The Sharpshooter

Oregon Society of Soil Scientists
Quarterly Newsletter
Summer, 2025

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PRESIDENTS LETTER

Hello Oregon Society of Soil Scientists Members and Friends,

Summer is flying by, and with it comes a flurry of opportunities to connect, learn, and explore together as a soils community. The season has already brought inspiring field experiences—from the Region 6 U.S. Forest Service field camp on the Wallowa-Whitman National Forest earlier this summer, to the upcoming *OSSS Summer Field Tour*, September 12–14, in the beautiful Klamath River Basin. The Klamath River Basin tour will be a chance to explore the unique soils and landscapes of the region, including the largest dam removal in U.S. history and visits to some recently published NRCS soil survey pits. Registration is open through September 8th on the events page of the OSSS website. We hope you'll join us to close out the season with a rich, hands-on experience!

Standards in soil science have evolved over decades through the dedication, collaboration, and curiosity of soil scientists across the nation—and here in Oregon. From the early days of exploratory surveys and hand-drawn maps to the modern use of GIS, remote sensing, and detailed classification systems, our field has been built on a foundation of shared knowledge and rigorous methodology. These standards didn't appear overnight—they were shaped by countless hours in the field, lab, and classroom, ensuring that our understanding of soils is both scientifically robust and relevant to land management, conservation, and agricultural practices.

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Visit the Oregon Society of Soil Scientists @ https://www.oregonsoils.org/contact/

Behind those standards are the stories that bring our profession to life—the long days spent mapping soils in rugged conditions, the satisfaction of uncovering new patterns in data, and the moments of awe when standing on a ridge and seeing the geological story of a watershed unfold before your eyes. Our members hold a wealth of experiences exploring Oregon's diverse landscapes. The most recent opportunity to share this knowledge was at the *2025 National Cooperative Soil Survey Conference*, hosted virtually through Oregon State University in June, with a special focus on Oregon soils. Through a series of talks and virtual field tours, the complexity of Oregon's landscapes and the strength of our state's baseline soil research were a main focus

Looking ahead, OSSS is issuing a call for speakers for our upcoming Winter Conference in Corvallis, which will focus on the *History of Oregon Soils and Stories of Oregon Soil Scientists* who have shaped our state's understanding of the land. We welcome your insights—whether drawn from field mapping, research, or decades of observation—to help preserve and share the knowledge that has built our profession. This year's theme aims to inspire the next generation of soil scientists by showcasing the legacy and impact of those who have worked to build our understanding of Oregon Soils. If you have contributed to building the field of soil science in Oregon, contributed to creating a soil survey, or established research in Oregon, the 2026 OSSS Winter Conference could be your chance to share your work and experience with our community.

Thank you, OSSS members, for your involvement and continued support in our soils community.

Sincerely,
Jalene Weatherholt
President, Oregon Society of Soil Scientists


Oregon Society of Soil Scientists
Call for Scholarship Applications
OSSS Scholarship: $500 to $1,000
Applicant Criteria and Required Materials
• Attending college or university in Oregon in 25/26
• Pursuing studies in soil-related discipline
• Students studying related disciplines invited to apply if applicant relates studies to soil in essay.
• OSSS Scholarship application form (link below)
• Minimum 3.0 overall GPA
• Preference given to students who have not received an OSSS scholarship in the past 12 months.
• Unofficial transcripts (high school transcripts if high school student or 1st year college student, otherwise, college transcripts only)
• 500 – 1,000 word essay on soil (No AI assist please)
o Significance and importance of soil
o One or both of the following topics:
a) Goals for career objectives relating to soil
b) Personal interest in studying or enhancing soil
Application Deadline: 5PM PST October 15, 2025
https://www.oregonsoils.org/links/scholarships/
Send submissions and questions to:
osss.scholarships@gmail.com

Soil Spotlight #1

Interview with onsite wastewater specialist David Hurley

By Carl Makepeace

At this last winter meeting, I had a few conversations with people curious about the field of onsite wastewater treatment. I don't work directly in that field myself, however, working at DEQ, I know at least a few people who do. From what little I know, it seems like a good pathway for people passionate about soil morphology and the environment, whose idea of a good time is getting their hands dirty in a soil pit. In other words, a sizable portion of the people reading this article! In an effort to provide more information to any OSSS members interested in this field, I decided to conduct an interview with my DEQ colleague David Hurley, who is an Onsite Wastewater Program Specialist for the Eastern Region at our agency.

Interview edited for clarity.

Carl: How long have you been involved in onsite wastewater management as a career?
David: Almost 9 years at DEQ, previously 3 years at the Florida Department of Health.

C: How would you describe the role of an onsite wastewater specialist?
D: Primarily, evaluating soils for the potential for wastewater treatment, followed by review of system design plans for compliance with Oregon's onsite rules, followed by issuance of an on-site permit.

C: What's your favorite part of your job?
D: 100% it's getting outside and evaluating soils! Jumping in a test pit is by far the best part of the job. Although, as you move up, there is more time in front of a computer screen.

C: What's your least favorite part of your job?
D: For me it's feeling frustrated with some of the bureaucratic processes that we have to work through as a government agency.

C: What is your educational background?
D: I have a Master's in Natural Resources Management, a Baccalaureate in both Environmental Science and Urban Growth Management, and a Graduate Certificate in Soil Science.

C: What coursework have you found most useful in this career?
D: Believe it or not, hydrology and limnology coursework have been useful. Even though they don't deal directly with soil, they have helped me understand water movement through soil.

C: Do you have a favorite soil order?
D: Vertisols! I love my high-carbon, volcanic, shrink swell clays!

C: They don't make for very good onsite systems do they?
D: There is a specific type of system that is allowed for vertisols under Section 290 of Oregon Administrative Rule Chapter 340 Division 71. However, specific climatic, slope, and design conditions have to be met as well.

C: Do you have any advice for anyone interested in the onsite wastewater field?
D: You don't necessarily have to have a degree in soils, although having a minor in soils or similar level of coursework helps. I highly recommend it! It's a very rewarding career that allows me to work outside! Being under legitimate sunlight, just makes you so much happier, as a human.

C: Apart from DEQ, who else employs onsite wastewater professionals?
D: Most counties in Oregon also employ onsite wastewater specialists, since they do the same type of regulatory onsite work we do, specifically for residential systems. Counties are a great way to get into this field and gain experience. Consulting companies also employ onsite professionals, however I would guess that more experience is needed to get hired by a consulting firm.

C: How do you like working in the onsite program at DEQ?
D: Honestly, it's a place that really and truly cares about its people. It's great working with smart people who really care about the environment.

C: Thank you for the time David!
D: Thanks for the questions!

National Cooperative Soil Survey Conference —Oregon, 2025

By Ron Reuter

The four-day 2025 Biennial National Cooperative Soil Survey Conference (NCSS) was held in mid-June, hosted by the Oregon NRCS and Oregon State University. The NCSS is where all collaborators in soil survey come together to discuss new topics, revisit old ones, address problems, and update each other on developments in their respective realms of soils. Who are the collaborators? At the national agency level, the primary agencies are essentially the NRCS, USFS, BLM, and NPS. Other key players in the group include USACE and USDA-ARS. Assisting with the research of the soil survey are universities, not just those at the R1 level, but all shapes and sizes. It's like soil survey nerd central.

Hosting rotates across the country. In 2023, ND was the host state. For 2025, Oregon was selected, largely because Cory Owens and Jericho Winter said, ” Uh, sure, we can host. Let's call Ron." Like many other things, NCSS was going to be different in 2025 (although this was not known at the early stages). In 2024 planning sessions, we had grandiose plans of running the conference in Bend. Can you say Andisols? Excitement abounded. Conference size was projected to be ~250 attendees. One criterion when paying for a conference with government funds is to avoid using the word "Resort" in your destination. Well, the only real place in Central Oregon set up to put on such an affair is Sunriver RESORT…. The Deschutes County Fairground had capacity, so we pivoted to Redmond. But their conference-running organization was weak. So, we pivoted again and decided to have the conference on campus in Corvallis.

That's cool, we know the Corvallis area, this will be easy. We have cool soils too, and a Missoula Flood story that predates that upstart Mazama one. We planned some great field tours and a Wednesday evening banquet at Tyee Vineyard. Along came January 20, and the couple of days after that. The NCSS conference is where the agency folk and university folk mingle (like at OSSS winter meetings). However, at least half, if not more, of the attendees are federal agency personnel, and their ability to travel has been reduced to zero. Can you say pivot? The planning committee settled on a hybrid approach – agency personnel online and university personnel in person.

After a couple of weeks of thinking about hybrid, some wise person on the committee asked, “Are the university folks going to come if the agency folks aren't there?" A quick poll of fellow faculty members at universities across the US yielded a bleak response. The university staff attend NCSS for the face-to-face interaction. If agency personnel were online only, many university personnel (75% of the straw poll) would not travel to Oregon. Pivot! We decided to go fully remote.

The last twist was that, typically, a nominal fee is assessed via registration to cover food and sundries at the conference. We knocked the registration fee way back, <$100. However, agency personnel weren't allowed to spend more than $1 on their government credit cards. Since a USDA grant primarily covered the delivery components of the virtual conference, there was less need for a registration fee, so we made the conference free. That had repercussions, in a good way. What would typically be a conference of 250 participants ended up with 499 attendees, not including the committee staff and presenters. If we include everybody, we had 597 participants! Amazingly, we had representation from all 50 states, D.C, and Puerto Rico. And we had attendees from Brazil, Lagos, Ethiopia, and India.

The planning committee aimed to expand beyond the traditional NRCS-centric feel of the conference and chose the theme of "Welcome to the Neighborhood: Living and Working with Partners on the Land" to showcase all those who engage with the NCSS. This was reflected in the speaker selection, which included our own Alicia Leytem, speaking about the importance of professional soil organizations like OSSS. And OSSS Prez Jalene Weatherholt gave a warm Welcome message to start off the conference.

Typically, at the conference plenary session, one invited speaker will cover the soils and geomorphology of the visited area. In this virtual environment, we had our speakers pre-record their presentations for playback. This approach, we hoped, would help avoid technical issues during the live viewing on Zoom. We had a triple header planned for folks meeting Oregon and the Willamette Valley for the first time. Dr. Scott Burns kicked us off with a geology overview – he knocked it out of the park as always.

Matthew Fillmore, the Meister of the Valley Soils, gave us a great rundown of the Willamette Valley surfaces and their origins. And batting cleanup (yeah, I know, this is technically only the third batter), Dr. Dean Moburg gave an enlightening look at the land use history and logistics for Oregon, with a special look towards how soil survey plays a role. As a professor who teaches extensively about natural resources and Oregon soils, I learned a great deal I didn't know during these sessions. You can find these recordings, which include the welcomes from the national and state leaders in NRCS, at https://www.youtube.com/@nrcssoilandplantscience.

A significant disappointment with virtual conferences is the lack of a field tour. I had contemplated traveling across the Willamette Valley with Meister Matthew and other experts to record them discussing our amazing, productive landscape and its soils, creating a true virtual tour. But, logistically, with only a few weeks to go before the conference, and the end of term, and four graduate defenses to read theses for, there was no time for recording, let alone editing. So, I opted for a shortcut way to create a virtual tour — and it included a lot of Oregon, not just the Valley. You may be one who received a request for pictures and information about your favorite soil pit for inclusion in the tour. I received a few responses and added some of my own, including information about previous OSSS tours, and put together an amateur virtual tour. I think it got to a few of the nooks and crannies of Oregon, in addition to the Willamette Valley. You can check that out here: https://media.oregonstate.edu/media/t/1_t994dcki. We played the video for the attendees during a break in the session.

You might ask, What did Oregon gain from hosting the conference? I don't have a clear answer to that. We successfully showcased the awesomeness of our state and the Pacific Northwest. Some attendees remarked that Oregon had become a must-visit destination on their bucket list for vacation trips. Perhaps our most significant impact is that several of our excellent soil scientists were spotlighted throughout the conference. I tend to fly by the seat of my pants when in an MC role, and that gets me into trouble. But NRCS OR State Soil Scientist Jericho Winter WAS PREPPED! She had slides ready to direct the few ‘live’ parts of the conference and made transitions across the agenda seamless. The only time she missed her cues was when her office internet went out!

Jericho demonstrated her professional skills, which earned her the state soil scientist position. And the show would not have gone on without Cory Owens. As the early part of 2025 unfolded, it seemed that each week Cory had a new title added to her byline as she took on more and more responsibilities at the USDA. Currently, she serves as POC Associate Director, Soil Services and Information Branch; POC Associate Director, SPSD Programs; National Lead for Hydric Soils; National Resource Soil Scientist for Partners Training; and USDA NW Climate Hub, NRCS Co-Lead. Cory was also well-prepared for speaking to the often faceless Zoomtopia. And she managed to keep our operating budget intact in the face of threatened federal pullback, even as we had to shift our conference modalities. Cory and Jerichco, you make OSSS proud!

The true workhorse behind the scenes was the OR NRCS Facilitation Cadre, led by Aaron Roth out of John Day. Ask any attendee, and they wouldn't be able to tell you what I am talking about — and that's great, because the Cadre spent many hours learning our online platform and ensuring it was ready to go before launching on the first day. We even had a test run on Sunday before the conference…weekday feds working on a Sunday, who has heard of such a thing? Truly, our conference would have been a failure if not for all these folks operating behind the scenes. Success is a group effort!

At the end of it all, I can say I learned some stuff. One: I never want to run another virtual conference. Two: I remembered how much I LOVE SOIL SCIENCE…I don't get to teach it much anymore, so this journey reignited my passion. Three: There are a lot of people across our great nation who LOVE SOIL SCIENCE! Four: Oregon is a freaking fantastic place to be a soil scientist. And Five: We are sooo lucky to have the Oregon Society for Soil Scientists…they are colleagues, mentors, and friends. They welcomed me to the state back in 2003 and keep inviting me back!

From the Sharpshooter Archive

SOIL SHARPSHOOTER

A Newsletter for Oregon Society of Soil Scientists

No. 1
Oct. 3, 1977

The idea of a newsletter for OSSS was developed last year during the annual meeting in Eugene. Clair Silvernale did his part by submitting a draft of the first issue. I "goofed" and didn't follow up like I was supposed to. My apologies to each of you. We will try and bring you up-to-date on happenings since the meeting in Eugene and on plans for the next meeting.

SOIL SHARPSHOOTER Vol. 2, No. 2 April 27, 197

Scrapings From the Ol' Auger

HAL LEGARD reports that two representatives from the Caterpillar Corp. are in the Eugene area making comparative studies of some of their skidding equipment and that of other manufacturers to determine the magnitude of harmful soil impacts. Similar studies are also being made elsewhere in Oregon.

While we're still on forestry, a forest fertilization experiment was recently completed on the Willamette National Forest. According to HAL LEGARD, 625 acres were fertilized with nitrogen at a rate of 200 lb. per acre. Using a helicopter, the entire job was done in just 6 hours.

SOIL SHARPSHOOTER

Vol. 2, No. 21January 27, 1978

Another recent traveler was JOHN ALLEN. John was selected as one of three people on an AID team to help evaluate the soil survey program in Syria. The team was asked to determine the capability to accelerate the Syrian soil survey and to devise a plan for training and equipment that would help the Syrians meet their needs for soil surveys. John began this 30-day assignment in mid July. Then he and his wife took advantage of the opportunity to spend a couple of additional weeks traveling in Europe.

Get dirty with...

Soil Judging

At OSU, students are back in the pits!

After a few years off, the OSU Soils Team is back and better than ever! Every month, about 20 undergraduate students from Oregon State travel across Oregon to learn about soils. These trips serve as a hands-on field training, where students learn how to describe and classify soils while understanding their context in natural landscapes.

The American Society of Agronomy Regional Contest will be held in Grand Junction, CO in the fall. Students will be exposed to a wide range of soils and will compete against schools from all over the Western US.

Stay in the loop!
Contact kalisza@oregonstate.edu to join our email list.

We need YOU!

We're looking for volunteers who can share their knowledge with students, assist in fundraising, and help plan trips. Please reach out if you're interested!

Thanks to everyone who has helped us out!

The Soils Team is coached by Ron Reuter, Alex Kalisz, and Seirra Wolfe. Special thanks to Pam and Mark Keller, Yakun Zhang, Markus Kleber, Elizabeth Verhoeven, OSSS, and everyone else in CSS at OSU!

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