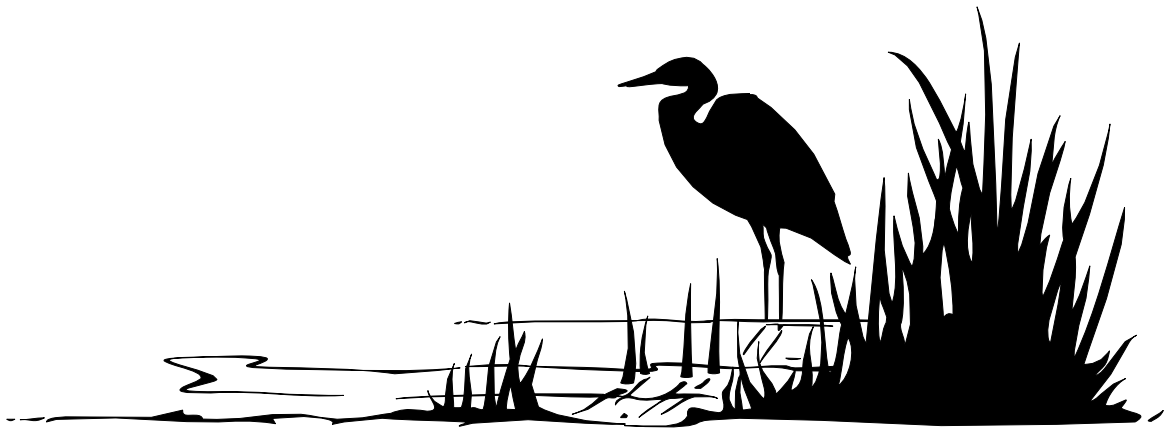


SPOONER LAKE SENSITIVE AREA SURVEY REPORT AND MANAGEMENT GUIDELINES



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

Spoooner Lake Integrated Sensitive Area Survey Report

Date of Survey: 29 August 2000

Number of Sensitive Areas: 9

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Lake Sensitive Area Survey results identified nine areas that merit special protection of the aquatic habitat.

Wild rice (*Zizania* sp.) was documented as occurring in sensitive areas E and H. Wild rice holds an important niche in the lake ecosystem from both a human and wildlife standpoint. The stands of wild rice are small and therefore fragile. Care should be taken to allow for the increase of these small populations.

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 an 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 water 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 Spooner 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

The following sensitive areas contain aquatic plant communities, which provide important fish and wildlife habitat as well as important shoreline stabilization functional values. Sensitive areas provide enough important habitat for the Spooner 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. Manage for invasive/exotic species.

Resource Value of Site A

Sensitive area A is located at the mouth of the Yellow River above the dam. This sensitive area covers approximately 600 feet of shoreline extending out as far as 200' in shallower shoreline areas. Most of the length is dominated by a deciduous shrub/scrub wetland and an open/shallow water wetland, which have helped protect it from the negative impacts that can be associated with improperly developed shorelines. This sensitive area has average scenic beauty with minimal development.

This area provides important habitat for centrarchid (bass and panfish) and sucker species for spawning, feeding, protection and as a nursery for young.

Esocid (northern pike) will use this area for spawning, feeding, protection and as a nursery for young. This area also provides important habitat for forage species.

Wildlife are also reliant upon this area for habitat. Eagles, loons, herons, waterfowl, songbirds, furbearers, amphibians and reptiles benefit from this valuable habitat.

The emergent, floating and submergent plant community structure of Sensitive area A includes: **Emergents**; arrowhead (*Sagittaria* sp.) and bur-reed (*Sparganium* sp.). **Floating leafed**; yellow pond lily (*Nuphar advena*). **Submergents**; stoneworts (*Nitella* sp.), white water buttercup (*Ranunculus* sp.), elodea, eel grass (*Vallisneria americana*), northern milfoil (*Myriophyllum sibiricum*), water star grass (*Zosterella dubia*), fern leaf pondweed (*Potamogeton robbinsii*), white stem pondweed (*P. praelongus*), clasping leaf pondweed (*P. richardsonii*).

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 treatments and mechanical harvesting should be scrutinized.

Resource Value of Site B

Sensitive area B is located approximately 400 feet to the East of Sensitive area A and covers 600 feet of shoreline extending out 200 feet. Most of the length is dominated by a deciduous shrub/scrub wetland and an open/shallow water wetland, which have helped protect it from the negative impacts that can be associated with improperly developed shorelines. This sensitive area has average scenic beauty with minimal development.

This area provides important habitat for large mouth bass and northern pike. These species will use the area for spawning, feeding, protection and as a nursery for young. This area also provides important habitat for forage species.

Wildlife are also reliant upon this area for habitat. Eagles, loons, herons, waterfowl, songbirds, furbearers, amphibians and reptiles benefit from this valuable habitat.

The emergent and submergent plant community structure of Sensitive area B includes: **Emergents;** soft stem bulrush (*Scirpus validus*), pickerelweed (*Pontederia cordata*). **Floating;** white water lily (*Nympahaea advena*). **Submergents;** eel grass (*Vallisneria americana*), northern milfoil (*Myriophyllum sibiricum*), Naiad (*Najas* sp.), horned pondweed (*Zannichellia palustris*), pipewort (*Eriocaulon* sp.), arrowhead (*Saggitaria* sp.), floating leaf pondweed (*Potamogeton natans*), fern leaf pondweed (*P. robbinsii*), large leaf pondweed (*P. amplifolius*), white stem pondweed (*P. praelongus*), fern leaf pondweed (*P. richardsonii*).

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 treatments and mechanical harvesting should be scrutinized.

Resource Value of Site C

Sensitive area C is located on the western shore of Spooner Lake midway down the shoreline. This area covers approximately 400 feet of shoreline extending out 100 feet. Most of this length is dominated by a shrub/scrub and shallow or open water wetland, which have helped protect it from the negative impacts that can be associated with improperly developed shorelines. This sensitive area has good scenic beauty with no development.

This area provides important habitat for centrarchid (panfish) and esocid (northern pike). These species will use this area for spawning, feeding, protection and as a nursery for young. This area also provides important habitat for forage species.

Wildlife are also reliant upon this area for habitat. Eagles, herons, waterfowl, songbirds, furbearers, amphibians and reptiles benefit from this valuable habitat.

Sensitive area C has a diverse community structure of emergent, floating and submergent aquatic plants including: **Emergents;** sedges (*Carex* sp.), arrowhead (*Sagittaria* sp.), pickerelweed (*Pontederia cordata*), cattails (*Typha* sp.), bur-reed (*Sparganium* sp.). **Floating leafed;** yellow pond lily (*Nuphar advena*), duckweed (*Lemna* sp.). **Submergents;** white water buttercup (*Ranunculus* sp.), elodea, eel grass (*Vallisneria americana*), northern milfoil (*Myriophyllum sibiricum*), naiad (*Najas* sp.), pipewort (*Eriocaulon* sp.), large leaf pondweed (*Potamogeton amplifolius*), clasping leaf pondweed (*P. richardsonii*).

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 treatments and mechanical harvesting should be scrutinized.

Resource Value of Site D

Sensitive area D is located on the southwestern shore of Spooner Lake. This area covers approximately 1,400 feet of shoreline extending out 200 feet. Most of this length is dominated by a shrub/scrub and shallow or open water wetland, which have helped protect it from the negative impacts that can be associated with improperly developed shorelines. This sensitive area rates as outstanding for natural scenic beauty.

This area provides important habitat for centrarchid (panfish and bass) and esocid (northern pike). Northern pike will use this area for spawning. Small mouth bass and panfish will use this area for feeding and protective cover. This area also provides important habitat for forage species.

Wildlife are also reliant upon this area for habitat. Eagles, herons, waterfowl, songbirds, furbearers, amphibians and reptiles benefit from this valuable habitat.

Sensitive area D has a diverse community structure of emergent, floating and submergent aquatic plants including: **Emergents;** pickerelweed (*Pontederia cordata*), cattails (*Typha* sp.). **Floating leafed;** yellow pond lily (*Nuphar advena*), white water lily (*Nymphaea odorata*). **Submergents;**

elodea, eel grass (*Vallisneria americana*), northern milfoil (*Myriophyllum sibiricum*), naiad (*Najas* sp.), large leaf pondweed (*Potamogeton amplifolius*), white stem pondweed (*P. praelongus*), clasping leaf pondweed (*P. richardsonii*), narrow leaf pondweed (*P. zosteriformis*).

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 treatments and mechanical harvesting should be scrutinized.

Resource Value of Site E

Sensitive area E is located on the southern shore of Spooner Lake. This area covers approximately 800 feet of shoreline extending out 200 feet. Most of this length is dominated by a bog and shallow or open water wetland, which have helped protect it from the negative impacts that can be associated with improperly developed shorelines. This sensitive area rates as outstanding for natural scenic beauty.

This area provides important habitat for centrarchid (panfish and bass) and esocid (northern pike). Northern pike and panfish will use this area for spawning, feeding, protection and as a nursery for young. Large mouth bass will use this area for feeding, protection and as a nursery for young. This area also provides important habitat for forage species.

This area also provides extremely valuable habitat for wildlife. Eagles, herons, waterfowl, songbirds, furbearers, amphibians and reptiles benefit from this valuable habitat.

Sensitive area E has a diverse community structure of emergent, floating and submergent aquatic plants including: **Emergents**; soft stem bulrush (*Scirpus validus*), sedges (*Cares* sp.), arrowhead (*Sagittaria* sp.), pickerelweed (*Pontederia cordata*), cattails (*Typha* sp.), blue flag iris (*Iris versicolor*), wild rice (*Zizania* sp.). **Floating leafed**; yellow pond lily (*Nuphar advena*). **Submergents**; elodea, coontail (*Ceratophyllum demersum*), eel grass (*Vallisneria americana*), narrow leaf pondweed (*Potamogeton zosteriformis*).

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 treatments and mechanical harvesting should be scrutinized.

Resource Value of Site F

Sensitive area F is located on the southeastern shore of Spooner Lake. This area covers approximately 2,400 feet of shoreline extending out 150 feet. Most of this length is dominated by a bog and shallow or open water wetland, which have helped protect it from the negative impacts that can be associated with improperly developed shorelines. This sensitive area has good natural scenic beauty with no development.

This area provides important habitat for centrarchid (panfish and bass) and esocid (northern pike). Northern pike and large mouth bass will use this area for spawning, feeding, protection and as a nursery for young. Panfish will use this area for feeding, protection and as a nursery for young. This area also provides important habitat for forage species.

This area also provides extremely valuable habitat for wildlife. Eagles, herons, waterfowl, songbirds, furbearers, amphibians and reptiles benefit from this valuable habitat.

Sensitive area F has a diverse community structure of emergent, floating and submergent aquatic plants including: **Emergents;** soft stem bulrush (*Scirpus validus*), sedges (*Carex* sp.), arrowhead (*Sagittaria* sp.), cattails (*Typha* sp.). **Floating leafed;** duck weed (*Lemna* sp.), watermeal (*Wolffia* sp.), yellow pond lily (*Nuphar advena*), white water lily (*Nymphaea odorata*). **Submergents;** filamentous alga, coontail (*Ceratophyllum demersum*), common bladderwort (*Utricularia vulgaris*), eel grass (*Vallisneria americana*), northern milfoil (*Myriophyllum sibiricum*), naiad (*Najas* sp.), floating leaf pondweed (*Potamogeton natans*), sago pondweed (*P. pectinatus*), large leaf pondweed (*P. amplifolius*), white stem pondweed (*P. praelongus*), clasping leaf pondweed (*P. richardsonii*), narrow leaf pondweed (*P. zosteriformis*), curly leaf pondweed (*P. crispus*).

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 treatments and mechanical harvesting should be scrutinized.

Resource Value of Site G

Sensitive area G is located on the eastern shore of Spooner Lake midway down the shoreline. This area covers approximately 500 feet of shoreline extending out 100 feet. Most of this length is dominated by a forested deciduous and shallow or open water wetland, which have helped protect it from the negative impacts that can be associated with improperly developed shorelines. This sensitive area has average natural scenic beauty with minimal development.

This area provides important habitat for centrarchid (panfish and bass) and esocid (northern pike). Northern pike and large mouth bass will use this area for spawning, feeding, protection and as a nursery for young. Panfish will use this area for feeding, protection and as a nursery for young. This area also provides important habitat for forage species.

This area also provides extremely valuable habitat for wildlife. Eagles, herons, waterfowl, songbirds, furbearers, amphibians and reptiles benefit from this valuable habitat.

Sensitive area G has a diverse community structure of emergent, floating and submergent aquatic plants including: **Emergents**; soft stem bulrush (*Scirpus validus*), pickerelweed (*Pontederia cordata*), bur-reed (*Sparganium* sp.) **Floating leafed**; duck weed (*Lemna* sp.), yellow pond lily (*Nuphar advena*). **Submergents**; filamentous alga, northern milfoil (*Myriophyllum sibiricum*), large leaf pondweed (*Potamogeton amplifolius*), narrow leaf pondweed (*P. zosteriformis*).

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 treatments and mechanical harvesting should be scrutinized.

Resource Value of Site H

Sensitive area H is located on the eastern shore of Spooner Lake north of sensitive area F. This area covers approximately 1,100 feet of shoreline extending out 100 feet. Most of this length is dominated by a bog and shallow or open water wetland, which have helped protect it from the negative impacts that can be associated with improperly developed shorelines. This sensitive area has average natural scenic beauty with minimal development.

This area provides important habitat for centrarchid (panfish and bass) and esocid (northern pike). Northern pike and large mouth bass will use this area for spawning, feeding, protection and as a nursery for young. Panfish will use this area for feeding, protection and as a nursery for young. This area also provides important habitat for forage species.

This area also provides extremely valuable habitat for wildlife. Eagles, herons, waterfowl, songbirds, furbearers, amphibians and reptiles benefit from this valuable habitat.

Sensitive area H has a diverse community structure of emergent, floating and submergent aquatic plants including: **Emergents**; soft stem bulrush (*Scirpus validus*), arrowhead (*Sagittaria* sp.), pickerelweed (*Pontederia cordata*), cattails (*Typha* sp.), common bur-reed (*Sparganium* sp.), giant reed grass (*Phragmites australis*), wild rice (*Zizania* sp.) **Floating leafed**; yellow pond lily (*Nuphar advena*). **Submergents**; elodea, northern milfoil (*Myriophyllum sibiricum*), large leaf pondweed (*Potamogeton amplifolius*), clasping leaf pondweed (*P. richardsonii*), narrow leaf pondweed (*P. zosteriformis*).

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 treatments and mechanical harvesting should be scrutinized.

Resource Value of Site I

Sensitive area I is located on the northern shore of Spooner Lake. This area covers approximately 1,200 feet of shoreline extending out 100 feet. Most of this length is dominated by a shrub/scrub wetland and shallow or open water wetland, which have helped protect it from the negative impacts that can be associated with improperly developed shorelines. This sensitive area has average natural scenic beauty with minimal development.

This area provides important habitat for centrarchid (panfish and bass) and esocid (northern pike). Northern pike and large mouth bass will use this area for spawning, feeding, protection and as a nursery for young. Panfish will use this area for feeding, protection and as a nursery for young. This area also provides important habitat for forage species.

This area also provides valuable habitat for wildlife. Eagles, herons, waterfowl, songbirds, furbearers, amphibians and reptiles benefit from this valuable habitat.

Sensitive area I has a diverse community structure of emergent and submergent aquatic plants including: **Emergents;** pickerelweed (*Pontederia cordata*), cattails (*Typha* sp.), common bur-reed (*Sparganium* sp.), giant reed grass (*Phragmites australis*). **Submergents;** elodea, eel grass (*Vallisneria americana*), northern milfoil (*Myriophyllum sibiricum*), water stargrass (*Zosterella dubia*), naiad (*Najas* sp.), large leaf pondweed (*Potamogeton amplifolius*), clasping leaf pondweed (*P. richardsonii*), narrow leaf pondweed (*P. zosteriformis*).

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 treatments and mechanical harvesting should be scrutinized.