ANNUAL WATER QUALITY REPORT

Reporting Year 2022

Presented By

CITY OF WOODLAND CALIFORNIA

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

PWS ID#: 5710006

Dear Woodland Neighbor,

We are pleased to present the annual water quality report covering all water quality testing performed from January 1 through December 31, 2022. Our city tested over 1000 samples for regulated contaminants plus over one hundred samples for general quality and aesthetics.

We are proud of the water supply portfolio we have built. Within the last decade, the City of Woodland has invested in Aquifer Storage and Recovery (ASR) technology to capture surface water and store it underground where it is less susceptible to evaporation compared to above ground storage. Both stored water and surface water tested met all Federal and State regulations in 2022. During the severe drought last year, the city managed to provide an ample quantity of water while maintaining high quality for all customers. Although 2022 ended with heavy rainfall, we anticipate cyclical wet and dry years. Ongoing investments in expanding ASR operations will increase the sustainability of our underground aquifers and, additionally, mitigate the environmental impacts of groundwater extraction.

Moving forward, we continue to focus on quality, scope, and scale of this precious commodity. In 2022, we served roughly 61,000 residents and supplied an average of over 7 million gallons per day. As stewards of water management, we strive to combine quality control with utmost consideration of health effects, environmental impacts and production for a sustainable future. This report demonstrates Woodland's continued commitment to excellence through 2022 and beyond.

Sincerely,

Tim Busch
Principal Utilities Engineer

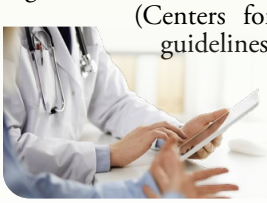
Where Does Your Water Come From?

The City of Woodland has two sources of drinking water—surface water and groundwater. Our surface water comes from the Sacramento River. The Woodland-Davis Clean Water Agency (WDCWA) Regional Water Treatment Facility (RWTF) collects water from the Sacramento River east of Woodland and treats it by clarification, ozonation, and filtration. It is then chlorinated to maintain disinfection during distribution.

Roughly 99 percent of Woodland's potable water came from WDCWA in 2022. The city also maintains nine groundwater wells, three of which can store water (ASR) for peak demand or drought. Groundwater wells serve as backup supply, and water is chlorinated for disinfection prior to distribution. Approximately 10 percent of the water used last year came from the ASR wells, which provide surface-water quality. Traditional groundwater wells produced less than 1 percent of Woodland's water supply.

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.

Questions?

For more information about this report, or for any questions relating to your drinking water, please phone Celia Taylor at (530) 661-5915 or email celia.taylor@cityofwoodland.org.

Property owners, please share this information with your tenants!

Para más información acerca del reporte o si tiene preguntas acerca del agua potable por favor llame a Celia Taylor al (530) 661-5915 o envíe un correo electrónico a celia.taylor@cityofwoodland.org.

¡Propietarios, compartan esta información con sus ocupantes!

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.

Source Water Assessment

The State Board, Division of Drinking Water, requires water providers to conduct a source water assessment (SWA) to help protect the quality of future water supplies. The SWA describes where a water system's drinking water comes from, the type of polluting activities that may threaten source water quality, and an evaluation of the water's vulnerability to those threats.

The SWA for the Sacramento River was conducted by several agencies and identified eight potential watershed contaminant sources: agricultural drainage, livestock, forest activities, river corridor and river recreation, stormwater and urban runoff, industrial NPDES dischargers, wastewater facilities, and watershed spills. The report states that "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 Sacramento River Watershed Sanitary Survey 2020 Update Report can be found at https://cityofwoodland.org/SacramentoRiverSanitarySurvey.

Get Involved

The City of Woodland periodically conducts public meetings and workshops concerning water issues. Regular City Council meetings are held on the first and third Tuesday of each month. For more information, please call (530) 661-5800 or visit www.cityofwoodland.org/608/City-Council.

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.

REGULATED SUBSTANCES

				WDCWA RWTF		Aquifer Storage and Recovery Wells			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
1,2-Dichlorobenzene (ppb)	2022	600	600	52.5	45–61	56.6	49–71	No	Discharge from industrial chemical factories
Aluminum (ppm)	2022	1	0.6	0.08	ND–0.11	0.04	ND–0.12	No	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (ppb)	2022	10	0.004	ND	NA	1.19	ND–2.5	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Bromate (ppb)	2022	10	0.1	1.15	ND–2.5	NA	NA	No	By-product of drinking water disinfection
Chlorine (ppm)	2022	[4.0 (as Cl2)]	[4 (as Cl2)]	0.9	0.8–0.9	0.7[1]	0.1–1.4[1]	No	Drinking water disinfectant added for treatment
Control of DBP Precursors [TOC] (ppm)	2022	TT	NA	0.73	0.44–1.20	0.37	ND–0.79	No	Various natural and human-made sources
HAA5 [sum of 5 haloacetic acids]–Stage 2 (ppb)	2022	60	NA	19.8	11–24	6.7	ND–15	No	By-product of drinking water disinfection
Hexavalent Chromium (ppb)	2022	NS[2]	0.02	0.16	NA	1.56	0.22–4.70	No	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	10	ND	NA	0.45	ND–1.9	No	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	9.3	4.3–15	21.3	7.3–27	No	By-product of drinking water disinfection

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 (ppm)	2022	1.3	0.3	0.32	1/35	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2022	15	0.2	ND	1/35	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

SECONDARY SUBSTANCES

				WDCWA RWTF		Aquifer Storage and Recovery Wells			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2022	500	NS	7.9	NA	11.6	5–31	No	Runoff/leaching from natural deposits; seawater influence
Color (units)	2022	15	NS	5	NA	NA	NA	No	Naturally occurring organic materials
Iron (ppb)	2022	300	NS	ND	NA	20.5	ND–76	No	Leaching from natural deposits; industrial wastes

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	WDCWA RWTF AMOUNT DETECTED	WDCWA RWTF RANGE LOW-HIGH	Aquifer Storage and Recovery Wells AMOUNT DETECTED	Aquifer Storage and Recovery Wells RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Specific Conductance (µmho/cm)	2022	1,600	NS	190	NA	272	189–431	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2022	500	NS	15	NA	17	12–25	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2022	1,000	NS	126	100–180	158	110–280	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2022	5	NS	0.21	NA	0.27	ND–0.88	No	Soil runoff

UNREGULATED SUBSTANCES [3]

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	WDCWA RWTF AMOUNT DETECTED	WDCWA RWTF RANGE LOW-HIGH	Aquifer Storage and Recovery Wells AMOUNT DETECTED	Aquifer Storage and Recovery Wells RANGE LOW-HIGH	TYPICAL SOURCE
Boron (ppb)	2022	290	220–360	134	ND–440	NA
Bromodichloromethane (ppb)	2022	4.3	3.0–5.0	5.1	3.8–7.5	By-product of drinking water disinfection
Bromoform (ppb)	2022	ND	NA	0.3	ND–2.5	By-product of drinking water disinfection
Chloroform (ppb)	2022	12.1	5.3–19.0	13.4	7.8–34.0	By-product of drinking water disinfection
Dibromochloromethane (ppb)	2022	2.1	1.3–3.1	2.0	1.2–4.3	By-product of drinking water disinfection
Hardness, Total [as CaCO3] (ppm)	2022	63	NA	84	57–160	Erosion of natural deposits
Hardness [as CaCO3] (grains per gallon),	2022	3.7	NA	4.9	3.3–9.4	Erosion of natural deposits
Sodium (ppm)	2022	16	NA	19	14–30	Naturally occurring; road salt; water softeners; animal waste

OTHER UNREGULATED SUBSTANCES [3]

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	WDCWA RWTF AMOUNT DETECTED	WDCWA RWTF RANGE LOW-HIGH	Aquifer Storage and Recovery Wells AMOUNT DETECTED	Aquifer Storage and Recovery Wells RANGE LOW-HIGH	TYPICAL SOURCE
1,3-Dimethyl-2-nitrobenzene (ppb)	2022	0.88	0.81–0.94	NA	NA	NA
1-Br-2-Nitrobenzene (ppb)	2022	0.45	0.43–0.46	NA	NA	NA
2-Bromobutanoic Acid (ppb)	2022	9.8	9.3–10.0	9.8	8.5–11.0	NA
2-Fluorobiphenyl (ppb)	2022	2.8	1.8–4.7	NA	NA	NA
Alkalinity [as CaCO3] (ppm)	2022	71	NA	92	40–170	NA
Aminomethylphosphonic Acid [AMPA] (ppb)	2022	200	200–200	NA	NA	NA
Bromofluorobenzene (ppb)	2022	51.2	45–59	50.5	43–60	NA
Calcium (ppm)	2022	13.2	11–16	17.9	13–32	NA
Chlorate (ppb)	2022	153	42–630	NA	NA	NA
Dibromoacetic Acid (ppb)	2022	1	0.99–1.1	ND	NA	By-product of drinking water disinfection
Dichloroacetic Acid (ppb)	2022	5.5	2.6–7.5	0.5	ND–2.2	By-product of drinking water disinfection
Dimethyl Tetrachloroterephthalate [DCPAA] (ppb)	2022	37	NA	NA	NA	NA
Magnesium (ppm)	2022	7.1	NA	9.4	6.2–19.0	Erosion of natural deposits
Nitrobenzene-d5 (ppb)	2022	3.0	1.9–5.1	NA	NA	NA
p-Terphenyl-d14 (ppb)	2022	3.1	1.9–5.1	NA	NA	NA

OTHER UNREGULATED SUBSTANCES [3]

		WDCWA RWTF		Aquifer Storage and Recovery Wells		
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
pH (units)	2022	7.9	7.9–7.9	8.0	7.6–8.2	NA
Phosphate (ppm)	2022	1.7	1.5–2.0	1.4	0.9–1.7	Water additive for corrosion control
Potassium (ppb)	2022	ND	NA	1.0	ND–2.2	Erosion of natural deposits
Triphenyl Phosphate (ppb)	2022	1.2	1.0–1.3	NA	NA	NA

[1] Sampled from distribution system sites across the city.
[2] There is currently no MCL for hexavalent chromium. The previous MCL of 10 ppb was withdrawn on September 11, 2017.
[3] Unregulated contaminant monitoring helps U.S. EPA and the State Board determine where certain contaminants occur and whether the contaminants need to be regulated.

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.

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.

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).

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.