Site 10:
Pennypack Ecological Restoration Trust

BMPs:
Underground infiltration gallery
Infiltration trenches (sand and gravel)
Riparian buffer and stormwater wetland
Upland wet-ponds

Address: 2955 Edge Hill Road, Huntingdon Valley, PA 19006
Property owner: Pennypack Ecological Restoration Trust
Website: www.pennypacktrust.org
Watershed: Pennypack Creek

The Pennypack Ecological Restoration Trust (PERT), a private membership-based non-profit, manages the largest privately owned natural area that is open to the public in Montgomery County. Here, 720 acres of various ecosystems are protected, including meadows, woodlands, and floodplain forest.

Part of the mission of PERT is to become a standard of excellence for innovative restoration and stewardship practices that can be shared with others joined in a common commitment to the environment. With funding from William Penn Foundation and a PA DEP Growing Greener Grant, Temple-Villanova Sustainable Stormwater Initiative (T-VSSI) planned the design and construction of five BMPs.

Planning your visit: Visitors wanting to see the upland wet-pond, riparian wetland, and riparian buffer BMPs must check in at the office during business hours (M-F, 9-5) or the Visitor's Center on weekends (Sat 10-2, Sun 1-4) for directions and permission to visit these BMPs since they are not located on publicly accessible portions of preserve. The underground infiltration gallery and infiltration trenches are located near PERT's Visitor's Center and can be visited from dawn to dusk without restriction. Public areas, including eight miles of trails are open to visitors free of charge.

Contact Info:
Dr. David Robertson, Executive Director
(215) 657-0830
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Or Brad Nyholm, Preserve Manager
(215) 657-0830
bnyholm@pennypacktrust.og

Hours: dawn to dusk

Directions: Directions are available on PERT's website, www.pennypacktrust.org.

Parking: The parking lot is located at the entrance on Edge Hill Road

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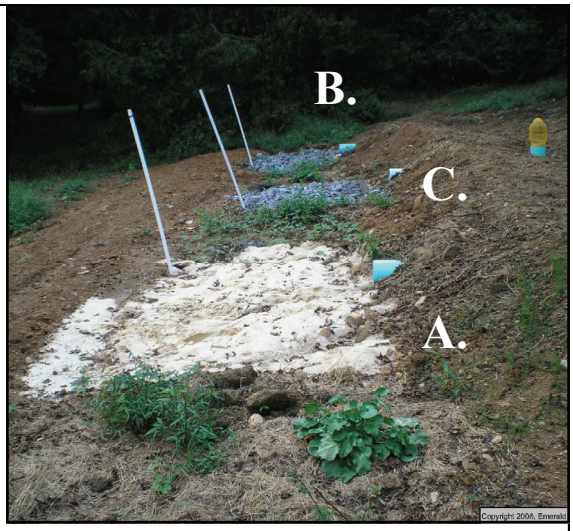
The underground infiltration gallery has the capacity to infiltrate 10,000 gallons of stormwater runoff. Representatives from Cultec, Inc. installed 25 of their Recharger® 330 heavy-duty plastic chambers and one Stormfilter™ In-line Filter. The above photos show the construction sequence: excavation, installation of the collection system, backfilling with limestone, and paving the porous asphalt parking surface.

Sand and Gravel Infiltration Trenches



Three types of infiltration trenches were installed at the Pennypack Preserve:

A. One sand filled
B. One gravel filled
C. One gravel filled with a filter to remove organic debris

Together, the trenches collect stormwater from 8.5 acres from a mixture of land uses with 30% impervious surface.

Temple University and Emerald Creek, LLC are monitoring the infiltration trenches to compare the sand and gravel trenches, and test how long it will take for the unfiltered gravel trench to fail without following a typical maintenance plan. This data will be published to further the understanding of Stormwater BMP maintenance requirements.

BMP Maintenance Plan

Infiltration gallery	• Check bottom of the sumped inlet quarterly for sediment accumulation and remove any floatables during monthly inspections • Check and clean or replace Stormfilter™ three months after installation, and then yearly
Infiltration trenches	• Remove debris from surface after each storm event, or monthly (minimum)
Wetponds and wetlands	• Visually monitor water levels and establishment of a healthy vegetation community

Upland Wet-ponds, Riparian Buffer and Stormwater Wetlands

The upland wet-ponds capture and detain runoff from 54 acres. As vegetation establishes, the riparian buffer will stabilize the stream-bank and reduce sediment loading to Terwood Run. The riparian stormwater wetland captures and treats runoff from 32.5 acres of urbanized land. All three sites will provide additional aquatic and upland habitat in addition to reducing flooding downstream in the Pennypack Creek.

Photo credits: Emerald Creek, LLC and Pennypack Ecological Restoration Trust