

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
Madison, Wisconsin

ITEM RECOMMENDED FOR NATURAL RESOURCES BOARD AGENDA

TO THE SECRETARY:

Date August 3, 1979

FROM: John M. Keener

SUBJECT: MASTER PLANNING - Approval of conceptual master plan for the George W. Mead Wildlife Area, Wood, Marathon and Portage Counties.

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

2. Appearances requested by the public: None.
Name _____ Representing whom? _____

3. Reference materials to be used:
Memorandum dated August 3, 1979, from John M. Keener to Anthony S. Earl.
George W. Mead Wildlife Area Master Plan (Concept Element).

4. Summary:
The Concept Element of the Master Plan has been developed for the George W. Mead Wildlife Area. The Department proposes to manage the property for wildlife habitat and populations, with special considerations to be given to endangered, threatened and uncommon species and to provide hunting and nonhunting recreational uses of the property in a manner that the primary wildlife values of these lands will not be significantly reduced.

5. Recommendation: That the Natural Resources Board approve the Concept Element of the Master Plan and establish a land acquisition goal of 30,959 acres.

APPROVED:

C. D. Besadny 8-8-79
C. D. Besadny, Administrator Date

A. C. Damon 8-9-79
A. C. Damon, Deputy Secretary Date

Anthony S. Earl 8/9/79
Secretary Date

- cc: Judy Scullion - 14
- Ron Nicotera - 14
- Art Doll - 9
- Jim Huntoon - 7
- John Keener - 6
- Dave Gjestson - 6
- Pete Jensen - 2
- John Brasch - Rhinelander

Signed:

John M. Keener
John M. Keener, Director
Bureau of Wildlife Management

RECEIVED

AUG 14 1979

BUREAU OF
REAL ESTATE

CORRESPONDENCE/MEMORANDUM

STATE OF WISCONSIN

Date: August 3, 1979

File Ref: 2300

To: Anthony S. Earl

From: John M. Keener *gmk*

Subject: Master Plan for the George W. Mead Wildlife Area - Wood, Marathon and Portage Counties

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 North Central District. Agreement was reached on the treatment of comments, the majority of which were incorporated into the final draft. No public controversy has been brought to our attention during the review process.

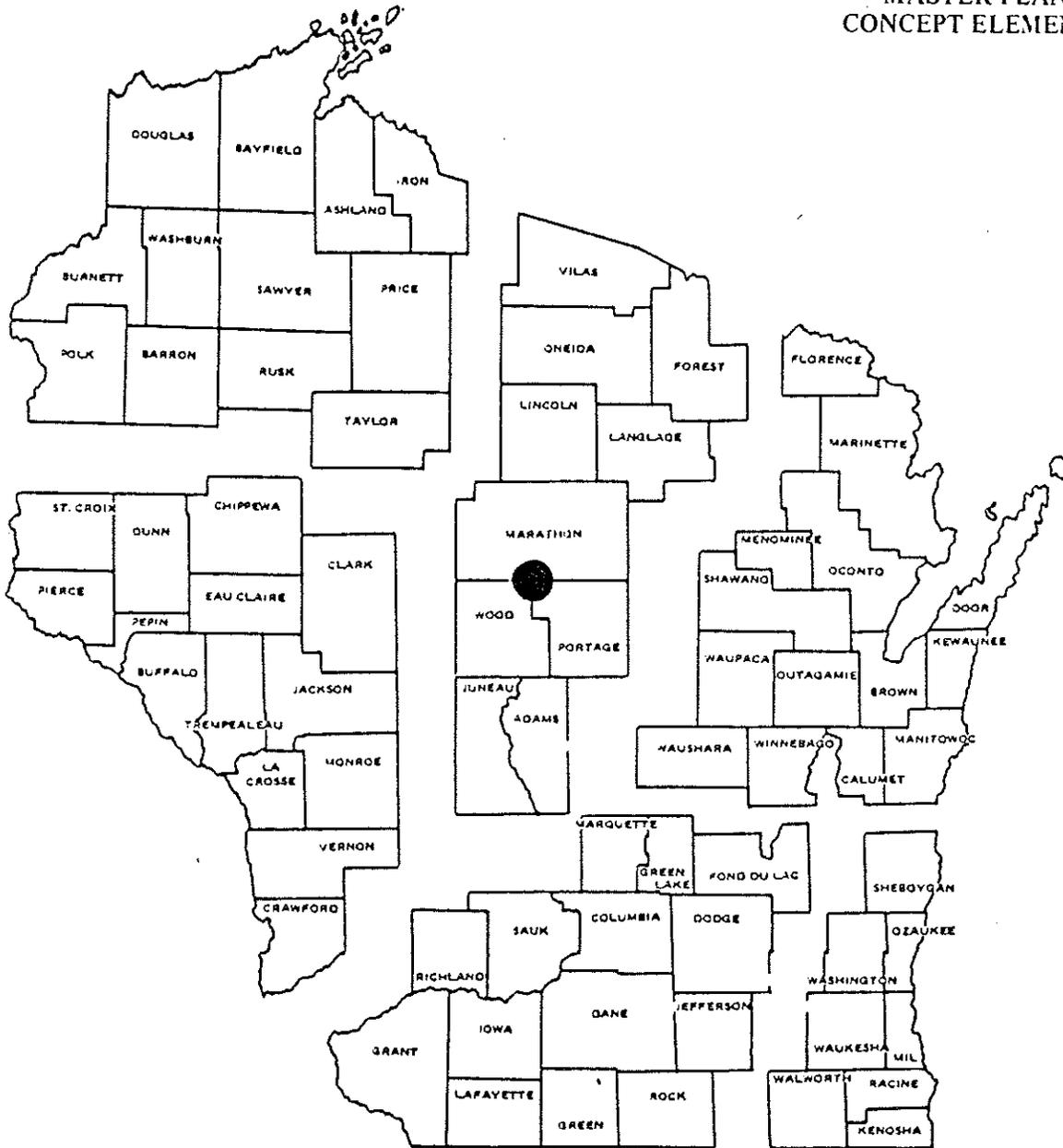
The Plan establishes specific objectives to produce ducks, increase populations of certain endangered, threatened and uncommon wildlife species, attract more ducks and geese in the fall, accommodate significant levels of nonhunting use, harvest timber and provide public hunting, trapping and fishing opportunities. Four natural areas, two habitat preservation areas, a propagation and nursery area and various intensive development areas are created in the process.

Presently, the state controls 26,576 acres with a goal of 31,862 acres in fee title and an additional 1,808 acres scheduled for control by hunting easement. It is proposed to eliminate the easement schedule and reduce the acquisition goal to 30,959 acres.

DLG:mg

cc: Judy Scullion - 14
Ron Nicotera - 14
Art Doll - 9
Jim Huntoon - 7
John Keener - 6
Dave Gjestson - 6
Pete Jensen - 2
John Brasch - Rhinelander

GEORGE W. MEAD WILDLIFE AREA
 MASTER PLAN
 CONCEPT ELEMENT



PROPERTY TASK FORCE

Leader - John Berkhahn - Property Wildlife Manager
 Glen Wiegenstein - Forest Management
 Alan Hauber - Fish Management
 Lyle Hannahs - Parks and Recreation
 Submitted: April 10, 1979

Approved by Natural Resources Board:

Aug 23, 1979
 Date

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BACKGROUND INFORMATION

History of Property Creation

The Mead Wildlife Area is located on the Little Eau Pleine River within a nine-mile radius of the junction of Marathon, Wood and Portage Counties, lying nearly midpoint between Wausau, Stevens Point, Wisconsin Rapids and Marshfield, in central Wisconsin.

This area was settled in the last half of the nineteenth century. Following the formation of the Dancy Drainage District in 1908, the marshland portions of the Mead Area were ditched and drained for agricultural purposes. A combination of droughts, fire and unseasonal frost and floods, along with the economic depression of the 1930's, aided the demise of this ill-fated farming venture and much of the lowland was abandoned for farming, with most of it going to county ownership as tax delinquent land.

Consolidated Papers, Inc. acquired these lands in the early 1940's in an effort to establish a storage reservoir. Plans for this reservoir were abandoned in the late 1950's, and in 1959, 20,000 acres were received by the State as a gift from Consolidated Papers, Inc., establishing the George W. Mead Wildlife Area.

A Pittman-Robertson acquisition project was established in 1959 and some 6,500 acres of additional land was acquired. The land acquisition goal was 31,862 acres. To date, 26,576 acres are controlled by fee title or easement.

Current Management Activities

Major waterfowl habitat development began in 1960. When the system of large flowages was completed in 1967, 34 miles of dikes had been constructed, creating 17 flowages totaling over 6,500 acres. Four miles of ditching were also completed to allow for efficient water level manipulation between various flowages in conjunction with the operation of 22 water control structures.

A high volume lift pumping station, capable of producing 100 acre feet of water per day, was installed to provide supplementary water supplies for five flowages totaling 2,300 acres. A Crisafulli pump site and pumping subimpoundment have been created to provide a supplementary water supply for two additional flowages totaling 1,700 acres. Twenty-one small flowages totaling 127 acres and 526 potholes averaging .05 acre in size have been constructed.

Seventy-five wildlife-oriented timber sales have been conducted on 1,640 of the 9,240 acres of land having commercial timber value. Nine hundred forty-eight forest openings have been created, averaging one-third acre in size. One hundred thirty squirrel nesting boxes have been put up. Twenty-nine miles of interior seeded to legumes; the remaining 10 miles have been upgraded to improve access to facilitate overall property management.

Two miles of graveled roads have been developed to facilitate public use of the wildlife area. Controlled burning has been carried out on 4,600 acres of the total of 6,500 acres on which it is feasible to utilize fire to manipulate plant successions. Twelve miles of firebreaks have been developed which are tied in with existing roads, trails and dikes to facilitate burning operations.

Mechanical clearing, mowing and herbicide treatment, along with a sharecropping program, have been utilized on both upland and lowland areas to develop and maintain 1,600 acres as nesting cover. Controlled burning has been used on an additional 3,400 acres, making a total of 5,000 acres on which the primary management objective is to provide nest cover for waterfowl and prairie chickens. Prairie chickens are a threatened species in Wisconsin.

Most of the 1,700 acres of agricultural land within the wildlife area is managed by a cooperative sharecropping program utilizing local farmers, with primary emphasis on providing fall food supplies within waterfowl closed areas, increasing winter food supplies and providing nesting cover. Four waterfowl closed areas totaling 1,850 acres have been established, and a 108-acre seasonal refuge has been established around the heron-cormorant rookery to minimize disturbance during the nesting season.

Eight osprey nesting platforms and 255 wood duck nesting boxes have been erected. One hundred thirty artificial nesting platforms have been put up in a pioneer effort to perpetuate the largest double-crested cormorant rookery in the state. Both ospreys and cormorants are endangered species in Wisconsin.

A 40-by-100 foot office/shop building was erected as a headquarters in 1967. Five boat landings and 51 parking lots, with a total capacity of 1,050 cars, and one pit toilet facility have been constructed to facilitate public use of the area. No camping or picnic facilities have been developed and permit camping has been restricted mainly to primitive camping by Scout groups.

No state snowmobile trails have been developed on the area. Snowmobiling is restricted to segments of Marathon and Portage County trails totaling 17 miles, which are allowed to cross the property under use agreements. No specific hiking or cross country ski trails have been developed, but many of the dikes and interior trails are used for these purposes. No bridle trails or formal dog training areas have been established.

The Dancy relay tower for the fire control radio network has been erected along the northern edge of the property and a 10-acre experimental white spruce seed orchard has been established on an agricultural tract within the wildlife area.

The above development and habitat management efforts represent 75%-80% of what can feasibly be done to develop wildlife habitat on this area. Projects to date have been successful in improving wildlife productivity and recreational uses on the property.

Major flowage development is essentially complete, but only one-third of the potential small flowage development has been completed. Only about half of the possible pothole development has been completed. Endangered species management and prairie chicken and waterfowl nesting habitat management efforts could be increased by at least one-third. Forest game habitat management and development efforts could be doubled. Only limited efforts have been made to accommodate nonhunting recreational uses and much could be done to encourage an increase in both group and individual uses of this type.

GOAL AND OBJECTIVES

Goal

To create, improve and perpetuate wildlife habitat and populations, with special considerations to be given to endangered, threatened and uncommon species and to provide hunting and nonhunting recreational uses of the property in such a manner that the primary wildlife values of these lands will not be significantly reduced.

Objectives

1. Produce 10,000 ducks annually (1.25 ducklings per acre of brood water) with emphasis to be placed on production of mallards and wood ducks (75% above the level of recent years).
2. Increase existing endangered, threatened and other uncommon species to the following levels:
 - a. Prairie chicken (threatened) - a population level which will provide an annual average of 250 booming ground cocks (10% above the 1978 level).
 - b. Double-crested cormorant (endangered) - 150 nesting pairs (30% above 1978 level).
 - c. Great blue heron (uncommon) - 150 nesting pairs (70% above 1978 level).
 - d. Osprey (endangered) - produce 10 young per year (4 times the level of recent years).
3. Increase the average total annual use by local and migrant waterfowl during the month of October to:
 - a. Ducks from the 5,000-10,000 level of recent years to about 20,000.
 - b. Canada geese from average of 1,000 in recent years to average about 5,000.
4. Accommodate 108,000 days of hunting opportunity annually, divided as follows:
 - a. 16,000 participant days of waterfowl hunting opportunities in a manner which will evenly distribute hunting pressure to an average maximum level of one hunter per 15 acres. Maximum hunter densities have averaged one hunter per three acres in recent years.

- b. 14,000 participant days of deer gun hunting in a manner which will evenly distribute hunting pressure to a maximum level of 25 hunters per square mile, or about 15% below the opening day pressure of 29 hunters per square mile recorded in 1977.
 - c. 44,000 participant days of archery hunting, four times the 1977 level.
 - d. 34,000 participant days of upland and small game hunting annually, 50% above the 1977 level.
5. Provide 8,000 man days of trapping annually in a manner which will insure adequate fur harvests and distribution of trapping pressure.
 6. Provide 5,000 participant days of fishing opportunities annually in a manner which will not detract from objectives 1 through 5.
 7. Accommodate 90,000 days of nonhunting use, with increased emphasis on summer and winter use, in an overall manner which will be compatible with objectives 1 through 5 (double the 1977 level).
 8. Harvest 2,000-2,500 cords of pulpwood equivalent annually in a manner which will provide maximum benefits to all species of forest wildlife present.

RESOURCE CAPABILITY

Geology, Soils and Hydrology

The geologic region in which the Mead Wildlife Area is located is the Drift-Crystalline Rock Province. Impermeable crystalline rocks of Precambrian age underlie all the aquifers in the area and limit the downward movement of water. The crystalline rocks consist largely of granite, but quartzite, gneiss, schist, and greenstone crop out in places. The crystalline rock is occasionally exposed at the surface and contains locally enlarged joints and fractures which may extend for some distance laterally, but they are generally less than 50 feet deep.

Though the department has no intent to sell mineral rights and exposed bedrock in the area is sparse, the economic potential of the area is worthy of attention. Ultramafic rock bodies in the area may contain talc and serpentine. Metal ores, like nickel and chromium, are possible but far less likely. Granite in the area has potential for road aggregate and dimension stone. Glacial deposits in the area have some potential for aggregate deposits.

The Mead Wildlife Area was covered by at least one large continental ice sheet during the Wisconsin Glaciation. Drift was deposited locally as ground moraine without the numerous ridges characteristic of the terminal or recessional moraines (see APPENDIX - Figure 1). Subsequent water action carved a lacework of valleys resulting in the present day topography.

The two main soil associations found locally are the Milladore-Eau Pleine-Sherry association and the Markey-Rifle association. The Milladore-Eau Pleine-Sherry association is characterized by soils that have a loam to silty clay loam subsoil. They were formed in a thin layer of loess and in loamy residuum from gneissic rocks. Most of the upland soils are

included in this association. Most of these soils have a seasonal high water table and subsoils which have slow to moderate permeability. They have severe limitations for use as septic tank filter fields.

The Markey-Rifle association is characterized by nearly level, very poorly drained organic soils that have an organic subsoil over sand and where formed from partly decomposed plant remains in basins and depressions. These peat soils have a very low bearing capacity. The impeded soil drainage and high water-table render most of the area unsuitable for septic systems and reduce load bearing capacity, especially on soils of the Markey-Rifle peaty muck association.

The two general soil types found in the area are sandy loams and peat. The following table summarizes the general soil types present on Mead Wildlife Area:

<u>Soil Type</u>	<u>Acres</u>	<u>%</u>
Peat	10,597	40
Sandy Loam	9,193	34+
Sand	3,990	15
Silt Loam	1,544	6
Loamy Sand	1,086	4
Clay Loam	166	1-
	<u>26,576</u>	<u>100</u>

Fish and Wildlife

The wildlife area is occupied by a great variety of wildlife species, ranging from those associated with aquatic wetlands and open marshes to those favoring the upland aspen and northern hardwood types. Mead is most often thought of as a waterfowl or wetland wildlife area, but the white-tailed deer generates twice as much public use as waterfowl. Common mammals usually thought of as "game" animals and considered manageable, in addition to deer, include fox and gray squirrel, cottontail rabbit, snowshoe hare, raccoon and red fox.

Other game mammals present, but considered uncommon, include the coyote, bobcat, black bear and gray fox. Animals present that are considered as manageable furbearers are muskrat, mink, beaver and otter. Other furbearers present include raccoon, skunk and weasel. Badger and woodchuck are also common throughout the property.

Twenty-two species of waterfowl have been observed during migration and 13 species of ducks, along with Canada geese, have been recorded as local nesters. Blue and green-winged teal, mallard, wood duck, pintail and ring-necked ducks are the most common nesters. Other ducks that have been noted as local nesters are wigeon, gadwall, shoveler, black duck, hooded merganser, ruddy and redhead. Ruffed grouse and woodcock are the major "game" birds toward which management is directed.

About one-third of the prairie chickens (threatened species) in the state are associated with this wildlife area. The largest double-crested cormorant (endangered species) rookery in the state is also

found on Mead. Other important non-hunted species which are receiving some management are osprey (endangered) Sandhill crane, great blue heron and black-crowned night heron. Large numbers of birds of prey are included in the total of 230 species of birds known to inhabit or migrate through the area.

Most flowages are too shallow to support game fish due to freeze-out conditions which develop during normal winters. However, northern pike and perch present in the Little Eau Pleine River are usually reintroduced into some of the flowages during flooding associated with the spring spawning runs. Rough fish species, such as carp and suckers, present a secondary fishery. Bullheads and minnow species, such as mudminnows, sticklebacks, golden shiners, rainbow darters and fathead minnows, are common in all waters throughout the property. The collection of minnows by licensed dealers is a common event occurring on the property. Reptiles and amphibians associated with central Wisconsin are commonly found throughout the area and includes six species of frogs, five species of salamanders, seven species of snakes and four species of turtles; none are listed as endangered or threatened species.

Vegetative Cover

Two-thirds of the present ownership is lowland consisting of flowages, open marshes, lowland brush and other lowland vegetation. General lowland and upland cover types are as follows:

LOWLAND TYPES

1.	Flowages and other permanent water areas	7,080 Acres
2.	Open grass-sedge marsh	3,268 "
3.	Lowland brush including offsite aspen	3,640 "
4.	Swamp conifers - noncommercial timberland	908 "
5.	Swamp hardwoods	1,228 "
6.	Aspen	1,500 "
	TOTAL LOWLAND ACREAGE	17,624 Acres

UPLAND TYPES

1.	Aspen	4,837 Acres
2.	Northern hardwoods	1,226 "
3.	Upland brush	426 "
4.	Upland grass	737 "
5.	Agricultural - including administration sites	1,726 "
	TOTAL UPLAND ACREAGE	8,952 Acres

TOTAL ACREAGE - Mead Wildlife Area 26,576 Acres

Flowages and other permanent water areas make up the largest cover type. Included are 17 large and 21 small man-made flowages, numerous natural ponds and potholes and ditches, along with the Little Eau Pleine River, Bear Creek and the numerous sloughs and oxbows associated with these streams. Almost one-fourth of the property, or 7,080 acres, falls into this type. Major plants associated with this cover type include both submergent and emergent species such as pondweeds, coontail, quillwort, duckweed, bladderwort, arrowhead, wild rice, celery, water plantain, water lily, bulrush, smartweeds and cattails.

The open grass-sedge marsh type includes 3,268 acres, or about 12%, of the area. There is a continual threat of these grasslands being invaded by lowland brush species such as willow, alder and spirea. The major species found in this type are reed canary grass and bluejoint grass, along with numerous species of sedges.

The lowland brush type includes 3,640 acres. This type has little if any potential for timber production and includes off-site aspen along with areas in which spirea, willow species and alder are the predominant species.

The 908 acres typed as swamp conifers are mainly noncommercial spruce-tamarack swamps. Plant species characteristic of this type are black spruce and tamarack, along with bog rosemary, bog birch, sphagnum moss, cotton grass, blueberry, leatherleaf and Labrador tea.

Swamp hardwoods cover some 1,228 acres and are found mainly within close proximity to the Little Eau Pleine River. The major tree species are black ash, elm, red oak, red and silver maple. Woody shrubs most common in this type are speckled alder, red-osier and gray dogwood, prickly ash and willow species.

About one-fifth of the total commercial aspen acreage (1,500 acres) occurs on lowland peat soils with a high water table which often causes regeneration problems. This type is commonly interspersed with pockets of elderberry, willow, alder, dogwoods and other shrubs.

The upland aspen type contains 4,837 acres, or about half of the total upland. Hardwood species such as basswood, red maple, red oak, white birch and white ash, are commonly interspersed in many of these stands.

The approximate breakdown, by age class, of all commercial aspen types is as follows:

0-15 years	1,139 acres
15-30 years	2,220 acres
30-45 years	2,567 acres
45+ years	411 acres
	<u>6,337 acres</u>

Black cherry, pin cherry, hazel, red-osier and gray dogwoods, blackberry and raspberry are other woody plant species typically associated with the upland aspen type.

Northern hardwoods comprise 1,226 acres. The major tree species are basswood, red and white oak, American elm, white ash, red and sugar maple, black and pin cherry and white birch. Maidenhair fern, trilliums and violet species are some of the other plants typically associated with this type.

Upland brush comprises 426 acres. Major woody plant species associated with this type are hazel species, sumac, chokecherry, blackberry, raspberry, hawthorn and gray dogwood.

Upland grass areas total 737 acres. Kentucky bluegrass, muhly grass, brome grass, quack grass, little bluestem and timothy are some of the more common grasses found in this type. Stands of goldenrod, milkweed, hawkweed and daisy species are typically found in this association.

Agricultural lands, including 67 acres of road rights-of-way, parking lots and other administrative sites, total 1,726 acres.

Water Resources

The Little Eau Pleine River, a low quality warm water stream, bisects the property, flowing from west to east. This stream was channelized in the early 1900's when some 40 miles of lateral drainage ditches were also dug through the Little Eau Pleine valley. About one-third of these ditches were plugged during the development of the 6,500-acre flowage system, but many others still actively affect the drainage patterns of portions of the area. The river runs into the Little Eau Pleine flowage, a 600-acre backwater area of Lac DuBay in the eastern portion of the project.

The only other natural surface water of significance is associated with the numerous cutoffs and oxbow sloughs concentrated along the river, mainly in the eastern third of the area. Lac DuBay, lying east, and the Big Eau Pleine Reservoir, lying north, total over 12,000 acres. The water levels of the sloughs and natural marshes adjacent to the river, in the eastern half of the property, are directly related to the level of Lac DuBay.

Historical and Archaeological Features

The Mead Wildlife Area is located in a region rich in Indian history and encampments are thought to have been common throughout the property. Artifacts are commonly found on the property, especially in those locations in close proximity to the Little Eau Pleine River.

Smoky Hill, a 90-acre upland surrounded by large expanses of marsh located adjacent to the Little Eau Pleine River in the Northwest Quarter of Section 28, Township 26 North, Range 5 East, was one focal point of local Indian history. Its location adjacent to the Rice Lake area, abundant with fish, wild rice, game and fur, made it a favorite site for summer encampments by Chippewa Indians. During the spring of 1755, they were forced from their village on Smoky Hill by a band of Winnebagos.

The Chippewas solicited aid from the French garrison at the Green Bay fur trading post in recapturing their village in the most famous local battle in which the French were involved during their stay in Wisconsin. During the next 75-100 years, the rich fur trade remained the prime reason for continued activity by white man in the region.

By the time the early white settlers arrived in the mid-1800's, the Chippewas and Winnebagos had been replaced by Potawatomes who had been forced to relocate farther upstate when their original lands in southeastern Wisconsin were settled by whites. Major logging efforts, which began in the late 1800's, continued through the early 1900's with farming gradually taking over as the principal land use by 1920.

There are several known archaeological, historical or architectural sites in or adjacent to the Mead Wildlife Area:

Marathon County:

1. Town of Day (T26N, R4E)
 - a. Section 25, SE $\frac{1}{4}$, NE $\frac{1}{4}$. Mr-5 (prehistoric burial)
 - b. Section 26, SW $\frac{1}{4}$, NW $\frac{1}{4}$. Mr-6 (prehistoric campsite or village)
 - c. Section 34, SE $\frac{1}{4}$, SW $\frac{1}{4}$. Mr-7 (prehistoric village)
2. Town of Green Valley (T26N, R5E)
 - a. Section 24, SW $\frac{1}{4}$. Prehistoric village and mounds.
 - b. Section 28, N $\frac{1}{2}$ (possibly NW $\frac{1}{4}$). Mr-21 (prehistoric village and mounds)
 - c. Section 28 or 32. Mr-3 (mound group)

Portage County:

3. Town of Eau Plaine (T25N, R6E)
 - a. Section 33, 1.1 miles N of Highway 10, 3 miles W of CTH "N". Log structure.

Wood County:

4. Town of Milladore (T25N, R5E)
 - a. Section 12, SE $\frac{1}{4}$. Prehistoric village.
 - b. Section 14, S side of CTH "H", just W of CTH "S". Log cabin.
 - c. Section 16, N $\frac{1}{2}$. Prehistoric campsite.

Ownership

The authorized property boundary includes 43,632 acres, with an approved acquisition goal of 31,862 acres. Presently, 26,576 acres are state-controlled, 26,284 acres by fee title and 292 acres by easement (Figure 2). Of the additional acquisition proposed, 1,521 acres would be required to block in 4,302 acres of land owned by Consolidated Papers, Inc., to complete the 4,747-acre eastern and the 1,163-acre northern units. Proposed management of the Consolidated lands would be by long term cooperative use agreement and no fee title acquisition is anticipated involving these lands.

There are 81 private parcels, totaling 5,286 acres, remaining to be acquired within the present boundary. Of this total, 3,584 acres are first priority and 1,702 acres are second priority. The purchase of hunting easements is proposed on an additional 1,808 acres. Based on current prices, the cost of completing first priority acquisition is estimated at \$1,600,000 and an additional \$900,000 would be required to complete all second priority land and easement purchases, for a total of \$2,500,000.

First priority lands include six rural residences, two part-time active farm operations, two tracts with barns being used as secondary farm units, two unoccupied houses and three seasonal use dwellings. One active dairy farm and five rural residences are included in the second priority lands. About half the lands remaining to be purchased are part of ongoing farm operations. The balance are mostly wild or idle lands, with many of the owners having strong recreational interests in their land.

Current Use

Field surveys indicate that the wildlife area lands provided 99,000 days of recreational use in 1977. Hunters accounted for 46,000 days. These surveys also indicate that, while hunting on the Mead has been increasing an average of 5% annually during the past 10 years, waterfowl hunting has declined somewhat while small game and deer hunting continue to show continued increases.

The origin of the hunters using the area varies, depending upon the type of hunting. Eighty-five percent of the waterfowl hunters live within a 40-mile radius, 60% of the deer gun hunters also are locals as compared to 30% who come from southern Wisconsin and 10% who live to the north. Grouse and woodcock hunters are split about half and half among locals and those originating in the southern half of the state. Almost all of the fishing activity is accounted for by local residents.

Land Use Potential

The uniform classification system of land uses has been used to designate the use potential of wildlife area lands (Figure 4). Four Natural areas (N), three of which are black spruce-tamarack bogs, have been designated. One of 270 acres is located in Section 3, T25N, R5E. Another of 600 acres is located mostly in Sections 6 and 7, T25N, R6E. The third one, 300 acres of bog, is located mainly in Sections 13 and 14, T25N, R6E. These bogs, which are uncommon in the general area, consist of a mixture of black spruce and tamarack interspersed with open pockets of leatherleaf and the other bog plants typical of this cover type. These bogs will be left relatively undisturbed and future management activities in these areas will be minimal.

The fourth Natural area consists of a five-acre stand of young hardwoods in the NWSW of Section 13, T26N, R5E. This location provides a good opportunity to view hardwood succession which is readily accessible for educational groups. It also contains a "snow course" which has been used by the Wisconsin Valley Improvement Company for some 30 years as one of the locations from which data is gathered to evaluate runoff and flood potential for the Wisconsin River system. The data base for

this location will be more meaningful if this site is left in natural, undisturbed condition.

Two Habitat Preservation areas (HP) are designated. One is the 36-acre rookery site in the eastern portion of Townline Flowage. This is the largest double-crested cormorant rookery in the state. Cormorants are classified as an endangered species in Wisconsin. Great blue herons and black-crowned night herons also nest in this rookery. Special management techniques have been developed to insure the perpetuation of this rookery through the erection of artificial nesting structures. A seasonal refuge prohibiting public entry into this area during the nesting season has been established to minimize disturbance during the nesting season.

The other Habitat Preservation area consists of 3,400 acres of bottomland timber and a maze of meanders and cut off sloughs associated with the Little Eau Pleine River. This type has the potential to become some of the finest wood duck production habitat in central Wisconsin. Most of the bottomland hardwood stands were logged 25-30 years ago, prior to the creation of the Mead Wildlife Area. As a result, the second growth hardwoods which are prevalent today provide only a minimum of nesting cavities desired by wood ducks. The number of natural nesting cavities will increase as these stands grow older. Future timber management in this area will be modified to perpetuate natural nesting cavities and insure preservation of this bottomland timber type.

A large portion of the George W. Mead Wildlife Area is designated as Fish and Wildlife Development Area (RD2). Approximately 87% of the project is included in this classification and future management will essentially be a continuation of the activities discussed in detail under "Current Management Activities" in the BACKGROUND INFORMATION SECTION.

One Propagation and Nursery Area (RD5) is designated. In 1975, a 10-acre white spruce seed orchard was established in NESE, Section 21, T26N, R5E. Future management will involve cultural efforts directed toward the establishment of a mature seed orchard and subsequent seed harvest.

There are 79 Intensive Recreation Development Areas (IRD) designated: (Figure 5) three parking areas with pit toilet facilities, five combination boat landing-parking lots and 71 parking areas. In addition, six combination hiking and cross country ski trails totaling 32 miles and two segments of county-administered snowmobile trails totaling 25 miles are identified.

Pit toilet facilities will be located at three parking lots associated with trail routes and will serve educational groups, hikers and nonhunting users as well as hunters. Four of the five boat landings and 51 of the 74 parking lots presently exist and have a total parking capacity of 1,050 cars. Most of the additional parking facilities proposed would be developed in association with the ownership of Consolidated Papers, Inc., in the eastern portion of the project.

The combination of hiking and cross country ski trails would be located on existing trails and dikes. These trails may be closed periodically in order to minimize user conflicts or to protect resources. Informational and interpretive signs will be used in appropriate locations to enhance educational and other nonhunting recreational uses. A dog training area will also be established within the framework of NR 17. This area is not identified on the Master Plan Map because the location will be changed as necessary to minimize conflicts with nesting and other uses of the project.

There are two Administrative areas identified on the Master Plan Map, the first being the wildlife area headquarters site (AD₁). The other is identified as (AD₂) which is the site of the Dancy relay tower for the state fire control radio system.

RESOURCE MANAGEMENT PROBLEMS

Woody Plant Control on Lowlands

Present wildlife habitat conditions are generally favorable for most species. The control of woody plant succession on 5,000 acres of lowland, being managed to provide open grass-sedge marshes suitable for prairie chicken, waterfowl and Sandhill crane nesting, presents the most difficult habitat management problem. Management treatment in the form of controlled burning is necessary on a four to five year rotation if a reasonable degree of control is to be maintained over the encroachment of woody plants such as willow, spirea and alder.

Most of these areas have peat soils and are often too wet to allow burning when needed. When this occurs, controlled burning often becomes impractical because of the lack of fine fuels which are necessary to carry a successful fire. When scheduled rotational burning is not possible, the woody plant growth often becomes so thick and heavy that the grasses and sedges become suppressed. Under these circumstances, management by more expensive mechanical mowing or shearing has to be utilized to prevent the complete loss of open marsh aspect of these areas.

Peat Soils

Peat soils, ranging from six inches up to 10 to 20 feet in depth, underlie 10,597 acres of the Mead Wildlife Area. Peat depths exceed two feet on about 5,000 acres of this total, including 2,000 acres of spruce bogs and other cover types not suited for waterfowl habitat development. Commercial forestry, flowage development or pothole creation are not feasible on the remaining 3,000 acres of deep peat lands and they will be managed as open natural grass-sedge marshes to the greatest extent possible to provide prairie chicken, waterfowl and Sandhill crane nesting habitat.

Water Fertility

Water fertility is somewhat of a problem in some portions of the area. Overall, the natural water fertility would be classed as medium when compared to the highly fertile waters of the southeastern third of the state. Most of the flowages have watersheds which originate from agricultural

lands and varying amounts of nutrients are carried by the runoff from those lands into the various flowages. This runoff, along with the flood waters of the Little Eau Pleine River and water transferred from the river by pumping operations, results in a significant increase in water fertility and increases the management potential of most flowages.

Flooding

The Little Eau Pleine River has a large agricultural watershed. It is subject to severe flooding from break up in late March through June and again during September and October. Annually, major spring flooding occurs up to three times and lasts for a total of about 20 days. Major fall flooding only occurs once every four or five years. When major flooding occurs, the west half of the wildlife area becomes a large lake of about 10 square miles. The Rangeline and Smoky Hill roads become flooded to depths of up to three feet, making them impassable. The dikes for the Rangeline, South Rice Lake, North Rice Lake, Smoky Hill and North Smoky Hill flowages are also covered by flood waters.

When this severe flooding occurs, the flowages involved become unmanageable, waterfowl nesting is interrupted, and a major work-load of dike patrolling, water level management and dike maintenance results. A pattern of flood control operations has been developed and a series of emergency spillways has been added to the original dike system. While these efforts help to minimize flood damage, uncontrollable flooding remains a major problem.

The installation of three additional water control structures, and the raising of nine miles of existing dikes an average of two feet to provide a dike height that would be adequate to hold normal flood waters out of the managed flowages, would greatly reduce the flooding problems. This would allow more constant and desirable water level management on the 1,600 acres of wetlands within the five flowages that are most adversely affected by flooding.

Limited Fishery Potential

Due to shallow depths of most of the flowages, there is little potential for significant sport fishery because of the freeze-out problems which occur in most winters. As a result, most sport fishing is limited to the Little Eau Pleine River. Some additional, short term opportunities for perch and northern pike fishing may develop annually in some flowages as a result of fish migrations into those areas during spring flooding. If flooding occurs after early May, spawning runs by carp into the flowage system create problems because of their destructive effect on aquatic vegetation.

Dike Maintenance

Presently there are 38 miles of dikes within the property. Thirty-four miles have been built to create the system of large flowages, and four miles have been built to impound small flowages. About seven more miles of dikes will be completed with the development of 35 additional small flowages, for an eventual total of 45 miles.

In addition to patrolling, inspections, water level management and routine maintenance involving hauling fill material and riprapping, there is a continual problem of controlling woody plant invasion on the

dikes. The necessary dike maintenance generates a major annual work load which is increasing each year with completion of additional dike construction. As a result, it has been necessary to reduce the resources directed toward development, which has slowed down the pace of additional wetland development.

Public Overuse

There are three main problems involving public overuse on the Mead Area. The most obvious is the large number of duck hunters present from opening day through the first two weeks of the season. The second involves the large numbers of deer hunters using the project during the first two days of the gun season, and the third concerns the large numbers of trappers present and the resulting intense competition for the available fur resources. Hunting and trapping pressure may increase to the point where it is detrimental to local wildlife resources.

Because the Mead Area holds the largest concentration of ducks in central Wisconsin, it attracts too many duck hunters. This results in overcrowding, poor sportsmanship and low quality duck hunting on much of the property. Hunter numbers peaked in 1970 when an opening day hunter density of one hunter per 1.5 acres of flowage area was recorded. Since then, pressure declined continually through 1975 when the opening day hunter density was down to one hunter per 3.2 acres. The drought conditions in 1976 contributed to a further decline in hunter numbers.

In 1977, steel shot regulations were imposed on the wildlife area. Opening day pressure was up slightly from the low level of 1976, but was only about 40% of the peak of 1970. On about half of the project, hunter densities approached a desired level through the first half of the season. Steel shot availability became more and more of a problem as the season progressed and hunting pressure dropped below the level of one hunter per 15 acres, which would be the objective under managed hunting. It is anticipated that the impact of the steel shot regulations on hunting pressure will only be temporary and that pressure will again increase with a more general statewide implementation of steel shot regulations.

The new state duck stamp is also expected to have some impact on hunting pressure but is not expected to be significant. The implementation of managed hunting appears to offer the only sure means of achieving the desired level of hunting pressure. A managed hunting program which would limit the maximum waterfowl hunter density to one hunter per 15 acres during the first three weeks of the season would vastly improve the hunting quality and should be implemented as soon as enabling legislation is passed.

In recent years, the number of hunters during the deer gun season has been increasing at a rate of 10% per year. Opening day pressure in 1977 was up to over 29 hunters per square mile, and problems associated with safety, crowding and sportsmanship occur in locations with the highest hunter densities. Control of deer hunter numbers would only be necessary during the first two days of the season, as pressure drops off rapidly after the opening weekend. Managed hunting efforts designed to limit pressure to 25 hunters per square mile should be initiated as soon as possible.

The high fur prices of recent years have greatly increased the intensity of competition among muskrat trappers. Problems of pre-season staking, crowding, theft and unsportsmanlike conduct have accelerated, and some form of trapper control is needed to curb these problems. Initially, a system of trapper registration, permit issuance and reporting is needed to gain a more thorough knowledge of the overall trapping situation and provide a basis for the development of a managed trapping program.

Managed trapping should initially include the issuance of trapping permits on a unit basis by random selection. These permits should be effective through the second Sunday of the season, after which the entire property could be opened for unrestrictive trapping. Eventually the sale of trapping rights, using bid or auction procedures, may be warranted.

Public Misuse

There are many problems of public misuse involving littering, vandalism, target shooting, theft of firewood, unauthorized camping and illegal snowmobile, motorcycle and four-wheel-drive vehicle use. The need for additional patrolling and law enforcement of the park ranger type is increasing annually, and increased efforts of this type will become a necessity if these types of problems are to be controlled.

Shortage of Waterfowl Nesting Cover

Much of the better lowland waterfowl nesting cover occurs in natural grass-sedge marshes adjacent to the shallow side of the various flowage basins. There is a general shortage of nesting cover located in close proximity to the deep portions of most of the flowages and there isn't much potential for nest cover development in these locations. As a result, there is a large amount of dike nesting, especially by blue-winged teal.

Predation of dike nests is massive and nesting success on dikes is less than 10% as compared to up to 40% or 50% success in the more secure nesting areas. An expanded nest cover management program is warranted and could include: (1) Increased lowland nesting cover establishment where feasible, especially adjacent to dikes; (2) Improvement and/or removal of nest cover on dikes, depending upon potential for nesting; (3) Expansion of upland nest cover; (4) Direct predator control measures on dikes during the nesting season.

Land Ownership

The numerous private holdings within or adjacent to the property present many potential problems. Public access is restricted in many locations, access for timber sales is often difficult, and management operations such as controlled burning are often difficult because of the location of private lands. No additional major flowage development is planned involving lands presently in private ownership, but many potential small flowage sites involve private land. The property presently has 70 miles of ownership boundary under the existing ownership pattern. If acquisition were completed, boundary length and related fencing needs could be reduced by 40%.

Crop Depredation

Crop damage on private agricultural lands by wildlife radiating out from the property is a potential problem. A high level of damage to private lands has been avoided or minimized by depredation control efforts on private lands, using propane exploders, manipulation of food availability on state-owned croplands within the property, and by achieving adequate deer harvests. Damage by Sandhill cranes, deer and waterfowl occurs annually in varying locations but much of this damage occurs on the 1,700 acres of cropland located on the property.

Presently, all of the farming operations on the property are being carried out utilizing local farmers in a cooperative sharecropping program. If the level of crop damage on these sharecrop lands increases greatly, some of the present cooperators may drop from the sharecropping program. If a large number of cooperators were to drop out, large expenditures would have to be made to continue these efforts as a management function, or the management emphasis in regard to waterfowl refuge and winter food supplies would have to be altered.

LONG-RANGE RESOURCE, RECREATION NEEDS AND JUSTIFICATION

Bureau of Planning surveys show that Wisconsin sportsmen spent 8,428,000 man days hunting in 1975. This is estimated to increase to 10,356,000 man days in 1995 (+26%). The surveys also show that Wisconsin has 5,300,000 acres of public land and 604,000 acres of public waters, exclusive of those of the Great Lakes. Most of these lands and waters are in the northern part of the state. The public waters offer some hunting, but most waterfowl hunting is done on the state's 433,000 acres of wetlands.

The Wisconsin Outdoor Recreation Plan of 1977 shows the projected level of increase in hunting for Region 5, which includes the Mead Wildlife Area, to be 26% by 1995. Current per capita hunting participation by Region 5 residents is 70% above the state average. Urban sprawl and a continued increase in posting of private lands against trespass continues to reduce the total area available for hunting use by the general public and forces increased hunting pressure on public lands. More than a recreation activity, hunting is a Wisconsin tradition.

The Mead Wildlife Area lies only a few miles west of U.S. Highway 51, which is being improved to freeway status, running from the heavily populated areas of southern Wisconsin to the recreation-oriented northern portion of the state. This highway improvement could provide the catalyst for further increased recreational use of public lands in Region 5.

Field surveys indicate that hunting pressure on the project has been increasing an average of 5% annually during the past 10 years. Because of the diversity of these lands and their location, it is likely that a similar increase will continue, thus exceeding both the projected state and regional increases. With continuing increases in urban populations, hunting pressure will keep growing at an accelerated rate for some years. It is, therefore, highly desirable to intensively develop and manage the state-owned or controlled wildlife areas to obtain maximum wildlife production and associated recreational opportunities.

ANALYSIS OF ALTERNATIVES

Status Quo

One alternative is to refrain from any further acquisition or development and do nothing more than to maintain the developments that have been completed. This alternative would leave a major wildlife management area in partial development and would not fully realize the full potential of the property.

Natural plant succession would advance without interruption, causing a general decline in habitat quality and wildlife productivity. Without continued management, aspen would give way to poor quality hardwoods, resulting in the deterioration of much of the better forest game habitat on the property as well as a decline in the quality and value of future forest products. Many of the open natural grass-sedge marshes would be taken over by woody shrub invasion, causing a decline in productivity or prairie chicken, waterfowl, Sandhill cranes and other wildlife species found in the open marsh types.

Without water level manipulation, many flowage basins could be taken over by cattail or other plant successions which are not highly favorable for waterfowl productivity. These effects, along with many other reactions that would occur, would have a long term effect of reducing both the quantity and quality of recreational use that the area could provide. The property is presently 75-80% developed, but if the "status quo" approach were adopted, eventually it would be difficult to achieve much more than 60% of the objectives stated for the wildlife area.

Enlarge the Project

With the presently approved boundary (Figure 2) and the scope of development and management operations presently being carried out on the area, major boundary enlargement is not practical or feasible except for possible satellite flowage development or an expansion of the prairie chicken management program.

There are numerous small flowage development sites within the Bear Creek drainage located south of the central portion of the project in Wood County. About 1,800 acres appear to be suited for a scattered wetland type acquisition and subsequent development of small flowages as satellite production areas. Most of the sites involve more than one ownership and are parts of active farming operations or lands that have been acquired for private recreational uses and state purchase would be difficult. The potential for waterfowl production is high in these areas and further consideration of this concept appears to be warranted. The Waterfowl Production Zone of Interest is shown on Figure 6.

The present boundary already includes a 4,400-acre Prairie Chicken Zone of Interest (Figure 2) adjacent to the southeast corner of the property in Portage County. No state acquisition is planned in this zone, but it is hoped that the various groups involved in acquisition of lands for prairie chicken management would consider purchasing scattered tracts within this zone in order to solidify the prairie chicken management program in the area.

Reduce Project

Since 83% of the lands proposed for fee title acquisition is already in state ownership, it does not appear feasible to make any major reduction in the overall scope of the property. The lands presently in state ownership are well suited for wildlife management purposes and are all needed to achieve management objectives. None are considered surplus to present or foreseeable needs.

Two changes could be made in the present boundary without necessitating any significant revision of project management or public use objectives. These would involve the deletion of the 1,363-acre northern unit (Figure 3) and 1,808 acres of proposed hunting easement purchase. Consolidated Papers, Inc., owns 460 acres within the northern unit, but all of the remaining land is still privately owned and acquisition of most tracts would be very difficult. The hunting easement purchases were originally mainly intended to provide goose hunting opportunities on private lands adjacent to the property. However, there has not been enough goose use on the lands involved to justify a hunting easement program. Also, the landowners involved are generally not interested in getting involved with an easement program. These changes would decrease the land control goal by 2,711 acres, from 33,670 to 30,959. Total estimated acquisition costs could be reduced from \$2,500,000 to \$1,900,000, or by 22%. The number of potential relocations that might be necessary could be reduced from 14 to 6.

The following is a comparison of the property as presently approved and the result if the northern unit were to be deleted:

<u>Present Project</u>		<u>With Deletion of Northern Unit and Easement Lands</u>
DNR Controlled Land	26,576	26,576
Proposed Purchase	5,286	4,383
Proposed Easement	<u>1,808</u>	<u> </u>
Total Proposed Fee and Easement	33,670	30,959
Consolidated Papers, Inc., Proposed Use Agreement	4,302	3,842
Total Land Control Proposed	<u>37,972</u>	<u>34,801</u>
No Acquisition Planned Zone of Prairie Chicken Management Intent	1,260	1,260
	<u>4,400</u>	<u>4,400</u>
Total Project	<u>43,632</u>	<u>40,461</u>
Estimated Cost	\$2,500,000	\$1,900,000
Occupied Dwellings - Relocations	14	6
Total Tracts	81	72
Acquisition Goal	31,862	30,959

Increase Wetland Development Emphasis

Wetland development and management has received major attention. Seventeen large flowages totaling over 6,500 acres, 21 small flowages totaling 127 acres and 521 potholes have been created to improve waterfowl habitat. Potential exists for the development of eight additional large flowages totaling 3,200 acres (Figure 6) and 35 more small flowages totaling about 200 acres, along with 600 additional potholes.

The additional small flowage and pothole development will involve mainly open grass-sedge marshes or upland drainage which are generally too dry to provide quality habitat to wetland wildlife species and too wet to have significant habitat value for wildlife species inhabiting the uplands. These additional small waterfowl production oriented developments are not expected to have any significant impacts on other wildlife values or expected uses of the lands involved.

The development of additional large flowages would generally have an adverse effect on prairie chicken range, winter deer range and small game habitat. Waterfowl production and associated recreational opportunities would be increased, but at the expense of small game, deer and prairie chickens.

The completed development and the management operations presently being carried out on the property were designed to provide a reasonable compromise and balance between waterfowl, forest game and endangered species. In recent years, 58% of the development and management expenditures have been for waterfowl while 25% have been devoted to deer and small forest game species, 13% for prairie chicken and other nongame or endangered species, and 4% on nonhunting uses of the area.

Ownership is not complete in seven of the eight potential large flowage basins. The basin with complete ownership has only a marginal water supply. There is potential for development of an additional flowage adjacent to this one, and additional water needed for management could be diverted into this basin if this adjacent flowage were developed first. Flooding of three of the potential flowage areas would result in a loss of some of the better prairie chicken habitat on the property.

At this time, the development of additional large flowages does not appear to be a highly desirable alternate despite the serious need for the creation of additional waterfowl habitat in Wisconsin. Additional wetland development will be limited to production oriented small flowages and potholes, and no additional major flowage development is proposed. If wetlands habitat needs become more critical in the future, the desirability of additional major flowage development could be reconsidered. If a significant amount of large flowage development were to be completed, the objectives involving those resources that would be adversely affected would have to be revised.

Increase Goose Management Emphasis

Peak goose use on the Mead Area has varied from a few hundred up to a few thousand in recent years. Local goose patterns have provided sightseers with an opportunity to view geese within the 900-acre goose refuge and increased the opportunity for the duck hunter to bag a goose. Problems normally associated with larger goose concentrations have not materialized

to any great extent. Locally, the Canada goose is still considered a trophy bird rather than a nuisance.

An expansion of the existing goose refuge to 3,500 acres by including the entire Honey Island block would make the central portion of the project much more attractive for geese, but would result in decreased duck, small game and deer hunting opportunities. A major increase in goose use would also result in increased hunting pressure, an increase in the hunter performance problems associated with large goose concentrations, and a decline in hunting quality.

When the Mead Area was established, it recorded strong support locally as a multiple use wildlife area and a strong commitment was made that it would not be developed as a major goose area. A change in management emphasis toward the creation of a major goose concentration area would undoubtedly result in strong local opposition by much of the hunting public and by the farmers who fear the creation of major crop depredation problems on the local level.

Increase Prairie Chicken Management Emphasis

A major increase of prairie chicken management activities on existing lands could be achieved by an accelerated program of land clearing, conversion of present cropland areas to permanent grassland, or permanently draining all or portions of the large flowage system and allowing these lands to revert back to natural grass or sedge marshes. Presently about 9,000 acres of project lands, including 1,700 acres of agricultural lands, have value as prairie chicken habitat.

About 4,000 acres of existing timber and brush lands are located adjacent to these lands and would have value as prairie chicken habitat if they were cleared and converted to grasslands. A considerable loss of forest game habitat and associated recreational uses would result if this approach were pursued. Under the present level of management, the prairie chicken booming ground counts on the project have increased from a low of 20 in 1964 to a high of 227 in 1978, and it would be difficult to justify a major habitat conversion effort in view of the current situation.

About one-third of the agricultural lands are being managed as nesting cover. The balance are cropped, resulting in abundant supplies of standing corn for winter feeding which is felt to be a key ingredient in the success of prairie chicken management. The conversion of a greater portion of cropland to grassland would increase available nesting cover but would also result in a noticeable decline in winter food supplies. In severe winters, the lack of food could more than offset any gains in reproductivity than might result from these additional grasslands.

Permanent drainage of any of the large flowages to allow conversion to open grass-sedge marshes would be an extreme shift in management emphasis. This would result in the loss of prime wetland habitat and void the effect of major expenditures which were made to develop these wetlands and would be contrary to the original management intended for these areas. A drastic decline in prairie chicken numbers in the future could necessitate a review of property land management policies, but at the present no major acceleration of the prairie chicken habitat management program is planned on existing lands.

The purchase of additional lands by the private prairie chicken organizations will be encouraged in the Prairie Chicken Management Zone of Interest, as this appears to be the most feasible means of expanding the prairie chicken management program. Acquisition of these lands would not only increase available prairie chicken habitat but would also provide additional habitat for other wildlife while an expanded habitat conversion program on wildlife area land would have a general impact of reducing habitat for other forms of wildlife.

Increase Forest Game Management Emphasis

The quantity and quality of forest game habitat could be increased or improved upon by allowing woody plant successions to occur on those lands presently being managed as open grasslands, by increasing management activities other than timber sales on forested lands, and by abandoning existing cropland and allowing it to revert to forest types.

The conversion of existing grasslands or cropland to woody vegetation is not feasible, as these lands have higher and better wildlife values in their present condition. These lands also directly contribute substantially to the overall carrying capacity of the project for forest game, especially deer, and the edge areas associated with these types are valuable for all forms of forest game.

Direct management techniques could be applied to the forested lands to supplement commercial timber harvests in order to increase the potential for forest wildlife production with only a minimal impact on pulpwood production.

Intensify Management for Timber Production

At the present time, there are about 13,000 acres of merchantable or potentially merchantable timber types within the project boundary. An additional 5,000 acres could be converted to forest types by initiating an intensive program of planting existing cropland and other open upland types and by allowing natural successions to occur on other lands. Following restocking, these lands would be capable of producing timber on a long term basis.

An intensive forest management program would tend to provide for restocking efforts on most open lands. Without croplands or open nesting lands, prairie grouse and waterfowl production would diminish.

While the timber production objectives of an intensive forestry program could be realized on about half of the property, such an alternative would defeat many of the wildlife purposes originally intended. Intensification of a forestry program for fiber would be in direct conflict with the dedication that these lands be used for wildlife management purposes when the original gift was made by Consolidated Papers, Inc., establishing the wildlife area.

Most of the additional lands that have been purchased were acquired with wildlife oriented Pittman-Robertson federal aid funds and a considerable amount of subsequent development was completed under this funding. Any extreme departure from the original purposes for which these funds were intended may necessitate reimbursing the federal government for the funds that have been provided.

Intensify Fish Management Emphasis

Potential for the development of a significant sport fishery on the project is very limited due to the shallow nature of most of the water acreage. Winterkill problems which develop in most years to some extent, make serious inroads into game fish populations. While a more consistent fishery resource would be desirable, this does not appear to be feasible in light of the unfavorable cost benefit ratios resulting from expansive aeration techniques.

Intensify Recreational Development

Present plans call for limiting recreational type developments to boat landings, parking lots, hiking and cross country ski trails, along with pit toilet facilities in a few key locations. Snowmobile trails will be limited to segments of county-sponsored trails which are allowed to cross the property under use agreements (Figure 5).

No seasonal use or hunter camping facilities are planned because of possible use conflicts and high development and maintenance costs that would be involved with meeting public health codes. There are two county parks with campgrounds and two private campgrounds within a few miles of the project, which presently fulfill the local camping needs.

The lack of recreational water, or physical characteristics on the property, limit the potential for high quality recreational campground development and other interests are better able to provide these in more desirable locations.

Only nonhunting recreational uses of the property should be allowed which are compatible with the primary purpose of the property as a wildlife area and no major thrust of recreational use development is planned.

RECOMMENDED MANAGEMENT PROGRAM

The recommended management program is a continuation of the current program level, with increased emphasis on:

1. Development of waterfowl production areas including improvement of nesting habitat, breeding pair territorial sites and brood water.
2. Expansion of forest game habitat management.
3. Expansion of waterfowl-prairie chicken nest cover management.
4. Initiation of efforts to manage hunter and trapper numbers during peak use.
5. Expansion of property patrolling and surveillance to curb growing problems of public misuse of the property.
6. Accommodation of hunting and nonhunting uses compatible with other project objectives.

The proposed land use classifications are shown on the attached Master Plan Map (Figure 4).

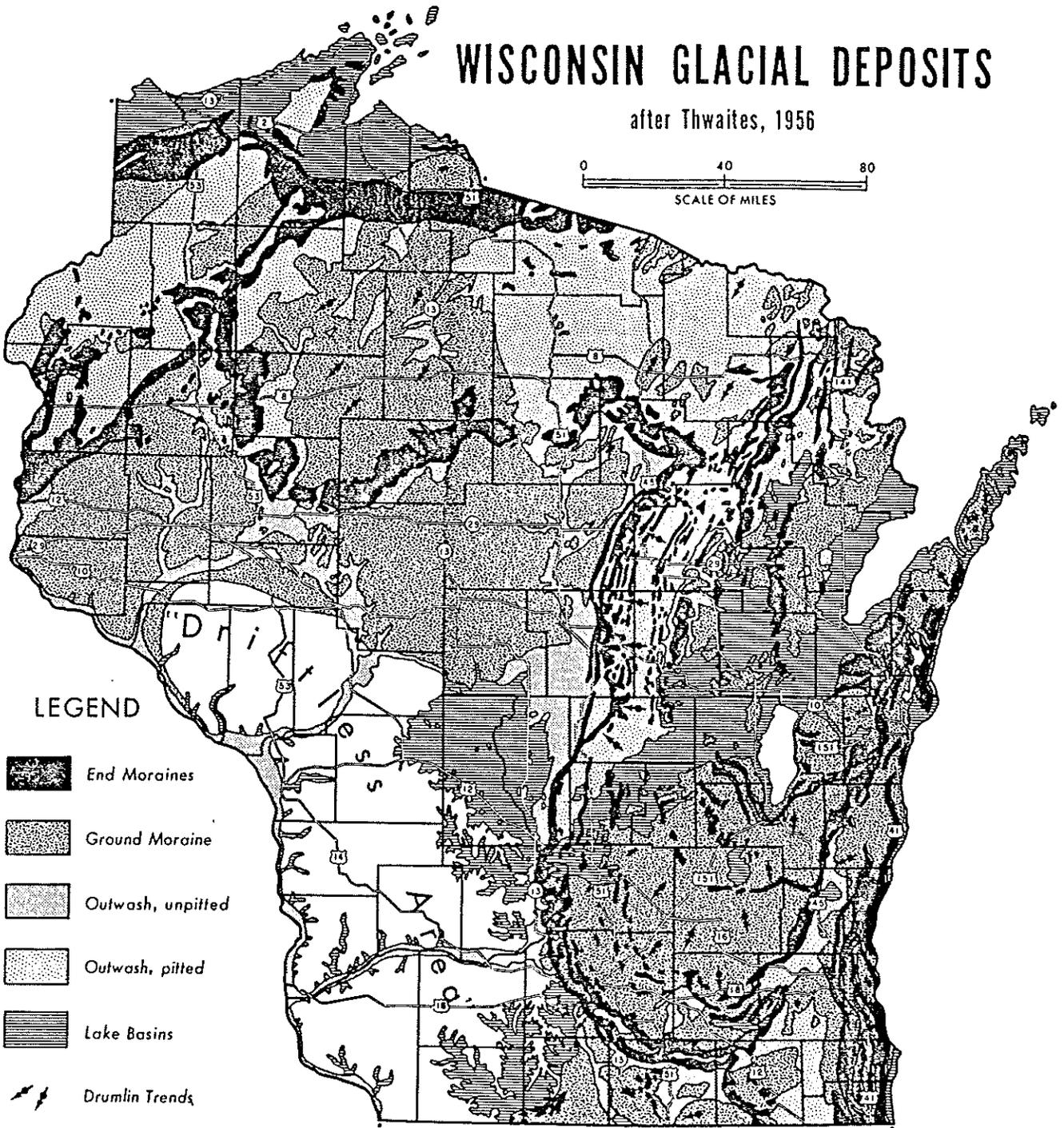
Alternative three (Figure 3) is recommended as the land acquisition program for the property. By reducing the fee title acreage goal by 1,363 acres and eliminating 1,808 acres of easement purchases, the estimated acquisition costs can be reduced by \$250,000 without having a significant impact on the stated objectives for the property. Also, the number of possible relocations could be reduced from 14 to 6. In addition, the feasibility of establishing a scattered wetland program within the Waterfowl Production Zone of Interest (Figure 6) should be fully evaluated.

Land acquisition will proceed as rapidly as negotiations and available funds allow. Under alternative three, 72 parcels totaling 4,383 acres remain to be purchased at an estimated cost of \$1,900,000. The acquisition priorities for all lands within the recommended boundary are as shown on Figure 3.

Major wetland development on the property is essentially complete. The only significant additional development proposed would involve the creation of 35 more small flowages and 600 additional potholes. At today's prices, the cost of these developments would be between \$100,000 and \$125,000. Other habitat development proposed will be incorporated into the overall annual maintenance and operational programs.

Current annual habitat development and maintenance and operational costs, not including wetland habitat development, are approximately \$110,000, of which about 60% is funded under a federal aid Pittman-Robertson project. To meet all program needs proposed, this level of funding will have to be increased a minimum of 10% annually in addition to inflationary increases.

Figure 1



University of Wisconsin

Wisconsin Geological and Natural History Survey

George F. Hanson, Director and State Geologist

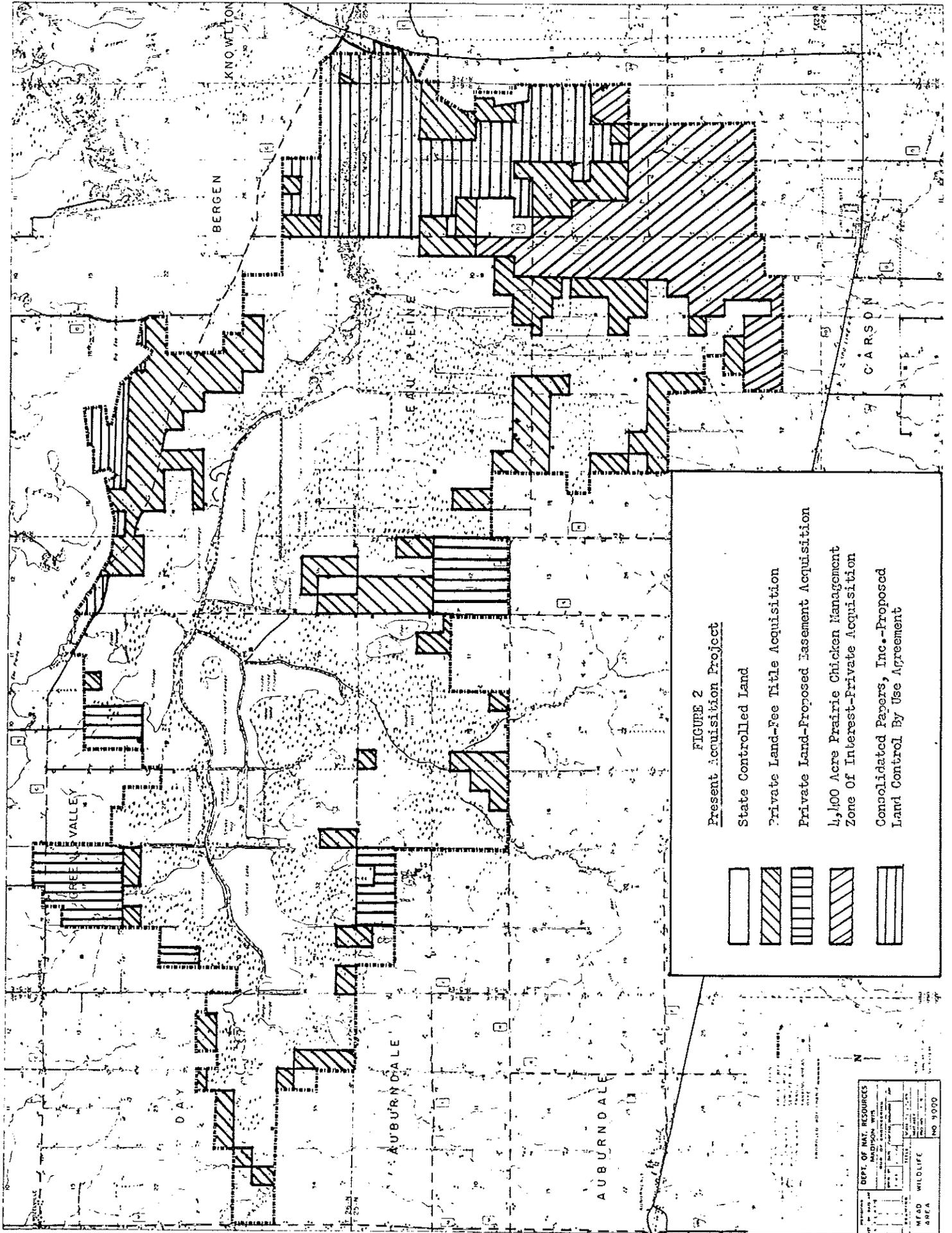


FIGURE 2
Present Acquisition Project

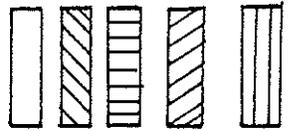
State Controlled Land

Private Land-Fee Title Acquisition

Private Land-Proposed Easement Acquisition

4,000 Acre Prairie Chicken Management
Zone Of Interest-Private Acquisition

Consolidated Papers, Inc.-Proposed
Land Control By Use Agreement



DEPT. OF NAT. RESOURCES
WISCONSIN
DIVISION OF WILDLIFE
4000 ACRE PRAIRIE CHICKEN MANAGEMENT ZONE

NO. 9000

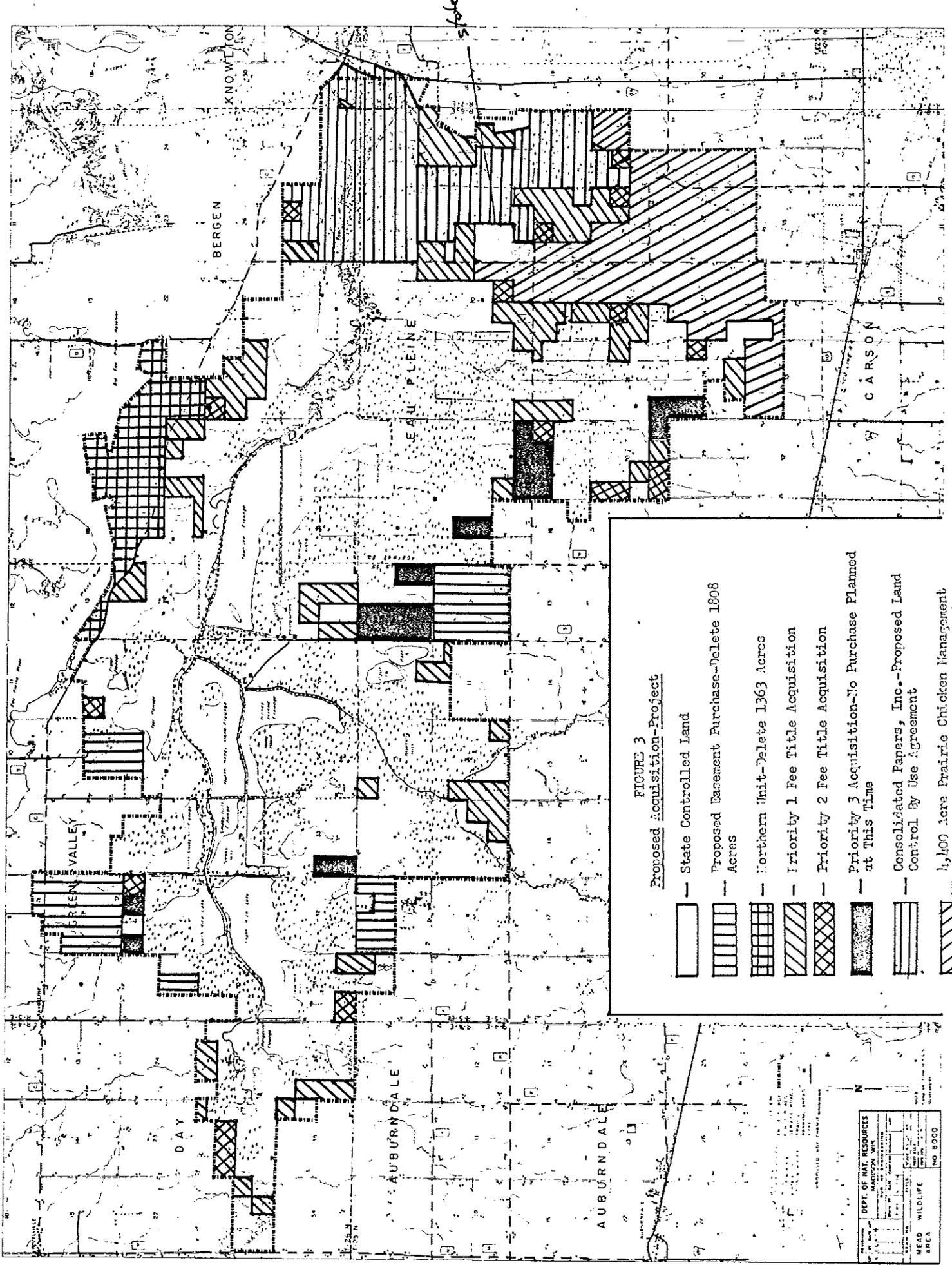
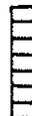
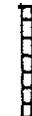


FIGURE 3
Proposed acquisition-Project

-  State Controlled Land
-  Proposed Easement Purchase-Delete 1908 Acres
-  Northern Unit-Delete 1363 Acres
-  Priority 1 Fee Title Acquisition
-  Priority 2 Fee Title Acquisition
-  Priority 3 Acquisition-No Purchase Planned at This Time
-  Consolidated Papers, Inc.-Proposed Land Control By Use Agreement
-  1,400 Acre Prairie Chicken Management Zone Of Interest- Private Acquisition

DEPT. OF NAT. RESOURCES
MADISON, WIS.

MEADOW WILDLIFE AREA

NO. 8000

DATE: _____

BY: _____

FOR: _____

SCALE: _____

PROJECT NO. _____

PROJECT NAME: _____

PROJECT LOCATION: _____

PROJECT DESCRIPTION: _____

PROJECT STATUS: _____

PROJECT COST: _____

PROJECT FUNDING: _____

PROJECT CONTACT: _____

PROJECT PHONE: _____

PROJECT FAX: _____

PROJECT E-MAIL: _____

PROJECT WEBSITE: _____

PROJECT MAP: _____

PROJECT PHOTO: _____

PROJECT VIDEO: _____

PROJECT AUDIO: _____

PROJECT DOCUMENT: _____

PROJECT OTHER: _____

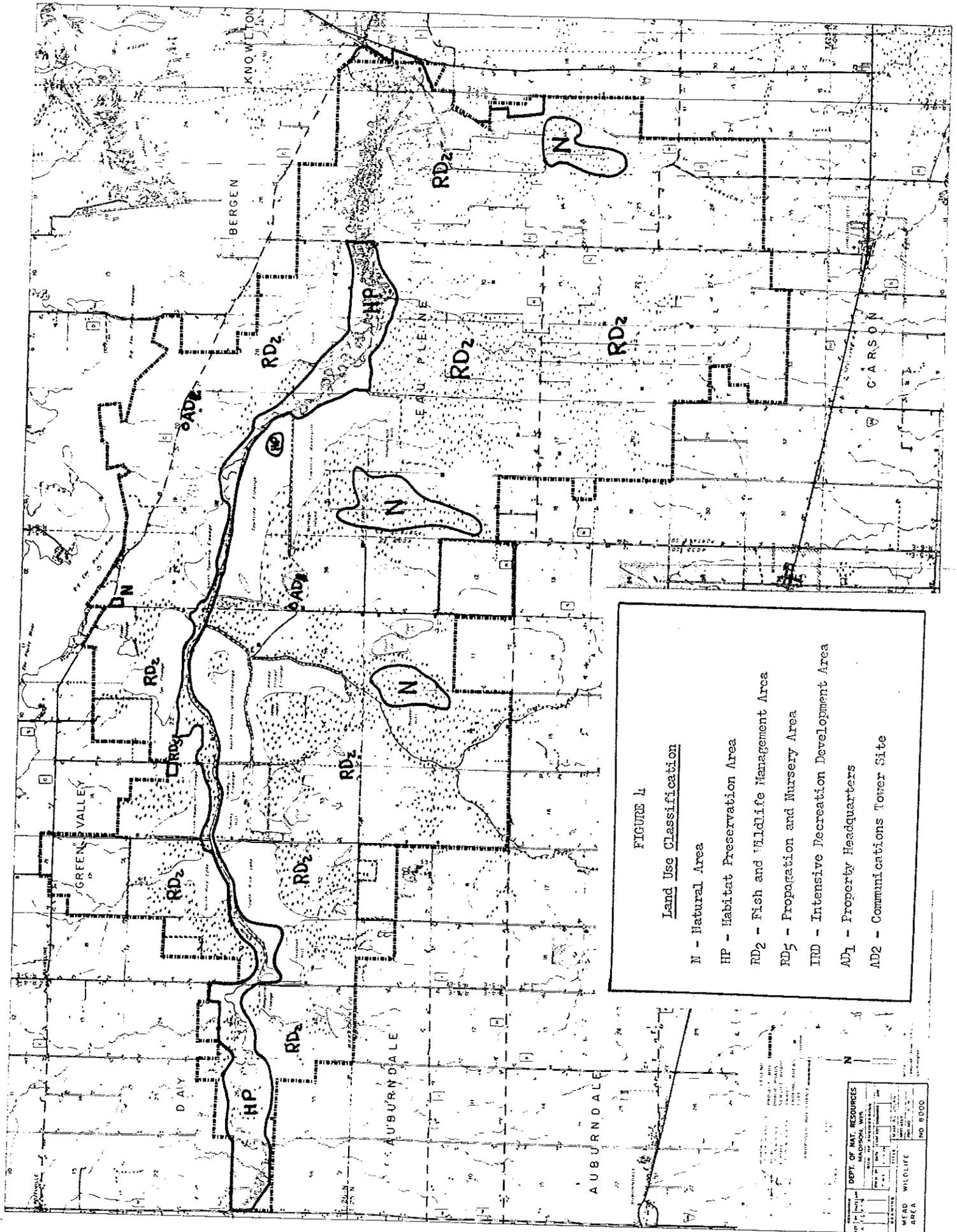


FIGURE 4

Land Use Classification

- N - Natural Area
- HP - Habitat Preservation Area
- RD₂ - Fish and Wildlife Management Area
- RD₅ - Propagation and Nursery Area
- IRD - Intensive Recreation Development Area
- AD₁ - Property Headquarters
- AD₂ - Communications Tower Site

DEPT. OF NAT. RESOURCES
MADISON, WIS.

PROJECT NO. _____
DATE OF SURVEY _____
SCALE OF SURVEY _____
SHEET NO. _____

MEAD WILDLIFE AREA
NO. 8000

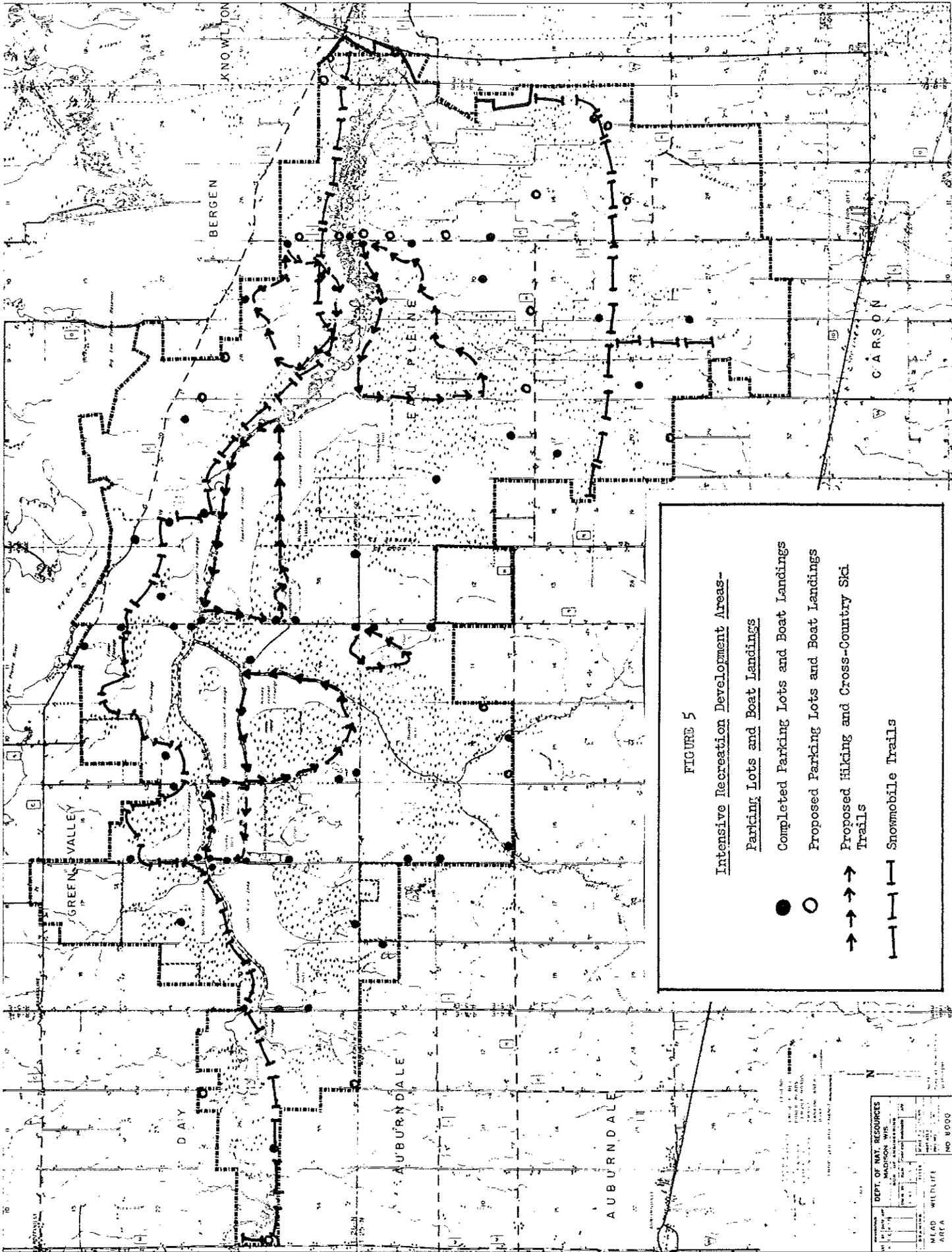


FIGURE 5
Intensive Recreation Development Areas-
Parking Lots and Boat Landings
 Completed Parking Lots and Boat Landings
 Proposed Parking Lots and Boat Landings
 Proposed Hiking and Cross-Country Ski Trails
 Snowmobile Trails

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 DIVISION OF WILDLIFE
 MEAD WILDLIFE AREA
 NO. 8000

MEAD W.L.A.

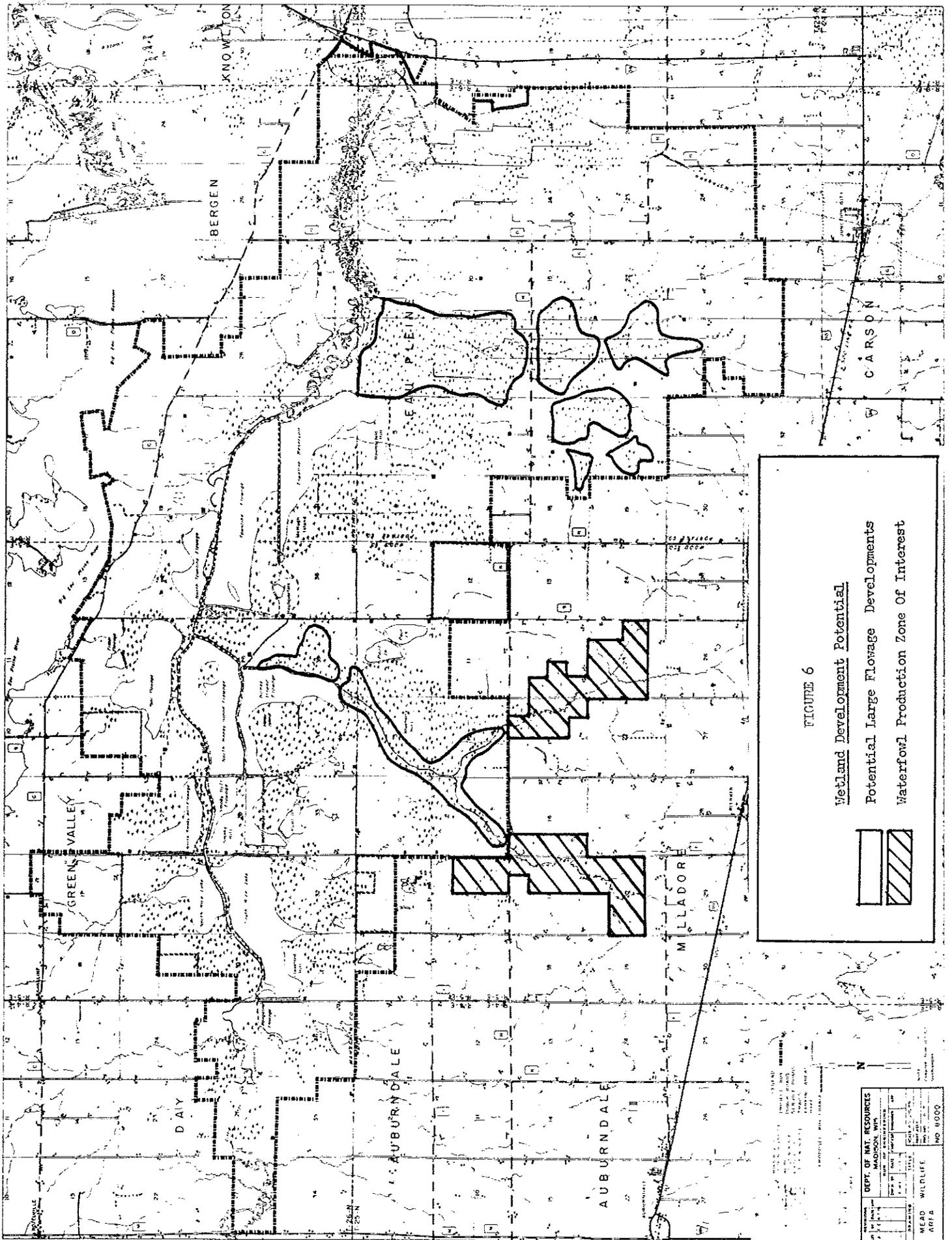
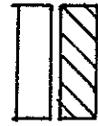


FIGURE 6

Wetland Development Potential
 Potential Large Flowage Developments
 Waterfowl Production Zone Of Interest



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 NO. 0000
 DATE: 1971