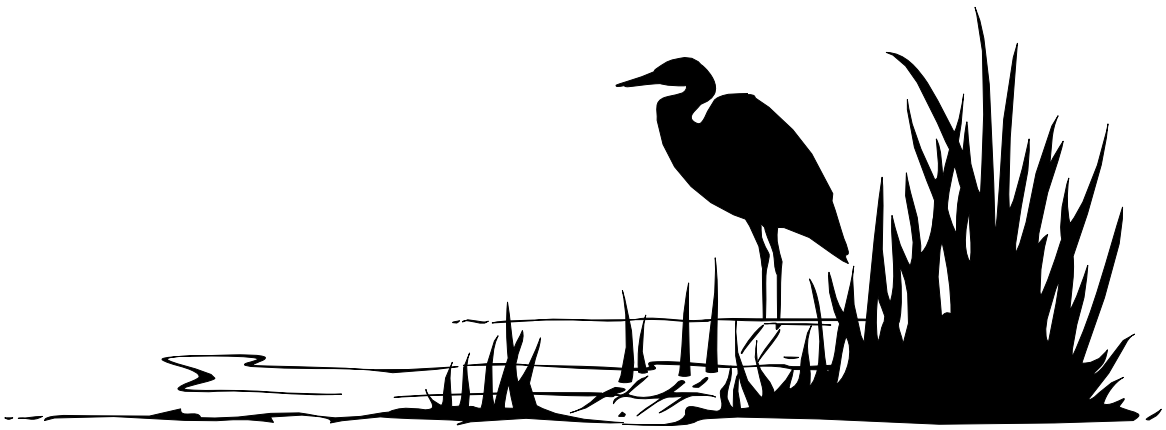
MAGNOR LAKE
SENSITIVE AREA SURVEY REPORT
AND MANAGEMENT GUIDELINES



This document is to be used
with its companion document
"Guidelines for protecting, maintaining,
and understanding lake sensitive areas"

Magnor Lake (Polk Co.)
Integrated Sensitive Area Survey Report

Date of Survey: 24 August 2001 Number of Sensitive Areas: 5

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Lake Sensitive Area Survey results identified five areas that merit special protection of the aquatic habitat. These areas of aquatic vegetation or rock substrate on Magnor Lake offer critical or unique fish and wildlife habitat. These habitats provide the necessary seasonal or life stage requirements of the associated fisheries, and the aquatic vegetation offers water quality or erosion control benefits to the body of water.

During this survey there were no documented occurrences of Purple Loosestrife. However, the threat of Purple Loosestrife is always a concern and should be dealt with immediately. Methods for control are to remove the entire plant before it produces seeds or by cutting the flower head and spraying with and approved herbicide. You should contact the Department before any of these methods are implemented.

The reader should consider that any buffer that does not extend back from the waters edge at least 35' is not providing adequate protection for water quality and should be expanded to at least 35'. Local zoning ordinances and lakes classification systems have tried to provide better guidelines pertaining to buffer widths and set backs based on lake type. Landowners are encouraged to go beyond the minimum requirements laid out by zoning and consider extending buffer widths to beyond 35' and integrating other innovative ways to capture and reduce the runoff flowing off from their property while improving critical shoreline habitat. Berms and low head retention areas can greatly increase the effective capture rate from developed portions in addition to that portion captured within the buffer.

Site conditions may dictate that a buffer has to be much wider than 35' to be effective at capturing the sediments and nutrients running off the developed portions of the shoreline. If the shoreline is steeply sloped (>7%slope) greater widths should definitely be used.

No mowing should take place within the buffer area (with the exception of a narrow access trail and small picnic area), and trees and shrubs should not be cut down even when they become old and die; because they provide important woody debris habitat within the buffer zone as well as aquatic habitat when they fall into the lake.

The following is a brief summary of the Magnor Lake sensitive area sites and the management guidelines. Also, the "Guidelines for Protecting, Maintaining, and Understanding Sensitive Areas" provides management guidelines and considerations for different lake sensitive areas (Attached).

I. Aquatic Plant Sensitive Areas

Sensitive areas B, C, D, and E contain aquatic plant communities, which provide important fish and wildlife habitat as well as important shoreline stabilization functional values. Sensitive areas provide important enough habitat for the Magnor Lake ecosystem that conservation easements, deed restrictions, or zoning should be used to protect them. Management guidelines for aquatic plant sensitive areas are (unless otherwise specifically stated):

1. Limit aquatic vegetation removal to navigational channels no greater than 25 feet wide where necessary, the narrower the better. These channels should be kept as short in length as possible and it is recommended that people do not completely eliminate aquatic vegetation within the navigation channel; but instead only remove what is necessary to prevent fouling of propellers to provide access to open water areas. Chemical treatments should be discouraged and if a navigational channel must be cleared, pulling by hand is preferable over mechanical harvesters where practical.
2. Prohibit littoral zone alterations covered by Wisconsin Statutes Chapter 30, unless there is clear evidence that such alterations

would benefit the lake's ecosystem. Rock riprap permits should not be approved for areas that already have a healthy native plant community stabilizing the shoreline and property owners should not view riprap as an acceptable alternative in these situations.

3. Leave large woody debris, logs, trees, and stumps, in the littoral zone to provide habitat for fish, wildlife, and other aquatic organisms.
4. Leave an adequate shoreline buffer of un-mowed natural vegetative cover and keep access corridors as narrow as possible (preferable less than 30 feet or 30% of any developed lot which ever is less).
5. Prevent erosion, especially at construction sites. Support the development of effective county erosion control ordinances. The proper use of Best Management Practices (BMP's) will greatly reduce the potential of foreign materials entering the waterway (i.e. silt, nutrients).
6. Strictly enforce zoning ordinances and support development of new zoning regulations where needed.
7. Eliminate nutrient inputs to the lake caused by lawn fertilizers, failing septic systems, and other sources.
8. Control exotic species such as purple loosestrife.

II. Gravel and Coarse Rock Rubble Spawning Areas

The Department documented two areas which provide the necessary habitat for the spawning success of walleyes (sites A and C). Walleyes require a gravel or cobble substrate with little or no fine sediment usually along a sharp drop-off from shore. It is critical that no alterations of the gravel or rock substrate occur at these sites, unless such alterations would improve walleye spawning, Chapter 30, Wisconsin Statues, regulates such alterations. It is essential that proper erosion control is implemented during near shore construction (silt fence, berms, vegetative buffers) and that these valuable areas remain free of most structures (boat houses) to retain the suitable habitat for walleye spawning. Permanent vegetative buffers (>35 feet) along the shoreline will aid in decreasing the amount runoff and fine sediment from entering this habitat. These areas are not considered aquatic plant sensitive areas in accordance with NR 107 Wisconsin Administrative Code, but are necessary to mention in this management/informational document.

Resource Value of Site A

Sensitive area A is located along the eastern shoreline of Magnor Lake, and covers approximately 2,500 feet of shoreline. This area is considered high quality walleye spawning habitat. Consisting of rock and cobble substrate will little or no fine sediment.

No dredging, structures or deposits should occur in this area to retain the high quality spawning habitat characteristics.

Resource Value of Site B

Sensitive area B encompasses approximately 800 feet of shoreline along the northeast end of Magnor Lake, adjacent to Area A.

This area provides important habitat for centrarchid (bass and panfish) and esocid (northern pike) spawning and nursery areas. This area also provides important habitat for forage species. Wildlife also are reliant upon this area for habitat. Eagles, loons, herons, waterfowl, songbirds, furbearers, turtles, and amphibians benefit from this valuable habitat.

The emergent and submergent plant community structure of Sensitive area B includes: **Emergents;** cattails (*Typha sp.*), grass leaved arrowhead (*Saggitaria graminea.*), pickerelweed (*Pontederia cordata*), jewelweed (*Impatiens sp.),* and softstem bulrush (*Scirpus validus*). **Submergents;** wild celery/eel-grass (*Vallisneria americana*) and pipewort (*Eriocaulon aquaticum*).

Chemical treatments and/or mechanical harvesting are strongly discouraged. Historical chemical treatments and mechanical harvesting should be limited to navigational channels only. All other interests in chemical and mechanical harvesting should be scrutinized.

Resource Value of Site C

Sensitive area C is located along the western shore of Magnor Lake and covers approximately 700 feet of shoreline. There is a bulrush island located approximately 250 feet from shore which is also considered part of this sensitive area.

This area provides important habitat for centrarchid (bass and panfish) and esocid (northern pike) spawning and nursery areas. This area provides important habitat for forage species. Wildlife also are reliant upon this area for habitat. Eagles, loons, herons, waterfowl, songbirds, furbearers, turtles, and amphibians benefit from this valuable habitat. This area is also considered high quality walleye spawning habitat. Consisting of rock and cobble substrate will little or no fine sediment.

The emergent, floating, and submergent plant community structure of Sensitive area C includes: **Emergents;** cattails (*Typha sp.*), grass leaved arrowhead (*Saggitaria graminea.*), pickerelweed (*Pontederia cordata*), and softstem bulrush (*Scirpus validus*). **Floating leafed**; spatterdock *(Nuphar variegata),* and white water lily (*Nymphaea odorata*). **Submergents;** wild celery/eel-grass (*Vallisneria americana*), pipewort (*Eriocaulon aquaticum*), fern pondweed (*Potamogeton robbinsii*), flat-stem pondweed *(P. zosteriformis)*, and elodea.

Chemical treatments and/or mechanical harvesting are strongly discouraged. Historical chemical treatments and mechanical harvesting should be limited to navigational channels only. All other interests in chemical and mechanical harvesting should be scrutinized. Also no dredging, structures or deposits should occur in this area to retain the high quality spawning habitat characteristics.

Resource Value of Site D

Sensitive area D consists of approximately 1,500 feet of shoreline in the large southern bay of Magnor Lake, adjacent to Area C.

This area provides important habitat for centrarchid (bass and panfish) and esocid (northern pike) spawning and nursery areas. This area also provides important habitat for forage species. Wildlife also are reliant upon this area for habitat. Eagles, loons, herons, waterfowl, songbirds, furbearers, turtles, and amphibians benefit from this valuable habitat.

The emergent, floating, and submergent plant community structure of Sensitive area D includes: **Emergents;** cattails (*Typha sp.*), common bur-reed (*Sparganium eurycarpum*), arrowhead (*Saggitaria sp.*), and pickerelweed (*Pontederia cordata*). **Floating leafed**; spatterdock *(Nuphar variegata),* duckweed (*Lemna sp.*), watershield (*Brasenia schreberi*), and white water lily (*Nymphaea odorata*). **Submergents;** stonewort (*Chara sp.*), coontail (*Ceratophyllum demersum),* wild celery/eel-grass (*Vallisneria americana*), fern pondweed (*Potamogeton robbinsii*), pipewort (*Eriocaulon aquaticum*), dwarf water milfoil (*Myriophyllum tenellum*), and spiny hornwort (*Ceratophyllum echinatum*).

Chemical treatments and/or mechanical harvesting are strongly discouraged. Historical chemical treatments and mechanical harvesting should be limited to navigational channels only. All other interests in chemical and mechanical harvesting should be scrutinized.

Resource Value of Site E

Sensitive area E is located along the western shore of Magnor Lake, adjacent to Area D, and covers approximately 700 feet of shoreline.

The emergent, floating, and submergent plant community structure of Sensitive area E includes: **Emergents;** cattails (*Typha sp.*), common bur-reed (*Sparganium eurycarpum*), grass leaved arrowhead (*Saggitaria graminea.*), and pickerelweed (*Pontederia cordata*). **Floating leafed**; spatterdock *(Nuphar variegata),* duckweed (*Lemna sp.*), watershield (*Brasenia schreberi*), and white water lily (*Nymphaea odorata*). **Submergents;** stonewort (*Chara sp.*), coontail (*Ceratophyllum demersum),* wild celery/eel-grass (*Vallisneria americana*), fern pondweed (*Potamogeton*

robbinsii), pipewort (*Eriocaulon aquaticum*), dwarf water milfoil (*Myriophyllum tenellum*), and spiny hornwort (*Ceratophyllum echinatum*).

Chemical treatments and/or mechanical harvesting are strongly discouraged. Historical chemical treatments and mechanical harvesting should be limited to navigational channels only. All other interests in chemical and mechanical harvesting should be scrutinized.