

### Do You Know Where Your Main Water Shut-Off Is?

Despite all the best precautions this winter water pipes may still freeze. The faster you can shut off the water, the less damage you will accrue.

Knowing where your main shut off valve is can prevent costly water damage. If you can't access the shut off valve at the water meter, you'll need to find the main shut off valve for your house.

The valve is most likely where the water line enters the house. This could be in the basement, the crawl space, or



in the garage. It will look like a regular spigot valve or a single handled ball valve. If you have a broken pipe and need to stop the water while you wait for a plumber to arrive, turning this valve off shuts off all of the water to your home.

Make sure everyone in the house knows where the main shut off valve is located. For a quick response, identify the valve by tying a piece of colored yarn or a string to it and post your plumbers contact information in plain sight.

For more indoor/outdoor water conservation information and free conservation tools

and devices call the Clackamas River

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Water Providers at **503-732-3511** or visit our website at: **www.clackamasproviders.org**.

# **CRWP Rebate Program is Temporarily Out of Funds!**

Due to an enthusiast response (we processed more rebates in three months than we usually do in a whole year) our rebate program is temporarily out of funds for the remainder of this fiscal year. The rebate program will resume when we have funds available July 1st of 2020.

The Clackamas River Water Providers encourages water conservation to promote wise water use because everyone depends on water. We all must use water efficiently or there may not be enough for drinking, irrigation, commercial uses, fish, and emergencies such as fire-fighting. The CRWP is committed to providing our customers with the tools to do whatever they can for more efficient water use.



We offer six water use rebates up to \$385 in value. These rebates are available each fiscal year (July 1st – June 30th) on a first-come,

first-served basis until the program funds have depleted.

Click<u>here</u> for CRWP members participating in our rebate program, rebate information, and eligibility requirements, or to find out other ways to save water.

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# How Water Systems Work Protecting Our Watershed

Unlike the City of Portland's protected Bull Run watershed, the Clackamas is multi-use with various users and ownership throughout the watershed. Each time it rains or snows, pollutants wash off the land and flow untreated into nearby surface and groundwater sources. Human activities such as construction, timber harvest, livestock management, fertilizer and pesticide use if not performed responsibly can contribute to degraded water quality.

We all play a role in preserving our vital drinking water resource. Whether you're a resident, business owner, employee or farmer, you can make a difference. Protecting and conserving our drinking water source plays a key role in making the best overall use of the precious resource we share.

#### What Can You Do?

- Install a raingarden to allow water from your property to filter into the ground.
- Practice water efficient landscaping and /or naturescaping.
- Prevent stormwater runoff (decreasing impervious surfaces).
- Restore streamside and riparian areas by planting native trees and shrubs.
- Properly dispose of, or recycle, motor oil, antifreeze, paint, solvents and other toxic materials.
- Take your car to a car wash that recycles the dirty water or wash your car on the lawn to prevent car wash water from entering storm drains.
- Reduce or eliminate your pesticide and fertilizer use to prevent chemical runoff.
- Properly clean up after your pet.
- Fence livestock away from water areas to protect stream banks, reduce erosion and protect water quality.



- Inspect and properly maintain septic systems.
- Conserve water, especially in the summer months when river flows are at their lowest. The more water we save, the more water we can keep in the river for fish.
- Get involved! Attend a Clackamas River Water Providers, city council, or water board meeting.
- Call your <u>water provider</u> for more information.
- Join our local watershed council, the <u>Clackamas River</u> <u>Basin Council</u>.

For more ideas on how you can prevent pollution from entering our water ways click <u>here</u>.

#### Want to learn more about the benefits of watershed protection?

- Watershed Restoration Means Clean Drinking Water for Oregonians. <u>Click here</u>.
- Protecting Our Water Sources Brings a Wealth of Benefits.
   <u>Click here</u>.
- The Nature Conservancy, Beyond the Source: The environment, economic and community benefits of source water protection <u>Click here.</u>

# Winter Quiz:

1. Your water main valve is most likely to be found where?

A. In the basement
B. In the crawlspace
C. in the garage
D. One of the aboveWhere the water line enters the house.

2. The Clackamas River Watershed Resilience project is aimed to provide guidance for managing resilience in the face of climate change.

A. True B. False

#### 3. What is the purpose of the Home Water Audit Kits?

A. Add bright color to your toilet water
B. Decorate faucets
C. Determine water use and how to save.
D. None of the above

#### Answers - Can be found on page 6

4. We all play a role in preserving our vital drinking water source.

**A.** No **B.** Yes

# **Pesticide Reduction Efforts**

On October 26, 2019 the CRWP partnered with the Clackamas Soil and Water Conservation District and the Oregon Department of Agriculture to sponsor a pesticide collection event for Clackamas watershed agricultural users. The purpose of this collection event was to get old and unwanted pesticides out of our watershed. Thanks to the 20 plus agricultural users that participated we were able to safely dispose of over 5,000 pounds of unwanted pesticides, herbicides, and fungicides, helping us protect our drinking water source.







CLACKAMAS SOIL AND WATER CONSERVATION DISTRICT Good dirt. Clean water.



# **Clackamas Watershed Resiliency**

The Clackamas River Watershed Resilience project was a multi-year project aimed to provide water resource stakeholders in the Clackamas River watershed with guidance for managing resilience in the face of climate change. Phase I of this project was primarily funded by PSU Institute for Sustainable Solution to establish a baseline of historical trends in the Clackamas River watershed relevant to climate change, and identified issues pertinent to stakeholders in the context of climate change (e.g., diminished summer water supply, water quality degradation resulting from urban development and intense rainfall, etc.). Phase II of this project sought to continue that research with two objectives: (1) Applied Climate Science, (2) Climate Adaptation Planning.

#### PROJECT GOAL:

The goal of the Clackamas Watershed Resilience project was to help project partners understand local impacts of climate change on water quality and quantity in the region; and develop strategies to sustain a healthy, reliable water source.

Uncertainty related to local impacts of climate change present a challenge for regions who are making infrastructure investments and policy decisions today that will remain in place for decades. This project aimed to provide locally specific information, at a finer scale than what is available through global climate models about how climate change may threaten water quality and quantity in the Clackamas River basin.

Alongside climate scientists, faculty and students with social science and natural resource management expertise worked with the Clackamas River community and key stakeholders to develop recommended strategies for understanding and adapting to climate change.

To see the results of this work that the CRWP and Water Environment Services has been working with PSU to better understand our watersheds resiliency, go to https://sites.google.com/a/pdx.edu/maxnp/research/ Clackamas-watershed.

# **Faces of Drinking Water**

The Clackamas River Water Provider members are a coalition of many different cities and public water providers who depend on the Clackamas River as their drinking water source. The ability to treat, store and deliver safe clean drinking water to their customers takes many different professionals with a variety of background and skills.

Most recently we visited with Bo Doan one of the newest drinking water treatment plant operators at the Clackamas County Water Commission (NCCWC). The NCCWC is jointly owned by and provides drinking water to Sunrise Water Authority, Oak Lodge Water Services and the City of Gladstone.

#### CRWP: How long have you worked for the North Clackamas County Water Commission?

**Bo:** I was hired on here at the NCCWC full-time as a Water treatment Plant Operator in June of 2019.

### CRWP: What is your background prior to working in Public Drinking Water?

**Bo:** While in middle school I worked with my father at his wrecking yard and when I was in high school, I worked with my cousins at Abbas Pumps in Terrebonne Oregon. While at Abbas we installed and maintained commercial and residential well pumps. I worked for Abbas throughout high school.

After graduation and while working on a Criminal Justice degree to be a police officer my father encouraged me to look into a career in public works (drinking/ waste water). My father's Uncle worked for the City of Redmond as a Waste Water Operator and was making a financially good, secure and safe living for himself. My father suggested I look into Clackamas Community College's Water Environmental Technologies (WET) program. I started the program in September 2012. While attending the WET program I interned at both the NCCWC and the Molalla Waste Water Treatment plant, and was hired on as seasonal help at the NCCWC plant.

by Christine Hollenbeck

When I graduated from the WET program in the fall of 2013, I worked for the City of Madras for 15 months in waste water treatment and I did some work in storm water, collections and drinking water distribution. From Madras I moved to the City of Monmouth and worked as a Waste Water Collections Specialist. I always wanted to work for the NCCWC so when the position came up earlier this year I applied and was offered the position.

### CRWP: What are your favorite/ least favorite parts of your job?

**Bo:** I really enjoy working with such a small group of people. In Monmouth there were quite a few of us in public works and things are just so much more complicated. With such few people working towards the same goal it feels like we are a more cohesive team.

### CRWP: Do you plan to retire here at the NCCWC?

**Bo:** My ideal plan would be to retire here, but I have a long way to go and you never know what life has in store.

### CRWP: What accomplishments are you most proud of in your career?

**Bo:** I'm real proud of the way I have been able to get my bearings and have caught on to my work here at the NCCWC plant as quickly as I have. Also, in 2017 at the Pacific Northwest Clean Water Association's annual conference I won a trophy for the Operator's Skills Challenge.

### CRWP: What advice would you give to someone starting out in this field?

**Bo:** Learn as much as you can. Pay close attention to every detail, you never know when you might need this information, and work your hardest.

#### An Interview with **Bo Doan Water Treatment Plant Operator** N. Clackamas County Water Commission



### CRWP: What do you feel is most important about your job?

**Bo:** I could say the cookie cutter answer which is providing "clean safe drinking water", and while that is true, I think it's real important to stay ahead of the game. I like to be a progressive and forward thinker. I think it is best of be proactive rather than reactive in this profession. Success is all about being prepared.

### CRWP: What would you like the public to know about their drinking water?

**Bo:** Being so new to drinking water I'm not so sure what to say, but having been in waste water, the one thing I wish everyone knew was "Flushable Wipes" are not flushable!!

### CRWP: What can the public do to help make your job easier?

**Bo:** Don't waste your drinking water. Take short showers (5 minutes or so), shut off the faucet while you brush your teeth, and in the summer time don't water in the middle of the day. When you are wasting your drinking water it just means we have to unnecessarily make more water.

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# **Indoor Home Water Audit**

Winter is a good time to take a look at your indoor water use. The Clackamas River Water Providers has Indoor Home Water Audit Kits to help you figure out how much water you are using and where you can save the most water inside your home. Conducting an audit is simple and may take an hour to complete. It will help you locate leaks so you can prioritize fixing them, and identify which fixtures may need to be upgraded to new low flow fixtures so you can start saving water and money.

#### Indoor Home Water Audit Kits Includes:

- Audit Kit Instructions This brochure will guide you through the steps of how to conduct an indoor home water audit.
- Flow Meter Bag –Use this bag to measure how much water your household fixtures (kitchen faucet, showerhead, bathroom faucet) use.
- **Drip Gauge** Use this to measure drips around your house. Even a seemingly small drip can waste a lot of water. This gauge will give you an idea just how much that might be.



 Leak Detection Tablets – Use these tablets to see if your toilet has a leak.

To request free low water using devices for your home and more indoor water conservation information visit us at **www.clackamasproviders.org** or call **503 723 3511**.

# Faces of Drinking Water - continued

### CRWP: What is the most significant project you've been involved in during your drinking water career?

**Bo:** Here at the NCCWC I was the lead in the update of our Process Logistics and control (PLC) for our supervisory control and data acquisition (SCADA) system. We had all of the computer systems and security that run the plant updated.

#### CRWP: What is one thing you can't live without at work?

**Bo:** My head phones. There are so few of us working at this plant that I spend a lot of time working by myself. Listening to music relaxes me, keeps me grounded and helps the time to go by faster.

#### CRWP: What would you say water is to you?

**Bo:** The best drink ever! Water is one of the main pillars of life.

### CRWP: What do you do for fun when you're not working?

**Bo:** I like to go camping, hunting, go to the gym, watch Netflix, I'm an avid gamer, I like to hang out with my dog Gilligan, and once a year I enjoy the Demolition Derby in Redmond. Myself and my family not only attend the Derby, we participate in the Derby!

The CRWP first met Bo when he interned here at the NCCWC 5 years ago while attending the WET program at Clackamas Community College. Though Bo's journey to get here took him through waste water and collections we don't hold that against him. We're glad he's here now.



Working together to protect and conserve our drinking water.

## **Winter Water Tips**

When water freezes, it expands about 9%. If the temperature of your pipes drops below 32 degrees, even for a short period of time, you're more likely to have a pipe fracture or worse. Here are some precautionary measures you can take now to help avoid the expense and inconvenience of frozen water pipes later.

**1. Close Crawl Spaces and Vents** Anywhere cold air blows on a pipe, it creates the potential for freezing. To make sure your pipes are protected from the cold close crawl space vents and stuff insulation over the openings. Even a tiny hole can let in a lot of cold.

2. Protect outside pipes and faucets. In some homes, the outside faucets and hose bibs have a separate shut-off, if this is the case shut off the outside water. Then go outside, disconnect the garden hose and if the outside water has been shut off, turn on the faucets to drain water from the line. Leaving the faucets in the open position, wrap or cover all outside faucets and hose bibs to protect them from the cold.

Open the cupboard doors beneath your sinks. Opening the cupboard doors beneath your sinks will allow warm air to circulate around the pipes and will help keep them from freezing. If you're anticipating a deep freeze, consider using a fan to help circulate the air near the pipes, or purchase a small space heater for some extra temporary heat.



**3. Allow water to trickle from faucets.** In extreme or a long-term cold spell, allow the water to trickle from your inside faucets to prevent freezing. Over a 24-hour period this will cost less than 15 cents per faucet.

4. Never turn off the heat when you leave home. During the winter set the temperature to at least 55-60 degrees F, and if you have multiple heat zones, be sure to adjust all thermostats appropriately.

**5.** Have emergency telephone numbers handy. Despite all best precautions water pipes may still freeze. Keep the number to your local water provider and your plumber posted in a location where everyone can see it in case of an emergency.





# **Partner Spotlight - Oregon DEQ**

The **Oregon Department of Environmental Quality**'s mission is to be a leader in restoring, maintaining and enhancing the quality of Oregon's air, land and water. DEQ regulates industrial air pollution, conducts vehicle emissions testing, sets and enforces water quality standards, monitors river basins, measures groundwater quality, and regulates waste discharges from city sewage treatment and industrial facilities. It also regulates hazardous waste disposal, promotes solid waste reduction, regulates underground storage tanks, and enhances environmental cleanup. Implementation of Oregon's environmental laws is intended to protect human and environmental health as well as benefit the economy.

DEQ's Water Quality Program protects and improves the state's waterways to ensure they are safe for drinking water, fish and wildlife, recreation and irrigation. This is accomplished by developing and implementing water quality standards and clean water plans, regulating sewage treatment systems and industrial dischargers, collecting and evaluating water quality data, providing grants and technical assistance to reduce nonpoint pollution sources, and providing loans to communities to build treatment facilities.

DEQ and the Clackamas River Water Providers have been working together for a number of years on various programs to help protect and improve water quality in the Clackamas River. DEQ recognizes that providing clean





water to drinking water intakes helps minimize drinking water treatment costs and protects public health. Some of the DEQ programs that assist the CRWP include:

**Drinking Water Protection Program:** DEQ's drinking water protection program is a joint program with the Oregon Health Authority that has partnered with the CRWP for over 15 years. In 2003, the state agencies partnered with the CRWP to provide a "Source Water Assessment" that identified the drinking water source area and potential risks to the water supply. Building on this information, the CRWP began developing strategies to protect your sources of drinking water.

Oregon's drinking water protection program has a competitive grant program that helps water systems reduce risk to their water supply. The CRWP have obtained several of these grants throughout the years. Grants include work to conduct a more detailed assessment of drinking water threats, collect unwanted or unused pesticides within the watershed, post interpretative signs at parks and boat ramps, develop a septic system assistance program, support a hazardous material spill prevention program and create watershed display models. DEQ also provides technical assistance and support to the CRWP when there are questions about potential sources of pollution in the watershed or emerging contaminants of concern.

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# **Partner Spotlight** - continued

Watershed Management: The Clackamas River has good water quality; however, analysis of temperature and bacteria data have indicated that parts of the Clackamas River do not meet state water quality standards at all times. Additionally, sedimentation, metals, and pesticides have also been identified as parameters of concern. DEQ has developed a Total Maximum Daily Load (TMDL) and water quality improvement plan to address these contaminants. DEQ's water quality basin coordinator works with a number of basin partners to implement strategies identified in the TMDL to reduce erosion, improve stormwater control, permit wastewater discharges, and address agricultural operations.

Pesticide Stewardship Partnership: The Clackamas Pesticide Stewardship Partnership was initiated in 2005 by DEQ and a number of partners including the Clackamas River Water Providers. The Clackamas Pesticide Stewardship Partnership is a voluntary, collaborative process to protect the river and its tributaries. Local and state organizations use water quality monitoring to drive outreach and technical assistance activities for landowners and pesticide applicators to enable more efficient and effective management practices that reduce drift and runoff of priority pesticides into water.

Wastewater Permitting: DEQ's wastewater permit program regulates pollution from point sources discharging to Oregon's surface water. The term "point source" generally refers to wastewater discharged into water or onto land though a pipe or a discernible channel. DEQ issues permits that cover a variety of dischargers including domestic wastewater, industrial wastewater, and stormwater. DEQ provides public notice so that the CRWP and other interested stakeholders can review and provide public comment. DEQ also works with permittees to enhance permit conditions to be protective of the drinking water supply and ensue notification of CRWP members of spills, overflows or contamination events that may impact water quality.

**Emergency Response:** DEQ is one of the many partners that assists CRWP in evaluating readiness and response tactics for potential disasters or spills that may impact water quality. DEQ has provided technical assistance in developing response strategies and participated in table-

top and on-river drills that help the water providers better plan for and respond to hazardous material spills. In addition, the strong partnership between DEQ and the CRWP helps ensure prompt notification of water providers in the event of a hazardous material spill.



























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