

## **Vegetated Stormwater Facilities**

**December 2 & 3, 2020**

**Instructors:** Elizabeth Sagmiller & Todd Blossom

### **AGENDA:**

**Day 1 (Dec 2)**      8:00 am – 1:30 pm

**Understanding the System** - Elizabeth Sagmiller

8:00 – Welcome & Overview (10 min)

8:10 – Clean Water Act and the Environmental Protection Agency (15 min)

8:25 – Phase I and Phase II Communities (15 min)

8:40 – Role of DEQ and the State of Oregon (20 min)

*9:00 – Break (10 min)*

9:10 – Waters of the State (15 min)

9:25 – Local Regulations (20 min)

9:45 – Review & Discussion (10 min)

9:55 – Stormwater Overview (20 min)

*10:15 – Break (10 min)*

10:25 – Impervious Surfaces - Pre & Post Development (30 min)

10:55 – Total Maximum Daily Loads (20 min)

11:15 – Tying Stormwater to Water Quality. (30 min)

*11:45 – Lunch (30 min)*

12:15 – Purpose of Vegetated Facilities (40 min)

12:55 – Review & Discussion (15 min)

1:10 – Quiz (20 min)

1:30 – Adjourn

**Day 2 (Dec 3) 8:00 am – 1:30 pm**

**Maintenance** – Todd Blossom

8:00 – Overview of Session (10 min)

8:10 – Before You Arrive On-Site (15 min)

- Regulations
- Planting Plan Review
- Seasonal Maintenance Calendar

8:25 – Be Safe (20 min)

- PPE
- Common Hazards
- Review

*8:45 – Break*

8:55 - On-Site Activities (55 min)

- Trash Removal
- Erosion Issues & Control
- Sediment Issues, Removal & Disposal
- Standing Water Issues
- Structural Checks & Fixes

*9:50 – Break*

10:00 – On-Site Activities (15 min)

- Continued...
- Review

10:15 – On-Site Activities (45 min)

- Plant ID

*10:50 – Break*

11:00 – On-Site Activities

- Plant ID cont...

11:10 – On-Site Activities (45 min)

- Weed Control

11:55 – On-Site Activities (25 min)

- Water, Pruning, Placement

- Review

12:20 – Lunch (30 min)

12:50 – Record Keeping (20 min)

- Maintenance Agreements
- Maintenance Logs
- Reporting

1:10 – Quiz (20 min)

1:30 – Adjourn

**Day 2 (Dec 3)      2:00 – 5:00 pm**

**Site Management** - Elizabeth Sagmiller

2:00 – Overview of Session (5 min)

2:05 – Managing the Site’s Stormwater (10 min)

2:15 – Overview of SWPPP (30 min)

- Managing Site for Stormwater BMPs

2:45 – Jurisdictional Regulations (10 min)

2:55 – *Break (10 min)*

3:05 – Protection During Construction (15 min)

3:20 – What to Look for When Directing Landscape Activities (15 min)

3:35 – Record-Keeping (10 min)

3:45 – Preparing for an Inspection (10 min)

3:55 – *Break (10 min)*

4:05 – Common Problems Found During Inspection & How to Fix Them (20 min)

4:25 – Review & Discussion (10 min)

4:35 – Quiz (15 min)

4:55 – Wrap-up (10 min)

- Evaluation
- Certificates of Completion

5:00 – Adjourn

## **COURSE DESCRIPTION:**

This workshop will introduce you to swales, rain gardens, and stormwater planters: how they work and how to maintain them to manage runoff for the long term. Participants will learn about regulatory requirements, such as record-keeping and inspections, and how to evaluate and properly maintain the plants and other components. Expected outcomes include being able to: identify needed tasks when you arrive, efficiently maintain the facility, safely manage weeds without harming water quality, troubleshoot and fix problems, and prepare for and complete an inspection. The intended audience includes landscapers, regulatory inspectors and property managers.

## **LEARNING OUTCOMES:**

### **Learning Outcomes:**

*Upon completion of this workshop, students should be able to:*

- Explain the regulatory background on why these facilities are needed.
- Identify various types of vegetated stormwater facilities and their component parts.
- Identify commonly used plants that are appropriate for use in these facilities.
- Develop strategies for successful & safe weed management.
- Identify problems in a facility and suggest strategies for mitigation.
- Prepare for and complete a successful inspection.

## **INSTRUCTORS:**

### **Elizabeth Sagmiller, City of Keizer (retired)**

*Elizabeth Sagmiller is a 4th generation native Oregonian, whose love of the outdoors was fostered by her family. As the Environmental & Technical Division manager for the City of Keizer, she oversaw stormwater management programs, which included vegetated stormwater facilities. She also organized an annual stormwater/erosion summit for the past eight years. In addition to municipal stormwater operations, she has a background in land-use planning, natural resource planning, and environmental management. After 20 years in public service, she retired in November 2019. She stays active in her avocations of all things green and growing, cooking, and dogs.*

### **Todd Blossom, Blossom Landscaping**

*Todd Blossom has owned and operated Blossom, a full-service landscaping company, since 1999. He is certified in permaculture design and seeks to promote ecological solutions through his work of integrating food, native plants and stormwater management into the landscape. His experience with swales and raingardens is extensive, having worked closely with the City of*

*Portland's stormwater management program for over 10 years. This involvement includes both installations and maintenance of facilities through the city's private residence retrofit program, and the Green Street, public right of way program.*

*Todd also has a particular interest in connecting people with place and has found an opportunity to do this through the landscape and outdoor environment. He is actively engaged in local community organizations including: Ecotrust, Audubon Society, Alberta Main Street, and the East Multnomah Soil & Water Conservation District.*

*His commitment to lecturing and teaching on subjects related to sustainable landscaping, permaculture and stormwater management, is directly related to his desire to better serve the community and the people who live there. As part of that commitment, he has also taken steps to build a sustainable model for training his team to connect with the community where they work. And, he is actively looking to build partnerships, and to enhance the diversity of their workforce, while creating job opportunities.*