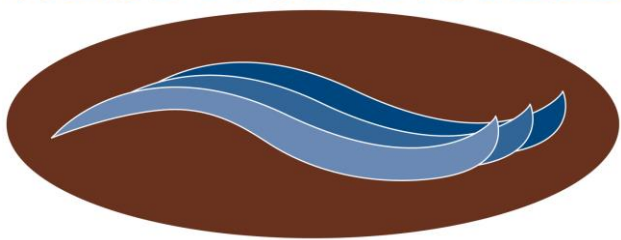


WEST MULTNOMAH



SOIL & WATER CONSERVATION DISTRICT

Spring 2014 eNewsletter

Spring is the best time to plant edibles and get a handle on those weeds!

Woodland Pollinators

Pollinator habitat is promoted all over the Willamette Valley as a way to benefit native insects and birds as well as farm and orchard crops. Many folks may not realize that our woodlands play a key role as some pollinators need dead trees for nesting (You've probably seen bees flying out of an old stump or snag on your property). Your woodland also has great potential to grow the pollinator plants themselves. As I look through documents from the Xerces Society or Natural Resources Conservation Service, it seems that so many of our native flowers are listed as beneficial to pollinators. I'm out in the forest quite often, and here are a few species that I've seen getting special attention from bees lately:

Pacific waterleaf – This plant has been blooming since late April, forming a thick mat in the forest this time of year. By August it will be gone again until next year. If your property is in Western Multnomah County, there's a good chance that you have this plant and that bees are visiting.

Bigleaf maple and bitter cherry – I don't have any photos of bees on these two species but in recent weeks I've seen significant bee activity in forest stands that are dominated by these species. As we measure trees in the forest this month, we're constantly aware of pollinators buzzing past us.

Willow – You won't find this shrub in every forest, but Scouler's willow persists in several forests in the McCarthy Watershed. It flowers in March, much earlier than most local flowers. On a sunny day, you're likely to see several bees visiting, especially if the willow is growing on a forest edge.

Snowberry – This is a fantastic shade-tolerant shrub to plant in your forest to fill in your spots. Pollinators will certainly pay it a visit.

Trailing blackberry – This viny ground cover seems to grow in most forests and may be hard to walk through, but it has a purpose. In the spring, you'll see bees visiting the vine's small flowers at ground level.

Other common wildflowers in our forests that will attract pollinators:

False lily of the valley
Huckleberry

Woodland strawberry
Rose

Elderberry
Oceanspray



Spring Projects

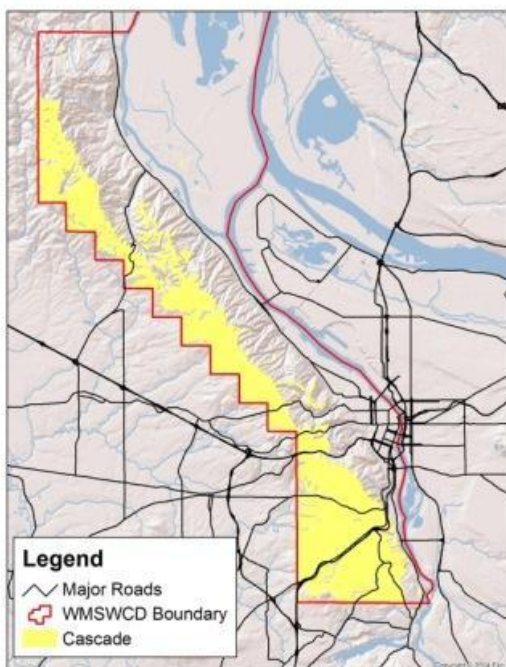
Ask Master Gardeners!

Spring is a busy time as we assess our land and plan for summer projects. They may involve installing a rain garden or putting in some new native pollinator plants. I don't know about you, but I always spend a lot of time reading through garden books this time of year, trying to make sure that I've taken into account shade and sun, drainage and soil conditions.

If you have questions, a great resource for you is the OSU Extension Master Gardeners, which are located in our office! For Multnomah County, you can call the hotline at 503/445-4608 from 10 a.m. to 2 p.m. and talk to a live person (what a concept!). Master Gardeners are highly skilled in every issue you may encounter in your garden, whether it involves diseases, bugs, planting directions, plant ideas or general care. You can also visit the office and even bring in a plant specimen that you'd like them to assess. The office is in Montgomery Park, 2701 NW Vaughn Street, #453 (4th floor). They are a free resource for you - use them often!

Taking a Soil Tour

Get to know the soils of West Multnomah: Cascade – silt loam



The Cascade soil series is one of the most significant within West Multnomah SWCD. Comprising over 25% of ALL soil types in the Conservation District the Cascade units cover the largest area by a wide margin. Occurring at elevations between 250 and 1400 feet, they are also very important for our forests. The USDA gives Cascade soils a site index of 117 and while that's not overly high, the rating suggests that trees will grow vigorously here. They are well suited for forestry land uses and wildlife habitat since they exist mostly on steep ground.

As with most soils, it's not what's happening on top that is most interesting; it's what is going on underneath. Cascades often contain a formation known as a fragipan; typically hard, dense layers (relative to those above and below) which greatly restrict

root growth and water movement. While fragipans occur in many soils, their presence in Cascade has a more historical meaning than most because they are the buried remnants of much older soils known as a “paleosols” – as in *paleontology*.

The core of the Tualatin Mountains, also known as the West Hills, is basalt rock – remnants of lava flows millions of years old. The basalt was buried following a series of floods during the Ice Ages known as the Missoula Floods. The floods originating in Montana carried the soil from northern Idaho and eastern Washington and deposited it in the Willamette Valley. In Portland, the flood waters would have been hundreds of feet deep. When the flood water receded, they left large plains of silt that were devoid of vegetation. The same winds that blow down the Gorge today picked up those silts and deposited them in the West Hills. These wind deposited silts, known as loess, can be anywhere from 10 to over 30 meters thick in the West Hills. The loess buried the soil that was already there. Often there were hundreds or thousands of years separating individual Missoula Flood events – time for the loess to begin transforming into a true soil before it was buried again.



The West Hills are well known for landslides, most of which occur in Cascade soils. This is due to the presence of these paleosols and fragipans. Tree roots often cannot penetrate these layers and water collects on top of them. During large storm events, the water can literally lubricate the areas above fragipan layers and cause the hill side to give way. Trees typically fall during these events as their roots may only go down a few feet.

The Cascade Series, with its buried paleosols and hard fragipan layers, is just one of the many wonderfully diverse soil resources of the West Multnomah Soil & Water Conservation District.

For question or soils information, contact Scott by phone (503-238-4775 x 105) or email (scott@wmswcd.org).

Citizen Scientists

Coming soon: Citizen Science Pollinator Monitoring Program

Over the past few years, the Conservation District has made pollinator habitat one of the primary features of plantings. With habitat loss, Colony Collapse Disorder, and other factors contributing to pollinator decline, adding more foraging opportunities for bees, butterflies, and moths, as well as educating the public about these very important insects, will continue to be of strategic importance. One out of every three bites of food requires pollination so these insects are vitally important not just to plant life, but human life as well.

With that in mind, WMSWCD is embarking on a new citizen science program with the help of our friends at [The Xerces Society for Invertebrate Conservation](#). In mid-May, 4 District staff and 2 partners representing the [Backyard Habitat Certification Program](#) and the [Pacific Northwest Urban Meadowscaping Program](#) will take a two-day pollinator training with entomologists to help us hone our identification skills so that we can train

future citizen scientists. Many of the native planting projects installed over the years should be mature enough to support all manner of wildlife including pollinators, and it's time to find out how many of them are visiting!

It is our hope to offer trainings to the public in 2014-15, so please be sure to visit our website, Facebook, and/or Twitter pages to stay in touch. We look forward to monitoring with you!

Invasive Species

Time to Pull Garlic Mustard!

Garlic mustard sounds like it could be a delicious treat in a salad, but it wreaks havoc on our ecosystems! Not



only is this noxious plant able to invade open disturbed areas, but it has no problem taking over shaded forest floors and pushing out native wildflowers. Aside from being a prolific seeder it can actually stop beneficial natives from growing where it has invaded by chemically altering the soil. If you have this on your property please pull this invasive weed well before it goes to seed by gently pulling at the base of bolted plants (make sure you get the entire root as small re-sprouts will come up and go to seed if root is left in the soil). Make sure you brush off your boots after walking through an infested area to ensure you don't spread the tiny seeds

elsewhere. If you need extra help on your garlic mustard infestation and you live in our district we can help - just give us a call at 503.238.4775.

Nesting Bird Season-Watch Out!



Every year starting in mid-April we curtail many of our management activities to minimize the impact on nesting birds. April 15 – July 31 is primary nesting season in the metro region where most of our songbirds, woodpeckers, waterfowl, and other bird species are nesting with eggs and newly hatched young. Most of our local species nest either inside or on the edge of shrubs and forests. Several species also nest in grassy areas. Mowing grass and invasive shrubs like blackberry or laurel during primary nesting season can harm local wildlife, so we encourage landowners to hold off on these activities until mid-August if possible.

How do you know if you have nesting birds on your property? That's tough since birds have the habit of hiding their nests really well. First, pay special attention along your forest edge in the layer of healthy shrubs. As you

walk through your forest or field, see if you startle or flush birds. If a bird lets you get within 5-10 feet before flying away, it was likely protecting a nest. Take a moment to look around and see if you can find the nest so you know to avoid it, but don't pick it up or tinker with it. On May 1, a couple of us were measuring trees in



the Balch Creek Watershed and an American robin flew past my head from just 2 feet away. I looked and found a freshly built nest in the salmonberry (pictured). Last year, a junco took off only a couple feet away from my foot. I looked down next to a sword fern and saw the nest right on the forest floor tucked under the fronds (also pictured).

We encourage landowners to wait until August 15 to cut and/or spray brushy vegetation. Keep in mind that September is often the best season to do this work anyway as we get better results on

species such as blackberry and scotch broom.

School Project Spotlight

Through classroom visits and planting days with three 5th grade science classes, Markham Elementary School's Backyard Habitat Certification is now in process. On a very rainy day, 80 students installed native plants and seed in front of their school. The garden will be used as an outdoor classroom and will also serve as a demonstration garden to the larger community. Next steps for this project include installing more native plants to help manage a storm water issue on the school grounds, hosting work parties to tackle the invasive weeds on site, and adding wildlife habitat in the form of a bird bath and/or bee and bird houses. The students are eager to move forward with receipt of silver level certification for their efforts!

Other school projects for the 2013-14 school year include: 1 [Backyard Habitat](#) native learning garden projects underway at St. Clare Preschool, a large edible garden project at Sauvie Island Academy, and multiple consultations on additional projects.

Help map Oregon white oak

Do you have native white oak in your neighborhood? Do you want to help us develop better maps of threatened Oregon white oak ecosystems?

The Intertwine Alliance, a partnership of Portland metropolitan parks and natural resource agencies, NGOs, and others are working together to develop better maps showing the distribution of Oregon white oak across our region. We have developed a draft oak map and are seeking volunteers (particularly those skilled in NW tree identification) to help ground truth the maps.

The citizen science effort, dubbed 'Oakquest' will run this coming July and August 2014. Training will be offered in late June, after which volunteers will begin mapping in their neighborhoods on their own schedules, employing a custom application on their smartphones or tablets. However, you do not need to have a smartphone or tablet to participate! Other volunteers will help spread the word on the importance of Oregon white oak conservation with their communities.

Are you interested? Please help us plan the effort and gauge our volunteer capacity by taking our short survey here: <https://www.surveymonkey.com/s/TX76WRS>. A volunteer with Oakquest will be in touch!

Stream Erosion

What causes stream banks to retreat?

Stream banks retreat when there is a combination of erosion and bank failure. Coarse soils along a stream can be more prone to erosion than fine particle (silt and clay) soils, which may hold together so well they even hang over the banks. While some erosion is natural and desirable, human activity can contribute to erosion. For example, heavy equipment on wet soils can compact the soil, reducing permeability and drainage and generally damaging the protective “fabric” of the soil. A lack of vegetation on stream banks (or anywhere else) limits the soil’s ability to weave a fabric comprised of plant roots, pore spaces and small fibrous fungi that essentially extend the soil-holding abilities of plants. These elements, plus micro-organisms, make for healthy soil that can resist erosion.

There are other factors that weaken stream bank soils and make them susceptible to erosion: 1) Weathering (freezing and thawing), even without flowing water, 2) Water flowing over the bank from adjacent land, and 3) water accumulating in the stream bank due to poor drainage. In such cases, you may see oozed soil at the toe (or base) of the bank.

Mature trees and other vegetation on stream banks typically do a good job of holding the banks and transpiring moisture out of the soil. Isolated trees, however, are vulnerable to erosion and will eventually give out -- particularly if the stream is incised (as most of ours are) and the roots are exposed. Trees like company, so the solution, in this case, is to line the entire stream bank with trees and shrubs. Vegetation on lands adjacent to the stream or river also mitigates erosive forces. Cover crops on fields, well forested slopes, and a wide buffer of trees and shrubs along the waterway can all help hold those precious soils in place.

If you need help restoring your streamside areas, check out our Healthy Streams Program at <http://www.wmswcd.org/content.cfm/What-We-Do/Healthy-Streams> and /or contact kammy@wmswcd.org.

Check out our website for more seasonal tips on how to best care for your land,

Dick Springer

Dick Springer
WMSWCD District Manager