

MORRIS WETLAND MANAGEMENT DISTRICT

Morris, Minnesota

ANNUAL NARRATIVE REPORT

Calendar Year 1981

U. S. Department of the Interior
Fish and Wildlife Service
NATIONAL WILDLIFE REFUGE SYSTEM

APR 21 1982

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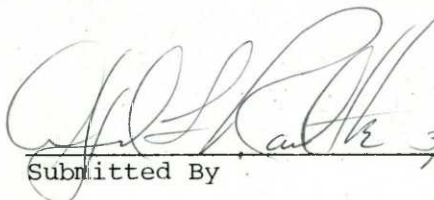
PERMANENT PERSONNEL

1. Alfred L. Radtke, Wetland Manager, GS-12, PFT
2. Maxine A. Telander, Administrative Technician, GS-5, PFT
Resigned 8/21/81
3. Bernard L. Angus, Soil Conservationist, GS-11, PFT
4. Gaylord J. Bober, Assistant Wetland Manager, GS-11, PFT
5. Norma E. Swan, Maintenance Worker, WG-7, 50 weeks
6. Richard D. Schultz, Assistant Wetland Manager, GS-9, PFT
7. Donald E. Maki, Refuge Officer, GS-11, PFT
8. John T. Hutchinson, Biological Technician, GS-6, PFT
9. Clayton A. Christenson, Motor Vehicle Operator, WG-7,
Seasonal-8 months/year

TEMPORARY PERSONNEL

1. Karen M. Stettner, Administrative Technician, EOD 10/5/81
1 year appointment
2. Rodney G. Ahrndt, Tractor Operator, 4/19/81 to 9/19/81
3. Daniel J. Orr, Biological Technician, 10/5/80 to 6/12/81
4. Steven M. Kittelson, Biological Technician, 5/3/81 to 9/18/81
5. Anthony J. Batya, Biological Technician, 4/26/81 to 9/18/81
6. Daniel C. Redline, Biological Technician, 4/26/81 to 8/22/81
7. Bruce Andrews, Biological Technician, 4/26/81 to 8/22/81
8. James Barter, YACC Work Leader, Terminated 9/18/81
9. Jeffrey P. Hoffman, Summer Youth Employment Program, C.E.T.A.
6/21/81 to 8/28/81 - 320 hours

REVIEW AND APPROVALS


Submitted By _____ Date 3/2/82


Complex Office Review _____ Date 3-4-82


Area Office Review _____ Date 4/9/82


Regional Office Review _____ Date 4-14-82

PERSONNEL



Alfred L. Radtke
Wetland Manager



Gaylord J. Bober
Asst. Wetland Mgr.



Richard D. Schultz
Asst. Wetland Mgr.



Donald E. Maki
Refuge Officer



Bernard L. Angus
Soil Conservationist



John T. Hutchinson
Biological Tech.



Karen M. Stettner
Administrative Tech.



Norma E. Swan
Maintenance Worker



Clayton E. Christenson
Motor Vehicle Operator

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K. FEEDBACK

A. HIGHLIGHTS

A new office building for the Wetland Management District (WMD) was completed this year (Section I.1).

The Benson WMD name changed to the Morris WMD to comply with the change in office locations (Section J.2).

Easement acquisition program was highly successful this year, especially in Big Stone County (Section C.2).

The BLHP era is over. If we only had another five years. . . . (Section E.5).



The success of the easement acquisition program improved in 1981 and several key marshes are now protected (Hagstrom Easement, Stevens County). 81-1 DEM

B. CLIMATIC CONDITIONS

The winter of 1980 was very mild with only a light snow covering and moderate temperatures. The lack of snow resulted in below average spring runoff and thus potholes were in fair to poor condition for spring migration and breeding pair activities. Dry conditions prevailed through spring and early summer, especially in the western part of the WMD. Many of the wetlands in the eastern portion of the district were partially recharged by heavy June rains. These basins held water throughout the fall. The western section of the WMD continued to be dry and brood marsh levels dropped. Over-all, brood habitat was good but production was reduced because of poor breeding pair habitat. Impoundments with water control structures were maintained at or near desired levels.



June rains provided adequate brood water but the lack of spring breeding pair areas reduced duck production.

81-2 RDS

Fall migration habitat was adequate for waterfowl and other migratory birds even though fall and early winter precipitation was below normal. Temperatures were mild and no early blizzards occurred. Approximately ten inches of snow was present at the end of this reporting period. Large quantities of snow and/or rain will be needed in early 1982 to restore conditions for prime waterfowl production.

C. LAND ACQUISITION

1. Fee Title

Fee acquisition decreased again this year because acquisition funds were very tight. The WMD counties were prioritized because of the fund shortage. Our priorities for 1981 were Big Stone, Traverse, Stevens and northwest Swift.

Only two transactions involving fee were completed during 1981. The Strubbe tract in Stevens County added 160 acres to the Peperton WPA. In addition, a trade with Arden Loen in Swift County resulted a net loss of 1.2 acres because of land value differences (26.50 acres for 25.30 acres). This trade provided needed round-out for the development of a 33 acre marsh on the east portion of Loen Waterfowl Production Area (WPA). These two transactions and a realty correction for the Rand trade (Rothi WPA, 1980) increased district acreage by 158.89 acres for a grand total of 39,848.30 fee acres. The 158.89 acres for 1981 compares to 253.34 acres purchased in 1980 and 430 acres purchased in 1979.

As previously eluded to, only one land exchange was completed in 1981 as compared to seven in 1980. Most of the proposed exchanges in the district have now been completed or offers have been made to affected landowners. The trades during the past two years have had a very positive affect on county boards and WPA neighbors. The exchanges have corrected significant management problems and have been an excellent public relations tool.

The future of the acquisition program is unknown because of the funding question. Based on 1981, land can be purchased if money is available. The resource is decreasing rapidly because of drainage and development. However, enough wetlands and needed upland acres still remain to reach our acquisition goals.

WATERFOWL PRODUCTION AREA ACREAGE - MORRIS WMD - 1981

<u>County</u>	<u>Acquisition</u> <u>to 12/31/80</u>		<u>Acquisition</u> <u>total 12/31/81</u>		<u>Goal</u>
	<u>Units</u>	<u>Acres</u>	<u>Units</u>	<u>Acres</u>	<u>Acres</u>
Big Stone	58	8,800.90	58	8,800.99*	15,600.00
Lac qui Parle	16	2,457.58	16	2,457.58	9,650.00
Pope	63	12,255.24	63	12,255.24	22,250.00
Stevens	51	7,456.50	51	7,616.50	12,850.00
Swift	25	6,034.67	25	6,033.47	10,800.00
Traverse	10	2,614.52	10	2,614.52	6,720.00
Yellow Medicine	2	70.00	2	70.00	1,260.00
Total	225	39,689.41	225	39,848.30	79,130.00

*Realty correction for Rand trade in 1980.

The certification requirements agreed to between the FWS and the Minnesota DNR continued. Optioned tracts are first presented to county commissioners for certification and then sent to the Land Exchange Board for final approval. This board consists of the Governor, Attorney General and State Auditor. If the county commissioners approve the sale of a tract, the Land Exchange Board will usually agree and allow the sale. If the commissioners oppose the sale, the landowner can appeal to the Land Exchange Board. The Board's decision is often related to the amount of organized opposition to the sale.

The status of the acquisition program is discussed by county as follows:

Big Stone County

Easements have not been a certification problem recently. We spent two to three years working out the old problems with the commissioners and they treat us well now. Improved weed control, land trades and improved communications have made the difference. Fee tracts have not been presented recently but we would expect opposition to any land purchases because of the fear of additional government ownership. Big Stone County will be a high priority again in 1982. Many excellent basins remain but drainage and development continue at an accelerated rate.

Lac qui Parle County

No work done during 1981.

Pope County

No work done during 1981. The county board has not been easy to deal with because of anti-federal and state government feelings. We would expect certification in most cases but it could be a long and bitter battle. Private land development is increasing because of lower land prices in this county. Fee and easement work is needed as soon as possible.

Stevens County

Fee and easements have been certified with no problems. The county board has been easy to deal with since our weed control program has improved. Work on fee and easement acquisition will continue in 1982, as only a portion of the county was covered in 1981. It remains a high priority county. The Strubbe tract (160 acres) was acquired this year.

Swift County

The Loen trade and several easements were presented to the county board this year. We have a good working relationship with the board and wouldn't expect opposition to fee or easements unless the tract would block private drainage or cause some other major

problem. This county board requires us to take all tracts to the township boards first. Work was done primarily in western Swift in 1981 but eastern Swift County needs acquisition work as soon as possible because development has accelerated rapidly in the more marginal farmland areas.

Traverse County

The county was heavily worked for fee roundout and easements in 1981. Re-contact work is all that remains. Few landowners are willing to participate in our fee or easement program in Traverse County. However, if tracts are obtained, our relationship with the commissioners is excellent and we should have no certification problems.

Yellow Medicine County

No work done during 1981.

2. Easements

Due to increased emphasis on easements, the acquisition of waterfowl management easements increased dramatically in 1981 when 426 wetland acres were protected with the 26 easements purchased. In contrast, only 55 wetland acres were placed under easement in 1980. The majority of our easement acquisition efforts occurred in Big Stone, Swift, Traverse and Stevens Counties. At the close of this reporting year, additional easements were being acquired, especially in Big Stone County. The status of the easement program at Morris WMD is presented in the following table.

EASEMENT PROGRAM STATUS - MORRIS WMD - 1981

<u>County</u>	<u>Easements</u>	<u>Wetland Acres</u>	<u>Total Easement Acres</u>	<u>Total Goal Acres</u>
Big Stone	128	4,752	17,496.17	47,640
Lac qui Parle	11*	457	1,358.41	23,540
Pope	125	5,456	20,706.91	54,180
Stevens	21	561	1,881.46	6,090
Swift	22	508	1,816.09	14,540
Traverse	26	967	3,326.01	8,440
Yellow Medicine	1	17	80.00	7,860
Total 1981	334	12,718	46,665.05	162,290
Total 1980	306	12,292	44,343.56	162,290
Total 1979	301	12,237	44,061.83	162,290

*Increased by two because of previous error in records.

Landowner's interest in selling easements appeared to have decreased during the past several years. However, in 1981, as soon as we started working tracts in the county, it set off a chain reaction. One landowner would sign up and we then would get a call from a neighbor about the possibility of placing his wetlands under easement also. This was especially true in Big Stone County where 17 easements were added in 1981. The current economic pressures probably favors this program also.

We continue to try to preserve natural wetlands that are within a two mile radius of fee owned WPAs. Our managed WPAs will provide the nesting cover to compliment the easements.

The county commissioners review all easement proposals for certification. The procedure is the same for fee tracts. Interference with existing or proposed drainage systems is the main concern about easements expressed by the commissioners. The commissioners don't oppose most easement transactions. There seems to be less opposition to easements in comparison to fee tracts because the land remains "on the tax rolls" and no upland is taken out of agricultural production.



The new Maanum Easement in Stevens County is within one mile of the Grote WPA. 81-3 DEM

D. PLANNING1. Master Plan

The major project of writing development (land use) plans continues. Approximately 20,000 acres of WPAs have been planned at the end of this reporting date. It is anticipated that 6,500 additional acres will be planned in 1982. Rick Schultz, John Hutchinson and Bernie Angus are members of the planning team and have spent approximately three months each completing the 10,000 acres scheduled for 1981.

2. Management Plan

Ms. Peggy Morris, I and R Specialist, completed the Morris Wetland Management District I and R Plan. This plan is discussed in detail in Section H.1.

E. ADMINISTRATION1. Personnel

Permanent staff was reduced to eight positions this year as Maxine Telander separated from the FWS because of the move from Benson to Morris. Her permanent full time administrative technician position has been filled temporarily by Karen Stettner.

Overall, there was a drastic reduction in manpower this year as the BLHP and YCC programs geared down. Other than our regular staff, only three YACC people were employed at the end of 1981.

MORRIS WMD STAFF SIZE 1977-1981

	<u>Full Time</u>	<u>Part Time</u>	<u>Temporary GS & WG</u>	<u>*Other Programs</u>
FY81	6	2	8	8
FY80	7	2	18	51
FY79	7	2	21	45
FY78	7	2	18	36
FY77	8	1	11	31

*YCC, YACC, Work Study, etc.

The district was host to a YACC satellite camp under the administration of the Tamarac YACC camp. At the beginning of the year there were seven enrollees and one work leader. By the end of the year there were only three enrollees and they were administered from Bombay Hook NWR. We are sorry to see the YACC program terminated because over the past three years the program has contributed greatly to the work effort at this station.

Their work projects this past year were integrated more with the station staff. They assisted with vehicle and equipment maintenance, fence construction, building site cleanup, control burns, etc.

One individual worked under the C.E.T.A. program during 1981. Jeffrey Hoffman was enrolled in the "Summer Youth Employment Program" and provided much needed janitorial and lawn care at the new office site.

5. Funding

The district's funding for FY81 dropped below recent levels because of the reduction in BLHP funds. The BLHP funds available this year were used to build boundary fence. Junk cleanup, ditch plug work, and boundary posting are virtually complete on older WPAs with only new acquisition tracts needing work. Fencing, interior fence cleanup and habitat restoration projects will need many additional dollars for completion. However, major trespass areas have been fenced and the serious weed problem areas have been drastically reduced by reseeding native grasses during the past five years.

MORRIS WMD FUNDING LEVELS FY77-FY81
(Dollars in Thousands)

<u>FY</u>	<u>MB</u> 1210	<u>MNMB</u> 1220	<u>I&R</u> 1240	<u>Ascertain.</u> 3110	<u>Major</u> <u>Rehab.</u> <u>Const.</u>	<u>Total</u> <u>Budget</u>
81	365.5	5.0	20.0	10.0	29.0	429.5
80	260.0	10.0	10.0	10.0	340.3	630.3
79	262.0	5.6	12.0	10.0	638.1**	927.7
78	226.0	5.0	31.0*	10.0	254.2	526.2
77	149.7	1.5	9.0	4.0	160.0*	324.2

*Includes cyclical maintenance money.

**Includes new Morris Office.

6. Safety

Safety meetings were held each month throughout the year. Topics for the safety meetings were chosen by the safety committee. The safety committee, consisting of three staff members appointed for a three month period, also held monthly meetings, conducted grounds and equipment inspections, followed through on safety recommendations, and investigated accidents.

Safety meeting topics this year were many and varied. The highlight of the meetings was the one on Electrical Hazards, presented by Glen Friedrich from the Agralite Electric Association.

Mr. Friedrich, with the aid of models and mock-up situations, made the entire staff much more electricity conscious. Other topics included: Hunting Safety, Winter Driving, Motorcycle Safety, and Safe Use of Pesticides.

One minor vehicle accident occurred this year. Bruce Andrews, temporary biological technician, caught a sign post with a rear-view mirror and damaged the door on a pickup. Personal injuries amounted to no more than a few minor cuts and bruises. This station still has not had a lost time injury since September 19, 1969 (4,455 days at the close of the year).

Our station safety plan was updated and submitted for approval. The only safety equipment purchased this year was new hard hats for the entire staff. Some of our old hats were not up to standard and some had deteriorated head supports.

7. Technical Assistance

Maki and Hutchinson participated as teachers and specialists in wildlife and firearms in the Benson, Minnesota area Hunter Safety Program. Ninety students were enrolled.

Members of the Morris staff acted as consultants to the Prairie Sportsmen's Club of Benson, Minnesota. The staff helped the club to establish a native grass plot at a local historic landmark and in creating and judging a school wildlife poster contest.

F. HABITAT MANAGEMENT

1. General

The following table summarizes the different habitat types in the Morris district.

HABITAT SUMMARY, MORRIS WMD 1981

<u>Cover Type</u>	<u>Acres</u>
Wetland	12,445
Timber	1,362
Croplands	16,142
Grasslands	9,546
Total	39,495*

* Total acreage not equal to acreages reported in Acquisition section because some recently acquired tracts haven't been inventoried for habitat type.

2. Wetlands

Wetlands comprise 12,445 acres or approximately 32% of the fee title ownership in the Morris WMD. An additional 12,718 acres of wetlands are protected under waterfowl production easements.

During 1981, the district managed seven pools with water management capabilities. Two additional structures were constructed in October, 1981, one each on Loen WPA, Swift County, and Stewart WPA, Pope County. Total acreage for all managed pools is 341 acres. Our 1982 water management program for each pool is briefly described below.

Bengtson WPA - Swift County - 38 acres

The combination of heavy June rains, persistent beaver and high muskrat populations effectively eliminated the emergent aquatics. For 1982, this pool will be drawn down to allow the re-establishment of vegetation.

Moore WPA - Stevens County - 27 acres

Maintenance of brood water on this pool has historically been difficult. In order to maintain brood water for as long as possible, another six inches of stop logs will be added. The combination of increased water levels and anticipated periodic rainfall will hopefully result in permanent water in 1982.

Overby WPA - Pope County - 31 acres

Water levels on this pool fluctuated between six and twelve inches above desired elevations throughout 1981 even though overflow pipes were installed to control beaver. The pipes failed and many of the emergents in the lower portions of the pool were eliminated. For 1982, we propose an early spring and summer draw down to re-establish the vegetation.

Nelson Lake YCC Pool - Pope County - 150 acres

This pool will also be partially drawn down to encourage the regrowth of aquatic emergents. Following its regrowth, an annual cycle of spring flooding and fall draw downs will be implemented. The benefits of this are (1) spring hay infusion for breeding pairs, and (2) aquatic emergents will be maintained. This cycle will be repeated until a complete draw down is needed.

Nelson Lake Beaver Pool - Pope County - 21 acres

This pool presently contains an abundance of willow and alder interspersed among semi-floating cattail mats. The combination of relatively high water and a large beaver dam constructed across the center of the pool has reduced the brush. For 1982 we propose to continue the existing trends and eventually eliminate the woody species.

Grote WPA - Stevens County - 26 acres

This pool presently contains a near solid stand of cattails. Through a moderate increase in water levels in 1982 (1 to 1.5 feet), we anticipate a reduction in the density of distribution of the cattails. This was attempted in 1981 but failed due to the lack of spring runoff. The pool will again be evaluated and adjustments made in the levels following 1982.

Ben Wade WPA - Pope County - 10 acres

This pool was historically subjected to an annual drawdown prior to the installation of the water control structure in 1980. The annual drawdown produced abundant aquatic invertebrates and also maintained a dense stand of canary grass. Heavy use of waterfowl breeding pairs and broods occurs on this pool. Our objective for 1982 is to simulate the conditions of previous years and continue to produce abundant aquatic invertebrates. The water level will be held high until early June and then gradually lowered until completely dry by September. Several valuable permanent marshes are available nearby to provide brood habitat following the drawdown.

Stewart WPA - Pope County - 6 acres

This marsh was partially drained prior to its acquisition in 1976. In order to improve its condition, a ditch plug was constructed in 1976. The water depths resulting from the ditch plug eliminated most emergent aquatics. Therefore, a water control was installed in 1981 to allow better water management. The main objective of this pool is to provide breeding pair and brood habitat. During the fall of 1981, all of the boards on the structure were removed to allow vegetative regrowth in 1982. Following adequate regrowth, the annual water management plan of this pool will be similar to that of Ben Wade WPA in which the pool is flooded during early spring and gradually lowered through the summer and early fall.

Loen WPA - Swift County - 32 acres

This pool presently consists of small cattail and Phragmites stands interspersed among willow thickets and hummocks. An early private ditch partially drained the area. It is in this ditch that the ditch plug and water control structure were built in 1981. The objective of this pool is to produce diverse breeding pair and brood habitat. With this in mind, the depth will be gradually increased until optimum pair habitat is achieved. For 1982, the pool will be raised 2.5 feet. The response of the vegetation to these water levels will be evaluated at the end of the year.

3. Forests

The Benson WMD presently manages 1,362 acres of timber. The majority of these trees consist of abandoned farm groves or mature willow, elm and cottonwood surrounding wetlands. The only forest

land acres in the district are located in eastern Pope and Swift Counties and consist of oak, maple, ash, and basswood complexes characteristic of eastern deciduous forests.

The district also contains 28 wildlife tree plantations totaling 77 acres. Most have been planted since 1970 by the Minnesota Department of Natural Resources under a cooperative agreement. The state controls weeds until the plantation becomes established. Species include spruce, wild plum, honey suckle, caragana, Russian olive, and Siberian elm. Both Russian olive and Siberian elm will be eliminated from future wildlife planting since they are prolific invaders of adjacent grasslands.

Sixteen old farm groves were identified and approximately one-fourth of each grove was cut to improve the areas for resident game and non-game species. The trees were not cut completely through but just enough for them to go over. The trees stay alive and sprout young dense cover.



YACC Crew cutting grove on Svor WPA for habitat improvement. 81-4 JTH



Finished product of a grove improvement project on
Svor WPA, Swift County. 81-5 JTH

MORRIS WMD 1981

GROVE CUTTINGS FOR HABITAT IMPROVEMENT

<u>County</u>	<u>WPA</u>	<u>Date Cut</u>
Big Stone	Olson	2/4/81
Big Stone	Wagner	2/5/81
Big Stone	Karskey	2/6/81
Big Stone	Stegner	2/17/81
Lac qui Parle	Boraas	1/29/81
Lac qui Parle	Bolson Slough	1/30/81
Pope	Rolling Forks	1/26/81
Pope	Walden	2/4/81
Pope	Moen	2/6/81
Pope	Ben Wade	2/11/81
Pope	Rosby Lake	3/5/81
Stevens	Stevens	1/28/81
Swift	Svor	1/24/81
Swift	Big Slough	1/26/81
Traverse	Mosquito Ranch	2/19/81
Traverse	Geyer	2/19/81

4. Croplands

The Morris district has a total of 27,050 upland acres. Approximately one-half of that total is former cropland. The majority of the cropland acreage was seeded to alfalfa and bromegrass mixtures at the time the WPAs were purchased. Many of these seedings are 8 to 10 years old and the cover is generally poor at present. Many have become noxious weed problems.

The Morris district is emphasizing the use of native grasses for nesting cover. Their longevity, lodging resistance, height and residual cover make them excellent wildlife habitat. Furthermore, maintenance costs of reseeded natives are much lower than introduced grass-legume mixtures. Approximately 3,500 acres have been reseeded to native grasses in the past five years.



Native grass seedings provide excellent nesting cover.
Robel Pole is 1.5 meters high. 81-6 BLA

Farming in the district was accomplished primarily through special use permits and was used to prepare seedbeds for future native grass seedings. Units with high waterfowl production potential, poor nesting habitat and noxious weed problems were selected. Approximately 500 acres are put into farming each year as 500 to 1,000 acres of cropland are reseeded to native grass. Permits in effect for 1981 covered 2,077 acres on 40 WPAs.

The fields under the special use permits are cropped for a minimum of two years and preferably three. Any crop may be grown except the last year when only soybeans, oats, barley or flax are allowed. These crops will generally leave the soil in good condition to seed natives. The cropping period allows time for the old sod and residue to decompose, to obtain a better weed control and to prepare a smooth, firm seedbed.

A total of 1,126 acres were planted to native grasses in 1981. The techniques used are described in detail in the 1979 and 1980 narratives. Seeding mixtures varied according to soil type. The predominant mixture and rates used in 1981 was 1.5 lbs. switchgrass, 2 lbs. big bluestem, 2.5 lbs. Indian grass, 0.25 lbs. little bluestem and 0.25 lbs. sideoats grama (all expressed in pounds of pure live seed per acre). Solid stands of switchgrass were planted in eight fields due to weed control problems. The following table summarizes these accomplishments in 1981.

NATIVE GRASS SEED DOWNS, MORRIS WMD 1981

<u>WPA</u>	<u>Acres</u>	<u>Seeding Dates</u>
<u>Big Stone County</u>		
Anderson	30	7/8-9
Artichoke	19	7/15
Bauman	35	6/25-26
Dismal Swamp	106	6/28-30
		7/1,5
Dybdahl	70	7/7-8
Johnson	52	6/30
Karsky	69	7/1-2
Persen	35	7/22-23
Seidl	129	7/5-6
*Thomson	1	7/6
Toqua	20	7/7-8
Sub-Total	566	
<u>Pope County</u>		
*Hagstrom	138	6/5,8,11-13
*Walden	45	6/5,7
Sub-Total	183	
<u>Stevens County</u>		
*Fish Lake	15	7/6-7
*Horton	13	6/11
*Mau	74	6/17-18
		7/11
*Miller	16	6/16-18
*Pepperton	79	6/19
Sub-Total	197	

<u>WPA</u>	<u>Acres</u>	<u>Seeding Dates</u>
<u>Swift County</u>		
Artichoke Lake	33	6/26, 28-30
Lynch Lake	12	6/22-23
Sub-Total	45	
<u>Traverse County</u>		
Geyer	32	7/8
Mosquito Ranch	55	7/8-10
Robinhood	48	7/10-11, 13
Sub-Total	135	
Grand Total	1,126 acres	

*Switch only was planted in these fields.



Seeding native grasses. Roundup applied 6/12/81.
81-7 BLA

Management of the new seedings is critical the first three years. Competition from broadleaf weeds and quackgrass can destroy a new grass stand. A combination of herbicides (Roundup, 2,4-D and Atrazine), burning, grazing and haying are used to assure successful establishment and maintenance of the stands. The following table summarizes our chemical treatments of recent seed downs.

1981 NATIVE GRASS TREATMENTS, MORRIS WMD

<u>County</u>	<u>WPA</u>	<u>Seeding Year</u>	<u>2,4-D</u>	<u>Atrazine</u>
Big Stone	Anderson	1981	30	
	Artichoke	1980	16	
		1981	20	19
	Bauman	1981	35	
	Daly	1980	25	
	Dismal Swamp	1980	146*	
		1981	106	106
	Dybdahl	1981	70	70
	Goldsmith	1980	10*	
	Hillman	1979	28	
	Johnson	1981	52	52
	Jorgenson	1980	62	62
	Karsky	1981	69	
		1981	31	
	Larson Slough	1980	53	53
	Olson	1980	32	
	Powers	1980	6	
	Rothi	1979-80	70*	10
	Seidl	1981	129	
	Stegner	1980	69	
Thomson	1981	.5	3	
Toqua	1981	20*		
Wagner	1980	15		
Pope	Avok Slough	1979		16
	Bangor	1979		80
	Berg	1979		19
	Glenwood	1974		45
	Greiner	1978-79	24	
	Grove Lake	1979		119
	Gullickson	1979	10	10
		1980		11
	Hagstrom	1979	17	6
		1981	138	138
	Johnson	1979		12
	Jorgenson	1980	12*	
	Kolstad Lake	1979	28	28
	Lake Johanna	1979		74
	Larson	1979	130	
		1979	29	
	Nelson Lake	1980	72	
	1980	18		
New Prairie	1978		10	
Stammer	1977	38	10	
Stenson Lake	1971		87	
Walden	1981		37*	

<u>County</u>	<u>WPA</u>	<u>Seeding Year</u>	<u>2,4-D</u>	<u>Atrazine</u>
Stevens	Anderson	1980	16	1
	Bahr	1979	24*	24
	Edwards	1979	5	
	Fish Lake	1981		18
	Fults	1980	6	
	Golden	1980	45	45
	Grote	1979		12
	Horton	1981	13	13
	Huebner	1977		15
	Lamprecht	1978	10	
	Mau	1981		74
	Mero	1980	12	
	Miller	1981		16
	Pepperton	1980	30	
		1981		79
	Stimmeler	1980	15*	15
	Struck	1979	58	58
Swift	Artichoke Lake	1975	68	
		1975	31	
		1981		65
	Hamline	1979	2	
	Hanson	1974		50
	Loen	1981		25
	Svor	1979		35
Welker	1980	3		
Traverse	Geyer	1981	32	
	Lawrence	1980	10	
	Mosquito Ranch	1981	55	
	Robinhood	1981	48	

*Fields were sprayed twice.

The following series of photos are of the Larson Slough WPA,
Big Stone County, native grass seeding.



Roundup applied 6/26/80. Natives seeded 6/30/80.
Natives starting to show in rows. 81-8 BLA



Foxtails and broadleaf weeds in seeding. 81-9 BLA



Seeding treated with 1 pint 2,4-D on 9/5/80, 1½ lbs. Atrazine on 10/6/80 and 1 lb. on 4/8/81, 1½ pints 2,4-D on 6/26/81.

81-10 BLA

Most chemical treatments were done by two aerial spray contracts. Both were awarded to Pankratz Aerial Spraying Service. Atrazine was applied to 1,037 acres for a total cost of \$9,540.40. 2,4-D was applied to 2,046 acres at a total cost of \$8,432.70.

Cooperative farming agreements are also utilized for planting food plots. During 1981, 382 acres were planted to corn for wildlife use. They are located in close proximity to shelterbelts and/or type III marshes which provide escape cover. Soils and slopes are selected with the least amount of soil erosion potential. Most of the food plots consisted of two ten-acre fields. Corn is planted in one field and a wheatgrass mixture in the second field for three consecutive years. The crops are then alternated. This rotation helps reduce disease problems in the corn and also provides additional nesting cover. The cooperators are responsible for all field work, seed, fertilizer, and noxious weed control. The government's share (1/3) is left standing in the field in alternate rows. The cooperators may harvest any remaining corn the following spring. Food plots are located on WPAs identified as significant wintering areas for ring-necked pheasant and white-tailed deer.

1981 FOOD PLOT SUMMARY, MORRIS WMD

<u>County</u>	<u>No. WPAs With Plots</u>	<u>Total Acres Corn</u>	<u>Total Acres In Plots</u>
Big Stone	14	151	287
Lac qui Parle	1	10	20
Pope	4	50	70
Stevens	8	68	107
Swift	4	37	51
Traverse	<u>7</u>	<u>66</u>	<u>132</u>
Total	38	382	667

5. Grasslands

The Morris WMD is located in the region that was once part of the tall grass prairie. Today only remnants of virgin prairie remain. Native areas on WPAs vary in size from less than one acre to the largest of 311 acres. The total for the district is 5,982 acres of native prairie. Habitat management is conducted so native prairie is not destroyed. Our grazing and prescribed burning programs have helped maintain some of the native remnants.

Robel readings were once again conducted on several grasslands in 1981. These readings will be conducted each year for evaluation purposes. The table on the following page summarizes selected grasslands for 1979-81.

ROBEL SUMMARY, MORRIS WMD

<u>County</u>	<u>WPA</u>	<u>Stand</u>	<u>\bar{X}</u>	<u>Date</u>	<u>Management</u>	
Big Stone	Hillman	native prairie	0.9	5/1/79		
			0.8	5/12/80		
			1.2	4/30/81	grazed 4/30- 6/10/81	
	Tangen	native prairie	1.4	5/1/79	burned 5/21/79	
			1.0	5/12/80		
			1.1	4/30/81		
Pope	Starbuck	native seeding	0.2	5/2/79	seeded 6/13/78	
			2.9	5/12/80		
			3.2	5/4/81		
Stevens	Huebner	native seeding	0.7	5/25/78	seeded 5/18/73	
			0.6	5/1/79	burned 5/25/78	
			2.9	4/24/80		
			2.9	5/4/81		
	Mero	native seeding	0.7	5/25/78	seeded 4/23/71	
			1.3	5/1/79	burned 5/25/78	
			3.0	4/24/80		
			2.5	5/4/81		
	Swift	Hamann	native prairie	0.5	5/24/78	burned 5/24/78
				1.1	5/1/79	
1.0				5/12/80		
1.4				4/30/81		
Hamline		native seeding	0.8	5/23/78	seeded 5/27/75	
			1.1	5/1/79	burned 5/23/78	
			1.7	5/8/80		
			1.5	4/29/81		
Lynch Lake		native seeding	1.2	4/14/78	seeded 5/20/75	
			5.1	5/2/79	burned 5/24/78	
			7.0	12/3/79		
			5.7	4/21/80		
			5.6	4/29/81	burned 5/11/81	
			7.1	10/15/81		
Svor*	native prairie	1.1	5/1/79			
		1.6	5/8/80			
		1.3	5/5/81			

\bar{X} - Mean height in decimeters of vegetation which completely blocks pole visibility.

Date - Date Robel reading was taken.

* No active management yet.

7. Grazing

Grazing was used on two native prairie areas this spring as an alternative to prescribed burning. The two areas had an extensive build-up of litter. They were grazed from May 1 to June 10th. Our objectives were to remove litter accumulation and reduce competition from cool season grass invaders. The response of the plants to this treatment was excellent.

1981 GRAZING SUMMARY, MORRIS WMD

<u>County</u>	<u>WPA</u>	<u>AUM</u>	<u>Fee/AUM</u>	<u>Upland Acres</u>
Big Stone	Hillman	75	2.50	57
Lac qui Parle	Hastad	64	2.50	27

9. Fire Management

In 1981, 822 acres were prescribed burned. The following table summarizes this activity.

1981 PRESCRIBED BURN SUMMARY, MORRIS WMD

<u>County</u>	<u>WPA</u>	<u>Date Burned</u>	<u>Total</u>		<u>Native Prairie</u>	<u>Introduced</u>		<u>Marsh</u>
			<u>Acres Burned</u>	<u>Acres Burned</u>		<u>Natives</u>	<u>DNC</u>	
Big Stone	Persen	5/13/81	24		10			14
Pope	Bangor	5/12/81	119			107		12
Pope	Grove Lake	5/13/81	142		8	134		
Pope	Lake Emily	5/13/81	42			42		
Pope	Larson	5/12/81	75			70		5
Stevens	Anderson	5/01/81	19			19		
Stevens	Edwards	6/11/81	1		1			
Stevens	Fehr	5/01/81	61		5	24	32	
Stevens	Stevens	5/01/81	69			66	3	
Swift	Artichoke L.	5/12/81	69		5	60		4
Swift	Hanson	5/14/81	57		1	50	6	
Swift	Lynch Lake	5/11/81	77			77		
Swift	Svor	5/14/81	67		23	34		10
TOTAL			822		53	683	41	45

High priority burning was given to recent native grass seedings since the first few years are critical in their establishment. Areas needing a prescribed burn were selected in the fall and firebreaks were mowed before snowfall. A prescribed burn proposal and report was also completed and submitted for each burn area.



Lighting backfire in native prairie, Bangor WPA (5/12/81).
81-11 BLA



Same area pictured above after regrowth (10/15/81). 81-12 BLA

Opposition to prescribed burning has increased during the past three years. The opposition may be because of larger acreages of land being treated with fire. Several letters to the editors of local papers and a local television program appeared concerning the fire controversy. A Pope County township board passed a township regulation to stop our burning program. The same township board physically stopped our fire crew in a parking lot as the crew was preparing to burn a WPA.

It is clear that a public relations program is needed to combat the opposition. Additional emphasis will be put on newspaper articles, radio and television programs, group presentations and other public relation tools. Contracting local fire departments to do most of the prescribed burns may make our program more acceptable. Informing and involving local firemen seems like a very positive first step in slowing and buffering local opposition.

The district had four wildfires this past year. Three of the fires in the Hancock area appeared to be arson.

1. Lake Emily WPA, Pope County
The Hancock Fire Department controlled the fire on this unit after approximately 20 acres burned on March 22.
2. Greiner WPA, Pope County
On March 23, a neighbor, Mr. L. Jeitz, called to report a fire on the south portion of the unit. We dispatched personnel with fire fighting equipment. Before they reached the unit Mr. Jeitz called the Hancock Fire Department. Manager Schultz consulted with the fire chief and they decided to burn the entire unit with a head fire to reduce the chance of anyone being injured. The entire unit is surrounded by crop fields and dirt roads.
3. Wente WPA, Stevens County
Approximately five acres were burned on March 23. The fire was started by Mr. Wente when he dropped a cigarette in his hay field southeast of the unit. Mr. Wente tried to extinguish the fire but he burned his hand and returned home and called the Donnelly Fire Department. By the time the fire crew arrived the fire had burned east approximately 100 yards into the WPA. The fire was quickly extinguished.
4. Walden WPA, Pope County
Approximately one-half acre was burned at sunset on March 24. The fire was reported to the Hancock Fire Department and they extinguished the fire.

10. Pest Control

This year the district expended over \$15,000 in the control of noxious weeds in order that we comply with Minnesota's "Noxious Weed Control" laws. The Regional Director made the commitment to the Minnesota Association of County Commissioners that we would treat weeds on any unit that they requested. The \$15,000 figure does not include expenditures for administration, gasoline, equipment depreciation or weed control in the new seed downs.

In order to adequately explain our program, answer any questions and resolve problems at an early stage, personnel from the district attend annual weed meetings that are administered by the Minnesota Department of Agriculture. These meetings are held in each county to provide township officials an opportunity to comment or complain about weed control efforts. It is at these meetings that township officials can officially submit a complaint on WPAs. Other items discussed include new spray methods, new weed species and other related problems.

During 1981, district personnel gave presentations at county-wide meetings in Swift and Traverse Counties. In Pope and Big Stone Counties, individual weed meetings were held with each township. We consider the small township meetings more valuable since the group is small and we are able to answer all questions regarding WPAs in that township. Following the county and township meetings, each county agricultural inspector is invited to meet with us and review the requests for weed control. The number of weed complaints for 1981 increased by five over 1980. However, we received only four calls from neighboring landowners requesting weed control.



Spraying noxious weeds at Edwards WPA with required safety gear.

The following table summarizes our noxious weed control efforts.

NOXIOUS WEED CONTROL, MORRIS WMD 1981

<u>County</u>	<u>Number WPAs Treated</u>	<u>Invert Sprayer</u>		<u>Mowing</u>	
		<u>Acres</u>	<u>Staff Hours</u>	<u>Acres</u>	<u>Staff Hours</u>
Big Stone	23	234	103	120	27
Lac qui Parle	8	38	38	25	10
Pope	26	223	75	69	15
Stevens	26	364	124	124	23
Swift	9	114	72	10	13
Traverse	9	159	61	11	4
Yellow Medicine	2	24	20	23	10
Sub-Total	103	1,156	493	382	102
Total		1,538 Acres	-	595 Staff Hours	

In 1980 we treated 2,265 acres and used 1,026 staff hours which is a reduction of 32% in acres and 42% in staff hours from 1980 to 1981. This is to be expected since many of the areas with poor cover and consequently historic noxious weed problems have since been converted to native grass seed downs.

13. WPA Easement Monitoring

During 1980 in Minnesota's first easement violation court case, Don Seest was ordered to restore several wetlands to their original condition. The restoration work was started in the fall of 1980. Work proceeded slowly in 1981. Excessively wet conditions were to blame. To date, the restoration work is 60-70% complete.

Out of 23 confirmed easement violations detected from the fall 1980 aerial inspection, 19 were satisfactorily resolved during 1981 and the remaining four will be submitted for legal action.

The fall 1981 aerial easement inspection on November 6, 9 and 10 revealed six additional easement violations. They consisted of four drainage violations, one drainage and burning violation, and one filling violation. The number of violations were substantially lower than in 1980.



Schluter Easement (113X,1,2) Pope County, most fall earthwork activity is readily apparent from the air such as this scraper ditching activity. 81-14 DEM

In 1981 three easement violators were issued mandatory court appearance notices. All plead guilty of easement violations and were ordered to restore the damaged wetlands to their original condition. The news media coverage of the Seest trial probably deterred some individuals, thus resulting in fewer violations.



Burns Easement (44X) Pope County, filling violation where a farmer placed earthen fill to enable his center pivot irrigation system to cross the wetland. 81-15 DEM



Hauge Easement (43X) Pope County, a filling violation where earthen fill was placed within the high water mark in order to farm closer to the basin. 81-16 DEM

State Senator Charles Berg became involved in October, trying to help three violators who were requested to restore type I wetlands. He contends that small wet acres are not valuable for waterfowl and that common sense should dictate the size of wetland to protect. A meeting was held in the Regional Office with the State Senator and aids of the U.S. Senators and Representatives to help resolve the controversy. In reviewing the cases involved, the legal and biological aspects were explained. Our stance has not changed. Type I wetlands will be restored!

County records are checked each year to determine ownership of easement lands. As a violation prevention measure, new landowners are contacted by certified letter notifying them of the easement. Seventeen such letters were written this year.

G. WILDLIFE

1. Wildlife Diversity

Waterfowl production areas in the Morris WMD are inherently diverse. Most units contain a complex of wetland types that are interspersed among equally diverse uplands.

Management activities that increase wildlife diversity on these WPAs include water level management, native grass seed downs, prescribed burning, woodlot improvement, shelterbelt plantations and wildlife foodplot establishment. Each of these activities contribute to the overall diversity of the WPAs and are discussed in detail in their appropriate sections.

2. Endangered and/or Threatened Species

The bald eagle is the only endangered and/or threatened species that occurs in the Morris WMD. They are often observed near the Minnesota River during migration and groups of ten are occasionally found near Lac qui Parle Lake during winter. No observations of bald eagles on WPAs were reported in 1981.

A very sick bald eagle was found poisoned by lead at the Lac qui Parle Wildlife Refuge (Minnesota DNR) in December, according to the Minnesota Department of Natural Resources. At last reports the bird appeared to be recovering. The eagle was apparently poisoned by eating crippled and dead waterfowl which contained lethal lead shotgun pellets in their bodies. The eagle was transferred to the Raptor Rehabilitation Center at the University of Minnesota for treatment where it was found to contain 2.4 parts per million of lead in its blood. This is a very severe level of lead poisoning, according to scientists at the Center. The immature male eagle, too weak to fly, was discovered by a University of Minnesota graduate student.

3. Waterfowl

The first Canada geese and mallards of 1981 were observed in the district on February 18th and 20th, respectively. However, spring waterfowl migration did not get into full swing until March 16-21 when several flocks of migrating ducks were observed throughout the district. Whistling Swans were first observed by district personnel on March 25th.

Marsh conditions in the Morris WMD during spring and early summer were very poor for breeding pairs. Most of the smaller basins were dry and several basins that contained adequate water levels in 1979 and 1980 were dry in 1981.

The results of the 1981 quarter section survey of waterfowl breeding pairs suggest an overall decrease in waterfowl breeding pairs of 35% between 1980 and 1981. More specifically, blue-winged teal and mallard decreased 42% and 25%, respectively. Wood duck, gadwall, American wigeon, ring-necked duck and lesser scaup all registered increases over 1980 but these values are insignificant due to small sample sizes. Likewise, the apparent decrease in pintail, canvas-back and ruddy duck are also probably insignificant. The following tables summarize the results of the quarter section survey for the years 1979-1981.

1981 QUARTER SECTION SURVEY SUMMARY
MORRIS WETLAND MANAGEMENT DISTRICT

<u>Species</u>	<u>Pairs Per Sq. Mi. WPA</u>	<u>District* Projected Estimate</u>
Dabblers:		
Blue-Winged Teal	38.1	2350
Mallard	14.0	860
Shoveler	3.0	182
Pintail	1.4	85
Wood Duck	3.5	218
Gadwall	3.9	242
Green-Winged Teal	0.8	48
American Wigeon	1.0	61
Sub-Total	65.7	4046
Divers:		
Redhead	5.3	328
Ruddy	2.0	121
Ringneck Duck	2.2	133
Lesser Scaup	0.8	48
Canvasback	0.4	24
Sub-Total	10.7	654
Grand Total	76.4	4700

Coot Total Observed = 273 or 53.6/square mile,
projected district estimate = 3307.

Canada Geese Two Pair Observed: Little Chippewa River WPA,
Pope County, and Appleton WPA, Swift County.

* Based on conversion factor of 12.115, Total District Acreage ÷
Survey Acreage (39435 ÷ 3255) Wetland Acreage Surveyed = 1032.

COMPARISON OF 1979, 1980 AND 1981 QUARTER SECTION SURVEYS
MORRIS WMD

	WATERFOWL BREEDING PAIRS/MI ² OF WPA			DIFFERENCE
	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>(From 80 to 81)</u>
Dabblers:				
Blue-Winged Teal	64.3	66.3	38.1	-42%
Mallard	14.3	18.7	14.0	-25%
Northern Shoveler	6.3	6.3	3.0	-52%
Pintail	4.1	3.9	1.4	-64%
Wood Duck	3.1	1.6	3.5	+120%
Gadwall	1.4	2.3	3.9	+ 70%
Green-Winged Teal	0.6	1.8	0.8	-56%
American Wigeon	0.0	0.4	1.0	+150%
Sub-Total	<u>94.1</u>	<u>101.3</u>	<u>65.7</u>	<u>-35%</u>
Divers:				
Redhead	7.4	10.2	5.3	-48%
Ruddy Duck	4.3	2.9	2.0	-31%
Ringneck	2.9	1.2	2.2	+83%
Lesser Scaup	1.0	0.0	0.8	+
Canvasback	0.8	1.2	0.4	-67%
Sub-Total	<u>16.4</u>	<u>15.5</u>	<u>10.7</u>	<u>-31%</u>
Grand Total	110.5	116.8	76.4	-35%

The 1981 multi-species estimate for breeding pairs found on WPAs in the Morris WMD is 4,700. Our production estimate, based on an assumed nesting success of 45% and an average of 6.0 class III duckling per brood is 12,690. This estimate is crude but the best we have at present.

Breeding pairs of Canada geese again appeared to be increasing. Although we have no district-wide estimate, we received several reports of nesting pairs and goslings. The first report of goslings came from Benson Township, Swift County, on May 1, 1981.

Early fall migration of ducks appeared lower than normal. Spring droughts and lack of good production were the probable causes of these poor flights. On the other hand, large concentrations of waterfowl were present in late October to mid-November. Big Stone NWR and Minnesota DNR's Lac qui Parle Refuge, located along the Minnesota River valley in the south-central portions of our district, reported peak mallard concentrations of 60,000 and 35,000, respectively. Likewise, the late migration of Canada geese was so spectacular that the Minnesota DNR was forced to close the Lac qui Parle goose zone on November 9 after the quota of 5,500 honkers were harvested. For comparison, the 1980 harvest quota

was not met in this zone as the season closed on November 23, 1980. According to some observers, the late fall migration of both ducks and geese was the best in this area since 1971.

4. Marsh and Water Birds

The first great blue heron was observed on Edwards WPA, Stevens County, on March 30th. Shortly thereafter, sandhill cranes, white pelicans and great egrets were seen. Numerous other marsh and water birds were observed throughout the year and several of these species nested in the area.

As usual, several common loons were observed during migration. One of the most significant observations of 1981 was that of a common loon with one young on Lake Johanna WPA, Pope County. This area is in the southern edge of the loon's present breeding range.

During the summer of 1981, Dan Orr, a local bird enthusiast and former temporary employee, surveyed much of our district for colonial waterbird nesting sites. The results of this survey are quite valuable and provides us with some measure of population distributions. Although his results are too lengthy to include in this report, the following information summarizes what he found. Please note that several waterfowl production areas lie adjacent to or in the vicinity of the surveyed lakes. Only Dismal Swamp WPA contained any known colonial nesters. Eleven eared grebe nests were found on the northeast portion of this unit.

NESTING LOCATIONS OF COLONIAL WATERBIRDS, MORRIS WMD 1981*

<u>Location</u>	<u>Species</u>	<u>Observations</u>
<u>Big Stone County</u>		
Big Stone NWR	great blue heron	130 nests
	great egret	80 nests
	black-crowned night heron	75 nests
	double-crested cormorant	400 nests
	western grebe	few nesting pairs
Marsh Lake	double-crested cormorant	263 immatures banded
	white pelican	1061 immatures banded
	western grebe	8 broods, 27 adults
Otre Lake	western grebe	40 broods
Dismal Swamp WPA	eared grebe	11 nests
Lyseng Lake	eared grebe	5 nests
	western grebe	31 broods, 77 adults
<u>Lac qui Parle County</u>		no sites were located
<u>Pope County</u>		
Lake Johanna	double-crested cormorant	302 nests
	great blue heron	297 nests
	great egret	113 nests
	black-crowned night heron	93 nests
	little-blue	1 nest
Lake Reno	western grebe	26 broods, 81 adults
<u>Stevens County</u>		
North Pomme de	great blue heron	50 nests on 5/6/81,
Terre Lake		abandoned on 6/20/81
Charlotte Lake	western grebe	14 broods
Harstad Slough	western grebe	16 broods
	eared grebe	12 broods
Crystal Lake	western grebe	4 broods
Gorder Lake	eared grebe	3 broods
<u>Swift County</u>		
Lake Hassel	double-crested cormorant	15 nests
	great blue heron	12 nests
<u>Traverse County</u>		no sites were located
<u>Yellow Medicine County</u>		county was not surveyed

* Data compiled from unpublished survey of western Minnesota colonial waterbird nesting sites conducted by Daniel J. Orr, June 15-July 31, 1981.

5. Shorebirds, Galls, Terns and Allied Species

Common nesters in this category found throughout the Morris WMD include common snipe, killdeer, black tern and Forster's tern. American woodcock also breed in this area but only in the forested regions of southeast Pope County. The annual woodcock singing-ground survey was conducted on May 6 and four birds were heard.

One pair of marbled godwits was frequently observed along State Highway 9 just north of Clontarf throughout the summer. The birds successfully used the road ditch and railroad right-of-way as their breeding grounds since they were observed with two young in late June.

6. Raptors

Red-tailed hawk, marsh hawk, American kestrel and great horned owl are the most common nesters in our district. Frequent migrants include rough-legged hawk, sharp-shinned hawk and Cooper's hawk.

The most significant raptor sighting this year was that of a pair of burrowing owls. These birds successfully fledged young in an over-grazed pasture on the east shore of Page Lake, Stevens County.

8. Game Mammals

The most sought after game mammal of this area is the white-tailed deer. Deer in west central Minnesota are in good shape and the population is increasing due to the two mild winters of 1980 and 1981. WPAs play a major role in the ability of deer to survive the Minnesota winter. Often the WPAs provide the only winter food and cover in a sea of plowed ground.

The red fox has been eagerly pursued by hunters and trappers the last two years due to good fur prices. The population appears to be in good shape as many WPAs support an active den. Once an area is burned, it is very common to see the fox pups sunning themselves near the den.

Beaver populations continue to increase in the area. Trapping is not a factor in population control when the fur price is as low as it has been. We've been fighting a losing battle with the beaver at four of our water control structures. The local conservation officer in Pope County has so many beaver complaints that he now tells people to shoot problem beavers.

10. Other Resident Wildlife

Ring-necked pheasant populations were the highest since 1964. The Minnesota DNR census figures showed an increase of 64% in May over the 1980 census. This increase is a direct result of the previous two mild winters. Hungarian partridge were also censused during May and registered a 58% increase over the spring of 1980.

H. PUBLIC USE

1. General

The Public Use Plan for the Minnesota Waterfowl Production Area Complex was completed by Hanna, Silvy, and Associates of College Station, Texas. A synopsis of the plan, as written by Valeen Silvy and John Hanna follows.

SYNOPSIS

The following plan cannot be summarized by simply listing products of the plan. It must be viewed as a call for action. This action should not just lead to products but should lead to activity in support of the WPA program.

The INTEGRATE portion of this plan outlines steps that field personnel should take to get to know their communities. This is done by determining key individuals, building rapport and communication channels, and evaluating their efforts. The tools suggested in the remainder of the plan -- outdoor classrooms, interpretation, recreation, and public information -- are aids for field personnel to assist their work within their communities. The tools are designed to promote the WPA program, but never to replace the integrity and warmth in communication that is needed to succeed and that has become a hallmark of the WPA program.

The tools and aids developed here include materials for OUTDOOR CLASSROOMS which can be used by school teachers on-site or off-site of WPAs. They are designed to build a constituency for the future, as well as promoting the WPA program by bringing it into the homes of families of school children. These tools include:

- *An introductory brochure describing outdoor classrooms use of WPAs
- *Environmental study areas
- *A source guide to environmental education units
- *Outdoor classroom curriculum for WPAs.

Materials for INTERPRETATION are very low key. Two products are recommended for development:

- *A standardized interpretive sign for WPAs
- *An I&R program plan for WMDs that have the use, staff, and facilities.

The RECREATION portion of the plan includes:

- *A consistent, identifiable family of county maps
- *An I&R development plan to become a part of each WPA management plan, not a separate plan.

PUBLIC INFORMATION is certainly the most important component of this plan to support WMD personnel. The suggested tools are direct methods of reaching the communities and helping field personnel complete the task of disseminating timely information. Public information aids include:

- *A guide to personal contact
- *A media relations kit
- *Newsletter
- *Traveling exhibits
- *Programmed slide/tape show or film on the WPA program
- *Publications
- *Public service announcements (PSAs).

As stated above, the products are only as important as the user makes them. Alone, they will not serve the WPA program fully in developing a supportive constituency -- the use of the products must be integrated with a planned program of interaction with the community as outlined in the INTEGRATE step. The success of this plan relies heavily upon the WMD manager taking these actions and receiving support from the Area and Regional Offices.

Valeen Silvy and John Hanna
March 1981

The Interpretation and Recreation Plan, as submitted by Ms. Peggy Morris, would take a narrative report of its own to fully describe, so just a shortview of the highlights is included. The plan is divided into three phases: Phase One, Program Identification; Phase Two, Program Development; Phase Three, Program Implementation.

Phase One, Program Identification, defines the resources available in the seven county Morris district and gives reasons and methods of establishing waterfowl production areas, including funding and criteria. This phase also includes the development of the Morris headquarters site, resource, policy, problems and land use, and the Morris Wetland Management District I&R objectives.

Phase Two, Program Development, includes the following: public information, educational assistance, recreation, interpretation, outdoor classrooms, program integration, and program development levels.

Phase Three of the plan is the implementation portion, how to get the job done. The plan overall is comprehensible and workable. A portion of the plan involving the reception area of the new office will be implemented in 1982. Other developments cannot be done until funding is made available.

The Morris staff presented 10 programs to church, school and civic groups, taught hunter safety, appeared on radio and television, set up the station display at three county fairs, displayed the "System 70" at two banks and one library and sent out nine news releases.

Twenty-five informational leaflet boxes were placed in WPA parking lots prior to the waterfowl hunting season and were picked up shortly after the season closed. A total of 799 leaflets were dispersed with 9 of the 25 boxes vandalized.

4. Interpretive Foot Trails

Two WPAs in the Morris district have self-guided interpretive trails. One trail is located on the Froland WPA in Pope County, the other trail is on the Redhead Marsh WPA in Big Stone County. Public use has been very limited on these trails.

6. Interpretive Exhibits/Demonstrations

The Morris WMD utilizes two interpretive displays. One display, which was made by station personnel, is utilized at county fairs in the district. The other display is the "System 70", and it is placed in public buildings, schools, banks and libraries.

7. Other Interpretive Programs

Hutchinson tried a new gimmick this year. When giving a presentation to school groups, the most difficult problem is to get the group's attention and keep it long enough to get the message across. Hutch solved this problem by using his 18 foot Cheyenne tipi complete with all the trimmings. His message was, "What it was, what it is, and what will it be?" From the comments received, his message on preserving our wildlife, wildland heritage got through to some of the 200 children and adults who stepped back into time with Hutch and his lodge.



Attention getter Hutchinson. 81-17 RDS



Yes, they all got into the tipi at one time. 81-18 RDS

8. Hunting

Pheasant, the magic word for the 1981 hunting season. Two mild winters boosted the pheasant population 64% (Minnesota DNR data). A pheasant for every pot, or so it was thought. Snow and sleet on opening weekend, excellent cover in the many un-harvested corn fields, and probably, poor shooting, allowed many of the wiley cocks to sneak through the season with a whole skin. Good hunting it was, but by all indications, the population was not hurt. If a halfway decent winter is forthcoming, there should be an ample supply for next year.

Marsh conditions were good during the waterfowl season, but lack of moisture in the spring apparently caused many of our local breeders to by-pass us and nest elsewhere. Ducks were scarce during the early part of the season. The only bright spot was the woody, and for the first week he provided some good shooting to the waterfowlers. Hunting success was reported to have improved substantially by early November.

Hunting for white-tailed deer, red fox, cottontail rabbit, gray partridge, and gray and fox squirrels is done on most WPAs. A few of our units have a small population of ruffed grouse and some snipe, rail and woodcock are hunted, but success is spotty.

9. Fishing

Only three WPAs in the Morris district are utilized by fishermen. The Artichoke WPA in Big Stone County has a boat launching ramp and is used both summer and winter, but it has not been possible to keep accurate use records at this site. The Artichoke Lake WPA in Swift County and the Heidebrink WPA in Pope County receive slight use by bank fishermen.

10. Trapping

The mink and muskrat population has recovered from the 1976 drought and good catches were reported throughout the district. On one 230 acre WPA (75 acres of wetland), one trapper took 132 muskrats and there were five others trapping the same WPA. The fox, raccoon, badger and beaver populations were good to excellent.

11. Wildlife Observation

Bird watching is a popular pastime of many residents of the Morris district, and the WPAs offer good birding. Because of the lack of good habitat in much of the district, migratory and resident birds tend to concentrate on the WPAs, much to the joy of the birders.

It is impossible to estimate how many people visit WPAs just to look at the deer, pheasants, and many other animals. We feel the number is growing each year as many are beginning to realize the benefits and enjoyment possibilities of marshes and grassland-- of an island in a sea of black.

16. Other Non-Wildlife Oriented Recreation

Hiking through a field of unbroken prairie, a snowshoer, a photograph of a twisted old tree, a juicy morel hiding among the leaves, highbrush cranberrys for some Thanksgiving jelly, a quiet nap on a sun-lit hillside, cross-country skiing on fresh fallen snow, peace, solitude, knowledge --- WPAs.

17. Law Enforcement

The WMD's enforcement problems are not limited to easements. Each year there are WPA violations involving farming trespass, vehicle trespass and rock dumping. The problems are sporadic throughout the year and are usually resolved by contacting neighboring land-owners. If there is a chronic problem, the boundary is fenced.

Some of the more remote WPA parking lots are used as sites for beer parties. On 4/27/81, on the Garfield WRA in Lac qui Parle County, the sheriff's department broke up a large party in which many participants fled the scene. Seventeen \$25.00 tickets were issued to the vehicle owners for illegal parking.

The three staff members with law enforcement authority patrolled during the opening weekend of the waterfowl season. The seven violations were all for using lead shot on WPAs. Four were fined \$50.00 and the other three were juveniles and were not fined. The state conservation officer did not want to pursue the violations on the state level. In addition, Refuge Officer Maki patrolled during the opening day of deer season. Enforcement activities for the remainder of the fall hunting seasons were conducted along with regular duties.

I. EQUIPMENT AND FACILITIES

1. New Construction

The contract for construction of the new office continued throughout the entire year and completion should be in early 1982. An add work order was issued for restrooms, sidewalks and some interior finish work in the basement. The first floor was completed in March and we officially relocated at the end of March. The contractor continued to work in the basement and on the sidewalks. Once the sidewalks were in, the project engineer gave us approval to sod the lawn. We issued a purchase order for sod and the entire staff layed the complete lawn in three hours.

The total cost of the contract is \$528,271.40. The building is layed out in a nice manner and is a pleasure to work in. The only bad feature is the heating system, which is very complex and expensive. The system cost too much to start with and, because it is so complex, the nearest serviceman is over 100 miles away. The system is a combination of hot water and forced air with many pneumatic dampers, pneumatic water valves, and seven pneumatic thermostats. This results in many moving parts which can malfunction. Also, the office has a larger air compressor than the shop.



Looking north at the south side of the new office.

81-19 RDS



Main door to the office building. 81-20 BLA



South side of office building. 81-21 BLA



Aerial view of office looking south with Edwards WPA in the background. 81-22 RDS

During the year 13 miles of new boundary fence was constructed. YACC enrollees provided most of the work force for this project. All the units fenced this year had new native grass seed downs.

1981 FENCE CONSTRUCTION, MORRIS WMD

<u>County</u>	<u>Unit</u>	<u>Length (Rods)</u>	<u>Parking Lots</u>
Big Stone	Clinton	193	1
	Dybdahl	516	1
	Johnson	470	
	Rothi	282	
	Seidl	780	
	Stegner	234	
	Thomson	325	
Pope	Little Chippewa River	80	
Stevens	Mau	620	1
Swift	Loen	703	
TOTAL		4,203 Rods	3
		or 13.1 Miles	

A total of \$10,488 was spent on two service contracts where a cat and operator were provided for a set price per hour. Ditch plugs were constructed, water control structures, field crossings installed and building sites cleaned up. All the ditch plugs and structures were placed in ditches dug before the government purchased the land. Many valuable marshes have been restored in this way during the BLHP period at this station.

1981 HEAVY EQUIPMENT WORK, MORRIS WMD

<u>County</u>	<u>Unit</u>	<u>Ditch Plug</u>	<u>Field Approach</u>	<u>Water Control Structure</u>	<u>Buried Items</u>	
					<u>Junk</u>	<u>Building Sites</u>
Big Stone	Rothi					1
Pope	Lake Johanna		1			
	Ben Wade		1			
	Hagstrom	17				
	Stewart			1		
Stevens	Golden	1				
	Pepperton	10	2		1	1
	Edwards		1			
Swift	Loen	<u>5</u>	<u>1</u>	<u>1</u>	<u>—</u>	<u>1</u>
TOTALS		33	6	2	1	3



Burying barn foundation on the Larson WPA, Pope County.
81-23 RDS



Ditch plugs to improve a type I marsh on the Larson WPA,
Pope County. 81-24 RDS



The VanHorn building site on the Pepperton WPA, Stevens County,
in March, 1981. 81-25 BLA



Same area as above in the fall after restoration.
81-26 BLA

4. Equipment Utilization and Replacement

The station received a 1981 Ford Fairmont to replace the 1976 AMC Matador and a fuel efficient pickup this year. The pickup was ordered as a compact pickup but we received a 1/2-ton Ford pickup with a small six and a four-speed transmission. The vehicle handles well but will not get the mileage that a compact would have.

This past winter the maintenance man completely overhauled our four Truax native grass drills. The drills have been heavily used over a six county area, most of the time by temporary employees, which has lead to some breakage problems. This year three drills were hooked together in an outfit fabricated by our vehicle operator, Clayton Christenson. By having our best operators work with the three drill hookup, our maintenance and seeding costs were substantially reduced.

John Hutchinson, the station's biological technician, spent several days tightening up loose bolts and making adjustments on our 30-year old D-4 Cat. After the adjustments, we made extensive use of the cat during the fall constructing and repairing small ditch plugs.

5. Communications System

When the office was relocated to the new building a 45-foot pole, which served as the station's antenna tower, was moved from the old office to the new office. The Area Office requested that we make other arrangements as the pole was considered unsightly (the pole appears in the photos of the new office under construction). A commercial tower was then located and we rented antenna space at a cost of \$450 per year and made arrangements for a telephone line at a cost of approximately \$10 per month. The antenna is now 150' above ground level and works well.

6. Energy Conservation

This past year a card was placed in each vehicle's rear window that recorded the MPG of the vehicle as suggested by the R.O. The entire staff made a concentrated effort to drive the most fuel-efficient vehicle available that would do the job. Our fuel use for vehicles was below the quota set for the Morris WMD. No energy use figures are available for the new office at this time.

J. OTHER ITEMS

1. Cooperative Programs

The R.O. made a preliminary survey of WPAs in Minnesota to determine if pollution phenoxy herbicides was occurring. Four wetlands were surveyed in the Morris district out of a total of 18 wetlands surveyed in the complex. Silvex was the only herbicide detected. It was detected at biologically insignificant levels in 4 of 32 sediment samples. More surprising is the apparent absence of 2,4-D residues. It appears from the 32 samples that FWS-managed wetlands in Minnesota areas are not phenoxy sinks. Details of sample methods and detailed results are available in a paper titled "A Survey of Chlorinated Phenoxy Herbicide Residues In Sediments of Waterfowl Production Areas in Minnesota" by Richard Ruelle, on file in our office.

Six students from the University of Minnesota at Morris used the Edwards WPA (headquarters site) as study areas which they each based their term papers. Some of the items studied were bird use of the WPA, mammal use, water quality, fish use, etc. The papers were of mixed quality and are on file in our office.

2. Items of Interest

Revenue sharing payments to the counties are detailed in the following table.

REVENUE SHARING - MORRIS WMD

<u>County</u>	<u>FY79</u>	<u>FY80</u>	<u>FY81</u>
Big Stone	\$15,048	\$19,837	\$17,386
Lac qui Parle	\$ 3,423	\$ 5,475	\$ 4,799
Pope	\$17,565	\$24,102	\$21,082
Stevens	\$14,519	\$20,418	\$17,895
Swift	\$ 8,333	\$11,769	\$19,788*
Traverse	\$ 8,061	\$10,625	\$ 9,312
Yellow Medicine	\$ 175	\$ 231	\$ 202
TOTAL	\$67,124	\$92,457	\$90,464

*County reappraised during FY1981.

The BLHP era ended in 1981. The schedule has been hectic but accomplishments have had a dramatic affect on the WMD. We have found that the whole attitude of the community can be modified by managing the WPAs properly. This type of management can be done with sufficient funding levels.

Gaylord Bober received a \$400 Performance Award for his efforts during construction of the new office.

This Narrative Report is dedicated to Maxine "Max" Telander who separated from the FWS during the summer of 1981. Max decided she didn't want to make the long drive to the new Morris office from her and her husband's farm south of Benson. She will now be a full time farmer. Max worked as an employee in the Benson Acquisition Office and since 1972 has been in the Benson Wetland Management Office. Her experience, dedication and hard work will be missed. Max was replaced by Karen Stettner who has fit in with our staff very well and is quickly "learning the ropes".



Maxine Telander 81-27

3. Credits

The following staff members contributed to this report:

Stettner:	All typing and assembly of report
Maki:	F(13) and H(17)
Angus:	F(1 and 4-9)
Bober:	D(5), E(2-4), F(3 and 10-12), G(8-17), H(18-20), I and J(1)
Schultz:	D(1-4), F(2), G(1-7), and initial edit
Hutchinson:	E(6 and 7), H(1-16), and photo placement
Radtke:	A, B, C, E(1, 5 and 8), J(2 and 3), and final edit

K. FEEDBACK

The staff of this station wishes to extend a thanks to all those who helped to establish, manage and implement the BLHP program. The funds received at this station allowed us to accomplish a great deal of work necessary towards realization of the objectives of the Morris WMD. Following is a list of items accomplished with the funds this station received under BLHP.

Constructed	115 miles boundary fence
Removed	59 miles old interior fence
Posted	524 miles of boundary
Constructed	289 ditch plugs
Renovated	33 building sites
Constructed	4 water control structures
Planted	1,235 acres of DNC
	3,470 acres of native grass
Constructed	68 parking lots