

NORTH DAKOTA EASEMENTS #2
(Sullys Hill)

narrative reports

January-December 1949

ROUTING SLIP

BRANCH OF WILDLIFE REFUGES

DATE: Jan. 11 1950

MR. SALYER _____

MR. KRUMHES _____

MR. DOMONT _____

MISS BAUM _____

SECTION OF HABITAT IMPROVEMENT:

~~MR. GRIFFITH~~ REG 1-17

~~DR. BURN~~ WSB 1/12/50

MR. KUBICHEK _____

SECTION OF OPERATIONS:

MR. BALL _____

MR. REGAN _____

DR. MORLEY _____

SECTION OF LAND MANAGEMENT:

~~MR. ACKERMAN~~ WA

SECTION OF STRUCTURES:

MR. TAYLOR _____

MR. JOHNSTON _____

STENOGRAPHERS:

NARRATIVE REPORT

REFUGE: N. DAK. EASEMENT DIST. NO. 2

PERIOD: September - December. 1949

Easement Refuges in District No. 2, North Dakota.

1. Lake Ardoch Refuge.

1. General.

A. Weather Conditions: It was dry here during September and November. In October, more moisture was received than we receive as a rule as shown below. Several inches of snow were received during the month of December. Much rain was received in places and not much was received at other places during the past summer. When it froze up in November, all of the pool areas on the Easement Refuges in this District had a fair amount of water in them. Below further weather information is given as it has been furnished by the Devils Lake Federal Weather Bureau:

	Snowfall	Precip.	Max. Temp.	Minimum Temp.	Normal Precip.	Plus or Minus Precip.
September		.55	87	28	1.63	- 1.08
October	1.10	3.94	85	20	1.25	+ 2.69
November	5.4	.55	68	4	.72	-.17
December	20.20	1.40	44	20	.54	+.86
	<u>26.70</u>	<u>6.44</u>			<u>4.14</u>	<u>2.30</u>

B. Water Conditions: The Refuge was inspected on September 21st. The water level was 6.20 then on the Gauge. The gates were open during the first part of July so work could be done on the spillway. The water was drained down so the level of the pool was very low. The water came up to 7.10 by the end of October. The pool was drained during the first part of November.

11. Wildlife.

A. Migratory Birds.

1. Population and Behavior: This area was inspected on Sept. 21st. and a check made on the birds using the area. This Refuge is used mainly as a resting area. The water level was up well and comparatively fresh during the migration since the pool was drained this summer and it was again filled up due to the fall rains. Large numbers of ducks and geese (especially a fair number of Canada geese) used the pool to rest on and they did much feeding in the fields and on other water area.

Large numbers of Franklin gulls, California Gulls and shore birds use the water area to rest and feed on. A few cormorants and black-crowned night herons also use the water area.

2. Food and Cover. There are some minnows, prairie bulrushes and sago pond weeds growing in the water that the birds feed on. They also feed in the fields and on other areas. There was more cover this period along the water edge than there is as a rule since the water level was low this summer. The high shore lands, trees and brush on shore edges furnish some protection from the winds.

B. Upland Game Birds.

1. Population and Behavior. A few sharp-tail grouse and some Hungarian Partridge use the land area of the Refuge at times during the milder part of the year. During the winter months, they have to fly to the near by areas where there is shelter and food can be found. There is not much shelter for them on the protected area.

C. Fur Bearing Animals, Predators, Rodents and Other Mammals. There are a few skunk, weasels and mink that use the area some. The farm dogs take some of them and the trappers thin out the rest. A permit has been issued for trapping to be done on the Refuge.

D. Fish. Buffalo fish, bullheads and minnows come up from the Red River and pass on into the pool and up into Forest River when the control gates are open. The local people fish along the road dyke at times. A few small fish are caught. There are large buffalo fish that come up to the gates but there are few of them caught.

III. Refuge Maintenance.

The repairing of the damages spillway and road dyke last spring was completed during the first three weeks in July. This structure is now ready for another spring- run-off. We hope that it is not washed out any more. This fall the land area was patrolled and new signs were put up where they were needed and fire protection was done around the buildings this summer.

2. Billings Lake Refuge.

1. General.

B. Water Conditions: This Refuge was inspected on September 19th. The water level was about 15" below the top of the spillway. The spillway and dykes were in good shape. Part of this summer was very dry but the water level stayed up well.

II. Wildlife.

A. Migratory Birds.

1. Population and Behavior. A fair number of ducks, some geese and swan use the area as shown on the attached NR- 1 Form. Some of them stay here and nest around the water area. They feed in the fields and on other near by water areas.

2. Food and Cover. There is clasping leaf pond weeds, round stem rushes and some other plants growing in the water that they feed on. There is some cover along the water edge where they get in and under. This cover is made up of round stem rushes, cattails and other plants. There is the most of this growth along the water edge on the north end of the pool area. At times a number of swan have been seen on the water. They feed on the plants growing in the water and use the pool as a resting place. Large numbers of Franklin Gulls, California gulls and small flocks of pelicans also use the water area of a spring and fall mainly.

B. Upland Game Birds.

1. Population and Behavior. This is just an open prairie area with a water pool on it. There is no cover on it except the weeds. A few sharp-tail grouse use it at times to rest on and look for food. It has been reported that a few bunches of Hungarian Partridges also use it. We have not seen any of these birds on the Refuge but have seen them near by. The birds have to use other areas during the winter where there is cover and available food.

C. Fur Bearing Animals, Predators, Rodents and Other Mammals. There are a few muskrats that have their homes over the ice, a mink or two use the land area, some skunks and badgers. A trapping permit was issued to trap on the area this ~~XXXX~~ State Open season. There are not many of the animals on the Refuge.

111. Refuge Maintenance.

This area was gone over and new markers were put up at the places they were needed. The farmer that uses the land area around the pool, hauled many loads of rocks out of the fields last summer and dumped them along the spillway and on the dykes where they were needed. The spillway and dykes were in good shape last fall.

3. Buffalo Lake Refuge.

1 General.

B. Water Conditions. This Refuge was inspected on Sept. 16th. The water seemed to be fresh at that time. The level was 2' below the spillway level. The dykes and spillways were in good shape.

11. Wildlife.

A. Migratory Birds.

1. Population and Behavior. When the inspection was made there ~~was~~^{were} about 500 ducks, 200 coots, 1000 gulls and 8 pelicans using the pool area. They rest on this area, feed some here and also feed on other areas. The ducks and geese feed in the fields of a fall.

2. Food and Cover. There are some pond weeds growing in the water that they feed on, the seeds from round stem rushes and other plants. The cover is good out over the water on the north west end of the water area. There is some cover at places along the shore on the land.

B. Upland Game Birds.

1. Population and Behavior: Sharptail grouse, prairie chickens, some Hungarian Partridge and ring-neck pheasants use the land area of this refuge for shelter and protection. Hunters have stated that of a fall the pheasants fly to the refuge at once when flushed near the protected area. This is a good area for the upland birds.

2. Food and Cover. There are the insects to feed on during the warmer part of the year. During the winter, they feed on weed seeds, buds and the grain they can find in the fields. There is some cover along the lake shore at places of grass, weeds and some brush. The high land along the lake furnishes some protection from the wind.

C. Fur Bearing Animals, Predators, Rodents and Other Mammals. There are a few skunk, mink, weasels and badgers that use the land area at times. Some muskrats make their homes on the north end of the water area where there is a growth of plants out in and above the water level.

111. Refuge Maintenance.

The markers were all inspected and new ones were put at the places where they were needed. Fire protection work was done around the cabin. The dykes were checked and the spillways and they were left in good shape.

4. Brumba Refuge.

1. General.

B. Water Conditions: The Refuge was inspected on Sept. 28th. The water was about 1' below the bottom of the new stop-log. The water seemed to be rather fresh. This summer has been rather dry in this district.

11. Wildlife.

A. Migratory Birds.

1. Population and Behavior. There were some ducks and coots on the pool when the inspection was made. For a small area, a fair number of waterfowl use the pool area. They use it mainly as a resting area. A few ducks do nest on the land area at places.

2. Food and Cover. There is some pond weeds growing in the water that the birds feed on, they get some food from the seeds of round stem rushes and the prairie bulrushes. They feed in the fields also. The round stem rushes furnish a little cover and the high land at places along the shore line.

B. Upland Game Birds.

1. Population and Behavior. There are a few ring-neck pheasants and sharp-tail grouse that use the refuge. They use the area during the milder part of the year and during the severe winter weather they move to the south about a mile where there is cover of trees, brush and weeds.

2. Food and Cover. There is plenty of food of insects during the milder part of the year. During the winter they feed on weed seeds, the grain they can find, buds and the food available in the feed yards. They move to the south a mile or so for cover when weather is severe. There is not much cover on the Refuge.

C. Fur Bearing Animals, Predators, Rodents and other Mammals. There are a few skunk, weasels and a mink, or two that use the land part of the Refuge. A few muskrats use the water area to make their homes on.

5. Johnson Lake Refuge.

1 General.

- B. Water Conditions: This Refuge was inspected on Sept. 23rd. The water level was high. It seemed to be higher than it has been since it has been a refuge for the fall period. The water seemed to be fresh also.

11. Wildlife.

A. Migratory Birds.

1. Population and Behavior. This is a good Refuge and a large number of birds use it as shown on the attached NR- 1 form. They use the area as a resting place and nest some out on the land area. They feed a fair amount on the lake and on other areas.
2. Food and Cover. There are sago pond weeds, clasping leaf pond weeds and other plants that grow in the water that they feed on. They also feed in the fields of a fall. The cover is good along the shore out over the water of phragmites, cattails and other plants. Where the land is not pastured much, the cover is good along the shore of grass and weeds.

B. Upland Game Birds.

1. Population and Behavior. This is a good upland bird area. Sharp-tail grouse, prairie chickens, ring-neck pheasants and Hungarian Partridge use it. Most of the refuge area is of rather low land which the birds use during the milder part of the year. During the winter, they use the higher land around the refuge much. They are more able to see there and get food.
2. Food and Cover. There are insects to feed on during the milder part of the year. During the winter periods, they feed on the grain they can find, on berries, seeds and buds. The cover is fair of weeds, some brush and the hills stop the winds.

- C. Big Game Animals. It has been estimated that there were 10 deer on this Refuge this fall. They use this area and the surrounding hills. During the open seasons, they are hunted when off of the Refuge.

- D. Fur Bearing Animals, Predators, Rodents and Other Mammals. There are some muskrats that make their homes out over the water where there are plants for home building. On the land, there are a few mink, weasels, badgers, skunk and a fox or two that use the area.

111. Refuge Maintenance.

The area was patrolled this fall and new signs were put up at the places they were needed and fire protection was done around the cabin. The cabin was cleaned up inside also.

6. Kellys Slough Refuge.

1 General.

Sept.

- B. Water Conditions. This area was inspected on ~~Aug.~~ 20th. The water was at spillway level. The dyke was in good shape. The water stays at about the same level at this spillway all summer. It becomes a little higher during rains and in the spring.

11. Wildlife.

A. Migratory Birds.

1. Population and Behavior. There were a few ducks on the area when the inspection was made. They use this water area, as a resting place mainly. A fair number use it of a spring and fall. They also use other surrounding areas.
2. Food and Cover. There is some sago pond weed growing in the water that they feed ~~X~~ on, seeds from the round stem rushes, prairie bulrushes and they feed in the fields of a fall and spring.

B. Upland Game Birds.

1. Population and Behavior. A few Hungarian partridge and ring-neck pheasants use the area at times during the milder part of the year. There are not many of the birds that use the area since there is not much cover on it for them. During the winter they fly a mile or so to the north where there is more shelter and cover.
2. Food and Cover. There are the insects they feed on during the milder part of the year and the rest of the time they have to feed on seeds and the grain they can find in the fields and opened straw stacks.

- C. Fur Bearing Animals, Predators, Rodents, ~~Predators~~ and Other Mammals: A few muskrats make their homes in the dyke and the high shores of the pool. Some mink, weasels, raccoons and badgers also use the land part of the Refuge

111 Refuge Maintenance.

On Sept. 20th., the area was patrolled and new signs were put up at the places where they were needed. The dyke and spillway were inspected and left in good shape.

7 Lac Aux Mortes Refuge.

1. General.

- B. Water Conditions: The water level was high all summer and was about 6" above spillway level this fall. It is as a rule about 16" lower than it was this fall during this period. The water was fresh. The level was high all summer, the wind blew much and a fair amount of moisture fell in this locality. Rains were not all received the same over this district during the summer. There was much water that come down the Mauve Coulee from the north this year that helped keep the level of the lake up high.

11. Wildlife.

A. Migratory Birds.

1. Population and Behavior. There are a large number of waterfowl that use this area. It is a very good area except for the fact that there is botulism here during most of the hot summer periods. The birds use this area and the other surrounding water areas to feed on. They rest on the refuge in this locality mainly.

2. Food and Cover. There is a large supply of submerged aquatics that furnish food, round stem rushes, prairie bulrushes and other plants. During the fall they feed much in the grain fields. The cover is very good out over the water area of cattails, phragmites and other plants that grow above and over the water.

3. Botulism: There was some loss on this water area as shown on the NR-5 form that is attached. All of the dead birds that could be found were picked up and buried. It seems that dead birds are first found always during the summer time around the island on the south west part of the water area. The loss was not very large last summer.

B. Upland Game Birds:

1. Population and Behavior: Sharp-tail grouse, Hungarian Partridge and ring-neck pheasants use this refuge a fair amount. They do well here the year around when there is little snow. When the snow becomes deep, they fly to other areas where there is more cover and food they can find to feed on.

2. Food and Cover. During the milder part of the year, there are insects that make up most of their food. They also feed on grain and seeds. During the winter, they have to feed on the grain they can find, seeds and buds.

C. Fur Bearing Animals, Predators, Rodents and Other Mammals: There are a few mink, skunk, weasels and badgers that use the land part of the area mainly. A large number of muskrats have built houses out over the water. A number of permits have been issued recently for trapping on the Refuge according to The N. Dak. State Law.

111. Refuge Maintenance.

The water level has been checked, fire protection was done around the buildings and the road north of the cabin was repaired where it was washed out by the high water last spring. The county hired equipment and repaired the road without cost to the Fish and Wildlife Service. To repair the road, dirt was taken off the north west part of the small plot of government owned land where the buildings are.

8. Lambs Lake.

1 General.

B. Water Conditions: This area was inspected on Sept. 21st. The water was about 15" below the spillway level then. The water was a little higher

this fall that it has been as a rule in September. It may be that some heavy rains were received in this locality in September that helped keep the level up.

II Wildlife.

A. Migratory Birds.

1. Population and Behavior: A few hundred birds were using the water area when the inspection was made. They use this small water area and other water areas in the locality.

2. Food and cover. There are the seeds of the round stem rushes that they feed on some, prairie bulrush seeds and they feed in the fields of a fall on grains. The cover is just fair of rushes growing ~~at~~ at places along the shore on the land and in the shallow water.

B. Upland Game Birds.

1. Population and Behavior. A few sharptail grouse, ring-neck pheasants and Hungarian Partridge use the area some. They use it during the milder part of the year and then fly to the south where there is rougher land and winter protection. There are the insects and grain for them to feed on and weed seeds.

C. Fur Bearing Animals, Predators, Rodents and Other Mammals. There are a few badgers, mink, skunk and weasels that use the Refuge a little. They are thinned out by the farm dogs when they come up around the buildings.

III. Refuge Maintenance.

New markers were put up this fall where they were needed. The dyke and spillway were inspected. They were both in good shape.

9. Little Goose Refuge.

1 General.

A. Water Conditions: On Sept. 20th., the water level was about 15" below the spillway. The water seemed to be fresh.

II. Wildlife.

A. Migratory Birds.

1. Population and Behavior: No birds were seen on the area when the inspection was made. They use it mainly of a spring and fall when they are migrating to rest on. There is a little submerged aquatics for them to feed on and they feed in the fields and on other areas. There is not much cover or shelter on this refuge for waterfowl.

B. Upland Game Birds.

1. Population and Behavior. A few ring-neck pheasants, Hungarian partridge and sharp-tail grouse use this open area some during the milder weather.

During the severe winter weather they have to move to other areas since there is little cover here and not much food but what is covered up with snow.

111 Refuge Maintenance.

The outside of the protected area was patrolled and new markers were put up at the places that they were needed. The dyke and natural spillway were in fair shape as they have been for a number of years.

10. Minnewastena Refuge.

1 General.

- B. Water Conditions. The area was checked on October 4th. The water level was about 2' lower this fall than it was last spring. The level was still up fairly high. The water is fresh.

11 Wildlife.

A. Migratory Birds.

1. Population and Behavior. No birds were seen on the area when the inspection was made. A few birds use the small water area of a fall and spring. This is a poor waterfowl refuge. There is a little submerged aquatics for them to feed on, round stem rushes and other seeds.

B. Upland Game Birds.

1. Population and Behavior. A few ring-neck pheasants and sharp-tail grouse use the area. The pheasants use it some the year around. The grouse only use it of a winter to feed on buds and seeds when the snow is deep on the prairies.

111 Refuge Maintenance.

The land area was patrolled and new markers were put up at the places that they were needed.

11. Pleasant Lake Refuge.

1. General.

- B. Water Conditions. This area was inspected on Sept. 15th. The water was 18" below the spillway level then. The water seemed to be fresh. Some rains were received here that helped keep the water fresh and the ~~water~~ wind moved it around some.

11. Wildlife.

A. Migratory Birds.

1. Population and Behavior. This is just a prairie water area but the waterfowl make much use of it. They use it for the cover mainly. There

is a small supply of food in the water but there are many waterfowl to feed on it. They have to feed on other areas also.

2. Food and Cover. There is some submerged aquatics growing in the water that they feed on, the prairie bulrushes and round stem rushes furnish some food. The cover is good out over the water of cattails, phragmites and the rushes.

B. Upland Game Birds.

1. Population and Behavior: The ring-neck pheasants, sharp-tail grouse and Hungarian partridge use this refuge some. There numbers are comparatively few. They use the refuge mainly for protection and shelter. They use the other local suitable areas.

2. Food and Cover. They feed on insects, weed seeds, buds and the grain they are able to find in the local fields. The cover is good of high grasses, weeds and brush on the Refuge.

III. Refuge Maintenance.

The boundary was patrolled this fall and new markers were put up at the places that they were needed. The small spillway was checked and left in good shape.

12. Prairie Lake Refuge.

I General.

E. Water Conditions. This area was inspected on Sept. 21st. The water was about 18" below the spillway level. There was only a very small water area left and it was shallow.

II Wildlife.

A. Migratory Birds.

1. Population and Behavior. A few hundred birds use the area of a spring mainly when they are on their migrations. It is not used so much during the fall since there is not much water there as a rule at that period. It is used very little to nest around.

2. Food and Cover. There is very little available food on the water area. There are some round stem rushes, prairie bulrushes grow along the shore edges and some coontail that they feed on some. There is some cover along the shore edge of rushes and weeds.

III. Refuge Maintenance.

The boundary was patrolled and new markers were put up at the places they were needed. The dyke and spillway were left in good shape. The dyke is well built to hold such a small area of water.

13. Rose Lake Refuge.

1 General.

- B. Water Conditions. This area was inspected on October 27th. The water was about 1' below the spillway level on that date. About 300 geese (as shown on the attached form) were on the water area when the inspection was made. No ducks were noticed though. It is supposed that they were feeding on the fields or other water areas.

11. Wildlife.

A. Migratory Birds.

1. Population and Behavior. A fairly large number of Canada, snow and blue geese use the water area of a fall. A fair number of ducks also use the water area. Not so many birds will be apt to use the refuge area in the future since the period of the Easement rights has expired on part of the area and the signs were removed from that part this fall.

2. Food and Cover. There is some submerged aquatics they feed on, the seeds of the bulrushes furnish some food and they feed in the fields. The growth of phragmites, and bulrushes along the water edge furnish some shelter and cover.

B. Upland Game Birds.

1. Population and Behavior. Sharp-tail grouse, ring neck pheasants and some partridge at times use the land area of this refuge. There is not much cover or shelter for winter use and they move to the south and east where there is cover and more available food.

2. Food and Cover. There are the insects, seeds and other foods for them to feed on during the milder parts of the year. During the winter they feed on seeds, in the fields and then move to other areas where there is available food and cover.

- C. Fur Bearing Animals, Predators and Other Mammals. There are a few mink, weasels, skunk and badgers that use the land area of the refuge some. They are thinned out by the farm dogs when they go up to the buildings, so they are not apt to increase much in numbers.

111 Refuge Maintenance.

This area was gone around this fall and new markers were put up at the places they were needed. Then, later in the fall the signs (or markers) were removed from the part where the Easements had expired and the dyke and spillway were inspected and left in good shape.

14. Rock Lake Refuge.

1. General.

- B. Water Conditions: This area was inspected on Sept. 27th. The water was then about 1' below the bottom of the stop-log on the south end of the Refuge. The water seemed to be fresh.

11 Wildlife

A. Migratory Birds.

1. Population and Behavior. About a 1000 ducks, 100 coots and 500 gulls were on the water area when the inspection was made. They use the area east of the north-east dyke most since there is more shelter above the water for them to use and the dyke stops the winds from the west.
2. Food and Cover. There is much coontail growing in the water, some sago pond weed and other plants that they feed on in the water. They feed some on the prairie bulrushes growing along the water edge and they feed on the grain that they can find in the fields.

There is a little cover along the water edge of rushes, weeds and brush. East of the north-east dyke there is a fair amount of cover above the water of high grass.

B. Upland Game Birds.

1. Population and Behavior. Ring-neck pheasants and some partridge use the area the year around. In the fall mainly, sharp-tail grouse use it to feed on. We have never seen them there during the winter. It is supposed that a few of them nest on the land area also.

2. Food and Cover. There is plenty of food for them during the milder part of the year of insects, weed seeds and berries. During the winter, they fly to the north where there is shelter and there are trees that furnish buds and other foods are available.

- C. Fur Bearing Animals, Predators, Rodents and Other Mammals. A few mink, weasels, badgers and skunk use the land area of the Refuge. Some muskrats make their homes in the high shore line.

111. Refuge Maintenance.

The boundary was patrolled and new markers were put up at the places they were needed. On the south end of the Refuge, the stop-logs were locked in place so they cannot come out unless they are pried out and the locks broken.

15. Snyder Lake Refuge.

1. General.

- B. Water Conditions: This area was inspected on Sept. 28th. The water was about 2' below the spillway level. The water evidently seeps away some through the gravel and shale layer down under the clay. The water in the pool was fresh due to some rains and the wind moving it some.

11. Wildlife.

A. Migratory Birds.

1. Population and Behavior: There were about 200 ducks on the water

area when the inspection was made. Some swan and a fairly large number of Canada, snow and blue geese use it of a fall. They use other water areas also.

2. Food and Cover. There are some submerged aquatics they feed on, the seeds of prairie bulrushes and the seeds of round stem rushes. There is a little cover on the edges of the water area of rushes and weeds. The high shore line helps stop the winds from hitting them so hard.

B. Upland Game Birds.

1. Population and Behavior: A few Hungarian Partridges and ring-neck pheasants use this area some. There is not much cover on the land area and when the weather becomes severe, they move to the south about a mile where there is cover and shelter of trees and brush.

2. Food and Cover. There are the insects that they feed on during the milder part of the year. During the winter they have to feed on seeds, the grain they can find in the fields, berries, buds and seeds. There is cover on the area of some low brush and weeds.

C. Fur Bearing Animals, Predators, Rodents and Other Mammals. There are a few skunks, weasels and badgers that use the land area of the Refuge. A fair number of muskrats make their homes on the north end of the water area out of plants out in the shallow water.

III. Refuge Maintenance.

This area was gone around and new markers were put up at the places they were needed. The dyke and spillway were inspected and left in good shape.

16. Sibley Lake Refuge.

1. General.

B. Water Conditions: This area was inspected on Sept. 22nd. The water level was then about 1' lower than it was last spring. The water seemed to be fairly fresh. The water level stays up very well in this shallow lake.

II. Wildlife.

A. Migratory Birds.

1. Population and Behavior. About 500 ducks were on the area it is believed when the inspection was made. There were also 100 coots and 200 Franklin Gulls. Phragmites, cattails and other plants grow out in and over the water and it is not possible to see over all of the water area. They use the surrounding water areas but they make much use of the Sibley Lake.

2. Food and Cover. They feed on prairie bulrushes, round stem rushes and the submerged aquatics that are growing in the water. They feed in the near by fields. The cover is good over much of the water area of cattails, round stem rushes and some phragmites.

B. Upland Game Birds.

1. Population and Behavior: The ~~XXXXXX~~ ring-neck pheasants, sharp-tail grouse and at times other birds use the area. The refuge area is rather low and they use it during the milder weather. When the snow becomes deep they use the hillsides where they are able to get food better and the uneven land furnishes some shelter also.

2. Food and Cover. There are insects to feed on during the summer and other natural foods. During the winter they feed on weed seeds, the grain they are able to find, buds and berries. The cover is good of brush, high weeds, some trees and the hills furnish shelter from the winds and also food.

C. Fur Bearing Animals, Predators, Rodents and Other Mammals. On the land area, there are skunk, weasels, mink and some other animals. There are a fairly large number of muskrats that make their homes out over the water of plants growing there. Trapping permits have been issued for trapping on this area in the usual way.

III. Refuge Maintenance.

The area was gone around and new markers were put up where ever they were needed. The birds were checked on the area also.

17. Silver Lake Refuge.

1. General.

B. Water Conditions. As of Nov. 2nd., the water was running through the place where the small gates are used. There was about a width of 6' of water flowing over the spillway and 6" deep. We worked on the Silver Lake job from Oct. 21st. to the end of the first 2 weeks in November.

II. Wildlife.

A. Migratory Birds.

1. Population and Behavior. About 700 ducks were on the water area when the inspection was taken. They seem to be making more use of the area each year. Of course the water level was higher than it is as a rule and they are able to get a fair amount of food in the pool.

2. Food and Cover. There are coontail, clasping leaf pond weeds and some sago pond weeds growing in the water that they feed on. They also feed in the fields and on other water areas. There is some cover of cattails, phragmites, prairie bulrushes and other plants growing in the water edge.

B. Upland Game Birds.

1. Population and Behavior. Ring-neck pheasants, sharp-tail grouse and Hungarian Partridge use this area. The shelter and cover is good on the west side of the pool area. They use this land area during the winters much and use other areas in the summer.

2. Food and Cover. There are all of the natural foods available for them here during the milder part of the year of insects, grain and seeds. During the winter, they feed on weed seeds, berries, buds and any other foods they can find. The cover is good over the west side of the land area of the Refuge.

- C. Fur Bearing Animals, Rodents, Predators and other Mammals. There are a few mink, weasels, skunk and badgers on this Refuge. A few muskrats use the banks of the coulee to make their homes in.

111. Refuge Maintenance.

New markers were put up around the boundary this fall. The dragline and operator from Mud Lake Refuge worked on the area from Oct. 26th. to Nov. 8th. inclusive digging out the dirt and driving the piling so a new spillway can be constructed next spring. The dragline was used to move many yds. of rock and dump them just ~~at~~ below the old spillway. The dragline was used to load about 60 yds. of rock on to the trucks and the rock were hauled and put where the new control structure is to be made. This required much work with the equipment and men. Some extra men were hired also. Cement, lumber and other material were hauled from the Upper Souris Refuge to do this job. About 2/3 of the gravel and sand needed for this job is there now. There was not room to pile it all up near where it was needed.

18. Woodlake Marsh Refuge.

1. General.

- B. Water Conditions. This area was checked over on Oct. 4th. The water was about 1' below the spillway level. The dyke and spillway were looked over and were left in good shape.

11. Wildlife.

A. Migratory Birds.

1. Population and Behavior. No birds were seen on the area on Oct. 4th. This ~~is~~ is not a nesting area. For the size of the water area, a fairly large number of ducks stop on this refuge to rest of a fall when on their way south. They feed in the fields and on other areas. There is not much cover and only along the edge of the water is there some plants growing that give some shelter and cover. There is some sago pond weeds, coontail, star duck weed and some other plants that they feed on.

B. Upland Game Birds.

1. Population and Behavior. A few ring-neck pheasants^{and} Hungarian partridge use this area during the year both winter and summer. Some sharp-tail grouse use it mainly during the winter for shelter from the storms and to find food.

2. Food and Cover. During the milder part of the year, they feed on insects and the other natural foods there for them. During the winter they feed on weed seeds, the grain they can find in the opened straw stacks, berries and buds. It is difficult for them to find grit at times.

The cover is good on this small area of brush, high weeds, some trees and the hills stop the winds especially during the winter. It takes acre size patches or more of cover to be of much use in the winter. The small clumps of ~~WEEDS~~ ~~and~~ brush soon get filled up with snow in the winter.

- C. Fur Bearing Animals, Predators, Rodents and Other Mammals: A few weasels, skunk and badgers use the land area of the refuge. There are a few small muskrats that make their homes in the ~~xxx~~ high shore of the water areas. These rats do not grow as large as on other good areas since they just do not have enough of the right kind of foods.

111. Refuge Maintenance.

The boundary line of this Refuge was patrolled and new markers were put up at the places they were needed this fall. The dyke and spillway were carefully checked and left in good shape.

19. Stump Lake Refuge.

1. General.

- B. Water Conditions: This Refuge was inspected on Oct. 3rd. There is no water gauge on this area but from checking the present water level with the past levels, the water is fairly high for this fall period. The deep snow last winter helped raise the level much.

11 Wildlife.

A. Migratory Birds.

1. Population and Behavior: There were about 50 ducks on the water near the peninsula on the north end of the Refuge. No other birds were seen. They use this water area as a resting place during the fall. They rest out of the wind behind the islands or peninsulas.

2. Food and Cover. There is some sago pond weeds that grow in the water and prairie bulrushes grow along the edge of the water that they feed on some. They have to feed in the fields also. There is no cover over the water area. The higher land of the islands and peninsulas stop the winds some.

B. Upland Game Birds.

1. Population and Behavior: Some Hungarian Partridges and ring-neck pheasants use the land part of the refuge during the milder part of the year. During the winter when the snow is deep, they have to fly to the west or east about a mile where there is shelter and available food.

2. Food and Cover. There are all of the natural foods available for the upland game birds on this land area during the milder part of the year of seeds, berries and buds. During the winter they feed here some on grain they can find in the fields, some seeds and buds. When the snow gets deep and the weather cold they fly to the west to get food and shelter on the hills or they fly to the east for food and shelter in the timbered areas there.

111. Refuge Maintenance.

The area was checked over on October 3rd. The signs were all up and in place on the peninsulas. It was not possible to get over to the islands since there was no boat along.

Report completed,
January 4, 1950.

Signed Wesley D. Parker.
Refuge Manager.

P. S. No pictures are included as part of this report since no real new ~~scenes~~ ~~scenes~~ were noticed that could be taken this fall to be included as part of the report.

Much time and care has been taken to make out this report and compile the information on the NR-1 Form. The Easement Refuges are a real help to the waterfowl in this northeastern part of the state as a stopping and resting place of a fall and spring. On some of the Easements, there is much available food for the waterfowl. I hope the office approves this report in every way.

APPROVED:

[Signature]
REGIONAL DIRECTOR

Acting

JAN 9 1950

WATERFOWL

Refuge Ardoch Months of Sept. 1st. to Dec. 31. 1949

(1) Species Common Name	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Young Produced		(6) Total
	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
I. <u>Swans:</u> Whistling swan						Sept. 21st.			150
II. <u>Geese:</u> Canada goose Cackling goose Brant White-fronted goose Snow goose Blue goose									1000 500 300
III. <u>Ducks:</u> Mallard Black duck Gadwall Baldpate Pintail Green-winged teal Blue-winged teal Cinnamon teal Shoveller Wood duck Redhead Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head Ruddy duck					100 50 100 50				3500 500 500 3500 100 200 50 3300 3000 2000 2000
IV. <u>Coots:</u>									2000

SUMMARIES

Total Production:

Geese _____

Ducks 50

Coots 50

Total waterfowl usage during period 22,400

Peak waterfowl numbers About Nov. 1st. - 6,000

Areas used by concentrations The west part of the water area.

Principal nesting areas this season They nested very little here last summer since the water level was very low.

Reported by Nesley D. Parker

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.

WATERFOWL

Refuge Billings Lake Months of Sept. 1st. to Dec. 31. 1949.

(1) Species Common Name	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Young Produced		(6) Total
	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
I. <u>Swans:</u> Whistling swan						Sept. 19th.			60
II. <u>Geese:</u> Canada goose Cackling goose Brant White-fronted goose Snow goose Blue goose					14				300 150 150
III. <u>Ducks:</u> Mallard Black duck Gadwall Baldpate Pintail Green-winged teal Blue-winged teal Cinnamon teal Shoveller Wood duck Redhead Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head Ruddy duck					50 25 25 50				2500 600 600 2500 100 200 100 100 200 800 600
IV. <u>Coot:</u>					100				800

SUMMARIES

Total Production:

Geese _____

Ducks 50

Coots 50

Total waterfowl usage during period 9760

Peak waterfowl numbers About 2000 on Nov. 1st.

Areas used by concentrations East part of the water area.

Principal nesting areas this season They nest here but little.

Reported by Wesley D. Parker.

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.

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WATERFOWL

Refuge Buffalo Lake Months of Sept. 1st. to Dec. 31. 1949.

(1) Species	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Young Produced		(6) Total
	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
I. <u>Swans:</u> Whistling swan						Sept. 16th.			100
II. <u>Geese:</u> Canada goose Cackling goose Brant White-fronted goose Snow goose Blue goose									700 200 200
III. <u>Ducks:</u> Mallard Black duck Gadwall Baldpate Pintail Green-winged teal Blue-winged teal Cinnamon teal Shoveller Wood duck Redhead Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head Ruddy duck					150 50 50 150 25 50				3000 2200 2200 3000 50 150 150 1500 3000 2500 2000
IV. <u>Coots:</u>									2200

SUMMARIES

Total Production:

Geese _____

Ducks 100

Coots 100

Total waterfowl usage during period 25150

Peak waterfowl numbers About 4000 on Nov. 1st.

Areas used by concentrations North end of the water area.

Principal nesting areas this season They nest some on the
north end of the water area and around it.

Reported by Wesley D. Parker.

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.

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WATERFOWL

Refuge Brumba Months of Sept. 1st. to Dec. 31, 1949.

(1) Species Common Name	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Young Produced		(6) Total
	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
I. <u>Swans:</u> Whistling swan						Sept. 28th.			80
II. <u>Geese:</u> Canada goose Cackling goose Brant White-fronted goose Snow goose Blue goose									1000 400 400
III. <u>Ducks:</u> Mallard Black duck Gadwall Baldpate Pintail Green-winged teal Blue-winged teal Cinnamon teal Shoveller Wood duck Redhead Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head Ruddy duck					50 25 25 50				2500 400 400 2700 50 100 50 400 800 800 1000
IV. <u>Coots:</u>					100				800

SUMMARIES

Total Production:

Geese _____

Ducks 60

Coots 100

Total waterfowl usage during period 11,880

Peak waterfowl numbers About Nov. 1st. - 2000

Areas used by concentrations They use the north end of the water area mainly.

Principal nesting areas this season They nest some along on the land on north end of water area.

Reported by Wesley D. Parker

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.

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WATERFOWL

Refuge Johnson

Months of Sept. 1st.

to Dec. 31.

1949.

(1) Species Common Name	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Young Produced		(6) Total
	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
I. <u>Swans:</u> Whistling swan						Sept. 23rd.			400
II. <u>Geese:</u> Canada goose Cackling goose Brant White-fronted goose Snow goose Blue goose									2000 1000 1000
III. <u>Ducks:</u> Mallard Black duck Gadwall Baldpate Pintail Green-winged teal Blue-winged teal Cinnamon teal Shoveller Wood duck Redhead Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head Ruddy duck					200 100 100 200 50 100				8000 7000 7000 10000 200 500 300 4000 10000 8000 3000
IV. <u>Coots:</u>					100				1000

SUMMARIES

Total Production:

Geese _____

Ducks 250

Coots 150

Total waterfowl usage during period 63,400

Peak waterfowl numbers About Nov. 1st. - 12,000

Areas used by concentrations The sides of the water area
where there is cover over the water.

Principal nesting areas this season They nest all around
the water area, some.

Reported by Wesley D. Parker

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.

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WATERFOWL

Refuge Kellys Slough

Months of Sept. 1st. to Dec. 31. 1942.

(1) Species Common Name	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Young Produced		(6) Total
	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
I. <u>Swans:</u> Whistling swan						Sept. 20th.			100
II. <u>Geese:</u> Canada goose Cackling goose Brant White-fronted goose Snow goose Blue goose									2500 2000 2000
III. <u>Ducks:</u> Mallard Black duck Gadwall Baldpate Pintail Green-winged teal Blue-winged teal Cinnamon teal Shoveller Wood duck Redhead Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head Ruddy duck					50 25 25 50				5000 2500 2500 5000 50 250 100 2200 4000 5000 2000
IV. <u>Coot:</u>									1000

SUMMARIES

Total Production:

Geese _____

Ducks _____

Coots _____

Total waterfowl usage during period 36,200

Peak waterfowl numbers 5000 on Nov. 1st.

Areas used by concentrations They use the west side of the water area mainly.

Principal nesting areas this season This is not a nesting area.

Reported by Wesley D. Parker.

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.

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WATERFOWL

Refuge Lac Aux Mortes Months of Sept. 1st. to Dec. 31. 1949.

(1) Species Common Name	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Young Produced		(6) Total
	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
I. <u>Swans:</u> Whistling swan						Oct. 5th.			200
II. <u>Geese:</u> Canada goose Cackling goose Brant White-fronted goose Snow goose Blue goose					100				 4000 4000
III. <u>Ducks:</u> Mallard Black duck Gadwall Baldpate Pintail Green-winged teal Blue-winged teal Cinnamon teal Shoveller Wood duck Redhead Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head Ruddy duck					3000 2000 2000 3000				13000 8000 8000 13000 300 600 200 3000 10000 10000 1000
IV. <u>Coot:</u>									3000

SUMMARIES

Total Production:

Geese _____

Ducks _____

Coots _____

Total waterfowl usage during period 78,300

Peak waterfowl numbers About 20,000 on October 10th.

Areas used by concentrations All of the water area.

Principal nesting areas this season They nest on plants

growing out over the water and around the water area.

Reported by Wesley D. Parker

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.

Refuge Lac aux MortesYear 1949

Botulism

Lead Poisoning or other Disease

Period of outbreak About Aug. 1st to Sept. 1st. 1949.Period of heaviest losses Aug. 1st. to 17th.

Losses:

	Actual Count	Estimated
(a) Waterfowl	<u>744</u>	<u>1500</u>
(b) Shorebirds	<u>80</u>	<u>160</u>
(c) Other	<u>9</u>	<u>50</u>

Number Hospitalized	No. Recovered	% Recovered
(a) Waterfowl	<u> </u>	<u> </u>
(b) Shorebirds	<u> </u>	<u> </u>
(c) Other	<u> </u>	<u> </u>

Areas affected (location and approximate acreage) On about a total of 100 acres, dead birds were found.

Water conditions (average depth of water in sickness areas, reflooding of exposed flats, etc.)

Water was from a few inches deep to about 4 1/2'. This area has been flooded for a number of years.Condition of vegetation and invertebrate life The vegetation is thick over part of the area and healthy.Remarks The botulism starts around an island on the south west side of the water area. The cause is not known. The dead birds were picked up and buried.Kind of disease Species affected

Number Affected Species	Actual Count	Estimated
<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>

Number Recovered Number lost Source of infection Water conditions Food conditions Remarks

WATERFOWL

Refuge Lambs Lake Months of Sept. 1st. to Dec. 31. 1948.

(1) Species	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Young Produced		(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
I. <u>Swans:</u> Whistling swan						Sept. 21st.			30
II. <u>Geese:</u> Canada goose Cackling goose Brant White-fronted goose Snow goose Blue goose									400 1100 1100
III. <u>Ducks:</u> Mallard Black duck Gadwall Baldpate Pintail Green-winged teal Blue-winged teal Cinnamon teal Shoveller Wood duck Redhead Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head Ruddy duck					200 100 100 200				2000 500 500 2000 80 150 100 200 300 200 500
IV. <u>Coot:</u>					200				1500

SUMMARIES

Total Production:

Geese _____

Ducks _____

Coots _____

Total waterfowl usage during period 10,660

Peak waterfowl numbers About Oct. 25th. 2000

Areas used by concentrations all of the water area,

Principal nesting areas this season No. they do not use this
area much to nest on.

Reported by Wesley D. Parker.

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.

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WATERFOWL

Refuge Little Goose Months of Sept. 1st. to 31. 194 9.

(1) Species Common Name	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Young Produced		(6) Total
	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
I. <u>Swans:</u> Whistling swan					No birds Sept. 20th. were seen.				20
II. <u>Geese:</u> Canada goose Cackling goose Brant White-fronted goose Snow goose Blue goose									600 200 200
III. <u>Ducks:</u> Mallard Black duck Gadwall Baldpate Pintail Green-winged teal Blue-winged teal Cinnamon teal Shoveller Wood duck Redhead Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head Ruddy duck									2000 1000 1000 2000 50 150 50 300 600 600 200
IV. <u>Coots:</u>									200

SUMMARIES

Total Production:

Geese _____

Ducks _____

Coots _____

Total waterfowl usage during period 2,170

Peak waterfowl numbers About end of Oct.- 2000

Areas used by concentrations They use all of the small
water area to rest on at times.

Principal nesting areas this season This is not a nesting
area.

Reported by Wesley D. Parker.

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.

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WATERFOWL

Refuge Winnipegosis Months of Sept. 1st. to Dec. 31. 1946

(1) Species Common Name	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Young Produced		(6) Total
	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
I. <u>Swans:</u> Whistling swan					No birds were seen	Oct. 4th.			
II. <u>Geese:</u> Canada goose Cackling goose Brant White-fronted goose Snow goose Blue gopse									
III. <u>Ducks:</u> Mallard Black duck Gadwall Baldpate Pintail Green-winged teal Blue-winged teal Cinnamon teal Shoveller Wood duck Redhead Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head Ruddy duck									100 50 50 100 20 50 40 50 50 50
IV. <u>Coot:</u>									50

SUMMARIES

Total Production:

Geese _____

Ducks _____

Coots _____

Total waterfowl usage during period 610

Peak waterfowl numbers About Oct. 20th. - 100

Areas used by concentrations South end of the small lake.

Principal nesting areas this season They do not nest here.

Reported by Wesley D. Parker.

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.

WATERFOWL

Refuge Pleasant Lake Months of Sept. 1st. to Dec. 31. 1949.

(1) Species Common Name	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Young Produced		(6) Total
	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
I. <u>Swans:</u> Whistling swan						Sept. 15th.			80
II. <u>Geese:</u> Canada goose Cackling goose Brant White-fronted goose Snow goose Blue goose									1000 400 400
III. <u>Ducks:</u> Mallard Black duck Gadwall Baldpate Pintail Green-winged teal Blue-winged teal Cinnamon teal Shoveller Wood duck Redhead Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head Ruddy duck					300 200 200 300				3000 1000 1000 3000 100 200 100 1000 2000 1000 1000
IV. <u>Coots:</u>									1500

SUMMARIES

Total Production:

Geese _____

Ducks _____

Coots _____

Total waterfowl usage during period 16,780

Peak waterfowl numbers About Oct. 20th. - 4000.

Areas used by concentrations All of the water area.

Principal nesting areas this season They nest over the water
~~some and along the lake shore where there is cover.~~

Reported by Wesley D. Parker.

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~~ **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.

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WATERFOWL

Refuge Prairie Lake Months of Sept. 1st. to Dec. 31, 1949

(1) Species Common Name	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Young Produced		(6) Total
	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
I. <u>Swans:</u> Whistling swan						Sept. 21st.			
II. <u>Geese:</u> Canada goose Cackling goose Brant White-fronted goose Snow goose Blue goose			The water area was almost dry. No birds were seen.						
III. <u>Ducks:</u> Mallard Black duck Gadwall Baldpate Pintail Green-winged teal Blue-winged teal Cinnamon teal Shoveller Wood duck Redhead Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head Ruddy duck									50 30 30 50 10 20 10 10
IV. <u>Coots:</u>									

SUMMARIES

Total Production:

Geese _____

Ducks _____

Coots _____

Total waterfowl usage during period 210

Peak waterfowl numbers 50 about Oct. 1st.

Areas used by concentrations _____

Principal nesting areas this season They do not nest here.

The water area was almost dry when
the inspection was made.

Reported by Wesley D. Parker.

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.

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WATERFOWL

Refuge Rose Lake Months of Sept. 1st. to Dec. 31. 1949.

(1) Species	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Young Produced		(6) Total
	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
I. <u>Swans:</u> Whistling swan						Oct. 27th.			60
II. <u>Geese:</u> Canada goose Cackling goose Brant White-fronted goose Snow goose Blue goose					100 100 100				1200 800 800
III. <u>Ducks:</u> Mallard Black duck Gadwall Baldpate Pintail Green-winged teal Blue-winged teal Cinnamon teal Shoveller Wood duck Redhead Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head Ruddy duck									3000 2000 2000 3000 50 100 100 900 900 1000 1000
IV. <u>Coots:</u>									1000

SUMMARIES

Total Production:

Geese _____

Ducks _____

Coots _____

Total waterfowl usage during period 17910

Peak waterfowl numbers About Oct. 10th. 4000.

Areas used by concentrations The north end of the water area.

Principal nesting areas this season They (ducks) nest along the shore some.

Reported by Wesley D. Parker.

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.

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WATERFOWL

Refuge Rock Lake Months of Sept. 1st. to Dec. 31, 1949.

(1) Species Common Name	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Young Produced		(6) Total
	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
I. <u>Swans:</u> Whistling swan						Sept. 27th.			250
II. <u>Geese:</u> Canada goose Cackling goose Brant <u>White-fronted goose</u> Snow goose Blue goose									2000 1200 1200
III. <u>Ducks:</u> Mallard Black duck Gadwall Baldpate Pintail Green-winged teal Blue-winged teal Cinnamon teal Shoveller Wood duck Redhead Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head Ruddy duck					300 200 200 300				12000 7000 7000 12000 200 500 200 4000 10000 3000 5000
IV. <u>Coots:</u>									3000

SUMMARIES

Total Production:

Geese _____

Ducks _____

Coots _____

Total waterfowl usage during period 68,550

Peak waterfowl numbers About 10,000 on Oct. 20th.

Areas used by concentrations They use the east of the water area where there is cover over the water the most.

Principal nesting areas this season They nest around the water area where the land is not pastured on north side of the lake mainly.

Reported by Wesley D. Parker.

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.

WATERFOWL

Refuge Snyder Lake Months of Sept. 1st. to Dec. 31. 1949.

(1) Species	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Young Produced		(6) Total
	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
I. <u>Swans:</u> Whistling swan						Sept. 28th.			100
II. <u>Geese:</u> Canada goose Cackling goose Brant White-fronted goose Snow goose Blue goose									2500 2000 2000
III. <u>Ducks:</u> Mallard Black duck Gadwall Baldpate Pintail Green-winged teal Blue-winged teal Cinnamon teal Shoveller Wood duck Redhead Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head Ruddy duck					50 25 25 50 25 25				7000 4000 4000 7000 200 400 100 800 5000 3000 2500
IV. <u>Coots:</u>									2500

SUMMARIES

Total Production:

Geese _____

Ducks _____

Coots _____

Total waterfowl usage during period 41100

Peak waterfowl numbers About Oct. 25th. - 7,000

Areas used by concentrations They use the north end of the
water area the most.

Principal nesting areas this season They nest all around
the water area where it has not been pastured closely.

Reported by Wesley D. Parker.

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.

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WATERFOWL

Refuge Sibley Lake Months of Sept. 1st. to Dec. 31. 1949.

(1) Species	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Young Produced		(6) Total
	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
I. <u>Swans:</u> Whistling swan						Sept. 22nd.			150
II. <u>Geese:</u> Canada goose Cackling goose Brant White-fronted goose Snow goose Blue goose									3000 2000 2000
III. <u>Ducks:</u> Mallard Black duck Gadwall Baldpate Pintail Green-winged teal Blue-winged teal Cinnamon teal Shoveller Wood duck Redhead Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head Ruddy duck					200 100 100 100				10000 7000 7000 12000 100 200 600 1500 2500 8000 5000
IV. <u>Coots:</u>									3000

SUMMARIES

Total Production:

Geese _____

Ducks _____

Coots _____

Total waterfowl usage during period 64,050

Peak waterfowl numbers About Nov. 1st.- 10,000

Areas used by concentrations They use all of the water area.

Principal nesting areas this season They nest all around
the water area where it is not closely pastured.

Reported by Wesley D. Parker.

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.

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WATERFOWL

Refuge Silver Lake Months of Sept. 1st. to Dec. 31, 1949.

(1) Species Common Name	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Young Produced		(6) Total
	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
I. <u>Swans:</u> Whistling swan						Nov. 2nd.			100
II. <u>Geese:</u> Canada goose Cackling goose Brant White-fronted goose Snow goose Blue goose					50				2500 1000 1000
III. <u>Ducks:</u> Mallard Black duck Gadwall Baldpate Pintail Green-winged teal Blue-winged teal Cinnamon teal Shoveller Wood duck Redhead Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head Ruddy duck					200 100 150 100 50 100				6000 2000 2500 5000 100 200 100 1200 5000 6000 2500
IV. <u>Coots:</u>									3000

SUMMARIES

Total Production:

Geese _____

Ducks _____

Coots _____

Total waterfowl usage during period 38,200

Peak waterfowl numbers About Oct. 25th. - 4000

Areas used by concentrations The whole water area is used by the waterfowl.

Principal nesting areas this season They nest along the shore and in the fields on north end of water area mainly.

Reported by Wesley D. Parker.

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.

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WATERFOWL

Refuge Woodlake Marsh Months of Sept. 1st. to Dec. 31, 1949.

(1) Species Common Name	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Young Produced		(6) Total
	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
I. <u>Swans:</u> Whistling swan					No birds were seen on the area.	Oct. 4th.			
II. <u>Geese:</u> Canada goose Cackling goose Brant White-fronted goose Snow goose Blue goose									
III. <u>Ducks:</u> Mallard									1200
Black duck									
Gadwall									1000
Baldpate									1000
Pintail									1200
Green-winged teal									50
Blue-winged teal									100
Cinnamon teal									
Shoveller									50
Wood duck									100
Redhead									
Ring-necked duck									100
Canvas-back									
Scaup									100
Golden-eye									80
Buffle-head									
Ruddy duck									100
IV. <u>Coots:</u>									60

SUMMARIES

Total Production:

Geese _____

Ducks _____

Coots _____

Total waterfowl usage during period 5,040

Peak waterfowl numbers About Nov. lat. - 1000 birds.

Areas used by concentrations They use the south end of the
small water area the most.

Principal nesting areas this season This is not a nesting
area.

Reported by Wesley D. Parker.

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.

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WATERFOWL

Refuge Stamp Lake Months of Sept. 1st. to Dec. 31. 1949.

[illegible]

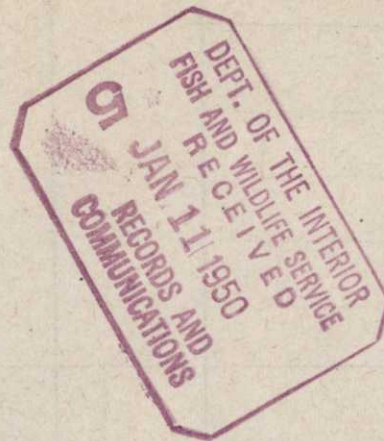
SUMMARIES

Total Production:

Geese _____

Ducks _____

Coots _____



Total waterfowl usage during period 17,380

Peak waterfowl numbers About 3,000 on Oct. 20th.

Areas used by concentrations The water area around the islands is used most.

Principal nesting areas this season This is a resting place and not much nesting is done here.

Reported by Wesley D. Parker.

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.