



CRWP Spring/Summer 2014

## Great Reasons to Start Saving Water!

### Help keep the environment clean by saving water and energy at home.

Using less water means using less electricity, natural gas or oil required to heat the water and release less pollutants into the air from burning fossil fuels. Less water means less sewage and saving more on the sewage bill, or savings on septic tank maintenance and prolonging the life of the drain field.

By using less water development of new water sources to meet community demands may be reduced or eliminated. High-quality surface and groundwater sources are becoming harder to find at reasonable cost.

- Upgrades to public water facilities i.e., treatment, storage, and distribution systems may be delayed.

- Public water operations that depend on demand (pumping and chemical costs, for example) may be reduced.

- Using less water could hold down utility rate increases by allowing your water utility to maximize productivity of its existing treatment facilities and equipment.

To make conserving water even easier the Clackamas River Water Providers have free indoor and outdoor Water Conservation information, booklets, calendars and tools.

Learn more, by visiting the Clackamas River Water Providers website at <http://www.clackamasproviders.org> or contact the Water Conservation Program Coordinator at [christine@clackamasproviders.org](mailto:christine@clackamasproviders.org) or (503) 723-3511.

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## Clackamas River Water Providers Mini Irrigation System Audit

Most automated in-ground irrigation systems cannot provide enough water to operate all the sprinkler heads at once. For this reason the system is separated into two or more "zones." Each zone operates independently and is turned on and off by a timer called the "controller."

1. Turn on the water supply to the system.
2. Using the controller, cycle each zone and observe the sprinkler heads.
3. Turn off the system.
4. Repair, replace, or adjust any sprinkler heads that are broken or spraying water where they shouldn't (like on the sidewalk or driveway).

5. Trim any grass or shrubs that deflect the spray of water from the sprinkler heads.

6. Set tuna-sized cans every three feet over the entire lawn.

7. Turn on the system.

8. Run each zone for exactly 5 minutes. If water begins running off the lawn before the 5 minutes are up, note how much time has elapsed.

9. Measure the water in each can, and record the measurements.

- If the amount of water in each can is nearly the same, pick up the cans and proceed to the next step.

- If the amount of water in each can

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varies greatly your system is not applying water uniformly and the sprinkler heads need to be adjusted or replaced. After adjusting or replacing, begin again at number 8.

Determining the run time needed to apply 1 inch of water to the lawn.

Refer to the lowest measurement of all the cans. For this example we will assume that there is  $\frac{1}{4}$  inch of water in the can. This is the basis for all your calculations. (5 minutes =  $\frac{1}{4}$  inch of water.

Your goal is 1 inch of water per week on your lawn, so if 5 minutes equals  $\frac{1}{4}$  inch, it will take 20 minutes total time to equal 1 inch of water on your lawn. ( $\frac{1}{4} = .25$  1 divided by  $.25 = 4$  4 times 5 minutes = 20 minutes total per week)

Determining an irrigation schedule for your controller.

In step 8 you may have noted that water began running off the lawn before the five minutes were up, and you noted the elapsed time. For this example we will use 3 minutes for when water began running off the lawn. This means that the longest you can run that zone of your irrigation system is 3 minutes, but you still need a total of 20 minutes for the week.

Since your soil will be more uniformly moist if you water three times per week rather than once, divide the total run time by 3. Irrigation controllers measure only in full minutes, so you will need to

round your answer up or down accordingly. (20 divided by 3 = 7 minutes). This means that on each of three nights per week your irrigation controller needs to run a total of 7 minutes. If water begins running off after 3 minutes, you need to further divide the 7 minutes by 3.

Your goal then is to water 2 times for 3 minutes on each of three nights per week. Always allow a minimum of 30 minutes between each run-time on your controller. Using the water budget feature on your controller.

In very warm weather your lawn may need a bit more than 1 inch of water per week. Rather than resetting all of your watering times, use the water budget feature on your controller. Simply turn the dial to water budget and press the up-arrow key 1 time. This adds 10% to all of the run times you have set on the controller. Pressing the up-arrow key again will add an additional 10%. You should never need to add more than 50% to the total time you have programmed into your controller. Turn your controller back to Automatic when finished.

When the weather cools down, it is very important to go back to the water budget feature and reduce the amount you have added during the very warm weather.

### Rain Sensors

The rule of 1 inch per week of water on your lawn includes natural rainfall, but unless your irrigation system has a rain sensor your (continued on page 3)



**Tour participants at the North Clackamas County Water Commission drinking water treatment plant**

## Adult Presentations

Would you like to have someone come to your neighborhood association or community group and have them talk about your drinking water, where it comes from and how it gets to your homes and businesses?

How about a talk on Water efficient landscaping and saving water outside? The Clackamas River Water Providers have a number of free presentations and talks available to local groups and associations.

Presentations can vary from 10 minute talks to hour long workshops, depending on the needs of the group. Talks can also be tailored to meet your groups specific needs. To schedule a talk or presentation for your group, or if you'd like to schedule a treatment plant tour, please contact the Public Outreach and Education Coordinator Christine Hollenbeck at (503) 723-3511 or email her at [christine@clackamasproviders.org](mailto:christine@clackamasproviders.org).

## CLACKAMAS RIVER WATER PROVIDERS

controller will never know that it's raining. Rain sensors interrupt the common circuit that operates the electronic valves until the water from the rain has evaporated. When the water has evaporated, the rain sensor restores the common circuit and the controller will resume turning the system on and off. Rain sensors save water and money.

### Soil Moisture Sensors

Soil Moisture sensors measure the amount of moisture actually in the soil. If the moisture level is high the sensor interrupts the common circuit that operates the electronic valves and the water will not be turned. When the moisture in the soil is reduced, the moisture sensor restores the common circuit allowing the controller to resume turning the system on and off. Soil moisture sensors are more expensive than rain sensors and have a much shorter life span. While they will save water, due to their higher cost they may not save money.

### Maintenance of Irrigation Systems

Irrigation systems are not the Set and Forget systems that we have been led to believe. As the season progresses from cool moist spring to hot summer and

then back to cool moist fall, you need to continually readjust the water budget feature on the controller to avoid wasting water.

Lawn and shrubs need to be trimmed back to avoid interfering with the spray from the sprinkler heads.

Activate the system during the day at least once per month to check for sprinkler heads that have become misaligned or broken.

Activate the system during the day at least once per month to check for broken irrigation pipes

Winterize the system at the end of the irrigation season by shutting off the water supply and draining the pipes.

It's a good idea to conduct another mini audit of your system each spring so that you know your irrigation system will water your lawn without wasting water and your money.

**Need more information? Call or Email Christine Hollenbeck at Clackamas River Water Providers: 503-723-3511 or [christine@clackamasproviders.org](mailto:christine@clackamasproviders.org).**

## Do You Know Where Your Drinking Water Comes From?



**The Clackamas River**

If you receive your drinking water from the City of Estacada, Sunrise Water Authority (the water provider to Happy Valley and Damascus), Clackamas River Water District, Oak Lodge Water District, the City of Gladstone or South Fork Water Board (the water provider to Oregon City and West Linn) then your drinking water comes from the Clackamas River!

The water out of your faucet has flowed through the forested hills of the Clackamas watershed. Water is taken out in Estacada, and in four other locations in the lower river, the water is then cleaned and treated for human consumption.

Once the water is treated it moves through a complex system of pipes, valves, and pumps to storage tanks or reservoirs. There it is stored until it is needed by homes and businesses in our

communities.

A safe reliable water supply is critical to the success of our communities. It creates jobs, attracts industry and investment, and provides for the health and welfare of citizens in ways ranging from disease prevention to fire suppression

Maintaining the high quality of our drinking water source can help minimize future treatment costs - allowing us to keep water bills as low as possible while continuing to protect public health and safety.

Whether you're a resident, business owner, employee or farmer, we all play a role in preserving our drinking water resource, and you can make a difference. Want to learn more about our watershed or what you can do to help us protect it? Visit our website.