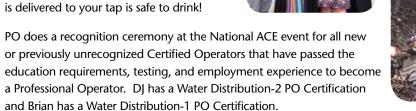
Meeting of ACE in Las Vegas



ACE is the Annual Conference and Exposition of the AWWA (American Water Works Assoc.). The PO, or Professional Operators group, is an organization that certifies Operators and deals with Operator Education. It was started a few years ago by the ABC (Association of Boards

of Certification) to recognize

that Operators knowledge and experience is important. They wanted the public to recognize that their water operators are not just ditch diggers, but professional employees making sure that the water that is delivered to your tap is safe to drink!



Top Operations Competition

The AWWA 'Top Ops Competition' is a competitive, question-and-

always live-up to our name!







We are still working on the repair of Reservoir #3. When it was built, the soil and hillside pressed into the back of the steel reservoir, and a 'slump correction' was made. The back of the steel reservoir was coated with a black epoxy and then soil and rocks were replaced up against the steel reservoir, this has proven to be an unsatisfactory resolution.

Borings are now being performed by the Geotechs to create greater stability. We are getting the design wrapped-up and will be going out to bid for the land stabilization in the back of the Reservoir in June or July. The funding for this huge project is coming from a Safe Drinking Water Fund Loan and from funds that the

District has been saving for events such as this. The recent water rate increases have gone to this fund. It is pretty incredible to see what happens when you put water, soil, and rocks against steel!

Kyle Pettibone is our Engineer at RH2 Engineering. He is putting out tremendous efforts for landslide remediation, seismic retrofitting, and painting of the interior and exterior of the reservoir.

Water Operations Specialist Needed!

Rivergrove Water District is beginning recruitment for a Water Operations Specialist employee. If you're interested and want more information please call at 503-635-6041 or email dj@rivergrovewater. com for more information. This is a Monday-Friday work schedule that offers a good wage with excellent benefits. Join our Rivergrove Water District - Water Quality Team!

usage and alarms while they are in



improve the accuracy of our readings, our level of customer service, and provide comparisons to previous time periods (by day, week, or month) that can help consumers better understand their usage and identify data anomalies that indicate potential water leaks in their households.



Financial Assistance for Septic Systems Owners

Rivergrove Water District has two different financial assistance programs available for Septic System owners who live within the District Source Water Protection Area. Both programs have limited funds and are available on a first-come, first serve basis until funds are depleted.

To qualify, you must have an approved septic inspector with the Smart Septic program (listed on the DEQ website) do your inspection. And you MUST include the completed inspection form from the DEQ website. Please note that you must apply before October 2019 with receipts in the noted categories to be eligible. The Grant will end at that time. Call DJ for application and more information. 503-635-6041.

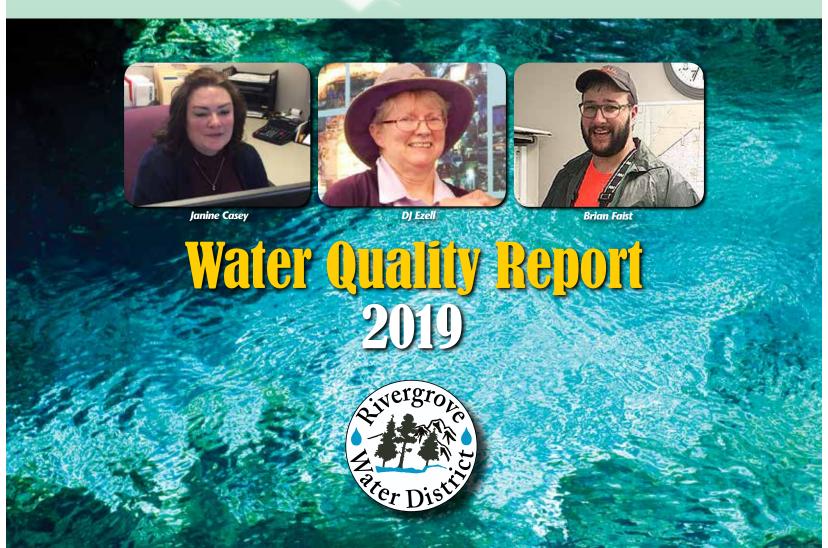
TRY AUTO PAY!

Make it easy to pay your bills. Set up today! For more information call 503-635-6041.

Portland, OR Permit No. 3908

2019 WATER QUALITY

New office hours, as of July 2019, will be 7:30am to 4pm





www.rivergrovewater.com

Meet Janine Casey

Janine started working for the Rivergrove Water District in January 2019 as our Finance Specialist and Notary Public. She provides free notary services to all RGWD customers.

Janine was born in Peoria, Illinois, and after a 211/2 year career in the Air Force, and 13 different moves, she realized that home is where she plants her garden.

Janine and her family relocated to Tigard in 2011 when her husband, Cliff, joined the team

at Intel shortly after retiring from his 22-year career with the Air Force. Cliff and Janine raised three wonderful children and a very spoiled cat (Romeo). Janine fills her spare time with on-line classes, gardening and extensive volunteer activities in the local community.

Welcome Rick Mapes - Student Intern

We want to welcome Rick Mapes to Rivergrove Water District! Great to have you with us! Rick is taking the Backflow Tester Class Certification this June, and is currently in enrolled in the WET (Water Environment Technology) Program at Clackamas Community College. He will soon finish his 1-Year Certificate.

Rick enjoys being outdoors, riding dirt bikes, hiking and camping with his puppy, Sadie. Rick's goals are to finish his degree, exhibit excellent customer service, and help provide exceptional drinking water to the people within the community he serves.

If you are out-and-about in the District this summer, you'll find Rick testing devices. So, if you catch him lying down, he's really not sleeping....he's just testing the backflows.

Aloha to Rick



Rivergrove Water District bids a fond farewell to Rick Ezell this June. Rick has worked for the District for almost 22 years. In his tenure he instituted many improvements including remote SCADA to power our pumps, installing security cameras for all our sites, and reservoir power washes that would curl your hair. He installed 130 pound

meter boxes (a killer for backs) for the backflow/meters. Thank goodness composite boxes have come along to replace those. Rick was 'on call', 24/7, for most of the 22 years he has worked for RWD. He's going to be truly missed, as he's a very detailed worker, excellent employee, and a huge asset. But it's time for him to play. We wish him the best! Aloha!





This Water Quality Report is Required Each Year.

This report describes the Rivergrove Water District water sources and quality from data taken during the 2018 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.

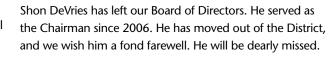
Bottled water that you may otherwise purchase comes under different standards and requirements. Those companies are regulated by the Food and Drug Administration (FDA). These standards are not the same. Please be an informed consumer and check the sources and standards of your drinking water.

"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 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.

A Sweet Good-bye to Shon



The new Board Chair is Christine Roth. She has been on the Board since 1992. Chris lives in our District with her husband Clay and



daughter, Kate. She is very active, and is also on the Neighborhood Association Board. She is a member of the League of Women Voters, and even attended the Women's March in Washington DC, in January 2017. Chris is shown here signing checks with our mascot, Mikko, 'on duty' at her feet.







answer tournament. A moderator will pose a broad range of technical questions relating to water operations. Points will be awarded to each team that displays a correct answer. The team with the most points wins the competition. The purpose behind the AWWA 'Top Ops Competition' is to recognize and promote excellence and

professionalism in water operations. We won NW Subsection,

but placed placed second in the Pacific Section Top Ops competition this year. Next year, we will study-up and will try again for another trophy. Our team is called the "Smooth Operators", and we







What is an automatic meter?

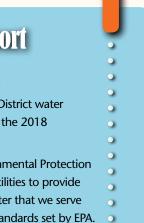
This new Advanced Metering infrastructure (AMI) uses transceivers on your water meter to gather and pass usage data via radio frequency to a mobile data collection module. Our operators will go out every other month to collect the data.

The new Automatic Meter Reading (AMR) system allows meter readers and operators to provide graphical displays of consumer the field, which helps us to proactively approach the customers about possible

leaks or other service-related issues.







Backflow / What is It?

We have Water (or possibly 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.

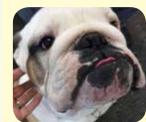
Premise Backflow Protection

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 assembly at the service connection we are getting there. Until then if you have a backflow assembly in your plumbing, you will need to have it annually tested by a certified backflow tester and have the test results sent in to the Water District by the end of the year.



Our Mascot - 'Mikko'



Come by the office and meet our handsome Mascot, *Mikko*! He is an award-winning Bulldog, and has recently-won ribbons to show you!



Mikko is a 1 year-old Bulldog, and has already won Ribbons in the (SWOBC) Southwest Oregon Bulldog Club-Specialty Dog Show.

Thermal Expansion Issue

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 prevention assembly 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 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 a thermal expansion tank.

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**.

Water Quality Data - 2018

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.

Regulated Contaminants								
Contaminants	Date Tested	Violation?	Well #1 Detected	Well #2 Detected	Well #3 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
Nitrate	11/20/17	NO	1.4	1.93	.694	ppm	10	Runoff from fertilizer use; leaching from septic tanks, sewage
Non-Regulated Contaminants								
Contaminants Tested	Date	Violation?	Well #1 Detected	Well #2 Detected		How We Measure		Recommended Level Limits
Chloride	8/13/18	NO	29	13		ppm		<250 recommended
Hardness	11/17/17	NO	7.83	7.01		gpg		<10.5 recommended

Contaminants Tested	Date	Violation?	Well #1 Detected	Well #2 Detected	How We Measure	Recommended Level Limits
Chloride	8/13/18	NO	29	13	ppm	<250 recommended
Hardness	11/17/17	NO	7.83	7.01	gpg	<10.5 recommended
Silicia	8/21/15	NO	57	58	ppm	No recommended standards
Sodium	8/9/11	NO	10.05	8.1	ppm	<20 recommended
рН	8/13/18	NO	6.4	6.3	pH units	6.6-8.5 recommended
Total Dissolved Solids	8/13/18	NO	247	213	ppm	<500 recommended
Fluoride	8/13/18	NO	0.11	0.10	ppm	4 ppm
				Lead & Copp	er	

Contaminants	Date	Violation?	RGW Systemwide Testing Results	How We Measure	Action Level	Likely Source of Contamination
Lead	9/19/16	NO	0.0047 ppm	ppm	0.015	Corrosion of household/commercial building plumbing systems.
Copper	9/19/16	NO	0.4020 ppm	ppm	1.3	

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.

Grains Per Gallon (GPG). Unit of water hardness. One GPG is 1 grain (64.8 milligrams) of calcium carbonate dissolved in 1 US gallon of water.

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.

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.

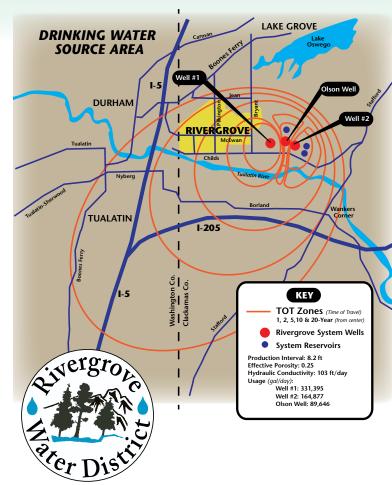
Parts per billion (ppb) or **Micrograms per liter (ug/L).** One part per billion is comparable to one second in 32 years, or one minute in 2,000 years, a single penny in \$10,000,000,or the first 16 inches on a trip to the moon.

Picocurries 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.

Your Drinking Water Source



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 204 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 #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.

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 **all** consumer's Water Quality Reports.

"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. Please watch the Rivergrove neighborhoods this summer for Nate and Brian working with the next round of Lead and Copper testing.

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.

Resources:

EPA Safe Drinking Water Hotline: 800-426-4791

Oregon Health Authority - 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

^{*} 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.