



Spring 2017 News

Help Save Water and Money:

FREE Landscape Water Audit

New this summer season the Clackamas River Water Providers are offering free landscape water audits.

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 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 and garden 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 such as controller schedule adjustments for better water efficiency, irrigation head adjustments/replacements if necessary, maintenance of existing plant material for more efficient watering, i.e. pruning up, soil amendments to reduce weeds, promote soil moisture, and reduce use of fertilizers giving you the tools you need to better manage your outdoor water use.

The Clackamas River Water Providers will provide free landscape water audits during the spring and summer months only (during the watering season). 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. Audits will continue through the summer season or until program funds are depleted.

To schedule your free landscape water audit contact Christine at christine@clackamasproviders.org or call **503 723 3511**. For more information about our free landscape water audits, conserving water during the summer months, and other Clackamas River Water Provider programs visit our website at www.clackamasproviders.org.

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Sprinkler System: Annual Springtime Tune-Up

Spring is a good time to check your sprinkler system to ensure peak summer performance; it's one of the most important things you can do every year to keep your system operating efficiently.

Because automatic sprinkler systems often come on in the early morning leaks and other problems can go unnoticed for long periods of time ultimately wasting water and damaging landscapes plants. By taking the time to check, repair, and adjust the sprinkler system at the beginning of the watering season – and making periodic checks throughout the summer - you can be sure your lawn and gardens are being watered properly, without wasting water.

Spring Checklist:

1. Close all manual drains – the sprinkler system was probably drained last fall to prevent freezing. Make sure none of the manual drain valves have been left open.

2. Slowly open the main valve and allow the piping from the main valve to the backflow prevention assembly to fill with water.

3. Pressurize the mainline from the backflow prevention assembly to the control valves. Have one of the control valves open while you do this so the trapped air in the piping can escape through the sprinkler heads as the pipes fill with water.

4. Most important! Run the entire sprinkler system, one zone at a time. *As you do this, check the following:*

- Signs of leakage, caused by damage to the heads or piping during the winter months. Repair as needed.

- Spray Pattern of the sprinklers can be inefficient. Check for leaning spray heads, nozzles may need adjustments to reduce overspray onto walks, driveways, etc.

- Interference of the spray pattern can occur when plants have been moved, play equipment has been installed, or if plants have just grown too tall. Adjusting the sprinklers to accommodate the changing landscape will eliminate dry spots

and puddling caused by blocked spray.

- Overgrown grass can impede spray heads – make sure to keep yours trimmed. Also, check for clogged spray heads.

5. Have the backflow prevention assembly tested by a state certified tester. Many local water providers can supply a list of testers. Contact your water provider for more information and local the requirements.

By following this simple check list, you can have a healthy lawn and garden all summer long all while conserving water! If you don't feel comfortable performing your annual Spring Time Tune Up contact a local certified landscape and irrigation professional for assistance. For more information about indoor and outdoor conservation tips and rebate information visit our website at www.clackamasproviders.org.

Understanding Water Quality *in the Clackamas River Watershed*

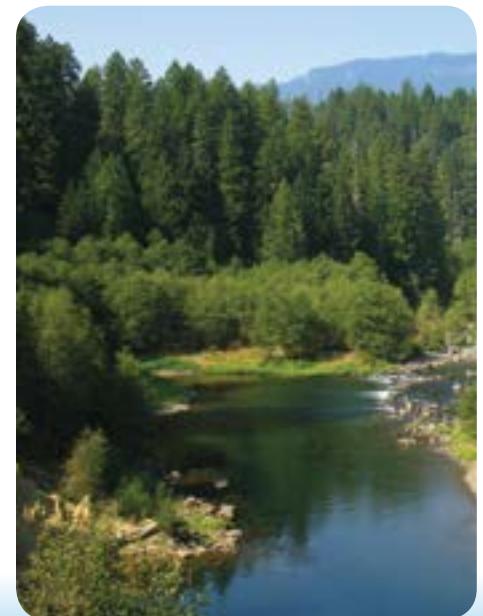
Tracking and monitoring water quality in the Clackamas River watershed allows us to see changes over time that helps tell us if our watershed health is improving or declining. To do this the CRWP has a Joint Funding Agreement with USGS for the operation and maintenance of three water quality monitoring stations on the Clackamas River.

These stations are located at Carter Bridge, Estacada below River Mill dam, and Oregon City. These stations are strategically placed in the basin to provide a holistic view of water quality as water flows through the watershed. Although each station provides important information on their own, when used in combination the WQ monitors can pinpoint where turbidity sources originate (upper basin, middle basin, lower basin),

help pinpoint changes in water quality based on land use in different part of the basin, and can help identify where to start looking if a spill occurs.

These monitoring stations continuously log pH, specific conductivity, dissolved oxygen, temperature, and turbidity. The Oregon City gauge also records chlorophyll and streamflow. In addition to the monitoring contract, the CRWP pays for replacement probes, solutions and cables, as well as the utility fees for the real time data signals associated with the USGS monitoring sites.

The water quality data can be accessed via the web at <http://or.water.usgs.gov/clackamas/monitors/>.



Getting 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 it. 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 effect 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.

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.

Second learn to water your lawn more efficiently.

Generally, 1 inch of water per week is plenty to keep a lawn healthy, unless temperatures exceed 85 degrees, then 1 ½ inches of water is needed per week. Misaligned or broken spray heads and runoff are some of the biggest causes of water waste.

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 irrigate efficiently but it is even harder to mow. 6) Consider placing thirsty plants near turf so they can get more water.

Here are a few examples of what to look for. 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 or 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.

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, perennials or any combination of these.

Spring Quiz:

Answers - Can be found on page 4.

1. Under normal conditions how much water per week will keep your lawn healthy and green?

- A. 1 inch
- B. 1.5 inches
- C. 3/4 of an inch
- D. 2 inches

2. With whom does the CRWP have a partnership in the operation and maintenance of 3 water quality monitors on the Clackamas River?

- A. PGE
- B. DEQ
- C. USGS
- D. CRBC

3. According to the "Consider a landscape Water Audit" article at what time of year should an audit be performed?

- A. Winter/Spring
- B. Spring/Summer
- C. Summer/Fall
- D. Fall/Winter

4. When is a good time to check your sprinkler system to ensure peak summer performance?

- A. Fall
- B. Winter
- C. Spring
- D. Summer

Spring is the best time to start thinking about:

Retaining Water with Soil Amendments

There are many ways of protecting plants while saving water. The most important is creating and maintaining healthy soil. Healthy soil and soil improvements are a very important part of water-wise landscaping. Soil is not only an anchor for plant roots, but it also serves as a reservoir for water and nutrients.

Soils in the Pacific Northwest are primarily clay or sandy loam. Clay absorbs water so slowly that the water will run off the surface if applied too quickly. Sandy soils have such large air spaces that they do not hold water or nutrients well, the addition of soil amendments help improve absorption and water-holding capabilities.

You can improve soil structure, fertility and water holding capacity of almost any soil with the application of organic amendments. Practice constant mulching to create and maintain a humus-rich and healthy soil.

In clay soil organic amendments wedge between tightly packed soil particles opening up the soil so water, air and roots can penetrate more easily. Runoff and puddling – two common problems in clay soil – are reduced when organic matter is added.

In sandy soils, organic matter lodges in the relatively large spaces between soil particles slowing the percolation of water through the soil so that moisture and dissolved nutrients are retained longer.

Eventually, organic soil amendments will be completely reduced by soil micro-organisms, and additional organic matter will need to be added. With frequent applications of organic soil amendments your soil will retain moisture and become healthy for a beautiful garden all year round.

Save Water Outdoors

Although it seems like we have an abundance of water in the area this year, it is still important to protect our supply as no one really knows what is in store for the future. Here are some Outdoor Saving tips to help conserve the Clackamas River, our precious resource:

1. Adjust sprinklers to water only your lawn, not the pavement.
2. Use a shut-off spray nozzle on your hose.
3. When washing your car, wet it quickly, wash it with soapy water from a bucket, then rinse.
4. Instead of using a hose to clean debris off your driveway or sidewalk, use a broom.
5. If you have a pool, use a pool cover to reduce evaporation.



Spring Quiz:

Answers

Question 1 - Answer is A
Question 2 - Answer is C

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

Faces of Drinking Water

An Interview with
Jim Whynot, Public Works Director

Ensuring the delivery of safe clean drinking water takes many different professionals with a variety of background and skills. Recently we sat down with Jim Whynot (Jimmy) the Public Works Director for the City of Gladstone since December of 2015. Though Jim is a Public Works Director now, he started out and spent many years working in public drinking water.

How long did you work in the drinking water industry prior to your current position with Gladstone? My first job in public drinking water was in 1990. I was a field worker for the old Clairmont Water District which is now Clackamas River Water South. During my time with Clairmont I earned my Distribution 1 certification and after 3 years I took a position with the City of Gresham in the water department. While at Gresham I continued my schooling and earned my Distribution certification 2 and then my level 3. In 1998 West Linn was looking for a supervisor in the water department and I am always looking for ways to better myself and move forward so I applied and was given the position. I worked for the city of West Linn until recently in 2015 when I applied for a received the Public Works Director position here in Gladstone.

Do you have anything that you would say is your favorite or least favorite part of your job? I really enjoy the challenges that come with working in public drinking water and public service. Sometimes it feels like unnecessary amounts of time is spent in the politics and being involved in personnel issues, but that is just the same thing that I enjoy. Because we are human we all need time to come to our own decisions. I see these challenges as great opportunities to better understand people and the issues with which we all are involved.

Do you plan on retiring from the City of Gladstone? Sure (he says with a smile), but like I said, I'm always looking for a challenge.

What accomplishment/s are you most proud of in your career? I am really proud of being a part of the positive turn around that accrued at the City of West Linn and projects like the city's main replacement

program, Water Master Plans, and the new 10 million gallon water reservoir are projects I am real proud to have been a part of. I like having the chance to help bring about positive change in a culture, see positive effects and receive positive feedback from the people I work for and work with.

What advice would you give to someone starting out in this field? Start at the bottom and work your way up to the top it really gives you a much better perspective of your own position and a healthy respect for the positions of the people who you work with. Also, always try to get along with people. Being happy and enjoying the folks you work with is so much easier than being disappointed and miserable all of the time.

How has the industry changed since you started? Everything is so much more technical, there are more rules and regulations. Today we are doing so much more with much less. I am always saying, "Keep it real". I question everything and often ask, "Does that make since?" Just because we have always done something one way doesn't mean that way is still working today.

What do you feel is most important about your job? Being a leader, I try to lead by example and be consistent. This way everyone knows what to expect when they are working with me.

What would you like the public to know about their drinking water? People do not realize all that it takes to deliver their drinking water to them, the cost of the treatment facilities, the reservoirs, the distribution systems, the constant water quality sampling, and of course ongoing maintenance. Our water systems are designed and developed to meet peak day demand plus fire flow and it is all very expensive.

What can the public do to help make your job easier? Support us, ask questions, and learn about their water systems, where the water comes from and how the system works. I think if people better understood the process of making and delivering safe drinking water they would understand why the cost is going up and be OK with it.



What's the one thing you can't live without at work? I'm a pretty easy going guy, I don't require a lot to be happy. I guess if I had to pick something it would be to feel like I'm doing some good. It's nice to have harmony in the work place.

What would you say H2O is to you? The obvious answer is LIFE. I think our public water is under appreciated. I've worked in a lot of different fields in public works and I enjoy the folks who work in drinking water the most. Their profession is very different than the others in public works. Their work is very physical and often done in less than optimal situations, yet they are fun and very happy people.

What do you do for fun when you're not working? I enjoy hunting, camping, off roading and traveling with my wife.

What are the top priorities for the City of Gladstone in the next few years? Getting our house in order, we are working hard to get the City into the present and preparing the City for the future. We are working to meet all industry standards and set Gladstone up for a sustainable future.

What is the biggest challenge facing your organization in the next couple of years? Lack of funding and a lot of expectations to be met, we are working to bring the community together to help set priorities and make funding decisions.

In your opinion what is your agencies greatest accomplishments in the time you have been here? The residence of the city of Gladstone recognized a need for change and the city staff is following through to answer their need.

(Continued on page 8.)

Clean Water Action

10 Ways You Can Protect Our

Water! Each of us has an impact on our local water supplies, both in terms of water quality and the amount of water we use in times of drought. Here are 10 things you can do to help protect our water quality and 10 tips to conserve water. By taking these actions, you can help ensure that we have enough water to meet the needs of future generations.

1. Don't use antibacterial soaps or cleaning products. Most of these contain trichlosan, a registered pesticide that has been found to harm aquatic life. The American Medical Association warns that our use of antibacterial agents may lead to "superbugs" that will be antibiotic resistant. Regular soap and water kills germs just as effectively.

2. Never flush unwanted or out-of-date medicines down the toilet or the drain. Visit the CRWP website at www.clackamasproviders.org/drug-take-back-boxes for a drop-off location near you.

3. Don't put anything except water down storm drains. These drains carry storm/rain water to our local waterways which drain into the Clackamas River. Used motor oil, detergents, lawn fertilizers, pesticides, and other contaminants get carried by stormwater to local waterways and cause unnecessary harm.



4. Fix leaks that drip from your car and put a liner down in your driveway to collect oil and other materials. These leaks and drips contribute to stormwater pollution.

5. Avoid using pesticides or chemical fertilizers. They pose a serious threat to your health and safety and they pollute both ground and surface water.

6. Choose non-toxic household products whenever possible. The best way to keep from polluting is to use products that are not dangerous to the environment in the first place.

7. Pick up after your pets. Like other contaminants, pet waste can be carried by stormwater to the storm drains, spreading bacteria.

8. Don't pave your property. The more pavement or impervious area there is the more rain water will simply run off down the storm drains, picking up pollutants on the way and causing flooding. Allowing water to soak into the ground can prevent flooding, recharge groundwater supplies, and dilute contaminants. Planting native plants that do not require much water also helps save our precious supplies.

9. Spread the word and be a water advocate. Talk to your neighbors about how they can help too, and work with your local elected officials to ensure that pesticides, antibacterials, and other toxic chemicals are not used at schools, local parks, and other public areas. Attend your local water provider meeting and tell your political leaders and water providers to support local, state, and national policies that conserve water and stop pollution.

10. Keep informed. Make sure you receive your annual drinking water quality report from your water provider, also known as a Consumer Confidence Report (CCR). The annual CCR is available electronically from your water provider by the first of July each year. If you do not have access to a computer, contact your water provider for a printed copy.

For more information about your annual CCR and more ways to protect our precious drinking water source visit our website at www.clackamasproviders.org.

Water Reservoir Tanks and Towers

In Clackamas County water reservoirs are a familiar sight, often constructed on hills or supported in steel tanks on towers. These reservoirs provide storage for treated water before it is distributed to homes and businesses throughout CRWP communities.

Typically the volume of water stored in these towers or reservoirs is equal to the community's average water demand for a single day. When water demand exceeds the average daily demand, water flows from the reservoirs into the distribution system. When water demand is low pumps refill the reservoirs.

Water reservoirs and tanks are elevated or found at high points in a water distribution system to provide adequate water system pressures. They rely on hydrostatic pressure produced by elevation (due to gravity) to push the water into the water distribution system. Each foot of height provides 0.43 PSI (pounds per square Inch) of pressure.

Water stored in reservoirs also gives us the ability to provide water to our customers during emergencies such as fires, power blackouts, and pump station failures.

Visit our website at www.clackamasproviders.org to learn more about "How Water Systems Work".



Rosemont Tower in West Linn

National Drinking Water Week

It is hard to imagine a day without using water. You only have to go without it for a short period to be reminded of its importance. Without water our lives are not only inconveniently interrupted but our public health is also threatened. The future of water requires us to think smart, use water wisely, and recognize the limits of this valuable resource.

We are all beneficiaries of this magnificent network of treatment plants, pump stations, pipes and water reservoirs that were handed down to us by generations before. Year-to-year deferral of utility infrastructure renewal is the major financial challenge facing our water utilities.

Much of today's public water systems were built more than 50 years ago and little has been done to rebuild or replace these pipes, pumps, and reservoirs that ensure water safely reaches your tap. We now face a large problem of figuring out how to pay to fix these systems before they fail. Therefore, our choice is to either adopt strategies to renew our water infrastructure, or accept the erosion of over time of reliable water service.

National Drinking Water Week celebrates everything water does for us. 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?

Drinking Water Week May 7-13, 2017

YOUR WATER

to know it is to love it

- **Fire Protection**

Well maintained water systems are critical in protecting our communities from the threat of fire. Water flowing to fire hydrants and home faucets comes from the same system.

- **Economy Development**

A safe, reliable water supply is central to the economic success of our communities.

In Clackamas County water remains relatively inexpensive, delivered to you at under a penny per gallon. The future of water requires us to think smart, use water wisely, move towards rate structures and financing plans that reflect the full cost of public water service, and recognize the limits of this valuable resource.

When you consider the critical needs addressed by our water systems, public drinking water will always be a tremendous value. You simply cannot put a price on a service that delivers public health, quality of life, fire protection, and economic development. For more information about Clackamas River Water Providers contact us at **(503) 723-3511**.

PSU and CRWP Water Customer Survey

During the spring of 2016 the Clackamas River Water Providers worked with Daniel Larson, a Geography PhD student, and professors Dr. Max Nielsen-Pincus and Dr. Heejun Chang at Portland State University to conduct a survey of 1,092 CRWP member water customers. The purpose of the survey was to understand the attitudes of Clackamas River drinking water customers and their willingness to support ongoing stewardship of their drinking water watershed. The survey was mailed out and posted online and by June of 2016 PSU had received a total of 465 responses.

Questions in the survey focused on respondents knowledge of the watershed, it's importance to them, their support and sense of urgency for enacting source water protection programs, and views on water conservation and climate change. The survey revealed very interesting results and provided a unique snapshot of the feelings and attitudes of customers towards drinking water source protection. The main takeaways from this survey were:

- Not all customer knew their water source
- Customers felt the watershed is important and a need to support programs to protect it
- Respondents tended to believe that climate change will threaten their water supply and quality of life
- The Clackamas County Soil and Water Conservation District (SWCD) and CRWP are two of the more trusted organizations to protect the watershed.
- Respondents indicated that they were willing to pay to support drinking water source protection programs

PSU researchers would like to thank CRWP and its partners for their support and the opportunity to conduct this research. They would also like to thank all of the water customers who took the time to take the survey and provide such valuable feedback.

A copy of the Final Report with all of the survey results will be posted on the CRWP website soon or you can email kims@clackamasproviders.org to receive a copy of the report.

Faces (Continued from page 5)

Many utilities are struggling with the need to increase rates for their services, how are you approaching this?

We are going to phase in appropriate rates over time at a pace the community can support. It's much less of a shock that way, and we involve our residents in that decision making process.

If you could change one thing about state or federal regulatory programs, what would that be? KEEP IT REAL! Anymore things seem to be over regulated which makes programs and projects too complicated and way too expensive. I understand there is a process, but it sure would be more affordable and doable if we could find a happy medium.

What is something people might be surprised to know about your city? That we are even here, Gladstone is such a small community and everything built around us has been built to go past us. We are a very tight community of good people. *It's like Mayberry in the middle of the big city.*

What is on your to-do list? Continuing the process of moving us forward, I'm so glad to have the opportunity to help the City of Gladstone turn the corner.

While we were visiting with Jimmy he mentioned the City of Gladstone has not had a Public Works Director in over 30 years and he is proud to be the first in a long time. He feels like the city and city staff are all accomplishing good and positive changes, and he looks forward to seeing what the future holds. The CRWP would like to thank Jimmy for taking some time out of his very busy schedule for this interview. Thank you, Jimmy!



Our Members:



www.crwater.com



www.cityofestacada.org



www.ci.gladstone.or.us



www.ci.oswego.or.us



www.oaklodgewater.org



www.sfwb.org



www.sunrisewater.com



www.tigard-or.gov

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