This presentation will explore the importance of the "little" things we do while we drive. Road users come in all forms of life from pedestrians, cyclist, motor-vehicle users and of course public works maintenance workers who work near, below or on our roads. We will discuss the impact our choices have on those around us. We will also explore those easy things we all should do to protect those we love.

This keynote address will be on the update to the Oregon locating laws and regulations, and the hazards associated with failure to call before you dig and their impact on the locating requirements of public wastewater collection systems.

Shawn will explain the features, functions and benefits of the Vactor 2100i Combination Truck when used to maintain sewer and stormwater systems. He will go over chassis requirements, water system, debris body, the boom, option content, air system and the hose reel. Q&A time at the end of the session.

This class will allow collections workers to understand how flow and pressure relate to each other and when to apply how much to complete the task efficiently. Nozzle design and a discussion of how these designs affect the cleaning process. Finally, we look at the actual procedure of cleaning and how to correctly clean pipes in one pass while reducing the opportunities to "Blow Toilets!"

During this portion of the course we will have hands-on experience looking at how the different tiers of nozzles respond and what that means to the cleaning process. At the end of the course the cleaning process will be better understood, and the operators should be able to have better perspective of how to deal with issues like "Blown Toilets" water consumption, recalls piping by CCTV crew, etc.

The Sanitary Sewer Pipe Assessment class covers the inspection, current methods, certifications, and standardization of pipeline assessment. The history will cover where pipeline inspection started and the means of completing the inspection. We will also consider the current methods and new technologies. The second half of the class covers NASSCO and PACP certification and standardization, and the basics of observations for reporting defects and damage classes for sanitary sewer lines.

Class will demonstrate the safe use of a hydro-digging tools to excavate to depth for sanitary sewer & stormwater pipe repairs and other utility structures installed underground. Students will learn about tool selection for root intrusion and soil material. Class attendees will also learn the safe operations and settings on a combination equipment to perform Hydro excavation safely.
Sanitary Sewer Overflow Response (Lloyd “Fuji” Ngariki, City of Eugene)
Sanitary sewer overflow happens any time of the day or night and any day of the year. Students will learn new Maintenance Management System (MMS) technology to review data asset information to help navigate the collections system and locate the sewer blockage. The class will be able to walk through the step by step process using the MMS mobile device. Students will be able to share experiences on the process with locating, mitigating, cleanup and reporting of a sanitary sewer event.

ROADeo Competition (City of Eugene)
Equipment ROADeo is a timed competition event for street maintenance and collection systems operators who use heavy equipment to excavate street repairs or excavate to depths for pipe repair on collection systems. The ROADeo course is designed to replicate normal working conditions with obstacles to simulate everyday working conditions around tree roots, utilities and sanitary sewer and stormwater pipe systems. Operators will be able to demonstrate their skills through safety awareness, equipment knowledge and equipment usage. Hard Hat and Vest are required to compete. The course may mirror the one used this September in Seattle at PWX 2019.

Should Your Next Piece of Equipment be a Combo Truck? (Tom Hochmuth, Sewer Equipment)
A thought-provoking look at alternatives to traditional combination/jet-vac trucks when maintaining a sewer system. Jet trucks, jet trailers, vacuum trailers, rodders, bucket machines, and easement machines are all examined. Safety, traditional operational challenges such as weather and space restrictions, budgets, and productivity goals are all discussed in relation to each of these pieces of equipment.

Combo Jet/Vac Safety and Proper Nozzle Selection (Tom Hochmuth, Sewer Equipment)
This class will be a review of safe operational and equipment maintenance practices for combination truck operators. We will also discuss proper nozzle selection for various applications for sewer cleaning.

Confined Space Entrant, Attendant, Entry Supervisor Training (Greg McDonald, Ritz Safety)
(OESAC Course #3099 CEU's 0.4) Course will cover The Oregon Confined Space Rule OAR 437-002-0146, characteristics of Confined Spaces, Hazards & Managing of Hazards, duties and responsibilities of entrants, attendants and entry supervisors, the use of equipment, care and maintenance requirements, understanding rescue requirements, and personal protective equipment.

Combination Sewer Cleaner Demo – Water Recycler (David Haynes / Brian Foster, Western Systems)
Combination sewer cleaner is commonly used in the preventative maintenance of stormwater and sewer collection systems. This class will be a walk around of the Water Recycler to learn about the equipment and the safe operation and application futures. Students will be able to observe the recycler demonstration process and learn the operation techniques and benefits in using the recycler in everyday maintenance of a collections system.

Vactor Operation and Maintenance Certification (Greg Read, Owen Equipment)
A Vactor combination truck is used in the maintenance of a sanitary sewer and stormwater system. Attendees will acquire knowledge, both practical and theoretical, concerning the safe operation, basic maintenance and troubleshooting of the various areas of the Vactor 2100i, 2100 Plus or the Classic Series Fan and PD units. Topics covered will be; different nozzle and their usage, water pump, boom functions, vacuum systems, dumping procedure, accessories, winterization and pre-trip inspections. Certificate will be issued upon completion of class.
**Willakenzie Pump Station Tour** (Curt Brace / Monty O’Connor / Matt Gordon, City of Eugene)
Attendees will tour Eugene's largest regional wastewater pump station. Discussion will include influent, pumping and effluent control, maintenance issues and emergency concerns. A Vactor truck and crew will be onsite to demonstrate maintenance issues.

**Eugene-Springfield Regional Treatment Plant Tour** (Steve Barnhardt / Matt Green, City of Eugene)
This tour, of the regional treatment plant, will detail the liquid and solids processes which clean the water before being discharged into the Willamette River. **We will** walk through the process areas and provide an in-depth explanation of the treatment process.

**Aquatech Sewer Cleaner Walk-Around** (Pat Kuhnau, General Equipment)
Students will learn basic operations and maintenance of an Aquatech sewer cleaning piece of equipment and will walk around equipment to familiarize operation procedures on vacuum blower and water pump application. The students will have an opportunity to ask questions on how equipment is utilized in maintenance operations on sanitary sewer and stormwater systems.

**Collections System Maintenance: A Diverse Career** (Bill Buterbaugh, City of Eugene)
Bill will have an open mike conversation of his public works story and diverse career in the wastewater collections system in two types of cities. Safety experienced shared as a treatment plant operator, jet truck operator, and Inflow and Infiltration Technician. He will give perspective on what worked well, and what challenging situations will be coming up in this field.

**Trenchless Spot Liner Repair** (Jake Bennett / Kris Leonard, City of Eugene)
This class will demonstrate how to successfully install spot liner repairs in sanitary and stormwater piping. An outside live demonstration will be held to show how the pipe patch materials are laid out, mixed, applied, and installed. Step by step procedures will be discussed to be successful using the spot liner system along with the correct PPE needed for the job.

**Maintenance Management System – How to Organize Your Collection System** (Jason Lamb, City of Eugene)
This Session will look at "MMS", a computerized asset management system developed by City of Eugene PWM staff to manage work flows, asset management of our collection, stormwater, and transportation systems, and about every other functionality you can image. This session will cover functionality and help a collections system operator understand how organization of data and data collection can help maximize productivity and reduce SSOs.

**Let’s Talk Lateral Launch** (Annette Cutsforth, City of Eugene)
In this session we will talk about how we use our lateral launch equipment for determining if lateral issues in the sanitary sewer system are in the right of way or on the private side and for locating blind connect pipes in both the sanitary and stormwater systems. We will talk about how our lateral launch equipment functions and go over how to set it up for different pipe types and diameters. We will demonstrate a lateral launch. There will be time for discussions on what experiences other people have had with lateral launch equipment they use in their sanitary sewer system.

**Stormwater Quality Structure Cleaning Tour** (Sandy Francis / Josh Colley, City of Eugene)
Eugene Public Works Team will be performing its annual preventative maintenance on the largest water quality structure in Eugene. The process involves worksite safety, confined space entry, and dual combination vacuum and jet rodder equipment. Students will experience the full measure of maintaining such a large structure using new techniques and application to comply with the city's National Pollutant Discharge Elimination System Permit.
**Combination Truck Set-Up** (Lloyd “Fuji” Ngariki, City of Eugene)

We carry everything that we need (except the kitchen sink) for our preventative maintenance program, hydro-excavation and responding to sanitary sewer/spill mitigation. Students will have the opportunity to see how space is utilized and what tools operators carry on their combination truck. There will be two combination trucks on display to show new applications in water supply and debris off-load and how that process works.
**STREET MAINTENANCE SESSIONS**

**RS-3 Paving Materials** (Tony Jobanek, Oregon T2 Center / Darrell Randall, Retired)
This is a required core class for those in the RS Level 1 program. Introduction to key properties of aggregates and the various binders available in order to produce good paving material.

**Hazard Communication – You Have the Right to Know** (Eric Fullan, City of Hillsboro)
Employees have the right to know what chemical they are exposed to in the workplace. Participants will learn more about the most frequently cited OSHA standard including what employers need to provide for a safe and healthy workplace for employees. Course will cover an overview of the hazard communication standard including recent changes, container labeling, chemical use, storage and protective systems.

**Excavation Safety & the Role of the Competent Person** (Eric Fullan, City of Hillsboro)
Recent trench collapses illustrate the importance of the proper use of protective systems. This class will focus on OSHA's Excavation Standard including proper safe work practices while working in and around excavations, proper soils analysis and classifications and protective systems with added emphasis on the role and responsibilities of the competent person requirements.

**RS-15 Roadway Safety Fundamentals 2** (Mojie Takallou, University of Portland)
This is a required class for those in the Roads Scholar Level 2 program. The class introduces roadway safety fundamentals by exploring a variety of topics that include crash data, the ODOT highway safety program, tort liability, risk management, speed limits, traffic control devices and pavement markings.

**Pothole Maintenance with Mixed Applications** (W.R. Bill Bailey, Lakeside Industries)
Evolution and proper installation of modern asphaltic materials for road repair and utility works; including practical applications for various problems.

**Refilling Propane Certification** (Tim Forrester, Suburban Propane)
This class is a comprehensive session for the required knowledge and safety of refilling propane containers. Upon completion of this class, attendees will be given a certificate of training for the safe dispensing of propane.

**Working Safely with Trees** (Cory Shields / Jeff Chandler, City of Eugene)
Every year employees suffer avoidable injuries while working with trees. In this session, we will discuss the tools and techniques necessary to do this work safely and the proper use of PPE, chainsaw/chipper operation, as well as site setup and pruning tips.

**Ladder Safety** (Sue Raynor, Oregon T2 Center)
This presentation will cover the safety aspects around using both portable and fixed ladders along with the minimum requirements for the construction, care, and use of the common types of ladders.

**Roadside Vegetation Management, BMPs** (Will Lackey, ODOT)
This class will be an overview of the principles of roadside vegetation management, including why to manage roadside vegetation, integrated vegetation management, and best management practices for mechanical, chemical, cultural and biological control methods.

**Roadside Emergencies & Hazard Awareness** (Todd Mundinger, ODOT)
Public Workers are on the roads all day, it’s just a matter of time before you could be first on scene with one of these hazards, will you know what to do? This session will cover the awareness of the many unexpected hazards you could come across while working on our roadways; motor vehicle crashes, Haz-mat spills, suspicious persons, crime scenes, etc.
**Street Sweeper Training** (City of Eugene)
This training will give you the opportunity to learn or enhance your skillset with the operation of mechanical or regenerative sweepers. You will have one-on-one time with a qualified operator to ask questions, go over maintenance adjustments, including spending time operating street sweepers. We are offering six 1-hour sessions, limited to two students per hour. Please register for your desired time; however, registration is first-come, first-served.

**Gradall Training** (Lane County)
We will go over techniques in shoulder maintenance and scalping with a Gradall. Attendees will get a chance to operate the Gradall to learn new techniques or enhance their skillset in road shoulder maintenance. This is a 3-hour class, limited to six students; registration is first-come, first-served.

**Silica** (David McLaughlin, Oregon OSHA)
David will provide an overview of Oregon OSHA's silica requirements.

**Vehicle Inspection & Maintenance** (Christopher Pokorny / Darin Debelle, City of Eugene)
In this session, we will perform and thoroughly explain the proper way to perform the pre-trip inspection and the proper way to perform operator-based vehicle maintenance.

**Skidsteer Training** (Lane County)
The Skidsteer training will give students the chance to ask questions of skilled operators around Skidsteer operations and get the chance to operate a Skidsteer with various attachments in various capacities. This is a 3-hour class, limited to six students; registration is first-come, first-served.

**Emergency Bridge Assessment** (Tony Jobanek, Oregon T2 Center)
This class teaches public works employees how to inspect a bridge after a seismic or other event that may have caused damage. It covers preparations that agencies should take prior to a seismic event, using the bridge inspection form, reporting the results of the inspection, and marking and closing a bridge when necessary.

**Why Are Road Ditches Important?** (Kevin Ramsey, Deschutes County)
The main purpose of a roadside ditch is to **protect the integrity of the road**. Roads are designed to drain rain and snow melt away from the road, toward the lower elevation of the roadside ditch. Once the water reaches the ditch, it can flow along the ditch and eventually away from the roadway, protecting the stability of the road subgrade.

**RS-4 Environmental BMPs 1** (Janet Oatney, Retired)
This is a required core class for those in the RS Level 1 program. Class covers an overview of Best Management Practices available to minimize the impact of maintenance activities on water quality.

**Roadway Slope Maintenance and Landslide Repair** (Curran Mohney, ODOT)
Roadway slopes are subject to extensive damage from landslides every year. This session discusses the cause of landslides and best management practices to prevent landslides from occurring or to reduce damage from ongoing landslides. Methods to repair landslides or rockfalls at a higher state of failure will also be addressed along with the cost-benefits associated with each method.

**Highway Safety Features** (Mojie Takallou, University of Portland)
An overview of road safety information for the best safety and maintenance practices on local roads and streets. Common road hazards in Oregon are reviewed along with practical ways to improve road safety.