

MONTGOMERY AWARDS

Environmental Stewardship

2017 Award Winner

Celebrating

50 years

Thompson Lexus Willow Grove Upper Moreland Township

Thompson Lexus Willow Grove, located in Upper Moreland Township, received a 2017 Environmental Stewardship Award for outstanding comprehensive and well-maintained conservation practices that successfully address water quality and stormwater runoff and help to protect the Pennypack Creek. The project constructed an integrated stormwater management system that involves rain gardens and underground detention and infiltration structures around the buildings and under the large 513-car parking lot of this new dealership.

Background

Prior to redevelopment, this 9.9-acre site located at 2560 Maryland Road, was a vacant commercial property. It had been the location of a hotel and convention center from 1963 to 1993. Mill Creek, a tributary to the Pennypack Creek, runs through the southwest corner of the property. Over the past several decades, Mill Creek has had a significant history of flooding several houses and a shopping center downstream of this site in the Bonnet Lane and Old York Road Area. The water quality in Mill Creek and the Pennypack Creek also has

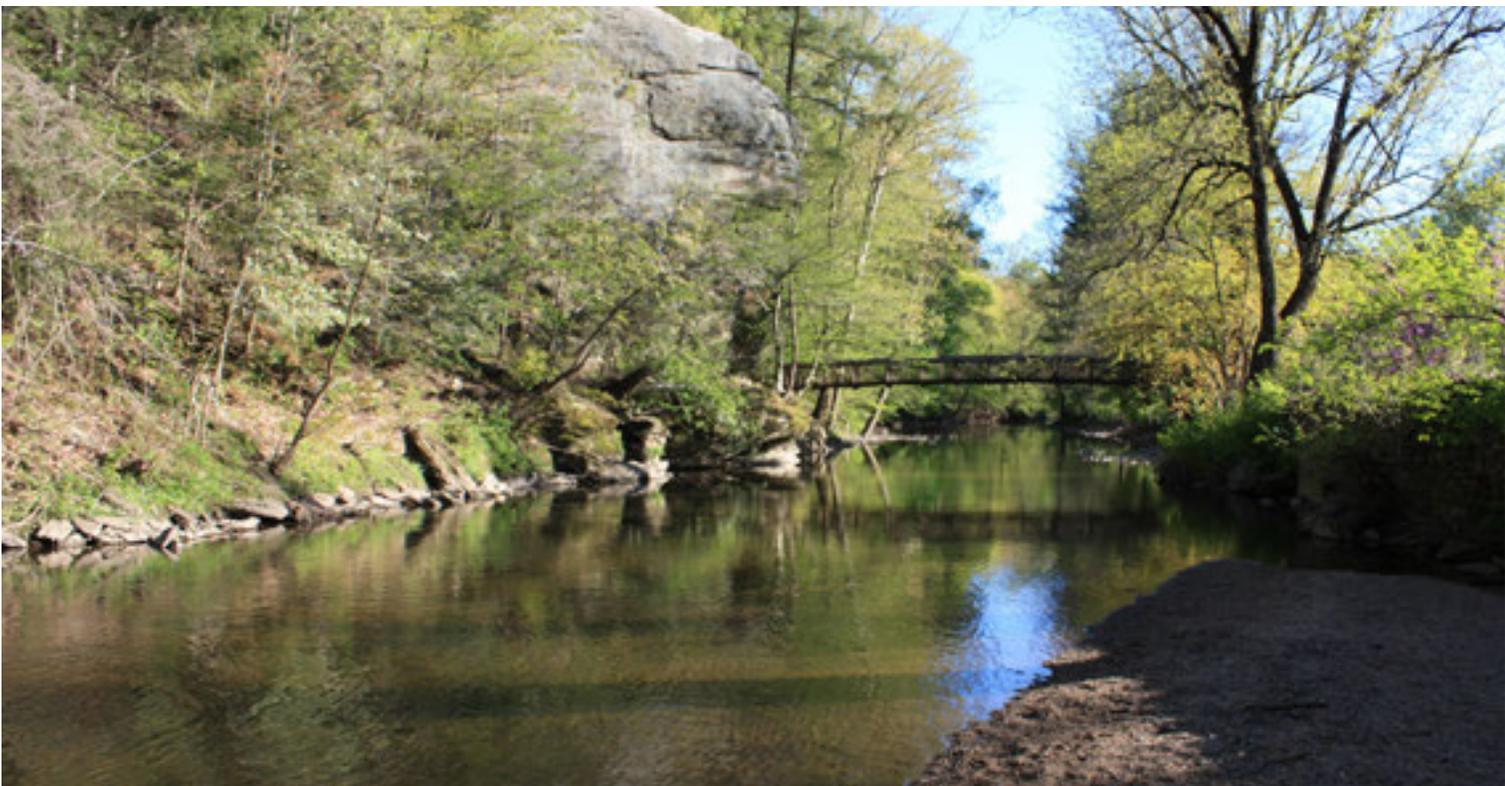


been impacted by the vast development that has taken place in the Willow Grove area. The stream also suffers from periodic flash flooding, which erodes the stream's banks and causes it to be choked with silt and sediment.

Improved Water Quality and Reduced Runoff

Recognizing the critical impact from flooding and polluted runoff into the Mill Creek, Upper Moreland Township worked carefully with The Thompson Organization to create plans for the car dealership, which involved effective stormwater management facilities that would address water quality as well as the rate and volume of runoff during rain storms. The site has been designed so that rain will infiltrate through porous pavement in the ground or will be directed into attractively vegetated rain gardens. The rainwater flowing through the porous pavement is routed to rain gardens and a pair of underground detention basins from which it infiltrates into the ground or is slowly released to the stream. This provides significant water quality improvement in addition to reduction in runoff to Mill Creek.

The exemplary conservation practices in this project provide several levels of water quality and flow reduction and exceed the water quality and rate requirements imposed by ordinances and regulations. Streambed and bank erosion is a problem in developed areas along the Pennypack. As a result of the project's improvements, flow reductions of over 30 percent for all storm events will be achieved while protecting water quality and providing volume reduction. This project's ability to handle stormwater while improving water quality has significant benefits to the watershed.





Conservation Practices

- Underground stormwater detention basins (63,213 cubic feet total) that feature multistage outlet structures to assist with water quality by increasing the dewatering time, reducing the peak outflow, and increasing thermal water quality
- SNOUTS on all pipe runs upstream of basin to filter out debris, sediment, and hydrocarbons
- 6,940 square feet of vegetated rain gardens along the downslope edge of the parking lot
- 28,000 square feet of pervious pavement in low-travel areas to reduce both volume and rate
- 23,120 square feet of infiltration beds to expand volume recharge potential



Location

2560 Maryland Road
Upper Moreland Township
Montgomery County

Landscape Architect

John Morgan Thomas Landscape Architects, P.C.
4 South Union Street, Suite 300
Lambertville, NJ 08530

Owner/Developer

Maryland Road Realty Investors LP c/o The Thompson Organization
50 Swamp Road
Doylestown, PA 18901

General Contractor/Construction Manager

Penn Valley Constructors, Inc.
1707 S. Pennsylvania Avenue
Morrisville, PA 19067

Architect

JVS Architect
1117 General Knox Road
Washington Crossing, PA 18977

Site Contractor

T. S. Hess & Sons Excavating, Inc.
1929 Broad Street
Perkasie, PA 18944

Civil Engineer/Surveyor

Charles E. Shoemaker, Inc.
1007 Edge Hill Road
Abington, PA 19001



The Environmental Stewardship Award is presented by the
Montgomery County Conservation District under the Montgomery Awards Program.

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