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NORTHWEST MONTANA WETLAND MANAGEMENT DISTRICT

Kalispell, Montana

Annual Narrative Report
Calendar Year 1978

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

Northwest Montana Wetland Management District
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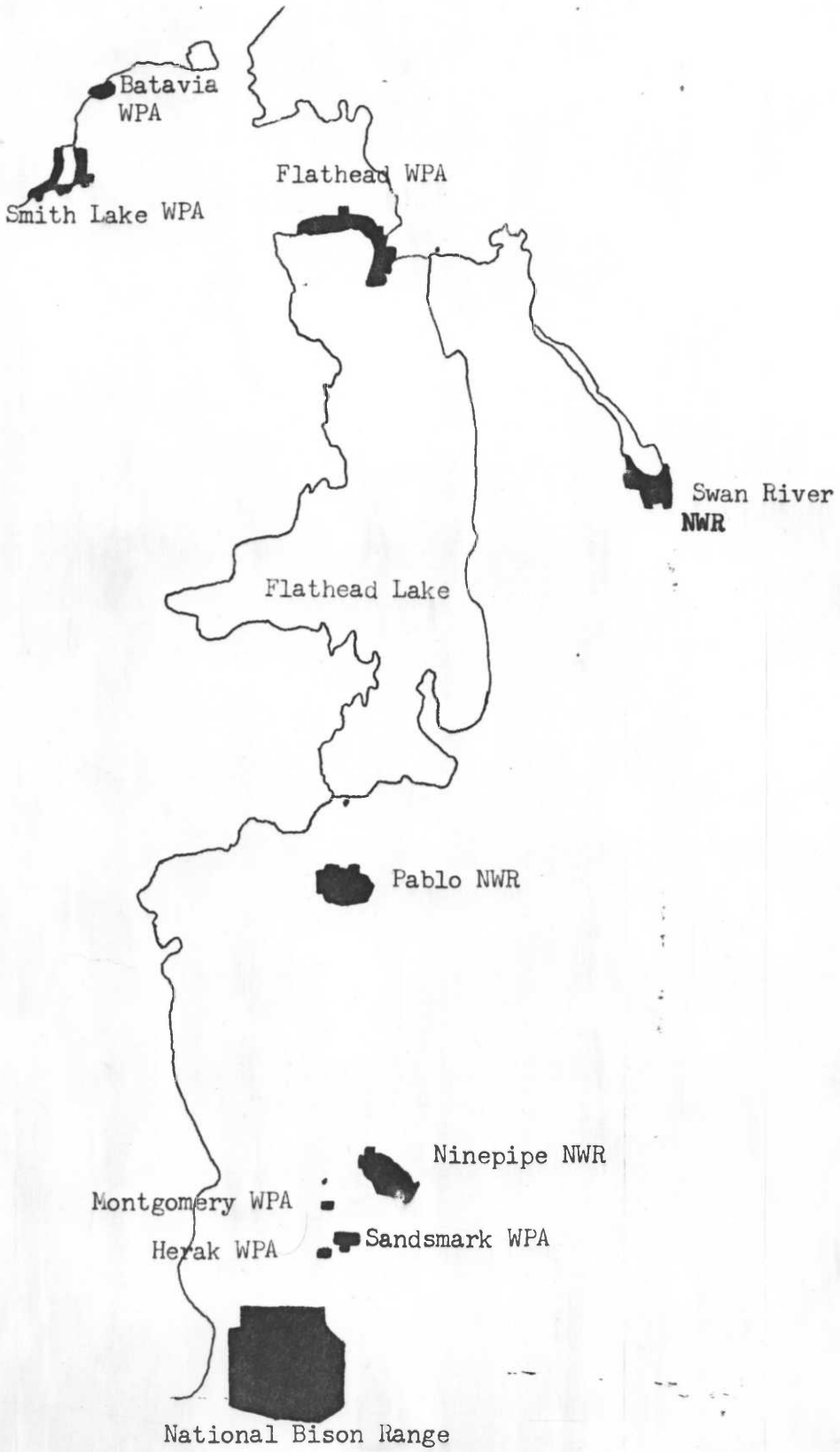
LOCATION MAP



PERSONNEL

Permanent, Full Time

Robert C. Brown, Refuge Manager	GS-12
*Milton K. Haderlie, Assistnat Manager	GS- 9
Gary A. Hagedorn, Assistant Manager	GS- 9
**Joseph R. Quiroz, Outdoor Recreation Planner	GS- 7
***Robin Magaddino, Assistant Manager Trainee	GS- 5
Susan I. McCollum, General Clerk	GS- 5
Victor B. May, Maintenance Foreman	WS- 6
Grant Hogge, Engineering Equipment Mechanic	WG-10
Ernest W. Kraft, Maintenance	WG- 9

Permanent, Subject to Furlough

Edward G. Krantz, Maintenance	WG- 7
****William J. Lampshire, Maintenance	WG- 7
Robert L. Middlemist, Maintenance	WG- 7

YACC Employment

Shelly J. Kerr - E.O.D. - 11-6-78
Bernard L. Hertz - E.O.D. - 11-13-78

*Transferred to Kofa Game Range - 10-22-78.
**E.O.D. - 4-2-78
***Promoted to Assistant Manager - GS-7 - 12-17-78
****Retired - 7-19-78

Review and Approvals

Robin Magaddino, Acting Manager — Submitted by — Date 2/22/79

Area Office — Date 3/16/79

National Bison Range — Refuge

Regional Office — Date 3/25/79

Complex Office

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I. General

A. Introduction

The Northwest Montana Wetland Management District is comprised of six fee Waterfowl Production Areas in Flathead and Lake Counties. The total acreage of 4,473.35 includes 3,913.35 acres in Flathead County and 560 acres in Lake County.

The substation office is located at Kalispell, Montana 100 miles north of the Bison Range.

B. Climatic and Habitat Conditions

One hundred six inches of snow fell in the Flathead Valley between November, 1977 and March, 1978. The heavy snow accummulation coupled with good spring and summer rains filled potholes, produced excellent stands of tame and native grasses, replenished soil moisture, produced excellent crops, and in general gave good habitat conditions throughout 1978.

October through December was dry and cold leading us into 1979 with a completely opposite trend from 1978.

The 1978 climatological data for Flathead County WPA's indicates totals of 18.58 inches (average - 19.19) of precipitation, with temperature extremes of 95° in July to -31° in December. Refer to the climatic conditions section of the National Bison Range report for data on Lake County WPA's.

The rate of erosion on Flathead WPA declined in 1978. Water level of Flathead Lake were generally lower than recent years. Minimum water elevation of Flathead Lake was 2,883.34 feet on March 10th. The peak water elevation was 2,893.08 feet on June 25th. By the end of December the lake had receded to a water elevation of 2,887.83 feet. Flathead WPA extends along the north shoreline of Flathead Lake a distance of five miles and is greatly affected by the lake level manipulation of Montana Power Company.

Water levelsof Smith Lake were unusually high through fall 1978. The canary grass meadows surrounding the lake which are usually used for hay production remained flooded. The unusual extended flooding situation could reflect the wet weather conditions or siltation of the

creek channel which was dredged in 1929. The meadows may be returning to their original lake type character.

Heavy canary grass and bulrush stands choked the marsh units of Batavia in 1978 reducing the waterfowl use of the area. Annual drainage and mowing of the marsh units may be renewed. A claim by neighbors that the dam at Batavia was flooding their land proved false as the problem apparently stemmed from abnormal ground water levels. Refer to 1978 water control record for Batavia WPA for additional information.

Lake County wetlands were all filled by runoff water.

The ice was gone from all WPA's by March 30. The units were refrozen by November 10, 1978.

Climatological Data - 1978
From Creston Agricultural Experiment Station
Flathead County, Montana

1978	Temperature - °F			Precipiatation	Snowfall
	High	Low	Ave.		
January	41	-16	21.7	2.15	30.1
February	45	-6	26.1	.99	16.5
March	65	-5	34.4	.73	5.3
April	69	22	43.7	2.54	1.5
May	72	29	48.1	3.56	0
June	89	35	59.1	2.63	0
July	95	40	64.5	1.26	0
August	94	38	62.1	.80	0
September	85	28	53.7	1.90	0
October	67	21	43.7	.15	0
November	62	0	27.2	.96	8.25
December	41	-31	18.8	.91	18.75
			Totals	18.58	80.4
Extremes	95	-31	29 year Average - 19.19		

C. Land Acquisition

There were no additions to the land inventory of Northwest Montana WMD in 1978. Active acquisition is planned to be resumed in 1979.

The wetland complex is comprised of the following fee areas:

Batavia WPA	Flathead County	509.98 ac.
Flathead WPA	Flathead County	2,370.84 ac.
Smith Lake WPA	Flathead County	1,032.53 ac.
Herak WPA	Lake County	80.00 ac.
Montgomery WPA	Lake County	80.00 ac.
Sandsmark WPA	Lake County	400.00 ac.

D. System Status

Land use planning and fund distribution has focused on maximizing waterfowl production of the fee areas. Emphasis on development and management of the land base for waterfowl has taken heavy precedence over public use of economic activities.

Formal objectives for the PPBE process need to be updated.

Funding and manpower allotments are appropriated from the National Bison Range budget. The Migratory Bird allotment for the Bison Range is divided among three waterfowl refuges and the WMD.

An assistant manager stationed near Kalispell is assigned to Northwest Montana WMD and Swan River NWR. Other personnel are assigned jobs on the sub-stations of the Bison Range as time, funding and priorities allow.

II. Construction and Maintenance

A. Construction

One quarter mile of fence was built at Smith Lake by a Forest Service YACC crew.

B. Maintenance

Severe erosion around the dam at Batavia required rip-rap placement around the dam.

Four miles of old exterior fencing were removed from Smith Lake WPA.

The Army Reserve again removed abandoned car bodies from Smith Lake.

Three buildings were sold and removed from Smith Lake WPA.

YACC crew, from nearby Forest Service Camp, getting instructions from Ed Krantz before construction of ½ mile fence on Smith WPA. GAH - 78

Several goose nesting structures were placed on Flathead and Smith Lake WPA's. All new and old artificial structures were repaired and filled with vegetation by students of the Outdoor Club of Flathead High School in Kalispell.

Crew placing large round hay bales on Smith Lake WPA utilizing snow cat borrowed for S.C.S. GAH - 78

C. Wildfire

A fire control plan was prepared and submitted for the WMD.

A. Croplands

The sixty-acre farming unit at Batavia was planted to spring barley in 1978. In future years the amount of grain will be reduced. Twenty acres will be converted to dense nesting cover, twenty acres will be summer fallowed, and twenty acres will remain in grain. The supplemental feed is considered necessary because of the general lack of feed in the area. The permittee was given canary grass hay at Smith Lake in exchange for the farming.

A farming agreement was initiated at Flathead WPA. Forty-five acres of poor nesting cover will be farmed for two years as supplemental feed and later replanted to DNC.

A thirty-five acre tract at Smith Lake will be farmed for the same purpose.

These food plots could prove very useful to migrating birds because of the general lack of food around many of our wetlands. Surrounding crops at Flathead WPA are not a problem but depredation complaints should be reduced.

Ninety acres were summer fallowed at Sandsmark WPA to control whitetop. The unit will be planted to DNC in 1979. One hundred fifty acres remained in grain.

B. Grassland

A grassland management plan was written for all WPA's.

SCS and FWS range conservationists evaluated the native grass portions of the WPA's.

Most areas are no longer in native vegetation because of previous land use practices. The native range was in high fair condition with an upward trend. The natives will be managed toward an excellent climax vegetation.

Non-native grassland will be managed to provide good nesting cover.

Before FWS - Old cropland on Batavia WPA showing poor condition of land in April 1975. GAH

After FWS - Unit was planted to DNC in 1976. Dry year 1977 didn't give much hope but the wet year in 1978 produced excellent growth. GAH

Robel transect readings indicated all nesting cover except DNC and some natives was in poor condition. The heavy snow cover which flattered most of the vegetation was the main contributor to the poor readings.

Native grasses are making a good comeback on Batavia WPA, management will be directed to favor these small areas. GAH - 78

The canary grass meadows of Smith Lake which are subject to annual spring flooding were not hayed in 1978. A bid invitation was issued, but money was refunded because the water never receded from the meadows. A cooperator did manage to bale a few of the large (1,200 lb.) round bales which have proved effective as economical nesting structures for geese at Smith Lake.

Eight thousand musk thistle weevils were planted on Batavia WPA to help provide a biological control for this hardy plant.

Whitetop was sprayed on Sandsmark, Herak, and Montgomery WPA's, this is our worst pest plant.

C. Wetlands

All units were filled completely by runoff and no water manipulation was required. Additional water was to be turned into Batavia WPA from Ashley Creek but flooding complaints from a landowner upstream prevented this.

D. Forestlands

Numerous requests have been received to harvest Christmas trees at Smith Lake WPA. No permits have been issued to date, however. The tract consists of 120 acres of Douglas fir-pine forested upland which we hope to trade for more wetlands in 1979.

IV. Wildlife

A. Endangered and/or Threatened Species

The placement of the bald eagle on the endangered list caused Flathead WPA to receive more recognition in 1978. Two thousand use days were recorded for bald eagles in 1978 on the WMD most of which were on Flathead. One nesting pair fledged three young on the delta islands of Flathead WPA. Another pair one mile north of the WPA raised two young to flight stage.

The annual but unusual influx of bald eagles to the Flathead Valley during the fall kokanee salmon run has become a well known phenomenon of the area. Over six hundred fifty bald eagles were counted along a two mile segment of McDonald Creek in Glacier National Park during November.

Osprey are also relatively abundant on the near Flathead WPA. Twenty-six osprey nests on Flathead WPA, a total of 6,200 use days were recorded. Osprey nest are numerous upstream long the Flathead River north of Flathead WPA.

Ninety use days were recorded for prairie falcon on the WMD. No peregrines were sighted this year.

B. Migratory Birds

1. Waterfowl

Canada goose production of the Flathead Valley continues to increase. Monitoring of the valley goose population has been thorough over the last three years as a cooperative study between the Montana Fish and Game and the FWS continues.

The only significant change to waterfowl production or use patterns was a large increase in the number of migrating mallards which stage on Flathead WPA during the fall. Most of the increase is attributed to the state closure of the west one-third of Flathead WPA. Two years ago when the closure was initiated it received severe criticism from some local sportsmen. These same hunters are now lauding the closure because the hunting success and duration of good hunting have increased dramatically.

Although artificial nesting structures are no longer encouraged by the FWS, nesting Canada geese have benefited greatly from the structures in the valley. The production of one marsh increased from zero to fifty birds in two years, thanks to the efforts of local sportsmen groups. As the delta islands of Flathead WPA erode the geese seem to be depending more on artificial structures.

Breeding Pair Summary
1978

Species	Batavia	Flathead	Smith	Herak	Montgomery	Sandsmark	Total
Coot	22	1	64	1	20		108
C. Goose	2	20	20		1		43
Mallard	14	15	36	10	10	6	91
Gadwall	2	1	9	1		1	14
Pintail	1		3				4
GW. Teal	2	4	4				10
BW. Teal	4	4	26	6	2	4	46
A. Wigeon		3	13				16
Shoveler	2	2	2			4	10
Canvasback			8		2		10
Wood		1	2				3
Redhead	3	5	18			2	28
Ringneck	2		26				28
L. Scaup	1		2				3
Ruddy			3				3
Total	55	56	236	18	35	17	417

Estimated Production
1978

Species	Batavia	Flathead	Smith	Herak	Montgomery	Sandsmark	Total
Coot	30	2	100	2	28		162
C. Goose	5	91	30		5		131
Mallard	50	50	150	25	25	15	315
Gadwall	5	5	30	5		5	50
Pintail	5		10				15
GW. Teal	5	15	15				35
BW. Teal	10	15	120	15	5	10	175
A. Wigeon		10	50	50			60
Shoveler	5	10	5			10	30
Wood		10	10				20
Canvasback			25		6		31
Redhead	10	15	80			8	113
Ringneck	5		110				115
L. Scaup			5				5
Ruddy			25				25
Total	95	130	635	47	69	48	989
Coot	30	2	100	2	28		162
Geese	5	91	30		5		131
Ducks	95	130	635	45	36	48	989
Total	130	223	765	47	69	48	1282

COMPARATIVE DATA

Peak Waterfowl Population
Spring Migration

	Batavia	Flathead	Smith Lk.	Herak	Montgomery	Sandsmark	Total
Coot							
1973	-	-	-	-	-	-	-
1974	-	1,300	2,500	-	-	-	3,800
1975	20	600	6,000	-	0	-	6,620
1976	40	200	1,200	0	16	10	1,466
1977	40	4,000	1,000	5	0	32	5,077
1978	70	6,000	400	-	10	30	6,510
C. Goose							
1973	-	80	-	-	-	-	80
1974	-	220	75	-	-	-	295
1975	5	260	36	-	0	-	301
1976	10	300	34	6	7	0	357
1977	16	390	75	17	5	0	503
1978	3	270	90	10	2	4	379
W. Swan							
1973	-	100	-	-	-	-	100
1974	-	60	100	-	-	-	160
1975	134	1,370	77	-	5	-	1,586
1976	0	130	26	0	0	30	186
1977	20	400	16	0	0	0	436
1978	0	900	60	0	0	4	964
Ducks							
1973	-	6,337	-	-	-	-	6,337
1974	-	9,430	1,500	-	-	-	10,930
1975	6,252	12,415	8,810	-	2,000	-	29,477
1976	830	12,470	1,435	372	250	55	15,412
1977	15,000	3,390	3,580	150	110	300	22,530
1978	1,630	5,250	3,650	160	100	3,500	14,290

COMPARATIVE DATA

Peak Waterfowl Populations
Fall Migration

	Batavia	Flathead	Smith Lk.	Herak	Montgomery	Sandsmark	Total
Coot							
1974	-	10,000	8,000	-	-	-	18,000
1975	0	15,000	9,500	-	-	-	24,500
1976	20	11,000	3,000	0	16	16	14,052
1977	0	3,000	1,000	20	20	50	4,090
1978	10	8,000	2,600	15	30	5	10,660
W. Swan							
1974	-	30	20	-	-	-	50
1975	0	34	7	-	-	-	41
1976	0	21	0	0	0	0	21
1977	0	55	0	0	0	0	55
1978	0	85	0	0	0	0	85
C. Goose							
1974	-	180	40	-	-	-	220
1975	0	400	35	-	-	-	435
1976	0	500	16	15	0	340	871
1977	75	580	100	0	0	30	785
1978	0	650	60	0	0	55	765
Ducks							
1974	-	1,840	3,400	-	-	-	5,240
1975	620	3,125	1,820	-	-	-	5,565
1976	120	5,600	4,550	225	85	1,805	12,385
1977	430	20,350	2,310	80	70	140	23,380
1978	190	35,100	5,100	340	90	275	41,095

COMPARATIVE DATA

Duck Breeding pair Count

	Batavia	Flathead	Smith Lk.	Herak	Montgomery	Sandsmark	Totals
1974	-	94	114	-	-	-	208
1975	64	62	108	-	-	-	234
1976	53	47	94	-	-	-	194
1977	62	30	176	30	14	39	351
1978	31	35	152	17	14	17	266
			Goose Production				
1974	-	115	30	-	-	-	145
1975	0	50	59	-	-	-	109
1976	0	173	26	0	7	0	206
1977	0	125	55	0	5	0	185
1978	5	91	30	0	5	0	131
			Duck Production				
1974	-	285	400	-	-	-	685
1975	330	195	705	-	-	-	1,230
1976	242	160	435	21	59	16	933
1977	200	70	590	70	40	160	1,130
1978	95	130	635	45	36	48	989

2. Marsh and Water Birds

Several greater sandhill cranes were observed on Batavia, Smith Lake, and Sandsmark WPA's during spring.

Nesting marsh and water birds include great blue heron, American bittern, and red-necked grebe.

Eared grebe, red-necked grebe, great blue heron, American bittern, and pied-billed grebe were common on all areas. Common loon and western grebe were common on Flathead WPA.

See quarterly reports for summary.

3. Shorebirds, Gulls, Terns, and Allied Species

Nothing unusual. See quarterly reports for summary.

4. Raptors

Raptors other than bald eagle and osprey include American kestrel, marsh hawk, rough legged hawk, red-tailed hawk, goshawk, golden eagle, prairie falcon, great horned owl and short-eared owl.

See quarterly reports for summary.

5. Other Migratory Birds

The WPA bird list includes 144 species. 1978 additions include Cassin's finch, American bittern, screech owl, caliope hummingbird, water pipit, Bohemian waxwing, orange-crowned warbler, black-headed grosbeak, western kingbird, western flycatcher, snow towhee, varied thrush, golden-crowned kinglet, yellow-rumped warbler, and brown-headed cowbird.

C. Mammals and Non-Migratory Birds and Others

1. Game Animals

White-tailed deer are common at Smith Lake, Batavia, and Flathead WPA's.

2. Other Mammals

Skunks were numerous on all areas.

4. Other Animals Life

Nothing unusual.

See output reports.

A. Information and Interpretation

1. On-Refuge

Since there are no administrative sites or public use facilities on any of the wetlands, on-refuge programs are limited to occassional tours and environmental education programs.

A group of high school students receiving outdoor classroom instruction on wildlife conservation. Instructors come from FWS, F&G, and SCS. GAH - 78

2. Off-Refuge

Several slide shows and films were presented to local school and organizations.

B. Recreation

1. Wildlife Oriented

Waterfowl hunting and perch fishing continued to be the most popular recreational activities on the wetlands, accounting for 95% of the total 15,000 activity hours recorded.

Although not recorded, Flathead WPA provided many additional activity hours of waterfowl hunting to valley residents by holding birds in the closed area which were harvested in fields north of Flathead Lake.

Perch fishing at Smith Lake remains very popular with valley residents, especially winter ice fishing.

Bird watching groups frequented Flathead WPA.

C. Enforcement

The spring trespassing problem and disturbance to nesting Canada geese on Flathead WPA seems to have been reduced significantly.

VI. Other Items

A. Field Investigations

1978 was the last year of the three year Flathead Valley Cooperative Goose Study with the state. Results will be written up and data collection will continue at reduced levels.

B. Items of Interest

Cooperation with and acceptance by local public officials, Montana Fish and Game and the general public has been excellent in the management of the Wetland Management District.

The FWS was named in a lawsuit regarding the purchase of water rights on Ashley Creek which feeds Smith Lake and Batavia WPA's. The lawsuit appears to have been dropped, however.

This report written by Assistant Manager Gary Hagedorn, and typed by YACC employee Shelly Kerr.

C. Safety

No accidents in 1978.

Monthly Safety meetings were held at the Bison Range headquarters and attended by the wetland manager.

Missoulian - May 20, 1978

Waterfowl Refuge Gets Shaped Up

KILA — Improvements have been started at the waterfowl refuge on Smith Lake west of Kalispell through the cooperative efforts of the Flathead National Forest and the U.S. Fish and Wildlife Service.

The wildlife service administers the Smith Lake refuge site, which is prime habitat for waterfowl and a popular fishing spot.

Last week, workers from the Young Adult Conservation Corps of Whitefish, which is managed by the Flathead National Forest, assisted in fencing part of the area.

The old fence that had deteriorated was taken down and new fence put up by the corps crew and workers of the wildlife service.

The fencing is expected to protect some of the area from stray animals and further identify the boundaries of the marshy area.

Both federal agencies said further cooperative projects are expected in the future because the corps crew is available to help with work an any public lands.

Missoulian - May 20, 1978

JoAnn Speelman Photo

Conservation corps crews put up a new fence at the Smith Lake waterfowl refuge.