

60  
BROWNS PARK NATIONAL WILDLIFE REFUGE

MAYBELL, COLORADO

ANNUAL NARRATIVE REPORT

Calendar Year 1983

U. S. DEPARTMENT OF INTERIOR

FISH AND WILDLIFE SERVICE

NATIONAL WILDLIFE REFUGE SYSTEMS

BROWNS PARK NATIONAL WILDLIFE REFUGE  
MAYBELL, COLORADO  
1983

1. James A. Creasy, GS-11, PFT, EOD 9/1/74 . . . . . Refuge Manager
2. James L. Sellers, GS-7, PFT, EOD 10/9/77. Assistant Refuge Manager  
(Transferred 4/16/83)
3. Donald R. Clapp, GS-5, PFT, EOD 8/28/83 . Assistant Refuge Manager
4. Robert L. Harding, GS-5, PFT, EOD 4/48/82 . .Biological Technician
5. Norma A. Wardle, GS-5, PFT, EOD 11/30/64. . . . . Refuge Assistant
6. Robert L. Mangus, GS-5, TFT,. . . . . .Biological Technician  
(3/7/83 - 4/29/83, 7/11/83 - 9/30/83)
7. Mitchell R. Ellis, GS-3, TFT. . . . . . Biological Aid  
(5/31/83 - 8/6/83)
8. James L. Carroll, EOD 12/29/80 - Deceased 5/10/83 . . . .Volunteer
9. Penny M. Creasy, EOD 9/1/74 . . . . . .Volunteer
10. James A. Creasy, Jr., EOD 7/20/83 . . . . . .Volunteer

Reviews and Approvals

James A. Creasy 2/10/84  
Submitted by Date

Philip W. Whit 2/27/84  
Regional Office Review Date



Harding, Creasy, Clapp



Mangus





P. Creasy, Wardle

## INTRODUCTION

Browns Park National Wildlife Refuge is located in an isolated mountain valley in extreme northwestern Colorado. It lies along both sides of the Green River, entirely within Moffat County, 25 miles below Flaming Gorge Dam. It contains 13,375 acres of river bottomland and adjacent benchland. The Utah-Colorado state line delineates the western boundary and to the south it shares a mutual boundary with Dinosaur National Monument. The remainder of the refuge shares a mutual boundary with BLM (Bureau of Land Management) lands. The refuge is 53 miles northwest of Maybell, Colorado, on State Highway 318, 50 miles northeast of Vernal, Utah over Diamond Mountain and 95 miles south of Rock Springs, Wyoming via State Highway 430 or 70 miles via State Highway 191 and Clay Basin, Utah.

The primary purpose of Browns Park Refuge is to provide high quality nesting and migration habitat for the Great Basin Canada goose, ducks, and other migratory birds. Before Flaming Gorge Dam was constructed in 1962, the Green River flooded annually, creating excellent waterfowl nesting, feeding and resting marshes in the backwater sloughs and old stream meanders. The dam stopped the flooding, eliminating much of this waterfowl habitat. Pumping from the Green River, along with water diverted from Beaver Creek now maintains nine marsh units comprising approximately 1,430 acres. The river covers approximately 1,000 acres along with sedimentary river bottomlands, well vegetated grasslands interspersed with cottonwood, willows, salt cedar, greasewood and sage covering approximately 4,000 acres. The remainder of the refuge is alluvial benchlands (6,000 acres) and steep rocky mountain slopes.

On August 20, 1963, the Migratory Bird Conservation Commission approved acquisition of Browns Park National Wildlife Refuge to develop and manage waterfowl habitat in that portion of Browns Park within the state of Colorado. The private land was purchased with funds from the Migratory Bird Hunting Stamp Act. On July 13, 1965, the first tract of private land was acquired. At this time 5,276 acres have been purchased at a cost of \$594,976, 6,794 acres have been withdrawn from public domain lands and 1,305 acres are leased from the State of Colorado (State school sections). There are still two private inholdings on the refuge, one tract of 200 acres and another of 80 acres. Elevations vary from 5,355 to 6,200 feet above sea level.

## TABLE OF CONTENTS

	<u>Page</u>
A. <u>HIGHLIGHTS</u>	2
B. <u>CLIMATIC CONDITIONS</u>	2
C. <u>LAND ACQUISITION</u>	
1. Fee Title . . . . .	4
2. Easements . . . . .	Nothing to Report
3. Other . . . . .	Nothing to Report
D. <u>PLANNING</u>	
1. Master Plan . . . . .	Nothing to Report
2. Management Plan . . . . .	5
3. Public Participation . . . . .	Nothing to Report
4. Compliance with Environmental Mandates . . . . .	Nothing to Report
5. Research and Investigations . . . . .	5
E. <u>ADMINISTRATION</u>	
1. Personnel . . . . .	5
2. Youth Programs . . . . .	Nothing to Report
3. Other Manpower Programs . . . . .	Nothing to Report
4. Volunteers Program . . . . .	6
5. Funding . . . . .	6
6. Safety . . . . .	7
7. Technical Assistance . . . . .	8
8. Other Items . . . . .	Nothing to Report
F. <u>HABITAT MANAGEMENT</u>	
1. General . . . . .	Nothing to Report
2. Wetlands . . . . .	9
3. Forests . . . . .	13
4. Croplands . . . . .	Nothing to Report
5. Grasslands . . . . .	13
6. Other Habitats . . . . .	Nothing to Report
7. Grazing . . . . .	13
8. Haying . . . . .	Nothing to Report
9. Fire Management . . . . .	14
10. Pest Control . . . . .	Nothing to Report
11. Water Rights . . . . .	Nothing to Report
12. Wilderness and Special Areas . . . . .	15
13. WPA Easement Monitoring . . . . .	Nothing to Report

G. WILDLIFE

1. Wildlife Diversity . . . . .	Nothing to Report
2. Endangered and/or Threatened Species . . . . .	.16
3. Waterfowl . . . . .	.16
4. Marsh and Water Birds . . . . .	.17
5. Shorebirds, Gulls, Terns, and Allied Species . . . . .	.17
6. Raptors . . . . .	.18
7. Other Migratory Birds . . . . .	.18
8. Game Mammals . . . . .	.18
9. Marine Mammals . . . . .	Nothing to Report
10. Other Resident Wildlife . . . . .	.18
11. Fishery Resources . . . . .	.19
12. Wildlife Propagation and Stocking . . . . .	.19
13. Surplus Animal Disposal . . . . .	Nothing to Report
14. Scientific Collections . . . . .	Nothing to Report
15. Animal Control . . . . .	.19
16. Marking and Banding . . . . .	Nothing to Report
17. Disease Prevention and Control . . . . .	Nothing to Report

H. PUBLIC USE

1. General . . . . .	.20
2. Outdoor Classrooms - Students . . . . .	Nothing to Report
3. Outdoor Classrooms - Teachers . . . . .	Nothing to Report
4. Interpretive Foot Trails . . . . .	Nothing to Report
5. Interpretive Tour Routes . . . . .	.20
6. Interpretive Exhibits/Demonstrations . . . . .	Nothing to Report
7. Other Intrepetive Programs . . . . .	.21
8. Hunting . . . . .	.21
9. Fishing . . . . .	.22
10. Trapping . . . . .	Nothing to Report
11. Wildlife Observation . . . . .	Nothing to Report
12. Other Wildlife Oriented Recreation . . . . .	.22
13. Camping . . . . .	Nothing to Report
14. Picnicking . . . . .	Nothing to Report
15. Off-Road Vehicling . . . . .	Nothing to Report
16. Other Non-Wildlife Oriented Recreation . . . . .	Nothing to Report
17. Law Enforcement . . . . .	.22
18. Cooperative Associations . . . . .	Nothing to Report
19. Concessions . . . . .	Nothing to Report

I. EQUIPMENT AND FACILITIES

1. New Construction . . . . .	.23
2. Rehabilitation . . . . .	.23
3. Major Maintenance . . . . .	.25
4. Equipment Utilization and Replacement . . . . .	.25
5. Communications Systems . . . . .	.26
6. Energy Conservation . . . . .	.26
7. Other . . . . .	Nothing to Report

J. OTHER ITEMS

1. Cooperative Programs . . . . .	.27
2. Items of Interest. . . . .	.27
3. Credits. . . . .	.31

K. FEEDBACK

Nothing to Report



## A. HIGHLIGHTS

Colorado Division of Wildlife release bighorn sheep near refuge. (Section E, 7).

Flood damage from 13,200 cfs releases in Green River (Section F, 2).

Deer kill on refuge increased (Section H, 8).

Jim Sellers departs for Ft. Niobrara NWR (Section J, 2).

Taylor Flat Bridge in Utah washed away by record high releases from Flaming Gorge Dam (Section J, 2).

## B. CLIMATIC CONDITIONS

Precipitation was above normal in 1983 with 10.69 inches. This exceeded the previous twelve-year average of 8.29 inches, even exceeding the former high of 10.61 inches received in 1981. Temperatures reached a high of 98° F. in August and a low of -18° F. in December. Weather conditions, especially the above average precipitation in the form of rain just as run-off started, caused flood conditions for much of the Green River drainage. Refuge operations were directly affected by the flood conditions.

The year started with a high of 52° F. and a low of 4° F. in January. All marsh units not scheduled for burning or maintenance were frozen over the entire month. The Green River remained open providing habitat for about 300 geese overwintering here. January's cold temperatures might have had a tragic ending for one young couple trapping adjacent to the refuge. Their 2-year old daughter was lost for about 8 hours before being found just at dark. Refuge personnel organized and conducted the search with help from Search and Rescue units.

Open water began showing up in the marshes by mid-February and all were open by the end of the month. A planned burn was conducted in the Warren marsh and pumping of the unit commenced February 27. Fishing closed on the refuge February 28 to reduce disturbance to the 300 geese beginning to pair off for nesting. There were approximately 3,200 ducks on the refuge at this time, primarily mallard, redhead, pintail and goldeneye. Duck numbers increased dramatically to over 9,000 by March. Most of the breeding geese were paired and nesting by month's end. Deer began moving back up the mountains as the snow line receded.

April's temperatures ranged from 9° F. to 71° F. In preparation for spring run-off, several beaver had to be trapped where they were blocking our outlet structures with debris. Many goose broods were showing up by the end of the month. By May, Beaver Creek was running at flood stage from snow-melt and rain (1.31 inches) off Cold Springs Mountain. The Green River was very muddy from run-off in Red Creek. Roads had to be repaired where culverts and gullies couldn't carry the spring run-off.

Fishing opened June 16 with poor fishing conditions and few fishermen. High temperatures and an additional 2.18 inches of rain brought on more problems. Flows in the Green River from the Flaming Gorge Dam had to be increased to 8,200 cfs. The Taylor Flat Bridge above the refuge in Utah was now in danger of being washed out. The refuge monitored the situation for the Bureau of Reclamation, but without recourse--half the bridge washed downstream about four miles. We helped the Utah Division of Wildlife Resources anchor the remaining part of the bridge.

July brought forth additional trouble when the Fontenelle Dam in Wyoming above Flaming Gorge Dam showed an acceleration of seepage in its earthen structure. The Bureau of Reclamation decided to reduce the water level behind the dam and have engineers monitor the seepage. The lake level was reduced as rapidly as possible, letting water fill to capacity and overflow Flaming Gorge Dam. The high water releases of 13,200 cfs (over three times the normal high of 4,000 cfs) into an already flooding river (8,200 cfs) caused a fair amount of damage to the refuge. Rock and gravel had to be hauled to the Grimes pumpsite to reinforce it and prevent further damage when high water tilted the cantilevers and pump enough to make it inoperative. Spitzie pumpsite required some reinforcing behind the bulkhead and the pump motor was removed as a precaution when the river started running over the cantilever. Quarters No. 1 had water two inches above the foundation floor. Signs had to be put up in Warren, Spitzie and Hoy Bottoms to warn the public that roads were flooded.

The 13,200 cfs in the Green River did have some benefits. Marsh units held dry for burning were now sub-irrigated and nesting structures surrounded by water produced goose broods. The river flowed into the outlet in Spitzie marsh giving us "free" water. A ditch 300-400 yards long was dug, providing gravity water to Hog Lake.

The Green River flow subsided to a still high 5,000 cfs for the entire month of August. Bank erosion was evident, but gone was moss and silt from the river bottom. A sandbar moved to the Spitzie pumpsite, preventing our pumping there. Fishing improved when the river was clear, but Red Creek kept the river muddy 40 percent of the time. Waterfowl numbers remained fairly stable until September when teal began moving out and more pintail moved in. Several large flocks of sandhill cranes stopped over at the refuge for a day or so.

Duck season opened October with "bluebird" weather. The goose season and "separate rifle deer season" opened October 29. There were approximately 100 hunters on hand for the latter date, with the deer hunters doing much better than the goose hunters.

October and November provided us with ample moisture as 1.53 inches fell in October and 1.58 inches fell in November, respectively. Snowstorms that began November 19 left snow on the ground that remained the rest of the month due to constant below freezing temperatures. Near mid-November 7,000 ducks and nearly 500 geese were using the refuge. Shortly thereafter, the marshes froze over and only a few hundred ducks and many of the geese remained. Waterfowl hunting was minimal after that, though the split season for duck hunting re-opened. Only a few goose hunters braved the freezing temperatures to hunt. (Photo #1.)



Photo #1. Several inches of snow accululated on the office during a November storm. R6/12, 11/22/84, JC.

November and December brought increasing numbers of deer and antelope down from higher elevations for the winter. By the end of December, there was still 8-10 inches of snow on the ground. It had crusted over, making it difficult for deer and antelope to obtain forage and we were beginning to get some mortality.

### C. LAND ACQUISITION

#### 1. Fee Title

No progress was made on purchasing two private inholdings on the refuge. A possibility would be a land exchange for public domain land located closer to the owner's home ranches.

One tract is 80 acres located in the Grimes Bottom and the other is 200 acres located in the Carr Bottom. At this time they do not pose a problem to the management of the refuge. They could, if the owners decided to sub-divide them and sell them in small parcels.

The refuge is still leasing two school sections (1,305 acres), within the refuge, from the State of Colorado. Possibly, public domain land could also be traded for these two sections.

## D. PLANNING

### 2. Management Plan

The Annual Water Management Plan was written and, after some discussion, approved. We are having a problem getting approval to use enough water to keep our marshes full. We have the water rights, but we had a Section 7 Consultation done in 1980 and they (Ecological Services) didn't want us to increase our water use until the study on endangered fish in the Green River is completed by the Colorado River Fishery Project. The study was supposed to be completed in two years and it has been over four years now and still hasn't been completed. Under BLHP we built two new marshes and enlarged two others, but are now having problems getting approval to manage them properly.

The Wildlife Control Plan is to be revised and re-submitted by September 1, 1984 incorporating the Dummy Nest Survey conducted the past two years.

### 5. Research and Investigations

Robert B. Finley, Jr. (retired, USFWS, Research, Fort Collins, Colorado) made one trip to the refuge this year and continued his small mammal trapping on the refuge and in the surrounding area of northwest Colorado. He has found several small mammals not previously recorded in Colorado and we should have an accurate small mammal list for the refuge when he is finished.

## E. ADMINISTRATION

### 1. Personnel

At the beginning of the year there were three people living and working on the refuge. At the end of the year we still had three people, although one transferred out and one transferred in. In April, Jim Sellers got a well deserved promotion and transferred to the Fort Niobrara-Valentine National Wildlife Refuge complex at Valentine, Nebraska. In August, Don Clapp transferred in from William L. Finley National Wildlife Refuge, Corvallis, Oregon, to fill the Assistant Refuge Manager's position. We were able to re-hire Bob Mangus (retired from Colorado Division of Wildlife) as a Bio-Tech. on a 180-day appointment. We got Mitch Ellis, a student at the University of Arizona majoring in Wildlife Management, as a Bio-Aid. He worked from May 31 through August 6.

Norma A. Wardle, the Refuge Assistant from Browns Park National Wildlife Refuge, Ouray National Wildlife Refuge, and Vernal Fishery Assistance Office, is stationed in Vernal, Utah. This year Norma also did a lot of work for the Jones Hole National Fish Hatchery after their Clerk transferred and they were going to close the hatchery, and then they didn't close it.

Permanent

	<u>Full Time</u>	<u>Part Time</u>	<u>Temporary</u>
FY 1983	3*	3 (Volunteers)	2
FY 1982	3*	1 (Volunteer)	1
FY 1981	3*	1 (Volunteer)	1
FY 1980	3*		
FY 1979	3*		

\* Does not include Norma A. Wardle, Refuge Assistant

4. Volunteer Program

Mr. James L. Carroll, who was a Volunteer at the refuge before there was a volunteer program, had a fatal heart attack on May 10, 1983. Les was at work at the Moffat County Road Department when he suffered his heart attack. He was a full time truck driver, but spent many weekends and holidays helping out on the refuge. He looked after facilities on weekends, if all permanent employees were gone. He also assisted with equipment, facility, fence and other repairs, hauled garbage and anything else that had to be done. To say that Les has been greatly missed by his friends is a gross understatement.

Two other volunteers who have volunteered many hours, made it official this year and were signed up. This was the Refuge Manager's wife, Penny, and their son, Jamie.

5. Funding

Funding for the refuge looks good for FY 84 (\$192,500) as compared to last year's FY 83 (\$126,900). The funding target for FY 83 had been \$151,900, but we gave \$25,000 to Bear River Refuge to help pay for plugging some old gas wells that came uncorked. The following chart illustrates funding over a five-year period.

<u>FY</u>	<u>Activity</u>	<u>Amount</u>	<u>Total</u>
1984	1260 (includes \$32,000 for AARMS)	\$177,000	\$192,500
	6860	10,000	
	1994	5,500	
1983	1210 (originally \$125,000)	\$100,000	\$126,900
	1220	5,000	
	1240	10,000	
	6810	10,000	
	1994	1,900	
1982	1210	\$ 85,000	\$103,609
	1220	2,000	
	1240	4,000	
	6810	3,000	
	1994	9,609	



(Continued)

<u>FY</u>	<u>Activity</u>	<u>Amount</u>	<u>Total</u>
1981	1210	\$ 95,000	\$ 98,700
	1220	200	
	1240	3,500	
1980	1210	\$ 85,000	\$ 89,200
	1220	200	
	1240	4,000	

6. Safety

No lost time accidents occurred this year. Our lost time accident record now stands at 2,485 accident-free days.

Monthly Safety meetings were held when more than two people were on the station.

A Roll-Over Protective Structure was installed on the D-7 Cat dozer. (Photo #2.)



Photo #2. Jim Sellers installing SAF-T-CAB, ROPS, on D-7  
The 1946 D-6 on the left is to be surplused.  
R2/21, 4/7/83, JC.

Bob Harding and Jim and Penny Creasy attended a Defensive Driver's refresher course at the BLM office in Vernal. It was put on by GSA.

Don and Louise Clapp, Bob and Ruthie Harding, and Jim and Penny Creasy attended ten hours of Red Cross CPR training put on by the National Park Service personnel.

#### 7. Technical Assistance

In February, we helped the Colorado Division of Wildlife release 21 bighorn sheep on Beaver Creek about two miles from the refuge. There were at least 16 still in the canyon in the fall. We will have to wait until this spring to see how many survived this winter. (Photo #3.)



Photo #3. Refuge personnel helped the Colorado Division of Wildlife release 21 bighorn sheep at the mouth of Beaver Creek Canyon about two miles from the refuge. It was late in day. R1/4, 2/14/83, JC.

In February, we also assisted the Colorado Division of Wildlife in a deer trapping and marking (ear tags and neck collars) project. The trapping was done just off the refuge. The objective of the project is to find out where the deer that winter in the Browns Park area spend their summers.

It appears that many of them move out of the mountains in Utah and Wyoming. This has been suspected for many years. (Photo #4.)



Photo # 4. Refuge personnel assisted the Colorado Division of Wildlife in a deer trapping and marking operation. R1/20, 2/22/83, JC.

#### F. HABITAT MANAGEMENT

##### 2. Wetlands

Before Flaming Gorge Dam was completed (25 miles upstream from the refuge on the Green River) seasonal flooding of the bottomlands along the Green River created excellent waterfowl habitat. After the dam was completed, the seasonal flooding was eliminated along with the meadowlands and marshes preferred by nesting waterfowl. Pumping from the Green River, along with a diversion ditch from Beaver Creek, now creates nine marsh units totaling approximately 1,430 acres.

When the Grimes marsh was filled at the end of 1982, we had problems with more structures tipping. After the marsh dried up, we went in and built up and packed the dirt around the structures we hadn't repaired earlier. The marsh, six separate units, was filled in April. It was kept at optimum level until July when the high water releases of 13,200 cfs damaged the pumpsite and tilted the cantilevers and pump enough that we could not pump. At the end of the year we still had not completed repairs to the pumpsite. (Photos #5 and #6.)





Photo #5. The Grimes pumpsite was damaged and cantilevers and pump tilted due to high water in the Green River. R5/7, 7/20/83, JC.



Photo #6. Bob Mangus pushing rock into upstream side of Grimes pumpsite with D-6 to prevent it from washing away. R5/9, 7/22/83, JC.

The Warren and Horseshoe marshes were burned in February and March, respectively, and some work done to reinforce and repair resting and nesting islands and structures. Both units were held at optimum levels until September, when the Horseshoe was allowed to dry up to do some winter work in it.

Some work was done in the Nelson marsh to open it up for waterfowl. A 1.4 mile borrow around the marsh was pushed out with the D-7 and resting and nesting islands built with the borrow material. We hoped to do some more work in it, but the lack of manpower and the early deep snow stopped work on the marsh. We hope to burn the marsh in early 1984, if the snow melts enough to allow it. The marsh was dry for the entire year. (Photo #7.)



Photo #7. Nelson marsh (center of photo) seen from Hoy Draw. Part of borrow that was pushed out can be seen at left of marsh. R5/18, 10/1/83, JC.

Hog Lake was held at optimum levels for the year. Some work had to be done on the water delivery ditch. A short ditch (approximately 300 yards) was opened up from the Green River to the marsh to take advantage of the high water releases (13,200 cfs) during July. This allowed us to take water from the river without pumping. (Photo #8.)





Photo #8. An old irrigation ditch was opened up to get water out of the Green River into Hog Lake with high water releases of 13,200 cfs. R4/21, 7/16/83, JC.

The Spitzie marsh was burned during March, the ditches cleaned, the pump rebuilt, an umbrella built and installed to cut down on vortexing, and some leveling done around the pumphouse to allow safer access to pull the pump. In July we had to haul in gravel and do some other repair work as the high water did some damage to the pumphouse. As a precautionary measure, we removed the pump motor during the high water flows in July. After the high water, a sand bar built up around the pump and we quit pumping to avoid damaging the pump. The marsh still had some water in it at the end of the year.

Some repair work was done on the water delivery ditch into the Hoy marsh. The marsh was kept at optimum levels for the entire year.

We did some repair work on the water delivery ditch into the Flynn marsh. It was too wet to do a good job on it, so some more work will have to be done on it in early 1984. We were able to hold the marsh at optimum levels despite some electrical problems with the pump. The Flynn and Hoy are our most productive marshes at this time.

With the high run-off in Beaver Creek, we were able to keep Butch Cassidy marsh levels higher than in the past. We did have some problems with beaver blocking the outlet structure. We had to check it regularly and finally trapped six beavers which eliminated the problem.

With the high run-off in Beaver Creek, we got some washing in the spillway at the Beaver Creek crossing. Even with all the boards removed from the structure, it would not handle all of the water coming down the creek.

### 3. Forests

Narrow and broadleafed cottonwood trees are located along Beaver Creek, and broadleafed cottonwoods are in the bottoms along the Green River. They are used by numerous forms of wildlife, including nesting raptors, great blue herons, wintering bald eagles, and even nesting Canada geese. Activities which would threaten them are avoided and care is taken to protect young trees.

Three hundred and sixty trees and shrubs were planted in the headquarters and sub-headquarters areas. They were plum, Nanking cherry, and Colorado blue spruce. Survival was much better this year than last year when they were decimated by the rabbits. This year the rabbit population was thinned out, they were watered more frequently, and slow release fertilizer tablets were used with each plant. Twenty narrowleafed cottonwoods were transplanted from Beaver Creek to the headquarters area in the fall.

### 5. Grasslands

Refuge grasslands are located on the benches, the river bottoms adjacent to the marsh units, and in meadows along Beaver Creek. River bottom grasslands are irrigated with water pumped from the Green River using the same ditches that supply water to the marshes. The meadows along Beaver Creek are irrigated by grazing permittees, as long as water is available, while maintaining a minimum flow in the creek.

Moderate grazing was carried out during the winter months. One unit, which has been grazed lightly for several years, is beginning to get a lot of salt cedar in it. If time permits, we would like to plow it and plant alfalfa in it. We were going to do it this year, but the river was so high it was too wet to do any work in it.

### 7. Grazing

Grazing by the two primary permittees is between November 15 and March 31, with cattle removed prior to the growing season. Cattle are removed from the units containing marshes prior to March 1 to reduce disturbance to nesting geese. This year (winter 1982-83) both permittees turned in after December 1 and were out prior to March 31.

One permittee, Jack Leonard, is a previous landowner. The other, Wright Dickinson, is an adjacent landowner who bought out a previous refuge land owner. Mr. Dickinson leases adjacent BLM lands and a privately owned 200-acre inholding on the refuge.

The grazing rates were raised \$0.50/AUM, from \$3.00 to \$3.50, to get them more in line with private grazing rates. We will continue to raise rates annually until we get on a par with private grazing. A grazing rate survey completed at Browns Park this summer showed an average base fee of \$6.50/AUM. We have been increasing our fees annually over the past several years since we got the refuge fenced and are no longer associated with the BLM fee system. The following rates were approved by the Regional Office memo of October 7, 1983. The winter of 1983-84 rate will be \$4.00/AUM and the winter of 1984-85 (turn in November 1984) will be \$4.50/AUM.

The 1983 grazing and receipts are as follows:

Wright Dickinson	1,600 AUMs x \$3.50 = \$5,600.00
Jack Leonard	705 AUMs x 3.50 = 2,471.00
Jim Creasy (horses)	36 AUMs x 3.50 = 126.00
Jim Sellers (horses)	4 AUMs x 3.50 = 14.00
Bob Harding (horses)	60 AUMs x 3.50 = 210.00
Don Clapp (horses)	8 AUMs x 3.50 = 28.00
	<hr/>
	2,413 AUMs \$8,449.00

#### 9. Fire Management

Approximately 395 acres were burned in three prescribed fires. The Warren marsh (210 acres) was burned in February. The Horseshoe and Spitzie marshes were burned in March. We got a good burn in all three areas and it opened the marshes up for increased waterfowl use, providing open water interspersed with some emergents, primarily hard-stem bulrush and some cattails and phragmites. (Photos #9 and #10.)



Photo #9. Spitzie marsh was clogged with bulrush before burning. R2/7, 3/22/83, JC.



Photo #10. Spitzie marsh during burn.  
R2/14, 3/22/83, JC.

We did not have any wildfires on the refuge this year. Refuge personnel did help BLM on a fire near the refuge that was threatening a neighbor's ranch buildings.

We provided space for BLM to park a crew trailer at the sub-headquarters for a fire crew during the fire season.

## 12. Wilderness and Special Areas

There are four National Historic Sites registered in Moffat County, Colorado, and three are on the refuge.

The Two-Bar Ranch, headquarters for one of the largest cattle and sheep ranching operations in the west in the late 1800's and early 1900's, is protected from vandals and is being allowed to yield to the effects of nature without interference.

The Lodore Hall, built in 1911 as the first district funded school in the area, still serves as the Community Hall for this isolated area. The Brown's Park Homemaker's Club has a Special Use Permit for the buildings and grounds with the stipulation they maintain and repair the building. This year the front doors were replaced, the interior of the building was repaired where the plaster was falling off the ceiling and walls, the wiring was replaced as it was a safety hazard, and the windows were replaced as much of the



glass was broken and replaced with plywood and plastic. The window frames were deteriorated so badly they were beyond repair. Everything was done with identical material to retain the original appearance of the building.

Nothing was done at the "White-Indian Contact Site" believed to be Fort Davey Crocket, an old fur trading post. The area was partially excavated by Scientific Applications in 1980, then recovered by refuge personnel. Since that time we have just been protecting it from further disturbance.

## G. WILDLIFE

### 2. Endangered and/or Threatened Species

A Colorado squawfish (which is listed as an endangered species) was caught in the Green River on the refuge. The fish was turned over to personnel from the Colorado River Fishery Project in Vernal.

Bald eagles winter on the refuge from around mid-November to late February. Three bald eagles were counted during the Winter Bald Eagle Survey on January 7. The peak population of 16 eagles occurred in mid-March.

### 3. Waterfowl

Four tundra swans were sighted on the refuge in November. There were approximately 325 Canada geese on the refuge at the first of the year, which was similar to 1982.

This year, approximately 106 nesting pairs (67 nests were observed) hatched 305 young. There were around 350 adult geese in the area.

Canada goose numbers peaked at 700 from June through September when half of the goose population left the refuge. The year ended with approximately 300 geese remaining on the refuge.

There were approximately 350 ducks on the refuge at the beginning of the year (mostly mallard and gadwall). By mid-March, there were nearly 9,000 ducks and during the summer the population leveled off to 7,500. By the end of the year there were 450 ducks remaining on the refuge.

Duck brood size for dabblers averaged 6.1 and 6.8 for divers. Production was estimated as follows:

For dabblers:  $(1,188 \text{ pairs}) \times (6.1 \text{ average brood}) \times (.45 \text{ estimated survival rate}) = 3,261 \text{ ducks produced.}$

For divers:  $(303 \text{ pairs}) \times (6.3 \text{ average brood}) \times (.60 \text{ estimated survival rate}) = 1,145 \text{ ducks produced.}$



Mallards, gadwalls, bluewing teal, cinnamon teal, shovelers, and redheads were the main species observed. Mallards had around twice the production (774) as any of the others.

Table 1. Waterfowl production from 1972 through 1983.

<u>Year</u>	<u>Geese</u>	<u>Ducks</u>	<u>Coots</u>
1972	139	2,285	1,100
1973	150	3,200	5,700
1974	150	3,275	2,000
1975	250 ( 69)	3,200	2,000
1976	150 ( 61)	3,100	500
1977	225 ( 75)	3,060 (1,001)	1,500
1978	290 ( 85)	2,450 ( 807)	4,300
1979	225 ( 73)	2,725 ( 953)	3,150
1980	170 ( 60)	2,855 ( 955)	2,280
1981	245 ( 72)	4,025 (1,391)	2,500
1982	264 ( 76)	4,318 (1,427)	2,600
1983	305 (106)	4,406 (1,491)	3,600

\* Breeding pair counts in parenthesis.

#### 4. Marsh and Water Birds

Great blue herons used approximately six nests in a rookery along the Green River near the refuge sub-headquarters.

Black-crowned night herons nested in Butch Cassidy Marsh and Hog Lake.

White-faced ibis were seen occasionally during the spring in flocks up to 60, but nesting was not observed.

During the fall, greater sandhill cranes were observed using the refuge for a few weeks, peak numbers were around 130.

Cattle egrets are uncommon on the refuge, but two were seen for about a month during mid-summer.

Common loon occasionally frequent the refuge. One was seen on the Green River near the sub-headquarters for a few days during late October.

Other marsh and water birds often seen on the refuge are: Western grebe, horned grebe, pied-billed grebe, American bittern, snowy egret and sora rail.

#### 5. Shorebirds, Gulls, Terns and Allied Species

Due to the wet spring weather and full marshes, bird numbers were similar to last year's.

There were around 600 Wilson's phalarope on the refuge by mid-June.

Small numbers of California and ring-billed gull were along the Green River from March through October.

Black-necked stilt are often seen around the marshes during the spring and summer.

Other birds using the refuge are: Common tern, American avocet, common snipe, lesser yellowlegs, western willet, spotted sandpiper, and killdeer.

#### 6. Raptors

Both bald and golden eagles are seen during the winter and golden eagles often nest on the refuge.

Turkey vultures are common from March to December and there is some nesting on the refuge.

Red-tailed hawks, American kestrels, merlins, northern harriers (marsh hawks), and great-horned owls are common year-round residents and often nest on the refuge. Rough-legged hawks are more common during the winter.

Cooper's, sharp-shinned, Swainson's, and ferruginous hawks are occasionally seen on the refuge.

#### 7. Other Migratory Birds

During August there were approximately 450 mourning doves on the refuge. This was similar to populations present last year.

#### 8. Game Mammals

Pronghorn antelope numbers decreased from 80 in 1982 to around 70 during August in 1983. Does have their fawns along the river bottoms then normally move back to join herds on nearby benchlands.

The refuge deer population was approximately 700 by February and declined through May as they began to move to higher elevations. During early November there were a few hundred present and by the first of December the deer had moved down from the mountains to the foothills and river bottoms on the refuge. By mid-December there were around 700 deer present.

Elk are occasionally seen on the refuge and winter in the draws above the refuge. Approximately ten were on the refuge during January.

#### 10. Other Resident Wildlife

Beaver are present in the Green River, Beaver Creek and some of the marshes. Canada geese often use the beaver lodges for nesting.

Muskrat are seen quite often and the population appears to be increasing.

Coyotes are common and are sometimes seen feeding on the rabbits, which are abundant. Red and gray fox are fairly common, but not often seen on the refuge.

Badger, raccoon and skunk are occasionally seen on the refuge.

The refuge chukar population has increased during the past three years. Around 75 were present near the Swinging Bridge and Warren Bottoms during August.

Sage grouse use the refuge year-round. A strutting ground near the road to the Swinging Bridge was counted this year with at least 10 roosters and 5 hens counted.

Magpies are frequently seen on the refuge.

#### 11. Fisheries

The Green River runs through the refuge and is regarded as a major sports fishery. Major species are rainbow, brown and cutthroat trout, and catfish.

Although Beaver Creek is small, it contains a fair population of brook trout, as well as some rainbow and cutthroat trout.

#### 12. Wildlife Propagation and Stocking

Refuge waters of the Green River benefit from stocking by both the Colorado Division of Wildlife and Utah Department of Wildlife Resources. Fish released are mostly rainbows, cutthroat and brown trout.

The Colorado Division of Wildlife is attempting to establish a bighorn sheep population at the upper part of Beaver Creek about two miles above the refuge. Refuge personnel assisted them in releasing 21 sheep during February.

#### 15. Animal Control

Refuge personnel trapped six beaver at the Butch Cassidy marsh outlet that had been blocking the structure. (Photo #11.)

Several feral house cats were also disposed of.

The Dummy Nest Survey was run again this year. The three lines laid out last year were again utilized. Each line contained 100 eggs and was placed in the Hog Lake, Spitzie and Hoy Bottoms. Out of the 300 eggs laid out, 25 eggs were found intact. In 1982, out of 300 eggs laid out, 14 were found intact. From these two years of running the survey, it appears our nest predation is quite high.



Photo #11. Bob Mangus holds a 65 pound beaver caught at Butch Cassidy outlet. R3/6, 4/20/83, JC.

#### H. PUBLIC USE

##### 1. General

The visitation trend that started in 1979 bottomed out in 1982 and took a turn upward in 1983. Probably this was due to the energy crisis, especially the shortage and resulting high prices of gasoline. Although public use showed a downward trend, those visitors that came tended to stay for longer periods. The easing of the fuel shortage may account for this year's upward trend. Above average precipitation and flooding of the refuge roads may have deterred an even greater increase. Visits totaled 3,915 for 1983; with 3,255 activity hours, compared to 3,140 visits and 3,391 activity hours in 1982. Public support is high and informal environmental education programs (for example, the Scouting organizations) had to be increased. The refuge is seeing an increase in the number of rafters, boaters, "history-buffs," sightseers and wildlife observers.

##### 5. Interpretive Tour Routes

This year an estimated 800 people traveled the four mile auto tour route. Excessive run-off from Cold Springs Mountain temporarily filled Goodman Draw and flooded the tour road camp area. Spitzie Draw, at the other end of the tour route, was likewise flooding the tour road. As a result, self-guided tours were down slightly from

the 1,000 visits reported in 1982. The tour route parallels the Green River, with overlooks and interpretive signs for three marshes.

#### 7. Other Interpretive Programs

Educational and wildlife films are shown at the Browns Park school and refuge office for students, visitors and local residents. Field activities that promote environmental education and public support of refuge objectives are hosted during the year.

Refuge leaflets are available at the Maybell Store (60 miles), the Craig Chamber of Commerce and BLM office, Craig, Colorado (85 miles from the refuge). Refuge leaflets have been sent to the Powell Society in Denver, who print a river guide to the Green and Colorado Rivers, and to Dinosaur National Monument headquarters where the guides are sold. The leaflets are distributed with the guides, so rafters will know the regulations.

#### 8. Hunting

The entire refuge, except posted areas around residences and buildings, was open for cottontail rabbits and mule deer hunting. Cottontail rabbits could be hunted from September 10 through the last day of February 1984. The refuge incurred an estimated 350 visits by small game hunters, accounting for approximately 1,050 activity hours of quality hunting.

In the two deer seasons (12 days total), 161 hunters were checked with a total of 100 mule deer (71 bucks and 29 does). An estimated 120 deer were taken by hunters in 505 visits. In 1982, by comparison, 63 hunters were checked with a total of 53 deer (29 bucks and 24 does). An estimated 60 deer were taken by hunters in 200 visits. (Photo #12.)

The 1983 deer season ran from October 29 to November 2 for the early season, and from November 5 to November 11 for the last season. Archery season and muzzle-loading rifle season were September 10 to October 9 and September 24 to October 2, respectively. Harvest figures were combined for the three hunting methods as only three deer fell to the bow and one to a muzzle-loader. Refuge Manager Jim Creasy accounted for the lone "black-powder buck."

The Green River and 100 yards either side, plus Hog Lake, Butch Cassidy marsh and Beaver Creek, are open to waterfowl hunting. Browns Park is in the Pacific Flyway and the duck season is a split season, October 1 to October 21, 1983, and November 12 to January 22, 1984. Most duck hunting is done in conjunction with goose hunting when the goose season is open. The Browns Park delayed goose season ran from October 29 to December 11, 1983. An estimated 50 geese were taken during the season. An estimated 300 visits and 1,500 activity hours were spent for the combined seasons. Most waterfowl hunting here is by dedicated hunters who return each season.





Photo #12. A hunter from Michigan proudly displays his buck he got on opening morning of the deer season. The Flynn marsh is in the background. R6/9, 10/29/83, JC.

#### 9. Fishing

The Green River is closed to fishing March 1 through June 15 to reduce harassment to nesting waterfowl. Beaver Creek is open to fishing year round. An estimated 1,385 visitors fished on the refuge in 1983, spending some 5,540 activity hours at the sport. The figures are higher than 1982, but are below average for the sport. A prolonged run-off at flood level with poor fishing conditions discouraged many from trying their luck. The most common fish caught in the Green River are the rainbow and Snake River cutthroat trout, with an occasional brown trout and catfish. Brook trout are more commonly caught in Beaver Creek, along with a few brown trout.

#### 12. Other Wildlife Oriented Recreation

The majority of our visitors come for wildlife oriented activities. They camp in one of the two refuge campgrounds to hunt or fish, or just to observe the wildlife. Boating and rafting are becoming increasingly popular ways of seeing the refuge.

#### 17. Law Enforcement

Law enforcement on the refuge is kept low key, but highly visible. Special enforcement patrols are made for the opening of the fishing

season and regularly during the hunting seasons. During the rest of the year, visitors are contacted as they are encountered in conjunction with other duties, as time, fuel and manpower do not allow for special trips. Regulations are casually discussed, questions answered and problems therefore are generally averted. Schedules are worked out so that someone will be on the refuge at all times, for the protection and safety of visitors, the wildlife resources, equipment and facilities. Several violations were noted this year, but most were turned over to the Colorado Division of Wildlife for prosecution. The following types of violations were handled:

- Fishing without a license, littering and camping outside of a designated campground. Individuals were given the choice of cleaning up their campsite or receiving a fine for littering. They chose to clean up the site, but were assessed a fine for not having a fishing license.
- Possession of one antelope over limit. Animal was confiscated by State and donated to a needy family. No charges were assessed due to circumstances and lack of witnesses. The antelope was from a State hunting area.
- Failure to tag deer and leave evidence of sex on carcass. State dismissed individuals with a warning and returned their confiscated deer.
- Possible breaking and entering of camper belonging to another. After complete investigation, individual was released without charge.

## I. EQUIPMENT AND FACILITIES

### 1. New Construction

Sidewalks were poured around quarters #95, the dock at the oil house was extended and a concrete apron poured in front of the service bay of the shop.

Some landscaping was done around the office. (Photo #13.)

### 2. Rehabilitation

The remainder of the outlet and water control structures (those not done last year) in the Grimes unit were reinforced and stabilized. The ponds were dried and earthen fill put around the structures and tamped to stabilize the structures and provide access to the stand pipes to put in and remove the stop boards. Some rehabilitation work was done on the pumpsite after the high water damaged it.

Nesting and resting islands (dirt) in the Horseshoe marsh were rebuilt.



Photo #13. Bob Harding and Mitch Ellis placing native stone on berm around the office. R3/16, 6/10/83, JC.



Photo #14. Bob Harding and Mitch Ellis check out the Spitzie pump before the motor was removed to prevent possible damage if the water got any higher. Luckily, the water did not get any higher. R4/3, 7/7/83, JC



The entrance road, parking lot and compound areas in front of the shop and around the fuel pumps received 3-4 inches of gravel.

Some repair work on the pumpsite at Spitzie was required after the high water washed out material from behind the bulkhead. (Photo #14.)

Some rehabilitation work was done in the Nelson marsh to open it up to increase waterfowl use. A 1.4-mile borrow was pushed out around the edge of the marsh and the spoil used to construct islands.

The diversion pond and ditch for Butch Cassidy marsh were cleaned out and rebuilt. (Photo #15.)



Photo # 15. Bob Brown (R0) looks on as Bob Harding cleans out the diversion pond for Butch Cassidy marsh. R6/3, 10/27/83: JC.

### 3. Major Maintenance

The Spitzie pump (14") was pulled, overhauled and put back into service by refuge personnel.

### 4. Equipment Utilization and Replacement

The radiator on the D-7 Caterpillar was removed, cleaned out and put back on. Also, the heads were rebuilt, the tracks replaced and a ROPS was installed on the D-7.

A new one-ton, dual-wheeled 4x4 Chevrolet pickup was received to be used as a fire fighting vehicle. A new falcon attack system slide in the fire pumper was purchased to fit in the truck. The fire pumper came in without the gas tank, but by the time the gas tank arrived, it was too late to try out the pumper.

A requisition was sent in to purchase two new diesel pickups (a 4x2, 3/4 ton and a 4x4, 1/2 ton) to replace the two GSA pickups we now have.

We have been having a lot of problems with GSA on the billings and in the winter we are 150 miles from the Motor Pool. If we take the trucks in to get them worked on, they will no longer give us a substitute vehicle. So, if it is something major and we have to leave the vehicles, we must take two vehicles in order to have a way back to the refuge. Hopefully, we will receive the new vehicles by the early summer of 1984.

A new electric refrigerator and kitchen range were purchased and installed in Quarters #1.

A new Johnson 9.8 HP outboard motor was purchased to replace the old frozen up Evenrude.

#### 5. Communications Systems

We are still having problems with our Motorola radio system at the new headquarters. We changed antennas, but that didn't seem to help. We then moved the base station and antenna from the office to the shop and put the original antenna (an omni) back on. The shop is quite a bit higher than the office and the radio worked fine for awhile. We do not keep the shop as warm as the office and now, when it gets very cold outside, we can't open the repeater on Blue Mountain. We have had the base in twice and checked out and they can't find anything wrong with it. We were also told that the cold shouldn't affect it. Hopefully, it will warm up soon and solve our problem.

The Union Telephone Company is in the process of installing a new system, which is supposed to be an improvement. So far, it has been worse. When a caller does get through the phone usually goes dead after a few minutes. Sometimes the phone is out for several days at a time. Many people are unable to locate us by phone as we are in Colorado, the phone company is in Wyoming and the exchange is in Utah.

#### 6. Energy Conservation

A new wood burning stove was installed in the basement of Quarters #95, along with vents to the upstairs. An insert was installed in the fireplace of Quarters #1. Both greatly improved the efficiency of heating the two quarters involved.



## J. OTHER ITEMS

### 1. Cooperative Programs

A weather station was maintained at the sub-headquarters and daily temperatures and precipitation recorded in cooperation with the Weather Bureau.

The air quality tester that was set up in September 1979 in cooperation with the University of California, Davis, is still in operation. The air filters are changed twice a week and sent in weekly. It samples the air for the EPA Fine Particulate Network.

### 2. Items of Interest

The in-lieu of tax check (\$11,773.00) was presented to the Moffat County Treasurer.

In April, Jim Sellers got a well deserved promotion and transferred to the Fort Niobrara-Valentine NWR complex at Valentine, Nebraska. Jim has been missed very much at the refuge and in the community. Over 70 people attended his farewell party and dance at Lodore Hall. (Photo #16.)



Photo #16. Jim Sellers trying to cut his farewell "foam rubber" cake as well wishers cheer him on. Personal photo.

In August, Don Clapp transferred in from the William L. Finley NWR at Corvallis, Oregon, to fill the Assistant Refuge Manager position. Don, his wife Louise, and their two sons are a welcome addition to the refuge and the community.

Browns Park NWR lost a great supporter, friend and volunteer when James "Les" Carroll suffered a fatal heart attack on May 16, 1983.

Bob and Ruthie Harding, and Penny Creasy were instrumental in organizing and searching for a two-year old girl who was lost near the refuge in January. Luckily, she was found safe just at dark after wandering for about eight hours.

In January, Creasy and Sellers attended the Region 6 Project Leaders' meeting in Denver.

The Tri-State Big Game meeting (Colorado-Utah-Wyoming) was held at the refuge office. Representatives from the USFWS, BLM, USFS, NPS, Colorado Division of Wildlife, Utah Division of Natural Resources, and Wyoming Fish and Game Department were in attendance and discussed management of the big game herds in the Tri-State area.

Phil Norton visited the refuge in April for a get-acquainted visit and discussed programs and management.

In May, Creasy attended two days of Administrative Training in Denver.

Bob Harding attended a black-footed ferret workshop at Dinosaur National Monument, Dinosaur, Colorado in June.

Bob Harding assisted four Girl Scouts from Green River, Wyoming, with their wildlife and conservation badge work.

Personnel attended several meeting of the Tri-State Law Enforcement Association at various locations in the Tri-State area. This is a multi-agency organization of law enforcement personnel from State (Colorado, Utah, Wyoming), City, County and Federal agencies.

In September refuge personnel helped the Brown's Park Ladies Club with their annual turkey shoot.

Refuge personnel and their families attended a potluck and annual social gathering with the Colorado and Utah Division of Wildlife families at Charlie and Carie Brown's (Colorado DOW) at Sunbeam, Colorado.

Penny Creasy served as President of the Brown's Park Homemaker's Club.

In September, Creasy and Harding attended an Annual Work Plan and Law Enforcement workshop at Alamosa-Monte Vista NWR. They qualified with their Service revolvers while there.

Phil Norton and Bob Brown from the R0 conducted an inspection of the refuge in October. (Photo #17.)



Photo #17. Phil Norton and Bob Brown look over the Hoy marsh during a break while inspecting the refuge in October. R6/7, 10/27/83, JC.

Jim and Penny Creasy attended regular meetings of the Browns Park Sportsman's Club. Jim was elected Vice-President at the August meeting.

In December, Jim and Penny Creasy attended the annual Ducks Unlimited banquet in Craig, Colorado.

In June, water releases from Flaming Gorge Dam was increased greatly due to the unexpected run-off. Water eventually went over the spillway and 13,200 cfs was being released into the Green River. The usual releases are between 800 to 4,000 cfs. The Taylor Flat Bridge (about 10 miles upstream from the refuge) washed out on June 12. It is to be replaced in the near future by a steel and concrete bridge. (Photos #18 and #19.)



Photo #18. The Taylor Flat Bridge in Utah with 8,200 cfs coming down the Green River. R3/11, 6/7/83, JC.



Photo #19. Part of the Taylor Flat Bridge floated downstream on June 12. This is the bridge we formerly used to move our heavy equipment across the Green River. R3/20, 6/12/83, JC.



### 3. Credits

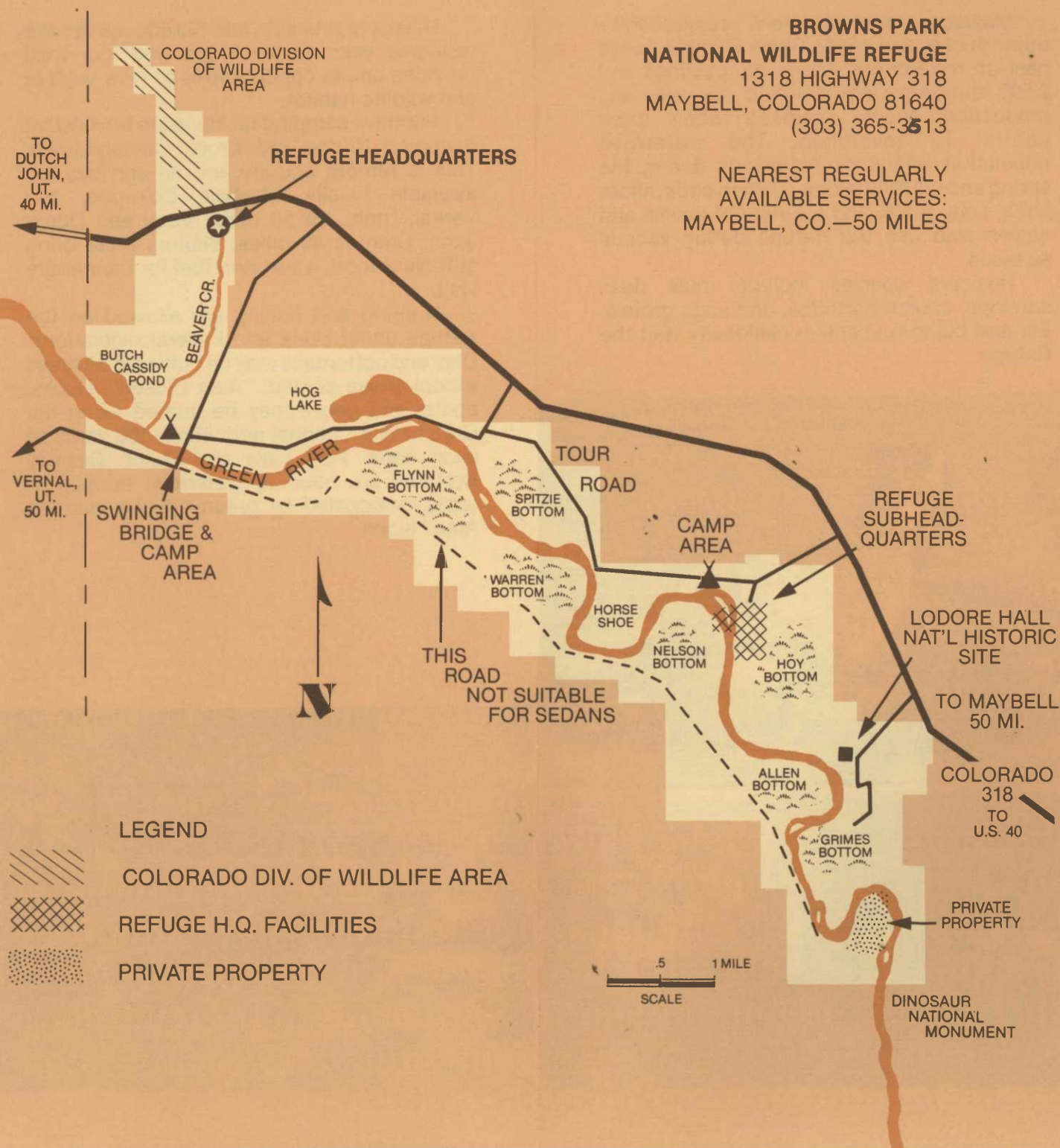
Bob Harding wrote Parts B and H. Don Clapp wrote Part G. Jim Creasy wrote the remainder of the report. Norma Wardle did the difficult part--she deciphered, typed and assembled the report.

I apologize for the dark photos. We either need our camera repaired, or a new photographer.



**BROWNS PARK  
NATIONAL WILDLIFE REFUGE**  
1318 HIGHWAY 318  
MAYBELL, COLORADO 81640  
(303) 365-3513

NEAREST REGULARLY  
AVAILABLE SERVICES:  
MAYBELL, CO.—50 MILES



#### GENERAL REFUGE REGULATIONS

- Motor vehicles are allowed only on roads. Closed roads are marked with signs.
- Parking is permitted along roadways. Please do not block roads or gates.
- Pets must be leashed or closely supervised.
- Plants and animals are protected. Do not remove or molest them.
- Please use trash barrels or take litter out with you.
- Boating is permitted on the Green River.
- Camping is allowed only in the Swinging Bridge and Crook Campgrounds.
- Fires are permitted only in camp areas.
- Firearms must be unloaded and cased on the Refuge except during authorized hunting seasons.
- The Green River is closed to fishing from March 1 - June 15.
- Please contact a refuge officer if you have questions on regulations or on other activities.

U.S. FISH AND WILDLIFE SERVICE  
Department of the Interior



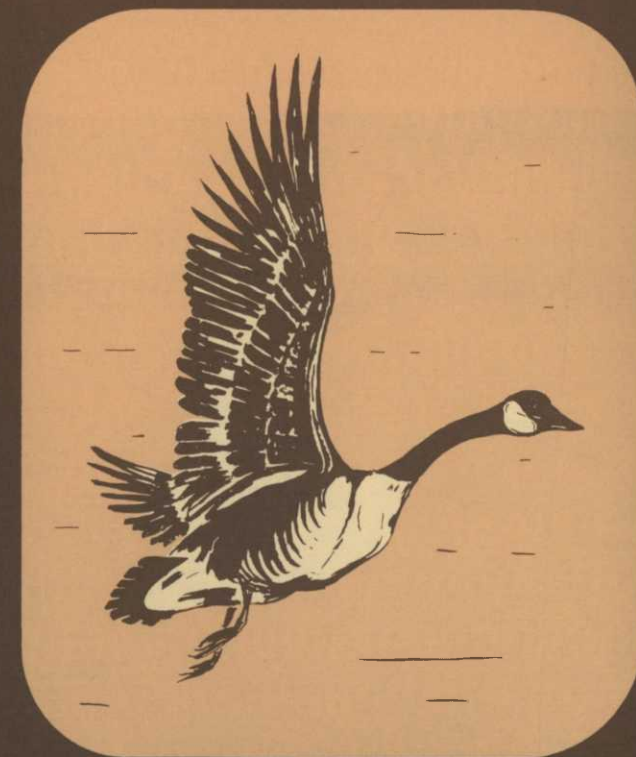
RF6-65571-1



Reprinted July 1983

# BROWNS PARK

## NATIONAL WILDLIFE REFUGE





## THE REFUGE

Browns Park National Wildlife Refuge lies on the Green River in the far north-western corner of Colorado, between the Utah-Colorado stateline and Dinosaur National Monument. The Refuge is managed by the U.S. Fish and Wildlife Service as a nesting and resting area for migratory waterfowl.

In pristine times, annual flooding of the Green River maintained the wet meadows preferred by nesting waterfowl. Flaming Gorge Dam now prevents this flooding. Consequently, refuge personnel now pump water from the river to maintain approximately 6,000 acres of developed waterfowl habitat.

This semiarid region receives less than 10 inches of precipitation annually. Ducks, geese, and other water birds travel hundreds of miles to utilize this unique habitat.

*Spitzie Marsh - U.S.F.W.S. photo - J.L. Sellers.*



## HISTORY

The sheltered valley and abundant wildlife of the Green River lured Indians and fur trappers. "Browns Hole", as it was then called, was a favored winter rendezvous as far back as 1826. By the 1890's, Butch Cassidy and other cattle rustlers used this remote area to rest and hide their stolen herds. Browns Park was the winter headquarters for some of the larger livestock operations in the West, including Ora Haley's Two Bar Ranch.

*Lodore School National Historical Site - U.S.F.W.S. photo - Jim Creasy.  
Two-Bar Ranch National Historical Site - U.S.F.W.S. photo - Jim Creasy.*



## WILDLIFE

Mallards, redheads, teal, canvasbacks, other ducks, and Great Basin Canada geese nest on the Refuge. About 300 goslings and 2,500 ducklings are hatched annually and production should increase when more habitat is developed. The waterfowl population swells by thousands during the spring and fall migrations. Wading birds, shore birds, song birds, and a variety of hawks and eagles also use the Refuge during various seasons.

Resident species include mule deer, antelope, chukar partridge, and sage grouse. Elk and bighorn sheep occasionally visit the Refuge.



## ENJOYING BROWNS PARK

Hikers, sightseers, and photographers are welcome year round. A graveled tour road provides ample opportunities to view wildlife and wildlife habitat.

Primitive camping facilities are provided at Swinging Bridge and Crook Campgrounds. This is remote country and no services are available locally. Maybell, Colorado, and Vernal, Utah, are 50 miles away and Dutch John, Utah, is 40 miles. Visitors must bring sufficient food, water, and fuel for their entire visit.

Hunting and fishing are allowed on the Refuge under State and Federal regulations. Deer and cottontails may be hunted in all areas except those posted, "Area Closed". Ducks, coots, and geese may be hunted along the Green River channel and within 100 yards of each bank. Hog Lake and Butch Cassidy Bottoms are open to waterfowl hunting in areas designated by green "Public Hunting Area" signs.

*Left: Canada Goose - U.S.F.W.S. photo - Rex Gary Schmidt. Pronghorn Antelope - U.S.F.W.S. photo - Jim Creasy.  
Below: Cattle Crossing Swinging Bridge - U.S.F.W.S. photo - Jim Creasy.*

