June 2022

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City of Woodburn

2021 Water Quality Report

The City of Woodburn is pleased to present to you this year's **Water Quality Report**. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources.

The water quality report is required annually by the federal **Environmental Protection Agency** (EPA). Information on the water quality tests conducted on the City's water supply is provided in this report. The word "contaminant" is used throughout the report to describe regulated contaminants detected in the city's drinking water supply. Some of the reported contaminants are naturally occurring organic elements.

The City takes great care in providing safe drinking water to the City of Woodburn residents and water users.

IMPORTANT HEALTH INFORMATION

Drinking water, including bottled water, may reasonably be expected to contain at least trace amounts of some "contaminants." The presence of these does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the 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. EPA/**Centers for Disease Control** (CDC) guidelines on appropriate means to lessen risk of infection by Cryptosporidium and other microbial contaminants are available from the **Safe Drinking Water Hotline** (1-800-426-4791).

Water Quality Data Table

Contaminants	MCLG or MRDLG	MCL, TT or MRDL	Your Water	Sample Date
Inorganic Compounds				
Arsenic (ppb)	0	10	7	2017
Nitrate [measured as Nitrogen] (ppm)	10	10	ND	2021
Nitrite [measured as Nitrogen] (ppm)	1	1	.014	2017
Copper - action level at consumer taps (ppm)	1.35	1.35	0.25	2020
Lead - action level at consumer taps (ppb)	0	15.5	ND	2020
Microbiological Compounds				
Total Coliform (positive samples/month)	0	1	0	2021
Disinfection By-Products Precursors, and Disinfectant Residual				
Haloacetic acids (ppb)	N/A	60	Annual Average 1.0 Single Site Range 0-1.0	2021
Total Trihalomethanes (ppb)	N/A	80	Annual Average 1.65 Single Site Range 0-1.7	2021
Chloramines Residual (ppm) (Running Annual Average)	4	4	1.10	2021
Radioactive Contaminants				
Beta/photon emitters (pCi/L)	0	50	ND	2017
Radium (combined 226/228) (pCi/L)	0	5	ND	2017
Uranium (ppb)	0	30	ND	2017

Water Quality Data Table Definitions

The **EPA (Environmental Protection Agency)** regulates the frequency of sampling of various contaminants. The data in the table is from testing conducted from January 1st to December 31st, 2020. It also includes the most recent results for testing not required in 2020.

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 allow a margin for safety.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLG as feasible using the best available treatment technology.

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.

MRDL (Maximum Residual Disinfectant Level): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the 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 contamination.

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

pCi/l: Picocuries per liter, which is a measure of radioactivity.

ppb: Parts per billion or micrograms per liter.

ppm: Parts per million or milligrams per liter.

Range: The lowest amount to the highest amount of contaminant detected.

Violation	Typical Source
No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposit
No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
No	Corrosion of household plumbing systems; Erosion of natural deposits
No	Corrosion of household plumbing systems; Erosion of natural deposits
No	Naturally present in the environment
No	By-product of drinking water disinfection
No	By-product of drinking water disinfection
No	Remaining water additive used to control microbes
No	Decay of natural and man-made deposits. The EPA considers 50 pCi/L to be the level of concern for Beta particles.
No	Erosion of natural deposits
No	Erosion of natural deposits

Mgl/(PPM) = Milligrams per liter/ Parts per million ~ **ND** = None detected ~ **MCL** = Maximum contaminant level

The measurement of milligrams per liter (or parts per million) Mgl/PPM is the mass of a contaminate per unit volume of water. The term is used to express very dilute concentrations of substances.

Water Quality Data Table

Unregulated Contaminant Monitoring Report #4

Halo-Acetic Acids	Your Water	Sample Date	Typical Source
Dichloroacetic Acids	1.6 ug/L	2020	Product of water disinfection
Monochloroacetic Acid	ND ug/L	2020	Product of water disinfection
Trichloroacetic Acids	ND ug/L	2020	Product of water disinfection
Monobromoacetic Acids	ND ug/L	2020	Product of water disinfection
Dibromoacetic Acids	ND ug/L	2020	Product of water disinfection
Bromochloroacetic Acids	ND ug/L	2020	Product of water disinfection
Bromodichloroacetic Acids	ND ug/L	2020	Product of water disinfection
Chlorodibromoacetic Acids	ND ug/L	2020	Product of water disinfection
Tribromoacetic Acids	ND ug/L	2020	Product of water disinfection

Unregulated Contaminant Monitoring Report #4

Pesticides	Your Water	Sample Date	Typical Source
Alpha Hexachlorocyclohexane	ND ug/L	2020	Agriculture, urban storm water runoff, and residential uses
Chlorpyrifos	ND ug/L	2020	Agriculture, urban storm water runoff, and residential uses
Dimethin	ND ug/L	2020	Agriculture, urban storm water runoff, and residential uses
Ethoprop	ND ug/L	2020	Agriculture, urban storm water runoff, and residential uses
Oxyfluorfen	ND ug/L	2020	Agriculture, urban storm water runoff, and residential uses
Profenofos	ND ug/L	2020	Agriculture, urban storm water runoff, and residential uses
Tebuconazole	ND ug/L	2020	Agriculture, urban storm water runoff, and residential uses
Permethrin	ND ug/L	2020	Agriculture, urban storm water runoff, and residential uses
Tribufos	ND ug/L	2020	Agriculture, urban storm water runoff, and residential uses

Metals	Your Water	Sample Date	Typical Source
Germanium	ND ug/L	2020	Naturally occurring element in semi-conductor manufacture
Manganese	21.2 ug/L	2020	Naturally occurring element found in combination with iron
Bromide	20 ug/L	2020	Present in seawater , concentrate ~ 65 mg/L (~0.2% of dissolved salts)
Total Organic Carbon	ND ug/L	2020	Carbon in organic compound and used as a non-specific indicator of water quality of pharmaceutical manufacturing equipment. TOC may refer also to the amount of organic carbon in soil or a geological formation

SVOC(Semi-Volatile Organic Compounds)	Your Water	Sample Date	Typical Source
Butylated Hydroxyanisole	ND ug/L	2020	Pesticides and herbicides (phosphorus, sulfur, chlorine or nitrogen), flame retardants, cleaning agents, personal care products, solvents/ chemicals used in textile/electronic manufacturing and material manufacturing process additives
O-Toluidine	ND ug/L	2020	Pesticides and herbicides (phosphorus, sulfur, chlorine or nitrogen), flame retardants, cleaning agents, personal care products, solvents/ chemicals used in textile/electronic manufacturing and material manufacturing process additives
Quinoline	ND ug/L	2020	Pesticides and herbicides (phosphorus, sulfur, chlorine or nitrogen), flame retardants, cleaning agents, personal care products, solvents/ chemicals used in textile/electronic manufacturing and material manufacturing process additives

Alcohols	Your Water	Sample Date	
1-Butanol	ND ug/L	2020	Occurs naturally as a minor product of the fermentation of sugars and other carbohydrates, and is present in many foods and beverages. Butanol has been proposed as a substitute for diesel fuel and gasoline.
2-Methoxyethanol	ND ug/L	2020	Used as a solvent for varnishes, dyes and resins. Also used as an additive in airplane deicing solutions.
2-Propen-1-Ol	ND ug/L	2020	Used as a raw material for the production of glycerol, but is also used as a precursor to specialized compounds like flame-resistant materials, drying oils, and plasticizers.

Water Hardness

Hard water is water that has high mineral content (in contrast with "soft water"). Hard water is formed when water percolates through deposits of limestone and chalk which are largely made up of calcium and magnesium carbonates.
The City's treatment process does not affect the water hardness. The hardness level of our water averages around 94 mg/l, considered moderately hard on a scale of 0 – 180.

Non-Detected Substances

NONE of the substances listed below were detected during testing in the City of Woodburn drinking water:

Synthetic Organic Chemicals

2,4-D
2,4,5-TP (Silvex)
Bis-(2-ethylhexyl) adipate
Alachlor (Lasso)
Atrazine
Benzo-(a)-pyrene
BHC-gamma
Lindane
Carbofuran
Chlordane
Dalapon
Dibromochlorpropane (DBCP)
Dinoseb
Dioxin 6
Diquat dibromide
Endothall
Endrin
Ethylene dibromide (EDB)
Glyphosate
Hepthachlor epoxide
Heptachlor
Hexachlorobenzene
Hexachlorocyclopentadiene
Methoxychlor
Pentachlorophenol
Bis-(2-ethylhexyl) phthalate
Picloram
Polychloronated biphenyls (PCBs)
Simazine
Toxaphene
Vydate (Oxamyl)
3-Hydroxycarbofuran
Aldicarb
Aldicarb sulfoxide
Aldicarb sulfone
Aldrin
Butachlor
Carbaryl
Dicamba
Dieldrin
Methomyl
Metolachlor
Metribuzin
Propachlor

Volatile Organic Chemicals

1,1-Dichloroethylene
1,1,1-Trichloroethane
1,1,2-Trichloroethane
1,2-Dichloroethane
1,2-Dichloropropane
1,2,4-Trichlorobenzene
1,2-Dichlorobenzene
1,4-Dichlorobenzene
Benzene
Carbon Tetrachloride
Monochlorobenzene
Cis-1,2-Dichloroethylene
Ethylbenzene
Methylene chloride
Methyl-tert-butyl-ether
Styrene
Tetrachloroethylene
Toluene
Total Xylenes
Trans-1,2-Dichloroethylene
Trichloroethylene
Vinyl chloride
Dibromochloromethane
Bromoform
Chloromethane
Bromomethane
Chloroethane
2,2 Dichloropropane
1,1-Dichloropropene
1,1-Dichloroethane
Dibromomethane
Trans-1,3-Dichloropropene
1,3-Dichloropropane
1,1,1,2-Tetrachloroethane
1,1,2,2-Tetrachloroethane
1,2,3-Trichloropropane
Bromobenzene
2-Chlorotoluene
4-Chlorotoluene
1,3-Dichlorobenzene

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City of Woodburn 20** - Inorganic Compounds

Contaminant	*Mgl/(PPM)*	*MCL*
Antimony	ND	0.006
Barium	.0027	2.0
Beryllium	ND	0.004
Cadmium	ND	0.005
Chromium	ND	0.1
Cyanide	ND	0.2
Fluoride	.53	4.0
Iron	ND	0.3
Manganese	ND	0.05
Mercury	ND	0.002
Nickel	ND	0.1
Selenium	ND	0.05
Sodium	24.3	20
Thallium	ND	0.002

Fluoride: Woodburn water has natural occurring fluoride. The City does not add fluoride to the water.

How to read your water meter:

1. Locate the water meter box (usually located near the sidewalk) and remove meter box cover.
2. Open the black cover on the meter register to expose the solar panel (or light sensor depending on your meter version) to sunlight. If it is dark outside, shine a flashlight on it. Bright light will wake up the display.
3. When the LCD display is activated, it will alternate between “Reading” and “Rate.”
4. The Reading is total amount of cubic feet of water that has passed through the meter.
5. The Rate is any water that is passing/has passed through the meter recently.
6. If all water is shut off the Rate should be zero. If the meter shows a Rate when the water is shut off, then it indicates a possible leak in your system.

Every Little Drop Counts—Water Conservation

Have you ever looked at your water bill and been absolutely shocked by the amount due? This happens quite a bit, and there are ways to help keep your water bill down as well as possibly help conserve our water supply.

Here are some easy, proven ways to help reduce the amount of wasted water and wasted money.

The best place to start is in our kitchens and bathrooms.

Watch those water faucets, especially when they are running. So much water just goes right down the drain whether you are washing your dishes, washing your hands, brushing your teeth, or even letting the water run to warm up your bath or shower. Imagine all those wasted drops of water literally as money going down the drain. Ouch that hurts, huh?
Give this a try:

- Wait to turn on the water until you’re ready to use it.
  When taking a shower, try getting in and out as quickly as possible. Showers use an estimated 17% of our total household water usage - that’s about one fifth of all your household water use! Long showers may feel amazing in the moment but you will definitely pay for them in the long run.
- Try throwing that unwanted food into a compost pile instead of trying put it down garbage disposal. Not only will you conserve water, but you could help prevent a little bit of food waste as well.
- Make sure your washing machine and your dishwasher are full – run full loads. A dishwasher averages about 3 gallons of water per load, while a washing machine averages about 19 gallons of water per load.

Got a sprinkler system?
During the fall/winter months, we see our water bills go way down versus the warmer spring/summer months. Well there’s definitely a reason for this! Winter months are usually our wetter months in Oregon, so there’s not much reason to use the sprinkler system for our gardens right? Then we get these large hikes once the warmer weather approaches. Guess what we turned on? That’s right, our sprinklers!

Sprinkler systems use on average about 1,020 gallons of water, so if you water three times a week that’s about 12,240 gallons per month. Moreover, since Woodburn calculates water usage in cubic feet, that’s about 1636.25 Cubic feet of water consumption just from your sprinkler alone.

Now we aren’t saying don’t water your gardens, but there are helpful ways to do so when it comes to conserving the water.

- Try watering earlier in the day. It’s usually cooler so it allows for the soil around your plants to absorb more water. If you wait until later in the day most of that water will evaporate before the plants have a chance to indulge themselves.

Remember, there’s no need to water more than one hour per day. If you see pools of water in your flowerbeds after watering that means there’s too much water and most of it will just evaporate.

All these tips and tricks are great ways to help us all conserve water, as well as save money while we are at, and most importantly help make our planet a lot better.

If you’d like more water consumption tips, feel free to give us a call (503)982-5380.

Cross-Connections and Backflow Prevention

What is a cross-connection?

A cross-connection is an actual or potential connection between potable drinking water and a system or fixture that carries something other than drinking water. Examples of cross-connections include an irrigation system, a fire system, an auxiliary water system (a well), or a garden hose lying in a hot tub.

What is "backflow?"

The flow of water in a backward direction. Backflow can occur when water is forced to flow in the opposite direction, i.e. back pressure. It can also occur when there is a pressure drop in the main water system, i.e. back siphon. A back siphon is possible if a main line breaks or hydrants are opened to flush the system or put out a fire.

What is a backflow assembly?

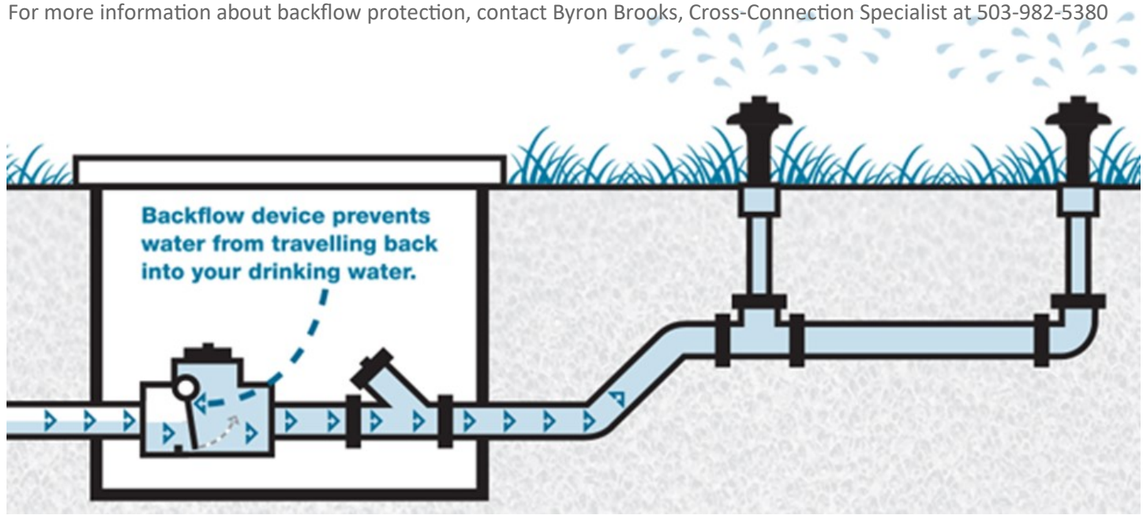
A backflow assembly is a device that allows water to flow in one direction only. It allows water to flow from the city's main line into your home, but it cannot flow backward into the public supply. The sole purpose of a backflow assembly is to protect drinking water from the possibility of contamination.

Why did I receive a test due notice?

The State requires annual testing of backflow assemblies to make sure they are operating properly. The City oversees the installation and testing of backflow devices, and sends annual reminders when testing is due. It is the property owner's responsibility to arrange for annual testing with a state certified backflow tester. It is the tester's responsibility to transmit the test report to the City.

The City of Woodburn and its citizens share in the duty to protect our drinking water. Thank you for working with us to help keep our water safe.

For more information about backflow protection, contact Byron Brooks, Cross-Connection Specialist at 503-982-5380



Flushing

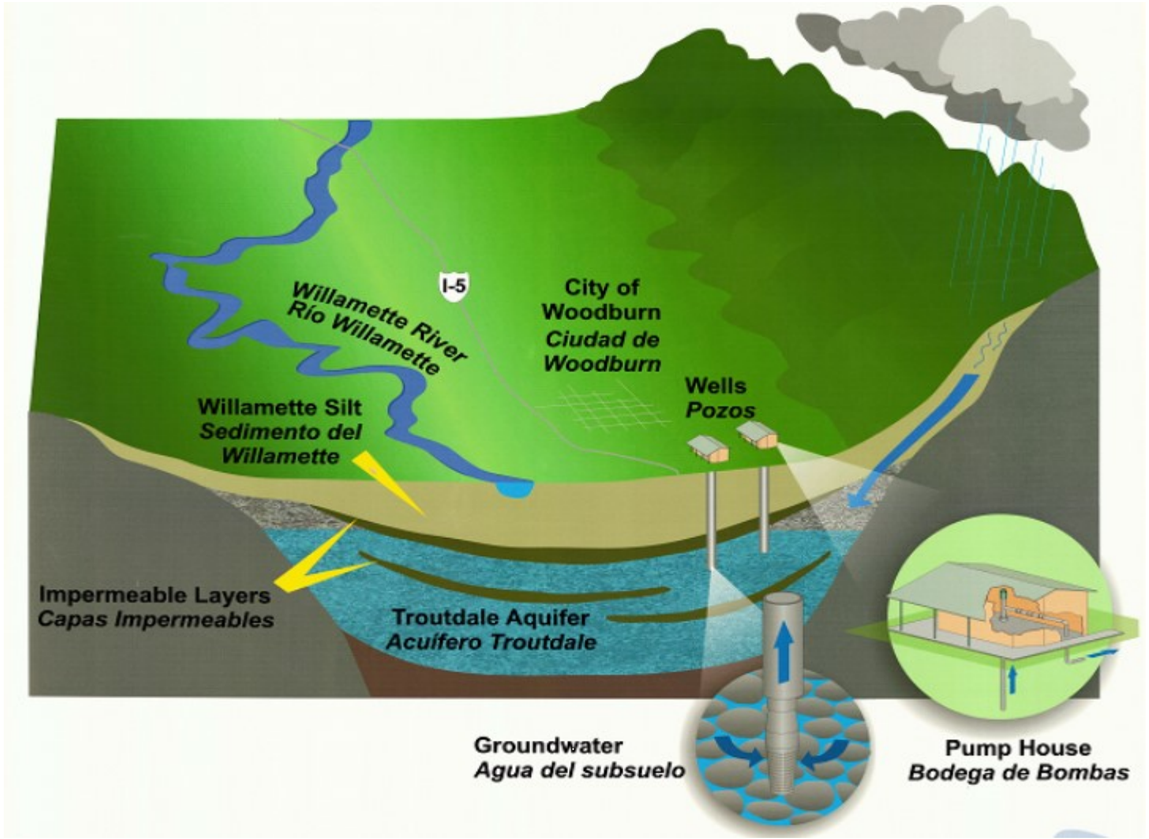
The City of Woodburn has instituted an annual flushing program to improve water quality and reduce discoloration. Routine flushing is conducted during the winter months. Spot flushing in response to periodic water quality issues is performed throughout the year on a case by case basis.

The reasons we flush:

The City of Woodburn's water is clean and safe. It is tested in a lab every week. Samples are constantly monitored for various contaminants in the water supply to meet regulatory requirements. However, even though the water in our system is high quality, the appearance of the water can be impacted if the water mains are not regularly maintained. Flushing removes mineral deposits and aqua flora that may build up over time. When we flush, we run water at a high velocity and discharge it out the fire hydrants. Running the water at this high rate cleanses the pipes.

What happens "short-term" when we flush:

While the crew is flushing, customers in the immediate area may experience a reduction in water pressure. Once flushing is complete, pressure will return to normal. Customers in the area may also experience discolored water shortly after flushing is completed. This discolored water is safe and not a health concern. The solution is to run cold water through a faucet that does not have an aerator —like your bathtub or an outside faucet—until the water runs clear. This should resolve any discolored water issues within 5 to 10 minutes.

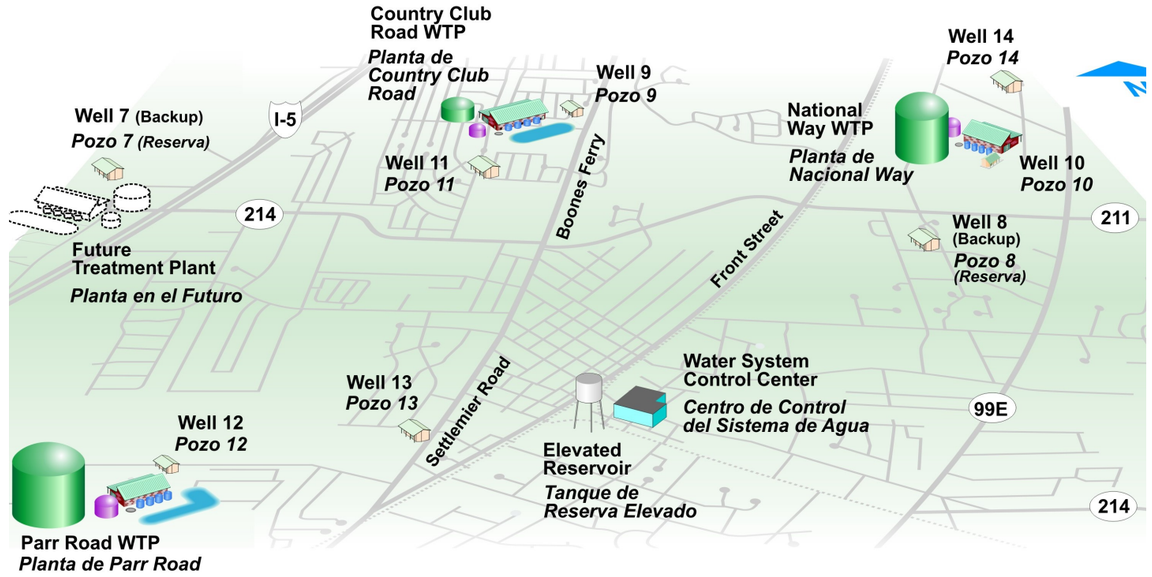


The City of Woodburn source is ground water, which draws water from the Troutdale Aquifer utilizing six active wells. Two wells provide raw water to each one of the three water treatment plants to provide water treatment for removal of iron, manganese, arsenic, and radon.

Secondary disinfection by the injection of chlorine into the City's water supply to form chloramines was placed in service in May of 2011. The treatment plants are located on National Way, Country Club Road, and Parr Road. Each treatment plant is equipped with chemical feed systems and four pressure filters and on-site sodium hypochlorite generation system. Raw water treated with Potassium permanganate is filtered using pressure filters equipped with media of greensand and anthracite coal.

After filtration, chloramines are introduced, and then the treated water is discharged into finished water reservoirs. As water cascades out of the inlet piping into the reservoirs, radon removal occurs. The water system has ground level storage reservoirs at each water treatment plant and the one elevated storage tank at Cleveland Street for a total storage volume of 5.45 million gallons of treated water.

CITY OF WOODBURN
270 Montgomery Street
Woodburn, OR 97071



SOURCE WATER: Oregon Department of Environmental Quality and Oregon Health Authority completed a Source Water Assessment Report for Woodburn in 2005, as required by the Federal Safe Drinking Water Act for the purpose of identifying potential sources of contamination to source water used for drinking water. The full report is available for review by contacting the City of Woodburn Drinking Water Section, 503-982-5380.

City Council Meetings
are held every second and fourth
Monday of each month at 7:00 PM
City Hall
270 Montgomery Street
Woodburn, OR 97071
(503) 982-5222

More Information regarding this Report contact:

City of Woodburn, Drinking Water Section
202 Young St
Operations Division Manager
Byron Brooks at 503-980-2435
or via email: byron.brooks@ci.woodburn.or.us

http://www.ci.woodburn.or.us/

Oregon Health Authority:
(971) 673-0405
Oregon Health Authority Web Page:

https://www.oregon.gov/oha/ph/healthyenvironments/drinkingwater/
EPA Hotline: 1-800-426-4791
EPA Drinking Water Web page:
https://www.epa.gov/ground-water-and-drinking-water/safe-drinking-water-information