MORRIS WETLAND MANAGEMENT DISTRICT Morris, Minnesota

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ANNUAL NARRATIVE REPORT

Calendar Year 1990

U.S. Department of the Interior

Fish and Wildlife Service

NATIONAL WILDLIFE REFUGE SYSTEM

REVIEW AND APPROVALS

MORRIS WETLAND MANAGEMENT DISTRICT Morris, Minnesota

ANNUAL NARRATIVE REPORT Calendar Year 1990



Wetland Manager Bate Refuge Supervisor Review Date

Regional Office Approval

///6/9/ Date:

INTRODUCTION

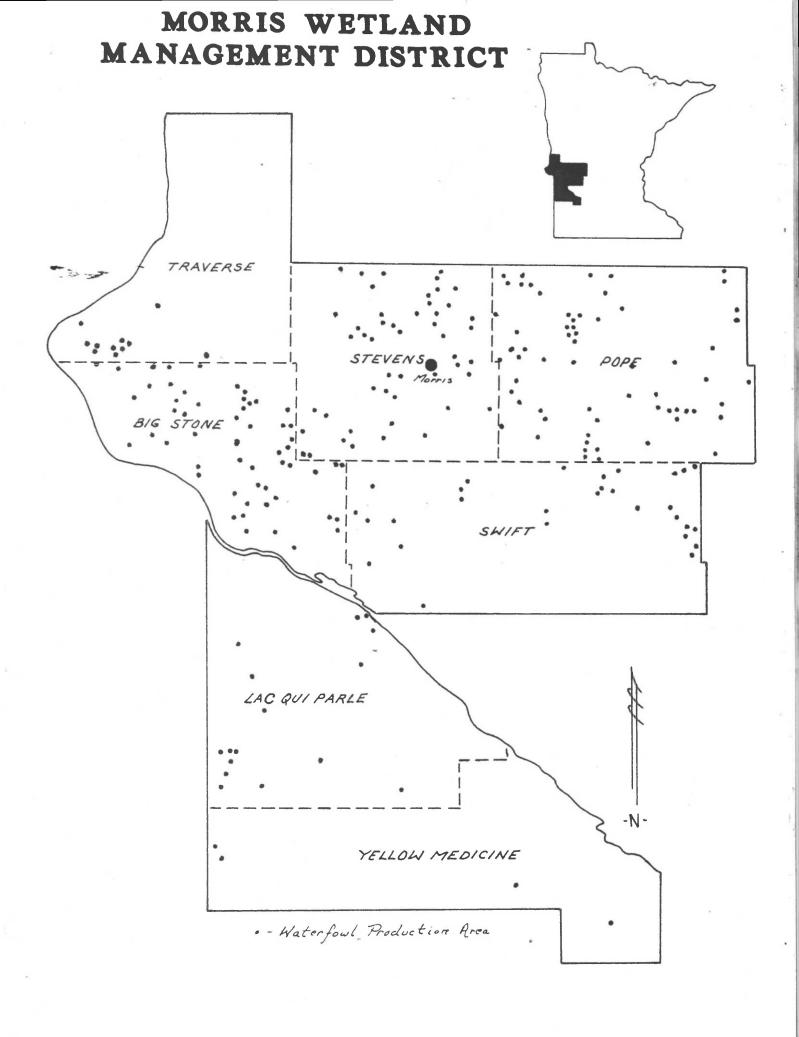
The Morris Wetland Management District (WMD), originally established in 1964 as the Benson WMD, includes 239 Waterfowl Production Areas (WPA's) totalling 47,360 acres in fee title ownership. The Morris office also administers approximately 15,450 wetland acres of Waterfowl Management Easement lands. The fee and easement areas are scattered throughout Big Stone, Lac Qui Parle, Pope, Stevens, Swift, Traverse and Yellow Medicine Counties. The headquarters is located four miles east of Morris, Minnesota, on the 861 acre Long Lake-Edwards WPA.

The topography of west-central Minnesota is extremely diversified, ranging from the granite outcrops of the Minnesota River bottoms to the rolling hills of Pope County. The flat agricultural land of the Red River Valley of the north blends into the transition zone between the tall grass prairie and the eastern deciduous forest. Soils of the region are generally productive which contributed to the historically high concentrations of breeding waterfowl. With the advent of modern agriculture, over 60 percent of the original wetlands were drained and nearly 100 percent of the native grasslands were converted to cropland.

As a part of the Minnesota Waterfowl and Wetlands Management Complex (MWWMC), the primary objective of this District is to acquire, develop and manage habitat for waterfowl production and maintenance. Waterfowl species that commonly breed in this area include blue-winged teal, mallard, pintail, wood duck, redhead, canvasback, and Canada geese. The District also contains good populations of ring-necked pheasant, gray partridge and white-tailed deer. Another high priority objective is to provide habitat for native plants and animals and to provide for wildlife diversity. Private land habitat improvement for waterfowl and other wildlife is an added emphasis as we enter the 1990's. Waterfowl Production Areas are open to public hunting and a variety of other wildlife oriented uses.

High public use occurs on waterfowl production areas only during hunting seasons. The areas receive their greatest use on opening days of waterfowl, pheasant, and deer hunting seasons.

Of the 47,360 acres of fee title, 16,388 acres consist of marshes. Grasslands comprise 28,836 acres of the District. This category includes 7,740 acres of reseeded native grasses and 6,286 acres of unbroken native prairie. The balance of the existing grassland contains various cover types including brome, quack and alfalfa. Croplands account for an additional 712 acres and consist primarily of rest-rotation food plots for resident game.



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K. FEEDBACK

A. HIGHLIGHTS

- Drought continues as average annual precipitation is six inches below normal. (Section B)
- More easements taken in 1990 than in any of the past five years. (Section C.2)
- Over 100 wetland basins restored on private lands. (Section F.15)
- Fifteen wetland restorations completed in Big Stone State Park. (Section F.15)
- Ground work completed for the restoration of the 572 acre Mud Lake marsh, Pope County. (Section F.15)
- Swampbuster work continues to take major toll on staff time. (Section F.15)
- Bald eagle observations continue to increase. (Section G.1)
- Record number of white-tailed deer harvested in Minnesota. (Section H.8)
- Larry Lewis receives a Quality Performance Award. (Section J.3)



90-1 4/17/90 BLA

B. CLIMATIC CONDITIONS

The year 1990 started out very warm with above average temperatures from January through April. Snowfall was very low in January, but was near average for February and March. There were no major storms during this part of the year. At the beginning of March there was only a trace of snow cover left, but March snows brought the snow cover to a seven inch depth by the middle of the month. By the end of March the snow cover was again a trace.

May was cooler than normal and June was wet and cool. The rainfall in June was welcome and carried through the drier periods that were to follow the remainder of the summer. July and August were cool and dry. The warm weather in September speeded maturity of corn and soybeans enabling an early harvest. October was cooler than normal and November continued with fall-like weather.

The lack of fall rainfall resulted in very little recharge of soil moisture. Another factor contributing to low subsoil moisture levels is accumulated precipitation deficit over the past four years. The total precipitation at Morris for the years 1987-1990 is 75.36 inches. This averages 18.84 inches per year or an annual departure from the normal of 4.94 inches per year.

The warm, dry weather continued until mid-December when 3.4 inches of snow fell and temperatures dropped below zero. For nine of the last eleven days of 1990, the minimum temperatures were below zero and on six of these days the maximum temperature did not exceed zero.

Overall, the year ended with: an average temperature of 44° , 2° above normal; and a precipitation total of 17.66 inches, 6.12 inches below the 100-year average.

Temperatures during January averaged 22.4°, 14.4° above the long term mean. This was the third warmest January on record at Morris. The minimum temperature was -5°, the warmest minimum ever recorded at Morris for January. Precipitation for January totaled 0.08 inches, far below the average of 0.68 inches. This was tied for the sixth driest January on record. Snowfall for the month totaled 1.9 inches, again far below the January average of 7.8 inches and the lowest total since 1.1 inches recorded in January 1974.

The warm temperatures continued through February with an average temperature of 18.3°, 5.5° above the a long term mean. The high temperature was 53° which broke the previous maximum temperature record of 48°. That record was also tied on February 13. From February 4-13, the temperature never went below zero and the average maximum temperature was 40.8°, the second highest maximum temperature ever recorded at Morris for this 10-day period. Precipitation for February totaled 0.33 inches, 0.34 inches below the normal average. Snowfall for the month totaled 7.6 inches, slightly above the average of 7.0 inches.

Temperatures during March averaged 31.3°, 4.6° above the long term mean. Precipitation totaled 1.49 inches, 0.36 inches above normal. Total snowfall for the month was 6.7 inches, slightly below the average of 8.0 inches. On the 16th, 6.5 inches fell.

For the month of April temperatures averaged 43.9°, 0.3° above the long-term mean. Daily maximum temperature records were set on the 23rd and 24th with 88° and 85° respectively. Precipitation for April totaled 1.94 inches, 0.32 inches below the average. Snowfall for the month totaled 7.1 inches, more than double the average of 3.3 inches.

Temperatures during May averaged 54.2°, 1.9° below the 100-year average. The high temperature for the month was 90° recorded on the 8th and the low was 27° on the 1st. The last frost occurred on the 2nd with a temperature of 29°. Precipitation for May totaled 1.64 inches, 1.33 inches below normal.

During the month of June temperatures averaged 66.5°, very close to the mean of 65.8°. The high temperature was 91° and the low was 37° on the 3rd and 4th. Precipitation for June was 5.16 inches, 1.20 inches above average.

Temperatures during July averaged 68.9° , 2.0° below the long-term mean. The maximum temperature was 95° on the 5th and the minimum was 45° on the 31st. Precipitation totaled 1.21 inches, 2.30 inches below normal.

The average temperature for August was 68.6° , only 0.1° below the mean. The high temperature was 91° on the 17th and the low was 46° on the 11th. The minimum temperature of 46° on the 6th tied the daily record. Precipitation totaled 1.64 inches, about half the normal of 3.01 inches.

September temperatures averaged 61.9°, 2.9° above the long-term mean. The high temperature was 92° recorded on both the 12th and 14th. The low temperature was 30° on the 23rd. The precipitation totaled 2.15 inches, slightly below the 100-year mean of 2.20 inches.

During October temperatures averaged 44.2°, 3.0° below normal. The maximum temperature was 82° recorded on both the 3rd and 6th. The minimum temperature of 21° was recorded on the 28th. The first general killing frost occurred on the 9th with a temperature of 23°. Precipitation for October totaled 1.60 inches, very close to the long-term average of 1.74 inches. Snowfall for the month totaled 2.0 inches.

Temperatures during November averaged 33.3°, 3.6° above the 100-year mean. Precipitation totaled 0.07 inches, far below the normal of 0.97 inches. This is one of the driest Novembers recorded at Morris since records began in May of 1885. Snowfall for the month was 0.2 inches, again far below the normal for November of 4.9 inches.

The first 20 days of December were quite warm, but the temperatures then dropped and were below normal for the remainder of the month. Temperatures during the month averaged 12.6°, 2.6° below the 100-year mean. Total snowfall for December was 4.5 inches, slightly below the long-term mean of 6.7 inches. Melted precipitation for the month totaled 0.35 inches, about half the normal of 0.68 inches.

COMPARATIVE WEATHER DATA - MORRIS, MINNESOTA - 1990 & 1989

Monthly									
A	verage	Tempe	rature	Pre	cipitat	ion	Sn	owfall	
									•
	1990	1989	Aver.	1990	1989	Aver.	1990	1989	Aver.
January	22.4	15.7	8.0	.08	.59	.68	1.9	9.1	7.8
February	18.3	2.8	12.8	.33	.58	.67	7.6	11.8	7.0
March	31.3	21.5	26.7	1.49	1.37	1.13	6.7	16.4	8.0
April	43.9	42.1	43.6	1.94	2.40	2.26	7.1	3.9	3.3
May	54.2	56.6	56.1	1.64	1.93	2.97	0.1	0	0.2
June	66.5	64.5	65.8	5.16	4.59	3.96	0	0	0
July	68.9	73.0	70.9	1.21	4.31	3.51	0	0	0
August	68.6	69.0	68.7	1.64	3.03	3.01	0	0	0
September	61.9	58.2	59.0	2.15	3.75	2.20	0	0	0.1
October	44.2	47.0	47.2	1.60	1.00	1.74	2.0	0	0.7
November	33.3	25.9	29.7	.07	.50	.97	0.2	6.8	4.9
December	12.6	7.4	15.2	35	.39	.68	4.5	4.7	6.7
			.000						
	44.0	40.5	42.0	17.66	24.44	23.78	30.1	52.7	38.7

Precipitation for the growing season, April 1 - August 31:

1990 = 11.59 inches 1989 = 16.23 inches Average = 15.71 inches

- 10 - 10 m

Highest temperature: $1990 = 95^{\circ}$ (July 4) $1989 = 97^{\circ}$ (June 21)

Lowest temperature: $1990 = -29^{\circ}$ (December 26 & 27) $1989 = -26^{\circ}$ (December 21 & 22)

Total days maximum temperature 90° or above: 1990 = 10 1989 = 11 Average = 13

Total days minimum temperature 0° or below: 1990 = 26 1989 = 67 Average = 47

Last spring frost: $1990 = May 2 (29^{\circ})$ $1989 = May 7 (26^{\circ})$ Average = May 11 (32°)

First fall frost: 1990 = September 23 (30°) 1989 = September 23 (29°) Average = September 25 (32°)



Most wetlands were dry for the 1990 waterfowl hunting season. McNally Slough WPA, Stevens County 90-2 10/10/90 BLA

SOME RECORDS OR NEAR RECORDS SET IN 1990 STEVENS COUNTY, MINNESOTA

Period	Observation	Record
January 11	Maximum temperature 50	Record daily maximum
January 15	Maximum temperature 41	Tied daily record
January	Average temperature 23,4°	Record 3rd warmest
January	Minimum temperature -5	Highest January minimum
February 5	Maximum temperature 53	Record daily maximum
February 13	Maximum temperature 480	Tied daily record
March 2	Maximum temperature 620	Record daily maximum
March 16	Daily snowfall 6.5 inches	Record daily snowfall
April 23- May 4	Maximum temperatures 88° and 85°	Record daily maximum
April 30	Daily snowfall 3.0 inches	Record daily snowfall
June 3	Minimum temperature 37°	Record daily minimum
August 6	Minimum temperature 46°	Tied daily record
September 7		
september /	Daily precipitation .83 inches	Record daily precipitation
October 18	Daily snowfall 2.0 inches	Record daily snowfall
November 15	Maximum temperature 680	Record daily maximum

C. LAND ACQUISITION

1. Fee Title

Six new fee tracts totaling 833.34 acres were added to the Morris Wetland Management District in 1990. This compares to 862.16 acres in 1989. The 1990 tracts averaged 139 acres each. All six of the tracts involved new starts although the two Roderick tracts in Swift County are actually roundouts to existing Minnesota Department of Natural Resource areas. The current fee acreage of 47,360.94 represents 60 percent of the Morris District's goal acres.

WATERFOWL PRODUCTION AREA ACREAGE - MORRIS WMD - 1990

County		quisition 1 12/31/89		uisition 12/31/90	Goal Acres
	Units	Acres	Units	Acres	Acres
Big Stone	60	10,367.14	61	10,630.14	15,600
Lac Qui Parle	16	3,262.61	16	3,262.61	9,650
Pope	63	13,316.04	63	13,316.04	22,250
Stevens	53	8,800.04*	54	8,850.67	12,850
Swift	27	6,916.38	29	7,036.09	10,800
Traverse	10	3,528.98	12	3,928.98	6,720
Yellow Medicine	4	336.41	4	336.41	1,260
Total	233	46,527.60	239	47,360.94	79,130

*Corrected to coordinate with Realty corrections.

Willing seller numbers remain low. Land prices are slowly increasing and the farm economy has improved slightly which may be the reasons for the lack of interested sellers. In addition, many of the older retiring owners have now enrolled in the Conservation Reserve Program (CRP) instead of selling their farms. They are satisfied with the annual Conservation Reserve Program payment and this is delaying the normal sale date by several years. The slow rate of acquisition is acceptable since Farm Bill work and our involvement with Farmers Home Administration (FmHA) are taking a great deal of our staff time and annual funding.

The future of fee acquisition continues to be an unknown. The farm economy, revenue sharing, Service staff time, acquisition funding, Land Exchange Board attitude, and many other factors will influence the future. However one thing is certain, and that is the fact that wetland habitat still exists for the Morris District to reach its acquisition goal of 79,130 fee acres.



Bob Halverson, Realtor for Fergus Falls Wetland Acquisition Office, convincing the Stevens County Commissioners that tract certification is in their best interest. 90-3 3/5/90 BLA

Big Stone County

The Fish and Wildlife Service currently owns approximately 10,630 fee acres in Big Stone County. This represents 68 percent of the 15,600 acre goal. In 1990 the Wenigar tract (263 acres) was acquired. This tract was initially rejected at the county level and went before the Land Exchange Board in early 1990. The Land Exchange Board overturned the local decision, but did express concern about tax loss and again warned the Fish and Wildlife Service to press for full revenue sharing.

Land acquisition is not an easy task in Big Stone County at the present time. Tax loss seems to be a major issue with the County Commissioners. They also are uncomfortable with the fee acres purchased because of the loss of farmable land.

Lac Qui Parle County

No fee tracts were purchased in Lac Qui Parle County in 1990. Currently we have no major problems with the Lac Qui Parle County Commissioners, but recent Minnesota Department of Natural Resources problems concerning local drainage could spill over into the Service's acquisition program.

Pope County

The excellent relationship that was built up during the past few years has deteriorated because of revenue sharing problems. The Barchenger tract was non-certified in 1988 and the Norwest Bank (Cook) tract wasn't approved at the county level in 1989. Neither tract was presented to the Land Exchange Board and were therefore lost. The future of getting tracts certified in Pope

County will not be favorable until revenue sharing is 100 percent. However, there is land that can be optioned and the County Commissioners should continue to be tested.

Stevens County

One fee purchase (Fuchs tract, 50.63 acres) was certified in Stevens County in 1990. Our relationship with the commissioners is excellent and certification of future fee tracts is anticipated. However, the interest in selling property in Stevens County has been extremely low.

Swift County

The Swift County Commissioners kept their reputation intact by being very unpredictable. The Roderick tracts, roundouts to two Minnesota Department of Natural Resources areas, were processed rather rapidly and certified by the Zoning Commission and the County Board. However, the Loose and Bethel College tracts were not certified and hopefully will go before the Land Exchange Board in 1991.

The lack of full revenue sharing is the major concern expressed by the local officials. However, Swift County has always been against fee acquisition and has continued to find excuses throughout the history of our program. A long time opponent of the Fish and Wildlife Service finally retired from the County Board after being in office for 44 years. Hopefully his retirement will make our job easier in Swift County.

Traverse County

The two Diekmann tracts were certified by the County Commissioners without a major controversy. One commissioner voted against certification because of tax loss but he really wasn't against the Fish and Wildlife Service program. If our acquisition rate remains slow, few problems are anticipated from the Traverse County Commissioners.

Yellow Medicine County

No fee work was completed in Yellow Medicine County in 1990. Future acquisitions in this county should not be a major problem if the current commissioners stay in office.

2. Easements

More easements were taken in 1990 than in any of the past five years. Approximately 523 wetland acres were added by the 19 easements taken in 1990. This compares to 258 wetland acres added by 11 new easements in 1989. Under the terms of a wetland easement, the Service purchases the rights to burn, drain or fill wetlands from a willing seller. Easements of highest priority have been those which would preserve wetlands within two miles of a waterfowl production area. However, wetlands located near Minnesota Department of Natural Resource's Wildlife Management Areas or other acceptable nesting cover can also be protected by easement. Easements are taken on some marshes that had earlier been identified for fee roundout of a waterfowl production area to avoid possible drainage.



Easements preserve migration and breeding habitat even in intense agricultural areas. 90-4 3/28/90 BLA

The county boards of commissioners must review all easement proposals for certification as with fee tracts. Easement certification is usually routine except in Swift and Pope Counties. Increased opposition can be anticipated because of frustration with the Service's revenue sharing shortfall.

EASEMENT PROGRAM STATUS - MORRIS WMD - 1990

County	Easements	Wetland Acres	Total Easement Acres	Total Goal <u>Acres</u>
Big Stone Lac Qui Parle Pope Stevens Swift Traverse Yellow Medicine	164 13 146 45 39 30	5,795 559 6,181 1,082 755 1,041 41	20,798.42 1,637.20 23,260.82 3,752.25 2,878.05 3,486.96 150.00	47,640 23,540 54,180 6,090 14,540 8,440 7,860
Total 1990	440	15,454	55,963.70	162,290
Total 1989	421	14,931	54,010.99	162,290
Total 1988	410	14,673	53,081.53	162,290
Total 1987	400	14,307	51,791.19	162,290
Total 1986	395	14,196	51,514.76	162,290



Wetlands restored by the Service are prime candidates for easements. Anderson CRP, Pope County 90-5 5/3/90 BLA

The future of the easement program is directly related to funds and manpower available to our Division of Realty. The number of easements purchased increased again in 1990 as Realty personnel contacted the landowners who permitted wetland restoration on Conservation Reserve Program lands or other private tracts. If manpower was available for additional "door knocking," many other easements could be taken.

Numerous wetlands are still available that need protection. Hopefully this program will continue until goal acres are acquired or there are no unprotected basins remaining in western Minnesota.

3. Other

The Blue Mounds WPA-Glacial Lake State Park trade with the Minnesota Department of Natural Resources is still being processed. This trade will relieve a hunter trespass problem that has developed on a co-owned wetland where hunters enter the park, which is closed to hunting, via the WPA. The Fish and Wildlife Service will gain fee ownership of land that the Minnesota Department of Natural Resources owns within the boundaries of the Minnesota Valley National Wildlife Refuge. An access to Artichoke Lake that is part of the Artichoke WPA, Big Stone County, is also being transferred to the Minnesota Department of Natural Resources as part of this trade agreement. The "park" trade is proceeding extremely slow, having been initiated in 1986. The rumor is that the trade will be completed in 1991.

4. Farmers Home Administration Conservation Easements

Wetland Manager Radtke evaluated six Farmers Home Administration (FmHA) tracts and submitted three deed restrictions in 1990. All three tracts were still pending at the end of this reporting period. In addition, several tracts from previous years were also pending as the process seems to move very slowly. The number of tracts available for review is decreasing. Either we have moved through the initial backlog or FmHA officials have learned how to bypass Service processing.

FmHA ACCOMPLISHMENTS - MORRIS WMD - 1990

County	Farms Reviewed	Service Deed Restrictions		Service Wetland Plugs Completed
Big Stone	0	0	0	0
Lac Qui Parle	1	1	0	0
Pope	1	0	0	0
Stevens	0	0	0	0
Swift	3	1	0	0
Traverse	0	0	0	0
Yellow Medicin	ne 1	_1	_0	0
Totals	6	3	0	0



The Grossman FmHA tract, Stevens County, will be productive when the wet cycle returns. 90-6 8/30/90 BLA

D. PLANNING

1. Master Plan

Field inspections of property acquisitions are conducted following each new purchase. Current conditions and physical features are documented along with all pertinent information. Development needs with respect to habitat improvements, public use facilities, signing and repairs are also identified and summarized in a Land Use Development Plan for each tract. Plans are updated as changes occur.

4. Compliance with Environmental Mandates

A Phase I Archaeological Investigation was conducted by BRW, Inc. prior to wetland restoration work on private land (Johnson) in Big Stone County. Results of the investigation showed no archaeological sites to exist at or near the proposed construction location.

An Environmental Assessment for wetland restoration work on three lakes: Mud (Pope County), Ellen (Pope County), and Diamond (Douglas County), was developed in 1990. A finding of no significant impact was determined for all three projects and construction is planned for 1991.

Environmental Assessments were also submitted for proposed restoration projects on Artichoke WPA (Big Stone County), Chokio WPA (Stevens County), and Wall WPA (Pope County), with a finding of no significant impact.

5. Research and Investigations

Morris WMD NR90 - "Nest Dragging Investigation"
Wetland conditions were fair to poor throughout the breeding season. Most wetlands remained dry after the 1988-89 drought.

Nest search efforts were conducted on five constructed islands on three WPA's (Moen-Pope County, Edwards and Sherstad Slough-Stevens County), four naturally occurring islands (Artichoke Lake, Big Stone County), and a native grass field within a predator exclosure fence on Edwards WPA. Sherstad Slough contains two constructed islands 0.1 acre in size each. These islands are located in a 173 acre marsh. This marsh basin is controlled by a water control structure. Average water depth during the breeding season was 1.4 feet. Both islands (Fields 001 and 002) have a mixture of cool season grasses with fair residual material and new growth.

The 0.1 acre island (field 005) on Edwards WPA is located in a 26 acre marsh also controlled with a structure. Average water depth was 1.6 feet. The marsh has a dense stand of cattail. Vegetation on the island is a dense mixture of cool season grasses.

The islands on Moen WPA (Fields 009 and 010) are 0.1 acre in size and were constructed in the fall of 1988. Vegetation in 1989 was a very dense and rank stand of smartweed which smothered cool season grasses planted in 1988. The cover in 1990 was very sparse except for residual smartweed stems. This wetland basin also has a water control structure. Due to dry conditions only 1.6 feet of water could be maintained in the marsh.

The four islands on Artichoke Lake (2,053 acres total) are privately owned. The northern most island (Field 004) is four acres in size and contains a fair stand of cool season grass. It also has about 25 deciduous trees growing around the perimeter. The other three islands (Fields 003, 007 and 008) are 1.2 acres, 0.8 acres and 1.2 acres respectively. All three islands contain a fairly dense stand of deciduous trees and shrubs with small grass openings.

The area within the predator exclosure fence (Field 006) on Edwards WPA contains 16.5 acres of warm season native grasses.

Predator management was not conducted on any of these areas except within the predator exclosure area. The area within the predator exclosure was trapped for Franklin's ground squirrels only. Four Franklin's were caught (Section G.15).

A 30 foot, 1/4 inch log chain was stretched between two people and pulled over the vegetation on each island. The observers checked heavier brush and tree areas by walking close together and moving the vegetation with a four foot wood lath. The area within the predator exclosure was searched using the standard cable/chain pulled by tractors. Nests on the islands were marked with three to four foot long, 1/2 inch diameter tree branches 13 feet east of the nest bowl. Nests in the predator exclosure area were marked with a four foot wood lath. Nests were revisited at 10 day intervals after each nest search. Search operations began May 8, 10, 11 and 15 and concluded on June 25, 29, and July 23. All areas were searched three times except Field 004 which was searched a fourth time. Nest searches were conducted between 7:00 a.m. and 1:00 p.m. each day.

A total of 22 duck nests were found on all areas. One nest was abandoned and not used in the Mayfield calculations. Mallard (Anas playtyrhynchos) made up 12 of the 22 nests, blue-winged teal (A. discors) comprised the rest. One Canada goose nest was found on Field 002 and one woodcock covey was found on Field 004.



Bernie Angus recording data during island nest search. 90-7 6/14/90 BP

Table 1 summarizes Mayfield nest success on all areas.

TA	BI	\mathbf{E}	1

Field	Acres	Total Nests	Successful Nests	Mayfield Success	Expanded Nests	Mayfield Nest Density
001 002 003 004 005 006 007 008 009 010	0.1 0.1 1.2 4.0 0.1 16.5 0.8 1.2 0.1	2 1 8 2 3 0 2 0	1 2 0 5 2 3 - 1 -	34.1% 100.0% 0.45% 47.3% 100.0% 100.0% 23.3% 0	2.9 2.0 —— 10.6 2.0 3.0 —— 4.3	29 20 2.65 20 0.18 3.6
		21	14			

Field

001 - Sherstad Slough WPA - North Island

002 - Sherstad Slough WPA - South Island

003 - Artichoke Lake - Haas Island

004 - Artichoke Lake - Hanson Island

005 - Edwards WPA - Island

006 - Edwards WPA - Predator exclosure area

007 - Artichoke Lake - Olson Island

008 - Artichoke Lake - Aasland Island

009 - Moen WPA - West Island

010 - Moen WPA - East Island

Morris WMD NR90 - "Scent Post Survey"

100

The Morris Wetland Management District participates annually in a statewide effort to collect data on predator and furbearer populations. District staff run a total of fifteen scent post surveys in four counties: Big Stone (2), Pope (4), Stevens (7), and Swift (2). Ten stations along each survey route are baited with a scented pellet and left overnight. All tracks leading to the site are then identified and documented. The 1990 surveys yielded the following results:

Predator/Furbearer Scent Post Survey Morris Wetland Management District 1990

Predator (No. visi		Other Species (No. visits)		
5	2 5	Ground squirrel Rabbit Deer Pheasant Toad	- - -	1 2 10 8 2

Across the state, 84 of 93 routes were at least partially run for a total of 351, 2.7 mile segments, equaling 3,344 operable scent station nights.

	Percent Occurrence
Species	On Routes
Red fox	88
Skunk	77
Raccoon	67
Cat	67
Dog	- 63
Coyote	36
Deer	78

Statewide, increases over last year occurred for three species: red fox from 20 to 53 percent, raccoon from 15 to 27 percent, and domestic cat from 12 to 70 percent. The Minnesota DNR attributed the high 1990 predation indices to low fur prices.

Morris WMD NR90 - "Effects of an Aerial Application of Asana on Aquatic Invertebrates in Prairie Wetlands"

The Patuxent Wildlife Research Center coordinated a study on 15 type III and IV wetlands to determine if aquatic invertebrate populations were negatively impacted from aerial applications of Asana to agricultural fields next to wetlands. Wetlands within the Morris District were included in the sampling regime.

Five wetlands were selected in three categories based on land use practices adjacent to the wetlands: agricultural fields aerially sprayed with Asana, agriculture fields not sprayed with any insecticide, and in wetlands within waterfowl production areas. Three sampling stations were set up in each wetland in the open water-deep marsh interface. Invertebrates were collected using core samplers for benthic invertebrates and sweep nets for aquatic invertebrates in the water column. We sampled invertebrates on each wetland one day before spray, on the day after the spray, and then at weekly intervals up to 28 days post-spray. Changes in invertebrate populations on the "treated" wetlands could be compared to the invertebrate populations on the "control" wetlands that were surrounded by unsprayed agriculture fields and the waterfowl production area wetlands.

- 10 mg

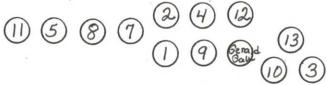
A licensed aerial applicator was contracted to apply the Asana to the fields adjacent to the five "treated" wetlands. The pilot applied the pesticide using his normal application procedure. Asana was applied at the rate of 5.8 ounce active ingredient/2.5 gallons spray/acre. This was the typical application rate for grasshopper control in western Minnesota. Spray deposit was measured by placing three inch diameter chemically-cleaned filter papers horizontally on top of wooden stakes that positioned the papers above surrounding vegetation. Three filter papers were placed at each invertebrate sampling station in the wetlands and 10 filter papers were placed at 5 m intervals in the upland vegetation and crop perpendicular to the wetland. The filter papers at the invertebrate sampling sites were placed to measure any drift into the wetland; the papers in the upland area were to measure actual deposit on the crop and to determine if the pilot missed a portion of the crop to avoid having pesticide drift into the wetland. Filter papers were placed at the sample sites in the morning before the spray application.

The fields adjacent to two wetlands were sprayed on July 11, and the remaining three fields were sprayed on July 12. The spray application on July 11 began at 9:45 a.m. at the first wetland and ended at 10:30 a.m. at the second wetland. The wind was from the northwest at 6 mph, gusting to 10 mph; the temperature was 67 F and relative humidity was 75 percent. On July 12, the spray application began at 6:00 a.m. at the first wetland and ended at 6:45 a.m. at the third site. The wind was out of the northeast at 5 mph, temperature 64 F and relative humidity was 88 percent. On both days filter papers were collected and placed in chemically cleaned amber jars within one hour post-spray.

The filter papers are in the process of being analyzed for residue content. The aquatic invertebrates are being sorted and identified. The study is expected to continue in 1991 with the results reported at the completion of the study.

E. ADMINISTRATION





- 1. Alfred L. Radtke, Wetland Manager, GS-12, PFT.
- 2. Gaylord J. Bober, Assistant Wetland Manager, GS-11, PFT.
- 3. Bernard L. Angus, Soil Conservationist, GS-11, PFT.
- 4. Larry E. Lewis, Wildlife Biologist, GS-11, PFT.
- 5. Darrell D. Haugen, Wildlife Biologist, GS-11, PFT.
- 6. Steven J. Delehanty, Assistant Manager Trainee, GS-7, PFT, Transferred to CMR NWR 4/20/90.
- 7. Debra L. Kimbrell, Assistant Refuge Manager, GS-9, PFT, E.O.D. 6/3/90.
- 8. Alan G. Anderson, Assistant Manager Trainee, GS-5, PFT.
- 9. Pamela S. Steinhaus, Biological Technician, GS-5, PFT-Seasonal.
- 10. Karen M. Stettner, Administrative Technician, GS-6, PFT.
- 11. Gwyn M. Blake, Office Clerk, GS-4, PPT.
- 12. Rodney G. Ahrndt, Maintenance Worker, WG-7, PFT.
- 13. Victor H. Gades, Maintenance Worker, WG-7, PFT.

TEMPORARY PERSONNEL

Kenton Moos, Biological Tech., TFT, 4/30/90-11/02/90
 Brian Peterson, Biological Tech., TFT, 4/30/90-09/14/90



Brian Peterson, Sheridan One Feather, Vincent Antle, Kenton Moos

OTHER

1.	Vincent Antle, Work Study	6/13/90-9/13/90
2.	Sheridan One Feather, Work Study	6/13/90-9/14/90
3.	Gerald Gau, Green Thumb	4/16/90-
4.	Karrie Alexander, Volunteer	3/19/90 - 5/15/90

YCC PERSONNEL

1.	Dan VanEps, Social S	Service	Assistant,	GS-4,
				6/04/90-8/10/90
2.	Eric Gilsrud, Enroll	lee		6/11/90-8/03/90
3.	Steven Kussatz, Enro	ollee		6/11/90-8/03/90
4.	Brian Woodle, Enroll	lee		6/11/90-8/03/90

1. Personnel

100

MORRIS WMD STAFF SIZE. FY85-90

	Full . Time	Permanent Full Time Seasonal	Permanent Part Time	Temporary GS & WG	Other Programs*
FY90	10	1	1	3	7
FY89	10	1	1	6	4
FY88	9	1		9	5
FY87	9	1		5	5
FY86	8	2		5	11
FY85	8	1		6	12

*YCC, CETA, Work Study, Green Thumb, etc.

The permanent staff changed during the past year with Refuge Manager Trainee Steve Delehanty transferring to the Charles M. Russell National Wildlife Refuge, Sand Creek Wildlife Station, at Roy, Montana on April 20, 1990. Debra Kimbrell from the Brussels District of the Mark Twain National Wildlife Refuge arrived at this office on June 3, 1990 to fill the void created by Steve's departure.

Effective July 29, 1990, Alan Anderson was converted from the Biological Technician (Wildlife) series to the Refuge Manager series.

The FTE allotment for FY90 was 13.18 which was short considering our workload. At times there were seven or more staff members working on private land restorations.

2. Youth Programs

The 1990 Morris YCC program was an eight week, non-residential camp consisting of three enrollees and one Social Service Assistant as YCC Supervisor. The ages of the enrollees were 15 to 17 and all were good workers. Part of this year's program consisted of safety and environmental education with safety a major objective.

Ten different projects were worked on at 17 different water-fowl production areas and the office complex over the eight-week period. Main tasks were fence construction (removal and maintenance), along with vegetation control of thistles, juniper trees and Russian olive trees. Other projects included nest dragging, surveying, and clean-up at the Benson shop. The enrollees worked well with each other and showed interest in what they were doing.

Each person was required to wear steel toed boots, long pants, leather gloves and a hard hat. Safety discussions were held each morning before going to work with each enrollee giving a safety talk. No injuries occurred over the eight week period. All personnel were given a blood test for lyme disease before and after the eight week session.

An Environmental Awareness test was given to each enrollee at, the beginning of the program to find out their knowledge and interest of the environment. Some time was given for tailgate sessions about work projects and how it was benefiting wildlife in the surrounding area.

Staff working hours totaled 400 and enrollee working hours totaled 936. Total number of miles driven was 2,642 with 237 gallons of gas being used. No problems occurred with the truck and no damage was done to it.



Brian Woodle, Dan VanEps, Steve Kussatz, Eric Gilsrud

MAJOR YCC ACCOMPLISHMENTS - MORRIS WMD - 1990

Fence Construction	6,130	Feet
Fence Repair	400	Feet
Fence Removal	11,280	Feet
Survey Assistant (Farm Bill Support)	6	Days
Vegetation Control	260	Acres
Facility Maintenance	3	Projects
Nest Dragging	1	Project

3. Other Manpower Programs

Work Study

Two Work Study students from the University of Minnesota, Morris, Sheridan One Feather and Vincent Antle, were employed at this station from mid-June through mid-September. Most of their time was spent on projects at the headquarters area and on Farm Bill projects.

Green Thumb

After several years of being on the waiting list to once again participate as a work site for the Green Thumb program, our number came up. On April 16, Mr. Gerald Gau started employment as a Green Thumb enrollee with us. Gerald works four hours each day. His primary duties have been maintenance of the headquarters area and the nature trail in Pope County. His assistance on a wide variety of other projects has been appreciated by the permanent staff.

4. Volunteer Program

Miss Karrie Alexander, a student at the University of Minnesota in Morris, worked for us as a volunteer from March 19 to May 15. She worked two hours per day. Most of Karrie's time was spent helping with Swampbuster recordkeeping.

5. Funding

The station's total funding went up but 0 & M (1260) funds remain inadequate. The additional funds were earmarked for certain projects, none of which assist the drastic shortfall of 0 & M funds.

MORRIS WMD FUNDING LEVELS - FY85-FY90 (Dollars in Thousands)

FY	1260	1241	3110	YCC	1230	1120	Total Budget
90 89 88	431.7 430.6 504.3*	23.3 -0- -0-	5.0 5.0 5.0	5.1 5.1 5.1	82.0	27.0 52.9 57.5	574.1 493.6 580.9
87	507.6*	-0-	5.0	5.3			522.9
86	453.6*	-0-	5:0	20.6			484.2
85	449.6	-0-	5.0	17.7			472.3

^{*}Includes ARMMs & RPRP

New for this station this year were 1241 funds for fire. We also had a total of \$109,000 for restoration work on private lands in 1120 and 1230. Two large restoration contracts in this District were put up for bid very late in the year and no contractor bid on either project. Thus, \$40,000 of the 1230 funds were transferred to Ecological Services Field Office in the state of Indiana for restoration work.

The Refuge Operation and Maintenance funding continues to be inadequate and many projects must be left undone. Inflation and increased salary costs reduce the money available for management and development. Compared to the "old days" our funding is excellent but our obligations, acreages, projects, and responsibilities have increased many fold and therefore we need increased funding.

An active acquisition program also causes funding problems. Development monies are inadequate to provide materials and staff for the new acres purchased. New fee lands need surveys, ditch plugs, clean up, seeding and posting. A backlog of this work continues to increase as each year goes by. The BLHP program that put our vehicles and equipment in such good shape is past history at this time. Some of our vehicles should be past history also, but budget constraints force us to patch and repair to keep everyone on the road.

6. Safety

There was one minor accident during the year when Maintenance Worker Victor Gades cut his hand while posting the boundary of Artichoke WPA, Big Stone County. The cut required five stitches.

This year the entire staff, including temporaries, YCC, Green Thumb, and Work Study personnel, were tested for lyme disease. One YCC enrollee tested positive on the first day of work and received treatment by his family physician. All tests were negative at the end of the work season.

The station Safety Committee, consisting of three staff members, rotates every three months and remains the most viable part of our safety program. This committee is responsible for planning and presenting our monthly safety meetings, and conducting inspections and accident investigations for the station.

Following is a list of topics of our monthly meetings:

Ice Safety Fall/Winter Safe Driving
Stress Rabies
Winter Weather Railroad Crossings
Lightning Equipment Safety
Hunter Safety Lyme Disease
Safe Operation of Tractor Type Vehicles

The station now stands at 7,584 days without a lost-time accident.

Rodney Ahrndt, Maintenance Worker, was assigned as one of Region 3's Equipment Certification Instructors. Rodney attended three one-week training sessions for instructors during the year. During the week of April 15, a class was held at Minnesota Valley National Wildlife Refuge shop for a large number of Region 3 employees. At this session they were certified on the various types of equipment they operate at their stations.



Equipment certification session held at Minnesota Valley National Wildlife Refuge Shop. 90-8 4/19/90 RDA

7. Technical Assistance

Throughout the year technical assistance was provided to local agencies and individuals on the following variety of topics:

- Screening of applicants for the Minnesota DNR's Reinvest In Minnesota Program (Radtke, Bober, Haugen, Kimbrell)
- Identification of lakes for Minnesota DNR's waterfowl lake designation program (Lewis, Anderson)
- Environmental education curriculum development (Angus, Lewis)
- Video taping of wildflowers for a television program (Angus)
- County Comprehensive Water Plans (Radtke, Lewis)
- Grasshopper control (Radtke, Bober)
- Management for wildlife of habitat surrounding Morris sewage ponds (Angus)
- Fish management (Radtke)
- Local community Natural History Planning Committee (Angus)
- Screening assistance to SCS for waterbank contracts (Radtke, Haugen)
- Assistance to local watershed districts (Kimbrell, Haugen, Lewis)
- Work with Minnesota DNR to restore wetlands on State owned land (Anderson, Kimbrell)
- Restoring Wetlands on Waterbank, RIM and CRP contract lands (Haugen, Kimbrell, Anderson)
- Assistance to lake associations on water quality projects (Haugen, Kimbrell)

- SCS Wetland Determination Appeals (Lewis, Radtke, Kimbrell, Steinhaus)
- ASCS Commenced Exemption Case Appeals (Lewis, Radtke)
- Assisted in establishing Wetland and Restorable Wetlands Inventory (Lewis, Radtke, Anderson)
- Public television program on Native Prairie Plants (Angus)
- High School Science Fair (Angus, Haugen)
- Outdoor classroom planning at Lac Qui Parle School (Angus)
- Glacial Lake State Park critical area planting of natives (Angus)
- Blue Mounds State Park-noxious weed control in native prairie (Angus)



Natural History Series "Critterman" presentation. 90-9 12/12/90 BLA

F. HABITIAT MANAGEMENT

1. General

Habitat types in the Morris Wetland Management District are summarized in the following table.

HABITAT SUMMARY - MORRIS WMD - 1990

Cover Type	Acres
Wetland	16,388
Cropland	712
Grassland	28,836
Timber	1,424
Total	47,360

Type IV marshes comprise 52 percent of the wetland acreage and type III's, 29 percent. These marshes, combined with numerous type I and II wetlands, offer a wide variety of waterfowl habitat. The upland:wetland ratio for our District is 1.9:1. Upland nesting cover is comprised of 7,740 acres of seeded natives, 6,286 acres of native prairie, 14,098 acres of introduced grass and/or legume seedings, most of which are at least 15 years old, and cropland on new fee purchase property. The seed for the planted native grass fields has been primarily of Nebraska-Kansas origin. Seed fields of South Dakota 149 (Forestburg) switchgrass, North Dakota 444 Indiangrass, South Dakota 27 big bluestem, and indigenous big blue and Indian grass are now established and will provide the bulk of future seed.

2. Wetlands

Spring wetland conditions were fair. Many temporary wetlands had water. However, conditions deteriorated fast. Most type III and IV wetlands remained below average levels. Waterfowl were concentrated for fall hunting.



The dry basins allowed vegetation manipulation to create open areas in 1991. Edwards WPA, Stevens County 90-10 9/11/90 BLA

3. Forests

The Morris Wetland Management District lays within what was once the "tall grass prairie." Thus, less than four percent of the fee acreage is covered by timber. Of the 1,424 acres of timber, the majority consists of older farm groves and shelterbelts.

4. Croplands

In 1990, 711.5 acres of cropland were managed as resident wildlife food plots. These plots were located on waterfowl production areas identified by the Minnesota Department of Natural Resources as significant wintering areas for ringnecked pheasant and white-tailed deer. All food plots were located near shelterbelts and/or cattail sloughs which provide escape and winter cover. Plots were located on soils and slopes which have minimal soil loss potential. Most of the food plots consisted of two, ten-acre fields where corn was planted in one field and a grass mixture was seeded in the other. These fields are then alternated every three to five years. This rotation has helped reduce disease and insect problems in corn and also provided nesting cover in the grassland field. Occasionally soybeans are planted one year instead of corn to break an insect or disease cycle. The cooperator is responsible for all field work, seed, fertilizer and weed control. The wildlife's (government's) share has been left standing in the field in alternate strips. The alternate strips help disperse snow and reduce the chances of the entire plot being buried in snow. The cooperator is allowed to harvest any corn or soybeans remaining the following spring.

FOOD PLOT SUMMARY - MORRIS WMD - 1990

County	No. WPA's With Plots	Total Acres in Corn, Soybeans	Total Acres <u>In Plots</u>
Big Stone Pope Stevens Swift Traverse Totals	10	131	213
	4	48	73
	12	99.5	199.5
	7	97	122
	4	52	104
	37	427.5	711.5

The Stevens County Pheasants Forever chapter financed winter food plots and feeder cribs throughout the county, predominantly on private land. One plot was planted on Edwards Waterfowl Production Area (Stevens County). The Swift County Pheasants Forever and the Madison Deer Hunters Association sponsored two plots on Lynch Lake Waterfowl Production Area (Swift County).

5. Grasslands

Approximately one-half of our grasslands are in a vigorous and productive state for waterfowl nesting. This includes reseeded native grasses, managed native prairie, and introduced coolseason grasses and legumes which have been seeded in the last ten years and are actively managed with fire, grazing or haying. The remaining grassland habitat consists of former crop fields seeded to various introduced grasses and legumes, and some prairie in need of management. New fee acquisition has provided the acres seeded each year. Occasionally new acquisition land is cash rented back to the original landowner. The purpose is to have soybeans planted, making a good seed bed for native grasses.

Weed control on young seedings is very critical. A combination of herbicides (roundup, 2,4-D, banvel), burning, and haying are used to aid the establishment and maintenance of both native and cool-season grass and legume stands. For native grass establishment and maintenance, prescribed burning reduces competition from unwanted cool season grasses but may also stimulate broadleaf weeds. This may necessitate the subsequent application of 2,4-D.

TREATMENT OF SEEDINGS - MORRIS WMD - 1990 (in Acres)

County	2,4-D	2,4-D & Banvel	Roundup	Mowing
Big Stone Pope	163 145		168	107 21.5
Stevens Swift	166	271	.6	168 20
Traverse Yellow Medicine	155	29	•0	118
Total	<u>24</u> 653	300	174	434.5

All chemicals were applied by ground driven equipment. Clinton Ag Service applied one pound active ingredient of low volatile 2,4-D ester on 556 acres. Application cost was \$6.00 per acre. The government furnished the chemical. All other herbicide application and mowing was done in-house.

a. Reseeded Native Grasslands

Since 1973 the Morris Wetland Management District has planted 7,740 acres of native grasses of which 82 were seeded in 1990.

Approximately 1,500 pure live seed (PLS) pounds Indian grass (ND-444) seed, 300 pounds PLS of SD-149 switchgrass, and 100 pounds PLS indigenous side oats grama, were harvested in 1990. This seed will be used in the mix for 1991 seedings. Approximately one-half of the side oats grama seed was harvested by a flail-vac owned by the Minnesota Department of Natural Resources. This piece of equipment was easy to run and very mobile. It has a large brush that rolls through the seed heads and a vacuum that pulls the loosened seed into a storage compartment behind the brush. However, seed harvested with the flail-vac contained longer plant stems of the side oats grama making cleaning more difficult. Larger pieces of stem also remained in the cleaned seed with the flail-vac than with a combine. Efficient use of this flail-vac may be limited to other grass varieties.



Harvesting side oats grama on native prairie. 90-11 9/26/90 BLA

NATIVE GRASS SEEDINGS - MORRIS WMD - 1990

County	WPA	Acres	Date
Big Stone	Jacobson Prairie	27 49	6/11 6/08
Swift Total	Loen	$\frac{6}{82}$	6/14

b. Cool Season Grasslands

A total of 101 acres was seeded to introduced cool season grass or alfalfa in 1990. Cooperative farming agreements were used to seed this acreage. The cooperator furnished all seed and used small grain as a nurse crop. The small grain was harvested at maturity and the straw chopped at the time of harvest or removed within 10 days after harvest.

The following table summarizes cool season seedings in 1990.

COOL SEASON GRASS SEEDINGS - MORRIS WMD - 1990

County	WPA	Acres	Date	Pound/Acre <u>Mixture</u>
Swift	Fahl	22	April	Alfalfa 12#
Yellow Medicine	Spellman Lake	79	April	Brome 3#, Tall Fescue 2#,
Total		101		Orchard 3# Tall wheat 6#

c. Native Prairie



Prairie rose in bud stage (Rosa arkansana). 90-12 8/90 BLA



The styles after elongating to form an erect brush of soft slender plumes, the "Prairie Smoke" (Geum Triflorum).

90-13 6/12/90 BLA

The original upland vegetation within the Morris District was tall grass prairie. The total native prairie acreage on waterfowl production areas was 6,286 in 1990. The areas vary in size from less than one acre to 311 acres. Active management consisting of prescribed burning and grazing has been limited to the larger acreages. The small remnants have not been actively managed because of size, location, and staff limitations.



Wild flowers on remnant native prairie under private ownership. 90-14 7/5/90 BLA



The fine stem of the downy gentian (<u>G. puberula</u>) cannot support the many flowers. 90-15 9/23/90 BLA

7. Grazing

Controlled grazing has been used as an alternative to prescribed burning. The grazing period utilized by the Morris Wetland Management District has been April 25 to May 25. Objectives are to remove litter and reduce competition from cool season grass invaders. Lower rates per A.U.M. required temporary fence installation by the permittee.

GRAZING SUMMARY - MORRIS WMD - 1990

-	County	WPA	AUM's	Upland Acres	Fee/AUM
	Big Stone	Rothi Stegner Twin Lakes	200 77 106	100 114 117	\$3.00 \$3.25 \$3.00
	Lac Qui Parle	Bolson Slough Hastad Hastad Taylor	51 51 69 101	30 83 118 114	\$2.50 \$3.00 \$3.25 \$3.00
	Pope	Heidebrink Hoff	14 45	35 61	\$3.00 \$3.25
	Stevens	Mau	46	69	\$3.25
	Swift	Westhausen	43	35	\$2.50
	Total		803	876	

8. Haying

Haying has been used on a limited basis for noxious weed control and upland habitat management. It has been utilized on pure stands of alfalfa. The hay must be cut after July 10 and if a second cutting taken it must be before September 1. The July 10 date was selected to allow most of the nesting to be completed and still clip Canada thistle before seed begins to blow. Prohibiting cutting after September 1 allows the alfalfa to harden-off and provide residual growth for nesting the next spring.

HAYING SUMMARY - MORRIS WMD - 1990

County	WPA	Acre	Number of Cuttings	Rate/ Acre	Harvest <u>Date</u>
Big Stone	Anderson Boehnke Karsky	20 43 24	1 1 1	\$10.00 \$10.00 \$10.00	7/15 7/15 7/10
Pope	Krantz Lake Rolling Forks	10 50	1 1	\$10.00 \$10.00	7/10 7/10
Traverse	Pedersen	_10	1	\$10.00	7/12

157

Total

9. Fire Management



Locoweed (Oxytropis lambertii) in bloom after spring fire. 90-16 - 6/25/90 HLA



One of the legumes found on the prairie - purple prairie clover (Petalostemum purpureum). 90-17 7/31/90 BLA

A total of 456 acres was prescribe burned in 1990. Three Mingo Job Corps enrollees (Scott Burgardt, Kevin Goodwin, and Rick Lewis) were detailed to the Morris District from May 15 through May 26 to help with prescribed burns. They had received class-room instruction in prescribed burning and the detail gave them practical experience.

Extremely dry conditions and windy days limited the number of burns conducted. Part of the District was also in a Minnesota Department of Natural Resource and local burning ban. The enrollees helped in other day-to-day maintenance and operation activities when burning could not be conducted.

The Morris staff also assisted Big Stone National Wildlife Refuge in burning 1,326 acres within the refuge.

PRESCRIBED BURN SUMMARY - MORRIS WMD - 1990 (In Acres)

County/WPA	Date Burned	Native <u>Prairie</u>	Intro. Natives	DNC	Marsh	Total	Acre Cost
Stevens County Big Stone Edwards	4/17 5/03	139	66 101	110	3 37	69 387	1.41 1.63
Big Stone County Big Stone National Wildli	5/11 fe Refug	766 e	540	20		1326	
Total						1782	



Aerial view of prescribed burn on Edwards WPA, Stevens County. 90-18 5/3/90 LEL



Wood lily (<u>L. philadelphicum</u>) always brightens the native prairie. 90-19 8/90 BLA



Cottony appearance of seed of the long fruited thimbleweed (Anemone cylindrica). 90-20 9/23/90 BLA

10. Pest Control

a. Insect

After the uproar of 1989 about the population explosion of grasshoppers and the grim forecast for this year, we were ready for a worse time and more complaints than last year. Mother nature stepped in with cool, wet weather and held the population of grasshoppers at an acceptable level. We received NO complaints and did NO spraying!!

b. Plant

The amount of funds available for noxious weed control contracts hit a fifteen year low this year, **ZERO DOLLARS**. There was a corresponding increase in the number of complaints received from neighbors and weed inspectors. Depending upon growing conditions, we had several years of approximately 2,000 acres per year of noxious weed control effort. The past two years have seen a drastic reduction in the funds available for noxious weed control. Weeds are a very sensitive issue with farm neighbors in this area of intense row crop production. The issue of weed control very easily spills over to meetings with the County Commissioners and becomes a point of contention when the Commissioners consider acquisitions. The following table shows noxious weed control for 1990 and the totals from previous years:

NOXIOUS WEED CONTROL - MORRIS WMD - 1990

	Cont		Spra	Force aying	Accour	nt Mowing	Tot	tals	
County	No WPAs	Acres	No WPAs	Acres	No WPAs	Acres		Acres	
Big Stone LacQuiPari Pope Stevens Swift Traverse Yellow Med	0 0 0	0 0 0 0 0	17 5 -14 18 5 6 0	176 15 120 370 94 147 0	3 2 2 8 4 1	73 18 25 63 53 105 0	20 7 16 26 9 7 0	249 33 145 433 147 252 0	
1990 Tota	1 0	0	65	922	20	337	85	1259	
1989 Total	1 8	183	62	599	29	268	99	1050	
1988 Total	1 70	2420.5	75	1045	6	160	122	3625.5	
1987 Tota	1 79	1516	71	742	1	10	117	2268	
1986 Tota	1 91	1241	76	427	9	240	135	1908	

^{*}Same waterfowl production areas may have received both contract and force account control efforts.

Leafy spurge was sprayed on 13 different waterfowl production areas this past year. This is a decrease from 17 units with spurge in 1989. In most cases the spurge was sprayed using our invert sprayer with 2,4-D and Tordon. One large patch with thistle on Lynch Lake WPA, Swift County, was sprayed with Banvel.

Loosestrife was sprayed on only one unit this year. We sprayed 3.1 acres along the west side of the Beaver Pool on Nelson Lake WPA, Pope County. Last year we gave up control efforts on several units until such time as a more efficient control method is developed.

The YCC enrollees cut down juniper trees that were invading native grass areas on the west side of Gilbertson WPA, Swift County, and on the north half of Wall WPA, Pope County.

13. WPA/Easement Monitoring

a. Easements

EASEMENT ENFORCEMENT SUMMARY - MORRIS WMD - 1990

Cases closed during 1990	1
Cases forwarded for legal action	1
*New fall 1990 violations (unresolved)	0
**Total cases outstanding December 31, 1990	11

- *Potential violations detected in the fall aerial flight will be checked in the spring of 1991. No serious violations were detected.
- **Includes four co-owned cases. Action to be taken is pending the outcome of a continued wetland values study.

One easement case was closed in 1990.

Fasement No.	Problem/Solution
P-214X	Fill/Removed



A flagrant easement filling violation was detected May 3... 90-21 5/3/90 LEL



...and restored May 9, 1990. 90-22 5/9/90 LEL

Fall easement flights were made November 19-30. Fewer potential easement and swampbuster violations were found. Other activities such as tree cleanup, legitimate ditch maintenance, etc., appeared to increase. Much of the normal easement enforcement attention remains diverted into Farm Bill swampbuster activities. Giving swampbuster priority and establishing an effective swampbuster program can save wetlands throughout our District and have nation-wide impacts. During easement flights potential swampbuster and Corps of Engineers violations are photographed and reported to appropriate authorities with duplicate photos usually enclosed.

Officer Lewis testified at the Myron Lhotka trial regarding easement photos he had taken in 1979 and 1980 while working at the Detroit Lakes Wetland Management District.

b. Waterfowl Production Areas

- 10 m

Most waterfowl production area problems are detected during routine work activities or while flying easement checks. Typical problems include farming encroachment, rock dumping, sign damage, vehicle trespass, dead animal and/or garbage dumping, and private drainage affecting waterfowl production area wetlands.

Most problems are caused by neighbors. The preferred procedure is to negotiate a solution without creating a neighboring enemy. Legal action is usually a last resort. With other violations, catching someone responsible for vehicle trespass, dumping, etc., is rare.

With tighter restrictions on private dumps and landfills, we have noted increased dumping of chemical containers, tires, etc., on Service land. We anticipate this problem will increase and are trying to maintain control by restricting access and immediately cleaning up any new found trash dump sites.

One fee area problem remains with Law Enforcement and is pending legal action. It is the Krantz Lake WPA case in Pope County. In June 1986 a neighbor dug a 3/4 mile long ditch along a disputed boundary of the unit. At least three co-owned wetlands were drained in addition to wetlands on the neighbor's property. The case was turned over to our Law Enforcement Division who, with the Solicitor and/or U.S. Attorney, must resolve the boundary dispute and address drainage rights on the Service's portion of the drained wetlands. Meanwhile, we continue to document additional downstream drainage occurring impacting co-owned wetlands managed by the Litchfield Office across the county line. No easy or timely solutions are in sight for this situation.

SUMMARY OF NOTABLE WPA PROBLEMS RESOLVED - 1990

County/WPA	Problem	Action Taken/Status
Big Stone		
Piper	South boundary	On-Line-Markers
	encroachment	placed
Stevens	*	
Moore	Prevent boundary	On-Line-Markers
	encroachment	placed
McNally	Prevent boundary	On-Line-Markers
Slough	encroachment	placed
Swift		
Fahl	South boundary encroachment	On-Line-Markers placed
Loen	Illegal dump site	Buried trash and closed access
Yellow Medicine		
Spellman Lake	Prevent boundary encroachment	On-Line-Markers placed

15. Private Lands

In this report we have divided Private Lands into three categories: a. Private Lands-Enhancement, b. Private Lands-Wetland Restorations, and c. Swampbuster.



This 26 acre wetland (Whittemore) was restored in Pope County. The dike was designed by the Pope County Soil Conservation Service and constructed with Farm Bill funds.

90-23 5/3/90 AGA

a. Private Lands-Enhancement

The Private Lands-Enhancement program deals with promoting and developing good land stewardship and land ethics among the farming community to benefit soil, water and wildlife resources. This involves providing technical, and in certain cases, financial assistance to private landowners for natural resource management practices beneficial to the environment. Special emphasis is placed on wildlife habitat restoration and management.

Approximately 90 private landowner contacts were made with another 55 tours, programs, or meetings presented or attended in 1990. The Private Lands-Enhancement program has been very instrumental in improving the Service's image among the private and public sectors helping people to better understand the goals and missions of the Fish and Wildlife Service.

Most private landowner contacts during the year dealt with wetland restorations. Many landowners were interested in doing whatever they could to improve wildlife habitat on their property. A variety of reasons were offered: the development of environmental education facilities, wildlife observation, hunting and financial gains. In addition to providing for these interests, the Private Lands-Enhancement program stressed the values of wetlands, grasslands and windbreaks in flood control, improving water quality, reducing soil erosion, and improving ground water recharge.

Numerous contacts were also made with individuals, clubs, organizations, watershed districts, and local, state and federal government agencies soliciting their support and involvement in wildlife management practices and wetland restorations. Donations from these contacts were matched with Service dollars and used to increase wetland restorations within our District. A major effort was made to restore larger wetlands: These projects were much more time consuming as they often involved multiple ownerships, large watersheds, legal ditch systems, easement negotiations, and hydrologic and engineering design needs. Approximately 14 of these projects were identified in 1990 with three of them receiving most of our attention (Section F.15 b).

b. Private Lands-Wetland Restorations

Wetland restoration continues at a surprising pace. Potential restorations were located by announcements on local television and radio stations, newspapers, attending public meetings, and working with local, state and federal government officials. Several landowners who had wetlands restored in 1989 agreed to television interviews to promote wetland restoration on private land.



Dick Hufford, a Stevens County resident, helped promote wetland restorations on private land. 90-24 4/23/90 AGA

The following full page ad appeared on the front page of the <u>Classy Canary</u> and <u>Peach</u> (local advertising supplements) with an estimated circulation of 100,000 copies. The ad was sponsored by the Swift County Chapter of Pheasants Forever, the Minnesota Waterfowl Association, and the Minnesota State Pheasants Forever organization. A full page ad also appeared in the <u>Canby News</u> and was sponsored by the local Canby Chapter of Pheasants Forever.



April 9-13, 1990

40 pages

SAUK CENTRE HERALD Sauk Centre, MN POPE COUNTY TRIBUNE Glenwood, MN LAKE REGION ECHO

WHEATON GAZETTE

SWIFT COUNTY NEWS

LONG PRAIRIE LEADER

GRANT COUNTY HERALD Elbow Lake, MN WADENA PIONEER JOURNAL

HOFFMAN TRIBUNE MORRIS SUN

ATTENTION

FARMERS & LANDOWNERS

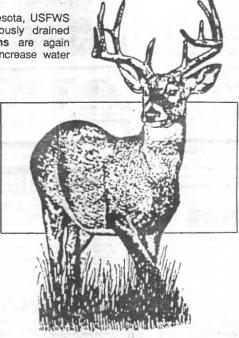
Wetland Restoration Available

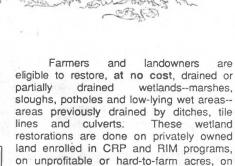
To improve the value of your property, the U.S. Fish and Wildlife Service is continuing FREE WETLAND RESTORATIONS for farmers and landowners in Minnesota.

During the past two summers in Minnesota, USFWS personnel restored more than 2,200 previously drained wetlands. The Free Wetlands Restorations are again offered in 1990 to ensure water quality, to increase water supplies and to enhance wildlife habitat.

Why Restore Wetlands?

- · To reduce soil erosion caused by wind and water.
- · To replenish soil moisture and to recharge groundwater supplies and
- · To improve water quality and water resources for farming, irrigation and livestock operations.
- · To reduce downstream flooding: i.e., spring 1989's destructive flood in the Red River Valley.
- To improve seasonal habitat for migratory and native game and nongame wildlife, thereby increasing recreational opportunities to stimulate rural economies.





While federal funds are available. wetland restorations will be completed at no cost. The restored wetlands may be drained after the 10 year easement contract expires, at cost to the individual without violating Swampbuster any However, regulations. wetland restorations may be left in place permanently.

pastures, native prairies and hunting lands.

Optional easements on restored wetlands may even add bonus dollars!

Remember the Drought of '88 & '89...Restoring wetlands creates, ensures and protects clean, plentiful water reserves for today and tomorrow.

It's ALL FREE...It makes sense

For More Information Contact:

MORRIS WETLAND MANAGEMENT DISTRICT U.S. Fish and Wildlife Service Route 1, Box 877 Morris, MN 56267 612-589-1001

FERGUS FALLS WETLAND MANAGEMENT DISTRICT U.S. Fish and Wildlife Service Route 1, Box 76 Fergus Falls, MN 56537 218-739-2291

DETROIT LAKES WETLAND MANAGEMENT DISTRICT U.S. Fish and Wildlife Service Rout 3, Box 47D Detroit Lakes, MN 56501 218-847-4431

LITCHFIELD WETLAND MANAGEMENT DISTRICT U.S. Fish and Wildlife Service 305 North Sibley itchfield, MN 55355 612-693-2849



On behalf of a better Minnesota environment, this ad is sponsored by:

Swift County Chapter **PHEASANTS FOREVER**



MINNESOTA WATERFOWL **ASSOCIATION**

> 5701 Normandale Road Minneapolis, MN 55424



PHEASANTS FOREVER, INC.

> P.O. Box 75473 St. Paul, MN 55175

Landowners interested in restoring wetlands were contacted to determine restoration possibilities and obtain permission to field check their land. All possible restorations were surveyed and staked during field checks. All ditch plugs were designed to meet Soil Conservation Service specifications. Approvals from the landowner, the Soil Conservation Service District Conservationist, the Soil and Water Conservation District, and the local Watershed District were obtained before restoring each wetland. A total of 39 landowners cooperated with us to restore 104 basins. Wetland restorations took place in each of the seven counties within our District.

TABLE 1

WEILAND RESTORATIONS - CALENDAR YEAR 1990
Morris Wetland Management District

County	Restora Basins	RP ations Acres	Other Private Restorate Basins	e Land	Tota Restora Basins	
Big Stone Lac Qui Parle Pope Stevens Swift Traverse Yellow Medicin	13 6 13 13 1 0	24 31 37 30 1 0	16 8 5 10 2 4 9	18 26 49 43 19 23 23	29 14 18 23 3 4 13	42 57 86 73 20 23 36
Total 1990	50	136	54	201	104	337
Total 1989	81	249	16	97	97	346
Total 1988	199	- 623	9	50	208	673
Total 1987	_26	46	_7	33	_33	
GRAND TOTAL	356	1054	86	381	442	1435

Many wetland restorations are less than three acres in size and hold from one to three feet of water. Wetlands are restored by constructing earthen dikes or removing a minimum of thirty feet of tile to retain water in the basin. Wetland restorations remain for the term of the Conservation Reserve Program (CRP) contract or for a minimum of ten years on private land contracts.



Typical wetland restorations are small and shallow providing pair habitat. This wetland is on the Larson CRP land, Big Stone County. 90-25 4/3/90 BLA

In addition to restoring wetlands on private lands, the Service cooperated with the Big Stone State Park and the Minnesota Department of Natural Resources to restore wetlands on state owned land. Five wetlands were restored on the Bill Freeman tract, Stevens County, for the Department of Natural Resources and fifteen wetlands were restored in the Big Stone State Park.



Park Manager Rasset inspects the work completed by force account on State Park land in Big Stone County.

90-26 11/15/90 BLA

This year we completed three wetland restoration projects which required the installation of water control structures. Two restorations were located on the University of Minnesota's West Central Experiment Station and one on the Speer RIM contract (Stevens County). The Soil Conservation Service provided technical assistance in surveying and designing the water control structures. The Morris staff coordinated construction of the ditch plugs and installation of the structures through force account, Farm Bill funds, and cost sharing with private clubs and organizations.



This is one of two structures used to restore 18 acres of wetlands on University of Minnesota's West Central Experiment Station property. 90-27 11/1/90 DLK

The Soil and Water Conservation Districts in all seven counties have signed Cooperative Agreements with the Fish and Wildlife Service to provide assistance and receive cost sharing on wetland restoration projects.

The three large projects which received our attention in 1990 and are scheduled for construction in 1991 are: Dale Johnson project in Big Stone County, Mud Lake project in Pope and Douglas Counties, and Ellen Lake project in Pope County.

Dale Johnson, Big Stone County

- Es - 150

The Dale Johnson project is a 15 acre restoration located within a 102 acre native grass pasture. The pasture has been enrolled in the Minnesota Native Prairie Bank program, a permanent preservation program. The restoration not only has wildlife benefits but also water quality benefits to Big Stone Lake as it is located only one mile north of the lake. The project is a joint effort between the Fish and Wildlife Service, Soil Conservation Service, Soil and Water Conservation District, Environmental Protection Agency, Minnesota Department of Natural Resources, and Big Stone Lake Restoration Project.

All aspects of the project were completed in 1990 except for the construction phase. Construction bids were solicited with a September 29 opening date. No bids were received because of the time of the year and large volume of work available to contractors. The estimated \$20,000 dike construction project will be completed in 1991. Of the \$20,000, EPA will pay \$1,000, Big Stone Lake Restoration Project \$1,000, and the Service \$18,000.

Mud Lake, Pope and Douglas Counties

The Mud Lake restoration project is a 572 acre meandered wetland involving 10 landowners and a legal ditch system. To date, over 200 man hours have been spent on this project by the Morris Wetland Office, Fergus Falls Wetland Acquisition Office, Minnesota Department of Natural Resources, and volunteers. By years end all 10 landowners involving 26 signatures had signed a perpetual flowage easement. All permits from the Department of Natural Resources and drainage district had also been obtained. Final approval of the easement from the County Commissioners is needed before dike construction can be completed in 1991. No problems are foreseen in obtaining this approval.

The project is a joint effort between the Fish and Wildlife Service, Evansville Sportsman's Club, Viking Sportsman's Club, Carl Schmidt (a private landowner), Minnesota Department of Natural Resources and Jerry Matison, a retired DNR Conservation Officer who contributed a significant amount of time in negotiations. The project cost is approximately \$66,000 of which \$46,000 will go for easement payments and \$20,000 for dike construction.

Donations have been pledged as follows:

Evansville Sportsman's Club \$5,000 Viking Sportsman's Club \$1,000 Carl Schmidt \$1,000

The Service will cover easement and construction costs not covered by private donations.

Ellen Lake, Pope County

The Ellen Lake project involves the restoration of a 150 acre meandered wetland drained through a legal ditch system in the 1930's. Six adjoining landowners and three upstream landowners are involved in the project. Initial contacts were made with the affected landowners and drainage district to obtain their verbal approval to proceed with the planning stages of the project. The topographic survey was completed during the year under contract with John Oliver and Associates, a private engineering firm. The Leven-Villard-Amelia Lake Owners Association donated \$500 toward survey costs with John Oliver and Associates donating \$375 worth of services toward the survey and office work. At years end contracts had been made to obtain hydrological and engineering design work for the project. Plans are to have the restoration completed by the end of 1991.

Contributed funds

Listed below are the contributors of private funds for projects completed in 1990 and to be completed in 1991.

Ducks Unlimited	13,013
Stevens County Pheasants Forever	3,629
Swift County Pheasants Forever	719
Minnesota Waterfowl Association	833
Canby Chapter Pheasants Forever	615
Evansville Sportsmen's Club	5,000
Big Stone Lake Restoration	1,000
Viking Sportsman's Club	1,000
Carl Schmidt	1,000
Environmental Protection Agency	1,000
Leven-Villard-Amelia Lakeowners Assn.	500
John Oliver and Associates	375



Al Radtke and Frank Kartch (Ducks Unlimited) watch as the structure is installed on the Robert Speer wetland restoration in Stevens County. 90-28 9/10/90 AGA



Before: The Tebrake farm in Pope County has six wetland restorations through a ten year private lands Wetland Development Agreement. 90-29 8/31/88 BLA



After: This 26 acre basin is the largest of the six basins restored. 90-30 5/3/90 AGA



Before: The Thorkelson farm in Pope County was enrolled in CRP in 1988. Construction of ditch plugs occurred in 1989. 90-31 8/89 AGA



After: This 96 acre wetland (center) is one of 28 basins restored. All basins are protected by permanent Service Fasements. 90-32 5/3/90 AGA

Our office expended 3.17 FTE's of effort over the past year to restore wetlands on private lands. We restored 50 wetlands on Conservation Reserve Program lands and 54 wetlands on non-CRP private lands. The approximate amount of FY90 monies spent on salaries, contracts, and supplies to restore wetlands on private land was \$189,810 along with \$19,684 from clubs and private organizations making a total of \$209,494 spent in 1990. These dollars and FTE's do not include swampbuster activities.

c. Swampbuster

- 10 mg

The swampbuster provisions of the Farm Bill legislation have involved us in three main areas: wetland appeals, commenced exemption requests, and turn-ins of possible converted wetlands. The legislation clearly defines the Fish and Wildlife Service's role as that of a consultant, but in many situations the Service representative is the primary authority present preventing drainage. Swampbuster provisions have definitely reduced drainage in the area and have been a giant step in the right direction of wetland protection and "no net loss."

Wetland Appeals

The wetland appeal process is initiated when a landowner challenges the Soil Conservation Service's (SCS) determination that some of his property should be classified "wetland." As a consultant, a Service employee and the SCS representative visit the site, review Agricultural Stabilization and Conservation Service (ASCS) slides, check available wetland inventories, and confirm or reverse the initial SCS determination. Most are upheld and most SCS field offices are doing a good job. If the landowner still disagrees, he can appeal to the next level of authority.

In 1990 the Morris Wetland staff reviewed 193 landowner appeals involving 550 wetlands. Cumulative totals are 644 appeals involving 1,737 areas. Of these, 1,232 were upheld as wetlands and 505 were determined non-wetlands.

Commenced Exemption Requests

Another portion of the Farm Bill Swampbuster legislation process allowed landowners or ditch authorities an exemption for drainage projects started prior to December 23, 1985, if they met specific criteria. The Service was to act as a consultant in each case reviewed and make a recommendation. This actually occurred in less than half the cases. Service input was given on 59 cases; however, the ASCS report figures showed 122 commenced exemption hearings occurred in our seven county District. This meant we only had input on 48 percent of the total hearings reported. Ironically, in some counties nearly all exemption requests were granted when there was no Service representative present. One county granted them even if we were there! This information helped generate a U.S. Department of Agriculture program review, GAO review, and subsequently a decision to put all previously granted exemptions on hold-pending a final review.

At the close of 1990, the final review of these cases was occurring with strict application of tightly interpreted, clearly re-written commenced rules being applied. Many reversal decisions occurred. Some of these decisions will no doubt be challenged by disgruntled appellants who had previously received exemptions (usually unjustified) allowing drainage. Hopefully the final outcome will not reward those who gave or received bogus exemptions and unaccountable drainage. We will see....

Most notable of the Swampbuster commenced exemption cases has been Yellow Medicine County Ditch 18 which has received national attention. This case had the impact of putting several similar proposed projects on permanent hold—we hope! The outcome of a National Wildlife Federation lawsuit challenging USDA's decision to grant "relief" to drainage proponents is pending and will be newsworthy when it occurs...so keep your ears open!

Turn-ins of Potential Converted Wetlands
Another key role is probably described best as the
"informant and watchdog" role. Swampbuster legislation
provides that if a landowner seeds a crop in a converted
wetland, he loses eligibility for his Federal farm subsidy
payment. Usually thousands of dollars are at stake. The
Agricultural Stabilization and Conservation Service is
given the responsibility of enforcing this harsh swampbuster penalty, yet does little to detect violations and
apply the penalty without compromise.

In 1990, 17 Wetland Impact Reports of potential wetland conversions were sent to ASCS. A total of 116 have been submitted since swampbuster began. A major flaw in the legislation is that wetland conversion, seeding, and participation in Federal farm programs are all required before benefits can be withheld.

Recent changes in Farm Bill legislation now make the act of converting a wetland the trigger for penalties and encourages restoration of the wetland. Reduced benefits can be received only if the wetland is restored; otherwise all payment is forfeited.

Swampbuster, combined with Corps of Engineers 404 authority, has done a lot to curb drainage. We have the attention of drainage proponents. With persistence and refinement we may yet achieve "no net loss"—a term that proudly echoes through the halls of hierarchy—but continues to reach many operating the draglines, scrapers, and tiling equipment as a threatless whisper generated in the bureaucratic breeze!

G. WILDLIFE

1. Wildlife Diversity

Waterfowl production areas in the Morris Wetland Management District contain a complex of habitat types that help support over 260 species of birds, 55 species of mammals, and numerous species of reptiles, amphibians and insects. The keys to maintaining this diversity are habitat preservation and manipulation. Manipulation activities that help maintain wildlife diversity are: water level management, prescribed burning, grassland establishment, woodlot improvement, and wildlife food plot establishment.

2. Endangered and/or Threatened Species

Bald eagles were observed on waterfowl production areas and the office headquarters area during the spring, fall, and winter months. The Minnesota Department of Natural Resources reported peak observations of 70 bald eagles during the spring migration period, 45 during the fall migration period, and occasional sightings during the winter. A single nesting pair on the Lac Qui Parle State Wildlife Management Area produced two young this past year. Additional nesting within the District is suspected.

Other species found on units within the Morris District and determined species of special concern by either the State of Minnesota or the Service are: burrowing owl, horned grebe, American bittern, American white pelican, upland sandpiper, marbled godwit, Wilson's phalarope, common loon, and black tern. Black terns are also known to nest on Sherstad Slough WPA, Stevens County, and Barry Lake WPA, Big Stone County.



Black term nest on Sherstad Slough WPA. 90-32 6/5/90 BLA

3. Waterfowl



Spring use of wetlands by migrating waterfowl. 90-33 4/17/90 BLA

a. Swans

Tundra swans were first observed in the Morris District on March 12, 1990. Sightings continued throughout the spring and again in the fall with a peak concentration of several hundred occurring in March.

b. Geese

Migrant Canada geese were first observed on March 1 and snow geese on March 14. The Lac Qui Parle State Wildlife Management Area reported a peak population of 100,000 Canada geese in mid-October. Numbers built from 1,000 birds on September 21, to 100,000 on October 21, then dropped to 67,500 on December 18. The age ratio of geese, based on harvest data, expressed an older population than expected. Approximately two adults existed for every juvenile within the Lac Qui Parle goose population. Although no avian cholera was identified in 1990, a loss of at least 200 birds on December 20 was attributed to high winds, extreme temperatures (-40° to -50° fahrenheit) and icing of goose neck collars. The Manager of the Lac Qui Parle State Wildlife Refuge expressed concern in that he feels most if not all of the collared birds are lost annually due to icing of neck collars.

Production and breeding pair estimates for Canada geese were developed by Fergus Falls staff using the 1990 Four Square Mile plot data and information supplied by the Morris District. Approximately 2,131 goslings were produced by 846 pairs (2.52 birds/pr) on fee and easement areas in 1990.



Goslings produced on WPA. 90-34 5/11/90 BLA

c. Ducks

March 14 marked the first spring migration of ducks through the District. Primary species were common goldeneye and lesser scaup. By March 27, concentrations of birds had increased and common mergansers, pintails, buffleheads, ring-necked ducks, and shovelers were present in good numbers.

d. Waterfowl Production

In addition to natural nesting opportunities for waterfowl, nest baskets, grass bales, and nest boxes are provided to increase nesting opportunity. All structures are checked and maintained annually. Drought conditions left little to no water surrounding most nest structures during 1990. Of the 303 nest baskets, a total of seven nests were found: one goose and six duck. Success of the nests is unknown.

On the 25 grass bales, seven goose nests were found and two mallard nests. Two of the goose nests showed apparent success, three showed no success and two were abandoned. One mallard nest was successful.

Three wood duck nests were found among the 13 boxes in place on Long Lake and Edwards WPA's, Stevens County. An estimated 16 eggs hatched.



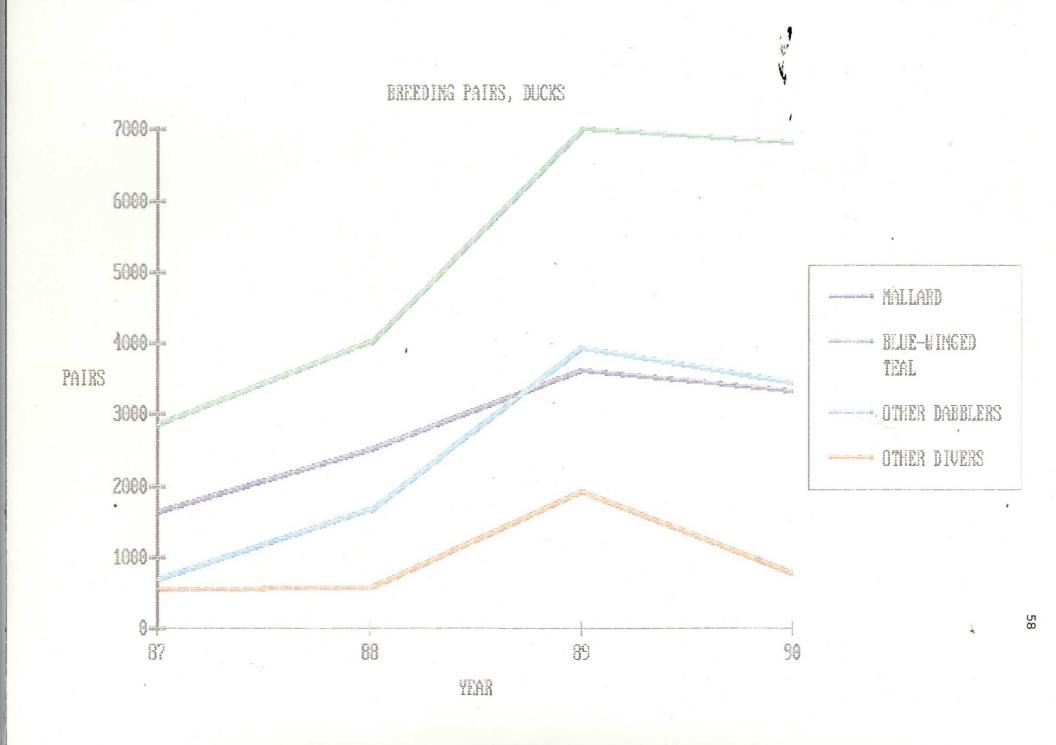
Wood duck checking before calling young out. 90-35 5/26/90 BLA

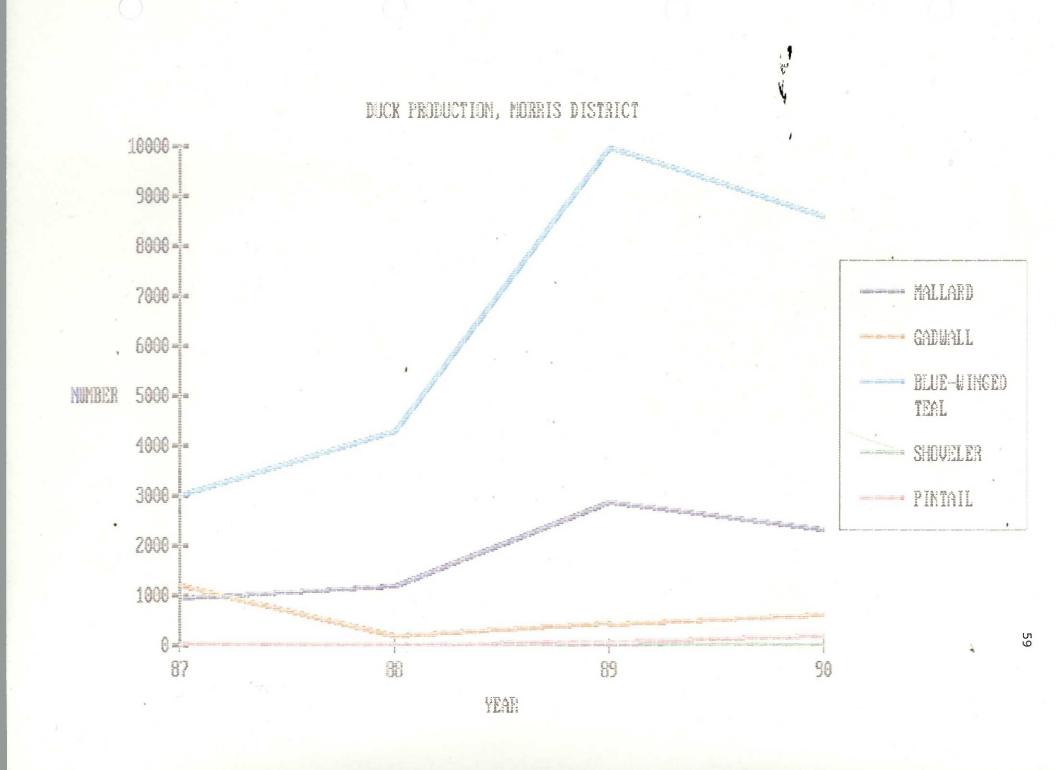
Production Estimates - Morris WMD - 1990

Species	Breeding Pairs	Production
Mallard Blue-winged teal Wood duck Shoveler Other duck species Canada geese	3,332 6,801 570 377 3,647 846	2,337 8,567 941 25 4,376 2,133
Total	15,573	18,379



Goose use of nest bale on Edwards Waterfowl Production Area, Stevens County. 90-36 5/8/90 BLA





4. Marsh and Waterbirds



Pelicans and commorants in Swift County. 90-37 8/9/90 AGA

Pelicans and cormorants can frequently be found throughout the District on lakes and sloughs during the spring and summer. Great blue heron, great egret, black-crowned night heron, pied-billed grebe, western grebe, sora rail, American bittern, least bittern, sandhill cranes, and common loons can also be found within the District during various times of the year. On April 2, approximately 400 sandhill cranes were observed migrating through the District.

5. Shorebirds, Gulls, Terms and Allied Species

North American woodcock singing ground surveys are coordinated by the Office of Migratory Bird Management and run by individuals throughout the United States and Canada. This survey provides an index to the woodcock breeding population in North America. Twelve woodcock were recorded "peenting" on the 1990 survey in Pope County on May 8.

Birds of this category begin to arrive in April and can be observed through spring and into summer. Birds common to the District include: killdeer, greater and lesser yellowlegs, Wilson's phalarope, marbled godwit, Forster's, common, and black terms, ring-billed, Franklin's and Bonaparte's gulls, spotted, solitary, pectoral, Baird's, least, and semipalmated sandpipers. An American avocet was also observed on May 12, 1990.



Killdeer nest and young. 90-38 5/11/90 BLA

6. Raptors

An unusual observation occurred January 31 when a snowy owl was sighted near Highway 59 and County Road $10\,$.

7. Other Migratory Birds



Young blackbird in cattails. 90-39 6/5/90 BLA

It has been noted that since the beginning of the Conservation Reserve Program, an increase in the number and diversity of upland bird species has occurred. Conservation Reserve Program fields on private lands have, undoubtedly, increased available habitat for numerous wildlife species.

8. Game Mammals

The Minnesota Department of Natural Resources reported a record harvest of white-tailed deer (Section H.8). The deer population has remained high the past couple years possibly due to moderate winters.



Deer populations continue to grow in west-central Minnesota. 90-40 6/13/90 BLA

Moose are occasionally seen in our District although no reports were received this year.

Coyotes are becoming more visible each year. Although the station predator/furbearer Scent Post Survey (Section D.5) did not show evidence of coyotes in our District, sightings have been reported by landowners in all seven counties.

10. Other Resident Wildlife



Pheasant populations have increased throughout the District. 90-41 3/20/90 BLA

The Minnesota Department of Natural Resources reported that the local pheasant population is in good shape. The statewide August roadside count showed a 38 percent increase in west-central Minnesota for 1990.

The August roadside count of Hungarian partridge showed a population decline of 11 percent in 1990.

The Minnesota Department of Natural Resources reported a slight decline in the skunk population; yet it remains near the five year high experienced last year.

11. Fisheries

In 1990, as in the past five years, the Minnesota Department of Natural Resources Area Fisheries Office in Glenwood requested the use of three type V wetlands on waterfowl production areas for rearing walleye fry to fingerlings. Due to dry conditions, the Bangor and Stammer WPA type V wetlands were not stocked.

MINNESOTA DNR FISHERIES STOCKING PROGRAM MORRIS WMD - 1990

County	<u>WPA</u>	No. of Fingerlings	Pounds
Pope	Rolling Forks	582	47

14. Scientific Collections

A total of three blue-winged teal were collected from Mud Creek WPA in Stevens County as part of the statewide contaminant study of waterfowl in Minnesota.

15. Animal Control

Predators

Franklin's ground squirrels were trapped within the predator exclosure fence (Section D.5) during 1990. Sixteen live traps were used for a total of 104 trap nights (one trap per night equals one trap night). Four Franklin's ground squirrels were caught along with 12 thirteen-lined ground squirrels and one field sparrow. All non-target animals were released and Franklin's ground squirrels were dispatched with a 22 caliber rifle.

Beaver

Two complaints were received this year for beaver control. The first complaint was from a landowner in Swift County. A beaver dam on the Svor WPA backed water into his corn field. The complaint was resolved after three beaver were removed by Service personnel.

On the second complaint, beaver had plugged a county road culvert and water control structure on Nelson Lake WPA in Pope County. One beaver was removed by Service personnel and a second by a trapper hired by the County Highway Department. The County also constructed a beaver guard on the culvert and the problem was resolved.

H. PUBLIC USE

1. General

Public use for the Morris Wetland Management District is spread over seven counties and 239 individual units. It is difficult to adequately encourage and inform the public in an area of this size to use the facilities and opportunities we offer on waterfowl production areas. Therefore, we focus our effort on trying to increase public awareness of the value of wetlands through our demonstration area, visitor contact station, environmental education programs, and news releases.

2. Outdoor Classrooms - Students

Environmental education workshops covering the values of wetlands, grasslands, and wind breaks in flood control, water quality, soil erosion, and ground water recharge were provided to local school districts and clubs throughout the year.

The Morris Wetland Management District provided information to area students on a variety of natural resource oriented subjects. The Morris, Chokio-Alberta, and Hancock school districts, along with a number of 4-H groups, demonstrated interest in wildlife management by seeking out information on management programs used on the Morris District. They were especially interested in programs they could become involved in.

3. Outdoor Classrooms - Teachers

The Morris Wetland staff assisted the newly created Lac Qui Parle School District in developing wildlife habitat and an associated environmental education program on their recently acquired 160 acre school grounds and facilities. Initial plans are for development of wetland, grassland, and woodland habitats for environmental educational purposes.

4. <u>Interpretive Foot Trails</u>

There are two interpretive foot trails in the Morris Wetland Management District. Both trails are self guided and are approximately one mile long. One trail is located on the Redhead Marsh WPA (Big Stone County) and derives much of its use from the community of Ortonville. The other trail is located on the Froland WPA (Pope County) and serves the communities of Benson, Starbuck, and Glenwood. Unfortunately, our work load prevents us from doing more than basic trail maintenance. Although both local residents and tourists use the trails, we do not know the amount of use each trail receives.

5. Interpretive Tour Routes

The demonstration area developed in 1989 at the headquarters site received very positive reviews during the year. The 2.5 mile gravel road through the Edwards WPA is a "show me" tour of wildlife habitat and wildlife management techniques such as: water level management, wetland restoration, grassland seedings, food plots, artificial nesting structures, nesting island, predator exclusion fence, and wildlife tree planting. The route is also open daily to the public for hiking, bicycling, or horseback riding. Auto or bus tours are given to groups by appointment or as part of environmental education programs.



The Natural History Series offered a wildflower walk and identification program at the Morris Wetland Office.
90-42 6/23/90 BLA

Bus tours were given to the Morris, Hancock, and Chokio-Alberta School Districts and to the University of Minnesota-Morris Natural History Series attendants. Other tours explaining the District's private lands program were given to Washington, D.C., Region 3, and Region 4 personnel as well as Ducks Unlimited and other organizational representatives during the year.



90-43 4/30/90 BLA

The waterfowl nesting basket and nesting bale are two of the exhibits displayed in the demonstration area on Edwards WPA, Stevens County.



90-44 4/30/90 BLA

6. Interpretive Exhibits/Demonstrations

District staff assisted the St. Cloud Wildlife Assistance Office in staffing a booth on wetland values and restoration at "Farm Fest" in August. The four-day show is put on for farmers and farm related distributors exhibiting the latest technologies in the farming industry. Attendance was very high with a large number of comments received concerning our display. Not all were in favor of our program, however.

Our permanent headquarters display consists of a series of panels that depict the purpose and work of the wetland management program with photographs, maps, and narrative.

7. Other Interpretive Programs

In April, the District staff hosted an informational program for Federal, State and local governments and private agencies throughout our seven county area. Those invited included staff from the Soil Conservation Service, Agricultural Stabilization and Conservation Service, Farmers Home Administration, Soil and Water Conservation Districts, Minnesota Department of Natural Resources, County Commissioners, County Extension Agents, local Watershed Districts, Congressional representatives, University of Minnesota personnel, and various conservation groups and organizations active in the seven county area. The informational program gave the attendees a quick overview of our station functions and the management programs we are involved This included joint venture programs where each agency, group or organization could work with the Service to attain a common goal. Seventy-three quests from 23 affiliates attended the six hour program.

A number of programs were presented to area youth and conservation groups by Morris District staff during the year. Some of the subjects covered were: Waterfowl Production and Management, Wetland Restorations, Prairie Plant Identification and Management, Prescribed Burning, and Hunter Education.

Station films were provided to schools and other groups as requested. News releases were given to local papers.

8. Hunting

The diversity of the waterfowl production areas in the Morris District offers much to the hunter. Some areas are excellent for fox hunting, some for gray and fox squirrels, some for cottontails or jackrabbits. Snipe, rail, and woodcock populations are spotty, but offer good shooting on a few of our areas. Even ruffed grouse in huntable populations are known to exist on at least three waterfowl production areas. Gray (Hungarian) partridge are abundant, but tough to hunt over most of the District. All in all, the Morris District offers good to excellent hunting for many game species.

A fair number of waterfowl hunters were out for the opening weekend of duck hunting with good success. Pressure dropped following the first weekend and remained low until the last weekend. Primary species taken in the Morris District were green-winged teal and widgeon. Overall, bird numbers and success for the season was poor to fair.

Goose hunters had fair success with a total harvest of 4,805 Canada geese (west-central zone) over the 40 day season. This was approximately 80 percent of the 6,000 goose harvest goal for 1990.

A record number of deer were harvested in Minnesota during the 1990 seasons. A total of 165,000 deer were taken during the firearm season. This represents a 28 percent increase over the 1989 harvest and a 26,000 animal increase over the previous record of 138,946 set in 1988. The Minnesota Department of Natural Resources attributes the high success to the increased number of antlerless deer permits issued, high deer populations, and mild weather during most of the firearm season.

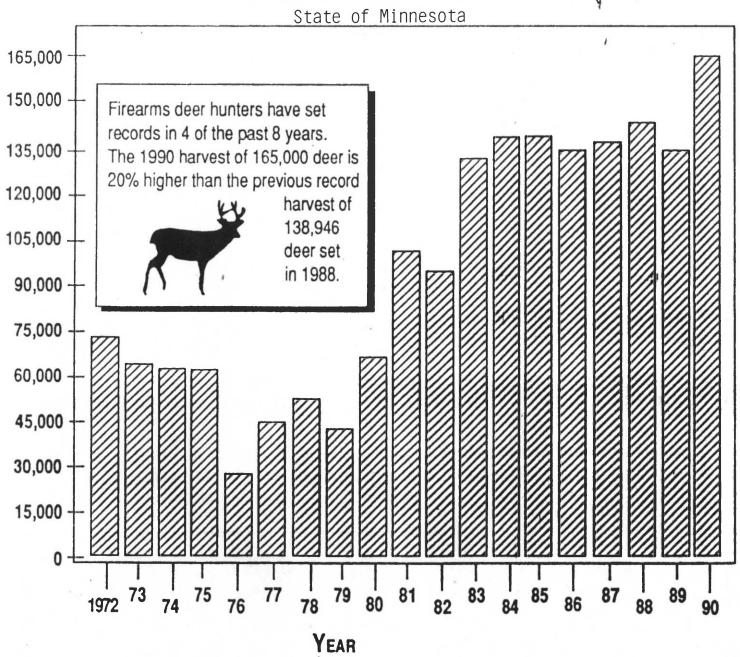
The Morris area set a new record in 1990 with a harvest of 2,244 deer, up 26 percent from 1989.

Several new areas within the District were opened to a special muzzleloader hunt. The areas in Lac Qui Parle and Big Stone Counties included nine waterfowl production areas. Fourteen deer were taken in the Lac Qui Parle hunt. Harvest results for the Big Stone County hunt are not yet available.



Doe observed on waterfowl production area. 90-45 12/7/90 BLA

FIREARMS DEER HARVEST



As reported by the Minnesota DNR, spring and summer surveys statewide indicated hen and rooster pheasant numbers to be higher than the last several years. Routes through the primary pheasant range increased from 39.8 birds per 100 miles in 1989 to 57.56 birds per 100 miles in 1990. This is a 46 percent increase. Good cover on Conservation Reserve Program and Re-Invest in Minnesota lands, in addition to increased breeding hen numbers, led state biologists to expect a record year. Heavy rains during the nesting season, however, caused significant losses of nests and chicks. The end result being reduced overall production.

The West-Central Region did not fair as well as other regions. Roadside counts showed an increase in the number of birds per 100 miles, up 38 percent in 1990 (46) over 1989 (33), but down four percent from the five year mean (48). This left the West Central Region with the lowest index of the 64 counties in the primary pheasant range. The median hatch date for the West Central Region was estimated to be June 15, with the number of broods per 100 hens down 14 percent in 1990 from 1989.

Harvest data is presently being tabulated and won't be available for another two months. Informal results indicate that although production was not as good as expected, hunter success was good in most counties.



Pheasant hunters on Pomme de Terre River WPA, Stevens County. 90-46 10/13/90 LEL

9. Fishing

Although good fishing opportunities abound within the Wetland District's seven county area, minimal fishing resources exist on the waterfowl production areas. Two units, Artichoke Lake WPA (Big Stone and Swift Counties), and Heidebrink WPA (Pope County), offer the best fishing opportunities. Shoreline fishing along Artichoke Lake WPA could result in northern pike, walleye, crappie, and bluegill catches. During the spring months, northern pike can be found along a section of the Chippewa River that runs through Heidebrink WPA.

10. Trapping

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Minnesota has over 9,000 licensed fur trappers. Trapping occurs in all seven counties of our District. Due to the size of our District, we are unable to obtain specific data on harvest or trapping pressure for individual waterfowl production areas.

State harvest records show red fox, beaver, and mink harvests were the highest ever recorded. Although fur prices were low, trappers continued to trap for recreation and profit.

1990 FUR PRICES

Red Fox	\$ 5.00 - \$10.00
Raccoon	\$ 2.00 - \$ 6.00
Mink	\$15.00 - \$24.00
Beaver	\$ 8.00 - \$10.00
Muskrat	\$.50 - \$ 1.00

The Minnesota predator/furbearer Scent Post Survey (Section D.5) showed an increase for red fox and raccoon in the District over last year. The continued high predator populations in 1990 may be related to low fur prices but are more likely related to increased prey populations due to increased habitat provided by the Federal Conservation Reserve Program and the State Reinvest in Minnesota program.

11. Wildlife Observation

As waterfowl production areas are developed and become more and more established in the community, the local residents become aware of the opportunities they offer. Probably the most important aspect is the casual wildlife observation of people "just driving by." Waterfowl, deer, pheasants, and a myriad of other wildlife are there.

Many bird watchers take advantage of the waterfowl production areas. Because of the lack of good habitat in the surrounding areas, migratory and resident birds tend to concentrate on the units to the joy of the birders.

12. Other Wildlife Oriented Recreation

Hiking, snowshoeing, cross-country skiing, photography, and mushroom hunting are just a few of the other wildlife oriented recreational opportunities offered on waterfowl production areas. Since no motorized vehicles are allowed on our units, many individuals find that simple peace and quiet is the most beneficial aspect of a visit to a waterfowl production area.

17. Law Enforcement

Three people on the Morris staff have law enforcement authority. Most enforcement activities are associated with easement violations or resolving waterfowl production area problems. Citations are seldom necessary in resolving these problems.

State Conservation Officers have primary responsibility for hunting season enforcement. We maintain good rapport with these State Officers and work cooperatively upon request and during waterfowl season.

The following cases, made cooperately with Minnesota DNR Officer Mike Sheldon, were processed through State court.

Offense		No. Cases	Disposition
Unsigned Waterfowl Stamp (Floaters)		4	Forfeit \$32.00 each
Hunting with Toxic (lead) Shot		1	Forfeit \$65.00
License not in possession	-	1	Warning citation (license later verified)

I. EQUIPMENT AND FACILITIES

1. New Construction

Farm Bill

There was a great amount of activity in this area which was reported on earlier in this report (Section F.15).

Ducks Unlimited

Ducks Unlimited completed the restoration of two marshes within our District this past year. They funded both jobs from start to finish. This included topographic surveys, hydrology reports, design, and construction. Construction costs were approximately \$40,000 total for both sites. Commerford Construction of Danvers, MN, was the contractor for both jobs.

Wall WPA in Pope County was the first restoration completed. The construction of three dikes, a full round 48 inch riser water control structure was completed by mid-September and will restore a 30 acre partially drained marsh. The borrow site for this project was located at the base of a peninsula and at the completion of construction resulted in a three acre nesting island.



Wall WPA, Pope County, during Ducks Unlimited Construction. 90-47 8/30/90 BLA

The second site was on Chokio WPA, Stevens County. This project was the restoration of a 22 acre partially drained marsh. A dike with a 48 inch full round riser was constructed.



Ducks Unlimited contractor on Chokio WPA, Stevens County. 90-48 10/11/90 BLA

Loen WPA

A 220 foot dike with a 36 inch half round riser was installed on the Fahl tract of the Loen WPA, Swift County. The District purchased the structure and contracted the construction work. This structure will create a three acre marsh in a native grass pasture.



New water control structure on Loen WPA, Swift County. 90-49 10/25/90 BLA

Miller WPA

A partially drained nine acre marsh was restored on the south end of the Miller WPA. This marsh was drained with a ditch prior to our purchasing it. A State permit and coordination with the County Highway Department required over a year's time. After receipt of necessary permits, a 24 inch CMP 30 feet long was installed in the outlet ditch at an elevation that restored 2.5 feet of water to the marsh.

Fee Ditch Plugs

A total of 26 wetlands were constructed on newly purchased fee tracts throughout the District this past year. Following is a table of construction sites:

DITCH PLUG WORK - MORRIS WMD - 1990

County	Unit	No. Plugs
Big Stone	Hillman	5
Lac Qui Parle	Goodman	6
Stevens	Long Lake McNally Slough Thorstad	2 5 1
Swift	Fahl	5
Yellow Medicine	Dakota	_2
Total		26

2. Rehabilitation

Two building sites were cleaned up during the past year. On the Discher tract of Artichoke WPA, Big Stone County, two houses, a garage, barn, and well house were buried after they were offered for sale but received no bids. On the Hillman WPA, Big Stone County, a metal cattle shed was bid on by several people and sold to the high bidder for \$870.00. After the shed was moved, the foundation and concrete floor were buried and the site seeded.



Cattle shed on Hillman WPA, Swift County, before removal. $90-50 \quad 10/4/90 \quad \text{BLA}$



Site being seeded after shed was removed and concrete floor and foundation buried. 90-51 11/15/90 BLA

3. Major Maintenance

D-6

This station shares a D-6 cat with Agassiz National Wildlife Refuge. During the 1,000 hour service of the cat, it was discovered that the steering clutch and brake needed repair. The total cost for the service and repair was \$2,835.13.

Office Building

The rough cut cedar and redwood siding of the office building needed treatment last summer. We contacted the U.S. Forest Service's Wood Products Lab in Wisconsin after receiving conflicting advice from local paint stores and Regional Office Engineers. They suggested a stain product that worked very well and the building looks great.

4. Equipment Utilization and Replacement

The lack of funds for vehicle replacement combined with increased vehicle use due to Farm Bill activities has resulted in a greatly expanded maintenance load to keep vehicles roadworthy. It has been four years since a replacement vehicle was received at this station. With up to 12 vehicles on the road daily during eight months of the year, we need to order approximately two vehicles per year to spread out costs and keep the fleet safe and operational. Presently we are creating a very large backlog of vehicles which need to be replaced.

Fire Funds

A new 300 gallon slip-on fire pumper was ordered and received this year. Also, a one-ton 4x4 pickup was ordered. Both items were funded from fire funds.

Level

A new laserplane level was purchased for this station by the Regional Office. This level is labor saving by turning many two person surveying jobs into one person jobs. In these times of limited FTE's, this is a great help. We are still in the process of learning all the ways to efficiently use the level.



New laserplane level. 90-52 10/5/90 AGA

5. <u>Communications Systems</u>

There were no major breakdowns this past year. The Motorola equipment purchased in 1983 has continued to work very well.

Four hand-held radios were purchased with fire funds this past year. Two were Motorola brand on the Refuge frequency and two were on FM frequency with head sets to be used on the pumper.

6. Computer Systems

At this station we have two independent IBM P.C. Model 60 computer systems. We continue to add programs that help save time for us and for Regional Office personnel.

This year we learned the value of having our machines under a maintenance agreement. We had to replace our monitor and hard disk on one machine last summer.

7. Fnergy Conservation

The staff continues to work with the Regional Office Engineering section for solutions to the heating problems that have existed in the office building from the day we moved into the building.

J. OTHER ITEMS

3. Items of Interest

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REVENUE SHARING PAYMENTS - MORRIS WMD

County	FY88	FY89	<u>FY90</u> *
Big Stone Lac Qui Parle Pope Stevens Swift Traverse Yellow Medicine	\$16,513 3,499 19,573 19,556 17,654 6,752 159	\$18,859 4,727 21,556 21,418 19,335 7,395 486	\$
Total	\$83,706	\$93,776	

^{*}Payments for FY90 have not been received at this time.

Revenue sharing payments are important to our acquisition program. The county commissioners are always interested in the percentage of the calculated annual payment their counties receive. The reduced payments are now causing the slowdown of acquisition in several counties in Minnesota. Big Stone, Swift and Pope Counties will probably not certify additional fee tracts until 100 percent payments are received. Unless authorization for increased revenue sharing payments is received in 1990, it is expected that all acquisition will be curtailed in the Morris Wetland Management District.

Special Achievement Awards

The permanent staff at Morris all received awards for Farm Bill work accomplished in 1990. Larry Lewis received a Quality Step Increase Award for his dedication and hard work in handling Swampbuster problems. The remaining members of the permanent staff received Special Achievement cash awards.



Steve and Wendy headed west. We wish them the best. 90-53 4/18/90 BLA

4. Credits

The following staff members contributed to this report.

Stettner: I (6), all typing and assembly of report.

Angus: B, F (1-12).

Bober: E (1-6), I, and J (1-2).

Anderson: G (8-17), H (10).

Kimbrell: D, E (7), G (1-7), H (1-9, 11-16), and editing.

Lewis: F (13) and H (17).
Radtke: A, C, J (3-4) and K.

Haugen: H (1-9).

F (15) - was written by Lewis, Anderson, Kimbrell, Haugen, and Radtke.



"There is no quiet place in the white man's cities. No place to hear the leaves of spring or the rustle of insect wings. But perhaps I am savage and do not understand — the clatter only seems to insult the ears. And what is there to life if a man cannot hear the lovely cry of the whipporwill or the arguments of the frog around the pond at night?"

From a letter written and sent to President Franklin Pierce in 1855 by Chief Sealth of the Duwanish tribe.