



United States Department of the Interior

FISH AND WILDLIFE SERVICE
UPPER SOURIS NATIONAL WILDLIFE REFUGE

RR#1
FOXHOLM, NORTH DAKOTA 58738
(701) 468-5467



October 1, 1990

MEMORANDUM

TO: Dale B. Henry
Refuges & Wildlife
MAIL STOP: 60130

FROM: Refuge Manager
Upper Souris NWR
MAIL STOP: 62680

SUBJECT: 1990 Annual Waterfowl Enhancement Report

Attached is this station's Annual Waterfowl Enhancement Report forms. If additional information is needed please contact Assistant Refuge Manager George W. Maze.

Dean F. Knauer

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GWM/nls

OCT 22 1990

WATERFOWL ENHANCEMENT PROJECTS ANNUAL REPORT FORM

1. Reporting Station Upper Souris NWR 2. Report Year, CY 1990

3. Project Type (circle one) 01 4. Report No. 62680-1

- 01 large bales 05 peninsula cutoff (ditch) 09 control area for _____
 02 elevated nest struc. 06 peninsula cutoff (elec) 10 other (describe) _____
 03 natural islands 07 elec. fence enclosure _____
 04 artificial islands 08 unconfined predator cont. _____

*Attach control area report to corresponding project report.

5. Location/designation Pools A,B,C, 87 & 96 6. Initiation, CY 1973

7. Description Thirty-seven (37) new large flax bales placed in pools in CY 1990

Total available bales was 93 (old & new)

8. Habitat type/condition Wetland/Good Condition ie water level.

9. Habitat Mgmt/CY New bales are placed each year to replace deteriorated ones.

10. Predator Management (See Item 21)

Species Removed

11. Dates		Skunk	Fox	Mink	Raccoon	Grd. Sgrl.	Coyote
From	To						
From	To						
From	To						
Totals							
Success							

12. Method(s) Used _____

13. Nest Monitoring

14. Method Used Direct observation aided by airboat.

15. Species	Nests	Usable Nests	# Predator	# Abandoned	# Hatched	Nests/acre
Canada	51	51	23	5	23	N/A
Goose						
Mallard	1	1	0	0	1	N/A
Totals	52	52	23	5	24	N/A

WATERFOWL ENHANCEMENT PROJECTS ANNUAL REPORT FORM

1. Reporting Station Upper Souris NWR 2. Report Year, CY 1990

3. Project Type (circle one) 02 4. Report No. 62680-2

- | | | |
|-------------------------|------------------------------|---------------------------|
| 01 large bales | 05 peninsula cutoff (ditch) | 09 control area for _____ |
| 02 elevated nest struc. | 06 peninsula cutoff (elec) | 10 other (describe) _____ |
| 03 natural islands | 07 elec. fence enclosure | _____ |
| 04 artificial islands | 08 unconfined predator cont. | _____ |

*Attach control area report to corresponding project report.

5. Location/designation Pools B & C 6. Initiation, CY 1988

7. Description Six Fiberglass baskets and two metal framed wire baskets.

8. Habitat type/condition Wetland/Good Condition ie water level.

9. Habitat Mgmt/CY Fresh nesting material annually.

10. Predator Management

(See Item 21)
Species Removed

11. Dates	Skunk	Fox	Mink	Raccoon	Grd. Sqr1.	Coyote
From To						
From To						
From To						
Totals						
Success						

12. Method(s) Used _____

13. Nest Monitoring

14. Method Used _____

15. Species	Nests	Usable Nests	# Predator	# Abandoned	# Hatched	Nests/acre
Canada Goose	1	1	0	0	1	N/A
Totals	1	1	0	0	1	N/A

WATERFOWL ENHANCEMENT PROJECTS ANNUAL REPORT FORM

1. Reporting Station Upper Souris NWR 2. Report Year, CY 1990

3. Project Type (circle one) 08 4. Report No. 62680-3

- 01 large bales 05 peninsula cutoff (ditch) 09 control area for _____
 02 elevated nest struc. 06 peninsula cutoff (elec) 10 other (describe) _____
 03 natural islands 07 elec. fence enclosure _____
 04 artificial islands 08 unconfined predator cont. _____

*Attach control area report to corresponding project report.

5. Location/designation Entire Refuge 6. Initiation, CY 1990

7. Description Permittee trapping. Number of traps is unknown

8. Habitat type/condition Entire refuge is trapped (Only 2 of the 4 trapping units were trapped during 1989/90 season. Trap placement determined by permittee)

9. Habitat Mgmt/CY N/A

10. Predator Management

Species Removed

11. Dates	Skunk	Fox	Mink	Raccoon	Badger		Coyote	Feral Cat
					CY	SP		
From 10/1 To 12/31	16	50	19	66	1	0	0	2
From 1/1 To 2/28	5	1	18	17	0	0	0	0
From 3/1 To 4/30	30	9	14	13	0	0	0	0
Totals	51	60	51	96	1	0	0	2
Success								

12. Method(s) Used Leghold, body catching, and live traps used. Number of nights trapped is unknown.

13. Nest Monitoring

14. Method Used Nest Dragging/Incidentals

15. Species	Nests	Usable Nests	# Predator	# Abandoned	# Hatched	Nests/acre
Mallard	39	37	19	0	18	.067
Cadwall	39	38	9	1	28	.067
Wigeon	12	12	4	0	8	.021
GW Teal	1	1	0	0	1	.002
BW Teal	31	31	9	3	19	.054
Shoveler	3	3	1	0	2	.005
Pintail	1	1	0	0	1	.002
L. Scaup	2	2	0	0	2	.003
Totals	128	125	42	4	79	.221

16. Duck Nest Success: 63.2 % Apparent 40.74 % Mayfield

17. End. Species/Cat. 1 Species _____

18. Cost Accounting

Funding Source

19.	FWS	DU	Volunteer	Other (describe)	Total
Initial Costs					
Annual Maint. Costs					
Annual Pred. Controls	375			Station Funds	\$375.00
Annual Nest Monit.					
Other Costs (describe)	387			Administrative	\$387.00
Totals	762				\$762.00

20. Evaluation/Recommendation

Cost effective program. Continue Program!

21. Item Continuation

<u>Item</u>	<u>Remarks</u>
16	Only 2 of the refuge's 4 trapping units were trapped during the 1989/90 trapping season. Nest dragging was conducted in trapped and untrapped areas. Duck nest success listed above is for all nests. Nest success for trapped areas was 72.29% Apparent, 52.27% Mayfield. Nest success for untrapped areas was 45.24% Apparent, 23.28% Mayfield.

22. Other Comments

The 1990 cost of conducting nest dragging operations was approximately \$5,120.00. This monitoring technique is used to evaluate the effectiveness of this station's predator management, habitat management, water management, etc. Nest dragging would be conducted with or without predator management and should therefore not be included in the cost of the predator management program.

WATERFOWL ENHANCEMENT PROJECTS ANNUAL REPORT FORM

1. Reporting Station Upper Souris NWR 2. Report Year, CY 1990

3. Project Type (circle one) 08 4. Report No. 62680-4

- | | | |
|-------------------------|------------------------------|---------------------|
| 01 large bales | 05 peninsula cutoff (ditch) | 09 control area for |
| 02 elevated nest struc. | 06 peninsula cutoff (elec) | 10 other (describe) |
| 03 natural islands | 07 elec. fence enclosure | |
| 04 artificial islands | 08 unconfined predator cont. | |

*Attach control area report to corresponding project report.

5. Location/designation Entire Refuge 6. Initiation, CY 1936

7. Description Employee predator management (Incidental Shooting)

8. Habitat type/condition Entire refuge is covered. Animals taken incidental to other activities.

9. Habitat Mgmt/CY N/A

10. Predator Management

11. Dates	Species Removed						Feral Cat
	Skunk	Fox	Mink	Raccoon	Snapping Turtle Coyote	Coyote	
From 5/1 To 6/30	2	4		1	2		1
From To							
From To							
Totals	2	4		1	2		1
Success							

12. Method(s) Used Shooting incidental to conducting other refuge duties.

13. Nest Monitoring

14. Method Used See Report #62680-3

15. Species	Nests	Usable Nests	# Predator	# Abandoned	# Hatched	Nests/acre

Totals

16. Duck Nest Success: 63.2 % Apparent 40.74 % Mayfield

17. End. Species/Cat. 1 Species _____

18. Cost Accounting

Funding Source

19.	FWS	DU	Volunteer	Other (describe)	Total
Initial Costs					
Annual Maint. Costs					
Annual Pred. Controls					
Annual Nest Monit.					
Other Costs (describe)					
Totals					

20. Evaluation/Recommendation

Cost effective program. Continue Program.

21. Item Continuation

Item Remarks

22. Other Comments