NARRATIVE REPORT

1988

AUDUBON WETLAND MANAGEMENT DISTRICT
AUDUBON GARRISON WETLAND MANAGEMENT DISTRICT

COLEHARBOR, NORTH DAKOTA

A. HIGHLIGHTS

This year saw the worst drought since 1936 (Section B).

Nineteen easements comprising 971 wet acres were protected. (C.3).

Wildlife extension program, drained wetland restoration and straw nesting bales placed on private lands continued for the second year (F.1).

Drought continues (11/86 to 2/87 and 9/87 to 5/88) wetlands mostly dry (F.2).

Farming for DNC or native prairie (NP) establishment on 32 acres (F.4), interseeded 23 acres of DNC and 32 acres of NP, grazed 4,871 acres (F.7), haying on 1,170 acres (F.8) and prescribed burning on 251 acres (F.9).

Land use reflects reduced farming, implementing interseeding for grass rejuvenation and continued increased grazing, haying and burning (F.1).

Duck numbers and production continue low for the fourth year (G.2).

B. CLIMATIC CONDITIONS

Drought was the word in 1988. Appended to this report are excerpts from the COE's 1988-1989 Annual Operating Plan [1] pertaining to the extreme drought conditions that existed during 1988. Extreme drought prevailed throughout the district. 1936 was the driest year; however, 1988 was the hottest year since 1931 in the Missouri River Basin. By contrast at Minot, there have been seven years dryer than 1988 and four hotter years according to Minot Experiment Station records. 1987 was overall hotter than 1988 in Minot.

Fall, 1987 was excessively dry. From December, 1987 to March, 1988, winter conditions were relatively mild. Although 32 days had daily lows below zero (normal), the daily high was below zero only 9 days during January to February at Max, ND. Snow was on the ground continuously only from 1/12-2/27. A March blizzard dumped 14 inches of snow.

Severe drought prevailed by spring, which was one of the hottest and driest of record with about 50% of normal precip noted in the WMD. At Minot, the total snowfall during the winter of 1987-1988 was 18 inches, normal being 36.6". Winter moisture (September, 1987 through March, 1988) totaled 2.35" which is significantly less than average at Minot. March precip at Minot (1.3 inches) was more than double the average (.65 inches). March snow totaled 7.5 inches, exceeding 6.2 inches average. It was windy in March and

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[1] 1988. Anonymous. 1988-1989 Missouri River Main Stem Reservoirs Annual Operation Plan and Summary of Actual 1987-1988 Operations. U.S. Army COE, Mo. Riv. Div. 107pp. Nov, 1988. p33-38.

warmer than average. No precip was received in the Max - Garrison area from 3/30- to 5/1. Seeding oats near Coleharbor started on 4/11 - an early date.

Drought further deteriorated wetlands and the blistering heat and low precip were records during May-July. Unusually warm temps occurred May through August with +100° F. days on 9 days and +90° on 25 days. There were 5 days above 100° F. at Max during June, which is unusual for that month. The 6/27 high of 107° F. tied the month of June's all time record set in 1921 at Bismarck. Two tornadoes on 6/20 destroyed buildings about 11 miles south of Kief.

Sheridan county suffered a 80-90% crop loss. 75% of small grain farmers did not harvest grain. Ranchers suffered 70-80% loss of range production. A rain of 1.37 inches fell on 6/30 but heat and drought returned in July. Grain further deteriorated as did pastures. Topsoil and subsoil moisture was the driest since 1950 records started.

In August, the small grain harvest in Sheridan county was completed in record time and the earliest harvest since 1976. Dry soil moisture going into the winter of 1988-89 was a major concern.

The last killing frost (below 28° F.) was on 4/27 and the first fall frost occurred 10/23 at Max and the growing season was 180 frost-free days. Type IV's first froze on 11/9, slightly late. Due to moderate temps, Lake Audubon remained open to 11/17, which is about average (11/24).

In December, the light snow cover was lost due to temps in 50's. Ice fishermen were warned in the media of dangerously thin ice as winter seemed to be coming reluctantly. Two drowning incidents occurred in the district - one in March in Brush Lake near Mercer when an elderly Mandan couple drowned due to water kept open by an aerator and a second incident in December on Audubon NWR (see refuge NR) when two elderly Hensler men drowned when they drove into one of the ice cracks caused by relatively warm temps.

December was one rare month of 1988 when precip was above normal, measuring 1.19 inches compared to an average of 0.53 inches. Most was from the 11.8 inch snow received - more than 7 inches in one storm and double the average of 6.2 inches.

Total snowfall during 1988 at Max was 32 inches and 36.1 inches was received at Minot (36.6" average). Total precip at Max was 9.8" and Minot's 11.4 inches total was 31% less than average (16.5").

C. LAND ACQUISITION

2. Fee Title

We found the Sheridan County Commission to be very cooperative concerning the proposed acquisition of the 1,000+ acre David Tessman property in east central Sheridan County.

In 1987, the Ward County Commissioners approved a fee purchase in the gooseneck (north area) which indicates a favorable climate for future acquisition in the county. No other fee purchases have occurred and basically no fee acquisition is occurring.

A fee donation tract in Sheridan County of about 335 acres was being processed by Realty from the Small Business Administration on a tract that was forfeited as collateral on a SBA loan.

Due to 1987 acquisition of the Falkirk WPA in exchange for easements M188X and 198X, wet easement acres were reduced 35 acres for the district effective 10/30/87. This WPA's 160.14 acres is added to McLean fee totals below. Also, the Kjallberg fee tract in the Ward County 'gooseneck" reduced wet easement acres by 19 acres and is included in the below figures. The 617 fee acres in the gooseneck are assigned to Lostwood WMD for management.

Fee Acres - Audubon WMD

County	Acres	BLM Withdrawn Acres	Total Acres
McLean	3,907		3,907
Sheridan	7,086	128	7,214
Ward	5,868	40	5,908
Total:	16,805	168	17,029

3. Easements

Easement acquisition continued with willing sellers. Under the FWS Wildlife Extension Program six easements were purchased as a condition of signing up under the Wildlife Management Agreement (WMA): four Haugen easements (FY 1987) and Wickman easement (FY 1988) (see Wildlife Extension in Section F.1). Unfortunately, three other piggyback contracts were canceled since the landowners turned down the easement offer. Also, during FY 1987 and 1988, 3 and 16 wetlands, respectively, were restored under Extension and the basins then permanently protected when the new wetland easement was purchased on those basins. Three added easement acquisitions are pending (Reiswig, Schilling and Wahl) and they include five ditch plugs built in 1988. Costs run about $150/ditch plug. District easement information is as follows.

Wetland Easement Acres

Fiscal Year	McLean		Sheridan		Ward		WMD Total	
	No.	Acres	No.	Acres	No.	Acres	No.	Acres
1978*	326	17,043	268	23,463	464	33,353	1,058	73,859
1985	5	184	5	368	5	298	15	850
1986	12	737	1	212	3	149	16	1,098
1987	0		4	348	3	124	7	472
1988#	+6	448	4	335	+9	+359	+19	+971
1988#	-2	-35			-1	-19	-3	-54
1989**	7	296	4	155			11	451
Total Acquired	353#	18,502#	286	24,881	484	34,296	1,123	77,679
Goal		52,260		41,178		39,407		132,845
Balance		33,883		16,452		5,111		55,446

* 1963 to 1978 totals, no acquisition from 1978 to 1984.
** FY 1989 to date.
# Note: easement numbers and acres reduced as shown in McLean and Ward Counties by Falkirk Mine exchange and Kjallberg acquisition, respectively.

Figure 1. Former wetland easement M198x being mined. 11/2/88. (16-88-20, HCH)

Figure 2. Falkirk WPA fee exchange received for M188x and M198x. 11/2/88. (19-88-20, HCH)

Figure 6. McClusky Sportsmen place flax goose nesting bales. (12/87. 16-87-37. RA)

1985 Farm Bill.

In administering the 1985 Farm Bill in the district, we observed 11 potential drain areas, reporting 3 to McLean and one to Ward County ASCS. In spring flights we observed and reported 3 to Ward ASCS. All reported were scraper ditches draining Type III or better wetlands. The remainder were in cropland and likely were ditch cleanouts and not reported. In 1986 and 1987, we reported 34 and 14, respectively, of which most were plow furrows and all apparently dropped by ASCS. Most cleanouts are approved by SCS in advance and are not a violation of the Farm Bill. In 1988, Ward ASCS advised that none were seeded to commodity grains; therefore, the landowners were not violating the bill.

The Myron Diterle commencement hearing was held to finish a 12' deep by 30' wide by 250' long ditch. The remaining wetland values comprised a 5 acre saline area and we did not recommend denial. The David Tessman commencement is pending. This involves requests to continue drainage on about 51 wetlands on portions of 10 sections of land. Initially, they submitted a "shopping list" of 79 wetlands for commencement determination, 43 of which no drainage had begun, they just wanted to drain them now. We will recommend denial on several. At the John Novodvorsky commencement we recommended denial since he did not actively pursue drainage since he has owned the land (1978); however the ASCS committee, in an appeal hearing, reversed their earlier ruling and granted his commencement. FWS appeal of this last decision was again denied by the county committee. Three other commencement hearings were attended in Ward County, 2 were approved and one denied.

The ASCS/SCS wetland classification process was completed in Sheridan County and is now being done by the Turtle Lake SCS for southern McLean County. Their methodology is seriously flawed and some wetlands are not determined to be a wetland. The ditches may or may not be found on the ASCS aerial slides which are taken in July each year when ditches are not present. No ground verification is routinely scheduled. ASCS, in some cases, uses the landowner's verbal verification of any ditches being present as the final word. No effort is made to determine depth of existing ditches and preserve remaining wetland values that technically are protected by the swampbuster provisions.

This is true for Type I wetlands which most landowners don't understand or agree that they are wetland. Notes on pintail habitat indicate that they are attracted to sheet water in typical Class I wetlands. Temporary wetlands have never ranked high in preservation efforts.

The ASCS/SCS ditch cleanout approval process will continue to allow loss of Type I wetlands. The procedure is that the landowner requests to clean out a ditch from ASCS, no verification is made of depth of the ditch, either before or after cleanout, and the landowner does the work unsupervised. The remaining wetland values which are protected by the swampbuster provisions will be lost, since no one monitors the cleanout or enforces the law.

The ASCS swampbuster compliance monitoring process is seriously flawed in that the staff in ASCS checks a small sample using ASCS slides taken during July when the ditches haven't been dug yet. The staff person is inexperienced in identifying ditches on the slides and has not been out in the field at all. For example, Ward ASCS has 2,200 producers and spot checks 10-15% for compliance, they also spot check 10% for ACP and CRP compliance. With no field checking, they simply check acreage on photos and mark fields on maps and list acreages on forms.

On 5/5, we reported 80+ acres of sodbusting in 4-151-83 involving breaking sod on the steep slopes at slough margins. Apparently the producer is not in the farm program and is not subject to the law.

CRP Activities

The activities in the district are summarized below showing a total of 201,764 acres has been signed up in the district by ASCS. The sixth and seventh signups occurred during 1988. Haying during the drought was permitted on CRP. If the landowner donated the hay, he retained his annual CRP payment. Haying due to the drought emergency had severe impact on ground nesting birds dependent on this habitat. These areas had no cover before CRP (cropland) so basically the nesting cover established was delayed up to 4 years (1987 - 1990) before wildlife cover became available.

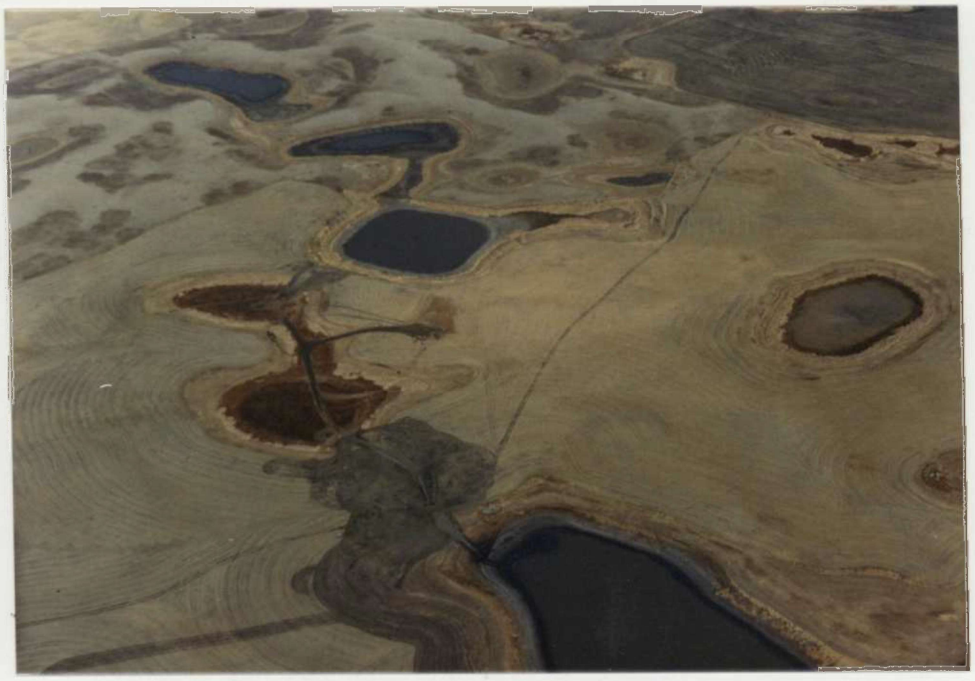

Figure 7. Wetland drainage on private lands reported to ASCS for potential swampbuster violation in NW 32-154-84. (11/88. 19A-88-21. RA)

CRP SIGNUP

County	Signup Acres		County-Wide	
	No. 1-6	No. 7	25% Cropland	Balance Avail.*
McLean	71,207	24,895	224,765	153,557
Sheridan	44,930#	11,916	91,086	46,155
Ward	34,361	14,455	234,372	200,010
Totals:	150,498	51,266	550,223	399,722

Number 5 in state.
* After 6th signup.

County	HAYING ON CRP		HAYING ON WATERBANK			
			Total		Hayed	
	Contracts Hayed	Acres Hayed	Contracts	Ac.	Contracts	Ac.
McLean	93	4,842	30	4,523	19	1,173
Sheridan	72	6,659	36	6,563	28	2,190
Ward	77	10,969	15	2,412	7	453

2. Wetlands

No management of water is done on the 6,260 acres of natural wetlands. Winter moisture was significantly below average (see Section B), and with mild, dry conditions, wetland conditions were poor during spring migration. Moisture conditions were poor and drought prevailed from 11/18/86 through 2/24/87 and from 9/28/87 through 5/1/88. No moisture was received during April in the Max or Garrison areas.

Snow accumulations melted rapidly with moderate temps. During the 4/88 easement flight, wet conditions were noted in many areas but dry conditions were noted in east central McLean and west central Sheridan Counties. Lake Audubon was ice free on 4/12 and Type IV wetlands were open on 4/6.

Many moderate size IV's were dry in widespread areas by November, 1987, thus wetland conditions were poor for spring, 1988. Type IX (saline) were dry near Ryder coming into 1988 also. By 4/1 some Type IV's were open; however, most III's were dry and all I's were dry (except those with a watershed & some runoff). These normally provide early migrants with needed sheetwater to initiate nesting. This was the driest spring since 1981. In the spring, IV's were generally down 2' from maximum (highest high water) and down 1' below recent years. Last spring was relatively dry at this time also.

By 4/18, small type III's that had previously held some water were drying and they were completely dry by 5/25. The Weltikol saline Type X wetland was 80% dry on 4/13. By 5/11, all type III's were dry on the Kruger Lake and Rovig 4 mi² plots. Birds were concentrated on some IV's and V's - likely many were non-breeders. The dry beds of some IV's were seeded to oats or sorghum for hay by landowners.

By 5/26 in the area from US 83 to Ryder along SR 23, most IV's still held water but were down 1-1/2'. Type V's were down 2'. From Ryder to Makoti, there were several dry IV's (same ones dry in 1980) but the conditions for ducks were not too bad since good complexes of IV's exist in this area. The 6/7 algal blooms seemed early?

By 6/24, 80% of the 300' diameter IV's were dry in the Ryder to Makoti area along SR 23. Most IV's were dry from Mercer east to central Sheridan County. Kandt Lake in 13-150-77 was dry and salt was blowing out of the lake bed in dust storms (see Figure 21). Large IV's were dry south of Pickardville.

"Windshield" surveys of wetland conditions found most Type IV's had disappeared by summer. For example on September 7 in the area from Turtle Lake to central Sheridan County along SR 200, 108 of 116 basins (93%) were dry. Only 8 basins held water; these were down about 1-2 feet (60-80% wet).

On 9/26 a windshield survey of wetlands through Sheridan County along SR 200 found only 21 large wetlands (V's) with water and they were down an average 2' from normal (60% wet). This was about one wet basin per mi².

During the 11/88 easement flight virtually the entire district was 95-100% dry except good water (60% wet) was found in the Spring Lake and the west portion of Rushville Townships area near Day, Field, Knudson and Albertson