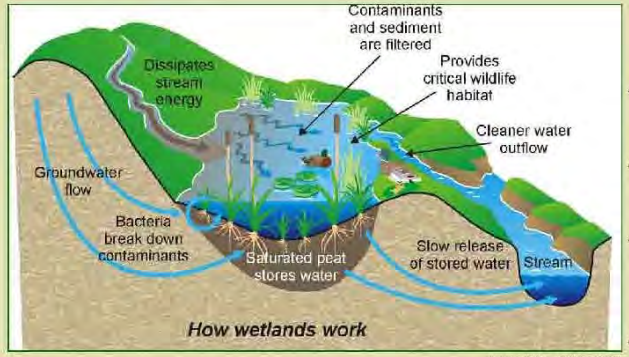
Clearbrook Park

Constructed Wetlands

Constructed wetlands are designed to replicate a natural wetland system and their function of filtering stormwater runoff. The wetlands in Clearbrook Park are constructed with three shallow depressions also known as wetland cells. As stormwater runoff flows through each wetland cell, pollutants settle out. The deep rooted plants help slow the runoff and are effective in removing pollutants.

Pollutants that are transported by runoff as it flows across the landscape are known as non-point source (NPS). Examples include sediment, oil and gasoline which drips from vehicles, herbicides and pesticides used to treat lawns, and pet waste. Some studies have reported as much as 70% of all water pollution comes from NPS pollutants.



Source: Wetlands International

You can help to protect local waterways by:

- Planting trees, shrubs and groundcover to prevent soil erosion.
- Minimizing use of herbicides and pesticides on your lawn.
- Properly disposing of household chemicals; such as motor oil, paint, and antifreeze.
- Picking up and flushing pet waste.

This project was made possible thanks to support from the following funders and partners:

Project Headwaters
Horsham Township
The Beneficia Foundation
S.E. Mont. Co.-PA Trout Unlimited
TreeVitalize
Green Space Alliance
Office of Watersheds
Montgomery County Conservation District
AKRF
PACD Pennsylvania Association of Conservation Districts, Inc.

LEGEND

EXISTING

- EDGE OF PAVEMENT
- 30 INDEX CONTOURS
- CONTOURS
- TOP OF BANK
- SANITARY LINE
- STORMWATER LINE
- WOODS ROAD
- 3' METAL FENCE
- EXISTING TREE LINE
- EXISTING UNDER BRUSH LINE
- GUY ANCHOR
- UTILITY POLE
- SANITARY MANHOLE
- EX. TREE

PROPOSED

- 250 PROPOSED CONTOUR
- PROPOSED LARGE WOODY DEBRIS
- PROPOSED ROCK WEIR
- PROPOSED BOULDER
- TREES TO BE REMOVED
- PROPOSED INFORMATIVE SIGNAGE

LANDSCAPE TREE AND SHRUB SCHEDULE

SYMBOL	LATIN NAME	COMMON NAME	TYPE	SIZE	QUANTITY
CS	*Cornus sericea*	Red Osier Dogwood	Shrub	3'-4'	1
BN	*Betula nigra*	River Birch	Tree	4'-6'	1
CEC	*Cercis canadensis*	Redbud	Tree	4'-6'	2
IV	*Ilex verticillata*	Winterberry	Shrub	3'-4'	1
AR	*Acer rubrum*	Red Maple	Tree	4'-6'	1
PHO	*Physocarpus opulifolius*	Ninebark	Shrub	3'-4'	2
ST	*Spiraea tomentosa*	Steeplebush	Shrub	3'-4'	5

NOTES:
1. TREES AND SHRUBS SHALL BE CONTAINER GROWN.
2. DEER PROTECTION TUBING SHALL BE PROVIDED FOR ALL TREES AND SHRUBS AND INSTALLED PER MANUFACTURERS INSTRUCTIONS.
3. SEE SEED SPECIFICATIONS FOR WET/MESIC MEADOW MIX AND RIPARIAN GRASS MIX, SHOWN ON THIS SHEET.

HERBACEOUS PLUG ZONE A SCHEDULE

LATIN NAME	COMMON NAME	QUANTITY
Elymus hystrix	Eastern Bottlebrush	200
Elymus virginicus	Virginia Wildrye	160
Carex vulpinoidea	Fox Sedge	160
Dichanthelium clandestinum	Deer-tongue	120
Asclepias incarnata	Swamp Milkweed	60
Symphyotrichum novae-angliae	New England Aster	60
Verbena hastata	Blue Vervain	60
Rudbeckia hirta	Blackeyed Susan	60

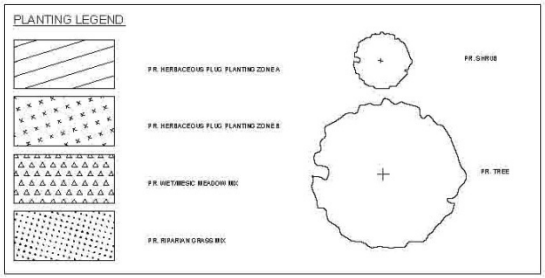
NOTES:
1. PLUGS TO BE SPACED 2 FT APART.
2. ALTERNATE BETWEEN SPECIES WHEN PLANTING.

HERBACEOUS PLUG ZONE B SCHEDULE

LATIN NAME	COMMON NAME	QUANTITY
Juncus effusus	Soft Rush	100
Scirpus cyperinus	Wool Grass	50
Leersia oryzoides	Rice Cutgrass	50
Carex stricta	Tussock Sedge	50
Iris versicolor	Northern Blue Flag	50

NOTES:
1. PLUGS TO BE SPACED 1.5 FT APART.
2. ALTERNATE BETWEEN SPECIES WHEN PLANTING.

PLANTING LEGEND



WET/MESIC MEADOW MIX

% SEED	LATIN NAME	COMMON NAME
20%	*Elymus hystrix*	Eastern Bottlebrush
15%	*Elymus virginicus*	Virginia Wildrye
10%	*Elymus villosus*	Wildrye
10%	*Carex vulpinoidea*	Fox Sedge
10%	*Juncus tenuis*	Path Rush
6%	*Asclepias incarnata*	Swamp Milkweed
6%	*Eupatorium perfoliatum*	Boneset
5%	*Panicum virgatum*	Switchgrass
5%	*Stylosanthes angustifolium*	Elliptic Blue-Eyed Grass
5%	*Verbena hastata*	Blue Vervain
4%	*Symphyotrichum novae-angliae*	New York Aster
4%	*Epilobium coloratum*	Purple-leaved Willow Herb

RIPARIAN GRASS MIX

% SEED	LATIN NAME	COMMON NAME
15%	*Elymus hystrix*	Eastern Bottlebrush
15%	*Elymus virginicus*	Virginia Wildrye
10%	*Elymus villosus*	Wildrye
10%	*Andropogon gerardii*	Big Bluestem
10%	*Schizachyrium scoparium*	Little Bluestem
10%	*Dichanthelium clandestinum*	Deer Tongue
10%	*Cinna arundinacea*	Wood Reed Grass
6%	*Panicum virgatum*	Switchgrass
2%	*Panicum dichotomiflorum*	Smooth Panicgrass
2%	*Carex stricta*	Sedge
2%	*Carex lurida*	Lurid Sedge
2%	*Carex pensylvanica*	Pennsylvania Sedge
2%	*Carex vulpinoidea*	Fox Sedge

1 SEEDING SCHEDULE

Scale 1" = 10'

OWNER/APPLICANT

GREENSPACE ALLIANCE
123 CHESTNUT STREET
SUITE 401
PHILADELPHIA, PA 19106
(215) 592-7020 (PHONE)

SITE/CIVIL ENGINEER

AKRF, INC.
100 CENTRE BOULEVARD
SUITE 102HJ
MARLTON, NJ 08053
(856) 797-9930 (PHONE)
(856) 797-9932 (FAX)

REVISIONS

DATE	DESCRIPTION
03/23/2010	REVISED PLANTING PLAN & SCHEDULE
04/05/2010	REVISED PLANTING PLAN & SCHEDULE

CLEARBROOK PARK
STORMWATER MAINTENANCE FACILITY
CITY OF HORSHAM, MONTGOMERY COUNTY
COMMONWEALTH OF PENNSYLVANIA

DRAWN BY	CHECKED BY
MRB	
AS SHOWN	DATE 06/18/09

SHEET TITLE

LANDSCAPE PLAN

SHEET NO.

3

SHEET 3 OF 7

Plant Species

1100 plugs of 13 different species

Funding

The funding for the wetland planting came from a Pennsylvania Association of Conservation Districts Non Point Source program mini-grant and from the TreeVitalize Watershed program.

Work Events

May 1st, 2010 – Volunteers from the 2nd annual Blair Mill Watershed Day event planted 20 trees and shrubs, and 650 plugs in the wetland cells.

May 7th, 2010 – Students from Blair Mill Elementary School planted the remaining 450 plugs

Students received a lesson on NPS pollution and wetland planting.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Horsham Township
AKRF
PACD