

A BRIEF HISTORY OF THE BROWNS PARK VALLEY

Browns Park has a colorful past, complete with mountainmen, cowboys, Indians, and Outlaw Kings and Queens.

Situated in the northwestern corner of what is now the state of Colorado, this oasis from the snows and bitter cold characteristic of the surrounding territories long was a favorite winter retreat of the Indian. Many artifacts and teepee rings remain today to attest this fact.

The first recorded white man to visit Browns Park was William Henry Ashley, a prominent Missouri politician, who, having suffered financial reverses, sought to recoupe his fortunes by entering the fur trade. In 1825 General Ashley, seeking a site for an annual "rendezvous" — an ingenious commercial device which, eliminating the necessity of maintaining permanent trading posts in the manner of his principal competitors, the American Fur Company and Hudson's Bay Company, made it possible for him simultaneously to supply his trapping parties in the field, gather up a year's accumulation of pelts, and trade with the "free" mountainmen and Indians.

In his book, *The Colorado*, Frank Waters has given us a graphic description of the Ashley parties entry into the valley: "The red rock walls kept rising almost perpendicularly from the water to an immense height." — (Flaming Gorge and Swallow Canyons) — "The current increased. There was no getting out. Running rapids, going six days without food (they were) in despair of ever escaping the canyon ---. Then suddenly the mountain walls drew back, the river widened, and they shot out into beautiful Browns Hole. Ten miles below was a great camping ground where thousands of Indians had wintered ---."

Commencing in 1826 and continuing through 1840, Browns Hole was the scene of the greatest of all the rendezvous staged by the fur companies. Thus the valley knew the tread of men famous in American legend — Jim Bridger, Bill Williams, Kit Carson, etc.

The Park acquired its name Browns Hole from a French-Canadian ex-employee of the Hudson's Bay Company, Baptiste Brown, who wandered into the Hole in 1828, and tired of his life of adventure, decided to settle down therein. This he did in a log cabin near the confluence of Vermillion Creek with Green River, complete with a belle of the Blackfoot Tribe. When the name was changed from Browns Hole to Browns Park is not known.

The next permanent settlers of note were Phil Thompson, William Craig, and a man named Sinclair who erected a combination trading post and fort of adobe and cottonwood logs in 1837. This they named Fort Davy Crockett in honor of the famous frontiersman killed one year earlier in the historic Texas battle of the Alamo. Not wishing to emulate

the fate of that individual for whom the Fort had been named, all white residents in 1840 deserted for healthier climes under threat of attack by a band of hostile Blackfoot Indians.

The fur trade declined, and only drifters came and went through the Park as civilization crept slowly westward. By the late 1800's a large livestock industry had evolved on the vast open range of southwestern Colorado and Wyoming. Browns Park, an isolated pocket on the periphery of the range, became a haven for bad men who preyed on the cattle herds as once did the wolf on the buffalo.

During this era, the Park's most famous resident was Robert LeRoy Parker, better known as "Butch Cassidy." Cassidy sought sanctity in the valley after having obtained his release from a Wyoming prison by promising the Governor to grace the state no more. With other like minded youth of the range, he banded the "Wild Bunch" for a life of fun, frolic, and crime. Safe in the Park only a few years, Cassidy left it in 1898. His departure did little to improve the class of society infesting the park.

Cattle rustling remained the primary industry of the Park for many years. Livestock stolen in southern Wyoming and western Colorado was held in the valley while brands were changed or a herd of sufficient size accumulated, then driven into central Utah for sale. Local legend has it that at that time Park residents, when they had nothing else to do, kept their hand in by rustling from each other.

So remote the area and so ineffectual the courts that "Queen Ann" Bassett, belle of the Park society, reportedly caught - red-handed - as it were, in possession of butchered stolen beef, was acquitted in the Colorado courts.

To alleviate this situation, again only rumor, one of the biggest ranchers sent a paid assassin into the park to eliminate the problem(s). In any event, when Queen Ann's betrothed, one Matt Rash, and Isom Dark, one of the wild west's few Negro outlaws, were found shot by "party or parties unknown" others found it most expedient to seek safer surroundings.

It has been reported that as many as 100,000 head of cattle were wintered in the valley at one time. Following such practices, it was only natural that overgrazing deteriorated the range. Outlaws gave way to small ranchers, who gave way to sheepmen when the U. S. Forest Service broke the long imposed cattlemen's quarantine against woolies along in the 1920's.

Modern day sees only a handful of farmer-ranchers who eke out a bare existence in this era of high cost and meager profit.

The foregoing information was gleaned from John Rolfe Burroughs' "Where the Old West Stayed Young," interesting reading for anyone wishing to pursue more thoroughly the history of Browns Park and the cattle industry of Wyoming and Colorado.

NARRATIVE REPORT

BROWNS PARK NATIONAL WILDLIFE REFUGE

Calendar Year 1965

Personnel

H. J. Johnson.	Refuge Manager
Norma A. Richardson.	Clerk
Jack Leonard	Maintenanceman (Temporary)
Richard A. Murray.	Carpenter (Temporary)
Ralph Alexander (Terminated 10-23-65). . .	Carpenter Helper (Temporary)
Boyd T. Hatch.	Carpenter Helper (Temporary)

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FORWARD

Browns Park National Wildlife Refuge became an entity on August 12, 1965. On July 13, 1965, title to Tract 7, 63.74 acres in Moffat County, Colorado, was acquired from William Allen for administration by the Secretary of Interior through the Bureau of Sport Fisheries and Wildlife. On August 12, 1965, there was filed in United States District Court, Denver, Colorado, Document 9334, "Order for Possession" by the United States of America, plaintiff, for tracts 8, a, b, for 3,198.29 acres, in Moffat County, Colorado, from Richard L. Randolph and Jack Leonard, defendants. This action was taken at the request of the defendants following several years of unsuccessful price negotiation. On August 31, 1965, Regional Director Gatlin charged the Vernal, Utah, Refuge Manager with custody and management of these lands.

Included with the lands of Tracts 8, a, b, were one residence (unfinished) and two portable, electric powered pumps. Already installed upon the land were six riverside power sites, assorted canals, roads and fences.

Almost immediately the two pumps were placed in operation to flood dry lake beds. Management was underway!

The area was purchased under authority of the Migratory Bird Hunting Stamp Act and has been established primarily to provide improved nesting habitat, as well as resting and feeding areas for migratory birds in this section of the Intermountain West.

Browns Park is nearly as isolated as Fish Springs. It is fifty-four miles to the closest black-top, twenty to the nearest telephone. Vernal is sixty miles west, connected by semi-improved roads. Craig, Colorado, is ninety miles southeast.

The Park is an open valley on the Green River. Approximately three-fifths is located in the State of Utah and the other two-fifths in Colorado. The refuge is situated entirely in Colorado. It lies astraddle of the Green River, nestled between the O-Wi-Yu-Kuts plateau on the northeast and Diamond Mountain on the southwest. The Utah-Colorado state line marks its western boundary. To the south it shares a mutual boundary with the Dinosaur National Monument.

Refuge elevations vary from 5,355 feet to 6,000 feet above sea level. The river, flowing generally from northwest to southeast through the refuge after emerging from Swallow Canyon in Utah, abruptly turns south for two miles before it is swallowed by the Gates of Lodore in Diamond Mountain.

Diamond, rising to 7,400 feet on the southwest, pitches steeply toward the river with only a minimal amount of alluvial benchland above the

river bottoms. O-Wi-Yu-Kuts plateau, a thousand feet higher than Diamond, dominates the northeast skyline. More extensive benchlands separate it from the river. The river, meandering gently between the benchlands, forms ten separate saucer shaped bottoms that will comprise the refuge. These bottoms vary from one-fourth to three-fourths of a mile wide.

Similar bottoms, upstream in Utah, and now owned by the Utah State Department of Fish and Game, are to be developed as waterfowl habitat also.

The refuge is located geographically in the Central Flyway, but it is a short distance—as the ducks fly—down the river to Utah and the Pacific Flyway. Undoubtedly there is an exchange of birds between flyways which occurs along this section of Green River.

This refuge, in common with most others in Region Two, has hot summers. The winters can be cold. Rainfall is sparse. While some snowfall occurs in winter, it melts rapidly and is usually nothing serious. While marshes and ponds usually freeze solid, the Green River has remained open every winter since the installation of Flaming Gorge Dam. Thus it is expected that the refuge will have a few year-round resident waterfowl.

Historically the Park was a waterfowl production area. Prior to construction of Flaming Gorge Dam in Utah, the Green River periodically flooded through the basin to create marsh and pond habitat in the adjoining bottomlands. Sufficient progeny from the early flocks survive to insure a nucleus brood stock. Primary species still utilizing the Park are Great Basin Canada Geese, Mallard, Gadwall, Redhead, Canvasback, and Blue-Winged Teal. ^{Whistling} Trumpeter (?) Swans are present in the fall providing suitable habitat is available.

With proper development and management it is estimated the refuge will produce 15,000 ducks and 1,000 geese annually, and could probably provide for 50 - 70,000 migrants (if there should be that many) during the spring and fall.

Although the refuge is not scheduled for master planning soon, and God alone knows when development might start, we were fortunate in having electric power available to existing pump sites. There will be no long delay in establishing this duck factory!

----- Or will there?

NARRATIVE REPORT

BROWNS PARK NATIONAL WILDLIFE REFUGE Calendar Year 1965

I. GENERAL

A. Weather Conditions:

U. S. Weather Bureau records are not available for Browns Park. Any data from other stations in Northwestern Colorado would be misleading.

Unofficial temperatures obtained by refuge personnel after September 15 follow:

<u>Month</u>	<u>Temperatures</u>		<u>Rainfall</u>	<u>Snow</u>
	<u>Max.</u>	<u>Min.</u>		
September	80°	18°	.25"	.15"
October	84°	26°	.05"	0
November	74°	11°	.10"	0
December	58°	-5°	T	6"

The foregoing data is based on guess-timation. It is the opinion of Park residents that rainfall during 1965 was above normal.

An attempt is being made to have the U. S. Weather Bureau establish an official station on the refuge.

B. Habitat Conditions:

1. Water:

Green River was open throughout the year. There was no flooding to inundate the bottomlands. Snow melt runoff in late May and early June put temporary water in both Hog Lake and Harry Hoy Bottom, which promoted vegetative growth but was too late in the season and inadequate for waterfowl nesting. It soon dried up.

Both Vermillion and Beaver Creeks, live streams confluent with Green River within the refuge, had above normal flow from break-up to freeze up.

The Bill Allen swamps in Utah, which are filled via subbing, had good waterfowl production for such a small area; an indication of what we can expect from the refuge.

Water was pumped into Hog Lake and Horseshoe (J. S. Hoy) Bottom immediately after acquisition. Duck use was good on

both areas thereafter; but geese were seen for only a 3-day period on Horseshoe, thereafter preferring Hog Lake, a larger, more open body of water. Swans, tentatively identified as ^{WHISTLING} Trumpeters, also utilized Hog Lake exclusively. A maximum depth of 2.5 feet and an approximate 30 surface acres was obtained in Horseshoe with 3.5 feet and 60 acres for Hog Lake. Both impoundments were ice covered after mid-November.

2. Food and Cover:

Above normal snowfall during the 1964-65 winter, coupled with above average summer rainfall, produced an abundance of forage. The bottomlands were covered with excellent stands of western or bluestem wheatgrass (Agropyron smithii), Foxtail (Hordeum jubatum), unfortunately, Alkali sacaton (Sporobolus airoides), and saltgrass (Distichlis spp.). Some highly mineralized sites adjacent to old lake beds produced good stands of Salicornia, which was heavily utilized by the geese.

Cover on the bottomlands was too heavy, depriving the geese of much pastureland graze and restricted resting and loafing to mid-river sandbars.

Forbes and browse plants faired equally with grasses in benefit from increased moisture. For the first time in a number of years it was possible for cattle to leave the river bottom and subsist entirely on forage produced on the benchlands above.

II. WILDLIFE

A. Migratory Birds:

Waterfowl use of the refuge naturally was confined to the river channel until water was pumped into Horseshoe and Hog Lake. There was a daily movement of birds up and down the river from their feeding areas in Utah to their loafing sites on river sandbars in Colorado. Ten recorded observations between September 3 and October 18 totaled 389 geese. Duck observations were not recorded during that period.

The first organized waterfowl count was conducted October 19. This was a cooperative venture with the Utah Department of Fish and Game, an aerial survey of the entire Park, using the State's airplane. Only 46 geese were found in Utah. The refuge contained 180 Canada Geese, 289 Mallards, 12 Canvasbacks, 12 Goldeneye, 25 Teal (Blue-Winged), 30 Coot, and 30 ducks unclassified. Total 398. A humble beginning, but lots of room to grow.

By October 28 the goose population had increased to 280, their high for the fall, and Mallards to 405. All other ducks and the

Coots had disappeared. By November 4 the goose count dropped to 186, but Mallards increased to a high of 525. At year's end 103 geese and 124 Mallards remained in residence.

Swans, tentatively identified as ^{WHISTLING} ~~Trumpeters~~, utilized Hog Lake after it was partially filled by pumping. First observed were a pair on October 23. Six were seen October 26; ten on October 29; fourteen, including three juveniles, November 1; six November 2; six in the a.m. and nine in the p.m. November 3. None could be found on November 4. On November 16 eight more Swans arrived, four adult and four juveniles. These were last seen November 18, just prior to freeze-up.

Sandhill Cranes, "a large flock," were seen flying over the area on September 29.

Mourning Doves were present in small numbers (estimated at less than 50) in early November. The dove population is never high in the Park.

B. Upland Game Birds:

One flock consisting of 35 Chukar Partridge was observed October 4 in the upper end of Nelson Bottom. These birds were present by virtue of past releases in the upper reaches of the valley by the Utah Department of Fish and Game. Sage Grouse may be present for the same reason. That department's plan for development and management of the Utah segment of the Park includes future stocking of the foregoing species, plus Ring-necked Pheasant and Quail. Since the habitat of the two units will be nearly identical, we may assume that part of their birds will migrate to Colorado, as did the Chukars.

C. Big Game:

Mule deer are the predominate big game specie in the area and on the refuge. Elk, from the Cold Spring Mountain facet of O-Wi-Yu-Kuts plateau drift down Beaver Creek onto the refuge in severe winters. Antelope inhabit the benchlands east of the river year long, and are on and off the refuge as whim dictates, a fact we must keep in mind when fencing of the refuge is considered. Rocky Mountain Bighorn Sheep are resident of the Lodore Canyon within the Dinosaur Monument. They have occasionally been observed on that portion of Diamond Mountain (eastern slope) scheduled someday for inclusion within the refuge boundary.

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

Beaver were numerous along Green River and the upper reaches of Beaver Creek, the latter beyond refuge influence. Because Browns Park is winter domestic sheep range, past control measures insured that Coyotes and Bobcat numbers were low. Mountain Lions occupy

habitat on both sides of the river. A Vernal, Utah, resident, "Cap" Atwood, guiding non-resident lion hunters, was in the Park for most of December with his hounds and sports. We failed to determine if they were successful in their pursuit.

Cottontail and Jack Rabbits both inhabit the refuge. They were not overly abundant this year.

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

Red-tailed, Marsh and Sparrow Hawks were observed. Both Bald and Golden Eagles inhabit the basin in limited numbers. They might be observed at any time, but are more abundant during the winter months. Great Horned Owls inhabit the Cottonwood Forest adjoining the river. Their number in the area is undetermined. Whether other owls share this territory with them is unknown.

Fifty Crows were counted in Spitze Bottom on October 8, apparently migrate through the refuge. Magpies are yearlong residents in limited numbers.

Great and Little Blue Herons and Snowy Egrets were observed on river sandbars. We have no other bird notes.

III. REFUGE DEVELOPMENT AND MAINTENANCE

A. Physical Developments:

Water Impoundment: As mentioned earlier, water was pumped into Hog Lake and Horseshoe Bottom as soon as possible after the Randolph and Leonard property was acquired. In the case of Horseshoe Lake it took approximately 264 hours and 5610 Kilowats of electricity to create a lake of approximately 30 surface acres with an average depth of 1.5 feet. The pumping unit used was a 12" Cascade vertical lift pump powered by a 15 h.p. electric motor. Hog Lake required 432 hours and 6,280 Kilowats of electricity to create a lake of approximately 60 surface acres with an average depth of 1.5 feet. The pumping unit differed only in that it was 14" instead of 12".

During the pumping season, April 1 through October 31, our power rate is \$0.015 per Kilowat. Thus, our power cost for creating the two lakes was only \$178.35. We have an inherited fixed minimum power cost of \$688.00 per annum.

Both refuge pumps are portable. There are six riverside pump sites consisting of a cantilevered catwalk overhanging the river. The pumps can be suspended into the river from these catwalks to pump into existing distribution canals. The prior owners had resurrected an old 1936 model FWD truck which they remodeled for transporting and installing the pumps. With it, one man can complete the entire

operation. We thought it advisable to acquire this unit in order to move the pumps as need dictates.

Residence: Inherent with the Randolph-Leonard property was a large, though unfinished, frame dwelling constructed in 1959. A carpenter and helper were employed to complete the work necessary to make this barn a home for the Assistant Refuge Manager.

All went well until the deer season opened in Utah on October 23. We were unable to get anyone to return until December 1. The fact that our wage rate was set at \$2.71 per hour for a carpenter (to camp out and work sixty miles from town) in an area where the prevailing rate was \$3.25 per hour was no help. Estimated completion date is mid-February.

Property lines were posted and fences repaired to exclude trespass cattle.

B. Plantings:

None. It is not anticipated that farming will be necessary in the foreseeable future due to the abundance of natural food production. We may be forced to change our mind if grain production continues in the upper end of the valley.

C. Collections and Receipts:

None.

D. Control of Vegetation:

None. Tamarix and willow control will be a major problem in the future.

IV. RESOURCE MANAGEMENT

A. Grazing:

None. It is being considered as a future management tool. Neighboring ranchers have all expressed an interest in acquiring grazing rights.

B. Haying:

None. About 25 acres of pasture grass was mowed in the vicinity of Hog Lake to induce goose browsing, but the venture was unsuccessful.

V. FIELD INVESTIGATIONS OR APPLIED RESEARCH

None.

VI. PUBLIC RELATIONS

A. Recreational Use:

Fishing was the main recreational use, but it occurred primarily on that stretch of river not yet included in the refuge.

Since the construction of Flaming Gorge Dam, that section of Green River below the dam down to its confluence with the Yampa has undergone a significant transformation. No longer silt laden, except when Red Creek rampages, it has developed into a fine trout stream for both fly and bait fishermen. Utah has heavily stocked its section of the river. Some seven pound trout have been caught below the dam and the area has increased in fame, causing a corresponding increase in use.

Only a few deer and goose hunters were present to take advantage of that portion of the Park and river remaining open to the pursuit of their respective sport.

B. Refuge Visitors:

Clark Webster	9/20/65	W.O. Biologist, Inspection
"Red" Sheldon	9/20/65	R.O. Biologist, Inspection
Dave Kimbrell	12/3/65	R.O. Branch of Realty, Rent Survey

Refuges Supervisor Nelson, accompanied by Refuge Manager Johnson and W. E. Blanchard, Assistant Manager, National Elk Refuge, Jackson, Wyoming, visited the Park on September 11 for an inspection-planning session.

Personnel from the Division of Engineering, R. O., Albuquerque, New Mexico, spent some time topo-mapping the acquired lands.

C. Refuge Participation:

The Refuge Manager, on October 6, accompanied Maintenance man Leonard to a board meeting at the Browns Park School to explain refuge plans and objectives. The purpose of the meeting was to determine the fate of the Browns Park School in the face of declining attendance. The board decided that the school would be permanently closed at the end of the 65-66 school year. Children from the area will henceforth attend school in Maybelle or Craig, Colorado.

D. Hunting:

No hunting was permitted on the refuge. Local ranchers had a few paying, non-resident guests who hunted deer in the vicinity. Waterfowl hunting occurred mostly in Utah, although a couple of parties hunted from lands below our refuge in Colorado. The most productive hunting method was to float the river in rubber rafts and "jump shoot" birds from the sand bars.

E. Violations:

No violations were noted.

F. Safety:

Jack Leonard, former landowner, was hired temporarily as a maintenance man immediately after the refuge was activated. He received a thorough indoctrination on the Bureau's safety attitude. Being intimately acquainted with the area, the equipment acquired, and proposed refuge operations (which are only a modification of his former ranch operations), he was questioned and cautioned about possible safety hazards.

The refuge has a perfect 122-day accident free record, which began September 1, 1965.

Prepared By:

H. J. Johnson
H. J. Johnson, Refuge Manager

DEL

Reviewed By:

William J. Kummer
Associate Regional Director
Date: 2/14/86

Reviewed By:

Date: _____

3-1750
Form NR-1
(Rev. March 1953)

W A T E R F O W L

REFUGE Browns Park, Colorado

MONTHS OF September 1, 1960 Dec. 31,, 19 65

(1) Species	(2) Weeks of reporting period									
	1-7 1	8-14 2	15-21 3	22-28 4	29-5 5	6-12 6	13-19 7	20-26 8	27-2 9	3-9 10
Swans:										
Whistling										
Trumpeter *								6	14**	9
Geese:										
Canada	40	40	40	40	40	40	180	200	280	186
Cackling										
Brant										
White-fronted										
Snow										
Blue										
Other										
Ducks:										
Mallard	250	250	250	250	250	250	289	350	405	525
Black										
Gadwall										
Baldpate										
Pintail										
Green-winged teal										
Blue-winged teal	25	25	25	25	25	25	25			
Cinnamon teal										
Shoveler										
Wood										
Redhead										
Ring-necked										
Canvasback	12	12	12	12	12	12	12			
Scaup										
Goldeneye	12	12	12	12	12	12	12			
Bufflehead										
Ruddy										
Other										
lively identified as Trumpeters										
ied 3 young of the year.										
Coot:	30	30	30	30	30	30	30			

3-1750a
Cont. NR-1
(Rev. March 1953)

WATERFOWL
(Continuation Sheet)

REFUGE Browns Park, Colorado

MONTHS OF Sept. 1, 1965 TO Dec. 31, 19 65

(1) Species	(2) Weeks of reporting period								(3) Estimated waterfowl days use	(4) Production Broods: Estimate seen : total
	10-16 11	17-23 12	24-30 13	1-7 14	8-15 15	16-22 16	23-29 17	30 & 31 18		
Swans:										
Whistling										
Trumpeter	8								259	
Geese:										
Canada	71	116	115	150	180	180	150	100	14,816	
Cackling										
Brant										
White-fronted										
Snow										
Blue										
Other										
Ducks:										
Mallard	504	508	500	400	300	214	175	125	38,430	
Black										
Gadwall										
Baldpate										
Pintail										
Green-winged teal										
Blue-winged teal									1,225	
Cinnamon teal										
Shoveler										
Wood										
Redhead										
Ring-necked										
Canvasback									588	
Scaup										
Goldeneye									588	
Bufflehead										
Ruddy										
Other										
Included 4 young of the year.										
Coot:									1,470	

(over)

	(5)	(6)	(7)	SUMMARY
Total Days Use :	Peak Number :	Total Production :		
Swans	259	14	7 of 22 were young of year.	Principal feeding areas Hog Lake, Horseshoe Bottom, and river.
Geese	14,816	280		
Ducks	40,831	508		Principal nesting areas
Coots	1,470	30		

Reported by

H. J. Johnson, Refuge Manager

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

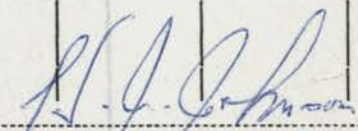
- (1) Species: In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and national significance.
- (2) Weeks of Reporting period: Estimated average refuge 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
(Aug. 1952)MIGRATORY BIRDS
(Other than Waterfowl)Refuge Browns Park, ColoradoMonths of Sept. 1, 1965 to Dec. 31, 1965

(1) Species	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Production			(6) Total
Common Name	Number	Date	Number	Inclusive Dates	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Use
I. <u>Water and Marsh Birds:</u>										
Great Blue Heron	6 present all period.									
Little Blue Heron	1 seen only once.									
Snowy Egret	3 seen only once.									

(over)

(1)	(2)	(3)	(4)	(5)	(6)
III. <u>Doves and Pigeons:</u> Mourning dove White-winged dove	Present until late October.				
IV. <u>Predaceous Birds:</u> Golden eagle Duck hawk Horned owl Magpie Raven Crow Bald Eagle	Present all year. Seen only occasionally. Present all year. Probably 5. Present all year. 50 seen once. Present all year. Seen only occasionally.				
Reported by 					

H. J. Johnson, Refuge Manager

INSTRUCTIONS

(See Sec. 7532, Wildlife Refuges Field Manual)

- (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 migration record for the species for the reporting period.
- (3) Peak Numbers: Estimated number and inclusive dates when peak population of the species occurred.
- (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 species days use (average population X no. days present) of refuge during the reporting period.

3-1752
Form NR-2
(April 1946)

UPLAND GAME BIRDS

Refuge Browns Park National Wildlife Refuge Months of Sept. 1, 1965 to Dec. 31, 19 65

(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.
Chukar Partridge	3,200	10	-	-	None	30	Only one observation,

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. |
|--------------|--------------------------|--------------|--|---------------------|---|----------------|---|---------------|--|------------|--|--------------|---|
| (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.

3-1753

Form NR-3

(June 1945)

BIG GAME

Refuge Browns Park National Wildlife Refuge Calendar Year 65

(1) Species	(2) Density	(3) Young Produced	(4) Removals				(5) Losses			(6) Introductions	(7) Estimated Total Refuge Population		(8) Sex Ratio
			Hunting	For Re- stocking	Sold	For Research	Predation	Disease	Winter Loss		At period of Greatest use	As of Dec. 31	
Common Name	Cover types, total Acreage of Habitat	Number								Number	Source		
Mule Deer	3,200	35	None							None	100	100	2:5
Antelope	3,200	14	None							None	60	60	1:1
Elk *	3,200		None							None	5	?	1:1
Bighorn *	3,200		None							None			
* Occasional visitors													

Remarks: Estimates.

Reported by

H. J. Johnson, Refuge Manager

INSTRUCTIONS

Form NR-3 - BIG GAME

- (1) SPECIES: Use correct common name; i.e., Mule deer, black-tailed deer, white-tailed deer. It is unnecessary to indicate sub-species such as northern or Louisiana white-tailed deer.
- (2) DENSITY: 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 total number of young produced on refuge.
- (4) REMOVALS: Indicate total number in each category removed during the year.
- (5) LOSSES: On the basis of known records or reliable estimates indicate total losses in each category during the year.
- (6) INTRODUCTIONS: Indicate the number and refuge or agency from which stock was secured.
- (7) TOTAL REFUGE POPULATION: Give the estimated population of each species on the refuge at period of its greatest abundance and also as of Dec. 31.
- (8) SEX RATIO: Indicate the percentage of males and females of each species as determined from field observations or through removals.

116000

PUBLIC RELATIONS

(See Instructions on Reverse Side)

Refuge Browns Park National Wildlife RefugeCalendar Year 1965

1. Visits
 a. Hunting None b. Fishing 200 c. Miscellaneous 50 d. TOTAL VISITS 250

1a. Hunting (on refuge lands)

TYPE	HUNTERS	ACRES	MANAGED BY
Waterfowl			
Upland Game			
Big Game			
Other			

Number of permanent blinds _____

Man-days of bow hunting included above _____

Estimated man-days of hunting on lands adjacent to _____

refuge _____

1b. Fishing (area open to fishing on refuge lands)

TYPE OF AREA	ACRES	MILES
Ponds or Lakes		
Streams and Shores		<u>3</u>

1c. Miscellaneous Visits

Recreation _____ Official 4

Economic Use _____ Industrial _____

2. Refuge Participation (groups)

TYPE OF ORGANIZATION	NO. OF GROUPS	NUMBER IN GROUPS	NO. OF GROUPS	NUMBER IN GROUPS
Sportsmen Clubs				
Bird and Garden Clubs				
Schools				
Service Clubs				
Youth Groups				
Professional-Scientific				
Religious Groups				
State or Federal Govt.				
Other				

3. Other Activities

TYPE	NUMBER	TYPE	NUMBER
Press Releases	<u>1</u>	Radio Presentations	
Newspapers (P.R.'s sent to)		Exhibits	
TV Presentations		Est. Exhibit Viewers	

INSTRUCTIONS

Item 1: Total of a, b, and c, equal d.

"Visit" - definition. Any person who is on refuge lands or waters during a day or part thereof for the purpose of: hunting, fishing, bird-watching, recreation, business or economic use, official visit, or similar interest. INCLUDE - those who stop within the refuge while traveling on a public highway because of an interest in the area. EXCLUDE - persons engaged in oil or other industry not directly related to the refuge, persons using refuge as most direct route or principal avenue of traffic, and those boating on navigable rivers or the Intercoastal Canal, unless they stop to observe wildlife on the refuge.

Computing visits. Where actual counts are impractical, "sampling" is used with midweek and week-end samples varied by season or weather. A conversion factor of 3.5 (of passengers per car) is used when accurate figures are not available. Each refuge will develop a conversion factor for boats based on range of usage. Count a camper once for each 24-hour period or fraction thereof.

Item 1a: Acres - of refuge open for each type of hunting.

Managed hunts require check in and out of hunters, issuance of permits, or assignment of blinds.

Other - INCLUDE crow, fox, and similar hunting.

Lands adjacent to refuge. Normally considered within 1 mile or less of boundary, unless established sampling procedures cover a wider area. For big game hunting, the distance may be greater.

Item 1b: Acres of streams open to fishing, if practical; otherwise just miles open. Information on "shores" is primarily for coastal fishing.

Item 1c: Recreation. INCLUDE photography, observing wildlife, picnicking, swimming, boating, camping, visitor center use, tours, etc. TOTAL Recreation, Official, and Economic Use visits under Item 1.

Industrial. INCLUDE persons engaged in industry, i.e., oil industry or factories. EXCLUDE these from Item 1.

Item 2: INCLUDE the "On Refuge" groups in Items 1c and 1. In "Off Refuge" column include only those group meetings in which refuge employees actually participate. EXCLUDE these from Items 1c and 1.

Item 3: Exhibits - INCLUDE displays, fairs, parades, and exhibits OFF the refuge; EXCLUDE those ON.

(Rev. June 1960)

NONAGRICULTURAL COLLECTIONS, RECEIPTS, AND PLANTINGS

Refuge Browns Park National Wildlife Refuge Year 19 65

[illegible]

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

Remarks: None in calendar year 1965.

Total acreage planted:

Marsh and aquatic

Hedgerows, cover patches

Food strips, food patches

Forest plantings

3-1758
Form NR-8
(Rev. Jan. 1956)

Fish and Wildlife Service Branch of Wildlife Refuges

CULTIVATED CROPS - HAYING - GRAZING

Refuge Browns Park National Wildlife Refuge County Moffat State Colorado

Cultivated Crops Grown	Permittee's Share Harvested		Government's Share or Return				Total Acreage	Green Manure, Cover and Water- fowl Browsing Crops Type and Kind	Total Acreage
	Acres	Bu./Tons	Harvested Acres	Bu./Tons	Unharvested Acres	Bu./Tons			
None									
								Fallow Ag. Land	

No. of Permittees: Agricultural Operations None Haying Operations None Grazing Operations None

Hay - Improved (Specify Kind)	Tons Harvested	Acres	Cash Revenue	GRAZING	Number Animals	AUM'S	Cash Revenue	ACREAGE
				1. Cattle				
				2. Other				
				1. Total Refuge Acreage Under Cultivation				
Hay - Wild	None			2. Acreage Cultivated as Service Operation				

None of the above activities in calendar year 1965.

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.

3-1570
NR-68
(4/54)

REFUGE GRAIN REPORT

Refuge Browns Park National Wildlife Refuge

Months of Sept. 1 through Dec. 31, 1965

(1) VARIETY*	(2) ON HAND BEGINNING OF PERIOD	(3) RECEIVED DURING PERIOD	(4) TOTAL	(5) GRAIN DISPOSED OF				(6) ON HAND END OF PERIOD	(7) PROPOSED OR SUITABLE USE*		
				Transferred	Seeded	Fed	Total		Seed	Feed	Surplus
			None in 1965								

(8) Indicate shipping or collection points _____

(9) Grain is stored at _____

(10) Remarks _____

*See instructions on back.

REFUGE 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.

3-1979 (NR-12)
(9/63)

Bureau of Sport Fish 'es and Wildlife

Refuge

ANNUAL REPORT OF PESTICIDE APPLICATION

Browns Park National Wildlife Refuge

Proposal Number

Reporting Year

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

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)

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

No pesticide application in calendar year 1965.

The Green River,
with its many
sandbars ---



and ---



verdant bottomlands ---





separates Diamond
Mountain on the
west ---



from the Ow-Y-Yu-Kuts
Plateau (Cold Spring
Mt.) on the east as
it courses through
Browns Park Refuge.

Extensive benchlands separates
the plateau from the river.

