

# *City of Newberg Water Quality Report for 2011*

414 East First Street  
Newberg, OR 97132  
[www.newbergoregon.gov](http://www.newbergoregon.gov)

*Este informe contiene información  
muy importante sobre la calidad de  
su agua beber. Tradúzcalo o hable  
con alguien que lo entienda bien.*



*The United States Congress passed the Safe Drinking Water Act in 1974 and reauthorized it in 1986 and 1996. The Environmental Protection Agency and the State of Oregon develop and enforce drinking water regulations to protect the public health. The City of Newberg has several programs that help protect and maintain the high quality of our water. This “multiple layer” approach includes:*

## ***Protecting the Source***

Preventing pollution is the first priority in protecting our water source. The City owns the land where its wells are located. This location is in a largely unthreatened area. The land adjacent to the wells is leased for agricultural use with restrictions designed to protect the ground water from contamination by pesticides or other agricultural chemicals.

## ***Disinfection and Treatment***

Water from the well field is safe to drink without treatment. However, to protect your health, the City’s drinking water is disinfected using Chlorine. Chlorine concentration is measured continuously at the treatment plant and is checked at various points in the system weekly. Enough chlorine is added at the head of the plant to provide approximately one part per million (ppm) of residual chlorine after treatment. Water from the well field contains iron and manganese. Neither of these pose a health risk. They may cause discoloration or affect taste. Therefore, water from the well field is filtered to minimize this possibility. Filtered water is treated with sodium hydroxide to minimize the leaching of lead and copper from household plumbing.

## ***Monitoring the System***

The City of Newberg routinely monitors for contaminants in your drinking water according to federal and state laws. Routine Coliform Samples are taken from 59 different sites on a rotating basis throughout the year. All required testing is performed by independent, certified laboratories using EPA approved methods. Process control sampling is performed by City staff. All test results are summarized in the Water Quality Data section of this report.

## ***Preventing Contamination***

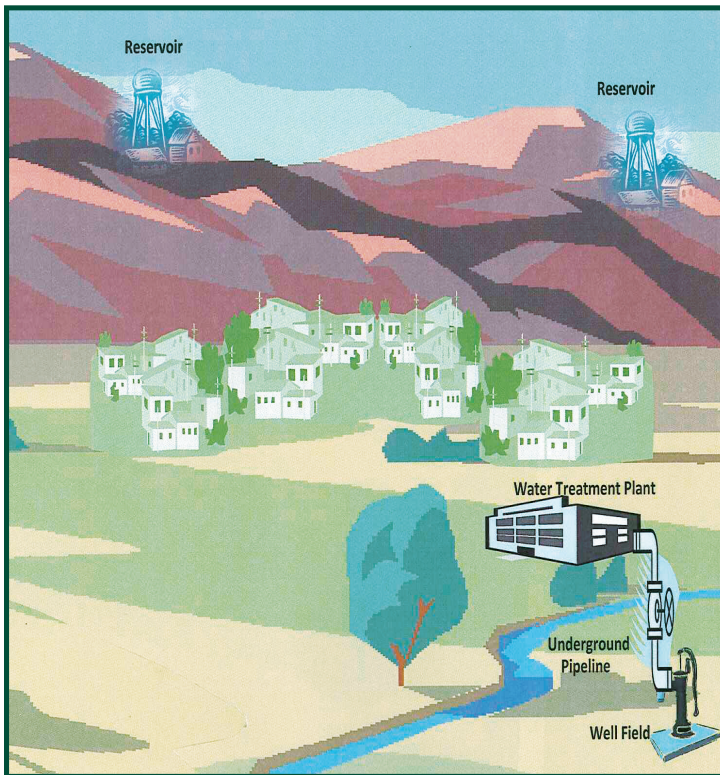
Maintaining water quality includes effectively managing the water distribution system. Preventing contamination of the water from outside sources is very important. The City requires that backflow prevention devices be installed on any connection to the water system that could present the risk of contaminating the water. The City also routinely flushes the distribution system to maintain water quality and remove sediment from the water lines. In 2004, a comprehensive emergency response plan was developed to ensure that, in the event of a natural disaster or terrorist attack, the citizens of Newberg will continue to have an adequate supply of safe drinking water.

# Where Does Our Water Come From?

The City has a groundwater system, securing all of its water from a well field. Our primary source is a sand and gravel aquifer located just south of the Willamette River on property owned by the City of Newberg.

Raw water from the well field is naturally filtered by this aquifer. Water is pumped from the well field across the river to the Water Treatment facility for further treatment and distribution. In 2006, the City constructed a second pipeline under the Willamette River to provide additional well field capacity and redundancy to the Water Treatment facility.

The City produced an average of 2.46 million gallons per day (MGD) of drinking water in 2011. The peak production day was 4.59 million gallons.



## Our Goal:

The City of Newberg's drinking water continues to meet or exceed all federal and state requirements. We are committed to providing you with the highest quality water possible.

If you have questions or would like information that is not in this report, contact the **Water Treatment Supervisor at 503-537-1289**. Reports from previous years are available at City Hall, 414 E. First St., Newberg, Oregon 97132.



## **About Drinking Water**

All drinking water, including bottled water, may be expected to contain small amounts of contaminants. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and radioactive material and can pick up substances from the presence of animals or human activity. It is important to remember that the presence of these contaminants does not necessarily pose a health risk.

Contaminants that may be present include:

- Microbiological contaminants, such as viruses and bacteria, which may come from wastewater treatment plants, septic systems, livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining and farming.
- Pesticides and herbicides which may come from a variety of sources, such as agriculture, storm water runoff and residential use.
- Organic chemicals, including synthetic and volatile organics, which are byproducts of industrial processes and petroleum production. These can also come from gas stations, urban storm water runoff and septic systems.
- Radioactive contaminants, which may be naturally occurring, or be the result of mining or oil and gas production.

The Environmental Protection Agency (EPA) has set Maximum Contaminant Levels (MCL), Maximum Contaminant Level Goals (MCLG), or Action Levels (AL) for each regulated contaminant. MCL's are set at very stringent levels. The City's drinking water sources contain no contaminants at or near the MCL or AL. See the Water Quality Data on the last page of this report.

### **About Lead:**

Lead plumbing was banned in 1985. 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. The City of Newberg is 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 two 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).

# Frequently asked Questions:

## ***How do I pay my water bill?***

Water billing and payments are generated by the **Finance Department**. You can make your payment at City Hall, 414 E First Street, Newberg, Oregon 97132. A new service allows you to pay your water bill online! Log on to set up your online account at [www.newbergoregon.gov](http://www.newbergoregon.gov) or call 503-537-1205.

## ***Does Newberg's water supply contain Fluoride?***

The City of Newberg does not add Fluoride to the water, however, there are trace amounts that occur naturally in the water supply.

## ***Is Newberg's water hard or soft?***

Our water supply is considered moderately hard—measured at 56 milligrams per liter (ppm).

## ***Is there Chlorine in my Drinking Water?***

The City is required to maintain a “chlorine residual” in the water. This is to protect the water from microbial contamination as it travels from the Treatment Facility to your home. There is approximately 1 milligram per liter of chlorine in a consumer's water.

## ***How can I participate in decisions about Newberg's water system?***

A Citizen Rate Review Committee meets periodically to review water rates. The committee considers factors such as current and future water demand, State and Federal regulations, operation and maintenance costs, needed improvements, reserve funds, and other factors when recommending water rates.

The committee then submits a report to the City Council. The Council then determines the rates for the water system.

**If you would like to be involved, contact the Finance Department at 503-538-9425.**

## ***Information For Kids!***

**Visit the Library or these great websites!**

[www.epa.gov/safewater/kids](http://www.epa.gov/safewater/kids), [www.groundwater.org](http://www.groundwater.org), or [www.conserveh2o.org](http://www.conserveh2o.org).



## ***Are there special health concerns I should know about?***

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/CDC (Centers For Disease Control) guidelines on appropriate means to lessen the risk of infections by cryptosporidium and other microbiological contaminants are available from the **EPA Safe Drinking Water Hotline 1-800-426-4791**.

### ***Testing***

#### ***Total Coliform Bacteria***

Total coliform bacteria are naturally occurring and not generally a health risk, but their presence is an indicator of *possible* contamination by harmful bacteria or other microorganisms. Any positive total coliform sample requires retesting at the location of the sample, and at two locations within five service connections upstream and downstream of the positive sample site. Of 329 tests, 327 (99.4%) were negative for total coliform in 2011.

#### ***Chlorine***

The City is required to maintain a chlorine residual in the distribution system to provide post-treatment protection from microbial contamination. Chlorine residual is monitored continuously at the Water Treatment Plant. Routine monitoring is performed to ensure water in the distribution system is adequately chlorinated.

#### ***Trihalomethanes and Haloacetic Acids***

Testing is done annually on water from the distribution system. Trihalomethanes and haloacetic acids are byproducts of disinfection with chlorine.

#### ***Inorganic Compounds***

Testing is done for 18 inorganic compounds on each water source every nine years. The City's most recent testing for inorganic compounds was performed in October of 2004. At that time, a very low level of copper (less than 8% of the allowable level) was detected. All other inorganic compound testing produced no detectable results.

## ***Arsenic***

Arsenic testing is performed every three years. The most recent testing in May of 2011 found no detectable levels of arsenic.

## ***Organic Compounds***

Testing is done for 21 volatile organic compounds (VOCs) and 42 synthetic organic compounds (SOCs) every three years. VOCs include petroleum products and solvents. SOCs include pesticides, PCBs, and other man-made organic chemicals. No VOCs or SOCs were detected in Newberg's drinking water in testing done in 2010 (for SOCs) and 2011 (for VOCs).

## ***Lead and Copper***

EPA requires testing at the customer's tap in homes built prior to 1985, which are more likely to have elevated lead and copper levels. In 1998, the City began adding sodium hydroxide (NaOH) to its finished water supply to raise the pH of the water and minimize the leaching of lead and copper from household plumbing. From 1998 until 2003, the City tested annually for lead and copper levels. Due to the successful outcome of this testing, the EPA now requires the City to test for lead and copper once every three years.

## ***Radioactive Contaminants***

Source waters have been tested for gross alpha emissions every four years. New rules now also require testing for uranium and radium. Testing frequency is based on the amount of radiation detected in previous tests.

## ***Unregulated Contaminants***

EPA required testing for 11 unregulated contaminants twice between 2002 and 2005. Testing done on samples taken in December 2002 and June 2003 did not detect any of these contaminants in Newberg's drinking water.

## ***Sodium:***

There is currently no drinking water standard for sodium. Sodium is an essential nutrient. At the levels found in the City's water, it is unlikely to significantly contribute to adverse health effects. Water produced at the treatment plant contained 23.4 ppm of sodium in samples taken in 2011. If you are concerned about the levels of sodium in your drinking water, please consult your physician.

## ***Chlorine:***

EPA has recommended a maximum residual disinfectant level goal of 4.0 ppm. Maximum recorded chlorine residuals in 2011 were 1.54 ppm at the Water Treatment Plant. The maximum chlorine residual recorded in the distribution system in 2011 was 1.46 ppm.

# City of Newberg Water Quality Data for the Year 2011

The following tables show the results of the City of Newberg’s water quality analyses. All regulated contaminants that have been detected, even in minute amounts, are shown in the table. The table contains the name of the substance, the water source, the amount detected, the maximum level allowed by regulation (MCL or AL), the ideal goal for public health (MCLG), and the likely source of the substance.

Substance	Water Source	Level	MCL	MCLG	Units	Date Tested	Major Sources
<b>Nitrate</b>	Well field	ND	10	10	ppm	10/2011	Runoff from fertilizer use, erosion of natural deposits, septic systems, wastewater discharges
<b>TTHM<sup>1</sup></b>	Distribution System	39.8	80	-	ppb	8/2011	Byproduct of disinfection with chlorine
<b>HAA5<sup>1</sup></b>	Distribution System	5.9	60	-	ppb	8/2011	Byproduct of disinfection with chlorine
<b>Radium 226/228</b>	Well field	ND			pCi/L	5/2009	Erosion of natural deposits
<b>Uranium</b>	Well field	ND	30	0.0	ppb	5/2009	Erosion of natural deposits

Substance	Date Tested	90th Percentile <sup>2</sup>	Level	Goal	Units	Homes Exceeding AL	Major Sources
<b>Lead<sup>3</sup></b>	3/2010	5.3	15	0.0	ppb	3.3%	Corrosion of household plumbing
<b>Copper<sup>3</sup></b>	3/2010	0.12	1.3	1.3	ppm	0%	Corrosion of household plumbing

## Abbreviations

ppm = parts per million or milligrams per liter | ppb = parts per billion or micrograms per liter | NTU = nephelometric turbidity units | pCi/L = picocuries per liter | mgd = million gallons per day | TTHM = total trihalomethanes |

HAA5 = haloacetic acids | ND = None Detected

MCL = Maximum Contaminant Level The highest level allowed in drinking water. The MCL is set as close to the MCLG as feasible using the best available technology.

MCLG = Maximum Contaminant Level Goal The level of a contaminant in drinking water below which there is no known or expected risk to health. | AL = Action Level The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow. )

## Footnotes

<sup>1</sup> Values are maximum recorded of all sources sampled during 2011.

<sup>2</sup>The 90th percentile value is the level that 90% of the homes tested were at or below. If the 90th percentile value exceeds the AL, water suppliers must take steps to reduce lead and/or copper levels.

<sup>3</sup>Measured at residential taps



# Other Programs



## Water Reuse System

There are wide variations in water use between wet weather and dry weather. Summer use approaches 6 MGD (million gallons per day) while winter use is closer to 2 MGD. Irrigation is a substantial portion of the increased water demand during dry months.

In an effort to provide major irrigators with a source of water other than potable water, the City of Newberg built the Pall Membrane Reuse Water System. This system provides treated, recycled water to Chehalem Park & Recreation's Golf Course, reducing the use of potable water by an average of 350,000 gallons per day in the dry months. In the future, other irrigators and non potable water users will be able to access this resource. The recycle system reduces demand on the City's potable water supply and encourages local businesses to make conservation practices a part of their business model.



## Conservation for Residential Users

Water conservation is easy when you visit our Water Conservation Table in City Hall. You can also obtain conservation devices by contacting [Sonja.Jonhson@newbergoregon.gov](mailto:Sonja.Jonhson@newbergoregon.gov) or visiting the billing counter at City Hall. Read the **Water Miser** newsletter to find out how to save water and lower your water bill.

[www.newbergoregon.gov/engineering/water-miser](http://www.newbergoregon.gov/engineering/water-miser)

Stop by the **Water Wise Demonstration Garden** next to the Library Public Parking lot to learn how to conserve water while providing wildlife habitat in a small space.

Getting ready to purchase a new clothes washer, refrigerator, freezer, or car? The **Energy Trust** of Oregon provides incentives to help you make the switch and save. <http://www.dsireusa.org>



## Stormwater Program

Stormwater is more than just rain. It's water that falls on driveway or parking lots and sidewalks collecting oil, antifreeze, grease, and debris. It's rain that flows from your yard to the streets with fertilizers, pesticides, pet waste, and leaves.

It all enters our stormwater system causing algae growth and damage eventually reaching the river where it can cause harm to wildlife and people.

### What Can You Do?

\* Call 503-537-7709 or 503-537-1234 if you see anyone dumping **anything** in storm or sewer drains.

\* Read the *Stormwater Solution* newsletter for seasonal information [www.newbergoregon.gov/engineering/stormwater-solution](http://www.newbergoregon.gov/engineering/stormwater-solution)



# Backflow Devices – Preventing Contamination in the Drinking Water

## What's a Backflow Device? Do I have a Device?

Most residents don't realize that the sprinkler system or water fountain in their yard or the fire system in their house has a backflow prevention device on it. This device prevents water that has entered the fountain or sprinklers from accidentally flowing back into the drinking water lines. If you have a new device installed, you or your contractor must obtain a permit from the City Building Department. For permit questions, contact the Building Department at 503-537-1209.

## The Program

As required by Oregon Statute and City Code, backflow **devices must be tested annually to ensure they are functioning**. The city will mail a reminder letter to each residence each year. **Tests are conducted by Certified Testers chosen and hired by the property owner**. Once device testing is complete, the tester will send the City a copy of the report. Home Associations are also required to have an annual backflow device inspection each year.

## Need a list of certified testers?

<http://public.health.oregon.gov/HealthyEnvironments/DrinkingWater/Cross Connection>

## Not sure if you have a device?

Call the Water Treatment plant at 503-537-1239 and we will help you find the device on your property.

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# Grease, Medication and Clog Prevention Programs

The Public Works Division monitors and maintains the sewer pipe system, which consists of **over 80 miles of pipe** in Newberg. They utilize specialized underwater cameras and vacuum systems in an effort to prevent build up however it is not feasible to monitor the entire system.

Thousands of people putting non waste items in toilets and down sinks costing residents more in emergency maintenance, repairs and replacement. **Believe it or not "flushable" does not actually mean dissolvable.**

Kitchen Grease is a primary cause of clogs in neighborhoods – grease solidifies underground where temperatures are 45 degrees – clogging pipes under your home. Grease is found even in vegan cooking, dairy and natural products. Grease is very corrosive to metals including the treatment facility.

Residents are urged to learn more about the **Freeze the Grease Program**, use the **Free Medication Drop Box at Public Safety Building** and learn about avoiding costly products that don't actually dissolve in your pipes.

Visit the City Website at

[www.newbergoregon.gov/operations/enviromental-services](http://www.newbergoregon.gov/operations/enviromental-services).

Or call 503-537-1252 or 503-538-9671.



# *NEWGROW Compost*

The City of Newberg offers an excellent product that is a favorite of landscapers all over the region. NEWGROW Compost is available all year to the public!

NEWGROW Compost exceeds all EPA and DEQ standards. It is low in metals, free of pathogenic organisms, and will not attract rats, flies, or other pests. **There are no restrictions on its use.** It is both a low-grade fertilizer and an excellent soil amendment.

**Delivery not available - Sold by half yard increments**

**Not pre-bagged**

**Call ahead to check availability: 503-537-1252 ext #1**

**Hours of Sales:**

Weekdays

9:30 am - 3:30 pm

**Closed Daily:**

12:00 pm to 1:00 pm

\$14.00 a Cubic Yard • Cash or Check Only

Charge accounts arranged at City Hall Finance Office in advance.

Donations to 501c Non Profit with advance arrangement.

More information is available

at [www.newbergoregon.gov/operations](http://www.newbergoregon.gov/operations)





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