

Spring news from the Conservation District





District Manager's Message By Jim Cathcart

Welcome spring! I love it when the daylight hours get longer, the afternoon temperatures warmer and everything is in bloom. Spring brings refreshment. Spring is also the time of year to tend to your garden and backyard habitats. If you live in the forest, spring is the time to make sure your property has defensible space and is resilient to wildfire. For the District, spring is the time of year we get people to think about soil and soil health. It is also the time of year where the District just says no to garlic mustard – an aggressive invasive plant that tops our list of Early Detection, Rapid Response weeds we want to rid the District of.

These themes permeate this spring edition of our e-newsletter. See below for articles on soil biodiversity and soil health, sheet mulching, "Firewise" and online resources for

planning and implementing meadowscaping projects. We also make a plug for the new resource guide, Conserving Oregon White Oak in Urban and Suburban Landscapes, whose main message is that oak habitat restoration is not just for farms and forests. Did you miss Soil School this year? No worries, you can read about what you missed below. Unfortunately, we report on a bit of disconcerting news with the discovery of garlic mustard north of Cornelius Pass Road. Perhaps not as early of a detection as we would have wanted, but our response was still rapid.

Spring is also the start of field intern season here at the District. Read below about this year's interns – Amber Johnson and Ari Sindell. Amber and Ari will stay busy killing garlic mustard, helping us with tabling at outreach events and collecting and helping us manage that all important monitoring data. We need monitoring to know whether our conservation goals are being met and whether projects are performing to their full potential.

Lastly, this spring marks the time the District and our partner, Columbia River Estuary Study Taskforce (CREST), makes final preparations for the Sturgeon Lake Restoration Project on Sauvie Island. Construction for the project is scheduled and we are pleased to announce a contractor has been selected by CREST to do the work -- Elting Northwest. Read more about this company and why they are excited to be doing this important work.

So join forces with our natural resources and put renew, refresh and conserve at the top of your springtime agenda.

Sturgeon Lake Restoration Project Contractor

By Carolyn Myers Lindberg, Communications Coordinator

We are pleased to announce that Elting Northwest has been selected by the Columbia River Estuary Task Force (CREST) as the contractor for construction of the new bridge over Dairy Creek! The bridge will replace two failed culverts that have prevented fish passage and tidal flows from the Columbia. The new permanent tidal channel is intended to help flush Sturgeon Lake of silt and debris.



Elting Northwest was chosen from a field of 22 contractors who attended the "Construction Prebid Site Visit" in late February. Elting Northwest is a family owned business based in Gladstone and operated for almost 50 years. President Tom

Elting says his father started Elting, Inc in 1969 and worked on many major grading

projects including Washington Square Mall, Clackamas Town Center, Charbonneau, Mt. Hood Community College and initial construction of I-205. Tom earned his civil engineering degree from OSU and working his entire career on projects in Oregon.

Tom says, "We were initially interested in the Sturgeon Lake project because it was a size and nature of work that suited our abilities. Once we learned more about the work, we realized the diverse activities and tight schedule made it a project that we could really sink our teeth into. Our company is deeply infused with a culture of innovation so when we see a project that requires thinking outside the box, we really get excited. We know that CREST could have chosen anyone to perform this challenging project. We are pleased that Elting Northwest was chosen and we are excited to get underway on the Sturgeon Lake project."

New Garlic Mustard Patch Discovered!

By Ari DeMarco, Seasonal Conservation Technician

Earlier this month, Forest Conservationist Michael Ahr found a large population of garlic mustard at a property that never had the weed before. Located northwest of Cornelius Pass Road, in the 12000 block of NW Skyline Boulevard, this was an important discovery for us, since it is the only infestation of garlic mustard that we have found north of the Cornelius Pass Rd/Skyline Blvd intersection, and the only population that we know of in the McCarthy Creek watershed. The bulk of garlic mustard populations is in the Skyline/Cornell area, southeast of this new site.



Spread by animals, water, vehicles, and people, garlic mustard could quickly spread throughout the McCarthy Creek watershed if not controlled. Garlic mustard can produce prolific amounts of seed, and exudes a chemical which can impede the growth of desirable native species, helping it to form dense, solid stands even in otherwise undisturbed forest understories. To help prevent this, we conduct a widespread garlic mustard control effort every spring, and attempt to eradicate all flowering plants before they set seed in mid-June.

We've already treated this new site and are in the process of surveying nearby properties for any satellite populations. If you live up there, please keep your eye out and let us know if you see it growing on your property or along the road. It can survive equally well in forests or

backyards, along roadsides or streambanks.

Please don't just pull it yourself- we need to keep track of where it is so that we can monitor its spread and try to predict where we need to be most vigilant about monitoring for it in the future!

Firewise in the West Hills

By Michael Ahr, Forest Conservationist

The Eagle Creek Fire that burned thousands of acres in the Columbia River Gorge in 2017 is a good reminder to consider wildfire risk during the summer months. We often see wildfire as a bigger concern on dry eastside forests, but the threat is real in Portland as well.

I like simplifying the topic by thinking of the 3 things necessary to create a fire: Oxygen, Heat, and Fuel. If you can eliminate one of those things from a burning fire, it will

extinguish. When an ember starts a small fire a few feet away from a campfire ring, you might quickly kick some dirt on the new flame. This smothers the fire, or in other words takes away the oxygen. When you're done with the campfire and throw water on it, you remove the heat.



In Oregon, we have millions of acres of forest, but instead of just removing oxygen or heat, we spend much more time removing fuels as a way to suppress wildfire. Dry leaves, twigs, logs, grass and many other items are the fuel that feeds a fire in the forest and as long as there is fuel, the fire will grow. In Western Oregon we have A TON of fuel because our forests are so productive. You'll never remove all the fuel, so it's a better idea to focus on the

defensible space around your home and loved ones instead.

There will be an educational event called "<u>Firewise</u>" on June 5 at 5:30 pm at the World Forestry Center discussing how communities and individuals can prepare for wildfire. If you can't attend the event, <u>this website</u> has a great summary of things you can do in the immediate, intermediate, and extended zones around your home.

I always find this topic very interesting as a forester. In college and through much of my career I've planned and managed projects that reduce fuels in the forest by thinning trees, controlling invasive weeds, and treating forest slash by piling or chipping the slash generated after forest thinning. This Firewise training has taught me that these treatments can help a lot, but it's just as important to clean dry leaves out of your gutters, stack the firewood pile away from the house, and keep your broom in the garage instead of on the deck. Burning embers can travel a great distance through the air, and a little dry material wedged in the corner of your deck could be what starts a fire. Take a look at the Firewise website for more information or join us on June 5th at the World Forestry Center.

Guide to Meadowscaping & Pollinator Gardens

By Laura Taylor, Conservationist and Education Coordinator

Meadowscaping and naturescaping incorporate native plants, wildlife habitat, and natural ecological systems into beautiful home and urban garden spaces. This guide is intended to give you a quick introduction to the process and point you toward more information and

resources to help your project succeed from start to finish.

Benefits of meadowscaping and other naturescaping practices

- Reduce your ecological footprint
- Conserve and increase biodiversity, including native plants and pollinators
- Increase awareness of our natural and cultural heritage
- Create a beautiful vibrant natural landscape to relax, restore, and explore



Basic Steps

1. Map your site – include existing features, light, moisture, and soil.

2. Plan and Design

- Choose your planting type(s) (meadowscape, hedgerow, naturescape, etc.).
- Pick plant species that will thrive in your design and conditions.
- Map plant and feature locations choosing the right plant for the right place.

3. Prepare the site - be patient and give this step the time it deserves! It will save you much time and labor in the future.a. Clear weeds & sod (see our Sheet Mulching story for more)

- Amend the soil if needed.
- Place hardscape features and mulch.

4. Plant! - Timing is important

- Plant container plants in fall or early spring (Oct April).
- For native seeding, fall (mid Sept mid Nov) is usually the best time to sow to get successful germination in the spring.

5. Water – necessary the first year or two to help young plants get established. If you chose the right plant for the right place, they should not need this after a few years.

6. Maintain – weed regularly and thin out plant communities that get too dense.

More Information

- <u>Meadowscaping Handbook</u>
- <u>Pollinator bloom-time chart</u>
- <u>Portland Plant List</u> (General native plant info for the Portland area)
- <u>Oregon Flora Project</u> (Plant photos, range maps, origin status)

Sources of native plant materials

Willamette Valley native seed is available in residential yard-scale quantities from:

- Jonny Native Seed
- Pro Time Lawn Seed
- <u>Silver Falls Seed Company</u>
- <u>Willamette Wildlings</u>

Willamette Valley native containerized plants are sold in retail quantities at the following locations:

• <u>Comprehensive online list</u>

Sheet Mulching - Now's the Time!

By Mary Logalbo, Urban Conservationist



Sheet mulching or "lasagna" composting is a cold composting method used to convert lawn to other garden uses. This simple method lets the soil organisms do the work for you to create a healthy, aerated planting bed. You start with a biodegradable weed barrier like cardboard, and from there build a thick, layered substrate with compost and mulch. Sheet mulching is best started a few months to a year before you plant, so start now so your garden plot is ready to plant in the fall! Detailed instructions can be found on page 25 of <u>The</u> <u>Meadowscaping Handbook</u>.

Conserving Oregon White Oak By Kammy Kern-Korot, Senior Conservationist

A new guide is available for homeowners and landowners in the North Willamette Valley

who wish to integrate Oregon white oaks (Quercus garryana) and related prairie habitat into their residential landscape. With support from area conservation groups and partners, the document Conserving Oregon White Oak in Urban and Suburban Landscapes was created to complement the District's <u>Meadowscaping Handbook</u> published in 2016. The guide outlines the benefits and cultural and ecological significance of Oregon white oak, and details how to protect existing oaks. The guide also includes technical instruction on how to plan, design, prepare, plant, maintain and monitor an oak "naturescape," made up of locally native plants. Action by private landowners is key to the ongoing survival and enhancement of oak habitat, since 90% of remaining oak woodland and prairie are found on private land.



Each Oregon white oak and prairie is worthy of protection. Only 5% of associated historic habitats remain and each tree supports hundreds of native species. Protecting one or more Oregon oak trees not only preserves our cultural and ecological heritage, but their presence will attract native birds and beneficial insects to your yard. In addition, you'll save water compared to lawn or other non-native landscapes, since native oak and prairie ecosystems are drought-hardy after establishment. Lastly, an "oaknaturescaped" yard will support the integrity and connectivity of habitats within your neighborhood and community.

Conservationists caution against cutting existing Oregon white oak trees and to care for their native oaks with minimal watering, fertilizing, pruning or

compacting the soil under mature trees. Homeowners are encouraged to plant a new oak tree (including as a street tree in Portland, depending on the setting), remove and control invasive species around oaks and add native shrub and groundcovers. Even if you can't have an oak tree on your property, you can still plant and maintain other species from the oak plant community. The Conserving Oregon White Oak in Urban and Suburban Landscapes guide includes practical advice on planting oaks, weed control, and mulching. You'll also find recommendations on maintenance, planning templates and sample designs. It has everything you need to establish and care for an Oregon white oak understory or prairie plant community at a small landscape scale. View a copy <u>here</u>.

Soil Biodiversity and Soil Health

By Scott Gall, Rural Conservationist

Over one billion living organisms live a teaspoon of soil. Most people think of soil as a chemical sponge - nothing but a temporary holding tank for nitrogen, phosphorus and potassium. But soil is a living thing. Entire ecosystems can exist between two grains of sand or in an old root channel.

Soil ecosystems consist of producers, grazers and predators just like aboveground ecosystems. All these organisms live in a delicate balance. Remove a predatory species and the grazers flourish, but the producers (the plants) may vanish. For every ecosystem, diversity equals stability. If an ecosystem is based on a signal plant or organism, outside factors like disease, changes in climate or



disturbance can throw the entire system out of whack.

Soil Health is the idea that soil, like any living thing, has a physical condition that can fluctuate between well and sick. The principles of soil health are:

- Keep it covered
- Limit disturbance
- Keep a living root in the soil
- Diversify above ground

Treating your body well, through diet and exercise, leads to a healthier you. Treating your soil well, by limiting disturbance and providing organic material, leads to healthier soil. By following the four principles of soil health, soils will become more diverse and more unique ecosystems will develop within the soil.

Soil monocultures develop with regular tillage and reduction of organic matter which decrease biodiversity and increase the risks of disease, pests and even lower fertility. If the above-ground system is diverse, the below-ground system will be the same. Cover crops, crop rotation, additions of organic matter, reduced tillage, and reduction in chemical inputs can increase or preserve soil biodiversity. A particular ecosystem may develop that includes antibodies for disease. Diverse soils have a symbiosis with plant roots that increase uptake of nutrients and water. Diverse soils can even reduce weed infestation by providing organisms that eat seeds or weaken the plant. Once these systems develop, they can be quite delicate and susceptible to disturbance such as tillage or changes in chemistry.

The four principles of soil health are the "diet and exercise" for a soil. The more you feed and nurture the living soil, the more it will give back and the more forgiving it will be if and when we make a mistake. So retire the rototiller and plant a cover crop in the fall.

To learn more about Soil Health and what you can do, contact Scott Gall, scott (at) wmswcd.org.

Soil School 2018

By Carolyn Myers Lindberg, Communications Coordinator

Soil School 2018 drew the largest crowd since the event began 6 years ago! Almost 160 people registered for the event, held Saturday, April 7 at the PCC Rock Creek Event Center. Fourteen speakers presented information throughout the day on a wide variety of topics, all related to soil health. One new addition to the event this year, the outside "Hands on Soil" sessions, were a big hit thanks to OSU Soil Scientist James "Dr. Soil" Cassidy and his group of stellar graduate students.



Another big hit was keynote speaker Dr. Celeste Searles Mazzacanno, of CASM environmental who gave a fascinating presentation on odonata (dragonflies and damselflies). A huge thank you to her and the soil experts who've been with us since the beginning and have shared their knowledge to countless gardeners, farmers and landscapers: James Cassidy, OSU; Cory Owens, NRCS; Dean Moberg, NRCS; and Weston Miller, OSU Extension.

Much gratitude to this year's amazing professionals, some of whom are repeat instructors at Soil School: Marisha Auerbach, Permaculture Rising; Eileen Stark, Second Nature Garden Design; Gail Langellotto, OSU; Neil Bell,

OSU Extension; and OSU Soil Science graduate students.

Soil School started in 2012 with 20 people in attendance and has grown over the years as more and more people become knowledgeable about the importance of soil health to everything we grow and interested in learning more about soil. Thanks to everyone who attended Soil School this year and in past years – we look forward to seeing you next year at Soil School 2019, Saturday, April 13th!

Meet our Interns!

Amber Johnson

Amber Johnson, a recent Portland transplant, graduated from the University of Oregon in

fall 2017 with a B.S. in Environmental Science. She also holds a B.A. in Visual Arts from Rutgers University in New Jersey. Her love of wildlife and nature originated in the San Gabriel Mountains of Southern California where she grew up. When she's not pulling garlic mustard you can find her hiking, snowshoeing, or gardening on her balcony under the watchful eyes of her two cats.

J. Ari Sindel

J. Ari Sindel is spending the spring and summer of 2018 as one of our two Field & GIS Interns. He assists with a number of office and field projects covering invasive weed control, educational outreach, and research.





Previously, Ari worked as a Field Technician for an environmental contractor, mostly tasked with eradicating invasive weeds and planting native trees and shrubs throughout Western Oregon. He has worked on quite a few volunteer projects to monitor plants and wildlife, restore habitat, and catalog Portland's urban forest, and he is finishing a Master of Environmental Management degree at Portland State.

During the rare moments when he is not

on the job or studying he enjoys rock climbing, biking around town, and barbecuing when the weather is right (and sometimes even when it isn't).

Calendar

June

Sunday, June 3rd - Naturescaping Workshop, Tualatin SWCD Tuesday, June 5th - Fire Awareness Week, World Forestry Center Saturday, June 16th - Pollinator Weed at the Oregon Zoo Tuesday, June 17th - Twilight Tuesday at the Oregon Zoo

August

Saturday, August 18 – Multnomah Days, Multnomah Village Sunday, August 19 - Skyline Ridge Neighbors Summer Gathering, Plumper Pumpkin Patch

Happy Spring!

Prepared by Carolyn Myers Lindberg, Communications Coordinator