



Green Infrastructure & Stormwater Management CASE STUDY

Interchange 25 Stormwater Treatment Wetland

Location: Fulton County, OH

Client: Ohio Turnpike Commission

Design Firm(s): URS Corporation, Cleveland

Landscape architect/Project contact: Thomas Evans, ASLA

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ASLA Chapter: Ohio

Project Specifications

Project Description: The Interchange 25 Stormwater Treatment Wetland constructed a 3.4 acre stormwater treatment wetland, restoring lost ecological functions to a 150-acre agricultural watershed contributing to the Tiffin River. The stormwater treatment wetland is designed to optimize the physical and biological processes of wetlands to uptake and filter sediment and pollutants in stormwater.

Project Type:

Transportation corridor/streetscape

Part of a new development

Design features: Stormwater treatment wetland.

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

State statute - designed to mitigate wetlands and ecological functions impacted by interchange construction.

Impervious area managed: 1 acre to 5 acres

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? Additional benefits produced by the project were 40,000 CY of borrow material required for interchange construction, 3.4 acres of wetland

mitigation, and replacement of ecological functions lost due to impacted wetlands. The stormwater treatment wetland significantly exceeds basic wetland mitigation requirements.

Cost & Jobs Analysis

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

Was a green vs. grey cost analysis performed? No

Cost impact of conserving green/open space for stormwater management over traditional site design/site development approaches (grey infrastructure)? Did not influence costs.

Number of jobs created: 8

Job hours devoted to project:

Planning and Design: 1,000

Construction: 2,000

Annual Maintenance: 40

Performance Measures

Stormwater reduction performance analysis:

USEPA data on similar sized stormwater treatment wetlands indicate a 25-75% reduction of particulates, nutrients, and pollutants in stormwater.

Community & economic benefits that have resulted from the project: The new turnpike interchange has enhanced economic development of the surrounding community. The stormwater treatment wetland filters runoff pollutants entering the Tiffin River and Lake Erie.

Additional Information

Links to images: A project description, images, and plans are readily available from the landscape architect.