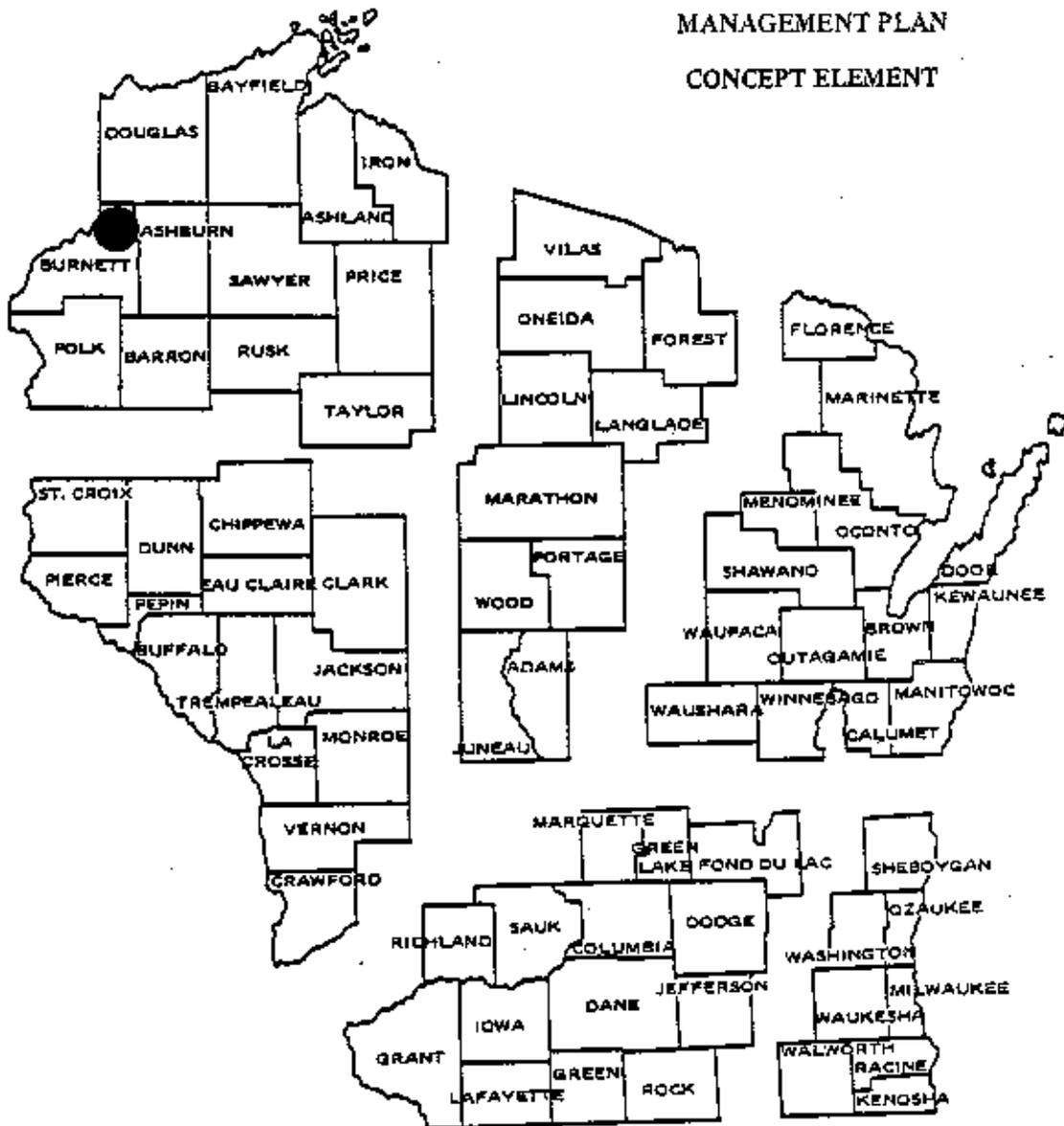


NAMEKAGON BARRONS WILDLIFE AREA

MANAGEMENT PLAN

CONCEPT ELEMENT



Property Task Force

Leader: Pat Savage, Wildlife Manager
Stan Johannes, Fish Manager
Dave Bailey, Forester
Jim Flanigan, Law Enforcement

Approved By: *James T. Adkins*
Date: 4/25/89



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NAMEKAGON BARRENS WILDLIFE AREA

SECTION I - ACTIONS

GOALS, OBJECTIVES AND ADDITIONAL BENEFITS

Goal To manage this state-leased area for the maintenance of a sharp-tailed grouse population and to provide other compatible recreational opportunities.

Annual Objectives

1. Maintain a fall sharp-tailed grouse population of 300.
2. Provide an estimated 1,700 participant-days of recreation as follows:

<u>Activity</u>	<u>Participant-days</u>
Sharp-tailed grouse hunting	200
Deer (bow) hunting	400
Deer (gun) hunting	300
Other (ruffed grouse, woodcock waterfowl, bear, and coyote) hunting	300
Snowmobiling	300
Dog training	200

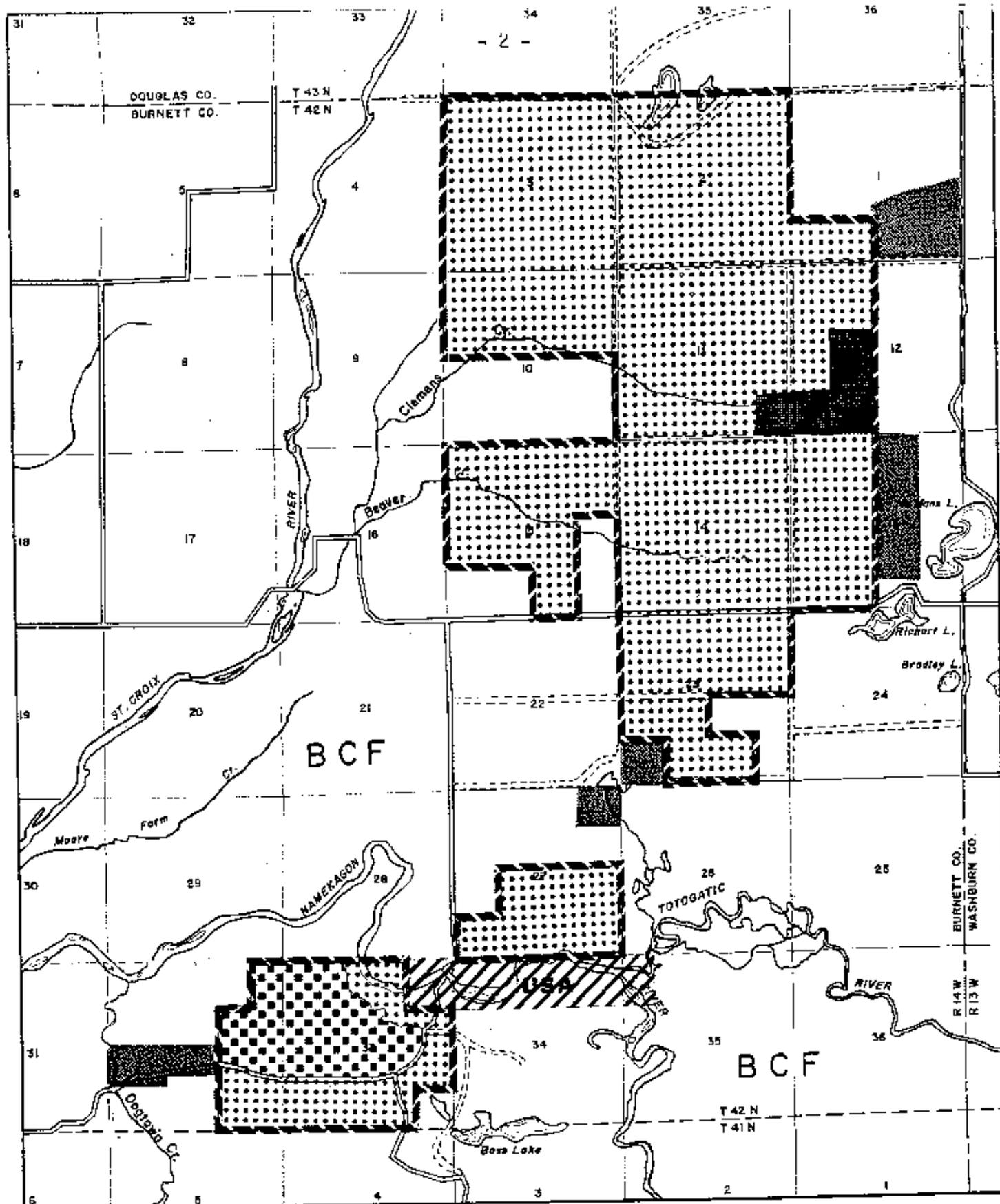
3. Protect and maintain one Public Use Natural Area and one Scenic Area.

Annual Additional Benefits

1. Provide about 200 participant-days of other types of recreation including trapping, fishing, hiking, and nature observation.
2. Contribute to the habitat of resident, migratory, and transient wildlife including endangered and threatened species.
3. Maintain a vegetative condition that is conducive to halting the spread of wildfire in the pine fuel type.

RECOMMENDED MANAGEMENT AND DEVELOPMENT PROGRAM

Approximately 90 percent of the wildlife area is designated as Resource Development for wildlife and fish habitat (RD₂). A Scenic Area (420 acres) and a Natural Area (160 acres) have been designated on the remainder (Figure 2).



**NAMEKAGON BARRONS
WILDLIFE AREA**

FIGURE 2 OWNERSHIP

LEGEND

-  PROJECT BOUNDARY
-  WILDLIFE DEVELOPMENT
-  SCENIC AREA
-  USA
-  NATURAL AREA
-  PRIVATE LAND
-  BURNETT COUNTY FOREST

Currently, 5,074 acres are in brush-prairie plant community. Only the middle unit remains to be cleared for burning. The property is divided into 37 burning units, averaging 140 acres in size (Figure 3). Thirty-five of these units have been burned at least once since the inception of the wildlife area. To maintain the brush-prairie, each unit should be burned at approximately 5 to 10-year intervals. Since 1956, there have been more than 55 prescribed burns applied to the landscape without an incident of escape of fire.

Each year, 4-8 miles of firebreak will be disked to mineral soil in preparation for burning. An additional 10-12 miles of existing firebreak are in need of some renovation and widening.

Existing stands of big and little bluestem prairie grasses will be improved for nesting cover by more frequent burning and by additional seeding with a no-till seeder. Attempts will be made to improve habitat diversity by establishing small (1/4 acre) islands of aspen within extensive blocks of scrub oak. Several islands for every 160 acres are considered adequate.

Food plots have been used in the past and complements sharptail protection provided by a 640-acre closed area. No more than 10 acres of buckwheat/small grain will be planted each year.

The area is used for snowmobiling in winter. Approximately 12 miles of department-approved and inspected, county snowmobile trails are established on the area (Figure 4). In addition, the north and south units are open for the use of snowmobiles off of the established trails until March 1st of each year. The section of snowmobile trail through the property is also open for ATV use under a pilot one-year use agreement with Burnett County, identical to that for snowmobilers.

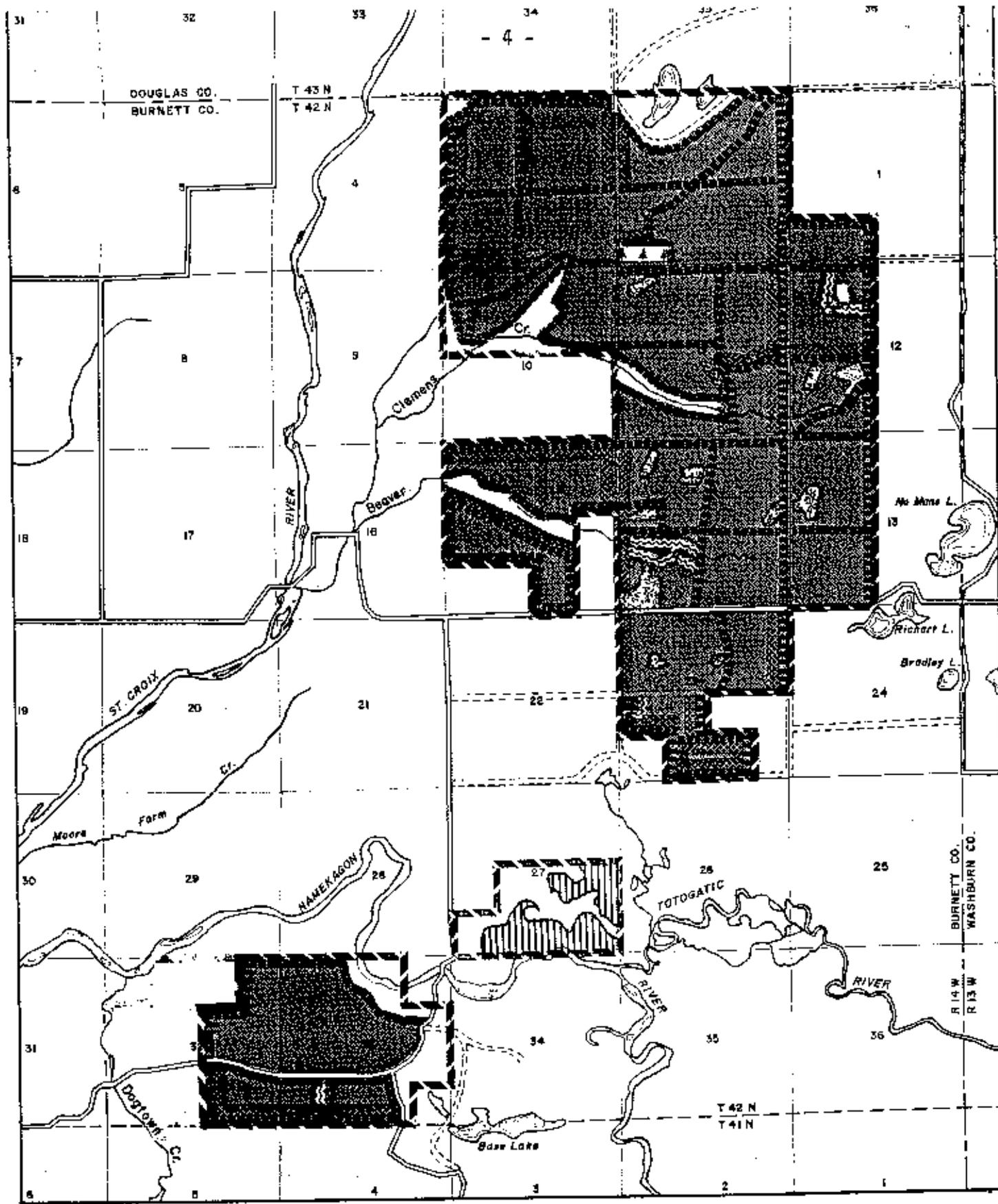
Current forestry activities include 2 timber sales: A jack pine plantation thinning and an aspen-oak-pine clearcut. Future activities include clearcutting the plantation and another aspen-oak-pine sale in the Middle Unit. Other forest management practices may be carried out as deemed necessary under the management plan. These operations will not significantly add to the acreage of the brush-prairie type.

No fish management development work is anticipated on any of the waters within the area.

No disabled person management guidelines exist at present. However, trail access, turn-out provisions and designated parking posting opportunities will be considered during the Department's work planning process.

Annual maintenance needs would include posting of the property boundary and regulatory signs to denote restricted use trails and the hunting closed area.

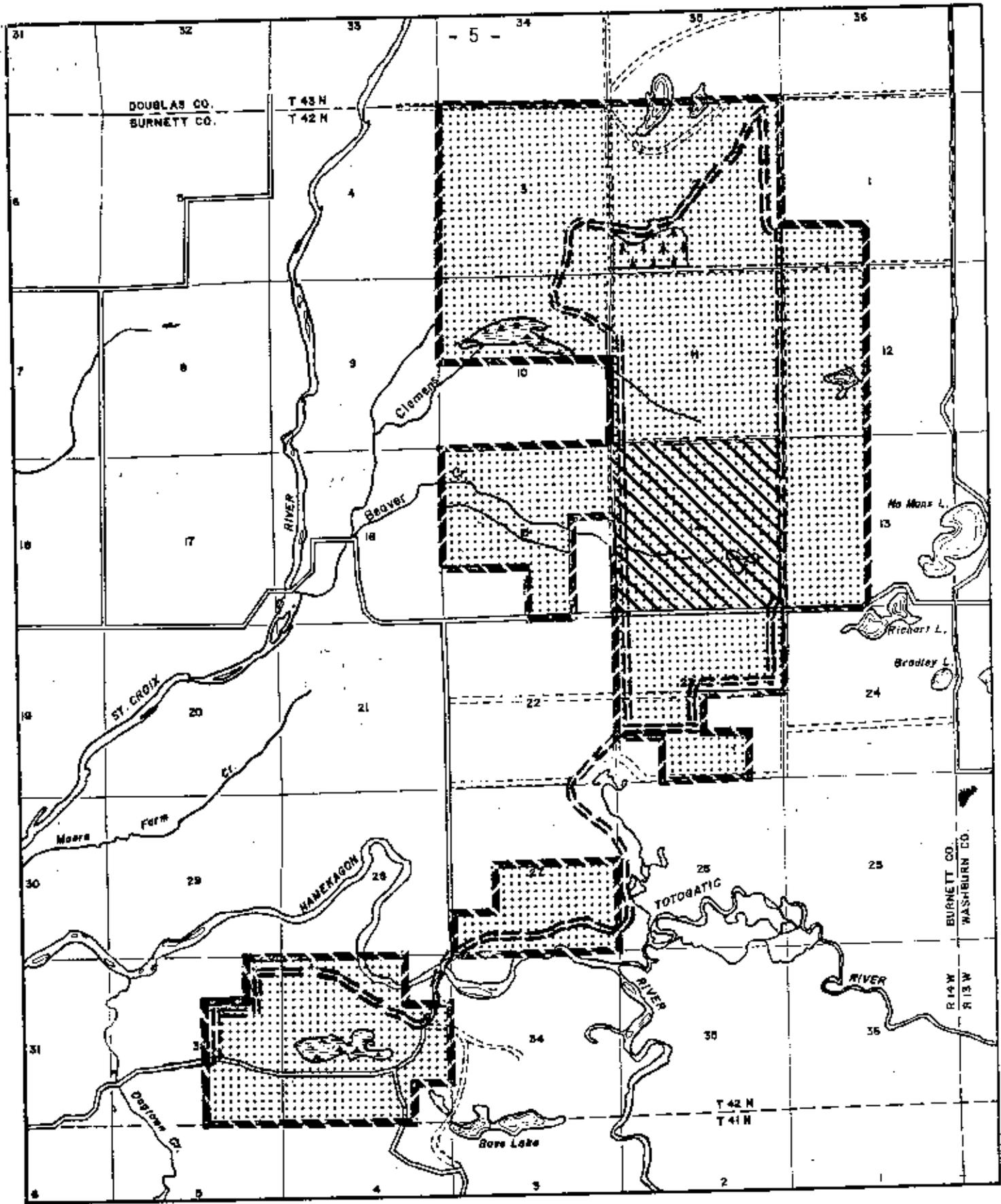
The entire property is leased from Burnett County. The current agreement expires in May, 1991. The Department will attempt to renew the lease. If leasing is not possible, land purchase alternatives will be pursued.



**NAMEKAGON BARRONS
WILDLIFE AREA**

- LEGEND**
- PROJECT BOUNDARY
 - EXISTING FIREBREAK
 - FIREBREAK IMPROVEMENT
 - PROPOSED FIREBREAK CONSTRUCTION
 - PROPOSED LAND CLEARING
 - PROPOSED BURNING ZONE

FIGURE 3 EXISTING & PROPOSED DEVELOPMENT



**NAMEKAGON BARRONS
WILDLIFE AREA**

LEGEND

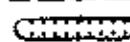
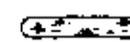
-  PROJECT BOUNDARY
-  AREA OPEN FOR SNOWMOBILING UNTIL MARCH 1
-  APPROVED COUNTY SNOWMOBILE TRAIL ROUTE
-  KEG & MARSH
-  PINE PLANTATION
-  SHARPTAIL CLOSED AREA

FIGURE 4

The State Historical Society was contacted. Aside from Evergreen cemetery and old building foundations, there are no known sites that have historical or archeological significance. It is highly probable that early Indian campsites exist on the area, especially in the lands immediately adjacent to the St. Croix River.

All areas proposed for development will be examined for the presence of endangered and threatened wild animals and wild plants. If listed species are found, development will be suspended until the District Endangered and Nongame Species Coordinator is consulted, the site evaluated, and appropriate protective measures taken.

A complete biological inventory of the property will be conducted as funds permit. Additional property objectives may be developed following completion of such an inventory.

SECTION II - SUPPORT DATA

BACKGROUND INFORMATION

The Namekagon Barrens Wildlife Management Area is located in the northeast corner of Burnett County in Blaine Township, adjacent to the Namekagon and St. Croix Rivers. It lies approximately 20 miles northeast of Danbury, 18 miles west of Minong and is most accessible from the St. Croix Trail, a town road running between State Highway 35 on the west and Washburn County Highway "I" on the east.

The Namekagon Barrens is one of the last remnants of what was once a vast, semi-open area of sandy soil extending in a northeasterly direction from Polk County through the Bayfield Peninsula. The pre-settlement vegetation cover consisted of prairie grasses, forbs and shrubs mixed with pines and scrub oak. This condition was caused and maintained by periodic fires. The lack of extensive forest cover resulted in the descriptive term "barrens" commonly applied to this type of landscape.

The lack of effort required to clear this type of land made it attractive to early settlers for agriculture. As a result, much of the level terrain was managed as farming units with activity reached its peak here in the 1920's. The depression years, drought, and the infertile sands caused the failure of agricultural attempts on the barrens.

Evergreen cemetery, a school foundation, and a few old building foundations remain on the area today as evidence of the settlement era. The land became tax delinquent and reverted to Burnett County. In 1932, much of this area was entered under the County Forest Law as forest land. About the same time, an intensive forest protection program was initiated to control wild fires common in this region. With fires greatly reduced, natural plant succession, later assisted by tree planting programs, began to profoundly change the appearance of the barrens and the presence of wildlife associated with this unique habitat.

Prairie grouse were the most noticeably affected wildlife. The prairie chicken completely disappeared and sharp-tailed grouse numbers declined drastically. In 1953, concerned with this situation and desiring to maintain populations of prairie grouse, the Wisconsin Conservation Commission directed the Department to acquire lands for managing prairie grouse habitat. This action led to the leasing of 5,686 acres of Burnett County forest land as the Namekagon Barrens Sharp-tailed Grouse Area in 1956. Originally leased for 10 years (.30¢/acre/year), the "Barrens" is presently managed under the terms of a 25-year lease (.60¢/acre/year) which expires in 1991.

The Namekagon Barrens consists of three separate units of land. The topography varies from flat uplands to rugged hills and swamp depressions. Originally, the sharptailed grouse habitat found on the Barrens was also present on surrounding lands. However, continuing natural forest succession and tree planting have necessitated development of the Namekagon Barrens Wildlife Area as a self-contained unit, capable of supporting a free-living population of sharp-tailed grouse. While similar habitat surrounding the Barrens has essentially been eliminated.

Vegetative Cover (Figure 5)

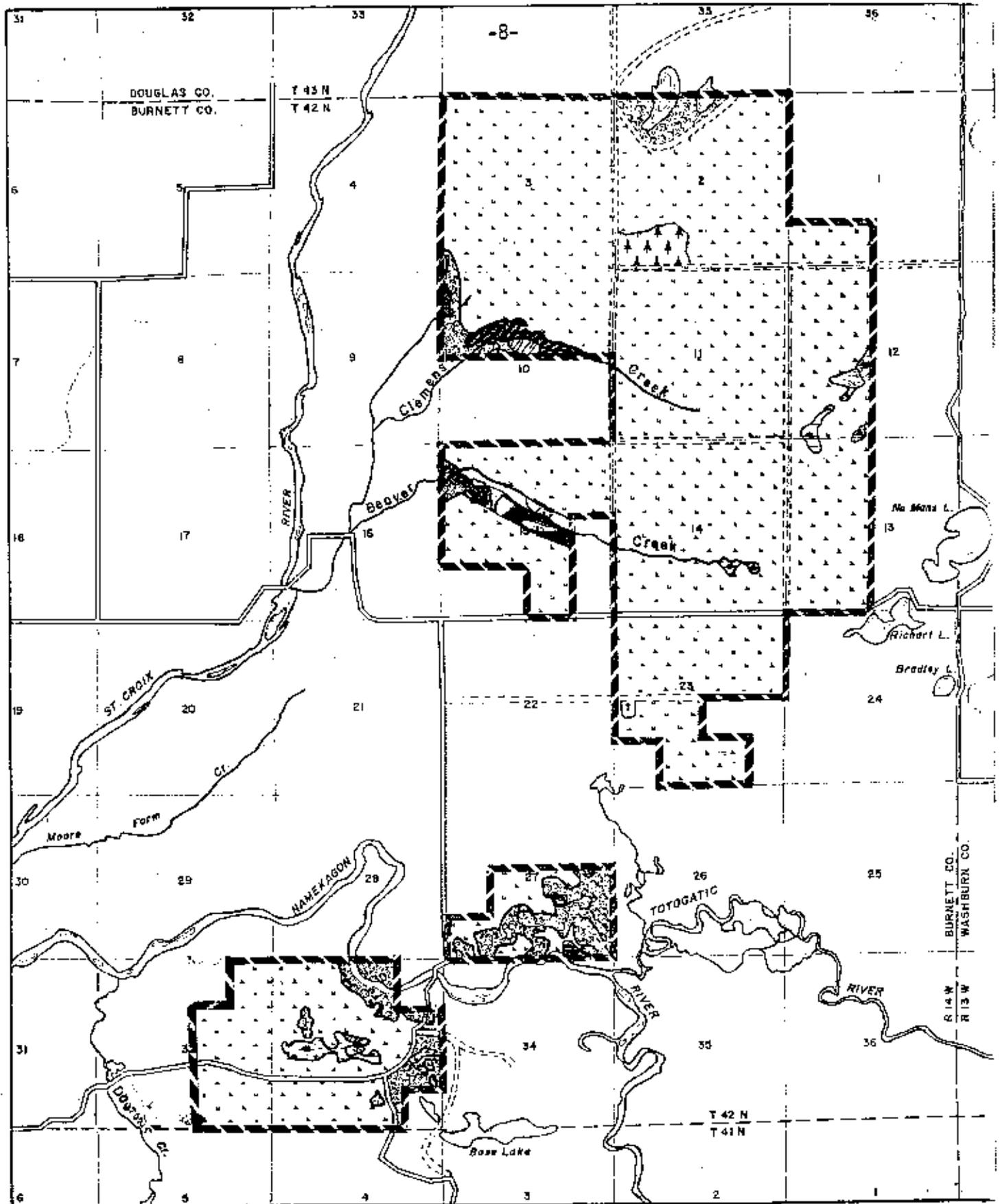
Currently, about 90 percent of the 5,686 acres is considered good sharptailed grouse habitat. Management is aimed at development and maintenance of the shrub prairie plant community. The primary tool of habitat manipulation is the controlled application of fire; prescribed burning. A system of firebreaks allows burning units of habitat on a regular rotation of about five years. Burning units range from 65 to 420 acres, with an average size of 140 acres.

Table 1. Cover Types; Namekagon Barrens Wildlife Area.

<u>Types</u>	<u>Acres</u>	<u>Percentage</u>
Pine	137	2.4
Aspen	55	1.0
Scrub Oak	146	2.6
Swamp Conifer	42	0.7
Swamp Hardwoods	37	0.7
Wetland	185	3.2
Brush-Prairie	5,074	89.2
Water	10	0.2
	<u>5,686</u>	<u>100.0</u>

Fish and Wildlife

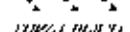
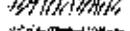
Fish populations within the wildlife area are associated with streams that flow through portions of the property. The Namekagon River supports every warm-water fish species common to northern Wisconsin, while Beaver Creek supports only hardy warm-water minnow species when it has water. Clemens



**NAMEKAGON BARRONS
WILDLIFE AREA**

FIGURE 5 VEGETATION

LEGEND

-  PROJECT BOUNDARY
-  GRASS & UPLAND BRUSH
-  SWAMP CONIFER
-  TIMBER
-  KEG & MARSH
-  LOWLAND BRUSH
-  PINE PLANTATION

Brook supports an excellent population of brook trout and is a Class I brook trout stream. No endangered or threatened species have been identified. Fishing pressure is light due to the remote location.

Sharptail populations appear to rise and fall in a somewhat cyclic fashion. Methods used to index bird numbers in the past include: counting males on spring breeding grounds; interviews with, and bag-checks of hunters; and observations of birds during the work season. In the past twelve years, these methods indicated the fall population has varied from as few as 50 birds to as many as 300 between 5 and 32 birds per square mile of available habitat.

A sharptail closed area established in 1987 eliminates hunting mortality and enables the Department to provide winter food sources, important for bird survival.

Nongame birds which breed on the area include: upland sandpiper (locally rare), savannah, clay-colored and grasshopper sparrows, rufous-sided towhee, bluebird, tree swallow, brown thrasher and kestrel.

Deer densities in the immediate vicinity of the wildlife area are high; 25-30 deer per square mile. This is in response to the burning program. Burning oak at 5-year intervals is ideal for the production of highly nutritious deer browse. High deer densities influence use of the area during the fall by gun and bow-hunters. Twenty hunters per square mile is not unusual on opening weekend of the gun season on the area.

Mammals common to the area include badger, ground squirrel and coyote. Occasionally it is used by bear and timber wolf (endangered).

In addition to deer hunting, bear and coyote hunting occurs on the area. The lakes and beaver ponds attract waterfowl and provide additional hunting opportunity.

Each year since 1979, a very unique dog trial has been held on the area featuring upland pointing breeds working the native sharp-tailed grouse.

Surface water resources

The surface waters within the wildlife area consist of one large stream, the Namekagon River which flows through portions of the south unit, two small streams, Clemens Brook and Beaver Creek, which originate and flow out of the north unit, and several small, shallow natural ponds and seasonal wetlands. Tables 2a and 2b supply information relating to the area's waters:

Table 2a - Streams within the wildlife area boundary.

<u>Name</u>	<u>Length (miles)</u>	<u>Stream classification</u>
Beaver Creek *	0.9	Warm-water minnow stream
Clemens Brook **	0.8	Class I brook trout stream
Namekagon River	<u>0.6</u>	Warm-water gamefish stream
Total	2.3	

*Referred to as Clemens Creek, Page 87, Burnett County Waters Inventory

**Referred to as Rand Creek, Page 93, Burnett County Waters Inventory

Table 2b - Ponds and lakes within the wildlife area boundary

<u>Name</u>	<u>Acres</u>	<u>Depth (ft.)</u>	<u>Classification</u>
Lake 2-2	37.0	Less than 3.0	Shallow marsh-dry at times
Lake 2-5	38.0	Less than 3.0	Shallow marsh-dry at times
Lake 12-9	14.0	Less than 3.0	Shallow marsh-dry at times
Lake 12-11	7.0	Less than 3.0	Shallow marsh-dry at times
Lake 33-8	<u>4.0</u>	Unknown	Bog lake - permanent
Total	100.0		

Management Problems

1. Off-road vehicles - Since the advent of recreational vehicle popularity in the early 1970's, a problem has existed in regulating the use of four wheel drives and motorcycles on the wildlife area. The ground layer of vegetation is shallowly rooted in light, sandy soil. Regular travel by vehicles destroys the vegetation, exposing the soil.
2. Further vehicle use and rainfall result in erosion. This makes it difficult to use the firebreaks during prescribed burning. To address this problem, specific trails were closed by posting "No Vehicles Allowed" signs.
3. Prescribed burning - Residential development - Private land development on the boundary of the wildlife area is a concern to management. With the occupancy of permanent and seasonal dwellings comes the potential for complaints about the prescribed burning program. Burning produces heavy smoke locally, for short periods of time in the spring and fall. This could be an aesthetic or minor health problem for residents.

Another area of potential problem is concern about the safety of the burning program, i.e., the possibility of the fire escaping. Local residents are especially aware of fire in light of the recent 5-mile, Ekdahl Church and Oak Lake Fires.

RECREATION NEEDS AND JUSTIFICATION

Statewide needs for sharp-tailed grouse are discussed in the Department's Comprehensive Wildlife Management Plan. Under this plan, a management goal is to "maintain free-living populations of sharp-tailed grouse as a part of the fauna of Wisconsin." In continued management of the Barrens, the Department is meeting that goal. Sharptails have been hunted without interruption since the early 1900's in this location.

Since 1976, the Department has monitored hunter pressure and bird harvest on opening weekend of the sharptail season. During that time, hunting pressure has ranged from 38 to 87 hunters or from 4.3 to 9.8 hunters per square mile. The number of birds bag-checked on opening weekend has been as low as 12 (1983) and high as 30 (1979). After opening weekend, hunting pressure is considered to be much lighter.

The dry, shrub prairie is a declining plant community in Wisconsin. Continued management of the North Barrens using prescribed fire guarantees the continued existence of the type and the many wildlife species (some unusual) that rely on it for their habitat.

One unusual example of the Barrens fauna is the upland sandpiper, with as many as 8 breeding pairs located in the 4,866-acre North Unit in one year.

Deer numbers appear to be higher in the immediate vicinity of the management area. This may be due to the availability of high-quality browse adjacent to the pine cover type. Both gun and bow deer hunter densities are higher than average for Unit 8. An aerial count in 1978 revealed a total of 110 hunters (14.5/mi²) present on opening morning of the gun season.

ANALYSIS OF ALTERNATIVES

Continue current management programs (recommended alternative).

Sharptail and other wildlife will continue to benefit from prescribed burning. Recreation benefits to people will also continue. The wildlife program will continue to incur habitat management and lease costs. It would require re-negotiations of a long-term lease (50-99 years), and current management programs would not change (see last alternative).

Reduce the size of the leased area.

This would be accomplished by deleting the Middle (280 acres) and South (540 acres) management units from the lease. This would have little negative influence on the sharptail population, as their use of the two areas since 1980 cannot be confirmed. There would be a negative impact on wildlife currently using the habitat maintained by prescribed burning. A concurrent gain in forest wildlife habitat as succession proceeds would occur.

No appreciable change in hunting recreation would occur, but there would be a considerable loss in aesthetic value as the south unit succeeds from an aspen

vista to a forest type. Wildlife's program would incur smaller habitat management and lease costs.

Increase the size of the north unit

This alternative would be made possible by exchanging the middle and south units for land adjacent to the north unit. It would add future habitat to the existing sharptail population on the north unit. Potential for sharptail would be enhanced and the opportunities for hunting recreation would be similarly increased.

A loss in shrub prairie wildlife habitat would occur on the South and Middle Units as forest succession proceeded. A potential significant loss of aesthetic value would occur with reforestation of the South Unit. Leasing costs would not change, but the wildlife program would incur a greater cost resulting from developing lands that are in a forested state. Potential net loss of land devoted to timber production would occur.

Purchase instead of lease land

This alternative would require the wildlife program to make a large, one-time expenditure. A purchase would eliminate the long-term cost of leasing. The wildlife program would acquire complete control of management of the area, while Burnett County would relinquish formal involvement in management decisions and direction. The property would be assured of a stable, long-term future.

In addition, 2 sub-alternatives identical to the two alternatives immediately above would be possible, but would involve fee title purchase. These purchase opportunities will be pursued further in 1989.

Increase the size of the management area.

This alternative would increase the potential for sharptail management and other wildlife associated with the habitat. Potential for recreation would increase also as would costs to the wildlife program for management activities and lease payments. The county and township would lose timber sale revenues as a result of removal of additional lands from timber production.

Do not renew the lease.

This alternative would require terminating all management of the area. There would be a decline and eventual loss of sharptail and other wildlife that are dependant upon the shrub prairie habitat as forest succession occurred. A loss of some current forms of recreation and a reduction in costs to the wildlife program would also occur. The long-term dollar investment in habitat management and leases would be lost by the wildlife program. Potential revenues to the county and township from timber sales would increase through time.

APPENDIX

Plan Review Comments

By: Richard W. Dexter

Representing: The State Historical Society
Historic Preservation Division

As stated on page 3 of the management plan, the wildlife area has high archeological potential, and other potentially significant cultural resources are also present. We recommend that the DNR contact our office before beginning any earth moving activities so that we can advise you whether an archeological survey or other studies are necessary to ensure the appropriate identification and treatment of cultural resources.

In addition, as you may know, Wisconsin's Burial Sites Preservation Law prohibits disturbance of human burial sites, whether inside or outside of designated cemeteries. In particular, we call your attention to s. 157.70(6m), Wis Stats., which, among other provisions, requires that you "...endeavor to take positive action to preserve any burial site on land it owns through appropriate land use management..." We recommend that the DNR, in cooperation with Burnett County, make specific provision in the subject management plan for the protection of the graves in the Evergreen cemetery, and that the DNR contact our office for advice in the development of a management plan for the cemetery.

DNR RESPONSE: The property manager will contact the Historic Preservation Division before initiating any ground disturbance activities. Cemetery protection is included in the plan.

By: Roger M. Peterson, Commissioner

Representing: Burnett County

My overall view of this plan is excellent, although I have limited knowledge of the area. As Highway Commissioner, I have negative feelings in regard to allowing ATVs the use of county-owned land, especially in areas of high wildlife concentration. Besides the destruction of property, I believe that ATVs should be restricted because of wildlife concerns. This is an excellent plan and I am proud that Burnett County is part of it.

DNR RESPONSE: The Department staff shares the concern over ATV impacts on resources and will continue to work with county officials in controlling this activity.

By: D. M. Olson

Representing: Burnett County Forestry & Parks

1. Ownership of the NENE Section 33 is owned by Burnett County (CFL).
2. Agreements with DNR Wildlife have allowed snowmobile and ATV use from December 15 to March 31 of each year.
3. Location of approved county snowmobile route does not include ATVs and does not properly indicate its actual route.

DNR RESPONSE: Ownership noted. ATV use added to text. The trail map is intended to show its general location, recognizing that annual adjustments may be made.

By: Stanley A. Nichols

Representing: Wisconsin Geological and Natural History Survey

This document doesn't even provide the barest minimum information on which to manage the natural resource. There is no quadrangle name given and soils, mineral potential and geology are not discussed. There is no discussion of mineral rights and the potential for oil and gas is not discussed. There is a mineral exploration bore hole near the property, however, metallic mineral potential is low.

DNR RESPONSE: Because this is a leased property and Department management rights are limited, detailed management related information was judged unnecessary. However, if land acquisition is pursued, that data will be gathered when this plan is re-drafted.

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