

NARRATIVE REPORT  
SALTON SEA NATIONAL WILDLIFE REFUGE  
CY 1980


UNITED STATES DEPARTMENT OF THE INTERIOR  
FISH AND WILDLIFE SERVICE

SALTON SEA NATIONAL WILDLIFE REFUGE PERSONNEL

CY 1980

1. Laurence N. Dean	Refuge Manager
2. Francis Sakaguchi (EOD 4-80)	Assistant Refuge Manager (CS)
3. Virginia Meyers (EOD 3-80)	Clerk Typist (PPT)
4. Jose Barros	Equipment Operator (PFT)
5. Nestor Gonzales	Equipment Operator (CS)
6. Richard Marquez	Crane Operator (PFT)
7. Marcos Orozco	Maintenance Worker (CS)
8. Lee Laizure	Eng. Equip. Mechanic (PFT)
9. Bruce Hooley	YACC Work Leader
10. Tom Melonson	Co-Operative Education (T)

Reviews and Approvals

  
Submitted \_\_\_\_\_ Date \_\_\_\_\_

Area Office \_\_\_\_\_ Date \_\_\_\_\_

Refuge \_\_\_\_\_

Regional Office \_\_\_\_\_ Date \_\_\_\_\_

## I. GENERAL

### A. Introduction

### B. Climate and Habitat Conditions

1980 was an extremely wet year. The Imperial Valley received 4.35 inches of rain compared to a 67 year average of 2.85 inches. Three inches fell in January and February combined (1.5/month) while not a great deal of rain by some standards, an inch and a half can turn the refuge and surrounding lands into a vast quagmire. Even the wild-life give up. One jackrabbit was rescued that had so much accumulated mud on it's feet and legs it could no longer move.

1980 was also a warm year with a winter low of 39° and a summer high of 116°. The average summer temperature (May-October) was about 110°. Relative humidity ranged from 19% to 49%.

The combination of heavy rains and high temperatures was a fortunate one. The Salton Sea rose 1.4 feet but evaporation claimed .95 for a net rise in elevation of .45 feet.

There were no significant habitat losses as a result of the Sea's rise. During the spring high winds caused severe wave erosion of the dikes, breaching them on four occasions. At least one duck club flooded out and some marginal nesting areas were destroyed.

### C. Land Acquisition

The Bureau of Reclamation has begun to actively work on land acquisition for Salton Sea NWR. The acquisition is part of the proposed mitigation for the concrete lining of the Coachella Canal.

### D. Systems Status

Objectives remain unmodified.

#### SALTON SEA FUNDING 1977-1980

	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>
1210 O&M	172.0	183.0	196.7	205.3
1210 Rehab	50.4	-	(1xO&M)19.0	(1xO&M) 8.0
1210 CM	-	-	19.0	32.0
1240 O&M	16.0	15.7	13.8	14.3
1240 Rehab	-	-	-	-
1240 CM	-	-	<u>10.0</u>	<u>8.0</u>
Total	<u>238.4</u>	<u>198.7</u>	<u>258.5</u>	<u>267.6</u>

MAN POWER FY 1977-1980

	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>
PFT	5	5	5	6
PPT	1	1	1	1
CS	2	2	2	1
Temp	0	1	1	1
	<hr/>	<hr/>	<hr/>	<hr/>
Total	8	9	9	9

BLHP

<u>Project</u>	<u>Year</u>	<u>Amount</u>
Ditch Construction	1978	28.8K
Tile Installation & Cleaning	1978	19.8K
Dike Construction	1980	1,200K

(See Part II, Construction and Maintenance for details of dike construction)

II. CONSTRUCTION AND MAINTENANCEA. Construction

Construction of Sea Walls to protect the remaining dry land on Salton Sea NWR was initiated in the summer of 1980. The NIMA Corporation, a minority business from San Leandro, California, began construction in July by preparing existing dikes to be keyed into the new construction.

The California Department of Fish and Game agreed to allow the Service to remove fill material from lands the Service leases from the Department. The only condition being, that the area must be returned to productive wildlife management at the conclusion of the project. The Division of Engineering prepared a borrow and restoration plan that improved water conservation as well as farming efficiency.

After much debate the Imperial Irrigation District agreed to allow the Service to quarry Rock Hill for rip-rap material. Rock Hill is an inactive quarry site on the refuge and within yards of the centerline of the dike.

The refuge supplied an inspector equipped with a nuclear densitometer, a Dumpey level, a strong will, and a great deal of patience.

Hauling of fill material began on 7 July 1980, and the final job was accepted on 23 October 1980. There were numerous delays due to bad weather and equipment breakdowns. On at least three occasions the inspector required removal of work that was not up to contract standards. In excess of 136,000 yards of fill material were required.

Generation and placement of rip-rap was a separate contract. The NIMA Corporation was the successful bidder and began work on 18 November 1980. As of 22 December 1980, the work was approximately 30 percent complete. NIMA has projected completion of the work by the end of January 1981.

B. Maintenance

Routine maintenance was performed on all vehicles and equipment. The electrical system on the Ford backhoe was overhauled as were the steering clutches on the TD-18. The shop crew rebuilt a border shaper/cleaner. Several pieces of equipment were identified as excess property. Water control structures and ditches on all tracts were cleaned and/or reset.

C. Wildfire

Nothing to report.

### III. HABITAT MANAGEMENT

A. Croplands

In an attempt to cut costs all farming has been turned over to a co-operative farmer. Alfalfa is grown as goose pasture. The refuge receives 25 percent of the crop (standing or harvested) as their share and performs all maintenance on ditches and structures. The Co-operator provides seed, fertilizer, water, and man-power, and must give up all fields to the refuge October thru March. (This period equals roughly 25% when decreased yields are considered. Normally 3-4 cuttings are anticipated on alfalfa during this period. Eight-ten cuttings are made annually). No pesticides may be used, pests are controlled through mowing or grazing. As pest problems occur they are discussed by the refuge manager and the co-operator and a non-chemical means of control worked out.

Most of this year's refuge crop share was utilized by waterfowl. The amount of forage consumed represented roughly 3.6 pounds of alfalfa per goose (snow, Ross, and Canada) per day. During the period the refuge had control of the fields 16,000 geese of all species generated 1,440,000 use days and consumed 2,600 tons of alfalfa. There was additional use of fields by American Widgeon, American Coots and some pintail. Most of this use was late season, generally after the geese had left.

B. Grasslands

Nothing to report.

C. Wetlands

Wetlands management was hampered by the late completion of dike construction. The barrow site was in the center of a major wetland tract on the public hunting area (Hazard Tract). The contractor was not off the area until the Southern migration was well under way and hunting season had begun. We were unable to do any planting and due to problems with new water control structures, had poor water control. Approximately 200 acres of normally available wetlands were not ready for use until late in the season.

Unit I, the refuge's major wetland area, was operational when the migration began and apparently was able to absorb most of the waterfowl use normally associated with the Hazard Tract.

D. Forest Lands

Nothing to report.

E. Other Habitat

Nothing to report.

F. Wilderness and Special Areas

Nothing to report.

G. Easements for Waterfowl Management

Nothing to report.

#### IV. WILDLIFE

A. Endangered and Threatened Species

Yuma Clapper Rail populations were down from previous years. This is due to problems with water control structures on Unit I, our prime rail habitat. We anticipate populations holding at current levels (14 pairs) through 1981. Beginning in 1982 return to normal levels is anticipated. Hopefully restoration of permanent waterflow to an additional 200 acres will result in an increased use by this species.

B. Migratory Birds

Pintail populations continue to fluctuate wildly. Approximately 11,000 birds were counted this year as opposed to 151,000 in 1979 and 128,000 in 1978. Much of this fluctuation reflects continuing adaptation to the absence of the old "hand-out" feeding operation post-season. Valley-wide populations appear unchanged.

American Widgeon show a slight but continuing decline. Populations have been fluctuating between five and nine thousand birds over the last five years. A low of 3,500 was noted in 1977 and 1978.

Snow goose populations continue to display wild fluctuations in numbers and a drastic downward trend. This year's peak population was approximately 13,000 but only 16 percent were juveniles. An accurate count of Ross' geese was not possible but hunter bag showed a definite increase in this species. The Great Basin Canada goose population relapsed from the 1979 peak of 8,000 plus birds and is back down around 4,500-5,000 birds. There has been a steady growth trend since 1970 when the population was recorded at 1,500.

Thirty year trends for these and other prominent species are being investigated and hopefully will be presented in the 1981 narrative.

C. Mammals, Non-Migratory Birds and Others1. Game Mammals

Nothing to report.

2. Other Mammals

Imperial County was placed under rabies quarantine for the entire year. Co-operators and refuge staff destroyed all skunks and racoons observed around the headquarters and residence. One spotted skunk was found in the washing machine at the manager's residence. The machine was replaced.

3. Resident Birds

Nothing to report.

4. Other Animal Life

Nothing to report.

V. INTERPRETATION AND RECREATIONA. Information and Interpretation

All refuge roads were closed to motor vehicles. This was done to encourage visitors to walk or bicycle the road system. The longest trail is one mile and the shortest, three-eighths of a mile. Most visitors were very receptive and understanding during the winter months. As temperatures reached 100-110° there was less understanding.

Two blind sites and the refuge catfish ponds were closed due to conflicts with heavy equipment operation associated with dike construction.

B. Recreation

No programs were presented.

C. Enforcement

Due to manpower shortages, law enforcement time was less than in the past but cases showed a slight increase. Refuge L.E. staff spent a great deal of time riding with the state wardens when they were in the general area.

FEDERAL JURISDICTION

<u>Violation</u>	<u>Number</u>	<u>Fine</u>
Equipment	1	\$ 50.00
Licence	7	325.00
Special Regs.	6	320.00
Overlimit (MB)	1	50.00
Livestock Trespass	1	50.00

Vehicle Trespass	6	315.00
Licence Fraud	2	170.00
Total	<u>24</u>	<u>\$1,280.00</u>

## VI. OTHER ITEMS

### A. Field Investigations

Nothing to report.

### B. Co-Operative Programs

YACC continues to make valuable contributions to refuge operations. The number of enrollees has been decreased to ten and they have been assimilated into the staff. As a result we cannot identify any projects as wholly YACC. The contributions of the enrollees are very important and we would be hard pressed to keep up present standards without them.

### C. Items of Interest

This year marked our first serious effort at planned energy conservation. Four wheel drive vehicles were parked and employees were put on All Terrain Cycles, on foot, and occasionally on horseback. A compact truck was added to the fleet and a crew cab pickup replaced two standard pickups. Last estimate indicated a 52 percent reduction in gasoline and diesel.

A solar hot water heater was installed at the residence but it is too early to tell what effect it will have on electrical consumption.

Non-electrical pre-coolers were installed on air conditioners at the office and residence. Their effectiveness has not been determined.