# **COLLECTION SYSTEMS**

# Selecting the Proper Sewer & Storm Pipe Cleaning (Chris Young / James Long, SWS Equipment)

In this course, the instructors will cover how to select the proper equipment for different jobs. Students can expect to learn the best practices for the use of trailer and truck jetters, easement machines, combo trucks, recyclers, and hydro-excavators. We will also cover the use and maintenance of these machines.

#### Get the F. R. O. G. Out (Dan Lawrence, RootX)

This session outlines mechanical, biological, and chemical methods of dealing with fats, roots, oils, and grease (FROG) in sanitary sewer collection systems. We tackle the primary issues that cause sanitary sewer overflows (known as S.S.O.'s). Learn how and why roots are such a large issue in sewers and how to be proactive in cleaning, treating (chemically or biologically) and inspecting roots and grease in sanitary sewers.

## Nozzles 101 (Chris Young / James Long, SWS Equipment)

Join this session as we cover pipe cleaning basics and safety. Students will learn the basic nozzle construction and jets and how to select the proper nozzle for the application.

### Pipe Assessment 101 (Jim Brown, True North Equipment)

We will explore the origins of sewer pipes as well as look at the many ways we inspect our infrastructure. We will discuss coding, NASSCO and PACP, as well as equipment and future advancements. This class will lead into the Sewer AI for Wastewater class.

### Adj. Municipal Castings & Precast Concrete (Matt Stiller, RimRiser)

Evaluate the challenges related to the traditional methods of sanitary sewer or stormwater castings and precast concrete tops. Review Department of Transport or municipal standards for installation and grade adjustment. Discuss the advantages of new technology when choosing infrastructure replacements and maintenance applications.

#### Sewer Artificial Intelligence for Wastewater (Jim Brown, True North Equipment)

We will look at the advancements of using AI as an inspection tool. This class will have examples of how the software codes the inspections and provides information to the owner. We will also look at some of the software currently available.

## Live Equipment Training (Baker Technical Institute)

Training participants will have the opportunity to train alongside BTI certified instructors to gain knowledge and improve skills on several pieces of heavy equipment including backhoes, graders, and excavators. This hands-on training in the field will include detailed machine walkarounds, as well as operating techniques, safety, and efficiency. Participants will have an opportunity to showcase their skills and represent their respective organizations, by competing in the Equipment ROADeo.

#### Plan Reading and Sewer Designs (Alena Beltz, City of Medford)

For maintenance of sanitary sewer and storm drain collection systems, it is beneficial to know how to find information about existing infrastructure from the construction plans. This session will review the general layout of plans and the location of data for infrastructure such as pipe sections, manholes, and catch basins that maintenance crews encounter in the field. Information covered will include determining slopes and grades of pipes, understanding stationing, locating invert elevations, finding data such as pipe materials, where to look for referenced details, etc. This class will also cover the basics for how sewer pipes are designed and sized.

#### Environmental Crimes (Craig Ball / Eric Martenson, Oregon State Police)

The federal and state environmental laws are typically enforced with civil or administrative penalties and fines, but they also have a potential for criminal investigation. We will discuss the differences between civil and criminal enforcement, when criminal investigation is warranted, and who is responsible based on our experiences and past investigations.

#### Preventing Serious Injuries in Wastewater Industry (Elena Estrada, Clackamas County WES)

Identifying risks in the wastewater industry that can lead to serious injuries and fatalities (SIF). Students in this class will learn how to address and prevent these risks in the workplace.

#### Equipment ROADeo Competition (APWA – Oregon Chapter)

Individuals who attend the all-day equipment training have the opportunity to participate at the end of the day to compete in the Equipment ROADeo Competition. The ROADeo will challenge the students to practice the skills they learned throughout the day to operate backhoes, loaders, excavators, graders, and skid steers safely and efficiently, all the equipment most commonly used for public works utility repair and maintenance. This also provides a learning opportunity for all participants as they can observe how others operate. Individuals will learn new, safer, and more efficient ways to operate the equipment through peer-to-peer observation.

## Odor Control Basics for Wastewater Systems (Methelyn Murphy, Xylem)

This session will cover odor control basics for both liquid phase odor control and vapor phase odor control technologies in the wastewater industry. Odor control and corrosion control will primarily be focused on pump stations and wastewater treatment plants.

# Traffic Control Flagging Certification (Bill Buterbaugh, Oregon T2 Center)

This certification class will cover state regulations and minimum requirements for setting short term flagging operations on state and city right of way. We will cover flagger procedures and minimum requirements for setting up and working on county and city roads. At the end of a this 4-hour session the student will take the state exam and will be issued a state of Oregon flagger certification good for 3 years.

## Effects of Road Sanding on a Stormwater Planter (Sean Darcy, Oldcastle Infrastructure)

A hydraulic investigation of a roadside stormwater planter was conducted in King County, Washington to find the point at which the system fell below its designed treatment capacity. This class talks about the results of that investigation, including road sanding impacts to the treatment system over time.

## Stormwater and Wastewater Round Table (Bob Skinner / Preston Langeliers, City of Newberg)

Throughout the state, Public Works is responsible for maintaining many types of underground utilities within their jurisdiction. Wastewater and stormwater have historically been neglected. As a result, many assets are failing and need to be repaired or replaced. With the development of new technology, different types of assets, materials, and controls have been installed to improve the systems. This session will be a "round table" format, starting with some information and training regarding the maintenance and repairs of these systems. It will finish as a round table discussion on situations different agencies face and how they address each situation.

# Spills 101, Oregon Regulations & Case Studies (Kevin Chan, Oregon Department of Environmental Quality)

In this session, we will discuss Oregon DEQ's spills authority and regulations, clean up requirements in a spill and unique case studies that may affect the storm water systems.

# STREET MAINTENANCE SESSIONS

# Light in the Dark – Signs & Reflectivity (Geoff Rosenburger / Tyler Kunter, Multnomah County)

Welcome to the world of signs, reflectivity and maintenance practices. Join us as we discuss sign material, sheeting and backing, and also maintenance techniques to extend sign life. We will also talk about replacement strategies.

#### RS-7 Effective Communication Skills (Tony Jobanek, Oregon T2 Center)

This is a required core class for those in the Roads Scholar Level 1 program. The class presents the principles of listening, speaking and writing skills for more effective communication with the public, co-workers, supervisors and others. Group exercises will be used to practice the principles presented. Must attend all hours for credit.

#### Equipment Seasonal Prep (Eric Wilson, ODOT Fleet)

In this session, we will discuss servicing and season transition, how to clean salt and mag off trucks and prep for the summer operations. Students will learn what to look for to prevent breakdowns on the road due to the harsh winter operations of the equipment.

## 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.

#### RS-14 Roadway Safety Fundamental's 1 (Tony Jobanek, Oregon T2 Center)

This is a required class for those in the Roads Scholar Level 2 program. The class provides an introduction to 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. Must attend all hours for credit.

#### RS-8 Environmental BMPs 2 (Janet Oatney / Will Lackey, ODOT)

This is a required class for those in the Roads Scholar Level 1 program. The class presents an overview of environmentally friendly vegetation management and erosion control methods. Vegetation control activities such as mowing, brush cutting and spraying will be covered as well as related issues including chemical spills and use of personal protective equipment. The discussion on erosion and sediment control for highway maintenance activities will define what it is, cover the reasons why it's needed, identify the causes of erosion and address various best management practices. Must attend all hours for credit.

#### RS-9 Maintenance Math (Darrell Randall, Retired)

This is a required class for those in the Roads Scholar Level 1 program. The class is a refresher for public works employees that use basic mathematics to provide solutions for common maintenance problems encountered in the field. Must attend all hours for credit.

#### Public Works Emergency Response (Preston Langeliers / Carl Ramseyer, City of Newberg)

Public Works responds to various emergencies from SSO, plugged sewers, water leaks, fires, spills, accidents, storms, landslides, etc. This class will cover some basic best practices to have in place prior to these events and how the City of Newberg handles its initial response. The last portion of this class will be a round table discussion for the attendees to ask questions about specific instances that have occurred, and an open discussion of how other agencies handle emergencies.

## RS-10 Intro to Survey & Grade Checking (Kurt Andersen, ODOT)

This is a required class for those in the Roads Scholar Level 1 program. The class provides an introduction to basic surveying techniques including measuring, calculating elevations and slope staking. Must attend all hours for credit.

### The Workplace Conflict/Leadership Connection (Tony Jobanek, Oregon T2 Center)

This class will discuss how better understanding our ability to deal with conflict in the workplace can help grow your leadership skills. Concepts covered will include why workplace conflict is unavoidable; how your ability to succeed as a current or future leader is influenced and strengthened by how you successfully resolve conflict hurdles with your team.

## Pavement Maintenance Management Processes (Jon Sparks, Clackamas County)

Discuss how a road becomes a project within the Clackamas County Department of Transportation - Maintenance. Review the steps for a project to progress from the beginning to end at the County. Review County processes for selecting, designing, constructing, and completing pavement maintenance projects. Review organizational routes, the team process and task scheduling.