SUBJECT: MASTER PLANNING - Approval of revisions to master plans for Yellowstone Lake, Storr Lake and Tom Lawin Wildlife Areas for establishment of horse trails.

FOR: APRIL BOARD MEETING

TO BE PRESENTED BY: Tom Hauge

SUMMARY: The Department of Natural Resources requests Natural Resources Board approval to amend master plans and to enter into cooperative agreements with local equestrian groups for the establishment of horse trails on 3 Wildlife Areas (WAs): Tom Lawin (West Central Region), Yellowstone (South Central Region), and Storrs Lake (South Central Region). Based on the evaluations conducted by teams in each region and the outcome of public hearings, these WAs have partial or complete trail systems that are suitable for horseback riding while maintaining the primary objectives for each WA.

RECOMMENDATION: Natural Resources Board approval to amend master plans for Storrs Lake, Tom Lawin and Yellowstone Wildlife Areas to include horse trails according to specific recommendations.

LIST OF ATTACHED MATERIALS:

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Attached</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Fiscal Estimate Required</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>Environmental Assessment or Impact Statement Required</td>
<td></td>
</tr>
<tr>
<td>Yes X</td>
<td>Background Memo</td>
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APPROVED:

[Signatures]

Date: 3-25-97

Judy Scullion - AD/5 Todd Peterson - WM/4
Steve Miller - AD/5 Regional Directors
Paul Richardson - Wisconsin State Horse Council, Inc.
Joanne Jones - Wisconsin State Trails Council
Fabian Romero - U.S. Fish and Wildlife Service

Date: 3-25-97

Tom Hauge - WM/4

Date: 3-25-97
Date: November 14, 1983

To: Douglas Morrissette - Nevin

From: James R. Huntoon - ADM/5

Subject: Storr's Lake Wildlife Area

I am approving the attached Implementation Element of the Wildlife Area Master Plan. Please advise the Task Force Chairman to incorporate the approved projects into the Comprehensive Fish and Wildlife Management Planning System.

DG:df

cc: Ron Nicotera - ADM/5
    John M. Keener - WM/4
STORR'S LAKE WILDLIFE AREA

MASTER PLAN

IMPLEMENTATION ELEMENT

Approved by S. R. Huntona
Date 11-15-83
Storr's Lake Wildlife Area Management Plan
Implementation Element

Acquisition (Figure 1)

Listed below are the 2 tracts necessary to complete the acquisition goal of 771 acres. It is recommended that these parcels be acquired in fee as they become available.

Tract 1 (80 acres) - Parcel adjoins state land on west boundary and will block in ownership to the approved project boundary. Parcel contains wetland (60 acres) and the adjoining upland (20 acres).

Tract 2 (10 acres) - Parcel adjoins state ownership on the west. Contains small portion of marsh basin needed for water control purposes.

Public hunting leases will be sought on 460 acres of private land bordering the wildlife area. These leases will require approximately 10 man hours annually to maintain.

Development (Figure 2)

1. Three, 10-26 acre flowages were planned. One has already been constructed by diking an internal drainage ditch. The other flowages involve private lands and are not feasible.

2. Three corn/sorghum food patches will be planted to provide winter food for pheasants, Hungarian partridge, bobwhite quail, squirrels, rabbits, deer and songbirds. Food patches will be planted by sharecroppers through written agreement.

3. Fifty acres of dense nesting cover have been established. An additional 10 acres will be planted. Switchgrass, big and little bluestem and Indian grass are planted for nesting cover.

4. One, 10 car gravel parking area will be developed. Crushed lime rock 6 inches deep will be used.

5. Two access rights-of-way will be developed with a 6 inch gravel base. This will provide access into the interior of the property.

6. The property will be reposted using 4" x 4" posts 8 feet long. The signs will be placed at 0.1 mile intervals around the boundary of the property. "Public Hunting Grounds" signs and "Boundary" or "Private Lands Ahead" signs will be used.

Operations and Maintenance

1. Annual maintenance of parking areas will involve mowing and grading. This will take approximately one man-day per year.
2. Brush control will be achieved by prescribed fire, brush cutting and herbicide treatments. This will require approximately 30 man-days each year.

3. Fencing will be done as it is needed. Approximately 6 man-days per 80 rods of fence are required.

4. Maintaining boundary and regulatory posting will require approximately 20 man-days per year.

5. Stocking pheasants on the property will require 5 man-days per year.

6. Maintenance of roads and gates will require 10 man-days per year. This will involve grading and maintaining reflectorized signs.

7. Patrol of the wildlife area for illegal activities will require approximately 10 man-days annually. This will be done by both law enforcement and wildlife personnel.

Vegetative Management - None

[Signature] 10/28/03
STORR'S LAKE WILDLIFE AREA
MASTER PLAN
CONCEPT ELEMENT

Property Task Force
Leader: Bruce Folley - Wildlife Manager
         Don Bush - Fish Manager
         Ray Amiel - Forester
         Reynold Zeller - Parks
         James Amundson - Law Enforcement

Approved By: [Signature]
Date: 7/20/93

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
MADISON, WISCONSIN
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Section I - Actions

Storr's Lake Wildlife Area

GOAL, OBJECTIVES AND ADDITIONAL BENEFITS

Goal: To manage a state-owned and leased wildlife area for public hunting, fishing, compatible recreation and education.

Annual Objectives:

1. Produce 2 ducks per acre on 150 acres of permanent water (300 ducks).
2. Provide 3,000 participant-days of hunting.
3. Provide 1,000 angling days of fishing.

Annual Additional Benefits:

1. Accommodate 3,000 participant-days of education and other recreation including trapping, hiking, boating, cross-country skiing, snowshoeing and nature observation.
2. Contribute to the habitat of migratory and resident wildlife.
3. Harvest forest products consistent with property objectives.

RECOMMENDED MANAGEMENT AND DEVELOPMENT PROGRAM

Figure 2

Storr's Lake Wildlife Area will be managed for public hunting, fishing and compatible recreational activities. Future development of the area will feature improvement of pheasant and duck habitat. Dense nesting cover is planned for an additional 30 acres of upland fields. Approximately 30 acres have already been planted. A mixture of switchgrass, Indiangrass, big bluestem and little bluestem will be used.

Grass fields will be burned prior to seeding and sprayed with a mixture of Atrazine and Roundup. About 60 acres of grass nesting cover will be maintained by controlled burning. Prairie forbs obtained from the Wilson State Nursery have been planted in the grass cover by the Milton High School wildlife class. These plantings will continue as long as the interest and need exist. While a complete prairie restoration is not planned, the existing plantings add species diversity as well as pleasing aesthetics.

Three, 10-20 acre flowages will be built by diking a drainage ditch which flows through the property. Tin whistle-type water control structures and emergency overflow channels will control the flowages. Fill for the dikes exists on the wildlife area. Engineering assistance is required to insure private lands are not affected by any flowage.

Brush invasion into old fields will be controlled by prescribed burns, mechanical methods, and/or selective herbicide treatments.

Three corn/sorghum food patches will be planted to provide winter food for pheasants, Hungarian (gray) partridge, bobwhite quail, squirrels, rabbits, deer and songbirds. Food patches will be planted by sharecroppers by written agreement. Plantings of shrubs such as dogwood and highbush cranberry will also provide winter food and cover.
Storr's Lake currently provides a fishery of northern pike, largemouth bass, bullheads and bluegills. Northern pike and bass will be stocked periodically to maintain the fishery following winterkill.

To meet the demand for public pheasant hunting on the property, 400 rooster pheasants will be released annually. Releases will be made weekly, beginning one week prior to the opening of the pheasant season and continuing throughout the season.

The wildlife area has 7 miles of boundary. The Department is legally responsible to build or maintain boundary fence on about 3.5 miles. Fences will be built by partition fence agreement whenever possible.

The boundary of the wildlife area is posted at 0.1 mile intervals with "Public Hunting Grounds" signs and private boundaries are posted with "Private Lands Ahead" signs. Regulatory signs will be erected at all public access points.

The wildlife area has an approved acquisition goal of 697 acres of which 671 acres have already been purchased (Figure 3). The approved acquisition boundary contains 880 acres, thus, under the current acquisition goal, 183 acres of land within the boundary will not be purchased. Acquisition in the wildlife area has cost $58,000 to date.

The land purchase goal should be increased from 697 acres to 771 acres. This will allow the Department to gain control of the large marsh in the northwest. The Department would then have the ability to manipulate water levels in this wetland, providing more brood and pair water for ducks as well as increased duck hunting opportunity. This land is currently within the approved boundary. The estimated value of this property is $65,000.

It is also recommended that 80 acres of private land on the eastern edge of the wildlife area be deleted from the boundary. This land is predominantly agricultural and is not needed for management.

To complement the pheasant releases, hunting leases will be sought on 600 acres of private land surrounding the wildlife area. Leases will increase the quality of pheasant hunting by allowing the stocked pheasants to be released over a broader area than is currently possible.

Two access rights-of-way are owned by the Department and will be improved to provide vehicle access to the interior of the wildlife area. Trees which have to be removed will be sold for firewood. The rights-of-way will be developed with a 6-inch gravel base. A 10-car gravel parking lot will be built at the end of the right-of-way which runs north from Bowers Lake Road. Public vehicles will only be allowed access September 15 through November 30. An additional 10-car gravel parking lot will be built along the western boundary.

The proximity of the wildlife area to Milton makes it popular for late night beer parties, vandalism, littering, and off-road vehicles. These are a constant problem and require monitoring.
Table 1 - Estimated Costs

<table>
<thead>
<tr>
<th></th>
<th>Development</th>
<th>Maintenance (annual)</th>
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<tbody>
<tr>
<td>Flowages</td>
<td>$ 8,000</td>
<td>$ 500</td>
</tr>
<tr>
<td>Dense Nesting Cover</td>
<td>3,750</td>
<td>400</td>
</tr>
<tr>
<td>Food Patches</td>
<td>--</td>
<td>100</td>
</tr>
<tr>
<td>Bass/Northern Pike Stocking</td>
<td>--</td>
<td>100</td>
</tr>
<tr>
<td>Vegetation Control</td>
<td>--</td>
<td>200</td>
</tr>
<tr>
<td>Access R-0-W</td>
<td>2,000</td>
<td>200</td>
</tr>
<tr>
<td>Parking Lots</td>
<td>2,400</td>
<td>200</td>
</tr>
<tr>
<td>Posting</td>
<td>2,500</td>
<td>500</td>
</tr>
<tr>
<td>Fencing</td>
<td>8,900</td>
<td>500</td>
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<tr>
<td>Acquisition</td>
<td>65,000</td>
<td></td>
</tr>
<tr>
<td>Leases</td>
<td></td>
<td>360</td>
</tr>
<tr>
<td>Total</td>
<td>$92,550</td>
<td>$3,060</td>
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</table>

Section II - Support Data

BACKGROUND INFORMATION

Storr's Lake Wildlife Area was purchased in 1949. The property is located in Milton Township, Rock County. Milton lies one mile to the west. Janesville, Beloit, Whitewater and Madison are within a one-hour drive and Milwaukee is within a 2-hour drive. The Lima Marsh Wildlife Area (1,662 ac.) is located one mile east.

The property was originally intended to provide public hunting and other compatible recreational activities; subsequently, development has focused on waterfowl and pheasant habitat and public use facilities such as a paved parking lot, boat landing and hiking trails. Habitat development for wildlife included planting hedgerows of multiflora rose, dogwood and highbush cranberry, blasting potholes and constructing flowages.

Current management is aimed at providing public hunting through waterfowl and pheasant production. Forty acres of nesting cover consisting of switchgrass, big and little bluestem and Indian grass have been established on 3 upland sites. These fields provide secure nesting habitat for ducks and pheasants. Nesting fields are also used by a variety of songbirds and small mammals.

One sharecropper farms 15 acres of corn and soybeans on the wildlife area. The Department receives 1/3 of the crop as payment for use of the land. The Department's share is either left as a winter wildlife food patch, traded for work which the sharecropper will perform (mow trails, plow firebreaks, etc.) or remitted to the state.

Other management activities include maintenance of parking lots, access roads, fences, cable gates, boat landing, and picking up litter.
Basic Resources:

The majority of the soils in the wildlife area are of the Casco, Dresden and Sebewa series. Casco and Dresden soils are level to steep and well drained. Sebewa soils are poorly drained. All soils are underlain by stratified sand and gravel. Other soils found on the area are Houghton muck, Kane loam, Kidder silt loam, Brookston silt loam, Juneau silt loam, Mahalesville silt loam overwash and the Rodman-Lorenzo complex.

Vegetation types are shown in Table 2 and Figure 4. Wetland vegetation consists primarily of cattails, canary grass, burreed, arrowhead, coontail, bladderwort, various willows and dogwoods.

Old field vegetation consists of brome grass, canary grass and quack grass, and a variety of forbs. Multiflora rose, willows, and box elder have invaded most of these old fields.

Tree vegetation consists primarily of red and white oak interspersed with maples, cherries, basswood, elm, white and red pine. The timber resource on the wildlife area ranges from upland oak to bottom land hardwoods, with some scattered pine and spruce plantations throughout the area. The upland oak encompasses the largest percentage of the woodlands. The quality of the oak ranges from average to very good.

There are a number of scattered stands of white oak that are mature to overmature, but the large number of trails throughout these stands will influence timber management. Aesthetic management on these stands will be a priority, with some of the dead, down and culls sold for firewood. Some dead trees will be left standing for cavity nesting birds. If disease, insects or natural mortality should begin to influence the oak stands, other silvicultural considerations such as planting shade-tolerant hardwoods in the understory will be reviewed and implemented to best manage the timber resource.

<table>
<thead>
<tr>
<th>Table 2 - Vegetation</th>
<th>State-owned</th>
<th>Private</th>
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<tbody>
<tr>
<td>Timber</td>
<td>143</td>
<td>11</td>
<td>154</td>
</tr>
<tr>
<td>Wetland</td>
<td>271</td>
<td>72</td>
<td>343</td>
</tr>
<tr>
<td>Field</td>
<td>126</td>
<td>-</td>
<td>126</td>
</tr>
<tr>
<td>Crop</td>
<td>55</td>
<td>17</td>
<td>72</td>
</tr>
<tr>
<td>Lake</td>
<td>76</td>
<td>-</td>
<td>76</td>
</tr>
<tr>
<td>Total</td>
<td>671 acres</td>
<td>100 acres</td>
<td>771 acres</td>
</tr>
</tbody>
</table>

Major game species of wildlife reproducing on the area are ducks (mallard, blue-winged teal and wood duck), coot, pheasants, cottontail rabbits, squirrels, raccoons, muskrats, red fox and white-tailed deer. Cardinals, bluejays, a variety of warblers and flycatchers, red-tailed hawks, great horned owls, barred owls and screech owls nest on the area. Sandhill cranes are present in early spring. Great blue herons and green herons are common on the area. Numerous reptiles and amphibians are also present.
Fish in Storr's Lake include green sunfish, bluegills, northern pike, largemouth bass and black bullheads. Carp, a problem in the past, were chemically eradicated in 1969. Future treatment will depend upon priorities established in the Comprehensive Fish and Wildlife Planning System.

The water in the area is generally hard and alkaline. Water quality is fairly good but undoubtedly suffers from agricultural runoff and other non-point sources of pollution. Storr's Lake covers 40 acres and has a maximum depth of 20 feet. Bowers Lake covers 8 acres with a depth of 6 feet.

Estimates of current use are hunting, 2,000 participant-days; fishing, 500 participant-days; trapping, 200 participant-days; and other recreation (hiking, education, nature observation, boating, cross-country skiing, etc.), 1,500 participant-days. The close proximity to Milton and Janesville school systems provides excellent nature study opportunities for students.

Historical and Archeological:

There are at least 3 prehistoric archeological sites located within the wildlife area boundaries. However, they may not occur on state-owned land. There is a historic Potawatami Village in the SE of Section 12 and the NE of Section 13; a campsite on the east side of a small lake in the SW of Section 25; and a campsite on the north side of a small lake in Section 26.

A historical marker in Section 26 commemorates a stay at Storr's Lake by Brigadier General Henry Atkinson and Abraham Lincoln in their pursuit of Chief Black Hawk. The marker is maintained by the Milton Historical Society.

Endangered and Threatened Species:

No endangered or threatened plant or animal species are known to inhabit the wildlife area as permanent residents. A peregrine falcon was observed in Section 24 in fall of 1981. The District Endangered Species Coordinator will be contacted prior to the initiation of any ground disturbance activities.

Proposed Land Use Classification:

The entire area is classified as a Fisheries and Wildlife Management Area (RD 2), consistent with the goals and objectives of the area.

Analysis of Alternatives:

1. Manage area for intensive recreational activities.

   This alternative would require development of facilities such as picnic areas, toilets, marked trails for skiing, hiking and horse-back riding. These activities would require more time and money than current staff and budgets allow. However, the demand for these types of developments on the wildlife area are very evident.
2. No further acquisition.

This alternative would not allow the wildlife area to realize its full potential for public hunting. Proposed objective number one (Section I) would be reduced by 10 to 15 percent. Trapping opportunity would also be reduced significantly.

3. Increase land purchase.

Increasing the acquisition goal to purchase all land within the current boundary would not add significantly to the habitat base which already exists in the wildlife area. Thus, the annual objectives for the area would not be significantly increased. Residential developments make this property very expensive and impracticable to acquire.

4. Combination management (selected alternative).

The continuation of public hunting, trapping and fishing opportunities while accommodating existing levels of other recreational uses requires maintenance and development activities consistent with available funding. A small purchase acreage modification of an additional 74 acres in the northwest, while deleting 80 acres on the east, will provide improved hunting in an area of the state close to population centers at reasonable cost.
REVIEW COMMENTS

By: Forest Stearns
Representing: Scientific Areas Preservation Council
Date: December 20, 1983

We have reviewed the Storr's Lake Wildlife Area Concept Master Plan. The cattail marsh adjoining Storr's Lake in the SW 1/4 of Section 25 was identified in the Rock County natural area inventory as a natural area of local significance. The goals, objectives and proposed management for the project appear to be compatible with our program interests.

Thank you for providing us the opportunity to comment.

By: Wild Resources Advisory Council (WRAC)
Date April 5, 1983

The WRAC has no interest in this property.

By: Cynthia A. Morehouse
Representing: Department of Transportation
Bureau of Environmental Analysis and Review
Date: January 24, 1983

We have determined from our review of the Concept Element of Master plan for the Storr's Lake Wildlife Area that no conflicts with transportation systems will be generated by the proposals in the plan.

Thank you for the opportunity to review this document.

By: Steve Schraufrogl
Representing: Rock County Planning Office
Date: January 3, 1983

1. Overall view: Planning Department totally agrees with what is being attempted here. Storr's Lake is an important wildlife area.

2. Major comments: We question the extension of an access road into the interior. Besides making it more convenient for the hunters to get to the interior, an access road might make it less private from the wildlife point of view. Figure 2 does not reveal exactly where the proposed access road and parking lot will go or is it where the existing access road travels.

   DNR RESPONSE: Use patterns on access roads will have minimal impact on wildlife. Figure 2 corrected.

3. Additional comments: This plan was needed for quite a while. I believe the Storr's Lake area is fairly intensively used as indicated by your statistics. We are concerned with the possible raising of the lake level. This would put several property owners adjacent to the area in jeopardy of having valuable agricultural land to high water. This is of the most concern to us.

   DNR RESPONSE: Engineering data will be obtained to insure private lands are not affected by DNR activities.

1406N