



Green Infrastructure & Stormwater Management CASE STUDY

Glencoe Elementary School Rain Garden

Location: Portland, OR

Client: City of Portland, Bureau of Environmental Services

Design Firm(s): City of Portland, Bureau of Environmental Services

Landscape architect/Project contact: Kevin Robert Perry, ASLA

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ASLA Chapter: Oregon



Photo: Kevin Robert Perry, ASLA

Project Specifications

Project Description: Completed in 2003, this project at a local elementary school retrofitted an underutilized portion of the school grounds to create a interactive rain garden that accepts 35,000 sq/ft of runoff from adjacent streets and school pavement. The project responded to the neighborhoods chronic problem with local basement sewer backups. Project is considered a

strong success and has been extensively monitored for performance. Two years of monitoring showed that the rain garden managed 95% of the water entering it.

Project Type:

Institutional/education

A retrofit of an existing property

Design features: Rain garden

This project was designed to meet the following specific requirements or mandates:

Eliminate the neighborhood local basement sewer backups

Impervious area managed: less than 5,000 sq/ft

Amount of existing green space/open space conserved or preserved for managing stormwater on site: less than 5,000 sq/ft

The regulatory environment and regulator was supportive of the project.

Did the client request that other factors be considered, such as energy savings, usable green space, or property value enhancements? Yes, the school was interested in an interactive rain garden design that complemented the adjacent native garden. The entire space is now considered a community green space.

Cost & Jobs Analysis

Estimated Cost of Stormwater Project: \$50,000-\$100,000 (Public funding: Local)

Was a green vs. grey cost analysis performed? Yes, the green solution was modeled as a cheaper alternative than pipe upsizing.

Cost impact of conserving green/open space for stormwater management over traditional site design/site development approaches (grey infrastructure)? Slightly reduced costs (1-9% savings).

Number of jobs created: Not available

Job hours devoted to project: Not available

Planning and Design: Not available

Construction: Not available

Annual Maintenance: Not available

Performance Measures

Stormwater reduction performance analysis:

Extensive data can be found at:

<http://www.portlandonline.com/bes/index.cfm?c=45388&a=147510>

Additional Information

Links to images: Pictures can be available by contacting Kevin Robert Perry at 503-239-0600 or email at kevin@nevuengan.com