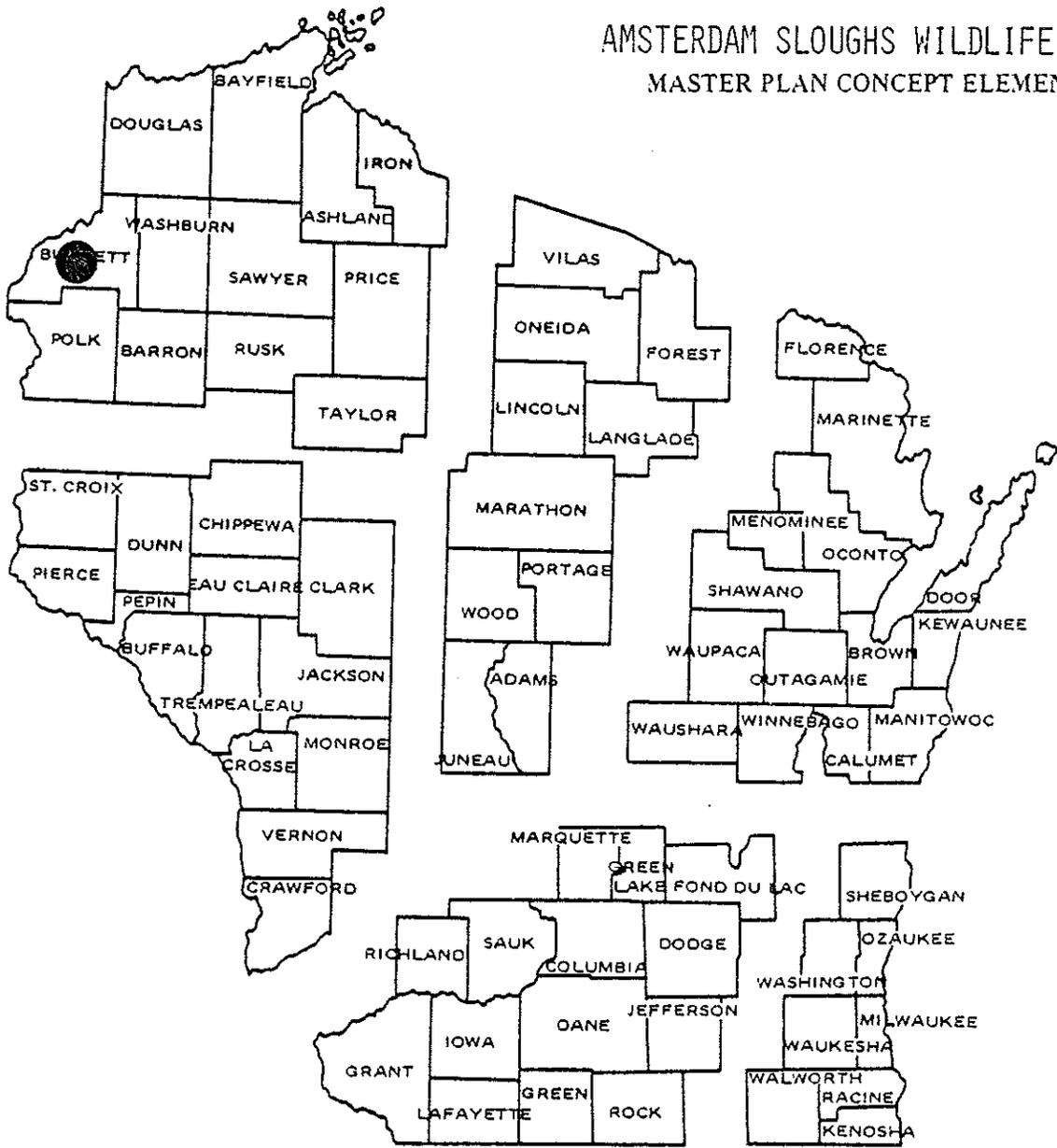


AMSTERDAM SLOUGHS WILDLIFE AREA
 MASTER PLAN CONCEPT ELEMENT



Approved by Natural Resources Board:

OCT 23 1980

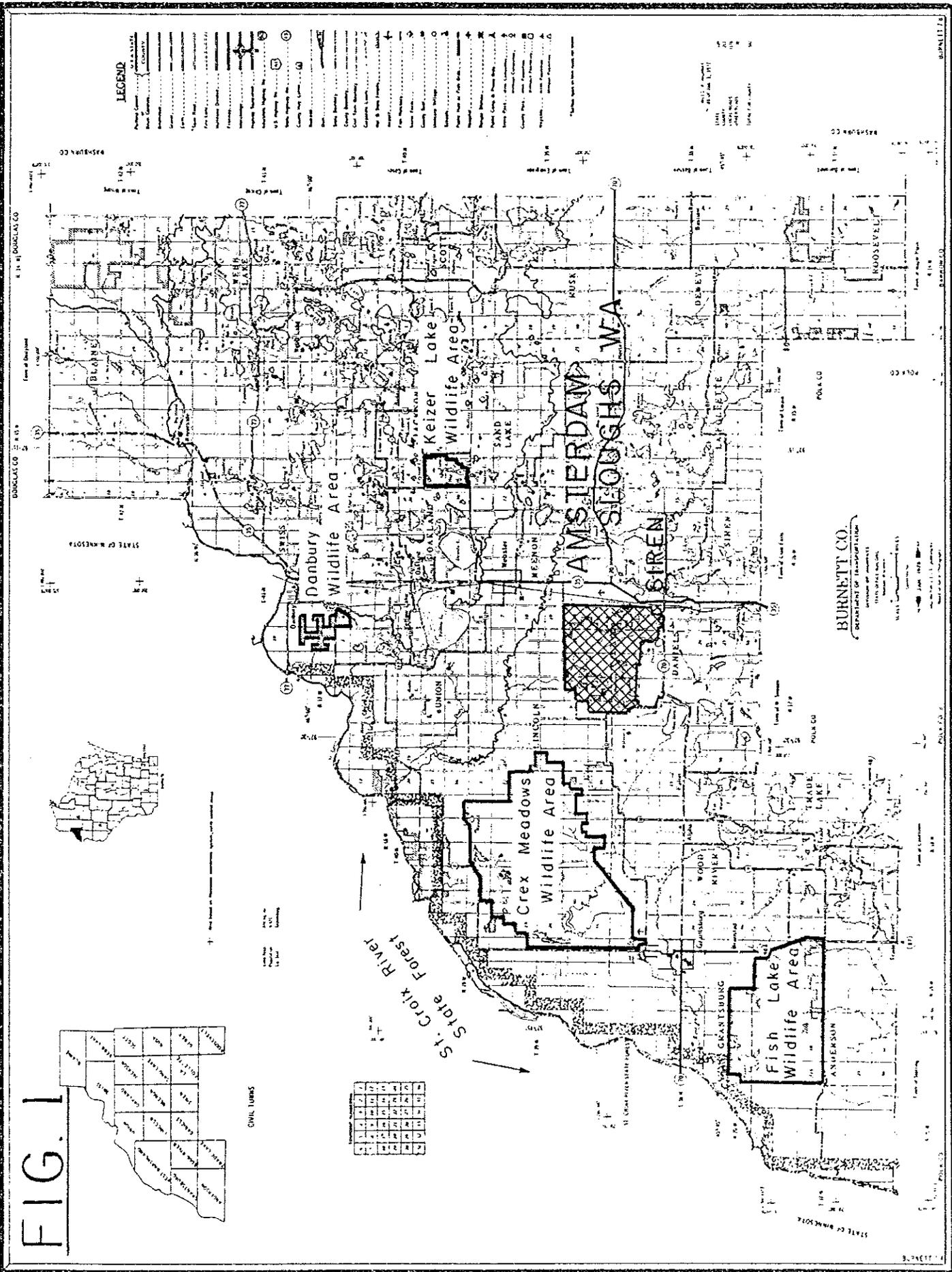
Date

PROPERTY TASK FORCE

Leader - STEVE MILLER, AREA WILDLIFE MANAGER
 STANLEY JOHANNES, FISH MANAGER
 ED FORRESTER, FORESTER

Submitted: JANUARY 31, 1980

FIG. 1



CONTENTS

	<u>Page</u>
SECTION I - ACTIONS	
Location Map	i
Foreword	iii
Goal, Objectives and Additional Benefits	1
Recommended Management and Development Program	1
SECTION II - SUPPORT DATA	
Background Information	6
Resource Capabilities and Inventory	8
Management Problems	11
Recreation Needs and Justification	12
Analysis of Alternatives	12
Agency and Advisory Group Comments	14

FOREWARD

The Amsterdam Sloughs Wildlife Area (ASWA) with an approved acreage goal of 7,233.30 acres is one of the four segments of the Glacial Lake Grantsburg Wildlife Management Complex. The other three are: 1. Crex Meadows Wildlife Area (approved acreage goal of 30,097.58 acres) 2. Fish Lake Wildlife Area (approved acreage goal of 14,124 acres) 3. Danbury Wildlife Area (approved acreage goal of 2,866 acres).

The long-range management of the four segment unit continues to be for waterfowl, sharptailed grouse and prairie chickens (Figure 1).

SECTION I - ACTIONS

GOAL, OBJECTIVES AND ADDITIONAL BENEFITS

Goal: To manage a state-owned wildlife area for sharp-tailed grouse, waterfowl and other wildlife associated with a brush prairie-wetland complex and to provide for compatible outdoor recreational and educational activities.

Annual Objectives:

1. Produce a minimum fall population of 150 sharp-tailed grouse.
2. Produce one duck per acre on 900 acres of water (900 ducks).
3. Provide 13,500 participant days of recreation as follows:

<u>Activity</u>	<u>Participant Days</u>
Deer hunting (gun and bow)	4,000
Waterfowl hunting	2,000
Other hunting	1,500
Furbearer trapping	1,000
Fishing	4,000

4. Maintain two nesting sites for osprey and a minimum of one nesting site for bald eagles (Wisconsin endangered species).
5. Provide opportunities for 1,000 participant days of snowmobiling recreation associated with a county trail system.

Annual Additional Benefits:

1. Accommodate 15,000 participant days of other recreational activities including sight-seeing, bird watching, nature study, photography, hiking and cross-country skiing.
2. Produce about 45 Canada geese.
3. Contribute to the habitat of other migratory and resident wildlife, including endangered and threatened species.

RECOMMENDED MANAGEMENT AND DEVELOPMENT PROGRAM

Implementation of a brush prairie-wetland management program is recommended. This approach will complement similar management now occurring on the nearby Crex Meadows and Fish Lake Wildlife Areas. Additional prairie-wetland habitat will be created and intensively managed for sharp-tailed grouse, waterfowl and other wildlife. The prairie-wetland habitat resource is scarce in Wisconsin and its management on the ASWA will not only contribute additional acreage to this habitat type but contribute significantly to sharp-tailed grouse populations as well as other brush-prairie wildlife which have been declining in Wisconsin due to habitat loss.

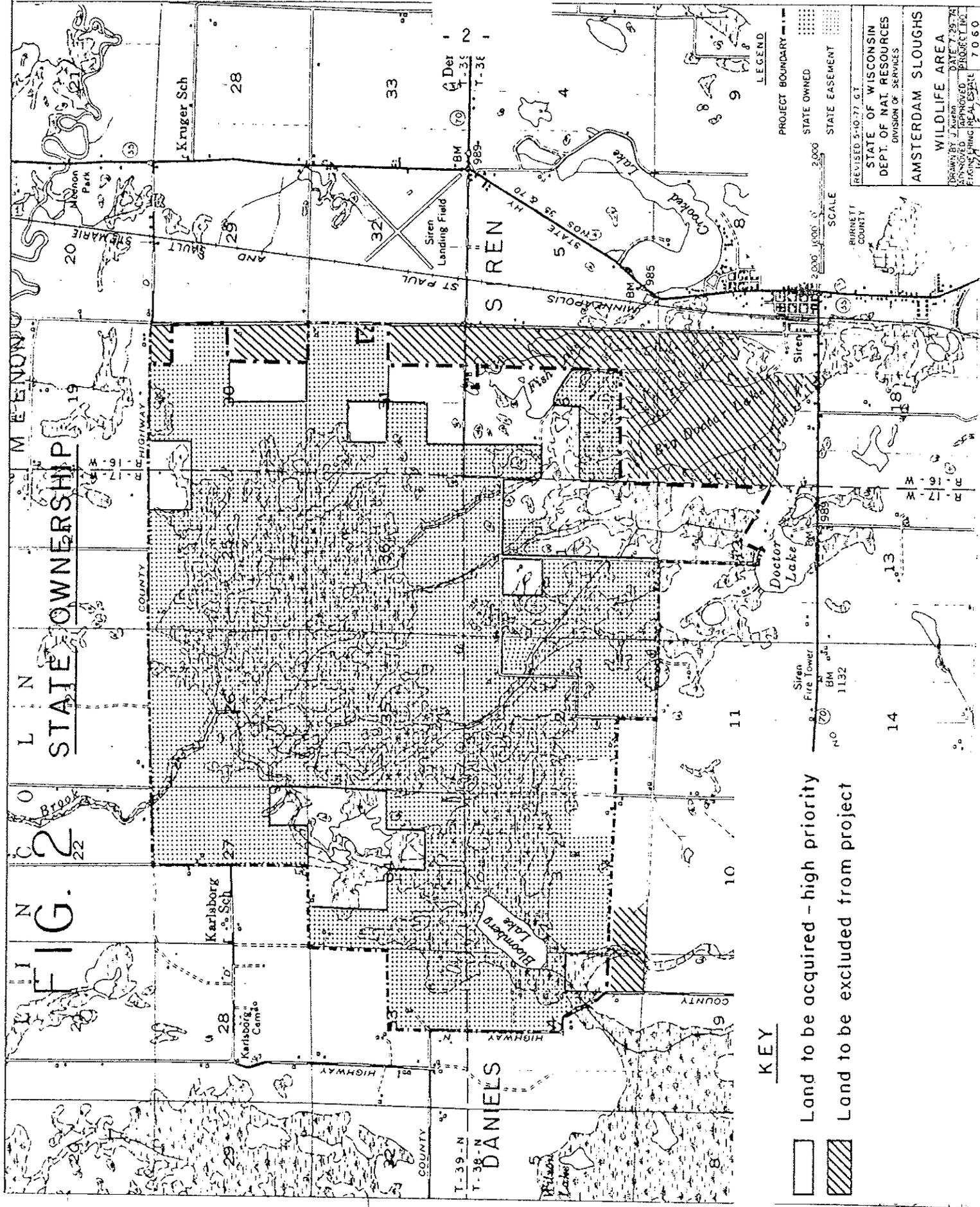
Acquisition:

Revise the property boundary as shown in Figure 2 and maintain the acquisition goal of 7,233.3 acres. This change will eliminate lands along "old" highway 35 and the shoreline of Big Doctor Lake which, because of development, can no longer contribute to fulfilling the goal and objectives of ASWA.

Currently, 6,022.38 acres are in state ownership. About 25 tracts totaling 1,210 acres remain to be acquired. The 25 tracts are considered priority lands and should be acquired as they become available. Building disposal will be decided on a case-by-case basis. Generally if the presence of buildings will not significantly conflict with ASWA objectives, such sites could be traded or sold.

Land Use Designations and Planned Management:

The uniform land use classification system has been applied to designate the land use potentials of the ASWA. The appropriate symbols are entered on the master plan map (Figure 3). The management to occur within each land use area is described in the following:



KEY

- Land to be acquired - high priority
- Land to be excluded from project

LEGEND

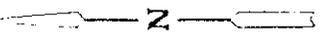
- PROJECT BOUNDARY
- STATE OWNED
- STATE EASEMENT

REVISED 5-10-77, G.T.
 STATE OF WISCONSIN
 DEPT. OF NAT. RESOURCES
 DIVISION OF SERVICES
 AMSTERDAM SLOUGHS
 WILDLIFE AREA
 DRAWN BY J. AUSTIN DATE 7-28-74
 APPROVED BY [Signature] PROJECT LINC.
 ENGINEERING INC. REAL ESTATE
 7060

SCALE
 2000' 1000' 500'
 RURNETT COUNTY

STATE OWNERSHIP

DANIELS



Blomberg Lake (68 acres) is designated as a Wild Lake (A2). At the present time, there is primitive road access to within 200 feet of the lakeshore. Walk-in access from that point to the lake is used primarily by duck hunters. Farm tractors cultivate sharecropped lands to within approximately 400 feet of the lake. However, the lake itself is screened from the fields by a dense stand of tamarack-black spruce trees.

A portion of Black Brook Flowage is designated as a Habitat Preservation Area (HP). Two pairs of osprey and one pair of bald eagles have nested here in recent years. These birds use dead trees in the flowage for nesting. However, these natural nesting sites are gradually falling down from wind and water action. Artificial nesting structures will be erected in the future as the natural nest sites are lost.

The bulk of the ASWA is designated a Fisheries and Wildlife Development Area (RD₂). The overall wildlife developments planned (Figure 4) are:

1. Creation of 16 flowages with water control structures totaling about 500 acres.
2. Restoration of small potholes (0.05 acres) by removing accumulated deposits from their basins; some new ones will also be created (total-100).
3. Construction of an additional 15 miles of firebreaks and maintenance on a total of 19 miles of firebreaks to accomplish periodic controlled burning on about 5,000 acres of upland and marsh.
4. Establishment of 450 acres of dense nesting cover on old agricultural fields.
5. Establishment of a 560-acre closed area to provide sanctuary for waterfowl during the hunting season.
6. Annual cultivation of 250 acres via sharecropping to provide food for wintering sharp-tailed grouse and migrating waterfowl.
7. Commercial timber sales and other forest management on about 850 acres. An estimated 450 cords per year will be harvested. Forest management practices to be used include: timber stand improvement, clear cutting, selective cutting, reforestation, and controlled burning.
8. Clearing of about 2,000 acres of forested upland to develop brush prairie habitat.

Twelve intensive recreation development areas (IRD) are planned. Three combination boat landing-parking lots with a combined capacity for 20 cars and boat trailers will give hunters, trappers and fishermen access to Black Brook Flowage, Fish Lake and Big Doctor Lake. Nine additional parking lots will be constructed around the project and will have a combined capacity for 45 cars.

A 10 mile hunter walking trail system will be created by combining the existing six miles of snowmobile trail and creating an additional four miles of gated walking trails. The existing snowmobile trail is an easement in conjunction with the Burnett County snowmobile trail system. Snowmobiles will not have access to the hiking trails, but the snowmobile trail could be used by hunters and hikers during the snow-free part of the year. Snowmobilers using the authorized trail are forced to detour around the Black Brook Flowage water control structure onto Burnett County Highway "D". An adequate bridge must be constructed over the water control structure to end the present practice. The snowmobile trail will be closed to vehicular traffic during the snow-free part of the year.

Timetable:

Acquisition is expected to take 10 to 15 years for completion. The wildlife and public use developments could be completed within five years if adequate funding is available. However, a more realistic timetable for full development of the planned work items is 7 to 10 years.

Costs:

<u>Development</u>	<u>Estimated Cost</u>
16 flowages totaling about 500 acres with water control structures	\$100,000
100 potholes	15,000
15 miles of firebreak	20,000
450 acres of Dense Nesting Cover	45,000
3 combination boat landings with parking lots	10,000
9 parking lots	9,000
4 miles walking trails with gates	1,500
clearing of 2,000 acres (done via commercial timber sales and firewood sales)	(primarily *administrative costs)
	<u>\$200,500.00 Total</u>

*Administrative costs are not included in these estimates. These costs would include such items as salaries for DNR personnel, preparation of project proposals, and environmental impact assessments.

<u>Annual Maintenance and Operations</u>	<u>Estimated Cost</u>
Prescribed burning on 1,500 acres per year @ \$2.50 per acre	\$ 3,750
Firebreak maintenance 3 miles per year	500
Dike maintenance	500
Other--signs, gates, trails, parking lots	500
	<u>\$5,250.00 Total</u>

SECTION II - SUPPORT DATA

BACKGROUND INFORMATION

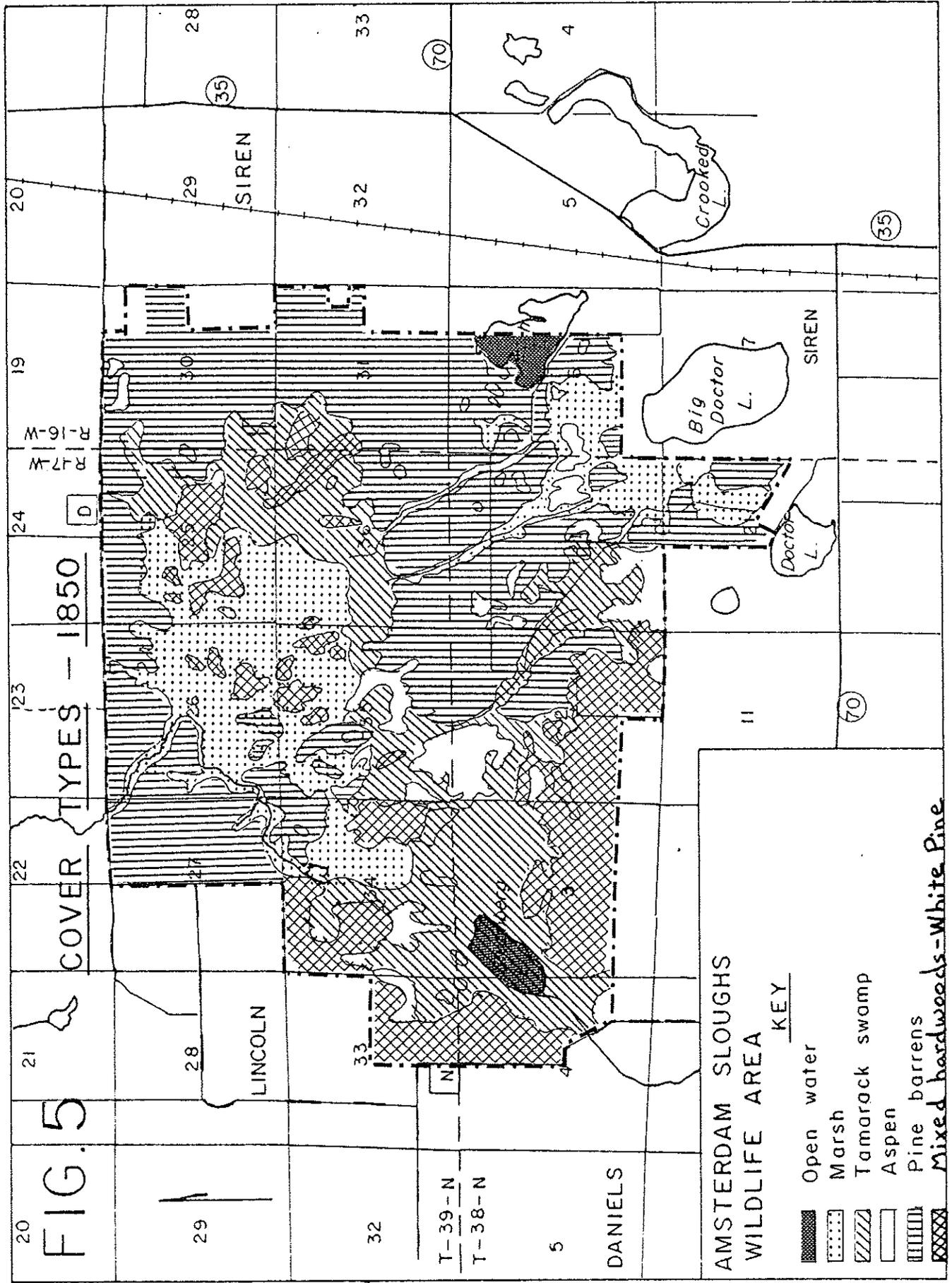
Historical:

In 1945, the Wisconsin Conservation Department, under the authority of Chapter 23.09, Wisconsin Statutes, began to purchase and restore lands to a condition highly productive of wildlife in the Crex Meadows and Fish Lake Wildlife Areas. In 1956, the scope of this activity was expanded by the creation of the ASWA with the purchase of 40 acres of land from the Federal Bureau of Land Management for \$1.58 per acre.

In 1958, the ASWA grew rapidly with the purchase of 2,827.23 acres of tax-delinquent land from Burnett County for \$2.00 an acre. At that time, the authorized acreage goal was increased to 7,235.85 acres. In 1974, it was reduced slightly to 7,233.30 acres for administrative purposes. Historically, the "barrens" on the sandy soils in what is now western Burnett County were maintained as brush prairie and/or prairie savanna by wildfire. Fires set by Indians and lightning burned here periodically for centuries. At the time of the General Land Office surveys, which began in the 1850's, the prairie savanna was noted and described by the surveyors (Fig. 5). The marshes associated with the area were largely devoid of trees, covered with water and supported a rich community of plants and animals. The southeastern portion of the present wildlife area supported a northern hardwoods-white pine community.

White settlement began shortly after 1850 and upset the primitive man-land relationship. Intense logging began in the 1860's and settlers farmed the open brush prairie land. Beginning in the 1880's, ditches were constructed to drain the marshes. The Amsterdam Sloughs marshes were drained in the early 1900's. Since the 1930's, wildfires were largely controlled and a jack pine-scrub oak forest replaced the brush prairie-savanna. DNR management objectives have been to restore the 1850 conditions as much as possible. This has involved restoring water to the lowlands and using fire on certain portions of the uplands.

Development began in 1968 with the construction of the Black Brook dike creating a flowage of 473 acres. To date, 75 potholes averaging 0.05 of an acre in size have been excavated. A total of 3.5 miles of firebreaks 100 feet in width have been constructed. Wood products are sold and harvested using commercial timber sales. In 1977, 154.5 acres were being share-cropped in three areas to provide wildlife food. In order to improve waterfowl habitat, 86 acres have been cleared of woody vegetation and 5 acres of nesting cover have been planted. A boat ramp and parking lot serving as public access to Big Doctor Lake were constructed in 1976.



RESOURCE CAPABILITY

Soils, Geology and Hydrology:

The eastern part of the ASWA is underlain by basalt and gabbro bedrock while the western half of the wildlife area is underlain by Upper Cambrian sandstone. Glacial till of varying depths overlies the bedrock.

Ground water resources are closely tied to the bedrock geology. The eastern portion of the ASWA underlain by basalt and gabbro has a sand-gravel aquifer capable of producing less than 100 gallons of water per minute. The western half has a sandstone aquifer also producing less than 100 gallons of water per minute.

All of Burnett County was covered with ice during the glacial period. At least three advances of ice came into northwestern Wisconsin from the north or northwest as part of the Kewatin ice shield. When the glacier retreated, parts of western Burnett County were under water. This was Glacial Lake Grantsburg. When the post-glacial waters drained away via the St. Croix River, the lake disappeared leaving a vast sandy plain pitted with many marshes. The ASWA occupies a portion of this area.

The soils vary from organic peat in the lowlands to sands and sandy loams in the uplands. The poorly drained organic soils were derived from organic material such as grasses, sedges, fibrous and woody plant remains. This material is in various stages of decomposition and of variable depth. As decay progresses, the raw peats grade toward the muck condition.

The upland soils range from the deep sands of the Meenon-Newson and Omega-Vilas-Friendship Associations to the Gaslyn-Hertel-Pence and Braham-Karlsborg loamy sands to the Washburn-Iron River and Blomford-Meenon sandy loams. The Meenon-Newson sands are poorly drained while the Omega-Vilas sands are excessively drained. The "A" horizons on the sands is very thin or missing altogether in many places. Past agricultural attempts using primitive methods and practices failed and demonstrates the general lack of suitability of these sand and peat soils for cropland. The sandy loams, however, are suitable for agricultural uses.

Fish and Wildlife

The ASWA is presently occupied by species of wildlife common to sedge marshes and early successional stage forests. Common mammal species usually considered as "game" animals include the white-tailed deer, gray squirrel, snowshoe hare, raccoon, coyote and red fox. Other mammals present but uncommon include the black bear, cottontail rabbit, and bobcat. Animals that are trapped for their fur or pelt include the weasel, mink, otter, skunk, muskrat and beaver. A complete listing of species recorded on the wildlife area is maintained at the Department of Natural Resources area office located in Cumberland.

Many birds presently inhabit the wildlife area both permanently and seasonally. Common game birds include the ruffed grouse, sharp-tailed grouse, Canada goose, mallard, blue-winged teal, hooded merganser, wood duck and ringnecked duck.

Nongame birds are plentiful and include nesting broad-winged, sparrow, and red-tailed hawks; barred and great horned owls; pileated and other woodpeckers; bitterns, green herons and many songbirds.

Endangered species occurring are osprey (2 nests) and bald eagle (1 nest). Double-crested cormorants (endangered) had nested on the Black Brook Flowage until the late 1970's when windstorms blew down their nest trees. Cormorants nest on the nearby Fish Lake Wildlife Area and erection of artificial nest platforms on Black Brook Flowage may attract cormorants back to ASWA.

Wisconsin threatened species occurring on ASWA included the great egret (not nesting) and red-shouldered hawk (nesting). Species currently on Wisconsin's "Watch" List occurring on ASWA include bobcat, common loon, great blue heron, black duck, harrier, sharp-tailed grouse, upland sandpiper, black tern, common flicker, eastern bluebird, hognose snake, tiger salamander and leopard frog.

Black Brook Flowage contains a population of bullheads and minnows which are severely limited by regular winterkill caused by oxygen depletion. Black Brook north of County Highway D has a warmwater fishery of northern pike, bluegill, perch, rock bass, bullhead, white sucker, Johnny darter, brook stickleback, mudminnow, common shiner and creek chub. Fish Lake contains largemouth bass, bluegill and bullhead, but is subject to winterkill. Big Doctor Lake contains a substantial fishery of northern pike, largemouth bass, perch, bluegill, pumpkinseed and bullhead.

Vegetative Cover (Figure 6)

A cover type map was developed in 1980 (Fig. 4). Marsh vegetation is mostly sedges dominated by Carex stricta. Scattered among the sedges are stands of rushes, cattail and meadow grasses and stands of alder and willow. A plant community of tamarack with some black spruce trees having a sphagnum moss understory are also present on the property.

The grassland acreage is mainly abandoned agricultural fields that are dominated by exotic grasses. In some areas native prairie grasses including bluestems (Andropogon gerardi and A. scoparius) and Indiangrass are reinvading the grasslands.

The state-owned forest on the uplands is mostly aspen with limited acreage of swamp hardwoods, oak, jack pine, and red pine plantations. No threatened or endangered plant species are known to be present.

VEGETATION TYPES ON THE AMSTERDAM SLOUGHS WILDLIFE AREA

<u>Type</u>	<u>Acreage</u>	<u>Percent</u>
Open water	507	8.2
Sedge marsh	1,583	25.8
Lowland brush	357	5.8
Tamarack	113	1.8
Swamp hardwoods	173	2.8
Agricultural fields	154	2.4
Old fields	461	7.4
Aspen	2,107	34.1
Oak	125	2.0
Jack pine	438	7.1
Red pine	161	2.6
Total	6,179*	100.0

*Includes Blomberg Lake (68 acres) but excludes 1,464 acres of private land within the boundary that was not cover typed.

Water Resources:

The headwaters of Black Brook originate in old defunct drainage ditches in a large marsh. The ditches date back to the early 1900's making it impossible to determine where the original source of the stream was located. Black Brook discharges into the Clam River.

The watershed drained by Black Brook in the wildlife area contains approximately 10,000 acres south of Burnett County Highway "D". A small area in the extreme southeastern corner of the ASWA is in the Wood River watershed.

Blomberg Lake is the only natural lake completely within the wildlife area. It is a bog lake with a surface area of 68 acres and a maximum depth of 4 feet. The water is acid, relatively infertile (23 ppm alkalinity) and darkly stained with humic acid. There is no fishery due to its shallow depth. The lake has a perched basin with water flowing intermittently south to Mudhen Lake and north to Black Brook.

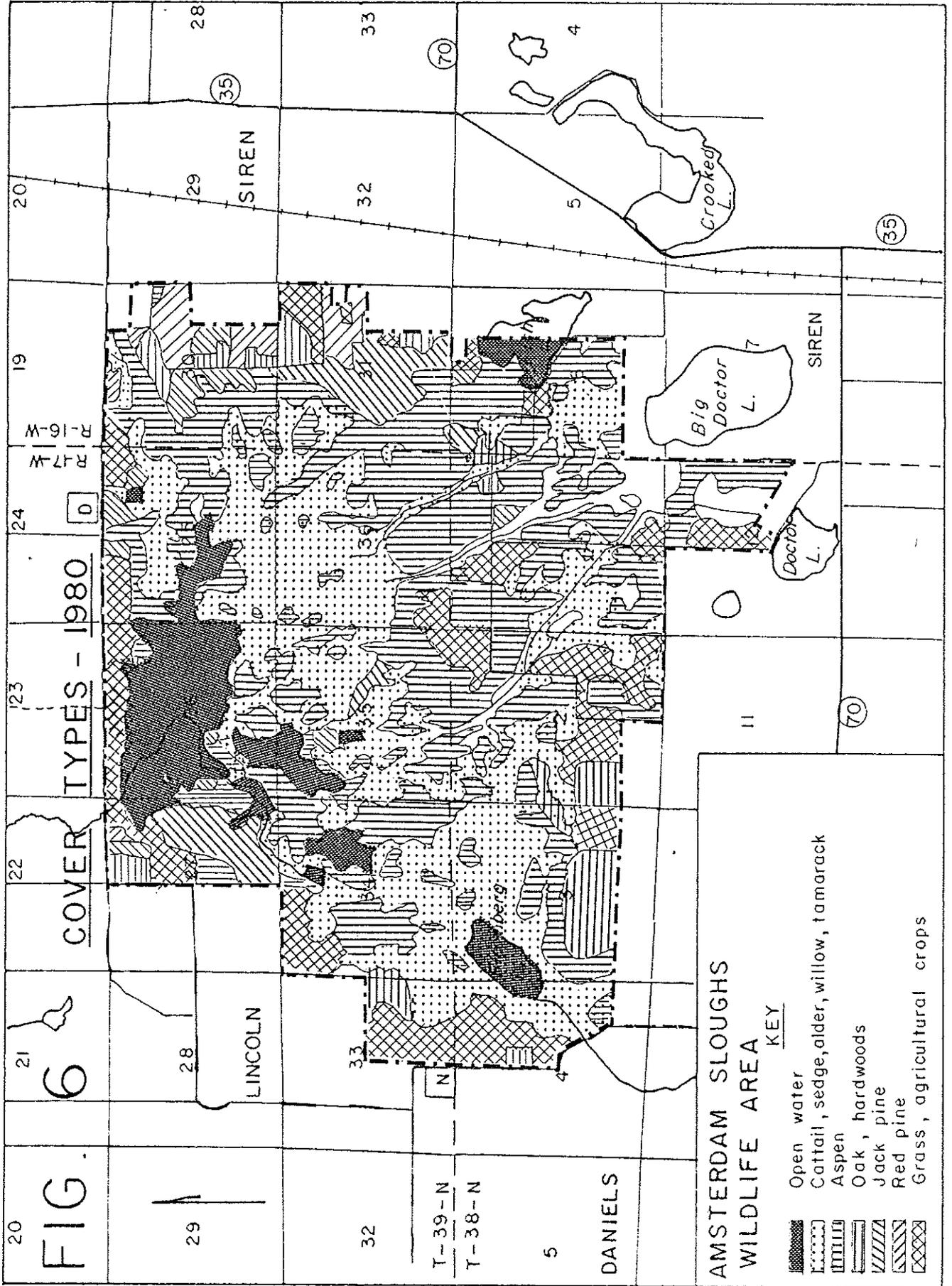
The other two lakes that have a portion of their shoreline in state ownership are Fish Lake and Big Doctor Lake. Fish Lake has a surface area of 94 acres and a maximum depth of 6 feet and is subject to winterkill. Big Doctor Lake is a clearwater lake of 220 acres and has a maximum depth of 6 feet, but winterkill is less frequent than in Fish Lake.

Doctor Lake, a 74 acre landlocked lake located southwest of Big Doctor Lake, is a soft water seepage lake which is subject to an occasional complete winterkill. However, since it provides a largemouth bass and panfish fisheries, as well as waterfowl hunting opportunities, public access will be provided on the north shore.

Historical and Archaeological Features:

There are no known significant historical and archaeological sites. The large marsh in the center of the project was utilized as a source of raw materials, wire grass, for the Crex Carpet Company in the early 1900's and later as a source of marsh hay by local farmers. Liaison will be established with the State Historical Society, Historic Preservation Division to insure developments do not contain significant sites.

Currently, 6,022.83 acres are in state ownership. As of 1974, the property boundary encompassed a total of 8,383 acres and approval was given to acquire a maximum of 7,233.3 acres within this property boundary. However, development has encroached upon ASWA from the east along "old" highway 35 and in the Big Doctor



Lake area. Lands in these areas are now occupied by permanent and seasonal homes. Because of this development, these lands would be very costly to acquire. It is suggested the property boundary be revised to exclude this developed land.

The recommended revised property boundary will include a total of 7,572 acres. Only 7,233.3 acres (25 tracts) are recommended for future acquisition.

Current Use:

The Amsterdam Sloughs Wildlife Area is used primarily by hunters and fishermen at the present time. An estimated 5,500 hunter, trapper and fisherman visitations are made annually to the property.

Anglers on Big Doctor and Fish Lake account for 2,000 days of use followed by 1,000 bow-deer; 800 gun-deer; 700 waterfowl; 600 upland game participant days by hunters; and 400 participant days by trappers.

An estimated 2,000 other user visitations are made annually. This includes 1,000 snowmobiler visitations and 1,000 other visits from people observing wildlife, picking berries, mushrooms and similar activities.

MANAGEMENT PROBLEMS

1. Habitat Conditions - Existing habitat is severely limiting sharp-tailed grouse populations on ASWA. Existing sharptail habitat is relatively poor quality consisting of sedge marshes and the small amount of cultivated and abandoned farm lands. The overall aspect of ASWA is that of a young aspen-oak-northern hardwoods forest, not capable of supporting over minimal sharptail populations.

This same forested aspect plus the seasonally flooded sedge meadows also limit potential duck, goose, aquatic furbearers and wetland wildlife productivity of ASWA.

The planned conversion of most of ASWA to a brush prairie habitat will greatly benefit sharp-tailed grouse, waterfowl and other wetland wildlife. Without returning plant life to an earlier succession on ASWA, sharp-tailed grouse will be eliminated. Waterfowl production can be enhanced at the same time as sharptail management. Runoff from brush-prairie has been documented to be higher in nutrients than forest runoff thus enhancing the fertility of marshes and flowages.

Additional flowages will create much more permanent water for waterfowl and wetland wildlife. Marshes which now normally dry out in July will retain sufficient water to raise waterfowl broods and insure overwinter aquatic furbearer survival.

Forest wildlife will not be eliminated from ASWA under this management plan. Deer, summer range will actually be improved and, since deer do not winter on ASWA when snow depths exceed 15 inches, they will not lose winter habitat.

Ruffed grouse, gray squirrel and forest bird habitat will be reduced. However, a large amount of forest habitat exists in the vicinity of ASWA while the brush-prairie/sharp-tailed grouse habitat type is very scarce throughout Wisconsin.

2. Water quality - Dark brown, humic acid discolors surface water throughout the wildlife area and limits light penetration for aquatic plant growth. It is this stain that gave Black Brook its name. Relatively low water fertility is another minor problem. The headwaters of Black Brook, for the most part, originate in wild, forested land. The runoff is medium to low in fertility (35 ppm alkalinity) making Black Brook flowage less attractive to waterfowl than more fertile flowages. Runoff from brush prairie savanna is more abundant and contains more nutrients than runoff from an equal area of forested land. Thus, the waters of the existing and proposed flowages can be enriched somewhat through planned management.

Due to the shallow nature of Fish Lake and the existing and proposed flowages, there is little potential for any significant fishery to become established. Only Big Doctor Lake has a fishery of any significance. Minnow populations are established in existing lakes and flowages and are expected to become established in proposed flowages. The lack of a sport fishery on the flowages will prevent any potential conflicts with the primary objective of waterfowl production. Commercial minnow production in the waters will not be permitted because of direct conflicts with property objectives.

3. Closed area - The proposed 560-acre closed area will provide an area of minimal human disturbance for locally produced ducks, giant Canada geese and other wildlife. This will encourage the growth of these populations and yet provide better hunting over a longer period of time in the fall. At the present time, most ducks, geese and other marsh birds, like cranes, leave the area after the hunting season opens due to human disturbance.

4. Miscellaneous - There are minor problems of misuse on the area involving littering; vandalism; fuel wood, sand and topsoil theft; illegal snowmobile, motorcycle and four-wheel drive vehicle use; and unauthorized camping.

LONG-RANGE RESOURCES, RECREATION NEEDS AND JUSTIFICATIONS

The 1970 census indicated that Burnett County has a population of 9,276 people. The population has declined from 11,382 in 1940. However, population projections by the Department of Rural Sociology, University of Wisconsin, predict a substantial increase in population over the next two decades. The local census figures do not, however, indicate the pressure being exerted on Burnett County from the growing Minneapolis-St. Paul metropolitan area, a scant 1½ hours driving time from the wildlife area. The Minneapolis-St. Paul metropolitan area had a 1970 population of 1,704,423.

Sightseeing:

Many scenic recreational resources exist in Burnett County, including the St. Croix National Scenic Riverway, the St. Croix River State Forest, several state wildlife areas and several historic sites.

Residents in Region 14⁽¹⁾ generate sightseeing recreation occasions at a rate above the state average. Participation in this activity is expected to increase from 15,060 occasions per average weekend day in 1970 to 18,443 recreation occasions per average weekend day in 1990. Many sightseers will take advantage of the scenic views and wildlife activity at ASWA. As habitat is developed and wildlife increases, public use will also increase. Better information systems will be needed to accommodate sightseers, people driving for pleasure, photographers and bird watchers. Better signing to direct public use is needed at ASWA. A brochure describing the area will be written and printed.

Hiking and Nature Study:

Adequate trail mileage or potential corridors are available to Region 14. General trail layout and signing of existing trails and corridors can be improved on the ASWA to help meet present and future demands for this activity.

There may be a need to integrate the naturalist program of the Glacial Lake Grantsburg Complex with that of the St. Croix River State Forest. With well over 100,000 annual visitors, this can become a major workload item in the administration of the properties. A summer naturalist program, staffed by a professional, appears to be necessary and should be fully evaluated by the Department.

Snowmobiling:

Sparse population densities, large acreages of public land and climatic conditions enable and, in fact, encourage snowmobiling in Planning Region 14. Public lands designated for snowmobiling are well distributed and trails and riding areas are relatively abundant.

Snowmobiling is now prohibited on the Amsterdam Sloughs Wildlife Area except on the authorized Burnett County trail in compliance with state policies.

Off-The-Road Motor Sports:

Illegal motorcycle and minibike use has taken place in the past on the ASWA on upland areas. Due to the sandy soils, erosion could become severe. The use of these vehicles will be prohibited on the wildlife area except on public roads.

Hunting And Trapping:

To maintain and perhaps improve hunting quality and quantity, habitat must be managed more intensively for wildlife production. Control of hunter numbers in relation to the productivity of the resource, and to improve hunter satisfaction, should be considered.

In 1978, an estimated 50 waterfowl hunters were present on the opening weekend of the season. Hunting pressure decreases as the season progresses, but considerable use by dedicated waterfowlers continues. The deer bow and arrow season results in the next heaviest use by the hunting public.

ANALYSIS OF ALTERNATIVES

1. Maintain Status Quo - One alternative is to do nothing and leave the project "as it now exists". This alternative would leave a major game management project in partial development and would not realize the full potential for which the land was purchased. Sharp-tailed grouse would be completely eliminated from the area, adding to the precarious position of this species statewide.

(1) From the State of Wisconsin Comprehensive Outdoor Recreation Plan. Region 14 includes Burnette, Washburn, Sawyer, Price, Rusk and Taylor Counties.

The present forest growing on the uplands has good potential economic value. If natural succession is allowed to continue in the absence of fire, the jack pine and aspen will soon disappear and be replaced by low quality hardwoods. This would reduce both the value to wildlife and the potential value of the available forest products.

Over a long period of time, the existing sedge marshes would continue to be too wet for upland game species and too dry for waterfowl, mink, muskrat and otter. Some species of songbirds which occupy a sedge mat niche would continue to exist in that community.

2. Enlarge Property - To significantly enlarge the property or program, the boundaries would have to be extended and the acreage increased. The most feasible enlargement would be to extend the boundaries westward to include Sections 26, 27, 28, 29, 30, 31, 32, 33, T39N, R17W. This would join the two wildlife areas (Crex Meadows and ASWA). Benefits here would be mostly for sharptail management since it would allow land management to facilitate movements of the birds between the two areas. This alternative would also displace more Burnett County residents. At the present time it does not appear that the hunting demand justifies the expenditures of expanding the ASWA.
3. Reduce Property - Since the majority of the lands necessary for the presently proposed program are already in state ownership, it is not desirable to reduce the property beyond what is proposed and still attempt to attain the goal of maximum wildlife productivity. The proposed property boundary includes those lands necessary to achieve the stated goal and facilitate efficient management.
4. Manage for Timber Production - At the present time, there are approximately 2,830 acres of state-owned land in merchantable or potentially merchantable forest cover. Much of it is mature or soon to mature aspen and jack pine. The remaining forest acreage is in nonmerchantable types. While some of the timber is located on islands or in small, inaccessible patches, most of it is readily available for harvest.

If the forest rotation were to be perpetuated, natural regeneration would follow cutting of the aspen stands. In the case of jack pine, approximately 50 percent could restock itself naturally, while the remainder would require planting or direct seeding. Once restocking was completed, the uplands should produce wood products on a long-term basis at the same rate as a well managed county or state forest.

Intensive management for forest products would also require the conversion of the nonmerchantable types and the open areas to red pine plantations. This action would reduce the wildlife carrying capacity of the ASWA. While feasible, this alternative would completely defeat the planned purpose of the property. Prior attempts to drain the marshes to create farmlands were not successful. The area was mostly acquired by Pittman-Robertson funds for development of a prairie waterfowl habitat. If this plan is not pursued, the U.S. Fish and Wildlife Service would require a refund of P-R monies provided for the project. Without the complementary prairie habitat for nesting, the flowages would not be productive of waterfowl. Open lands around the flowages are essential for waterfowl production and food patch management for geese. Management for timber production will completely eliminate sharp-tailed grouse.

This option could be implemented in a number of ways varying from more timber management and less prairie, to more prairie and less timber. The Glacial Lake Grantsburg complex offers possibly the best remaining opportunity for sharp-tailed grouse management in Wisconsin and, perhaps, the lake states region.

5. Combination Management:
The Crex Meadows W.A. and Fish Lake W.A. are already committed to a major objective of maintaining sharptail populations. The close proximity of ASWA to these properties offers the opportunity for ASWA to significantly complement this effort. Thus, the most desirable combination of open water, prairie and timber is the one which will have the greatest benefit for sharp-tailed grouse and waterfowl.

This option will restruct the size of the forested land and create a maximum of sharptail and waterfowl habitat.

If this proposal were to be completely implemented, there would be a transition period between forest and prairie. The development will proceed in an orderly manner, one segment at a time. This will permit most of the timber to be harvested at a merchantable stage so the projected value will be recovered before prescribed fire is utilized to convert the lands to prairie. Some scattered, open stands of both pine and oak will undoubtedly remain. Both of these species are found in a fire influenced ecosystem in this latitude.