

Bohn Lake State Ice Age Trail Area Management Plan



Wisconsin Department of Natural Resources
Bureau of Parks and Recreation

PR-835-07



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Property Location and Name

Property Name: Bohn Lake State Ice Age Trail Area.

Property Designations: State Ice Age Trail Area.

Location: Section 16, Town of Deerfield (T19N, R9E), Waushara County Lat 44.12; Long 89.45.

Property Manager: Division of Lands, Bureau of Parks and Recreation.

Acreage Goal: 250 acres.

Maps: Two maps (Current Conditions, Future Management).

Approval Date: March, 2008.

Background: Three separate parcels were acquired for the current 237-acre Bohn Lake State Ice Age Trail Area (SIATA). The primary acquisition of 224 acres occurred in 2004 as a gift to the State of Wisconsin with deed restrictions from the Ice Age Park and Trail Foundation (IAPTF). In 2006, an additional 7.2 acres was gifted to the State of Wisconsin from the IAPTF. The State of Wisconsin purchased an additional 5.5 acres along the west boundary (and CTH B) from a private landowner. All parcels are located in Section 16, Town of Deerfield (T19N, R9E), Waushara County. The first two acquisitions totaling 231 acres property were purchased with Land and Water Conservation Funds (LWCF) restricted for the Ice Age National Scenic Trail and administered by the National Park Service, and matched with the Knowles-Nelson State Stewardship Fund. The primary purpose for the acquisition was to place the Ice Age National Scenic Trail on the property.

The parcels were purchased fee title because of the significant geologic features they contain, including part of a 14-mile long ice tunnel channel and a portion of end moraine in the northwest corner of the property. The natural values of the site include an undeveloped 13-acre hard water seepage lake, mature oak forest, and an unbroken lake edge (litoral zone) that varies considerably in width due to water levels that fluctuate with seasonal low and high water events, and from varying water table depths.

Physical Setting and Natural Resources

The Bohn Lake State Ice Age Trail Area is located in the Central Sand Hills Region of Wisconsin, more specifically described as Natural Division 4b,¹ or Central Sand Hills ecological landscape (the Department's classification). The landforms in this region are a series of glacial moraines that were partially covered by glacial outwash. The surrounding area is characterized by a mixture of farmland, woodlots, wetlands, small kettle lakes, and cold water streams, all on sandy soils. The mosaic of glacial moraine and pitted outwash throughout this region has given rise to extensive wetlands and the headwaters of coldwater streams that originate in glacial moraines. The area immediately surrounding the Bohn Lake SIATA is a combination of agricultural fields, forest plantations, mixed hardwoods, and a scattering of rural residences. The area is zoned general agriculture with a 3-acre minimum for development. One mile west of Bohn Lake is Fish Lake, a highly developed lake surrounded by homes, vacation cabins, one private campground, and one municipal campground.

There are a number of public lands near the Bohn Lake SIATA. Approximately two miles to the southwest are the 1,400-acre Greenwood State Wildlife Area (Ice Age Trail within) and 5,000-acre Colburn State Wildlife Area. Several State Fishery lands are located within ten miles of the property, including Big Roche-Cri, Mecan River System, and White River System State Fishery Areas. Two county facilities—Marl Lake County Park and Sorensen Natural Area at Hartford Lake are also located nearby. Marl Lake County Park is a 24-acre property primarily used for lake access, swimming, and play equipment. It is located within four miles of the Bohn Lake SIATA. Closer to the Bohn Lake property is Sorensen Natural Area at Hartford Lake, a 70-acre property with a canoe launch and hiking trails. Other publicly accessible lands include the 240-acre SIATA property approximately 1.5 miles south of the Bohn Lake SIATA. Although the Ice Age Trail is a principal activity, hunting and silviculture also occur on the property.

A similar property to Bohn Lake is the Plainfield Tunnel Channel Lakes State Natural Area, located 5 miles north of the Bohn Lake SIATA in Waushara County. This area contains 3 lakes within a larger chain of 13, as well as ponds lying in a "tunnel channel" that were created by a meltwater river flowing beneath glacial ice. The lake basins were created from buried blocks of ice left behind when the tunnel collapsed.

Presettlement vegetation in this area included oak savanna, pine-oak barrens, and extensive wetland communities. Soils on the property include Richfield, Okee, and Coloma loamy sands. Slopes vary from 0%-20%.

Current vegetative coverage around the Bohn Lake SIATA is a mix of oak forest and open fields, as shown in Table 1. An inventory of rare and endangered species conducted by the Department in 2000 found the Karner blue butterfly within two miles of the site. Complete inventories are listed in Appendixes A and B.

Table 1: Current Vegetative Coverage

<u>Vegetative Cover Type</u>	<u>Total Acres (est)</u>	<u>% of Property</u>
Pine plantation	17	7
Mixed oak forest	103	43
Open field	83	35
Lake edge	5	2
Lake/pond (open water)	17	7
Sand barren	12	5
	237	

¹ Kotar and Burger; A Guide to Forest Communities and Habitat Types of Central and Southern Wisconsin

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Between 1951 and 2005, groundwater in the area varied in depth from just under 6 feet (1973) to over 15 feet (1959, 1965) below land surface². In 2006, it was also measured at approximately 15 feet below the surface. The property lies over a sand and gravel aquifer, typical of a glaciated region. This type of aquifer is susceptible to human-induced and naturally-occurring pollutants, as well as possible drawdown issues.

Existing Developments

There are no buildings on the property, but there is evidence of man-made structures such as barbed wire fencing and old garbage in a gully in the western part of the property and along the northern edge of the former agricultural field to the east. There are also several “discernible travel routes” likely made from and for vehicles and used for logging or recreation (see Map A – Existing Conditions). There is an older house, barn, and several other buildings on the adjacent property owned by the Ice Age Park and Trail Foundation.

Two known archeological sites with artifacts have been discovered on the property as part the survey for the Ice Age Trail route. Since a portion of the property was federally funded, cultural resources are to be protected under Section 106 of the National Historic Preservation Act. To comply with Section 106, the National Park Service and the State of Wisconsin must take all necessary precautions to ensure that any potential adverse impacts to historic properties and artifacts from a trail building project are avoided, minimized, or mitigated.

² According to well WS-0008 at UW-SP Hancock Research Station, approximately five miles due west of the property.

Statutory and Legal Obligations with the Property

The primary purpose of State Ice Age Trail Areas is to permanently protect segments of the Ice Age Trail and the natural resources along it for present and future public use and enjoyment. Congress designates National Scenic Trails such as the Ice Age Trail “in order to provide for the ever-increasing outdoor recreation needs of an expanding population and in order to promote the preservation of, public access to, travel within, and enjoyment and appreciation of the open-air, outdoor areas and historic resources of the Nation...” National Scenic Trails are to be “extended trails so located as to provide maximum outdoor recreation potential and for the conservation and enjoyment of the nationally significant scenic, historic, natural, or cultural qualities of the areas through which such trails may pass.”

Statutory Guidance for State Ice Age Trail Areas and State Natural Areas:

The following state laws, statutes and natural resource codes, as well as federal acts pertain to the management of the property and the Ice Age Trail:

- National Scenic Trail Status, 1980 - P.L. 96-370; 16 U.S.C. 1244 (a) (10)
- State Scenic Trail, 1987 - s 23.17; 16 USC 1244 (a) (10)
- SIATA - NR 1.29(2)(a); s. 23.09 (2) (d) 10
- SIATA Dedication - s 23.293
- General Management - NR 1.29(2)(b), s. 23.17; see also Grant Management Contract Sections 28 & 29
- Ice Age Trail use - NR 1.29(1) and Section 7(c) of the National Trails System Act
- Camping - NR 1.29(3)
- State Natural Areas - Chapters 23.27, 23.28, and 23.29
- SNA Uses - Chapter NR 45
- Land and Water Conservation Fund Act 16 U.S.C. as amended
- State Stewardship and Grant and Management Contracts - s23.096, NR 51, projects IAT2-25, IAT2-26

Deed Restrictions

State Grant Management Contract

Because of the use of State Stewardship Funds by the Ice Age Park and Trail Foundation in its purchase of the first two tracts, the following restrictions exist for the property: “This conveyance is made pursuant to the State Ice Age Trail Area Dedication program described in sec. 23.293, Wisconsin Statutes, for the uses and purposes of that program.” Project numbers IAT2-25, IAT2-26.

Land & Water Conservation Fund

Because of the use of Federal Land and Water Conservation Funds, the following restrictions exist on the property: “The Grantee hereby acknowledges that the property conveyed by this document has been acquired with Federal assistance from the Land and Water Conservation Fund and such property shall not be converted to other than preservation/recreation uses related to the Ice Age National Scenic Trail without the prior written approval of the National Park Service.”

Current Deed Restrictions on the Property

In deeding the property to the State of Wisconsin, the IAPTF placed the following deed restrictions on the property: “As part of the consideration of this deed and by acceptance thereof, the Grantee agrees that the premises herein conveyed shall be held for the scientific, educational, and aesthetic purposes of the Ice Age National Scenic Trail and in order to permit the general public access by foot, snowshoe, or ski, but not otherwise, over and across a trail footpath located on the premises. The Grantee further agrees to manage the topography, timber, and other vegetative cover upon the premises solely for protection and enhancement of the State Ice Age Trail and secondarily as a designated State Natural Area.”

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Current Easements

There is an ingress/egress easement on the southern portion of the property extending from the corner of 9th Drive and Bighorn Drive north along the existing driveway to the buildings on the privately-owned property to the west. This easement is 33' wide by 150' in length. It is for use to/from the buildings by the buildings' owner (See Map A).

Future Management

Since the property is designated as a State Ice Age Trail Area with the primary purpose of establishing the Ice Age National Scenic Trail, other primary considerations also exist such as “[providing] maximum outdoor recreation potential and for the conservation and enjoyment of the nationally significant scenic, historic, natural, or cultural qualities of the areas through which such trails may pass.”³ With the undeveloped setting of the property, it is recommended that the following classifications/designations as shown in Map B – Future Facilities and Classifications apply:

- Ice Age Trail Recreation Management Area,
- State Natural Area,
- State Ice Age Trail Area Dedication.

Ice Age Trail Recreation Management Area

Goal: Provide for the permanent establishment of the Ice Age National Scenic Trail.

Provide a remote or somewhat remote area with little development and a predominantly natural appearing environment offering opportunities for solitude and primitive, non-motorized recreation.

Objectives:

- Provide for approximately 1.2 miles of Ice Age National Scenic Trail,
- Provide for other compatible non-motorized recreation uses that support the Ice Age Trail,
- Support public education and geologic interpretation of the area.

Recreation and Public Access

The following recreational activities and facilities are recommended:

Ice Age National Scenic Trail

The Ice Age Trail is both a National Scenic Trail and State Scenic Trail. The route of the trail follows the farthest extent of the most recent glaciation with the goal of interpreting the geologic features created by the glacier. One such feature is a tunnel channel located around Bohn Lake SIATA that was created by a fast-flowing river under a massive glacier. Approximately 1.2 miles of the Ice Age National Scenic Trail (as shown on Map B – Future Facilities) will be established with the following criteria:

- A tread (walking surface) no greater than 36” wide will be constructed in a sustainable manner as recommended in the Ice Age Trail Handbook.
- The tread surface will be of natural soil, sand, and other native earth materials.
- The vegetative corridor cleared for the Trail will be up to seven feet wide and up to ten feet in height.

Other Trails

An unpaved hiking/walking trail that follows the Americans with Disabilities Act (ADA) guidelines of approximately 0.7 miles will be established from a parking lot off the 9th Drive parking lot to the CTH B parking lot. This trail will use the existing dirt path/road and will include a scenic vista on the ridge overlooking Bohn Lake (see Map B). Two natural appearing benches will be placed for enjoyment of the vista. An interpretive sign may also be placed at this location. No other facilities are proposed for this vista site. A

³ State Ice Age Trail Area language associated with LWCF funds

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trail from the vista site to the lake is also established that will run near the southeast corner of Bohn Lake (approximately 0.5 miles). In addition, a spur trail from the parking area off 9th Drive to the Ice Age Trail may also be constructed.

Lake Access

Because of the sensitive shoreline of Bohn Lake, lake access will be provided only for walk-in/carry-in watercraft from a parking lot off 9th Drive. The current existing road will be gated to prevent vehicle access.

With the small size of the lake, and keeping with the objectives of an Ice Age Trail Area and nature-based recreation setting, it is recommended that this lake be established as non-motorized.

Fishing

Fishing will be allowed on Bohn Lake but it is recommended that the lake be designated only as a catch and release waterbody.

Hunting

To help control deer population, and to better manage natural resources, the property will be open for the traditional nine-day gun deer season along with the late bow season under current state hunting regulations.

Other Recreational Uses

Other recreational uses in support of the Ice Age Trail that are permitted on the property include snowshoeing, cross county skiing, nature watching, and wildlife observation.

Facilities and Development

The following facilities and developments are approved for the property:

Parking

As shown on Map B, the main parking lot will be constructed along 9th Drive, south of the existing buildings. The parking lot will hold 10-12 cars and be large enough to allow a bus turn-around. It will have a gravel base with vehicle barriers around the perimeter and a gate to provide entry by authorized vehicles.

A second parking area for this property is located along CTH B, will hold up to four cars, and will be based with gravel and bordered with large stones (not bedrock) or other reasonable barriers. A gate will be erected between the parking area and the property to provide entry by authorized vehicles.

Kiosks

A kiosk describing permitted and prohibited uses on the property will be placed at the 9th Drive parking lot.

Signage

Internal Ice Age Trail signage shall be painted on trees (within the State Natural Area boundary), or may be nailed onto 4x4 posts (outside the State Natural Area boundary). IANST handbook⁴ standards should be applied to all Ice Age Trail signage. External signage (i.e. segment signs, kiosks) should be placed on 4x4 wooden posts, or other appropriately sized wooden posts. A limited amount of interpretive signs may be installed on the property for interpretation of the tunnel channel and oak barren site. These should be placed outside the natural area. Property boundaries will be marked with white Carsonite® (or other similar product) posts at a distance of approximately 200-400 feet. A SIATA decal will be applied to the outside of the post.

⁴ Ice Age National Scenic Trail – A Handbook for Trail Design, Construction and Maintenance, 2001 (or current version)

Gates

A gate will be installed along Bighorn Dr to prevent use of the roadway to the lake. A second gate will be installed at the approved parking lot, and a third gate will be placed at the southern end of CTH B where there is a current road bed (See Map B).

Benches

Two natural appearing wooden benches will be erected at the scenic vista site. In addition, up to two other natural appearing benches will be placed along or near the Ice Age or other hiking trails. Exact placement will be determined by the property manager.

Vegetative Management

Goal: Convert the existing canopy to an oak barrens setting and convert open fields to grassland prairie in support of Karner blue butterfly habitat.

Oak Barrens (Savanna) Restoration Site

Barrens community types are rare, natural communities that were well represented in this area prior to European settlement. Structurally, barrens can range from nearly treeless “grasslands” containing only oak grubs, to areas with scattered large trees, and scattered grassy openings located within primarily forested areas. Barrens communities occur on sandy outwash plains, sandy lake plains, and on the broad, sandy terraces that flank some of the major rivers in south-central and southwestern Wisconsin. Black oak is the dominant tree in this fire-adapted savanna community, but other oaks may also be present. Scattered jack pine is also a defining forest component of this mixed community type. Less commonly, red pines may also be present. Common understory species include lead plant, black-eyed Susan, round-headed bush clover, goats rue, June grass, little bluestem, flowering spurge, frostweed, false Solomon's seal, spiderwort, and lupine.

Management Objectives:

- Restore and maintain approximately 105 acres of ecologically functioning oak barrens native community with an open park-like structure along the north side of the Bohn Lake (See Map B).
- Provide opportunities for research, ecological observation, interpretation, and wildlife viewing.
- Support public education and ecological interpretation use of the area by providing other necessary low impact facilities (benches, interpretative signs, etc.) for the Ice Age Trail. Locate, construct, and maintain these trails in ways that minimize negative impacts to sensitive resources in the area.

Authorized Management Activities:

- Management activities for oak barrens management may include fire, tree and shrub cutting or shearing, slash chipping and burning, mowing, chemical treatment, mechanical site preparation, and planting, as deemed appropriate by the property manager.
- Periodically monitor for and eradicate exotic species. Spotted knapweed, leafy spurge, garlic mustard, and crown vetch are the primary targets for eradication.
- Cutting, girdling, application of herbicide or other methods may also be used to control invasive/aggressive plant species.

Pine Plantations / Stands

Two pine plantations of 17 acres and 4 acres exist along the western edge of the property. Thinning of these plantations will take place to create a more natural appearing stand. A 17-acre red pine stand on the east facing slope to the east of the larger western stand will also be thinned. The other pines along Buckhorn Drive and 9th Lane will be left to natural succession, and will not be replanted once downed. The stand of pines running north/south between the open fields shall be cleared out almost entirely once the adjacent prairies have become established. A few native pines may be left on the site.

Vegetative Management Prescriptions:

- Periodically monitor for and eradicate exotic species. Glossy buckthorn and garlic mustard are the primary targets for eradication.
- Thin the pine plantation to promote larger diameter, vigorous pines.
- Long term, both of these stands should be incorporated into the prairie and oak barrens objectives.

Authorized Management Activities:

- Authorized management activities include thinning, selective timber harvesting, site preparation by mechanical and chemical means, and brushing and herbicide application to control invasive species.

Prairie Restoration

The open fields along the southern portion of the property (approximately 66 acres) will be restored to native prairie habitat (see Map B).

The Karner blue butterfly is dependent on wild lupine, *Lupinus perennis L. (Fabaceae)*, its only known larval food plant, and nectar source for adults. These plants historically occurred in savanna and barrens habitats typified by dry, sandy soils, and now occur in roadsides, military bases, and some forest lands. The primary limiting factors of Karner blue reproduction are loss of habitat through development and canopy closure (succession) without a concomitant restoration of habitat. A shifting geographic mosaic that provides a balance between closed and open canopy habitats is essential for the maintenance of large viable populations of Karner blue butterflies.

Management Objectives:

- Restore open fields along the southern part of the property with native prairie species, especially wild lupine, to support the needs of the rare Karner blue butterfly.

Authorized Management Activities:

- Site preparation will be a two step process. The first step will be to plant two consecutive years of row crops that will replace current grasses. After the second year, the planting of a native prairie mixture will begin to establish new coverage. Once the new prairie coverage has been established, prescribed burning will be the primary management tool used to establish and maintain the prairie ecosystem.
- Selective cutting, mowing, herbicide application, and planting would also be permitted management activities. Initially, the 66 acre prairie site would be burned repeatedly—about every two to four years—to fully establish the desired mix of species. After the prairie is established, a “maintenance” burn would be performed every three to four years. Beginning the restoration effort in the western pod and working to eastern pods is recommended.

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- In addition to prescribed burning, periodically monitor for and eradicate exotic species. Cutting, girdling, application of herbicide or other methods may also be used to control invasive/aggressive plant species.
- Removal and thinning of pines to allow for a more natural appearing and contiguous open setting.

Other

The open/pine area in the eastern portion of the property will be left to naturally reforest. Removing woody and herbaceous invasive species will help the process.

The existing discernible travel route or former roadways north of the lake shall also be left to reforest.

State Natural Area Designation

Goal: Protection and recognition of the interior beach habitat along with the undeveloped shoreline and management of the globally rare barrens natural community.

In addition to being a State Ice Age Trail Area, a portion of the property around the lake, as well as some oak barrens, is designated a State Natural Area. This designation encompasses 92 acres of the property (see Map B) and offer protection, restoration, and interpretation opportunities for Bohn Lake and the interior beach habitat.

The geologically important tunnel channel, which includes Bohn Lake, will also be part of the natural area designation.

There is also an opportunity for this site to provide rare invertebrate and reptile restoration opportunities, as well as an ecological reference site.

Both vegetative and recreation management recommendations within the Ice Age Trail Recreation Management section are compatible and will apply to this State Natural Area designation.

State Ice Age Trail Area Dedication

Goal: Provide for the highest level of protection for the establishment and use of the Ice Age National Scenic Trail.

Because of the important geological features of Bohn Lake and tunnel channel, and the isolated nature of the property, it is recommended that this property receive additional protections under the State Ice Age Trail Area dedication process. This process will put in place a binding unilateral declaration that the lands encompassing the Bohn Lake property will be held in trust for the people of the State of Wisconsin for proper management of the Ice Age National Scenic Trail. It is recommended that that the entire property fall under this dedication process.

Boundary Expansion

There is a forested area of approximately 10 acres immediately northeast of the Bohn Lake SIATA that should be considered for boundary expansion as shown on Map B. This expansion will offer additional oak forest coverage to complement the existing coverage. In addition, another small triangular parcel of land located

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along CTH B is also included within the project boundary. Other Ice Age Trail expansions near the property will be handled under the Waushara County Ice Age Trail Corridor Plan.

Staffing

It is recommended that a ¼ staff position be assigned to this property for operations and maintenance. In a larger context, staffing considerations should be explored for larger groupings of SIATA properties that would be assigned to a SIATA property manager.

Cost Estimates

Costs associated with the installation of three gates, parking lot developments, trail construction, and signage is estimated to be around \$8,000. Additional costs may be accrued for prairie and oak savanna restoration, but portions may be split with nonprofit associations and other organizations.

Public Comments and Response

Public review of the draft plan and written comments were collected during the month of August, 2007. In total, 11 comments were received. The following is a summary of the most common public comments regarding this plan. Responses to these comments are also provided.

Trail and Facilities:

Comments centered on three issues: Ice Age Trail placement along the northern edge of Bohn Lake, Ice Age Trail signage at the trailheads and the development of an ADA trail on the southern edge of the Bohn Lake.

Response:

Trail placement along the northern edge of Bohn Lake has met all county and local zoning ordinances. The trail is 35 feet or more from the high water mark and will not impact the sensitive areas of the lakeshore. The trail placement has also been reviewed by the State Natural Areas program and no changes will be made to the location. Facility development for the Ice Age Trail has been kept to a minimum to coincide with a State Natural Area. The intent with the facility development is to allow for a loop trail around Bohn Lake along with Ice Age Trail placement.

An ADA trail development option was considered but not pursued as a barrier free trail already exists on the southern edge of Bohn Lake upon the ridgeline that will access the vista. The shortest access to the vista is from the 9th street entrance. A slight reconfiguration of this trail segment will be reviewed for better barrier free access. At the March, 2008 Natural Resources Board Meeting this development option was added back into the plan. This language has been inserted into the final plan.

Hunting:

Comments were received about the plan's recommendation to open the property only for the traditional nine-day gun deer hunting season. Many felt that hunting only during this season would not effectively manage the

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deer herd within and around Bohn Lake, leading to damage to the area's sensitive ecological areas and plant species, including wild lupine. Additional comments were received about opening the property to other hunting opportunities.

Response:

Consideration was given to other deer hunting options as part of the planning process and from the public comments received the plan has been modified to also include late bow season hunting. This season, combined with other gun season will allow for about 2 ½ months of deer hunting options upon the property.

Hunting other species was also considered during the planning process. Because of the small size of the property, and with the Ice Age Trail bisecting the property there are possible user conflicts that may arise with expanded hunting. Better hunting options are approximately two miles to the southwest at the 1,400-acre Greenwood State Wildlife Area and 5,000-acre Colburn State Wildlife Area.

At the March, 2008 Natural Resources Board Meeting the Board asked staff to return with other hunting options for this property. This task will be undertaken once a final State Ice Age Trail Area hunting rule has been established and may change the approved hunting seasons upon the property.

Fishing:

While most respondents supported allowing fishing on the property, some were concerned that water fluctuations in Bohn Lake could reduce fish populations. In this case, regulating take from the lake with standard fishing regulations could result in over harvesting. Other respondents wanted to see bag limits, catch-and-release, and restricted harvest policies implemented to prevent over-harvest.

Response:

The plan has been modified to recommend only catch and release for Bohn Lake.

REFERENCES

A Guide to Forest Communities and Habitat Types of Central and Southern Wisconsin. Kotar and Burger, 1996.

Ice Age National Scenic Trail – A Handbook for Trail Design, Construction and Maintenance, 2001.

The 2005-2010 Wisconsin Statewide Comprehensive Outdoor Recreation Plan – WDNR.

Wisconsin Natural Resources Magazine website:
<http://www.wnrmag.com/supps/2006/apr06/aquifer.htm#sub1>

United States Geologic Survey – Wisconsin Water Science Center: <http://wi.water.usgs.gov/public/data.html>

Appendix A

Bohn Lake Inventoried Species List

1. Silverweed
2. Boneset
3. Elodea
4. Water buttercup
5. Wild bergamot
6. Spirea
7. Common St. John's wort
8. Lyre-leaved rock cress
9. Grass-leaved goldenrod
10. Yarrow
11. Orange hawkweed
12. Red raspberry
13. Sandbar willow
14. Cinquefoil
15. Blue-flag iris
16. Water smartweed
17. Motherwort
18. Burdock
19. Stinging nettle
20. Hoary vervain
21. Common milkweed
22. Round-head bush-clover
23. Frostweed
24. False boneset
25. Gumweed
26. Duckweed
27. Equisetum sp.
28. Glyceria sp.
29. Thimbleweed
30. Horsetail
31. Spotted knapweed
32. Indian grass
33. Wormwood
34. New Jersey tea
35. Round-leaved pyrola
36. Pussytoes
37. Eleocharis sp.
38. False Solomon's seal
39. Bebb willow
40. Swap agrimony

Appendix B

Preliminary Bohn Lake Species List

Amphibians

1. Eastern gray tree frog

Mammals

1. White-tailed deer
2. Raccoon

Birds

1. Wild turkey
2. Tree swallow
3. Eastern wood pewee
4. Chipping sparrow
5. Eastern bluebird
6. Red-eyed vireo
7. Wood thrush
8. Mallard
9. Bufflehead
10. Canada goose
11. Pileated woodpecker
12. Northern flicker*
13. Downy woodpecker
14. Red-bellied woodpecker
15. Brown thrasher*
16. American crow
17. Blue jay
18. Field sparrow*
19. American robin
20. Cedar waxwing
21. American goldfinch
22. White-breasted nuthatch
23. Black-capped chickadee
24. Song sparrow
25. Spotted sandpiper
26. Yellow-rumped warbler
27. Turkey vulture
28. Lincoln sparrow
29. Eastern meadowlark
30. Eastern phoebe
31. Red-winged blackbird
32. Vesper sparrow*
33. Red-headed woodpecker*
34. Whip-poor will*
35. Field sparrow
36. Overnbird

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37. Kildeer
38. House sparrow
39. Common yellow throat
40. Great-crested flycatcher
41. Scarlet tanager
42. Rose-breasted grosbeak
43. Northern oriole
44. Indigo bunting
45. Green-backed heron
46. Eastern kingbird
47. Brown Thrasher

Invertebrates

1. White-faced pondhawk dragon fly
2. Pearl crescent
3. Red admiral
4. Banded hairstreak butterflies

* = Species of Greatest Conservation Need (these species have low and/or declining populations that are in need of conservation actions).