

FUTURE BOARD MEETINGS

- October 9th
- November 13th
- December 11th

Meetings are held in the USDA conference room at 3 pm and are open to the public. The agenda is available on our website.

UWSWCD BOARD:

Gary Jensen

Ralph Perkins

Todd Anderson

Al Hrynshyn

Don Mogstad

Charles Arrera

UWSWCD STAFF:

Dave Downing -
District Manager

Lily Leiternann -
Watershed Tech

Clarissa Berndt -
Admin Specialist

INSIDE THIS ISSUE:

September Tour 2

Forest Health 4

Upcoming Events 6

2019 Poster
Contest 7

Soil Testing 8

Upper Willamette

Soil and Water Conservation District

VOLUME 1, ISSUE 4

FALL 2018



Thursday, Oct 18th ♦ Noon-10pm

Join us as we support our partner, the Willamette Valley Clean Water Alliance, at Ninkasi Brewing on Thursday, October 18th from noon to 10 pm. \$1 of every pint sold in the tasting room will be donated to the Alliance, and helps to fund the speaking events put on each year for free for the community. Ninkasi is located at 272 Van Buren St in Eugene.

The Willamette Valley Clean Water Alliance engages in education, outreach, and mutual assistance to ensure individuals, organizations, and communities understand and have a deep, abiding appreciation for the importance of our water resources for all uses—environmental, industrial, agricultural, domestic, and recreation.

For more information, visit www.wvcwa.org.

2018 ♦ TOUR

September Tour: OneGro & Cannalife

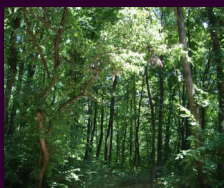
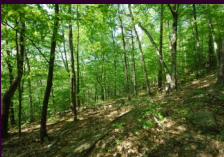
On Tuesday, September 11th, the UWSWCD Board and staff toured two cannabis growing facilities - OneGro (outdoor) and Cannalife (indoor). Each facility had unique ways of growing and standards that they each applied to their process. The details of the challenges and the successes of each facility, as well as the nuances of the cannabis growing industry in general was fascinating to explore.



OneGro Outdoor Grow



Managing Organic Debris for Forest Health



Introduction

Forest organic debris includes tree limbs, boles (trunks), needles, leaves, snags, and other dead organic materials. It ranges in amount and composition depending on a forest's history, tree species, condition, and age. In the Inland Northwest (Idaho, western Montana, eastern Oregon, and eastern Washington) there is a lot of discussion and concern about removing organic debris from forests.

Common reasons for removing organic debris include reducing bark beetle hazard, preparing a site for tree planting, harvesting forest biomass for energy, and reducing fire risk. For example, it is critical to remove organic debris within 100 feet around homes and structures to reduce fire risk. And some people simply like the aesthetics of a forest with less organic debris.

All these issues are important. But leaves, needles, and woody debris left in a forest are not necessarily

wasted. A growing body of research supports leaving some organic debris in forests. Organic debris left distributed across the forest floor acts much like mulch in a garden. It protects soil from excessive moisture loss, recycles nutrients for trees and other forest plants, adds structure and organic matter to the soil, reduces soil erosion, and provides food and habitat for a wide variety of wildlife.

Many landowners are unclear on how to reconcile the potentially conflicting objectives related to forest organic debris. As a result, some landowners tend to remove all organic debris while others may treat as little as possible, to save money and time.

This publication outlines the role of forest organic debris in Inland Northwest forests and provides general management recommendations to maintain forest soil productivity and improve wildlife habitat, while simultaneously reducing wildfire and

insect hazards.

Many people refer to all branches and tops accumulated from logging or a storm as "slash". But different types of organic debris have different functions and different management challenges. To that end, this publication differentiates between two broad categories of forest organic debris: fine organic debris (FOD - material smaller than 3 inches in diameter) and coarse woody debris (CWD - material 3 inches in diameter and larger).

Inland Northwest Forest Soils

Soils are the foundation of forest growth and health. They provide structural support, nutrients, and water storage for trees and other forest plants and fungi. Soil quality, rainfall and temperatures determine how a forest regenerates, develops, and functions. Over thousands of years, climate and vegetation break down or "weather" parent materials (the bedrock and/or sediments underlying a forest soil) into a unique

mineral soil for a given forest site.

Many Inland Northwest forest soils have also been significantly influenced by wind-blown deposits of soil and volcanic ash. In addition to mineral contents, a large portion of a soil's volume is made up of pore space, which helps a soil retain and store moisture and allows for oxygen and carbon dioxide exchange around roots.

Organic materials from plants, animals, and fungi are also integral parts of a forest soil. These living and dead organic components influence critical forest soil functions such as water holding, nutrient storage and release, aeration, nitrogen fixation, bacterial and fungal habitat, and protection from compaction and erosion. The contribution of organic debris to forests is as variable as the forests where it occurs. Inland Northwest forests range from moist cedar-hemlock forests to cold lodgepole pine-subalpine forests to dry ponderosa pine forests.

The most noticeable organic component of forest soils are the surface organic layers. These “duff” layers usually consist of freshly fallen twigs, leaves, and needles. In the middle of the surface layers, there is usually a layer where plant and tree materials are being decomposed by insects, worms, fungi, bacteria, and other organisms. Below this, plant parts have decomposed to where they are not distinguishable.

These surface organic layers are

highly visible in a soil profile of moist forests and cold forests—often one or two inches deep. In dry forests and other frequently burned forests, these layers can be very thin or even nonexistent. However, where fire has been excluded from dry forests, large amounts of organic materials can accumulate due to very slow decomposition. This is most apparent around the bases of mature ponderosa pines that continually slough off bark and shed heavy amounts of needles.

Varying amounts of wood from decaying tree limbs and stems (also



called boles, trunks, or logs) are often mixed in the surface organic layers of forest soils. Rotten wood (often brown and cubical) is the most noticeable and longest-lived organic material in forest soils, lasting up to centuries. Rotting wood can also be found deeper in the soil. It can be created by decaying tree roots or by logs buried under sediment by soil erosion after wildfires, or other soil movement processes. In some cold and moist forests, up to 40% of the top 12 inches of a forest soil can be

composed of this buried rotten wood.

Influence of Fire on Organic Debris

Historically, wildfire helped determine the amount of fine and coarse woody debris in forests. Wildfires can be separated into two broad classes. *Stand replacing fires* killed nearly all of the trees. *Surface fires* killed small trees and vegetation in the understory but left overstory trees alive. Many individual fire events were a mixture of these two types of fire (sometimes called *mixed severity fires*).

Stand replacing fires did not usually completely consume all wood on the site, particularly if intervening surface fires reduced understory vegetation and fine fuels. Stand replacing fires typically moved through a site fairly quickly, burning up the needles and fine branches and leaving a charred sea of standing and fallen dead trees in their wake. Even where these sites burned again, some coarse woody debris remained.

Excerpt from “Managing Organic Debris for Forest Health: Reconciling fire hazard, bark beetles, wildlife, and forest nutrition needs”. To read more please visit <https://catlog.extension.oregonstate.edu/pnw609>.

UPCOMING EVENTS




October 2018

- ♦ Oct 8th - Office closed for Columbus Day
- ♦ Oct 9th - Board of Directors Meeting, USDA Service Center, 3 pm - 5 pm
- ♦ Oct 18th - Ninkasi Pints for a Cause fundraiser, 12 - 10 pm








November 2018

- ♦ Nov 1st - Master Woodland Manager Training, 9 am - 4 pm. Contact OSU Ext.
- ♦ Nov 7th—Don't Get Burnt! Are You Prepared?, Eugene Downtown Library, 7 pm.
- ♦ Nov 11th - Free Entrance to National Parks
- ♦ Nov 11-12th - Forest Service fee-free days
- ♦ Nov 12th - Office Closed
- ♦ Nov 13th - Board of Director Meeting, USDA Service Center, 3 pm - 5 pm
- ♦ Nov 15th - Master Woodland Manager Training, 9 am - 4 pm. Contact OSU Ext.
- ♦ Nov 22nd - Office Closed

OCTOBER 2018

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8 	9 	10	11	12	13
14	15	16	17	18 	19	20
21	22	23	24	25	26	27
28	29	30	31			

NOVEMBER 2018

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1 	2	3
4	5	6	7 	8	9	10
11 	12 	13 	14	15 	16	17
18	19	20	21	22 	23	24
25	26	27	28	29	30	

DECEMBER 2018

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11 ★	12	13 ★	14	15
16	17	18	19	20	21	22
23	24	25 ★	26	27	28	29
30	31					

December 2018

- ◆ Dec 11th - Board of Director Meeting, USDA Service Center, 3 pm - 5 pm
- ◆ Dec 13th - Master Woodland Manager Training, 9 am - 4 pm. Contact OSU Ext.
- ◆ Dec 25th - Office Closed

2019 Poster Contest Announced



Once again, the UWSWCD is hosting the annual NACD poster contest for students within the district. The theme is: "Life in the Soil: Dig Deeper". This year, all students (public, private, and homeschooled) within our conservation district are invited to participate. For more information, please visit our website: www.uwswcd.org.



Upper Willamette Soil and Water Conservation District

780 Bailey Hill Road, Suite 5
Eugene, OR 97402
Phone: 541-650-3057
E-mail: office@uwsacd.org
www.uwsacd.org

Office Hours:
Monday - Friday
8:30 am - 4:30 pm

Get Your Soil Tested Today!

Healthy plants and produce are a result of healthy soil. The best way to know what nutrients are needed for your soil is with a soil test. The soil test kits purchased at a garden store usually do not yield accurate results for a variety of reasons. The best way to determine soil health is to get a laboratory soil test! The Upper Willamette SWCD makes this simple for you! Just bring in a 2 cup sample of your soil, and we will take care of the rest! With the test results, you will also receive a written analysis and interpretation of the test results with the crop specific recommended amendment amounts needed to ensure that your soil is as productive as possible.

Soil testing is very popular

amongst small hobby gardeners as well as larger farms. Whether you are aiming for a nice lawn, a more vibrant flower gardens, better quality garden produce, or a higher yield in crops, we can help! Complete diagnostic testing on your soil sample is \$65. Results are received in approximately 10 business days of



Soil sample with resulting analysis report

shipping (we ship every Friday).

Reports on nutrients include:

- Organic matter
- Potassium
- Calcium
- Hydrogen
- Base Saturation
- Magnesium
- Sodium
- Phosphorus
- Magnesium
- pH
- Salts

If you are interested in Pesticide and Chemical (contamination) residue testing, contact Pacific Ag Labs at (503) 626-7943. For water testing, contact Analytical Lab at (541) 485-8404. Call our office for more information on nutrient testing and get started today!