

The only treatment administered is the addition of liquid chlorine (sodium hypochlorite) at the wells, for disinfection. The 0.3 to 0.5 parts per million dosage is typical of water systems throughout the country. Caution should be taken when using chlorinated water for medical uses such as for dialysis machines or when adding water to fish tanks or ponds.

For water quality reasons, the City will receive most of its water from the Sacramento River by summer 2016.



Woodland's water supply is pumped from 18 operational groundwater wells located throughout the city to its distribution pipe system. Groundwater comes from rain that seeps down through the soil until it reaches an impermeable layer. Woodland's water does not pass through a central water treatment facility but is filtered naturally by the sand and gravel as it passes through the aquifers. This is standard practice in well water systems.

## Where Does Your Water Come From?

We are proud to present our annual water quality report covering all testing performed between January 1 and December 31, 2014. Most notably, last year marked the 40th anniversary of the Safe Drinking Water Act (SDWA). This rule was created to protect public health by regulating the nation's drinking water supply. We celebrate this milestone as we continue to manage our water system with a mission to deliver the best quality drinking water. By striving to meet the requirements of SDWA, we are ensuring a future of healthy, clean drinking water for years to come.

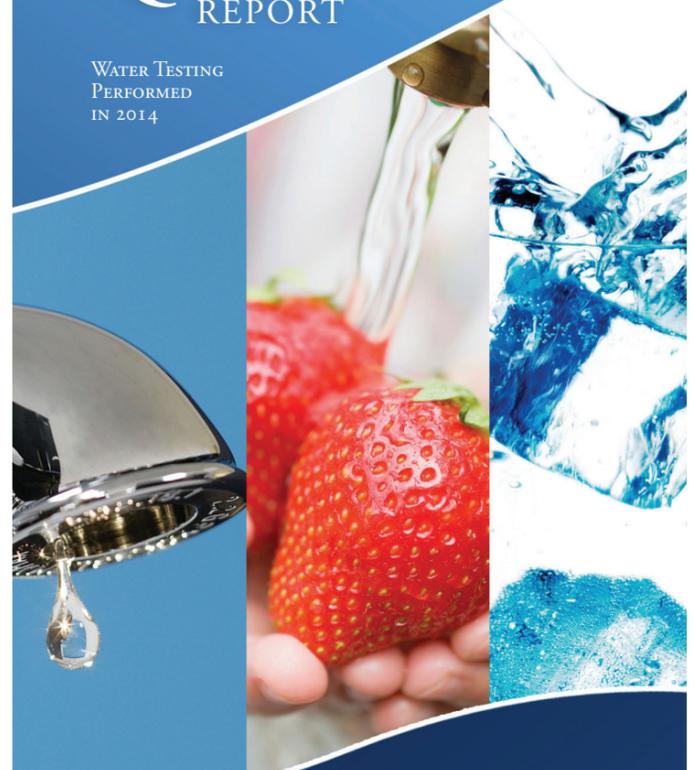
This report is required by state law and portion of the language are state mandated to inform you about the quality of water that is provided to you from the City of Woodland.

Please let us know if you ever have any questions or concerns about your water.

## To Our Water Customers:

# ANNUAL WATER QUALITY REPORT

WATER TESTING PERFORMED IN 2014



## City of Woodland

Anualmente la Ciudad de Woodland distribuye un informe a todos los clientes sobre la calidad y el contenido del agua potable para asegurarle que el agua potable es limpia y saludable para beber. Para ver la versión del informe en español por favor visite la página de Internet [www.cityofwoodland.org](http://www.cityofwoodland.org) y entre a las secciones: Homepage > Government > Departments > Public Works > Water > 2014 Water Quality Report.

PWS ID#: 5710006

## 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 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 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 or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

## Water Conservation

California is experiencing a severe drought. With increasing demands on the City's groundwater supplies, it is more important than ever to conserve water to ensure the City can meet customer water needs. Approximately 55% of water usage in the Sacramento Valley is for landscaping. As summer approaches, please check your irrigation system for leaks and consider installing a weather-based irrigation controller and replacing some of your turf with low-water-use plants. For more information on home and landscape water conservation go to [www.cityofwoodland.org/waterconservation](http://www.cityofwoodland.org/waterconservation). Visit the City's drought portal at [www.cityofwoodland.org/drought](http://www.cityofwoodland.org/drought) for details on water use restrictions and other drought updates.

## Get Involved

The City of Woodland periodically conducts public meetings and workshops concerning water issues. The Woodland City Council receives public comments at their regular meetings, which are held on the first and third Tuesdays of each month. For more information, please call the Secretary to the City Manager at (530) 661-5800 or go to <http://www.cityofwoodland.org/cityhall/default.asp>

## 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>.

## How Hard Is My Water?

A concentration of 17.1 parts per million (ppm) of hard water is equal to 1 grain per gallon. Woodland's water can be as high as 390 ppm, which equals about 22.8 grains per gallon. Water hardness does not affect a person's health but may not be aesthetically pleasing. Over time, water hardness leaves mineral deposits in pipes, fixtures, and equipment that may impact their life expectancy (see table). The conversion to surface water is anticipated to reduce hardness by approximately 75% from existing levels in 2016.

## Tip Top Tap

The most common signs that your faucet or sink is affecting the quality of your drinking water are discolored water, sink or faucet stains, a buildup of particles, unusual odors or tastes, and a reduced flow of water. The solutions to these problems may be in your hands.

### Kitchen Sink and Drain

Hand washing, soap scum buildup, and the handling of raw meats and vegetables can contaminate your sink. Clogged drains can lead to unclean sinks and backed up water in which bacteria (i.e., pink and black colored slime growth) can grow and contaminate the sink area and faucet, causing a rotten egg odor. Disinfect and clean the sink and drain area regularly. Also, flush regularly with hot water.

### Faucets, Screens, and Aerators

Chemicals and bacteria can splash and accumulate on the faucet screen and aerator, which are located on the tip of faucets, and can collect particles like sediment and minerals resulting in a decreased flow from the faucet. Clean and disinfect the aerators or screens on a regular basis.

Check with your plumber if you find particles in the faucet screen as they could be pieces of plastic from the hot water heater dip tube. Faucet gaskets can break down and cause black, oily slime. If you find this slime, replace the faucet gasket with a higher-quality product. White scaling or hard deposits on faucets and shower heads may be caused by hard water or water with high levels of calcium carbonate. Clean these fixtures with vinegar or use water softening to reduce the calcium carbonate levels for the hot water system.

### Water Filtration/Treatment Devices

A smell of rotten eggs can be a sign of bacteria on the filters or in the treatment system. The system can also become clogged over time so regular filter replacement is important. (Remember to replace your refrigerator filter!)

## 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. State Board regulations also establish limits for contaminants in bottled water that must 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.

## QUESTIONS?

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](mailto: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](mailto:pubworks@cityofwoodland.org). Property owners, please share this information with your tenants!



CA0000083

## What Does Our Water Contain?

During the past year we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic or synthetic organic contaminants.

We participated in the 3rd stage of the EPA's Unregulated Contaminant Monitoring Regulation (UCMR3) program by performing additional tests on our drinking water. UCMR3 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 EPA needs to introduce new regulatory standards to improve drinking water quality.

The table below shows only those contaminants that were detected in the water as required by the state. The state requires us to monitor 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 PRIMARY SUBSTANCES							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AVERAGE	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Arsenic (ppb)	2014	10	0.004	0.5	ND-2.9	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	2014	1	2	0.23	0.21-0.28	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Chromium (ppb)	2014	50	(100)	18	ND-27	No	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Combined Radium (pCi/L)	2014	5	(0)	1.9	1.3-2	No	Erosion of natural deposits
Fluoride (ppm)	2014	2.0	1	0.06	ND-0.13	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2014	15	(0)	0.76	ND-3.31	No	Erosion of natural deposits
Hexavalent Chromium <sup>1</sup> (ppb)	2014	10	0.02	17	4.3-29	No	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits
Nitrate [as nitrate] <sup>2</sup> (ppm)	2014	45	45	24	3.2-37	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Nitrate + Nitrate [as N] (ppb)	2014	10,000	10,000	5,430	4,100-7,000	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium (ppb)	2014	50	30	3	ND-7	No	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)
TTHMs [Total Trihalomethanes]-Stage 1 (ppb)	2014	80	NA	5.9	2.1-8	No	By-product of drinking water disinfection
Uranium (pCi/L)	2014	20	0.43	0.6	ND-0.8	No	Erosion of natural deposits

### Distribution System Lead and Copper (Tap water samples were collected from 61 homes in 2013)

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	ACTION LEVEL	PHG (MCLG)	90TH PERCENTILE	SITES ABOVE ACTION LEVEL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2013	1.3	0.3	0.31	0/61	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2013	15	0.2	ND	0/61	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

### REGULATED SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AVERAGE	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2014	500	NS	80	67-96	No	Runoff/leaching from natural deposits; seawater influence
Specific Conductance (µS/cm)	2014	1,600	NS	908	840-1,000	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2014	500	NS	35	30-41	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2014	1,000	NS	525	460-610	No	Runoff/leaching from natural deposits

### UNREGULATED AND OTHER SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AVERAGE	RANGE LOW-HIGH
Bicarbonate (ppm)	2014	307	290-350
Calcium (ppm)	2014	62	55-70
Hardness [as CaCO <sub>3</sub> ] (ppm)	2014	340	300-390
Magnesium (ppm)	2014	45	40-52
pH (Units)	2014	8.1	8-8.1
Potassium (ppm)	2014	2.4	2.2-2.7
Sodium (ppm)	2014	62	54-71
Total Alkalinity (ppm)	2014	307	280-350
UCMR 3-1,4-Dioxane (ppb)	2014	0.01	ND-0.09
UCMR 3-Chlorate (ppb)	2014	83	28-380
UCMR 3-Chlorodifluoromethane (ppb)	2014	0.1	ND-1.2
UCMR 3-Molybdenum (ppb)	2014	0.32	ND-3.5
UCMR 3-Strontium (ppb)	2014	421	490-1,100
UCMR 3-Vanadium (ppb)	2014	2.1	2.9-12

## 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 assessment for the City of Woodland's water was completed in December 2002. It found that our groundwater is most vulnerable to present-day land use activities, including agriculture, use of septic systems, gas stations, dry cleaners, and historical contamination plumes from these sources. A copy of the complete assessment report is available at <http://swap.ice.ucdavis.edu/TSinfo/TSsources.asp?mySystem=5710006>.

<sup>1</sup> On July 1, 2014, a new California MCL of 10 ppb became effective; the previous MCL was 50 ppb.

<sup>2</sup> Nitrate in drinking water at levels above 45 ppm is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 45 ppm may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider.

## Protect Our Water Supply—Prevent Pollution of Runoff

Unlike wastewater, stormwater, and other urban runoff is not treated before it is released to local waterways. Polluted runoff can impact drinking water sources. This, in turn, can affect human health and lead to increased drinking water treatment costs. Please help protect our water supply. Keep chemicals, soaps, and auto fluids out of gutters and storm drains. Minimize the use of fertilizers and pesticides that can wash off and pollute streams or seep into groundwater supplies.

## Surface Water Project Will Improve Water Quality

Improved water quality starts with a better water source. Although our groundwater supply meets all current drinking water regulations and is safe to use and drink, the water leaving our homes is not considered safe to return to the environment. Our wastewater contains high levels of selenium and salts, among other things. State and federal water/wastewater quality regulations are becoming stricter. The City will not be able to comply with future regulations using groundwater alone. The state has a new Maximum Contaminant Limit (MCL) for hexavalent chromium in of 10 ppb and the average of all City wells is 18 ppb. For these reasons, the City is moving forward with a regional surface water supply project to largely replace groundwater supplies. The project will deliver high-quality, treated water from the Sacramento River as the City's main drinking water supply starting in 2016. Water will be softer, easier on water-using appliances, and meet current and future state and federal water/wastewater quality regulations.

The Woodland-Davis Clean Water Agency (WDCWA)—a joint powers authority of the Cities of Woodland and Davis—was formed in 2009 to finance, build, and operate a regional surface water supply project. The project includes:

- 1) Water intake structure on the Sacramento River
- 2) Pipelines from the intake structure to the water treatment facility
- 3) Regional water treatment facility
- 4) Pipelines from the water treatment facility to Woodland and Davis
- 5) Other repairs and updates to the Cities' existing local water systems

Construction began in April 2014 and continues through 2016. The facilities should be fully operational by summer 2016. WDCWA is aggressively seeking state and federal funding to minimize the need for rate increases to support the project. For more information, visit [www.wdcwa.com](http://www.wdcwa.com), or call (530) 757-5673.

## Definitions

**AL (Regulatory Action Level):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

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

**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

**pCi/L (picocuries per liter):** A measure of radioactivity.

**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).