



RAIN GARDENS

BY THE NUMBERS

- 9 trainings for volunteers.
- 116 volunteers trained.
- 26 youth trained.
- 8 demonstration rain gardens installed.
- More than 280 people directly reached.

2016

ISSUE

According to the Washington Department of Ecology, non-point source pollution and stormwater runoff are the largest sources of contaminants to Puget Sound and many of our rivers and streams, degrading water quality and healthy habitats. Water quality is a key aspect of the quality of life for many residents and a prime concern of our thriving shellfish and fishing industries. The Washington Department of Ecology estimates that on an average day, more than 100,000 pounds of toxic chemicals enter Puget Sound via stormwater runoff that flows off our yards, driveways, roads, and parking lots. This includes pollutants such as petroleum products, pesticides and fertilizers, sediment, heavy metals, and nutrients.

When rain falls in a natural setting, it is absorbed by the forest canopy, layered vegetation, and spongy soil, and slowly infiltrates into the ground. In contrast, when rain falls on roads, roofs, driveways, and other impervious surfaces associated with urban and suburban development, it becomes stormwater runoff. Many older, developed areas do not have a stormwater treatment system in place. The results are localized flooding, scouring of streams, and pollutants entering waterways at increasing rates, often through combined sewer overflows (CSO). The consequence has been a decline of water quality, lost stream and marine habitat, and several species of wildlife being listed as “threatened” or “endangered.”

Rain gardens offer a way to capture, cleanse, and minimize stormwater runoff at the site, before it gets to the stormwater conveyance system. Rain gardens are designed to emulate predevelopment processes by treating stormwater through plants, specialized soil mix, and infiltration. Research shows that many common metals and chemicals are neutralized by the soils, plants, and other organisms that thrive in a rain garden. Rain gardens that are designed, located, and maintained properly can reduce the pollutant load flowing into the Puget Sound.

RESPONSE

In Jefferson and Clallam Counties, working relationships were established to develop, fund, and implement local stormwater outreach programs. Organizations involved include Jefferson County Public Works and Environmental Health, the City of Port Angeles, the City of Port Townsend, Swan School, Jefferson Community School, WSU Master Gardeners, WSU Beach Naturalists, WSU Watershed Stewards, WSU 4-H Afterschool Program, the Port of Port Townsend, and the Jefferson County Marine Resources Committee. The prime goal of the program is to increase individual and community stewardship actions to reduce the amount of stormwater-based contaminants reaching surface waters. This was accomplished through a series of activities including:



QUOTES

“WSU Extension is doing cutting-edge research on the effectiveness and design characteristics of rain gardens.”

“My colleagues and I at WSU Extension have developed a range of educational resources, such as how-to videos and detailed instruction manuals, to help people understand how to install and maintain their own rain garden.”

“Stormwater is the leading contributor of contaminants to Puget Sound.”

“Rain gardens are an effective and attractive way for homeowners to reduce the amount of contaminants going into Washington’s waterways.”

- Development of a report that identified, assessed, and prioritized potential sites for rain gardens throughout Jefferson County.
- 6 public workshops on rain gardens.
- Specialized training for WSU Master Gardeners in Clallam and Jefferson Counties.
- Specific training for the WSU Jefferson County Beach Naturalists and Watershed Stewards programs, as well as the North Olympic Peninsula Salmon Coalition's Citizen Action Training School.
- Technical assistance and consultation to residents.
- Outreach at two major community events (Wooden Boat Festival and the Jefferson All-County Picnic).
- Interpretive Signage at four rain gardens.
- Rain garden interpretive signage at the Northwest Maritime Center.
- Hands-on training through the installation of 8 demonstration rain gardens in Jefferson and Clallam Counties, which also engaged youth from the 4-H Afterschool program, Jefferson Community School, and Swan School.
- Engagement of WSU Jefferson County Master Gardeners in renovating two highly visible rain gardens located on county property.
- A specialized two-day training on rain garden siting, design, installation, and maintenance for landscape professionals, high-level Master Gardeners, and environmental program volunteers.
- Specialized presentations to the Puget Sound Partnership Leadership Council, the Dungeness River Management Team, and the Northwest Straits Commission.

IMPACTS

Through these efforts, 280 people improved their knowledge and skills related to stormwater management and the use of rain gardens. Eight demonstration rain gardens were installed and 2 were renovated, providing substantial stormwater management benefits, as well as providing hands-on training to 116 participants, including 26 youth.

Public awareness and interest in rain gardens was increased through interpretive signage, as well as through several newspaper articles related to these efforts.