

FERGUS FALLS  
WETLAND MANAGEMENT DISTRICT  
Fergus Falls, Minnesota

ANNUAL NARRATIVE REPORT  
Calendar Year 1988

U.S. Department of Interior  
Fish and Wildlife Service  
NAT'L WILDLIFE REFUGE SYSTEM

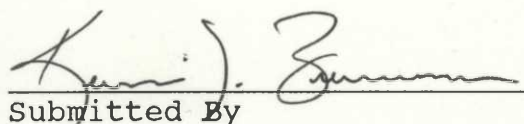
REVIEW AND APPROVALS

FERGUS FALLS WETLAND MANAGEMENT DISTRICT

Fergus Falls, Minnesota

ANNUAL NARRATIVE REPORT

Calendar Year 1988

  
Submitted By

3-1-89  
Date

  
Division Supervisor Review

3/7/89  
Date

  
Regional Office Approval

3/10/89  
Date

## INTRODUCTION

The Fergus Falls Wetland Management District (WMD) was established in 1962 with the advent of the Accelerated Small Wetlands Acquisition Program. The WMD encompasses Otter Tail, Grant, Douglas and Wilkin Counties in west central Minnesota.

The WMD currently manages 209 Waterfowl Production Areas (WPAs) totalling 36,742 acres. These WPAs are managed for optimum waterfowl production using techniques such as upland cover, water and seasonal predator management.

A total of 571 Wetland Easement Contracts covering 17,170 wetland acres are also administered by the WMD. These wetlands are protected from draining, filling, leveling and burning. Management consists of monitoring the wetlands and enforcement of the easement provision.

In addition, numerous short term leases are administered by the WMD covering restored wetlands and farm program lands.

The Fergus Falls WMD lies within the transitional zone between the flat glacial lake bottom Red River Valley to the west and the timbered areas to the east. Within the transitional zone lies glacial moraines that contained many wetlands. These wetlands range from small ephemeral basins to large lakes. The woodlands to the east consist of oak-ash communities on the higher sites with willow-tamarack shrub swamps on the lower sites. Major rivers within the WMD include the Red River of the North, Otter Tail, Pelican, Mustinka and Rabbit which run west of the continental divide into the Hudson Bay drainage and the Chippewa, Pomme de Terre, Long Prairie, Wing and Cat Rivers which run east into the Mississippi drainage.

The recent history of the Fergus Falls District's four-county area shows that it was a new frontier just a short time ago. The area was the scene of frequent clashes between the Chippewa (Ojibway) and Sioux Indians before and after white settlers moved into the region. Buffalo rings, mounds, flintstones and arrowheads are frequent signs of the region's past. The first white people in the Fergus Falls District were French and English fur traders and explorers. There are records of fur traders in Otter Tail County dating back to 1792. Settlers began arriving around 1858, but the Sioux uprising of 1862 in southern Minnesota caused many of the people to leave the area. Joseph Whitford, the man who named Fergus Falls was killed by Indians who mistook him for a deer.

Here, at the forest edge, annual rainfall totals about 24 inches. This region historically was covered by bluestem tallgrass prairie vegetation. The coming of settlement in the late 1800's brought suppression of wildfires and woodlands have moved west taking over many areas that were once prairie.

The Northern Pacific and Great Northern Railroads arrived in 1871 and 1879, respectively. They provided vital links with grain markets in Minneapolis, St. Paul and Duluth and helped farmers move from making a subsistence living to making a profit on their crops.

The current economy of the area is heavily dependent upon agriculture although tourism and recreation play an important role.



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L. INFORMATION PACKET

### A. HIGHLIGHTS

One hundred forty-four wetlands were restored on Conservation Reserve Program and Private lands and nine wetlands on FmHA tracts.

A total of 62 waterfowl nests were located in predator exclosures with a success rate of 81%.

The 1988 drought brought us the hottest June on record and a drying up of all temporary and seasonal wetlands and most semipermanent wetlands.

### B. CLIMATIC CONDITIONS

	<u>Precipitation</u>				<u>Temperature</u>			
	<u>Fergus Falls</u>		<u>Alexandria</u>		<u>Fergus Falls</u>		<u>Alexandria</u>	
	<u>Avg.</u>		<u>Avg.</u>		<u>Hi</u>	<u>Lo</u>	<u>Hi</u>	<u>Lo</u>
Jan.	.57	.84	1.15	.67	14.9	- 5.8	16.5	- 3.9
Feb.	.02	.62	.08	.62	17.3	- 4.9	18.9	- 1.7
Mar.	.59	1.05	2.21	1.06	40.0	20.0	37.5	20.1
Apr.	.18	2.37	.53	2.47	55.9	30.8	55.8	31.9
May	2.84	2.74	1.58	3.00	75.2	51.4	77.5	51.4
Jun.	1.57	4.36	.53	4.01	84.3	61.0	86.3	60.5
Jul.	1.32	3.21	2.08	3.18	85.6	63.2	88.7	64.0
Aug.	4.83	3.01	7.96	3.53	84.7	58.2	82.5	60.9
Sep.	2.87	2.09	3.96	2.24	71.6	46.5	68.8	49.3
Oct.	.65	1.45	.58	1.64	54.5	30.4	52.6	32.1
Nov.	2.45	1.35	1.45	1.64	36.0	19.6	35.3	21.0
Dec.	1.89	.90	.59	1.81	41.0	-19.0	45.0	-13.0

One word to describe the conditions of 1988 is "drought." The drought in the Midwest had the Nation's attention. District records tracked the dry spell starting in February. Some records set are as follows:

April - driest on record

June - hottest on record

July - third hottest and third driest on record

In the first part of September, most permanent wetlands were dry. Rain in late September saved some of these wetlands from going completely dry.

The winter of 1988-89 should help replenish some of the moisture with its record snowfalls.





Evidence of the drought. By mid-June and early July, wetlands like this on Wiegers WPA (that typically holds 2-3 feet of water through the summer) were already going dry. CV 6/88

### C. LAND ACQUISITION

#### 1. Fee Title

Status of Fee Acquisition as of December 31, 1988

<u>County</u>	<u>CY</u> <u>Tracts</u> <u>Optioned</u>	<u>Total</u> <u>No. of</u> <u>Tracts</u>	<u>No. of</u> <u>Mgmt.</u> <u>Units</u>	<u>No. of</u> <u>Wetland</u> <u>Acres</u> <u>Optioned</u>	<u>Total</u> <u>Wetland</u> <u>Acres</u>	<u>Upland</u> <u>Acres</u> <u>Optioned</u>	<u>Total</u> <u>Acres</u>	<u>Goal</u> <u>Acres</u>
Douglas	3	108	51	13	3,010	42	8,178	21,600
Grant	5	141	51	73	3,720	350	9,526	20,700
Otter Tail	6	232	101	78	6,149	284	18,036	41,180
Wilkin	<u>0</u>	<u>16</u>	<u>6</u>	<u>0</u>	<u>617</u>	<u>0</u>	<u>1,842</u>	<u>2,120</u>
Totals	14	497	209	164	13,496	676	37,582	85,600

Midway through FY 1988, it appeared that a major slowdown in our acquisition program was occurring. Toward the end of the year activity picked up.

One of the more notable acquisitions is a 159-acre tract enlarging Townsend WPA (OT-80). This tract lies immediately south of Fergus Falls and has been designated for development of a demonstration area and new headquarters site.

The Refuge Revenue Sharing Act provides for yearly payments to local units of government which are the primary collectors for general purpose real property taxes on lands under the administration of the U.S. Fish and Wildlife Service. Funding for these payments is derived from revenues received from the sale of products from these lands plus a supplemental congressional appropriation. For 1987, revenues provided 59 percent of the full entitled amount. No supplemental appropriation was made. The checks were delivered to each county in the District in June 1988 in the following amounts:

<u>County</u>	<u>Revenue Sharing Payment</u>
Otter Tail	\$33,661.00
Douglas	\$12,832.00
Grant	\$14,440.00
Wilkin	\$ 2,426.00

The continued payment of less than the 100% entitlement is eroding the government's credibility with county commissions and ability to buy land.

## 2. Easements

Status of Easement Acquisition as of December 31, 1988

<u>County</u>	<u>No. of Tracts</u>	<u>Wetland Acres</u>	<u>Total Wetland Acres</u>	<u>Total Easement Acres</u>	<u>Total Goal Acres</u>
Douglas	5	119	4,384	23,012	36,100
Grant	5	119	2,760	10,704	13,300
Otter Tail	11	158	10,422	54,621	66,800
Wilkin	0	0	173	931	1,350
Total	21	396	17,739	89,268	117,550

In addition to the traditional wetland easement for waterfowl management rights, a new flowage easement project on Island Lake in Grant County was initiated this year (See Acquisition, Other).

## 3. Other

In 1988, five thousand eight hundred fifty-two acres of Conservation Reserve Program (CRP) lands were under lease for wildlife management purposes. These leases allow for seasonal predator management, construction of predator barriers, placement of nest baskets, wetland restoration and management of upland cover. All activities, with the exception of seasonal predator management, require the concurrence of the landowner. The leases are for a 10-year period of the CRP contract and cost \$5 per acre per year.

Due to the 1988 drought, all CRP lands were opened to haying by the USDA. Wildlife management leaseholders were required to wait until after July 5th to hay if they wished to still receive their 1988 payment.

In 1988, 144 wetlands were taken under Wildlife Development Agreements, also called free leases. One hundred sixteen of these wetlands were on CRP lands and 28 were on private lands. The Service obtained the rights to restore drained wetlands in return for the landowner's agreement to leave the restorations for a 10-year period.

At the direction of the Complex Manager, Minnesota Waterfowl and Wetland Management Complex, Vukovich delineated a large fee purchase in December for the Detroit Lakes WMD.

Island Lake is a 112-acre drained meandered lake located in eastern Grant County. The lake had been drained via a county tile in the early 1900's and a rather large private ditch in the 1970's. The three landowners who farmed adjacent to and in the lake bottom had obtained reliction rights to the lake bottom. These landowners were approached by the Service about restoring the lake. Flowage

easements were obtained as well as an easement to construct and maintain a water control structure on the lake's outlet. A hearing was held to abandon the county tile draining the lake and the county commissioners approved the abandonment. Ducks Unlimited has reviewed the project and it appears they will fund the construction of a control structure.

#### D. PLANNING

##### 2. Management Planning

The annual amendments to our water management and prescribed burning plans were submitted early in the year and approved.

Planning was accomplished on several Ducks Unlimited projects including Julsrud-Haugtvedt, Redhead, Island Lake, Millerville and Nicholson.

Initial plans for our Townsend WPA Demonstration Area were developed and submitted for Regional Office review. Work also continued on a Prairie Wetlands Visitor Center/Headquarters building to be located on this same unit.

Vukonich completed several Resource Inventory Plans on newly acquired fee purchases.

##### 4. Compliance with Environmental and Cultural Resource Mandates

Once again, it has to be reported that during 1984, the Minnesota Department of Transportation (MN DOT) performed a reconstruction project on Trunk Highway 59 (T.H.) through a portion of Otter Tail County and into Grant County. Contrary to an agreement before the project started, MN DOT lowered several culverts and ditch grades. Several wetlands were impacted in direct violation of Executive Order 11990. The Order states that no wetlands shall be drained with Federal funds on public works projects. Corrective work was done during Calendar Year 1986 but required mitigation, to restore 10 acres of wetlands, has yet to be done.

An application for a right-of-way permit has been received from MN DOT concerning their intent to impact Townsend WPA (OT-80) with the proposed T.H. 210 bypass at Fergus Falls. An environmental assessment will be prepared in 1989.

An environmental assessment was prepared for a MN DOT project on T.H. 27 in Grant and Douglas Counties, a 17-mile project. It will impact two easements for waterfowl management rights and a Waterfowl Production Area (Eng Lake, D-37). Mitigation will result in restoration of a 20 plus acre wetland on the WPA. A fee purchase roundout to this unit made restoration possible.



An environmental assessment was prepared for Grant County State Aid Highway (CSAH) No. 11. This 12-mile project impacted four Easements for Waterfowl Management Rights. Mitigation involved a 7-acre wetland which the county purchased and encumbered with a perpetual Easement for Waterfowl Management Rights.

An environmental assessment was prepared for Douglas CSAH #12. This 4.5-mile project impacted one Easement for Waterfowl Management Rights. Mitigation involved construction of a ditch plug with a stoplog structure to enhance a wetland on Kline WPA (D-18); all work to be done by MN DOT. The project is currently at a standstill because of archaeological concern by the State Historical Preservation Officer.

Negotiation on Wilkin C.S.A.H. #32 occurred during the last part of the year. Because construction will be limited to the existing right-of-way only a statement of no-impact may be required.

#### 6. Other

A team review of land management activities on the entire Minnesota Wetland and Waterfowl Complex was conducted during the year. Team members included Arnold Kruse of the Northern Prairie Wildlife Research Center, Tom Carlson and Jerry Maertens of the Minnesota Department of Natural Resources, Rick Warhurst and Frank Kartch of Ducks Unlimited, Keith Harmon of the Wildlife Management Institute, Steve Wilds and Rollin Siegfried of the Region 3 Fish and Wildlife Service.

Results of the teams review included the following recommendations:

- Concentrate acquisition and management on larger habitat blocks with good wetland complexes. This is the most efficient way to maximize duck production given the constraints under which managers must operate.
- Vigorously continue efforts to minimize the impacts of predators on duck production. Direct predator removal is probably most effective on larger WPAs.
- Improve breeding pair habitat by manipulating wetland vegetation and protecting and restoring temporary wetlands.
- Increase the use of water management to enhance wetland habitat where physically possible. Again, this would probably be most effective on large WPAs with good wetland complexes.

- Continue to aggressively acquire land for WPAs. The focus should be on enlarging and/or protecting quality wetland complexes.
- Incorporate early-greening cover into the upland management of WPAs to attract more nesting hens. This could be especially valuable inside fenced areas.
- Explore the possibility of closing highly productive WPA's to hunting in an effort to increase the homing rate on those units.
- Prohibit leech and minnow harvesting of WPAs because of the disturbance such activities cause during the nesting season.
- Increase efforts to evaluate the results of management activities on WPAs.
- Increase the use of computers to help make management activities as effective and efficient as possible.

## E. ADMINISTRATION

### 1. Personnel



2      3      16      14      12      13      1  
 15      9      8      6      4      5      7

1. Kevin J. Brennan, Wetland Manager, GS-12 PFT
2. Will Steffen, Assistant Wetland Manager, GS-11 PFT
3. Gene Williams, Wildlife Biologist, GS-9 PFT (E.O.D. 2-14-88)
4. Wendell Olson, Range Conservationist, GS-11 PFT
5. Chuck Vukonich, Biological Technician, GS-7 PFT
6. Steve Tapia, Refuge Manager Trainee, GS-5 PFT  
(transferring on 02-26-89)
7. Luther Melby, Maintenance Worker, WG-7 PFT
8. Pauline Wiziarde, Secretary, GS-5 PFT
9. Larry Childs, Tractor Operator, WG-5 CS
10. Penny Petersen, Clerk-Typist, GS-3 TFT (not pictured)
11. Alan Anderson, Biological Technician, GS-5 TFT  
(transferred to Morris WMD 05-01-88)
12. Greg Neudecker, Biological Technician, GS-5, TFT
13. Todd Hauge, Biological Aid, GS-4 TFT
14. Keith Stahn, Biological Aid GS-3 TFT
15. Laura Koopman, Biological Aid, GS-3 TFT
16. Tim Granger, Biological Aid, GS-3 TFT



Gene Williams came on board in mid-February as our Wildlife Biologist Enforcement Specialist. Gene transferred from the Charles M. Russell NWRs Sand Creek Station. Gene replaced Larry Rauen who transferred to Agassiz NWR.

Penny Petersen was hired in July as a temporary full-time Clerk-Typist. Penny has proven to be a valuable addition with the extra workload created by Farm Bill activities.

Alan Anderson was selected by the Morris WMD to fill a permanent Biological Technician GS-6 position. Alan had worked as a temporary Biological Technician for this District for the past 5 years.



Trappers Larry Samuelson, Robert Sanford and Dick Wilken

Our three trapper positions were filled by Larry Samuelson from Pelican Rapids, Dick Wilken from Miltona and Robert Sanford from Elbow Lake. These individuals were selected based on their past trapping experience and proved to be excellent trappers. The difference in effectiveness between these professional trappers and Biological Technicians hired in the past to trap was very noticeable.

Greg Neudecker and Todd Hauge were hired back for the 4th and 2nd years respectively as temporary seasonal help. The knowledge these experienced individuals have of the WMD and its operations gave us a headstart implementing our field programs for 1988.



New hires for the field season included Keith Stahn, Laura Koopman and Tim Granger. Those three individuals had all worked at other FWS field stations prior to working for us, giving them a basic knowledge of the Service's operations.

	<u>Full-Time</u>	<u>Career-Seasonal</u>	<u>Temporary</u>
FY 1988	8	1	6
FY 1987	8	1	3
FY 1986	7	1	3
FY 1985	7	1	4
FY 1984	7	1	6
FY 1983	7		2
FY 1982	8		2
FY 1981	8		4
FY 1980	9		6

FEE ACRES, MANAGEMENT UNIT, STAFF DAYS AND DOLLARS

Fiscal Year	Total Fee Acres	Permanent		Temporary Staff-Days	YACC/YCC Staff-Days	Dollars
		No. Mgt. Unit	and Career Seasonal Staff-Days			
1980	33,112	209	2,071	623	243	585,500
1981	33,222	208*	2,039	415	23	333,000
1982	33,297	208*	1,690	217	220	327,800
1983	33,381	208	1,820	150	500	334,000
1984	33,602	208	1,725	325	537	339,975
1985	34,349	208	1,725	310	191	503,300
1986	35,942	209	1,725	434	197	435,950
1987	36,742	209	1,925	645	117	491,000
1988	37,582	209	2,340	820	120	477,700

\*Decline due to Todd County transfer to Litchfield Wetland Management District.

## 2. Youth Programs

Three Youth Conservation Corps employees came on board June 20: Lance Leitch, Tom Smith and Mike Klinnert. The YCC program is beneficial both to the District and enrollees. The District gets many projects accomplished by these youth such as preparing bluebird box kits, setting up displays at local county fairs, cleanup on Waterfowl Production Areas, removal of fence, repairs to predator exclosures, etc. In return, the enrollees are exposed to the environment in a learning situation.



Youth Conservation Corps enrollees Mike Klinnert, Tom Smith and Lance Leitch

Two youth from the Minnesota Concentrated Employment Program summer youth program were also job-sited at the District. This program provides employment and training services to low-income, unemployed or under-employed youth ages 15-19. The District provided a variety of work experience within the 4-county area, as well as the educational aspects of environmental awareness. This program has been a positive work experience for both the District and youth involved.



Minnesota Concentrated Employment summer youth employees  
Alvin Peterson, Daryl Nichols and Melissa Bellet

### 3. Other Manpower Programs

Personnel have been staffed through the Minnesota Concentrated Employment Program. This program provides a training site and job experience to unemployed adults. Several employees were provided to the District by this program. They provided, within the 2-month training period, the necessary manpower for field work such as nest dragging, surveying, fence repair, maintenance of grounds, buildings and equipment.

Green Thumb Worker Gordon Mostue, who had been with the District for over 5 years, retired in early 1988. Mr. Mostue provided much assistance at the shop maintaining the grounds and buildings.

Work Fare Employee Ray Schnoor, with the District for over 3 years, also left. Ray was keen in the repair of machines and equipment and will be missed.

### 4. Volunteer Program

Todd Hauge, Biological Technician during the summer, volunteered in December to organize and consolidate all the Conservation Reserve Program files. Todd spent 3 days doing paperwork that was unable to be done during the busy summer months.



Volunteer Judy Stringer came on board in July. Judy is working under a grant from the West Central Initiative Fund sponsored in part by the International Coalition for Land and Water Stewardship in the Red River Basin and the Barlage Science Center (Moorhead State University). Judy conducted Environmental Education Curriculum Workshops to teachers of children K-6 in 15-20 area schools. Judy has had access to Service educational resources and projected a credible image for the Service.

## 5. Funding

<u>WORK CODE</u>	<u>FY 1982</u>	<u>FY 1983</u>	<u>FY 1984</u>	<u>FY 1985</u>	<u>FY 1986</u>	<u>FY 1987</u>	<u>FY 1988</u>
1210	\$300,000	\$269,000					
1220	20,000	18,000					
1240	11,000	15,000					
1260			\$273,500	\$375,400	\$423,100	\$468,000	
1261							\$247,300
1262							225,400
1520		17,700	22,975	8,900	7,850		
3110	6,800	5,000					5,000
3100			5,000	5,000	5,000		
Job Orders			38,500	114,000		23,000	
1120*							<u>37,500</u>
	<u>\$337,800</u>	<u>\$324,700</u>	<u>\$339,975</u>	<u>\$503,300</u>	<u>\$435,950</u>	<u>\$491,000</u>	<u>\$515,200</u>

\*To be used for Farm Bill and Conservation Reserve Program restorations only.

## 6. Safety

Four safety meetings were held in conjunction with the other Divisions here at Fergus Falls.

<u>Date</u>	<u>Topic</u>
2-22-88 or	Defensive Driving--film "Preventable Yes No"
5-9-88	Defensive Driving--films "Get the Big Picture", "Keep your Eyes Moving", "Leave Yourself an Out", "Make Sure They See You"
7-5-88	Defensive Driving--State Trooper Louis Kamrowski
1-19-88	Defensive Driving--films "A Shade of Difference", "Cold Water: The Silent Killer"

Only one minor accident occurred with WMD personnel. While checking nest baskets, Biological Technician Greg Neudecker had a cattail sneak up under his glasses and slightly scratch the sclera over the pupil of one of his eyes. With blurred vision, we felt it necessary to have him see a physician. Greg was required to



wear a patch over his eye for about a day. He suffered no lasting effects and didn't lose any time.

Cargo barriers were prefabricated for five pickups to meet safety regulations. Three of the vehicles were new and one was a transfer vehicle received from Realty. The fifth vehicle belonged to the Minnesota Waterfowl and Wetland Management Complex.

<u>Vehicle</u>	<u>License</u>
Chevrolet S-10 (WMD)	I-147534
Chevrolet S-10 (WMD)	I-147535
Dodge Dakota (WMD)	I-147536
Chevrolet 6 cyl. (WMD)	I-136511
Chevrolet S-10 (MWWMC)	I-147419

Safety "catwalks" were prefabricated and installed at water control structures on three Waterfowl Production Areas: Mortenson (OT-105), Odens (D-35) and Zickur (D-40). Employees who are required to adjust stoplogs can now do it safely instead of clambering over slippery rocks, mud, etc.

#### 7. Technical Assistance

Assistance was provided to the Morris and Detroit Lakes WMDs on construction of predator exclosures.

The WMD provides technical expertise to the city of Ashby regarding seeding of the uplands around their new sewage lagoon. Cover conducive to nesting waterfowl will be planted.

A ½-acre pioneer cemetery north of Fergus Falls had been plowed up by the adjacent farmer. The FWS provided assistance to the county in getting the area seeded back to native grass.

Vukonich served on the Reinvest in Minnesota (RIM) screening committee for Douglas County while Brennan served on the Otter Tail County committee.

The State of Minnesota passed legislation to allow for water planning on the county level. Brennan served on the Otter Tail County Water Planning Task Force. Williams attended the initial meeting of the Douglas County Water Planning Task Force.

Assistance was provided to the Otter Tail Gun Club in their mallard/Canada goose rearing project. The Club needed recommendations on gentle release techniques, predator management and habitat development.

The FWS, Minnesota Department of Natural Resources and three private landowners investigated the possibility of installing a carp barrier on private lands south of Banke Slough WPA.

Assistance was provided in review of topographical information, fish populations in the wetlands and various types of barriers.

In October, assistance was provided to the International Crane Foundation in touring Vietnamese biologists and officials through the WMD. Topics included wetland restoration and management.

#### 8. Other

The Inspector General's Office conducted a scheduled audit of the Fergus Falls Acquisition Office and parts of the WMD's program relating to acquisition. The auditors were interested in the WMD's method of evaluation for potential purchases and the MCWMP lease program conducted in 1984 and 1985.

Assistance was provided by Pauline Wiziard to the Region in developing computer programs for use in field stations. Pauline's desire to advance on the computer has allowed us to give direct input on several programs.

#### Conservation Reserve Program

The District's management activities on private lands continued at an accelerated pace in 1988. Much of the station's resources, in terms of dollars and manpower, were directed toward wetland development activities on Conservation Reserve Program lands and other private lands. Created under the Food Security Act of 1985, the Conservation Reserve Program provides an opportunity for landowners to take highly erodible lands out of annual crop production for a ten-year period and to receive annual rental payments from the Department of Agriculture for applying soil conservation practices. The U.S. Fish and Wildlife Service realized that many of these lands had drained wetlands on them and thus undertook extensive efforts to contact the landowners and offer technical and financial assistance for restoring wetlands on their Conservation Reserve Program enrolled lands.

Under the Service's restoration program, a cooperating landowner voluntarily signs a Wetland Development Agreement which permits the Service to undertake certain wildlife development activities on their property. These activities include:

1. Restoring and maintaining wetlands agreed upon by the landowner and the Service.
2. Access onto the property for management purposes.
3. Establishing vegetative cover on soils disturbed during construction/development of the habitat project.

During the month of January, nearly 2,050 letters were sent to Conservation Reserve Program enrollees within the District, encouraging them to consider restoring drained wetlands to improve habitat for waterfowl and other resident wildlife. We received 150

responses and identified 112 potential wetland restorations. In addition, we had numerous inquiries from private landowners not enrolled in the Conservation Reserve Program who expressed an interest in restoring wetlands for wildlife purposes. Using a near-identical Wetland Development Agreement, we completed ten-year wetland restoration projects on those private lands where favorable conditions existed for waterfowl production. The table below lists the District's wetland restoration accomplishments for Calendar Year 1988:

<u>Land Classification</u>	<u># Wetland Agreements</u>	<u># Wetland Restored</u>	<u>Acres of Water</u>
Conservation Reserve Lands	50	116	302.6
Other Private Lands	<u>12</u>	<u>28</u>	<u>82.4</u>
	62	144	385.0

The success of the Service's wetland development program was made possible by the assistance and cooperation of several federal and state agencies, local contractors, interested wildlife clubs and, of course, the cooperating landowners.



Wetland restoration work on the Wayne Wagner CRP tract (Douglas County - 11 CRP). The project consisted of 7 restorations for 12.5 wetland acres, at an average cost of \$274.00 per restoration.

AA 4/88



Landowner response to the program has been excellent since its inception in 1987. In the past two years, 336 wetlands have been restored on Conservation Reserve Program lands and other private lands within our 4-county District. This encompasses 905 restored wetland acres and 131 cooperating landowners. These are promising signs of environmental sensitivity in the agricultural community and signs of hope for waterfowl and all wildlife species in our area.

#### Farmers Home Administration

The Food Security Act of 1985 has provided new opportunities to the Fish and Wildlife Service to contribute to fish and wildlife research, conservation and wetland protection/restoration. The FWS is currently reviewing the existing inventory of Farmer's Home Administration (FmHA) properties to identify wetlands or restorable wetlands, endangered species habitat or riparian areas. Executive Order 11990 has given the Service the opportunity to recommend deed restrictions on those parcels which have such values.

On those areas where FmHA approves a Service proposal, a standard-language conservation easement document is prepared. This document is recorded at the time the property sells. During the interim, the U.S. Fish and Wildlife Service through authority of a "caretaker letter" from FmHA may exercise management rights defined in the easement document.

The following table identifies the extent of our involvement with FmHA during 1988:

<u>County</u>	<u># of Properties Reviewed</u>	<u># Properties with Resource Values</u>	<u># of Wetlands to be Enhanced/ Restored</u>
Douglas	3	3	23
Otter Tail	7	5	--
Wadena	6	6	--
Grant	1	1	3
Wilkin	<u>1</u>	<u>1</u>	<u>--</u>
Total	18	16	26

Of the sixteen properties with resource values, eleven conservation easement proposals were prepared and submitted to FmHA. Of these, FmHA has expressed an interest in fee transfer of two entire tracts to the U.S. Fish and Wildlife Service. These properties are in Douglas County.

One (Daniel M. Loken) is currently covered by a perpetual U.S. Fish and Wildlife Service wetland easement. Some drained wetlands have been drained. The proposal to FmHA was to place the entire property under a conservation easement. The second tract (Daniel M. Tollifson) contained 11 drained wetlands. Under terms of a

"caretaker" letter, the FWS has restored 9 of these and negotiated flowage easements necessary for restoration of the other two. Our proposal to FmHA was that this entire tract be placed under conservation easement.

Minnesota Department of Natural Resources has requested fee title transfer of three properties in Wadena County. The County FmHA office has made a similar request to the State FmHA office. Conservation easement proposals on two tracts are on hold pending development of non-standard easement document language. This variance to the standard document will allow for an easement on small, isolated wetlands with a cropping history. It will eliminate the need to "block out" such areas with cover/buffer zones and provide for continued farmability of the land.

To date, FmHA has formally accepted one proposal. Two others are in the "negotiation" stage. Indications are that most proposals will be accepted without serious problems.

#### Swampbuster

The "Swampbuster" provision of the 1985 Farm Bill was designed to deter farm operators from converting wetland areas so production of commodity crops would be possible. Such producers risk loss of all Federal Farm Program benefits if commodities are planted on converted wetlands.

The first step in the process involves a wetland determination on lands of Program participants by the Soil Conservation Service. This was done through aerial photo interpretation of ASCS aerial slides years 1981-1985. Farm operators dissatisfied with SCS determinations could appeal. The rules identify the U.S. Fish and Wildlife Service as one of the agencies to be consulted in the first stage of the appeals process. During 1988, Fergus Falls WMD personnel were involved in four appeals involving sixteen wetlands. A total of 51 suspected "Swampbuster" violations were reported to ASCS (West Otter Tail Co. - 13, Douglas Co. - 27, Grant Co. - 11).

Farm operators seeking an exemption to Swampbuster rules could apply to the County ASCS Committee for a "commenced determination." Commenced determinations can be granted in situations where farm operators had initiated drainage work prior to December 23, 1985, or had committed "substantial funds" through materials purchased by entering a contract to convert wetlands. The U.S. Fish and Wildlife Service provided a representative at each of the meetings held in the Fergus Falls Wetland Management District, the Service role being that of an advisor, providing a recommendation to the Committee. During 1988, 21 hearings were attended. The breakdown by county is as follows:



<u>County</u>	<u>No. Commenced Hearings</u>
Grant	3
West Otter Tail	4
Douglas	11
Wadena	<u>2</u>
Total	21

There are 19 cases pending in Douglas County. The actions of the committees has been disappointing. In most cases where the Fish and Wildlife Service recommended denial of the exemption, the county committees voted to grant the exemption.

Circumvention of the intent of the law is believed to be the rule rather than the exception. There are many avenues by which an individual can "beat the system." The problem is cumbersome legislation and a disinterested enforcement authority.

#### F. HABITAT MANAGEMENT

##### 1. General

In spite of the drought, the District had a successful harvest of warm season native grass seed. Native prairies in the District didn't produce seed. Harvest areas were limited to areas seeded to indigenous ecotypes. Seeded areas produced more seed than native prairie, but diversity of species harvested suffered greatly.

Two areas were harvested in the Fergus Falls Wetland Management District. Julsrud Waterfowl Production Area (OT-39) was treated with two lbs/acre A.I. Atrazine with crop oil for quackgrass control and 1 lb. A.I. 2,4-D LV-4 for broadleaf control. Bellmore Waterfowl Production Area (W-2) was spot treated with Atrazine and crop oil for quackgrass control and the entire area treated with 2,4-D for broadleaves. In addition, Bladex 90 D.F. was applied at 2.5 lbs/acre A.I. for foxtail (Setaria spp.) control. Both areas were broadcast with 100 lbs. actual of Nitrogen (Urea) per acre.

Two areas in the Detroit Lakes WMD were harvested in cooperation with the Litchfield WMD. Each District received fifty percent of the seed from Moe WPA. Litchfield received the entire crop from Christianson WPA (850 lbs. PLS big bluestem).

Both of these harvest areas received no herbicide treatment and were a mixture of local, South Dakota and Nebraska origin ecotypes. The Nebraska origin ecotypes did not form seed which accounted for the excessive amount of inert material (unfilled seed) in the cleaned seed.

The summary of the 1988 harvest (excluding Christianson WPA) is as follows:

Harvest Area: Julsrud Waterfowl Production Area (OT-39) - 70 acres

Vegetation Type: local origin seeding (some NDG-965-98 switchgrass) - 1983

Yield: 64 bags - 4,904 lbs. bulk

	% <u>Purity</u>	% <u>Germ</u>	% <u>Dorm</u>	% <u>TZ</u>	PLS <u>Factor</u>	lbs. <u>PLS</u>
Big	59.37	49	12	82	.362157	1,776.0
Bluestem						
Switchgrass	14.34	85	0	81	.12189	<u>597.7</u>
Total						2,373.7

Weed seeds - 52% - yellow foxtail, green foxtail, common milkweed, redroot pigweed, rose

Other crop - 1.75% - sideoats grama, little bluestem, wheat, Indiangrass

Inert: 24.02%

custom combining cost: \$960

Yield/acre: 33.9 lbs. pure live seed

Harvest area: Bellmore Waterfowl Production Area (W-2) - 50 acres

Vegetation Type: local origin seeding 1987

Yield: 57 bags - 3,657 lbs. bulk

	% <u>Purity</u>	% <u>Germ</u>	% <u>Dorm</u>	% <u>TZ</u>	PLS <u>Factor</u>	lbs. <u>PLS</u>
Big	82.97	62	6	93	.564196	2,063.3
bluestem						

Weed seeds - 1.21% - Indiangrass, little bluestem, switchgrass, sideoats grama, other

Inert - 14.61%

custom combining cost: \$800

Yield/acre: 41.3 lbs. pure live seed

Harvest area: Moe Waterfowl Production Area (Clay County) - 75 acres

	% <u>Purity</u>	% <u>Germ</u>	% <u>Dorm</u>	% <u>TZ</u>	PLS <u>Factor</u>	lbs. <u>PLS</u>
Big bluestem	58.42	71	5	84	.473202	1,616.5

Weed seeds - .19% - yellow foxtail, pigweed, milkweed

Other crop - 3.51% - switchgrass, Indiangrass, sideoats grama, purple prairie clover, Canada wild rye

Inert - 37.88%

custom combining cost: \$920

Yield/acre: 21.6 pure live seed

## 2. Wetlands

It was not a good year for wildlife species dependent upon wetland habitat. Most "productive" wetlands were dry by mid-summer. A dry fall in 1987, coupled with little snowfall in winter, put wetlands in less than optimum condition in spring of 1988. This situation was followed by a summer long drought.

Water control structures were operational on 23 wetland basins totalling 1,156 acres on the District. Little maintenance/management activities were accomplished during the year. Wooden stop logs were replaced in several structures. One noteworthy event was the addition of an overflow with rotary carp screen on Nicholson Waterfowl Production Area (OT-88) marsh. This structure will divert excess water flows received from Swan Lake into the Pomme de Terre River keeping it from Mineral Lake. There should also be more flexibility in managing the water level of the Nicholson marsh.



Installation of Rotary Carp Screen on Nicholson WPA (OT-88), Otter Tail County. EW 1199

This project was completed under contract for \$12,583.00. Minnesota DNR provided the actual structure (cost \$5,000.00).

The objectives of water management on wetlands with water control capability are: 1) create conditions attractive to breeding pairs, 2) enhance marsh productivity with major emphasis on brood habitat, and 3) management directed at increasing availability of natural foods for use by migrating waterfowl.. The following table summarizes conditions of management units at freeze up.

1. Julsrud WPA, OT-39, Management Unit 1 - 35 acres.  
This unit was in drawdown status in 1987. Stoplogs were replaced in Fall of that year. Management elevation was set at 1215.22' mean sea level (msl) for 1988. This objective was never obtained. Water level dropped from a peak of 1214.47 m.s.l. in Spring to 1213' at freeze up. Emergent vegetation was profuse during course of year. Waterfowl values were high.
2. Julsrud WPA, OT-39, Management Unit 2 - 10 acres.  
Unit 2 was in drawdown during 1988. A wide variety of annuals invaded dry marsh bottom.
3. Blakesley WPA, G-35, Management Unit 3 - 61 acres.  
Unit 3 was in drawdown during 1987. Boards were replaced during Fall of that year. Lack of precipitation prevented any recharge of marsh during 1988. It was dry throughout course of year. The marsh is now cattail-choked and in need of reflooding.



4. Backstrom WPA, OT-96, Management Unit 4 - 25 acres.  
Backstrom was in drawdown during 1988; the boards were removed mistakenly during late Fall of 1987. The boards were out of the structure--unexplainably. This condition promoted development of annual plants in marsh bottom. Boards were replaced during Fall 1988.
5. Mickelson WPA, OT-25, Management Unit 5 - 35 acres.  
The wetland was essentially dry throughout year. Lack of snowfall in 1987-1988 prevented recovery from dry conditions of 1987. A small pool remains at the very center of the wetland basin. Annual weeds are now profuse throughout dry part of basin.
6. Rossow WPA, OT-65, Management Unit 6 - 35 acres.  
Unit 6 dried out during 1987 and remained dry throughout 1988. A mudflat did not support any annual weeds.
7. Mortenson WPA, OT-105, Management Unit 7 - 3 acres.  
Unit 7 was placed in drawdown in Fall 1987 to promote submergent aquatics. The basin remained dry throughout 1988. Reed canary grass pioneered well into dry marsh bottom as a result. Boards were replaced in Fall 1988.
8. Ten Mile WPA, OT-28, Management Unit 8 - 37 acres.  
Dike repairs to the water control structure in Fall of 1987 necessitated pulling of boards. Water level of marsh and that of Ten Mile Lake were the same. High water levels into 1988 kept marsh level up. Failure to replace boards after construction in Fall 1987 caused an inadvertent drawdown during drought of 1988. The marsh was dry by July as a result of drop in level of Ten Mile Lake. Boards were replaced in Fall (1988).
9. Stowe Lake, D-6, Management Unit 9 - 121 acres.  
Management Unit 10 - 19 acres.  
Management Unit 11 - 18 acres.

Management Unit 9 presently lacks management capability as a result of high water in Stowe Lake. The objective during the interim will be to keep the marsh at maximum pool level to exclude carp. The drought of 1988 saw a drastic drop in level of Stowe Lake and this management unit as well. By July, the structure was dry and the marsh extremely low.

The other units, 10 and 11, remain boarded up with objective of holding maximum water levels.

10. Orange WPA, D-50, Management Unit 12 - 11 acres.  
This unit was in drawdown throughout 1987, to promote waterfowl plant foods and nutrient release. Boards were replaced that Fall. Lack of precipitation prevented recharge of unit in 1988.
11. Runestone WPA, D-38, Management Unit 13 - 11 acres.  
This unit was held at maximum pool 1986-1987 to decrease willow/cattail growth in basin. This objective was achieved. In Spring of 1988, the marsh looked good with a 50/50 interspersation of emergents. All boards remained in place at a maximum pool elevation of 100.0' as the goal. There was a steady decline throughout summer. The marsh was dry by August.
12. Nordby WPA, G-37, Management Unit 14 - 17 acres.  
Nordby was placed in drawdown in Fall of 1987. Unit remained dry throughout 1988. Boards replaced in October 1988. Objective was to encourage development of waterfowl plant foods. A heavy growth of annual weeds developed in basin.
13. DeLong WPA, G-11, Management Unit 15 - 13 acres.  
Water levels dropped below optimum for this unit during 1987. By July of 1988, the structure was dry and the marsh extremely low.
14. Zickur WPA, D-40, Management Unit 16 - 15 acres.  
Optimum marsh level for this unit is not obtainable as top of dike is too low. Marsh level fell throughout 1987. Lack of precipitation resulted in extremely low water level in 1988. This structure needs a gauge which corresponds with structure.
15. Staff WPA, OT-78, Management Unit 17 - 13 wetland acres.  
All boards were in 1987. The marsh remained in good shape that year. Lack of precipitation resulted in dry marsh conditions throughout 1988. Reed canary grass fills entire basin.
16. Langos WPA, D-24, Management Unit 18 - 28 wetland acres.  
Past objective has been to hold this marsh at maximum pool to increase open water to emergents ratio. With all boards in and lack of precipitation, marsh was essentially dry and cattail choked by Fall of 1988.
17. Nicholson WPA, OT-88, Management Unit 19 - 75 wetland acres.  
Marsh water level remained at or near objective levels throughout the year. The m.s.l. objective of 1189.72 in early Spring 1988, was adjusted to 1189.22 in April. This objective was achieved and maintained throughout summer and until freeze up.

18. Mud Lake WPA, G-10, Management Unit 20 - 250 acres.  
The Mud Lake Unit was held in drawdown for a 3rd year to facilitate the desire of the Minnesota Department of Natural Resources to manage Ash Lake in a similar manner. Boards were pulled in April and replaced in November.
19. Redhead Slough WPA, G-26, Management Unit 21 - 170 wetland acres. At present, the intake to the water control structure has an inherent problem of plugging with silt. Management capability of marsh water level is seriously hampered. Water level of marsh remained at or near m.s.l. elevation of 1175.52.
20. Odens WPA, D-35, Management Unit 22 - 8 acres.  
Boards were first put in this structure in Fall of 1986. Marsh has yet to fill. Structure and marsh were dry in Fall 1988.
21. Hibrooten Lake, G-13, Management Unit 23 - 146 acres.  
This recently constructed water control structure had boards placed in it for the first time Fall 1987. The set m.s.l. objective of 1113.8' was not reached. Water level was at 1112.3' in March. The marsh was essentially dry by July, 1988 (m.s.l. at 0.0 gauge = 1109.80).

A dry fall in 1987, a lack of winter snow coupled with the 1988 drought completely thwarted water management attempts on most units this year.

Tentative plans call for replacing all existing staff gauges with those which directly reflect the m.s.l. reading. Several styles of gauges are now in use and in an array of different applications and conditions. There is much confusion associated with gleaning true m.s.l. readings from these. The problems will be eliminated as time and budget allow. Permanent benchmarks have been established at several water control structures. New gauges "tied" to these benchmarks will eliminate the problem of faulty readings as gauges can be reestablished easily if impacted by ice action, etc.

#### 4. Croplands

##### A. Food Plots

In 1988, the Wetland Management District had a total of 15 corn food plots on Waterfowl Production Areas. This was one less than in 1987. In addition to food plots on fee lands, there were three food plots on Mid-Continent's 10-year lease areas. This was a

reduction of three from 1987. Minnesota DNR Glenwood also maintains three crib feeders on WPA's in Douglas County. In late December, many of the plots in the northern part of the District were filled with snow and weren't readily available for resident wildlife.

### Corn Food Plots - 1988

Name		Acres		Cooperator	Condition	
		NO./Left	Harvested		Crop	Weeds
<u>Otter Tail County</u>						
Horstman Loomer WPA	2	0/5		FF Fish & Game	fair	clean
Oscar WPA	49	4/2		Dean Newton	good	clean
Rabbit River	53	4/3		FF Fish & Game	fair	clean
Agassiz WPA	60	6/3		Louis Obowa	good	clean
Iverson WPA	91	0/3		Lester Iverson	fair	clean
PCA WPA	81	0/3		Stalker Lake Sprt	poor	weedy
WPA Total		14/19				
Piekarski, E. Lease	7	0/2		Piekarski/ Pheasants Forever	good	clean
County Total		14/21				
<u>Grant County</u>						
Pomme de Terre WPA	1	0/5		Sheldon Tyberg	poor	clean
Pomme de Terre WPA	1	0/2.5		Myron Haberer	poor	clean
Hibrooten Lake WPA	13	8/4		Harlan Olson	poor	weedy
County Total		8/11.5				
<u>Douglas County</u>						
Reger WPA	2	0/3.5		Millerville Sprt	poor	weedy
Olson WPA	21	0/6		Evansville Sprt	1987	left standing
Fedje WPA	32	0/5		Evansville Sprt	fair	weedy
McDowell WPA	47	6/3		Gilbert Kuhnau	poor	clean
Sabolik WPA	31	0/.75		DNR Glenwood	fair	clean
Hudson WPA	4	10/5		Marvin Eblin	fair	clean
Dalgren WPA	34	crib		Minnesota DNR		
Sellevoid WPA	29	crib		Minnesota DNR		
Rachel WPA	5	crib		Minnesota DNR		
WPA Total		16/23.25				
Berry, J. Lease	1	0/4		J. Barry	fair	clean
Olson, A. Lease	5	0/5		Olson	fair	clean
Lease Total		0/9				
County Total		16/32.25				
All Counties WPAs: 38/53.75						
Grand Total: 38/64.75						
All Counties Leases: 0/11						

### B. Cash Rent

One thousand six hundred fifty-one (1,651) acres were farmed under the cash rent program in 1988. The program allows a permittee to crop the land for a fair market value rent and is designed to leave a weed-free seedbed suitable for no-till seeding of native grass. Almost all the areas were seeded to soybeans, which did surprisingly well in a drought year. Treflan was used in most cases. Most areas were sprayed with Basagran for Canada thistle control. Seventeen thousand seven hundred twenty dollars (17,720)



were added to the revenue sharing fund in 1986 as a result of the cash rent program.

Again in 1989, almost all of our seeding areas will have Roundup applied prior to seeding at the former renter's expense. This is a \$25 per acre savings to the District.

CASH RENT REPORT  
1988 CROP YEAR  
FERGUS FALLS WETLAND MANAGEMENT DISTRICT

The following is a summary of SUP's in effect this year:

<u>COUNTY</u>	<u>UNIT</u>	<u>NO.</u>	<u>ACRES</u>	<u>RATE</u>	<u>TOTAL</u>	<u>Late Summer Condition</u> <u>CROP</u>	<u>WEEDS</u>	<u>PERMITTEE</u>
Otter Tail	Duenow	86	73	\$10	730	good	light Setaria	Brian Buchholtz
Otter Tail	Lightning Lake	47	78	10	780	good	lgt Setaria, quack, lambsquarter	David Jensen
Otter Tail	Neuman	93	53	10	530	v. good	v. clean	Fabian Bros.
Otter Tail	Heinola	26	60	5	300	good	most clean	Timothy Kenyon
Otter Tail	Julsrud	39	226	5	1,130	poor	hvy Setaria, milkweed	Manville Monson
Otter Tail	Busko	52	35	10	350	exc.	lgt ragweed, cockbur, and C. thistle	Harold Busko
Otter Tail	Townsend Bjorklund	80	<u>76</u> 601	N/C	<u>380</u> 4,200	fair	fairly clean	Manville Monson
Grant	Stoney Brook	48	48	10	480	fair	hvy. Setaria & pigweed	Mike Koep
Grant	Stoney Brook	48	97	10	970	fair	hvy. Setaria & pigweed	Eldon Rund
Grant	Stoney Brook	48	75	35	2,625	poor	wheat, mostly set aside	Eldon Rund*
Grant	Demaree	21	30	10	300	good	v. clean	Don Giese
Grant	Green	8	56			poor	wheat - no alfalfa	Lowell Ricks**
Grant	Mud Lake	10	82	10	820	good	lgt. pigweed	Peter Fabian
Grant	Spink	13	<u>112</u> 500	35	<u>3,920</u> 9,115	good	clean	Robert Swenson

Douglas	Shultz Lake	11	38	1	38	v. poor	cancelled - no crop harvested	Jerry Schurman
Douglas	Sellevoid	29	72	10	720	exc.	v. clean	Julian Nelson
Douglas	Odens	35	32	5	160	good	mod. C. thistle	Gary Nelson
Douglas	Odens	35	31	2	62	v. poor	hvy. Setaria - not harvested	Gary Nelson
Douglas	Zickur	40	29	10	290	good	clean	Kay Satterlie
Douglas	Grandokken	43	<u>75</u>	27	<u>2,025</u>	good	lgt. milkweed and ragweed	Kay Satterlie
			277		3,295			
Wilkin	Meadows	4	78	5	390	fair	clean	Glenn Krueger
Wilkin	Meadows	4	90 (+25)	5	450	good	clean - all planted	Donald Holobok
Wilkin	Meadows	4	<u>54</u> (+26)	5	<u>270</u>	good	clean	Vance Johnson
			222 (+51)		1,110			
	Grand Total		1,600 (+51)		17,720			

All areas have Spring, 1989 Roundup applied at permittee expense except \* which is an area that will become a large wetland and \*\* which is an alfalfa haying agreement with no payment scheduled until 1990.

# D. Grass Seedings

The District seeded 779 acres into native grass in 1988. All areas were seeded with predominately locally harvested seed originally from native prairies. Small amounts of commercially obtained northern origin grasses were added to the mix. All areas with the native mixture, with the exception of Meadows Waterfowl Production Area (W-4) were seeded into last year's soybean stubble. Meadows was fall dormant seeded with a prepared seed bed.

Roundup was applied at 1 - 1.5 lbs. A.I. in 10 gallons water/acre approximately 1 week prior to seeding. Most was applied by the previous cash rent permittee as a condition of their Special Use Permit.

Because of the drought, it was another extremely poor year for native grass establishment. However, the 1988 seedings did look better than the 1987 seedings. About half of the 1988 seedings were in a least fair condition by the fall inspection.

In 1989, the District will concentrate on burning most of the 1987 seedings, hoping for eventual establishment.

## 1988 Seedings

<u>County</u>	<u>Unit</u>	<u>No.</u>	<u>Acres</u>	<u>Fall 1988 Condition</u>
Otter Tail	Kube	51	63	fair
	Knobel Lake	90	12	fair
	Backstrom	98	154	East - poor West - fair
	Gilmore	79	12	fair
	Ltng. Lake	47	66*	fair - good
	Dollar Slough	57	<u>102*</u>	40 - poor 62 - good
	Total		409	
Grant	Pomme de Terre	1	41	fair
	Lillemoen	42	47*	fair
	Bah Lakes	28	55*	poor
	Leverson	6	<u>19</u>	poor
	Total		162	
Douglas	Odens	35	120*	poor
	Lake		<u>44*</u>	poor
	Christina (DNR)			
	Total		164	
Wilkin	Meadows	4	<u>56</u>	fall dormant seeded
			791	

\*permittee applied Roundup



1988 Seed Mix (except Meadows Waterfowl Production Area)

<u>Species*</u>	<u>lbs. PLS/Acre</u>	<u>Seeds/sq. ft. (Germ + Dorm)</u>
Big bluestem	3.55	13.5
Little bluestem	.04	.25
Indiangrass	.51	2.1
Switchgrass	Trace	
Prairie dropseed	.03	.2
Tall dropseed	.17	2.0
Blazing star	Trace	
Purple prairie clover	Trace	
Sideoats grama (Killdeer)	.43	2.4
Blue grama (SD origin wild type)	.03	.5
Green needlegrass (Lodorm)	.19	.8
Slender wheatgrass (probably Revenue)	.5	1.7
Switchgrass (NDG-965-98)	<u>1.85</u>	<u>16.5</u>
	7.49	39.95

\*Local native prairie origin except where noted

1988 Seed Mix - Meadows Waterfowl Production Area

<u>Species*</u>	<u>lbs. PLS/Acre</u>	<u>Seeds/sq. ft. (Germ + Dorm)</u>
Big bluestem	7	26.6
Switchgrass (NDG-965-98)	<u>2</u>	<u>17.8</u>
	9	44.4

\*Local native prairie origin except where noted

Two areas were seeded into alternate cover types. Fifty-six acres on Green WPA (G-8) were seeded to alfalfa/wheat as a condition of a Special Use Permit. The seeding was a complete failure, but the permittee is willing to try again in 1989.

Twenty-two acres of DNC were full dormant seeded on Townsend WPA (OT-80). A predator exclusion fence will be built around the seeding and will be part of a demonstration area.

## DNC Mix - Townsend WPA

<u>Species</u>	<u>Variety</u>	<u>lbs. PLS/acre</u>
Intermediate wheatgrass	common	5
Tall wheatgrass	common	4
Alfalfa	Ranger	5
Sweetclover	common	1.3

### E. Other

The native grass test plots on Knollwood WPA (OT-101) were fertilized (except the array) by SCS with 80 lbs actual Nitrogen. No evaluation was completed.

Range Conservationist, Wendell Olson, did an evaluation of all native grass seedings from 1978 - 1988. The data has been entered into the computer and results will be summarized for the 1989 narrative.

### 5. Grassland

Native seed harvest is reported in Section F-1. Farming and seeding operations are reported in Section F-4. Haying, fire management and pest control are reported in the appropriate sections.

### 6. Other Habitats

#### Conservation Reserve Program

The District had another successful year restoring drained wetlands, as we completed 144 restorations on Conservation Reserve Program lands and other private lands this year. The restorations created 385 acres of water and required the cooperation of 62 landowners. The table below lists information regarding this year's wetland development program:

1988 Wetland Restorations					
<u>County</u>	<u>Landowner</u>	<u>Tract #</u>	<u>Number Acres</u>		<u>Contractor</u>
			<u>Wetlands of</u>	<u>Restored Water</u>	
Douglas	Anderson, D.	13 FL	1	0.8	Ferguson Bros.
Douglas	Anderson, J.	21 CRP	1	0.25	Ferguson Bros.
Douglas	Andrist, D.	22 CRP	1	0.25	Ferguson Bros.
Douglas	Bauer, P.	23 CRP	1	1.0	Paul Strom
Douglas	Carlson, L.	12 CRP	2	1.0	Paul Strom
Douglas	Douglas Co. Land Corp.	28 CRP	3	37.7	Ferguson Bros.
Douglas	Erickson, R.	10 FL	13	32.9	Paul Strom
Douglas	Hagstrom, J.	13 CRP	2	4.7	Paul Strom
Douglas	Hendricks, B.	25 CRP	3	2.5	Paul Strom
Douglas	Henry, S.	15 CRP	4	2.0	Ferguson Bros.
Douglas	Hoff, G.	17 CRP	1	2.5	Ferguson Bros.
Douglas	Kakac, B.	16 CRP	1	2.4	Paul Strom
Douglas	Kaley, C.	20 CRP	4	8.6	Ferguson Bros.
Douglas	Kluver, A.	18 CRP	1	1.2	Ferguson Bros.
Douglas	Neirby, D.	30 CRP	5	5.0	Ferguson Bros.
Douglas	Olson, J.	31 CRP	2	1.8	Ferguson Bros.
Douglas	Paulzine, F.	29 CRP	1	1.0	Ferguson Bros.
Douglas	Papenheim, R.	11 FL	2	5.6	Ferguson Bros.
Douglas	Persson, D.	24 CRP	4	4.0	Paul Strom
Douglas	Reece, M.P.	14 CRP	3	5.5	Paul Strom
Douglas	Schultz, L.	26 CRP	3	13.6	Paul Strom
Douglas	Schultz, S.	27 CRP	1	1.5	Paul Strom
Douglas	Swager, G.	12 FL	1	15.0	Paul Strom
Douglas	Timm, B.	14 FL	1	3.2	Ferguson Bros.
Douglas	Ulvog, R.	10 CRP	2	3.5	Paul Strom

County	Landowner	Tract #	Number Acres Wetlands of		Contractor
			Restored	Water	
Douglas	Wagner, W.	11 CRP	7	12.5	Ferguson Bros.
Douglas	Wright, H.	19 CRP	3	7.5	Ferguson Bros.
	27 Landowners		73	177.5	
Grant	Alvstad, C.	10 CRP	1	3.6	Walt Schulz
Grant	Alvstad, L.	11 CRP	3	4.6	Walt Schulz
Grant	Anderson, C.	15 CRP	3	8.2	Walt Schulz
Grant	Anderson, C.	10 FL	1	3.6	Walt Schulz
Grant	Bollman, G.	19 CRP	1	2.0	Ferguson Bros.
Grant	Bredeson, L.	17 CRP	3	5.0	Walt Schulz
Grant	Hanson, J.	16 CRP	1	4.5	Roger Evavold
Grant	Kube, M.	20 CRP	2	5.2	Ferguson Bros.
Grant	Little, W.	18 CRP	1	3.2	Walt Schulz
Grant	Papenheim, R.	12 CRP	1	0.5	Walt Schulz
Grant	Peterson, A.	13 CRP	4	14.3	Paul Strom
Grant	Wagner, V.	14 CRP	1	4.0	Walt Schulz
	12 Landowners		22	58.7	
Otter Tail	Albertson	10 CRP	3	7.2	Karold Evavold
Otter Tail	Bensch, L.	15 CRP	1	1.4	Karold Evavold
Otter Tail	Berge, K.	13 CRP	2	6.2	Karold Evavold
Otter Tail	Bjorgum, M.	14 CRP	5	13.0	Karold Evavold
Otter Tail	Borchert, J.	11 FL	1	2.0	Karold Evavold
Otter Tail	Carson, C.	12 FL	1	2.4	Roger Evavold
Otter Tail	Clambey, K.	22 CRP	3	9.0	Roger Evavold
Otter Tail	FF Comm. Coll.	14 FL	2	3.8	Roger Evavold
Otter Tail	Fihn, R.	24 CRP	1	1.6	Roger Evavold
Otter Tail	Korf, D.	18 CRP	1	1.0	Roger Evavold
Otter Tail	Lee, F.	11 CRP	3	8.1	Karold Evavold
Otter Tail	Lorsung, R.	10 FL	3	7.6	Karold Evavold
Otter Tail	Olson, W.	23 CRP	6	10.1	Dick Hanson
Otter Tail	Peterson, G.	16 CRP	4	7.2	Roger Evavold
Otter Tail	Poyzer, R.	17 CRP	1	4.8	Karold Evavold
Otter Tail	Rud, W.	26 CRP	1	26.0	Roger Evavold
Otter Tail	Samuelson, S.	13 FL	1	5.0	Roger Evavold
Otter Tail	Schauff, P.	12 CRP	1	4.4	Karold Evavold
Otter Tail	Siems, M.	19 CRP	2	8.5	Karold Evavold
Otter Tail	Stigen, D.	25 CRP	3	13.4	Roger Evavold
Otter Tail	Tysdal, C.	15 FL	1	0.5	Roger Evavold
Otter Tail	Vaughn, C.	21 CRP	2	2.4	Roger Evavold
Otter Tail	Wass, D.	20 CRP	1	3.2	Karold Evavold
	23 Landowners		49	148.8	
Totals	62 Landowners		144	385.0	

The majority of the construction work involved basic restoration techniques, all of which were completed by private contractors. Of the 144 restorations, 120 were simple ditch plugs, 18 were tile breaks and 6 involved tile risers.



Ditch plug construction on the Craig Vaughn Conservation Reserve Program Tract (OT-21 CRP). Most restorations entailed blocking a drainage ditch with a clay fill plug. The ditch plug and borrow site were reseeded shortly after construction was completed.

ST 10/88

The use of private contractors proved to be an effective means of completing restoration work. The structures were built in close accordance with U.S. Soil Conservation Service guidelines and were accomplished in a timely manner. The availability of several experienced contractors in the area enabled us to complete restoration projects all summer long and helped strengthen the economy of local communities. The table below lists expenditures associated with the Conservation Reserve Program for 1988:



1988 Expenditures  
on Wetland Restoration

	<u>Description</u>	<u>Cost</u>
<u>Staff Time</u>		
Permanent employees	2,180 hours	\$22,009.00
Seasonal employees	2,872 hours	18,073.00
Youth Conservation Corp.	64 hours	305.00
Other	<u>232 hours</u>	<u>593.00</u>
Subtotal	5,348 hours	\$40,980.00
<u>Construction</u>		
Dick's Backhoe Service	6 restorations	(Donated \$)
Ferguson Bros. Construction	40 restorations	\$16,149.00
Karold Evavold Construction	23 restorations	10,779.00
Roger Evavold Construction	21 restorations	8,282.00
Walt Schultz Construction	14 restorations	4,800.00
Paul Strom Construction	<u>40 restorations</u>	<u>12,075.00</u>
Subtotal	144 restorations	\$52,085.00
<u>Materials</u>		
Culverts (150 feet total)	Avg. \$8.05/foot	\$1,208.00
Tile break/riser material	flex-tile, plywood	159.00
Grass seed	brome, slender	3,433.00
	wheat	
Cultivator and seeder		1,519.00
Photos and other		<u>433.00</u>
Subtotal		\$6,752.00
<u>Fuel</u>		
Shuttle vehicles	765 gallons	\$ 515.00
Seeding vehicles	<u>621 gallons</u>	<u>417.00</u>
Subtotal	1,386 gallons	\$ 932.00
Total Expenditures		\$100,749.00

In response to drought conditions experienced this summer, the U.S. Department of Agriculture opened up most Conservation Reserve Program lands to emergency haying in Minnesota. The haying program was initiated to offset livestock forage losses incurred during the drought and to provide emergency feed to needy farmers. All four counties in our District were approved for haying.



Emergency haying on the David Wass Conservation Reserve Program Tract (OT-20 CRP). The ineffectively drained wetland in the foreground was restored later in the summer.  
ST 7/88

In 1987, the district signed Wildlife Management Agreements (Piggyback Leases) with 57 landowners also enrolled in the Conservation Reserve Program. The Piggyback Lease authorized the Service to pay \$5 per acre over and above the Conservation Reserve Program payment in exchange for certain wildlife management rights. In concurrence with the agreement, landowners who hayed prior to July 5th would forfeit their \$5 per acre payment from the Service.

When aware that CRP enrollees could hay, the Service asked local Agricultural Stabilization and Conservation Service offices to incorporate a loss of payment statement into landowner haying applications. Three of the four counties complied with the request. Landowners in the county where no loss of payment statement was inserted were automatically exempt from payment loss since they had no other notification of the restrictions. Of the 57 landowners covered under Piggyback Lease, 23 hayed prior to July 5th. However, only 16 landowners received notification of the haying restrictions and thus forfeited the \$5 per acre payment.

Hats off to the local landowners who have participated in the Service's wetland restoration program. Their concern and cooperation serves as an example to all of us, that we are responsible for the future of waterfowl and all wildlife species and we must take an active approach in conserving them.



Waterfowl use of a wetland restored in 1987. Peter Fabian Conservation Reserve Program Tract (OT-14A). AA 4/88

#### Ten-year Lease Program

The District presently manages 81 ten-year waterfowl management lease contracts, more affectionately known as "McLeases" (Mid-Continent leases), covering 1,351 wetland and 3,657 upland acres. One lease was purchased in fee title by the Service in 1987 and is now managed as part of Bailey Slough Waterfowl Production Area (G-2).

In mid-May, we installed recognition signs on those leases that were funded by Ducks Unlimited. The signs read "Improving Waterfowl Habitat . . . a cooperative effort involving Ducks Unlimited, the U.S. Fish and Wildlife Service and (landowner name)". Not all participants received a sign, as only 47 leases were funded by Ducks Unlimited. During the same month, a letter was sent to all participants requesting general comments, repair needs, or specific problems associated with each lease. We received only one response. One month later however, we received phone calls and/or visits from 17 lessors requesting permission to hay or graze the lands. Requests for emergency haying and grazing were denied. All participants were found in compliance with the terms of their lease based on field-checks, personal conversations



and a compliance flight conducted on June 30, 1988.

There are five lessors that presently operate under the no-till farming option of upland cover. This year one lessor requested permission to farm conventionally for one year in an effort to reduce soil compaction. After four years of no-till farming, he felt that the compacted soil was reducing the effectiveness of fertilizer applications and decreasing crop yields. After consulting with the U.S. Soil Conservation Service and field-checking the uplands, we allowed the lessor to chisel plow the field and instructed him to leave 40 to 50 percent residual cover. We determined that nesting losses were minimal since soybeans were the next crop in the no-till rotation.

We continued to have administrative problems with the Gordon Ekberg Lease (G-10C). In June of 1987, a Special Use Permit was issued to Mr. Ekberg for harvesting switchgrass seed on Service leased land. Special conditions of the permit specified that:

1. Annual rent will not be paid by the Service to permittee on acreage harvested (15 acres x \$82/acre = \$1,230.00).
2. Permittee provides all machinery, labor and materials to manage grass and harvest, clean and bag seed.
3. Service and permittee each receive 50% of the finished switchgrass seed.

In May of 1988, the permittee collected 1,070 pounds pure live seed from the seed cleaning company and sold it for profit shortly afterward. The switchgrass seed that remained with the company represented the Service's share of pure live seed. On December 1, 1988, the permittee delivered 574 pounds pure live seed to the District, leaving a shortfall of 496 pounds. Conversations with the permittee indicate that the remaining seed has been cleaned five times and is still not in legal, saleable condition.

Nineteen months have elapsed since the date of the first seed harvest and the issue is still not settled. Mr. Ekberg was notified that a portion of his 1988 annual rent payment is being withheld until such time as the 496 pounds pure live switchgrass seed are delivered to the District. In the meantime, a new Special Use Permit was issued authorizing the permittee to harvest switchgrass seed again in 1988, with specific instructions that the finished seed be available to the District by March 1, 1989.

#### 8. Haying

Three hundred four acres were hayed in 1988. Nine acres on Wiegers WPA (OT-16) were hayed for thistle control.

All cover outside the predator exclusion fences on three Waterfowl Production Areas were hayed in late August in an effort to force nesting ducks inside the fences in 1989. It was difficult locating people interested in the hay, even with the drought. Apparently



CRP acres were more desirable than WPA's.

### 1988 Haying

<u>WPA</u>	<u>NO.</u>	<u>Acres</u>	<u>Permittee</u>	<u>Cover type</u>	<u>Approx. Date</u>
Rush Lake	OT-56*	50	Ernest Bartels	NB Natives	August
Knollwood	OT-101*	90	Ellard Johnson	NB Natives	Aug. 25
Bakke	OT-99*	155	Scott Thunselle	NB Natives	Aug. 25
Wiegers	OT-16*	9	Vic Petterson	Fescue alfalfa	Aug. 1
		<u>304</u>			

\*With electric predator exclusion fence

### 9. Fire Management

Another dry, early spring made conditions ideal for prescribed burning. Unfortunately, we were often lacking a crew because of other priorities such as CRP. Force account burns totaled 855 acres in 1988. An additional 57 acres burned in three separate accidental fires. Two were extinguished by local fire departments. Our own prescribed burn crew responded to a wildfire on Mavis WPA started by Fergus Falls City employees at the bordering DeLagoon Park.



Maintenance Worker Si Melby was interviewed by a local TV station as we were wrapping up control efforts on the Mavis Waterfowl Production Area wildfire. The fire was started by Fergus Falls City employees on the bordering DeLagoon Park. They were conducting a "prescribed burn."

CV 4/88

Summary of 1988 Prescribed Burns

<u>No.</u>	<u>Unit Name</u>	<u>Prairie</u>	<u>Intro. Natives</u>	<u>Non. Natives</u>	<u>Marsh</u>	<u>Local Natives</u>	<u>Other</u>	<u>Total</u>	<u>Date</u>
<u>Otter Tail County</u>									
*OT-7	Hintsala			4.0				4.0	7/23
*OT-98	Mavis		38.0					38.0	4/12
OT-101	Knollwood		22.0		3.0			25.0	4/14
OT-60	Agassiz B.	208.0		54.0			27.0	289.0	4/29
OT-93	Neuman	4.5	80.3	19.6				104.4	4/15
OT-51	Kube		48.0					48.0	4/13
OT-39	Julsrud				5.0	59.0		64.0	4/25
	Otter Tail prairie (TNC)	200.0						200.0	4/25
	Roehl's prairie (private)	40.0						40.0	4/29
	Total	452.5	188.3	77.6	8.0	59.0	27.0	812.4	
<u>Douglas County</u>									
*D-4	Hudson			15.0				15.0	5/11
<u>Wilkin County</u>									
W-2	Bellmore					85.0		85.0	4/27
	Grand Total	452.5	188.3	92.6	8.0	144.0	27.0	912.4	

\*wildfires

# 10. Pest Control

Atrazine was again applied to 70-acres on Julsrud Waterfowl Production Area (OT-39) to control quackgrass. Bladex was applied to 58 acres on Bellmore Waterfowl Production Area (W-2) to control foxtails (Setaria spp). Both units were used for native grass seed harvest.

Force account spurge control began in late May and was completed by mid-June. Most spraying was done with a back-pack sprayer using a Tordon/LV-4 mix.

Almost all thistle spraying with LV4 was on aerial contract. Control was poor on many areas, probably because the target species were stressed by drought. Only 179 acres were treated force account. One hundred twenty-eight acres were mowed in July. Most of these were complaint areas.

## Weed Control Summary

Leafy Spurge - Tordon 2K or 22K-LV4 (Force Account)

<u>County</u>	<u>Acres</u>
Otter Tail	39.8
Grant	18.1
Douglas	<u>27.1</u>
Total	85.0

Atrazine at 2½ lb. A.I./Acre (aerial)

	<u>Acres</u>	<u>Cost</u>	<u>Applicator</u>
Julsrud WPA (OT-39)	58	\$507.50	West Central

Bladex at 2½ lb. A.I./Acre (aerial)

	<u>Acres</u>	<u>Cost</u>	<u>Applicator</u>
Bellmore WPA (W-2)	79	\$995.40	West Central

Mowing Thistles (Force Account)

<u>County</u>	<u>Acres</u>
Otter Tail	17
Grant	87
Douglas	<u>24</u>
Total	128

Roundup Application at 1 lb. A.I./Acre Prior to Seeding  
(Permittee Applied)

<u>County</u>	<u>Acres</u>
Otter Tail	231
Grant	121
Douglas	<u>164</u>
Total	516

Roundup Application at 1.5 lbs. A.I./Acre Prior to Seeding  
(Commercial Ground)

<u>County</u>	<u>Acres</u>	<u>Cost</u>	<u>Applicator</u>
Otter Tail	157	\$ 996.95	Clinton Ag Serv
Grant	38	237.50	Ricks
Total	195	\$1,234.45	

2,4-D (LV-4) at 1/2 lb. A.I./Acre on New Seedings (Commercial Air)  
- August

<u>County</u>	<u>Acres</u>	<u>Cost</u>	<u>Applicator</u>
Otter Tail	353	\$1,853.25	West Central
Grant	155	664.95	Ricks
Douglas	117	560.43	Ricks
Total	625	\$3,078.63	

2,4-D (LV-4) at 1 lb. A.I./Acre on Established Seedings and Problem  
Thistle Areas (Force Account) - June-July

<u>County</u>	<u>Acres</u>
Otter Tail	68
Grant	52
Douglas	59
Total	179

2,4-D (LV-4) at 1 lb. A.I./Acre on Established Seedings and Problem  
Thistle Areas (Commercial Air) - June

<u>County</u>	<u>Acres</u>	<u>Cost</u>	<u>Applicator</u>
Otter Tail	1,204	\$ 7,826.00	West Central
Grant	507	2,935.53	Ricks
Douglas	507	3,599.70	Ricks
Wilkin	174	1,122.30	Carlson
Total	2,392	\$15,483.53	

<u>Custom Applicator</u>	<u>Herbicide</u>	<u>Cost</u>
Clinton Ag Services	Ground Roundup	996.95
West Central Aerial Sprayers	Aerial, 2,4-D	9,679.25
Lowell Ricks Aviation	Aerial, 2,4-D	5,062.58
Carlson Aviation	Ground Roundup	1,122.30
Total		\$16,861.08





Aerial spraying of 2,4-D on 1987 seeding, Nicholson  
Waterfowl Production Area. WO 6/88

#### 11. Water Rights

Third party drainage (that drainage which may have been established by a neighbor to a Waterfowl Production Area prior to acquisition by the Fish and Wildlife Service) into a Waterfowl Production Area has become an increasing demand in this District. Subsequently, it has required the formulation of a policy on ditch cleanout and tiles coming onto Waterfowl Production Areas. It goes as follows:

- 1) no new wetland drainage will be allowed. Applicants are informed that they can apply for new drainage onto a Waterfowl Production Area. However, they are also informed that their chances of getting approval for such a right-of-way permit is relatively slim.
- 2) Existing drainage cannot be improved beyond the original construction.
  - a) tiles may not be replaced with a larger tile;
  - b) ditches may not be cleaned out beyond original depth.
- 3) No cleanout or repair will be allowed on tiles and/or ditches that drain wetlands on or partially on the Waterfowl Production Area.
- 4) All construction sites will be seeded down and spoil will be removed from the Waterfowl Production Area.
- 5) If silt is a problem, we will request a grassed waterway upstream of the Waterfowl Production Area to help cut down on siltation.
- 6) Mowing of ditches may be allowed.
- 7) If the watershed is large (80+ acres), the right-of-way permit may be required as

determined by the inspecting officer. 8) All such work will be done under a Special Use Permit.

Requests for much of the new drainage which may come onto a Waterfowl Production Area will be thwarted to a degree by the Swampbuster provisions of the Food Security Act if the individual is an active participant in the program.

### 13. Waterfowl Production Area Easement Monitoring

Fall surveillance flights to inspect U.S. Fish and Wildlife Service administered easements were deferred from fall, 1987 until March - April, 1988. Fourteen new violations were confirmed. Carryover cases from previous years totalled eight. During the year, all new cases were closed by field officers. Four of the eight carryover cases from previous years were successfully closed. The remaining four cases are in the U.S. Attorney's office waiting for a decision on how to proceed.

The following carryover cases were closed during the year:

Easement 170X, Otter Tail County--This case was first detected in 1983, a fill violation. Compliance requirements were met on November 3. The landowner had indicated he wished not to go to court, but would only restore the wetland under court order. A Judge's order was presented to him!

Easement 262X, Otter Tail County--This case was first detected in 1976; fill violations (irrigation travelways). This case was heard in District Court on May 18, 1987. Ruling was found in favor of the Service. The decision was appealed to the Eighth Circuit Court which reviewed the case on April 11, 1988. A ruling was issued on August 11, 1988, in favor of the Service. Contact was made with landowner on October 27, 1988. Restoration work had been completed as ordered.

Easement 254X, Otter Tail County--This case was first detected on November 1, 1984; level ditches. This case was submitted to LE on July 5, 1985 and subsequently forwarded to the Solicitor on April 30, 1986. On November 19, 1986, case was returned to field to change format. Case was resubmitted to LE on March 6, 1987, for criminal action. LE submitted it to U.S. Attorney on April 29, 1987. U.S. Attorney declined case. The Field Solicitor submitted to Washington on December 2, 1987, in order to proceed for civil action. A summons and complaint were issued on February 19, 1988. Landowner agreed to restore with compliance being met on June 23, 1988.

Easement 177X, Douglas County--This case first discovered on April 7, 1986; fill violation. Contact was first made with landowner on June 17, 1986. Landowner agreed to meet restoration requirements when condition would allow for it. Restoration was completed December, 1988.

The synopsis which follows highlights those easement violations detected on the March-April 1988 flights:

Easement 106X, Otter Tail County. Scraper ditches. Compliance requirements met in spring, 1988.

Easement 140X, Otter Tail County. Plow furrow ditches. Landowner sent warning letter.

Easement 146X, Otter Tail County. Scraper ditches and fill. Compliance requirements met in fall, 1988.

Easement 148X, Otter Tail County. Scraper ditches. Compliance requirements met in fall, 1988.

Easement 179X, Otter Tail County. Hay bales in wetland. Case closed without making contact.

Easement 199X, Otter Tail County. Suspected tile line. Case closed for lack of evidence. Easement to be closely watched.

Easement 360X, Otter Tail County. Wetland burning. Landowner sent warning letter.

Easement 49X, Douglas County. Scraper ditches, tile, backhoe ditch. Compliance requirements met in spring, 1988.

Easement 83X, Douglas County. Ineffective scraper ditch. Landowner given verbal warning.

Easement 91X, Douglas County. V-plow ditches. Compliance requirements met in spring, 1988.





Illegal Wetland Drainage on Easement 91X, Douglas County  
April 6, 1988.

Easement 99X, Douglas County. Scraper ditches. Compliance requirement met in spring, 1988.

Easement 115X, Douglas County. Tile and scraper ditches. Compliance requirements met in spring, 1988.

Easement 175X, Douglas County. Scraper ditches. Compliance requirements met in spring, 1988.

Easement 249X, Douglas County. Wetland burning. Major action occurred off easement. Case closed without making contact.

Four cases from previous years remain active. These are:

Easement 98X, Grant County. Ditching and fill violations detected fall, 1985. Case submitted to LE on January 23, 1987. LE forwarded case to Solicitor on February 23, 1987. On March 6, 1987, Solicitor returned case to LE for criminal prosecution. On March 10, 1987, LE submitted case to U.S. Attorney. On March 27, 1987, U.S. Attorney returned case to Solicitor for civil prosecution. Approval from Washington was received to proceed civilly. Case transferred to U.S. Attorney. Action pending.



Easement 27X, Grant County. Ditch and fill violations detected fall, 1982. Case report submitted in 1985. Request to initiate litigation sent in on February 10, 1987. Case sits in Field Solicitor's office. Action put on hold due to sensitive acquisition issue. Request made in December, 1987, to start up case again.

Easement 167X, Douglas County. Ditching and fill violations detected fall, 1979. Case complicated by sale of land from initial violator/owner to second owner who also violated. Case report submitted January 23, 1987, to LE. Case transferred to Field Solicitor on February 24, 1987. Solicitor transferred case to U.S. Attorney on June 25, 1987. On April 25, 1988, the Wetland Management District was informed that the case was filed with the Court. At the end of the year, the case was in the discovery phase with a possible trial date of April 1, 1989.

Easement 151x, Douglas County. Ditching and fill violations detected fall, 1984. Case submitted to LE on July 15, 1985. On April 17, 1986, LE submitted case to Solicitor. In November, 1986 case was returned to LE for criminal prosecution. Case returned to field for change in format. Case resubmitted to LE on January 23, 1987. LE forwarded case to Solicitor on February 23, 1987. On March 6, 1987, Solicitor returned case to LE for criminal prosecution. On March 10, 1987, LE submitted case to U.S. Attorney. On March 27, 1987, U.S. Attorney sent case back to Solicitor for civil prosecution. Case has subsequently been returned to U.S. Attorney.

The wheels of the Federal bureaucracy turn slowly. Prosecution of violators is often stymied by obligations of a higher order in the U.S. Attorney's Office. A lack of interest in easement cases probably plays a small part in delays that this field office has to deal with.

Ownership verifications were made for all easement tracts in the 4-county District. Certified letters were mailed to each owner informing them of the existence of the easement.

Vertical aerial black and white photographs were taken by the Regional Pilot with assistance from WMD staff. Approximately 20 percent of all easements in the District as well as newly acquired easements, District-wide, are photographed. The resulting photos provide an excellent "track record" of land use of easement properties. They have proved to be invaluable for cases going to court.

G. WILDLIFE1. Wildlife Diversity

This year the staff recorded 181 species of birds during routine field activities. The Wetland Management District bird list contains 266 species that includes 24 casually observed species.

2. Endangered and/or Threatened Species

The greater prairie chicken, Tympanuchus cupido, is a threatened species in Minnesota. The birds are low in number in the District, but can be found with some regularity on the following WPAs:

Meadows (W-4)  
Agassiz Beachline (OT-60)  
Hanneman (W-7)

Each year, in cooperation with the Minnesota Department of Natural Resources and the Minnesota Prairie Chicken Society, the Fish and Wildlife Service assists with the spring prairie chicken booming ground count. Booming grounds within the District but not censused by District personnel are not included. This includes those grounds in Wilkin County near Rothsay lying north of Highway 26. The following results of the 1988 census show that the birds were up some from 1987:

<u>County</u>	<u>Qtr</u>	<u>Sec</u>	<u>Twp</u>	<u>R</u>	<u># Males</u>	<u>Remarks</u>
Wilkin	NE	8	134	45	9	
	SW	9	134	45	41	Flush Count
	SW	15	134	45	8	
	SW	12	133	45	17	Flush Count
Otter Tail	NE	17	131	44	1	
	SW	29	133	44	3	Flush Count

The greater sandhill crane is also considered threatened in the state. Ground sightings of these birds are uncommon, but migratory flocks can normally be observed during spring and fall migration periods.

Bald eagles are fairly common spring and summer migrants, but only a few nests occur within the District boundaries. For the second time, a pair was known to nest successfully on the south shore of Lake Christina in Douglas County. The only other reports of nesting eagles include two sites in the secluded lake and river country of East Otter Tail County. These are word of mouth reports and were not substantiated in 1988 by Fish and Wildlife Service personnel.

Peregrine falcons are known to migrate through the District and several sightings occur each year. Three were observed at one time in Southern Otter Tail County on May 7.

The fringed prairie orchid, recently renamed Plancherella praecleara, recently received federal review and it is currently being considered to be listed as a threatened species. Plants of this species have been collected immediately north of this District and it is suspected to be here but to date no plants have been found, however. The little white lady slipper (Cypripedium candidum) is state-threatened but quite common throughout the entire Wetland Management District on odd pieces of native prairie.

### 3. Waterfowl

Winter 1988 was fairly open. Hence, spring came early and so did the first waterfowl (common goldeneyes and common mergansers) which arrived in the District on March 6. Then, on March 22, very strong southeasterly winds carried a huge influx of waterfowl including Canada geese, pintails, green-winged teal, shovelers, mallards and Tundra swans. By April 6, wherever there were fringes of open water or areas of meltwater, one could see rafts of scaup, ringneck and bufflehead. The first blue-winged teal arrived one day later on April 7. Diver numbers peaked about April 10 and persisted in the District until April 23.

As usual, the annual autumn exodus of blue-winged teal was evident during the last two weeks in September. An early October cold front moved even more ducks out of the state (especially teal and wood ducks) and drastically reduced duck numbers, except ringnecks, for the October 8 waterfowl season opener. A major migration of Canada geese was apparent on October 1 and 2. Major movements of waterfowl occurred on October 22-24 and 28-30 respectively. By the end of the month, hunters enjoyed good numbers of scaup but the birds did not stay long as ice up of many wetlands and some small lakes caused the birds to leave.

#### Breeding Pair Counts

Pair counts were done in cooperation with the Northern Prairie Wildlife Research Center. Wetlands on private land, easement lands and federal Waterfowl Production Areas were sampled. Each wetland was typed and percentage of water in the basin was recorded. When the estimated waterfowl pairs of this method are compared to the traditional quarter-section sampling method, there is a considerable decrease in estimated breeding pairs. This raises some questions as to the accuracy of both methods. A far smaller percentage of Waterfowl Production Areas in the Wetland Management District are sampled under the new four-square-mile system compared to the traditional quarter-section method.

In the past two years, statistical regressions were performed for

only five species of waterfowl (mallard, gadwall, pintail, shoveler and blue-winged teal). This year the system of estimating breeding pairs was refined so that estimates are now available for all duck species found in the District.

Summer 1988, was one of the driest on record and the estimates reflect fewer breeding pairs and even fewer recruits. Not only was there a drastic reduction in the number of wet ponds, but the decrease in the area of wet wetland was nearly 50 percent. Following is a table of estimated breeding pairs from data gathered from the four-square-mile sampling technique. One bright spot is in the number of wood ducks in the District. In spite of the drought this year, there continues to be an increase in their numbers.



The 1988 drought took its toll on waterfowl production. Especially hard hit were divers like these redheads. Pair counts also revealed very low numbers of ruddy ducks and canvasbacks.

CV

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## 1988 Estimated Breeding Pairs

Species	Pairs/ Sq. Mile of WPA	Pairs/ Sq. Mile of Easement	Pairs/ Sq. Mile of Private	Pairs/ Sq. Mile* of WPA
Mallard	21.49	12.63	6.30	16.5
Gadwall	1.01	.57	.33	2.7
Wigeon	.10	.06	.03	.54
G-W Teal	.29	.17	.08	1.62
B-W Teal	25.13	15.18	6.96	63.5
Shoveler	.62	.35	.19	2.4
Pintail	.19	.12	.05	1.6
Wood duck	27.18	16.27	7.68	3.7
Redhead	.89	.48	.30	8.01
Canvasback	.00	.00	.00	.87
L. Scaup	.00	.00	.00	1.05
Ringneck	1.36	.73	.47	2.95
Ruddy Duck	.34	.19	.11	4.92
Totals	78.6	46.75	22.5	110.36

\*Quarter-section method (7-year average 1979-1985)

Estimated 1988 waterfowl production in the District for both fee and easement acres was 17,822. This includes both coots and Canada geese. Wood ducks comprised 46 percent of this total. This estimate is based on figures derived from the four-square-mile breeding pair count.

#### Nest Dragging

During the 1988 field season, the Fergus Falls Wetland Management District staff did not conduct any nest dragging. All nest dragging was performed by Hal Doty with the Mid-Continent project. He searched fields inside predator fences, randomly selected WPAs and lands enrolled in the Fish and Wildlife 10-year lease program. Following are the results of his nest searching:

## 1988 Nest Drag Data Inside Predation Barrier Fences

WPA Name	Acres	Nests No.	Duck Species	Exposure Days	Nest Fate	Discovery Dates	Est. Initiation Dates	Est. Hatch Dates	Nest Success (Mayfield)
Knollwood OT-101 (1981 Nebraska origin warm season natives)	40	15	9 mallard 6 BWT	223.8	13 hatched 1 destroyed 1 other	4-28/ 6-20	4-21/ 6-12	5-26/ 7-15	86%
Busko OT-52 (1982 S. Dakota origin switchgrass, Nebraska origin Indiangrass, & little bluestem, 1 lb./ac. local origin prairie mix)	50	20	15 mallard 1 BWT 4 Gadwall	300.0	15 hatched 4 destroyed 1 other	5-11/ 7-12	5-02/ 6-29	6-7/ 8-2	63%
Kube OT-51 (1981 Nebraska origin warm season natives)	25	21	10 mallard 8 BWT 2 Gadwall 1 Shoveler	336.8	19 hatched 1 destroyed 1 other	5-10/ 7-12	4-25 6-19	5-30 7-22	90%
Stowe Lake D-6 (brome, fescue, quack-grass)	17.5	6	1 Mallard 5 BWT	111.0	6 hatched	5-18 6-28	5-9/ 6-16	6-14 7-18	100%
Blakesley G-35	22.5	0	--	--	--	--	--	--	--
Totals	155.0	62	35 Mallard 20 BWT 6 Gadwall 1 Shoveler	971.6	53 hatched 6 destroyed 3 other	4-28/ 7-12	4-21/ 6-29	5-26/ 8-2	81%

## 1988 Nest Drag Data Outside Predator Barrier Fences

WPA Name		Acres	Nests No.	Duck Species	Exposure Days	Nest Fate	Discovery Dates	Est. Initia- tion Dates	Est. Hatch Dates	Nest Success (Mayfield)
Bakke (1979 Nebraska origin warm season natives)	OT-99	70	39	21 Mallard 14 BWT 4 Gadwall	309.4	6 hatched 32 destroyed 1 other	5-13/ 6-27	4-30 6-24	6-4/ 7-23	3%
Hoff-Fronning (1/2 1980 Nebraska origin warm season natives; 1/2 1980 Nebraska origin warm season natives)	OT-32	54	25	8 Mallard 16 BWT 1 Gadwall	248.2	3 hatched 22 destroyed	5-13/ 6-27	4-30/ 6-24	6-4/ 7-25	5%
Mickelson (1981 Nebraska origin warm season natives)	OT-25	40	6	2 mallard 4 BWT	132.0	5 hatched 1 destroyed	5-11/ 6-22	5-3/ 6-17	6-8/ 7-19	73%
Strehlo (brome, quack, assorted forbs)	G-27	16	3	2 BWT 1 Shoveler	49.0	3 hatched	5-16/ 7-1	5-15/ 6-14	6-19/ 7-17	100%
Pomme de Terre (mostly brome, Kentucky bluegrass, forbs)	G-1	83	5	2 Mallard 3 BWT	52.4	5 destroyed	5-16/ 6-7	5-3/ 5-28	6-7/ 6-30	4%
Redhead Slough (Part 1979 Nebraska origin warm seasons and part 1983 local origin natives)	G-26	65	4	1 Mallard 3 BWT	29.6	2 hatched 1 destroyed 1 other	5-17/ 6-28	5-16/ 6-9	6-19/ 7-12	32%
Spaulding (brome, quack, alfalfa, forbs)	G-33	14	1	BWT	5.2	Destroyed	6-8	5-14	6-20	0%
Nelson-Benson (tall wheatgrass, brome, quack)	D-44	25	2	1 Mallard 1 BWT	34.8	1 hatched 1 destroyed	5-18/ 6-8	5-9/ 6-1	6-13 7-13	38%
Fedje (1985 locally harvested prairie mix with some cool seasons)	D-32	65	4	1 Mallard 3 BWT	44.4	2 hatched 2 destroyed	5-18/ 6-10	5-7/ 6-2	6-12/ 7-7	22%
Pelican Valley (mostly 1980 Nebraska)	OT-42	50	3	3 BWT	27.0	1 hatched 1 destroyed 1 other	5-19/ 6-13	5-14/ 5-31	6-16/ 7-3	29%
Sethre (1982 locally harvested prairie mix--some invading brome)	OT-49	13	0	--	--	--	--	--	--	--
Backstrom (1985 locally harvested prairie mix with some cool seasons)	OT-96	58	5	1 mallard 4 BWT	68.0	2 hatched 3 destroyed	6-24/ 6-13	5-12/ 5-28	6-16/ 7-1	22%
Knobel Lake (mostly 1981 Nebraska origin warm season natives)	OT-90	51	2	2 BWT	11.2	2 destroyed	5-24/ 6-14	5-14/ 5-22	6-17/ 6-25	0%
Leverson (1979 Nebraska origin warm season natives)	G-6	60	1	1 Mallard	10.0	1 destroyed	6-16	6-6	7-19	3%

## 1988 Nest Drag Data Outside Predator Barrier Fences (continued)

WPA Name	Acres	Nests No.	Duck Species	Exposure Days	Nest Fate	Discovery Dates	Est. Initia- tion Dates	Est. Hatch Dates	Nest Success (Mayfield)
Dahlgren D-34 (1979 Nebraska origin warm season natives)	27	5	5 BWT	52.6	1 hatched 4 destroyed	5-25 6-15	5-16/ 5-23	6-20/ 6-27	7%
Eng Lake D-37 (brome, Kentucky bluegrass)	18	0	--	-	--	--	--	--	--
Bengtson D-49 (mostly brome, quack, forbs)	28	1	1 BWT	8.4	1 destroyed	5-25	5-10	6-13	2%
Solem D-52 (1981 Nebraska origin native grass species, brome quack)	16	5	1 Mallard 4 BWT	60.8	3 hatched 2 destroyed	5-25 7-1	5-7/ 6-14	6-10/ 7-17	33%
Totals	753	111	39 Mallard 65 BWT 5 Gadwall 1 Shoveler	1143	29 hatched 79 destroyed 3 other	5-11/ 7-1	4-30/ 6-24	6-4/ 7-25	



From the two tables above, it is obvious that predation is a major limiting factor to duck nesting success in western Minnesota. Electric barrier fences are very effective. They require continual maintenance and they contain only a small portion of available nesting habitat on Waterfowl Production Areas. In an attempt to "force" birds to nest inside several of the fences in 1989, all adjacent standing cover was removed via haying contracts with local farmers. The haying was done in September so that regrowth would be minimal. It is our hope that birds returning in 1989 will overlook the short hayed cover and nest in the standing cover inside the fences. Creating this "island" effect where nest success is substantially higher than unfenced habitat should help increase local breeding populations of waterfowl. WPAs where cover was removed include Bakke (OT-99), Knollwood (OT-101), and Rush Lake (OT-56).

Giant Canada geese continue to thrive and expand throughout most of the Wetland District. Captive flocks were started in Fergus Falls, Alexandria and Ashby during the early 60's and 70's. Since that time, the birds have become free-fliers and have readily expanded their breeding range. In May, the Minnesota Department of Natural Resources conducted an aerial goose survey for Douglas, Grant and southern Otter Tail Counties. Their census indicated 8,900 birds. There is so much overlap now in the breeding ranges of the various "flocks" that the available habitat is now occupied by a homogenous mix from all three original flocks. A portion of the Otter Tail River in Fergus Falls remains open year around via warm water discharge from Otter Tail Power Company. This open water allows birds to winter here. An early January 1989 count showed 3,800 birds in the Fergus Falls vicinity.



Where predator fences intercept wetlands "water wings" are constructed to discourage predators from swimming around the ends of the fence. One charged wire extends the entire length of the wing. WS 4/88



"Water wings" are constructed using 14-foot cattle panels with one-inch hex mesh attached. The separate sections of the wing allow for easy installation and removal after the nesting season. Sections can be added if water levels drop. WS 4/88

### Predator Removal

In 1988, a concerted effort was carried out to control predators on 32 WPAs containing 6,800 total acres (4,100 upland acres). Trapping activities began approximately March 21 and ended July 15. Target species removed were red fox, striped skunk, raccoon, Franklin's ground squirrel and mink. Badgers were released when possible. Mink were targeted only within the electric barrier fences and released elsewhere. Thirteen-lined ground squirrels were taken incidental to other trapping. All non-target species including cats were released.

Removal methods included live trapping, leghold trapping (with padded jaws), conibear trapping (limited to 110 size), digging dens and incidental shooting. A trap data card was completed for each trap location and a log of all animals captured was maintained. Each trap was inspected daily per State regulations.

Target species were euthanized with a 4 cc injection of T-61. When this method was not possible, cervical dislocation and shooting were used. All dead animals were buried daily in a pit located on Nicholson WPA (OT-88). A weekly list of animals removed was sent to Conservation Officers in whose area trapping was performed. All trapping activities were performed by seasonal employees (professional trappers) with direct supervision by a permanent staff person. Total trap days were: 1. leghold traps (6,796); live traps (22,018); conibear traps (9,035).

WPA	Co.	No.	Totals Acres	Upland Acres	Fox		Rac- coon	Franklin		13-lined		
					Juv/Adult	Skunk		Ground Sqrl	Badger	Ground Sqrl	Cat	
Agassiz	OT	60	647	506	0	9	9	2	0	0	0	5
Bergerud	OT	45	23	4	0	0	3	0	3	0	0	0
Busko*	OT	52	304	154	1	2	10	7	7	0	14	0
Crays	OT	23	100	64	2	1	4	1	1	0	9	2
Dahler Slough	OT	57	188	133	0	8	6	0	22	1	17	0
Fabian	OT	104	57	32	0	2	5	0	2	1	0	1
Gerlach	OT	5	60	30	0	0	3	0	2	0	3	0
Gravel Pit	OT	55	46	20	1	1	2	3	1	2	0	0
Horstman	OT	2	397	303	0	4	16	1	0	0	2	0
Knollwood*	OT	101	194	126	0	2	7	1	6	0	0	6
Kube*	OT	51	297	137	0	2	5	0	14	1	6	0
Lightning L.	OT	47	357	205	0	0	4	0	4	0	3	3
Mavis	OT	98	209	103	0	6	4	2	0	0	4	1
Neuman	OT	93	120	100	0	0	1	0	4	0	10	2
Rabbit River	OT	53	467	198	0	4	27	7	31	1	44	9
Rossow	OT	65	90	68	0	2	6	1	9	1	13	0
Rush Lake	OT	56	331	136	0	2	19	5	9	0	12	3
Townsend	OT	80	80	66	1	3	10	0	7	0	17	1
Bailey	G	2	246	84	1	5	11	7	2	0	n/a	0
Bates	G	18	117	86	0	0	13	2	5	0	n/a	1
Block	G	43	44	25	0	1	24	2	7	0	11	0
Demaree	G	21	192	95	0	0	9	2	2	0	1	2
Foss	G	45	52	24	0	0	4	2	12	0	n/a	1
Germundson	G	22	182	89	0	2	12	2	19	1	n/a	1



WPA	Co.	No.	Totals Acres	Upland Acres	Fox		Rac- Ground		Franklin 13-lined Ground		Sqr	Cat
					Juv/Adult	Skunk	coon	Sqr	Badger	Sqr		
Green	G	8	367	228	0	1	18	0	0	0	1	5
Hibrooten	G	13	440	318	0	2	31	5	3	0	1	3
Kloos	G	7	56	29	0	1	4	1	2	0	n/a	0
Lillemoen	G	15	197	130	0	2	10	1	4	1	3	0
Mud Lake	G	10	487	338	0	3	18	5	7	1	n/a	4
Nordby	G	37	103	61	0	1	7	8	0	0	9	0
Preuss	G	19	160	109	0	1	7	1	0	0	n/a	1
Setran	G	20	116	51	1	1	4	0	6	0	n/a	0
Strand	G	29	<u>89</u>	<u>57</u>	<u>0</u>	<u>0</u>	<u>7</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>n/a</u>	<u>1</u>
Totals			6815	4109	7	68	320	68	192	10	180	52

\*These WPAs also contained electric predator fences.

As part of an agreement with the Minnesota Department of Natural Resources on seasonal predator removal in 1988, two techniques to monitor changes in predator populations were utilized. These included a predator scent post survey and a predator spotlight survey. This year four scent post routes containing five 2.7-mile segments each were run in Douglas, Grant and Otter Tail Counties during the early part of September. Results verified a very high population of fox, skunk and raccoon. In addition to the scent post survey, a predator spotlight survey route of 25 miles was run three times during late April and early May. All "eyes" illuminated by spotlights on either side of the vehicle were identified as was the type of cover where each animal was observed.

Plans are to continue monitoring the predator population and to conduct predator management (trapping) on 15 percent of the WPAs at least through FY 1990.

#### Nest Basket Survey

During the winter 1986-87, 296 nest baskets were placed on marshes in all four counties in the District. Baskets were checked for use in 1987 and again this year. In 1987, 7% of available baskets were used by mallards and this year only 4.2 percent of available

baskets were used by mallards. An additional 4 percent were used by Canada geese.

The survey was again conducted by Biological Technician Greg Neudecker, and Biological Aids Laura Koopman and Tim Granger. Baskets were checked by walking and canoeing. Nesting material was replaced where needed.

Results indicate that mallards seemed to prefer baskets that were located in marshes with little or no cattail cover surrounding the basket. Of the twelve mallard nests, nine were in baskets used in 1987, which would suggest homing by surviving hens or their progeny. Mallard use (12) was down from 19 in 1987, Canada goose use (12) was up from 3 in 1987. An unfortunate finding from this survey is that several unused baskets seem to be attractive to raptors including great-horned owls. Remnants of ducklings, western grebes and other water birds were identified on some of these baskets.



Nest basket use in 1988 may have been lessened due to the drought. A number of baskets installed in semi-permanent wetlands were high and dry by mid-June. KB 6/88

Table 1. 1988 Mallard Use of Nest Baskets

<u>WPA</u>	<u>County</u>	<u>Comments</u>	<u>Basket Use in 1987</u>
DeLong	Grant	Hatched	Mallard
Hoff- Fronning	Otter Tail	Hatched	Mallard
Duenow	Otter Tail	Hatched	No use
Duenow	Otter Tail	Hatched	No use
Arfsten	Otter Tail	Hatched	Mallard
Scott-Crays	Otter Tail	Hatched	Mallard
Headquarters	Otter Tail	Hatched	Mallard
Rabbit River	Otter Tail	Hatched	Mallard
Mortenson	Otter Tail	Hatched	No use
Rund	Otter Tail	2 nests in same basket	Mallard

Table 2. 1988 Canada Goose Use of Nest Baskets

<u>WPA</u>	<u>County</u>	<u>Comments</u>	<u>Basket Use in 1987</u>
Schultz Lake	Douglas	Hatched	No use
Zickur	Douglas	Hatched	Mallard
Ash	Douglas	Abandoned	No use
Ash	Douglas	Abandoned	No use
Wildung	Otter Tail	Hatched	Canada goose
Wildung	Otter Tail	Hatched	Canada goose
Wiegiers	Otter Tail	Hatched	Canada goose
Bakke	Otter Tail	Hatched	No use
Hoff- Fronning	Otter Tail	Hatched	Mallard
Duenow	Otter Tail	Hatched	No use
Boyum	Otter Tail	Hatched	No use
Hoff- Fronning	Otter Tail	Abandoned	Mallard

Table 3. Overall Use of Nest Baskets

<u>Mallard Use</u>	<u>Goose Use</u>	<u>Waterfowl Use</u>	<u>Predator Perches</u>	<u>Baskets Burned</u>	<u>Baskets Not Located</u>
12	12	24	70	5	4
(4.2%)	(4.2%)	(8.4%)	(24.5%)	(1.7%)	(1.4%)

Overwater Nest Searching

No overwater nest searching was conducted in 1988.

#### 4. Marsh and Water Birds

There are at least 10 marsh and water birds common to this District. Most common are great blue herons, green-backed herons, great egrets, coots, sora and Virginia rails, black-crowned night herons, American bitterns and double-crested cormorants.

Pelican Island, which is a 15-acre island located in Pelican Lake near Ashby, Minnesota, serves as a rookery for hundreds of herons, egrets and cormorants. The island is owned by The Nature Conservancy. There are other smaller nesting sites of water birds but none are as noteworthy as Pelican Island.

The first great blue herons arrived in the District on March 20 this year. White pelicans do not nest on District Waterfowl Production Areas but often can be observed feeding on open marshes in Grant and Douglas Counties. Several least bitterns were observed on Lake 12 in Otter Tail County while conducting breeding pair counts.

#### 5. Shorebirds, Gulls, Terns and Allied Species

During the spring migration is an excellent time to observe shorebirds throughout the Wetland Management District. One place in particular, a sewage lagoon near Breckenridge, Minnesota, draws a variety of birds in good numbers and is an excellent birding spot.

Another good location for shorebirds is the gravelly shoreline of Orwell Reservoir 5 miles southwest of Fergus Falls. The most common residents include killdeer, greater yellowlegs, upland sandpipers, common and black terns, Wilson's snipe and spotted sandpipers.

On May 14, local birder Gary Otnes and his wife recorded the following species of shorebirds in Otter Tail county:

semipalmated plover  
greater and lesser yellowlegs  
spotted sandpiper  
Hudsonian godwit  
sanderling  
least sandpiper  
Baird's sandpiper  
dunlin  
short billed dowitcher  
Wilson's phalarope

killdeer  
solitary sandpiper  
upland sandpiper  
marbled godwit  
semipalmated sandpiper  
white-rumped sandpiper  
pectoral sandpiper  
stilt sandpiper  
Wilson's snipe



## 6. Raptors

There are about 16 raptors common in the District with the red-tailed hawk, American kestrel, marsh hawk and great-horned owl being the most often observed residents. This year a notable hawk influx came on March 23 with the arrival of redtails, marsh hawks, kestrels and a few bald eagles. This year there seemed to be a higher than usual number of Cooper's and sharp-shinned hawks observed.

The annual fall migration usually runs from late September through the first week in October. There was an excellent display of raptors on September 23 that included mostly redtails. Noteworthy sightings include 3 adult peregrine falcons in south central Otter Tail county. The birds seemed to know each other and playfully swooped at resting geese on a nearby lake. Two more adults were observed near Orwell reservoir on September 19.

## 7. Other Migratory Species

The arrival of the first red-winged blackbirds and robins is a sure sign of spring. This year red-wings showed up on March 5 and robins on March 19. The following miscellaneous observations were made by Biological Technician Chuck Vukonich and local birder, Gary Otnes.

January 11 - Observation of first flocks of redpolls since February of 1987.

February 5 - Horned lark migration underway with a second excellent migration of these birds and Lapland longspurs on February 23.

March (5-15) - Peak numbers of redpolls in the area.

March 18 - First flock of dark-eyed juncos arrive.

April 2 - Phoebe and common flickers show up. The skies are "alive" with migrating blackbirds, robins and waterfowl!

April 6 - First tree swallows show up.

May 1 - Hundreds of yellow-rumped warblers have invaded the woodlands and first vireo (solitary) of the season observed.

May (3-4) - On the heels of a 45 mph southeasterly wind there were many first arrivals including palm warblers, northern waterthrush, Harris sparrow, clay-colored sparrow, black tern, red-headed woodpecker, great-crested flycatcher, yellow warblers, sora and Virginia rails, house wrens, rose-breasted grosbeaks, northern orioles, green heron, orange-crowned warblers and brown thrashers.

May 12 - Biological Technician Vukonich heard first cardinal in 15 field seasons here in Fergus Falls. Bird was located 3 miles south of Pelican Rapids.

June 14 - First ever dickcissel observed in the District by Fish and Wildlife Service employee. Further observation shows that they have exploded in numbers on Conservation Reserve lands and other idle grasslands throughout the District. By July 24, nearly all the birds mysteriously disappeared. (Suspect haying of CRP land and drought played a part).

July 26 - Tree swallows are beginning to form their flocks and bluebirds are grouping in small loose flocks also.

August (18-29) - Good daytime migration of nighthawks through the District.

August 18 - A huge first movement of migrating warblers including blackburnian, black-throated green and yellow rumped warblers.

August 20 - Second wave of warblers including mostly Nashville, Wilson's, yellow rumped and Tennessee warblers.

September 4 - Third major wave of warblers that includes 11 different species. They are here by the thousands.

September 14 - Fourth wave of warblers. Moderate numbers of mostly Tennessee, Nashville, orange-crowned and yellow-rumped warblers.

September 25 - First flock of autumn dark-eyed juncos. There was a much more substantial migration of these birds on October 16.

October 30 - A very late migration of Harris sparrows.

December 28 - A hardy Townsend's solitaire was observed eating fruiting bodies of a juniper at Orwell reservoir.

December 29 - There is definitely an increase in the number of pileated woodpeckers. Observations are very common wherever sizeable woodlands are found. The widespread elm tree die off has provided an abundant food source and many excellent nesting sites.

#### 8. Game Mammals

White-tailed deer are without question the most abundant and sought after game animal in the District. The does came through winter in excellent condition with a high incidence of twins and some triplets. The local population was again one of the highest on record prior to the season opener on November 5.

#### 10. Other Resident Wildlife

Nothing to report except that leopard frog numbers were very low in 1988. It's not clear if this is linked to drought conditions or a disease outbreak.

#### 11. Fisheries Resources

The Minnesota Department of Natural Resources fisheries crews used wetlands on two Waterfowl Production Areas for walleye rearing ponds in 1988. They recovered 273 pounds of fingerlings (about 4,168 fish). Poundwise and numberwise, production was down from last year. All fingerlings trapped are transplanted immediately into area lakes.

<u>WPA</u>	<u>Location</u>	<u>Pounds</u>	<u>No. of Fingerlings</u>
Mavis (OT-98)	T. 132 N., R. 42 W., section 11	197	3,940
Hanson (G-44)	T. 127 N., R. 41 W., section 4	<u>76</u> 273	<u>228</u> 4,168

#### 13. Surplus Animal Disposal

Franklin's ground squirrels taken during predator removal operations were tagged with date and location and frozen each day. They were later collected by Timothy L. Lewis from the University of Wisconsin. Data from these animals and others were used in his graduate study of the Franklin's ground squirrel. His paper titled "Sex and Age Ratios and Reproduction of the Franklin's Ground Squirrel" was presented December 5, 1988, at the 50th Midwest Fish and Wildlife Conference held in Columbus, Ohio.

#### 14. Scientific Collections

There were no scientific collections this year. However, specimens of aquatic insects of fresh water marshes which were taken in previous years were used for interpretive talks to hunter education classes, sportsmen's clubs, etc.

#### 15. Animal Control

A 155-square mile goose refuge was established in the Fergus Falls vicinity in 1963. Since then, a free-flying breeding population of giant Canada geese has become well established (see section G-3). As a result, goose depredations have increased with the number of birds.

Most damage occurs when two or more goose broods invade agricultural fields from adjacent wetlands. Most farmers help themselves control the birds via scare guns, scarecrows, plastic flagging, etc.

For the seventh consecutive year, there has been a special goose season in the Fergus Falls goose refuge to keep the flock manageable. This year no estimates of kill were made but the number of birds taken was lower than anticipated. No doubt there will always be some crop damage. With a hunting season and better knowledge of how to control birds, damage in the future should be minimal. No dollar estimates of damage were available for 1988.

With dry conditions in 1988, beaver were not a problem as they have been in past years when water levels were higher. There were no reports of flood damage caused by beaver this year.

#### H. PUBLIC USE

##### 1. General

In cooperation with local scout groups, the Fergus Falls Wild Rice Children's Home and Fergus Falls Fish and Game Club, several bluebird trails have been established on or near Waterfowl Production Areas. Materials are purchased by sportsmen's clubs and distributed to interested people for construction, installation and maintenance.

##### 6. Interpretive Exhibits/Demonstrations

All personnel participate in carrying out the monthly Interpretation and Recreation program in the District. This includes numerous talks, tours and personal appearances to schools, service clubs, sportsmen's clubs and other civic organizations.

A current mailing list is maintained yearly. Three information sheets covering topics on the wetlands program, management practices and ways neighbors can get involved to help wildlife were issued. Periodically, news releases are submitted to local newspapers on items of current interest.

The District office sent out nearly 300 National Wildlife Week teacher packets to elementary, junior and senior high schools and junior colleges within the District. A library of 45 films is maintained and loaned to local schools and civic organizations upon request.

Staff members maintain personal contacts with Congressional staffs, county commissioners, town board members and state representatives



to keep them informed on the wetlands program. Close contact is also kept with the Soil Conservation Service, Agricultural Stabilization and Conservation Service and the Department of Natural Resources to compare notes and give assistance whenever needed.

#### 8. Hunting

All hunting on Waterfowl Production Areas in the District is held in compliance with regulations and seasons set by the State of Minnesota.

##### Waterfowl

The 30-day waterfowl season opened at noon on October 8, under mostly clear skies. This year's season opened one week later than last year. Reasons for a later opening date included a very low continental waterfowl population in the wake of one of the worst droughts in the Prairie Pothole Region in recent memory. Hunting pressure on WPAs in the District is typically very high on the first two weekends of the season. This year there were so many dry wetlands and birds were so scarce that hunter turnout was considerably less than in recent years. On weekdays most WPAs receive light use by hunters.

Hunting success was generally poor-fair overall. Because of the late opener, most blue-winged teal and wood ducks had left the District. Mallards, wood ducks, green-winged teal, ringnecks and Canada geese were the most common birds in the bag. Late season hunting of scaup and late flight mallards was generally poor as well. By the close of the season (November 6) most Type IV and V marshes were iced over so even the "die hards" did not enjoy the anticipated success of the late season hunt.

##### Pheasants

This District is located on the extreme northern edge of the midwestern pheasant range and local populations fluctuate with the severity of winters. Pheasant numbers are relatively low but are highest in Douglas, Grant and southwestern Otter Tail Counties. At best, hunters enjoyed only fair success.

Warm season native grass seedings provide excellent winter cover for the birds and yield many birds to hunters with dogs. Waterfowl Production Areas in the best pheasant range receive very heavy hunting pressure. This year's season was from October 17 - December 6. One bright spot for pheasants locally is the landowner participation in the ten-year Conservation Reserve Program (CRP). It is already apparent that local "hot spots" for pheasants will develop as landowners enroll their erodible acres into this set-aside program. District personnel saw good numbers of birds on some CRP acres while performing work details on these lands.

### Ruffed Grouse

Ruffed grouse numbers were low again this year. Consequently, few people took to the field after them. No doubt some were taken incidental to other hunting activities, but very few.

### Deer

The firearms deer season opened November 5, for a two-day bucks only, antlerless deer with permit only season. A second season under the same format was held on November 12-15. Most hunters choose to go the first season even though it was only two days. The heavy pressure tends to "move" the deer more and success is generally better than the second season.

Waterfowl Production Areas are hunted hard for deer with generally good success. Exact harvest figures are not yet available from the Minnesota Department of Natural Resources but preliminary reports are that near record numbers of white-tails were again harvested during the 1988 split season. Deer were abundant everywhere throughout the District prior to the season opener.

Archers enjoyed a 79-day season and took an estimated 45 deer from District WPAs. Bow hunters use many WPAs, but some of the more popular ones include Nicholson (OT-88), Scribner (OT-68), Kunz (OT-82) and Ten Mile (OT-28). These units have relatively large blocks of mature woodlands and lend themselves well to the sport of bowhunting.

### Small Game Hunting

The small game season extends from September 7 - February 28. While some sportsmen hunt specifically for rabbit, squirrel, rails or woodcock, the numbers are insignificant. A high proportion of small game is taken incidental to pheasant, deer or waterfowl hunting. Predator calling and coon hunting with dogs have been on the increase in recent years. Moderate use of Waterfowl Production Areas is evident for this type of recreation.

## 9. Fishing

Fishing in the District on WPAs is insignificant. Most units do not contain deep enough water to support sport fishing. Redhead Slough (G-26) receives some fishing use for northern pike; however, taking carp in the springtime with bow and arrow is growing in popularity and many are taken from WPAs infested with these pests.

## 10. Trapping

All trapping seasons, like hunting, comply with Minnesota State regulations. Waterfowl Production Areas throughout the District receive much use by area trappers. The raccoon season ran from October 21 - December 31; fox from October 21- February 28; mink and muskrat from October 29 - December 31; and beaver from October 29 - February 28.

Muskrat populations were extremely low throughout the District, due mostly to the severe drought in 1988. But even in areas where water was present their numbers were much lower than in past years. Mink numbers were also way down from recent years. Local trappers have their theories as to why the low numbers, but nothing firm has been documented. Freeze-up of most marshes came during the first week in November creating tough conditions for those who traditionally trap open water. Also, an early snowfall (November 11) made access to marshes more difficult.

Beaver numbers were also down from past years - again due mainly to drought and heavy trapping pressure the past several seasons. Fox and raccoon were very abundant but fur prices were so poor that few trappers concentrated on them. For anyone who depended on trapping dollars to "pay the bills," this year would mean financial trouble. Overall, fur prices were the lowest they've been in years and numbers of certain furbearing species were down substantially. In 1988, mink was the species fur trappers focused on as the following average prices paid for green furs by a local furbuyer in Fergus Falls indicate:

Beaver	\$20
Coyote	\$ 5
Female mink	\$32
Male mink	\$53
Muskrat	\$1.50 (carcass)
	\$2.00 (stretched & dried)
Raccoon	\$10
Red fox	\$10

## 11. Wildlife Observations

Local high school ornithology classes often use Nicholson Waterfowl Production Area (OT-88) in their bird identification field trips. Other Waterfowl Production Areas are no doubt used by schools and the public but most of this is done from the road in vehicles.

District personnel also lead groups to Wilkin County to observe the state-threatened greater prairie chicken on their booming grounds. Casual wildlife observation is difficult to measure but probably totals about 7,500 activity hours a year. There are no designated auto tour routes on the District.

#### 15. Off-road Vehicling

Motorized vehicles are prohibited.

#### 16. Other Non-wildlife Oriented Recreation

Non-wildlife oriented berry picking, mushroom harvest, cross-country skiing, snowshoeing, dog training and hiking for pleasure are enjoyed by a wide variety of outdoor enthusiasts. The District manages about 2,000 acres of scattered native prairie parcels that attract local plant buffs.

#### 17. Law Enforcement

In June, this office received a phone call from a local State Conservation Officer. The officer reported that someone had been dumping manure on McDowell WPA (D-47), Douglas County. An investigation ensued. Officers investigating discovered farm machinery, several tons of alfalfa and approximately 150 cubic yards of manure on the WPA. Contact was made with the neighbor. His reasoning for why he chose to utilize the WPA for these purposes was that "federal property isn't used for anything and he didn't have any other place to put it."

A compliance date for removing the debris was set; subject complied. A violation notice for \$150.00 was ultimately issued; subject paid.



Illegal Manure Pile on McDowell WPA, Douglas County.

EW 6/88



During July, an investigation was opened concerning haying trespass on a Mid-Continent lease (G-13, Grant County). An overzealous hayer had been cutting road ditches and saw fit to hay approximately 5-6 acres of the leased unit. Contact was made and a verbal warning given.

During the same month, contact was made with a neighbor to resolve farming encroachment on Bakke WPA (OT-99). An investigation was also completed on a report of a wildfire and vehicle trespass on Hintsala WPA (OT-7). Telephone and personal contacts with neighbors were made.

In August, three incidents generated law enforcement related investigations. An incident involving machinery trespass on Uphoff WPA (G-47) was noted. Contact was made with persons responsible. An inspection of PCA WPA (OT-81) was made following a report of livestock trespass. Contact was made with the neighbor and the problem was resolved. A case involving farm trespass on Jenny Larson WPA (G-14) was resolved through contact with adjoining landowner.

Two inquiries concerning modifications of easements were handled. These were Dave Lindig (OT-307X) concerning a wetland modification and Soren Kugler (OT-553X) who wished to bury a barn foundation.

In September, a case involving trespass tillage of Gilmore WPA (OT-79) was investigated. Individual responsible was located. The area was reseeded. A brushed-out trail on Chance WPA (D-46) was examined following complaint received. Subject was sent a certified letter.

Two Refuge Officers performed law enforcement related duties on opening weekend of waterfowl season. The time spent was uneventful. There were few ducks and fewer hunters in the area. Very little in the way of routine patrol was done during the hunting season.

A State Conservation Officer apprehended two adult individuals on Nicholson WPA (OT-88) on October 22, 1988 (this unit is closed to all entry from September 1 until close of waterfowl season). Persons involved were using federal lands to gain access to private property beyond (owned by them). Both individuals were ultimately cited. Violation notices for \$50/each were issued. One citation was paid. The other individual requested a court appearance which was pending at year's end. The issue is whether or not the neighbor has the legal right to cross FWS property and if so, who has the power to grant that privilege (other than the Wetland Manager). It is felt the individual does not have a prescriptive right of access.

## I. EQUIPMENT AND FACILITIES

### 1. New Construction

See page 21 for note regarding installation of a rotary carp screen at Nicholson Waterfowl Production Area (OT-88). Total cost to the Service was \$12,583. The Minnesota Department of Natural Resource's share was \$5,000.

A modification to the water control structure at Redhead Slough Waterfowl Production Area (G-26) was completed on March 8, 1988. The maximum pool elevation was increased by 1.5 feet to allow for more finite management of the marsh. Ducks Unlimited picked up the tab. Since they do not release project costs, we have no idea how much this one cost.

Tubular metal gates were installed at several Waterfowl Production Areas.

<u>Unit</u>	<u>No.</u>	<u>Purpose</u>
Heinola (OT-26)	1	Access
Fedje (D-32)	2	Stop trespass
Agassiz (OT-60)	1	Parking lot access
Mickelson (OT-25)	2	Parking lot and electric barrier fence
Bakke (OT-99)	1	Electric barrier fence
Rush Lake (OT-56)	1	Electric barrier fence

As noted under safety, "catwalks" were placed at three water control devices to enable more practical handling of boards. They were installed at Odens (D-35), Zickur (D-40) and Mortenson (OT-105).

Boundary fence is only constructed on WPAs where adjoining neighbors are running cattle or where vehicle trespass is a perennial problem. This year 1.27 miles of new boundary fence were constructed. In addition, about 1.5 miles of boundary fence were repaired and 1.4 miles of interior fence were removed. The District also constructed three predator barrier fences totalling 1.71 miles (see below).

WPA	Fence Type	Location	Length	Date Comp.	RIP Card No.
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Stony Brook G-53	Netting & barbed wire	North side	37 rods	June	RIP 14
Ernest Olson D-21	4-strand barbed wire	Northeast side	70 rods	August	RIP 68
Bakke OT-99	Electric predator barrier	West side	192 rods	August	RIP 55
Heinola OT-26	4-strand barbed wire	South side	170 rods	Sept.	RIP 15
Mickelson OT-25	Electric predator barrier	West side	146 rods	Sept.- Oct.	RIP 83
PCA OT-81	4-strand barbed wire	North side	107 rods	October	--
Rush Lake OT-56	Electric predator barrier	North side	211 rods	August	RIP 77
Simpson OT-14	3-strand barbed wire	Northwest side	23 rods	July	RIP 161

In addition to the above mentioned fencing, 35 miles of new boundaries were posted in 1988. These newly posted boundaries were all roundouts to existing WPAs except two which were new starts: Stony Brook WPA (G-53) and Heinola (OT-26) Waterfowl Production Areas. Following is a list of new tracts posted and the name of their corresponding WPAs.

New Tracts Posted in 1988

<u>Tract Name</u>	<u>WPA Name (No.)</u>	<u>Miles of New Boundary</u>
Kenyon, Timothy	Heinola (OT-26)	2.00
Otteson, Vernon	Morrison (OT-21)	.26
Nycklemoe, et al	Neuman (OT-93)	1.43
Rund, Stanley	Busko (OT-52)	.71
Sonmor, Melvin	Ten Mile (OT-28)	1.33
Duenow, Lloyd	Duenow (OT-86)	1.76
Schik, Louis	Braukman (OT-106)	1.50
Woolson, Rita	Meadows (W-4)	8.06
C & H Farms	Meadows (W-4)	
Olson, Kent	Odens (D-35)	2.00
Grove, Lester	Sellefold (D-29)	1.86
Webb, Michael	Klein (D-18)	1.00
Braeger, Gary	Schultz Lake (D-11)	1.50
Doran, Ardon	Bellmore (W-4)	2.00
Ricks, Lowell	Green (G-8)	2.39
Fjoslien, Don	Demaree (G-21)	1.25
Weigand, George	Mud Lake (G-10)	
Ingram, et al	Mud lake (G-10)	2.53
Van Acker, Walter	Redhead (G-26)	.37
Rund, Eldon	Stony Brook (G-53)	
Koep, Ruby	Stony Brook (G-53)	<u>3.09</u>
		35.04

Heavy Equipment Projects

Various work was performed on numerous Waterfowl Production Areas throughout the District. Wetland restoration, in the form of ditch plugs and tile breaks, was the major emphasis. Ditch plugs are made of borrowed earth usually adjacent to the plug site. In all cases, ditches are "cored out" to mineral soil prior to building the plug with clay. This is done with a dozer when the site is dry enough or with a backhoe when conditions are wet. To get good clay fill material, all topsoil is stripped away. The plug is constructed of clay soil to a height of 1 to 2 feet above a sod or cut spillway which is constructed around one end of the plug. Stockpiled topsoil is spread evenly over the plug and borrow site to speed revegetation. A mix of switchgrass, rye, and intermediate wheatgrass is broadcast over most of the sites.

Other work performed included burying junkpiles and rockpiles, the remains of old building sites and concrete foundations. Cleanup of these sites renders them unusable to predators. Tile breaks consisted of first locating the drainage tile, unearthing 20-30 feet of the tile and then breaking and digging out the tile. Clay fill was then packed back into the trench using the bucket of the backhoe as a compactor. The following table summarizes the heavy equipment work performed in 1988:



<u>WPA Name &amp; No.</u>	<u>Ditch Plugs</u>	<u>Tile Checks</u>	<u>Bldg. Sites</u>	<u>Field Approaches</u>	<u>Equipment Crossings W/Culverts</u>	<u>Junk Piles</u>	<u>Date Completed</u>
Neuman, OT-93	2 RIP 63,64		1 RIP 13		2 RIP 63, 64	1 RIP 74	10/14/88
Schultz Lake, D-11	9 RIP 133,134, 135,136,137						10/13/88
Sellevoid, D-29	3 RIP 81,82,83					1 RIP 64	10/14/88
Bakke, OT-99	3 RIP 13,14,12			1 RIP 54			10/14/88
Stony Brook, G-53	11 RIP 33,35,37,39 41,44,46,53,55, 57,62		1 RIP 18			1 RIP 18	10/8 & 19/88
Bailey Slough, G-2						1 RIP 33	10/20/88
Green, G-8	4 RIP 93,95,74,76						10/20/88
Demaree, G-21	1 RIP 72						10/19/88
Odens, D-35	14 RIP 43,87,89,96 98,100,104,109, 110,112,115	1 RIP 69	1 RIP 146			1 RIP 68	10/27/88
Grefsrud, OT-103				1 RIP 38			10/19/88
Staff, OT-78						1 hole filled	10/20/88
Townsend, OT-80		1 RIP 50					11/3/88
Meadows, W-4				1			Spring

Along with the wetland restoration work that was completed, \$10,000 was used to upgrade trails, public accesses and parking areas. In most instances class five crushed gravel was placed in these areas where washouts, ruts or holes had developed over the years. Where drive-in access lands were upgraded the site was bladed with a road patrol (grader) before and after the gravel was laid down. Following is a summary of this type of work accomplished:

<u>WPA Name and No.</u>	<u>1988 Graveling and Blading Work Completed</u>	<u>Date Completed</u>
Rachael (D-5)	Grade and gravel access to east field	July 1988
Stowe Lake (D-6)	Blade and spot gravel into control structure	July 1988
Banke Slough (D-10)	Blade and gravel access lane on east side	July 1988
Schultz Lake (D-11)	Grade and gravel north access lane	July 1988
Runestone (D-38)	Spread gravel in parking lot	July 1988
Zickur (D-40)	Blade and spot gravel rough spots	July 1988
Grandokken Savannah (D-43)	Blade and gravel access lane	July 1988
Hibrooten Lake (G-13)	Blade and gravel access on north side and dike top at control structure	June 1988
Redhead Slough (G-26)	Blade and gravel access to control structure, fill 2 tile washouts	July 1988
Norby (G-37)	Blade and gravel access lane	June 1988
Hoff-Fronning (OT-32)	Spread gravel at parking lot	July 1988
Pelican Valley (OT-42)	Blade and gravel old township road north side of WPA	July 1988
Sethre (OT-49)	Blade and gravel access lane	August 1988
Kube (OT-51)	Blade and gravel access lane	July 1988
Busko (OT-52)	Repair dike top over 2 new culverts, spread gravel south side of WPA	July 1988
Rush Lake (OT-56)	Gravel and level same at two parking lots	July 1988
Duenow (OT-86)	Gravel in parking lot	July 1988
Nicholson (OT-88)	Blade and gravel access lane	July 1988
Haugen (OT-92)	Blade and spread gravel in parking lot	July 1988
Monson (OT-94)	Blade and gravel access lane into WPA	July 1988

#### 1988 Heavy Equipment Rental Summary

In most cases where heavy equipment was used, letters were sent to prospective contractors to solicit bids for bulldozer and backhoe work. In emergency situations, contractors were personally contacted. The following is a summary of heavy equipment rental for 1988 (does not include work done on Conservation Reserve Program acres):

<u>Contractor</u>	<u>Equipment Rented</u>	<u>Hours</u>	<u>Price/ Hour</u>	<u>Amount</u>
Tumuli Township	Grader Road Patrol	4	\$45	180.00
Roger Evavold Cons.	D-60 Cat hyd. dozer	9	60	540.00
Roger Evavold Cons.	627 20yd. Scraper	12 3/4	75	956.25
Ferguson Bros Cons.	130 h.p. cat hyd bucket	16 1/2	60	990.00
Brandon Township	Grader Road Patrol	13	40	520.00
Jeff Kugler Gravel	Hauling & leveling class five gravel	55 yds gravel	4/yd	255.83
Marvin Pederson	Grader Road Patrol	5	30	150.00
Marquette Excav.	Haul & level class five gravel	214 yards	5/yd	1,070.00
Egge Construction	Grader Road patrol	4	45	180.00
Egge Construction	Haul class five gravel	110 yards	4/yd	412.50
Ferguson Bros Cons.	130 Cat-loader	11	50	550.00
Ron's Dirt Service	Haul class five gravel	120 yards	7.50/yd	900.00
Delzer Construction	Haul class five gravel	90 yards	4.00/yd	360.00
Kev's Gravel	Haul class five gravel	10 yards	4.50/yd	45.00
Melvin Putikka Construction	TD-20 Cat hyd. dozer	16 1/2	55	907.50
Bertrand's Road Maintenance	Grader Road Patrol and Haul gravel & spread gravel	7 11 1/3	34 30	238.00 345.00
Mark Sand & Gravel	A-14 Road Patrol Haul class five gravel and 3.4 + rock	4 94 yards	40 6.67/yd	160.00 627.27
Elbow Lake Sand and Gravel	Haul and spread class five gravel and crushed rock	100 yards	5.65/yd	565.00
Karold Evavold Construction	D-6 Cat. hyd dozer 10 yard, self loading scraper	21 18 1/2	65 60	1,365.00 1,121.25
Strom Construction	D-6 Cat hyd dozer 20-yard, self loading scraper	15 9	55 75	825.00 675.00
Dick's Backhoe	Rubber tire backhoe with loader	1 3/4	45	78.75
Egge Construction	Rubber tire backhoe with loader	2 1/3	45	104.00
The Wagner Const.	Grader Road Patrol Haul and spread class five gravel and crushed rock	7 264 yards	30 3.80/yd	210.00 1,014.00

Dick's Backhoe

Grader Road Patrol and  
haul class five gravel 1 Job--  
Total985.00  
\$16,330.35

In addition to the heavy equipment work completed above, one abandoned well was sealed on Heinola WPA (OT-26). The well was filled by Cichy Well Drilling and Repair at a cost of \$382.00. Three other wells at building sites on recent acquisitions have had plumbing removed. They will be sealed during spring 1989. Heavy early snows prevented sealing them this year.



For years maintenance of some access trails has been neglected. They became sodbound on the highland and taken over by willows in the lowlands. CV 7/88





The same trail on Banke Slough WPA after scalping sod and brush with a road patrol followed by a top dressing of class five crushed gravel. CV 7/88

#### 4. Equipment Utilization and Replacement

Three new vehicles were received during the year--two Chevrolet 4x4 S-10 pickups and one 4x4 Dodge Dakota pickup.

Major repair was again needed on the Massey Ferguson tractor. It would not stay in gear. Total cost came to \$2,973.

License		Maintenance <u>Vehicle</u>	<u>Cost</u>
I-114256	1974	GMC flatbed truck	\$ 312.21
I-123850	1978	GMC flatbed truck, 2-ton	101.36
I-129488	1980	Ford Fairmont, sedan	53.86
I-129409	1981	Chevy pickup, 1-ton	586.94
I-136386	1981	Ford Fairmont, sedan-delivery	119.00
I-136448	1981	Dodge Sweptline, 4x2	73.00
I-136403	1981	Jeep Scrambler	680.79
I-141433	1985	Chevy S-10, 1/2-ton, 4x4	489.51
I-136560	1983	Chevy Fleetside p/u, 1-ton, 4x4	253.33
I-123858	1979	Chevy crew cab pickup	427.24
I-123853	1978	Dodge ext. cab stakebed	281.40
I-141468	1985	Chevy Fleetside, S-10, 1/2-ton	428.50
I-141502	1986	Chevy stakebed, 4x4	232.40
I-147405	1987	Dodge Caravan	81.12
I-147534	1988	Chevy S-10	155.16
I-147536	1988	Dodge Dakota	356.20
I-147535	1988	Chevy S-10	235.26
I-136511	1982	Chevy Fleetside	<u>147.15</u>
			\$5,014.43

#### 5. Communication System

A contract was let for the construction and erection of a 150-foot tower for a radio base station at the maintenance shop. The contract award went to Elders Communication of Fargo, North Dakota, for \$7,939. This will give us much better communication and coordination with the field crew.

Mobile radios were installed in three new vehicles and one which was transferred in from the Realty Section.

<u>License</u>	<u>Vehicle</u>	<u>Radio</u>
I-114256	1974 GMC flatbed truck	Mobile
I-123850	1978 GMC flatbed truck, 2-ton	Portable
I-129409	1981 Chevy pickup, 1-ton	Mobile
I-136386	1981 Ford Fairmont sedan delivery	Mobile
I-136403	1981 Jeep Scrambler	Mobile
I-136560	1983 Chevy Fleetside pickup	Mobile
I-141433	1985 Chevy S-10, 1/2-ton 4x4	Mobile/ Multi-Freq.
I-141468	1985 Chevy S-10, 4x4	Mobile
I-141502	1986 Chevy stakebed, 4x4	Mobile
I-147405	1987 Dodge Caravan	Mobile
I-147534	1988 Chevy S-10	Mobile
I-147535	1988 Chevy S-10	Mobile
I-147536	1988 Dodge Dakota	Mobile
I-136511	1982 Chevy Fleetside	Mobile
	Ford Tractor	Mobile
	Massey Ferguson Tractor	Portable

## 6. Computer System

All computer software (WordPerfect, R:Base for DOS, Chart, Lotus, Procomm) have been installed on both IBM PC/2s. WordPerfect is used for all word processing. Many applications have been developed in R:Base which have proven efficient. Programs have been developed for the data manipulation of easement ownerships, land acquisitions, Mid-Continent leases, Conservation Reserve Program, publications library, native grass seedings, etc. Applications developed by the Regional Office such as property inventory, financial system and maintenance management system are being used as well.

## 7. Energy Conservation

With the scramble to perform with added responsibilities such as "Farm Bill", we still try to order new vehicles which are high mileage type vehicles where practical.

## J. OTHER AREAS

### 1. Cooperative Programs

Cooperative ventures we undertook on several projects include the installation of a rotary carp screen - water control structure at Nicholson WPA (OT-88). This structure was funded with FWS

Challenge Grant monies and Minnesota DNR "CORE" funds. The FWS also has cooperated with the MN DNR in a ground water study on this same unit. The Service also worked with the DNR to provide a Public Water Access on the east side of Tousil Waterfowl Production Area in Douglas County.

Several cooperative programs between the FWS and the USDAs Soil Conservation Service were accomplished including use of FWS lands for soils surveys, installation of wells to monitor ground water and its relationship to surface soils, and use of a building on Knollwood WPA for storage and distribution of trees each spring.

### 3. Items of Interest

Maintenance Worker Si Melby won \$1,000 in the "Pepsi-Cola Count the Wins" baseball contest. The odds of winning are 3 million to one. Si gave some money to his church, his children and "paid some bills."

Secretary Pauline Wiziard spent the month of September with a cast on her right arm. She broke her arm in a biking accident, but did not miss one day of work. It was quite cumbersome with end of the year chores and working on the computer!

In late October, Assistant Manager Will Steffen had his lower jaw advanced approximately 10 millimeters to alleviate severe headaches due to a severe malocclusion (bad bite). He returned to duty after 2 weeks with his jaw wired solid. Although speaking was somewhat difficult, he continued to perform most of his duties in that condition for approximately 7 more weeks. Rehabilitation is near complete at this writing.

Following is a list of training activities attended by District personnel:

Brennan -Ecology and Management of Islands, Peninsulas and Structures for Nesting Waterfowl (FWS), Jamestown, ND, August 17-18, 1988

Law Enforcement Refresher (FWS), Fort McCoy, WI, February 29 - March 4, 1988

Wetland Restoration Training (FWS), Twin Cities, MN, January 20-21, 1988



Steffen - Basic Supervision Seminar (Padgett-Thompson), Fargo, ND,  
October 21, 1988

Law Enforcement Refresher (FWS), Fort McCoy, WI, February  
29 - March 4, 1988

Advanced Refuge Academy (FWS), Washington, DC, March 14-  
31, 1988

Introduction to IBM (Fergus Falls Community College),  
Fergus Falls, MN, January 7 - February 4, 1988 (10 hours)

Tapia - Wetland Restoration Training (FWS), Twin Cities, MN,  
January 20-21, 1988

Introduction to IBM (Fergus Falls Community College),  
Fergus Falls, MN, January 7 - February 4, 1988 (10 hours)

Basic Law Enforcement Training (FWS), Glynco, GA, October  
16 - December 21, 1988

Refuge Training Academy Basic Session (FWS), Valentine,  
NE, April 18 - May 13, 1988

Agriculture Pesticide Applicator's Workshop (Univ. of  
MN), Alexandria, MN, March 31, 1988

Olson - Intermediate Fire Training (MN DNR), St. Paul, MN, March  
22-23, 1988

Introduction to IBM (Fergus Falls Community College),  
Fergus Falls, MN, January 7 - February 4, 1988 (10 hours)

Agriculture Pesticide Applicator's Workshop (Univ. of  
MN), Alexandria, MN, March 31, 1988

Melby - Agriculture Pesticide Applicator's Workshop (Univ. of  
MN), Alexandria, MN, March 31, 1988

Vukonich- Ecology and Management of Islands, Peninsulas and  
Structures for Nesting Waterfowl (FWS), Jamestown, ND,  
August 17-18, 1988

Nongame Bird Management Workshop (FWS), Twin Cities, MN,  
August 10-11, 1988

Agriculture Pesticide Applicator's Workshop (Univ. of  
MN), Alexandria, MN, March 31, 1988

Williams- Law Enforcement Refresher (FWS), Fort McCoy, WI, February  
29 - March 4, 1988

Wiziarde- R:Base Application Development Seminar (Microrim),  
Boston, MA, June 20-21

For Women Only: Stress Management (CareerTrack), Fargo,  
ND, April 25

Applicant Testing Procedures (OPM), Twin Cities, MN,  
April 14

Spreadsheet-Lotus-IBM (Fergus Falls Community College),  
Fergus Falls, MN, January 15 - February 16 (18 hours)

Childs - Basic Fire Management Training (FWS), LaCrosse, WI, April  
18-22, 1988

Agriculture Pesticide Applicator's Workshop (Univ. of  
MN), Alexandria, MN, March 31, 1988

#### 4. Credits

The following personnel were responsible for the sections indicated  
for the 1988 Narrative:

Kevin Brennan: A; C; D 2,6; E 1,7

Willard Steffen: D 4; E 6; I 5, 7-8

Eugene Williams: E 8; F 2, 11, 13; H 17

Wendell Olson: F 1, 4-5, 8-10

Chuck Vukonich: D 5; G 1-8, 10-11, 13-15; H 1, 6 8-11, 15-  
16; I 1

Steve Tapia: E 8; F 6

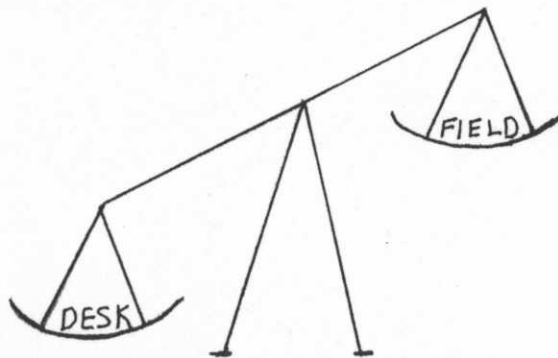
Pauline Wiziarde: B; E2-5; I 4, 6; J 3-4; typed final copy  
and assembled

Penny Peterson: Typed entire report in draft

### J. FEEDBACK

As project leaders, we have accepted positions that are administrative in nature requiring a large amount of desk time. As wildlife biologists/managers, we have accepted a position that requires monitoring and manipulating the habitats we manage for the benefit of the resource. This aspect of our jobs requires us to see and evaluate the resource and the impact our actions have on it.

I find it extremely difficult to balance the above scales. My discussions with other managers seem to indicate the same, namely, a severe tip in favor of the desk.



In an effort to balance these scales, we have to shift priorities in favor of field activities. Some desk activities, I as project leader and the Fish and Wildlife Service (in general), do not have control over. Such things as calls, letters and visits from the general public have to be dealt with at sometime. In this same light, contacts from other agencies whether local, state or federal need to be taken and dealt with to maintain liaison. Another area that takes considerable time is what I term "problem solving which falls on the managers' shoulders." These problems are usually referred to the manager by the staff as non-routine. Items can range from a township who says the washout of a road is our fault to the cooperative permittee who can't make a payment.

Then there are the items that we do have control over such as interagency meetings, requests for information, plan writing and administrative detail. One of the most recent administrative details is the requirement of an Acquisition Request for each purchase. This seems to be a duplication of the purchase order or at least the two items could be combined into one document.

I have found that we as managers often become entwined in this administrative clutter.

We should establish an "administration buster" policy that examines each time consuming administrative activity under our control and see if it is necessary. Any administrative time eliminated should be turned into field time.

I recall Director Dunkle's comments to a group of project leaders during training in Washington and it went something like this: "When I visit a field station, I want the manager to be out of the office because he is in the field working with the resource he is responsible for."

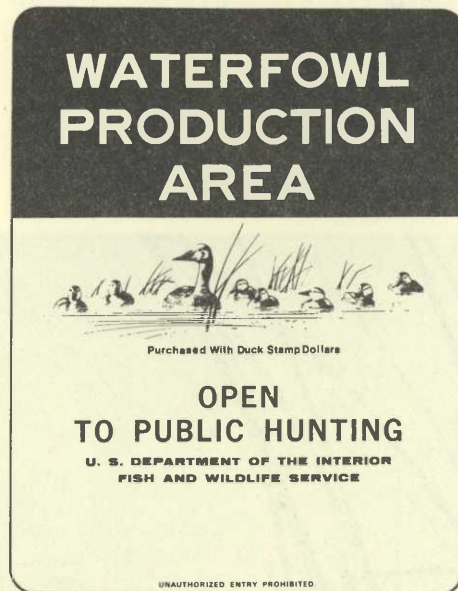


# **A Message to Hunters Using Waterfowl Production Areas**





# YOU ARE ON A



Waterfowl Production Areas (WPAs) are public lands purchased by the Federal government. The money comes from the Duck Stamp you bought. WPAs, scattered through the western prairie areas of Minnesota, are all that remain of a vast sea of grasslands interspersed with marshes. They are dedicated to the perpetuation of this country's waterfowl heritage.

In almost every case, WPAs are open to public hunting of upland and big game as well as waterfowl. These areas serve as a reminder of the concern felt by the American sportsman for the future of this once vast resource.

Waterfowl must have their basic needs met for them to survive. Most important is habitat for courting, nesting, feeding and resting during migration. And they need older, experienced birds in the adult population to nest and reproduce successfully in the spring.

Minnesota waterfowl need your help. 1) Waterfowl habitat must be protected from drainage and damage. Today's economics makes drainage of wetlands more likely than ever. Misuse of wetlands by a few hunters and others is causing public problems for those agencies responsible for wetland acquisition and management. 2) Vegetation is damaged by vehicles on WPAs. This



damages the grassy nesting habitat that has been purchased just for waterfowl production! 3) Excessive hunting pressure on some WPAs, or in certain locales, creates an overkill of locally produced ducks, especially hens. This means nesting next spring may not be as successful in producing lots of ducklings since there are fewer hens.

What can you do? Know the rules for a start—they are listed on the other side of this leaflet. But a true sportsman does more than just obey the law. For instance, make sure you are on the right side of the boundary. Let's not cause any problems for our neighbors. That will hurt our efforts to preserve needed wetlands for waterfowl production.

Be careful not to crush or beat down the vegetation. Tire tracks destroy the nesting cover and frequently encourage weeds to grow. They may also help lead predators to nesting hens. And that means fewer ducklings for future hunting.



Quality hunting is more than just birds in the bag. If this WPA is full of hunters, try another one with less hunting pressure on the birds. Respect the few WPAs that are closed to waterfowl hunting. Remember that a strong local duck population, protected from heavy gunning pressure, will produce more ducks for future years.

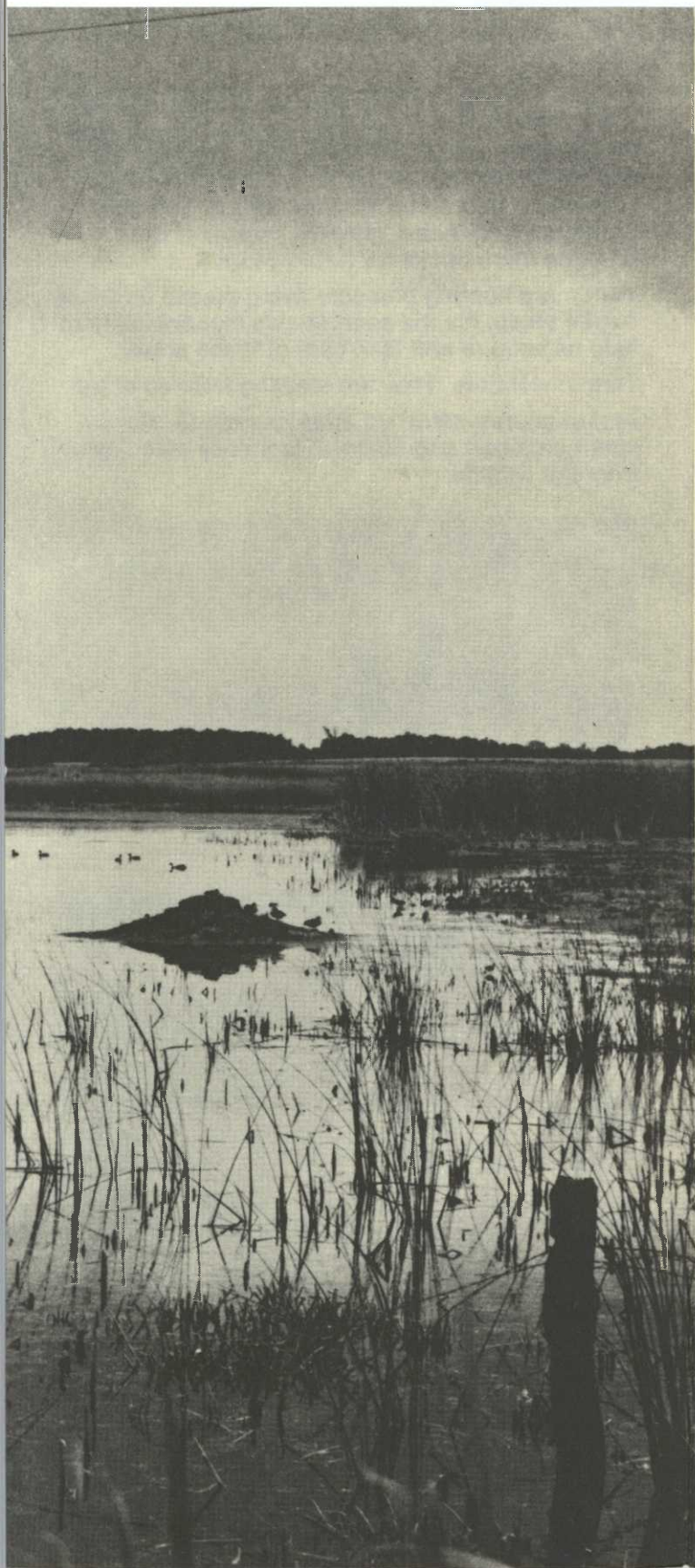
With more hunting pressure being placed on these fragile areas, it's the sportsman's responsibility to help us acquire and take care of these areas.

Turn in violators. They are stealing from all of us.

And of course, clean up after yourselves. Money spent on repair and clean-up is money taken away from the wildlife.







## REGULATIONS

- All motor vehicles, including snowmobiles and all-terrain vehicles, are prohibited except in designated parking areas.
- Hunting is subject to all applicable state and federal laws. Steel shot must be used in accordance with current regulations.
- Firearms are permitted only during open hunting seasons.
- Do not pick or destroy any living vegetation.
- Littering is prohibited.
- Camping and overnight use is prohibited.
- Fires are prohibited-use matches with care.
- Contact me for information and free county maps of WPAs. I want to hear your suggestions.

*Rollin Siegfried*

Rollin Siegfried  
Fergus Falls Wetland  
Management District  
Route 1, Box 76  
East Highway 210  
Fergus Falls, MN 56537  
Tel. 218/739-2291

*Alfred L. Radtke*

Alfred L. Radtke  
Morris Wetland  
Management District  
Route 1, Box 208  
Mill Dam Road  
Morris, MN 56267  
Tel. 612/589-1001

*Howard A. Lipke*

Howard A. Lipke  
Detroit Lakes Wetland  
Management District  
Route 3, Box 47D  
Detroit Lakes, MN 56501  
Tel. 218/847-4431

*Matthias A. Kerschbaum*

Matthias A. Kerschbaum  
Litchfield Wetland  
Management District  
305 North Sibley  
Litchfield, MN 55355  
Tel. 612/693-2849

# TIP

**TURN IN POACHERS  
CALL**

**800-652-9093**

**OR ONE OF THE MANAGERS  
LISTED ABOVE**

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interests of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.





# Birds

## Waterfowl Production Areas

Minnesota





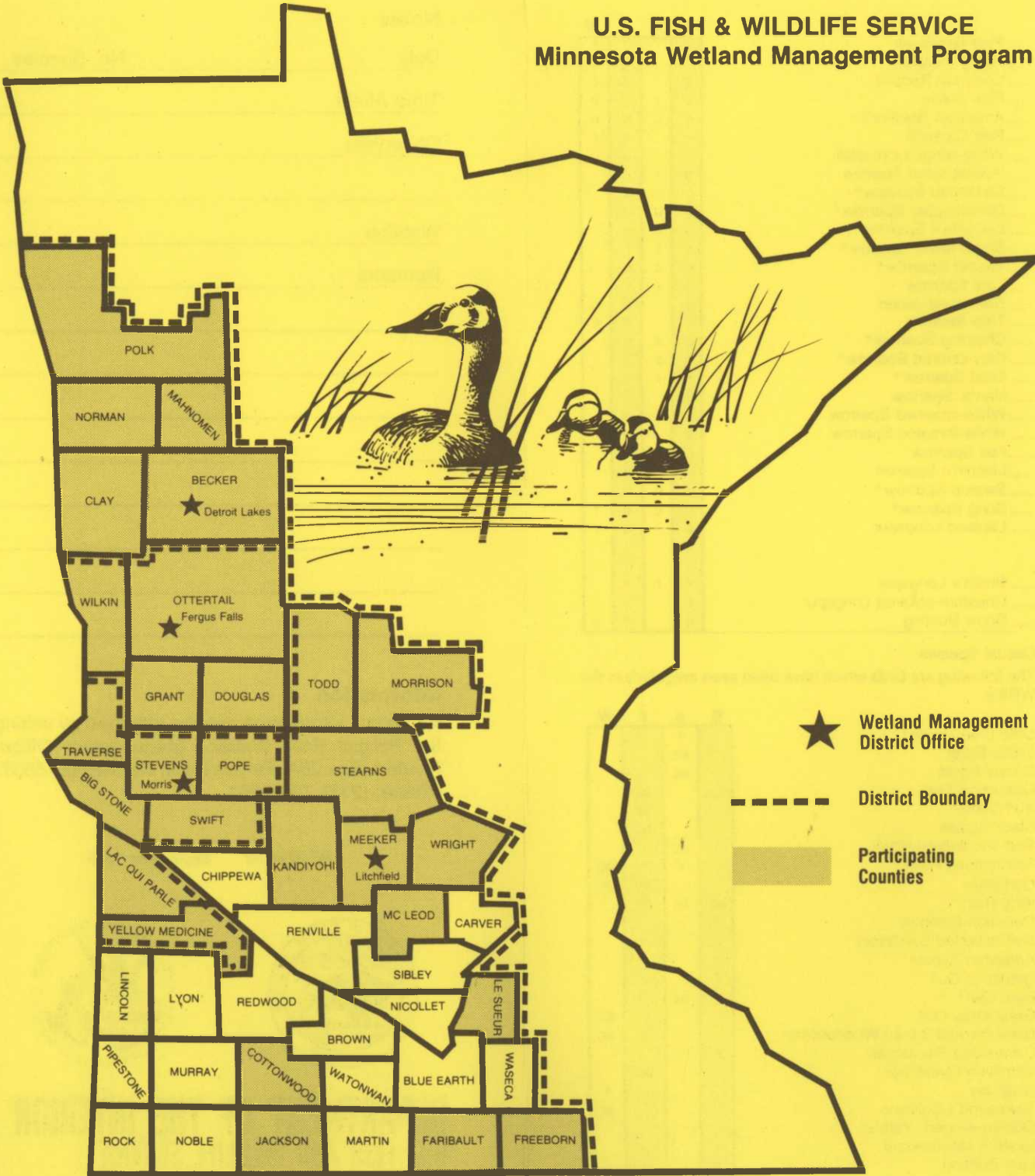
Birds of Waterfowl Production Areas Minnesota

The U.S. Fish and Wildlife Service began the Small Wetlands Program in 1962. Since that time, some 125,000 acres of wildlife habitat have been preserved. These areas are known as Waterfowl Production Areas (WPA's). They are scattered throughout western Minnesota in a 28-county area. The average size is 200 acres for approximately 700 WPA's, but areas range in size from 30 to 2,000 acres.

WPA's represent a rich collection of wetlands, prairie, forest and other upland habitat combinations. Most areas are open throughout the year for bird watching and other nature-oriented recreation.

The following list of 266 bird species has been developed based on existing records for western Minnesota, and upon the knowledge of local and visiting ornithologists. This field list is arranged by order (solid lines) and family (dotted lines) according to the latest American Ornithogogical Union (AOU) "Checklist of North American Birds." Good birding!

- S - Spring March-May
- s - Summer June-August
- F - Fall September-November
- W - Winter December-February
- a - abundant present in large numbers
- c - common likely to be seen
- u - uncommon not always seen
- r - rare present only in some years
- ac -accidental seen at intervals of 2-5 years
- \* Nests locally



U.S. FISH & WILDLIFE SERVICE Minnesota Wetland Management Program

	S	s	F	W
Common Loon *	c	u	c	
Red-necked Grebe *	u	u	u	
Horned Grebe	u	c	c	
Eared Grebe	u	r	r	
Western Grebe *	u	u	u	
Pied-billed Grebe *	c	c	c	r
White Pelican	u		u	
Double-crested Cormorant *	c	c	c	
Great Blue Heron *	c	c	c	r
Green Heron *	c	c	u	
Cattle Egret	r	r		
Great Egret *	c	c	u	
Black-crowned Night Heron *	c	c	c	
Least Bittern *	c	c	c	
American Bittern	c	c	c	
Whistling Swan	c		c	
Canada Goose *	c	c	a	c
White-fronted Goose	r		r	
Snow Goose	c		c	
Mallard *	a	c	a	u
Black Duck	r		u	
Gadwall *	u	u	c	
Pintail *	c	u	c	
Green-winged Teal *	c	u	c	
Blue-winged Teal *	c	a	a	
American Wigeon *	c	u	c	
Northern Shoveler *	c	c	c	
Wood Duck *	c	c	c	
Redhead *	c	c	c	
Ring-necked Duck *	c	u	c	
Canvasback *	c	c	c	
Greater Scaup	u		u	
Lesser Scaup *	a	c	a	
Common Goldeneye	c		c	
Bufflehead	c		c	
Oldsquaw	r		r	
White-winged Scoter				
Ruddy Duck *	c	c	c	
Hooded Merganser *	u	r	u	
Common Merganser	c		c	
Red-breasted Merganser	u		u	
Turkey Vulture	r			
Goshawk			r	u
Sharp-shinned Hawk	c	r	c	r
Cooper's Hawk	c	r	c	r
Red-tailed Hawk *	c	c	c	
Broad-winged Hawk	c	c	c	
Swainson's Hawk	u		u	
Rough-legged Hawk	u		u	r
Golden Eagle	r		r	r
Bald Eagle	u		u	r
Marsh Hawk *	c	c	c	r
Osprey	r	r	r	
Merlin	u	u	u	
American Kestrel *	c	c	c	u
Ruffed Grouse *	c	c	c	c
Greater Prairie Chicken *	u	u	u	u



	S	s	F	W
— Ring-necked Pheasant*	c	c	c	c
— Gray Partridge*	c	c	c	c
— Sandhill Crane	u		c	
— Virginia Rail*	c	c	c	
— Sora*	c	c	c	
— Yellow Rail*	r	r	r	
— American Coot*	a	c	a	r
— Semipalmated Plover	u		u	
— Piping Plover	u		u	
— Killdeer*	a	a	a	
— American Golden Plover	c		r	
— Black-bellied Plover	c		c	
— Ruddy Turnstone	u		u	
— American Woodcock*	c	c	c	
— Common Snipe*	c	c	c	
— Upland Sandpiper*	u	u	u	
— Spotted Sandpiper*	c	c	c	
— Solitary Sandpiper	c	c	c	
— Willet	u			
— Greater Yellowlegs*	c	c	c	
— Lesser Yellowlegs*	a	r	a	
— Pectoral Sandpiper	c		c	
— White-rumped Sandpiper	u		u	
— Baird's Sandpiper	c		u	
— Least Sandpiper	c		c	
— Dunlin	u		u	
— Short-billed Dowitcher	u		u	
— Long-billed Dowitcher	u		u	
— Stilt Sandpiper	u		u	
— Semipalmated Sandpiper	c		a	
— Western Sandpiper	u		u	
— Marbled Godwit*	c	c	u	
— Hudsonian Godwit	u		r	
— Sanderling	u		u	
— Wilson's Phalarope*	c		u	
— Herring Gull	u	u	u	
— Ring-billed Gull	a	a	a	r
— Franklin's Gull	a	a	a	
— Bonaparte's Gull	c		c	
— Forster's Tern*	c	c	c	
— Common Tern*	c	c	c	
— Caspian Tern	u	u	u	
— Black Tern*	a	a	a	
— Rock Dove*	a	a	a	a
— Mourning Dove*	a	a	a	r
— Yellow-billed Cuckoo*	u	u	u	
— Black-billed Cuckoo*	u	u	u	
— Screech Owl*	u	u	u	u
— Great Horned Owl*	c	c	c	c
— Snowy Owl	u		u	u
— Barred Owl*	u	u	u	u
— Long-eared Owl*	c	c	c	u
— Short-eared Owl*	u	u	u	u
— Saw-whet Owl*	r	r	r	r
— Whip-poor-will	r	r	r	
— Common Nighthawk*	c	c	c	
— Chimney Swift*	c	c	c	





	S	s	F	W
Ruby-throated Hummingbird*	C	C	U	
Belted Kingfisher*	C	C	C	U
Common Flicker*	C	C	C	r
Pileated Woodpecker*	U	U	U	U
Red-bellied Woodpecker	r	r	r	r
Red-headed Woodpecker*	U	U	U	
Yellow-bellied Sapsucker*	C	C	C	C
Hairy Woodpecker*	C	C	C	C
Downy Woodpecker*	C	C	C	C
Eastern Kingbird*	C	C	C	
Western Kingbird*	C	C	C	
Great Crested Flycatcher*	C	C	C	
Eastern Phoebe*	C	C	C	
Yellow-bellied Flycatcher	U	r	U	
Willow Flycatcher	r	r	r	
Alder Flycatcher*	C	C	C	
Least Flycatcher*	C	C	C	
Eastern Wood Pewee*	C	C	C	
Horned Lark*	a	C	a	C
Tree Swallow*	C	C	C	
Bank Swallow*	C	C	C	
Rough-winged Swallow*	C	C	C	
Barn Swallow*	C	C	C	
Cliff Swallow*	U	U	U	
Purple Martin*	C	C	C	
Blue Jay*	C	C	C	C
Black-billed Magpie	r	r	U	U
Common Crow*	C	C	C	U
Black-capped Chickadee*	C	C	C	C
Boreal Chickadee	C	C	r	r
White-breasted Nuthatch*	C	C	C	C
Red-breasted Nuthatch			U	U
Brown Creeper	U		U	U
House Wren*	C	C	C	
Winter Wren	U	U	U	
Long-billed Marsh Wren*	C	C	C	
Short-billed Marsh Wren*	U	U	U	
Gray Catbird*	C	C	C	
Brown Thrasher*	C	C	C	
American Robin*	a	a	a	r
Hermit Thrush	C		C	
Swainson's Thrush	C		C	

	S	s	F	W
Gray-cheeked Thrush	U		U	
Veery	U		U	
Eastern Bluebird*	C	C	C	
Golden-crowned Kinglet	C		C	r
Ruby-crowned Kinglet	C		C	
Water Pipit	C		C	
Bohemian Waxwing		U	U	U
Cedar Waxwing*	C	C	C	C
Northern Shrike	r		U	U
Loggerhead Shrike	U	U	U	
Starling*	a	a	a	a
Yellow-throated Vireo*	C	C	U	
Solitary Vireo	C	C	U	
Red-eyed Vireo*	C	C	U	
Philadelphia Vireo	U	U	U	
Warbling Vireo*	C	C	C	
Black-and-white Warbler	C		C	
Tennessee Warbler	C		C	
Orange-crowned Warbler	U	U	U	
Nashville Warbler	C		C	
Yellow Warbler*	C	C	C	
Magnolia Warbler	C		C	
Cape May Warbler	r			
Yellow-rumped Warbler	a	C	C	
Black-throated Green Warbler	r			
Blackburnian Warbler	U		U	
Chestnut-sided Warbler	C		C	
Bay-breasted Warbler	U		U	
Blackpoll Warbler	C		C	
Pine Warbler	U		U	
Palm Warbler	C		C	
Ovenbird	C		C	
Northern Waterthrush	U		U	
Connecticut Warbler	r		r	
Mourning Warbler	C		U	
Common Yellowthroat*	C	C	C	
Wilson's Warbler	C		C	
Canada Warbler	C		C	
American Redstart*	C	C	C	
House Sparrow*	a	a	a	a
Bobolink*	C	C	U	
Western Meadowlark*	a	a	a	r
Yellow-headed Blackbird*	C	C	C	
Red-winged Blackbird*	a	C	a	
Orchard Oriole	r	r		
Northern Oriole*	C	C	C	
Rusty Blackbird	C	U	C	r
Brewer's Blackbird*	U	C	U	
Common Grackle*	a	a	a	r
Brown-headed Cowbird*	C	C	C	
Scarlet Tanager*	U	r	r	
Cardinal	r	r	r	r
Rose-breasted Grosbeak*	C	C	C	
Indigo Bunting*	C		C	
Dickcissel		U		
Evening Grosbeak			U	U
Purple Finch	U	r	U	U

	S	s	F	W
Pine Grosbeak			r	r
Hoary Redpoll			U	U
Common Redpoll	C		C	C
Pine Siskin	U		U	U
American Goldfinch*	C	C	C	U
Red Crossbill			r	r
White-winged Crossbill			U	U
Rufous-sided Towhee	U	r	U	U
Savannah Sparrow*	C	C	C	
Grasshopper Sparrow*	U	U	U	
LeConte's Sparrow*	U	U	U	
Sharp-tailed Sparrow*	r	r	r	
Vesper Sparrow*	C	C	r	
Lark Sparrow	r	r	C	
Dark-eyed Junco	a		a	U
Tree Sparrow	C		C	C
Chipping Sparrow*	C	C	C	C
Clay-colored Sparrow*	C	C	C	
Field Sparrow*	r	r	r	
Harris' Sparrow	C		C	
White-crowned Sparrow	U		U	U
White-throated Sparrow	C		C	U
Fox Sparrow	C		C	U
Lincoln's Sparrow	U		U	U
Swamp Sparrow*	C	C	C	
Song Sparrow*	C	C	C	r
Lapland Longspur	C		C	r
Smith's Longspur	r	r	r	
Chestnut-collared Longspur	r		r	C
Snow Bunting	U		C	C

Casual Species  
The following are birds which have been seen irregularly in the WPA's:

	S	s	F	W
Little Blue Heron*		r		
Cattle Egret		ac		
Snowy Egret	ac	ac		
Cinnamon Teal			ac	
Surf Scoter			ac	
Black Scoter			ac	
Red-shouldered Hawk	ac	ac		ac
Ferruginous Hawk	r	r	r	ac
Gyr Falcon				ac
King Rail	ac	ac	ac	
Common Gallinule	r	r		
Buff-breasted Sandpiper	r		r	
American Avocet	r		r	
Glaucous Gull	r		r	
Barn Owl*		ac		
Great Gray Owl				ac
Black-backed 3-toed Woodpecker			ac	ac
Olive-sided Flycatcher	r			
Vermilion Flycatcher			ac	
Gray Jay				r
Townsend's Solitaire				ac
Golden-winged Warbler	r			
Eastern Meadowlark	r			
Lark Bunting	r		r	

## Notes

Date	No. Species
Time Afield	
Observers	
Weather	
Remarks	

## Information

Additional information may be obtained by writing the Fergus Falls Wetland Management Office, Route 1, Box 26A, Fergus Falls, Minnesota 56537. Phone: (218) 739-2291

RF-32580-2 September 1979



DEPARTMENT OF THE INTERIOR  
U.S. FISH AND WILDLIFE SERVICE