STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
Madison, Wisconsin

ITEM RECOMMENDED FOR NATURAL RESOURCES BOARD AGENDA

TO THE SECRETARY:

FROM: John M. Keener

SUBJECT: MASTER PLANNING - Approval of conceptual master plan for Totagatic Lake Wildlife Area, Bayfield County, with an acreage goal of 866.2 acres.

1. To be presented at ... August Board meeting by John Keener ...

2. Appearances requested by the public: None. \(\text{Representing whom?}\)

3. Reference materials to be used: Memorandum dated July 21, 1980 from John M. Keener to Anthony S. Earl, Totagatic Lake Wildlife Area Master Plan (Concept Element).

4. Summary: The Concept Element of the Master Plan has been developed for the Totagatic Lake Wildlife Area, Bayfield County. The Department proposes to manage the property for public hunting and fishing, provide important habitat components for wildlife, protect a "wild lake" environment and produce wild rice for waterfowl.

5. Recommendation: That the Natural Resources Board approve the Concept Element of the Totagatic Lake Wildlife Area Master Plan including a new ownership goal of 866.2 acres.

APPROVED:

C. D. Besadny, Administrator Date

A. C. Damon, Deputy Secretary Date

Secretary Date

cc: Judy Scullion - ADM/5
    C. D. Besadny - ADM/5
    Ron Nicotera - ADM/5
    Art Doll - PLN/6
    John Keener - WM/4
    Dave Gjestson - WM/4
    Jim Huntoon - OL/4
    Eric Jensen - IGP/3
    David Jacobson - Spooner

Signed:

John M. Keener, Director
Bureau of Wildlife Management
Date: July 21, 1980

To: Anthony S. Earl

From: John M. Keener

Subject: Totagatic Lake Wildlife Area Master Plan

The final Concept Element of the subject Plan is presented for your approval. The Plan has been subjected to a 45-day review by the appropriate Department functions, advisory groups and other resource agencies.

Comments received have been reviewed by the Bureau of Wildlife Management and the Northwest District. Agreement was reached on the treatment of comments, the majority of which were incorporated into the final draft. Advisory group and outside agency comments along with Department responses are shown in the Plan Appendix. No public controversy has been brought to our attention during the review process.

The Plan establishes objectives to harvest wild rice, provide hunting, fishing and trapping opportunities and protect an endangered species (eagle) as well as unique, natural environments.

Presently, the state owns 620.14 acres. A change in the ownership goal from 689.05 to 866.2 (177.15-acre difference) is necessary to achieve the proposed goal and objectives for this property.

DLG:mg

cc: Judy Scullion - ADM/5
C. D. Besadny - ADM/5
Ron Nicotera - ADM/5
Art Doll - PLN/6
Jim Huntoon - OL/4
John Keener - WM/4
Eric Jensen - IGP/3
Dave Gjestson - WM/4
David Jacobson - Spooner
TOTAGATIC LAKE WILDLIFE AREA
MASTER PLAN CONCEPT ELEMENT

Approved by Natural Resources Board:

PROPERTY TASK FORCE
Leader - DONALD BUBLITZ, AREA WILDLIFE MANAGER
ROBERT DREIS, NHD STAFF
WILLARD KIEFER, AREA FORESTER
WILLIAM WEIHER, AREA FISH MANAGER
JOHN SEMO, PARKS SUPERINTENDENT

Submitted: DECEMBER, 1979

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
MADISON, WISCONSIN
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SECTION I - ACTIONS
GOAL, OBJECTIVES AND ADDITIONAL BENEFITS

Goal: To maintain the Totagatic Lake Wildlife Area for public hunting and fishing; provide important habitat components for wildlife, game and nongame; provide wild lake protection and maximize production of wild rice for waterfowl.

Annual Objectives:
1. Provide a harvest of 6,000 pounds of wild rice.
2. Provide 600 participant days of hunting and trapping opportunities.
3. Maintain 500 angler days of fishing.
4. Protect a 537 acre lake and 40 acre Scientific Area for recreation, aesthetic and educational purposes.
5. Provide and protect a minimum of one bald eagle and one osprey nesting site.

Annual Additional Benefits:
1. Contribute to habitat of other wildlife including migratory endangered and threatened species. Habitat components include natural, unmoles ted areas which benefits all wildlife species, game and nongame.
2. Harvest forest products consistent with property wildlife objectives.

RECOMMENDED MANAGEMENT AND DEVELOPMENT PROGRAM

1. Preserve the lake and a strip of land along the shore as a Resource Protection Area. Classify Totagatic Lake as a “wild lake.” The definition as it applies to Totagatic Lake is: a lake with undeveloped shoreline, with road access to the water's edge, and where man’s influence upon the landscape has been substantially obliterated.

   a) Establish a zone 400 feet deep along each bank of the incoming Totagatic River, along the shoreline of Totagatic Lake and along each bank of the outgoing Totagatic River which will receive no vegetative management except for disease and fire control (Figure 4).

   b) No motor travel on the lake.

   c) Hunting, fishing, trapping and wild rice harvest shall be permitted in season.

   d) Motorized travel to the lakeshore along the access road is permissible.

2. Establish a Scientific Area of approximately 40 acres (Figure 4).

3. Manage all other lands for optimum forest wildlife (primarily deer and ruffed grouse) habitat.

   a) Harvest 2,500 cords of pulpwood in the next 10 years on 273 acres.

   b) Clear-cut 81 acres for aspen regeneration; modify clear-cut 115 acres of aspen and red oak.

   c) Strip, clear-cut 27 acres for black spruce regeneration.

   d) Selectively harvest 50 acres of northern hardwood to allow for growth of groundcover and to maintain red oak.

3. Complete acquisition of the remaining county and private lands within the approved boundaries. Acquisition will proceed on a willing seller-willing buyer basis only.

   a) Present upland ownership 620.14 acres
   b) To be acquired 68.91
   c) Meandered lake (not included in property acreage goal) 537.00
   Property Total 1226.05 acres
4. Manage for the production of 6,000 pounds of wild rice annually by the maintenance of stable water levels during April, May, June and July.
   a) Remove beaver dams and beaver from the river downstream from Totagatic Lake for a distance of approximately one river-mile.
   b) Open the lake to wild rice harvest only when the rice is ripe.

5. Manage for hunter, angler and trapper access.
   a) Maintain existing access road.
   b) Provide adequate parking facilities (6 car lot).
   c) Provide small boat access to water.

6. Conduct periodic fish inventories to determine fish population status.
   a) Take winter dissolved oxygen samples in severe winters to monitor oxygen levels.
   b) Stock fish as needed when significant winterkills occur.

7. Survey boundaries and establish corners as may be necessary to resolve timber trespass problems.

8. Establish an eagle nesting platform behind the 400 foot zone, Government Lot 2, Section 29 at the approximate location of the former eagle nest.

9. Regarding potential historical or archeological sites, all areas of development will be thoroughly investigated for the presence or absence of sites and appropriate protective measures will be taken for significant sites. If any found during development, construction will be suspended until the State Historical Preservation officer is consulted. The site(s) will be evaluated and, if significant, would be preserved.

10. All areas of development will also be examined for the presence or absence of endangered and threatened species and appropriate protective measures will be taken for significant sites. If any sites are found during development, construction will be suspended until the Office of Endangered and Nongame Species (DNR) is consulted. The site(s) will be evaluated and protective measures taken for significant sites.

11. Nature study is encouraged on the entire property. Thus, educators, naturalists, photographers and others of similar interests are welcome.

SECTION II - SUPPORT DATA

Background Information:

The Totagatic Lake Wildlife Area is located in the southwest corner of Bayfield County adjacent to the northern border of Sawyer County (Figure 1). The property boundary contains 986.2 acres of land and marsh surrounding the 537 acre Totagatic Lake (Figure 2). At the present time, the DNR owns 820.14 acres in fee title (Figure 3).

The nearest community is the Village of Cable, a resort center (population 281) located seven miles northeast of the wildlife area. The City of Hayward, the county seat of Sawyer County, lies 20 miles to the southwest. It has a population of 1,457. US Highway 63 passes through both of these communities. The nearest largest population center is the Duluth-Superior port cities on the western end of Lake Superior. These cities total about 150,000 in population and are located approximately 45 miles to the northwest.

Totagatic Lake Wildlife Area had its beginning with the purchase of a parcel of land fronting on Totagatic Lake in 1963 by the (then) Wisconsin Conservation Department. The following year three State Land Commission parcels were acquired. These purchases were authorized by the Conservation Commission to gain riparian rights in the event that a legal action should develop over plans to dam the outlet river and raise the waters on Totagatic Lake. Prior to this, there had been considerable publicity, controversy and public hearings over the matter. In 1958, the Wisconsin Public Service Commission ruled that the greatest public good depended upon the maintenance of "natural" water levels to ensure continued wild rice harvests and waterfowl hunting.
In 1968, the Wisconsin Natural Resources Board approved an acquisition boundary and the purchase of most private lands progressed rapidly. Current management activities are focused upon the maintenance of stable water levels and obliteration of the signs of human disturbance.

The following chronology documents the DNR's and the public's interest in this unique area:

c.a. 1880 Logging dam built one-half mile below "main" lake on outlet stream.
1922 Local settler maintained deteriorating logging dam until 1932.
1932 Vandals destroy dam structure; water levels drop to "natural" level and increase noted by locals in aquatic plants and waterfowl use.
1941 WCD surveys area and reports heavy growth of wild rice. A bench mark showing water levels is set.
1946 WCD reports almost entire lake covered by wild rice.
1951 Illegal dam constructed which raised lake levels 18 inches and destroyed wild rice.
1953 Public Service Commission hearing on unauthorized dam. Sentiment expressed by some municipal officials and private interests for an even higher dam to promote shoreline development.
1954 PSC finds that WCD may remove obstruction to restore lake to natural level. Part of obstruction removed and pioneering stands of wild rice and wild celery appear.
1955 Remainder of illegal obstruction removed and wild rice flourishes.
1956 Rice harvest again an annual event.
1960-64 Considerable support for idea that lake should be managed as a "duck" lake.
1968 Totagatic Lake Wildlife Area established.

A bench mark has been established near the access road terminus at Totagatic Lake. It has an assumed elevation which is about 10 feet above normal water level.

Presently, the DNR and Bayfield County collectively own all but 0.38 mile of the 5.74 miles of shoreline. "Lone Pine Island," a 2.34 acre cleared island located along the northwest shoreline, is also DNR owned.

RESOURCE CAPABILITIES AND INVENTORY

Soils, geology and hydrology:

The soils of Bayfield County, which greatly affect the chemical characteristics of surface waters, have been derived largely from weathering of various glacial deposits. Glacial upland soils are found in the southern part of Bayfield County, including the wildlife area. These soils consist of a heterogeneous mass of stones, silts, and clays and belong to the Wisconsin stage of glaciation. This glacial till overlies the project area.

Bayfield County is underlain by ancient sandstone and igneous rocks. Crystalline rocks underlie the southern part of the county with granite outcroppings common. A large, pitted outwash plain is located in the west central part of the county. This plain is continuous through Douglas and Washburn Counties. The southwestern corner of Bayfield County is covered by a thin layer of drift. Details may be obtained by referring to the Bayfield County Soil Survey by Ableiter and Hole available from the U.S. Department of Agriculture.

The waters within the major drainage areas of Bayfield County may be intercepted or transpired by vegetation, may run off the ground surface and into streams, or may infiltrate into the ground.

The continental divide, which separates the St. Lawrence and Mississippi River drainage systems, passes through the southern part of Bayfield County. The Namekagon, Totagatic, Eau Claire and West Fork Chippewa rivers drain the southern part of the county. They have low to moderate gradients. The Totagatic River has its source in the muskegs and swamps a few miles north of the wildlife area.

The waters are relatively poor in carbonates and nutrients and reflect the low solubility of the underlying soils. The upper 3.12 miles of stream is considered to be Class III brook trout water. Upon leaving Totagatic Lake, the river flows through an extensive forested area before leaving the county.

Totagatic Lake (Figure 5) is a soft water drainage lake on the Totagatic River. It has a surface acreage of 537, maximum depth of 8 feet (the majority is less than 5 feet) and an MPA of 15 ppm. In addition to the Totagatic River, there is also a spring located in the north end and a warm water minnow populated feeder which contributes flows to the lake in Section 30, T43N, R8W. The average outlet flow of the Totagatic River is estimated at 21.0 cubic feet per second.

The fish population consists mainly of northern pike and panfish; however, because of the shallow depths, it occasionally suffers a partial winterkill. Bottom conditions are mostly muck over the flat shallow lake bottom, but along littoral areas sand, gravel, rubble, and even boulders are found. Because of this uniform shallow depth, emergent aquatic vegetation, especially wild rice, is abundant. It is one of the better known wild rice producing lakes in northern Wisconsin.
Bayfield County has a humid continental type of climate. It has long, cold winters and rather short, moderately warm summers. The average annual temperature is 41°F with recorded extremes of 107°F and -40°F. The latest killing frost recorded at the Ashland Experimental Station was June 23 and the earliest was August 27.

Prevailing winds are westerly from early fall through early spring and easterly for the rest of the year. Annual average precipitation is 31.2 inches.

**Fish and Wildlife:**

The upper Totagatic River from its source to Totagatic Lake is considered to be a poor quality brook trout stream. Within the property boundary and downstream from Totagatic Lake, the river is considered a warm water forage fish stream with a few northern pike and panfish.

Totagatic Lake has a fishery of northern pike and panfish. It suffers from periodic partial winterkill, but is fished for northern pike. No endangered or threatened fish species frequent the property.

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Relative Abundance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern pike</td>
<td>Esox lucius</td>
<td>Common</td>
</tr>
<tr>
<td>Yellow perch</td>
<td>Perca flavescens</td>
<td>Abundant</td>
</tr>
<tr>
<td>Black bullhead</td>
<td>Ictalurus melas</td>
<td>Abundant</td>
</tr>
<tr>
<td>White sucker</td>
<td>Catostomus commersoni</td>
<td>Present</td>
</tr>
<tr>
<td>Mud minnow</td>
<td>Umbra limi</td>
<td>Present</td>
</tr>
<tr>
<td>Long nose dace</td>
<td>Thinichthys cataractae</td>
<td>Present</td>
</tr>
<tr>
<td>Johnny darter</td>
<td>Etheostoma microperca</td>
<td>Present</td>
</tr>
</tbody>
</table>

The lake is very attractive to migrating waterfowl, both in the spring and in the fall. The fall usage can be very heavy because of extensive beds of wild rice and wild celery. It has become known as one of the finest waterfowl hunting lakes in northwestern Wisconsin. Both puddle ducks and diving ducks frequent the lake. Waterfowl production is limited to a few mallard, black duck, blue-winged teal, wood duck, hooded merganser and ring-necked duck broods. Nesting habitat is not extensive on the area.

In addition to waterfowl, deer, bear, otter, mink, fisher, beaver, muskrats, coyote and fox frequent the lake, river and surrounding uplands. Both osprey and the bald eagle (state endangered species) are observed over the lake and, in the past, an eagle nest existed in the old age stand of hemlocks on the northern end of the lake. Nest site protection for both osprey and eagle may be successful in attracting new occupants. While some of the older hemlocks are deteriorating and many have fallen down, the stand is still there and will probably persist for many years. No other endangered or threatened wildlife species are found on the property.

Ruffed grouse and woodcock are present in the uplands surrounding the lake. Songbirds of many varieties may be observed on the area as can various species of shorebirds. Besides the eagle and osprey, other birds of prey include red-tailed hawk, broad-winged hawk and great horned owl.

**Vegetative Cover:**

The original forest cover consisted of northern hardwood (maple, basswood, yellow birch). The lands east of the lake contained white pine. Early logging and subsequent fires eliminated most of the white pine. Now a northern hardwood complex occurs on the north and west side of the lake. Aspen and red oak are mixed in with the hardwoods on the southeast side of the lake.

A stand of old growth hemlock occurs in Government Lot 2, Section 29 on the north side of the lake. While this stand is not at present reproducing, at least 60 trees of DBH 18"+ are present and in a healthy condition. Also present is a mature hardwood forest of maple and basswood.

Site index of the aspen and the quality of the existing other hardwoods indicates that this area has an excellent potential to produce timber products when consistent with property objectives. Forest management is possible on most of the land area. Timber harvests, with proper safeguards, can be carried out without detriment to the watershed or lake quality. The intent is to produce a more desirable forest cover and improve habitat conditions for game species. Nongame species will benefit from these activities.

No endangered or threatened plant species are known to be found on the property.

Access trails created for timber harvest will be closed to public vehicle use including automobiles, all terrain vehicles, motorcycles and snowmobiles. These trails will only be used for foot travel activities like hunting, nature hiking and cross-country skiing.
Table II

Major Cover Types in the Totagatic Lake Wildlife Area Boundary

<table>
<thead>
<tr>
<th>Cover Type</th>
<th>Acres*</th>
<th>% of Land Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern hardwoods</td>
<td>320</td>
<td>37</td>
</tr>
<tr>
<td>Black spruce</td>
<td>216</td>
<td>25</td>
</tr>
<tr>
<td>Aspen</td>
<td>138</td>
<td>16</td>
</tr>
<tr>
<td>Muskeg</td>
<td>78</td>
<td>9</td>
</tr>
<tr>
<td>White birch</td>
<td>35</td>
<td>4</td>
</tr>
<tr>
<td>Swamp hardwoods</td>
<td>26</td>
<td>3</td>
</tr>
<tr>
<td>Red pine</td>
<td>26</td>
<td>3</td>
</tr>
<tr>
<td>Grass</td>
<td>18</td>
<td>2</td>
</tr>
<tr>
<td>Upland brush</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>Totals</td>
<td>866</td>
<td>100</td>
</tr>
</tbody>
</table>

*Includes private and county lands within the wildlife area boundaries.

Historical and Archaeological Features:

None; the State Historical Society, Historic Preservation Division will be notified before any major land development is undertaken.

Land Use Classifications (Figure 4):

The lake has been classified as a "wild lake" according to the criteria established by the Department. The need for undisturbed lakes is important in light of the uncommon nature of this type of setting. Much of the privately owned shoreline throughout Wisconsin has been or is being developed at an accelerated rate. Public ownership provides the only realistic way to effectively preserve and perpetuate a wild lake environment.

CRITERIA

1. Lake must be at least 5 acres in size.
2. Road access to the water may exist.
3. No structural developments visible from the water.
4. Man's influence upon the surrounding landscape is not noticeable.
5. The entire shoreline is in public ownership or its purchase is contemplated.

MANAGEMENT GUIDELINES

1. Complete preservation in a 400 foot strip surrounding the water's shoreline.
2. No shoreline alteration (except access area).
3. Primitive camping may be permitted.
4. Hunting, fishing, trapping and wild rice harvest are permitted.
5. No motorized travel or boats on the waters.

The remaining area of land surrounding the lake, which excludes the 400 foot strip and the Scientific Area will be managed as a Fish and Wildlife Management Area under the general category of Resource Development (RDB). The intent of this class is to develop wildlife and fish habitat. There is no specific criteria except that the area must be large enough to have management make a significant impact upon game and nongame populations.

MANAGEMENT GUIDELINES

1. Procedures and projects will be consistent with the resource capacity.
2. Management will be directed toward establishing and perpetuating quality habitat.
3. Wild fire control and disease control will be carried out as necessary.
4. A utility easement may be granted by Board action across the development area, but not across the wild lake or buffer strip.
5. Mineral extraction may be allowed if there is no land management conflict.
6. Roads, structures, etc., may be constructed if needed for improving wildlife or fish habitat.
7. Timber harvesting permitted to maintain and improve habitats.
8. Hunting, fishing, trapping and wild rice harvest permitted.

The old age hemlock stand and associated mature hardwood forest in Section 29 (Government Lot 2) is under consideration for Scientific Area designation. Such designation would mean no timber harvest or other land management would be permitted on this area, except as described in this plan.

MANAGEMENT PROBLEMS

1. Fish:
Totagatic Lake has a maximum depth of 8 feet. The lake’s shallowness and heavy aquatic vegetative growth results in occasional partial winterkill which limits the potential of providing a sustained fishery of desirable game fish species. Raising the water level 5 to 6 feet may improve the fishery potential, however, this would also provide additional shoal area and winterkill conditions would likely still occur. This would also eliminate the stands of wild rice.

Past surveys indicate only a limited fishery could be developed and the greatest public value would be for waterfowl and wild rice. The most favorable water condition would be to maintain the lake at its natural level.

At times fishermen interfere with duck hunters by spooking the ducks so they will not decoy.

2. Forestry:
Timber access for harvesting is nonexistent to the west and north sides of the lake. Any harvest activities would have to be coordinated with activities on the Bayfield County Forest and with the operations of the Nekoosa-Edwards Lumber Company.

Forestry compartment reconnaissance indicates a need to harvest 325 acres in the next ten years, excluding the 400 foot strip around the lake and adjoining outlet.

There is a great need to survey boundaries and establish corners to insure property ownership and avoid inadvertent trespass.

3. Wildlife:
In keeping with the wild lake criteria, permanent blinds create a conflict with the aesthetic appearance of the area as well as wild lake classification criteria. However, the present state law prevents the Department from prohibiting duck blind provided the hunter follows certain restrictions regarding placement.

Nesting cover for ground nesting wildlife could be improved but natural succession is extremely difficult to control. This was attempted in a small way when Lone Pine Island was cleared and burned. Without follow-up prescribed burns, the island will convert to upland brush.

The management efforts have resulted in some mallard nesting on the island.

Managing for forest-game complements regional forest management practices. The water classification of "wild lake" would not affect the production and utilization of the wild rice crop.

Beaver activities in the outlet of Totagatic Lake present a continuing problem. Dam building can be very destructive of wild rice beds. Constant checking of water levels, especially in April, May and June is required. Removal of beaver and dams is essential during the spring and early summer period.

4. Ownership Goal:
With 620.14 acres of the goal of 689.05 under ownership, only 68.91 acres remains to be acquired. However, 177.15 actual acres lies within the property boundary so that the present acreage goal appears inadequate. Analysis of private ownership patterns reviewed all but 38.9 acres (Nekoosa Edwards) is in county ownership. As a result, lands not purchased from the county could be protected by management agreement thereby freeing in excess of $100,000 of funds to be used elsewhere in the state.
RECREATION NEEDS AND JUSTIFICATIONS

1. Fish:

Fishing in Totagatic Lake is considered light most of the year primarily because of limited fishery resulting from winterkill conditions as well as heavy growth of aquatic vegetation. There are, however, times when nearby lakes are crowded and anglers will use Totagatic Lake for a more secluded fishing experience. The primary fish sought by anglers are northern pike and panfish.

2. Wildlife:

The area now is an excellent stop-over lake for migrating waterfowl and, as such, it furnishes a high quality duck hunting experience. Crowding of hunters is not a problem at the present. Acquisition of the lands surrounding the lake is justified for proper management of the total resource. There is a need to offer better off-road ruffed grouse hunting and management of the lands will provide additional birds.

3. Forestry:

The forestry program proposed is justified both for additional wildlife production and for economics. See the discussion under "Management Problems".

4. Other:

There does not appear to be a demand for camping, picnicking or other recreational pursuits in the planning region or on the Totagatic Lake Wildlife Area. No developments of this nature are contemplated. The lake does not lend itself to swimming or water sports because of the heavy aquatic vegetation. In all probability, "swimmer's itch" would be a real problem here.

There are no toilet facilities planned for the access site. Maintenance of any facilities would be extremely difficult and costly because of the remoteness of the area.

There is potential for providing opportunities for nature enthusiasts, the casual nature observer, nature photographers and eco-system analysts. The extent of this interest is not known.

Such winter pursuits as cross-country skiing and snowshoeing could be offered on the area. No special provision or trails are contemplated as there are no restrictions on use of logging trails or the frozen lake surface by snowshoers or skiers. Since a well developed snowmobile trail exists just to the west, the wildlife area will be closed to this activity.

The 1977 Wisconsin Outdoor Recreation Plan (SCORP) underscores the need to develop habitat improvement programs and timber harvest to generate more wildlife production. SCORP also supports preservation of all waters with recreation potential.

ANALYSIS OF ALTERNATIVES

Since the Totagatic Wildlife Area is an established and approved property and acquisition has progressed to the point where the goals and objectives can now be attained, the alternatives considered are limited to those which are practical management alternatives. They are: do nothing; manage as a wilderness area; manage primarily for waterfowl production; manage primarily for timber; manage as an intensive recreational area.

1. Do Nothing:

This alternative would mean there would be no management. Control of the harvest of wild rice would be lost (not possible—regulation of wild rice is mandated by law). Beaver would eventually raise the level of Totagatic Lake and destroy the wild rice beds.

The timber resource would go unharvested which would be a loss of approximately $55,000 to the economy over a ten year period. Uncontrolled forest succession would have a negative impact on forest-game production.

Without acquisition and management agreement protection, wild lake designation would not be feasible. These lands would be subject to private conversion which would degrade the aesthetic environment markedly.
In effect, this alternative would mean turning away from a state property in which the people of the state have a significant dollar investment in both land and management.

2. Manage as a Wilderness Area:

This alternative would result in many of the adverse impacts of "do nothing," except that stewardship of the area would remain. Wild rice harvest could be regulated, waterfowl hunting and beaver control activities could probably be done. The adverse impact of no timber harvest would be the same as in the previous alternative.

Aspen would eventually disappear as an important wildlife cover type. Deer and ruffed grouse populations would decrease. The access road to the lake would be closed. Wilderness designation would require the State to return all Pittman-Robertson acquisition funds used on this property to the Federal government. Such funds were used at a .75 cost share rate and involves all lands owned within the wildlife area boundaries.

3. Manage Primarily for Waterfowl Production:

This alternative would require deletion of the lake as a Resource Protection Area (now lake). It would require the complete clearing of the timbered shorelines and use of fire and/or heavy equipment to convert the lands adjacent to the lake into grassland. It would be an extremely costly undertaking, both for the initial land clearing and the almost annual maintenance. Waterfowl production would be increased to at least 500 ducks annually.

Deer would frequent the grassy openings but ruffed grouse would decrease in numbers. The forest-game habitat complex would decrease and valuable timber lands would be lost to production. Other wildlife species would probably not be adversely affected. The aesthetics of the area during the development phase would be destroyed.

4. Manage Primarily for Timber:

Intensive timber management on the area is a viable alternative and adverse effects upon wildlife would be minimal since intensive management for wood fiber would be geared to retaining as much aspen type as is contemplated in the recommended program. This alternative, however, is not compatible with the designation of Totagatic Lake as a "wild lake." The aesthetics of the lake would not remain as pleasing as they now exist because the results of logging activities would be quite visible from the lake.

5. Manage as an Intensive Recreational Area:

Intensive recreational development would preclude many management activities for which the area was purchased. This is not a desirable alternative since the physical requirements for a park do not exist here. The lake is not conducive to water sports, swimming beaches, etc. Hiking trails, bridle paths and campgrounds would preclude much timber harvest, felt to be essential to proper wildlife habitat development.

The lake could possibly be made more attractive for intense recreational development if the water levels were raised substantially. This would be a costly development and would require additional land purchases since such a development would flood the adjacent marshes and create extensive shoal areas. Winterkills of fish would continue with this development. Very possibly, "swimmer's itch" would require annual chemical treatment of the water before swimming could be permitted.
FIGURE 2  BOUNDARY MAP

TOTAGATIC LAKE STATE WILDLIFE MANAGEMENT AREA
APPENDIX B

Master Plan Comments
By: Forest Stearns
Representing: Scientific Areas Preservation Council
Date: June 17, 1980

We are in general agreement with the goals, objectives and recommended management program proposed in the Concept Element of the Totogatic Wildlife Area Master Plan.

The 40 acre tract proposed for designation as a scientific area has been reviewed by the Scientific Areas Section and found to meet our criteria.

Designation of Totogatic Lake as a wild lake will contribute to preservation of this unique aquatic community.

Strip clear-cutting of black spruce to secure regeneration of the species on this particular site seems questionable, both in terms of economics and the goal/objectives established for this project.

DNR RESPONSE: Close coordination of this activity will be maintained with forest management. The cost/benefit ratio will be weighed carefully before undertaking cutting.

Master Plan Comments
By: Henry W. Kolka
Representing: Wild Resources Advisory Council
Date: June 17, 1980

This is the first master plan review by the Wild Resources Advisory Council where a wild lake occupies the center stage of a wildlife area. The Task Force of the Totogatic Lake Wildlife Area are to be congratulated for proposing a fundamentally sound Master Plan Concept Element for the project area.

General Review

The Totogatic Lake Wildlife Area Master Plan Concept Element Task Force have provided a fundamentally sound proposal for the preservation of the water bodies included in the project area. The Wild Resources Advisory Council does not agree that the management of this quality natural environment should be focused only on the huntable and fishable species. The Council recommends the inclusion of nongame species considerations in the goals and objective and Recommended Management and Development Program sectors of the project plans. The WRAC realizes that these benefits exist in your proposed protected system. All that is needed is word exposure in the above mentioned headings, plus better inventories of nongame species. The Council finds the wild lake zone and river corridor protection proposal of 400 feet an excellent concept and commends the Task Force highly for this plan.

Comments and Recommendations

1. Goal

The WRAC suggests that after the statement "hunting and fishing" a statement be inserted something like this -- "Establish a zone of protection for wildlife species, game and nongame". The rest could follow as is. Actually this benefit from your management goal exists. Why not expose it?

DNR RESPONSE: Concur; goal statement modified.

2. Annual Objectives

The WRAC suggests that item 6 be added: "Provide a natural, unmolested habitat for all wildlife species, game and nongame".

DNR RESPONSE: Do not agree. Statement is not a legitimate objective. Agree to modification of Additional Benefit Section.

3. Annual Additional Benefits

The WRAC finds this item confusing: "Harvest forest products consistent with property objectives". What and which objectives?

DNR RESPONSE: Item modified to specify wildlife objectives. It is felt that the statement is necessary to clarify the secondary role of forest management.
4. **Recommended Management and Development Program, paragraph under number 1 and sections a, b, c and d**

   The WRAC considers this section to be the meat and potatoes of your management plan. Excellent.

5. **pp. 1, item 2**

   The WRAC wishes to commend the Task Force for recommending Government Lot 2, Section 23, T43N, R8W of approximately 40 acres as a Scientific Area. The Council does not consider the classification of RD2 as appropriate or fitting.

   **DNR RESPONSE:** Agree; Figure 4 corrected.

6. **pp. 1 and 2, item 3, project area**

   Since this is labeled Totogatic Lake Wildlife Area, the WRAC recommends that the total acreage (top of page) include the lake in the total. Thus the individual sums will read like this:

<table>
<thead>
<tr>
<th>Present upland ownership</th>
<th>620.14 acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>To be acquired</td>
<td>246.06 acres</td>
</tr>
<tr>
<td>Lake</td>
<td>537.00 acres</td>
</tr>
<tr>
<td>Property Total</td>
<td>1403.20 acres</td>
</tr>
</tbody>
</table>

   The Council recommends that Natural Resources Board honor the Task Force's recommendation of expanding the presently owned project upland acreage from 620.14 acres to 866.2 acres. This means the acquisition of 246.06 additional upland acres.

   **DNR RESPONSE:** Acreage preservation modified. However, the Department intends to protect the bulk of the upland acreage by management agreement.

7. **pp. 1 and 2**

   Somewhere in the set management proposals under **Recommended Management and Development Program** should be a statement welcoming others besides the hunters, fishermen and wildlife harvesters to the property. Why not extend the welcome mat to naturalists, scientists, photographers and other environmentally oriented people? Actually this is a quite unique natural area and it could generate considerable public interest.

   **DNR RESPONSE:** Concur; text entry made.

8. **Background Information**

   With the historical support such as your chronological table indicates your present basis of managing the best rice lake in the north originated with unplanned sequence of events. Very revealing. The WRAC recommends that the elevation figures (1st sentence after the table of dates) of 104.02 and .37 feet be converted to standard elevation above sea level numbers of USGS. As they are quoted now they portray no meaning to the reader.

   **DNR RESPONSE:** Agree; text modified.

9. **Fish and Wildlife**

   The Wildlife Advisory Council finds some quite adequate inventories of certain species and very inadequate inventories on others. The Council urges that listing of such groups as migratory waterfowl, songbirds, shorebirds, smaller mammals and plant species be interjected in the plan for future consideration. A meaningful management program for wildlife will not be realized until this vacuum is eliminated.

   **DNR RESPONSE:** Inventories are often incomplete or non-existent on many properties. This weakness has been underscored by the Comprehensive Fish and Wildlife Planning System and attempts to improve survey data will be made in the future as funding becomes available.

10. **Land Use Classification, 1st paragraph**

    The WRAC considers this statement very appropriate and excellent in all aspects.
11. Criteria which apply, Item 1

Item 1, Minimum size of five areas. This statement skims over the reader's head. What does it mean?

ONR RESPONSE: Sentence re-phrased; reviewer may have misread "acres" as "areas".

12. Management Guidelines

The WRAC suggests that the end of sentence add the following "for game and nongame species".

ONR RESPONSE: Text modified.

13. Management Guidelines

The WRAC recommends that Item 9 be added, "Study and communion with nature is encouraged thus educators, naturalists, photographers and others of similar interests are welcome".

ONR RESPONSE: Inappropriate entry because guidelines are direct quotes from handbook. Statement added to Recommended Management Section.

14. Fish (under management problems; second paragraph)

The WRAC agrees with the Task Force conclusion that "the most favorable water condition would be to maintain the lake at its natural level".

15. Recreational Needs and Justifications, Item 4 "others"

The WRAC suggests that the plan in this category leave the door open for nature enthusiasts; the casual nature observer, the nature photographer, the eco-systems analyst and others of similar interests.

ONR RESPONSE: Agree; text added.

16. Charts, Figures 1, 2, 3, 4 and 5

The charts of the project area are very adequate and interpret substance of the text very well. The Council has already questioned the management symbol for proposed Scientific Area, Figure 4.

APPENDIX B

Master Plan Comments
By: L. M. Cowley
Representing: Conservation Congress
Date: June 11, 1980

Overall view:

Under Land Use Classification is a most significant statement: "The need for wild lakes is critical". The question is, "Will this plan serve that purpose"?

ONR RESPONSE: Text has been modified. The desirability of preserving wild lakes has been emphasized by the 1977 Wisconsin Outdoor Recreation Plan and Regional Planning Commissions. It is felt that every contribution is significant.

Major comments:

1. Timber harvest requires access roads. Will these be open to public motorized travel, ORVs etc? Noise pollution and litter could result to the detriment of the "wild lake" classification, and regulation enforcement would be made more difficult. A specification that these roads would be maintained as walking trails could help.

ONR RESPONSE: Concur; text added.

DNR RESPONSE: Do not agree; restricted access will be enforced.

3. Other. "None (snowmobile trails) is planned for the wildlife area" should specify "None will be allowed". This would assure a place for cross-country skiers and snowshoers without interference or noise pollution.

DNR RESPONSE: Agree; text modified.

Editorial comments:
Total acreage is in error by 10 acres. More distinctive headings under Land Use Classification could make the text easier to read, refer to and understand.

DNR RESPONSE: Acreage verified; headings revised.

Additional comments:
1. "Roads . . . may be constructed". It is hoped that these will not be for public use or that any further access roads for public use be constructed, for many reasons.

DNR RESPONSE: Correct; this statement is only a guideline quote from handbook.

2. The parking area for six cars (some with trailers) would be inadequate for the opening of duck season. It could also become inadequate in case the objective of an annual rice harvest of 6,000 pounds is stabilized, unless permits are limited. It is understood that no such limitation is planned. The proposal for the parking lot could be changed to an "adequate lot".

DNR RESPONSE: Do not agree; discussed with reviewer to his satisfaction.

3. It seems that there will be need for considerable policing (rice harvest, motor use, ORV trespass, primitive camping, etc.). Can this policing be effectively provided?

DNR RESPONSE: While attempts will be made, constant surveillance impossible. The Department is optimistic that abuses will be minimal.

4. It is most unfortunate that duck blinds cannot be regulated. They are often a most unsightly "sign of human disturbance". Could there not be a system to control them similar to that used for ice-fishing houses?

DNR RESPONSE: Not without statutory change. The Department agrees this would be desirable.

There is some concern that the Objectives #1, 2 and 3 would conflict with the maintenance of the lake as a "wild lake". By meeting the objective of 4,000 pounds annual harvest of wild rice, there would not only be greater demand for permits but the lake would become more attractive to waterfowl, resulting in greater hunting activity. That along with the projected 500 angler days could put considerable pressure on the lake. Furthermore, the publicity of the "wild lake" process and classification may produce enough awareness of the lake to increase its use beyond expectations.

There are many other questions which arise with a reading of the plan, but these can be answered by DNR personnel, either through personal contact or through the hearing process to come.

DNR RESPONSE: While not in agreement that dramatic increases in use will occur, caution will be utilized in managing the area. Close monitoring of use levels will detect environmental degradation concerns but the lack of statutory authority will prevent the Department from limiting user numbers.
Master Plan Comments
By: Thomas J. Evans
Representing: Geological and Natural History Survey
Date: May 29, 1980

The staff of the Geological and Natural History Survey has reviewed the Totagatic Lake Wildlife Area Master Plan. We have no substantive comments, except to suggest the reader be referred to the Bayfield County soil survey available from the U.S. Department of Agriculture (by Ableiter and Hole) for a more detailed discussion of soil resources.

ONR RESPONSE: Concur; text modified.