

NEW VERNON TOWNSHIP

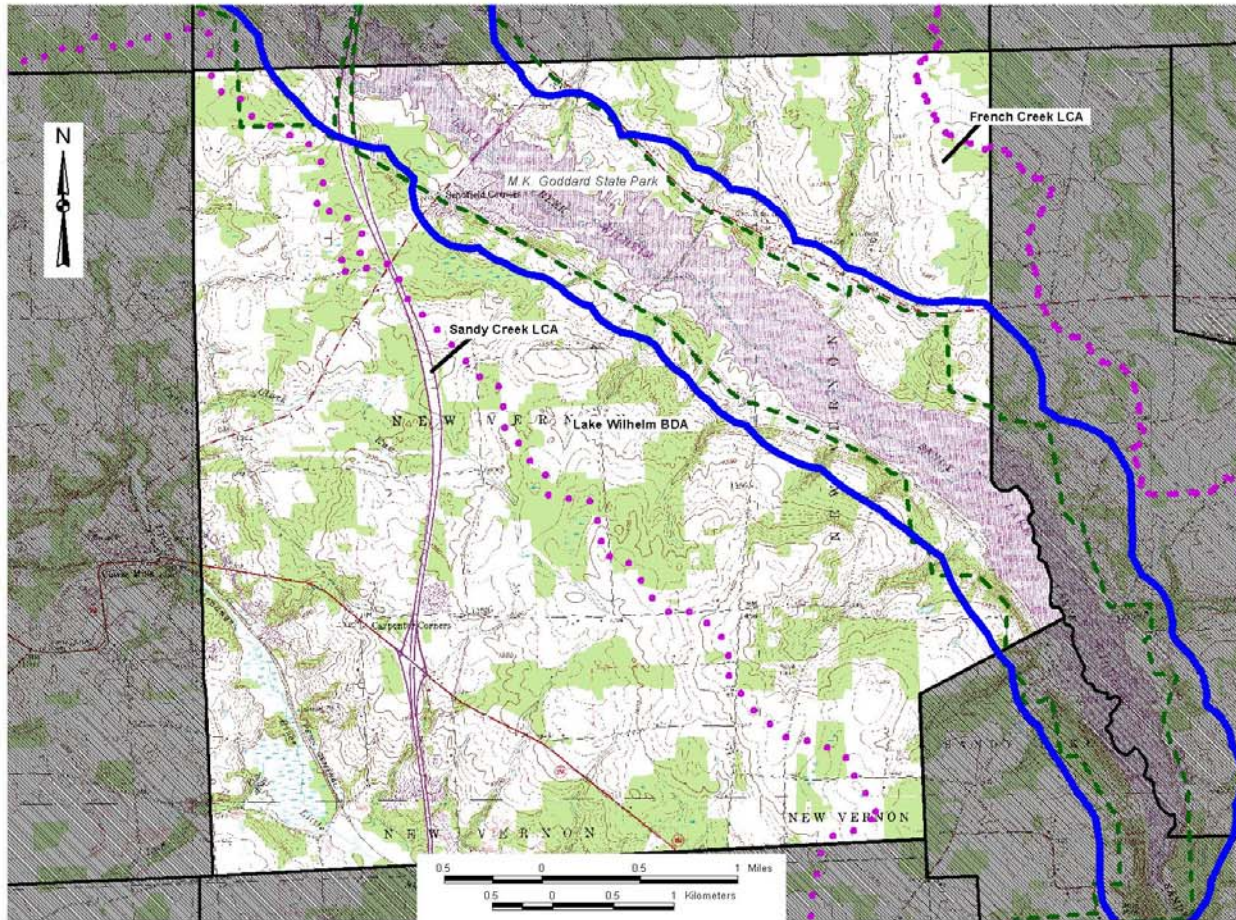
<u>PNDI Rank</u>		<u>Legal Status</u>	
Global	State	Fed.	State

NATURAL HERITAGE AREAS:

LAKE WILHELM BDA		<i>High Significance</i>	
Great Blue Heron (<i>Ardeas herodias</i>)	G5	S3S4BS4N	
Osprey (<i>Pandion haliaetus</i>)	G5	S2B	PT
Special Animal 1	G4	S2B	PE
SANDY CREEK LCA		<i>Exceptional Significance</i>	

MANAGED LANDS: M.K. Goddard State Park

New Vernon Township



New Vernon Township

Mercer County Natural Heritage Inventory

Biological Diversity Areas:

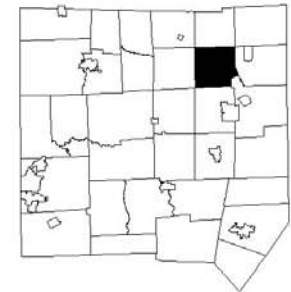
Lake Wilhelm

Landscape Conservation Areas:

French Creek
Sandy Creek

Managed Areas:

M.K. Goddard State Park



Map Legend

-  Biological Diversity Area (BDA)
-  Landscape Conservation Area (LCA)
-  Audubon Society Important Bird Area (IBA)
-  Managed Area
-  Municipal Boundary

NEW VERNON TOWNSHIP

New Vernon Township is located in the north central part of Mercer County. Sandy Creek and the Little Shenango River drain the township. There are two Natural Heritage Areas and one managed land – **M.K. Goddard State Park** located in New Vernon Township.

Lake Wilhelm BDA

Lake Wilhelm BDA encompasses all of M.K. Goddard State Park and some surrounding area. The 1,860 acre Lake Wilhelm is wholly included in this BDA. Lake Wilhelm BDA is the site of three Pennsylvania animal species of special concern, **Special Animal 1, osprey (*Pandion haliaetus*)** and **great blue heron (*Ardeas herodias*)**. Because of the size of the BDA we have divided into three sections (A-C) for easier discussion.

Section A

Section A covers the lowest or south-westernmost part of the lake. It is delimited from the crossroads of New Vernon to the dam at Lake Wilhelm. Section A is the location of a nesting site of a Pennsylvania animal species of special concern, **great blue heron (*Ardeas herodias*)**. This focus area includes Dugan Run and the area around the dam.

Dugan Run joins Lake Wilhelm on the eastern side of the lake. The confluence of the stream and the lake is the location of an open cattail marsh that is almost wholly dominated by wide leaved cattail (*Typha latifolia*). Other species include marsh marigold (*Caltha palustris*), ditch stonecrop (*Penthorum sedoides*) and golden saxifrage (*Chrysosplenium americanum*). Upstream of the confluence on Dugan Run is a medium age forest dominated by red maple (*Acer rubrum*), yellow birch (*Betula allegheniensis*), white oak (*Quercus alba*), black cherry (*Prunus serotina*) and, in some places, dense growths of hemlock (*Tsuga canadensis*). Invasive species, such as tartarian honeysuckle (*Lonicera tartarica*) and multiflora rose (*Rosa multiflora*), dominate the understory. Golden ragwort (*Packera aurea*), New York fern (*Thelypteris novaboracensis*), foamflower (*Tiarella cordifolia*), Pennsylvania sedge (*Carex pennsylvanica*) and skunk cabbage (*Symplocarpus foetidus*) are among the herbaceous species growing in this area.

Near the dam at Lake Wilhelm, the lake valley is constricted into a small gorge. The west side of the gorge is a young disturbed forest with a canopy of mostly red maple, yellow birch and black cherry with red oak grading into the mix on the upper slope. Understory species include American hornbeam (*Carpinus caroliniana*), witch-hazel (*Hamamelis virginiana*), bitternut hickory (*Carya cordiformis*), alternate-leaf dogwood (*Cornus alternifolia*) and spicebush (*Lindera benzion*). Common herbs are crooked stem aster (*Symphotrichum prenanthoides*), horse-balm (*Collinsonia canadensis*), Christmas fern (*Polystichum acrostichoides*), woodland goldenrod (*Solidago caesia*) and garlic mustard (*Alliaria petiolata*). The east side of the gorge is a medium-aged forest dominated by red maple, shagbark hickory (*Carya ovata*), red oak (*Quercus rubra*) and in scattered areas pin oak (*Quercus palustris*). Understory associates are black gum (*Nyssa sylvatica*), spicebush, cucumber tree (*Magnolia accuminata*) and mountain laurel (*Kalmia latifolia*).

Herbaceous species include beggar's tick (*Bidens frondosa*), fan ground pine (*Lycopodium digitatum*), herbaceous green-brier (*Smilax herbacea*), New York fern (*Thelypteris novaboracensis*), Canada mayflower (*Maianthemum canadense*) and shining club moss (*Huperzia lucidula*).

Section B

Section B covers the area around Schofield Corners roughly from upstream of the New Vernon crossroads to I-79. This is the location of the state park marina, which was built on old strip mine lands next to the lake. This section is the location of three Pennsylvania animal species of special concern, **Osprey** (*Pandion haliaetus*), **great blue heron** (*Ardea herodias*) and **Special Animal 1**. To the northwest the area is covered in a medium-age hardwood forest dominated by red maple (*Acer rubrum*), yellow birch (*Betula allegheniensis*), red oak (*Quercus rubra*), hemlock (*Tsuga canadensis*) and black cherry (*Prunus serotina*). Understory species include American hornbeam (*Carpinus caroliniana*) and witch-hazel (*Hamamelis virginiana*). Common herbs are wild geranium (*Geranium maculatum*), big-leaf aster (*Eurybia macrophylla*), partridge-berry (*Mitchella repens*), brome-like sedge (*Carex bromoides*) and crested log fern (*Dryopteris cristata*). Small streams, shrub swamps and ground water seepages are common throughout the forest. Common shrubs include silky dogwood (*Cornus amomum*), nannyberry (*Viburnum lentago*), winterberry (*Ilex verticillata*), elderberry (*Sambucus canadensis*) and highbush blueberry (*Vaccinium corymbosum*). Herbaceous vegetation associated with the seepage areas includes skunk cabbage (*Symplocarpus foetidus*), marsh marigold (*Caltha palustris*), false hellbore (*Veratrum viride*), fowl manna grass (*Glyceria striata*), rice-cut grass (*Leersia virginica*) and Gray's sedge (*Carex grayii*).

The southwest, higher elevation section of this focus area supports a Black Cherry - Northern Hardwoods Forest dominated by black cherry, red maple, white oak (*Quercus alba*) and yellow birch (*Betula allegheniensis*). Hemlock is scattered throughout the forest and in some place forms pure stands. Spicebush (*Lindera benzoin*) is present in the understory and arrowwood (*Viburnum dentatum*) and maple-leaf viburnum (*Viburnum acerifolium*) constitute the bulk of the shrub layer. The herbaceous layer reflects the drier conditions with intermediate log fern (*Dryopteris intermedia*), ground pine (*Lycopodium obscurum*), bearded short-husk (*Brachylyletrum erectum*), mayapple (*Podophyllum peltatum*) and Canada mayflower (*Maianthemum canadense*).

Across the lake to the north is the nesting site of a colony of **great blue heron** (*Ardea herodias*). The site is imbedded in mature forest containing numerous vernal ponds. Red oak, red maple, black cherry, yellow birch and American beech (*Fagus grandifolia*) dominate the canopy. Understory associates are cucumber tree (*Magnolia accuminata*), serviceberry (*Amelanchier arborea*) and American hornbeam (*Carpinus caroliniana*). Herbs include New York fern (*Thelypteris novaboracensis*), nodding mandarin (*Disporum lanuginosum*), sessile bellwort (*Uvularia sessilifolia*) and false solomon's seal (*Smilacina racemosa*). The vernal ponds were dry at the time of the visit in the middle of July and are surrounded by a canopy of red maple and an understory of winterberry with highbush blue blueberry occupying in the middle of the ponds. Herbs in the ponds include false nettle (*Boehmeria cylindrica*), sensitive fern (*Onoclea sensibilis*), three-way sedge (*Dulichium*

arundinaceum) and stinging nettle (*Urtica dioica*). Some of the vernal ponds are more open and support more graminoids such as great bladder sedge (*Carex intumescens*), brome-like sedge (*Carex bromoides*), royal fern (*Osmunda regalis*) and Fraser's St. John's Wort (*Triadenum fraseri*).

A tributary (Falling Run) to Lake Wilhelm enters in the northwest area of this section. It is a bedrock controlled stream and is rather atypical of most streams in the area. The Hemlock - Northern Hardwoods Forest lining the stream includes hemlock, yellow birch (*Betula allegheniensis*) and American beech (*Fagus grandifolia*). A well defined understory is lacking and what is present represents smaller members of the canopy species. Herbs are few and include intermediate log fern (*Dryopteris intermedia*), gold thread (*Coptis trifolia*), jumpseed (*Polygonum virginianum*), foamflower (*Tiarella cordifolia*) and, at the bottom near the lake, skunk cabbage (*Symplocarpus foetidus*). Numerous salamanders were noted associated with the outcrops.



Figure 19. Outcrops on tributary to Lake Wilhelm

Section C

Section C is in the uppermost part of the lake and runs from I-79 to just north of Sheakleyville near where U.S. Route 19 crosses Sandy Creek. The Pennsylvania Game Commission manages most of this area. Part of this section is included in a game

propagation area where public access is not permitted. The propagation area provides habitat for a Pennsylvania animal species of special concern; **Special Animal 1**. A recently thinned forest of yellow birch, black cherry, red maple, American beech and hemlock runs adjacent to the propagation area. Understory species include witch-hazel, American hornbeam, cucumber tree, serviceberry and spicebush. Most of the herbs are typical for a northern hardwoods community with robin runaway (*Dalibarda repens*), big-leaf aster (*Eurybia macrophylla*), wintergreen (*Gaultheria procumbens*), gold thread (*Coptis trifolia*) and starflower (*Trientalis borealis*). Other herbs present are skunk cabbage (*Symplocarpus foetidus*), foamflower (*Tiarella cordifolia*), swan's sedge (*Carex swanii*) and yellow loosestrife (*Lysimachia ciliata*).

Along the north side of the lake above the propagation area lies a peaty shrub swamp with numerous sphagnum mats that drains into the lake. Woody species in the wetland include winterberry, red osier dogwood (*Cornus sericea*), spicebush and American hornbeam. Herbs are found on the sphagnum mats and include crested log fern (*Dryopteris cristata*), cinnamon fern (*Osmunda cinnamomea*), early saxifrage (*Saxifraga pennsylvanica*), brome-like sedge (*Carex bromoides*) and silvery glade fern (*Deparia acrostichoides*).

The wetland is surrounded by mature mesic hardwoods dominated by black cherry (*Prunus serotina*), red oak (*Quercus rubra*), red maple (*Acer rubrum*), sugar maple (*Acer saccharum*) and American beech (*Fagus grandifolia*). The understory is well developed and consists of cucumber tree, spicebush and witch-hazel. Creeping raspberry (*Rubus hispidus*) forms an extensive ground cover. Herbs include bearded short-husk (*Brachylyletrum erectum*), foamflower (*Tiarella cordifolia*), Pennsylvania violet (*Viola pennsylvanica*), white rattlesnake root (*Prenanthes alba*), indian cucumber root (*Medeola virginica*) and horsebalm (*Collinsonia canadensis*).

Threats and Stresses

Most of the land area in this BDA is public and is owned by either Goddard State Park or the Pennsylvania Game Commission and as such receives a high degree of protection. The birds that nest in this BDA have been nesting here for years. The relatively quiet and isolated area has remained unchanged during this time. These animals are, however, sensitive to disturbance, including casual visitation, that occurs within a few hundred meters of their location. Any activities that occur frequently or continuously in the vicinity of the nests stand to impact these animals. Removal of trees, living or dead, could remove valuable habitat essential to these animals.

Recommendations

Given the presence of the birds within this BDA, current levels of activity and disturbance are likely compatible with their needs. Assuring that landowners within the corridor are aware of the natural history and needs of the animals would confer added protection.