



## Fall 2018 News

# Practice Makes Perfect

## Protecting Our Drinking Water from Hazardous Material Spills

The CRWP has identified hazardous materials spills as being a high risk factor that could affect drinking water. The CRWP has been working with local first responders and Clackamas County Water Environment Services to better understand these risks and to develop strategies to respond if a spill does happen.

A hazardous material spill in the Clackamas Industrial Area is of particular concern because many of the businesses in the industrial area are less than a quarter of a mile away from the Clackamas River. Hundreds of storm drains and four small tributary creeks (Rock, Sieben, Carli, and Cow Creeks) drain this area and flow into the river just upstream of our drinking water intakes.

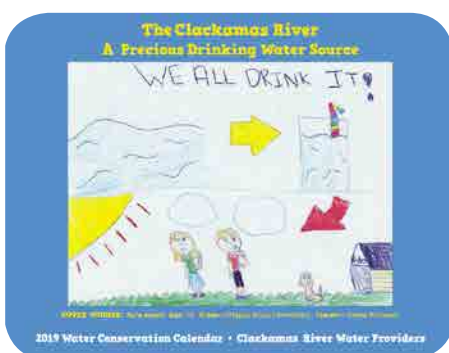
On Thursday, September 27th Riverside Park, located in the Clackamas Industrial Area was closed as we tested some of these newly developed spill response strategies on the river. The CRWP worked with NRC, a spill response contractor, Clackamas Fire District #1, Water Environment Services, DEQ and other partners to actually put boats and booms into the river to respond to a mock hazardous material spill.

*(Continued on page 2)*

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## 2019 Calendar is now available...



The CRWP Annual Water Calendar is a collaborative project with CRWP grade schools where local students participate in a coloring contest with a water education theme. Thirteen pictures are chosen from all the entries submitted and used to create the Water Calendar.

The theme for the 2019 calendar is "The Clackamas River a Precious Drinking Water Source". Students created pictures depicting what they had learned about the Clackamas River and what they can do to both conserve and protect it. Twenty classes

from twelve different elementary schools in our member service areas participated in the contest and roughly 600 pictures were submitted. The thirteen pictures chosen to be in the calendar were posted on the CRWP website so the community could vote for which picture would be on the cover.

In October each school that had at least one class participate in the contest will receive a box (125) of calendars to give out to family and friends or to use as fundraisers. Additional calendars are available to teachers, families, and the general public upon request, as well as being distributed throughout CRWP members City Halls, Libraries and offices.

To request your 2019 water calendar contact Christine at **503-723-3511** or email [christine@clackamasproviders.org](mailto:christine@clackamasproviders.org).

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## Practice Makes Perfect. (Continued)

Testing and practicing the response strategies we have developed to see how well they worked while identifying areas where we might need to make changes is critical to protecting our drinking water infrastructure. It also gave us an opportunity to build stronger relationships with our local, state, and federal first responders in protecting our drinking water source.

With funding from a State Revolving Fund Drinking Water Protection Grant the CRWP has also been developing a Hazardous Spill Prevention Program for businesses located within the Clackamas Industrial area to receive free or discounted spill prevention and response equipment, and free technical assistance. To learn more about these efforts go to <http://www.clackamasproviders.org/hazardous-material-spill-prevention/> or contact Kim Swan at [kims@clackamasproviders.org](mailto:kims@clackamasproviders.org).



## USGS and the Science of Water Written By Micelis Doyle, USGS Hydrologic Technician

As the Nation's leading earth science agency and the primary science agency of the Department of the Interior, the U.S. Geological Survey (USGS) provides science about water, energy, minerals, natural resources that we rely on, and natural hazards that threaten lives and livelihoods. Funding agreements with agencies such as the Clackamas River Water Providers (CRWP) are crucial in USGS achieving its mission of providing reliable unbiased scientific data and information to support the wise management of the Nation's water resources. The USGS works with partners like the CRWP to monitor, assess, conduct targeted research, and deliver information on a wide range of water resources and conditions including streamflow, groundwater, and water quality.

Assessing Clackamas River water quality is important for drinking water, aquatic habitat, and recreation. In cooperation with the CRWP, the U.S. Geological Survey (USGS) has maintained a network of continuous water quality monitors in the Clackamas River since 2001 at the following locations:

1. **Clackamas River at Carter Bridge** upstream of the North Fork Reservoir;
2. **Clackamas River at Estacada** immediately downstream of the River Mill Dam;
3. **Clackamas River at Oregon City** approximately 1.5 river miles upstream of the confluence of the Clackamas and Willamette Rivers.

These monitoring stations measure temperature, specific conductance, pH, dissolved oxygen, and turbidity every hour. Both the Estacada and Oregon City monitors measure chlorophyll and phycocyanin (blue-green algae), the Oregon City monitor also measures fluorescent Dissolved Organic

Matter (DOM). CRWP contributes to help fund the stream gaging station at Oregon City.

Why monitor water quality? Monitoring provides the objective evidence necessary to make sound decisions on managing water quality today and in the future. Water quality monitoring is used to detect current, ongoing, and emerging problems; to determine compliance with drinking water standards; and to protect other beneficial uses of water. Assessments based on monitoring data help water managers evaluate effectiveness of water policies, determine trends in water quality, and formulate new policies to better protect human health and the environment.

USGS monitors allow near-real-time detection of changes in the Clackamas River that may affect system operations and drinking water quality. Real-time water quality sensors can also reduce the need to collect and ship water quality samples to laboratories for analysis, thereby reducing the cost, as well as the time lag of responding to hydrologic events that affect drinking water quality. Continuous USGS water quality data in real-time provides water resource managers and emergency responders with information to immediately make decisions that are vital for protection of life, property and the environment.

Continuous water quality monitoring also provides a record of the physical changes to a stream over longer time periods. This historical perspective can be very useful for studying water quality conditions, long-term trends, and the general health of a river system.

Get to know the Clackamas River! Current and historic water quality data from the Clackamas River can be found online at: <https://or.water.usgs.gov/clackamas/monitors>.

# Imagine a Day Without Water

This October 10th 2018 was the 4th annual “Imagine a Day Without Water”, a national day of action to raise awareness about the value of water which gives us all of us the opportunity to highlight the important part public water plays in our everyday lives. The following article is adapted from the National Day Without Water website.



Could you imagine a day without water? Most of us take water for granted. We turn on the tap, and clean water flows out. We flush the toilet, and dirty water goes away.

We hardly think twice about the infrastructure that brings water to our homes, and safely returns water to our environment. The reality is, our water infrastructure is aging and failing. While most of us cannot imagine a day without water, there are many communities that have lived, and are living, without water because they don't have access to safe and reliable water systems.

## A Day Without Water = Crisis

A day without water is a public health and safety crisis. It means no water to shower or flush the toilet, and no water to drink or cook with, no water to do laundry or dishes.

A single nationwide day without water service would put \$43.5 billion in economic activity at risk and would make it impossible for doctors, firefighters, and farmers to serve our communities.

Our water infrastructure supports every facet of our daily lives, but our water infrastructure is facing incredible challenges. Demographic and climate pressures, such as increased natural disasters, drought, flooding, and wildfire, threaten our infrastructure and increase the possibility of a day without water.

## Reinvestment in Water Infrastructure = Opportunity

Closing our nation's water infrastructure gap would generate over \$220 billion in total annual economic activity, create and sustain over a million jobs, and guarantee our public health and environmental safety. National polling shows 88 percent of Americans support increasing federal investment to rebuild water infrastructure. No other issue facing our public officials has such a broad consensus.

Tap water is more than a convenience, it is central to our everyday lives. Any measure of a successful society is in some way related to the access of clean safe water. Therefore, our choice is to either adopt strategies to renew our water infrastructure, or accept the erosion over time of reliable water service.

You simply cannot put a price on a service that delivers:

- **Public Health.** 3 million people die each year from preventable water borne diseases. Our water systems allow you to drink from any tap with a high assurance of safety.
- **Quality of Life.** Tap water is more than a convenience, it is central to our everyday lives. How would we brush our teeth, shower or flush our toilets?
- **Fire Protection.** Well maintained water systems are critical in protecting our communities from the threat of fire.
- **Economy & Development.** A safe, reliable water supply is central to the economic success of our communities.

When you consider the critical needs addressed by our water systems, public drinking water will always be a tremendous value.

## Fall Quiz:

*Answers - Can be found on page 7*

### 1. What is the Nation's leading Earth/Science Agency?

- A. The American Water Works Assoc.(AWWA)
- B. The US Geological Survey (USGS)
- C. Clackamas River Water Providers (CRWP)
- D. The Internal Revenue Service (IRS)

### 2. Just one day without water would mean:

- A. No laundry or cooking
- B. Most are unable to work
- C. No shower or toilet
- D. All of the above

### 3. Overall Objectives of a CIP include:

- A. Appropriate replacement of aging distribution systems
- B. Ensuring safe and reliable water sources
- C. Compliance with regulatory mandates and testing
- D. All of the above

### 4. What is the #1 water waster in the home?

- A. The Shower
- B. The Washing Machine
- C. The Toilet
- D. The Dishwasher



# Fall Water Conservation Tips

## **Put Your Irrigation System to Bed for the Winter**

Water needs of plants drop off dramatically in the fall. Longer nights, cooler temperatures, and increased rainfall means it's time to shut off and winterize your irrigation system.

## **Take Stock of Your Indoor Water Usage Habits**

Now is a good time to look at how you use water indoors and check if you have any leaks. Use your water meter to assist in leak detection. Monitor your water meter for an hour or two when no water is being used, if the meter dial is moving, there is a leak.

## **Install Water Efficient Shower Heads**

As the air begins to cool you may enjoy taking a few extra minutes in a hot shower. Standard shower heads use more than two gallons of water a minute. Even a small amount of extra shower time every day adds up to large water waste. Consider changing your old shower head to a newer 1 - 1.5 GPM (gallons per minute) low flow shower head. You can still enjoy that shower without wasting water.

## **Install Water Efficient Faucets Aerators**

While not running water needlessly, such as letting the faucet flow when brushing your teeth, or scrubbing dishes after a large holiday celebration you can decrease your water use more

by installing high efficiency (1 - 1.5 GPM) faucet aerators in the kitchen and in the bathroom.

## **Upgrade Your Toilets**

Toilets are the number one water waster in the home, replacing your old toilet with a new EPA certified High Efficiency Toilet (HET) is an excellent way to reduce unnecessary water use. If you're unable to replace your toilets, you can use toilet tank bags, or fill cycle diverters to reduce the amount of water used per flush.

## **Check Behind the Scenes**

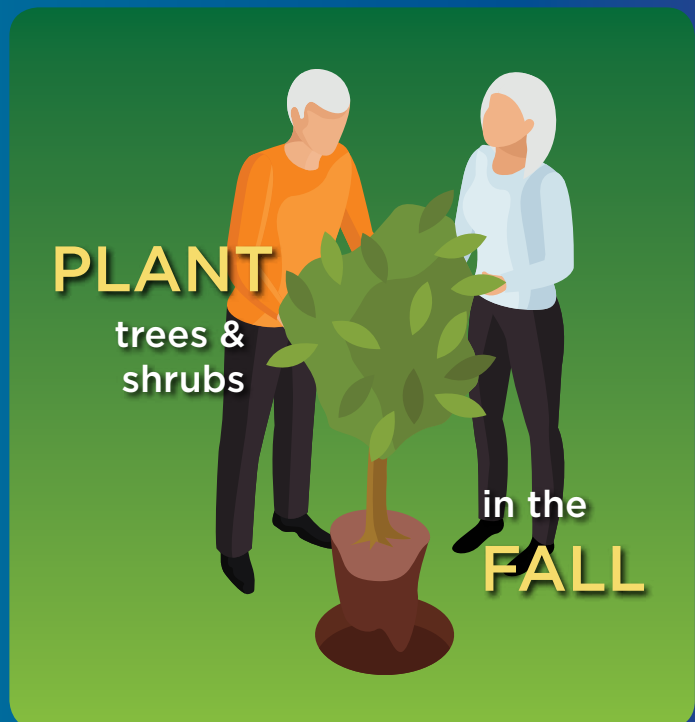
Check all faucets and, wherever possible, pipes for leaks. A single drip may seem insignificant, but that volume adds up — a single dripping faucet can waste more than 3,000 gallons of water a year.

These tips are a good place to start, but they are just that, starting places. The CRWP has a number of different tools to help you conserve water. To learn more about indoor and outdoor water saving tips, receive our indoor water audit kit, information about the Clackamas River Water Providers Rebate Program, or how to receive water saving devices such as faucet aerators, and shower heads visit our website at [www.clackamasproviders.org](http://www.clackamasproviders.org) or call us at **503-723-3511**.

## More Fall Tips:

- Aerate your lawn and add a top dressing of compost mix to feed the soil and promote root growth during the winter.
- Fall is the perfect time to plant trees and shrubs. The soil is warm, and there is plenty of natural moisture.
- Wash your car at a commercial car wash that recycles its water.
- Thaw frozen food in your refrigerator, not your sink.
- Run the dishwasher only when it is full.

[www.clackamasproviders.org](http://www.clackamasproviders.org)



# Preparing Your Garden for Winter



Putting the garden to bed for the winter is mostly a matter of cleaning up and covering up. As fall progresses and temperatures drop, those plants that aren't killed outright by frost prepare for dormancy.

## **WINTER PREPARATION TIPS:**

Clear out the blackened stems and foliage of annual flowers and vegetables to prevent the possibility of their harboring

disease pathogens and insect eggs over the winter. The cool weather is also a good time to make a cold frame, dig and box in raised beds, and make general repairs.

While it appears as if all activity in the garden has stopped, there's a lot going on under the soil until it freezes. Newly transplanted trees and shrubs, perennials, and hardy bulbs are all growing roots, drawing on soil nutrients and moisture around them. Earthworms and various microbes in the soil are still processing the organic material they're finding.

Most likely, the organic mulch you spread to protect the soil during the summer months has substantially decomposed. It's so important to spread new mulch now. A thick layer of mulch will protect plants and soil over the winter months. The idea is not so much to keep the soil warm as it is to keep the temperature even.

A little work in the garden now will give extra nutritional and water conservation benefits to your lawn and garden next spring and summer.

Visit the outdoor water conservation page on our website for more water conservation gardening tips.



# Faces of Drinking Water

by Christine Hollenbeck

Ensuring the treatment and delivery of safe clean drinking water takes many different professionals with a variety of background and skills. Recently we sat down with Todd Heidgerken, the General Manager of Clackamas River Water (CRW). Clackamas River Water owns one of the treatment plants along the Clackamas River and serves drinking water to unincorporated Clackamas County extending from the Clackamas and Multnomah Counties border to the area East and South of Oregon City.

**CRWP: How long have you worked for the Clackamas River Water?**

**Todd:** Just 2 and a half years.

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

**Todd:** I spent most of my career (about 25 years) working on the use and management of water. This experience has given me an appreciation for the importance and complexities surrounding water. Prior to working in drinking water, I had a chance to work with farmers and ranchers on water issues. Looking at ways we can work together to better coordinate on our water supplies then became a focus. I was able to explore this interest by working on a few regional water efforts such as the Bull Run Regional Drinking Water effort. This taught me how drinking water is delivered in our region. My last years at Tualatin Valley Water District (TVWD), involved getting the Willamette Water Supply Program up and running. This provided an opportunity to participate in the initial development of a new regional supply and provided me with even more experience with regional water provider partnerships.

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

**Todd:** I had an opportunity to gain some very valuable and rewarding experience

during my time at TVWD, and as a result, serving in a general manager role was one of my goals. When I became aware of the open general manager position at CRW, I felt compelled to apply for it with my history with water rights, working with regional partnerships, and knowing CRW was a member of a regional water provider group (the Clackamas River Water Providers). The chance to be a general manager and part of a regional water provider group seemed like a good fit. The Clackamas River Water Providers has a bright future and will have a positive impact on drinking water issues in this area. I wanted to be a part of that.

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

**Todd:** Water use patterns of the public have really changed. Public education around water conservation, coupled with improved water devices and technology, has caused much more efficient water use. I believe people are much more aware of how much water they are using.

Also, it has been gratifying to see the water industry have more women serving in leadership and professional roles. My good friend and a well known water professional, Brenda Lenox, is a great example of this with her demonstrated success in leadership positions in the Pacific Northwest and at the national level as president of the American Water Works Association. Brenda is just one example of how the water sector is changing for the better.

**CRWP: Do you have a favorite part of your work?**

**Todd:** Working with others that have a genuine interest in providing safe, clean drinking water to the public. In my experience, people who work in drinking water are wonderful folks who take pride in providing this critical resource that we use every day.

An Interview with  
**Todd Heidgerken, CRW, Gen. Manager**



**CRWP: Do you plan to retire from CRW?**

**Todd:** I still have a lot of time between now and retirement, I see many opportunities in the Clackamas Basin to work together to address future challenges while improving the reliability and resiliency of our water supply. I look forward to continuing to be a valuable part of that effort.

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

**Todd:** Look for a mentor and be a sponge. I was fortunate enough to have people who were willing to help guide me. Water industry folks are all happy to share what they know and to help others be successful. It is a great profession.

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

**Todd:** Providing drinking water has so many parts and pieces. I guess I would have to say operating in a manner that creates customer confidence is very important.

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

**Todd:** I believe it is important for people to be aware of our commitment to making sure our customers have quality and healthy drinking water. To accomplish this, I like to stress four areas that I believe help to create confidence with the public about their drinking water;

(Continued on page 7)



## Faces continued

**1. Know your source** – We are fortunate to have a great source of supply like the Clackamas River.

**2. Effective water treatment** (how to respond to new situations) – We have a long track record of treating the water to make sure it is safe and are always on the lookout on how we can improve given new challenges.

**3. Stable infrastructure** – Investing in maintaining our facilities is important, and I have been pleased with CRW's commitment in making these investments.

**4. Having an informed public** – it is important for people to understand where their water comes from and what we do to make it safe.

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

**Todd:** Take time to learn more about your water provider. When people have a general confidence in their water provider they don't worry. If something has gone wrong or you are concerned about something, I want people to be comfortable enough to call us.

Also, right now there is a significant focus on emergency preparedness. My job would be easier if people take time to prepare for both large and small emergencies that will affect their drinking water. That way we (your water provider) can focus on getting the infrastructure repaired and back into working order.

**CRWP: What is the most significant project you have been involved with in your career?**

**Todd:** The opportunity to work on regional projects to improve the reliability and resiliency of drinking water.

**CRWP: What are the top priorities for Clackamas River Water in the next few years?**

**Todd:** Completing our Backbone project which will help us better utilize our water treatment plant and allow us to make significant progress in creating a seismically resilient water system (a long-term effort). I also think it is important to put some of the planning pieces in place, so the District and our elected officials will have the information needed to make future decisions. The completion of the Water System Master Plan later this year is a big step in this process.

**CRWP: What is the biggest challenge facing your organization in the next couple of years?**

**Todd:** Well, like everyone we are faced with an aging workforce and not an abundance of people to take their place. It's our priority to recruit and retain qualified staff.

**CRWP: In your opinion what are your agencies greatest accomplishments?**

**Todd:** The CRW Board put in place an eight year rate plan. This year we are starting the 5th year of that plan. This rate plan has given us the funds needed for long overdue capital improvement projects and because the rate increases have been identified each year, it has given our customers the ability to plan ahead.

**CRWP: What is something people might be surprised to know about your CRW?**

**Todd:** CRW is the owner of Riverside Park. The park has a free boat ramp on the Clackamas River, a picnic shelter, and you can even catch some games at the baseball and softball fields that are maintained by the Clackamas Little League.

The staff here at the Clackamas River Water Providers would like to thank Todd for taking time out of his very busy schedule for this interview. We are excited to have Todd join our group. He has been an asset to our board and a true pleasure to work with.

## Fall Quiz:

### Answers

**Question 1** - Answer is B

**Question 2** - Answer is D

**Question 3** - Answer is D

**Question 4** - Answer is C

## How Our Water Systems Work:

# Water Management & Capital Improvement Programs



CRWP members establish long-range strategies focused on community development and sustainability through the use of Water System Master Plans (WSMP). These plans provide a vision for water system capital projects and investments that

guide operation, maintenance, and construction of the water system into the future.

They identify jurisdictional needs ten to twenty-five years into the future and are supported by planning documents and solid financial policies. Regular updates to these plans are imperative as local conditions change.

The purpose of Water System Master Plans (WSMP) are to perform an analysis of a City or Water District's water system and to:

- Document existing water system service area, facilities and operation.
- Estimate future water requirements including potential water system expansion areas.
- Identify deficiencies and recommend water facility improvements that correct deficiencies and provide for growth.
- Update the City's or District's Capital Improvement Program (CIP) .
- Evaluate the existing Operation and Maintenance (O&M) Program.
- Evaluate the existing System Development Charges (SDCs).

In addition to long-range planning water providers also utilize Capital Improvement Programs (CIP) to identify present and future water system needs requiring capital infrastructure. These programs operate for a shorter duration, often three-to-five years.

Capital Improvement Programs (CIP) are a planning and budgeting tool that provides information about a water system infrastructure needs. It identifies requirements for replacing and rehabilitating the facilities and infrastructure that support water supply and any new transmission lines that may be necessary.

Capital Improvement Programs (CIP) serve as a comprehensive road map to achieve capital replacements and preventive maintenance for the benefit of public water customers. The program identifies the work to be performed. CIP updates are integral to sound financial planning. It also prioritizes and schedules the projects for funding and implementation through a Water System Master Plan.

Overall objectives of the CIP include:

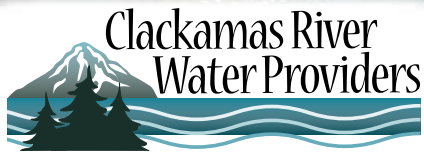
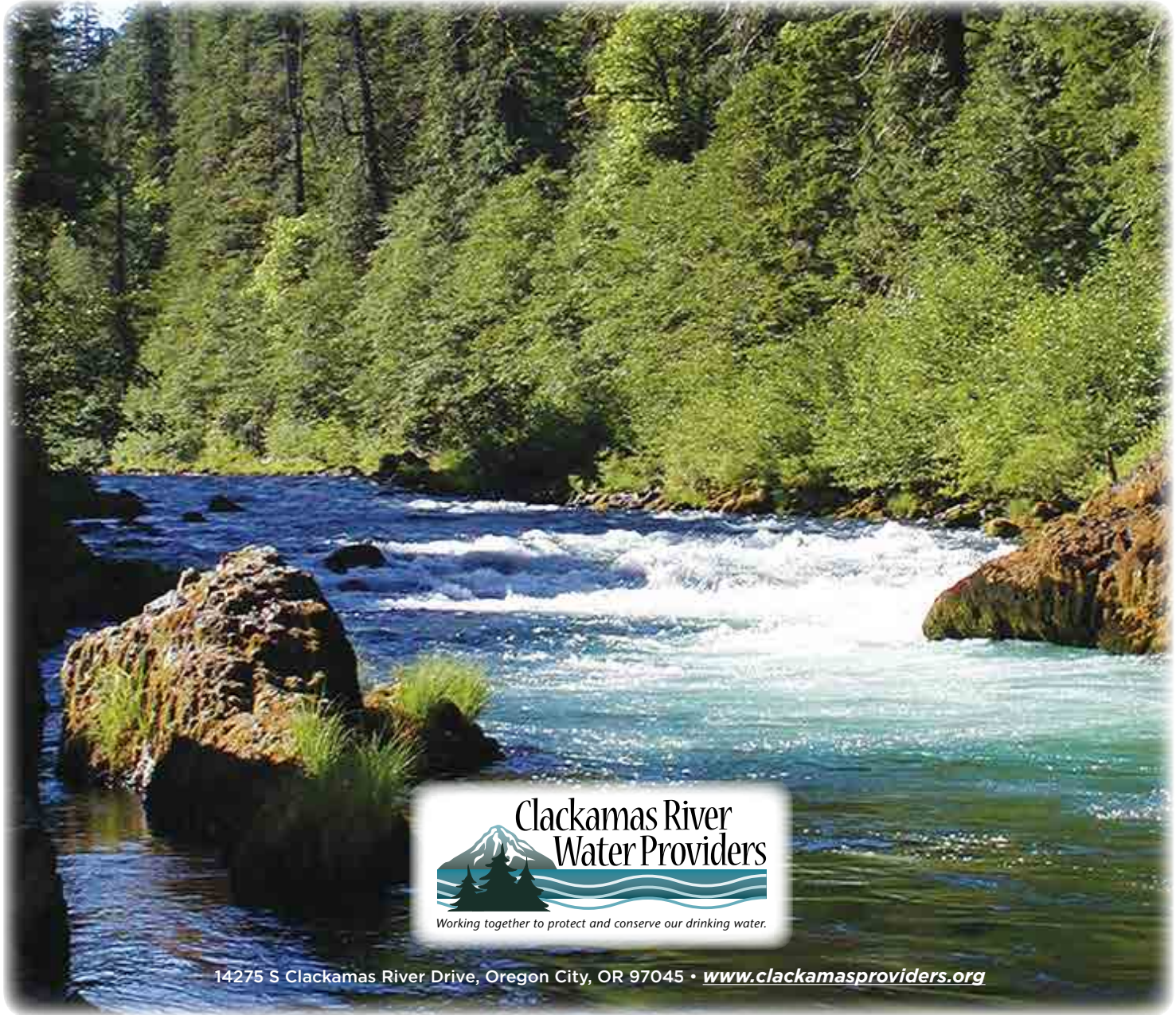
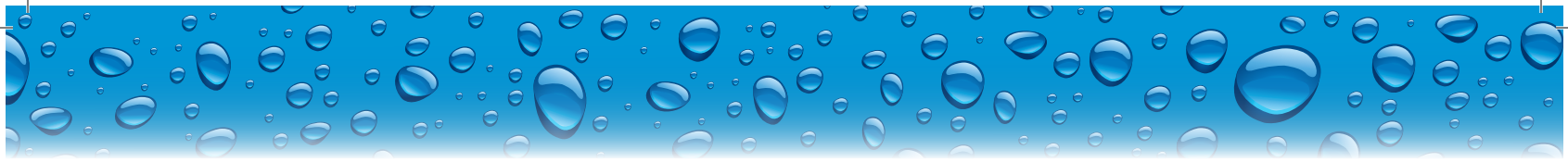
- Appropriate replacement of aging and at-capacity water facilities/condition assessment.
- Ensuring safe and reliable water facilities.
- Compliance with regulatory mandates.

These plans help us continue to provide safe, reliable, and sustainable water supplies in the most cost effective manner.



*2013-14 seismic upgrade of the Oak Lodge Water Services View Acres Water Reservoir.*





Working together to protect and conserve our drinking water.

14275 S Clackamas River Drive, Oregon City, OR 97045 • [www.clackamasproviders.org](http://www.clackamasproviders.org)

### Our Members:



[www.cewater.com](http://www.cewater.com)



[www.cityofestacada.org](http://www.cityofestacada.org)



[www.ci.gladstone.or.us](http://www.ci.gladstone.or.us)



[www.ci.oswego.or.us](http://www.ci.oswego.or.us)



[www.oaklodgewater.org](http://www.oaklodgewater.org)



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[www.sunrisewater.com](http://www.sunrisewater.com)



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