

REVIEW AND APPROVALS

GRULLA NATIONAL WILDLIFE REFUGE

Arch, New Mexico

ANNUAL NARRATIVE REPORT

Calendar Year 1991

Donald R Clapp  
Refuge Manager

4-17-92  
Date

Billy J. Newtome  
Associate Manager Review

7-31-92  
Date

James M. Wagner  
Regional Office Approval

8/19/92  
Date

## I N T R O D U C T I O N



GRL1-12/91

DRC

Sunrise over Salt Lake.

Grulla National Wildlife Refuge is located in Roosevelt County, New Mexico near the small town of Arch, approximately 25 miles northwest of the Muleshoe National Wildlife Refuge. The refuge comprises 3,236 acres. The saline lake bed of Salt Lake consists of 2,330 acres and the remainder of the refuge is grassland. Grulla was officially established as a National Wildlife Refuge on November 6, 1969 by Public Land Order No. 4742 transferring the land from BLM.

The refuge is beneficial as a wintering area for lesser sandhill cranes during wet periods when the lake holds water. Although the flat lake bed is often dry or nearly dry for several years in a row, when sufficient water is present large concentrations of cranes use the refuge as a roosting site.

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K. FEEDBACK NTR

L. INFORMATION PACKET

(Inside Back Cover)

### A. HIGHLIGHTS

- Salt Lake held water this year (F.2).
- Spring winds buried the refuge fence with sand (I.2).

### B. CLIMATIC CONDITIONS

Precipitation was above average this year totaling 21.18 inches. Only 12.40 inches were received during 1990. Total snowfall reported in 1991 was 20 inches with heaviest snowfall occurring in January, March and December.



GRL2-11/91

DRC

Frequent strong spring winds occasionally blocked the entrance road with tumbleweeds.

Weather during February through June was exceptionally windy. Rainfall was adequate beginning in late spring and continuing throughout the summer.



GRL3-11/91

DRC

Blowing tumbleweeds - along parking area fence.

Moisture received the remainder of the year provided enough water in Salt Lake to provide roosting sites for migrating and wintering sandhill crane populations.

## E. ADMINISTRATION

### 1. Personnel

No personnel are stationed at the refuge. The refuge is administered from Muleshoe NWR which is part of the Buffalo Lake NWR Complex.



GRL4-12/91

DRC

Johnny Beall - Complex Manager, GS-11, PFT,  
Buffalo Lake NWR - Complex Headquarters



GRL5-12/91

GKC

Don Clapp - Refuge Manager, GS-9, PFT



GRL6-12/91

DRC

Glenda Copley - Office Assistant, GS-6, PFT



GRL7-12/91

DRC

Dean Gilliam - Maintenance Worker, WG-8, PFT



GRL8-7/91

DRC

Larry Brotherton - Maintenance Worker, WG-6, PT  
EOD - 5/91, Terminated 9/91

Complex Manager Beall presented Refuge Manager Clapp with a certificate and cash award for Sustained Superior Performance.

4. Volunteers

Raymond Stokes, who lives three miles northwest of the refuge at Arch, New Mexico, was a refuge volunteer throughout the year. Mr. Stokes maintained precipitation records and also reported general observations of waterfowl and sandhill crane populations in the area.

5. Funding

Refuge Funding FY 87-91

<u>FY</u>	<u>1260</u>		<u>8610</u>
	<u>Total</u>	<u>ARMMS</u>	
91	1,200		
90	2,300		
89	2,000		107
88	5,000		100
87	4,000	4,000	

6. Safety

Monthly safety meetings were conducted at the Muleshoe NWR.

8. Other Items

Training and Meetings

Muleshoe NWR personnel

Refuge Manager Clapp

- Project Leaders Meeting, Clute, TX, January 28-30.
- USFWS Water Rights Training, Austin, TX, February 12.
- Law Enforcement Refresher Training, Marana, AZ, March 4-8.
- Programmatic Evaluation of Buffalo Lake NWR, Umbarger, TX July 22-23.

- Regional Programmatic Meeting, Albuquerque, NM, August 12-16.
- Umbarger Dam Modification Project Briefing, Umbarger, TX, August 28
- Firearms Requalification, Elk City, OK, October 10.
- Texas Parks & Wildlife Department Wildlife Symposium, Lubbock, TX, November 13.
- Texas Department of Agriculture Pesticide Application Training, Lubbock, TX, December 18.

Office Assistant Copley

- WordPerfect Desktop Publishing Computer Training, Amarillo, TX February 22.
- PC Tips Seminar, Lubbock, TX, March 7.
- Regional Administrative Conference, Albuquerque, NM, May 21-24.
- MS DOS Computer Training at Administrative Conference, Albuquerque, NM, May 22.

Maintenance Worker Gilliam

- Texas Department of Agriculture Training, Lubbock, TX December 18.

#### F. HABITAT MANAGEMENT

##### 1. General

The refuge comprises 3,236 acres of which 906 acres are grassland and 2,330 acres are saline lake bottom.

## 2. Wetlands

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GRL9-8/91

DRC

Salt Lake remained dry until fall

During April there were traces of water in Salt Lake due to spring rains. The lake bottom remained dry until late summer. Due to increased rainfall there were nearly 1,600 surface acres in the lake during September and October. By mid-November the lake was somewhat lower but held several hundred acres of water the remainder of the year.



GRL10-10/91

DRC

Salt Lake had not held this much water in years

There is no management of the lake basin since part is privately owned as well as is most of the lake access.



GRL11-10/91

DRC

Water in the east end of Salt Lake



GRL12-10/91

DRC

During the fall Salt Lake was 80% full

5. Grasslands

Except for a small area adjacent the entrance road the refuge boundary is not fenced since it extends through the lake bed in several areas. Although acquisition of an abandoned road right-of-way in 1983 allowed access to a small portion of the refuge, acquisition of adjacent land would be required before any boundary fencing could be accomplished.



GRL13-11/91

DRC

A fenced portion of refuge grassland

7. Grazing

Cattle from adjacent lands have grazed on the refuge grasslands since 1969 when the land was acquired from the Bureau of Land Management and fencing was determined to be unfeasible.



GRL14-11/91

DRC

Cattle from adjacent lands are free to graze much of the refuge's grasslands

#### G. WILDLIFE

##### 3. Waterfowl

The only ducks observed on the refuge included eight blue-winged teal in August and twelve shoveler during November.

Although few geese were seen on the refuge a few thousand Canada geese used adjacent lands during January, November, and December.

4. Marsh and Water Birds

GRL15-11/91

DRC

Sandhill cranes leaving Salt Lake

Lesser sandhill cranes were roosting at the refuge this year as long as some water was available which was October and through mid-November. The peak number counted was 8,000 in November while several thousand were seen adjacent the refuge and a few thousand cranes roosted on Salt Lake throughout December.



GRL16-11/91

DRC

Crane use on Salt Lake was higher than it had been for several years.

Twelve white-faced ibis were observed at Salt Lake during August.

5. Shorebirds, Gulls, Terns, and Allied Species

There was some shorebird use on Salt Lake beginning in August when it held water. One of the most prevalent species was Wilson's phalarope. Other species present included avocet, black-necked stilt, Baird's sandpiper, least sandpiper and killdeer.

Wildlife surveys are quite difficult to conduct since there are no access roads around Salt Lake.

6. Raptors

Golden eagles were occasionally seen on the refuge or nearby. Others observed included Swainson's hawk, northern harrier, American kestrel, red-tailed hawk, and burrowing owl.

10. Other Resident Wildlife

Ring-necked pheasant, scaled quail, and lesser prairie chicken were often seen on or near the refuge.

## H. PUBLIC USE

### 1. General

Nearly 1,000 visitors used the refuge compared to 590 last year. Many of the refuge visitors are from the Portales, New Mexico area, approximately 30 miles west of the refuge. The Eastern New Mexico University is at Portales.

During recent years improvements to the refuge have included an entrance road, parking area, interpretive trail and signs, entrance signs, and a traffic counter.

### 11. Wildlife Observation

The majority of the public use at Grulla pertains to wildlife/wildlands observation. There are no facilities on the site.

### 17. Law Enforcement

Enforcing refuge regulations at Grulla is difficult because of the distance from Muleshoe NWR and few available personnel. There is only one staff member at the Muleshoe NWR with law enforcement authority.

During the year occasional vandalism has occurred at the refuge parking area. Mostly, damaged signs, damaged parking barriers, and littering.

## I. EQUIPMENT AND FACILITIES

### 2. Rehabilitation



GRL17-11/91

DRC

Strong winds nearly covered much of the refuge fence with sand

Continuous spring and early summer winds nearly covered the refuge fence with sand adjacent the east end of Salt Lake. The fence was temporarily repaired to keep cattle out of the refuge grasslands.



GRL18-12/91

DRC

There is a fence under here



GRL19-11/91

DRC

Work began in November in clearing out the fence

A busy work schedule finally allowed work to begin during late November in removing sand from the fence with a backhoe.

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GRL20-12/91

DRC

A backhoe was used to uncover the refuge fence

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GRL21-12/91

DRC

Sand was cleared from the fire lane and fence

J. OTHER ITEMS4. Credits

This report was written by Manager Clapp and printed and assembled by Office Assistant Copley.

Photograph credits: DRC - Don Clapp, GKC - Glenda Copley.

# GRULLA NATIONAL WILDLIFE REFUGE

ROOSEVELT COUNTY, NEW MEXICO

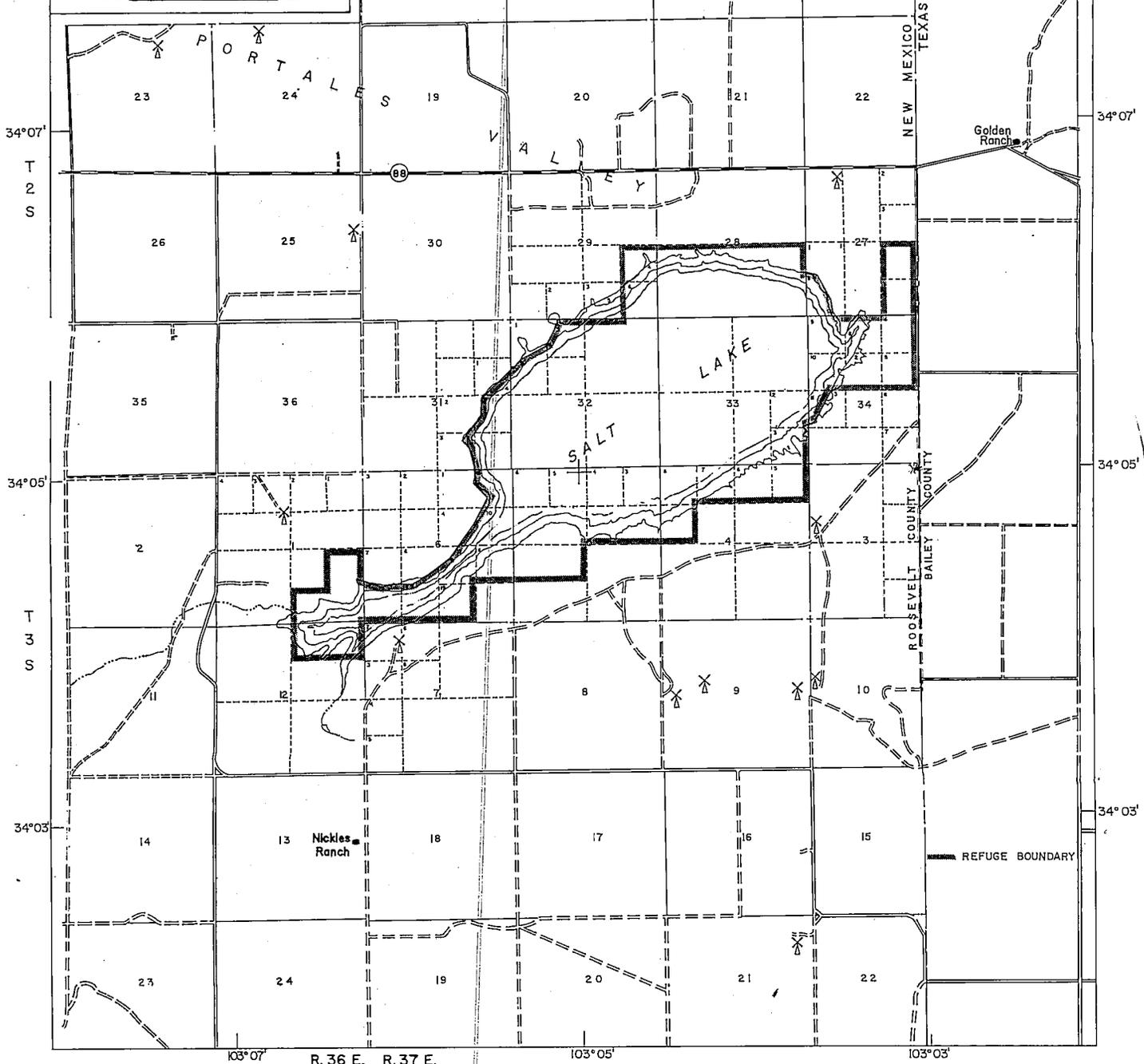
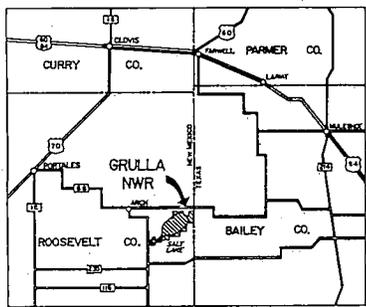
UNITED STATES  
DEPARTMENT OF THE INTERIOR

FISH AND WILDLIFE SERVICE  
BUREAU OF SPORT FISHERIES AND WILDLIFE

R. 36 E. R. 37 E.

103° 05'

103° 03'



COMPILED IN THE DIVISION OF ENGINEERING  
FROM G.L.O. PLATS, U.S.G.S. QUADRANGLES,  
AND OTHER OFFICIAL INFORMATION, REVISED JANUARY 1972

SIXTH PRINCIPAL MERIDIAN



6	5	4	3	2	1
7	6	5	4	3	2
8	7	6	5	4	3
9	8	7	6	5	4
10	9	8	7	6	5
11	10	9	8	7	6
12	11	10	9	8	7
13	12	11	10	9	8
14	13	12	11	10	9
15	14	13	12	11	10
16	15	14	13	12	11
17	16	15	14	13	12
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33	32	31	30	29	28
34	33	32	31	30	29
35	34	33	32	31	30
36	35	34	33	32	31
37	36	35	34	33	32
38	37	36	35	34	33
39	38	37	36	35	34
40	39	38	37	36	35

TOWNSHIP  
DIAGRAM

TRUE NORTH  
MAGNETIC N

MEAN  
DECLINATION  
1965

ALBUQUERQUE, NEW MEXICO

JUNE, 1970

2R N.MEX. 814 404