

J. Clark Salyer  
National Wildlife Refuge  
Upham, North Dakota

**ANNUAL NARRATIVE REPORT**  
**Calendar Year**  
**1995**

U.S. Department of Interior  
Fish & Wildlife Service  
National Wildlife Refuge System

*J. Clark Salyer National Wildlife Refuge*

*Upham, North Dakota*

*Annual Narrative Report*

*Calendar Year 1995*

*U.S. Department of the Interior  
Fish and Wildlife Service  
National Wildlife Refuge System*

# *REVIEW AND APPROVALS*

*J. Clark Salyer National Wildlife Refuge*

*Upham, North Dakota*

*Annual Narrative Report*

*Calendar Year 1995*

*Robert H. Howard*  
\_\_\_\_\_  
Refuge Manager

*5/26/04*  
\_\_\_\_\_  
Date

*Bob Barnett*  
\_\_\_\_\_  
Refuge Supervisor Review

*9/9/04*  
\_\_\_\_\_  
Date

*Richard A. Coleman*  
\_\_\_\_\_  
Regional Office Approval

*9/13/04*  
\_\_\_\_\_  
Date

## INTRODUCTION

The J. Clark Salyer National Wildlife Refuge is located along the Souris River in Bottineau and McHenry Counties of north-central North Dakota. The refuge was established by Executive Order Number 7170 on September 4, 1935, as a refuge and breeding ground for migratory birds. The 58,700-acre refuge extends from Canada southward for approximately 45 miles. The nearest town is Upham, North Dakota, located about three miles from refuge headquarters.

Included within the refuge are 36,000 acres of upland habitat composed of native and introduced grasslands, thick woodlands, shrub thickets and croplands. The northern portion is basically confined to the river valley with a narrow band of adjacent upland habitat. The southern portion of the refuge contains about 16,000 acres of native prairie interspersed with aspen and brush covered sandhills and 4,200 acres of wooded river bottom.

Wetland habitats include high value managed deep and shallow marshes within the Souris River flood plain. Five dikes with water control structures have restored 23,000 acres of open water, marsh and wet meadow habitat for waterfowl production and migration use.

While the primary objective of the refuge is waterfowl production, the area has a very diverse population of other bird species. More than 250 species have been noted, including sharp-tailed grouse on their dancing grounds in spring; Swainson's hawks in great numbers in fall; a wide variety of waterbirds, including five species of nesting grebes; and relatively rare small birds such as Sprague's pipits and Baird's and LeConte's sparrows.

More than 125 species nest on the refuge, some in great numbers. Up to 17,000 Franklin's gulls and colonies of hundreds of double-crested cormorants, great blue herons and black-crowned night herons are found. In an average year, about 18,000 ducklings are produced, including pintail, mallard, gadwall, green-winged teal, blue-winged teal, American wigeon, northern shoveler, black duck, wood duck, redhead, ring-necked duck, canvasback, lesser scaup, and hooded merganser. White pelicans are present on the refuge all summer, while thousands of sandhill cranes, tundra swans, and snow geese use the refuge as a feeding and resting area during migration.

The entire refuge lies within an area which was once Glacial Lake Souris. The surrounding area is old lake bottom with extremely flat topography and a high density of temporary wetlands. These are important for waterfowl production and natural flood storage which improves water quality in the Souris River. Unfortunately, a substantial portion of the original wetlands have been drained.

## INTRODUCTION

### TABLE OF CONTENTS

	Page
A. <u>HIGHLIGHTS</u> .....	1
B. <u>CLIMATIC CONDITIONS</u> ....	Nothing to Report
C. <u>LAND ACQUISITION</u>	
1. Fee Title .....	1
2. Easements .....	Nothing to Report
3. Other .....	Nothing to Report
D. <u>PLANNING</u>	
1. Master Plan .....	Nothing to Report
2. Management Plan .....	1
3. Public Participation .....	Nothing to Report
4. Compliance w/Environmental & Cultural Resource Mandates	Nothing to Report
5. Research and Investigations .....	1
6. Other .....	Nothing to Report
E. <u>ADMINISTRATION</u>	
1. Personnel .....	2
2. Youth Programs .....	3
3. Other Manpower Programs .....	Nothing to Report
4. Volunteer Program .....	3
5. Funding .....	3
6. Safety .....	4
7. Technical Assistance .....	Nothing to Report
8. Other .....	4
F. <u>HABITAT MANAGEMENT</u>	
1. General .....	Nothing to Report
2. Wetlands .....	5
3. Forests .....	6
4. Croplands .....	Nothing to Report
5. Grasslands .....	7

6. Other Habitats .....	Nothing to Report
7. Grazing .....	7
8. Haying .....	8
9. Fire Management .....	8
10. Pest Control .....	9
11. Water Rights .....	Nothing to Report
12. Wilderness and Special Areas .....	Nothing to Report
13. WPA Easement Monitoring .....	Nothing to Report

#### G. WILDLIFE

1. Wildlife Diversity .....	9
2. Endangered and/or Threatened Species .....	9
3. Waterfowl .....	9
4. Marsh and Water Birds .....	9
5. Shorebirds, Gulls, Terns and Allied Species .....	10
6. Raptors .....	Nothing to Report
7. Other Migratory Birds .....	Nothing to Report
8. Game Mammals .....	Nothing to Report
9. Marine Mammals .....	Nothing to Report
10. Other Resident Wildlife .....	10
11. Fisheries Resources .....	10
12. Wildlife Propagation and Stocking .....	Nothing to Report
13. Surplus Animal Disposal .....	Nothing to Report
14. Scientific Collections .....	Nothing to Report
15. Animal Control .....	11
16. Marking and Banding .....	11
17. Disease Prevention and Control .....	Nothing to Report

#### H. PUBLIC USE

1. General .....	11
2. Outdoor Classrooms - Students .....	11
3. Outdoor Classrooms - Teacher .....	Nothing to Report
4. Interpretive Foot Trails .....	12
5. Interpretive Tour Routes .....	12
6. Interpretive Exhibits/Demonstrations .....	Nothing to Report
7. Other Interpretive Programs .....	12
8. Hunting .....	13
9. Fishing .....	Nothing to Report
10. Trapping .....	14
11. Wildlife Observation .....	14
12. Other Wildlife Oriented Recreation .....	Nothing to Report



13. Camping .....	Nothing to Report
14. Picnicking .....	14
15. Off-Road Vehicling .....	Nothing to Report
16. Other Non-Wildlife Oriented Recreation .....	14
17. Law Enforcement .....	14
18. Cooperating Associations .....	Nothing to Report
19. Concessions .....	Nothing to Report

#### I. EQUIPMENT AND FACILITIES

1. New Construction .....	Nothing to Report
2. Rehabilitation .....	15
3. Major Maintenance .....	15
4. Equipment Utilization and Replacement .....	16
5. Communications Systems .....	Nothing to Report
6. Computer Systems .....	Nothing to Report
7. Energy Conservation .....	16
8. Other .....	Nothing to Report

#### J. OTHER ITEMS

1. Cooperative Programs .....	Nothing to Report
2. Other Economic Uses .....	Nothing to Report
3. Items of Interest .....	16
4. Credits .....	Nothing to Report

K. <u>FEEDBACK</u> .....	Nothing to Report
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## A. HIGHLIGHTS

Zone FMO Brian McManus started his tour of duty on furlough (E.1).

The deadline was met for the J. Clark Salyer Wetland Enhancement NAWCA proposal (E.8).

Spring flooding had everyone watching water and making comparisons with other years (F.2).

Cool, damp weather frustrated prescribed burning attempts (F.9).

Another North American duck banding record was established (G.16).

Significant damage to the Scenic Trail from flooding occurred (H.5).

Refuge deer hunt closed for two days then reopened (H.8).

Design work began on several North American Wetland Conservation Act grant projects (I.2).

## C. LAND ACQUISITION

### 1. Fee Title.

An 80-acre FmHA inventory property was officially transferred to the FWS in September. The tract is adjacent to Pool 341 and was one of the first posted several years ago. The original request was for the entire quarter, but some contamination from an active oil well prevented FmHA from transferring the land to anyone.

## D. PLANNING

### 2. Management Plan

A cropland management plan was drafted in August.

Grant, Howard, and Erickson worked with Bob Green and Upper Souris NWR staff on water management/comprehensive management plan.

### 5. Research and investigation

Final Mayfield results from the 2 predator exclosures were 67 percent on Swearson Point and 74.7 percent on 320.



## E. ADMINISTRATION

### 1. Personnel

1. Robert L. Howard, Refuge Manager, GM-13, PFT
2. Gary Erickson, Assistant Refuge Manager, GS-11, PFT
3. David Gillund, Wetlands Manager, GS-11, PFT
4. Todd Grant, Wildlife Biologist, GS-11, PFT
5. Gary Eslinger, Biological Technician, GS-7, PFT
6. Wanda Opdahl, Refuge Assistant, GS-6, PFT
7. Robert April, Automotive Mechanic, WG-10, PFT
8. Gary Williams, Refuge Manager Trainee, GS-5, PFT
9. Rodd Compson, Extension Biological Technician, GS-5, Transferred to ND Game and Fish Department, 11/94
10. Chase Marshall, Biological Technician, GS-4
11. Marlene Goodman, Range Aid, GS-3
12. Dan Duchscherer, Range Technician, GS-4
13. Calvin Moldenhauer, Range Technician, GS-4
14. Gordon, Berkey, Biological Technician, GS-5
15. Chad Klindtworth, Extension Biological Technician, GS-5, 4/95
16. J.B. Bright, Biological Technician, GS-5
17. Brian McManus, Refuge/Zone Fire Management Officer, PFT

FTE limits will allow us to hire only two summer temps this year compared to four last year. Original FTE totals showed the station short of the FTEs to cover the PFT staff. After a 1 for, 7 against tie vote, Erickson was allowed to remain on duty anyway.

We received a second Range Tech when an FTE was restored to the R6 fire budget. The whole process (very late notification of budget/FTE ceilings, hiring paperwork, etc.) pushed us very close to the 4/2/95 EOD date.

In April, Goodman and Duchscherer EOD as a range aid and range tech, respectively. The range tech is the first fire funded position at this station. Gordon Berkey was hired as an emergency appointment to work on the bird monitoring project. A contract was issued to another individual to work on the project. Moldenhauer EOD as a second range tech in May.

Goodman received an On-the-Spot Award in August for the excellent work done as essentially the replacement for 2 WG maintenance employees. Marshall and Moldenhauer converted to scholars the last week when they returned to college.

Brian McManus EOD in November as the Refuge/Zone FMO. He was immediately declared non-essential and furloughed.

## 2. Youth Programs

Shane Livedalen, Cami Marshall and Kip Brandt EOD via the YCC program. Janine St.Germaine EOD through ND Job Service. They painted the office interior, stained the observation tower/ramp, picnic tables and shelters, added wire to the Swearson Point predator fence, and entered band return data to name a few projects.

## 4. Volunteers

Robbie Wooster, a volunteer working on the bird surveys, had to leave earlier than planned after injuring her knee in an ATV accident.

Several volunteers were recruited for banding help.

## 5. Funding

Table 1. Five-year funding summary, J. Clark Slayer NWR, 1991-95

Funding	FY-91	FY-92	FY-93	FY-94	FY-95
1261	243,000	238,600	257,400	288,700	315,300
1261-FLEX	4,500	9,200	2,800		
1262	163,000	167,000	185,700	134,600	104,000
1262-FLEX	112,000	142,000	35,100		
1262-MMS				100,400	88,500
6860	5,000	5,000	5,000	5,000	5,000
O&M	527,500	561,800	486,000	528,700	512,800
1120	11,000	30,500	28,000		
1121				43,000	23,000
1230	15,300		3,000		2,500
1926			4,928		
1927	12,500	15,000			
1971				7,300	13,355
8610	7,800	11,000	9,200	9,200	12,200
9110					60,900
9120	17,600	6,800	9,400	24,100	5,000
TOTAL	591,000	625,100	531,128	612,300	629,755

## 6. Safety

Goodman certified several staff on CPR. Williams completed the April safety inspection of buildings, etc. Hearing tests were completed on all staff who heard about them.

Howard attended RCRA training and Aircraft Safety Training for Supervisors in Bismarck.

Grant and Klindtworth attended aviation training in Jamestown. This "requirement" could be met with a video instead of spending valuable time traveling to training sessions.

Two accidents involving ATVs occurred in June. Wooster injured her knee when she jumped off the ATV when she felt it was about to tip. The injury forced her to return to her home and perhaps corrective surgery. Berkey suffered a severely bruised shin when a tree branch on the ground came through the fencer and struck him. His walking was restricted for a few days, but there is no permanent damage.

Outdated chemicals from a FmHA tract and some atrazine that had been in storage for several years on the refuge were disposed of through the ND Agriculture Department's OPERATION SAFESEND at no charge.

Goodman got something in her eye while working outside on a very windy day. When the irritation persisted, she went to the doctor who concluded whatever was once in the eye was gone.

## 8. Other

Staff decided in late March to take on a challenge to submit another North American Wetland Conservation Act (NAWCA) proposal. With some excellent help from Ducks Unlimited, we came up with a \$986,300 project enhancing over 3,700 acres of wetlands.

Preliminary plans for the Benson Subimpoundment project (part of the Mouse River Watershed Enhancement Project) were received from DU and reviewed.

Shupe and Dobrinsky from the RO and McEnroe from the WHO completed the station inspection in July. We are allowed to remain in operation for another year.

Howard, Opdahl, and McManus attended the Project Leaders meeting/Administrative Workshop in Spearfish, SD.

Gillund attended a ND Action Group meeting in Bismarck to update the group on the progress of the Mouse River Watershed/NAWCA project.

## F. HABITAT MANAGEMENT

### 2. Wetlands

Total inflow at Bantry was 247,980 acre-feet for the calendar year or 161 percent of the historic annual discharge, which has averaged 153,702 acre-feet for the 59 year period from 1937 through 1995. Measured inflows at Willow Creek and Deep River were 88,269 and 27,521 acre-feet, respectively. Total measured inflow to the refuge was 363,770 acre-feet.

Heavy runoff in the Souris Basin below Lake Darling produced flood conditions from the Towner area into Manitoba. Total flow at Bantry through April 30 was 154,150 acre-feet. Peak inflow at Bantry occurred on March 30 at approximately 3,120 cubic feet per second. Measured flow at Willow Creek and Deep River through April 30 totaled 84,164 acre-feet with 59,974 acre-feet coming from Willow Creek. Significant flow was also received from unmeasured tributaries during late March and early April. Strong flow continued on the Souris River and Willow Creek through much of the summer.

Refuge pools were high at the beginning of the year as a result of fall rains, and about 55 cubic feet per second were passed to Manitoba during January and February. Heavy runoff brought all pools to above spillway by April 1. Storage with all pools at full management level is 80,923 acre-feet. Volume in the five major impoundments peaked at approximately 137,700 acre-feet on April 5. Storage at the end of April was 86,214 acre-feet with Pools 332 and 341 remaining slightly over spillway.

Gate movement in the upstream pools began on March 10 to pass increasing inflow. Pool 332 was over spillway by March 16. All gates on all pools were wide open from April 5 through April 10. All pools were free of ice by April 21. Partial control was regained in all pools by April 26, and all pools were back within spillway by May 5. Pool 357 remained above the maximum management level until mid-August.

Gates were operated on all pools through the rest of the year to pass inflow and to reduce pools to target levels. Pool 341 was lowered by 2.5 feet in late summer to allow use of a duck banding site.

The Scenic Trail auto tour route on J. Clark Salyer Refuge was flooded and sustained substantial damage. Three county roads across the refuge, State Highway 14 and Dam 332 were also inundated. All major control structures and two subimpoundment controls were damaged by the combination of high water and ice.

The Corps of Engineers let contracts to riprap segments of the 326, 332 and 357 dikes to correct the erosion problems and repair flood damage to all five main water control structures.

Total outflow measured at Westhope for 1995 was 394,750 acre-feet. Total outflow was 30,980 acre-feet more than total measured inflow.

Peak outflow was 3,770 cubic feet per second on April 10. Discharge volume through the main control gates was limited by downstream floodway capacity and high tailwater. Tailwater at the dam rose to above the level of the emergency spillway. A good water supply has resulted in continued releases into the winter. Flow at the Westhope gage was 25 cubic feet per second at the end of the year and will remain at about that level until spring runoff begins.

Outflow during the June 1 to October 31 period was 85,990 acre-feet, 79,921 acre-feet above the 6,069 acre-feet required minimum. Flow was well above the required 20 cubic feet per second minimum for the entire period. The low flow structure was not used.

Water management was hindered by poor flow data on the Souris and its tributaries. The gage station has been discontinued on Stone Creek; information received from USGS on measurements on Deep River, Willow Creek and Boundary Creek was somewhat after-the-fact; ice on the river prevented a measurement at Bantry until well into the flood; and ice and wind prevented measurements at Westhope until after water was receding.

At a time when all gates were wide open with water one to two feet over spillway in all pools and water was over State Highway 14, four county roads and the 332 dike, the State Engineer received a couple of calls complaining about the refuge holding water on the roads. It is amazing how short some memories are.

Muskrats have eliminated quite a bit of cattail in 326. In two years that pool has changed from a wetland with severe cattail problems to a wetland needing a drawdown to stimulate some cattail germination.

### 3. Forests

There are about 8,000 acres of mixed woodland on the southern end of the Refuge. Aspen and some oak are found in the Sandhills and meadows. There are stands of green ash, bur oak, and American elm along the river. Scattered tree plantings are found in old farmsteads and in the headquarters area.

Aspen expansion in the grasslands of the Sandhills has occurred since bison and wildfires were eliminated from the area. It has greatly increased since the refuge was established.

Areas that were once part of sharp-tailed grouse census blocks are now part of ruffed grouse drumming routes. Plans are being developed to reverse the trend and restore the native grasslands by using prescribed fire, grazing, and mechanical removal. This will take many years to accomplish but the present condition did not occur overnight. It is only reasonable to expect recovery to take time also.

Grant continued work on details for aspen shearing with Ruffed Grouse Society funds and made arrangements for bird survey work. Gordon Berkey from MSU has agreed to do the census work. We could not have asked for a better candidate.

Aspen shearing started on old growth aspen north of Nelson Bridge in February. A \$3,000 contribution from the Ruffed Grouse Society has made this work possible. The ND Forest Service is providing the dozer because their unit, a 1952 model, is newer than ours, a 1948 model.

Aspen shearing was completed on only a portion of the plots we had planned to do in March. The old, 1952 model dozer the ND Forest Service provided gasped one last time and the spring thaw arrived

#### 5. Grasslands

Goodman broadcast Rangelander, a grazing alfalfa, on 48 acres in G-14S in May. This was followed by an intense grazing treatment in hopes hoof action will help "seed" the alfalfa.

Goodman seeded big bluestem and switchgrass on 66 acres in unit A-9 in June. There was still too much quackgrass on 35 acres in another unit to risk seeding this year.

Seedbed prep continued on about 100 acres scheduled for dormant or 1996 seeding around the headquarters and airstrip. Dense Nesting Cover was seeded on 41 acres along the airstrip in November.

Several stops of an NRCS sponsored Range Tour were on the refuge. Grant and Erickson discussed managing the aspen encroachment in the Sandhills grassland with NRCS staff on the tour. Most agreed cows will not eat 20' trees but still felt more comfortable with bovines instead of Nomex.

Grant, Williams, and Erickson attended all or parts of the Grassland Ecology workshop in Minot during September.

#### 7. Grazing

Most permittees started the grazing rotations in early June. Grass was growing so fast it was sometimes hard to tell there were cattle in some units.

## 8. Haying

Haying is used to control woody invasion in the river meadows and, to a lesser extent, improve tame grass nesting cover. Willow invasion can happen quickly if the meadows are not hayed or if the cooperators do a poor job.

Parisien's Tree Service mowed willows and aspen in several hay meadows.

## 9. Fire Management

Grant worked on pre and post burn monitoring plans for the aspen units. We acquired a crew cab, utility truck from the Minot AFB to use as a mobile fire equipment cache.

April installed the new BB-4 pumper on fire truck we "manufactured".

Goodman and Duchscherer attended S-130,190 training in Carrington in April. Gillund, April and William decided to avoid a snowstorm and did not go the Pumps and Engines training in Nebraska. Several firebreaks were prepared, and several days were spent cutting dead trees along the east firebreak on G-50.

Weather was uncooperative most of May, and only 6 burns covering 395 acres were completed. Opdahl attended Timekeepers Fire Training in Denver. One refuge fire unit responded to a wildfire adjacent to the refuge near Deep River. The neighbor was burning stubble, and the fire escaped into the railroad ROW, igniting grass and railroad ties.

Several people went to the pre-burn session at Lostwood NWR.

The several prescribed burns we had hoped to complete in September were postponed because of our banding commitments.

Gordon Parisian finished willow and aspen shearing along several firebreaks in October.

## 10. Pest Control

Five new spruce beetle releases of *A. cyparissae* were made. Several of the *A. nigriticollis* releases from 1994 had bugs and a couple look very promising.

Four releases of *Larinus planus* were made on Canada thistle patches in July.



## G. WILDLIFE

### 1. Wildlife Diversity

The refuge is located in an area where the ranges of eastern and western species overlap, increasing the wildlife diversity found here. Deer, pheasant, partridge, rabbit, grouse, many species of passerine birds, rodents and waterfowl are found on and around the refuge.

### 2. Endangered and/or Threatened Species

Bald eagles are regular visitors in small numbers. They follow the spring and fall waterfowl migrations and can be seen regularly around the marshes.

Other endangered or threatened species that may be found in North Dakota are listed below. There were no sightings of these species in 1994.

Endangered species: Black-footed ferret, American peregrine falcon, least tern, whooping crane, and gray wolf.

Threatened species: Piping plover and arctic peregrine falcon.

### 3. Waterfowl

The 4 square mile waterfowl counts were completed on schedule. Better water conditions caused this work to take more time than usual. Hopefully, we will soon see some practical benefits from the many days of data gathering that has been done over the years. Thanks to Jon Sammons, a volunteer from Audubon, for helping get the counts done.

Very few snow geese were on the refuge for the waterfowl hunting opener. Snow goose numbers built slowly but did not approach normal, probably due to good conditions in Canada and throughout the area.. About 250,000+ ducks were around in early October. Duck numbers dropped considerably in October and many that were here took advantage of plentiful food in the marshes and did not feed in the fields.

Snow and cold the first week of November sent geese and ducks south in a hurry, much to the dismay of hunters who had scheduled hunts during the week with local guide services.

### 4. Marsh and Water Birds

Eared grebes are the most abundant marsh and waterbird on the refuge. The breeding population is an estimated 20,000 birds. Black-crowned night herons, cattle egrets, and white-faced ibis, pied-billed grebes, and American coots also raise their young on the

refuge. White pelicans are common in the summer months, feeding at the refuge. A nesting colony of pelicans is found on Willow Lake Easement Refuge located 30 miles northeast.

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

Many species of shorebirds use the refuge for feeding and nesting. Franklins gulls, ring-billed gulls, common, black and Forster's terns are present on the refuge. Willets, yellow-legs, sandpipers, godwits, and avocets among other shorebird species are also seen throughout the year.

#### 10. Other Resident Wildlife

There are many species of resident birds in and around the refuge. The main game bird species are sharp-tailed grouse, ring-necked pheasant, grey partridge, wild turkey and ruffed grouse. Censuses are done each year to determine grouse and pheasant populations. Informal counts done during routine work are done on wild turkey and grey partridge.

Wild turkeys have been on the refuge since introduced in 1979. The turkey population is doing very well in the wooded river bottoms and the sandhill areas. We seem to see a general expansion of the turkeys to private land near the refuge. These areas have more cropland and hayland interspersed, perhaps offering more reliable food sources for the turkeys.

Porcupine, coyote, red fox, squirrels, cottontail rabbit, white-tailed jackrabbit, snowshoe hare, Franklin's ground squirrels, thirteen-lined ground squirrels, weasel, and many other small mammals are common to the refuge. Moose are becoming more common, and we believe a breeding population now exists on the refuge.

There is no official census of grey partridge on the refuge. Populations have always been low since there is not much preferred habitat on the refuge.

#### 11. Fisheries Resources

Northern pike, walleye, yellow perch, and bullheads are the primary fish on the refuge. The refuge has thirteen public fishing areas.

Steve Krenz completed some electroshocking on the river below 357. No carp were found although some suspicious looking fish rolled over when the electric carp barrier was activated a few times.

## 15. Animal Control

The 320 predator fence was electrified and traps set in April. Work began on the Swearson Point predator fence, a MRP project, and enough work was completed in the spring to make it operational. The Swearson Point predator fence had 113 nests in it's first season. The 320 area had 123 nests. Losses were minor inside both fences.

## 16. Banding and Marking

Highlights from the summary report on the banding program are: 10,796 ducks banded, another record; a record catch of pintails (2,865); an average of 514 ducks per shoot; total cost of \$30,454 of which \$15,485 is station salaries; 1,081 hours of station labor; 5,100 bushels of barley at a cost of \$11,579; and mortality rate of 0.33 percent (36 ducks, no employees).

The help received from Des Lacs, Audubon, Sand Lake, APHIS, and North Dakota State University - Bottineau was greatly appreciated and essential. A Saturday morning shoot attracted 14 folks from Upham, 1 from Bottineau, and 3 from Granville. These were mostly school age kids. There were also 2 folks from Arkansas who came north to see where some of the ducks they shoot at come from.

Pat Stockdill, Bismarck Tribune, and Ron Wilson, Minot Daily News, helped band and wrote articles about banding.

## H. PUBLIC USE

### 1. General

Many people use the refuge for outdoor education. The prairie, grassland management, water management, waterfowl, law enforcement, hunter safety, and hunting prospects are some topics covered during the year. Picnicking and birdwatching are also significant uses.

News interviews were done for bird migration, refuge hunting programs, flooding, and the upcoming Bow Hunter Safety class.

### 2. Outdoor Classrooms – Student

The Ecology/INTERNET class from Upham came to the headquarters to gather information about the refuge and to access the INTERNET for their school project.

The ND Wildlife Federation Youth Conservation Camp held their annual field trip to the refuge in June. Twenty-one campers and three counselors learned about refuge/wildlife management and filled up on burgers grilled by the Bottineau County Wildlife Club.

#### 4. Interpretive Foot Trails

The refuge has two foot trails for public use. A short 0.1-mile trail leads from headquarters through a switchgrass seeding to a platform overlooking the Pool 326 marsh. The Sandhills Walk area is an access point to the sandhills, giving visitors the chance to explore some 8,000 acres of mixed bur oak, aspen and grassland community on the south end of the refuge.

News interviews were done for the refuge canoe route.

#### 5. Interpretive Tour Routes

The refuge has two auto tour routes. A 5-mile Grassland Trail that parallels a portion of Pool 341 offers visitors an opportunity to see grassland and wetland wildlife and scenery. This trail has 7 stops and an interpretive pamphlet which explain the history, features and management of the area. Many birdwatchers go to this area to see Baird's sparrow and chestnut collared longspur.

The second auto tour route starts at headquarters and goes for 22 miles through the marshlands and wooded river bottoms near Pools 326, 320, and the sandhills on the southern end of the refuge. This route gives refuge visitors a chance to see the diversity of habitat found on the refuge and provides information at 18 interpretive sites along the trail.

Portions of the Scenic Trail remained closed all of May with water still over the road and washouts in several places. Damage was significant and repairs were costly and time consuming.

Erickson gave field trip tours for 20 Upham K-2 and 10 7th graders from Towner in May.

#### 7. Other Interpretive Programs

Williams judged the Newburg school Science Fair in March.

Howard, Williams and Erickson attended the Mouse River DU dinner.

Gillund started another Hunter Safety course with 18 students.

Erickson talked with 14 1st and 2nd grade students about bird ID, adaptations, banding, etc.

Erickson attended a second INTERNET training session as part of the local school's INTERNET team. This station is ready to join the "highway" and expand the interpretive

program if we can get one of our regional computer experts off the dime and let us experiment instead of waiting to be spoon fed.

Erickson gave an endangered species program to Grades 1-6 at Maxbass in December Elementary School using the Cargo for Conservation materials.

Erickson spoke to the range management class at North Dakota State University - Bottineau on grassland management.

Erickson spoke to about 40 members of Waterfowl USA during their annual convention in Minot. This largely wealthy group of hunters suffered the misfortune of scheduling their guided hunts to begin about the time the ducks and geese were pushed out by snow and cold. Several in the group were interested in contributing to duck producing projects in ND.

#### 8. Hunting

Most waterfowl hunting is done off the refuge on private land. Decoying the large flocks of snow geese that come off the refuge attracts hunters from all over the country. There are nine public hunting areas on the refuge that are open for waterfowl hunting. Most hunters using these areas prefer pass shooting geese as they leave the refuge.

Upland game hunting for grouse, partridge, and pheasants is allowed on the Public Hunting Areas. Grouse, partridge, and turkey hunting is also allowed south of the Upham-Willow City Road.

There were lots of disappointed goose hunters because of the population and the continued difficulty in decoying. Waterfowl hunting pressure was less than last year, so were goose numbers.

Upland game hunters found a few birds, but the grouse population has not recovered from several years of drought or cool, wet weather. Twenty-four deer hunters signed up for the ND Youth Deer Season. Waterfowl hunting pressure was less than last year, so were goose numbers.

Waterfowl hunting ended abruptly with the early snow and cold. Deer season started on the 10th of November with windy, cold (-37 wind chill) and lots of hunters in the Sandhills. The season was temporarily closed during the furlough but reopened thanks to help provided by Maury, Skip and Ralph.

Howard, Grant, and Erickson attended part of the NDG&F Advisory Board meeting in Bottineau. There was poor public attendance for the midday meeting and no comments about the refuge deer hunt despite the closure/reopening fiasco.

All hunting programs ended during the furlough. This closure was of course vigorously enforced.

Very few snow geese were on the refuge for the waterfowl hunting opener. Over 250,000 ducks were available, but only a few folks after them. Bag checks on opening day found 80 percent of the birds were hen mallards.

A news release about illegal tree stands on the refuge was issued in hopes of reducing what is becoming an increasing problem during deer season.

#### 10. Trapping

Interest in trapping was greater than it has been for several years. A lottery was held to divide seven units among four trappers.

Four permits were issued, but one permittee later declined. Time will tell whether these folks are serious about trapping or just talking a good game.

#### 11. Wildlife Observation

Many visitors enjoy non-consumptive use of the refuge each year. Most of the visits are to see the fall and spring bird migrations. Numbers of visits are not recorded. Many visits are on the weekends and many visitors do not stop at refuge headquarters.

#### 14. Picnicking

Picnickers use the Thompson well site, the Sandhills tower picnic area, the headquarters tower picnic area and some of the public fishing areas. No effort is made to record the number of visits.

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

A letter on our decision not issue a Special Use Permit for a church camp at Buffalo Lake NWR for compatibility reasons was sent. Prospects for settling the issue by a land exchange are good.

#### 17. Law Enforcement

LE staff survived another In-Service, probably the best we have ever attended. Staff requalified at Upper Souris NWR in September.

One ticket for an unplugged shotgun was written. Information on one juvenile hunting without a State license and in possession of 2 boxes of lead shot was forwarded to a State warden. Marksmanship prevented several duck overbags in decoy spreads.

Patrolling was reduced considerably because of the few duck hunters around and the poor success for goose hunters.

Snowmobile trespass is increasing. We are having some problems with snowmobiles going through gates that once were snowmobile inaccessible but did not meet accessibility requirements. They were replaced to make them handicapped accessible, but now snowmobiles go through them.

Several warnings were issued to furloughed employees for loitering.

## I. EQUIPMENT AND FACILITIES

### 2. Rehabilitation

One potential contractor for a MMS bridge project visited the site.

A culvert in the Scenic Trail between Thompson Well and Johnson Bridge was replaced, and a stoplog control structure was added in October. This will allow at least partial wetland management capability on about 70 acres of wetlands.

Preliminary work on the Benson unit/NAWCA project began with some winter survey work. One Bombardier snow machine is marking the cross dike location until construction crews can retrieve it from the marsh. Erickson, before seeking higher ground, took a quick water depth reading in the cab of the vehicle with a make-shift water gauge (5 buckle overshoes) and concluded the depth would have been over spillway on 4 buckle overshoes.

In November, Ducks Unlimited surveyors worked on the Rubble Masonry, Mortenson WPA and Brudvik WPA dam projects, all part of the J. Clark Salyer NAWCA project. Roger Smith and Randy Renner (DU) met with Complex staff to discuss some of the survey information and clear up questions they had on other projects included in the project.

### 3. Major maintenance

Several steps were replaced on the HQ observation tower.

COE personnel inspected the 320 and 326 water control structure to evaluate paint on the gates.

A meeting in December was held with Corps of Engineer staff to discuss progress of contracts for maintenance of water control structures and any new O&M needs.



#### 4. Equipment Replacement

A truck mounted snow plow and a bunch of bolts, nuts, etc. were picked up at MAFB. The snow plow matches the one we have, so we are ready for winter, maybe.

The radiator on a 1-ton pickup was converted from a 3 core to a 4 core to help prevent overheating while spraying.

#### 7. Energy Conservation

Heating and vehicle fuel costs were lowered thanks to the furlough in December.

### J. OTHER ITEMS

#### 3. Items of Interest

The FIELD & STREAM Wildlife Management Theory of the Month of October concerns CRP, raptors, and upland game birds. According to an uninformed source, CRP is the reason there are few pheasants, grouse and partridge. All that cover produces so many mice, hawks and owls survive in record numbers. If fact, there are so many hawks, they kill grouse and pheasants for practice. Hard to argue with logic like that.