

STILLWATER WILDLIFE MANAGEMENT AREA
Including
STILLWATER NATIONAL WILDLIFE REFUGE

ANNUAL NARRATIVE REPORT

Calendar Year 1983

U.S. Department of the Interior
Fish and Wildlife Service
NATIONAL WILDLIFE REFUGE SYSTEM



Left to Right: Edward Loth, Morris LeFever, Ernest Lantto, Delvan Lee, Eugene Duffney, Connie Erquiaga and Tracy Sharp 2/84

Personnel

1. LeFever, Morris C. - Refuge Manager - GS/11 - Permanent Full-Time
2. Loth, Edward W. - Assistant Refuge Manager - GS/09 - Permanent Full-Time
3. Duffney, Eugene E. - Maintenance Mechanic - WG/10 - Permanent Full-Time
4. Erquiaga, Connie S. - Refuge Assistant - GS/05 - Permanent Part-Time
5. Lantto, Ernest R. - Heavy Mobile Equipment Mechanic - WG/10 - Career Seasonal
6. Sharp, Tracy M. - Clerk Typist - GS/02 - Temporary Part-Time
7. Graham, Floyd - Engineering Equipment Operator - WG/09 - Career Seasonal - Retired May 28, 1983

Other Personnel

1. Evans, Carol - Biological Technician - GS/05 - Intermittent - Entered on Duty April 11, 1983 and transferred to Ruby Lake NWR

2. Gilchrist, Richard - Laborer - WG/01 - Intermittent - Entered on Duty October 3, 1983 - Terminated October 15, 1983
3. Rodarte, Paul - Laborer - WG/01 - Intermittent - Entered on Duty October 4, 1983 - Terminated October 28, 1983
4. Pierce, Deborah - Laborer - WG/01 - Intermittent - Entered on Duty October 4, 1983 - Terminated October 15, 1983
5. Gould, Marguerite - Laborer - WG/01 - Intermittent - Entered on Duty October 5, 1983 - Terminated November 2, 1983
6. CETA Hire - Guinn, Robbie - Entered on Duty June 13, 1983 - Terminated August 26, 1983

Reviews and Approvals

'Moe' Le Fever
Submitted By _____ Date _____

Paul Waddell 4-11-84
Regional Office Review _____ Date _____
Comment to Ref. 59



Left to Right: Lisa Harris, Crew Leader, Robert Johnston,
Joe Tupin, Roy Garcia and Dennis Miller

Kneeling: Michelle LeFever and Gina Pistone

YAC

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A. HIGHLIGHTS

1. In the Supreme Court, Indians lost nine to zero in the Truckee River case USDI vs TCID.
2. In TCID vs USDI, the District lost its right to operate the Newlands Project.
3. In the historic 65 year old Alpine Case, decision rendered in 1982 over use and allocation of the Carson River waters.
4. Homes flooded in the Bafford Lane area of the Carson River. Sagouspe Dam cut twice this year by TCID because of flooding.
5. Peak flow estimated in the Carson River 3,160 CFS, 260 in the Diagonal Drain and 170 in the D-Line.
6. The new D-Line Canal could have delivered 100,000 AF, but flooding caused us to ask for less and only 29,000 AF delivered after a 20 year effort to get the canal enlarged.
7. Total calendar year 1983 inflows to the SWMA exceeded 496,000 AF. Total inflow to the Marsh 154,000 AF.
8. High water damages Nutgrass dike in the spring and again in the fall.
9. Botulism outbreak in the dune area of the Carson Sink claims an estimated 52,000-55,000 birds.
10. "Duff" presented the Valor Award in Washington, D.C.

B. CLIMATIC CONDITIONS

The 1983 weather pattern was one of the wettest on record, 8.45 inches compared to a normal of 4.73. Evaporation was low also. Reno's 13.3 inches of precipitation set a new record. It's yearly average is 7.20. Fallon's average high temperature for the year was 3.8 degrees below normal and the low was warmer by 2.6 degrees, primarily due to warm mid-pacific ocean storms and cloud cover, rather than northwest ocean or arctic air flows.

Frost-free days were 145, much more than usual. Could be the volcano greenhouse effects are happening here.

January and February were mild with frequent rain and much cloudiness. Heavy rains occurred March 1 and 2. South winds gusting to 60 mph on February 18 caused extensive wave damage to Nutgrass dikes.

Easter saw snow in the morning and hail during the day, as above average precipitation continued through April from severe storms arriving almost every other day. By June, most Sierra snow stations were recording new records in depth and/or water content.

After a near normal summer pattern, mid August saw a return to wet, cool conditions with rain received every day during a two week period. By the end of September, the wet pattern was definitely re-established, as 2.00 inches of precipitation fell the last week. October, November and December was a continuation of above conditions. We appreciated the duck hunting weather, but not losing our desert tans or getting vehicles stuck in the mud.

C. LAND ACQUISITION

1. Fee Title

There is no change in our situation - we have no fee title land. The area continues in existence only by way of the 1948 fifty year Tri-Party Agreement with the Truckee-Carson Irrigation District (TCID) and the Nevada Department of Wildlife (NDOW). There appears to be no chance in the near future to effect a withdrawal of public domain lands as long as the District remains custodians of this Federal irrigation project upon which the cooperative wildlife management area is superimposed.

The decree rendered in the TCID vs USDI case allows BOR to take back the Newlands Irrigation Project due to non-compliance breach of contract, but Reclamation has no interest in an actual take over.

D. PLANNING

1. Master Plan

There was no master planning activity, but with the shift of supervision from the Boise Area Office to the Regional Office, several programmatic inspections were conducted by the Wildlife Resources shop, resulting in a listing of management objectives, outputs and strategies, primarily relating to public use and meeting the I & R Program Management Brief and in shifting management, through proposed step-down tasks, to meet Regional Resource Plan objectives. The glossy white-faced ibis, white pelican and redhead ducks are to be the primary targets of Stillwater's welfare program.

2. Management Plan

There is no station management plan, but the 1984 Annual Work Plan and the Accelerated Refuge Maintenance Program/Capitol Development System Project plans were submitted based on the results of the 1983 Programmatic Evaluation exercises. The fire, sign and grasslands plans were reviewed to determine compatibility with recent shifts in management and output goals.

The ink was hardly dry on Stillwater's new disease plan when a massive botulism outbreak occurred. Based on this experience, it is being revised.

3. Public Participation

There were no formal hearings or meeting with constituents. One grazing permittee became the TCID president and used this position in an attempt to influence the management of the SWMA. Trying another approach when his term expired, this TCID Board member convinced the District to establish a SWMA Advisory Committee. A grazer's committee had been attempted in the past (1950's), but as members could not agree on anything and were continuing long-standing feuds, it came to nought. It was felt that such an advisory group could help communication and management. A similar committee established for the Carson Lake Marsh and Pasture had improved working relationships for several years. At our urging, the Board made a sincere effort to balance membership with an environmentalist, a sportsman, besides both wildlife agencies, TCID and grazers. Only one mild meeting was held in 1983 (August 1), at which LeFever discussed the grasslands and fire plans, grazing rates, grazing, burning, need to cross-fence the North Marsh and planned rest rotation system. The committee approved these proposals in concept, but took no vote or made recommendations to the TCID Board.

4. Compliance with Environmental Mandates

The Nevada Division of Environmental Protection was contacted and approval was granted to conduct prescribed burning under certain conditions related to wind direction and notification of adjacent ranchers and local fire departments. Unsatisfactory conditions prevented prescribed burning this year, but an attempt is planned for early 1984.

5. Research and Investigations

A bid/contract was awarded to complete the annual Aquatic Habitat Survey and a temporary was hired to conduct a nesting study. Results of these are discussed in appropriate narrative sections.

Robert Kelly, under David Hurst Thomas, American Museum of Natural History, fulfilled the terms of the Emergency Antiquities Permit for Archeological Investigations on Stillwater that were initiated in 1981. The final site maps were received in late November. A copy of his Ph.D. dissertation is expected upon completion.

E. ADMINISTRATION

1. Personnel

The number of station personnel and total FTE's, not including YCC or YACC is listed below and on following page.

<u>Fiscal Year</u>	<u>Permanent Full-Time</u>	<u>Part-Time</u>	<u>Temporary</u>	<u>YCC/YACC</u>	<u>FTE Years</u>
1983	3	3	3	7.0	6.60*
1982	3	3	1	3.0	5.88*
1981	2	3	0	2.5	4.70

<u>Fiscal Year</u>	<u>Permanent Full-Time</u>	<u>Part-Time</u>	<u>Temporary</u>	<u>YCC/YACC</u>	<u>FTE Years</u>
1980	2	3	0	2.0	4.77
1979	3	2	0	.5	4.19
1978	6	0	1	.0	6.40
1977	7	1	2	.0	8.35
1976	8	1	2	1.0	9.46

*Assistant Manager position is re-established.

2. Youth Programs

The first YCC program conducted at the SWMA provided opportunities and employment for six enrollees between June 20 and August 12. Robert Johnston, a local vocational agricultural instructor, was selected by the Student Conservation Association as the Crew Leader.

This crew accomplished several needed projects. They hand placed rip-rap around water control structures, picked up trash in high public use areas, painted all sign supports, constructed fence, repaired corrals and repaired exterior fire extinguisher boxes. Biological activities included checking marsh water levels and salinity, helping locate duck nests for the water-fowl nesting study and assisted in picking up birds during the botulism outbreak. Projects were completed at a cost/benefit ratio of \$1.27, average for Region 1. Appraised value of work was \$14,509.

Mr. Johnston provided excellent leadership and supervision to accomplish a successful accident free program.



YCC enrollees placing rip-rap by hand downstream around culvert to prevent erosion of unstable banks. 6/83 EWL



Another YCC project involved removing a barbed wire fence surrounding a designated camping area. This was hardly the ideal camping spot, with no sanitary facilities, shade or water. 6/83 EWL



Not all YCC projects turned out as planned. 8/83 EWL

Great!!

3. Other Manpower Programs

The office staff had additional help between June 13 and August 26 with a CETA enrollee, Robbie Guinn. This appointment was designed to improve her clerical skills.

4. Volunteers Program

A total of 35 people and four airboats were utilized to control botulism.

5. Funding

Despite an increase in funding, actual operational funds were less. Fixed costs (base budget) increased this year, the first full one with an assistant assigned here again. An expected January retirement did not take place until six months later, further eating up the budget. We had projects to accomplish anyway and were glad for the "extra" crew. The NDOW's 1921 fund contribution continued to shrink to a smaller percentage of the total budget, as FWS funds are increased in an effort to keep abreast of inflation.

6. Safety

The station Safety Committee met formally and/or held "tailgate" sessions every month. However, two accidents required submission of DI-134's and CA-1's. One related to a twisted knee when the employee slipped on a submerged tree root while putting chicken wire around trees to prevent beaver damage. The other accident resulted in a twisted elbow caused by a spinning steering wheel as the employee was driving a dump truck in a rock pit.

During the eight week YCC program, there were no reportable accidents for the six enrollees.

A safety inspection was conducted in May during a station programmatic evaluation. The two recommendations made by the Regional Office personnel included moving an empty kerosene barrel from an outside location near the shop and putting new accident report forms in the vehicles.

No reported accidents or safety problems occurred on the area during the year. There were, undoubtedly, some incidents that went unreported by the visiting public.

F. HABITAT MANAGEMENT

1. General

This year started with low salinities in waters of the SWMA and most impoundments at or not to far above operational levels. By May, excellent growths of sago pondweed were noted in most units and this was unusual because vegetative production began so early. Our fears about high water volume, turbid

flows and too deep impoundments were soon realized. Most growth stopped and areas of aquatics noted earlier disappeared.

The aquatic vegetation survey was accomplished. A report was written again this year, as has been done most summers since about 1955. Washington D.C. approval was obtained again this year to use a bid/contract and again it was awarded to Mr. Gene Gerdes for \$1,190. This time the number of units increased to sixteen, as everything was full. For the first time, a statistical analysis was required. (See Table 1)

1. A minimum of 135 transects were run with 675 sample stations.
2. Data recorded at each sample station included water depth, species composition and abundance of submergent vegetation. Water salinity was recorded at the beginning and end of each transect.
3. Comparisons were made between the last three years in each impoundment for the above data. Comparisons were also made between impoundments. The 1983 survey results are as follows:
 1. Surface acres surveyed were 20,950 compared to 18,680 in 1982 and 10,350 in 1981.
 2. Average percent vegetated between years were 24%, 43% and 26% or 5,000 acres, 8,000 acres and 2,700 acres.
 3. Average water salinities (mhos/cm³) were 4,300, 4,300 and 5,600. Depth was 30 inches, 26 inches and 19 inches.
 4. Percent vegetated varied greatly between impoundments. Best producing units were Cattail Lake, South Nutgrass and Swan Lake Check. The greatest acreage of submergents was found in the larger impoundments with Stillwater first and North Nutgrass second. Widgeongrass was scarce.
 5. Important units having much less duck feed this year compared to last year were Stillwater, Foxtail (none), Alkali No. 1, Goose, South Nutgrass and Pintail Bay.
 6. Units improved over 1982 were Cattail, Swan Lake and North Nutgrass (1982 was poor).

A write-up on the SWMA water management techniques is still in the works based on these surveys and the Manager's five summers of experience trying to grow submergents where we have no water right and inflows have varied from a near drought in 1981 to floods in 1982 and 1983.

2. Wetlands

A. Annual Water Report

Summary Submerd Aquatic Plant Survey - 1983

	Stillwater Point Reservoir	Upper Foxtail Lake	Foxtail & Doghead Lake	Dry Lake	Cattail Lake	East Alkali Lake #1	Goose Lake	South Nutgrass	Swan Lake Check	Swan Lake	Pintail Bay	North Nutgrass	West Nutgrass	Tule Lake	Willow Lake	Millen Lake
Staff Guage	3.60	5.18	226	9.56	4.74	3.30	7.98	6.82	7.54	-	7.24	7.04	6.98	7.46	7.81	7.81
Surface Acres	3,750	300	1,190	675	295	610	1,460	490	340	1,740	1,740	3,140	420	1,700	1,410	1,690
Water Visibility (Inches)	2.2	2.5	2.0	2.0	2.0	2.0	2.2	2.7	2.0	2.2	3.8	3.2	2.7	2.9	2.0	3.0
Percent Vegetated	35	** 5	0	30	** 53	** 17	16	** 43	49	** 23	26	33	29	30	0	0
Sago Pondweed	92	100	-	94	100	97	48	80	73	97	90	95	87	99	-	-
Western Pondweed	8	-	-	5	-	-	32	8	17	3	10	-	8	1	-	-
Widgeongrass	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Duck weed	-	-	-	1	-	2	-	-	-	-	-	-	-	-	-	-
Filamentous Algae	-	-	-	-	-	-	20	12	10	-	-	5	5	-	-	-
Water Salinity (Av. mhos/cm3)	1,200	1,500	1,400	1,200	** 2,000	1,800	1,100	4,500	3,800	** 9,200	9,600	** 6,000	3,500	4,400	** 7,500	** 5,300
Water Depth (Av. Inches)	38	29	35	** 23	24	24	27	24	31	33	** 28	27	27	34	31	45
Seed Production	Fair	Poor	Poor	Fair	Good	Poor	Poor	Fair	Fair	Excellent	Fair	Fair	Excellent	Excellent	None	None
Survey Date	8/11	8/11	8/12	8/12	8/13	8/13	8/18	8/18	8/20	8/21	8/19	8/19	8/20	8/21&22	8/22	8/23

**Difference Significant

TABLE 1

It is always very difficult to record and keep track of water inflows and use on the SWMA, but it was especially so this year.

Preliminary tabulations indicate that more water was received on the SWMA than in any previous year. Releases from Lahontan exceeded all records, including the 640,000 AF experienced in 1952 (See Table 2). Since the District released 100,000 AF during the fall of 1972 and continued this action in 1984, we are nearing the one million AF mark. As all of 1982, 1983 and now 1984 have been wet years, the valley is saturated and the Carson Sink, at elevation 3,871.6 feet, is entirely covered by water and about 180,000 surface acres in size. For an unprecedented three winters in a row, all management area units have contained water.



Desert water management is usually feast or famine. This year it was all feast. EWL 6/83

Total estimated calendar year 1983 flows were as follows: 776,050 AF past the upper Carson River recorder below Lahontan, of which over 496,000, excluding Leter Reservoir and water rights, entered the SWMA, or 64% of Lahontan's total releases; 133,700 AF reached the Main Marsh of which a roughly estimated 53,300 AF was spilled to the Sink; 334,590 AF went past Sagoupe and into the Sink at Battleground. Over 16,500 AF were consumed in water spreading in East and West Paiute Pastures, Ole's drainage, Indian Lakes, Cottonwood, East Lake, Serpa and Arrowhead and in alkali flats. Stillwater Slough flows to Stillwater Farms, which over 90% reached us, totalled 22,102 AF and Diagonal Drain flows

TABLE 2

ITEM	PLACE	RECORDER NUMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY
1	Carson R. Bl. Lahontan River	2150	45260	39450	54130	67620	83920
	MAIN INFLOWS TO SWMA						
2	Stillwater Diversion Canal	2210	4766	3274	5270	6426	8740
3	D-Line East (Indian)	2260	3173	2685	2894	1854	2446
4	Paiute Drain at W.C. Rd.	2270	2639	1465	1570	1591	2040
5	Stillwater Slough	2220	745	20	402	1518	3171
6	Carson R. Bl. Fallon	2280	35980	30380	33350	29830	27860
-	-Pelican Water Requirement		95	190	474	852	1231
	DIFFERENCE (#6 minus req.)		35525	30820	33666	30548	29039
3	D-Line E. (Indian)	2260	3173	2685	2894	1854	2446
-	-Minus Water Right Delivery		-----	-----	-----	-----	-----
7	Total Inflow to Indian Lakes		3173	2685	2894	1854	2446
-	-Indian Water Requirement		51	102	255	459	663
8	DIFFERENCE		3122	2583	2639	1395	1783
9	-Water Spreading (Indian)		2232	1983	1939	995	1133
10	Net to Paiute Recorders (8 - 9)		890	600	700	400	650
11	Olie's Outflow Estimate		1000	850	720	700	750
12	-Spreading/Irrigate (Olie's)		50	100	150	200	250
13	Net to Paiute (11 - 12)		950	750	570	500	500
14	Est. Old Paiute Drain Flow		800	100	300	700	900
	MAIN MARSH WATER SUPPLY						
2	Stillwater Diversion Canal	2210	4766	3274	5270	6426	8740
-	-East Delivery to Canvasback		973	-----	-----	295	989
15	Net Direct Del. to Marsh		3793	3274	5270	6131	7751
6	Dutch Bill Delivery (80%)		-----	-----	-----	-----	-----
17	Total E & W Club Delivery (80+%)		950	-----	-----	275	975
18	Stillwater Slough (90%)		725	-----	375	1475	2950
19	Estimated T-J Drain		-----	-----	-----	-----	400
4	Paiute Drain at W. Co. Rd.	2270	2639	1465	1570	1591	2040
20	Total Inflow to Marsh		8007	4739	7215	9472	14116
-	-Main Marsh Water Requirement		717	1434	3585	6657	10087
	DIFFERENCE		7290	3305	3630	2815	4029
21	Spilled to Sink		5100	5500	4600	5800	7300
22	Irrigate Spread - E&W Pasture		150	175	150	-----	-----
	SWMA TOTAL WATER REQUIREMENT		863	1726	4314	7968	11981
	SWMA TOTAL WATER RECEIVED		46500	37800	43300	41600	44800

TABLE 2

JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL AF	COMMENTS
127700	107300	79000	66140	50020	1680	51680	776900	Preliminary data
10713	8029	9492	8298	10183	2320	5112	82623	
3173	1422	3105	3736	2563	1536	1354	29941	
3019	1459	3182	4390	2952	1143	1427	26877	
2580	3419	2799	3187	2049	1069	1143	22102	
47020	46070	15510	10120	23450	3300	31720	334590	Preliminary data flow to sink
1421	1611	1515	1137	568	284	95	9473	Needed for vegetatic
46559	44459	13995	8983	22882	3016	31625	331117	Wasted in sink
3173	1422	3105	3736	2563	1536	1354	29941	
173	122	180	135	-----	-----	-----	610	
3000	1300	2825	3601	2563	1536	1354	29231	Net flow to Indian Lakes
765	867	816	612	306	153	51	5100	
2235	433	2009	2989	2257	1383	1303	24131	Amt. available for spreading or Marsh
635	33	9	849	857	1033	803	12501	Estimated spreading
1600	400	2000	2140	1400	350	500	11630	D-Line contribution to Marsh re. 2270
1200	400	900	1600	1200	800	900	11020	Est. flow from Olie's pond
250	400	400	300	200	100	100	2500	Water lost in Olie's drainage
950	-----	500	1300	1000	700	800	8520	Olie's water reaching Paiute
800	700	650	950	550	100	150	6700	Estimated flows in Old Paiute Drain
10713	8029	9492	8298	10183	2320	5112	82623	
841	731	1012	1035	996	733	655	8260	TCID E. recorder
9872	7298	8480	7263	9187	1587	4457	74363	
50	50	75	70	55	-----	-----	300	
950	950	800	1000	1600	650	600	8650	Estimated return flow from Club
2350	2725	2250	2800	1875	950	1275	19750	Amount reaching Mars
1200	600	480	300	300	180	300	3760	New Drain from Reser vation
3019	1459	3182	4390	2952	1143	1427	26877	
17441	13082	15267	15823	15969	4510	8059	133700	
1725	13312	12493	9318	4608	2151	717	76804	If all units main- tained
5716	-230	2774	6505	11361	2359	7342	56896	Excess to Marsh need
5500	800	*600	2700	5100	4800	5500	53300	
-----	-----	-----	-----	125	175	150	925	Amt. consumed (6800 spread)
3911	15790	14824	11067	5482	2588	863	91377	Developed Areas Only
7300	61600	32600	28200	41000	9200	41600	496000	Item 6+7+11+20-10&13 plus 1%

were 82,623 AF, a new record. In all instances, inflows exceeded that needed for habitat maintenance. The Marsh captured 17% of Lahontan outflow. We could have gotten 25%, if the new D-Line had been used to capacity.

The year began with all units full of water and ended over full. The Carson Sink contained about 30,000 surface acres of water, Big Water was full, water was being spread all over the SWMA and the Stillwater Point Reservoir was over full at 5.82 feet. TCID was asked to reduce spill flows, but could not accommodate us most of the time. During January, Diagonal Drain flows averaged 200 CFS and exceeded 240 CFS at times producing a record high reservoir level of 5.9 feet.

Our outflows, plus a high water level in the Carson Sink, caused the Big Water portion of the Sink to fill and back up water into the Nutgrass Unit causing dike damage by early January.



Besides Nutgrass dike, several other dikes sustained damage due to high water and wave action. ML 7/83

The Sierra snow pack water content on January 1 was at record high levels and by April 1, exceeded all past records at many Soil Conservation Service recording stations. Much snow fall came late and by May 1, the projected runoff in the Carson River to Lahontan Reservoir was 249% of normal (projected April - July runoff of 415,000 AF) and revived upward mid-month when a late, massive runoff occurred. This 80 day delay permitted TCID to dump a lot of water and extensive flooding of private property was averted.

Through spring, the water situation became increasingly worse with a distinct possibility that flooding would occur along the Carson River. The delayed spring runoff, May 20th, gave TCID time to release over 250,000 AF from Lahontan and avoid severe flooding. TCID continued to release a large volume of water from Lahontan, an average of 880 CFS in March; 1,136 CFS in June and 1,365 CFS in July. Still, the Reservoir reached the top by mid June and releases, plus spillway flows, resulted in an outflow of 3,160 CFS forcing TCID to cut Sagouspe Dam on June 23, rather than have water go over the top when flows in that part of the river reached 1,140 CFS. The difference, about 2,000 CFS, was being used for irrigation or sent to wetlands and reservoirs (1,000 CFS). Diagonal Drain flows exceeded 245 CFS. Meanwhile, the Humboldt River was flooding Lovelock, backing up the Humboldt Sink and flooding the airport. Humboldt flows eventually reached the Carson Sink raising its level further still.



Sagouspe Dam was cut June 23 and again on December 19 to reduce severe flooding along the Carson River. ML 6/83

Going from feast to famine, the Sink began receding in mid July. With Sagouspe cut, the new D-Line Canal was inoperable. TCID reactivated the old S-5 Line, cut into the cemented D-Line and managed to deliver water to farmers and some water to Indian Lakes, but not enough to help maintain Willow, Millen, Lead and upstream ponds. To get rid of water and help us, the District continued flows out of Ole's Pond which maintained wetlands in Ole's drainage and supplied 8,520 AF to the Marsh. They also delivered via the old Paiute Drain and Stillwater Slough.



Cutting Sagouspe dam did not help all homeowners along the River, as many suffered substantial losses due to pre-flood preparation, post flood clean up and reduced property values of up to 26%. EWL 6/83



The new Stillwater Reservation drain (T-J Drain) was completed by late May and began contributing an average of five to ten CFS, but as expected, drain water was highly saline. EWL 4/83



The Regional Office personnel examined construction of the new T-J Drain during a Refuge programmatic visit. EWL 5/83

August was rainy and cloudy. Evaporation was minor. A combination of this, runoff and canceled water orders caused all impoundments, already high, to increase in water depth. TCID continued to run high flows out of Lahontan Reservoir in order to reduce storage from 260,000 AF to 150,000 AF in preparation to closing off all flows to facilitate penstock work at Lahontan. These high flows, averaging 300 CFS, heading into the Marsh area, caused management problems and we began spreading or diverted as much as possible. Production of submergents was adversely impacted and all units remained turbid and too deep.

The Carson Sink began to rise again as the Humboldt River continued to roar into the north end of the Sink. The size, 4,000 acres, and depth of Big Water continued to increase as water was flushed through Nutgrass and we tried to maintain its operational depth. Pintail Bay, our most northern unit, began spilling northwest through the sand dune area again maintaining ponds there and creating more.

TCID put a temporary dam back in at Sagouspe and began sending water down the D-Line Canal. At times, the reactivated S-5 Canal was used with the D-Line. A test of maximum capability using both canals resulted in a delivery total of 150+ CFS. With improvements, about 160 CFS could be delivered which makes up for some of the D-Line design deficiency.

By September, Big Water was on the rise causing problems in Nutgrass. Because Sagouspe was cut, flows from the west were inadequate to maintain northwest units and Pintail levels. Flows were shifted as much as

possible from Nutgrass to Swan Check and Tule Lake to alleviate this problem. This change and/or receding Pintail outflows due to the inoperable D-Line may have triggered a massive botulism outbreak in the sand dunes area, northwest of Pintail Bay in Pintail's outflow area. With the discovery of the outbreak, flows here were further increased and TCID finally repaired Sagouspe which helped flows.

In October and early November, the end of the irrigation season, some respite was expected, but was not in the cards, as TCID was again forced to renew spills. At year's end, Lahontan reached 240,000 AF despite December releases averaging 840 CFS. Runoff into the Reservoir exceeded 16,000 AF on one day. TCID cut Sagouspe Dam again on December 19.

Meanwhile, our Reservoir level climbed past 3.86 feet. TCID and the Canvasback Club permitted us to run water to the Club at Stillwater Farm's east intake to help us manage Stillwater Reservoir outflows all year. At year's end, Nutgrass was 8.25 feet or 2.75 feet above operational. The Sink was too full, covering 180,000 surface acres, or about 1 3/4 feet higher than the operational level of our lower units. This caused back water flooding in all units below Division Road. Damage to facilities is excessive.

The end of the year snowpack was 226% of normal with projected runoff April to July of 375,000 AF.

B. Wetland Habitats

We have been unable to dry up any units the past two years to control carp. Carp activity and high water flows through most units caused a great deal of murkiness in the units which adversely affected aquatic production. All units were above operational level, part of all of the year. Flooded saltgrass proved attractive to mallard, pintail, ibis and other critters. Muskrat production went into high gear, but waterfowl nesting decreased.

As unit depths increased in the fall, available feed was put out of reach until we became a shoveler duck refuge. Water spilled into seldom used areas providing fair to excellent habitat for waterfowl. Ole's drainage contained over 2,500 acres of small ponds, sloughs and creek-like habitat supporting fresh water aquatics. Vaughn Pond and Slough provided a similar area. Flooded saltcedar in the Big Cottonwood series of ponds attracted ducks on windy days. Serpa, Arrowhead and Upper Lake outflow areas produced little food, and during flooding, attracted few waterfowl. Alkali flats, north of Division Road, again provided some nesting/sanctuary area.

The Battleground area of the Sink was heavily used until rising levels covered all feed by late October. Still, the 160,000-180,000 acres there and in the Sink held up to 200,000 ducks. Big Water served as a sanctuary and provided some algae and other feed. The flooded sand dunes

area was very attractive to waterfowl. Average salinities were the lowest in many years (See Table 3).

3. Forests

The SWMA forests consist of scattered cottonwoods and a few willow trees along the Carson River and main water supply canals. Saltcedar is found around some shorelines. Tamarisk sprouts along impoundments at operating level waterlines whenever units dry up. Some of these plants are found along canals or in wet areas and sometimes in irrigated areas. Taking advantage of abundant water to control tamarisk, this plant has been flooded for three years in Lead Lake and Tule, two years in Willow and Millen and one year in Big Cottonwood and East Lake. *has it killed it? H*

Hopefully, high flows, fresher water, higher water tables, reduction in grazing and near elimination of horses will allow cottonwood sprouts to survive and become established in a few areas. Most of our cottonwoods are old and many are dead. Few new trees have been noted and fewer have survived for the past 30 years. Floods brought an invasion of beavers into Indian Lakes last spring. Several cottonwoods were killed at Little Cottonwood and many others damaged.

As part of the Regional Resource Plan for eagles, Swainson's and other hawks, we plan on starting a tree nursery in Napier's field using cuttings. Several years from now, we hope to have in this fenced, irrigatable plot, at least 100 ten foot cottonwoods that when transplanted, can survive man, drought and beast out in the SWMA.

4. Croplands

East, West and Paiute Pastures were abandoned over 20 years ago due to a decreasing water supply and failure to obtain water rights. Excess water flows in 1980 and the past two years were used to irrigate these areas. These pastures, especially those in the Refuge, when flooded were very attractive to Canada geese, ibis, pintail and other ducks.

5. Grasslands

The SWMA does not have any grasslands per se, except for isolated stands of saltgrass in high water table areas and narrow strips along wetland shorelines. The few stands in uplands are intermingles with typical low desert greasewood/saltbush habitat. About 50% of the SWMA, or 80,000 acres, are classified desert brush.

Since the fall of 1980, excellent climatic conditions has improved the growth, spread and vigor of upland plants, although the condition class of most sites is still poor. The 11,000 AUM's inflicted on the Open Unit of the SWMA on "average" years is excessive and in a drought, devastating. However, the amount of forage produced during above average moisture years is astounding and checks reveal less than 30 to 40% utilization on most sites. Besides

SALINITY - SUM A

24 1983

Location	Jan. 1-3-83	Feb. 2-1-83	March 2-28-83	April 3-29-83	May 5-16-83	June 5-31-83	July 6-27-83	August 8-1-83	Sept. 8-29-83	Oct. 10-10-83	Nov. 11-1-83	Dec. 12-12-83	Average mm/cm
Diagonal Drain	600	2100	500	1500	900	600	700	240	900	800	700	----	867
Stillwater Point	1000	900	1000	400	900	990	610	850	700	500	600	1100	779
Upper Foxtail Outlet	600	1200	----	1800	910	7000	610	900	1100	1100	1000	1700	1083
Highroad	----	----	----	----	----	----	----	1200	----	2100	1300	1500	1525
Foxtail St. #2	1000	1000	----	2000	1800	1900	1005	1100	1900	1900	1300	----	1490
Dry Lake St. #3	1000	1000	----	1800	1800	1800	1010	1100	1900	1600	1100	1400	1410
Cattail St. #4 #7	1200	1150	1200	10000	1800	2000	1020	1100	2000	3600	2300	1550	2410
Division Pond	Optional	----	----	----	----	----	----	1600	----	2600	2600	2000	2250
Last Alkali #1	700	1250	Optional	6000	1900	2000	1021	1800	2100	2300	2700	1500	2070
Last Alkali #2	Optional	----	----	----	----	----	----	2100	----	----	2400	1600	2033
Goose Lake Landing	----	----	----	----	----	----	----	1400	----	2500	2100	1900	1975
Goose Lake Outlet - W	1600	1400	1200	2800	3700	3800	2018	1600	2650	3100	3200	2000	2422
Goose Lake Outlet - E	1200	1400	1400	2100	4600	2500	7063	1500	2600	2500	2100	1900	2071
4-Way St. (Lead Canal)	3100	3000	3100	12000	4900	5200	2060	3200	4000	4500	4050	4100	4434
3-Way St. Fr: W. Nutgrass or Swan Check	3000	3400	3100	3000	4900	5100	4050	3600	5400	7500	5800	3500	4312
Swan Check	3000	3400	3000	3000	4600	4900	4050	2600	5400	7200	5500	3400	4170
Pintail Bay (At 3-Way)	3000 -	3500	3400	5200	4600	5000	4050	2900	5500	7300	5600	3500	4462
Nutgrass St. #17	3500	3600	3600	3500	5700	6000	7000	5400	10000	5150	5800	2700	5162
Big Water	----	----	4800	5000	5900	----	7000	5400	9000	9000	9000	9000	7122
Conradt's Landing	4000	2200	10000	3200	5400	7500	5000	5000	5400	4900	5400	----	5272
Swan Lake Ck. St. #21	----	----	----	----	----	----	----	----	----	----	----	----	----
Tule Lake St. #15 & #35	3000	3000	2600	2800	5100	5100	4800	5000	8000	5100	5300	2400	4350
West Marsh St. #14	2400	2000	2200	5500	3600	4000	4500	5200	10000	7500	6400	2600	4658
Lead St. #11	1800	1900	1400	5300	3200	2800	2500	3000	4000	3400	3100	1400	2816
Lead Bypass Canal St. #11	2400	2200	2700	15000	----	2200	----	2000	----	3400	3200	2500	3955
Canvasback Diversion	----	----	4000	4400	----	----	1800	1600	3600	----	----	2600	3000
Hunter Drain & Diversion	50000 -	50000	43000	50000	7000	80000	90000	45000	110000	73000	80000	53000	60533
Swan Lake Ck. St. #24	3100	2200	Optional	2700	3500	----	----	2600	10000	----	----	----	4050
South Lead Landing	----	----	1800	9000	----	----	2700	3000	----	----	----	----	4125
Palute Canal Recorder	430	600	4000	1800	900	600	600	800	1200	----	1200	1300	1220
Big Indian Outlet	600	450	500	2000	600	600	600	800	900	----	1200	300	777
Indian Lakes Recorder/ Counter	275	300	300	1200	300	500	Dry	220	400	----	400	200	409
Stillwater Slough	----	1800	3700	8000	1100	1500	900	2000	2400	----	----	Dry	2675
Stillwater Reservation Drain	----	----	----	----	----	----	26000	14000	16000	----	29000	31000	23200
Pintail Dunes	4500	4500	Optional	----	----	----	----	----	16000	----	----	----	8333
Structure #27	----	----	----	----	----	----	----	----	----	----	----	----	----

TABLE 3

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precipitation, we have spread or spilled one hell of a lot of water around the SWMA which produced an abundance of annuals, especially alkali weed and Russian thistle.

6. Other Habitats

About 30% of the SWMA is composed of scantily or non-vegetated alkali flats, playa lake beds and sand dune areas. On the latter, forage production was excellent and on others, alkali weed and Russian thistle infested many areas.

7. Grazing

AUM's during fiscal or output report year 1983 totalled 11,012.52 bringing in revenues of \$29,328.56 to TCID. Despite feast or famine forage production in this desert area, total AUM's have been relatively consistent the past three years. Reduction in AUM's, primarily from closing the North Marsh in 1980, have continued despite exceptional forage production. AUM's averaged about 17,000 ten years ago. We feel that if the "situation" does not permit reductions during drought, we cannot condone increases in good years.

We continued with the same thirteen permittees, eleven whose cattle graze the Open Unit in common, and I must say, with some conflict. The scrawny desert cattle all looked like feed-lot residents this year.

The North Marsh Unit was rested for a third year in a row. With abundant moisture and high water tables the past 26 months, emergent aquatic saltgrass and other vegetation has shown excellent growth and recovery from drought and grazing impacts of the past. Some marsh saltgrass is becoming lodged and decayed presenting the specter of wildfire prone, unsuitable nesting cover. A nesting study was conducted to check the suitability of this habitat (See Section G/3).

We had planned to rest the Refuge Unit and had notified the permittee several years in advance. However, we found that winter grazing during years of excellent forage production has had little negative impact. Little positive impact also, because cattle stayed on upland sites consuming weeds and forbs and were not around the Marsh "mowing" emergent vegetation. This situation continued the fall of 1983.

Examination of old photo plots and old site photos revealed that heavy summer grazing utilized in the past to reduce emergent vegetation in the Refuge and other units severely impacted adjacent unfenced upland sites, severely hedging saltbush, greasewood and annuals. Some recovery, especially in the Refuge, is evident.

A grazing rate survey is due in 1984 and needs to weigh relative forage value by season. A standard year-long rate has always been used here.

The TCID Board wrote to the Regional Director requesting that we maintain the SWMA corrals as per the 1948 Agreement. All corrals, except Upper Lake, predate establishment of the SWMA. Our response indicated FWS policy was these should be maintained by permittees and the District should live up to

their 1953 promise to return a portion of the grazing fees to assist in grazing management. After a tour of the area on March 24 with some of the directors, the District promised to annually provide corral material and agreed that permittees should perform annual maintenance. As corrals were in a neglected shape and construction activities had altered two corrals, we agreed to have the YCC crew upgrade these.



Pelican, above, and Leter corrals were inaccessible due to flood water and repairs by YCC crew were delayed until a dryer year. Carson River is on the bottom right. EWL 6/83

9. Fire Management

We finally obtained some fire management equipment, but too late for the ideal January to March period. We did not sweat the late arrival of the T-5 dozer, road grader or 200 gallon slip-on pumper, as proposed "black areas" were too wet.

LeFever, Lantto, Loth and Duffney completed the mandatory S-130 and S-190 training courses during the calendar year.

We are getting a bit concerned that whenever now-flooded mature saltgrass emerges out of the North Marsh as the Carson Sink recedes, that a severe fire hazard will exist.

10. Pest Control

No pesticides were used on the Refuge. Saltcedar control is being attempted with some success by drowning the pesky plants. In a near treeless desert,

we are not sure that eradication or extensive control is desirable.

Six beavers were eliminated by Refuge trappers under special use permits, and State permits, when they invaded the SWMA and began disseminating a few of our cottonwoods, especially at Little Cottonwood Lake. Damaged trees were treated with tar and wrapped in chicken wire to prevent further damage.

Carol Evan's nesting study revealed depredation levels on waterfowl nests higher than that found by Napier in his 1967-1969 nesting studies. Treaty protection has increased raven populations throughout the SWMA and the Great Basin. As flooding eliminated some choice nesting sites, and decreased the width of our already narrow saltgrass borders around wetlands, this low success was not unexpected.

As redhead nesting was not severely impacted, raven control is not seriously contemplated. The NDOW is considering a season on corvidae which may help reduce predation to some extent.

Coyotes were in low numbers and not much of a problem this year. Muskrat trapping is reported in Section H/10.

11. Water Rights

After 35 years, the SWMA has no water rights. Our application for rights to return water flows, which we have always used, (in some cases for water spreading on 17,000 acres to help prove upon TCID's 50,000 acres of "pasture") remain on file with the State Water Engineer, blocked by TCID. The 1980 narrative contains a lengthy discussion of Stillwater's water right problems.

This was probably the most significant year for water right decisions, since the 1944 Orr Ditch Decree which adjudicated Truckee River waters. It layed to rest the fear that Stillwater would dry up, but since TCID has to shape up and abide by a reduced Operating Criteria and Procedures (OCAP), available Newlands Project water will be reduced to 20,000 to 30,000 AF from 406,000 AF with a greater percentage of impact (10%) to valley wetlands. Mandated improvements in the District's water management in conjunction with a reclamation and betterment program will further reduce flows to wetlands.

As a result of lawsuit decisions and USDI imposed operating criteria, TCID is putting owners of small parcel water righted land on notice that they will be assessed \$50 per year and requesting this water to be transferred to TCID. These water rights will be approved by the State Engineer, consolidated and transferred to parcels of 40 acres or more. All irrigated land will be surveyed to determine total farmed compared to actual water rights.

On June 23, the U.S. Supreme Court rendered its decision in the Truckee River case, USDI (for Pyramid Lake Indians) vs TCID. It was nine to zero against the Tribe. In essence, the Justices said water rights had been decided by the 1944 Orr Ditch Decree. Good or bad, the Tribe can continue

to use their full water rights and can continue to divert their legal portion from the Truckee River. This also means that there is no imminent possibility that inflows to the SWMA or other Lahontan Valley wetlands will be drastically reduced.

However, other significant legal actions did occur during calendar year 1983. Now that TCID is being made to conform to the Bureau of Reclamation's (BOR) operating criteria, reduced diversions from the Truckee River, a lesser acre feet allocation out of Lahontan, tighter operations and greater efficiency, the District wants the FWS to join with them in negotiations in an effort to retain as much water in Lahontan Valley and "save wetlands". We tried to tell them at the time and now it is too late. The FWS must first meet the Endangered Species Act requirements for the cui-ui in Pyramid Lake.

U.S. District Judge, Bruce Thompson ruled this fall that TCID has lost its right to operate the Newlands Reclamation Project because of its "complete defiance" of federal rules limiting the distribution of water. In 1974, USDI tried to take over management because of TCID's refusal to abide by a 288,000 AF operating criteria. TCID appealed seeking an injunction. BOR has indicated that they don't intend to manage the project, but will establish operating criteria that TCID must follow. The Pyramid Lake Tribe may try to force a federal take over. Any new operating criteria negotiation will result in less than the 406,000 AF currently used and will include a Reclamation and Betterment (R & B) program to improve water efficiency with the net result being some loss of wetlands in the area, including the SWMA.

Rough estimates currently reduce TCID operations from 406,000 AF to 385,000 AF or a five percent reduction that translates to a seven to ten percent reduction in flows to Lahontan wetlands. Reclamation and betterment programs designed to increase irrigation district water efficiency above 30% of total water may result in an OCAP as low as 350,000 AF, which would seriously impact wetlands.

It appears to us that a new 170 CFS D-Line Canal designed for and put in for shunting a portion of operational spill waters to the Marsh and the new T-J Drain designed to carry runoff from the Stillwater Reservation may compensate for most of these losses. The Reservation has over 4,877 acres of water rights, most of which were never developed. When completed, the Tribe will take its full acre feet of water rights with return flows going directly to the Marsh. Already, TCID has used the new drain as a spill canal during the current flood.

Another project, frequently discussed, would alleviate spill-flooding of the Weighaupt property and Stillwater Farms. The proposal is to connect the Stillwater Slough to our Hunter Drain and our West Canal so a portion can be shifted directly to the SWMA during high flows, instead of through the above private properties.

The D-Line Canal 50 CFS deficiency (design defect not permitting full 170

CFS delivery) was partially solved when TCID reactivated the end of the old S-5 Line. Combined flows appear to be capable of delivering 150 to 160 CFS. When Sagouspe is repaired and we get a normal water year again, the delivery capability will be tested again.

A greater danger to the SWMA water "rights" rests in completion of the 1981 Carson Lake Pasture Marsh Development Agreement. This project is designed to make more efficient use of water at Carson Lake. With settlement of the Alpine case, the Decree not letting TCID use prime water, construction proposals will enable the District to compensate loss of prime water with return flow waters which are now going to Stillwater. It is too early to tell if efficiency will be improved enough to mean the same or less use of these return flows.

BOR contract work continued, frequently interrupted or hampered by floods, on the Lahontan Reservoir penstock and spillway. Until this is completed, Safety of Dams Act restrictions prevent TCID from using Lahontan's full storage and we benefit from increased spills.

In September, the SWMA staff conducted a tour of the Management Area for the Bureau of Indian Affairs (BIA) and BOR personnel, TCID Board and Pyramid tribal members who looked at the Newlands Project, Carson Lake Pasture, Stillwater Reservation irrigation projects and our Marsh. After so many years of litigation, this had to be a historic event.

Serious negotiations then ensued regarding remaining differences and development of Interior's interim and permanent operating criteria (OCAP). This required the FWS to provide flow regime needs for the endangered cui-ui. Our present knowledge, fish-wise, does not permit the precise or hard data figures demanded by BOR.

A new recorder was put in at the Upper Lake spillway to measure flows through this structure to the Vaughn Slough portion of the D-Line Canal, actually, a natural slough. The D-Line Agreement with TCID provides for replacement of water lost in the system between the spillway and the West County Road Paiute recorder. So far, we have not called for replacement, due to excessively high flows that more than meet our needs. The day will come, however, when summer evaporation losses can be partially off set if the District honors the Agreement and our measurements of losses and deliveries. To our advantage, the Agreement does not specify the delivery point of replacement water.

We need a recorder on the T-J Drain. We hope the District will put one in that will provide data on net flows into the Marsh. The Upper Lake water recorder at our Indian Lakes station (USGS No. 18312260) was removed October, 1982. The D-Line flow is now recorded by TCID's D-Line East station. There are greater flows in the canal now, since its enlargement and the new recorder location 3/4 of a mile upstream requires the subtraction of two water right deliveries. Data about these flows, which we subtract to determine our net flow, is obtained from the TCID irrigation billing records.

The East Lake recorder (USGS No. 18312265) was moved back to the old Paiute Drain recorder site to measure Paiute flows. East Lake flows, when subtracted from the West County Road Paiute recorder, were supposed to provide old Paiute Drain flows. As the East Lake structure was often closed to fill ponds, this recording station did not provide accurate data.

12. Wilderness and Special Areas

The Marsh is designated a historic landmark of state significance.

An archaeologist's effort, reported last year, to designate an area of the SWMA as an Archaeological District, had died on the vine.

G. WILDLIFE

1. Wildlife Diversity

Diversity of habitat on Stillwater is good for what one would think of as a monotypical high desert ecosystem. There are open reservoirs and marshes, fresh and saline water, riparian lands, sand dunes, saltbush-greasewood communities, playas, alkali and mud flats, grassy wet meadows and timber. During the year, diversity was effected due to much higher water levels.

2. Endangered and/or Threatened Species

Bald eagles are most abundant during the winter months and the mid-winter eagle survey. The January count indicated nine adults and three young were using the area. This total exceeded the previous 1965 peak of ten. The January increase in eagle use was due to better winter habitat conditions which resulted in increased numbers of waterfowl.

White-faced ibis historically nested at Carson Lake, 15 to 20 miles south of Stillwater Marsh, but would use the Management Area for feeding. Because of drought conditions between 1960 and 1978, ibis only nested in the Carson Lake area. Beginning in 1979, ibis have annually nested in the South or West Nutgrass Units. The following table compares nests and estimated production for these areas:

Year	<u>Carson Lake</u>		<u>Stillwater Wildlife Management Area</u>	
	<u>Nests</u>	<u>Production</u>	<u>Nests</u>	<u>Production</u>
1979	1,200	2,500	190	250
1980	2,500	4,500	No Estimate	200
1981	2,000	5,800	650	1,100
1982	2,500	No Estimate	600	1,150
1983	3,100	8,680	500	1,050

In May 1982, the NDOW personnel banded 200 young ibis at Carson Lake to learn more about the population. An expanded banding program by the NDOW, to in-

clude the SWMA, this year was not accomplished. To date, no band returns have been received or other information is available.

Snowy plovers nest on alkali flats throughout the area. This year, despite high water levels, nesting increased slightly and estimated production was 200 young.

Long-billed curlews use was down from the previous year. Estimated production was 25 compared to 30 in 1982.

3. Waterfowl

Waterfowl use was down from the previous year. In 1983, use days totalled 16.2 million. This compares to 17.6 million in 1982, 11.6 million in 1981 and the 1949-1977 average of 20.0 million use days.

With high water spills by TCID from Lahontan Reservoir beginning in the fall of 1982, all units were at or above operational level on January 1. By spring migration, flooding was eminent in Lahontan Valley and TCID began increasing water spills to a point where the entire irrigation system was at capacity. Water levels began inching upward and nesting habitat became inundated.



A waterfowl nesting study was conducted by Carol Evans between May 1 and August 15. The primary objective was to evaluate nest success in relation to predation and habitat factors affecting nest site selection. EWL 5/83

The nesting survey indicated success was high for redheads, but poor for dabblers. Cinnamon teal and gadwall success was 13.4% and 8.0% respectively, while redhead nest success was 75.3%. Less than eight nests were found for each of the other nesting species. The poor nesting success in dabblers appeared to be the result of concentrating predators and nests in small traces of habitat. A combination of factors adversely affecting the nesting this year are as follows:

1. Higher than normal water levels affected the quality and quantity of upland nesting habitat.
2. Predation was almost exclusively the cause of nest losses, while the ravens appeared to be the primary nest predator.
3. Much of the upland nesting habitat consists of shoreline, roadsides and dikes, which all formed natural travel or hunting lanes for predators.
4. Large portions of the Marsh did not contain suitable upland nesting habitat. Nesting was very localized and concentrated in small areas.

While lack of success of dabblers was due primarily to predators, poor diver success was due to abandonment. One redhead nest was abandoned due to investigator disturbance. Nest site selection was in shrubby and herbaceous vegetation on uplands and emergent vegetation in water. Dabbling ducks nested primarily in the saltgrass/iodine bush zone between alkaline greasewood flats and the waters edge. While saltgrass was the primary nesting cover for cinnamon teal, iodine bush bordering the saltgrass zone, provided some of the most important shrub cover for the other upland nesters. Other vegetation, including sea-blite, black greasewood and alkali weed, were important also.

Most diving duck nests were found over water in emergent vegetation. Hard-stem bulrush was used exclusively by redheads, and to a large extent, by ruddy ducks. Stands of bulrush supporting nests were typically dense and well established.

Recommendations for increasing waterfowl production could best be achieved through habitat improvements. Practices to increase the quality and quantity of nesting habitat include:

1. Either burning or grazing to open up dense stands of emergent vegetation and rank decadent stands of saltgrass.
2. Establish or increase emergent vegetation in Tule, Swan Lake and Swan Check, as there is good shoreline nesting habitat, but does not have adequate emergent vegetation.
3. Continue present policy of protecting saltgrass shorelines from grazing.
4. Restrict unnecessary human activity in and around the Marsh during the nesting season.

The SWMA's waterfowl use days was determined from census flights by the NDOW's waterfowl biologist. This individual also flies a breeding pair count each spring. Survey dates are usually in late May. Timing of the pair count reflects the most common nesters at Stillwater, such as red-heads and cinnamon teal, but misses early nesting by mallards and Canada geese. Both breeding pair counts and summer brood surveys are used to estimate waterfowl production. This year all waterfowl production was estimated at 9,910, which was up slightly, less than one percent from 1982, but down 30.2% from 1981.

The following table lists estimated duck production for the last eight years for comparison. Production varies due to inadequate water in the late 1970's to over abundant water this year. Goose and coot production is excluded.

<u>Date</u>	<u>Production</u>	<u>Date</u>	<u>Production</u>
1976	3,292	1980	4,908
1977	208	1981	11,188
1978	608	1982	6,611
1979	5,309	1983	4,915

A combination of factors changed late summer and early fall use. High water levels produced large stands of dead alkali bulrush and submerged aquatics were out of reach. The other main factor was disturbance by airboats for botulism monitoring and pick up. Nutgrass, Pintail and Swan Lake, the units most popular for waterfowl, had to be checked every few days. The result was a significant increase in use of the Carson Sink, which was approaching 120,000 surface acres.

In September and October, thousands of green-winged teal, pintails and redheads were using the Carson Sink. Major use areas within the Sink were adjacent to the Navy bombing site and good estimates were not possible.

Redhead and canvasback peak populations were down in late September and October from the previous year. Large sustained peaks of both species in 1982 contributed to numerous over-bag violations.

Canada goose use was down 18.8% from last year with 233,700 use days. Production was estimated to be 45 young. Lead and Goose Lakes appeared to be the best brood areas.

Common shelducks, observed annually in October since 1976, were not seen this year. However, an immature shelduck was picked up on the area in August during the botulism checks.

4. Marsh and Water Birds

Use days by these species totalled 1.23 million, compared to 1.24 million in 1982 and 1.35 million in 1981.

White pelicans that nest on Anaho Island fly the 125 mile round trip to feed at Stillwater each spring prior to fish runs at Pyramid Lake. This year, spring use almost doubled from normal years, with peaks near 2,000 birds, because of poor feeding conditions at Pyramid. During this period, ten to fifteen pelicans are usually found dead on the area. This year 40 dead pelicans were found. Although six heads were collected for analysis, they were not submitted to the Madison Health Laboratory, as they strongly suspected pesticide poisoning picked up at wintering areas. A fall pelican peak of 2,600 was observed in October. This corresponds to previous chronical peaks and numbers of birds.

Great blue and black-crowned night herons, snowy and great egrets and white-faced ibis established a nesting colony in the Nutgrass Unit again this year. Respective production from these species was 220, 600, 510, 200 and 1,050 young and represents less than a one percent decrease from last years total of 2,625.

On May 24, fifteen snowy egret eggs were collected for analysis of DDE/DDT residues. Fifteen black-crowned night heron eggs were also collected in May as part of a five year study by Pacific Northwest Field Station of southern Oregon and Nevada waterbirds. Black-crowned night heron data from egg collections made in 1979 and 1980 will be published in the January 1984 issue of "The Journal of Wildlife Management". This article will discuss production related to residues, percent of population impacted and contaminates in prey. The five year collection of snowy egret, black-crowned night heron and white-faced ibis data from the SWMA and Carson Lake will be published in early 1984. Specific residues are not available, but in general there has been a downward trend since 1979. Egg collections are not planned for 1984 or 1985. However, another series of collections and residue analysis is scheduled following a two-three year rest.

5. Shorebirds, Gulls, Terns and Allied Species

With little shoreline on the area marsh units, use was concentrated around the 120,000+ acre Carson Sink and associated mud flats. This year use totalled 3.02 million use days, compared to 3.65 million in 1982.

Water spills by TCID all summer produced good habitat in other areas of Lahontan Valley. Carson Lake, Harmon and S-L Reservoirs were some of the more important areas.

6. Raptors

Formal census of this group was not conducted, other than golden eagles, in conjunction with the mid-winter inventory. This general inventory probably accounts for unjustified fluctuations in the population. Raptor use this year was reported at 59,790 use days. This represents less than a one percent change from 1982 compared to 15% and 20% changes between 1980 and 1981.

7. Other Migratory Birds

As mentioned in Section 3, Waterfowl, ravens are the chief waterfowl nesting predator and the population continues to increase in Lahontan Valley. During October, peak numbers of 125-150 were observed.

8. Game Mammals

Coyotes are unprotected by State regulations and can be shot on the SWMA with a rifle, except in the waterfowl hunting season, during which period they can be shot with a shotgun. The population varies because of annual movement out of the Stillwater Range. Also mentioned in Section 3, coyotes are responsible for an undetermined amount of waterfowl predation.

11. Fishery Resources

On March 14, the NDOW stocked 1,419 and 1,320 rainbow trout that weighed 645 and 600 pounds respectively, into Big Indian and Likes Lake. Likes Lake was stocked with an additional 3,500 rainbows that weighed 700 pounds on April 4. This annual put and take fishery is popular with local residents. Sometime during the year, the NDOW also stocked Vaughn Slough with largemouth bass.

Between February and June, a commercial seiner removed 17,600 pounds of blackfish and 2,500 pounds of carp. Following is a summary of his rough fish removals.

<u>Month</u>	<u>Blackfish</u>	<u>Carp Pounds</u>	<u>Lake</u>
February	1,000	0	Likes Lake
March	4,000	300	Likes Lake
April	4,500	700	Twin Lakes
June	8,100	1,500	Twin Lakes

The NDOW suddenly requested on July 27 and again on August 1 that we approve their plans to immediately stock 45,000 black bass fingerlings in the West Marsh. Concurrence was denied pending the production by the Department of the long-awaited Stillwater Fisheries Management Plan.

Over two years ago at our annual NDOW/FWS meeting, it had been agreed that the FWS would be involved in its development and both agencies would agree on the SWMA fisheries and other objectives. A typical case of the "tail wagging the dog", i.e., some management options would be lost. Secondly, FWS objectives for the SWMA place a very low priority on fisheries and calls for no increase in public use.

Potential conflicts with wildlife, especially nesting redhead ducks and interference with redhead brood rearing in the West Marsh was stressed. We could have a situation very similar to that at Ruby Lake National Wildlife

Refuge. There are very few areas that produce redhead ducks and that it would be a mistake to try to mix fisheries with production on this important area.

There is also no guarantee of D-Line water, no one knows what the effects of the saline T-J Drain will be and the West Marsh will often have to be drained to maintain other units. Due to the loss of winter power water, less consistent water supplies have altered the water management situation that existed when bass were in the Marsh formerly. Reducing TCID's operational water from 406,000 AF to 350,000 AF will probably prevent the survival of any game fish.

The NDOW is having considerable problems on their other management areas where their fisheries division had stocked fish with no planning or coordination with the Game Department, resulting in impacts on wildlife, budgets and creating potential conflicts between waterfowl hunters and bass fishermen.

The FWS is reluctant to let the NDOW create any more public use, since their contribution to the SWMA operation and maintenance is only \$25,000 in Federal Aid, none for fisheries and public use management. Public use at Indian Lakes is not managed properly due to lack of funds. We must see where the funding would come from before we would consider anything that would increase public use.

During the year, the NDOW planned to conduct a creel census and analyze water chemistry as part of the fishery management plan which was scheduled for completion in 1982. At the close of 1983, no creel census or water quality had been taken and a plan was not yet finalized. Hopefully, the plan will be completed and implemented in early 1984.

17. Disease Prevention and Control

Contrary to the past several years of low botulism losses, 1983 exceeded the previous record loss of 28,500 birds in 1952. Approximately 47,100 dead birds were picked up on the SWMA between July 27 and November 1.

Botulism is an annual problem. In good years, only a few hundred birds are picked up. This year, normal losses occurred until late August. On August 24, over 200 coots, ruddy, cinnamon teal, pintails and redheads were picked up in the Nutgrass Unit. This and adjacent units, all bordering the Carson Sink, were checked at three to five day intervals, depending on loss totals of the previous pick-up day.

Meanwhile, the Carson Sink, normally with less than 15,000 surface acres, contained 100,000+ surface acres because of high inflows from the Carson

River and spills from the Humboldt Sink. In late September, an aerial survey revealed a number of dead birds along the shoreline. Naturally, this occurred in an area without existing access. A one-quarter mile road was cut through the sand dunes and greasewood to the hot spot.



Botulism pick-up began at this new access into the Carson Sink on September 29 and continued until October 31. Birds were buried in a nearby pit. EWL 10/83

During clean up activities, the NDOW provided one airboat and six to seven different employees part-time during the operation. FWS detailed airboats and personnel from Idaho, California, Nevada and Oregon and hired four temporaries to help with the pick-up and disposal. Several local and Reno volunteers, some with airboats, also helped with the pick-up. Although, some volunteers with airboats were casing the place for the opening of duck season on October 8.

One could expect there would be lots of media coverage of an event of this magnitude. A NDOW information specialist in Reno provided most botulism activity information to the media, which came across in a "wave-your-own

flag" coverage of the die off. Several people familiar with the cooperative NDOW/FWS management area began to wonder when the FWS was going to do something to help.

During the period July 27 and November 1, a total of 3,879 dead birds were picked up from the Marsh units and 43,257 dead were picked up from the Carson Sink. These birds were buried in pits on high ground. In addition, 581 sick birds were picked up from the Marsh units and 826 were picked up from the Carson Sink. These 1,407 sick birds were placed in a walk-in cage with fresh running water and grain, better known as our duck hospital. When they partially recover, the birds are released in an open pond. Both hospital and pond are surrounded with a six foot chain link fence. After the birds fully recover, they leave at will. Grain is not spread around the pond, so free flying birds are not attracted. Of the above total, 182 Marsh and 260 Sink birds died.

A daily species composition chart was kept on Refuge marsh units of the dead and sick birds that were picked up and the sick birds that died. Most dead birds were from the Pintail Bay Unit, 2,281, 59.2%; followed by Nutgrass, 921, 23.9%; Bigwater, 323, 8.4% and Goose Lake, 167, 4.3%.



The east and northeast shoreline of the Carson Sink was large mud flats. Fewer ducks were found in this area compared to almost 13,000 least and western sandpipers and 1,300 avocets. TM 10/83

Only the daily number of dead birds picked up from the Carson Sink were recorded, but species composition was periodically checked. As the east

and northeast shoreline changed to mud flats, species picked up changed from pintails, redheads and green-winged teal to western and least sandpipers and avocets. The number of birds picked up in the Carson Sink between September 24 and October 31 totalled 43,257. In descending order, these include: pintails, 17,074; sandpipers, 12,733; redheads, 3,953; green-winged teal, 2,388; mallards, 1,398; ruddy ducks, 1,338 and avocets, 1,313. Other species included dowitchers, golden plovers and California gulls. Not all birds could be found in the 180,000 acre Sink and additional ducks died in adjacent dense shoreline vegetation. The projected total loss was 52,000 to 55,000 waterfowl and shorebirds.

At the close of 1983, inflows into the Sink were at about 4,000 acre feet per day. With these inflows, the Carson Sink is expected to rise one to three feet in 1984 to 190,000+ surface acres. With no water control capability, and only five feet of annual evaporation, similiar water areas and conditions can be expected next summer. Hopefully, botulism losses will not approach the 1983 level.

Total costs for the clean up operations between September 25 and November 2 was \$36,118.30. This includes per diem for detailed FWS employees, airboat and vehicle gas, overtime and all miscellaneous related expenses. Other FWS stations were kind enough to pick-up some salaries, GSA vehicle gas and rental or other expenditures that totalled \$8,114.75, thereby reducing the SWMA's total expenditures to \$28,003.55.

The SWMA was selected to participate in the lead poisoning monitoring study. Although, the Washington Office and the Madison Health Laboratory objectives probably did not change, the methods, procedures and quotas were not finalized until mid-November and most waterfowl had moved on.

Consequently, we were unable to collect 100 gizzards, hearts and livers from redheads and pintails for base diver and dabbling data. This is ironic as the SWMA annual work plan advise suggests a quota of 100 redhead or canvasback livers only for lead analysis. Because of the annual work plan, no hearts or gizzards were collected at the check station making our efforts somewhat useless. These organs from pintails would also have been easy to collect at the same time.

Concentrated efforts were made by manning the check station all of the Thanksgiving weekend because of increased hunting presence and also by checking several units with airboats for sick or dead birds until the end of the year. During one Thanksgiving weekend day, hearts, livers and gizzards from only two ducks were collected. Since this much time could not be justified, collection efforts were stopped.

H. PUBLIC USE

1. General

Fishing for annually stocked rainbow trout into Indian Lakes has become a popular spring pastime with local fishermen. Little fishing activity occurs on the Main Marsh as this fishery has not recovered from drought conditions in the late 1970's and is evidenced by little fishing activity in marsh units.

Swimming and picnicking are usually associated with fishing visits at Likes Lake. One of the first lakes in the Indian Lakes chain, it contains the freshest water and is also popular because the shoreline is shaded by Russian olives. Other lakes in this chain has fair fishery resources, but lack natural shade.

As summer progresses into fall, fishing, swimming and picnicking visits recede. Little visitor activity occurs in the Main Marsh during this period until the hunting season, when most of the visitor use is recorded.

High water levels and unsuitable conditions reduced off-road vehicling and arrowhead hunting.

Total calendar year visits this year were 28,287 compared to 34,166 and 29,942 respectively, in 1982 and 1981.

5. Interpretive Tour Routes

Almost 3,050 people toured the area during the year. New tour route signs were put up in May replacing badly worn or missing ones to facilitate visitor travel through the network of roads. During the I & R inspection and programmatic evaluation, a decision was made to eliminate tour route signs and the Marsh Loop Road be incorporated into new signs. Expected sights and habitat will be described in a new Refuge leaflet. Also, the loop road will receive more maintenance than other roads.

Occasionally, staff members would take visitors through the Refuge area which is normally closed.

7. Other Interpretive Programs

Over 300 school children and teachers enjoyed conducted tours of the area. Several talks; movies and slide talks were given to schools and organizations by the Refuge and Assistant Refuge Manager.

8. Hunting

The Refuge portion of the SWMA is closed to hunting. The remainder of the area is open under general State regulations, with the exception of a 200 yard retrieval zone along Division Road. All of the Management Area is open year round for coyote hunting.

Total hunting visits for calendar year 1983 were estimated at 10,093 compared to 10,171 in 1982 and 8,325 in 1981. Hunting pressure was lighter

this year because of botulism problems and increased water areas for waterfowl. Disturbance from pick-up activities in popular hunting units, causing the birds to move to remote areas prior to the season and fewer hunters moving birds around, produced over all hunter success of 1.86 birds/hunter. Also, as the botulism pick-up count continued to increase, non-local hunters thought success would be poor.

An estimated 13,495 waterfowl were bagged. Only 9.6% of the harvest were redheads compared to 29.8% last year and 3.5% were canvasbacks. Most of the bag, 19%, were green-winged teal.

In 1983, the NDOW increased whistling swan tags from 500 to 650 and also included Lyon and Pershing counties. Normally selected on a drawing system, hunter applications totalled less than 650 on the established dead line date. All remaining tags were sold on a first come first serve basis. The NDOW estimated a harvest of only 200, because of the abundant water areas. An estimated 140 were taken on the SWMA. Following is a table that summarizes waterfowl harvest for the past five years.

<u>Harvest Year</u>	<u>Ducks</u>	<u>Redheads</u>	<u>Cans</u>	<u>Geese</u>	<u>Swans</u>	<u>Coots</u>
1983/1984	12,815	1,230	449	120	140	420
1982/1983	10,797	3,732*	366	130	120**	320
1981/1982	9,780	229	116	50	210	150
1980/1981	10,240	1,820	235	60	40	170
1979/1980	13,720	1,180	740	50	180	200

* Estimated harvest, including illegal kill, exceeded 4,000.

**Harvest for Churchill County based on questionnaires was 161.

9. Fishing

Most fishing pressure is on Indian Lakes, and in particular, Likes Lake, because of the annual NDOW rainbow trout stocking. This and other Indian Lakes contain white and largemouth bass, bullhead, channel, white catfish and crappie. Most of the 14,960 fishing visits were recorded between March and June.

Very little fishing pressure occurs on the Main Marsh. The drought in the late 1970's severely impacted this fishery. A respectable fishery should be available in the near future, as numerous small game fish are observed in some units during the summer months and because of fresher and less saline water. Little change in fishing pressure or success has occurred since 1981. That creel census revealed an average of 1.20 fish/angler and caught .406 fish per hour.

10. Trapping

For the third season in a row, a bid system was used to select qualified muskrat trappers. This fall, new guys entered the contest which droye bids up and froze out several long-time SWMA trappers.

<u>Fiscal Year</u>	<u>Number of Trappers</u>	<u>Report of Rat Harvest</u>	<u>Receipts to TCID</u>
1984 (83/84 Season)	7	8,459 (as of 1-1-84)	\$3,834.37 (Bid)
1983 (82/83 Season)	7	5,253	\$1,529.35 (Bid)
1982 (81/82 Season)	6	2,617	\$2,344.64 (Bid)
1981 (80/81 Season)	6	2,750	\$3,467.12 (25% Share)

Rat populations have increased steadily since 1978 and exploded in 1982 and 1983. Newborn muskrats were still being caught at the end of December! Annual bid prices don't follow this trend because of expected pelt prices, at the time of bidding, vary from year to year.

The outstanding 3,620 rats harvested in Nutgrass during the 1982/1983 season helped boost total harvests to 5,253. If a 25% share had been in effect, and all rats reported, TCID would have received \$2,874.24 from \$11,496.95 earned by the trappers. Instead, bids totalled only \$1,529.35.

An astounding number and density of rat houses were present by late fall. Few areas in the Marsh contain emergent vegetation. These sites were much denuded from rat house construction and feeding activities. Some dike and levee damage was noted.

11. Wildlife Observation

Visitors totalled 3,609 or 12.7% of all visits. There are no contact stations or other facilities for these people. They rely only on tour signs and the Refuge leaflet for guidance. Pelicans, shorebirds and whistling swans attract most observers.

14. Picnicking

Likes Lake is the most popular spot due to shade and is associated with swimming and fishing. There are no picnic or litter facilities on the area.

15. Off-Road Vehicling

State Commission Regulations restrict this activity on the SWMA, but public notice is provided only on annual hunting regulations. Numerous signs prohibiting off-road travel has been put up at their favorite use areas. With little enforcement by the State or the FWS, there is only limited compliance. This year, off-road vehicling decreased because most playas contained water and apparently other SWMA areas were not satisfactory for unknown reasons.

16. Other Non-Wildlife Oriented Recreation

Swimming is the most popular activity and mainly occurs at Likes Lake. The lake usually becomes murky and very low in August because of reduced summer water quality in Lahontan Reservoir. Due to high flows, the water remained fresh and full all summer. This year, few swimming visits were made between June and August.

High flows into Lahontan Reservoir, due to the 249% above average snow pack, also reduced complaints concerning ineffective sewage treatment upstream. In 1983, this issue was flooded by high water and flushed downstream. Most likely, when Lahontan inflows return to or drop below normal, these little

issues will float to the surface again.

In April, there were 57 people on horseback participating in a long distance cross country trail ride crossing the SWMA. They were restricted to public through roads.

17. Law Enforcement

This year, few violations and no complaints were encountered during the waterfowl season in relation to the 200 yard retrieval zone established prior to the 1982 season. Occasionally, a vehicle would park along Division Road instead of in the designated parking lots. This zone was established to reduce over bag limits of pass shooting redheads and canvasbacks, illegal shooting of swans and trespass to retrieve waterfowl from along the closed Refuge boundary.

In October, most of the Refuge staff time was spent picking up botulism birds and only two staff days were devoted to law enforcement activities during the waterfowl season. No cases were made by Refuge personnel. Regardless of our effort, the NDOW has the primary responsibility for public use enforcement. Unlike last year, they provided four agents on opening weekend, compared to none in 1982. Overall, the NDOW provided a total of 17 staff days on law enforcement, the same as 1982.

The Reno FWS Law Enforcement Office provided 57 staff days on enforcement. Efforts by both agencies resulted in 31 cases. All these were prosecuted in Justice Court. Most violations related to no State or Federal stamp, failure to maintain a wing and taking protected species. Two cases were dismissed and one case is still pending.

A check station is set up each fall by the NDOW to determine hunter success and use. Refuge staff also assist with this weekend check station. This provides an opportunity to collect livers or gizzards from redhead and canvasbacks for analysis of lead poisoning. Occasionally, hunters will even try to check protected species through the check station.

For the first time, a check station was set up on the Indian Lakes Road to encounter hunters from the Carson Sink and those who wanted to bypass the other established primary check station. It was operated on opening weekend by State and FWS personnel. Surprisingly, this check station resulted in no citations for over bags or protected species taken.

Vandalism related to signs and facilities continued to be a problem. In the Indian Lakes area, new signs or map boxes erected for the first time have a life span of two to five days. Signs on older established supports generally last one year.

There is an eight day camping limit on the SWMA. This spring an individual living in his truck was evicted from the Upper Lake area.

Illegal cutting of firewood was not as serious as previous years. The primary area, Timber Lake, was inundated with Carson River flood waters. Regardless of the availability of natural firewood, corral lumber is frequently removed and used for firewood.

I. EQUIPMENT AND FACILITIES

1. New Construction

There was no new construction, except for rip-rapping along unfinished portions of the D-Line by TCID, our staff and the YCC crew. On June 22, during the peak of the spring flood, peak flows of 170 CFS on this line caused some washing at the end of the cement portion of the D-Line at the County bridge, at the Upper Lake spillway and at the West County Road. Eight hundred cubic yards were used in stabilizing these areas for peak flows.

2. Rehabilitation

Construction of the Lead Bypass Canal in 1977 cut off access to the Narrows boat ramp into West Marsh. A spoil levee was flattened and widened in 1982 for access, but wave action caused by high water and wind, eroded much of the levee in early 1983. This levee was rebuilt, rip-rapped and the top graveled to provide a more permanent safe access to the boat ramp. This access is especially important for launching by the SWMA staff to control botulism in West Marsh.

About 90 personnel hours were spent hauling rock and gravel from the north pit to repair water damage sustained in February on the Nutgrass dike. This dike is going out again. Nutgrass middle dikes are out and the Pintail Bay dike is sustaining damage due to high inflows and back up waters from the Carson Sink.

Water dumped in alkali flats north of Alkali No. 2 broke through the Goose Bypass levee in three places. We patched two in the north end which we could get to. The channel was plugged so we could shoot spill water north across this flat.

3. Major Maintenance

Excess precipitation combined with high vehicle traffic the past two years has caused considerable damage to the SWMA and the County's maintained road systems. Road top gravel has been ground down into roadbeds. All roads, to one degree or another, need new gravel. Navy Cabin Road is in very bad shape and is scheduled as a 1984 Accelerated Refuge Maintenance Management.

A sink was installed in the shop maintenance building along with an emergency eye wash system.

Maintenance of county roads has decreased drastically the past three years. This, combined with increased precipitation, has caused problems. The County's

portion of North Road has not been maintained for 20 years or so. Travel to the West Marsh became impossible or at least hazardous. We refused to do maintenance for the County, but with the Commissioner's approval, we straightened five hazardous curves on the Indian Lakes Road at Upper Lake, Big Indian, East Lake and Paiute Pasture.

Cattleguards were cleaned out.

The Refuge boundary along Division Road was reposted correctly. A few more standard off-road vehicle prohibited signs were placed along the North Road and the Willow Lake dike road to prevent cross-country travel by hunters to the newly reflooded areas in West Marsh.

In September, a 24 inch CMP pipe was put in the east side of Vaughn Pond so some control could be exercised over water spreading into the east half of the pond. Two 24 inch structures were put in the lower D-Line to irrigate the north half of East Lake.

A shovel attachment was put on our spare Bay City 3/4 yard dragline for use in our gravel pit.

The old truckbed bridge over the Paiute drain was broken by the BIA contractors constructing the T-J Drain, which crosses the Paiute drain adjacent to the bridge. They also had to destroy our unloading ramp which was in the way of the new drain. BIA provided a 30 foot CMP 48 inch pipe, which we installed, creating a replacement crossing.

After renewing a Bureau of Land Management permit we had 30 years ago in Section 8, T19N, R32E, the crew worked up 30,000 to 40,000 cubic yards of rock in the reactivated Mountain Wells Road pit. With the bulk of the Stillwater Mountains in a wilderness study area, this is the closest source of rock for future rip-rapping projects.

New spoil from cleaning the Hunter Drain in 1982 was flattened this spring. The D-Line Canal spoil, between Little Cottonwood and West County Road became dry enough to try out our new D-6 cat this fall. The spoil was flattened to provide a nicer appearance and flatbed for future canal maintenance.

The YCC crew rip-rapped sections of the D-Line, repaired Upper Lake and East Lake corrals and holding pens, painted all sign frames and supports and performed maintenance clean up for recreational areas.

Floyd Graham, just prior to retirement, worked 20 days at Marble Bluff cleaning the fishway and assisting the Fishery Assistance Office in Reno.

Abundant moisture created additional weeds which infested canals and had to be removed.

Maintenance of corrals and certain fences were assigned to permittees.

4. Equipment Utilization and Replacement

Below is a listing of major maintenance or upgrading of vehicles and equipment.

Installed a new propeller on the airboat.

Repaired mags on the Bear Lake National Wildlife Refuge airboat.

Replaced a starter on the Malheur National Wildlife Refuge airboat.

Rebuilt the steering system on the bell boy boat.

Overhauled the starter and electrical system on the Reno's law enforcement airboat.

Reactivated the TD-18 and scraper which has been in moth balls the last ten years.

Installed a new roll-over protection structure on the TD-18, needs OSHA check.

Rebuilt TD-18 steering frictions and hydraulic system.

Built new floor and sides, installed tail lights and painted utility trailer.

Rebuilt the brake system on the Miller tiltbed trailer.

Obtained a one and a half cubic yard loader from the Naval Air Station in North Island.

Installed a new engine in the International truck tractor.

Rebuilt the control gear boxes and starter system on the 1966 grader.

Made both Bay City draglines operational and rebuilt electrical systems.

5. Communication Systems

A radio system was installed in I-141268, I-141278 and I-136637. The shop base radio was overhauled.

7. Other

Part of the programmatic discussions in May related to de-emphasizing public use on the SWMA. Therefore, the frequently vandalized, unmaintained vault, "John", was removed in late September.

J. OTHER ITEMS

1. Cooperative Programs

The SWMA operates under a 1948 Tri-Party Agreement with the TCID and the NDOW. Physical management of the area is the responsibility of the FWS who also provide the crew and equipment. The NDOW is supposed to supervise public use and supposed to share costs 50-50. As a cooperative management area, frequent contact with the above agencies is required. Several formal meetings were held to discuss problems, projects and policies, bass, botulism and the TCID advisory.

2. Items of Interest

Floyd Graham, employed at Stillwater for about three and a half years as an equipment operator, retired on May 28.



On September 20, "Duff" received the Valor Award from Secretary Watt at the 49th Honor Awards Convocation ceremony in Washington, D.C. for his rescue of an injured girl in a mine shaft, (See Items of Interest section of last year's narrative).

Our first office yard break in occurred on January 20. A camera, spotting scope and three binoculars were stolen. All, but the scope and one binocular, were recovered and the burglar was sent to prison.

For water lawsuit legal actions, see Appendix I.



On May 17, Tracy received a Special Achievement Award for required additional service due to the Refuge Assistant's maternity leave. EWL 5/83

3. Credits

Sections A, B, C, D (1, 2), E (1, 5), F and J - Morris LeFever. Remainder of narrative and photos - Edward Loth. Typing - Connie Erquiaga and Tracy Sharp.

K. FEEDBACK

I feel that the cumulative detrimental effects of the FWS's reduction in staffing and funding since the early 1970's is reaping its reward now, as facilities continue to deteriorate. This station did not receive a dime of the Bicentennial Land Heritage Program monies - no facilities, no equipment, no buildings and lost three positions.

The NDOW continues not to fund their fair share of annual operational costs, 50% as per the 1948 Agreement. Their \$25,000 represents about one-eighth of the total. They at least got \$500,000, but not of their own money, for the new D-Line, but this does add more facilities that we have to maintain and operate.

Everytime there is a drought here, the FWS gets excited and talks about

Stillwater drying up and about abandoning the project. But this is a desert and we need to think of average outputs. Outputs will be low now as we are at the other extreme - flooded and too deep for nesting and feeding waterfowl.

APPENDIX I

Fallon Man Is Honored For Rescue

The Department of Interior's Valor Award will be awarded to Eugene E. Duffney on Sept. 20, at the Department's Honor Awards Convocation ceremony in Washington, D.C.

Duffney is a Fish and Wildlife Service employee at the Stillwater Wildlife Management Area in Churchill County.

A few of these awards are granted annually to Departmental employees who demonstrate unusual courage involving a high degree of personal risk in the face of danger.

On April 12, 1982, "Duff" was lowered down into a mine shaft by other Churchill County Search and Rescue members and was able to rescue a seriously injured 21 year old Fallon resident, Kathy Bradlee. According to Churchill County Sheriff David Banovich, those in-

involved in the rescue risked personal safety.

VALOR AWARD
(22AM 6.13G)

Maintenance Mechanic Leader



Eugene E. Duffney

Eugene E. Duffney, a Fish and Wildlife Service employee on the Stillwater Wildlife Management Area, has for many years been a member of the Churchill County Search and Rescue. During this period he has put in many hours searching for crash victims, lost persons (many children and old folks), rendering first aid or other aid, etc.

On April 12, 1982, after a hard day's work on the SWMA, he was called to help rescue a young woman who had fallen down a mine shaft. Arriving at the scene "Duff" volunteered to be lowered by rope 70 feet down into the shaft. While not a phobia with him, he really does not care for caves, mines shafts, etc. Duff forced himself to let his body be lowered into the narrow dark shaft. His helmet-

mounted lamp barely illuminated the scene.

Part way down he became hung up in old mine timbers and later encountered a steep slope of loose rock. He then had to proceed by cautiously crawling further down. Rocks kept sliding. Others fell on him. He almost 'quit' because the walls kept closing in," but he could hear the victim's distressed breathing. Forcing himself, he reached 21 year old Kathy Bradlee and rendered first aid to the unconscious woman who had a severe head wound and a broken leg. Next a stretcher, equipment and another man had to be lowered into the shaft. Soon more rocks came cascading down. Duff covered Kathy with his body and covered her head with his hard hat. Rocks hit him. One knocked the hard hat from her head and it went bouncing down, down deeper into the mine shaft. With assistance, Duff strapped and secured Kathy's leg to a

stretcher and strapped her in. (The doctor said if they hadn't done this correctly the leg might have been lost or more severely damaged.) Next the woman, stretcher and all, and both rescuers had to be hoisted out, twisting and banging against the narrow shaft. Duff was again caught in some mine timber but broke free. Duff was in the shaft for over 3 1/2 hours. During this period it was difficult for him to breathe and his eyes hurt, apparently from gasses in the mine. Afterward, the Sheriff said that the rescuer had risked personal safety in the rescue.

Truckee River rights: the major court cases

These are the major federal court cases pending on Truckee River water rights:

□ **U.S. vs. the Orr Ditch Co.:** Filed in 1913, this case took 31 years before establishing who owned what water rights on the Truckee River in the 1944 Orr Ditch Decree. The case remains open to allow the court to administer the decree through a federal water master, currently Claude Dukes.

□ **U.S. and the Pyramid Lake Paiute Tribe of Indians vs. the Truckee-Carson Irrigation District:** In 1973, 29 years after the Orr Ditch Decree, the Pyramid Lake Tribe succeeded in reopening the question of Truckee River water rights. The government and tribe filed against 17,000 defendants — everyone owning a water right listed in the decree. But last June, the U.S. Supreme Court turned down the Tribe's efforts to establish a water right for its lake and fishery.

The tribe is attempting to resume the case by pressing claims for any water that might be in the river but not covered by the Orr Ditch Decree.

□ **The Carson-Truckee Conservancy District vs. Secretary of the Interior James Watt:** Commonly called the "Stampede case," this suit seeks to use the water from Stampede Reservoir for Reno and Sparks. Watt, and every interior secretary before him, has used Stampede water releases to preserve Pyramid Lake's Lahontan cutthroat trout and cui-ui.

The conservancy district is an obscure agency established to contract for the water from the federal Washoe Project, but the suit also is being pressed by the Sierra Pacific Power Co. and Nevada.

Visiting Judge Gus Solomon ruled that the cities do, indeed, have the right to store water in Stampede, but only after the inter-

ior secretary sends enough downstream to protect the endangered cui-ui and threatened cutthroats, satisfying neither side. Both sides have appealed to the 9th Circuit Court.

□ **The Water Master's Petition:** An offshoot of the Orr Ditch case, when the Interior Department asked Dukes to release water to allow fishery experiments on the Lower Truckee in 1976, the water master filed a petition asking the court what he should do. Interior and the tribe contend he is wasting a lot of water by giving southwest Reno residents more than they are entitled to through ditches that were originally built to irrigate farmland in the Truckee Meadows.

Visiting Judge Walter E. Craig has set a trial on those contentions for June 4.

□ **The Pyramid Lake Tribe's Petition for Change of Use:** In another offshoot of the Orr Ditch case, the Indians petitioned to have some of their agricultural water rights changed to help the cutthroat and cui-ui. Judge Craig told them to file with the state engineer, who controls water rights in the state, but left the door open for judicial review of the state's decision.

□ **The Pyramid Lake Tribe vs. the City of Reno:** Also filed against Sparks, the Environmental Protection Agency and Department of Interior, the tribe alleges that the Early Start Project, which enlarged the cities' sewage treatment plant, threatens the Lahontan cutthroat and cui-ui because the defendants have not lived up to their agreement to protect the fish.

Craig has the case under submission and may set it for trial June 11.

□ **The Pyramid Lake Tribe vs. EPA:** The tribe is seeking to void certain water quality regulations in Nevada.

□ **The Pyramid Lake Tribe vs. California:** The tribe is pressing the same fishery water right claim it lost in Nevada against Truckee River water rights owners on the California side of the border. The case is pending in federal court in Sacramento.

□ **The Pyramid Lake Tribe vs. Interior Secretary Rogers Morton:** Filed in a Washington, D.C., federal court in 1973, this took the TCID by surprise when Judge Gerhard Gesell ordered the irrigation district to limit its diversions of Truckee River water to protect Pyramid Lake's fish. The injunction is still pending.

□ **TCID vs. the U.S.:** After the TCID ignored Gesell's order, the district went to court in 1974 to try to stop the secretary of the interior from revoking its 1926 contract to operate the Newlands Project. Reno District Court Judge Bruce Thompson ruled last year that the secretary does have the power to cancel the contract. But Interior officials say they have no plans to take over the project. TCID has appealed.

□ **TCID vs. the U.S.:** The TCID also is trying to recover revenue it says it lost by agreeing not to operate its hydroelectric plants in the winter so the water could go to Pyramid Lake.

□ **U.S. vs. the TCID:** The government is attempting to regain control of 64 acres next to the dam across the outlet of Lake Tahoe. The TCID currently controls it.

□ **U.S. vs. the Alpine Land and Reservoir Co.:** This case was in the federal courts longer than any other in history — 58 years — when the U.S. Supreme Court turned down the tribe's request to argue for more Pyramid Lake water and let stand the Alpine Decree, establishing all water rights on the Carson River.

Supreme Court Rejects Pyramid Tribe's Appeal

The U. S. Supreme Court voted 6-3 Monday not to hear an appeal from the Pyramid Lake Paiute Tribe that would have meant more Carson River water for the tribe and less for farmers downstream in the Newlands Project in the Lahontan Valley.

The Supreme Court's decision finally settles the 58-year-old case that was decided in favor of downstream farmers last January in a Ninth U. S. Circuit Court of Appeals ruling. The federal government was arguing in favor of the case then, but agreed to abide by the court's ruling rather than appeal.

However, the tribe was not willing to accept the decision, and it appealed to the Supreme Court.

The tribe's contention was that the Lahontan cutthroat trout and cui-ui fish, prominent fish at Pyramid Lake, are both endangered species and they needed

Paiute Indians lose Carson River suit to ranchers

WASHINGTON — The U.S. Supreme Court Monday handed Nevada farmers and ranchers a victory, rejecting an appeal by the Paiute Indians for more water from the Carson River.

The court, settling a 58-year-old dispute by a 6-3 vote, let stand a ruling that favored residents of the Newlands Reclamation Project.

The 9th U.S. Circuit Court of Appeals ruled last January in favor of the irrigation needs of Newlands farmers and ranchers. The court rejected the position of the federal government which, in part, represented the Indians' fishing interests in Pyramid Lake on the Paiute reservation.

But the government asked the justices of to review the appeals court ruling, saying it was willing to accept the circuit court decision.

"We are mindful of the continuing obligation of the United States to protect (Pyramid) lake and its fishery for the tribe," the Justice Department said. "But we are mindful as well . . . of the public interest in bringing to a close . . . litigation which is now 58 years old."

more water for spawning purposes.

The tribe was also unsuccessful in trying to appeal another portion of the 9th Circuit Court ruling that gave the state engineer, not the Interior Department, control over how to distribute Carson River water.

Truckee-Carson Irrigation District (TCID) Project Manager Dennis Heaps said Monday's decision not to hear an appeal "firms up" the water allocations of 3.5 and

4.5 acre feet per acre in the Orr Ditch and Alpine decrees.

Heaps also said the decision will strengthen the district's bargaining position going into next week's meeting in Colorado with the Indians and Bureau of Reclamation over water rights along the Truckee and Carson rivers. Transfer of water rights will also be discussed at the Oct. 12 meeting.

Supreme Court refusal to intervene

FAGLE STD 10/4/83

firms up Alpine, Orr Ditch decrees

Truckee-Carson Irrigation District legal counsel Fred Girard told Project Manager Dennis Heaps that the U.S. Supreme Court decision not to intervene in the Alpine Case just firms up both decisions in favor of the farmers and ranchers on the Newlands Project. The high court reconvened the first Monday in October for its new term.

A United Press International release Monday morning stated: "The U.S. Supreme Court refused to hear a case involving an Indian Tribe of Nevada dispute over Truckee River water rights, effecting one of the nation's oldest reclamation projects.

"The Pyramid Lake Paiute Indians had asked the court to review a 1980 judgement increasing the maximum water rights to farmers in the TCID. The Indians claim giving the farmers more water means less for Pyramid Lake, which provides them with a living from a fishing industry. The level is so low they say trout and endangered cui-cui cannot breathe. The Indians claim the ruling will divert up to 60,000 acre feet a year from the lake."

During this past wet year the level of Pyramid Lake has risen some 13.36 feet over its level in 1951. October 18, 1951, Pyramid's level was at 3803.32. In October 1982 it was 3791.80. As of August 30 it was 3805.16 feet.

Heaps said the Ninth Circuit Court of Appeals had upheld the Alpine Decree last spring and this firms up the Orr Ditch Decree. This guarantees water rights as set at 3½ acre feet for bottom lands and 4½ acre feet for bench lands.

What happens if the Bureau of Reclamation changes its mind and decides to take over the project is covered in yet another lawsuit.

The Paiutes were not willing to accept the lower court ruling. They asked the justices to allow the tribe to take the government's place and represent itself in the case. The Paiutes said that the principal fish in Lake Pyramid, the Lahontan cutthroat trout and the cui-ui, are endangered species and their survival depends on obtaining more water for spawning flows in the lake.

Only Justices William J. Brennan, Thurgood Marshall and Harry A. Blackmun voted to hear arguments in the case. Four votes are needed to grant such review.

As part of the same unsuccessful appeal, the tribe also asked the court to review a part of the 9th Circuit Court ruling that said the Nevada state engineer, and not the Secretary of the Interior,

should control distribution of Carson River water. The state official was given power to determine possible changes in where water should be diverted on the river.

The government filed suit originally in 1925 in an effort to establish control over the river water. But the dispute was dormant for years and only recently revived because of disputes over how much water the farmers were diverting for irrigation.

Tuesday

OCTOBER 3, 1983
GAZETTE-JOURNAL

Court rejects tribal claim to Truckee water

By RODNEY FOO

Attorneys for the Pyramid Lake Indian Tribe expressed shock and disappointment after the U.S. Supreme Court Friday unanimously rejected the tribe's claims to four-fifths of the Truckee River.

The decision reaffirms the controversial 39-year-old Orr Ditch Decree, which parcels out water from the river to more than 17,000 users.

The tribe had sought to gain 385,000 acre-feet of water from the river, which has an average annual flow of about 500,000 acre-feet at Farad.

The decision was blasted by attorney

Mike Thorp, who represented the reservation.

"This is the worst one (ruling) that the Burger Court ever rendered," Thorp said.

"Our reaction is one of shock and disbelief . . . There is no question this is a serious setback," he said.

"I haven't read it (opinion) but I'm disappointed," said attorney Robert Pelcyger, who argued the case before the Supreme Court in April.

Conversely, Gov. Richard Bryan, attorneys for the state and the Truckee-Carson Irrigation District hailed the 9-0 ruling.

"The Supreme Court's decision is tremendously important," Bryan said. "It is

a victory not only for the approximately 17,000 defendants in the litigation, but it also builds into the law a protection for all individuals with properly adjudicated water rights."

"The decision provides a stability that is vital for all," the governor added.

"This ruling," said Attorney General Brian McKay, "is a major victory for the state of Nevada and finalizes the question of Truckee River water rights. The Supreme Court decision also assures the preservation of the Newlands Project near Fallon."

Frederick Girard, attorney for the Truckee-Carson Irrigation District, said,

opposed the diversion. The district stood by the 1944 Orr Ditch Decree, which set down the water rights for Truckee River users.

In 1971, the federal government — on behalf of the Indians — went to the Supreme Court to establish fishery rights and gain more water for the reservation. The court said all users of the river had to be notified first and the case should be filed in federal district court.

Two years later, 17,000 water rights users received inch-thick complaints from the government and the controversy began in earnest. Blaine Anderson, a visiting federal court judge from Boise, Idaho, ruled in favor of the decree.

The Indians appealed to the 9th Circuit Court of Appeals and won a partial victory. The court, by a 2-1 vote, said the Indians could not challenge water rights

Justice William Rehnquist wrote for the court.

In a concurring statement, Justice William Brennan concluded: "Our decision today is that thousands of small farmers in northwestern Nevada can rely on specific promises made to their forebearers two and three generations ago, and solemnized by a judicial decree, despite strong claims on the part of the Pyramid Lake Paiutes."

Lamenting the Indians' plight, Brennan suggested they still are able to hold the United States liable for "breach of duty" for the way its lawyers shorted the tribe of water reserves in the 1944 decree.

One of the tribe's argument's in the case was that Justice Department had a

"I think we're very pleased with it. It basically supports what the state of Nevada and the TCID have consistently contended.

"We felt we were right and the tribe felt they were right. But that's what lawsuits are for."

Said Reno attorney Jack Hoffman, who was hired by the state to work on the case, "I suspect there is always going to be some water litigation on the Truckee River . . . but this particular decision comes as close to finalizing the water decree as any decision possibly could."

See WATER, back page

Water

From page 1A

Thorp said there were few legal alternatives left other than to bring suit against river users to enforce conservation, thereby enabling more water to flow into Pyramid Lake.

Water is essential for the spawning of the lake's fish, the endangered cui-ui and the threatened Lahontan cutthroat trout.

Another alternative is to seek a portion of the federal government's water rights from the Newlands Project, which distributes irrigation water to farmers in Fallon and Fernley, he said.

As for any further challenges of the Orr Ditch Decree, Thorp said, "If I could come up with another approach I'd try it,

but it doesn't look too good."

Pelcyger said the tribe has a petition in Reno Federal District Court to change 30,000 acre-feet of its water rights from irrigation purposes to fishery use. The lake currently receives about 5,000 to 10,000 acre-feet of water in addition to releases from Stampede Reservoir.

Tribal officials will meet with their attorneys next week to discuss the ramifications of the ruling.

The water controversy began with the Indians' attempts to gain 385,000 acre-feet of additional water for Pyramid Lake for fishery use.

It would have diverted water from the Newlands Project, a 1902 irrigation system built by the Bureau of Reclamation, and taken water from farmers.

The Truckee-Carson Irrigation District, operators of the project since 1926,

*Reno/Southern
CALTEC
6/25/83*

Pyramid Lake Indians will benefit from TCID ruling

By MITCHELL LANDSBERG/ The AP

Project, which includes the series of dams and ditches administered by the irrigation district.

The TCID has administered the Newlands Project since signing a contract with the federal government in 1926.

"Had we abided by that (Justice Department order), our farmers would have either had to reduce their crop acreage by one-third or we would have run out of water by August," Heaps said.

Because the TCID openly opposed the government order, former Secretary of Interior Rogers Morton claimed the right to nullify the 1926 contract and take back the Newlands Project.

That right was upheld in Thompson's ruling. But the current administration of Interior Secretary James Watt appears less zealous about cracking down on the TCID.

King said the Bureau of Reclamation probably will come up with some new, less stringent "operating criteria" which are still likely to reduce Truckee River water diversions.

That fits in with the TCID's plans. Heaps said the irrigation district would seek new operating criteria, but also probably will seek a new ruling from the 9th Circuit Court of Appeals.

Of the entire matter, King said: "We regard this as simply another chapter in a long and very difficult negotiation between the United States and the several competing interests for the water supply in Nevada.

"Of course, on the face of it, there's not enough water to go around, and that's what's given rise to the debates over — how long? — 50, 60, 70 years."

Although a federal court ruling gives the federal government authority to take over the Truckee-Carson Irrigation District, a spokesman said Thursday there are no plans to do so.

However, Jerry King of the Bureau of Reclamation added that the ruling by U.S. District Judge Bruce R. Thompson probably will mean more water for Pyramid Lake Indians and less for Truckee River farmers who depend on the TCID.

"The bottom line of this is that, while the ruling does give us authority to take over operation of the Newlands Project, we don't have any intention or plans to do so," King said.

However, he added that "sometime in the future push could come to shove" if the TCID fails to operate the federal reclamation project as the government wishes.

TCID project manager Dennis Heaps said the district would appeal Thompson's ruling, which was handed down Aug. 18.

The ruling stems from a 1973 lawsuit filed by the TCID against the U.S. Department of Justice, which had ordered the irrigation district to sharply reduce its water diversions from the Truckee River.

The diversions were lowering the level of Pyramid Lake, and the government was acting in the interests of the Paiute Indian tribe whose reservation includes Pyramid Lake.

The TCID refused to comply with the order, which was in the form of new "operating criteria" for the Newlands

TCID loses right to operate Newlands Project near Fallon

Reno Gazette-Journal

Thu

U.S. District Judge Bruce Thompson has ruled the Truckee-Carson Irrigation District (TCID) has lost its right to operate the Newlands Reclamation Project near Fallon because of its "complete defiance" of federal rules in limiting the distribution of water to farmers.

Thompson, in a case that was filed in 1974, said the Secretary of Interior Rogers C. B. Morton had the authority to terminate the contract with the irrigation district and take possession of the reclamation project.

It is not clear whether the present administration of Interior Secretary James Watt will follow through with the previous decision to take possession of the project.

TCID, an association of farmers, had filed suit in 1974 seeking an injunction to stop Morton from carrying out the decision.

1926 that gave the district the right to control the waters and where they go.

In the early 1970s, the Pyramid Lake Indians filed suit in Washington, D.C., seeking to limit the amount of water the irrigation district could divert from the Truckee River to the farmers in the reclamation project. The Indians wanted more of the river waters to maintain the fisheries at Pyramid Lake.

ees to run the system, failing to set up a procedure for measuring the water that was delivered to the farmers and in calculating how much should be charged. Judge Thompson found the district "made no effort to reduce the diversion" from the Truckee River despite being notified it was exceeding its allocation month after month.

A federal judge in Washington, D.C., ruled in favor of the Indians directing the interior secretary to set new criteria for the distribution of the water.

Morton notified the district he was reclaiming the project as of Nov. 1 1974. The district then filed suit. The judge said the key issue in the suit was whether the decision of a federal judge in Washington, D.C., could be enforced against TCID since it was not a party to that suit.

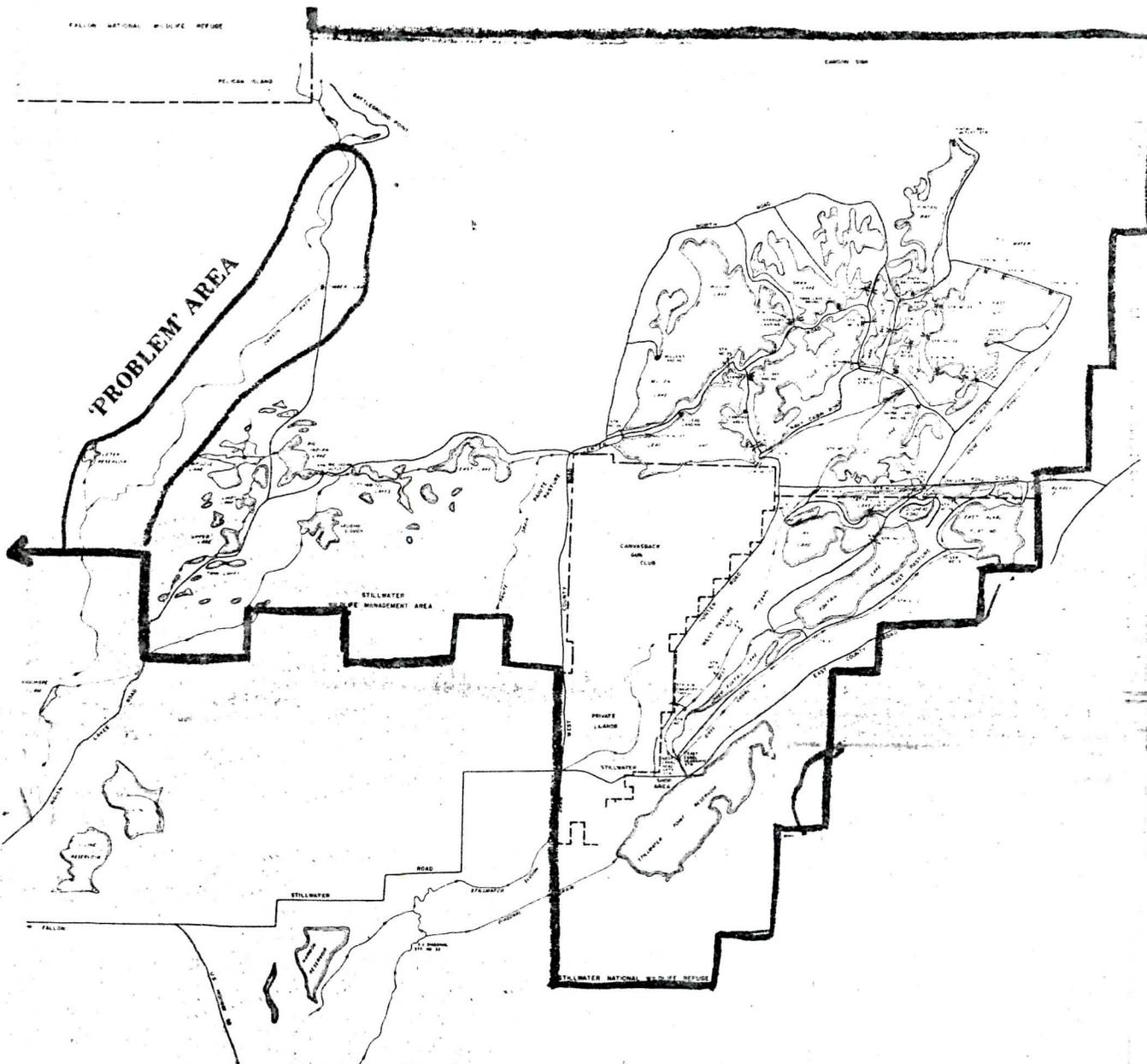
In 1972, the standards allowed 378,000 acre feet to be used by TCID. The judge's ruling limited that to 288,120 acre feet for 1974. Morton was bound to carry out the decision.

Thompson said TCID was correct in the contention a person must be a party to a suit before any requirement can be imposed on that individual.

TCID admitted ignoring the new standards, using 350,000 acre feet, delivering water to non-water rights holders.

Method: Bruce Thompson

Woodcutters Pose Problem A Refuge



There is a serious problem of people illegally cutting wood on Stillwater Wildlife Management area land, northeast of Fallon, says Morris LaFever, manager of the cooperative state and federal land reserve project.

The problem was brought to public attention last week when some local landowners within the project took out an ad in the **Lahontan Valley News** offering a \$500 reward for information leading to the arrest and conviction of anyone seen cutting wood on private land.

Since that ad appeared, LaFever said his phone has been ringing constantly by people wanting to know how they can get a permit to cut the wood on project land.

"We are not issuing cutting permits," LaFever said, and neither are the "private landowners for their property within the Stillwater (Wildlife Management) Area." Apparently, many people have been cutting their wood there for years, he said, not knowing that it

was illegal.

"The major problem area is around Indian Lakes, Leter Reservoir and north down to the mouth of the Carson River," LaFever said.

"Most of the cottonwood trees one sees along the river are on private property, much of which is unfenced," he said.

"Management area trees are valuable for

wildlife habitat and enhance recreation," LaFever said. He asks that the public "cooperate in protecting this public and private resource.

The Stillwater Wildlife

Management Area consists of about 200,000 acres of land under private and state and federal ownership. Approximately 70,000 acres are privately owned.

A MAP OF the Stillwater Wildlife Management Area. Above at left is the "problem" area where persons have reportedly been illegally cutting wood.

There are 200,000 acre of land within the refuge northeast of Fallon. Approximately 70,000 acres are privately owned

District Pleased With New Operating Criteria Adopted By BOR

Truckee-Carson Irrigation District (TCID) Project Manager Dennis Heaps says as long as the district operates within the new criteria agreed upon by TCID and the Bureau of Reclamation, there is no danger of the federal government coming in and taking over the Newlands Project.

The TCID board of directors accepted a maximum figure of 382,000 acre feet of water that would be available to the district each year under a new Operating Criteria and Procedures (OCAP) agreement with BOR. The two sides reached an agreement on the new OCAP at a meeting last week in Fallon.

Heaps said the district is "very comfortable" with that figure. "Our people (the directors) feel we can live within that," he said.

The negotiated agreement replaces the old OCAP that the district was found to be in violation of by federal Judge Bruce Thompson in an August decision in his court.

Thompson ruled that the district violated the 1926 contract it entered into with the Interior Department to manage the district when it failed to comply with another court ruling in the 1970s that gave the district the right to 288,000 acre feet of water. Thompson's ruling gave BOR the power to come in and take over management of the Newlands Project.

Almost immediately after Judge Thompson's ruling was made public, BOR went on record saying it had no desire to take over the project.

BOR and TCID agreed in August while working on the new power plant project to sit down and work out a new OCAP.

FALLOON EAGLE STANDARD 11/5/84

TCID continues work on water rights transfers

By HANNAH PHILLIPS

Truckee-Carson Irrigation District Board of Directors called a special meeting regarding water rights transfers on Tuesday. The directors discussed several issues that will be brought up for action at their regular meeting next week.

Among action taken, the directors presented a resolution for water-right owners of larger parcels to also be notified so they may avoid assessment charges for the '85 year if they will file intents to transfer their rights before March. The TCID offices will be sending out notification this week.

Since the Bureau of Reclamation has called for more accountability on water rights transfers, a number of new procedures have been approved at the state level regarding such transfers. Director Joe Serpa argued for TCID overview of transfer proceedings from the very beginning to avoid delays later in the process. The state engineer's office will have to be notified of all decisions.

In the face of litigation, the BOR has asked for a number of stricter records regarding transfers. In any event, the parcels will have to be surveyed, ownership must be verified, and the source of the water and where it will end up all must be documented. The new procedures will mean more expense likely for both TCID and water rights users and transferees.

Another resolution that will appear on the meeting agenda will be deciding the feasibility of hiring a surveyor or engineer to handle these records. If hired, the water user will have to pick up the cost of surveying services because TCID does not have the money available with their other budgeted commitments. In any event if TCID hires a surveyor engineer or not, the consumer will

have to pay out of their pocket for water transfers with the new regulations asked for by BOR and approved by the state of Nevada.

Still to be arrived at are procedures for transfers between owners. The directors discussed a number of approaches they will consider at their next meeting. They decided the direction they want to move in is to combine individual small rights into larger parcels, aiming for 40-acre transfer sizes.

As part of the process, TCID has sent out notices to all small water rights owners they will be assessed for 1984-85 unless they rescind their rights or pay charges. Formerly, these water-rights owners have not been paying charges. TCID Treasurer-Secretary Doris Morin reported that 58 acres have so far been reclaimed for the TCID pool to transfer once procedures are finalized.

With the notice being sent out to larger water users, more acres of water rights are expected to become available. The procedures for how to apply for additional water rights will also be acted upon at the Tuesday meeting. The time frame was estimated to take from 2-3 years for the transfer process to be completed.

TCID is aiming for 8,000 acres to be reclassified in the next ten years and will work to begin transfer of an estimated 2,500 water-righted acres to be transferred within the year. The BOR has called for the transfer process to be finalized within the next six weeks. They are pushing for a speedy resolution to help determine claims in the pending Pyramid Tribe suit. The transfer procedures will be an important part of the BOR called for Operating Criteria and Procedures that will validate TCID claims for all their water righted acres in years to come.

U.S. Supreme Court decides in favor

FALLON EAGLE STANDARD 6/26/83

By PAT STEVENSON

The United States Supreme Court on Friday, June 24, decided that the U.S. shouldn't just keep litigating for a fishery for Pyramid Lake, and favored the Truckee-Carson Irrigation District on all counts in the lawsuit titled U.S.A. versus T.C.I.D.

Governor Richard Bryan, in Fallon to inspect the flood disaster here, hailed the decision as one of the greatest cases in the history of water litigation in the state of Nevada.

Bureau of Reclamation Director Robert Broadbent praised the decision as likely to mean new

negotiations for improvements on the Truckee River that could lead to a greater savings of water. The Nevada Legislature, at the request of Broadbent, had authorized an \$8 million bond issue to pay for part of the work. Broadbent had suggested that canals in the Newlands Project could be lined with cement and also that the water downstream from Reno and Sparks could be cooled. This, he said, would save water that goes into Pyramid Lake.

"The implications of the case from Fallon are awesome," the governor stated. "As you know the appeals court, the Ninth Circuit Court of

Appeals, when I was attorney general, argued the case. In effect it reversed the trial court and held that with respect to the water allocations on the lower Truckee, the area that would clearly affect Fallon, that it was kind of up for grabs. The TCID and the government on behalf of the Indian Tribe would have to negotiate a new allocation that would have upset, in effect, the provisions of the Orr Ditch Decree which adjudicated water rights on the Truckee back in 1944.

"If that decision had been permitted to stand, I'm not sure that any adjudicated water right on any stream in America would have been absolutely safe from attack," Governor Bryan stated.

"What the court did, as I understand it, the Supreme Court affirmed the original trial court which said, in effect, the litigation adjudicated in 1944 holds firm. This is a major case, terribly important, not only for us here in Fallon, but for our

of TCID lawsuit

entire west. This says, in effect, when you litigate you adjudicate a water right that's going to be it. That's an important piece of jurisprudence."

The case, U.S.A. versus TCID, concerned the Pyramid Lake Tribe's claim of a reserved right to use Truckee River water for a fishery on the Reservation, was filed by the 9th Circuit Court of Appeals on June 15, 1981. It reversed in part the District Court determination that the claim was barred by the doctrine of res

judicata. It remanded the case to determine if the Indians had a reserved water right for a fishery and if so to decide how much.

TCID, the State of Nevada, and the Tribe's petitions for rehearing were denied by the Court of Appeals on March 11, 1982. The Tribe may still appeal this decision, according to TCID Project Manager Dennis Heaps. He added that there are still five other litigations pending over the water in various courts.

FALLON NATIONAL WILDLIFE REFUGE

Fallon, Nevada

ANNUAL NARRATIVE REPORT

Calendar Year 1983

U.S. Department of the Interior
Fish and Wildlife Service
NATIONAL WILDLIFE REFUGE SYSTEM

I. GENERAL

The Fallon National Wildlife Refuge lies in the northwest portion of the Stillwater Wildlife Management Area (SWMA) and is included as part of the SWMA. It is on the edge of, and includes part of, the Carson Sink and occupies the mouth of the Carson River.

Most years, not enough water enters the Sink down the Carson River to make the Fallon NWR a viable refuge. In 1981, only 1,068 AF reached this area which needs 9,473 AF to maintain vegetation.

During calendar year 1982, over 137,000 AF flooded this Refuge and the Sink. Water continued to be dumped during all of 1983 with 334,590 AF of Carson waters delivered, over 1,000,000 AF beginning in the fall of 1982. We also dumped an estimated 56,896 AF through the Main Marsh into the southeast part of the Sink and the Humboldt River contributed an estimated 500,000 AF.

As a result, at the end of calendar year 1983, the Sink was full. An estimated 180,000 surface acres in size and 1 1/2 to 1 3/4 feet higher than the operational level of our Nutgrass Unit and generally screwing up our Marsh and facilities.

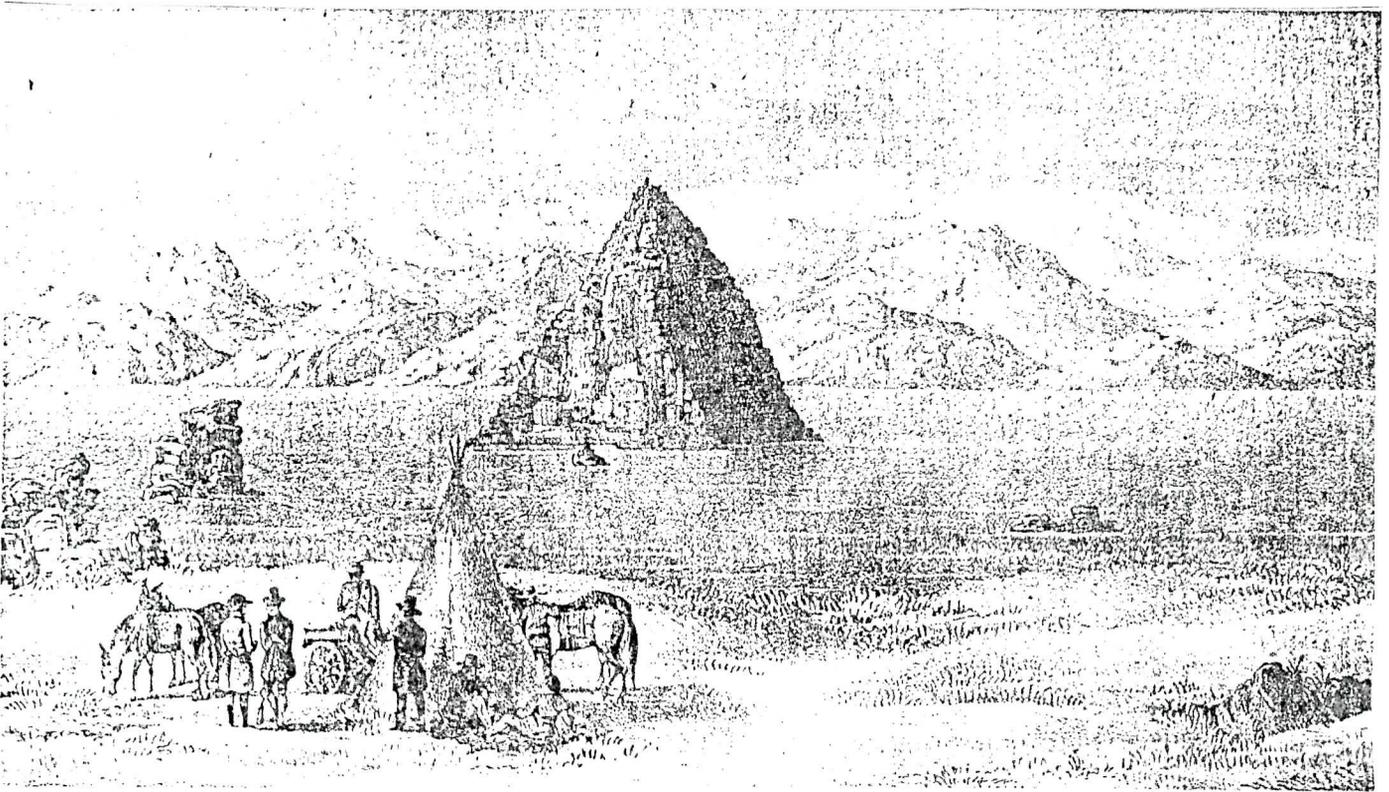
Coleman's salt works remained under water and Solar Inc. has not started exploration for a deep aquifer salt brine pumping project.

ANAHO ISLAND NATIONAL WILDLIFE REFUGE

Pyramid Lake, Nevada

ANNUAL NARRATIVE REPORT

Calendar Year 1983



U.S. Department of the Interior
Fish and Wildlife Service
NATIONAL WILDLIFE REFUGE SYSTEM

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I. GENERAL

A. Introduction

Anaho Island National Wildlife Refuge is located in the southeast portion of Pyramid Lake within Washoe County, Nevada. It is administered from the Stillwater Wildlife Management Area (SWMA), in Fallon, Nevada.

Anaho Island was set aside by an Executive Order in 1913 as a preserve and breeding ground for native birds. In 1940, it was redesignated as a National Wildlife Refuge. The area is entirely surrounded by the Pyramid Lake Indian Reservation. Because of the Island's isolated location, few visits are made and no development has taken place since it was established.

Only applicable sections of the narrative outline are discussed.

B. Climate and Habitat Conditions

Climate is similar to that covered in the SWMA narrative.

Since the 247 acre Refuge is approximately the upper 1/3 of Anaho Island, Pyramid Lake levels probably never alter habitat conditions. The area consists of rocky outcroppings and the remaining area is covered primarily with cheatgrass.

D. Systems Status

1. Objectives

The objectives are to preserve the Island as a sanctuary for colonial nesting birds, while providing opportunities for beneficial research activities.

2. Funding

No separate funding has been available. Activities are carried out with funds and personnel allotted to the SWMA.

III. HABITAT MANAGEMENT

A. Wilderness and Special Areas

The original 247 acres of Anaho Island has been classified as a Research Natural Area (Type Z-16 Birds). The entire Island, now approximately 700 acres, has been proposed to Congress as a Wilderness Area.

IV. WILDLIFE

B. Migratory Birds

1. Waterfowl

Output reports have been discontinued, as use is minor.

2. Other Birds

A much needed masters study was completed in 1982 by John Anderson of the Avian Research Group, San Francisco State University. His thesis - *Breeding Biology of the American White Pelican at Pyramid Lake, Nevada, December 1982*, documented and determined mortality factors of white pelican's young and their eggs. Anderson's study also helped determine the accuracy of our counting methods.

This year, three visits were made to Anaho Island to census colonial nesting birds. Counts were conducted on May 12, June 7 and July 12. During the nesting season, about 4,700 pair made 5,700 nesting attempts and produced 3,330 young. Several factors influenced nesting attempts and hatching success. There was a significant shift in pelicans between two and five colonies. The one colony was near the east Anaho shoreline and became of much higher lake level making the colony more visible. Birds may have moved and/or abandoned their nests due to boater disturbance. Also, after nesting was initiated, normal Pyramid fish runs were delayed which added stress to the birds. This stress was also noted at Stillwater Refuge because normal spring feeding use doubled and spring mortality tripled.

Double-crested cormorants nests were interspersed within pelican colonies. This year there were fewer nests, 700 compared to 800 in 1982. Production was estimated to be 925. Inadequate food supplies and boater disturbance was most likely responsible.

Great blue herons and caspian tern production was down in 1982 by 42% and 8%, respectively. Herons nest on the shoreline side of the pelican colonies, and on the south shore adjacent to the gull colony, were subject to recreational disturbance.

The California gull colony increased from 1,900 nests in 1982 to 2,150 nests this year. There was a corresponding increase in production. Almost 1,100 young were counted in July.

3. Other Wildlife

*One rattlesnake was encountered on the June 7 count.

V. OTHER ITEMS

C. Items of Interest

On April 11 and 29, officials of the Pyramid Lake Reservation phoned the SWMA office with complaints of low flying military jets. On the latter flight, an Air National Guard RF-4C jet had a mid-air collision with a pelican over Pyramid Lake. The collision was most likely a sufficient warning, but a follow-up letter to the Commander of the U.S. Pacific Fleet stressed the importance of low level flights in areas other than Pyramid Lake as 10,000 pelicans use Anaho's airspace each spring.

Pyramid Lake is a land-locked body of water at the terminus of the Truckee River. Diversions from the Truckee-Carson Irrigation District beginning in 1915 caused the lake level to drop about 70 feet. An overall drop of 80 feet was experienced from 1905 to 1966. This drop increased the exposed acreage of Anaho Island from 247 acres to 747 acres in 1977. Currently, most of the colonial nesting takes place off the Refuge and on lower elevations of the Island.

The continued drop in water elevations between 1915 and the mid 1960's caused concern that a land bridge would be formed to the southeast corner of the Island. This would allow predators free access to colonial bird nesting areas. However, between 1967 and 1980, the lake level rose 4.6 feet because of changes in operating criteria on water uses of the Truckee River.

Since 1980, run-off from the Sierras has been good or at a record level of 249% of normal in 1983. Subsequently, water levels in Pyramid have continued to rise and will do so again in 1984. The rise has been so dramatic, that some developed recreation areas around Pyramid Lake have already become inundated. In fact, about 1/4 of the total lake elevation lost during the preceding 73 years has been recovered in less than two years.

In 1982, the lake level increased 6.66 feet and was followed by an incredible 12.96 foot increase in 1983. Current predictions are an additional rise of 6.00 foot by summer, raising the lake to 3,813.9 or about the lake level of 1946. With these increases, there is no immediate danger of a land bridge being created.

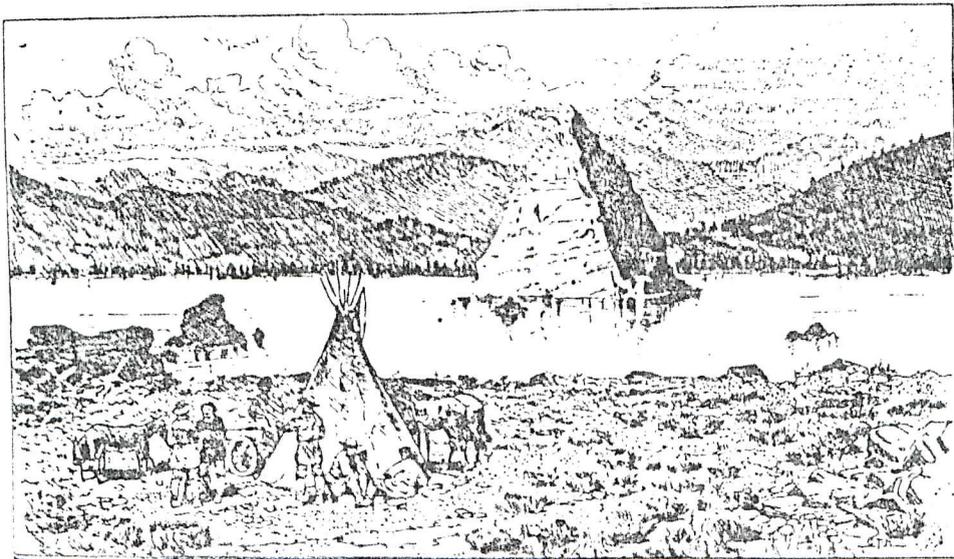
The new information/regulatory sign at the Sutcliff launch ramp was almost lost to rising water, but was rescued thanks to the Pyramid Lake Indian Tribal Enterprises and was relocated on the approach road to the parking area, which by the way, went under water along with the Washoe County operated Warrior Paint facility.

Late this calendar year, a revised leaflet was submitted for Regional Office approval and production.

The Pyramid Lake Indian Tribal Enterprise (PLITE) provided the Manager and Assistant a tour of the hatchery facilities this spring. We were pleased to return the favor in the fall when members of the PLITE and the Tribal Council toured the Newlands Project, including the SWMA.



Almost all of the shoreline posting accomplished last year went under water
5/83 EWL



Pyramid Lake, Nevada, as sketched by Charles Preuss in the winter of 1844. Note the howitzer beside the tepee. (*The Bancroft Library*)

Pyramid Lake as Fremont saw it in 1844



Pyramid Lake today

EWL 6/83