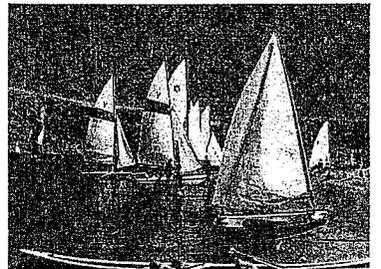


The California State Water Project— Appendix D Costs of Recreation and Fish and Wildlife Enhancement

California State
Water Project
Appendix D



ON THE COVER: Sailboats on Castaic Lagoon, downstream of Castaic Dam (DWR photo 4742-86).

**Department of
Water Resources
Bulletin 132-81**

**The California State
Water Project—
Appendix D
Costs of Recreation and Fish
and Wildlife Enhancement**

April 1981

Huey D. Johnson
Secretary for Resources

Edmund G. Brown Jr.
Governor

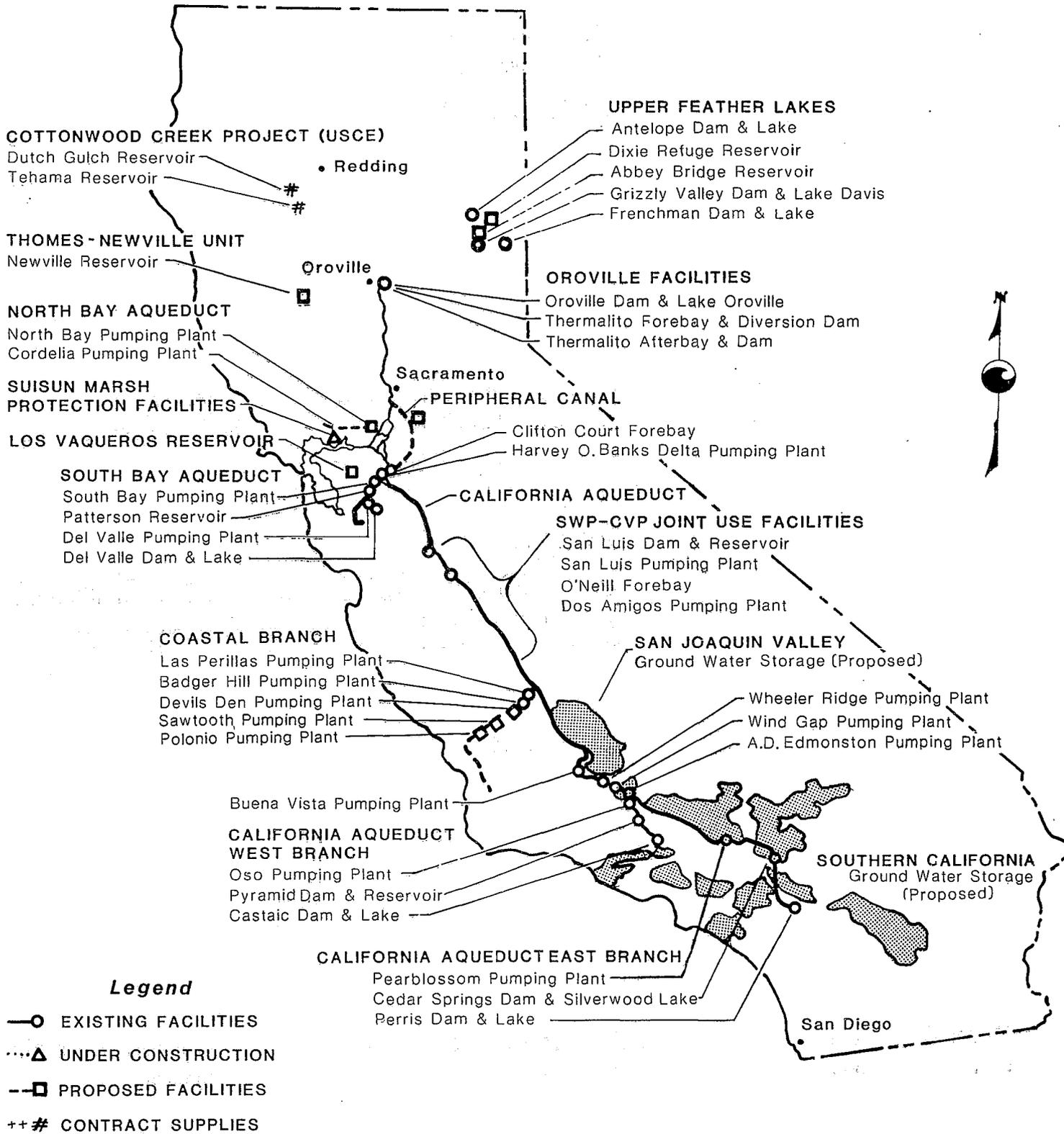
Ronald B. Robie
Director

**The Resources
Agency**

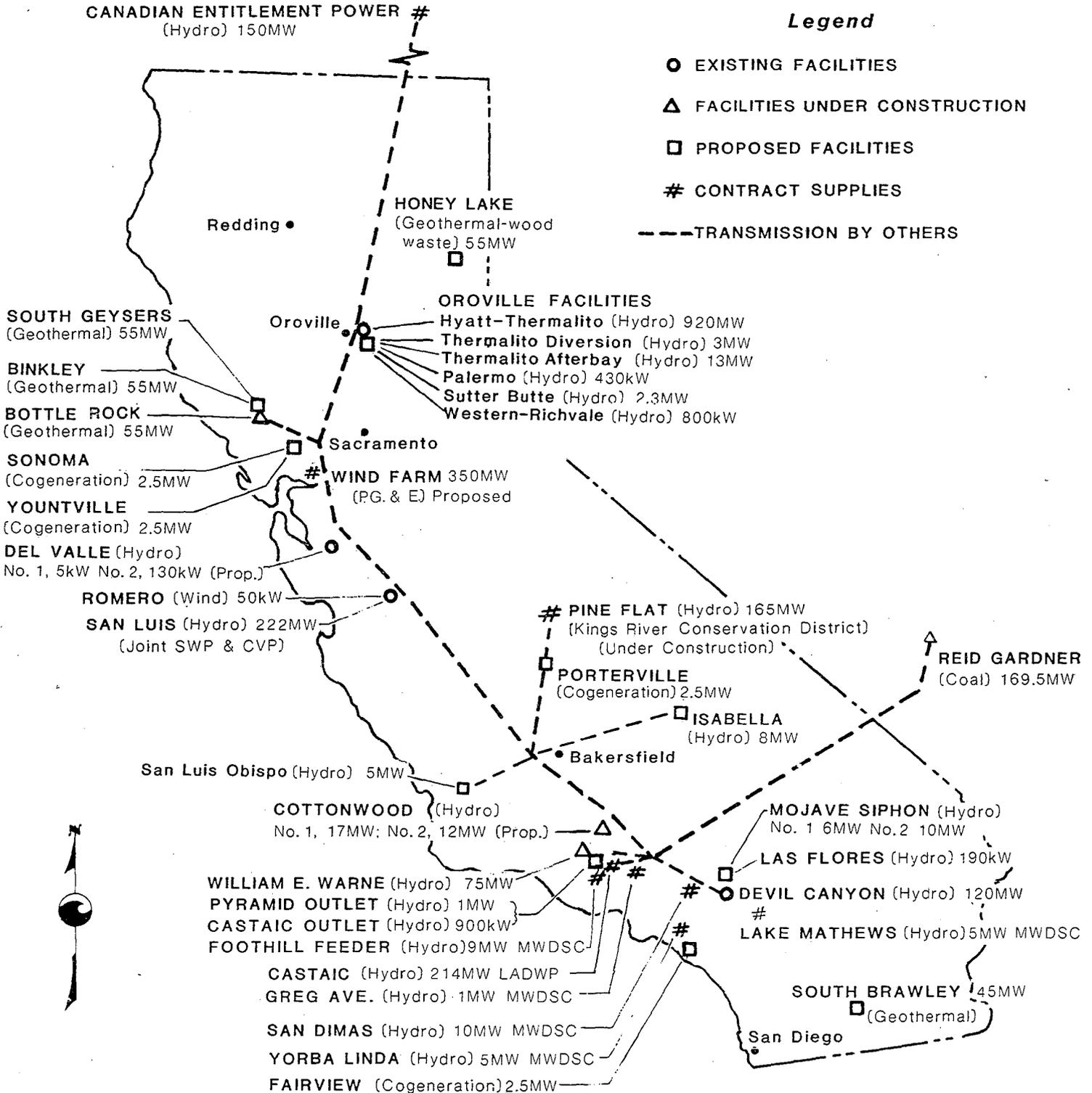
**State of
California**

**Department of
Water Resources**

CALIFORNIA STATE WATER PROJECT WATER FACILITIES



CALIFORNIA STATE WATER PROJECT POWER FACILITIES



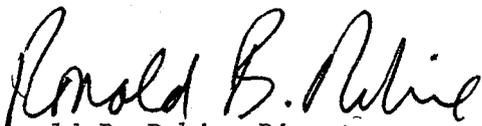
Note:

Power exchange and transmission service supplied by Pacific Gas and Electric, Southern California Edison and San Diego Gas and Electric Companies and the Los Angeles Department of Water and Power.

FOREWORD

The Davis-Dolwig Act (Sections 11900-11925 of the California Water Code) declares that providing for the enhancement of fish and wildlife and for recreation in connection with state water projects benefits all of the people of California and that the costs attributable to such enhancement should be borne by them. The act also provides a procedure through which the Department of Water Resources will be reimbursed for those project costs which are allocated to recreation and fish and wildlife enhancement and for costs of acquiring property for recreation development. The Department is to annually report such expenditures to the Legislature. If the Legislature approves the reported costs, a like amount of the State's tideland oil and gas revenues will be released to the Department from a continuing \$5,000,000 annual appropriation of tideland revenues which has been authorized specifically for that purpose (Public Resources Code Section 6217).

This constitutes the Department's 1981 report to the Legislature in compliance with the above requirement. An additional \$9,297,527 for recreation and fish and wildlife enhancement is reported herein. This amount consists \$7,510,823 for joint capital costs of the State Water Project which are allocated to recreation and fish and wildlife enhancement, plus \$1,786,704 for specific recreation land costs. The additional amount is mostly due to costs incurred in 1980 and interest accrued during 1980 on recreation costs not yet reimbursed by the continuing annual appropriation. The Department requests that the additional amount be approved.


Ronald B. Robie, Director
Department of Water Resources
The Resources Agency
State of California

State of California
EDMUND G. BROWN JR., Governor

The Resources Agency
HUEY D. JOHNSON, Secretary for Resources

Department of Water Resources
RONALD B. ROBIE, Director

MARY ANNE MARK
Deputy Director

GERALD H. MERAL
Deputy Director

ROBERT W. JAMES
Deputy Director

CHARLES R. SHOEMAKER
Deputy Director

This report was prepared by the
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CALIFORNIA WATER COMMISSION

SCOTT E. FRANKLIN, Chairperson, Newhall

THOMAS K. BEARD, Vice Chairperson, Stockton

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Orville L. Abbott
Executive Officer and Chief Engineer

Tom Y. Fujimoto
Assistant Executive Officer

The California Water Commission serves as a policy advisory body to the Director of Water Resources on all California water resources matters. The nine-member citizen Commission provides a water resources forum for the people of the State, acts as a liaison between the legislative and executive branches of State Government and coordinates Federal, State, and local water resources efforts.

REPORTING OF RECREATION AND FISH AND WILDLIFE ENHANCEMENT COSTS

Section 11912 of the California Water Code assigns to the Department of Water Resources the following responsibilities:

It shall be the duty of the Department to report annually to the Legislature the costs, if any, which the department has allocated to recreation and fish and wildlife enhancement for each facility of any state water project. The department shall also report to the Legislature any revisions which the Department makes in such allocations.

The department shall submit each such cost allocation to the Department of Navigation and Ocean Development [Department of Boating and Waterways], to the Department of Parks and Recreation, and to the Department of Fish and Game. The Department of Navigation and Ocean Development, the Department of Parks and Recreation, and the Department of Fish and Game shall file with the Department of Water Resources their written comments with respect to each such cost allocation, which written comments shall be included in the report required by this section.

It shall also be the duty of the department to report to the Legislature on any expenditure of funds for acquiring rights-of-way, easements and property pursuant to Section 346 for recreation development associated with such facilities...

This appendix constitutes the Department's 1981 report as required by Section 11912 of the California Water Code.

For brevity, "fish and wildlife enhancement" is hereafter referred to as "enhancement". The Department's cost allocations treat recreation and enhancement as one combined purpose of the State Water Project.

Organization of Report

The costs of State Water Project facilities which the Department has allocated to recreation and enhancement through December 31, 1980, are shown in Table 1, pages 8 and 9, together with expenditures for acquiring rights of way, easements, and property for recreation development associated with such facilities. Table 2, on pages 14 and 15, details the accrued interest charges that are included in the costs shown in Table 1.

The notes to Table 1, on pages 10 through 13, contain an explanation of the Department's procedures for reporting recreation and enhancement costs, a description of how the amounts shown in the Table are calculated, and a reconciliation of significant changes from costs shown in previous reports.

The costs shown in Table 1 do not reflect new or revised allocations for any facility of the State Water Project. The derivation of allocation percentages indicated for joint capital costs of those multipurpose facilities listed in the upper portion of Table 1 have been described in previous reports. Copies of those descriptions are available on request to the Department.

A summary of allocation percentages is shown on page 16, including, illustrative allocation percentages for facilities which have not been reported.

Included at the end of this report, are comments by the Department of Boating and Waterways, the Department of Parks and Recreation and the Department of Fish and Game.

TABLE 1: RECREATION AND ENHANCEMENT

(Reported to the California Legislature in

(in

TYPE OF COSTS, PROJECT FACILITY, AND SOURCE OF FUNDS	DISBURSEMENTS,							
	1952- 1967	1968	1969	1970	1971	1972	1973	1974
JOINT CAPITAL COSTS ALLOCATED TO RECREATION AND ENHANCEMENT: (b)								
<u>Frenchman Dam and Lake (78.5%)</u>								
California Water Resources Development Bond Fund	90,992	2,258	46	1,291	7,199	1,235		
All other funds	2,428,839	515	1,193	260	226	1,600	972	1,195
Subtotal	2,519,831	2,773	1,239	1,551	7,425	2,835	972	1,195
<u>Antelope Dam and Lake (100.0%)</u>								
California Water Resources Development Bond Fund	962,957	18,566	9,831	19,119	24,350	1,605		
All other funds	3,701,662	21,504	207,412	3,003	3,028	2,096	1,414	1,806
Subtotal	4,664,619	40,070	217,243	24,122	27,378	3,701	1,414	1,806
<u>Grizzly Valley Dam and Lake Davis (94.9%)</u>								
California Water Resources Development Bond Fund	3,623,168	173,666	23,497	5,707	9,610	1,662		
All other funds	269,793	13,025	157,200	62,211	738	2,617	24,149	45,609
Subtotal	3,892,961	186,691	180,697	67,918	10,348	4,279	24,149	45,609
<u>San Luis Dam and Reservoir, O'Neill Forebay, and Los Banos Reservoir (3.4%)</u>								
California Water Resources Development Bond Fund	1,987,047	17,668	-1,650	6,390	4,940	18,604	-268	-381
All other funds	1,269,028	65,776	38,497	307	1,420	5,557	9,347	12,561
Subtotal	3,256,075	83,444	36,847	6,697	6,360	24,161	9,079	12,180
<u>California Aqueduct, Delta to Dos Amigos P.P. (3.4%)</u>								
California Water Resources Development Bond Fund	4,045,963	244,040	76,996	80,281	16,390	4,027		
All other funds	302,916	194,004	166,778	47,339	3,146	6,745	7,861	12,243
Subtotal	4,348,879	438,044	243,774	127,620	19,536	10,772	7,861	12,243
<u>Oroville Division (2.9%)</u>								
California Water Resources Development Bond Fund	5,725,869	87,514	26,289	7,453	7,843	4,655		
All other funds	2,862,888	321,831	87,590	17,819	5,338	10,773	23,774	26,140
Subtotal	8,588,757	409,345	113,879	25,272	13,181	15,428	23,774	26,098
<u>Del Valle Dam and Lake Del Valle (48.0%)</u>								
California Water Resources Development Bond Fund	9,618,154	841,108	3,894	19,510	23,848	40,248		
All other funds	984,770	1,026,256	84,929	45,203	2,700	6,681	9,614	115,645
Subtotal	10,602,924	1,867,364	88,823	64,713	26,548	46,929	9,614	115,645
<u>California Aqueduct, Dos Amigos P.P. to Termini (5.7%)</u>								
California Water Resources Development Bond Fund	17,663,975	7,051,015	4,532,754	8,999,198	7,796,574	2,906,602	-3,505	-40,964
All other funds	2,409,171	4,235,369	6,428,600	3,365,491	1,848,310	1,313,734	2,719,024	1,465,934
Subtotal	20,073,146	11,286,384	10,961,354	12,364,689	9,644,884	4,220,336	2,715,519	1,424,970
TOTAL	57,947,192	14,294,075	11,843,856	12,682,603	9,755,651	4,328,441	2,792,315	1,639,746
SPECIFIC COSTS OF ACQUIRING LAND FOR RECREATION DEVELOPMENT: (c)								
<u>Frenchman Dam and Lake</u>								
California Water Resources Development Bond Fund	2,899	162	28	182	108			
All other funds	49,643	223	74	182	7			
Subtotal	52,542	385	102	364	115			
<u>Grizzly Valley Dam and Lake Davis</u>								
California Water Resources Development Bond Fund	216,548	-13,724	324	625	343			
All other funds	5,246							
Subtotal	221,794	-13,724	324	625	343			
<u>Abbey Bridge Dam and Reservoir</u>								
California Water Resources Development Bond Fund	9							
All other funds	9,921							
Subtotal	9,930							
<u>San Luis Dam and Reservoir, O'Neill Forebay, and Los Banos Reservoir</u>								
California Water Resources Development Bond Fund	206,464	2,420	1,343	47,113	1,966	116,608		
All other funds	227,082	2,681	1,133	-272	470	-42,536	19,102	118
Subtotal	433,546	5,101	2,476	46,841	2,436	74,072	19,102	118
<u>California Aqueduct, Delta to Dos Amigos P.P.</u>								
California Water Resources Development Bond Fund	455,414	5,102	4,299	5,115	-9,735	891		
All other funds	90,212	3,796	11,337	1,343	1,117	180	83	113
Subtotal	545,626	8,898	15,636	6,458	-8,618	1,071	83	113
<u>Oroville Division</u>								
California Water Resources Development Bond Fund	1,874,681	-1,484	-6,886	4,160	10,135	-509	-74	-87
All other funds	198,920	80,622	36,685	4,927	4,437	3,347	1,452	1,203
Subtotal	2,073,601	79,138	27,799	9,087	14,572	2,838	1,378	1,116
<u>Del Valle Dam and Lake Del Valle</u>								
California Water Resources Development Bond Fund	593,306	-74,659	-1,490	1,629	600	39		
All other funds	30,029	-72,983	960	190	159	758	2,017	820
Subtotal	623,335	-147,642	-530	1,819	759	797	2,017	820
<u>California Aqueduct, Dos Amigos P.P. to Termini</u>								
California Water Resources Development Bond Fund	343,567	65,784	52,815	35,374	-8,356	-9,633	-580	
All other funds	16,969	2,198	6,564	1,638	2,960	10,337	2,876	1,666
Subtotal	360,536	67,982	59,379	37,012	-5,396	704	2,296	1,666
<u>Castaic Dam and Lake</u>								
California Water Resources Development Bond Fund	1,849,869	-18,073	-44,600	167,743	20,228	-17,551	-2,978	-232
All other funds	10,435	45,760	8,898	1,028	7,810	68,430	28,270	6,550
Subtotal	1,860,304	27,687	-35,702	168,771	28,038	50,879	25,292	6,318
<u>Cedar Springs Dam and Silverwood Lake</u>								
California Water Resources Development Bond Fund	267,235	43,779	32,470	53,310	19,958	18,171	-325	
All other funds	41,121	-211,033	322,743	22,054	-12,302	29,654	13,511	28,987
Subtotal	308,356	-167,254	355,213	80,364	7,656	47,825	13,186	28,987
<u>Ferris Dam and Lake Ferris</u>								
California Water Resources Development Bond Fund	346,173	492,881	-1,943	277,427	7,776	-94,825	-5,176	
All other funds	234,997	3,723,635	-336,395	277,427	7,776	86,874	20,464	8,922
Subtotal	581,170	4,216,516	-338,338	554,854	15,552	-8,951	15,288	8,922
TOTAL	7,070,742	4,077,087	86,359	628,586	47,681	168,235	78,642	48,060
TOTAL RECREATION AND ENHANCEMENT COSTS								
California Water Resources Development Bond Fund	49,874,290	8,938,023	4,708,017	9,731,627	7,933,777	2,991,829	-12,973	-41,706
All other funds	15,143,644	9,433,139	7,222,198	3,579,562	1,869,555	1,504,847	2,883,930	1,729,512
GRAND TOTAL	65,017,934	18,371,162	11,930,215	13,311,189	9,803,332	4,496,676	2,870,957	1,687,806

COSTS OF THE STATE WATER PROJECT^(a)

Response to Water Code Section 11912)

dollars)

BY CALENDAR YEAR						TOTAL DISBURSEMENTS THRU 1980	ADD: INTEREST ACCRUALS THRU 1980	TOTAL COSTS REPORTED THRU 1980	COMPARISON WITH COSTS PREVIOUSLY REPORTED	
1975	1976	1977	1978	1979	1980				THRU 1979	INCREASE
						103,021	1,811	104,832	104,800	32
365	916	700	10,531	9,286	56,459	2,513,057	1,811	2,513,057	2,456,608	56,449
365	916	700	10,531	9,286	56,459	2,616,078		2,617,889	2,561,408	56,481
						1,036,428	98,396	1,134,824	1,134,824	
513	1,731	1,348	18,514	16,111	61,023	4,043,165	98,396	4,043,165	3,982,178	60,987
513	1,731	1,348	18,514	16,111	61,023	5,079,593		5,177,989	5,117,002	60,987
						3,837,310	400,616	4,237,926	4,237,926	
84,612	21,198	7,857	75,183	43,967	86,378	894,537		894,537	804,195	90,342
84,612	21,198	7,857	75,183	43,967	86,378	4,731,847	400,616	5,132,463	5,042,121	90,342
						2,029,715	285,622	2,315,337	2,317,424	-2,087
-253	-130	-118	-56		-2,078	1,399,151		1,399,151	1,379,991	19,160
11,665	4,870	5,660	-22,713	-2,255	19,431	3,428,866	285,622	3,714,488	3,697,415	17,073
11,412	4,740	5,542	-22,769	-2,255	17,353					
						4,467,667	729,599	5,197,266	5,199,181	-1,915
21,602	38,409	15,453	20,191	38,865	122,891	998,443		998,443	875,053	123,390
21,602	38,409	15,453	20,191	38,865	122,891	5,466,110	729,599	6,195,709	6,074,234	121,475
						5,859,426	1,753,936	7,613,362	7,614,401	-1,039
-18	-15	-15	-19	-23	-28	4,091,108		4,091,108	4,065,214	25,894
28,422	28,087	515,025	83,103	52,184	28,132	9,950,534	1,753,936	11,704,470	11,679,615	24,855
28,404	28,072	515,010	83,084	52,171	28,104					
						10,546,762	4,261,180	14,807,942	14,811,453	-3,511
7,835	9,976	3,656	9,324	33,356	34,158	2,374,103		2,374,103	2,339,021	35,082
7,835	9,976	3,656	9,324	33,356	34,158	12,920,865	4,261,180	17,182,045	17,150,474	31,571
						48,907,840	32,875,462	81,783,302	78,207,126	3,576,176
80	106	57	-1,440	-85	3,473	32,968,947		32,968,947	29,437,084	3,531,863
1,238,022	974,043	830,249	870,956	1,697,816	3,572,248	81,876,787	32,875,462	114,752,249	107,644,210	7,108,039
1,238,102	974,149	830,306	869,516	1,697,731	3,575,721					
1,392,845	1,079,191	1,379,872	1,063,574	1,889,232	3,982,087	126,070,680	40,406,622	166,477,302	158,966,479	7,510,823
						3,379	134	3,513	3,513	
						49,947		49,947	49,947	
						53,326	134	53,460	53,460	
						204,116	15,099	219,215	219,214	1
				2,870	16,977	24,893		24,893	5,246	19,647
				2,870	16,977	229,009	15,099	244,108	224,460	19,648
						9		9	9	
						9,921		9,921	9,921	
						9,930		9,930	9,930	
						375,914	26,134	402,048	420,864	-18,816
507	692	729	1,075	56,050	97	266,928		266,928	213,552	53,376
507	692	729	1,075	56,050	97	642,842	26,134	668,976	634,416	34,560
						461,086	134,710	595,796	595,796	
349	888	617	976	22,162	40,685	173,858		173,858	120,299	53,559
349	888	617	976	22,162	40,685	634,944	134,710	769,654	716,095	53,559
						1,879,624	687,477	2,567,101	2,568,242	-1,141
-53	-45	-45	-57	-70	-42	435,549		435,549	333,711	101,838
-1,751	1,880	1,637	101,283	1,321	1,586	2,315,173	687,477	3,002,650	2,901,953	100,697
-1,804	1,835	1,592	101,228	1,251	1,544					
						519,425	291,137	810,562	811,847	-1,285
403	44	88	707	264	393	-36,151		-36,151	-36,629	478
403	44	88	707	264	393	483,274	291,137	774,411	775,218	-807
						478,971	261,617	740,588	1,121,416	-380,828
11,095	123	561	32,917	47,169	120,764	257,837		257,837	803,707	-545,870
11,095	123	561	32,917	47,169	120,764	736,808	261,617	998,425	1,925,123	-926,698
						1,954,297	1,123,610	3,077,907	2,939,971	137,936
89,836	13,841	18,589	49,662	113,067	468,918	928,094		928,094	222,879	705,215
89,727	13,841	18,589	49,662	113,067	468,918	2,882,391	1,123,610	4,006,001	3,162,850	843,151
						434,598	271,542	706,140	686,494	19,646
11,865	3,739	2,528	8,402	15,971	56,555	340,797		340,797	255,742	85,055
11,865	3,739	2,528	8,402	15,971	56,555	775,395	271,542	1,046,937	942,236	104,701
						1,022,313	665,128	1,687,441	1,448,164	239,277
32,890	15		84,460	206,806	879,590	4,940,258		4,940,258	3,621,642	1,318,616
32,890	15		84,460	206,806	879,590	5,962,571	665,128	6,627,699	5,069,806	1,557,893
145,032	20,177	24,704	279,425	465,410	1,585,523	14,725,663	3,476,588	18,202,251	16,415,547	1,786,704
						84,121,901	43,883,210	128,005,111	124,442,665	3,562,446
-353	-84	-121	-1,572	-178	1,325	56,674,442		56,674,442	50,939,361	5,735,081
1,538,230	1,099,452	1,404,697	1,344,571	2,354,820	5,566,285					
1,537,877	1,099,368	1,404,576	1,342,999	2,354,642	5,567,610	140,796,343	43,883,210 ^(d)	184,679,553 ^(e)	175,382,026 ^(f)	9,297,527 ^(g)

a) Recreation and enhancement costs herein refer only to those capital costs of multipurpose facilities of the State Water Project that are allocated to recreation and enhancement and/or of lands that are acquired for associated recreation development. These costs are budgeted by the Department of Water Resources from funds that are available to the

Department for financing construction costs of the Project.

The remaining recreation and enhancement costs of types not reported herein are budgeted by several state departments and are financed by appropriations from a variety of funds. These costs and appropriations are summarized below:

Type of Recreation and Enhancement Costs Not Reported in Table 1	General Fund Appropriations, unless otherwise noted		
	1981-82 ^(a)	1980-81 ^(b)	Total 1962-63 thru 1981-82 ^(c)
Allocated operation, maintenance, and replacement costs of multipurpose facilities	\$ 0 ^(d)	\$2,166,000	\$16,734,000
Capital costs of recreation developments other than for land acquisition	\$5,842,000 ^(e)	\$3,123,000 ^(e)	\$90,865,000 ^(f)
Operation, maintenance, and replacement costs of recreation developments	\$6,776,000	\$5,982,000	\$39,164,000

a) Proposed amounts in Governor's budget.
 b) 1980-81 budgeted amount.
 c) Actual thru 1979-80 plus a) and b).
 d) The cost allocation for the California Aqueduct reported in Appendix D to Bulletin 132-80 resulted in general funds being overcollected in past years. The budgeted amount for 1981-82 reflects a credit of \$2,166,400 to the General Fund. Additional credits will be made in future years until the full amount of the overcollection has been refunded.
 e) Amounts from State recreation bond funds and other State and Federal recreation funds.
 f) Includes \$1,236,000 from the Harbors and Watercraft Revolving Fund, and \$200,000 directly from the Highway Users Tax Fund.

Allocated operation, maintenance, power and replacement costs of multipurpose facilities are budgeted by the Department of Water Resources and have been financed by annual appropriations from the General Fund. Capital costs (other than land acquisition costs) and operation, maintenance, and replacement costs of recreation develop-

ments are budgeted by the Department of Parks and Recreation -- except that the costs of boating facilities are budgeted by the Department of Boating and Waterways. Costs of enhancement developments are budgeted by the Department of Fish and Game.

b) Joint capital costs allocated to recreation and enhancement are based on the Department's derivation, for each multipurpose facility, of the percentages of the total joint costs that are attributable to each included purpose. These derivations are based on the application of conventional cost allocation methods which weigh the estimated costs to be incurred and benefits to be realized during a 50-year period of analysis. Allocated

costs reflect the application of these percentages to the actual capital costs incurred for the facility as accounted by the Department.

Costs allocated to recreation and enhancement generally are first reported in the year following the year construction of a facility is complete. However, these allocated costs may be subsequently changed

due to either the adjustment of accounted capital costs or the revision of allocation percentages.

The allocation percentages of a facility may be revised if it can be demonstrated that such revision is warranted due to substantial changes in the factors supporting the previous derivation. Such demonstration could include the finding that (1) funds are not forthcoming for financing the costs of planned recreation developments, with resultant decreases in projected recreation benefits and costs, (2) a change

in cost allocation method would produce more equitable results or (3) actual visitor days of use had substantially increased or decreased from the previous projections resulting in a change in projected benefits.

The tentative schedule shown below indicates the years when allocated costs of each State Water Project facility were or will be first reported and when the factors which support the derivation of allocation percentages will be periodically reviewed for substantial changes.

TENTATIVE SCHEDULE FOR REPORTING AND REVIEW OF COST ALLOCATIONS

Project Facility	Year Allocation to be Initially Reported	Year Supporting Factors to be Reviewed For Substantial Changes										
		82	83	84	85	86	87	88	89	90	91	92 ^(a)
Frenchman Lake	1965				x					x		
Antelope Lake	1966				x					x		
Lake Davis	1968	x					x					x
Abbey Bridge Reservoir	(b)											
Dixie Refuge Reservoir	(b)											
Oroville Division (d)	1971				x				x			
Delta Facilities	1996(c)											
South Bay Aqueduct (Lake Del Valle)	1973	x					x					x
California Aqueduct, Delta to Dos Amigos Pumping Plant (d)	1970											
Bethany Reservoir				x					x			
San Luis Reservoir				x					x			
O'Neill Forebay				x					x			
Los Banos Reservoir				x					x			
Aqueduct Developments				x					x			
California Aqueduct, Dos Amigos Pumping Plant to termini	1980(e)											
Pyramid Lake												
Castaic Lake												
Silverwood Lake												
Lake Perris												
Aqueduct Developments												

a) Reviews would continue in the pattern indicated.
 b) Delayed indefinitely.
 c) Construction schedule tentative and subject to revision.
 d) Will include an evaluation of an allocation of conservation facility costs to recreation and other purposes in Sacramento-San Joaquin Delta.
 e) First review will be scheduled after completion of the Department's review of the Department of Finance's report on Davis-Dolwig Allocation Methodology.

c) Specific costs of acquiring land for recreation developments are incurred by the Department under the authority of California Water Code Section 346. The Department purchases recreation lands concurrently with lands needed for multipurpose

facilities in order to decrease the total land costs of the Project and to acquire property in an orderly manner. Recreation lands acquired for each project facility through September 30, 1980, are summarized below.

SUMMARY OF RECREATION LAND ACQUISITIONS^(a)
(in acres)
(metric conversion: acres x 0.40469 = hectares)

Project Facility	Acquired (b)	To be Acquired	Federal Lands ^(c)	Total
Frenchman Lake	719	0	0	719
Antelope Lake	1,342	0	0	1,342
Lake Davis	733	0	0	733
San Luis Reservoir and O'Neill Forebay	2,518	0	0	2,518
Oroville Division	2,695	0	212	2,907
Lake Del Valle	1,206	0	0	1,206
California Aqueduct (excluding reservoirs)	1,834 ^(d)	(e)	0	1,834
Castaic Lake	1,915	0	577	2,492
Silverwood Lake	304	0	2,919	3,223
Lake Perris	<u>4,351</u>	<u>115</u>	<u>0</u>	<u>4,466</u>
Total	17,617	115	3,708	21,440

a) Includes recreation lands for only those project facilities with an established recreation land use and acquisition plan.
b) Costs of acquiring these lands are shown in Table 1.
c) These lands are presently being leased from the Federal Government at a nominal cost to the State.
d) Possession and control of a portion of these lands will be transferred to the Department of Fish and Game for use in the Department's Southern California wildlife mitigation program. When the transfer is made the acreage will be reduced accordingly.
e) Additional land needs are to be identified by future studies.

The Department reports the annual expenditure of project funds for acquiring all recreation land in the year following the expenditure. The costs of such lands generally are established when acquired and are not affected by allocation percentages for the associated multipurpose project facility. However, the reported costs of certain lands may be subsequently revised due to receipt of certain revenues (such as federal grants and miscellaneous income from right-of-way sales) or due to modification of the recreation land use plan.

The amounts to be reported in future years will include credits for any reduction in previously reported costs, together with appropriate interest income thereon. If recreation land is sold or if grants are received, the amount of the receipt will be reported as a negative cost of the facility the year received. If recreation land is reclassified as multipurpose project land, the original purchase price,

together with appropriate interest income thereon, will be reported as a negative expenditure for specific land costs and an appropriate amount will be added to the joint capital costs allocated to recreation and enhancement for the associated facility.

The costs of acquiring land for recreation development reported herein include about \$1.1 million for land which will be used to mitigate impacts to wildlife habitat in Southern California resulting from construction of the State Water Project. As these lands are redesignated from recreation to project (wildlife mitigation) purposes the amounts to be reported in future years will include credits for the reduction in previously reported costs together with appropriate interest income thereon.

The costs of acquiring recreation land include the salaries of department personnel who are engaged in recreation land acquisition activities, together with indirect costs that are distributed on the basis of direct salaries.

d) Interest accruals are calculated as shown in Table 2. Interest charges are accrued only on the portion of annual disbursements financed by the California Water Resources Development Bond Fund (proceeds from the sale of Burns-Porter Bonds) and cease when such disbursements, together with cumulative interest accruals thereon, have been reimbursed. Calculations are based on the weighted average interest costs of Burns-Porter Bonds sold to date (4.378 percent for the \$1,570,000,000 in bonds outstanding as of December 31, 1980). This rate differs from the "project interest rate" under the Project's water supply contracts in that interest costs on revenue bond sales are not included.

As of December 31, 1980, a total of \$75,000,000 had been reimbursed to the Department under the continuing annual \$5,000,000 appropriation (thru fiscal year 1980-81) of State tideland oil and gas revenues, authorized by California Statutes of 1966, First Extraordinary Session, Chapter 27. With no allowance for future interest, reimbursement of the increased amount of costs reported herein would cover the annual appropriations in the full amounts for each fiscal year through 2001-02, together with \$4,679,553 of the appropriation for 2002-03. With future interest computed at 4.378 percent, reimbursement of the costs reported herein would cover the appropriations in the full amounts for each fiscal year through 2011-12 together with \$2,933,868 of the appropriation for 2012-13.

e) The Department requests that this total increased amount of reported costs be approved by the Legislature.

f) Costs previously reported are as shown in Table 1 (pages 6 and 7) of Appendix D to Bulletin 132-80. Such costs were approved by California Statutes of 1980, Chapter 941, and were based on the Department's accounting records as of December 31, 1979. The average interest cost on Burns-Porter Bond sales was then 4.378 percent.

g) Reasons for cost increase are outlined below:

- o Additional disbursements during 1980 for recreation lands and for joint capital costs allocated to recreation and enhancement. \$5,568,000
 - o Additional accrued interest on recreation costs not yet reimbursed by the continuing \$5,000,000 annual appropriation due to changes in bond fund expenditures and an additional year of accrual (1980). \$3,396,000
 - o Increase in allocated costs for Grizzly Valley Dam and Lake Davis for late reporting of right-of-way acquisition costs for 1979. \$4,000
 - o Additional allocated costs of the California Aqueduct, Dos Amigos Pumping Plant to termini due to adjustment of excess capacity costs in Bulletin 132-80, Table B-9. \$284,000
 - o Net adjustment in California Aqueduct costs due to Southern California Wildlife Mitigation Agreement -\$102,000
 - o Increase in recreation land costs for San Luis Dam and Reservoir due to late reporting of right-of-way acquisition costs and retroactive accounting adjustments \$36,000
 - o Increase in recreation land costs for the California Aqueduct, Delta to Dos Amigos Pumping Plant for 1979 due to late reporting of right-of-way acquisition and property management costs. \$13,000
 - o Increase in Oroville recreation land costs for purchase of land for future development in the Craig Area \$100,000
 - o Other retroactive accounting adjustments on costs reported prior to 1978. -\$1,000
- TOTAL INCREASE. \$9,298,000

TABLE 2: CALCULATION OF INTEREST ACCRUALS ON CALIFORNIA

(in dollars)

YEAR	ITEM	JOINT CAPITAL COSTS ALLOCATED TO RECREATION AND ENHANCEMENT								Total
		Frenchman Dam and Lake	Antelope Dam and Lake	Grizzly Valley Dam and Lake Davis	San Luis Dam and Reservoir, O'Neill Forebay and Los Banos Reservoir	California Aqueduct Delta to Dos Amigos P.P.	Oroville Division	Del Valle Dam and Lake Del Valle	California Aqueduct Dos Amigos P.P. to Termini	
1952-76	a. Disbursements									
	1. Calif. Water Resources Development Bond Fund	103,021	1,036,428	3,837,310	2,031,967	4,467,667	5,859,511	10,546,762	48,905,835	76,788,
	2. All other funds	2,436,081	3,946,169	681,152	1,399,028	801,043	3,412,654	2,293,609	25,997,678	40,967,
b.	Reimbursement 1967 thru 1976 applied to:									
	1. Calif. Water Resources Development Bond Fund	104,832	1,134,824	4,237,926	2,317,589	5,197,266	7,613,447	14,753,379	0	35,359,
2. All other funds	2,436,081	3,946,169	681,152	1,399,028	801,043	3,412,654	2,293,609	0	14,969,	
c.	Interest accrued to end of 1976	1,811	98,396	400,616	285,622	729,599	1,753,936	4,259,985	20,165,473	27,695,
1977	d. Beginning-of-year balance to be reimbursed:							53,368	69,071,308	69,124,
	1. Calif. Water Resources Development Bond Fund								25,997,678	25,997,
	2. All other funds									
	e. Disbursements during year:									
	1. Calif. Water Resources Development Bond Fund	700	1,348	7,857	-118	15,453	-15	3,656	57	1,379,
	2. All other funds				5,660		515,025		830,249	
f. Reimbursements during year applied to:										
1. Calif. Water Resources Development Bond Fund	700	1,348	7,857	-118	15,453	-15	3,656		53,	
2. All other funds				5,660		515,025			3,656	
g. End-of-year balance, without interest for:										
1. Calif. Water Resources Development Bond Fund									69,071,365	69,071,
2. All other funds									26,827,927	26,827,
h. Interest accrual on average balance of d(1) and g(1)								1,168	3,023,943	3,025,
1978	i. Beginning-of-year balance to be reimbursed:							1,168	72,095,308	72,096,
	1. Calif. Water Resources Development Bond Fund								26,827,927	26,827,
	2. All other funds									
	j. Disbursements during year:									
	1. Calif. Water Resources Development Bond Fund	10,531	18,514	75,183	-56	20,191	-19	9,324	-1,440	-1,
	2. All other funds				-22,713		83,103		870,956	1,065,
k. Reimbursements during year applied to:										
1. Calif. Water Resources Development Bond Fund	10,531	18,514	75,183	-56	20,191	-19	1,168		1,	
2. All other funds				-22,713		83,103	9,324		194,	
l. End-of-year balance without interest for:										
1. Calif. Water Resources Development Bond Fund									72,093,868	72,093,
2. All other funds									27,698,883	27,698,
m. Interest accrual on average balance of i(1) and l(1)								26	3,156,301	3,156,
1979	n. Beginning-of-year balance to be reimbursed:							26	75,250,169	75,250,
	1. Calif. Water Resources Development Bond Fund								27,698,883	27,698,
	2. All other funds									
	o. Disbursements during year:									
	1. Calif. Water Resources Development Bond Fund	9,286	16,111	43,967	-2,255	38,865	-23	33,356	-85	-
	2. All other funds						52,194		1,697,816	1,889,
p. Reimbursements during year applied to:										
1. Calif. Water Resources Development Bond Fund	9,286	16,111	43,967	-2,255	38,865	-23	26	2,065,780	2,065,	
2. All other funds						52,194	33,356		191,	
q. End-of-year balance without interest for:										
1. Calif. Water Resources Development Bond Fund									73,184,304	73,184,
2. All other funds									29,396,699	29,396,
r. Interest accrual on average balance of n(1) and q(1)								1	3,249,231	3,249,
1980	s. Beginning-of-year balance to be reimbursed:							1	76,433,535	76,433,
	1. Calif. Water Resources Development Bond Fund								29,396,699	29,396,
	2. All other funds									
	t. Disbursements during year:									
	1. Calif. Water Resources Development Bond Fund	56,459	61,023	86,378	-2,078	122,891	-28	34,158	3,473	1,
	2. All other funds				19,431		28,132		3,572,248	3,980,
u. Reimbursements during year applied to:										
1. Calif. Water Resources Development Bond Fund	56,459	61,023	86,378	-2,078	122,891	-28	1	3,006,941	3,004,	
2. All other funds				19,431		28,132	34,158		408,	
v. End-of-year balance without interest for:										
1. Calif. Water Resources Development Bond Fund									73,430,067	73,430,
2. All other funds									32,968,947	32,968,
w. Interest accrual on average balance of s(1) and v(1)									3,280,514	3,280,
Summary: 1952 thru 1980	x. Beginning of 1981 balance to be reimbursed:								76,710,581	76,710,
	1. Calif. Water Resources Development Bond Fund								32,968,947	32,968,
	2. All other funds								109,679,528	109,679,
Total										
y. Disbursements, 1952 thru 1980:										
1. Calif. Water Resources Development Bond Fund	103,021	1,036,428	3,837,310	2,029,715	4,467,667	5,859,426	10,546,762	48,907,840	76,788,	
2. All other funds	2,513,057	4,043,165	894,537	1,399,151	998,443	4,091,108	2,374,103	32,968,947	49,282,	
Total	2,616,078	5,079,593	4,731,847	3,428,866	5,466,110	9,950,534	12,920,865	81,876,787	126,070,	
z. Reimbursements applied thru 1980 to:										
1. Calif. Water Resources Development Bond Fund	104,832	1,134,824	4,237,926	2,315,337	5,197,266	7,613,362	14,807,942	5,072,721	40,484,	
2. All other funds	2,513,057	4,043,165	894,537	1,399,151	998,443	4,091,108	2,374,103		16,313,	
Total	2,617,889	5,177,989	5,132,463	3,714,488	6,195,709	11,704,470	17,182,045	5,072,721	56,797,	
TOTAL INTEREST ACCRUALS, 1952 THRU 1980		1,811	98,396	400,616	285,622	729,599	1,753,936	4,261,180	32,875,462	40,406,

Summary of Allocation Percentages

The Department annually determines water contractor charges for the State Water Project based on allocations of costs among purposes of those facilities which are jointly used for more than one purpose. These determinations

utilize the percentages previously reported to and approved by the Legislature, as well as preliminary estimates for facilities which have not been reported. These percentages are summarized in the table below.

SUMMARY OF COST ALLOCATION PERCENTAGES
(in percent of joint costs of the respective facilities)

Facilities of the State Water Project	Reimbursable Purposes	Nonreimbursable Purposes ^(a)		Total
	Water Supply and Power Generation	Flood Control	Recreation and Fish and Wildlife Enhancement	
Capital Costs of Features Jointly Used				
<u>Project Conservation Facilities</u>				
Frenchman Dam and Lake ^(b)	21.5	0	78.5	100.0
Antelope Dam and Lake ^(b)	0	0	100.0	100.0
Grizzly Valley Dam and Lake Davis ^(b)	5.1	0	94.9	100.0
Oroville Division ^{(b) (c)}	97.1	0	2.9	100.0
California Aqueduct, Delta to Dos Amigos Pumping Plant ^(b)	96.6	0	3.4	100.0
Delta Facilities ^(d)	86.0	0	14.0	100.0
<u>Project Transportation Facilities</u>				
California Aqueduct:				
California Aqueduct, Delta to Dos Amigos Pumping Plant ^(b)	96.6	0	3.4	100.0
California Aqueduct, Dos Amigos Pumping Plant to terminus excluding the Coastal Branch ^(b)	94.3	0	5.7	100.0
Coastal Branch	100.0	0	0	100.0
South Bay Aqueduct:				
Del Valle Dam and Lake Del Valle ^(b)	25.2	26.8	48.0	100.0
Remainder of South Bay Aqueduct	100.0	0	0	100.0
North Bay Aqueduct ^(d)	100.0	0	0	100.0
<p><i>a) Additional purposes may be identified after project formulation in the Delta is completed.</i></p> <p><i>b) Final percentages, subject to periodic review as discussed on Page 9.</i></p> <p><i>c) Percentages are applicable to Capital Costs of Features Jointly Used, minus Federal Flood Control Payments.</i></p> <p><i>d) Illustrative percentages only, assumed for current project financial and repayment analyses.</i></p> <p>NOTE: Percentages shown are those applicable to the costs of the facilities as accounted by the State, or, in the case of federal-state joint-use facilities (San Luis Facilities), only the State's share of the total cost.</p>				

Upon completion of project formulation for the Delta Facilities, costs may be allocated to purposes other than those

shown in the above table. The allocation for the Delta Facilities is scheduled to be reported in 1996 as shown in the table on page 9.

COMMENTS
BY
THE DEPARTMENT OF BOATING AND WATERWAYS,
THE DEPARTMENT OF PARKS AND RECREATION,
AND THE DEPARTMENT OF FISH AND GAME

Memorandum

To : Ronald B. Robie
Director
Department of Water Resources
1416 - 9th Street
Sacramento, California 95814

Date : APR 1 1981

Subject: Annual Report to the
Legislature, State Water
Project Cost Allocation
to Recreation and Fish
and Wildlife Enhancement

From : **Department of Boating and Waterways**

In accordance with California Water Code Section 11912, the Department of Boating and Waterways has reviewed the subject report and we have no comment.


MARTY MERCADO
Director

Memorandum

Date : APR 6 1981

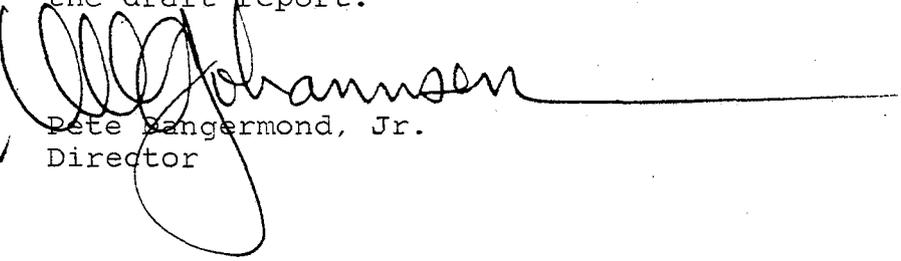
To : Honorable Ronald B. Robie
Director
Department of Water Resources
1416 Ninth Street, 11th Floor
Sacramento, CA 95814

From : Department of Parks and Recreation

Subject: Cost Allocations to Recreation
and Fish and Wildlife Enhancement,
State Water Project

The Department of Parks and Recreation has reviewed the subject report.

We have no comments. Thank you for the opportunity to review the draft report.

for 
Pete Bangermond, Jr.
Director

Memorandum

To : Ronald B. Robie, Director
Department of Water Resources

Date: April 9, 1981

From : **Department of Fish and Game**

Subject: Annual Report to the Legislature, State Water Project Costs of Recreation and Fish and Wildlife Enhancement.

In accordance with California Water Code, Section 11912, you requested our written comments on State Water Project joint costs allocated to recreation, fish and wildlife enhancement, as reported in the review draft of Appendix D to Bulletin No. 132-81.

We have reviewed the 1981 State Water Project draft report, Appendix D, and find it consistent with previous reports. The Department, therefore, supports the cost allocation and recommends the addition of \$9,297,527 for recreation, fish and wildlife enhancement.

Since we no longer employ an economist on our staff, the report was not subject to an economic analysis.

Thank you for the opportunity to review this report.



Director

CONVERSION FACTORS

English to Metric System of Measurement

Quantity	English Unit	Multiply by*	To get metric equivalent
Length	Inches (in)	25.4	millimetres (mm)
	feet (ft)	.0254	metres (m)
	miles (mi)	.3048	metres (m)
		1.6093	kilometres (km)
Area	square inches (in ²)	6.4516×10^4	square metres (m ²)
	square feet (ft ²)	.092903	square metres (m ²)
	acres	4046.9	square metres (m ²)
		.40469	hectares (ha)
		.40469	square hectometres (hm ²)
		.0040469	square kilometres (km ²)
	square miles (mi ²)	2.590	square kilometres (km ²)
Volume	gallons (gal)	3.7854	litres (l)
		.0037854	cubic metres (m ³)
	million gallons (10 ⁶ gal)	3785.4	cubic metres (m ³)
	cubic feet (ft ³)	.028317	cubic metres (m ³)
	cubic yards (yd ³)	.76455	cubic metres (m ³)
	acre-feet (ac-ft)	1233.5	cubic metres (m ³)
		1.2335	cubic dekametres (dm ³)
		.0012335	cubic hectometres (hm ³)
		1.233×10^{-6}	cubic kilometres (km ³)
Volume Time (Flow)	cubic feet per sec (ft ³ /s)	28.317	litres per second (l/s)
		.028317	cubic metres per sec (m ³ /s)
	gallons per minute (gal/min)	.06309	litres per second (l/s)
		6.309×10^{-5}	cubic metres per sec (m ³ /s)
	million gallons per day (mgd)	.043813	cubic metres per sec (m ³ /s)
Water Usage	acre-feet per acre	.3048	cubic metres per square metre (m ³ /m ²)
Mass	pounds (lb)	.45359	kilograms (kg)
	tons (short, 2,000 lb)	.90718	tonne (t)
		907.18	kilograms (kg)
Power	horsepower (hp)	0.7460	kilowatts (kW)
Pressure	pounds per square inch (psi)	6894.8	pascal (Pa)

* For greater accuracy, use conversion factors in "Metric Practice Guide" (American Society for Testing and Materials, E 380-72).

State of California—Resources Agency
Department of Water Resources
P.O. Box 388
Sacramento
95802

