

2022 Consumer Confidence Report

Water System Information

Water System Name: City of Fresno Wastewater Management Division - 1 Water System

Report Date: June 30, 2023

Type of Water Source(s) in Use: Groundwater

Name and General Location of Source(s):

- Well#3A and Well#7 located at the Fresno/Clovis Regional Wastewater Reclamation Facility (RWRF) 5607 W. Jensen Ave. Fresno, CA. 93706

Drinking Water Source Assessment Information:

- A source assessment was conducted for the active water supply wells for the Fresno City Wastewater Plant 1W System in April 2002. Another source water assessment was conducted in February 2008 in connection with the permitting of Well#7. Two additional source water assessments were performed in August 2013 and May 2015.
- The sources are considered most vulnerable to the following activities not associated with any contaminates.
 - Automobile-Gas Stations
 - Historic Gas Stations
 - Wastewater Treatment Plants
- A copy of the assessment may be viewed at:
 - Fresno/Clovis Regional Wastewater Reclamation Facility
5607 W. Jensen Ave. Fresno, Ca. 93706
- Discussion of vulnerability:
 - The Wells are vulnerable to contamination associated with wastewater treatment plant and the sanitary sewer pipelines and reclamation sites surrounding the wastewater treatment plant. The most common contamination associated with wastewater treatment plants are elevated nitrate levels or bacteriological contamination. The wastewater treatment plant monitors the nitrate level in both wells annually to identify any elevated levels of nitrate. In addition, the sources are monitored monthly for total coliform and fecal coliform (bacteriological contamination). As a precaution, the wastewater treatment plant disinfects the water produced from both wells with Sodium Hypochlorite feed systems.
- You may request a summary of the assessment be sent to you by contacting:
 - Cory Asher, Wastewater Manager, (559) 621-5170

Time and Place of Regularly Scheduled Board Meetings for Public Participation:

- There are no board meetings. However, plant personnel can bring up issues regarding the water system at any time, including but not limited to staff meetings or bi-weekly management staff meetings.

For More Information, Contact: Cory Asher at (559) 621-5170 or email at Cory.Asher@Fresno.Gov

About This Report

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 to December 31, 2022 and may include earlier monitoring data.

Terms Used in This Report

Term	Definition
Level 1 Assessment	A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
Level 2 Assessment	A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an <i>E. coli</i> MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.
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 (U.S. EPA).
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 (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 Environmental Protection Agency.
Regulatory Action Level (AL)	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Term	Definition
Secondary Drinking Water Standards (SDWS)	MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.
Treatment Technique (TT)	A required process intended to reduce the level of a contaminant in drinking water.
Variances and Exemptions	Permissions from the State Water Resources Control Board (State Board) to exceed an MCL or not comply with a treatment technique under certain conditions.
ND	Not detectable at testing limit.
ppm	parts per million or milligrams per liter (mg/L)
ppb	parts per billion or micrograms per liter ($\mu\text{g/L}$)
ppt	parts per trillion or nanograms per liter (ng/L)
ppq	parts per quadrillion or picogram per liter (pg/L)
pCi/L	picocuries per liter (a measure of radiation)

Sources of Drinking Water and Contaminants that May Be Present in Source 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:

- 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.

Regulation of Drinking Water and Bottled Water Quality

In order to ensure that tap water is safe to drink, the U.S. EPA and the State 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.

About Your Drinking Water Quality

Drinking Water Contaminants Detected

Tables 1, 2, 3, 4, 5, 6, and 8 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. The State Board allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old. Any violation of an AL, MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

Table 1. Sampling Results Showing the Detection of Coliform Bacteria

Complete if bacteria are detected.

Microbiological Contaminants	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
<i>E. coli</i>	(2022) 0	0	(a)	0	Human and animal fecal waste

(a) Routine and repeat samples are total coliform-positive and either is *E. coli*-positive or system fails to take repeat samples following *E. coli*-positive routine sample or system fails to analyze total coliform-positive repeat sample for *E. coli*.

Table 1.A. Compliance with Total Coliform MCL between January 1, 2022, and December 31, 2022 (inclusive)

Microbiological Contaminants	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	(2022) [0]	0	(a)	0	Naturally present in the environment
Fecal Coliform and <i>E. coli</i>	(2022) [0]	0	0	0	Human and animal fecal waste

(a) For systems collecting fewer than 40 samples per month: two or more positively monthly samples is a violation of the total coliform MCL

Table 2. Sampling Results Showing the Detection of Lead and Copper

Complete if lead or copper is detected in the last sample set.

Lead and Copper	Sample Date	No. of Samples Collected	90 th Percentile Level Detected	No. Sites Exceeding AL	AL	PHG	No. of Schools Requesting Lead Sampling	Typical Source of Contaminant
Lead (µg/L)	6/16/2023	5	0.0134	0	15	0.2	Not applicable	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (mg/L)	6/16/2023	5	0.286	0	1.3	0.3	Not applicable	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Table 3. Sampling Results for Sodium and Hardness

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	9/10/2014	37.0		None	None	Salt present in the water and is generally naturally occurring
Hardness (ppm)	9/10/2014	199		None	None	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

Table 4. Detection of Contaminants with a Primary Drinking Water Standard

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Gross Alpha Particle Activity Well 3A & Well 7 (pCi/L)	10/30/2018 5/9/2018	26.6 14.8		15	0	Erosion of natural deposits.
Barium Well 3A & Well 7 (µg/L)	10/12/2020 10/12/2020	66.8 29.1		100 100	200 200	Discharge of oil drilling wastes and from metal refineries: erosion of natural deposits.
Chromium [Total] Well 3A & Well 7 (µg/L)	10/12/2020 10/12/2020	8.9 8.29		50 50	100 100	Discharge of steel and pulp mills and chrome plating: erosion of natural deposits.
Fluoride Well 3A & Well 7 (µg/L)	10/12/2020 10/12/2020	0.12 0.11		2 2	1 1	Erosion of natural deposits: water additive which promotes strong teeth: discharge from fertilizer and aluminum factories.
Arsenic Well 3A & Well 7 (µg/L)	10/12/2020 10/12/2020	1.53 2.07		10 10	0.004 0.004	Erosion of natural deposits: runoff from orchards: glass and electronics production wastes.

TTHMs (total) Trihalomethanes (µg/L)	9/5/2018	9.5		80	N/A	By-product of drinking water chlorination.
Nitrate (as N): Well 3A & Well 7 (mg/L)	7/15/2022 7/13/2022	3.2 3.4		10 (as N) 10 (as N)	10 (as N) 10 (as N)	Runoff and leaching from fertilizer use: leaching from septic tanks and sewage: erosion of natural deposits
Nitrite (as N) Well 3A & Well 7 (mg/L)	7/7/2020 7/7/2020	ND ND		1 (as N) 1 (as N)	1 (as N) 1 (as N)	Discharge of oil drilling wastes and from metal refineries: erosion of natural deposits.
Chlorine (mg/L)	2022	1.1		MRDL = 4.0 (as Cl ₂)	MRDLG = 4.0 (as Cl ₂)	Drinking water disinfection added for treatment.

Table 5. Detection of Contaminants with a Secondary Drinking Water Standard

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	SMCL	PHG (MCLG)	Typical Source of Contaminant
Total Dissolved Solids (mg/L)	9/20/2017	236		1000		Erosion of natural deposits: runoff from orchards: glass and electronics production wastes.
Chloride (mg/L)	9/10/2015	17		500		Runoff/leaching from natural deposits: seawater influence.
Specific Conductance	9/10/2015	357		1600		Substances that form ions when in water: seawater influence.
Sulfate (µg/L)	9/10/2015	7.7		500		Runoff/leaching from natural deposits: industrial wastes.

1,2,3-Trichloropropane (TCP) : Well 3A & Well 7 (µg/L)	1-31-2022	ND		0.005	0.0007	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.
	1-31-2022	ND		0.005	0.0007	

Table 6. Detection of Unregulated Contaminants

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Health Effects
Vanadium (ug/L)	9/10/2015	0.028		50	The babies of some pregnant women who drink water containing Vanadium in excess of the notification level may have an increased risk of developmental effects. Based on studies in laboratory animals.

Additional General Information on Drinking Water

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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the U.S. EPA'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. U.S. EPA/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).

Lead-Specific Language: If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. City of Fresno Wastewater Management Division - 1 Water System 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. [Optional: If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.] If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at <http://www.epa.gov/lead>.

State Revised Total Coliform Rule (RTCR): This Consumer Confidence Report (CCR) reflects changes in drinking water regulatory requirements during 2021. These revisions add the requirements of the federal Revised Total Coliform Rule, effective since April 1, 2016, to the existing state Total Coliform Rule. The revised rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of microbials (i.e., total coliform and *E. coli* bacteria). The U.S. EPA anticipates greater public health protection as the rule requires water systems that are vulnerable to microbial contamination to identify and fix problems. Water systems that exceed a specified frequency of total coliform occurrences are required to conduct an assessment to determine if any sanitary defects exist. If found, these must be corrected by the water system. The state Revised Total Coliform Rule became effective July 1, 2021.

Summary Information for Violation of a MCL, MRDL, AL, TT, or Monitoring and Reporting Requirement

Table 7. Violation of a MCL, MRDL, AL, TT or Monitoring Reporting Requirement

Violation	Explanation	Duration	Actions Taken to Correct Violation	Health Effects Language
NA				

For Water Systems Providing Groundwater as a Source of Drinking Water

Table 8. Sampling Results Showing Fecal Indicator-Positive Groundwater Source Samples

Microbiological Contaminants (complete if fecal-indicator detected)	Total No. of Detections	Sample Dates	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
<i>E. coli</i>	0		0	(0)	Human and animal fecal waste
Enterococci	0		TT	N/A	Human and animal fecal waste
Coliphage	0		TT	N/A	Human and animal fecal waste

Summary Information for Fecal Indicator-Positive Groundwater Source Samples, Uncorrected Significant Deficiencies, or Violation of a Groundwater TT

Special Notice of Fecal Indicator-Positive Groundwater Source Sample: NA

Special Notice for Uncorrected Significant Deficiencies: NA

Table 9. Violation of Groundwater TT

Violation	Explanation	Duration	Actions Taken to Correct Violation	Health Effects Language
NA				

Summary Information for Revised Total Coliform Rule Level 1 and Level 2 Assessment Requirements

If a water system is required to comply with a Level 1 or Level 2 assessment requirement that is not due to an *E. coli* MCL violation, include the following information below [22 CCR section 64481(n)(1)].

Level 1 or Level 2 Assessment Requirement not Due to an *E. coli* MCL Violation

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

During the past year we were required to conduct 0 Level 1 assessment(s). 0 Level 1 assessment(s) were completed. In addition, we were required to take 0 corrective actions and we completed 0 of these actions.

During the past year 0 Level 2 assessments were required to be completed for our water system. 0 Level 2 assessments were completed. In addition, we were required to take 0 corrective actions and we completed 0 of these actions.