

ANNUAL MANAGEMENT PLAN
FOR
POOL 8 WATERFOWL MANAGEMENT UNIT

Missouri Department of Conservation
and
U. S. Fish and Wildlife Service
Cooperating
Mingo National Wildlife Refuge, Missouri

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I. INTRODUCTION

A. PROJECT NAME

Pool 8 Waterfowl Management Unit

B. POOL 8

This 2,000 acre tract of bottomland hardwood timber belonging to the U. S. Fish and Wildlife Service is located between Drainage Ditches #1 and #2 (see attached map) on the Mingo National Wildlife Refuge. Pool #8 also forms the western boundary of Pool #1 and #3 of the Duck Creek Wildlife Management Area. Although the U. S. Fish and Wildlife Service has primary responsibility for management of this area, a cooperative agreement between the Missouri Department of Conservation and the U. S. Fish and Wildlife Service allows the Department to manage this area for the purpose of improving habitat for waterfowl. Management plans must have prior approval by the Service before being implemented by the Department.

C. AREA MANAGER

The current manager is David A. Schafer. The Area Manager may be contacted at: Duck Creek Wildlife Management Area, Route 1, Puxico, Missouri 63960, telephone number 314/222-3337.

D. OBJECTIVES AND GOALS

The management objectives and goals of Pool 8 are to provide optimum habitat for migrating waterfowl and to provide quality waterfowl hunting opportunities to the public.

D. OBJECTIVES AND GOALS (cont.)

The principal objective of improving habitat for migrating waterfowl can be accomplished through development of water control structures and levee development. Pool #8 is naturally used by waterfowl but only after flood waters have inundated the area. Natural flooding is not a dependable means of providing optimum habitat conditions. A more dependable means will be possible when water control structures are installed and breaks in spoil banks are repaired.

The secondary objective of providing a quality waterfowl hunting experience for the public will be accomplished in several ways. First, hunter numbers will be regulated depending on available habitat with numbers not to exceed one hunter per 30 acres. Secondly, Pool #8 will be hunted only until 1:00 p.m. daily which will provide a refuge for the birds in the afternoon. Thirdly, no man-made clearings in the timber are planned. Quality and aesthetic values will remain high as hunters select the natural openings that occur in the forest canopy.

E. PROJECT POTENTIAL

The potential of the area to provide quality habitat for the waterfowl resource is great. At present, the area only provides good waterfowl habitat when natural flooding occurs and at the time waterfowl are present. The potential of the area can be realized when the timing and duration of flooding can be controlled. By controlling the water regime, the waterfowl resource will greatly benefit.

II. ACTIVITY DURING FISCAL YEAR 1980-81

A. HABITAT DEVELOPMENT AND PROBLEMS

Development activities during 1980-81 were again centered around gathering basic engineering data. Survey work included the following:

1. Re-establishing several ground check points.
2. Taking aerial photographs of the area.
3. Determining elevations of new ground check points.
4. One-foot contour mapping of Pool #8 perimeter and levee system.
5. Drafting plans from basic engineering data.

Engineering blueprints necessary for the construction of water control structures and levee rebuilding were not available during the 1980-81 fiscal year. These plans are expected to be available early in fiscal year 1981-82. Estimated costs of engineering work in fiscal year 1980-81 is \$10,000.

B. THE AGRICULTURAL PROGRAM

The Missouri Department of Conservation has a license for only the timbered portion of Pool #8, so no agricultural programs were undertaken.

C. ROADS AND PARKING AREAS

Hunters gained access to Pool #8 from the east side where ample parking space is provided along the west side of Pool #1 and Pool #3. These are maintained on a regular basis. Several loads of gravel were spread for maintenance. Estimated expenditures are \$300.00.

D. HUNTER USE AND HARVEST

Hunting opportunities in Pool #8 was very limited this year due to extremely dry conditions. During the 50-day season (Nov. 1 - Dec. 15, then Dec. 26-30), twenty-four hunters harvested four ducks. The lack of water and a very poor mast crop were the main factors contributing to very poor duck use in this pool. The estimated duck-use days in Pool #8 was 5,000. This compares to 100,000 last year when water conditions were better and acorns were abundant.

Below are tables showing daily hunter use and harvest in Pool #8.

USE AND HARVEST DATA

<u>Year</u>	<u>Hunters</u>	<u>Ducks</u>	<u>Geese</u>	<u>Average</u>
1980	24	4	0	.16
1979	194	188	6	1.00
1978	47	26	11	.71

SPECIES COMPOSITION OF WATERFOWL HARVEST

<u>Species</u>	<u>1980</u>	<u>1979</u>	<u>1978</u>
Mallard	3	184	20
Wood Duck	1	7	6
Canada Goose	0	6	11

INCOME FROM POOL #8 WATERFOWL PROGRAM

	<u>1980</u>	<u>1979</u>	<u>1978</u>
Hunters 16 & older @ \$4/day	92.00	736.00	188.00
Hunters under 16 @ \$2/day	2.00	20.00	--
Decoys @ \$1/day doz.	<u>5.00</u>	<u>14.00</u>	<u>2.00</u>
TOTAL	\$ 99.00	770.00	190.00

E. WATER LEVEL MANAGEMENT

An adequate water supply was the major problem of managing water in Pool #8. There was no water available from Pool #1 for flooding purposes. Very limited flooding was possible by using the two wells in Unit A. Well water was released into Drainage Ditch #2 and then diverted back into Pool #8 about two miles south of the wells. Only about 80 acres of water was ever available for hunting purposes.

F. PESTICIDE USE

No pesticides were used in Pool #8 in 1980.

G. ENVIRONMENT AND POLLUTION PROBLEMS

No pollution problems have been detected or brought to the attention of the Area Manager.

H. SPECIAL STUDIES

No special studies in 1980.

I. POPULATION SURVEY DATA

Pool #8 is completely timbered with few natural openings, making aerial inventory counts impossible. A very limited mast crop and lack of extensive surface water affected duck use. Area personnel estimated only 5,000 duck-use days in Pool #8. In 1979 100,000 duck-use days were estimated.

III. PLANS FOR THE COMING FISCAL YEAR 1981-82

A. BUDGET ALLOCATIONS 1981-82

1. Personnel	<u>Time</u>	<u>Amount</u>
Survey Crew	3 weeks	\$5,000
Design Plans and Const. Supervision - 1 man	3 weeks	3,000
Area Aide - 1 man	1 month	800
		<hr/>
	Sub-total	\$8,800
2. Equipment and Operations Budget		
Operation Detail:		
Vehicle Maintenance and Operations		\$4,000
Maintenance Supplies		500
Road Rock - Parking Areas		300
Field Supplies and Misc. Expense		300
		<hr/>
	Sub-total	\$5,100
	TOTAL	\$13,900

3. Capital Improvements - No estimates
Construction may start in the summer of 1982
pending completion of construction plans,
budget approval and letting of contract.

B. PROPOSED ACTIVITIES AND WORK PLANS

1. Buildings:
None proposed for area.
2. Canals and Channels:
Drifts and log jams in Ditch #1 and #2 will
be removed when and where necessary. Removal
depends on blockages that interfere with
placement of water control structures or water
diversion against levee systems.
3. Road and Parking Lots:
Access roads leading to Pool #8 parking areas
are also intricate parts of Duck Creek. These
roads and parking areas are maintained on a
regular basis and graveled when needed.
4. Signs and Boundary Markers:
Boundary signs and posts will be replaced or
repaired as needed. Directional signs to
assist hunters in finding Pool #8 will be
erected.
5. Habitat Development:
 - a. Border Plantings - none.
 - b. Timber Stand Improvements - Continuing
lowland hardwood studies on Duck Creek
and Mingo will eventually lead to better
management of this valuable resource.

5. Habitat Development: (cont.)

c. Herbaceous Seeding - none.

d. Habitat Improvements - The major habitat improvement work in Pool #8 will again be directed towards water control and levee repair. This work is necessary to maintain high quality waterfowl habitat.

Improvement work will depend on completion of design plans and approved funding. A request to the Corps of Engineers concerning the need for a 404 Permit may delay initiation of construction. Water control structures will be located as dictated by survey data. Such placement will insure proper drainage of the entire unit.

Levee repair work will be depended upon survey data and elevations of present spoil banks. Present plans are to manage water levels in Pool #8 at a 339.5 elevation. This level will provide an estimated 1,000 - 1,200 acres of flooded lowland hardwood habitat for waterfowl.

When development work has been completed in Pool #8, the water management plan will be as follows:

Water control will begin in early July with the closure of radial gates on Drainage Ditch #111 to take advantage of any runoff from rainfall for diversion into Pool #1. By mid-October, Duck Creek Pools #2 and #3 should be at management levels with excess

d. Habitat Improvements (cont.)

water from Pool #1, if available, being released into Pool #8. Averages indicate approximately 1,450 acre feet of surplus water can be used from Pool #1 to fill Pool #8. Dewatering of Pool #8 will begin as soon as practical following the close of duck season.

6. Thinning, Clearing and Vegetation Control - none.

7. Fire Breaks - none exist.

8. Game Management:

a. Managed Hunt Program - Pool #8 will be open to wade-and-shoot waterfowl hunting in the fall if adequate water is available to provide huntable habitat. The Department will issue all daily use permits on an impartial basis, and will charge, collect, and retain a daily fee consistent with other Department management areas as partial defrayment of costs for materials and services rendered. The fee will be \$4.00 per person, age sixteen (16) and older, and \$2.00 per person, age fifteen (15) and under. Hunting will be allowed until 1:00 p.m. daily in the timbered portion of the pool. Hunter numbers will be regulated depending on available habitat with numbers not to exceed one hunter per 30 acres. Hunting will be allocated by a random drawing each morning before each day's hunt. Waterfowl hunting will be restricted to steel shot only. Hunters will gain access to Pool #8 from the east side using foot bridges to cross Ditch #1.

8. Game Management:

a. Managed Hunt Program (cont.)

The Department will annually fund for and render efforts necessary to maintain signs, bridges, boats, decoys, water control structures and conduct other operational activities as necessary to provide the public services as outlined above.

b. Game Census Routes - No established game census routes have been established.

c. Special Studies - none exist at this time.

IV. SUMMARY

Pool #8 status remains in the early stages of development. Management activities will be primarily directed towards water control and levee repair. A wade-and-shoot water-fowl hunting program will be managed during development activities and regulations governing the use will be the same as last year.