

ROUTING SLIP

DIVISION OF WILDLIFE REFUGES

DATE: 1/31 194 5

_____ MR. SALYER

_____ MR. ELMER

SECTION OF HABITAT IMPROVEMENT:

~~Mr. Griffith~~

Dr. Bourn

Miss Cook

WBR 2/5/45
JWC 2-1-45

SECTION OF OPERATIONS:

~~Mr. Krumm~~

~~Mr. Regan~~

Miss Baum

SECTION OF LAND MANAGEMENT:

~~Mr. Barnshaw~~

~~Mr. DuMont~~

Ry
PAD 2/14

SECTION OF STRUCTURES:

~~Mr. Taylor~~

STENOGRAPHERS:

REMARKS: Lake Mason, Montana Easements

Narrative

January-April 1944

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LAKE MASON NATIONAL WILDLIFE REFUGE
HAILSTONE NATIONAL WILDLIFE REFUGE
HALFBREED NATIONAL WILDLIFE REFUGE
LAMESTEER NATIONAL WILDLIFE REFUGE
REFUGE NARRATIVE REPORT
JANUARY-FEBRUARY-MARCH-APRIL
1944

I. GENERAL

A. Weather Conditions.

This period provided the mildest winter weather in this area in years. Minimum temperatures on the Easements near Roundup was minus 7 degrees. Precipitation was below normal with practically no snow. Weather data will be found at the back of the report.

B. ~~Water~~ Conditions.

Lack of Spring precipitation in the Roundup area resulted in no runoff on those areas. Water levels at the close of this report period were as follows:

Hailstone -- Spill minus approximately 40".

Halfbreed -- Spill minus approximately 40".

Lake Mason -- Spill minus approximately 4".

Miller Lake - Spill minus approximately 30".

Lamesteer -- Heavy Spring snows in this area caused it to run about 36" deep over the spillway about April 3rd. The runoff that this area receives each year has greatly reduced its alkaline content.

C. Fires.

None.

II. WILDLIFE

A. Migratory Birds.

1. Population and Behavior.

The only inspection made of the Roundup Easements was on April 11th and 12th, for the purpose of checking runoff. Reports received from field employees making the inspection indicate the following populations at that time:

Hailstone--A total of 2000 mallards and pintails.

Halfbreed--A total of 1000 mallards and pintails, 4 white pelicans and a few killdeer.

Lake Mason--A total of 5000 mallards and pintails and 4 blue Heron.

On April ⁵~~15~~th there were about 100 mallards, 50 pintails and 40 Canada Geese on Lamesteer Lake.

2. Food and Cover.

Remnants of last year's vegetation provided food for the waterfowl through this period.

B. Upland Game Birds.

Mr. Scott, owner of the Lamesteer property, advised that he fed about 100 Sharptail Grouse that wintered on that Refuge.

No Upland Birds were observed by Refuge personnel on any of these areas.

C. Big Game Animals.

Four antelope were observed on Miller Lake, unit of Lake Mason on April 12th. Range conditions in the vicinity were good.

D. Fur Animals, Predators, Rodents and Other Mammals.

Fur Trapping Permit #122 to take 50 Muskrats was issued to Mr. Wallace Scott, owner of the Lamesteer property. Because of Spring storms in that vicinity, he was unable to travel between his home in Wibaux and the lake. As a result, he took no Muskrats. It is believed that considerable winter kill occurs on this area each year because of lack of aquatic vegetation. Failure to observe any Muskrats on the area between April 3rd and 6th while making repairs to the Lamesteer spillway also indicates this.

No predatory problem exists on these areas.

E. Fish.

No fish information.

III. REFUGE DEVELOPMENT AND MAINTENANCE

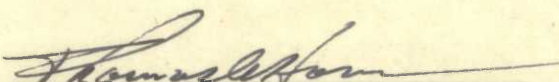
No work was performed on these areas through this period

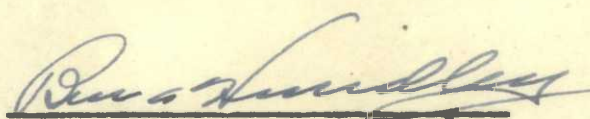
other than the emergency repairs of April 4th to 6th on Lamesteer Refuge, on which a report was submitted on April 10th. Briefly, this amounted to seeps through the North upper wing wall and the North sloping wing wall that resulted in the earth of the dam behind the wing wall being washed away. The flow was sufficiently restricted by the openings in the rubble, that the damage that occurred was slight. Excavations were made to determine the source of the seep and a pipe drain was installed to run the water over the lower part of the wing wall to eliminate the washing away of the earth behind it. An inspection of the spillway on April 20th indicated that the weeps in the lower portion of the rubble drop were carrying a small amount of dirty water.

Because of the season, no other activity occurred on any of these areas through this period.

Submitted by:

January 12, 1945


Thomas C. Horn, Refuge Manager


acting **Approval**

U. S. DEPARTMENT OF COMMERCE
WEATHER BUREAU
MONTHLY METEOROLOGICAL SUMMARYSTATION BILLINGS, MONTANA DATE January, 1944

DATE	TEMPERATURE °F				PRECIPITATION			WIND		WEATHER	
	MAXIMUM	MINIMUM	MEAN	NORMAL MEAN	TOTAL	(INCHES) SNOWFALL	(INCHES) P. M. TO P. M. (UNMELTED)	HIGHEST VELOCITY	DIRECTION	PERCENT OF POSSIBLE SUNSHINE	CHARACTER OF DAY (SUNRISE TO SUNSET)
1..	45	23	34	24	0	0	0	30	SW	81	Pt Cloudy
2..	48	30	39	23	0	0	0	25	W	53	"
3..	36	18	27	23	0	0	0	16	NW	67	"
4..	31	9	20	23	0	0	0	18	W	78	"
5..	40	18	29	23	0	0	0	20	W	40	Cloudy
6..	28	8	18	23	.05	1.0	1.0	16	NE	0	"
7..	27	0	14	23	0	0	T	27	W	51	Pt Cloudy
8..	34	22	28	23	0	0	T	29	SW	0	Cloudy
9..	40	20	30	23	0	0	0	18	SW	85	Pt Cloudy
10..	37	14	26	23	0	0	0	17	W	92	Clear
11..	33	5	19	23	0	0	0	24	W	100	"
12..	38	17	28	23	0	0	0	29	SW	0	Cloudy
13..	47	30	38	22	0	0	0	29	SW	0	"
14..	52	29	40	22	0	0	0	27	NW	83	Pt Cloudy
15..	39	23	31	22	0	0	0	26	NW	0	Cloudy
16..	50	26	38	22	0	0	0	26	W	19	Pt Cloudy
17..	54	38	46	22	0	0	0	40	W	0	"
18..	51	37	44	22	0	0	0	40	NW	79	"
19..	61	43	52	22	0	0	0	34	W	0	Cloudy
20..	55	28	42	22	0	0	0	33	NW	100	Pt Cloudy
21..	56	24	40	22	0	0	0	27	SW	100	"
22..	49	23	36	22	0	0	0	24	SW	94	Cloudy
23..	50	33	42	22	0	0	0	23	NW	51	"
24..	39	30	34	22	.15	0.7	0.7	16	NW	0	"
25..	35	27	31	22	.02	T	0.3	18	NW	0	"
26..	31	19	25	22	0	0	T	12	SE	0	Pt Cloudy
27..	25	20	22	22	.09	1.5	1.1	15	W	0	Cloudy
28..	26	15	20	22	T	0.1	1.0	18	SW	0	"
29..	26	11	18	22	0	0	1.0	21	SW	100	Clear
30..	28	16	22	22	0	0	0.9	24	SW	100	Pt Cloudy
31..	31	10	20	22	0	0	0.6	17	W	92	Clear
MEAN	40.1	21.5	30.8		.031	.3				47	Pt Cloudy
Normal			22.4								

* 5:30 A.M. to P.M. 105 TH MERIDIAN TIME. T INDICATES A TRACE OF PRECIPITATION * TOTAL MINUTE for
// midnight to midnight 5-minute period

SUMMARY

BAROMETRIC PRESSURE
Monthly mean 30.13
Highest 30.53 date 7th
Lowest 29.40 date 23rdTEMPERATURE
Highest 61 date 19th
Lowest 0 date 7th
Extremes this month since 1935; highest 61, lowest -30
Average daily departure +8.4
Average daily departure since January 1, +8.4
Total degree days 1062PRECIPITATION
Greatest amount in 24 hours 0.17 date 24, 25
Departure from normal this month -
Accumulated departure since -
Snowfall, greatest 24-hour amount 1.6 date 27, 28
snow on ground on 15th 0 and at end of month 0.6WIND
Prevailing direction SW, average hourly velocity 14.4
Highest wind velocity this month since 1940
45 miles from NW, on 15th, in 1943WEATHER
Number of days clear 4, partly cloudy 14, cloudy 13
with measurable precipitation (0.01 inch, or more) 4MISCELLANEOUS PHENOMENA—DATES OF
Hail 0
Fog, light 6, 7, 24, 25, 27, 28
Fog, dense 6, 7, 24, 25, 27
Frost, light -, heavy -, killing -
Sleet -
Thunderstorms -
No. hours contact weather 702.7
Duststorms " instrument " 17.4
Frosts not recorded in autumn after first "killing", except in Florida and along immediate coast of the Gulf of Mexico.
" closed weather 23.9

MEAN TEMPERATURE AND TOTAL PRECIPITATION THIS MONTH IN—

1875	87	99	21	0.96	11	17	1.35	23	31	0.11	35	24	0.16
1876	88	00	30	--	12	20	0.24	24	18	0.31	36	24	0.40
1877	89	01	21	--	13	17	0.43	25	27	0.35	37	6	0.40
1878	90	02	25	--	14	31	0.15	26	31	0.33	38	32	0.06
1879	91	03	31	--	15	23	0.76	27	22	0.84	39	33	0.39
1880	92	04	32	--	16	0	0.60	28	24	1.63	40	14	0.68
1881	93	13	0.63	0.92	17	20	0.35	29	11	0.80	41	30	0.04
1882	94	--	--	0.17	18	17	2.00	30	8	0.54	42	26	0.40
1883	95	17	1.95	0.72	19	35	0.04	31	33	0.14	43	14	1.54
1884	96	25	0.25	0.62	20	22	0.79	32	21	0.74	44	31	0.31
1885	97	32	0.90	0.69	21	30	0.08	33	24	1.14	45		
1886	98	25	0.22	0.37	22	17	1.22	34	34	0.11	46		

Data prior to 1934 from records taken in City of Billings.

Subsequent data from records at Airport.

L. T. Pierce, Meteorologist.

UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU

STATION Billings, Montana

DATE January, 1944

WB Form 1030

Psychrometric Data

Date	# 11:30 p.m.				5:30 a.m.				11:30 a.m.				5:30 p.m.			
	Dry	Wet	Dew Pt.	Rel Hum	Dry	Wet	Dew Pt.	Rel Hum	Dry	Wet	Dew Pt.	Rel Hum	Dry	Wet	Dew Pt.	Rel Hum
1	27.0	22.4	12	48	23.7	20.3	12	57	37.1	30.2	19	44	39.0	29.5	11	28
2	35.7	29.0	18	43	38.2	30.9	19	43	41.3	33.3	22	43	39.8	32.1	20	42
3	30.8	25.2	14	45	25.6	20.2	6	58	29.8	25.2	16	53	27.8	22.4	10	42
4	19.1	15.6	5	50	15.0	12.2	6	64	19.0	16.1	8	58	27.0	21.1	5	34
5	19.0	15.8	6	52	25.0	20.0	6	40	33.0	24.2	1	21	32.8	25.0	7	28
6	21.1	17.1	5	45	20.0	16.5	6	50	22.2	21.6	20	91	21.8	21.6	21	97
7	9.3	9.3	9	100	7.1	7.1	7	100	20.0	19.0	17	87	24.5	21.0	13	57
8	24.8	20.6	10	49	24.9	20.9	11	51	31.6	25.6	14	43	30.2	23.9	10	38
9	25.3	20.4	8	42	25.1	21.6	14	58	27.9	23.2	13	49	36.0	31.0	24	58
10	24.0	20.5	12	72	20.1	17.2	9	58	26.2	22.2	13	54	33.8	26.5	11	35
11	15.5	14.3	11	80	6.8	6.8	7	100	15.0	12.9	6	64	28.5	23.0	10	41
12	21.3	18.1	10	57	23.0	19.3	10	53	30.5	25.2	14	46	35.2	28.0	15	39
13	32.1	25.3	11	36	32.9	25.2	8	31	41.8	31.5	13	28	42.0	32.1	16	31
14	37.0	29.5	16	39	36.0	29.0	17	42	48.5	36.0	17	26	44.1	33.8	18	32
15	32.2	26.2	14	43	28.0	23.2	13	50	31.8	27.1	19	55	38.7	31.0	19	41
16	31.5	26.8	18	53	28.1	24.3	17	59	36.2	30.0	20	48	43.9	33.2	16	29
17	39.0	31.2	19	41	43.0	33.6	19	35	44.2	34.0	18	32	46.5	33.4	10	20
18	42.8	32.0	13	26	42.0	31.5	13	27	47.5	36.8	22	34	48.5	37.7	23	35
19	48.2	37.3	22	34	49.0	36.0	16	24	57.1	39.2	10	13	51.0	37.1	16	22
20	43.0	33.9	20	37	42.2	32.0	15	30	53.9	38.1	13	18	48.1	35.6	16	25
21	30.0	25.0	15	49	26.0	22.5	15	59	40.2	31.9	19	39	51.2	37.9	19	26
22	38.4	30.3	17	38	28.9	22.7	7	35	41.3	33.1	21	41	43.2	33.5	19	34
23	38.8	30.8	18	39	39.3	31.1	18	38	45.0	34.6	19	32	44.7	34.0	18	30
24	37.9	31.0	20	45	36.8	32.3	26	65	32.5	31.5	30	90	32.2	32.2	32	100
25	32.0	32.0	32	100	31.5	29.5	27	82	33.0	29.9	26	73	33.8	31.3	28	77
26	28.6	26.1	22	73	22.0	20.5	18	80	26.0	24.8	23	87	27.1	25.0	21	76
27	21.8	21.8	22	100	21.0	21.9	22	100	23.2	23.1	23	99	24.9	24.9	25	100
28	23.6	22.4	22	98	23.2	22.1	20	86	23.1	21.8	19	83	24.0	22.5	20	82
29	17.8	17.6	17	97	16.2	15.0	12	78	20.8	19.0	15	75	22.5	20.1	15	70
30	18.2	17.0	14	90	20.0	18.0	13	71	22.2	20.1	16	74	26.0	23.9	20	75
31	21.1	19.0	14	71	14.8	13.8	11	83	18.5	16.9	13	76	29.1	26.4	22	72
Mean	23.6	24.0	15.0	57.8	27.0	22.5	15.5	58.2	32.0	27.0	16.7	54.1	35.4	28.7	17.1	48.9

Previous Day

Errata December, 1943:

Mean temperature should be 32.1

Average daily departure should be +5.8.

U. S. DEPARTMENT OF COMMERCE
WEATHER BUREAU
MONTHLY METEOROLOGICAL SUMMARYSTATION Billings, Montana DATE February, 1944

DATE	TEMPERATURE °F				PRECIPITATION				WIND		WEATHER	
	MAXIMUM	MINIMUM	MEAN	NORMAL MEAN	TOTAL	(INCHES)	SNOWFALL (INCHES)	P. M. TO P. M. (UNMELTED)	HIGHEST VELOCITY	DIRECTION	PERCENT OF POSSIBLE SUNSHINE	CHARACTER OF DAY (SUNRISE TO SUNSET)
1..	41	23	32	22	0	0	T	SW	24	SW	100	Pt Cloudy
2..	48	27	38	22	0	0	T	SW	18	SW	94	Pt Cloudy
3..	44	25	34	22	0	0	T	SW	21	SW	86	"
4..	39	12	26	22	0.18	3.2	3.0	SW	25	N	0	Cloudy
5..	36	9	22	22	0	0	3.2	SW	16	W	0	"
6..	60	31	46	22	0	0	T	SW	36	W	0	"
7..	45	33	39	23	T	T	0	NW	26	NW	0	"
8..	41	27	34	23	0	0	0	E	12	NE	75	Pt Cloudy
9..	31	3	17	23	0.19	9.0	7.0	NE	34	N	0	Cloudy
10..	13	-7	3	23	T	T	9.0	S	10	NE	0	Pt Cloudy
11..	27	-4	12	23	T	T	6.0	SW	24	W	2	Cloudy
12..	31	18	24	23	T	T	5.0	SW	24	SW	0	Pt Cloudy
13..	34	20	27	24	T	T	3.0	NW	22	NW	84	"
14..	24	8	16	24	0.10	1.5	4.5	NE	25	NE	0	Cloudy
15..	22	-4	9	24	0	0	4.0	SW	24	SW	78	Pt Cloudy
16..	34	11	22	24	0.01	0.2	4.0	SW	31	N	0	Cloudy
17..	21	0	10	24	0	0	3.0	SW	18	SW	100	Clear
18..	28	13	20	25	0	0	2.5	SW	21	W	31	Cloudy
19..	29	20	24	25	0.03	0.5	2.0	SW	20	SW	41	Pt Cloudy
20..	37	15	26	25	0	0	1.0	SW	15	W	65	Clear
21..	24	15	20	26	0.06	1.0	1.5	NE	24	NE	0	Cloudy
22..	36	7	22	26	T	T	1.0	SW	16	SW	100	Pt Cloudy
23..	42	17	30	26	0	0	1.0	SW	17	SW	0	Cloudy
24..	44	31	33	26	0	0	T	SW	16	N	0	"
25..	38	24	31	27	T	T	T	SE	14	N	27	"
26..	41	21	31	27	0	0	T	SW	11	SW	100	Clear
27..	42	24	33	27	0	0	T	S	10	SE	100	"
28..	36	20	28	28	0	0	T	NE	19	NE	15	Pt Cloudy
29..	26	21	24	28	T	T	T	NE	11	NE	0	Cloudy
30..												
31..												
MEAN	35.0	15.9	25.4		0.57	15.4		SW			38	Pt Cloudy
Normal			24.4									

* 5:30 A.M. to P.M. 105 TH MERIDIAN TIME. T INDICATES A TRACE OF PRECIPITATION *TOTAL MONTHLY for 5-minute period.
midnight to midnight

SUMMARY

BAROMETRIC PRESSURE				WIND	
Monthly mean	30.03			Prevailing direction	SW, average hourly velocity 11.0
Highest	30.66	date	10th	Highest wind velocity this month since	1940
Lowest	29.60	date	24th	40 miles from	NU, on 11th, in 1943
TEMPERATURE				WEATHER	
Highest	60	date	6th	Number of days clear	4, partly cloudy 11, cloudy 14
Lowest	-7	date	10th	with measurable precipitation (0.01 inch, or more)	6
Extremes this month since 1935		highest	64, lowest -38	MISCELLANEOUS PHENOMENA—DATES OF	
Average daily departure	+1.0			Hail	0
Average daily departure since January 1	+4.8			Fog, light	4, 5, 11, 17, 21, 22, 28, 29
Total degree days	1147			Fog, dense	5, 11, 21, 28, 29
PRECIPITATION				Frost, light	—, heavy —, killing† —
Greatest amount in 24 hours	0.19	date	9th	Sleet	—
Departure from normal this month	—			Thunderstorms	—
Accumulated departure since	—			No. hours contact weather	601.4
Snowfall, greatest 24-hour amount	9.0	date	9th	Dust storms instrument	49.5
snow on ground on 15th	4.0	and at end of month	T	†Frosts not recorded in autumn after first "killing", except in Florida and along immediate coast of the Gulf of Mexico.	
				closed	45.1

MEAN TEMPERATURE AND TOTAL PRECIPITATION THIS MONTH IN—

1875	87		99	9	T	11	10	0.08	23	21	0.40	35	36	0.23		
1876		83	00	23	-	12	29	0.30	24	36	0.29	35	3	1.04		
1877		89	01	21	-	13	19	0.07	25	34	0.53	37	21	0.56		
1878		90	02	-	-	14	22	0.36	26	38	0.26	38	25	0.20		
1879		91	03	25	-	15	31	0.06	27	28	0.19	39	19	0.35		
1880		92	04	12	-	16	26	0.48	28	28	0.24	40	27	0.74		
1881		93	30	0.49	05	22	0.30	17	20	0.48	29	15	0.63	41	30	0.20
1882		94	-	-	06	32	0.43	18	23	0.69	30	37	0.50	42	22	0.75
1883		95	17	0.35	07	34	1.25	19	23	0.17	31	36	0.28	43	32	0.99
1884		96	42	0.05	08	31	1.78	20	29	0.74	32	29	0.31	44	25	0.57
1885		97	31	0.30	09	29	0.50	21	34	0.02	33	20	0.63	45		
1886		98	73	0.30	10	18	0.06	22	14	0.36	34	36	0.36	46		

Data prior to 1934 from records taken in City of Billings.

UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU

STATION Billings, Montana

DATE February, 1944

WB Form 1030

Psychrometric Data

Date	11:30 P.M.				5:30 A.M.				11:30 A.M.				5:30 P.M.			
	Dry	Wet	Dew Pt.	Rel Hum	Dry	Wet	Dew Pt.	Rel Hum	Dry	Wet	Dew Pt.	Rel Hum	Dry	Wet	Dew Pt.	Rel Hum
1	25.9	22.9	17	65	29.0	25.0	17	57	34.2	29.2	21	55	37.5	31.5	23	53
2	31.8	27.0	18	58	28.0	25.0	20	68	37.2	31.8	24	56	42.2	35.1	25	48
3	32.0	26.6	16	47	30.0	25.8	18	57	38.0	32.1	24	54	40.3	33.5	24	49
4	38.0	31.8	23	52	38.0	32.0	22	48	38.0	32.9	26	59	23.1	22.8	22	96
5	14.3	14.0	14	98	11.8	11.0	11	96	14.0	14.0	14	100	35.6	31.7	26	66
6	32.3	28.2	22	62	35.0	31.1	26	66	44.7	38.0	30	55	57.7	43.6	27	30
7	42.6	35.2	25	48	40.9	33.7	24	48	40.2	35.8	30	66	41.6	33.4	22	42
8	35.1	29.0	19	48	31.5	26.4	17	50	34.8	28.0	16	42	37.9	30.8	20	44
9	32.5	29.7	26	73	25.9	25.7	26	98	21.2	20.9	20	94	9.5	9.5	10	100
10	5.0	5.0	5	100	0.3	0.3	0	100	2.8	2.2	0	86	7.5	7.0	5	88
11	0.4	0.4	0	100	-3.2	-3.2	-3	100	20.9	18.5	13	67	24.3	21.1	14	61
12	25.1	22.8	18	72	23.0	20.9	16	72	25.0	22.5	18	71	26.3	23.2	17	64
13	24.0	20.3	11	54	27.2	25.1	22	77	28.3	25.5	21	70	32.0	27.0	18	52
14	21.0	19.5	16	79	21.0	19.2	15	76	23.2	22.8	22	95	16.2	15.2	13	86
15	8.0	7.2	4	82	2.6	2.2	0	88	8.3	7.4	4	80	21.0	18.2	11	62
16	17.3	15.1	9	67	24.8	20.2	9	45	28.0	24.3	17	59	26.2	23.8	19	71
17	13.0	12.9	13	100	5.1	5.1	5	100	8.5	7.8	5	84	21.4	18.5	11	60
18	15.4	13.3	7	65	13.8	12.1	7	70	22.0	19.0	12	60	25.8	22.5	16	62
19	25.0	22.5	18	71	20.3	19.6	18	90	23.0	22.0	20	87	28.0	24.2	16	57
20	23.7	20.2	12	57	19.1	16.6	10	64	29.0	24.9	17	56	33.2	27.8	18	50
21	24.9	22.1	16	66	22.7	22.1	21	93	19.3	19.3	19	100	19.0	19.0	19	100
22	15.0	15.0	15	100	11.7	11.4	10	94	14.3	14.0	13	94	35.6	30.8	24	59
23	28.0	25.0	19	66	22.7	20.8	17	75	35.5	30.6	23	58	41.0	34.0	24	49
24	38.2	33.0	26	60	36.1	31.4	25	60	41.5	34.0	24	47	42.0	33.6	21	40
25	31.2	29.8	28	86	31.1	29.6	23	85	31.0	28.5	25	75	35.0	31.2	26	67
26	26.0	25.0	23	87	21.7	21.5	21	96	30.5	28.9	27	84	39.3	31.2	18	39
27	30.4	26.3	19	58	26.8	24.3	20	72	31.7	29.9	27	82	38.0	32.2	24	54
28	30.2	27.4	23	71	24.0	23.0	21	87	28.5	26.5	22	74	33.2	30.8	28	78
29	23.5	23.3	23	98	22.0	22.0	22	100	24.5	24.5	24	100	25.4	24.2	22	85
30																
31																
Mean	24.5	21.7	16.7	71.9	22.2	20.0	16.0	77.0	26.8	24.0	19.2	72.8	30.9	26.5	19.4	62.5

Previous day.

U. S. DEPARTMENT OF COMMERCE
WEATHER BUREAU
MONTHLY METEOROLOGICAL SUMMARYSTATION Billings, MontanaDATE March, 1944

DATE	TEMPERATURE ° F				PRECIPITATION				WIND			WEATHER		
	MAXIMUM	MINIMUM	MEAN	NORMAL MEAN	TOTAL	(INCHES)	SNOWFALL (INCHES)	# P. M. TO P. M. (UNMELTED)	DEPTH OF SNOW ON THE GROUND P. M. *	PREVAILING DIRECTION	HIGHEST VELOCITY	DIRECTION	PERCENT OF POSSIBLE SUNSHINE	CHARACTER OF DAY (SUNRISE TO SUNSET)
1..	38	23	30	28	0	0	0	T	NW	14	NE	0	Cloudy	
2..	34	21	28	28	T	T	T	T	NE	16	NE	0	Cloudy	
3..	29	24	26	29	T	T	T	T	NE	16	N	0	Cloudy	
4..	31	13	22	29	.04	0.5	T	T	N	24	N	0	"	
5..	24	10	17	30	.10	0.8	1.3		NE	18	NE	0	"	
6..	28	6	17	30	.03	0.6	1.0		NW	27	NW	23	Pt Cloudy	
7..	42	8	25	30	0	0	1.0		NW	18	NW	100	Clear	
8..	51	33	42	31	T	0	T		NW	27	NW	0	Cloudy	
9..	54	34	44	31	T	0	T		SW	25	SW	0	"	
10..	48	30	39	32	T	T	0		NW	38	NW	0	"	
11..	34	23	28	32	0	0	0		NW	33	NW	35	Pt Cloudy	
12..	37	14	26	32	T	T	0		NE	36	N	8	Cloudy	
13..	15	-4	6	33	.03	1.5	1.5		NE	24	N	0	"	
14..	15	-3	6	33	0	0	1.0		S	12	SW	11	"	
15..	37	2	20	34	0	0	T		SW	23	SW	100	Clear	
16..	54	25	40	34	T	0	0		SW	26	NW	0	Cloudy	
17..	50	23	36	34	.01	0.5	0		NW	42	NW	39	"	
18..	46	21	34	35	T	T	0		SW	18	W	100	Clear	
19..	46	32	39	35	T	T	0		SW	20	W	0	Cloudy	
20..	38	24	31	36	T	T	0		NE	22	N	0	"	
21..	38	24	31	36	T	T	0		SW	15	NW	0	"	
22..	49	23	36	36	0	0	0		W	29	W	8	"	
23..	58	23	40	37	T	T	0		W	49	NW	0	Pt Cloudy	
24..	24	14	19	37	.10	1.5	T		NE	16	NE	0	Cloudy	
25..	35	18	26	38	T	T	T		SW	19	SW	37	"	
26..	37	18	28	38	T	T	T		W	39	NW	31	"	
27..	24	14	19	38	T	T	T		NW	39	N	0	"	
28..	33	16	24	39	T	T	0		NE	16	NE	0	"	
29..	46	18	32	39	.02	1.0	T		NE	15	W	0	"	
30..	56	42	49	40	0	0	0		NW	29	NW	1	"	
31..	51	38	44	40	T	0	0		NW	29	NW	0	"	
MEAN	38.3	19.6	29.2		.033	6.5	-		SW	-	-	16	Cloudy	
Normal	-	-	34.0		-	-	-		-	-	-	-	-	

*5:30 P. M. 105 TH MERIDIAN TIME. T INDICATES A TRACE OF PRECIPITATION *TOTAL MONTHLY for 5-minute period

SUMMARY

BAROMETRIC PRESSURE
Monthly mean 30.01
Highest 30.60, date 13th
Lowest 29.50, date 23rdTEMPERATURE
Highest 58, date 23rd
Lowest -4, date 13th
Extremes this month since 1935; highest 75, lowest -13
Average daily departure -4.8
Average daily departure since January 1, -1.5
Total degree days 1111PRECIPITATION
Greatest amount in 24 hours .13, date 4th and 5th
Departure from normal this month -
Accumulated departure since -
Snowfall, greatest 24-hour amount 1.5, date 13th
snow on ground on 15th T, and at end of month 0WIND
Prevailing direction SW, average hourly velocity 12.8
Highest wind velocity this month since 1939
54 miles from NW, on 6, in 1942WEATHER
Number of days clear 3, partly cloudy 3, cloudy 25,
with measurable precipitation (0.01 inch, or more) 7MISCELLANEOUS PHENOMENA—DATES OF
Hail 17, 31
Fog, light 1, 2, 4, 17, 21, 22
Fog, dense 2, 17, 21, 22
Frost, light -, heavy -, killing -
Sleet -
Thunderstorms -
No. hours contact weather 651.3
Duststorms - instrument - 64.7
Frosts not recorded in autumn after first "killing", except in Florida and along immediate coast of the Gulf of Mexico.
" " closed weather 28.0

MEAN TEMPERATURE AND TOTAL PRECIPITATION THIS MONTH IN—

1875	87	99	25	0.50	11	42	0.11	23	34	0.75	35	33	1.73
1876	88	00	38	-	12	21	0.36	24	30	1.91	36	36	0.13
1877	89	01	35	-	13	26	0.36	25	38	0.81	37	35	0.76
1878	90	02	-	-	14	37	0.44	26	38	0.44	38	37	1.95
1879	91	03	32	0.55	15	35	1.07	27	37	0.32	39	36	0.91
1880	92	04	26	-	16	40	0.34	28	41	0.16	40	39	0.60
1881	93	35	1.53	05	44	1.22	0.65	29	37	1.06	41	35	0.63
1882	94	-	-	06	28	0.73	0.59	30	34	0.53	42	36	0.98
1883	95	37	0.74	07	40	1.44	0.43	31	36	0.60	43	25	1.80
1884	96	37	0.80	08	37	1.10	0.35	32	26	1.90	44	29	0.33
1885	97	-	-	09	37	0.94	0.87	33	41	1.04	45	-	-
1886	98	27	2.20	10	47	0.05	0.07	34	39	1.50	46	-	-

Data prior to 1935 from records taken in City of Billings.

Subsequent data from records at Airport.

L. T. Pierce, Meteorologist

UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU

STATION Billings, Montana

DATE March 1944

WB Form 1030

Psychrometric Data

Date	11:30 p.m. #				5:30 a.m.				11:30 a.m.				5:30 p.m.			
	Dry	Wet	Dew Pt.	Rel Hum	Dry	Wet	Dew Pt.	Rel Hum	Dry	Wet	Dew Pt.	Rel Hum	Dry	Wet	Dew Pt.	Rel Hum
1	25.1	24.3	23	91	24.2	24.2	24	100	23.8	27.6	24	80	36.6	32.8	28	68
2	28.1	27.2	26	91	23.8	23.5	23	96	25.6	28.5	25	99	30.5	28.8	26	82
3	24.2	23.8	23	95	25.2	24.2	22	87	27.0	28.0	22	77	29.0	26.5	22	74
4	27.2	25.9	24	82	23.7	23.3	23	96	29.0	27.2	25	82	25.1	23.9	22	85
5	14.0	13.8	13	96	11.5	11.3	11	97	15.2	12.3	10	84	20.0	18.5	15	78
6	12.5	12.2	12	98	6.5	6.3	6	96	24.3	21.1	14	61	28.2	23.2	12	46
7	18.0	15.0	6	55	10.5	9.2	5	75	23.0	20.0	13	61	42.0	34.0	23	44
8	34.5	28.0	16	43	39.4	34.0	27	59	46.8	37.8	26	42	47.0	41.0	34	61
9	42.7	37.8	32	65	36.2	35.0	34	91	47.4	40.3	32	55	49.9	45.0	36	59
10	44.0	38.0	31	59	46.0	38.3	29	50	33.2	32.0	31	90	38.8	29.0	9	25
11	31.2	24.0	7	31	27.3	22.1	10	43	32.0	25.2	10	35	32.5	25.0	8	31
12	23.5	20.1	12	57	17.8	16.7	14	83	23.0	24.8	19	65	34.5	29.0	20	51
13	15.0	14.0	11	86	6.0	5.7	5	94	2.1	1.4	-2	80	3.0	2.5	0	85
14	-3.2	-3.4	-4	97	-2.0	-2.3	-4	90	5.2	3.6	-4	62	14.0	11.5	3	57
15	7.0	6.1	2	79	9.5	8.1	3	72	23.8	20.2	12	56	37.0	31.0	22	51
16	26.8	23.8	18	65	27.7	24.0	17	59	42.8	36.0	27	52	52.0	43.0	33	48
17	42.4	37.8	32	66	46.2	41.5	37	69	49.8	42.1	34	54	34.1	32.5	31	88
18	26.2	25.2	24	88	24.0	23.5	23	93	30.8	28.8	26	80	45.2	37.0	26	46
19	36.2	31.1	24	58	36.0	30.8	23	56	43.0	35.0	24	45	43.0	37.0	30	58
20	37.9	35.5	32	80	32.7	30.6	29	84	33.2	29.8	25	69	38.0	32.0	23	52
21	25.5	25.1	23	90	26.2	26.0	26	98	33.1	31.9	30	88	37.5	34.2	30	73
22	28.7	28.3	28	95	26.2	24.7	22	83	41.0	34.1	25	50	48.0	37.5	24	36
23	42.0	34.8	25	49	43.1	34.2	21	39	52.2	39.2	22	29	52.5	40.0	24	30
24	23.9	20.9	14	62	17.6	17.3	17	96	20.1	18.0	13	71	23.5	20.1	12	57
25	19.0	17.8	15	82	20.4	18.7	15	77	33.3	26.8	14	40	34.3	27.0	12	35
26	29.0	24.5	16	54	25.2	21.7	14	58	33.5	25.4	7	28	34.8	27.0	11	43
27	20.4	18.9	15	86	14.4	13.2	10	80	18.4	14.1	-2	36	21.5	17.0	3	40
28	20.0	16.1	4	45	18.5	16.5	11	67	27.5	23.2	14	52	32.0	27.0	18	52
29	21.9	21.2	20	91	20.8	20.4	20	96	24.9	23.8	22	87	34.0	30.9	27	72
30	36.7	32.5	27	65	41.3	36.2	26	47	51.6	39.5	24	32	55.0	42.5	28	34
31	45.3	39.0	31	57	42.0	35.0	26	51	51.1	40.2	27	20	46.0	40.0	33	60
Mean	26.6	23.8	18.8	72.8	24.9	22.4	18.4	76.8	31.5	26.8	19.0	60.1	35.5	29.8	20.8	55.5

Previous Day

WEATHER BUREAU
MONTHLY METEOROLOGICAL SUMMARY

STATION Billings, Montana

DATE April, 1944

DATE	TEMPERATURE ° F				PRECIPITATION				WIND		WEATHER		
	MAXIMUM	MINIMUM	MEAN	NORMAL MEAN	TOTAL	(INCHES)	# SNOWFALL (INCHES) P. M. TO P. M. (UNMELTED)	DEPTH OF SNOW ON THE GROUND P. M. *	PREVAILING DIRECTION	HIGHEST VELOCITY	DIRECTION	PERCENT OF POSSIBLE SUNSHINE	CHARACTER OF DAY (SUNRISE TO SUNSET)
1..	51	36	44	40	.02	T	0	0	N	27	N	10	Pt Cloudy
2..	62	28	45	41	0	0	0	0	S	10	SE	81	Clear
3..	72	34	53	41	0	0	0	0	SW	18	SW	100	"
4..	75	40	58	42	0	0	0	0	SW	17	SW	93	"
5..	74	37	56	42	T	0	0	0	S	35	NW	0	Cloudy
6..	58	41	50	42	T	0	0	0	NW	38	NW	2	"
7..	59	34	46	43	.06	0	0	0	S	17	NW	53	"
8..	57	32	44	43	T	0	0	0	E	25	NE	0	"
9..	47	37	42	44	T	0	0	0	NE	26	NE	0	"
10..	60	33	46	44	0	0	0	0	SE	14	S	65	"
11..	65	38	52	44	0	0	0	0	SE	17	SE	100	Pt Cloudy
12..	66	39	52	45	0	0	0	0	N	26	NW	95	Cloudy
13..	56	43	50	45	0	0	0	0	S	24	S	49	"
14..	59	33	46	46	T	0	0	0	S	21	NE	68	Pt Cloudy
15..	54	35	44	46	.01	T	0	0	NE	21	N	48	Cloudy
16..	54	32	43	46	T	0	0	0	NE	23	E	67	"
17..	55	28	42	47	0	0	0	0	SE	16	NE	65	Pt Cloudy
18..	57	33	45	47	0	0	0	0	S	14	N	48	"
19..	58	35	46	47	0	0	0	0	SE	13	N	80	"
20..	60	35	48	48	T	0	0	0	NE	25	E	58	Cloudy
21..	59	42	50	48	T	0	0	0	NE	31	N	52	"
22..	55	39	47	48	T	0	0	0	NE	18	NE	63	"
23..	59	35	47	49	0	0	0	0	SE	10	N	77	Pt Cloudy
24..	64	35	50	49	0	0	0	0	E	16	E	82	Clear
25..	63	38	50	49	.01	0	0	0	NE	23	E	42	Cloudy
26..	57	36	46	50	0	0	0	0	S	13	N	46	Pt Cloudy
27..	69	38	54	50	0	0	0	0	NE	15	E	67	Cloudy
28..	61	47	54	51	0	0	0	0	N	19	N	23	"
29..	62	44	53	51	0	0	0	0	N	34	NE	67	"
30..	66	44	55	51	T	0	0	0	N	36	NW	79	"
31..													
MEAN	60.5	36.7	48.6		.10	T	0	0	NE			56	Pt Cloudy
Normal	-	-	46.0		-	-	-	-	-	-	-	-	-

midnight to midnight

* 5:30 - 10:00 P. M. - 105 TH MERIDIAN TIME. T INDICATES A TRACE OF PRECIPITATION *TOTAL MONTHLY for 5-minute period

SUMMARY

BAROMETRIC PRESSURE				WIND	
Monthly mean	29.87			Prevailing direction	NE, average hourly velocity 10.7
Highest	30.42	date	2nd	Highest wind velocity this month since	1939
Lowest	29.49	date	13th	45 miles from	NW, on 15, in 1939
TEMPERATURE				WEATHER	
Highest	75	date	4th	Number of days clear	4, partly cloudy 8, cloudy 18
Lowest	28	date	17th	with measurable precipitation (0.01 inch, or more)	4
Extremes this month since	1935	highest	92, lowest 6	MISCELLANEOUS PHENOMENA—DATES OF	
Average daily departure	+2.6			Hail	-
Average daily departure since January 1,	+1.8			Fog, light	8, 16
Total degree days	492			Fog, dense	8, 16
PRECIPITATION				Frost, light	23, heavy -, killing -
Greatest amount in 24 hours	.06	date	7th	Sleet	-
Departure from normal this month	-			Thunderstorms	7
Accumulated departure since	-			contact weather, No. hours	710.5
Snowfall, greatest 24-hour amount	T	date	1st	instrument weather	3.9
snow on ground on 15th	0	and at end of month	0	closed weather	5.6

MEAN TEMPERATURE AND TOTAL PRECIPITATION THIS MONTH IN—

1875			87			99	47	T	11	43	0.97	23	44	1.13	35	42	0.97
1876			88			00	48	-	12	46	1.32	24	45	0.59	36	45	0.78
1877			89			01	47	-	13	48	0.22	25	49	1.58	37	47	0.72
1878			90			02	42	-	14	46	1.18	26	47	0.42	38	48	0.50
1879			91			03	42	-	15	54	0.31	27	43	2.10	39	48	0.83
1880			92			04	-	-	16	46	1.27	28	44	0.48	40	42	3.16
1881			93	41	1.48	05	51	1.42	17	42	1.99	29	44	0.50	41	45	2.00
1882			94	53	1.90	06	52	2.96	18	43	1.58	30	53	0.87	42	49	1.28
1883			95	59	2.10	07	45	1.21	19	49	0.17	31	46	0.98	43	52	0.49
1884			96	46	0.63	08	52	1.17	20	38	1.40	32	46	2.24	44	49	0.10
1885			97	-	-	09	41	0.93	21	46	0.83	33	46	0.84	45		
1886			98	50	0.02	10	54	1.48	22	45	2.91	34	52	0.41	46		

Data prior to 1935 from records taken in the city of Billings.

Subsequent data from records at Airport.

L. T. Pierce, Meteorologist

Weather Bureau.

UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU

STATION Billings, Montana

DATE April, 1944

WB Form 1030

Psychrometric Data

Date	11:30 p.m.				5:30 a.m.				11:30 a.m.				5:30 p.m.			
	Dry	Wet	Dew Pt.	Rel Hum.	Dry	Wet	Dew Pt.	Rel Hum.	Dry	Wet	Dew Pt.	Rel Hum.	Dry	Wet	Dew Pt.	Rel Hum.
1	40.7	36.0	30	65	38.1	35.6	32	79	46.0	39.2	31	55	50.0	40.0	28	41
2	41.0	36.8	32	69	31.1	29.0	26	79	46.6	39.5	31	54	60.9	45.0	27	27
3	45.0	38.8	31	57	37.1	32.5	26	62	62.0	45.2	26	24	69.5	48.3	25	18
4	53.0	41.8	29	39	42.0	34.8	25	49	65.2	47.1	27	23	73.2	49.2	22	14
5	56.1	45.0	33	43	40.2	36.0	31	68	60.3	46.7	33	35	69.9	49.4	28	20
6	52.0	45.5	39	61	43.9	40.8	38	79	50.2	43.0	35	56	55.2	43.6	31	38
7	42.0	38.0	33	71	35.6	34.0	32	87	54.2	45.9	38	54	45.3	40.5	35	67
8	38.2	37.0	36	91	35.2	34.5	34	94	50.5	44.7	39	65	54.2	44.0	33	45
9	44.0	38.5	32	62	38.3	37.1	36	90	45.6	40.7	35	62	41.0	38.0	35	77
10	37.5	35.0	32	79	35.2	33.9	32	88	49.5	42.9	36	56	59.2	45.3	30	33
11	47.2	42.8	38	71	41.1	38.7	36	82	60.5	47.8	36	39	63.0	47.5	32	31
12	49.8	42.8	35	57	40.1	35.9	30	63	61.6	47.4	33	34	60.3	42.2	16	16
13	49.0	37.0	20	29	44.8	36.6	26	46	53.5	40.0	22	28	55.0	39.2	16	19
14	44.0	36.1	26	47	33.2	29.5	24	66	54.7	41.4	25	30	55.8	41.1	22	25
15	44.1	39.2	34	66	36.1	35.9	31	82	48.8	42.0	35	59	48.9	42.7	36	61
16	39.2	37.5	36	87	34.5	33.8	33	95	47.7	40.3	32	53	51.2	41.0	29	41
17	40.2	32.2	20	41	29.0	25.3	19	63	44.8	37.8	29	53	51.7	40.3	26	36
18	39.9	34.8	28	61	37.0	33.0	28	67	49.8	39.2	26	38	55.9	41.7	27	32
19	45.6	36.9	26	44	38.1	32.3	24	55	56.8	41.0	20	22	57.8	44.1	29	33
20	43.8	37.9	31	59	37.2	35.5	33	86	56.5	44.0	30	36	56.3	45.7	35	46
21	51.9	42.2	31	45	46.1	39.2	31	55	54.5	42.8	29	37	52.1	42.2	31	44
22	43.7	40.0	36	74	39.8	37.7	35	84	50.2	41.9	33	51	50.9	42.3	33	49
23	41.9	37.9	33	71	36.2	35.2	34	92	53.1	43.8	34	49	58.1	42.4	23	24
24	45.9	35.5	20	34	36.8	30.8	22	52	58.0	43.0	25	27	60.8	44.0	24	23
25	49.2	38.9	26	39	39.9	34.3	27	58	49.4	41.0	31	49	60.8	47.6	35	38
26	43.4	41.6	40	87	37.9	35.0	31	76	44.9	41.2	37	74	57.4	45.8	34	41
27	47.0	43.2	40	63	39.1	37.2	35	85	61.0	49.5	39	44	67.2	49.7	33	28
28	55.4	48.2	42	60	47.1	43.9	41	80	56.0	47.5	40	55	59.1	49.2	41	50
29	53.0	46.8	41	64	50.9	45.0	39	64	57.0	47.2	38	49	59.2	48.1	38	45
30	45.7	41.8	38	73	46.6	41.2	35	64	60.8	47.3	34	36	64.2	47.6	30	28
31																
Mean	45.6	39.5	32	60	38.9	35.4	31	73	53.7	43.4	32	45	57.4	44.3	29	36

Previous day

Refuge Port Peck BasementsMonths of January to April, 1944

1612

(1) Species Common Name	(2) First Observed		(3) Became Common	(4) Peak Concentration		(5) Last Observed		(6) Young Produced			(7) Total
	Number	Date	Date	Number	Date	Number	Date	No. Broods Obsvd.	Avg. Size	Esti- mated Total	Number Using Refuge
Hallstone:											
Mallard											
Pintail	2000	4-11									
Halfbreed:											
Pelicans	4										
Mallard	1000	4-11									
Pintail											
Killdeer	few										
Lake Mason:											
Blue Heron	4										
Pintail	5000	4-12									
Lanester:											
Mallard	100	4-5									
Pintail	50	"									
Canada Geese	40	"									

REMARKS: (Pertinent information not specifically requested)

Dates shown were only inspections of the areas involved.

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 Fort Peck EasementsMonths of January to April, 1944

(1) Species	(2) Density		(3) Young Produced		(4) Sex Ratio	(5) Removals			(6) Total	(7) Remarks
Common Name	Cover types, total acreage of habitat	Acres per Bird	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.
Roundup Easements None Observed										
Lamesteer: Sharptails									100	Wintered and were fed on Refuge by property owner Scott's hired man.

INSTRUCTIONS

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.

Refuge Lamont National Wildlife Refuge
Fort Peck Easement RefugesApril 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					
KAMESTEEN Muskrat								122	0	0	--	--	-	-	50

REMARKS:

Bad Spring weather precluded Mr. Scott, permittee, from trapping.

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. |

EASEMENT NARRATIVE REPORT

ANNUAL SUMMARY

Year Ending April 30, 1944

submitted Jan, 1945

Weather.

Weather through the past year in general has been excellent. Winter was mild and there was sufficient moisture for satisfactory range growth.

Water Conditions.

Water conditions on all areas was satisfactory. All spilled except Hailstone, which filled within 8" of spill and Miller Lake which remains about 30" below spill.

Migratory Birds.

Because of greater water areas, more abundant food, thus a suitable habitat, these areas carried more nesting and migratory birds than at any time since creation of the Refuges. An estimated 66,000 birds used these areas through the 1943 Fall migration,

Upland Game Birds.

The information supplied by Mr. Rodgers in the September-December, 1942 Narrative Report, is considerably different than present conditions on the areas. Habitat acreages and populations will be revised when time for the accumulation of the data will permit. At the present time Upland Birds are only occasionally seen on the areas.

Fur Animals.

Muskrats or other fur bearers have been observed only on Lamesteer Lake. That has a population of an estimated 60 Muskrats.

Fish.

Between 3000 and 4000 Montana Black Spotted Trout were

Annual Easement Summary, Year ending April 30, 1944, cont.

planted in Hailstone and Halfbreed Refuges in June. Columbus Rod and Gun Club took the initiative in the plant, which was not approved by either State or Government Agencies concerned.

Refuge Development and Maintenance.

All easily movable property was moved from Roundup to Fort Peck for more safe keeping.

The open shooting area on Lake Mason was posted and the boundary signs were changed. Refuge signs previously installed by W. P. A., located off the Refuge were removed.

Repairs requiring 39-3/4 man days, totaling \$345.45 were made to the Lamesteer spillway. Minor repairs to prevent further damage to the North wing wall of Lamesteer spillway was performed during the Spring runoff in early April.

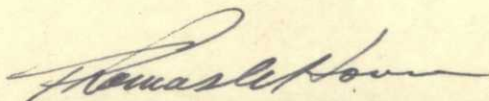
Public Relations.

Hunters used the open area on the South end of the lake to a small extent, but complained of not being able to get birds because of the large part of the area that still remained closed.

Patrol was maintained concurrent with other work.

Mr. Willis and Mr. Kreager were the only Refuge visitors through this period.

January 12, 1945.



Thomas C. Horn, Refuge Manager