



SPRING 2022 News

Help Celebrate Drinking Water Week May 1-7, 2022, "There When You Need It"



The Clackamas River Water Provider members will be celebrating *Drinking Water Week* (May 1-7). Our [Facebook page](#) will showcase the different ways tap water is "There When You Need It" by recognizing the vital role tap water plays in daily life. Each post will highlight the infrastructure that is required to carry water to and from homes and businesses, and the critical work that water professionals accomplish around the clock to ensure the delivery of quality tap water.

For more than 40 years the American Water Works Association and its members have used *Drinking Water Week* as a unique

opportunity for both water professionals and the communities they serve to recognize the vital role water plays in our daily lives.

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Students for Clean Water Video Contest

The Clackamas River Water Providers are helping support [The Regional Coalition for Clean Rivers and Streams](#), by providing a \$500 prize to a student living and going to school within our [CRWP member service area](#) who's video wins the Students for Clean Water Video contest. The video must be focused on the Clackamas River as a drinking water source.



The goal of this contest is to teach others with your video about cultural connections to water and nature and/or positive ways to contribute to source water protection.

- Imagine your video is a way to teach others about the actions they can take to protect our drinking water source.

- Use your creativity to grab viewers' attention, keep them watching to the end and leave them with an "aha" moment.
- Consider using action, comedy and/or emotion to help get your point across.
- Select a call to action and give your video a cool movie name.
- [Check out previous entries](#) to get your creativity flowing.



[Go here](#) for more information about the *Students for Clean Water Video Contest*, and how to enter your video. **Hurry!**

The video submission and application deadline is April 24th, 2022.

BUILD YOUR OWN WATERSHED

Where does the water go when it rains?

Find out by making it rain! In this activity, build a simple model of a watershed to see how water droplets flow and how the shape of the land helps collect water. Using water-based colored markers helps show how water carries pollutants.

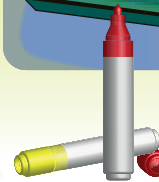


Materials:

- A sheet of white paper
- A Shallow pan
- Water-based colored markers
- Spray bottle with water

Procedure:

1. Crumple the sheet of paper and then partially smooth it out being careful to leave lots of ridges.
2. Using water-based markers, color along the creases using a blue marker. The blue ink will represent water.
3. Using the other color markers, to represent pollutants such as fertilizers (green), pesticides (red), pet/animal waste (brown), etc.
3. Lay the sheet of paper in the pan and shape it so it looks like a mountainous watershed.
4. Gently spray the paper with water and watch colors begin to flow.



You can **'Build Your Own Watershed'**, with this simple project that requires just a few materials that you may have on-hand. Build it and see how water flows and how the shape of the land collects water.

This **"Build Your Own Watershed"** project comes from the CRWP **Activity Book** that is available on our website and is a great resource for teachers in all grade levels.

[CLICK HERE](#) to view this page online, and find the complete Activity book at this address:

<https://www.clackamasproviders.org/wp-content/uploads/2020/04/Activity-Book-18.pdf>

Help Save Water & Money - FREE Landscape Water Audit

The Clackamas River Water Providers offer free landscape water audits during the watering season (May-October) to the following member service areas: City of Estacada, Clackamas River Water, Sunrise Water Authority (City of Happy Valley and Damascus), City of Gladstone, Oak Lodge Water Services, and South Fork Water Board (Oregon City and West Linn).

Water use in our communities more than doubles during the summer months due to outdoor watering. Higher than normal outdoor water use is often the sign of inefficient use of water in our yards or an irrigation system that needs repair and/or scheduling adjustments. A landscape water audit is a way to get your irrigation system and landscape on track and running right.

Saving water and saving money is what a landscape water audit is all about. Our Landscape auditor will assess your lawn and garden areas, irrigation system and more. Residential landscape water audits often include but are not limited to:

- A walk through your yard & gardens including all lawn area.
- Making note of existing soil types, plant material, naturally available water, and sun exposure.
- Locating the water meter, noting any existing leaks from the meter throughout the irrigation system.
- Locating the irrigation controller, making note of the make/model as well as the current schedule. Each zone will be ran separately recording gallons per minute used for each zone.

When the audit is complete you will receive a detailed report with all recommendations recorded such as irrigation and controller schedule adjustments for better water efficiency,

and maintenance of existing plant material giving you the tools you need to better manage your outdoor water use.

The audits are available on a first come first serve basis. The audits will be approximately 1.5 hours, please be available to do the walk through with the auditor. Our Auditor will practice social distancing requirements.

For more information about our free landscape water audit program and to how to apply, visit our website at <https://www.clackamasproviders.org/landscape-water-audits/>.

Want to be Water Smarter? Get your Weekly Watering Number

Everyone wants a beautiful Lawn and Garden – however, we also need to think about conserving water. The good news is that landscapes can be maintained with far less water than you think. Want to know exactly how much you should be watering each week? By using the Weekly Watering Number, you can do just that. This number is available each year April – September. [CLICK HERE](#) for more information and to sign up for your weekly Watering Number.



Spring Quiz:

1. Water use in our communities more than triples during the summer months due to outdoor watering.

- A. True
- B. False

2. A Watershed is a place that includes:

- A. Forest and Fields
- B. Industry and Business
- C. Houses and Creatures
- D. All of the Above

3. According to the EPA, what % of Septic Systems fail?

- A. 50%
- B. Almost 100%
- C. 10% to 25%
- D. 2%

4. What can create a manageable landscape while conserving water?

- A. Reevaluate lawn areas
- B. Manage irrigation systems
- C. Sign-up for the Weekly Watering Number
- D. All of the Above

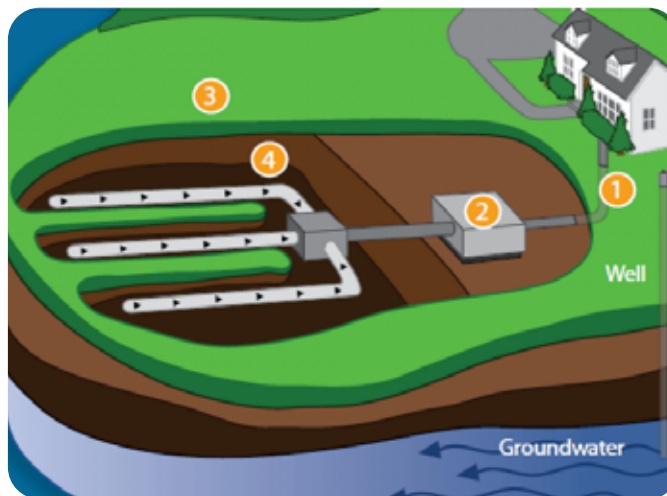
Answers - Can be found on page 7

Septic System Assistance Program

The CRWP have identified improperly maintained septic systems as being a significant source of risk to drinking water quality in the Clackamas River watershed. The primary threat to surface water from septic system malfunction is direct runoff from partially treated waste or from contaminated recharged groundwater. Onsite wastewater treatment systems (septic systems) are the most common wastewater treatment systems in rural, unsewered areas of Clackamas County

According to EPA approximately 10 to 25% of septic systems fail, often releasing untreated wastewater into the underlying groundwater and/or nearby surface water. The risk of septic system malfunction increases: 1) with age; 2) where site conditions enhance the potential for pollutant movement such as rapidly draining soils, restrictive soils with slow permeability, or inadequate setbacks to surface water; and 3) in locations where a high density of septic systems on smaller lots are concentrated.

Some of the most serious contaminants that can be discharged from malfunctioning septic systems include high concentrations of disease-causing pathogens, nitrates, organic matter, ammonia, nitrogen, phosphates, synthetic organics, toxic metals, PCBs, and pharmaceuticals.

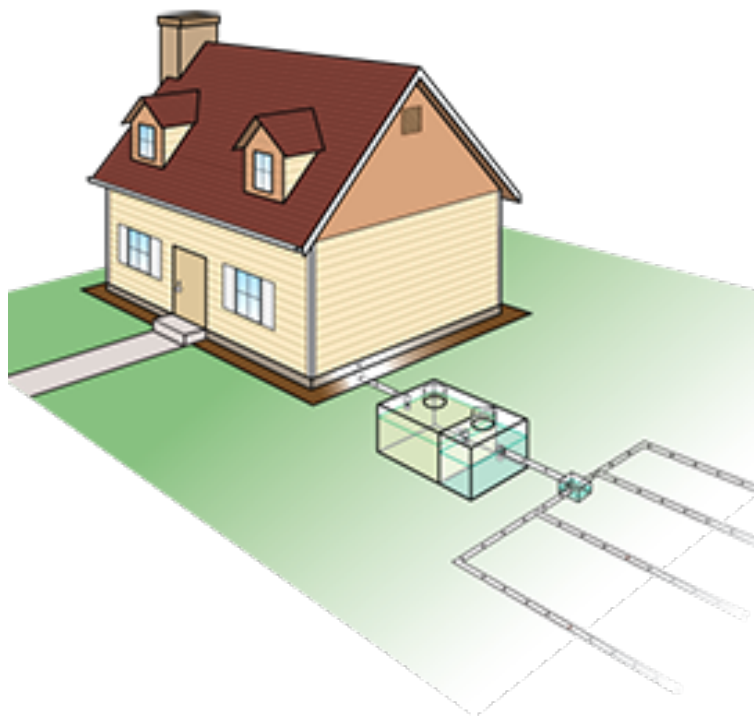


In 2012 CRWP completed a GIS Septic System Risk Analysis, and this analysis was updated in 2021 for the Clackamas River watershed. Through this analysis over 9,000 potential residential onsite septic systems were identified in the Clackamas watershed. Of these 1,800 were ranked as high risk which was determined by septic system age, high density cluster, distance to the Clackamas River and drinking water intakes, as well as vulnerable soils.

To help address this potential risk the CRWP has been working with the Clackamas Soil & Water Conservation District, Clackamas County Water Environment Services, and DEQ since 2013 to develop a Septic System Assistance Program to work with septic system owners who live in the Clackamas River watershed.

This has included annual septic system workshops, brochures and homeowner guides, and information on how to properly operate and maintain septic systems, how to look for signs of failure, codes and permits you need to be aware of, and where to get more technical information and financial assistance for your system. A properly functioning septic system can save you money and helps protect our water quality.

To learn more, go to <https://www.clackamasproviders.org/septic-system-assistance-program/>



Get the Most Out of Your Lawn While Conserving Water

We have a fascination with green grass. The major advantages of a lawn is that it supplies a comfortable and inviting surface for barefoot play and lounging on warm days, it reduces glare near hardscapes and it cools the air around our homes. A lawn also adds distinctive color, texture, and function to a landscape. On the other hand, formally maintained, highly manicured areas of turf are the most water and maintenance demanding elements of any landscape.

There is no reason why a lawn should cover every square foot of property. The average lawn uses three to four times as much water as other areas of the landscape. This is because a great deal of water is lost in turf areas due to evaporation from the grassy surface, or due to being inefficiently watered. In addition, the prevailing species of grasses used in lawns here in the Northwest require a large amount of water to stay dependably green most of the year, or have been installed on lousy soil typically right after building is complete which can affect its water requirements.

Think of your lawn as an attractive, living outdoor carpet for areas of heavy use, so it becomes a choice of function instead of the major component of your garden's design. A lawn doesn't have to be big to look good or be useful.

There are a number of things you can do to make your lawn more efficient:

First, consider alternative grass species. The most important characteristics of a lawn are grass color, texture, blade thickness, sod-forming capabilities, and water requirements.



For a water-saving lawn, narrow your choices by selecting a species whose water requirements come close to being met by the amount of rainfall you get in your area.

Second, learn to water your lawn more efficiently. Regular irrigation maintenance is critical for maintaining water efficiency. Misaligned or broken spray heads and water runoff are some of the biggest causes of water waste. Manage your watering throughout the season, generally 1 inch of water per week is plenty to keep a lawn healthy, unless temperatures exceed 85 degrees. Visit our website at www.clackamasproviders.org/weekly-watering-number/ to learn how to measure 1 inch of water at your home and to sign up for the Weekly Watering Number to make sure you are watering just the right amount.

Third, look at reducing the area of lawn in your landscape by considering other plant materials such as groundcovers, perennials, shrubs, or hard surfaces.

Fourth, evaluate your lawns needs. 1) Place the lawn where it will be the most useful. 2) Edge the lawn's perimeter so that it is easy to mow. 3) Avoid planting trees or shrubs inside turf area. 4) Keep the turf physical layout in easy to irrigate shapes (circles or rounded edges). 5) Don't put grass on steep slopes, not only is it hard to water efficiently but it is even harder to mow.

Here are a few examples of what to look for when evaluating your lawn needs. Where foot traffic is heavy in place of lawn you might consider a path of stone, brick, wood, mulch, or some other nonliving material. Narrow strips such as those commonly found along sidewalks and driveways are difficult to mow and water efficiently. A rule of thumb is that any area less than 16 feet wide is inefficient for lawn. Plant such areas with water-wise, lower maintenance plants, and/or replace the lawn in these areas with nonliving materials as mentioned above. Overly shady or fiercely hot and dry spots are also prime candidates for lawn alternatives more suited to such conditions. Convert these problem areas to attractive plantings of tough groundcovers, shrubs, and/or perennials.

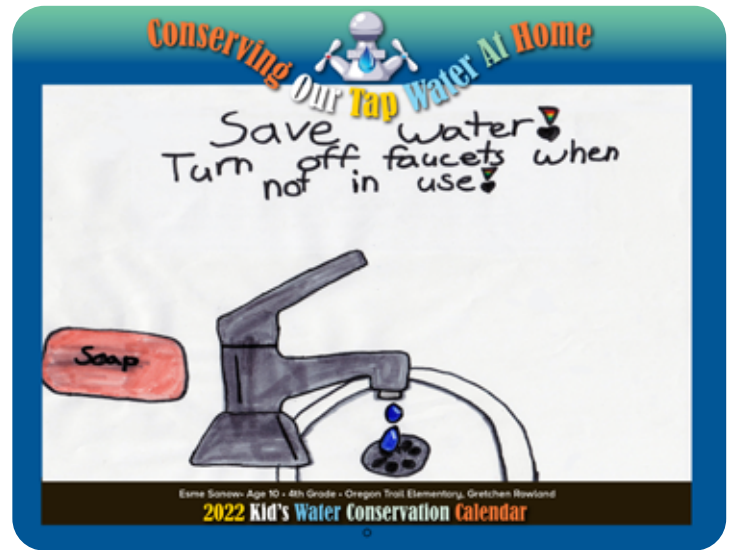
Taking a little time to reevaluate your lawn areas, maintaining your irrigation system, and signing up for the Weekly Watering Number can create a more manageable landscape while conserving our drinking water and keeping more water in the Clackamas River.

2022 Annual Water Conservation Calendar Voting

Each year the Clackamas River Water Providers holds a coloring contest with elementary schools in our service areas to create our annual water conservation calendar. The 2023 Calendar theme is “Our Healthy Watershed”. We typically receive around 600 pictures and from these pictures 13 pictures are chosen for the calendar.

To determine which picture is on the front of the 2023 calendar we ask our students, their families, and our communities to help decide by casting their vote for their favorite picture.

You can cast your vote for your favorite picture by going to our website starting May 2nd, 2022. There will be a link on the Home page connecting you to the voting poll. Be sure to vote! www.clackamasproviders.org



Decreasing Outdoor Water Use through Oregon Bill

Salem, OREGON—To help alleviate water shortages during drought, Oregon's state legislature is drafting a bill to change lawn and landscape sprinkler system requirements and adopt efficiency standards for landscaping. The bill would require all sprinklers made and installed in Oregon after January 1, 2023, to meet the EPA *WaterSense* program's specification

requirements. Advocates for the bill say that using pressure-regulating sprinkler heads throughout the state could decrease water use by almost six million gallons by 2030. For more information, go to: www.kdrv.com/news/local/oregon-bill-through-legislature-with-less-water-pressure/article_646ed2b8-936b-11ec-b402-eb71ed6d8ea6.html

Spring Quiz:

Answers

Question 1 - Answer is B

Question 2 - Answer is D

Question 3 - Answer is C

Question 4 - Answer is D

Faces of Drinking Water

by Christine Hollenbeck

For our Spring 2022 interview article I thought you all might like to know a little bit more about our own CRWP Water Resource Manager, Kim Swan.

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

Kim: I am the Water Resource Manager for the Clackamas River Water Providers and have been in this position since the CRWP was created in 2007. As Water Resource Manager I am responsible for the day-to-day operations of the organizations as well as overseeing the development and implementation of the Source Water Protection program and the Public Outreach and Education program.

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

Kim: After finishing Graduate School with a degree in Environmental Studies with an emphasis in Water Resource just by chance I got a job with the City of Gresham to develop a Water Conservation Program for the City, and I have been working in the drinking water industry ever since. Along the way I worked for the City of Tigard, and South Fork Water Board before being appointed to this position with the Clackamas River Water Providers.

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

Kim: I think the thing I love the most about my job is the intersection of the work I get to do between public water systems that provide drinking water and working within the watershed. Not only do I get to work with nine different cities and water districts, but I also get to be an advocate for drinking water and work with all our basin stakeholders. This includes working with the US Forest Service, Portland General Electric, Clackamas County, the Soil and Water Conservation District and our local watershed council to name just a few.

CRWP: Do you plan on retiring with the CRWP?

Kim: I still have a way to go before retirement, but I would like to say that I will stay with the CRWP. We have built some amazing relationships in the basin, and it would be really hard to leave those.

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

Kim: The CRWP will be 15 years old this summer. In 2007 we created a brand-new organization from scratch. In 2018 we were awarded the Exemplary Source Water Protection Award by the American Water Works Association for our work in Source Water Protection. It is not that we haven't had challenges along the way, but we are now seen as a leader in this field, and I think both our members and the stakeholders we work with see the benefit of this.

CRWP: What advice would you give to someone starting out in the field (What do you wish you knew your first week working in drinking water)?

Kim: There are so many different kinds of water jobs from working in water treatment, distribution, water quality, water conservation, watershed management to name a few.

If you are just starting out, be curious, ask lots of questions, and look for opportunities to learn more. Get involved with organizations such as the American Water Works Association or the American Water Resources Association and their local chapters. They both have a lot of great resources to offer and ways to be more involved in the water industry.

CRWP: How has the industry changed since you started?

Kim: Technology. Although the water industry has maybe been slower

Kimberly Swan Water Resource Manager Clackamas River Water Providers



to embrace technology than other sectors, the use of automatic meter reading (AMR), geographic information system mapping (GIS), and Supervisory Control and Data Acquisition (SCADA) systems for example have changed how water system work better and more efficiently. Even zoom has let us continue to get our work done during the pandemic.

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

Kim: The relationship building. Not only between CRWP members but also with our basin stakeholders. This doesn't happen overnight and needs to be maintained overtime, but without these relationships we would not be able to accomplish the work we do at the CRWP.

CRWP: What's something people might be surprised to know about your agency?

Kim: There are just two of us at the CRWP, me and Christine Hollenbeck, who manages our Public Outreach and Education program. If something needs to get done one of us is doing it, from taking meeting minutes, going to the post office or office store, to implementing programs and working with our partners. We have worked together for a long time, but sometimes I am still amazed at how much just the two of us can accomplish.

(Continued on page 9)

How Our Water Systems Work

Water Master Plans & Capital Improvement Programs

To continue providing clean safe drinking water CRWP members establish long-range strategies focused on community development and sustainability through the use of Water Master Plans (WMP). These provide a vision for capital project plans and investments. They are supported by planning documents and solid financial policies. WMPs identify jurisdictional needs ten to twenty-five years into the future. Regular updates to these plans are imperative as local conditions change.

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

Capital Improvement Programs are a planning and budgeting tool that provides information about a water system's 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 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 of the water system. It also prioritizes and schedules the projects for funding and implementation through a multi-year plan normally 20 years.

CIP Objectives include:

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

Contact your local [water provider](#) for more information about their Water Master Plan and the Capital Improvement Programs.



Faces continued

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

Kim: I think the impacts of climate change are going to be a big challenge. We have already started trying to figure out what this will mean for our watershed and our drinking water source, but I think there is a lot more we need to be doing.

Also, a lot of people are retiring which is both a challenge and an opportunity. We are losing an amazing knowledge base and expertise when these people leave, on the flip side new people have new ideas and views of how to get things done, it's exciting.

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


Kim: Most people don't think twice about the water that comes out of their faucets. But for that to happen there

are all sort of dedicated people like me, protecting our drinking water source, to those who are treating it, making it into drinking water, to those who are continuously testing the water quality, to the customer service representative who can help you with your water bill. It is because of all these people that you have safe, clean, high quality drinking water 24/365 days a year.

CRWP: What do you do for fun outside of work?

Kim: My husband and I do a lot of camping, fishing, biking and hiking when we have the chance to get out of town. We also like to travel overseas but that has been hard to do the last few years because of COVID.

Thank you, Kim, for this interview. I can't believe it's been 15 years that Kim and I have worked together for the CRWP Under Kim's management we have accomplished many wonderful things. Kim is amazing in her position as our Water Resource Manager, and a great asset to the CRWP. I look forward to our future and feel we are in good hands with her leading the way.

**Clackamas River
Water Providers**

Working together to protect and conserve our drinking water.

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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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