

SEATTLE GREEN INFRASTRUCTURE INNOVATION

CASE STUDY SERIES



Swale on Yale

2013

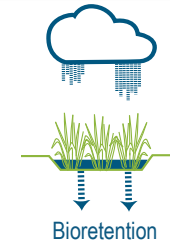
Yale Avenue North and Pontius Avenue North, Seattle 98102



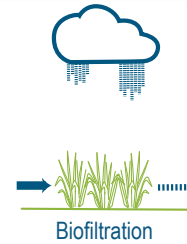
PERFORMANCE SNAPSHOT

- Slows stormwater flow and filters an average of 190 million gallons of polluted stormwater annually.
- The biofiltration swales on four blocks treat runoff from a 435-acre basin in the Capitol Hill neighborhood (see map on next page).

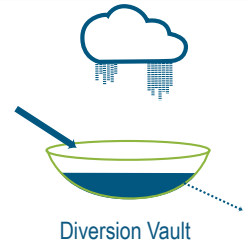
GREEN INFRASTRUCTURE TECHNOLOGY TYPES



Bioretention



Biofiltration



Diversion Vault

INNOVATION HIGHLIGHTS



Design Innovation

The design is adapted for a highly urbanized setting, with crisp vertical walls and artful safety rails, wide foot bridges, benches, and a modern color blocking planting palette. The project diverts stormwater from a 72-inch pipe, carrying runoff from Seattle's Capitol Hill neighborhood into an underground diversion vault. A swirl concentrator removes trash and other solids before the water is conveyed through the biofiltration swales. The swales then remove sediment and pollutants before the treated water is discharged into Lake Union.



Funding Partnership

Swale on Yale is a public-private partnership between Seattle Public Utilities (SPU), and Vulcan Inc. who contributed \$1.2 million in capital funds - roughly 10% of costs - and an additional \$1 million for on-going maintenance. SPU also partnered with UW on feasibility research.



Community Engagement

SPU worked with Cascade neighborhood businesses, property owners, and other City agencies to design and construct this regional scale stormwater treatment system. Public seating along the swales invite lingering.



Each swale is approximately 270-feet long and up to 16 feet wide.



PROJECT DETAILS

IMPERVIOUS SURFACE MANAGED	435 acres
DRIVER	Water quality treatment of polluted stormwater runoff to Lake Union
OWNER	Seattle Public Utilities (SPU)
FUNDER	SPU, Vulcan Inc., Washington State
GREEN INFRASTRUCTURE COST	\$11 million
PROJECT TEAM	Seattle Public Utilities, Vulcan Inc., Washington State Department of Ecology
MAINTAINED BY	Seattle Public Utilities

MORE INFORMATION

<http://www.seattle.gov/util/EnvironmentConservation/Projects/SwaleonYale/index.htm>

