

# Winter 2015 Newsletter

## Garden planning starts now!

## Invasive Ludwigia (water primrose) found in the Multnomah Channel

This fall, the Conservation District and Oregon Department of Agriculture (ODA) staff spent its third year of



surveying and treating Common reed (*Phragmites australis*) along the Willamette River and Multnomah Channel. The focus area includes the southern shorelines of Sauvie Island, Multnomah Channel and the Willamette River in Linnton. Much of the survey and control work is done from an ODA Zodiac watercraft.

Staff was surprised to find a small population of *Ludwigia* during the survey. This aggressive, noxious aquatic plant invader was found in a 25' x 10' section of an abandoned log raft near the Sauvie Island Bridge. Fortunately, it was controlled successfully and no other infestations were found.

Aerial surveys that focused on detecting *Ludwigia* in the southern Willamette River system were conducted this past summer by ODA's Noxious Weed Program staff. Established populations of *Ludwigia* were found around Albany and additional boat surveys will be carried out this upcoming year. Populations of *Ludwigia* are also well documented in Eugene and in North Portland; however, its presence in the lower Willamette River is not yet known. The discovery of *Ludwigia* in the Multnomah Channel is the first known population of this plant in western Multnomah County.

#### **Saving Sturgeon Lake**

West Multnomah Soil & Water Conservation District (WMSWCD) is very lucky to be joining with Oregon Wildlife Heritage Foundation on a fundraising campaign to benefit Sturgeon Lake on Sauvie Island. Oregon Wildlife has taken the lead in the effort by producing a video and a glossy publication explaining the need for the massive restoration project, and has already secured some valuable private donations. But the effort continues and we could use your help to save this important water body! You can see the video and learn more about the project by visiting www.oregon-wildlife.org and clicking on Save Sturgeon Lake.

Did you know that Sauvie Island is the largest island in the Columbia River and one of the largest river islands in North America? It's roughly the size of Manhattan! And Sturgeon Lake is the largest lake on a river island in

the United States. The lake is critical habitat and link in the Pacific Flyway for hundreds of thousands of migratory birds and water fowl.



But Sturgeon Lake is at risk. It's filling with sediment which isn't being flushed out by the Gilbert River. The only southern outlet to tidal influence is Dairy Creek, which is plugged with sand and debris from the 1996 flood. The U.S. Army Corps of Engineers has committed to funding the \$6.7 million project, if WMSWCD comes up with the \$1.7 million match: Hence the fundraising campaign.

The plan is to replace two failing culverts in Dairy Creek at Reeder Road, remove the sand and debris at the mouth of Dairy Creek, widen and improve the Dairy Creek channel and install a debris "boom" at the creek's mouth in the Columbia River.

Please help us Save Sturgeon Lake for the wildlife and hundreds of thousands of local residents who visit and enjoy the area every year! Donate now at www.oregon-wildlife.org!

#### **Funding Opportunities for Woodland Owners**

Interested in treating invasive weeds, thinning trees, or planting a new forested area? We have some programs that provide both technical and financial assistance to help you reach your goals.

#### Natural Resources Conservation Service

The Natural Resources Conservation Service (NRCS) administers the Environmental Quality Incentives Program (EQIP) which can help fund work on wooded properties in two ways: *Wildfire Risk Reduction* 

A pool of funding is available to help woodland owners lower the risk of wildfire on their properties. The funds can be used to thin (or harvest select trees) which decreases competition in a dense forest. Also, money is available to treat invasive species and pile slash, both of which will make your woods much healthier, not only for the existing trees but for wildlife who may live there. *Planting a new forest* 

This program works very well for landowners in the Tualatin Mountains who have open land that they'd like to convert to a forest. It can help fund the work to get the land ready for planting as well as the cost of the trees and shrubs you want to plant. If you have an area that is overtaken by invasive blackberry or other weeds, this is a great program to help the land grow something more productive for you economically, and also improve wildlife habitat.

**Your application is due by January 16, 2015 for both of these NRCS programs.** Ideal landowners would have more than 4 acres to enroll in the program. Keep in mind that you might be eligible for improved financial assistance if you identify as a *Socially Disadvantaged, Beginning, and Limited Resource Landowner*: http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/people/outreach/slbfr/.

#### Funding from WMSWCD

The Conservation District's Forestry Program will once again be offering financial assistance to woodland owners in 2015. Our biggest priority this year will be to assist landowners who are looking to complete forest



#### **Challenging Stormwater Sites**

thinning projects. Other priority areas would address:

- Wildlife Habitat Enhancement
- Invasive Species Control
- Creation of Defensible Space Around Homes (wildfire risk reduction)
- Forest Road Erosion

If you're interested in any of these opportunities or want to learn more, contact Michael Ahr, michael@wmswcd.org or 503-238-4775 extension 109. A great first step toward all of these opportunities is a site visit from Michael, who will help you put together a Forest Stewardship Plan.

At this time of year, we can see exactly what stormwater runoff does to our landscape. As the rainy weather becomes the norm, many landowners in Portland's west hills call the Conservation District about installing a rain garden to improve water quality and better manage stormwater. Unfortunately, most areas of the west hills have steep slopes, high groundwater tables, and clay soils, which make infiltration difficult if not dangerous at many sites. West Multnomah SWCD recognized the issue and worked with its partners to create a menu of runoff reduction strategies and deliver a series of workshops. Southwest Watershed Resources, private consultants and landowners helped to put together fact sheets and informational videos for these strategies (http://www.wmswcd.org/content.cfm/What-We-Do/Urban-Programs/FHHOA-DEQ ).

The Conservation District will hold another workshop series this year that allows participants to design and help build a variety of stormwater management structures and practices. Here are some details on the 2015 workshop series:

Introduction to Stormwater Workshop Saturday, March 14th from 9am-3pm Hands-On Workshops - Build the Best Practices Saturday, April 11th, 9am-1pm Saturday, May 2nd, 9am-1pm Saturday, May 16th, 9am-1pm (\*pending receipt of additional project funding)

Participants receive hands-on training as stormwater projects are installed at two residential demonstration sites that have different challenging conditions. Attendees work together to implement designs from the Introductory Workshop in collaboration with each of the homeowners. Participants are encouraged (but not required) to attend all workshops as different techniques and conditions are tackled at each site.



To register click here: http://swni.org/stormwater.

## Conserving Remnant Oregon Oak Habitat at a West Multnomah Farm

Oak woodland takes up a little over thirteen acres of a 60 acre organic farm on the edge of our District where Multnomah and Washington County meet. While assisting the farm owner on land management issues, District Senior Conservationist Kammy Kern-Korot noticed that valuable Oregon white oak trees were being slowly taken over by Douglas fir. Landowner Greg Malinowski and his siblings, who grew up on the land, were receptive to trying to save the oak, especially since old-growth Oregon oak next door in Washington County had been cut down for development.



Oregon oak woodlands are in drastic decline -- they represent only 15% of their historic range. The trees are magnificent and support wildlife such as the acorn woodpecker and the Western gray squirrel, as well as hundreds of species of insects, which provide food for birds and wildlife. Oregon oak and associated habitats are part of a diminishing ecosystem that was managed by Native Americans in our region for thousands of years.

The first step in the plan to protect native oaks on Malinowski Farm was to kill or remove the Douglas fir that were shading and suppressing the oaks. The

District and landowner decided to thin the areas of Douglas fir and sell it to pay for the project. A professional forester obtained permits, helped set up a purchase agreement with a local sawmill and hire a private contractor to do the logging by hand. The logger worked at an hourly rate and trees were carefully selected to meet the project's objectives. Trees were felled one-by-one to gauge the effect on the surrounding oaks. Some of the logs were cut, de-limbed and sent to the Banks Lumber mill; others with rot or large knots were left for use as firewood. Seven loads of Douglas fir were taken to the mill. The remaining debris will be left as wildlife piles or burned if the piles become overgrown with invasive species. Grasses will likely be seeded in the understory to stabilize areas of fine-silt soil disturbed during the logging process.

The future care and nature of the oak woodland understory will depend on the grazing needs of the farm's organic cattle. Goats may also be used to manage invasive weeds. Areas not needed for grazing may be planted with native trees, shrubs, wildflowers or grasses -- to further enhance the wildlife habitat quality and historic nature of the woodland. For more information on oak restoration, contact Kammy Kern-Korot; kammy@wmswcd.org.

## Special Tax Assessments for Rural Landowners Conserving Their Land

We recently participated in a Skyline Ridge Neighbors meeting, featuring a Multnomah County Tax Assessment Specialist, to discuss special tax assessments for rural landowners in our county. There are several assessment categories that align with the work of the Conservation District, specifically for wildlife habitat, open space, conservation easements, forests and riparian land. The Riparian Lands Tax Incentive Program (RLTIP) may appeal to landowners with streams because it offers an outright exemption from taxes for protected streamside areas that meet the boundary requirements.

A riparian plan can be created separately or be part of a wildlife habitat management plan. If the final plan is approved, landowners can maintain their tax deferral without actively managing the land for farming or timber. A significant challenge to enrollment is the lack of adequate staffing at the Oregon Department of Fish & Wildlife, which oversees the program statewide and locally approves and monitors implementation of plans.

Additional tax incentives for conserving and protecting lands in Multnomah County are available to:

- 1. Those with 2+ or 10+ acres of forestland set aside for harvesting a marketable species;
- 2. Those with conservations easements held on their land, which will be valued at farm or forest rates; and
- 3. Those with open space, as defined by state law (http://www.oregonlaws.org/ors/308A.300).

There is also a program to tax farmland at farm rates if it is not zoned for farming and for farmland leased to a tenant farmer or a non-profit using the land for charitable purposes. For more information on Multnomah county's special assessments, contact: dart.special.programs@multco.us. For help developing a forest plan, contact West Multnomah Forest Conservationist Michael Ahr (michael@wmswcd.org) and for a riparian plan, contact West Multnomah Senior Conservationist Kammy Kern-Korot (kammy@wmswcd.org).

## Moss in your Landscape

If you do any hiking around this time of year, you know that moss is a big part of what makes the landscape appear lush and green. But when it shows up in your lawn or garden, it's something to get rid of. In many cases, mosses are both desirable and beneficial to the environment, so we ask you to take a closer look at



moss around your home.

Moss thrives in shady moist areas and provides a variety of benefits to the landscape by reducing wind and soil erosion, improving soil health and, if taking over a lawn, cutting down on your mowing time. Moss also serves as an important bioindicator when looking at certain pollutants. For more information on Mosses visit

OSU's informative *Living with Mosses* website: http://bryophytes.science.oregonstate.edu/mosses.htm

On the roof, many believe that moss can shorten the life of your shingles (however this is challenged on an OSU website http://bryophytes.science.oregonstate.edu/page9.htm ), and on foot paths it can be slippery. If you decide that moss isn't for you, try these tips from Metro's Carl Grimm http://www.katu.com/amnw/segments/Moss-Beauty-or-Beast-271700091.html ):

## In the lawn:

• Let it be. You can embrace the moss! It's green and needs no mowing.

• Or, if you must have a moss-free lawn, address the root causes: shade, soil compaction, soil acidity and poor soil fertility. These are best handled in fall or spring.

• For reducing shade, prune overhanging branches. For reducing compaction, try removing soil plugs with a coring device or rented lawn aerator.

• To physically remove moss, de-thatch with a de-thatching rake or rented power de-thatcher, and then overseed with appropriate grass.

• Top-dress with a ¼ inch layer of weed-free compost or a mixture of compost and ¼-ten crushed rock. While you're at it, mix in some slow-release organic fertilizer. These strategies are long-lasting and don't pollute local rivers and streams.

## On the roof:

- Prune overhanging branches to reduce shade.
- Sweep or hose off the roof once or twice a year to prevent moss growth.

• *Remove moss by scrubbing or scraping it off. Asphalt shingles damage easily so be gentle, and avoid pressure-washing.* 

• Install zinc strips at regular intervals on the roof. They prevent moss without harmful sprays or powders.

• Metal roofs are great at preventing moss growth. Consider one if you are about to reroof your house. They cost more, but last longer and resist moss.

#### On sidewalks, driveways and wood:

• Physical removal by pressure-washing, scraping or scrubbing is the most effective way to keep surfaces mossfree.

• Chemical moss killers all have issues you may not want to deal with – iron-based products will stain cement and wood. The runoff from soap based moss killers can harm fish in nearby rivers and streams. Zinc granules and powders are hazardous to people and pets.

http://www.oregonmetro.gov/tools-living/yard-and-garden/garden-problems/lawn-moss http://www.oregonmetro.gov/tools-living/healthy-home/common-hazardous-products/moss-killer

## What our Local Lichen Tell us about Our Air Quality

Lichens and moss are particularly important to Pacific Northwest forests. They help cycle nutrients, regulate climate, add biodiversity, and provide essential forage and habitat such as nest sites for birds and other wildlife. Canopy-dwelling lichens and moss, also known as epiphytes, are quite sensitive to air quality. At a recent symposium, biology doctoral student Hannah Prather of Portland State University reported on her four years of research showing how urbanization and air pollution had changed moss on Forest Park's Douglas fir trees.

In our rainy climate, nutrients such as nitrogen leaches out of our forests rather quickly, favoring lichen and



moss species that prefer nutrient poor environments (Two such species are Lobaria oregana, or lettuce lichen, which can fix nitrogen, and Lobaria pulmonaria, or lungwort, which is sensitive to air pollution and primarily lives in old-growth forests). Despite this, Prather found that a majority (60-70%) of the lichen species in Forest Park like nutrient-rich environments. She attributes this to the presence of pollution formed by vehicle combustion, which contains nitrogen. She also found less of the sensitive moss species. The algae component of lichen, a symbiosis between an algae and a fungus, is dying and bleaching out.

Another interesting component to Prather's research is the difference in lichen and moss species growing at different elevations. While you might expect greater pollution at ground level, she found even more nutrient-favoring species 190 feet up in the tree canopy, suggesting pollution is reaching the canopy first. One issue not covered at the Forest Park symposium that may also be a factor is the changing climate. The impact of warming in Western Oregon and Washington, along with other pollutants in the urban-industrial and agricultural valleys have been considered in other studies such as the one found here: http://www.deq.state.or.us/aq/gorgeair/docs/sdarticle.pdf

## Forest Thinning in the Rock Creek Watershed

In 2014, we identified a site in the upper Rock Creek watershed that would benefit from some forest thinning. The Whitworth family was new to the property and noticed that their 5 acres of forest was not very healthy-

looking. They had a large dense area of bitter cherry that was crowding out other tree species coupled with some gaps where thin stalks of big leaf maple had grown very thick.

Michael Ahr, forest conservationist at WMSWCD, wrote a management plan for the forest which called for

removing nearly half of the trees. We refer to this as a forest thinning, and the intent is to leave the remaining forest in a healthier state than it was to begin with. Some thinning work can produce a profit if the trees are large but, in this case, we recommended what's called a *pre-commercial thin*. While it doesn't provide immediate income, it's viewed as an investment in the future of the forest. Whether the intent is to eventually log the forest or grow it for wildlife habitat, thinning work like this is a <u>must</u> for thousands of acres of western Multnomah County forest.

The Conservation District supported this project with both



technical and financial assistance and found a crew of nine men to come out and do the work in November. They were able to thin about 2.5 acres in nine hours. Because trees were not hauled away and sold, the crew cut the small diameter logs into 4-6 foot pieces and piled them into habitat brush piles that will attract songbirds, reptiles, amphibians, and small mammals.

It's a little dramatic at first to see trees cut down, but the aesthetics of the forest do change for the better. It's much easier to focus on the healthy conifer and big leaf maple that have now been freed from all the surrounding competition. If you have a thick forest that needs to be thinned, please contact Michael Ahr at West Multnomah SWCD. He can help you write a plan and assist with the work while funding is available. A thinned forest reduces competition for sunlight and water, letting desired trees grow large more quickly. Whether you'd like some future income, or just a more aesthetically pleasing forest, this type of forest management could be a great option for your woodland.

#### Get to know the soils of West Multnomah: Rafton

The Rafton soil series is one of the youngest soils in West Multnomah Soil & Water Conservation District. Formed as lake beds, these soils were created form the periodic flooding of Sauvie Island and the surrounding floodplain areas such as Burlington.

They are part of the soil order known as "Entisols." Some refer to them as young soils since they are typically "only" a few hundred to a few thousand years old. Entisols are defined by their lack of any subsurface horizons. Typical soils have A, B and C horizons above whatever material the soils were formed on. Entisols only have an A horizon on top of the parent material. In the case of the Rafton soils, their A horizon sits on top of silts that have settled out of lake water or after Columbia and Willamette River floods.



Rafton soils can be found in their natural state while walking around Sturgeon Lake and other natural lakes on Sauvie Island. The typically make up the "wetland fringe" around more permanent Columbia River and Multnomah Channel floodplain lakes. They are flooded yearly and often for long periods of time between December to June. Due to this yearly flooding and high water table, Rafton Soils mostly support wetland plants with very few woody trees and shrubs.

On the other hand, Rafton soils support a large variety of crops in the

agricultural areas on the southern half of Sauvie Island. There, levees constructed in the 1940's prevent the yearly floods and the Sauvie Island Drainage Improvement Company efforts allow farms to access fields with Rafton soils much earlier than they could otherwise. Rafton soils are also frequently the locations of the Island's many "duck clubs". With a water table near the surface well into the growing season, producers find the difficult to count of fields dominated by Rafton soils for many cash crops. So instead they plant crops to lure waterfowl to the fields in fall and winter.

Rafton soils are one of the few soils that are actually easy to spot without digging if you know where to look for them in the landscape.

For questions or soils information, contact District Rural Conservationist Scott Gall by phone (503-238-4775 x 105) or email (scott@wmswcd.org).

## **Mistletoe foraging**

This is the time of year when you may see mistletoe in Oregon oak trees. We have four native mistletoe species (Phoradendron) but those living on juniper and oak are the most common, according to Oregon State University. While scientists have known that mistletoe is generally good for wildlife, they don't have any hard research showing the plant's effect on wildlife.



Drs. David Shaw (Oregon State University/College of Forestry) and Joan Hagar (U.S. Geological Survey), as well as graduate student Kyle Pritchard are trying to find out how mistletoe affects over-wintering birds and which species use the parasitic plant in the Willamette Valley. Researchers say this information will complete a critical link in the ecology of the system.

In the Willamette Valley, the species we normally see is Phoradendron villosum, which grows on white oak, black oak, occasionally on manzanita, and a few other

western hardwood species. It's a large, green plant with somewhat hairy leaves and shiny, white berries. If you look at the tops of white oaks, you'll see mistletoe clumps scattered on the branches. Mistletoe uses water, minerals and organic nutrients from the host tree but most of its organic nutrients come from its own photosynthesis. Heavily infected hosts are weak, susceptible to disease and grow slowly.

While the seeds are toxic to humans if eaten, birds such as robins and blue jays eat and spread mistletoe seeds from tree to tree. Scientists say that mistletoe may be keystone species, increasing biodiversity by providing all kinds of resources for wildlife including for nutrition, nesting and shelter. A recent study by Dr. David Watson of Charles Sturt University in New South Wales, Australia found that 20% of bird species disappeared from a forest after mistletoe had been removed.

You can help the OSU research effort by volunteering to report sightings of birds foraging on mistletoe berries this fall and winter. Just go to the Avian Mistletoe Project website (http://avianmistletoe.forestry.oregonstate.edu/) to sign in and report your sightings.

## Introducing Conservation Technician, Laura Taylor!

Laura is settling into her new role of serving West Multnomah County in both a technical and educational capacity. As a conservation technician, she'll wear many hats. Laura will help our rural-oriented conservationists, Kammy Kern-Korot, Michael Ahr, and Scott Gall with their stream, forest, wetland, and farmland conservation projects. She'll help prepare maps and conservation plans as well as head out to the field to monitor projects and collect data. Laura will also coordinate our education projects, providing support

to schools and community groups for projects ranging from edible and native gardens to helping establish the next generation of farmers in our region. While She looks forward to expanding her skills and learning new things in this position, her background has prepared her well to hit the ground running.



Laura has deep family roots in the Pacific Northwest, and she grew up exploring the Cascades and Sierra Nevada Mountains with her family. She earned a B.S. in botany and forest ecology from Evergreen State College and an M.S. in invasive plant ecology from Portland State University. She's worked for eight years providing botanical and ecological support for restoration projects with public, non-profit, and private organizations including The Nature Conservancy, Tetra Tech, and the Tualatin SWCD. Laura also teaches a native plant identification class at Portland Community College. She and her husband take care of a vibrant little home with native and edible gardens, chickens, two orange tabby cats,

and a jungle of house plants, and hopes to begin keeping bees this spring. And if that's not enough, Laura says, "When everyone is taken care of, I occasionally escape to go for a hike or bike ride or find a good book to read." Welcome Laura!

Check out our website to learn more seasonally friendly tips and let us know how if we can help you care for your land,

Dide Springer

**Dick Springer** WMSWCD District Manager