



ANNUAL WATER QUALITY REPORT

REPORTING YEAR 2020



Presented By
City of Lathrop



Quality First

Once again, we are pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2020. As in years past, we are committed to delivering the best-quality drinking water possible. 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.

We encourage you to share your thoughts with us on the information contained in this report. After all, well-informed customers are our best allies.

Protecting Your Water

Bacteria are a natural and important part of our world. There are around 40 trillion bacteria living in each of us; without them, we would not be able to live healthy lives. Coliform bacteria are common in the environment and are generally not harmful themselves. The presence of this bacterial form in drinking water is a concern, however, because it indicates that the water may be contaminated with other organisms that can cause disease.

In 2016, the U.S. EPA passed a regulation called the Revised Total Coliform Rule, which requires additional steps that water systems must take in order to ensure the integrity of the drinking water distribution system by monitoring for the presence of bacteria like total coliform and E. coli. The rule requires more stringent standards than the previous regulation, and it requires water systems that may be vulnerable to contamination to have in place procedures that will minimize the incidence of contamination. Water systems that exceed a specified frequency of total coliform occurrences are required to conduct an assessment of their system and correct any problems quickly. The U.S. EPA anticipates greater public health protection under this regulation due to its more preventive approach to identifying and fixing problems that may affect public health.

Though we have been fortunate to have the highest-quality drinking water, our goal is to eliminate all potential pathways of contamination into our distribution system, and this requirement helps us to accomplish that goal.

“ We remain vigilant in delivering the best-quality drinking water ”

Important Health Information

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. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant’s blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 10 ppm may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider.

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>.



Where Does My Water Come From?

The water supplied to you by the City of Lathrop includes groundwater from five active wells, located within the city limits, that is treated at the Louise Avenue Water Treatment Facility, and surface water that is treated and delivered by the South San Joaquin Irrigation District (SSJID) to the city’s water service area.

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 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 at (800) 426-4791 or at www.epa.gov/safewater/lead.

What's a Cross-Connection?

Cross-connections that contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air conditioning systems, fire sprinkler systems, irrigation systems), or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (back-pressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water demand), causing contaminants to be sucked out from the equipment and into the drinking water line (back-siphonage).

Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or when attached to a chemical sprayer for weed killing. Garden hoses that are left lying on the ground may be contaminated by fertilizers, cesspools, or garden chemicals. Improperly installed valves in your toilet could also be a source of cross-connection contamination.

Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained. We have surveyed industrial, commercial, and institutional facilities in the service area to make sure that potential cross-connections are identified and eliminated or protected by a backflow preventer. We also inspect and test backflow preventers to make sure that they provide maximum protection.

For more information on backflow prevention, contact the Safe Drinking Water Hotline at (800) 426-4791.

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 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, which are by-products of industrial processes and petroleum production, and which can also come from gas stations, urban storm-water 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.

QUESTIONS? For more information about this report, or for any questions related to your drinking water, please contact Greg Gibson, P.E., Senior Civil Engineer, Public Works Department, at (209) 941-7442.

Community Participation

You are invited to participate in our citizen's forum during our City Council meetings and voice your concerns about your drinking water. The City Council's meeting agenda and schedule are posted on the City's website: www.ci.lathrop.ca.us/meetings. The City Council typically meets the second Monday of each month, beginning at 7 p.m., at City Hall, 390 Towne Centre Drive, Lathrop, CA.

Source Water Assessment

A source water assessment for Well 6 was completed in January 2001, and for Wells 7, 8, and 9 in May 2001. A source water assessment for Well 10 was completed in April 2008. These sources are considered most vulnerable to the following activities: septic systems, airport maintenance and fuel areas, wastewater treatment plants, metal plating, finishing, and fabrication facilities.

A copy of the complete assessment is available at the State Water Resources Control Board - Drinking Water Division, Field Operations Branch, Stockton District Office, 31 East Channel Street, Room 270, Stockton, CA 95202, or at the City of Lathrop, Public Works Department, 390 Towne Centre Drive, Lathrop, CA 95330.

You may request a summary of the assessment by contacting Bhupinder Sahota, District Engineer, at (209) 948-7696, or Public Works Engineering at the City of Lathrop at (209) 941-7430.

Water Treatment Process

All groundwater from the City's five active groundwater wells (Wells 6, 7, 8, 9, and 10) are pumped to the Louise Avenue Water Treatment Facility, where it is treated using a coagulation/filtration process to remove arsenic to meet drinking water standards. Surface water purchased from the South San Joaquin Irrigation District is treated at the DeGroot Water Treatment Plant, which is located near Woodward Reservoir and uses a submerged membrane filtration process.

Arsenic Regulation

Arsenic contamination of drinking water sources may result from either natural or human activities. Volcanic activity, erosion of rocks and minerals, and forest fires are natural sources that can release arsenic into the environment. Although about 90 percent of the arsenic used by industry is for wood preservative purposes, it is also used in paints, drugs, dyes, soaps, metals, and semiconductors. Agricultural applications, mining, and smelting also contribute to arsenic releases. Arsenic is usually found in the environment combined with other elements such as oxygen, chlorine, and sulfur (inorganic arsenic); or combined with carbon and hydrogen (organic arsenic). Organic forms are usually less harmful than inorganic forms.

Low levels of arsenic are naturally present in water—about two parts arsenic per billion parts of water (ppb). Thus, you normally take in small amounts of arsenic in the water you drink. Some areas of the country have unusually high natural levels of arsenic in rock, which can lead to unusually high levels of arsenic in water.

In January 2001, the U.S. EPA lowered the arsenic Maximum Contaminant Level (MCL) from 50 to 10 ppb in response to new and compelling research linking high arsenic levels in drinking water with certain forms of cancer. All water utilities were required to implement this new MCL in January 2006.

Removing arsenic from drinking water is a costly procedure but well worth the expenditure considering the health benefits. For a more complete discussion, visit the U.S. EPA's arsenic website at <http://bit.ly/3brsTzX>.

Safeguard Your Drinking Water

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:



- Eliminate excess use of lawn and garden fertilizers and pesticides – they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use U.S. EPA's Adopt Your Watershed to locate groups in your community.
- Organize a storm drain stenciling project with others in your neighborhood. Stencil a message next to the street drain reminding people "Dump No Waste – Drains to River" or "Protect Your Water". Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

Count on Us

Delivering high-quality drinking water to our customers involves far more than just pushing water through pipes. Water treatment is a complex, time-consuming process. Because tap water is highly regulated by state and federal laws, water treatment plant and system operators must be licensed and are required to commit to long-term, on-the-job training before becoming fully qualified. Our licensed water professionals have a basic understanding of a wide range of subjects, including mathematics, biology, chemistry, and physics. Some of the tasks they complete on a regular basis include:

- Operating and maintaining equipment to purify and clarify water;
- Monitoring and inspecting machinery, meters, gauges, and operating conditions;
- Conducting tests and inspections on water and evaluating the results;
- Maintaining optimal water chemistry;
- Applying data to formulas that determine treatment requirements, flow levels, and concentration levels;
- Documenting and reporting test results and system operations to regulatory agencies; and
- Serving our community through customer support, education, and outreach.

So, the next time you turn on your faucet, think of the skilled professionals who stand behind each drop.

Water Conservation Tips

You can play a role in conserving water and saving yourself money in the process by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water. Here are a few tips:

- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So, get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you can save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water-using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.

Per- and Polyfluoroalkyl Substances (PFAS)

Per- and polyfluoroalkyl substances (PFAS) are a large group of human-made substances that do not occur naturally in the environment and are resistant to heat, water, and oil. PFAS have been used extensively in surface coating and protectant formulations due to their unique ability to reduce the surface tension of liquids. PFAS are persistent in the environment, can accumulate within the human body over time, and are toxic at relatively low concentrations. Exposure to unsafe levels of PFAS may result in adverse health effects, including developmental effects to fetuses during pregnancy, cancer, liver effects, immune effects, thyroid effects, and other effects (such as cholesterol changes).

Beginning in May 2019, the City has performed state-mandated quarterly testing for PFAS in two of its wells (Wells 9 and 10) and detected concentrations of perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) that are above the state response levels in Well 9 and above the notification levels for PFOA and PFOS at Well 10. Subsequent testing for PFAS performed at the City's other three active wells (Wells 6, 7, and 8) detected concentrations greater than the notification levels for PFOS and other unregulated PFAS compounds.

All of the City's wells were off-line for the majority of 2019: Wells 6, 7, 8 and 10 were brought back on-line in April, 2020, and Well 9 has remained off-line because the levels of PFAS detected in Well 9 exceed the State response level. The City is working to evaluate alternatives for treatment in order to bring Well 9 back online such that the concentrations of PFAS will remain below the response level in its drinking water.

Additional information regarding PFAS may be found at the State Water Resources Control Board website for PFAS at www.waterboards.ca.gov/pfas/.



FOG (fats, oils, and grease)

You may not be aware of it, but every time you pour fat, oil, or grease (FOG) down your sink (e.g., bacon grease), you are contributing to a costly problem in the sewer collection system. FOG coats the inner walls of the plumbing in your house as well as the walls of underground piping throughout the community. Over time, these greasy materials build up and form blockages in pipes, which can lead to wastewater backing up into parks, yards, streets, and storm drains. These backups allow FOG to contaminate local waters, including drinking water. Exposure to untreated wastewater is a public health hazard. FOG discharged into septic systems and drain fields can also cause malfunctions, resulting in more frequent tank pump-outs and other expenses.

Communities spend billions of dollars every year to unplug or replace grease-blocked pipes, repair pump stations, and clean up costly and illegal wastewater spills. Here are some tips that you and your family can follow to help maintain a well-run system now and in the future:

NEVER:

- Pour fats, oil, or grease down the house or storm drains.
- Dispose of food scraps by flushing them.
- Use the toilet as a waste basket.

ALWAYS:

- Scrape and collect fat, oil, and grease into a waste container such as an empty coffee can, and dispose of it with your garbage.
- Place food scraps in waste containers or garbage bags for disposal with solid wastes.
- Place a wastebasket in each bathroom for solid wastes like disposable diapers, creams and lotions, and personal hygiene products, including nonbiodegradable wipes.

Benefits of Chlorination

Disinfection, a chemical process used to control disease-causing microorganisms by killing or inactivating them, is unquestionably the most important step in drinking water treatment. By far, the most common method of disinfection in North America is chlorination.

Before communities began routinely treating drinking water with chlorine (starting with Chicago and Jersey City in 1908), cholera, typhoid fever, dysentery, and hepatitis A killed thousands of U.S. residents annually. Drinking water chlorination and filtration have helped to virtually eliminate these diseases in the U.S. Significant strides in public health are directly linked to the adoption of drinking water chlorination. In fact, the filtration of drinking water plus the use of chlorine is probably the most significant public health advancement in human history.

How chlorination works:

Potent Germicide Reduction in the level of many disease-causing microorganisms in drinking water to almost immeasurable levels.

Taste and Odor Reduction of many disagreeable tastes and odors like foul-smelling algae secretions, sulfides, and odors from decaying vegetation.

Biological Growth Elimination of slime bacteria, molds, and algae that commonly grow in water supply reservoirs, on the walls of water mains, and in storage tanks.

Chemical Removal of hydrogen sulfide (which has a rotten egg odor), ammonia, and other nitrogenous compounds that have unpleasant tastes and hinder disinfection. It also helps to remove iron and manganese from raw water.

Additional Monitoring

Beginning in May 2019, the city has performed quarterly state-mandated testing for per- and polyfluoroalkyl substances (PFASs) for two of its wells (Wells 9 and 10), and the city began quarterly testing of all its wells, beginning in the fourth quarter of 2020 due to a subsequent State Order issued in September 2020. The city has also provided supplemental testing of PFASs on its own initiative for the five active city wells and treated water at the Louise Avenue Water Treatment Facility (LAWTF). Well 9 has PFASs that exceed the state response levels for two PFAS compounds (PFOA and PFOS), and PFASs has been detected at the city's other wells (Wells 6, 7, 8, and 10) at concentrations greater than the notification for PFOSs and other unregulated PFASs compounds. All of the city's wells were offline for the majority of 2019. Wells 6, 7, 8, and 10 were brought back online in April, 2020, and Well 9 has remained offline because the levels of PFASs detected in Well 9 exceed the State response level. The city is working to evaluate alternatives for treatment in order to bring Well 9 back online such that concentrations of PFASs will remain below the response level in its drinking water.

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule. And, the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels. The State recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

We participated in the 4th stage of the U.S. EPA's Unregulated Contaminant Monitoring Rule (UCMR4) program by performing additional tests on our drinking water. UCMR4 sampling benefits the environment and public health by providing the U.S. EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if U.S. EPA needs to introduce new regulatory standards to improve drinking water quality. Unregulated contaminant monitoring data are available to the public, so please feel free to contact us if you are interested in obtaining that information. If you would like more information on the U.S. EPA's Unregulated Contaminants Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.

Per- and polyfluoroalkyl substances (PFASs) are a large group of human-made substances that do not occur naturally in the environment and are resistant to heat, water, and oil. PFASs have been used extensively in surface coating and protectant formulations due to their unique ability to reduce the surface tension of liquids. PFASs are persistent in the environment, can accumulate within the human body over time, and are toxic at relatively low concentrations. Exposure to unsafe levels of PFASs may result in adverse health effects, including developmental effects to fetuses during pregnancy, cancer, liver effects, immune effects, thyroid effects, and other effects (such as cholesterol changes).

REGULATED SUBSTANCES											
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	LAWTF-Treated GW		Distribution System (Combined GW and SW)		City Wells-Raw GW		VIOLATION	TYPICAL SOURCE
				AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH		
Arsenic (ppb)	2020	10	0.004	7.6	3–11	NA	NA	NA	NA	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	2020	1	2	NA	NA	NA	NA	0.3	0.21–0.49	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Chlorine (ppm)	2020	[4.0 (as Cl ₂)]	[4 (as Cl ₂)]	NA	NA	0.9	0.24–1.17	NA	NA	No	Drinking water disinfectant added for treatment
Gross Alpha Particle Activity (pCi/L)	2019	15	(0)	NA	NA	NA	NA	5.5 ¹	3.3–8.5	No	Erosion of natural deposits
Haloacetic Acids–Stage 2 (ppb)	2020	60	NA	NA	NA	45.9	3–60	NA	NA	No	By-product of drinking water disinfection
Nitrate [as nitrogen] (ppm)	2020	10	10	NA	NA	NA	NA	5.1	1.1–8.1	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Radium 228 (pCi/L)	2018	5	0.019	NA	NA	NA	NA	0.5 ²	0.43–0.82	No	Erosion of natural deposits
TTHMs [Total Trihalomethanes]–Stage 2 (ppb)	2020	80	NA	NA	NA	34.9	18–42	NA	NA	No	By-product of drinking water disinfection
Uranium (pCi/L)	2019	20	0.43	NA	NA	NA	NA	4.8	1.36–8.00	No	Erosion of natural deposits
Tap Water Samples Collected for Copper and Lead Analyses from Sample Sites throughout the Community											
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE				
Copper (ppm)	2018	1.3	0.3	0.3	0/32	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives				

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	LAWTF-Treated GW		SSJID-Treated SW		City Wells-Raw GW		VIOLATION	TYPICAL SOURCE
				AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH		
Chloride (ppm)	2020	500	NS	NA	NA	2.9	NA	43.8	31-61	No	Runoff/leaching from natural deposits; seawater influence
Iron (ppb)	2020	300	NS	26.7 ³	ND-320	NA	NA	NA	NA	No	Leaching from natural deposits; industrial wastes
Manganese (ppb)	2020	50	NS	NA	NA	NA	NA	5.6	ND-30	No	Leaching from natural deposits
Specific Conductance (µS/cm)	2020	1,600	NS	NA	NA	98	NA	697	607-845	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2020	500	NS	NA	NA	1.7	NA	28.2	18-34	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2020	1,000	NS	NA	NA	60	NA	430	370-530	No	Runoff/leaching from natural deposits
Turbidity (Units)	2020	5	NS	NA	NA	0.19	NA	1.4	ND-3	No	Soil runoff

UNREGULATED SUBSTANCES ⁴

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SSJID-Treated SW		Distribution System (Combined GW and SW)		City Wells-Raw GW		TYPICAL SOURCE
		AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	
Bromodichloromethane (ppb)	2020	NA	NA	1.9	1-4	NA	NA	By-product of drinking water disinfection
Bromoform (ppb)	2020	NA	NA	1.1	ND-9	NA	NA	By-product of drinking water disinfection
Chloroform (ppb)	2020	NA	NA	31.2	2-41	NA	NA	By-product of drinking water disinfection
Dibromochloromethane (ppb)	2020	NA	NA	0.75	ND-6	NA	NA	By-product of drinking water disinfection
Hardness, Total [as CaCO ₃] (ppm)	2020	38	NA	NA	NA	208	170-245	Erosion of natural deposits
Sodium (ppm)	2020	8.3	NA	NA	NA	43.2	38-47	Erosion of natural deposits
Vanadium (ppb)	2020	NA	NA	NA	NA	17.8	13-20	Erosion of natural deposits

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.

NS: No standard.

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).

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

UNREGULATED AND OTHER SUBSTANCES⁴

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SSJID-Treated SW		Distribution System (Combined GW and SW)		City Wells-Raw GW		TYPICAL SOURCE
		AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	
Alkalinity [Total] [as CaCO₃ equivalents] (ppm)	2020	41	NA	NA	NA	226	180–300	Naturally present in the environment
Bromochloroacetic Acid (ppb)	2019	NA	NA	1	0.6–2.6	NA	NA	By-product of drinking water disinfection
Bromodichloroacetic Acid (ppb)	2019	NA	NA	0.7	ND–1.3	NA	NA	By-product of drinking water disinfection
Chlorodibromoacetic Acid (ppb)	2019	NA	NA	0.03	ND–0.4	NA	NA	By-product of drinking water disinfection
Dibromoacetic Acid (ppb)	2019	NA	NA	0.13	ND–2	NA	NA	By-product of drinking water disinfection
Dichloroacetic Acid (ppb)	2019	NA	NA	20	13–29	NA	NA	By-product of drinking water disinfection
pH (Units)	2020	7.8	NA	NA	NA	7.7	7.6–7.9	Measurement of acidity (neutral = 7.0)
Perfluorobutanesulfonic Acid [PFBS] (ppt)	2020	NA	NA	NA	NA	4.5	ND–24.0	Fire training/fire response sites; industrial sites, landfills, and wastewater treatment plants/biosolids
Perfluorooctanoic Acid [PFHxS] (ppt)	2020	NA	NA	NA	NA	0.5	ND–3.2	Fire training/fire response sites; industrial sites, landfills, and wastewater treatment plants/biosolids
Perfluoroheptanoic Acid [PFHpA] (ppt)	2020	NA	NA	NA	NA	1.4	ND–2.7	Fire training/fire response sites; industrial sites, landfills, and wastewater treatment plants/biosolids
Perfluorohexanesulfonic Acid [PFHxS] (ppt)	2020	NA	NA	NA	NA	3.4	ND–12.0	Fire training/fire response sites; industrial sites, landfills, and wastewater treatment plants/biosolids
Perfluorooctanesulfonate Acid [PFOS] (ppt)	2020	NA	NA	NA	NA	12.6	1.8–79	Fire training/fire response sites; industrial sites, landfills, and wastewater treatment plants/biosolids
Perfluorooctanoic Acid [PFOA] (ppt)	2020	NA	NA	NA	NA	4	ND–15	Fire training/fire response sites; industrial sites, landfills, and wastewater treatment plants/biosolids
Trichloroacetic Acid (ppb)	2019	NA	NA	19.3	ND–27	NA	NA	By-product of drinking water disinfection

¹Well 10 sampled in 2016; Wells 6 and 9 sampled in 2019; Wells 7 and 8 sampled in 2020.

²Wells 6, 7, 8, 9 sampled in 2006; Well 10 sampled in 2018.

³An exceedance for iron occurred in November 2020, which resulted from an equipment failure at the Louise Avenue Water Treatment Facility. The problem was resolved immediately, and field tests showed no iron in the finished water after the repair.

⁴Unregulated contaminant monitoring helps U.S. EPA and the State Water Resources Control Board to determine where certain contaminants occur and whether the contaminants need to be regulated.

