



# Green Infrastructure & Stormwater Management CASE STUDY

---

## Scottdale Library Plaza - Stormwater Retrofit

**Location:** Scottdale, Westmoreland County, PA

**Client:** Scottdale Public Library

**Design Firm(s):** Westmoreland Conservation District

**Landscape architect/Project contact:** Kathryn Hamilton, RLA

**Email:** [kathyh@wcdpa.com](mailto:kathyh@wcdpa.com)

**ASLA Chapter:** Pennsylvania/Delaware



### Project Specifications

**Project Description:** The Scottdale Library Plaza was created as a public gathering place and outdoor education space for the public library. The plaza design included a sustainable stormwater management solution and educational demonstration using a raised planter for native landscaping, a permeable concrete patio, and a rain garden that captures and treats a portion of the library roof runoff.

#### Project Type:

Institutional/education

A retrofit of an existing property

**Design features:** Bioretention facility, rain garden, downspout removal, and porous pavers.

**This project was designed to meet the following specific requirements or mandates:** To meet funding criteria

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

**Amount of existing green space/open space conserved or preserved for managing stormwater on site:** . Not applicable

**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?** The plaza was designed as a public gathering place, connecting the new Library building to the existing Gazebo Park public space which is used daily by locals and throughout the year for several community events. The plaza also provides an affordable and sustainable stormwater management solution and educational demonstration to promote stormwater awareness to all users in a well-used public venue for a community plagued with excessive stormwater runoff and pollution problems.



### Cost & Jobs Analysis

#### Estimated Cost of Stormwater

**Project:** \$50,000-\$100,000 (Public funding: Federal – U.S. EPA Section 319 grant administered by PA DEP through the Growing Greener program)

**Related Information:** The project cost \$54,000 of which \$21,500 was spent on 960 sq/ft of permeable concrete, and \$9,000 was spent on 300 sq/ft of rain garden. These costs include extensive

demolition work of 1,800 sq/ft of 100-year old street paving.

**Was a green vs. grey cost analysis performed?** Not applicable

**Cost impact of conserving green/open space to the overall costs of the site design/development project:** Not applicable

**Cost impact of conserving green/open space for stormwater management over traditional site design/site development approaches (grey infrastructure)?** Did not influence costs. This project is a retrofit of an existing site with no stormwater management, but tied into an existing storm sewer system.

**Number of jobs created:** 1 foreman, 2 laborers for 3 weeks; 5 concrete laborers for 3 days

#### Job hours devoted to project:

Planning and Design: 120 hours of project coordination and design

Construction: 48 hours of construction supervision

Annual Maintenance: Not available

## Performance Measures

### Stormwater reduction performance analysis:

The project manages 100% of the 2-year storm from 1800 sq/ft of plaza and from approximately 2,000 sq/ft of roof.

**Community & economic benefits that have resulted from the project:** In 2002, the PA DEP performed a 303(d) assessment in the Jacobs Creek Watershed and identified urban stormwater runoff and associated pollutants as a major cause of impairment within the watershed. In 2009, JCWA completed the Jacobs Creek Watershed Implementation and Restoration Plan (WIP), a comprehensive assessment of impairment within the watershed. The WIP identified urban stormwater runoff from Scottsdale as one of the three main sources of urban pollution within the watershed and recommended implementing stormwater best management practices (BMP) projects throughout the Borough. The new Scottsdale Public Library plaza was determined to be a prime site to implement stormwater management and provide educational benefits to the community.

## Project Recognition

West Penn Power/Smart Growth Partnership of Westmoreland County Award 2011

## Additional Information

Links to images: See attached

