

Threats to Ecological Value

The wetlands and lakes of PCA 5 are sensitive to hydrologic disturbances such as back-flooding. Road construction across the narrower portions of these basins is the greatest threat because it would disrupt the flow of water between the wetland and lake basins that maintains these acidic peatland communities. For instance, a road between Blachman Swamp and



Pleasant Lake would likely increase the water table in Blachman Swamp, flood out the trees in the conifer swamp, and remove the habitat that supports rare species such as pink lady's slipper and pitcher plant.

Currently the upland forest is in excellent ecological condition. Property development along Mud Lake and Pleasant Lake would increase the probability of non-native plant introduction through land disturbances, and fill dirt and top soil that is brought in for roads and lawns.



Pitcher Plant

Management Recommendations

PCA 5 is an excellent candidate for conservation priority. The large, intact bog and the poor conifer swamp community are unusual in the four-township area. The Blachman Swamp, Pleasant Lake, and Mud Lake basins all remain hydrologically connected.



Canada Mayflower

To avoid impeding water flow between the wetland and lake basins, which would alter the existing high quality plant communities, roads should not

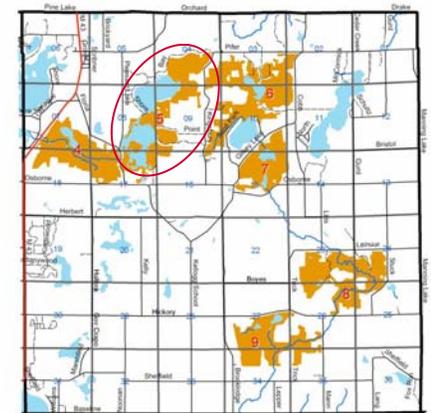
be constructed between Blachman Swamp and Pleasant Lake or between Pleasant Lake and Mud Lake.

The high quality dry southern forest communities in PCA 5 would be better protected if development were directed away from them and instead toward the agricultural land and old fields along the lakeshores.

Barry Township Blachman Swamp and Mud Lake PCA 5

Location

Potential Conservation Area (PCA) 5 is located in sections 4, 8, 9, 16, and 17 of Barry Township. This 561-acre property spans from Blachman Swamp, along Pleasant Lake, and down to Mud Lake.



High priority potential conservation areas
Barry Township

Legend

-  state highways
-  county roads
-  township boundary
-  lakes
-  rivers
-  sections
-  potential conservation areas



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Diverse Ecosystems

Site Description

Most of this Potential Conservation Area (PCA) is wetland habitat, although some upland areas are present. The site is roughly bounded by Bay Rd., Kingsbury Rd., Osborne Rd., Floria Rd., and Pleasant Lake Rd. The property is bordered largely by agricultural fields, old fields, and low-density housing. The northern portion is bordered by Pleasant Lake and a large bog on the northwest side of Bay Rd.



Potential conservation area 5
Barry Township
561 acres



Legend

- potential conservation area
- roads
- wetlands

Communities and Ecosystems

Three quarters of PCA 5 is wetland: mostly bog and emergent marsh communities, although a poor conifer swamp is also important; the remainder of the site is dry-mesic southern forest that occurs adjacent to the lakes and wetlands.

The bog communities are precipitation-driven ecosystems because the peat in the bogs has accumulated sufficiently to



Leatherleaf

perch the wetland water table above the influence of groundwater. Blachman Swamp, which includes much of the bog habitat in PCA 5, is the largest bog in the four-township area.

A poor conifer swamp, which is a rare plant community in the four-township area, occurs north of Pleasant Lake.

Mud Lake includes a mixture of wetland types, including lake, emergent marsh, and bog.



The upland habitat in PCA 5 is primarily dry southern forest and contains mostly native species.

Plants and Animals of Interest



Spring Peeper

The wetland ecosystems offer habitat suitable for many amphibian and reptile species. Spring weather brings a

deafening chorus of frogs and toads. Seven of the eleven frogs and toads of southern Michigan were heard in this area. Mud Lake's shallow depth, clarity, and isolation caused by the surrounding emergent marsh make it a suitable habitat for turtles of special concern in Michigan.

During the 2003 Michigan Breeding Bird Census of this area, 58 species of birds were identified.

Several uncommon or rare plants observed in the bog and poor conifer swamp are largely restricted to these acidic peatland habitats. The floristic quality of these areas is relatively high.

Four Township Water Resources Council

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