

## ROUTING SLIP

DIVISION OF WILDLIFE REFUGES

DATE: 5-16 1944

MR. SALYER

SECTION OF HABITAT IMPROVEMENT:

MRS. WOODIN

Mr. Kubichek

MR. ELMER

Mr. Smith

MRS. CARVIN

Mr. Griffith

MR. DUMONT

Miss Cook

SECTION OF OPERATIONS:

SECTION OF ERA:

Mr. Krammes

Mr. Regan

Mr. Gustarson

Dr. Bourn

Miss Baum

Mrs. Fishman

Mrs. Kricun

SECTION OF LAND MANAGEMENT:

STENOGRAPHERS:

Mr. Barnshaw

Miss Whorley

Mr. Ackerknecht

SECTION OF STRUCTURES:

Mr. Taylor

REMARKS:

LOWER SOURIS NARRATIVE REPORT and Summary

JANUARY - APRIL 1944

Return to: Habitat Improvement

94

Lower Souris National Wildlife Refuge  
Narrative Report  
January, February, March, April  
1944

TABLE OF CONTENTS

	page
Weather Conditions . . . . .	1
Water Conditions . . . . .	1
Fires . . . . .	2
Migratory Birds . . . . .	2
Upland Game Birds . . . . .	2
Big Game Animals . . . . .	3
Fur Animals, Predators, Rodents, and Other Mammals . . .	3
Predaceous Birds . . . . .	4
Fish . . . . .	4
Refuge Development Maintenance . . . . .	4
Economic Uses . . . . .	5
Field Investigation or Applied Research . . . . .	6
Public Relations . . . . .	6
Other Items . . . . .	7
Highlight of the Year's Activities . . . . .	8
Photographs . . . . .	10



Lower Souris National Wildlife Refuge

January, February, March, April 1944

I. GENERAL

- A. Weather Conditions. The following precipitation records are taken from the official Weather Bureau Station at refuge headquarters and the temperature records are taken from the Weather Bureau Station located at Bottineau, North Dakota.

	<u>Snowfall</u> (inches)	<u>Precipitation</u> (inches)	<u>Max.</u> <u>Temp.</u>	<u>Min.</u> <u>Temp.</u>
January	7.2	0.48	50	-18
February	5.1	0.41	37	-34
March	13.1	1.37	45	-18
April	T	0.44	70	-11
	<u>25.4</u>	<u>2.70</u> Extremes	<u>70</u>	<u>-34</u>

The weather was unseasonably warm through January and February with very little snow on the ground while during March and April the weather was colder than usual with a very late spring. During the month of March and part of April snow made it impossible to get over much of the refuge area. It was not until the 27th. of April that the ice left the marsh.

- B. Water Conditions. All units have been full of water throughout almost the entire period and water has been spilling out of the 357 unit into Canada. At all of the dams with the exception of 357 gates were regulated to pass most of the water down the river channel. Water washed through a muskrat run in dam 341 and the gates in this dam were all opened to minimize the damage to this structure by washing through this hole so the level of this unit is 0.50 from being full.

Local runoff was small. Boundary and Willow creeks brought a small amount of water while some of the smaller creeks did not run at all.

Summary by Units, April 30, 1944

Rubble-masonry Unit. Full with about 12 inches of water flowing over dam 1.

Unit 320. Gates are partly open and water is 0.50 feet over the crest of the gates. No water is going over the spillway.

Unit 326. Gates are partly open and the water is 0.26 feet over the crest of the gates. A small amount of water is also going over the spillway.

Unit 332. Gates are partly open and 0.82 feet of water is over the crest of the gates. No water is going over this spillway.

Unit 341. All of the gates are open wide and the unit is 0.50 feet from being full.

Unit 357. All gates are closed and the unit is 0.45 feet over the crest of the gates.

Form NR-1

## MIGRATORY BIRDS

Refuge Lower San Joaquin Nat'l WildlifeMonths of January 1 to April 30, 1944

1612

(1) Species	(2) First Observed		(3) Became Common	(4) Peak Concentration		(5) Last Observed		(6) Young Produced			(7) Total
Common Name	Number	Date	Date	Number	Date	Number	Date	No. Broods Obsvd.	Avg. Size	Esti- mated Total	Number Using Refuge
Eared Grebe	1	4/22/44	-	-	-	-	-	-	-	-	30
Pied-billed Grebe	-	4/26/44	-	-	-	-	-	-	-	-	50
Horned Grebe	1	4/29/44	-	-	-	-	-	-	-	-	30
White Pelican	20	4/29/44	4/29/44	-	-	-	-	-	-	-	300
Double-crested Cormorant	1	4/21/44	-	-	-	-	-	-	-	-	1
Great Blue Heron	1	4/5/44	-	-	-	-	-	-	-	-	20
Black-crowned Night Heron	-	4/20/44	-	-	-	-	-	-	-	-	100
Whistling Swan	13	4/9/44	4/10/44	-	-	-	-	-	-	-	200
Canada Goose	12	3/22/44	4/3/44	1,500	4/15/44	-	-	-	-	-	2000
Richardson's Goose	-	4/6/44	4/13/44	2,000	4/16/44	-	-	-	-	-	4000
White-fronted Goose	-	4/6/44	4/13/44	1,500	4/15/44	-	-	-	-	-	2000
Snow Goose	-	4/11/44	4/13/44	10,000	4/20/44	-	-	-	-	-	10,000
Blue Goose	-	4/11/44	4/13/44	10,000	4/20/44	-	-	-	-	-	10,000
Mallard	-	4/4/44	4/6/44	-	-	-	-	-	-	-	40,000
Gadwall	-	4/15/44	4/14/44	-	-	-	-	-	-	-	20,000

REMARKS: (Pertinent information not specifically requested)



## INSTRUCTIONS

Form NR-1 - MIGRATORY BIRDS (Include species in families Gaviidae through Strigidae; also doves and woodcocks)\*

In case a resident form occurs, such as mottled duck on the Gulf Coast, use only the columns that apply.

- (1) SPECIES: Use correct common names as found in the A.O.U. Check List, 1931 Edition, and list in A.O.U. order. General terms are to be avoided, such as "scaup", "teal", etc.; use "green-winged teal" or "lesser scaup".
- (2) FIRST OBSERVED: The first refuge record for the species during spring migration, fall migration, wintering, or summering, and the number observed. In the case of resident species this column may be disregarded.
- (3) BECAME COMMON: The date the species became common on the refuge.
- (4) PEAK CONCENTRATION: The greatest number of the species present on any one date or limited interval of time.
- (5) LAST OBSERVED: The last refuge record for the species during the spring or fall migration, wintering, or summering, and the numbers observed exclusive of obvious cripples or non-migrants.
- (6) YOUNG PRODUCED: Estimated number of young produced based upon observations and actual counts on representative breeding areas. Brood counts should be made on two or more areas aggregating 10% of the breeding habitat. Estimates having no basis in fact are to be omitted.
- (7) TOTAL: Estimated total number of the species using the refuge during the period. This figure may or may not be more than that used for peak concentrations, depending upon the manner in which birds come through; i.e., in waves or all at once. On refuges representing the terminus of the flight lane, the figures would probably be the same in many cases.

\* Only columns applicable to the period covered should be used.

Form NR-1

## MIGRATORY BIRDS

Refuge Lower Souris Nat'l WildlifeMonths of January 4 to April 30, 1944

1612

(1) Species	(2) First Observed		(3) Became Common	(4) Peak Concentration		(5) Last Observed		(6) Young Produced			(7) Total
Common Name	Number	Date	Date	Number	Date	Number	Date	No. Broods Obsvd.	Avg. Size	Esti- mated Total	Number Using Refuge
Baldpate	1	4/5/44	4/9/44	-	-	-	-	-	-	-	30,000
Pintail	25	4/5/44	4/6/44	-	-	-	-	-	-	-	50,000
Green-winged Teal	7	4/7/44	4/8/44	-	-	-	-	-	-	-	1,000
Blue-winged Teal	-	4/26/44	4/28/44	-	-	-	-	-	-	-	50,000
Shoveller	-	4/13/44	4/16/33	-	-	-	-	-	-	-	20,000
Redhead	2	4/29/44	-	-	-	-	-	-	-	-	1,000
Ring-necked Duck	-	4/13/44	-	-	-	-	-	-	-	-	100
Canvas-back	-	4/7/44	4/9/44	15,000	4/20/44	-	-	-	-	-	20,000
Scaup Duck	-	4/10/44	4/11/44	40,000	4/26/44	-	-	-	-	-	50,000
American Goldeneye	5	4/5/44	-	-	-	-	-	-	-	-	100
Buffle-head	1	4/13/44	-	-	-	-	-	-	-	-	75
American merganser	-	4/5/44	4/6/44	400	4/15/44	-	-	-	-	-	500
Coot	-	4/16/44	4/16/44	-	-	-	-	-	-	-	30,000
Killdeer	1	4/6/44	-	-	-	-	-	-	-	-	200
Western willet	-	4/26/44	-	-	-	-	-	-	-	-	200
Marbled Godwit	-	4/29/44	-	-	-	-	-	-	-	-	100
Herring Gull	-	4/5/44	-	-	-	-	-	-	-	-	100
Ring-billed Gull	-	4/6/44	-	-	-	-	-	-	-	-	300
Franklin's Gull	-	4/11/44	4/12/44	-	-	-	-	-	-	-	100,000
Mourning Dove	-	5/2/44	-	-	-	-	-	-	-	-	-
Holboell's Grebe	1	4/25/44	-	-	-	-	-	-	-	-	20

REMARKS: (Pertinent information not specifically requested)



## INSTRUCTIONS

Form NR-1 - MIGRATORY BIRDS (Include species in families  
Gaviidae through Strigidae; also doves and  
woodcocks)\*

In case a resident form occurs, such as mottled duck  
on the Gulf Coast, use only the columns that apply.

- (1) SPECIES: Use correct common names as found in the  
A.O.U. Check List, 1931 Edition, and list  
in A.O.U. order. General terms are to be  
avoided, such as "scaup", "teal", etc.;  
use "green-winged teal" or "lesser scaup".
- (2) FIRST OBSERVED: The first refuge record for the species  
during spring migration, fall migration,  
wintering, or summering, and the number  
observed. In the case of resident species  
this column may be disregarded.
- (3) BECAME COMMON: The date the species became common on the  
refuge.
- (4) PEAK CONCENTRATION: The greatest number of the species present  
on any one date or limited interval of time.
- (5) LAST OBSERVED: The last refuge record for the species  
during the spring or fall migration,  
wintering, or summering, and the numbers  
observed exclusive of obvious cripples  
or non-migrants.
- (6) YOUNG PRODUCED: Estimated number of young produced based  
upon observations and actual counts on  
representative breeding areas. Brood  
counts should be made on two or more areas  
aggregating 10% of the breeding habitat.  
Estimates having no basis in fact are to  
be omitted.
- (7) TOTAL: Estimated total number of the species using  
the refuge during the period. This figure may  
or may not be more than that used for peak  
concentrations, depending upon the manner in  
which birds come through; i.e., in waves or  
all at once. On refuges representing the  
terminus of the flight lane, the figures  
would probably be the same in many cases.

\* Only columns applicable to the period covered should be used.



Refuge Lower Souris Nat'l WildlifeMonths of January to May, 1944

(1) Species	(2) Density	Acres per Bird	(3) Young Produced	(4) Sex Ratio	(5) Removals	(6) Total	(7) Remarks
Common Name	Cover types, total acreage of habitat		Number broods obs'd. Estimated Total	Percentage	Hunting For Re- stocking For Research	Estimated number using Refuge	Pertinent information not specifically requested. List introductions here.
Ring-necked pheasant	F <sub>1</sub> B 2980 F <sub>2</sub> B 6945 M-G 39,820 H <sub>1</sub> -2 5210 A 3990 Total 58,925				None	25,000	Total populations are based on general observations.
Hungarian Partridge	"	-	-	-	None	2000	"
Sharp-tailed Grouse	"	-	-	-	None	2500	"
Prairie Chicken	"	-	-	-	None	500	"
	F <sub>1</sub> B - Hardwoods and mixed brush (river bottom) F <sub>2</sub> B - Aspen and mixed brush (sandhills) M-G - Marsh and grass types. H <sub>1</sub> -2 - Weeds and sweet clover. A - Agricultural land						

\* Only columns applicable to the period covered should be used.



## INSTRUCTIONS

Form NR-2

## Form NR-2 - UPLAND GAME BIRDS.\*

- (1) SPECIES: Use correct common name.
- (2) DENSITY: Applies particularly to those species considered in removal programs (public hunts, etc.). Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottomland hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.
- (3) YOUNG PRODUCED: Estimated number of young produced, based upon observations and actual counts in representative breeding habitat.
- (4) SEX RATIO: This column applies primarily to wild turkey, pheasants, etc. Include data on other species if available.
- (5) REMOVALS: Indicate total number in each category removed during the report period.
- (6) TOTAL: Estimated total number using the refuge during the report period. This may include resident birds plus those migrating into the refuge during certain seasons.
- (7) REMARKS: Indicate method used to determine population and area covered in survey. Also include other pertinent information not specifically requested.

\* Only columns applicable to the period covered should be used.



- C. Fires. Conditions for fire have been very hazardous during most of the month of April. Three fires occurred on the refuge during the month and burned over 7 acres, 48 acres, and 15 acres. Two of these fires were started by farmers burning off fields and one by a high line work crew. None of the fires caused any damage.

## II. WILDLIFE

### A. Migratory Birds.

#### 1. Population and Behaviour.

Waterfowl. The population of waterfowl on the refuge was very low this spring. This is due to the fact that there are small potholes in all of the fields and ice covered the marsh until April 27. There is a good population of ducks throughout the fields in the area. There was an increase in the number of swans on the refuge this spring and as last year no sandhill cranes were seen. Many geese used the refuge again this spring especially Canadas, snows and blues. Approximately 10,000 geese fed in one field north of headquarters. *map?*

There were probably about 60,000 ducks on the refuge at the end of the period and a large percentage of these were "bluebills".

2. Food and Cover. There is much food and cover available this spring and many mallards, pintails and geese are seen feeding in stubble fields.

No grain was fed except to the refuge flock of geese.

3. Botulism. None on the refuge.
4. Lead Poisoning and other Diseases. No dead or diseased birds have been noted.

### B. Upland Game Birds.

1. Population and Behaviour. All upland game birds wintered well in this area and no evidence of any winter loss was found. This spring pheasants are seen in large numbers. Pheasants have come back well in the 357 area where they were almost completely wiped out by the storm a year ago.

Prairie chickens and sharp-tailed grouse do not appear to be as numerous as they were last spring.

2. Food and Cover. There has been much food and cover available throughout the entire winter and this spring they experience little difficulty finding plenty of food.
3. Disease. None noted.



Refuge Lower Souris National WildlifeApril 30, 1944

(1) Species	(2) Density	(3) Removals					(4) Disposition of Fur						(5) Total Popula- tion		
Common Name	Cover Types & Total Acreage of Habitat	Acres Per Animal	Hunting	Fur Harvest	Predator Control	For Re- stocking	For Research	Share Trapping			Total Refuge Furs Shipped	Refuge Income	Furs Donated	Furs Destroyed	
								Permit Number	Trappers' Share	Refuge Share					
Skunk				140					99	41	41				500
Mink				513	2				158	155	155			2	150
Raccoon				7					2	5	5				150
Red Fox				31					22	9	9				50
Coyote				4	10				2	2	2			10	40
Weasel				7					2	5	5				100
Muskrat				2852					1407	1445	1447				5000
Beaver				101					40	60	61				500
Badger				1							1				30
House Cat					2									2	-

REMARKS:

1615



## INSTRUCTIONS

Form NR-4 - SMALL MAMMALS (Include data on all species of importance in the management program; i.e., muskrats, beaver, coon, mink, coyote. Data on small rodents may be omitted except for estimated total population of each species considered in control operations.)

- (1) SPECIES: Use correct common name. Example: Striped skunk, spotted skunk, short-tailed weasel, gray squirrel, fox squirrel, white-tailed jackrabbit, etc. (Accepted common names in current use are found in the "Field Book of North American Mammals" by H. E. Anthony and the "Manual of the Vertebrate Animals of the Northeastern United States" by David Starr Jordan. "List of North American Recent Mammals" by G. S. Miller, Jr., a very good reference, is now out of print, although a revision is scheduled for publication in the near future.)
- (2) DENSITY: Applies particularly to those species considered in removal programs (public hunts, etc.) Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottom land hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.
- (3) REMOVALS: Indicate the total number under each category removed since April 30 of the previous year. Also show any removals not falling under heading listed.
- (4) DISPOSITION OF FUR: On share-trapped furs list the permit number, trapper's share, and refuge share. Indicate the number of pelts shipped to market and the total income to the refuge by species, including share-trapped furs and furs taken by Service personnel. Total number of pelts of each species destroyed because of unprimness or damaged condition, and furs donated to institutions or other agencies should be shown in the column provided.
- (5) TOTAL POPULATION: Estimated total population of each species reported on as of April 30.
- REMARKS: Indicate inventory method(s) used, size of sample area(s), introductions, and any other pertinent information not specifically requested.



### C. Big Game Animals.

1. Population and Behaviour. The white-tailed deer did not congregate on the refuge until about the first of February when the weather became a little tougher. After this evidence of a good population of deer could be seen in the wooded river bottoms. Although the State did not get to take an accurate airplane census on the refuge this winter we probably have a population of about 500 deer.
2. Food and Cover. Due to the short season the deer congregated in the river bottoms. The good deer browse such as red osier dogwood showed little evidence of browsing. Wood cutting by permittees left much brush scattered and the deer would congregate in these cut areas and seemed to prefer the tops of ash to the dogwood which was also plentiful in these areas. During the early winter many deer were seen in fields surrounding the refuge and no doubt ate a considerable amount of grain and corn from these fields.
3. Disease. No loss of deer has been noted this winter.

### D. Fur Animals, Predators, Rodents, and other Mammals.

All of our trappers did well this year controlling predators and rodents with the exception of the trappers in the 320 unit. Conditions for trapping were excellent this year. The population of mink are down in all units with the exception of the 320 unit. The population of weasels was very low over the entire refuge and very few were taken this winter. Red fox are not as numerous as they were a year ago over the entire refuge. Fox in this area are greatly reduced due to hunting them with hounds and airplane hunting on the area surrounding the refuge. The population of badgers is high over most of the refuge and racoon are still very numerous in the river bottoms. The number taken in the marsh this winter would indicate a heavier population there than was expected. Coyotes do not appear to be quite as numerous as last year and now that coyote getters are legalized in this State, refuge personnel should be able to do much in controlling them. Skunk are not numerous on the refuge except in the 320 area and southeast of there. It is believed that better cooperation can be obtained from our trappers in taking skunk if they could be sold locally without skinning as is commonly done in this area. There is very little difference in the price paid for skunk, skinned and stretched, and the price paid for them whole. We could get a 50-50 division from trappers dividing them whole instead of the 1/3 - 2/3 division we now get on skunk. This would result in greater revenue to the government.

Muskrats continue to be a major problem in maintaining dams and roads. Intensive trapping was done along the dams last fall and



this spring and although great numbers were taken muskrats are still seen along the dams.

101 ✓  
Although 100 beaver were trapped this winter we still have a very large beaver population especially on the marsh area. Due to the high water on the marsh the past two years practically all of the willows are now dead and the beaver are feeding on marsh vegetation. Many of the beaver taken from the marsh were quite gaunt and did not appear to be doing well on this type of diet. Pelts taken from the marsh beaver were generally lighter in color than those taken from the timbered area.

E. Predaceous Birds, including Crows, Ravens, and Magpies.

This spring there appeared to be more crows fly through this area into Canada than passed through last spring. There also appears to be an increase in the population of crows now on the refuge.

F. Fish. At times large numbers of suckers, minnows, and bullheads were seen below some of the dams. No evidence of any dead fish were seen this winter. Nothing has been seen of any of the crappies, and bluegill sunfish that were planted on the refuge last fall.

### III. REFUGE DEVELOPMENT MAINTENANCE

A. Physical Development. No new development work was undertaken during the period. About 90 cubic yards of dirt was hauled to repair the dike to prevent P. J. Nermoe's feedlot from flooding. There is still much evidence of muskrat work in this dike.

Refuge fences are being repaired as the occasion arises. Fortunately these fences are not broken in nearly as many places as a year ago.

There is a considerable amount of repair work necessary to repair muskrat damage to our dams and to some of our most important roads.

Most of our automotive equipment in need of repair has been worked on. The light plant was moved from the Skar place to the Thompson place. This light plant was completely overhauled and the Thompson place was wired for electricity.

B. Plantings. No plantings of any kind were undertaken by refuge personnel. All cultivated crops are being put in by share croppers or on a cash basis. All share cropping agreements were made with the thought of reducing duck damage as well as producing winter feed for upland birds.

C. Collections. No collections of any type were made during the period.



D. Receipts of Seed and Nursery Stock. None received during the period.

#### IV. ECONOMIC USE OF REFUGE

A. Grazing. None.

B. Haying. None.

C. Fur Harvest. Five trapping permits were issued for trapping other than beaver. All but two of these trappers had one assistant helping them. One permit was issued to two trappers for removing beaver. Trapping conditions were good and on the whole trappers did very well.

The returns from the sale of furs available to date indicate that the permittees received a much higher price for furs sold than for the refuge furs shipped to the Seattle Fur Exchange. The following table indicates the price received by permittees as compared with the sale of refuge furs:

<u>Permittee</u>			<u>Refuge</u>			
	<u>No.</u>	<u>Total Price</u>	<u>Average Price</u>	<u>No.</u>	<u>Total Price</u>	<u>Av. Price</u>
Mink	129	\$1972.00	\$15.29	129 26*	\$1290.00 239.00	10.00 9.20
Skunk	49	153.25	3.12	23 18*	78.20 44.50	3.40 2.47
Weasel	-	-	-	3 2*	4.20 2.40	1.40 1.20
Raccoon	1	6.00	6.00	4*	11.00	2.75
Fox	15	168.00	11.20	7 2*	84.00 18.00	12.00 9.00
Coyote	2	27.00	13.50	1 1*	4.50 11.00	4.50 11.00
Badger	-	-	-	1*	3.00	3.00
Muskrat	1116	2072.81	1.86	768 679*	1405.50 Not est.	1.83
Beaver	40	1344.00	33.60	61*	1796.00	29.44



Refuge Lower Souris National WildlifeYear 1944

Permittee	Permit No.	Unit or Location	Acreage	No. of Units Expressed in B.F., ties, etc.	Rate of Charge	Total Income	Reservations and/or Diameter Limits	Species Cut
Theo. Lovly	7690				.50	12.50		Aspen
Walter Johnson	7691				2.00	45.00		Ash-Elm
Charlie Stumpf	8926				.50	51.00		Aspen
Herbert C. Watwick	8934				2.00	59.00		" -Ash-Elm
Ben Rockvay	8967				.50	6.50		"
Otto Peterson	8982				.50	7.25		"
Fred Swenson	8985				2.00	20.63		" Ash-Elm
Reinhold Klebe	7712				2.00	44.00		" "
John Ringen	7713				2.00	18.50		Aspen
Wm. O. Biberdorf	7723				2.00	240.00		Ash-Elm
Fred Hahn	7724				2.00	10.50		" "
Herbert Liebelt	7735				2.00	112.00		" "
Emil Johnson	6543				2.00	43.50		" "
S. J. Taylor	6545				.50	5.50		Aspen
Basthi Goodman	6548				.50			"
					2.00	52.50		" Ash-Elm
Ed. Fecho	7758				2.00	60.50		Ash-Elm
Alex Goodman	6571				.50	5.00		Aspen
O.S. Lundervold	6581				2.00	13.50		Ash-Elm
Joe Einarson	6584				.50	6.50		Aspen
Peter J. Nernoe	6030				.50	5.00		Poplar-Willow

Total acreage cut over \_\_\_\_\_

Total income \$818.88

No. of units removed B. F. \_\_\_\_\_

Method of slash disposal lop and scatter.Cords 574

Ties \_\_\_\_\_



\* Indicates not sold but estimated value by Seattle Fur Exchange. In the table on the preceding page, the 5% commission paid to the Seattle Fur Exchange was not deducted from the price of the furs. The following furs were not figured in the permittee's average as we have not received the price received by the permittee or the price records received were for the lot of furs, and the price paid for each species was not indicated: 2 skunk, 3 mink, 163 muskrat, 1 weasel, 1 racoon, and 4 red fox.

- D. Timber Removal. Timber removal was completed during the month of January and the weather was very favorable for this work at that time. On the whole permittees did a good job in the selection of the trees cut. Brush was lopped and scattered instead of piling it, as was done in the past. Deer ate much of the tops of the ash that were scattered.
- E. Other Uses. The only special use permits in effect during the period were for the rental of buildings. Rents in the following amounts were received: Skar place, \$10.80 per month; House at CCC camp, \$2.00 per month; Magnusson house, \$4.00 per month; and one room in quarters No. 1 at \$2.00 per month.

letter to  
R.O. on  
this  
REQ.

#### V. FIELD INVESTIGATION OR APPLIED RESEARCH

- A. Progress Report. No time was spent for research work during the period.

#### VI. PUBLIC RELATIONS

- A. Recreational Uses. None during the period.
- B. Refuge Visitors. The following is a list of the refuge visitors during the period.

<u>Name</u>	<u>Address</u>	<u>Purpose</u>	<u>Time</u>
Roy Bach	Bismarck	Visit	1 hr.
Robert Dougall	Minot	Business	Several visits.
Howard Reed	Burgess Battery Co.	Investigate*	1 day
Ben Hazeltine	Medicine Lake, Mont.	Business	10 days
F. C. Gillett	Minneapolis	"	2 days
Fred Ege	Kenmare	"	1 month

\* cattail possibilities.

- C. Refuge Participation. None during period.
- D. Hunting. None.
- E. Fishing. None.



- F. Violations. No cases for any violations were made during the period but there were indications that there was some illegal trapping and some illegal hunting in this area, and these violations will continue to occur fromtime to time as long as the amount of refuge personnel is not adequate for regular patrol.

#### VII. OTHER ITEMS

- A. Items of Interest. The personnel situation continues to be quite serious. One patrolman, Roy W. Carlson, left for the armed services during the period and prospects are very good that the present refuge manager will be leaving in the very near future.



## HIGHLIGHTS OF YEAR'S ACTIVITIES

May 1, 1943 to April 30, 1944

Weather. The precipitation for the year amounted to 16.90 inches which may be compared with 16.34 which is the average for this area over the same period. Most of this precipitation, 13.47 inches, was received during the first four months which was followed by a very dry fall and early winter; and a good deal of snow during the latter part of the winter. The past summer was unusually cool and the winter mild.

Water Conditions. All units on the refuge were full or nearly so throughout the year. Water was passing out of the 357 unit throughout most of the summer and due to the release from Lake Darling during the winter water was again spilling at dam 357 throughout most of the winter and spring.

Fires. Although conditions for fire were very hazardous throughout the spring and fall periods, four fires were reported for the year which resulted in no damage to property.

Migratory Birds. Although the number of birds using the refuge during the year was less than during the previous year it is not believed the total population of birds in this area has decreased as there is some water with ducks in all of the farmer's fields in this area. Snow, blue, and Canada geese and swans have showed an increase this spring. As a year ago the high water has not been attractive to shore birds and not many have been seen.

Upland Game Birds. With a very favorable winter and excellent food and cover the pheasant population is now much greater than a year ago. Hungarian partridges remain about the same but there appears to be a decrease in the population of prairie chicken and sharp-tailed grouse.

Big Game. Although no census was made of the deer herd this winter the population is believed to be about 500 animals after the removal of 575 deer last fall by a hunting season. There was an abundance of browse for these animals to winter on in the river bottoms. The population of deer is increasing on the extreme north end of the refuge.

Fur Animals. Due to good trapping conditions and improved quality of the trappers the population of most of the predators has decreased. Mink are still increasing on the refuge and this year 315 were taken. The weasel population is very low and muskrats appear to be about in the same number as a year ago. The beaver population is still large especially on the marsh area where food conditions are very poor. 101 beaver were trapped from the refuge this year.



Fish. Large numbers of bullheads and suckers and some perch are on the refuge. Bullhead fishing during the past summer was very good. Last fall 2600 bluegill sunfish and 15,000 crappies were planted on the refuge.

Physical Development. No development work was undertaken during the year. Refuge personnel were busy maintaining dams, fences, roads, buildings and equipment.

Plantings. The only plantings during the year were cultivated crops and with the exception of two small fields these were all put in by share croppers. Practically all of these crops were cut down and left for duck feed.

Grazing. Twenty pastures with a total of 3,369.61 animal use months were used during the year. This is double the number of pastures used last year and there is still much demand for pasture in this area.

Haying. A total of 1154 tons of hay were cut with a refuge income of \$1736.50. This is an increase of 168 tons over last year.

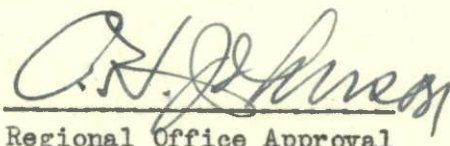
Furs. It is estimated that the sale of the refuge share of furs will bring an income in excess of \$6000.00. Although the price paid for furs this year have been good they are generally less than the price the permittees received for their furs.

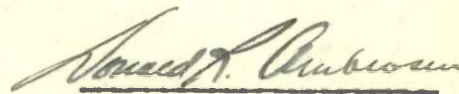
Timber. Permits were issued to 20 permittees for cutting ash and elm hardwoods and aspen. A total of 574 $\frac{1}{2}$  cords were cut with an income of \$818.88. This is an increase of almost \$200.00 over the revenue of last year's wood cutting.

Public Relations. The chief difficulty in maintaining good public relations is damage to farmers grain fields by ducks. Although those who were familiar with the duck damage problem in this area stated that it was not as great as in the past. Certain farmers lost a considerable amount of durum and barley to the ducks. A number of complaints are received about coyotes and foxes; it is believed many of these are unjustified.

Prepared May 8, 1944

Respectfully submitted,

  
Regional Office Approval

  
Donald R. Ambrosen  
Refuge Manager

5/13/44





Ash-Elm cut over by permittees. R 142 - 1



Porcupine at Lower Souris. R 142 - 2





Damage by ice to nursery water pipes. R 142 - 3



Beaver house in 326 dam. R 142 - 4





Washout through dam 341 caused by muskrats.  
R 142 - 4 - 5



RECEIVED  
MAY 10 1964  
U.S. ARMY  
CORPS OF ENGINEERS  
VICTORVILLE, CALIF.

RECEIVED  
MAY 10 1964  
U.S. ARMY  
CORPS OF ENGINEERS  
VICTORVILLE, CALIF.



Washout through dam 341 caused by mairats.  
R 142 - 4 - 8

