

RE/4

Form 1100-1
Rev. 11-82

NATURAL RESOURCES BOARD AGENDA ITEM

Item No. _____

SUBJECT: MASTER PLANNING - Approval of the Master Plan for Rome Pond Wildlife Area - Jefferson County.

FOR August **BOARD MEETING**
(month)

TO BE PRESENTED BY: Steve Miller

SUMMARY:

The Concept Element of the Master Plan has been developed for the Rome Pond Wildlife Area located in Jefferson County. The Department proposes to manage 2,632.37 acres for duck production and compatible recreation. The Plan requires a 275-acre increase in the acquisition goal. No controversy has occurred during the master planning process.

RECOMMENDATION:

Natural Resources Board approval of the Rome Pond Wildlife Area Master Plan (Concept Element), including property boundary modifications and increase in land acquisition goal from 2,407.37 to 2,632.37 acres.

LIST OF ATTACHED REFERENCE MATERIAL:

- No Fiscal Estimate Required
- No Environmental Assessment or Impact Statement Required
- No Background Memo

- Yes Attached
- Yes Attached
- Yes Attached

APPROVED:

- cc: Judy Scullion - AD/5
- James Addis - AD/5
- Carl Evert - RE/4
- Steve Miller - WM/4
- James Huntoon - SD

Steven W. Miller
Bureau Director Steven W. Miller

7/22/88
Date

James T. Addis
Administrator James T. Addis

8/2/88
Date

C. D. Besadny
Secretary C. D. Besadny

8-4-88
Date

CORRESPONDENCE/MEMORANDUM

STATE OF WISCONSIN

Date: July 21, 1988

File Ref: 2300

To: C. D. Besadny

From: Steve Miller



Subject: Rome Pond Wildlife Area

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 Southern District. Agreement was reached on the treatment of comments, the majority of which were incorporated into the final draft. Advisory group and outside agency comments along with Department responses are shown in the Plan Appendix. No public controversy has been brought to our attention during the review process.

The Plan establishes objectives to produce ducks and pheasants, provide public hunting and fishing opportunities, protect unique plant communities as well as to accommodate compatible recreation and education.

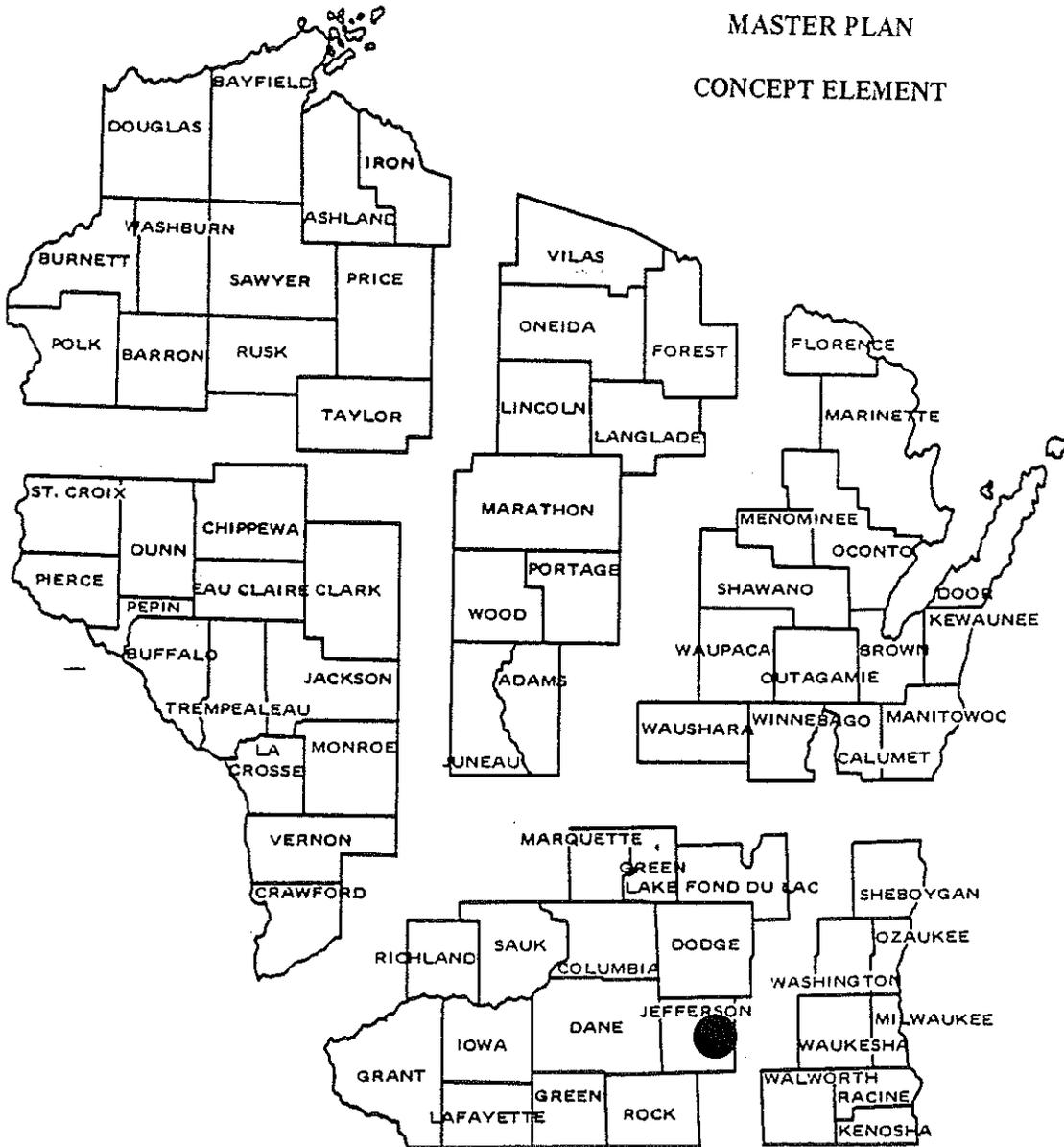
Presently, the state owns 2,036.73 acres. An increase of 275 acres and purchase boundary modification is necessary to achieve the proposed goal and objectives for this property.

SWM:DLG:mg

ROME POND WILDLIFE AREA

MASTER PLAN

CONCEPT ELEMENT



Property Task Force

Leader: Douglas Fendry, Wildlife Manager
Don Bush, Fish Manager
Bob Weiss, Parks and Recreation
Joy Jordon, Forester
Steve DeWald, Law Enforcement

Approved By: MRS
Date: 8/25/88

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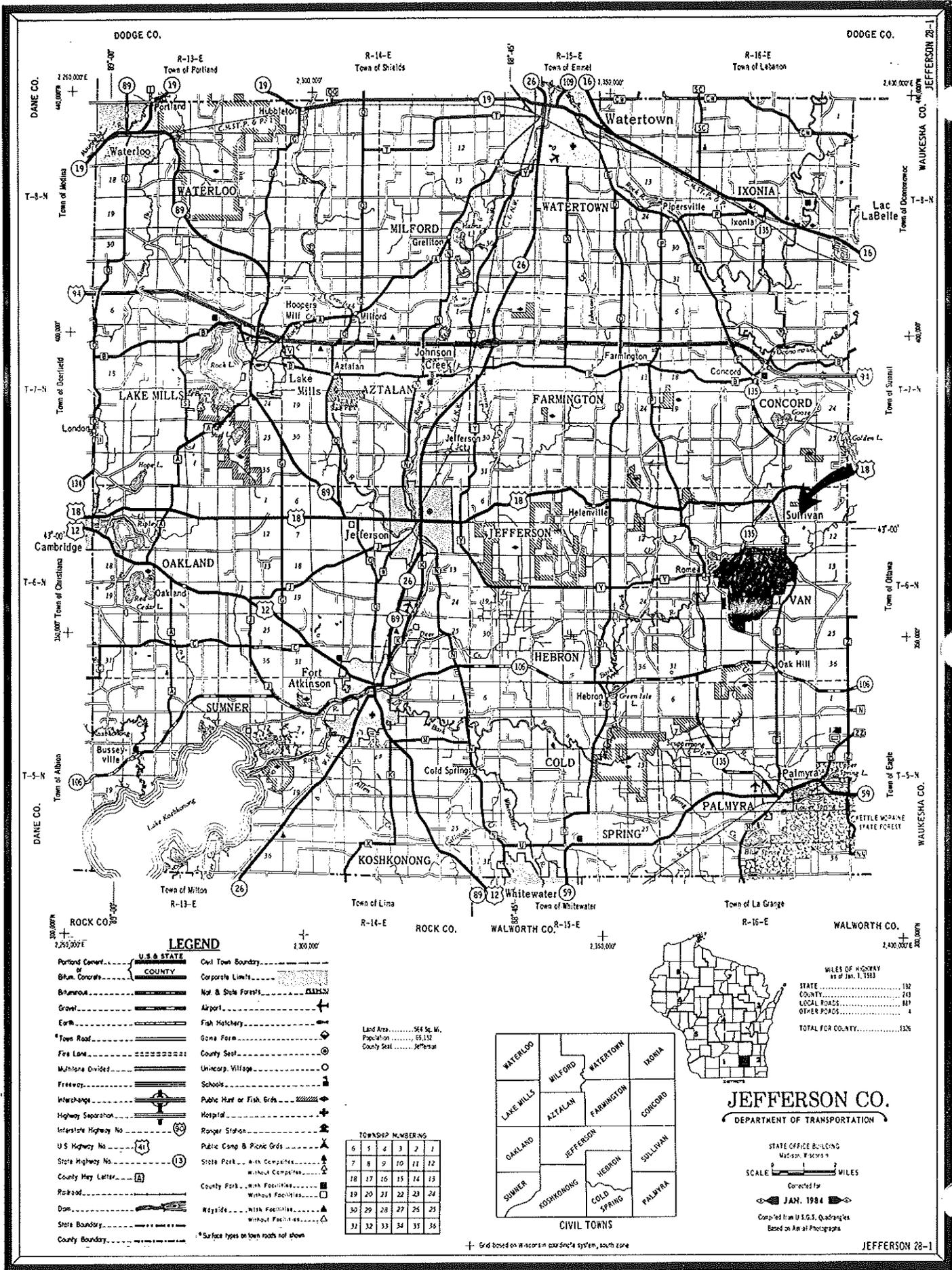


FIGURE 1 LOCATOR

ROME POND WILDLIFE AREA

Section I - Actions

GOAL, OBJECTIVES AND ADDITIONAL BENEFITS

Goal

To manage a state-owned wildlife area for duck and pheasant production and provide public hunting, trapping and fishing opportunity, as well as accommodate other compatible outdoor recreational and educational activities.

Annual Objectives

1. Produce one duck per acre on 400 acres of permanent water in sub-impoundments (400 ducks), 0.5 ducks per acre on 300 acres of the Rome Millpond (150 ducks) and provide 2,500 participant-days of waterfowl hunting.
2. Produce a fall population of 150 wild pheasants and provide 2,500 participant-days of pheasant hunting.
3. Produce 1,000 participant-days of other hunting and trapping recreation.
4. Provide 5,000 angler-days of warmwater fishing.
5. Protect a 3-acre and 70-acre Public Use Natural Area.

Annual Additional Benefits

1. Accommodate 2,500 participant-days of other recreation and education including hiking, boating, cross-country skiing, snowshoeing and nature observation.
2. Harvest 10 cords of merchantable timber.
3. Contribute to the habitat of other indigenous and migratory wildlife including endangered and threatened species.

RECOMMENDED MANAGEMENT AND DEVELOPMENT PROGRAM

To meet the property goal and objectives, the recommended management and development program (Figure 2) will emphasize duck and pheasant production, furbearer trapping, fishing and public hunting for ducks, pheasants and other wildlife. However, other wildlife species residing on or making transient use of the property will also benefit by this management program.

Land Control

It is recommended that the acquisition goal of 2,407.37 acres be increased by 225 acres for a new goal of 2,632.37 acres and the property boundary adjusted to reflect this change (Figure 3). This change is necessary to acquire sufficient uplands for duck and pheasant nesting cover and allows acquisition of land that may be impacted by flowage development.

The land acquisition modification is further justified because the current acquisition boundary includes only portions of parcels of lands owned by individuals, and it is unlikely that a person would subdivide a parcel of land to sell to the Department of Natural Resources. This is especially true where parcels of land contain similar vegetation through the parcel.



ROME POND WILDLIFE AREA

LEGEND

- | | |
|-----------------|-----------------|
| Existing | Proposed |
| Boundary | Boundary |
| Dike | Dike |
| Flowage | Flowage |
| Nesting Cover | Nesting Cover |
| Crop | Crop |
| Food Patch | Food Patch |
| Pair Pond | Pair Pond |
| Parking Lot | Parking Lot |
| Boat Launch | Boat Launch |
| Natural Area | Natural Area |

1" = 1,767'
SCALE

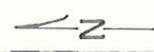
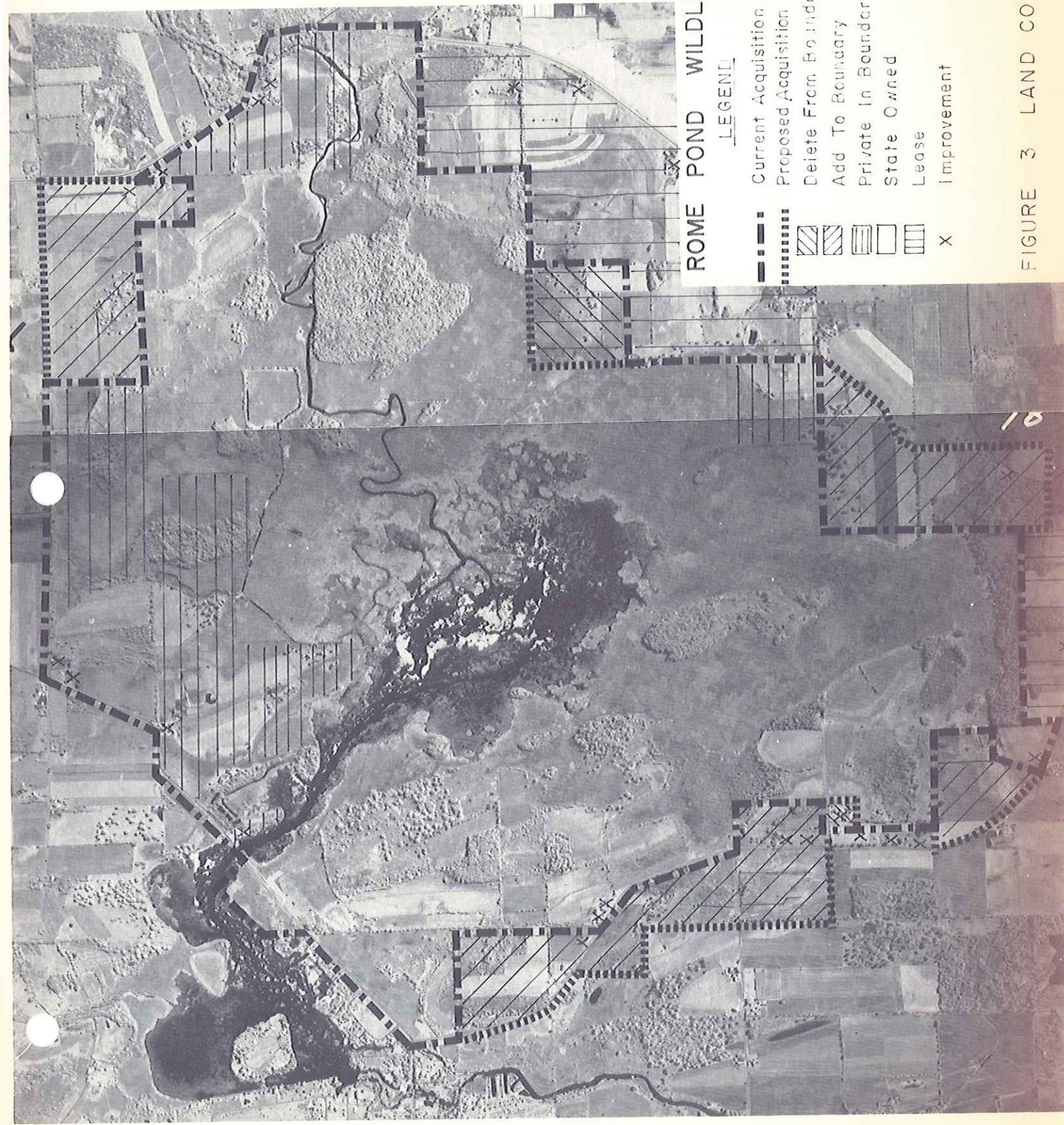


FIGURE 2 DEVELOPMENT



ROME POND WILDLIFE AREA

LEGEND

- Current Acquisition Boundary
- Proposed Acquisition Boundary
- ▨ Delete From Boundary
- ▧ Add To Boundary
- ▩ Private In Boundary
- State Owned
- Lease
- X Improvement

FIGURE 3 LAND CONTROL

Four sets of improvements are associated with lands designated for acquisition. Acquisition of improvements will be avoided where possible. If unavoidable, improvements will be traded for land within the acquisition boundary sold outright or salvaged depending on the condition of the improvement. Lands will only be acquired from willing sellers. Landowners will be contacted periodically to advise them of the Department's interest in their land.

A three-acre wet-mesic prairie and a 70-acre southern mesic forest are proposed for Public Use Natural Area protection. These two sites add unique educational opportunities to the wildlife area while protecting a valuable resource for scientific study.

A 450-acre public hunting grounds lease program will be implemented on the property. The leases will optimize blocking, hunter dispersal and access, stocked pheasant utilization and should eliminate private lands trespass.

The Department of Natural Resources has issued a Land Use Agreement to Jefferson County for the development and maintenance of a park and boat launch at Highway F on the west side of the Rome Millpond. The agreement expires in 1997, but will be extended at that time if needed by Jefferson County.

Appendix A contains estimated acquisition and lease costs.

Wildlife Habitat Management

About 400 acres have been or will be planted to mixtures of warm or cool season grasses. Stands of grasses will be maintained by prescribed burning. Cool season grasses may also be maintained by re-seeding through sharecropping. These burns and replantings will be conducted as grass stands lose their vigor or are invaded by brush. Burns will be conducted in spring, summer or fall. Spring burns will normally be conducted after snowmelt and prior to May 1. Summer and fall burns will normally be conducted after August 1 and prior to the pheasant hunting season.

Several old grass/forb pastures and remnant prairies exist on the property. However, these areas are heavily encroached on by brush and tree seedlings. These areas will be cleared of brush and tree seedlings and maintained in grass/forbs or prairie using prescribed burning. Small groves of oak trees will be left in the old pastures as examples of remnant oak openings.

About 125 acres will be sharecropped. Current cropping plans call for 6-year rotations; 2 years in corn, followed by a mixture of bromegrass, timothy and alfalfa with an oat cover crop, then remain in unharvested grass for 3 years. The Department's share of the corn will not be harvested until late in the pheasant hunting season and will remain in alternating strips of standing and picked corn to maximize hunting cover for pheasants. When converting corn into the grass rotation, each field will be sub-divided into several segments, preferably 75 feet by 200 feet. These sub-divided segments will be separated by 20-foot strips of grass. This practice will maximize hunting cover for pheasant hunting. About 0.5 acres of corn in the corn-grass rotations will remain unharvested near winter cover as a winter food patch.

In addition, sharecroppers will provide five, 0.5 acre food patches in scattered locations on the property; individual food patches will be discontinued if not utilized by pheasants. Food patches will be planted biennially except where wildlife utilization warrants annual planting. Cropping plans could change if wildlife researchers recommend other practices that are more beneficial for wildlife.

Many of the hedgerows on the property are overgrown with mature trees, primarily boxelders. These trees will be removed and hedgerows re-planted to shrub species more beneficial to wildlife. Some hedgerows are currently in poor locations, e.g., bisecting fields that are intended as nesting areas for ducks or pheasants. These hedgerows will be removed. Several new hedgerows will also be established on the property.

Most of the timber on the property is in approximately 30 scattered woodlots ranging in size from one acre to 75 acres. About half of these woodlots are located on islands in the cattail mat of the millpond. Lack of access to these islands will prevent any timber harvest from occurring. Oak will be a component in all of the woodlots that will be managed, although northern hardwoods will be the major timber type in two woodlots.

Management in the woodlots will include shelterwood harvests and cultural management. Cultural management practices include thinning and weed tree removal, chemical and mechanical brush control. Clear cutting may be necessary to salvage insect, disease and storm damaged trees, although this technique will be avoided where possible. Snags will not be harvested to provide habitat for cavity-nesting wildlife.

There are several shrub-carrs on the property. The shrub-carr cover type provides good winter wildlife cover and will not require any management activities other than protection from fire.

Lowland grass fields will be maintained by mowing, grazing or through prescribed burn using the same criteria suggested for upland grass stands. Lowland grass fields dominated by reed canarygrass may be converted to a more productive wildlife cover if methods can be developed for this type of conversion.

About 6,300 feet of dike will be constructed to form 8 impoundments. About 900 feet of dike currently exist. Costs for constructing dikes may be somewhat reduced by renovating approximately 4,000 feet of spoil bank from a previous landowner's muskrat fur farm rather than construct 3,200 feet of dike. Cost analysis will determine the best method to construct the dikes. These sub-impoundments will provide about 400 acres of Type II, III and IV wetlands. These impoundments will provide duck brood, staging and migration habitat and enlarge areas available for public hunting and furbearer trapping.

Dikes will be constructed with shallow side slopes to minimize muskrat damage. However, dikes will require annual maintenance to repair some muskrat damage and to remove encroaching brush. Flowages would be drawn down as necessary for rejuvenating aquatic vegetation. The flowage developments will be implemented

in compliance with county, state and federal regulations. A backwater analysis will be conducted prior to flowage development to determine what, if any, impact the flowage will have on private lands.

If the backwater analysis indicates the proposed flowage would impact private land, the flowage would not be constructed unless the affected landowner also desires the flowage and grants a flowage easement authorizing its development. After flowage construction is completed, waterfowl use and duck hunting pressure will be evaluated to determine the need for waterfowl refuges. Waterfowl refuges would be designated if this evaluation demonstrates sufficient need.

At least 14 shallow ponds will be dug adjacent to or in upland grass nesting fields. These ponds will provide additional space for duck breeding pair territories.

Much of the Rome Millpond contains a monotypic stand of cattails. Dike construction, digging ponds or other known methods of opening up the marsh and providing more diversity would be cost prohibitive in parts of the property. If new, more cost-effective methods are developed for opening up the marsh, they will be implemented.

There is a 2.07 foot variation between the minimum and maximum allowable water levels allowed in the Rome Millpond as described by the dams operating orders (Appendix B). Raising or lowering water levels could periodically adversely affect vegetation, fish, wildlife and public access. The property manager will work with the Town of Sullivan to minimize any negative impacts incurred by water level manipulation.

Fish management is not needed at this time. Winterkill occurs at least once every five years, but is never total and rarely severe. Minor summerkills occur on occasion. Consequently, there are large annual fluctuations in fish populations. The frequency of winterkill prevents the millpond from being overstocked with panfish. Because fishing is generally reported to be good there is no plan to stock the millpond on a regular basis. Periods of major fish kill would be an exception. Carp are present but do not represent a management problem.

About 600 rooster pheasants will be released prior to and during the pheasant hunting season on state owned and leased land. These birds are released to provide additional hunting recreation.

Appendix A contains estimated costs for wildlife habitat management programs.

Public Use Facilities

Three parking lots are located on the property. One boat launch adjoins a parking lot and one additional boat launch is on the Bark River. Four additional parking lots will be constructed. These parking lots and boat launches will be maintained as needed, including graveling, grading and litter removal. Jefferson County maintains the two boat launches and one parking lot.

The property contains one gate which will be maintained as needed. Maintenance will include painting the gate and mowing grass in front of it. Additional gates will be conducted if necessary to restrict vehicular access.

Wooden boundary posts will be installed at 0.1 mile intervals and will be fitted with Department of Natural Resources Public Hunting Grounds signs. Leased lands will be posted at 0.1 mile intervals with Department of Natural Resources Leased Public Hunting Grounds signs. Informational signs designating permitted and nonpermitted activities will be posted at parking lots and other locations as necessary.

Appendix A includes estimated costs for public use facilities.

Other Management Considerations

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

There are no known historical or archaeological features on the property. However, the Wisconsin State Historical Society will be contacted prior to any major development to insure that historical or archaeological features are not disturbed.

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

The public is encouraged to use the property for other recreational and educational activities compatible with wildlife management programs, e.g., hiking, bird watching, cross-country skiing, etc. The Department does not maintain hiking or cross-country skiing trails on the property. However, the Department's access trails are utilized by both hikers and cross-country skiers. Questions regarding permitted activities should be directed to the property manager.

Section II - Support Data BACKGROUND INFORMATION

History

The property is located in east central Jefferson County on part of the Rome Millpond. The millpond was formed by construction of a dam on the Bark River about 1840. The Town of Sullivan, owner of the dam, is required to maintain the level of the pond per operating orders issued by the Department of Natural Resources in 1981.

The Rome Pond area was examined by the United States Biological Survey in 1935 and listed as top priority waterfowl habitat. The area has a history of

private and fee waterfowl hunting. In addition, the area contained muskrat fur farms. The Jefferson County Conservation Alliance and the Wisconsin Conservation Commission recognized this area, as providing habitat for duck and pheasant production, furbearer trapping, public hunting for ducks, pheasants, rabbits, squirrels, deer and public fishing.

In 1957, the Wisconsin Conservation Commission submitted a proposal to the federal government requesting Pittman-Robertson cost sharing for land acquisition under the Federal Aid in Wildlife Restoration Act. The proposal was accepted, the property was designated as W-96-L and acquisition commenced in 1958.

Current Management

The management philosophy on the property has not changed since the property's inception. Much of the uplands are maintained in grass cover for duck and pheasant nesting. The remainder of arable land is sharecropped to provide pheasant hunting cover and winter wildlife food patches. Wetlands provide duck brood cover, furbearer trapping, fishing and duck hunting. Parking lots and boat launches provide access for outdoor recreators using the property.

Two of the woodlots are currently being studied by the Department of Natural Resources' Farm Wildlife Research Group in order to determine the impact of woodlot harvest management practices on wildlife (Appendix C). The results from this study will provide wildlife managers, foresters and private individuals with guidelines for timber harvest practices which benefit wildlife.

Currently, 1,985 acres of an approved acquisition goal of 2,407 acres is in state ownership. Jefferson County has an agreement with the Department to construct and maintain a boat launch, parking lot and park at the junction of State Highway 135 and the millpond. This agreement expires in 1997. A private individual has a lease for use of part of the NW1/4 of Section 16 north of State Highway 135 for a septic soil absorption field. This lease expires in 1987.

Annually the property receives an estimated 1,000 participant-days of duck hunting; 750 participant-days of pheasant hunting, 150 participant-days of muskrat trapping and 500 participant-days of other types of public hunting. About 5,000 angler-trips occur annually on Rome Pond. The pressure is a mixture of shore and boat anglers and occurs both in the millpond and the lake area north of State Highway 135. The property receives about 1,000 visitations annually by hikers, cross-country skiers, bird watchers, outdoor photographers and others seeking outdoor education and recreation.

RESOURCE CAPABILITIES AND INVENTORY

Geology and Soils

The geology and soils of this property are influenced by the Wisconsin Age Glacier. The upland areas are characterized by drumlins. The drumlins are high whale-backed and tear shaped hills. These drumlins rise and drop sharply from nearly level lowlands. In addition, much of the property is affected by the dam on the Bark River which forms Rome Millpond.

The soils on the drumlins are well drained loams, silt loams and sandy loams. The drumlins contain very steep slopes, especially the north ends which have 20-30 percent slopes. The sides and southern ends of the drumlins tend to have shallower slopes, usually 6-12 and 12-20 percent. The tops of the drumlins often contain a plateau with 6-12 percent slopes. The concave lowland areas around drumlins are generally silt loams. In locations where drumlins are surrounded by marsh, the soils are mucks. The floodplain surrounding the Rome Millpond are muck soils.

Climate

Jefferson County averages 154 frost free days each year with the last spring freeze commonly occurring about May 4, and the first fall freeze commonly occurring about October 5. The average daily summer (June through August) maximum and minimum temperatures are 81°F and 60°F, respectively. The average daily winter (December through February) maximum and minimum temperatures are 31°F and 14°F, respectively.

Spring and fall are transitional seasons and the duration of these seasons is variable. The average annual precipitation is 29.7 in., 60 percent occurring from May through September. Average snowfall is 37 in. The average amount of sunlight received is 40 percent during November and December, 50-60 percent in January through April and 60 percent or more from May through October. Wind speed is highest in March, April and November, averaging 12 mph. July and August have the lowest average wind speed, averaging 9 mph. Prevailing winds are westerly in winter and southerly in summer.

Wildlife and Fish

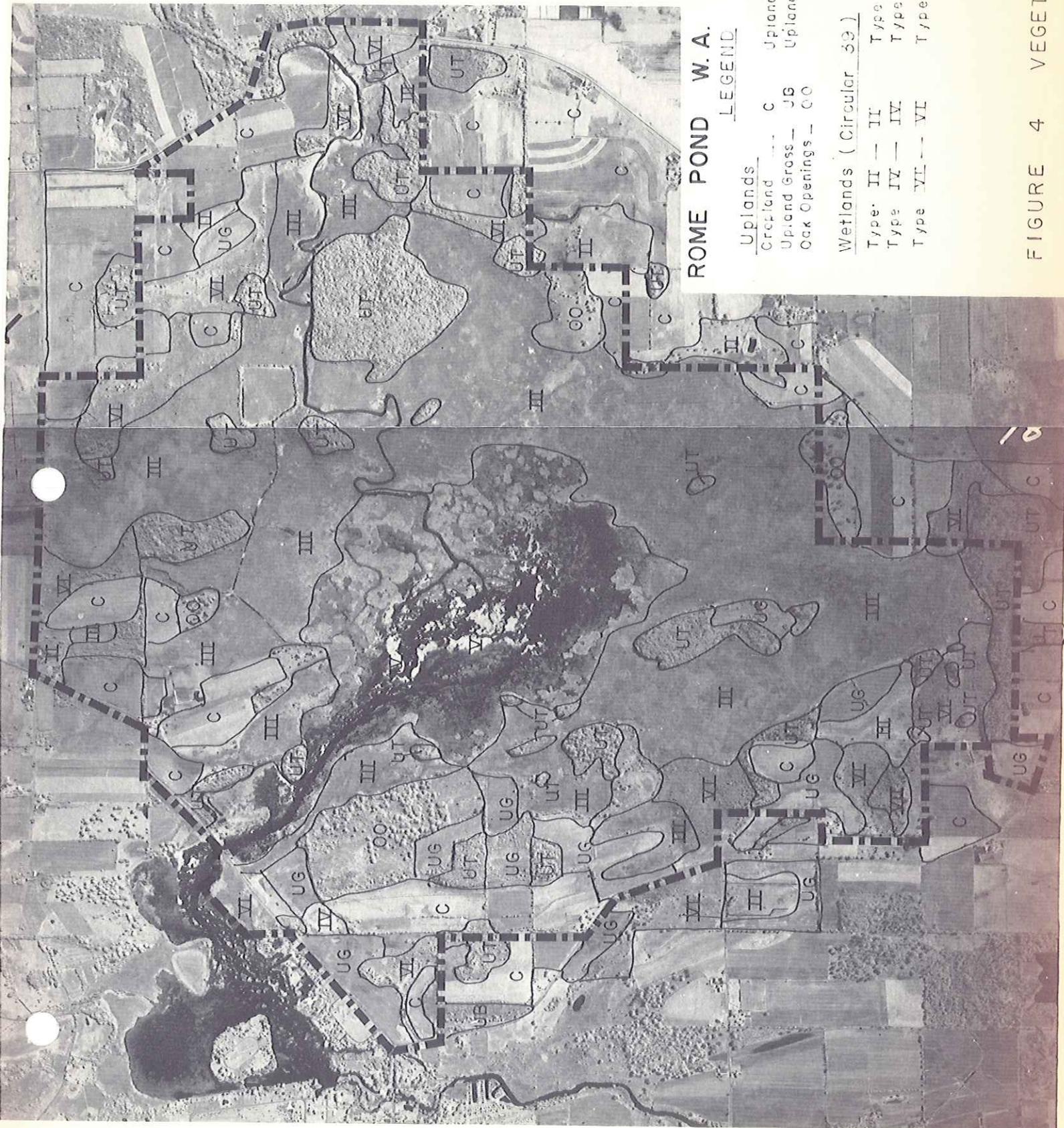
Game animals and furbearers known to use the property include ring-necked pheasant, woodcock, gray and fox squirrel, cottontail rabbit, white-tailed deer, red fox, raccoon, mink, muskrat, opossum and skunk. Most of the waterfowl species common to the Mississippi Flyway have historically used the area during migration. However, use at present is primarily by dabbling ducks. Mallards, wood ducks and blue-winged teal nest on the property. Great-blue herons feed in the millpond. Black terns and sandhill cranes nest on the property. Gatti (Appendix C) lists birds found in the woodlots. An undocumented number of songbirds, small mammals, reptiles and amphibians are found on the area.

Fish found in Rome Pond include bowfin, grass pickerel, northern pike, carp, golden shiner, smallmouth bass, largemouth bass, black crappies, green sunfish, and X pumpkinseed hybrids, Johnny darter and yellow perch.

Vegetation

The large wood island currently supports a relatively intact forest community of at least local or county significance.

Upland fields contain mixtures of warm or cool season grasses. Upland woodlands contain a variety of trees including both northern and central hardwoods. Willow and red-osier dogwood are the most common lowland brush species. Reed canarygrass is found in much of the Type II wetlands. Most of the Type III wetlands contain monotypic stands of cattail. Vegetative types are shown in Figure 4.



1" = 1,767'
SCALE

ROME POND W.A.

LEGEND

- Uplands
- Cretland — C
- Upland Brush — UB
- Upland Grass — UG
- Upland Timber — UT
- Oak Openings — OO
- Wetlands (Circular 53)
- Type II — II
- Type III — III
- Type IV — IV
- Type V — V
- Type VI — VI
- Type VII — VII
- Type VIII — VIII

FIGURE 4 VEGETATION

Two unique plant communities offer Public Use Natural Area potential: a 3-acre prairie and a 70-acre mesic forest. The three-acre wet-mesic prairie contains more than 30 prairie species including Michigan lily, prairie dock, and Indian paintbrush. White lady's-slippers (state-threatened) have been reported from the site. The prairie is located between two small upland islands within a marsh complex.

The 70-acre southern mesic forest, noted for its rich spring flora, is an island within a large wetland. Dominant tree species are white and red oaks, ashes, and American Hophornbeam. Large-flowered trillium, bedstraws, and black snakeroot are the dominant groundlayer species.

Water Resources

Rome Millpond is a hard water impoundment on the Bark River and is Jefferson County's third largest lake. The entire millpond area is 446 acres. However, the area of open water beyond the cattail mat is probably less than 250 acres and has an average depth of about 3 feet.

Historical and Archaeological

The State Historical Society of Wisconsin records show there are no historical or archaeological sites known to exist on the property.

Endangered and Threatened Species

The endangered slender madtom has been found both upstream and downstream from the property and may be on the property itself.

There are no other known endangered or threatened species of amphibians, molluscs, mammals, birds, reptiles or wild plants on the property.

Scenic Resource

The drumlins surrounding the millpond provide scenic vistas. The vistas with the better views are found along the north and northwest end of the millpond. These vistas will be kept in a grass or oak opening vegetative type which will maintain their scenic quality.

Land Use Classification

This property is designated RD₂: Fisheries and Wildlife Management Area.

MANAGEMENT PROBLEMS

Socio-economic/Socio-political Problems

Many people are opposed to state ownership of lands, primarily due to misinformation regarding perceived lost tax revenues. These people are unaware

of or do not understand the Department's payment in lieu of taxes program, where the Department may actually increase revenues to townships.

Some individuals are opposed to prescribed burning because of misinformation regarding duck and pheasant nesting biology. Prescribed burning in spring will normally be conducted prior to May 1 to minimize nest losses to ground nesting birds, although some early nests can be lost. This nest loss has minimal affect on the population because both pheasants and ducks will re-nest. Prescribed burning results in nesting cover which should maintain or improve long-term nesting conditions for ground nesting birds. Increased information and education to local clubs and organizations should remedy these socio-economic management problems.

Unauthorized Activities

The property has been the host for many illegal or unauthorized activities, e.g., poaching, vandalism to gates and parking lots, litter, timber theft, target shooting, off road vehicles, camping, horseback riding, etc. These activities result in increased maintenance costs, reduced aesthetics and habitat destruction. Law enforcement activities have minimized these problems and will continue to be necessary to keep these problems at a minimum.

Urban Development

The proximity of this property to the villages of Rome, and Sullivan, and Waukesha County and the drumlin feature of this area make it attractive for residential development. There are 27 sets of improvements near or adjacent to the property boundary. The lake portion of the millpond is surrounded by homes and cottages. Urban development in this area hampers management of the property. The current home site problem cannot be alleviated. However, acquisition of lands to road boundaries and enforcement of county zoning regulations may help reduce construction of improvements in the area.

Poor Emergent Aquatic Vegetation

A problem with purple loosestrife competing with native vegetation exists in the area. The only known method to control this plant is through herbicidal treatment. However, use of herbicides in the millpond area would probably result in severe public opposition. Manipulating water levels at the wrong time of the year could enhance purple loosestrife expansion, although water level manipulation will be coordinated with the Town of Sullivan to minimize this problem.

The millpond contains a rather monotypic stand of cattails. Construction of sub-impoundments and coordinating water levels with the Town of Sullivan should help open up the marsh and make it more diverse.

RECREATION NEEDS AND JUSTIFICATION

There is a need for properties such as the Rome Pond Wildlife Area in relatively public land-poor southeast Wisconsin. The current Wisconsin Outdoor Recreation Plan indicates that the greatest demand for outdoor recreation is found in southeast Wisconsin, yet southeast Wisconsin contains a relatively small amount of the state's public outdoor areas. The Natural Resources Board has instructed the Department of Natural Resources to place emphasis on land acquisition and development of areas located in southeast Wisconsin that can supply outdoor recreation.

This property provides an area for outdoor recreation, and is ideally located near the high populated areas in southeast Wisconsin. Madison (1980 Dane County population: 323,545) is located about 40 miles west, and Milwaukee (Milwaukee County 1980 population: 964,988) is located about 30 miles east of the property. In general, this property is within 50 miles of 1.75 million people. The population of Wisconsin has increased in the past 10 years, and will probably continue to increase in the next 10 years. Population increases will result in greater demands for areas providing outdoor recreation, and this property could help meet some of this demand.

This property has much to offer the public. It provides an area for wildlife production and outdoor recreation. The millpond receives use by anglers. This area provides public hunting and trapping for most of the wildlife species found in southern Wisconsin. The drumlin topography makes this area attractive for educators showing examples of glacial land characteristics. The lakes, drumlins, vistas and diversity of vegetative types makes the area attractive to hikers, cross-country skiers, bird watchers and other outdoor recreators and educators.

The woodlots are currently being studied to develop guidelines for woodlot management, which will be useful for wildlife managers and foresters as well as private woodlot owners. Wetland preservation and habitat maintenance and development programs will help secure the future of native wildlife and plant species.

ANALYSIS OF ALTERNATIVES

Do Nothing

This alternative would result in a \$631,310 cost savings. However, it could also result in as much as a 80 percent reduction in public use objectives. Vegetative succession would severely decrease duck and pheasant nesting cover. The cattail mat would eventually cover the entire millpond with only the river channel remaining open. Central hardwood woodlots would convert to northern hardwoods. Pheasants would not be stocked. Parking lots and boat launches would become unusable from lack of maintenance. There would likely be severe public opposition to this alternative.

No Further Land Acquisition

This alternative could result in \$550,000 savings. However, it could result in as much as a 70 percent reduction in waterfowl production, 60 percent reduction in duck hunting objectives, 70 percent reduction in pheasant hunting objectives and 50 percent reduction in other public use objectives except fishing. Fishing would remain the same. Almost all of the wetland developments would be unfeasible. There would be continual problems with trespass on private lands. Stocked pheasants would escape to private lands. The property would never achieve its potential for wildlife use and public recreation and education.

No Flowage Development

This alternative would result in a \$60,000 savings. However, there could be as much as a 70 percent reduction in duck production, 60 percent reduction in duck hunting objectives, 67 percent reduction in furbearer trapping and 20 percent reduction in hiking, bird watching and other educational and recreational objectives. Eventually (100+ years), the millpond will become a cattail mat with a river meandering through the mat and there would be even less public use of the property.

In its current state, the millpond is almost 50 percent solid cattail mat. Flowages are the only known long-term cost effective method to provide more open marsh (hemi-marsh), which is optimum for duck production and public use. Without flowage development, the property will not meet its wildlife production and public use potential.

Reduce Property Size

It is unlikely that portions of the property could be sold in order to reduce the property size. The only salable portions of the property would be the arable lands. Sale of arable lands would reduce upland hunting cover unless public hunting rights were retained. However, duck and pheasant production would be reduced if uplands were converted to row crops. Use for hiking, cross-country skiing, etc. would be reduced unless these rights were also retained. In addition, the problems discussed under No Further Land Acquisition and No Flowage Development would apply. Severe public opposition to this alternative would be anticipated.

Extend Acquisition Boundary to Road Boundaries

This alternative would result in a cost increase of at least \$500,000. Pheasant production could increase as much as 15%. However, there would be little or no increase in duck production due to the distance of nesting cover to brood water. There would be little or no increase in public hunting objectives because all the lands within the road boundaries are designated for acquisition or lease. Because of the limited gains in wildlife production and public use objectives, it was felt that leases would be more cost effective than acquisition.

Expand Acquisition Boundary and Increase Waterfowl Production Capabilities
(selected alternative)

This alternative will result in greater duck and pheasant production, more public hunting, furbearer trapping, fishing opportunities and other outdoor recreational and educational use. This program is detailed under Section I - Actions.

Appendix A

Acquisition, Development and Annual Maintenance Costs^a

ACQUISITION

647 acres fee title^b. \$550,000.00

DEVELOPMENT

Nesting Cover (110 acres) \$ 11,000.00
Flowage Development (8 impoundments; 6,300 feet of dikes) 65,000.00
Shallow Pond Development (14). 5,000.00
Parking Lot (4 new) 4,000.00
Install Boundary Posts (100) 750.00
Hedgerow Establishment (3,000 shrubs). 100.00

Subtotal \$ 85,850.00

MAINTENANCE

Sharecrop (125 acres/2 agreements). \$ 180.00
Brush Control (200 acres includes prescribed burning) 400.00
Boundary Posting - 10 miles 100.00
Dike Maintenance (6,300 feet). 750.00
Timber Management (As needed) 50.00
Public Hunting Grounds Lease^c (450 acres) 380.00
Pheasant Stocking^d (12 releases) 350.00
Parking Lot Maintenance (7 lots) 250.00

Subtotal \$ 2,460.00

Total \$631,310.00

- a - Does not include employe wages or benefits.
- b - Assumes improvements are not acquired.
- c - 450 acres x \$0.80/acre plus one parking agreement at \$20.00.
- d - Does not include production or game farm transportation costs.

Appendix B

Dam Operation Standards

September 17, 1981

File Ref. 3560-4

TO: Mr. William Pinnow
Sullivan Town Clerk
Rt. 2, Box 158
Sullivan, WI 53178

Re: Operating orders for the Rome Dam on the Bark River located in the SW1/4 NE1/4, Section 17, T6N,R16E, Town of Sullivan, Jefferson County.

I have reviewed the Department of Natural Resources' files regarding operation of the Rome Dam. Enclosed are the three most important orders that regulate the ownership and operation of the dam:

- (1) Docket # 2-WP-1320(12/58) - Minimum levels established at 93.43 (3.13 on the staff gauge).
- (2) Docket #3-WR-918(4/22/71) - Maximum level established at 95.50 (5.2 on the staff gauge) and also orders that flashboards are to be removed prior to freeze up and may not be replaced until after spring breakup.
- (3) Docket #3-WR-1668(5/31/74) - Ownership of the dam is transferred to the Town of Sullivan and the previously stated maximum and minimum levels are reaffirmed.

Staff gauge readings may be reestablished and confirmed with reference to the following bench marks:

BM 502-C is a tablet marked "Railroad Commission of Wisconsin" set in the east end of the upstream wall of the bridge over the canal on State Highway 135. Elevation = 102.36.

BM 502-E is a letter "O" in the word Roy which is located on the right upstream abutment of the walkover 3 feet from the end. Elevation = 97.31 feet.

It is the responsibility of the owner of the dam to maintain levels between the maximum and minimum to the extent possible by manipulation of the dam. In addition, the owner must remove and reinstall flashboards as described in the orders and must at all times pass 25% of the low flow of the Bark River which has been determined to be 4.1 cubic feet per second (Q_{7 10} = 4.1 cfs). The dam must be maintained in good condition. A formal, documented, annual inspection in the dry is recommended.

By: Michael D. Dresen, Area Water Management Specialist
Representing: DNR

Appendix C

WILDLIFE MANAGEMENT SOUTHERN WISCONSIN WOODLOTS

Study No. 124

By Ronald C. Gatti

Period Covered : 1 July 1982 - 30 June 1983

CONTENTS

- Job 124.1: Wildlife Management Guidelines for Woodlands
- Job 124.2: Wildlife Impacts of Timber Cutting Strategies
- Job 124.3: Status of Wildlife Habitat in Private Woodlands

ABSTRACT

The impact of timber cutting on resident wildlife populations are being evaluated in 5 oak woodlots located on wildlife areas in Dane and Jefferson counties. Floral surveys for all 5 woodlots prior to cutting revealed that the dominant oaks were being replaced by red maple in the sapling layer. One stand (#1) was cut for saw timber in 1981 and the downed treetops were removed through a firewood sale during 1982. Following logging in stand #1, red oak tree importance, total tree and sapling density, and the number of tree cavities declined, while shrub density increased. Songbird surveys indicated that the logging adversely affected ovenbirds and red-eyed vireos, while it positively affected cardinals, catbirds, indigo buntings, eastern wood pewees, and white-breasted nuthatches in the first year. Woodlot cuttings are being planned for 3 other woodlots in the winter of 1983-84. An updated literature review to develop guidelines for woodlot wildlife management is continuing.

STUDY OBJECTIVE

Identify and determine the status of important wildlife habitat components (mast and cavity availability, ground cover and canopy diversity, and structure) in private woodlands; and apply and evaluate several experimental woodcutting strategies on state-owned woodlands in relation to the long-term impacts on selected wildlife species.

JOB 124.1: WILDLIFE MANAGEMENT GUIDELINES FOR WOODLANDS

OBJECTIVE

Develop wildlife habitat management guidelines for southern Wisconsin woodlands.

PROCEDURES

Wildlife presence and abundance indexes were calculated from surveys of 19 southern Wisconsin woodlots (March 1967a). These indexes were related to various measures of the forest flora (March 1975) in multiple correlation and discriminant analyses to determine which flora components were associated with greater wildlife abundance (March 1976b). Results from these analyses will be interpreted and a list of "key" woodlot wildlife components identified.

An extensive literature search (March 1976b) was made on the silviculture of central and northern hardwoods and their associated wildlife species to obtain background information on managing these forest types. The literature search is being updated and pertinent management recommendations incorporated into habitat management guidelines for woodlot wildlife species. Suitability of particular recommendations will be determined on the basis of "key" components identified in the multivariate analyses.

FINDINGS

An updated review of literature on woodland management is continuing. Interpretation of the multivariate analyses will begin next fall.

JOB 124.2: WILDLIFE IMPACTS OF TIMBER CUTTING STRATEGIES

OBJECTIVE

Determine the wildlife impacts of various timber cutting strategies on public lands.

PROCEDURES

Five oak woodlots on Wisconsin Department of Natural Resources wildlife areas were selected for timber cutting and study. These were woodlots where squirrels were the target management species, but where secondary oak reproduction was judged to be inadequate to maintain the forest type. Timber cutting strategies will involve: (1) selective cutting to open up the canopy (sawtimber sale) plus treetop removal to clear the ground (firewood sale), and (2) selective thinning of oak competitors (firewood sale).

For 2 years prior to management, the experimental areas are being surveyed to determine population indexes of target wildlife species. Squirrels and rabbits are being censused by track counts (Dec-Mar) as applied in Study 113 (March 1976a). Songbird populations are being censused using the Emlen I

transect method (Emlen 1971) during June as suggested by Tilghman (1977). These wildlife surveys will then be conducted on each treatment area for 2 consecutive years after woodlot management. In addition, the experimental areas are being surveyed to quantify the important wildlife habitat components (identified from the literature and Job 124.1) present before and after management. The flora of each woodlot is being surveyed to give background descriptions of species composition and importance using methods developed by the U. S. Forest Service (Ohmann and Ream 1971).

FINDINGS

Three woodlots were selected for study on the Goose Lake Wildlife Area, Dane County. Stand #1, 35 acres, was cut for sawtimber through a private contract in July-August 1981. A total of 113 mbf was selectively cut; 95% of the harvest was mature oaks, 454 trees. The downed treetops were sold for firewood (100+ cords), and were removed during January-September 1982. Stand #2, a 70-acre drumlin, will serve as a control for woodlot cuttings. Stand #3, 15 acres on a north-facing slope, will follow a cutting plan similar to stand #1 in 1983-84.

Two woodlots were selected for management on the Rome Pond Wildlife Area, Jefferson County. Stand #4, 55 acres, will be selectively cut through a firewood sale in 1983-84 to favor the existing oak reproduction. Stand #5, 7 acres located on a hilltop, will also be selectively cut through a firewood sale in 1983-84.

The flora of all 5 stands was surveyed in April and early June 1982. Stand #1 is a dry-mesic woods that was dominated by red oak and ash in the tree layer before logging. Following logging, red oak tree importance declined sharply, and it is now a co-dominant with ash (Table 1). Tree density declined 37% after logging (Table 2). The number of tree cavities/sampling station declined by a third, while the number of downed logs/sampling station increased over 4-fold (Table 2). Lower floral layers were also affected by the logging. Sapling density decreased 55%, while shrub density did not significantly increase (Table 2).

Floral data from stand #2, the control woodlot, demonstrated the consistency of the sampling estimates for tree, sapling, and seedling layers (Table 3). Stand #2 is a dry-mesic woods, dominated by red oak, white oak, and shagbark hickory, but these species are being replaced in the sapling layer by red maple and American elm.

Stands #3, #4, and #5 are also all dry-mesic woods, dominated by ash and white oak (Tables 4, 5, and 6). Shagbark hickory also dominates stand #3, while red oak is also important in stands #4 and #5. In all 3 stands, the oaks and hickory are being replaced in the sapling layer. Stands #3, #4, and #5 are generally denser in terms of trees and saplings, but less dense in shrubs, than stand #1 (Table 2).

Changes in shrub and ground layer flora importance due to logging were not clear due to high sampling variability, as demonstrated for the control woodlot (Tables 7 and 8). All stands have diverse shrub and ground layer components which will be monitored annually (Tables 9 and 10).

Songbirds were censused 5 times in each woodlot during 14 June-1 July. Transect lengths were 1.10, 2.26, 0.79, 1.71, and 0.24 km in stands #1-5, respectively. A total of 31, 24, 19, 31, and 14 species was recorded for stands #1-5, respectively. The average number of birds/km of transect recorded/census was 39, 14, 20, 35, and 42 for stands #1-5, respectively. Last year's counts were similar in stands #1 (40) and #2 (19).

Ten bird species in stand #1 showed a change greater than or equal to 50% in their population index from 1981-82 (Table 11). Seven of the species, however, showed an index change in the same direction on stand #2, the control woodlot, during 1981-82. It is presumed that these species changes were the result of natural, annual population trends and/or annual variation in censusing procedures. Four additional species showed index changes greater than or equal to 50% on the control woodlot, but not on the cut woodlot (stand #1; Table 11). It is presumed that the cutting counteracted similar index changes on stand #1. Therefore, ovenbirds and red-eyed vireos appear to have been adversely affected by the cutting in the first year. Cardinals, catbirds, indigo buntings, eastern wood pewees, and white-breasted nuthatches appear to have been positively affected by the cutting in the first year. Future sampling on these and other cut woodlots will attempt to replicate these findings. Experimental design precludes statistical testing until next year.

Songbird species composition and abundance appear similar among stands #1, #2, and #4; stands #3 and #5, the 2 smallest woodlots, have rather different songbird species composition (Table 12).

Due to the inadequate depth and timing of snowfalls, no track counts were made during January-March of 1983.

Songbird censuses and floral surveys conducted in the spring of 1983 will be reported in the Progress Report for Segment 19.

JOB 124.3: STATUS OF WILDLIFE HABITAT IN PRIVATE WOODLANDS

OBJECTIVE

Determine the status of important wildlife habitat components, particularly snags and deadfalls, in private woodlands.

PROCEDURES

A stratified random sample of private woodlots will be selected within townships of Dane County. The woodlot owners will be contacted for interviews and ground surveys. Interviews will be used to: (1) determine removal rates

of snags, deadfalls, and harvestable timber; (2) to assess past woodland use; and (3) to relate these removal rates to land-ownership characteristics. Sample woodlots will be surveyed during the winter and spring to quantify the important wildlife habitat components present and to estimate their removal rate. These habitat components will be identified from findings of Job 124.1. Tilghman (1977) identified several woodlot elements in southern Wisconsin that were important to avifauna density and diversity. Size and density of snags and deadfalls will be included in the surveys, since they have been identified as important to woodland wildlife (Evans and Conner 1979, Mannan et al. 1980).

From these surveys, the status of wildlife habitat on private woodlands will be determined. We will be able to tell how far the private sector is from recommended woodlot wildlife habitat. Further cross section analysis of the surveyed woodlots will provide insight into how the habitat quality will change with intensified timber harvest.

FINDINGS

A preliminary arrangement was made with Dr. J. Grammon (Univ. Wis.-Madison for. Dep.) for cooperating in the woodlot owner interviews, thereby combining his expertise and interest in interview research with Wisconsin Department of Natural Resources field surveys. This arrangement ended when Dr. Grammon left the University of Wisconsin system last summer. As such, no activity occurred on Job 124.3.

RECOMMENDATIONS

Job 124.1 and 124.3 are behind schedule because of personnel changes and emphasis on higher priority projects; these jobs need to be extended into Segment 19. Continue Job 124.2 as scheduled, and Jobs 124.1 and 124.3 under the new schedule. A manuscript on woodlot management guidelines, to meet the objective of Job 124.1, is scheduled to be written, technically reviewed, and submitted for editing by 1 April 1984. This manuscript will be reproduced and distributed by the Department in 2 different outlets, as a Research Report and as part of a handbook for wildlife managers in Wisconsin.

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Table 1. Comparison of 1981 and 1982 Flora importance values¹ of 3 layers in stand #1, before and after cutting.

Species	Tree Layer		Sapling Layer		Seedling Layer	
	1981	1982	1981	1982	1981	1982
Red Oak/Black Oak (<i>Quercus rubra/velutina</i>)	38	22	1	**	4	**
Ash (<i>Fraxinus</i> spp.)	20	22	11	20	30	34
Ironwood (<i>Ostrya virginiana</i>)	14	9	33	26	6	2
Black Cherry (<i>Prunus serotina</i>)	9	12	7	10	6	6
Red Maple (<i>Acer rubrum</i>)	8	15	19	19	4	7
Shagbark Hickory (<i>Carya ovata</i>)	5	8	5	3	**	4
Basswood (<i>Tilia americana</i>)	2	4	5	8	2	5
Serviceberry (<i>Amelanchier arborea</i>)	*	*	5	2	**	**
Bitternut Hickory (<i>Carya cordiformis</i>)	*	**	*	**	2	2
Chokecherry (<i>Prunus virginiana</i>)	**	**	6	**	44	37
Elm (<i>Ulmus</i> spp.)	**	*	4	12	**	3
Others ²	3	3	2	1	2	0
Compositional Index ³	1,776	1,775				

* Present but less than 1.

**Not present in sample (n=34 stations).

1 Importance values of tree and sapling layers include frequency, density, and dominance; importance values of seedling layer includes only frequency and density.

2 Include: *Populus grandidentata*, *Quercus alba*, *Acer negundo*, *Viburnum lentago*.

3 From Curtis (1974:94-99).

Table 2. Comparison of floral parameters among the 5 study woodlots.

Parameter ¹	Stand #1		Stand #2		#3	1982 Stand	
	1981	1982	1981	1982		#4	#5
Trees/acre	191	121	34	168	217	222	201
Saplings/acre	188	84	309	355	413	316	398
Tree basal area (ft ²)/acre	136	76	115	149	145	114	153
Sapling basal Area (ft ²)/acre	6	3	7	8	11	8	11
Logs/sampling station	1.1	5.0	0.8	0.8	0.5	1.8	0.1
Cavities/sampling station	0.3	0.1	0.1	0.1	0.0	0.1	0.3
Shrub stems/10 acres	54	56	97	72	34	54	42

¹ Estimates derived from systematic sampling.

Table 3. Comparison of 1981 and 1982 Flora importance values¹ of 3 layers in stand #2, the control woodlot.

Species ²	Tree Layer		Sapling Layer		Seedling Layer	
	1981	1982	1981	1982	1981	1982
Red/black oak	34	36	6	9	10	7
White oak (<i>Quercus alba</i>)	19	20	*	*	3	2
Shagbark hickory	16	12	4	2	8	3
Red Maple	8	8	21	18	11	8
Black cherry	6	7	11	15	16	11
Ash	6	6	9	7	8	12
Bitternut hickory	3	2	7	10	10	11
American elm	2	2	12	11	6	12
Ironwood	1	1	8	7	**	1
Chokecherry	*	*	4	4	24	27
Others ³	5	6	17	16	5	7
Compositional Index ⁴	1,436	1,411				

* Present but less than 1.

**Not present in sample (N=74 stations).

1 Importance values calculated as in Table 1.

2 For scientific names see Table 1.

3 Includes: *Juniperus* spp., *Malus* spp., *Populus* spp., *Tilia americana*, *Acer negundo*, *Amelanchier arborea*, and *Crataegus* spp.

4 From Curtis (1974:94-99).

Table 4. Summary of 1982 flora importance values¹ of 3 layers in stand #3 prior to cutting.

Species ²	Tree Layer	Sapling Layer	Seedling Layer
Ash	28	7	25
Shagbark hickory	27	**	6
White oak (<i>Quercus alba</i>)	14	**	6
Red Maple	7	2	5
American elm	7	54	33
Red oak	6	**	**
Black cherry	3	18	8
Ironwood	2	6	**
Serviceberry	**	5	**
Hawthorn (<i>Crataegus</i> spp.)	**	4	**
Chokecherry	**	4	24
Others ³	7	0	0

**Not present in sample (N=15 stations).

1 Importance values calculated as in Table 1.

2 For scientific names see Table 1.

3 Includes: *Populus grandidentata*, *Acer saccharum*, and *Carya cordiformis*.

Table 5. Summary of 1982 flora importance values¹ of 3 layers in stand #4 prior to cutting.

Species ²	Tree Layer	Sapling Layer	Seedling Layer
Ash	17	13	21
White oak	17	**	4
Ironwood	15	37	8
Red oak	15	4	4
Shagbark hickory	13	**	4
Basswood	11	18	6
Red Maple	3	3	1
American elm	3	12	9
Black cherry	3	4	8
Sugar maple (<u>Acer saccharum</u>)	2	3	9
Chokecherry	**	2	20
Others ³	0	4	7

**Not present in sample (N=44 stations).

1 Importance values calculated as in Table 1.

2 For scientific names see Table 1.

3 Includes: Crataegus spp., Amelanchier arborea, and Salix spp.

Table 6. Summary of 1982 flora importance values¹ of 3 layers in stand #5 prior to cutting.

Species ²	Tree Layer	Sapling Layer	Seedling Layer
Ash	38	7	13
White oak	18	**	**
Red oak	16	**	5
Ironwood	12	33	4
American elm	10	28	32
Shagbark hickory	4	**	**
Red maple	3	7	**
Sugar maple	**	10	10
Black cherry	**	6	6
Chokecherry	**	**	26
Others ³	0	9	6

**Not present in sample (N=7 stations).

1 Importance values calculated as in Table 1.

2 For scientific names see Table 1.

3 Includes: Amelanchier arborea, Juniperus spp., Iilia americana, Populus spp.

Table 7. Comparison of 1981 and 1982 shrub flora importance values¹ in stands #1 and #2.

Species ²	Stand #1		Stand #2	
	1981	1982	1981	1982
Smooth blackberry	27	15	29	11
Maple leaf viburnum	18	10	19	25
Pagoda dogwood (<i>Cornus alternifolia</i>)	12	5	**	2
Poison ivy	12	13	12	15
Red Raspberry	8	3	**	*
Black Raspberry	7	10	3	**
Gooseberries	5	6	1	5
Gray dogwood	4	13	20	26
European red elder (<i>Sambucus racemosa</i>)	2	8	**	**
Hazel (<i>Corylus americana</i>)	2	11	6	7
Downy arrow-wood	1	3	5	4
Others ³	**	2(1)	3(3)	6(3)

* Present but less than 1.

**Not present in sample (N₁=34, N₂=38 stations).

1 Importance values include frequency, density, and dominance.

2 For scientific names see not listed, see Table 9.

3 Number of "other" species in parentheses; includes: *Rosa* spp., *V. lentago*, and *Celastrus scandens*.

Table 8. Comparison of 1981 and 1982 ground layer flora importance values¹ in stands #1 and #2.

Species ²	Stand #1		Stand #2	
	1981	1982	1981	1982
Bedstraws	19	4	13	5
Common mayapple	11	15	11	12
Enchanter's nightshade (<i>Circaea quadrisulcata</i>)	10	13	*	3
Virginia creeper	7	7	2	3
Common anemone	7	3	*	2
Wild cranesbill	6	8	11	7
Feather solomonplume	6	2	8	8
Blackberries (<i>Rubus</i> spp.)	5	**	2	2
Black snakeroot	3	5	**	**
Tickclovers	3	3	6	2
Sweet cicely (<i>Osmorhiza claytonii</i>)	3	11	10	14
Chokecherry (<i>Prunus virginiana</i>)	3	2	3	4
Wild sarsaparilla	**	**	6	10
Wild grapes (<i>Vitis</i> spp.)	*	*	4	3
Poison ivy	2	1	2	4
Others ³				
Species encountered/sample	0.9	1.1	1.1	0.9

* Present but less than 1.

**Not present in sample (N₁=34, N₂=38 stations).

1 Importance values include frequency and dominance only.

2 For scientific names not listed see Table 10.

3 Number of "other" species in parentheses.

Table 9. Summary of 1982 shrub importance values¹ in the study woodlots prior to cutting.

Species	Stand #3	Stand #4	Stand #5
Downy arrow-wood (<u>Viburnum rafinesquium</u>)	36	18	12
Gray dogwood (<u>Cornus racemosa</u>)	28	8	5
Poison ivy (<u>Toxicodendron radicans</u>)	16	14	7
Mapleleaf viburnum (<u>V. acerifolium</u>)	11	**	**
Nannyberry viburnum (<u>V. lentago</u>)	6	6	**
Greenbriers (<u>Smilax</u> spp.)	4	**	**
Smooth blackberry (<u>Rubus canadensis</u>)	**	11	**
Black raspberry (<u>R. occidentalis</u>)	**	2	**
Gooseberries (<u>Ribes</u> spp.)	**	8	7
Sumacs (<u>Rhus</u> spp.)	**	**	34
Red raspberry (<u>Rubus idaeus</u>)	**	**	7
Rose (<u>Rosa</u> spp.)	**	**	29
Prickly Ash (<u>Xanthoxylum americanum</u>)	**	30	**
Buckthorn (<u>Rhamnus cathartica</u>)	**	4	**

**Not present in sample ($N_3=15$, $N_4=44$, $N_5=10$ stations).
¹ Importance values include frequency, density, and dominance.

Table 10. Summary of 1982 ground layer flora importance values¹ in the study woodlots prior to cutting.

Species	Stand #3	Stand #4	Stand #5
Common mayapple (<u>Podophyllum peltatum</u>)	22	6	22
Early meadow rue (<u>Thalictrum dioicum</u>)	12	**	5
Wild cranesbill (<u>Geranium maculatum</u>)	8	4	4
Dogwoods (<u>Cornus</u> spp.)	7	**	**
Virginia creeper (<u>Parthenocissus quinquefolia</u>)	6	5	**
Maidenhair fern (<u>Adiantum</u> spp.)	6	**	**
Feather solomonplume (<u>Smilacina racemosa</u>)	5	12	5
Common anemonella (<u>Anemonella thalictroides</u>)	5	*	**
Ashes (<u>Fraxinus</u> spp.)	4	*	6
Bedstraws (<u>Galium</u> spp.)	3	6	**
Elms (<u>Ulmus</u> spp.)	3	**	10
Snow trillium (<u>Trillium grandiflorum</u>)	**	11	**
Black Snakeroot (<u>Sanicula</u> spp.)	*	10	**
Glaucous honeysuckle (<u>Lonicera dioica</u>)	**	8	**
Tickclovers (<u>Desmodium</u> spp.)	*	6	**
Poison ivy (<u>Toxicodendron radicans</u>)	*	2	9
Goldenrods (<u>Solidago</u> spp.)	**	1	7
Wild sarsaparilla (<u>Aralia nudicaulis</u>)	**	*	6
Sedges ₂ (<u>Carex</u> spp.)	**	2	6
Others ²	17(9)	25(20)	21(9)
Species encountered/sample	1.5	0.8	1.9

* Present but less than 1.
 **Not present in sample ($N_3=15$, $N_4=44$, $N_5=10$ stations).
¹ Importance values include frequency and dominance only.
² Number of "other" species in parentheses.

Table 11. Songbirds¹ encountered per census² in woodlots #1 and #2 in 1981 and 1982.

Species	Stand #1			Stand #2		
	1981	1982	% Change	1981	1982	% Change
Bluejay	5.8	5.8	0	6.5	7.8	+20
Eastern wood pewee	3.4	4.4	+29	4.8	1.8	-62
White-breasted nuthatch	3.4	4.0	+17	2.0	1.0	-50
Black-capped chickadee	3.0	3.4	+13	3.0	2.0	-33
Common grackle	3.0	0.6	-80	0.8	0.2	-75
Red-eyed vireo	2.8	2.4	-14	2.8	4.2	+50
Cardinal	2.8	2.4	-14	4.0	0.6	-85
Scarlet tanager	2.4	4.0	+67	1.2	1.8	+50
Great-crested flycatcher	2.4	2.2	-8	3.5	3.0	-14
Red-headed woodpecker	2.2	0.8	-64	0.5	0.4	-20
Downy/hairy woodpeckers	1.8	1.4	-22	3.2	1.4	-56
Wood thrush	1.4	1.0	-29	1.5	0.6	-60
Cedar waxwing	1.4	0.0	-100	3.2	0.6	-81
Red-breasted gosbeak	1.2	0.4	-67	1.0	0.2	-80
Ovenbird	1.2	0.0	-100	0.0	1.2	*
Indigo bunting	0.8	1.6	+100	1.8	0.0	-100
Catbird	0.6	1.4	+133	1.0	0.8	-20
Others	3.8	6.7	+43	3.2	4.8	+33

**Not present in 1981.

¹Species names according to A.O.U. checklist of North American birds, 1982.

²Census lengths: stand #1 = 1.10 km, stand #2 = 2.26 km.

Table 12. Songbirds¹ encountered per census² for the most abundant species in woodlots #3, #4, and #5 in 1982.

Species	Stand #3		Stand #4		Stand #5	
	Mean	SE	Mean	SE	Mean	SE
Bluejay	2.8	1.1	5.0	1.2	0.8	0.8
Catbird	1.6	0.5	0.8	1.1	0.8	0.8
Red-eyed vireo	1.4	0.5	0.8	1.1	*	*
Red-bellied woodpecker	1.2	1.6	1.6	1.5	0.4	0.5
Great-crested flycatcher	1.2	0.8	2.4	2.1	1.0	0.0
White-breasted nuthatch	1.2	0.8	4.6	2.9	0.8	0.4
Common grackle	1.0	1.2	0.4	0.5	0.6	0.5
Eastern wood pewee	1.0	0.0	4.4	2.3	0.6	0.5
Cardinal	1.0	1.0	2.6	1.3	0.8	0.8
Downy/hairy woodpeckers	0.8	0.8	2.8	1.3	1.0	0.7
Scarlet tanager	0.6	0.9	4.8	2.9	0.2	0.4
Black-capped chickadee	0.4	0.9	4.8	3.1	*	*
Red-headed woodpecker	0.4	0.5	3.4	0.9	*	*
Common flicker	0.4	0.5	2.6	2.3	1.4	1.3
Wood thrush	*	*	0.6	0.9	1.4	1.3
Others ³	0.8(3)	-	11.0(6)	-	0.2(1)	-

* Species not encountered on any counts.

¹Species names according to A.O.U. checklist of North American birds, 1982.

²Census lengths: stand #3 = 0.79 km, stand #4 = 1.71 km, #5 = 0.24 km.

³Number of species included in "others" in parentheses.

APPENDIX D
Master Plan Comments

By: Dick Lindberg
Representing: Wild Resources Advisory Council

The Wild Resources Advisory Council comments on the plan follow:

1. A thorough study of the affects of dikes should be made before more of them are considered for construction.
2. No consideration has been given for Natural Area designations or for nongame wildlife management.
3. A greater emphasis should be placed on water quality and wetland protection. These values are considered more important than timber production.
4. What is the long-term need for the septic absorption field and what type of use does it accommodate (home, farm, commercial establishment, etc.).

DNR RESPONSE:

Dike Impact studies including a backwater analysis will be completed prior to any dike construction. Two Natural Areas have been designated during the plan review period. No specific nongame management was recommended by the Bureau of Endangered Resources. However, the game habitat management regime will improve the quantity and quality of wetland and grassland communities therefore enhancing a variety of wildlife communities.

Water Quality and wetland management are major considerations and are emphasized adequately in this plan.

The septic absorption field accommodates a single family home. It appears that the absorption field will be needed by this residence (under Land Use Agreement) for as long as it exists unless a sewer line is installed.

By: Harland L. Jones, Chairman
Representing: Town of Sullivan

I read your plan regarding the Rome Pond Wildlife Area and I think it would be a good plan, but I would recommend that you first do something to clean up the quality of the water. In recent years the duck, coot, muskrat and other wildlife populations on Rome Pond has declined considerably and I'm convinced that this has been caused by the poor water quality. It seems to me that it would be useless to spend anymore money on other improvements until this is done.

DNR RESPONSE:

The decreased wildlife populations on the millpond is due to many factors, including water quality. A major problem is the inability to manage the millpond for maximum wildlife values. This problem exists because wildlife management techniques include de-watering the millpond. The village of Rome borders part of the millpond and residents may object to this technique, although drawdowns will be pursued.

Constructing additional flowages will give the Department an opportunity to have shallow water marshes that can be managed to maximize wildlife value without major sociological conflicts.

By: Cynthia Morehouse

Representing: Department of Transportation

We have reviewed the Master Plan for the Rome Pond Wildlife Area in Jefferson County. We have determined that the Proposed Management and Development Program should not have significant adverse effect on our transportation facilities. State Trunk Highway 135, however, currently has some deficient design features and will eventually require improvements, basically along its present alignment. This highway is also a candidate for transfer to Jefferson County's jurisdiction. We request, whenever you propose to acquire any interests in lands abutting this highway you coordinate with both Jefferson County Highway officials and:

W. T. Wambach, Director
Transportation District 1
2101 Wright Street
Madison, WI 53704
(608) 246-3800

DNR RESPONSE:

These persons will be contacted in the event future land acquisition abuts County Highway F.

By: Richard W. Dexter

Representing: The State Historical Society of Wisconsin

As noted on page 11 of the plan, there are no known archeological sites in the wildlife area. However, the area has high potential for containing archeological resources. We therefore recommend that you contact us before beginning any ground disturbing activities such as dike construction or dredging so that we can advise you whether an archeological survey is necessary.

DNR RESPONSE:

Contact will be made as recommended.

By: Stanley A. Nichols

Representing: Wis. Geological and Natural History Survey

I have no significant comments.

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