

ROUTING SLIP

BRANCH OF WILDLIFE REFUGES

DATE: Sept. 15 1945

MR. SALYER _____

MR. KRUMMES _____

MR. DUMONT _____

MISS BAUM _____

SECTION OF HABITAT IMPROVEMENT:

MR. GRIFFITH _____

DR. BOURN _____

MISS COOK _____

SECTION OF OPERATIONS:

MR. BALL _____

MR. REGAN _____

SECTION OF LAND MANAGEMENT:

MR. KENT _____

MR. ACKERKNECHT _____

SECTION OF STRUCTURES:

MR. TAYLOR _____

MR. JOHNSTON _____

STENOGRAPHERS:

NARRATIVE REPORT

REFUGE: North Dakota Easement Dist. # 6 (Arrowwood)

PERIOD: May - August, 1950

NORTH DAKOTA EASEMENT REFUGES - DISTRICT NO. 6

BONEHILL CREEK

CHASE LAKE

HALFWAY LAKE

HOBART LAKE

LAKE GEORGE

STONEY SLOUGH

TOMAHAWK LAKE

The unusual heavy spring run-off coupled with cool summer weather kept all water units on easement refuges in good condition. The second spring run-off in May, from the nine and one-half inches of snow that fell over most of the district increased the water supply on some areas to the greatest in forty years. This unusual heavy run-off filled hundreds of potholes and sloughs with water levels sufficient to carry them all summer. Many will not go dry for several years, if there is a normal rainfall.

The late spring caused ducks to hatch late. Many of the re-nesters were very late. Haying and summerfallow operations destroyed many nests. There was a great increase in the number of nesting ducks probably because of the heavy snows in early May. The easement refuges in the west half of the district showed the greatest increase in young produced.

BONEHILL CREEK

The spring run-off filled everything to spillway crest including the marsh or slough in the SW1/4. There was no apparent damage to the water control structures. The water levels dropped some during the summer but not as much as previous years since the summer was cool and possibly some springs became active again.

Food and cover conditions were fair although the pastures on the refuge were grazed rather heavy. Fence lines and waste land along the diversion ditch provide most of the cover for nesting. There was an increase in the nesting population of ducks; the greatest increase was in blue-winged teals.

Upland game birds consist mainly of pheasants; this year there has been a poor increase, probably, due to the late cold spring plus nests destroyed on cultivated land. Food was abundant.

Fur bearing animals such as muskrats and mink are scarce; an increase in badgers and red fox was noted.

CHASE LAKE

Water conditions on Chase Lake improved to the extent that the higher water levels formed a new island of great importance to the pelicans and gulls. The main pelican island became smaller due to the higher water level - destroying about ten per cent of the nesting area formerly used by the gulls. Most of the California gulls moved over to nest on the new island; about 300 ring-billed gulls also nest there. About 200 young pelicans were raised on the second island plus about 1100 on the original pelican island.

On June 28th 300 ring-billed gulls were banded and on July 26th 100 white pelican young were banded. All birds on the refuge were from one to two weeks later than normal. Food appeared to be plentiful as very few dead birds were present.

The fresh water unit had been full after the spring run-off. Marsh plants and aquatics were abundant. Ducks besides numerous species of shore birds were present. While at Chase Lake on July 26th, an estimated total of 2500 northern phalaropes were feeding on the main lake - a fall migration already.

Upland game birds are still scarce but occasionally pheasants, sharptailed and pinnated grouse are noted in the area - the latter two are the most common. Food and cover has been excellent.

In the vicinity of the refuge white-tailed deer are frequently seen; occasionally a few are noted in on the peninsula within the refuge boundary.

Predatory and fur animals are scarce in the area. The Predator and Rodent Control Division has worked in the area to control coyotes and at the same time a few red foxes have been eliminated. Aerial fox hunters work the hills frequently about the refuge and thus the foxes are held down satisfactorily.

HALFWAY LAKE

The water level rose during the spring run-off enough to flood into the trees on the east side of the lake. This higher water level has destroyed most of the marsh plants that has been abundant up until two years ago. This is the highest water level since the area was made into a refuge. The land owner's pasture which surrounds most of the lake decreased about forty acres; by late summer, however, the water level had dropped. Because most of this refuge is being pastured it does not have enough cover for nesting. Sufficient cover is available within a quarter of a mile from the water area.

The submerged aquatics continued to produce in spite of the deeper water; sago pondweed and an abundance of water milfoil were the two most prevalent plants.

By late August several hundred coots plus numerous blue-winged teals and pintails had moved into the water area. By this time many small ponds in the vicinity had dried up.

Upland game birds are scarce; there is a decrease in pheasants. Food and cover has been plentiful for upland game birds in the vicinity.

Predatory animals are well controlled by local farmers.

HOBART LAKE

This area also received what may be called two heavy spring run-offs in one spring. The north alkali unit filled to within eight inches of the water level in the south fresh water unit. This additional water supply in the north marsh made it very attractive to birds. Throughout the summer the water levels held up good due to the cool temperatures and heavy rains in this area.

Not as many ducks nested on the area as expected. Throughout all of this section of this district, from Spiritwood east to Tomahawk and south to Stoney Slough there were less ducks noted than on the refuges west and north of Jamestown. Many ducks, such as blue-winged teals and pintails began coming into the Hobart Refuge after the middle of August.

Food and cover on this area was abundant all summer. There is ideal nesting cover on waste land bordering the north unit on both sides.

A few pheasants were noted on the west side but there is not any change over last year. Occasionally sharptailed grouse are observed on the east side; it is believed they have a dancing ground off of the refuge on the east side of the alkali unit.

No muskrats have been observed this summer but no doubt a few are in the north marsh area. A few badger and skunk signs were noted on the west side. It has also been reported that red foxes visit the area frequently.

LAKE GEORGE

The main lake or Salt Lake as most local people call it, has the highest water level that most local residents can remember; the water level is up over some of the old concrete foundation where recreational buildings used to stand. The rock cabin that is located on the south side now has water up to its door steps. Throughout the summer many used the south side beach for swimming; many more probably would use the beach but roads in this area have been poor most of the summer due to grades washed out or flooded from the spring run-off.

The south fresh water unit and the alkali unit immediately north had excellent supplies of water. Sago pondweed was common in both while the fresh water unit also had an abundance of water milfoil and coontail. Roundstem rushes were abundant in the fresh water unit.

More ducks nested on the refuge than a year ago, especially blue-winged teals and pintails. A few redheads also nested on the refuge in the marshes.

Very few pheasants have been seen on the refuge. Sharptailed grouse are holding their own. There are a few pinnated grouse in the area as last spring a few were heard booming.

Fur bearing and predatory animals are below normal, except for the red fox. Poor fur prices have left most of the hunting of foxes to hunters with planes that are out for the sport.

White-tailed deer are common in the area but as yet have not caused any damage. A few deer collect on the refuge in the winter time on the west side of Lake George or the main lake. This coming fall's deer season about ten days early will also help to reduce the herd as the deer do not move in much until after the middle of December.

STONEY SLOUGH

This refuge also had a heavy spring run-off which filled the units above normal. Several heavy rains during the summer kept the water levels up and in good condition.

Despite the excellent water conditions there were not many ducks for the same reason as on Hobart Lake. In August many ducks moved in to the refuge as smaller potholes dried up in the area. Marsh and aquatic plants were very good in Unit No. 3, Unit No. 4 and 5 are in a pasture and therefore, there is very little cover.

The grade crossing between Units 4 and 5 was repaired. The Mpls-Moline tractor with the front-end loader was moved down from the Arrowwood Refuge and with one dump truck 230 cubic yards of dirt and 28 cubic yards of gravel was put on the grade so as to make it possible for the land owner to get across to his farm land and to utilize the balance of his pasture. Some old snow fence was placed along both sides of the new grade and a truck load of baled hay from the Arrowwood Refuge was placed between the snow fence and grade to prevent wave action. The estimated cost of this job is \$130.87 which includes only repairs, gas and oil and per diem.

Upland game birds consist mainly of pheasants and they are also scarce. Local farmers say that there are very few broods on the refuge or vicinity. Food and cover has been excellent all summer. Cool and wet spring may account for the few pheasant broods.

No deer have been noted on the refuge this summer.

Skunks and red foxes are on the increase in the area since few are being trapped. The only skunks killed are those near farm buildings which bother poultry. Farm boys have been doing very little trapping since the fur prices are so poor.

TOMAHAWK LAKE

The water control structures on this refuge are in good condition after the heavy spring run-off. Local farmers are occasionally adding small rocks on the riprap of the dam when they remove rocks from their cultivated land so that the upstream side of the dam is in good shape. The water levels held up very good through the summer. Sago pondweed was common besides some water milfoil and coontail. There was also an abundance of Lemna minor and Trisulca in the upper arms of the lake. This summer some of the pastures were not grazed any on the west side of the lake and as a result the shores produced a heavy growth of marsh plants.

This area also did not produce as many ducks this summer as the refuges in the western section of this district even though water, food and cover conditions were excellent. However, many ducks and coots moved into the lake in late August. This area generally has a few canvas-backs and redheads nesting in the upper arms of the lake.

There are very few pheasants about the refuge and apparently they made little increase this summer. No grouse have been noted this period on the refuge.

Predatory animals are below normal about the refuge. This area is on the outskirts of town, which may account for the few predator animals. A few signs of muskrat activity was noted in the north inlet coulee but they still are scarce over the area. The improved water and marsh conditions should have been very favorable for muskrats this year.

Photographs: Attached

Prepared 9-8-50

Nelius B. Nelson
Nelius B. Nelson, Refuge Manager

Approved: SEP 12 1950
(Date)
[Signature]
Acting Regional Director

TOTAL ESTIMATE FOR PERIOD

(1) Species	(2) First Migrants Seen		(3) Peak Concentration		(4) Last Migrants Seen		(5) Young Produced		(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
	BONEHILL CREEK	CHASE LAKE	HALFWAY LAKE	HOBART LAKE	LAKE GEORGE	STONEY SLOUGH	TOMAHAWK LAKE		
1. <u>Swans:</u>									
Whistling swan	0	0	0	0	0	0	0		
2. <u>Geese:</u>									
Canada goose	0	120	0	170	200	30	0		
Cackling goose	0	0	0	0	0	0	0		
Brant	0	0	0	0	0	0	0		
White-fronted goose	0	0	0	0	0	0	0		
Snow goose	0	0	0	200	500	0	0		
Blue goose	0	0	0	350	600	0	0		
3. <u>Ducks:</u>									
Mallard	55	150	200	450	500	330	35		
Black Duck	0	0	0	0	0	0	0		
Gadwall	10	50	20	60	40	100	10		
Baldpate	30	85	50	100	140	200	25		
Pintail	250	800	260	175	800	1200	120		
Green-winged teal	0	0	0	10	0	0	0		
Blue-winged teal	400	1200	340	250	950	1500	250		
Cinnamon teal	0	0	0	0	0	0	0		
Shoveller	25	40	10	30	55	25	15		
Wood duck	0	0	0	0	0	0	0		
Redhead	8	30	10	25	50	0	8		
Ring-necked duck	0	0	0	0	0	0	0		
Canvas-back	0	25	12	40	65	20	10		
Scaup	50	50	40	120	250	40	30		
Golden-eye	0	0	0	8	0	0	0		
Buffle-head	0	0	0	0	0	0	0		
Ruddy duck	6	30	6	25	30	10	4		
	100	220	350	600	450	90	40		

4. Coot:
3-1750
(June 1949)

Form NR-1

(over)

SUMMARIES

Total Production:Geese 0Ducks 3050Coots 610

Total waterfowl usage during period _____

Peak waterfowl numbers _____

Areas used by concentrations Western half of this district

Principal nesting areas this season _____

Western half of this district.Reported by Helling B. Nelson, Refuge Manager

INSTRUCTIONS

- (1) Species: In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance.
- (2) First Seen: The first refuge record for the species during the season concerned in the reporting period, and the number seen. This column does not apply to resident species.
- (3) Peak Concentration: The greatest number of the species present in a limited interval of time.
- (4) Last Seen: The last refuge record for the species during the season concerned in the reporting period.
- (5) Young Produced: Estimated number of young produced based on 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 should be omitted.
- (6) 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 nature of the migrational movement.

Note: Only columns applicable to the reporting period should be used. It is desirable that the Summaries receive careful attention since these data are necessarily based on an analysis of the rest of the form.



Half-Way Refuge: 5-29-50 - Water level from spring run-off extending into trees on shoreline. Highest water level in many years.
R99-1.



Lake George Refuge: 5-29-50 - Stream of water coming from the south unit flowing into the main lake.
R99-2



Lake George Refuge: 5-29-50 - Water level on the main lake, extending up to the rock cabin. Highest water level that many local people can remember. R99-3.



Bonehill Creek Refuge: 6-3-50 - Control gate on the refuge with the water level the same on both sides. Above normal spring run-off. R99-5



Bonehill Creek Refuge: 6-3-50 - Shows water level still near spillway level - water merely flows around the end of the dam through a natural well grassed draw.
R100-1.



Hobart Lake Refuge: 6-3-50 - South fresh water unit overflowing into north unit. Shows water level in north unit - highest since it was made a refuge.
R100-2



Hobart Lake Refuge: 6-3-50 - Shows some erosion on dike caused by wave action during high water.
R100-3.



Chase Lake Refuge: 7-26-50 - Fresh water unit - shows heavy cover along the shore.
R101-2.



Tomahawk Refuge; 8-3-50 - An upper arm of the main unit - shows cover and aquatic growth.
R101-5.



Stoney Slough Refuge; 8-8-50 - Shows the grade crossing on the refuge between units 4 and 5 after it was damaged by the spring run-off.
R102-1.



Stoney Slough Refuge: 8-10-50 - Raising grade by hauling in dirt fill.
R102-2.



Stoney Slough Refuge: 8-17-50 - Raising of grade completed and gravelled.
Shows old snow fence put in to prevent wave action on new grade.
R102-3