

NARRATIVE REPORT

1989

AUDUBON WETLAND MANAGEMENT DISTRICT
AUDUBON GARRISON WETLAND MANAGEMENT DISTRICT

COLEHARBOR, NORTH DAKOTA

REVIEW AND APPROVALS

AUDUBON NATIONAL WILDLIFE REFUGE

Coleharbor, North Dakota

ANNUAL NARRATIVE REPORT

Calendar Year 1989

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Coleharbor, North Dakota

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Calendar Year 1989

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

INTRODUCTION

This narrative contains the 1989 information for both the Audubon Wetland Management District (WMD) and the Audubon Garrison WMD located in the counties of Ward, Sheridan, and McLean in north-central North Dakota. Although it is unusual to have two WMD's sharing FWS activities in common counties, due to sizeable amount of fee title lands transferred to or about to be transferred to the FWS by the Bureau of Reclamation and related activity on the Garrison Diversion Unit (GDU) project a second WMD was formed.

The Audubon WMD consists of 82 Waterfowl Production Areas (WPA's), five easement refuges, 1136 FWS wetland easements protecting privately owned wetlands, farm bill involvement including FmHA, swampbuster, and sodbuster activities, and FWS private lands extension activities. Management responsibilities for 16 of the WPA's and two of the easement refuges has been delegated to the Audubon Garrison WMD.

The Audubon Garrison WMD consists of all Wildlife Development Areas (WDA) in McLean and Sheridan County that have been or will be transferred to the FWS, management responsibility for 16 adjacent or nearby WPA's, management of two nearby easement refuges, and other GDU related activity.

Information concerning the fee title Audubon, McLean and Nettie NWR's which are located within the Audubon WMD is contained in the Audubon NWR narrative report under separate cover.

INTRODUCTION

The Audubon WMD in McLean, Sheridan and Ward Counties of North Dakota comprises 17,363.5 acres of fee title lands in 82 WPAs, 1136 wetland easements protecting 78,634 privately owned wetland acres, Lake Otis Easement Refuge, Hiddenwood Easement Refuge, Camp Lake/Strawberry Lake Easement Refuge, Lost Lake Easement Refuge and Sheyenne Lake Easement Refuge.

Acreage on the WPAs consists of about 37% wetland and 63% upland. Habitat is managed to fulfill the objectives of waterfowl production and waterfowl maintenance. Numerous other species make use of the habitat provided on the WPAs.

Wetland easements have been purchased to perpetually protect wetland complexes from burning, draining, filling, or levelling. It is preferable to purchase easements in conjunction with WPA purchases.

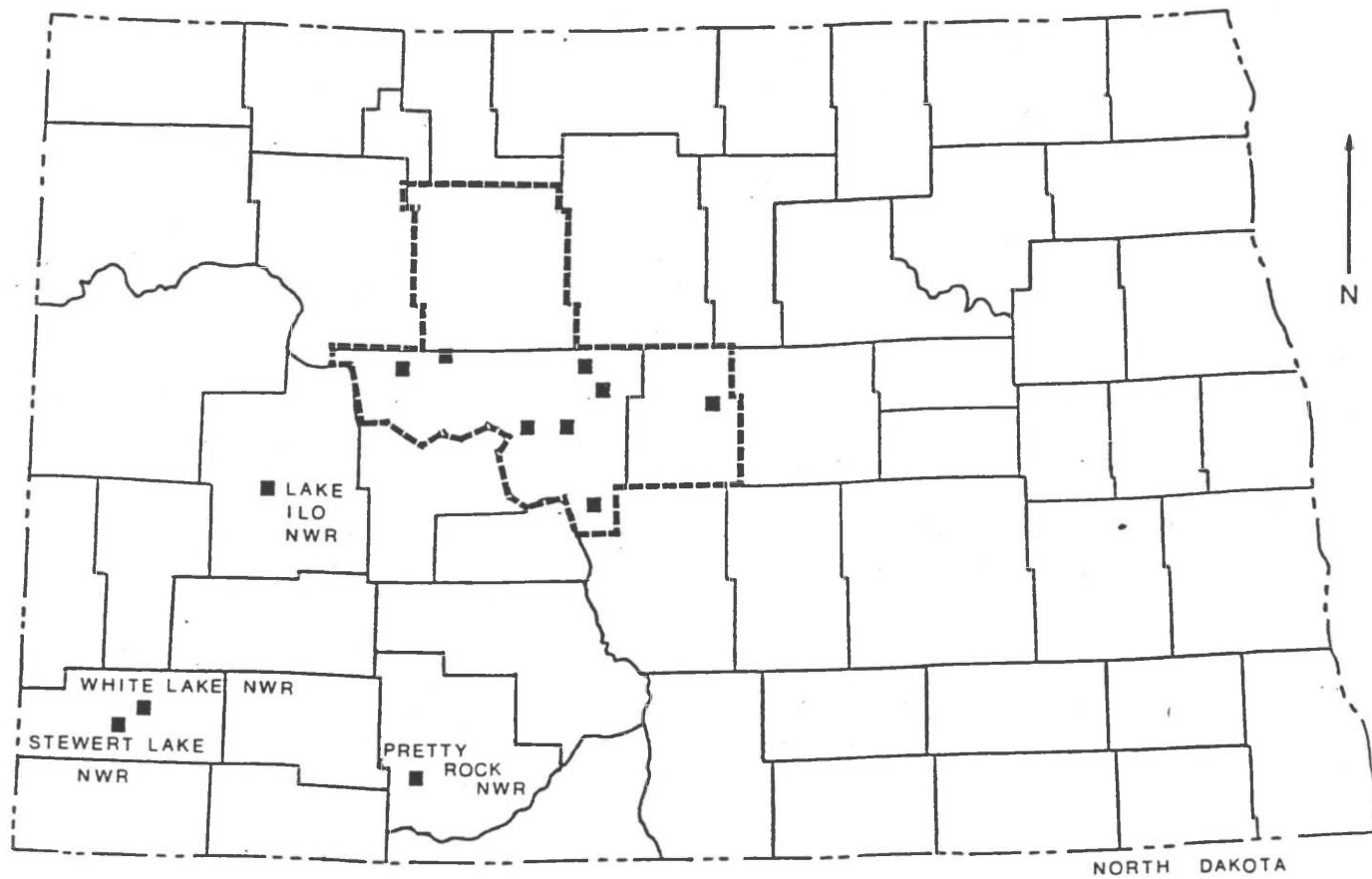
The climate is extreme. Temperatures approach 105° F. in summer and -40° F. in winter. Annual precipitation averages about 17 inches, with about 60% occurring from May through August and with June being the wettest month. The last spring frost usually occurs in early May and the first fall frost occurs in early October, providing about 147 frost-free days. Snow is about 37 inches in an average year.

The topography of the WMD is dominated by the Missouri Coteau which is a physiographic region extending from northwest to southeast for about 110 miles through the district. The Coteau's hummocky, dead-ice moraine delineates a broad band, 25 to 30 miles wide, where the last glacial ice advance stagnated due to the gentle rise of the Fox Hills and Hell Creek Formation of the Cretaceous Period. Isolated, buried blocks of ice that were buried in the glacial drift melted to leave the typical kettle holes of the Coteau. The area is characterized by sometimes steep and very rolling topography with numerous wetlands per square mile (37% water). A majority of the WMD's WPAs and easements are located in this region.

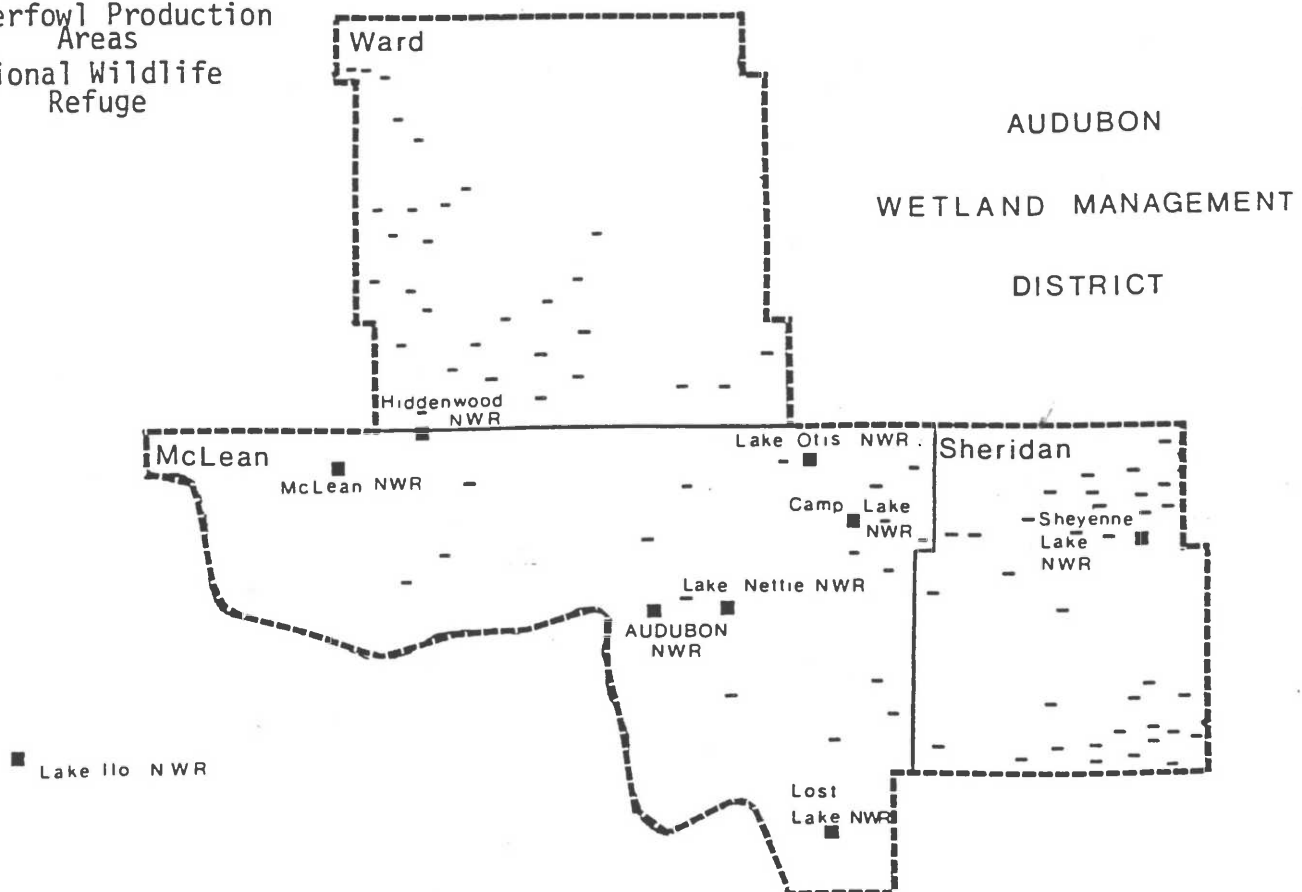
The drift plain is a second physiographic area found northeast of the Coteau. This is a less rolling, more fertile area with fewer, larger wetlands than the Missouri Coteau. A dozen WPAs and a few wetland easements are located in the region found in northeast Ward and Sheridan Counties.

The Coteau slope lies southwest of the Coteau within the Missouri River drainage. Only six WPAs and few easements are located in this portion of the district in southwest McLean County.

AUDUBON NATIONAL WILDLIFE REFUGE COMPLEX



- Waterfowl Production Areas
- National Wildlife Refuge



INTRODUCTION

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A. HIGHLIGHTS

- John's Lake WPA (334.5 acres) is transferred to the FWS from the Small Business Administration. (Section C.1)
- Second year of drought dominates all aspects of WMD management. Dry conditions from 9/87 to 12/89 have dried virtually all wetlands. (Section B)
- 13 easements comprising 955 wet acres were evaluated, recommended, and purchased. (Section C.2)
- Wildlife extension program and farmbill activities on private lands, although time consuming, continue to produce wildlife and protect habitat. (Section F.1)
- Grassland management activities through short-duration grazing and emergency haying involve many cooptors with good results. (Section F.7 and F.8)
- Duck numbers and production are dismal. (Section G.3)
- WMD manager Antonette receives Special Achievement Award for ditch plug work. (Section E.1)
- Rich, Marilyn, Duane, Pete, Craig and Mick received a Group Special Achievement Award for Farmbill work and emergency haying and grazing programs. (Section E.1)

B. CLIMATIC CONDITIONS

Drought continued to dominate the weather in 1989. The winter of 88-89 was mild and dry and very little run-off occurred. The advent of spring was a long process beginning in January and ending with summer temperatures in June. Portions of Ward County received up to 5 inches of rain in June and some wetlands retained water. Virtually all temporary and seasonal wetlands in the rest of the district were or went dry in 1989. Only Type V's provided waterfowl habitat.

Late summer and early fall warm and windy days proceeded to blow dirt from fallow and set-a-side farm fields. CRP grass plantings done in 1988 and 1989 are for the most part short on grass/legume and long on thistle/kochia. Many pastures ran out of water and or grass and cattlemen were forced to sell down their herds. Many crops were either cut for forage due to lack of seed heads or simply left standing waiting for the crop insurance adjuster.

As I write this it is now late January and it's 40 degrees above with no snow cover. Again this year it's difficult to tell whether this is late fall or early spring, but its sure not a classic N.D. winter.

The outlook is dismal. Because of dry soil conditions there is little frost seal to allow any hoped for snowfall to run-off into wetland basins. Any moisture received will immediately soak in where it falls. Only the hope of a tremendously large amount of March/April snowfall remains.

Climate Summary for 1989

Month	Temp. Min.	Temp. Max.	Precip.
Jan.	-25	40	0.19
Feb.	-30	40	0.16
Mar.	-15	55	0.47
April	13	85	2.17
May	21	84	2.00
June	53	93	1.55
July	56	100	1.59
Aug.	41	99	1.42
Sept.	25	96	0.50
Oct.	14	90	0.34
Nov.	-5	63	0.40
Dec.	-33	53	0.26
TOTAL			11.67



During 1988 and 1989 wetlands disappeared in the dry winds like "prairie smoke".

CH

C. LAND ACQUISITION

1. Fee Title

Field evaluations were conducted on 15 BLM tracts during 1989. The tracts were ranked by WMD priority and then by statewide priority. The FWS will pursue the transfer of 5,000 acres of BLM tracts statewide. Of the 5,000 acres to be transferred all 15 tracts located in the WMD were recommended. This includes five tracts totally 320.0 acres in McLean County, seven tracts totalling 306.8 acres in Sheridan County and three tracts totalling 120.0 acres in Ward County.

During 1989 the U.S. Small Business Administration (SBA) transferred a 334.5 acre tract to the FWS as the John's Lake WPA. The SBA had foreclosed on the tract and had been unable to sell it. The tract will make an average WPA. The former landowner received agricultural use through harvest of 1989. In November the FWS seeded the 130 acres of former cropland to DNC. The remainder of the tract is wetland and native prairie.

Following the successful transfer of the John's Lake WPA a second tract of 80.0 acres located in Ward County which will make an excellent WPA is scheduled (hopefully) for transfer in 1990 from the SBA.

Several fee acquisition requests were received in 1989. Most fell through for one reason or another. At years end only the Fetzer tract in NE Sheridan County and the Ryckman tract in McLean County are being pursued.

2. Easements

Thirteen easements were evaluated, recommended, and purchased in 1989 protecting an additional 955 acres of privately owned wetlands. This brings the total protected in the WMD to 78,634 privately owned wetland acres.



Without the protection of a wetland easement wetlands may be level ditched like this one in Ward County. 11/20/89 39-MWG

3. Other

Work began in earnest this year on the establishment of conservation easements on FmHA properties. A total of six properties totalling 9,388 acres were identified in Audubon Complex to receive some type of easement. Easement restrictions are of various degree, but generally protect existing sod and trees, restore wetland, protect existing wetland from draining, burning, filling or other mechanized agricultural uses unless the FWS has issued a use permit, and provides for a grassland buffer strip around each wetland. The easements require extensive surveying and the marking of grassland and wetland boundaries with signs and magnetic markers. Future enforcement of the easements which will attach to the deed and transfer to future owners will be the responsibility of the FWS. A copy of a typical easement is included as an example following the summary table.

Tract	Total Acres	Wetland Basins	Wetland Acres	Buffer Zones	Buffer Acres	Flood plain Acres	Grass- land Acres	Tree/ Brush Acres
Kreller	1650.0	138	120.9	111	164.1	0	0	0
Traxel	840.0	0	0	0	0	0	152.7	0
Bosch	1720.0	3	3.7	2	4.2	593.8	273.9	0
Jepson	2502.0	0	0	0	0	0	2404.0	0
Robinson	1716.0	0	0	0	0	0	1322.0	0
Blees	960.0	1	42.0	0	0	0	196.5	0
Totals	9388.0	142	166.6	113	168.3	593.8	4349.1	0



Work began this year on surveying and marking FmHA conservation easements with signs and magnetic markers. 9/21/89 33-RA



Looking for treasure? Nope just checking for the
magnetic marker. 9/21/89 33-RA

D. PLANNING

1. Master Plan

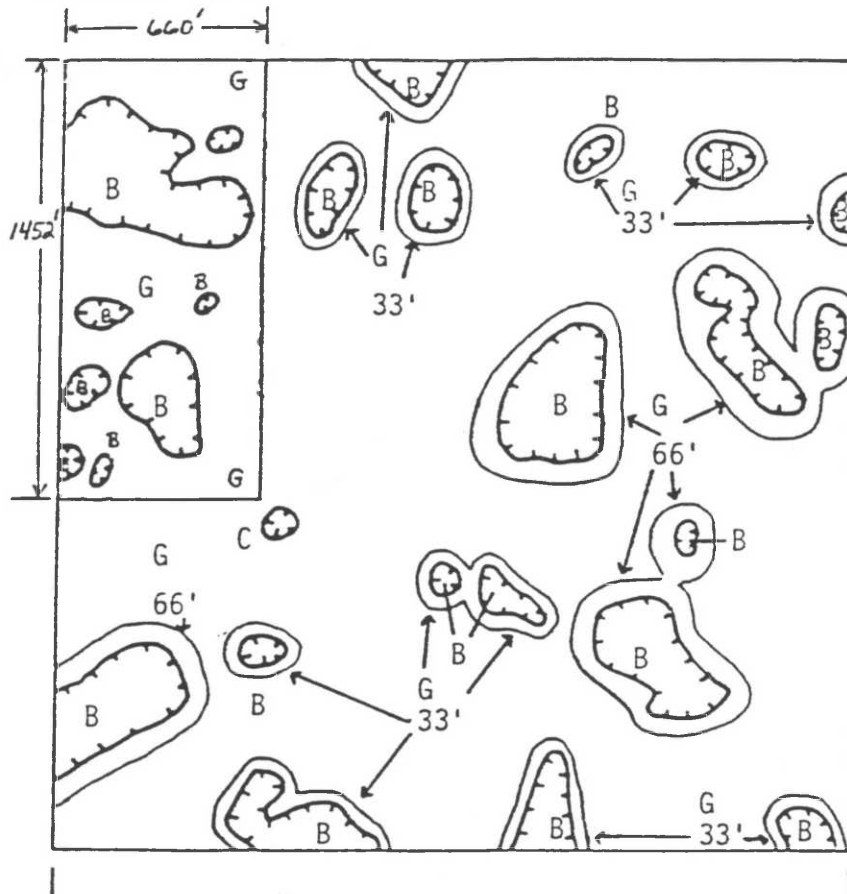
Nothing to report

2. Management Planning

Annual plans for burning, herbicide reduction, land management, haying, and grazing were completed at various times during the year. A long range plan for placement and maintenance of nest structures was also completed.

Map 3 of 8

CONSERVATION EASEMENT AREA SHERIDAN COUNTY, STATE OF NORTH DAKOTA
 T. 145N . R. 77W . 5th PRINCIPAL MERIDIAN SECTION(S): 17, NW $\frac{1}{4}$



ALL DISTANCES APPROXIMATE
 AND INTENDED TO REFLECT
 WHAT IS REPRESENTED ON
 EXHIBIT "A" FOR ESTABLISH-
 MENT OF EASEMENT BOUNDARIES

Scale: 8 Inches = 1 Mile

This map delineates the conservation easement area referred to in the easement conveyance dated _____.

Farmers Home Administration

LEGEND

"B" Easement Areas covered by provisions of the easement

Wetlands covered by "B" easement areas

"C" Wetland areas covered by provisions of the easement

R Restored wetland areas covered by provisions of the easement

Nonfunctional drainage facilities covered by provisions of the easement

G Grassland/Tree area covered by provisions of the easement

--- Watercourse covered by "B" easement areas

3. Public Participation

In February a grazing cooperator's meeting was conducted. The purpose of the meeting was to share information on grazing methods and management, explain the FWS's habitat needs, give the cooperator a chance to provide feedback, and to promote the FWS extension program. Discussions during the day ranged from types of fencing material to plant root mass. The meeting was successful in providing a chance for cooperators from three counties to share ideas and concerns and to promote cooperation between their operations and our weeds. A bonus generated from the meeting was approximately 40 leads for various extension programs.

4. Compliance and Environmental Mandates

Environmental assessments and associated permits were prepared during 1989 for an oil well road on an easement, a peninsula cut-off on the Fox WPA, a nesting island on the Kindschi WPA, a highway project along Coal Coulee WDA and nearby easements, and on two private DU island proposals.

5. Research and Investigation

Nothing to report

6. Other

Nothing to report.

E. ADMINISTRATION

1. Personnel

As part of the full performance ladders in their positions, three of the crew received promotions: Biological Technician in charge of Lake Ilo NWR (and one other fee and two easement refuges) Don Bozovsky was moved from a GS-6 to a 7. Biologist Craig Hultburg moved up from a GS-7 to a 9. Assistant Manager for Garrison lands and issues Mike Goos went from GS-5 to GS-7. The fellows are making excellent progress in their careers, doing fine work for the Service and well earned their promotions.

After over 7 years fighting the good fight protecting wetland easements and WPA's scattered all over three counties, Wetland District Manager Rich Antonette requested and received a lateral to Brazoria NWR in Texas (and just a month or so ahead of record cold, -35 degree temperatures in December!) Rich was lead man on two big, important new efforts: ditch plugging on CRP lands and Farm Bill activities. He devoted much time and energy to the ditch plugging paper blizzard and restored 75 private wetlands this year. He received a \$250 Special Achievement Award for this good work.

Since both jobs were full performance to GS-9, Mike Goos' request for a lateral to fill the Wetland Manager vacancy was approved in November. The Garrison Assistant Manager job was green-sheeted and a good spread of applications were received. In December a young, enthusiastic Biological Technician from the Bureau of Reclamation in Bismarck, Jim Lange, was selected. Due to reduced funding, Jim was being RIFed by the Bureau of Reclamation as of February 1990 so it was a happy situation for all.

Mike Grabow was selected for the PPT Clerk-Typist job at Ilo in March. He had been a temporary Biological Technician at Salyer NWR. Later, Biological Technician Mick Erickson elected to follow his future wife to Devils Lake and transferred to that Wetland District Office this spring. (We always did call him a Crazy Norwegian!) Mike Grabow was selected to fill his position off the green-sheet and started September 25 at Audubon. Our loss of Mick was our gain of Mike.

A Group Special Achievement Award was presented to Rich, Marilyn, Duane, Pete, Craig and Mick for their efforts on Farmbill work and emergency haying and grazing programs.



5 2 3 4 8 10 17 19 15 14 11 12 6 7 1
Personnel

1. David G. Potter, Project Leader, GS-485/12, PFT
2. Peter T. Smith, Asst. Project Leader, GS-485/11, PFT (Ilo, Stewart Lake and 2 Easement Refuges)
3. Richard Antonette, Asst. Refuge Manager, GS-485/9, PFT (Audubon Wetland Management District) transferred Brazoria NWR 10/21/89
4. Mike Goos, Asst. Refuge Manager, GS-485/7, PFT (Garrison Diversion Wetland Management District), reassigned to Wetland's Mgr. 10/22/89
5. H. Craig Hultberg, Refuge Biologist, GS-486/9, PFT
6. Marilyn Wohlk, Refuge Assistant, GS-303/6, PFT
7. Duane Brenneise, Eng. Equip. Operator, WG-5716/8, PFT
8. Don Bozovsky, Bio. Tech., GS-404/7, PFT (Ilo, Stewart Lake and 2 Easement Refuges)
9. Mike Grabow, Clerk/Typist, PPT, 4/10/89 - 9/24/89 promoted to Bio. Tech., GS-404/5. PFT, 9/25/89
10. Eugene Utecht, Bio. Tech., GS-404/4, PPT, 5/7/89 - 8/18/89
11. Brain Mautz, Bio. Aid, GS-404/3, PPT, 3/09/89 - 11/3/89
12. Terry Kostinec, Bio Aid, GS-404/4, PPT, 5/8/89 - 1/18/90
13. Patrick Railey, Bio Aid, GS-404/3, PPT, 6/4/89 resigned 6/23/89
14. Chad Maier, Bio Aid, GS-404/3, PPT, 4/3/89 - 9/1/89
15. Pat Moran, Volunteer, 5/15/89 - 6/25/89, Bio Aid, GS-404/3, PPT, 6/26/89 to 8/18/89
16. Douglas Cutlip, Bio Aid, GS-404/3, PPT, 7/27/89 - 10/27/89
17. Bruce Arrington, SCA Volunteer, 4/15/89 - 6/30/89
18. Christopher Spaulding, SCA Volunteer, 8/14/89 - 11/3/89
19. Doyle Sorenson, YCC, 6/12/89 - 8/10/89
20. Albert Perrin, YCC, 6/12/89 - 8/7/89
21. Christ Hanson, NDSYETP
22. Wanda Bozovsky, Volunteer

2. Youth Programs

Two YCC slots were again assigned to Audubon and two hard working young men (Butch Perrin and Doyle Sorensen) were hired; no women applied. As usual Biological Technician Gene Utecht served as crew boss and the men built WPA fence, removed junk fence, helped on banding, did nest dragging, shop maintenance and other very helpful tasks.

3. Other Personnel Programs

Again this year, we benefited greatly by having an excellent, experienced crew of summer temporaries (and volunteers). Brian, Gene and Terry all had at least 3 summer's experience. Our new fellows, Pat and Chad, had good previous experience elsewhere so everything went very well.

Doug Cutlip from West Virginia was coming west to Audubon under the SCA program but before arriving we were able to sign him on as a GS-3 Biological Aid with funds provided by the Bureau of Reclamation. About 75% of his time was spent assisting a Bureau crew surveying the Audubon islands for future mitigation work. The rest of the time they didn't need him for various reasons, such as bad weather, and we put him to good use.

4. Volunteer Programs

Again this year the Student Conservation Association worked well for us. From April 31 to mid June, Bruce Arrington received some field experience. He had a wildlife degree from Oregon State and he credited this job with landing him a paid biology job with the US Forest Service. From mid August to early November, Chris Spaulding left Vermont to help us (and do lots of goose hunting!). Chris was entering law school and wanted wildlife-outdoors experience since he's headed for environmental law.

Pat Moran was brought in as a volunteer by his buddy, Terry Kostinec. His maturity, experience and hard work produced a job offer after about 4 week's of volunteering. He went over to Ilo NWR as a GS-3 Biological Aid after one of last year's regulars unexpectedly quit. Again, a fine job and he wants to come back next year and work into the fall (hunt geese).

5. Funding

Early in the year things sounded bad, but the budget turned out okay this year, as below:

Sub- Activity	Fiscal Year					
	1990	1989	1988	1987	1986	1985
Base 1260	-	-	-	-	243,000	206,900
Base 1261	223,000	223,000	233,000	220,000	-	-
1262	101,000	124,000	53,000	-	-	-
1262 Flex	10,000	-	-	-	-	-
ARMM's	-	-	78,000	112,000	110,000	78,300
6860	6,000	6,000	6,000	6,000	7,000	5,000
8610	4,500	8,000	9,700	5,700	6,500	3,000
YCC	3,000	3,000	3,000	0	7,600	6,000
2821	-	-	0	0	199,000	0
1902-05*	54,594	25,675	38,600	18,800	-	-
1929-29**	1,200	2,400	-	-	-	-
TOTALS	403,294	392,675	423,700	364,500	573,200	229,200

* GDU land management transfer funds

** GDU planning transfer (allocated from FWE - Bismarck)

6. Safety

It was a very good year with our large, young crew as no significant accidents occurred. Three Accident/Incident Reports were written: Terry went to the doctor for treatment of a sore arm after he hit himself with a heavy chain while slinging it around a nesting structure pipe. Craig tested positive for Lyme's Disease and underwent a doctor's care (antibiotic shots) but the retest came back negative so it is unknown if he actually had the disease or not. This fall our equipment truck was parked in a farmyard (by permission) while grass seeding was being done on a WPA. The farmer lost control of a trailer he was moving, it rolled down a long hill, curved with the road and managed to crash into the parked truck. His insurance paid the \$1,650 repair bill without any trouble, thankfully.

Monthly safety meetings were held nearly every month. Pete formed and activated a safety committee. Last year Rich received instructor certification training for ATVs so he held a detailed class for four of the young people. Craig continued as a certified CPR instructor and held the annual class for all Refuge and Garrison National Fish Hatchery personnel. Duane taught the young people safe operation of various pieces of equipment and Jerry Felch (Des Lacs NWR) came down to certify our equipment operators.

Major safety projects completed were the installation of steel barriers around two propane tanks. Duane and his crew also removed four buried fuel tanks and managed the replacement of them with four above ground tanks and a new office propane system -all with various safety piping and valves. Duane supervised by phone Don's work taking Ilo's two tanks out and installing above ground tanks.

7. Technical Assistance

As usual we provided routine assistance to many groups such as the Hatchery, Corps of Engineers, SCS, ASCS, FmHA, Bureau of Reclamation, local schools, Cornell University, Game and Fish Dept, various County and Township offices and others.

8. Other Items

Training received by the staff:

- Don Bozovsky spent two months at FLETC, Glynco, GA. starting 1-3-89
- Dave, Rich, Pete, Mike and Craig: 40 hr. & 8 hr. refr. law enformt.
- Rich, Mick and Craig: disease control lecture and workshop, 2 days
- Rich and Mike: 8 hr. supervisory training in Bismarck in February
- Craig and Pete: 8 hr. on water quality monitoring
- Craig: 4 hr. Project WET and WILD facilitator in Minot
- Craig: 32 hr. S-390 Fire Behavior for Fire Bosses in Denver
- Mike: 8 hr. Basic Supervision in Bismarck in March
- Rich: 8 hr. Minimal Effects Workshop, Jamestown in March
- Pete, Dave and Duane: 8 hr. Dam Safety Trng., Minot in March
- Dave, Rich: 32 hr. Wetlands Mgt. Conference, Jamestown in March
- whole crew: 4 hr. Refreasher CPR at Refuge by Craig
- Rich, Marilyn: 12 hr. Computer Workshop in April
- Mike Goos: 3 weeks at Basic Refuge Mgt. Academy, Blair, NB
- Rich, Dave: 8 hr. FmHA Lands Workshop, Minot in May
- Bruce, Chad, Pat, Terry: 8 hr. ATV Operator Trng at Ref by Rich
- crew: 8 hr. Field Wetland Soils Recognition by Rich in Sept.
- Craig: 32 hr. HRM Training in Bismarck in November
- Dave, Pete, Mike Goos: 8 hr. Supervising Under Pressure, Bismarck



Rich organized and helped teach a wetland soils workshop.
The training is valuable in helping find wetland margins.
9/27/89 RA

F. HABITAT MANAGEMENT

1. General

Drought was the greatest impact on upland and wetland habitat in 1989. Wetlands in the WMD received very little runoff. In the spring generally only the Type IV's and Type V's held water. By year's end generally only the Type V's held water. The only exception to this was in a small area in western McLean and Ward Counties where a five inch rain from a June thunderstorm recharged wetlands and at year's end most of this area's Type IV's and Type V's held some water.

There are no water control structures on FWS managed wetlands in the WMD. Most wetlands are being held in drawdown stage by Mother Nature. Upland WPA management consisted of several short duration grazing systems, a few hay permits, and a few emergency hay permits.

Virtually all waterbank, idle native grass, hayland, and much of the CRP on private land was grazed or hayed. Most private wetlands were hayed or broken for farming. As a result residual nesting cover is virutally nonexistent for 1990 - for the second straight year.

Wildlife Extension Program

In 1987 the FWS initiated the N.D. Wildlife Extension Program. The program was designed to reduce conflict, enhance private wetland and upland habitat, and increase production of waterfowl and other wildlife. The program pays landowners to implement various waterfowl enhancement techniques on their property. Landowners have responded enthusiastically and the program continues to expand. Funding for the program comes from a variety of private, state, and federal sources. It is through this approach that the FWS and private landowners can become partners in waterfowl conservation. In 1989, in addition to regular extension office funds, two and one half percent of the station's budget was spent on extension agreements.

During 1989 the following Wildlife Extension Agreements (WEA's) were negotiated, approved, and implemented in the WMD.

Cooperator	Program	Number	Acres
Fandrich	Restore Drained Wetlands	1	1.7
Hegel	Restore Drained Wetlands	1	1.6
Nichols	Restore Drained Wetlands	3	2.7
Dockter	Restore Drained Wetlands	2	7.0
Ulberg	Restore Drained Wetlands	4	3.9
Grant	Restore Drained Wetlands	3	1.2
Deckard	Restore Drained Wetlands	2	0.6
Boyko	Restore Drained Wetlands	4	1.4
Stadler	Restore Drained Wetlands	1	1.0
Stadler	Restore Drained Wetlands	3	2.2
Stadler	Restore Drained Wetlands	2	1.1
Anderson	Restore Drained Wetlands	9	11.0
Hausauer	Restore Drained Wetlands	7	1.6
Fuery	Restore Drained Wetlands	9	11.7
Sub-total		51	48.7

Hipp	Peninsula Cut-off	1	65
Meier	Access to the Hipp Cut-off	1	
Edinger	Idle Nesting Cover	1	225
Freborg	Construct Pair Ponds	20	<1
Streifel	Grazing System	1	160
Klain	Grazing System	1	320
Anamoose	Nest Structure Erection		
Wildlife Club	and Maintenance	60	N/A
McClusky	Nest Structure Erection		
Sportsmens Club	and Maintenance	30	N/A
McClusky	Provide and Install		
Sportsmens Club	Nest Bales	100	N/A
Fetzer	Idle Nesting Cover	1	103
Bohara	Private Fill for Island	1	1



Efforts continued this year to install ditch plugs and restore drained wetlands. A total of 51 basins were restored. 89-27 RA

In addition we provided 27 four legged nesting structures, 15 goose tubs, 25 duck baskets, and approximately 65 nesting bales to landowners in the WMD. Three of the private islands that were covered under a 1988 agreement were trapped this year to remove predators.



11/15/89 TDK



Duane and Craig ready to deliver another load of nesting bales (top photo) and 4-legged nesting structures (bottom photo)

3/23/89 23-MWG

1985 Farm Bill

Potential swampbuster and sodbuster violations found during routine duties are reported to the respective County ASCS offices. In addition, the FWS serves as an advisor in commenced determination decisions. Producers do not officially violate swampbuster rules until a program crop is planted and thus can still drain wetlands and plant them to grass or alfalfa without penalty. 1989 work is broken down into three categories - commencement hearings, reported swampbuster violations and reported sodbuster violations.

Commencement Determination Hearings

County	Name	Commencement Determinations (ASCS)	FWS Concur
Sheridan	Erickson	No	Yes
McLean	Dockter	Yes	Yes
McLean	Sayler	Yes	Yes
McLean	Novodvorsky	Yes	Yes
McLean	Severance	Yes	Yes
Hettinger	Kessel	Yes	Yes
Ward	Marshall	Yes	No
Ward	Schaefer	Yes	No
Ward	Novodvorsky	Yes	No
Ward	Petry	Pending	Pending
Sheridan	Tessman	Yes	No
Sheridan	Erickson	Yes	No

Reported Swampbuster Violations

County	Wetlands Converted	Conversion Activity
McLean	1-III	Ditch
Ward	2-III	Ditch
	2-IV	Ditch
Mercer	1-III	Fill
McLean	4-III	Prior Conversion
McLean	4-?	All Clean-outs
Sheridan	8-?	All Clean-outs
Ward	1-?	All Clean-outs

No sodbuster violations were reported in 1989.

Several potential swampbuster violations reported in 1988 were handled as minimal effects by ASCS when the landowners closed the drainage ditch. One landowner in Ward County refused to close the drainage ditch and is planning on planting alfalfa to avoid losing his farm bill benefits.

One particularly complicated and time consuming commencement determination occurred in the Sheridan County Tessman case. The case resulted in our recommending denial on three wetlands that Sheridan ASCS granted commencement. Initially, Tessman submitted a "shopping list" for drainage on portions of 10 sections of land, including 79 wetlands, on 43 of which no drainage had begun. ASCS advised that these were not elible. Then Tessman regrouped and requested to continue drainage on about 51 wetlands. Virtually all of these were given partially converted (Wd) determinations (the producer can "cleanout" the ditches to the original depth only).



As long as program crops are not planted private wetlands can continue to be drained under the swampbuster legislation. 11/21/89 38-MWG

2. Wetlands

Wetlands in the spring received very little run-off. Only approximately one-half of the Type IV's held water and most of the Type V's. By mid-summer only an estimated two-thirds of the Type V's held water. At year's end only the deepest of the Type V's held water. The only exception to this dismal picture was an area in western McLean and Ward Counties that received up to five inches of rain from a thunderstorm which recharged the temporary and seasonal wetlands. Many WPA's in the WMD are completely dry with no wetland. There are no water control structures on managed wetlands in the WMD. A massive amount of moisture and run-off is needed prior to next years breeding season. Water gauges have been installed on the Weishaar and the Haas WPA's to monitor suspected changes in hydrology caused by the raising of Lake Audubon for Garrison Diversion Unit purposes. The water gauge readings were taken again in 1989 and we suspect that the readings will be useful in proving damages and requested mitigation.

Wetland information is gathered while conducting the four square mile waterfowl counts. The data for 1989 indicated 345.8 sq. mi. of wetland which is only 6.8% of the WMD. Wet ponds in the WMD totalled 16,523 down from 84,910 in 1987.

3. Forests

The only trees which occur in the WMD are planted shelterbelts, native brush, and scattered aspen clumps.

4. Croplands

Currently, there are no farmed acres of fee title lands in the WMD. The 130 acres of cropland that were on the newly transferred John's Lake WPA were seeded to DNC. Interseeding was done on the Weckerly WPA (213 acres), the Allen WPA (32 acres), and on the Weber WPA (30 acres).

5. Grasslands

Grasslands in the WMD consist of both tame and native tracts. The tracts are managed to provide optimal nesting habitat for waterfowl. A majority of the grass acres are currently managed through cooperators utilizing short-duration grazing systems. Lesser amounts of haying, burning, and farming are used to manipulate the remaining tracts.

6. Other Habitats

Nesting islands proposals were submitted to D.U. for the Stute WPA, Gaub WPA, and the Kindschi WPA. Of these the Stute WPA was declined because of the depth of the wetland, the Gaub WPA will be evaluated in 1990, and the Kindschi WPA island was scheduled for construction in 1989-90. A proposal to cut-off a naturally occurring peninsula to create a 15 acre nesting island on the Fox WPA was also submitted. D.U. approved this project, but following a stormy public hearing, we decided to delay construction for a year or two so as to allow time to work with the locals.

7. Grazing

Prescribed grazing is used to enhance the productivity of WMD grasslands. Objectives include: strengthen height and density of plants; create plant diversity - in some cases by controlling certain plants and in other cases by favoring certain plants; enhancement of the nutrient cycle; and enhance succession and competition among plants. On a majority of WPA's the cooperator does grazing improvement work such as fence building, junk removal, water point (dam) building, weed control, and grass seeding as a part of the grazing permit. Units are generally designed by habitat type to allow for timely treatment. Over 40 miles of fencing were built on the WPA's to cross fence and divide habitat types.

In February a cooperator grazing meeting was held in the Coleharbor City Hall. Approximately 35 cooperators and several agency folks attended. The meeting provided a format for exchange of ideas and information and gave us a change to spread "the name and the fame". Craig has done an outstanding job of convincing our cooperators that the system will work and in getting them to implement similar systems on their own lands. Results over the last two years are excellent in spite of the drought.

Each year new observations and ideas are integrated into the grazing schemes. The program is dominated by a learn and adjust attitude and appears to hold much promise for both waterfowl production and landowner cooperation.

1989 WMD Grazing

County	WPA	Permittee	Acres	AUM's	Units	Days
Sheridan	Allen	G. Hoots	330	167	11	152
Sheridan	Allen	E. Hoots	640	299	16	142
Sheridan	Eddy	R. Streifel	160	43	1	10
Sheridan	Geigle	O. Geigle	400	155	5	27
Sheridan	Davis	G. Mauch	480	110	4	51
Sheridan	Tkach	D. Ostrum	591	162	5	72
Ward	Road	J. Brandvold	98	37	6	54
Ward	Blum	J. Fyllesvold	160	72	4	43
Ward	Muus	D. Henne	112	51	3	26
Ward	Rovig	A. Berg	130	73	1	22
Ward	Peterson	K. Hanson	160	41	4	45
Ward	McCulloch	J. Nichols	412	62	7	154
Ward	Field	B. Berg	160	75	8	85
Ward	Cameron	G. Wohlk	10	13	1	15
Ward	Day	P. Berg	160	64	3	31
McLean	Otis	C. Sheelar	320	236	8	80
McLean	Panko	D. Ostrum	480	164	5	53
McLean	Dossenko	C. Shriha	240	60	7	78
McLean	Zarek	J. Mosseanko	132	42	2	19
McLean	Evanenko	G. Goven	240	61	3	66
McLean	Ketterling	G. Pressor	166	34	2	19
McLean	Stute	G. Stute	107	38	2	13
McLean	Haas	R. Schlafmann	128	95	5	76
McLean	Weishaar	J. Fast	69	55	5	52
McLean	Weishaar	J. Blotter	25	16	2	18



Cattle impact on shoreline willow help thin stands
and increase waterfowl use. 8/1/89 CH



Cattle will eat Canadian thistle - the secret is
proper timing. 8/1/89 CH

8. Haying

Haying is used to rejuvenate decadent tame grass stands and to comply with roadsid (ditch) mowing requirements. In general the results of the 1988 haying were good for legume response following disking, good for litter removal from wetlands, fair for grass response from disking, fair for use on nesting bales received as our share, fair for weed control, and poor for interseeding.

1989 WMD Haying

County	WPA	Acres	Payment
Ward	Kohoutek	40.0	Weed Control
Ward	Kohoutek	50.0	Interseeding
Ward	Knudson	35.0	Disk/drag
Ward	Brown	8.0	Raking/litter removal
McLean	Hove	25.0	Disk/drag
McLean	Haas	11.0	Share of Bales
Sheridan	Kreiter	12.0	Weed Control
Sheridan	Allen	60.0	Weed Control
Sheridan	Ewert	14.0	Weed Control
Sheridan	Weber	30.0	Weed Control
Sheridan	Weckerly	140.0	Weed Control
Sheridan	Papke	60.0	Disk/drag
Sheridan	Allen	10.0	Junk Removal
Sheridan	Cartwright	35.0	Share of Bales

9. Fire Management

Two prescribed burns were planned for 1989 - one on the Cartwright WPA and one on the Kohoutek WPA. Neither burn was accomplished due to the drought, manpower constraints and a state issued burning ban.

The Fireman's Association continued efforts to get the WMD to pay for fire protection agreements with each of the 13 fire departments located in the three counties. To date we have not negotiated any agreements and do not intend to. We will continue to rely on our present system of paying as we incur expenses as this method has worked well in the past.

10. Pest Control

Leafy spurge, Canada thistle, perennial sow thistle and wormwood are controlled as required by State law. Leafy spurge in the WMD is limited to only a few plants or patches scattered on nine WPA's and each area receives some form of treatment each year. The larger patches or sites where we receive a specific complaint of thistle and wormwood infestation are also treated as below.

County	WPA	Target Species	Acres	Treatment
Ward	Blum	Leafy spurge	3.0	Grazed/spot sprayed
Ward	Halden	Leafy spurge	3.0	Spot sprayed
Ward	V. Johnson	Leafy spruge	5.0	Spot sprayed
Ward	McCulloch	Leafy spurge	19.0	Grazed/spot sprayed
Ward	Hanson	Leafy spurge	1.0	Sprayed
Ward	Rovig	Leafy spurge	0.5	Sprayed
Ward	McCulloch	Leafy spurge	5.0	Grazed
Ward	Kohoutek	Wormwood	40.0	Hayed
McLean	Dossenko	Canada thistle	20.0	Spot sprayed
McLean	Dossenko	Canada thistle	20.0	Grazed/mowed
McLean	Evanenko	Sow thistle	10.0	Grazed
Sheridan	Allen	Leafy spurge	20.0	Grazed\spot sprayed
Sheridan	Oster	Leafy spurge	4.0	Spot sprayed
Sheridan	Kreiter	Wormwood	5.0	Spot sprayed
Sheridan	Kreiter	Wormwood	12.0	Hayed/spot sprayed
Sheridan	Allen	Wormwood	60.0	Hayed/spot sprayed
Sheridan	Ewert	Wormwood	14.0	Hayed/spot sprayed
Sheridan	Weber	Wormwood	30.0	Hayed
Sheridan	Weckerly	Wormwood	140.0	Hayed

In addition to the direct weed control and haying operations, grazing is used to promote grassland vigor and health. By maintaining grassland in a vigorous and healthy condition invasion and establishment of noxious weeds is much less likely. Interseeding has also been conducted with undetermined results to increase competition.

11. Water Rights

Nothing to report.

12. Wilderness and Special Areas

Nothing to report.

13. WPA Easement Monitoring

All 1988 ditch/fill type violations were in compliance by the end of 1989. The spring flight was reduced to one day (6 hours) of flying in April, allowing checking of problem areas.

Fall, 1989 flights were 95% completed in three days (24 hours) in November. The remainder will be flown next spring. Ground checking of the 27 possible violations took parts of three days. Landowner contacts are yet to be completed.

1989 Violations

Easement	Violation	Status	Discovered	Compliance
M120x	Backhoe Ditch	Closed	11/88	5/89
S101x	3 filled	Closed	Permit Issued 10/88	5/89
238x	Ditch clean/fill	Closed	Permit Issued 10/88	5/89
W 49x	Fill	Closed	11/88	6/89
W279x	Fill (4)	Closed	11/88	10/89
W430x	Rocks	Closed	11/88	1/89
W457x	Burns	Letter sent	11/88	1/89
W461X	Level Ditch/fill	Closed	11/88	11/88
W188X	Level Ditch	Closed	9/89	10/89
W 25X	Fill	Closed	11/88	12/89
W275X	Burn	Pending	11/89	
W134X	Burn	Pending	11/89	
W149X	Fill	Pending	11/89	
W201X	Burn	Pending	11/89	
W325X	Burn	Pending	11/89	
S 65X	Burn	Pending	11/89	
S241X	Burn	Pending	11/89	
S233X	burn	Pending	11/89	

The fill on Sheridan 238X and 101X was resolved by issuing an Easement Permit for construction and thus permitting the building of earth embankments for fences through wetlands. Ward 279X was closed following the writing of an EA, the issuance of a ROW permit and appropriate mitigation was agreed upon by the oil company violator (which had built a road through an easement wetland).

Field Reviews.

During 1989 we field reviewed oil well site placement on eight sites on Ward 207X. The well site in NE Se 11-53-84 was originally staked about 80' from two wetlands and we requested they move the well prior to drilling. Also, the well in NW SW Sec. 12 was moved 150' to avoid a Type IV basin.

A sixteen mile road reconstruction project along Ward County Highway #14 was reviewed with the Ward County engineer to determine possible easement impacts. No impacts to easement wetlands were found to occur.

A ROW permit was issued to the ND State Highway Department following the writing of an EA for work along ND Highway 200 which would impact 0.39 wetland acres on Easement M82X. Mitigation for the wetland acreage was accomplished by the Department.

G. WILDLIFE

1. Wildlife Diversity

Nothing to report.

2. Endangered and Threatened Species

A whooping crane was observed near Max, including sightings on the Danielson WPA, throughout the summer. The bird stayed in the area until September and then was observed as the first whooper to arrive at Aransas NWR in the fall. Eight bald eagles and three peregrine falcons were observed mostly near the complex headquarters. Many piping plovers were observed utilizing beaches on Lake Sakakwea this year. It is assumed that the birds moved there from dried up prairie wetlands.

3. Waterfowl

Ducks and geese began to arrive in mid-March. A major movement of snow and Canada geese occurred the last week of March. Ducks drifted in, but numbers were not impressive. Duck breeding pair numbers and production are listed below. Canada goose production in the district was fair-good and they continue to expand both in numbers and in breeding range. Fall migration found high numbers of geese both Canada and snow, but poor duck numbers.

The four square mile survey was completed again in 1989. Results of the survey have been included. Breeding pairs of the thirteen species of ducks listed in the table for 189 totalled 156,300 pairs down from 434,068 pairs in 1987. Recruits of the five species of ducks for which estimates were completed totalled 90,314 in 1989 down from 417,123 in 1987.

1989 Breeding Population Estimates

		Area (sq mi)	Area Wet (sq-mi)	Wet Ponds	Ponds / Area (sq mi)	Area Wet / Ponds (ac)	Breeding Pairs	Pairs / Area (sq mi)	Pairs / Area Wet (sq-mi)	Pairs / Wet Ponds
Species Mallard	Ownership									
	Easement	680.9	28.5	4033	5.9	4.5	8398	12.33	294.19	2.08
	Federal	42.2	29.3	147	3.5	127.2	1548	36.66	52.87	10.51
	Private	4375.7	288.0	12342	2.8	14.9	39317	8.99	136.61	3.19
Total		5098.8	345.8	16523	3.2	13.4	49263	9.66	142.45	2.98
Gadwall	Easement	680.9	28.5	4033	5.9	4.5	4610	6.77	161.51	1.14
	Federal	42.2	29.3	147	3.5	127.2	1327	31.44	45.34	9.01
	Private	4375.7	288.0	12342	2.8	14.9	24655	5.63	85.61	2.00
	Total	5098.8	345.8	16523	3.2	13.4	30593	6.00	88.48	1.85
Wigeon	Easement	680.9	28.5	4033	5.9	4.5	541	0.79	18.95	0.13
	Federal	42.2	29.3	147	3.5	127.2	70	1.65	2.38	0.47
	Private	4375.7	288.0	12342	2.8	14.9	2339	0.53	8.12	0.19
	Total	5098.8	345.8	16523	3.2	13.4	2950	0.58	8.53	0.18
G-w teal	Easement	680.9	28.5	4033	5.9	4.5	636	0.93	22.29	0.16
	Federal	42.2	29.3	147	3.5	127.2	82	1.94	2.80	0.56
	Private	4375.7	288.0	12342	2.8	14.9	2752	0.63	9.56	0.22
	Total	5098.8	345.8	16523	3.2	13.4	3471	0.68	10.04	0.21
B-w teal	Easement	680.9	28.5	4033	5.9	4.5	5378	7.90	188.39	1.33
	Federal	42.2	29.3	147	3.5	127.2	692	16.40	23.65	4.70
	Private	4375.7	288.0	12342	2.8	14.9	23256	5.31	80.75	1.88
	Total	5098.8	345.8	16523	3.2	13.4	29328	5.75	84.80	1.77
Shoveler	Easement	680.9	28.5	4033	5.9	4.5	1690	2.48	59.21	0.42
	Federal	42.2	29.3	147	3.5	127.2	393	9.31	13.43	2.67
	Private	4375.7	288.0	12342	2.8	14.9	8438	1.93	29.30	0.68
	Total	5098.8	345.8	16523	3.2	13.4	10521	2.06	30.42	0.64
Pintail	Easement	680.9	28.5	4033	5.9	4.5	1750	2.57	61.31	0.43
	Federal	42.2	29.3	147	3.5	127.2	225	6.34	7.70	1.53
	Private	4375.7	288.0	12342	2.8	14.9	7569	1.73	26.28	0.61
	Total	5098.8	345.8	16523	3.2	13.4	9544	1.87	27.60	0.58
Wood duck	Easement	680.9	28.5	4033	5.9	4.5	0	0.00	0.00	0.00
	Federal	42.2	29.3	147	3.5	127.2	0	0.00	0.00	0.00
	Private	4375.7	288.0	12342	2.8	14.9	0	0.00	0.00	0.00
	Total	5098.8	345.8	16523	3.2	13.4	0	0.00	0.00	0.00
R. teal	Easement	680.9	28.5	4033	5.9	4.5	425	0.62	14.87	0.11
	Federal	42.2	29.3	147	3.5	127.2	149	3.54	5.10	1.01
	Private	4375.7	288.0	12342	2.8	14.9	2445	0.56	8.49	0.20
	Total	5098.8	345.8	16523	3.2	13.4	3019	0.59	8.73	0.18
Canvasback	Easement	680.9	28.5	4033	5.9	4.5	440	0.65	15.43	0.11
	Federal	42.2	29.3	147	3.5	127.2	137	3.25	4.68	0.93
	Private	4375.7	288.0	12342	2.8	14.9	2422	0.55	8.41	0.20
	Total	5098.8	345.8	16523	3.2	13.4	3000	0.59	8.67	0.18
L. scaup	Easement	680.9	28.5	4033	5.9	4.5	833	1.22	29.20	0.21
	Federal	42.2	29.3	147	3.5	127.2	385	9.11	13.14	2.61
	Private	4375.7	288.0	12342	2.8	14.9	5388	1.23	18.71	0.44
	Total	5098.8	345.8	16523	3.2	13.4	6606	1.30	19.10	0.40
Ringneck	Easement	680.9	28.5	4033	5.9	4.5	68	0.10	2.38	0.02
	Federal	42.2	29.3	147	3.5	127.2	25	0.59	0.85	0.17
	Private	4375.7	288.0	12342	2.8	14.9	399	0.09	1.38	0.03
	Total	5098.8	345.8	16523	3.2	13.4	492	0.10	1.42	0.03
Ruddy duck	Easement	680.9	28.5	4033	5.9	4.5	1167	1.71	40.87	0.29
	Federal	42.2	29.3	147	3.5	127.2	306	7.24	10.44	2.07
	Private	4375.7	288.0	12342	2.8	14.9	6044	1.38	20.99	0.49
Species Ruddy duck										
Total		5098.8	345.8	16523	3.2	13.4	7517	1.47	21.74	0.45
Total	Easement	680.9	28.5	4033	5.9	4.5	25937	38.09	908.81	8.43
	Federal	42.2	29.3	147	3.5	127.2	5339	126.46	182.38	36.24
	Private	4375.7	288.0	12342	2.8	14.9	125023	28.57	434.10	10.13
	Total	5098.8	345.8	16523	3.2	13.4	156300	30.65	451.96	9.46

1989 Production Estimates for Five Species

Species	Ownership	Breeding Pairs	Pairs / Area (sq mi)	Pairs / Area Wet (sq-mi)	Pairs / Wet Ponds	Recruits	Recruits / Area (sq-mi)	Recrmt. Rate
Mallard	Easement	8398	12.33	294.19	2.08	4133	6.07	.
	Federal	1548	36.66	52.87	10.51	1069	25.33	.
	Private	39317	8.99	136.51	3.19	19680	4.50	.
	Total	49263	9.66	142.45	2.98	24882	4.88	0.253
Gadwall	Easement	4610	6.77	161.51	1.14	4561	6.70	.
	Federal	1327	31.44	45.34	9.01	1209	28.63	.
	Private	24655	5.63	85.61	2.00	21897	5.00	.
	Total	30593	6.00	88.46	1.85	27667	5.43	0.452
B-w teal	Easement	5378	7.90	188.39	1.33	4388	6.44	.
	Federal	692	16.40	23.65	4.70	329	7.78	.
	Private	23256	5.31	80.75	1.88	18848	4.31	.
	Total	29326	5.75	84.80	1.77	23565	4.62	0.402
Shoveler	Easement	1690	2.48	59.21	0.42	1700	2.50	.
	Federal	393	9.31	13.43	2.67	303	7.18	.
	Private	8438	1.93	29.30	0.68	7599	1.74	.
	Total	10521	2.06	30.42	0.64	9603	1.88	0.456
Pintail	Easement	1750	2.57	61.31	0.43	769	1.13	.
	Federal	225	5.34	7.70	1.53	85	2.01	.
	Private	7569	1.73	26.28	0.61	3744	0.86	.
	Total	9544	1.87	27.60	0.58	4597	0.90	0.241
Total	Easement	21827	32.05	764.61	5.41	15551	22.84	.
	Federal	4186	99.14	142.98	28.41	2995	70.93	.
	Private	103235	23.59	358.45	8.36	71768	16.40	.
	Total	129247	25.35	373.74	7.82	90314	17.71	0.349

A long range (5 years plus) nest structure erection and maintenance plan was written and implemented this year. During the year several structures were installed, some were moved, and some removed including: Peterson WPA - erected two goose and two duck tubs, Weishaar WPA - straightened two tubs, Brown WPA - erected three goose tubs, McCulloch - erected three goose tubs, Danielson WPA - erected three goose tubs, Haas WPA - straightened existing structures, Nelson WPA - erected one goose tub, Muus WPA - erected two goose tubs. Albertson WPA - erected one goose tub, and Tkach WPA removed one goose tub.

Structures are checked when they are filled and this project has not yet been completed. Traditionally structures used by ducks and Canada geese in the WMD is about 20%.

Prospects for waterfowl production in 1990 are dismal. Very little wetland remains and other than the kochia and Russian thistle in the CRP fields, little residual nesting cover is available on private lands.

4. Marsh and Water Birds

Several WPA's have colonies of nesting marsh birds on or adjacent to them. The results of this year's survey is included below. In general, marsh and water birds suffered due to the lack of wetlands and the continued drought.

WPA	Species	1989		1988		1987		1986	
		Adults	Nests	Adults	Nests	Adults	Nests	Adults	Nests
McCulloch	Cormorant	35	21	141	62	100	56	110	95
Snippen	Cormorant	12	0	155	90	137	79	140	89
Weltikol	Avocets	0	0	0	0	10	2	150	78
Fox	Cormorant	0	0	117	36	112	17	N/A	

6. Raptors

Two golden eagles were found dead and a third alive in a fox trap in October in the WMD. One dead bird was found in the Custer Mine Game Management Area and the other 15 miles north of Ruso, ND. Both were picked up and transferred to the Special Agent. A farmer called to report that his son had accidentally trapped a golden eagle in a fox set. Upon investigation, the boy had the eagle by one talon and it was released. He also had a freshly dead northern harrier and a freshly dead squirrel which, apparently, the eagle came down on. His other traps were checked and showed that he was using sight exposed bait (duck carcasses) but since they were of less than one pound in weight, he wasn't in violation.

Most raptors were present in good numbers throughout the WMD with the possible exception of low numbers of snowy owls.

7. Other Migratory Birds

Results of the Turtle Lake and Parshall mourning dove counts showed the Parshall route to be about 50% above the 25 year average in both calls and birds seen and the Turtle Lake route to be about 250% above the 25 year average in both calls, and birds seen.

8. Game Mammals

There appears to be a trend of increasing numbers and expanding range of the pronghorn antelope occurring in the WMD. They are currently common in western Ward and McLean Counties and during the year were seen as far east as McClusky in central Sheridan.

White-tail deer numbers are fair in the western and central portions of the WMD and good in the far eastern portion. Hunter success in the units which overlap the WMD, for example, was above 70%.

9. Marine Mammals

Nothing to report.

10. Other Resident Wildlife

Although formal surveys were not conducted by WMD staff the information received from the ND State Game and Fish Department indicated an approximate 25% reduction from 1988 in sharptail grouse, similar numbers of ring-necked pheasants as in 1988, and similar to a slight increase in gray partridge numbers.

Fox and coyote numbers continue to be high as a result of mild winters and low fur prices. Mink and muskrat are greatly reduced in numbers due to a lack of wetland habitat.

11. Fishery Resources

A fathead minnow/yellow perch fishery exists on the Weishaar WPA. Fisherperson success on the yellow perch is fair.

12. Wildlife Propagation and Stocking

Canada geese are annually trapped from Audubon NWR and State WMA and transplanted to sites across the state. Release sites in the WMD this year included SE Sheridan, NE Sheridan, and McLean Refuge in western McLean. Approximately 150 birds were released at these locations.



Canada geese transplanted by the Anamoose
Wildlife Club. 6/30/89 TK

Virtually all of the local wildlife clubs release ring-necked pheasants throughout the WMD. It is estimated that 3,000 were released in 1989.

13. Surplus Animal Disposal

Nothing to report.

14. Scientific Collections

Nothing to report.

15. Animal Control

Predators were trapped from three private islands in the WMD. Total catch was three raccoons and one striped skunk.

16. Marking and Banding

Nothing to report.

H. PUBLIC USE

1. General

WPA's are open for public activities such as photography, hiking, hunting, trapping, fishing, canoeing, berry picking, and bird watching. A majority of use is consumptive in nature, usually hunting.

The Complex staff utilizes opportunities to provide environmental education or to promote involvement with wildlife and wildlife programs. During 1989 the following activities were conducted in the WMD.

Jan. -	Attend/talk at the McClusky Sportsmen Club
	Attend/talk at the Benedict Sportsment Club
	Wildflower slide show at the Turtle Lake Centennial Club
	3 Project Wet/Wild sessions
	Attend/talk at the Berthold Sportsmen Club
	Attend/talk at the Anamoose Sportsmen Club
	Attend/talk at the Garrison Sportsmen Club
	Attend/talk at the Garrison Lions Club
Feb. -	Judged the Garrison High School Science Fair
	Attend/talk at the Anamoose Sportsmen Club
Mar. -	Attend/talk at the Garrison Sportsmen Club
	Attend/talk at the Turtle Lake Sportsmen Club
	Worked for the National Wildlife Federation at the Garrison Boat Show

- Apr. - Attend/talk at the Anamoose Sportsmen Club
Attend/talk at the Berthold Sportsmen Club
Attend/talk at the McClusky Sportsmen Club
- May - Radio interview at the Underwood KFJR Radio Days
Talk at the Garrison Cub Scouts
- June - Taught class at the Washburn 4-H Camp
Talk/attend the Anamoose Sportsmen Club
- July - Worked at State Fair booth in Minot
Talk/attend the Anamoose Sportsmen Club
Coached the McLean County 4-H Wildlife judging team
- Sept. - Taught at the 7th grade County Conservation Day
Talk/attend the Anamoose Sportsmen Club
Talk/attend the Garrison Lions Club
- Oct. - TV appearance on steel shot
Talk at the Garrison Chamber of Commerce
- Nov. - Talk/attend the Turtle Lake Sportsmen's Club
Talk/attend the McClusky Sportsmen's Club
Talk/attend the Garrison Sportsmen's Club
Talk/attend the Anamoose Sportsmen's Club
TV appearance on Canada goose numbers
TV appearance on bald eagles



Several local wildlife clubs were active in erecting and maintaining nest structures. Now just to get some run-off.

10/2/89 TK

Press releases were written and released under the following titles: Islands Are Valuable for Wildlife Nesting; Audubon Offers Help for Restoring Wetlands; Report Whooping Crane Sightings; Sheyenne Lake NWR Open to Public Fishing; Haying and Grazing Activities in 1989; Golden Eagle Shot; New WMD Manager On Board; Nesting Islands to be Built; Fox WPA Peninsula Cut-off Proposed; and Money Available for Wetland Easements.

In addition routine County Commissioner meetings were attended to discuss our activities in each of the counties.

2. Outdoor Classrooms - Students/Teachers

Nothing to report.

3. Interpretive Trails/Exhibits

Nothing to report.

4. Hunting

Most hunting on the WPAs centers around waterfowl, deer, and upland birds. The waterfowl opener was extremely poor for numbers of ducks, hunter activity, and hunter success. Goose hunters fared better especially in central McLean and northwest Ward Counties. Deer hunter success average over 70% success in the units which overlap the WMD for a good season. Upland bird numbers were fair with pheasant hunting the most popular activity. Total hunting visits to the WPA's is estimated at 1500.

5. Fishing

Recreational fishing occurs only on the Weishaar WPA. Fisherpersons had fair success for yellow perch. Fishing visits to the area are estimated to be 600.

6. Trapping

Trapping interest and activity was extremely low in 1989. Low fur prices coupled with a lack of water and associated wetland furbearers resulted in a much below average number of WPA trapping visits. An estimated 100 visits occurred in the WMD.

7. Wildlife Observation

Virtually all WPA's are used for sight seeing, birdwatching and photography.

8. Law Enforcement

The WPAs are routinely patrolled during hunting season. One violation notice for an unplugged shotgun was issued. A trespass farming issue on the Schmeets WPA was resolved (without a ticket). Easement law enforcement is addressed under the easement section.

I. EQUIPMENT AND FACILITIES

1. New Construction

Steel boundary fence totalling 1.4 miles was built by the YCC crew on the Geigle and Kreiter WPAs. Cooperators built 4.72 miles of steel boundary fence on the Allen, Geigle, McCulloch, Day, Stute, Haas, and Weishaar WPAs. In addition 33.81 miles of temporary fencing was used for cross fencing of habitat units on the WPAs.

2. Maintenance

Posting was checked and new boundary signs added on approximately one-third of the WPAs. Boundary fence was repaired by either the YCC crew or the cooperators on about one half of the WPAs.

3. Major Maintenance

Duane was in charge of keeping all equipment ready to go again this year. With help from Brian and the other fellows, he accomplished all routine service as well as patched and fixed as things broke down. As usual they all did excellent work and everything was ready when needed. Thanks to their preventative maintenance and careful drivers, there were no major equipment breakdowns. (In the safety section is information on a farmer damaging one truck which his insurance paid to repair, \$1,650.)

4. Equipment Utilization and Replacement

A new copier and one ton crew cab truck were ordered for Audubon but not yet received. A smaller copier from Ilo was put on long term loan to the Chase Lake office. (Ilo had upgraded it with Tewaukon's old copier.)

5. Communications

No significant problems arose and our system worked well.

6. Energy Conservation

As the Complex grows so does our fuel usage. We continue to combine trips and drive many compact pickups. However, the add-on private land work loads caused an increase in mileage driven and gasoline used. The new bunkhouse for the volunteers really helped with manpower but it did add to the propane and electricity bills.

Doing more work required more energy. Below is a chart of our energy use:

Energy Type	1989	1988	1987	1986	1985
Electricity (kwh)	20,414	22,632	50,187	63,051	76,260
Heating Fuel (Gal)	329	228	241	290	322
Diesel Fuel (Gal)	1,173	590	568	258	1,076
Gasoline	6,157	6,313	5,671	5,776	6,132
Propane (Gal)	2,100	-	-	-	-

7. Other

Nothing to report.

J. OTHER ITEMS

1. Cooperative Programs

Cooperative activities conducted in 1989 include working with the ND State Land Department on land development, Ducks Unlimited on projects, ND Game and Fish Department on surveys, County and township officials on road projects, Cornell University on breeding bird information, Audubon Society with bird counts, ASCS on private land development, North Dakota State University (NDSU) on range monitoring, SCS on range tours, local wildlife clubs and FWS neighbors on a variety of projects.



Dr. Barker from NDSU led a session to discuss standardizing and collecting range monitoring information. 6/9/89 MWG

2. Other Economic Uses

A Special Use Permit was issued and the appropriate fee collected for seismograph work done across the Rovig WPA.

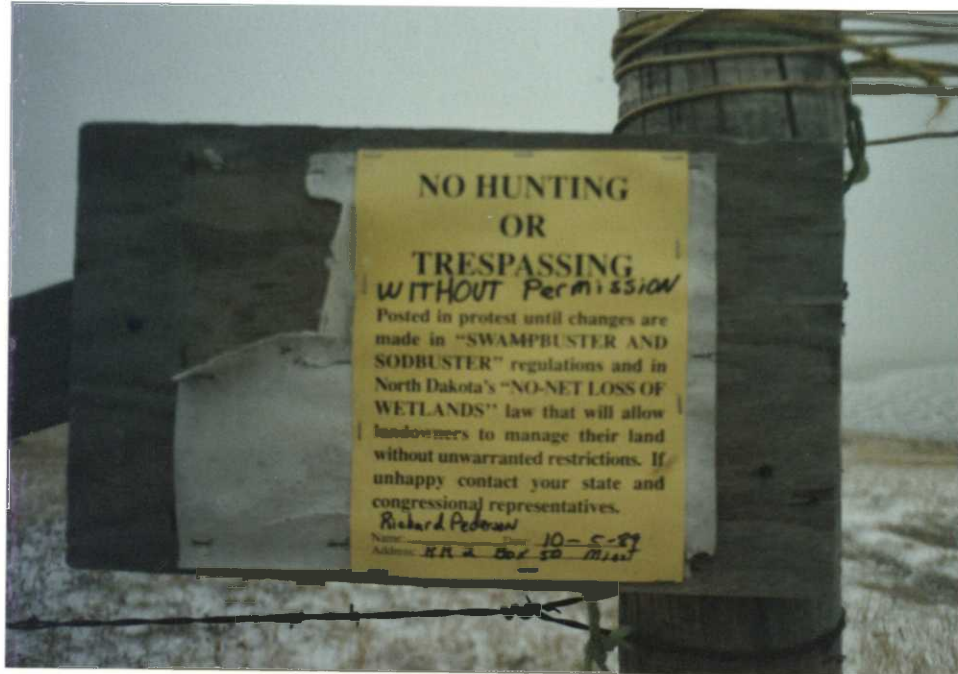
3. Items of Interest

Following the ninth CRP signup 3.0 - 3.1 million acres have been enrolled statewide in North Dakota. These acres could provide valuable idle nesting areas for waterfowl and what happens? Back to back years of drought which dries up the wetlands necessary to stimulate breeding. We are hoping for rain for 1990!

4. Credits

Mike Goos and Rich Antonette wrote all sections but E. and I. which was written by Dave Potter. Dave Potter also wrote the easement refuge section. Marilyn Wohlk did the typing and organizing.

FEEDBACK



Signs of this nature are found throughout the WMD.
11/21/89

CHAPTER FOUR

"We need to recognize the landowner as the custodian of public game on all private land, protect him from the irresponsible shooter, and compensate him for putting his land in productive condition. Compensate him either publicly or privately, with either cash, service, or protection, for the use of his land and for his labor, on condition that he preserves the game seed and otherwise safeguards the public interest. In short, make game management a partnership enterprise to which the landholder, the sportsman, and the public each contribute appropriate services, and from which each derive appropriate rewards,"

Aldo Leopold, Chairman,
Committee on Game Policy (1930).

In 1985 when the current farm bill was enacted the bill contained swampbuster provisions. Swampbuster provisions made landowners who drained and cropped wetland acres ineligible for farm program payments. The legislation received support from a broad spectrum of the American people many who are now realizing the benefits to this nation that wetlands do provide. It is important to remember that this legislation is Department of Agriculture funded and enforced and that this is the agency most responsive to agricultural interests.

Unfortunately, many landowners whose lands contain wetlands resent this type of legislation. In North Dakota for example, there are approximately 2.5 million acres of wetlands. To someone living in North Dakota that is more than enough for their needs. The resentment arises because a national interest is being forced upon local landowners without any benefit to the landowner. The question arises "Why do I need to maintain wetland for someone else and what's in it for me?"

It is easy to sponsor legislation that provides a benefit when it doesn't cost you anything. To many ND landowners wetlands represent a nuisance, wasteland, and land that should be converted to agriculture to be productive. To these people swampbuster legislation is simply a federal strong arm tactic that infringes on their rights. Wetlands then become a bitter pill to swallow.

If the current legislation remains in place one can surmise that wetlands will remain reluctantly protected. This will happen, however, at the continued expense of other wildlife and U.S. Fish and Wildlife Service (Service programs. Animosity will remain, feelings will be hurt, and time, money and man-power will be wasted.

There may not always be a middle ground between wildlife and agricultural interests, but there sure as heck is a lot of common ground. Why not use ND wetlands legislation to provide a bond between agriculture and the Service. ND farm groups should lobby for legislation to provide wetland benefit dollars through the Department of Agriculture and the Service should support the effort. An example would be providing a wetland bonus payment equal to the taxes normally paid on these acres. The payment can be calculated for each landowner using the wetland acre information recently compiled by ASCS and the tax information available for each county. This payment would be added in as a byline to the landowners farm payment.

The cost of such a program would be approximately 2.5 million dollars. Wetland tax payments in ND vary from \$4.00/acre for wetland in Sargent County surrounded by cropland to zero/acre for large wetlands in Burleigh County. Using \$1.00/acre for an average as most of the wetland acres remain in lower land value areas times 2.5 million acres equals 2.5 million dollars.

The money for the program should come from the people who benefit from the program. ND legislation should be eager to push for payment to ND landowners who are maintaining wetlands for the nation - either Dept. of Agriculture funds would be reprioritized or transfer funding from EPA or other federal sources could be obtained.

The result of such a program is that landowners receive a payment for wetland acres - the more acres the more the payment. This would certainly go a long way towards promoting wetland stewardship.

The alternative is a continued build-up of resentment and anger by landowners. At some point in time it is likely that due to a food shortage or a weakening in legislative resolve swampbuster provisions will be loosened. If this occurs angry landowners will be of a mind set to not only drain the easy ones, but because of spite will try to drain them all.

Mike Goos

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MCLEAN NWR

This is a 344 acre fee title refuge with an additional 480 acres of native prairie on the east side under easement from the State Land Board. It's located in northwest McLean County within the Fort Berthold Indian Reservation. The main marsh, Lake Susie, held good water all year. It froze this fall about 2-4 inches below full pool.

The dam repair work done by volunteers last fall was effective in greatly reducing flows through the deteriorated, 55 year old dam. Water leakage was reduced to equal flow of about half a garden hose. Providing this downstream flow in a drought year was very beneficial to habitat on the south side of the Refuge as well as further downstream.

At the request of the neighboring landowner, Mr. Don Bauman, Canada geese were transplanted with 5 adults and 26 goslings moved in from Audubon in early June. Two nesting tubs and 3 flax bales were set out for next year's nesting by ducks or other Canadas.



Craig releasing Canada geese at their new home. Hope they like it and return to raise "a family". 7/5/89 DGP

As usual duck breeding pair and brood counts were conducted as below.

	1989		1988		1987		1986	
	Pairs	*Broods	Pairs	*Broods	Pairs	*Broods	Pairs	*Broods
Mal	19	3-24	17	1-9	9	1-2	5	3-20
Gad	11	1-9	16	4-23	8	2-15	4	3-17
Wig	1	0-0	-	-	-	-	1	-
BWT	15	2-11	19	5-19	7	9-54	9	6-27
Shov	2	0-0	2	1-4	-	-	1	-
Pin	2	1-4	1	3-20	1	1-7	1	-
Red	8	0-0	19	1-5	13	-	2	-
Can	10	2-10	15	-	7	-	5	-
Scp	6	0-0	2	4-27	1	1-2	6	-
Rud	10	0-0	17	-	10	2-13	-	-
Totals	84	9-58	108	19-107	56	16-93	34	12+64

* = # broods - # ducklings

After two years of active predator trapping, low fur prices caused our permittee to drop out this year. So no predator control was accomplished.

Continuing the effort to rejuvenate decadent grasslands, a short duration graze was done south of the dam. It was primarily on wet meadow vegetation which hadn't been manipulated in many, many years. Mr. LeRoy Slind grazed 5 pastures (87 acres) for 55 days from Aug. 5 to Sept. 30 using 44.8 AUMs. Next spring's regrowth will be much more vigorous and attractive to wildlife.

Last year's grazing of 4 pastures of 10 acres each for 21.3 AUMs on uplands along the west side (mainly decadent DNC with much smooth brome) looked very good this spring. Despite the drought, thick growth and good seed head production occurred.

LOST LAKE NWR

This is a 960 acre easement refuge in southern McLean County consisting of a 200 acre alkali lake and 760 acres of rolling native prairie. Painted Woods Creek cuts through it.

Again this year the Bureau of Reclamation dumped McClusky Canal water into the creek so it flowed all year. Lost Lake was dry all year. As usual, the native prairie was grazed off closer than a billiard table. Wildlife habitat was nearly zero.

But long overdue improvements began this year as Mike negotiated with Ducks Unlimited and the landowner, the State Land Board, to build a .95 acre nesting island. They also will clean out the long defunct supply ditch from the Creek to Lost Lake and build a dam on a side slope to form a 7 acre wetland. The Land Board was agreeable to this work since it will improved forage production for cattle. D.U.'s surveys were completed this fall and everything looks good. Next year will be an exciting year when dirt work begins.

HIDDENWOOD NWR

This easement refuge in northwest McLean County consists of 485 acres of farmland and a 95 acre deep, recreational lake. Boating and fishing recreational use has gone on for 30-40 years without Refuge regulation. A county park with a meeting hall and museum are on the south side. A paved highway cuts through the west side of the refuge.

Habitat and wildlife values are near zero. This area should be dropped as a refuge. A couple drive-by visits were made this year.

LAKE OTIS NWR

This easement refuge is 320 acres of rolling prairie and wetlands in NE McLean County adjacent to the 320 acre Otis WPA. Due to the drought, the owner grazed it off hard this year. But generally only moderate grazing has been done and, if this occurs in 1990, the grass should come back nicely. Only a couple drive-by visits were made this year.

CAMP LAKE - STRAWBERRY LAKE



Strawberry Lake NWR is 100% dominated by summer homes and all forms of water recreation. It should be dropped from Refuge status.

9/12/89 41-DGP

In 1974, Camp Lake Easement Refuge was reduced to only 105 acres of farm land and the end of a big lake when 640 acres were removed from Refuge status by the landowner, State Land Board. All signs have been removed and this unit should be dropped as a refuge.

Strawberry Lake Easement Refuge should also be dropped. It is 480 acres about one mile SW of Camp Lake NWR. It consists of 160 acres of prairie pasture and a lake surrounded by homes and summer cabins on 320 acres. Water skiing, boating, swimming and other recreation has developed on it without Refuge regulation for 30-40 years.

Habitat values are zero except in the native pasture. All Refuge signs have been removed except that the landowners wanted the pasture to remain posted to curtail deer hunting. Dropping Strawberry Lake may be very difficult unless the Service repairs the 50+ year old dam - which is in very poor condition. Until then, no agency is likely to accept it. When the dam washes out, the Service will be faced with a tough, political decision.



Deteriorated, old dam at Strawberry Lake NWR is a low priority project since the Refuge has minimal wildlife values.

9/12/89 41-DGP

SHEYENNE LAKE NWR

This Easement Refuge is 800 acres owned by the Bureau of Reclamation in NW Sheridan County scheduled for possible destruction (and replacement) if the Lonetree Reservoir is ever built for the Garrison Diversion Project. It is about 300 acres of cropland being seeded to DNC by the Bureau, about 300 acres of open lake (Coal Mine Lake) and 200 acres of excellent duck brood marsh (Sheyenne Lake).

Mike Goos' active participation with the local sportsmen's club has resulted in several wildlife projects being done on or near the Refuge. Nesting structures and bales have been set out. And an electric fence predator barrier was operated on a peninsula just west of the Refuge.

Work was completed to officially open the Refuge to fishing. Several weeks were spent on rewriting our first draft of an EA, Section 7 Consultation, Federal Register Submission and other paperwork. It was completed and then approved by the Bureau and ND Game and Fish. When the RO received it, they decided the fishing could be "grandfathered" in and no paperwork would be needed. We liked the decision but cried because it hadn't been rendered two years ago.

At year's end, plans were nearly finished for NDGF to build a boat launching ramp for Coal Mine Lake on Bureau land. Only 25 hp or smaller boat motors are allowed and only ice fishing is allowed on Sheyenne Lake - both Refuge waters.

Several drive-by visits were made - especially during the fall hunting season. No problems were observed.

The Refuge held, as usual, large numbers of waterfowl this fall. On October 7; 4,000 snow geese and 2,000 Canadas were observed. No other data was taken due to the remoteness of the Refuge.

AUDUBON GARRISON WETLAND MANAGEMENT DISTRICT

Coleharbor, North Dakota

ANNUAL NARRATIVE REPORT
Calendar Year 1989

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

INTRODUCTION

The Audubon Garrison Wetland Management District consists of lands purchased by the Bureau of Reclamation (Bureau) in McLean and Sheridan Counties to mitigate for losses caused by the Garrison Diversion Irrigation Project. These tracts are funded by the Bureau but are owned and managed by the FWS as wildlife development areas (WDA's). Their primary management objective is waterfowl production.

The Bureau of Reclamation transferred one tract totalling 450 acres to the FWS during FY89 as below.

<u>AREA</u>	<u>WET AC.</u>	<u>GRASS AC.</u>	<u>WOOD AC.</u>	<u>TOTAL AC.</u>	<u>YEAR OF TRANSFER</u>
Goodrich	120.0	330.0	0	450.0	FY-89
Lincoln Valley S.	34.5	80.5	0	115.0	FY-88
Turtle Lake II	306.9	361.2	.5	670.6	FY-88
Turtle Lake I	216.1	295.3	0.2	511.6	FY-87
Turtle Lake III	627.3	357.6	0	984.9	FY-87
Turtle Creek II	52.6	37.8	0	90.4	FY-87
Turtle Creek III	39.7	95.4	1.9	137.0	FY-87
Lake Williams North	10.2	108.3	1.5	120.0	FY-87
Lake Williams South	26.9	92.6	0.5	120.0	FY-87
Hekker's Lake	33.9	149.3	0	183.2	FY-87
Coal Coulee	147.6	245.2	23.8	416.6	FY-87
West Lost Lake	51.0	29.0	0	80.0	FY-87
TOTAL	1666.7	2182.2	30.4	3879.3	

Weather in 1989 was generally dry and warm throughout the year. For the second year in a row, drought conditions caused wetland drying, crop failure, and little vegetative growth. Vegetative cover on the WDAs although short and in poor condition was much in demand for emergency haying and grazing by WDA neighbors.

At freeze-up very few of the WDAs had any wetland remaining. Even the Coal Coulee Lake went dry. Wetland conditions were extremely poor so significantly above average precipitation is needed for 1990.

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A. HIGHLIGHTS

- Short duration grazing instituted on several areas of decadent vegetation. Results were quite positive. (Section F.5)
- Bureau of Reclamation did an excellent job turning water into the Turtle Lake I and II WDA's upon Refuge request. Use by spring migrant waterfowl was excellent. (Section G.3)
- The 450 acre Goodrich WDA was accepted on Oct. 1. (Section C.1)
- Routine coordination between N.D. Game and Fish Department, Bureau of Reclamation, Bismarck FWE and the Refuge ran very smoothly. (Section E)

B. CLIMATIC CONDITIONS

For specific weather data, please refer to the Audubon WMD annual report (front section in this binder).

Weather in 1989 was generally dry and warm throughout the year. For the second year in a row, drought conditions caused wetland drying, crop failure, and little vegetative growth. Vegetative cover on the WDA's although short and in poor condition was much in demand for emergency haying and grazing by WDA neighbors.

At freeze-up very few of the WDA's had any wetland remaining. Even the Coal Coulee Lake went dry. Wetland conditions were extremely poor so significantly above average precipitation is needed for 1990.

C. LAND ACQUISITION

1. Fee Title

Development of the 450 acre Goodrich WDA was completed by the Bureau and accepted by the Service as of Oct. 1, 1990. A 1,200 acre tract in Hettinger County was purchased by the Bureau this year and will be developed for eventual transfer to the Service as mitigation habitat.

3. Other

Several tracts would be improved if the Bureau could acquire round-out parcels. In 1989 actions taken were: Turtle Lake I WDA - Bureau still negotiating with the landowner for a flooding easement. Coal Coulee WDA - action dropped as landowner not willing to sell. Turtle Lake II - Turtle Creek III land swap is (apparently) dead as the landowner can not accept a required government flowage easement. Turtle Lake III - nothing done on the 85 acres.

D. PLANNING

2. Management Plan

The tract specific management plan for Goodrich WDA was approved prior to the transfer (good deal). Also, the Turtle Creek II specific management plan was written and approved. The last outstanding plan, for Turtle Creek III, is now being written by the Bureau.

A comprehensive water management plan for the entire Turtle Creek-Turtle Lake area (including 6 WDA's and a WPA) is being developed by the Bureau since 1988. Due to personnel changes and work priorities elsewhere, nothing was received at Audubon in 1989. (As of January 1990, Bismarck FWE is writing this plan). It will address long term water level management elevations on our lands as well as establish coordination and compromises among the many groups involved. It will be very important.

4. Compliance and Environmental Mandates

A state road widening project on the north side of the Coal Coulee WDA required filling of .07 acre of wetland (which was mitigated from the State Highway Wetland Bank) and backsloping .32 acre of WDA upland. The usual E.A., R.O.W. permit and other paperwork was written to allow this project.

D.U. agreed to build two small nesting islands in Turtle Creek II in 1990 or 1991. An E.A., 404 Permit and all other required paperwork was done for it.

E. ADMINISTRATION

1. Personnel

GDU funded staffing included an Assistant Manager, GS-7 for 70% of a year, Project Leader (10 days), Biological Aid (92 days) and administrative assistance (20 days). The GDU job was vacant from Nov. 1 to the end of the year. However, everyone pitched in to get done what had to be done.

5. Funding

GDU funding was \$25,675 for FY-89. Most funds went for salaries except for travel (\$97.50), gas (\$480), telephone (\$250) and safety boots (\$51.84). No equipment was purchased this year.

F. HABITAT MANAGEMENT



Quick response by the Bureau of Reclamation supplied water to the dry Turtle Creek I marshes from the McClusky Canal. Waterfowl response was excellent.

2. Wetlands

Except for wetlands flooded from the McClusky Canal (Turtle Lake I and II WDA's) all small to medium wetlands were dry early this spring. Extreme drying conditions continued and wetlands were lost even into late fall. Even the lake in the Coal Coulee WDA was dry by November. Generally speaking, wetland habitat was virtually nonexistent.

The big slough in Turtle Creek II, Nygaard Slough, was allowed to go completely dry this summer to aerate the bottom and promote emergent vegetation. An excellent stand of cattail, bulrush, smartweed and others grew up. Now to flood it shallowly in spring 1990 and watch waterfowl use explode!

4. Croplands

The Bureau continued fallowing the two 5 acre plots in Turtle Lake II WDA. Hopefully, improved moisture conditions will allow them to plant trees, as intended, in 1990.

5. Grasslands

Short duration grazing rotations were instituted (as below) to rejuvenate long decadent stands. Results of last year's short duration was very good given the extreme drought conditions. The annual field inspection (NDGF, BR, FWS-FWE & refuge) found the grazing results very acceptable.

One exception to this was that on-off grazing occurred by several cows and horses when a Turtle Creek III neighbor declined to use the electric fencing we provided him. (In 1990 the Bureau will fence this tract and trespass grazing will no longer be tolerated.)

No prescribed burning was done.

1989 Grazing Summary

Area	Permittee	Acres	AUM's	(FF) Fence Building	Fee	No. Units	No. Days
TL III	Earl Goven	160	102.7	10,100 Electric 4,050 Steel	991.06	4	39
L. Valley	B. Bonnett	135	80.69	4,300 Electric	778.66	3	26
TL I	Ron Wardner	105	96.75	5,600 Electric	933.64	5	45
Heckers L.	Pearl Wall	107	43.0	5,500 Electric	414.95	4	13
C. Coulee	W. Johannes	200	123.0	11,850 Electric	1186.95	9	119
Totals		707	446.14	37,350 Electric 4,050 Steel	\$4,305.26	25	242

8. Haying

The following table summarizes haying activity on the WDA's in 1988.

WDA	Cooperator	Type	Acres	Payment/Credit
TL III	Jeff Reiser	DNC and Wet Meadow	113	Bale share - disc & drag
TL III	Gerald Kraft	DNC and Wet Meadow	40	Bale share - disc & drag
TL III	Richard Britton		40	Bale share
TL II	Harvey Seilon		30	Disc and drag
Lk. Williams N.	Reinhold Schock		20	Disc and drag
(Coal Coulee	Declined to Hay		13.5	Bale share)

G. WILDLIFE

2. Endangered and/or Threatened Species

No. observations on WDAs this year.

3. Waterfowl

Use was nearly zero because the WDAs were dry. The exception was at Turtle Lake I which was "loaded" with ducks, geese and swans during spring migration thanks to timely releases of McClusky Canal water by the Bureau.

At Turtle Lake I, several noteworthy observations were made. Out of 9 flax nesting bales available, 5 were used by nesting Canadas, one was used by a mallard and one was used by both species. (Two nesting tubs were available but went unused).

During an April 22 survey, 12 Canada goose nests and 5 duck nests were found on 10 islands. All duck nests had been predated despite our trapping efforts. (One island held 3 predated duck nests and a mink dead in a box set trap). Also, one goose nest was encountered along the upland shoreline although no search was made along the shorelines.

On June 2, eight natural islands remained and seven of them held 11 Canada nests and 4 duck nests. Of these, 9 goose and 2 duck nests hatched. Also, seven goose broods were counted in the marsh that day.

On July 17, 50 duck broods were observed in the Turtle Lake I marsh.

5. Shorebirds

Several of the WDAs had large flocks of shorebirds using newly exposed mud flats. Thousands used Turtle Creek II in late spring (but no counts were made). In early Sept. an estimated 500 shore-billed dowitchers used the flats at Coal Coulee WDA.

15. Animal Control

Public trapping was allowed on all units, as usual, but low fur prices resulted in nearly zero trapping. Spring force account trapping was done on the Turtle Lake I islands from April 15 to July 1 using 12 box sets. Four raccoon, 1 mink and a skunk were taken off the islands but high predation rates indicated that the effort was only partially successful.

H. PUBLIC USE

1. General

Hunting is the only significant form of public use. It was down substantially due to lack of wetlands with an estimated 250 visits occurring compared to 800 last year.

17. Law Enforcement

Routine spot checks were done, especially during the hunting season, and no violators were observed.

I. EQUIPMENT AND FACILITIES

1. New Construction

Canal A was dug by the Bureau in 1988 and "saved our bacon" in spring 1989. It was put into service flooding the totally dry marsh with McClusky Canal water. No other significant construction was done.

J. OTHER ITEMS

3. Items of Interest

The annual WDA inspection by the field committee (ND Game and Fish, Bureau of Reclamation, FWS-FWE and Refuge people) was done in August. They reported that no problems were observed and were impressed with the grass' response to last year's new short duration grazing and the Turtle Lake II marsh draw-down.

For the record, the Bureau still needs to accomplish a few pretransfer tasks:

- a) Two 5 acre tree plantings are to be done (with 5 year's of maintenance) at Turtle Lake II WDA. Moisture is needed so they can proceed.
- b) The Bureau is doing archeological reviews on all previously transferred lands. They need to accomplish this work on our 12 WDAs.
- c) Very importantly, final realty work has yet to be completed on all WDA tracts that we "own". Bismarck FWE and the RO are pursuing this. Meanwhile, how does the Refuge Manager stand legally?
- d) Since the proposed land trade fell through, the Bureau needs to complete fencing, archeological surveys, signing and possible wetlands development at Turtle Creek III WDA. (Fencing is presently scheduled for May 1990).

4. Credits

Written by Dave Potter, reviewed by Mike Goos and typed by Marilyn Wohlk.

FEEDBACK

As above, this District is unique in the extreme amount of day-to-day multi-agency cooperation which is required. This year cooperation and understanding continued to grow and work moved forward more smoothly. Operation and maintenance funding for the WDAs came through from the Bureau without a hitch. It's becoming fun working with the WDAs, the Bureau of Reclamation, Game and Fish and FWE because things are getting done. We're looking forward to the next few years and developing new areas which will bring in large acreage: FY-91 - 1,664 acres in 2 tracts, maybe in FY-92 - 3,490 acres in 1 tract, maybe in FY-93 - 2,067 acres in 2 tracts and FY-? - 1,200 acres in 1 tract.

Dave Potter