

ANNUAL WATER QUALITY REPORT

Reporting Year 2021



Presented By
**Union Public
Utility District**

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

PWS ID#: CA0510001

Our Mission Continues

We are once again pleased to present our Annual Water Quality Report covering all testing performed between January 1 and December 31, 2021. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. Our constant goal is to provide you with a safe and dependable supply of drinking water. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education, while continuing to serve the needs of all our water users. This report demonstrates our water quality and what it means.

The following information is provided in compliance with requirements established by the U.S. Environmental Protection Agency (U.S. EPA) and the State Water Resources Control Board (State Water Board).

Please remember that we are always available should you ever have any questions or concerns about water.

Thank you for allowing us to continue providing your family with clean, high-quality water. Union Public Utility District works around the clock to provide top-quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life, and our children's future.

Water Treatment

It is the goal of the Union Public Utility District to provide the highest quality water to all customers within the District's service area. Raw water is treated for the removal of harmful microorganisms through coagulation, filtration, and disinfection. The finished water pH is adjusted for corrosion control and chlorine is utilized for disinfection. No fluoridation is used.

Monitoring

Monitoring of the water is conducted 365 days a year by skilled, certified water treatment plant operators. Samples collected from supply sources, treatment facilities, and distribution systems throughout our service area are analyzed using state-of-the-art laboratory equipment. Analysis other than for treatment is done by Alpha Analytical Laboratories, Inc., in Elk Grove, California. Samples are collected on an approved EPA and State Board monitoring schedule as required.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as those with cancer undergoing chemotherapy, those 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>.



Community Participation

We'd like to invite you to get involved with our water district. Our Board of Directors meet the third Wednesday of each month at 7:00 p.m. at the District Office at 339 Main Street in Murphys. As Calaveras County is looking at another unprecedented drought year, we want to thank our customers for their continued water conservation efforts to protect our most valuable asset, "Our Water." For conservation tips and helpful sources on water efficiency guidelines and more information about UPUD and your water, please visit us online at www.upudwater.com, email us at customerservice@upudwater.com, or call us at (209) 728-3651.

Where Does My Water Come From?

Our water source is surface water from the Stanislaus River that flows through Hunters Reservoir and down the Utica Water & Power Authority's Utica Ditch system with diversions to the UPUD Cademartori Reservoir and water treatment facilities.



QUESTIONS? We want our valued customers to be informed about your water quality. For more information, questions about this report or concerns about your water quality, please call Union Public Utility District Office at (209) 728-3651 or visit www.upudwater.org.

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. 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. 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, that are by-products of industrial processes and petroleum production and 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.

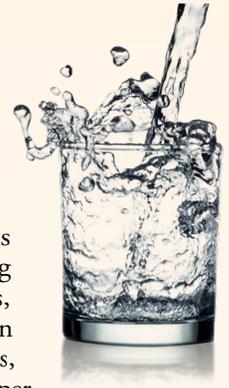
More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Source Water Assessment

A source water assessment was conducted for Union Public Utility District Water System's surface water source, the Utica Ditch, in February 2002.

No contaminants have been detected in the water supply; however, the source is considered most vulnerable to the following activities: wastewater treatment plants, mining operations - historic, sewer collection systems, NPDES/WDR permitted discharges, grazing (>5 large animals or equivalent per acre), septic systems - low density (<1/acre), agricultural drainage, and recent burn areas (<10 years).

A copy of the complete assessment is available at the State Water Board, Drinking Water Field Operations Branch, Stockton District Office, 31 E. Channel Street, Room 270, Stockton, California 95202, or from the Union Public Utility District, 339 Main Street, Murphys, CA 95247. You may request a summary of the assessment be sent to you by contacting the District Office at (209) 948-7696, or the Union Public Utility District at (209) 728-3651.



Violation Information

On June 8, 2020, UPUD's system exceeded the standard or maximum contaminant level (MCL) for Total Trihalomethanes (TTHM). UPUD followed the State Water Board Compliance Order #01-10-20R-001 directives and supplied a Corrective Action Plan as required by Directive 5 of the compliance order. UPUD purchased and installed a new reservoir mixer in its Cademartori Reservoir in December 2020, and in March 2021 purchased and installed new aeration equipment at the water treatment plant storage tank to reduce the TTHM levels. UPUD's TTHM levels were over the MCL in the 1st quarter of 2021; however, after installation of the TTHM Removal/Aeration system at the water treatment plant's 2M gallon storage tank, the levels have been below the MCL and in compliance. Compliance Order #01-10-20R-001 was lifted by the State Water Board on April 8, 2022.

Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer.

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.

Test Results

UPUD routinely monitors for contaminants in your drinking water according to federal and state regulations. Our water is monitored for many different substances on a very strict sampling schedule. The water we deliver must meet specific health standards. Here, we show only 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 often 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.

UPUD 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.

REGULATED SUBSTANCES							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chlorine (ppm)	2021	[4.0 (as Cl ₂)]	[4 (as Cl ₂)]	0.10	0.02–0.45	No	Drinking water disinfectant added for treatment
HAA5 [Sum of 5 Haloacetic Acids]–Stage 2 (ppb)	2021	60	NA	39.79	13.80–39.79	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes]–Site #0510001-900–310 Six Mile Rd., Murphys (ppb)	2021	80	NA	49.16 (LRAA)	34.06–83.55	Yes (Qtr 1 only)	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes]–Site #0510001-901–7551 Red Hill Rd., Angels Camp (ppb)	2021	80	NA	49.55 (LRAA)	33.65–80.08	Yes (Qtr 1 only)	By-product of drinking water disinfection
Total Coliform Bacteria [federal Revised Total Coliform Rule] (positive samples)	2021	TT	NA	0	NA	No	Naturally present in the environment
Total Coliform Bacteria [state Total Coliform Rule] (positive samples)	2021	1 positive monthly sample	(0)	0	NA	No	Naturally present in the environment

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)	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper ² (ppm)	2020	1.3	0.3	0.06	0/21	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead ² (ppb)	2020	15	0.2	0.007	0/21	No	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)	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2021	500	NS	0.59	NA	No	Runoff/leaching from natural deposits; seawater influence
Color (Units)	2021	15	NS	8.0	NA	No	Naturally occurring organic materials
Iron (ppb)	2021	300	NS	<100	NA	No	Leaching from natural deposits; industrial wastes
Odor–Threshold ³ (TON)	2021	3	NS	4.0	NA	Yes	Naturally occurring organic materials
Specific Conductance (µmho/cm)	2021	1,600	NS	26	NA	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2021	500	NS	0.64	NA	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2021	1,000	NS	27	NA	No	Runoff/leaching from natural deposits
Turbidity (Units)	2021	5	NS	0.65	NA	No	Soil runoff

UNREGULATED SUBSTANCES⁴

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Bromide (ppb)	2019	ND	NA	By-product of drinking water disinfection
HAA6Br (ppb)	2019	0.44	0.0–1.06	By-product of drinking water disinfection
HAA9 (ppb)	2019	19.48	8.8–31.76	By-product of drinking water disinfection
Hardness, Total [as CaCO ₃] (ppm)	2021	10	NA	Caused by naturally occurring substances; calcium and magnesium
Manganese (ppb)	2019	6.88	NA	Leaching from natural deposits
Sodium (ppm)	2021	1.3	NA	Refers to the naturally occurring salt present in the water
Total Organic Carbon [TOC] (ppb)	2019	1,767	NA	NA

¹ Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their livers, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

² One (1) school requested lead and copper sampling in the UPUD service area. Testing was completed per State guidelines. All results were below the required levels. No further actions were required.

³ On January 6, 2021 the District raw water sample was over the MCL of 3 units for the odor threshold. Odor in water is often caused by the presence of objectionable substances, decomposing organic material, algae, and reservoir or pipe lining materials. Because it has been unseasonably warm & dry in the winter months, these conditions too could have contributed to the result. Odor is usually removed by the treatment of drinking water.

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

Table Talk

Get the most out of the Testing Results data table with this simple suggestion. In less than a minute, you will know all there is to know about your water:

For each substance listed, compare the value in the Amount Detected column against the value in the MCL (or AL, SMCL) column. If the Amount Detected value is smaller, your water meets the health and safety standards set for the substance.

Other Table Information Worth Noting

Verify that there were no violations of the state and/or federal standards in the Violation column. If there was a violation, you will see a detailed description of the event in this report.

If there is an ND or a less-than symbol (<), that means that the substance was not detected (i.e., below the detectable limits of the testing equipment).

The Range column displays the lowest and highest sample readings. If there is an NA showing, that means only a single sample was taken to test for the substance (assuming there is a reported value in the Amount Detected column).

If there is sufficient evidence to indicate from where the substance originates, it will be listed under Typical Source.

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 that, 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

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).

TON (Threshold Odor Number): A measure of odor in water.

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