 5 ppb (50% of the MCL), but below or equal to 10 ppb (the MCL) must include a specific statement. See Page 2, "Concerning Arsenic in Our Water".

(2) More than half of the City wells have levels of Nitrates below 5 ppm as N and only require monitoring once every year. Those wells with detected levels of Nitrate between 5 and 10 ppm as N are monitored quarterly to maintain an accurate picture of the Nitrate levels. Any well that monitors a level of Nitrate above 10 ppm as N would be immediately retested and removed from service if the average of the two tests was above 10 ppm as N. Further testing and evaluations would then be performed.

(3) 1,2,3-Trichloropropane (TCP) had a notification level of 5 ppt until December 14, 2017, when the MCL of 5 ppt became effective. On November 13, 2018, the City of Manteca received a Compliance Order from SWRCB on account of five wells exceeding the MCL. Some people who drink water containing TCP in excess of the MCL over many years may have an increased risk of getting cancer. As of January 21, 2021, all five wells have TCP treatment installed and the well water is being filtered to remove TCP. However, a new well had a detection of TCP in October 2020, following this detection, the City immediately reduced water production from this well, while the City begins work to add filters to this well.



Please be advised the City of Manteca Watering Schedule has changed:
- Property addresses ending in 0, 2, 4, 6, 8 are allowed to water on Tuesday and Saturday.
- Property addresses ending in 1, 3, 5, 7, 9 are allowed to water on Wednesday and Sunday.
- No watering is allowed on Monday, Thursday or Friday.
- No watering is allowed on any day between noon and 6 p.m.
- Non-residential properties are not permitted to water ornamental grass.

To help residents and businesses meet the 20% water reduction requirement, the City is offering the following rebate programs:

- Installation of a High-Efficiency Clothes Washer
- Installation of High-Efficiency Toilet
- Lawn-to-Garden Program

Applications can be found on the City's website at:
www.manteca.gov/publicworks/water/pages/current-city-rebates.aspx

Table 2 – Distribution System Water Quality Monitoring

Sampling Results Showing the Detection of Coliform Bacteria for 2022

Microbial Contaminants	Highest percentage of positive samples in a month	Number of months in violation	MCL	MCLG	Typical Source of Microbe
Total Coliform Bacteria	1.1 %	0	5% of total monthly samples	0	Naturally present in the environment

Sampling Results Showing the Detection of Disinfectant Residual and Disinfection By-Products

Contaminant	Date of Last Test Result	Units	MCL [MRDL]	PHG (MCLG) [MRDL]	Range of Detected Levels			Typical Source of Contaminant
					Minimum	Average	Maximum	
Chlorine	December 2022	ppm	[4.0]	[4.0]	0.94	0.99	1.09	Drinking water disinfectant added for treatment
TTHMs (Total Trihalomethane)	October 2022	ppb	80	None	14	34	55	By-product of drinking water chlorination.
Haloacetic Acids	October 2022	ppb	60	None	11	24	38	By-product of drinking water chlorination.

Stage 2 TTHM Monitoring – Locational Running Annual Average

TTHM MCL	**80 ppb**			
Location	2022 TTHM Results (ppb)			
	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
Site 1	29	32	27	29
*Site 1 LRAA**	*24*	*27*	*29*	*29*
Site 2	26	55	39	53
*Site 2 LRAA**	*34*	*40*	*38*	*43*
Site 3	27	34	14	31
*Site 3 LRAA**	*24*	*28*	*25*	*27*
Site 4	19	32	20	32
*Site 4 LRAA**	*23*	*27*	*25*	*26*
Site 5	26	27	24	30
*Site 5 LRAA**	*31*	*27*	*26*	*27*
Site 6	32	37	23	49
*Site 6 LRAA**	*29*	*32*	*31*	*35*
Site 7	37	46	33	47
*Site 7 LRAA**	*40*	*40*	*39*	*41*
Site 8	26	47	35	48
*Site 8 LRAA**	*40*	*40*	*39*	*42*

For more information or to report unlawful water waste,
please call 209-456-8410 or scan the QR code for the GoGov App.

Table 2 – Distribution System Water Quality Monitoring (Continued)

Stage 2 HAA5 Monitoring – Locational Running Annual Average

HAA5 MCL	**60 ppb**			
Location	2022 HAA5 Results (ppb)			
	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
Site 1	20	19	25	22
*Site 1 LRAA**	*17*	*20*	*20*	*22*
Site 2	21	22	31	38
*Site 2 LRAA**	*22*	*27*	*25*	*28*
Site 3	20	20	13	22
*Site 3 LRAA**	*19*	*22*	*18*	*19*
Site 4	20	11	15	20
*Site 4 LRAA**	*15*	*18*	*16*	*17*
Site 5	19	20	21	21
*Site 5 LRAA**	*24*	*20*	*20*	*20*
Site 6	22	26	22	28
*Site 6 LRAA**	*21*	*24*	*22*	*25*
Site 7	28	29	31	29
*Site 7 LRAA**	*30*	*30*	*29*	*30*
Site 8	28	30	32	29
*Site 8 LRAA**	*29*	*32*	*30*	*30*

Locational running annual averages for quarters 1 – 3 are based on results from previous quarters not reported on the TTHM or HAA5 tables.

Sampling Results Showing the Detection of Lead and Copper

Contaminant	**Date of Last Test Result**	**Units**	**Action Level**	**MCLG**	**90th Percentile Level Detected**	**Number of Sites Exceeding Action Level**	**Number of Samples Collected**	**Number of Schools Requesting Lead Sampling**	**Typical Source of Contaminant**
Lead	July 2021	ppb	15	2	0.4	0	32	0	Internal corrosion of household water plumbing systems; erosion of natural deposits.
Copper	July 2021	ppm	1.3	0.17	0.112	0	32	NA	Internal corrosion of household water plumbing systems; erosion of natural deposits.

Table 3 – Sampling Results Showing Treatment of Surface Water Sources

Treatment Technique **(4)** (Type of approved filtration technology used)	Ultrafiltration Membrane
Turbidity Performance Standards **(5)** (that must be met through the water treatment process)	Turbidity of the filtered water must: 1 - Be less than or equal to 0.1 NTU in 95% of measurements in a month. 2 - Not to exceed 1.0 NTU any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	100%
Highest single turbidity measurement during the year	0.031 Nephelometric Turbidity Unit (NTU)
Number of violations of any surface water treatment requirements	0

Notes from Table 3:

(4) A required process intended to reduce the level of a contaminant in drinking water.

(5) Turbidity (measured in NTU) is a measurement of the cloudiness of water and is a good indicator of water quality and filtration performance. Turbidity results which meet performance standards are considered to be in compliance with filtration requirements.

City of Manteca

2023 Water Quality Report to Consumers

(El informe contiene información importante sobre su agua potable. Tradúzalo o hable con alguien que lo entienda bien.)

The Safe Drinking Water Act requires that utilities issue a water quality report to consumers in addition to other notices that may be required by law. This report details where our water comes from, what it contains, and the risks our water testing and treatment are designed to prevent. The City of Manteca is committed to providing you with a safe and reliable water supply. Informed consumers are our best allies.

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 must 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) or on the Internet at www.epa.gov/safewater.

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 natural deposits of minerals and 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, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants such as salts and metals, which can be naturally occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, storm water runoff and residential uses.
- Organic chemical contaminants including synthetic and volatile organic chemicals that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, agricultural application and septic systems.
- Radioactive contaminants, which can be naturally occurring or resulting from oil and gas production and mining activities.

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 are available from the Safe Drinking Water Hotline (1-800-426-4791).

NATIONAL PRIMARY DRINKING WATER REGULATION COMPLIANCE

This report was prepared by City of Manteca Public Works Department staff following prescribed reporting guidelines. For more information, call George Montross at 209-456-8400. En Español, 209-456-8400.

Date of Report: April 2024

CURRENT WATER SOURCE

The City of Manteca's water is supplied from two sources. The first is groundwater, pumped from 15 wells located throughout the City, and the second is treated surface water, from Woodward Reservoir, which is purchased from South San Joaquin Irrigation District (SSJID). During the summer of 2005, the City began receiving up to 11,500 acre feet/year of treated surface water from (SSJID). The majority of the City's customers receive a mixture of groundwater and surface water, this mixture changes throughout the year. For more specific water source data, contact the Public Works Department at 209-456-8400.

FUTURE WATER SOURCE

The City of Manteca will continue to supply both groundwater and surface water. In the future, the amount of surface water the City receives may increase by 7,000 acre feet/year and the City will continue to install new groundwater wells.

SOURCE WATER ASSESSMENT

- Groundwater:
  Source water assessments (SWA) were completed in December, 2001 for all existing City wells. New wells have SWA completed prior to the well producing any water for consumption by customers. The wells are considered most vulnerable to confirmed leaking underground storage tanks, gas stations, chemical/petroleum processing/storage facilities, metal plating/finishing/fabricating facilities, automobile body/repair shops and sewer collection systems.
  For inquiries about the source water assessment call the City of Manteca, Public Works Department at (209) 456-8400 located at 1001 West Center Street, Manteca, CA or the State Board at (209) 948-7696.

- Surface Water:
  Source water assessments were completed in September, 2001. The Woodward Reservoir/Stanislaus River source is considered most vulnerable to recreational activities at Woodward Reservoir, confined animal facilities (dairy), cattle grazing, and wastewater disposal. For inquiries about the source water assessment call the State Board at (209) 948-7696.

PUBLIC PARTICIPATION

The public can participate in decisions that affect their water by attending City Council meetings when water related topics are scheduled for action. Council meetings are held in the Council Chambers, 1001 West Center Street, on the first and third Tuesday of every month at 6:00 p.m.

CONCERNING NITRATE IN OUR WATER

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 ask for advice from your health care provider.

CONCERNING ARSENIC IN OUR 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.

LEAD IN WATER

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. The City of Manteca 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 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 or at http://www.epa.gov/lead.

CONTAMINANTS MONITORED

The tables list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. We routinely perform additional monitoring for contaminants that could pose health concerns. The State Board allows us to monitor some contaminants less than once per year because the concentrations do not change frequently. Some of our data, though representative, are more than a year old.

HOW TO READ THE FOLLOWING TABLES

The column marked "Range of Detected Levels" shows the lowest, average and highest test results in our wells during the most recent monitoring. The "Average Detected Level" is determined from all test results from the most recent monitoring. "Typical Source of Contaminant" indicates where a substance usually originates. Other columns refer to:

- 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.
- 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.
- 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.
- Primary Drinking Water Standards: MCLs for contaminants that affect health along with their monitoring and reporting requirements and water treatment requirements.
- Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, order or appearance of the drinking water. Contaminants with SDWS do not affect the health at their MCL levels.
- Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
- Regulatory Notification Level (NL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

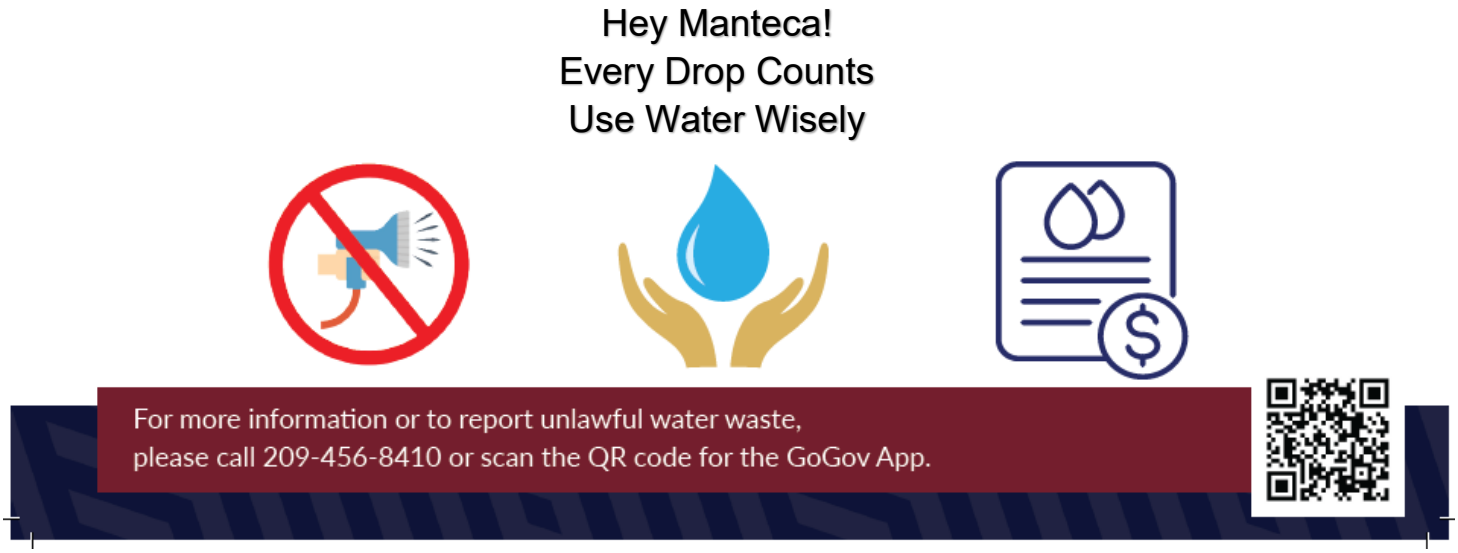


Table 1 - Source Water Quality Monitoring

Detection of Contaminants with a Primary Drinking Water Standard

Contaminant	Sample Date	Units	MCL	PHG or (MCLG)	Range of Detected Levels				Typical Source of Contaminant
					Groundwater		Surface Water		
					Average	Range	Average	Range	
Arsenic **(1)**	2023	ppb	10	0.004	4.5	0.2 - 9.1	ND	NA	Erosion of natural deposits; runoff from orchards
Barium	2023	ppm	1	2	.11	0.08-0.14	ND	NA	Erosion of natural deposits.
Dibromo-chloropropane (DBCP)	2023	ppt	200	1.7	4.6	0 - 51	NS	NA	Banned nematocide that may still be present in soils due to runoff/leaching from former use on vineyard and fruit trees.
Ethylene Dibromide (EDB)	2023	ppt	50	10	2.8	0 - 31	NS	NA	Banned nematocide that may still be present in soils due to runoff and leaching from grain and fruit crops.
Fluoride	2023	ppm	2	1	0.13	0.12–0.14	ND	NA	Erosion of natural deposits.
Gross Alpha Activity	2023	pCi/L	15	(0)	10.5	9 – 14.9	NS	NA	Erosion of natural deposits.
Nitrate **(2)**	2023	ppm	10	10	3.5	0 – 6.8	ND	NA	Runoff and leaching from fertilizer use; erosion of natural deposits.
Copper	2023	ppb	NL= 1300	300	ND	ND	ND	NA	Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time may experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years may suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.
Uranium	2023	pCi/L	20	0.43	12	6 - 16	NS	NA	Erosion of natural deposits.
1,2,3 Trichloro-propane (3)	2023	ppt	5	0.7	1.39	0 - 32	NS	NA	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..
Chloride	2023	ppm	500	None	17.3	11 - 25	4	NA	Runoff/leaching from natural deposits..
Iron	2023	ppb	300	None	2.8	0 - 72	ND	NA	Leaching from natural deposits
Manganese	2023	ppb	50	None	1.6	0 - 22	ND	NA	Leaching from natural deposits
Sulfate	2023	ppm	500	None	22	11 - 21	1.9	NA	Runoff/leaching from natural deposits.
Turbidity	2023	NTU	5	None	.26	0.11-0.42	0.69	NA	Soil runoff
TDS	2023	ppm	1,000	None	390	220-540	56	NA	Runoff/leaching from natural deposits.

Sampling Results for Sodium and Hardness

Sodium	2023	ppm	None	None	26	25 - 28	4.1	NA	Naturally occurring in ground and surface waters.
Hardness	2023	ppm	None	None	163	110-200	32	NA	Naturally occurring in ground and surface waters.
Perfluorohexane Sulfonic Acid (PFHxS)	2023	ppt	NL=3	None	17	0 - 43	NS	NA	Perfluorohexane sulfonic acid exposures resulted in decreased total thyroid hormone in male rats.
Perfluorooctanoic Acid (PFOA)	2023	ppt	NL=5.1	None	.4	0 - 2.2	NS	NA	Perfluorooctanoic acid exposures resulted in increased liver weight and cancer in laboratory animals.
Perfluorooctanesulfonic Acid (PFOS)	2023	ppt	NL=6.5	None	13.6	0 - 45	NS	NA	Perfluorooctanesulfonic acid exposures resulted in immune suppression and cancer in laboratory animals.

UNITS USED IN REPORTING

- ppm = parts per million • ppt = parts per trillion • ND = None Detected • NS = Not Sampled • NA = Not Applicable
- ppb = parts per billion • pCi/L stands for picocuries per liter and is a radioactivity measurement

Units	Units	Equivalence
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
pg/L = picograms per liter	ppq = parts per quadrillion	1 second in nearly 32,000,000 years

Notes from Table 1:

(1) Systems with Arsenic levels above 5 ppb (50% of the MCL), but below or equal to 10 ppb (the MCL) must include a specific statement. See Page 2, "Concerning Arsenic in Our Water".

(2) More than half of the City wells have levels of Nitrates below 5 ppm as N and only require monitoring once every year. Those wells with detected levels of Nitrate between 5 and 10.15 ppm as N are monitored quarterly to maintain an accurate picture of the Nitrate levels. Any well that monitors a level of Nitrate above 10.15 ppm as N would be immediately retested and removed from service if the average of the two tests was above 10.15 ppm as N. Further testing and evaluations would then be performed.

(3) 1,2,3-Trichloropropane (TCP) had a notification level of 5 ppt until December 14, 2017, when the MCL of 5 ppt became effective. On November 13, 2018, the City of Manteca received a Compliance Order from SWRCB on account of five wells exceeding the MCL. Some people who drink water containing TCP in excess of the MCL over many years may have an increased risk of getting cancer. As of January 21, 2021, all five wells have TCP treatment installed and the well water is being filtered to remove TCP. However, a new well had a detection of TCP in October 2020, following this detection, the City immediately reduced water production from this well, while the City begins work to add filters to this well.

Table 2 – Distribution System Water Quality Monitoring

Sampling Results Showing the Detection of Coliform Bacteria for 2022

Microbial Contaminants	Highest percentage of positive samples in a month	Number of months in violation	MCL	MCLG	Typical Source of Microbe
Total Coliform Bacteria	1.1 %	0	5% of total monthly samples	0	Naturally present in the environment

Sampling Results Showing the Detection of Disinfectant Residual and Disinfection By-Products

Contaminant	Date of Last Test Result	Units	MCL [MRDL]	PHG (MCLG) [MRDL]	Range of Detected Levels			Typical Source of Contaminant
					Minimum	Average	Maximum	
Chlorine	December 2023	ppm	[4.0]	[4.0]	.79	.96	1.09	Drinking water disinfectant added for treatment
TTHMs (Total Trihalomethane)	October 2023	ppb	80	None	23	45	75	By-product of drinking water chlorination.
Haloacetic Acids	October 2023	ppb	60	None	16	38	76	By-product of drinking water chlorination.

Stage 2 TTHM Monitoring – Locational Running Annual Average

TTHM MCL	**80 ppb**			
Location	2023 TTHM Results (ppb)			
	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
Site 1	27	71	32	40
*Site 1 LRAA**	*29*	*39*	*40*	*43*
Site 2	36	75	54	52
*Site 2 LRAA**	*46*	*51*	*55*	*54*
Site 3	27	47	31	32

*Site 3 LRAA**	*27*	*30*	*34*	*34*
Site 4	29	68	32	40
*Site 4 LRAA**	*28*	*37*	*40*	*42*
Site 5	31	72	50	43
*Site 5 LRAA**	*28*	*39*	*46*	*49*
Site 6	23	56	38	42
*Site 6 LRAA**	*33*	*38*	*42*	*40*
Site 7	28	74	53	47
*Site 7 LRAA**	*39*	*46*	*51*	*51*
Site 8	29	68	49	52
*Site 8 LRAA**	*40*	*45*	*49*	*50*

Make Water Conservation a Way Of Life

Manteca's Water Conservation Requirements are in Effect All Year:

1. Residences and businesses with addresses ending in a **1,3,5,7 or 9**
   May Only water on **Wednesday**, **Friday** and **Sunday**, but not between Noon and 6 p.m.

2. Residences and businesses with addresses ending in a **0,2,4,6 or 8**
   May Only water on **Tuesday**, **Thursday** and **Saturday**, but not between Noon and 6 p.m.

3. Residences and businesses are not permitted to water on Mondays.

4. Watering is not permitted within 48 hours of measureable rainfall.

5. Watering is not allowed to generate runoff on to adjacent properties or public roadways.

6. Washing of sidewalks, driveways or patios is only permitted for the purpose of maintaining the area in a clean, safe and sanitary condition.

7. Washing automobiles or boats is permitted with the use of a positive shut-off nozzle on the hose.

8. Repair any water leak, break or malfunction of the user's plumbing system within 24 hours of discovery or notification.

9. Hotels and motels must offer guests the option to NOT have their linens and towels laundered daily and prominently display this option in each guest room.

For more information or to report unlawful water waste,
please call 209-456-8410 or scan the QR code for the GoGov App.

Table 2 – Distribution System Water Quality Monitoring (Continued)

Stage 2 HAA5 Monitoring – Locational Running Annual Average

HAA5 MCL	**60 ppb**			
Location	2023 HAA5 Results (ppb)			
	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
Site 1	17	76	27	35
*Site 1 LRAA**	*21*	*35*	*36*	*39*
Site 2	16	68	32	40
*Site 2 LRAA**	*27*	*38*	*39*	*39*
Site 3	16	47	27	29
*Site 3 LRAA**	*18*	*25*	*28*	*30*
Site 4	20	60	24	31
*Site 4 LRAA**	*17*	*29*	*31*	*34*
Site 5	21	74	39	32
*Site 5 LRAA**	*21*	*34*	*39*	*42*
Site 6	13	56	32	45
*Site 6 LRAA**	*22*	*30*	*32*	*34*
Site 7	17	69	38	45
*Site 7 LRAA**	*27*	*37*	*38*	*42*
Site 8	19	76	39	43
*Site 8 LRAA**	*28*	*39*	*41*	*44*

*Locational running annual averages for quarters 1 – 3 are based on results from previous quarters not reported on the TTHM or HAA5 tables.

Sampling Results Showing the Detection of Lead and Copper

Contaminant	**Date of Last Test Result**	**Units**	**Action Level**	**MCLG**	**90th Percentile Level Detected**	**Number of Sites Exceeding Action Level**	**Number of Samples Collected**	**Number of Schools Requesting Lead Sampling**	**Typical Source of Contaminant**
Lead	July 2021	ppb	15	2	0.4	0	32	0	Internal corrosion of household water plumbing systems; erosion of natural deposits.
Copper	July 2021	ppm	1.3	0.17	0.112	0	32	NA	Internal corrosion of household water plumbing systems; erosion of natural deposits.

Table 3 – Sampling Results Showing Treatment of Surface Water Sources

Treatment Technique **(4)** (Type of approved filtration technology used)	Ultrafiltration Membrane
Turbidity Performance Standards **(5)** (that must be met through the water treatment process)	Turbidity of the filtered water must: 1 - Be less than or equal to 0.1 NTU in 95% of measurements in a month. 2 - Not to exceed 1.0 NTU any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	100%
Highest single turbidity measurement during the year	0.058 Nephelometric Turbidity Unit (NTU)
Number of violations of any surface water treatment requirements	0

Notes from Table 3:

(4) A required process intended to reduce the level of a contaminant in drinking water.

(5) Turbidity (measured in NTU) is a measurement of the cloudiness of water and is a good indicator of water quality and filtration performance. Turbidity results which meet performance standards are considered to be in compliance with filtration requirements.

What's inside

Important information about

- Your drinking water
- Water conservation
- Ways to contact the City

Well 29 groundwater treatment system: featured on page 6

City of Manteca Water Quality Report 2024

This report contains important information about your drinking water. Translate it, or speak with someone who understands it.

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

Itong documento ay naglalaman nang mahalagang impormasyon tungkol sa tubig na maaring inumin. Mangyaring ipagsalin ito.

इस रपिोर्ट में आपके पीने के पानी से संबंधति महत्वपूर्ण जानकारी है। कृपया इसका अनुवाद करें, या कसिी ऐसे व्यक्तसि बात करें जो इसे समझता है।

Last year, we conducted more than 10,000 tests for over 80 contaminants. We only detected 18 of these contaminants and found only one source at a level higher than the State allows. As we mentioned in our notification, our water temporarily exceeded drinking water standards. However, rest assured that we are working every day to make sure that water delivered to our customers is safe and reliable. For more information, see the water quality table on pages 4 and 5 as well as the section titled “Information about your water quality.”

You can find water quality notices or reports at manteca.gov/departments/public-works/water-division/water-report

Where your water comes from

The City of Manteca has two different sources of drinking water supply: local groundwater pumped from 15 wells located throughout the City and treated surface water from Woodward Reservoir, which is purchased from South San Joaquin Irrigation District (SSJID).

Groundwater

The City owns, operates, and maintains 15 active deep wells for drinking water. The City is always working to increase flexibility in local groundwater supplies, enhance water quality, reduce operating costs, and increase reliability. The City maintains and monitors the wells on a regular basis. Groundwater pumped from most wells is treated or blended with surface water to provide water that meets all drinking water standards.

The City completed the initial source water assessments of all existing wells for the Drinking Water Source Assessment Program (DWSAP) in December 2001. The assessment is the first step in assuring source water protection and is required for new or rehabilitated wells before sending water out to the system for consumption by customers. The City's groundwater sources are considered most vulnerable to confirmed leaking underground storage tanks, gas stations, chemical/petroleum processing/storage facilities, metal plating/finishing/fabricating facilities, automobile body/repair shops and sewer collection systems. The DWSAP regulates proper wellhead protection and routine water quality monitoring assures the continued protection of those groundwater sources.

For inquiries about the source water assessments call the City of Manteca, Public Works Department at (209) 456-8400 or to schedule a time to view the City's DWSAP located at 1001 West Center Street, Manteca, CA.

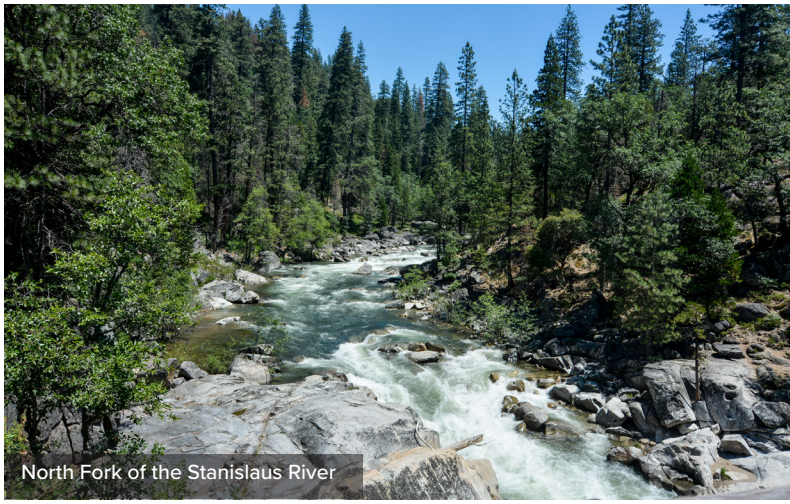
For more information about the DWSAP, you can also visit waterboards.ca.gov/drinking_water/certlic/drinkingwater/DWSAP.html or contact the State Board at (209) 948-7696.

Surface Water

The City has been supplied 11,500 acre feet per year of treated surface water by SSJID since the summer of 2005 when the Nick C. DeGroot Water Treatment Plant (WTP) was commissioned for the South County Water Supply Program (SCWSP). The treatment consists of membrane filtration to remove particles followed by disinfection. Currently, the WTP has a capacity of 40 million gallons of water per day and treats water from the Stanislaus River that is stored in SSJID's Woodward Reservoir.

Source water assessments were completed in September, 2001. In addition, sanitary surveys are completed for the Stanislaus River and Woodward Reservoir watershed every five years. The last survey was conducted in 2021. The Woodward Reservoir/Stanislaus River source is considered most vulnerable to recreational activities at Woodward Reservoir, agricultural runoff, confined animal facilities (dairy), cattle grazing, wildlife, active and inactive mines, and wastewater disposal.

The SCWSP has plans to expand surface water treatment capacity in the future and may increase supplies to Manteca by as much as 7,000 acre feet per year. In the meantime, the City continues to develop ground water wells within the City to assure a reliable and sustainable water supply to meet customer needs.



North Fork of the Stanislaus River

Protecting your water supply

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 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 byproducts 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.

Protecting the water supply is important to ensure that water is safe from contamination and aesthetically pleasing for use, and it begins in the watersheds. Contamination requires treatment, which increases the cost to deliver water to your tap. Here are ways that you can help protect our watershed:

- Eliminate excess use of lawn and garden fertilizers and pesticides.
- Pick up after your pets.
- Dispose of pharmaceuticals at the Police Department dropbox at the Manteca Civic Center or the Hazardous Waste drop-off. Medications should not be flushed down drains or put in the garbage.

Household hazardous waste drop-off

Household hazardous wastes can be taken to:

San Joaquin County Hazardous Waste Facility
7850 Bridgeford Street, Stockton, CA 95206
Thursday – Sunday, 9:00 a.m. – 3:00 p.m.

This facility is open to the public and free of charge. For additional information, call the County Solid Waste Office at (209) 468-3066 or visit sjgov.org

Water conservation – a way of life

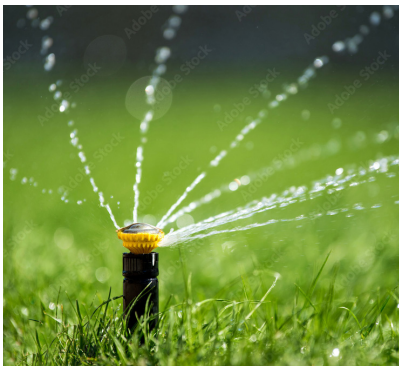
The City would like to thank the community for working together to save water during years of drought. While water supply conditions have improved, conserving water and using it wisely is good practice. Our water is a precious resource and we encourage you to continue to save water as the "new normal."

Manteca water restrictions and prohibitions

- Residences and businesses are not permitted to water on Mondays or any day between the hours of noon and 6pm. Residences and businesses are allowed to water three days per week only according to the following chart:

Address number	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
ODD (1,3,5,7 or 9)	✗	✗	✓	✗	✓	✗	✓
EVEN (0,2,4,6 or 8)	✗	✓	✗	✓	✗	✓	✗

No watering from Noon to 6:00 p.m. any day



- Watering is not permitted within 48 hours of measurable rainfall.
- Watering is not allowed to generate runoff on to adjacent properties or public roadways.
- Washing of sidewalks, driveways or patios is only permitted for the purpose of maintaining the area in a clean, safe and sanitary condition.
- Washing automobiles or boats is permitted with the use of a positive shut-off nozzle on the hose.
- Repair any water leak, break or malfunction of the user's plumbing system within 24 hours of discovery or notification.
- Hotels and motels must offer guests the option to NOT have their linens and towels laundered daily and prominently display this option in each guest room.

To stay up-to-date on water conservation efforts, requirements, rebate programs and water saving tips, visit manteca.gov/departments/public-works/water-division

Please report water waste to (209) 456-8410 or email the water conservation coordinator at waterconservation@manteca.gov.

Steps to save water indoors

- Turn off the faucet while you brush your teeth or soap up your hands.
- Install water-efficient faucet aerators and showerheads in your home.
- Take shorter showers. For each minute you will save 2.5 gallons of water.
- Do not use the toilet as a wastebasket.
- Rinse fruits and vegetables in a bowl of water instead of running water.
- Keep a pitcher of drinking water in the refrigerator. Running tap water to cool is wasteful.
- Only wash full loads of laundry and dishes.
- Replace your old top-loading clothes washer with a high-efficiency model.
- If your toilet uses more than 3.5 gallons per flush, replace it with a high-efficiency toilet. New models use 70% less water.

Steps to save water outdoors

- Use a broom to sweep off pavement. Using a hose to wash sidewalks, driveways, and patios wastes money and water.
- Plant native or drought-tolerant plants that require less watering.
- Apply organic mulch around plants to reduce moisture loss, keep weed growth down and promote healthier soil.
- Check for leaks in pipes, sprinkler heads, and valves.
- Water during cool parts of the day. Early morning is the best time because it helps prevent growth of fungus.
- Water your lawn only when it needs it. If the grass springs back up after stepping on it, it does not need watering.
- Avoid watering on windy days. Deeply soak your lawn to ensure moisture reaches the roots.
- Use drip irrigation in larger gardens with weather-based irrigation control.

2024

Water quality test results

The City of Manteca has instituted a comprehensive water quality monitoring program that encompasses City-owned wells and all water purchased from SSJID. This program ensures that all of our customers receive water that complies with all regulatory criteria and that no maximum contaminant levels (MCLs) or action levels (ALs) for regulated chemicals, bacteria, or pollutants are exceeded.

To ensure water quality standards are met, drinking water samples are collected weekly throughout Manteca and analyzed for a variety of regulated and unregulated contaminants. Samples are tested by our certified laboratory and by an independent certified laboratory using the latest testing procedures and equipment. We collect more samples than required by the State Water Board to provide you with the highest quality of water at all times. In addition, the City's wholesaler, SSJID, conducts their own testing before delivering water to the City. Such measures help us to continue meeting established water quality standards.

The table to the right shows the results of the distribution system and source water analyses conducted by the City and SSJID. Water quality data are grouped by water source. Compliance testing for 2024 required more than 10,000 tests for more than 80 parameters. We detected only 18 of these parameters, and found only one contaminant at a level higher than the State Water Board allows.

Only the parameters detected are shown. Other constituents were analyzed but are not listed because they were not detected. Additionally, other parameters are shown to provide you with supplemental information.

Some data—although representative—were collected prior to 2024, as the State Water Board requires monitoring for some constituents less than once per year since the concentrations do not vary frequently or significantly.

PRIMARY DRINKING WATER STANDARDS (PUBLIC HEALTH RELATED STANDARDS)

PARAMETER	Unit	MCL, (AL), or [MRDL]	PHG, (MCLG), or [MRDLG]	Groundwater Well		SSJID		Typical Sources*
				Average or [Max]	Range	Average or [Max]	Range	
SOURCE WATER SAMPLING								
INORGANIC CHEMICALS								
Arsenic	ppb	10	0.004	5	0–10	ND	ND	2, 18, 19
Barium	ppm	1	2	0.13	ND–0.28	ND	ND	2, 17
Chromium (Hexavalent)	ppb	10	0.02	2.4	ND–4.3	ND	ND	2, 21
Chromium (Total)	ppb	50	(100)	ND	ND–14	ND	ND	2, 20
Fluoride	ppm	2	1	0.11	ND–0.19	ND	ND	2, 3, 4
Nitrate (as Nitrogen)	ppm	10	10	3.6	0.8–8.9	ND	ND	2, 5, 6
ORGANIC CHEMICALS								
Dibromochloropropane (DBCP)	ppt	200	3	ND	0–51	ND	ND	22
Ethylene Dibromide (EDB)	ppt	50	10	ND	ND–31	ND	ND	22, 23, 24
Tetrachloroethylene	ppb	5	0.06	ND	ND–0.8	ND	ND	25, 28
1,2,3-Trichloropropane (TCP)	ppt	5	0.7	ND	**ND–30**[a]	ND	ND	26, 27, 28, 29
RADIONUCLIDES								
Gross Alpha Activity	pCi/L	15	(0)	6	ND–13	ND	ND	2
Radium-226	pCi/L	5	0.05	ND	ND–2	NA	NA	2
Uranium	pCi/L	20	0.43	5	1–11	ND	ND	2
MICROBIOLOGICAL								
Turbidity	NTU	TT	NA			[0.064][b]	100%[b]	1
DISTRIBUTION SYSTEM SAMPLING								
LEAD AND COPPER RULE STUDY (Manteca 2024 at-the-tap sampling)				**90th Percentile**		**# of Samples Above AL**		
Lead	ppb	(15)	0.2	ND		0 out of 32		2, 13, 15
Copper	ppm	(1.3)	0.3	0.15		0 out of 32		2, 13, 14
DISINFECTION RESIDUALS AND BYPRODUCTS				**Highest Location RAA**		**Range**		
Disinfectant Residual as Chlorine	ppm	[4]	[4]	1.00		0.30–1.74		16
Total Trihalomethanes	ppb	80	NA	55		13–41		7
Haloacetic Acids	ppb	60	NA	47		14–35		7

SECONDARY DRINKING WATER STANDARDS (AESTHETIC STANDARDS)

PARAMETER	Unit	MCL	Average	Range	Average	Range	Sources*
Chloride	ppm	500	25	9–79	2.9	2.9	8, 9, 11
Color	Color Unit	15	0.7	0–5	ND	ND	10
Iron	ppb	300	ND	ND–100	ND	ND–260	9, 12
Manganese	ppb	50	3	ND–22	ND	ND	9
Odor	TON	3	ND	ND–2	ND	ND	10
Sulfate	ppm	500	24	11–46	1.6	1.6	8, 9, 12
Total Dissolved Solids	ppm	1,000	343	200–570	68	68	8, 9
Turbidity	NTU	5	0.12	ND–0.42	ND	ND–0.1	1

OTHER WATER QUALITY PARAMETERS

PARAMETER	Unit	MCL	Average	Range	Average	Range	
Sodium	ppm	NS	33	25–49	3.6	3.6	
Hardness (as Calcium Carbonate)	ppm	NS	167	73–330	34	34	

Abbreviations

DDW	Division of Drinking Water
Max	Maximum
NA	Not applicable
ND	Not detected
NS	No standard
NTU	Nephelometric turbidity unit
ppb	parts per billion (micrograms per liter)
ppm	parts per million (milligrams per liter)
ppt	parts per trillion (nanograms per liter)
RAA	Running annual average
SSJID	South San Joaquin Irrigation District
TON	Threshold odor number

Table notes

a. The City had an MCL exceedance of TCP at one well in 2024. See Page 7 for more detail.

b. For filtered water, the MCL is ≤0.1 NTU 95% of the time and cannot exceed 1.0 NTU at any time.

* Typical sources in drinking water

1 Soil runoff
2 Erosion of natural deposits
3 Water additive that promotes strong teeth
4 Discharge from fertilizer and aluminium factories
5 Runoff and leaching from fertilizer use
6 Leaching from septic tanks and sewage
7 Byproduct of drinking water disinfection
8 Runoff from natural deposits
9 Leaching from natural deposits
10 Naturally-occurring organic materials
11 Seawater influence
12 Industrial wastes
13 Internal corrosion of household plumbing systems
14 Leaching from wood preservatives
15 Discharges from industrial manufacturers
16 Drinking water disinfectant added for treatment
17 Discharges of oil drilling wastes and from metal refineries
18 Runoff from orchards
19 Glass and electronics production wastes
20 Discharge from steel and pulp mills and chrome plating
21 Transformation of naturally occurring trivalent chromium to hexavalent chromium by natural processes and human activities such as discharges from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities
22 Banned nematocide that may still be present in soils due to runoff/leaching from former crop use
23 Discharge from petroleum refineries
24 Leaking underground fuel storage tanks
25 Discharge from factories, dry cleaners, and auto shops
26 Discharge from industrial and agricultural chemical factories
27 Leaching from hazardous waste sites
28 Used as cleaning and maintenance solvent, paint and varnish remover, and cleaning and degreasing agent
29 Byproduct during the production of other compounds and pesticides

Definitions of key terms

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. MCLs are established by USEPA and the State Water Board.

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 USEPA.

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.

Notification level (NL). Notification levels are health-based advisory levels established by the State Water Board for chemicals in drinking water that lack MCLs. When chemicals are found at concentrations greater than their notification levels, certain requirements and recommendations apply.

Primary drinking water standard (PDWS). MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements and water treatment requirements.

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 Office of Environmental Health Hazard Assessment.

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.

Total organic carbon (TOC). TOC has no health effects. However, TOC provides a medium for the formation of disinfection byproducts including trihalomethanes and haloacetic acids. Drinking water containing disinfection byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects and may lead to an increased risk of cancer.

Turbidity. Turbidity has no health effects. It is a measure of the clarity of the water and is monitored because it is a good indicator of water quality and the effectiveness of a filtration system. The MCL for turbidity is based on the TT. For filtered water, the MCL is ≤0.1 NTU 95% of the time.

Unregulated Contaminant Monitoring Rule (UCMR). UCMR requires monitoring for contaminants not currently regulated. This monitoring provides a basis for future regulatory actions to protect public health.

Waiver. State permission to decrease the monitoring frequency for a particular contaminant.

Water Quality Highlight – Well 29 Treatment Project

The City of Manteca's 1,2,3-Trichloropropane (TCP) Treatment Project was recognized by Engineering News-Record (ENR) as Northern California's Best Project of 2022 in the Water/ Environment category. This project involved the installation of granulated activated carbon (GAC) treatment systems designed to remove TCP from the water produced by five of the City's groundwater supply wells. Construction and installation are now complete for the last supply well, Well 29, and the treatment system is set to begin operations in the coming months, ensuring that the City's Water System is in full compliance with all drinking water standards and regulations.

Well 29 is located in Yosemite Village Park at 600 El Portal Avenue, near the intersection of Union Road and Wawona Street. The well was placed into service on August 29, 2019, and was originally equipped to treat for arsenic. On October 12, 2020, water quality testing yielded a detection of TCP that exceeded the MCL, prompting the City to initiate plans for a new treatment system to reduce TCP concentrations.

Following the detection, the City secured funding for a new GAC treatment system through litigation that resulted from the contamination of the well. The completion of this system marks a significant milestone in the City's ongoing efforts to protect public health and ensure high-quality drinking water for all residents.

Information about your water quality

To ensure that tap water is safe to drink, the U.S. Environmental Protection Agency and the State Water 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. More information about contaminants and potential health effects can be obtained by calling the USEPA Safe Drinking Water Hotline.

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; persons with HIV/AIDS or other immune system disorders; some elderly; and infants can be particularly at risk from infections. These people should seek advice from their health care providers.

USEPA Safe Drinking Water Hotline ▶ (800) 426-4791

Lead

Lead can cause serious health effects in people of all ages, especially pregnant people, infants (both formula-fed and breastfed), and young children. Lead in drinking water is primarily from materials and parts used in service lines and in home plumbing. The City is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in the plumbing in your home. Because lead levels may vary over time, lead exposure is possible even when your tap sampling results do not detect lead at one point in time. You can help protect yourself and your family by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Using a filter, certified by an American National Standards Institute accredited certifier to reduce lead, is effective in reducing lead exposures. Follow the instructions provided with the filter to ensure the filter is used properly. Use only cold water for drinking, cooking, and making baby formula. Boiling water does not remove lead from water. Before using tap water for drinking, cooking, or making baby formula, flush your pipes for several minutes. You can do this by running your tap, taking a shower, doing laundry or a load of dishes. If you have a lead service line or galvanized requiring replacement service line, you may need to flush your pipes for a longer period. If you are concerned about lead in your water and wish to have your water tested, contact the City at (209) 456-8400. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at epa.gov/safewater/lead.

The State Water Resources Control Board, in partnership with the USEPA, enforces regulations designed to reduce lead exposure and ensure all water service lines are lead-free. As part of these requirements, water systems must create and submit a detailed inventory of all service lines within their service area.

The City of Manteca has completed its inventory and confirmed that its water system contains no lead service lines or galvanized service lines that require replacement.

To learn more about the City's service line inventory, visit manteca.gov/departments/public-works/water-division/water-report

Arsenic

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.

Nitrate

In November 2024, we had a monitoring violation when we failed to collect nitrate samples from two raw water sources according to our annual monitoring schedule. Customers received notification of this violation with their April 2025 utility bill. While we cannot be sure of the quality of our drinking water during that time, samples collected on January 21, 2025 met drinking water quality standards for nitrate.

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.

1,2,3-Trichloropropane

In 2024, one well exceeded the MCL for 1,2,3-Trichloropropane (TCP). Water sample results collected throughout all four quarters of 2024 showed that this well had an average TCP concentration of 25 ng/L, which exceeds the MCL of 5 ng/L. Some people who drink water containing TCP in excess of the MCL over many years may have an increased risk of getting cancer.

Following this detection, the City immediately reduced water production from the affected well. Customers would have received a blend of water from all active wells and surface water from SSJID, resulting in significantly lower concentrations in the distribution system. As of March 6, 2025 the City has completed the installation of water treatment on all affected City wells to remove TCP.

Hardness

Water hardness is determined mainly by the presence of calcium and magnesium salts. Although hard water does not pose a health risk, it may be considered undesirable for other reasons. Some benefits of water softening are reductions in soap usage, longer life for water heaters and a decrease in encrustation of pipes; disadvantages are an increase in sodium intake, an increase in maintenance and servicing, and potential adverse effects on salt-sensitive plants. To convert hardness from ppm to grains per gallon, divide by 17.1. A hardness scale is provided for your reference.

Hardness Classification	Grains per Gallon	mg/L or ppm
Soft	less than 1.0	less than 17.1
Slightly hard	1.0–3.5	17.1–60
Moderately hard	3.5–7.0	60–120
Hard	7.0–10.5	120–180
Very hard	over 10.5	over 180

Important contact information

City contacts

City of Manteca
1001 West Center Street
Manteca, CA 95337
(209) 456-8000
TTY through CA Relay at: 7-1-1
manteca.gov

Utility Billing
(209) 456-8740

Hours of operation

7:30 a.m. to 6 p.m., Mon–Thurs
Closed Friday–Sunday

Water Division
(209) 456-8466

Water Conservation Coordinator
(209) 456-8492
waterconservation@manteca.gov

Useful resources

Division of Drinking Water
waterboards.ca.gov/drinking_water

US EPA
water.epa.gov/drink

Department of Water Resources
water.ca.gov

American Water Works Association
awwa.org

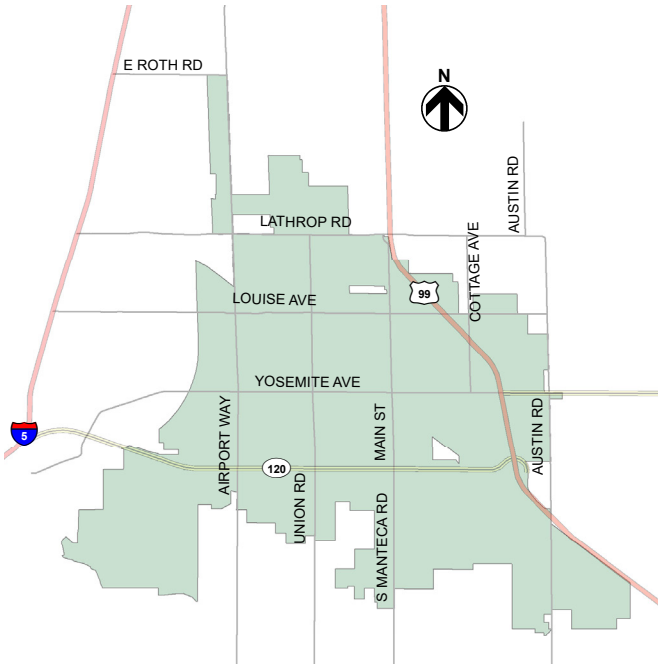
More information

For more information about this report or the City's water quality monitoring program, please contact:

George Montross
Deputy Director of Public Works
City of Manteca
(209) 456-8468
gmontross@manteca.gov

Water service area

The map below shows the boundary of the water service area, which coincides with the City boundary. Groundwater wells, which are not shown on this map, are located throughout the City.



Cross connection control program

Cross-connection control is vital for protecting the City's water supply from contamination. A cross-connection refers to a connection between a safe drinking water supply and non-potable source not suitable for consumption. Backflow is the unintended reversal of flow, where non-potable water enters the City's distribution system. The primary objective of the City's Cross-Connection Control Program is to prevent backflow into the City's distribution network, thereby safeguarding customers and water supply from potential contamination. Properly installed and regularly maintained/inspected Backflow Prevention Assemblies (BPAs) and a well-developed program serve as effective safeguards against cross-connection and contamination.

The City's Cross-Connection Control Program enables the City to actively identify and rectify any cross-connections present in either the distribution system or individual service connections. Corrective measures, such as flushing the distribution system, are conducted after a detected cross-connection to mitigate any potential for adverse health effects from affected water in the distribution system.

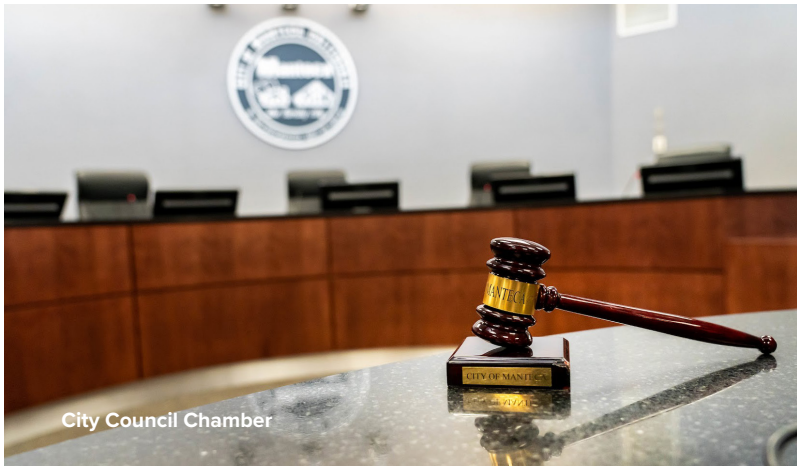
City residents play an important role in preventing cross-connections and maintaining water safety. The City wishes to raise awareness and encourage responsible water usage so that we can all contribute to the overall protection of our water resources.

To get involved

To provide input on decisions that affect drinking water quality, you are welcome to speak on any issue specifically coming before the City Council at a regularly scheduled council meeting. You can submit public comments in person, virtually, or in writing, on any agenda item or other topic you wish to bring to the Council's attention during the "Public Comment" portion of the meeting agenda.

City Council Meetings
Council Chambers
1001 W. Center St.
Manteca, CA 95337
First and third Tuesdays, 6 p.m.

A list of City Council meetings, agenda items and study issues can be obtained by visiting manteca.gov or by calling the City Clerk's office at (209) 456-8000.


City Council Chamber