



FALL 2020 News

Riverside Fire & Your Water Providers

The Fires in Clackamas County and the Riverside Fire in particular have had a heavy impact on our residents and our water provider staff. We appreciate the hard work and dedication it has taken for firefighters to get these fires under control and to protect life, safety and property. As the fires burned your water providers worked hard to make sure you continued to have high quality drinking water from your tap.

Most of the Riverside Fire is located on the National Forest and as a result the Clackamas River Ranger District has suffered extensive damage to its natural and human resources. In total it burned about 23% of our Clackamas watershed. Now that cooler, wetter weather is here it will slowly wind down the fire season. That being said, even after the fire has a containment line fully around its perimeter, the forest service expects to see hot spots, slow-burning stumps, and smoldering embers that will continue to quietly burn and send out intermittent smoke for months into the winter.

The Forest Service currently has a Burned Area Emergency Response (BAER) team of specialists on the ground out assessing the damage to the watershed, habitat, soils, roads, and identifying stabilization measures that will be implemented to protect post-wildfire threats to human life and safety, property, and critical natural or cultural resources on federal lands.

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The first step in this process is creating a Soil Burn Severity (SBS) map. The BAER team uses this to make predictions about how the landscape will respond after a fire. Soil scientists consider where soil productivity will be degraded due to erosion losses and where sediment may move into stream channels. Hydrologists use the SBS to predict watershed response—surface runoff from high SBS areas in rainstorms can produce more “flashy” behavior in stream systems. Geologists use the SBS to inform predictions for debris flow or other mass movement potential based on reduced soil stability in steep drainages. This informs what emergency response actions should be taken to stabilize burned areas that may impact Forest Service critical infrastructure or other values located within or immediately downstream of high soil burn severity areas.

For us water providers downstream, in the near-term (next couple of months) as it starts raining, we expect to see increased levels of turbidity (suspended solids) due to erosion and ash, Total Organic Carbon, Dissolved Organic Carbon, metals and nutrients in our source water. Our water treatment plants are all designed and operated to constantly monitor and remove these constituents in our water. In addition, we are working together along with USGS and other partners to conduct additional water quality monitoring to enhance our water treatment plants ability to adjust water treatment process accordingly if needed.

For more information about the Riverside Fire go to: <https://inciweb.nwcg.gov/incident/7174/>



2021 Water Conservation Calendar

Each year the Clackamas River Water Providers invite teachers and their students to participate in our annual water conservation calendar coloring contest.

The theme for the 2021 Calendar is “Healthy River, Happy Fish, Happy People”. Because of the COVID 19 pandemic and students being taught from home submitting pictures for the calendar posed some challenges this year. That being said, 19 classes from

10 different schools participated in the contest. Thirteen pictures were chosen and posted on the CRWP website for one week (May 25th – June 1st,) so students, their teachers, families and friends, and the general public could vote for which one of the 13 pictures will be on the cover of the 2021 calendar. The CRWP is working to make sure each school that participated in the contest receives a box of calendars (#125) to give away to students and families.

The 2021 calendars are available to the public upon request by contacting our office at 503-723-3511 or by emailing christine@clackamasproviders.org.

The CRWP annual calendar contest continues to be one of our most successful projects because of the enthusiastic participation of our teachers, students, and community members. Thank you to everyone for your support.



Six Ways to Save Water in the Fall

Water conservation is something we talk about a lot in the summertime, but what about the rest of the year? While



we might not be watering our lawns or maintaining much of a garden, there are still ways to cut back on our water usage during the chilly months. A big part of using less water in the fall and winter is about anticipating the cold weather's effects on your home and on

your water pipes. With just a little bit of preparation, you can stop costly and water-wasting issues before they get started.

Fall Water Conservation Tips

1. Winterize your pipes. Preventing broken pipes and leaks are your best bet when it comes to conserving water in winter. Make sure outdoor water pipes, like the ones running to your backyard spigot, are wrapped. This way, when temperatures drop below freezing, they stay warmer than the air and are less likely to freeze developing leaks or burst.

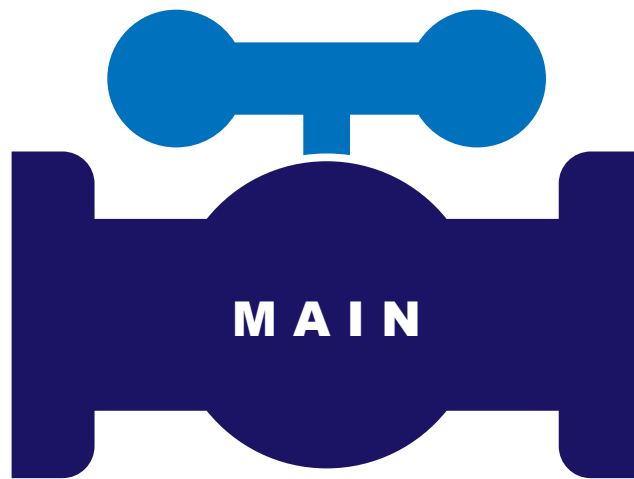
2. Insulate hot water pipes. Ever notice that it takes your shower longer to get hot when it's freezing out? That's because your pipes are colder. Hire a plumber to wrap your pipes in insulation, or head to your crawl space or basement to do it yourself. Not only does this help the hot water stay hot, but it helps protect these pipes from the cold, preventing freezing.



3. Use a Shower Bucket. Since it takes longer for your shower to heat up in winter, catch that cold water and use it to flush toilets or water plants. This is a trick that you can use year-round, but it's especially helpful in winter when your shower runs cold for a bit longer.

4. Check for leaks after first thaw. The changes in temperature between night and day during the winter causes pipes to expand and contract. This added stress means you're more likely to develop a leak over the winter. Hire a plumber to check your water lines for leaks in the early spring when things begin to thaw.

5. Make sure you know where the main water shut-off valve for your house is. Despite our best intentions, sometimes a pipe will still burst in the winter. The faster you can shut off that water, the less goes to waste. If you can't access your street valve, you'll need to find the main shut off valve for your house. This is most likely in the basement, crawl space, or in the garage. It looks like a regular spigot, but turning it off shuts off all of the water to your house. Perfect if you have a gusher and need to stop the water while you wait for a plumber to arrive. Make sure everyone in the house knows where the main shut off is and post your water provider and plumber's contact information in plain sight in case you need it fast.



6. Contact the CRWP for a free Indoor Home Water Audit Kit to find more ways you can save water indoors this winter.

People use almost 70 gallons of water per day for everything from cooking and showering to flushing the toilet, throw in outdoor water use, and you balloon up to around 350 gallons per household. The Clackamas River Water Providers want to make water conservation a part of daily routines year around. Visit our website at www.clackamasproviders.org/ for more indoor water conservation tips.

Partner Spotlight: CCWET

Clackamas County Water Education Team

Clackamas County Watersheds: Connecting Water, Land and People

In 2003, Kim Swan, then the Water Conservation Program Coordinator for South Fork Water Board, organized the Clackamas County Water Education Team, or CCWET. This new team was comprised of organizations working on environmental, water, and watershed-related issues in Clackamas County. The aim of these community groups and local agencies was to promote enhancement, restoration, and stewardship of our drinking water and natural heritage of fish and wildlife in Clackamas County that depend on a healthy watershed. Programs and resources focused on watersheds, water quality, water conservation, micro-watersheds, drinking water, and salmon.

Today's members of CCWET include the Clackamas River Water Providers, Ecology in Classrooms and Outdoors (ECO), the Center for Research in Environmental Sciences and Technologies (CREST), the City of Oregon City, the City of West Linn, Clackamas Community College, Clackamas County Green Schools Program, Clackamas County Water Environment Services, Clackamas River Basin Council, Clackamas Soil and Water Conservation District, North Clackamas Parks and Recreation, Oak Lodge Water Services, and OSU Extension. As it was in 2003, the goals of CCWET are to deliver a consistent message to their shared public and to leverage funding, partnerships, resources, and marketing opportunities. Evaluating the effectiveness of outreach and community programs, the coordination of information to avoid duplication and creating accountability, will provide more cost-effective programs that complement each other and increase visibility.



CCWET partners and exhibitors, 2018 Celebrating Water Event

While supporting each other's public education goals and efforts throughout the year, the CCWET also organizes an annual Celebrating Water event held at Clackamas Community College. The event hosts a day of water and environmental learning to approximately 500 4th and 5th grade students and their teachers from the Clackamas County area. The event includes an exhibit hall with more than 25 hands-on exhibits, as well as two stage shows highlighting storyteller Will Hornyak, and Recycleman and The Dumpster Divers which provide water and environmental education to the event attendees. Unfortunately, in 2020 the 15th annual Celebrating Water event was canceled due to COVID 19.

CCWET continues its mission to increase awareness of water and environmental related issues in Clackamas County, to engage citizens and promote behavioral changes. By working together our agencies and organizations can offer complementary programs while keeping our costs down and making the most of our limited staff resources.

For more information about the Clackamas Partnership or to download a copy of the Strategic Plan go to www.clackamaspartnership.org.

Fall Quiz:

Answers - Can be found on page 6

1. It takes longer for your shower to get hot when it is freezing outside.

- A. True
- B. False

2. The Riverside Fire will impact our water source with increased levels of:

- A. Turbidity
- B. Total Organic Carbon
- C. Metals and nutrients
- D. All of the above

3. The Flume Smart Water Monitor pilot rebate program provides the following amount:

- A. \$25
- B. \$50
- C. \$100

4. The Clackamas River Watershed drains more than:

- A. 200,500 acres
- B. 475,250 acres
- C. 600,700 acres
- D. None of the above

Annual Watershed Tour

In the near term COVID 19 has changed the way we do things. Hopefully at some point things will go back to normal but in the meantime, due to COVID and the Riverside Fire we have canceled this year's annual watershed tour. This has always been one of the highlights of the fall for us because it gives us the opportunity to talk to CRWP member elected officials and interested citizens about the amazing watershed their drinking water comes from.

Hopefully next year we will be able to resume our annual tours with a tour of the Riverside Fire lead by the Forest Service to talk about the response to the fire, and their post fire mitigation and rehabilitation efforts.

Until then, here are some interesting watershed facts to 'tide' you over.

- A watershed is any area of land from which water drains to a common point, be it a river, pond, stream or lake.
- Watersheds are separated by topographic features called ridge lines or divides.
- Watersheds come in all shapes and sizes and can cross county, state, and national boundaries.

Our Clackamas River watershed drains more than 940 sq miles, or 600,700 acres. More than half of its length it runs through forested areas over rugged terrain. The lower reaches flow through agricultural and densely populated areas. The watershed crosses two counties and includes federal land administered by the US Forest Service and BLM, state land, and private land.

Unlike the Bull Run Watershed, which is federally owned and managed by the City of Portland, 72% of the of the Clackamas watershed is publicly owned, 3% is tribally owned, and 25% is privately owned.

The Clackamas River itself begins on the slopes of Olallie Butte and flows 82.7 miles from its headwaters (elevation 6,000 ft) to its confluence with the Willamette River near Gladstone and Oregon City (elevation 12 ft) and is made up of 16 sub watersheds.

Want to learn more? Check out our Interactive Watershed Map www.clackamasproviders.org/interactive-watershed-map



How Water Systems Work - Drinking Water Treatment

The Clackamas River Water Providers have five water treatment plants on the Clackamas River where water is taken out of the river and treated before it is used as drinking water. Water treatment is the process of removing undesirable chemicals, biological contaminants, suspended solids and gases from the raw river water. The goal is to produce water that is safe for human consumption, or Drinking Water.

Water at these treatment plants is treated to meet legal limits set by the Environmental Protection Agency (EPA) on the levels of certain contaminants in drinking water under the Safe Drinking Water Act (SDWA).

These legal limits reflect both the level that protects human health and the level that water systems can achieve using the best available technology. Want to learn more? Call us at **(503) 723-3511** to learn more about how your drinking water is made.

More information about how the different CRWP member treatment plants produce clean safe drinking water click on the links below.

- [City of Estacada](#) - Water Treatment Plant
- [Clackamas River Water](#) - Water Treatment Plant
- [The North Clackamas County Water Commission](#) Water Treatment Plant
- [South Fork Water Board](#) - Water Treatment Plant
- [Lake Oswego/Tigard](#) - Water Treatment Plant

Check out our website later this Fall for video tours of our Treatment Plants.

NEW Flume Rebate

The Clackamas River Water Providers is working with FLUME to pilot a \$100 rebate to eligible CRWP customers if they purchase a new Flume Smart Water Monitor device.

Flume, is a first-of-its-kind, easily installed household device that puts the power of water use monitoring into the hands of homeowners.

- Detect small leaks before they cost money and cause damage
- Gain real-time information on your household water consumption
- Set water usage goals and budgets for your household
- Smart technology sends notifications straight to your phone
- Receive push notifications on suspicious water activities while you're away

The Flume Smart Water Monitor provides complete coverage by catching leaks inside of your home as well as in your lawn or garden. If Flume senses a leak or unusually high-water use, you'll be notified immediately via text, email or push notification anywhere you are tracking your water use 24/7, alerting you to excessive water use and leaks.



Never be surprised by a high-water bill again. Flume lets you set daily, weekly or monthly budgets and notifies you as you approach your limit. You can also measure your use against like homes in the Flume Family.

For more information about the Flume smart home water monitor and how to apply for our CRWP rebate visit our [website](#) under rebates.

Conserve water and save money.

Fall Quiz:

Answers

Question 1 - Answer is A
Question 2 - Answer is D

Question 3 - Answer is C
Question 4 - Answer is C

Faces of Drinking Water

by Christine Hollenbeck

Donn Bunyard
Clackamas River Water (CRW)

For our Fall 2020 E newsletter we interviewed Donn Bunyard. A long-time fixture in our local drinking water community.

CRWP: Where do you work/who do you work for?

Donn: Clackamas River Water (CRW).

CRWP: How long have you been working for Clackamas River Water?

Donn: 37 years in February of 2021.

CRWP: What is your position at CRW?

Donn: Emergency Manager & Safety Coordinator.

CRWP: How did you acquire your current position with CRW?

Donn: It was a mutually agreeable change of duties in 2014, and it was the best move I ever made. I moved from Operations Manager to Emergency Manager & Safety.

CRWP: What is your back ground prior to working in drinking water?

Donn: I spent 10 years in underground utility construction working for a family-run company, and working for a variety of companies during the winter on projects such as the I-205 bridge, Port of Portland terminal 6, PDX runway expansion, and powerhouse and spillway expansions at Bonneville Dam.

CRWP: What is your favorite/ least favorite part of your job?

Donn: I don't really have anything about my job I don't like. The favorite part of my job is working with lots of motivated and dedicated staff at CRW and within the water industry.

CRWP: Do you plan on retiring with Clackamas River Water?

Donn: Yes, the date is still to be determined.

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

Donn: Getting my Supervisors Certificate from Clackamas Community College in 2000. It set the stage for my move out of field operations and into Supervision and Management which allowed me to continually grow my career in the Water Industry.

CRWP: What advice would you give to someone starting out in the drinking water industry?

Donn: Take whatever job or task that is assigned to you and do it to the best of your ability every time. Do it right the first time so others don't have to come back and fix it in the future. Don't look for others for motivation, find it within yourself.

CRWP: How has the drinking water industry changed since you started?

Donn: The industry is much safer that when I started. The crews today are really good at working smarter, not harder. Jobs that we used to do by hand now utilize equipment such as Vactor equipment and mini-excavators. Changes include everything from "Traffic Control" to how we excavate. A lot of the changes made will help prolong the useful life span of a "Waterworks Mechanic" and that's good for everyone.

CRWP: What would you like the public to know about their drinking water and what your role is in delivering that water?

Donn: Be prepared for emergencies and "Don't Forget the Water". Our industry keeps the water flowing 24/7 and people tend to take it for granted. They turn on the water and the wet stuff comes out of the faucet. My job is really about what to do if the water isn't there. I promote preparedness with our customers and staff and develop plans for how we can respond to pandemics, wildfires, winter storms, earthquakes, and other natural and human caused hazards which can disrupt the water flow. Major disasters are rare in the



PNW, in 2020 we have had our share and then some. The best example is the recent wildfires that made keeping clean water flowing a challenge for some water suppliers. Being prepared can make the difference between being a victim, or a survivor.

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

Donn: Listen to the preparedness messages we provide and take action. Get your emergency kits together and make sure you stash your 14 gallons (or more) of water per person, per day for 14 days. Water is critical to survival after a disaster. Having a supply of clean water is key to your ability to recover and it will help buy your water provider the time they need to implement emergency repairs and water supply plans during an emergency.

CRWP: What's the most significant project you've been involved with in your career?

Donn: There has been a lot of them over the last 36 years, but I think the most rewarding was completing the requirements of the 2018 American Water Infrastructure Act (AWIA) to end my career at CRW. It required

(Continued on page 8)

Faces - continued

a full *Risk and Resilience Assessment* so the district better understands what our hazard vulnerabilities are. Mitigation strategies are being identified to minimize the impact of those hazards, and it includes the development of Hazard Specific Emergency response plans to guide the District when those hazards do strike. When fully implemented, the strategies and plans will make CRW more effective at our response and help us develop the ability to bounce back after a major event.

CRWP: What's the one thing at work you can't live without?

Donn: The people, both our customers and the great folks that I work with.

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

Donn: Watch my grandson play sports (pre-COVID19), snowmobile, kayak, and do Saturday afternoon walks with friends from church.

All of the CRWP members and our customers have benefited greatly from Donn's emergency preparedness knowledge, his experience, and all over dedication to the drinking water industry. Thank you, Donn for sharing your story with us.

Whoever does take your place when you retire has some very big shoes to fill.

Putting Your Irrigation System to Bed

Put Your System to Bed for the Winter

Water left in the pipes of your irrigation system can freeze over winter, causing damage to the entire system. You owe it to yourself to make an annual habit of winterizing your irrigation system when you're done watering for the year. That means removing the remaining water from the pipes so there's nothing to expand when temperatures dip down below freezing. There are three basic methods for draining leftover water from your irrigation system. Which method you should use will depend on the type of irrigation system you have in place.

Manual Valve Systems

Some irrigation systems are equipped with manual drainage that allows you to empty excess water from the system by simply opening a valve. If you have such a system, shut off the supply of water to the system, look for the manual valves at the ends and low points of the piping. Open all of the valves and drain the water from the system, including the backflow assembly.

Automatic Valve Systems

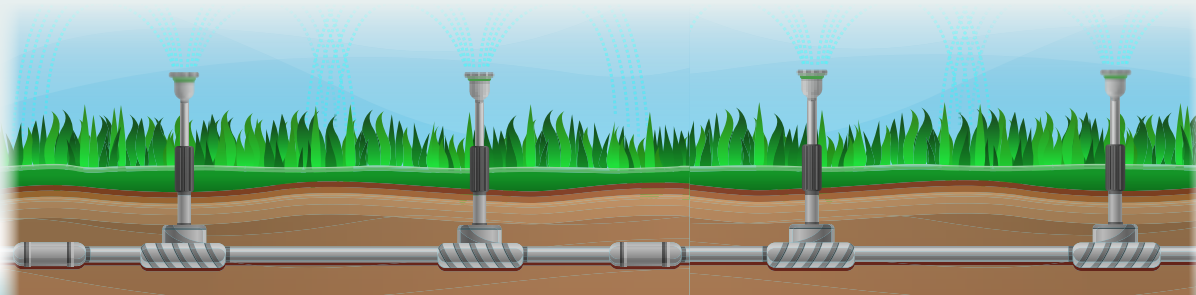
Other irrigation systems are equipped with valves that will automatically drain water out of the pipes if pressure falls below a certain number of pounds per square inch

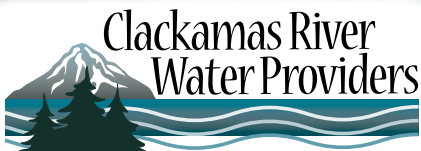
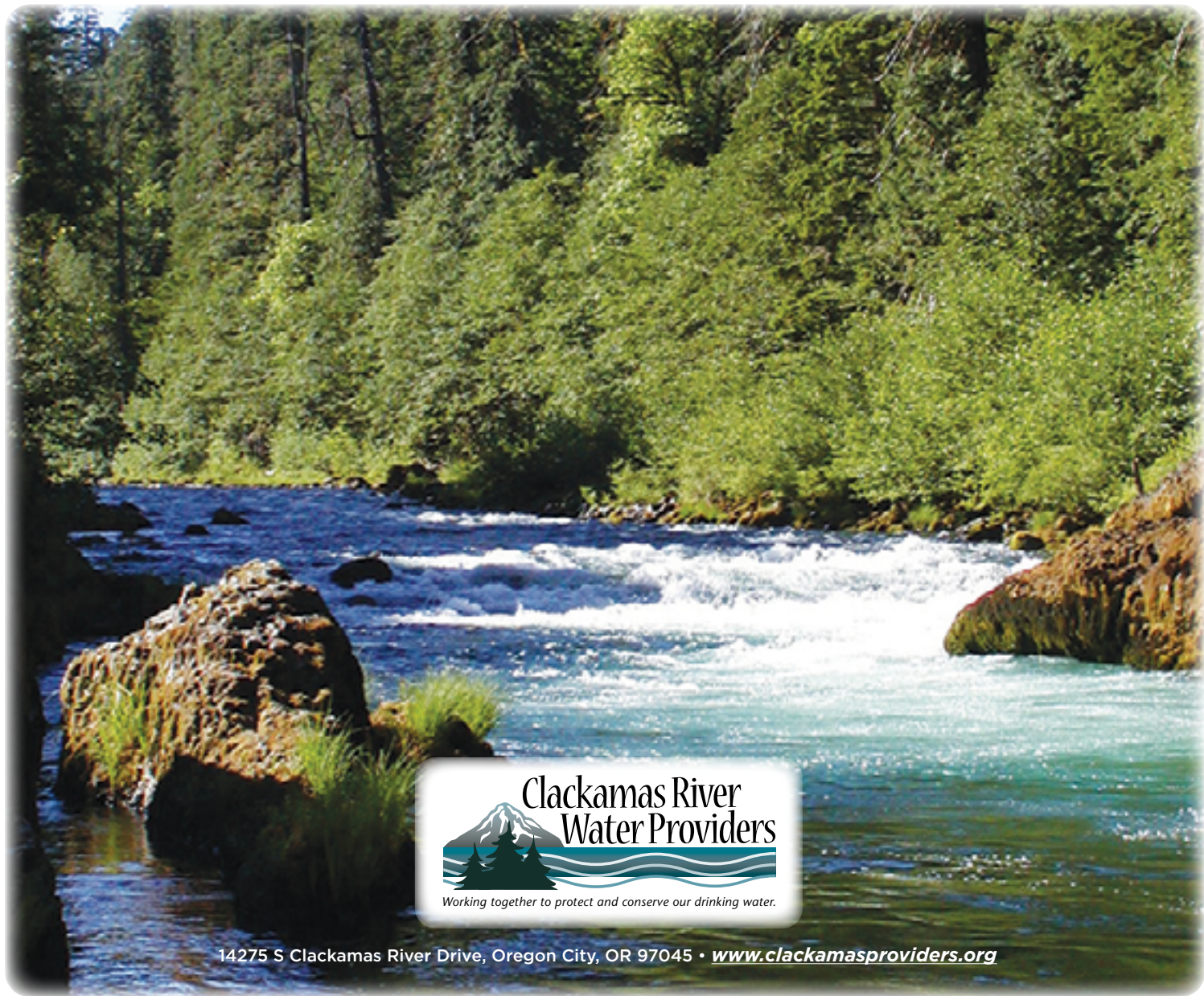
(PSI). These can be activated by turning off the water supply and briefly running one of the sprinkler heads to relieve the water pressure in the system. You may still need to drain the water between the shut off valve and the backflow assembly. If the sprinkler heads are equipped with check valves, you will need to empty those separately.

Irrigation System Blow-Out

The final method of winterizing your irrigation system is to force compressed air through the system to discharge excess water through the sprinkler heads. This method is potentially hazardous, both to the wrong types of irrigation systems and to anyone who attempts it without taking the proper safety precautions. We highly recommend you hire a licensed landscape professional for assistance.

Winterizing your irrigation system is a critical part of annual irrigation maintenance. It can save you from having to pay for the repair of costly leaks and water line breaks in the spring. Visit our website for more information about how to protect your home water systems from freezing and more outdoor water conservation information.





Working together to protect and conserve our drinking water.

14275 S Clackamas River Drive, Oregon City, OR 97045 • www.clackamasproviders.org

Our Members:



www.cwater.com



www.cityofestacada.org



www.ci.gladstone.or.us



www.ci.oswego.or.us



www.oaklodgewaterservices.org



www.sfwb.org



www.sunrisewater.com



www.tigard-or.gov

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