



2024 Drinking Water Quality Report

City of Stockton Municipal Utilities Department



This report contains important information about your drinking water. Please contact the City of Stockton at (209) 937-8762 for assistance in non-English languages.

The City of Stockton Municipal Utilities Department (MUD) presents the annual drinking water quality report, also known as a Consumer Confidence Report, to inform our customers about the quality of our drinking water delivered throughout our service area.

We provide the highest quality water available while meeting all State and Federal drinking water standards. This report includes a detailed water quality summary, monitoring and testing results, as well as the steps we take to protect health and safety.

From all of us here at the MUD, it is a privilege to serve you. If you have any questions about this report, please call (209) 937-8762 or email WaterFacts@stocktonca.gov.

C. Mel Lytle, Ph.D.
Director

Water Sources

To meet the needs of the City's approximately 52,000 customers in north and south Stockton, we use a combination of water sources including:

- Water from the Sacramento - San Joaquin Delta and Mokelumne River treated at the City's Delta Water Treatment Plant.
- Water from the Stanislaus River via New Melones Reservoir and the Calaveras River via New Hogan Reservoir which is treated and delivered by Stockton East Water District.
- Local groundwater from wells owned and operated by the City.

What is in Your Water

Our area watersheds and groundwater wells provide raw water supplies to the City. As water flows over the land or through the groundwater aquifer, naturally occurring minerals can dissolve in it and, in some cases, contaminant materials can also be picked up from animal or human activities.

Contaminants That May Be Present in the Source Water Include:

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

The Sacramento-San Joaquin Delta produces a wide variety of vegetables



To ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the State Water Resources Control Board (State Water Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. 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's Safe Drinking Water Hotline (1-800-426-4791).

Information About Lead

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water derives primarily from materials and components associated with service lines and home plumbing. The City of Stockton is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose such as watering plants. If you are concerned about lead in your water, you may wish to have it tested. Information about 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>.

Lead and Copper Rule

The "lead and copper rule," or LCR, was introduced by the U.S. Environmental Protection Agency (U.S. EPA) in 1991 to limit the concentration of lead and copper allowed in public drinking water at the consumer's tap as well as to limit the corrosivity due to the water itself. On January 15, 2021, US EPA issued revisions to federal LCR.

Under the Lead and Copper Rule Revisions (LCRR), water systems are required to prepare and maintain an inventory of service line materials by October 16, 2024. More information about the Lead and Copper Rule for Drinking Water is available at https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadandcopperrule.html

The City of Stockton Municipal Utilities Department monitors drinking water for specific contaminants, including Nitrate, on an annual basis. On March 4, 2025, the City of Stockton received Citation 03-10-25J-001 for failing to collect the required analytical sample for 2024. The State Water Board determined that the City of Stockton failed to comply with the Health and Safety Code section 116555 and California Code of Regulations Title 22, Section 64432.1 during 2024 for monitoring Nitrate on the raw water source DWSP-WID CANAL SOURCE-RAW.

The system was directed to collect one Nitrate Sample in August 2024. The system is also required to notify the public of the violation by June 30, 2025, and to include the violation in the 2024 Drinking Water Quality Report/Consumer Confidence Report (CCR).

We regret this oversight, and we have corrected and updated our sampling schedule and will meet any future monitoring requirements.

A Note for Sensitive Populations

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Monitoring of Per- & Polyfluoroalkyl Substances (PFAS)

The State Water Board established drinking water guidelines in 2019 for water agencies to follow in detecting and reporting the presence of PFAS, including the chemicals perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS). PFOA and PFOS are chemicals that were used in many consumer products for their non-stick and grease- and stain-resistant properties. Found at or near manufacturing sites, landfills, and firefighting training sites (where they were used in firefighting foams), such as airports and military bases, these chemicals may enter the water cycle through runoff and wastewater, leading to elevated levels in wastewater discharges and groundwater. Contamination of drinking water is usually associated with a specific drinking water facility and its relative location to where these chemicals were used or produced. The City is required to monitor and inform its governing body and all State and Federal regulatory agencies of detected concentrations of PFAS that exceed notification levels. A notification level is the concentration level that, based on available scientific information, does not pose a significant health risk but warrants informing the public of its presence. More information on PFAS, PFOA, and PFOS is available from the State Water Board at https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/PFOA_PFOS.html.



Drinking Water Source Assessment & Protection Program

Drinking Water Source Assessments for the City's water system were completed in 2015 and 2021. The water sources were considered most vulnerable to activities which were associated with contaminants found in the water supply, including urban stormwater, septic tanks and sewage spills, mining, construction, metal plating, electronics manufacturing, National Pollution Discharge Elimination System permitted discharges, dairy waste, and agricultural operations. The water sources were considered most vulnerable to the following activities, which were not associated with contaminants detected in the water supply: illegal activities/dumping, recreation, leaking underground storage tanks, vehicle fueling and maintenance and chemical/petroleum/plastics processing and storage. You may request assessment summaries by contacting Robert Lapp at the State Water Resources Control Board at (209) 948-3816.



A San Joaquin kit fox pup at the Delta Water Treatment Plant

2024 Water Quality Analysis Results

Your water meets or exceeds all federal and state drinking water standards.

In 2024, we delivered about 8 billion gallons of treated water to more than 180,000 community members in north and south Stockton, enough to fill nearly 160 million bathtubs.

The City of Stockton tests your drinking water for several regulated and unregulated contaminants. Only those contaminants that were detected are listed. The following tables divide water quality test results into three main sections: **1) Primary Drinking Water Standards, 2) Secondary Drinking Water Standards, and 3) Unregulated Compounds.** Primary standards protect public health by limiting levels of certain constituents in drinking water. Secondary standards are set for substances that could affect drinking water taste, odor, or clarity. Unregulated substances are listed for your information. Data in the table represents sampling from 2024, unless otherwise noted.

Primary Drinking Water Standards				Groundwater		Surface Water		Meets Regulation?	Source of Constituent
Constituent	Units	Primary MCL	PHG (MCLG)	Range	Average	DWTP Average	SEWD Average		
Aluminum	µg/L	1000	600	< 50 – 56	< 50	130	< 50	Yes	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic	µg/L	10	0.004	2.6 – 6.4	4.8	< 2	< 2	Yes	Erosion of natural deposits; runoff from orchards, and waste from glass and electronics production
Barium	µg/L	1000	2000	190 – 260	218	< 100	< 100	Yes	Discharges of oil and drilling wastes and metal refineries; erosion of natural deposits
Chromium, Total	µg/L	50	–	< 10 –18	< 10	< 10	< 10	Yes	Discharge from electroplating facilities; erosion of natural deposits
Fluoride	mg/L	2.0	1	< 0.10 – 0.12	< 0.11	< 0.1	< 0.1	Yes	Erosion of natural deposits; discharge from fertilizer and aluminum factories
Nitrate (as N)	mg/L	10	10	< 0.2 – 5.0	< 3.5	< 0.40	< 0.40	Yes	Runoff/leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Alpha Activity, Gross ⁽¹⁾	pCi/L	15	(0)	1.50 – 8.13	4.17	NR	NR	Yes	Erosion of natural deposits
Radium 228 ^(1, 3)	pCi/L		0.019	0.00 – 1.71	0.50	NR	NR	Yes	Erosion of natural deposits
Uranium ⁽¹⁾	pCi/L	20	0.43	1.03 – 5.80	3.9	NR	NR	Yes	Erosion of natural deposits
	Units	MCL	PHG (MCLG)	Highest Level	Lowest Monthly % ⁽⁵⁾	Highest Level	Lowest Monthly % ⁽⁶⁾	Meets Regulation?	Source of Constituent
Turbidity	NTU	TT	N/A	0.09	99.9	0.86	96.8	Yes	Soil runoff
	Units	MCL (MRDL)	MCLG (MRDLG)	Distribution System			Meets Regulation?	Source of Constituent	
				Range		Average			
Total Coliform Bacteria	% positive samples	5%	0	0 – 2.9		0.34		Yes	Naturally present in the environment
Chlorine as Cl ₂	mg/L	(4.0)	(4.0)	0.13 – 2.73		1.91		Yes	Drinking water disinfectant added for treatment
Total Trihalomethanes (TTHM) ⁽⁸⁾	µg/L	80	N/A	12.57 – 69.37		31.89		Yes	By-product of drinking water disinfection
Haloacetic Acids 5 (HAA5) ⁽⁸⁾	µg/L	60	N/A	6.40 – 24.50		14.36		Yes	By-product of drinking water disinfection
	Units	Action Level (AL)	PHG	Level Detected at the 90 th percentile		Samples exceeding the AL		Meets Regulation?	Source of Constituent
Copper ⁽⁹⁾	mg/L	1.3	0.3	67		0		Yes	Internal corrosion of household plumbing systems
Lead ⁽⁹⁾	µg/L	15	0.2	< 5.0		0		Yes	Internal corrosion of household plumbing systems

(1) The compliance cycle for monitoring this constituent can vary from three to nine years; some data may be from before 2010.

(2) Compliance may be based on average values for four quarters.

(3) Radium 228 testing was conducted for initial monitoring required by new regulations.

(4) The MCL is based on Combined Radium (Radium 226 + Radium 228). Radium 226 and Radium 228 do not have individual MCLs. The MCL for Combined Radium is 5 pCi/L. Radium 226 was not detected.

(5) For surface water systems, the Treatment Technique requires that each month the turbidity level of the filtered water for Membrane Filtration facilities is less than or equal to 0.1 NTU in 95% of the measurements and shall not exceed 1.0 NTU at any time. Turbidity is a measure of the cloudiness of the water. It is monitored as a good indicator of the effectiveness of the filtration system.

(6) For surface water systems, the Treatment Technique requires that each month the turbidity level of the filtered water is less than or equal to 0.3 NTU in 95% of the measurements, and shall not exceed 1.0 NTU at any time. Turbidity is a measure of the cloudiness of the water. It is monitored as a good indicator of the effectiveness of the filtration system.

(7) Presence of coliform bacteria in no more than 5% of monthly samples.

(8) Compliance is based on the quarterly Running Annual Average. The highest level reported in the range is the result of an individual sample.

(9) Lead and copper are required to be monitored every three years. This data is from 2024.

Units

mg/L

Milligrams per Liter

µg/L

Micrograms per Liter

µS/cm

Micro-siemens per centimeter

ng/L

Nanograms per Liter

pCi/L

Picocuries per Liter

NTU

Nephelometric Turbidity Unit

N/A

Not Applicable

NR

Testing not required

Key Terms and Abbreviations

(AL) Regulatory Action Level

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

(MCL) Maximum Contaminant Level

The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste and appearance of drinking water.

(MCLG) Maximum Contaminant Level Goal

The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

(MRDL) Maximum Residual Disinfectant Level

The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

(MRDLG) Maximum Residual Disinfectant Level Goal

The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

(PDWS) Primary Drinking Water Standard

MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

(PHG) Public Health Goal

The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

(TT) Treatment Technique

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

Secondary Drinking Water Standards			Groundwater		Surface Water				Source of Constituent
					DWTP		SEWD		
Constituent	Units	MCL	Range	Average	Range	Average	Range	Average	
Chloride	mg/L	500	14 – 97	40	–	–	4	4	
Manganese	µg/L	50	< 20 - 25	< 21	< 20	< 20	<10	< 10	
Odor	units	3	< 1.0	<1.0	< 1.0 – 4.0	< 2.2	<1.0 – 8.0	< 4.3	
Specific Conductance	µS/cm	1,600	330 – 730	527	38 – 320	168	112 - 265	190	
Sulfate	mg/L	500	15 – 50	35	–	–	15.9	15.9	
Total Dissolved Solids	mg/L	1,000	270 – 480	372	29 – 200	93	40 – 140	91	
Unregulated Compounds			Groundwater		Surface Water				
Constituent	Units		Range	Average	DWTP Average		SEWD Average		
Total Hardness (as CaCO ₃) ⁽¹⁾	mg/L		151 – 292	234	45		59		
Boron	µg/L		< 100	< 100	< 100		< 100		
Sodium	mg/L		15 – 30	19	22		9		
Vanadium	µg/L		18 – 32	26	< 3.0		< 2.0		
Other Compounds			Groundwater		Surface Water				
Constituent	Units		Range	Average	DWTP Average		SEWD Average		
Total Alkalinity	mg/L		150 – 220	185	34		54		
Calcium	mg/L		41 – 68	56	< 5.0		6		
Magnesium	mg/L		12 – 30	23	8		3		
Potassium	mg/L		3.5 – 5.2	4.4	1		< 1.0		



(1) Conversion: hardness (gains per gallon) = hardness as CaCO3 (mg/L) multiplied by 0.0584.

Unregulated Contaminant Monitoring Rule (UCMR5) Contaminants Monitored in 2023 ^{(1), (2)}									
Constituent	Units	Groundwater		Surface Water - DWTP		Distribution System		DWTP Sources	
		Range	Average	Range	Average	Range	Average	Range	Average
Lithium	µg/L	< 9.0	< 9.0	< 9.0	< 9.0	< 9.0	< 9.0		
PFAS ⁽³⁾	µg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050		
PFAS ⁽⁴⁾	µg/L	< 0.0080	< 0.0080	< 0.0080	< 0.0080	< 0.0080	< 0.0080		

- (1) Once every five years, the U.S. Environmental Protection Agency (EPA) issues a list of unregulated contaminants to be monitored by public water systems. The UCMR provides the EPA and other interested parties with scientifically valid data on the occurrence of certain contaminants in drinking water. An MCL for these contaminants listed above does not exist. The UCMR program examines what is in the drinking water, but additional health information is needed to know whether these contaminants pose a health risk. Further information on UCMR3 can be found at <https://www.epa.gov/dwucmr/fifth-unregulated-contaminant-monitoring-rule>, or contact the Safe Drinking Water Hotline (1-800-426-4791).
- (2) Of the 30 unregulated contaminants tested for in UCMR5, only one chemical analyte was detected. Lithium is a naturally occurring metal that may concentrate in brine waters; lithium salts are used as pharmaceuticals, used in electrochemical cells, batteries, and in organic syntheses. PFAS are a group of synthetic chemicals used in a wide range of consumer products and industrial applications including: nonstick cookware, water-repellent clothing, stain-resistant fabrics and carpets, cosmetics, firefighting foams, electroplating, and products that resist grease, water, and oil. PFAS are found in the blood of people and animals and in water, air, fish, and soil at locations across the United States and the world.
- (3) Per- and polyfluoroalkyl substances (PFAS); 25 monitored by EPA method 533.
- (4) Per- and polyfluoroalkyl substances (PFAS); 4 monitored by EPA method 537.1.



A family of owls nesting at the Delta Water Treatment Plant

California Poppy Field