

NARRATIVE REPORT

OURAY NATIONAL WILDLIFE REFUGE

1972

Personnel

H. J. Johnson Refuge Manager

William J. Wilson Assistant Refuge Manager
(Transferred to Browns Park NWR July 10, 1972)

Phillip M. Arnold Assistant Refuge Manager
(Transferred from Washita NWR October 1, 1972)

Norma A. Wardle Clerk

Lewis A. Littleton Maintencemen

J. Arden Hacking (Part-Time) Maintencemen

TABLE OF CONTENTS

Page No.

I.	GENERAL	
	Weather Conditions	1
	Habitat Conditions	2
II.	WILDLIFE	
	Migratory Birds	3
	Upland Game Birds	7
	Big Game Animals	8
	Fur Animals, Predators, Rodents and Other Mammals	8
	Hawks, Eagles, Owls, Crows, Ravens and Magpies	9
	Other Birds	10
	Fish	10
	Reptiles	10
	Disease	10
III.	REFUGE DEVELOPMENT AND MAINTENANCE	
	Physical Development	10
	Plantings	14
	Collections and Receipts	14
	Control of Vegetation	15
	Planned Burning	15
	Fires	15
IV.	RESOURCE MANAGEMENT	
	Grazing	15
	Haying	16
	Fur Harvest	16
	Timber Removal	16
	Commercial Fishing	17
	Other Uses	17
V.	FIELD INVESTIGATIONS OR APPLIED RESEARCH	17
VI.	PUBLIC RELATIONS	
	Recreational Uses	17
	Refuge Visitors	18
	Refuge Participation	19
	Hunting	20
	Violations	21
	Safety	22
VII.	OTHER ITEMS	22
	PHOTOGRAPHS	
	NR REPORTS	

NARRATIVE REPORT

OURAY NATIONAL WILDLIFE REFUGE

1972

I. GENERAL

A. Weather Conditions

The weather information in the table below was recorded at the U. S. Weather Bureau station located at refuge headquarters:

Table 1.

	<u>Temperatures</u>		<u>Precipitation</u>		<u>Snowfall</u>
	<u>Max.</u>	<u>Min.</u>	<u>This Month</u>	<u>11-Year Average</u>	
January	56	- 6	0	.37	
February	68	- 2	0	.33	
March	75	18	0	.36	
April	77	24	.81	.62	
May	89	30	.18	.65	
June	96	44	.46	.69	
July	102	48	.08	.48	
August	101	44	.32	.69	
September	88	30	.58	.61	
October	83	11	1.02	.65	
November	57	9	.56	.40	
December	<u>51</u>	<u>- 29</u>	<u>.88</u>	<u>.33</u>	<u>13"</u>
Extremes:	102	- 29	Tot: 4.89	6.18	13"

Pleasant surprise, I never would have believed it, once in a hundred years; these are phrases associated with the winter of 1971 and 1972.

January was ushered in with days above freezing and most nights above zero. Heeding the advice of native old timers, no one packed their long handles. They all predicted there would be a storm and after the storm there would be sub-zero weather.

January, February and March went by without any measurable precipitation and only a few nights were below zero. The old timers now predicted it was going to be another 1934 (supposedly

the driest year anyone could remember). April had two shower periods which started the grasses growing. Their growth was slight, as May, June and July were also very dry. With only 1.53 inches of precipitation in the first seven months of the year, the shadscale (Atriplex confertifolia), greasewood (Sarcobatus vermiculatus), and salt sage (Atriplex corrugata & nuttallii) never leafed out.

August was the turning point, it started showering every time a cloud went by. September and October followed suit. November brought the first snow of the winter. It also brought predictions from the old-timers that this winter would make up for the mild winter we just had.

As December comes to a close, it looks as though they might be right in their predictions. There are twelve inches of snow on the ground and our temperatures are sub-zero. Regardless, 1972 was one of a hundred years. Records are proof now that it happened and we remember and believe.

B. Habitat Conditions

1. Water

Ice on the river went out on February 17. Pumping in Leota began March 21 and last use of the pump for the year ended October 5.

The Wyasket pump began operation March 3 and the fall pumping closed on October 11.

Because of construction in Sheppard, the newly installed pump was not used until August 9. The last pumping for the season ended September 29.

No pumped water was utilized in Johnson or Woods Bottom this year, although Green River flooding, the least in refuge history, did put some water in each unit.

Table 2. Calendar year 1972 water usage.

<u>Unit</u>	<u>Acre Feet</u>	<u>Cost</u>
Leota	1,200	\$1,713.60
Sheppard	200	240.03
Wyasket	360	556.73
Ouray Park (share assessment)	360	1,200.00

Impoundments on the refuge froze up November 25 and the Green River followed suit shortly. However, at the year's end there were still open leads in the river.

2. Food and Cover

To accurately assess the condition of vegetation, the refuge would have to be divided into three sections--the arid benchlands, unwatered bottomlands and the lower bottomland marsh areas.

The vegetation on the bench areas does not have much effect on the fundamental goals of the refuge. The main wildlife utilizing this area are rabbits, mule deer and antelope. Their numbers aren't great enough to noticeably deplete the vegetation even in a dry year. One item missing in dry years is the bloom of the wild flowers. On wet years they grow profusely, adding their brilliant colors to the landscape. This year all that bloomed were the cacti.

Generally, the unwatered portion of the bottomland was dry this year and the production of food for wildlife was poor. Sunflowers and other important annuals had little success. However, due to the controlled release of water through Flaming Gorge Dam, and a comparatively high run off from the Yampa River, the Green River stayed high longer than usual without reaching flood stage. This created a subbing condition which was beneficial to plant growth on the lowest river bottomlands, thus offsetting the effect of the drought. The lowlands of Sheppard Bottom produced approximately 200 acres of sunflowers, Woods Bottom an equal acreage of smartweed and Johnson Bottom only a little of each. Without the sunflowers, pheasants would have been wiped out after the first snowfall.

II. WILDLIFE

A. Migratory Birds

1. Waterfowl

Waterfowl use, both ducks and geese, improved over use in 1971. Duck use was up from 490,000 to 762,000 use days,

and goose use increased from 32,000 to 45,000 use days. Total use days for the nine-year period 1964-1972 is shown in Table 3 and on Graph 1. An excellent crop of natural foods on the refuge this year (discussion under Food and Cover), plus the evolution of Leota Bottom and upper Wyasket Bottom into a true "marsh" waterfowl habitat, more than likely is responsible for the increase in waterfowl use days.

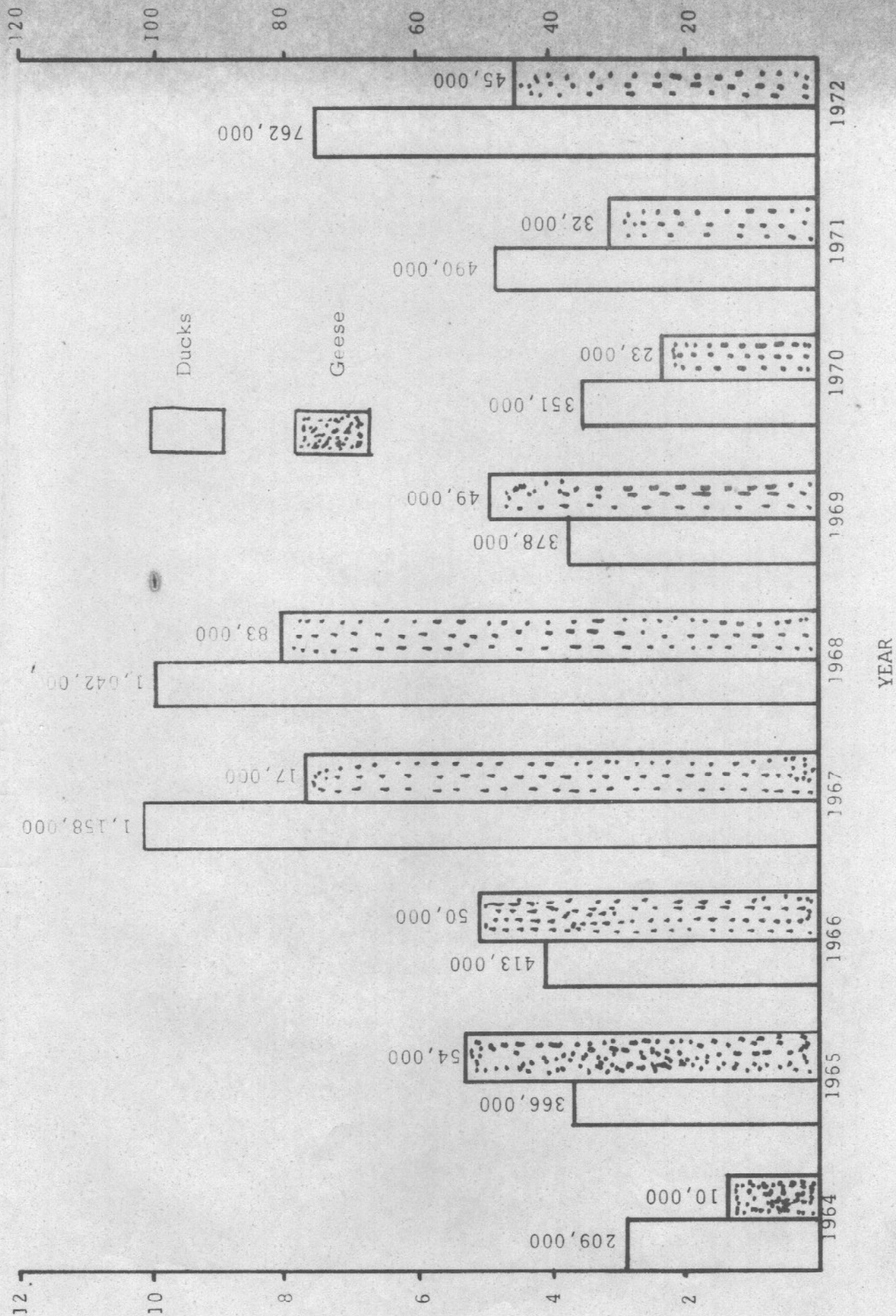
Table 3. Waterfowl maintenance at Ouray National Wildlife Refuge.

<u>Year</u>	<u>Ducks</u>	<u>Geese</u>
1972	762,000	45,000
1971	490,000	32,000
1970	351,000	23,000
1969	378,000	49,000
1968	1,042,000	83,000
1967	1,158,000	77,000
1966	413,000	50,000
1965	366,000	54,000
1964	209,000	10,000

Ducks were absent during the first and last months of the year. The first ducks of the year arrived February 25. The spring migration peaked during the last part of March and the first part of April at 6,000 birds. The fall migration peaked during the last of October and the first part of November. Numbers fluctuated between 5,300 and 6,000 ducks. All ducks departed by November 29. In both the spring and fall migrations, mallards were the predominate species, accounting for about 38% of the total use. They were followed in order of abundance by the gadwall, pintail, green-winged teal, blue-winged teal, cinnamon teal, shoveler, American widgeon, lesser scaup, bufflehead, ring-necked duck, redhead, common goldeneye, ruddy duck, canvasback, and Barrow's goldeneye.

Canada geese were observed on the refuge every month of the year. Two white-fronted geese were sighted on April 8. On November 10, twenty-five snow geese were observed and one snow goose was seen on November 16 for the only records of the year. The spring migration peak of Canadas

WATERFOWL MAINTENANCE AT CURAY NATIONAL WILDLIFE REFUGE



occurred between February 29 and March 5 as numbers ranged from 280 to 305. In the fall, the peak came November 21 as 270 birds were counted. This peak is significantly lower than the fall peak for 1971 (460 Canada geese).

Waterfowl production was down substantially for ducks this year and double what it was last year for geese.

Duck production figures show a drop from 1,570 young produced in 1971 to 945 this year. Nesting conditions were about the same both years. Perhaps the main factor in the drop was the method of censusing. In 1971, a portion of Leota Bottom (prime nesting area) was surveyed and production figures were projected for the remainder of the refuge. In 1972, more emphasis was placed on the observation of broods in the various bottoms. The latter method, although resulting in a lower figure, should give a more reliable trend.

Gadwall was the most prolific of the refuge ducks producing 238 young. Mallards produced 187 young, green-winged teal 131, blue-winged teal 102, pintail 81, American widgeon 74, cinnamon teal 70, and shoveler 62.

Canada goose production increased from 45 last year to 90 this year. Nesting in refuge bottomland units was about the same as last year (45). The overall increase in production was made possible by an influx of broods from the river. At crucial times this year the river remained low enough to result in successful nesting along its path through the refuge. This bonus cannot be expected every year. In the bottoms, little use was made of artificial nesting structures except for rock cribs around power poles in Wyasket Bottom. Of the four structures surrounded by water, all had nests. There is no shortage of natural nesting sites yet, only a shortage of breeding pairs to use them.

Table 4. Waterfowl production at Ouray National Wildlife Refuge.

<u>Year</u>	<u>Ducks</u>	<u>Geese</u>
1972	945	90
1971	1,570	45
1970 ^{1969?}	585	40 ^{1970 20}
1968	995	40
1967	430	70
1966	120	30
1965	98	26
1964	54	0

2. Sandhill Cranes

Sixty-three cranes arrived on March 10 to herald the spring migration. Eventually a peak of 480 was reached and all birds departed by April 5. Use days for the spring migration totaled 7,820. The fall migration started September 21 when 290 cranes arrived. A peak of 438 birds was reached on October 3. The next day use ended when all cranes departed en masse. Fall use amounted to 4,230 days and the total for the year was 12,050 days. This was more than twice the use last year (4,700 use days).

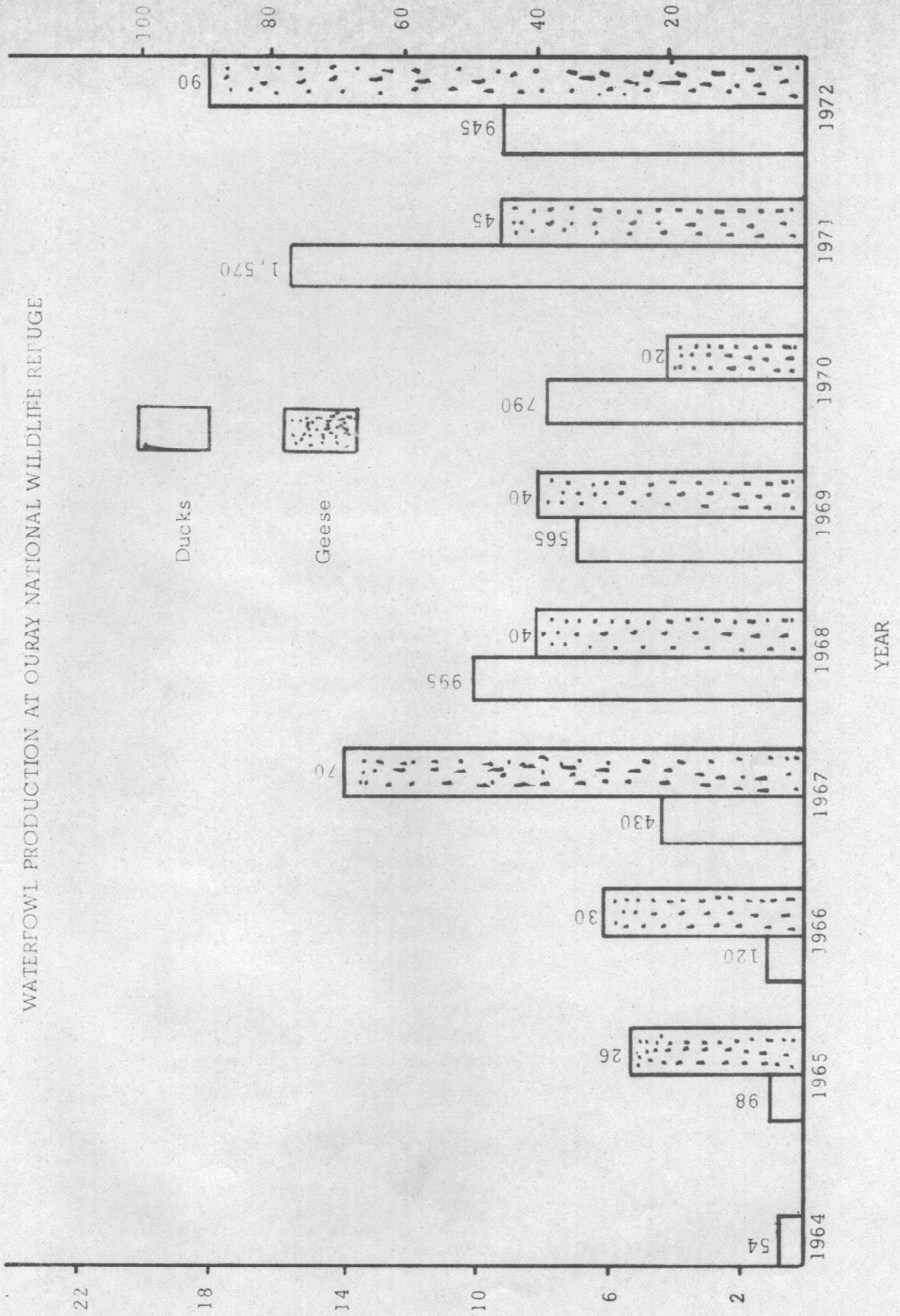
3. Mourning Doves

The peak population of 1,500 birds was down considerably from last year's 3,000. Drought created a food shortage in the upland sites. This was especially evident in the small seed crop put out by annuals. Lack of food could probably be correlated to the decrease in dove numbers. Mild weather continued into November and a few doves lingered on until December 14.

4. Other Waterbirds

Marsh, water, and shorebirds started arriving almost a month earlier than last year. The first arrival was a piebilled grebe who touched down on February 25. Some interesting observations for the year are as follows: 73 marbled godwits on April 25, 66 white-faced ibis on April 25, 59 snowy egrets on June 13, 14 willetts on September 21, and 40 black-crowned night herons on September 21. The ponds on the refuge were frozen over on November 25. This signaled

WATERFOWL PRODUCTION AT OURAY NATIONAL WILDLIFE REFUGE



the departure of even the hearty great blue herons and grebes. Therefore, Arnold and Littleton were surprised to see a white-faced ibis glide by them on November 29. The lone bird landed on a frozen pond, took a look around and left, most likely for parts south. Do five minutes of use in this day and age of RBU's count as a use day? We needed the RBU, so took the liberty of rounding off to one.

B. Upland Game Birds

1. Ring-necked Pheasant

Crow counts are used at Ouray as an indicator of pheasant population trends. This year the count indicated a drop in the breeding population from 800 birds in 1971 to 188 birds in 1972. Although the crow count shows a drastic reduction in the breeding population, Manager Johnson and Maintenanceman Littleton credit Leota Bottom with essentially the same population as last year and Sheppard Bottom with a moderate drop. Leota and Sheppard Bottom are the two areas involved in the crow count route.

The discrepancy in observation and crow count data makes one entrusted with population estimates wonder. Upon looking deeper, there are facts which may explain the difference. Temperatures at the time of the counts were lower this year than last (average 34.7° F. versus 38.4° F. in 1971). Temperature has sometimes been listed as a possible depressant on crowing activity. Another probable factor concerned the total number of counts made the two years. In 1971, five counts were made over five weeks and in 1972, three counts were taken over three weeks. It is possible that in 1972 the peak period of crowing activity was missed. Accordingly, crow count results this year were modified somewhat to correspond with field observations.

Production this year was down. Five hundred eighty young were estimated to have survived the summer. Hunting mortality was credited with taking twenty-five birds. As of December 31 the population is pegged at 400 birds. Winter counts in Leota Bottom (closed to pheasant hunting) show a sex ratio close to fifty-fifty.

The overall refuge population has been undergoing a gradual decline since 1969, due to the cessation of farming in

Sheppard Bottom. Hopefully, as more marsh areas are created in Sheppard, pheasant numbers will show a resurgence.

2. Other Upland Game Birds

No sage grouse were recorded this year; there has not been an observation of chukar partridge on the refuge since 1968; and although one California quail was observed last year, none were recorded this year.

C. Big Game Animals

1. Mule Deer

The mule deer population was down slightly from the 1971 year end estimate of 175. As of December 31 this year, the old prognosticators settled on a figure of 100 deer in Leota Bottom and 50 deer on the rest of the refuge. Production was excellent again this year (about 90 fawns produced) and many sets of twins were observed.

2. Antelope

There were two herds of antelope that spent most of the summer visiting the refuge. Dry conditions in the uplands brought them down to the river bottoms for water. One herd of 23 spent their time in and near Wyasket Bottom, while another herd of about 20 animals visited Johnson Bottom.

D. Fur Animals, Predators, Rodents and Other Mammals

1. Beaver

Beaver continue to make signs of activity along the river. The population seems to be stable. Best estimate of the total population is twelve.

2. Muskrat

The muskrat population remains low. Probably no more than five individuals inhabit the refuge. In some areas where cattails are thick, more muskrats would be welcome.

3. Striped Skunk

This animal has been the most obvious destroyer of duck nests. Some control work was carried out in the spring and summer (shot on sight). The population is down from last year.

4. Bobcat

Bobcats are sighted occasionally and numbers have been stable, possibly fifteen to twenty-five on the refuge.

5. Coyote

Coyotes are apparently more numerous than last year. During the course of the year observations have been made in Leota, Sheppard, Wyasket and Johnson Bottoms. The refuge population probably ranges between twelve to twenty animals.

6. Black Bear

Again this year in the early summer, bears were sighted on the refuge. Two yearlings were seen in Sheppard Bottom and a sow with a cub was reported in Wyasket Bottom. A bear was shot north of the refuge and Maintenance man Littleton is sure that "his" bear hit the dust. It will be interesting to see if bear continue to use the refuge.

7. Badger

Only a few badgers operate on the refuge and they have caused no problems with dikes or roads.

8. Prairie Dogs

Several small colonies are active on the refuge this year. Five of these are in the headquarters vicinity. It is encouraging to see these fellas making a comeback on the refuge. No one recalls seeing a single "dog" on the refuge during 1971!

E. Hawks, Eagles, Owls, Crows, Ravens and Magpies

Last year it was noted that total numbers of hawks and eagles were at a low ebb. Most of the usual species were present, but were lacking in numbers. This year, there was a slight reversal of that trend. Eagle use was up slightly (625 use days in 1972 compared to 590 in 1971). Golden eagles peaked at four birds on January 3, and bald eagles were most plentiful on March 25 when six were recorded. The hawks (represented by the red-tailed, rough-legged, marsh, ferruginous, sparrow hawk and prairie falcon) made some increases.

Use this year was 2,670 days compared to 2,300 in 1971.

Owls have been scarce. The only owl recorded in 1972 is the great horned owl.

Maggie populations were about the same as in the past. More seem to be spending the winter on the refuge instead of moving off and returning in the spring. At the end of December about fifty birds were present.

F. Other Birds

Not much to report in this category. The refuge bird list needs revision. One new year's resolution is to do a more complete job of searching out the "little brown birds" that visit the area.

G. Fish

Catfish comprise the main catch of refuge fishermen. One visitor was fortunate enough to land a 17-pounder. With the influx of Texas and Oklahoma oil workers, people who really appreciate "quality" fish, refuge fishing pressure is increasing.

H. Reptiles

Bullsnakes were the most commonly noticed snake. Populations of reptiles were normal.

I. Disease

None observed.

III. REFUGE DEVELOPMENT AND MAINTENANCE

A. Physical Development

1. Contracts

Two contracts, described below, were issued last year and completed this year. Flooding in June 1971 followed by an October snow storm caused delay of the projects.

Contract No. 14-16 0002-3357 was let for construction of a protective dike around Sheppard Bottom complete with companion water discharge and drain facilities. The contract called for the placement of 83,000 cubic yards of dike fill material along approximately three and one-half miles of riverbank, construction of two concrete canal entrance structures, and the application of 4,500 cubic yards of

gravel surfacing on the finished dike top. Cost of the contract was \$48,935.00. A change order was later added to allow construction of protective dike in Leota Bottom to replace 300 yards of old dike undercut by the river.

Contract No. 14-16-0002-3389 was issued for the construction of pumpsite No. 1 in Sheppard Bottom. The contract called for a one-half inch sheet piling bulkhead tied back to a concrete deadman in the riverbank with one-inch diameter rod. Cost of the pumpsite was \$19,921.50.

Both contracts were awarded to the Sevier Excavating and Construction Company of Richfield, Utah.

No contracts were issued in 1972.

2. Habitat Development

a. Sheppard Bottom

Extensive work took place in Sheppard this year to take advantage of the protective dike and pumpsite discussed under contracts.

The farm field irrigation system was rehabilitated.

A new water control structure was installed to direct water into two canals.

The borrow area from the newly constructed protective dike was incorporated into the canal system as a de-silting basin.

Three contoured water spreading dikes were constructed to facilitate the distribution of water to high ground.

A divisional causeway to improve the road system and facilitate surveys was partially completed.

Existing canal systems were renovated to increase their water capacity.

The Sheppard Pump No. 1 was installed. This consists of a 16-inch Crissafulli pump and electric motor, wheel mounted, with access and egress via H-beam rails, winch and cable controlled.

Level ditches were made with the grader to provide open water in areas where dense emergent vegetation is anticipated. These ditches are approximately 16" to 20" deep to provide a total depth of 24".

Some vegetative improvements were attempted. This fall a contour strip was laid off along the water line of the old lake bed in Sheppard. The strip was mowed and then disced. Salt cedar and salt grass were the predominate vegetation removed. Later the strip (amounting to thirteen acres) was drilled to alfalfa, alsike clover, smooth brome and millet.

b. Leota Bottom

A section of river bank immediately above the main drain was reinforced with old car bodies which will subsequently be covered with large rip-rap rock.

New irrigation ditches were made to facilitate irrigation of high ground adjacent to the impoundments.

Eighteen new nesting structures were constructed and installed.

c. Woods Bottom

There was no development this year.

d. Wyasket Bottom

There was no development this year.

e. Johnson Bottom

One thousand seven hundred fifty-two cubic yards of gravel were hauled to raise the dikes and gravel the dike slopes.

Nine large nesting islands were bucked up with the D-6 and then capped and rip-rapped with 1,068 yards of gravel.

3. Fencing and Posting

Twelve miles of boundary and divisional fence were checked and repaired as needed by the refuge crew during the year.

One-half mile of new fence was constructed along the farm field in Sheppard Bottom.

Trespass cattle have continued to be a headache. Two cattleguards installed on the main refuge road relieved some of the pressure. As the sun set on this year, another cattle guard was constructed and four more "store boughts" were delivered. These guards will be installed in the spring.

The interspersation of private land within the refuge makes fencing difficult and boundary posting a real challenge.

4. Roads and Trails

Roads and trails in Sheppard Bottom were raised and widened.

Refuge roads were worked several times with the grader and roadsides mowed.

5. Equipment

As on lots of other refuges, the equipment here is old and well-worn. Frequent repairs, crossed fingers and many curses help the equipment limp from one project to another.

An angle dozer blade was modified and installed on the D-6 replacing the straight blade that was on it. The D-6 also received new heads, and the steering clutches and brake bands were repaired.

The 24" Crisafulli pump was modified to alleviate excessive shaft vibration. The pump's control box burned out and received a new set of contacts.

The Minneapolis Moline tractor had the front end replaced and the electrical system repaired.

The Cat 12 grader had numerous repairs. To meet safety standards and to make operation of the grader more comfortable in cold weather, a used cab was installed.

Automotive equipment is rented from and repaired by the GSA Motor Pool in Vernal.

6. Buildings

A hole made in the wall of Q -57 when 220 power for the electric kitchen range was installed was repaired.

Heaters and furnaces were inspected, cleaned and repaired as needed by a local heating specialist (?).

Filler pipes for the underground gas and diesel tanks were lengthened to lessen the chance of dirt contaminating the fuel.

A rock base was made for the mail box at headquarters.

B. Plantings

1. Marsh and Aquatic Plantings

The banks of the newly constructed level ditches in Sheppard Bottom were seeded to three-square bulrush (Scirpus olneyi). Fifteen pounds of seed hand harvested in Leota Bottom were used.

2. Trees and Shrubs

One cottonwood seedling was transplanted to the side yard on Quarters 57.

3. Upland Herbaceous Plants

None.

4. Cultivated Crops

Farm fields #1 and #2 (40 acres) were disced in preparation for grass planting. However, conditions were not right this year and planting was delayed.

Thirteen acres were planted to a mixture of alfalfa, alsike clover, smooth brome and millet in Sheppard Bottom.

About four and one-half acres of crested wheat grass, smooth brome and a nurse crop of oats were planted on the slopes of the new protective dike in Sheppard Bottom.

C. Collections and Receipts

1. Seeds and Other Propagules

Six hundred pounds of alfalfa seed were combined from a small area of refuge farm fields. The refuge share of the harvest was 300 pounds.

Mr. and Mrs. Littleton hand harvested twenty pounds of three-square bulrush seed for use on the refuge.

2. Specimens
None.

D. Control of Vegetation

1. Mechanical

Thirteen acres of salt cedar and salt grass were mowed and disced in Sheppard Bottom.

After the nesting season, weeds were mowed along the dike tops and roads in Leota Bottom.

2. Chemical

The Uintah and Duchesne County Agricultural Agent again coordinated a two-county control program to combat a Basin-wide infestation of false giant whitetop (Lepidium latifolium). Scattered patches of the weed on the refuge were sprayed with 2,4-D. About ten acres were involved.

Partial control of this farm field invader may be possible, but eradication is another matter. The Green River, carrying seed from areas upriver and its utilization for irrigation, will provide a reliable seed source for whitetop most years.

- E. Planned Burning
None.

- F. Fires
None.

IV. RESOURCE MANAGEMENT

A. Grazing

Eight permits to six permittees were in effect during 1972. The permits allowed 1,269 AUMs, an increase of 477 AUMs over last year. The grazing fee was \$0.64 until October, then increased to \$0.66. Revenue received amounted to \$960.84.

The following tabulation lists the various grazing permits in effect in 1972.

Table 5.

<u>Permit Number</u>	<u>Permittee</u>	<u>Number AUMs</u>	<u>Number Acres</u>	<u>Effective Dates</u>
OUR-70	Ellsworth, Milton D.	8	20	10/1/71 to 2/28/72
OUR-77*	Ute Tribe	400	2,820	1/1/72 to 3/31/72
OUR-84	Wilkins, Gale G.	270	2,565	1/1/72 to 3/31/72
OUR-86	Ellsworth, Milton D.	20	160	10/1/72 to 12/31/72
OUR-88	Pickup Brothers	250	2,320	10/1/72 to 12/30/72
OUR-89	Wilkins, Gale G.	180	2,565	11/1/72 to 3/31/73
OUR-90	Gray, Norma Jean	132	5,820	11/1/72 to 3/31/73
OUR-93	Rollins, Carlyle	9	200	11/15/72 to 3/15/73

* Requested, but not used.

B. Haying
None.

C. Fur Harvest
None.

D. Timber Removal

Seven permits were issued this year for the removal of dead and down cottonwood from Sheppard Bottom for fireplace wood. A fee

of \$2.00 per ton was charged. Total revenue realized was \$22.00.

Listed below are those who received firewood removal permits:

Table 6.

<u>Permit Number</u>	<u>Permittee</u>	<u>Tons</u>	<u>Effective dates</u>
OUR-82	Briggs, Maurice R.	2	1/7-2/6/72
OUR-85	Weeks, Fred E.	1	1/17-2/29/72
OUR-87	Rozier, W. R.	2	9/29-12/31/72
OUR-91	Jorgensen, Cal	1	10/26-12/31/72
OUR-92	Marshall, Robert	1	10/30-12/31/72
OUR-94	Ellsworth, Milton D.	2	11/13-12/31/72
OUR-95	Smuin, Lloyd	2	11/16-12/31/72

E. Commercial Fishing
None.

F. Other Uses

Gulf Oil Company drilled a gas well in Johnson Bottom. The gas is to be used as fuel for water pumps on the refuge and oil pumping stations off the refuge.

V. FIELD INVESTIGATIONS OR APPLIED RESEARCH

No activities were carried out under this category in 1972.

VI. PUBLIC RELATIONS

A. Recreational Uses

The following table shows the visitor use totals for the past year. The figures are compiled from the monthly Public Use Report, Form 3-239a, b and c.

Table 7.

<u>Activity</u>	<u>Visits for the Year</u>	
	<u>Total Number</u>	<u>Total Hours</u>
Auto Routes: Conducted	403	482
Other Programs	20	20
Environmental Education	112	224
Professional Services Rendered	5	21
Pheasant Hunting	65	195
Deer Hunting, Gun	290	1,995
Deer Hunting, Bow	117	631
Fishing, Warm Water	218	1,972
Photography	7	17
Wildlands Appreciation	50	147
Camping, Wildlife Oriented	114	2,312
Picnicking	23	23
<u>Total Visits (Actual Visits)</u>	<u>1,984</u>	

Total visits increased slightly over last year's total of 1,831.

B. Refuge Visitors

John Venegoni	1/6	Refuge Manager Fish Springs NWR
Ellie Brown	4/5	Refuge Clerk Seedskadee NWR
Tom Martinez	4/6	Division of Eng. Albuquerque, N.M.
Marc Nelson	4/7	Regional Supervisor Division of Refuges Albuquerque, N.M.
Merle Bennett	5/4	Refuge Manager Seedskadee NWR
Dave Kimbrell	5/8	Division of Realty Albuquerque, N.M.

Rolf Kraft	7/6	Assistant Refuge Manager Fish Springs NWR
Steve Waide	8/29	Division of Realty Albuquerque, N.M.
Gunn McKay	9/8	U. S. Representative for Utah
Robert Thoesen	9/8	Area Manager, BSF&W Salt Lake City, Utah
Frank Jones	9/25	Division of Engineering Albuquerque, N.M.
W. O. Nelson	9/26	Regional Director, BSF&W Albuquerque, N.M.
John Maxwell	9/26	Regional Supervisor Division of Fish Hatcheries Albuquerque, N.M.
Hal Boeker	10/11	Div. of Wildlife Services Albuquerque, N.M.
John Pernell	10/11	U. S. Geologic Survey Denver, Colorado
Henry Ash	10/11	Oil Shale Task Force Denver, Colorado
Steve Otter	10/11	U. S. Bureau of Mines Denver, Colorado
Mr. and Mrs. Lee Herzberger	10/22	Refuge Manager Fish Springs NWR
Larry Sevard	11/7	Division of Engineering Albuquerque, N.M.

C. Refuge Participation

Manager Johnson and Assistant Manager Wilson attended the annual stockholder's meeting of the Ouray Park Irrigation Company on March 6.

Manager Johnson sat in on an interagency (BIA, BR, NPS, BSF&W) meeting with the Ute Tribe to discuss Section 8 and the proposed Tribal waterfowl unit on the Duchesne River.

Manager Johnson participated in a panel discussion at the annual meeting of the Utah Recreation and Parks Association.

A group of Cub Scouts was given a slide talk by Manager Johnson.

One University of Utah professor, ten college students, and four juveniles used the refuge as an outdoor workshop on August 9.

Manager Johnson attended a YCC open house at the National Elk Refuge on August 31.

Assistant Manager Arnold and Maintenceman Littleton met with the Duchesne County Sportsmen's Club to describe refuge programs.

Manager Johnson discussed potential waterfowl production habitat on BLM land with BLM personnel.

Manager Johnson and Assistant Manager Wilson participated in a thirty-minute question-and-answer Vernal radio station KVEL program "The Great Outdoors."

6 Several school groups were given tours of the refuge.

D. Hunting

1. Archery Deer

The archery season this year ran from August 19 to September 4. One hundred seventeen visits and 631 hours of activity resulted in two bucks being harvested.

2. Rifle Deer

The deer season this year was a little confusing to hunters. Part of the refuge consists of lands leased from the Ute Tribe. An agreement between the refuge and the Tribe grants control of hunting on the west side of the

river to the refuge and in return the Utes require hunters to possess a tribal permit to hunt on a portion of the refuge on the east side of the river. This fall a squabble erupted between the Tribe and local sportsmen over a late deer hunt the Tribe was planning. As an offshoot to this argument Tribal lands were closed to non-members for hunting. The Indian Game Warden, not knowing of the agreement between the Tribe and the refuge on control of hunting, posted "No Trespassing" signs on portions of the refuge open to hunting. One of the individuals who was politely informed to move out of an open area was Fish Springs Manager, Lee Herzberger. As can be imagined, this resulted in much confusion among hunters trying to follow the refuge hunting map. All was resolved eventually and by the season's end everything was running smoothly.

Two hundred ninety hunter visits and 1,995 activity hours over the eleven-day season resulted in a take of eighteen deer (16 bucks and 2 does). The season ran from October 21 to 31. The refuge was divided between three state zones. The two zones on the east side provided for a bucks only hunt, while the west side had an any deer season for the first three days and bucks only for the final eight days.

3. Upland Game Birds

A nine-day pheasant season (November 11 to 19) did not line the hunter's pouches with feathers. Sixty-five hunter visits and 195 activity hours resulted in an estimated bag of twenty birds. The opening day and a heavy snow storm coincided. This event severely dampened the enthusiasm of the hunters and little pressure was observed after the first weekend. The population in Sheppard Bottom is only a shadow of that in former years and those who bagged birds had to work for them.

E. Violations

Two incidents were noted this year.

During the rifle deer season, three hunters and a non-hunting juvenile were observed in Leota Bottom (closed to hunting) by Arnold, Hacking and Littleton. The group made their way into the closed area by crossing the river in a rubber life raft.

They were contacted and names, etc., were taken. Nothing came of it though, as the magistrate court in Utah is not available to us for cases, and the State could do nothing as the announcement of closure was not published in their deer proclamation. Hopefully, this situation will be rectified by next season.

Earlier in the season another group of hunters made their way to Leota via the same method (rubber life raft) and were successful in harvesting a nice buck. We were too late to catch them in the act, but in view of the results of the other case not much would have been gained by their apprehension.

F. Safety

The usual safety meetings were held. Efforts are being made to eliminate many of the "little things" around the headquarters that are safety hazards.

No lost time accidents occurred this year. The refuge safety record now stands at 2,485 days without an accident.

VII OTHER ITEMS

Assistant Manager Bill Wilson transferred to Browns Park National Wildlife Refuge on July 10. The new Assistant Manager, Phillip M. Arnold, reported for duty October 1.

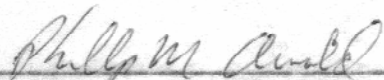
Manager Johnson sponsored a refuge bowling team for the second year.

Credits

Manager Johnson supplied much information and editorial assistance; Maintenance man Littleton wrote Section I, and Clerk Wardle typed the report.

Apologies must be made for the photo section this year. The absence of an Assistant Manager at crucial times produced a dearth of photo records depicting the exciting events here at Ouray.

Prepared by:


 Phillip M. Arnold
 Assistant Manager



Mule deer enjoying the hospitality of Leota Bottom.
An estimated 100 deer reside in this area.



Maintenanceman Littleton putting out some feed for
"his" birds. This scene is again in Leota Bottom, but
twelve inches of snow and bitter cold made this area
inhospitable for pheasants. Road was graded to turn
up gravel and weed seeds. Some grain was put out,
but was widely scattered to prevent concentration of
the birds.



Maintenanceman Littleton creating level ditches (18"-24" deep) in Sheppard Bottom. After establishing the feasibility of construction with the grader on this straight ditch, later ditches were layed out in more of a zig-zag pattern.



Work continued on the diversional causeway in Sheppard Bottom until the ground froze.

Ouray Bird Refuge Gives Balance of Nature Setting

By Lewis A. Littleton

Refuge may be rich despite a conspicuous poverty of physical development. Its rewards and qualities may not be apparent at first glance except to a fortunate few.

AT OURAY Refuge we have left areas in their natural state as near as is possible. To some observers it might look like a worthless jungle of cottonwood trees and willows. But to those who will take time to observe, our plain exterior often conceals hidden riches of nature. For some it is monotonous to sit and wait, but for us who love the out-of-doors as God made it the time spent is often rewarding. It tells us a story of life; also of death.

The rough-legged hawk sitting in a cottonwood tree apparently asleep is probably waiting for a rabbit or unsuspecting mouse to make an appearance. To him this means life, to his victim death. Together it is a balance of nature.

NO MAN-MADE machine can, or ever will, synthesize that perfect coordination of eye, muscle, and pinion as a hawk swoops to its kill. Nor can it explain the inanimate instinct of self-preservation as the prey eludes its captor. Intriguing mysteries of nature when will your secrets unfold so that man from you will learn to live and let live?

Ecology is an infant just learning to talk. Its working days lie in the future. Ecology is destined to become the lore of refuges. Biologically from our earliest years we are aware of the earth, trees and flowers. To some of us these have no special interest. Others would like to learn more and more about the whole biotic landscape. What better place than refuges? In our troubled land today, with pollution and over-population, lets give more thought to conservation.

GEOLOGY IS the science that teaches of the origin and structure of the earth. Man cannot, except in a small way, change the structure of the earth. Civilization has changed the picture that most of us see — the exterior of our land. Conservation should be a state of harmony between man and land. By land is meant all the things on, over, or in the earth. This is one of our objectives on refuges.

ordinary chance to observe wildlife in its natural habitat. The wildlife seem to realize they are protected and are as curious about we humans as we are about them.

Ouray Refuge was established as a waterfowl production area. At one time or another most of the waterfowl that migrate on the Central and some from the Pacific Flyway frequent the refuge. Through the spring, summer and fall there is always a variety of waterfowl to be watched and studied.

THE REASON I say why hurry is, if you take a little more time traveling through the refuge to watch the evolution of nature working here on the area, your visit will always be rewarding.

Whether it be a mother bobcat romping with her kittens, a doe with her fawn or fawns, a flight of geese, ducks or sandhill cranes paying the refuge a visit, there is something here of interest for everyone. Pay us a visit, and why hurry?

Maybe some of you are interested in botany. With most of our water on the refuge coming from the Green River, with drainage from Colorado and Wyoming, as well as Utah, there is a wide variety of plant life. Repeated visits from year to year will show the change in plant life in the units we have flooded.

PERHAPS YOUR interests are more zoological? Here on the Ouray Refuge we have 136 species of birds as well as mule deer, coyotes, bobcats and all other animals native to this area. Parts of the refuge are closed to all firearm hunting. This gives a person an extra-

Vernal Express - December 21, 1972

Ouray Bird Refuge -- Ten Years Old -- Still a Long Way To Go Until Finally Finished

This past year was the Ouray National Wildlife Refuge's tenth birthday. The 11,200 acre refuge was established in 1962. When founded, its primary purpose was to provide nesting habitat for ducks and geese, and to serve as a resting and feeding area for migrating waterfowl.

AFTER THE refuge opened for business in 1962, the main task was to convert the area into a waterfowl production factory. Although some nesting had always occurred on the area, increasing production to the maximum possible meant much work converting bottomlands along the Green River to marshlands. Plans were drawn up for an extensive system of dikes and impoundments.

In the years 1964 through 1967 Congress appropriated funds for construction and good progress was made. Then funds became scarce and development

slowed. Today, approximately 2 percent of the refuge is developed as planned.

WHEN THE physical development of a unit is complete, there is further delay. Dikes and impoundments alone do not produce ducks and geese. Vegetation must be established that will provide nesting cover and preferred foods. Some of these plants are already present or become established on their own. Others must be planted. Undesirable species invade the area and must be controlled.

In 1964, 160 Canada geese were released on the refuge. From this nucleus a breeding flock has been slowly building. In 1966, thirty young geese were observed on the refuge. In 1968 there were forty. In 1970 production dropped to twenty-one.

1972 WAS the best year yet, as ninety

young were recorded. Ninety geese produced is way short of the refuge goal and the struggle is far from over. The refuge staff is hopeful, though, that the trend of slow but steady increases in production will continue.

Like a ten year old child, the refuge has grown a lot, but still has a long way to go.

A NEW region has been added to the U.S. Bureau of Sport Fisheries and Wildlife (the administering agency of the Ouray Refuge). This region, which includes Utah, becomes active on January 1, 1973 and will be headquartered in Denver, Colorado.

As a move to bring administration closer to the field stations, a supervisor responsible for the states of Utah and Colorado, Robert Thoesen, has been appointed. His office is in Salt Lake City. Refuge manager, H. J. Johnson and his staff wish all a Merry Christmas.

3-1750b

UNITED STATES

Form NR-1B

DEPARTMENT OF THE INTERIOR

(Rev. Nov. 1957)

FISH AND WILDLIFE SERVICE

BUREAU OF SPORT FISHERIES AND WILDLIFE

WATERFOWL UTILIZATION OF REFUGE HABITAT

Refuge Ourey

For 12-month period ending August 31, 1972

Reported by Phillip M. ArnoldTitle Assistant Refuge Manager

(1)	(2)	(3)	(4)	(5)
Area or Unit	Habitat		Breeding	
Designation	Type Acreage	Use-days	Population	Production
Leota Bottom	Crops	0	Ducks 475,000	350
	Upland	4,171	Geese 20,000	60
	Marsh	600	Swans 50	
	Water	200	Coots 80,000	
	Total	4,971	Total 575,050	410
Sheppard Bottom	Crops	0	Ducks 50,000	110
	Upland	2,431	Geese 1,000	
	Marsh	470	Swans	
	Water	30	Coots 6,000	
	Total	2,931	Total 57,000	110
Wyasket Bottom	Crops	0	Ducks 162,000	240
	Upland	1,306	Geese 9,000	20
	Marsh	100	Swans	
	Water	160	Coots 55,000	
	Total	1,566	Total 226,000	260
Woods Bottom	Crops	0	Ducks 75,000	245
	Upland	110	Geese 15,000	10
	Marsh	190	Swans 200	
	Water	300	Coots 20,000	
	Total	600	Total 110,200	255
Johnson Bottom	Crops	0	Ducks	
	Upland	550	Geese	
	Marsh	200	Swans	NO DATA
	Water	100	Coots	
	Total	850	Total	
Brennan Bottom	Crops	0	Ducks	
	Upland	331	Geese	
	Marsh	0	Swans	NO DATA
	Water	0	Coots	
	Total	331	Total	
	Crops		Ducks 762,000	945
	Upland		Geese 45,000	90
	Marsh		Swans 250	
	Water		Coots 161,000	
	Total	11,279	Total 968,250	1,035

(over)

INSTRUCTIONS

All tabulated information should be based on the best available techniques for obtaining these data. Estimates having no foundation in fact must be omitted. Refuge grand totals for all categories should be provided in the spaces below the last unit tabulation. Additional forms should be used if the number of units reported upon exceeds the capacity of one page. This report embraces the preceding 12-month period, NOT the fiscal or calendar year, and is submitted annually with the May-August Narrative Report.

- (1) Area or Unit: A geographical unit which, because of size, terrain characteristics, habitat type and current or anticipated management practices, may be considered an entity apart from other areas in the refuge census pattern. The combined estimated acreages of all units should equal the total refuge area. A detailed map and accompanying verbal description of the habitat types of each unit should be forwarded with the initial report for each refuge, and thereafter need only be submitted to report changes in unit boundaries or their descriptions.
- (2) Habitat: Crops include all cultivated croplands such as cereals and green forage, planted food patches and agricultural row crops; upland is all uncultivated terrain lying above the plant communities requiring seasonal submergence or a completely saturated soil condition a part of each year, and includes lands whose temporary flooding facilitates use of non-aquatic type foods; marsh extends from the upland community to, but not including, the water type and consists of the relatively stable marginal or shallow-growing emergent vegetation type, including wet meadow and deep marsh; and in the water category are all other water areas inundated most or all of the growing season and extending from the deeper edge of the marsh zone to strictly open-water, embracing such habitat as shallow playa lakes, deep lakes and reservoirs, true shrub and tree swamps, open flowing water and maritime bays, sounds and estuaries. Acreage estimates for all four types should be computed and kept as accurate as possible through reference to available maps supplemented by periodic field observations. The sum of these estimates should equal the area of the entire unit.
- (3) Use-days: Use-days is computed by multiplying weekly waterfowl population figures by seven, and should agree with information reported on Form NR-1.
- (4) Breeding Population: An estimate of the total breeding population of each category of birds for each area or unit.
- (5) Production: Estimated total number of young raised to flight age.

Refuge Ouray Year 1972

Lead Poisoning or other Disease

Botulism

Period of outbreak _____

Kind of disease _____

Period of heaviest losses _____

Species affected _____

Losses:

Actual Count

Number Affected Species

Actual Count

Estimated

- (a) Waterfowl _____
- (b) Shorebirds _____
- (c) Other _____

Number Hospitalized _____

No. Recovered _____

% Recovered _____

Number Recovered _____

- (a) Waterfowl _____
- (b) Shorebirds _____
- (c) Other _____

Number lost _____

Source of infection _____

Areas affected (location and approximate acreage) _____

Water conditions _____

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

Food conditions _____

Condition of vegetation and invertebrate life _____

Remarks _____

Remarks _____

No disease noted.

NONAGRICULTURAL COLLECTIONS, RECEIPTS, AND PLANTINGS

Refuge

Osage NWR

Year 19 72

Collections and Receipts (Seeds, rootstocks, trees, shrubs)							Plantings (Marsh - Aquatic - Upland)						Cause of Loss
Species	Amount (lbs., bus., etc.)	(2) C or R	Date	Method or Source	Cost	(3) Total Amount on Hand	Location of Area Planted	Rate of Seeding or Planting	Amount Planted (Acres or Yards of Shoreline)	Amount and Nature of Propagules	Date	Survival	
3-square Bulrush	20 lb.	C	11/3	Hand harvested on refuge	\$12	5 lb.*	Sheppard Bottom level ditch banks	10 lb/acre	1-1/2 acres	15 lb. of 3-square bulrush	11/16/72	Results unavailable yet.	--
Alfalfa	300 lb.	C	9/-	Combined on refuge	--	225 lb.	Sheppard Bottom Pro- tective dike slopes	6 lb. Crested Wheat 6 lb. Smooth brome 30 lb. Oats	4-1/2 ac.	27 lb. Cres- ted Wheat 27 lb. Smooth Brome 135 lb. Oats	11/21/72	Results unavailable yet.	--
Oats	200 lb.	R	11/22	Purchased in Vernal	\$7.50	0	Sheppard Bottom around waterline of old lake bed.	6 lb/a. Smooth Brome 6 lb. alfalfa 3 lb. alsike 15 lb. millet 30 lb. oats**	13 ac.	75 lb. Smooth Brome 75 lb. alfalfa 50 lb. Alsike 200 lb. millet 65 lb. oats	11/27/72	Results unavailable yet	--
Millet	200 lb.	R	11/22	"	\$40.00	0							
Alsike flower	50 lb.	R	11/22	"	\$20.50	0							

- (1) Report agronomic farm crops on Form NR-8
(2) C = Collections and R = Receipts
(3) Use "S" to denote surplus

Remarks: * 15 of the 20 pounds harvested were immediately planted.
** while the oats tested only 65 lbs. were left.

Total acreage planted:

Marsh and aquatic 1-1/2

Hedgerows, cover patches

Food strips, food patches 13

Forest plantings

Erosion Control: 4-1/2

Fish and Wildlife Service Branch of Wildlife Refuges

CULTIVATED CROPS - HAYING - GRAZING

Refuge						County		State	
Cultivated Crops Grown	Permittee's Share Harvested Acres Bu./Tons	Government's Share or Return Harvested Unharvested Acres Bu./Tons Acres Bu./Tons		Total Acreage	Green Manure, Cover and Water-fowl Browsing Crops Type and Kind	Total Acreage			
					Fallow Ag. Land	200			
No. of Permittees:	Agricultural Operations	Haying Operations	Grazing Operations						
Hay - Improved (Specify Kind)	Tons Harvested	Acres	Cash Revenue	GRAZING	Number Animals	AUM'S	Cash Revenue	ACREAGE	
				1. Cattle	-	1,269	\$960.34	9,605	
				2. Other					
				1. Total Refuge Acreage Under Cultivation					
Hay - Wild				2. Acreage Cultivated as Service Operation					

DIRECTIONS FOR PREPARING FORM NR-8
CULTIVATED CROPS - HAYING - GRAZING

Report Form NR-8 should be prepared on a calendar-year basis for all crops which were planted during the calendar year and for haying and grazing operations carried on during the same period.

Separate reports shall be furnished for Refuge lands in each county when a refuge is located in more than one county or State.

Cultivated Crops Grown - List all crops planted, grown and harvested on the refuge during the reporting period regardless of purpose. Crops in kind which have been planted by more than one permittee or this Service shall be combined for reporting purposes.

Permittee's Share - Only the number of acres utilized by the permittee for his own benefit should be shown under the Acres column, and only the number of bushels of farm crops harvested by the permittee for himself should be shown under the Bushels Harvested column. Report all crops harvested in bushels or fractions thereof except such crops as silage, watermelons, cotton, tobacco, and hay, which should be reported in tons or fractions thereof.

Government's Share or Return - Harvested - Show the acreage and number of bushels harvested for the Government of crops produced by permittees or refuge personnel. Unharvested - Show the exact acreage and the estimated number of bushels of grain available for wildlife. If grazing is made available to waterfowl through the planting of grain, cover, green manure, grazing or hay crops, estimate the tonnage of green food produced or utilized and report under Bushels Unharvested column.

Total Acreage Planted - Report all acreage planted, including crop failures.

Green Manure, Cover and Waterfowl Grazing Crops - Specify the acreage, kind and purpose of the crop. These crops and the acreage may be duplicated under cultivated crops if planted during the year, or a duplication may occur under hay if the crop results from a perennial planting.

Hay - Improved - List separately the kinds of improved hay grown. Annual plantings should also be reported under Cultivated Crops, and perennial hay should be listed in the same manner at time of planting.

Total Refuge Acreage Under Cultivation - Report total land area devoted to agricultural purposes during the year.

Months of September through December, 1952

Ourray NWR

Refuge

[illegible]

(8) Indicate shipping or collection points

THESE D'ÉTAT

(9) Grain is stored at

(10) Remarks:

*See instructions on back.

(10) Remarks

NR-8a

(8) Grain is stored in

(3) Indicate equipment or collection house

REFUGEE GRAIN REPORT

This report should cover all grain on hand, received, or disposed of, during the period covered by this narrative report.

Report all grain in bushels. For the purpose of this report the following approximate weights of grain shall be considered equivalent to a bushel: Corn (shelled)—55 lb., corn (ear)—70 lb., wheat—60 lb., barley—50 lb., rye—55 lb., oats—30 lb., soy beans—60 lb., millet—50 lb., cowpeas—60 lb., and mixed—50 lb. In computing volume of granaries, multiply the cubic contents (cu. ft.) by 0.8 bushels.

(1) List each type of grain separately and specifically, as flint corn, yellow dent corn, square deal hybrid corn, garnet wheat, red May wheat, durum wheat, spring wheat, proso millet, combine milo, new era cowpeas, mikado soy beans, etc. Mere listing as corn, wheat, and soybeans will not suffice, as specific details are necessary in considering transfer of seed supplies to other refuges. Include only domestic grains; aquatic and other seeds will be listed on NR-9.

(3) Report all grain received during period from all sources, such as transfer, share cropping, or harvest from food patches.

(4) A total of columns 2 and 3.

(6) Column 4 less column 5.

(7) This is a proposed break-down by varieties of grain listed in column 6. Indicate if grain is suitable for seeding new crops.

(8) Nearest railroad station for shipping and receiving.

(9) Where stored on refuge: "Headquarters granary," etc.

(10) Indicate here the source of grain shipped in, destination of grain transferred, data on condition of grain, unusual uses proposed.

16-61452-1 U. S. GOVERNMENT PRINTING OFFICE

AVAILABILITY	ON HAND RECEIVING ON HAND	PERIOD DURING RECEIVED	TOTAL	DISPOSED	PERIOD END OF ON HAND	RECEIVED	DISPOSED	SUBTOTAL
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

Source: _____ Name of _____

REFUGEE GRAIN REPORT

TIMBER REMOVAL

Refuge Oway NWR Year 1952

Permittee	Permit No.	Unit or Location	Acreage	No. of Units Expressed in B. F., ties, etc. Tons	Rate of Charge	Total Income	Reservations and/or Diameter Limits	Species Cut
Briggs, M. R.	OUR-82	Sheppard		2	\$2/ton	\$4.00	Dead and down	Cottonwood
Weeks, F.E.	OUR-85	"		1	"	2.00	"	"
Rozier, W. R.	OUR-87	"		2	"	4.00	"	"
Jorgensen, C.	OUR-91	"		1	"	2.00	"	"
Marshall, R.	OUR-92	"		1	"	2.00	"	"
Ellsworth, M.D.	OUR-94	"		2	"	4.00	"	"
Smuin, L.	OUR-95	"		2	"	4.00	"	"

Total acreage cut over..... Total income **\$22.00**

No. of units removed B. F. Method of slash disposal

Cords

Ties

Tons **11**

ANNUAL REPORT OF PESTICIDE APPLICATION

Refuge

Ouzay NWR

Proposal Number

Reporting Year

INSTRUCTIONS: Wildlife Refuges Manual, secs. 3252d, 3394b and 3395.

1972

1

Date(s) of Application	List of Target Pest(s)	Location of Area Treated	Total Acres Treated	Chemical(s) Used	Total Amount of Chemical Applied	Application Rate	Carrier and Rate	Method of Application
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
June	Giant Whitetop (<i>Lepidium latifolium</i>)	Spot treatment of small patches as needed Leota, Sheppard, Wood and Johnson Bottoms	10 acres	2,4-D	20 lbs.	2 lb. per acre	6 lb. A.I. per 100 gal H ₂ O and pack wetting agent	Power sprayer and back-packing units.

10. Summary of results (continue on reverse side, if necessary)

Whitetop is a perennial, therefore evaluation of results will have to wait until next spring.

DUKAY
02-3532-00-ORV

[illegible]

SPECIES NAME

[illegible]

REGISTERED	701 2050	0	0	0	3360	0	0	480	04/04
LESSER SANDHILL CRANE		0	0	0	3360	0	0	1	01/10
PRAIRIE FALCON	701 3550	0	0	25	0	0	0		

[illegible][illegible]

NATIONAL WILDLIFE REFUGE SYSTEM
REPORT OF ECONOMIC OUTPUTS - FY 72
(IN DOLLARS)

OURAY

02-3532-00-ORY

TYPE OF BENEFIT	JUL-SEP 71	OCT-DEC 71	JAN-MAR 72	APR-JUN 72	FY TOTAL
REFUGE RECEIPTS					
FOREST PRODUCTS	0.00	0.00	6.00	0.00	6.00
GRAZING	0.00	0.00	172.80	0.00	172.80
TOTAL	0.00	0.00	178.80	0.00	178.80

NATIONAL WILDLIFE REFUGE SYSTEM
REPORT OF MISCELLANEOUS OUTPUTS
FY-72

OURAY
02-3532-00-ORY

TYPE OF OUTPUTS	UNITS	FY TOTAL
PROFESSIONAL SERVICES		
ECOLOGICAL MONITORING BY REFUGE PERSONNEL	PROGRAM	4
ENVIRONMENTAL PRESERVATION		
NATURAL ENVIRONMENT'S PRESR	ACRE	11363
MISCELLANEOUS WILDLIFE OUTPUTS		
WILDLIFE DIVERSITY	USE DAYS	132

NATIONAL WILDLIFE REFUGE SYSTEM
PUBLIC USE REPORT

ACT HRS BY MONTH

OJRAY
02-3532-00-OPY

JUL-71 AUG-71 SEP-71 OCT-71 NOV-71 DEC-71 JAN-72 FEB-72 MAR-72 APR-72 MAY-72 JUN-72 12 MONTH
TOTAL

ACTIVITY NAME

INTERPRETATION

FOOT TRAILS
CONDUCTED
AUTO ROUTES
CONDUCTED
OTHER PROGRAMS

237
245
20

237
245
20

EDUCATION

ENVIRONMENTAL EDUCATION

RECREATION-WILDLIFE WILDLANDS

FISHING
WARMWATER
ON REF WILDLIFE OBSERVATN
ON REF OTHER W/W N-C REC
PHOTOGRAPHY

32 64 87 147 106 30 110
6 87 8
36 546 8

RECREATION NON-WILDLIFE

CAMPING

180 420 96 696

TOTAL INTERPRETATION
TOTAL EDUCATION
TOTAL FISHING
TOTAL OTHER W/W RECREATION

12 32 44 180 245 257 30 110 140 596 1800 983

TOTAL WILDLIFE ORIENTED

TOTAL NON-WILDLIFE ORIENTED

TOTAL PUBLIC USE

NO. VISITS TO REFUGE

NATIONAL WILDLIFE REFUGE SYSTEM

WATERFOWL USE DAYS

OURAY

02-3532-00-0PY

SPECIES NAME	JAN 1972- FEB 1972	MAY 1972- JUN 1972	MAY 1972- JUN 1972	JUL 1972- DEC 1972	12 MONTH TOTAL
SPECIAL RECOG SPECIES AMERICAN COOT	750	72,750	40,050	0	113,550
WATERFOWL MAINTENANCE					
SWANS					
WHISTLING SWAN	0	240	0	0	240
GEESE					
WHITE-FRONTED GOOSE	0	30	0	0	30
CANADA GOOSE	6,600	9,150	4,800	0	20,550
DUCKS					
COMMON MERGANSER	0	900	150	0	1,050
RED-BREASTED MERGANSER	0	1,200	0	0	1,200
MALLARD	12,600	44,100	17,400	0	74,100
GADWALL	150	18,600	22,650	0	41,400
AMERICAN WIDGEON	600	6,750	3,000	0	10,350
GREEN-WINGED TEAL	6,000	47,400	10,350	0	63,750
BLUE-WINGED TEAL	300	10,050	14,550	0	24,900
SHOVELER	30	24,750	13,500	0	38,280
PINTAIL	8,700	49,350	7,650	0	65,700
RED HEAD	0	1,500	3,900	0	5,400
CANVASBACK	0	2,700	150	0	2,850
LESSER SCAUP	150	10,500	2,850	0	13,500
RING-NECKED DUCK	0	7,350	300	0	7,650
COMMON GOLDENEYE	900	4,500	0	0	5,400
BUFFLEHEAD	150	7,350	1,200	0	8,700
RUDDY DUCK	0	1,500	1,500	0	3,000
TOTAL SWANS	0	240	0	0	240
TOTAL GEESE	6,600	9,150	4,800	0	20,550
TOTAL DUCKS	29,580	238,500	99,150	0	367,230
TOTAL WATERFOWL	36,180	247,920	103,950	0	389,050

NATIONAL WILDLIFE REFUGE SYSTEM
PUBLIC USE REPORT

VISITS BY MONTH

OURAY
02-3532-00-JRY

JUL-71 AUG-71 SEP-71 OCT-71 NOV-71 DEC-71 JAN-72 FEB-72 MAR-72 APR-72 MAY-72 JUN-72 12 MONTH TOTAL

ACTIVITY NAME

INTERPRETATION

FOOT TRAILS
CONDUCTED
AUTO ROUTES
CONDUCTED
OTHER PROGRAMS

158 158
245 245
20 20

EDUCATION

ENVIRONMENTAL EDUCATION

6 6

RECREATION-WILDLIFE WILDLANDS

FISHING
WARMWATER
ON REF WILDLIFE OBSERVATION
ON REF JOHN W/M V-C REC
PHOTOGRAPHY

32 64 2 147 106 110 12
87 87 546
2 2

RECREATION NON-WILDLIFE

CAMPING

6 14 4 24

TOTAL INTERPRETATION
TOTAL EDUCATION
TOTAL FISHING
TOTAL OTHER W/M RECREATION

245 178 423
6 6
32 64 2 147 106 110 12
89 89 548

TOTAL WILDLIFE ORIENTED

38 64 91 392 284 120 989

TOTAL NON-WILDLIFE ORIENTED

6 14 4 24

TOTAL PUBLIC USE

44 78 91 392 284 124 1013

NO. VISITS TO REFUGE

38 78 91 392 264 120 983

NATIONAL WILDLIFE REFUGE SYSTEM
AVERAGE MONTHLY WATERFOWL POPULATIONS

MURAY

02-3532-CC-00Y

SPECIES NAME

SPECIAL RECOG SPECIES
AMERICAN COOT

WATERFOWL MAINTENANCE
SWANS
WHISTLING SWAN

GEESE
WHITE-FRONTED GOOSE
CANADA GOOSE

DUCKS
COMMON MERGANSER
RED-BREASTED MERGANSER

MALLARD
GADWAIL
AMERICAN WIDGEON
GREEN-WINGED TEAL
BLUE-WINGED-TEAL

SHOVELER
PINTAIL
RED HEAD
CANVASBACK
LESSER SCAUP
RING-NECKED DUCK
COMMON GOLDENEYE
RUFFLEHEAD
RUDDY DUCK

TOTAL SWANS
TOTAL GEESE
TOTAL DUCKS

TOTAL WATERFOWL

	JUL 71	AUG 71	SEP 71	OCT 71	NOV 71	DEC 71	JAN 72	FEB 72	MAR 72	APR 72	MAY 72	JUN 72
SPECIAL RECOG SPECIES AMERICAN COOT	0	0	0	0	0	0	0	25	645	1780	375	360
WATERFOWL MAINTENANCE SWANS	0	0	0	0	0	0	0	0	0	0	0	0
WHISTLING SWAN	0	0	0	0	0	0	0	0	0	0	0	0
GEESE WHITE-FRONTED GOOSE	0	0	0	0	0	0	0	0	0	1	0	0
CANADA GOOSE	0	0	0	0	0	0	20	200	220	85	90	70
DUCKS COMMON MERGANSER	0	0	0	0	0	0	0	0	10	20	5	0
RED-BREASTED MERGANSER	0	0	0	0	0	0	0	0	0	40	0	0
MALLARD	0	0	0	0	0	0	0	420	985	485	265	315
GADWAIL	0	0	0	0	0	0	0	5	205	415	360	395
AMERICAN WIDGEON	0	0	0	0	0	0	0	20	125	100	50	50
GREEN-WINGED TEAL	0	0	0	0	0	0	0	200	790	790	255	80
BLUE-WINGED-TEAL	0	0	0	0	0	0	0	10	90	245	265	220
SHOVELER	0	0	0	0	0	0	0	1	145	680	300	150
PINTAIL	0	0	0	0	0	0	0	290	985	660	160	95
RED HEAD	0	0	0	0	0	0	0	0	5	45	85	45
CANVASBACK	0	0	0	0	0	0	0	0	25	65	5	0
LESSER SCAUP	0	0	0	0	0	0	0	5	100	250	75	20
RING-NECKED DUCK	0	0	0	0	0	0	0	0	215	30	10	0
COMMON GOLDENEYE	0	0	0	0	0	0	0	30	135	15	0	0
RUFFLEHEAD	0	0	0	0	0	0	0	5	105	140	35	5
RUDDY DUCK	0	0	0	0	0	0	0	0	10	40	40	10
TOTAL SWANS	0	0	0	0	0	0	0	0	8	0	0	0
TOTAL GEESE	0	0	0	0	0	0	20	200	220	86	90	70
TOTAL DUCKS	0	0	0	0	0	0	0	986	3930	4020	1920	1385
TOTAL WATERFOWL	0	0	0	0	0	0	20	1186	4158	4106	2010	1455