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THE RESOURCES AGENCY

Department of Water Resources

BULLETIN No. 130-63

HYDROLOGIC DATA: 1963

Volume V: SOUTHERN CALIFORNIA

Appendix D: SURFACE WATER QUALITY

Appendix E: GROUND WATER QUALITY

APRIL 1965

AUG 2 1965

HUGO FISHER
Administrator
The Resources Agency

EDMUND G. BROWN
Governor
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WILLIAM E. WARNE
Director
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ORGANIZATION OF BULLETIN NO. 130 SERIES

Volume I - NORTH COASTAL AREA

Volume II - NORTHEASTERN CALIFORNIA

Volume III - CENTRAL COASTAL AREA

Volume IV - SAN JOAQUIN VALLEY

Volume V - SOUTHERN CALIFORNIA

Each volume consists of the following:

TEXT and

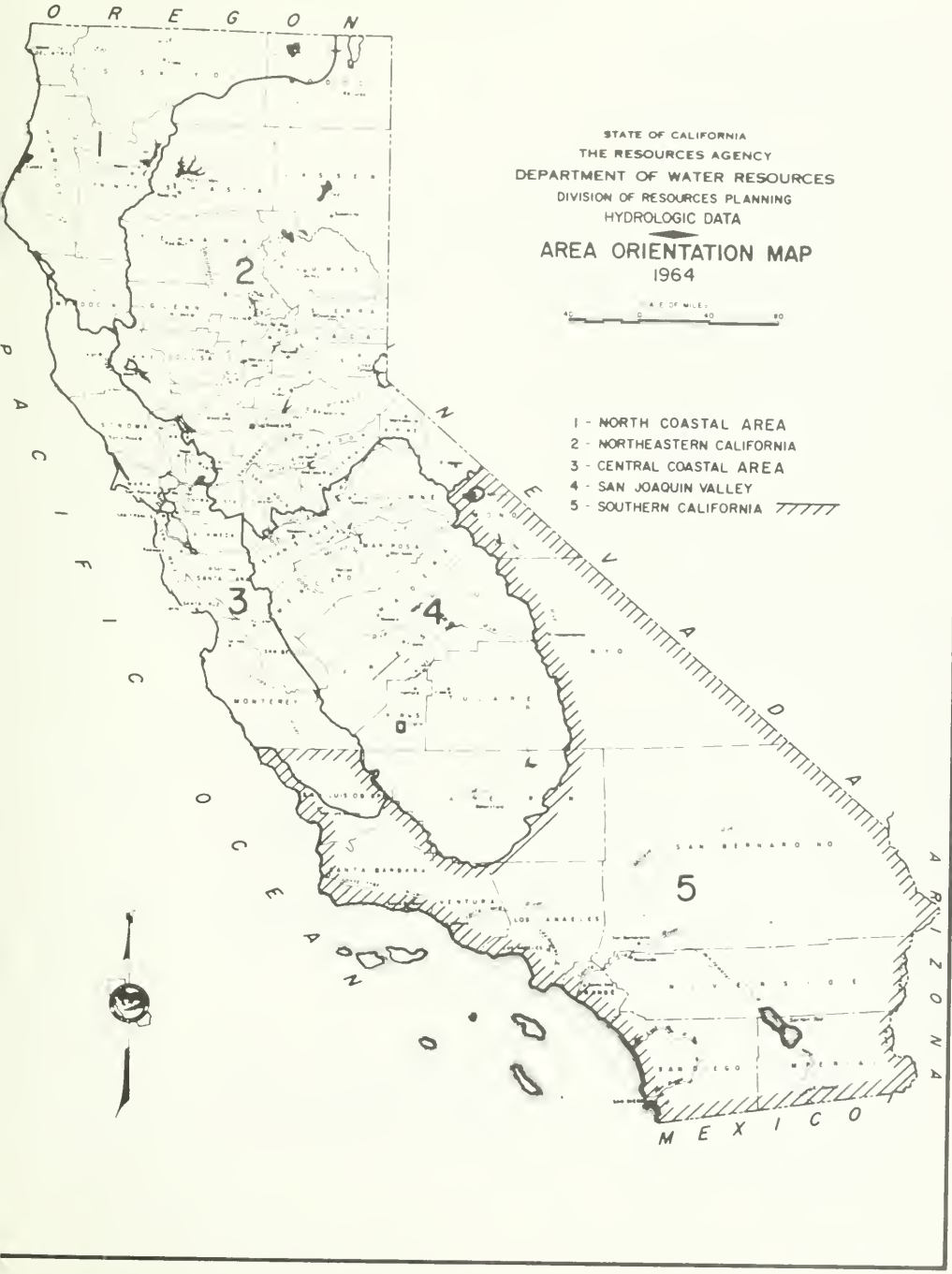
Appendix A - CLIMATE

Appendix B - SURFACE WATER FLOW

Appendix C - GROUND WATER MEASUREMENTS

Appendix D - SURFACE WATER QUALITY

Appendix E - GROUND WATER QUALITY


OREGON
PACIFIC OCEAN
NEVADA
ARIZONA
MEXICO
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STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
DIVISION OF RESOURCES PLANNING
HYDROLOGIC DATA
AREA ORIENTATION MAP
1964
1 - NORTH COASTAL AREA
2 - NORTHEASTERN CALIFORNIA
3 - CENTRAL COASTAL AREA
4 - SAN JOAQUIN VALLEY
5 - SOUTHERN CALIFORNIA

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INTRODUCTION

These appendixes contain surface water quality data for the 1962-63 water year and ground water quality data for the 1963 calendar year for Southern California. This area is shown on Figure 1. Appendix D contains detailed information on surface water quality at stations whose locations are shown on Plate D-1. Appendix E contains detailed information on ground water quality in areas shown on Plate E-1.

To facilitate the processing of basic hydrologic data published in this report, numerical and letter codes are used to designate hydrologic areas, stream sampling stations, and wells. These coding systems are described in the following paragraphs.

Hydrologic Area Coding System

The hydrologic area coding system is based on a decimal numbering system, in the form A-11.A1, comprising two alphabetical characters and three digits. The alphabetical character to the left of the dash refers to drainage province. The boundaries of these provinces correspond to the regional water pollution control board boundaries, with exception of the Los Angeles-Orange and Los Angeles-San Bernardino county boundary. The final four positions of the areal designation code comprise two digits to the left of the decimal, which refer to the hydrologic unit, and one alphabetical character and one digit to the right of the decimal, which refer to the hydrologic subunit and hydrologic subarea, respectively. A discussion of this system is presented in Chapter II of the text to Volume V, Bulletin 130-63. Attachments 1 through 6 in Volume V, Bulletin 130-63, contain a cross-reference between this new system of areal designation and the old ground water basin numbering system along with plates showing these areas.

Stream Sampling and Well Designation

To designate the stream sites and wells sampled to obtain data presented in this report, the systems described below were used.

Stream Sampling Station Numbering System

The numbering system used to designate stream sampling stations in this report consists of the name of the stream and a brief description of the location of the sampling point. The stations are also identified by an arbitrary numbering system used only for ready reference. Stations in California are numbered sequentially with number consisting of a numeric and sometimes also an alphabetic designation. An example of a station number is Station No. 65c.

Well Numbering System

The state well numbering system used in this report is based on township, range, and section subdivision of the Public Land Survey. It is the system used in all ground water investigations and for numbering all wells for which data are published or filed by the Department of Water Resources. In this report the number of a well, assigned in accordance with this system, is referred to as the State Well Number.

Under the system each section is divided into 40-acre tracts lettered as follows:

D	C	B	A
E	F	G	H
M	L	K	J
N	P	Q	R

Note that I and O are omitted in the grid above.

Wells are numbered within each 40-acre tract according to the chronological sequence in which they have been assigned State Well Numbers. For example, a well which has the number 9N/32W-17G1, S, would be in Township 9 North; Range 32 West, Section 17, San Bernardino Base and Meridian, and would be further designated as the first well assigned a State Well Number in tract G. Well numbers are referenced to the Mount Diablo Base and Meridian (M), the San Bernardino Base and Meridian (S), or the Gila and Salt River Base and Meridian (G).

Field Methods and Procedures

In collecting samples of surface and ground waters, a number of agencies cooperated with the Department of Water Resources. These agencies are listed below. The procedures followed for collecting samples are also discussed.

Surface Water Sampling

Agencies that participated in the field sampling program during 1962 and 1963, together with the number of surface water stations sampled by each agency, are:

Agency	Number of stations sampled
Department of Water Resources	47
The Metropolitan Water District of Southern California	2
Los Angeles City Health Department	1
Los Angeles Department of Water and Power	1
Long Beach City Health Department	1
City of San Bernardino	2
Total	54

In the continuing program, water samples are collected in May and September for mineral, radiological, bacteriological, and trace elements analyses. In the northern portion of the Southern District, water samples are collected monthly, and in the southern portion, bimonthly for partial mineral and bacteriological analyses. Colorado River stations are sampled only twice a year. The water samples collected for bacteriological examination are kept in portable ice boxes until delivered to the laboratory. All water samples are transported to the laboratories as expeditiously as possible.

At the time the samples are collected for laboratory examination, field determinations are made for dissolved oxygen by the modified Winkler method; water temperature; and pH. These data are included in Appendix D. Visual inspection is made of the stream or lake and the physical conditions are noted.

Where possible, the sampling stations have been selected so as to be at or near stream-gaging stations so that gage heights can also be recorded at the time the water samples are collected. Instantaneous stream discharges at the time of sample collection are then obtained. In the absence of gaging stations, streamflow is estimated by other methods.

Ground Water Sampling

The ground water quality monitoring program in the Southern District is conducted with the assistance of many cooperating local agencies. They are as follows:

San Luis Obispo County Flood Control and Water Conservation District

United States Geological Survey, Santa Barbara County Subdistrict Office

Ventura County Department of Public Works

Los Angeles County Flood Control District

San Bernardino County Flood Control District

Riverside County Flood Control and Water Conservation District

Orange County Flood Control District

United Water Conservation District, Ventura County

City of Long Beach

Los Angeles Department of Water and Power

United States Geological Survey, Southern California Subdistrict Office

Sources are identified by state well number, for which precise location information is on record. A water sample is collected in either a gallon or half-gallon container, of glass or plastic. The required sample should be taken at the pump after it has been pumping for five or more minutes. Temperature, color, odor, and taste of samples are noted and recorded as soon as they are collected.

Separate samples are collected for radioactivity analysis, trace element analysis, or special analyses when such analyses are deemed necessary.

Laboratory Methods and Procedures

Methods of mineral, radiological, and bacterial analyses, used by the Department of Water Resources, in general, are those described in the American Public Health Association publication "Standard Methods for the Examination of Water and Sewage", 11th edition, 1960. In some cases, the methods described in the following publications also have been employed:

U.S. Geological Survey, "Methods for Collection and Analysis of Water Samples", Water Supply Paper 1454, 1960.

California Department of Public Works, Division of Water Resources, "Methods of Analysis", October 1955.

Mineral analyses are reported in parts per million (ppm) and bacterial analyses as most probable number per milliliter (MPN). Radioassays are reported as micro-microcuries per liter (uuc/l), the exact equivalent of pico-curies per liter (pc/l).

Heavy metals (trace elements) are reported as parts per million for the May 1963 analyses, which were performed by Terminal Testing Laboratories Incorporated at Los Angeles. The trace elements analyses for September 1963 are reported as parts per billion (ppb). These analyses were performed by the United States Geological Survey Laboratory at Sacramento, California, and used a newly developed spectrographic procedure perfected by that Laboratory. Limitations in the precision of measurements in spectrographic analyses frequently require the reporting of results as less than or more than the amounts presented, as is indicated in the footnotes accompanying the tables.

Oil and grease, phenols, alkalinity, 5-day biochemical oxygen demand (BOD), dissolved oxygen (DO), and free carbon dioxide (CO_2) are reported as parts per million, as are values for alkyl benzene sulfonate (ABS), the major constituent in present-day household synthetic detergents.

The radioassays of ground water samples were performed by several laboratories and have not followed the sampling and counting procedures discussed in the preceding paragraphs. Because ground water activity levels have historically proved to be quite low, usually only total activity (alpha plus gross beta-gamma activity) has been assayed. If total activity exceeds 100 uuc/l, alpha activity is determined.

It should be pointed out that determinations of some of the reported constituents are not absolute, but merely indicative of levels of

water quality. The purpose of these data is to help the investigator judge whether further, more intensive investigation is warranted to identify a source of pollution or to trace the movement of pollution.

Machine methods of data processing are being developed and tables E-1 through E-6 have been tabulated by machine. By putting the data on machines, the Department should soon be able to supply the user precisely the data he needs - so far as they are available in the Department.

APPENDIX D

SURFACE WATER QUALITY DATA

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MINERAL ANALYSES OF SURFACE WATERS

a. Field pH
b. Tests made by agency reporting analysis. Tests on samples collected in pairs by Department of Water Resources, made by State of California Department of Public Health, Division of Laboratories, Los Angeles, California.
c. Analyses made by Department of Water Resources (DWR)
City of Los Angeles Department of Water and Power (LADWP)
Los Angeles City Department of Public Health (LADPH)
Long Beach City Department of Public Health (LBDPH) or
The Metropolitan Water District of Southern California (MWD)

TABLE D-1

SAMPLING STATION DATA AND INDEX

SURFACE WATER STATION LOCATIONS
YEARS 1962-1963

Station	Station Number	Location[a]	Period[b] of Record	Frequency[c] of Sampling	Sampled[d] by	Analysis on page
Alamo River						
At International Boundary	59	17S/16E-18	February 1951	B	DWR	D-35, D-68
Near Calipatria	60	11S/13E-22	March 1951	B	DWR	D-36, D-68
All American Canal						
Near Pilot Knob	56e	16S/21E-24	May 1953	S	DWR	D-32, D-68
Chino Creek						
Near Chino	80	2S/ 8W-36	April 1952	M	DWR	D-48, D-70
Colorado River						
Near Topock, Arizona	54	7N/24E- 8	April 1951	S	DWR	D-28, D-68, D-77
Lake Havasu, Colorado River Aqueduct at Intake	56d	3N/27E-28	November 1953	M	MWD	D-29, D-68
Aqueduct at La Verne	69	1S/ 9W- 6	April 1951	M composite	MWD	D-24, D-25, D-65, D-66
Below Parker Dam	55	2N/27E-16	April 1951	S	DWR	D-30, D-68
Near Blythe	56c	7S/23E- 2	May 1953	S	DWR	D-31, D-68
At Yuma, Arizona	56	16S/23E-36	April 1951	S	DWR	D-33, D-68, D-76, D-77
Below Morelos Dam	56b	8S/24W-28[e]	May 1953	S	DWR	D-34, D-68
Cuyama River						
Near Garey	44a	10N/33W-25	October 1958	M	DWR	D-4, D-59, D-7[illegible]
Escondido Creek						
Near Harmony Grove	63	12S/ 2W-30	March 1951	B	DWR	D-52, D-71, D-80, D-81
Lake Elsinore						
At North Shore	89	6S/ 5W- 1	February 1952	B	DWR	D-49, D-70
Forester Creek						
At Mission Gorge Road	65a	15S/ 1W-28	November 1957	B	DWR	D-55, D-[illegible]1
Los Angeles Aqueduct						
Near San Fernando	70	3N/15W-30	April 1951	M	LADWP	D-22, D-23, D-61, D-64
Los Angeles River						
At Figueroa Street	47	1S/13W-15	April 1951	M, S	LADPH, DWR	D-14, D-60, D-74, D-75
At Pacific Coast Highway	48	4S/13W-26	April 1951	M, S	LBDPH, DWR	D-15, D-16, D-60, D-74 D-75
Matilija Creek						
Above Dam	45b	5N/23W-19	May 1953	M	DWR	D-7, D-6[illegible]
Mission Creek						
At Whittier Narrows	49a	2S/11W- 6	April 1951	M	DWR	D-19, D-61, D-7[illegible]
Mojave River						
At The Forks	67a	3N/ 3W-18	July 1957	M	DWR	D-26, D-67
Near Victorville	67	6N/ 4W-29	March 1951	M	DWR	D-27, D-67
New River						
At International Boundary	57	17S/14E-14	April 1951	B	DWR	D-37, D-68
Near Westmorland	58	12S/13E-30	February 1951	B	DWR	D-38, D-69
Piru Creek						
Near Piru	46c	4N/18W-20	June 1957	M	DWR	D-11, D-6[illegible]

a. Except as indicated below location is refereneed to San Bernardino Base and Meridian.
b. Beginning of record.
c. M - Monthly, B - Bimonthly, S - Semiannually.
d. DWR, Department of Water Resources; MWD, Metropolitan Water District; LADPH, Los Angeles Department of Public Health; LBDPH, Long Beach Department of Public Health.
e. Gila and Salt River Base and Meridian.

TABLE D-1

SAMPLING STATION DATA AND INDEX

SURFACE WATER STATION LOCATIONS
YEARS 1962-1963
(continued)

Station	Station Number	Location[a]	Period[b] of Record	Frequency[c] of Sampling	Sampled[d] by	Analysis on page
Rio Hondo						
At Whittier Narrows	49	2S/11W- 6	April 1951	M	DWR	D-17, D-61, D-74, D-75
Above Spreading Grounds	49b	2S/12W-12	May 1963	M	DWR	D-18, D-61, D-75
Salton Sea						
At Salton Sea State Park	68a	7S/10E- 2	March 1955	B	DWR	D-39, D-69
San Diego River						
At Old Mission Dam	65	15S/ 2W-25	April 1951	B	DWR	D-54, D-71
Near Mission Gorge Road	65c	15S/ 2W-35	July 1962	B	DWR	D-56, D-71, D-80
San Dieguito River						
Below San Pasqual Valley	64	13S/ 2W- 1	April 1951	B	DWR	D-53, D-71
San Gabriel River						
At Azusa Powerhouse	50d	1N/10W-22	March 1957	M	DWR	D-20, D-61, D-75
At Whittier Narrows	50	2S/11W- 5	April 1951	M	DWR	D-21, D-61
San Luis Rey River						
Near Pala	62	9S/ 2W-36	March 1951	B	DWR	D-51, D-71
Santa Ana River						
Near Mentone	51b	1S/ 2W- 4	April 1951	M	DWR	D-42, D-70, D-79
Near Arlington	51	2S/ 6W-25	January 1951	M	DWR	D-43, D-70, D-78, D-79
Near Norco	51e	2S/ 7W-3b	April 1951	M	DWR	D-44, D-70, D-78, D-79
Below Prado Dam	51a	3S/ 7W-29	April 1951	M	DWR	D-45, D-70, D-78, D-79
Santa Clara River						
At Los Angeles-Ventura County Line	4o	4N/17W-30	April 1951	M	DWR	D-9, D-60, D-74, D-75
Near Santa Paula	46a	3N/21W-12	April 1951	M	DWR	D-10, D-60, D-74, D-75
Santa Margarita River						
Near Fallbrook	51c	9S/ 4W-12	February 1951	B	DWR	D-50, D-71
Santa Paula Creek						
Near Santa Paula	46e	4N/21W-27	June 1957	M	DWR	D-13, D-60
Santa Ynez River						
At Cachuma Reservoir	44b	6N/30W-19	April 1958	M	DWR	D-5, D-59, D-73
Near Solvang	45a	6N/31W-22	April 1951	M	DWR	D-6, D-59
Sespe Creek						
Near Fillmore	46d	4N/20W-12	June 1957	M	DWR	D-12, D-60
Spring Valley Creek						
Near La Pressa	65b	17S/ 1W-17	March 1958	B	DWR	D-57, D-71
Tia Juana River						
At International Boundary	66	19S/ 2W- 1	April 1951	B	DWR	D-58, D-71
Ventura River						
Near Ventura	61	3N/23W- 8	May 1951	M	DWR	D-8, D-61, D-74, D-75
Warm Creek						
At Colton	50b	1S/ 4W-21	April 1951	M	City of San Bdno.	D-46, D-70, D-78, D-79

a. Except as indicated below location is referenced to San Bernardino Base and Meridian

b. Beginning of record

c. M - Monthly, B - Bimonthly, S - Semiannually

d. DWR, Department of Water Resources; MWD, Metropolitan Water District; LADPH, Los Angeles Department of Public Health; LBDPH, Long Beach Department of Public Health.

TABLE D-1

SAMPLING STATION DATA AND INDEX

SURFACE WATER STATION LOCATIONS
YEARS 1962-1963
(continued)

Station	Station Number	Location[a]	Period[b] of Record	Frequency[c] of Sampling	Sampled[d] by	Analysis on page
Warm Creek						
At San Bernardino	50c	1S/ 4W-15	April 1951 through 1963	M	DWR	D-47, D-70
Whitewater River						
Near Whitewater	68	3S/ 3E- 2	February 1951	B	DWR	D-40, D-69
Near Mecca	68B	7S/ 9E-31	July 1957	B	DWR	D-41, D-69

a. Except as indicated below location is referenced to San Bernardino Base and Meridian.
b. Beginning of record.
c. M - Monthly, B - Bimonthly, S - Semiannually.
d. DWR, Department of Water Resources; MWD, Metropolitan Water District; LADPH, Los Angeles Department of Public Health; LBDPH, Long Beach Department of Public Health.

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL COASTAL DRAINAGE PROVINCE I

CUYAMA RIVER NEAR GAREY (Station 44a)

Date and time sampled P S T	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micramhos at 25° C)	pH	Mineral constituents in parts per million												Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	NC ppm			
Water Year 1962-1963																									
10-2-62 0750	Dry No flow																								
11-14-62 0725	Dry No flow																								
12-4-62 0750	Dry No flow																								
1-15-63 0745	Dry No flow																								
2-5-63 0750	1 est.	52	8.0	72	2033	7.9	189 / 9.43	91 / 7.49	141 / 6.13	5.8 / 0.15	0 / 0.00	332 / 5.44	739 / 15.39	92 / 2.59	0 / 0.00	0.95 / 0.05	0.33	24		1589	26	846	574	<25	240 240	DWR
3-5-63 0730	Dry No flow																								
4-2-63 0945	Dry No flow																								
5-6-63 1005	15 est.	58	8.8	86	1332	7.9	125 / 6.24	56 / 4.58	91 / 3.96	4.8 / 0.12	0 / 0.00	229 / 3.76	467 / 9.73	57 / 1.61	1.2 / 0.02	0.83 / 0.04	0.30	10	PO_4 = 0.0 ABS = 0.03	989	27	541	353	<25	240 240	DWR
6-3-63 1545	1 est.	81	9.0	110	1698	7.8	146 / 7.29	87 / 7.15	120 / 5.22	4.8 / 0.12	0 / 0.00	246 / 4.04	649 / 13.52	79 / 2.23	0.5 / 0.00	0.92 / 0.05	0.32	8		1319	20	722	520	<25	62 62	DWR
7-1-63 1410	1 est.	80	11.0	137	1821	7.8	172 / 8.58	91 / 7.46	126 / 5.48	4.7 / 0.12	0 / 0.00	290 / 4.76	682 / 14.20	86 / 2.43	0.4 / 0.00	1.0 / 0.05	0.33	9		1408	25	802	564	<25	7000 1300	DWR
8-1-63 0730	Dry No flow																								
9-1-63 1530	Dry No flow																								

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL COASTAL DRAINAGE PROVINCE T

SANTA YNEZ RIVER AT CACHUMA RESERVOIR (Station 44b)

Date and time sampled P.S.T	Gage Height (-below) Spillway Crest	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH [a]	Mineral constituents in parts per million / equivalents per million												Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform [b] MPN/ml	Analyzed by [c]
			ppm	% Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfats (SO_4)	Chloride (Cl)	Nitrats (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N C ppm			
Water Year 1962-1963																									
10-1-62 1505	4.85 to spill	74	8.8	102	784	8.2			41 / 1.78		0 / 0.00	198 / 3.24		17 / 0.48			0.39				21	335	173	<25	45 / 45	DWR
11-14-62 0850	5.75 to spill	64	8.4	88	788	7.5			41 / 1.78		0 / 0.00	206 / 3.38		14 / 0.39			0.35				21	343	174	<25	2.3 / 2.3	DWR
12-5-62 0930	6.15 to spill	60	7.6	76	790	7.6			37 / 1.61		0 / 0.00	205 / 3.36		15 / 0.42			0.31				19	340	172	<25	0.46 / 0.6	DWR
1-15-63 1050	-6.85 to spill	54	7.2	67	777	7.7			38 / 1.65		0 / 0.00	201 / 3.30		16 / 0.45			0.31				20	337	172	<25	0.45 / 0.45	DWR
2-5-63 1030	-7.12 to spill	60	12.4	122	789	8.2			41 / 1.78		0 / 0.00	207 / 3.40		15 / 0.42			0.37				22	313	143	<25	0.45 / 0.6	DWR
3-5-63 1140	-6.78 to spill	57	8.0	77	783	7.8			41 / 1.78		0 / 0.00	202 / 3.32		15 / 0.42			0.42				22	310	144	<25	0.6 / 2.3	DWR
4-2-63 1105	-6.70 to spill	58	8.0	77	766	8.2			40 / 1.74		0 / 0.00	201 / 3.30		14 / 0.39			0.34				22	316	151	<25	1.3 / 0.6	DWR
5-6-63 1430	-6.68 to spill	65	8.2	87	770	8.3	71 / 3.54	36 / 2.92	41 / 1.78	3.7 / 0.09	0 / 0.00	210 / 3.44	217 / 4.52	14 / 0.39	1.2 / 0.02	0.46 / 0.02	0.33	9	PO_4 = 0.24 ABS = 0.05	503	21	323	151	<25	6.2 / 23	DWR
6-4-63 1100	-7.17 to spill	69	10.0	110	776	8.4			40 / 1.74		0 / 0.00	210 / 3.44		18 / 0.51			0.34				20	347	175	<25	0.6 / 23	DWR
7-1-63 1640	-8.00 to spill	68	10.8	118	764	7.9			41 / 1.78		0 / 0.00	210 / 3.44		14 / 0.39			0.32				20	355	183	<25	23 / 6.2	DWR
8-1-63 1915	-9.38 to spill	70	10.2	114	768	8.5			46 / 2.00		0 / 0.00	195 / 3.20		16 / 0.45			0.45				23	327	107	<25	.46 / .60	DWR
9-4-63 0830	-11.43 to spill	74	10.0	116	756	8.5			42 / 1.83		0 / 0.00	178 / 2.92		15 / 0.42		0.60 / 0.03	0.40			532	22	321	175	<25	24 / 0.6	DWR

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL COASTAL DRAINAGE PROVINCE

SANTA YNEZ RIVER NEAR SOLVANG (Station 45a)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
Water Year 1962-1963																										
10-1-62 1505	Dry No flow																									
11-14-62 0820	Dry No flow																									
12-5-62 0905	Dry No flow																									
1-15-63 1000	3 est.	46	11.6	97	1314	7.9	119 / 5.94	80 / 6.59	65 / 2.83	3.0 / 0.67	0 / 0.07	423 / 6.94	317 / 6.61	56 / 1.58	0.5 / 0.00	0.5 / 0.02	0.34	29		903	18	626	279	25	23 23	DWR
2-5-63 0935	6 est.	55	12.0	112	1263	8.0			68 / 2.96		0 / 0.00	416 / 6.82		51 / 1.44			0.36				21	564	223	25	62 62	DWR
3-5-63 1900	6 est.	49	11.8	110	1137	7.8	82 / 4.09	67 / 5.51	64 / 2.78	2.8 / 0.07	0 / 0.00	337 / 5.52	270 / 5.74	45 / 1.27	4.3 / 0.07	0.50 / 0.02	0.38	23	PO_4 = 0.04	774	22	480	204	25	50 13	DWR
4-2-63 1030	6 est.	59	14.0	138	1113	8.4			61 / 2.65		0 / 0.00	353 / 5.78		41 / 1.16			0.30				22	462	173	25	6.2 50	DWR
5-6-63 1330	7 est.	78	11.6	140	1069	8.2	75 / 3.74	65 / 5.38	63 / 2.74	2.4 / 0.06	0 / 0.00	334 / 5.48	257 / 5.35	44 / 1.24	1.0 / 0.01	0.46 / 0.02	0.35	26	PO_4 = 0.0 ABS = 0.02	695	23	456	182	25	23 23	DWR
6-4-63 1000	6 est.	72	11.2	127	1136	8.1	67 / 3.34	87 / 7.16	62 / 2.70	2.2 / 0.06	0 / 0.00	386 / 6.32	252 / 5.26	49 / 1.38	0.5 / 0.00	0.5 / 0.5	0.34	20		774	20	525	209	25	130 13	DWR
7-1-63 1540	Dry No flow																									
8-1-63 8900	Dry No flow																									
9-3-63 1515	Dry No flow																									

TABLE D-3
ANALYSES OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE U

MATILIJA CREEK ABOVE DAM (Station 45b)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25° C)	pH	Mineral constituents in parts per million / equivalents per million												Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N.C ppm			
Water Year 1962-1963																									
10-2-62 1100	3.5	72	8.0	91	1128	7.8[a]			79 / 3.44		0 / 0.00	245 / 4.02		69 / 1.95			2.14				28	448	247	< 25	2.3 2.3	DWR
11-13-62 1435	4.0	54	10.4	97	1133	8.1[a]			73 / 3.18		0 / 0.00	246 / 4.04		67 / 1.89			1.66				26	443	241	< 25	< 6.2 0.45	DWR
12-4-62 1520	2.5	62	7.6	77	1140	7.7[a]			75 / 3.26		0 / 0.00	246 / 4.04		66 / 1.86			1.62				26	465	203	< 25	0.6 2.3	DWR
1-15-63 1345	6.3	58	8.8	86	1119	8.1			73 / 3.18		0 / 0.00	246 / 4.04		66 / 1.86			1.84				27	439	237	< 25	2.3 2.3	DWR
2-5-63 1300	4.5	54	8.0	84	1150	7.9			81 / 3.52		0 / 0.00	244 / 4.00		63 / 1.78			1.68				29	441	241	< 25	13 62	DWR
3-5-63 1500	11	59	8.4	83	1043	8.0			59 / 2.57		0 / 0.00	239 / 3.92		27 / 0.76			0.80				23	439	243	< 25	62 21	DWR
4-2-63 1500	13	62	7.8	80	1029	8.2			57 / 2.48		0 / 0.00	231 / 3.78		29 / 0.82			0.84				23	413	224	< 25	6.2 130	DWR
5-7-63 0900	9.3	62	8.4	86	1019	8.0	119 / 5.94	31 / 2.56	63 / 2.74	2.5 / 0.06	0 / 0.00	256 / 4.20	306 / 6.38	30 / 0.85	1.4 / 0.02	1.0 / 0.05	0.92	18	PO_4 = 0.0 ABS = 0.02	687	24	425	215	< 25	5 6.2	DWR
6-4-63 1400	5.4	70	8.6	96	1022	8.0			62 / 2.70		0 / 0.00	233 / 3.82		38 / 1.10			1.08				24	436	245	< 25	62 240	DWR
7-2-63 1125	5.8	70	9.2	102	1050	7.6			67 / 2.91		0 / 0.00	244 / 4.00		48 / 1.35			1.40				24	452	252	< 25	62 5	DWR
8-1-63 1400	2.5	72	9.0	102	1115	8.1			80 / 3.48		0 / 0.00	255 / 4.18		67 / 1.89			2.50				29	426	217	< 25	240 2.3	DWR
9-4-63 1230	3.1	68	9.6	105	1164	7.9	126 / 6.29	30 / 2.49	84 / 3.65	5.0 / 0.13	0 / 0.00	251 / 4.12	286 / 5.96	85 / 2.40	1.0 / 0.01	1.4 / 0.07	2.60	25	PO_4 = 0.15	819	29	439	233	< 25	70 70+	DWR

TABLE D-3
ANALYSES OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE

VENTURA RIVER NEAR VENTURA (Station 61)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million												Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
							Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents							
			ppm	%Sat			equivalents per million														Total ppm	N.C. ppm			
Water Year 1962-1963																									
10-2-62 1200	Dry No flow																								
11-13-62 1520	2.6	62	9.6	97.8	860	7.9[a]			63 / 2.74		0 / 0.00	307 / 5.04		48 / 1.35			0.52			22	488	236	< 25	2.3 6.2	DWR
12-5-62 1120	0.5	62	10.8	110	1173	7.5[a]			64 / 2.78		0 / 0.00	316 / 5.18		55 / 1.55			0.46			22	507	248	< 25	6.2 6.2	DWR
1-15-63 1250	1.1	54	10.8	100	1195	7.7			70 / 3.04		0 / 0.00	327 / 5.36		58 / 1.64			0.49			23	519	251	< 25	2.3 6.2	DWR
2-5-63 1350	1.5	Not Given	8.4	Not Given	1218	7.8			73 / 3.18		0 / 0.00	337 / 5.52		60 / 1.69			0.57			24	504	228	< 25	23 240	DWR
3-5-63 1320	3.2	59	9.0	89	1110	7.6			64 / 2.78		0 / 0.00	293 / 4.80		50 / 1.41			0.60			24	446	206	< 25	240 62	DWR
4-2-63 1400	3.4	65	11.2	118	1077	8.2			64 / 2.78		0 / 0.00	273 / 4.48		52 / 1.47			0.45			25	426	202	< 25	240 240	DWR
5-7-63 0730	4.4	61	11.0	111	1097	7.8[a]	137 / 6.84	33 / 2.71	65 / 2.83	1.6 / 0.04	0 / 0.00	305 / 5.00	276 / 5.81	52 / 1.47	9.0 / 0.15	0.74 / 0.04	0.54	16	AS = 0.00 PO_4 = 0.00 ABS = 0.00	780	23	477	227	< 25	130 23	DWR
6-4-63 1200	3.5	70	9.6	107	1088	7.4			75 / 3.26		0 / 0.00	282 / 4.62		52 / 1.47			1.0			26	471	240	< 25	700+ 700	DWR
7-2-63 1030	1.4	68	13.2	143	1100	7.4			66 / 2.87		0 / 0.00	292 / 4.78		52 / 1.47			0.48			23	489	250	< 25	240 62	DWR
8-1-63 1300	2.0	68	12.6	133	1098	7.9			63 / 2.74		0 / 0.00	295 / 4.84		48 / 1.35			0.63			22	482	240	< 25	700+ 700	DWR
9-4-63 1115	0.2	68	13.0	142	1205	7.4	144 / 7.19	36 / 2.97	70 / 3.05	7.4 / 0.19	0 / 0.00	337 / 5.52	285 / 5.94	62 / 1.75	0.5 / 0.01	0.8 / 0.04	0.55	25	PO_4 = 0.1	866	23	508	232	< 25	62 23	DWR

TABLE D-3

ANALYSES OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE [1]

SANTA CLARA RIVER AT LOS ANGELES-VENTURA COUNTY LINE (Station 46)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million												Total dissolved solids in ppm	Per-cent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform [b] MPN/ml	Analyzed by [c]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfats (SO_4)	Chloride (Cl)	Nitrats (NO_3)	Fluoride (F)	Baron (B)	Silica (SiO_2)	Other constituents				Total ppm	N.C. ppm			
Water Year 1962-1963																									
10-1-62 0900	0.8	72	9.2	104	3709	7.9[a]			454 / 19.75		0 / 0.00	387 / 6.34		216 / 6.09			138				43	1307	990	< 25	2.3 / 2.3	DWR
11-13-62 1100	1.1	62	9.6	99	3887	8.1[a]			484 / 21.05		0 / 0.00	421 / 6.90		203 / 5.72			1.30					1336	991	< 25	6.2 / 1.3	DWR
12-4-62	0.9	66	7.6	77	1140	7.7[a]			75 / 3.26		0 / 0.00	246 / 4.04		66 / 1.86			1.62				26	465	263	< 25	0.6 / 2.3	DWR
1-14-63 1110	1.5	58	11.2	109	3297	8.0			371 / 16.14		0 / 0.00	405 / 6.64		174 / 4.91			1.22				40	1190	858	< 25	6.2 / 9.5	DWR
2-4-63 1210	1.6	68	9.6	105	3238	7.7			370 / 16.10		0 / 0.00	353 / 5.78		170 / 4.79			1.05				43	1076	787	< 25	240 / 240	DWR
3-4-63 1000	1.2	48	8.0	69	3118	6.8			353 / 15.36		0 / 0.00	427 / 7.00		152 / 4.29			1.22				42	1073	723	< 25	62 / 700	DWR
4-3-63 1030	1.5	64	9.4	98	2925	7.0			294 / 12.80		0 / 0.00	426 / 6.98		131 / 3.69			0.88				38	1066	717	125	230 / 62	DWR
5-8-63 1100	3.9	70	9.6	98	2595	7.2	225 / 11.23	103 / 8.47	254 / 11.05	6.9 / 0.18	0 / 0.00	410 / 6.72	1040 / 21.67	108 / 3.05	1.1 / 0.01	1.1 / 0.06	0.82	35	PO_4 = 0.0 ABS = 0.05		2081	36	985	649	< 25	46 / 6	DWR
6-4-63 1745	2.2	70	9.8	109	3270	7.0			355 / 15.44		0 / 0.00	407 / 6.68		174 / 4.91			1.18				38	1240	906	< 25	240 / 700	DWR
7-2-63 1520	1.2	84	10.2	131	3340	7.6			392 / 17.05		0 / 0.00	365 / 5.98		2.12 / 5.98			1.15				40	1260	961	< 25	62 / 6.2	DWR
8-1-63 1900	0.40	84	9.6	123	4327	8.2			550 / 23.93		0 / 0.00	393 / 6.44		260 / 7.33			2.14				43	1460	1138	< 25	13 / 62	DWR
9-4-63 1800	0.60	68	10.0	109	3623	8.0	257 / 12.82	150 / 12.32	442 / 19.23	8.0 / 0.20	0 / 0.00	403 / 6.60	1565 / 32.60	196 / 5.53	0 / 0.00	1.4 / 0.07	1.5	24	PO_4 = 0.00		3040	43	1257	927	< 25	70 / 13	DWR

TABLE D-3
ANALYSES OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE U

SANTA CLARA RIVER NEAR SANTA PAULA (Station 46a)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
Water Year 1962-1963																										
10-1-62 1205	20 est.	70	9.6	106	2381	8.1[a]			194 / 8.44		0 / 0.00	333 / 5.46		93 / 2.62			1.02				29	1024	751	< 25	24 / 6.2	DWR
11-13-62 1310	30 est.	64	10.0	104	2237	7.8[a]			174 / 7.57		0 / 0.00	336 / 5.50		80 / 2.26			0.94				29	939	664	< 25	23 / 23	DWR
12-4-62 1330	30 est.	68	10.8	118	2159	7.9[a]			150 / 6.52		0 / 0.00	338 / 5.54		80 / 2.26			0.79				26	916	639	< 25	6.2 / 6.2	DWR
1-14-63 1425	30 est.	56	9.6	91	2126	7.7			163 / 7.09		0 / 0.00	336 / 5.50		78 / 2.20			0.91				28	889	624	< 25	6.2 / 240	DWR
2-4-63 1415	35 est.	67	9.2	101	2105	8.0			169 / 7.35		0 / 0.00	332 / 5.44		80 / 2.26			0.99				31	827	555	< 25	240 / 23	DWR
3-4-63 1420	30 est.	55	9.0	84	1956	7.8			150 / 6.53		0 / 0.00	303 / 4.96		74 / 2.09			1.06				30	767	519	< 25	6.2 / 700+	DWR
4-3-63 0725	30 est.	49	9.8	85	1306	7.8			92 / 4.00		0 / 0.00	248 / 4.06		37 / 1.04			0.78				28	516	313	250	240 / 700+	DWR
5-7-63 1600	35 est.	60	9.2	37	2513	7.8	236 / 11.78	100 / 8.26	233 / 10.14	7.4 / 0.19	0 / 0.00	366 / 6.00	1050 / 21.88	94 / 2.65	9.8 / 0.16	1.1 / 0.06	1.14	33	PO_4 = 0.05 ABS = 0.04	2104	33	1002	702	< 25	62 / 62	DWR
6-4-63 1600	35 est.	68	9.8	107	2430	7.8			201 / 8.74		0 / 0.00	310 / 5.08		95 / 2.68			1.01				30	1030	776	< 25	50 / 240	DWR
7-2-63 1300	30 est.	74	9.4	108	1750	7.9			141 / 6.13		0 / 0.00	267 / 4.38		75 / 2.12			0.81				29	748	529	< 25	700 / 62	DWR
8-1-63 1600	10 est.	74	9.2	106	1970	8.2			170 / 7.40		0 / 0.00	321 / 5.26		90 / 2.54			1.25				32	795	532	< 25	23 / 6.2	DWR
9-4-63 1500	18 est.	71	9.4	106	1973	7.9	188 / 9.38	80 / 6.62	169 / 7.35	9.5 / 0.24	0 / 0.00	331 / 5.42	709 / 14.77	96 / 2.71	0 / 0.00	1.1 / 0.06	0.92	31	PO_4 = 0.00	1550	31	800	529	< 25	70 / 70+	DWR

TABLE D-3

ANALYSES OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE U

PIRU CREEK NEAR PIRU (Station 46c)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million												Total dissolved solids in ppm	Per cent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N C ppm			
Water Year 1962-1963																									
10-1-62 0935	15 est.	68	9.2	100	1107	7.9[a]			72 / 3.13		0 / 0.00	224 / 3.68		23 / 0.65			0.81				25	462	278	< 25	6.2 / 24	DWR
11-13-62 1140	15 est.	60	10.4	103	1306	8.0[a]			174 / 7.57		0 / 0.00	272 / 4.46		25 / 0.71			0.90				29	535	312	< 25	13 / 23	DWR
12-4-62 1155	15 est.	58	10.8	105	1455	8.0[a]			100 / 4.35		0 / 0.00	276 / 4.52		31 / 0.87			0.91				27	596	370	< 25	13 / 70	DWR
1-14-63 1145	12 est.	50	12.0	106	1417	8.3[a]			102 / 4.44		14 / 0.48	259 / 4.24		34 / 0.96			0.92				27	594	358	< 25	2.3 / 3.2	DWR
2-4-63 1255	15 est.	61	10.8	108	1324	8.2			96 / 4.18		0 / 0.00	249 / 4.08		31 / 0.87			1.02				29	509	305	< 25	23 / 13	DWR
3-4-63 1150	15 est.	48	9.0	77	1555	8.2			125 / 5.44		0 / 0.00	318 / 5.22		34 / 0.96			1.28				32	581	320	< 25	23 / 1.3	DWR
4-3-63 0930	35 est.	55	10.4	98	997	8.2			59 / 2.57		0 / 0.00	212 / 3.48		19 / 0.54			0.80				24	403	229	< 25	62 / 62	DWR
5-7-63 1800	10 est.	62	9.8	100	1129	8.4	108 / 5.39	42 / 3.47	79 / 3.44	5.3 / 0.14	0 / 0.00	234 / 3.84	388 / 8.09	23 / 0.65	1.0 / 0.01	1.1 / 0.06	1.00	15	PO_4 = 0.0 ABS = 0.02	800	28	443	251	< 25	23 / 62	DWR
6-4-63 1715	5 est.	68	10.2	111	1606	8.0			123 / 5.35		0 / 0.00	276 / 4.52		38 / 1.07			1.22				29	662	436	< 25	23 / 240	DWR
7-2-63 1450	10 est.	84	9.0	115	1509	7.9			134 / 5.83		0 / 0.00	265 / 4.34		36 / 1.02			1.15				32	610	393	< 25	62 / 240	DWR
8-1-63 1830	4 est.	86	9.2	120	1461	8.4			141 / 6.13		0 / 0.00	173 / 2.84		41 / 1.16			1.54				38	500	358	< 25	5 / 240	DWR
9-4-63 1700	10 est.	70	9.6	107	1533	8.2	133 / 6.64	60 / 4.94	134 / 5.83	6.8 / 0.17	0 / 0.00	298 / 4.88	558 / 11.62	35 / 0.99	0 / 0.00	1.3 / 0.07	1.30	22		1194	33	579	335	< 25	24 / 70+	DWR

TABLE D-3

ANALYSES OF SURFACE WATER

LOS ANGELES [illegible]

SESPE CREEK NEAR FILLMORE (Station 46d)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million												Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N.C. ppm			
Water Year 1962-1963																									
10-1-62 1045	0.7	72	13.6	154	1328	8.2[a]			104 / 4.52		0 / 0.00	159 / 2.60		75 / 2.12			1.74			32	490	360	25	46 / 0.45	DWR
11-13-62 1220	0.3	60	14.4	146	1307	8.1[a]			105 / 4.57		0 / 0.0	173 / 2.84		90 / 2.54			1.75			33	462	320	<25	0.6 / 0.46	DWR
12-4-62 1220	2.2	62	15.6	159	1330	7.9[a]			109 / 4.74		0 / 0.0	183 / 3.00		97 / 2.74			1.82			33	481	331	<25	2.3 / 0.6	DWR
1-14-63 1320	1.3	50	14	123	1412	8.2[a]			120 / 5.22		0 / 0.00	212 / 3.48		96 / 2.71			2.30			34	509	335	<25	2.3 / 2.3	DWR
2-4-63 1330	11	60	10.6	106	1336	7.9			109 / 4.74		0 / 0.00	210 / 3.44		69 / 1.95			1.92			33	471	299	<25	6.2 / 23	DWR
3-4-63 1202	18	52	9.4	85	1202	8.2			97 / 4.22		0 / 0.00	214 / 3.50		58 / 1.64			1.90			33	422	247	<25	2.3 / 5	DWR
4-3-63 0825	40	52	11.2	98	1099	8.2			73 / 3.18		0 / 0.00	212 / 3.48		37 / 1.04			0.90			28	418	244	<25	13 / 6.2	DWR
5-7-63 1700	14	62	11.6	118	926	8.0	83 / 4.14	31 / 2.56	73 / 3.18	2.6 / 0.06	0 / 0.00	173 / 2.84	290 / 6.04	35 / 0.99	1.4 / 0.02	1.1 / 0.06	1.02	12	PO_4 = 0.0 ABS = 0.03	620	32	335	193	90	2.3 / 1.3	DWR
6-4-63 1645	3.2	62	11.0	112	1072	8.2			84 / 3.65		0 / 0.00	187 / 3.06		50 / 1.41			1.13			31	400	247	<25	700 / 700	DWR
7-2-63 1345	0.5	80	13.0	161	1543	7.8			118 / 5.13		0 / 0.00	209 / 3.42		60 / 1.69			1.15			27	694	523	<25	62 / 700	DWR
8-1-63 1900	0.4	78	10.0	120	1084	8.5			120 / 5.22		0 / 0.00	178 / 2.92		83 / 2.34			2.36			45	312	100	<25	62 / 2.3	DWR
9-4-63 1000	0.4	73	10.4	119	1052	8.4	76 / 3.79	22 / 1.81	118 / 5.13	3.4 / 0.09	0 / 0.00	155 / 2.54	245 / 5.11	100 / 2.82	0 / 0.00	1.4 / 0.07	2.20	20	PO_4 = 0.0	691	47	250	143	<25	.45 / 0.60	DWR

TABLE D-3

ANALYSES OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE

SANTA PAULA CREEK NEAR SANTA PAULA (Station 46e)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million												Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonates (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents				Total ppm	N.C. ppm			
Water Year 1962-1963																									
10-1-62 1235	1.9	72	12.8	142	1039	8.1[a]			95 4.13		0 0.00	227 3.72		59 1.66			0.48				38	341	155	<25	0.6 2.3	DWR
11-13-62 1340	1.9	62	11.6	118	1110	7.7[a]			99 4.31		0 0.00	271 4.44		63 1.78			0.46				36	377	155	<25	2.3 1.3	DWR
12-4-62 1430	3.6	62	10.8	110	1140	7.3[a]			93 4.05		0 0.00	276 4.52		61 1.72			0.41				34	392	166	<25	<0.45 <0.45	DWR
1-14-63 1515	3.6	48	11.2	96	1128	8.1			94 4.09		0 0.00	293 4.80		60 1.69			0.42				34	405	165	<25	2.3 6.2	DWR
2-4-63 1600	4.4	65	10.8	114	1208	8.2			107 4.65		0 0.00	262 4.30		73 2.06			0.53				37	388	173	<25	6.2 5.0	DWR
3-4-63 1625	4.4	60	10.4	104	1078	8.2			90 3.92		0 0.00	264 4.32		54 1.52			0.45				34	376	160	<25	240 700	DWR
4-3-63 1550	127	48	11.6	100	911	8.0			62 2.70		0 0.00	243 3.98		35 0.99			0.22				29	326	127	<25	62 23	DWR
5-7-63 1040	9	55	11.4	107	766	8.0	58 2.89	32 2.61	55 2.39	1.4 0.03	0 0.00	195 3.20	194 4.05	27 0.76	1.8 0.03	0.62 0.03	0.27	17	PO_4 = 0.0 ABS = 0.03	506	30	275	115	<25	4.5- 4.5-	DWR
6-4-63 1530	2.8	64	11.0	115	858	8.4	70 3.49	35 2.87	67 2.91	1.9 0.05	0 0.00	211 3.46	217 4.53	43 1.21	1.2 0.02	0.62 0.03	0.33	13		588	31	318	145	<25	13 6.2	DWR
7-2-63 1230	3.0	74	13.6	158	946	7.8	74 3.69	36 2.95	84 3.65	2.3 0.06	0 0.00	233 3.82	223 4.65	51 1.44	0.4 0.00	0.65 0.03	0.41	17		644	35	332	141	<25	1.3 5	DWR
8-1-63 1700	2.4	76	11.4	134	929	8.5	66 3.29	33 2.71	90 3.92	2.0 0.05	0 0.00	200 3.28	237 4.93	53 1.49	0 0.00	0.76 0.04	0.58	16			39	300	136	<24	240 2	DWR
9-4-63 1430	0.5	69	11.8	130	1305	8.4	110 5.49	36 2.99	131 5.70	5.0 0.13	0 0.00	329 5.40	277 5.77	96 2.71	3.8 0.06	0.7 0.04	0.61	20	PO_4 = 0.0	893	40	424	154	<25	70 70+	DWR

TABLE D-3
ANALYSES OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE

LOS ANGELES RIVER AT FIGUEROA STREET (Station 47)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million											Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)				Total ppm	N C ppm			
							equivalents per million																			
Water Year 1962-1963																									
11-7-62 1100	0.1	64	6.56	68.5		8.2	112	87	446.2		0	240	621.4	640	7		2.0			1977		400			980	MWD
12-5-62 1030	0.03	57	6.64	64		8.1	112	83	598		40	350	518.5	670	2		1.2			1820		350			6.64 64	MWD
1-9-63 1200	+ Flow	63	7.5	77		8.1	114 5.69	90 7.39	445 19.35		0 0.00	375 6.15	518 10.80	630 17.90	0 0.00				Cr^{+6} = 0.0	1870						LADPH
2-5-63 1000	Trace	60	4.56	45		8.4	110 5.49		538.2 23.40		35 1.17	410 6.73	415.6 8.64	550 15.63	5 0.08					1870				< 25	2.3	LADPH
3-6-63 1045	+ Flow	65	11.12	117		8.2	84 4.19	92.5 7.59	460 20.10		75 3.99	225 3.68	436.2 9.08	490 13.92	2.0 0.03		1.4		5-day BOD = 5.28 Oil & grease = 138	1609				< 25	46	LADPH
4-3-63 1045	0.19	63	18.0	185		8.4	78 3.89	53.5 4.39	947.6 41.25		100 3.33	230 3.77		390 11.00	0 0.00		0.5		Cr^{+6} = 0.00 5-day BOD = 9.20 Oil & grease = 23	1441					11000+	LADPH
5-8-63 1815	0.10	70	12.2	131	2341	8.2	59 2.94	45 3.68	391 17.00	6.4 0.16	14 0.48	241 3.96	422 8.80	360 10.15	1.6 0.02	1.04 0.05	1.8	17	AS = 1.5 PO_4 = 0.24 ABS = 0.30	437	71	331	109	25	23 620	DWR
6-5-63 1040	0.10	69	14.24	157		8.3	78 3.88	84 6.90	496.8 21.30		140 4.80	165 2.71	518.5 10.80	480 13.12	3 0.05		1.1		Oil & grease = 14 5-day BOD = 3.12	1687					2.3	LADPH
7-3-63 1130	0.10	80	13.12	162		8.4	82 4.09	58.5 4.81	483 21.00		80 2.66	250 4.10	448.6 9.39	530 15.06	1.0 0.01		1.9		Phenols = 0.0 Hex. Cr^{+6} = 0.0 Oil & grease = 186 5-day BOD = 4.64	2745					430	LADPH
8-7-63 1020	+ Flow	71	4	37		7.6	116 5.79	86.5 7.10	391 17.00		20 0.66	320 5.25	469.1 9.80	460 13.08	3.0 0.05		1.0		Hex. Cr^{+6} = Trace Phenols = 0.02 5-day BOD = 40 Oil & grease = 116	1787				High	11000+	LADPH
9-5-63 1345	8.7	81	10.3	135	711	8.0	60 2.99	15 1.21	70 3.05	9.4 0.24	0 0.00	171 2.80	140 2.91	42 1.18	13 0.22	0.9 0.05	0.40	21	AS = 0.02 ABS = 0.76 PO_4 = 1.0	522	41	210	70	< 25	500 7000	DWR

TABLE D-3
ANALYSES OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE U

LOS ANGELES RIVER AT PACIFIC COAST HIGHWAY (Station 48)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$: Total ppm	Hardness as $CaCO_3$: NC ppm	Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
Water Year 1962-1963																										
10-7-62 0750	15.4	74	1.2	12	14993	7.8[a]	230 / 11.48	118 / 9.70	3150 / 137.03	39 / 1.00	0 / 0.00	554 / 9.08	202 / 4.20	5175 / 145.94	3.0 / 0.05	0.82 / 0.04	10	29	PO_4 = 5.6; AS = 3.5 NH_4 = 21; ABS = 2.1	9800	85	1056	602	< 25	62 240	DWR
11-7-62	14.6	68	Not available			7.3[b]	216	152	3000		0 / 0.00	3.08	471	5300	0					9550					>700000	LBDPH
12-5-62 1030	13.8	61				7.6[b]	202	183	3000		0 / 0.00	284	446	4650	0.2					9750					700000	LBDPH
1-9-63 1100	13	64	0	0		7.6	275 / 13.72	340 / 27.95	4800 / 208.5		0 / 0.00	240 / 3.94	904 / 18.70	8180 / 23.05	0.2 / 0.003				Cr^{+6} = 0.0 Oil & grease = 62	16140				*	2400	LBDPH
2-6-63 1000	12.1	63	0.6	6.2		7.7	272 / 13.67	522 / 42.90	4,700 / 204.5		0 / 0.00	250 / 4.10	912 / 18.95	7610 / 21.43	1.9 / 0.03				Cr^{+6} = 0.29 Oil & grease = 45	15730		250	0	**	6200	LBDPH
3-6-63 2300	11.1	66	1.9	20		8.1	380 / 18.95	415 / 34.05	6600 / 287.0		0 / 0.00	359 / 5.88		10610 / 299.20	0 / 0.00				Cr^{+6} = 0.0	21					24	LBDPH
4-3-63 1030	16.2	66	1.6	17		7.9	183 / 9.14	75 / 6.17	2150 / 93.6		0 / 0.00	241 / 3.95	230.5 / 4.70	3209 / 90.60	0 / 0.00				5-day BOD = 99.0 Oil & grease = 38.0 Alkalinity = 160.0 Cr^{+6} = 0.01	6777				***	500	LBDPH
5-8-63 1345	11.5	78	9.0	108	20370	8.4	267 / 13.30	131 / 10.76	4340 / 188.7	39 / 1.00	0 / 0.00	468 / 7.68	120 / 2.51	7075 / 199.5	18 / 0.29	1.15 / 0.06	13.0	52	NH_4 = 27 / 1.52	12792	88	1204	820	100	230 60	DWR
6-5-63 1000	10	75	0.4	41		7.6	273 / 13.62	230 / 18.90	3500 / 152.3		0 / 0.00	316 / 5.18	207 / 4.32	5810 / 163.90	1.15 / 0.02				Cr^{+6} = 0.0 Oil & grease = 19	10950		316		**	24000	LBDPH
7-10-63 1050	14.6	73	0	0		7.6	275 / 13.72	375 / 30.81	3500 / 152.3		0 / 0.00	333 / 5.46	301 / 7.52	7235 / 21.50	0 / 0.00				Phenols = 0.15 Cr^{+6} = 0.0 Oil & grease = 228 5-day BOD = 142.0 Alkalinity = 333.0	13500				***	2.1	LBDPH
8-7-63 1010	19.4	77	0	0		7.5	337 / 16.80	190 / 15.61	4950 / 215.7		0 / 0.00	393 / 6.44	196 / 4.06	8220 / 29.30	0.06 / 0.01				5-day BOD = 212 Cr^{+6} = 0.0 Phenols = 0.3 Alkalinity = 393	15976				***	24	LBDPH

TABLE D-3

ANALYSES OF SURFACE WATER

LOS ANGELES DRAINAGE [illegible]

LOS ANGELES RIVER AT PACIFIC COAST HIGHWAY (Station 48)
(continued)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micramhos at 25°C)	pH	Mineral constituents in parts per million												Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)-	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N C ppm			
							equivalents per million																		
Water Year 1902-1903 (continued)																									
9-5-03 1400	59	88	3.5	47	15030	7.8	206 / 10.29	114 / 9.36	2957 / 129.6	35. / 0.90	0 / 0.00	410 / 6.72	85 / 1.78	4960 / 139.9	76 / 1.23	1.3 / 0.07	10.8	28	Cr^{+6} = 0.0 PO_4 = 2.7 AS = 0.1 ABS = 2.75 NH_4 = 2.9 Alkalinity = 498 Phenols = 0.15	9507	86	982	646	60	7000 7000	DWR

TABLE D-3

ANALYSES OF SURFACE WATER

LOS [illegible] VINCL U

RIO HONDO AT WHITTIER NARROWS (Station 49)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Mineral constituents in ppm / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$: Total ppm	Hardness as $CaCO_3$: NC ppm	Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
Water Year 1962-1963																										
10-3-62 1110	150	78	7.6	91	1125	7.9[a]			100 / 4.35		0 / 0.00	145 / 2.38	301 / 6.27	94 / 2.65			0.13				39	341	222	< 25	240 240	DWR
11-3-62 0850	3.4	62	6.0	61.1	952	7.6[a]			77 / 3.35		0 / 0.00	243 / 3.98		66 / 1.86			0.22		(All natural flow)		35	315	116	< 25	23 130	DWR
12-4-62 0910	38.6	62	9.6	98	1178	7.9[a]			102 / 4.44		0 / 0.00	163 / 2.68	302 / 6.29	96 / 2.71			0.13				38	356	222	< 25	6.2 13.0	DWR
1-16-63 0920	15	52	10.0	90	1190	7.7			136 / 5.92		0 / 0.00	174 / 2.86	298 / 6.20	99 / 2.79			0.14				51	286	143	< 25	240 21	DWR
2-7-63 1450	8	69	6.4	71	1144	7.4			113 / 4.92		0 / 0.00	262 / 4.30	225 / 4.68	91 / 2.57			0.27				42	334	121	< 25	700 700	DWR
3-7-63 1200	17.8	58	6.4	62	1171	8.0			133 / 5.79		0 / 0.00	178 / 2.92	287 / 5.97	97 / 2.74			0.17				51	276	130	< 25	50 62	DWR
4-4-63 0950	17.0	60	10.8	101	1158	8.2			114 / 4.96		0 / 0.00	159 / 2.60	308 / 6.41	95 / 2.68			0.11				43	333	203	< 25	700 700	DWR
5-9-63 0830	4.0	60	9.0	96	887	8.0	79 / 3.94	21 / 1.73	80 / 3.48	7.4 / 0.19	0 / 0.00	239 / 3.92	161 / 3.36	68 / 1.92	1.5 / 0.02	1.30 / 0.07	0.26	23	AS = 0.00 PO_4 = 0.26 ABS = 0.15	560	37	284	88	< 25	6.2 21	DWR
6-5-63 0830	4.0	68	9.4	102	1128	7.8			104 / 4.52		0 / 0.00	285 / 4.68	221 / 4.60	89 / 2.51			0.39				38	369	135	< 25	700 700+	DWR
7-2-63 1730	5.2	74	10.0	116	786	7.6			71 / 3.09		0 / 0.00	207 / 3.40	88 / 1.83	64 / 1.80			0.19				38	252	82	< 25	700+ 62	DWR
8-2-63 1400	1.6	86	9.0	118	1152	8.4			95 / 4.13		0 / 0.00	246 / 4.04	250 / 5.21	98 / 2.76			0.40				36	361	159	< 25	240 130	DWR
9-5-63 2000	14.6	77	8.6	102	1030	8.5	80 / 4.29	20 / 1.61	106 / 4.61	9.6 / 0.25	0 / 0.00	185 / 3.04	213 / 4.54	88 / 2.48	24 / 0.38	1.7 / 0.09	0.40	33	PO_4 = 1.4	701	43	295	143	< 25	700+ 700+	DWR

TABLE D-3

ANALYSES OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE [1]

RIO HONDO ABOVE SPREADING GROUNDS (Station 49b)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million											Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform [b] MPN/ml	Analyzed by [c]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N C ppm			
Water Year 1962-1963																								
							This station was officially entered into the program on July 1, 1963																	
5-9-63 0900	14.3	76	8.0	94	997	7.9	50 / 2.50	20 / 1.64	120 / 5.22	15 / 0.38	0 / 0.00	266 / 4.36	123 / 2.57	97 / 2.74	1.5 / 0.02	1.12 / 0.06	0.56	26	AS = 0.00; PO_4 = 14 ABS = 1.64	585	54	205	0	25	23 240	DWR
6-5-63 0900	11 est.	70	8.2	91	1047	8.2	47 / 2.35	24 / 1.97	122 / 5.31	14 / 0.36	0 / 0.00	256 / 4.20	141 / 2.94	106 / 2.99	2.6 / 0.04	1.7 / 0.09	0.58	11		637	55	216	6	25	62 240	DWR
7-2-63 2000	100 est.	77	9.0	107	1001	8.2	52 / 2.59	23 / 1.93	116 / 5.05	7.3 / 0.19	0 / 0.00	242 / 3.96	119 / 2.48	96 / 2.71	17 / 0.27	2.8 / 0.15	0.58	28		611	52	226	28	25	6.2 6.2	DWR
8-2-63 1300	20 est.	83	7.8	100	1038	7.5	47 / 2.35	20 / 1.59	133 / 5.79	14 / 0.36	0 / 0.00	190 / 3.12	133 / 2.77	111 / 3.13	25 / 0.40	1.8 / 0.09	0.74	27		650	57	197	41	25	.45 .45	DWR
9-5-63 2030	1 est.	72	6.0	68	879	8.4	49 / 2.45	17 / 1.41	106 / 4.61	13 / 0.33	0 / 0.00	232 / 3.80	95 / 1.98	94 / 2.65	23 / 0.37	1.1 / 0.06	0.45	25	NH_4 = 0.7; PO_4 = 22	573	52	193	3	25	700+ 700+	DWR

TABLE D-3
ANALYSES OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE

MISSION CREEK AT WHITTIER NARROWS (Station 49a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million												Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N C ppm			
Water Year 1962-1963																									
10-3-62 1045	1.1	70	6.8	76	434	7.3[a]			16 / 0.70		0 / 0.00	177 / 2.90		10 / 0.28			0.06				15	191	46	< 25	62 / 4.6	DWR
11-13-62 0825	1.6	62	9.2	100	542	7.5[a]			16 / 0.70		0 / 0.00	215 / 3.52		10 / 0.28			0.09				16	249	73	< 25	21 / 240	DWR
12-4-62 0845	2.0	56	8.8	84	592	7.5[a]			17 / 0.74		0 / 0.00	232 / 3.80		13 / 0.37			0.05				12	275	85	< 25	13 / 23	DWR
1-16-63 0940	1.6	50	9.6	75	592	7.7			18 / 0.78		0 / 0.00	231 / 3.78		15 / 0.42			0.04				12	282	93	< 25	23 / 23	DWR
2-7-63 1515	1.7	65	9.2	97	573	7.8			18 / 0.78		0 / 0.00	229 / 3.76		13 / 0.37			0.07				14	249	61	< 25	62 / 240	DWR
3-7-63 1120	1.6	58	7.0	67	616	8.1			20 / 0.87		0 / 0.00	235 / 3.86		15 / 0.42			0.07				14	271	78	< 25	62 / 62	DWR
4-4-63 0915	1.8	60	9.6	96	645	7.8			23 / 1.00		0 / 0.00	233 / 3.82		16 / 0.45			0.04				15	279	88	< 25	700+ / 130	DWR
5-9-63 1015	1.0	64	9.0	96	887	8.0	79 / 3.94	21 / 1.73	80 / 3.48	7.4 / 0.19	0 / 0.00	239 / 3.92	161 / 3.36	68 / 1.92	1.5 / 0.02	1.30 / 0.07	0.26	23	AS = 0.00 PO_4 = 0.26 ABS = 0.15	560	37	284	88	< 25	6.2 / 21	DWR
6-5-63 0930	0.17	66	9.8	105	554	7.9			20 / 0.87		0 / 0.00	212 / 3.48		15 / 0.42			0.07				14	256	82	< 25	500 / 50	DWR
7-2-63 2030	Dry No flow																								
8-2-63 1220	Dry No flow																								
9-5-63 1945	Damp No flow																								

TABLE D-3
ANALYSES OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE

SAN GABRIEL AT AZUSA POWER HOUSE (Station 400)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million												Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N.C. ppm			
Water Year 1962-1963																									
10-3-62 0920	82	68	8.8	96	402	7.7[a]			13 / 0.57		0 / 0.00	214 / 3.50		5 / 0.14			0.10				13	187	12	< 25	< 0.45 0.6	DWR
11-14-62 1400	80 est.	60	10.0	99.5	463	8.0[a]			12 / 0.52		0 / 0.00	262 / 4.30		4 / 0.11			0.10			220	12	220	5	< 25	0.6 0.6	DWR
12-3-62 0825	80 est.	56	10.4	99	462	7.9[a]			12 / 0.52		0 / 0.00	260 / 4.26		3 / 0.08			0.08			220	11	220	7	< 25	0.6 0.6	DWR
1-9-63 1530	80 est.	52	12	108	461	7.6			14 / 0.61		0 / 0.00	250 / 4.10		6 / 0.17			0.10				12	218	13	< 25	0.46 0.6	DWR
2-6-63 1540	8 est.	58	10.4	101	447	8.0			14 / 0.61		0 / 0.00	248 / 4.06		5 / 0.14			0.09				13	200	0	< 25	0.45 0.6	DWR
3-7-63 1320	Dry No flow																								
4-4-63 1150	80 est.	56	11.0	100	403	8.0			14 / 0.61		0 / 0.00	206 / 3.38		5 / 0.14			0.07				15	175	6	< 25	240 23	DWR
5-9-63 1300	80 est.	56	11.2	105	401	8.0	56 / 2.79	12 / 0.99	12 / 0.52	3.8 / 0.10	0 / 0.00	212 / 3.48	33 / 0.69	6 / 0.17	1.5 / 0.02	0.50 / 0.03	0.10	14	PO_4 = 0.04 ABS = 0.02	230	12	189	15	< 25	240 13	DWR
6-5-63 1130	37 est.	64	10.8	123	412	7.8			14 / 0.61		0 / 0.00	217 / 3.56		6 / 0.17			0.09				14	194	16	< 25	6.2 6.2	DWR
7-2-63 2130	37 est.	65	11.2	118	406	8.0			13 / 0.57		0 / 0.00	217 / 3.56		5 / 0.14			0.10				13	195	17	< 25	.45 5	DWR
8-2-63 1030	37 est.	72	8.0	91	394	8.2			15 / 0.65		0 / 0.00	216 / 3.54		4 / 0.11			0.12				15	186	9	< 25	240 50	DWR
9-6-63 1500	37 est.	72	9.2	104	411	8.2	51 / 2.54	10 / 1.34	15 / 0.65	4.0 / 0.10	0 / 0.00	227 / 3.72	28 / 0.58	3 / 0.08	0.5 / 0.01	0.6 / 0.03	0.09	16	PO_4 = 0.0	268	14	194	8	< 25	.45 .45	DWR

TABLE D-3

ANALYSES OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE [illegible]

SAN GABRIEL RIVER AT WHITTIER NARROWS (Station 50)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million												Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N.C. ppm			
Water Year 1962-1963																									
10-3-62 1025	100 est.	76	8.8	104	1139	8.2[a]			109 / 4.74		0 / 0.00	143 / 2.34	309 / 6.44	96 / 2.71			0.13					343	226	< 25	62 50	DWR
11-13-62 0815	100 est.	68	9.2	100	1141	8.2[a]			97 / 4.22		0 / 0.00	149 / 2.44		95 / 2.68			0.12				38	348	226	< 25	62 50	DWR
12-4-62 0820	100 est.	58	10.4	101	1162	7.7[a]			102 / 4.44		0 / 0.00	153 / 2.50	305 / 6.35	94 / 2.65			0.11				39	353	228	< 25	62 2.0	DWR
1-10-63 0955	Dry No flow																								
2-7-63 1600	149	59	10.4	101	1147	8.2			107 / 4.65		0 / 0.00	155 / 2.54	307 / 6.40	96 / 2.71			0.09				13	200	0	< 25	0.45- 0.6	DWR
3-7-63 1230	Dry No flow																								
4-4-63 1030	140	63	12.4	128	1150	8.4			113 / 4.92		0 / 0.00	156 / 2.56	305 / 6.35	95 / 2.68			0.11				42	333	205	< 25	7000 62	DWR
5-9-63 1100	Dry No flow																								
6-5-63 1000	Dry No flow																								
7-2-63 2030	Dry No flow																								
8-2-63 1200	Dry No flow																								
9-5-63 1930	Damp No flow																								

TABLE D-3
ANALYSES OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE U

LOS ANGELES AQUEDUCT NEAR SAN FERNANDO (Station 70)

Date and time sampled P S T	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million												Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
							Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents							
			ppm	%Sat			equivalents per million															Total ppm	N C ppm			
Water Year 1962-1963																									
10-16-62	494	63	8.8[a]		385	8.48[a]	27	6.8	40	4.3	--	--	28	19	0.6	0.60	0.57	24	NH_3 = 0.00 NO_2 = 0.02 N = 0.23 Fe = 0.01	--	--	96	--	5	.022 .051 .066	LADWP
11-13-62	347.1	59	9.6[a]		313	8.38[a]	22	4.6	29	3.8	--	--	20	16	0.6	0.63	0.44	22	NH_3 = 0.00 NO_2 = 0.02 N = 0.40 Fe = 0.01	--	--	75	--	8	0.92 0.51 0.16	LADWP
12-18-62	475	52	10.0[a]		296	8.40[a]	22	4.1	33	3.6	--	--	19	15	0.5	0.52	0.45	22	NH_3 = 0.02 NO_2 = 0.01 N = 0.34 Fe = 0.04	--	--	71	--	5	.022 .051 .051 .092	LADWP
1-15-63	486	43	12.0	97	294	7.96	22 1.1	3.9 0.3	35 1.5	3.7 0.10			21 0.45	15 0.42	0.5 0.01	0.60 0.03	0.54	22	AS = .027 NO_2 = 0.02 N = 0.32 Fe = 0.04			72		5	.051 .022	LADWP
2-27-63	203	52.7	10.2	94	339	9.04	27 1.35	6.8 0.6	31 1.35	3.8 0.10			29 0.60	19 0.52	2.0 0.04	0.51 0.03	0.48	24	AS = 0.023 N = 0.20 Fe = 0.08			96		3	.092 .000	LADWP
3-19-63	414	50	10.4	92	353	8.24	24 1.2	7.3 0.6	40 1.75	5.7 0.15			37 0.80	19 0.52	0.1 0.01	0.58 0.03	0.46	22	NH_3 = 0.01 AS = 0.025 Fe = 0.05			90		9	0.16 0.051 0.051	LADWP
4-16-63	401.1	64	9.8	90.5	336	8.12	24.8 1.24	5.4 0.44	36.3 1.56	4.6 0.12			27 0.57	18 0.51	0.4 0.01	0.56 0.03	0.44	21	Fe = 0.20 N = 0.32			84		8	16.0 9.2 5.1 9.2	LADWP
5-21-63	401.1	53.6	9.8	111	336	8.12	25 1.25	5.4 0.44	36 1.5	4.6 0.12			27 0.57	18 0.51	0.4 0.01	0.56 0.03	0.44	21	Fe = 0.20 N = 0.32			84		8	16.0 16.0 16.0 2.2	LADWP

TABLE D-3

ANALYSES OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE U

LOS ANGELES AQUEDUCT NEAR SAN FERNANDO (Station 70)

(continued)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million											Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)				Total ppm	N.C. ppm			
Water Year 1962-1963 (continued)																								
6-18-63	498	67	8.2	90	315	8.38	22 1.1	5.4 0.44	32 1.4	3.8 0.10			22 0.45	17 0.48	0.00 0.00	0.44 0.02	0.59	22	Fe = 0.05 AS = 0.007 N = 0.40			76		6	5.1 2.2	LADWP
7-23-63	495	71	8.7	98	276	8.00	19 1.0	3.4 0.3	25 1.1	3.1 0.08			23 0.50	12 0.32	0.3 0.01	0.47 0.03	0.33	18	Fe = 0.06 AS = 0.013 N = 0.28 5-day BOD = 1.8			62		5	0.0 0.0	LADWP
8-20-63	495.3	70.7	8.6	91	241	7.90	18 0.9	3.9 0.3	26 1.1	3.4 0.09			21 0.45	12 0.32	0.6 0.02	0.34 0.02	0.30	17	Fe = 0.04 NH_3 = 0.02 N = 0.42 5-day BOD = 1.4			62		9	0.0 0.0	LADWP
9-17-63	495.3	71	7.6	86	234	8.12	19 1.0	3.4 0.3	24 1.05	2.9 0.07			21 0.45	11 0.30	0.4 0.01	0.32 0.02	0.30	18	Fe = 0.03 AS = 0.002 NH_4 = 0.01 5-day BOD = 2.1			62		6	5.1 0.0	LADWP

TABLE D-3
ANALYSES OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE U

COLORADO RIVER AQUEDUCT AT LA VERNE (Station 69)

Date and time sampled P S.T	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million												Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents				Total ppm	N C ppm			
							equivalents per million																			
Water Year 1962-63																										
October Composite Sample	--	--	--	--	1115	8.3[b]	87 / 4.34	30 / 2.47	105 / 4.57	5 / 0.13	1 / 0.03	137 / 2.25	314 / 6.53	94 / 2.65	1.6 / 0.03	0.4 / 0.04	--	9.4	--	716	40	341	227	--	--	MWD
November Composite Sample	--	--	--	--	--	--	89 / 4.44	29.5 / 2.42	109 / 4.74	4 / 0.10	1 / 0.03	142 / 2.33	312 / 6.49	98 / 2.76	1.8 / 0.03	0.4 / 0.02	--	9.9	Free CO_2 = 1	726	41	343	225	1.2	--	MWD
December Composite Sample	--	--	--	--	113.5	8.4[b]	90 / 4.49	30 / 2.47	104 / 4.52	5 / 0.13	1 / 0.03	143 / 2.35	312 / 6.49	96 / 2.71	1.6 / 0.03	0.4 / 0.02	0.13 / 0.04	--	Free CO_2 = 1 Iron = 30	721	39	348	229	0.9	--	MWD
January Composite Sample					1120	8.4	91 / 4.54	30 / 2.47	104 / 4.52	5 / 0.13	1 / 0.03	145 / 2.38	318 / 6.61	94 / 2.65	2.21 / 0.04	0.4 / 0.02		9.8	Free CO_2 = 1	728	39	351	230	1.1		MWD
February Composite Sample		54			1130	8.4	91 / 4.54	29.5 / 2.42	103 / 4.48	5 / 0.13	0 / 0.00	148 / 2.43	317 / 6.59	93 / 2.62	2.0 / 0.03	0.4 / 0.02			Al = 0.01 Free CO_2 = 1	726	39	348	227	0.8		MWD
March Composite Sample		56			1075	8.4	91 / 4.54	30 / 2.47	104 / 4.52	5 / 0.13	0 / 0.00	149 / 2.44	313 / 6.51	94 / 2.65	2.1 / 0.03	0.4 / 0.02		9.6	Free CO_2 = 1	724	39	351	229	0.8		MWD
April Composite Sample		59			1125	8.4	93 / 4.64	29.5 / 2.42	102 / 4.44	5 / 0.13	0 / 0.00	149 / 2.44	312 / 6.49	94 / 2.65	2.0 / 0.03	0.4 / 0.02		9.3	$CaCO_3$ = 122 Free CO_2 = 1	722	38	353	231	0.5		MWD
May Composite Sample		63			1120	8.4	92 / 4.59	30 / 2.47	103 / 4.48	5 / 0.13	0 / 0.00	149 / 2.44	312 / 6.49	94 / 2.65	2.9 / 0.05	0.4 / 0.02			$CaCO_3$ = 122 Free CO_2 = 1	723	38	353	231	0.5		MWD
June Composite Sample		66			1110	8.2	90 / 4.49	30 / 2.47	100 / 4.35	5 / 0.13	0 / 0.00	145 / 2.38	321 / 6.49	91 / 2.57	2.0 / 0.03	0.4 / 0.02	0.13 / 0.04	9.0	Free CO_2 = 2 $CaCO_3$ = 119 Ammonium nitrogen = 0.000 Organic nitrogen = 0.150	712	38	348	339	0.5		MWD

TABLE D-3

ANALYSES OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE U

COLORADO RIVER AQUEDUCT AT LA VERNE (Station 69)
(continued)

Date and time sampled P.S.T	Discharge in cfs	Temp. in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million												Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N C ppm			
Water Year 1962-1963 (continued)																									
July Composite Sample					1090	8.1	87 4.34	29 2.38	101 4.39	6 0.15	0 0.00	139 2.28	307 6.39	92 2.59	1.6 0.03	0.4 0.02		8.9	$CaCO_3$ = 114 Free CO_2 = 2	702	39	337	223	0.5		MWD
August Composite Sample					1175	8.0	83 4.14	28.5 2.34	102 4.44	5 0.13	0 0.00	129 2.12	300 6.24	92 2.59	1.2 0.02	0.4 0.02		9.0	$CaCO_3$ = 106 Free CO_2 = 2	685	40	324	218			MWD
September Composite Sample					1060	8.1	79 3.94	29 2.38	97 4.22	5 0.13	0 0.00	124 2.03	295 6.14	88 2.48	0.9 0.01	0.4 0.02		9.0	$CaCO_3$ = 102 Free CO_2 = 2	665	40	317	215	0.5		MWD

TABLE D-4

ANALYSES OF SURFACE WATER

LAHONTAN DRAINAGE PROVINCE W

MOJAVE RIVER AT THE FORKS (Station 67a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
							Mineral constituents in parts per million / equivalents per million																			
Water Year 1962-63																										
10-4-62 1320	5 est.	70	7.6	85	565	7.7[a]			71 / 3.09		0 / 0.00	126 / 2.06		16 / 0.45			0.29				58	113	10	< 25	62 23	DWR
11-5-62 1040	7 est.	58	8.4	81.7	443	7.5[a]			62 / 2.70		0 / 0.00	127 / 2.08		11 / 0.31			0.23				61	88	0	< 25	< 700 < 700	DWR
12-3-62 1435	10 est.	60	8.4	83	472	7.3[a]			43 / 1.87		0 / 0.00	185 / 3.04		25 / 0.71			0.10				40	141	0	< 25	230 6	DWR
1-10-63 1145	15 est.	48	10.0	86	332	7.9			38 / 1.65		0 / 0.00	120 / 1.96		11 / 0.31			0.08				50	83	0	< 25	< 4.5 < 4.5	DWR
2-6-63 1045	20 est.	51	10.0	89	311	7.8			37 / 1.61		0 / 0.00	126 / 2.06		8 / 0.23			0.09				53	71	0	< 25	23 62	DWR
3-6-63 1120	20 est.	50	9.8	86	293	7.8			32 / 1.39		0 / 0.00	111 / 1.82		5 / 0.14			0.07				49	72	0	< 25	700 23	DWR
4-5-63 0830	20 est.	52	10.8	94	220	8.0			21 / 0.91		0 / 0.00	94 / 1.54		7 / 0.20			0.03				42	63	0	< 25	62 62	DWR
5-9-63 1800	30 est.	61	10.4	105	217	8.0	18 / 0.90	3.0 / 0.25	24 / 1.04	1.4 / 0.04	0 / 0.00	100 / 1.64	15 / 0.31	7 / 0.20	0.5 / 0.01	1.2 / 0.06	0.06	22	As = 0.00 PO_4 = 0.08 ABS = 0.02	135	47	59	0	< 25	62 62	DWR
6-5-63 1430	25 est.	68	10.0	109	311	7.8			38 / 1.65		0 / 0.00	117 / 1.92		9 / 0.25			0.11				51	80	0	< 25	62 6.2	DWR
7-4-63 1050	20 est.	70	8.0	89	371	7.4			46 / 2.00		0 / 0.00	138 / 2.26		12 / 0.34			0.12				54	86	0	< 25	23 6.2	DWR
8-5-63 1200	15 est.	74	8.4	97	410	7.2			53 / 2.31		0 / 0.00	161 / 2.64		11 / 0.31			0.15				54	98	0	< 25	700+ 700+	DWR
9-6-63 1200	12 est.	73	9.0	103	547	7.8	33 / 1.65	8.5 / 0.70	76 / 3.31	3.2 / 0.08	0 / 0.00	163 / 2.68	117 / 2.43	18 / 0.51	0.5 / 0.01	4.5 / 0.24	0.30	25	PO_4 = 0.12	355	5[illegible]	118	0	< 5	62 62	DWR

TABLE D-4

ANALYSES OF SURFACE WATER

LAHONTAN DRAINAGE PROVINCE W

MOJAVE RIVER NEAR VICTORVILLE (Station 67)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonates (CO_3)	Bicarbonates (HCO_3)	Sulfates (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
Water Year 1962-63																										
10-4-62 1215	15.4	70	7.2	80	472	7.8[a]			45 / 1.96		0 / 0.00	182 / 2.98		30 / 0.85			0.10				41	140	0	<25	62 / 62	DWR
11-5-62 1230	21	64	7.7	75.1	478	7.5[a]			20 / 0.87		0 / 0.00	184 / 3.02		28 / 0.79			0.12					146	0	<25	2400 / 620	DWR
12-3-62 1600	21	60	8.4	83	472	7.3[a]			43 / 1.87		0 / 0.00	185 / 3.04		25 / 0.71			0.10				40	141	0	<25	< 4.5 / < 46	DWR
1-10-63 1300	30	56	8.8	84	451	8.1[a]			40 / 1.74		0 / 0.00	173 / 2.84		26 / 0.73			0.07				39	136	0	<25	< 4.5 / 6.0	DWR
2-6-63 0925	35	40	8.8	68	437	7.6			40 / 1.74		0 / 0.00	184 / 3.02		23 / 0.65			0.09				40	130	0	<25	700 / 62	DWR
3-6-63 0900	32	60	7.4	74	459	8.0			41 / 1.78		0 / 0.00	182 / 2.98		26 / 0.73			0.10				40	133	0	<25	130 / 21	DWR
4-5-63 0900	28	56	9.6	91	458	7.6			41 / 1.78		9.6 / 0.32	166 / 2.72		25 / 0.71			0.08				40	132	0	<25	23 / 23	DWR
5-9-63 1845	24	60	9.6	91	459	7.9	38 / 1.90	10 / 0.82	48 / 2.09	1.8 / 0.05	0 / 0.00	193 / 3.16	40 / 0.84	28 / 0.79	1.5 / 0.02	0.50 / 0.03	0.12	25	As = 0.00; PO_4 = 2.45; ABS = 0.08	275	43	140	0	<25	700+ / 240	DWR
6-5-63 1600	18	66	9.0	96	479	7.6			49 / 2.13		0 / 0.00	194 / 3.18		29 / 0.82			0.12				42	145	0	<25	2400 / 620	DWR
7-4-63 0930	15	72	9.2	104	489	7.4			45 / 1.96		0 / 0.00	196 / 3.22		29 / 0.82			0.13				39	153	0	<25	62 / 62	DWR
8-5-63 1100	13.5	73	9.0	103	494	7.8			51 / 2.22		0 / 0.00	200 / 3.28		31 / 0.87			0.15				42	152	0	<25	230 / 7000	DWR
9-6-63 1000	14	71	8.6	97	515	8.0	46 / 2.30	10 / 0.82	47 / 2.04	3.4 / 0.09	0 / 0.00	200 / 3.28	46 / 0.95	34 / 0.96	1.5 / 0.02	0.7 / 0.04	0.12	23	PO_4 = 0.4	335	39	157	0	30	62 / 62	DWR

TABLE D-5

ANALYSES OF SURFACE WATER

COLORADO RIVER DRAINAGE PROVINCE X

COLORADO RIVER NEAR TOPOCK (Station 54)

Date and time sampled P.S.T.	Discharge in cfs	Temp. in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million												Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N C ppm			
Water Year 1962-1963																									
5-16-63 1600	11,300	69	9.6	106	1081	8.2	91 / 4.54	27 / 2.22	105 / 4.57	5.2 / 0.13	0 / 0.00	163 / 2.68	296 / 6.17	91 / 2.57	2.5 / 0.04	0.54 / 0.03	0.15	10	As = 0.00; PO_4 = 0.00 ABS = 0.04	720	40	338	204	<25	0.45 6.2	DWR
9-19-63 1630	10,100	68	9.2	100	1014	8.0	84 / 4.19	26 / 2.14	96 / 4.18	4.4 / 0.11	0 / 0.00	154 / 2.52	276 / 5.74	83 / 2.34	2.0 / 0.03	0.64 / 0.03	0.16	12	PO_4 = 0.00	650	39	317	191	<25	6.2 62	DWR

TABLE D-5

ANALYSES OF SURFACE WATER

COLORADO RIVER DRAINAGE PROVINCE X

LAKE HAVASU, COLORADO RIVER AQUEDUCT INTAKE (Station 56d)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Mineral constituents in ppm / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
Water Year 1962-1963																										
10-2-62	--	--	--	--	1110	8.4[a]	83 / 4.14	30 / 2.47	106 / 4.61	4 / 0.10	2 / 0.07	131 / 2.15	306 / 6.36	96 / 2.71	1.5 / 0.02	0.5 / 0.03	--	9.8	--	704	41	331	220	0.3	--	MWD
11-21-62 1005	--	69	--	--	----	--	87 / 4.34	29.5 / 2.42	100 / 4.35	5 / 0.13	2	134	307	94	1.6	0.4	--	10.1	--	704	--	339	225	0.3	--	MWD
12-4-62	--	61	--	--	1130	8.3[a]	90 / 4.49	30 / 2.47	109 / 4.74	5 / 0.13	0 / 0.00	149 / 2.44	315 / 6.55	96 / 2.71	2.2 / 0.04	0.4 / 0.02	--	9.9	Free CO_2 = 1 ppm	732	40	348	226	0.3	--	MWD
1-1-63		54			1130	8.4	91 / 4.54	30 / 2.47	104 / 4.52	5 / 0.13	0 / 0.00	150 / 2.46	312 / 6.49	96 / 2.71	1.0 / 0.02	0.4 / 0.02		10.2	Free CO_2 = 1 ppm	725	39	351	228			MWD
2-5-63		50			1130	8.2	92 / 4.59	30 / 2.47	104 / 4.52	5 / 0.13	0 / 0.00	154 / 2.53	309 / 6.43	94 / 2.65	2.1 / 0.03	0.4 / 0.02		9.8	Free CO_2 = 1 ppm	723	39	353	227	0.2		MWD
3-5-63 0915					1120	8.3	91 / 4.54	30.5 / 2.51	100 / 4.35	6 / 0.15	0 / 0.00	151 / 2.48	310 / 6.45	91 / 2.57	2.2 / 0.04	0.4 / 0.02		9.0	Free CO_2 = 1 ppm	716	38	353	229	0.8		MWD
4-2-63 0940		63			1103	8.3	91 / 4.54	29.5 / 2.42	102 / 4.44	5 / 0.13	0 / 0.00	150 / 2.46	307 / 6.39	92 / 2.59	2.4 / 0.04	0.4 / 0.02		9.3	Free CO_2 = 1 ppm Alkalinity = 123	714	39	348	225	0.4		MWD
5-7-63		72			1035	8.3	91 / 4.54	29.0 / 2.38	95 / 4.13	5 / 0.13	0 / 0.00	146 / 2.39	302 / 6.28	90 / 2.54	2.2 / 0.03	0.4 / 0.02		8.8	Free CO_2 = 1 ppm Alkalinity = 120	696	37	346	226			MWD
6-18-63		77			1085	8.1	86 / 4.29	29.5 / 2.42	96 / 4.18	5 / 0.13	0 / 0.00	148 / 2.43	293 / 6.09	88 / 2.48	1.7 / 0.03	0.4 / 0.02		9.3	Free CO_2 = 2 ppm Alkalinity = 121	683	38	336	215			MWD
7-16-63		77			1050	8.3	81 / 4.04	29 / 2.38	92 / 4.00	5 / 0.13	0 / 0.00	131 / 2.15	289 / 6.01	86 / 2.43	1.2 / 0.02	0.4 / 0.02		10.3	Free CO_2 = 1 ppm Alkalinity = 107	659	38	322	125	0.6		MWD
8-6-63		82			1050	7.7	78 / 3.89	29 / 2.38	94 / 4.09	6 / 0.15	0 / 0.00	126 / 2.07	289 / 6.01	87 / 2.45	1.2 / 0.02	0.4 / 0.02		10.7	Free CO_2 = 4 Alkalinity = 103	658	39	314	211	0.3		MWD
9-3-63 1300		85			1040	7.4	78 / 3.89	27.5 / 2.26	95 / 4.13	5 / 0.13	0 / 0.00	127 / 2.08	284 / 5.91	86 / 2.43	1.0 / 0.02	0.4 / 0.02		10.8	Free CO_2 = 8 Alkalinity = 104	651	40	308	204			MWD

TABLE D-5

ANALYSES OF SURFACE WATER

COLORADO RIVER DRAINAGE PROVINCE X

COLORADO RIVER BELOW PARKER DAM (Station 55)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25° C)	pH	Mineral constituents in parts per million												Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
							Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N C ppm			
			ppm	% Sat			equivalents per million																		
Water Year 1962-1963																									
5-16-63 1115	13,500	70	9.8	109	1095	8.5	89 / 4.44	30 / 2.47	105 / 4.57	5.2 / 0.13	0 / 0.00	161 / 2.64	306 / 6.37	92 / 2.59	2.5 / 0.04	0.54 / 0.03	0.16	10	As = 0.00; PO_4 = 0.00 ABS = 0.02	745	39	344	212	< 25	2.3 130	DWR
9-1-63 1300	12,500	78	7.0	84	1031	8.4	84 / 4.19	26 / 2.14	98 / 4.26	4.4 / 0.11	0 / 0.00	146 / 2.40	280 / 5.84	86 / 2.43	1.5 / 0.02	0.60 / 0.03	0.16	12	PO_4 = 0.00	670	40	317	197	< 25	< .45 < .45	DWR

TABLE D-5

ANALYSES OF SURFACE WATER

COLORADO RIVER DRAINAGE PROVINCE X

COLORADO RIVER NEAR BLYTHE (Station 56c)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million												Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[D] MPN/ml	Analyzed by[E]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)					Total ppm	N.C. ppm			
Water Year 1962-1963																									
5-16-63 0830	10,700	77	9.0	107	1167	8.4	97 / 4.84	29 / 2.38	110 / 4.79	5.0 / 0.13	0 / 0.00	168 / 2.76	309 / 6.43	100 / 2.82	2.5 / 0.04	0.52 / 0.03	0.12	12	As = 0.00; PO_4 = 0.02 ABS = 0.10	755	39	360	222	<25	1.3 <.45	DWR
9-19-63 1000	5940	78	8.6	103	1000	8.0	78 / 3.89	27 / 2.22	105 / 4.57	5.2 / 0.13	0 / 0.00	156 / 2.56	266 / 5.55	83 / 2.34	2.5 / 0.04	0.70 / 0.04	0.15	10	PO_4 = 0.06	650	42	306	178	450	23 62	DWR

TABLE D-5

ANALYSES OF SURFACE WATER

COLORADO RIVER DRAINAGE PROVINCE X

ALL AMERICAN CANAL NEAR PILOT KNOB (Station 56a)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH [a]	Mineral constituents in parts per million												Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform [b] MPN/ml	Analyzed by [c]
							Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents							
			ppm	%Sat		(a)	equivalents per million														Total ppm	N C ppm			
Water Year 1962-1963																									
5-15-63	6000 Est.	78	9.4	113	1256	8.2	100 / 4.99	28 / 2.30	129 / 5.61	5.2 / 0.13	0 / 0.00	171 / 2.80	329 / 6.85	117 / 3.30	2.0 / 0.03	0.60 / 0.03	0.14	12	As = 0.00; PO_4 = 0.02 ABS = 0.02	830	43	365	225	< 25	240	DWR
1000																								23	
9-11-63	6100 Est.	85	8.0	103	1212	8.4	85 / 4.24	31 / 2.55	129 / 5.61	5.0 / 0.13	9.6 / 0.32	144 / 2.36	316 / 6.58	119 / 3.36	1.5 / 0.02	0.52 / 0.03	0.20	11	PO_4 = 0.00	785	45	340	206	26	62	DWR
1345																								13	

TABLE D-5

ANALYSES OF SURFACE WATER

COLORADO RIVER DRAINAGE PROVINCE X

COLORADO RIVER AT YUMA ARIZONA (Station 56)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million												Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents				Total ppm	NC ppm			
Water Year 1962-1963																									
5-15-63 1100	1070	74	10.4	121	3984	8.0	212 / 10.58	85 / 6.99	525 / 22.84	8.0 / 0.20	0 / 0.00	256 / 4.20	592 / 12.34	800 / 22.56	2.5 / 0.04	0.94 / 0.05	0.66	20	As = 0.00; PO_4 = 0.04 ABS = 0.14	2645	56	878	668	25	2.3 2.3	DWR
9-11-63 1230	1340	82	9.6	121	3745	8.2	195 / 9.73	73 / 6.00	520 / 22.62	7.2 / 0.18	0 / 0.00	232 / 3.80	549 / 11.44	810 / 22.84	7.4 / 0.12	1.20 / 0.06	0.72	22	PO_4 = 0.02	2420	59	787	597	30	62 62	DWR

TABLE D-5

ANALYSES OF SURFACE WATER

COLORADO RIVER [illegible]

COLORADO RIVER BELOW MORELOS DAM (Station 56b)

Date and time sampled P S.T	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25° C)	pH	Mineral constituents in parts per million											Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)				Total ppm	N C ppm			
							equivalents per million																		
Water Year 1962-1963																									
5-15-63 1205	263	73	9.2	106	3413	7.8	207 / 10.33	62 / 5.10	145 / 19.36	6.2 / 0.16	0 / 0.00	237 / 3.88	530 / 11.05	710 / 20.02	5.0 / 0.08	0.76 / 0.04	0.54	17	PO_4 = 0.08 ABS = 0.12	2240	55	772	578	27	700+ 700+	DWR
9-11-63 1100	17.6	80	8.8	108	2179	8.2	140 / 6.99	52 / 4.27	268 / 11.66	5.8 / 0.15	0 / 0.00	232 / 3.80	446 / 9.30	355 / 10.01	5.0 / 0.08	0.86 / 0.05	0.42	16	PO_4 = 0.08	1430	51	563	373	<25	130 620	DWR

TABLE D-5

ANALYSES OF SURFACE WATER

COLORADO RIVER DRAINAGE PROVINCE A

ALAMO RIVER AT INTERNATIONAL BOUNDRY (Station 59)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million												Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N C ppm			
Water Year 1962-1963																									
11-8-62 0610	2.8	66	6.8	72.8	3808	7.6[a]			553 / 23.19		0 / 0.00	290 / 4.76		692 / 19.51			1.06				59	797	559	< 25	62 62	DWR
1-8-63 1530	3.41	58	10.4	101	4476	7.7			644 / 28.01		0 / 0.00	298 / 4.88		848 / 23.91			1.10				70	604	360	< 25	23 6	DWR
3-12-63 1040	3.41	65	6.6	70	2870	7.4			394 / 17.14		0 / 0.00	262 / 4.30		460 / 12.97			0.72				58	628	413	45	7000 2400	DWR
5-14-63 1530	3.03	80	2.8	35	6173	7.8	225 / 12.72	152 / 12.49	1000 / 43.50	13 / 0.33	0 / 0.00	366 / 6.00	1259 / 26.22	1280 / 36.10	7.4 / 0.12	1.04 / 0.05	2.00	20	As = 0.00; PO_4 = 0.10 ABS = 0.40	4280	63	1260	960	< 25	6200 2400	DWR
7-9-63 1635	2.55	82	7.0	88	5614	7.8			896 / 38.98		0 / 0.00	346 / 5.68		1170 / 32.99			1.80				61	1240	956	< 25	62 62	DWR
9-11-63 1520	2.44	85	7.6	99	4065	7.8	185 / 9.23	104 / 8.55	600 / 26.10	8.8 / 0.23	0 / 0.00	320 / 5.24	831 / 17.31	760 / 21.43	6.2 / 0.10	1.20 / 0.06	1.35	25	PO_4 = 0.10	2765	59	889	627	< 25	62 70	DWR

TABLE D-5

ANALYSES OF SURFACE WATER

COLORADO RIVER DRAINAGE PROVINCE X

ALAMO RIVER NEAR CALIPATRIA (Station 60)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million												Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N C ppm			
Water Year 1962-1963																									
11-7-62 1610	950	72	8.4	95.4	3990	7.6[a]			518 / 22.53		0 / 0.00	222 / 3.64		770 / 21.71			0.52			54	946	764	300	620 230	DWR
1-9-63 0825	776	54	10.4	96	4470	7.7			591 / 25.71		0 / 0.00	210 / 3.44		872 / 24.59			0.68			56	1007	835	250	500 2400	DWR
3-12-63 1305	1074	62	5.0	51	3700	7.8			488 / 21.23		0 / 0.00	211 / 3.46		670 / 18.89			0.52			56	830	657	450	7000 2400	DWR
5-14-63 1220	894	72	8.8	100	3704	8.0	180 / 8.98	104 / 8.55	500 / 21.75	13 / 0.33	0 / 0.00	237 / 3.88	756 / 15.76	690 / 19.46	22 / 0.36	0.92 / 0.05	0.64	12	As = 0.00; PO_4 = 0.65 ABS = 0.22	2500	55	878	684	250	24,000 6200	DWR
7-9-63 1400	894	85	9.2	119	3430	8.2			485 / 21.10		0 / 0.00	215 / 3.52		648 / 18.27			0.52				55	850	674	< 25	24,000 24,000	DWR
9-10-63 1550	1253	84	7.0	90	3195	8.2	164 / 8.18	87 / 7.15	430 / 18.71	11 / 0.28	0 / 0.00	210	705	570	16	0.96	0.60	14	PO_4 = 0.32	2175	55	767	595	500	2400 620	DWR

TABLE D-5

ANALYSES OF SURFACE WATER

COLORADO RIVER DRAINAGE PROVINCE X

NEW RIVER AT INTERNATIONAL BOUNDRY (Station 57)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[B] MPN/ml	Analyzed by[C]
Water Year 1962-1963																										
11-8-62 0710	146	68	7.8	85	4013	7.7[D]			580 / 23.23		0 / 0.00	210 / 3.44	900 / 25.38				0.86				64	704	532	50	13,000 6,200	DWR
1-8-63 1600	203	60	9.6	95	4433	7.5			639 / 27.80		0 / 0.00	256 / 4.20		995 / 28.06			0.98				63	800	590	25	62,000 Lab accident	DWR
3-12-63 0930	249	63	8.4	82	4437	7.8			650 / 28.28		0 / 0.00	239 / 3.92		980 / 27.64			0.88				65	767	571	40	450- 450-	DWR
5-14-63 1500	104	82	6.5	81	6024	8.1	239 / 11.93	112 / 9.21	910 / 39.59	37 / 0.95	0 / 0.00	276 / 4.52	736 / 15.34	1490 / 42.02	5.0 / 0.08	0.76 / 0.04	1.25	22	As = 0.00; NH_4 = 2.9 PO_4 = 1.9; ABS = 2.1	3940	64	1058	832	25	240 mil. 700 mil.	DWR
7-9-63 1600	158	88	7.2	96	5636	8.5			908 / 39.50		0 / 0.00	227 / 3.72		1450 / 40.89			1.2				66	1000	814	< 25	10,000 620,000	DWR
9-11-63 1600	175	91	8.0	110	6310	8.2	228 / 11.38	132 / 10.85	1000 / 43.50	37 / 0.95	0 / 0.00	254 / 4.16	806 / 16.79	1580 / 44.56	8.7 / 0.14	0.96 / 0.05	1.45	25	PO_4 = 1.25	4120	65	1112	904	35	70,000 24,000	DWR

TABLE D-5

ANALYSES OF SURFACE WATER

COLORADO RIVER DRAINAGE PROVINCE

NEW RIVER NEAR WESTMORLAND (Station 58)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million												Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
							Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N C ppm			
			ppm	%Sat			equivalents per million																		
Water Year 1962-1963																									
11-7-62 1750	651	70	7.2	80.3	4496	8.0[a]			639 / 27.80		0 / 0.00	232 / 3.80		975 / 27.50			0.84			62	854	664		6200 2300	DWR
1-9-63 0745	649	54	8.0	74	5246	7.6			800 / 34.80		0 / 0.00	249 / 4.08		1185 / 33.42			1.1			65	938	734	200	21,000 6200	DWR
3-12-63 1210	785	68	5.0	55	4448	7.8			660 / 28.71		0 / 0.00	237 / 3.88		950 / 26.79			0.94			64	809	615	450	2300 6200	DWR
5-14-63 1320	750	78	6.4	77	4329	8.0	203 / 10.13	88 / 7.23	625 / 27.19	18 / 0.46	0 / 0.00	249 / 4.08	687 / 14.31	930 / 26.23	15 / 0.24	0.70 / 0.04	0.86	14	As = 0.00; PO_4 = 0.60 ABS = 0.40	2820	60	866	662	500	240,000 620,000	DWR
7-9-63 1430	634	85	6.0	78	1203	8.4			127 / 5.52		0 / 0.00	166 / 2.72		116 / 3.27			0.16			43	370	234	< 25	62 62	DWR
9-10-63 1650	722	85	6.5	84	4292	8.2	190 / 9.48	91 / 7.48	645 / 28.06	13 / 0.33	0 / 0.00	234 / 3.84	683 / 14.22	945 / 26.65	11 / 0.18	0.84 / 0.04	1.0	16	PO_4 = 0.40	2760	62	848	656	450	2400 2400	DWR

TABLE D-5

ANALYSES OF SURFACE WATER

COLORADO RIVER DRAINAGE PROVINCE X

SALTON SEA AT SALTON SEA STATE PARK (Station 68a)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million												Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluorids (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N C ppm			
Water Year 1962-1963																									
11-7-62 1505	Sea	78	10.0	120.5	44,300	8.1			9725 / 423.0		0 / 0.00	190 / 3.12		14,500 / 409.9			7.10					6250	6094	<25	6.2 / 13	DWR
1-9-63 0930	Sea	58	9.6	93	44,730	8.1			10,200 / 443.7		0 / 0.00	194 / 3.18		14,450 / 407.5			8.3				77	6600	6441	<25	2.3 / 23	DWR
3-12-63 1430	Sea	65	9.8	97	44,310	8.0			9800 / 426.3		0 / 0.00	190 / 3.12		14,200 / 400.4			8.1				79	5750	5594	<25	0.6 / 5	DWR
5-14-63 1115	Sea	78	9.5	114	42,000	7.8	810 / 40.42	950 / 78.09	9900 / 430.65	160 / 4.10	0 / 0.00	185 / 3.04	7172 / 149.42	14,300 / 403.26	5.0 / 0.08	2.5 / 0.13	8.4	2	As = 0.00; PO_4 = 0.06 ABS = 2.56	34,340	78	5918	5866	<25	.45 / .45	DWR
7-10-63 1115	Sea	87	10.0	133	41,860	8.5			9680 / 421.0		0 / 0.00	180 / 2.96		13,700 / 386.3			7.3				78	6010	5862	<25	50 / 23	DWR
9-11-63 1145	Sea	90	9.6	129	42,370	8.4	793 / 39.57	1041 / 85.57	9900 / 430.65	166 / 4.25	0 / 0.00	195 / 3.20	7320 / 152.50	14,200 / 400.44	5.0 / 0.08	2.90 / 0.15	8.2	3	PO_4 = 0.00	34,510	77	6257	6097	<25	23 / 2.3	DWR

TABLE D-5

ANALYSES OF SURFACE WATER

COLORADO RIVER DRAINAGE PROVINCE X

WHITEWATER RIVER NEAR WHITEWATER (Station 68)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million											Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	NC ppm			
Water Year 1962-1963																								
11-7-62 1505	4 Est.	70	8.4	94.5	430	7.7[a]			14 / 0.61		0 / 0.00	207 / 3.40		5 / 0.14			0.00				14	191	21	<25	2.3 1.3	DWR
1-9-63 1135	6 Est.	64	9.8	92	447	8.1			15 / 0.65		0 / 0.00	212 / 3.48		5 / 0.14			0.00				14	196	22	<25	1.3 0.6	DWR
3-12-63 1710	4 Est.	69	8.2	91	525	7.6			19 / 0.83		0 / 0.00	233 / 3.82		6 / 0.17			0.02				16	220	29	<25	62 240	DWR
5-14-63 0840	6 Est.	64	8.6	90	439	8.0	56 / 2.79	15 / 1.23	17 / 0.74	5.0 / 0.13	7.2 / 0.24	210 / 3.44	43 / 0.89	7 / 0.20	2.0 / 0.03	1.06 / 0.06	0.00	18	As = 0.00 PO_4 = 0.08 ABS = 0.00	280	15	200	16	<25	6,200 240,000	DWR
7-10-63 1415	50 Est.	70	9.0	100	433				17 / 0.74		0 / 0.00	216 / 3.54		4 / 0.11			0.00				15	204	27	<25	62 62	DWR
9-11-63 1415	48 Est.	68	10.2	111	415	8.0	50 / 2.50	15 / 1.23	18 / 0.78	4.8 / 0.12	0 / 0.00	220 / 3.60	42 / 0.87	6.0 / 0.17	2.0 / 0.03	0.66 / 0.03	0.02	12	PO_4 = 0.00	240	17	187	7	<25	62 23	DWR

TABLE D-5

ANALYSES OF SURFACE WATER

COLORADO RIVER DRAINAGE PROVINCE X

WHITEWATER RIVER NEAR MECCA (Station 68b)

Date and time sampled P.S.T	Discharge in cfs	Temp. in °F	Dissolved oxygen ppm	Dissolved oxygen % Sat.	Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million — Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
Water Year 1962-1963																										
11-7-62 1535	80 Est.	76	8.4	99.2	3821	7.9[a]			612 / 26.62		0 / 0.00	329 / 5.40		500 / 14.10				1.10			68	621	351	450	60 2300	DWR
1-9-63 1000	80 Est.	60	9.2	91	3860	8.1			621 / 27.01		0 / 0.00	336 / 5.50		500 / 14.10			1.16				68	636	361	350	7000 >7000	DWR
3-12-63 1600	90 Est.	68	9.0	98	3711	7.8			600 / 26.10		0 / 0.00	339 / 5.56		470 / 13.25			1.02				69	586	308	500	1300 6200	DWR
5-14-63 1030	90 Est.	80	9.8	121	3597	8.2	169 / 8.43	51 / 4.19	575 / 25.01	14 / 0.36	0 / 0.00	354 / 5.80	919 / 19.15	465 / 13.11	30 / 0.48	3.4 / 0.18	1.0	22	Ag = 0.00; PO_4 = 0.35 ABS = 0.28	2450	66	630	340	<25	240,000 240,000	DWR
7-10-63 1300	100 Est.	82	10.0	126	3318	8.6			532 / 23.11		0 / 0.00	320 / 5.24		425 / 11.99			0.90		PO_4 = 0.30 ABS = 0.22		66	602	340	400	70,000 24,000	DWR
9-11-63 1300	90 Est	84	9.6	123	3012	8.5	152 / 7.58	41 / 3.37	510 / 22.19	12 / 0.31	0 / 0.00	317 / 5.20	794 / 16.54	385 / 10.86	27 / 0.44	0.60 / 0.03	1.0	20	PO_4 = 0.28	2075	66	548	288	1000	2300 2300	DWR

TABLE D-6

ANALYSES OF SURFACE WATER

SANTA ANA DRAINAGE PROVINCE Y

SANTA ANA RIVER NEAR MENTONE (Station 51b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million												Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N C ppm			
Water Year 1962-1963																									
10- 4-62 1020	27	56	9.6	91	243	7.9[a]			14 0.61		0 0.00	118 1.94		5 0.14			0.06				25	92	0	< 25	6.2 2.3	DWR
11-14-62 1345	26	54	9.2	85.4	198	7.9[a]			15 0.65		0 0.00	122 2.00		6 0.17			0.05				26	94	0	< 25	1.3 0.6	DWR
12- 3-62 1235	26 est	50	10.8	95	253	8.0[a]			15 0.65		0 0.00	124 2.04		4 0.11			0.05				26	92	0	< 25	0.6 0.46	DWR
1- 9-63 1335	26 est	48	11.6	100	247	8.2[a]			17 0.74		0 0.00	126 2.06		5 0.14			0.05				28	94	0	< 25	0.6 < 0.45	DWR
2- 6-63 1230	8 est	50	10.8	96	248	7.8			18 0.78		0 0.00	122 2.00		5 0.14			0.06				32	82	0	< 25	23 13	DWR
3- 7-63 1540	8 est	51	11.0	98	250	8.0	25 1.25	5 0.45	18 0.78	1.4 0.03	0 0.00	118 1.94	16 0.33	5 0.14	0.11	0.5 0.02	0.06	22	PO_4 = 0.00 ABS = 0.01	160	31	85	0	< 25		DWR
4- 4-63 1620	8 est	50	11.0	97	246	8.0			17 0.74		0 0.00	123 2.02		4.0 0.11			0.00				31	83	0	< 25	2.3 130	DWR
5-10-63 0730	8 est	50	11.6	87	258	7.8	28 1.40	4.6 0.38	18 0.78	1.4 0.03	0 0.00	127 2.08	15 0.32	5 0.14	2.5 0.04	0.5 0.02	0.06	15		178	30	89	0	< 25	13 240	DWR
6- 6-63 1000	22 est	54	10.8	100	264	7.6	27 1.35	6.9 0.57	19 0.83	1.8 0.05	0 0.00	132 2.16	14 0.29	6 0.17	3.1 0.05	0.54 0.03	0.06	17		180	30	96	0	< 25	2.3 6.2	DWR
7- 4-63 1315	15 est	58	11.0	107	259	7.8	26 1.30	7.8 0.64	17 0.74	1.7 0.04	0 0.00	128 2.10	14 0.29	8 0.22	1.7 0.03	0.53 0.03	0.05	16		178	27	97	0	< 25	2.3 6.2	DWR
8- 5-63 1330	15	64	10.6	111	260	8.4	29 1.45	7.4 0.61	18 0.78	1.4 0.03	0 0.00	142 2.32	15 0.31	5 0.14	0 0.00	0.65 0.03	0.05	16		147	27	103	0	< 25	62 13	DWR
9- 6-63 1300	30	64	11.0	115	263	8.5	29 1.45	6.9 0.57	16 0.70	2.0 0.05	4.8 0.16	129 2.12	13 0.28	5 0.14	1.0 0.01	0.3 0.02	0.08	18	PO_4 = 0.1	190	25	101	0	< 25	6.2 23	DWR

TABLE D-6

ANALYSES OF SURFACE WATER

SANTA ANA DRAINAGE PROVINCE Y

SANTA ANA RIVER NEAR ARLINGTON (Station 51)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$: Total ppm	Hardness as $CaCO_3$: N.C. ppm	Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
Water Year 1962-1963																										
10- 4-62 0845	18.5	66	8.0	85	1024	7.9[a]			73 / 3.18		0 / 0.00	318 / 5.22		98 / 2.76			0.13		PO_4 = 0.02 ABS = 0.03		29	384	123		62 23	DWR
11- 7-62 1110	29	66	8.4	90.0	1104	7.7[a]	111 / 5.54	23 / 1.18	92 / 4.00	4.9 / 0.13	0 / 0.00	320 / 5.24	111 / 2.32	98 / 2.76	27 / 0.44	0.8 / 0.04	0.10		PO_4 = 0.02 ABS = 0.09	672	31	371	109	< 25	12 23	DWR
12- 3-62 1115	24	66	8.8	94	1030	7.7[a]	108 / 5.39	25 / 2.07	70 / 3.05	70 / 3.05	0 / 0.00	311 / 5.10	113 / 2.35	94 / 2.65	21 / 0.34	0.7 / 0.04	0.10	27	NH_3 = 0 ABS = 0.04	627	29	373	118	< 25	62 6.2	DWR
1-10-63 0940	19	60	8.0	80	1079	7.4[a]	103 / 5.14	31 / 2.56	76 / 3.31	8.9 / 0.23	0 / 0.00	312 / 5.12	124 / 2.59	94 / 2.65	29 / 0.46	0.7 / 0.04			PO_4 = 0.13 ABS = 0.22	638	29	385	129	25	> 700 > 700	DWR
2- 7-63 1030	21	60	8.4	84	1022	8.1	102 / 5.09	22 / 1.85	76 / 3.31	5.0 / 0.13	0 / 0.00	262 / 4.30	113 / 2.36	98 / 2.76	28 / 0.46	0.7 / 0.04	0.13	26	PO_4 = 0.04	634	32	347	82	< 25	230 2400	DWR
3- 6-63 1600	24	62	8.2	84	1054	7.8	105 / 5.24	24 / 1.96	81 / 3.52	4.7 / 0.12	0 / 0.00	322 / 5.28	118 / 2.46	99 / 2.79	27 / 0.44	0.7 / 0.04	0.15	28	PO_4 = 0.05 ABS = 0.08	670	32	360	96	< 25	230 62	DWR
4- 4-63 1530	23	70	7.6	85	1040	8.2	100 / 4.99	27 / 2.21	79 / 3.44	3.6 / 0.09	0 / 0.00	321 / 5.26	113 / 2.36	97 / 2.74	30 / 0.48	0.6 / 0.03	0.10	28	PO_4 = 0.3 ABS = 0.12	616	32	360	97	< 25	2400 620	DWR
5-10-63 1000	24	64	9.2	96	1022	8.2	101 / 5.04	25 / 2.08	82 / 3.57	4.6 / 0.12	0 / 0.00	310 / 5.08	111 / 2.31	99 / 2.79	24 / 0.39	0.71 / 0.04	0.16	20	PO_4 = 0.12 ABS = 0.06	679	33	356	102	< 25	230 62	DWR
6- 6-63 1100	23	65	9.0	95	1047	8.0	84 / 4.19	43 / 3.55	76 / 3.31	5.0 / 0.13	0 / 0.00	329 / 5.40	113 / 2.35	100 / 2.82	27 / 0.44	0.7 / 0.04	0.14	23	PO_4 = 0.1 ABS = 0.06	673	30	387	117	< 25	62 130	DWR
7- 3-63 1300	17	78	8.6	104	1009	7.6	100 / 4.99	28 / 2.33	74 / 3.22	4.8 / 0.12	0 / 0.00	289 / 4.74	113 / 2.35	100 / 2.82	23 / 0.37	0.72 / 0.04	0.14	23	PO_4 = 0.0 ABS = 0.06	657	30	366	129	< 25	230 62	DWR
8- 5-63 1445	18.3	76	9.2	108	1001	8.2	81 / 4.04	29 / 2.38	82 / 3.55	4.5 / 0.12	0 / 0.00	254 / 4.16	118 / 2.46	99 / 2.79	32 / 0.52	0.87 / 0.04	0.16	23	PO_4 = 0.09 ABS = 0.13	576	35	321	113	< 25	230 62	DWR
9-13-63 1140	18	69	9.0	99	1044	8.2	113 / 5.64	25 / 2.02	75 / 3.26	4.8 / 0.12	0 / 0.00	332 / 5.44	117 / 2.43	100 / 2.82	40 / 0.64	0.5 / 0.02	0.14	26	PO_4 = 0.09 ABS = 0.1	715	30	383	111	< 25	230 23	DWR

TABLE D-6

ANALYSES OF SURFACE WATER

SANTA ANA DRAINAGE PROVINCE Y

SANTA ANA RIVER NEAR NORCO (Station 51e)

Mineral constituents in parts per million; equivalents per million

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
Water Year 1962-1963																										
10-4-62 0815	25 est.	68	4.4	48	1154	7.3[a]			106 / 4.61		0 / 0.00	312 / 5.12		131 / 3.69			0.50		PO_4 = 3.0 ABS = 1.0		40	350	94	< 25	230 230	DWR
11-7-62 1030	30 est.	64	4.8	50	1196	7.3[a]	97 / 4.84	27 / 2.18	105 / 4.57	9.1 / 0.23	0 / 0.00	310 / 5.08	118 / 2.46	128 / 3.61	20 / 0.33	1.1 / 0.06	0.39	34	PO_4 = 9.0 ABS = 1.05	759	41	351	97	< 25	620 620	DWR
12-3-62 1050	25 est.	56	5.6	53	1174	7.3[a]			109 / 4.74		0 / 0.00	316 / 5.18		127 / 3.58			0.34		PO_4 = 6.8 ABS = 0.05		40	356	97	< 25	620 230	DWR
1-10-63 0915	25 est.	58	4.4	43	1170	7.3[a]			109 / 4.74		0 / 0.00	311 / 5.10		128 / 3.61			0.46				40	352	97	< 25	620 230	DWR
2-7-63 0950	30 est.	59	4.4	43	1139	7.4			109 / 4.74		0 / 0.00	317 / 5.20		124 / 3.50			0.39				42	324	64	< 25	620 620	DWR
3-6-63 1700		60	4.6	46	1171	7.2			111 / 4.83		0 / 0.00	309 / 5.06		127 / 3.58			0.59				42	332	79	< 25	230 62	DWR
4-4-63 1400	26 est.	70	4.4	49	1138	7.6			113 / 4.92		0 / 0.00	295 / 4.84		123 / 3.47			0.68				44	319	77	< 25	230 7000	DWR
5-10-63 1045	25 est.	67	5	54	1174	7.6	96 / 4.79	26 / 2.11	110 / 4.79	8.2 / 0.21	0 / 0.00	298 / 4.88	135 / 2.81	128 / 3.61	46 / 0.74	0.89 / 0.05	0.44	19		742	40	345	101	< 25	2400 2400	DWR
6-6-63 1200	25 est.	68	5.2	57	1163	7.2			109 / 4.74		0 / 0.00	316 / 5.18		127 / 3.58							39	368	109	< 25	620 230	DWR
7-3-63 1345	25 est.	80	7.2	89	1111	7.4			107 / 4.65		0 / 0.00	321 / 5.26		123 / 3.47			0.39				38	374	111	< 25	7000 2400	DWR
8-5-63 1530	20 est.	78	10.6	111	1156	8.2			113 / 4.92		0 / 0.00	142 / 2.32	15 / 0.31	5 / 0.14	0 / 0.00	0.65 / 0.03	0.05	16		147	27	103	0	< 25	62 13	DWR
9-13-63 1115	18 est.	76	11.0	115	1171	8.0	100 / 4.99	26 / 2.13	109 / 4.74	8.0 / 0.20	0 / 0.00	326 / 5.34	130 / 2.70	131 / 3.69	34 / 0.55	0.8 / 0.04	0.49	26	PO_4 = 6.0							

TABLE D-6

ANALYSES OF SURFACE WATER

SANTA ANA DRAINAGE PROVINCE Y

SANTA ANA RIVER BELOW PRADO DAM (Station 51a)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million											Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)				Total ppm	N.C. ppm		
Water Year 1962-1963																								
10- 4-62 0720	42	66	8.0	85	1063	7.7[a]			87 / 3.78		0 / 0.00	320 / 5.24		120 / 3.38			0.29		PO_4 = 1.30 ABS = 0.30		34	367	105	< 25	230 230	DWR
11- 7-62 0925	38	60	8.4	83.5	1087	7.6[a]	101 / 5.04	25 / 2.02	92 / 4.00	6.4 / 0.16	0 / 0.00	316 / 5.18	108 / 2.25	116 / 3.27	20 / 0.33	0.8 / 0.04	0.27	29	PO_4 = 3.6 ABS = 0.32	696	36	353	94	< 25	620 230	DWR
12- 3-62 0945	40	56	9.2	87	1099	7.5[a]	104 / 5.19	24 / 1.99	91 / 3.96	6.1 / 0.16	0 / 0.00	316 / 5.18	111 / 2.31	116 / 3.27	24 / 0.39	0.7 / 0.04	0.31	32	NH_4 = 0; PO_4 = 3.6 ABS = 0.35	647	36	359	100	< 25	< 4.5 62	DWR
1-10-63 0820	50	58	8.4	82	1120	7.6	95 / 4.74	32 / 2.62	91 / 3.96	6.3 / 0.16	0 / 0.00	310 / 5.08	111 / 2.31	116 / 3.27	24 / 0.39	0.6 / 0.03	0.34	18	PO_4 = 3.2 ABS = 0.42	647	34	363	109	< 25	130 130	DWR
2- 7-63 0820	42	56	8.0	76	1081	7.6	98 / 4.89	23 / 1.89	91 / 3.96	5.8 / 0.15	0 / 0.00	320 / 5.30	111 / 2.31	116 / 3.27	25 / 0.41	0.84 / 0.04	0.31	25	PO_4 = 5.6 ABS = 0.26	659	36	339	74	< 25	230 230	DWR
3- 7-63 0900	36	59	8.6	85	1100	7.4	99 / 4.94	23 / 1.88	98 / 4.26	6.0 / 0.15	0 / 0.00	317 / 5.20	116 / 2.42	117 / 3.30	22 / 0.35	0.8 / 0.04	0.40	32	PO_4 = 3.4 ABS = 0.48	684	38	341	181		230 620	DWR
4- 4-63 1340	23	58	8.0	78	1095	7.8	97 / 4.84	22 / 1.84	100 / 4.35	7.2 / 0.18	0 / 0.00	315 / 5.16	115 / 2.40	115 / 3.24	30 / 0.48	0.8 / 0.04	0.47	30	PO_4 = 2.8 ABS =	654	39	334	76	< 25	62 7000+	DWR
5-10-63 1120	52	66	9.2	98	1106	7.6	103 / 5.14	25 / 2.04	100 / 4.35	5.5 / 0.14	7.2 / 0.24	303 / 4.96	122 / 2.55	122 / 3.44	21 / 0.34	0.65 / 0.03	0.35	20	PO_4 = 4.0 ABS = 0.38	724	37	359	99	< 25	620 620	DWR
6- 6-63	44	67	9.0	97	1119	7.4	106 / 5.29	26 / 2.15	97 / 4.22	5.4 / 0.14	0 / 0.00	319 / 5.24	120 / 2.50	120 / 3.38	19 / 0.31	0.75 / 0.04	0.37	18	PO_4 = 1.5 ABS = 0.37	701	36	372	110	< 25	130 2400	DWR
7- 3-63 1445	25	77	8.8	105	1115	7.6			99 / 4.31		0 / 0.00	332 / 5.44		125 / 3.53			0.33				35	400	128	< 25	130 62	DWR
8- 5-63 1630	20	77	9.4	112	1133	8.0	113 / 5.64	25 / 2.08	104 / 4.52	5.4 / 0.14	0 / 0.00	339 / 5.56	128 / 2.67	126 / 3.55	21 / 0.34	1.6 / 0.08	0.40	23	PO_4 = 1.9 ABS = 0.36	691	37	386	108	45	2400 2400	DWR
9-13-63 1040	21	70	9.0	100	1149	8.2	107 / 5.34	31 / 2.52	94 / 4.09	5.8 / 0.15	0 / 0.00	350 / 5.74	127 / 2.64	127 / 3.58	19 / 0.31	0.6 / 0.03	0.38	27	PO_4 = 1.5 ABS = 0.29	744	34	393	106	25	130 230	DWR

TABLE D-6

ANALYSES OF SURFACE WATER

SANTA ANA DRAINAGE PROVINCE Y

WARM CREEK NEAR COLTON (Station 50b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million											Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
			ppm	%Sol			Calcium (Ca)	Magnesium (Mg)	Sodium (No)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N C ppm			
Water Year 1962-1963																									
10- 2-62 0715	3	77	7.0	84		7.5[a]																			
10- 2-62 1155	11	81	9.6	118	947	7.4[a]	44 / 2.19	20 / 1.63	122 / 5.31	13 / 0.33	0 / 0.00	170 / 2.78	70 / 1.46	118 / 3.33	82 / 1.33	1.3 / 0.07	0.57	34	PO_4 = 23 ABS = 3.0	622	58	191	52	< 25	700 700	DWR
10- 2-62 1820	10	77	6.2	74		7.5[a]																			
11- 7-62 1220	10	76	7.5	90	1050	7.5[a]	53 / 2.64	19 / 1.60	120 / 5.22	14 / 0.36	0 / 0.00	188 / 3.08	71 / 1.48	133 / 3.75	87 / 1.40	1.3 / 0.07	0.64	35	PO_4 = 28 ABS = 3.1	663	55	212	58	< 25	23	DWR
12-10-62 1215		66	8.6	88	849	8.6[a]	50 / 2.50	18 / 1.44	81 / 3.52	13 / 0.33	0 / 0.00	209 / 3.42	62 / 1.29	65 / 1.83	78 / 1.26	0.9 / 0.05	0.34	28	ABS = 4.7 NH_4 = 9	503	47	197	26	< 25	0.6 2.3	DWR
1- 7-63 1230	15 est.	65	8.2	86	944	7.6[a]	42 / 2.10	22 / 1.82	98 / 4.26	14 / 0.36	0 / 0.00	217 / 3.56	63 / 1.32	84 / 2.37	71 / 1.15	0.8 / 0.04	0.44	17	NH_4 = 13; PO_4 = 29 ABS = 5.0	530	52	196	18	< 25	23 23	DWR
2- 5-63 1230		67	7.8	76	980	7.5	44 / 2.20	18 / 1.48	116 / 5.05	15 / 0.38	0 / 0.00	229 / 3.76	75 / 1.56	107 / 3.02	71 / 1.14	1.0 / 0.05	0.62	38	NH_4 = 52; PO_4 = 36 ABS = 5.0	602.2	54	184	0	< 25	700 50	DWR
3- 7-63		69			1012	7.4	47 / 2.35	14 / 1.17	127 / 5.52	14 / 0.36	0 / 0.00	231 / 3.78	66 / 1.37	123 / 3.47	30 / 0.48	1.7 / 0.09	0.74	33	NH_4 = 17; PO_4 = 26 ABS = 4.9	609	53	176	0	< 25		DWR
4- 4-63 1200		75	7.3	87	978	7.4	40 / 2.00	18 / 1.50	125 / 5.44	14 / 0.36	0 / 0.00	179 / 2.94	58 / 1.21	122 / 3.44	84 / 1.35	1.9 / 0.10	0.57	34	NH_4 = 0.00 PO_4 = 22; ABS = 2.8	570	58	175	28	< 25		DWR
5- 2-63 1230		78	7.3	88	800	7.6	31 / 1.55	24 / 1.99	91 / 3.96	13.4 / 0.34	0 / 0.00	161 / 2.64	54 / 1.13	77 / 2.17	82 / 1.32	2.0 / 0.10	0.52	18	NH_4 = 1.0 PO_4 = 30 ABS = 2.85	490	51	177	45	< 25	23 62	DWR
6- 6-63 1615		72	7.2	82	975	7.4	47 / 2.35	19 / 1.59	127 / 5.52	12.4 / 0.32	0 / 0.00	204 / 3.34	62 / 1.29	118 / 3.33	76 / 1.23	2.5 / 0.13			NH_4 = 3.2 PO_4 = 33; ABS = 3.4	605	55	197	30	< 25	62	DWR
7- 2-63 1230		82	7.4	93	969	7.5	52 / 2.59	17 / 1.37	113 / 4.92	14.4 / 0.37	0 / 0.00	237 / 3.88	66 / 1.38	108 / 3.05	41 / 0.60	1.3 / 0.07	0.64	27	NH_4 = 9	608	50	198	4	< 25	6.2	DWR
8- 8-63 1245	Composite Sample	74	9.7	112	915	7.5	46 / 2.30	17 / 1.36	112 / 4.87	14 / 0.36	0 / 0.00	203 / 3.32	70 / 1.46	97 / 2.74	71 / 1.15	2.00 / 0.10	0.66	29	NH_4 = 6.1	524	53	183	17	< 25	7000	DWR
9-12-63 1600	Variable	82	6.3	79	884	7.5	41 / 2.05	20 / 1.64	110 / 4.79	13 / 0.33	0 / 0.00	178 / 2.92	76 / 1.59	110 / 3.10	64 / 1.03	1.60 / 0.06	0.64	32	PO_4 = 25 ABS = 2.7	550	54	185	39	< 25	62 62	DWR

TABLE D-6

ANALYSES OF SURFACE WATER

SANTA ANA DRAINAGE PROVINCE Y

WARM CREEK NEAR SAN BERNARDINO (Station 50c)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million												Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N.C. ppm			
							equivalents per million																		
Water Year 1962-1963																									
10-2-62 1000	Dry No flow																								
11-7-62 1000	Dry No flow																								
12-3-62 1215	Dry No flow																								
1-9-63 1430	Dry No flow																								
2-63	Dry No flow																								
3-63	Dry No flow																								
4-63	Dry No flow																								
5-10-63 0900	Dry No flow																								
6-6-63 0830	Dry No flow																								
7-3-63 1145	Dry No flow																								
8-5-63 1430	Dry No flow																								
9-6-63 1500	Dry No flow																								

TABLE D-6

ANALYSES OF SURFACE WATER

SANTA ANA DRAINAGE PROVINCE Y

CHINO CREEK NEAR CHINO (Station 86)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million												Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N C ppm			
Water Year 1962-1963																									
10- 4-62 0755	Dry No flow																								
11- 7-62 0905	Dry No flow																								
12- 3-62 0925	Dry No flow																								
1-10-63 0755	15 est	52	6.0	54	531	7.6[a]	47 / 2.35	10 / 0.87	31 / 1.35	24 / 0.61	0 / 0.00	133 / 2.18	63 / 1.32	34 / 0.96	32 / 0.52	1.0 / 0.05	0.28	9		312	26	161	52	1500	24000 24000	DWR
2- 7-63 0915	Dry No flow																			772	35	378	0		70000+ 70000+	DWR
3- 7-63 1000	Pond	58	4.6	45	1265	7.4	88 / 4.39	39 / 3.17	111 / 4.83	26 / 0.67	0 / 0.00	561 / 9.20	54 / 1.12	96 / 2.71	1.8 / 0.03	0.61 / 0.03	0.31	13				257	0	< 25	2300 6200	DWR
4- 4-63 1240	5 est	68	5.0	55	1939	7.5	77 / 3.35				0 / 0.00	325 / 5.32		67 / 1.89			0.30									
5- 9-63 1300	Dry No flow																								
6- 6-63 1400	Dry No flow																								
7- 3-63 1545	Dry No flow																								
8- 5-63	.5 est	80	5.8	72	1302	8.2	129 / 6.44	43 / 3.56	107 / 4.65	18 / 0.46	0 / 0.00	407 / 6.68	297 / 6.18	62 / 1.75	0 / 0.00	1.3 / 0.07	0.27	28		889	31	500	166	72	70000 6200	DWR
9-13-63	Ponded	77	4.6	33	642	8.4	51 / 2.54	15 / 1.20	56 / 2.44	20 / 0.51	0 / 0.00	277 / 4.54	39 / 0.81	41 / 1.16	4.0 / 0.06	0.5 / 0.03	0.26	29		432	36	187	0	25	620 620	DWR

TABLE D-6

ANALYSES OF SURFACE WATER

SANTA ANA DRAINAGE PROVINCE Y

LAKE ELSINORE NORTH SHORE (Station 89)

Date and time sampled P S T	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million													Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N C ppm			
							equivalents per million																			
Water Year 1962-1963																										
11- 8-62 1515	Dry lake																									
1- 7-63 1600	Dry lake																									
2- -63	Dry lake																									
3- -63	Dry lake																									
4- -63	Dry lake																									
5-13-63	Dry lake																									
6- -63	Dry lake																									
7- 8-63 1630	Dry lake																									
9-17-63 1500	Dry lake																									

TABLE D-7
ANALYSES OF SURFACE WATER

SAN DIEGO DRAINAGE PROVINCE

SANTA MARGARITA RIVER NEAR FALLBROOK (Station 51c)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million												Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents				Total ppm	N.C. ppm			
Water Year 1962-1963																									
11- 8-63 1415	b est.	60	8.0	79.5		7.7[a]	86 / 4.29	31 / 2.51	122 / 5.31	4.3 / 0.11	0 / 0.00	354 / 5.80	116 / 2.42	140 / 3.95	5.6 / 0.09	0.8 / 0.04	0.21	34	PO_4 = 1.8	765	39	340	50	<25	13	DWR
1 - 7-63 1700	b est.	50	10.8	95	1165	8.0			118 / 5.13		0 / 0.00	322 / 5.28		131 / 3.69			0.16				44	329	65	<25	>700 10.8	DWR
3 -11-63 1120	b est.	57	6.4	62	1250	7.8			134 / 5.83		0 / 0.00	329 / 5.40		152 / 4.29			0.21				46	340	70	<25	620 23	DWR
5 -13-63 1700	b est.	66	9.0	90	1152	8.0	82 / 4.09	28 / 2.29	128 / 5.57	3.2 / 0.08	16 / 0.56	306 / 5.02	106 / 2.21	135 / 3.81	1.5 / 0.02	0.6 / 0.03	0.23	16	PO_4 = 0.28 ABS = 0.08	733	46	319	40	<25	62 62	DWR
7 - 8-63 1515	6 est	70	9.4	105	1149	7.4			130 / 5.66		0 / 0.00	381 / 6.24		143 / 4.03			0.24				45	348	36	<25	6.2 240	DWR
9 -17-63 1345	7 est.	66	9.0	96	1187	8.2	84 / 4.19	28 / 2.31	128 / 5.57	6.8 / 0.17	0 / 0.00	353 / 5.76	114 / 2.38	147 / 4.15	1.0 / 0.01	0.5 / 0.03	0.36	31	PO_4 = 0.6	734	46	325	36	30	50 240	DWR

TABLE D-7

ANALYSES OF SURFACE WATER

SAN DIEGO DRAINAGE PROVINCE 2

SAN LUIS REY RIVER NEAR PALA (Station 62)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million												Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
			ppm	% Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N C ppm			
							equivalents per million																			
Water Year 1962-1963																									
11-9-62 1345	Dry No flow																								
1-7-63 1800	Dry No flow																								
3-63	Dry No flow																								
5-13-63 1615	Dry No flow																								
7-9-63 1500	Dry No flow																								
9-17-63 1250	Dry No flow																								

TABLE D-7

ANALYSES OF SURFACE WATER

SAN DIEGO DRAINAGE PROVINCE Z

ESCONDIDO CREEK NEAR HARMONY GROVE (Station 03)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$: Total ppm	Hardness as $CaCO_3$: NC ppm	Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
Water Year 1962-63																										
11-8-62 1255	2 Est.	72	4.4	50	2099	7.2[a]			253 / 11.00		0 / 0.00	2.71 / 4.44		340 / 9.59					PO_4 = 39.0 ABS = 3.3		57	411	189	< 25	230 620	DWR
1-[illegible]-63 0740	2 Est.	54	5.6	52	1984	7.2[b]			241 / 10.48		0 / 0.00	189 / 3.10		282 / 7.95			0.78		PO_4 = 40.0 ABS = 4.6		57	392	237		23 62	DWR
3-11-63 1305	1 Est.	62	5.8	59	2087	7.4	75 / 3.74	49 / 4.06	259 / 11.27	16 / 0.41	0 / 0.00	244 / 4.00	301 / 6.27	335 / 9.45	30 / 0.48	0.68 / 0.04	0.74	24	PO_4 = 25.0 ABS = 0.22	1242	55	390	190	40	620 620	DWR
5-13-63 1330	1 Est.	66	6.0	64	1875	7.4	83 / 4.14	39 / 3.18	244 / 10.61	15.6 / 0.40	0 / 0.00	262 / 4.30	298 / 6.20	277 / 7.81	3.0 / 0.05	0.8 / 0.04	0.67	12	PO_4 = 5.3 ABS = 4.1	1130	58	366	151	700	620 130	DWR
7-8-63 1400	2 Est.	74	7.0	81	1824	7.2			255 / 11.09		0 / 0.00	183 / 3.00		296 / 8.35			0.69		PO_4 = 4.2 ABS = 4.8		58	396	246	< 25	230 230	DWR
9-17-63 1150	3 Est.	72	5.8	66	2019	7.4	85 / 4.24	38 / 3.14	260 / 11.31	17 / 0.44	0 / 0.00	275 / 4.50	257 / 5.35	353 / 9.95	0 / 0.00	0.6 / 0.03	0.98	23	NH_4 = 16 PO_4 = 29 ABS = 4.6	1224	57	369	144	90	7000 7000	DWR

TABLE D-7

ANALYSES OF SURFACE WATER

SAN DIEGO DRAINAGE PROVINCE [illegible]

SAN DIEGUITO RIVER BELOW SAN PASQUAL VALLEY (Station 64)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million												Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
			ppm	% Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N C ppm			
							equivalents per million																			
Water Year 1962-1963																									
11-8-62 1240	Dry No flow																								
12-8-63 0930	Dry No flow																								
1-3-63	Dry No flow																								
2-13-63 0930	Dry No flow																								
3-8-63 1300	Dry No flow																								
3-15-63 1300	Dry No flow																								

TABLE D-7
ANALYSES OF SURFACE WATER

SAN DIEGO DRAINAGE PROVINCE

SAN DIEGO RIVER AT OLD MISSION DAM (Station 65)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micramhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million												Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N.C ppm			
Water Year 1962-1963																									
11-[illegible]-62 0955	Pond No flow																								
1-3-63 1200	Pond No flow																								
3-11-63 1300	1 est.	68	7.0	76	2602	7.9	95 / 4.74	70 / 5.78	355 / 15.44	7.2 / 0.18	0 / 0.00	334 / 5.48	323 / 6.73	486 / 13.71	10 / 0.17	0.78 / 0.04	0.70	14	PO_4 = 1.2 ABS = 1.8	1612	59	526	252	< 25	7000 7000+	DWR
5-13-63 1130	.05 est.	66	10.0	108	2854	7.4	128 / 6.39	74 / 6.08	391 / 17.01	7.6 / 0.19	0 / 0.00	415 / 6.8	359 / 7.43	530 / 14.95	4.3 / 0.07	0.68 / 0.04	0.64	14		1801	57	624	284	25	620 620	DWR
7-7-63 1130	.5 est.	75	8.8	103	2956	7.3	133 / 6.64	81 / 6.68	384 / 16.70	6.8 / 0.17	0 / 0.00	448 / 7.34	336 / 6.99	583 / 16.44	6.2 / 0.10	.67 / 0.03	0.71	29		1873		606	299	< 25	46 620	DWR
9-17-63 1000	1 est.	73	9.0	103	3272	7.3	157 / 7.83	95 / 7.83	422 / 18.36	8.0 / 0.20	0 / 0.00	434 / 7.12	459 / 9.56	626 / 17.65	3.7 / 0.06	0.6 / 0.03	0.66	43	PO_4 = 0.2 ABS = 1.3	2245	54	783	427	30	60 60	DWR

TABLE D-7

ANALYSES OF SURFACE WATER

SAN DIEGO DRAINAGE PROVINCE 2

FORESTER CREEK AT MISSION GORGE ROAD (Station 65a)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million							Mineral constituents in equivalents per million						Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
			ppm	% Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N C ppm			
Water Year 1962-1963																										
11-8-62 1105	Dry No flow																									
1-3-63 1215	Dry No flow																									
3-63	Dry No flow																									
5-13-63 1200	Dry No flow																									
This station dropped as of 7-1-63																										

TABLE D-7

ANALYSES OF SURFACE WATER

SAN DIEGO DRAINAGE PROVINCE

SAN DIEGO RIVER NEAR MISSION GORGE ROAD (Station 65c)

Date and time sampled P S T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
Water Year 1962-1963																										
11-8-62 1005	6 Est.	70	5.0	62	2157	7.3[a]	87 / 4.34	47 / 3.84	253 / 11.01	18 / 0.46	0 / 0.00	307 / 5.04	333 / 6.94	324 / 9.13	66 / 1.07	1.1 / 0.06	0.74	39	NH_4 = 22 PO_4 = 36 ABS = 1.8	1275	53	409	157	<25	5.6 62	DWR
1-8-63 1140	1.7	64	6.0	63	2242	7.4[b]			288 / 12.53		0 / 0.00	371 / 6.08		290 / 8.18			1.20		PO_4 = 46 ABS = 6.6		62	377	73	<25	7000 2400	DWR
3- -63	Dry no flow																									
5-14-63 1900	5 Est.	72	5.8	66	2129	7.4	82 / 4.09	42 / 3.47	267 / 11.61	17 / 0.44	0 / 0.00	403 / 6.60	280 / 5.84	304 / 8.57	1.6 / 0.02	1.7 / 0.09	0.74	19		1193	59	378	48		7000	DWR
7-7-63 1200	5 Est.	76	6.6	78	2154	7.4	77 / 3.84	51 / 4.16	261 / 11.35	18 / 0.46	0 / 0.00	354 / 5.80	317 / 6.60	333 / 9.39	6.0 / 0.10	.67 / 0.03	0.78	18		1235	53	400	110	<25	230	DWR
9-17-63 1030	3 Est.	69	7.0	77	2209	7.3	106 / 5.29	53 / 4.39	291 / 12.66	15 / 0.38	0 / 0.00	338 / 5.54	280 / 5.84	376 / 10.60	50 / 0.81	0.3 / 0.02	0.64	31	PO_4 =23 ABS = 6.4	1415	55	484	207	35	1300 2400	DWR

TABLE D-7

ANALYSES OF SURFACE WATER

SAN DIEGO DRAINAGE PROVINCE 7

SPRING VALLEY CREEK NEAR LA PRESSA (Station 65b)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfates (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
Water Year 1962-1963																										
11-8-62 1105	3 est.	76	9.6	113	2904	7.[illegible]	113 / 5.64	79 / 5.76	334 / 14.53	17 / 0.44	0 / 0.00	415 / 6.80	378 / 7.88	504 / 14.21	0 / 0.00	0.6 / 0.03	0.85	48	PO_4 = 30 ABS = 5.7	1690	50	570	230	100	230 / 230	DWR
1-8-63 1030	[illegible]	68	5.4	59	3400	7.4[b]			432 / 19.79		0 / 0.00	429 / 7.04		625 / 17.63			0.52				66	480	136	75	< 4.5 / 6	DWR
2-63	Dry No flow																									
3-[illegible]-63 1600	3	65	8.0	70	2043	7.[illegible]			370 / 16.09		0 / 0.00	386 / 6.32		400 / 11.28			2.1				64	445	129	180	700+ / 700+	DWR
[illegible]-3-63 1035	3	72	8.4	90	3214	7.7	113 / 5.64	68 / 5.62	413 / 17.97	16 / 0.41	0 / 0.00	500 / 8.20	404 / 8.41	557 / 15.71	1.9 / 0.03	1.00 / 0.06	0.7[illegible]	[illegible]	PO_4 = 20 ABS = 5.2	1839	54	563	153	110	620 / 2,400	DWR
[illegible]-3-63 1130	[illegible] est.	77	8.0	90	32[illegible]	8.4	131 / 6.54	71 / 5.94	425 / 18.49	16 / 0.41	0 / 0.00	466 / 7.64	416 / 8.67	530 / 16.04	1.2 / 0.02	.70 / 0.04			PO_4 = 20 ABS = 7.5	1875	54	619	237	< 25	4.5- / 4.5-	DWR
3-17-63 [illegible]	3 est.	80			13060	8.4	586 / 29.24	351 / 28.86	1850 / 80.74	0.0 / 0.15	0 / 0.00	234 / 3.84	821 / 17.11	4160 / 117.3	10 / 0.16	0.4 / 0.02	1.20	4	PO_4 = 0.9 ABS = 1.0	9450	58	2905	2713	< 25	7,000+ / 7,000+	DWR

TABLE D-7
ANALYSES OF SURFACE WATER

SAN DIEGO DRAINAGE PROVINCE

TIA JUANA RIVER AT INTERNATIONAL BOUNDARY (Station 6)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million												Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[b] MPN/ml	Analyzed by[c]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N C ppm			
Water Year 1962-1963																									
11-8-62 1140	Dry No flow																								
1-8-63 0955	Dry No flow																								
3-63	Dry No flow																								
7-8-63 1300	Dry No flow																								
9-16-63 1300	Dry No flow																								

TABLE D-6

RADIOASSAYS OF SURFACE WATER

CENTRAL COASTAL DRAINAGE PROVINCE (T)

Station	Sta No.	Date	Micro-micro curies per liter			
			Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
Water Year 1962-1963		1963				
Cuyama River near Garey	44a	5- 6	0.2 ± 0.3	0.0 ± 0.2	8.4 ± 6.2	4.5 ± 6.2
		9- 3	Dry -no report			
Santa Ynez River at Cachuma Reservoir	44b	5- 6	0.3 ± 0.4	0.0 ± 0.3	6.0 ± 6.3	0.0 ± 6.2
		9- 4	0.1 ± 0.3	0.0 ± 0.3	9.1 ± 6.2	3.7 ± 6.1
Santa Ynez River near Solvang	45a	5- 6	0.1 ± 0.4	0.0 ± 0.3	6.0 ± 6.3	0.0 ± 6.2
		9- 3	Dry -no report			

TABLE D-9
RADIOASSAYS OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE (U)

Station	Sta. No.	Date	Micro-micro curies per liter			
			Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
Water Year 1962-1963		1963				
Matilija Creek above Matilija Dam	45b	5- 7	0.0 ± 0.3	0.0 ± 0.3	0.0 ± 6.3	1.1 ± 6.3
		9- 4	0.1 ± 0.4	0.0 ± 0.3	6.1 ± 6.2	2.5 ± 6.1
Santa Clara River at Los Angeles-Ventura County Line	46	5- 8	0.1 ± 0.3	0.0 ± 0.3	2.4 ± 6.5	0.0 ± 6.3
		9- 4	0.0 ± 0.2	0.2 ± 0.3	13.8 ± 6.1	6.6 ± 6.1
Santa Clara River near Santa Paula	46a	5- 7	0.1 ± 0.3	0.4 ± 0.4	9.2 ± 6.3	0.0 ± 6.1
		9- 4	0.0 ± 0.4	1.0 ± 0.6	7.7 ± 6.2	8.2 ± 6.2
Piru Creek near Piru	46c	5- 7	0.4 ± 0.5	0.0 ± 0.4	9.9 ± 6.2	4.4 ± 6.1
		9- 4	0.7 ± 0.5	2.8 ± 0.8	0.0 ± 6.3	0.0 ± 6.2
Sespe Creek near Fillmore	46d	5- 7	0.2 ± 0.4	0.8 ± 0.5	2.0 ± 6.1	7.4 ± 6.2
		9- 4	0.5 ± 0.5	0.1 ± 0.5	7.5 ± 6.2	1.4 ± 6.1
Santa Paula Creek near Santa Paula	46e	5- 7	0.0 ± 0.4	0.0 ± 0.3	0.0 ± 6.3	0.0 ± 6.3
		9- 4	0.0 ± 0.3	0.1 ± 0.3	5.3 ± 6.2	1.0 ± 6.2
Los Angeles River at Figueroa Street	47	5- 8	0.5 ± 0.4	0.1 ± 0.2	3.2 ± 6.5	0.0 ± 6.3
		9- 5	1.2 ± 0.6	0.7 ± 0.5	15.9 ± 7.0	12.1 ± 6.4
Los Angeles River at Pacific Coast Highway	48	5- 8	0.0 ± 0.4	0.8 ± 0.6	11.6 ± 6.4	4.7 ± 6.2
		9- 5	0.1 ± 0.4	4.5 ± 1.0	43.7 ± 6.7	52.7 ± 6.9

TABLE D-9

RADIOASSAYS OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE (U)
(continued)

Station	Sta. No.	Date	Micro-micro curies per liter			
			Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
Water Year 1962-1963		1963				
Rio Hondo at Whittier Narrows	49	5- 9	0.2 ± 0.4	0.0 ± 0.3	9.2 ± 6.5	0.0 ± 6.3
		9- 5	0.4 ± 0.5	0.1 ± 0.4	23.5 ± 6.5	0.2 ± 6.1
Mission Creek at Whittier Narrows	49a	5- 9	0.6 ± 0.4	0.2 ± 0.3	9.7 ± 6.3	7.9 ± 6.2
		9- 5	Dry -no report			
Rio Hondo above Spreading Grounds	49b	5- 9	0.6 ± 0.3	0.4 ± 0.3	18.1 ± 6.4	1.0 ± 6.2
		9- 5	0.0 ± 0.3	0.0 ± 0.3	44.8 ± 6.6	10.4 ± 6.1
San Gabriel River at Whittier Narrows	50	5- 9	Dry -no report			
		9- 5	Dry -no report			
San Gabriel River at Azusa Power House	50d	5- 9	0.0 ± 0.4	0.0 ± 0.3	9.7 ± 6.3	0.0 ± 6.0
		9- 6	0.0 ± 0.2	0.3 ± 0.4	1.7 ± 6.1	0.0 ± 6.0
Ventura River near Ventura	61	5- 7	0.4 ± 0.4	0.1 ± 0.3	0.0 ± 6.2	0.0 ± 6.1
		9- 4	0.0 ± 0.4	0.0 ± 0.4	9.8 ± 6.3	4.4 ± 6.2
Los Angeles Aqueduct near San Fernando Upper Van Norman Inlet	70		See Page D-62	For Radioassay		
Colorado River Aqueduct near La Verne	69		See Page D-65	For Radioassay		

TABLE D-9

RADIOASSAY OF SURFACE WATERS

LOS ANGELES DRAINAGE PROVINCE (U)

Analyses Received from the Los Angeles Department of Water and Power

Source and sampling point	Date sampled	Micro-micro curies/liter Beta-Gamma Count*
Upper Van Norman Inlet	Oct. 1, 1962	2.9 ± 4.1
(Los Angeles Aqueduct near San Fernando Station 70)	Oct. 8, 1962	6.6 ± 2.7
	Oct. 15, 1962	4.1 ± 2.7
	Oct. 22, 1962	10.0 ± 2.9
	Oct. 29, 1962	14.7 ± 3.0
	Nov. 5, 1962	7.0 ± 2.7
	Nov. 14, 1962	9.6 ± 2.9
	Nov. 19, 1962	5.4 ± 2.8
	Nov. 26, 1962	10.0 ± 2.9
	Dec. 3, 1962	8.6 ± 2.9
	Dec. 10, 1962	6.6 ± 2.8
	Dec. 17, 1962	8.7 ± 2.9
	Dec. 26, 1962	9.3 ± 3.0
	Jan. 2, 1963	5.8 ± 3.2
	Jan. 7, 1963	7.7 ± 3.2
	Jan. 14, 1963	7.5 ± 3.3
	Jan. 21, 1963	7.5 ± 3.3
	Jan. 28, 1963	20.5 ± 3.7
	Feb. 4, 1963	11.1 ± 3.4

TABLE D-9

RADIOASSAY OF SURFACE WATERS

LOS ANGELES DRAINAGE PROVINCE (U)

Analyses Received from the Los Angeles
Department of Water and Power
(continued)

Source and sampling point	Date sampled	Micro-micro curies/liter Beta-Gamma Count*
(Los Angeles Aqueduct near San Fernando Station 70)	Feb. 11, 1963	Aqueduct shut down 2-9-63 to 2-23-63
	Feb. 18, 1963	
	Feb. 25, 1963	
	Mar. 4, 1963	10.8 ± 3.4
	Mar. 11, 1963	11.5 ± 3.4
	Mar. 18, 1963	14.9 ± 3.5
	Mar. 25, 1963	16.1 ± 3.5
	Apr. 1, 1963	11.7 ± 3.4
	Apr. 8, 1963	11.0 ± 3.4
	Apr. 15, 1963	11.2 ± 3.7
	Apr. 22, 1963	13.4 ± 3.6
	Apr. 29, 1963	15.8 ± 3.5
	May 1, 1963	12.1 ± 3.4
	May 6, 1963	12.3 ± 3.5
	May 13, 1963	7.7 ± 3.4
	May 20, 1963	14.1 ± 3.4
	May 24, 1963	11.4 ± 3.4
	June 3, 1963	11.5 ± 3.4
	June 10, 1963	12.3 ± 3.4

TABLE D-9

RADIOASSAY OF SURFACE WATERS

LOS ANGELES DRAINAGE PROVINCE (U)

Analyses Received from the Los Angeles
Department of Water and Power
(continued)

Source and sampling point	Date sampled	Micro-micro curies/liter Beta-Gamma Count*
(Los Angeles Aqueduct near San Fernando Station 70)	June 17, 1963	21.8 ± 3.7
	June 24, 1963	16.4 ± 3.6
	July 1, 1963	19.9 ± 3.7
	July 8, 1963	18.0 ± 3.5
	July 15, 1963	14.3 ± 3.4
	July 22, 1963	13.9 ± 3.4
	July 29, 1963	10.8 ± 3.5
	Aug. 5, 1963	13.3 ± 3.4
	Aug. 12, 1963	14.1 ± 3.4
	Aug. 19, 1963	11.8 ± 3.5
	Aug. 26, 1963	5.1 ± 3.2
	Sept. 3, 1963	5.2 ± 3.1
	Sept. 9, 1963	7.3 ± 3.2
	Sept. 23, 1963	23.8 ± 4.7
	Sept. 30, 1963	9.1 ± 3.9

*Deviations reported at 95 percent confidence level in 1963 and 90 percent confidence level prior to 1963.

TABLE D-9

RADIOASSAY OF SURFACE WATERS

LOS ANGELES DRAINAGE PROVINCE (U)

Analyses Received from The Metropolitan
Water District of Southern California

Source and sampling point	Date sampled	Gross Alpha uuc/l.*	Gross Beta uuc/l.*
Colorado River Influent at F. E. Weymouth Softening and Filtration Plant	Mar. 1962	4.0	21.9
(Colorado River Aqueduct at La Verne, Station 69)	Apr. 1962	4.5	11.5
	May 1962	4.0	7.3
	June 1962	2.9	7.1
	July 1962	5.6	15.4
	Aug. 1962	4.5	5.0
	Sept. 1962	7.6	15.4
	Oct. 1962	3.1	15.9
	Nov. 1962	3.5	10.5
	Dec. 1962	5.9	11.4
	Jan. 1963	2.5	12.9
	Feb. 1963	2.8	34.0
	Mar. 1963	6.5	17.8
	Apr. 1963	3.7	43.3
	May 1963	4.7	21.2
	June 1963	4.6	24.1
	July 1963	3.6	10.8
	Aug. 1963	2.5	15.6

TABLE D-9

RADIOASSAY OF SURFACE WATERS

LOS ANGELES DRAINAGE PROVINCE (U)

Analyses Received from The Metropolitan
Water District of Southern California
(continued)

Source and sampling point	Date sampled	Gross Alpha uuc/l.*	Gross Beta uuc/l.*
(Colorado River Aqueduct at La Verne, Station 69)	Sept. 1963	6.4	23.2
	Oct. 1963	5.1	10.3

*Unit = micromicrocuries per liter. Unless otherwise stated, the maximum statistical deviation in counting at the 90 percent confidence level for alpha is $\pm$ 0.7 uuc/l. and for beta is $\pm$ 2.6 uuc/l.

TABLE D-10

RADIOASSAYS OF SURFACE WATER

LAHONTAN DRAINAGE PROVINCE (W)

Station	Sta No	Date	Micro-micro curies per liter			
			Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
Water Year 1962-1963		1963				
Mojave River near Victorville	67	5- 9	0.5 ± 0.5	0.0 ± 0.3	0.0 ± 6.2	0.0 ± 6.2
		9- 6	0.2 ± 0.4	0.2 ± 0.4	2.8 ± 6.1	4.8 ± 6.1
Mojave River at the Forks	67a	5- 9	0.1 ± 0.5	0.0 ± 0.5	6.6 ± 6.4	0.0 ± 6.2
		9- 6	0.1 ± 0.4	0.0 ± 0.4	0.0 ± 6.2	0.0 ± 6.2

TABLE D-11

RADIOASSAYS OF SURFACE WATER

COLORADO RIVER DRAINAGE PROVINCE (X)

Station	Sta No	Date	Micro-micro curies per liter			
			Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
Water Year 1962-1963		1963				
Colorado River near Topock, Arizona	54	5-16	0.6 ± 0.4	0.9 ± 0.5	10.5 ± 6.2	3.5 ± 6.3
		9-19	0.0 ± 0.6	0.4 ± 0.7	6.6 ± 6.2	11.6 ± 6.2
Colorado River below Parker Dam	55	5-16	0.7 ± 0.4	0.4 ± 0.4	5.2 ± 6.4	0.0 ± 6.2
		9-19	0.3 ± 0.4	0.0 ± 0.3	10.5 ± 6.1	5.6 ± 6.0
Colorado River at Yuma, Arizona	56	5-15	0.0 ± 0.3	1.1 ± 0.5	2.4 ± 6.3	0.8 ± 6.3
		9-11	0.1 ± 0.3	0.1 ± 0.3	5.9 ± 6.1	2.8 ± 6.0
All American Canal near Pilot Knob	56a	5-15	0.3 ± 0.3	0.0 ± 0.2	4.4 ± 6.4	0.0 ± 6.3
		9-11	0.2 ± 0.4	0.1 ± 0.4	6.0 ± 6.2	2.2 ± 6.2
Colorado River below Morelos Dam	56b	5-15	0.0 ± 0.2	0.5 ± 0.4	0.0 ± 6.3	0.0 ± 6.3
		9-11	0.0 ± 0.5	0.0 ± 0.4	1.6 ± 6.2	1.5 ± 6.2
Colorado River near Blythe	56c	5-16	0.7 ± 0.4	0.9 ± 0.5	10.8 ± 6.3	7.0 ± 6.2
		9-19	0.0 ± 0.4	1.5 ± 0.6	7.8 ± 6.2	14.9 ± 6.4
Lake Havasu, Colorado River Aqueduct at Intake	56d	Reported by USGS				
New River at International Boundary	57	5-14	0.0 ± 0.3	0.6 ± 0.4	17.7 ± 6.5	0.0 ± 6.1
		9-11	0.0 ± 0.3	0.5 ± 0.4	14.4 ± 6.5	0.0 ± 6.2
New River near Westmorland	58	5-14	0.0 ± 0.2	1.0 ± 0.5	3.8 ± 6.4	6.8 ± 6.4
		9-10	0.2 ± 0.4	1.2 ± 0.6	14.9 ± 6.2	17.8 ± 6.3
Alamo River at International Boundary	59	5-14	0.1 ± 0.2	0.5 ± 0.3	10.8 ± 6.3	3.7 ± 6.2
		9-11	0.0 ± 0.2	0.3 ± 0.3	13.3 ± 6.3	0.3 ± 6.1
Alamo River near Calipatria	60	5-14	0.3 ± 0.4	0.6 ± 0.5	16.0 ± 6.4	7.2 ± 6.2
		9-10	0.1 ± 0.3	0.9 ± 0.5	4.6 ± 6.2	13.6 ± 6.3

TABLE D-11

RADIOASSAYS OF SURFACE WATER

COLORADO RIVER DRAINAGE PROVINCE (X)
(continued)

Station	Sta No	Date	Micro-micro curies per liter			
			Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
Water Year 1962-1963		1963				
Whitewater River near Whitewater	68	5-14	1.2 ± 0.6	0.1 ± 0.4	1.6 ± 6.3	5.7 ± 6.2
		9-11	0.1 ± 0.4	0.0 ± 0.4	0.0 ± 6.2	0.0 ± 6.2
Salton Sea at Salton Sea State Park	68a	5-14	0.0 ± 0.2	0.3 ± 0.4	21.7 ± 6.5	0.0 ± 6.1
		9-11	0.1 ± 0.3	0.1 ± 0.2	24.9 ± 6.5	1.9 ± 6.1
Whitewater River near Mecca	68b	5-14	0.0 ± 0.4	1.5 ± 0.7	22.2 ± 6.4	25.2 ± 6.5
		9-11	0.3 ± 0.4	1.4 ± 0.6	8.9 ± 6.3	42.6 ± 6.9

TABLE D-12

RADIOASSAYS OF SURFACE WATER

SANTA ANA DRAINAGE PROVINCE (Y)

Station	Sta. No.	Date	Micro-micro curies per liter			
			Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
Water Year 1962-1963		1963				
Warm Creek at Colton	50b	5-10	0.3 ± 0.3	0.7 ± 0.4	12.9 ± 6.4	0.0 ± 6.1
		9- 6	0.2 ± 0.4	0.1 ± 0.3	15.0 ± 6.3	10.7 ± 6.2
Warm Creek at San Bernardino	50c	5-10	Dry -no report			
		9- 6	Dry -no report			
Santa Ana River near Arlington	51	5-10	0.9 ± 0.4	0.4 ± 0.3	2.3 ± 6.2	0.0 ± 6.2
		9-13	0.7 ± 0.6	0.8 ± 0.6	2.6 ± 6.1	2.0 ± 6.1
Santa Ana River below Prado Dam	51a	5-10	0.9 ± 0.5	0.5 ± 0.4	3.0 ± 6.4	0.0 ± 6.3
		9-13	0.6 ± 0.4	0.4 ± 0.4	2.7 ± 6.1	2.1 ± 6.1
Santa Ana River near Mentone	51b	5-10	1.7 ± 0.6	0.4 ± 0.5	3.3 ± 6.4	0.0 ± 6.3
		9- 6	2.7 ± 0.8	0.3 ± 0.4	4.7 ± 6.2	0.0 ± 6.1
Santa Ana River near Norco	51e	5-10	0.7 ± 0.5	0.2 ± 0.4	9.8 ± 6.2	11.3 ± 6.2
		9-13	1.5 ± 0.7	0.0 ± 0.5	11.6 ± 6.2	6.7 ± 6.1
Chino Creek near Chino	86	5- 9	Dry -no report			
		9-11	0.0 ± 0.4	0.4 ± 0.5	22.8 ± 6.4	2.3 ± 6.1
Lake Elsinore at North Shore	89	5-13	Dry -no report			
		9-17	Dry -no report			

TABLE D-13

RADIOASSAYS OF SURFACE WATER

SAN DIEGO DRAINAGE PROVINCE (Z)

Station	Sta No	Date	Micro-micro curies per liter			
			Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
Water Year 1962-1963		1963				
Santa Margarita River near Fallbrook	51c	5-13	0.0 ± 0.3	0.3 ± 0.4	9.4 ± 6.2	7.7 ± 6.1
		9-17	0.0 ± 0.3	0.0 ± 0.4	5.4 ± 6.3	2.4 ± 6.2
San Luis Rey River near Pala	62	5-13	Dry -no report			
		9-17	Dry -no report			
Escondido Creek near Harmony Grove	63	5-13	0.0 ± 0.4	1.0 ± 0.5	15.7 ± 6.4	4.3 ± 6.2
		9-17	0.0 ± 0.2	0.1 ± 0.3	10.2 ± 6.2	5.7 ± 6.2
San Dieguito River below San Pasqual Valley	64	5-13	Dry -no report			
		9-17	Dry -no report			
San Diego River at Old Mission Dam	65	5-13	0.3 ± 0.3	0.6 ± 0.4	8.5 ± 6.2	1.0 ± 6.3
		9-17	0.2 ± 0.3	0.6 ± 0.4	2.1 ± 6.3	0.0 ± 6.2
Forester Creek at Mission Gorge Road	65a	5-13	Dry -no report			
		Discontinued as of 7-1-63				
Spring Valley Creek near La Pressa	65b	5-13	0.1 ± 0.4	1.6 ± 0.7	21.3 ± 6.4	11.7 ± 6.3
		9-17	0.1 ± 0.3	0.4 ± 0.3	26.4 ± 6.5	44.5 ± 6.7
San Diego River near Mission Gorge Road	65c	5-13	0.3 ± 0.4	0.2 ± 0.4	9.6 ± 6.3	0.0 ± 6.2
		9-17	0.4 ± 0.4	0.0 ± 0.3	17.2 ± 6.4	0.0 ± 6.1
Tia Juana River at International Boundary	66	5-13	Dry -no report			
		9-16	Dry -no report			

TABLE D-14

SPECTROGRAPHIC ANALYSES OF SURFACE WATER

WATER YEAR 1962-1963

CENTRAL COASTAL DRAINAGE PROVINCE

Station	Sta No	Date	Constituents in parts per million																
			Aluminum (Al)	Beryllium (Be)	Bismuth (Bi)	Cadmium (Cd)	Cobalt (Co)	Chromium (Cr)	Copper (Cu)	Iron (Fe)	Gallium (Ga)	Germonium (Ge)	Manganese (Mn)	Molybdenum (Mo)	Nickel (Ni)	Lead (Pb)	Titanium (Ti)	Vanadium (V)	Zinc (Zn)
Cuyama River near Carey	44a	May 1963	0.05	--[a]	--[a]	0.00	0.00	0.00	0.009	0.07	--[a]	0.00	0.00	0.02	0.00	0.00	--[a]	--[a]	0.00

TABLE D-14

SPECTROGRAPHIC ANALYSES OF SURFACE WATER

WATER YEAR 1962-1963

CENTRAL COASTAL DRAINAGE PROVINCE

Station	Sta No	Date	Constituents in parts per billion																
			Aluminum (Al)	Beryllium (Be)	Bismuth (Bi)	Cadmium (Cd)	Cobalt (Co)	Chromium (Cr)	Copper (Cu)	Iron (Fe)	Gallium (Ga)	Germanium (Ge)	Manganese (Mn)	Molybdenum (Mo)	Nickel (Ni)	Lead (Pb)	Titanium (Ti)	Vanadium (V)	Zinc (Zn)
Santa Ynez River at Cachuma Reservoir	44[b]	Sept. 1963	5.7	0.57[b]	0.29[b]	1.4[b]	1.4[b]	1.4[b]	300[d]	4.3	5.7[b]	0.29[b]	1.4[b]	7.7	2.9	1.4[b]	0.57[b]	9.1	5.7[b]

b. Results are less than the amount indicated.
d. Results are more than the amount indicated.

TABLE D-15

SPECTROGRAPHIC ANALYSES OF SURFACE WATER

WATER YEAR 1962-1963

LOS ANGELES DRAINAGE PROVINCE

Station	Sta No	Date	Constituents in parts per million															
			Aluminum (Al)	Beryllium (Be)	Bismuth (Bi)	Cadmium (Cd)	Cobalt (Co)	Chromium (Cr)	Copper (Cu)	Iron (Fe)	Gallium (Ga)	Germanium (Ge)	Manganese (Mn)	Molybdenum (Mo)	Nickel (Ni)	Lead (Pb)	Titanium (Ti)	Vanadium (V)	Zinc (Zn)
Santa Clara River at L.A.-Ventura County Line	46	May 1963	0.03	--[a]	--[a]	0.00	0.00	0.00	0.004	0.07	--[a]	0.00	0.16	0.00	0.00	0.00	--[a]	--[a]	0.00
Santa Clara River at Santa Paula	46a	May 1963	0.05	--[a]	--[a]	0.00	0.00	0.004	0.02	0.10	--[a]	0.00	0.12	0.04	0.00	Trace	--[a]	--[a]	0.00
Los Angeles River at Figueroa Street	47	May 1963	0.05	--[a]	--[a]	0.00	0.00	0.00	0.01	0.4	--[a]	0.00	0.00	0.00	0.00	0.00	--[a]	--[a]	0.00
Los Angeles River at Pacific Coast Highway	48	May 1963	0.33	--[a]	--[a]	0.00	0.00	0.04	0.41	0.72	--[a]	0.00	Trace	0.00	0.00	0.00	--[a]	--[a]	0.00
Rio Hondo at Whittier Narrows	49	May 1963	0.05	--[a]	--[a]	0.00	0.00	0.008	0.02	0.03	--[a]	0.00	0.10	0.02	0.00	0.00	--[a]	--[a]	0.00
Mission Creek at Whittier Narrows	49a	May 1963	0.13	--[a]	--[a]	0.00	0.00	0.001	0.003	0.08	--[a]	0.00	0.02	Trace	Trace	0.00	--[a]	--[a]	0.00
Ventura River near Ventura	61	May 1963	0.05	--[a]	--[a]	0.00	0.00	Trace	0.01	0.05	--[a]	0.00	0.00	0.00	0.00	Trace	--[a]	--[a]	0.00

a. Was not analyzed for this constituent.

TABLE D-15

SPECTROGRAPHIC ANALYSES OF SURFACE WATER

WATER YEAR 1962-1963

LOS ANGELES DRAINAGE PROVINCE

Station	Sta No	Date	Constituents in parts per billion																
			Aluminum (Al)	Beryllium (Be)	Bismuth (Bi)	Cadmium (Cd)	Cobalt (Co)	Chromium (Cr)	Copper (Cu)	Iron (Fe)	Gallium (Ga)	Germanium (Ge)	Manganese (Mn)	Molybdenum (Mo)	Nickel (Ni)	Lead (Pb)	Titanium (Ti)	Vanadium (V)	Zinc (Zn)
Santa Clara River at L.A.-Ventura County Line	46	Sept. 1963	4.6	0.57[b]	0.29[b]	1.4[b]	1.4[b]	1.4[b]	1.4[b]	6.6	5.7[b]	0.29[b]	1.4[b]	8.0	1.4	1.4[b]	0.57[b]	0.29[b]	5.7
Santa Clara River at Santa Paula	46a	Sept. 1963	5.7	0.57[b]	0.29[b]	1.4[b]	1.4[b]	1.4[b]	1.4[b]	10	5.7[b]	0.29[b]	1.4[b]	23	4.9	1.4[b]	0.57[b]	3.4	8.9
Los Angeles River at Figueroa Street	47	Sept. 1963	7.7	0.57[b]	0.29[b]	1.4[c]	1.4[b]	1.4[c]	17	21	5.7[b]	0.29[b]	33	16	15[d]	6.0	0.57[b]	20	5.7[b]
Los Angeles River at Pacific Coast Highway	48	Sept. 1963	34	0.57[b]	0.29[b]	1.4[b]	1.4[b]	1.4[c]	1.4[b]	83	5.7[b]	0.29[b]	175[d]	0.29[c]	25	1.4[b]	0.57[b]	17	5.7[b]
Rio Hondo at Whittier Narrows	49	Sept. 1963	11	0.57[b]	0.29[b]	1.4[b]	1.4[b]	1.4[c]	1.4[b]	9.1	5.7[b]	0.29[b]	9.1	1[e]	0.83	1.4[b]	0.57[b]	18	5.7[b]
Rio Hondo above Spreading Grounds	49b	Sept. 1963	9.7	0.57[b]	0.29[b]	1.4[b]	1.4[b]	1.4[c]	1.4[b]	15	5.7[b]	0.29[b]	51	7.1	20[d]	1.4[b]	0.57[b]	13	5.7[b]
San Gabriel River at Azusa Powerhouse	50d	Sept. 1963	3.1	0.57[b]	0.29[b]	1.4[b]	1.4[b]	1.4[b]	1.4[b]	5.1	5.7[b]	0.29[b]	1.4[b]	4.6	0.80	1.4[b]	0.57[b]	7.4	5.7[b]
Ventura River near Ventura	61	Sept. 1963	3.1	0.57[b]	0.29[b]	1.4[b]	1.4[b]	1.4[b]	1.4[b]	5.4	5.7[b]	0.29[b]	1.4[b]	6.6	1.6	1.4[b]	0.57[b]	0.29[c]	5.7[b]

b. Results are less than the amount indicated.
c. Results are approximate to the amount indicated.
d. Results are more than the amount indicated.

TABLE D-16

SPECTROGRAPHIC ANALYSES OF SURFACE WATER

WATER YEAR 1962-1963

COLORADO RIVER BASIN DRAINAGE PROVINCE X

Station	Sta No	Date	Constituents in parts per million															
			Aluminum (Al)	Beryllium (Be)	Bismuth (Bi)	Cadmium (Cd)	Cobalt (Co)	Chromium (Cr)	Copper (Cu)	Iron (Fe)	Gallium (Ga)	Germanium (Ge)	Manganese (Mn)	Molybdenum (Mo)	Nickel (Ni)	Lead (Pb)	Titanium (Ti)	Vanadium (V)	Zinc (Zn)
Colorado River at Yuma, Arizona	56	May 1963	0.44	--[a]	--[a]	0.00	0.00	0.00	0.008	0.47	--[a]	0.00	0.64	Trace	0.00	0.00	--[a]	--[a]	0.00

a. Was not analyzed for this constituent.

TABLE D-16

SPECTROGRAPHIC ANALYSES OF SURFACE WATER

WATER YEAR 1962-1963

COLORADO RIVER BASIN DRAINAGE PROVINCE

Station	Sta No	Date	Constituents in parts per billion															
			Aluminum (Al)	Beryllium (Be)	Bismuth (Bi)	Cadmium (Cd)	Cobalt (Co)	Chromium (Cr)	Copper (Cu)	Iron (Fe)	Gallium (Ga)	Germanium (Ge)	Manganese (Mn)	Molybdenum (Mo)	Nickel (Ni)	Lead (Pb)	Titanium (Ti)	Vanadium (V)	Zinc (Zn)
Colorado River near Topock, Arizona	54	Sept. 1963	4.6	0.57[b]	0.29[b]	1.4[b]	1.4[b]	1.4[b]	1.4[b]	6.3	5.7[b]	0.29[b]	11	15	1.2	1.4[b]	0.57[b]	9.4	6.3
Colorado River at Yuma, Arizona	56	Sept. 1963	5.4	0.57[b]	0.29[b]	1.4[b]	1.4[c]	1.4[b]	1.4[b]	4.6	5.7[b]	0.29[b]	1.4[b]	20	1.3	1.4[b]	0.57[b]	7.7	5.7[b]

b. Results are less thao the amount indicated.
c. Results are approximate to the amount iodicated.

TABLE D-17

SPECTROGRAPHIC ANALYSES OF SURFACE WATER

WATER YEAR 1962-1963

SANTA ANA DRAINAGE PROVINCE Y

Station	Sta No	Date	Constituents in parts per million																
			Aluminum (Al)	Beryllium (Be)	Bismuth (Bi)	Cadmium (Cd)	Cobalt (Co)	Chromium (Cr)	Copper (Cu)	Iron (Fe)	Gallium (Ga)	Germanium (Ge)	Manganese (Mn)	Molybdenum (Mo)	Nickel (Ni)	Lead (Pb)	Titanium (Ti)	Vanadium (V)	Zinc (Zn)
Warm Creek at Colton	50[b]	May 1963	0.40	--[a]	--[a]	0.00	0.00	0.04	0.04	0.3	--[a]	0.00	0.06	0.01	0.06	0.10	--[a]	--[a]	0.00
Santa Ana River near Arlington	51	May 1963	1.0	--[a]	--[a]	0.00	0.00	0.005	0.004	0.8	--[a]	0.00	0.06	Trace	0.00	0.00	--[a]	--[a]	0.00
Santa Ana River below Prado Dam	51[a]	May 1963	1.9	--[a]	--[a]	0.00	0.00	0.006	0.006	2.0	--[a]	0.00	0.10	0.01	0.00	Trace	--[a]	--[a]	0.00
Santa Ana River near Norco	51e	May 1963	0.6	--[a]	--[a]	0.00	0.00	0.002	0.007	0.9	--[a]	0.00	0.3	0.01	Trace	Trace	--[a]	--[a]	0.00

TABLE D-17

SPECTROGRAPHIC ANALYSES OF SURFACE WATER

WATER YEAR 1962-1963

SANTA ANA DRAINAGE PROVINCE Y

Station	Sta No	Date	Constituents in parts per billion																
			Aluminum (Al)	Beryllium (Be)	Bismuth (Bi)	Cadmium (Cd)	Cobalt (Co)	Chromium (Cr)	Copper (Cu)	Iron (Fe)	Gallium (Ga)	Germanium (Ge)	Manganese (Mn)	Molybdenum (Mo)	Nickel (Ni)	Lead (Pb)	Titanium (Ti)	Vanadium (V)	Zinc (Zn)
Warm Creek at Colton	50[b]	Sept. 1963	5.1	0.57[b]	0.29[b]	22	1.4[b]	18	1.4[b]	13	5.7[b]	0.29[b]	8.3	6.6	10[d]	0.68	0.57[b]	7.7	5.7[b]
Santa Ana River near Arlington	51	Sept. 1963	3.1	0.57[b]	0.29[b]	1.4[b]	1.4[b]	1.4[b]	1.4[b]	3.7	5.7[b]	0.29[b]	1.4[b]	8.6	0.63	1.4[b]	0.57[b]	10	5.7[b]
Santa Ana River below Prado Dam	51[a]	Sept. 1963	4.0	0.57[b]	0.29[b]	1.4[b]	1.4[b]	1.4[b]	1.4[b]	9.7	5.7[b]	0.29[b]	1.4[b]	9.1	0.77	1.4[b]	0.57[b]	16	5.7[b]
Santa Ana River near Mentone	51[b]	Sept. 1963	3.7	0.57[b]	0.29[b]	1.4[b]	1.4[b]	1.4[b]	1.4[b]	10	5.7[b]	0.29[b]	1.4[b]	4.0	0.29[c]	1.4[b]	0.57[b]	3.4	5.7[b]
Santa Ana River near Norco	51[e]	Sept. 1963	6.3	0.57[b]	0.29[b]	1.4[b]	1.4[b]	1.4[b]	1.4[b]	8.9	5.7[b]	0.29[b]	1.4[b]	11	1.5	1.4[b]	0.57[b]	12	5.7[b]

b. Results are less than the amount indicated.
c. Results are approximate to the amount indicated.
d. Results are more than the amount indicated.

TABLE D-18

SPECTROGRAPHIC ANALYSES OF SURFACE WATER

WATER YEAR 1962-1963

SAN DIEGO DRAINAGE PROVINCE

Station	Sta No	Date	Constituents in parts per million															
			Aluminum (Al)	Beryllium (Be)	Bismuth (Bi)	Cadmium (Cd)	Cobalt (Co)	Chromium (Cr)	Copper (Cu)	Iron (Fe)	Gallium (Ga)	Germanium (Ge)	Manganese (Mn)	Molybdenum (Mo)	Nickel (Ni)	Lead (Pb)	Titanium (Ti)	Vanadium (V)	Zinc (Zn)
Escondido Creek near Harmony Grove	63	May 1963	1.1	--[a]	--[a]	0.00	0.00	0.00	0.02	3.9	--[a]	0.00	0.1	0.03	0.01	0.00	--[a]	--[a]	0.00

a. Was not analyzed for this constituent.

TABLE D-18

SPECTROGRAPHIC ANALYSES OF SURFACE WATER

WATER YEAR 1962-1963

SAN DIEGO DRAINAGE PROVINCE 1

Station	Sta No	Date	Constituents in parts per billion																
			Aluminum (Al)	Beryllium (Be)	Bismuth (Bi)	Cadmium (Cd)	Cobalt (Co)	Chromium (Cr)	Copper (Cu)	Iron (Fe)	Gallium (Ga)	Germanium (Ge)	Manganese (Mn)	Molybdenum (Mo)	Nickel (Ni)	Lead (Pb)	Titanium (Ti)	Vanadium (V)	Zinc (Zn)
Escondido Creek near Harmony Grove	63	Sept. 1963	5.1	0.57[b]	0.29[b]	1.4[b]	1.4[b]	1.4[b]	1.4[b]	34	5.7[b]	0.29[b]	91	10	19	1.4[b]	0.57[b]	0.29[c]	5.7[b]
San Diego River near Mission Gorge Road	65[c]	Sept. 1963	11	0.57[b]	0.29[b]	1.4[b]	1.4[b]	1.4[b]	1.4[b]	16	5.7[b]	0.29[b]	100[d]	7.1	11	1.4[b]	0.57[b]	13	5.7[b]

b. Results are less than the amount indicated.
c. Results are approximate to the amount indicated.
d. Results are more than the amount indicated.

APPENDIX E

GROUND WATER QUALITY DATA

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E- 6	San Diego Drainage Province (Z)	E-25
	Radioassay of Ground Water	
E- 7	Los Angeles Drainage Province (U)	E-28
E- 8	Lahontan Drainage Province (W)	E-29
E- 9	Colorado River Basin Drainage Province (X)	E-30
E-10	Santa Ana Drainage Province (Y)	E-31

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number / Date sampled	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
PASO ROBLES HYDRO SUBUNIT T09H0 — SALINAS HYDRO UNIT T0900																	
24S/12E-17L 2 M	74	7.3	1462	101	63	140	5	0	320	469	47	5.5	0.6	0.46	50	1075	511
9-23-63				5.04	5.18	6.09	0.13		5.24	9.76	1.33	0.09					
				31	32	37	1		32	59	8	1				1039	
24S/15E-17E 1 M	66	7.8	1664	52	100	180	4	0	525	294	145	4.0	0.5	1.35	40	1020	541
9-24-63				2.59	8.22	7.83	0.10		8.60	6.12	4.09	0.06					
				14	44	42	1		46	32	22					1079	
25S/12E-16N 1 M	68	7.6	814	37	40	80	3	0	303	76	68	15.	0.7	0.35	47	480	257
9-23-63				1.85	3.29	3.48	0.08		4.97	1.58	1.92	0.24					
				21	38	40	1		57	18	22	3				516	
26S/14E-35D 1 M	72	7.6	478	41	10	42	4	0	176	24	43	10.	0.5	0.06	40	300	144
9-26-63				2.05	0.82	1.83	0.10		2.88	0.50	1.21	0.16					
				43	17	38	2		61	11	25	3				301	
26S/16E-31B 1 M	74	7.9	1634	34	21	310	2	0	339	354	107	52.	1.2	2.00	32	1060	172
9-26-63				1.70	1.73	13.48	0.05		5.56	7.37	3.02	0.84					
				10	10	79			33	44	18	5				1082	
27S/13E-26R 1 M	--	7.4	786	105	17	40	3	0	312	48	69	19.	0.5	0.06	60	520	332
9-27-63				5.24	1.40	1.74	0.08		5.11	1.00	1.95	0.31					
				62	17	21	1		61	12	23	4				515	

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number / Date sampled	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
SANTA MARIA HYDRO SUBUNIT T12A0 — SANTA MARIA-CUYAMA HYDRO UNIT T1200																	
9N/32W-17G 1 S	64	8.3	1140	120	71	60	3	4	301	400	32	22.	0.2	0.24	19	920	592
10-14-63				5.99	5.84	2.61	0.08	0.13	4.93	8.33	0.90	0.35					
				41	40	18	1	1	34	57	6	2				879	
9N/33W- 9A 1 S	--	6.9	602	13	12	86	3	0	56	8	139	24.	0.2	0.06	55	390	82
7-18-63				0.65	0.99	3.74	0.08		0.92	0.17	3.92	0.39					
				12	18	68	1		17	3	73	7				368	
9N/33W-12R 1 S	64	7.5	1103	98	62	62	2	0	298	333	28	16.	0.6	0.18	33	800	504
7-18-63				4.89	5.18	2.70	0.05		4.88	6.93	0.79	0.26					
				38	40	21			38	54	6	2				782	
9N/34W- 9E 1 S	68	7.0	745	42	24	72	3	0	98	97	116	14.	0.4	0.08	57	475	204
7-17-63				2.10	1.97	3.13	0.08		1.61	2.02	3.27	0.23					
				29	27	43	1		23	28	46	3				474	
10N/34W- 6N 1 S	61	7.7	1802	189	102	88	4	0	320	609	76	106.	--	0.22	39	1470	892
7-18-63				9.43	8.39	3.83	0.10		5.24	12.68	2.14	1.71					
				43	39	18			24	58	10	8				1371	
10N/34W-19H 1 S	--	7.4	1449	138	70	90	4	0	276	456	83	22.	0.7	0.25	29	1080	633
7-18-63				6.89	5.76	3.91	0.10		4.52	9.49	2.34	0.35					
				41	35	23	1		27	57	14	2				1029	
10N/35W- 5J 1 S	62	7.2	1414	145	70	82	4	0	254	481	70	24.	0.7	0.20	28	1100	651
7-19-63				7.24	5.76	3.57	0.10		4.16	10.01	1.97	0.39					
				43	35	21	1		25	61	12	2				1030	
10N/35W- 7F 1 S	64	7.5	1988	236	103	100	4	0	305	777	120	6.1	0.7	0.20	33	1610	1013
7-19-63				11.78	8.47	4.35	0.10		5.00	16.18	3.38	0.10					
				48	34	18			20	66	14					1530	
10N/35W-21C 1 S	63	7.5	1684	158	69	126	4	0	354	423	138	42.	0.4	0.22	38	1200	678
7-19-63				7.88	5.67	5.48	0.10		5.80	8.81	3.89	0.68					
				41	30	29	1		30	46	20	4				1173	

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number / Date sampled	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
SANTA MARIA HYDRO SUBUNIT T12A0 — SANTA MARIA–CUYAMA HYDRO UNIT T1200 (CONTINUED)																	
11N/34W-29P 2 S	64	7.8	1040	83	63	70	2	0	207	293	66	67.	0.2	0.13	30	844	466
10-14-63				4.14	5.18	3.04	0.05		3.39	6.10	1.86	1.08					
				33	42	24			27	49	15	9				776	
11N/35W-18M 1 S	--	8.2	1220	143	52	85	4	0	209	517	48	0.	0.1	0.21	26	1034	571
10-14-63				7.14	4.28	3.70	0.10		3.43	10.76	1.35						
				47	28	24	1		22	69	9					978	
11N/35W-28B 1 S	62	8.1	1020	127	38	63	3	0	218	370	37	8.6	0.4	0.19	24	840	474
10-14-63				6.34	3.13	2.74	0.08		3.57	7.70	1.04	0.14					
				52	25	22	1		29	62	8	1				778	
11N/35W-33F 1 S	60	7.0	1969	253	90	110	5	0	510	662	93	6.7	0.7	0.28	36	1585	1002
7-19-63				12.62	7.40	4.78	0.13		8.36	13.78	2.62	0.11					
				51	30	19	1		34	55	11					1507	
11N/36W-13R 1 S	--	7.5	1279	138	55	84	4	0	256	456	42	2.2	0.4	0.20	39	985	571
7-18-63				6.89	4.52	3.65	0.10		4.20	9.49	1.18	0.04					
				45	30	24	1		28	64	8					947	

TABLE E-I

MINERAL ANALYSES OF GROUND WATER 1963
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number / Date sampled	Temp. when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
CUYAMA VALLEY HYDRO SUBUNIT T12C0 — SANTA MARIA-CUYAMA HYDRO UNIT T1200																	
7N/24W-13C 2 S	59	8.2	1740	232	107	87	4	0	177	988	14	2.5	1.3	0.07	8	1608	1020
4-25-63				11.58	8.80	3.78	0.10		2.90	20.57	0.39	0.04					
				48	36	16			12	86	2					1531	
9N/24W-19F 1 S	61	8.2	1725	238	102	83	4	0	131	1004	18	8.7	1.6	0.08	17	1603	1014
4-25-63				11.88	8.39	3.61	0.10		2.15	20.90	0.51	0.14					
				50	35	15			9	88	2	1				1541	
10N/25W-20H 1 S	62	8.0	1610	237	100	80	4	0	162	998	14	7.4	0.9	0.10	15	1563	1003
5-28-63				11.83	8.22	3.48	0.10		2.66	20.78	0.39	0.12					
				50	35	15			11	87	2	1				1536	
10N/25W-21G 1 S	--	7.9	1930	350	143	115	5	0	262	1352	23	44.	0.7	0.09	17	2288	1463
4-25-63				17.47	11.76	5.00	0.13		4.29	28.15	0.65	0.71					
				51	34	15			13	83	2	2				2179	
10N/25W-22E 1 S	62	8.2	1850	269	111	80	4	0	174	1074	16	22.	0.8	0.07	16	1764	1128
4-25-63				13.42	9.13	3.48	0.10		2.85	22.36	0.45	0.35					
				51	35	13			11	86	2	1				1678	
10N/25W-23E 1 S	71	8.2	1920	228	82	170	5	0	128	932	131	8.7	0.6	0.39	22	1709	907
4-25-63				11.38	6.74	7.39	0.13		2.10	19.40	3.69	0.14					
				44	26	29	1		8	77	15	1				1643	
10N/26W- 4R 1 S	--	8.1	1700	224	90	107	4	0	134	956	30	5.0	0.7	0.14	22	1590	930
4-25-63				11.18	7.40	4.65	0.10		2.20	19.90	0.85	0.08					
				48	32	20			10	86	4					1505	
10N/26W-14C 2 S	63	7.9	1650	238	100	91	4	0	159	1020	20	5.6	0.8	0.08	18	1642	1006
4-25-63				11.88	8.22	3.96	0.10		2.61	21.24	0.56	0.09					
				49	34	16			11	87	2					1576	
10N/26W-14C 4 S	62	8.0	1705	259	94	82	4	0	153	1003	18	11.	0.9	0.05	15	1682	1033
4-25-63				12.92	7.73	3.57	0.10		2.51	20.88	0.51	0.18					
				53	32	15			10	87	2	1				1562	

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number / Date sampled	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
CUYAMA VALLEY HYDRO SUBUNIT T12C0 — SANTA MARIA-CUYAMA HYDRO UNIT T1200 (CONTINUED)																	
10N/26W-23P 1 S 5-28-63	68	8.0	1950	311 15.52 53	110 9.05 31	100 4.35 15	4 0.10	0	149 2.44 9	1163 24.21 85	60 1.69 6	16. 0.26 1	0.4	0.06	18	2004 1856	1229

TABLE E-2

MINERAL ANALYSES OF GROUND WATER 1963
LOS ANGELES DRAINAGE PROVINCE (U)

State well number / Date sampled	Temp. when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
SANTA CLARA–CALLEGUAS HYDRO UNIT U0300																	
OXNARD PLAIN HYDRO SUBUNIT U03A0 / OXNARD HYDRO SUBAREA U03A1																	
1N/21W-30A 2 S 7-24-63	70	7.7	1084	93 4.64 40	30 2.47 21	100 4.35 37	6 0.15 1	0	325 5.33 46	253 5.27 45	37 1.04 9	1.0 0.02	0.4	0.74	44	710 725	356
1N/21W-31A 1 S 6-18-63	--	8.0	1100	120 5.99 47	34 2.80 22	89 3.87 30	4 0.10 1	0	268 4.39 35	341 7.10 57	36 1.02 8	1.2 0.02	0.4	0.65	22	852 780	440
1N/22W-15B 3 S 12-26-63	--	8.1	1210	108 5.39 37	60 4.93 34	96 4.17 29	4 0.10 1	0	260 4.26 29	434 9.04 61	48 1.35 9	3.6 0.06	0.6	0.73	27	986 910	516
1N/22W-18E 1 S 6-13-63	--	7.6	1180	126 6.29 46	39 3.21 23	94 4.09 30	5 0.13 1	0	247 4.05 30	403 8.39 61	44 1.24 9	0. 	0.6	0.75	27	896 861	475
1N/22W-19H 1 S 4-26-63	64	7.5	13200	826 41.22 23	450 37.01 20	2380 103.48 57	23 0.59	0	128 2.10 1	875 18.22 10	5691 160.49 89	8.7 0.14	0.4	0.96	11	11218 10329	3915
1N/22W-20E 1 S 8-16-63	68	7.0	21000	1303 65.02 26	508 41.78 17	3300 143.48 57	30 0.77	0	169 2.77 1	1178 24.53 10	7757 218.75 89	0. 	0.1	1.24	18	16580 14178	5344
1N/22W-20R 1 S 5- 8-63	66	7.6	9680	1450 72.36 47	542 44.57 29	865 37.61 24	21 0.54	0	159 2.61 2	793 16.51 11	4751 133.98 88	0. 	0.4	0.70	21	9673 8522	5851
1N/22W-21L 1 S 5- 7-63	65	7.7	4780	563 28.09 50	189 15.54 28	274 11.91 21	8 0.20	0	183 3.00 5	403 8.39 15	1569 44.25 80	0.6 0.01	0.7	0.46	18	3703 3116	2183

TABLE E-2

MINERAL ANALYSES OF GROUND WATER 1963
LOS ANGELES DRAINAGE PROVINCE (U)

State well number / Date sampled	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																	
OXNARD PLAIN HYDRO SUBUNIT U03A0 — OXNARD HYDRO SUBAREA U03A1 (CONTINUED)																	
1N/22W-21L 2 S 4-26-63	64	11.7	3710	228 11.38 36	0	448 19.48 61	43 1.10 3	75 2.50 9	0	170 3.54 13	748 21.09 77	6.8 0.11	0.4	0.23	9	1877 1728	569
1N/22W-22C 1 S 6-18-63	--	8.0	1470	138 6.89 46	46 3.78 25	100 4.35 29	4 0.10 1	0	238 3.90 26	384 7.99 54	106 2.99 20	0.	0.6	0.73	25	984 921	534
1N/22W-22R 5 S 2-26-63	--	7.8	1135	124 6.19 47	38 3.13 24	86 3.74 28	5 0.13 1	0	336 5.51 42	283 5.89 45	53 1.49 11	12. 0.19 1	0.5	0.20	29	810 796	466
1N/22W-26D 4 S 2-26-63	--	8.2	1265	--	--	--	--	0	256 4.20	--	57 1.61	--	--	--	--		515

TABLE E-2

MINERAL ANALYSES OF GROUND WATER 1963
LOS ANGELES DRAINAGE PROVINCE (U)

State well number / Date sampled	Temp. when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																	
SANTA PAULA HYDRO SUBUNIT U03B0																	
SANTA PAULA HYDRO SUBAREA U03B1																	
3N/21W- 9R 3 S	--	7.6	1148	129	31	86	3	0	295	329	38	0.5	0.7	0.42	37	820	450
1-16-63				6.44	2.55	3.74	0.08		4.84	6.85	1.07	0.01					
				50	20	29	1		38	54	8					800	
3N/21W-16K 1 S	--	7.7	1530	190	52	120	4	0	288	593	82	3.5	0.8	0.80	25	1310	689
9-29-63				9.48	4.28	5.22	0.10		4.72	12.35	2.31	0.06					
				50	22	27	1		24	64	12					1213	
3N/22W-36H 1 S	--	7.5	1800	267	22	145	3	0	360	614	74	15.	0.4	0.78	27	1428	757
8- 1-63				13.32	1.81	6.30	0.08		5.90	12.78	2.09	0.24					
				62	8	29			28	61	10	1				1345	

TABLE E-2

MINERAL ANALYSES OF GROUND WATER 1963
LOS ANGELES DRAINAGE PROVINCE (U)

State well number / Date sampled	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																	
UPPER SANTA CLARA R HYDRO SUBUNITU03E0 EASTERN HYDRO SUBAREA U03E1																	
4N/16W-28A 1 S	--	7.7	1635	198	74	85	3	0	442	459	74	45.	0.9	0.10	26	1244	799
1-11-63				9.88	6.09	3.70	0.08		7.24	9.56	2.09	0.73					
				50	31	19			37	49	11	4				1182	
4N/16W-33L 1 S	76	7.9	1260	77	41	153	4	0	220	471	23	3.3	0.2	0.20	16	920	361
8-13-63				3.84	3.37	6.65	0.10		3.61	9.81	0.65	0.05					
				28	24	48	1		26	69	5					897	
4N/17W- 4A 1 S	--	8.2	686	75	13	58	3	0	250	125	20	0.6	0.3	.00	22	446	241
1-11-63				3.74	1.07	2.52	0.08		4.10	2.60	0.56	0.01					
				50	14	34	1		56	36	8					440	
5N/17W-34P 1 S	--	7.5	327	34	6	24	1	0	134	10	18	14.	0.7	.00	42	222	110
1-11-63				1.70	0.49	1.04	0.03		2.20	0.21	0.51	0.23					
				52	15	32	1		70	7	16	7				216	
6N/16W-34B 1 S	--	7.5	1475	127	47	135	4	0	368	310	133	0.5	0.2	1.20	25	1010	511
8-27-63				6.34	3.87	5.87	0.10		6.03	6.45	3.75	0.01					
				39	24	36	1		37	40	23					964	
8N/20W-19M 1 S	--	7.8	833	56	9	120	2	0	261	199	13	2.6	1.3	2.00	25	555	177
7- 5-63				2.79	0.74	5.22	0.05		4.28	4.14	0.37	0.04					
				32	8	59	1		48	47	4					558	

TABLE E-2

MINERAL ANALYSES OF GROUND WATER 1963
LOS ANGELES DRAINAGE PROVINCE (U)

State well number / Date sampled	Temp. when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
SANTA CLARA–CALLEGUAS HYDRO UNIT U0300																	
CALLEGUAS–CONEJO HYDRO SUBUNIT U03F0																	
EAST LAS POSAS HYDRO SUBAREA U03F2																	
3N/19W-29E 3 S	--	7.3	314	26	7	27	1	0	117	2	22	26.	0.4	0.08	73	230	94
7-10-63				1.30	0.58	1.17	0.03		1.92	0.04	0.62	0.42					
				42	19	38	1		64	1	21	14				242	
CONEJO VALLEY HYDRO SUBAREA U03F4																	
1N/20W-15R 3 S	68	7.3	780	67	30	54	0	0	296	70	50	16.	0.2	0.07	26	472	291
8- 1-63				3.34	2.47	2.35			4.85	1.46	1.41	0.26					
				41	30	29			61	18	18	3				459	
THOUSAND OAKS HYDRO SUBAREA U03F8																	
1N/19W- 2L 1 S	--	7.6	1916	182	104	145	6	0	571	600	66	11.	0.6	0.29	55	1532	882
10- 2-63				9.08	8.55	6.30	0.15		9.36	12.49	1.86	0.18					
				38	36	26	1		39	52	8	1				1451	
1N/19W-14C 3 S	72	7.2	1686	120	110	124	5	0	361	518	134	1.7	0.5	0.15	53	1210	753
10-24-63				5.99	9.05	5.39	0.13		5.92	10.78	3.78	0.03					
				29	44	26	1		29	53	18					1244	

TABLE E-2

MINERAL ANALYSES OF GROUND WATER 1963
LOS ANGELES DRAINAGE PROVINCE (U)

State well number / Date sampled	Temp. when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0							L A SAN GABRIEL RIVER HYDRO UNIT U0500										
WEST COAST HYDRO SUBAREA U05A2																	
3S/13W-29G 3 S	68	7.8	1180	98	30	102	5	0	198	111	227	0.	0.2	0.30	20	740	368
10-23-63				4.89	2.47	4.43	0.13		3.25	2.31	6.40						
				41	21	37	1		27	19	54					691	
3S/13W-31M 1 S	70	8.1	510	47	11	45	3	0	226	43	21	0.	0.2	0.18	23	292	163
10-24-63				2.35	0.90	1.96	0.08		3.70	0.90	0.59						
				44	17	37	2		71	17	11					304	
3S/14W-22R 2 S	69	7.6	1400	111	56	107	6	0	253	47	340	0.	0.2	0.35	16	1044	508
10-28-63				5.54	4.61	4.65	0.15		4.15	0.98	9.59						
				37	31	31	1		28	7	65					808	
3S/14W-25K 4 S	70	7.8	710	70	17	53	3	0	226	59	81	0.	0.2	0.14	22	434	245
10-25-63				3.49	1.40	2.30	0.08		3.70	1.23	2.28						
				48	19	32	1		51	17	32					416	
3S/14W-27C 1 S	68	7.7	1040	96	27	86	5	0	221	56	208	0.	0.2	0.18	19	738	351
10-28-63				4.79	2.22	3.74	0.13		3.62	1.17	5.87						
				44	20	34	1		34	11	55					606	
3S/14W-30H 2 S	72	8.4	1040	74	33	90	6	15	202	38	201	0.	0.2	0.20	22	658	320
10-23-63				3.69	2.71	3.91	0.15	0.50	3.31	0.79	5.67						
				35	26	37	1	5	32	8	55					579	
4S/14W- 9Q 1 S	73	7.7	880	33	12	148	5	0	290	2	149	0.	0.2	0.55	24	500	132
10-28-63				1.65	0.99	6.44	0.13		4.75	0.04	4.20						
				18	11	70	1		53		47					516	
4S/14W-16L 2 S	74	8.3	760	40	12	110	5	4	281	1	106	0.	0.2	0.30	29	452	150
10-28-63				2.00	0.99	4.78	0.13	0.13	4.61	0.02	2.99						
				25	13	61	2	2	59		39					446	

TABLE E-2

MINERAL ANALYSES OF GROUND WATER 1963
LOS ANGELES DRAINAGE PROVINCE (U)

State well number / Date sampled	Temp. when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0 CENTRAL HYDRO SUBAREA U05A5																	
2S/13W-10Q 5 S	64	7.9	730	50	37	50	4	0	256	109	50	3.7	0.2	0.20	19	454	277
8-14-63				2.50	3.04	2.17	0.10		4.20	2.27	1.41	0.06					
				32	39	28	1		53	29	18	1				449	
2S/13W-12C 1 S	70	8.0	610	67	12	50	3	0	235	84	28	0.	0.6	0.18	22	384	217
3- 1-63				3.34	0.99	2.17	0.08		3.85	1.75	0.79						
				51	15	33	1		60	27	12					382	
2S/13W-28H 1 S	--	7.7	600	69	16	45	4	0	221	93	36	7.3	0.2	0.05	19	436	238
10-11-63				3.44	1.32	1.96	0.10		3.62	1.94	1.02	0.12					
				50	19	29	1		54	29	15	2				398	
3S/13W-20H 3 S	72	8.1	470	34	19	46	4	0	232	46	22	0.	0.2	0.15	19	314	163
11-20-63				1.70	1.56	2.00	0.10		3.80	0.96	0.62						
				32	29	37	2		71	18	12					304	
4S/12W-10A 2 S	--	8.3	390	42	11	30	3	2	211	22	11	0.	0.4	0.18	11	236	150
11-21-63				2.10	0.90	1.30	0.08	0.07	3.46	0.46	0.31						
				48	21	30	2	2	80	11	7					236	
4S/12W-10G 1 S	69	8.3	450	48	6	36	3	1	211	36	13	0.	0.2	0.18	13	242	145
11-21-63				2.40	0.49	1.57	0.08	0.03	3.46	0.75	0.37						
				53	11	35	2	1	75	16	8					260	

TABLE E-2

MINERAL ANALYSES OF GROUND WATER 1963
LOS ANGELES DRAINAGE PROVINCE (U)

State well number / Date sampled	Temp. when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
SAN GABRIEL VALLEY HYDRO SUBUNIT U05D0																	
MAIN SAN GABRIEL HYDRO SUBAREA U05D1																	
1S/10W- 7A 6 S	67	7.7	750	106	17	16	4	0	214	42	101	11.	0.2	0.05	12	514	335
7-26-63				5.29	1.40	0.70	0.10		3.51	0.87	2.85	0.18					
				71	19	9	1		47	12	38	2				414	
1S/10W-19N 1 S	--	7.6	940	106	24	70	6	0	226	163	78	59.	0.1	0.05	11	726	363
10-10-63				5.29	1.97	3.04	0.15		3.70	3.39	2.20	0.95					
				51	19	29	1		36	33	21	9				628	
1S/11W-10F 1 S	62	7.5	370	51	11	15	2	0	198	19	8	14.	0.6	0.08	17	240	172
10-11-63				2.54	0.90	0.65	0.05		3.25	0.40	0.23	0.23					
				61	22	16	1		79	10	6	6				235	
1S/11W-14M 1 S	--	7.8	580	85	18	12	4	0	210	62	31	33.	0.1	0.03	11	418	286
10-11-63				4.24	1.48	0.52	0.10		3.44	1.29	0.87	0.53					
				67	23	8	2		56	21	14	9				359	
1S/11W-26K 1 S	66	7.7	540	77	10	26	4	0	216	65	28	16.	0.2	.00	16	374	233
10-11-63				3.84	0.82	1.13	0.10		3.54	1.35	0.79	0.26					
				65	14	19	2		60	23	13	4				348	
1S/11W-33N 7 S	--	7.6	855	111	30	29	5	0	253	171	53	11.	0.2	0.11	13	632	401
6-25-63				5.54	2.47	1.26	0.13		4.15	3.56	1.49	0.18					
				59	26	13	1		44	38	16	2				548	
1S/11W-33P 1 S	--	7.9	1050	157	22	55	6	0	254	260	71	35.	0.2	0.03	14	814	482
10-11-63				7.83	1.81	2.39	0.15		4.16	5.41	2.00	0.56					
				64	15	20	1		34	45	16	5				745	

TABLE E-3

MINERAL ANALYSES OF GROUND WATER 1963
LAHONTAN DRAINAGE PROVINCE (W)

State well number / Date sampled	Temp. when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value									Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
ANTELOPE HYDRO UNIT W2600																	
ANTELOPE HYDRO SUBUNIT W26A0																	
LANCASTER VALLEY HYDRO SUBAREA W26A5																	
7N/11W-23N 1 S	--	8.1	240	24	4	19	2	0	120	12	3	1.8	0.2	0.06	20	142	77
7-19-63				1.20	0.33	0.83	0.05		1.97	0.25	0.08	0.03					
				50	14	34	2		85	11	3	1				145	
7N/12W-34E 1 S	73	8.1	270	22	0	38	1	0	128	19	5	1.9	0.2	0.08	21	158	55
7-30-63				1.10		1.65	0.03		2.10	0.40	0.14	0.03					
				40		59	1		79	15	5	1				171	
7N/13W- 7J 1 S	--	7.5	700	66	26	51	2	0	311	36	44	29.	0.1	0.20	21	434	272
5-27-63				3.29	2.14	2.22	0.05		5.10	0.75	1.24	0.47					
				43	28	29	1		67	10	16	6				428	
8N/11W-21R 1 S	--	8.9	380	4	1	89	0	12	177	15	10	0.	1.6	0.78	16	242	14
7-30-63				0.20	0.08	3.87		0.40	2.90	0.31	0.28						
				5	2	93		10	75	8	7					236	
8N/12W- 9B 1 S	--	8.2	280	15	1	43	1	0	101	22	11	17.	0.2	0.08	17	168	42
7-31-63				0.75	0.08	1.87	0.03		1.66	0.46	0.31	0.27					
				27	3	68	1		61	17	11	10				177	
8N/13W-27P 2 S	72	7.8	630	38	19	71	1	0	207	50	67	11.	0.4	0.63	26	412	173
6- 4-63				1.90	1.56	3.09	0.03		3.39	1.04	1.89	0.18					
				29	24	47			52	16	29	3				386	
8N/14W-11G 1 S	74	8.1	400	34	5	41	2	0	171	31	13	9.3	0.1	0.53	27	238	106
7-31-63				1.70	0.41	1.78	0.05		2.80	0.65	0.37	0.15					
				43	10	45	1		71	16	9	4				247	
9N/13W-23E 1 S	--	8.1	390	34	5	42	2	0	145	48	14	4.9	0.2	0.10	17	250	106
6- 6-63				1.70	0.41	1.83	0.05		2.38	1.00	0.39	0.08					
				43	10	46	1		62	26	10	2				238	

TABLE E-3

MINERAL ANALYSES OF GROUND WATER 1963
LAHONTAN DRAINAGE PROVINCE (W)

State well number / Date sampled	Temp. when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
MIDDLE MOJAVE HYDRO SUBUNIT W28C0 — MOJAVE HYDRO UNIT W2800																	
9N/ 2W- 1F 1 S	65	7.7	670	45	16	78	2	0	199	103	48	4.2	0.6	0.27	22	404	179
7-18-63				2.25	1.32	3.39	0.05		3.26	2.14	1.35	0.07					
				32	19	48	1		48	31	20	1				417	

TABLE E-3

MINERAL ANALYSES OF GROUND WATER 1963
LAHONTAN DRAINAGE PROVINCE (W)

State well number / Date sampled	Temp. when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
LOWER MOJAVE HYDRO SUBUNIT				MOJAVE HYDRO UNIT W28E0								W2800					
9N/ 1E- 1M 1 S 7-17-63	--	7.7	488	41 2.05	--	--	--	0	198 3.25	--	28 0.79	--	--	--	20		103
9N/ 1E-15N 2 S 7-16-63	--	8.1	940	73 3.64 35	15 1.23 12	125 5.44 53	2 0.05	0	271 4.44 42	171 3.56 34	87 2.45 23	3.9 0.06 1	0.4	0.41	25	608 636	244
9N/ 2E- 8N 2 S 7-16-63	--	7.8	392	33 1.65 41	6 0.49 12	43 1.87 46	1 0.03 1	0	171 2.80 69	30 0.62 15	21 0.59 15	2.5 0.04 1	0.6	0.14	27	235 248	107
10N/ 2E-31R 1 S 7-17-63	--	7.9	458	29 1.45	--	--	--	0	170 2.79	--	30 0.85	--	--	--	25		73
9N/ 1W- 4G 1 S 7-18-63	--	8.2	600	54 2.69 41	9 0.74 11	68 2.96 46	4 0.10 2	0	207 3.39 54	85 1.77 28	37 1.04 17	3.1 0.05 1	0.4	0.09	21	360 383	172
9N/ 1W-10D 2 S 7-17-63	65	7.8	740	64 3.19 42	15 1.23 16	70 3.04 40	3 0.08 1	0	227 3.72 49	112 2.33 31	51 1.44 19	3.0 0.05 1	0.7	0.15	26	484 456	221
9N/ 1W-13H 2 S 7-16-63	63	7.7	758	51 2.54 33	14 1.15 15	91 3.96 51	3 0.08 1	0	212 3.47 46	108 2.25 30	64 1.80 24	2.4 0.04 1	0.7	0.38	22	494 461	185
10N/ 1W-33E 1 S 7-18-63	--	8.1	820	63 3.14 35	13 1.07 12	110 4.78 53	3 0.08 1	0	284 4.65 52	134 2.79 31	52 1.47 16	0.9 0.01	0.4	0.18	18	538 534	211

TABLE E-4

MINERAL ANALYSES OF GROUND WATER 1963
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number / Date sampled	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
TWENTYNINE PALMS HYDRO SUBUNIT X09A0 — DALE HYDRO UNIT — X0900																	
1N/ 9E-31A 1 S 5-28-63	--	8.2	388	--	--	--	--	--	104 1.70	--	21 0.59	--	--	--	--		78

TABLE E-4

MINERAL ANALYSES OF GROUND WATER 1963
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number / Date sampled	Temp. when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
COACHELLA HYDRO SUBUNIT — INDIO HYDRO SUBAREA				X19D0	X19D7	WHITEWATER HYDRO UNIT					X1900						
5S/ 7E-16K 1 S 5- 1-63	--	8.2	300	40 2.00 63	1 0.08 3	23 1.00 31	4 0.10 3	0	149 2.44 78	20 0.42 14	9 0.25 8	0.	0.6	0.05	12	190 183	104
5S/ 7E-22K 1 S 4-30-63	--	7.9	930	129 6.44 61	23 1.89 18	50 2.17 20	5 0.13 1	0	181 2.97 28	242 5.04 48	84 2.37 23	7.8 0.13 1	0.4	.00	17	772 647	417
5S/ 7E-33C 1 S 5- 1-63	72	8.1	560	64 3.19 57	5 0.41 7	44 1.91 34	5 0.13 2	0	126 2.07 37	97 2.02 36	41 1.16 21	22. 0.35 6	0.4	0.02	14	382 354	180
5S/ 8E-31D 1 S 4-30-63	--	8.2	780	100 4.99 63	7 0.58 7	50 2.17 28	6 0.15 2	0	143 2.34 30	155 3.23 42	67 1.89 25	14. 0.23 3	0.4	0.07	14	474 484	279
5S/ 8E-33N 1 S 4-30-63	--	8.2	580	31 1.55 26	2 0.16 3	97 4.22 70	5 0.13 2	0	140 2.29 40	128 2.66 47	27 0.76 13	0.	4.0	0.34	13	368 376	86
6S/ 8E- 7P 1 S 4-30-63	--	8.2	525	65 3.24 62	3 0.25 5	37 1.61 31	4 0.10 2	0	119 1.95 40	64 1.33 27	53 1.49 31	4.3 0.07 1	0.4	0.05	14	332 303	175
6S/ 8E-10A 4 S 4-30-63	75	8.2	470	24 1.20 25	0	80 3.48 74	2 0.05 1	0	94 1.54 35	82 1.71 38	43 1.21 27	0.	4.0	0.29	12	296 293	60
6S/ 8E-27H 1 S 4-30-63	--	8.6	227	13 0.65 28	0	37 1.61 70	2 0.05 2	2 0.07 3	83 1.36 60	26 0.54 24	10 0.28 12	0.	0.8	0.07	10	150 142	33

TABLE E-4

MINERAL ANALYSES OF GROUND WATER 1963
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number / Date sampled	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
COACHELLA HYDRO SUBUNIT — INDIO HYDRO SUBAREA — X19D0 — WHITEWATER HYDRO UNIT — X1900 — X19D7 (CONTINUED)																	
6S/ 9E-30C 1 S	--	8.3	275	6	1	52	1	2	82	43	7	0.	2.0	0.07	9	160	19
4-30-63				0.30	0.08	2.26	0.03	0.07	1.34	0.90	0.20						
				11	3	85	1	3	53	36	8					163	
7S/ 8E-22M 1 S	--	7.1	2000	150	6	250	4	0	18	344	399	8.7	0.2	.00	8	1284	399
4-30-63				7.49	0.49	10.87	0.10		0.30	7.16	11.25	0.14					
				40	3	57	1		2	38	60	1				1179	
7S/ 9E-16K 1 S	--	8.6	725	4	2	160	1	6	180	110	54	0.	5.0	0.29	10	442	18
4-30-63				0.20	0.16	6.96	0.03	0.20	2.95	2.29	1.52						
				3	2	95		3	42	33	22					441	

TABLE E-5

MINERAL ANALYSES OF GROUND WATER 1963
SANTA ANA DRAINAGE PROVINCE (Y)

State well number / Date sampled	Temp. when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value									Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
SANTA ANA RIVER HYDRO UNIT Y0100 LOWER SANTA ANA RIV HYDRO SUBUNITY01A0 EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																	
5S/11W-21M 3 S 3-19-63	--	8.2	363	25 1.25	2 0.16	53 2.30	3 0.08	--	161 2.64	32 0.67	12 0.34	--	--	0.06	--	210	71
5S/11W-21N 2 S 3-19-63	--	7.6	598	--	--	--	--	--	193 3.16	--	18 0.51	--	--	--	--		
5S/11W-25R 2 S 3-13-63	--	7.6	726	91 4.54	18 1.48	35 1.52	4 0.10	--	294 4.82	89 1.85	33 0.93	--	--	0.01	--	420	301
5S/11W-28H 2 S 10- 3-63	--	8.4	368	9 0.45 13	1 0.08 2	70 3.04 84	1 0.03 1	5 0.17 5	174 2.85 78	12 0.25 7	14 0.39 11	0.	0.7	0.08	13	244 211	27
5S/11W-28K 1 S 3-15-63	--	8.2	521	--	--	--	--	--	306 5.02	--	19 0.54	--	--	--	--		
5S/11W-29C 1 S 3-15-63	--	8.5	339	--	--	--	--	8 0.27	156 2.56	--	17 0.48	--	--	--	--		
5S/11W-33H 1 S 3-15-63	--	8.4	351	--	--	--	--	7 0.23	188 3.08	--	13 0.37	--	--	--	--		

TABLE E-5

MINERAL ANALYSES OF GROUND WATER 1963
SANTA ANA DRAINAGE PROVINCE (Y)

State well number / Date sampled	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value									Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C / Evap 105°C / Computed	Total hardness as $CaCO_3$
SANTA ANA RIVER HYDRO UNIT Y0100																	
LOWER SANTA ANA RIV HYDRO SUBUNITY01A0 EAST COASTAL PLAIN HYDRO SUBAREA Y01A1 (CONTINUED)																	
5S/11W-34F 3 S 3-15-63	--	8.4	624	-- -- --	-- -- --	-- -- --	-- -- --	8 0.27 --	380 6.23 --	-- -- --	18 0.51 --	-- -- --	-- -- --	-- -- --	-- -- --		
5S/11W-36B 2 S 3-13-63	--	7.8	535	-- -- --	-- -- --	-- -- --	-- -- --	0 -- --	218 3.57 --	-- -- --	25 0.71 --	-- -- --	-- -- --	-- -- --	-- -- --		
5S/11W-36P 1 S 3- 4-63	--	7.7	1666	199 9.93 63	34 2.80 18	64 2.78 18	5 0.13 1	-- -- --	221 3.62 23	77 1.60 10	365 10.29 66	5. 0.08 1	-- -- --	0.05 -- --	-- -- --	 1021 858	637
5S/12W-12C 1 S 3-19-63	--	8.6	313	-- -- --	-- -- --	-- -- --	-- -- --	8 0.27 --	140 2.29 --	-- -- --	13 0.37 --	-- -- --	-- -- --	-- -- --	-- -- --		
6S/10W- 5C 1 S 6-28-63	67	7.8	600	52 2.59 43	19 1.56 26	43 1.87 31	2 0.05 1	0 -- --	235 3.85 62	77 1.60 26	28 0.79 13	0. 	0.2 	0.07 	17 	408 354	208
6S/10W- 6B 2 S 3- 6-63	--	7.9	627	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	218 3.57 --	-- -- --	57 1.61 --	-- -- --	-- -- --	-- -- --	-- -- --		
6S/10W- 6H 1 S 9-11-63	--	7.5	813	83 4.14 53	19 1.56 20	47 2.04 26	3 0.08 1	-- -- --	209 3.43 43	31 0.65 8	135 3.81 48	7. 0.11 1	0.2 	0.04 	15 	464 443	285

TABLE E-5

MINERAL ANALYSES OF GROUND WATER 1963
SANTA ANA DRAINAGE PROVINCE (Y)

State well number / Date sampled	Temp. when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C / Evap 105°C / Computed	Total hardness as $CaCO_3$
SANTA ANA RIVER HYDRO UNIT Y0100																	
LOWER SANTA ANA RIV HYDRO SUBUNITY01A0 EAST COASTAL PLAIN HYDRO SUBAREA Y01A1 (CONTINUED)																	
6S/10W- 7J 4 S	68	7.4	4700	460	62	450	4	0	143	0	1596	0.	0.2	0.28	14	4260	1404
4- 2-63				22.95	5.10	19.57	0.10		2.34		45.01						
				48	11	41			5		95					2657	
6S/11W- 1N 2 S	--	8.1	508	--	--	--	--	--	300	--	16	--	--	--	--		
3- 4-63									4.92		0.45						
6S/11W- 3R 2 S	--	8.0	1783	--	--	--	--	--	331	--	406	--	--	--	--		
3-15-63									5.43		11.45						
SANTA ANA NARROWS HYDRO SUBAREA Y01A3																	
3S/ 8W-25J 1 S	--	7.9	1585	166	45	130	6	0	378	367	141	1.0	0.7	0.35	23	1130	599
8-22-63				8.28	3.70	5.65	0.15		6.20	7.64	3.98	0.02					
				47	21	32	1		35	43	22					1066	
3S/ 8W-33K 1 S	--	7.5	1558	142	65	120	3	0	349	431	108	4.5	0.7	0.15	22	1150	622
8-22-63				7.09	5.35	5.22	0.08		5.72	8.97	3.05	0.07					
				40	30	29			32	50	17					1068	
3S/ 9W-33H 1 S	--	7.6	901	76	19	91	3	0	261	119	86	1.0	0.7	0.17	20	575	268
8-22-63				3.79	1.56	3.96	0.08		4.28	2.48	2.43	0.02					
				40	17	42	1		46	27	26					544	
3S/ 9W-33K 1 S	64	7.7	1088	114	23	88	5	0	203	257	94	8.5	0.6	0.15	24	730	379
8-21-63				5.69	1.89	3.83	0.13		3.33	5.35	2.65	0.14					
				49	16	33	1		29	47	23	1				714	
3S/ 9W-35Q 1 S	--	7.7	1206	117	29	104	6	0	205	318	100	6.4	0.7	0.15	20	830	411
8-22-63				5.84	2.38	4.52	0.15		3.36	6.62	2.82	0.10					
				45	18	35	1		26	51	22	1				802	

TABLE E-5

MINERAL ANALYSES OF GROUND WATER 1963
SANTA ANA DRAINAGE PROVINCE (Y)

State well number / Date sampled	Temp. when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value									Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
MIDDLE SANTA ANA RIV HYDR SUBUNITY01B0 — SANTA ANA RIVER HYDRO UNIT Y0100																	
CHINO HYDRO SUBAREA Y01B1																	
1S/ 6W-29R 1 S	--	7.5	430	53	6	25	2	0	189	6	23	20.	0.3	.00	30	269	157
3-22-63				2.64	0.49	1.09	0.05		3.10	0.12	0.65	0.32					
				62	11	26	1		74	3	16	8				258	
2S/ 7W-10M 1 S	--	7.4	923	111	32	31	2	0	305	41	78	91.2	0.3	0.03	--		409
3-13-63				5.54	2.63	1.35	0.05		5.00	0.85	2.20	1.47				540	
				58	27	14	1		53	9	23	15				536	
2S/ 7W-15A 1 S	--	8.2	337	42	8	22	2	12	178	12	6	3.5	0.2	0.04	--	209	138
10-23-63				2.10	0.66	0.96	0.05	0.40	2.92	0.25	0.17	0.06					
				56	18	25	1	11	77	7	4	2				195	
2S/ 7W-21L 1 S	--	7.9	799	100	26	35	2	0	320	61	33	71.2	0.3	0.02	--		357
3-13-63				4.99	2.14	1.52	0.05		5.24	1.27	0.93	1.15				522	
				57	25	17	1		61	15	11	13				486	
2S/ 7W-22K 1 S	--	7.7	1089	136	38	47	3	0	525	42	61	55.2	0.3	0.02	--		496
3-13-63				6.79	3.13	2.04	0.08		8.60	0.87	1.72	0.89				682	
				56	26	17	1		71	7	14	7				641	
2S/ 7W-23E 1 S	--	8.0	803	103	27	32	2	0	349	41	41	54.4	0.3	0.02	--		368
3-13-63				5.14	2.22	1.39	0.05		5.72	0.85	1.16	0.88				504	
				58	25	16	1		66	10	13	10				472	
2S/ 7W-27A 1 S	--	7.4	998	112	33	59	2	0	510	44	47	38.0	0.3	0.04	--		415
3-13-63				5.59	2.71	2.57	0.05		8.36	0.92	1.33	0.61				582	
				51	25	24			75	8	12	5				586	

TABLE E-5

MINERAL ANALYSES OF GROUND WATER 1963
SANTA ANA DRAINAGE PROVINCE (Y)

State well number / Date sampled	Temp. when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
SANTA ANA RIVER HYDRO UNIT Y0100																	
UPPER SANTA ANA HYDRO SUBUNIT Y01E0																	
BUNKER HILL HYDRO SUBAREA Y01E2																	
1S/ 3W- 9E 2 S	--	8.0	348	41	7	20	3	0	163	8	18	4.0	0.3	0.32	30	215	132
3-25-63				2.05	0.58	0.87	0.08		2.67	0.17	0.51	0.06					
				57	16	24	2		78	5	15	2				212	
1S/ 3W-16A 1 S	--	7.5	287	32	6	19	2	0	139	21	7	4.0	0.4	0.02	28	180	105
4- 3-63				1.60	0.49	0.83	0.05		2.28	0.44	0.20	0.06					
				54	16	28	2		77	15	7	2				188	
1S/ 3W-17C 3 S	--	8.0	351	43	10	14	2	0	132	33	9	37.	0.5	.00	23	220	149
3-25-63				2.15	0.82	0.61	0.05		2.16	0.69	0.25	0.60					
				59	23	17	1		58	19	7	16				236	
1S/ 4W-13F 2 S	--	7.9	412	53	9	19	3	0	188	24	16	11.	0.4	0.62	20	260	169
5-31-63				2.64	0.74	0.83	0.08		3.08	0.50	0.45	0.18					
				62	17	19	2		73	12	11	4				248	
1S/ 4W-13G 2 S	--	8.1	410	54	9	17	3	0	190	23	15	10.	0.4	0.36	20	270	172
5-31-63				2.69	0.74	0.74	0.08		3.11	0.48	0.42	0.16					
				63	17	17	2		75	12	10	4				245	
1S/ 4W-13L 1 S	--	7.8	360	45	9	17	2	0	156	28	7	20.	0.5	0.03	18	230	150
5-31-63				2.25	0.74	0.74	0.05		2.56	0.58	0.20	0.32					
				60	20	20	1		70	16	5	9				223	
1N/ 4W-29F 1 S	--	7.7	1140	171	38	32	5	0	303	346	24	26.	0.6	1.00	24	900	583
3-22-63				8.53	3.13	1.39	0.13		4.97	7.20	0.68	0.42					
				65	24	11	1		37	54	5	3				817	

TABLE E-6

MINERAL ANALYSES OF GROUND WATER 1963
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number / Date sampled	Temp. when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
SAN LUIS REY HYDRO UNIT Z0300																	
BONSALL HYDRO SUBUNIT Z03A0																	
MISSION HYDRO SUBAREA Z03A1																	
11S/ 4W- 5K 1 S	--	7.4	3175	308	123	160	10	0	239	134	880	5.0	0.5	0.10	26	2080	1276
9-27-63				15.37	10.12	6.96	0.26		3.92	2.79	24.82	0.08					
				47	31	21	1		12	9	79					1764	
11S/ 4W- 8K 1 S	--	7.3	1499	160	19	128	4	0	249	123	280	30.	0.4	0.52	36	1080	477
9-26-63				7.98	1.56	5.57	0.10		4.08	2.56	7.90	0.48					
				52	10	37	1		27	17	53	3				903	
11S/ 4W- 8N 2 S	--	7.7	2360	210	23	295	3	0	322	173	575	0.	0.2	0.30	21	1582	619
10-24-63				10.48	1.89	12.83	0.08		5.28	3.60	16.22						
				41	7	51			21	14	65					1459	
11S/ 4W-18L 4 S	--	7.4	1280	108	43	105	6	0	293	157	188	0.5	0.5	0.11	30	900	447
9-27-63				5.39	3.54	4.57	0.15		4.80	3.27	5.30	0.01					
				39	26	33	1		36	24	40					782	
11S/ 5W-13L 1 S	--	7.5	3156	287	105	240	9	0	325	601	560	0.7	0.6	0.13	34	2162	1149
1- 8-63				14.32	8.64	10.44	0.23		5.33	12.51	15.79	0.01					
				43	26	31	1		16	37	47					1997	

TABLE E-6

MINERAL ANALYSES OF GROUND WATER 1963
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number / Date sampled	Temp. when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
SAN DIEGO HYDRO UNIT Z0700																	
LOWER SAN DIEGO HYDRO SUBUNIT Z07A0																	
EL CAJON HYDRO SUBAREA Z07A3																	
15S/ 1E-31R 1 S	--	7.1	1310	71	39	162	3	0	178	172	216	65.	0.4	0.17	37	900	338
11- 6-63				3.54	3.21	7.04	0.08		2.92	3.58	6.09	1.05					
				26	23	51	1		21	26	45	8				853	
16S/ 1W- 1G 1 S	--	7.3	1850	174	63	187	2	0	282	416	231	125.	0.2	0.12	43	1478	694
11- 6-63				8.68	5.18	8.13	0.05		4.62	8.66	6.51	2.02					
				39	24	37			21	40	30	9				1380	
16S/ 1W- 2K 6 S	--	7.4	1950	112	62	225	1	0	250	158	399	106.	0.2	0.18	43	1396	535
11- 6-63				5.59	5.10	9.78	0.03		4.10	3.29	11.25	1.71					
				27	25	48			20	16	55	8				1229	
16S/ 1W-11P 4 S	--	7.3	3000	212	75	365	2	0	261	151	819	111.	0.4	0.20	42	2242	838
11- 6-63				10.58	6.17	15.87	0.05		4.28	3.14	23.10	1.79					
				32	19	49			13	10	71	6				1906	
16S/ 1W-12J 3 S	--	7.4	3050	253	153	207	5	0	195	192	840	190.	0.2	0.23	40	2268	1261
11- 6-63				12.62	12.58	9.00	0.13		3.20	4.00	23.69	3.06					
				37	37	26			9	12	70	9				1976	

TABLE E-6

MINERAL ANALYSES OF GROUND WATER 1963
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number / Date sampled	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
TIA JUANA HYDRO UNIT Z1100																	
TIA JUANA HYDRO SUBUNIT Z11A0																	
TIA JUANA HYDRO SUBAREA Z11A1																	
18S/ 2W-32H 1 S	70	7.2	11200	675	247	1900	10	0	541	817	3869	0.	0.2	1.17	20	9584	2702
10- 7-63				33.68	20.31	82.61	0.26		8.87	17.01	109.11						
				25	15	60			7	13	81					7805	
18S/ 2W-32P 4 S	70	7.4	24500	772	943	5200	100	0	309	1475	10740	0.	0.2	0.64	19	25360	5808
4- 9-63				38.52	77.55	226.10	2.56		5.06	30.71	302.87						
				11	22	66	1		1	9	89					19402	
18S/ 2W-33K 4 S	66	7.3	3750	319	107	485	4	0	416	618	901	0.	0.4	0.56	20	3002	1237
11- 4-63				15.92	8.80	21.09	0.10		6.82	12.87	25.41						
				35	19	46			15	29	56					2659	
18S/ 2W-35L 1 S	--	7.6	4500	303	105	630	9	0	546	315	1259	0.	0.1	0.69	21	3122	1189
10-31-63				15.12	8.64	27.39	0.23		8.95	6.56	35.50						
				29	17	53			18	13	70					2911	
19S/ 2W- 5C 6 S	69	7.8	23300	638	675	4280	41	0	264	1146	8780	12.	0.9	1.20	--	16590	4371
10- 4-63				31.84	55.51	186.09	1.05		4.33	23.86	247.60	0.19					
				12	20	68			2	9	90					15704	
19S/ 2W- 5G18 S	70	6.9	7850	455	186	1140	6	0	250	531	2528	0.	0.1	0.37	17	6060	1902
10- 7-63				22.70	15.30	49.57	0.15		4.10	11.06	71.29						
				26	17	57			5	13	82					4986	

TABLE E-7

RADIOASSAY OF GROUND WATER

LOS ANGELES DRAINAGE PROVINCE (U)

STATE WELL NUMBER	DATE SAMPLED	TOTAL ACTIVITY uuc/l[a]
Oxnard Hydrologic Subarea U-03.A1		
1N/21W-31A1	6-18-63	0.3 ± 1.1
1N/22W-15B3	6-14-63	3.4 ± 1.1
1N/22W-18E1	6-10-63	0.5 ± 1.1
1N/22W-22C1	6-18-63	0.5 ± 1.1
Central Hydrologic Subarea U-05.A5		
2S/13W-28H1	6-26-63	2.8 ± 1.2
	6-26-63	0.3 ± 0.36

a MICROMICROCURIES PER LITER – PROBABLE ERROR COMPUTED AT ONE STANDARD DEVIATION IN MICROMICROCURIES PER LITER WITHOUT SELF ABSORBTION CORRECTION.

TABLE E-8

RADIOASSAY OF GROUND WATER

LAHONTAN DRAINAGE PROVINCE (W)

STATE WELL NUMBER	DATE SAMPLED	TOTAL ACTIVITY uuc/l[a]
Lower Mojave Hydrologic Subunit W - 28.E0		
9N/1E-10D2	7-17-63	0.4 ± 0.36
9N/1W-13H2	7-16-63	0.2 ± 0.36
10N/1W-33E1	7-18-63	0.3 ± 0.36
9N/1E-1M1	7-12-63	0.61 ± 1.1
9N/1E-15N2	7-16-63	0.1 ± 0.36
9N/2E- 8N2	7-16-63	0.72 ± 1.1
10N/2E-31R1	7-17-63	0.3 ± 0.36

a MICROMICROCURIES PER LITER – PROBABLE ERROR COMPUTED AT ONE STANDARD DEVIATION IN MICROMICROCURIES PER LITER WITHOUT SELF ABSORBTION CORRECTION.

TABLE E-9

RADIOASSAY OF GROUND WATER

COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

STATE WELL NUMBER	DATE SAMPLED	TOTAL ACTIVITY uuc/l[a]
Indio Hydrologic Subarea X -19.D7		
5S/7E-16K1	5- 1-63	0.2 ± 1.1
5S/7E-22K1	4-30-63	13.8 ± 3.7
5S/7E-33C1	5- 1-63	0.2 ± 1.1
5S/8E-31D1	4-30-63	0.2 ± 1.1
5S/8E-33N1	4-30-63	0.1 ± 1.1
6S/8E- 7P1	4-30-63	0.3 ± 1.1
6S/8E-10A4	4-30-63	0.1 ± 0.36
6S/8E-27H1	4-30-63	0.3 ± 1.1
6S/9E-30C1	4-30-63	0.1 ± 0.36
7S/8E-22M1	4-30-63	7.4 ± 2.3
7S/9E-16K1	4-30-63	4.3 ± 1.5

a MICROMICROCURIES PER LITER – PROBABLE ERROR COMPUTED AT ONE STANDARD DEVIATION IN MICROMICROCURIES PER LITER WITHOUT SELF ABSORBTION CORRECTION.

TABLE E-10

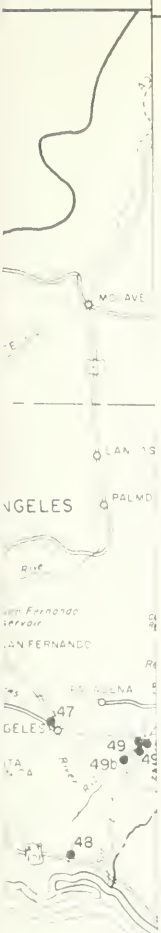
RADIOASSAY OF GROUND WATER

SANTA ANA DRAINAGE PROVINCE (Y)

STATE WELL NUMBER	DATE SAMPLED	TOTAL ACTIVITY uuc/l[a]
Chino Hydrologic Subarea Y-01.B1		
1S/6W-29R1	6-13-63	0.1 ± 1.1
	7- 2-63	0.4 ± 0.36
2S/7W-10M1	3-13-63	10.4 ± 2.9
2S/7W-21L1	3-13-63	16.4 ± 4.0
2S/7W-22K1	6-11-63	0.2 ± 0.36
2S/7W-23E1	3-13-63	7.2 ± 2.2
	6-12-63	0.1 ± 0.36
2S/7W-27A1	3-13-63	18.3 ± 4.3
	5-28-63	26.35 ± 0.8
Bunker Hill Hydrologic Subarea Y-01.E2		
1S/3W-16A1	6- 4-63	0.2 ± 1.1

a MICROMICROCURIES PER LITER — PROBABLE ERROR COMPUTED AT ONE STANDARD DEVIATION IN MICROMICROCURIES PER LITER WITHOUT SELF ABSORBTION CORRECTION

PLATE D1



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ER SAMPLING STATION

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GENCY OF CALIFORNIA
WATER RESOURCES
RN DISTRICT

DATA, 1963

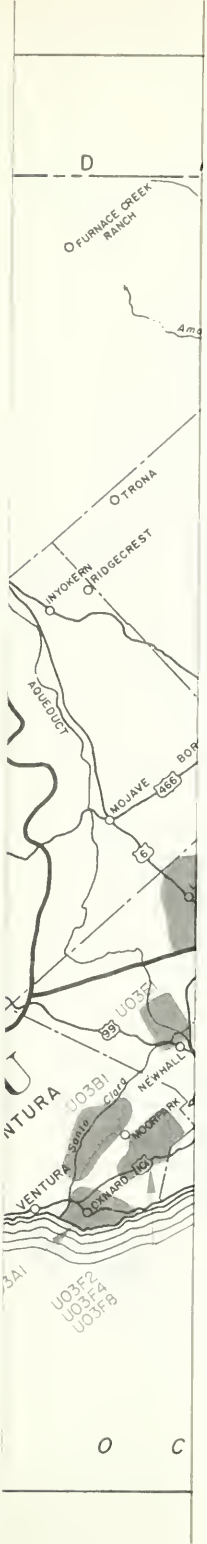
FACE WATER QUALITY
AM STATIONS, 1962-63

E OF MILES
15 30 45

1964

STREAM SAMPLING STATIONS 1962-1963

Sta. No.	Station Name
44a	Cuyama River near Garey
44b	Santa Ynez River at Cachuma Reservoir
45a	Santa Ynez River near Solvang
45b	Matilija Creek above Dam
46	Santa Clara River at Los Angeles-Ventura County Line
46a	Santa Clara River near Santa Paula
46c	Piru Creek near Piru
46d	Sespe Creek near Fillmore
46e	Santa Paula Creek near Santa Paula
47	Los Angeles River at Figueroa Street
48	Los Angeles River at Pacific Coast Highway
49	Rio Hondo at Whittier Narrows
49a	Mission Creek at Whittier Narrows
49b	Rio Hondo above Spreading Grounds
50	San Gabriel River at Whittier Narrows
50b	Warm Creek at Colton
50c	Warm Creek at San Bernardino
50d	San Gabriel River at Azusa Powerhouse
51	Santa Ana River near Arlington
51a	Santa Ana River below Prado Dam
51b	Santa Ana River near Mentone
51c	Santa Margarita River near Fallbrook
51e	Santa Ana River near Norco
54	Colorado River near Topock, Arizona
55	Colorado River below Parker Dam
56	Colorado River at Yuma, Arizona
56a	All American Canal near Pilot Knob
56b	Colorado River below Morelos Dam
56c	Colorado River near Blythe
56d	Colorado River at Colorado River Intake
57	New River at International Boundary
58	New River near Westmorland
59	Alamo River at International Boundary
60	Alamo River near Calipatria
61	Ventura River near Ventura
62	San Luis Rey River near Pala
63	Escondido Creek near Harmony Grove
64	San Dieguito River below San Pasqual
65	San Diego River at Old Mission Dam
65a	Forester Creek at Mission Gorge Road
65b	Spring Valley Creek near La Presa
65c	San Diego River near Mission Gorge Road
66	Tia Juana River at International Boundary
67	Mojave River near Victorville
67a	Mojave River at the Forks
68	Whitewater River near Whitewater
68a	Salton Sea at Salton Sea State Park
68b	Whitewater River near Mecca
69	Colorado River Aqueduct at La Verne
70	Los Angeles Aqueduct near San Fernando
86	Chino Creek near Chino
89	Lake Elsinore at North Shore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TRONA
INYOKERN
RIDGECREST
AQUEDUCT
MOJAVE
466
6
99
NEWHALL
U03B1
Santa Clara
MOORPARK
VENTURA
OXNARD
U03F2
U03F4
U03F8
O
C

INDEX TO MONITORED AREAS*

Name	Number
CENTRAL COASTAL DRAINAGE PROVINCE (T)	
Paso Robles Hydrologic Subunit	T09H0
Santa Maria Hydrologic Subunit	T12A0
Cuyama Valley Hydrologic Subunit	T12C0
LOS ANGELES DRAINAGE PROVINCE (U)	
Oxnard Hydrologic Subarea	U03A1
Santa Paula Hydrologic Subarea	U03B1
Eastern Hydrologic Subarea	U03E1
East Las Posas Hydrologic Subarea	U03F2
Conejo Valley Hydrologic Subarea	U03F4
Thousand Oaks Hydrologic Subarea	U03F8
West Coast Hydrologic Subarea	U05A2
Central Hydrologic Subarea	U05A5
Main San Gabriel Hydrologic Subarea	U05D1
LAHONTAN DRAINAGE PROVINCE (W)	
Lancaster Hydrologic Subarea	W26A5
Middle Mojave Hydrologic Subunit	W28C0
Lower Mojave Hydrologic Subunit	W28E0
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)	
Twentynine Palms Hydrologic Subunit	X09A0
Indio Hydrologic Subarea	X19D7
SANTA ANA DRAINAGE PROVINCE (Y)	
East Coastal Plain Hydrologic Subarea	Y01A1
Santa Ana Narrows Hydrologic Subarea	Y01A3
Chino Hydrologic Subarea	Y01B1
Bunker Hill Hydrologic Subarea	Y01E2
SAN DIEGO DRAINAGE PROVINCE (Z)	
Mission Hydrologic Subarea	Z03A1
El Cajon Hydrologic Subarea	Z07A3
Tia Juana Hydrologic Subarea	Z11A1

*Monitored areas may include only a portion of the hydrologic units, subunits, or subareas listed.

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