



Rivergrove Water District

17661 Pilkington Road
Lake Oswego, OR 97035

rgwd@rivergrovewater.com

The WATER You Drink
2014 WATER QUALITY

Auto-Pay Available to Rivergrove Customers!

Make it easy to pay your bills. Set up *auto-pay* today!

For more information call Dan or DJ at (503)635-6041



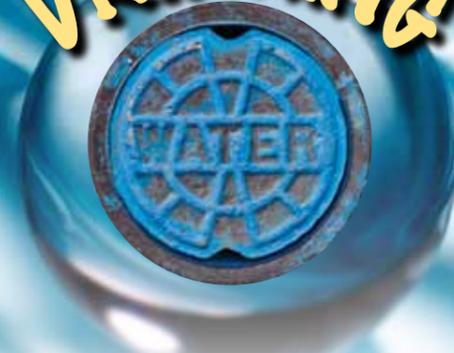
YOUR DRINKING WATER

Water Quality Report



2014

Your **DRINKING**



www.rivergrovewater.com



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The Yearly Report - It's Required

This report describes the Rivergrove Water District water sources and quality from data taken during the 2013 calendar year.

This document conforms to Federal Environmental Protection Agency (EPA) regulations requiring water utilities to provide the following information annually. The water that we serve you is required to meet the water quality standards set by EPA.

Bottled water that you may otherwise purchase comes under different standards and requirements. Those companies are regulated by the Food and Drug Administration (FDA). These standards are not the same. Please be an informed consumer and check the sources and standards of your drinking water.

"All 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 the water poses a health risk. More information about contaminants potential health effects can be obtained by calling the: EPA Safe Drinking Water Hotline at (1-800-426-4791)."

Safe water is vital to our community. Please read this report carefully, and if you have questions, call the resource numbers supplied, and check us out at www.rivergrovewater.com.

What's the Source of It All?

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 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.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural, livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

- Pesticides and herbicides, which 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 can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Where Does Your Drinking Water Originate?

Rivergrove Water District water sources are three wells. It has been determined through our Source Water Assessment done by the State Drinking Water Department that the water is drawn from the interflow zones within the Frenchmen Springs member of the Columbia River Basalt. The aquifer is considered to be deep and confined. The full copy of the source water assessment is available for reviewing at our District office if you are interested. Our wells are considered susceptible to various activities within the location of the well. Imagine if you will that even though we are in a confined aquifer that some chemicals or contaminants put on the ground above may cause problems. We ask you to STOP AND THINK ABOUT YOUR ACTIONS ABOVE GROUND.

Well #1 is located on Old Gate Road. In 1959 it was drilled with a 16" bore and finished with a 12" casing at a depth of 208 feet. It can produce up to 595 gallons per minute and services the majority of our 1366 customers.

Well #2 is located on Hilltop Road. In 1967 this well was drilled with an 18" bore and finished with a 12" casing at a depth of 430 feet deep. It can produce up to 400 gallons per minute.

Well #3 Olson Well is located on Olson Ct near Reservoir No. 3. In 2010 this well was drilled with an 20" bore to a depth of 82 feet and 16" bore down to 425 ft. The upper casing is 16" diameter and the lower casing is 12" to a depth of 415 feet. It can produce up to 350 gallons per minute.

Table Definitions

In this table you will find many terms and abbreviations with which you might not be familiar. To help you better understand these terms we've provided the following definitions:

Action Level (AL). The concentration of a contaminant which, if exceeded, triggers a treatment or other requirement which a water system must follow.

Contaminants. When microbiological, inorganic, organic, and radioactive compounds in drinking water have exceeded regulated maximum levels they are considered contaminants.

Maximum Contaminant Level* (maximum allowed) (MCL). The highest level of a contaminant that is allowed in drinking water. MCL's are set at very stringent levels.

Maximum Contaminant Level Goal ("goal") (MCLG). The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

* MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described effect.

Non-Detects (ND). Laboratory analysis indicates that the constituent is not present or that it is present at levels too low for modern laboratory equipment to detect.

Parts per million (ppm) or Milligrams per liter (mg/L). One part per million is comparable to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter (ug/L). One part per billion is comparable to one second in 32 years, or one minute in 2,000 years, a single penny in \$10,000,000, or the first 16 inches on a trip to the moon.

Picocuries per liter. Picocurie is a measure of radioactivity. One picocurie is a trillion times smaller than one curie.

Regulated Contaminant. Regulated by law to protect public health. The law specifies maximum contaminant levels allowed in drinking water.

Non Regulated Contaminant. Have guidelines set to assure good aesthetic quality, the guidelines identify levels of substances that may affect taste, odor or color of water.

Backflow-What is It?

We have Water (or possibly some very nasty stuff) going in a direction that is opposite of where it normally goes. If what comes back into our system is contaminated do you want that in our safe drinking water? I am pretty sure no one does.

Cross Connection-What is it?

This is the means of how backflow might happen. You may have one on your side of the meter. Think about it: Do you have a well on your property or are irrigating from the Tualatin River that might somehow get connected to your water service? Once there is more pressure that we have the contaminant goes right into the District water system. We are required by the Oregon Health Authority to have a program to help prevent this from happening.

Other examples of cross connections are irrigation systems, pesticide applicators put on a hose, waterbed siphons, radiator flushing equipment, mortuaries, car wash dirty water, the list goes on and on.

Isolation Backflow Protection

This is our program and our goal is to retrofit each of the District's water services with a meter backflow unit. It is also required on all new construction. We test them annually and repair if needed. All of the costs to fund the program are included in the District water rate charges.

If your water service doesn't have a meter and backflow at the service connection we are getting there. Until then if you have a backflow say on an irrigation system you need to have it annually tested by a certified backflow tester and have the test results sent in to the Water District.

Thermal Expansion Issue/Solutions

When we put a backflow at the meter the issue of thermal expansion may happen and this could affect your plumbing system. Here's what it is and how to prevent it. Water in your plumbing system expands every time the hot water heater starts to heat water. This is thermal expansion. When there is no backflow at the meter the water flows back into the system. If one is installed water flowing back into our system is stopped. When this happens water pressure may begin to build up.

The following condition is rare and the odds that all the factors happen together are great. However, with the backflow prevention assembly in place this potential hazard exists and that is the reason for this notification.

Water heaters are installed with a temperature and pressure valve (T&P), which is designed to relieve excessive water temperature or pressure. If the thermostat in a hot water heater becomes defective and allows the water temperature to increase to more than 212 F, and the T&P valve fails, your domestic water can become "superheated." Superheated water can cause water heaters to explode or can allow scalding steam to be released from faucets upon personal use. **IN ORDER FOR THIS TO OCCUR THE HOT WATER HEATER THERMOSTAT AND THE T&P VALVE**

Testing for Contaminants

For your safety, water is regularly monitored for contaminants found in these charts. We continue to provide you with safe, clean drinking water that meets all EPA regulations.



✓ Water Quality Data 2013

Regulated Contaminants

Contaminants	Date Tested	Violation?	Well #1 Detected	Well #2 Detected	How We Measure	MCL	Likely Source of Contamination
Gross Alpha Radiological	9/12/11	NO	3.0	3.1	pCi/L	15	Erosion of Natural Deposits
Total Chromium	3/29/11	NO	.63	.34	ug/L or ppb	100	Erosion of Natural Deposits or
Chrome 6	3/29/11	NO	.34	.24	ug/L or ppb		Discharge from steel and pulp mills
Nitrate	11/18/13	NO	1.5	2.04	ppm	10	Runoff from fertilizer use; leaching from septic tanks, sewage
Copper	9/25/13	NO	ND	0.036	ppm	1.3	Pipe Corrosion

Non-Regulated Contaminants

Contaminants Tested	Date	Violation?	Well #1 Dist. Detected	Well #2 Dist. Detected	How We Measure	Recommended Level Limits
Chloride	9/25/13	NO	8.9	9.0	ppm	<250 recommended
Hardness	9/25/13	NO	112.0	114.0	ppm	<250 recommended
Silica	10/12/07	NO	64.4	67.2	ppm	No recommended standards
Sodium	8/9/11	NO	10.05	8.1	ppm	<20 recommended
pH	9/25/13	NO	6.9	6.9	pH units	6.6-8.5 recommended
Total Dissolved Solids	9/25/13	NO	214	221	ppm	<500 recommended
Iron	6/30/10	NO	ND	ND	ppm	0.3 ppm
Zinc	9/25/13	NO	ND	0.015	ppm	5 ppm

Lead & Copper

Contaminants	Date	Violation?	RGW Systemwide Testing Results	How We Measure	Action Level	Likely Source of Contamination
Lead	8/29/13	NO	0.0070 ppm	ppm	0.015	Corrosion of household/commercial
Copper	8/29/13	NO	0.7380 ppm	ppm	1.3	building plumbing systems.

MUST BOTH MALFUNCTION SIMULTANEOUSLY. Your water heater manufacturer recommends that the T&P valve be OPERATED ANNUALLY and REPLACED OR INSPECTED AT LEAST ONCE EVERY THREE YEARS. A licensed plumber can inspect, repair, or replace the T&P valve to ensure your safety.

These are things to look for when thermal expansion becomes an issue. Faucets may leak or you might get brief burst of excess water pressure shortly after opening, or the temperature and pressure valve on your water heater begins to spit water. If these are present first turn the water temperature down and if that doesn't work you should correct this by installing either a toilet tank stop (available at the District office at our cost) or a thermal expansion tank.

A toilet tank stop is installed to regulate water coming into the tank. It also is a pressure relief valve and will allow the excess water pressure to be released inside the toilet tank. If your water pressure is more than 80 pounds this method won't work. It will run constantly and it wastes water and causes a higher than normal water bill. If you don't know what your water pressure is please call us. A thermal expansion tank is a can about twice the size of a three-pound coffee can with a rubber bladder inside. When the pressure in your water line increases, the rubber bladder is squeezed into a smaller space. When a faucet is opened and the pressure is released, the rubber bladder re-expands to its former size inside the can. The only moving part is the rubber bladder that is squeezed and released by the pressure. Expansion tanks are installed on a cold water line, and require inserting a fitting to accommodate the expansion tank. Most installations are done by a certified Plumber.

If you have any questions concerning backflow and our cross connection program please contact DJ at (503) 635-6041.

quality on tap

Master Planning for the Future

Your water district Rivergrove Water District is required by the state to do what is called a Master Plan. This is a vision of the projects or maintenance to our water system that will be needed for the next 20 years. Our first plan needed updating as we had accomplished many of the Capital Improvements in our Plan. In September of 2013 the Board authorized our Engineer Jim Helton of Murray Smith and Associates to update the Master plan for the next 20 years. They looked at projects to improve our distribution piping, storage facilities, reliability, our sources, and other items such as emergency planning, a water rate study, and updates to our water management and conservation plan.

We have just reviewed the final draft and have sent it to the State for their approval. The conclusion is that we have \$6,411,025 (in today's dollars) to fund the improvements needed. So how do we do that? The District has no other funding at this time except water rates. So we faced the facts and will be putting into place rate increases that will be the means to the end.

But in the meantime our staff has done a water rate comparison with 30 other water systems in our area. This is using a rate for a 3/4" meter with a water usage or 10HCF very two months. The table below shows where we rank with those 30. (1 is the cheapest and 30 the most expensive.) This is an 'apples to apples' (or should I say 'drops to drops') comparison noting our closest system the City of Lake Oswego.

Here is our current ranking vs Lake Oswego:

12th Rivergrove Water District	\$41.81
23rd Lake Oswego	\$70.82

This is how it will look with the proposed water rates effective June 10, 2014:

16th Rivergrove Water District	\$48.20*
24th Lake Oswego	\$78.26

*\$0.006 cents per gallon!

Master Plan con't

In terms of change if you have a 3/4" meter and use 10 HCF your bi-monthly bill would go up \$6.39, probably cheaper than one latte or mocha at Starbucks for water at your tap (among other things) 24 hours a day. This is a short term increase and we will be doing a rate study to see the best way to raise funds for our projects with the least impact to our rate payers.

A point against us

According to our data online we have one testing violation which gives us a point against Rivergrove due to a testing issue. This involves Synthetic Organic Chemical testing. Even though I had a letter at the end of 2013 from the state and I completed all the testing on the letter I was one sampling short. It's simple we are required to do two samplings of SOC's

two quarters in a row. I did one the last quarter of 2013 (with no detects so no contaminants were found) and now I have done another the first quarter of 2014 (with no detects). By the time you get this CCR I will have completed the third SOC testing (two consecutive in 2014) and we will be returned to compliance and the one point removed. If you want to check out the testing results online for Rivergrove Water go to <https://yourwater.oregon.gov/>.



Public Hearing Notice:

Water Rate Increase Hearing- June 4th, 2014, at 7:00PM. Pursuant to ORS 264. 312 a hearing is scheduled to consider a rate increase resolution to the customers of the Rivergrove Water District.

The purposes of the hearings are to take testimony, either written or oral, regarding the proposed Resolution. The location of the hearing will be the Rivergrove Water District Office at 17661 Pilkington Rd. For further information call **503-635-6041**.

CHLORINE DISINFECTION MONITORING DEVICE??



For your safety, chlorine is used in our water distribution system. If you have questions please contact DJ at **503-635-6041**.

CHLORINE STRENGTH

Rivergrove Water	0.55-0.62mg per liter
Min. State Requirement	0.20mg per liter
Average Swimming Pool	4.00mg per liter

Rivergrove Water District Facts:

Year of Incorporation: 1957

Customers: 1366 service connections: Approximately 4,000 population consisting of Residential, Commercial and Irrigation 3/4" to 3" meters.

Jurisdictions Served: City of Rivergrove, part of Lake Oswego, and unincorporated Clackamas & Washington Co.

District Area: 1 square mile

Water Storage: Hilltop Road-Reservoir #1-120,000 gallons built in 1935, RGW District acquired from West Slope for \$850 in 1959; Reservoir #2-500,000 Gallons-1966; Olson Ct Reservoir #3-1,250,000 Gallons-1976: All repainted in year 2004, interiors cleaned in 2012.

Pipelines: 15 miles of pipelines-Materials: Transite; Ductile iron-Age of pipelines vary from 1959-2012

System Components: 101 Fire Hydrants, 1366 meters, 2 Pressure Zones-denoted as the Upper and Lower, Upper system-183 connections with storage capacity of 620,000 gals., Lower system-1183 connections with storage capacity of 1,250,000 gals.

Resources

EPA Safe Drinking Water Hotline: (800)426-4791

Oregon Department of Human Services-Drinking Water Program: (971)673-0405

State of Oregon Certified Lab Testing:
Rivergrove Water-Alexin Analytical: (503)639-9311

DJ Ezell, Rivergrove Water District:
Phone: (503)635-6041, Fax: (503)699-9423

Email: rgwd@rivergrovewater.com, Website: www.rivergrovewater.com

If you Are "At Risk"

Some people may be more vulnerable to the contaminants in drinking water than the general population. Immune-compromised persons such as persons with cancer undergoing chemotherapy, or persons who have undergone organ transplants, or persons who have HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections.

If this is you please contact your health provider for advice about drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline at **(800)426-4791**.

To learn more plan to attend one of our regularly scheduled Board meetings held 4th Monday of the month at 7:30 AM at the District office. Changes to meeting dates and times are published in the Lake Oswego Review.

Lead & Copper Testing

If you have read the results of our lead and copper testing you can see that the results are well-below the action levels for lead and copper. However, the wording below is required by the EPA to be printed in everyone's water quality report.

"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. Rivergrove Water District 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 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.

Do's & Don'ts of Wellhead Protection

DO: If you are on a septic tank-pump your tank on a recommended schedule-Contact your local County Sanitarian for the best information.

DON'T: Pour chemicals such as gasoline, oil, or concentrated pesticides on the ground or in mole holes. One gallon of gasoline can contaminate thousands of gallons of water. Be responsible with wastes.

Working Together for Safe Water