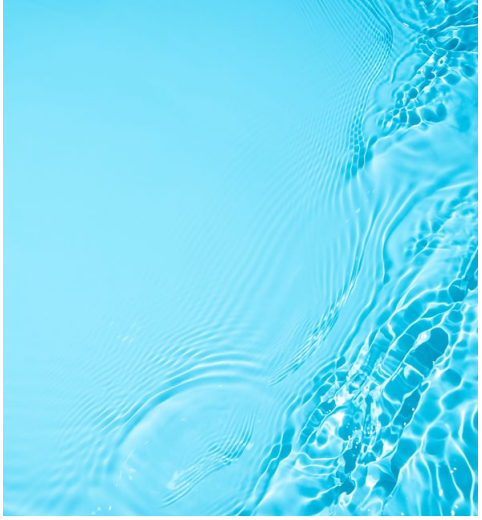

ANNUAL WATER QUALITY REPORT

Reporting Year 2023

Presented By

City of Woodland

CITY OF WOODLAND CALIFORNIA

PWS ID#: 5710006

Our Commitment

We are pleased to present to you this year's annual water quality report. This report summarizes last year's water quality testing performed between January 1 and December 31, 2023. It includes details about your sources of water, what it contains, and how it compares to standards set by regulatory agencies.

Last year, over 98 percent of the potable water came from the Woodland Davis Clean Water Agency (WDCWA). A small percentage (1.7) came from aquifer storage and recovery (ASR) wells, which store treated surface water for use during peak demand or drought. Woodland's ASR program allows us to maintain high-quality surface water through wet or dry years. Additionally, groundwater recharge mitigates natural groundwater pumping, allows us to adapt to climate extremes, and plays a vital role in achieving sustainability of our water resources.

Discover how years of extreme drought and declining groundwater quality prompted the City of Woodland to mitigate against the impacts of drought and diversify its water source portfolio. Join us in listening to Episode 5 of Level Up, Season 3:

bit.ly/LevelUpAudioS3E5FEMA.

Thank you for taking the time to understand Woodland's water quality.

Sincerely,

Tim Busch, Principal Utilities Civil Engineer

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.gov/608/City-Council.

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. Environmental Protection Agency (EPA)/Centers for Disease Control and Prevention (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 at (800) 426-4791 or http://water.epa.gov/drink/hotline.

Contact Us

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

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.gov.

¡Propietarios, compartan esta información con sus ocupantes!

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 and the use of chlorine are probably the most significant public health advancements in human history.

How chlorination works:

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

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

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 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.

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.

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: "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 cityofwoodland.gov/SacramentoRiverSanitarySurvey.

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

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Aluminum (ppm)	2023	1	0.6	0.001	ND–0.13	No	Erosion of natural deposits; residue from some surface water treatment processes
Chlorine (ppm)	2023	[4.0 (as Cl2)]	[4 (as Cl2)]	0.9	0.9–1.0	No	Drinking water disinfectant added for treatment
Control of DBP precursors [TOC] (ppm)	2023	TT	NA	1.18	0.75–1.90	No	Various natural and human-made sources
HAA5 [sum of 5 haloacetic acids]–Stage 2 (ppb)	2023	60	NA	10.5[1]	ND–21[1]	No	By-product of drinking water disinfection
Hexavalent Chromium (ppb)	2023	NS[2]	0.02	0.09	NA	No	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits
TTHMs [total trihalomethanes]–Stage 2 (ppb)	2023	80	NA	25.2[1]	7.4–58[1]	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

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2023	500	NS	5.8	NA	No	Runoff/leaching from natural deposits; seawater influence
Odor, Threshold (TON)	2023	3	NS	1.3	NA	No	Naturally occurring organic materials
Specific Conductance (µmho/cm)	2023	1,600	NS	190	NA	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2023	500	NS	0.02	NA	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2023	1,000	NS	125	100–170	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2023	5	NS	0.34	NA	No	Soil runoff

UNREGULATED SUBSTANCES [3]

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Alkalinity [as CaCO3] (ppm)	2023	74	NA	NA
Boron (ppb)	2022	290	220–360	NA
Calcium (ppm)	2023	13	11–16	NA
Chlorate (ppb)	2023	121	95–170	NA
Hardness (grains/gal)	2023	3.6	NA	NA
Hardness, Total [as CaCO3] (ppb)	2023	62	NA	NA
Magnesium (ppb)	2023	6.5	NA	Erosion of natural deposits
pH (units)	2023	7.9	7.9–8.0	NA
Phosphate (ppm)	2023	1.5	1.5–1.6	Water additive for corrosion control
Sodium (ppb)	2023	13	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.

Where Does Your Water Come From?

The City of Woodland has two sources of drinking water—surface water (primary supply) and groundwater (backup supply). WDCWA, our regional water treatment facility, collects water from the Sacramento River east of Woodland and treats it in several steps, including clarification, ozonation, and filtration. Orthophosphate is added for corrosion control and the finishing steps include chlorination with sodium hypochlorite to maintain disinfection during distribution. Water from native groundwater wells is chlorinated upon distribution without additional treatment.

In 2023 over 98 percent of Woodland's potable water supply came from WDCWA. The city maintains three ASR wells (1.7 percent of supply), four native groundwater wells, and two standby emergency wells. The ASR wells supply treated WDCWA surface water from the Sacramento River that has been stored in the aquifer. Water from three of the four groundwater wells, if used, is blended with surface water at the transmission main to deliver the best possible water quality to all customers.

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.

grains/gal (grains per gallon): Grains of compound per gallon of water.

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).

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

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.

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