



ANNUAL WATER QUALITY REPORT

Reporting Year 2022



Presented By
**City of Clovis Water
Division**

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.

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

PWS ID#: CA1010003



Quality First

Once again, we are pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2022. As part of our ongoing mission to provide clean and refreshing water to all our customers, the City of Clovis samples the water we supply for over 150 different contaminants. In this report, you will find a list of contaminants that were detected and information about those contaminants. The City's primary concern regarding the water supplied to its customers is quality. To that end, we remain vigilant in meeting the challenges of new regulations, source water protection, water conservation, and community outreach and education while continuing to serve the needs of all our water users. Thank you for allowing us the opportunity to serve you and your family.

Source Water Assessment

An assessment of drinking water sources for the City of Clovis was completed in 2003 by the State Board and in 2006, 2009, and 2015 by the City of Clovis. These sources are considered most vulnerable to the following activities associated with contaminants detected in the water supply: known contaminant plumes, fertilizer, and pesticide/herbicide application. In addition, the sources considered most vulnerable to these activities include: automobile (gas stations), metal plating/finishing/fabrication, historic waste dumps/landfills, boat services/repair/refinishing, sewer collection systems, chemical/petroleum processing/storage, dry cleaners, automobile (body shops), automobile repair shops, fleet/truck/bus terminals, junk/scrap/salvage yards, machine shops, photo processing/printing, plastics/synthetics producers, underground storage tanks (confirmed leaking), and septic systems.

An assessment of the Enterprise Canal was completed by the City in 2018. This source is most vulnerable to chemical or fuel storage tanks. A copy of the complete assessment is available at 155 North Sunnyside Avenue. You may request a summary of the assessment by contacting Public Utilities at (559) 324-2600.

Important Health Information

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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection

by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.



Lead in Home Plumbing

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. We are responsible for providing high-quality drinking water, but we 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 two 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 at (800) 426-4791 or www.epa.gov/safewater/lead.



Water Conservation

Please visit our website for current information on allowed watering days and conservation requirements. For customers who wish to replace their existing 5- to 7-gallon-per-flush toilets with ultralow-flow 1.28-gallon models, rebates up to \$75 are available with advance approval from the City. The City also has low-flow showerheads and faucet aerators available at no charge. High-efficiency washing machine rebates of \$35 to \$50 per qualified machine purchased and installed are also available. For information on rebates, water use audits, and fixture replacements, call (559) 324-2600 or visit cityofclovis.com.

QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call the Public Utilities Department at (559) 324-2600.

Where Does My Water Come From?

We supply water to the City of Clovis and the Tarpey Village unincorporated area of Fresno County. Our sources are the Kings River, via the Enterprise Canal, and 37 groundwater wells. Of these wells, six have wellhead treatment to provide removal of 1,2-dibromo-3-chloropropane (DBCP), 1,2,3-trichloropropane (TCP), or both, and one has wellhead treatment to remove iron and manganese.

Community Participation

The Clovis City Council regularly meets on the first, second, and third Monday of the month at 6:00 p.m. at the Clovis City Council Chambers, 1033 Fifth Street. We invite you to attend and participate in these meetings.

Testing for *Cryptosporidium*

Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes *Cryptosporidium*, the most commonly used filtration methods cannot guarantee 100 percent removal. The City of Clovis Surface Water Treatment Plant (SWTP) has a microfiltration process that removes 99.99 percent. Our monitoring indicates the presence of these organisms in the source water for the SWTP. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of *Cryptosporidium* may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immunocompromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immunocompromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. *Cryptosporidium* must be ingested to cause disease, and it may be spread through means other than drinking water.

Substances That Could Be in 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.

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 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.

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 can 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, which are by-products of industrial processes and petroleum production and which can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems; Radioactive Contaminants that can be naturally occurring or can be the result of oil and gas production and mining activities.

More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.



Test Results

The following table lists all the drinking water contaminants that were detected in 2022. 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 are from testing done from January 1 to December 31, 2022 and are inclusive of both groundwater and surface water sources. The State requires monitoring for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Therefore, some of the data shown in the table, though representative of the water quality, are more than a year old.

In 2022, approximately 59% of the City's water distribution system was served by groundwater wells and 41% was served by surface water via the City's Surface Water Treatment Plant.

REGULATED SUBSTANCES							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AVERAGE DETECTED	RANGE LOW-HIGH	IN COMPLIANCE	TYPICAL SOURCE
1,2,3-Trichloropropane [1,2,3-TCP] (ppt)	2022	5 _A	0.7	0.94	ND–3.6	Yes	Discharge from industrial and agricultural chemical factories; leaching from hazardous waste sites; cleaning and maintenance solvent, paint and varnish remover, and degreasing agent; by-product from production of other compounds and pesticides
Aluminum (ppm)	2022	1	0.6	0.0021	ND–0.073	Yes	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (ppb)	2022	10	0.004	0.82	ND–3.4	Yes	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	2022	1	2	0.070	ND–0.17	Yes	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Chlorine (ppm)	2022	[4.0 (as Cl ₂)]	[4 (as Cl ₂)]	1.22	0.16–2.30	Yes	Drinking water disinfectant added for treatment
Dibromochloropropane [DBCP] (ppt)	2022	200	3	26.0	ND–190	Yes	Banned nematocide that may still be present in soils due to runoff/leaching from former use on soybeans, cotton, vineyards, tomatoes, and tree fruit
Fluoride (ppm)	2022	2.0	1	0.14	ND–0.19	Yes	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2022	15	(0)	2.24	0.58–5.23	Yes	Erosion of natural deposits
HAA5 [sum of 5 haloacetic acids]–Stage 2 (ppb)	2022	60	NA	18.3	ND–27	Yes	By-product of drinking water disinfection
Hexavalent Chromium (ppb)	2015	NS _B	0.02	ND	ND–2.2	Yes	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits
Nitrate [as nitrogen] (ppm)	2022	10 _C	10	3.88	ND–9.6	Yes	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
TTHMs [total trihalomethanes]–Stage 2 (ppb)	2022	80	NA	35.8	ND–65	Yes	By-product of drinking water disinfection
SURFACE WATER [TREATMENT TECHNIQUE (TT)=MICROFILTRATION]							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AVERAGE DETECTED	RANGE LOW-HIGH	IN COMPLIANCE	TYPICAL SOURCE
Turbidity (NTU)	2022	TT	NA	0.035	0.020–0.072	Yes	Soil runoff
Turbidity (lowest monthly percent of samples meeting limit)	2022	TT = 95% of samples meet the limit	NA	100% of samples ≤0.1 NTU	NA	Yes	Soil runoff

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AVERAGE DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	IN COMPLIANCE	TYPICAL SOURCE
Copper (ppm)	2021	1.3	0.3	0.17	0/53	Yes	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2021	15	0.2	ND	0/53	Yes	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AVERAGE DETECTED	RANGE LOW-HIGH	IN COMPLIANCE	TYPICAL SOURCE
Chloride (ppm)	2022	500	NS	8.4	3.4–34	Yes	Runoff/leaching from natural deposits; seawater influence
Color (units)	2022	15	NS	4.7	ND–5	Yes	Naturally occurring organic materials
Iron (ppb)	2022	300	NS	3.4	ND–93	Yes	Leaching from natural deposits; industrial wastes
Manganese (ppb)	2022	50	NS	1.45	ND–31	Yes	Leaching from natural deposits
Specific Conductance (µmho/cm)	2022	1,600	NS	312	36–670	Yes	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2022	500	NS	9.6	1.8–37	Yes	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2022	1,000	NS	221	36–430	Yes	Runoff/leaching from natural deposits
Turbidity (NTU)	2022	5	NS	0.30	ND–0.93	Yes	Soil runoff

UNREGULATED SUBSTANCES_D

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AVERAGE DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Hardness, Total [as CaCO₃] (ppm)	2022	120.4	12–290	Sum of polyvalent cations present in the water, generally naturally occurring magnesium and calcium
Perfluorobutanesulfonic Acid [PFBS]_E (ppt)	2022	1.30	ND–12.0	NA
Perfluorooctanesulfonate Acid [PFOS]_E (ppt)	2022	3.78	ND–20 _F	NA
Perfluorooctanoic Acid [PFOA]_E (ppt)	2022	2.25	ND–12 _G	NA
Sodium (ppm)	2022	20.5	3.7–69	Naturally occurring

FOOTNOTES

^A This substance had an NL of 5 ppt until December 14, 2017, when the MCL of 5 ppt became effective.

^B There is currently no MCL for hexavalent chromium. The previous MCL of 0.010 ppm was withdrawn on September 11, 2017. Some people who drink water containing hexavalent chromium in excess of 0.010 ppm over many years may have an increased risk of getting cancer. This substance was included with UCMR3 sampling in 2015. Results did not require additional sampling.

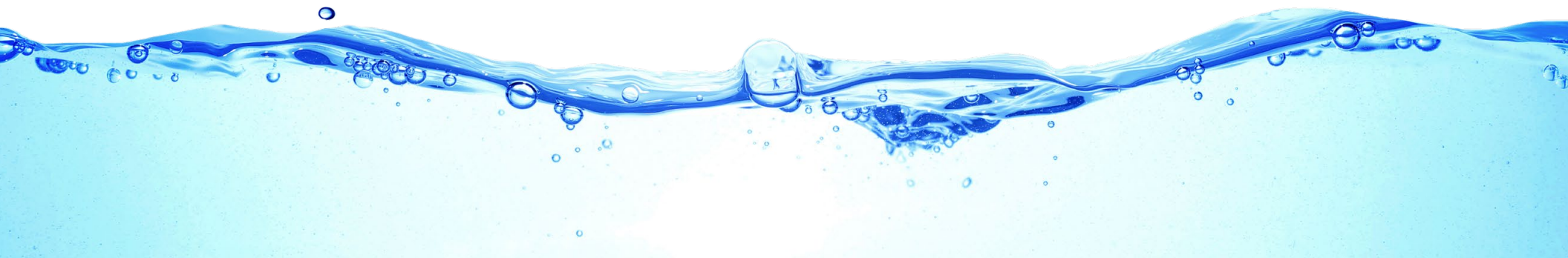
^C Nitrate in drinking water at levels above 10 ppm can be a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen. Symptoms include shortness of breath and blueness of the skin. Nitrate levels 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.

^D Unregulated contaminant monitoring helps U.S. EPA and the State Board determine where certain contaminants occur and whether the contaminants need to be regulated.

^E Part of a larger group of chemicals referred to as per- and polyfluoroalkyl substances (PFAS). Studies indicate that long-term exposure to PFOS and PFOA over certain levels could have adverse health effects. Potential health impacts related to PFAS are still being studied, and research is still evolving. Although there is no MCL set for these substances, we have proactively monitored sources and will continue to do so.

^F Wells 42, T-5, and T-6 had PFOS test results above the NL of 6.5 ppt but below the RL of 40 ppt. Well T-5 was offline all year.

^G Wells 42 and T-6 had PFOA test results above the NL of 5.1 ppt. Well T-5 had results above the RL of 10 ppt but was offline and did not run into the water system.



Definitions

90th %ile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

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 (SMCLs) 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. EPA.

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.

NA: Not applicable.

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NL (Notification Level): Established health-based advisory level.

NS: No standard.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/L (picocuries per liter): A measure of radioactivity.

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 EPA.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

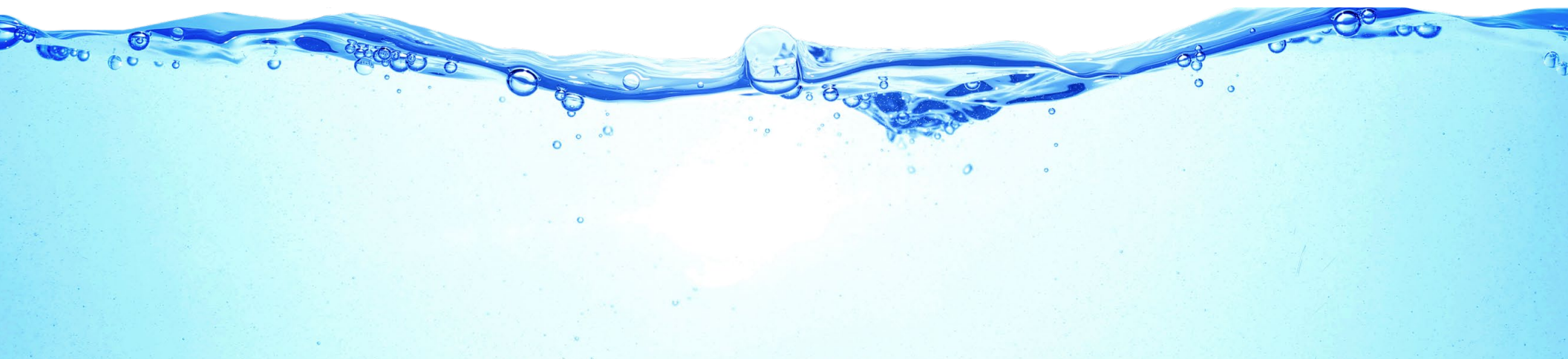
ppm (parts per million): One part substance per million parts water (or milligrams per liter).

ppt (parts per trillion): One part substance per trillion parts water (or nanograms per liter).

RL (Response Level): Level at which recommendation occurs.

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

µmho/cm (micromhos per centimeter): A unit expressing the amount of electrical conductivity of a solution.



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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 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.

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Testing for Cryptosporidium

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Fluoride (ppm)	2022	2.0	1	0.14	ND–0.19	Yes	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2022	15	(0)	2.24	0.58–5.23	Yes	Erosion of natural deposits
HAA5 [sum of 5 haloacetic acids]–Stage 2 (ppb)	2022	60	NA	18.3	ND–27	Yes	By-product of drinking water disinfection
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Nitrate [as nitrogen] (ppm)	2022	10 _C	10	3.88	ND–9.6	Yes	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
TTHMs [total trihalomethanes]–Stage 2 (ppb)	2022	80	NA	35.8	ND–65	Yes	By-product of drinking water disinfection

SURFACE WATER [TREATMENT TECHNIQUE (TT)=MICROFILTRATION]							
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SECONDARY SUBSTANCES							
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Color (units)	2022	15	NS	4.7	ND–5	Yes	Naturally occurring organic materials
Iron (ppb)	2022	300	NS	3.4	ND–93	Yes	Leaching from natural deposits; industrial wastes
Manganese (ppb)	2022	50	NS	1.45	ND–31	Yes	Leaching from natural deposits
Specific Conductance (µmho/cm)	2022	1,600	NS	312	36–670	Yes	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2022	500	NS	9.6	1.8–37	Yes	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2022	1,000	NS	221	36–430	Yes	Runoff/leaching from natural deposits
Turbidity (NTU)	2022	5	NS	0.30	ND–0.93	Yes	Soil runoff

UNREGULATED SUBSTANCES _D				
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AVERAGE DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Hardness, Total [as CaCO3] (ppm)	2022	120.4	12–290	Sum of polyvalent cations present in the water, generally naturally occurring magnesium and calcium
Perfluorobutanesulfonic Acid [PFBS] _E (ppt)	2022	1.30	ND–12.0	NA
Perfluorooctanesulfonate Acid [PFOS] _E (ppt)	2022	3.78	ND–20 _F	NA
Perfluorooctanoic Acid [PFOA] _E (ppt)	2022	2.25	ND–12 _G	NA
Sodium (ppm)	2022	20.5	3.7–69	Naturally occurring

FOOTNOTES

^A This substance had an NL of 5 ppt until December 14, 2017, when the MCL of 5 ppt became effective.

^B There is currently no MCL for hexavalent chromium. The previous MCL of 0.010 ppm was withdrawn on September 11, 2017. Some people who drink water containing hexavalent chromium in excess of 0.010 ppm over many years may have an increased risk of getting cancer. This substance was included with UCMR3 sampling in 2015. Results did not require additional sampling.

^C Nitrate in drinking water at levels above 10 ppm can be 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. 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.

^D Unregulated contaminant monitoring helps U.S. EPA and the State Board determine where certain contaminants occur and whether the contaminants need to be regulated.

^E Part of a larger group of chemicals referred to as per- and polyfluoroalkyl substances (PFAS). Studies indicate that long-term exposure to PFOS and PFOA over certain levels could have adverse health effects. Potential health impacts related to PFAS are still being studied, and research is still evolving. Although there is no MCL set for these substances, we have proactively monitored sources and will continue to do so.

^F Wells 42, T-5, and T-6 had PFOS test results above the NL of 6.5 ppt but below the RL of 40 ppt. Well T-5 was offline all year.

^G Wells 42 and T-6 had PFOA test results above the NL of 5.1 ppt. Well T-5 had results above the RL of 10 ppt but was offline and did not run into the water system.

Definitions

90th %ile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

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 (SMCLs) 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. EPA.

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.

NA: Not applicable.

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NL (Notification Level): Established health-based advisory level.

NS: No standard.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/L (picocuries per liter): A measure of radioactivity.

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 EPA.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

ppt (parts per trillion): One part substance per trillion parts water (or nanograms per liter).

RL (Response Level): Level at which recommendation occurs.

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

µmho/cm (micromhos per centimeter): A unit expressing the amount of electrical conductivity of a solution.

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