Designation of Sensitive Areas
Round Lake, Chippewa County

Wisconsin Department of Natural Resources
Eau Claire, WI

Sensitive Area Designation
Round Lake, Chippewa County

I. INTRODUCTION

Designation of sensitive areas within lakes provide a holistic approach to the protection of those sites within a lake that are most important for preserving the very character and qualities of the lake that initially attracted developments on the lake. These sites are those sensitive and fragile areas that support the wildlife and fish habitat, provide the mechanisms that protect the water quality in the lake, harbor quality plant communities and preserve the places of serenity and aesthetic beauty for the enjoyment of lake residents and visitors. The sensitive area designation will provide a framework for management decisions that impact the ecosystem of the lake.

A Sensitive Area Study was conducted September 26, 2003 on Round Lake, Chippewa County.
The study team included:
Joe Kurz, DNR Fish Biologist
John Dunn, DNR Wildlife Biologist
Gregg Breese, DNR Aquatic Habitat Expert
Deborah Konkel, DNR, Aquatic Plant Specialist
Buzz Sorge, DNR Lakes Manager

Round Lake is a 216-acre lake with a maximum depth of 15 ft.

II. THE SENSITIVE AREAS

It is important to preserve an adequate number of sensitive areas to insure that there is sufficient water quality protection and habitat for wildlife and fish to protect the lake.

All of the sensitive areas were selected because of their natural scenic beauty, the high quality aquatic vegetation community that they supported and the value that they played in preserving water quality in Round Lake.

Preserving the native plant communities in their undisturbed condition, both on shore and in the water at all of the proposed sensitive areas is important for many reasons, as explained in more detail in this document. However, some reasons were true for all sites.

1) The existing plant community is functioning as a nutrient buffer, absorbing nutrients in the water and reducing algae blooms.
2) The plant community is functioning as a physical buffer, protecting the shoreline against erosion by dampening wave energy.
3) The plant community is protecting the bottom sediments from wind, wave and boat disturbance that would stir up the sediments and reduce water clarity.
4) The existing plant community functions as a buffer against invasive and non-native species.

5) The natural area provides a visual and sound buffer from shoreline structures and traffic.
6) The sites could be used for educational opportunities

Protecting the native plant communities will help prevent the invasion of non-native species, such as Eurasian watermilofil, curly-leaf pondweed and purple loosestrife. Nature loves a vacuum, so if the native plant communities are removed, something will take their place. The species that recolonize will likely be more aggressive, causing more conflicts with the current recreational use and habitat values of the sites.
All of the sensitive areas that were selected have the potential to be used for educational purposes.

Sensitive Area RL1 – North Shore
This sensitive area extends along 1000 feet of shoreline, averaging 4-feet in depth and supports shoreline habitat and shallow water habitat. The sediment is gravel, sand, silt and peat.

The shoreline is an old dirt road bed colonized by mainly herbaceous and some shrub growth that is being allowed to go natural as part of a county park. The important aspect of the shoreline is the high quality wetland behind the road. The original road was built through this wetland and will revert to wetland habitat in the near future.
The scenic beauty at this point is average, as the land is reverting to a natural state.

The Plant Community:

White water lily floats on the surface in scattered colonies.

Several small rosette and turf forming species colonize the sediment: pipewort, dwarf milfoil, brown-fruited rush, small waterwort and creeping spearwort.

Spiny hornwort, creeping bladderwort, purple bladderwort, variable-leaf watermilfoil, northern watermilfoil and snail-seed pondweed colonize the underwater habitat up to a depth of 12 feet.

The macrophytic algae, stoneowort colonizes the deeper part of the area.

Two species of special concern occur in this area: spiny hornwort and purple bladderwort

Water Quality
Maintaining the integrity of this sensitive area is important for protecting the water quality of Round Lake.

Fish Habitat

The floating-leaf vegetation provides some cover habitat for the fish community in Round Lake:
Walleye, northern pike, musky, large-mouth bass, bluegill, pumpkinseed, yellow perch, crappie.

Wildlife Habitat

The shoreline vegetation and lily pad beds provide

1) cover and feeding areas for upland wildlife and minks;
2) shelter, nesting and feeding areas for song birds
3) feeding areas for eagles, osprey
4) shelter, nesting and feeding areas for frogs, toads, salamanders, turtles and snakes

Recommendations

1) Maintain the shoreline and aquatic vegetation in an undisturbed condition for wildlife habitat, fish cover and as a nutrient buffer for water quality protection.
2) No alterations of the littoral zone unless for improving spawning habitat.
3) Create fish cover
4) Do not remove fallen trees along shoreline.
5) Restore shrubs and herbaceous plant cover on the old road right-of-way.
6) Minimize removal of any shoreline or aquatic vegetation.
7) No permit approval for pea gravel beds, sand blankets, bank grading, retaining walls, boat ramps, dredging diversions or filling.
8) Restrict bank stabilization to biological methods
9) Restrict and limit pier placement and recreational floating devices

Sensitive Area RL2 – Northwest Bog

This sensitive area averages 5 feet in depth and extends for 1200 feet, along the natural shoreline of a high-quality northern tamarack bog. It supports important near-shore terrestrial habitat, shoreline habitat and shallow water habitat. The sediment is comprised of silt and peat.

The area is a distinctly unique area of outstanding beauty.

Additional reasons this area was selected
1) the terrestrial plant community it supports;
2) value for wildlife habitat;

The entire shoreline at this site is wetland tamarack bog supporting conifer, shrub and herbaceous growth. Coarse woody material is abundant in the shallow zone for habitat

The Plant Community:

Leatherfleaf, black spruce, tamarack, wild holly, cotton grass and dogwood colonize the shoreline.

Pickerelweed and spike rush emerge from the shallow water.

Yellow pond lilies, watershield and white water lilies float on the surface.

Spiny hornwort, Robbin's spikerush, purple bladderwort, twin-stem, creeping baldderwort, great bladderwort, variable-leaf watermilfoil, Farwell's watermilfoil, slender water-nymph, arrowhead rosettes, variable-leaf pondweed, small pondweed, Vasey's pondweed and Oake's pondweed colonize the underwater habitat up to a depth of 11 feet.

The macrophytic algae, stoneowort colonizes the deeper part of the area.

Four species of special concern occur in this area: Farwell's watermilfoil, Robbin's spikerush, spiny hornwort and purple bladderwort

Water Quality

Maintaining the integrity of this sensitive area is important for protecting the water quality of Round Lake. The bog provides a seepage input of water to the lake.

Fish Habitat

The fallen woody material along the shore, scattered brush cover along the shore and scattered colonies of floating-leaf vegetation provide a diversity of habitat and feeding opportunities for the fish community.

Wildlife Habitat

The variety of floating-leaf vegetation, shrubs, trees, snag trees and fallen logs provide
1) cover, and feeding areas for upland wildlife
2) cover, nesting and feeding sites for furbearers: beaver, otter, muskrat and mink

3) cover, nesting and feeding sites for loons and songbirds, eagles, amphibians turtles and snakes;
4) a feeding area for geese, eagles and osprey.
5) cover, nesting and feeding sites for frogs, toads, salamanders, turtles and snakes

Recommendations

1) Maintain the shoreline and aquatic vegetation in an undisturbed condition for wildlife habitat, fish cover and as a nutrient buffer for water quality protection.
2) Do not remove fallen trees along shoreline.
3) Do not alter the littoral zone unless to improve spawning habitat
4) Maintain snag trees for cavity nesting
5) Post “Loon Alert” signs.
6) Minimize removal of any shoreline or aquatic vegetation.
7) Maintain no-wake zone to protect plant beds and reduce sediment suspension
8) No permit approval for pea gravel beds, sand blankets, boat ramps, retaining walls, dredging diversions or filling.
9) Restrict bank stabilization to biological methods if needed
10) Restrict and limit pier placement and recreational floating devices

Sensitive Area RL3 – West Shore Wetland and Point

This sensitive area extends along approximately1500 feet of shoreline, averaging 5 feet in depth and supports important near-shore terrestrial habitat, shoreline habitat and shallow water habitat. The sediment is sand, silt and peat. The site is a high-quality emergent and shallow water wetland of outstanding natural beauty.

Additional reasons this area was selected
1) the terrestrial plant community it supports;
2) its value for fish habitat
3) its value for wildlife habitat.

The shoreline is 40% wooded point and 60% emergent wetland. Coarse woody debris for habitat is abundant in the shallow zone.

The Plant Community:

The variety of plant growth forms provide many micro-habitats that support greater biodiversity.

Marsh fern and pines colonize the shoreline.

Torrey's bulrush, extensive beds of pickerelweed, abundant spike rush, three-way sedge and cattails emerge from the shallow water.

Large areas of white water lily, floating-leaf burreed and watershield float on the surface.

Small rosette species, brown-fruited rush and pipewort, colonize the shallow sediments

Spiny hornwort, creeping bladderwort, purple bladderwort, variable-leaf watermilfoil, floating-leaf pondweed and Oake's pondweed colonize the underwater habitat up to a depth of 9 feet.

The macrophytic algae, stonewort colonizes the deeper part of the area.

Three species of special concern occur in this area: Torrey's bulrush, spiny hornwort and purple bladderwort

Water Quality

Maintaining the integrity of this sensitive area is important for protecting the water quality of Round Lake.

Fish Habitat

Maintaining the aquatic vegetation in this area is very important to the fish community. The fallen woody cover, extensive beds of emergent vegetation and large areas of floating-leaf vegetation with open areas provides a diversity of habitat and feeding opportunities for the fish community.

This area provides
1) a summer to fall nursery area, feeding areas and cover for walleye
2) spring spawning sites, a spring to fall nursery area, feeding areas and cover for yellow perch, northern pike and musky

3) a year-round nursery area, feeding areas and cover for large-mouth bluegill and pumpkinseed
4) a summer nursery area, feeding areas and cover for crappie.

Wildlife Habitat

The variety of emergent vegetation, floating-leaf vegetation, snag trees, fallen logs and shoreline shrubs provide

1) cover and feeding areas for upland wildlife geese, songbirds, amphibians turtles and snakes;
2) cover, nesting and feeding areas for furbearers; beaver, mink, otter and muskrat
3) cover, nesting and feeding areas for song burds, ducks and loons
4) a feeding area geese, eagle and osprey.
5) cover, nesting and feeding sites for frogs, toads, salamanders, turtles and snakes

Recommendations

1) Maintain the aquatic vegetation in an undisturbed condition for wildlife habitat, fish habitat and as a nutrient buffer for water quality protection. Limit any plant removal to navigational channels
2) Protect the emergent vegetation as an erosion buffer
3) Do not alter littoral zone except for improvement of spawning habitat
4) Do not remove fallen trees along shoreline.
5) Maintain no-wake zone to protect vegetation and prevent sediment suspension
6) Maintain shoreline vegetation, shrubs and snag trees to provide wildlife habitat and wildlife corridor
7) No bank protection is needed
8) No permit approval for boat ramps, retaining walls, sand blankets, pea gravel beds, dredging diversions or filling.
9) Restrict and limit pier placement, bank grading, recreational floating devices and fishery improvement structures
10) There is a concern with future variance requests

Sensitive Area RL4 – West Shore Woods

This sensitive area extends along approximately 800 feet of shoreline, averaging 5 feet in depth and supporting important shoreline habitat and shallow water habitat. The shoreline is steeply sloped native woodland. The sediment is comprised of sand, gravel, silt and peat.

The area is of outstanding natural beauty.

This area was selected because of
1) the terrestrial plant community it supports ;
2) its value for fish habitat
3) its value for upland wildlife habitat
4) Coarse woody debris is abundant in the shallow zone for habitat.

The Plant Community:

Torrey's bulrush, arrowhead, spikerush and pickerelweed emerge from the shallow water.

White water lilies and watershield float on the surface.

Creeping spikerush, pipewort and brown-fruited rush form rosettes and truf-like growth on the sediments

Floating-leaf pondweed, creeping bladderwort, purple bladderwort, Oake's pondweed, variable-leaf watermilfoil and Robbin's spikerush colonize the underwater habitat up to a depth of 11 feet.

The macrophytic algae, stonewort colonizes the deeper part of the area.

Three species of special concern occur in this area: Torrey's bulrush, Robbin's spikerush and purple bladderwort

Water Quality

Maintaining the integrity of this sensitive area is important for protecting the water quality of Round Lake.

Fish Habitat

The large woody cover along the shore and large beds of emergent vegetation provides a diversity of habitat and feeding opportunities for the fish community.

This area provides
1) spring spawning sites and feeding areas for northern pike and muskie
2) feeding areas for walleye, large-mouth bass;
3) feeding areas and cover for bluegill, pumpkinseed, yellow perch and crappie.

Wildlife Habitat

The variety of emergent vegetation, floating-leaf vegetation, fallen logs, shrubs and snag trees provide
1) cover, nesting and feeding areas for upland wildlife and furbearers: beaver, muskrat, mink and otter.
2) cover, nesting and feeding areas for ducks and songbirds.

3) feeding areas for loons, geese, eagles and ospreys.
4) cover, nesting and feeding areas for frogs, toads, salamanders, turtles and snakes;

Recommendations

1) Maintain shoreline vegetation and aquatic vegetation in an undisturbed condition for wildlife habitat, fish cover and as a nutrient buffer for water quality protection.
2) Maintain wildlife corridor
3) Maintain no-wake zone to protect vegetation and limit sediment suspension
4) Protect the emergent vegetation as an erosion buffer.
5) Do not remove fallen trees along shoreline.
6) Maintain snag trees to provide wildlife habitat.
7) Minimize removal of any shoreline or aquatic vegetation.
8) No permit approval for boat ramps, sand blankets, pea gravel beds, dredging, retaining walls, or filling.
9) Restrict bank stabilization to biological methods
10) Restrict and limit bank grading, pier placement

Sensitive Area RL5 – Southwest Bog

This sensitive area extends along 5500 feet of shoreline, averaging 5 feet in depth and supports important near-shore terrestrial habitat, shoreline habitat and littoral zone vegetation. The sediment is sand, silt and peat.

This area was selected because of its
1) value for fish habitat
2) value for wildlife habitat
3) the terrestrial plant community it supports.

The shoreline at this site is a high-quality northern bog of outstanding natural scenic beauty. The shoreline is mostly tamarack bog and shrub wetlands with small areas of development wooded. Coarse woody debris is common in the shallow zone for habitat.

The Plant Community:

The variety of plant growth forms provide many micro-habitats that support greater biodiversity.

Dogwood, tamarack, leatherleaf, marsh fern, cottongrass, black spruce, and seedling maples colonize the sphagnum bog mat.

Torrey's bulrush, spikerush, pickerelweed and three-way sedge emerge from the shallow water.

White water lilies, yellow pond lilies and watershield float on the surface.

Creeping spikerush, pipewort, quillwort, small waterwort and dwarf watermilfoil form rosettes and turf-like growth on the sediments

Spiny hornwort, floating-leaf pondweed, snail-seed pondweed, creeping bladderwort, purple bladderwort, great bladderwort, Oake's pondweed, water celery, variable-leaf watermilfoil and Robbin's spikerush colonize the underwater habitat up to a depth of 11 feet.

The macrophytic algae, stonewort colonizes the deeper part of the area.

Three species of special concern occur in this area: Torrey's bulrush, Robbin's spikerush, spiny hornwort and purple bladderwort

Water Quality

Maintaining the integrity of this sensitive area is important for protecting the water quality of Round Lake. This is a source of water seepage into Round Lake, it likely brings in nutrients, but is a natural source of water to the lake.

Fish Habitat

The emergent vegetation and floating-leaf vegetation provide
1) a summer to fall nursery site, cover and feeding areas for walleye;
2) spring spawning sites, a year-round nursery area, feeding sites and cover for bluegill, pumpkinseed and yellow perch;
3) spring spawning sites, a spring to fall nursery area, feeding areas and cover for northern pike, musky, large-mouth bass.

4) spring spawning sites, a spring to summer nursery area, feeding areas and cover for crappie.

Wildlife Habitat

The high-quality bog, extensive emergent vegetation cover, large pines, floating-leaf vegetation, shrubs, snag trees and fallen logs at this site provide

1) cover, nesting and feeding areas for upland wildlife and furbearers: beaver, muskrat, otter and mink.
2) cover, nesting and feeding areas for songbirds, eagles and osprey. The large pines at the site especially have great potential for eagle and osprey nesting. a feeding area for loon, ducks and geese.
3) cover, nesting and feeding areas for frogs, toads, salamanders, turtles and snakes.

Recommendations

1) Maintain current vegetation for fish habitat, wildlife habitat and wildlife corridor
2) Maintain no-wake zone to protect vegetation and protect the sediments from suspension.
3) No alteration of the littoral zone except for improvement of spawning sites
4) Minimize removal of any shoreline or aquatic vegetation and limit removal to navigational channels
5) Do not remove fallen trees along the shoreline.
6) Leave snag trees for wildlife habitat

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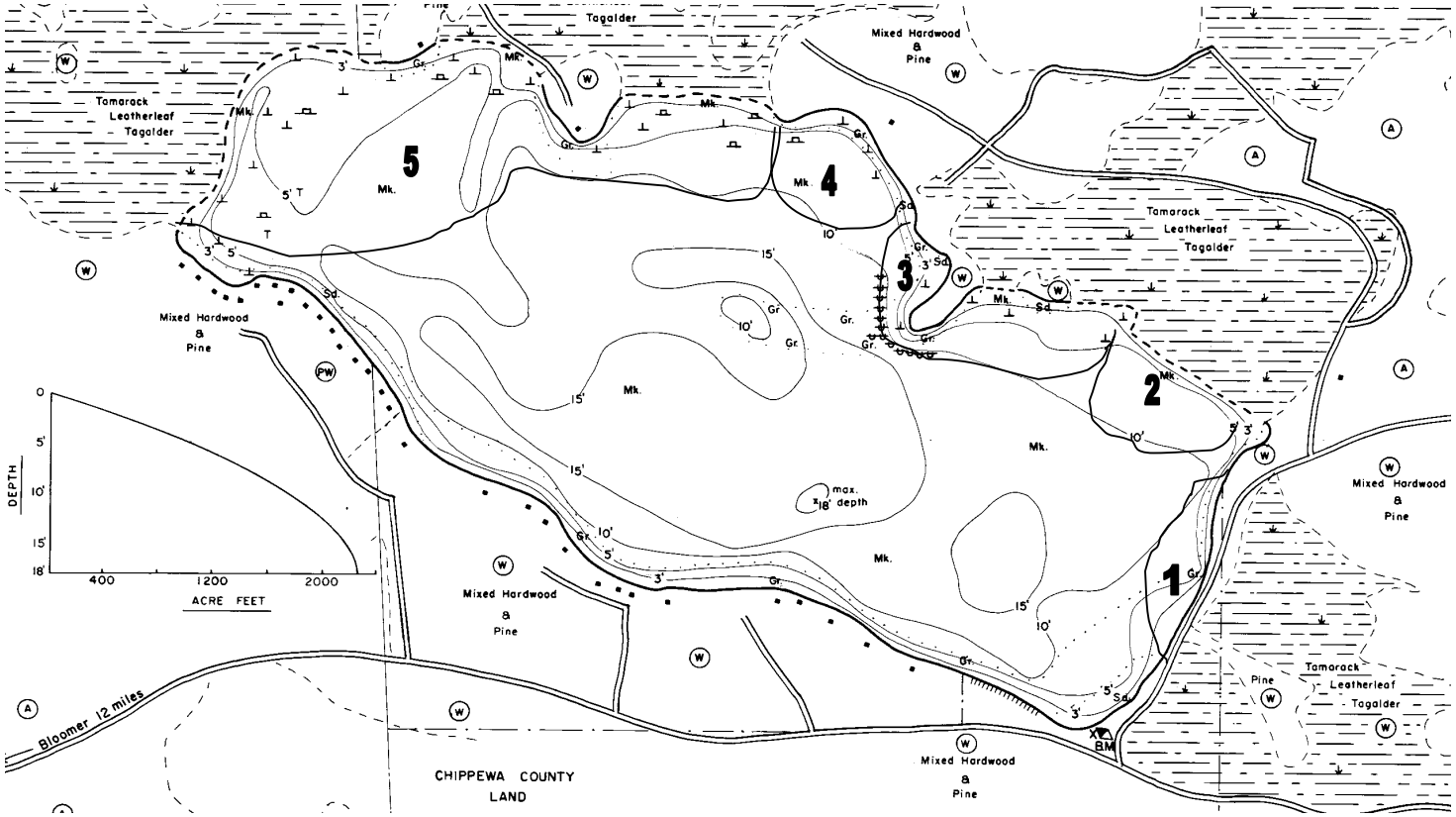
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