

DEER CREEK TOWNSHIP

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

NATURAL HERITAGE AREAS:

CRANBERRY SWAMP BDA *High Significance*

Water-willow (<i>Decodon verticillatus</i>) shrub wetland	G?	S3		
Hemlock (White Pine)-Northern Hardwood Forest	G?	S5		

FRENCH CREEK LCA *Exceptional Significance*

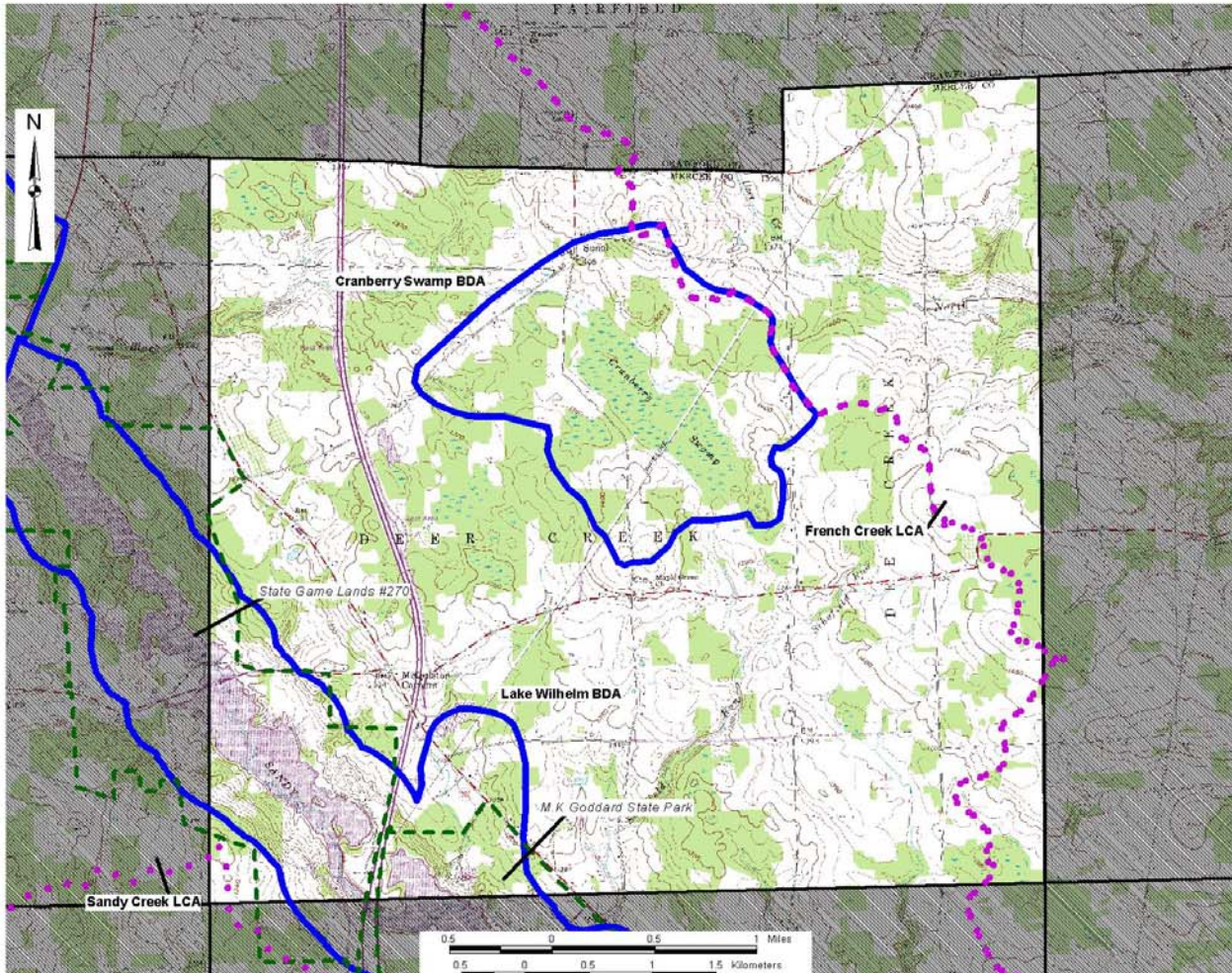
LAKE WILHELM BDA *High Significance*

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 *Exceptional Significance*

MANAGED LANDS: M.K. Goddard State Park
State Game Lands #270

Deer Creek Township



Deer Creek Township

Mercer County Natural Heritage Inventory

Biological Diversity Areas:

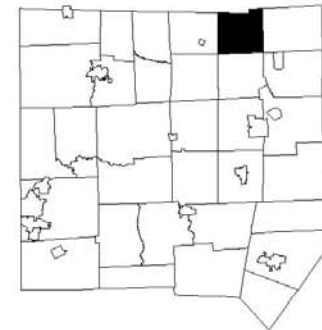
Cranberry Swamp
Lake Wilhelm

Landscape Conservation Areas:

Sandy Creek
French Creek

Managed Areas:

M.K. Goddard State Park
State Game Lands #270



Map Legend

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

DEER CREEK TOWNSHIP

Deer Creek Township is located in the northeastern Mercer County just west of French Creek Township. Most of the township is drained by Sandy Creek except for a small section in the northeast corner that is drained by Deer Creek - a tributary to French Creek. There are four Natural Heritage Areas and two managed lands – **M.K. Goddard State Park** and **State Game Lands #270** located in Deer Creek Township.

Cranberry Swamp BDA

Cranberry Swamp is a large **water-willow (*Decodon verticillatus*) shrub wetland** bordered on the north and west by a Northern Hardwood Forest, and by pasture on the south. The approximately 500 acre swamp forms the headwaters of Black Run.

The focus of the swamp is the large open water wetland and a shrub wetland. As the name implies, water willow is the dominant species along with winterberry (*Ilex verticillata*), arrowwood (*Viburnum dentatum*), nannyberry (*Viburnum lentago*) and red osier dogwood (*Cornus stolonifera*). Black willow (*Salix nigra*) lines the shore of the wetland. Herbs located on the shrub hummocks include rusty flat sedge (*Cyperus odoratus*), brome-like sedge (*Carex bromoides*), Fraser's marsh St. John's wort (*Triadenum fraseri*), wetland blue violet (*Viola cucullata*) and marsh primrose willow (*Ludwigia palustris*).

The western end of the wetland at the outlet of Black Run contains a small dam which serves to impound water in the wetland. Below the dam is a smaller shrub swamp which is drier than that above and is dominated by swamp rose (*Rosa palustris*), black willow (*Salix nigra*), buttonbush (*Cephalanthus occidentalis*), water-willow (*Decodon verticillatus*) and white meadowsweet (*Spiraea alba*). Herbaceous species include wide-leaved cattail (*Typha latifolia*), reed canary grass (*Phalaris arundinacea*), beggar's tick (*Bidens frondosa*), spike rush (*Juncus effusus*) and cinnamon fern (*Osmunda cinnamomea*).

The northern edge of the swamp holds a Northern Hardwood Forest with a canopy dominated by yellow birch (*Betula allegheniensis*), American beech (*Fagus grandifolia*), red maple (*Acer rubrum*), tuliptree (*Liriodendron tulipifera*) and sugar maple (*Acer saccharum*). Other species in the canopy include pin oak (*Quercus prinus*) and eastern hemlock (*Tsuga canadensis*). Understory species are mainly witch-hazel (*Hamamelis virginiana*), spicebush (*Lindera benzoin*), American hornbeam (*Carpinus caroliniana*) and black gum (*Nyssa sylvatica*). Herbaceous species include mayapple (*Podophyllum peltatum*), New York fern (*Thelypteris novaboracensis*), skunk cabbage (*Symplocarpus foetidus*), cinnamon fern (*Osmunda cinnamomea*), great bladder sedge (*Carex intumescens*) and wing stem (*Verbesina alternifolia*).

Cranberry Road runs along the southern end of the swamp. Across Cranberry Road is another swamp that exhibits seasonally fluctuating water levels. The forest here can best be described as a **Hemlock (White Pine) - Northern Hardwood Forest**. Dominant species in the canopy include eastern hemlock (*Tsuga canadensis*), yellow birch (*Betula allegheniensis*), black cherry (*Prunus serotina*), American beech (*Fagus grandifolia*) and

sugar maple (*Acer saccharum*). Understory species are sparse and include witch-hazel (*Hamamelis virginiana*), black gum (*Nyssa sylvatica*) and spicebush (*Lindera benzion*). Herbaceous species include intermediate log fern (*Dryopteris intermedia*), partridge-berry (*Mitchella repens*), skunk cabbage (*Symplocarpus foetidus*), swan's sedge (*Carex swanii*), round-leaf violet (*Viola rotundifolia*) and beech-drops (*Epifagus virginiana*), sessile bellwort (*Uvularia sessilifolia*) and wood sorrel (*Oxalis montana*). Cinnamon fern (*Osmunda cinnamomea*) grows on hummocks in the wettest areas.



Figure 9. Cranberry Swamp

Threats and Stresses

The owner of this swamp is very interested in the conservation of the wetland communities and is aware of the natural significance of the site. Management has so far involved expanding the open water sections of the wetland by damming part of the outlet of the larger wetland and likewise damming some of the smaller wetlands. While this makes the wetland more favorable for some species such as water-willow (*Decodon verticillatus*) and certain waterfowl, higher water levels can change the composition of other parts of the wetland with such species as cranberry (*Vaccinium macrocarpon*), the namesake of the swamp, being adversely affected by the increased water levels.

Nutrient inputs from surrounding land uses could impact the natural community causing accelerated plant and algae growth and changing the structure of the community. The combination of fluctuating hydrology and large open areas make this wetland a suitable area for invasive species such as common reed (*Phragmites australis*) and purple loosestrife (*Lythrum salicaria*).

Recommendations

Activities that change the hydrology of the wetland such as ditching, draining or channelization could adversely impact the existing habitat. Invasive species need to be monitored at the site and steps taken to control any infestations that may occur.

French Creek LCA

French Creek LCA is discussed in French Creek Township.

Lake Wilhelm BDA

Lake Wilhelm BDA is discussed in New Vernon Township.

Sandy Creek LCA

Sandy Creek LCA is discussed in Sandy Lake Township.