

CORRESPONDENCE/MEMORANDUM

STATE OF WISCONSIN

Date: March 7, 1980

File Ref: 2300

To: James Raber
Gary Jolin

Tom Howard
Dave Evenson

From: Charles E. Higgs

CEH

Subject: Mukwa Master Plan

By copy of this memorandum I am forwarding examples of the Mukwa Master Plan to Area Supervisors, and expect them to circulate it to functional managers as a guide in developing master plans of properties that may be similar to Mukwa.

Congratulations for your foresight and initiative in developing what the Bureau considers a statewide model.

cc: Area Supervisors
Dan Rogers
→ Bill Selbig

CORRESPONDENCE/MEMORANDUM

STATE OF WISCONSIN

Date: March 4, 1980 File Ref: 2300

To: District Directors:
John Brasch - NCD Dave Jacobson - NWD D. Morrissette - SD
~~Charlie Higgs - LMD~~ Jim Lissack - WCD Bob Winnie - SED

From: C. D. Besadny *CD*

Subject: Master Plan - Example

RECEIVED DNR
MAR 06 1980
Lake Mich. Dist.

WS

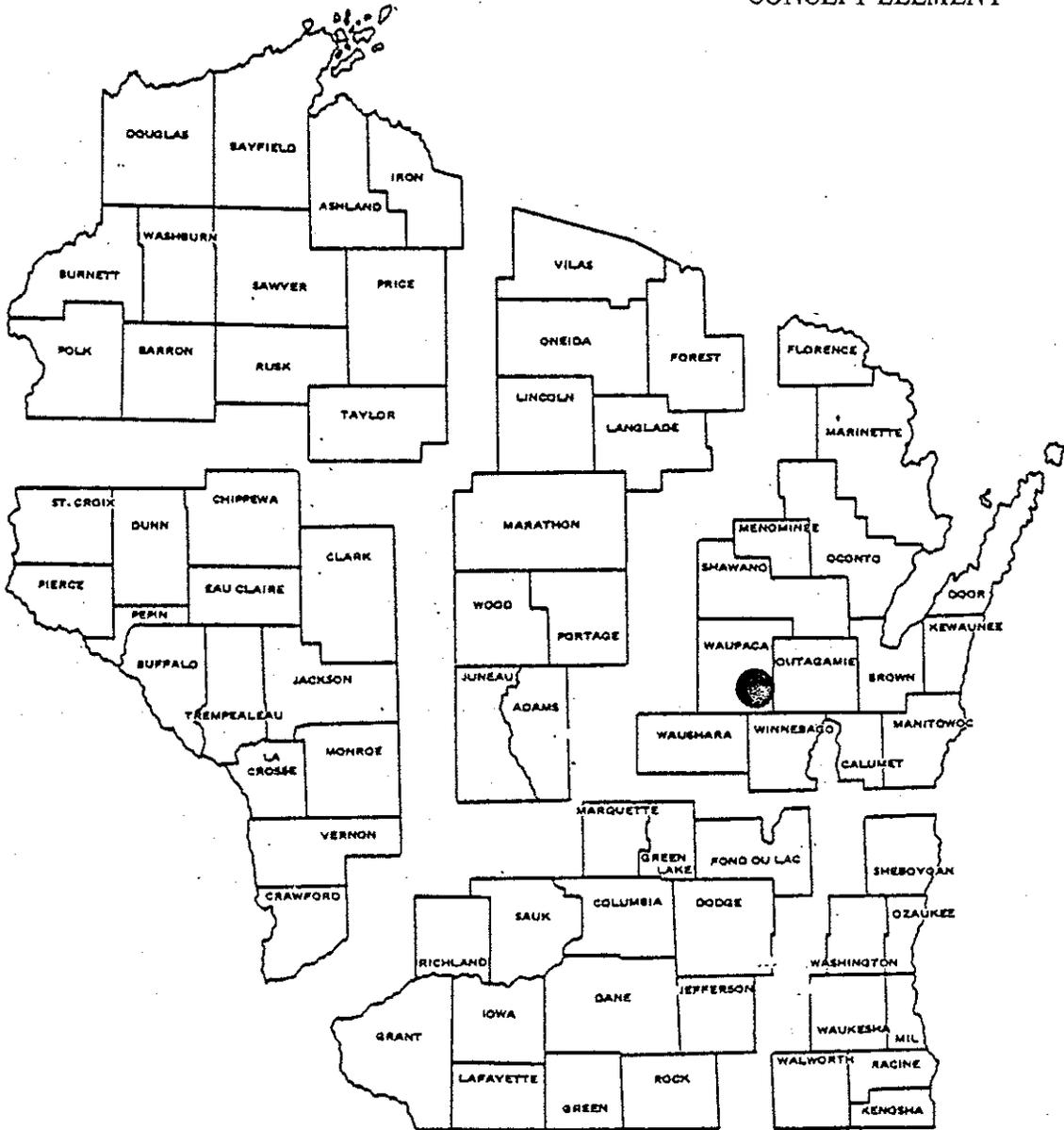
Attached is a copy of the Mukwa Wildlife Area Master Plan which was approved by the Natural Resources Board on February 28, 1980.

I am sending this copy for your use as a model or guide in the writing of master plans for those properties which are non-controversial, have little proposed development and where management practices change little from the original intent.

This plan is concise, to the point and well written. I believe it can aid your personnel as they prepare master plans for many similar properties.

RFN:dgb
Attach.

MUKWA WILDLIFE AREA
 MASTER PLAN
 CONCEPT ELEMENT

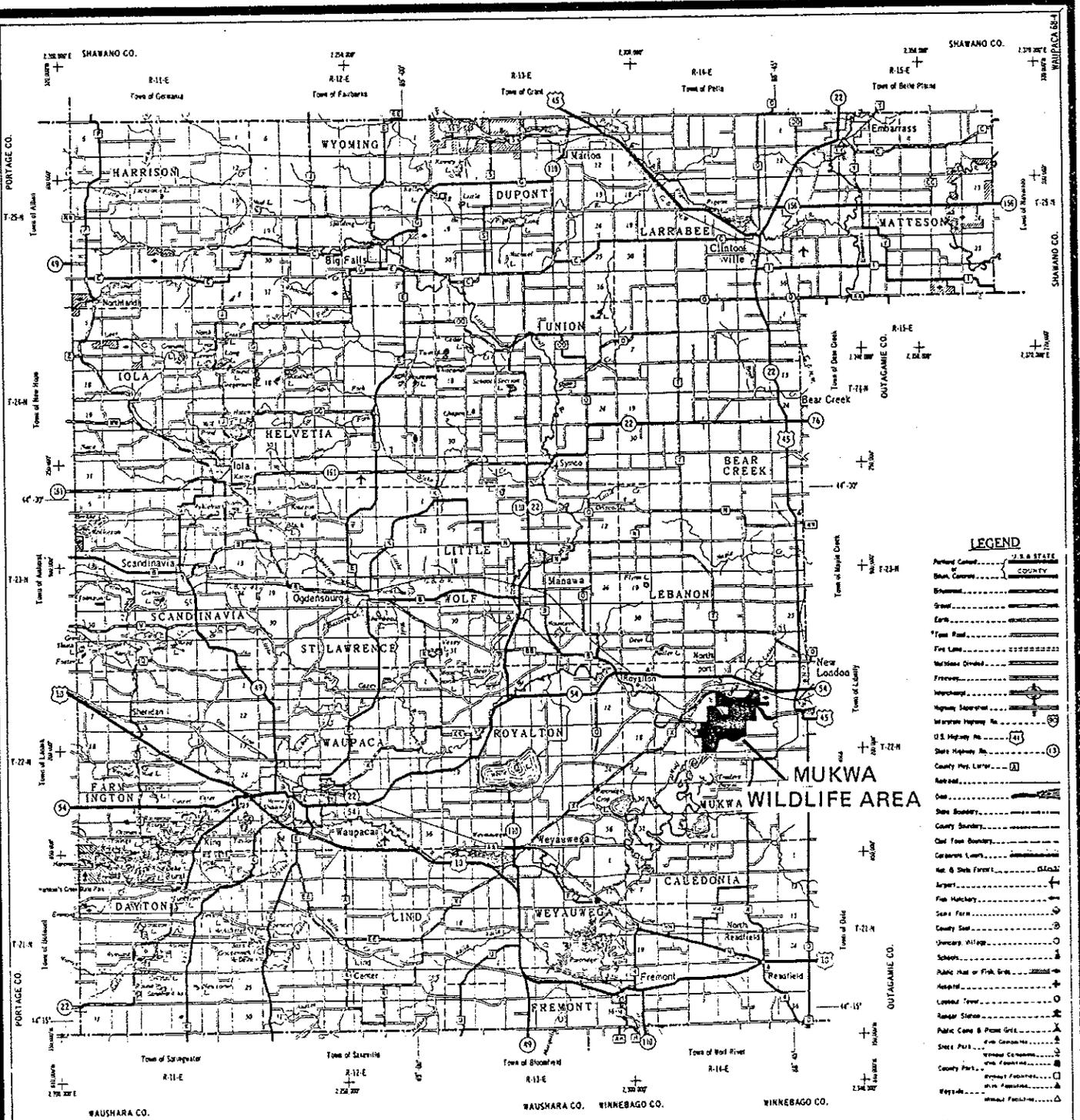


PROPERTY TASK FORCE

Leader Tom Howard - Wildlife Manager
 Mike Primising - Fish Manager
 Hugh Hayes - Forester
 Submitted: August 21, 1979

Approved by Natural Resources Board:

_____ Date



LEGEND

- U.S. STATE
- COUNTY
- Parting Canal
- Stream, Concrete
- Stream
- Gravel
- Earth
- *Farm Road
- Fire Lane
- Native Road
- Freeway
- Highway
- Highway Intersection
- Interstate Highway No.
- U.S. Highway No.
- State Highway No.
- County Hwy. L.W.M.
- Railroad
- Canal
- State Boundary
- County Boundary
- Out Town Boundary
- Cadastral Lines
- Met. & Sub. Farm
- Airport
- Fish Hatchery
- State Farm
- County Seat
- University Village
- School
- Public Hall or Park
- Asphalt
- Levee
- Power Station
- Public Camp & Picnic
- State Park
- Wrecker
- County Park
- City Park
- Wrecker
- City Park
- Wrecker
- City Park

CIVIL TOWNS

MARSH	WYOMING	DUPONT	LARRABEE	MATTESON
IOLA	HELVETIA	UNION	BEAR CREEK	
SCANDINAVIA	ST. LAWRENCE	LITTLE WOLF	EBANON	
FARMINGTON	WAUPACA	ROYALTON	MUKWA	
DAYTON	LIND	WEYAUWEGA	CALEDONIA	
		FREMONT		

County Seat: Fremont
 Population: 2,314
 Area: 715 sq. mi.

TOWNSHIP NUMBERS

6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	32	33
34	35	36	37	38	39	40



WAUPACA CO.
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 STATE OFFICE BUILDING
 Wausau, Wisconsin
 SCALE 1" = 10 MILES
 Corrected to
 JAN. 1974
 Compiled by S.C.S. Chaffin
 Based on Aerial Photographs

TABLE OF CONTENTS

	<u>Page</u>
Location Map	i
Section I - Actions	
GOAL AND OBJECTIVES.	1
Goal	
Objectives	
Additional Benefits	
RECOMMENDED MANAGEMENT AND DEVELOPMENT PROGRAM.	1
Property Development Proposal	
Land Control	
Timetable	
Costs	
Other Considerations	
Section II - Support Data	
BACKGROUND INFORMATION.	3
History	
Current Management Activities	
Ownership	
RESOURCE INVENTORY AND CAPABILITY	3
MANAGEMENT PROBLEMS	5
AN ANALYSIS OF ALTERNATIVES	5
Status Quo	
Disposing of Property	
Further Development as a Waterfowl Area	
RECOMMENDED ALTERNATIVE ACTION.	6
Appendix	8-10
AGENCY AND ADVISORY GROUP COMMENTS WITH DNR RESPONSE	

Section I - Actions

GOAL, OBJECTIVES AND OTHER BENEFITS

Goal: To manage the Mukwa Marsh Wildlife Area for the benefit of wildlife based recreation and to provide compatible recreational opportunities.

Annual Objectives:

1. Provide 800 participant days of waterfowl hunting opportunities.
2. Produce 1 duck per acre on 150 acres of permanent water (150 ducks).
3. Accommodate about 2500 participant days of snowmobiling recreation associated with a county trail system.
4. Protect and maintain a 160 acre Scientific Area for aesthetic and educational purposes.

Annual Additional Benefits:

1. Provide 1,500 participant days of other hunting and trapping opportunities.
2. Provide 4,000 participant days of compatible, nonhunting use such as cross county skiing, photography, nature viewing and hiking.
3. Benefit resident and migratory nongame species indigenous to the area including migratory endangered or threatened species.
4. Protect important walleye spawning areas adjacent to the Wolf River.

RECOMMENDED MANAGEMENT AND DEVELOPMENT PROGRAM

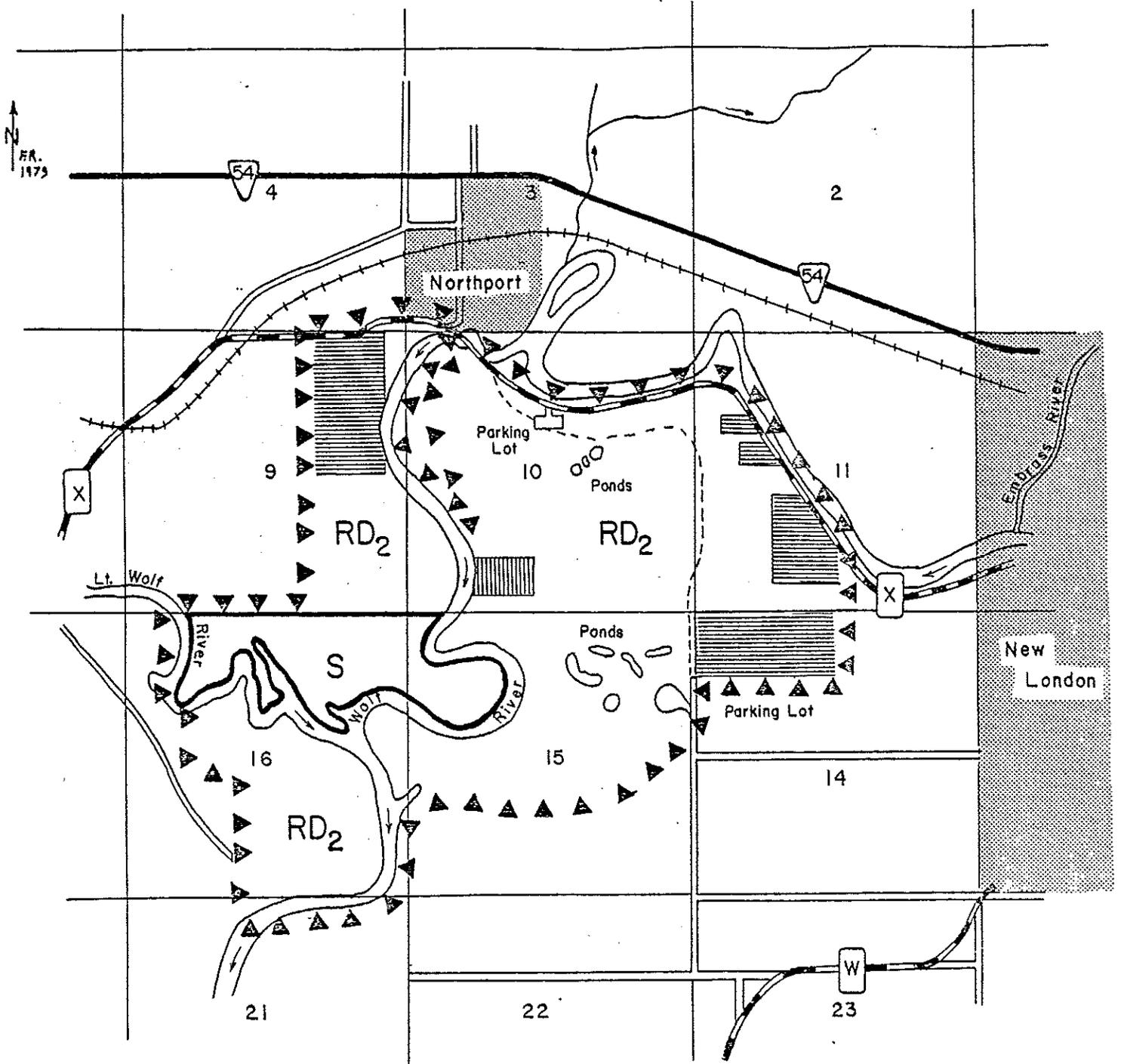
Property Development Proposal: The nature of this wildlife area does not lend itself to further significant habitat enhancement. Management will be aimed at maintaining present uses and productivity levels. Maintenance of user facilities (property signs, access parking lots, posting) will be of an ongoing nature.

Land Control: The current ownership is 1,291 acres with a property goal of 1,485 acres. It is proposed to reduce the acreage goal to 1,320 acres (Figure 1).

Costs: \$500.00 annually for maintenance posting and upkeep of parking facilities.

Other Considerations: The property is within the floodway of the Wolf Rivers. Currently, stringent state and federal laws govern floodplain zoning. A buffer zone of bottomland hardwoods from 200-300 yards wide is recommended to preserve the integrity of the existing Scientific Area. This buffer zone contains about 45 acres and will provide an undisturbed corridor of bottomland hardwood timber along the junction of the Wolf and Little Wolf Rivers. Endangered and threatened species inventories will be conducted as funding becomes available. The priority of such inventory will be determined by the Office of Endangered and Nongame Species (DNR).

FIGURE 2



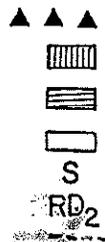
ACQUISITION - LAND USE MAP

MUKWA WILDLIFE AREA

Scale 1: 31680

LEGEND

- Project Boundary
- Priority I Land
- No Purchase
- State Land
- Scientific Area
- Fish and Wildlife Development
- Snowmobile Trail



Section II - Support Data

BACKGROUND INFORMATION

History: The Mukwa Wildlife Area was a leased public hunting ground from 1948 to 1964. As a result of local interest, it was approved for acquisition by the Wisconsin Conservation Commission in 1964. The intent was to develop a waterfowl area, utilizing an extensive impoundment system. A prohibitive cost-benefit ratio and probable interference with future flood control measures for the City of New London have eliminated this development option.

Current Management Activities: Annual maintenance includes boundary posting and parking facility upkeep. Hay mowing permits have been utilized to reduce the encroachment of woody vegetation. In 1978, eight one half acre dugout ponds were constructed to improve waterfowl habitat.

Several hundred state game farm reared pheasants were annually released on the wildlife area until 1977 when this practice was discontinued on this property. Releases of pheasants received by the state from a local club's participation in the pheasant cost-share program have continued.

Ownership: Current acreage goal is 1,485 acres of which 1,291 acres are in State ownership.

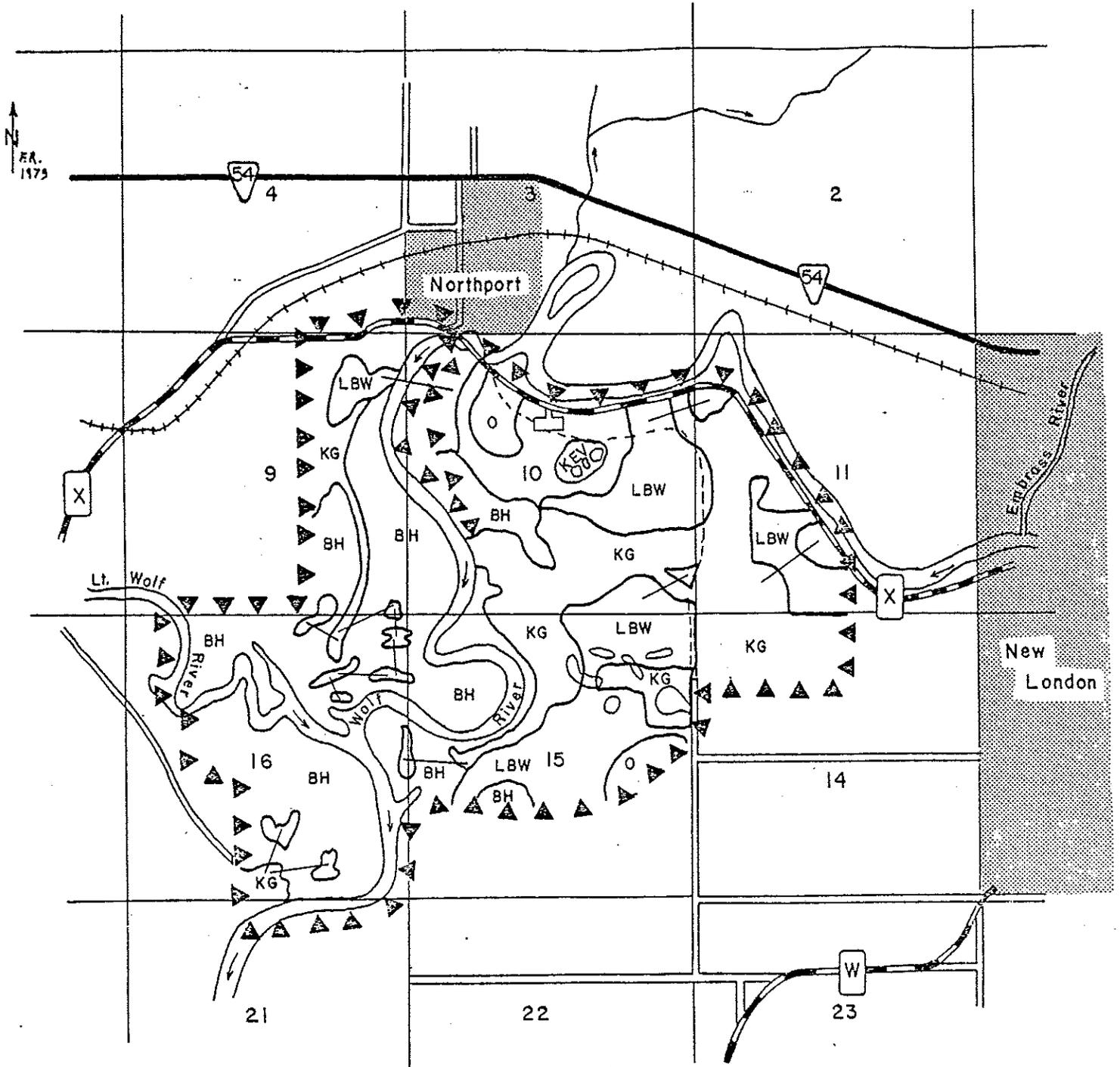
RESOURCE INVENTORY AND CAPABILITY

The topography of the Mukwa Wildlife Area exhibits the usual characteristics of a wide river floodplain with slopes of less than 1 foot per mile. Over half the property is in bottomland forest (Figure 3). A 160 acre Scientific Area containing unique bottomland hardwood vegetation is located in the southwest quarter of the property. The remainder is primarily a type VI wetland (USFWS Circular 39) with willow and dogwood brush and sedge predominating.

The entire area is seasonally flooded as 2 miles of the Wolf River and ½ mile of the Little Wolf River bisect the area. The confluence of these two high quality rivers is in itself a unique, natural phenomenon and provides a valuable fisheries opportunity. Walleye and white bass runs during spring spawning migrations annually attract large numbers of anglers. Lake sturgeon travel the Wolf River through the property and spawn on rocky shoreline areas upstream from the wildlife area. Peat soils of 1 to 15 feet predominate on the property.

Game and furbearer species common to the area include white-tailed deer, cottontail rabbit, gray squirrel, muskrat, mink, raccoon and weasel. Waterfowl use of the area is largely seasonal in nature with greatest concentrations occurring during spring floods. Canada geese, mallards, wood duck and blue-winged teal are the predominant species. Non-game species indigenous to floodplain habitat in this part of the state exist on the property. No endangered or threatened species are known to inhabit the area. Threatened species such as red-shouldered hawk, Cooper's hawk, and Blanding's turtle as well as the endangered wood turtle are found in Waupaca County and may frequent the property.

FIGURE 3



VEGETATION COVER MAP

MUKWA WILDLIFE AREA

Scale 1: 31680

Legend

- BH-----Bottom Hardwood
- KEV-----Emergent Vegetation
- KG-----Lowland Grass
- LBW-----Lowland Brush-Willow
- O-----Oak

Estimates of participant day use include: Deer, waterfowl and small game hunting 1,500 days, trapping 750 days, snowmobiling 2,500 days (in association with the Waupaca County Snowmobile Association's trail system) nature observation and photography 1,000 days. Because of liability problems and current DNR policies regarding the designation of formal, signed cross country ski trails on certain state properties, no such trails will be designated on the Mukwa Wildlife Area. However, the entire property is open to skiers who may choose to break their own trails.

The State Historical Society, Historic Preservation Division has stated that there are no known historic or archaeological sites within the property that will be affected by the proposed management and development program.

MANAGEMENT PROBLEMS

Resource management problems include property vandalism, primarily sign destruction and illegal, off-road vehicle use.

Certain ground nesting wildlife species suffer because important grass habitat components are often invaded by brush and trees. The proximity to home sites and urban areas precludes the use of prescribed burning to prevent this succession from occurring.

Past releases of pheasants on the property have resulted in conflicts with adjacent landowners as released pheasants relocate from the property to nearby private, posted land. This problem and lack of adequate suitable habitat for pheasants on the wildlife area resulted in a decision in 1977 to discontinue stocking state-reared pheasants here.

Although it is not feasible to develop a diked waterfowl impoundment, other factors will continue to limit significant waterfowl productivity. Sufficient brood water does not exist and creation of additional brood water is cost prohibitive. The lack of upland sites within the property boundary precludes dense nesting cover development. Additional acquisition of adjacent uplands will not achieve levels of production commensurate with associated costs. Development of nesting islands within the project is not feasible because of extremely high flooding and Federal and State restrictions regarding deposition of materials in the floodway and adjoining wetlands.

The walleye and white bass spawning runs, alluded to earlier, are unusual for a wildlife area. Public landing facilities exist in New London and Northport for angler access. Not only is further access development unnecessary, fill would have to be deposited in the floodway and wetlands which is not permitted at this time.

AN ANALYSIS OF ALTERNATIVES

1. Status Quo: This alternative would require that no future, significant development or habitat manipulation is accomplished on the property. Primary management activities would include maintenance of parking facilities, inspection of snowmobile trails for land-use permit renewal, occasional marsh hay cutting permit alterations, litter pick-up and maintenance posting. The state's share of local club-reared cost-share program pheasants may continue to be released on the wildlife area. This would result in a maintenance of current user levels.

The existing Scientific Area would remain intact. The limited hunting opportunity and waterfowl production capability would remain at their present low level. Walleye spawning activity in the wetlands adjoining the Wolf River would not be affected. Timber management potential is limited because the merchantable timber exists primarily within the Scientific Area and a 200-300 yard proposed buffer on its periphery.

2. Disposing of Property: It has been recognized this property is not of major significance from a waterfowl production standpoint nor is it an area providing an appreciable number of recreation hours of hunting opportunity. With present emphasis shifting towards waterfowl production and with harvest recreation opportunity being a secondary objective, we may not be justified in spending additional money on this property when other State properties will produce more returns for similar expenditure.

An alternative in long range planning would be to dispose of the property on the open market and return the sale proceeds to the acquisition fund, earmarked for the purchase of areas with greater potential for waterfowl production.

3. Further Development as a Waterfowl Area: Increasing this area's waterfowl production capability involves resolving such limiting factors as lack of adequate nesting sites and sufficient brood rearing areas.

Suitable uplands for development of nesting cover do not exist within the property boundary. This alternative requires expanding the property boundaries to the south and west to include good quality tillable uplands. Another way to enhance waterfowl production would be to construct nesting islands near or in permanent water.

Brood rearing areas are also limited on Mukwa Wildlife Area. The construction of impoundment areas could provide nearly 400 acres of brood water necessary for waterfowl production. This would involve a dike and water control system. Another technique would be to construct a series of level ditches or dugout ponds to create open water for rearing areas.

RECOMMENDED ALTERNATIVE ACTION

Suitable uplands are not available for development within the property boundary. Adjacent uplands, if acquired and developed, would not produce waterfowl commensurate with the costs of acquisition and development. Nesting island development would not be allowed under current regulations involving floodway, floodplain or wetland development. With the lack of present nesting areas and the poor prospect of creating such areas, development of more dugout ponds or level ditching is not advisable. Even if costs of acquisition and development of adjacent upland nesting sites were not a factor to consider, creation of brood rearing areas would be limited because of the flood problem in New London and overcoming difficulties associated with strict, state floodplain laws.

The current flood abatement alternative under consideration involves lowering the roadbed of County Trunk Highway "X" (the north property boundary) to create a 600-foot spillway to accommodate Wolf River flood waters. These flood waters would flow directly through the project and over most potential pond or level ditching or nest island sites. These resource management problems indicate alternative number 3 is not a good alternative for long range planning.

Wisconsin's projected demand for outdoor recreation activities include increasing demands by the year 2000 for hunting (33%), nature walking (139%), and hiking (169%). Using these projections as indices, it is apparent the demand for outdoor recreational activities may unduly tax the ability of the available resource to meet these needs. The contribution this property can make towards meeting these demands must be recognized. For this reason, alternative two is not acceptable.

Alternative number one represents the best approach to property management based on the limited resource potential offered by the Mukwa Wildlife Area. Further limitations evident on the property relating to user needs underscores the desirability of the status quo.

Appendix A
Master Plan Comments

By: Gary R. Knaption
Representing: Corps of Engineers
Date: January 21, 1980

This office has reviewed the master plan and as no development is anticipated in any wetland areas, no permits will be required from the Corps of Engineers. If future proposals involve placement of dredged or fill material in any wetland areas, authorization may be required from this office.

By: Forest Stearns
Representing: Scientific Areas Preservation Council
Date: November 15, 1979

We have reviewed the concept element of the Mukwa Wildlife Area Plan and find that the plan adequately covers our program interests. The 160 acre proposed scientific area will fill a significant gap in the scientific area system.

By: David Nabbefeld
Representing: Conservation Congress
Date: November 16, 1979

I agree with the findings and with your idea of keeping the Mukwa Wildlife Area for public use. Disposing of this property would be a mistake as the land has little value.

By: Harlan Keisal
Representing: East Central Regional Planning Commission
Date: January 25, 1980

Please note the location of the snowmobile trail on the land-use map and address the feasibility of cross-country ski trails. In addition, further development of the property as a waterfowl area should be explored including additional ponds, level ditching or impoundment systems.

DNR Response: Trails clarified p. 1 text, figure 2 and p. 3 text. Expanded waterfowl development rejected pp. 5-6.

By: David Drewiske
Representing: U.W. Extension

Please designate the snowmobile trail on the map. Concern is also expressed about the failure of the plan to mention cross-county skiing use.

DNR Response: Map corrected. Cross-country skiing added as Additional Benefit p. 1 and within text p. 3.

Appendix B
Master Plan Comments

By: Henry Kolka
Representing: Wild Resources Advisory Council
Date: November 21, 1979

Overall Review:

The Wild Resources Advisory Council agrees with the Task Force that alternative number one, Status Quo, is the best management proposal for Mukwa Wildlife Area. However, the Council disagrees that the project area has limited resource potential. In fact, in WRAC opinion, the project area is one of the more unique and rare areas of the total wildlife holdings in the state. Within the proposed project goal of 1485 acres is the conjunction of two high quality rivers, the Big and Little Wolf. This natural phenomenon in itself could be considered unique. Another big plus is the quality fishery and the fish regenerative capability of the two prime rivers. To these natural assets can be added a rich and, in some section of the area, an impressive natural biota and varied ecosystems. People that have canoed this area have been deeply impressed with the quality of aesthetics found in the two river corridors.

The WRAC find the project area a very worthy wild resource area and recommend the Status Quo alternative pattern of management.

DNR Response: Text modified pp. 1-5.

Comments and Recommendations:

1. pp. 1--Additional Benefits:

The WRAC recommends that item 5 be added.

5. "Provide a research, educational and aesthetically enhanced study scientific area of 160 acres."

The Wild Resources Advisory Council is very happy and pleased with the choice by the Task Force of the Scientific Area site. This proposal will provide the Scientific Area System a new category, physiographically.

DNR Response: Concur; created objective no. 4, p. 1.

2. pp. 1--Land Control:

The WRAC approves the property goal of 1,485 acres. The Council strongly supports increase of public lands of all categories.

3. pp. 1--Other Considerations:

The Task Force recommendations of a buffer zone of bottomland hardwoods from 200-300 yards wide to preserve the integrity of proposed scientific area is an excellent proposal and is supported by the WRAC.

4. pp. 3--second paragraph from top of page 1:

It is the hope of WRAC that a strong program of prevention of illegal preying on spawning runs of white bass and walleyes is operative.

5. Referring back to pp. 1--Additional Benefits:

The WRAC doesn't quite see how snowmobiling could be compatible with other recognized recreational uses. The maps do not show any recreational trails including snowmobiling. The Council does not have a policy of approving snowmobiles in public wild areas.

DNR Response: Do not agree; map clarified; text modified p. 3.

6. PP. 3--An Analysis of Alternatives:

The WRAC supports the alternative number one, Status Quo. The Council finds the management proposals in this alternative very realistic and sound.