Green Infrastructure & Stormwater Management CASE STUDY

Bank "D" Reclamation

Location: Nesquehoning, Carbon County, PA
Client: Kovatch Enterprises
Design Firm(s): Cowan Associates
Landscape architect/Project contact: Carl R. Kelemen, RLA, FASLA
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ASLA Chapter: Pennsylvania/Delaware

Project Specifications

Project Description: The Bank D project was designed to reclaim/cap a culm bank and develop a series of wetland environments to clean up and accept acid mine drainage before releasing it into a nearby tributary to the Lehigh River. The work included creation of various wetland types, upland wildflower and warm season grass meadows, parking area and trails.

Project Type:
Industrial
Part of a redevelopment project

Design features: Bioswale, curb cuts, bog environments, porous pavements, and meadows.

This project was designed to meet the following specific requirements or mandates: To meet funding criteria, developer/client preference

Impervious area managed: 5,000 sq/ft to 1 acre

Amount of existing green space/open space conserved or preserved for managing stormwater on site: greater than 5 acres

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. It was desired to leave the site in a narural condition as a "park". The landowner wished to donate the land to the local community college for use as an outdoor learning environment after construction was compete.

Cost & Jobs Analysis

Estimated Cost of Stormwater Project: $100,000-$500,000 (Public funding: Federal, regional, private land owner)

Was a green vs. grey cost analysis performed? No

Cost impact of conserving green/open space to the overall costs of the site design/development project: The project was specifically for the conversion of an industrial waste site into a series of wetland and nature study areas.

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 was designed to reclaim a damaged environment and to create wetland environments.

Number of jobs created: 5 temporary (construction)

Job hours devoted to project:

Planning and Design: 400
Construction: 2,000
Annual Maintenance: Unknown

Performance Measures

Stormwater reduction performance analysis:
100%

Community & economic benefits that have resulted from the project: The community gained an open space usable for exercise, bird watching and nature study. The site has been donated to the local community college for use in their environmental education program.