

Salton Sea National Wildlife Refuge

&

Waterfowl Development Area

XXXXXXXXXXXXXXXXXXXX

NARRATIVE REPORT

January, February, March and April 1950

XXXXXXXXXXXXXXXXXXXX

United States Department of the Interior
Fish and Wildlife Service
Brawley, California

REFUGE PERSONNEL

REGULAR PERSONNEL

Edward J. O'Neill.....Refuge Manager
James H. Hall.....Foreman-Farming Operations
Will T. Wesley.....Refuge Maintenance Man
Clyde W. Stewart.....Tractor Operator
Alfred W. McFarland.....Tractor Operator

TEMPORARY PERSONNEL

John Barros.....Laborer
Jose Barros.....Laborer
Sylvester Barros.....Laborer
W. C. Ford.....Tractor Operator
J. L. Merrill.....Tractor Operator
Melvin Ford.....Laborer
E. E. Nix.....Laborer
Gregorio Paes.....Laborer
J. W. Sexton.....Laborer
E. L. Gash.....Carpenter
W. B. McCullough.....Carpenter
O. Lewis Hensley.....Carpenter
Don Farrell.....Laborer
J. V. Hunt.....Laborer
A. Aquayo.....Cement Finisher

Cover.....Canada Geese

NARRATIVE REPORT

I GENERAL CONDITIONS

A. Weather, Etc.

On January 3rd the mercury made a surprise dip in Imperial Valley when a low of 22 degrees was recorded. Again on January 5th the weatherman chalked up 23 degrees at Brawley, 25 at Calipatria, 27 at Niland, 20 at El Centro and 23 at Calexico.

Following four straight nights of similar frost all squash and most tomatoes were lost. Grapefruit and tangerine harvest was stopped pending damage determination by agents.

Refuge fall planted barley matured poorly and lacked weight of the usual crop. Spring seeded cereals over the area were in greater demand than those planted in the fall, this in direct contradiction to the usual trend here. Little wonder the spring crops did better, the weather had citizens shivering about half the time and cavorting in shirt sleeves the balance of the time. With a mean monthly temperature of 51.7 degrees, the mercury rose from a minimum of 21 degrees of January 4th to a high of 82 degrees on January 23rd. During January the temperatures went over the 70 degree mark 10 days and on only 3 days it failed to exceed 60 degrees. There was 8 nights of freezing temperature during the period. There occurred a number of high winds which brought dust as usual to the general area.

During February the vicinity of Los Angeles officially ended it's drought seige when the seasonal accumulation of rain measured 8.82 inches. The normal seasonal precipitation is 8.52. More rains fell however, as many waded through knee-deep water to obtain help. West Los Angeles, Culver City and Venice were hardest hit by downpours which measured 1.32 inches in downtown L. A.

In some areas residents reported water flowing under their homes and in cases, the flood waters seeped up through the floor!

The last days of March brought the first hint of impending summer weather as the mercury raised to 95 degrees. Mean maximum for the month was 80.7 degrees. Coolest day was the 13th with a reading of 36 degrees. Mean minimum was 49 degrees. There was no rain, snow or fog in the Valley but high winds struck here March 25 and 26 sifting in fine desert silt and sand from the surrounding country.

Tabulations below represent local weather records as compiled by the El Centro Naval Air Station.

<u>MONTH</u>	<u>MAXIMUM</u>	<u>MINIMUM</u>	<u>PRECIPITATION</u>
January	86.0	26.0	0.00
February	85.0	36.0	0.09
March	95.0	45.0	Tr
April	103.0	48.0	0.00
Total.....			0.09

B. Water Conditions

No change.

C. Fires

No fires detrimental to property or wildlife occurred on the refuge area.

II WILDLIFE

A. Migratory Birds

1. Population and Behavior

In mid-January there were an estimated 260 Canada Geese, 200 White-fronts, 2,300 Snows and about 18,000 ducks present.

A few Whistling Swans showed up in early January to make what appears to be an annual visit to Salton Sea.

Peak population figures for various species showed an estimated 40,000 Pintails here in mid-January, 12,000 Baldpates in early February, 15,000 Spoonbills late in February, 15,000 Ruddy Ducks in mid-February, 3,000 Green-winged Teal mid-January and 1,500 Mallards the first part of March.

On April 14, eleven Fulvous Tree Ducks showed up, the first of a small population which annually nests at Salton Sea.

The peak numbers of Canada Geese placed the population at 400. Three strangers surprised us with their presence here at Salton Sea on May 1st, latest of records yet. After a couple of days they took off, apparently bound for more northern climes or perhaps disgusted with the ever rising mercury.

On February 10th, and again March 16th, aerial observations and population figures were obtained for Salton Sea and adjacent Imperial Valley. These excursions, under the capable work of Pilot-Biologist Hanson, will avail the Service with some much needed figures on the overall picture of the Valley's waterfowl populations and the role that Salton Sea Refuge and various State areas play in supporting the wintering birds. The February trip over the Valley showed a grand total of 72,770 ducks and coots and 5,010 geese. The neighboring Palo Verde Valley along the Colorado River netted 8,570 ducks and coots, 270 geese. A complete listing of flights and the various areas will be treated in later reports when additional information is obtained with which to substantiate the general picture.

2. Shorebirds, Gulls and Terns.

On April 14th, 20 Gull-billed Terns were noted on the Unit I area. Later, Caspian Terns and Laughing Gulls showed up. Although excursions to the nesting islands on Salton Sea were impossible, we assume the birds got underway with nesting as usual. An aerial census of mid-March disclosed no birds of any type on the islands at that time.

Harbled Godwits stopped in as early as January 27th this year which is the earliest they have been noted here during recent years.

3. Marsh and Other Water Birds.

On January 13th three Sandhill Cranes came to the Unit II area. They were often seen on this unit and on the State Fish and Game Unit C. Later in the period we observed about 30 cranes in Unit II, a small representation of the flocks which were reported at Salton Sea 10 to 15 years ago.

On March 17th a flight over the Valley in the Services L-5 plane revealed two active heron rookeries along the Alamo River. This information might never have been recorded had not the plane been at our disposal.

4. Other Birds.

A large migrational movement of Turkey Vultures came to the area on January 27th. After resting in the large Athel trees for several days they continued their migration north.

Yellow-headed Blackbirds moved into the general area in fair abundance by mid-April.

During the last days of February, Mr. Couch, Regional Flyway Biologist, visited Salton Sea, making a hurried survey of wildlife species. The following figures were recorded which we are pleased to list here.

Canada Geese	110	White Pelican	110
White-fronted Geese	150	American Egret	90
Snow Geese	800	Brewster's Egret	20
Mallard	1,500	Baird Sandpiper	200
Gadwall	250	Western Sandpiper	20
Baldpate	10,000	Glossy Ibis	250
Pintail	6,300	Black-necked Stilt	40
Teal	23,000	Great Blue Heron	10
(Green-wing	60%)	American Bittern	10
(Blue-wing	10%)	Marbled Godwit	2,000
(Cinnamon	30%)	Avocet	150
Shoveller	15,000		
Canvasback	100	Coot	1,500

B. Upland Game Birds

A number of female pheasants were planted in Unit II by the California State Fish and Game. During alfalfa harvest one operator remarked that it was almost impossible to prevent killing the semi-domestic birds which seemed to walk towards the mower as it made its rounds.

C. Fur Bearers, Rodents Etc.

During the period of January 7th through January 21st, Predatory Animal and Rodent Control men set out poison stations consisting of the new Compound 42 to experiment and determine the effectiveness on various species of (Peromyscus) mice inhabiting the grain storage shed at refuge headquarters.

III REFUGE DEVELOPMENT, MAINTENANCE

A. Physical Development

During the period the new combination generator-wash house, constructed with salvaged materials from the U. S. Navy base at Fort Huene, was painted and partly finished within.

On February 14th work was undertaken at Van Nuys Metropolitan Airport to dismantle three surplus Army Engineers Barracks and two latrines. All usable materials were hauled to Salton Sea for later use in constructing a managers residence.

The task of obtaining these building materials is a story in itself. Top obstacle turned out to be the labor situation at Los Angeles. No one, it seemed, desired short time work. Men were transported from the refuge to Van Nuys in order to accomplish the task.

Construction of the residence house at sub-headquarters in Unit II reached the stage wherein all of the roofing, siding and rough-in plumbing was accomplished at the end of the period.

A load of miscellaneous materials, including steel, insulation, pipes etc was transferred for use in construction from the Sacramento Refuge. The Autocar truck and trailer from the Sacramento Refuge assisted in transferring the materials from Van Nuys to the refuge.

Negotiations with the Imperial Irrigation District resulted in extension of commercial power to subheadquarters without cash outlay.

Work was started on two large type No 12 refuge location signs for use along the State Highways. As time permitted, the lettering was marked and cut for final painting with beaded, light-reflecting paint.

A number of Cottonwood trees were replaced at headquarters.

B. Farming

All flooded contour tracts were drained and on February 26th the work of completely releveling Tract 3, Unit I was begun. This work was followed by replacing the contours, dikes and drop boxes for future farming.

The main farming activities comprised of cleaning more than 11 miles of irrigation ditch, irrigation of 900 acres of barley and irrigation of 400 acres of alfalfa. All this in addition to the completion of seeding activities, leveling of land, construction of roads etc.

On February 23rd an employee suffered a mashed finger while loading a heavy tank at Van Nuys, California. This was the first mishap to any employee since the project was started and

following more than 150,000 miles of vehicular travel and 14,500 hours of tractor operation. Later, another employee suffered a dislocated vertebrae while riding over rough terrain in an unfamiliar section of the newly acquired Unit II.

EV PUBLIC RELATIONS

On January 24th a talk was given and the Service films, "Lower Souris Refuge" and "Haunts For the Hunted" were shown at a joint meeting of the San Bernardino National Audubon Society Club and the San Bernardino County Sportsmans Association.

During March, "Haunts For the Hunted" was shown at the Westmorland Junior High School.

Visitors:

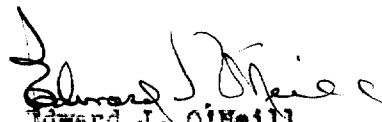
<u>NAME</u>	<u>DATE</u>	<u>ORGANIZATION</u>	<u>PURPOSE</u>
J. Reynolds	1/2	Calif State Warden	Discuss court cases
A. Traub N. Elliot W. Cummings W. Yeager	1/6-7	FWS - Pred & Rod. Con- trol.	Mouse control experi- ment.
F. Gallup	1/10	Banding cooperator	Duck banding
R. Schaar	1/25	FWS - Lands	Inspection of tracts
H. West R. DeCara	1/30	FWS - Engineering	Surveying
R. Hanson	2/10	FWS - Pilot-Biologist	Waterfowl observation
D. Tillotson L. Rubke and others	2/16	Calif State Fish and Game	Tour refuge
L. Couch	2/28- 3/3	FWS - Flyway biologist	Bird census
B. Loveland R. Loveland - Barney C. Lostetter	3/2	Farm Bureau FWS - Depredations	Tour refuge, de- predations " "

<u>NAME</u>	<u>DATE</u>	<u>ORGANIZATION</u>	<u>PURPOSE</u>
K. MacDonald	3/10	FWS - R.O. Refuges	Inspection
J. Salyer	3/11	FWS - C.O. Refuges	Inspection
K. MacDonald		FWS - R.O. Refuges	Inspection
N. Cagle	3/16	FWS - Malheur Refuge	Truck D-7 to Sac.
W. Hartsog	4/1	Imp Irrig Dist Engin- eer	Proposed leaching
W. Rehm	4/4	FWS - Sacramento Refuge	Transfer equipment
W. Bourne	5/15-	FWS - C.O. Refuges	Habitat inspection
R. Fleetwood	21	FWS - R-2 Biologist	
L. Jacoby	5/19- 21	FWS - Engineer	Surveying
W. Anderson	5/1	FWS - R.O. Refuges	Admin. inspection

Violations

There were no violators apprehended during the period.

Submitted November 1, 1950


Edward J. O'Neill
Refuge Manager

Approved: _____

WATERFOWL

Refuge Salton Sea Months of January to May 1950

(1) Species Common Name	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Young Produced		(6) Total Estimated for Period
	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	
I. <u>Swans:</u> Whistling swan			3	1/12	3	1/12			10
II. <u>Geese:</u> Canada goose Cackling goose Brant White-fronted goose Snow goose Blue goose			400 10 320 9400	3/4 1/12 2/4 1/28	3 3 160	5/1 3/4			1000 50 400 12000
III. <u>Ducks:</u> Mallard Black duck Gadwall Baldpate Pintail Green-winged teal Blue-winged teal Cinnamon teal Shoveller Wood duck Redhead Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head Ruddy duck Falvous Tree Duck			1500 10600 12000 40000 15000 7666 4400 15000 800 40 100 200 10 1500 3600	2/28 1/28 2/4 1/22 2/28 2/28 2/28 2/28 4/15 2/4 2/28 4/9 1/28 1/12 1/12					2500 15000 25000 75000 30000 8000 10000 25000 1000 100 150 300 25 2000 5000
IV. <u>Coots:</u>									

SUMMARIES

Total Production: _____

Geese _____

Ducks _____

Coots _____

Total waterfowl usage during period 212,500

Peak waterfowl numbers 50,000

Areas used by concentrations Units I and II and River areas

Principal nesting areas this season _____

Reported by Salton Sea Refuge

INSTRUCTIONS

- (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) **First Seen:** The first refuge record for the species during the season concerned in the reporting period, and the number seen. This column does not apply to resident species.
- (3) **Peak Concentration:** The greatest number of the species present in a limited interval of time.
- (4) **Last Seen:** The last refuge record for the species during the season concerned in the reporting period.
- (5) **Young Produced:** 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.
- (6) **Total:** Estimated total number of the species using the refuge during the period. This figure may or may not be more than that used for peak concentrations, depending upon the nature of the migrational movement.

Note: Only columns applicable to the reporting period should be used. It is desirable that the Summaries receive careful attention since these data are necessarily based on an analysis of the rest of the form.

3-1751
Form NR-1A
(Nov. 1945)

MIGRATORY BIRDS

(other than waterfowl)

Refuge Salters Bay Months of January to April 1945

(1) Species Common Name	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production		(6) Total Estimated Number
	Number	Date	Number	Date	Number	Date	Number Colonies	Total Young	
I. <u>Water and Marsh Birds:</u>									
<u>Glossy Ibis</u>			200	1/13					
<u>American Egret</u>			10	1/13					
<u>Brewster's Egret</u>			20	1/13					
<u>Sandhill Crane</u>			3	1/13					
II. <u>Shorebirds, Gulls and Terns:</u>									
<u>Long-billed Gull</u>			20	1/13					
<u>Dowitcher</u>			700	1/13					
<u>Lesser Yellowlegs</u>			14	1/13					

(over)

(1)	(2)	(3)	(4)	(5)	(6)
III. <u>Doves and Pigeons:</u> Mourning dove White-winged dove	prev	period	300	January	
IV. <u>Predaceous Birds:</u> Golden eagle Duck hawk Horned owl Magpie Raven Crow					
Reported by.....					

INSTRUCTIONS

(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 Gruliiformes)

II. Shorebirds, Gulls and Terns (Charadriiformes)

III. Doves and Pigeons (Columbiformes)

IV. Predaceous Birds (Falconiformes, Strigiformes and predaceous Passeriformes)

- (2) First Seen: The first refuge record for the species for the season concerned.
- (3) Peak Numbers: The greatest number of the species present in a limited interval of time.
- (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 total number of the species using the refuge during the period concerned.

UPLAND GAME BIRDS

Refuge Salton Sea Months of January to April, 1945

(1) Species	(2) Density Cover types, total acreage of habitat	(3) Young Produced Number broods obs'd. Estimated Total	(4) Sex Ratio Percentage	(5) Removals			(6) Total	(7) Remarks
				Hunting	For Re- stocking	For Research		
Pheasant	<u>Tamarix, Atriplex etc.</u>						100	Pertinent information not specifically requested. List introductions here.
Valley Quail	" "						200	

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.

* Only columns applicable to the period covered should be used.

SMALL MAMMALS

Refuge Saltun Den

Year ending April 30, 1950

(1) Species Common Name	(2) Density		(3) Removals					(4) Disposition of Furs				(5) Total Popula tion
	Cover Types & Total Acreage of Habitat	Acres Per Animal	Hunting	Fur Harvest	Predator Control	For He- stocking	For He- search	Permit Number	Trappers Share	Refuge Share	Total Refuge Furs Shipped	
	There are no small mammals of importance seasonally.											

* List removals by Predator Animal Hunter

REMARKS:

Reported by _____

INSTRUCTIONS

Form NR-4 - SMALL MAMMALS (Include data on all species of importance in the management program; i. e., muskrats, beaver, coon, mink, coyote. Data on small rodents may be omitted except for estimated total population of each species considered in control operations.)

(1) SPECIES:

Use correct common name. Example: Striped skunk, spotted skunk, short-tailed weasel, gray squirrel, fox squirrel, white-tailed jackrabbit, etc. (Accepted common names in current use are found in the "Field Book of North American Mammals" by H. E. Anthony and the "Manual of the Vertebrate Animals of the Northeastern United States" by David Starr Jordan.)

(2) DENSITY:

Applies particularly to those species considered in removal programs. 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, bottom land 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) REMOVALS:

Indicate the total number under each category removed since April 30 of the previous year, including any taken on the refuge by Service Predatory Animal Hunter. Also show any removals not falling under headings listed.

(4) DISPOSITION OF FUR:

On share-trapped furs list the permit number, trapper's share, and refuge share. Indicate the number of pelts shipped to market, including furs taken by Service personnel. Total number of pelts of each species destroyed because of unprimeness or damaged condition, and furs donated to institutions or other agencies should be shown in the column provided.

(5) TOTAL POPULATION:

Estimated total population of each species reported on as of April 30.

REMARKS:

Indicate inventory method(s) used, size of sample area(s), introductions, and any other pertinent information not specifically requested.

REFUGEE GRAIN REPORT

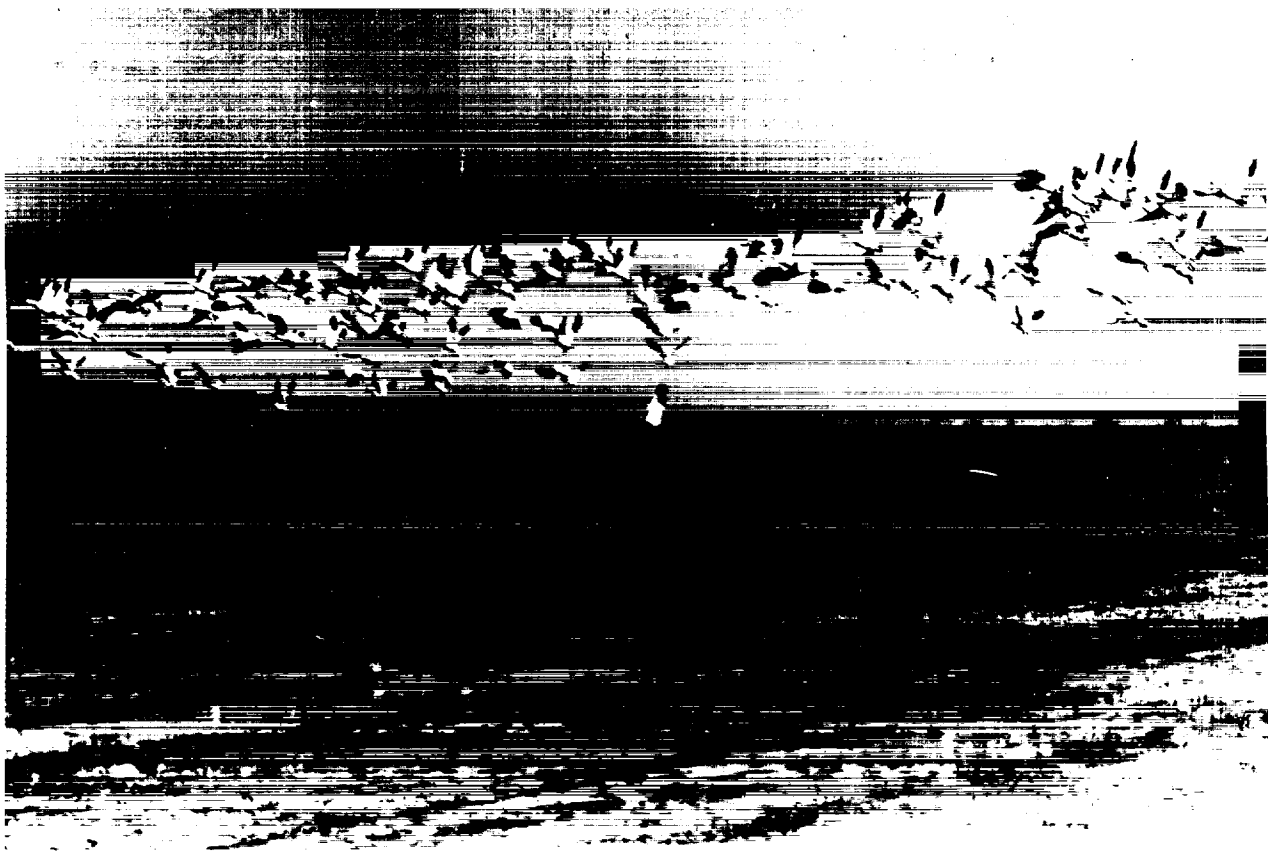
Months of: January thru April 1950.

Refuge: Salton See, Westmorland, Calif

(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 USE	
				TRANS- FERRED	SEED	FEED		SEED	FEED
Barley	800	0	800	0	600	200	0	200	0
Wild Millet	1210	0	1210	0	0	2	8	0	0
<u>Sesbania</u>	1200	0	1200	0	0	0	0		

(8) Shipping point: Westmorland, California.

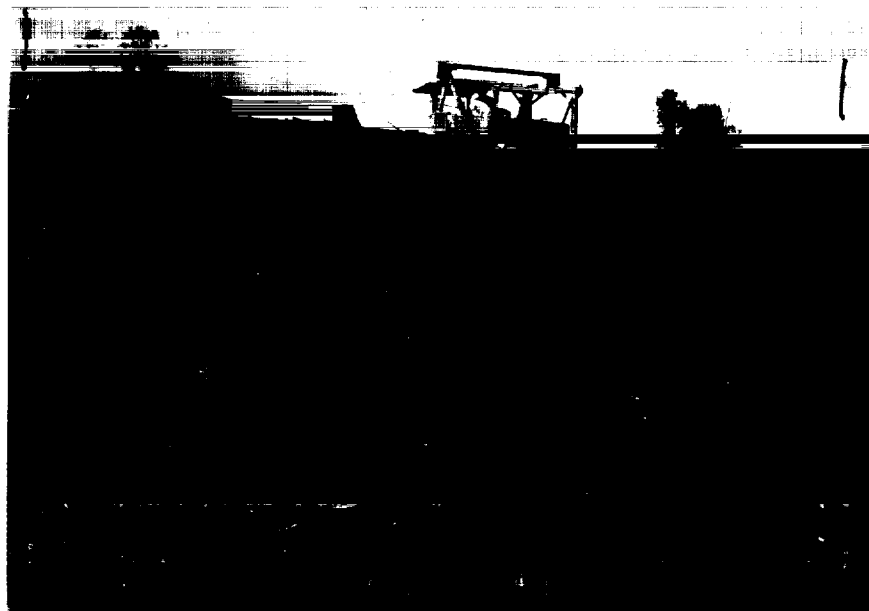
(9) Grain stored at: Refuge headquarters.



Snow Geese alighting in green barley field. Canada Geese in background
Tract 4, Unit I. January 1950



Lands were tilled, leveled and contours rerun----. March 1950
(Oper. C. Stewart - A. McFarland)



Silt was hauled by D-7 and carryall from nearby canal banks to fill in the residence building site depression. Red Hill in background. Oper. C. Ford. March 1950



Barracks buildings before razing. Van Nuys Metropolitan Airport. April, 1950



Removing composition shingles from barracks building during dismantlement. Van Nuys, California. April 1950 (M. Ford)