

# Harriet Wetherill Park

## Conservation & Management Plan

### Public Meeting



2/26/13

# Tonight's Meeting





- Introductions
- Meeting Format
- Purpose & Goals for: The Conservation & Management Plan (C&MP)
  - C&MP will be manual and tool for the Township to make wise decisions for the uses, management and investments in the Park.



**HARRIET WETHERILL  
PARK  
CONSERVATION &  
MANAGEMENT PLAN  
AERIAL PHOTOGRAPH**

**LEGEND**

-  PARK BOUNDARY
-  INTERIOR PARCEL LINE

**NOTES:**

1. NO BOUNDARY REASSESSMENT SURVEY PERFORMED FOR THE PREPARATION OF THIS PLAN. APPROXIMATE PROPERTY BOUNDARIES SHOWN ARE THE VALUES PROVIDED BY MONTGOMERY COUNTY, PENNSYLVANIA.
2. SUBJECT TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) MAP FOR FLOODING EFFECTIVE DATE SEPTEMBER 1976. NUMBER: 57005. FLOOD ZONE: SPECIAL STUDY 1. 100 YEAR FLOOD. MAP IS NOT CORRELATED WITH THE SUBJECT TRACT.
3. AERIAL IMAGE (2010) PROVIDED BY THE DELAWARE VALLEY REGIONAL PLANNING COMMISSION. USE THE PENNSYLVANIA STATE DATA ACCESS (PASA) "Aerial Mapping" SERVICE.
4. SOURCE DATA OBTAINED FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE NATIONAL AGRICULTURE STATISTICS SERVICE.

**HARRIET WETHERILL PARK  
CONSERVATION & MANAGEMENT PLAN**  
PREPARED FOR  
**PLYMOUTH TOWNSHIP**  
SITE SITUATE IN  
**PLYMOUTH TOWNSHIP  
MONTGOMERY COUNTY  
PENNSYLVANIA**

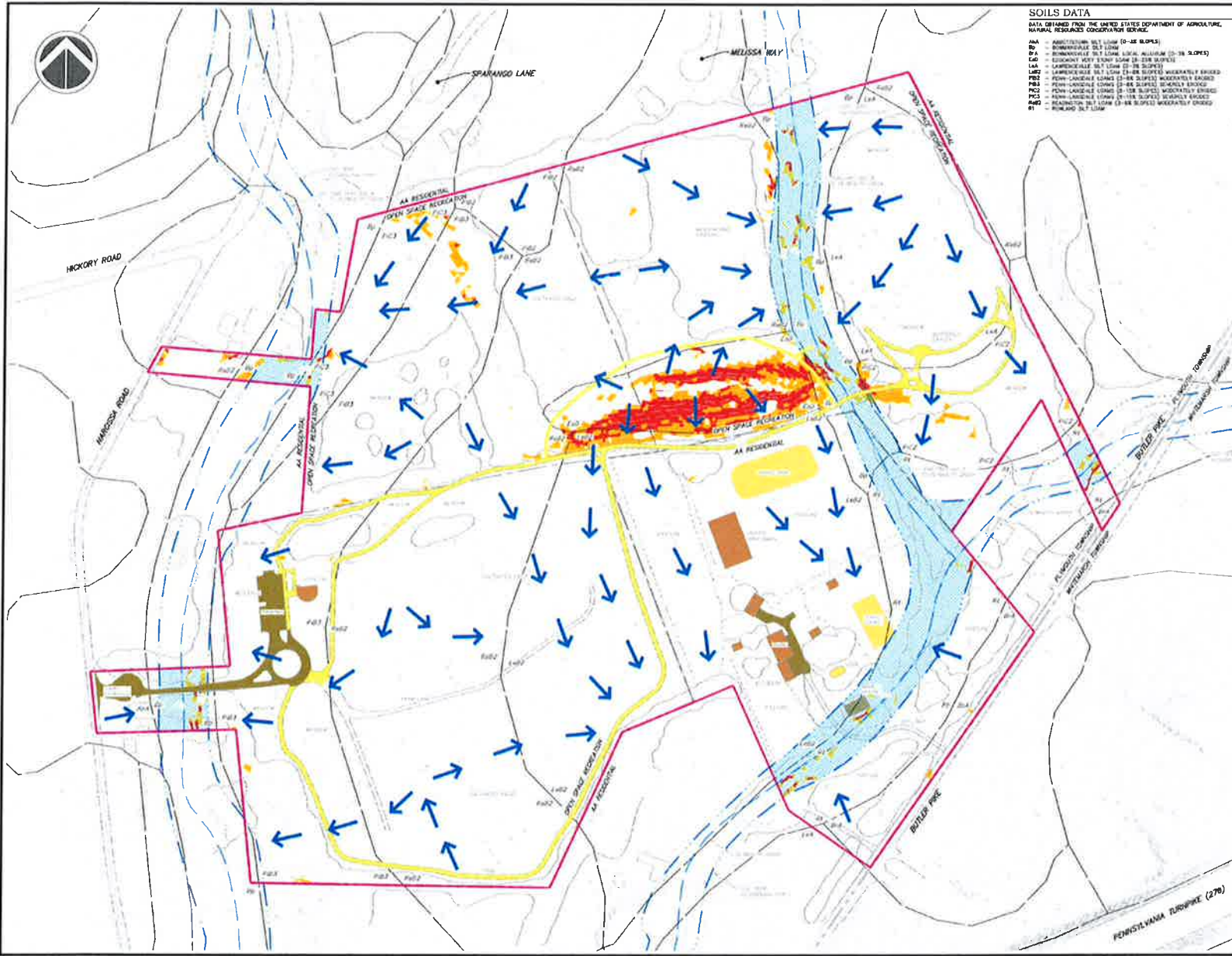


393 SHADYBROOK ROAD, SUITE 300  
BLUE HALL, PA 15822  
243.896.0333 (PA)  
215.619.9073 (DC)

DESIGNED BY: JDB	PROJECT MANAGER: BCC
PROJECT NUMBER: 600	DRAWING FILE NUMBER: M000-0001-0
PLAN SCALE: 1" = 100'	PLAN SHEET NUMBER: M000-1



**GRAPHIC SCALE**



**SOILS DATA**  
 DATA OBTAINED FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE, NATIONAL RESOURCE CONSERVATION SERVICE.

- AA - AGRICULTURAL SOILS (0-15% SLOPES)
- BA - BIRMINGHAM SOILS
- CA - CANTONVILLE SOILS (15-25% SLOPES)
- EA - EIGHTMILE CREEK SOILS (25-35% SLOPES)
- FA - FARMINGTON SOILS (25-35% SLOPES)
- GA - GAITHERVILLE SOILS (25-35% SLOPES)
- HA - HARRISVILLE SOILS (25-35% SLOPES)
- IA - IRVINGVILLE SOILS (25-35% SLOPES)
- JA - JEFFERSONVILLE SOILS (25-35% SLOPES)
- KA - KANAWHA SOILS (25-35% SLOPES)
- LA - LAMARVILLE SOILS (25-35% SLOPES)
- MA - MARYSVILLE SOILS (25-35% SLOPES)
- NA - NANTONVILLE SOILS (25-35% SLOPES)
- OA - OAKVILLE SOILS (25-35% SLOPES)
- PA - PINEVILLE SOILS (25-35% SLOPES)
- QA - QUINCYVILLE SOILS (25-35% SLOPES)
- RA - RAINFORD SOILS (25-35% SLOPES)
- SA - SANGERSVILLE SOILS (25-35% SLOPES)
- TA - TAYLORVILLE SOILS (25-35% SLOPES)
- UA - UNIONVILLE SOILS (25-35% SLOPES)
- VA - VANDERBILT SOILS (25-35% SLOPES)
- WA - WASHINGTONVILLE SOILS (25-35% SLOPES)
- XA - XENIAVILLE SOILS (25-35% SLOPES)
- YA - YONKERSVILLE SOILS (25-35% SLOPES)
- ZA - ZANESVILLE SOILS (25-35% SLOPES)

**HARRIET WETHERILL PARK  
 CONSERVATION &  
 MANAGEMENT PLAN  
 EXISTING FEATURES MAP**

**LEGEND**

	PARK BOUNDARY		15% TO 25% SLOPES
	INTERIOR PARCEL LINE		>25% SLOPES
	ZONING DISTRICT LINE		SOILS LINE
	EXISTING BUILDINGS		STREAM OR TRIBUTARY
	OTHER BUILT FEATURES		100 YEAR FLOODPLAIN
	DRIVEWAY ACCESS		DRAINAGE PATTERN
	STONE TRAIL		

**NOTES:**

- NO BOUNDARY PLACEMENT SHOWN FOR THE PREPARATION OF THIS PLAN. PROPERTY BOUNDARIES SHOWN FOR THE MAPS PROVIDED BY MONROVIA TOWNSHIP, PENNSYLVANIA.
- PERMIT TO THE FEDERAL BUREAU OF MANAGEMENT AGENCY (FEMA) WAS OBTAINED. EFFECTIVE DATE: 1/1/1988. MONROVIA TOWNSHIP, PENNSYLVANIA. 100 YEAR FLOOD MAP IS SHOWN WITHIN THE SUBJECT TRACT.
- ALL INFORMATION CONTAINED HEREIN IS THE PROPERTY OF LAND CONCEPTS, INC. AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.
- ALL DATA OBTAINED FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE, NATIONAL RESOURCE CONSERVATION SERVICE.

**HARRIET WETHERILL PARK  
 CONSERVATION & MANAGEMENT PLAN**  
 PREPARED FOR  
 PLYMOUTH TOWNSHIP  
 SITE SITUATION  
 PLYMOUTH TOWNSHIP  
 MONTGOMERY COUNTY  
 PENNSYLVANIA

**LandConcepts**  
 3933 SHARPSVILLE ROAD, SUITE 300  
 BLUE BELT, PA 19422  
 215-638-2222  
 215-638-2221

DESIGNED BY: JMS PROJECT MANAGER: BCC  
 PROJECT NUMBER: 0009 DRAWING FILE NUMBER: HWP02-02  
 DATE DRAWN: 11/11/09 PLAN SHEET NUMBER: MAP-2

**GRAPHIC SCALE**



**HARRIET WETHERILL  
PARK  
CONSERVATION &  
MANAGEMENT PLAN  
VEGETATIVE COVER**

**LEGEND**

	OLLIVARD FIELD
	MEADOW
	PASTURE
	LAWN
	WOODLAND
	WETLAND
	WOODLAND TYPES

**NOTES:**

1. NO SOILS/VEGETATION SURVEY PERFORMED FOR THE PREPARATION OF THIS DATA. PROPERTY BOUNDARY LINES ON THIS MAP ARE FROM TAX MAPS PROVIDED BY MONTGOMERY COUNTY PLANNING.
2. INFORMATION TO THE EFFECT OF RESOURCE MANAGEMENT ACTION (LAW) MAY AFFECT THE EFFECTIVE DATE OF THIS MAP. THESE CHANGES SHALL BE A 100 YEAR PROJECTIONS AND CONTAINED WITHIN THE SUBJECT TRACT.
3. AERIAL PHOTO PROVIDED BY THE GEORGE VALENTI REGIONAL PLANNING COMMISSION, 1000 PENNSYLVANIA TURNPIKE, FORT DETMERS, PENNSYLVANIA 19042.
4. CONSULTATION WITH THE UNITED STATES DEPARTMENT OF AGRICULTURE NATIONAL TECHNICAL STATION SERVICE.

**HARRIET WETHERILL PARK  
CONSERVATION & MANAGEMENT PLAN**  
PREPARED FOR  
**PLYMOUTH TOWNSHIP**  
SITE SITUATE IN  
**PLYMOUTH TOWNSHIP  
MONTGOMERY COUNTY  
PENNSYLVANIA**

**Land Concepts**  
593 SKIPPACK PIKE SUITE 300  
BLUE BELL, PA 19422  
215 546 2041 (9)  
215 619 9071 (H)

DESIGNED BY JBS	PROJECT MANAGER KCC
PROJECT NUMBER 690	DATE OF FIELD WORK 4/2000
PLAN SCALE 1" = 100'	PLAN SHEET NUMBER MAP-3

GRAPHIC SCALE

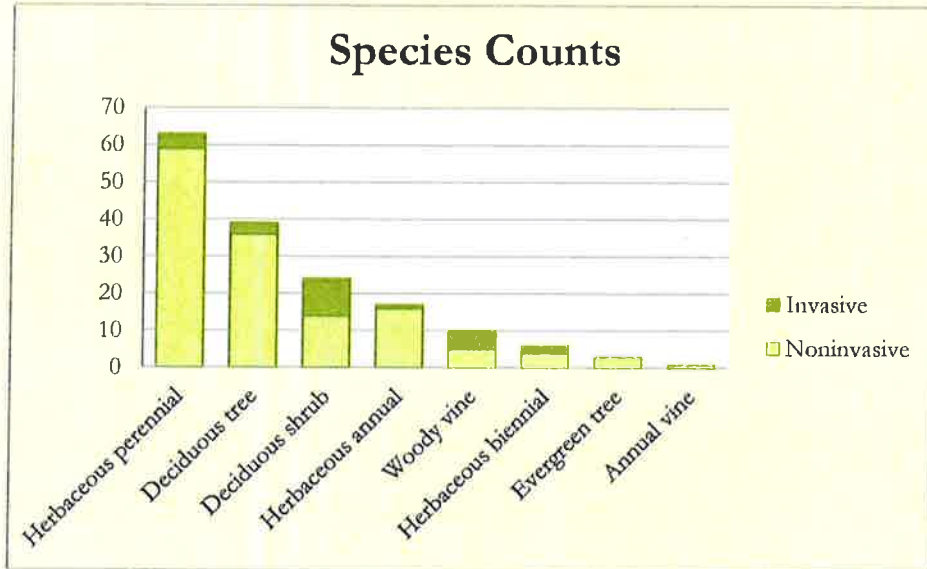
Species: 163  
Families: 57

Largest families by species count:  
Rosaceae, Poaceae, Asteraceae

Scientific Name	Family	Common name	Nativity	USFWS wetland code	Growth habit
<i>Sambucus canadensis</i>	Adoxaceae	American elder	Native	FACW	Deciduous shrub
<i>Viburnum opulus</i>	Adoxaceae	Suelder-rose	Introduced	N	Deciduous shrub
<i>Viburnum plicatum</i>	Adoxaceae	Doublefile viburnum	Introduced	N	Deciduous shrub
<i>Viburnum prunifolium</i>	Adoxaceae	Black-haw	Native	FACU	Deciduous shrub
<i>Viburnum setigerum</i>	Adoxaceae	Tea viburnum	Introduced	N	Deciduous shrub
<i>Allium vineale</i>	Alliaceae	Field garlic	Introduced	FACU	Herbaceous perennial
<i>Narcissus pseudonarcissus</i>	Alliaceae	Daffodil	Introduced	N	Herbaceous perennial
<i>Rhus typhina</i>	Anacardiaceae	Staghorn sumac	Native	?	Deciduous shrub
<i>Toxicodendron radicans</i>	Anacardiaceae	Poison-ivy	Native	FAC	Woody vine
<i>Apocynum cannabinum</i>	Apocynaceae	Indian-hemp	Native	FACU	Herbaceous perennial
<i>Asclepias syriaca</i>	Apocynaceae	Common milkweed	Native	FACU	Herbaceous perennial
<i>Arisaema triphyllum</i> ssp. <i>triphyllum</i>	Araceae	Jack-in-the-pulpit	Native	FACW	Herbaceous perennial
<i>Lemna minor</i>	Araceae	Duckweed	Native	OBL	Herbaceous perennial
<i>Symplocarpus foetidus</i>	Araceae	Skunk cabbage	Native	OBL	Herbaceous perennial
<i>Hedera helix</i>	Araliaceae	English ivy	Introduced	N	Woody vine
<i>Achillea millefolium</i>	Asteraceae	Common yarrow	Introduced	FACU	Herbaceous perennial
<i>Ambrosia trifida</i>	Asteraceae	Giant ragweed	Native	FAC	Herbaceous annual
<i>Carduus nutans</i>	Asteraceae	Nodding thistle	Introduced	N	Herbaceous biennial
<i>Cirsium vulgare</i>	Asteraceae	Bull-thistle	Introduced	FACU	Herbaceous biennial
<i>Erigeron strigosus</i> var. <i>strigosus</i>	Asteraceae	Daisy fleabane	Native	FACU	Herbaceous annual
<i>Senecio vulgaris</i>	Asteraceae	Common groundsel	Introduced	FACU	Herbaceous annual
<i>Solidago caesia</i>	Asteraceae	Bluestem goldenrod	Native	FACU	Herbaceous perennial
<i>Symphyotrichum lateriflorum?</i>	Asteraceae	Calico aster	Native	FACW	Herbaceous perennial
<i>Taraxacum officinale</i>	Asteraceae	Common dandelion	Introduced	FACU	Herbaceous perennial
<i>Vernonia noveboracensis</i>	Asteraceae	New York ironweed	Native	FACW	Herbaceous perennial
<i>Xanthium strumarium</i>	Asteraceae	Common cocklebur	Native	FAC	Herbaceous annual
<i>Impatiens capensis</i>	Balsaminaceae	Jewelweed	Native	FACW	Herbaceous annual
<i>Alnus glutinosa</i>	Betulaceae	Black alder	Introduced	FACW	Deciduous tree
<i>Betula nigra</i>	Betulaceae	River Birch	Native	FACW	Deciduous tree
<i>Betula nigra</i> 'Heritage'	Betulaceae	Heritage River Birch	Native*	?	Deciduous tree
<i>Catalpa speciosa</i>	Bignoniaceae	Northern Catalpa	Native	FAC	Deciduous tree
<i>Campsis radicans</i>	Bignoniaceae	Trumpet creeper	Native	FAC	Woody vine
<i>Alliaria petiolata</i>	Brassicaceae	Garlic-mustard	Introduced	FACU	Herbaceous biennial
<i>Barbarea vulgaris</i>	Brassicaceae	Wintercress	Introduced	FACU	Herbaceous biennial



## Harriet Wetherill Park Plant Species Inventory



Baseline assessment using Plant Stewardship Index from Bowman's Hill Wildflower Preserve

Each plant species gets a 'coefficient of conservatism'

Coefficients of conservatism range from 1 (generalist) to 10 (specialist, rare)

Coefficients are averaged to give an assessment of the quality of native flora on the site

Species with high coefficients of conservatism found at HWP:

Serviceberry (*Amelanchier canadensis*)

Witchhazel (*Hamamelis virginiana*)

White Pine (*Pinus strobus*)

Swamp White Oak (*Quercus bicolor*)

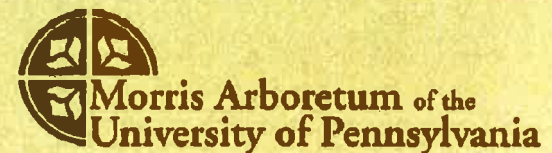
Prickly Ash (*Zanthoxylum americanum*)

Create an account at

<http://www.bhwp.org/psi/>

to see the species list for Harriet Wetherill Park!

Harriet Wetherill Park  
Floristic Quality





***Stewardship Areas at HWP as defined by the Morris Arboretum Urban Forestry Consultants***

# Guiding Principles for Use(s)

- All options are driven by goals of being **sustainable** as part of the natural park.
- Uses being considered **support and complement** each other and work within the available resources, including structures. One exception will be a nature center facility.
- All options are required to have an **environmental education** component and, where possible, agriculture and cultural messages.
- Facilities being considered will support programs with the goal of bring **a variety of users** to the Park.
- Most uses being considered are those that will **generate revenue** to be cost neutral or provide funds to help support programs that need supplemental funds.
- **Partnering** with others will be a key to success and longevity sharing in programs, use , funding, and investment of financial and human capital.
- Park development will be **phased in** over time (years).

# Program Opportunities



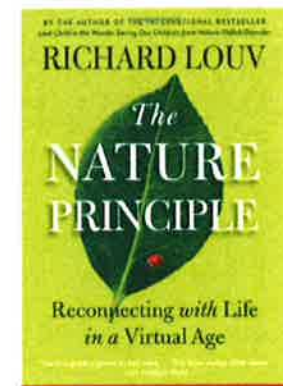
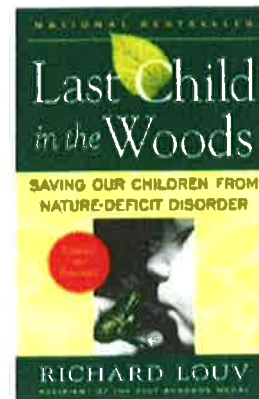
- ❑ Passive Recreation (trails, nature study)
- ❑ Environmental Education (formal/informal)
- ❑ Farming (row crop)
- ❑ Nursery/Orchard/Christmas Tree Operation
- ❑ Eco-Goat Operation
- ❑ Horse Facility for Aged Equines, Retraining Horses/  
Horses for Heroes (Veterans), Therapeutic Riding
- ❑ 4-H Club
- ❑ Habitat Management



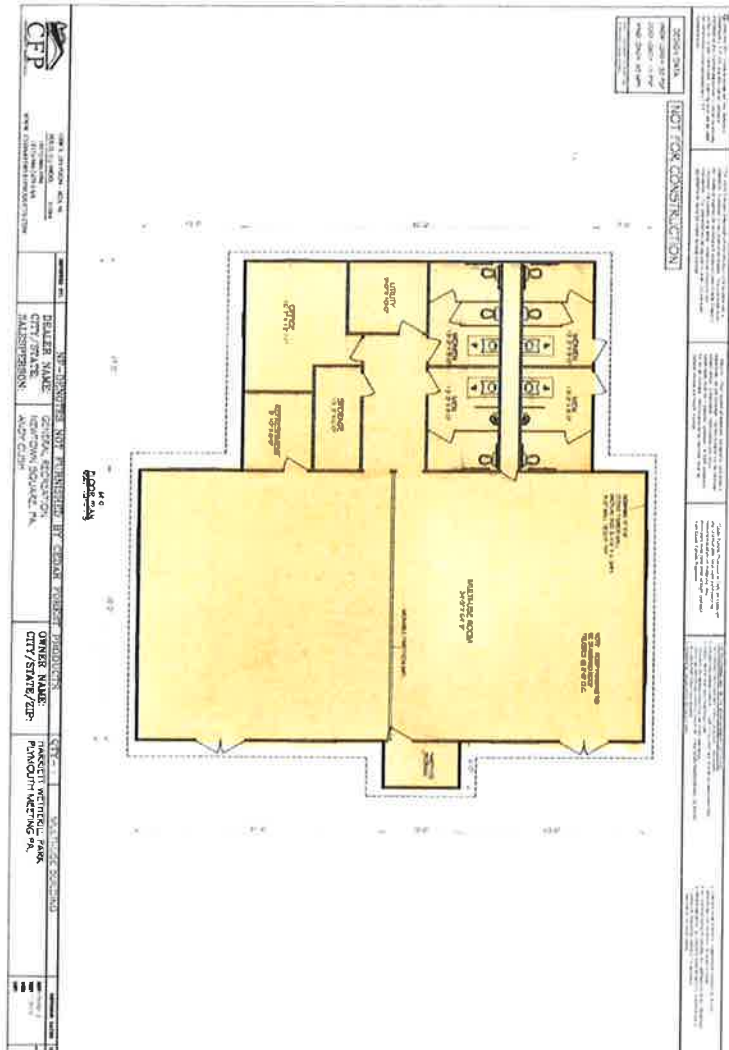
Use Area	Use Category	Potential Uses	Result/Action
1 (~2.3 acres)	Natural Area	<ul style="list-style-type: none"> <li>o Warm Season Grass Meadow – managed/mowed</li> <li>o Beekeeping</li> <li>o Environmental Education</li> </ul>	Managed by Parks & Rec. (P&R)/ Twp
2 & 3 (~2.6 acres) (~2.5 acres)	Agriculture	<ul style="list-style-type: none"> <li>o Row Crops – sustainable</li> <li>o Tree Nursery</li> <li>o Orchard</li> <li>o Christmas Tree Farm</li> <li>o Environmental Education</li> <li>o Family Activities (hay rides, tree cutting, pick your own)</li> </ul>	Lease to Operator Revenue Source
4 (~3.9 acres)	Natural Area Agriculture	<ul style="list-style-type: none"> <li>o Row Crop</li> <li>o Hay/Straw/Grain</li> <li>o Warm Season Meadow</li> <li>o Environmental Education</li> </ul>	Lease to Operator Revenue Maintain by P&R or tenant
5 (~1.3 acres) (~2.8 acres) (~1.1 acres)	Park Facility	<ul style="list-style-type: none"> <li>o Butterfly Garden</li> <li>o Pavilion</li> <li>o Parking Lot/Entrance</li> <li>o Environmental Education</li> <li>o Nature Center</li> </ul>	Managed by Parks & Recreation (P&R)/ Twp Operator/Partner
6 (~11.4 acres)	Farm Use(s)	<ul style="list-style-type: none"> <li>o Horse Facility – aged, retraining, veterans, therapeutic operation</li> <li>o Eco-Goat Facility (Satellite Operation)</li> <li>o Rent Main House</li> <li>o Veterinary (large animal)</li> <li>o New Park Entry (2-way) from Butler Avenue</li> <li>o Trail Extended</li> </ul>	Lease to Operator Retain Agrarian Setting Revenue Source
7 (~12.7 acres)	Agriculture	<ul style="list-style-type: none"> <li>o Row Crop – sustainable</li> <li>o Straw/Hay/Grain</li> <li>o CSA</li> <li>o Farm Education</li> <li>o Environmental Education</li> <li>o Family Activities</li> </ul>	Lease to Operator Revenue Source Crops for Animals
8 (~30 acres)	Natural Woodlands	<ul style="list-style-type: none"> <li>o Nature Study</li> <li>o Recreation</li> <li>o Habitat Enhancement</li> </ul>	Managed by Parks & Recreation (P&R)/ Twp. Volunteers

# Nature Center

- Location
- Components
- Formal (curriculum)/Informal Learning
- Shared Multi-User Facility
- Phased In Over Time (years)
- Operation Models

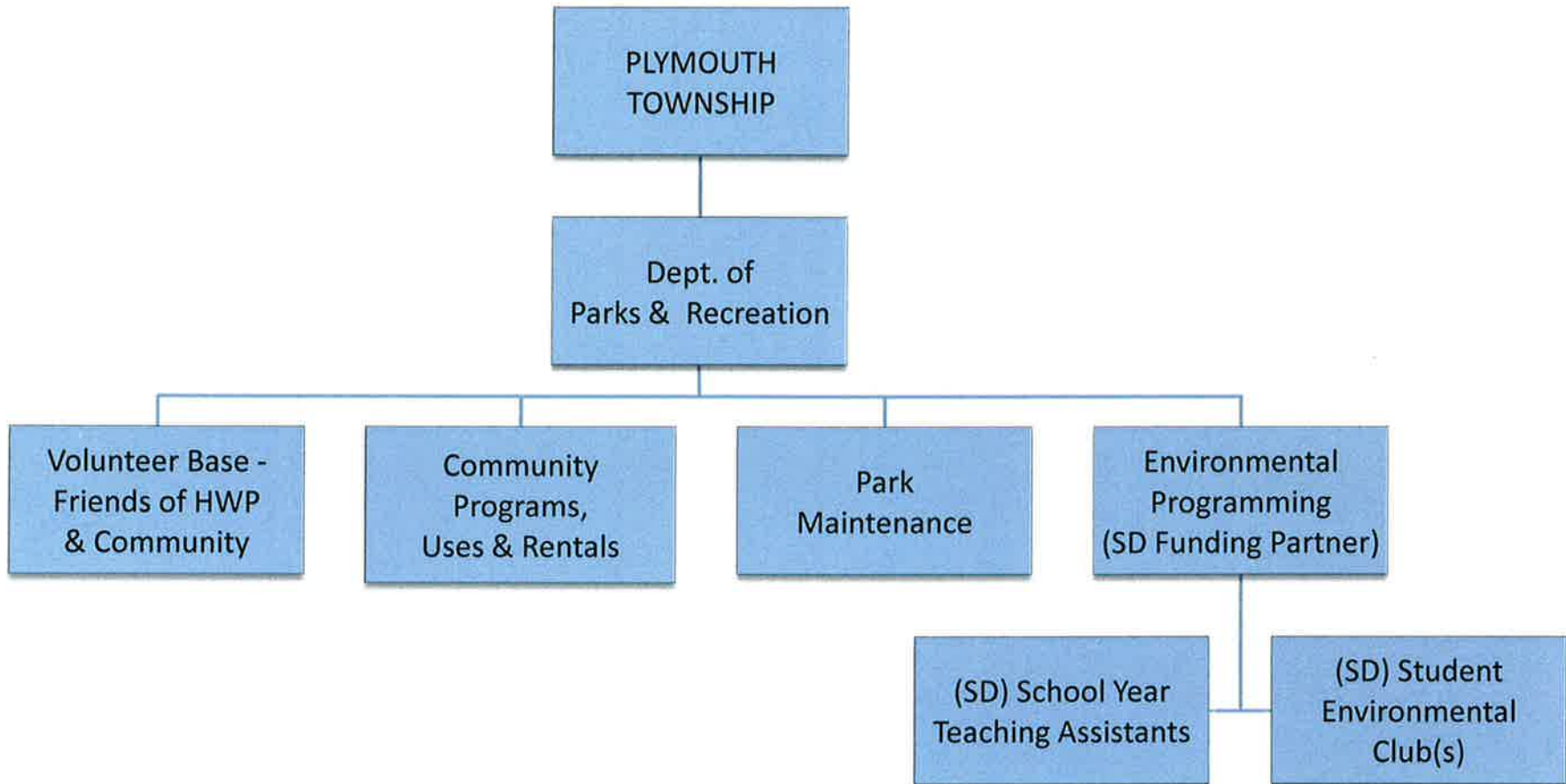


# Nature Center Space



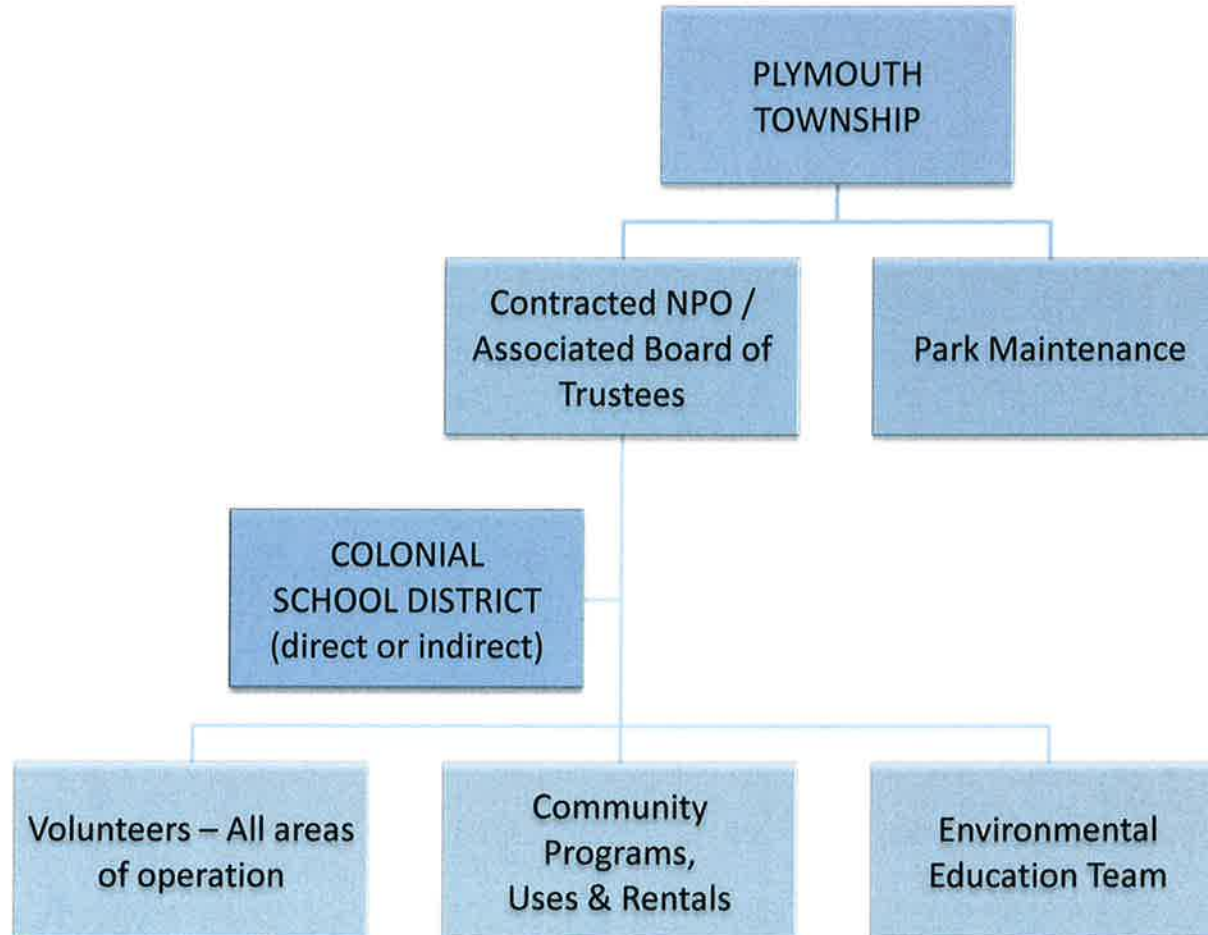
## OPTION 2

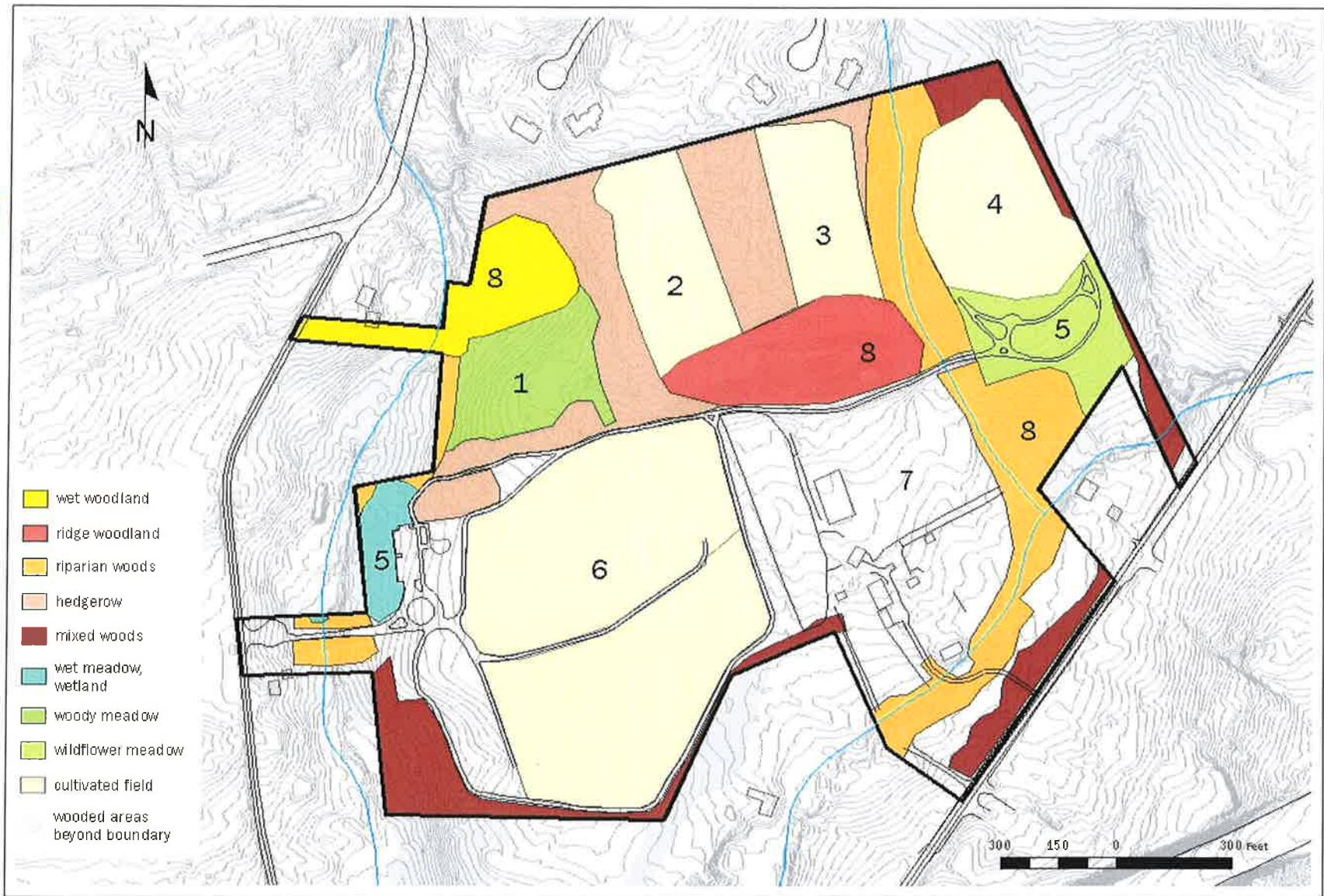
### Township Operations Model



**OPTION 3**

**3<sup>rd</sup> Party - NPO Operations Model**





## Harriet Wetherill Park Stewardship Units

	STEWARDSHIP UNITS							Who will do this?
	Ridge Woodland	Wet Woodland	Riparian Woods	Hedgerows	Wet Meadow	Woody Meadow	Butterfly Garden	
<b>ACTIVITIES</b>								
<b>Removing Plants</b>								
Remove invasive/exotic shrubs				X		X		Volunteers
Control poison ivy along trails						X		Park staff
Remove garlic mustard and stiltgrass	X							Park staff
Cut vines in trees				X				Volunteers
Manage cattails					X			Volunteers
Remove Japanese honeysuckle vines	X							Volunteers
General weeding							X	Volunteers
<b>Improving Soil</b>								
Close off 'rogue' footpaths		X	X		X			Volunteers
Add leaf litter and woody debris				X				Volunteers
Plant bottlebrush grass to protect soil in disturbed areas	X			X				Volunteers
Remove 'rogue' organic dump sites				X				Volunteers
Mitigate trail erosion		X						Volunteers
Mulching							X	Volunteers

**X First Priorities**

Harriet Wetherill Park  
Stewardship Activities

	STEWARDSHIP UNITS							Who will do this?
	Ridge Woodland	Wet Woodland	Riparian Woods	Hedgerows	Wet Meadow	Woody Meadow	Butterfly Garden	
<b>ACTIVITIES</b>								
<b>Protecting People</b>								
Monitor for hazardous trees along trails	X	X	X	X				Certified arborist
Keep trails clear of debris and encroaching vegetation	X	X	X	X		X		Volunteers
<b>Protecting Plants</b>								
Flag spring ephemeral plants	X							Botanist or knowledgeable plantsman
Install deer fencing as a demonstration	X	X						Park staff
Inspect fencing for gaps	X	X						Volunteers
<b>Adding Plants</b>								
Plant deciduous trees (early successional)			X	X				Volunteers or contractors
Plant edge buffers				X				Volunteers or contractors
Plant evergreens						X		Volunteers or contractors
Plant sedges		X			X			Volunteers
Plant shrubs				X				Volunteers

Harriet Wetherill Park  
Stewardship Activities

# Possible Partners



- ❑ Chestnut Hill College
- ❑ Delaware Valley College
- ❑ Montgomery County Community College
- ❑ Montgomery County Farm, Home & 4-H Center
- ❑ Penn State Cooperative Extension
- ❑ Private Schools (e.g., Plymouth Friends School)
- ❑ Colonial School District ?
- ❑ Local Farmer

# Next Steps



- Refine Program Opportunities
- Obtain Partners/Letters of Interest
- Revenue Costs Analysis
- ANCA Review (April 4-6?)
- Steering Committee (April 30)
- Public Meeting #2 (May 15)
- Final Report to Council (June 2013)

**Thank You** for Your Input

# Questions, Comments & Discussion

