

A dynamic splash of clear water against a white background, with a thick stream of water falling from the top and splashing outwards, creating numerous droplets and ripples.

ANNUAL WATER QUALITY REPORT

REPORTING YEAR 2019

Presented By
City of Woodland



Dear Woodland Water Customer,

The City of Woodland is pleased to provide the 2019 Water Quality Report. Last year your tap water met all State and Federal drinking water standards.

Over one thousand water quality samples were taken in 2019 to ensure you're receiving the highest quality drinking water.

The U.S. EPA selected the Woodland-Davis Clean Water Agency and the Cities of Woodland and Davis as models of water resilience. Numerous

steps have been taken to ensure reliable high-quality water for our customers, including the construction of a new surface water treatment plant in 2016, aquifer storage and recovery wells (The 2019 ACEC Golden State Award Winning project), installation of advanced metering infrastructure, and continuous water distribution rehabilitation projects.

We are well positioned to continue our water resiliency in 2020, and our staff is available if you have questions or concerns about your water.

Sincerely,
Tim Busch, Principal Utilities Civil Engineer

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.

Source Water Assessment

The State Water Resources Control 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 source water assessment for the Sacramento River was conducted by several agencies and identified eight potential watershed contaminant sources: agricultural drainage, livestock, river corridor and river recreation, homeless/illegal camping, 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 2015

Update Report can be found here: <https://cityofwoodland.org/SacramentoRiverSanitarySurvey>.

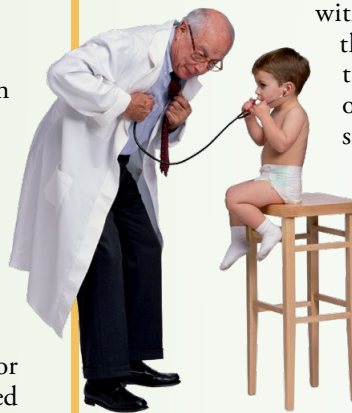
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Important Health Information

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>.



CONTACT Us

For more information about this report, or for any questions relating to your drinking water, please phone the Woodland Public Works Department at (530) 661-5962 or email pubworks@cityofwoodland.org.

Para más información acerca del reporte o si tiene preguntas acerca del agua potable por favor llame al Departamento de Obras Públicas de la Ciudad de Woodland al (530) 661-5962 o envíe un correo electrónico a pubworks@cityofwoodland.org.

Property owners, please share this information with your tenants!

Tap Water vs. Bottled Water

Thanks in part to aggressive marketing, the bottled water industry has successfully convinced us all that water purchased in bottles is a healthier alternative to tap water. However, according to a four-year study conducted by the Natural Resources Defense Council, bottled water is not necessarily cleaner or safer than most tap water. In fact, about 25 percent of bottled water is actually just bottled tap water (40 percent, according to government estimates).



The Food and Drug Administration is responsible for regulating bottled water, but these rules allow for less rigorous testing and purity standards than those required by the U.S. EPA for community tap water. For instance, the high mineral content of some bottled waters makes them unsuitable for babies and young children. Furthermore, the FDA completely exempts bottled water that's packaged and sold within the same state, which accounts for about 70 percent of all bottled water sold in the United States.

People spend 10,000 times more per gallon for bottled water than they typically do for tap water. If you get your recommended eight glasses a day from bottled water, you could spend up to \$1,400 annually and generate several pounds of unnecessary plastic waste adding to the already struggling recycling market. The same amount of tap water would cost about 49 cents and prevent waste. Even if you installed a filter device on your tap, your annual expenditure would be far less than what you'd pay for bottled water.

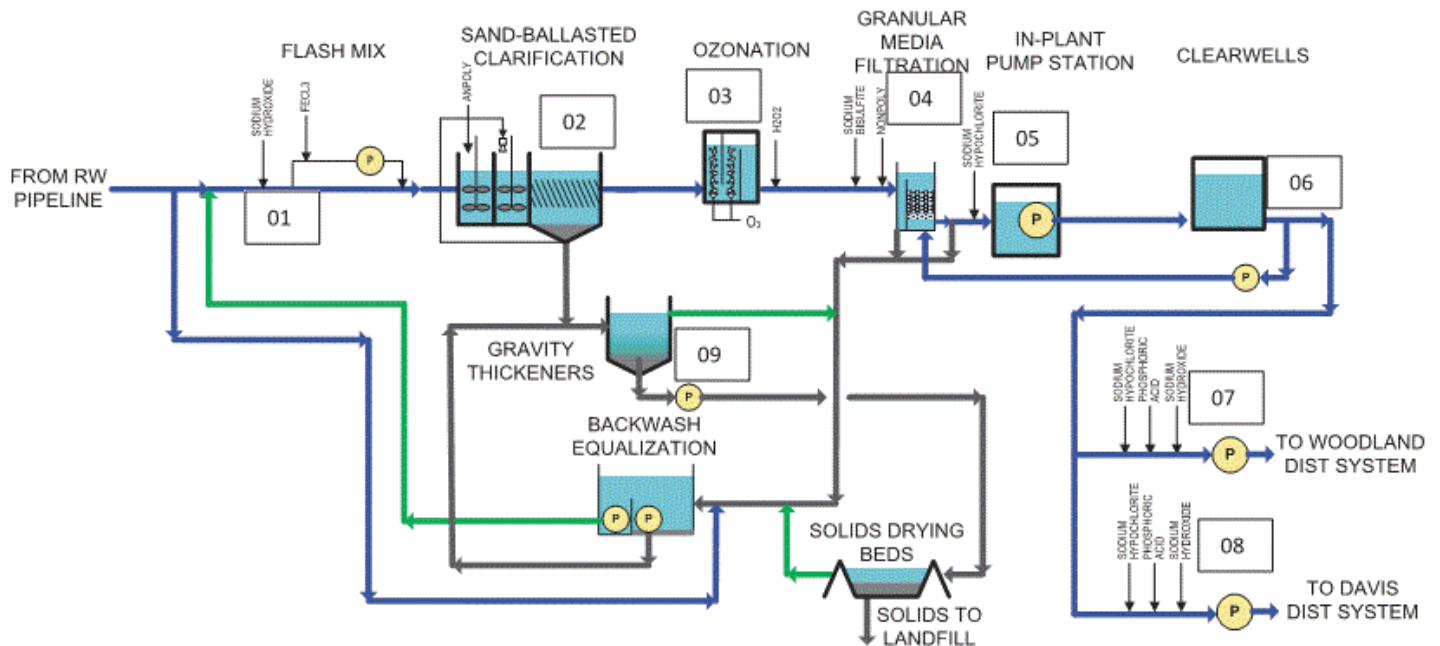
For a detailed discussion on the NRDC study results, check out their Web site at <https://goo.gl/Jxb6xG>.

Where Does Your Water Come From?

The City of Woodland has two sources of drinking water: surface water (primary supply) and groundwater (backup supply).

Surface water is pumped from the Sacramento River to the Woodland Davis Clean Water Agency's (WDCWA) Regional Water Treatment Facility (RWTF) for various treatment processes (see diagram) and the addition of chlorine (for disinfection) prior to distribution. For more information about the RWTF, visit <http://www.wdcwa.com/>. Surface water is also stored below ground in the City's three Aquifer Storage & Recovery Wells (ASR) for use in summer months to supplement WDCWA-supplied water. The City intends to meet all demand through the use of treated surface water and stored ASR water but also maintains five active groundwater wells and six standby wells as additional backup water sources. Groundwater is treated with liquid chlorine (sodium hypochlorite) at the wells, for disinfection.

Surface Water Treatment Process



Information on the Internet

The U.S. EPA (<https://goo.gl/TFAMKc>) and the Centers for Disease Control and Prevention (www.cdc.gov) Web sites provide a substantial amount of information on many issues relating to water resources, water conservation, and public health. Also, the Division of Drinking Water and Environmental Management has a Web site (<https://goo.gl/kGepu4>) that provides complete and current information on water issues in California, including valuable information about our watershed.

How Long Can I Store Drinking Water?

The disinfectant in drinking water will eventually dissipate even in a closed container. If that container housed bacteria prior to filling up with the tap water the bacteria may continue to grow once the disinfectant has dissipated. Some experts believe that water could be stored up to six months before needing to be replaced. Refrigeration will help slow the bacterial growth.



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, 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.

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule. Also, 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.

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 EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if the 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 Contaminant 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)	2019	[4.0 (as Cl ₂)]	[4 (as Cl ₂)]	0.9	0.8–0.9	No	Drinking water disinfectant added for treatment
Control of DBP precursors [TOC] (ppm)	2019	TT	NA	0.94	0.57–1.8	No	Various natural and man-made sources
Haloacetic Acids (ppb)	2019	60	NA	4.2	ND–7.6	No	By-product of drinking water disinfection
Hexavalent Chromium¹ (ppb)	2019	NS	0.02	0.27	NA	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)	2019	10	10	0.32	NA	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2019	80	NA	15.8	4.8–21	No	By-product of drinking water disinfection

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.

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)	2019	1.3	0.3	0.0715	0/35	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead² (ppb)	2019	15	0.2	ND	0/35	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)	2019	500	NS	16	NA	No	Runoff/leaching from natural deposits; seawater influence
Specific Conductance (µmho/cm)	2019	1,600	NS	170	NA	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2019	500	NS	5	NA	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2019	1,000	NS	122	86–170	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2019	5	NS	0.04	0.03–0.05	No	Soil runoff

UNREGULATED AND OTHER SUBSTANCES³

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH
Calcium (ppm)	2019	12.5	10–16
Chlorate (ppb)	2019	108	ND–170
Hardness, Total [as CaCO₃] (ppm)	2019	62	51–82
Magnesium (ppm)	2019	5.8	NA
pH (Units)	2019	7.9	7.9–7.9
Sodium (ppm)	2019	14	NA

¹ There is currently no MCL for hexavalent chromium. The previous MCL of 10 ppb was withdrawn on September 11, 2017.

² In addition to residential lead and copper sampling, three schools requested lead sampling in 2019 to test their internal plumbing.

³ Unregulated contaminant monitoring helps the U.S. EPA and the State Water Resources Control Board to determine where certain contaminants occur and whether the contaminants need to be regulated.

