

*R Narrative
Salton
Sea*

DIVISION OF WILDLIFE REFUGES
PORTLAND, OREGON

February 22, 1974

Refuge Manager, Salton Sea NWR
Calipatria, California

Regional Refuge Supervisor
Portland, Oregon

Planning and Accomplishment Narrative - FY 73

Approval of your FY 73 Planning and Accomplishment Report is
acknowledged by the attached copy of the signed title page.
Please attach this page to your station copy of the report.

A fine report, Steve. Congratulations on a job well done!

Edward J. Smith

Edward J. Smith

Attachment

RFRussell:mz

<i>Russell</i>

PLANNING AND ACCOMPLISHMENT NARRATIVE - F.Y. 1973

Salton Sea National Wildlife Refuge
P.O. Box 247
Calipatria, California 92233

PERSONNEL

Stephen R. Vehrs ----- Refuge Manager
Don V. Tiller----- Ass't. Refuge Manager
Judy Fischer----- Clerk-Typist (part-time)
Jose Barros----- Engineering Equipment Operator (Leader)
Lawrence Laizure----- Engineering Equipment Mechanic
Raymond Ybarra----- Engineering Equipment Operator
Nestor Gonzales----- Engineering Equipment Operator
Richard Marquez----- Maintenceman
Marcos Orozco----- Maintenceman

APPROVED, REGIONAL OFFICE

Submitted by:

Robert J. Russell
Signature

Stephen R. Vehrs
Signature

Asst. Refuge Super.
Title

Refuge Manager
Title

2/22/74
Date

2/6/74
Date

TABLE OF CONTENTS

	Page
I. Highlights Statement-----	3
II. Refuge Accomplishments-----	4
A. Wildlife-Wildlands Interpretation-----	4
B. Environmental Education-----	4
C. Wildlife-Wildlands Recreation-----	4
D. Professional Services-----	5
E. Wildlife-----	5
F. Economic Benefits-----	6

I. HIGHLIGHT STATEMENT - FY 1973

During early October, sub-tropical storm Joanne gave us 1.44 inches of rain in a space of 12 hours. The total for the day was greater than the total rainfall recorded for the entire preceding year. This storm added to the increasing level of the Salton Sea which is at its highest level since 1915 and threatens damage and loss of refuge lands adjoining the Sea.

The storm which occurred on the day before waterfowl hunting season caused the Alamo River to overflow its banks sending water into dry habitat. It was several days before the water finally began receding and habitat began drying out. More precipitation received later in October, plus high winds reflooded these areas consisting mostly of mudflats near the Salton Sea shoreline. Conditions were right for botulism. On November 9 a census of the area showed **1,603** dead birds. These were birds that were obvious, and another 400-500 were estimated to be back in heavy cover along the delta and shoreline. An estimated 1,000 birds appeared to be sick. A three week control program was initiated which resulted in pickup of 4,325 waterfowl and 465 other dead birds. We hospitalized 199 with 111 recovering.

During this report period two parcels of land were added to the refuge totaling 354.67 acres. This land will be a valuable addition to our green browse and grain cropland program. Approximately 700 acres remains to be purchased.

2,352 foot concrete irrigation ditch was installed in tract 1-2 by the Imperial Irrigation District with Bureau reimbursement on lands which we lease from the District. This ditch along with force account leveling of the 100 acre field completes the land improvement project on this tract as agreed to in the land lease. Two other fields remain to be completed in FY 74 and FY 75.

Magma Energy Incorporated along with San Diego Gas and Electric Company undertook to develop geothermal resources on lands bordering the refuge this year. Two production, two re-injection and one monitoring well was drilled and geothermal fluids were tested for steam-heat transfer to drive turbines. Thus far the tests have failed because of a buildup of minerals on the inside of the piping system. Tests continue and other firms are also in the process of acquiring lands for research and exploration. The refuge along with other governmental agencies are monitoring this project closely.

II. REFUGE ACCOMPLISHMENTS

A. Wildlife-Wildlands Interpretation

The activity hours for trails-10 was reduced from planned units of 4,366 to 2,485 because visitors using the trail were encouraged to participate in our banding demonstrations, and therefore the primary purpose of the refuge visit was for the demonstrations-14, which increased from 400 to 1,905 activity hours. The wildlife trail is conducted and primarily aimed at school children. A self guiding trail will be brought up to maintenance standards and will result in increased benefits. We have had excellent results combining banding and demonstrations for the interested public, young and old. The average **turn out** at each days banding was about 125 visitors. We utilized the older children and adults in retrieving the birds from under the net, and the younger children would carry and hold the birds while refuge and California Fish and Game personnel did the actual banding. Interest in this activity is overwhelming and is increasing each year we band.

The output element other programs-15 was increased from 400 activity hours to 1,965 hours. Personnel are frequently requested to provide slide lectures to schools, 4H Clubs, scout groups, service organizations and birding clubs. The need for these programs appears to depend on the willingness of the refuge staff to advertise the availability of the programs. A future public use specialist at this station would certainly be used to a good advantage in this type of output. We do however focus our main efforts towards on-site programs as much as possible.

B. Environmental Education

The professional services-22 rendered by refuge personnel increased ten fold this year from 10 to 100 activity hours. Our services were directed towards marsh management techniques for the area duck clubs. We hope that by helping these people understand the potential value of their club in providing natural waterfowl feed, the practice of supplemental feeding to attract ducks for hunting will no longer be used.

C. Wildlife-Wildlands Recreation

Hunting migratory birds-30 increased from 3,126 to 5,805 activity hours this report period due to acquisition of additional land and adjusting the hunter pressure in given areas. The result was increased wildlife oriented recreational opportunity without decreasing the quality of hunting. We still have three firing lines on private lands adjoining the sanctuary and we hope that one of these can be eliminated and the other two severely-reduced next year through changes in our hunting plan. The waterfowl hunting program conducted jointly by the Bureau and California Department of Fish and Game is generally well accepted. We will continue striving to improve the quality- of the experience.

Saltwater fishing-22 is going down-hill rapidly on the refuge, We have no direct control over the problem and the fisheries biologist say that the resource will no longer be able to survive if the salinity continues to increase. Present salinity is approaching 35,000 p.p.m. and Corvina will not be able to reproduce after 1975. The situation is under study by the Salton Sea Project task-force at the present time. Fishing activity is down from the six year average of 300,000 activity hours to 42,475 hours this year on the refuge.

Wildlife observation-34 increased 41 percent over planned use partially due to the fact that we re-evaluated the difference between wildlife observation and wildlife appreciation-35 which was reduced 53 percent. Between the two outputs we accomplished 98,264 units and only planned for 72,637. Another factor which accounts for the increase is the publicity which we received in newspapers, magazines and television. This is accounted for in public affairs below. We are not properly equipped with sanitary and interpretive facilities to handle the increased use we are realizing.

Professional photography-36 increased from 24 to 166 activity hours. This increase resulted for the same reasons as other forms of similar wildlife-wildlands recreation. We do not offer concealment facilities at the present time and many photographers bring there own.

We did not plan for public affairs-33 output this year, however as the year progressed we ended up with 29 units of this output element.

D. Professional Services

Two non-refuge oriented-50 studies were conducted this year by graduate students and refuge personnel. The studies evolved around the establishment of a cattle egret rookery at the delta of the New River adjoining the refuge boundary. The studies were designed to be continued on a year to year basis and involved banding and color marking of the birds to determine food habits as well as daily and seasonal movements. The banding project accounted **for** the additional unit under the banding-56 element. We had planned for just the post season cooperative duck banding project to meet the California quota. **We** were able to meet the 1,000 pintail quota easily with assistance provided by personnel from the California Department of Fish and Game, as well as previously discussed volunteer help.

E. Wildlife

Special recognition species-71 use was **60** percent greater than planned. Mild weather during peak migration periods accounted for some of the increased use. The Imperial Irrigation District also altered trifolium 12 drain. It now dumps into the Sea at the north end of refuge unit g-10. This made fresh water available on vast mud flats and created ideal shorebird habitat and at the same time the annual botulism threat in the area lessened.

Due to changes in criteria for wildlife diversity-72 the planned 258 species were increased to 351 vertebrate species. This figure should remain relatively constant in future years.

Waterfowl production-50 was down from a planned total of 135 birds produced to flight stage to only 55. The slight drop in waterfowl production was a result of changes in our water management program. Water costs far outweigh the benefits received after most waterfowl move to northern nesting areas. We can reduce water costs substantially by drying up areas early and forcing northward **movement** of these birds which would linger later, and become potential spring botulism casualties.

The only water maintained through the early nesting season is Yuma clapper rail habitat, (endangered species). Other refuge areas are dried for maintenance and reflooding the summer bulrush growth.

Species transplanted-81 and species donated-52 were reported incorrectly and the following explanation will correct the situation. We should not have any species transplanted at this station. However we should have planned for 90 species donated and we accomplished 88 species donated.

F. Economic Benefits

The output element depredations prevented-90 was in error on the computer Printout. The accomplished units should have read 12,950,000 instead of 95,000,000. This would have been very close to the 12,919,690 planned units. Also the RBU value of 20 for depredations prevented was reduced to 10 during the year accounting for the large discrepancy in total RBUs.

The total planned annual benefits were 342,922,000 less the depreciation prevented value change of 129,500,000 which equals 213,422,000 against the accomplished units of 233,019,844 or a net increase of 19,597,844 for Fiscal year 1973.