

# Water Quality



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## ANNUAL REPORT 2023

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### LETTER FROM THE DIRECTOR

The City of Fresno Department of Public Utilities – Water Division is responsible for the delivery of safe, clean, reliable water to City of Fresno water customers. Every month, Water Division staff routinely collect water samples throughout the entire water system and reports the results to the State. I am pleased to announce that the City met all state and federal water quality standards for the 2023 reporting period.

City of Fresno drinking water comes from a combination of municipal groundwater wells and surface water treatment facilities. Each well and surface water treatment facility follows a set schedule for water quality testing. Water Division staff are diligent in undertaking the protection of public health and delivering safe drinking water through routine sampling, testing, and reporting.

The City of Fresno Department of Public Utilities remains dedicated to the production, treatment, and distribution of potable water for our community. Through proactive long-range planning, participation in regional and statewide water resource related matters, and strategic investment in capital projects, the City has been able to identify and address various challenges while maintaining an adequate potable water supply for today and the future.

Brock D. Buche, PE, PLS  
Director

## WHAT'S IN THIS REPORT?

This Annual Water Quality Report, prepared in cooperation with the California State Water Resources Control Board (State Board) - Division of Drinking Water, provides important information about Fresno's water supply, water quality, and water delivery system. Test results for Fresno's 2023 Water Quality Monitoring Program are summarized on the following pages. It is important to read the messages regarding various water quality issues from the U.S. Environmental Protection Agency (USEPA) and from your City of Fresno Water Division.

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

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

Daimntawv tshaj tawm no muaj lus tseemceeb txog koj cov dej haus. Tshab txhais nws, los yog tham nrog tej tug neeg uas totaub txog nws.

Chi ti t này th t quan tr ng, xin nh ngu i d ch cho quý v.

## FACTS ABOUT DRINKING WATER STANDARDS

Under the 1974 Safe Drinking Water Act, the United States Environmental Protection Agency (USEPA) and the California Department of Public Health are charged with the responsibility of setting and implementing safe drinking water standards. Congress reauthorized this act in 1996. There are 74 regulated contaminants and another 34 are subject to monitoring. Fortunately, only a small number have ever been detected in Fresno's water supply.

## WHERE DOES OUR DRINKING WATER COME FROM?

For Fresno customers, there are two sources of drinking water. The Fresno Sole Source Aquifer is a large underground water system that supplies many communities in the San Joaquin Valley. The City operates approximately 260 wells that draw from this aquifer, which can lower the water table. For this reason, Fresno has an aggressive recharge program that is continually finding new places and methods to conduct ground water recharge. Water recharge operations can slow this decline, but with conservation, you can help have a greater impact.

The second source is surface water delivered via Fresno Irrigation District canals and comes from either Millerton or Pine Flat lakes located in the foothills east of Fresno. Surface water is treated to drinking water standards at Fresno's three state of the art surface water treatment facilities (SWTFs). In northeast Fresno, the NESWTF is rated at 30 million gallons per day. The 4 million gallons per day T-3 Water Storage and Treatment Facility is located in east Fresno and our newest and largest facility, the SESWTF, rated at 54 million gallons per day, is located in southeast Fresno.

## WHAT HAPPENS IN FRESNO IF A WELL EXCEEDS USEPA OR STATE BOARD STANDARDS?

If a well violates standards, it will be removed from service and an alternate water supply will be provided. In the event a well exceeds standards but must stay in service, customers who receive water from that well would be directly notified by mail or by hand-delivered flyers.

## WATER CONSERVATION

Increasing water demands coupled with highly variable rainfall patterns in California make implementation of water conservation measures a necessary way of life. We need to work collaboratively to implement practical water conservation solutions that have broad-based community benefit while also providing a range of free services for our residential and commercial customers.

## REBATES

The City of Fresno offers a variety of rebates to qualified customers to offset some of the costs of installing water-efficient appliances, fixtures, and landscaping materials. Rebate forms are available online by visiting [www.fresno.gov/publicutilities/water-conservation-program/](http://www.fresno.gov/publicutilities/water-conservation-program/) and clicking on “Water Rebates” or request a hard copy by calling the City of Fresno’s One Call Center by dialing 3-1-1 within City limits or by calling (559) 621-CITY (2489).

## REBATES AVAILABLE

- Commercial & Multi-Family Toilet Rebate – up to \$105
- High-Efficiency Sprinkler Nozzle Rebate – up to \$4.50 per nozzle
- Hot Water Recirculating Pump Rebate – up to \$105
- Lawn to Garden Rebate - \$1.05 per square foot (up to 1500 sq. ft.)
- Micro (Drip) Irrigation Rebate - \$0.55 per square foot (up to 1000 sq. ft. of irrigated area)
- Rain Barrel Rebate – up to \$55
- Rain Sensor Rebate – up to \$55
- Residential Clothes Washer Rebate – up to \$105
- Residential Toilet Rebate – up to \$105
- Smart Irrigation Controller Rebate – up to \$105
- Swimming Pool Cover Rebate – up to \$105

## SERVICES

The Water Conservation Program offers a variety of free services for our customers. These services are provided to help customers save money by reducing their water use and ensuring compliance with water conservation regulations. Customers can request any of the free services outlined below by submitting a service request through FresGO, or by calling the City of Fresno’s One Call Center by dialing 3-1-1 within City limits or by calling (559) 621-CITY (2489).

## SERVICES OFFERED

- Water-Wise Landscape Consultation
- Irrigation Efficiency Audit
- Irrigation Controller Assistance (Timer Tutorial)
- Interior/Exterior Water Leak Surveys

## EYEONWATER

The EyeOnWater tool allows City of Fresno customers to connect to their water utility accounts and view their latest water usage on their desktop or mobile device. EyeOnWater helps customers understand their water usage, detect leaks, and discover their watering trends. To register for EyeOnWater, visit: [www.fresno.gov/publicutilities/water-conservation-program/eyeonwater/](http://www.fresno.gov/publicutilities/water-conservation-program/eyeonwater/) or download the EyeOnWater app on your mobile device!

## OUTDOOR WATER USE SCHEDULE

### 3-DAY OUTDOOR WATER USE SCHEDULE

#### (APRIL 1 - OCTOBER 31)

- Addresses ending in odd numbers (1,3,5,7,9) – Tuesdays, Thursdays and Saturdays.
- Addresses ending in even numbers (2,4,6,8,0) – Wednesdays, Fridays and Sundays.
- Customers cannot water between 10am – 6pm and never on Mondays.

### 1-DAY OUTDOOR WATER USE SCHEDULE

#### (NOVEMBER 1 - MARCH 31)

- Addresses ending in odd numbers (1,3,5,7,9) – Saturdays.
- Addresses ending in even numbers (2,4,6,8,0) – Sundays.
- Customers cannot water between 10am – 6pm and never on Mondays.

**Outdoor Water Use Schedules are subject to change at any time.**

## IMPORTANT WATER CONSERVATION RULES

- Customers may not use potable (fresh, drinking) water to wash sidewalks, walkways, driveways, parking lots, open ground, or other hard surface areas except where necessary for public health or safety.
- Customers may not use potable (fresh, drinking) water in a way that causes runoff onto adjacent properties, walkways, roadways, or parking lots.
- Car washing on private property is only allowed with the use of a bucket and a hose equipped with a shut off nozzle for a quick rinse.
- Established swimming pools may only be drained once every 3 years. A pool drain exemption permit is available at [www.fresno.gov/water](http://www.fresno.gov/water) by clicking on the “Exemption Requests” link.
- Customers may not exceed more than 400 gallons per hour of potable (fresh, drinking) water for outdoor water use on restricted days or times associated with the property address.

## CALIFORNIA DRINKING WATER SOURCE ASSESSMENT AND PROTECTION PROGRAM

The City of Fresno Water Division and the State Water Resources Control Board, formerly the California Department of Public Health, CaDPH, has completed the California Drinking Water Source Assessment and Protection (DWSAP) Program for water wells operated by the Fresno Water Division. The complete report prepared in 2003 is available for viewing at the Water Division or the State Water Resources Control Board office. Please contact the Water Division at 621-5300 or State Water Resources Control Board at 447-3300 if you are interested in more information regarding this report.

The City operates approximately 260 wells throughout Fresno's 115 sq. mile service area. Given the size and complexity of our system, the DWSAP report is a very large document and even a brief summary would be difficult to include in this Consumer Confidence report. However, two summary data tables are available on the City's website at [www.fresno.gov](http://www.fresno.gov). In the search box, type Water Quality Report and you will automatically be routed to the linking page containing the reports.

The multipurpose goal of the DWSAP is to identify ways communities can protect the water supplies, manage their water resources, improve drinking water quality, inform their citizens of known contaminants, and identify known activities and locations that can threaten their supply, and meet regulatory requirements.

As an example, the following paragraph lists the contaminating activities and sources, which can affect Fresno's drinking water.

Airports-Maintenance/fueling areas, Apartments and condominiums, Automobile-Body Shops, Automobile-Gas stations, Automobile-Repair Shops, Boat services/repair/refinishing, Chemical/petroleum processing/storage, Crops, irrigated, Dry Cleaners, Electrical/electronic manufacturing, Fertilizer, Pesticide/Herbicide Application, Golf courses, Historic gas stations, Historic waste dumps/landfills, Home manufacturing, Hospitals, Housing-high density, Junk/scrap/salvage yards, Known Contaminant Plumes, Landfills/dumps, Machine shops, Metal plating/finishing/fabricating, Medical/dental offices/clinics, Military installations, Motor pools, Office buildings/complexes, Parks, Pesticide/fertilizer/petroleum storage & transfer areas, Photo processing/printing, Plastics/synthetics producers, Railroad yards/maintenance/fueling areas, Rental Yards, Schools, Septic systems-high density, Sewer collection systems, Transportation corridors-Railroads, Underground storage tanks-Confirmed leaking tanks, Utility Stations-maintenance areas, Veterinary offices/clinics, Wastewater treatment plants, Wells-Agriculture/Irrigation, Wells-Water supply.

More information is included in the summary, which identifies the affected well(s) and associated activities.

## SOURCES OF DRINKING WATER

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

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 storm water 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 storm water 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 storm water runoff, agricultural application, and septic systems.
- Radioactive contaminants that can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) 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. State Water Board\* regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

\*In a previous rulemaking, "Department" was inadvertently changed to "State Water Board." The mandatory language will be updated as follows in a future rulemaking, and water systems may use this language in their CCRs in the interim: "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." Additional information on bottled water is available on California Department of Public Health's website at <https://www.cdph.ca.gov/Programs/CEH/DFDCS/Pages/FDBPrograms/FoodSafetyProgram/Water.aspx>.



**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.

**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.

**Lead:** 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 Fresno is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/lead>.

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).

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

The following tables list all the drinking water contaminants that were tested for during the 2023 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing between January 1 through December 31, 2023. The State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data contained in this report, though representative of the water quality, is more than one year old.

**Table 1: Primary Standards and Unregulated Contaminants**

Chemical Table	MCL	PHG (MCLG)	Fresno Average	Range of Detection's	MCL Violation	Last Sampled	Typical source of Contaminant
<b>Volatile Organic Contaminants</b>							
Carbon Tetrachloride (ng/) (1)	500	100	20	0 - 2.500	NO	2023	Some people who use water containing carbon tetrachloride in excess of the MCL over many years may experience liver problems and may have an increased risk of getting cancer.
cis-1,2-Dichloroethylene (ug/L) (2)	6	100	0.24	0 - 8.2	NO	2023	Discharge from industrial chemical factories; major biodegradation byproduct of TCE and PCE groundwater contamination
Tetrachloroethylene (PCE) (ug/L)	5	0.06	0.15	0 - 5.2	NO	2023	Discharge from factories, drycleaners, and auto shops (metal degreaser)
Trichloroethylene (TCE) (ug/L) (3)	5	1.7	0.18	0 - 9.3	NO	2023	Discharge from metal degreasing sites and other factories
<b>Synthetic Organic Contaminants</b>							
Dibromochloropropane (DBCP) (ng/L) (4)	200	1.7	30	0 - 220	NO	2023	Banned nematocide that may still be present in soils due to runoff/leaching from former use on soybeans, cotton, vineyards, tomatoes, and tree fruit
1,2,3-Trichloropropane (TCP) (ng/L) (1) (5)	5	0.7	0.41	0 - 14	NO	2023	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.
<b>Inorganic Contaminants</b>							
Arsenic (As) (ug/L)	10	0.004	1.5	nd - 16	NO	2023	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (Ba) (mg/L)	1	2	0.036	nd- 0.33	NO	2023	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Fluoride (ug/L)	2	1	0.090	nd - 0.24	NO	2023	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (N) (mg/L)	10	10	4.36	0 - 9.2	NO	2023	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Perchlorate (ug/L)	6	6	0.021	nd - 2.5	NO	2023	Historic aerospace or industrial operations associated with rocket propellant, fireworks, explosives, flares, matches and a variety of industries.
<b>Radionuclides</b>							
Gross Alpha (pCi/L)	15	n/a	1.80	nd - 9.54	NO	2023	Erosion of natural deposits
Uranium (pCi/L)	20	0.5	5.17	3.9 - 6	NO	2023	Erosion of natural deposits
<b>Unregulated Contaminants (ICR, UCMR &amp; Misc)</b>							
Manganese (ug/L) (6)	n/a		3.8	nd - 300	n/a	2023	We are required by regulations to monitor for certain unregulated contaminants. This is helpful to the USEPA and DDW for tracking the location of contaminants and whether there is a need for stricter regulations. Some contaminants may indicate detected values with a "<" symbol meaning less than. There are two possible reasons for this. First, the Detection Limit for Reporting, the DLR, has not been established by EPA or DDW. Second, for various reasons, the analytical equipment is unable to quantify the value below the stated "less than" value but analysis indicates the contaminant is present. For either reason, the concentration cannot be quantified and the City must assume that a "Fresno Average" is not applicable for this report.
Hexavalent Chromium (ug/L) (7)	n/a		2.6	nd - 7.3	n/a	2023	
Dichlorodifluoromethane (Freon 12)	n/a		0.50	nd - 14	n/a	2023	
<b>State Contaminants with Notification Levels</b>							
Perfluorobutanesulfonic acid (PFBS) (ng/L) (8)	Notification Level 500		0.29	nd - 8.6	n/a	2023	Perfluorobutane sulfonic acid exposures resulted in decreased thyroid hormone in pregnant female mice.
Perfluorooctanoic Acid (PFOA) (ng/L) (8)	Notification Level 5.1		0.92	nd - 16	n/a	2023	Perfluorooctanoic Acid exposures resulted in increased liver weight and cancer in laboratory animals
Perfluorooctanesulfonic Acid (PFOS) (ng/L) (8)	Notification Level 6.5		1.74	nd - 29	n/a	2023	Perfluorooctanesulfonic Acid exposures resulted in immune suppression and cancer in laboratory animals
Perfluorohexanesulfonic acid (PFHxS) nf/L (8)	Notification Level 3		1.47	nd - 30	n/a	2023	Perfluorohexane sulfonic acid exposures resulted in decreased total thyroid hormone in male rats.
<b>Disinfection Byproducts, Disinfectant Residuals, and Disinfection Byproduct Precursors</b>							
Total Trihalomethanes (TTHM) (ug/L)	80	n/a	9.6	nd - 21	NO	2023	Byproduct of drinking water chlorination
Haloacetic Acids (HAA5) (ug/L)	60	n/a	4.7	nd - 12	NO	2023	Byproduct of drinking water chlorination
Chlorine (NAOCL) (mg/L)	4	4	1.35	0.2 - 2.1	NO	2023	Drinking water disinfectant added for treatment

(1-8) See Table Footnotes.

## Table 2: Micro Biological Contaminants

Over 220 bacteriological samples are collected every month in Fresno's distribution system. In addition, over 300 bacteriological samples are collected from wells and treatment sites.

Contaminant	Highest No. of Detection's	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	3 of 235 or 1.27%	0	5%	(0)	Naturally present in the environment
E.coli	0	0	A routine sample is positive for E.coli and a repeat sample is positive for total, fecal or E.coli bacteria	(0)	Human or animal fecal waste

## Table 3: Lead and Copper

Under the Lead and Copper Rule, samples are collected from inside residences meeting criteria established by the USEPA.

Contaminant	No. of Samples Collected	90th Percentile Level Detected	No. of Sites Exceeding Action Level	Range of Detections	Action Level	MCLG	No. of Schools requesting lead testing	Typical Source of Contaminant
Lead (ug/L) (Sampled in August 2023)	56	0	0	ND	15	0.2	3 sampled in 2019	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (mg/L) (Sampled in August 2023)	56	0.25	0	ND - 0.28	1.3	0.3		Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

**Table 4: Secondary Standards Contaminants List**

Secondary standards are based on aesthetic factors (taste, appearance and odor, etc.) and are not health related.

Inorganic Contaminants	SMCL	Fresno Average	Range of Detection's	SMCL Violation	Last Sampled	Typical Source of Contaminant
Apparent Color (Unfiltered)	15	0.03	nd - 5	NO	2023	Naturally-occurring organic materials
Iron (Fe) (ug/L)	300	4	nd - 130	NO	2023	Leaching from natural deposits; industrial wastes
Manganese (Mn) (ug/L) (9)	50	3.8	nd - 300	NO	2023	Leaching from natural deposits
Specific Conductance (E.C.) (umho/cm+)	1600	314	17 - 930	NO	2023	Substances that form ions when in water; seawater influence
Sulfate (SO4) (mg/L)	500	10.14	nd - 94	NO	2023	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS) (mg/L)	1000	230	6 - 640	NO	2023	Runoff/leaching from natural deposits
Turbidity (Lab) (units)	5	0.230	nd - 2.6	NO	2023	Soil runoff
Sodium (Na) (mg/L)	n/a	20	1.1 - 64	NO	2023	Sodium and Total Hardness are not regulated but many customers are interested due to concerns about sodium in the diet or water hardness
Total Hardness (as CaCO3) (mg/L, GPG)	n/a	113 or 6.6	5.9 - 390	NO	2023	Sodium and Total Hardness are not regulated but many customers are interested due to concerns about sodium in the diet or water hardness

(9) The high value sample of 300 ug/L was collected at a manganese treatment site and its believed the influent and effluent samples were accidentally mislabeled. It was too late in the month to collect a repeat sample for confirmation and the high result had to be reported.

**Table 5: Turbidity in North East Fresno related to Surface Water Treatment Plant Operations**

	MCL	MCLG	Level Found	Range	Sample Date	Violation	Typical Source
Turbidity (NTU)	TT = 1 NTU	n/a	0.162	.026 - .162	7-Jun-23	n/a	Soil runoff
Turbidity (NTU)	TT = 95% of samples ≤0.3 NTU	n/a	100%	.026 - .162	Continuous	n/a	Soil runoff

Turbidity is a measurement of the cloudiness of the water determined by the ratio of the intensity of light scattered by the sample to the intensity of incident light. We monitor it because it is a good indicator of the effectiveness of our filtration system.

**Table 5: Turbidity in South East Fresno related to T-3 Surface Water Treatment Plant Operations**

	MCL	MCLG	Level Found	Range	Sample Date	Violation	Typical Source
Turbidity (NTU)	TT = 1 NTU	n/a	0.000	.000 - .000	Offline	n/a	Soil runoff
Turbidity (NTU)	TT = 95% of samples ≤0.3 NTU	n/a	100%	.000 - .000	Continuous	n/a	Soil runoff

Turbidity is a measurement of the cloudiness of the water determined by the ratio of the intensity of light scattered by the sample to the intensity of incident light. We monitor it because it is a good indicator of the effectiveness of our filtration system.

**Table 5: Turbidity in South East Fresno related to Surface Water Treatment Plant Operations**

	MCL	MCLG	Level Found	Range	Sample Date	Violation	Typical Source
Turbidity (NTU)	TT = 1 NTU	n/a	0.173	.019 - .173	9-Nov-23	n/a	Soil runoff
Turbidity (NTU)	TT = 95% of samples ≤0.3 NTU	n/a	100%	.019 - .173	Continuous	n/a	Soil runoff

Turbidity is a measurement of the cloudiness of the water determined by the ratio of the intensity of light scattered by the sample to the intensity of incident light. We monitor it because it is a good indicator of the effectiveness of our filtration system.



## TABLE FOOTNOTES

### TABLE 1: PRIMARY STANDARDS AND UNREGULATED CONTAMINANTS

(1) Carbon Tetrachloride. Well 3A located near Ventura Ave. and E St. confirmed above the MCL after initial test results and follow-up confirmation testing. The well was removed from service in December 2023 and the City is evaluating several options to possibly restore this well to service. Determination as to whether a well exceeds an MCL for non-acute contaminants such as Carbon Tetrachloride is based on a running average for a prescribed period of time, typically six months but may be longer.

(2) cis-1,2-Dichloroethylene. Well 213A located near Fruit Ave. and Gettysburg Ave. confirmed above the MCL after initial test results and follow-up confirmation testing. The well was removed from service in December 2023 and the City is evaluating several options to possibly restore this well to service. Determination as to whether a well exceeds an MCL for non-acute contaminants such as cis-1,2-Dichloroethylene is based on a running average for a prescribed period of time, typically six months but may be longer. Therefore, a well may have several results above the MCL, yet still meets drinking water standards by not exceeding the MCL.

(3) Trichloroethylene (TCE) was detected in well 192 near Bullard Ave. and State Route 99. Testing is ongoing to confirm the presence in the well. Determination as to whether a well exceeds an MCL for non-acute contaminants such as cis-1,2-Dichloroethylene is based on a running average for a prescribed period of time, typically six months but may be longer. Therefore, a well may have several results above the MCL, yet still meets drinking water standards by not exceeding the MCL.

(4) Dibromochloropropane (DBCP) Well 180-2, located near Church Ave. and Sunnyside Ave., has sample results above the MCL during 2023. Testing is ongoing to confirm the concentration in the well. Determination as to whether a well exceeds an MCL for non-acute contaminants such as DBCP is based on a running average for a prescribed period of time, typically six months but may be longer. Therefore, a well may have several results above the MCL, yet still meets drinking water standards by not exceeding the MCL.

(5) 1,2,3-Trichloropropane (TCP): In 2023, the city continued with initial monitoring of several wells for TCP. Wells that were unavailable when initial testing began still require the initial sampling or continued monitoring. Well 180-2 has sample results above the MCL during the year and confirmed above the MCL in December 2023. A treatment system is in place and the well is able to remain in service. Determination as to whether a well exceeds an MCL for non-acute contaminants such as TCP is based on a running average for a prescribed period of time, typically six months but may be longer. Therefore, a well may have several results above the MCL, yet still meets drinking water standards by not exceeding the MCL.

(6) Manganese is considered a secondary contaminant (SMCL) due to discolored water issues and staining of laundry and appliances, Manganese is also listed in Table 4. Manganese is currently being evaluated by both State and Federal agencies as a candidate for tougher regulations due to possible neurological effects. The high value sample of 300 ug/L was collected at a manganese treatment site, and it's believed the influent and effluent samples were accidentally mislabeled. It was too late in the month to collect a repeat sample for confirmation and the high result had to be reported.

(7) Hexavalent Chromium (CR6) - It's expected that California will soon have a statewide Primary MCL for CR6 with a new MCL of 10 ug/L. The MCL is now expected to go into effect sometime in 2024.

(8) PFAS Compounds. The city is currently engaged in an ongoing state mandated testing program to determine the presence of 18 different PFAS compounds. Specifically, PFBS, PFOA, PFOS, and PFHxS are the primary compounds of interest to date. The State has established a notification level (NL) and response level (RL) for each while working to develop MCLs. During quarterly testing events, we have detected the presence of these compounds and others at several wells near Fresno Yosemite International airport. In all, there are seven wells that exceed NL's for PFHxS and three wells that exceed the NL's for PFOA and PFOS. One site, PS 70, exceeds the RL's for PFOA, PFOS and PFHxS but continues to operate with an approved treatment system in place. Since 2019, all post treatment sample results from PS 70 have been non-detect. We continue to monitor a specific set of wells under the present State guidelines and in March of 2023 we began city wide monitoring for 29 PFAS compounds as part of the EPA's Unregulated Contaminant Monitoring Rule 5 sample program. Ongoing testing will continue throughout 2024 and increased monitoring may be required as these compounds are detected.

## ACRONYMS AND ABBREVIATIONS

**n/a:** not applicable

**NTU:** Nephelometric Turbidity Unit (a measure of light)

**nd:** not detectable at reporting limits.

**ng/L:** nanograms per liter or parts per trillion.

**µg/L:** micrograms per liter or parts per billion

**mg/L:** milligrams per liter or parts per million

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

### **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.

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

**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.

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

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



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A copy of this report is available on the Fresno City website. It can be found at [Fresno.gov/waterquality](http://Fresno.gov/waterquality)

A translation of this report in Spanish, Hmong, or Vietnamese can be requested by calling (559) 621-5300.

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

Daimntawv tshaj tawm no muaj lus tseemceeb txog koj cov dej haus. Tshab txhais nws, log yog tham nrog tej tug neeg uas totaub txog nws.

Chi ti t này th t quan tr ng, xin nh ngu i d ch cho quý v.

A large print version of this report can be requested by calling (559) 621-5300.