

Rain Garden Design, Installation and Signage at Pohaku Beach Park, West Maui

Lauren Campbell, 10/20/2014

PROJECT OVERVIEW

Pohaku Beach Park is a popular surfing and family-friendly park on the island of Maui. It sits directly on the ocean, and includes numerous hardscapes such as a large parking lot and a nearby roadway, as well as a public shower. Without appropriate drainage, unfiltered pollution runs from the park's hardscapes directly into the ocean and near shore reef.

Surfrider Foundation Maui Chapter planned, designed and installed two separate rain gardens at the park – one to drain the North area's parking lot and a second garden to drain the South area's public shower.

On September 6, 2014, Surfrider Foundation Maui Chapter and community members successfully installed the two gardens, complete with compost, mulch and native plants. The South Garden is 286 sq. ft, and the North Garden is 466 sq. ft. The design is straightforward, efficient and beautiful: slowing down, spreading out and sinking water into planted swales so it can be filtered and absorbed by soil, plants and mulch.

PROJECT GOALS AND OBJECTIVES

Primary Goals

1. Improve near-shore ocean and coral reef health by installing two rain gardens at Pohaku Beach Park to capture and filter polluted runoff.
2. Enhance community awareness about the issues of urban runoff and reef decline, while also involving the community as part of the solution.

Secondary Goals

1. Assist in streamlining future rain garden projects by engaging County permitting agencies in the rain garden design and installation process.
2. Develop a model rain garden to demonstrate to resource managers an effective, community-based solution to localized, ocean pollution.
3. Build capacity within Surfrider Maui so as to spearhead future rain garden projects.

RESULTS

- *Installation of two rain gardens at Pohaku Beach Park that total 752 square feet and will annually drain an estimated 30,000 gallons of water.*
- *Enhanced public knowledge about urban runoff and the role of rain gardens through interpretive signage, onsite demonstrations and social media.*
- *Development of a model rain garden that can be used to guide future projects on Maui.*
- *Enhanced capacity within the Surfrider Foundation Maui Chapter organization to spearhead future rain garden projects.*



Figure 1: (Clockwise from top left) South Garden before; South Garden after; North Garden before; North Garden after

MANAGEMENT OUTCOMES

The Pohaku Beach Park project serves as a model rain garden project for local resource managers. The project demonstrates an effective, community-based solution to localized, ocean pollution. Moving forward, resource managers can build upon the project and work with Surfrider (and other organizations) to establish a network of rain gardens throughout Maui. Especially in areas of significant reef decline, these gardens will help enhance the health of Maui's near shore waters in a cost effective manner that also involves the local community.