

### **Critical Habitat Area Wisconsin 8 – O’Neil Creek Wetland**

This Critical Habitat Area encompasses approximately 71 acres of the shallow O’Neil Creek inlet entering the west shore of the Chippewa River portion above the main impoundment (Figure 2). It includes deep marsh and shallow marsh habitats that support important near-shore terrestrial habitat and shallow water habitat (Figure 5). The shoreline at this Critical Habitat Area is composed of mainly wooded cover with some shrub and herbaceous growth and small areas of cottage development.

Large woody cover from fallen trees is common in the shallow water. This woody cover provides important habitat for fish cover and wildlife resting areas.

This site was selected for its natural beauty, its aquatic and terrestrial vegetation and its value for fish and wildlife habitat. It provides a buffer from road and boat noise.

#### **The Plant Community:**

This site supports 17 species of aquatic plants.

This emergent vegetation at this site protects the shoreline and provides important food sources, cover and fish spawning habitat. The emergent community is composed of rice-cut grass, cattail, bulrush and arrowhead.

Floating-leaf vegetation, white water lilies, yellow pond lily, large duckweed and small duckweed dampen wave action and provide important fish habitat.

A diverse submergent plant community provides many fish and wildlife benefits (Table 5). Elodea, coontail, wild celery and slender naiad colonize this site. The pondweed family is an important food source for fish and waterfowl and is represented at this site by long-leaf pondweed, clasping-leaf pondweed and small pondweed. Small rosette plants colonize the lake bottom, anchoring the substrate. These submerged rosettes are arrowhead. A macrophytic algae, stonewort, occurs here. A non-native aquatic plant species, curly-leaf pondweed is common at this site. Although native, it provides habitat over winter and very early in the season before native plants have started growing.



**Figure 5. Lake Wissota Critical Habitat Area #8, O'Neil Creek Wetland**

**Table 3. Wildlife and Fish Uses of Aquatic Plants in Critical Habitat Area 8**

<b>Aquatic Plants</b>	<b>Fish</b>	<b>Water Fowl</b>	<b>Song and Shore Birds</b>	<b>Upland Game Birds</b>	<b>Muskrat</b>	<b>Beaver</b>	<b>Deer</b>
<b><u>Submergent Plants</u></b>							
<i>Ceratophyllum demersum</i>	F, I*, C, S	F(Seeds*), I, C			F		
<i>Elodea canadensis</i>	C, F, I	F(Foliage) I					
<i>Najas flexilis</i>	F, C	F*(Seeds, Foliage)	F(Seeds)				
<i>Nitella</i> sp.		F, I*					
<i>Potamogeton crispus</i>	F, C, S	F(Seeds, Tubers)					
<i>Potamogeton nodosus</i>	F, I, S*, C	F*(Seeds)			F*	F	F
<i>Potamogeton pusillus</i>	F, I, S*, C	F*(All)			F*	F	F
<i>Potamogeton richardsonii</i>	F, I, S*, C	F*(All)			F*	F	F
<i>Vallisneria americana</i>	F*, C, I, S	F*, I	F		F		
<b><u>Floating-leaf Plants</u></b>							
<i>Lemna minor</i>	F	F*, I	F	F	F	F	
<i>Nuphar variegata</i>	F, C, I, S	F, I	F		F*	F	F*
<i>Nymphaea odorata</i>	F, I, S, C	F(Seeds)	F		F	F	F
<i>Spirodela polyrhiza</i>	F	F		F			

Aquatic Plants	Fish	Water Fowl	Song and Shore Birds	Upland Game Birds	Muskrat	Beaver	Deer
<b><u>Emergent Plants</u></b>							
<i>Leersia oryzoides</i>		F			F		
<i>Sagittaria latifolia</i>		F, C	F(Seeds), C	F	F	F	
<i>Sagittaria rigida</i>		F (tubers, seeds)			F (stems, tubers)	F (stems, tubers)	
<i>Scirpus validus</i>	F, C, I	F (Seeds)*, C	F(Seeds, Tubers), C	F (Seeds)	F	F	F
<i>Typha latifolia</i>	I, C, S	F(Entire), C	F(Seeds), C, Nest	Nest	F* (Entire), C*, Lodge	F	

**F=Food, I= Shelters Invertebrates, a valuable food source C=Cover, S=Spawning**

**\*=Valuable Resource in this category**

\*Current knowledge as to plant use. Other plants may have uses that have not been determined.

After Fassett, N. C. 1957. A Manual of Aquatic Plants. University of Wisconsin Press. Madison, WI

Nichols, S. A. 1991. Attributes of Wisconsin Lake Plants. Wisconsin Geological and Natural History Survey. Info. Circ. #73

### Wildlife Habitat

Emergent vegetation, shoreline shrubs and brush, snag and perch trees and fallen logs provide critical habitat at this site. This site provides:

- 1) shelter, cover and feeding areas for ducks and shorebirds
- 2) shelter, cover, nesting and feeding areas for beaver, otter, mink, songbirds, eagles, kingfishers, frogs, toads, salamanders, turtles and snakes
- 3) feeding areas for geese

### Fish Habitat

Emergent cattail vegetation, submerged vegetation and floating-leaf vegetation at this site provide critical fish habitat. This site provides:

- 1) feeding areas for walleye and musky
- 2) spring spawning, year round nursery areas, feeding areas and protective cover for northern pike, yellow perch
- 3) year-round nursery areas, feeding areas and protective cover for suckers

### Water Quality

The aquatic plant community at this site:

- 1) provides a nutrient buffer, the plants at the shore and in the water acting as a nutrient sink, absorbing nutrients and reducing algae blooms
- 2) provides a biological buffer, reducing the possibility of invasions by exotic species
- 3) stabilizes the sediments, holding the sediments to reduce the resuspension by waves and other disturbance
- 4) provides a physical buffer that protects the shoreline against erosion
- 5) is within an area where cold water river inflows provide temperature gradients that provide for higher diversity

## **Recommendations for Site 8**

### **Recommendations for the terrestrial shoreline buffer:**

- 1) Maintain wildlife habitat
- 2) Maintain snag trees and trees with cavity nesting
- 3) Maintain and increase naturally vegetated wildlife corridor on shore
- 4) Do not use lawn chemicals or fertilizers
- 5) No permitting for shoreline erosion control such as rip-rap or retaining walls. Site has sufficient natural vegetation buffer that needs to be protected.
- 6) No bank grading.

### **Recommendations for the aquatic habitat below the Ordinary High Water Mark**

- 7) Maintain current protection of area for fish habitat
- 8) Do not remove fallen trees along the shoreline
- 9) Do not alter the littoral zone except for improvement of spawning habitat
- 10) Minimize removal of the aquatic vegetation (emergent, floating-leaf and submergent) in an undisturbed condition for wildlife habitat, fish cover and as a buffer for water quality protection. Limit removal to navigation lanes. Permits required for any vegetation removal.
- 11) Protect emergent vegetation.
- 12) Recommend slow-no-wake in the bay to prevent sediment resuspension
- 13) No permit approval for pea gravel beds or sand blankets, except for DNR fishery or wildlife approved projects.
- 14) No dredging or lake bed removal or modifications.
- 15) Pier placement by permit only to minimize number of piers and their size and disturbance; require light-penetrating pier material such as metal grating.
- 16) No boat ramp placement.
- 17) Permit required for recreational floating devices.