

# 2024 Drinking Water Quality Report

**University of California, Davis**

State Water System Number: 5710009

**UCDAVIS**

Important Information  
about Your Drinking  
Water

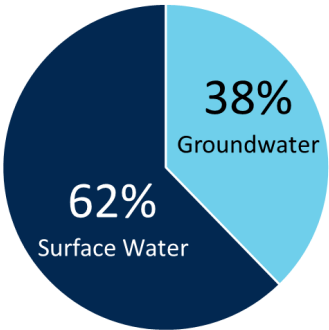
The University of California, Davis water utility tests the campus drinking water supply for many constituents as required by State and Federal Regulations. This report summarizes the results of our monitoring for the period of January 1 through December 31, 2024. This information is provided to inform the campus community about the monitoring and quality of the drinking water supply.

Last year, as in years past, your drinking water met all U.S. EPA and State drinking water health standards.

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

由於此報告書正包含着有關飲用水的重要信息,因此希望各位跟能夠翻譯或理解報告書內容的人對話

Where Does Our  
Water Come From?



There are two drinking water sources used for the University’s water supply: groundwater and surface water. In 2024, 62% of the campus demands were met by surface water and groundwater made up the remaining 38%.

**Groundwater:** Six on-campus wells provide the University’s groundwater supply. These wells draw water from deep aquifers 800 to 1,400 feet below the ground. The water is not treated, except for disinfection using chlorine. Chlorine levels are typically maintained between 0.50 and 1.0 ppm (parts per million) in the distribution system.

**Surface Water:** Sacramento River water is treated at the Woodland-Davis Regional Water Treatment Facility using traditional surface water techniques, including flash mixing, clarification, ozonation, granular media filtration, and disinfection. The finished water is injected with chlorine and orthophosphate before it is delivered into the University’s transmission line.

Contact Information

To report an urgent water quality concern or leak, contact the Facilities Management Customer Experience Center:

Phone: (530) 752-1655 (24 hours, 7 days a week)  
Email: [facilities@ucdavis.edu](mailto:facilities@ucdavis.edu)

For questions about this Report, contact Utilities Civil Operations:

- Courtney Doss, Engineering & Compliance Supervisor: (530) 574-7225, [cahall@ucdavis.edu](mailto:cahall@ucdavis.edu)
- Nick Carpenter, Water & Gas Operations Superintendent: (530) 979-1546, [ncarpenter@ucdavis.edu](mailto:ncarpenter@ucdavis.edu)



## Required Disclosures for Drinking Water Consumers

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.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the State Water Resources Control Board (State Water Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. 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. 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 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 building plumbing. UC Davis is responsible for providing high quality drinking water and removing lead pipes 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. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact the Facilities Management Customer Experience Center at (530) 752-1655 or [facilities@ucdavis.edu](mailto:facilities@ucdavis.edu). Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <http://www.epa.gov/safewater/lead>. UC Davis recently completed a service line material inventory, required by the US EPA's Lead and Copper Rule Revisions. UC Davis has determined it has no lead service lines in the domestic water system; a copy of the inventory can be accessed at <https://facilities.ucdavis.edu/utilities-services/water-quality>.

## Drinking Water Source Assessment Information

Drinking water source assessments are intended to facilitate and provide the basic information necessary for a local community to develop a program to protect the drinking water supply.

**Groundwater:** A source assessment for the University's groundwater wells was completed in June 2003. The University's groundwater sources are considered most vulnerable to the following activities: animal activities; sewer/septic collection & treatment systems; pesticide/fertilizer use; petroleum/chemical storage & transfer areas; and research laboratories. There have been no contaminants detected in the water supply attributable to these activities; however, the source is still considered vulnerable to activities located near the drinking water sources.

**Surface Water:** The surface water assessment for the Sacramento River watershed (2020 Update Report) can be found at: <https://www.wdcwa.com/operations/water-quality-reports>. The report induced the following assessment: "Overall, the Sacramento River continued to provide good quality raw water. The raw water can currently be treated to meet all drinking water standards using conventional water treatment processes." The report also identified eight key source water/watershed contaminant sources: agricultural drainage; livestock; forest activities, river corridor and river recreation; stormwater and urban runoff; industrial national pollutant discharge elimination system permit discharges; wastewater facilities; and watershed spills.

Additional information can be found on the State Water Resources Control Board, Division of Drinking Water website at: [http://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/DWSAP.shtml](http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/DWSAP.shtml).

## Key Terms and Abbreviations

The following are definitions of key terms for the water quality goals and standards noted on the data tables.

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.
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, equivalent to milligrams per liter (mg/L)
ppb	parts per billion, equivalent to or micrograms per liter (µg/L)
pCi/L	picocuries per liter (a measure of radiation)
TON	Threshold Odor Number
µS/cm	Microsiemens per centimeter (a unit expressing the amount of electrical conductivity of a solution)
UCD, University	University of California, Davis
US EPA	United States Environmental Protection Agency
WCDWA	Woodland-Davis Clean Water Agency

## What Does Our Water Contain?

The Tables below list the drinking water contaminants that were detected during the most recent sampling.

The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The Division of Drinking Water requires water suppliers to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, are more than one year old.

In addition to the constituents listed in the tables below, our water was analyzed for numerous other substances that were below regulatory levels or not detectable. Additional information is available at the UC Davis Facilities Management website and upon request: <https://facilities.ucdavis.edu/utilities-services/water-quality>

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

Cryptosporidium is a microbial pathogen found in surface water throughout the United States. Cryptosporidium was detected three times in the untreated surface water during 2020. However, the Woodland-Davis Clean Water Agency's Regional Water Treatment Facility is designed to remove and/or deactivate these pathogens to ensure that this pathogen is not present in the finished water.

# Primary Drinking Water Standards

Primary drinking water standards are established to protect human health.

Table 1. Constituents Detected with Primary Drinking Water Standards, Source Water Monitoring

Constituent	Unit	Regulatory Limits		UC Davis Groundwater			WDCWA Surface Water			Major Sources in Drinking Water
		MCL (AL)	PHG (MCLG)	Year Sampled	Results Range	Average	Year Sampled	Results Range	Average	
Aluminum	ppm	1	0.6	2023	ND	ND	2024	ND - 0.057	ND	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic	ppb	10	0.004	2024	2.4 - 7.0	4.6	2024	ND	ND	Erosion of natural deposits; runoff from orchards, glass and electronics production wastes
Barium	ppm	1	2	2023	ND - 0.07	ND	2024	ND	ND	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Chromium (Total)	ppb	50	(100)	2023	ND - 17	ND	2024	ND	ND	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Chromium (Hexavalent)	ppb	10	0.02	2024	ND - 9.5	4.9	2023	0.09	0.09	Erosion of natural deposits; transformation of naturally occurring trivalent chromium to hexavalent chromium by natural processes and human activities such as discharges from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities.
Fluoride	ppm	2	1	2023	0.11 - 0.16	0.13	2024	ND	ND	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (as N)	ppm	10	10	2024	ND - 0.63	0.28	2024	0.16	0.16	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium	ppb	50	30	2023	ND - 4	ND	2024	ND	ND	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)
Combined Radium	pCi/L	5	(0)	2024	ND - 0.335	ND	2024	ND	ND	Erosion of natural deposits
Gross Alpha Particle Activity	pCi/L	15	(0)	2024	ND - 2.63	ND	2024	0.752	0.752	Erosion of natural deposits
Gross Beta Particle Activity	pCi/L	50 <sup>[1]</sup>	(0)	1997/2011	ND - 10	ND	2024	8.95	8.95	Decay of natural and man-made deposits
Combined Uranium	pCi/L	20	0.43	2024	ND - 0.83	ND	2018	ND	ND	Erosion of natural deposits
Total Organic Carbon	ppm	TT	N/A	2024	ND	ND	2024	1.8 - 2.2	2.0	Various natural and manmade sources

<sup>[1]</sup> The State Water Resources Control Board considers 50 pCi/L to be the level of concern for beta particles.

Table 2. Constituents Detected with Primary Drinking Water Standards, Distribution System Monitoring

Constituent	Year Sampled	Unit	Regulatory Limits		Results Range	Average	Major Sources in Drinking Water
			MCL (MRDL)	PHG (MRDLG)			
Total Trihalomethanes (TTHMs)	2024	ppb	80	N/A	ND - 38.0	14	Byproduct of drinking water disinfection
Haloacetic Acids (HAA5)	2024	ppb	60	N/A	ND - 27	6.0	Byproduct of drinking water disinfection
Chlorine	2024	ppm	(4.0)	(4.0)	0.02 - 1.13	0.75	Drinking water disinfectant added for treatment
Total Coliform Bacteria	2024	% Positive	5%	0%	0% - 1.8% <sup>[1]</sup>	0.1%	Naturally present in the environment

<sup>[1]</sup> One (1) samples out of 743 samples from the distribution system in 2024 were present for total coliform bacteria; however, re-sampling of the location upstream and downstream of the site and the groundwater wells did not detect the bacteria, verifying no potential problems in the water treatment or distribution system.

## Secondary Drinking Water Standards

There are no PHGs or MCLGs for constituents with secondary drinking water standards because these are not health-based levels, but set on the basis of aesthetics.

Table 3. Constituents Detected with Secondary Drinking Water Standards,

Constituent	Unit	SMCL	UC Davis Groundwater			WDCWA Surface Water			Major Sources in Drinking Water
			Year Sampled	Results Range	Average	Year Sampled	Results Range	Average	
Chloride	ppm	500	2023	14 - 23	20	2024	4.7	4.7	Runoff/leaching from natural deposits; seawater influence
Color	units	15	2023	5 - 5	5	2024	ND	ND	Naturally-occurring organic materials
Iron	ppb	300	2023	ND - 63	ND	2024	ND	ND	Leaching from natural deposits; industrial wastes
Manganese	ppb	50	2023/2024	ND - 42	ND	2024	ND	ND	Leaching from natural deposits
Odor	Units	3	2023	ND - 2.5	ND	2024	2	2	Naturally-occurring organic materials
Specific Conductance	µS/cm	1,600	2023	510 - 570	546	2024	190	190	Substances that form ions when in water; seawater influence
Sulfate (as SO4)	ppm	500	2023	28 - 37	33	2024	16	16	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids	ppm	1,000	2023	310 - 330	320	2024	100 - 140	123	Runoff/leaching from natural deposits
Turbidity	Units	5	2023	ND - 0.36	0.16	2024	ND	ND	Soil runoff



# Lead and Copper Rule

Lead and copper samples are collected from taps throughout the campus.

Table 4. Lead and Copper Rule Sampling Results

Constituent	Year Sampled	Unit	Regulatory Limits		No. of Samples Collected	90th Percentile Level Result	No. of Sites Exceeding Action Level	Range of Results	Major Sources in Drinking Water
			Action Level	PHG					
Lead	2023	ppb	15	0.2	61	0	1	0 - 23	Corrosion of household plumbing systems; Erosion of natural deposits
Copper	2023	ppm	1.3	0.3	61	0.15	0	0 - 0.240	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

# Constituents with No Drinking Water Standards

These constituents may be of interest to customers; however, they have no regulatory thresholds.

Table 5. Selected Constituents Detected with No Drinking Water Standards

Constituent	Unit	UC Davis Groundwater			WDCWA Surface Water		
		Year Sampled	Results Range	Average	Year Sampled	Results Range	Average
Alkalinity, Bicarbonate (as CaCO3)	ppm	2023	240 - 270	250	2024	79	79
Calcium	ppm	2023	15 - 19	17	2024	12 - 15	14
Hardness, Total (as CaCO3)	ppm	2023	77 - 150	119	2024	64	64
Magnesium	ppm	2023	9.1 - 24	19	2024	6.7	6.7
Potassium	ppm	2023	ND - 2.5	2.2	2024	ND	ND
Sodium	ppm	2023	68 - 95	76	2024	13	13

[1] Lithium was sampled as part of the U.S. EPA Fifth Unregulated Contaminant Monitoring Rule (UCMR5). The U.S. EPA uses the data from UCMR sampling events to develop potential regulation on these constituents. Lithium is a naturally occurring metal in the Earth's crust. Currently, there is no regulatory limit or health advisory for lithium in drinking water. For more information, please visit [www.epa.gov/dwucmr/fifth-unregulated-contaminant-monitoring-rule](https://www.epa.gov/dwucmr/fifth-unregulated-contaminant-monitoring-rule).