

BRANCH OF WILDLIFE REFUGES

NARRATIVE REPORT

ROUTING SLIP

DATE

9/30 1954

Mr. Salyer _____

Mr. DeMont PAD

Mr. Krummes _____

Miss Baum _____

Section of Operations:

~~Mr. Ball~~ _____

Dr. Morley _____

~~Mr. Bogan~~ XGR 10-6

Section of Habitat Improvement:

~~Mr. Griffith~~ EEG

~~Mr. [unclear]~~ _____

~~Mr. Bourn~~ WGB 10-4

~~Mr. [unclear]~~ W.S.

Section of Land Management:

Mr. Ackerknecht _____

~~Mr. Davis~~ _____

Stenographers:

REFUGE

BURFORD LAKE

PERIOD

JANUARY - APRIL, 1954

TABLE OF CONTENTS

I. GENERAL.....	1
II. WILDLIFE.....	3
III. REFUGE DEVELOPMENT MAINTENANCE.....	5
IV. ECONOMIC USE OF REFUGE.....	6
VI. PUBLIC RELATIONS.....	6
VII. OTHER ITEMS.....	6

Burford Lake Wildlife Management Area
Dulce, New Mexico

NARRATIVE REPORT

January, February, March, and April, 1954

I. GENERAL

A. Weather Conditions. Data in the following table were collected at the Jicarilla Agency at Dulce, which is about twenty miles airline northwest of this headquarters.

	<u>Snowfall</u>	<u>Precipitation</u>	<u>Max. Temp.</u>	<u>Min. Temp.</u>
January	13 inches	1.35 inches	58	-18
February	2 "	.25 "	68	4
March	20 "	2.29 "	70	-2
April	T	.28 "	76	11
Totals	35 inches	4.17 inches	Extr. 76	-18

During April .02 inches of precipitation were recorded at headquarters.

It was again a very mild winter.

B. Water Conditions. Runoff during the main part of the winter was extremely light and until the middle of March Burford Lake was only about three or four inches higher than at its lowest last fall. On March 17 several inches of snow fell and served to moisten the soil which by then was dry and dusty. Beginning on the night of March 21-22 and continuing until the 25th about two and a half inches of precipitation fell in the forms of snow and rain, mostly snow. Snow, melting as it fell, combined with rain continued most of the 22nd and the following night, which for that time of the year was extremely warm with temperatures above freezing all night. By 5:00 AM of the 23rd the roar of water down the three gulleys of Cisneros Canyon could be heard. At 10:00 AM the flow down this canyon, which normally carries no water at all, was estimated, from rough measurements, at 100 CFS, and by 3:00 PM the flow had increased to 150CFS. More snow fell the following night but temperatures dropped to well below freezing and the runoff on the 24th was less than half that of the 23rd. The night of March 24-25 was again cold, and in spite of additional snowfall the runoff on the 25th was down to 15% of the maximum of the 23rd and it did not increase thereafter.

This was a very interesting example of the way in which temperatures can effect runoff here in the spring.

By 11:00 AM of March 23 Burford Lake was up to the late August, 1953, level: it had caught several times as much water during the past twenty-four hours as it had during all the preceeding part of the winter combined.

By the time runoff from this storm had stopped, the lake had risen about a foot which still left it about a foot lower than the maximum level of 1953.

On April 22 the elevation above sea level of Stone Lake was 7230.0 feet as determined by Mr. Rennie of the agency's soil-moisture staff from a Geological Survey bench mark. Stone Lake's spillway elevation is 7236.5 feet.

On the same day the elevation of Burford Lake was 7102.7, and it was about thirteen feet below its spillway elevation which is 7115.6.

The variation in water levels on Stone and Burford Lakes has been even greater than we previously believed.

Until the storm of late March Enbom was still about one and a half feet below its spillway but by the time runoff from this storm stopped it had overflowed.

By the end of the March runoff La Jara had about six or eight acres of water in its upper body but this was separated from the main lake by dry land. The main body of this lake was about a foot above its lowest of last year as were Horse and Dulce Lakes.

Hidden Lake was almost completely dry before the March storm but caught a few inches of water before the end of that month. It was dry again at the end of April.

The Upper Thompson Lake remained dry but the lower caught approximately a foot of water and retained some of it through the end of the period.

Most of the lakes were thawing around the edges in the middle of the day during the last ten days or so of February. As late as the fifteenth of March these areas were freezing again at night. By the twenty-first of March an area ten to forty yards wide was thawed during the day on the west side of Stone Lake. On April 1 about three-quarters of the surface of Stone Lake was thawed and the ice that remained was concentrated on the east side due to wind action. On April 10 this lake was completely thawed.

Enbom Lake was noticeably slower to thaw than any of the other lakes observed. On April 1 this lake was still almost completely frozen (the recent runoff into it had simply lifted the ice). This is probably because it is fairly well shaded but its slightly higher elevation (about 7,600 feet) would also tend to retard thawing.

Burford Lake did not freeze again after receiving the March runoff.

C. Fires. Fire suppression activities are handled by the agency's Forester. No fires of any consequence occurred.

II. WILDLIFE

A. Migratory Birds.

1. Population and Behavior. The first few ducks were seen during the last week of February at which time a narrow band was thawing around the edges of most of the lakes during the day. As these thawed areas increased the duck and coot population increased more or less in proportion until about the middle of April a peak population of 5,000 to 5,500 ducks and 2,000 to 2,500 coots were present. This population remained fairly steady during the last part of April (see forms) and into the first part of May.

Distribution on the various lakes during the peak period was approximately as follows: Stone Lake 5,000 to 5,500; Horse Lake 1200; La Jara Lake 400; Embom Lake 150 to 400; Dulce Lake 30; Burford Lake 150 to 250; Hidden Lake none to 225. Ducks were often seen on many of the small stock watering reservoirs of which there are several scores over the reservation (the exact number is not known to anyone).

The only wading type birds seen by the writer were five white-faced glossy ibises. However, a few individuals of other species probably came through. Extension Agent Chappell described a bird he saw which was almost certainly a great blue heron.

A few Franklin's gulls and ring-billed gulls were seen.

Few shore birds of any kind were seen.

A large migration of about 500 eared grebes was observed on Stone Lake on April 17.

The first mourning dove was seen on April 11 as compared to April 8 of last year. By the twentieth they were common.

2. Food and Cover. Tubers of sago pondweed and other remains of this and other aquatic plants, all leftovers from last year, undoubtedly constituted the great bulk of the duck menu this spring. Very little new aquatic plant growth was visible by the end of the period.

In a few places new growths of hardstem bulrush had started by the end of April. This was considered unusual but the spring seemed, in many ways, to be advanced: trees budded ahead of time and in Colorado some operators of mountain resorts opened for business a month early.

3. Botulism. None.

4. Lead Poisoning and other Diseases. None.

B. Upland Game Birds.

1. Population and Behavior. No turkeys, dusky grouse, sage grouse,

nor scaled quail were seen by the writer during the period. Tracks of three turkeys were seen about one mile northeast of Well's Look-out on February 2.

2. Food and Cover. Considering that the populations of each species is light and that the winter was very mild, the food supply for each was almost undoubtedly adequate.

3. Disease. None.

C. Big Game Animals. Twenty-four deer were seen on the reservation during the period by the writer. All of these were seen after our return to Burford Lake. These observations were as follows:

<u>Date</u>	<u>Number</u>	<u>Locality</u>	<u>Remarks</u>
April 2	8 ¹	Along shore of Burford Lake on tip of Redhead Ridge	No sign of antlers seen although at least one was apparently a buck. 5:50 PM.
April 18	3	One mile south of windmill on Mud Springs Road	7:25 PM
April 20	7	Same	Possibly more in this group. 6:25 PM.
April 25	2	One mile SW Hdq.	Possibly more with these.
April 27	4	300 yards north of windmill on Mud Springs road.	9:05 AM.

No bear nor bear sign were seen during the period by the writer.

2. Food and Cover. The deer food supply still seems to be adequate for the population. Over much of the reservation the herd is still far below the carrying capacity of the range.

The deer seen during early spring are noticeably thinner and shaggier in appearance than they are during the fall, but this would be the case regardless of the population density.

The deer seen on April 2 were apparently feeding on foxtail grass (Hordeum jubatum), the first green shoots of which were then about an inch long.

3. Disease. None known.

D. Fur Animals, Predators, Rodents, and other Mammals. The following areas were trapped:

<u>Area</u>	<u>Bobcats Caught</u>	<u>Coyotes Caught</u>
Along an oil company road from Vaqueros Ranger Station to Caracas Mesa	10	6
Burns Canyon above La Jara Lake - Dulce Road	6	1
Button Thomas Spring west to Wirt Canyon		2
Puerto Chiquito	1	1
Stock Driveway Canyon to a point about two miles southwest of headquarters		2
Ridge two miles south of Dulce (on north side of Soldiers Canyon)	2	2
Totals	<u>19</u>	<u>12</u>

An increase in coyotes is evident. During three previous years only fifteen coyotes had been caught.

E. Predaceous Birds, including Crows, Ravens, and Magpies. These birds were present in about their usual numbers, except for bald eagles, more of which were seen than ever before (probably because more time was spent where there would likely be seen).

F. Fish. Because of the low level of La Jara Lake, few, if any, fish survived the winter.

No evidence of fish were seen in Enbom Lake, which was stocked with bluegills and bass last September.

III. REFUGE DEVELOPMENT MAINTENANCE

A. Physical Development. Practically all of the field time during this period was devoted to predator control work. Maintenance work consisted mostly of details around headquarters and on the jeep pickup and having the horse trailer repaired.

B. Plantings. None.

C. Collections. None

D. Receipts of Seed and Nursery Stock. None.

IV. ECONOMIC USE OF REFUGE

Economic uses of the area are under the supervision of the Bureau of Indian Affairs.

V. FIELD INVESTIGATION OR APPLIED RESEARCH

None.

VI. PUBLIC RELATIONS

A. Recreational Uses. There was a little fishing through the ice on La Jara Lake, perhaps 25 fisherman-days. Otherwise recreational use was confined mostly to uranium hunting, which probably has more value as a sport than as a business, at least on this area.

B. Refuge Visitors. None.

C. Refuge Participation. The films "Hunting the Puma" and "Behind the Flyways" were shown to a group of about twenty-five people in Dulce on March 16.

D. Hunting. None.

E. Fishing. The fishing through the ice on La Jara Lake was only moderately successful.

F. Violations. None.

VII. OTHER ITEMS

A. Items of Interest. A large "wolf", actually a domestic dog turned loose and gone wild, was caught on Mr. Leo Vicente's winter range south of the Otero Ranch on March 10. This animal had killed or helped kill nineteen head of Mr. Vicente's sheep. He still wore the wire around his neck which the Indians customarily attach to dogs before disowning them.

September 3, 1954

Approved by:

W. K. Karkhanavich

Acting Regional Director

Respectfully submitted,

Edgar R. Gomer

Edgar R. Gomer
Refuge Manager

3-7150a
Cont. NR-1
(Rev. March 1953)

WATERFOWL
(Continuation Sheet)

REFUGE Burford Lake Wildlife Management Area

MONTHS OF January 1 TO April 30, 1954

(1) Species	(2) Weeks of reporting period								(3) Estimated waterfowl days use	(4) Production Broods: Estimated seen : total
	11	12	13	14	15	16	17	18		
Swans:										
Whistling			Mar. 21- 27	Mar. 28- Apr. 3	Apr. 4- 10	Apr. 11- 17	Apr. 18- 24	Apr. 25- 30		
Trumpeter										
Geese:										
Canada										
Cackling										
Brant										
White-fronted										
Snow										
Blue										
Other										
Ducks:										
Mallard			30	100	150	300	300		8,500	
Black										
Gadwall			125	1000	1200	1200	1200		42,000	
Baldpate			75	325	250	250	300		10,800	
Pintail					150	150	150		4,050	
Green-winged teal			25	425	250	350	350		12,500	
Blue-winged teal					25	25	25		675	
Cinnamon teal						25	25		500	
Shoveler				125	175	250	250		7,100	
Wood										
Redhead				525	525	700	700		21,350	
Ring-necked				125	200	60	20		2,955	
Canvasback				40	200	275	200		6,205	
Scaup					250	600	400		8,750	
Goldeneye								1	7	
Bufflehead			25	250	400	600	250		12,425	
Ruddy				250	550	675	1,000		12,700	
Other										
m. Merganser					50	25	25		850	
Coot:					350	1,500	2,000	2,500	59,450	
					(over)					

	(5)	(6)	(7)	SUMMARY
	Total Days Use	Peak Number	Total Production	
Swans				Principal feeding areas <u>Stone, Horse, La Jara, Embom Lakes</u>
Geese				
Ducks	151,367	5,500		Principal nesting areas _____
Coots	59,450	2,500		
				Reported by <u>Edgar R. Gomer</u>

INSTRUCTIONS (See Secs. 7531 through 7534, Wildlife Refuges Field Manual)

- (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) Weeks of Reporting Period: Estimated average refuge populations.
- (3) Estimated Waterfowl Days Use: Average weekly populations x number of days present for each species.
- (4) Production: 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.
- (5) Total Days Use: A summary of data recorded under (3).
- (6) Peak Number: Maximum number of waterfowl present on refuge during any census of reporting period.
- (7) Total Production: A summary of data recorded under (4).

3-1751

Form NR-1A

(Nov. 1945)

MIGRATORY BIRDS

(other than waterfowl)

Refuge Burford Lake Wildlife Mgt. AreaMonths of Januaryto April19454

(1) Species	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Number
I. Water and Marsh Birds:										
E. Grebe	13	4/10	600	4/17	Still present					
Pied-billed Grebe	1	4/10	10	4/17	" "					
White -faced Glossy Ibis	5	4/17	one record only							
II. Shorebirds, Gulls and										
Terns:										
Kildeer	1	4/15	250	4/30	Still Present					
Avocet	2	4/22	2	4/22	" "					
Willet	2	4/10	same		same					
Ring -billed gulls	18	4/10	same		Still Present					
Franklin's Gulls	10	4/10	same		same					

(over)

(1)	(2)	(3)	(4)	(5)	(6)
III. <u>Doves and Pigeons:</u> Mourning dove White-winged dove	3	April 11 ?	Still present		
IV. <u>Predaceous Birds:</u> Golden eagle Duck hawk Horned owl Magpie Raven Crow	All these birds, except the duck hawk, were present all winter in undetermined numbers				
Reported by Edgar R. Gomer					

INSTRUCTIONS

- (1) Species: Use the correct names as found in the A.O.U. Checklist, 1931 Edition, and list group in A.O.U. order. Avoid general terms as "seagull", "tern", etc. 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. Groups: I. Water and Marsh Birds (Gaviiformes to Ciconiiformes and Gruiformes)
II. Shorebirds, Gulls and Terns (Charadriiformes)
III. Doves and Pigeons (Columbiformes)
IV. Predaceous Birds (Falconiformes, Strigiformes and predaceous Passeriformes)
- (2) First Seen: The first refuge record for the species for the season concerned.
- (3) Peak Numbers: 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.
- (5) Production: Estimated number of young produced based on observations and actual counts.
- (6) Total: Estimated total number of the species using the refuge during the period concerned.

3-1754
Form NR-4
(June 1945)

SMALL MAMMALS

Refuge Barford Lake N. W. A.

Year ending April 30, 1954

(1) Species	(2) Density	(3) Removals						(4) Disposition of Furs					(5) Total Popula- tion
Common Name	Cover Types & Total	Acres Per Animal	Hunting	Fur Harvest	Predator Control *	For Re- stocking	For Re- search	Share Trapping			Total Refuge Furs Shipped	Furs Donated	Furs Destroyed
	Acreage of Habitat							Permit Number	Trappers Share	Refuge share			
Striped Skunk	700,000 all types	common											
Badger	700,000 all types	common											
Gray Fox	700,000 all types	common											
Coyote	700,000 all types	uncommon			15								
Mountain Lion	400,000 timbered ridges	rare											
Bobcat	700,000 all types	common			24								
Prairiedog, Whitetail	250,000 meadows, upland knolls	common											
Tassel-eared Squirrel	200,000 pine forests, seldom seen												
Ground Squirrels, sev. species	500,000 rocky or timbered areas,	common											
Beaver	300 acres, streams, lakes, upland ridges												
Muskrats	800 acres, lakes, common locally												
Porcupine	700,000, common, found in almost all types												
Blacktail jackrabbit	500,000, meadow and upland knolls,	uncommon											
Cottontail, probably two species,	700,000, all types,	uncommon											
Snowshoe hare, etc	200,000, pine forests, very rare												

* List removals by Predator Animal Hunter

* List removals by Predator Animal Hunter

REMARKS:

Edgar R. Gomer

Reported by

INSTRUCTIONS

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

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

3-1752

Form NR-2

(April 1946)

UPLAND GAME BIRDS

1613

Refuge Burford Lake Wildlife Management Area months of January to April, 1954

(1) Species	(2) Density	(3) Young Produced	(4) Sex Ratio	(5) Removals	(6) Total	(7) Remarks		
Common Name	Cover types, total acreage of habitat	Acres per Bird	Number broods obs'd. Estimated Total	Percentage	Hunting For Re- stocking For Research	Estimated number using Refuge	Pertinent information not specifically requested. List introductions here.	
Masky Grouse	40,000 acres pine and fir covered slopes	200	0	?	0	0	200	Not based on census
Sage Grouse	20,000 acres open pi sagebrush	800	0	?	0	0	25	Not based on census
Scaled quail	100,000 acres sagebrush pinyon pine, juniper covered areas on south unit	133	0	?	0	0	750	Not based on census. Seen only in South Large Canyon
Merriam's Turkey	300,000 acres pine oak, juniper covered areas	3,000	0	?	0	0	100	Not based on census

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

INSTRUCTIONS

Form NR-2 - UPLAND GAME BIRDS.*

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

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

TABULATION OF PUBLIC USE

Refuge Burford Lake Wildlife Management Area

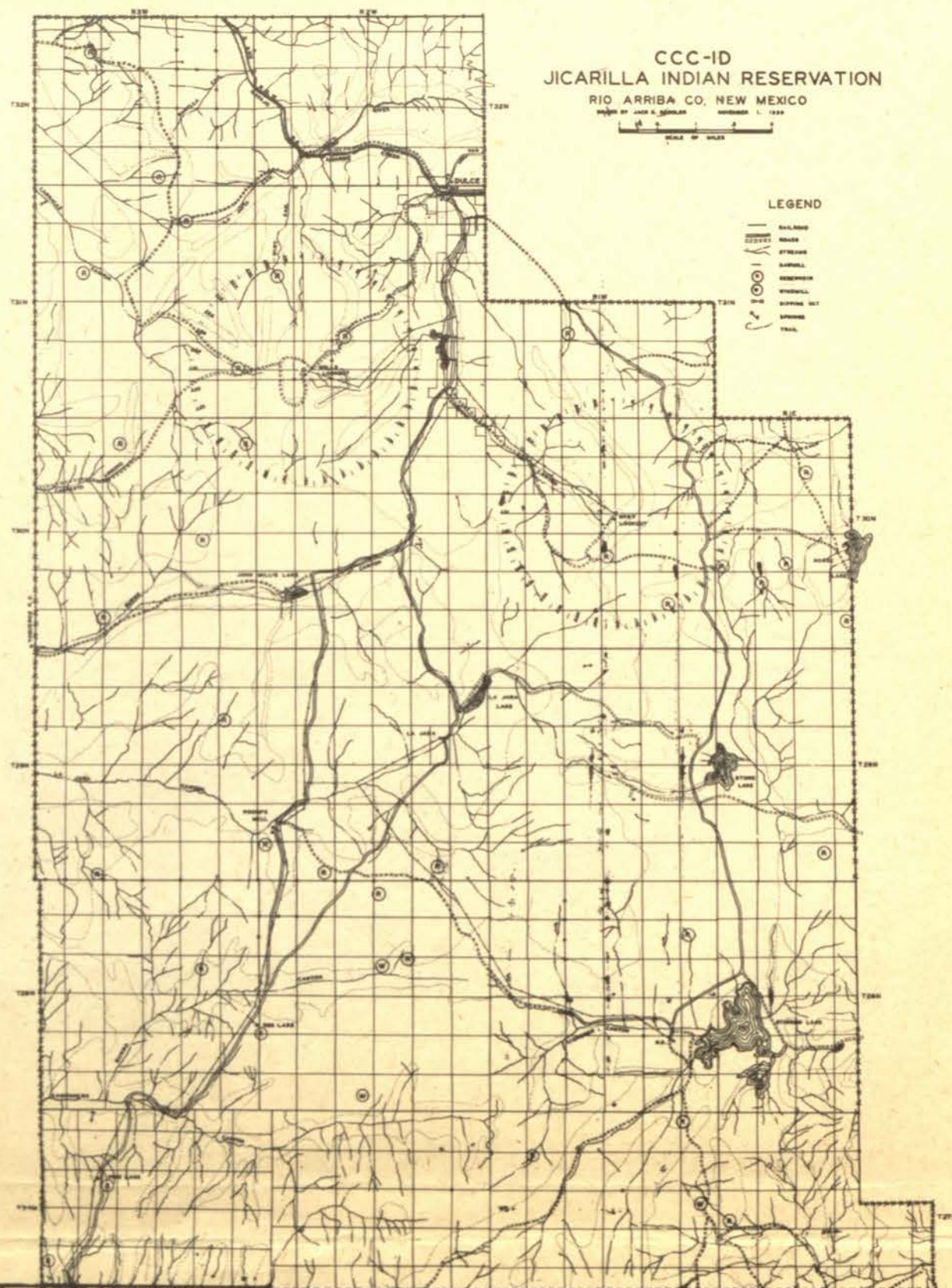
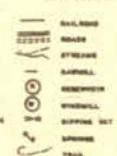
	<u>Visitor Days This Period</u>	<u>Visitor Days To Date C.Y.</u>
1. Hunting Use (Where permitted)	<u>0</u>	<u>0</u>
2. Fishing Use	<u>25</u>	<u>25</u>
Miscellaneous (All other uses)	<u>50</u>	<u>50</u>
Estimated total use all types	<u>75</u>	<u>75</u>

CCC-ID
JICARILLA INDIAN RESERVATION

RIO ARriba CO, NEW MEXICO

Scale 1:25,000
1 inch = 2 miles

LEGEND



3 B

Los Hornos Mesa

Ruin

Wild Horse Mesa

20 B

BURFORD LAKE WILDLIFE MANAGEMENT AREA

Showing area trapped and animals caught between December 19, 1952 and April 13, 1953. "B" indicates bobcat caught; "C" indicates coyote. Red lines show general routes of traplines.

21 B
2 C

Winter camp

19 B

