VALLEY CITY WETLAND MANAGEMENT DISTRICT
VALLEY CITY, NORTH DAKOTA

ANNUAL NARRATIVE REPORT

CALENDAR YEAR 1984

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Calendar Year 1984

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

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2. Ronald P. Manson, Biological Technician, GS-7 PFT
3. Bradley A. Knudsen, Biological Technician, GS-7 PFT
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5. Renee D. Stangeland, Fish Hatchery Assistant, GS-5 PPT

Review and Approvals

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Valley City WMD

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INTRODUCTION

The Valley City Wetland Management District (WMD) is located in east-central North Dakota. The district is made up of Cass, Traill, Barnes, Griggs, and Steele Counties and operated as a substation of the Arrowwood National Wildlife Refuge Complex at Pingree. There are 72 Waterfowl Production Area management units comprising 16,198 acres and 39,168 acres of wetlands protected by FWS easements. The Waterfowl Production Area's acreage breaks down to roughly one-third wetland and two-thirds upland, with the bulk of the upland comprised of DNC, native prairie, or seeded native grass stands.

The eastern one-third of the district is located in the Red River Valley. This area, characterized by flat, intensively farmed land was once the lake bed of Glacial Lake Agassiz. The remaining two-thirds of the district is in the glaciated prairie pothole region known as the drift prairie. The area is characterized by gently rolling topography with numerous wetlands ranging from one-tenth acre to several hundred acres. Land use is primarily agriculture with small grains such as wheat, barley, and sunflowers the main crops. The meandering wooded valley and adjacent pastures and draws offer a welcomed relief to the intensively farmed surrounding landscape. The few remaining areas of native prairie are being turned under and along with fall plowing and summer fallowing, erosion is a major concern.

The headquarters of the WMD is located at the Valley City National Fish Hatchery facilities, two miles north of Valley City adjacent to the Sheyenne River. Equipment, shop, and personnel are shared between both offices. The National Fish Hatchery clerk works 14 hours each week for the WMD. This setup has worked extremely well and provides the WMD with excellent facilities.

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A. HIGHLIGHTS

For the first year since 1977, the U.S. FWS was able to resume the Small Wetlands Acquisition Program in North Dakota, with two wetland easements being purchased in the WMD in 1984 protecting 80 acres of wetlands. Several other offers are pending. See Section C-2.

Native grass seedings were accomplished on 189 acres on nine different tracts, including 22 acres seeded to Indiangrass at Northern Prairie Wildlife Resaerch Center, Jamestown, as a cooperative project with the Soil Conservation Service. The field will be utilized as a future seed source. See Section F-4.

The Valley City WMD harvested approximately 13,000 pounds of pure live seed of various native grasses, including two varieties of sideoats grama planted in 1983. This amount of seed has a value of approximately $130,000 and most importantly is all northern variety seed. See Section F-5.

The WMD initiated a cattail control project on various WPA's to test the cost, application and effectiveness of various chemical and mechanical control methods. See Section F-2.

A 24' x 24' metal seed storage shed was built force account to serve as protective storage for the seed mentioned above. See Section I-1.

B. CLIMATIC FACTORS

January and February of 1984 saw above average temperatures (third warmest February on record) and slightly above average precipitation with 5-12 inches of snow on the ground from mid January to late March. This was sufficient snow to fill the majority of potholes during spring runoff, but precipitation was nearly 3½ inches below normal for the period May-July and wetlands dried up rapidly. Even several type IV wetlands on district WPA's had gone completely dry by late July. The drought continued through August and September, falling another 3 inches below normal. Relief came in mid October when over 3 inches of rain fell in a one week period. Winter months were mild through the year's end with less than 2 inches of snow on the ground and unseasonably warm temperatures in mid December.

C. LAND ACQUISITION

Due to a 1983 U.S. Supreme Court ruling on the FWS Small Wetlands Acquisition Program (SWAP) within North Dakota, the FWS was freed to acquire easements from private landowners for the first time since 1977 to preserve wetlands from being drained, burned or filled. State imposed restrictions on SWAP in place since April of 1977 were ruled unconstitutional by the U.S. Supreme Court, upholding decisions previsouly made by two lower courts, each appealed by the state of North Dakota. Legal opinion that the FWS could also purchase

land in fee title has not been pursued. North Dakota Governor Olson had also suggested FWS pursue acquisition of a wetland tract but this was not pursued also. State legislation passed in 1983 required FWS to prepare a statewide waterfowl plan prior to further fee acquisition. This plan was completed but there is no indication if the state will allow acquisition or if FWS plans to pursue acquisition of wetlands in North Dakota.

Five hundred thousand dollars was appropriated for easement acquisition within North Dakota for FY84. By the end of the fiscal year, $350,000 had been spent. A total of 34 easements protecting 2,304 acres of wetlands had been added to the program.

1. Fee Title

As indicated above, legal opinion exists which states FWS is free to pursue fee acquisition in North Dakota. Governor Olson also urged FWS to purchase a fee tract in 1984. Further state attitude for allowing FWS fee purchase or FWS plans to preserve wetlands in North Dakota is unclear.

2. Easements

Two new perpetual wetland easements were purchased in the WMD, protecting approximately 80 wetland acres from burning, filling, leveling, and draining activities.

Offers had been made to six other landowners during the late stages of 1984 with no immediate decision on their part. All were quite interested in the program, however, and it is hoped they will add to the tally in 1985.

Valley City Acquisition Status

Fee Title (1)

	1977	1978	1979	1980	1981	1982	1983	1984	Total
Barnes	234.98	635.57	0	0	0	0	0	0	6,670.87
Cass	193.00	116.96	0	0	0	0	0	0	3,034.96
Griggs	0	0	0	0	0	0	0	0	2,522.11
Steele	99.14	768.61	0	0	0	0	0	0	3,251.75
Traill	0	6.00	0	0	0	0	0	0	718.41
Total	527.12	1527.14	0	0	0	0	0	0	16,198.10

Easements (2)

	1977	1978	1979	1980	1981	1982	1983	1984	Total
Barnes	337	0	0	0	0	0	0	23	17,466
Cass	0	0	0	0	0	0	0	56	1,694
Griggs	0	0	0	0	0	0	0	0	16,755
Steele	247	0	0	0	0	0	0	0	3,734
Traill	0	0	0	0	0	0	0	0	239
Total	584	0	0	0	0	0	0	79	39,168

(1) Total Acres of WPA Tract
(2) Wetland Acres Only

E. ADMINISTRATION

1. Personnel

A comparison of staffing at the district is as follows:

	Permanent		
	Full-Time	Part-Time	Temporary
FY84	3	1	1
FY83	3	1	1
FY82	2	2	1
FY81	2	2	1
FY80	2	1	1

All WMD staff attended an 8-hour Defensive Driving Refresher Course in Jamestown on January 12. Wetland Manager Jones and Biological Technician Knudsen attended the 40-hour Law Enforcement Refresher Course in Bismarck from April 2-6. Biological Technician Manson received 32 hours of instruction on heavy equipment operation at Arrowwood NWR from September 17-20, 1984.

2. Funding

The WMD does not receive separate funding, but is included in the Arrowwood Complex budget. The complex consists of Valley City WMD, Long Lake NWR and WMD, and Arrowwood NWR and WMD. The operation and maintenance budget for the complex over the last five years is shown below.

FY84 - $506,900 ($64,000 of ARMM's money was added)
FY83 - $530,000
FY82 - $368,000
FY81 - $346,000
FY80 - $322,000

For further breakdown of funding, refer to the Arrowwood narrative report.

3. Safety

Safety meetings are held on a monthly basis with the staff of the National Fish Hatchery as well as in conjunction with Arrowwood Complex staff meetings. A film is viewed every month and is circulated throughout the complex. Valley City's station safety plan, updated and submitted to the Regional Office in 1983, was approved in 1984. No lost mandays of work occurred during 1984.

4. Technical Assistance

Assistance was provided to the Barnes County SCS office on three separate drainage referrals. The FWS is called in to determine if a private drainage project involves type III wetlands. If so, the SCS may not offer technical assistance or cost-sharing to the individual. Each of the above requests involved type III wetlands, thus SCS assistance was denied.

Several drained wetland basins in Barnes County were reviewed to determine their status for inclusion in the National Wetlands Inventory. Most of these basins, despite having been drained for 6-10 years, still supported some wetland vegetation within their defined basins.

The wetland manager served as a board director for the Red River Valley International Citizens Flood Control Coalition. The organization is made up of members from Minnesota, North Dakota, and Manitoba. The purpose in serving is to provide technical information and resource input relating to water issues, wetlands, and wildlife. The group has been instrumental in bringing forth discussions and information relating drainage to flooding.

Conflicts continue to occur with public facilities providing outlets for wetland drainage. Here, work on I-94 west of Valley City resulted in construction of a 15 ft. deep drainage ditch in the right-of-way, facilitating drainage of several wetlands on private land into the right-of-way, and draining several wetlands in the right-of-way. Despite efforts to get the ditch raised, it remained at its predetermined level draining several wetlands at public expense. LAJ-1984

F. HABITAT MANAGEMENT

1. General

The objective of all habitat management practices is to provide a vigorous and diverse habitat for maximum production of migratory birds. As intensive land use on private acreage continues to eat away at the resource base of wetlands and upland habitat in the state, effective habitat management on FWS lands becomes increasingly important.

2. Wetlands

Island construction and cattail control were two major components of 1984's wetland management activities. Nesting island construction that began at Alice WPA in Cass County in 1983 continued in the fall of 1984. A contract for $80,000 was awarded to Hutton Contracting of Towner, ND for the island construction work. Several dozen islands, averaging 15 yds. x 25 yds., were built on Alice WPA during 1984. The "marsh floor" was scraped by the bull-dozers and piled into mounds. Not only does this provide secure nesting and loafing spots for waterfowl, it also serves to break up the extremely dense monotypic cattail stands. This interspersion of open water areas should greatly enhance the attractiveness of these marshes to waterfowl.

Approximately 45 islands have been seeded (broadcast method) with native grasses, including 15 made in 1983, in hopes of initiating some vegetation on the islands to encourage nesting use.

Work was halted in mid October due to heavy precipitation causing wet conditions in the marsh. It was hoped the ground would freeze enough by late fall to allow additional work. However, by mid December, the ground was still too soft and the project was shut down for the year. Funding remains to continue the island work when conditions become favorable again.

The WMD initiated chemical cattail control projects during 1984. Recognizing the threat this highly productive and competitive plant has in completely taking over several of the wetland areas on district WPA's and choking out open water and other aquatic plant species, it was decided to make an effort to delay this succession.

Various herbicides were applied on cattails in July and September of 1984, both aerially and from handheld spray equipment set up on the airboat borrowed from Long Lake NWR. The chemical was supplied free of charge by Monsanto, PBI Chemical Corporation and Ostlund Chemical Company. The companies are interested in information on cattail control.

The plots at Sanborn WPA were visited at intervals of two to four days with visual estimates made of the herbicides' effects on cattails. After three days those plants sprayed with Dowpon were already turning brown for three to six inches along their tips with 20-30 percent browning up to a foot on their tips. No apparent response was observed on the plot sprayed with Amitrol-T. Three days later over 50 percent of the Dowpon treated cattails had browned their entire length and the Amitrol-T treated plot showed a stage of browning similar to that in the Dowpon plot three days earlier.

Evidence of the cattail problem at Alice WPA, Cass County. At times, the bulldozer was nearly out of sight as it started island construction. LAJ-1984

Initial stages of island construction, Alice WPA, Cass County. Just as important as providing safe nesting areas is the creation of open water areas in cattail-choked marsh. LAJ-1984

Biological Technician Knudsen ready to confront the cattail problem on Sanborn WPA, Barnes County. Height of the plants in some areas was 15 feet.
LAJ-1984

Cattail control test plot on Thompson WPA, Traill County. Several patches of cattails were cut below the water surface in early September hoping to deprive the plants of oxygen over winter, causing them to suffocate and die.
BAK-1984

Chemical application to cattails, Alice WPA, Cass County. Response to the herbicide was evident after 3-5 days, hopefully, active ingredients were translocated to roots allowing for more permanent control of cattails. The test plots were with Dowpon, Rodeo and Amitrol-T.
BAK-1984

Aerial view of chemical cattail control on Alice WPA, Cass County. The brown cattails in mid portion of photo were sprayed by airboat (tracks through cattails are evident). Brown cattails to left were sprayed with Amitrol-T, those to right with Dowpon (see table for rates). Also evident in the photo are 5 nesting islands built in 1983. LAJ-1984

Cattail Spraying

Date	WPA	Acres	Chemical & Quantity/Acre	Method
7/23/84	Alice WPA Cass County	3/4	Dowpon 40 lbs./300 gal. water/acre	Airboat
7/23/84	Alice WPA Cass County	3/4	Amitrol-T 3 gal./250 gal. water/acre	Airboat
7/24/84	Sanborn WPA Barnes County	2	Dowpon 50 lbs./300 gal. water/acre	Airboat
7/24/84	Sanborn WPA Barnes County	2	Amitrol-T 3 gal./150 gal. water/acre	Airboat
9/7/84	Fuller's Lake WPA Steele County	1	Rodeo 1% solution 2 qts./50 gal. water	Airboat
9/8/84	Thompson WPA Traill County	3	Dowpon 50 lbs./300 gal. water/acre	Airboat
9/19/84	Thompson WPA Traill County	5	Dowpon 20 lbs./8 gal. water/acre	Aerial
9/19/84	Thompson WPA Traill County	16	Rodeo ½ pt./16 gal. water/acre	Aerial

Within the next week, 95 percent of the Dowpon-treated cattails were brown their entire length. The remaining 5 percent were believed to be areas that had been skipped or inadequately covered during the herbicide application. Cattail response to the Amitrol-T application continued to lag behind by approximately three to four days, but final results were the same, i.e. approximately 95 percent of the plants had browned their entire length.

Plots sprayed elsewhere were not visited as often due to travel distance involved. Nonetheless upon later visits, cattails were observed to be brown and dying back.

Monitoring of these plots will continue to determine long-term success of the control efforts. There was some concern, particularly with the Dowpon application at Sanborn WPA, that the plants may have actually died too fast before the chemical's active ingredient could translocate to the root system where more permanent damage could be done. It will also be interesting to note how quickly adjacent cattails will spread back into these treated areas, primarily through runners.

Mechanical control of cattails was also tried on two WPA's. A hand scythe was used to cut cattail stems a foot below the water surface in early September. Strips were 10' x 30'. It is hoped this will starve the plants of oxygen over winter, causing them to die. Should this technique prove successful, some means of cutting cattails below the water surface mechanically would have to be devised, rather than through hand cutting, for this to be a practical means of cattail control.

4. Croplands

There are approximately 6,000 acres of cropland in the WMD. In 1984, cooperative farming agreements were in effect on 883 acres on 27 separate tracts. Most agreements are for a three year period with the government receiving 10-30 percent of the crop each year, either in standing rows, unharvested bales, or as combined grain to be used in resident wildlife feeders located on WPA's throughout the district.

All cooperative farming agreements are designed to prepare a seedbed for either native grass or DNC seedings, with establishment of seeded natives being emphasized since 1980 in the district. While DNC does provide good nesting cover, stands tend to lose their vitality after five to six years and become heavily invaded with undesirable weed species. They then become costly weed control projects at best and at worst are broken out again and recropped putting the land in a nonproductive state a greater percentage of the time than a similar piece of seeded natives, which tend to hold up to seed invasion much better.

Areas seeded to native grasses in 1984 are shown in the following table.

The pure stand of Indiangrass planted at Northern Prairie Wildlife Research Center in cooperation with the Soil Conservation Service is to serve as a harvestable seed source in future years for this species. Such single stand plantings are already established in the WMD for two varieties of big bluestem, two of switchgrass, and two varieties of sideoats grama and have resulted in high yields of good quality seed. It is hoped to get such yields from the

1984 Native Grass Plantings

WPA	Acres	Species Seeded	Seeding Rate (Lbs. Pure Live Seed/Acre)	Seedbed Preparation
Alice	20	Green needlegrass (SD-93)	10	1980-82 - cropped 1983 - fallowed May 1984 - disced, dragged & packed twice November 1984 - seeded
Hagglund	20	Green needlegrass (Lodrom)	8	1981-83 - cropped 1984 - disced, dragged & packed twice prior to seeding (May 1984)
Alice	30	Switchgrass (NDG-965-98) Switchgrass (SD-149) Big bluestem (NDG-4) Big bluestem (SD-27)	½ ½ 4 4	1981-83 - cropped 1984 - disced & dragged twice, packed once before seeding (May 1984)
Thompson	20	Big bluestem (NDG-4)	8	1981-83 - cropped 1984 - disced, dragged & packed prior to seeding (May 1984)
Blikre	20	Switchgrass (NDG-965-98) Switchgrass (SD-149) Big bluestem (NDG-4)	½ ½ 8	1981-83 - cropped May 1984 - Atrazine & 2,4-D applied, disced twice, dragged & packed once prior to seeding (late May)
Rogers	20	Switchgrass (NDG-965-98) Switchgrass (SD-149)	4 4	1981-83 - cropped June 1984 - disced & dragged twice, packed once prior to seeding
NPWRC Field #1	12	Switchgrass (NDG-965-98) Switchgrass (SD-149) Big bluestem (NDG-4)	½ ½ 8	1983 - fallowed June 1984 - disced & dragged twice, packed once prior to seeding
NPWRC Field #2	22	Indiangrass (ND 444)	10	1983 - fallowed June 1984 - disced & dragged twice, packed once prior to seeding

WPA	Acres	Species Seeded	Seeding Rate (Lbs. Pure Live Seed/Acre)	Seedbed Preparation
Alice	25	Big bluestem (SD-27)	4	1980-82 - Cropped
		Big bluetsem (NDG-4)	4	1983 - Fallowed
		Switchgrass (NDG-965-98)	3/4	May 1984 - Disced, dragged & packed
		Switchgrass (SD-149)	3/4	twice prior to seeding
Total	189			

Indiangrass stand in the future. There is a limited to nonexistent source for most native warm season grasses in North Dakota. Plantings to be used for future seed source are essential to continue the option of establishing warm season grasses. There is benefit to having the seed available at very little cost and using seed adapted to northern climates.

Two green needlegrass (ND Lodorm variety) seedings totaling 51 acres planted in 1983, continued to show poor germination. The seed used had a dormancy rate of 36 percent and seeds may lay dormant for up to five years before germinating, according to a local commercial seed dealer. These areas may be overseeded in 1985 to shorten the time for a uniform stand to be established.

One hundred eighty-five acres of previous years' native grass seedings on seven WPA's were sprayed with Atrazine (2-4 lbs./acre) and 132 acres of previous years' native grass seedings on seven WPA's were sprayed with 2,4-D (1-1½ qts./acre) for purposes of weed control (thistle, pigweed, wormwood, kochia, etc.). In addition, 54 acres of 1984 seedings on three units were sprayed with 2,4-D (1-1½ qts./acre) to reduce competition from broadleaved weeds after seeding and 55 acres on one unit were sprayed with Roundup (1 qt./acre) to chemically fallow the ground for a 1985 planting. Also, 60 acres on two units of established grasses were sprayed with Roundup in early spring, prior to the warm season native's growth period. This technique reduces competition from undesirable actively growing cool season species such as quackgrass, Kentucky bluegrass and smooth bromegrass. This chemical control option has been proven very effective. Burning the area is required as well as very critical timing to hit the undesirable species before the established warm season grasses begin to grow.

One hundred sixty acres on seven different units were mowed to control weed species invading newly seeded natives. This total includes 34 acres that were mowed twice to keep pigeongrass seedheads from maturing. Main species controlled through mowing include thistle, sowthistle, pigeongrass, pigweed and kochia.

5. Grasslands

The WMD again harvested native grass seed from seeded native stands in 1984. The following table shows approximate yields from each area harvested and results of purity and germination tests conducted by the State Seed Lab in Fargo. The seed will be used in future plantings within the district as well as made available to other WMD's and refuges within the state as requested while supplies last.

Three fields of big bluestem (two of the ND variety and one of SD variety) harvested in past years did not form viable seedheads in 1984 due to the drought conditions in the district. The only big bluestem providing harvestable seed was a portion of a field at Stoney Slough NWR in southern Barnes County which apparently received just enough moisture from local rain showers to produce viable seed.

All combining of grass seed was again accomplished with the Allis-Chalmers Model A Gleaner combine purchased from a private individual in 1981 for $1,000.

1984 Native Grass Seed Harvest

	Species	Variety	Location	Date Harvested	Acreage Harvested	Estimated Bulk Yield	Purity	Germ.	Estimated Pounds Pure Live Seed
1.	Sideoats Grama	Pierre	Stoney Slough NWR	8/22	18	1,500	82%	89%	1,100
2.	Switchgrass*	NDG-965-98	Alice WPA	8/27	10	2,000	-	63%	800
3.	Switchgrass*	NDG-965-98	Alice WPA	8/28,8/29	20	4,000	-	68%	1,600
4.	Sideoats Grama	Killdeer	Fuller's Lake WPA	8/30, 8/31	20	2,000	89%	82%	1,400
5.	Big Bluestem	NDG-4	Stoney Slough NWR	9/3	15	1,500	72%	91%	900
6.	Switchgrass*	SD-149	Alice WPA	10/3	10	3,500	-	77%	1,400
						14,500			7,200

Estimated commercial value - $70,000.

All stands are single-species stands planted by WMD from 1981-83.

*Purity will be determined after seed is cleaned.

First year NDG-4 big bluestem (ND variety) planting at Northern Prairie Wildlife Research Center, Jamestown. Good seedbed preparation and spot spraying of competing broadleaves with 2,4-D allowed for this excellent catch to occur. The planting was made in cooperation with the SCS Plant Materials Center and will be used by the WMD for a future seed source.
BAK-1984

Harvesting Pierre sideoats grama at Stoney Slough NWR 8/22/84. The 14 acre field was planted the previous year and had an excellent catch. This species will provide important intermediate height vegetation in future waterfowl nesting cover plantings. BAK-1984

It is approaching 40 years old and parts are scarce, but so far the WMD has been lucky in finding replacement parts needed through a local Allis-Chalmers dealer in Oakes, ND. The most serious repair during 1984 was replacing a front wheel bearing. The estimated value of seed harvested with this combine since purchase has exceeded the one million dollar mark. Also difficult to attribute a value but equally important is the availability of northern adapted seed which is not commercially available.

Approximately 110 acres of leafy spurge on 18 WPA's were sprayed with 2,4-D (1½ pts./acre) in 1984. In addition, three patches of spurge, totaling approximately 300 sq. yards were treated with Tordon crystals. These control efforts keep the plants from going to seed, but do little to kill the established plants outright. A North Dakota State University research assistant informed us this summer that vegetative reproduction accounts for 95 percent of leafy spurge reproduction in his study plots. If this is true on a large scale basis, keeping plants from going to seed provides little relief in efforts to keep this persistent noxious weed from spreading.

8. Haying

Haying for weed control was done on a total of 90 acres on four WPA's. This included 70 acres of DNC, invaded largely by thistle, and 20 acres on a seeded green needlegrass field showing poor germination. Weeds (pigeongrass, wild mustard, thistle, etc.) were hayed to reduce competition and hopefully release those green needlegrass seedlings that had sprouted. Mowing of thistles just prior to seedheads maturing has proved to be an effective means of controlling this common weed in past years, particularly when followed by rainfall which enters the cut stem and rots the root system.

9. Fire Management

The weather of 1984 was not conducive to carrying out an active prescribed burning program. April and early May was typified by drizzle for three days, followed by three days of 20-30 mile per hour winds, followed by another three days of drizzle, etc. Also, a directive to spend more effort on waterfowl production surveys (pair counts, nest dragging, etc.) cut into manpower and time on several days when conditions were favorable for burning.

Fifty-five acres of seeded natives were burned on April 20 at Alice WPA in Cass County, including two ten acre single species stands (NDG-4 big bluestem and SD-149 switchgrass) to stimulate seed production for future harvest. The remaining 35 acres was an adjacent mixed warm season native stand burned to reduce competition from invading cool season species. An 85 acre cattail burn was conducted on October 1 to clear off a portion of a large marsh where nesting islands were subsequently constructed.

These two burns totaled 140 acres, compared to over 1600 acres burned in 1983, and over 700 acres the two years previous to that. With establishment and maintenance of high quality grassland nesting cover for waterfowl being one of the WMD's major objectives and prescribed burning the most cost efficient and effective management tool available to achieve that objective, it is hoped the WMD's active burning program of past years can be put back into action in 1985.

Cattail burn on Alice WPA 10/1/84. This 85 acre burn was conducted to clean off area prior to island construction work. As observed in the photo, no open water areas existed in this marsh area. Thirty-five small islands were built to provide nesting and loafing areas as well as create open water areas. RPM-1984

10. Pest Control

Control of noxious weeds on FWS lands remains the most time consuming and expensive form of pest control the WMD is involved in. Biological Aid Erickson spent nearly half of his five month appointment riding in the WMD spray truck, searching out noxious weeds on WPA's. The bulk of the six weed complaints received by this office concerned leafy spurge patches. Each year a list of areas where weeds have been chemically controlled is provided to each county commissioner. This has helped county officials realize that the FWS is making a concerted effort to minimize weed problems on Service owned lands.

Blackbird depredation on sunflower crops continues to be an issue in North Dakota. With such an attractive food source ripening at precisely the time the blackbird migration reaches its peak, conflicts are inevitable. Northern Barnes County seemed to be the hardest hit area this past year, based on complaints received by this office and sightings of scare devices by WMD staff. Crackershells and pest control bombs are on hand at the headquarters and are used for demonstration purposes. Further technical assistance is provided by ADC District Field Assistant Larry Tangen.

Pocket gophers are widespread throughout the district. Colonies are rapidly established where soil is in a nontilled state and thus WPA grasslands are an ideal habitat for them. Several seeded native grass stands have been invaded over the last few years. Not only does this make for a rough ride while combining native grass seed, the mounds and burrows smother out young sprouts and disrupt root systems, making inhabited areas more susceptible to weed invasion.

11. Water Rights

The main concern is the water rights obtained on easement agreements which are endangered with subsurface water withdrawals and land contouring diverting water away from wetlands. Land contouring, however, is an extremely expensive endeavor and will no doubt be limited because of this. Irrigation wells on the other hand are of major concern as lowering of water tables has a direct effect on many surface wetlands which are technically protected by the easement agreement. In many cases soil type indicates that water levels in wetlands will go down as water table levels recede. The North Dakota State Water Commission has a rubber stamp process in issuing well permits and popularity of irrigation is increasing. Scientific data on ground water capabilities and the effect of withdrawals on surface water is limited to nonexistent. Ironically the FWS has devised methods to allow irrigation equipment to operate through easement wetlands by elevated trestles, wire, mesh, etc., when little to no data is available to determine what effect the well may have on draining wetlands.

13. WPA Easement Monitoring

Twenty-four wetland easement violations were observed during spring easement surveillance flights. This included 5 burns affecting 6 wetlands, 14 ditching violations affecting 26 wetlands, and 3 fills. In addition, two pumping operations were discovered, removing water from protected type III wetlands to allow central pivot irrigation systems to pass through the basins. One involved two portable pumps. When contacted, the easement owner said he was completely willing to stop pumping, agreed to never use them on easement wetlands again, and apologized. The other agreed to shut down his large PTO-operated pumpgun only after being informed that if he did not stop the pumping voluntarily, a court order to do so would be obtained and the equipment seized. He said he felt that pumping a wetland dry was not a violation of the easement, but when asked how this differed from draining a wetland with an open ditch, he could not defend his position. During the course of the investigation, he admitted that he and his brother had been using the pump the last six to seven years to pump two easement wetlands dry (totaling 40 acres) to facilitate use of their central pivot system. A $100 FOC was issued.

Court proceedings were necessary to bring one easement violation to compliance. A landowner angrily refused to fill in a scraper ditch draining a half acre type III wetland. He threatened to throw WMD personnel off his land, charge them with trespassing, and when handed his mandatory appearance notice, he let it blow away across his lawn. A guilty plea was entered prior to the initial court appearance and his attorney allowed to appear for him in court. A $500 fine was imposed with $400 suspended on condition that the wetland was satisfactorily restored by the reasonable deadline set by the FWS. The ditch was not filled by the deadline and another hearing date was set, this time demanding

the landowner be present. An additional $100 of the original fine was ordered to be paid along with restoration of the wetland. Only the violator's stubbornness to do the needed work resulted in a second hearing being necessary. This time, however, the landowner appeared to see the error of his ways and was quite cooperative in filling the ditch with WMD personnel present. A small amount of fill frozen into the basin must be removed before the case can be closed, however, the difficult part of the compliance has been completed.

Fall easement flights revealed several violations, but snowfall halted second flights before all violations could be confirmed. An estimated 50 violations were observed, 35 of which were draining and 15 burning violations, an increase over the last several years with plow furrows draining wetlands being the most numerous violation detected.

A 12 acre wetland drained in 1978 on Traill County 16X has still not been restored. The easement owner claims he had to drain it to prevent seepage into his house, despite soil experts and hydrologists claiming the wetland was not the problem. Several proposed land exchanges in earlier years were inadequate to replace the wetland being drained. A six acre semipermanent wetland at an old gravel pit has now been offered in exchange and it appears to be a viable solution. It has been the FWS's position that the six acre wetland has greater biological value than the 12 acre wetland, but policy precludes the FWS from accepting on this basis. It now appears that the court will intervene and order the FWS to accept the land exchange and this matter will finally be settled.

Pumping violation on 42X, Cass, 4/84. Two floating portable pumps (right edge of photo) were used to remove water from this temporary wetland allowing an irrigation system to travel through without restriction. The landowner was contacted, informed that his activity was not allowed under the easement agreement, and he agreed to not use them on protected wetlands in the future. No citation was issued. Pumping violations are difficult to detect and appear to be more numerous each year. BAK-1984

G. WILDLIFE

1. Wildlife Diversity

While WPA's are purchased with Duck Stamp funds and managed for waterfowl production, they receive use by a wide variety of other game and non-game species. The development of standing food plots as part of the DNC rotation combined with the availability of unharvested grain bales or stacks on WPA's has greatly increased use of WPA's by resident species such as ring-necked pheasants, gray partridge, and white-tailed deer, particularly during the winter months when food becomes scarce. This food source, along with excellent cover provided by cattail marshes and healthy grass stands, makes very attractive habitat for these species. While management objectives do not dictate this attention given to resident wildlife, it is achieved without deviation from migratory bird management considerations and is important in public receptiveness of FWS programs.

2. Endangered and/or Threatened Species

Bald and golden eagles are occasionally observed in the district during spring and fall migrations. The Sheyenne and Red River Valleys serve as migration corridors for these and many other species of birds and eagle sightings are fairly common in these areas. A mature bald eagle was seen on Stoney Slough NWR in late March and a pair of mature bald eagles were reported by a refuge neighbor in the same vicinity in late September.

An osprey was seen along the Sheyenne River one-half mile from the WMD office on May 5.

3. Waterfowl

a. Ducks

Good water levels were present in prairie potholes during April and May with the North Dakota May pond index up 54 percent over the long-term average. Waterfowl breeding pair numbers were up as well with dabbling species showing a 37 percent increase statewide over the ten year mean. The summer drought took its toll on brood habitat, however, with several type IV wetlands drying up by early July.

The new 4-square mile pair counts initiated in 1983 in the WMD were again conducted this year. Six 4-square mile blocks were surveyed, once the first week in May and again the last week in May, to allow for equal representation of early nesting and late nesting species. Breeding pairs are counted on FWS fee title land, FWS wetland easements and private land as well, in hopes of providing production data on all three land categories. Pair numbers were double the previous years total on most areas due to excellent water conditions. A lack of field data is often brought up to criticize production estimates assigned to FWS lands, particularly easements. It is hoped this system will allow for more accurate production figures.

Spring waterfowl use on a wetland near the office headquarters.
BAK-1984

The 1984 data was provided to Northern Prairie Wildlife Research Center and ran through the Mallard Management Model computer program to determine waterfowl production as listed below.

	Land Classification			
Species	FWS Fee Lands	FWS Easement	Private	Total District Production
Mallard	670	2,283	8,053	11,006
Shoveler	218	1,353	1,902	3,473
Pintail	200	847	2,091	3,138
Blue-winged Teal	1,513	6,855	14,510	22,878
Gadwall	333	1,630	3,476	5,439
Total	2,934	12,968	30,032	45,934

Pair data was also collected for wigeon, green-winged teal, canvasback and redhead, but due to insufficient data on nest success, brood survival, etc. for these species, production estimates were not calculated.

Waterfowl nest drag searches (with standard cable chain setup) were conducted in conjunction with the pair count data to provide current nest success/density data for calculating production. A total of 880 acres was searched, including

585 acres of DNC, 255 acres of seeded natives, and 40 acres of native prairie. These areas were dragged three times at roughly two week intervals from May 17 - June 30. Overall nest densities in the three cover types were 1/10.4 acres, 1/17 acres, and 1/40 acres respectively with overall success 24 percent, 62 percent, and 0 percent respectively.

Nest dragging a DNC field on Stoney Slough NWR. Three drags on this 75 acre field revealed 26 waterfowl nests of which 7 hatched for a 27 percent apparent nest success. The others fell victim to red fox and skunk. BAK-1984

Apparent success by species was as follows:

Mallard - 35% (6 of 17 hatched)
BWT - 26% (12 of 45 hatched)
Gadwall - 28% (4 of 14 hatched)
Pintail - 25% (1 of 4 hatched)
Shoveler - 50% (2 of 4 hatched)

Mayfield hatch rate, as determined by Northern Prairie Wildlife Research Center, for the species listed above was 19 percent, 10 percent, 13 percent, 13 percent, and 7 percent respectively.

Of the 86 nests found in 1984, 57 were predated. Red fox and striped skunk were determined to be the major predators involved, through inspection of the nest bowl, presence or absence of destroyed eggs, etc.

It was interesting to note the increased use of seeded native grass stands (mostly big bluestem/switchgrass/Indiangrass mix) with each successive search. Of 15 total nests found in seeded natives, 3 were found on the first drag, 5 on the second, and 7 on the last drag. Green growth was quite sparse in these fields at the time of the first drag, but as the warm season natives began to green up in June, more duck nests were found in them. Thus, warm season native seedings may be of particular use to those hens which are renesting after earlier nesting attempts have failed. Nest success was the highest (62 percent apparent nest success) in seeded natives. Speculation is that small rodent prey populations were less in seeded natives, thus native fields were less attractive to predators such as fox.

The old WPA quarter section pair counts conducted since 1975 in the WMD were not carried out this year due to lack of manpower and a lack of days with suitable weather conditions during the time period these had been done in the past. It would have been desirable to do these again to provide a continuity of data until a decision is made regarding the future of the 4-square mile counts.

Wood ducks are common along the Sheyenne River Valley. Twenty artificial wood duck homes maintained along the river at the headquarters had an estimated production of 75.

Dry conditions forced migrating waterfowl to concentrate in certain areas where water remained, particularly the long chain of lakes west of Valley City, Stoney Slough NWR and the Golden Lake area of Steele County. Migrating waterfowl peaked in late October, after the heavy rains in mid-month, with an estimated 70,000 ducks present. This included 10,000 canvasbacks, 10,000 redheads, 15,000 mallards and 5,000 pintails. Five to 10,000 mallards were utilizing open water on Lake Ashtabula until late November when the lake finally froze over.

b. Geese

Spring migrations peaked in mid April with a rough estimate of 400,000 snow geese and 40,000 Canada geese. Fall migration peaked in late November with an estimated 40,000 snow geese and 10,000 Canada geese. There was also an estimated 10,000 white-fronted geese in the western part of the district in late November, by far the greatest number of this species to migrate through in recent years. Usually less than 1,000 of these birds are observed during fall migration.

c. Swans and Coots

Tundra swans are a common spring and fall migrant in the area with numbers peaking at 8,000 in mid April and early November. The majority of these utilize the large alkali lakes to the west of Valley City.

Coots remain abundant throughout the district. No censusing of this species is done other than to make estimates of those seen during quarter square mile pair counts. Because these pair counts were not done this year, no coot numbers were estimated. Based on the number of broods observed during the summer, though, it appeared to be another bumper year for coot production.

Use of seasonal wetland by migrating snow geese April 1984. Some parties have expressed concern over whether eastern North Dakota wetlands are of any value to waterfowl species. From this photo, it appears evident that at the very least, these seasonal wetlands provide critical resting points for waterfowl allowing them to reach more northerly breeding areas in good condition. This Steele County wetland was drained in the fall of 1984. RPM-1984

d. Waterfowl Display Flock

A four acre waterfowl display pond (actually an old oxbow of the Sheyenne River) is maintained at the headquarters site consisting of Canada and snow geese and a pair of tundra swans. The flock originated from cripples found throughout the state and for the last several years has had several breeding pairs of Canada geese successfully reproduce. Sixteen goslings were hatched and banded with an additional 20 produced from nesting platforms on adjacent hatchery ponds and the Sheyenne River. Eleven of the banded goslings were transplanted to Arrowwood NWR in the second year of the transplant program. Numerous subsequent sightings at Arrowwood deemed the program a success to this point. The adults producing young outside of the display pond are individuals who originally were part of the display flock. Plans are to put out six to ten more nesting structures in hopes of increasing goose production in the headquarters vicinity.

4. Marsh and Water Birds

Great blue herons and black-crowned night herons are frequently observed on WPA's during summer field work, but no good population estimates exist. White

pelicans are also fairly common in the western portion of the WMD, mostly nonbreeders from Chase Lake NWR (70 miles west of Valley City). A double-crested cormorant colony in Steele County was censused for the fourth year in a row with 67 active cormorant nests observed. This compares to 91, 85 and 81 over the last three years.

5. Shorebirds, Gulls, Terns and Allied Species

Greater and lesser yellow legs, avocets, willets, killdeer, and several species of sandpipers are the most common shorebirds in the district. Ring-billed and Franklin's gulls are the most common gulls. These and other species nest here, but no surveys are currently conducted. It would be desirable to have a better idea on population, production, trends, etc., but current funding and manpower limit the potential for this kind of work.

6. Raptors

Common nesting raptors include red-tailed hawks, marsh hawks, Swainson's hawks, kestrels, and great-horned owls. Shelterbelts serve as good nesting sites and the wooded valley of the Sheyenne River also provides important habitat. Short-eared owls seemed more abundant in late 1984. Populations cycle with field mice populations according to the literature, so perhaps they were responding to an increase in rodent populations. Snowy owls are occasionally sighted during the winter months.

7. Other Migratory Birds

Three mourning dove coo counts are conducted each May, with this information compiled and used by the Office of Migratory Bird Management in Laurel, Maryland in determining nationwide breeding status. Dove hunting remains a popular early fall sport. Although the season runs until mid October, cold weather generally pushes the majority of the birds out of the state by early October.

Horned lark, western meadowlark, brown thrasher, and several species of swallows are some of the more visible and abundant miscellaneous migratory birds found throughout the district.

8. Game Mammals

The white-tailed deer herd continues to increase in the WMD as it does throughout the state. In early March, an "informal" aerial census of deer on eight WPA's revealed nearly 400 animals. Despite long streaks of cold weather early in the winter, the deer herd overwintered well in this part of the state. Twin fawns were the rule rather than the exception with a few reports of triplets. The ND Game and Fish Department again increased the number of permits for the deer rifle season in several units in eastern North Dakota. Hunter success was the highest on record with 70 percent of hunters bagging deer. This is one of the highest hunter success percentages in the nation.

A local wildlife club sponsored a Big Buck Contest for Barnes County residents during the rifle season. The WMD was asked to be official Boone and Crockett measurers for the contest. The three top prize winners shot bucks that scored 142, 135 and 133 under Boone and Crockett scoring criteria with several other nice heads being entered, all from Barnes County.

The Valley City WMD was asked to be official scorers for a local wildlife club sponsored big buck contest. The top rack scored 145 points with several over the 130 mark. Several of the larger bucks were taken on area Waterfowl Production Areas. LAJ-1984

One of 4 active red fox dens on Stoney Slough NWR, Barnes County. With increasing concern over predation rates on waterfowl, the care free life of the fox on FWS managed land is expected to change in 1985. BAK-1984

Beaver populations remain healthy. They are concentrated along the Sheyenne River and its tributaries, but are also found in marshes, potholes and drainage ditches scattered throughout the prairie.

Muskrats are locally abundant in some of the deeper marshes that avoided freezing out in 1983. They are not as common in the drift prairie, however, as they are in the deeper potholes of the coteau region to the west of Valley City.

Red fox densities remain high in this portion of the state, with up to 12 active dens per township reported by Game and Fish aerial surveys. There were four active dens within two miles of each other on Stoney Slough NWR in southern Barnes County.

Coyote numbers continue to increase in the district, with the majority near the Sheyenne River Valley and its associated coulees, valleys and ridges. Active dens were reported by at least three different landowners near the Sheyenne. There are occasional sightings of coyotes quite far out into flat agricultural land as well, indicating the population may be expanding still further.

Other common furbearers include raccoon, skunk, mink, and badger. Several local trappers indicated they felt raccoon numbers were up considerably over recent years.

10. Other Resident Wildlife

Ring-necked pheasants are common on several WPA's, most notably those in southern Barnes and Cass Counties. Food plots, grain bales and wildlife feeders on WPA's has increased the attractiveness of these public lands to pheasants. It is not uncommon to flush 10-20 birds from such feeding sites later in the winter when snow has covered other available food sources. Brood sightings were few and far between over the summer, perhaps due to wet spring weather. The ND Game and Fish Department estimated reproduction was down 35 percent from 1983, based on fall wing collections.

Gray partridge are often encountered during field work and numbers appeared to be up in 1984. The state Game and Fish reported a 38 percent increase statewide in the spring population and reproduction was good. Much of the habitat on WPA's is actually too thick to be attractive to gray partridge. They are, however, frequently seen on WPA acreage under current agricultural use, at field edges, etc.

Sharptailed grouse occur on a few WPA's in the northern part of the WMD.

12. Wildlife Propagation and Stocking

The WMD again received pheasants from the ND Game and Fish Department. A total of 145 hens and 38 roosters were released on nine WPA's in mid April, hopefully allowing the hens to nest and successfully raise a brood of young. All roosters were banded prior to release by state personnel. This is a well received program by the public - it seems everyone enjoys seeing pheasants. We are grateful to the ND Game and Fish Department for making these birds available to us.

14. Scientific Collections

The WMD was contacted in late March by a University of North Dakota graduate student interested in harvesting convasbacks for a spring migration/nutrition requirement study. All necessary collecting permits had been previously obtained. He spent several mornings in early April at Hobart Lake NWR and the Eckelson Lakes chain with only a little luck. The bulk of the canvasbacks had already moved through and those remaining were scattered and hard to approach. He did collect a few individuals before departing for points north to continue his work.

15. Animal Control

Beaver complaints were numerous the past year, peaking in the fall as usual when they begin gathering their winter food cache. Most complaints are handled by DFA Larry Tangen. WMD staff assist on occasions where it results in greater efficiency of control efforts. Flooded cropland, plugged culverts, and loss of shade and/or fruit trees are the main problems usually associated with beaver complaints.

A depredation complaint occurred one mile from the WMD headquarters in the spring of 1984 when a farmer reported a calf had been killed by coyotes. DFA Tangen inspected the carcass, confirming that coyotes were responsible. Extensive searching failed to locate a den and a series of foggy days made flying impossible. No further kills occurred and control efforts were halted.

16. Marking and Banding

Each year the WMD bands the goslings raised at the headquarter's waterfowl display pond. This year, 16 goslings were caught, sexed and banded. Although others were raised outside the confines of the display pond, no attempt was made to capture and band these birds.

H. PUBLIC USE

1. General

The basic goal of the district has been to develop a better understanding of FWS functions, responsibilities, and goals. In conjunction with this an effort is continually made to offer and supply assistance in any resource matter. Speakers, films, press releases, appearances at public meetings such as county commission meetings, assistance to Sheriff's office and Game and Fish personnel are all in part used to accomplish this objective. The animosity or lack of understanding of FWS has noticeably decreased. Many individuals and groups who prior to this activity were either nonsupportive or outwardly in opposition to FWS programs are now publically willing to support or at a minimum willing to recognize the need and value for FWS programs. The support from the mayors of Fargo, Moorhead, and Grand Forks for the Small Wetland Program is evidence to this change. Also noteworthy is the willingness for some to publically defend the FWS as it gets wrongly blamed for things such as land grabber. Farm groups and individuals are also backing FWS position on various projects or are fully supportive and continually asking for continued assistance.

The activity has also no doubt aided in the public attitude change that we are experiencing in regards to wetlands. At most appearances and gatherings the importance and values of wetlands are discussed and is apparently successful in being a beneficial change.

2. Outdoor Classrooms - Students

The wetland manager again assisted in a Conservation Days sponsored by the SCS in September for all Cass County junior high schools including the Fargo district. The two day event included field trips with various stops to discuss and illustrate different topics including soils mapping, watershed mapping, contour farming and wildlife. Approximately 20 schools with several advanced level classes participated.

6. Interpretive Exhibits/Demonstrations

The scattered distribution of WPA's is not conducive to interpretive exhibits or displays. The headquarters area is the only suitable location for this type of public use. The "Duck Stamp Story" panel, commemorating the 50th anniversary of the duck stamp program, was received and mounted in the front lobby. A three panel display will be erected near the waterfowl display pond in 1985, depicting river valley ecology, prairie wetlands and a history of the giant Canada goose in North Dakota.

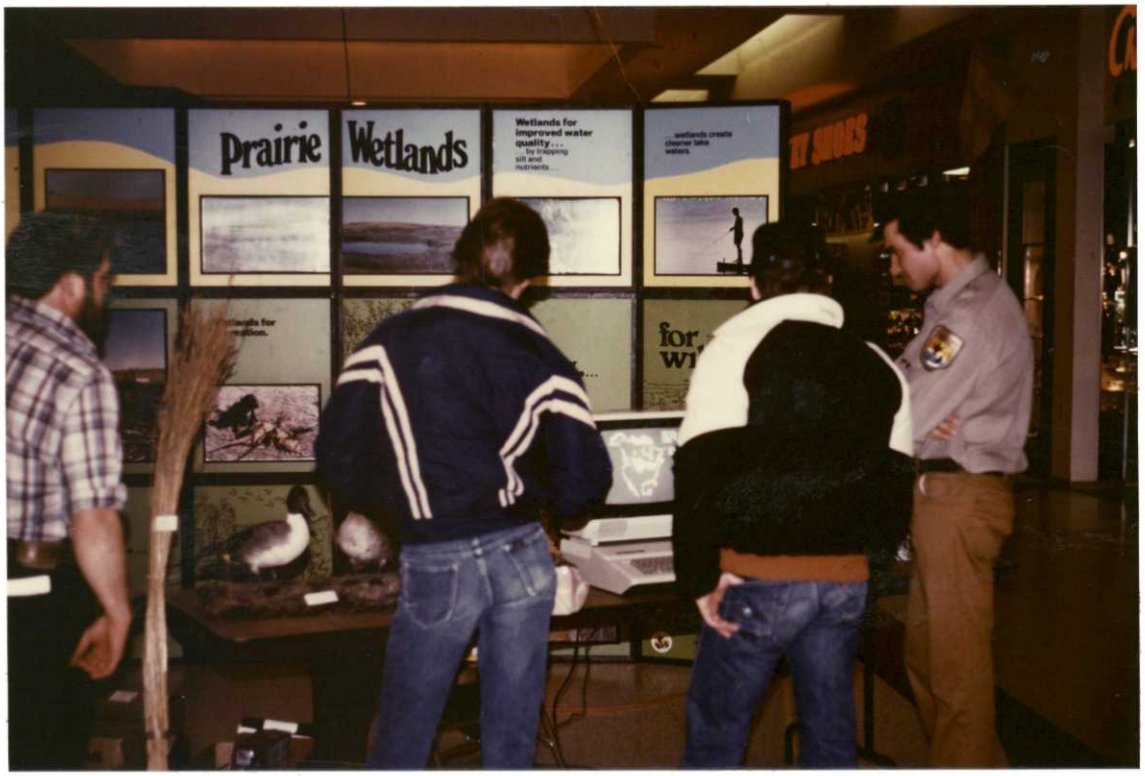
The WMD participated in Soil Conservation Week, sponsored by the SCS, manning a display booth at Fargo-Moorhead's largest shopping mall. Staff from Tewaukon NWR also participated sharing time at the booth. Included in the display were information panels describing FWS's functions in the state, mounted waterfowl specimens, native grasses of North Dakota, and computer programs depicting waterfowl migration and urban planning/wetland preservation alternatives. The display had a highly visible location in the mall and dozens of people were talked to each day with hundreds more observing one or more portions of the display. Mall figures showed nearly 50,000 people visiting the mall on the busiest day of the week. The computer, loaned by a mall department store, was easily the most popular part of the display and certainly drew people who otherwise would have walked on by. Once their attention was attracted, various resource/FWS issues could be discussed.

There is one historical marker located on a WPA (Storhoff WPA in southern Barnes County) which generates some local interest. It marks the campsite of Captain Sibley, an early Army explorer who traveled throughout the state. A split-rail fence surrounds the marker which overlooks a large semipermanent wetland on the WPA.

7. Other Interpretive Programs

Barnes County girl scouts received environmental education during their yearly three day stay at the scout camp adjacent to the WMD headquarters.

Numerous slide talks were presented to various groups in 1984 including wildlife clubs, high school and college students, state Department of Tourism guides, etc. Topics varied from wetland ecology and values, flora and fauna of North Dakota and FWS activities in the state.



FWS display booth at West Acres Shopping Mall in Fargo during SCS sponsored Soil Conservation Days. The week long display resulted in conversations with many people concerning FWS programs, resource issues, hunting regulations, etc. Approximately 100,000 people visited the mall and viewed the display. In the photo Bio. Tech. Knudsen explains use of a computer program on the flyways. LAJ-1984

Bio. Tech. Knudsen with Barnes County girl scouts receiving environmental education at Valley City headquarter's waterfowl display pond. Note Canada goose on nesting structure near center of photo. LAJ-1984

8. Hunting

Opening weekend of waterfowl season was generally slow throughout the district, due in large part to the dry conditions. Fuller's Lake and Alice WPA's, traditionally two of the better hotspots, were almost completely dry and devoid of birds. The best extended duck hunting was in western Barnes County where good concentrations were present for the opener and several thousand birds built up by late October. Private lands adjacent to Hobart Lake and Stoney Slough NWR's offered good goose hunting in late October and early November. Stubble fields were more plentiful than in recent years due to the dry fall, providing more opportunities for field shooting of snow geese, either over decoys or stalking.

Pheasant hunters were moderately successful on WPA's this past fall, reflecting the lower fall population. Heavy pressure on opening weekend quickly wisened the birds and roosters were harder to come by the rest of the season.

WPA's receive heavy use by deer hunters, during the archery as well as the rifle season. With an increased number of rifle permits this year, activity was up on several WPA's.

10. Trapping

WPA's are open to trapping, unless otherwise posted. Of the 72 management units in the district, 5 are closed to hunting (two due to their proximity to I-94 and three to protect migrating canvasbacks) and are open to trapping only by permit. Six permits were issued in 1984 including two for Hobart Lake NWR, one for Stoney Slough NWR, and one for Tomahawk NWR. Permittees are required to provide a list of animals trapped to the wetland manager after each trapping season. Most trapping activity focuses on red fox and mink with raccoons and muskrats also sought by several local trappers.

11. Wildlife Observation

There is no practical means to monitor this activity on the widespread WPA's in the WMD. WPA's offer good bird watching opportunities, particularly in the spring and fall when shorebird and waterfowl migrations are at a peak. Wildlife photography also occurs frequently on WPA's throughout the year. The waterfowl display pond at the headquarters also provides observation of Canada geese and other waterfowl in basically natural surroundings. Several hundred visitors view the pond each year.

15. Off-Road Vehicling

Vehicle trespass on WPA's is a year-round problem, reaching a peak during the waterfowl and deer gun season. Destruction of seeded grasses and flattening of residual cover are the main concerns. Bright yellow "No Vehicle" signs are placed in plain view on WPA signs. This helps to some degree, but still every year we find where vehicles drive right past such signs and onto the WPA. Where it is a presistent problem, fences are built.

17. Law Enforcement

The majority of law enforcement work, relating to public use, done by WMD personnel occurs during the waterfowl season. An anonymous tip was received by Wetland Manager Jones on the eve of the waterfowl opener concerning flagrant overbagging on Cleveland WPA in Stutsman County on past opening days. Because few waterfowl were around the Valley City area for opener, it was decided to check out activity on Cleveland WPA. Two parties of three each were cited for overbag of waterfowl, one group being 17 ducks over, the other 15 over the legal bag limit. Each party had sorted the birds they had shot, with the majority of the 32 extra ducks being shovelers left behind at or near their blinds. Fines for the two groups totaled $1,000 including a $50 ticket for one individual who had attempted to take waterfowl from their free-floating boat, a violation of state law.

Manager Jones and Biological Technician Knudsen with ducks seized on opening day of 1984 waterfowl season, Cleveland WPA, Stutsman County. Two parties of 3 hunters each were 17 and 15 ducks, respectively, over their legal bag limits. Both parties of hunters had nonselectively shot birds and when the hunt was completed, stashed the undesirables, mostly shovelers.

Photo courtesy Rich Madson, Jamestown, ND 1984

Another case was made when a local policeman observed a hunter shoot at a flock of four tundra swans for which there is no open season in North Dakota. The policeman contacted the hunter in the field to obtain the appropriate information and turned it over to FWS, resulting in a $100 fine.

Wetland Manager Jones again assisted state wardens during the North Dakota deer rifle season. Several cases were made including taking deer out of season, illegal transportation of big game animals, taking deer without a license, driving off an established trail, and several cases of loaded firearm in a vehicle.

21. Volunteers Program

Several hours of volunteer time were logged during 1984. Two members of a local wildlife club helped band 35 flax bales for distribution to various state game areas and Hobart Lake NWR. A local wildlife club continues to maintain a 20 acre food plot on a WPA in Steele County and refill a 60 bushel wildlife feeder on the area during winter months. A department store donated use of an Apple II E computer during a week long FWS display at a large Fargo shopping mall. Preparations by the Finley Wildlife Club continues for a 17,000 tree shelterbelt planting on a WPA in Steele County with plans to plant trees as they become available through the SCS.

I. EQUIPMENT AND FACILITIES

1. New Construction

A 24' x 24' mouse proof seed storage building was constructed force account during August 1984. It was made entirely of wood and several air vents placed in it to avoid condensation problems sometimes associated with metal buildings. This building will provide valuable storage space for native grass seed harvested each year by the WMD. It has been stored in round Butler bins the last several years, where handling of it is quite awkward and space limited. YCC and hatchery staff assisted in construction.

4. Equipment Utilization and Replacement

A new Truax drill was purchased for $7,000. It differs from the one bought in 1981, and still in use, in that it has a third seedbox designed specifically for seeding green needlegrass. It was used in a dormant planting of green needlegrass in November and seemed to work quite well.

Two used Army jeeps were obtained from NPWRC to be used for nest dragging. They have definitely seen their better days but proved to be generally dependable to carry out their prescribed duties.

A 1979 Ford Fairmont sedan was obtained from Arrowwood NWR to replace the 1979 AMC Hornet station wagon.

The WMD continues to await arrival of a new 4x4 Chevrolet 3/4 truck to serve as equipment hauler. Several contracting foul-ups have caused delivery of this vehicle to be delayed for nearly a year.

5. Communication Systems

Only one vehicle is equipped with a radio unit, that being a 50-watt portable state radio. It is used often during law enforcement activities and is invaluable in coordinating actions between other local enforcement personnel.

7. Other

Two new Magcharger rechargeable flashlights were purchased in 1984. One is permanently mounted in one vehicle while the other remains in the office where it can be used as needed.

J. OTHER ITEMS

1. Cooperative Programs

Work continued on documenting drainage within the watershed surrounding Alice WPA in Cass County. This is in the intensively farmed Red River Valley and drainage into the WPA has increased dramatically over the last several years. This has greatly increased nutrient flow into the water levels on the WPA, allowing cattails to proliferate into dense, monotypic stands. Once mapping of the drained wetlands within the watershed is completed, plans are to formally file complaints on all illegal drainage into the WPA.

2. Items of Interest

A field review of wetlands likely to be impacted by the proposed MANDAN powerline running north-south through eastern North Dakota was completed in August. Present for the meeting were USFWS Ecological Service biologists, personnel representing the MANDAN powerline and the wetland manager. Main concerns revolve around minimizing likelihood of powerline strikes by birds including waterfowl, cormorants and various species of marsh and shorebirds by altering structure placement or line routes.

Wetland Manager Jones acted as liaison between the Barnes County Wildlife Club and ND Game and Fish Department officials in club efforts to get a wild turkey season approved along a 35 mile stretch of the Sheyenne River. Several flocks in the valley are increasing in number with gobblers far exceeding hens and most landowners spoke positively of allowing turkey hunters on their land. The Game and Fish Department was responsive to the interest and it now appears there will be a turkey season in the spring of 1985.

Wetland Manager Jones served on a Report All Poachers (RAP) committee to create a program with a reward provision and guarantee of anonymity for the caller. He also served as Past President of the North Dakota Chapter of The Wildlife Society and as Director on the International Coalition for Land and Water Stewardship in the Red River Valley.

3. Credits

The narrative was written by Lloyd Jones and Brad Knudsen and typed and assembled by Renee Stangeland.

Field review team on the proposed MANDAN powerline consisting of USFWS Habitat Preservation Biologist Bill Bicknell, Wetland Manager Jones, and representatives from the power company and their consulting firm. Here at Willow Lake in Barnes County discussions are underway on FWS's recommendations to have the line marked to lessen bird strike mortality. The proposed route is over land to the right of the photo. Willow Lake receives high canvasback and other diver use. Note the excellent sago pondweed growth in the background. LAJ-1984

K. FEEDBACK

For the first time in seven years the FWS was able to protect a wetland in North Dakota with the Small Wetland Acquisition Program (SWAP). It is a positive action that at least the easement portion has been activated. However, the easement program is very limited and no plans or direction exist for fee purchase. Wetlands continue to be drained at a rate of 20,000 acres per year in North Dakota and no apparent plan or direction exists to initiate a more active easement program or to activate the fee option of protecting wetlands.

Also in regards to the SWAP a certain minority of special interests in North Dakota have pushed to have the FWS delineate wetlands on pre-1976 easements. Since 1976 this has been done but only a few easements have been taken. The estimated cost to map wetlands on the 11,000 contracts is $10-15 million over an extended period with a resultant loss of protected wetlands. A pilot study completed in 1984 showed almost nonexistent landowner interest and evidence that there would be a loss of protected wetlands. The FWS at present, however, has taken a position that these easements will be mapped if these special interests so desire.

This concern leads to point three which is a lack of an active public information program. Coupled with this, as the example with pre-1976 easement mapping indicates, is the willingness to appease special interests yet not equally consider other interests such as those trying to persuade the FWS to protect wetlands. The SWAP has been free to operate for several years yet no action was taken. The FWS appears to be on the defensive to any individual or group with any political ties including not having an active public information program. We seem to be willing to accept the heat from conservation organizations for not taking an active role but unwilling to stand up to any pressure from those interests opposing resource protection.

Since the phase out of Area Offices, there has been a serious loss of communications between the Regional Office and the field and between field stations. Decisions on policy, easement enforcement and other FWS activities now directed to the Regional Office, are difficult to receive. This may be the result of a lack of manpower at the Regional Office to address these issues but for whatever reason it creates problems for doing business in the field. The lack of communications between field stations has resulted in duplication of effort and lack of consistency in management efforts.

Money and manpower is adequate to accomplish much of what needs to be done. We can always do more with more and have many areas of resource management that more money and manpower would help accomplish. More and more restrictions or policy or prohibitive type directives appear to be coming down from above. More positive or offensive type directives would greatly improve the working atmosphere and allow better effectiveness and flexibility in working on resource issues.

The Ducks Unlimited operation in North Dakota is a welcomed addition to management objectives on FWS lands. The options now available for management are wide open. We now are able to consider projects and should be able to provide results that would never otherwise been available.

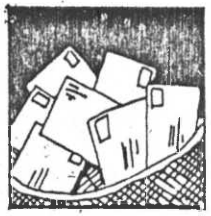
Wetland drainage on private land continues in ND at the alarming rate of 15-20,000 acres annually. This scraper was observed in action in Cass County where 95% of all wetlands have already been drained. The FWS has not had an active program to protect wetlands since 1977.

BAK-1984

rand Forks Herald, Friday, March 23, 1984

One warning on wetlands deserves another

mail bag



CAVALIER, N.D. — I think Mr. Robert Garske ("Landowners beware: Wetland buyers returning" Mail Bag, March 20) deserves thanks for his "friendly word of warning." Heaven forbid that we should allow the U.S. Fish and Wildlife Service to try saving us from ourselves through use of the dreaded conservation easement. But, before Mr. Garske's warning is accepted at face value, maybe he could address one or two pertinent questions.

As a refresher, he advises that an easement will strip the landowner of "opportunities to improve the land forever." He also suggests that landowners confer with engineers and their local water resource district to find out if easements will "hinder natural drainage" or "otherwise interfere with good farm management."

Would Mr. Garske please provide his definition of "natural drainage"? In my opinion, easements are designed to protect natural drainage from artificial manipulation. And is it "good farm management" that allows spring runoff to flow unchecked into the rivers of our state? How much valuable North Dakota topsoil has gone downstream as a result of the "good farm management" that advocates wetland drainage (improvement?) just to put one more acre under the plow?

Finally, I would ask Mr. Garske to address the impact of wetland drainage on flooding in North Dakota. Would multi-million dollar flood control structures (subsidized by taxpayers) be necessary if the capacity of lands to retain water during spring runoff was improved by maintaining some sloughs and potholes?

Thanks again for the warning, but one side of the story has been left untold.

Chuck Pederson

Cattail control study underway in local area

Valley City Times Record 8-2-84

The Valley City Wetland Management District, in cooperation with several chemical companies, is conducting a study on controlling or killing cattail in area marshes in an effort to improve wildlife use, according to Lloyd Jones, wetland manager.

The project is being conducted in order to determine what chemicals are effective to control cattails, what is the cost and how can they best be applied, Jones stated.

"The purpose," Jones said, "is to improve the marshes for wildlife use." He said that because of adjacent intensive land use such as wetland drainage, many wetlands have become cattails choked with limited value to wildlife. "If certain chemicals can create openings, wildlife use from ducks and other wildlife such as deer and pheasants in the winter will improve," he said.

The study plots where the testing will be done are located at the Sanborn Waterfowl Production Area one mile east of Sanborn and the Alice Waterfowl Production Area two miles east of Alice in Cass County. The study plots near Sanborn can be easily viewed from Old Highway 10. Monsanto, Ostlund-Chemical Co. and PBI Gordon Corporation are supplying chemicals for the testing.

Area farmers may be interested in the testing from another angle, Jones said. Because blackbirds tend to congregate and roost in thick cattail marshes, if chemicals can be found to open up these marshes, "they should become less desirable to large concentrations of blackbirds." The long-term effect may be less crop depredation, said Jones.

According to Jones, the chemicals which will be used are degradable and only affect cattails and will not harm any wildlife in the area sprayed.

Anyone wishing more information or having questions can contact the Wetland Management Office at 845-3466.

Valley City Times Record 3-16-84

Aerial deer survey nets 725 in district

The Valley City Wetland Management District recently completed an aerial deer survey on federal waterfowl production areas in Barnes, Cass, Griggs, and Steele counties. The survey found an estimated 725 deer on 12 different waterfowl production areas. According to Lloyd Jones, wetland manager, the highest area of concentration was Alice Waterfowl Production Area in Cass County with 100 deer and Fuller's Lake Waterfowl Production Area in Steele County with also 100 counted. Several areas in Barnes County had 50 and 60 deer present such as Storhoff Waterfowl Production Area near Kathryn, Goose Lake Waterfowl Production Area near Luverne and Mosher Waterfowl Production Area near Sibley.

Jones indicated that although the winter got off to a bad start in December, since that time conditions haven't been too bad for local wildlife. There were some losses to pheasants and partridge as well as a few reports of deer which had succumbed to winter storms but losses did not seem extreme. One reason deer are attracted to wildlife areas is that it may be the only habitat in the area which provides enough shelter from winter weather. Although the waterfowl production areas are bought with duck stamp money and the primary management objective is for waterfowl, Jones indicated that much can be done for local wildlife without affecting those objectives. Food plots as part of a farm cover rotation carried out by neighboring farmers, grain feeders supplied with the Fish and Wildlife Service's share of the grain and unharvested large, round baled grain are used to help both pheasants and deer through the winter.

The North Dakota Game and Fish Department has a program which will provide free seed corn to farmers willing to plant food plots on private land. Cost sharing may also be available through the ASCS office to partially pay for other expenses in establishing food plots. Anyone interested in that program can contact Sid Brashears, North Dakota Game and Fish Department District Biologist, at 845-5825.

Adults, students participate in min-classes at North Central

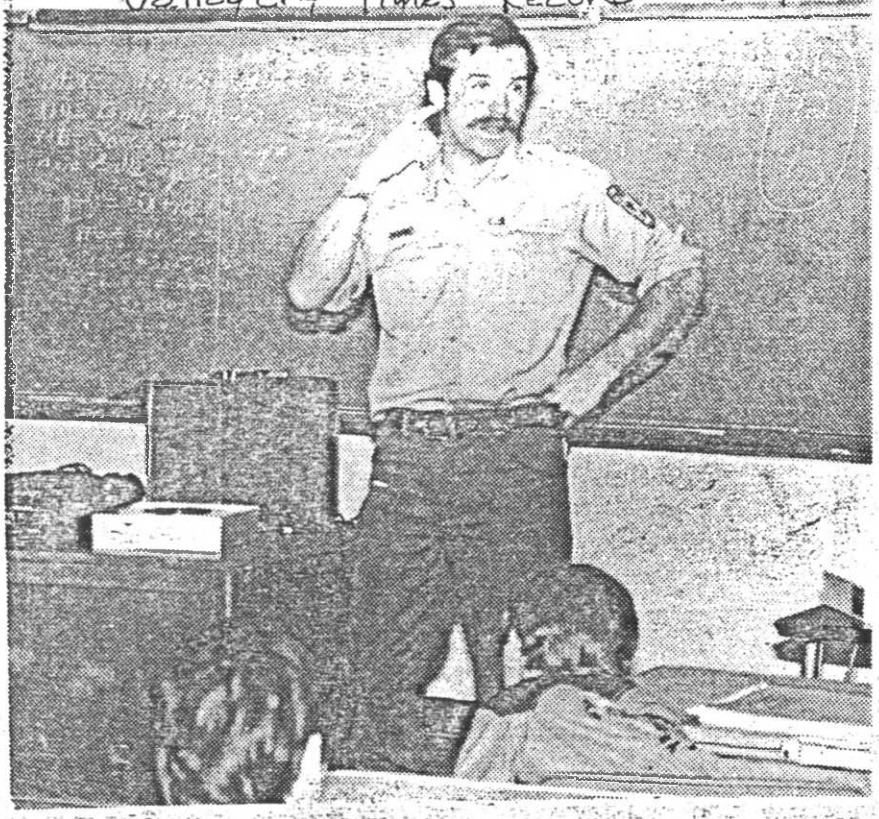
The mini-classes which were held at the North Central School near Rogers on Tuesday, Feb. 7, were well-attended, according to home economics teacher, Joyce Johnson, who coordinated the classes.

She said there were about 100 adults and 150 students who participated. This is the fourth year for the classes and it has grown every year. "People really look forward to taking classes," she said.

The project is sponsored by Home Economics Department visory Committee, in cooper with the faculty and administr: The classes were from 9:30 a. noon and from 1-3:30 p.m. There resource people from the area taught the classes to the adult students in grades 7-12.

Members of the committee i Mr. and Mrs. Carl Rogne, Daze and Mrs. Allen Marler, F student representatives Wen Rogers; Paul Sad, Daze Principal Clyde Erickson.

Valley City Times Record 2-9-84



PRAIRIE WETLANDS & WILDLIFE in North Dakota, another of many of the mini-classes at North Central, held the interest of these students who were given some interesting tips by Lloyd Jones.

RAP program takes off

Jamestown Sun 7/19/84

Officials of the North Dakota Wildlife Federation report that RAP, the cooperative wildlife enforcement program of the Federation and the North Dakota Game and Fish Department, is alive and well.

Lorne Sterner of Casselton, the Federation's liaison person with the enforcement division of the Game and Fish Department, reports that one case each in April, May and June have resulted in convictions and rewards paid to cooperators. RAP is intended to encourage private citizen reporting of game and fish violators. Individuals can remain anonymous and still reap the financial rewards.

The case in April brought a Cavalier County cooperator $100 for information leading to the conviction of a gratis license turkey hunter who shot his bird on land other than his own and failed to tag the bird to boot.

Another case in May involved the shooting of a hen turkey out of season. Information was forwarded to the district warden and the defendant plead guilty. The RAP cooperator picked up $100.

A case at Camel's Hump Dam in western North Dakota in June involved a number of fishing infractions where ultimately four citations were issued to two individuals. The Federation deemed this case unusual enough to award the anonymous called with $150. In addition to fines and court costs, the judge in this case also ordered the defendant to donate $100 to the RAP program.

Presently four other RAP cases are pending involving illegal shooting of deer, turkeys and waterfowl.

Ray Goetz, chief of the Game and Fish Department's enforcement division, said his entire staff is impressed with the potential of the RAP program and especially the public's interest in taking game and fish violators to task. Goetz said part of it might be the reward incentive, but much has to do with providing a clear route for the public to take in reporting violations.

Sterner said the Federation's reward fund stands at approximately $3,800.

HOBART LAKE NATIONAL WILDLIFE REFUGE
BARNES COUNTY, NORTH DAKOTA

1984 ANNUAL NARRATIVE REPORT

Hobart Lake NWR is a 2,077 acre easement refuge located five miles west of Valley City. Of the total, 245.89 acres is owned in fee title by the FWS with the remaining acreage covered by easement rights. These easement rights give the FWS control over the taking of all wildlife and also implied water rights. Hobart Lake is actually divided in half by I-94 with the south end being somewhat fresh from the many springs and the north half being alkaline fed only by precipitation and local runoff.

Ten flax bales were distributed around the perimeter of Hobart Lake during the winter of 1984 to serve as goose nesting structures. No nesting use was documented, but ducks were occasionally seen loafing on the bales during the summer.

For the second year in a row, the portion of Hobart Lake north of I-94 was dry by mid August. Migrating waterfowl utilized the southern portion of the refuge, with 4,000 snow geese present in late October. Stubble fields on private land near the refuge provided good opportunities for goose hunting.

Boundary sign checks and hunting enforcement were the only other management practices conducted during 1984.

SIBLEY LAKE NATIONAL WILDLIFE REFUGE
GRIGGS COUNTY, NORTH DAKOTA

1984 ANNUAL NARRATIVE REPORT

Sibley Lake NWR is a 1,077 acre easement refuge located 45 miles northwest of Valley City. The FWS does not own any land or make any improvements on the refuge but has easements granting perpetual flowage and refuge rights. Refuge rights are related to restrictions on hunting, trapping, and unauthorized entry. The area has one large 525 acre fresh water type IV marsh that provides excellent migratory bird habitat.

Boundary posting was checked prior to the waterfowl season. This area usually has 2,000 to 3,000 snow geese present for the opening of waterfowl season. Very few were present this year, however, and the area received little hunting pressure.

STONEY SLOUGH NATIONAL WILDLIFE REFUGE
BARNES COUNTY, NORTH DAKOTA

1984 ANNUAL NARRATIVE REPORT

Stoney Slough is a 1,908 acre refuge partially owned in fee title and the remaining area covered by refuge easement. The 1,260 acres managed by FWS has potential for both water and upland management.

The wetland areas on the refuge cover approximately 600 acres in four permanent pools and two temporary ones. Water management is possible by regulating water flow on a natural coulee by means of a slide gate. This diverts water through a temporary wetland and into the chain of four permanent pools. Water is then trapped in one temporary wetland by a stoplog structure and held back in the second temporary wetland by the slide gate.

Water levels were kept as high as possible in 1984 without causing problems to adjacent cropland and pasture to provide breeding pair and brood habitat. It was drawn down completely in late October and all stoplogs removed for minor repair.

Two single species native grass stands on the refuge seeded in 1983 were harvested in 1984. This included 14 acres of Pierre sideoats grama and a portion of a 20 acre field of big bluestem.

No geese were present in early October, but built up to about 8,000 for several days in late October (1,000 Canada geese and 7,000 snow geese). Local hunters enjoyed some successful decoy hunting during this part of the season.

TOMAHAWK NATIONAL WILDLIFE REFUGE
BARNES COUNTY, NORTH DAKOTA

1984 ANNUAL NARRATIVE REPORT

Tomahawk NWR is an easement refuge covering 440 acres of which 300 acres is an impounded permanent wetland. A fixed spillway controls the maximum water level.

Waterfowl use on the area is limited to production with slight use during migration. The area is surrounded by overgrazed native prairie but it does seem to provide adequate nesting habitat for blue-winged teal.

One trapping permit was issued to a local trapper in 1984 who caught one mink and one muskrat.

Tomahawk dam was inspected by Regional Office engineers in 1982 with their report finalized in 1984. The dam was found to be in good shape with recommendations to remove several Russian olive and willow trees on the upstream and downstream sides of the structure to halt possible weakening of the spillway through root growth, heaving, etc. This will be accomplished in 1985.