

FISH LAKE WILDLIFE AREA

MASTER PLAN

IMPLEMENTATION ELEMENT

Approved by: JR Hunter

Date : 7/20/83

A. ACQUISITION

The approved acreage goal for the Fish Lake Wildlife Area is 14,124.00 acres. Currently 13,052.10 acres are in state ownership, all under fee title. Fifteen parcels totaling 767 acres remain to be acquired (Figure 1). All but three of these parcels are planned for some type of habitat development, such as flowage construction, firebreak development, clearing, and/or periodic prescribed burning. All fifteen parcels are to be acquired in fee title. One additional tract (2 acres) is designated an historical site and will not have to be acquired. Remaining acreage (approx. 305 acres) is water.

- Tract 1: St. Olaf Cemetery. Approximately 2 acres. The cemetery is designated an historical site and there are no development plans for the tract. **NO ACQUISITION IS PLANNED.**
- Tract 2: 8.84 acres, no improvements. This tract is needed for blocking to facilitate burning the Grettum marsh.
- Tract 3: .46 acre, no improvements. This tract is needed for blocking to facilitate burning.
- Tract 4: 18.0 acres, no improvements. This tract is required for flowage construction and to facilitate burning of marsh.
- Tract 5: 40.0 acres, improvements are an old farmhouse used seasonally and a small garage. This tract is required for flowage construction, firebreak development, and burning.
- Tract 6: 229.54 acres, improvements are a small house with 2-stall garage, and an old barn and abandoned farmhouse. This tract is required for flowage construction, firebreak development, and for blocking to facilitate burning.
- Tract 7: 40.0 acres, no improvements. This tract is required for flowage construction, firebreak development, and clearing and burning.
- Tract 8: 80.0 acres, improvements consist of an old farmhouse, apparently used seasonally as a hunting cabin.
- Tract 9: 40.0 acres, improvements consist of a hunting cabin and a storage shed. This tract is required for firebreak construction, clearing, and burning.
- Tract 10: 10 acres, improvements consist of a small barn. There are no development plans for this tract. **NO ACQUISITION IS PLANNED.**
- Tract 11: 40 acres, no improvements. This tract is needed to facilitate burning of a large portion of the Logging Creek marsh; some clearing will be done.
- Tract 12: 60.0 acres, improvements consist of an old farmhouse used primarily as a hunting cabin. This tract is required for clearing and burning.

- Tract 13: 160.0 acres, improvements consist of an older farmhouse, used year around, a small garage, and a shed. This tract is needed for firebreak construction, clearing and burning.
- Tract 14: 28.0 acres, improvements include a small house, 2-stall garage and 2 tin sheds. **NO ACQUISITION IS PLANNED.**
- Tract 15: 10.0 acres, improvements consist of a mobile home. No developments are planned for this tract. **NO ACQUISITION IS PLANNED.**
- Tract 16: 2 acres, no improvements. No developments are planned for this tract. **NO ACQUISITION IS PLANNED.**

FISH LAKE ACQUISITION

<u>TRACT #</u>	<u>ACREAGE</u>	<u>DEVELOPMENT</u>	<u>TRACT PRIORITY</u>
1.	2 approx.	None	Non-Acq.
2.	8.84	Burning	1
3.	.46	Clearing & burning	2
4.	18.00	Flowage const. & burning	2
5.	40.00	Flowage const. & burning	1
6.	229.54	Flow & FB const. & burning	1
7.	40.00	Flow & FB const. & burning	1
8.	80.00	Clearing & burning	1
9.	40.00	FB const., clearing & burning	1
10.	10 approx.	None	Non-Acq.
11.	40.00	Clearing & burning	1
12.	60.00	Clearing & burning	1
13.	160.00	FB const., clearing & burning	1
14.	28.00	Parking Lot	Non-Acq.
15.	10.00	None	Non-Acq.
16.	2 approx.	None	Non-Acq.
	<u>768.84</u>		

B. DEVELOPMENT

Development activities on Fish Lake are designed to increase populations of sharptailed grouse, ducks, Canada geese, and endangered and non-game species, such as the eagle, osprey, double crested cormorant, and great blue heron. The brush prairie characteristic of presettlement days (pre-1850) will be restored by clearing, firebreak construction, and prescribed burning. Wetland restoration will involve construction of flowages, run-off ponds, transfer ditches, and potholes. Water control structures and a high capacity diversion pump will facilitate movement of water throughout the area. Fifteen hundred acres will be retained and managed for forest wildlife habitat and timber production. Development projects described below are contingent upon acquisition of private land holdings within the Fish Lake boundaries.

1. Firebreak Construction (objectives 1 and 2)

Construct 18 miles of firebreak to facilitate prescribed burning. Two miles of firebreak will be constructed annually; firebreak construction will be completed by 1990. Burning maintains the uplands in open brush prairie habitat (objective 2) and retards woody encroachment in wetland types (objective 1). Constructed firebreaks will vary from 50 to 100 feet in width. Proposed firebreaks are shown in Figure 2a.

2. Flowage Development (objective 1)

Construct 10 flowages creating 860 acres of brood water in order to produce an additional 645 ducks and 45 geese annually. In several instances, proposed dikes and flowages will also function as firebreaks. Flowage locations are shown in Figure 2b numbered in order of priority:

<u>Flowage #</u>	<u>Acres</u>	<u>Dike Length</u>
1	30	300'
2	20	200'
3	30	100'
4	150	1400'
5	15	300'
6	110	1500'
7	90	1000'
8	360	2900'
9	20	600'
10	35	200'

3. Transfer and Level Ditches (objectives 1 and 2)

Construct 7.1 miles of water transfer ditch and level ditch. In conjunction with a high volume pump, transfer ditches will facilitate water level control on 3700 acres of existing flowages and 860 acres of proposed flowages (objective 1). Level ditches will provide habitat diversity and will function as both breeding pair and brood habitat.

Ditches will also function as firebreaks, particularly in those areas where construction of firebreaks is not possible (objective 1 and 2). Ditch locations are shown in Figure 2c, numbered in order of priority.

<u>Ditch #</u>	<u>Length</u>
1.	6,600'
2.	14,500'
3.	2,700'
4.	2,800'
5.	10,900'

4. Potholes (objective 1, additional benefits 4)

Construct 100 additional potholes (.05 acre) to provide breeding pair habitat, thereby increasing waterfowl production. To date 90 potholes have already been constructed. Potholes will be placed adjacent to existing or proposed flowage sites, and will be constructed by scraping out low wet depressions. Existing potholes are also heavily used by furbearers. Pothole locations are shown in Figure 2b.

5. Public Use Facilities (objective 4)

Construct 6 additional parking lots/boat landings and one observation area to accommodate public use of the wildlife area.

Construct 2.6 miles of hiking trail, thus providing access to a Natural Area and a Historic and Archaeological Area.

Install a well and hand pump at the existing rest area on Stolte Road.

Proposed public use facilities are shown in Figure 2d.

6. Nesting Structures

Erect cormorant, heron, eagle and osprey nest structures as necessary to replace or augment natural nest trees. The use of other nesting structures (ducks, geese, loons, black tern) will be explored.

C. OPERATIONS AND MAINTENANCE

Maintenance activities on Fish Lake will concentrate on habitat improvements designed to increase water fowl and sharptailed grouse populations, namely flowages and firebreaks. Hunting and other wildlife-related recreation will be encouraged through maintenance of public use facilities.

1. Firebreaks (objectives 1 and 2)

Annually mow 7.5 miles of firebreak to retard woody encroachment, primarily oak and aspen. Herbicides, grubbing, and rootraking will be tried in an attempt to permanently maintain firebreaks. At full development 47 miles of firebreak will be mowed on a 4-year rotation.

2. Flowages and Dikes (objective 1)

Conduct water level control activities on 7 flowages. Pump water via high volume diversion pump when necessary to maintain normal water levels in flowages. Annually maintain 8 control structures and 5.0 miles of dike. At full development, maintain 18 control structures and 6.6 miles of dike.

3. Public Use Facilities (objective 4)

Annually grade 7 parking lots and 2 observation areas. At full development, maintain 13 lots and 3 observation areas.

Maintain 1 rest area with routine posting and cleanup.

Mow or brush 4 miles of hiking trail every third year. Other trails will be gated and signed as required.

4. Patrol and Surveys (objectives 1, 2, 3, 4)

Patrol property and conduct annual wildlife surveys as required to determine management effectiveness.

5. Fencing

Establish and maintain boundary fences as required.

D. VEGETATION MANAGEMENT

Vegetative cover types and compartment boundaries are shown in Figure 3. The goal of vegetation management on Fish Lake is to restore a productive mix of prairie, wetlands, and forested habitat, similar to the habitat conditions that existed prior to settlement of the area. The following table summarizes major vegetation types on the Fish Lake Wildlife Area:

<u>Type</u>	<u>Acreage</u>
Open water	1980
Grass marsh and lowland brush	4799
Swamp hardwoods	148
Grass and upland brush	1633
Aspen - White birch	1136
Oak	1684
Pine	1940
	<u>13,320</u>

This summary is based on compartment reconnaissance which was started in 1974, but never completed. Cover types are currently being field checked and the compartment reconnaissance updated. It is expected a computer print-out will be available by the spring of 1983.

1. Prescribed Burning (objectives 1 and 2)

Annually burn 400 acres in order to maintain prairie and wetlands habitat. At full development 7900 acres will be burned on a 3 to 5-year rotation, or an average of 1800 acres per year by 1992. Approximately 45 burn units will be established. Each unit will be surrounded by a fuel break, a combination of constructed firebreaks, dikes, flowages, ditches, or roads. This will permit burning the units individually.

2. Clearing (objective 2, additional benefit 1)

Clear 3400 acres of forested cover types to restore the original brush prairie, thereby increasing the production of sharptailed grouse. Annually, 340 acres will be cleared over the next 10 years; it is expected that clearing will be completed by 1992. Clearing will be accomplished through a combination of timber sales, firewood permits and non-commercial treatment.

Upon completion of compartment reconnaissance, each stand will be entered into the 10-year clearing schedule. The clearing schedule may be modified as market and weather conditions dictate. In general, however, the clearing schedule will be based on compartment priorities as follows:

<u>Priority</u>	<u>Compartment</u>	<u>Acres to be Cleared</u>
1	4	Not Available--to be entered upon completion of compartment reconnaissance
2	8	
3	1	
4	9	
5	10	
6	2	
7	7	
8	6	
9	5	
10	3	

3. Agricultural Crops (objectives 1 and 2, additional benefits 3 & 4)

At full development sharecrop 186 acres on old farm fields. Currently 101 acres are being sharecropped annually (corn, rye, buckwheat). Major objectives are to provide a readily available food source to migrating waterfowl and sandhill cranes, as well as a winter food supply for sharptailed grouse. It is not anticipated that DNR personnel will be involved in the farming activities on Fish Lake. Locations of crop fields are shown in Figure 3a.

4. Forest Management (objective 3)

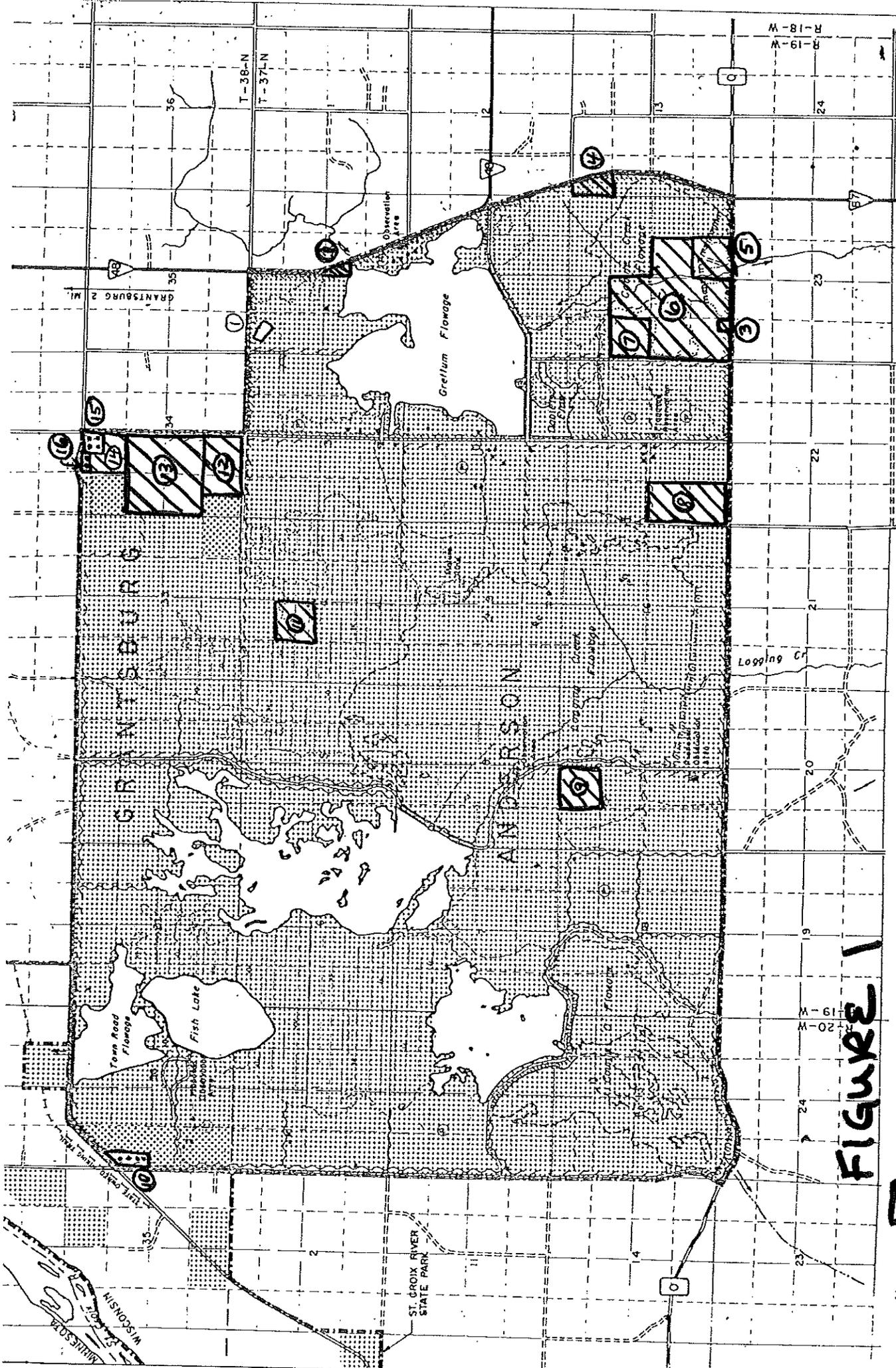
A minimum of 1500 acres will be retained in forested cover types to be managed for forest wildlife and timber production. These "leave areas", designated RD3 in the Conceptual Master Plan, are shown in Figure 3b. Emphasis here will be on long term maintenance of cover types. About 500 acres of pine, 500 acres of oak and 500 acres of aspen will be retained, scattered throughout the project to create maximum diversity of cover types. Commercial timber sales at full rotation age will generally be the method used to manage these stands. Aspen types may be cut on a shorter rotation in order to create maximum age diversity, primarily intended for ruffed grouse and woodcock. Upon completion of compartment reconnaissance, Program 14 of the computer printout will be appended to this plan. This program shows a summary of each stand and schedules the year of treatment for each stand.

5. Marsh Improvement (objective 1)

Create 600 acres of open water in floating sedge bog by mechanical means. The upper reaches of most Fish Lake flowages have sufficient water depth, but the solid mat of sedge reduces open water acreage and prevents use by waterfowl. A "Cookie Cutter" or similar piece of equipment would be effective in opening up these floating mats and would increase the acreage of brood habitat (Figure 3c).

6. Dense Nesting Cover (objective 1; additional benefits 2 and 3)

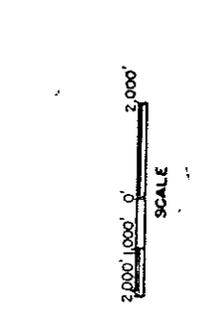
Establish 300 acres of nesting cover on old fields to increase production of waterfowl. Plantings will be a mixture of warm season prairie grasses since a secondary objective is to restore the original prairie species. Sharptail production will also increase since grass prairie is an important component of sharptail habitat when interspersed throughout brush prairie. Locations of proposed nesting cover are shown in Figure 3a.



STATE OF WISCONSIN
 DEPT. OF NAT. RESOURCES
 DIVISION OF SERVICES

FISH LAKE
 WILDLIFE AREA

DRAWN BY J. JAVANA
 DATE 7-27-70
 CHECKED BY J. JAVANA
 ENGINEER IN CHARGE
 PROJECT NO. 7470



LEGEND

--- PROJECT BOUNDARY

..... STATE OWNED

..... STATE EASEMENT

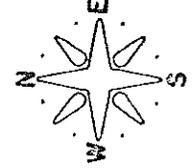


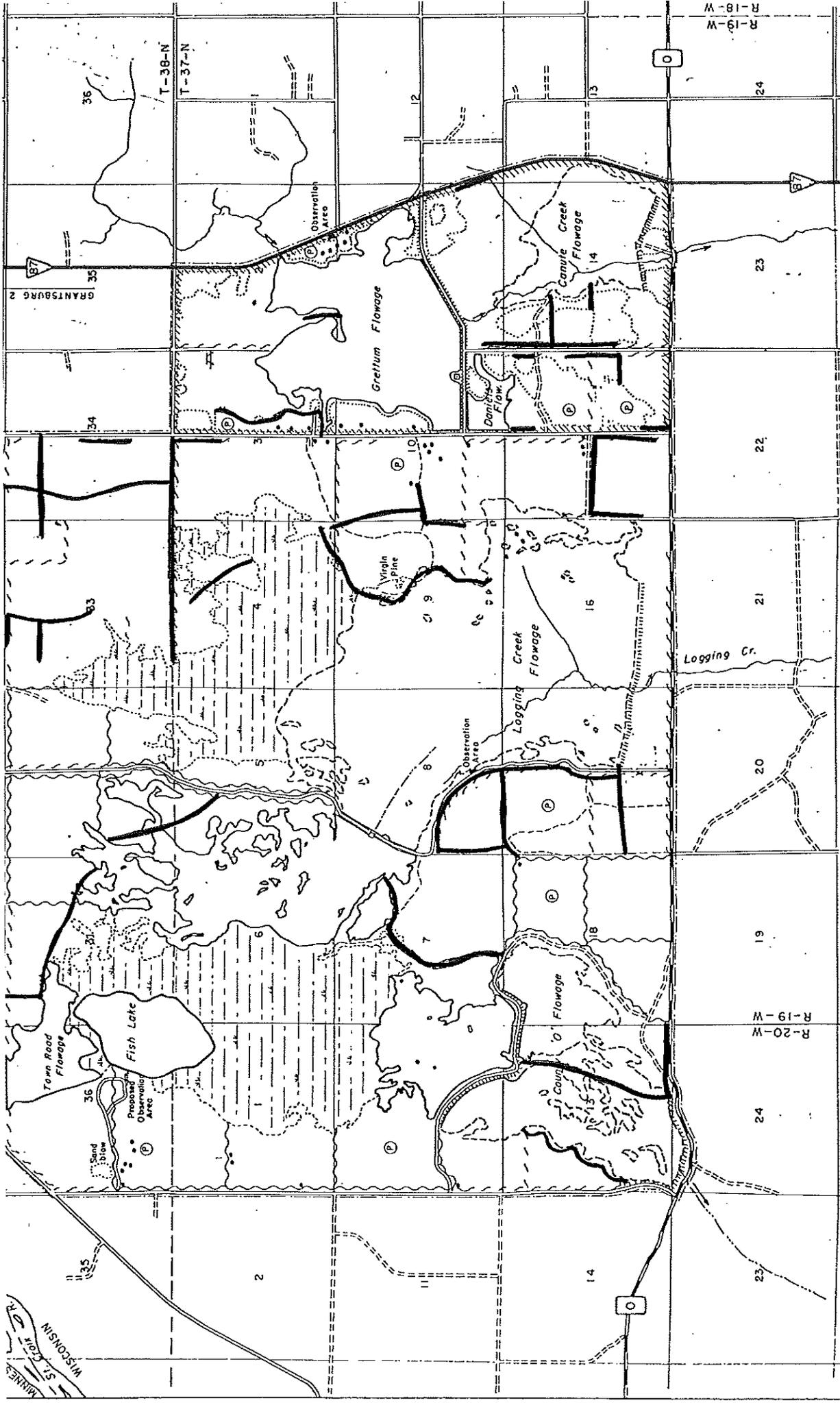
FIGURE 1

□ NO PURCHASE

▨ DEVELOPMENT

▩ NON-DEVELOPMENT





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PROPOSED PLAN		BURNETT COUNTY	
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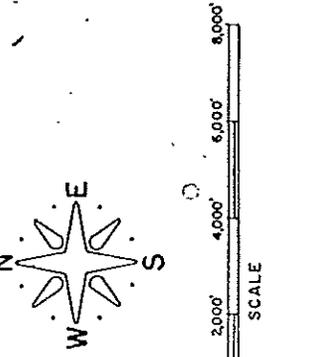
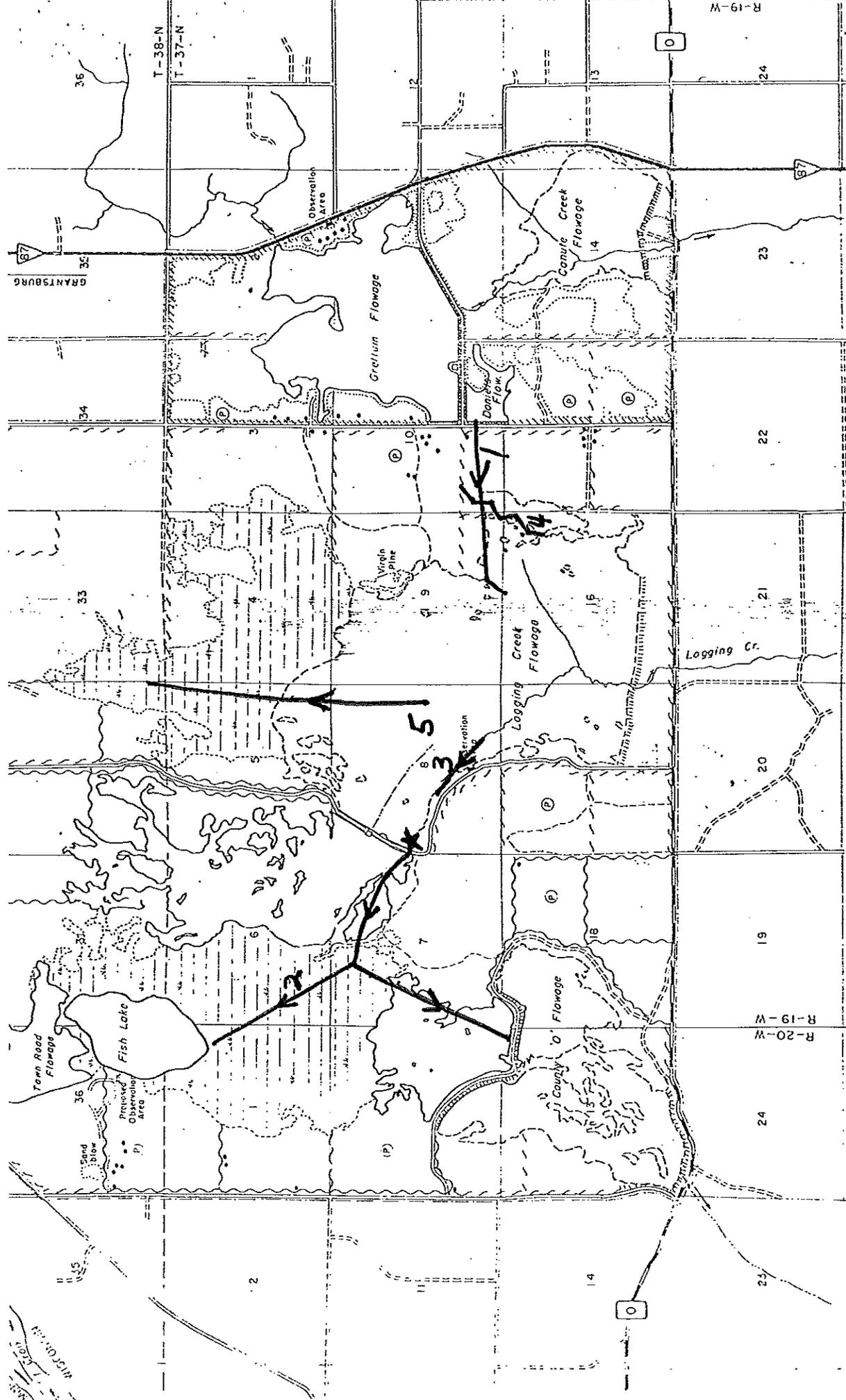


FIGURE 2A
— PROPOSED FIREBREAKS

LEGEND

	Project boundary
	Proposed wildlife refuge
	Existing flowages
	Proposed flowages
	Proposed food patches
	Existing firebreaks
	Proposed firebreaks
	Existing paths
	Proposed paths
	Camp B picnic grounds
	Trails
	Dike



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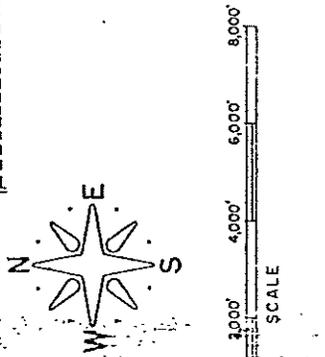
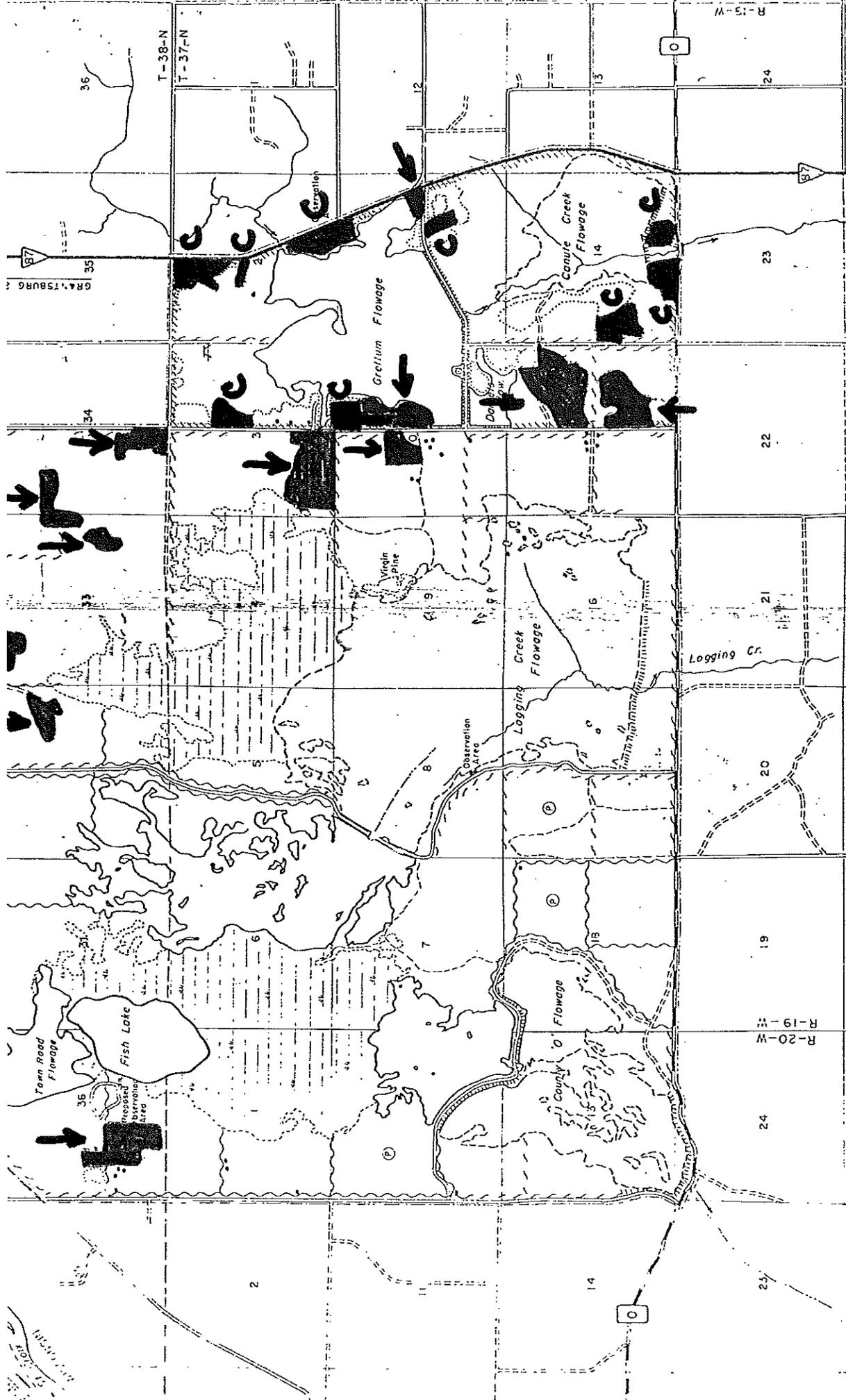


FIGURE 2C
DITCHES
PRIORITY
★ PUMP

LEGEND

	Project boundary
	Proposed wildlife refuge
	Existing flowages
	Proposed flowages
	Proposed food patches
	Existing firebreaks
	Proposed firebreaks
	Existing paths
	Proposed paths
	Camp & picnic grounds
	Trails
	Dike



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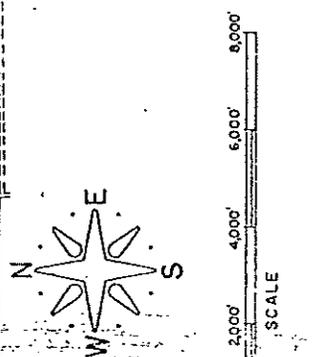


FIGURE 3A
DNC ←
CROPS (G)

- LEGEND**
- Project boundary
 - Proposed wildlife refuge
 - Existing flowages
 - Proposed flowages
 - Proposed food patches
 - Existing firebreaks
 - Proposed firebreaks
 - Existing potholes
 - Proposed potholes
 - Camp & picnic grounds
 - Trails
 - D x

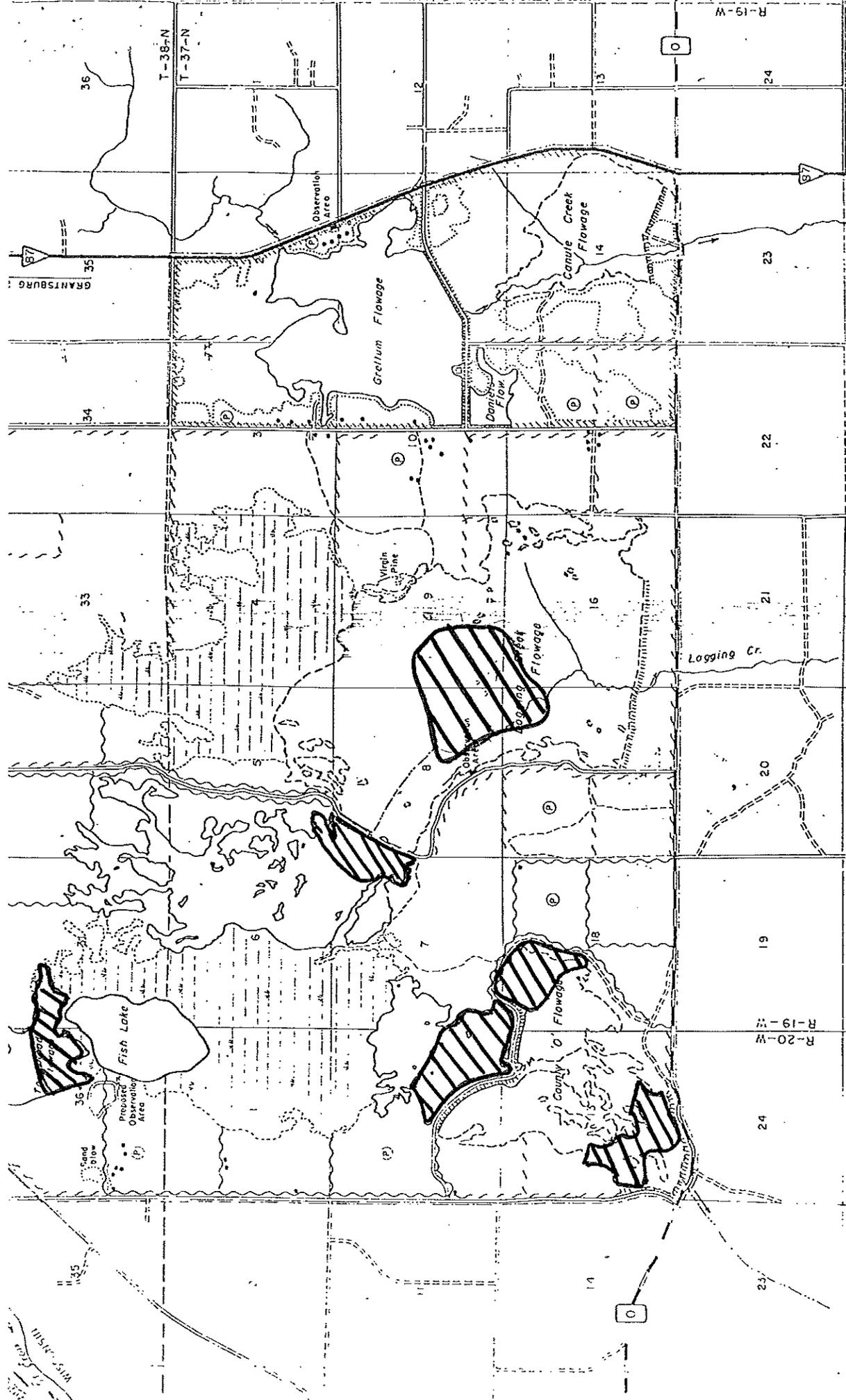
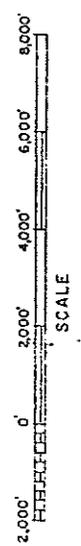
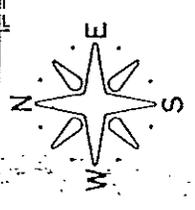


FIGURE 3C

MARSH IMPROVEMENT

- LEGEND**
- Project boundary
 - Proposed wildlife refuge
 - Existing flowages
 - Proposed flowages
 - Proposed lead patches
 - Existing firebreaks
 - Proposed firebreaks
 - Existing paths
 - Proposed paths
 - Open & picnic grounds
 - Utilities
 - Other



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