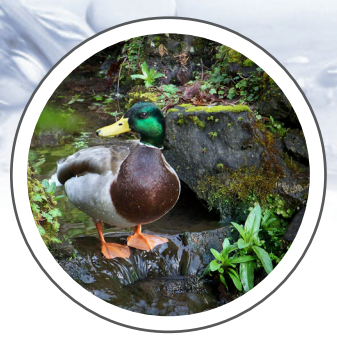


Water Conservation

September 2017

Let's Talk Water

Kevin McCaleb, Water Conservation Coordinator
503-675-3747 kmccaleb@lakeoswego.city

This year our summer started off great. We had better than normal mountain snow packs (whatever normal is) and cool wet weather into June. The most we had to grouse about was the lateness of warm weather and unusually wet soils. Optimism was running high that the drought we had been suffering through for the last four years was at last letting up. I too was feeling a bit more upbeat until we crossed into June and the rainfall totals were lighter than I would expect. We typically get around one and a half inches or more. This year we weighed in at 1.35". Still, with all of the excess water we had gotten this spring, it didn't raise a concern with me. Now that we have crossed through August and heading for September with only a drop of water in the form of rainfall; well, suffice it to say my "spider senses are tingling".

I have always maintained that when it rains can be more important than how much it rains, and currently the weather in our region is illustrating that point well. This year we have not had the benefit of those important, albeit light and sparse, summer rains that would normally come in July and August. Those showers that help transition us into the fall are very important to the health of our natural areas in and around the city; and for that matter the entire state. Those rains help to maintain a level of moisture in the soils and create humidity in the air, both imperative to the survival of plants and the wild things that live off of them. Without those rains, creeks and wetlands dry up, foliage becomes weakened and susceptible to disease and infestation by insects, and yes, fire. Sadly, the number and intensity of fires burning in the Northwest attests to that lack this year.

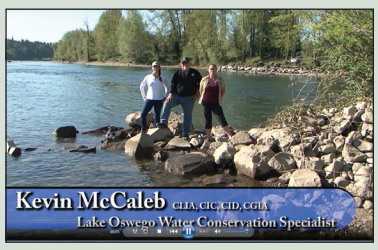
If there is a silver lining, it is that our river, The Clackamas, is doing well and that at present, no fires (fingers crossed) are burning in or near our watershed. The flows are good, temperatures are down and every indication seems to point to a continued healthy year. For us in the city, it means our supply is equal to our demands, and that we are being better stewards of our water. It doesn't mean that we are over the hump or that we can let down our guard and return to our bad old ways. We need to continue to do the

good work of reducing our use of pesticides, eliminating unnecessary fertilizer applications by testing our soils before we amend. We need to continue to plant "back to nature," using hardier native plants in our yards when we can. Be a hands on tinkerer, frequently monitoring and adjusting run times and sprinkler patterns to match weather, soil conditions and run off. If NOAA long range forecasts are at all accurate, we could be in for a dry fall.

Let's keep building on the good work we've done so far and continue to be better stewards of our water. Keep in mind that September is the time we start cutting back on our water as the days are growing shorter and the plants are slowing down. Pull a day out of your weekly cycle around the middle of the month and another one at the end of the month. Stop all automatic watering by the 15th of October and put your system to bed. If you are out enjoying the wild areas, please be careful with cigarettes and camp fires. I strongly recommend you carry a shovel and some extra water with you when you head out just in case. Overall we've done pretty well this year. Hopefully the rains will return and we can get on with a fall and winter of looking forward to summer.

> *"Man... despite his artistic pretensions and many accomplishments... owes his existence to a six-inch layer of topsoil and the fact that it rains."*
>
> ~ Unknown

Where Does My Water Come From?



The simple answer is the Clackamas River, but many here in town know little about the river or the story behind it. The fact is the Clackamas is more than just a water source, it is also a river with a connection to the people of this region of Oregon that stretches back 10,000 years. Culturally, it was the life blood for the Clackamas Indians. It was their highway, their garden and their meat locker. It was their identity and their soul and to their descendants, it remains so today.

For the Oregon Trail immigrants, it was a gateway to a new future, one last obstacle before the Promised Land; it was a resource for the taking. Abundance and wealth flowed down from the impassable Cascade Mountains in the form of steelhead and salmon, water to float logs and run sawmills, feed pastures and later to produce electricity.

Today it is all of that and more. It is drinking water for 300,000 people; life to the salmon, steelhead and lamprey that return every year to spawn. It is an icon that identifies us and a blessing that will sustain us far into the future.

If you'd like to learn more about this river and its connection to us, watch the video "The Clackamas River and You." It is an entertaining and educational film about the Clackamas River that was written, created and produced locally in partnership between the City of Lake Oswego, The Clackamas River Water Providers and Clackamas River Water. You can access the video at www.lakeoswego.city/publicworks/clackamas-river-and-you.

Bioswales Make our Neighborhoods a Healthier Place

Just a beautiful ditch now, but give this area in Mountain Park a couple years and it will provide an invaluable asset to the community!

Have you ever seen those curbside installations that seem to divert storm water into a planter bed before it flows into a city pipe? I'm sure you probably have. These, and a host of other designs are referred to as bioswales, storm water retention facilities, green streets, storm water basins, or a green ditch (my term). No matter what you decide to call it, or how big the infrastructure is, it serves an ecologically important role in city landscapes as more people inhabit, drive, and unintentionally pollute our city streets. That oil leaking out of your neighbor's car, the tiny amount of spilled gasoline on the street, fertilizers for our beautiful gardens, soap from washing cars, or even excess leaves/ grass clippings can have major unintentional impacts on our waterways.

Since we all live in a world where gravity (F = Gm1m2/r2) permeates our daily lives, these storm water facilities help mitigate some of the unintended pollution we create. By design, particular hosts of streamside native plants have the ability to effectively filter a lot of these contaminants, before they can enter back into the city sewer system or percolate back into the groundwater. Ultimately, that means cities who utilize this sort of system are protecting sensitive habitat downstream, increasing wildlife habitat (birds, pollinators, etc), protecting local regional water quality, decreasing erosion/ nutrient loading, and saving money on water treatment as well. Although at first, it may seem like you just have a big ditch in your yard, give it a couple years to take root and observe how it can increase a community's character, provide educational opportunities, a connection to nature, and be a shining example for other communities for how we can best manage cities with the natural world!

For more information about bioswales, please contact Sonja Johnson, City of Lake Oswego Stormwater Quality Specialist, at 503-675-3999 or sjohnson@lakeoswego.city, You can also contact Patrick Blanchard, Program Coordinator with Oswego Lake Watershed Council, at patrick@oswegowatershed.org or visit oswegowatershed.org.

Plant Du Jour

...and now for something completely different

In keeping with the edible landscape thing, my choice for this offering is CACTUS. Yes, good ol' spinney cactus. Native Americans have used its fruits as a staple for millennia and I discovered its bounty while living in Tucson. Wait a minute! Cactus in Portland? You've lost your mind! Oh ye of little faith. Many cacti grow as far north as British Columbia. The Sonoran desert is home to species that grow on the sides of mountains thousands of feet above sea level where winter is cold and snowy. I personally have a thriving Cholla in my yard that is native to Bolivia.

Growing cactus in Portland is not only possible, it adds a very different look and flavor to our ever growing larder of edible garden plants. Cactus fruits are loaded with antioxidants and other nutritional benefits. Even the seeds are edible or can be ground into a unique flour that can be used for baking. These desert dwellers can either be a potted plant moved indoors during the cold wet winters, or they can be planted in the yard with some minor amendments like gravel for drainage to keep their feet dry. They are attractive in appearance and need little if any additional water.

All cacti fruits are edible, however, not all of them are palatable to everyone. If you travel south this winter, sample some of the native cuisine offerings and the different cactus jellies, treats and salsas that are abundant in the southwest and other warmer regions of the country. Do a little research and you can find varieties that will tolerate the Portland climate very well, offer some interesting color when they flower and some very tasty bounty when they are harvested. Find ones that you like and bring them home.

Here is one that I found particularly tasty – the ***Texas Prickly Pear.***

Prickly pear has always been valuable as a food plant. People cook prickly pear in a wide variety of ways - they slice, blanch, marinate, boil, fry, and pickle the pads. Prickly pear pads are rich in vitamin A and fiber. The prickly pear's translucent flowers ripen into ruby-red fruits, called tunas. The fruits are even more valuable than the pads – they are quite tasty and can be made into juice, jelly, and syrup.

The fruits of these plants may have spines - proper care for safe handling and processing is necessary. Check this website site out for how to harvest, prepare and eat this delicious fruit: www.thespruce.com/prickly-pear-cactus-fruit-2343047.

- Texas Prickly Pear — Opuntia engelmannii var. texana
- Water Use — Low
- Light Requirement — Sun, Part Shade
- Soil Moisture — Dry
- Cold Tolerant — Yes
- Heat Tolerant — Yes
- Bloom Color — Red, Orange, Yellow, Green
- Bloom Time — May and June

The flattened pads of this cactus range from green to blue green. Depending on its location, the 2-4 inch flowers range from greenish yellow to orange. The purple, pear-shaped fruit, is very attractive as well as edible.

More Plant Du Jour

Another option for helping native pollinators and monarchs

In our June issue we introduced milkweed as a plant which helps our native pollinators and migrating monarchs. Here is another choice that works well.

Blue Giant Hyssop Agastache foeniculum

Giant Anise hyssop (Agastache foeniculum) in a summer garden.

A native to the northern states and Canada, hyssops are an outstanding perennial for attracting bees and butterflies with its nectar-rich flowers. They are sun-loving plants with aromatic foliage and flowers. They bloom from mid-summer into early fall and are resistant to rabbits and deer.

Hyssops need lean, well-drained soils, prefer gravel mulches, and appreciate deep but infrequent watering after their second growing season. They prefer a fast draining soil that's naturally low in fertility - just a few handfuls of compost in the planting hole is enough. Avoid a rich, highly amended soil. Plant in full sun. Fertilize just once in fall. They are very drought tolerant during the second growing season when the plants have matured.

- Zones — 4, 5, 6, 7, 8
- Light Requirements — Full Sun
- Flower Color — Blue
- Mature Height — 30-36" tall
- Mature Spread — 15-18" wide
- Bloom Time — Mid to late summer
- Native — Yes
- Planting Time — Spring / Summer
- Soil Type — Average Soil
- Soil Moisture — Average, Drought Resistant / Waterwise
- Amount of Rain — 10 to 20", 20 to 30", 30 to 40"
- Advantages — Deer Resistant, Attract Butterflies, Rabbit Resistant, Fragrant Foliage, Extended Bloom Time (more than 4 weeks)

The Path to Pure Water

The average American uses 100 gallons of water a day. How often do you think about how our water is purified, or what it goes through in order to reach our homes? Behind the tap is a complex network of infrastructure, and at the heart of Lake Oswego and Tigard's system is a new, state-of-the-art water treatment plant which produces and delivers fresh, safe, reliable drinking water year-round. It's where all the magic happens!

Watch "The Path to Pure Water" video at lotigardwater.org to learn how Clackamas River water is treated and purified to exceed safe drinking water standards for Lake Oswego and Tigard communities. To learn more about your water, you can also view the latest drinking water quality report at lakeoswego.city/2017-water-report.

Audit Reminder

Just a reminder that audit season is still open. Audit participants are seeing averages of 15 to 30 percent reductions in water used over the course of a summer season. Are you cringing every time you see your monthly bill? Do you want to learn ways and strategies to get under the tiers? If so, call Kevin at 503-675-3747 and get an audit scheduled. These one-on-one meetings are informal and educational, and what you'll learn will help you make good long term decisions on how best to use your outdoor water.

What you can learn:

- How to use your meter to discover if you have a leak
- The Backflow Preventer: where it is, what it does and why it needs to be tested annually
- Your individual landscape water needs
- Making seasonal adjustments on your controller: why, when and how
- Overall system integrity: how well your sprinklers are distributing the water you are paying for

When finished, you'll get written recommendations on corrections that can be made to the sprinkler system itself and in the scheduling, to help improve performance. All of this is offered free of charge. Make the call, it's all free. Audit season typically runs to October 15, depending upon the weather.

City of Lake Oswego
380 A Avenue, PO Box 369
Lake Oswego, OR 97034

General Information: 503-635-0270
Water Conservation Information: 503-675-3747
www.lowaterconservation.com